



October 20, 2011

Mr. Michael Luther  
City of Lompoc  
Engineering Division  
100 Civic Center Plaza  
Lompoc, CA 93438

**PROJECT: CONSTRUCTION DOCUMENTS FOR INTERSECTION IMPROVEMENTS  
CENTRAL AVENUE AND H STREET (HWY 1)**

Dear Mr. Luther:

Improving the level of service at the intersection of Central Avenue and H Street (Hwy 1) is an important project for the City of Lompoc. Based on past and pending development and growth impacting this intersection, the level of service will continue to deteriorate. With the approved mitigation measures and a completed Preliminary Design Report, the City is now ready to move forward with construction documents.

Having worked with the City through the conceptual design phase, we have a first-hand understanding of the key elements of the project, such as intersection geometrics, conceptual design, aerial survey information, utility research, and designing according to City and Caltrans design standards. Our team will ensure consistency in completion of the construction documents for this project.

We are excited to continue to support your project team and to see this project through completion. Enclosed is a preliminary proposal to provide budget back-up for preparing construction documents for this intersection improvement project. As we discussed, our scope and fees can be refined after budget approval and prior to initiating detailed design. We can also develop a project schedule to meet your needs.

Please feel free to call me if you need additional back-up material. I will be available through the end of the week.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry P. Kraemer".

Larry P. Kraemer, PE  
Director, Public Infrastructure Division  
C 44813

Enclosure: Proposal  
Exhibit A. Conceptual Intersection Improvements  
Resource Allocation Matrix  
Proposal: Associated Transportation Engineers  
Proposal: Earth Systems Pacific

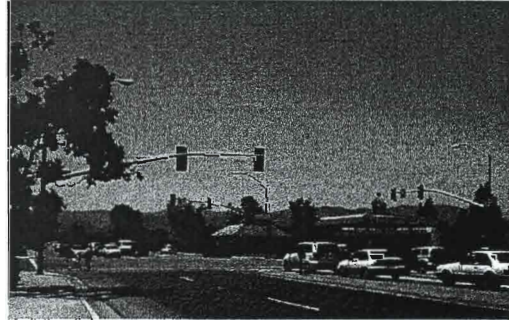
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CannonCorp.us



### PROJECT UNDERSTANDING

Based on the adoption of a circulation policy that states the City shall maintain roadway and intersection traffic levels of services at LOS C or better, the City plans to construct improvements at the intersection of Central Avenue and H Street (Hwy 1). Currently, this intersection operates at a low level-of-service during evening peak hour traffic. Measures required to mitigate the approved and pending construction impacts include the installation of dual north and south bound left turn lanes on H Street and the addition of a dedicated north bound right turn lane on H Street. Based on our Preliminary Design Report of the Conceptual Widening of Central Avenue and H Street dated June 25, 2010 (See Exhibit A. *Conceptual Intersection Improvements*), the City desires to prepare construction documents and cost estimates for the improvement of this intersection.



### SCOPE OF WORK

Cannon's approach to successful completion of this project consists of providing professional services in two progressive phases: Preliminary Design Services and Design and Construction Documents. Services to be provided include peer review and supplemental traffic analysis and engineering, right-of-way research, utility research and mapping, design, detailed cost estimates, construction documents, and the processing of these documents through Caltrans for approval. Descriptions of our proposed involvement, specifically included and excluded services, and proposed deliverables are summarized below within each corresponding project task.

#### Phase I. Preliminary Design Services

##### *Task 1. Project Kickoff Meeting*

We will orchestrate and attend a Project Kickoff Meeting with appropriate personnel from the City. This meeting agenda will focus on project understanding, team involvement, project constraints, and the anticipation of design development impediments. This meeting will also include a project introduction, review of background information and project scope, and defining the project schedule. This meeting represents a key opportunity for representatives from the City to steer the consultant team and further clarify critical elements of the project scope. We will also discuss and organize a plan for the processing of documents with Caltrans at the onset of project design.

##### *Task 2. Survey: Planimetric, Right-of-Way Mapping, Legal Descriptions with Exhibits*

In order to provide an accurate and detailed design, we will supplement our previous base mapping performed during the conceptual design phase. We will confirm elevations and accurately locate above ground utility vaults, wells, and other structures that may need relocation based on the final conceptual design. Pertinent site features necessary for the intersection design will be included in sufficient detail to allow for construction and concise



cost estimating. We anticipate the limits of the project site to include the intersection of Central Avenue and H Street (Highway 1), including 500-feet beyond the end of each curb return.

