



June 24, 2024

Mr. Michael De Leon, P.E.
Cartersville Water Department
148 Walnut Grove Road
(PO Box 1390)
Cartersville, GA 30120

Re: Surveying, Engineering, and Construction Administration Services for
the Plymouth and Dellinger Areas, Cartersville, GA
Sanitary Sewer Evaluation Study (SSES) and Find & Fix Project

Dear Mr. De Leon:

Prime Engineering is pleased to submit this proposal to provide professional surveying, engineering design, and construction support services and act as Engineer-of-Record to evaluate and design improvements for approximately 17,444 LF of existing 8-inch, 630 LF of existing 10-inch, 1,550 LF of existing 12-inch, 16 LF of existing 16-inch sanitary sewer mains and approximately ninety (90) manholes. There are also about 90 segments of sewer pipe to be reviewed.

INTRODUCTION AND PROJECT GOALS:

Prime Engineering has reviewed Cartersville provided City GIS maps of the existing sanitary sewer system in the Plymouth and Dellinger Areas. We have also met with City of Carterville Department of Water staff to gain a better understanding of the existing conditions and project objectives. The primary intent of this project is to evaluate the existing sanitary sewer mains and manholes and review the evaluation reports and sanitary sewer pipe video tapes in order to design improvements to help minimize the inflow and infiltration occurring in these areas.

PROJECT BACKGROUND AND APPROACH:

The Cartersville Water Department has identified two areas (Plymouth and Dellinger) with substantial inflow and infiltration (I&I) into the sanitary sewer collection system. The two areas of study are shown in Figures 1 and 2. I&I causes operational issues for the sanitary sewer collection system and treatment facility. I&I also reduces available treatment plant capacity that can cause a financial impact of the sanitary sewer utility.

3715 Northside Parkway, NW

Building 300, Suite 200 ■ Atlanta, GA 30327
main: 404-425-7100 ■ fax: 404-425-7101 ■ www.prime-eng.com

Mr. Michael De Leon, P.E.
June 24, 2024
Page 2



Figure #1 – Plymouth Area Map



Figure #2 – Dellinger Area Map

Mr. Michael De Leon, P.E.

June 24, 2024

Page 3

RISKS:

1. Project Specific Risks

- Working adjacent to other utilities and in the Right-of-Way.
- Temporary traffic control plans will be required.
- Unknown condition of existing sanitary sewer mains and manholes.

2. Impact on Operations and Maintenance

- Bypass pumping of existing sanitary sewer mains may be required during video taping and pipe rehab (By-Pass pumping is not anticipated and would be billed as a separate cost if required during the video taping. Prior approval from Cartersville will be obtained). By-pass pumping during rehab will be at contractors expense and will be noted on the construction documents.
- Cleaning sanitary sewer may send large debris downstream in sanitary sewer collection system. We will try to minimize, but occasionally this does occur.

SCOPE OF SERVICES:

This proposal is based on our understanding of the scope of the project, as described above and as outlined in the task below.

The following Scope of Services identifies the major tasks that Prime Engineering will provide, as related to the evaluation of the existing sanitary sewer collection system and preparation of construction plans, easement and permitting documents, and support during construction for the Plymouth and Dellinger Areas sanitary sewer improvements project. Our Services will be broken down into Tasks as outlined below:

Task 1–Planning and Progress Tracking:

Mr. Paul Boyer, PE will serve as Project Manager. He will be responsible for coordinating with the Cartersville Project Manager and managing our team's efforts to successfully complete this project.

The Planning and Progress Tracking Phase Task will include attending project meetings, documenting meeting minutes, and providing monthly invoicing and project status reports, which will include the following:

Mr. Michael De Leon, P.E.

June 24, 2024

Page 4

- Conducting a project Kickoff meeting with the Cartersville Water Department Project Manager (PM) and key Stakeholders of Cartersville Water Department to verify the Scope of Services, schedule requirements, and other special conditions or considerations;
 - Activities performed during billing cycle;
 - Anticipated activities to be performed in the upcoming billing cycle;
 - Description of Project issues and Scope changes;
 - Updated monthly cash flow projection for the remainder of project;
 - Updated project schedule (MS Project format);
 - Conduct monthly meetings with Cartersville Water Department Project Manager to review project progress;
 - Conduct monthly Progress Meetings and special called meetings during construction;
 - Budget status by Task:
 - Earned Value (EV), with Spent-to-Date, annually;
 - Estimate to Complete (EC);
 - Estimate at Completion (EAC);
 - QA/QC of all deliverables.
- ✓ Deliverables:
- Documented Meeting Minutes/Summaries;
 - Monthly invoices;
 - Monthly Project Status reports to include:
 - Reporting Period
 - Work Accomplished This Period
 - Work to be Completed Next Period
 - Project Issues
 - Pending Action items
 - Schedule Status
 - Budget Status (EV, EC, EAC)
 - Updated Monthly Cash Flow
- ✓ Assumptions:
- Assumes 10 monthly meetings with Cartersville Water Department Project Manager (from NTP thru Design);

Task 2 -Data Gathering Phase:

The Data Gathering Phase Task will include locating and inspecting the sanitary sewer manholes and cleaning and cctv'ing the sanitary sewer lines within the project area.

Task 2.1- Manhole Inspection

During this phase Prime Engineering will locate the top of the sanitary sewer manholes using survey grade GPS. Additionally, the manholes will be inspected to determine their condition. Specific information to be collected include top elevation, invert elevations, size and pipe

Mr. Michael De Leon, P.E.

June 24, 2024

Page 5

material type, assessment of interior of manhole, step assessment and various other data information. A copy of the data to be collected is shown on Attachment A.

Task 2.2 CCTV Inspection

Prime Engineering shall furnish labor, equipment, supplies, and supervision to perform the work required in accordance with the technical procedures described below.

1. Prime Engineering shall perform the CCTV inspections and assessments with its subcontractor performing the field investigations. The estimated quantities budgeted are approximately 20,000 linear feet and 90 segments of sanitary sewer.
2. Prime Engineering shall update Cartersville's GIS database to include manhole and sanitary sewer data.
3. Prime Engineering shall provide a report, CCTV Data Analysis and Report, detailing all investigation activities performed during this phase (See Attachment C for various Reports to be generated).
4. Prime Engineering shall provide final reports after all investigation activities are complete. These shall include prioritization, suggested method of repair and cost estimates of repair recommendations.

