

AGREEMENT

THIS AGREEMENT is made this _____ day of _____, 2012 by the CITY OF MANHATTAN BEACH, a municipal corporation, ("CITY"), and Anderson/Penna Partners, Incorporated, a consultant, ("CONSULTANT").

RECITALS

The following recitals are a substantive part of this Agreement:

1. City is desirous of obtaining engineering services to perform Closed Circuit Television inspections of the City's storm sewer system, perform a structural rehabilitation analysis and develop a recommended capital improvement program to upgrade the system;
2. CONSULTANT is qualified by virtue of experience, training, education, and expertise to accomplish these services.

AGREEMENT

THE PARTIES MUTUALLY AGREE AS FOLLOWS:

1. Term of Agreement. This Agreement shall terminate upon completion of Scope of Services, unless earlier terminated as provided below.

1.1 Termination. CITY and CONSULTANT shall have the right to terminate this Agreement, without cause, by giving fifteen (15) days written notice. Upon receipt of a termination notice, CONSULTANT shall:

- (1) Promptly discontinue all services affected (unless the notice directs otherwise); and
- (2) Promptly deliver all data, reports, estimates, summaries, and such other information and materials as may have been accumulated by CONSULTANT in performing the Agreement to CITY, whether completed or in progress. CONSULTANT shall be entitled to reasonable compensation for the services it performs up to the date of termination.

2. Services to be Provided. The services to be provided hereunder shall be *those set forth in Exhibit "A", Scope of Work*, which is attached hereto and incorporated herein by this reference.

3. Compensation. CONSULTANT shall be compensated as follows:

3.1 Amount. Compensation under this Agreement is based on Schedule A and shall not exceed One Hundred Thirty Thousand Six Hundred and forty Five Dollars (\$130,645.00).

3.2 Payment. For work under this Agreement, payment shall be made per monthly invoice. For extra work not a part of this Agreement, written authorization by CITY will be required, **[payment shall be based on hourly rates in Exhibit "B"]**.

3.3 Expenses. CONSULTANT shall not be entitled to any additional compensation for expenses.

4. Professional Standards. CONSULTANT shall maintain or exceed the level of competency presently maintained by other similar practitioners in the State of California, for professional and technical soundness, accuracy and adequacy of all work, advice, and materials furnished under this Agreement.

5. Time of Performance. CONSULTANT shall complete all services required hereunder as and when directed by CITY **[as set forth in Exhibit "C"]**. However, CITY in its sole discretion may extend the time for performance of any service.

6. Employees and Subcontractors. CONSULTANT may, at CONSULTANT'S sole cost and expense, employ such other person(s) as may, in the opinion of CONSULTANT, be needed to comply with the terms of this Agreement, if such person(s) possess(es) the necessary qualifications to perform such services. If such person(s) is/are employed to perform a portion of the scope of work, the engagement of such person(s) shall be subject to the prior approval of the CITY.

7. Insurance Requirements.

7.1 Commencement of Work. CONSULTANT shall not commence work under this Agreement until it has obtained CITY approved insurance. Before beginning work hereunder, during the entire period of this Agreement, for any extensions hereto, and for periods after the end of this Agreement as indicated below, CONSULTANT must have and maintain in place, all of the insurance coverages required in this Section 7. CONSULTANT'S insurance shall comply with all items specified by this Agreement. Any subcontractors shall be subject to all of the requirements of this Section 7 and CONSULTANT shall be responsible to obtain evidence of insurance from each subcontractor and provide it to CITY before the subcontractor commences work.

All insurance policies used to satisfy the requirements imposed hereunder shall be issued by insurers authorized to do business in the State of California. Insurers shall have a current A.M. Best's rating of not less than A-:VII unless otherwise approved by CITY.

7.2 Coverages, Limits and Policy Requirements.
CONSULTANT shall maintain the types of coverages and limits indicated below:

(1) COMMERCIAL GENERAL LIABILITY INSURANCE - a policy for occurrence coverage, including all coverages provided by and to the extent afforded by Insurance Services Office Form CG 0001 ed. 11/88 or 11/85, with no special limitations affecting CITY. The limit for all coverages under this policy shall be no less than one million dollars (\$1,000,000.00) per occurrence. CITY, its employees, officials and agents, shall be added as additional insureds by endorsement to the policy. The insurer shall agree to provide the City with thirty (30) days prior written notice of any cancellation, non-renewal or material change in coverage. The policy shall contain no provision that would make this policy excess over, contributory with, or invalidated by the existence of any insurance, self-insurance or other risk financing program maintained by CITY. In the event the policy contains such an "other insurance" clause, the policy shall be modified by endorsement to show that it is primary for any claim arising out of the work performed under this Agreement. The City of Manhattan Beach Insurance Endorsement Form No. 1 (General Liability) must be executed by the applicable insurance underwriters.

(2) COMMERCIAL AUTO LIABILITY INSURANCE - a policy including all coverages provided by and to the extent afforded by Insurance Services Office form CA 0001, ed. 12/93, including Symbol 1 (any auto) with no special limitations affecting the CITY. The limit for bodily injury and property damage liability shall be no less than one million dollars (\$1,000,000) per accident. CITY, its employees, officials and agents, shall be added as additional insureds by endorsement to the policy. The insurer shall agree to provide the City with thirty (30) days prior written notice of any cancellation, non-renewal or material change in coverage.

