

City of Garden Grove

INTER-DEPARTMENT MEMORANDUM

To:	Matthew J. Fertal	From:	William E. Murray	
Dept:	City Manager	Dept:	Public Works	
Subject:	AWARD CONTRACT TO HARRIS & ASSOCIATES, INC. FOR ON-CALL PROFESSIONAL ENGINEERING SERVICES		Date:	October 25, 2011

OBJECTIVE

To request City Council authorization to award a contract to Harris & Associates, Inc. for on-call professional engineering services.

BACKGROUND/DISCUSSION

Engineering Services seeks to retain a consultant for on-call professional engineering services to assist staff in accommodating unforeseen projects, particularly during periods of peak workload.

Staff solicited proposals from six consultant firms for on-call engineering services. Five of the consultants submitted a proposal. A panel consisting of four staff members rated the proposals on the basis of qualifications, work plan and references. Based on the evaluation results, Harris & Associates Inc. rated the highest. The following is a summary of the ratings:

Consultant	Rater A	Rater B	Rater C	Rater D	Totals
Harris & Associates	163.5	148	145.5	168	625
Psomas	155	159	134	169	617
VA Consulting	150	139	156.5	156.5	602
Penco Engineering	157.5	138	149	144	588.5
KOA/CBM	153	142	127.5	132	554.5

FINANCIAL IMPACT

There will be no impact to the General Fund. The contract is in the amount of \$300,000. The services will be funded by the various projects requiring professional engineering services.

AWARD CONTRACT TO HARRIS & ASSOCIATES, INC. FOR ON-CALL PROFESSIONAL
ENGINEERING SERVICES

October 25, 2011

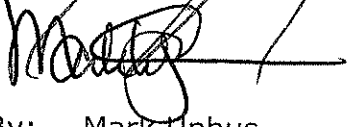
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RECOMMENDATION

Staff recommends that the City Council:

- Award the contract for on-call professional engineering services to Harris & Associates, Inc.
- Authorize the City Manager to execute the professional service agreement with Harris & Associates, Inc. in the amount of \$ 300,000.


WILLIAM E. MURRAY, P.E.
Public Works Director/City Engineer


By: Mark Uphus
Senior Civil Engineer

Attachment: Consultant Agreement

Recommended for Approval


Matthew Fertal
City Manager

CONSULTANT AGREEMENT

Harris & Associates

THIS AGREEMENT is made this 25th day of October 2011, by the CITY OF GARDEN GROVE, a municipal corporation, ("CITY"), and Harris & Associates, a California Corporation ("CONSULTANT").

RECITALS

The following recitals are a substantive part of this Agreement:

1. This Agreement is entered into pursuant to Garden Grove Council authorization dated October 25, 2011.
2. CITY desires to utilize the services of CONSULTANT to provide on-call professional engineering services.
3. CONSULTANT is qualified by virtue of experience, training, education and expertise to accomplish services.

AGREEMENT

THE PARTIES MUTUALLY AGREE AS FOLLOWS:

1. **Term of Agreement.** This Agreement shall cover services rendered for 3 years from date of this agreement.
2. **Services to be Provided.** The services to be performed by CONSULTANT shall consist of construction inspection services on an "as needed" basis as requested by City for various projects, as further specified in CONSULTANT's Proposal attached hereto at Exhibit "A" and incorporated herein by reference. CONSULTANT warrants that all services will be performed in a competent, professional and satisfactory manner in accordance with the standards prevalent in the industry for such services. The Proposal and this Agreement do not guarantee any specific amount of work.
3. **Compensation.** CONSULTANT shall be compensated as follows:
 - 3.1 **Amount.** CONSULTANT shall be compensated in accordance with the rate schedule set forth in Exhibit "A".
 - 3.2 **Not to Exceed.** Compensation under this Agreement shall not exceed \$300,000.00.
 - 3.3 **Payment.** For work under this Agreement, payment shall be made per monthly invoice. For extra work not a part of this Agreement, a written authorization by CITY will be required and payment shall be based on hourly rates as provided in Exhibit A.

3.4 Records of Expenses. CONSULTANT shall keep complete and accurate records of payroll costs, travel and incidental expenses. These records will be made available at reasonable times to CITY.

3.5 Termination. CITY and CONSULTANT shall have the right to terminate this Agreement, without cause, by giving thirty (30) days written notice of termination. If the project is terminated by CITY, then the provisions of paragraph 3 would apply to that portion of the work completed.

4. **Insurance Requirements**

4.1 Commencement of Work CONSULTANT shall not commence work under this Agreement until all certificates and endorsements have been received and approved by the CITY. All insurance required by this Agreement shall contain a Statement of Obligation on the part of the carrier to notify the CITY of any material change, cancellation, or termination at least thirty (30) days in advance.

4.2 Workers Compensation Insurance For the duration of this Agreement, CONSULTANT and all subcontractors shall maintain Workers Compensation Insurance in the amount and type required by law, if applicable. The insurer shall waive its rights of subrogation against the CITY, its officers, officials, agents, employees, and volunteers.

4.3 Insurance Amounts CONSULTANT shall maintain the following insurance for the duration of this Agreement:

(a) Commercial general liability in the amount of \$1,000,000 per occurrence; (claims made and modified occurrence policies are not acceptable); Insurance companies must be admitted and licensed in California and have a Best's Guide Rating of A-Class VII or better, as approved by the CITY;

(b) Automobile liability in the amount of \$1,000,000 per occurrence; (claims made and modified occurrence policies are not acceptable) Insurance companies must be admitted and licensed in California and have a Best's Guide Rating of A-Class VII or better, as approved by the CITY.

(c) Professional liability in the amount of \$1,000,000 per occurrence; Insurance companies must be acceptable to CITY and have an AM Best's Guide Rating of A-, Class VII or better, as approved by the CITY. If the policy is written on a "claims made" basis, the policy shall be continued in full force and effect at all times during the term of the agreement, and for a period of three (3) years from the date of the completion of services provided. In the event of termination, cancellation, or material change in the policy, professional/consultant shall obtain

continuing insurance coverage for the prior acts or omissions of professional/consultant during the course of performing services under the term of the agreement. The coverage shall be evidenced by either a new policy evidencing no gap in coverage, or by obtaining separate extended "tail" coverage with the present or new carrier.

An Additional Insured Endorsement, **ongoing and completed operations**, for the policy under section 4.3 (a) shall designate CITY, its officers, officials, employees, agents, and volunteers as additional insureds for liability arising out of work or operations performed by or on behalf of the CONSULTANT. CONSULTANT shall provide to CITY proof of insurance and endorsement forms that conform to city's requirements, as approved by the CITY.

An Additional Insured Endorsement for the policy under section 4.3 (b) shall designate CITY, its officers, officials, employees, agents, and volunteers as additional insureds for automobiles owned, lease, hired, or borrowed by CONSULTANT. CONSULTANT shall provide to CITY proof of insurance and endorsement forms that conform to CITY's requirements, as approved by the CITY.

For any claims related to this Agreement, CONSULTANT's insurance coverage shall be primary insurance as respects to CITY, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by the CITY, its officers, officials, employees, agents, or volunteers shall be excess of the CONSULTANT's insurance and shall not contribute with it.

5. **Non-Liability of Officials and Employees of the CITY.** No official or employee of CITY shall be personally liable to CONSULTANT in the event of any default or breach by CITY, or for any amount, which may become due to CONSULTANT.
6. **Non-Discrimination.** CONSULTANT covenants there shall be no discrimination against any person or group due to race, color, creed, religion, sex, marital status, age, handicap, national origin or ancestry, in any activity pursuant to this Agreement.
7. **Independent Contractor.** It is agreed to that CONSULTANT shall act and be an independent contractor and not an agent or employee of CITY, and shall obtain no rights to any benefits which accrue to CITY'S employees.
8. **Compliance With Law.** CONSULTANT shall comply with all applicable laws, ordinances, codes and regulations of the federal, state and local government.

9. **Disclosure of Documents.** All documents or other information developed or received by CONSULTANT are confidential and shall not be disclosed without authorization by CITY, unless disclosure is required by law.
10. **Ownership of Work Product.** All documents or other information developed or received by CONSULTANT shall be the property of CITY. CONSULTANT shall provide CITY with copies of these items upon demand or upon termination of this Agreement.
11. **Conflict of Interest and Reporting.** CONSULTANT shall at all times avoid conflict of interest or appearance of conflict of interest in performance of this Agreement.
12. **Notices.** All notices shall be personally delivered or mailed to the below listed addresses, or to such other addresses as may be designated by written notice. These addresses shall be used for delivery of service of process.

(a) Address of CONSULTANT is as follows:

Harris & Associates
 Randall Berry, P.E., Design Manager/Associate
 34 Executive Park, Suite 150
 Irvine, , CA 92614-4705

(b) Address of CITY is as follows (with a copy to):

Engineering:	City Attorney
Mark Uphus, P.E.	City of Garden Grove
City of Garden Grove	P.O. Box 3070
P.O. Box 3070	Garden Grove, CA 92840
Garden Grove, CA 92840	

13. **CONSULTANT'S Proposal.** This Agreement shall include CONSULTANT'S proposal or bid which shall be incorporated herein. In the event of any inconsistency between the terms of the proposal and this Agreement, this Agreement shall govern.
14. **Licenses, Permits and Fees.** At its sole expense, CONSULTANT shall obtain a **Garden Grove Business License**, all permits and licenses as may be required by this Agreement.
15. **Familiarity With Work.** By executing this Agreement, CONSULTANT warrants that: (1) it has investigated the work to be performed; (2) it has investigated the site of the work and is aware of all conditions there; and (3) it understands the facilities, difficulties and restrictions of the work under this Agreement. Should CONSULTANT discover any latent or unknown conditions materially differing from those inherent in the work or as represented by

CITY, it shall immediately inform CITY of this and shall not proceed, except at CONSULTANT'S risk, until written instructions are received from CITY.

16. **Time of Essence.** Time is of the essence in the performance of this Agreement.
17. **Limitations Upon Subcontracting and Assignment.** The experience, knowledge, capability and reputation of CONSULTANT, its principals and employees were a substantial inducement for CITY to enter into this Agreement. CONSULTANT shall not contract with any other entity to perform the services required without written approval of the CITY. This Agreement may not be assigned voluntarily or by operation of law, without the prior written approval of CITY. If CONSULTANT is permitted to subcontract any part of this Agreement, CONSULTANT shall be responsible to CITY for the acts and omissions of its subcontractor as it is for persons directly employed. Nothing contained in this Agreement shall create any contractual relationship between any subcontractor and CITY. All persons engaged in the work will be considered employees of CONSULTANT. CITY will deal directly with and will make all payments to CONSULTANT.
18. **Authority to Execute.** The persons executing this Agreement on behalf of the parties warrant that they are duly authorized to execute this Agreement and that by executing this Agreement, the parties are formally bound.
19. **Indemnification.** To the fullest extent permitted by law, CONSULTANT agrees to protect, defend, and hold harmless CITY and its elective or appointive boards, officers, agents, and employees from any and all claims, liabilities, expenses, or damages of any nature, including attorneys' fees, for injury or death of any person, or damages of any nature, including interference with use of property to the extent arising out of, or in any way connected with the negligence, recklessness and/or intentional wrongful conduct of CONSULTANT, CONSULTANT'S agents, officers, employees, subcontractors, or independent contractors hired by CONSULTANT in the performance of the Agreement. The only exception to CONSULTANT'S responsibility to protect, defend, and hold harmless CITY, is due to the negligence, recklessness and/or wrongful conduct of CITY, or any of its elective or appointive boards, officers, agents, or employees.

This hold harmless agreement shall apply to all liability regardless of whether any insurance policies are applicable. The policy limits do not act as a limitation upon the amount of indemnification to be provided by CONSULTANT.

20. **Modification.** This Agreement constitutes the entire agreement between the parties and supersedes any previous agreements, oral or written. This Agreement may be modified only by subsequent mutual written agreement executed by CITY and CONSULTANT.

- 21. **Waiver.** All waivers of the provisions of this Agreement must be in writing by the appropriate authorities of the CITY and CONSULTANT.
- 22. **California Law.** This Agreement shall be construed in accordance with the laws of the State of California. Any action commenced about this Agreement shall be filed in the central branch of the Orange County Superior Court.
- 23. **Interpretation.** This Agreement shall be interpreted as though prepared by both parties
- 24. **Preservation of Agreement.** Should any provision of this Agreement be found invalid or unenforceable, the decision shall affect only the provision interpreted, and all remaining provisions shall remain enforceable.

IN WITNESS THEREOF, these parties hereto have caused this Agreement to be executed as of the date set forth opposite the respective signatures.