Methods and Procedures are as follows:

1. Conduct CCTV Inspections; Prime will perform cleaning and CCTV inspections on sections of the collection system identified above. If the pipes require heavy duty cleaning and/or root cutting, the City will be advised.
2. Manhole Mapping and Inspections: Prime survey crews will map and inspect accessible manholes. The cost for this task is based on estimates of the number of structures requiring inspection. Deliverables shall include an updated geodatabase containing all sanitary structures with inspection data. Additionally, copies of all inspection forms will be provided.
3. CCTV Data Analysis and Report: A report detailing CCTV activities shall be submitted after the completion of the inspections. Two copies of the report shall be furnished to the City and shall include data generated for the entire inspection period. The report shall include a summary table by manhole number of system deficiencies found in this task. The deliverables shall also include an electronic copy of the inspection data and CCTV inspection DVD's.
4. Final Reports: Final reports detailing all SSES activities shall be submitted after the completion of all inspections, evaluations, and assessments. Two copies of the reports shall be furnished to the City and shall include data generated for the entire inspection period. The reports shall include inspection data for all structures and pipes and a prioritization of recommended repairs with cost estimates.

Mr. Michael De Leon, P.E.

June 24, 2024

Page 6

Exclusions:

- *The cost proposal for services to be provided above is based on unfathered access to the facility and piping system to be investigated via cleaning and/or CCTV methodology.*
- *Access to water for line cleaning to be provided at no additional costs to Prime Engineering*
- *CCTV cost based on the Quantity and size listed above with unit cost as follows:*
 - *8" Cleaning & CCTV - \$4.13/lf*
 - *10" Cleaning & CCTV - \$4.68/lf*
 - *12" Cleaning & CCTV - \$7.98/lf*
 - *16" Cleaning & CCTV - \$13.75/lf*
- *Cleaning cost based on medium cleaning. Heavy duty cleaning and By-pass pumping will be an additional service.*

Task 3 -Design Phase:

The Design Phase Task will include Preliminary Engineering, database preparation and preparation of plans, required for construction of the proposed water mains.

3.1- Database Preparation

This sub-task includes:

- Preparing a base map in CAD using GIS data (aerial photo, topography, utilities, etc.) and info collected in the field to be used in Preliminary Engineering;
 - Obtaining all available information related to visible existing utilities, roadway improvements, parcels, easements, and rights-of-way;
 - Conducting a site visit with Cartersville staff to observe site specific conditions, observable conflicts, traffic patterns, or other related constructability issues;
 - ~~Conduct SUE Level B survey of the utilities in the route of the proposed sewerlines;~~
 - ~~After SUE B utilities locations are demarcated in the field we will perform field survey to locate this information in support of the construction drawing development QA/QC of all deliverables~~
- ✓ Assumptions:
- Provide electronic copies of Plans of the data base plans;
- ✓ Assumptions:
- SUE Level 'A' Vacuum Extractions is **not included** in this proposal and will be performed under separate Cartersville Water Department Contract, if required;

Task 3.2 30% Design (Concept)

This sub-task will include preparation of the sanitary sewer main rehabilitation drawings. Work to be performed includes:

- Preparing sanitary sewer main rehabilitation plan sheets using field survey deliverable from Task 2.2 as the basis of design (Scale 1"=30'). Drawings will indicate repairs required i.e. point repair, remove and replace, slip line, pipe burst and manhole rehab.
- Preparing Cover Sheet and General Notes sheets

Mr. Michael De Leon, P.E.

June 24, 2024

Page 7

- Identifying Stream Buffer Variances and/or Wetlands Mitigation, and begin permitting from GaEPD and/or ACOE (Do not anticipate any based on preliminary review)
 -
 - Identifying easement needs for Temporary Construction and Permanent maintenance of the water main
 - Preparing Preliminary Opinion of Probable Construction cost (OPCC)
 - Participating in 30% design review meeting with Cartersville Water Department to confirm alignment, and review design schedule, prior to proceeding with final design
 - Performing ongoing QA/QC review of the design and deliverables.
- ✓ Deliverables:
- Provide Plan Sheets to include:
 - Cover Sheet;
 - Sheet Index with key identifying each sheet location on the route;
 - General Notes;
 - Conceptual rehab plan sheets of sewer main;
 - Provide Opinion of Probable Construction Cost (OPCC);
 - Provide Minutes of the 30% Design Review meeting (The Cartersville PM will use a comment log with consultants responses for tracking purposes);
 - Provide hard copies of Plans– 1 Full-Size sets (22” x 34” Provide electronic files of drawings;
 - Provide Specifications – Table of Contents – 2 sets;
 - All above listed deliverables to be provided to Cartersville Water Department in electronic format (both DGN and PDF) and hard copy.
- ✓ Assumptions/Expectations of Cartersville Water Department:
- SUE Level ‘A’ Vacuum Extractions are excluded from this proposal and will be performed under separate Cartersville Water Department Contract.
 - No public outreach meeting is anticipated.

Task 3.3 - 90% Design

The 90% Design sub-task will be used to complete the design drawings to the level of completion required for permit submittal. Work to be performed includes:

- Addressing comments received from the 30% Design Review meeting and incorporating these into the design drawings and specifications;
- Finalizing Plan sheets, erosion control plans, details, etc.
- Preparing stream monitoring plan, testing requirements, and associated notes for inclusion in the Erosion, Sedimentation & Pollution Control Plan (ES&PCP);
- Preparing Bid Form and Supplementary Conditions for initial review;
- Updating the OPCC
- Finalizing Specifications including Supplemental Specifications (SUP);
- Participating in 90% Design Review meeting (The Cartersville PM will use a comment log with consultants responses for tracking purposes);
- Performing ongoing QA/QC review of design and deliverables.

Mr. Michael De Leon, P.E.

June 24, 2024

Page 8

- ✓ Deliverables:
 - 90% Design Drawings;
 - Final Specifications,
 - Updated OPCC $\pm 10\%$;
 - Minutes of the 90% Design Review meeting;
 - Electronic Copy of 90% Plans, and Specifications;
 - Hard Copy of 90% Design Plans – 1 Full-Size (22"x34") sets,;
 - Hard Copy of Specifications – 2 sets;
 - Bid Form;
 - Supplementary Conditions;
 - All above listed deliverables to be provided to Cartersville Water Department in electronic format (both DGN and PDF) and hard copy.

- ✓ Assumptions/Expectations of Cartersville Water Department:
 - Supplemental Specifications (SUP) will be included for items as required by the project, but not covered in the City of Cartersville Standard Specifications.

