SP2P

System Planning to Programming

APPENDIX 1:

- **Existing Processes**
- **Gaps, Issues, Constraints**
- **Opportunities for Improvement**

July 25, 2016

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

etc. Emergent Transportation Concepts

System Metrics Group

SYSTEM PLANNING TO PROGRAMMING

Appendix 1
TABLE of CONTENTS

1. Study Overview

A. Purpose and Objectives 1

B. Funding/Planning/Programming Context in California 1

C. Study Approach 5

2. Interview Findings

A. Existing Processes 6

B. Gaps, Issues, Constraints and Opportunities for Improvement 10

3. Next Steps

A. Strategies & Recommendations Development 17

Appendix A: Project Approach diagram 18

Appendix B: Interview List 19

Appendix C: Interview Questions 21

1. SP2P STUDY OVERVIEW, BACKGROUND, PURPOSE

A. Purpose/Objectives of Study

The Caltrans System Planning to Programming Study was initiated to *"analyze the existing Caltrans system planning to programming process to ensure an efficient and integrated process for reaching decisions and implementing transportation solutions"*. Information would be gathered on how the Caltrans districts are each moving recommendations from their completed system planning products into actual project programming. The intent was to develop a standard SP2P process flow for all Caltrans districts, or a set of process flows grouped by districts that have similar characteristics. Recommendations would also be presented for *"improving communication, consultation, and exchange of data between stakeholders involved in the SP2P process."*

B. Funding/Planning/Programming Context in California

Overall Funding Context. Transportation funding in California has evolved significantly over the last 30 years. In the early 1980s, a significant percentage of transportation funding was represented by federal and state sources. The gas tax (both federal and state) was the main source of funding and the national highway trust fund had a surplus. Caltrans was making most of the decisions related to funding the State Highway System (SHS). But several major developments changed that picture, including:

- Senate Bill 45, passed in 1997, had significant impacts on the regional transportation planning and programming process. The statute delegated major planning decisions to the regional transportation planning agencies (RTPAs). SB 45 changed the transportation funding structure and modified the transportation programming framework. The State maintained funding for preserving and operating the SHS. Note that the SHS was still relatively well-maintained, although it had started to show signs of aging. Beyond preservation and operations, 75 percent of remaining revenues were delegated to RTPAs. 25 percent was kept for Caltrans to decide on inter-regional improvements.

- As congestion increased in urban counties, voters started approving county sales tax measures dedicated to transportation. For instance, Proposition A was approved in 1980 by Los Angeles voters and dedicated a half-percent sales tax to transportation. Many other counties followed suit. Today, more than 80 percent of California's population resides in self-help counties (as they are called) and the funding from these sales tax measures represents between $3 and $4 billion annually[1]. The rise of this new source of transportation funding further shifted the power of decision making to RTPAs in these counties. In fact, the adopted 2016 Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) estimates that

[1] http://www.selfhelpcounties.org/

local funding (from sales tax measures and other local sources) will represent around 75 percent of total funding in the Region for the next 25 years.

- At the same time, gas tax revenues continue to decrease at the same time our preservation needs continue to increase. It is possible, if not likely, that at some point in the future, gas tax revenues may be fully dedicated to preservation and operations of the SHS.

With this backdrop, any improvements in the Caltrans planning process must be cognizant of this decision making framework. Therefore, any improvement strategies developed by Caltrans planning will require acceptance by partner agencies that control most of the transportation funding in California. This acceptance, as the rest of the document will illustrate, is not currently present. Therefore, improving planning at Caltrans must be credible with regional and local agencies.

System Planning. Within Caltrans, the Division of Transportation Planning articulates the long-term vision for the state transportation system. This division includes statewide planning, regional & community planning, and grants. The system planning branch falls under statewide planning and conducts "long-range planning for inter-regional transportation, corridor system management, and multimodal statewide travel analysis on the State Highway System (SHS)."[2] The purpose of system planning is to identity existing conditions and needs, forecast future demand and identify multimodal improvements to meet demand, and identify candidate projects and strategies for regional plans (RTPs), Project Initiation Documents (PIDs), and state and federal funding programs working in partnership with internal and external stakeholders.

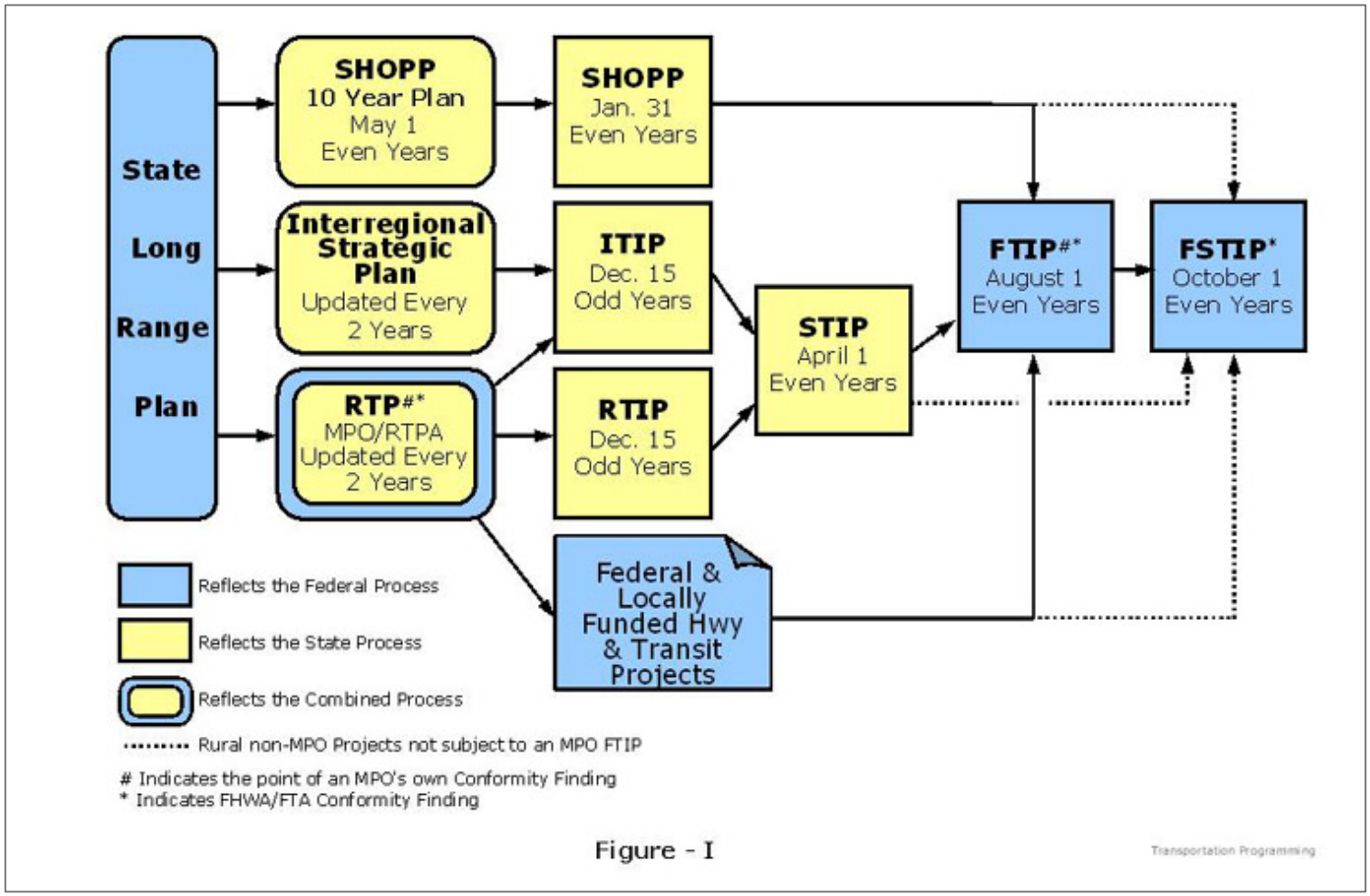
The system planning products include the Interregional Transportation Strategic Plan (ITSP), Transportation Concept Report (TCR), District System Management Plan (DSMP), and Corridor System Management Plan (CSMP). Other system planning reports may include relinquishments, corridor studies/feasibility studies, state planning and research grant-funded studies, and needs inventories.