**"CITY"
CITY OF GARDEN GROVE**

Dated: _____, 2011

By: _____
City Manager

ATTEST

**"CONSULTANT"
Harris & Associates**

City Clerk

By: Randall G Berry
Title: DESIGN MGR

Dated: _____, 2011

Dated: 10-20, 2011

APPROVED AS TO FORM:

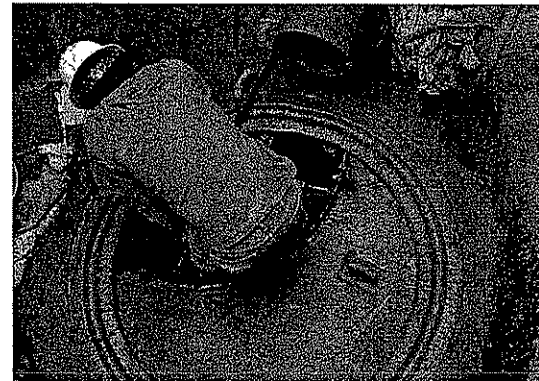
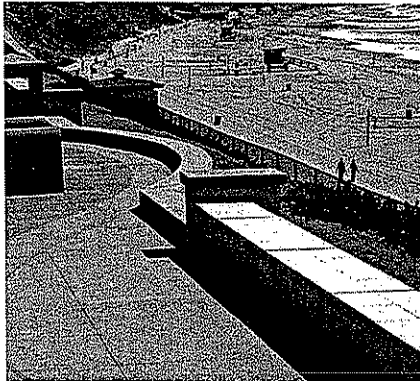
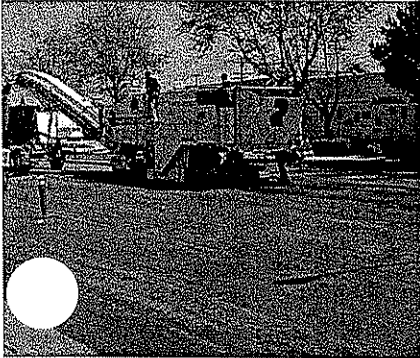
[Signature]
Garden Grove City Attorney

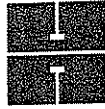
Dated: October 13, 2011



Proposal for
On-Call Engineering Design Services

September 1, 2011





Harris & AssociatesSM

Shaping the Future, One Project at a TimeSM

September 1, 2011

Attention: Mr. Mark Uphus, PE
Senior Civil Engineer
City of Garden Grove
Public Works Department
11222 Acacia Parkway
Garden Grove, CA 92842

Subject: Harris is the Right Team to Provide On-Call Engineering Design Services

Dear Mark,

Harris & Associates (Harris) is eager to continue the tradition of providing the City of Garden Grove with high quality, timely and turnkey service. As partners in helping the City during peak times, our team offers the City of Garden Grove the following advantages:

An Experienced Project Team – Mr. Randall Berry, PE will serve as Project Manager and has specialized in roadway rehabilitation, street design and storm drains during his 26-year career. Mr. Randall Bliss, PE is one of several engineers who would serve as your Project Manager and has over 23 years of experience and is adept in the latest state-of-the-art computer aided design technical. Combined they have completed over 75 similar CIP projects in the last five years alone.

City of Garden Grove Experience – Our Project Manager and Engineers have completed over 10 similar projects for the City of Garden Grove in the past, which will be a useful resource in successfully completing projects in a timely manner. Consequently, the Harris team already knows the City's preferences and formats on many elements regarding base sheets, design requirements, project specifications and document processing. Our team will serve as an extension of City staff, which will reduce the time required by both City and Harris staff.

On-Call Specialists – Many local cities have established the Harris Irvine office as an on-call civil design consultant, including the Cities of Yorba Linda, Santa Ana, Laguna Beach, Dana Point, Cypress, Anaheim, Irvine, Tustin, Huntington Beach, Fullerton, Stanton, Placentia, Lake Forest, La Palma, Fountain Valley, Buena Park, and Rancho Santa Margarita.

Availability – The Harris team will always be available to provide timely responses to your requests and inquiries from our Irvine office. We are able to draw from a pool of 230 professional and support staff to complete your projects expeditiously.

As requested in the RFP, this proposal is valid for a minimum of ninety (90) days, and will be performed out of Harris' Irvine office. The Harris Team is ready to start immediately and upon review of our proposal we are confident that you will feel comfortable placing this project in the Harris Team's capable hands once again.

Sincerely,
Harris & Associates

Randall G. Berry, PE
Design Manager / Associate



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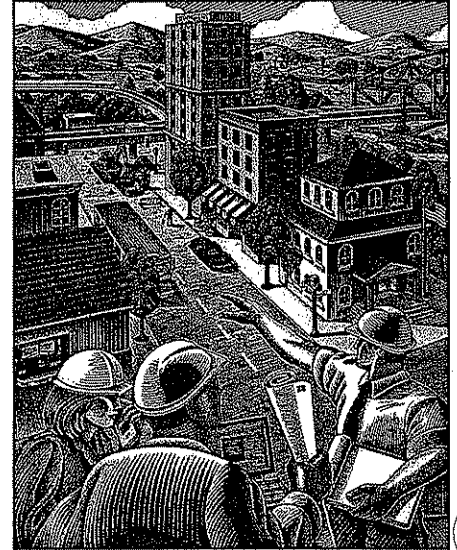
Qualifications

Firm Profile

Harris & Associates (Harris), founded in 1974, specializes in serving the professional service needs of public agencies, institutions, and private clients in the Western states. We provide expertise from project conception through occupancy in the following four service areas:

- ▶ Engineering services
- ▶ Project and construction management
- ▶ Program management
- ▶ Municipal services

Harris has a staff of 230 employee-owners including licensed engineers and architects, certified construction managers, and inspectors. We understand that successful project delivery means more than being on time and under budget. Successful projects have to address the concerns of neighbors and users, be sensitive to the environment, and conform to local political realities. By focusing on our clients' needs as our top priority, we have earned an excellent reputation within the industry. Our depth and breadth of skills will assist you in charting the course of your projects.



Engineering Services

Harris' civil engineers specialize in public infrastructure. We are a leader in the use of innovative design technologies including no-dig pipeline rehabilitation, storm water quality solutions, and new pavement technologies. We are ranked 33rd in Trenchless Technology magazine's Top 50 Design Firms. Our design services include:

- ▶ Streets and highways
- ▶ Water, sewer, and storm system master planning
- ▶ Water distribution, sanitary sewer, and storm facilities
- ▶ Traffic signals and lighting
- ▶ Building site and park infrastructure
- ▶ Storm water management plans, programs, and practices
- ▶ Joint trench design
- ▶ Trenchless technology solutions



Company Ownership

Harris is a California corporation with a six-member Board of Directors. Ownership is comprised of approximately 45% owned by an Employee Stock Ownership Plan and the remaining 55% is privately held and distributed among 45 employee-shareholders within the corporation. No individual shareholder owns more than 5% of the company stock. Harris has 23 Vice Presidents and 63 Associates.

Location of Office Where Work Will Be Performed

Harris' corporate headquarters is located in Concord, California with 117 employees. Our Irvine office, with 88 employees, will have primary responsibility for providing these services and execution of the work. Our office is located at 34 Executive Park, Suite 1150, Irvine, CA 92614.

Subconsultants

KDM Meridian - Survey/Utility Detection Survey. KDM Meridian is a professional consulting firm specializing in GPS (Global Positioning System) and terrestrial land surveying. KDM Meridian also provides underground utility designating to provide clients with design-level utility information to accurately design underground facilities such as storm drains and sewers. They primarily employ the technique of radio-detection (electromagnetic radiation) to designate sub surface utilities of all types. The effective depth will depend on the conditions at the site. In general, under ideal conditions, the radio-detection technique will detect utilities up to nine feet below the ground surface.

LOR Geotechnical Group - Materials Testing. LOR has a multi-disciplinary staff of qualified and experienced licensed professionals who hold registrations in the State of California. All of the field and laboratory personnel that will work in this project are Caltrans and American Concrete Institute (ACI) certified, and have been employed by this firm for over 5 years. Their laboratory personnel and soil technicians are American Concrete (ACI) certified for sampling and testing Portland Cement Concrete and are certified by the California Department of Transportation (Caltrans) for sampling and testing soil, aggregate base, asphalt concrete, and Portland Cement Concrete. Also on staff is an American Construction Institute Association (A.C.I.A.) construction inspector.





Borthwick Guy Bettenhausen (BGB) - Landscape Architecture. Borthwick Guy Bettenhausen (BGB), an Orange County based California S Corporation, has been in business for 13 years. BGB has been involved in a variety of projects including, notably Anaheim Tennis Center, Eva L. Haskett Library and Maxwell Park Expansion. Additionally, Brookhurst Street Widening Project include the El Toro Road Streetscape Master Plan for the City of Laguna Woods and the recently completed Esplanade Avenue Streetscape project for the City of Redondo Beach in association with Harris & Associates. As evidence of its capabilities, BGB was awarded the American Society of Landscape Architects Centennial Medallion Award in 1999 for Avalon's Waterfront Redevelopment Design and Plan; the extent of which stretched the length of the Crescent from the Catalina ferry docks to the Casino.

Albert Grover & Associates - Traffic. Albert Grover & Associates (AGA) is a multidiscipline engineering firm specializing in municipal and transportation engineering. AGA personnel have designed hundreds of new and modified traffic signals and signal interconnect projects (including fiberoptic, twisted pair, and wireless technologies) using AutoCAD for a large number of cities and counties throughout California. AGA's designers have both public and private experience and have been part of the AGA team for over 15 years. All signal and striping improvement and interconnect plans are prepared using AGA's CAD package for traffic signal and roadway design. The package consists of AutoCAD and a library of Caltrans symbols. AGA has been a leader in the utilization of AutoCAD for signal design, and has instructed various City staffs in the use of AutoCAD for signal design. For private developers and contractors, AGA's experience in "design/manage" operations is invaluable. AGA's staff of design experts manage all aspects of the project for the developer, from concept to completion.

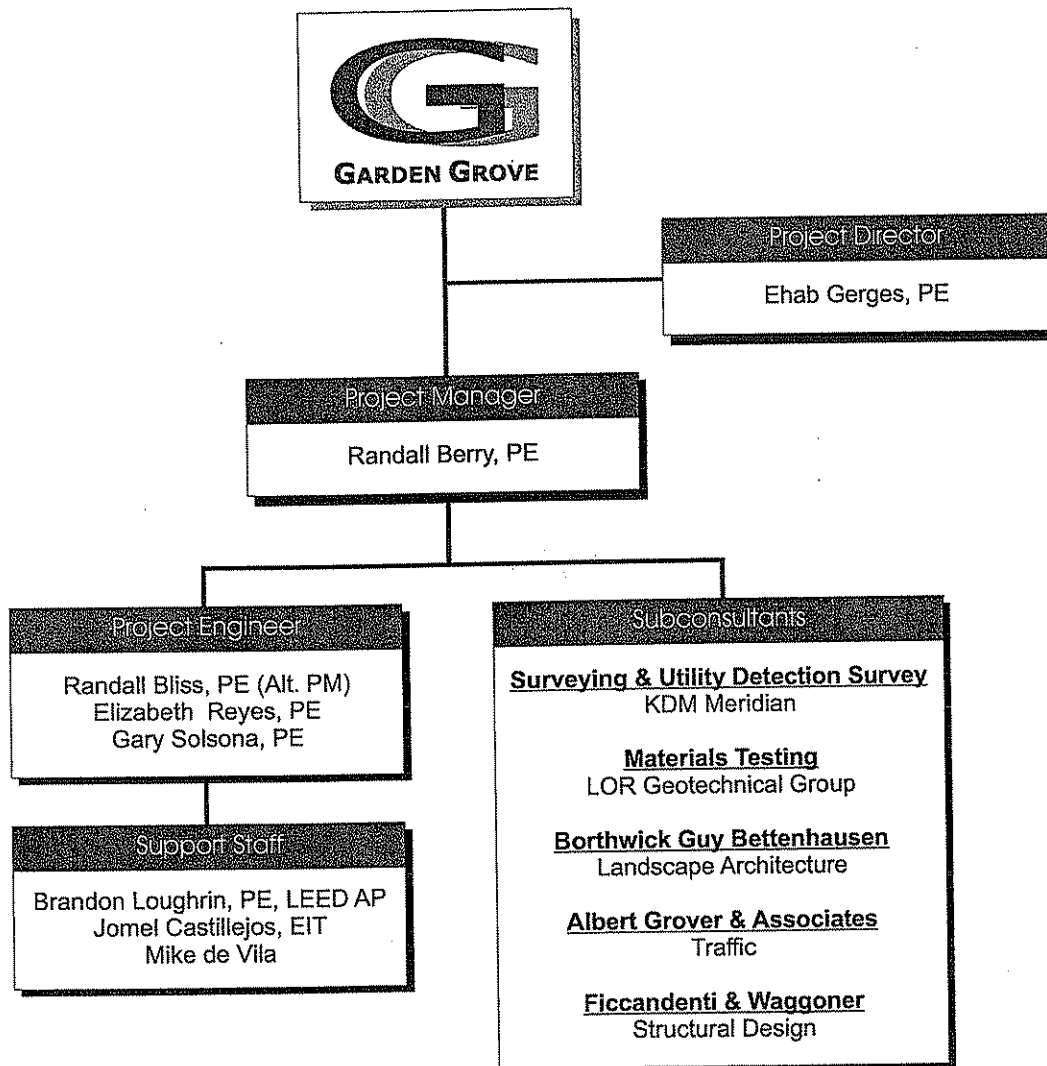
Ficcadenti & Waggoner - Structural Design. Ficcadenti & Waggoner, Inc. (F&W) strives to provide high-value structural engineering services. F&W was established in 1991 on the premise that providing structural engineering services to a diverse group of high quality clients will lead to lasting business relationships. Over 60 percent of engineering staff are licensed civil or structural engineers. All of F&W's projects are managed, directed, and engineered by a principal who is responsible for maintaining the client relationship and providing the experience and technical resources to ensure success. F&W engineers utilize state-of-the-art finite element software and their design and graphics departments utilize the latest drafting and three-dimensional modeling packages to develop quality designs, reports, and construction documents.