Task 3.4-100% Design (Final / Bid Ready)

During this sub-task, the contract documents will be completed such that the project is ready for submittal to City of Cartersville Purchasing for solicitation of construction bids. Work to be performed includes:

- Addressing comments received from the 90% Design Review meeting;
- Preparing/finalizing the required documents for submittal to Purchasing for the advertisement of construction bids, including;
- P.E. sealed bid documents – electronic submittal (both DGN and PDF) to Cartersville Water Department and Purchasing in PDF format:
 - Front-End Documents;
 - Technical Specifications;
 - Drawings;
- P.E. sealed bid documents – hard copy submittal to Purchasing:
 - Two copies of unbound sets of front-end documents (single sided);
 - Two copies of unbound sets of Technical Specifications (single sided);
 - One set of unbound Drawings;
 - One bound set of front-end documents (single sided);
 - One bound set of technical specifications (double sided)
- P.E. sealed bid documents – hard copy submittal to Cartersville Water Department:
 - Two bound sets of front-end documents (single sided);
 - Two bound sets of Technical Specifications (double sided);
 - Two half-size sets of Drawings;
- Updating OPCC $\pm 10\%$
- Performing ongoing QA/QC review of design and deliverables.

We anticipate the following Drawing List for the project:

Mr. Michael De Leon, P.E.

June 24, 2024

Page 9

G-000	Cover Sheet
G-001	General Abbreviations, Notes and Legends
G-002	General Notes
C-200	Key Map
C-201 to C-230	Sewer Main Plans & Profiles
C-401	Construction Details
C-402	Construction Details
C-403	Construction Details
C-404	Construction Details
C-405	Construction Details
C-406	Pavement Details
C-501	Closure Plans
C-502	Closure Plans
EC-001	Erosion and Sediment Narrative Plan
EC-002	Erosion and Sediment Control Notes
EC-003	Erosion and Sediment Control Notes
EC-004	ES and PC Checklist
EC-005	Soils Info and Comprehensive Monitoring Plan
EC-006	Receiving Waters Basin Map
EC-201 to EC-215	Erosion Control Plan
EC-401	Erosion Control Details
EC-402	Erosion Control Details

✓ Deliverables:

- All Bid Documents, as described above, for submittal to Purchasing;
- Plans – 2 Full-Size sets (22" x 34"), and 5 Half-Size sets (11" x 17");
- Specifications - 2 Sets (8½" x 11");
- Updated OPCC
- All above listed deliverables to be provided to Cartersville Water Department in electronic format and hard copy.

Task 4 – Permitting:

The Permitting & Land Acquisition Phase Task will include obtaining all permits, and preparing condemnation-ready easement plats, necessary to construct the proposed sewer main improvements.

Task 4.1 - Land Acquisition at 60% Design (Preliminary)

This sub-task will include preparation of condemnation-ready plats. Work to be performed includes:

- Preparing up to Ten (10) temporary construction easements plats for the establishment of Temporary Construction and Permanent easement(s) as required for the construction and maintenance of the project;
- Assisting Cartersville Water Department with easement modifications for the acquisition of the required easements.
- QA/QC of all deliverables

Mr. Michael De Leon, P.E.

June 24, 2024

Page 10

- ✓ Deliverables:
 - Provide in electronic format and hard copy, Condemnation-ready easement plats for up to 10 Temporary Construction Easements, signed and sealed by a Professional Land Surveyor licensed to practice in the State of Georgia.
- ✓ Assumptions/Expectations of Cartersville Water Department:
 - Based on assumption of approximately 10 Temporary Construction Easements.

Task 4.2-Land Acquisition at 90% Design (Permit Ready)

This sub-task will include updating condemnation-ready plats for Temporary Construction easements necessary for permit submittal. Work to be performed includes:

- Updating easement plats.
- QA/QC of all deliverables

- ✓ Deliverables:
 - Provide in electronic format and hard copy, updated 10 Temporary Construction Easements, signed and sealed by a Professional Land Surveyor licensed to practice in the State of Georgia.
- ✓ Assumptions/Expectations of Cartersville Water Department:
 - Based on assumption of approximately 10 Temporary Construction Easements.

Task 4.3-Permitting

This sub-task will include making necessary submittals to, and obtaining permits from, required jurisdictional agencies. Work to be performed includes:

- After incorporating 90% Design Review comments into the Design Drawings and Specifications, preparing Land Development Permit (LDP) application package, and submitting to the City of Cartersville for review;
- Addressing comments received during the regulatory permit review process and obtaining permits required for construction.
- QA/QC of all deliverables

- ✓ Deliverables:
 - Land Development Permit (LDP) from the City of Cartersville;
- ✓ Assumptions:
 - Cartersville Water Department will pay all permit fees, if not waived;
 - No GADOT permits are anticipated;
 - No EPD Stream Buffer Variances are anticipated;
 - No ACOE permits are anticipated;
 - Archaeological shovel testing would not be required;
 - No archaeological sites or cemeteries will be located during the site survey;
 - No eligible historic resources will be located by the site survey;

Mr. Michael De Leon, P.E.

June 24, 2024

Page 11

- The project will have no adverse effect on historic or archaeological resources;

Task 5- Bid & Award Phase:

Working closely with Cartersville Water Department Representative(s) throughout the bidding process, services to be provided during the bidding cycle include the following:

- Participating in Review Meeting with CWD to review the Contract Documents to make sure that they are complete. (Contract front-end documents, Technical Specifications, etc.);
 - Printing and distributing bid documents to CWD;
 - Printing and distributing bid documents to prospective bidders, and maintaining plan holders list;
 - Participating in Pre-Bid meeting;
 - Assisting CWD in responding to bid questions and issuing Addenda;
 - Assist CWD with bid opening, bid evaluation and written recommendation for bid award to qualified, responsible and responsive low bidder.
 - QA/QC of all deliverables.
- ✓ Deliverables:
- Electronic and hard copies of the Bid Documents to CWD;
 - Maintain Plan holders list - with weekly updates to CWD;
 - Prime Engineering will sell copies to prospective bidders to cover cost of document production;
 - Participate in Pre-Bid meeting;
 - Assist CWD in answering bidder questions;
 - Prepare Addenda for submittal to CWD for distribution to Bidders;
 - Provide a written recommendation to CWD for bid award to qualified, responsible, and responsive bidder.
- ✓ Assumptions:
- Construction shall be completed under a single contract;

Task 6 – Construction Administration:

Assist CWD during construction with technical guidance and review, periodic part-time inspection, and prepare project Record Drawings upon completion of construction. Construction duration is based on 6 months to Substantial Completion and 2 month to Final Completion. Services will include:

- Preparing a Notice of Intent (NOI) and Notice of Termination (NOT) for submittal to EPD;
- Preparing the Conformed Contract Documents;
- Participating in Pre-Construction meeting;
- Reviewing and responding to contractor RFIs (Assume 4 RFI's);
- Reviewing and responding to Submittals (Assume 10 Submittals);
- Providing Change Order Request review and recommend action (Assume 2 C.O.);
- Performing initial 7-day BMP inspection as required by erosion and sediment control permitting and prepare summary of findings with noted deficiencies;

Mr. Michael De Leon, P.E.