A Project Initiation Document (PID) is required for all major projects prior to programming. Per the Caltrans website, the "Office of Program & Project Planning (OPPP) manages the resources for the Project Initiation Documents (PIDs) work in the Districts."[3] PIDs falls under statewide planning within the Division of Transportation Planning at HQ. As shown in Exhibit 2, the PID phase happens between the planning and programming activities and provides the linkage between the two.

---

[2] Caltrans website: http://www.dot.ca.gov/hq/tpp/offices/omsp/system_planning/index.html , accessed on May 19, 2016.
[3] Caltrans website: http://www.dot.ca.gov/hq/tpp/offices/opsc/index.html , accessed on May 19, 2016.

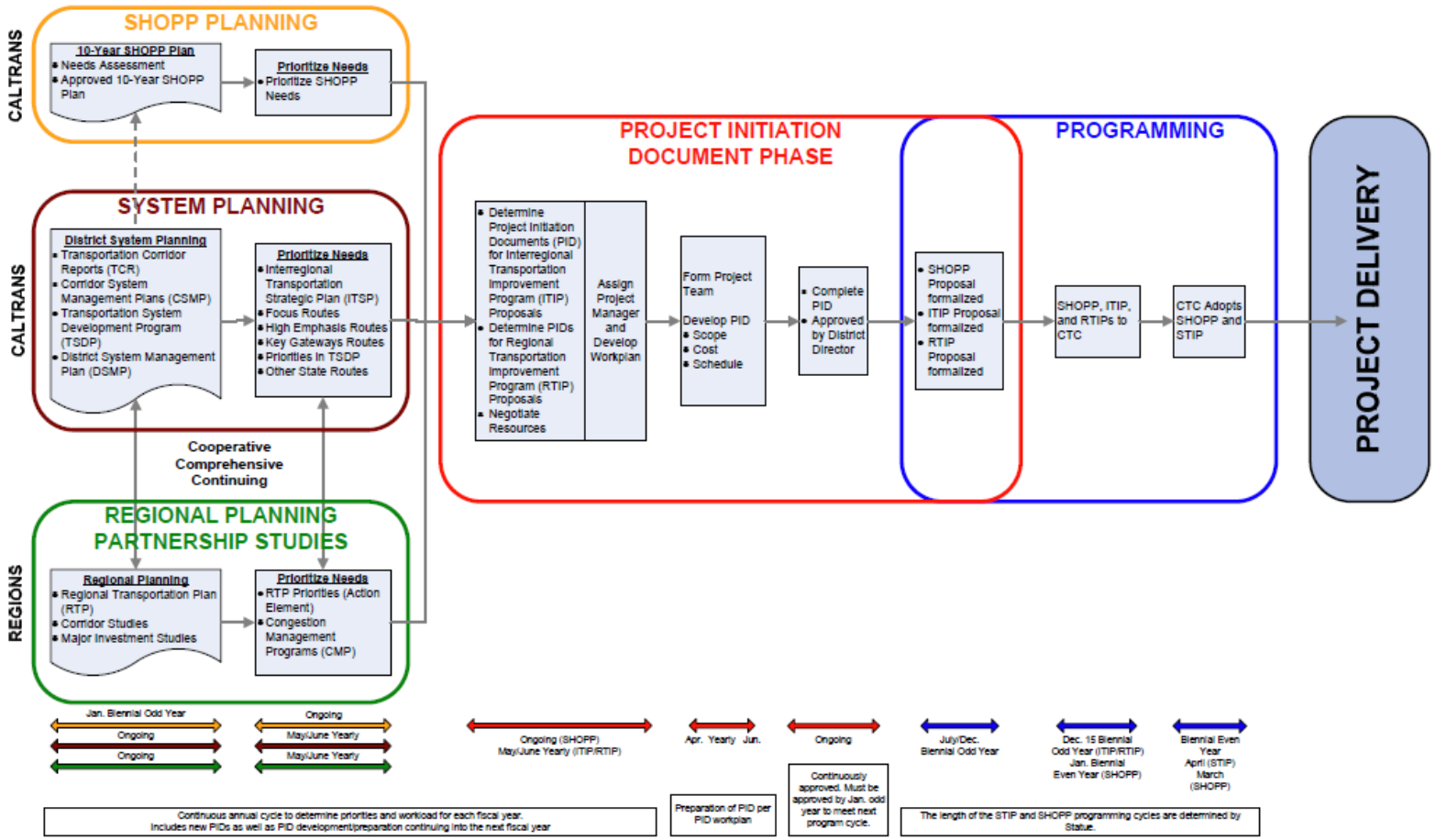
Exhibit 1 — Federal/State Planning & Programming Process



Source: Caltrans website: http://www.dot.ca.gov/hq/transprog/gifs/FedState800.jpg, accessed on May 19, 2016.

Exhibit 2 — Simplified Statewide and Regional Planning and STIP and SHOPP Programming Cycle

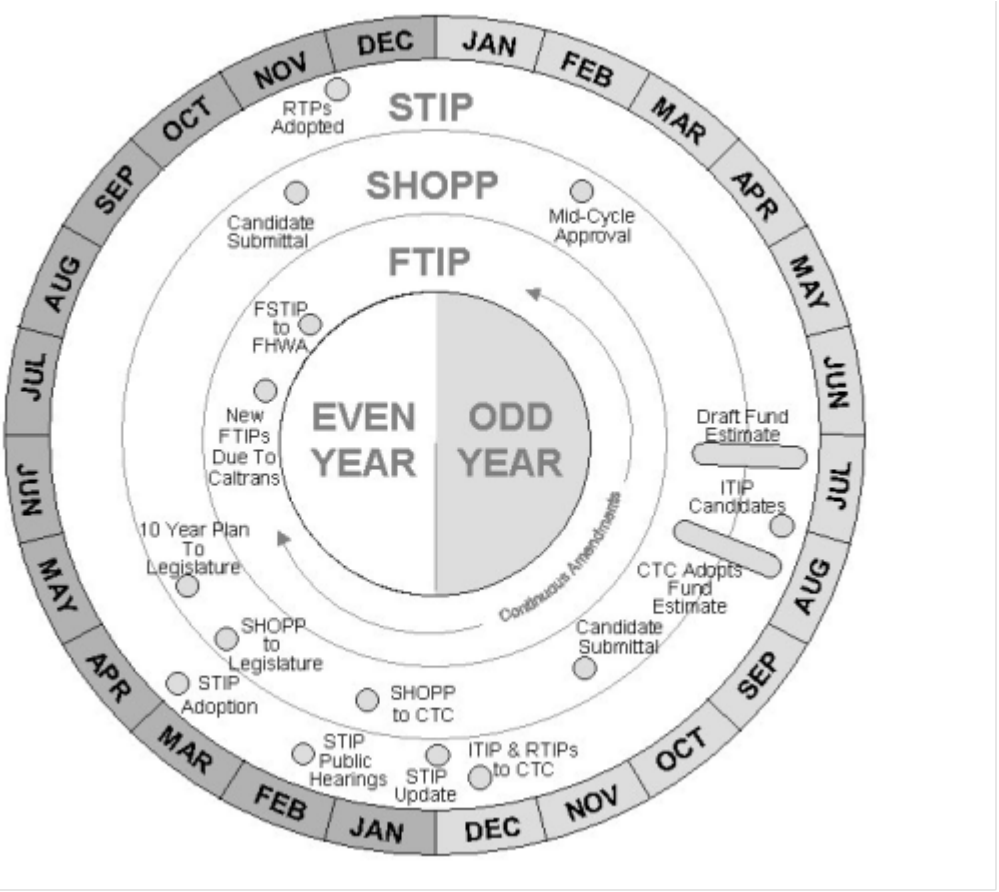
Project Initiation Document links Planning to Programming



Source: Caltrans. Statewide System Planning Training, Overview of System Planning Processes, Module 1 – February 11, 2013.

