APPENDIX F

COMPILATION OF DUPLICATE FORMS

INDEX OF DUPLICATE FORMS

MANHOLE INSPECTION FORM

MH # _____ LOCATION _____

INSPECTOR _____ DATE _____

RAIN: NONE ____ LIGHT ____ HEAVY ____ / SNOW: NONE ____ FROZEN ____ MELTING ____

1. Surface at Manhole: Gravel Turf Concrete Blacktop Other
2. Subject to Ponding/Flooding: YES NO
3. Cover: Standard _____ Watertight _____
   Pickhole Size _____ Number of Holes _____
4. Atmospheric Conditions in Manhole prior to Ventilation: _____
   _____
5. Manhole Diameter _____ inches
6. Frame alignment and Seal: Good Fair Poor
7. Construction Type: Brick Block Precast Other
8. Structural condition: Good Fair Poor
9. Rim/Invert Elevations: _____
10. Evidence of Infiltration: Leaks Stains None
11. Frame Grade: Above Below Flush
12. Manhole Steps: None Corroded Loose Other Safe _____ Unsafe _____
13. Bench: Flat Steep None Condition _____
14. Invert: Shaped Properly _____ Shaped Improperly _____
15. Number and Sizes of Sewers Entering Manhole Number _____ Sizes _____
16. Direct Service Connections Entering Manhole Number _____ Direction: N S E W
17. Equipped with Groundwater Gauge: YES NO
18. Groundwater Level Above Sewer Invert _____ inches
19. Surcharge Evidence: Waterline Height _____
20. Debris: None Minor Needs Cleaning
21. Describe Debris: _____
22. Manhole Type: Standard Drop
23. a) Seal at Manhole Frame: GOOD NEEDS REPAIR
    b) Seal at Riser Joints: GOOD NEEDS REPAIR
    c) Seal at Bench: GOOD NEEDS REPAIR
24. Remarks _____
    _____

DATA SHEET FOR MANHOLE INSPECTIONS

VIDEO TAPE NO. _____

COMMUNITY _____ _____

DATE:

PIPE LOCATION _____

SURFACE OVER SEWER: ASPHALT CONCRETE GRASS OTHER _____

PIPE SIZE / DEPTH / MAT'L _____ / _____ / _____

WEATHER: SUNNY RAIN SNOW TEMP: _____

CLEANING: NONE JET ROOT CUTTING OTHER _____

IN CONJUNCTION WITH DYE-FLOODING: YES NO

CREW CHIEF: _____

MH# MH#

0 · · · · · · 0

DIRECTION OF FLOW _____

DIRECTION OF CAMERA _____

FOOTAGE	SERVICE CONNECTIONS	REMARKS	I/I (gpm)

EXAMPLE REMARKS:

Brick demortared, but still intact
Brick missing, backfill showing
Camera blocked; unable to proceed
Camera submerged
Crack in pipe - lateral
Crack in pipe - transverse
Corrosion (indicate severity)
Collapsed pipe
Damage (specify type)
Debris accumulated in invert
Distorted shape
Flow depth
Infiltration flow rate
Inflow rate
Grease accumulation
Invert damage (specify)
Offset joint
Separated joint
Leakage observed
Mineral deposits
Root intrusion
Sagged line
Abandoned tap
Protruding tap
Tap with roots
Structural damage (spalled concrete, loose bricks)

SEWER INSPECTION DATA SHEET

F-4

COMMUNITY: _____

INSPECTION CREW: _____

WEATHER: TEMP: _____ SUNNY RAIN SNOW

DATE	SECTIONS LAMPED (MH TO MH, LIN. FT.)	OBSERVATIONS

SEWER LAMPING DATA SHEET

DATE: _____ VIOLATION: YES NO ENTRY REFUSED

COMMUNITY: _____ INSPECTOR: _____

BUILDING TYPE: RESIDENTIAL COMMERCIAL INDUSTRIAL

ADDRESS: _____ OWNER: _____

BASEMENT: YES NO CRAWL SPACE:

SUMP PUMPS:

TYPE	DISCHARGE TO	SUMP BOTTOM SEALED?	TYPE	DISCHARGE TO
			A. SANITARY	SANITARY SEWER
			B. STORM	STORM SEWER
			C. COMBINED	OUTSIDE SURFACE
			D. NONE	UNKNOWN

IF TWO OR MORE SUMPS EXIST, ARE THEY PIPED TOGETHER?

INFLOW SOURCE	NUMBER	DISCHARGE TO:
Foundation Drains		
Window Wells		
Stairwell Drain		
Floor Drain		
Downspout		Underground
Downspout		Surface
Yard Drains		
Driveway Drains		
Other (Specify)		

How long has owner lived there?

Have they experienced any sewer backups?