June 24, 2024

Page 12

- Performing periodic site inspections to monitor contractor progress, identify deficiencies and/or areas of concern, and evaluate maintenance of BMPs (Scheduled -8 site visits by PM; Unscheduled - 2 site visit by PM for special issues); Scheduled – part-time inspection by Engineer III or Field Inspector up to a maximum of 12 hours per week during construction;
- Preparing Record Drawings following the completion of construction based on contractor's field markups and survey data;
- Providing Substantial Completion walk-through and Punchlist;
- Providing Final Completion walk-through;
- Providing Contract closeout assistance, including any Fixed Asset reporting;
- Performing ongoing QA/QC review;
- Reviewing Contractor Pay Application (assume 6), *if requested by CWD Project Manager*

✓ Deliverables:

- Make Site Visits as scheduled and/or unscheduled, as required and provide documentation/minutes/summaries of visits;
- NOI and NOT for signature and submittal to EPD;
- Conformed Documents (electronic and hard copy), - Confirm number of sets and sizes of sets with CWD Project Manager prior to printing;
- 7-day ES&PCP BMP inspection letter;
- Provide RFI responses (assumes 4);
- Provide Submittal responses (assumes 10)
- Provide Change Order review and recommendation (Assumes 2);
- Punchlist(s) from site Substantial Completion walk-through;
- Project Record Drawings signed and sealed by a Professional Engineer licensed to practice in the State of Georgia (hard copy and electronic files), to CWD Standards. Provide GIS data (such as manholes, inverts at sewer manholes, pipeline locations, valves, etc.), to CWD Standards in both horizontal and vertical location. Contractor to provide survey info.

✓ Assumptions:

- Construction and Material Testing services are excluded from this proposal, and will be performed under separate Contract with CWD;
- An estimated construction contract duration of 8 months is assumed for budgetary and scheduling purposes.
- Assumes one (1) Construction Contract.

SCHEDULE:

Based on the Scope of Services identified in this proposal, and an estimated Notice to Proceed date of September 1, 2024, the enclosed proposed schedule has been developed:

NTP to Consultant	09/01/2024		
Manhole Inspections	09/14/2024	thru	10/14/2024
CCTV	10/01/2024	thru	11/01/2024
Inspection Report Submittal	11/01/2024	thru	11/30/2024

Mr. Michael De Leon, P.E.

June 24, 2024

Page 13

30% Design Submittal	12/01/2024	thru	1/15/2025
Easement Acquisition (Starts)	2/1/2025	thru	3/30/2025
90% Design Submittal	1/16/2025	thru	3/31/2025
Design Ends (100% Submittal)	4/30/2025		
Permitting Complete	4/30/2025		
Bidding Begins	5/1/2025	thru	6/30/2025
Construction Begins	7/1/2025		
Construction Complete	1/31/2026		
Project Closeout	2/28/2026		

Schedule dates can be adjusted to meet City’s final deliverable needs.

PROJECT BUDGET:

The project will be invoiced monthly according to the actual hours spent. Not-to-Exceed fees are based on the Scope of Services listed in this proposal.

Task 1 – Project Management	\$ 20,164.00	
Task 2 – Survey	\$ 16,822.00	
Cleaning & CCTV	\$ 97,797.70	(Unit Price)*
Data Reduction & Reporting	\$ 51,194.00	
SUE	\$ 00,000.00	(Hourly)**
Task 3 – Design Phase	\$ 102,280.00	
Task 4 – Easements	\$ 10,322.00	(Based on 10 Plats)
Permitting	\$ 10,944.00	
Task 5 – Bidding	\$ 11,304.00	
Task 6 – Construction Administration	<u>\$ 78,420.00</u>	
Subtotal	\$ 399,247.70	
Reimbursable Costs	\$ 6,860.00	
Owner Controlled Allowance	\$ 25,000.00	
<u>Total Not-to-Exceed Amount</u>	<u>\$ 431,107.70</u>	

* - CCTV & Cleaning cost are based on the following unit prices (a 10% markup will be applied to these cost).

- 8” - \$3.90/lf
- 10” - \$4.42/lf
- 12” - \$7.54/lf
- 16” - \$13.00/lf

** - This cost is based on doing SUE Level B for entire sewer length. We do not anticipate this will be required except on lines that require excavations i.e. Point Repairs, Remove & Replace. Pipe bursting and slip lining repairs should not require any SUE Service.



Mr. Michael De Leon, P.E.

June 24, 2024

Page 14

Once the proposal is accepted, Prime Engineering will prepare an EJCDC Contract to supplement this proposal. Please contact Rob MacPherson should you have any questions regarding this proposal. We appreciate the opportunity to work with you on this project.

Sincerely,

A handwritten signature in blue ink that reads "Robert R. MacPherson".

Robert R. MacPherson, P.E.

Vice President

Prime Engineering, Inc.

Enclosures Project Budget & MH Estimate
 2024 Hourly Rate Table
 Attachment A – Manhole Inspection Form
 Attachment B – Structural Defect & Defect Matrix

Project Estimating Worksheet

Project Name: Cartersville - Find & Fix Proposal
 Proposal No.: P-2034-00XX
 Project Duration: _____
 Client Project No.: 0
 Client: Cartersville, GA
 Client Contact: Mike DeLeon

