

# Public Works Department



## Land Development Division Capital Projects Division

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## INTRODUCTION

This study was undertaken to assist the Public Works Department and City Manager's Office in defining key issues and challenges facing the Public Works Department.

The study focused on two of the Department's most high profile areas - - the **Land Development** and **Capital Projects** Divisions. Research was targeted toward the following areas:

- Functional Organization
- Staffing
- Workload Indicators
- Resource Management
- Best Practices
- Contracts
- Technology
- Customer Feedback & Process Enhancement
- General Management Practices
- Project Management
- Accountability
- Performance Measurements
- Communication/Reporting

The approach relied upon examination of a broad series of indicators through which stakeholders could effectively gauge the overall status of the Department in its important public service mission. Research included thorough review of existing documents, interviews with Public Works managers and analysis of specific information requested from City staff.

The report is presented in two sections, one pertaining to each Division. Observations/findings are presented in each, immediately followed by recommendations relevant to the topics addressed. Findings have been quantified according to the methodology presented herein, and are intended to present complex data and trends in a reader-friendly fashion. The Land Development Division report concludes by addressing a potential restructuring opportunity which could significantly enhance service delivery.

The Consultant gratefully acknowledges the significant effort required of the highly professional staff members within the Public Works Department who compiled extensive information essential for this study. In many cases, this involved compiling historical data not previously catalogued in the manner presented herein. The positive spirit with which they approached this undertaking is profoundly appreciated.

It is hoped that the results of this study, and the methods of data collection created for its purposes, will provide meaningful information for the many internal and external stakeholders in the continued success of Moreno Valley's Public Works Department.

# Land Development Division

A high-visibility Division within the Public Works Department, Land Development is responsible for the review and approval of all private development projects within the public right-of-way including tentative maps, tract and parcel maps, lot line adjustments, monument inspection, environmental impact, and soil and hydrology reports. This Division generates entitlement conditions of approval and development agreements, establishes bond amounts for development projects, reviews and approves storm drain, street improvement and grading plans, and provides inspection services for all development-related projects. Other key functions include administering permits and inspections in the public right-of-way, coordinating engineering issues with other public agencies (regional, utility, water) and performing special engineering studies (such as drainage, alley identification and right-of-way clarification). The Storm Water Management Section implements a Watershed Management Program integrating programs and policies including best management practices to reduce pollutants in urban runoff and flooding of property.

The report on this Division is presented in two sections, the first which addresses organizational culture and practices and the second which pertains to Productivity Measures. Observations/findings are presented in each sub-section, immediately followed by recommendations relevant to the topics addressed.

## Part I: Organizational Culture & Practices

### Staffing

As indicated in a subsequent section of this report, workload and productivity measures are primarily associated with positive steps taken by the Division to extensively track the status of all pending applications/projects. While this comprehensive tracking method is focused upon accountability (being able to respond to inquiries regarding status and timing), it is not specifically mentioned in documents which pertain to staffing level adjustments.

While it is entirely likely that Deficit Reduction Options (DRO) to reduce staffing are crafted with workloads in mind, the absence of workload/productivity measures forces managers to rely upon their general perceptions forged over time rather than upon data.

DRO recommendations (to reverse a prior transfer of staff to Capital Projects) cite anticipated drops in workload driven by fewer capital projects. While DROs refer to anticipated negative impacts of position transfers and elimination, they cite overall declines in projects rather than specific workload indicators (tied to individual employees or work groups). Additionally, the DROs project significant negative impacts in customer service. Although project-specific support is also supported by fee revenues, it would have been logical to anticipate fee-supported use of consultant work to sustain basic services to customers. Noticeably absent are any references to using this fiscally-driven process to establish baseline staffing levels, which would be augmented (as development activity rises) via consultant staffing through contracts which cap contract rates at 80% of the fees generated.

In its current (reduced) configuration, the Division appears to be operating in an “all hands on deck” modality; staff members are handling tasks as they arise. The tasks and specialties of Engineers (in the Plan Check function) vs. Environmental Engineers (in the Stormwater Program) are as distinct as the funding sources which support their activities.

The extensive amount of tracking (financial and operational) associated with this Division, as well as the processes required for security reductions (as an example) indicates that the remaining Management Analyst position is well utilized.

The reduced staffing level within this Division is forcing maximum utility of the skill sets present within Land Development.

While formal cross-training of staff is limited, longevity and close working relationships greatly assist the staff in providing continuity of service in situations where a regularly assigned staff member is unavailable.

**Recommendation:** Productivity measures regarding individual functions should be established, particularly given the availability of data via the existing Case Tracking mechanisms. Any such approach must recognize that simply counting cases processed (for example) is an insufficient means by which to judge overall productivity, since cases differ in complexity and construct. But adding this dimension to the Division’s existing management tool box will significantly enrich management’s ability to pinpoint areas of concern, streamline processes and recognize outstanding employee performance.

**Recommendation:** The Department should use the current budget situation to prescribe specific baseline staffing levels. Doing so would ensure that the Department retains the core level of in-house expertise to sustain basic operations, augmented (as needed) by contract staff. This approach would

provide the Department with flexibility to rapidly adapt to changing workloads without the expense, or organizational trauma, associated with expanding/contracting the permanent (career position) work force through economic cycles. While this may be the intention of Department managers, plainly stating this objective in terms of a policy recommendation to the Council offers several distinct advantages:

- Provide an increased sense of stability among remaining in-house staff, whose morale has been reported to be significantly impacted by ongoing reductions in force;
- Preclude continuing boom/bust cycles within the Land Development Division in the years ahead;
- Potentially set the stage for further discussions and policy decisions by the City Council with regard to their vision for Moreno Valley as a Contract (or Hybrid Contract) City.

### **Intra-Departmental Synergy**

The Land Development Division must work extremely closely with Planning throughout the Plan Check process. By virtue of their respective functions, Planning takes the lead on the Entitlement process (for conformance with General/Specific Plan requirements); Land Development moves to the lead on the public infrastructure Plan Check phase for engineering aspects (such as final maps and parcel maps). In contrast, Community Development retains responsibility for all phases of private development approvals through occupancy.

Within the Department, LD coordinates with Capital Projects via that Division's Quarterly Utility Coordination Meeting. All public utilities attend, where they discuss all City projects to identify potential problems/conflicts, and alert other parties to prepare for (or phase) their own project schedules. (This level of coordination minimizes repeated work in areas where activities, such as paving, are scheduled or have been recently completed.)

Several examples (below) reveal the extent to which intradepartmental coordination is taking place and enhancing Departmental efficiencies:

- LD provides peer review for Capital Projects staff (e.g. assisting with examining potential flooding impacts, etc.).
- LD coordinates with MVU on reduction requests (to partially release bonds).

- Close contact with the Capital Projects team allows LD to make them aware of private development projects occurring in the vicinity of City projects.
- LD loans staff to Capital Projects to assist with City's ADA Plan.
- LD and Capital Projects share inspectors to cover workload spikes (to include developer-paid overtime).
- LD works with Maintenance & Operations regarding easements for repairs of potholes, sidewalks, drainage, traffic cones for planned road closures (for special events).
- LD coordinates with Transportation for Traffic Signal issues (set devices to flash or pursue adequate battery backup) associated with work being done by developers or utilities.
- LD requires Transportation sign-off for approval of traffic signal plans.
- LD provides inspection services (fully reimbursable) to MVU. This use of staff is synergistic and cost-efficient for both Divisions, while reducing costs for both.

It should be noted, however, that the level of interaction seen between Land Development and other Divisions and Departments, is functionally logical and would exist whether Land Development were a component of the Public Works Department, a stand-alone Department, or merged into another City Department.

## **Best Practices**

The Land Development Division neither refers to nor benchmarks its processes against any sources of external Best Practices. Division operations are guided primarily by the Subdivision Map Act as well as an internal Procedural Manual.

The Division Manager participates in forums which allow professional networking; these forums do allow occasional coordination among specialists in the field who exchange insights regarding how their respective agencies address specific situations.

The Division's "Walk the Process" Workshop (in late 2007) provided developers with a wealth of information to assist them in navigating the City's development review process. Although some time has elapsed since that training session, lasting benefit is derived through the Handbook created at that time. This

resource continues to provide developers with procedural information (to include flow charts) as well as helpful insight (“Tips & Tricks”) to help equip them for efficient interaction with city staff members. As there is no similar “Tips & Tricks” training document to assist staff in quickly addressing common problems encountered by customers, development of such a reference tool could help round out the Division’s commitment to customer service.

The lack of external Best Practices, combined with the Division’s limited use of productivity indicators, could isolate the Division from opportunities to accurately gauge its performance and continue to refine its processes. Further, it places the Division largely in a *reactive* position, where process enhancements come largely in response to situations encountered locally.

Through research conducted for this report, it was observed that Land Development’s current staffing configuration does not allow it to offer Fast Track review processes to support private development. While developers have the option of seeking rapid inspections on a full-cost reimbursement basis, engineering review services are not currently available on the same basis. This situation does not appear to reflect any lack of desire to provide quick turnaround on engineering services, but instead reflects an unintended consequence of necessary staffing reconfigurations which have left Land Development without Assistant Engineers (a classification which can carry out assignments beyond the standard business day on an overtime basis). Although continued funding constraints will likely preclude a return of the Assistant Engineer classification to Land Development, the Division could offer quick turnarounds on engineering review - - on a fully reimbursable basis - - via consulting contracts. When asked if this service would be seen as beneficial to the City’s economic development programs, the EDD Director indicated interest in adding this option.

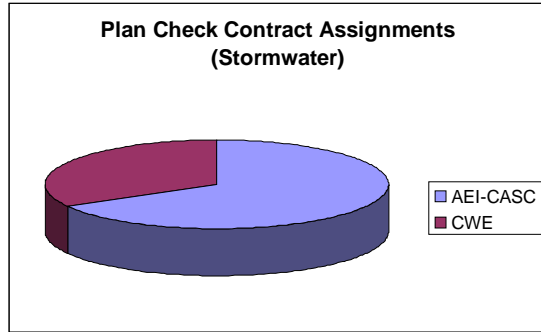
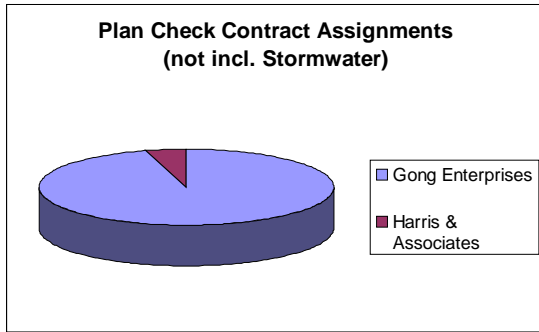
**Recommendation:** Recognizing the limitations of current staffing levels, the Public Works Department should consider approaching the University of California Riverside (Bourns College of Engineering) to explore the prospect of enlisting the assistance of graduate students in identifying Best Practices and proposing a measurement process for the Land Development Division.

**Recommendation:** Consistent with the City’s strong emphasis on job creation, the Land Development Division should immediately implement a Fast Track engineering review process to support private development projects. Because current staffing configurations do not support reimbursable engineering review (on an overtime basis), and because the demand for this additional level of service will fluctuate, the Division should establish this option via contracts with outside engineering firms.

# Contracts

Contracts are used to provide Final Map Check, primarily since the City staff does not include a licensed Land Surveyor. These contracts also allow the Division to augment in-house staffing to handle peak workloads; because contractor reimbursement is capped at 80% of the City's fee schedule, this alternative remains cost effective for developers as well as the City. The Division Manager reports previous situations (under previous city administrations) where expanded use of contractors to address workload was frowned upon because it leads to enhanced appropriation levels; since contract assistance is fully supported by fees, the appropriations are more than offset by available revenues.

