

Tier A Municipal Storm Water Regulation Program

Storm water Pollution Prevention Team Members

Number of team members may vary.

Completed by: Ed Gulyas

Title: South Orange Village Deputy Engineer

Date: April 25, 2018

Municipality: South Orange
Village

County: Essex County

NJPDES #: NJG0150762

PI ID #: 214790

Storm Water Program Coordinator: Ed Gulyas

Title: Deputy Engineer

Office Phone #: 973-378-7715 x 2266

Emergency Phone #:

Public Notice Coordinator: Kevin D. Harris

Title: Village Municipal Clerk

Office Phone #: 973-378-7715 x 7722

Emergency Phone #:

Post-Construction Storm Water Management Coordinator: Ed Gulyas

Title: Deputy Engineer

Office Phone #: 973-378-7715

Emergency Phone #:

Local Public Education Coordinator: Walter Clarke

Title: Village Environmental Commission Chairperson

Office Phone #: 973-378-7715

Emergency Phone #:

Ordinance Coordinator: Steven Rother

Title: Village Attorney

Office Phone #: 973-378-7715

Emergency Phone #:

Public Works Coordinator: Tom Michetti

Title: Public Works Director

Office Phone #: 973-378-7741

Emergency Phone #:

Employee Training Coordinator: Tom Michetti

Title: OSHA Training Representative

Office Phone #: 973-378-7741

Emergency Phone #:

Other: CJ Murray

Title: Code Enforcement Officer

Office Phone #: 973-378-7715 x 7704

Emergency Phone #:

SPPP Form 2 - Public Notice

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # : NJG 0150762

PI ID #: 214790

Team Member/Title: Kevin D. Harris, Village Clerk

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

For meetings where public notice is required under the Open Public Meetings Act ("Sunshine Law," N.J.S.A. 10:4-6 et seq.), South Orange Village provides public notice in a manner that complies with the requirements of that Act. Also, in regard to the passage of ordinances, South Orange Village provides public notice in a manner that complies with the requirements of N.J.S.A. 40:49-1 et seq. In addition, for municipal actions (e.g., adoption of the municipal storm water management plan) subject to public notice requirements in the Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.), South Orange Village complies with those requirements.

SPPP Form 3 – New Development and Redevelopment Program

Municipality Information	Municipality: <u>South Orange Village</u>	County: <u>Essex County</u>
	NJPDES # : NJG <u>0150762</u>	PI ID #: <u>214790</u>
	Team Member/Title: <u>Ed Gulyas, Deputy Engineer</u>	
	Effective Date of Permit Authorization (EDPA): <u>January 1, 2018</u>	
	Date of Completion: <u>December 8, 2017</u>	
	Date of most recent update:	

To control storm water from new development and redevelopment projects throughout South Orange Village (including projects we operate) we will do the following:

We are already ensuring that all new residential development and redevelopment projects that are subject to the Residential Site Improvement Standards for storm water management (including the NJDEP Storm water Management rules, N.J.A.C. 7:8, referenced in those standards) are in compliance with those standards. Our planning and zoning boards ensure such compliance before issuing preliminary or final subdivision or site plan approvals under the Municipal Land Use Law.

Since the EDPA, South Orange Village has not constructed any new development or redevelopment projects on Village property. If we decide to construct such a project before our municipal storm water control ordinance takes effect, we will ensure adequate long-term operation and maintenance of BMPs for that project by requiring a project maintenance plan similar to the maintenance plan described in our draft of that ordinance, and by requiring and funding the implementation of that plan. We will also require any storm drain inlets that we install to comply with the design standard in Attachment C of our permit. Once that ordinance takes effect, we will ensure such operation and maintenance for any new development or redevelopment projects on our property by complying with the maintenance requirements in that ordinance. In addition, any storm drain inlets we install for such projects will comply with that ordinance's standard for such inlets.

Our planning board and municipal attorney have reviewed the Sample Municipal Storm water Management Plan and Model Storm water Control Ordinance in the NJ Storm water BMP Manual, and have drafted a municipal storm water management plan and municipal storm water control ordinance similar to that sample and model. We have also met with county planning agency staff to discuss the draft plan and ordinance. The plan and ordinance will be adopted by our planning board and Village Council, respectively, by the deadlines specified in the permit, and will be submitted to the county planning agency for approval.

Once approved, the ordinance, which will be administered by our planning and zoning boards and code enforcement officer, will control storm water from non-residential development and redevelopment projects. Where it is necessary to implement the municipal storm water management plan, the approved ordinance will also control aspects of residential development and redevelopment projects that are not subject to the Residential Site Improvement Standards.