Project Team

Harris understands the nature of on-call services as well as the depth of resources needed to properly service these types of contracts. Since there is no particular project identified, we have provided the City with a sampling of staff to help you better understand the types of workforce we can provide.

Our team members and subconsultants have worked with one another on various other projects in the past. Individually, each brings knowledge, experience and skills required to successfully deliver the City's various projects. Collectively their strengths and previous working relationships with the City of Garden Grove provide a core team that will meet the project challenges.





Ehab Gerges, PE - Project Director

Education: BS, Civil Engineering

Registration: Professional Civil Engineer, CA

Mr. Gerges has over 20 years of professional experience in public works design. He has managed and designed a wide variety of public works projects including site development, pavement rehabilitation, street widening, storm drain, sewer and water improvements. He has been responsible for the preparation of studies and master plan reports for sewer, water, and drainage infrastructures. Mr. Gerges' experience also encompasses municipal engineering where he served on assignments helping public agencies in the preparation of request for proposals, consultant selection, contract negotiations, NPDES and other permits' processing, infrastructure studies and bidding, inspection, and construction management for several capital improvements projects.

City of Garden Grove, 2005-06 Arterial Highway Rehabilitation of Six Streets (Federally Funded). Mr. Gerges served as Project Director and prepared PS&E documents for the street rehabilitation of six streets namely, Magnolia Street, Westminster Avenue to Trask Avenue and Lampson Avenue to Chapman Avenue, Knott Avenue - Lampson Avenue to Chapman Avenue, Garden Grove Boulevard - Nutwood Street to Euclid Street and Gilbert Street to Brookhurst Street, Newhope Avenue - Westminster Avenue to Trask Avenue.

City of Garden Grove, Rehabilitation of Five Arterial Streets (Federally Funded). Mr. Gerges served as Project Manager for the design of pavement rehabilitation for five arterial streets. The arterials were located throughout the central and eastern portions of the City, north of SR 22. These projects were funded by the Arterial Highway Rehabilitation Program that was administered by OCTA and Caltrans, and were placed on the STIP. Pavements were evaluated and recommendations made for pavement rehabilitation based on the pavement report and best fit solution. The project also included identifying and providing for the removal of failure curb and gutter sections.

City of Garden Grove, Rehabilitation of Euclid Street and Harbor Boulevard. Mr. Gerges served as Project Manager for the rehabilitation of Euclid Street and Harbor Boulevard in the City of Garden Grove. The project included approximately 2.3 miles of pavement rehabilitation of four arterial street segments.

City of Garden Grove, Rehabilitation of Chapman Avenue, Euclid Street, Katella Avenue, and Westminster Street. Mr. Gerges served as Project Manager for this project which included approximately 1.3 miles of pavement rehabilitation of four arterial streets. This project was funded by the Arterial Highway Rehabilitation Program (AHRP).





Ehab Gerges, PE
Cont.

City of Garden Grove, Brookhurst/Chapman/Magnolia Street Rehabilitation. Mr. Gerges served as Project Manager for the rehabilitation of approximately four miles of roadway. This was an AHRP project. Rehabilitation concept included two grided intersection overlay designs, pavement reconstruction, cold milling, reinforcing fabric and variable thickness AC overlay. Services included pavement evaluation, rehabilitation design, AHRP funding processing and preparation of PS&E including striping.

City of Tustin, Hewes Avenue Water Main Replacement. Mr. Gerges served as QA/QC Manager for the preparation of PS&E construction documents for the City-approved \$575,000 water improvements that will add needed capacity to the system. The project consists of the upsizing of an existing 700' of existing 3-inch CIP with a new 8" PVC water main in Hewes Avenue from Vale Avenue to Fairhaven Avenue.

City of Laguna Beach, Los Robles Area Sewer Improvements. Mr. Gerges served as Project Manager for the construction of 6,200 linear feet of 6- to 8-inch sewer pipe. The project involved replacement of existing sewer system located in an easement at the back of existing homes. Design challenges included utilizing of trenchless methods such as pipe bursting and directional drilling, tying into existing house connections and conflicts with existing underground utilities.

City of Lake Forest, ADA Access Improvements. Mr. Gerges served as Project Manager for the evaluation and design of 34 existing access ramps at City-specified locations. Services included development of strategic recommendations and custom ramp design details to incorporate the latest ADA Title II and CBC Title 24 requirements for each existing non-ADA compliant ramp, and resulting in the preparation of PS&E construction documents.

City of Poway, Pomerado Road Soundwall. Mr. Gerges served as Project Manager for the construction of a new seven-foot high sound wall on the east side of Pomerado Road from 200 feet south of Kaitz Street to 200 feet south of Monte Vista Road, a distance of approximately 3,100 feet. The soundwall was constructed between the easterly edge of the existing sidewalk and the existing drainage channel. The design of the sound wall was particularly important to make sure the location of the sound wall would not infringe on the 100 year capacity of the concrete lined channel. Significant amount of effort was devoted to coordinate design and construction of the walls with all the utility companies and other agencies, as well as the property owners along the concrete lined channel. Harris prepared PS&E documents including the structural design for the proposed soundwall including structural calculations and wall structural detail drawings.





Randall Berry, PE - Project Manager

Education: BS, Civil Engineering

Registration: Professional Civil Engineer, CA

Mr. Berry has 26 years of professional engineering experience in public works design with an emphasis in street design, street widening and rehabilitation, storm drains, and grading. Mr. Berry has been responsible for the development of the scope and fee for award-winning roadway widening and drainage projects, starting in the proposal stage, through the PS&E preparation phase, to the construction bidding, inspection, and administration stage. Mr. Berry also has extensive experience in conducting ADA conformance evaluations within the public right of way. On all roadway projects, the public right way is evaluated for ADA compliance, including extensive field evaluations and documentation of existing sidewalks, parkways, access ramps and all paths of travel, and determination of site conditions with reference to travel width, obstructions, maximum grades, and detectable warning devices.

City of Garden Grove, 2006-07 Arterial Highway Rehabilitation Projects.

Mr. Berry served as Project Manager for the rehabilitation of four streets in the City of Garden Grove namely: Garden Grove Blvd. - Euclid St. to Newhope St.; Garden Grove Bldg. - Newhope St. to Harbor Blvd; West St. - Chapman Ave. to Orangewood Ave.; and West St. - Lampson Ave. to Chapman Ave. A total of 2 miles of pavement was rehabilitated.

City of Garden Grove, 2005-06 Arterial Highway Rehabilitation of Six Streets. Mr. Berry served as Project Manager for the preparation of PS&E documents for the street rehabilitation of six streets in the City of Garden Grove namely, Magnolia Street, Westminster Avenue to Trask Avenue and Lampson Avenue to Chapman Avenue, Knott Avenue - Lampson Avenue to Chapman Avenue, Garden Grove Boulevard - Nutwood Street to Euclid Street and Gilbert Street to Brookhurst Street, Newhope Avenue - Westminster Avenue to Trask Avenue. These projects were funded by the Arterial Highway Rehabilitation Program that was administered by OCTA and Caltrans, and have been placed on the STIP. Harris also processed the federal funding needed for appropriating the AHRP funding for construction.

Garden Grove Sanitary District, Sewer Improvements - Projects 20, 21, 22 & 23. As Project Manager Mr. Berry is responsible for the preparation of detailed PS&E construction documents for the GGSD master plan facilities CIP Projects 20, 21, 22 and 23 that will add the required additional capacity to the system. The scope also includes survey, geotechnical, potholing and civil design.



**Randall Berry, PE
Cont.**

City of Santa Ana, Bristol Street Widening, Phase I (McFadden to Pine).

Mr. Berry served as Project Manager for the design of just under one mile of Bristol Street to bring it to its ultimate condition as a major arterial highway. The work added one lane of travel in each direction, raised landscaped medians, continuous sound walls, eight cul-de-sacs to limit side street intersections, two traffic signal modifications, wide landscaped parkways with wide sidewalks and curb ramps and a master planned storm drain system.

City of Huntington Beach, Trinidad Avenue Bridge Waterline Replacement.

Mr. Berry served as Project Manager for this project which included replacing the above ground portion of the existing corrosion damaged 8" steel waterline; confirming the structural design and replacing the existing support brackets; installing a new air release valve and 8" diameter radial outlet and valve at the mid-span high point.

City of Rancho Palos Verdes, McCarrell Drainage System Design.

Mr. Berry served as Project Manager for the preparation of PS&E construction documents for the award winning McCarrell Canyon Storm Drain and Palos Verdes Drive South Widening project, which was estimated at \$6.3 million in construction costs, with actual bids coming in at \$5.9 million. The 66-inch diameter pipe was designed to convey a 100-year storm and collects runoff from the steep natural McCarrell Canyon, which total to 340 acres. An existing bottleneck in Palos Verdes Drive South was also removed bringing the roadway to ultimate width. Services also included preparing a detailed hydrology and hydraulics study, a geotechnical study, topographic and utility detection surveys, full environmental clearances, public outreach meetings and city council presentations.

City of Rancho Palos Verdes, San Ramon Canyon Storm Drain System

(formerly Tarapaca Canyon). Mr. Berry is serving as Project Manager and is responsible for preparing a Project Study Report and complete preliminary design for several alternatives, for the San Ramon Canyon Drainage System. The primary goal is to develop a storm drain system that delivers storm water flows without further causing erosion to the existing canyon slopes and stabilizes both the San Ramon Canyon slopes and the "switchbacks" along Palos Verdes Drive East.

City of Fullerton, Harbor Blvd. Retaining Wall & Slope Repair Study.

Mr. Berry served as Project Manager for the preparation of a project study report for retaining walls and slope repairs along Harbor Blvd. adjacent to the existing YMCA site, consisting of studying various alternative retaining wall types (soil nail tiebacks, CIDH piles and the resulting soldier pile solution), slope grading, sidewalks and drainage improvements.



Randall Bliss, PE - Project Engineer/Alternate Project Manager

Education: BS, Civil Engineering

Registration: Professional Civil Engineer, CA

Mr. Bliss has 23 years of experience in civil engineering as a roadway designer and is adept at using the latest state-of-the-art computerized CADD design and modeling tools. He has extensive construction inspection and field engineering experience, which translates well to his practical and constructible designs. He served as Project Engineer on the award winning Pomerado Road Widening and Rehabilitation project in the City of Poway and has recently completed roadway rehabilitation designs for the cities of Garden Grove, Lake Elsinore, Lake Forest, Yorba Linda, Irvine, San Marino, Tustin and Glendale, as well as the Los Angeles County Department of Public Works. His pipeline expertise includes sanitary sewers, force mains, storm drains, and domestic and reclaimed water lines.

City of Garden Grove, 2006-07 Arterial Highway Rehabilitation Projects.

Mr. Bliss served as Project Engineer for the rehabilitation of four streets in the City of Garden Grove namely: Garden Grove Blvd. - Euclid St. to Newhope St.; Garden Grove Bldg. - Newhope St. to Harbor Blvd; West St. - Chapman Ave. to Orangewood Ave.; and West St. - Lampson Ave. to Chapman Ave. A total of 2 miles of pavement was rehabilitated.