The Division uses four contractors for plan review (two for general activities and two for the Stormwater program). Vendors were identified in 2006; at that point two additional firms were selected for participation but have since discontinued their support. Contracts have been renewed and are scheduled to be subject to RFP in 2012.



Staff indicates that work is regularly alternated between the two contractors supporting each respective work unit. But a review of actual projects assigned by Land Development (not including Stormwater) in Fiscal Years 08-09, 09-10 and 10-11 shows that 22 projects were assigned to Gong Enterprises and only 1 was assigned to Harris & Associates. Within the Stormwater Program, AEI-CASC reviewed 96 projects as compared to only 48 assigned to the CWE firm. Division staff indicated that rotation of work assignments could change in the event that a contractor is not sufficiently responsive; no mention was made of any requirement for specific skill sets when determining which pre-qualified firm to utilize. The information at hand clearly indicates that the assignment of work to contractors is extremely unbalanced, and warrants management attention. The potential for creating de facto "exclusive" contractors could prove disadvantageous to the City when a new RFP is issued in 2012; broader participation yields a more competitive climate in terms of both pricing and service delivery.

**Recommendation:** The Land Development Division Manager should review the current process through which staff assigns Plan Check projects among pre-qualified firms. Remedying the existing imbalance will enhance services and contract costs via the RFP process scheduled for 2012.

## Technology

The Land Development Division has instituted the Grading component of the Permits Plus system. The tool, which meets the Division's basic needs, was selected for compatibility with other City Departments already using other components of this software. There are no measures which show the extent to which this initial Permits Plus implementation has affected productivity within the Land Development Division.

While deploying additional Permits Plus modules would allow the Division to more effectively integrate/automate its processes, the cost and time associated with programming all of the relevant fee components has precluded such an initiative. In the meantime, in-house tools such as Project TRAK are in use.

**Recommendation:** The Land Development Division should consider opportunities to obtain technology funding (grants, financing opportunities) to more thoroughly integrate its activities within the Citywide system (currently Permits Plus). Doing so would capitalize upon a unique situation wherein the current economic climate (with a significant decrease in the number of active projects) is particularly well-suited for adoption of new technology should resources become available for such a project.

## Customer Feedback & Process Enhancement

The Land Development Division does not employ any formal processes to obtain feedback from its customers. In years past, customers were provided with the option of submitting written feedback through a comment card; reporting receipt of 3-4 comments annually, the Division Manager indicates that the program was discontinued.

In its place, the Division Manager indicates use of his regular interaction with customers as the counter, where he asks customers to let him know of their satisfaction. He also indicates regular observation of employee interaction with customers over the telephone, and follow-up praise and/or coaching with regard to problem solving skills.

The Division Manager reports efforts to seek feedback at recent meetings between City representatives and Developers, and (with one exception) receiving only glowing responses.

The feedback mechanisms currently in use are largely ineffective, in that they do not provide significant, measurable or comprehensive information. Similarly, the absence of negative comments should not be seen as an indicator of success. The absence of formal feedback mechanisms deprives the Division Manager, Department Head and City executives of ample opportunities to address customer concerns at earlier stages.

By requiring customers to identify themselves, the Department is also likely missing out on feedback opportunities from developers who may fear reprisal from staff on subsequent projects. While such a concern on the part of some developers may be unreasonable, it must be thoroughly considered as the Division constructs a viable feedback program.

The Division does receive a small number of inquiries and comments via the City's Customer Relations Management (CRM) system, which are routed from the City Council office. While the approval routing of CRM responses does make the Department Head aware of inquiries, there was no indication of responses to such inquiries being used to meet the objectives of a formalized customer service feedback process.

**Recommendation:** The Land Development Division should immediately institute a formal program through which meaningful performance feedback can be obtained from its customers. This program should afford respondents the options to submit identifiable or anonymous responses, select written or online formats, and allow users to send feedback to the Division, Department and/or City Manager's Office.

**Recommendation:** The Division should provide the Public Works Director and City Manager's Office with regular summary reports on information received from a newly-instituted feedback system.

**Recommendation:** The Department should consider partnering with one or more experienced (perhaps retired) private sector developers who would be willing to serve as "mystery shoppers" who could engage the Land Development Division at various levels. As envisioned, such an approach would not be conducted in a negative manner, but would instead provide staff with input meaningful enough to help staff members experience what it's like to be on "the other side of the counter."

## **General Management Practices**

Approximately 20 Administrative and functional policies were provided for this review. The majority included definitions and procedures which clarify the intent of the policies; most of these policies are recent (approved in 2007 or later).

There is no indication of Long Range organizational planning activities within the Land Development Division.

## **Accountability/Reporting**

The Land Development Division takes highly detailed steps to document the *status* of cases/applications. While this highly effective record keeping allows effective tracking of cases through the entire Land Development process, the focus of these efforts is not on charting productivity or enhancing efficiency. The primary objective of this process is to keep a record of where each case/application is so that accurate status information can be shared in response to inquiries from City officials or developers. The type of information catalogued appears extremely effective in achieving that goal.

Based upon this process, the Division Manager identifies situations where turnaround time for subsequent inspections increases beyond what would be expected as a project moves toward completion. An informal approach to case status data allows for these discussions.

An important corollary benefit to the tracking system is that data can be used to assist property/project owners by providing them with information which may not always be accurately transmitted to them by their own contract teams.

A review of case logs shows frequent lags (of multiple days) between the time an action is taken by Planning staff and the time which the next phase of work is begun by Land Development Division staff. The physical proximity of these work centers would generally seem to limit such lags to weekend/holiday periods. The current situation also leaves room for speculation as to why lags of multiple days occur in some situations (e.g. inaccurate dates entered into the tracking system, delays in routing, delays in receipt by LD staff assigned to the particular task, delays in opening material after receipt). Refining the routing process would tighten accountability and enhance trust among interdepartmental staff.

The type of status information kept on hand within Land Development is effectively suited for rapid response to questions from the City Manager's office

regarding where a project lies within the review process. No examples were seen, however, of regular summary information which can allow the CM or ACM to quickly gauge productivity information.

**Recommendation:** An automated “Variance Report” (like those generated within the Land Development Division’s own financial section) would greatly assist all stakeholders in *quickly* identifying cases which warrant more detailed discussion due to extended timeframes.

**Recommendation:** The Land Development Division should take advantage of extensive systems currently in place (to track the status of cases/applications) to incorporate productivity statistics and standards. The Division staff’s extreme familiarity with status tracking processes would amply prepare them to record/monitor broader productivity measurements and implementation of Best Practices.

**Recommendation:** A single point of contact should be established in each of the two Departments to receive/log case files transmitted between the Land Development Division and Planning staff. Adding this step would enhance the accuracy of the case logging system and increase efficiency by removing time lapses which cannot currently be analyzed/remedied.

**Recommendation:** Land Development should consider creating a monthly summary report which summarizes workload and productivity data for review by the Assistant City Manager. Flagging variances (such as delays or repeated plan checks) would assist the Manager’s Office in quickly identifying potential problem areas, while also providing LD staff with meaningful monthly data against which they can chart their own results on a timely basis and spot trends over time.

## Part II: Productivity/Performance Measures

### Existing Measurements

Only 4 formal productivity measurements are tracked within the Land Development Division. These indicators are generally consistent with literature demonstrating the yardsticks by which Land Development functions commonly monitor their success.

1. Review of plans, maps, and lot line adjustments within the required timeline (14 calendar days). **Performance Goal: 95% Two-year average (March 2009 – Feb 2011): 98%**

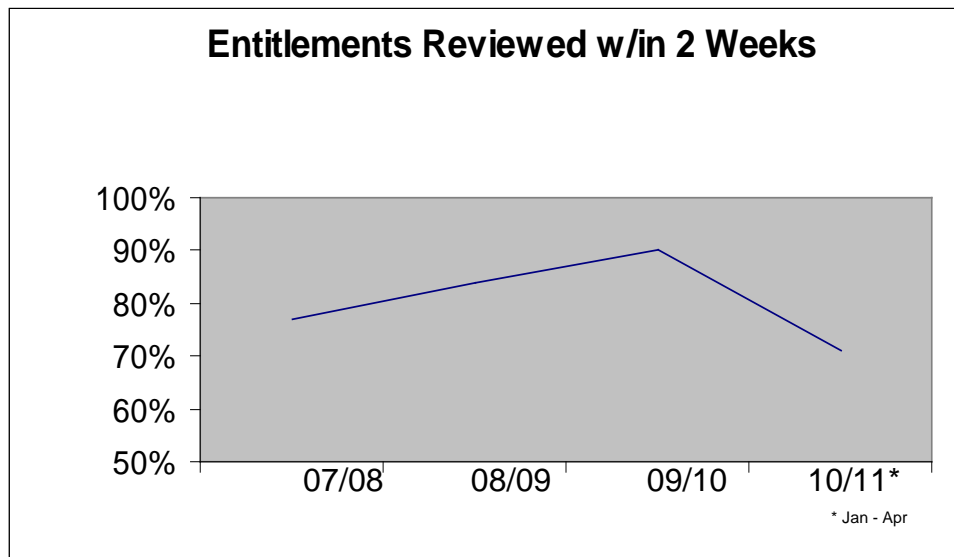
2. Provide comments by deadline provided on the Planning Case Transmittal. **Two-year average (March 2009 – Feb 2011): 98%**
3. Prepare Conditions of Approval within two weeks of receipt.  
**Two-year average (March 2009 – Feb 2011): 99%**
4. Process permit applications within two working days of receipt.  
**Performance Goal: 95% Two-year average (March 2009 – Feb 2011): 99%**

Productivity indicators, in the range of 98-99%, don't provide a comprehensive view of the Division's successes and challenges. Productivity measures used by the Division could also give the appearance of being selected specifically to convey only positive results. While these particular results are noteworthy, the Division's decision to exclude areas where results are not quite as timely (as in processing of Entitlement applications) could create a skewed self-image for Division staff which could logically cause them to be less receptive to negative assessments or perceptions by key stakeholders outside the Division or the Department. The potential for reduced sensitivity to negative external feedback could ultimately serve to deny the Division opportunities to achieve additional, meaningful customer service reforms.

The Plan Check process, a key Customer Service function, could be enhanced by introduction of qualitative analysis. A process through which accuracy of reviews is measured holds the potential to enhance productivity of LD staff, while creating time/cost savings for developers. While staffing constraints (and the fact that preliminary comments are not always retained) severely limit the Division's ability to undertake a retroactive analysis of this factor, it could be implemented prospectively as a means of measuring the efficacy of the plan check process.

Another helpful measure could be found in logging the number of interactions (meetings, telephone calls) associated with project reviews. While much of this data is captured in the project log, a statistical report would offer another means of gauging the efficiency of interaction between staff and customers. As with virtually any other type of measurement technique, counting "interactions" is not singularly effective in gauging effectiveness, particularly since extensive interaction could also be indicative of an ill-prepared developer.

A review of **Entitlement** applications processed since FY 2001/08 is based upon 1113 projects. While the overall rate of completion within two weeks averages 80%, the on-time rate increased until the current fiscal year, when an Associate Engineer (who previously assisted with these tasks) was assigned to other duties and the remaining Senior Engineer carried this workload along with additional responsibilities previously assigned to positions since vacated by the Division. Given the changing staffing and assignment dynamics within the Division, it is not possible to precisely isolate efficiency/productivity factors affecting the trend. Decisions to reduce staff members permanently assigned to support this activity are, however, consistent with a 71% drop in the number of Entitlement applications since FY 07/08.



## Workload/Staffing Trends

As discussed above, productivity measurements are limited in this Division. Augmenting the several measures listed previously, the following data is presented to identify trends in workload, budget and staffing levels.