Programming. Transportation programming documents include the State Transportation Improvement Program (STIP), State Highway Operation and Protection Program (SHOPP), Inter-regional Transportation Improvement Program (ITIP), and the Federal Transportation Improvement Program (FTIP)/Federal State Transportation Improvement Program (FSTIP).

Exhibit 3 — Federal/State Programming Cycles



Source: Caltrans. Division of Transportation Planning. CTIPS: California Transportation Improvement Program System, CTIPS Standard, Student Workbook, Programming Business Cycle, October 2011.

C. Study Approach

The approach to this study involved (1) Identifying internal and external stakeholders engaged in the SP2P process, (2) documenting the processes currently employed, along with existing gaps and deficiencies, (3) analyzing processes and identifying improvement opportunities, (4) developing strategies for improvement, and (5) documenting the conclusions and recommendations. A detailed project approach diagram is shown in Appendix A.

The consultant team reviewed the numerous existing policies and procedures related to the Caltrans system planning and programming processes. It became apparent from the outset that there was no uniform SP2P process that was used by every Caltrans district, and it would be prudent to interview Caltrans staff involved in system planning and in programming activities. This grew to a list of over 70 people who were consulted in the information-gathering process. In order to solicit

candid feedback from interviewees about issues and problems, they were assured that their input would be treated confidentially. To that end, interviews with Caltrans district staff were held separately from interviews with their corresponding external partner agencies. Moreover, Caltrans Headquarters staff were interviewed separately from district staff. All Caltrans districts were interviewed, beginning with the Deputy District Director of Planning & Local Assistance, who generally also invited their counterparts in the Divisions of Programming & Project Delivery, Traffic Operations, and sometimes Maintenance. Key Headquarters staff were also interviewed, as well as staff from other state agencies involved in transportation programming (CTC, CalSTA, the Rural Counties Task Force and the Self-Help Counties Coalition). Interviews were conducted with regional partner agencies that corresponded with most of the Caltrans districts, but due to budget limitations in this contract it was not possible to interview a corresponding regional agency for every Caltrans district.

Interviews with Caltrans staff focused on three broad subject areas: (1) questions related to how system planning and programming are linked for their particular district or function, and how programming decisions are made, (2) questions related to how they work with external agencies that control funding and programming, and (3) tools and expertise needed to improve the SP2P linkage. Interviews with external agencies followed a similar format, with more focus on how they work with their Caltrans district counterparts.

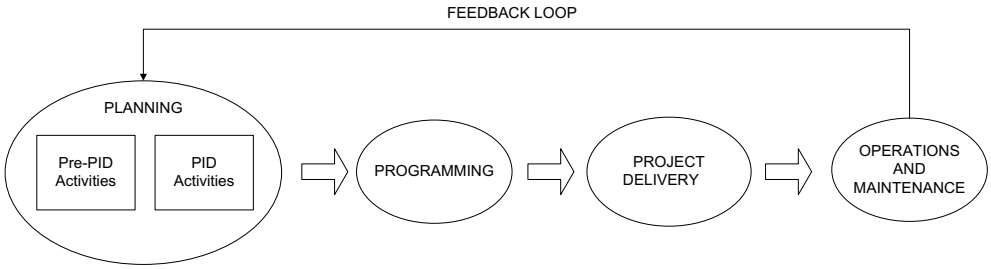
A complete list of staff interviewed is presented in Appendix B. Interview questions are shown in Appendix C. In most cases, the interviews took on a more free-form format, with the question template used as a general guide to ensure that key points were covered.

2. INTERVIEW FINDINGS

A. Existing Processes

Documenting SP2P processes would logically include a process map that identifies the step-by-step efforts starting from system planning functions and ending in programming (and therefore funding) of projects by the various funding agencies consistent with the general project evolution process depiction on Exhibit 4. As shown, ideally, there would also be a feedback loop after project delivery back into the planning process to assess the performance/success of the project(s) and learn from the experience so that subsequent informed funding decisions can be made based on what performance was achieved and what lessons were learned.

Exhibit 4 – Generic Project Evolution Process



Programming a project on the State Highway System (SHS) generally occurs after developing a project initiation document, most often in the form of Project Study Reports (PSRs). These typically

assess a specific project and/or project alternatives identified by the "pre-PID" efforts. PIDs do not usually start until Caltrans and/or its partner funding agencies agree that the project is important enough to move to that stage. In many cases, partners fund the PID work. Given the "System Planning" focus of this project, interviews with internal stakeholders focused on identifying the step-by-step process within pre-PID system planning activities. Therefore, the team did not explicitly evaluate the PID process. However, gaps and opportunities related to the linkages between the system planning process and the development of PIDs are identified in this report.

Our findings from the interviews and document reviews are summarized below:

i. **Lack of Standard Process:** Caltrans does not currently have a standard process that links system planning activities to programming decisions, which can then be easily mapped for all districts. This was not necessarily surprising since many system planning documents, such as Transportation Concept Reports (TCRs), are not project specific, but rather set the vision for the state highway for the entire length within the district. They are useful in identifying needs, deficiencies, and constraints, when developing facility widening/expansion concepts for addressing the needs and deficiencies. Several districts have already started to revamp their TCRs to expand beyond facility concept development, discussed in finding v and vi.

ii. **System Planning not valued by Funding Partners:** In part due to the lack of a standard process, many external partners, especially larger funding agencies, only consider Caltrans planning as starting with the PID process. They view Caltrans as playing a vital role in the PID and Post-PID/Project Delivery processes related to projects on the State Highway System (SHS). If system planning is to influence funding decisions, this perception will have to change.

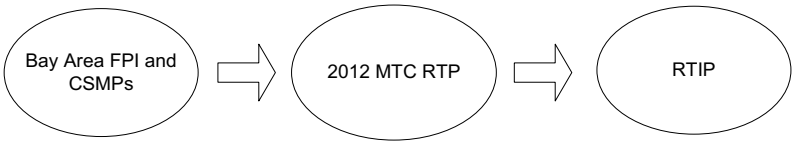
iii. **Lack of Involvement in SHOPP planning and programming process:** Caltrans system planning is generally not involved in the State Highway Operations and Preservation Program (SHOPP) programming process. Generally, SHOPP planning and programming rests firmly in the Division of Transportation Programming, in consultation with the Divisions of Maintenance and Traffic Operations. In the rural districts with smaller staff, maintenance and operations are included during the development of the TCRs. Similar to the first finding, several districts are starting the process of integrating planning and operations, and the SHOPP Asset Management pilot project is establishing a process to break down funding silos within the SHOPP.

iv. **Lack of involvement in ITIP funding decisions:** Caltrans district system planning offices are generally not involved in funding decisions for the Interregional Transportation Improvement Program (ITIP) or the development of the Interregional Transportation Strategic Plan (ITSP). These are generally led by Headquarters Division of Transportation Programming. Districts had the opportunity to comment during the development of the ITSP, and several provided input.

v. **Many stakeholders see more benefit from CSMPs:** As part of the Corridor Mobility Improvement Program (CMIA), which was part of the Prop 1B voter approved measure, the California Transportation Commission (CTC) required recipients of CMIA funding to develop Corridor System Management Plans (CSMPs) to demonstrate how performance improvements will be maintained over time. Caltrans then funded a number of CSMPs around the State. Some Caltrans districts used the funding and the resulting studies to identify specific corridor improvements that influenced subsequent funding decisions. In the Bay Area, the Metropolitan Transportation Commission (MTC) partnered with Caltrans District 4 (Bay Area) to conduct a comprehensive, performance-based series of corridor studies with local partner agencies, called

the Freeway Performance Initiative (FPI). The identified projects and strategies were then incorporated into the MTC Regional Transportation Plan (RTP). Some of these projects have now been funded as part of the Regional Transportation Improvement Program (RTIP) and are being implemented. Exhibit 5 depicts this one-time process that occurred in the Bay Area. Other district CSMPs have also been partially incorporated in RTPs and have received local funding as well. All CSMPs were completed by 2012. Our interviews with external stakeholders suggested that they appreciated the CSMPs more than other Caltrans planning documents and many asked if they would be funded again. They also appreciated (where applicable) that Caltrans involved local stakeholders from the beginning and that the recommendations were developed in a collaborative fashion.