City of Garden Grove, 2005-06 Arterial Highway Rehabilitation of Six Streets. Mr. Bliss served as Project Engineer for the preparation of PS&E documents for the street rehabilitation of six streets in the City of Garden Grove namely, Magnolia Street, Westminster Avenue to Trask Avenue and Lampson Avenue to Chapman Avenue, Knott Avenue - Lampson Avenue to Chapman Avenue, Garden Grove Boulevard - Nutwood Street to Euclid Street and Gilbert Street to Brookhurst Street, Newhope Avenue - Westminster Avenue to Trask Avenue. These projects were funded by the Arterial Highway Rehabilitation Program that was administered by OCTA and Caltrans, and have been placed on the STIP. Harris also processed the federal funding needed for appropriating the AHRP funding for construction.

City of Garden Grove, Rehabilitation of Five Arterial Streets. Mr. Bliss served as Project Engineer for the design of pavement rehabilitation of five arterial streets. The arterials are located throughout the central and eastern portions of the City, north of the SR22 and include: Garden Grove Blvd. - Magnolia to Fern; Haster Street - Chapman to Lampson; Magnolia Street - Katella to Marylee; Garden Grove Blvd. - Harbor to Lewis; Chapman Ave. - Magnolia to Brookhurst. These projects were funded by the Arterial Highway Rehabilitation Program that is administered by OCTA and Caltrans, and have been placed on the STIP. Harris also processed





**Randall Bliss, PE
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the federal funding needed for appropriating the AHRP funding for construction.

Garden Grove Sanitation District, Sewer Improvements - Projects 20, 21, 22 & 23. Mr. Bliss served as Senior Project Engineer for the preparation of detailed PS&E construction documents for the GGSD master plan facilities CIP Projects 20, 21, 22 and 23 that added the required additional capacity to the system. The scope also included survey, geotechnical, potholing and civil design.

City of Anaheim, Citywide Sanitary Sewer Improvement Project (CSSIP)- Group 4 - Project # 2 - Cerritos Ave. Mr. Bliss served as QA/QC Engineer for the Group 4 citywide concerning Cerritos Avenue from Nutwood Avenue to Brookhurst Street. Scope included preparation of PS&E construction documents using the sewer master plan recommendations as a starting point to address deficiencies and add needed additional capacity to the system for both existing and future built-out conditions.

City of Huntington Beach, Trinidad Avenue Bridge Waterline Replacement. Mr. Bliss served as Project Engineer for this project which included replacing the above ground portion of the existing corrosion damaged 8" steel waterline; confirming the structural design and replacing the existing support brackets; installing a new air release valve and 8" diameter radial outlet and valve at the mid-span high point; and installing cathodic protection test stations.

City of Tustin, Hewes Avenue Water Main Replacement. As Senior Project Engineer, Mr. Bliss was responsible for the preparation of PS&E construction documents for the City-approved \$575,000 water improvements that will add needed capacity to the system. The project consists of the upsizing of an existing 700' of existing 3-inch CIP with a new 8" PVC water main in Hewes Avenue from Vale Avenue to Fairhaven Avenue.

City of Tustin, Sycamore Ave Storm Drain Improvements. As Project Manager, Mr. Bliss prepared plans, specifications and engineer's estimate for approximately 700 lf of 30-inch RCP storm drain and 3 catch basins. He also performed a hydrology and hydraulic design and removed three existing cross gutters and regraded intersections.

City of Fullerton, Harbor Blvd. Retaining Wall & Slope Repair Study. Mr. Bliss served as Project Engineer for the preparation of a project study report for retaining walls and slope repairs along Harbor Blvd. adjacent to the existing YMCA site, consisting of studying various alternative retaining wall types (soil nail tiebacks, CIDH piles and the resulting soldier pile solution), slope grading, sidewalks and drainage improvements.



Elizabeth Reyes, PE - Project Engineer

Education: BS, Civil Engineering

Registration: Professional Civil Engineer, CA

Ms. Reyes has over nine years of experience as a Project Engineer in the Design Group. She has been responsible for a variety of projects, including designs and preparation of plans, specifications, and estimates for street, airport, flood control, and sewer improvement projects.

City of Santa Ana, Bristol Corridor Widening-Phase I (McFadden to Pine).

Ms. Reyes was the Project Engineer for the design of just under one mile of Bristol Street in the City of Santa Ana to bring it to its ultimate condition as a major arterial highway. The work will add one lane of travel in each direction, raised landscaped medians, continuous sound walls, eight cul-de-sacs to limit side street intersections, two traffic signal modifications, wide landscaped parkways and a master planned storm drain system. The project also includes a full topographic survey, up to seventy (70) full-take right-of-way acquisitions, approximately thirty (30) partial-take right-of-way acquisitions, a geotechnical investigation and the preparation of traffic control plans. The project is a high profile, top priority improvement for the City of Santa Ana that will help Bristol Street to function properly as a critical central corridor for Orange County, connecting the "Orange Crush" (I-5 / SR-22 / SR-57) interchange with the South Coast Plaza and Performing Arts Center.

City of West Hollywood, Sunset Strip Beautification. Ms. Reyes served as Project Engineer for the design of this \$6 million beautification project which included the preparation of PS&E of 1.63-miles of Sunset Boulevard (west city limit to east city limit). This project improved/rehabilitated PCC pavement, sidewalks, extensive custom curb ramps, medians, striping, traffic signals, landscaping, and development of comprehensive plans to address needs, alternatives, and costs to allow for the grouping/phasing of the work. Harris also performed a profilograph investigation, traffic counts, traffic signal modifications, and landscape architecture plans.

City of Cypress, Danny/Walker Storm Drain, Moody Street Storm Drain at Carbon Creek, Moody Street Storm Drain at Cypress Channel & Valley View Street Storm drain at Carbon Creek. Ms. Reyes served as Design Engineer for the replacement/upsizing of existing storm drains for four separate projects located in the City of Cypress. The project included hydrology studies, hydraulic analyses, Orange County Flood Control connection permits and the preparation of complete PS&E documents. The projects included several innovative design elements, including emergency overflow connections to existing drainage systems that will remain and the use of an electronic utility detection survey, which was performed in advance of the design, to horizontally and vertically locate all of the existing utilities so that the first storm drain design could also be the last.





Elizabeth Reyes, PE
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City of Huntington Beach, Design of the Central Park Pump Station. Ms. Reyes was the Project Engineer. Harris is providing professional engineering services for the Central Park Pump Station Project which consists of new electrical, mechanical and structural plans for the installation of the new booster pump station for irrigation water at Central Park. Tasks included meetings and coordination, geotechnical analysis, foundation plan, electrical plans, and mechanical plans. The improvements will allow the City of Huntington Beach to store and reuse excess reclaimed water for park irrigation purposes.

City of Rancho Palos Verdes, San Ramon Canyon Storm Drain System (formerly Tarapaca Canyon). Ms. Reyes is serving as Project Engineer and is responsible for preparing a Project Study Report and complete preliminary design for several alternatives, for the San Ramon Canyon Drainage System. The primary goal is to develop a storm drain system that delivers storm water flows without further causing erosion to the existing canyon slopes and stabilizes both the San Ramon Canyon slopes and the "switchbacks" along Palos Verdes Drive East.

City of Glendale, Cañada Boulevard Storm Drain Construction and Street Resurfacing. Ms. Reyes is serving as Project Engineer responsible for the evaluation, investigation and design of a storm drain system under Ramona Avenue, Cañada Blvd and Del Valle Avenue. Harris is also responsible for the preparation of street improvement plans for the resurfacing of Cañada Blvd from southerly to northerly intersection with Verdugo Road.

City of Fountain Valley, Harbor/Edinger Street Improvements. As Design Engineer, Ms. Reyes was responsible for the preparation of plans, specifications and estimates for the pavement rehabilitation and median construction along Edinger Avenue and Harbor Boulevard, including intersection improvements.

City of Fountain Valley, Warner/Newhope Street Improvements. As Design Engineer, Ms. Reyes was responsible for the preparation of plans, specifications and estimates for rehabilitation of Warner Avenue from Bushard to the Santa Ana River (including new landscaped medians between Los Jardines and Euclid Street) and Newhope Street from Warner Avenue to Slater. Federal funding documentation was included.

City of Tustin, Tustin Ranch Road Street Rehabilitation. Ms. Reyes served as Project Engineer and was responsible for the preparation of plans, specifications, and engineer's estimate for the rehabilitation of Tustin Ranch Road as part of the City's on-going Capital Improvement Program.





Gary Solsona, PE - Project Engineer

Education: BS, Civil Engineering

Registration: Professional Civil Engineer, CA

Mr. Solsona has over eight years professional experience in public works design. He is responsible for a wide variety of public works projects including pavement rehabilitation, street widening, and storm drain and sewer improvements. Familiar with various city and county design and CADD standards. CAD experience includes eight years of AutoCad, eight years of Microstation, and four years of InRoads/InXpress.

City of Garden Grove, Chapman/Euclid/Katella/Westminster Rehabilitation. Mr. Solsona assisted in overlay design, pavement reconstruction, cold milling, pavement reinforcing fabric and variable thickness AC overlay.

Garden Grove Sanitation District, Sewer Improvements - Projects 20, 21, 22 & 23. Mr. Solsona served as Project Engineer for the preparation of detailed PS&E construction documents for the GGSD master plan facilities CIP Projects 20, 21, 22 and 23 that added the required additional capacity to the system. The scope also included survey, geotechnical, potholing and civil design.

City of Irvine, Turtle Rock Drive Rehabilitation. Mr. Solsona served as Project Engineer responsible for the preparation of plans, specifications and estimates for Turtle Rock Drive Rehabilitation, from Campus Drive to Southernwood.

City of La Palma, Moody Street Rehabilitation. Mr. Solsona served as Project Manager for this project which consisted of the development of a pavement rehabilitation strategy and the preparation of PS&E construction documents for the rehabilitation of approximately 2,600 LF of Moody Street from La Palma Avenue to Houston Avenue.

City of Buena Park, Knott Avenue Rehabilitation. Mr. Solsona served as Project Engineer and was responsible for preparing plans, specifications and estimates for Knott Avenue Rehabilitation from Orangethorpe Avenue to La Palma Avenue. The approximately \$2.0 million project included AC pavement and PCC rehabilitation improvements consisting of a feasible/economical pavement rehabilitation strategy, special roadway re-profiling to mitigate excessive cross falls in travel lanes, design of 27 ADA-compliant curb ramps, PCC curb and gutter, sidewalk, and cross gutter repair. Additional services provided by Harris included preparation of gridded intersection plan, striping and signing plans, traffic signal interconnect plans, and traffic control staging and phasing plans, processing the Caltrans Encroachment Permit (including preparation of a Water Pollution Control



Gary Solsona, PE
Cont.

Plan), preparation of Caltrans Preliminary Environmental Study forms from the Local Procedures Manual, and utility coordination.

City of Brea, Birch Street Medians. Mr. Solsona served as Project Manager and provided professional engineering and landscape services for the preparation of PS&E for the installation of raised landscape medians on two separate reaches of Birch Street.

City of Fullerton, Harbor Blvd. Retaining Wall & Slope Repair Study. Mr. Solsona served as Project Engineer for the preparation of a project study report for retaining walls and slope repairs along Harbor Blvd. adjacent to the existing YMCA site, consisting of studying various alternative retaining wall types (soil nail tiebacks, CIDH piles and the resulting soldier pile solution), slope grading, sidewalks and drainage improvements.

City of Redondo Beach, Esplanade Streetscape Improvements. Mr. Solsona served as Project Engineer for this project to improve a 5,000-foot reach along Esplanade, which is a coastal roadway. The project re-striped the roadway, add "bulb-out" sidewalk landings and improved curb ramps at all pedestrian crossings, added landscaped raised medians, rehabilitated the AC pavement, added enhanced ocean overlook platforms with artistic "wall seats", added enhanced bluff landscaping along the top of the coastal bluff and added decorative sidewalk paving surfaces along the coastal bluff.

City of West Hollywood, Sunset Strip Beautification. Mr. Solsona served as Project Engineer for the design of this \$6 million beautification project which included the preparation of PS&E of 1.63-miles of Sunset Boulevard (west city limit to east city limit). This project improved/rehabilitated PCC pavement, sidewalks, extensive custom curb ramps, medians, striping, traffic signals, landscaping, and development of comprehensive plans to address needs, alternatives, and costs to allow for the grouping/phasing of the work. Harris also performed a profilograph investigation, traffic counts, traffic signal modifications, and landscape architecture plans.

City of Stanton, FY 09/10 Sewer Rehabilitation Project. Mr. Solsona served as Project Engineer for the FY 09/10 Sewer Rehabilitation Project, which consisted of the development of a detailed confirmation of the proposed sewer rehabilitation strategy and the preparation of PS&E construction documents for eighteen (18) separate project locations.