REMARKS:

BUILDING INSPECTION DATA SHEET

DATE: _____

COMMUNITY: _____ JOB NO. _____

SET-UP LOCATION: _____

START/END TIME: ____/____ CREW: _____

TYPE OF SET UP: STORM SEWER DIA. _____ CATCH BASIN _____
DITCH _____

PRIVATE SECTOR TEST: DOWNSPOUT _____ DRIVEWAY DRAIN _____
WINDOW WELLS _____ OTHER _____

TEST(MH/MH): ____/_____

FLOW DEPTH BEFORE FLOOD (MH/TIME/DEPTH): ____/____/____ INCH

FLOW DEPTH FOLLOWING DYE OBSERVATIONS (MH/TIME/DEPTH): ____/____/____ INCH

CONCENTRATION OF DYE OBSERVATION: TRACE MEDIUM HEAVY

NO DYE OBSERVED (MH/TIME): ____/____

SKETCH

LEGEND

SANITARY SEWER

STORM SEWER

CATCH BASIN

FIRE HYDRANT

FL FILLING LOCATION

X PLUG

SKETCH OF SET UP

REMARKS: _____

_____

_____

DYED WATER TESTING DATA SHEET

F-7

COMMUNITY: _____ DATE: _____

CREW NAMES: _____

Set-Up Information: Pipe Size Smoked: _____

Length of Pipe/MH to MH: _____ ft./ MH No. _____ to MH No. _____

Type of Smoke Bomb Used: _____ 3 min. _____ 5 min. _____ other _____

LEGEND		SKETCH OF SET-UP
●	Sanitary MH	
○	Storm MH	
———	Sanitary Sewer	
.....	Storm Sewer	

Source of Smoke	Description of Source of Smoke (address/other)	Surface Type/Area Drained by Source of Smoke	Address Where Vent Pipes Showed No Smoke	Photo No.

POTENTIAL SOURCES OF SMOKE

01 Downspout
02 Roof Drain
03 Yard Drain
04 Catch Basin
05 Storm Sewer Manhole
06 Manhole Frame
07 Cracked Pavement
08 Lateral
09 Surface Over Sewer
10 Sump Pump
11 Foundation Wall
12 Driveway Drain
13 Other - Describe

Additional Observations: _____

_____

SMOKE TESTING DATA SHEET

LOCATION OF WORK: (Name of Plant, Name of Confined Space)

_____

_____

DESCRIPTION OF WORK: _____

_____

_____

EMPLOYEES ASSIGNED: _____

_____

ENTRY DATE: _____

ISOLATION CHECKLIST:

- Blanking and/or Disconnecting Piping
- Electrical Lockout and Danger Tags
- Mechanical
- Other

HAZARDOUS WORK TO BE DONE:

- Burning
- Welding
- Brazing
- Open Flame, Sparks
- Cleaning (solvents, water blast, sandblast)
- Other

HAZARDS EXPECTED:

1. Restrictive Opening
2. Oxygen Deficiency, Enrichment
3. Flammable Materials
4. Toxic Materials
5. Corrosive Materials
6. Dusty Materials
7. Darkness (Inside, Outside)
8. Slippery Surfaces
9. Water (Standing, Flowing)
10. Inlet Drain Open
11. Bacteria, Vermin
12. Hot Surfaces
13. Low Headroom
14. Noise
15. Other

PERSONAL SAFETY:

1. Training (This Assignment)
2. Emergency Procedures (See Below)
3. Clothing
4. Head, Hand, Foot, Ear Protection
5. Respirators
6. Safety Line and Harness
7. Communications
8. Traffic Controls
9. Ventilation
10. Lighting
11. Ladder, Handlines
12. Personnel Hoist
13. Fire Extinguisher
14. Other

CONFINED SPACE ENTRY PERMIT AND RECORD

ATMOSPHERIC TESTS (OXYGEN, FLAMMABLE, TOXIC)

TIME	TEST	READING	TIME	TEST	READING

Tests Performed By: _____
Signature

EMERGENCY PROCEDURES

Standby Person(s) _____

Telephone, Emergency Notification (To Whom? How?) _____

_____

_____

_____

Rescue Procedure (By? How?) _____

_____

_____

AUTHORIZATION:

Plant Manager _____ _____
Signature Date

CONFINED SPACE ENTRY PERMIT AND RECORD (Cont.)

HEADING

TYPE OF PERMIT: VESSEL ENTRY ☐ HOT WORK ☐ OTHER ☐ PERMIT NO.

