City of Oxnard

Public Works Integrated Master Plan

STREET

PROJECT MEMORANDUM 6
INTEGRATION OF STREETS WITH PLANNED
PUBLIC WORKS INFRASTRUCTURE AND
SUMMARY OF CURRENT STREET PLANNING EFFORTS

DRAFT
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This document is released for the purpose of information exchange review and planning only under the authority of Hugh Steve McDonald, October 2015, State of California, PE No. 44074 and Tracy Anne Clinton, October 2015, State of California, PE No. 48199
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1.0 INTRODUCTION

This project memorandum (PM) summarizes both existing planning documents that affect current and future street planning efforts as well as the GIS efforts underway to integrate the Public Works Integrated Master Plan (PWIMP) Capital Improvement Project (CIP) recommendations across disciplines and align them with street planning efforts.

1.1 PMs Used for Reference

Other PMs whose findings are referenced in this document include:

- PM 2.3 - Water System - Infrastructure Modeling and Alternatives.
- PM 2.5 - Water System - Supply and Treatment Alternatives.
- PM 3.3 - Wastewater System - Infrastructure Modeling and Alternatives.
- PM 3.7 - Wastewater System - Treatment Alternatives.
- PM 4.2 - Recycled Water System - Infrastructure Modeling and Alternatives.
- PM 5.2 - Stormwater System - Infrastructure Modeling and Alternatives.
- PM 5.4 - Stormwater System - Treatment Alternatives.

1.2 Other Reports Used for Reference

The following reports are also referenced in this PM:

2.0 EXISTING PLAN SUMMARIES

There are a number of existing planning documents whose recommendations affect streets planning and these plans are summarized in the sections below. These plans should be considered when determining the timing of future street improvement projects. In addition to the documents summarized below, there may be other plans that impact street planning. These documents should also be considered as they become available in the future.

2.1 Pavement Management Plan

This plan is currently under development by Pavement Engineering Inc. and, when complete, the results of this study should be incorporated into future street planning efforts.

2.2 Oxnard Bicycle & Pedestrian Facilities Master Plan

The City of Oxnard approved this updated plan for the 2002 Bicycle Facilities Master Plan in 2011. The plan outlines improvements for existing facilities meant for both bicyclists and pedestrians, and also examines where potential new facilities would improve access to different areas of the city by bicyclists and pedestrians. Facilities include multi-use paths, bike lanes, bike boulevards, bike routes, corridor improvements, intersection improvements, and bridges; each is defined within the report.

Within the report, the different facilities are split up by class, and their proposed locations are found in tables and a map. There are six recommended improvements to bicycle facilities that total $52 million, and about 19 recommended improvements to pedestrian facilities totaling $10.2 million. Potential sources of funding for improvements are given in a table, and guidelines and costs of monitoring and annual maintenance are provided. The City plans to implement these projects between 2020 and 2030. By approving this plan, the City means to make "non-motorized transportation" an integral part of the transportation system in order to help resolve issues related to public health, air quality, and traffic.

2.3 Intelligent Transportation Systems Master Plan

The City of Oxnard approved the ITS Master Plan in 2008, which was drafted in order to improve the safety and efficiency of the transportation system, especially bus system improvements. These improvements may include "communications upgrades, traffic signal controllers upgrades, CCTV cameras, and other ITS device deployments". Improvements are grouped by intersections, and intersections are grouped into 6 different phases based
on priority, with Phase 1 having the highest priority. There are about 181 different intersections grouped into the 6 different phases. Lists of intersections, specific improvements, and maps are provided for each phase. Tables of project costs for each phase are included and the total cost for all six phases is around $11.2 million. Potential improvements and costs to the Traffic Management Center and communications network are provided. Funding and management information is not available. These improvements are to be implemented as soon as funding is available, as the original plan was to start improvements "within 5 years" of the plan's approval.

2.4  City of Oxnard Green Alleys Plan

The SWA Group developed the Green Alleys Plan for the City of Oxnard in order to provide a plan for the development of green alleys, which have the potential to provide safety, promote exercise, provide for stormwater management, and improve the overall quality of community life. The plan reports significant information on geographical and cultural data about the City in the form of descriptions and maps, such as seismic activity, topography, watersheds, crime rates, etc. and analyzes where green alleys would be the most beneficial to the community using GIS models. No lists of specific projects are given, but maps provided show where the construction of green alleys is prioritized. Some cost estimates for design elements are included, and the cost for a "typical green alley project" was estimated to be around $45.20 per square foot including base improvements. Potential sources of funding and strategies for maintenance after implementation are provided. The City plans to implement the construction of green alleys by 2030.