For any BMP that is installed in order to comply with the requirements of our post-construction program, South Orange Village will ensure adequate long-term operation as well as preventative and corrective maintenance (including replacement) of BMPs. For BMPs on private property that we do not own or operate, South Orange Village intends to do this by adopting and enforcing a provision in the municipal storm water control ordinance that requires the private entity to perform the operation and maintenance, with penalties if the private entity does not comply.

South Orange Village will also enforce, through the municipal storm water control ordinance, compliance with the design standard in Attachment C of our permit to control passage of solid and floatable materials through storm drain inlets. South Orange Village expects that for most projects, such compliance will be achieved either by conveying flows through a trash rack as described in the "Alternative Device Exemptions," or (for flows not conveyed through such a trash rack), by installation of the NJDOT bicycle safe grate and (if needed) a curb opening with a clear space no bigger than two inches across the smallest dimension.

SPPP Form 4 - Local Public Education Program

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # : NJG 0150762

PI ID #: 214790

Team Member/Title: Bill Haskins, Village Environmental Commission Chairperson

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

Local Public Education Program

For our annual distribution, we will have informational brochures available at our Village library and municipal building.

Our annual event will be held each year in coordination with our annual River Day Celebration. We will make the DEP brochure and other educational materials available at our table.

In addition, we will invite our high school environmental club, local watershed group, Seton Hall and other environmental groups to set up their own booths during this event.

SPPP Form 5 – Storm Drain Inlet Labeling

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # : NJG 0150762

PI ID #: 214790

Team Member/Title: Tom Michetti, Public Works Director

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

Storm Drain Inlet Labeling

For our storm drain inlet labeling program we plan on coordinating with our local girl scout and boy scout groups, high school environmental club and Seton Hall University.

Where it is practical, they will do the labeling for us. In areas where it is not safe for the volunteer groups, our Public Works department will be doing the labeling. We will label all storm drain inlets that are along municipal streets with sidewalks, and all storm drain inlets within plazas, parking areas, or maintenance yards that are operated by South Orange Village.

Where the labeling is done by volunteer groups, we will use plastic labels that will read "No dumping - Drains to Waterway" with a picture of a fish next to it. The more opportunities they have to perform the storm drain labeling, the greater the benefit.

During our annual catch basin cleaning program, we will be checking these labels to ensure that they are still visible, and if they are not, we will ensure that the labels are replaced immediately.

The Village contains more than 1000 inlets.

SPPP Form 6 – MS4 Outfall Pipe Mapping

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # : NJG 0150762

PI ID #: 214790

Team Member/Title: Ed Gulyas, Deputy Engineer

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

The South Orange Village Engineering Department has a storm sewer drainage map for the entire Village, which also contain over 50 outfalls and 1000 inlets.

SPPP Form 7 – Illicit Connection Elimination Program

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # : NJG 0150762

PI ID #: 214790

Team Member/Title: Ed Gulyas, Deputy Engineer

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

We will conduct an initial physical inspection of all of our outfall pipes during the mapping process. We will use the DEP Illicit Connection Inspection Report Form to conduct these inspections, and each of these forms will be kept with our SPPP records. Outfall pipes that are found to have a dry weather flow or evidence of an intermittent non-storm water flow will be rechecked again to locate the illicit connection. If we are able to locate the illicit connection (and the connection is within South Orange Village) we will cite the responsible party for being in violation of our Illicit Connection Ordinance, and we will have the collection eliminated immediately. If, after the appropriate amount of investigation, we are unable to locate the source of the illicit connection, we will submit the Closeout Investigation Form with our Annual Inspection and Recertification. If an illicit connection is found to originate from another public entity, South Orange Village will report the illicit connection to the Nutley HAZMAT. Village residents may report illicit connections to the Department of Code Enforcement.

SPPP Form 8 – Illicit Connection Records

Municipality Information	Municipality: <u>South Orange Village</u> County: <u>Essex County</u>
	NJPDES # : NJG <u>0150762</u> PI ID #: <u>214790</u>
	Team Member/Title: <u>Ed Gulyas, Deputy Engineer</u>
	Effective Date of Permit Authorization (EDPA): <u>January 1, 2018</u>
	Date of Completion: <u>December 8, 2017</u> Date of most recent update:
Prior to 2018	
Total number of inspections performed this year? 4	
Number of outfalls found to have a dry weather flow? 0	
Number of outfalls found to have an illicit connection? 4	
How many illicit connections were eliminated? 4	
Of the illicit connections found, how many remain? 0	

SPPP Form 9 – Yard Waste Ordinance/Collection Program

Municipality Information

Municipality: South Orange Village County: Essex County
 NJPDES # : NJG 0150762 PI ID #: 214790
 Team Member/Title: Tom Michetti, Public Works Director
 Effective Date of Permit Authorization (EDPA): January 1, 2018
 Date of Completion: December 8, 2017 Date of most recent update:

Village residents are permitted to place leaves curbside. The collection period by the DPW begins October 1st through mid-December.