GOOD ON THIS DATE ONLY: FROM: AM ☐ PM ☐ TO: AM ☐ PM ☐

LOCATION:

WORKERS AUTHORIZED ENTRY:	WORK MONITORS:	FIRE WATCH: (HOT WORK ONLY)

DESCRIPTION OF JOB OR SPECIAL PROCEDURES: _____

EMPLOYEE TRAINING AND PRE-ENTRY BRIEFING

1. SAFE ENTRY AND RESCUE TRAINING CONDUCTED ON: _____ (DATE)
2. MANDATORY PRE-ENTRY BRIEFING CONDUCTED ON: _____ (DATE)
3. DOES THE JOB REQUIRE SPECIAL TRAINING? YES ☐ NO ☐

CONTRACTOR NOTIFICATION

CONTRACTOR NOTIFIED OF: PERMIT CONDITIONS ☐ POTENTIAL HAZARDS ☐ N/A ☐

LIGHTING REQUIREMENTS	SPECIAL TOOLS/EQUIPMENT	COMMUNICATION DEVICES

1. ARE ALL ELECTRICAL DEVICES INTRINSICALLY SAFE? YES ☐ N/A ☐
2. HAVE ALL POWER CORDS AND TOOLS BEEN VISUALLY INSPECTED? YES ☐ N/A ☐

PRE-ENTRY ATMOSPHERIC TESTING

	READING:	TIME:	INITIALS:
1. TEST FOR OXYGEN CONTENT:	____ %02	____	____
2. TEST FOR FLAMMABLE CONCENTRATION:	____ %LEL	____	____
3. TEST FOR TOXIC CONCENTRATION:	____ PPM OF ____ (TLV=)	____	____
4. TEST FOR HEAT STRESS HAZARD:	____ °F ☐ °C ☐ WBGT	____	____

EMERGENCY/RESCUE PROCEDURES

1. LOCATION OF WRITTEN EMERGENCY RESCUE PLAN _____
2. TYPE OF EMERGENCY RESCUE TEAM REQUIRED: ON-SITE ☐ OFF-SITE ☐ PHONE NO. _____

SAFETY EQUIPMENT

PERSONNEL PROTECTIVE EQUIPMENT REQUIRED:	AREA SAFETY EQUIPMENT REQUIRED:

1. SELF-CONTAINED BREATHING APPARATUS REQUIRED? YES ☐ NO ☐ TYPE _____
2. PORTABLE ATMOSPHERIC MONITOR REQUIRED? YES ☐ NO ☐ TYPE _____

PERMIT AUTHORIZATION

I CERTIFY THAT I HAVE INSPECTED THE WORK AREA FOR SAFETY AND REVIEWED ALL SAFETY PRECAUTIONS RECORDED ON THIS PERMIT.

PERMIT AUTHORIZED BY (SIGNATURE) _____

N/A = NOT APPLICABLE TO PRESENT JOB

SAFE WORK PERMIT
F-11

TODAY'S DATE _____

DATE WORK WILL BE DONE _____

WORK TO DO	MAJOR HAZARDS EXPECTED	PRECAUTIONS TO CONTROL HAZARDS

SAFE JOB INSTRUCTIONS SHEET

Department: _____ Section: _____ Index No. _____

Name of Injured Employee: _____ Social Security No. _____

Home Address of Employee: _____ Phone: _____

Date of Birth: _____ Sex: M F Wage at Time of Accident: _____

No. of Hours Worked: Per Day: _____ Per Week: _____ No. of Days Per Week: _____

Classification: _____ Date of Hire: _____

Place of Accident: _____ City/Town: _____

Date of Accident: _____ Time: _____ Date Reported: _____ Time: _____

Did employee return to work on date of injury? _____ Lost Time: _____ Days/Hr.

Was employee off work beyond date of injury? _____

If so, last date worked: _____

Nature of injury (specify part of body injured?): _____

_____

Was employee acting in regular line of duty when injured? _____

If No, Explain: _____

_____

How did the accident occur? _____

_____

_____

Was first aid given? _____ By whom? _____

Doctor: _____ Address: _____

Hospital (If Any): _____ Address: _____

What machine, tool substance, or object was most closely connected with the accident? _____

_____

Were mechanical guards or other safeguards provided? _____

Were mechanical guards or other safeguards used? _____

What, in your opinion, caused the accident? _____

_____

Describe Any Unsafe Act: _____

_____

Describe Any Unsafe Conditions: _____

_____

What has been done to prevent a similar accident? _____

_____

Witnesses: _____

Signed: _____

Date: _____

Phone: _____

For Further Particulars Please Use Reverse Side

SUPERVISOR'S REPORT OF ACCIDENT

	Phone	
	Office	Home
1. PHYSICIANS/AMBULANCE/HOSPITAL		
Dr.		
Dr.		
Ambulance		
Ambulance		
Hospital		
Hospital		
2. FIRE		
Department		
Department		
3. POLICE		
Town Police		
County Sheriff		
Deputy		
State Police		
Headquarters		
4. POWER COMPANY		
Name		
Name		
5. TELEPHONE COMPANY		
Name		
Name		
6. GAS COMPANY		
Name		
Name		
7. ELECTRICIANS		
Name		
Name		
Name		
8. PLUMBERS		
Name		
Name		
9. HEAVY EQUIPMENT OPERATORS		
Name		
Type of Equipment Available		
Name		
Type of Equipment Available		