Date: 6/25/24



Cell Not Used For Estimate
 PART OF ESTIMATED SUB CONSULTANT FEE
 NOT PART OF THIS PROJECT
 ACCOUNTED FOR ELSEWHERE

Task Cost	Hours	Sheet Numbers	Task Outline	TOTALS	TASK HOURS	Estimated Labor																	
						Principal In Charge	Dept Head	Sr Engineer	Engineer	Jr. Engineer	Sr. Landscape	Landscape	RLS	Survey Lead	Field Surveyor	SUE Surveyor	Office Tech						
						MacPherson	Blaydes	Boyer	Wells	Lake	Karwoski	MacPherson	Tunnell	Emery	Groynski	Hutchins	Wolski						
BILLING RATES:						\$260	\$240	\$240	\$161	\$130	\$182	\$140	\$182	\$161	\$130	\$156	\$130						
Overall Management Tasks																							
Project Management and Planning (In-House)																							
		90	Project Manager Only																				
			Project Management and Coordination	\$ 9,760	40.00	8.0	8.0	24.0															
			Sub Consultant Coordination	\$ 1,125	6.00			2.0	4.0														
			Client Meetings (2 In-Person) - (Also combined with Field Walks Below)	\$ 2,645	12.00	4.0		4.0	4.0														
			Client Meetings (4 Virtual)	\$ 3,210	16.00		8.0		8.0														
			Monthly Invoicing	\$ 1,920	8.00			8.0															
			Full Team Planning and Management																				
			Jurisdictional & Code Research	\$ -	0.00																		
			Kick Off Meeting (Internal)	\$ 1,504	8.00	1.0	1.0	1.0	1.0	1.0			1.0	1.0						1.0			
			Weekly Team Technical Internal Meetings	\$ -	0.00																		
				\$ -	0.00																		
				\$ -	0.00																		
				\$ -	0.00																		
				\$ -	0.00																		
				\$ -	0.00																		
			Sub-Totals	\$20,164		\$3,380	\$4,080	\$9,360	\$2,740	\$130	\$0	\$0	\$182	\$161	\$0	\$0	\$130	\$0	\$0	\$0	\$0	\$0	
Civil Engineering																							
		907	Site Plans																				
			Review Video & Complete Tables	\$ 17,736	125.00			5.00	30.0	90.0													
				\$ -	0.00																		
			Prepare Report - Plymouth	\$ 10,824	70.00			10.00	20.0	40.0													
			Prepare Report - Billinger	\$ 13,410	87.00			12.00	25.0	50.0													
				\$ -	0.00																		
			Prepare Analysis/Recommendation Spreadsheet	\$ 6,014	40.00			4.00	12.0	24.0													
				\$ -	0.00																		
				\$ -	0.00																		
				\$ -	0.00																		
			Data Gathering/Field Walk	\$ 3,210	16.00			8.00	8.0														
				\$ -	0.00																		
			G-000 Cover And Index Of Drawings	\$ 260	2.00					2.0													
			G-001 General Notes	\$ 645	4.00				4.0														
			G-002 Civil Legend	\$ 260	2.00					2.0													
			C-200 Overall Key Plan (1"=200')	\$ -	0.00																		
			C-201 - 230 Sewer Plan & Profiles (1" = 30')	\$ 37,854	255.00			30.00	45.0	180.0													
			C-401 - 405 Construction Details	\$ 1,362	10.00				2.0	8.0													
			C-406 Pavement Details	\$ 520	4.00					4.0													
			C-501 - 502 Lane Close Plans	\$ 1,685	12.00				4.0	8.0													
				\$ -	0.00																		
			Specifications	\$ 4,880	24.00				16.00	8.0													
			Cost Estimates/Bid Tab	\$ 7,450	52.00				4.00	8.0	40.0												
			Final Field Walk	\$ 3,210	16.00				8.00	8.0													
			Contingency	\$ 6,780	45.00				6.0	8.0	31.0												
			QA/QC (30, 90, 100)	\$ 22,880	94.00		16.00	20.00	58.00														
			Erosion Control																				
			EC-001 ESPC Narrative	\$ 520	4.00					4.0													
			EC-002 ESPC Comprehensive Monitoring Plan	\$ 260	2.00					2.0													
			EC-003 ESPC Permitting Notes	\$ 260	2.00					2.0													
			EC-004 ESPC Noi And Checklist	\$ 520	4.00					4.0													
			EC-201- 215 ESPC Sheet (1"=30')	\$ 7,800	60.00					60.0													
			EC-401 ESPC Details	\$ 260	2.00					2.0													
			EC-402 ESPC Details	\$ 266	2.05					2.0													
			Contingency	\$ 1,169	8.99					9.0													
			QA/QC (30, 90, 100)	\$ 3,460	14.00		5.00	9.00															
			Sub-Totals	\$153,474		\$5,460	\$4,800	\$40,800	\$28,049	\$74,365	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	

HOURLY RATE SCHEDULE

2024 HOURLY RATE SCHEDULE



Employee Classification

Rate Per Hour

1. Principal	325.00
2. Director	275.00
3. Associate Director	260.00
4. Engineer VII/ Project Manager II/Department Head	240.00
5. Engineer VI/ Associate Department Head	215.00
6. Engineer V/ Project Manager I/Senior Engineer	195.00
7. Engineer IV	170.00
8. Engineer III	155.00
9. Engineer II	140.00
10. Engineer I	125.00
11. Intern II	100.00
12. Intern I	75.00
13. Architect VIII	260.00
14. Architect VII	245.00
15. Architect VI	210.00
16. Architect V	190.00
17. Architect IV	170.00
18. Architect III	150.00
19. Senior Architectural Designer IV	150.00
20. Architectural Designer III	135.00
21. Architectural Designer II	125.00
22. Architectural Designer I	110.00
23. Senior Project Controller	155.00
24. Project Controller	125.00
25. Construction Manager V	175.00
26. Construction Manager IV	160.00
27. Construction Inspector III	135.00
28. Construction Inspector II	120.00
29. Construction Inspector I	100.00
30. Landscape Architect V	180.00
31. Landscape Designer	135.00
32. Design Coordinator VII	180.00
33. Designer VI	170.00
34. Designer V	160.00
35. Designer IV	145.00
36. Designer III	130.00
37. Designer II	115.00
38. Designer I	95.00
39. Registered landscape Architect	180.00
40. Landscape Designer	135.00
41. Surveyor VIII	250.00
42. Surveyor VII	200.00
43. Surveyor VI	170.00
44. Surveyor V	165.00
45. Surveyor IV	155.00
46. Surveyor III	135.00
47. Surveyor II	115.00
48. Surveyor I	95.00

HOURLY RATE SCHEDULE

49.	One Person Survey Crew	135.00
50.	Two Person Survey Crew	245.00
51.	SUE Crew	165.00
52.	Contract Administrator	125.00
53.	Executive Assistant	120.00
54.	Marketing Specialist	140.00
55.	Writer/Editor/Visual Communications Coordinator	125.00
56.	Marketing Communications Assistant	105.00
57.	Office Manager/Clerical	80.00

HOURLY RATES SCHEDULE NOTES:

1. In addition to the hourly fee for services, Prime Engineering will be reimbursed for job related expenses including but not limited to travel, reprographic costs and supplies, interim review document printing, mail and express mail services and printing costs. Job-related expenses associated with the tasks performed under this agreement shall be billed as incurred and as provided under the task orders to this contract and each of the respective additional services tasks (if any).