<b>Land Development Division: Budget/Workload/Staffing Trends (Plan Check &amp; Inspection)</b>						
	<u>07-08</u>	<u>08-09</u>	<u>% Change</u>	<u>09-10</u>	<u>% Change</u>	<u>Change since 07-08</u>
<b>Budget Actuals</b>	\$3,837,808	\$2,305,367	-40%	\$1,817,390	-21%	-53%
<b>Total Project Reviews</b>	1230	744	-40%	454	-39%	-63%
<b>Inspections</b>	7398	5316	-28%	2346	-56%	-68%
<b>DIF/TUMF Agreements</b>	17	3	-82%	2	-33%	-88%
<b>Public Improvement Agreements</b>	28	27	-4%	4	-85%	-86%
<b>Planning App Entitlement Reviews</b>	525	309	-41%	154	-50%	-71%
<b>Personnel</b>	24.8	21.5	-13%	13.0	-40%	-47%

Consistent with economic trends, workload factors affecting the Land Development Division have decreased markedly over the past 3 years. In terms of sheer volume, this trend is most vividly portrayed in project reviews (down 63%), inspections (down 68%) and entitlement reviews (down 71%).

The Division's financing structure (General Fund and cost recovery) is consistent with industry standards which recognize that fee schedules do not capture all costs by virtue of their design as well as due to economic pressures. Allocation of City discretionary funding underwrites general LD functions such as counter service, fiscal activities, special studies, training programs/materials, etc. These activities, along with the need to retain a baseline level of staffing, largely account for the disparity between the declines in direct development-related workload and the reductions to overall budget and staffing. Should economic trends necessitate further reductions to the existing 9 FTEs (outside of the Stormwater program), the Division's ability to maintain current services would require rapid (fee-supported) augmentation via contract providers.

<b>Land Development Division: Stormwater Program Budget/Workload/Staffing Trends</b>						
	<u>07-08</u>	<u>08-09</u>	<u>% Change</u>	<u>09-10</u>	<u>% Change</u>	<u>Change since 07-08</u>
<b>Budget Actuals</b>	\$753,623	\$791,843	5%	\$836,256	6%	11%
<b>Total Project Reviews</b>	35	100	186%	53	-47%	51%
<b>Business Compliance Inspections</b>	265	434	64%	504	16%	90%
<b>Total Inspections</b>	1390	1124	-19%	837	-26%	-40%
<b>Consultant Contracts (Project Review)</b>	156	68	-56%	32	-53%	-79%
<b>Personnel</b>	3.25	4.0	23%	4.0	0%	23%

Funded predominantly through assessment revenues, the **Stormwater Program** is largely isolated from the economic factors which have affected the rest of the Land Development Division. Its functions are also quite distinct from those performed by the rest of the Division.

Over a multi-year period, the total number of project reviews by the Stormwater Program has also climbed, although the sharp drop between Fiscal Years 08-09 and 09-10 is logical. It's also important to note, however, that increases in reviews and inspections are not tied solely to economic conditions, as program/permit regulations drive program activities.

Although the total number of inspections has declined by 40% since FY 07-08, appropriations have not declined as the City must fund costs for its own review and permit fees imposed by other regulatory agencies.

Business Compliance inspections are up dramatically (90%) since FY 07-08. Upon request, the Riverside County Flood Control and Water Conservation District provided statistics from other jurisdictions which allows comparison of business inspections conducted in FY 07-08 compared with FY 09-10. Analysis of this data further underscores the complications caused by imprecise program requirements (discussed later in this section). The data shows the following trends:

Moreno Valley: 90% increase  
 Corona: 21% increase

Hemet:	14% decrease
Lake Elsinore:	95% decrease

While some of the differences between statistics reported by Corona and Moreno Valley may be attributed to Corona's practice of annually inspecting more businesses than required, the vast discrepancies between Moreno Valley's 90% increase and Lake Elsinore's 95% decline are remarkable. While both of these jurisdictions (seemingly on opposite ends of the compliance spectrum) have apparently met program requirements - - as evidenced by the absence of violation notices -- it could be asserted that Moreno Valley's program could be decreased in terms of scope and resources.

The Stormwater Program bases its business compliance inspection activities on the City's Business License data base. As a result, businesses which have failed to register with the City of Moreno Valley could also be unintentionally excluded from NPDES compliance inspections. Although audits of business license programs can be costly, Stormwater Program funding could potentially be used to help offset audit costs due to the reliance upon accurate data for compliance purposes.

While staffing in the Stormwater Division grew to 4 FTEs over a multi-year period, the use of consultant support has decreased markedly. While this reduction is anticipated due to declining development, the Division's compliance responsibilities remain. With approximately 20% of the total FY 2010-11 Budget comprising General Funds for unrecoverable (and mandatory) costs associated with the City's own NPDES permit, the DRO process has not affected the unit. What could not be discerned from the level of review undertaken in this project, however, is the extent to which the City's program requirements could be reduced while still meeting regulatory requirements. With the prospect of heavy fines for non-compliance, program managers in local jurisdictions logically focus their efforts on applying all available financial resources toward meeting the program compliance requirements prescribed by the nebulous term known as MEP (Maximum Extent Practicable). As compliance is ultimately determined by regulators based on an aggregation of factors rather than meeting a well defined list of minimally acceptable procedures, program staff are faced with hitting what is often described as a "moving target" of compliance. As a result, local jurisdictions typically design Stormwater program activities to preclude costly sanctions which could be imposed for non-compliance. Because regulatory agencies have not specified precise minimum compliance standards, jurisdictions are often left to implement higher levels of program activities more likely to be deemed acceptable by regulators. Absent precisely defined minimum compliance standards, extremely compelling rationale for exhaustive program review, and the existence of significant stand-alone revenue sources, it is common for Stormwater programs to operate in the manner seen within the City's Land Development Division. Should the City face the prospect of significant fee adjustments or additional General Fund support, an in-depth

technical program review could be considered to accurately gauge the extent to which some program activities could be curtailed. Any such review, however, must consider that “minimal compliance” standards are not clearly defined.

The Division Manager indicated a sense of frustration over the Division’s reduced ability to complete some other tasks in a timely manner, particularly those which are not directly billable to developers. Specific examples which could be reviewed in terms of data were not available. One of the areas discussed by the Division Manager pertained to unavoidable delays in final Bond Releases (associated with the built-in lead time for submission of Agenda Items for the City Council). It was indicated that a proposal to authorize the PW Director to approve final bond release may be forthcoming to the Council. Based upon the increased speed with which partial security reductions can now be approved administratively, a similar process for final releases could offer similar positive benefits in terms of efficiency of the overall process and customer satisfaction, while preserving the Council’s policy authority to accept improvements into the City’s infrastructure system.

The Division Manager currently leads weekly meetings to review the list of active plan checks, to visually identify potential problems. Among the indicators used in this informal review are increased time periods for subsequent inspections (which could indicate potential process problems). While this valuable information merits ongoing review, simple steps could be used to enhance the efficiency and accuracy of the process through a variance reporting technique.

**Recommendation:** Additional performance measurement criteria should be established to track trends which provide a more complete picture of the successes *and* challenges facing the Land Development Division. These criteria must emphasize service delivery from the customers’ view (e.g. public, other City departments) to capture the outcome measures most relevant to the customer.

**Recommendation:** The Land Development Division Manager and Public Works Director should formulate alternate strategies to assign additional staff support based upon workload peaks within the Entitlement review process. Cross-training of engineering staff in one or more of the other Divisions within the Public Works Department could allow quick augmentation of staff resources in this area to reclaim on-time successes achieved in previous years. As an additional alternative, contract support could be considered as a means through which to address workload spikes, recognizing that the efficacy of this approach would also require consultant familiarity with unique City requirements and processes.

**Recommendation:** The Land Development Division should begin to (prospectively) measure accuracy/quality of plan checks. This could be

accomplished by evaluating the number of comments which appear on subsequent plan checks but do not appear on the first check, with organizational goal to preclude such situations. The measurement process must also take into account that initial reviews can sometimes be conducted before the developer's plans are complete.

**Recommendation:** The Land Development Division should log the number of interactions associated with project reviews, as another means of gauging efficiency and flagging projects which are requiring an inordinate amount of interaction. Adding this to a wider array of measurements could provide Division and Department managers with additional barometers which can increase ready access to empirical information to help identify trends and craft process refinements.

**Recommendation:** That the Land Development Division institute spreadsheet-based tracking techniques to create visual flags when specific indicators (such as increasing inspection period intervals) suggest the need for additional review of active cases. The Division successfully uses these techniques for its extensive financial monitoring procedures, and could achieve similar benefits by streamlining the process so that the Director can quickly discern potential problem areas. Subsequent refinements could add automated e-mail alerts to Division staff in advance of the weekly meeting to provide immediate response information to the Division Manager.

**Recommendation:** That the City explore the potential use of Stormwater program funding to support audits of the Business License program to help ensure accurate registration. As the Stormwater program relies upon the accuracy of this data base for business inspection purposes, a sufficient nexus may exist to apply non-General Fund revenues for this activity.

## Organizational Restructuring Opportunity

To a greater extent than any other facet of the City's Public Works Department, the demands placed upon the Land Development Division are driven directly by private development throughout the City's 50+ square miles. Land Development's processes play an important role in achieving the City Council's objectives for spurring job creation throughout Moreno Valley. Because the Economic Development Department spearheads the City's overall efforts in this area, creating greater synergies (and a direct link) between EDD and Land Development would be part of the City's forward lean to jump start the regional economy. A comprehensive approach toward retaining, attracting, and assisting local businesses would be bolstered by a minor reorganization which could have major positive impacts for the private sector.

Recasting the Land Development function and staff as a Division of the Economic Development Department would provide comprehensive assistance to the private sector throughout key facets of the development process and appropriately reflect Moreno Valley's emergence as a regional economic powerhouse and the medical/technology/commercial hub of western Riverside County. Synching land development and economic development under the EDD umbrella holds enormous potential to rev up the City's land development processes through a shared focus on fueling the economic engine which will sustain Moreno Valley for decades to come. It would also promote establishment of Fast Track Land Development services (as recommended in this report) while maintaining strong linkages with the Capital Projects section to ensure that the City remains proactive in sustaining the robust infrastructure program required to support long-term economic growth.

A restructuring of the Land Development function must also take into account the City's NPDES compliance program. The Stormwater Program's current placement within the Land Development Department is neither required for the Program's success, nor a logical fit within the City's Economic Development Department's arena. Stormwater was formerly a part of the Special Districts function, which reflects the program's assessment-based funding structure and its genesis in the formation of County Service Area 152. The current tie to Land Development reflects the City's need to ensure that development meets NPDES permit requirements. But the Program's responsibility to continually monitor (and ensure mitigation measures for) urban runoff diverge from the Land Development Division's focus on new development. The staff's regular interaction with regulatory agencies and co-permittees also reflects the distinct nature of this special program. Placement of the Stormwater program in other jurisdictions runs the gamut; association with Public Works reflects an operational tie to municipal catch basin/storm drain systems, while some cities have even appended this function to the City Manager's Office.

**Recommendation:** Recast the Land Development function and staff as a Division of the Economic Development Department to capture synergy and provide comprehensive support to local businesses which hold the key to job creation in Moreno Valley and the region. The revised configuration will also ensure the degree of knowledge transfer vital to synchronizing these vital activities.