	Phone	
	Office	Home
10. EXTRA LABOR		
Name _____	_____	_____
Name _____	_____	_____
11. CONSULTING ENGINEER		
Name _____	_____	_____
Name _____	_____	_____
12. TOWN OFFICIALS		
Name _____	_____	_____
Name _____	_____	_____
Name _____	_____	_____
Name _____	_____	_____
13. COUNTY HEALTH DEPARTMENT		
Official _____	_____	_____
Official _____	_____	_____
14. ILLINOIS ENVIRONMENTAL PROTECTION AGENCY		
Name _____	_____	_____
Name _____	_____	_____
15. FEDERAL ENVIRONMENTAL PROTECTION AGENCY REGIONAL OFFICE		
Official _____	_____	_____
Official _____	_____	_____
16. AREA CIVIL DEFENSE		
Official _____	_____	_____
Official _____	_____	_____
17. OTHER		
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

COMMUNITY/AGENCY NAME _____

MONTH _____ YEAR _____

PREPARED BY _____ TITLE _____

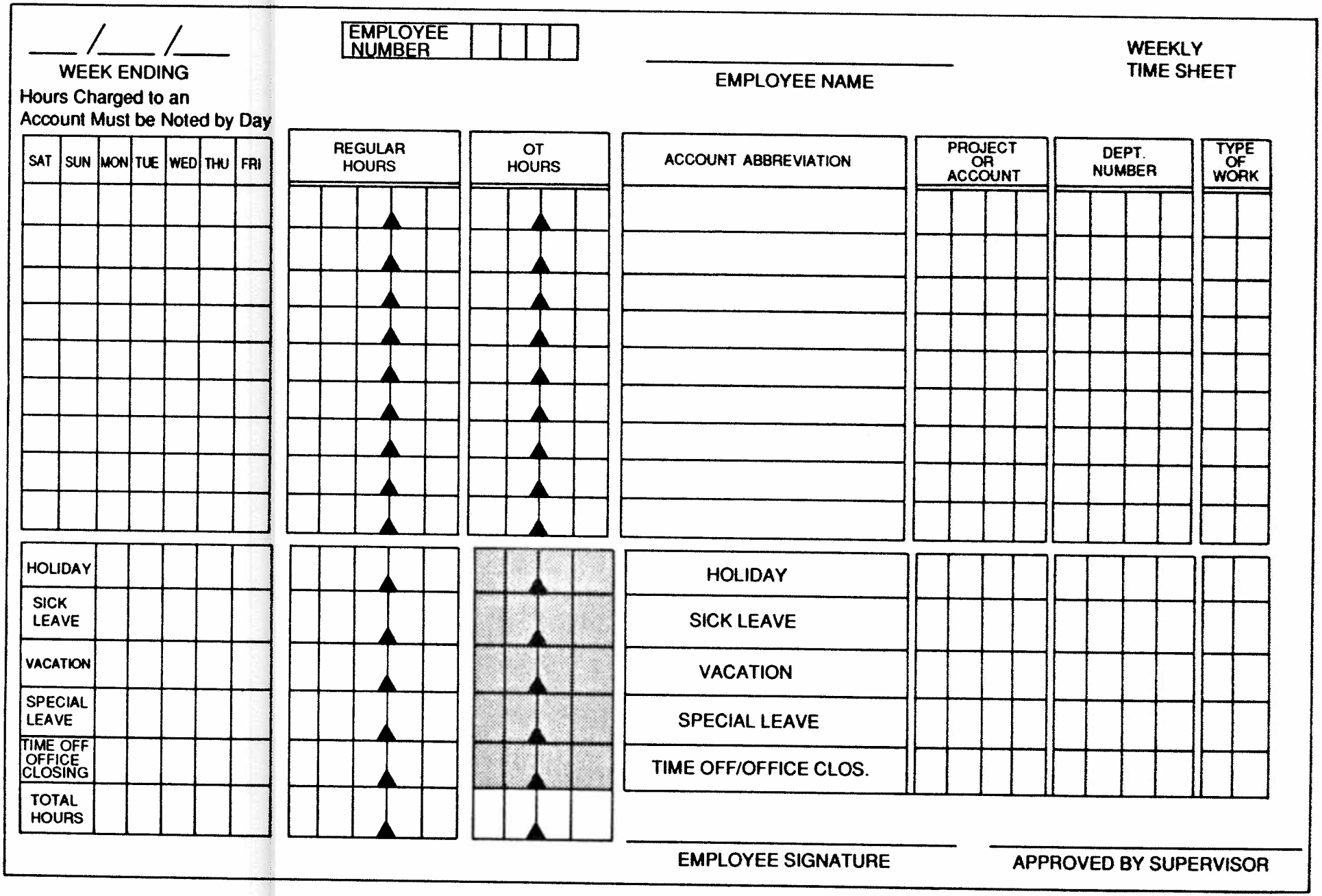
MONTHLY SEWER SYSTEM OPERATING AND MAINTENANCE COSTS

O&M TASK DESCRIPTION	UNIT OF MEASURE	UNITS THIS PERIOD		LABOR HOURS	LABOR COST	MATERIAL COST	EQUIPMENT COST	TOTAL COST	COMMENTS
		UNITS BUDGETED	UNITS ACTUAL						
ROUTINE O&M COSTS									
Lift Station O&M	Each								
Sewer Cleaning	Ln Ft.								
Roof Cutting	Ln. Ft.								
Minor Sewer Repairs	Ln. Ft.								
Manhole Repairs	Ln. Ft.								
Sewer System Inspections									
Sewer Pipe	Ln. Ft.								
Manholes	Each								
New Construction	Each								
Flow Monitoring	Ln. Ft.								
Response to Customer Complaints	Each								
Subtotal O&M Costs									
Overhead									
Vehicle/Equipment Maintenance	Hours								
Administration	Hours								
Supervision	Hours								
Insurance									
Vacation Leave	Hours								
Holiday Leave	Hours								
Sick Leave	Hours								
Workmen Compensation	Hours								
Training	Hours								
Subtotal Overhead Costs									
Total Routine O&M Costs									

MONTHLY OPERATIONS AND MAINTENANCE COST FORM

O&M TASK DESCRIPTION	UNIT OF MEASURE	UNITS THIS PERIOD		LABOR HOURS	LABOR COST	MATERIAL COST	EQUIPMENT COST	TOTAL COST	COMMENTS
		UNITS BUDGETED	UNITS ACTUAL						
