

*Proposal for*



# **PACIFIC GROVE DOWNTOWN PARKING STUDY**

prepared for the

**CITY OF PACIFIC GROVE**



prepared by

**WILBUR SMITH ASSOCIATES**

in association with

**INTERNATIONAL PARKING DESIGN**

December 5, 1996

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December 5, 1996

Mr. Michael Huse  
City Manager  
City of Pacific Grove  
300 Forest Avenue  
Pacific Grove, CA 93950

Re: Downtown Parking Study

Dear Mr. Huse:

Wilbur Smith Associates (WSA) is very pleased to present this proposal to perform a downtown parking study. This is an exciting opportunity to apply our extensive parking experience in small and medium-size cities in a charming, challenging setting. With several ongoing Monterey County projects, we should be able to complete this project successfully and in a very cost-effective manner.

This proposal responds fully to your Request for Proposals of November 6. It describes our qualifications and proposed approach. It draws on discussions we have had with you, our field observations, and review of the 1984 *Parking Study* and the 1996 *Economic Revitalization Strategy*.

Our nominated Project Manager, Frank Markowitz, a Principal Transportation Planner based in San Jose, has completed numerous Monterey County projects recently. He was primarily responsible for detailed parking analysis of Downtown Monterey and Cannery Row for the City's comprehensive transportation study, and recently completed a small parking study for the Monterey Plaza Hotel. He also managed a comprehensive parking study of Downtown Mountain View. As Regional Vice President and the senior WSA parking specialist in California, I will also be actively involved in this project, drawing upon my management of numerous similar projects and service on the Board of Directors of the California Public Parking Association. For conceptual design and costing expertise, we have called upon International Parking Design (IPD), a highly skilled engineering firm that has frequently teamed with us.

We look forward to the opportunity to discuss this project in more detail. Please feel free to call me or Frank Markowitz if you have any questions.

Respectfully submitted,

WILBUR SMITH ASSOCIATES

  
William E. Hurrell, P.E.  
Regional Vice President

WEH/FM/las  
044204/PGP-L/P119



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# 1. INTRODUCTION

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## OVERVIEW

This proposal responds to the City's Request for Proposals of November 16, 1995, which we found very clear and straightforward. Wilbur Smith Associates (WSA) has carefully considered the requirements of the RFP, visited the study area, and discussed the project with City Manager Michael Huse. We also reviewed reference materials described in the RFP, principally the 1984 *Parking Study* and the 1996 *Economic Revitalization Strategy*.

The proposal is organized in accordance with the City's guidelines. The following sections address: our understanding of the project, the approach and objectives, proposed methodology, a description of the team and its qualifications, the proposed schedule, and references. We have tried to be concise and to-the-point.

Frank Markowitz submitted several examples of related project work to Michael Huse during their meeting. We would be happy to submit additional material as requested.

## UNDERSTANDING OF THE PROJECT

This project is envisioned as an update and refinement of the 1984 Parking Study. While many of the findings in that study may still be valid, particularly related to potential parking structure sites, a great deal has changed in the meantime. The opening of the Monterey Bay Aquarium in that year (on October 20), the recent opening of the new outer wing of the Aquarium, and the American Tin Cannery outlet mall have all increased tourism in Cannery Row and Pacific Grove. Downtown Pacific Grove itself seems poised for substantial growth, with the antique mall and bank slated for the Holman Building, the improvements to the Lighthouse movie theater, a thriving restaurant and retail business, this area is on the verge of a renaissance.

Reliance on 12-year-old data would be risky for practical and political reasons. It would be valuable to take a fresh look at the situation. However, the 1984 study will still provide a valuable foundation.

Findings in the 1984 study are summarized in Table 1-1. Perhaps most importantly, it recommended a three-phase program of improvements, with minor surface parking expansions in Phase I and two new parking structures in the latter phases, which have not been built.

There are a number of ways this study can be refined. For example, the forecasts of future parking demand apparently used a single rate of spaces needed per square foot regardless of the particular land use. Typically, on our downtown studies, we use 12 to 20 different land use classifications. Considering the large difference in demand patterns between a furniture store and a restaurant, this can make a difference. "Practical capacity" was defined as 85% occupancy. This is defensible, but conservatively low. It would be valuable to consider the parking needs if 90% occupancy is the

standard, as we believe that visitors and residents today will generally accept this, and the cost differences can be significant.

<b>Table 1-1</b>	
<b>SUMMARY OF 1984 DOWNTOWN PARKING STUDY</b>	
<b>1. TOTAL PARKING SUPPLY</b>	
	1,370 spaces
<b>2. PARKING SUPPLY BY TYPE OF SPACE</b>	
On-Street	58%
Off-Street	42%
<b>3. PEAK PARKING OCCUPANCY</b>	
Overall	70%
On-Street	64 %
Off-Street	78 %
<b>4. AREAS WITH HIGHEST PARKING OCCUPANCY</b>	
Central/South Zones	73% for Zone C (bounded roughly by Lighthouse, Pine and Forest Avenues and 17th Street)
	77% for Zone D (bounded roughly by Lighthouse, Pine and Forest Avenues and 15th Street)
<b>5. LARGEST FUTURE PUBLIC PARKING SUPPLY SHORTAGES</b>	
Zone B (bounded roughly by Lighthouse, Central, 15th, and 17th Streets) would need 280 additional spaces at buildout to maintain 85% occupancy	
Zone A (bounded roughly by 17th, Cypress, Central, and Short Street) would require 280 new spaces to maintain 85% occupancy	
<b>6. RECOMMENDED IMPROVEMENTS</b>	
Phase I	Restripe existing lots and expand curb parking to add 95 spaces.
Phase II	Build Holman's/Medical Clinic structure to add 330 spaces.
Phase III	Build structure between Lighthouse and Central, west of 18th Street to add 270 spaces plus 21,000 square feet of retail space.

The 1984 study did not address satellite parking facilities or the potential of shuttles to absorb parking demand without increasing the downtown supply. Extension of the MST WAVE and shuttle service to the Asilomar conference center are particularly promising.

The 1984 study did not include an evaluation matrix for parking facilities. This is a standard feature of our parking studies. A fresh look may reveal, for example, that the Fountain/Laurel Avenue site,

which seems to have a lot of support, would be rated higher. The municipal lot at this location was about 95% occupied at midday on a recent weekday (Thursday, November 14).

In addition to substantive updating and refinement, the 1984 study used graphics that are substandard by today's standards. For example, with today's computer equipment, WSA routinely generates color-coded maps of parking demand by block. (See exhibits at the end of this chapter.)

<b>Table 1-2</b>	
<b>SUMMARY OF ECONOMIC REVITALIZATION STRATEGIC PLAN</b>	
<b>1. OBJECTIVES</b>	
	<ul style="list-style-type: none"> <li>Business Retention</li> <li>Business Attraction</li> <li>Business Promotion</li> <li>Beautification and Public Improvements</li> <li>Parking and Traffic Improvements</li> </ul>
<b>2. PARKING RECOMMENDATIONS</b>	
	<p>Update existing <b>parking studies</b> to determine how well the current parking supply meets current and future demand.</p> <p>Evaluate possible <b>parking supply increases</b>, including parking structures, lots, satellite parking facilities. Public/private partnerships and financial alternatives need to be considered.</p> <p>ID <b>satellite parking locations</b>, establish shuttle service between satellite lot(s) and downtown.</p> <p>When satellite parking is available, reduce or eliminate <b>business parking permits</b> on City lots within the downtown district.</p> <p>Review parking needs and solutions for other business districts.</p>
<b>3. PEDESTRIANS &amp; TRANSPORTATION - Selected recommendations</b>	
	<p>Improve <b>pedestrian access</b> to the downtown area and other business districts, by providing street furniture, restrooms, appropriate development standards, and convenient parking opportunities.</p> <p>Repair and improve <b>walkways on Forest Avenue</b> between Lovers' Point and Downtown.</p> <p>Explore creative methods of <b>intra-City public transportation</b> to include shuttle service and access to satellite parking areas (e.g., Asilomar shuttle service to the downtown and other business districts).</p> <p>Expand the <b>WAVE</b> to provide shuttle service between the Asilomar Conference Center and the downtown district.</p>

The 1996 Economic Revitalization Strategic Plan includes several recommendations to improve parking. (See Table 1-2.) It underscores the importance of parking to the Pacific Grove economy. It is also important to understand that the parking study is viewed as a tool in economic revitalization. For example, Pacific Grove's parking convenience must be looked at in comparison with potential competitors for tourism.

There are several major issues that need to be addressed in this study. Some of these are summarized graphically in Figure 1-1. This also shows the 1984 study area and the inactive parking assessment district. These issues include:

- Is additional parking needed to sustain a healthy downtown economy desired by the community? If so, how much?
- Where should additional parking be located?
- Should additional parking be provided in multi-level structures, with single decks on top of existing parking lots, or with peripheral surface lots?
- What is the proper mix of long-term and short-term parking needed?
- What is the cost of recommended parking improvements?
- What schedule and major implementation steps must be followed to maintain a desirable supply/demand balance?
- Should meters be installed to promote turnover on-street near the American Tin Cannery?

The assessment of the need for additional parking and the means to meet it must be sensitive to the context. Pacific Grove's downtown is fairly small, pedestrian-friendly, and quiet. Many residents are concerned about how growth may affect the quality of life. From extensive work in Monterey, we are familiar with local resident concerns about tourism.

There are numerous trade-offs that must be considered. For example, parking structures are far more expensive than surface lots (typically \$10-20,000 versus about \$2,000 per space). Shoppers often prefer surface lots and on-street parking. However, it is often only feasible to use parking structures to provide sufficient capacity within easy walking distance.

Parking meters are desired by some ATC merchants to promote turnover. There are a number of advantages and disadvantages of parking meters that are listed in Table 1-3. The evaluation needs to consider each of these.

**DOWNTOWN PACIFIC GROVE PARKING STUDY**



\* NOTE: Figure only shows parking structure sites that would increase supply by over 200 spaces per 1984 study.