Exhibit 5 – Bay Area CSMPs to Programming Process



More recently, Caltrans District 4 conducted the first "second-generation" CSMP on Interstate 680 in Contra Costa. This effort extended the analysis beyond the SHS and included a Complete Streets and multi-modal analysis. This CSMP was also well received and projects included in the CSMP recommendations have been incorporated into the Contra Costa Transportation Authority (CCTA) Countywide Transportation Plan and are likely to be programmed.

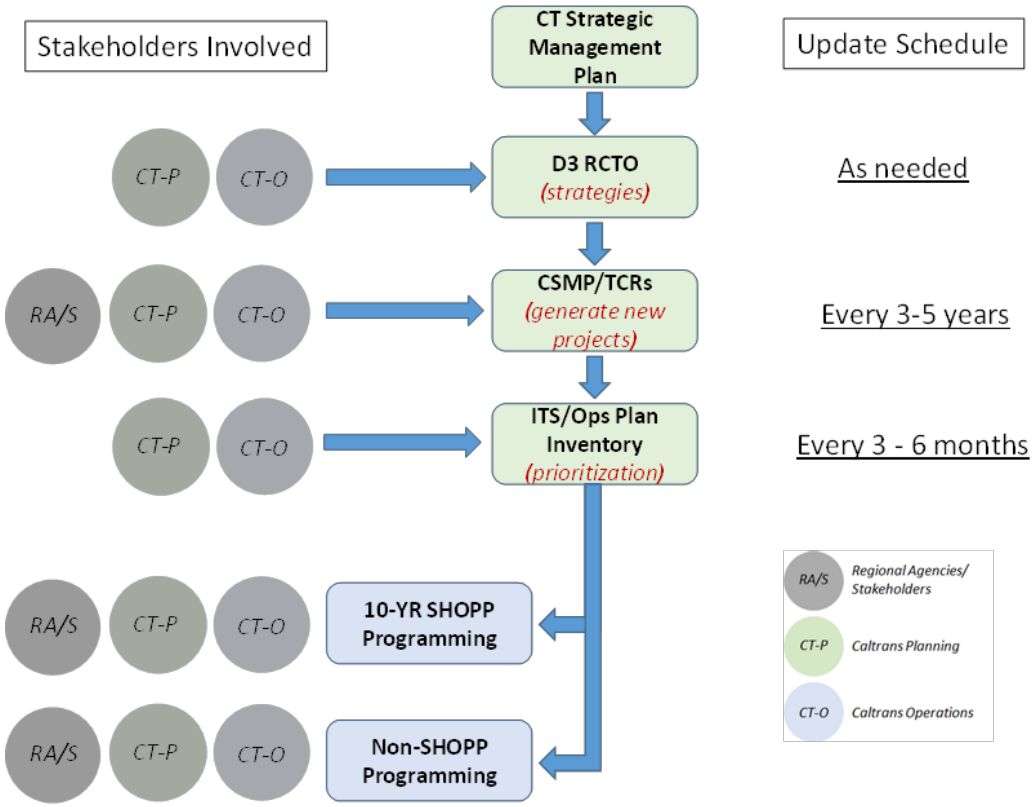
Other system planning documents that have been prepared include corridor studies and feasibility studies. Similar to CSMPs, these studies provide the opportunity to focus on a segment of the corridor. These studies involve internal coordination with engineering and maintenance as well as external partners. District 1, as well as other districts, has used feasibility studies to partner with local agencies, engage public participation, and study additional alternatives. Like CSMPs, feasibility studies require a greater level of quantitative analysis than is generally conducted for TCRs.

vi. **Value of System Planning differs by district type:** In the rural areas of the state, there is generally a closer working relationship between the Caltrans district and the corresponding regional & local partner agencies as well as between functional units within Caltrans. Collaboration on long range planning as well as project prioritization is not uncommon in these regions. In some cases, this is due to the reliance of local partners on Caltrans staff for technical and planning expertise that they themselves do not have, which has evolved into a culture of collaboration and cooperation. This is especially true in areas where the local partners do not have their own local funding sources from voter-approved measures, and therefore rely heavily on state funding for transportation improvements. In the urban and semi-urban areas of the state, however, the linkage between recommendations emanating from Caltrans system planning documents and what is actually incorporated into RTPs is weak. In those areas, TCRs are rarely, if ever, referred to by MPOs and RTPAs when developing their RTPs. In many cases, the purpose of TCRs are not understood by partner agencies. Of notable exception is the San Diego area, where there appears to be close collaboration between District 11 and SANDAG. Although their planning-programming linkage is not completely formalized, what is being done is being developed outside of the traditional TCR process.

vii. **Recent Developments:** District 3 has recently started to revamp its planning process. It started off by developing a prioritized list of operational improvements in collaboration with the Division of Traffic Operations and local partner agencies. This influenced the SHOPP decisions and one project was co-funded by SHOPP and the RTIP. District 3 then developed a Regional Concept of Transportation Operations (RCTO) and crafted a process for implementing a Planning for Operations process. It also assigned a "Corridor Manager" to help monitor system performance and lead efforts to update the project list in a collaborative manner. Exhibit 6 depicts the overall process flow that the district is currently implementing. Note that District 10 is now in the process of developing a similar framework, tailored to its own environment. However, these two efforts have yet to be fully implemented.

In summary, the team did not identify a standard process that links system planning to programming. Some previous efforts have been successful in creating ad-hoc linkages. Two districts are currently revamping their planning processes to incorporate planning for operations linkages and influence both SHOPP and Non-SHOPP programming. But these are at early stages and do not represent a statewide initiative.

Exhibit 6 – Planning for Operations Process Chart



B. Gaps, Issues, Constraints and Opportunities for Improvement

We have identified the following gaps in the existing Caltrans system planning to programming process that inhibit the desired flow of planning products to funding. Many of these gaps have background issues and constraints that overlap, as do many of the opportunities we have suggested to address the gaps.

GAP #1: Caltrans System Planning documents are not used to program funds internally or externally, particularly in urban and semi-urban areas.

ISSUES: No formal guidance exists on how system planning documents are to be used after they are completed. Our investigations in urban and semi-urban districts revealed very little linkage between the concepts in TCRs with the projects that either Caltrans or its regional & local partners ultimately move forward in the programming and project development process. In contrast, in some rural districts, the TCRs have been used to inform the RTIP as well as ITIP and SHOPP.

More importantly, regional & local partner agencies are rarely engaged in the development of the current generation of system planning documents, even though these partners may control most or all of the funding authority for the recommendations to be implemented. This disconnect is more pronounced in the urbanized areas of the state where the existence of Self Help Counties is more prevalent. In these areas, the programming "choices" are frequently dictated by the project lists that are embedded within the sales tax measures approved by voters. "Follow the money" was a frequently-heard refrain from the Caltrans programming staff in urban districts, which further widens the gulf between planning recommendations and actual programming. With a few notable exceptions, there is little evidence that the products of the current Caltrans System Planning process are being consulted for funding decisions. Of note are (a) the work underway in District 3 to institute a formal Planning for Operations process that extends from broad strategy development to project prioritization and programming, and (b) the long-standing comprehensive partnership between District 11 and San Diego and Imperial Counties.

CONSTRAINTS:

a: The majority of transportation funding in California is controlled at the local and regional level. Caltrans staff, from both the Planning and Programming functions, frequently believe they have little or no influence on local and regional funding choices.

b: Agencies who have their own transportation sales taxes are often bound by the list of projects included in the sales tax measure that their constituents voted on.

OPPORTUNITIES:

1A: Development of project lists for sales tax measures could be influenced through stronger Caltrans system planning documents. This will require early and consistent collaboration with external partners and stakeholders, combined with the ability to offer meaningful recommendations (which has implications for staff skill sets and expertise).