Brandon Loughrin, PE, LEED AP - Project Support

Education: BS, Civil and Environmental Engineering
Registration: Professional Civil Engineer, CA
Certification: LEED Accredited Professional

Mr. Loughrin has more than five years of experience on a variety of public works design including roadway improvement and rehabilitation projects. Some of the agencies he has performed design work for include the cities of Garden Grove, West Hollywood, Pomona, Redondo Beach, Rancho Palos Verdes, Brea, Irvine, Yorba Linda, Santa Ana, Tustin, Moreno Valley, Huntington Beach, and La Palma. He has also provided grading and improvement plan check services for the cities of Irvine and Lake Elsinore. As Project Engineer, his experience includes roadway and streetscape design, drainage design including preparation hydrology and hydraulic studies, ADA accessibility and conformance expertise, and CAD design including computer modeling and plan development for roadway projects and site work.

Garden Grove Sanitation District, Sewer Improvements - Projects 20, 21, 22 & 23. Mr. Loughrin served as Design Engineer for the preparation of detailed PS&E construction documents for the GGSD master plan facilities CIP Projects 20, 21, 22 and 23 that added the required additional capacity to the system. The scope also included survey, geotechnical, potholing and civil design.

City of Stanton, FY 09/10 Sewer Rehabilitation Project. Mr. Loughrin served as Office Engineer for the FY 09/10 Sewer Rehabilitation project which consisted of the development of a detailed confirmation of the proposed sewer rehabilitation strategy and the preparation of PS&E construction documents for eighteen (18) separate project locations.

City of Anaheim, Group 5, Cerritos Avenue Sanitary Sewer Improvements - Project 7. As Design Engineer, Mr. Loughrin was responsible for the preparation of PS&E construction documents for this project which included the evaluation and elimination of deficiencies identified by the sewer master plan. Scope included the removal and replacement of existing sewer pipe to provide additional capacity for both existing and future build-out conditions, coordination and compliance with the design standards of both the current and prospective future responsible agencies, and the identification and avoidance of multiple potential conflicts with existing utility facilities.

City of Tustin, FY 2009-10 Sidewalk Repair Project. Mr. Loughrin served as Project Engineer for the field review of all existing curb and gutter within Zone 5. Damage of poorly draining curb and gutter was field marked and

quantified. Also compiled City provided sidewalk repair quantities and curb and gutter quantities and prepared construction cost estimates in tabular form referencing City address map book pages, and present to City for review and comparison with the available budget.

**Brandon Loughrin, PE, LEED AP
Cont.**

City of Huntington Beach, Myrtle Drive, Normandy Lane, Rotterdam Lane, Mandrell Drive, and Oak View Area Alleys Street Rehabilitation. Mr. Loughrin served as Project Engineer for the rehabilitation of approximately 6,500 lf of residential streets at various locations throughout the City. Each street required re-profiling of the existing curb & gutter, sidewalk and roadway reconstruction. Mr. Loughrin performed a detail field review of each site which included photo documentation, field marking and mapping of removal limits and detailed measurements used for quantity take offs. From the survey data Mr. Loughrin created a digital model of the existing roadway and produced cross-sections and profiles which he used to design the proposed curb & gutter and roadway crown. Mr. Loughrin produced eight plan and profile plan sheets used for project bidding and construction. Mr. Loughrin estimated all proposed construction quantities and developed detailed cost estimates for all construction items. Construction cost for this project totaled \$1.5 million.

City of Tustin, Annual Major Pavement Maintenance Projects, FY 2003-11. Mr. Loughrin is serving as Project Engineer for this project and has provided design services for the City's annual pavement maintenance project for the past five years. Harris has typically developed plan specifications and estimates for projects and the projects included a thorough field review of the candidate streets to confirm that the existing pavement conditions were consistent with the recommendations found in the City provided PMS report. These projects also included replacement of failing curb and gutter and nonconforming access ramps. The City's annual construction budget for these projects has ranged from \$600,000 to \$1.4 million.

City of West Hollywood, Sunset Strip Beautification. Mr Loughrin served as Cost Estimator for the design of this \$6 million beautification project which included the preparation of PS&E of 1.63-miles of Sunset Boulevard (west city limit to east city limit). This project improved/rehabilitated PCC pavement, sidewalks, extensive custom curb ramps, medians, striping, traffic signals, landscaping, and development of comprehensive plans to address needs, alternatives, and costs to allow for the grouping/phasing of the work.

City of Santa Ana, Bristol Corridor Widening-Phase I (McFadden to Pine). Mr. Loughrin served as Cost Estimator. The work added one lane of travel in each direction, raised landscaped medians, continuous sound walls, eight cul-de-sacs to limit side street intersections, two traffic signal modifications, wide landscaped parkways and a master planned storm drain system. The project was a high profile, top priority improvement for the City of Santa Ana that helped Bristol Street to function properly as a critical central corridor for Orange County, connecting the "Orange Crush" (I-5 / SR-22 / SR-57) interchange with the South Coast Plaza and Performing Arts Center.

Richard C. Maher, PLS - KDM Meridian (Surveying & Utility Detection Survey)

Mr. Maher, PLS has 20 years experience in land surveying and civil engineering. He is responsible for project development, right-of-way engineering, annexations, heavy and light construction, design topographic surveys, aerial control networks, legal descriptions, boundary surveys, records of survey, and parcel and tract map preparation. His project experience includes street, sewer, water, and storm drain improvements, park, municipal and building improvements.

John P. Leuer, PE, GE - LOR Geotechnical Group (Materials Testing)

Mr. Leuer, PE, GE has over 30 years of professional experience in the geotechnical and civil engineering field. In this time, Mr. Leuer has developed an extensive knowledge of the many geotechnical considerations involved in construction in the southern California area. Mr. Leuer is highly experienced in all aspects of soil and foundation engineering for a wide variety of projects ranging from multi-story commercial and industrial structures to several thousand-acre planned community developments. Mr. Leuer has substantial experience coordinating projects for many City, County and State agencies as well as in the public sector, gaining a reputation for being responsive to clients needs while providing strong technical expertise.

Art Guy, ASLA - Borthwick Guy Bettenhausen (Landscape Architecture)

Mr. Guy, ASLA, has over 33 years of landscape architecture and planning experience, the past 11 as principal with BGB, Inc. Mr. Guy directs a comprehensive approach to irrigation design for BGB, Inc. and serves as the technical liaison pertaining to water management issues which arise during the planning, design and implementation phases of projects. Mr. Guy's knowledge of horticulture extends from high desert to tropical bioregions, enabling him to effectively design planting and irrigation systems appropriate to individual environmental requirements.

Mark Miller, PE, TE - Albert Grover & Associates (Traffic)

Mr. Miller joined Albert Grover & Associates in 1993 as Vice President, and provides the firm extensive experience in the design and operation of traffic signal systems. Mr. Miller began his consulting career with Mohle, Grover & Associates in January, 1990, as a senior engineer to provide professional traffic engineering and operations services. He is a registered Civil Engineer, Traffic Engineer, and Professional Traffic Operations Engineer with over thirty years' experience. This includes more than fifteen years serving as a City Traffic Engineer. Mr. Miller has managed many traffic signal and street light system projects. He has developed and implemented design standards, specifications and cost estimates for traffic signals, interconnect and street light projects. He also has experience in preparing traffic signal coordination and timing plans. Additionally, Mr. Miller has provided expert witness testimony on a variety of issues. He has served as both a member and the President of the City Traffic Engineers Association (CTEA) and, as such, has been instrumental in conducting workshops to educate Traffic Commissioners and Planning Commission from Cities throughout Southern California on various aspects of traffic engineering. Mr. Miller has provided on call as-needed traffic engineering services to the Cities of Cerritos, La Habra, Montclair, Torrance, and Victorville, and has since 1998 served as the Contract Traffic Engineer for the City of Fullerton.

Mark Schroeder, SE - Ficcdenti & Waggoner (Structural Design)

Mr. Schroeder has project management and engineering experience with significant structural systems. Mr. Schroeder has provided designs and developed construction drawings for the public works, hospitality, residential, commercial, industrial, healthcare, university, technology, petrochemical, nuclear industries. These designs have included concrete, steel, masonry, timber, and light-gauge steel components that consider static and dynamic loading conditions. He has also managed several design-build projects under tight schedule with minimum material allowances.

Relevant Projects and References

City of Garden Grove, 2006/07 Arterial Highway Rehabilitation Projects, Phase VIII-A

Harris prepared PS&E for street rehabilitation of 4 streets in the City of Garden Grove namely:

1. Garden Grove Blvd. - Euclid St. to Newhope St.
2. Garden Grove Bldg. - Newhope St. to Harbor Blvd.
3. West St. - Chapman Ave. to Orangewood Ave.
4. West St. - Lampson Ave. to Chapman Ave.

A total of 2 miles of pavement was rehabilitated.

Reference: Mark Uphus, PE, Senior Civil Engineer, (714) 741-5191

City of Garden Grove, 2005-06 Arterial Highway Rehabilitation of Six Streets

Harris prepared PS&E documents for the street rehabilitation of six streets in the City of Garden Grove namely, Magnolia Street, Westminster Avenue to Trask Avenue and Lampson Avenue to Chapman Avenue, Knott Avenue - Lampson Avenue to Chapman Avenue, Garden Grove Boulevard - Nutwood Street to Euclid Street and Gilbert Street to Brookhurst Street, Newhope Avenue - Westminster Avenue to Trask Avenue.

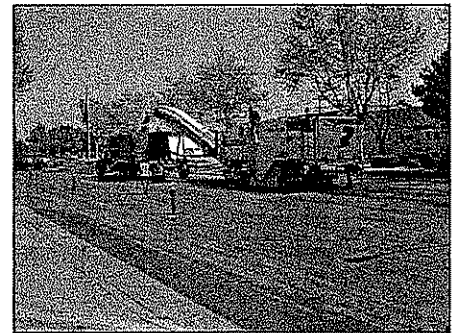
These projects were funded by the Arterial Highway Rehabilitation Program that is administered by OCTA and Caltrans, and have been placed on the STIP. Harris also processed the federal funding needed for appropriating the AHRP funding for construction.

Harris evaluated the pavement and made recommendations for pavement rehabilitation based on the pavement report and best fit solution. This project also included identifying and providing for the removal of failed curb and gutter.

Reference: Mark Uphus, PE, Senior Civil Engineer, (714) 741-5191

Garden Grove Sanitation District, Sewer Improvements - Projects 20, 21, 22 & 23

Harris was responsible for the preparation of detailed PS&E construction documents for the GGSD master plan facilities CIP Projects 20, 21, 22 and



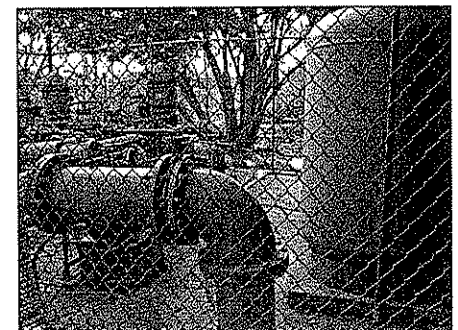
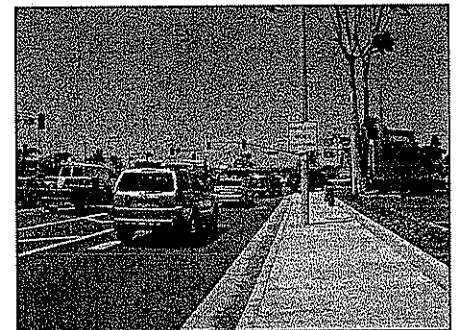
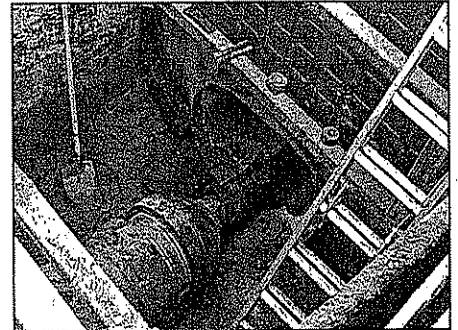
23 that added the required additional capacity to the system. The scope also included survey, geotechnical, potholing and civil design.