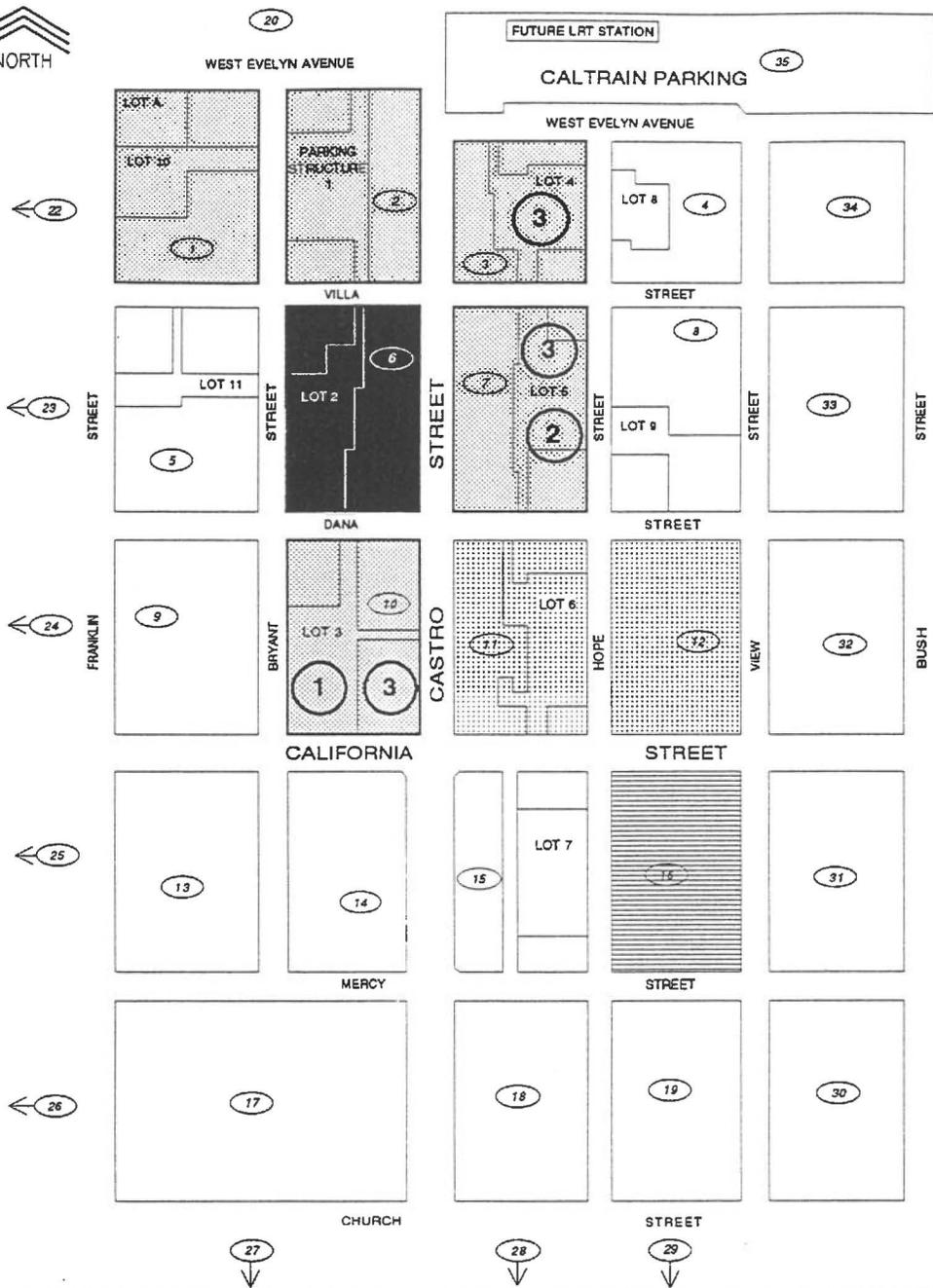
**PACIFIC GROVE BUSINESS DISTRICT STUDY AREA AND PARKING STRUCTURE SITES**

Figure 1-1

Table 1-3

### ADVANTAGES AND DISADVANTAGES OF PARKING METERS

Advantages:	Disadvantages:
<p>Parking meters, when accompanied by adequate length of stalls, appropriate time restrictions, and proper provision for loading zones thoroughly supervised and actively enforced, produces the following benefits:</p> <ol style="list-style-type: none"> <li>1. Provide an accurate time check on parking, simplifying the detection of overtime parking and discouraging all-day parking.</li> <li>2. Reduce overtime parking, increase turnover, and make parking available for more motorists.</li> <li>3. Aid merchants in metered areas by increasing space turnover.</li> <li>4. Reduce personnel required for parking enforcement.</li> <li>5. Reduce double parking.</li> <li>6. Aid traffic flow by reducing congestion.</li> <li>7. Aid in the financing of traffic control and off-street parking facilities .</li> </ol>	<ol style="list-style-type: none"> <li>1. If used where not warranted, they arouse resentment.</li> <li>2. Unless properly enforced, motorists learn that they can park overtime without receiving a summons.</li> <li>3. Unless frequently checked, some motorists will park overtime for long periods by feeding coins into the meter.</li> <li>4. After meters have been installed, the desire to continue the revenue may discourage the elimination of curb parking when traffic demands indicate a need for it.</li> <li>5. On streets where parking is prohibited during rush hours, the presence of meters may make enforcement more difficult.</li> </ol>
<p>Source: Louis J. Pignataro, <i>Traffic Engineering Theory and Practice</i> (Englewood Cliffs, NJ: Prentice Hall, 1972)</p>	



(17) Block Numbers  
 LOT A Municipal Parking District Lot  
SURPLUS/DEFICIT - Future Weekday Lunchtime - No New Structure

**Deficit**  
 0-50 Spaces  
 >50 (202)  
**Surplus**  
 0-50 Spaces  
 51 - 100 Spaces  
 >100 Spaces

(1) Possible site for New Structure (keyed to options below)

- Option**     **Single New Structure**
- (1) Structure on Lot 3 would capture estimated spillover demand of about 250. Supports structure in range of 360-420 spaces (including existing Lot 3 spaces).
  - (2) Structure on Lot 5 would capture estimated spillover demand of about 300. Supports structure in range of 420-490 spaces (including existing Lot 5 spaces.)
- Two New Structures**
- (3) In the short-term, construction structure on Lot 3 (about 300 spaces). In long-term, if demand grows sufficiently, construct 250 space structure on Lot 5 (or Lot 4).

Note: Analysis assumes that Lots 7, 10/10A, and 11 are built over eventually and demand shifts to remaining Parking District facilities. Assumes future lunchtime demand upon buildout of Downtown Precise Plan, including required privately built parking.



SUPPLY/DEMAND BALANCE WITH  
 0 - 2 NEW STRUCTURES  
 Mountain View Downtown Parking Study

Figure 8-1

**Table 9-2  
COMPARISON OF FINALIST SITES FOR NEW PARKING STRUCTURES  
Mountain View Downtown Parking Study**

	SITES					
	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Lot 8
<b>CRITERIA</b>						
1. Number of spaces provided (based on concept design)	307 total (cannot maintain existing alley completely.) 201 net new spaces	360 total 253 net new spaces (440 total, 360 net additional, if site extended into alley and/or sidewalk with 90-degree parking)	239 total (Can be increased if complete property access to alley is not required.) 131 net new spaces	Option 1 - 344 (90-degree parking) Option 2 - 291 231/178 net new spaces	307 total (can be increased if access to alley and loading space not maintained completely.) 195 net new spaces	216 total (90-degree parking) 171 net new spaces
2. Construction cost per stall (financing, design, administration, etc. could add 15-30%)	\$10,400 \$15,900/additional stall	\$9,500 \$13,500/additional stall (\$7,600 for 90-degree parking)	\$8,600 \$15,800/additional stall	\$7,900 - \$9,900 \$11,800 - \$16,200/additional stall	\$10,400 \$16,450/additional stall	\$10,300 \$13,000/additional stall
3. Proximity to parking generators (user convenience)	Good. Near geographic center of existing/forecast deficits. However, would concentrate parking west of Castro.	Good. Near geographic center of existing/forecast deficits. However, would concentrate parking west of Castro.	Fair. In existing/projected deficiency area. However, would concentrate parking north of Villa.	Good. Near geographic center of existing/forecast deficits. However, would concentrate parking north of Dana.	Poor. Outside existing and projected deficiency area.	Fair. While in block with high daytime occupancy levels, distant from geographic center of existing/forecast deficits.
4. Traffic access	Poor. Concentrates traffic near Evelyn/Castro. Could overload Villa.	Excellent. California Street access could significantly improve traffic conditions. Easy access from Castro also.	Fair. Concentrates traffic near Evelyn and planned light rail station. Difficult access from Castro southbound.	Fair. Accessible by variety of routes. However, potential conflict with PO traffic. Somewhat difficult access from Castro southbound.	Good. California Street access is positive but, higher potential for residential impacts.	Fair. Concentrates traffic near Evelyn. Potential for residential impacts. Difficult access from Castro Street southbound.
5. Development potential for non-parking purposes (for existing parcel configuration or aggregation)	High-value site for other purposes. More intensive growth expected.	High-value site that could be used for other purposes. Good location for mixed-use with residential. More intensive growth forecast.	High-value site for other purposes. High potential for growth related to light rail.	High-value site for other purposes. Moderate growth forecast.	Moderate value for other purposes.	High potential for private redevelopment (few owners on block). New uses could be complementary to light rail. Intensive growth forecast.

EXHIBIT

**Table 9-2 (continued)**  
**COMPARISON OF FINALIST SITES FOR NEW PARKING STRUCTURES**  
**Mountain View Downtown Parking Study**

	SITES					
	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Lot 8
6. Potential for Joint Development	Good. Potential for sharing with commercial and/or high-density residential.	Excellent. Potential for sharing with commercial and/or high-density residential.	Excellent. Potential for sharing with commercial, less potential for high-density residential. Best potential location for joint transit/downtown structure.	Good. Potential for sharing with commercial and/or high-density residential.	Fair. Probably more oriented to standalone private development. Nearby residences may be sensitive to particular uses.	Fair. Probably more oriented to stand alone private redevelopment. Some potential for joint transit/downtown structure.
7. Dimensions and topography	Good. Larger site, shaped fairly well for structure.	Good. Larger site, shaped fairly well for structure.	Good. Small-to-medium-size site, shaped fairly well for structure.	Excellent. Medium-size site, shaped very well for structure.	Good. Larger site, shaped fairly well for structure.	Fair. Small site.
8. Compatibility with planned light rail service. <sup>1</sup>  (See note below)	Fair. Close to planned LRT station (and Caltrain) but not close enough for joint transit/downtown use.	Excellent. Provides parking away from planned LRT station (and Caltrain) where it could serve uses that do not benefit from rail service as much.	Good. Close enough to planned LRT station (and Caltrain) for potential joint use, although it may conflict with LRT access.	Fair. Close to planned LRT station (and Caltrain) but not close enough for joint transit/downtown use.	Excellent. Provides parking away from planned LRT station (and Caltrain).	Good. Close enough to planned LRT station and Caltrain to have potential for joint use.
9. Compatibility with Downtown Precise Plan/Evelyn Corridor Plan	Good. Would serve higher intensity area.	Good. Would serve higher intensity area.	Fair. Would serve higher intensity area but could be cut off from other downtown uses by realigned Evelyn.	Good. Would serve higher intensity area.	Fair. Near residential neighborhood to be protected under Precise Plan.	Fair. Would serve higher intensity area but could be cut off from other downtown uses by realigned Evelyn.
10. Environmental (business and neighborhood) impact (noise, light, air, etc.)	Fair. Near residences, some outdoor-oriented uses sensitive to noise, etc. Out of scale with some existing uses.	Fair. Near residences, some outdoor oriented uses sensitive to noise, etc. Out of scale with some existing uses.	Good. No adjacent, highly sensitive uses.	Fair. No immediate adjacent, highly sensitive uses. However, traffic impacts could interfere with adjacent uses.	Poor. Closest to sensitive residences. Tree preservation a possible issue.	Good. No adjacent, highly sensitive uses.

<sup>1</sup>To complement rail service and to minimize traffic congestion new parking ideally should be concentrated toward the south end of Castro to serve uses that do not benefit as much from rail service or, if site is close enough to station, it may have value as a joint transit/downtown facility.

**Table 9-2 (continued)**  
**COMPARISON OF FINALIST SITES FOR NEW PARKING STRUCTURES**  
**Mountain View Downtown Parking Study**

	SITES					
	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Lot 8
11. Pedestrian access, safety and security	Good. Highly visible, active site.	Good. Highly visible, active site.	Fair-to-good. Moderate to highly visible, active site. Near planned LRT station.	Excellent. Highly visible, active site. Near P.O.	Fair. Moderately visible, active site, more distant from Castro.	Fair. Moderately visible, active site.
12. Area disruption/ temporary loss of space	Fair. Area sensitive to loss of spaces, construction.	Fair. Area sensitive to loss of spaces, construction.	Fair. Area sensitive to loss of space.	Fair. Nearby surpluses can cover temporary loss of spaces. However, serves short-term users who may be reluctant to walk a block.	Good. Nearby surpluses can cover temporary loss of spaces.	Good. Nearby surpluses can cover temporary loss of spaces.

**EXHIBIT**



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## 2. APPROACH AND OBJECTIVES

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### OBJECTIVES

The objectives of this study are guided by the RFP, the 1984 *Parking Study*, and the *Economic Revitalization Strategic Plan*.

- Objective 1** To determine how much additional parking (both short-term and long-term) is needed to sustain a healthy downtown economy desired by the community.
- Objective 2** To determine where additional parking should be located and how it should be provided: in parking structures, surface lots, or in satellite parking facilities connected by shuttle service.
- Objective 3** To estimate costs and develop a basic financing plan for constructing additional parking.
- Objective 4** To develop an implementation plan for meeting current and future parking needs.
- Objective 5** To determine whether parking meters should be installed on-street near the American Tin Cannery, and if so, where and with what rates?
- Objective 6** To address community concerns about parking issues, showing businesses and residents that the City of Pacific Grove is responsive to their concerns.