**Recommendation:** *If the City restructures the Economic Development Department to create a Land Development Division, the Stormwater Program should remain within the Public Works Department. Restoring the historical tie to the Special Districts Division would maintain the link with other Public Works responsibilities while reflecting the unique nature of NPDES compliance activities.*

# Capital Projects Division

As a Key Division within the Public Works Department, Capital Projects implements the City's capital improvement program. The Division is responsible for engineering design and contract administration, Requests for Proposal (RFPs) and construction for City-funded capital projects which include constructing storm drains, widening roads, installing and upgrading traffic signals, improving roadway conditions, curb and gutter installations and replacements, upgrade of roadway medians, bikeways, bridges and facilities. The Division also provides Real Property services to all departments in the City. These services include acquisitions/negotiations, appraisal reviews, cost estimates, legal description review, title and escrow services and oversee and coordinate Right-of-Way consulting services.

The report on this Division is presented in two sections, the first which addresses organizational culture and practices and the second which pertains to Project Management. Observations/findings are presented in each sub-section, immediately followed by recommendations relevant to the topics addressed.

## Part I: Organizational Culture & Practices

### Staffing

Staffing levels within the Capital Projects Division reflect the organizational culture which assigns Professional Engineers as project managers. Assignments (based upon this premise) reflect the unique strengths/experiences of individual members of the team. Projects are also rated/scored via a methodology which assigns points based on complexity; this criterion is also considered when assigning projects among the Engineering staff.

Over time, the Division has used alternate strategies for managing projects. Projects have been assigned vertically (where a single project manager would oversee all phases of a project through completion) as well as in a split fashion (where projects would be rotated between different managers who would handle design or construction). The former emphasizes accountability, while the latter provides additional checks & balances among the major project phases. With the Division's focus on delivering finished projects within budget and time constraints, the vertical assignment approach is the preferred method. By focusing accountability on a single project manager, this approach also greatly

reduces the potential for confusion or questions regarding responsibility for all phases of project delivery. During the course of this study, the Public Works Director directed the Capital Projects Division to return to a vertical assignment process.

Management assistants, who support multiple project managers, provide the range of support required to process documents/invoices/notices/etc. associated with capital projects. Real property agent services, formerly provided by in-house staff, are provided via contract. Although a cost analysis was not performed as part of this study, the use of contract assistance should be reevaluated if the capital projects workload increases significantly.

At present, the Capital Projects Division assigns professional engineers to manage consultant activities for all project phases through delivery. While there are obvious advantages to involving skilled engineers in overseeing engineering work, this traditional method also assumes that engineers have the background best suited to oversee activities such as property acquisition, environmental, design and construction. This may not always be the case, however, since these activities cross a wide range of disciplines. Some agencies employ experienced Project Managers who, while not professional engineers, possess a broad range of expertise in shepherding capital projects to completion. Private sector construction management firms also assign generalists (non-engineers) to oversee a wide range of capital projects. Data pertaining to the Division's varying degrees of success in delivering projects within time and budget (primarily soft cost) parameters suggests that an opportunity may exist to try an alternate strategy to assign private sector project managers (to include non-engineers) to deliver entire City projects. This concept is presented with the recognition that it may not be readily embraced by the Division's cadre of experienced engineers, which would be understandable. But the timeliness trends revealed by multi-year project data suggest that the time is right to consider alternatives to current project delivery methods.

A controlled experiment through which project management consultants are assigned several projects may assist the City in evaluating this option. At present, consultant project managers are used only for a portion of particular projects (e.g. Design, Construction); the other portion of the project is managed by in-house staff. As discussed previously in this report, a vertical approach to assigning project management is essential to maintaining accountability for project delivery; it is equally suited for consultant project management and would enhance the results of this experiment. A meaningful review would, of course, require steps to ensure that neither overly simple nor overly complex projects are assigned to in-house or consultant project managers. Comparing results would help position the City to make long-term decisions regarding the extent to which project management should be performed by professional engineers or by a blend of engineers and project managers.

**Recommendation:** While the current method of considering the strengths and backgrounds of individual engineers (along with project complexity) makes efficient use of in-house talent, the Capital Projects Division should consider forming project teams which allow engineers to work on projects beyond their realm of expertise and under the guidance of a colleague with specific experience in that area. While cross-talk and site visits are helpful in broadening the staff's exposure to project types, a more formalized project team approach would...over time...strengthen the experience base throughout the Capital Projects Division.

**Recommendation:** The Public Works Department, in conjunction with the City Manager's Office, should undertake an experiment to determine whether capital projects should continue to be managed solely by professional engineers, or whether a blend of engineers and generalist project managers (non-engineers) might better meet the City's needs for delivery of a wide range of capital projects. Such an experiment should be carefully structured to ensure that assignment of projects among contract consultants and in-house engineers fully represents the range of projects/conditions generally managed by existing staff. This will help ensure that the results (budget/time/quality) can be fairly compared to determine the extent to which refining the Capital Projects Division's project management methods could prove beneficial to the City.

### **Intra-Departmental Synergy**

Formerly within the same Division, Land Development and Capital Projects continue to coordinate closely, reflecting the natural tie between private development and the need for capital improvements within the City.

The Capital Projects Division coordinates the City's Capital Improvements Program with the City's electric utility CIP to maximize efficiency and minimize inconvenience to residents and businesses.

Regular interaction between Capital Projects and Maintenance & Operations allows timely identification of projects to provide long-term remedies for recurring maintenance problems (e.g. roadways, catch basins, etc.).

**Recommendation:** To the greatest extent feasible, the Capital Projects Division should schedule work on multiple projects within the same area in a manner which maximizes use of General Fund resources. Projects which rely upon local funding should proceed first, with restoration (e.g. roadway remediation) costs legitimately borne by projects supported with external funding.

## Best Practices

The Capital Projects Division routinely relies on rules and procedures promulgated by the California Department of Transportation. The Caltrans *Local Assistance Procedures Manual* (LAPM) is provided “to aid California local agencies scope, organize, design, construct and maintain their public transportation facilities when they seek Federal Highway Administration (FHWA) funded federal-aid or state funding.” The publication describes “the processes, procedures, documents, authorizations, approvals and certifications which are required in order to receive federal-aid and/or state funds for many types of local transportation projects.” The volume exceeds 1000 pages, provides extensive guidance on project preparation/construction/inspection and is a logical source of reference material to local project engineers.

The Division also provides training to project engineers through attendance in Caltrans’ “Resident Engineer Academy.” This 3½ day program is conducted by State transportation officials in cooperation with UC Berkeley’s Institute of Transportation Studies. The curriculum includes: “Resident Engineer’s Roles and Responsibilities, Federal-aid Project Records & Accounting, Control of Materials, Quality Assurance Programs, Control/Scope of Work, Legal Relations and Responsibilities, Prosecution and Progress, Labor Compliance and Equal Opportunity, Disadvantaged Business Enterprises, Labor Compliance, Claims and Claims Avoidance and Tort Liability.” The Division Manager indicates that all of the City’s project engineers attend the program once every 3-4 years.

Given Caltrans’ role in setting industry/regulatory standards for projects in which it partners, the City staff’s reliance upon state training and publications is to be expected.

The Capital Projects Division uses monthly meetings to review individual project schedules, facilitate cross-talk to resolve common issues. The Deputy Director leads these meetings.

Project expenditure reports provide detailed, timely information regarding costs assessed to each project to-date, which includes encumbrances. While this requires that project staff enter transactions (prior to the Deputy Director approves payments against invoices), the practice effectively supplements information currently available via the City’s centralized financial system.

While not part of a formal Best Practices program, the Capital Projects Division Manager reports the benefits of interaction with counterparts via APWA meetings. Discussions at such forums have generated ideas (such as “cold in place recycling” and use of a laser-equipped Profilograph on paving projects) for incorporation in this City.

Although funding/staffing constraints preclude production of a local report of the same magnitude, the Public Works Department may find it instructive to review the “Performance Measures” report issued quarterly by Caltrans.

The following excerpt describes some of the key objectives behind its preparation: *“In addition to being an excellent tool for reporting Department’s performance, this report is also a resource to guide management in decision making. The information contained within this report is an indication of past management decisions. The overall goal of this report is to provide managers critical information on performance so that future decisions will improve Department’s performance.”*

An outgrowth of strategic planning and reporting to senior State officials, it charts progress against key indicators with dashboard and narrative information. A recent report can be found online at: [http://www.dot.ca.gov/perf/docs/FY2010-11\\_Q2\\_Quarterly\\_Performance\\_Report.pdf](http://www.dot.ca.gov/perf/docs/FY2010-11_Q2_Quarterly_Performance_Report.pdf). In quantifying performance standards, the indicators also point to Best Practices for efficiency, safety and responsiveness.

**Recommendation:** The Capital Projects Division should review the Caltrans “Performance Measures” reports and consider opportunities to introduce additional Best Practices which are consistent with the *Local Assistance Procedures Manual* already in use locally.

**Recommendation:** The Capital Projects Division should ensure that the City’s Administrative/Financial Services Division is provided complete information regarding processes currently used to track project expenditures; this step will help ensure exploration of this business need as the City implements financial system upgrades. As the City’s financial system evolves, the Capital Projects Division should continue to evaluate the need to continue duplicate entry of project expenditure data (in the Departmental and Citywide systems).

## Contracts

The Capital Projects Division makes extensive use of contract services for various phases of each project.

The Capital Projects Division tracks spending on contract services through its project expenditure tracking process. These reports show spending to-date, as well as the contract expiration date. The latter information is used by the Deputy Director to ensure that contracts are renewed as required; the data is populated into Microsoft Outlook Calendars to provide automated reminders (30-days in advance) to the Division’s administrative support staff.

On-Call Consultants were selected via an RFQ process, conducted in 2008. Proposals were sought in the following disciplines: Architectural Services, Caltrans Local Assistance, Civil Engineering Design, Community Relations, Construction Management & Peer Review Plan Check, DBE Services, Environmental Services, Grant Preparation & Management, Landscape & Irrigation, Material Testing & Geotechnical, Pavement Management, Project Management, Right of Way, Surveying and Title Reports.

City staff members reviewed qualifications as submitted by interested firms. The review panels comprised employees from Public Works (Capital Projects, Land Development, and Special Districts) along with representatives from the Building & Safety, Planning and Parks Departments. Although many of these services are highly technical in nature, it is likely that employees from other key "customer" departments also possess sufficient background/experience to participate meaningfully in the review process.

At present, 77 firms (out of nearly 250 which initially expressed interest) are on this list of pre-qualified consultants.

Support activities for major capital projects (defined in CPD Policy 2008-01 as projects valued above \$250,000) are awarded through a formal RFP process specific to such projects.

As support is required for smaller, less-complex projects, specific proposals are requested from pre-qualified vendors. CPD Policy 2008-01 (On-Call Consultants Utilization Policy) guides staff on the manner in which to interact with pre-qualified consultants; steps correspond to cost thresholds for the specific project. For projects valued at \$50,000 or less, a "Fee Request Letter" is sent to consultants based on a numerically ordered list. (The order in which consultants are placed on this list is determined by the last time they performed work for the City, with the firm most recently awarded work moving back to the bottom of the list.) For these smaller projects, the procedure specifies that "if consultant has already contracted with the City, we will not solicit the same consultant in order to provide others on the list an opportunity to propose."

Policy 2008-01 provides weighted criteria for consultant selection/ranking for specific projects which includes Project Understanding (20%), executable Deliverable Plan (30%), Resource Allocation reflecting the project team (30%) and Deliverable Schedule (20%).