Reference: Samuel Kim, Project Engineer, (714) 741-5534

City of Huntington Beach, As-Needed Civil Engineering Services

As part of the City of Huntington Beach's As-Needed Civil Engineering Services, Harris completed the PS&E for the following projects:

- ▶ **Water Yard Improvements** - The project consisted of relocating/upgrading water fluoride tank facilities and bulk storage bin facilities, reconfiguring driveway entrances, frontage improvements and surface drainage, and developing a new parking lot and site circulation plan.
- ▶ **Slip-Lining 42-Inch Water Transmission Main**- Work included studying alternatives and providing PS&E for 3,500 feet of deteriorated 42" water main in residential areas and high traffic roadways. Proposed rehabilitation was sliplining with 30" DHPE, PVC or DI pipeline to lessen impacts to residents and traffic.
- ▶ **Myrtle Drive and Normandy Lane Street Improvements** - Work included tree removal, removal and replacement of PCC sidewalks, driveways and curb and gutter and roadway reconstruction.
- ▶ **Mandrell Drive and Oakview Area Alley Improvements** - Work included tree removal, removal and replacement of PCC sidewalks, driveways, PCC v-gutters and curb and gutter, and roadway and alley reconstruction.
- ▶ **Rotterdam Lane Street Improvements** - Work included tree removal, removal and replacement of PCC sidewalks, driveways and curb and gutter and roadway reconstruction.
- ▶ **Beach Blvd. Widening at Edinger Ave.** - Work included adding a northbound right turn lane on Beach Blvd (State Highway 39) at Edinger Avenue, which is under the jurisdiction of Caltrans. A Caltrans Encroachment Permit was required for this project. The project required design surveys, alignment studies, roadway widening plan and profiles, R/W acquisitions, storm drain system modifications, traffic signal modifications, striping and signing plans, streetlight relocations, various utility relocations, and parkway landscaping.
- ▶ **Design of the Central Park Pump Station** - Harris is providing professional engineering services for this which consists of new electrical, mechanical and structural plans for the installation of the new booster pump station for irrigation water at Central Park. The improvements will allow the City of Huntington Beach to store and reuse excess reclaimed water for park irrigation purposes.



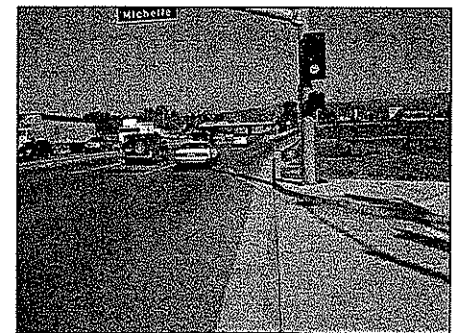
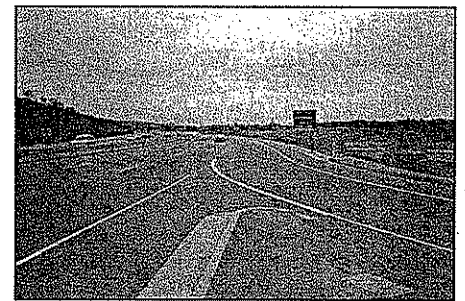
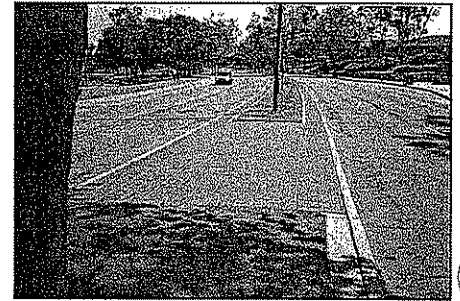
- ▶ **Trinidad Avenue Bridge Waterline Replacement** - The project included replacing the above ground portion of the existing corrosion damaged 8" steel waterline; confirming the structural design and replacing the existing support brackets; installing a new air release valve and 8" diameter radial outlet and valve at the mid-span high point; and installing cathodic protection test stations.

Reference: Duncan Lee, PE, Principal Civil Engineer, (714) 375-5118

City of Irvine, On-Call Engineering

As part of the City of Irvine's On-Call Consultant List, Harris completed the PS&E of the following projects:

- ▶ **Alton Pkwy. Rehabilitation** - Federally funded street rehabilitation project provided for crack sealing, cold planning of pavement edges, excavation of deteriorated pavement, construction of asphalt concrete repair, asphalt concrete overlay, repair of existing curb and gutter sidewalk, replacement of traffic loops, traffic signing and striping, and adjustment of manholes / valves. Significant refinements to the City provided pavement report were required as part of the design.
- ▶ **Barranca Pkwy. Rehabilitation** - The 8,300' project length included the development of a custom rehabilitation strategy based on utilizing innovative new "Dowel-on" PCC median curbs adjacent to the existing median curbs, which were too small to allow the required 2" thick ARHM overlay. The project included full topographic survey, upgrading all curb ramps to the latest ADA criteria and the preparation of a Water Pollution Control Plan (WPCP), similar to what the State of California requires.
- ▶ **Culver Dr. Rehabilitation** - Federally funded street rehabilitation improvements included ARHM overlays, crack treatments, pavement reconstruction, and curb and gutter repairs. Significant refinements to the City provided pavement report were required as part of the design.
- ▶ **Harvard Ave. Rehabilitation** - Street rehabilitation of Harvard Avenue from University Drive to I-405.
- ▶ **Jamboree Rd. Rehabilitation** - Street rehabilitation of Jamboree Rd., from Michelle Dr. to I-5 Freeway.
- ▶ **MacArthur Blvd. Median Drainage Rehabilitation** - Work included storm drain remediation improvements on MacArthur Blvd. due to a super-elevated highway with a concrete barrier median that is blocking drainage. The innovative design included the use of multiple small grate inlets in series to allow no more than a five foot wide flooding width in the shoulder of the median side lane.



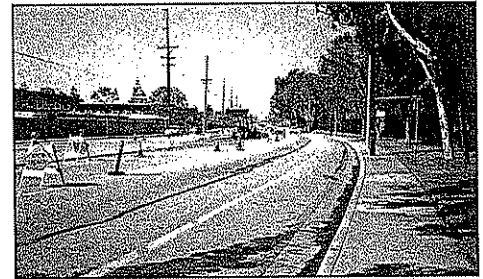
- ▶ **Orange County Great Park Pedestrian Promenade Enhancements-** Harris is providing professional civil and electrical engineering and landscape architect services for the development of promenade plans, specifications and estimates for the Great Park.
- ▶ **Bus Turnaround** - Harris prepared PS&E for this bus turnaround.
- ▶ **"C" Street Widening** - Harris prepared plans at 50% design.

Reference: Kirk Streets, Associate Engineer, (949) 724-7554

City of Cypress, On-Call Engineering Services for Various Storm Drain and CIP Projects

Harris was retained by the City of Cypress to provide civil engineering design services for various public works projects throughout the City. Services the Harris team was responsible for providing include PS&E, geotechnical investigations, surveying, and utility detection and relocation. Some of the projects Harris worked on included:

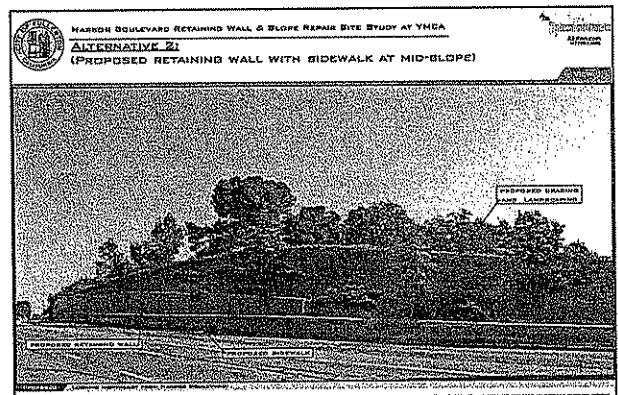
- ▶ Carbon Creek and Valley View Street Storm Drain
- ▶ Danny Ave/Walker Street Storm Drain
- ▶ Katella Avenue Median Left Turn Pocket Retrofit
- ▶ Lincoln Avenue Streetscape
- ▶ Moody Street Storm Drain
- ▶ OCFCD Permit for Bridge Repairs Crossing Coyote Creek Channel and Moody Channel



Reference: Dario Simoes, Associate Engineer, (714) 229-6694

City of Fullerton, On-Call Engineering Services

Harris was selected by the City of Fullerton to provide on-call civil design services for various projects throughout the City. Harris completed the PS&E for the Bastanchury Road Creek Rehabilitation at Parks Road; PS&E construction documents to upgrade the existing 6" VCP sewer mains to 8" PVC lines for the Riverside Avenue / Raymond Avenue Sewer Rehabilitation; PS&E to rehabilitate the failing AC pavement and repair a limited amount of broken PCC curb & gutter and sidewalk on Brookhurst Avenue from Orangethorpe Avenue to the south City limit; and PS&E construction documents to upgrade the existing 6" VCP sewer mains to 8" PVC lines at Carhart, Valley View, Johnson, Stephen and Fern Drives. Harris also completed a project study report for Harbor Blvd. retaining wall and slope repair.



Reference: Ronald Bowers, PE, Senior Civil Engineer, (714) 738-6322

City of Santa Ana, Bristol Corridor Widening, Phase I (McFadden to Pine)

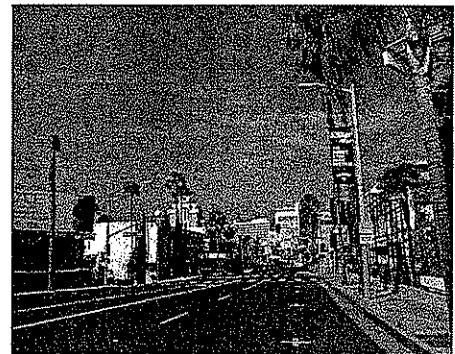
Harris completed the design of just under one mile of Bristol Street to bring it to its ultimate condition as a major arterial highway. The \$13 million project added one lane of travel in each direction, raised landscaped medians, continuous sound walls, eight cul-de-sacs to limit side street intersections, two traffic signal modifications, wide landscaped parkways and a master planned storm drain system. The project also included a full topographic survey, seventy (70) full-take right-of-way acquisitions, 25 partial-take right-of-way acquisitions, a geotechnical investigation and the preparation of traffic control plans. The project was a high profile, top priority improvement for the City of Santa Ana that helped Bristol Street to function properly as a critical central corridor for Orange County, connecting the "Orange Crush" (I-5 / SR-22 / SR-57) interchange with South Coast Plaza and the Performing Arts Center.



Reference: Souri Amirani, PE, Deputy City Engineer, (714) 647-5640

City of West Hollywood, Sunset Strip Beautification

Harris prepared PS&E documents for the \$6 million beautification project of 1.63 miles of Sunset Blvd. (west city limit to east city limit). The project included the rehabilitation of PCC pavement, sidewalks, ramps, medians, striping, traffic signals, landscaping and the development of comprehensive plans to address needs, alternatives and costs to allow for the grouping/phasing of the work. Harris also performed a profilograph investigation, traffic counts, traffic signal modifications and landscape architecture plans. The project also included the design of over 70 custom curb ramps, 12 signal modifications, new raised landscaped medians, the development of five street tree "districts", signal timing and synchronizing improvements and two community feedback meetings. The Sunset Strip Beautification project received the 2010 B.E.S.T. APWA Southern California Chapter Project of the Year Award.



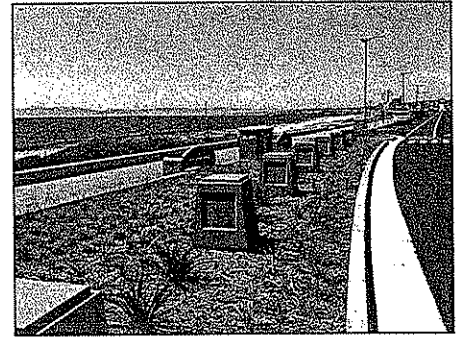
Reference: Donn Uyeno, Assistant Civil Engineer, (323) 848-6457

City of Redondo Beach, Esplanade Streetscape Improvements

Harris is leading an expert team of traffic engineers and landscape architects to improve a 5,000-foot reach along the City's prestigious Esplanade, which is a coastal roadway that serves one of California's most beautiful beaches as well as million dollar adjacent beach homes. The PS&E package is 99% complete and about to go out to bid. One of the primary challenges was to deliver a first class project on a relatively tight \$3 million budget. The project will also re-stripe the roadway, add "bulb-out" sidewalk landings

and improved curb ramps at all pedestrian crossings, add landscaped bulb out areas, rehabilitate the AC pavement, add enhanced ocean overlook platforms with artistic “wall seats”, and add decorative sidewalk paving surfaces along the coastal bluff. The project also includes a full topographic survey, geotechnical investigation, and environmental clearances as well as the preparation of plans, specifications and estimates.