The policy shall contain no provision that would make this policy excess over, contributory with, or invalidated by the existence of any insurance, self-insurance or other risk financing program maintained by CITY. In the event the policy contains such an "other insurance" clause, the policy shall be modified by endorsement to show that it is primary for any claim arising out of the work performed under this Agreement. The City of Manhattan Beach Insurance Endorsement Form No. 2 (Auto) must be executed by the applicable insurance underwriters.

(3) WORKERS' COMPENSATION INSURANCE - a policy which meets all statutory benefit requirements of the Labor Code, or other applicable law, of the State of California. Employers Liability Insurance with a minimum limit of no less than one million dollars (\$1,000,000) per claim. The policy shall contain, or be endorsed to include, a waiver of subrogation in favor of CITY.

(4) PROFESSIONAL ERRORS & OMISSIONS - a policy with minimum limits of one million dollars (\$1,000,000) per claim and aggregate. This policy shall be issued by an insurance company which is qualified to do business in the State of California and contain a clause that the policy may not be canceled until thirty (30) days written notice of cancellation is mailed to CITY.

7.3 Additional Requirements. The procuring of such required policies of insurance shall not be construed to limit CONSULTANT'S liability hereunder, nor to fulfill the indemnification provisions and requirements of this Agreement. There shall be no recourse against CITY for payment of premiums or other amounts with respect thereto. CITY shall notify CONSULTANT in writing of changes in the insurance requirements. If CONSULTANT does not deposit copies of acceptable insurance policies with CITY incorporating such changes within sixty (60) days of receipt of such notice, CONSULTANT shall be deemed in default hereunder.

Any deductibles or self-insured retentions must be declared to and approved by CITY. Any deductible exceeding an amount acceptable to CITY shall be subject to the following changes:

- (1) either the insurer shall eliminate, or reduce, such deductibles or self-insured retentions with respect to CITY and its officials, employees and agents (with additional premium, if any, to be paid by CONSULTANT) ; or
- (2) CONSULTANT shall provide satisfactory financial guarantee for payment of losses and related investigations, claim administration, and defense expenses.

7.4 Verification of Compliance. CONSULTANT shall furnish CITY with original endorsements effecting coverage required by this Agreement. The endorsements are to be signed by a person authorized by the insurer to bind coverage on its behalf. All endorsements are to be received and approved by CITY before work commences. Not less than fifteen (15) days prior to the expiration date of any policy of insurance required by this Agreement, CONSULTANT shall deliver to CITY a binder or certificate of insurance with respect to each renewal policy, bearing a notation evidencing payment of the premium therefor, or accompanied by other proof of payment satisfactory to CITY.

8. Non-Liability of Officials and Employees of the CITY. No official or employee of CITY shall be personally liable for any default or liability under this Agreement.

9. Non-Discrimination. CONSULTANT covenants there shall be no discrimination based upon race, color, creed, religion, sex, marital status, age, handicap, national origin, or ancestry, in any activity pursuant to this Agreement.

10. Independent Contractor. It is agreed that CONSULTANT shall act and be an independent contractor and not an agent or employee of CITY, and shall obtain no rights to any benefits which accrue to CITY'S employees.

11. Compliance with Law. CONSULTANT shall comply with all applicable laws, ordinances, codes, and regulations of the federal, state, and local government.

12. Ownership of Work Product. All documents or other information created, developed or received by CONSULTANT shall, for purposes of copyright law, be deemed works made for hire for CITY by CONSULTANT as CITY'S employee(s) for hire and shall be the sole property of CITY. CONSULTANT shall provide CITY with copies of these items upon demand and in any event, upon termination or expiration of the term of this Agreement.

13. Conflict of Interest and Reporting. CONSULTANT shall at all times avoid conflict of interest, or appearance of conflict of interest, in performance of this Agreement.

14. Notices. All notices shall be personally delivered or mailed to the below listed addresses. These addresses shall be used for delivery of service of process.

a. Address of CONSULTANT is as follows:

Anderson/Penna/Partners, Inc.

20280 Acacia Street, Suite 100

Newport Beach, CA 92660

b. Address of CITY is as follows:

City of Manhattan Beach
1400 Highland Ave
Manhattan Beach, CA 90266

(with a copy to):

City Attorney
City of Manhattan Beach
1400 Highland Avenue
Manhattan Beach, CA 90266

15. Consultant's Proposal. This Agreement shall include CONSULTANT'S proposal or bid which is incorporated herein. In the event of any inconsistency between the terms of the proposal and this Agreement, this Agreement shall govern.

16. Licenses, Permits, and Fees. CONSULTANT shall obtain a Manhattan Beach Business License, all permits, and licenses as may be required by this Agreement.

17. Familiarity with Work. By executing this Agreement, CONSULTANT warrants that:

- (1) it has investigated the work to be performed;
- (2) it has investigated the site of the work and is aware of all conditions there; and

- (3) it understands the difficulties and restrictions of the work under this Agreement. Should CONSULTANT discover any conditions materially differing from those inherent in the work or as represented by CITY, it shall immediately inform CITY and shall not proceed, except at CONSULTANT's risk, until written instructions are received from CITY.