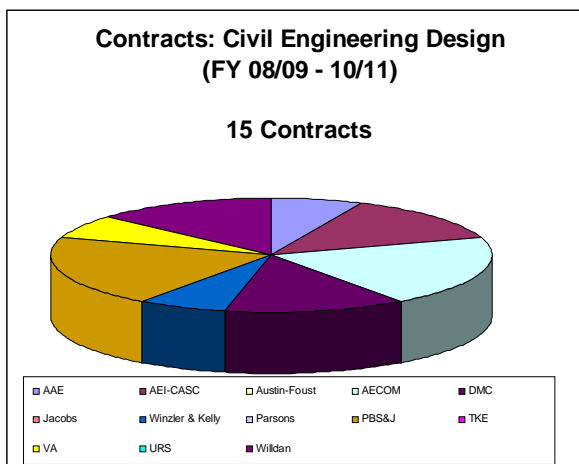
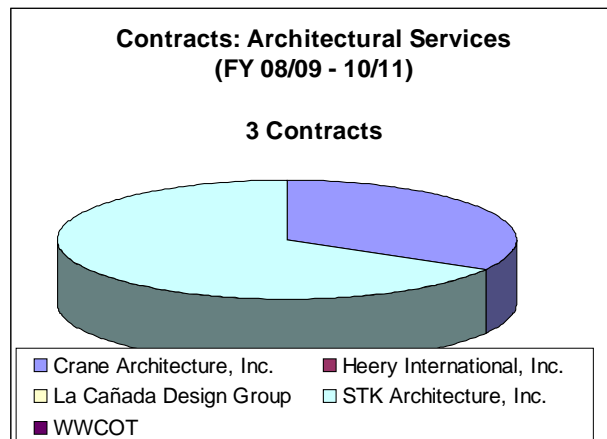
The Division Manager reports that shortly after initiating the process called for in CPD Policy 2008-01, staff found that the "numerical order of awarding contracts to the next in line" was not working. When firms that were next on the list were contacted, they were often not ready to take on a project at that particular time due to existing workloads. Another obstacle to accepting work was reportedly the firms' reduction in workforce due to lagging economic conditions (although it

would seem that a firm would be able to quickly ramp up with specialized staff to accept new jobs to bolster profits). As a result, procedures being followed to award smaller consultant contracts are inconsistent with the requirements set forth in CPD 2008-01.

The Division Manager also reports that the rotational process prescribed by CPD 2008-01 has become less relevant since most of the capital projects undertaken are of higher value, thereby requiring acceptance of proposals from all On-Call Consultants within the applicable discipline(s).

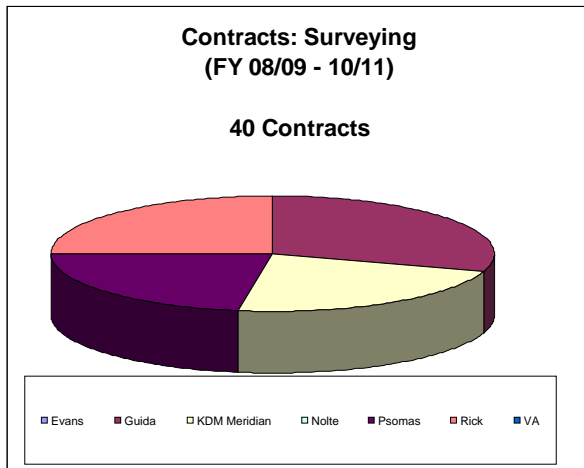
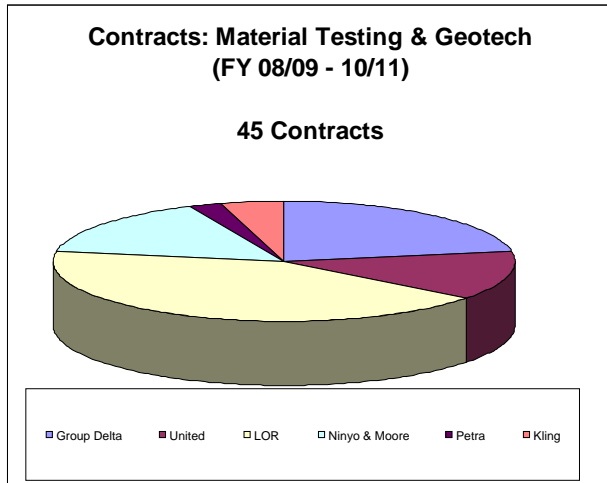
For purposes of this study, data was gathered regarding the frequency of contract awards to pre-qualified consultants. For purposes of this analysis, four disciplines were selected because of the type or volume of activity among the 15 disciplines covered by these contracts. Please note that the data below pertains only to use of services by firms via the On-Call Consultant Listing; it does not reflect use of services secured by separate, project-specific RFPs.

Of the 5 contracts with On-Call architects, only 2 were used over a three-year period. STK Architecture received 2 assignments, and Crane received one. The remaining three firms performed no work under this contract. Despite the low volume of work in this category, the spread of work among pre-qualified consultants is less than would have been anticipated.



A total of 15 contracts were issued for Civil Engineering Design services, with work conducted by 8 of the pre-qualified firms. Two vendors (AECOM - - formerly Boyle Engineering and PBS&J - - since merged with Atkins North America) each received slightly more work with 3 assignments each. As illustrated in this chart, the number of assignments made among the panel is relatively well distributed.

The category of Material Testing and Geotechnical Services was the most highly utilized (by volume) among all disciplines included in the On-Call Consultant list. While all six of the listed firms were used over the past three years, assignments were the least balanced of all categories, with one firm (LOR) receiving 42% of the workload. At the other end of the spectrum, Petra Geotechnical and Kling Consultants (formerly Zeiser Kling) received 2% and 4% of assignments respectively. As discussed elsewhere in this report, the City's attempts to distribute work among contractors were sometimes hindered by various firms' inability to take on new projects. Over-reliance upon one provider (as seen in this category) is not in the City's long-term interest. Steps to ensure that all pre-qualified firms are able to undertake assignments would assist the City by enhancing assignment options and managing costs.



Surveying, for which 40 contracts were issued via the On-Call Consultants list, was performed by four of the seven qualified firms. Work was spread between four of those firms (Guida Surveying, KDM Meridian, Psomas and Rick Engineering).

**Recommendation:** When the existing list of pre-qualified contractors expires, the Capital Projects Division should solicit participation by key “customer” departments (such as Economic Development) which have staff members who possess sufficient background/experience to participate meaningfully in the review process. While enriching the review process, involvement of key stakeholders would also enhance the collaborative partnerships essential to the Public Works Department’s overall success in collaborating with other City departments.

**Recommendation:** The Capital Projects Division should update CPD Policy 2008-01. As the rotational policy (intended to spread work more evenly among On-Call Consultants) became unworkable shortly after being initiated, the Capital Projects Division should, in concert with City Purchasing managers, create a new process which balances smaller assignments among pre-qualified firms and update CPD 2008-01 accordingly.

**Recommendation:** When issuing the next RFP for On-Call Consultants, the Capital Projects Division should require interested firms to demonstrate their ability to accept assignments from the City of Moreno Valley. Requiring documentation of the work volumes handled by each firm over the past 3-4 years would provide staff with a useful barometer of each firm's ability to handle varying workloads, and allow accurate evaluation of the firm's availability when considering placement on the On-Call Consultants List. By pre-qualifying firms which have the skills, experience and availability to take on assignments, the City can better ensure a broader distribution of work...which results in a broader experience base as well as competitive cost management.

## Technology

The Capital Projects Division has not implemented any major technology projects in the recent past. Staff continues longstanding use of standard technologies such as Microsoft Project (for project management) and AutoCAD (for in-house design on small/simple projects).

The City's web page provides a wealth of information to local residents and businesses regarding City programs, services and issues. Near the bottom of the Capital Projects Division's page ([http://www.moval.org/city\\_hall/departments/pub-works/capital-proj.shtml](http://www.moval.org/city_hall/departments/pub-works/capital-proj.shtml)) sixteen photos can be found which feature before/after photos of several projects. At present, paving projects are featured, along with a few photos of sidewalk projects as well as Patriot Park. Providing photos of a greater number of significant projects is a great way to help communicate the City's ongoing commitment to quality of life improvements through capital investments. Enhancing display of and access to this information would build upon current processes to better update local residents.

**Recommendation:** The Capital Projects Division, in concert with the Information Technology staff, should expand the information currently available regarding major projects to increase the number of projects featured, broaden the types of projects featured and enhance the placement of this information via link from the City's Home Page (or, at a minimum, the Public Works Department's main page). A link from the City's main web page, such as the one which currently provides information on "New Development," would greatly speed residents' access to this important information which shows how their tax dollars are being directed to key projects.

## Customer Feedback & Process Enhancement

The Capital Projects Division does not employ any processes to gather feedback regarding its delivery of finished products. The emphasis upon cost management has dissuaded staff from surveying customers. The Division Manager reports that it is common to receive positive verbal feedback from stakeholders once projects have been completed; these comments generally convey satisfaction over the finished product.

In advance of major projects, the Capital Projects Division may hold an Open House event (during the Environmental phase) to gather input on situations which can be mitigated in the project plan. While attendance has generally been characterized as minimal, and while the forums can provide helpful information to project planners, they do not assist with performance measurement or process improvement.

During construction phases, the Division generally uses the number of telephone calls received to gauge the effectiveness of steps to provide advance notice of impacts to residents/businesses as well as mitigation measures to provide access/egress to motorists. While a dramatic and/or prolonged spike in telephone calls would be reasonably interpreted as an indication of public irritation, the absence of such calls does not provide sufficient reassurance of public satisfaction.

While it is reasonable to expect generally positive feedback following completion of capital improvement projects, it must also be recognized that informally conveyed satisfaction (by residents, businesses and City officials) may reflect positive comparison of “before vs. after” conditions, as well as a sense of relief once construction activity ceases and public access/use is restored. These are certainly important sentiments, but they don’t offer meaningful feedback regarding other elements including project design, timelines and budget management. *Without comprehensive feedback, the Department misses opportunities to undertake continuous process improvement aimed at building upon strengths and overcoming weaknesses in project delivery methods.*

**Recommendation:** The Capital Projects Division should institute a brief, qualitative survey process through which its customers can provide meaningful feedback regarding the Division’s project delivery methods. The survey should be of sufficient scope to address all key phases of the project; the survey itself should be issued in more than one phase to obtain timely stakeholder feedback on elements to include pre-construction (e.g. public input and information dissemination), construction activities (to include steps taken to mitigate

inconvenience) as well as the finished product. While somewhat unconventional, a multi-stage evaluation will allow the City to gather meaningful feedback on a real-time basis, before general impressions of a finished product replace memories of resident/business experiences which could prove instructive to the Capital Projects staff. Undertaking a survey process also conveys the Division's commitment to better understanding and meeting the needs of project stakeholders.

## **General Management Practices**

Adopted annually, the Capital Improvement Plan (CIP) guides the Capital Projects Division's efforts to fulfill the City's long-term planning objectives. By design, this document is ideally suited to direct resources toward achieving the City Council's priorities. By seeking approval of CIP amendments over the course of the year, the Public Works Department has the tools to ensure that staff activities correspond to Council direction. Aggregation of all project information also allows the City's executive managers and elected policymakers to set and monitor priority projects.

Historically, this document reflected a 10-year plan (shaped predominantly by funding availability), which logically would have constrained its strategic value to the City. In its current configuration, the CIP is more comprehensive (in scope and timing) and effectively categorizes projects with regard to the degree of funding currently available (and identifies funding sources, to include carryovers).

The Capital Improvement Plan budget is presented annually, in conjunction with the City Council's consideration of the annual operating budget. Somewhat distinct from the operating budget, however, the CIP budget is prepared by the Public Works Department based upon input from other City departments. The bifurcation of this process has evolved over many years, and is inconsistent with the City's centralized approach to fiscal planning. Re-establishing an interactive process through which Finance & Administrative Services collaborates with Public Works would better synchronize all aspects of the City's financial management activities.