We will be conducting multiple collections of leaves during the months of October, November, and December, plus one collection in April-May. The Village will hold additional yard waste collections during the recycling days of Tuesday, Thursday and Saturday all year long. When we are having collections, we will post our collection schedule and our ordinance requirements in our newsletter and website.

To develop a collection schedule, the Village is divided into 11 zones. It takes @ 7-11 days to collect each zone. During leaf season, each street is collected @5-7 times. The collection of leaves throughout the year is @ 15,000 cubic yards.

South Orange Village will also be adopting and enforcing a yard waste ordinance (see SPPP Form 10) that will prohibit all yard wastes from being placed at the curb or along the street more than seven days prior to our scheduled collections. The ordinance will also prohibit the placing of yard waste closer than 10 feet from any storm sewer inlet along the street, unless they are bagged or otherwise containerized.

SPPP Form 10 - Ordinances

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # : NJG 0150762

PI ID #: 214790

Team Member/Title: Tony Grenci, Director of Code Enforcement

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

Pet Waste: March 28, 2005

Are information sheets regarding pet waste distributed with pet licenses? Y (X) N ()

Litter: March 28, 2005

Improper Waste Disposal: March 28, 2005

Wildlife Feeding: March 28, 2005

Yard Waste: March 28, 2005

Illicit Connections: March 28, 2005

How will these ordinances be enforced?

Our code enforcement officers and local police officers will enforce these ordinances. If someone is found to be in violation of an ordinance, they will be issued a written warning for first time offenses, and penalties will be issued for subsequent offenses.

SPPP Form 11 – Storm Drain Inlet Retrofitting

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # : NJG 0150762

PI ID #: 214790

Team Member/Title: Ed Gulyas, Deputy Engineer

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

For all projects in South Orange Village, we will use the NJDOT bicycle safe grate style and (if needed) a curb opening with a clear space no bigger than two inches across the smallest dimension.

Are you claiming any alternative device exemptions or historic place exemptions for any of the above projects?

South Orange Village does not operate any alternative devices within the municipality. At this time we do not plan on installing any such devices for repaving, repairing, reconstruction or alteration projects. We also do not plan on claiming any historic place exemptions.

SPPP Form 12 – Street Sweeping and Road Erosion Control Maintenance

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # : NJG 0150762

PI ID #: 214790

Team Member/Title: Tom Michetti, Public Works Director

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

Street Sweeping

(NOTE: Attach a street sweeping log containing the following information: date and area swept, 2600 miles swept, 42 tons of materials collected.)

South Orange Village intends on maintaining its existing street sweeping program which includes sweeping all streets once a week.

Road Erosion Control Maintenance

South Orange Village will use the Public Works Department to monitor all their roads and streets for erosion problems during normal patrols. All identified road erosion problems will be reported to Tom Michetti, Public Works Director. During quarterly SPPP Team meetings, identified areas of erosion will be discussed and repairs prioritized. All maintenance personnel will then be assigned to the areas of concern, and the areas identified to have road erosion problems will be repaired in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey. All maintenance personnel will maintain an inspection log, and Tom Michetti, will maintain a list of all repairs and the dates completed. The status of the Road Erosion Control Maintenance Program will be included in the Annual Report and Recertification.

SPPP Form 13 – Storm water Facility Maintenance

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # : NJG 0150762

PI ID #: 214790

Team Member/Title: Tom Michetti, Public Works Director

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

South Orange Village has implemented an annual catch basin cleaning program to maintain catch basin function and efficiency. All catch basins will be inspected at least once each year. If, at the time of inspection, no sediment, trash or debris is observed in the catch basin, then that catch basin will not be cleaned. All catch basins will be inspected yearly, even if they were found to be "clean" the previous year. At the time of cleaning, the catch basins will also be inspected for proper function. Maintenance will be scheduled for those catch basins that are in disrepair. The annual catch basin cleaning program will begin in April of each year.