18. Time of Essence. Time is of the essence in the performance of this Agreement.

19. Limitations Upon Subcontracting and Assignment. Neither this Agreement, or any portion, shall be assigned by CONSULTANT without prior written consent of CITY.

20. Authority to Execute. The persons executing this Agreement on behalf of the parties warrant that they are duly authorized to execute this Agreement.

21. Indemnification.

21.1. Indemnity for Design Professional Services. CONSULTANT is considered a "design professional" as that term is defined in Civil Code Section 2782.8. In connection with its design professional services, CONSULTANT shall hold harmless and indemnify CITY, and its elected officials, officers, employees, servants, designated volunteers, and those CITY agents serving as independent Consultants in the role of CITY officials (collectively, "Indemnitees"), with respect to any and all claims, demands, damages, liabilities, losses, costs or expenses, including reimbursement of attorneys' fees and costs of defense (collectively, "Claims" hereinafter), including but not limited to Claims relating to death or injury to any person and injury to any property, which arise out of, pertain to, or relate to in whole or in part to the negligence, recklessness, or willful misconduct of CONSULTANT or any of its officers, employees, subcontractors, or agents in the performance of its design professional services under this Agreement.

21.2 Other Indemnities. In connection with any and all claims, demands, damages, liabilities, losses, costs or expenses, including attorneys' fees and costs of defense (collectively, "Damages" hereinafter) not covered by Section 21.1, CONSULTANT shall defend, hold harmless and indemnify the Indemnitees with respect to any and all Damages, including but not limited to, Damages relating to death or injury to any person and injury to any property, which arise out of, pertain to, or relate to the acts or omissions of CONSULTANT or any of its officers, employees, subcontractors, or agents in connection with the performance of this Agreement, including without limitation the payment of all consequential damages, attorneys' fees, and

other related costs and expenses.

With respect such Claims, CONSULTANT shall defend CITY, with counsel of CITY's choice, at CONSULTANT's own cost, expense, and risk and shall pay and satisfy any judgment, award, or decree that may be rendered against CITY. CONSULTANT shall reimburse CITY for any and all legal expenses and costs actually incurred by each of them in connection therewith or in enforcing the indemnity herein provided. CONSULTANT's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by CONSULTANT or CITY. All duties of CONSULTANT under this Section shall survive termination of this Agreement.

22. Modification. This Agreement constitutes the entire agreement between the parties and supersedes any other agreements, oral or written. No promises, other than those included in this Agreement, shall be valid. This Agreement may be modified only by a written agreement executed by CITY and CONSULTANT.

23. California Law. This Agreement shall be construed in accordance with the laws of the State of California. Any action commenced about this Agreement shall be filed in the appropriate branch of the Los Angeles County Municipal or Superior Court.

24. Interpretation. This Agreement shall be interpreted as though prepared by both parties.

25. Preservation of Agreement. Should any provision of this Agreement be found invalid or unenforceable, the decision shall affect only the provision interpreted, and all remaining provisions shall remain enforceable.

26. Entire Agreement. This Agreement supersedes any and all other agreements, either oral or in writing, between the parties with respect to the subject matter herein. Each party to this Agreement acknowledges that representations by any party not embodied herein, and any other agreements, statements, or promises concerning the subject matter of this Agreement, not contained in this Agreement, shall not be valid and binding. Any modification of this Agreement will be effective only if it is in writing signed by the parties. Any issue with respect to the interpretation or construction of this Agreement is to be resolved without resorting to the presumption that ambiguities should be construed against the drafter.

27. Attorneys' Fees. In the event that legal action is necessary to enforce the provisions of the Agreement, or to declare the rights of the parties hereunder, the parties agree that the prevailing party in the legal action shall be entitled to recover attorneys' fees and court costs from the opposing party.

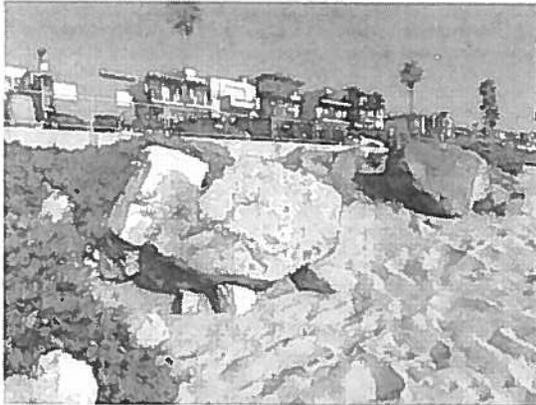
Exhibit A

Scope of Work



Scope of Work

The City of Manhattan Beach is seeking a team to perform CCTV of the City's storm drain system, perform a structural rehabilitation analysis and develop a recommended capital improvement program to upgrade the system. The AndersonPenna Partners, Inc. Team has proven experience with all aspects required to complete this work. The APP Team is available to perform the work in accordance with the City's requirements.