A total of 5 Administrative and functional policies were provided for this review. They are currently in hard copy form, with plans underway to post them to the intranet for quick access by employees. Enacted between 2007-2010, they pertain to the following areas: Document Review Requirements, On-Call Consultants Utilization, Bid Opening & Analysis, Pavement Resurfacing Operations & Maintenance, and Archive Documents. The number and scope of Division administrative policies in place is less than expected; the majority of the documents spell out procedures rather than articulate policy provisions. While a lesser number of policies may reflect the extensive use of checklists within the

Division, they do not express organizational goals or assist decision makers in selecting among courses of action which best meet overarching organizational objectives.

A few comments regarding specific policies are offered for staff's consideration:

- Policies A-7 (Document Review), A-10 (Archive Documents), 2008-02 (Bid Opening) and 2008-03 (Pavement Resurfacing) do not articulate any policy rationale for procedures prescribed in each. As such the documents are procedural instructions. Most of the procedures are written in clear terms, with several instances (such as section B2 of Policy A-7) which may be confusing to staff.
- Policy 2008-02 (Bid Opening and Analysis), which pertains to an area where extreme vigilance is required to ensure compliance and legal sufficiency, includes no provision for coordination with the City Attorney in the event of other irregularities or situations where interpretative advice would be beneficial.

**Recommendation:** Development of the annual Capital Improvement Plan budget should be a more collaborative effort between the Public Works Department and the City's Finance & Administrative Services Department. A team approach can capture the synergy of project/fiscal expertise, provide additional analysis of capital projects funding, and ensure consistency with financial management policies established by the City Council.

**Recommendation:** The Capital Projects Division, with guidance from the Public Works Director, should undertake a systematic update of Administrative Policies. This effort (conducted over time) should focus on providing employees with documents which provide policy guidance to foster decision making which reflects organizational (City) objectives and values, rather than procedural checklists.

## **Accountability**

The Capital Projects Division uses staff meetings to keep all members informed about current initiatives. Staff members also work together on consultant selection processes, visit each others' projects and cover one another's vacation absences. Administrative staff members are encouraged to visit major project sites, which enhances their understanding of their roles in the overall project delivery process.

Apparently absent from these discussions, however, is discussion of the Division's overall successes/challenges in delivering projects within fiscal and schedule contexts. While the Division Manager's observations (that project managers would find it inappropriate to comment on a colleague's success in

meeting objectives) are reasonable, this need not preclude meaningful discussion regarding the team's overall success.

Prior to this study being undertaken, the Capital Projects Division did not have or use data which illustrates the extent to which project managers deliver completed projects within budget and time parameters. Now that this information has been developed for projects completed over the past 3 years, the Division can maintain this information on a prospective basis...to measure Division and individual performance.

**Recommendation:** The Capital Projects Division should continue to track delivery of completed projects within budget and time parameters.

**Recommendation:** Capital Projects Division meetings should include sharing results of ongoing trend analysis of the team's successes in project delivery. This topic could be introduced through discussions of aggregate data and the trends revealed therein. Over time, addition of more specific project data would likely be welcomed and could facilitate even greater collaboration among team members focused on the Division's overall success in delivering top-quality projects, on-time and within budgets.

**Recommendation:** Performance evaluations of individual project managers should make specific reference to project delivery data (Budget/Time) as an element of each manager's overall performance.

## **Part II: Project Management**

### **General Practices**

Capital Projects staff participates in monthly and weekly meetings, led by the Deputy Director, to address project status. The monthly sessions deal primarily with project schedule issues, where participants discuss status, trends and share experiences. The Public Works Director indicates that he sometimes attends a small portion of these monthly sessions.

These 90-minute weekly meetings address more detailed aspects of projects, affording discussions of specific follow up actions which also indicate areas where the Deputy Director can play a role (such as in contact with counterparts at other agencies, such as EMWD). The meetings also allow tracking of forthcoming staff reports to appear on the City Council's agenda.

Weekly one-on-one meetings are also scheduled between the Public Works Director and the Deputy Director; these 20-minute sessions are designed to hit the highlights of Capital Projects Division issues. Formal sessions are augmented by real-time interaction between the Director and Deputy Director as needed.

The Capital Projects staff makes ample use of checklists to ensure that requisite steps are followed in various phases of managing capital projects. Because the checklists are primarily quantitative (to ensure that a step was completed) rather than qualitative, this process does not provide meaningful information with which to gauge factors such as completeness of the work performed. As such, the existing checklist process could not preclude the Division's recent experience with a roadway project (for example) in which the design engineer failed to provide for complete drainage. In this particular instance, it appears as though the error was also overlooked by numerous members of the project team, to include the firms hired for Constructability Review and Geotechnical Testing...as well as inspectors. This situation reveals the extent to which an over-reliance upon quantitative checklists does not preclude complications in project delivery. Since this particular situation, the Deputy Director has enhanced verbal coaching to project managers, emphasizing the need to "Trust but Verify" key work performed by contractors. Discussions at meetings have also touched upon the importance of assessing risks associated with various projects. No formal process changes, however, have been instituted at this point with regard to qualitative assessment.

**Recommendation:** While it may be unrealistic to expect the Public Works Director to attend each monthly project tracking meeting, he should take a more widely visible role in the process through which the Capital Projects team reviews project status. Although weekly 20-minute meetings with the Assistant Director, supplemented by as needed discussions, is helpful, it doesn't go far enough to convey (to the entire Capital Projects team) that the Department Director is thoroughly invested in their collective success.

**Recommendation:** Summary information from project tracking meetings would aid the Director in identifying potential problem areas in the earliest stages. The Deputy Director should assemble a very brief summary document which lists each project, along with its timeline, budget and ratio of hard/soft costs. Simple color coding on this summary document could be used to identify the status of each key component. Green, for example, could indicate that all aspects of the project are proceeding as planned, with yellow highlighting areas where variances are beginning to emerge or are anticipated. Red coding could show projects which projects are beyond budget, beyond time or where soft costs have exceeded acceptable ratios. This monthly report would flag areas for the Public Works Director and Assistant City Manager; access to more detailed documents or discussions with the Deputy Public Works Director could then be used to

provide valuable background and assist senior management in notifying Council members (as appropriate) and directing corrective actions.

**Recommendation:** The Capital Projects Division should amend its existing Checklist process to include qualitative review and risk assessments. Inclusion of specific analytical questions on that checklist can assist team members keep critical factors in mind as they simultaneously manage numerous projects in various phases of construction. Process amendments should include:

- Qualitative review to evaluate the effectiveness/thoroughness of key design/site preparation/construction steps as they are completed, rather than simply indicating that steps have been completed.
- Adding specific categories of risks to each project checklist would require Project Managers to identify specific risk factors applicable to the particular project. The Project Manager would then be required to assess the risk and document steps taken to ensure that appropriate steps have been taken in the design and construction phases to successfully mitigate the risks.

## Performance Measurements

The Capital Projects Division manages and tracks its projects as distinct efforts; prior to this study, there existed no data regarding aggregate or long-term trends.

While weekly and monthly project management meetings foster cross-talk on common issues and lessons learned, there was no centralized means of tracking overall trends pertaining to timelines and costs for capital projects. While Division and Department management felt generally positive about project delivery results, there was no aggregate data with which to validate these impressions. To facilitate this study, Division Staff members were asked to compile statistics pertaining to all capital projects completed in the past three years. While this effort required extensive review of each individual project file, it was the only method of securing actual data from which trends could be identified.

The first step to compiling meaningful data was to distinguish between projects which delivered completed improvements, versus those which for which only design activities were undertaken. Of all projects undertaken by the Division since over the past three years, 71% (45 out of 63) resulted in delivery of completed improvements while 29% resulted in full or partial design.

It is not uncommon for a capital projects team to undertake design for projects which do not immediately proceed to construction. Some typical reasons for this situation include:

- Design (or at least preliminary design) is required to develop a cost estimate for a project which may ultimately be deemed cost prohibitive at the present time.
- Projects can be placed on hold to allow higher priority projects to move ahead.
- Projects can be placed on hold to allow phasing with other projects in the vicinity (which should be completed prior to construction of subsequent projects).
- Design is undertaken to support applications for grant funding (as seen in the federal government's recent emphasis upon directing stimulus funding to "shovel ready" projects.)
- A City Department (customer) may determine that a project is no longer needed or that a new location is required.
- Anticipated external funding becomes unavailable.

While there are clear benefits to ensuring that projects are poised for construction, it is important to ensure that excessive resources are not directed toward design efforts which do not result in construction. Ongoing coordination between City Department Heads (with direction from the City Manager's Office) will assist the Capital Projects Division in directing resources toward high priority projects while maintaining the Division's ability to remain sufficiently nimble to change direction as required.

To assemble trend data regarding the Capital Projects Division's delivery of public improvements, staff provided a list of all projects completed over the past three years along with essential data specifying estimated/actual costs, estimated/actual timelines and hard/soft cost details. The following information was analyzed:

- Comparison of projected cost (*as presented to the Council for initial project approval*) with actual cost.
- Comparison of the project schedule (*as forecasted when the project was presented to the Council for project approval*) with the actual time required to complete the project.
- The ratio of project support costs (soft costs) to construction costs (hard costs). For purposes of this analysis, Right-of-Way acquisition was not considered as such costs vary widely, and are beyond the control of project managers.
- The extent to which significant Scope Change occurred over the course of the project.

On an unweighted average basis, the following trends were identified:

- Projects were completed within 94.4% of estimated budget;
- Projects were completed in 142% of projected timelines;
- Soft Costs (without Right of Way) averaged 61.5%

Obtaining a more meaningful data set, however, required a project-by-project analysis to identify the number of times projects came in under or over budget/time, the extent to which soft costs were under/over a particular threshold, and how often project scopes changed in a significant manner. The results of that analysis, along with an explanation of the associated methodology (where applicable), are presented below.

### **Project Budgets**

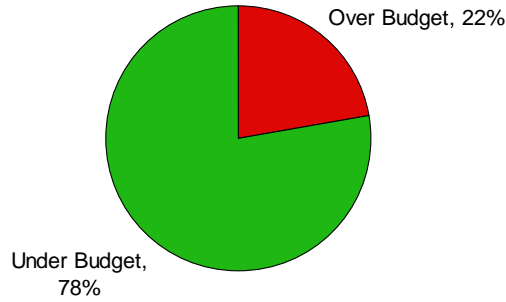
Completion of capital projects within estimated cost parameters is a critical measure of a public agency's effective stewardship of public resources.

**Methodology:** Information regarding budget performance of each project was reviewed in both "bottom line" and component fashions. The latter provided a more detailed view of the factors which affected budget performance. The following project elements affected fiscal performance:

- Design
- Project management
- Construction
- Scope Change
- Unforeseen conditions
- Timeframe of cost estimates
- Minimal variation between projected/final cost (10% was the benchmark used for this study)
- Instances where cost variations could not be discerned from available information

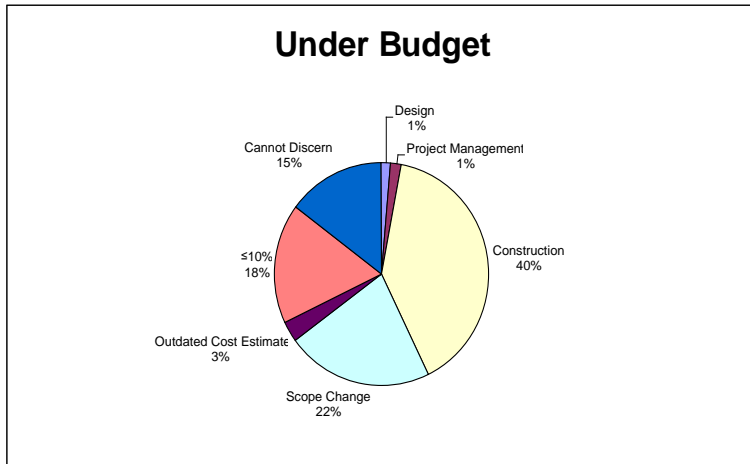
Determining how various project elements affected the ultimate cost required review/analysis of project spreadsheets developed by City staff. In situations where multiple factors affected project outcomes, this analysis apportioned each factor equally. While it may be asserted that a weighted analysis could enhance precision of a project-by-project analysis, emphasizing consistency of this approach yields a meaningful composite view.