Reference: Brad Lindahl, Capital Projects Program Manager, 310 372 – 1171 x 2286



City of Yorba Linda, Yorba Linda Blvd. Rehabilitation (Two Segments)

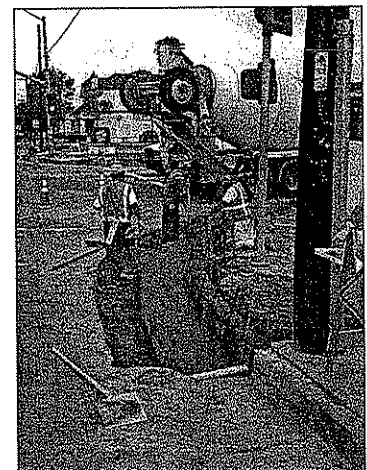
Harris prepared plans, specifications and estimates for two separate street rehabilitation segments along Yorba Linda Blvd, namely from the South City Limits to Yorba Ranch Road (L = 6,200’) and from Paseo De Las Palomas to Village Center Drive (L = 2,600’). The \$1.1 million project included the design of 42 custom ADA curb ramps, special roadway re-profiling to eliminate poorly draining “median side” travel lanes, custom pavement rehabilitation strategies and the preparation of striping and signing plans. The work also included obtaining a full topographic survey and a geotechnical investigation.

Reference: Mark Stowell, Director of Public Works/City Engineer, (714) 961-7172

City of Tustin, Annual Major Pavement Maintenance Projects, FY 2003-11

Harris is preparing a Preliminary Design Report (PDR) for the City’s FY 10-11 Annual Major Pavement Maintenance Project, which includes rehabilitation of the AC pavement and related PCC improvement within Zone 6. The main objective of the report is to perform field reconnaissance and subsurface investigations of street within the project and recommend a variety of treatment options for up to three project scenarios sized to match the City’s available budget.

This year’s Major Pavement Maintenance Project will be constructed primarily within Zone 6 which is bordered by Barranca Parkway to the south; Tustin Ranch Road and a northerly extension of Von Karman Ave to the west; Myford Road, Harvard Ave and Jamboree Road to the east, and SR5 - Santa Ana Freeway to the north. Recommended maintenance treatments may include crack sealing, removal and replacement of localized failed pavement areas with full depth asphalt concrete, slurry seals, asphalt concrete and asphalt rubber hot mix overlays and cold in-place pavement recycling. The project also includes reconstruction of damaged or missing curb & gutter and replacement of non-conforming PCC access ramps

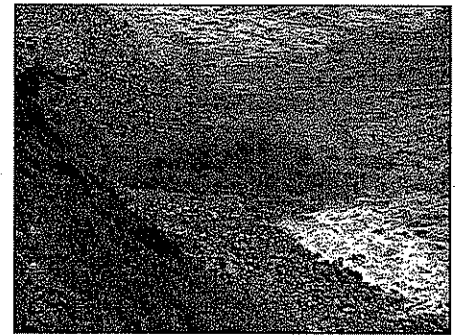


adjacent to new asphalt improvements. The City has a total project budget of approximately \$1,000,000 for this years Major Pavement Maintenance Project.

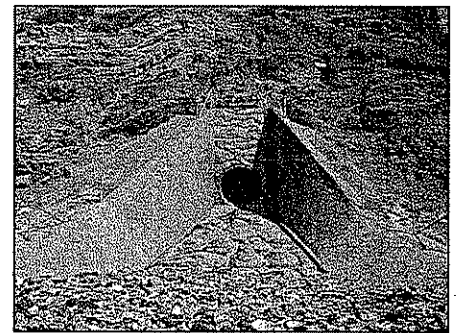
Reference: Dana Kasdan, PE, Engineering Services Manager, (714) 573-3150

City of Rancho Palos Verdes, McCarrell Drainage System Design

Harris provided professional design services for the preparation of PS&E construction documents for the APWA 2009, "Project of the Year" award winning McCarrell Canyon Storm Drain and Palos Verdes Drive South Widening project, which was estimated at \$6.3 million in construction costs, with actual bids coming in at \$5.9 million. The 66-inch diameter pipe was designed to convey a 100-year storm and collects runoff from the steep natural McCarrell Canyon, which total to 340 acres. The primary goal was to better protect Palos Verdes Drive, the affected residences downstream and the existing 150' vertical coastal bluff. Presently, there exists a repetitious cycle of dangerous high velocity flooding and regular maintenance to remove sediment deposits at the upstream debris catcher where McCarrell Canyon meets Palos Verdes Drive.



Services included preparing a detailed hydrology and hydraulics study report, undertaking geotechnical studies (subconsultant), survey (subconsultant), environmental clearances (subconsultant), coordinating/consulting with all governing authorities and full PS&E design of the proposed storm drain system.



Additional unique design elements included upsizing the pipe to account for additional "bulk and burn" flow volumes, which will allow the proposed storm drain to convey small cobble and sand to replenish the beach below, special velocity reducer rings to dissipate energy from the flows as they are conveyed to the bottom of a 150-foot high coastal bluff and the use of a micro-tunnel operation to install the proposed storm drain pipe to the bottom of the 150-foot high coastal bluff. Catch basin filter inserts are being installed on all new catch basins to ensure water quality to the beach below, and the potential exists for a future installation of a dry weather low flow diversion system to a adjacent sewer pump station operated by the LAC Sanitation District.

Reference: Ron Dragoo, Senior Civil Engineer; (310) 544-5252

City of Anaheim, Thornton Brady Storm Drain Improvements

Harris completed the design of the innovative storm drain improvements for the Thornton Brady Storm Drain project, which will construct a shallow

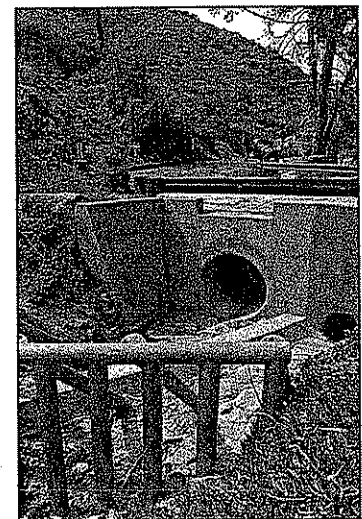
RCB storm drain under a narrow existing drainage "Ditch" alignment. The \$2.5 million construction cost represents a \$1 million savings in the City's original estimate by using Harris' alternative alignment and also reduces the City's liability by remaining in the historical flood path. The project consists of the installation of a 10-year storm drain with an overflow surface system that raises the protection to above a 25-year system which will eliminate the majority of nuisance water flows in the street; cleanup the affected parkways; generally improve the poor existing aesthetics; limit undesirable access to the "Ditch" by local youth; avoid the City having to obtain any additional right-of-way; reduce the potential for clogging, debris and flooding in the area; and minimize public inconvenience during construction. In addition, several community coordination meetings were required as well as permit approvals by the neighboring City of Stanton (encroachment permit and traffic control approvals), County of Orange (downstream connection permission); and OCTA (due to alignment crossing their railroad corridor). Additional services included survey, geotechnical investigation, and detailed traffic control plans where the work occurred within Knott Avenue.



Reference: Khanh Chu, Principal Civil Engineer, (714) 765-5259

City of Laguna Beach, Canyon Acres Area Storm Drain

Harris completed a hydrology study, hydraulic analysis and PS&E documents for a \$2 million storm drain project through a prestigious neighborhood along Canyon Acres Drive in the City of Laguna Beach. A 54" RCP mainline storm drain was required to convey the 10-year storm flows and the project represents the culmination of almost 40 years of drainage studies by the city/county for the area. The project included several innovative design elements, including the use of an electronic utility detection survey, which was performed in advance of the design, to horizontally and vertically locate all of the existing utilities (to within 6" +/-) so the first storm drain design could also be the last. The upstream diversion junction pioneered several unique functions in that it intercepted a natural canyon creek, bypassed low-flows and replenished sediment to the natural creek that runs through the neighborhood, while conveying the 10-year storm flows into the new storm drain system. The project also incorporated input from the active local residents through several community outreach meetings as well as the review and approval of the City of Laguna Beach's Design Review Board and City Council. The project also included obtaining both aerial and ground survey information, environmental clearances through the anticipated mitigated negative declaration process and coordination with the County of Orange for the downstream connection to the Laguna Canyon Road Storm Drain Channel.



Reference: Steve May, PE, Public Works Director/City Engineer, (949) 497-0351

City of Pomona, Sewer Conveyance System-Ganesha Hills Phase II

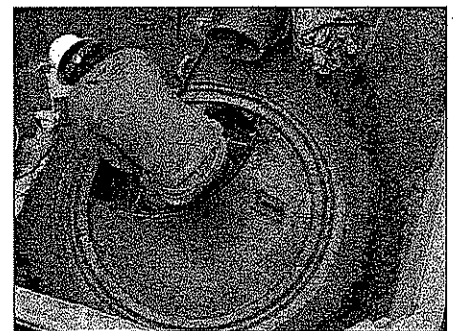
Harris completed the Ganesha Hills (Phase II) Sewer Study, which was driven by the age of the system that is over 50-years old and the hilly terrain of the area which has resulted in pulled joints and other system failures. The area included over 50 residential streets and the existing sewer system consisted of over 45,000 LF of mainlines, with diameters ranging from 6-inches to 12-inches, and approximately 800 service laterals, 150 manholes and 50 mainline cleanouts. Consideration was given to both open trench replacement and “trenchless” rehabilitation methods to remedy the identified deficiencies. The sewer repairs included point repairs, re-lining with a cured-in-place-pipe (CIPP) liner, complete reconstruction from manhole to manhole of reaches that were beyond the point of salvaging any other way, manhole reconstruction and lining repairs and a host of other “trenchless” repair methods, depending on the encountered conditions, such as pipe bursting, pipe reaming, deformed/reformed pipe, chemical grouting or a combination thereof. The cost of repairs also took into account the replacement of all affected surface improvements. The resulting report clearly quantified the repairs, estimate costs and established a 3 phase priority recommendation that accounted for severity of repair, type of repair and geographic location.



Reference: Matt Pilarz, PE, Senior Civil Engineer, (909) 620-3652

City of Anaheim, Group 3 Sanitary Sewer Improvements - Project 2 (Model 7, Phase I & II)

Harris obtained CCTV inspection and full topographic survey and prepared PS&E construction documents through considerable refinement of the sewer master plan recommendations to address deficiencies and add needed capacity to the system for both the existing and future build-out condition. Solutions included removal and replacements, parallel sewers and upstream diversions. One major highlight worth noting is Harris’ innovative designs for the Phase I sewer improvements on La Palma Avenue resulted in approximately \$1 million savings in construction costs compared with the original master plan recommendation. Specifically, an existing 24” VCP trunk sewer, which needed to be upsized to a 30” VCP, was found to be in good condition in the CCTV video and through the innovative combination of two upstream diversions and the construction of 1,000’ of parallel 12” VCP sewer, the necessary capacity was added. This approach avoided removal of as much as 2,800’ of 24” VCP, the costly construction of 2,800’ of 30” VCP, and the related expensive temporary trunk sewer bypass and traffic control.



Reference: Khanh Chu, Principal Civil Engineer, (714) 765-5259

City of Fullerton, Riverside Avenue / Raymond Avenue Sewer Rehabilitation

Harris completed the street rehabilitation effort of PS&E construction documents to upgrade the existing 6" VCP sewer mains to 8" PVC lines. Also included in the rehabilitation was upgrade of the existing 8" VCP sewer mains to 10" VCP sewer mains. The street (and alley) rehabilitation design included a "component analysis" pavement evaluation by a subconsultant, which produced an AC pavement "dig-out" replacement section. The following six project streets and alleys were:

- ▶ Riverside Drive - From Raymond Avenue to Ferndale Avenue
- ▶ Raymond Avenue - From Chapman Avenue to 150' North of Riverside Drive
- ▶ East Grove Place (Alley) - From East Grove Place to North Hall Avenue
- ▶ East Central Avenue (Alley) - From Raymond Avenue to Fullerton Creek
- ▶ Chapman Avenue (Alley) - From Raymond Avenue to Fullerton Creek
- ▶ North Hall Avenue - From East Grove Place Alley to Fullerton Creek

Reference: Allison Tran, PE, Associate Engineer, (714) 738-6870

City of Stanton, FY 09/10 Sewer Rehabilitation Project

The FY 09/10 Sewer Rehabilitation Project consisted of the development of a detailed confirmation of the proposed sewer rehabilitation strategy and the preparation of P, S, & E construction documents for eighteen (18) separate project locations. Harris utilized the City of Stanton's template documents as a guide. The breakdown of the anticipated types of sewer rehabilitation repairs were as follows at minimum:

- ▶ 17 locations of sewer point repairs = (eight (8) sheets with 2 plan and profiles per sheet)
- ▶ 1 location of sewer line removal & reconstruction = (one (1) plan & profile sheet)
- ▶ 18 separate project locations = 9 plan and profile Sheets

Reference: Nick Guilliams, City Engineer, (714) 379-9222

Understanding and Approach/ Scope of Work

Harris will remain on-call to prepare a project specific proposal to perform any of the engineering design services listed in the City's RFP. We take pride in preparing detailed project scopes, which are customized to meet the City's specific needs, complete with a detailed list of deliverables and project schedule.