We understand it will be our responsibility to oversee the work of the CCTV contractor (Empire Pipe Cleaning) to provide the City of Manhattan Beach with sufficient, detailed information regarding the condition of the storm drain system including the main line pipes, laterals and catch basins. It is also our understanding that we will be responsible for developing a recommended capital program to make improvements to the system based on our assessment of the condition while working closely with City staff to incorporate recommendations based on institutional knowledge of the drainage system. Our experience with NASSCO PACP standards and integration with GIS mapping will be very beneficial to the City of Manhattan Beach. The development of cost estimates for

recommended improvements will be based on our most recent experience with similar construction and our vast data base of contractor pricing for recent projects in our local area. These cost estimates will include proper contingencies, rates of inflation, and will include soft costs for engineering, administration and overhead.

Task 1 – Existing Data Research, GIS Mapping, and Site Reviews

Task 1.1 – Obtain and Review Existing Information

Immediately following the Notice to Proceed:

- We will conduct a carpenter level field investigation of the existing storm drain system
- We will review the City's and LA County GIS shapefiles and CAD files and either update or re-create a GIS map that seamlessly merges with POSM – Empire Pipe Cleaning's CCTV pipe inspection software
- Where discrepancies are anticipated, we will compare the GIS map to available record information and determine if the City's computer models accurately represent the City's physical storm drain system
- We will inventory storm drains that have been recently serviced, replaced, or repaired and update the appropriate storm drain shapefile with any changes (i.e. material, diameter, etc)
- We will coordinate with the City and Empire Pipe Cleaning to merge the City's updated storm drain GIS map into POSM and link videos, photos, and reports captured during inspection to their respective feature in GIS (i.e. manholes, pipes, laterals, and catch basins)

Task 1.2 – Assemble the GIS Database and mapping files

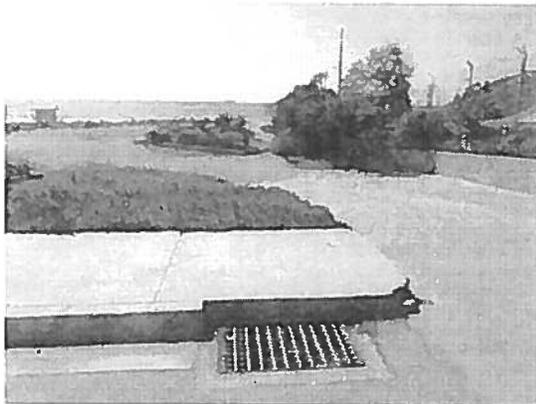
We will familiarize ourselves with any adaptations to the City's or County's GIS files and field maintenance records and will field verify any previous assumptions in the GIS database to have the 'real world' physical features correspond with the electronic files and determine if there are any issues with accessing the storm drains for inspection (i.e. buried manholes and outlet structures). Information in the GIS database that appears questionable or incomplete will be addressed by:

- Filling in missing information using atlas maps, as-builts, or other information such as studies and reports provided by City staff
- Gathering data during the CCTV inspection, including diameter, length, and stationing of laterals and manholes



Conducting field visits utilizing a hand held GPS device to confirm the accuracy of the storm drain pipes and manholes, especially those that are shown on the GIS map in a questionable location, such as private properties or inside buildings

Task 1.3 – Meet with Public Works Engineering and Maintenance Staff



After completing our review of existing information, we will meet with City personnel to discuss our findings and determine if there are any other known problem areas, 'Enhanced Maintenance Areas' (EMA), frequently flooded areas, or any surcharges that the City may be aware of. We will collect and review information regarding the City's upcoming pavement, utility, and other improvement projects to develop a phasing schedule for the CCTV inspection that avoids conflict with citywide capital improvement projects. We will use this information in concert with the updated GIS database to develop a comprehensive CCTV "Phasing Plan" that breaks the City into grids depicting the order of inspection that avoids conflict with other citywide improvement projects.

Task 2 Develop CCTV Inspection Program

Task 2.1 Update the City's Existing Storm Drain Atlas Maps

Before mobilizing the CCTV crews, our team will update the City's storm drain GIS maps to show the information gathered in Task 1. We will incorporate CCTV inspection data into GIS shapefiles that will be merged back into the citywide map to develop and deliver three printed and electronic sets (9 total map books) of the following atlas maps:

- Structural Defect Atlas Maps
- Operation and Maintenance Defect Atlas Maps
- General Storm Drain Atlas Maps

These maps will depict the City's storm drain system on georeferenced aerial imagery downloaded from the USGS or LA County, and will include DVD number, inspection number, inspection location, inspection date, manhole numbers, pipe ID's, direction of camera during inspection (US or DS), diameter and material of pipe, pipe length, structural and/or maintenance defect and the exact location along the pipe (station).



Task 2.2 Create a CCTV Inspection Base Map

We will create a base map ("Phasing Plan"), that contains the information from Task 1 and Task 3.1 and distribute it to the City and the project team for discussion and tracking purposes. We will submit the CCTV inspection schedule and "Phasing Plan" to the City for your review. We will use the approved CCTV "Phasing Plan" to track the progress of the CCTV crew throughout the life of the CCTV inspection.