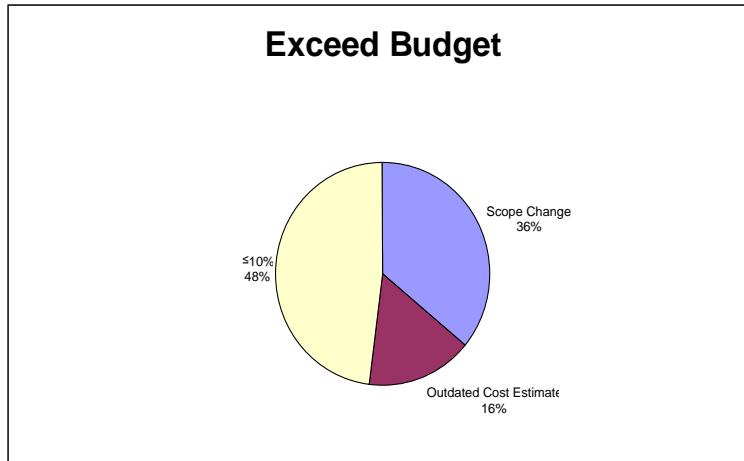
## Percentage Under/Over Budget (Overall)



**FINDINGS:** The overwhelming majority of completed projects were delivered under budget, with only 22% exceeding the cost estimate provided to the City Council when projects were initially presented for approval. It is also noteworthy that some of these projects were based upon estimates developed far in advance (sometimes several years) of actual construction.

Where projects were delivered in the most cost-effective manner, savings in construction costs had the most significant influence. This factor also reflects the highly competitive bidding climate seen over the past several years. It also logically reflects the effectiveness of project managers' diligence in closely managing costs and keeping a watchful eye on change orders. Scope changes also affected financial outcomes, which could be where projects were reduced/phased so that only a portion of the initial project was constructed.





When completed projects exceeded initial cost estimates, the highest number of instances showed a cost variation or 10% or less. As seen in situations where costs came in below estimates, changes in scope also affected the extent to which projects exceeded initial cost estimates. Issues pertaining to

scope changes are discussed subsequently in this report.

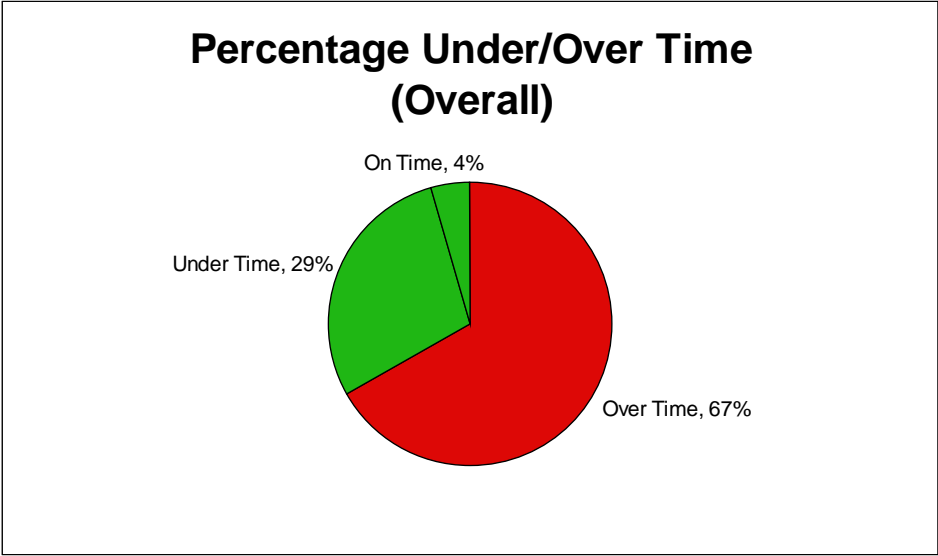
### Project Timelines

As with delivering improvements within projected funding, completion of projects within schedule forecasts is another essential measure of success.

**Methodology:** Information regarding timeliness of each project was reviewed in both “bottom line” and component fashions. The latter provided a more detailed view of the factors which affected completion schedules. The following project elements affected performance:

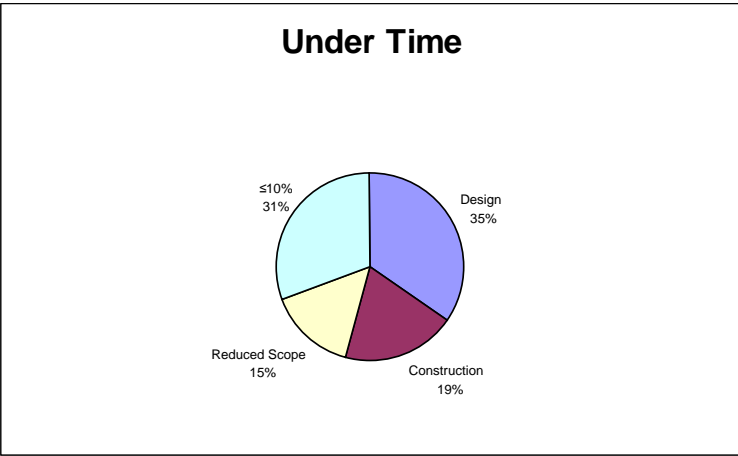
- Design
- Bidding delays
- Construction
- Environmental, Right of Way acquisition and Eminent Domain processes
- Utility work
- Scope change
- Staff support activities
- Weather
- Caltrans coordination and processes
- Minimal variation between projected/final schedule (10% was the benchmark used for this study)

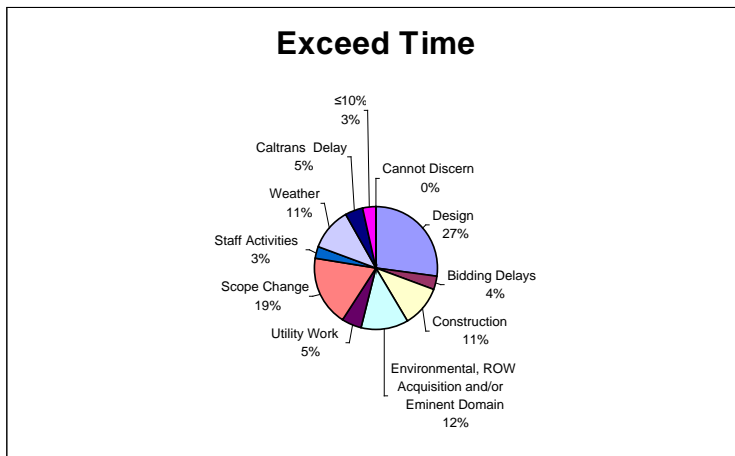
Determining how various project elements affected the ultimate schedule required review/analysis of project spreadsheets developed by City staff. In situations where multiple factors affected project outcomes, this analysis apportioned each factor equally. While it may be asserted that a weighted analysis could enhance precision of a project-by-project analysis, emphasizing consistency of this approach yields a meaningful composite view.



**FINDINGS:** The majority of projects were not completed within the time frame estimated at the time of approval. Thirty-three percent or projects were completed on-time or ahead of schedule.

Where projects were delivered in the most timely manner, the amount of time spent on design had the most significant influence. The second most prominent grouping indicated instances where time savings was 10% or less. Reduced construction periods also affected overall timeliness outcomes.





When project completion was found to exceed initial schedules, delays in the design phase were most often noted. Scope changes (which are addressed subsequently) were the second most influential factor, followed by time required for environmental processes, Right of Way and property acquisition.

### Soft Costs

In the general vernacular of capital projects construction, the term “Soft Costs” refers to costs associated with a range of activities to include: design, construction management, survey, soils/geotechnical testing, inspection, project administration and environmental. Success in managing these costs, as a percentage of construction outlays, is another relevant measure of project management activities.

**Methodology:** Because projects differ in scope and complexity, *there is no simple or standard formula through which to measure all capital improvement initiatives.* Additionally, the extent to which project-related activities are charged to public infrastructure projects in some jurisdictions may differ due to policy direction regarding the level of cost recovery vs. agency participation to stimulate development. Ranges of these costs can be affected by factors such as:

- Simplicity/Complexity of design, particularly in relation to the cost of actual construction
- Project scope (larger projects typically involve a lower percentage of soft costs, while support costs for smaller projects may sometimes represent a higher percentage of construction costs).
- Participation by federal and/or state agencies
- Environmental issues
- Required qualifications of project staff (e.g. inspectors vs. licensed engineers)

Recognizing those factors, several general parameters represent reasonable cost ranges for key activities. Design can typically be completed within 6-15% of construction costs. Similarly, construction management costs often range between 5-15% of construction costs.

As indicated above, Right-of-Way acquisition costs can vary widely among projects; project managers are largely unable to control these costs beyond any design options which may be available. Consequently, Right-of-Way acquisition costs have *not* been included as “soft costs” for purposes of this study.

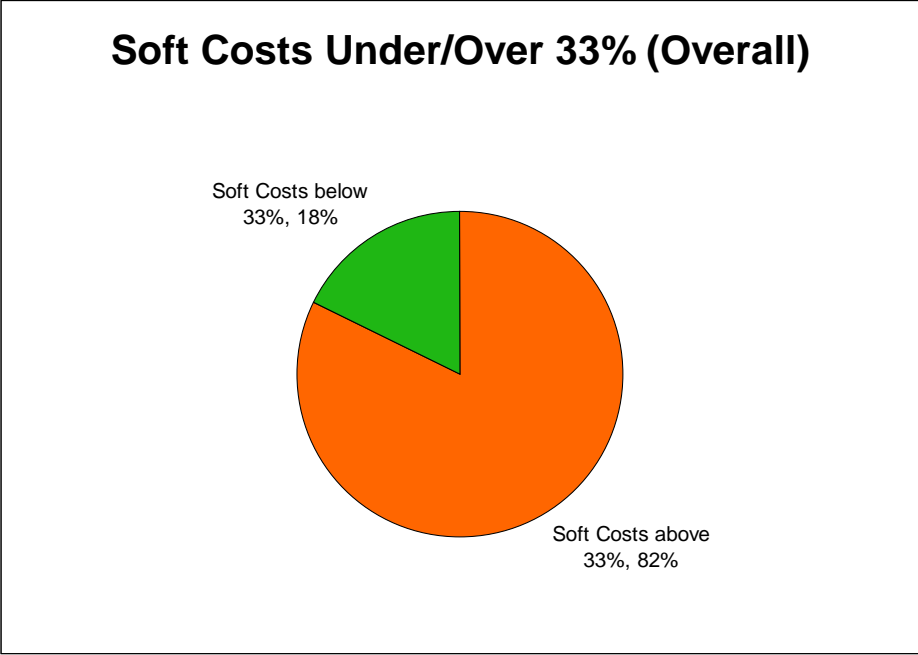
The California Department of Transportation publishes quarterly reports titled “Caltrans Performance Measures.” A review of the December 2010 report reflects the Department’s goal of keeping support costs at 32% or less of construction costs. Direct communication with Caltrans officials, as part of this study, confirmed that acquisition costs are *not* counted as support costs.