1B: The work underway in District 3 to formalize a process to bring operational projects from strategic development to actual programming could serve as a model for other districts after it is implemented and tested. This work could be further informed by the development of the Caltrans Planning for Operations Strategic Work Plan.

1C: The long-standing collaborative relationship between District 11 and SANDAG should be thoroughly documented, with the goal of determining what elements of that relationship can be employed in other districts with their corresponding regional partners.

GAP #2: The link from Caltrans System Planning documents to the RTP in urban areas is weak.

ISSUES: Regional transportation plans are the primary vehicle by which transportation projects are programmed. Even in the post-SB 45 era, Caltrans and the California Transportation Commission continue to have an official role in guiding the development of RTPs — through the CTC's *RTP Guidelines*[4] and Caltrans's *Regional Planning Handbook*[5], its approval authority over the Overall Work Program, and its long range planning guidance through the California Transportation Plan.

However, the degree to which Caltrans influences RTPs is, at best, uneven. In the urban and semi-urban areas of the state, the linkage between recommendations emanating from Caltrans system planning documents and what is actually incorporated into RTPs is weak. Active participation by Caltrans district staff in the RTP is inconsistent, often characterized by staff attending meetings but not offering recommendations or a clear articulation of a department perspective that is relevant to the performance objectives of the RTP.

CONSTRAINTS:

a: Caltrans is frequently "not at the table" in the RTP process due to the lack of a completed, performance-based set of comprehensive system planning recommendations that have been jointly developed and agreed upon with external partners.

OPPORTUNITIES:

2A: Performing studies in collaboration with partner agencies and offer comprehensive, performance-based recommendations which support the level of detailed analysis needed for development of the RTP. This approach was demonstrated successfully when analysis work for CSMPs in District 4 resulted in strong ties to MTC's RTP, leading to adoption of the Freeway Performance Initiative.

2B: Providing training for Caltrans staff to be more fully engaged in RTP-related discussions with local agencies.

2C: Collaboration in RTP development, such as between District 11 and SANDAG, if more formalized.

GAP #3: System Planning documents are not developed collaboratively with other internal Caltrans functions or partner agencies, particularly in urban areas.

ISSUES: Although the preparation of TCRs sometimes involves multiple Caltrans functions, these documents are largely viewed as sole products of the Planning Division. As a result, there does not appear to be a sense of ownership or buy-in by other Caltrans functional areas that would

---

[4] Caltrans. Regional Transportation Plan Guidelines, 2010. Available at: http://www.dot.ca.gov/hq/tpp/offices/orip/rtp/index_files/2010%20RTPGuidelines_Jan2011_Technical_Change.pdf

[5] Caltrans. Regional Planning Handbook, 2013. Available at: http://www.dot.ca.gov/hq/tpp/offices/orip/owp/index_files/2013_RPH_Final.pdf

encourage them to work aggressively towards implementing the system planning recommendations. Regional and local partners are usually offered an opportunity to review the TCRs, but generally only when the documents are in final draft form. The lack of engagement during the TCR development process further exacerbates the reluctance of external partners to consider Caltrans system planning recommendations in their programming decisions.

CONSTRAINTS:

a: Lack of needed technical and collaboration skill sets.

b: Insufficient system planning resources to distribute to other functional units that need to be involved.

c: Insufficient time and resources for Caltrans to actively engage external partners during development of TCRs.

OPPORTUNITIES:

3A: The current Planning Charter Team work re-assessing the system planning process could develop guidance and achievable recommendations for the type and degree of internal and external collaboration needed to ensure that system planning products are useful in the programming process. This re-assessment should be based on input from the desired end-users of the documents, both internally and externally.

GAP #4: The DOF requirement to produce TCRs has become a box-checking exercise.

ISSUES: The Department of Finance requirement for Caltrans to complete a pre-determined number of TCRs per year was a constraint identified by almost every district. While the DOF agreement that instituted this requirement had several positive outcomes, including the preservation of departmental system planning resources, it has also resulted in an unintended side effect of transforming what was an evolving comprehensive system planning approach to what now is largely a box-checking exercise to meet the DOF mandate. Most importantly, the resources allocated for TCRs (and the skills gap in many districts) precludes the ability to produce them collaboratively with regional & local partners. Even though every district acknowledged that external collaboration is essential, most districts also acknowledged that this is not possible within current resource allocations. This admitted and unavoidable gap undermines the credibility of Caltrans system planning as a whole and inhibits the ability to influence programming decisions.

CONSTRAINTS:

a: TCR production level mandated by DOF, coupled with limited resource allocations.

OPPORTUNITIES:

4A: The DOF agreement ends June 30, 2017. There is broad consensus that a Caltrans system planning process that is more performance-based, objectives-driven and collaborative would be useful. A budget change proposal could be pursued, based on a justification that focuses on the long term benefits of improved system planning recommendations developed cooperatively with Caltrans and local & regional partners.

4B: A range of Planning Program initiatives that are underway through various charter teams present an opportunity to reassess existing processes and investigate potential efficiency measures with consideration for the context and concept for the corridor.

GAP #5: System Planning documents don't contain performance metrics or recommendations that directly link to the programming process.

ISSUES: For system planning documents to be useful to programming decision makers, they must offer meaningful information and recommendations that are relevant to making funding choices. This requires a level of detail and project specificity that allows decision makers to weigh options based on performance metrics. The current generation of TCRs have largely become repositories of available information and data without much in the way of concrete project recommendations. Several interviewees mentioned that while corridor "concepts" may be interesting, they are not particularly useful when making programming decisions. However, given resource and Knowledge/Skills/Abilities constraints, little time is spent on conducting detailed analysis of problems and needs. Where data does exist, it is more of a data dump as opposed to actual analysis of existing and future conditions with strategies developed to address system deficiencies. Moreover, recommendations are frequently a collection of capacity-expansion projects that are not pragmatic for implementation. This limits the usefulness of the system planning documents in influencing programming choices.

CONSTRAINTS:

a: Insufficient time, resources and staff expertise to conduct analyses needed to develop performance-based recommendations that are meaningful to programming decision-makers.

b: Data is frequently not available to conduct detailed analyses.

c: No guidance currently exists for a performance-based assessment framework to guide programming (other than the new SHOPP Asset Management pilot project).

OPPORTUNITIES:

5A: Identify, in partnership with internal and external funding decision makers, the types of metrics and recommendations that would be useful in transportation programming.

5B: The current work on developing a comprehensive Transportation Analysis Guide (TAG) for Caltrans offers an opportunity to establish common performance metrics and analysis methodologies for the system planning process that would be more relevant to making programming decisions.

5C: Under the "Data" Planning Forward Charter Team, investigate opportunities to expand data sources and their availability, and assess their usefulness in improving the SP2P process.

GAP #6: Lack of comprehensive corridor planning and project recommendations leads to scope creep during the project development phase.

ISSUES: Insufficient coordination occurs between the system planning process and the development of specific PIDs as well as project lists in funding programs, most notably the SHOPP. The transportation programming process requires that the projects being considered for funding have been sufficiently vetted to ensure that all essential project elements have been included in the estimated cost. Although programming occurs before detailed design has begun, it is imperative that a proposed project's purpose and need is agreed upon, the scope and schedule are clearly established, and all of the regulatory and engineering requirements are incorporated into the cost estimate. In the absence of a comprehensive corridor planning process, projects that have been programmed sometimes do not have clearly identified alignment with the department's goals and may miss key features that are discovered later in the project development phase, requiring

amendments to the corresponding programming document. Although Chapter 9 of the Caltrans Project Development Procedures Manual states that the project initiation phase and the development of PIDs should be an outgrowth of the system planning process, there is no formal linkage between the two.

CONSTRAINTS:

a: Insufficient time and resources to develop project recommendations in enough detail to ensure that all essential project elements have been identified before programming.

b: No guidance exists to direct system planners on the key issues and performance metrics that need to be investigated and reported on in system planning documents that would be useful during the PID and project development phases.

OPPORTUNITIES:

6A: Consider development of a list of performance metrics, regulatory issues and project features that should be considered in all corridor planning work, as a basis for selection of projects to move into the project initiation phase.