### TECHNICAL APPROACH

The technical approach to a parking study is fairly straightforward and has been used in numerous successful studies by WSA. It has four main components:

1. Identify the parking needs and describe the issues.
2. Define and evaluate alternatives to address the parking needs and problems.
3. Identify the preferred solution and propose a financing and implementation program that fits it.
4. Working closely with City staff, policy makers and concerned citizens, refine the recommended approach to increase the probability that it will be successfully implemented.

The details of how this will be carried out are provided in the work plan in the next section. The schedule proposed is aggressive, but reasonable. Therefore, it will be important to stay on track and not get diverted by side issues that can crop up in a study like this.

The hallmarks of this approach are careful attention to details, close cooperation with the client, sound analysis, and clear communication of findings. Technical expertise is not sufficient. At WSA, we pride ourselves on the ability to work well with diverse groups.

## **QUALITY ASSURANCE**

Wilbur Smith Associates has a strong quality assurance program. The major components of this program are:

1. Review of the work plan and key work products by senior staff besides the primary author.
2. Weekly WSA staff meetings to monitor progress and discuss issues.
3. Monthly budget/progress reports to City staff.

Because of our extensive experience, we are able to anticipate potential problems. For example, a parking study in a location with heavy seasonal peak demands either needs parking occupancy data from that peak season or adjustment factors that will be generally accepted by the business community and other interested parties. It is too late at the Draft Final Report stage to respond fully to criticisms of the approach. By that point, the consultant's credibility may be damaged.



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## 3. WORK PLAN

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### INTRODUCTION

This work plan includes a detailed task description, a schedule, and budget. We will be happy to revise this approach to respond more closely to the needs of the City of Pacific Grove.

### TASKS

#### **Task 1A - Obtain Available Data**

We have already obtained much of the background data needed for this project from City staff, such as the 1984 *Parking Study* and the 1996 *Economic Revitalization Strategic Plan*. We will obtain additional needed data from the Public Works Department, Planning Department and others. Information will include documentation for the current parking programs and data on parking supply, demand, zoning requirements, enforcement, and finance. We will also make field observations.

#### **Task 1B - Develop Detailed Data Collection Plan and Present at Kick-off Meeting**

Based on our initial observations and review of available data, we will refine our proposed technical approach. At a kick-off meeting with staff and possibly the Economic Revitalization Committee, we will review this approach and a data collection plan. We will provide background on similar previous studies, experience that may be useful in focusing this study.

#### **Task 1C - Collect Additional Data**

We will collect data on parking supply/demand and operations. We will update the parking supply inventory in the 1984 Parking Study. We will conduct a comprehensive occupancy count in the study area on a block-by-block basis. This will be conducted downtown over a three-hour peak period, with occupancy levels checked hourly. We will make additional "windshield" counts (estimating peak occupancy levels) throughout the entire study area to ensure that the occupancy counts are representative of peak parking conditions on both weekdays and weekends. A sample of parking facilities will be checked for vehicle duration and turnover by checking each vehicle's partial license plate number.

A detailed occupancy/turnover survey will be performed for the area within one block of the American Tin Cannery, both during a weekend and a weekday, both on-street and (assuming permission) in the ATC parking lot. This will indicate the degree to which the parking regulations (limiting on-street parking to 90 minutes) are being abused. As an optional extra task, we can also conduct a survey of parking enforcement (number and percentage of violations, both cited and uncited).

We will obtain land use projections and information on key development projects. Limited interviews with three to four City staff members and downtown community representatives will cover issues such as parking needs and parking enforcement.

Since parking surveys likely will be carried out in January, a relatively low-visitation month on the Monterey Peninsula, seasonal adjustments of parking demand estimates will be important. These can be based on monthly sales tax figures, bed/breakfast inn occupancy rates, or Transient Occupancy Tax income. We will carefully review available data.

As an optional extra task, we can conduct an interview survey of downtown employees and patrons. This would include questions on parking location, destination, distance walked, and attitudes regarding parking convenience, permits, and needs. A minimum sample of 200 interviews would be conducted, allowing for precision of  $\pm 6.9\%$  with 95% confidence on a typical "yes/no" question.

Such as survey has proven useful in identifying specific concerns of visitors, merchants, and employees. The survey helps develop typical user profiles for different areas or facilities. Also, the survey itself demonstrates to the downtown community the City's concern about parking conditions.

## **Task 2 - Evaluate Parking Standards & Plans**

We will examine the current zoning code to identify potential changes to match future supply and demand more closely. For example, mixed-use projects typically require less parking than the sum of the standalone uses, as our extensive experience in shared parking demonstrates.

Also, the parking standards, permit programs, in-lieu fee provisions, and the like will be reviewed and compared with other cities' downtowns. WSA will draw upon an extensive library that includes results from two major questionnaire surveys conducted by staff: (1) an ITE survey of parking supply standards and provisions related to shared parking for over 140 U.S. municipalities; and (2) a survey of California municipalities on parking operations for the California Public Parking Association.

## **Task 3 - Forecast Parking Needs**

A spreadsheet supply/demand model will be developed to assess existing and future (year 2010) parking conditions. This model, using popular software such as Excel or Quattro Pro (the City can express a preference), can provide a useful tool throughout the study and after its completion. It allows one to answer "what if" questions relating to changes in land uses, parking supply, and the parking demand rate.

National parking demand rates (spaces used per square foot or dwelling unit) for both short-term and long-term parking are refined based on local observations. The model takes into account the different daily demand peaking patterns for particular land uses, as well as the proclivity for using transit, bicycling, and other alternative modes, or even telecommuting. The spreadsheet format allows the user to quickly produce bar charts of parking supply/demand scenarios.

Forecasts will be based on a peak day and season. It is likely that seasonal adjustments will be needed. These will be based on Transient Occupancy Tax revenues or a similar monthly data source, and reviewed by City staff.

This effort will also realistically address the potential for improved transit and shuttle service, and bicycle/pedestrian access, to accommodate some of the growth in parking demand. This can draw upon our extensive experience in general transportation planning.

It is assumed that the City will supply one set of future development assumptions. These would be based on the General Plan, approved, and proposed projects. The additional parking supply will be based on zoning requirements. Typically, we provide two or three parking supply scenarios.

#### **Task 4 - Evaluate Alternative Sites**

The 1984 *Parking Study* evaluated 10 sites for parking lots or parking structures. Based on our field observations and discussions with City staff, it is assumed that this is a good starting point. It may be necessary to add one or two additional sites, and it will be valuable to consider satellite parking sites. For up to two additional sites, we will estimate the parking capacity and facility cost at a broad planning level, based on similar facilities and rough parking layouts.

For evaluating preferred facility locations, an evaluation matrix will be used that explains the logic behind the rankings. Criteria could include:

1. Capacity of site
2. Access - vehicular and pedestrian
3. Dimensions and topography
4. Convenience to major attractions
5. Likely patronage
6. Compatibility with zoning regulations
7. Cost and cost per space
8. Opportunities for joint development
9. Alternative uses of the site
10. Environmental impacts (noise, visual impacts)
11. Site ownership and ease of implementation

#### **Task 5 - Refine Design Concepts/Cost Estimates**

For up to three finalist sites for new parking facilities, we will review the 1984 parking study design concepts and cost estimates and adjust these findings. For any new sites that are finalists, we will prepare conceptual layouts and cost estimates at a similar level of detail.

Cost estimates should take into account construction costs, design, financing, and contingencies. It is also important to assess the increase in operating costs from additional parking facilities. These vary between surface parking lots and parking structures.

#### **Task 6 - Evaluate Parking Meter Installation near American Tin Cannery**

Some of the merchants at the American Tin Cannery would like parking meters installed to promote parking turnover. Undoubtedly, a significant amount of on-street parking is used by those who are actually headed elsewhere, e.g., walking along the Rec Trail to Lover's Point or even backtracking

to Cannery Row. (In theory, the 90-minute restriction should discourage such activity, but this depends on the hours of enforcement and the degree of enforcement.)

The advantages and disadvantages of parking meters have been cataloged by Weant and Levinson in their standard reference on parking. These were summarized in a table in the earlier section. The evaluation should focus on the importance of these advantages and disadvantages to the City and ATC merchants, and their relevance. The evaluation will focus particularly on how meters will affect turnover, enforcement costs, traffic flow, financial strength of the parking program. Their acceptance by visitors and the business community should be assessed, taking into account their prevalence in Cannery Row and downtown Pacific Grove. The turnover/duration analysis discussed earlier will provide a lot of data on whether meters actually promote turnover in Pacific Grove.

### **Task 7 - Prepare Financial Plan**

WSA will evaluate potential funding mechanisms to improve parking. This will draw upon our extensive experience in assessing bonding options, such as: general obligation bonds, revenue bonds, tax increment (redevelopment) financing, assessment district financing, and certificates of participation/lease revenue bonds. We have also helped set up assessment districts and evaluate potential changes to formulas, boundaries, and the like. We can analyze the potential for "reusing" or altering the inactive parking assessment district downtown.

WSA will prepare a simplified statement of income and revenues, based on a recommended financing approach. This will take into account prevailing interest rates, parking district capacity, costs of recommended facilities, and other key factors.

### **Task 8A - Prepare Summary of Findings for Staff Review**

WSA will prepare a brief memo outlining the project report, findings, and conclusions. This can be reviewed by City staff before we complete the *Draft Final Report*.

### **Task 8B - Prepare and Present Draft Report**

WSA will prepare a *Draft Final Report*. This will include two distinct sections: Background and Findings. In addition, the summary will highlight key findings. WSA uses attractive graphics to help communicate findings. Detailed material, such as tables of parking occupancy and cost estimates, will be in a separate Technical Appendix. WSA staff will be available to present the *Draft Report* to City staff and/or the Economic Revitalization Committee (ERC) at a formal meeting or hearing.

### **Task 8C - Revise and Present Report**

WSA will revise the report once in response to comments from staff, policy makers, and citizens. It is assumed that no additional analysis will be needed at this point. Then WSA staff will present this report at a Council or ERC meeting/hearing. The WSA team will be happy to participate in additional public workshops and hearings or follow-up efforts as needed as an optional extra task. Extensive contacts with staff on an "as needed" basis are also assumed.

**STAFF EFFORT BY TASK**

Table 3-1 presents staff hours by task, along with the basis for the fee estimate. This estimate assumes a substantial amount of time by senior staff, along with data collection personnel.

<b>Table 3-1</b>							
<b>ESTIMATE OF HOURS AND COSTS</b>							
<b>TASK</b>	<b>HOURS BY FIRM AND STAFF MEMBER</b>						
	<b>Wilbur Smith Associates</b>					<b>International Parking Design</b>	
	<b>W.E.H.</b>	<b>F.M.</b>	<b>J.A.E.</b>	<b>Survey</b>	<b>Support</b>	<b>D.N.</b>	<b>Support</b>
1. Review/Collect Data	0	5	20	90	5	0	0
2. Evaluate Parking Standards	0	5	0	0	5	0	0
3. Forecast Parking Needs	0	5	20	0	5	0	0
4. Evaluate Alternative Sites	5	10	10	0	5	0	0
5. Refine Concepts/Cost Estimates	0	5	0	0	0	10	20
6. Evaluate ATC Parking Meters	5	5	0	0	0	0	0
7. Prepare Financial Plan	10	5	0	0	0	0	0
8. Prepare Project Report	5	20	0	0	20	0	0
Total Hours	25	60	50	90	40	10	20
Billing Rate	\$155.00	\$115.00	\$65.00	\$14.00	\$55.00	\$145.00	\$50.00
Labor Cost	\$3,875.00	\$6,900.00	\$3,250.00	\$1,260.00	\$2,200.00	\$1,450.00	\$1,000.00
Expenses							\$400.00
<b>TOTAL COST</b>							<b>\$20,335.00</b>
<p>Staff members:  W.E.H. - William E. Hurrell, Principal-in-Charge, WSA  F.M. - Frank Markowitz, Project Manager, WSA  J.A.E. - J. Alex Estrella, Transportation Planner, WSA  D.N. - Dilip Nandwana, Design/Costing, IPD</p> <p>"Support" includes word processing, graphics production and administration.</p> <p style="text-align: right;">Wilbur Smith Associates, December 5, 1996</p>							

## FEE ESTIMATE

We propose to accomplish the scope of services described earlier for \$20,335. We believe this is completely consistent with the RFP and the needs of the City, as communicated by City staff. The basis for this estimate was presented earlier in Table 3-1.