South Orange Village has implemented a storm water facility maintenance program to ensure that all storm water facilities operated by the Township function properly. South Orange Village operates the following:

- catch basins
- storm drains

These storm water facilities will be inspected annually to insure that they are functioning properly. In high risk areas, preventative maintenance will be performed on all storm water facilities to ensure that they do not begin to fail.

SPPP Form 14 - Outfall Pipe Stream Scouring Remediation

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # :NJG 0150762

PI ID #: 214790

Team Member/Title: Tom Michetti, Public Works Director & Ed Gulyas, Deputy Engineer

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

The Army Corps of Engineers annually inspect the outfalls. They will be checking all of our outfall pipes for signs of scouring. All sites will be placed on a prioritized list and repairs will be made in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey. In addition, repairs that do not need NJDEP permits for those repairs may be done first.

We will follow each repair up with an annual inspection of the site to ensure that scouring has not resumed.

Attached is a list of all sites with outfall pipe stream scouring, the date we plan on repairing the scouring, and the method of repair we will use. When repairs are completed we will note the date of that repair on this form.

SPPP Form 15 – De-icing Material and Sand Storage

Municipality
Information

Municipality: South Orange Village

County: Essex County

NJPDES # : NJG 0150762

PI ID #: 214790

Team Member/Title: Tom Michetti, Public Works Director

Effective Date of Permit Authorization (EDPA): January 1, 2018

Date of Completion: December 8, 2017 Date of most recent update:

De-icing Material and Sand Storage

South Orange Village currently stores its de-icing salt in a dome at its Public Works Yard (Walton Avenue).

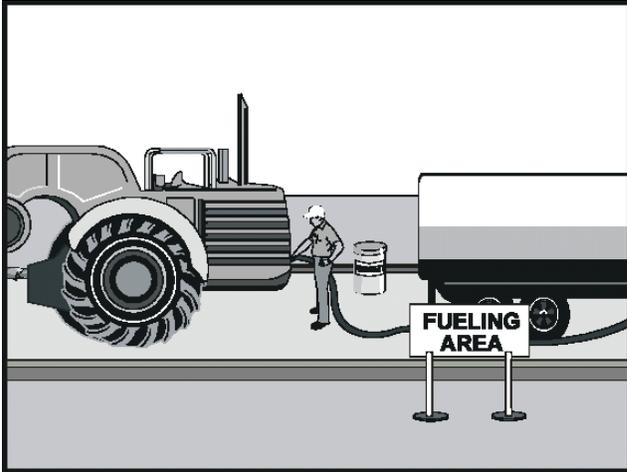
In addition, the Village stores sand for use in our baseball fields, playgrounds etc. at this location.

SPPP Form 16 – Standard Operating Procedures

Municipality Information	Municipality: <u>South Orange Village</u>	County: <u>Essex County</u>
	NJPDES # : NJG <u>0150762</u>	PI ID #: <u>214790</u>
	Team Member/Title: <u>Tom Michetti, Public Works Director</u>	
	Effective Date of Permit Authorization (EDPA): <u>January 1, 2018</u>	
	Date of Completion: <u>December 8, 2017</u> Date of most recent update:	

BMP	Date SOP went into effect	Describe your inspection schedule
<p style="text-align: center;">Fueling Operations (including the required practices listed in Attachment D of the permit)</p>	<p><i>July 15, 2004</i></p>	<p><i>We have compiled a list of all fueling locations within our municipal maintenance yards, which will be inspected once a month.</i></p> <p><i>We will also perform visual inspections before discharging storm water that has accumulated in the secondary containment area of the aboveground fuel storage tank in the Walton Avenue Public Works yard.</i></p>
<p style="text-align: center;">Vehicle Maintenance (including the required practices listed in Attachment D of the permit)</p>	<p><i>July 3, 2004</i></p>	<p><i>Monthly inspections will be held to ensure that the SOP is being met.</i></p>
<p style="text-align: center;">Good Housekeeping Practices (including the required practices listed in Attachment D of the permit)</p> <p>Attach inventory list required by Attachment D of the permit.</p>	<p><i>May 20, 2004</i></p>	<p><i>Monthly inspections of all municipal maintenance yards and ancillary operations will be held.</i></p>

South Orange Village Standard Operating Procedures Vehicle and Equipment Fueling



South Orange Village
Public Works Yards
With Fueling Operations
Walton Ave.

Introduction and Purpose Vehicle and equipment fueling procedures and practices are designed to minimize surface or ground waters. Understanding the procedures for delivering fuel into vehicles, mobile fuel tanks, and storage tanks is critical for this purpose. Safety is always the priority.