Task 2.3 CCTV the City's Storm Drain System

We will meet with the City to receive comments on the "Phasing Plan", make necessary changes, and resubmit it along with our responses to City comments, in writing, for final approval. With the City's approval, we will merge the base map into POSM and begin the CCTV inspection process. The results of the CCTV inspection will be updated directly into the City's storm drain GIS and the CCTV inspection crew will submit the results to the engineering team per the project schedule.



The CCTV crew will be scheduled to submit the results of the CCTV inspection to the Engineer in two week intervals to ensure that the project remains on schedule and within budget. This will also allow the engineering team to review the CCTV inspection, rank and prioritize defects, and begin the estimating process simultaneous to the CCTV inspection – expediting the review process. Once the CCTV inspection is complete, we will merge the cumulative results into the appropriate sections of the Capital Improvement Program condition assessment and cost estimating tables described in Task 4.

Task 3 – CCTV Storm Drain System

Task 3.1 General

In performing the CCTV investigation work, high resolution pan and tilt cameras will be used to rank and record the structural and maintenance condition of each pipe from upstream to downstream. In the event of a line blockage or when the camera encounters a flooded or broken line and is unable to pass through a reach of pipe between two manholes, our team will move the camera to the downstream manhole, or nearest point of access, and continue inspecting the reach in an upstream direction. In the event that a camera is unable to pass a reach of pipe due to flooding (underwater), that defect will be tabulated and alternatives will be presented to accomplish inspection with a bypass plan. In the event that a camera is unable to pass a reach of pipe due to defects or manhole access, the defect will be tabulated and presented to the City during the next appropriate update meeting. At that time we will present alternatives to accomplish the inspection activity, including confined space entry, bypassing, and plugging which are not included in the base price.

Trained and experienced inspection personnel will identify and confirm the location of each manhole, junction, and siphon and associate them with their respective feature in the citywide storm drain database prior to inspection. Our NASSCO PACP certified CCTV inspection crew will record pipeline information, such as diameter, material, length, physical condition, location and description of service laterals, identification and location of cross connections, broken pipes, and offset joints, direction of flow, any discrepancies in the database related to size or material, and verify that pipe segments are properly associated with their respective feature in the GIS database. Final inspection results will be automatically recorded in the City's GIS storm drain database by POSM and delivered for analysis by our team.

The POSM software seamlessly creates pipe segment plots of each pipe inspected including its respective color coded PACP score representing the severity of each defect (0 through 5). The pipe segment plots also contain a summary table of the total defect scores for each pipe, the pipe length, the station where each defect occurs, a legend, photographs of defects, and general observations.

Task 3.2 Detailed Catch Basin and Manhole Inspection

Although a CCTV pipe inspection does not typically include a thorough investigation of the adjoining manholes, having a field team mobilized makes for a good opportunity to review the general condition of manholes. As part of the CCTV inspection, the CCTV crew will perform a cursory look at the upstream and downstream manholes of the pipelines they are inspecting to determine whether or not the manholes have noticeable defects. Where defects are detected, the inspector will provide a brief description of what was observed and provide that information to the engineer at each respective submittal for ranking and prioritization in the CIP as a future inspection. Severely defective manholes will be cataloged and recommendations will be made to either perform a more detailed inspection or to make immediate repairs.





A detailed manhole inspection involves the use of field equipment and application templates in the POSM software that are much different than those used at the cursory level. With the City's authorization, Empire will conduct a detailed inspection of the manholes identified as defective, including the inspection of the:

- Cover
- Frame
- Cone
- Barrel/wall
- Rung
- Bench condition
- Channel condition

In addition, Empire will measure the:

- Top of cone to top of barrel
- Top of barrel to top of effluent pipe
- Surface to invert
- Manhole diameter
- Surface to cone top
- Barrel top to pipe top
- Chimney diameter

Each manhole inspected will also include a minimum of six photographs depicting:

- Surrounding area
- Wall
- Chimney
- Cone
- Looking down the manhole north at the 12:00 position (showing flows)
- Defects
- Closed manhole photo for safety documentation

Task 3.3 Traffic Control

Traffic control is a service that is included in the base price for the CCTV inspection.

Task 4 – Storm Drain System Analysis

Detailed capacity analysis studies and recommendations for resolving capacity deficient reaches were completed by the City in their storm drain master plan. As part of our effort, we will review the components that make up those previous studies to verify that they are consistent with the most current Los Angeles County Hydrology and Hydraulic policies.

Task 4.1 Determine the Need for a Localized Capacity Analysis

We will perform a cursory review of the City's previous capacity analysis studies and interview City staff to determine if there are any areas that are showing signs of capacity problems and verify that there have not been significant changes to land use (imperviousness) and confirm the adequacy of the way that storm flows are conveyed (watershed delineation). Our CCTV inspectors will bring to our engineers' attention any new reaches or facilities that he discovers in the field are not in the GIS database. We will use all of this information to help us compare the previous capacity study with field observations. If we find that there are significant discrepancies between the theoretical model and the observed conditions, we will develop a strategy that outlines an approach to alter the capacity analysis that was previously prepared. Although we are capable of preparing a capacity analysis for the City's storm drain system, we do not anticipate that it is necessary and have not included it in our base price.