The fee estimate is subject to the following key provisions:

1. The City will provide existing and future land use data formatted for immediate use (on a block-level basis and using agreed-upon land use categories.)
2. There will be a maximum of three formal meetings, for which we will be happy to make presentations. These may, for example, include a staff kickoff meeting, a review of the Draft Report with City staff and/or the Economic Revitalization Committee, and presentation of the Final Report to the City Council. A reasonable number of working meetings or phone discussions with City staff are assumed at no extra charge.
3. While we will review and refine concepts and cost estimates provided in the 1984 study, the basic fee does not include detailed, to-scale parking facility design.
4. No substantial new analysis will be needed after preparation of the *Draft Report*. Of course, significant errors or omissions will be corrected without additional charges.

The basic fee estimate does not include the optional survey of downtown employees and patrons or a parking enforcement analysis.

We will be happy to change our work scope with an appropriate, mutually agreed adjustment in our fee. Additional work will be based on our standard billing rates, which are presented in Table 3-2.

## SCHEDULE

As shown in Figure 3-1, we propose completing the *Draft Report* by mid-March, assuming an early January 1997 start. This would be approximately 2.5 months from the start of the project. Assuming no additional analysis is required, we can make revisions in approximately one week.

This schedule is feasible, but will require careful project management, precise meeting scheduling and short review periods.

Although it is probably not feasible, it would be desirable to start earlier and schedule parking surveys shortly before Christmas. January is typically a low-demand period on the Monterey Peninsula, but we can make appropriate seasonal adjustments.



**Table 3-2**

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## **WESTERN REGION RATE SCHEDULE**

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<u>Classification</u>	<u>Rate Per Hour</u>
00. Executive Management Officers _____	\$ 200.00
01. Officers/Principals _____	155.00
02. Associate Engineers, Planners, Etc. _____	130.00
03. Principal Engineers, Planners, Etc. _____	115.00
04. Senior Engineers, Planners, Etc. _____	90.00
05. Engineers, Planners, Etc. _____	80.00
06. Assistant Engineers, Planners, Etc. _____	65.00
10. Technicians _____	55.00
21. Draftspersons _____	55.00
30. Word Processors/Technical Typists _____	55.00
40. Enumerators _____	50.00
50. Technical and Clerical _____	45.00
60. Field _____	14.00

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NOTES: (1) Travel, reproductions, telephone, supplies and other expenses at cost plus 10 percent.  
(2) For appearance at formal hearings or court testimony, the above rates are to be increased by 50 percent.  
(3) Fees are payable in U.S. Dollars without discount.  
(4) Rates include compensation, benefits, overhead and fee.

2/96

TASKS	MONTH - 1997												
	January			February			March			April			
1. Review and Collect Data	█												
2. Evaluate Parking Standards				█									
3. Forecast Parking Needs				█									
4. Evaluate Alternative Sites				█									
5. Refine Design Concepts/ Cost Estimates							█						
6. Evaluate Meters Near American Tin Cannery				█			█						
7. Prepare Financial Plan							█						
8. Prepare Project Report							█			█			
Meetings			◇						◇		◆		

- LEGEND:**
- █ Draft Report
  - ▨ City Review
  - Final Report
  - ◇ Project Kick-off Meeting
  - ◊ Presentation Of Draft Report
  - ◆ Presentation To Final Report To City Council

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**STAFF AVAILABILITY**

All key staff members are available to complete work as listed in Table 3-1. In particular, based on current commitments, Frank Markowitz has approximately 40% availability and Bill Hurrell is available. This represents at least double the hours that we estimate are needed to complete this project successfully.



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## 4. QUALIFICATIONS AND REFERENCES

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### WSA OVERVIEW

Wilbur Smith Associates (WSA) is a multi-disciplinary consulting engineering and planning firm which is committed to providing each client with a range of professional services customized to meet specific needs. Organized in 1952 as a firm of consulting engineers specializing in traffic engineering and transportation planning, WSA has diversified and expanded its capabilities through four decades. WSA, now wholly owned by its employees, continues to specialize in transportation issues, providing professional expertise in all areas of transportation planning and engineering, including:

- ▶ Parking Analysis and Management
- ▶ Parking Functional Planning and Design
- ▶ Traffic Access and Circulation
- ▶ Comprehensive Urban Transportation Planning
- ▶ Public Transportation
- ▶ Pedestrian and Bicycle Systems Planning
- ▶ Transportation Demand Management (TDM)
- ▶ Intermodal Transportation Management Systems (ITMS)

WSA is staffed with over 600 professional and technical support personnel serving the United States from five regional and several subregional offices and international clients from several overseas offices. Engineering, planning and architectural services have been provided to clients in all States of the U.S. and more than 50 other countries. In all, more than 15,000 technical studies have been successfully completed in WSA's 44-year history.

The Western Region of Wilbur Smith Associates was founded in 1956, and since that time has offered services in all areas of planning and design of transportation and transportation-related facilities. WSA has conducted numerous transportation studies in Monterey County in recent years, ranging from small projects to some of the largest and most controversial. These projects include: the City of Monterey's Comprehensive Transportation Study and General Plan Circulation Element update, a parking study for a Monterey Plaza Hotel project, parking and traffic analysis for the Sunset Center expansion project, the Monterey County Regional Transportation Plan EIR, and an evaluation of the Hatton Canyon Freeway project for the City of Carmel and a citizens' group.

WSA has established a well-earned reputation for working closely with citizen and policy advisory groups to build consensus on complex, often controversial transportation issues. Wilbur Smith Associates professionals are adept at making public presentations to explain transportation concepts and solutions in straight-forward, non-technical terms that laypersons can understand. Western Region offices are located in: San Francisco, San Jose and Anaheim, California; and Honolulu, Hawaii.

Wilbur Smith Associates Western Region professional staff is supported by a roster of skilled clerical and graphics personnel, and by the latest in word processing and computer equipment and capabilities.

## **PARKING PLANNING EXPERIENCE**

For over forty years, Wilbur Smith Associates has conducted surveys and studies leading to the development of parking programs, financial feasibility studies for individual parking projects, the design of parking facilities, and research relating to parking demand characteristics, including modeling. Through these and other studies, the Firm pioneered the development of procedures for conducting parking studies, for quantifying parking demands, and for assessing parking program alternatives. Research efforts have involved the relationships between land (and building) uses and parking demand rates and parking accumulation characteristics, parking time requirements, walking distances and cost/demand relationships. Modal split modeling procedures have been formulated and applied, taking into account parameters of parking availability and cost.

The Firm's principals have authored many of the reference materials in use today relating to parking procedures and characteristics. Examples include Wilbur S. Smith, co-author of *State and City Relationships and Highway Affairs*, and textbook, *Traffic Engineering*; Robert E. Whiteside, *Parking in the City Center and Transportation and Parking for Tomorrow's Cities*, E.M. Whitlock, *Parking for Institutions and Special Events*, and numerous other technical papers and bulletins along with Mr. H.K. Evan's *Highway Research Board Report* concerning parking generation rates which are standard for all parking developments.

WSA has conducted dozens of parking studies in commercial and visitor districts, including a number in cities of similar size to Pacific Grove, often facing the same issues. (See Figure 4-1 for an overview.) In recent years we have conducted a comprehensive parking study of downtown Mountain View, a 25-block area that has been revitalized with restaurants and small shops. In downtown Davis, we assessed the need for and feasibility of new parking structures, satellite parking lots, and alternatives to expanding the parking supply.

The City of Monterey projects included supply/demand analysis of Cannery Row, Downtown, and Fisherman's Wharf, with recommendations for new parking sites, as well as for changes in parking operations and finance. More recently, we analyzed the parking supply/demand patterns of a retail/residential/commercial development next to the Monterey Plaza Hotel. For the highly controversial City of Carmel proposal to expand Sunset Center, WSA analyzed parking needs and the potential for residential spillover. In Woodland, we explored the costs to develop municipal parking lots and analyzed finance issues, such as the use of parking assessment districts.

## **PROJECT DESCRIPTIONS AND REFERENCES**

### **DOWNTOWN PARKING STUDY (1992)**

#### **Mountain View, CA**

Client: City of Mountain View Planning Department  
P.O. Box 7540  
Mountain View, CA 94039  
Contact: Barney Burke, (415) 903-6306

The successful revitalization of Downtown Mountain View has focused attention on Downtown parking improvements and policy changes. The City of Mountain View provides roughly 1,200 off-street spaces downtown, most of the parking in the area.

**DOWNTOWN PACIFIC GROVE PARKING STUDY**

PROJECTS	SETTING			AREAS OF STUDY							
	DOWNTOWN	OTHER COMMERCIAL	RAIL STATION	SUPPLY/ DEMAND ANALYSIS	OPERATIONS	ENVIRONMENTAL ANALYSIS	COST ESTIMATES/ FINANCE	ACCESS/ CIRCULATION	FUNCTIONAL DESIGN	SIGNAGE	RESEARCH
DENVER, Center for Performing Arts Parking Garage	●			●	●			●	●	●	
FRESNO, Downtown Parking and Circulation Study	●			●			●	●		●	
MONTEREY, Comprehensive Transportation Study	●	●		●	●		●	●			
MOUNTAIN VIEW, Downtown Parking Study	●			●	●	●	●	●	●		
OAKLAND, Downtown Parking Study	●			●	●		●	●			
PALO ALTO, California Avenue Structure Feasibility Analysis		●		●		●	●	●	●		
PALO ALTO, Downtown Parking Structures Feasibility Analysis	●			●			●	●	●	●	
SACRAMENTO, Downtown Parking Study	●			●	●	●	●	●			
SAN FRANCISCO, Transamerica Pyramid Garage Analysis	●				●			●	●	●	
SAN JOSE, Downtown Parking Studies	●			●			●	●			
SANTA CRUZ, Downtown Parking Finance Study	●			●	●		●				
SANTA CRUZ, Parking Lots Design	●							●	●	●	
SOLANA BEACH, Amtrak Station Parking Plan		●	●	●							
WOODLAND, Downtown Parking Studies	●			●			●	●			
Municipal Operations Survey, CPPA											●
Parking Requirements for Shopping Centers, ICSC											●
Shared Parking Planning Guidelines, ITE											●



employers, both sectors subject to dramatic change. The old-fashioned street system that contributes to Monterey's charm also presents safety and capacity concerns.

The City retained Wilbur Smith Associates (WSA) to produce a Transportation Master Plan that will serve as the basis for the new General Plan Transportation Element. WSA was responsible for analyzing existing and future conditions, proposing and evaluating alternative improvements, and developing the Transportation Master Plan. As the prime consultant, WSA also managed subconsultants specializing in public participation, land use/environmental analysis, traffic forecasting, and civil engineering/cost estimating.

A key component of the study was an extensive public participation program that involved citizens, businesses, neighboring jurisdictions, and regional agencies. From the beginning of the study, consultants regularly met with these groups to seek their advice and information.

**CENTRE CITY - BALBOA PARK PARKING MANAGEMENT PROGRAM (1988)  
San Diego, CA**

Client: City of San Diego Planning Department  
525 B Street, Suite 2002  
San Diego, CA 92101

Contact: Lawrence C. Monserrate, Principal Planner, (619) 236-6362

Wilbur Smith Associates, in association with K.T. Analytics, prepared a series of working papers, a Final Report, and an Implementation Plan for a Parking Management Program in San Diego's downtown and Balboa Park areas. To develop the Parking Management Program, WSA performed the following tasks:

- An inventory of parking supply and utilization
- An evaluation of current policies in the city
- A survey of other cities
- An evaluation of alternative parking policies and programs
- Recommendations for San Diego's Parking Management Program
- An implementation plan for the Program.