INSPECTION FORM

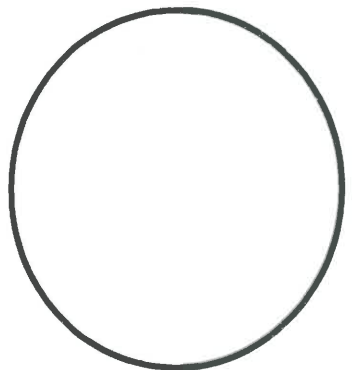
1. INSPECTION CREW _____ DATE ____/____/____ STRUCTURE #:

2. GEN. LOCATION: _____ POINT #:

3. ADDRESS: _____ LOT LOCATION:

OBSERVATION	CODE NO.	CODE
4. INSPECTION TYPE	<input type="text"/>	1-INTERNAL 2-SURFACE 3-NOT INSPECTED 4-BURIED 5-NOT FOUND
5. STRUCTURE TYPE	<input type="text"/>	MH-Manhole JB-JunctionBox SW-SingleWingCatchBasin DW-DoubleWing DI-DropInlet HW-Headwall CI-CurbInlet
6. LOCATION	<input type="text"/>	1-STREET 2-ALLEY 3-SDWLK 4-DRVWY 5-GRASS
7. SURFACE TYPE	<input type="text"/>	1-ASPHALT 2-CONCRETE 3-GRAVEL 4-DIRT/GRASS
8. COVER	A. TYPE	<input type="text"/> 1-PICK 2-CONCEALED PICK 3-BOLT DOWN 4-GRATE
	B. FIT	<input type="text"/> 1-GOOD 2-TIGHT 3-LOOSE 4-ROCKING 5-BOLTS MISSING 6-GASKET BAD/GONE
	C. # OF HOLES	<input type="text"/>
	D. PONDING DEPTH (IN)	<input type="text"/> (Applicable to manholes in paved areas)
	E. PONDING TYPE	<input type="text"/> 1-SHEET FLOW 2-LOW POINT
	F. GRADE +/- (IN)	<input type="text"/> (Applicable to manholes and junction boxes in unpaved areas)
	G. SIZE (IN)	<input type="text"/>
9. WALL	A. MATERIAL	<input type="text"/> 1-PRECAST 2-BRK 3-BLK 4-POURED
	B. LINING TYPE	<input type="text"/> 1-CEMENTITIOUS 2-CAST-IN-PLACE 3-CURED-IN-PLACE 4-EPOXY
	C. DIA/LENGTH (IN)	<input type="text"/>
	D. DIA/WIDTH (IN)	<input type="text"/>
10. BENCH TYPE	<input type="text"/>	1-NONE 2-PRECAST 3-BRICK 4-BLOCK 5-POURED
11. TROUGH TYPE	<input type="text"/>	1-NONE 2-PRECAST 3-POURED 4-VCP 5-PVC
12. PIPE SEAL TYPE	<input type="text"/>	1-NONE 2-MORTAR 3-GASKET
13. STEPS	A. TYPE	<input type="text"/> 1-NONE 2-BAR 3-CAST IRON 4-PLASTIC 5-BRICK
	B. CONDITION	<input type="text"/> 1-GOOD 2-CORRODED 3-MISALIGNED 4-BROKEN 5-MISSING
14. EVIDENCE OF SURCHARGE (FT)	<input type="text"/>	
15. FLOW CODE	<input type="text"/>	1-LIGHT 5-MODERATE 10-HEAVY

SKETCH OF STRUCTURE WITH PIPE MATERIALS, DIAMETERS AND INVERTS LISTED



COMMENTS

Table 2.1 Structural Defect III Flow Rating Matrix

DEFECTIVE TYPE	CONDITION OF DEFECT	UNIT	PIPE SIZE LESS THAN 18" (GPM)	PIPE SIZE 18" TO 36" (GPM)	PIPE SIZE GREATER THAN TO 60" (GPM)
Open Joint	Minimum	Per Joint	0.20	0.50	1.00
	Moderate	Per Joint	0.40	1.00	2.00
	Heavy	Per Joint	0.60	1.50	3.00
	Severe	Per Joint	0.80	2.00	4.00
Offset Joint	Minimum	Per Joint	0.10	0.25	0.50
	Moderate	Per Joint	0.30	0.75	1.50
	Heavy	Per Joint	0.50	1.25	2.50
	Severe	Per Joint	0.70	1.75	3.50
Cracked Pipe	Circumferential	Per Crack	0.40	1.00	2.00
	Longitudinal	Per Linear Foot	0.10	0.10	0.10
Fractured Pipe	Circumferential	Per Fracture	0.90	2.25	4.50
	Longitudinal	Per Linear Foot	0.20	0.20	0.20
Broken Pipe	Circumferential	Per Break	2.00	5.00	10.00
	Longitudinal	Per Linear Foot	0.45	0.45	0.45
Collapsed Pipe		Per Linear Foot	3.00	7.50	15.00
Abandoned Main	Minimum	Each	0.40	1.00	2.00
	Moderate	Each	0.60	1.50	3.25
	Heavy	Each	0.90	2.25	4.50
	Severe	Each	1.50	3.75	7.50
Pipe to Manhole Connection	Minimum	Each	0.40	1.00	2.00
	Moderate	Each	0.60	1.50	3.25
	Heavy	Each	0.90	2.25	4.50
	Severe	Each	1.50	3.75	7.50
Service Connection	Minimum	Each	0.20	0.20	0.20
	Moderate	Each	0.50	0.50	0.50
	Heavy	Each	1.00	1.00	1.00
	Severe	Each	1.50	1.50	1.50
Stubout	Minimum	Each	0.10	0.10	0.10
	Moderate	Each	0.30	0.30	0.30
	Heavy	Each	0.50	0.50	0.50
	Severe	Each	0.70	0.70	0.70
Roots	Fine		0.10	0.25	0.50
	Mass		0.20	0.50	1.00
	Tap		0.40	1.00	2.00