The following briefly presents Harris' typical approach to defining the scope of services for design projects. For simplicity sake, each task will only be briefly touched upon. Future specific projects will be more clearly detailed and customized.

Our scope of design services typically consists of a four-phased approach as follows:

- ▶ Phase I - Orientation/Data Collection/Base Sheets
- ▶ Phase II - Design Development (Preliminary Engineering)
- ▶ Phase III - Construction Documents
- ▶ Phase IV - Bidding and Construction Assistance

Phase I - Orientation/Data Collection/Base Sheets

Task A. Data Collection and Review

Meet with the City staff and hold "kickoff" meeting. Define approach, goals, criteria, procedures, and schedules and collect all city record information. Direction from City staff will be obtained and the project schedule reviewed.

Task B. Outside Agency Contacts/Permits

Contact the utility companies, bus service and all permitting and funding agencies (such as Caltrans, for encroachment permits and/or funding coordination). All required environmental clearances will also be defined at this time.

Task C. Topographic Base Sheets

Utilizing either City provided record maps, ground surveys (Harris will utilize the service of our topographic and utility detection surveying subconsultant, KDM Meridian) or aerial topographic maps, construction plan base sheets would be prepared in AutoCAD 2002 using the City's

standard format on 24" x 36" size sheets. Base sheets will also include all existing R/W information, surface topography, field survey elevations and underground utility information, as required. Cross sections will also be prepared on applicable projects.

Task D. Electronic Utility Detection

When warranted, such as underground storm drain construction, Harris will utilize the services of an Electronic Utility Detection surveyor. The result is a "3D" AutoCAD drawing of the field determined horizontal and vertical underground utility locations. The findings are accurate to 10% (+ 4 to 6 inches) at a cost much cheaper than potholing.

Phase II - Design Development (Preliminary Engineering)

Task A. Pavement Report/Soils Investigation

Obtain specific recommended pavement/soils information, as confirmed by the City. Perform a comprehensive review of the data and recommendations contained in the report(s). Develop design concepts and alternative strategies as warranted (this is a Harris specialty).

Task B. Field Review

Perform a comprehensive field review to confirm the completeness/accuracy of the plans, existing project conditions, conditions that will affect design, etc.

Task C. Develop Project Elements

Develop conceptual designs, alternative layouts, required drainage studies, typical street sections, and trench sections, related cost estimates, details and back up calculations. Economy and constructability will be key to the process.

Task D. Concept Meeting

Meet with City staff to present alternatives, provide recommendations and analyses of the advantages of each alternative, and reach concurrence with City staff on the final design elements.

Phase III - Construction Documents

Based on the results of Phase II, the final construction documents will be prepared. The completed plans and specifications will conform to the required City, County and State requirements and latest funding guideline

requirements, including but not limited to all safety concerns, DVBE goals, Federal/State wage rates and all other criteria necessary. All deliverables will be computer-generated.

Task A. Construction Plans

Prepare a separate project Title Sheet. Prepare construction plan sheets, plan and profile sheets and detail sheets as needed, using the previously prepared base sheets, showing construction to conform to the approved concept designs. All construction elements will be clearly defined.

Task B. Construction Specifications

Prepare a complete set of project specification in the City's preferred format, using the City provided "Boiler Plate", the "Greenbook" and Caltrans Standard Specifications. The Special Provisions and bid sheet will be prepared in a format consistent with current City projects.

Task C. Cost Estimate

Prepare itemized construction quantities and cost estimate (Excel spread sheet) with all required funding and location breakdowns.

Task D. Bi-Weekly Project Status Report

Submit written Bi-Weekly Project Status Reports to the City's Project Engineer. The reports are an additional tool, which help deliver a consistent and efficient communication of the latest project status.

Task E. Construction Document Processing

Upon completion of the plans, specifications and cost estimate, submit sets of each to the City for review and comment at the 60%, 90%, and 100% complete stages. Upon final acceptance and approval, provide the City with utility coordination logs, original 24" x 36" plans (ink on double-matte mylar), camera ready original specifications, and computer disk of specifications, estimate and plans in formats compatible with the City's system.

Task F. Utility Permit/Coordination/ Environmental Clearances

Prepare and issue appropriate utility notifications and perform related follow-up coordination. Process and obtain all Caltrans Encroachment Permits, Railroad permits and other required permits and approvals from all applicable agencies and funding sources. Prepare all NPDES permit documents and water quality management plans as required. Obtain all environmental clearances.

Phase IV - Bidding and Construction Assistance

Task A: Bidding Assistance

Remain available to assist the City in answering bidders' questions, attend pre-bid conference and job walks, prepare addenda, analyze bids, and recommend award.

Task B: Construction Staking

Provide all construction staking services (and/or engineer field marking of removals, etc.) as required. Harris will utilize the service of our topographic survey subconsultant, KDM Meridian.

Task C: Construction Assistance

Attend preconstruction conference. Monitor construction schedule and visit construction site as required for review of progress and quality of work. Remain available to assist the engineer, contractor, and inspector with interpretation of the plans and specifications, analysis of changed conditions, development of corrective action, review of shop drawings and other submittals, and the review and negotiation of change orders. Prepare "as-built" drawings.

Quality Assurance

Design Quality Control Plan (DQCP)

The most important quality control item the Harris team utilizes is to verify at project inception that both the City of Garden Grove and project team fully understand the scope of services, schedule, budget and expected work product. The following management control strategies will be used to verify all elements of the design submittals are checked for quality technical accuracy and include coordination of disciplines while maintaining the project on schedule and within budget.

Regular Team Meetings

Throughout the design process, in-house engineering will be coordinated with the project team. Project memorandums and telephone conversations are all written and distributed to all project personnel. Team meetings are held bi-weekly for in-house coordination.

Peer Reviews

The Project Manager will perform a technical review to verify the design conforms to the functional needs of the City of Garden Grove. Support information documents, in-house drawings used for checking, and all other data will be filed in the design office for future reference and to answer questions by the City or community.

Sharing of Lessons Learned

We have found that each of our projects provides lessons learned, both from elements that went wrong and things that went right. We have developed a mechanism to share such information with our fellow designers so each can benefit from one another's experience.

Quality Improvement Program

Quality Control Manager

A Quality Control Manager is assigned to each design project. This individual is a person other than the project manager who is removed from the day-to-day project operations, but is responsible to review all submittals of construction documents prior to each submittal. These reviews conform to our formal QA/QC program utilizing forms; check lists, procedures and minimum standards for all the work. In addition, this process requires that the submittal is complete and all concerns and issues raised by the City during the design development phase and progress meetings are addressed.

Biddability and Constructability Review (B&C)

Biddability is a measure of a bidder's ability to understand the contract documents and prepare a competitive, responsive bid proposal. Wherever ambiguous contract provisions place a hint of doubt in the bidder's mind, a contingency amount is added to the bid to cover for the ambiguous information. These contingencies can add significantly to the amount of the bid price, resulting in a bid price that is higher than expected. As an element of our DQCP, we draw from our vast resource of construction managers and inspectors to search for these problem areas and take corrective action to eliminate them. Our biddability review will also examine the "front-end" conditions or general provisions of the specifications for modifications and updating to reflect the specifics of the project.

Constructability is a measure of the successful bidder's ability to build the project according to the designer's intent. Constructability covers a broad range of concepts, such as project duration, sequencing, working around existing facilities, adequacy of staging areas, drawing details, drawing conflicts, and errors and omissions in the contract documents. Problems in any of these or numerous other areas can lead to delays, change orders, and claims. Our review will be made with these concepts in mind to make modifications we believe are appropriate to eliminate problems with the contract documents.

Effective Communication Process

Throughout the course of the project, the Project Manager will prepare meeting agendas and meeting minutes in addition to bi-weekly status reports. These reports will describe project progress to date, anticipated challenges, and requested feedback on project elements and status of schedule.

Cost and Schedule Control

The Harris team has an excellent record of managing multiple, concurrent projects and meeting client schedules and controlling project costs. Our process in managing the efficient completion of two or more concurrent tasks/projects, is as follows:

Development of a Project Approach Structure (PAS) and Schedule

It is critical to establish a practical and manageable schedule in order to delineate the different manageable work tasks including:

- ▶ Projects' milestones
- ▶ Associated budgets for accomplishing each work item
- ▶ Duration and sequence of performing the work

Master Schedule

Compiling the PAS and schedule for each individual project along with available staffing and resources is a key element to verify the efficient completion of multiple tasks/projects. This step really identifies the number of man-hours identified for each task/project or sub task versus the available staffing and resources for the duration of the projects. This also provides a clear picture to evaluate if set goals and schedules for each project are reasonable, and identifies the need to commit additional resources early on in the process.

Monitoring of Tasks/Project's Progress

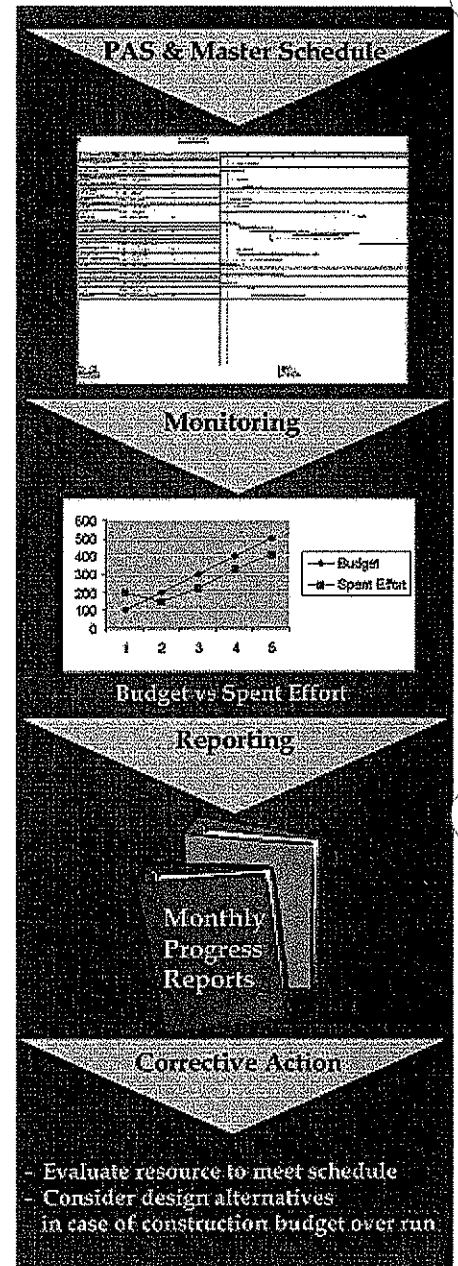
Maintaining this master schedule is important in determining if tasks/projects are on schedule and within budget. This process includes identification of actual time and costs accrued on each task/project and accurately reporting the progress of each. This information is updated on bi-weekly basis and is reflected in the overall master schedule.

Reporting of Variances and Taking Corrective Actions

During the course of a project, variances from the project schedule are encountered. These variances could be the result of coordination issues with utility agencies, obtaining of permits or approvals from regulatory agencies or resolving unforeseen issues during the design process. As this information is maintained and updated in the master schedule, appropriate corrective action plans are easily put in place to address these variances and put the tasks/projects back on schedule.

Proven Track Record

The Harris team has successfully utilized the above processes in providing as-needed design consulting services to several agencies. The two most recent experiences were providing the City of Cypress and the City of Huntington Beach with on-call design services for numerous capital improvement projects. These assignments included a combined 12 projects completed concurrently for these agencies over the last two years alone. The Harris team dealt with several design and permitting issues including coordinating with many different utilities, utilizing innovative utility detection surveys to horizontally and vertically locate underground utilities in advance of the design, obtaining Orange County Flood Control connection permits and approvals, and maintaining tight construction budgets and schedules. The Harris team was able to successfully address all of these different issues while committing the needed staffing and resources to deliver efficient completion of these concurrent projects.





Current Fee Schedule

RANGE OF HOURLY RATES: ALL EMPLOYEES

Effective January 1 - December 31, 2011

ENGINEERING DESIGN AND MUNICIPAL SERVICES GROUPS

HOURLY RATE

Project Directors	\$210
Project Managers	160-190
Project Engineers	120-160
Technical Support	75-120
Administration	65-75

*Notes: Rates are subject to adjustment due to promotions during the effective period of this schedule. A new rate schedule will become effective January 1, 2012 and on the 1st of January every year thereafter. Unless otherwise indicated in the cost proposal, hourly rates include most direct costs such as travel, equipment, computers, communications and reproduction (except large quantities such as construction documents for bidding purposes). All subconsultant charges are subject to a 10% markup.