Task 4.2 Capacity Analysis and Hydraulic Modeling Software

Should the need for an updated capacity analysis arise during our study due to changes in regulations, errors in the previous studies, changes to land use, or the way that stormwater is routed through the system, we will recommend a comprehensive hydrologic and hydraulic plan to the City for their review (capacity analysis plan). The capacity analysis plan will include an approach to updating the previous study and the most appropriate software for developing a hydraulic model. Although we do not anticipate additional capacity studies will be necessary, they can be performed at a value added cost.



Task 5: Storm Drain System Improvements (CIP)

Task 5.1 – Evaluate CCTV Findings

Early in the CCTV inspection effort, we will take a sample of the CCTV inspection database to confirm that it seamlessly converts back into the City's GIS map. To help expedite the engineering review of the CCTV inspection, we will receive and review the results of the CCTV inspection every two (2) weeks during the CCTV inspection phase. Our analysis will include the review and risk assessment of every Grade 5 (Very Poor) and Grade 4 defects (Poor), a representative sample of the Grade 3 defects (Fair), and all manholes that have noticeable defects. In addition, we will review all sags, cracks, and blockages to ensure that the pipe inspection was satisfactorily completed and coordinate with the City and the CCTV crew to develop a strategy for those that were not.

Task 5.2 – Prioritize Very Poor and Poor Defects for Maintenance and Improvement

The prioritization of projects is driven by the severity of structural defects identified through CCTV inspection and assessing the condition of high risk assets that may lack necessary safety factors, may be nearing their expected life cycle, or which may be obsolete in design or material. High risk assets are those that are likely to affect human safety, personal property, and the operation of the storm drain system. Additionally, priorities are developed based on other planned City capital projects such as paving and underground utility improvements.

The team will conduct a detailed review of record documents, as-built plans, reports, upcoming roadway and underground utility improvements, and studies to get a thorough understanding of what has already been vetted. We prioritize the replacement and repair of storm drain facilities based on their risk and develop a detailed analysis of the cost, including the City's abilities to perform certain tasks, and project them over an appropriate funding horizon – typically 10-years.

Task 5.3 – Determine City Staff Capabilities to Repair Structural and Maintenance Defects

We will meet with City staff to determine the types of Storm Drain improvement projects and maintenance projects they currently perform, as well as the kinds of projects they would likely be able to undertake over the next 15-years. We will identify the types and condition of the equipment they are currently using and establish their current strengths and weaknesses. We will review their Storm Drain System Management Plan and other adopted policies to better understand the processes they currently have in place and will use this information to develop a comprehensive cost estimate.

Task 5.4 – Develop Cost Estimates

We will meet with City staff to gain a thorough understanding of the nuances that were experienced during any recent capital improvement projects – especially storm drain projects. Adjustments for items like shallow groundwater, soft (collapsible) soils, frequent sags, poor existing bedding, highly permeable soil, and deep pipes will be evaluated and included in the unit prices used in the construction cost estimates. Unit prices will be



developed from local and current bid results from the City's most recent projects, nearby city projects, Los Angeles County, and Caltrans. Our engineering team will collaborate with our construction management team to verify that our cost estimate is current and representative of their recent experiences and with current and accepted construction practices.



Task 5.5 – Coordinate with Funding Strategy

Recommended improvement and replacement projects will be programmed and scheduled based on their respective risk and the availability of annual storm drain rate funds. Additional Equipment and materials that allow the City to take on more operation, maintenance, and structural repairs will be weighed for their cost benefit and programmed into the Funding Strategy after the highest risk facilities are repaired or replaced.

Task 6: Mapping and GIS

Task 6.1 – Post Process CCTV and Engineering Data into City Database

After the field and engineering studies are complete, our team will verify that the results of the final CCTV inspection and reports are automatically updated into the City's database and with a simple 'click' the City will be able to access and review:

CCTV Inspection Reports

Video, Images, and Observations

Pipe segment plots showing defects at their actual location along each reach

Reports for specific fields like roots, broken pipes, and defects

Specific Storm Drain line information:

Diameter

Direction of flow

Material

Pipe ID

Length

We will coordinate with the CCTV team throughout the duration of the inspection to ensure that the City's GIS base map is consistent with the physical features being inspected and that the data returned to the City's repository is consistent and seamless with the City's GIS database.



At the City's discretion, we will assist the City's Information Technology staff transfer pertinent CCTV information (approximately 1 terabyte worth of data) gathered during the CCTV inspection period to a designated location on the City's server and create the necessary links between GIS and the newly recorded data. This information will include the 2012 CCTV inspection videos, photographs, and reports necessary for City staff to easily view and understand the location and severity of the defects captured during inspection.

Task 6.2 – Develop Storm Drain Atlas and Deficiency Maps

Our team will use the results of the CCTV inspection to provide updated Storm Drain atlas maps for each of the structural defects and O&M defects, as well as an updated citywide Storm Drain system map. At the City's request



and pending the receipt of supporting GIS files, we will prepare updated GIS maps of other related exhibits, including:

- Storm Drain Master Plan Maps
- General Storm Drain Maps

Task 6.3 – Train City Staff on the Updates to the GIS and XY Maps

After the Capital Improvement Program has been adopted by the City and the GIS database has been fully integrated into the City's GIS or appropriate CAD system, our team will meet with the City to determine a training schedule to bring City staff up to speed on the final changes to the Storm Drain database and interface. We will schedule up to 4 hours of training at the City in either an individual or classroom setting to conduct a demonstration of the new features and respond to questions.