ABNORMAL O&M COSTS									
Engineering Studies	Each								
Outside Contracts	Each								
Consulting Services	Each								
New Equipment Purchases	Each								
Replacement Equipment	Each								
Total Abnormal O&M Costs									
TOTAL MONTHLY COSTS									

MONTHLY OPERATIONS AND MAINTENANCE COST FORM (CONT.)



EMPLOYEE TIME SHEET

Sample Index for Account Numbers,
Department Numbers, and Type of
Work Codes.

Project or Account No.	Account Abbreviation
XXXX	Sewer Cleaning
XXXX	Inspections
XXXX	Rehabilitation
XXXX	Budgeting
XXXX	Etc.
Dept. No.	
XXXX	Operation and Maintenance
XXXX	Civil Engineering
XXXX	Purchasing
XXXX	Etc.
Type of Work Codes	
XX	Administrative
XX	Training
XX	Technical Report Writing
XX	Sewer Balling
XX	Manhole Inspections
XX	Replacing Manhole Covers
XX	Etc.

TO:

SHIP TO:

PURCHASE ORDER NUMBER: _____

WORK ORDER NUMBER: _____

DATE INITIATED: _____

DATE REQUIRED: _____

SHIP VIA: _____

F.O.B.: _____

TERMS: _____

_____

_____

DATE RECEIVED: _____

QUANTITY	STOCK NUMBER/DESCRIPTION	PRICE	PER	TOTAL

APPROVED BY: _____ DATE: _____

SHEET_____OF_____

PURCHASE ORDER FORM

Agency _____ Prepared by _____

19___ Month	Direct Labor S.T.	Overtime	Overhead	Utility Costs	New Equip. Purchases	Equip. Repair	Equip. Rental	Consultant Fees	Contractor Fees	Misc.	TOTAL
JAN											
FEB											
MAR											
APR											
MAY											
JUNE											
JULY											
AUG											
SEPT											
OCT											
NOV											
DEC											
TOTAL											

ANNUAL COST SUMMARY FORM

EQUIPMENT NAME AND NUMBER	SERIAL NO.	LOCATION

DATE OF TROUBLE	TIME	REPORTED BY	SHIFT

INDICATION OF TROUBLE

- ☐ BROKEN PART
- ☐ WORN PART
- ☐ HEAT
- ☐ NOISE
- ☐ SMELL
- ☐ VIBRATION
- ☐ LEAKING
- ☐ DIRTY, FOULED
- ☐ VOLTAGE
- ☐ CURRENT
- ☐ RESISTANCE
- ☐ FLOW RATE
- ☐ PRESSURE
- ☐ SPEED
- ☐ OTHER _____

WHEN DISCOVERED

- ☐ STARTING
- ☐ STOPPING
- ☐ DURING OPERATION
- ☐ DURING PREVENTIVE MAINT.
- ☐ DURING CORRECTIVE MAINT.
- ☐ DURING OVERHAUL
- ☐ OTHER _____