Because of the project-specific variables inherent in establishing soft costs for public projects, it is not entirely realistic to prescribe a threshold under which costs should always be maintained. Nor would it be appropriate to abandon efforts to gauge and enhance the City’s effectiveness in containing these costs.

For purposes of this study, a threshold for soft/hard cost ratios has been set at 33%. What this indicates is that situations where soft costs exceed 33% merit careful examination by the Public Works Director to ensure that costs are fully justified on a specific project or to indicate where management reforms must be immediately implemented to limit costs.

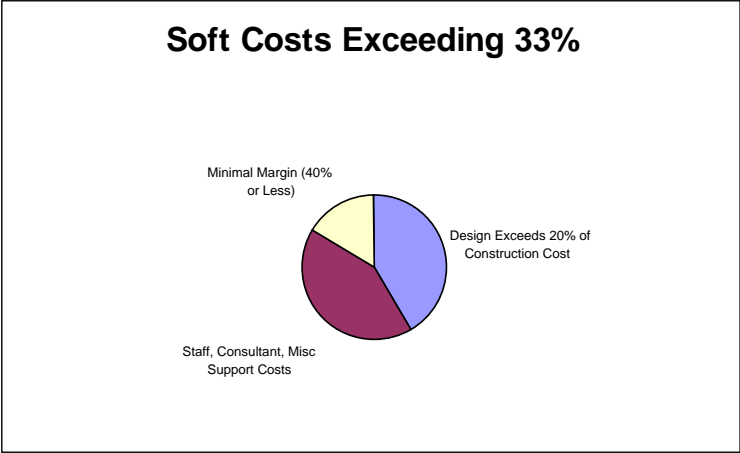
Information regarding soft costs incurred in each completed project was reviewed in both “bottom line” and component fashions. The latter provided a more detailed view of the factors which affected cost ratios:

- Design costs exceeded 20% of construction costs
- Higher ratios of staff/consultant/miscellaneous support costs
- Minimal variation above the 33% threshold



**FINDINGS:** Soft costs exceeded 33% for the overwhelming majority (82%) of completed projects. Despite the absence of specific standardized measurements of hard/soft cost ratios, the prevalence of Moreno Valley’s projects with support costs exceeding one-third of construction costs is noteworthy.

A closer review of this situation reveals higher-than-average costs for design and staff/consultant support in over 83% of the instances where soft costs exceed the threshold established for this study.



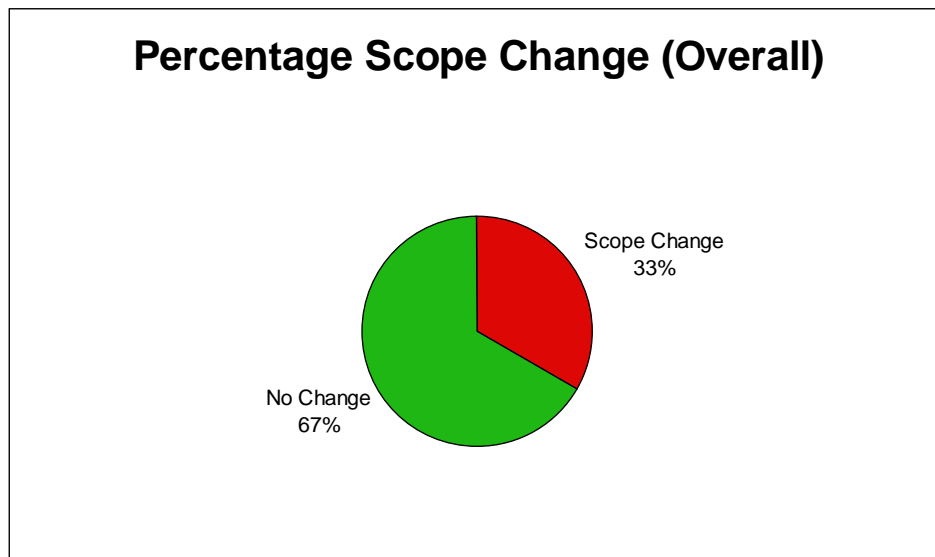
### Scope Changes

Major capital improvement projects, particularly those which are planned/constructed over multi-year periods, can see significant changes from inception to completion. These revisions can reduce/increase

project costs, shorten/lengthen schedules, simplify/complicate project management or have minimal effect upon performance indicators.

Scope changes, often beyond the control of project managers, are commonly made to:

- Reflect priorities of elected policymakers
- Capture efficiencies and economies of scale
- Correspond with funding availability
- Adapt to unforeseen conditions
- Meet customer requests



**FINDINGS:** The majority of projects completed over the past three years saw no significant changes in scope. While previous sections of this report reflect the extent to which project amendments have affected budget/time performance, it is also noteworthy that the City is largely successful in limiting significant changes to the scope of capital projects.

### **Ongoing Projects**

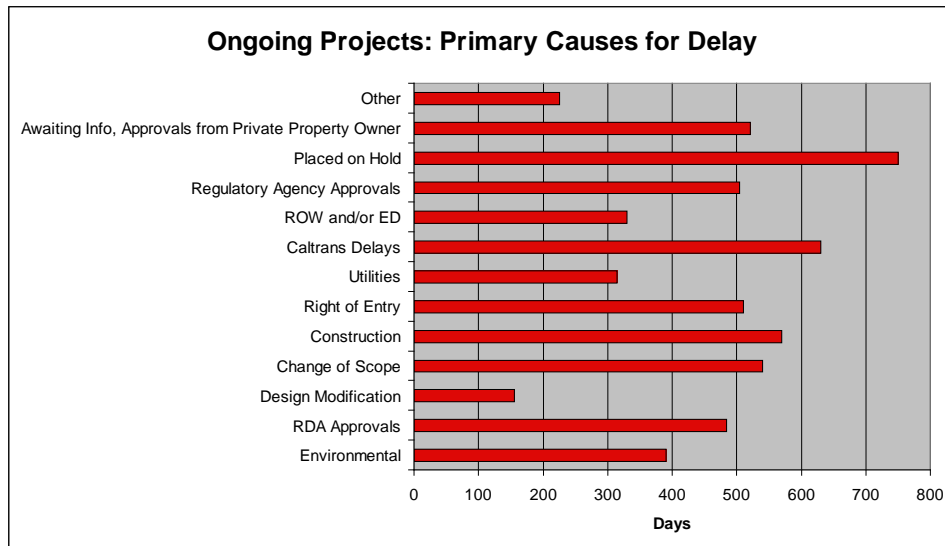
In addition to analyzing data regarding completed projects, this report also encompassed a review of pending projects which are currently behind schedule.

**Methodology:** Capital Projects Division staff members have identified 11 such projects, and provided information regarding delays to various phases of those

projects. A review of these narrative reports revealed a series of causative factors:

- Environmental processes
- Design modification
- Scope change
- Construction (to include weather delays)
- RDA coordination/approval
- Right of Entry
- Caltrans processes
- Right-of-Way/Eminent Domain
- Regulatory agency approvals
- Projects placed on hold
- Approvals/modifications from private property owners
- Other

Determining how various project elements are delaying the projects identified required review/analysis of project narratives developed by City staff. In situations where multiple factors affected project outcomes, this analysis apportioned each factor equally. While it may be asserted that a weighted analysis could enhance precision of a project-by-project analysis, emphasizing consistency of this approach yields a meaningful composite view.



**FINDINGS:** The average delay for these projects is 514 days, with the longest delay at 861 days. Rationale for these schedule deviations runs the gamut, with the following causing the highest number of days in delay: Projects placed on hold (at one or more points), and delays associated with Caltrans coordination/approval.

Conflicting perspectives (between Capital Projects Division staff and the Economic Development Department) regarding project delays became evident during the conduct of this study. Absent a forensic review and reconstruction of all project documents and correspondence, it is not possible to definitively determine the accuracy of varying perspectives. This noteworthy controversy does, however, suggest the strong need to ensure clear and accessible documentation regarding major issues of coordination between the Departments.

In advance of this study, the Economic Development Department prepared a list showing the status of six delayed capital improvement projects in which the Department is a stakeholder. In assembling a list of all delayed projects, the Capital Projects Division generally concurred with the lengths of delay reported by EDD (no shorter delays were reported by Capital Projects) and expanded the list to show 11 projects. What is noteworthy, however, is that the status of delayed projects had not previously been assembled in a consolidated fashion for reporting to the City Manager/Assistant City Manager.

**Recommendation:** As timeliness of the Design phase of each project has had the most significant effect on projects which were completed ahead or behind schedule, Division management must focus significant attention on this aspect of project delivery:

- Adherence to schedule should be charted/reviewed in detail at each project management meeting.
- Adherence to schedule should be emphasized in training provided to project managers.
- Specific adherence to schedule (as well as budget) should be considered when evaluating performance of individual project managers.
- Overall adherence to schedule (as well as budget) should be considered when evaluating performance of Public Works managers.

**Recommendation:** As timeliness of the Design phase of each project has had the most significant effect on projects which were completed ahead of schedule, as well as behind schedule, the Capital Projects Division should consider inserting performance clauses in all Design contracts, to serve as a disincentive for untimely completion by design contractors.

**Recommendation:** With solid historical information now available regarding delivery of capital projects over the past three years, the Capital Projects Division should continue to update this centralized data as each new project is undertaken. Capturing project data is significantly easier on a real-time basis, and will allow the Department and the City Manager's Office to continually track overall trends pertaining to capital project costs and schedules.

**Recommendation:** Brief, clear and accessible documentation should be created regarding major issues of coordination between the Departments of

Public Works and Economic Development. Meeting minutes, much like those typically prepared during meetings of construction teams, may add clarity to the exchanges between departmental staff and agreement upon direction and associated impacts upon capital improvement projects.

## **Communication/Reporting**

At present, narratives are routinely submitted to highlight milestone progress of major capital projects for the City Manager's regular reports to the Council. Staff indicates that these progress reports are characteristically positive in nature, and are intended for public dissemination to keep residents apprised of major initiatives. Similarly, the Capital Projects Division provides localized, brief updates to City Council members in advance of community meetings.

Project Status Reports show progress and projections relating to key milestones (e.g. hearings, environmental, contract awards, design, construction, occupancy). While these reports may provide meaningful snapshots, they do not clearly articulate issues affecting project completion. Absent such information, City management's tracking of project status would rely upon specific inquiries...or time consuming, comparative analysis of successive reports. Current report processes do not quickly "flag" projects/issues to alert executives to emerging situations; absent this type of proactive process, managers and elected officials may instead learn about specific situations from sources outside the City.

On an informal basis, issues are raised to the attention of the Public Works Director who shares information to apprise executives/electeds or to assist them in responding to external inquiries.

Current narrative reports drafted for submission to the City Manager focus exclusively on the public benefit of projects and positive progress being made; alerts are not provided regarding project delays. Without such information, and subsequent updates, the City's executive team does not have ready access to status information of interest to the City Council. Further, the lack of this information holds the potential to erode the reputation of the Public Works staff as the absence of factual data may leave only questions and perceptions regarding the Capital Projects Division's effectiveness. This situation would be a great disservice to the City as well as the professionals associated with the Capital Projects Division. The good news is that regular reporting can ameliorate this situation.

**Recommendation:** The Public Works Department should create a simple, high-level report to regularly apprise the City Manager/Assistant City Manager regarding the status of key capital projects. Techniques as simple as color coding would alert Public Works and City executives to issues affecting delivery

of specific projects. This “early warning” system would ensure that information shared during Capital Projects Division meetings is summarized and shared in a meaningful form with decision makers. This brief status report should be formatted to capture key progress indicators (such as time and budget), and alert City executives to significant issues affecting project delivery. This report should also serve as the basis for subsequent (more detailed) information flow regarding significant issues/obstacles and the steps being undertaken to meet such challenges.