Task 7: Final Capital Improvement Program Report

The Capital Improvement Program report and recommendations will include an executive summary that provides a snapshot of the results of the study, the City's structural and capacity improvement needs, a budget projection, and a schedule of repairs that prioritizes the most severe deficiencies in the early stages of capital improvements. The report will include the following:

- Executive Summary
- Introduction and history
- Study Approach, Assumptions and Criteria
- Capital Replacement and Improvement Program
- GIS Report
- CCTV Study
- Optional – Hydraulic Deficiency Findings and Recommendations
- CCTV Structural and Maintenance Deficiency Maps
- Electronic Files Containing:
 - PDFs of the CIP and its associated reports
 - GIS shapefile of the updated basemaps
 - CCTV images, videos, and reports
 - O&M and structural deficiency atlas maps
 - Citywide storm drain atlas map

We will submit a draft Capital Improvement Program report for City review and will attend a coordination meeting to discuss comments and recommendations. We will document each comment in writing and will submit them along with the updated Capital Improvement Program report and two (2) external hard drives containing the complete GIS and POSM files in the City's most current software version. The hard drives will also include full size atlas maps, the CCTV investigation reports, photographs, and videos. Our staff will also be available to attend up to two (2) City Council Meetings, prepare necessary presentation materials, and to incorporate City Council and staff comments into the final Capital Improvement Program report, all of which is included in our base price.

Exhibit B

Cost Sheets



Cost Sheets: Schedule A and Schedule B

City of Manhattan Beach

Schedule A
 Cost Sheet

Engineering Services for Storm Sewer Lines and Laterals No. 894-13

TASK/DESCRIPTION	HOURS			DOLLARS		
	Proj Mgr Lisa Penna, PE	Proj Eng Matt Stepien, PE	Assoc Eng Jake Hester, PE	Subcontractor	Expenses	Total Cost
STORM MAINS and LATERALS						
Storm Main CCTV Inspections - 76,560 Feet	10	8	32	\$63,507	\$0	\$69,977
Storm Lateral CCTV Inspections - 4,400 Feet (440 Catch Basins Laterals Averaging 10 Feet in Length)	4	6	12	\$41,958	\$0	\$44,878
ENGINEERING EVALUATION						
Perform Storm Main and Lateral Structural Rehabilitation/Analysis from 100% Review of CCTV	12	16	54		\$0	\$10,440
Storm Main and Lateral Capital Improvement Project Development and Engineer's Cost Estimates	8	8	25		\$0	\$5,350
Total Hours	34	38	123			
Hourly Rate	\$175	\$150	\$110	5%		
Total Cost	\$5,950	\$5,700	\$13,530	\$105,465	\$0	\$130,645

City of Manhattan Beach

Cost Sheet

Engineering Services for Storm Sewer Lines and Laterals NO. 894-13

Schedule B

TASK/DESCRIPTION	HOURS			DOLLARS		
	Proj Mgr Lisa Penna, PE	Proj Eng Matt Stepien, PE	Assoc Eng Jake Hester, PE	Empire Subcontractor	Expenses	Total Cost
STORM MAINS - LATERALS - CATCH BASINS						
Storm Main Cleaning - 76,560 Feet	6	7	14	\$74,761		\$78,401
Storm Lateral Cleaning - 4,400 Feet (440 Catch Basins Laterals Averaging 10 Feet in Length)	2	2	5	\$42,042		\$43,242
440 Catch Basin CCTV Inspections	2	4	4	\$37,422		\$38,812
ENGINEERING EVALUATION						
Perform Structural Rehabilitation/Analysis from 100% Review of CCTV						\$0
Catch Basin Capital Improvement Project Development and Engineer's Cost Estimates						\$0
Total Hours	10	13	23			
Hourly Rate	\$175	\$150	\$110	5%		
Total Cost	\$1,750	\$1,950	\$2,530	\$154,225	\$0	\$160,455

Exhibit C

Project Schedule



Project Schedule

The AndersonPenna team has an appreciation for project accomplishment logistics, and understands that successful, timely and cost effective results are a combination of both individual and collective commitment to the project. At the project outset, AndersonPenna's key team members including City's representatives must discuss the relevant issues affecting cost and schedule, and concur on a workable schedule and approach to accomplishing the project. A successful initial discussion and concurrence should facilitate the individual and collective commitments to completing the project as agreed. AndersonPenna is committed to meeting all agreed upon schedules, and can provide the City reasonable assurance that schedule commitments will be honored.