CAUSE OF TROUBLE

- ☐ HEAT/COLD/WEATHER
- ☐ HUMIDITY/MOISTURE
- ☐ FOREIGN OBJECT
- ☐ SHOCK/VIBRATION
- ☐ WEAR
- ☐ EQUIPMENT DEFECT
- ☐ IMPROPER INSTALLATION
- ☐ IMPROPER LUBRICATION
- ☐ IMPROPER OPERATION
- ☐ OTHER _____

REMARKS AND RECOMMENDATIONS _____

CHECK IF EQUIPMENT WAS TAGGED OUT OF SERVICE ☐

EQUIPMENT MALFUNCTION REPORT

DATE _____ OPERATOR _____

UNUSUAL CONDITION: CHECK (✓)

- ☐ EXPLOSION
- ☐ FLOODING
- ☐ VANDALISM
- ☐ EQUIPMENT FAILURE
- ☐ POWER FAILURE
- ☐ FIRE
- ☐ LINE COLLAPSE OR BLOCKAGE
- ☐ OTHER

REASON FOR CONDITION _____

DAMAGES, INJURIES, ETC. _____

ACTION TAKEN (WHO NOTIFIED, WHAT DONE) _____

REMARKS _____

SIGNED _____

OPERATOR ON DUTY

EMERGENCY CONDITIONS REPORT

DATE _____ TIME _____

COMPLAINT BY _____

ADDRESS _____

TELEPHONE _____

LOCATION OF COMPLAINT _____

_____

DETAILS OF COMPLAINT _____

CHECK (✓) COMPLAINT

SEWER SYSTEM COMPLAINTS

- ☐ MANHOLE COVER MISSING
- ☐ MANHOLE COVER LOOSE OR NOISY
- ☐ ODORS-GASES
- ☐ MANHOLE CAVE-IN
- ☐ LINE CAVE-IN
- ☐ MANHOLE FLOODED
- ☐ STREET FLOODED
- ☐ YARD FLOODED
- ☐ BUILDING FLOODED
- ☐ OTHER

LIFT STATION COMPLAINTS

- ☐ ODORS
- ☐ FLOODING
- ☐ STOPPAGES
- ☐ UNKEPT GROUNDS
- ☐ SPILLS
- ☐ OTHER

ACTION TO BE TAKEN:

- ☐ IMMEDIATE INSPECTION
- ☐ IMMEDIATE REPAIR
- ☐ OWNER'S REPAIR
- ☐ FUTURE REPAIR
- ☐ WATER DEPARTMENT NOTIFIED
- ☐ HEALTH DEPARTMENT NOTIFIED
- ☐ OTHER _____

COMPLAINT RECEIVED BY: _____ DATE: _____

COMPLAINT FORM
F-24

NAME _____ DAY _____ DATE _____ 19__

	NAME	PRODUCTION	STAND BY	FIELD REPAIR	TRAVEL	SHOP	OTHER	HRS	TOTAL
CREW CHIEF									
SECOND MAN									
THIRD MAN									
FOURTH MAN									
TOTAL HOURS									

WEATHER CONDITIONS _____

WORK PHASE	DISTRICT	MANHOLE REACH	EQUIPMENT USED	MILEAGE	TIME SPENT

SIGNED _____

DAILY PROGRESS REPORT

DATE:_____

Sewer Segment No._____

Upstream MH ID No._____ Rim/Inv El:_____/_____

Downstream MH ID No._____ Rim/Inv El:_____/_____

Length of Sewer _____ feet Pipe Material:_____

Pipe Diameter_____inch Joints:_____

Date Installed:_____

Type of Rehabilitation Completed:

- ☐ Service Connection Repair
- ☐ Spot Replacement
- ☐ Sewer Grouting (indicate number of joints) Sliplining
- ☐ Inversion Lining
- ☐ Manhole-to-Manhole Replacement
- ☐ Other _____

Exact location of work:_____

Crew Size Used: _____

Manhours Used:_____

Equipment Used: _____

Replacement/Repair Materials Used: _____

_____

Comments:_____

_____

_____

SEWER SEGMENT REHABILITATION FORM

DATE:_____

Sewer Segment No._____

Upstream MH ID No. _____ Rim/Inv El:_____/_____

Downstream MH ID No. _____ Rim/Inv El:_____/_____

Length of Sewer_____feet Pipe Material:_____

Pipe Diameter_____inch Joints:_____

Date Installed:_____

Cleaning Equipment Used: _____

_____

Debris Severity Observed:_____

Types of Debris Observed:

- ☐ Grit
- ☐ Grease
- ☐ Roots
- ☐ Broken Pipe
- ☐ Other _____

Comments: _____

_____

_____

Debris Severity

0 - None 1 - Minor 2 - Moderate 3 - Severe 4 - Blockage

SEWER CLEANING FORM

DATE	REQUESTED BY	REQUIRED COMPLETION DATE

EQUIPMENT NAME AND NUMBER	SERIAL NO.	LOCATION

INDICATION OF TROUBLE

- ☐ BROKEN PART
- ☐ WORN PART
- ☐ HEAT
- ☐ NOISE
- ☐ SMELL
- ☐ VIBRATION
- ☐ LEAKING
- ☐ DIRTY, FOULED
- ☐ VOLTAGE
- ☐ CURRENT
- ☐ RESISTANCE
- ☐ FLOW RATE
- ☐ PRESSURE
- ☐ SPEED
- ☐ OTHER _____