The topographic survey will include the following information:

- Horizontal locations based on the City of Lompoc Coordinate Control datum.
- Elevations will be based on the City of Lompoc Vertical datum.
- Existing roadway features, including curb lines, edges of pavement, edges of sidewalks, curb returns, curb ramps, driveways, and bus pads.
- Nearby above ground structures (including bus shelters), aboveground cable and electrical boxes and permanent street furniture.
- Existing signs which govern bicycle, pedestrian, and vehicular traffic.
- Traffic striping and signal devices.
- Existing visible surface utilities including fire hydrants located within or adjacent to the right-of-way; water system appurtenances; sanitary sewers and storm drains manholes to include catch basins.
- Locations of trees that are 4 inches in diameter or greater within or adjacent to the street right-of-way.
- Other visible and locatable aboveground field conditions that may affect traffic design decisions.

In addition to the planimetric survey, we will confirm previously collected record right-of-way information including, but not limited to assessor's maps, records of surveys, and parcel and tract maps related to the project. We will also conduct a field survey to locate existing survey monumentation and will analyze the record data and field boundary evidence to map the Record Right-of-Way for the project. Upon completion of our field and document research, we will incorporate the record right-of-way lines, length and bearing (including reference or basis) on each straight line, interior angles, radius and point of tangency, and length of curved lines which will provide the basis of our project control.

In order to construct improvements at each of the four corners of the intersection, we will prepare up to four legal descriptions and exhibits which will provide the City with the instruments necessary for acquiring property and/or easements from the landowners.

#### *Task 3. Utility Research and Mapping*

As a continuance from our work in the conceptual design phase, we will conduct additional utility research and mapping in order to accurately identify existing utilities impacted by the intersection improvements. We will use City atlas information to map local water and sewer and confirm locations with survey information. We will also contact "Dig Alert" prior to performing the planimetric survey as we have found that on occasion not all existing utilities are shown on record drawings provided by the utility companies and if additional utilities are marked we can correctly identify locations.

#### *Task 4. Geotechnical Investigation and Report*

We will retain the services of Earth Systems Pacific to prepare a soils evaluation report for the **project** in accordance with Caltrans methods and procedures. The report will include recommendations for pavement design, signal pole foundation design, storm drain pipe bedding and backfill requirements (if necessary), suitability of existing soils for use in



subsequent trench backfill, depth to groundwater (if applicable) and thickness of existing pavement sections. This evaluation will provide valuable information for project design, meeting Caltrans submittal requirements, and for use by prospective contractors bidding the construction phase of the project.

**Phase II. Design and Construction Documents**

*Task 5. 60% Design Documents (Plans, Specifications, and Cost Estimates)*

We will submit a "Review Submittal" Design Plan Package at a design and detail level at approximately 60 percent of the anticipated final construction documents for City review and comment. The Design Plans Package will consist of approximately 42 drawing sheets (24" x 36") as listed below, technical specifications, and a preliminary opinion of probable construction costs.

**ANTICIPATED INTERSECTION IMPROVEMENTS PLAN SET**

SHEET NOS.	DESCRIPTION	NO. OF SHEETS	SCALE
1	Title and Locations Map	1	NTS
2	General Notes	1	NTS
3	Project Control	1	1" = 50'
4	Demolition Plans	1	1" = 50'
5-6	Typical Cross Sections	2	NTS
7	Key Map and Line Index	1	1" = 50'
8-11	Layouts	4	1" = 20'
12-13	Profiles	2	1" = 20'
14-17	Construction Details	4	1" = 20'
18-21	Erosion Control	4	1" = 20'
22-25	Utility Plans	4	1" = 20'
26	Construction Area Signs	1	1" = 50'
27-30	Stage Construction and Traffic Handling Plans	4	1" = 20'
31	Stage Construction and Traffic Handling Quantities	1	1" = 50'
32-35	Pavement Delineation and Sign Plans	4	1" = 20'
36	Pavement Delineation Quantities	1	NTS
37	Sign Quantities	1	NTS
38	Summary of Quantities	1	NTS
39-42	Signal and Lighting Plans	4	1" = 50'



The design plans will consist of the details necessary for widening of the intersection to include dual north and south bound left turn lanes on H Street and the addition of a dedicated north bound right turn lane on H Street. We will include construction callouts related to any identified relocations including, utilities and utility vaults, boxes and pedestals, traffic signal replacement, traffic signal loops, signage and striping modifications, medians, concrete curbs and sidewalks, ADA routes and bus shelters, and any other feature of the intersection that requires modification or improvement.

*Task 6. 60% Design Review Meeting*

We will attend one meeting with City staff to review and discuss the design submittal at the 60% completion stage.