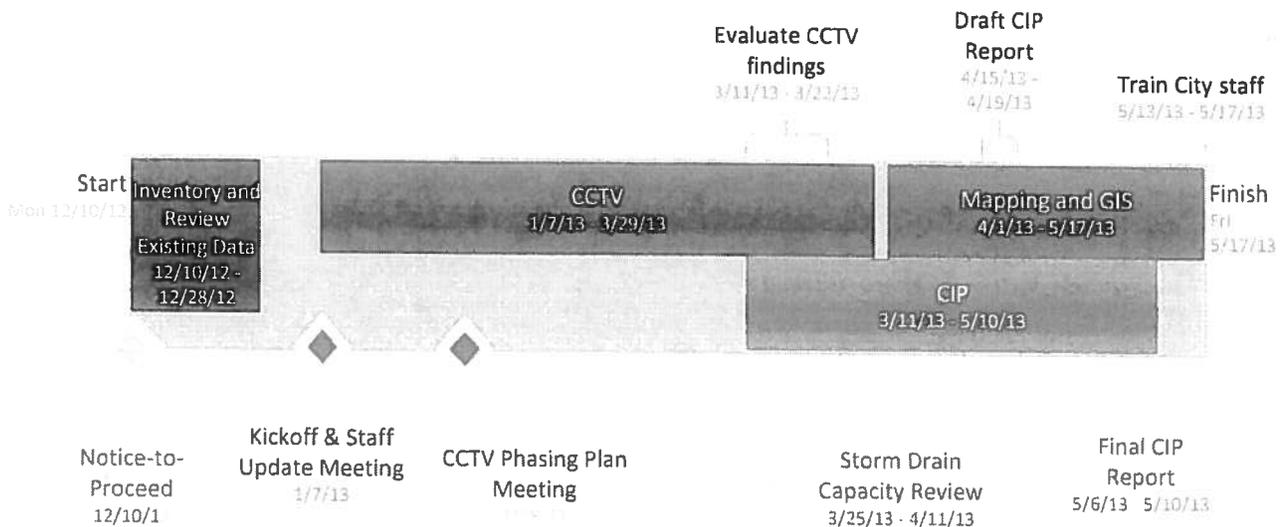
AndersonPenna has a time tested reputation for meeting the agreed upon project schedule for our clients. We are able to accomplish this by following some basic, principled guidelines.

- Retain key personnel
- Utilize regular team meetings/discussions to check progress and constraints
- Document necessary scope or schedule changes
- Do not over commit resources

Additionally, our project managers are aware of the critical path tasks, and are made responsible for identifying those tasks early in the project process. As always, timely communication with City representatives, informing them of progress and constraints is key to maintaining the planned schedule. Should the schedule begin to slip for reasons beyond the control of the AndersonPenna team, the City will be promptly notified and a suggested course of action to bring the project on track will be presented. Should schedule slippage occur on any project assigned to our team, the following steps will be immediately taken at no cost to the City:

- Add additional resources
- Adjust critical path tasks as necessary
- Submit recommendations for alternatives to project approach

The following timeline provides an overview of project tasks and the order of events.





References

The following references are for similar work of similar size and nature is currently in process or recently completed with same subcontractors proposed for this engagement. Include name of firm, telephone, and name of contact person. These references will be checked and may affect the award of the contract. The City of Manhattan Beach reserves the right to contact any of the organizations or individuals listed or any others that may stem from the inquiry.

1. City of Fountain Valley
 10200 Slater Ave., Fountain Valley, CA 92708
 Mark Lewis, PE, Director of Public Works/City Engineer
 (714) 593-4435
 2012 Sewer Master Plan Supplement
 Subcontractors: Empire Pipe Cleaning and Equipment, Bucknam & Associates, Black & Veatch
 Completion Date: June 2013

2. City of Laguna Beach
 505 Forest Ave., Laguna Beach, CA 92651
 Steve May, Director of Public Works/City Engineer
 (949) 497-0351
 Capital Improvement Program Management (Circle Way Storm Drain, Nyes Place Catch Basin and Storm Drain Improvements, Citywide Urban Runoff Diversion Program, Laguna Canyon Channel Realignment)
 Subcontractors: None
 Completion Date: August 2012

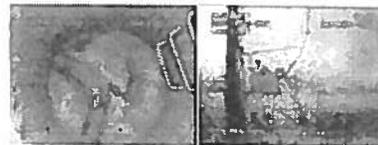
3. City of Long Beach
 333 333 W Ocean Blvd, 9th Floor, Long Beach, CA 90802
 Robert Maldonado, PE, Senior Civil Engineer
 (562) 570-6256
 Storm Drain Master Plan (including Capital Improvement Program, structural and maintenance improvements, and estimating)
 Subcontractors: None
 Completion Date: March 2006

Subcontractors



AndersonPenna proposes to use Empire Pipe Cleaning and Equipment, Inc. for CCTV inspection and storm drain cleaning. Empire is a NASSCO PACP certified contractor and is highly experienced using the latest in GIS based CCTV application software, including

Pipeline Observation System Management (POSM). Based out of the City of Orange, Empire has over 35 years of experience serving local clients like the City of Manhattan Beach and other municipalities, public agencies, the military, and construction contractors.



AMM - Manhole	FD - Precure Manhole
Distance 0	Distance 0
Severity None	Severity None
Pos 0 0	Pos 0 0
VCR Time 03:23:19	VCR Time 03:24:24
Mag Time 42	Mag Time 0:00