WORK TO BE DONE

- ☐ INSPECT
- ☐ REPAIR
- ☐ REPLACE
- ☐ SERVICE
- ☐ OVERHAUL
- ☐ PAINT
- ☐ OTHER _____

CAUSE OF TROUBLE

- ☐ HEAT/COLD/WEATHER
- ☐ HUMIDITY/MOISTURE
- ☐ FOREIGN OBJECT
- ☐ SHOCK/VIBRATION
- ☐ WEAR
- ☐ EQUIPMENT DEFECT
- ☐ IMPROPER INSTALLATION
- ☐ OTHER _____

WORK REQUESTED _____

ESTIMATED COSTS

LABOR _____

PARTS _____

CONTRACTOR _____

TOTAL _____

ESTIMATED DOWN TIME

APPROVED BY	DATE	JOB NO.

MAINTENANCE WORK RECORD RECAP

DESCRIBE WHAT WAS WRONG AND HOW IT WAS FIXED	OUTSIDE CONTRACTOR USED

RECOMMENDATIONS FOR AVOIDING REPEATED FAILURE	REASON

EQUIPMENT STATUS AT COMPLETION

- ☐ FULLY OPERATIONAL
- ☐ NON-OPERATIONAL
- ☐ REDUCED CAPABILITY
- ☐ AWAITING SPARE PARTS

SPARE PARTS AVAILABILITY

- ☐ IN STOCK
- ☐ OBTAINED LOCALLY
- ☐ DELAY IN PROCURING
- ☐ LENGTH

ACTUAL COSTS

LABOR _____

PARTS _____

CONTRACTOR _____

TOTAL DOWN TIME

WORK COMPLETED

DATE _____ NAME _____

WORK APPROVED

DATE _____ REQUESTOR _____

MAINTENANCE WORK ORDER

EQUIPMENT NO. _____

DATE	MECHANICS NAME	REG. HRS.	OT HRS.	PARTS OR MATERIALS	MANUFACTURER AND CATALOG NO.	COST

EQUIPMENT SERVICE RECORD CARD

DATE:_____

Manhole ID No._____

Rim/Inv El:_____/_____

Street Address/Location:_____

Manhole Type:_____

Cover Type:_____

Installation Date:_____

Type of Rehabilitation Completed:

- ☐ Cover Replacement
- ☐ Frame Seal
- ☐ Wall Repairs
- ☐ Pipe Connection Repair
- ☐ Replacement
- ☐ Bench and Channel Repairs

Equipment Used:_____

Crew/Contractor:_____

Time Required to Complete:_____

Replacement/Repair Materials Used:_____

Comments: _____

_____

_____

MANHOLE REHABILITATION FORM

DATE:_____

Manhole ID No._____

Rim/Inv El:_____/_____

Street Address/Location:_____

Manhole Type:_____

Cover:_____

Installation Date:_____

Sketch of Inlet and Outlet Piping:

Flow Measuring Equipment:

- ☐ Dip Stick
- ☐ Weir
- ☐ Flume
- ☐ Flow Monitor (specify type)

Flow Measurement:_____ gpd

Time of Reading:_____ Weather:_____

Indicate weather conditions on the 3 days prior to this measurement:

_____

Comments:_____

_____

_____

VISUAL FLOW CHECK FORM

DATE:_____

Lift Station No._____

Location:_____

Pump Manufacturer:_____

Type of Pumps:_____

No. of Pumps:_____

Date Lift Station was Built:_____

Inspector(s):_____

Time Arrived:_____ Time Departed:_____

TASK	COMPLETED
1. Check that electric power is on.	_____
2. Make sure no circuit breakers have been tripped.	_____
3. Read and record values on counters and timers.	_____

Pump No.	Running Time
1	_____
2	_____
3	_____

4. Inspect, clean, and lubricate motors and rings.	_____
5. Inspect and clean wet well level sensor electrodes and bubbler tubes.	_____
6. Inspect and clean motor starters and relays.	_____
7. Check the operation of the gland water pump motors and electric valves.	_____
8. Inspect and clean all automatic gate controls.	_____
9. Check kilowatt meters and charts and record data.	_____
10. Check the motor, heating elements and belts on auxiliary equipment. Replace any broken or worn parts. Parts Replaced _____	_____
11. Check the float switches and motors on lift station sump pumps.	_____