GAP #7: instead of comprehensive performance-based planning, isolated planning occurs for discrete fund sources & programs with separate performance metrics.

ISSUES: Transportation funding comes from a myriad of federal, state, and local sources. Each of those sources have their own allocation formulas and cycles, as well as their own rules on how their funds may be expended. Different agencies, and different functional units within each agency have control over each fund source, each with its own process for planning and selecting projects. This often occurs without a view towards whether the disparate pieces and project types fit together in a cohesive manner. This creates a complex labyrinth of funding silos that exist independently of one another, often with goals and timelines that do not align. With the majority of funding controlled by agencies other than Caltrans, coupled with the current generation of system planning products usually not being developed in a collaborative manner, it is not surprising that much of the existing "planning" involves work isolated within distinct and specific fund sources.

CONSTRAINTS:

a: Funding sources are often siloed with their own performance metrics/requirements, which makes delivering comprehensive corridor strategies more difficult, even if they were planned for in a comprehensive, collaborative manner.

b: Bureaucratic/Administrative requirements within siloed functions and activities place additional pressure on staff to do things the "old way" as opposed to being innovative.

OPPORTUNITIES:

7A: Exploration of joint funding/co-mingling of Caltrans and local funds, such as with District 4 SHOPP projects in conjunction with MTC FPI/PASS projects.

7B: Breaking down funding silos, such as with the SHOPP Asset Management Pilot Project, although the SHOPP itself is still a silo to work within.

7C: The ongoing review of the Caltrans system planning process could establish systematic procedures for cooperatively developing comprehensive plans and recommendations which consider all possible fund sources and generate closer integration between the planning process and the creation of program project list, such as the SHOPP.

GAP #8: Staff analysis and planning expertise do not always match programming needs.

ISSUES: Developing transportation recommendations that have the prospect of influencing programming decisions requires both a policy level understanding of how to achieve the department's mission and goals, but also the ability to provide performance-based assessments of proposed concepts and strategies. The current generation of system planning documents generally does not provide the level of quantification desired by funding decision makers. This is not only due to time and resource constraints, but also because the ability to perform the necessary technical analyses is lacking in many Caltrans districts. In addition, there is a lack of awareness of HQ modeling tools and expertise, and there is no consistency in District modeling support. For CSMPs completed in the previous generation of system planning, much of the analysis was conducted by consultants.

CONSTRAINTS:

a: Planning staff in many districts do not have the technical analysis capabilities required for comprehensive, performance-based assessments that would better influence funding decisions.

b: Staff training resources are extremely limited.

OPPORTUNITIES:

8A: As part of current planning initiatives, identify skill gaps and training needs. This can be done in part through the Caltrans HQ Planning for Operations Strategic Workplan effort.

8B: Consider cross-training with other Caltrans functions, particularly Traffic Operations.

8C: Share analysis duties with regional and local partners, thus encouraging collaboration.

8D: Consider academic partnerships for lower-cost training opportunities.

8E: Consider establishing a statewide bench of on-call consultants to provide support and professional capacity-building for planning and analysis.

GAP #9: Severe shortfalls in the California transportation budget limit the value and relevance of Caltrans planning recommendations.

ISSUES: California operates under a continual transportation funding crisis, as do many other states. Funding formulas change over time, and new fund sources (such as Proposition 1B and new sales taxes) emerge. Programming is based on the best revenue estimates at the time, but available funding always falls far short of the total need. As a result, many high priority projects are not programmed even if they have broad support during the planning process. Even projects that have been programmed are at risk, as budget crises have demonstrated. Under this challenging budgetary environment, some stakeholders question the value of long term planning by Caltrans, since it controls only a small portion of transportation funding in the state.

CONSTRAINTS:

a: Continual statewide transportation funding shortfalls negate the effectiveness of long term statewide system planning when programming decisions are made in "crisis mode" and planning recommendations are ignored.

b: Caltrans controls only a portion of transportation funding in the state, so is limited in what authority it can exercise over funding choices made by external agencies who are dealing with their own budget constraints.

OPPORTUNITIES:

9A: Explore opportunities for collaborative development of a shared transportation vision with agreed upon goals and outcomes is essential, especially in a constrained budgetary environment. This is essential at the state, regional and local levels.

GAP #10: Communication and coordination — trust and credibility needs to be built internally and externally, with all levels including Management.

ISSUES: What is meant by "collaboration" sometimes differs between Caltrans and its external partner agencies. This mismatch manifests itself in a variety of ways. As noted in other gaps identified, external partner involvement with TCRs often only involves review of a final draft without having any prior participation in the development of the TCR, which limits their buy-in on the proposed concepts and recommendations, and ultimately, on any resulting funding decisions. There are many Caltrans divisions and external partner agencies involved in planning and programming decisions, and therefore communication and collaboration with all of these groups is essential – no matter how much time it may take. However, it is not just a matter of sending staff to the table to participate in these collaborative, performance-based planning efforts – it is sending the right staff that is knowledgeable, has the appropriate expertise, and can represent the Department in terms of its stance on important issues, goals and values. Soft skills, in this regard, are just as important as hard skills, and therefore staff need to be empowered to effectively communicate and collaborate with internal and external partners and reach consensus on important technical and non-technical issues. Each district has pre-existing relationships which, in many cases, could be strengthened by improving communication and coordination processes, especially through staff training and development. Once these processes have been improved, trust can be built back up. This needs to be done from both a top-down perspective from Management, but also from the bottom up, starting with the staff performing the day-to-day analyses.

CONSTRAINTS:

a: Limited communication and collaboration with internal and external partners, coupled with lack of staff expertise, undermines buy-in on proposed concepts and recommendations.

b: The many internal and external partners involved in transportation planning and programming decisions, coupled with the DOF TCR requirement, makes it more challenging to effectively communicate and coordinate with everyone.

c: Limited communication and collaboration has led to less openness, and consequently trust issues have developed.

OPPORTUNITIES:

10A: As part of current planning initiatives, identify communication and coordination needs. This can be done in part through the Caltrans Planning for Operations Strategic Work Plan effort, but ultimately needs to be done for every district since the context in which each operates is different and involves different partner agencies.

10B: Consider expanded use of the FHWA PlanWorks decision support tool, which is being used for the pilot TCR development for SR-41. (https://fhwaapps.fhwa.dot.gov/planworks/)

10C: Conduct joint working meetings or workshops with internal and external partners to work through issues with the System Planning to Programming process, and start opening up the lines of communication and building trust amongst everyone. See Section 3 of this memo on the Next Steps.

3. NEXT STEPS

A. Strategies & Recommendations Development

The next step in the SP2P study is to develop Strategies and Recommendations for Improvement that address the Gaps, Issues & Deficiencies identified, and to develop those strategies collaboratively with internal and external stakeholders. Follow-up meetings bringing together Caltrans staff with their regional counterparts had already been considered to further surface collaboration and process issues and brainstorm improvement options. At the same time, several of the Planning Forward Charter Teams are performing work that overlaps with several aspects of the SP2P study. In particular, the Planning for Operations (P4Ops) Strategic Work Plan is developing a joint, collaborative, systematic, and performance-based process between planners and operators to integrate management and operations strategies into the transportation planning, programming and project delivery processes. Since many of these improvement strategies will confront similar issues the SP2P study is already trying to address, it is proposed to build off of the thorough Stakeholder Engagement process of SP2P by holding joint SP2P and P4Ops workshops.