*Task 7. 90% Construction Documents (Plans, Specifications, and Cost Estimates)*

Based on the feedback from the previous tasks, we will prepare a 90% Design Plans Package to the City and Caltrans for review and comment. This submittal package will include the construction plans and details, technical specifications, bid item list, and an engineer's cost estimate for use in the public bidding process and in accordance with the City's bidding procedure.

*Task 8. 90% Design Review Meeting*

We will attend one meeting with the City staff to review and discuss the design submittal at the 90% completion stage. We anticipate minor comments at this meeting.

*Task 9. Final Construction Documents*

Based on the finalized project design issues resolved during the preceding tasks, we will prepare and submit a Final Construction Documents Bid package. This submittal package will contain complete construction documents on permanent drawing medium (Mylar film) and an opinion of probable construction costs. The plans will incorporate review comments of the 90% Design Plans package and provide construction level designs and technical specifications sufficient for final project approvals and bidding.

*Task 10. Caltrans Coordination and Permit Processing*

Throughout design, we will work with the City to identify areas that will require Caltrans coordination and consultations. We will adhere to Caltrans standard design practices where feasible, but in the case that a design exception is required, we will coordinate with Caltrans on an acceptable design alternative. Depending on the type of design exception requested, coordination with Caltrans can be relatively straightforward or take several weeks and many hours of effort. We believe it is important to start our coordination as early as possible in order to reduce re-work and resolve issues during the early stages of the design process. We anticipate (and have budgeted for) preparing one *Fact Sheet Exceptions to Mandatory Design Standards* report for the project to include the four exceptions identified in the Preliminary Design Report, specifically: 11-ft through lane widths, 0.5-ft shoulder width, 11-ft left turn lanes, and 2-ft traffic island width.



**DELIVERABLES**

- Geotechnical Investigation Report
- 60% Design Documents (Plans, Specifications, and Cost Estimate)
- 90% Design Documents (Plans, Specifications, and Cost Estimate)
- Final Construction Documents
- Legal Descriptions with Exhibits

**ASSUMPTIONS AND EXCLUSIONS**

The following assumptions and exclusions apply to this proposal:

- Cannon is not responsible and cannot be held accountable for the accuracy of As-Builts or Record Drawings provided by the Agencies or utility providers. Cannon has no means of determining whether subsurface features were constructed per the construction / improvement drawings and does not claim to do so. Pot holing of utilities should be performed by others, if there are concerns or uncertainties regarding the subsurface utilities.
- This proposal assumes that all data prepared by others and provided to Cannon will be made available in a digital format, compatible with our systems. It is also understood that the information and technical data provided and prepared by others, on the Client's behalf or Property Owner's behalf, may be used by Cannon in performing its services and is entitled to rely upon the accuracy and completeness thereof.
- Mapping will be based on available local agency vertical datum and an assumed horizontal datum, unless specifically requested otherwise.
- The boundary corners for the site have been established and monumented by others. Cannon will use record data for establishing the project boundary.
- Dry utility coordination and relocation design and plans will be prepared by others.
- A current Title Report, under an open order number and covering the property, will be provided by the Client prior to any related mapping effort. Revisions, amendments or addendums to said report may constitute an additional work effort that is not covered within this scope of services.
- As this proposal has been prepared without the benefit of a current title report, it is assumed that there is a sufficient amount of available record information to adequately determine the location of the boundaries and encumbrances of the subject property. Additional work resulting from patent or latent boundary ambiguities or a lack of available records may constitute an additional work effort that is not covered within this scope of services.
- Right-of-way documents will be limited to legal descriptions and exhibits to accompany the grant documents.
- Permit Fees will be paid for by City.
- CEQA, Environmental Permitting, Archeological, botanical, biological, and landscaping services will be prepared by others.

**FEES**

The following fee schedule lists the tasks and estimated fees for each task.



**FEE ESTIMATE**  
**FOR**  
**CONSTRUCTION DOCUMENTS FOR INTERSECTION IMPROVEMENTS**  
**CENTRAL AVENUE AND H STREET (HWY 1)**