City of Cartersville - Plymouth & Dellinger Areas

Table 2.2 - CCTV Matrix Defect Itemization



ACTION REQUIRED TO COMPLETE INVESTIGATION	Month Invoiced	Cleared Length (Ft.)	CCTV'd Length (Ft.)	Total Pipe Length (Ft.)	Upstream Manhole ID	Downstream Manhole ID	Pipe Size (In.)	Pipe Material	Date Inspected	Date Data Submitted to Engineer	Defect Type & I/I Flow (GPM)											Total I/I Contribution (GPM)	GPM/LF	Defect Locations	Defects	% Sags	Reverse	Service Connection Locations (Min.)	Service Connection Locations (Mod.)	Comments				
											Open Joint	Offset Joint	Cracked Pipe	Fractured Pipe	Broken Pipe	Collapsed Pipe	Abandoned Main	Pipe to Manhole Connection	Service Connection	Stubout	Roots													
											<18"	<18"	<18"	<18"	<18"	<18"	<18"	<18"	<18"	<18"	<18"													
											Min.	Mod.																						
CP-TIE BANKS, SIMS, AND LAKE SEWERS INTO NEW OUTFALL	JANUARY	7	104.4	104.4	LDE010	LDE009	15	VCP	12/12/2010	12/17/2010																							ABANDONED LINE. COLLECTS FROM LAKE DR., SIMS CT. AND BANKS CT. SEWERS (NO CUSTOMERS ON THESE SEWERS)	
CP-HOW TO HANDLE ABANDONED LINE?	MARCH	86.6	86.6	?	LDC560	LDC560A	8	CONC	7/8/2011	7/15/2011																							SURVEY ABANDONED INCOMPLETE, MISSING X. ABANDONED LINE?	
CP-SMOKE TEST TO DETERMINE IF STORM CROSS CONNECTION	DECEMBER	0.0	8.8	100.0	LDA395	LDA390	8	RCP	11/22/2010	11/30/2010																							ASSUMED LENGTH OF 100. POSSIBLE STORM CROSS CONNECTION	
CP-CLEAR BLOCKAGE (3). RAISE DSMH LDA065A, PE-MAP/INSPECT/CORRECT GIS, COMPLETE CCTV	OCTOBER	0.0	3.0	98.0	LDA065	LDA065A	8	VCP	9/30/2010	10/5/2010																							TOTAL BLOCKAGE	
	MARCH	455.0	81.3	455.0	CPC200	CPC198	6	CONC	3/17/2011	3/23/2011			0.5	1.6	8.2																		SURVEY ABANDONED, INCOMPLETE, MISSING 373.7'. RELATIVE TREATMENT (455/81.3). PREVIOUSLY INSPECTED APRIL 2006, RE-INSPECTED AT JESSE HOWARD'S REQUEST AFTER POINT REPAIR WAS PERFORMED	
CP-POINT REPAIR INTRUDING SERVICE (45.9') AND INTRUDING STUBOUT (294.6'). RAISE DSMH LDA165A, PE-MAP/INSPECT/CORRECT GIS	OCTOBER	817.4	68.7	817.4	LDA165	LDA165A	6	VCP	9/28/2010	10/5/2010			0.5	0.4	2.7																		SURVEY ABANDONED, INCOMPLETE, MISSING 248.7'. RELATIVE TREATMENT (817.4/68.7). LDA165A PREVIOUSLY UNIDENTIFIED MH BURIED	
CP-POINT REPAIR GROUT OBSTRUCTION (221' FROM USMH) AND CHIP OUT INVERT AT USMH, PE COMPLETE CCTV	MAY	487.2	221.0	487.2	LDB260	LDB250	6	CONC	2/24/2011	3/8/2011	0.2	0.1	0.9	11.7	6.																		SURVEY ABANDONED, INCOMPLETE MISSING 266.2'. RELATIVE TREATMENT (487.2/221)	
CP-POINT REPAIR AT OFFSET JOINT (64.6') AND FRACTURES (299.3'). PE COMPLETE CCTV	OCTOBER	264.3	264.3	499.0	LDA140	LDA090	8	VCP	9/30/2010	10/5/2010			0.6	0.8	5.3	2.2																		SURVEY ABANDONED, INCOMPLETE, MISSING 234.7'. RELATIVE TREATMENT (499/264.3)
CP-POINT REPAIR OFFSET JOINT (295.4') AND INVERT AT DSMH, PE COMPLETE CCTV	OCTOBER	295.4	295.4	415.0	LDA373	LDA370	6	CONC	10/22/2010	10/27/2010			0.8	0.4	6.6	6.6																		SURVEY ABANDONED, INCOMPLETE, CANNOT REVERSE DUE TO IMPROPER INVERT MISSING 119.6'. RELATIVE TREATMENT (415/295.4)
	NOVEMBER	519.0	899.8	519.0	LDE510	LDE500	8	CONC	11/11/2010	11/30/2010				0.8	5.5	4																		SURVEY ABANDONED, INCOMPLETE, MISSING 119.2'. RELATIVE TREATMENT (519/399.8)
CP-RAISE LDAB10, POINT REPAIR ROOTS MASS (151.3'), HEAVY CLEAN, PE-LDAB10 MAP, INSPECT, CORRECT GIS	OCTOBER	59.0	123.7	216.0	LDAB10	LDAB00	8	CONC	10/7/2010	10/12/2010	3.8		0.4	6.5																				SURVEY ABANDONED, INCOMPLETE, MISSING 92.3' (ASSUMED LENGTH OF 216'). RELATIVE TREATMENT (123.7/151.3). UPSTREAM OF 151.3' NOT CLEANED
	MAY	417.2	266.5	417.2	WRD715	WRD710	6	VCP	2/18/11 & 2/24/11	5/16/2011				2.4	3.3																			SURVEY ABANDONED, INCOMPLETE, MISSING 150.7'. RELATIVE TREATMENT (417.2/266.5)
CP-CHIP OUT INVERT USMH EPC039 TO FIT CAMERA, PE COMPLETE CCTV	SEPTEMBER	30.6	30.6	367.0	EPC039	EPC037	6	CONC	9/23/2010	9/28/2010	0.4																							SURVEY ABANDONED, INCOMPLETE, MISSING 336.4'. RELATIVE TREATMENT (367/30.6). NO REVERSE, USMH EPC039 IMPROPER INVERT, DEFECT DISTANCES MEASURED FROM DSMH

Table 2.1 Structural Defect III Flow Rating Matrix

DEFECTIVE TYPE	CONDITION OF DEFECT	UNIT	PIPE SIZE LESS THAN 18" (GPM)	PIPE SIZE 18" TO 36" (GPM)	PIPE SIZE GREATER THAN TO 60" (GPM)
Open Joint	Minimum	Per Joint	0.20	0.50	1.00
	Moderate	Per Joint	0.40	1.00	2.00
	Heavy	Per Joint	0.60	1.50	3.00
	Severe	Per Joint	0.80	2.00	4.00
Offset Joint	Minimum	Per Joint	0.10	0.25	0.50
	Moderate	Per Joint	0.30	0.75	1.50
	Heavy	Per Joint	0.50	1.25	2.50
	Severe	Per Joint	0.70	1.75	3.50
Cracked Pipe	Circumferential	Per Crack	0.40	1.00	2.00
	Longitudinal	Per Linear Foot	0.10	0.10	0.10
Fractured Pipe	Circumferential	Per Fracture	0.90	2.25	4.50
	Longitudinal	Per Linear Foot	0.20	0.20	0.20
Broken Pipe	Circumferential	Per Break	2.00	5.00	10.00
	Longitudinal	Per Linear Foot	0.45	0.45	0.45
Collapsed Pipe		Per Linear Foot	3.00	7.50	15.00
Abandoned Main	Minimum	Each	0.40	1.00	2.00
	Moderate	Each	0.60	1.50	3.25
	Heavy	Each	0.90	2.25	4.50
	Severe	Each	1.50	3.75	7.50
Pipe to Manhole Connection	Minimum	Each	0.40	1.00	2.00
	Moderate	Each	0.60	1.50	3.25
	Heavy	Each	0.90	2.25	4.50
	Severe	Each	1.50	3.75	7.50
Service Connection	Minimum	Each	0.20	0.20	0.20
	Moderate	Each	0.50	0.50	0.50
	Heavy	Each	1.00	1.00	1.00
	Severe	Each	1.50	1.50	1.50
Stubout	Minimum	Each	0.10	0.10	0.10
	Moderate	Each	0.30	0.30	0.30
	Heavy	Each	0.50	0.50	0.50
	Severe	Each	0.70	0.70	0.70
Roots	Fine		0.10	0.25	0.50
	Mass		0.20	0.50	1.00
	Tap		0.40	1.00	2.00