SP2P-P4Ops Joint Workshops: Possible themes

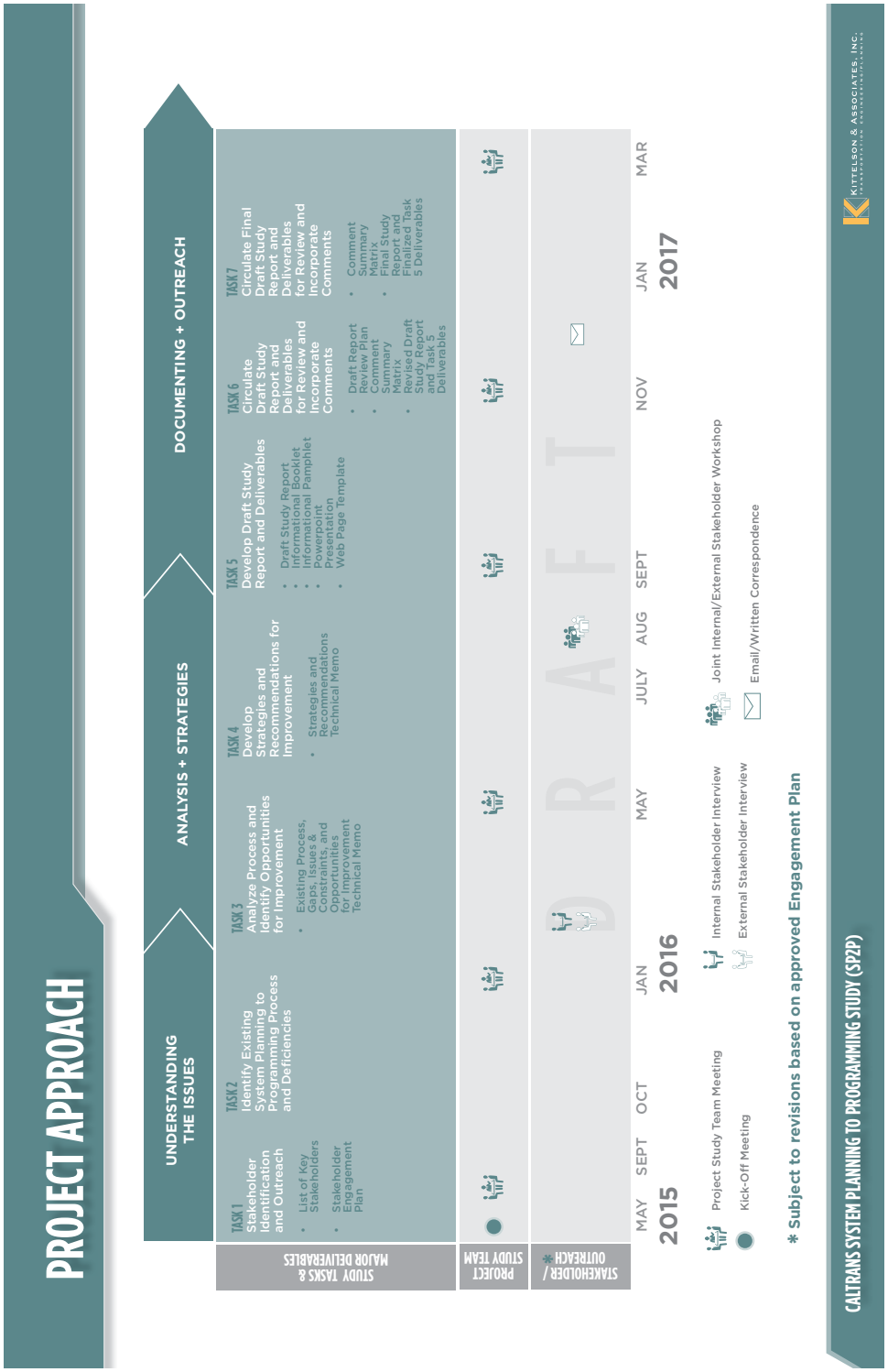
i. Evaluate roles & responsibilities related to System Management Planning at Caltrans.

ii. Identify Information gaps and responsibilities for data gathering & analytics, including performance measures.

iii. Identify P4Ops functions as they relate to existing system management-related policies, programs & processes.

iv. Identify collaboration and communication needs.

APPENDIX A
Project Approach



APPENDIX B
Interview List

DATE	AREA	AGENCY, FUNCTION, DIVISION	CONTACT
2/5/16	Caltrans HQ	Division Chief of Environmental Analysis	Katrina Pierce
1/15/16		HQ DOTP, Multimodal System Planning, ITSP lead	Scott Sauer
2/3/16		DD of Project Delivery	Karla Sutliff
1/19/16		Assistant Director, Sustainability	Steve Cliff
1/19/16		Sustainability Program Manager	Melissa Thompson
4/26/16		Maintenance	Tony Tavares
5/3/16		Project Management	Jim Davis
5/3/16		Project Management	Monica Kress
4/27/16		Local Assistance	April Nitsos, Acting)
		Design	Tim Craggs
1/22/16		SHOPP; State Asset Management Engineer	Mike Johnson
1/22/16		Division Chief, Transportation Programming	Bruce De Terra
1/22/16		OCIP District 1, 2, 3 Liaison	Erik Zechlin
1/22/16		Office Chief, SHOPP and Minor Program	Donna Berry
10/30/15		DD of Planning & Modal Programs	Coco Briseno
10/30/15		Traffic Operations	Tom Hallenbeck
5/5/16	Caltrans D1	DDD Planning & Local Assistance	Brad Mettam
5/5/16		Planning South (Mendocino/Lake)	Rex Jackman
5/5/16		Planning North (Del Norte/Humboldt)	Kevin Tucker
11/12/15	Caltrans D2	DDD Planning & Local Assistance	Tom Balkow
11/12/15		System Planning	Scott White
10/16/15	Caltrans D3	DDD Planning & Local Assistance	Marlon Flournoy
10/16/15		DDD Program/Project Management	Thomas L. Brannon
10/16/15		DDD Maintenance & Traffic Operations	Andrew Brandt
10/9/15	Caltrans D4	DDD Transportation Planning & Local Assistance	Jean Finney
10/9/15		DDD Program/Project Management	Doanh Nguyen
10/9/15		DDD Traffic Operations	Sean Nozzari
10/9/15		DDD Maintenance	Nader Eshghipour
11/5/15	Caltrans D5	DDD Planning & Local Assistance	Aileen Loe
11/13/15		DDD Maintenance & Operations	Sara von Schwind
11/13/15		DDD Program/Project Management (Interim)	Richard Rosales
11/18/15	Caltrans D6	DDD Planning & Local Assistance	Gail Miller
11/18/15			Paul Marquez
11/18/15			Michael Navarro
11/4/15	Caltrans D7	DDD Planning/Public Transportation	Gary Slater
11/5/15		DDD Program/Project Management	Robert So
11/5/15		DDD Operations	Ali Zaghari
11/5/15		DDD Maintenance	Deborah Wong
4/26/16	Caltrans D8	DDD Planning	Jerry De Santos

11/2/15	Caltrans D9	DDD Planning, Modal Programs & Local Assistance	Ryan Dermody
11/2/15		DDD Program/Project Management	Bryan Winzenread
11/2/15		System Planning	Danae Alcola
		DDD Maintenance & Operations	Craig Holste
11/2/15	Caltrans D10	DDD Planning & Local Assistance	Ken Baxter
5/9/16	Caltrans D11	DDD Planning	Bill Figge
		DDD Traffic Operations	Joe Hull
		DDD Design	Gary Vettese
		DDD Traffic Operations	Marcelo Peinado
11/5/15	Caltrans D12	DDD Planning & Local Assistance	Xiaolan (Lan) Zhou
11/5/15		DDD Program/Project Management	Lisa Ramsey
	Caltrans D2 Area	Shasta Regional Transportation Agency (SRTA)	Dan Little
		Trinity County Transportation Commission (CTC)	Richard Tippett
11/13/15	Caltrans D3 area	El Dorado County Transportation Commission (EDCTC)	Sharon Scherzinger
Pending	Caltrans D3 Area	Sacramento Area Council of Governments (SACOG)	Renee DeVere-Oki
*	Caltrans D4 Area	MTC, Deputy Executive Director, Policy	Alix Bockelman
*		Alameda County Transportation Commission (ACTC)	Tess Lengyel
*		Contra Costa Transportation Authority (CCTA)	Ross Chittenden
*		Transportation Authority of Marin (TAM)	Derek McGill
*		Napa County Transportation Planning Agency (NCTPA)	Danielle Schmitz
*		San Francisco County Transportation Authority (SFCTA)	Amber Crabbe
*		San Mateo City/County Assoc. of Governments (C/CAG)	Sandy Wong
*		Santa Clara Valley Transportation Authority (VTA)	John Ristow
*		Solano Transportation Authority (STA)	Robert Macaulay
*		Sonoma County Transportation Authority (SCTA)	Janet Spilman
11/5/15	Caltrans D5 area	Santa Barbara County Assoc. of Governments (SBCAG)	Peter Imhof
		Santa Cruz County Regional Transp. Commission (SCCRTC)	Grace Blakeslee
4/4/16	Caltrans D7 Area	LA Metro	Wil Ridder
4/4/16			Abdollah Ansari
4/4/16			Toye Oyewole
4/4/16			Benkin Jong
4/26/16		Southern California Association of Governments (SCAG)	Naresh Amatya
4/29/16	Caltrans D8 Area	San Bernardino Associated Governments (SANBAG)	Steve Smith
4/29/16		Riverside County Transportation Commission (RCTC)	Shirley Medina
11/2/15	Caltrans D10 Area	San Joaquin Council of Governments (SJCOG)	Diane Nguyen
5/26/16	Caltrans D11 Area	San Diego Association of Governments (SANDAG)	Alex Estrella
			Muggs Stoll
11/19/15	*Statewide*	CA Transportation Commission	Susan Bransen
2/3/16	*Statewide*	CA State Transportation Agency	Kate White
11/13/15	*Statewide*	Rural Counties Task Force	Jerry Barton
11/20/15		Rural Counties Task Force	