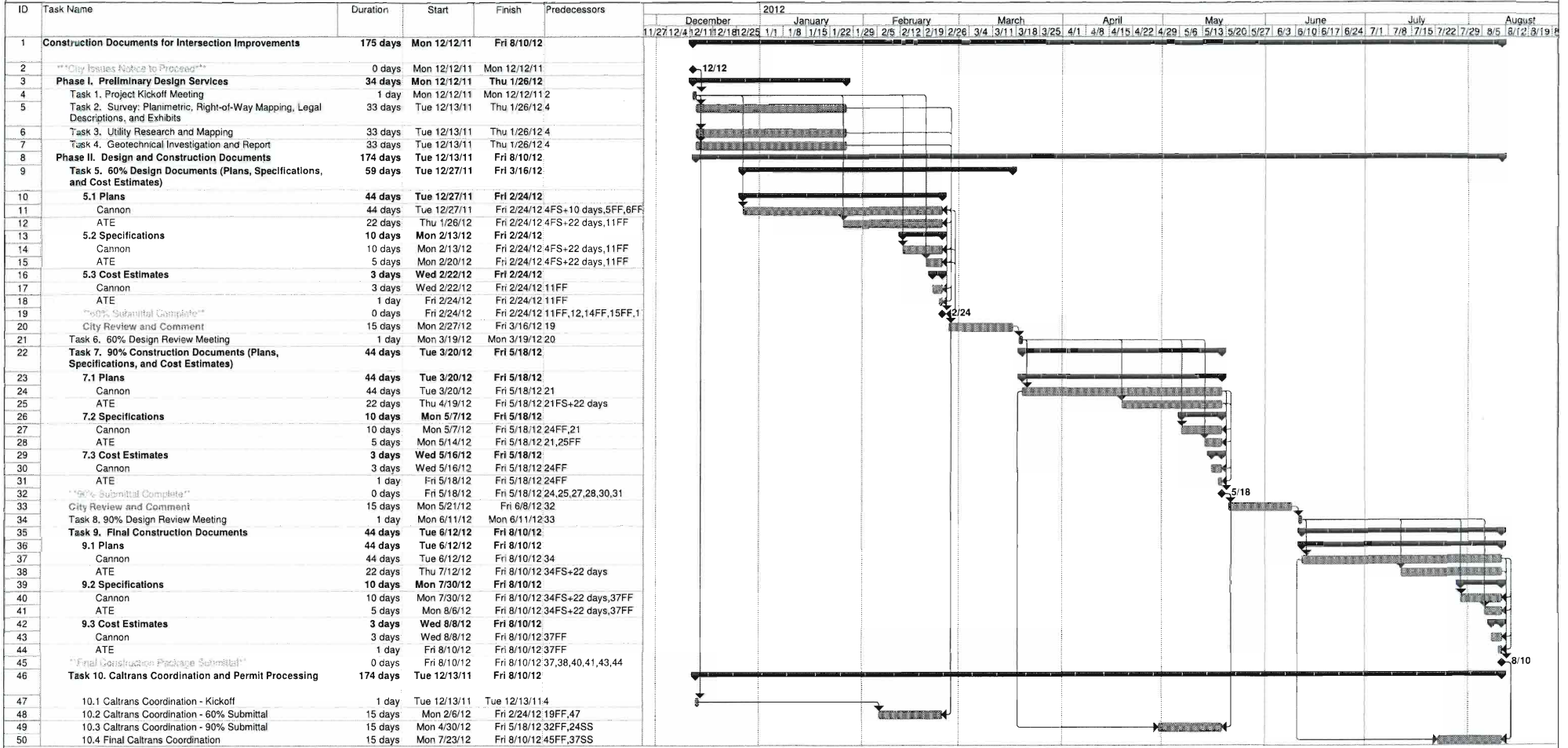
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 San Luis Obispo, CA 93401  
 805.544.7407

Construction Documents for Intersection Improvements	Totals
Design Tasks	Cost
<b>Phase I. Preliminary Design</b>	
Task 1. Project Kickoff Meeting	\$3,000
Task 2. Survey: Planimetric, Right-of-Way Mapping, Legal Descriptions, and Exhibits	\$20,000
Task 3. Utility Research and Mapping	\$5,000
Task 4. Geotechnical Investigation and Report	\$15,000
<b>Subtotal:</b>	<b>\$43,000</b>
<b>Phase II. Design and Construction Documents</b>	
Task 5. 60% Design Documents (Plans, Specifications, and Cost Estimates)	\$60,000
Task 6. 60% Design Review Meeting	\$3,000
Task 7. 90% Construction Documents (Plans, Specifications, and Cost Estimates)	\$40,000
Task 8. 90% Design Review Meeting	\$3,000
Task 9. Final Construction Documents	\$20,000
<b>Subtotal:</b>	<b>\$126,000</b>
Task 10. Caltrans Coordination and Permit Processing	\$15,000
Contingency (5%)	\$9,200
<b>*Total:</b>	<b>\$193,200</b>





Intersection Improvements at Central and H Streets  
City of Lompoc



Project: Central/H Intersection  
Date: Tue 11/8/11

Task		Project Summary		Inactive Task		Duration-only		Finish-only	
Split		External Tasks		Inactive Milestone		Manual Summary Rollup		Progress	
Milestone		External Milestone		Inactive Summary		Manual Summary		Deadline	
Summary		Inactive Task		Manual Task		Start-only			