**DOWNTOWN PARKING STUDY (1987)  
Sacramento, CA**

Client: City of Sacramento  
Department of Public Works  
1023 J Street, #200  
Sacramento, CA 95814

Contact: Bob Lee, Director of Transportation, (916) 264-7110

The City of Sacramento retained Wilbur Smith Associates to perform a comprehensive study of parking in the downtown area including an update of the *Sacramento Central City Circulation and Parking Management Plan*, prepared by WSA in 1976.

Conditions in the downtown area of Sacramento had changed substantially since the 1976 study. The local light rail transit system, the Metro (also studied by WSA), had recently begun operation and a surge in office-oriented development had been triggered. The impact of both the Metro and office

development had created the need for an update of existing and future parking demand. The purposes of this study were:

- To reassess the overall parking needs of the Downtown Core Area;
- To determine the financial ability of the City's Parking Division to provide additional parking; and
- To review the overall operations of the Parking Division to increase efficiency and cost-effectiveness.

WSA assessed the impact of Metro on parking demand, determined the availability of on- and off-street parking facilities, and identified the needs of short-term parkers. The unique parking issues of two special-use areas: Midtown (a retail area) and Old Sacramento (a tourist area with museums, restaurants and shops) were addressed.

## **Additional Relevant Projects**

### **WOODLAND PARKING DISTRICT STUDY**

#### **Woodland, CA**

Interested in providing more convenient downtown parking, the City of Woodland and local property owners retained Wilbur Smith Associates (WSA) to study the feasibility of constructing two parking lots through a new parking assessment district. Constructing public parking facilities and sharing the costs can be more efficient than requiring small downtown businesses to provide numerous small private lots. WSA analyzed different formulas for spreading the project costs among existing and future land uses. WSA also addressed several related issues: the use of developer fees "in lieu" of private construction of required parking, the boundaries of the parking assessment district, and the financial responsibility of government agencies with buildings within the district.

### **MONTEREY PLAZA PARKING STUDY**

#### **Monterey, CA**

Wilbur Smith Associates was retained to prepare a parking study for a proposed retail/restaurant building on Cannery Row. This would involve conversion of an old warehouse next to the Monterey Plaza Hotel. The study found that the hotel's valet parking structure provides sufficient excess capacity to absorb demand from the new building. WSA also looked at loading and on-street parking impacts.

### **SUNSET CENTER PARKING GARAGE EIR**

#### **Carmel-by-the-Sea, CA**

In order to address central area parking demand and spillover intrusion into residential areas, Carmel -by-the-Sea proposed to add approximately 500 off-street parking spaces to the central area parking supply by constructing a parking garage at the Sunset Center surface parking lot. Wilbur Smith Associates was retained to define the project using CEQA's EIR process to identify the most environmentally sensitive project design. Working with the EIR team, a range of alternative strategies was described and then narrowed to four concepts for environmental analysis. The principal environmental issues were concentration of garage driveway traffic on Carmel's narrow residential streets and visual aesthetics. Parking needs and traffic impacts associated with events at the Sunset Center were also major concerns. Traffic concentration was addressed by considering two and three site strategies and by location of garage driveways. Visual issues were addressed by

the architect. The preferred project spread the parking additions to two sites, retaining a third potential site for possible future development. This approach provided the maximum parking development flexibility and helped to minimize traffic impacts.

### **VARSITY THEATRE EIR**

#### **Palo Alto, CA**

The Varsity Theatre is an historic building in the heart of downtown Palo Alto, a popular commercial center. Wilbur Smith Associates (WSA) was retained to analyze the transportation impacts of a proposal to convert this building into a bookstore/cafe.

WSA evaluated parking and traffic conditions in a six-block area centered on the Varsity Theatre site. WSA then compared the parking impacts and traffic generation of the bookstore/cafe to other commercial uses and to a community theatre.

### **DOWNTOWN SAN JOSE PARKING ANALYSIS**

#### **San Jose, CA**

The City of San Jose selected Wilbur Smith Associates to conduct a study of existing parking conditions and future parking needs for development through Year 1995. The study also considered future parking demands of a planned 150,000 square foot expansion of the existing Convention and Cultural Center.

Field inventories were conducted to determine existing parking supply and demand. Estimates of future parking needs were based on development projections of office, retail, hotel and residential uses made by Economics Research Associates (ERA). Projected demand was compared to supply to identify parking development and management alternatives.

Two new parking structure alternatives were recommended to meet future Convention Center parking demand. In addition, the analysis estimated that from 14,100 to 17,000 new spaces would be needed to serve the future demand in the overall downtown area.

### **DOWNTOWN PARKING MANAGEMENT PLAN**

#### **San Jose, CA**

Wilbur Smith Associates was commissioned to conduct a comprehensive analysis of parking issues facing Downtown San Jose with a goal of recommended actions to address these issues.

The purpose of this study was to determine both the off-street parking needs of the Downtown and the programs to serve those needs. The assessment identified short-term parking requirements for retail uses in existing buildings and long-term parking for office use in rehabilitated buildings; the parking demand for special events; the appropriate parking for new development; the potential for management of supply and demand for parking; the ability of transit to serve downtown trips (LRT, Caltrain, and Bus); the capacity of the road system to deliver cars Downtown; and the development implications of a "shared parking" approach to new parking facilities. Elements considered in the implementation program included: private financing, demand sensitivity to pricing, and off-site periphery parking opportunities.

The study was directed to answer these four questions:

1. What additional parking is realistically needed?

2. How is additional parking made available?
3. What is the most effective way for parking to serve Downtown development?
4. What is the most efficient way to manage parking?

The study identified conceptual tools and relationships that improve the ability to address Downtown parking needs. They were considered during the process of this study and incorporated in the analysis and recommendations.

### **CENTRAL CITY TRANSPORTATION AND PARKING MANAGEMENT PLAN Sacramento, CA**

This study encompassed the development of near-term and long-range plans for vehicular circulation, parking, and public transit access within the 560-block Central City area, which includes the State Capitol District and Downtown areas. The encouragement of public transit use and the more efficient use of existing roadway and parking systems were the primary concerns of this study. The parking management plan included:

- An analysis of future parking needs over the next 20 years
- Expansion plans and use policies for the municipal public parking garages
- Recommendations concerning use restrictions, enforcement procedures, and adjudication procedures for on-street parking
- A peripheral parking facilities plan for Central City public and private sector employees
- A residential parking permit program to reduce traffic impacts on residential neighborhoods.

### **BEACH PARKING AND FEASIBILITY STUDY Santa Monica, CA**

The City of Santa Monica operates the parking lots which serve the famous Santa Monica State Beach and Pier. Wilbur Smith Associates prepared a technical memo describing existing Santa Monica Beach parking operations, both in terms of pricing and revenues and of operating schedules and staffing. Current and historical rates for Santa Monica Beach parking were compared with rates in other cities, as well as rates for competing private lots and public spaces, either curbside or within the six downtown parking structures. The relationship between parking rates and parking demand was also examined through comparison of historical data, and the impacts of alternative parking rate structure changes were estimated.

Parking lot operations were analyzed and modified to better follow basic goals, such as maximizing the City's net revenue, limiting congestion, promoting security, and making the lots convenient and accessible to users. Suggested modified operating and staffing schedules were developed for all of the beach parking lots.

As part of this project for the City of Santa Monica, WSA also reviewed and edited the City's Request for Proposals to Provide Santa Monica Beach Parking Management Services. WSA also reviewed the five proposals the City received from parking operators and assisted the City in selecting an operator.

### **MAIN STREET PARKING STRUCTURE FEASIBILITY STUDY Santa Monica, CA**

For the City of Santa Monica, Wilbur Smith Associates prepared a feasibility study of a public parking structure to serve a mixed-use development in the popular Main Street commercial area.

The proposed facility consisted of 460 spaces on three levels, topped with 49 affordable housing units. The structure was to be located on the site of Municipal Lot 9, one block from Main Street, and would serve patrons of the many retail shops, restaurants, bars and galleries in the area.

WSA used field surveys, previous parking studies in the area, and interviews with City staff to collect data, which were used to project future parking demand at the facility. Estimated revenues and debt service coverage ratios were also projected for the first ten years of the facility's operation.

### **CENTRAL STOCKTON PARKING PLAN**

#### **Stockton, CA**

Wilbur Smith Associates was retained by the City of Stockton, Housing & Redevelopment Department to prepare a parking plan for the Central Stockton area. The study area encompassed over 80 blocks, including the existing downtown area and waterfront areas slated for redevelopment adjacent to the Stockton Channel. The purpose of the study was to determine the needs for development of new public parking to support planned development revitalization projects in these areas.

The projects being considered included renovation of the historic Hotel Stockton and the consolidation of Stockton's city offices around the existing City Hall building, which is also slated for renovation. Other potential projects included a new State office building and various entertainment and visitor oriented uses along the waterfront. A computerized parking demand model was developed and employed to examine the parking demands associated with various future land use scenarios. Potential sites for new parking facilities including parking structures were identified, and conceptual designs and cost estimates of the facilities were prepared. The City's ability to finance and fund development of the new parking facilities was also determined. The end product of the study was a long-range master plan for the development of parking in the Central Stockton area.

### **HISTORIC MAIN STREET CORE TRANSPORTATION AND PARKING ANALYSIS**

#### **Park City, UT**

Wilbur Smith Associates was retained to conduct a detailed assessment of parking and traffic circulation in the historic Main Street core area of this resort city. The study is being performed in two concurrent phases:

1. Assessment of short-term improvements to parking supply, traffic circulation and alternative modes of transportation to have immediate benefit to businesses and residents in the historic core area; and
2. Assessment of long-term needs and development of improvement concepts for parking, circulation and transit in a ten to fifteen year horizon.

Park City's inherent beauty, multiple attractions, and easy access from Salt Lake City have resulted in a heavy demand for transportation and parking. With a full-time population of approximately 6,000, Park City must accommodate an additional 6,000-12,000 in population during the peak winter season. This population increase and the subsequent demand on the transportation and parking infrastructure is particularly problematic in the Main Street core. While striving to maintain an "old historic town" feel, business and development are expanding in the area at a rapid rate.

WSA is working with City officials and business leaders to develop a plan to serve the Park City core area into the next century. In that horizon, consideration is being given to the 2002 Winter Olympics being hosted by Salt Lake City with several venues in the Park City area.

### **WEST LOS ANGELES CIVIC CENTER PARKING STUDY**

#### **Los Angeles, CA**

The area around the West Los Angeles Civic Center displays a severe shortage of short-term parking. Additionally, development of the West Los Angeles City Hall parking lot is under study. A structure is contemplated for this site which would include replacement parking, senior citizen housing, and possible public parking.

Under contract to the Los Angeles Department of Transportation, Wilbur Smith Associates determined the potential market for public parking within the structure, and developed overall strategies for developing this and other city owned parking facilities. Extensive field studies were undertaken and an estimate of existing parking deficiencies was presented to LADOT.

### **THIRD STREET AND ROBERTSON BOULEVARD PARKING STUDY**

#### **Los Angeles, CA**

Wilbur Smith Associates conducted a review and evaluation of current parking conditions in the area of Third Street and Robertson Boulevard in Los Angeles. The study assessed the current parking conditions and estimated future conditions using available information on expected land use in the area.

The project consisted of inventory and review of existing parking conditions, as well as the evaluation of existing and future parking needs. Field surveys consisted of on-street and off-street public parking space inventories, parking accumulation and occupancy surveys and a limited land use survey. The parking conditions in the area were significantly impacted by extremely large-scale land uses such as the Beverly Center Mall, Cedars-Sinai Medical Center and the East and West Medical Office Buildings.

A computer-based parking demand model was used to assess both short-term and long-term parking conditions. The results of both the existing and future conditions showed an areawide surplus of long-term parking and a considerable deficiency in short-term parking. These findings were due to the fact that short-term parkers destined for Cedars-Sinai had a tendency to utilize on-street parking spaces due to expensive parking rates at the Cedars-Sinai facilities, thus taking away short-term parking from customers of adjacent businesses. The results showed that short-term parking conditions in the area are currently inadequate and will only deteriorate unless reasonably priced short-term public parking is provided.