City of Cartersville - Plymouth & Dellinger Areas

Table 2.2 - CCTV Matrix Defect Itemization



ACTION REQUIRED TO COMPLETE INVESTIGATION	Month Invoiced	Cleaned Length (Ft.)	CCTV'd Length (Ft.)	Total Pipe Length (Ft.)	Upstream Manhole ID	Downstream Manhole ID	Pipe Size (In.)	Pipe Material	Date Inspected	Date Data Submitted to Engineer	Defect Type & I/I Flow (GPM)										Total I/I Contribution (GPM)	GPM/LF	Defect Locations	Defects	% Sags	Reverse	Service Connection Locations (Min.)	Service Connection Locations (Mod.)	Comments			
											Open Joint	Offset Joint	Cracked Pipe	Fractured Pipe	Broken Pipe	Collapsed Pipe	Abandoned Main	Pipe to Manhole Connection	Service Connection	Stubout										Roots		
											<18"	<18"	<18"	<18"	<18"	<18"	<18"	<18"	<18"	<18"										<18"		
CP-TIE BANKS, SIMS, AND LAKE SEWERS INTO NEW OUTFALL	JANUARY	7	104.4	104.4	LDE010	LDE009	15	VCP	12/12/2010	12/17/2010																					ABANDONED LINE. COLLECTS FROM LAKE DR., SIMS CT. AND BANKS CT. SEWERS (NO CUSTOMERS ON THESE SEWERS)	
CP-HOW TO HANDLE ABANDONED LINE?	MARCH	86.6	86.6	?	LDC560	LDC560A	8	CONC	7/8/2011	7/15/2011																					SURVEY ABANDONED INCOMPLETE, MISSING X. ABANDONED LINE?	
CP-SMOKE TEST TO DETERMINE IF STORM CROSS CONNECTION	DECEMBER	0.0	8.8	100.0	LDA395	LDA390	8	RCP	11/22/2010	11/30/2010																					ASSUMED LENGTH OF 100. POSSIBLE STORM CROSS CONNECTION	
CP-CLEAR BLOCKAGE (3). RAISE DSMH LDA065A, PE-MAP/INSPECT/CORRECT GIS, COMPLETE CCTV	OCTOBER	0.0	3.0	98.0	LDA065	LDA065A	8	VCP	9/30/2010	10/5/2010																					TOTAL BLOCKAGE	
	MARCH	455.0	81.3	455.0	CPC200	CPC198	6	CONC	3/17/2011	3/23/2011			0.5	1.6	8.2																SURVEY ABANDONED, INCOMPLETE, MISSING 373.7'. RELATIVE TREATMENT (455/81.3). PREVIOUSLY INSPECTED APRIL 2006, RE-INSPECTED AT JESSE HOWARD'S REQUEST AFTER POINT REPAIR WAS PERFORMED	
CP-POINT REPAIR INTRUDING SERVICE (45.9') AND INTRUDING STUBOUT (294.6'). RAISE DSMH LDA165A, PE-MAP/INSPECT/CORRECT GIS	OCTOBER	817.4	68.7	817.4	LDA165	LDA165A	6	VCP	9/28/2010	10/5/2010			0.5	0.4	2.7																SURVEY ABANDONED, INCOMPLETE, MISSING 248.7'. RELATIVE TREATMENT (817.4/68.7). LDA165A PREVIOUSLY UNIDENTIFIED MH BURIED	
CP-POINT REPAIR GROUT OBSTRUCTION (221' FROM USMH) AND CHIP OUT INVERT AT USMH, PE COMPLETE CCTV	MAY	487.2	221.0	487.2	LDB260	LDB250	6	CONC	2/24/2011	3/8/2011	0.2	0.1	0.9	11.7	6.																SURVEY ABANDONED, INCOMPLETE MISSING 266.2'. RELATIVE TREATMENT (487.2/221)	
CP-POINT REPAIR AT OFFSET JOINT (64.6') AND FRACTURES (299.3'). PE COMPLETE CCTV	OCTOBER	264.3	264.3	499.0	LDA140	LDA090	8	VCP	9/30/2010	10/5/2010			0.6	0.8	5.3	2.2																SURVEY ABANDONED, INCOMPLETE, MISSING 234.7'. RELATIVE TREATMENT (499/264.3)
CP-POINT REPAIR OFFSET JOINT (295.4') AND INVERT AT DSMH, PE COMPLETE CCTV	OCTOBER	295.4	295.4	415.0	LDA373	LDA370	6	CONC	10/22/2010	10/27/2010			0.8	0.4	6.6	6.6																SURVEY ABANDONED, INCOMPLETE, CANNOT REVERSE DUE TO IMPROPER INVERT. MISSING 119.6'. RELATIVE TREATMENT (415/295.4)
	NOVEMBER	519.0	899.8	519.0	LDE510	LDE500	8	CONC	11/11/2010	11/30/2010				0.8	5.5	4.																SURVEY ABANDONED, INCOMPLETE, MISSING 119.2'. RELATIVE TREATMENT (519/399.8)
CP-RAISE LDAB10, POINT REPAIR ROOTS MASS (151.3'), HEAVY CLEAN, PE-LDAB10 MAP, INSPECT, CORRECT GIS	OCTOBER	59.0	123.7	216.0	LDAB10	LDA500	8	CONC	10/7/2010	10/12/2010	3.8		0.4	6.5																		SURVEY ABANDONED, INCOMPLETE, MISSING 92.3' (ASSUMED LENGTH OF 216'). RELATIVE TREATMENT (123.7/151.3). UPSTREAM OF 151.3' NOT CLEANED
	MAY	417.2	266.5	417.2	WRD715	WRD710	6	VCP	2/18/11 & 2/24/11	5/16/2011				2.4	3.3																	SURVEY ABANDONED, INCOMPLETE, MISSING 150.7'. RELATIVE TREATMENT (417.2/266.5)
CP-CHIP OUT INVERT USMH EPC039 TO FIT CAMERA, PE COMPLETE CCTV	SEPTEMBER	30.6	30.6	367.0	EPC039	EPC037	6	CONC	9/23/2010	9/28/2010	0.4																					SURVEY ABANDONED, INCOMPLETE, MISSING 336.4'. RELATIVE TREATMENT (367/30.6). NO REVERSE, USMH EPC039 IMPROPER INVERT, DEFECT DISTANCES MEASURED FROM DSMH