* *Briefing to Bay CMA Executive Directors & MTC 10/23/15 with some discussion. Follow-up with CMA Planning Directors pending.*

APPENDIX C
Interview Questions

INTRODUCTION

- How project originated, study purpose
- Commitment to circle back to them with preliminary findings and draft process maps to react to; involvement in larger group workshops; project website
- After initial interview, can still contact us if they have additional thoughts
- PID process issues
- Request org charts for each district; especially detail for Planning Division
- Existing and superseded process maps

INTERNAL STAKEHOLDER MEETINGS (i.e., Caltrans HQ and districts)

a) Questions Related to Funding Agencies

i) Who are the main agencies that make funding decisions within the district area?

ii) How much do each of these agencies program annually (estimate)?

iii) What are the primary funding sources?

iv) Are the funding sources siloed by mode and/or facility type (i.e. bike, ped, transit, freeway, goods movement)?

v) Are there specific criteria/performance metrics/performance objectives associated with these funding sources?

vi) Who is involved in setting the criteria or performance objectives for the funding sources?

vii) Who within the district is involved in "influencing" these funding criteria and funding decisions? Who do they liaise with?

viii) For each District, share list of individuals from external partner agencies we plan to interview. Confirm we are speaking to the right individuals and ask if there are any others we ABSOLUTELY must talk to, recognizing budget constraints.

ix) What do you see as the biggest hurdles/challenges/constraints to strengthening the planning to programming linkages (i.e. communication and coordination issues both internally and externally, trust issues, siloed funding sources each with specific performance criteria, lack of staff resources, staff training and analysis expertise issues, policy/legislative constraints, lack of management support, bureaucratic/administrative requirements, budget constraints)?

b) Questions Related to Planning to Programming Linkages

i) How does Caltrans system planning interact with Caltrans programming/funding programs?

ii) Which staff from other Caltrans functions/divisions are involved in these planning and programming activities?

iii) How does Caltrans system planning interact with external funding agencies/programs?

iv) What kind of collaborative, comprehensive regional or corridor planning efforts take place to get to programming decisions, both internally and externally? Who is

typically involved in these collaborative efforts (certain functions and agencies)?

v) Is planning involved with SHOPP funding decisions? If yes, how?

vi) How are ITIP funding decisions made and who is involved, both internally and externally?

vii) How do TCRs/CSMPs help in informing funding processes? Please describe if/when/how they are utilized.

viii) What inputs (if any) do you provide your MPO/RTPA during their long-range planning? How is that achieved?

ix) Does your MPO/RTPA consult with you on decisions not involving the State Highway System? If yes, please describe.

x) Do you get involved in decisions related to transit investments? If yes, how?

xi) Do you get involved in decisions related to local road investments? If yes, how?

c) Questions Related to Tools Used

i) Which tools/decision support systems to you use in your internal planning processes?

ii) Do these tools differ from those used in collaborative planning processes with your external partners?

iii) Do you have in-house expertise to use these tools or do you rely on consulting assistance?

iv) Where does the in-house expertise for using these tools reside, and are they resourced to provide the required level of support for these planning/programming analysis processes?

v) Given the recent developments, how do you estimate VMT and/or GHG impacts of your plans (e.g., TCRs)?

vi) Is the "Transportation Planning Scoping Information Sheet" (which is required in all PIDs) useful in ensuring that a linkage exists between RTP objectives and the project's purpose & need?

EXTERNAL STAKEHOLDER MEETINGS (i.e. MPOs/RTPAs/CMAs, etc.)

a) Questions Related to Funding Agencies

i) Share list of individuals from the corresponding Caltrans District that we interviewed.

ii) In addition to your agency, which other agencies are involved in making funding decisions within your geographic/Caltrans district area? Depending on the answer, ask if there are any other agencies (i.e. Cities or Counties) we ABSOLUTELY must talk to, recognizing budget constraints.

iii) How much does your agency program annually?

iv) What are the primary funding sources?

v) Are the funding sources siloed by mode and/or facility type (i.e. bike, ped, transit, freeway, goods movement)?

vi) Are there specific criteria/performance metrics/performance objectives associated with these funding sources?

vii) Who is involved in setting the criteria or performance objectives for the funding sources?

viii) Who is involved in "influencing" these funding criteria and funding decisions? Who do your staff liaise with? Who at Caltrans do you talk with during these planning and programming efforts?

ix) What percentage of your funding relates directly to the State Highway System?

x) What are the planning documents that feed your programming decisions (e.g., long range plan, short range transit plan, corridor plans, other)?

xi) How often do you update your long-range plan? Is there a specific cycle?

xii) What do you see as the biggest hurdles/challenges/constraints to strengthening the planning to programming linkages (i.e. communication and coordination issues both internally and externally with Caltrans and others, trust issues, siloed funding sources each with specific performance criteria, lack of staff resources, staff training and analysis expertise issues, policy/legislative constraints, lack of management support, bureaucratic/administrative requirements, budget constraints)?

b) Questions Related to Planning to Programming Linkages with Caltrans

i) How is Caltrans involved in your planning and programming processes?

ii) Which staff from Caltrans functions/divisions are involved in these planning and programming activities?

iii) What kind of collaborative, comprehensive regional or corridor planning efforts take place to get to programming decisions, both internally and externally? Who is typically involved in these collaborative efforts (certain functions and agencies)?

iv) How are you involved with SHOPP planning or programming?

v) How are you involved with ITIP planning or programming?

vi) Do you consider any of the Caltrans planning documents when making programming decisions? If yes, which ones?

vii) What inputs (if any) does Caltrans provide to you during your long-range planning? How is that achieved?

viii) Does Caltrans influence your transit investment decisions? If yes, how?

ix) Does Caltrans influence your local road investment decisions? If yes, how?

x) For "Self Help" counties: To what extent do you involve Caltrans in the development of your sales tax measure's project list before it is presented to voters?

xi) How could Caltrans be more useful to and supportive of your own planning and programming decisions?

c) Questions Related to Tools Used

i) Which tools/decision support systems to you use in your internal planning processes?

ii) Do these tools differ from those used in collaborative planning processes with Caltrans or other external partners?

iii) Do you have in-house expertise to use these tools or do you rely on Caltrans and/or consulting assistance?

iv) Where does the expertise for using these tools reside, and are they resourced to provide the required level of support for these planning/programming analysis processes?

v) Given the recent developments, how do you estimate VMT and/or GHG impacts of your plans/projects?

vi) Is the "Transportation Planning Scoping Information Sheet" (which is required in all PIDs) useful in ensuring that a linkage exists between your RTP objectives and the project's purpose & need?