### **DCPA PARKING GARAGE STUDY**

#### **Denver, CO**

The Denver Center for the Performing Arts (DCPA) is located in downtown Denver. A major 1,635 space parking garage is a part of the DCPA complex. Wilbur Smith Associates was part of a team of consultants retained by the City of Denver to develop plans to address major problems related to access/egress to the garage, and revenue control as part of an ongoing program to rehabilitate the garage. During the winter months when attendance at DCPA events is a popular activity, the garage often fills to capacity well before the start time of the events. Major delays also occur when the events end.

A plan for the redesign of the primary entrance/exit area was developed to increase capacity before and after events. A new revenue control system was purchased by the city and its operation and performance was reviewed by WSA. A traffic operations plan to assist with the control of traffic on City streets near the garage was prepared.

The final element of the project involved a review of the existing parking fee structure of the DCPA garage and of the private parking facilities within walking distance of the DCPA. The purpose of this was to develop a strategy for the pricing of the DCPA parking which would optimize the usage and availability of parking.

### **SAN DIEGO TIDELANDS PARKING STUDY**

#### **San Diego, CA**

This study determined existing peak parking demand for the Bayfront area in San Diego bounded by Harbor Drive between the G Street mole and 8th Avenue. Based on existing parking demand and knowledge of shared parking potential, a demand model was developed to estimate future parking demand assuming the development of new commercial space. Final parking demand recommendations were prepared for the study area.

### **SEATTLE RETAIL PARKING GARAGE STUDY**

#### **Seattle, WA**

WSA was retained by the City of Seattle, Department of Finance, to evaluate the financial feasibility of a planned underground parking structure intended to serve a major new retail development in Downtown Seattle. The project, known as the Seattle Retail Core Project, focuses on the development of a new Nordstroms store and related retail, restaurant, entertainment, and commercial development on three blocks in the Downtown.

The City of Seattle, in a partnership agreement with the developers, would provide up to 1,500 public short term parking spaces in a parking garage located under one of the three development blocks. WSA was asked to determine the parking revenue flow which the City could expect from the garage to offset the debt service expense and operating costs associated with the facility. The evaluation included a review of the appropriate size for the facility and the specific terms of the agreement with the developers.



## INTERNATIONAL PARKING DESIGN, INC.

**International Parking Design, Inc. (IPD)**, established in 1969, is the largest firm specializing in parking design in the western United States providing complete architectural, engineering, and consulting services. Consulting services include demand and feasibility studies, land-use planning related to parking supply, functional design of parking facilities, access and revenue control systems, and operations consulting.

Nationally recognized for its innovations in the design of major parking facilities, IPD has gained a reputation for providing maximum efficiency in layout and constructibility. As prime architect for over 130 parking structures and as parking consultants on an additional 2,500 projects, IPD and its principals genuinely offer the depth and expertise of a specialty practice.

IPD's primary success is due to its outstanding management personnel, both in numbers and in years of experience. This enables the firm to: (1) quickly identify and prioritize key program issues, (2) rapidly respond with a range of solutions with associated advantages, disadvantages, and cost analyses, and (3) assign experienced professionals to manage each project.

The work is performed under the direction of the following individuals:

Charles M. Boldon, President  
Dilip L. Nandwana, Exec. Vice President  
Robert F. Michitsch, Senior Vice President  
Ron L. Saxton, Vice President  
Clifford E. Smith, Vice President

The principals of International Parking Design have gained national recognition through numerous publications, seminars and presentations on various aspects of parking design. This is the result of extensive and ongoing research into parking-related issues such as parking geometrics, accessibility, ventilation, signage and parking control equipment.

It has been IPD's experience that the most successful parking projects achieve a balance between function, architecture and cost. Attention to pedestrian amenities, security and orientation ensures a successful project. IPD takes pride in its reputation for producing highly functional, cost-effective, aesthetically pleasing parking facilities.

Headquartered in Sherman Oaks, International Parking Design also maintains offices in Oakland, Costa Mesa and Las Vegas.



## *FEASIBILITY STUDIES*

### *Project*

Mid-Embarcadero Block 202  
Mid-Embarcadero Open Space Project  
San Mateo Downtown Transit Center  
City of Alameda  
City of Chico  
City of Concord  
City of Milbrae  
City of Mountain View  
City of Oakland Central Business District  
City of Palo Alto  
City of Reno  
City of Walnut Creek  
Alameda Library Project  
California Pacific Medical Center  
California State Univ, San Francisco  
Downtown Reno Development Agency  
El Cortez Hotel  
Intel SC-11  
Kaiser Fremont  
Kaiser Oakland  
Kaiser Sacramento  
Kaiser Walnut Creek  
Longhammerer Site  
Oakland Post Office  
Pier 45  
Rand Development  
San Jose Airport

### *Location*

San Francisco, CA  
San Francisco, CA  
San Mateo, CA  
Alameda, CA  
Chico, CA  
Concord, CA  
Milbrae, CA  
Mountain View, CA  
Oakland, CA  
Palo Alto, CA  
Reno, NV  
Walnut Creek, CA  
Alameda, CA  
San Francisco, CA  
San Francisco, CA  
Reno, NV  
San Diego, CA  
Santa Clara, CA  
Fremont, CA  
Oakland, CA  
Sacramento, CA  
Walnut Creek, CA  
Berkeley, CA  
Oakland, CA  
San Francisco, CA  
Santa Monica, CA  
San Jose, CA

### *Client*

City of San Francisco  
San Francisco Redevelopment Agency  
Roma Design Group  
City of Alameda  
City of Chico  
City of Concord  
City of Milbrae  
City of Mountain View  
City of Oakland  
Wilbur Smith Assoc  
Arcform Architects  
City of Walnut Creek  
SMWM Architects  
California Pacific Medical Center  
CSUSF  
Arcform Architects  
Tanner & Vandine Arch  
Intel Corp.  
Kaiser Foundation Health Plan  
Kaiser Foundation Health Plan  
Kaiser Foundation Health Plan  
Kaiser Foundation Health Plan  
ELS Architects  
Hallenbeck Chamaro Arch  
SF Redevelopment Agency  
EHDD Architects  
City of San Jose

## *DEMAND STUDIES*

### *Project*

444 Castro St  
Bramalea Pacific Development  
California State Univ, San Francisco  
City of Mountain View Downtown  
City of Reno  
City of Walnut Creek  
Kaiser Fairfield  
Kaiser Hayward  
Kaiser Sacramento  
Kaiser San Francisco  
Kaiser Santa Rosa  
Kaiser Santa Teresa  
Kaiser Vallejo  
Kaiser Walnut Creek  
Marina Village  
Modesto Memorial Hosp

### *Location*

Mountain View, CA  
Oakland, CA  
San Francisco, CA  
Mountain View, CA  
Reno, NV  
Walnut Creek, CA  
Fairfield, CA  
Hayward, CA  
Sacramento, CA  
San Francisco, CA  
Santa Rosa, CA  
San Jose, CA  
Vallejo, CA  
Walnut Creek, CA  
Alameda, CA  
Modesto, CA

### *Client*

Pacific Gateway Prop  
Bramalea Pacific  
CSUSF  
Wilbur Smith Associates  
Arcform Architects  
City of Walnut Creek  
Kaiser Foundation Health Plan  
Marina Village Assoc.  
Kaplan McLaughlin Diaz Arch.



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## 5. STAFFING PLAN

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As indicated by Figure 5-1, the consultant team will use a simple project organization. The City of Pacific Grove will have a single primary contact, the Project Manager, who will also be responsible for supervising all technical and administrative functions.

This project will be managed by **Frank Markowitz, WSA Principal Transportation Planner**. Frank will be responsible for day-to-day technical and administrative management of the project. He will also be the primary author of the project report.

His background includes extensive experience both in parking studies and in Monterey County transportation planning projects. In fact, since Frank is based in San Jose and has on-going assignments at CSUMB (Fort Ord) and in Salinas, he should be available in Pacific Grove on a routine basis.

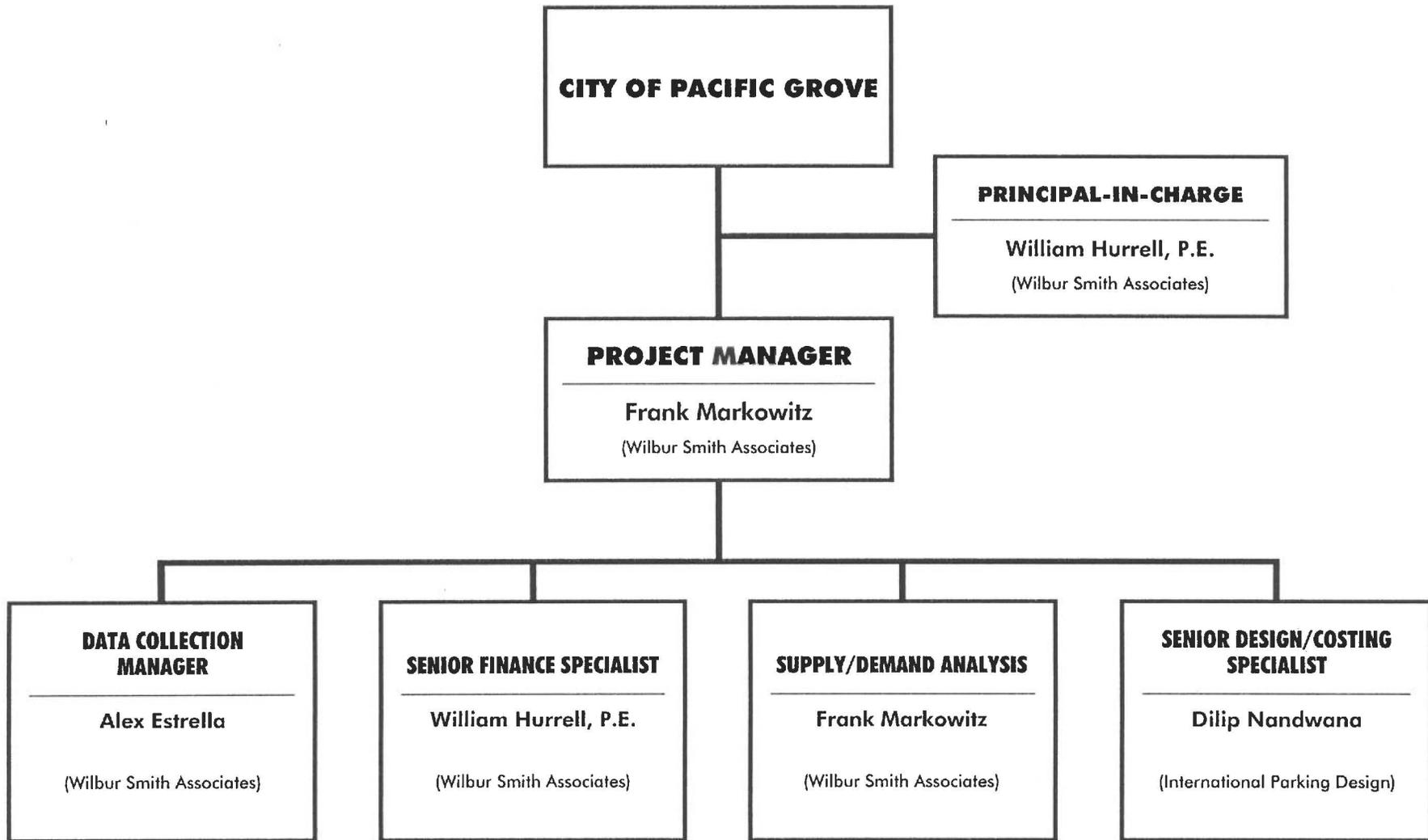
Frank's extensive parking experience includes managing a comprehensive Mountain View study that addressed parking facility needs, conceptual design, finance, operations, and environmental impacts. As Deputy Project Manager for a comprehensive transportation study for the City of Monterey, he directed data collection and analysis for parking surveys covering roughly 100 blocks. His other parking experience in 13 years of professional planning work includes: recent downtown parking studies for San Jose and Davis; parking-focused EIR analyses for Carmel's Sunset Center and the reuse of the Varsity Theatre in downtown Palo Alto; and parking access/circulation planning for San Francisco's famed Transamerica Pyramid. He successfully chaired a committee of the Institute of Transportation Engineers on Shard Parking Planning Guidelines, for which he managed a questionnaire survey of some 140 municipalities in the U.S. and Canada about their zoning regulations.