DAILY LIFT STATION INSPECTION FORM

	TASK	COMPLETED
12.	Inspect and clean bar screen or communitor controls.	
13.	Inspect indicating lights on all equipment and telemetry equipment controls.	
14.	Inspect pumps and bearings. Lubricate and repack if needed.	
15.	Inspect and lubricate line shaft bearings.	
16.	Inspect and lubricate gland water pumps and bearings.	
17.	Make sure the pump packing is not leaking too much water and is not too tight.	
18.	Inspect check valves and verify that they are not stuck either open or partially closed.	
19.	Inspect sump pump floats and all discharge piping and valves.	
20.	Check the position and operation of all flow control gates.	
21.	Check the drives and screens on all mechanically cleaned bar screens.	
22.	Inspect communitors for proper operation.	
23.	Inspect, clean, and lubricate all air compressors.	
24.	Manually clean bar screens.	
25.	Make sure all vent fans and lights are operating properly.	
26.	Enter any observed problems into the lift station log books.	
27.	Pick up all debris inside and outside of the facility.	
28.	Before leaving the facility make sure it is secure.	
29.	Plow snow if necessary.	

Comments:_____

_____

_____

DAILY LIFT STATION INSPECTION FORM (CONT.)

DATE:_____

Lift Station No._____

Location:_____

Pump Manufacturer:_____

Type of Pumps:_____

No. of Pumps:_____

Date Lift Station was Built:_____

Inspector(s):_____

Time Arrived:_____ Time Departed:_____

TASK	COMPLETED
1. Check all equipment, piping and valves for leakage.	_____
2. Operate each wastewater pump in the "manual" or "hand" position and inspect the pump and motor for excessive noise or vibration.	_____
3. Check all motors for excessive temperature increases.	_____
4. Check all pressure and vacuum gauges.	_____
5. Inspect and clean sump pump wells if necessary.	_____
6. Clean the wet well of accumulated grease, floating debris, and grit.	_____
7. Clean and reposition floats and level sensor electrodes in the wet well.	_____
8. Inspect wet well piping and ladders.	_____
9. Mow the lift station yard if necessary.	_____
10. Wipe down all equipment.	_____
11. Replace recording charts as required.	_____
12. Exercise standby equipment to dry out water, redistribute lubricant and ensure operational readiness.	_____
13. Check operation of all lift station alarm systems.	_____

Comments:_____

_____

WEEKLY LIFT STATION INSPECTION FORM

DATE:_____

Lift Station No._____

Location:_____

Pump Manufacturer:_____

Type of Pumps:_____

No. of Pumps:_____

Date Lift Station was Built:_____

Inspector(s):_____

Time Arrived:_____ Time Departed:_____

TASK	COMPLETED
1. Operation all flow control gates and valves to prevent them from seizing.	_____
2. Remove the pump casing inspection plates and remove any debris that has accumulated.	_____
3. Check calibration and recalibrate flow meters.	_____
4. Clean all ventilation openings.	_____
5. Check first aid supplies.	_____
6. Take inventory of spare parts. Verify that depleted parts have been ordered.	_____
7. Check the condition of paint both inside and outside the lift station.	_____

Comments:_____

_____

_____

MONTHLY LIFT STATION INSPECTION FORM

DATE:_____

Lift Station No._____

Location:_____

Pump Manufacturer:_____

Type of Pumps:_____

No. of Pumps:_____

Date Lift Station was Built:_____

Inspector(s):_____

Time Arrived:_____ Time Departed:_____

TASK	COMPLETED
1. Dismantle the wastewater pumps to inspect the impellers, shafts, and shaft sleeves.	_____
2. Inspect and clean all components of the ventilating fans, heaters, sump pumps, and dehumidifiers.	_____
3. Inspect the condition of all electrical equipment.	_____
4. Paint areas both inside and outside of the lift station as needed.	_____
5. Inspect the inlet and outlet piping at the lift station. Clean the piping if needed.	_____
6. Check flowmeter calibration and recalibrate if necessary.	_____

Comments:_____

_____

_____

ANNUAL LIFT STATION INSPECTION FORM

DATE:_____

Inverted Siphon No._____

Type:_____ Pipe Diameters:

Location:_____ Pipe No. 1:_____inch

Length:_____ Pipe No. 2:_____inch

Pipe Material:_____ Date Installed:_____

Pipe Inverts:_____

Inspectors:_____

Time Arrived:_____ Time Departed:_____

Atmospheric Testing Results:

Inlet Structure:_____

Outlet Structure:_____

Flow measurement upstream of siphon:_____ gpd

Flow measurement downstream of siphon:_____ gpd

	TASK	COMPLETED
1.	Mechanical parts inspected for debris.	
2.	Check that hatches to inlet and outlet structures are secure.	
3.	Check that air vent piping between inlet and outlet structures is working properly.	
4.	Exercise slide gates.	

INVERTED SIPHON INSPECTION FORM