2.5  Oxnard Transportation Demand Management (TDM) Plan

Nelson/Nygaard Consulting Associates, Inc. drafted this plan in 2015 for the City of Oxnard in order to analyze how the City can reduce "single-occupant vehicle trips," which would reduce greenhouse gas emissions and traffic. The plan includes an examination of current and future commute patterns, and an overview and description of components of the TDM Plan. A table of TDM strategies and potential environmental impacts are included. A sample TDM ordinance is also included.

2.6  Santa Clara River Trail (SCRT) Master Plan

This plan was drafted by Alta Planning + Design in 2011 for the City of Oxnard in order to recommend a plan for the construction of a multi-use trail that would run along the south side of the Santa Clara River by 2030. The report includes information about the existing conditions of the site, including geographical, ecological, and cultural data. Other Regional Plans that may affect the SCRT plan are listed and examined, to ensure that goals are in alignment with other plans. The Master Plan is divided up into 5 different segments. Opportunities and constraints are listed, described, and mapped by segment. A Cost-Benefit analysis is provided. Tables of cost estimates are provided, as well as potential
funding sources. The estimated cost of this project is around $7.1 million. Finally, maintenance recommendations and schedules are provided.

2.7 Oxnard 2030 General Plan-Goals and Policies

The Oxnard 2030 General Plan-Goals and Policies, adopted in 2011, serves as a guide for the current and future elements of the city, including community sustainability, development, infrastructure & community services, environmental resources, safety, military, and housing. It outlines the existing components of each of these elements, and sets goals for the addition of future components.

There are several proposed and potential future projects in the General Plan that may affect streets in the city. The first of these are specific expansion plans, which have been in development since the 1980s. These expansion projects outline the new development of several mixed land-use neighborhoods, which are outlined in a table and shown on a map. Most of these have already been adopted, but as of 2011, there were still three proposed projects that had not been started. These three projects were the Teal Club, South Ormond Beach, and Sakioka Farms Business Park Specific Plans. There are other new development plans that are characterized as Urban Villages and have certain criteria. A list of these criteria can be found in the General Plan. These plans also outline the new development of several mixed land-use neighborhoods or centers, and can be found in the General Plan.

There are several general goals in this plan that are ongoing and serve as guidelines for any project that is implemented in the city, including any projects that affect streets. These goals can be found throughout the General Plan, and are summarized in a table in the Implementation chapter near the end of the plan.

3.0 INTEGRATION WITH CITY’S GIS DATABASE

A large component of this streets master plan is the integration of recommended PWIMP capital improvement projects from across all disciplines into one living GIS database that also houses existing infrastructure information. This database will provide the City of Oxnard with a dynamic management tool that explicitly considers how the timing of CIP projects can be optimized to minimize the impact of construction projects on affected communities and coordinate such projects with street improvement projects as well as the projects recommended in the reports summarized above.

The City is significantly invested in ArcGIS (ESRI). Recently the IT department started significantly updating the Public Works Geodatabase (PWGDB) to ESRI’s new “Local Government Schema” (LGS) configuration. By adopting the LGS, a significant number of free (or low cost) extensions are provided by ESRI in order to manage PW projects.
One tool offered by ESRI is the *CIP Planning Tool*. This tool allows users to define projects within the GIS by simply selecting assets. The extension groups these assets into a project, allowing the user to enter unit costs so that a total cost by project is calculated. The user can also enter a schedule for starting and completing each project, and assigning a project manager. Although this extension is fairly simplistic, it allows a user to easily manage individual CIP projects and see how multiple projects might be related. The information can also be easily exported to MS Excel so that additional calculations can be completed. Ultimately, the schedule may be able to be imported to MS Project (or the like) to comprehensively manage project schedules.

This *CIP Planning tool* has been briefly demonstrated to select individuals in PW, with a positive response. *However, in discussing the PWGDB setup, an issue has been identified. If the LGS is changed – “customized” – then the extension tools may not work with the new database structure. Therefore, Carollo highly recommends that the City maintain the LGS structure so that these tools can be applied in the future.*

There should be methods to add other fields to the LGS geodatabase, but the original fields should not be modified or deleted. Further discussion of this PWGDB structure between Carollo and PW needs to be completed in Phase 2 efforts.

The *CIP planning tool* will also help in overlaying projects from multiple departments. For example, water and sewer projects can be overlaid with street improvement projects. This will allow the City to adjust project schedules so that streets are only dug up once and all infrastructure can be completed as a single project. This will significantly streamline project construction and will minimize costs and disruptions to City stakeholders.

Using the *CIP planning tool* will also allow Carollo to hand over the CIP in GIS format for PW to continually update the projects as time goes on and factors change. Since PW is now using tablets with GIS, this planning tool could ultimately become a “dynamic living CIP” so that people throughout PW can access the most current CIP projects and track which are being completed and which are being put off due to changing conditions.