**William E. Hurrell, P.E., WSA Regional Vice President** will be responsible for oversight of the project as Principal-In-Charge, and will provide expertise in the parking finance area. He will be available to attend presentation of the study report.

A past officer of the California Public Parking Association, Bill Hurrell was recently named "Parking Professional of the Year" by that organization. He is completing a major parking study for downtown San Jose, and earlier managed comprehensive parking studies or facility feasibility analyses in the downtowns of Stockton, Sacramento, Woodland, Fresno, Palo Alto, San Diego, Los Angeles, and numerous other cities. His general transportation planning/engineering background includes high-level assignments on light rail transit projects (such as the original San Jose Guadalupe Corridor study), corridor alternatives analyses, and EIRs.

**Dilip L. Nandwana, P.E.**, will provide design and cost estimating expertise. He has over 27 years of experience in the design and engineering of parking facilities. As Executive Vice President of International Parking Design since 1980, he has managed literally dozens of parking feasibility and demand studies, while also serving as Principal-in-Charge for the design of numerous facilities. Dilip has teamed successfully with WSA on recent, similar studies in San Jose, Davis, Stockton, and Mountain View.

**Alex Estrella, WSA Transportation Planner**, will have major responsibilities for data collection and analysis. He successfully acted in a similar role in the recent Downtown San Jose parking study for an 80-block area with roughly 25,000 parking spaces. A Monterey County native, Alex received a Master's degree in transportation engineering from Cal Poly San Luis Obispo. As a college student he worked as a parking attendant in Cannery Row.





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## APPENDIX - RESUMES

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**WILLIAM E. HURRELL**  
**Regional Vice President**

**EDUCATION**

B.S./Mechanical Engineering/University of California  
at San Diego - 1972

M.S./Institute of Transportation and Traffic  
Engineering in Civil Engineering

Transportation Planning/University of California at  
Berkeley - 1973.

**REGISTRATION**

Registered Professional Engineer:  
California / Idaho / Washington

**TECHNICAL SPECIALTIES**

Senior Project Management; Transportation Plan-  
ning; Airport Access Planning; Parking Planning/  
Design; Traffic Engineering; Light Rail/Bus Alterna-  
tives Analysis; Multimodal Planning;  
Commuter/Intercity Rail Planning.

**AWARDS**

1996, Parking Professional of the Year, California  
Public Parking Association

**PROFESSIONAL EXPERIENCE**

**1973 to Present**

*Wilbur Smith Associates*  
*Regional Vice President*

**PARKING NEEDS AND AREA PLANNING STUDIES**

These studies generally involved the assessment of  
existing parking demand and existing parking  
supply, the forecast of future demand and develop-  
ment of general parking programs designed to  
serve demands. Often, concept plans were pre-  
pared to determine yields associated with develop-  
ment of specific sites as new surface lots or parking  
structures. Several projects included parking  
demand management strategies.

**San Diego Centre/Balboa Park City Parking  
Management Plan** - Developed a parking  
management plan for downtown San Diego.

**Sacramento Downtown Parking Program** - Devel-  
oped a Ten-Year parking development plan for  
Downtown Sacramento.

Other representative projects include:

- Downtown Davis Parking Study
- Downtown San Jose Parking Study
- Woodland Parking District Study
- Fresno Downtown Parking and Circulation  
Study
- Downtown Sacramento Parking Study
- Santa Rosa Core Area Plan - Parking Element
- Third Street Area Parking Study - Los Angeles
- Carmel Downtown Parking Study
- Danville Downtown Parking Study
- Hollister Downtown Parking and Circulation  
Study
- Los Gatos Parking Improvement Plan
- Pico/Robertson Area Parking Study  
Los Angeles

**PARKING FEASIBILITY STUDIES**

These studies generally involved the development  
of functional plans, operating, and construction  
cost estimates and revenue estimates:

**Anchorage International Airport Feasibility Study**  
- Directed study to develop optimum municipal  
parking rates based on estimated future costs,  
revenues and demand scenarios.

Other representative projects include:

- Fillmore Jazz District Garage, San Francisco
- Seattle Retail Core Garage, Seattle, WA
- Rostland Parking Garage - Phoenix, AZ
- Palo Alto Parking Structures

- Stockton Downtown Parking Garage and Feasibility Study
- McClellan Street Parking Structure Wausau, Wisconsin
- San Jose Market Street Parking Structure

#### SPECIAL ACTIVITY CENTER PARKING STUDIES

These studies addressed the unique features of parking at airports, universities, stadiums, hospitals, and other special activity centers:

**Sacramento Metro Airport** - Prepared a long-range parking facilities development plan and management Strategy. The study included an economic evaluation of the trade-offs of parking structure construction vs. remote parking with shuttles.

**Washington State University Parking Master Plan** - Assessed feasibility and prepared a parking development program for this major state university.

Other representative projects include:

- California State University, Hayward
- Los Angeles Coliseum Parking Study
- University of California Santa Barbara Campus Master Plan - Parking Element
- Mercy Hospital Parking and Traffic Study Sacramento
- California State University Fresno Transportation Plan - Parking Element
- Candlestick Park Stadium Access and Parking Study - San Francisco
- Atlantic City Hotel/Casino Parking and Traffic Studies
- Freedman Forum Parking and Traffic Study Anaheim
- Harry S. Truman Airport Traffic and Parking Study - Virgin Islands
- Los Medanos Hospital Traffic and Parking Study (Pittsburg)
- Performing Arts Center Garage, Denver, CO

#### PARKING POLICY AND OPERATIONAL STUDIES

A wide range of operational and policy issues were addressed in several special focus parking studies including: residential parking permit programs, parking shuttle bus services, valet parking, signage, equipment, and rate schedules. Most of the area-

wide parking studies previously identified also addressed policy and operational issues.

**Anchorage Parking Authority Rate Study** - Directed study to develop optimum municipal parking rates based on estimated future costs, revenues and demand scenarios.

Other representative projects include:

- Flying Dutchman Valet Parking Access Plan San Francisco
- Park Hill Residential Parking Demand Study
- Parking Signage Plan - Anaheim
- Westwood Village Intercept Parking Shuttle Bus

#### DOWNTOWN STUDIES

**Fresno Downtown Transportation Study** - Conducted a comprehensive transportation study of Downtown Fresno including traffic, parking and transit elements.

**San Francisco Center City Pedestrian and Goods Movement Study** - Identified improvement opportunities for pedestrian and goods movement including curb and sidewalk treatments and changes in bus stop locations.

**Anaheim Redevelopment Traffic and Parking Retainer Services** - Estimated traffic impacts, developed parking facility layouts and site plans for downtown redevelopment projects.

**Hollister Downtown Parking and Traffic Circulation Study** - Evaluated parking and traffic circulation issues; assessed alternative mitigations in terms of capital costs, land requirements, implementation cost, compatibility with City goals, public acceptability, funding potential, and effectiveness.

**Santa Rosa Core Area Plan Transportation Element** - Prepared circulation, parking, pedestrian and bicycle inputs for multi-disciplinary team.

**Glendale Multi-Project EIR Traffic Study** - Identified and recommended measures to mitigate traffic impacts of four proposed redevelopment projects totaling 2.0 million sq. ft. (luxury hotel, regional shopping center, general mixed use office space, retail and bank facilities).

**Pittsburg Downtown Specific Plan Circulation Element** - Identified transportation implications of several development scenarios and complementary transportation system improvements, including use of existing rail right-of-way for possible BART extension.

**Watsonville Downtown Circulation and Parking Study** - Provided inputs to recommendations for traffic circulation, parking, design of pedestrian vehicle mall, loading needs, transit activity and shopping center access. Evaluated parking demand and supply and identified potential parking facility locations.

**Woodland Central Area Specific Plan** - Responsible for overall project direction. Integrated multi-modal components into workable concepts to improve circulation.

Other representative projects include:

- Danville Downtown Traffic Study
- Downtown San Rafael Traffic Study

#### **PARKING FUNCTIONAL PLANNING AND DESIGN**

Functional plans and/or designs were prepared for dozens of structures with special consideration to driveway design/location, internal circulation concepts, and parking layouts.

Representative projects include:

- Fifth and Mission Street Garage Expansion  
San Francisco
- Pleasant Hill BART Station Parking Structure Plan and Specifications
- Anaheim Library/Police Parking Structure
- Kimo Theater Parking Structure  
Albuquerque, New Mexico
- Farmers Corporate Center Parking Garage Review  
Davis, California
- San Jose Block 6 Garage Review
- Wally Park Garage Access  
Los Angeles International Airport
- Denver Mountain Bell Parking Structure
- Hermes Office Parking Structure  
Salt Lake City, Utah
- Downtown Boise Parking Structures

- University of Hawaii Manoa Parking Structure
- Citratown Resort Garage - Jakarta, Indonesia

#### **1972 to 1973**

*State of California - Engineering Assistant  
Division of Bay Toll Crossings -  
San Francisco-Oakland Bay Bridge Traffic Division*

Responsibilities included participation in several projects involving bridge traffic operations.

#### **PROFESSIONAL MEMBERSHIPS**

Institute of Transportation Engineers  
San Francisco Bay Area Engineering Council  
American Society of Civil Engineers  
California Public Parking Association  
Institutional and Municipal Parking Congress  
Women's Transportation Seminar

#### **PUBLICATIONS**

*An Access Strategy Model, BART's Initial Experience, (co-author) presented at 65th Annual ITE National Conference, 1995.*

*Application of Siting and Demand Estimation Model to Coordinate Park-and-Ride/HOV Facility Planning, (co-author), presented at 7th International High-Occupancy Vehicle Facility Conference, sponsored by Transportation Research Board, June, 1994.*

*Traffic Engineering as a Growth Management Tool, (co-author), presented at 59th Annual ITE National Conference, 1989.*

*Traffic Management Opportunities and Experience in California, (co-author), presented at 31st Annual District 6 ITE Meeting, 1986.*

1996



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**FRANK MARKOWITZ**  
**Principal Transportation Planner**

**EDUCATION**

B.A., Communication/Urban Studies,  
Stanford University, 1977  
Master of City and Regional Planning,  
Concentration in Transportation Planning,  
University of California, Berkeley, 1982

**TECHNICAL SPECIALTIES**

Parking and Traffic Impact Studies; Transportation Centers; Bicycle/Pedestrian Facilities Transportation System Analysis; Transportation System Management (TSM)/Transportation Demand Management (TDM); Transit Service and Facilities Planning; Project Management

**PROFESSIONAL EXPERIENCE**

**1990 to Present**

*Wilbur Smith Associates*  
*Principal Transportation Planner*

Responsible for technical activities and project management. Projects include:

**PARKING STUDIES**

**Downtown Mountain View Parking Study** - Project Manager for comprehensive study of parking supply/demand, finance, and operations in revitalized downtown district. This study commenced with occupancy/turnover surveys, to identify parking shortages. Other study elements included:

- Computerized forecasts of future supply/demand balance.
- Analysis of permit administration
- Site evaluation and conceptual design of new facilities
- A financial plan for new and improved facilities

**Davis Downtown Parking Study** - Deputy Project Manager for evaluation of alternative concepts for meeting parking demand increases. Analyzed existing and future parking supply/demand balance, then evaluated sites for new parking structures and

satellite parking lots. Interviewed City, business and U.C. Davis representatives, and presented findings at public forums. As a nationally recognized "bike friendly" city, Davis focused on the potential for bicycle and transit improvements to reduce future parking needs.

**Carmel Sunset Center EIR** - Evaluated transportation impacts of proposed expansion of prominent performing arts center. Analysis focused on parking needs and potential for parking spillover into residential neighborhoods.

**Monterey Plaza Parking Study** - Project Manager for analysis of parking needs for retail/restaurant/residential building project next to Monterey Plaza Hotel. Assessed potential for existing parking structure to absorb increased demand.

**Woodland Downtown Parking Study** - Evaluated two sites for municipal parking lots. Analyzed parking assessment district boundary and formula options.

**San Jose Downtown Parking Study** - Managed data collection, supply/demand, and financial analysis for study of 80-block metropolitan downtown area. Evaluated potential sites for new parking structures to serve this revitalized commercial and entertainment center. Assessed special uses such as the San Jose Arena, museums, and theatres.

**Palo Alto Varsity Theatre EIR** - Project Manager for transportation element of EIR for reuse of historic building. Analysis focused on current and future parking availability in downtown Palo Alto. Managed survey of six-block area and interpreted council policies on parking.

**Central Stockton Parking Plan** - Project Planner for a comprehensive parking plan for a 50-block redevelopment area. Managed data collection and analysis, including occupancy and turnover/duration counts. Evaluated six primary sites for new

parking structures. Also assessed options to increase parking revenues. Parking analysis was a key element of downtown/waterfront revitalization planning.

**Stanford University Parking Structure Analysis, Palo Alto, CA** - Project Manager for evaluation of alternative sites and design concepts for a 1,000-space parking structure to serve the Stanford Medical Center. Analyzed proximity of sites to key generators, traffic access, shuttle bus requirements and needed off-site traffic improvements.

**San Jose Downtown Theatre/Sports Bar Parking Study** - Analyzed future parking demand for proposed downtown multiplex movie theatre and sports bar and compared to projected future parking supply, recommended possible sources for additional parking.

**Santa Monica Beach Parking** - Assisted in analyzing operations of 15 beach parking lots for City of Santa Monica. Study considered staffing, hours of operation, revenue controls, and contracting issues.

**Transamerica Pyramid Garage Access/Circulation Plan** - Evaluated access and circulation problems for this landmark San Francisco building. Analyzed potential improvements in signage and valet operations.

## GENERAL AND SPECIFIC PLANS

**Monterey Citywide Transportation Study** - Deputy Project Manager for complete revision of the City's General Plan Circulation Element for this tourist center and city of 30,000. Responsibilities included data analysis, management of data collection efforts, public presentations, and report production. Recommended transit, bicycle, and pedestrian facilities, including bikeways plan for both recreation and transportation uses. Addressed safety issues on waterfront recreation trail (key bicycle/pedestrian facility). Study included: development of a regional travel demand model and citywide local traffic impacts model, parking supply/demand analysis for study areas covering roughly 100 blocks, and extensive public participation and inter-jurisdictional coordination efforts.

**Santa Cruz County General Plan Update** - Responsible for assistance on comprehensive update of Circulation Element and EIR transportation sections for unincorporated areas with a com-

bined population of about 70,000. Study covered roadway, transit, bicycle, and pedestrian facilities. A unique element was development of consistent findings and recommendations based on several studies of specific urban areas within the County.

## GENERAL TRANSPORTATION PLANNING

**Santa Clara County Congestion Management Program (CMP)** - Responsible for extensive analysis of alternative methods of calculating intersection and freeway levels of service. Compared different computerized methods on such criteria as ease of use and consistency. Advised County on LOS software and state requirements. Prepared transportation element for EIR for CMP update.

**Santa Cruz 3rd Street/Beach Flats Circulation Plan** - Deputy Project Manager for evaluation of alternative roadway alignments for arterial street serving beach and boardwalk area. Also analyzed bicycle facilities, neighborhood traffic control, transit, and parking issues. Bicycle facilities included Class II bike lanes and separate (Class I) bike paths. Project included an extensive public participation program including consultation with a local bicycle group, and cost estimates of all facilities.

**Downtown/East San Rafael Traffic Model** - Project Planner for this project to develop a computer model that could be used for detailed analysis of long-range roadway improvements and land use changes in two critical areas of San Rafael. Forecast future traffic volumes and conducted level of service analysis for 84 intersections, using TRANPLAN travel demand model and TRAFFIX local impacts software. Developed computerized roadway networks and validated results of model runs.

## ENVIRONMENTAL IMPACT TRANSPORTATION ANALYSES

**Monterey County Regional Transportation Plan EIR** - Project Planner for environmental analysis of RTP and Congestion Management Program Update. Worked with TAMC staff to address traffic and transit impacts of different transportation alternatives.

**Hatton Canyon Freeway** - Review of Final Environmental Impact Statement for controversial proposal to construct a freeway bypass near Carmel-by-the-Sea. Responsibilities included evaluating project and alternatives on capacity enhancement and

other criteria, as well as developing creative, new alternatives. Evaluation based on an independent traffic study, including forecasts of future traffic conditions.

**MASTER PLAN STUDIES**

**Shoreline/Vista Slope (Mountain View) Master Plan** - Evaluated traffic access, circulation, parking, and pedestrian/bicycle issues for Master Plan for regional shoreline park. Critical issues included regional trail connections and potential for shared parking with adjacent amphitheater and office parks.

**Chiron Research Campus Planning** - Advised biotechnology campus on site plan, traffic impacts, and trip reduction strategies.

**1987 to 1990**

*Korve Engineering, Inc., Oakland, California  
Transportation Planner*

**1984 to 1987**

*Mass Transit Administration, Baltimore, Maryland  
Senior Service Planner*

**1982 to 1983**

*Ruth and Going, Inc., San Jose, California  
Assistant Transportation Planner*

**PROFESSIONAL MEMBERSHIPS**

Chairman of Institute of Transportation Engineers (ITE) Committee on Shared Parking Guidelines, 6F-52

ITE Committee 4D-2, Traffic Control Devices for Light Rail Grade Crossings (former Member)

Institute of Transportation Engineers - Member  
American Planning Association - Member

**PUBLICATIONS**

*Shared Parking Planning Guidelines*, report of Institute of Transportation Engineers (ITE) Committee 6F-52 (chairman), 1994.

*ISTEA Congestion Management Systems—Adapting Current Transportation Planning Processes to New Federal Requirements* (co-author), paper presented at the 1994 Institute of Transportation Engineers (ITE) International Conference, La Jolla, California.

*Assessing Freeway LOS for Congestion Management Programs* (Co-author), paper presented at the 1993 Institute of Transportation Engineers (ITE) Western U.S. District Conference, Las Vegas, Nevada.

*Shuttle Bus and Vanpool Service to Employment Centers* (Co-author), paper presented at the 1993 Institute of Transportation Engineers (ITE) Western U.S. District Conference, Las Vegas, Nevada.

*Transportation Management for Waterfront Tourist Centers* (Co-author), paper presented at the 1992 Institute of Transportation Engineers (ITE) International Conference, Monterey, California.

*Shared Parking and Parking Management Strategies for Mixed-Use Developments* (coauthor), paper presented at 1991 Institute of Transportation Engineers (ITE) Annual Meeting, Milwaukee, Wisconsin.



**J. ALEX ESTRELLA**  
**Transportation Planner**

**EDUCATION**

B.S./City and Regional Planning/California  
Polytechnic State University,  
San Luis Obispo/1993  
M.S./Civil Engineering/California State  
Polytechnic University, San Luis Obispo/  
1996

**TECHNICAL SPECIALITIES**

Traffic Impact Analysis; Parking Studies;  
and Transportation Planning.

**PROFESSIONAL EXPERIENCE**

**1996 to Present**

*Wilbur Smith Associates*  
*Transportation Planner*

**City of San Jose Downtown Parking Study -**  
Project Transportation Planner. Collected and  
analyzed parking data. This involved evaluating  
existing parking conditions and conducting sup-  
ply/capacity analysis of future parking forecasts  
based on land use changes.

**CSU Monterey Bay Master Plan EIR -** Project  
Transportation Planner. Assisted in determining  
potential traffic impacts involved with the CSUMB  
campus site. This involved analyzing existing and  
future traffic conditions based on several land use  
scenarios. Issues included local and regional  
traffic impacts, vehicle/pedestrian access, and  
transit access to the site. The report also present-  
ed potential mitigation measures.

**Salinas Auto Center EIR, Salinas, CA -** Project  
Transportation Planner. Conducted capacity and  
LOS analysis for a proposed development of a  
102-acre auto center. Issues included traffic im-  
pacts on adjacent roadways and intersections.  
The analysis conducted was based on existing and  
forecast traffic volumes reflecting several land use  
phases.

**ADDITIONAL EXPERIENCE**

**1994 to 1996**

*San Luis Obispo County Engineering Department*  
*Transportation Planning and Engineering Intern*

Conducted and participated in various facets of  
traffic engineering and transportation planning  
projects. This included small scale community  
level transportation planning studies for several  
unincorporated communities of San Luis Obispo  
County. Studies involved computer traffic model-  
ing, research, and data collection. Other duties  
involved updating Capital Improvement Reports for  
presentation to the Board of Supervisors. Traffic  
engineering duties included conducting and ana-  
lyzing data from: turning movement studies, gap  
studies, speed studies, signal and STOP sign war-  
rants, and weekly traffic counts.

**North Coast Cambria Circulation Study, San  
Luis Obispo County, CA -** Project Transportation  
Planner. Conducted small scale community level  
transportation planning study. This study involved  
computer traffic modeling, research, and data  
collection. Other duties included performing ca-  
pacity and levels of service analysis to ascertain  
traffic related impacts on the North Coast Cambria  
planning area. The study addressed a wide range  
of issues including determining capital improve-  
ment priorities based on funding resources, exist-  
ing and future traffic and parking conditions, and  
proposed improvements.

**1993 to 1994**

*California State Polytechnic University*  
*Applied Research and Development Facility*  
*(ARDFA)*  
*Graduate Student Research Assistant*

Performed research focused on collecting incident  
data from incident detection systems that have  
been implemented and are currently operating in

cities and communities throughout the United States. This involved coordination with city agencies and officials. With this data, incident rates were developed based on incident type, severity, and duration.

**1991 to 1992**

*San Luis Obispo County Advance Planning  
Department - Advance Planning Intern*

Assisted in updating zoning codes for unincorporated coastal communities in San Luis Obispo County. Other duties included reviewing and filing building permit applications.

10/96



## DILIP L. NANDWANA

### Executive Vice President

Mr. Nandwana, executive vice president of IPD and principal-in-charge of the Oakland office, oversees all aspects of the firm's design efforts. His training and more than 27 years experience as a parking consultant, architect and engineer who specializes in parking design insures the combination of people/user-oriented design with appropriate building systems. His extensive work effort with governmental agencies and private developers, having completed over 400 projects since joining IPD, provides the right foundation and broad knowledge base for clients to draw upon.

Mr. Nandwana's experience as a planner and parking functional designer to many owners and architects, and prime designer allows him to identify issues quickly and keep the client and design team moving forward. His extensive knowledge of specific parking systems relative to lighting and security has repeatedly proven itself in his innovative design solutions.

Prior to joining International Parking Design, Mr. Nandwana was an associate, project coordinator, and manager with Conrad Associates from 1969 to 1980. From 1966 to 1969 he was associated with T. Y. Lin and Associates in Van Nuys, CA as a project manager.

### Education

University of Illinois  
Bachelor of Civil Engineering 1962  
Bachelor of Architecture, 1966

### Selected Projects

#### *Parking Studies for Municipalities*

##### *Project*

##### *Type Study*

City of Alameda	Feasibility Study
City of Chico	Feasibility Study
City of Concord	Feasibility Study
City of Milbrae	Feasibility Study
City of Mountain View Downtown	Supply/Demand
City of Mountain View	Feasibility Study
City of Oakland	Feasibility Study
City of Palo Alto	Feasibility Study
City of Reno	Demand & Feasibility Study
City of San Mateo Downtown Transit Center	Feasibility Study
City of Stockton	Feasibility Study
City of Walnut Creek	Demand & Feasibility Study

### Professional Registrations/ Affiliations

Registered Engineer, State of California  
American Society of Civil Engineers  
American Concrete Institute  
Prestressed Concrete Institute  
National Parking Association - Parking Consultants Council  
Institutional and Municipal Parking Congress  
California Redevelopment Association  
Building Industry Conference Board