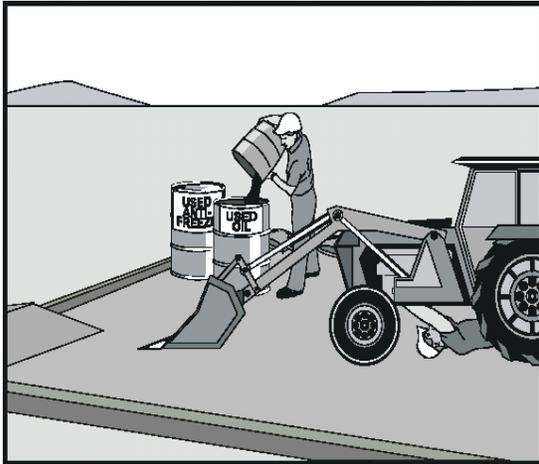
Scope These procedures are to be implemented at all maintenance yards with fueling. Including mobile fueling operations.

Standards and Specifications (for vehicle and equipment fueling)

- Shut the engine off
- Ensure that the fuel is the proper type of fuel.
- Absorbent spill clean-up materials and spill kits shall be available in fueling areas and on mobile fueling vehicles and shall be disposed of properly after use.
- Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut-off to prevent overfill.
- Fuel tanks shall not be “topped off”.
- Mobile fueling shall be minimized. Whenever practical, vehicles and equipment shall be transported to the designated fueling area in the maintenance yard.
- Clearly post, in a prominent area of the facility, instructions for safe operation of fueling equipment, and appropriate contact information for the person(s) responsible for spill response.

- Standards and Specifications (for bulk fueling)
- Drip pans or absorbent pads shall be used under all hose and pipe connections and other leak-prone areas during bulk fueling.
 - Block storm sewer inlets, or contain tank trucks used for bulk transfer, with temporary berms or temporary absorbent booms during the transfer process. If temporary berms are being used instead of blocking the storm sewer inlets, all hose connection points associated with the transfer of fuel must be within the temporary berms during the loading/unloading of bulk fuels.
 - Protect fueling areas with berms and/or dikes to prevent run-on, runoff, and to contain spills.
 - A trained employee must always be present to supervise during bulk transfer.
- Spill Response
- Conduct cleanups of any fuel spills immediately after discovery.
 - Uncontained spills are to be cleaned using dry cleaning methods only. Spills shall be cleaned up with a dry, absorbent material (e.g., kitty litter, sawdust, etc.) and absorbent materials shall be swept up.
 - Collected waste is to be disposed of properly.
 - Contact the South Orange Village Public Works at 973-378-7741.
- Maintenance and Inspection
- Fueling areas and storage tanks shall be inspected monthly.
 - Keep an ample supply of spill cleanup material on the site.
 - Any equipment, tanks, pumps, piping and fuel dispensing equipment found to be leaking or in disrepair must be repaired or replaced immediately.
 - The valve on the discharge pipe from the secondary containment area of the aboveground fuel storage tank in the Elm Avenue maintenance yard shall remain closed at all times except as described below. Visual inspections shall be performed before discharging storm water through that valve, to ensure that fuel in that tank has not come into contact with the storm water to be discharged.

South Orange Village Standard Operating Procedure Vehicle Maintenance



South Orange Village Public Works BMP Objectives

- Waste Management
- Spill Prevention,
Containment and
Countermeasures
- Pollution Control

Introduction and Purpose This SOP contains the basic practices of vehicle maintenance to be implemented at all maintenance yards including maintenance activities at ancillary operations in South Orange Village. The purpose of this SOP is to provide a set of guidelines for the Village vehicle maintenance yards including maintenance activities at ancillary operations.

Scope This SOP applies to all maintenance yards including maintenance activities at ancillary operations within South Orange Village.

Standards and Specifications

- Conduct vehicle maintenance operation only in designated areas.
- When possible, perform all vehicle and equipment maintenance at an indoor location with a paved floor.
- Always use drip pans.
- Absorbent spill clean-up materials shall be available in maintenance areas and shall be disposed of properly after use.
- Maintenance areas shall be protected from storm water run-on and runoff, and shall be located at least 50 feet downstream drainage facilities and watercourses.
- Use portable tents or construct a roofing-device over long-term maintenance areas and for projects that must be performed outdoors.

- Do not dump or dispose oils, grease, fluids, and lubricants onto the ground.
- Do not dump or dispose batteries, used oils, antifreeze and other toxic fluids into a storm drain or watercourse.
- Do not bury tires.
- Collect waste fluids in properly labeled containers and dispose properly.

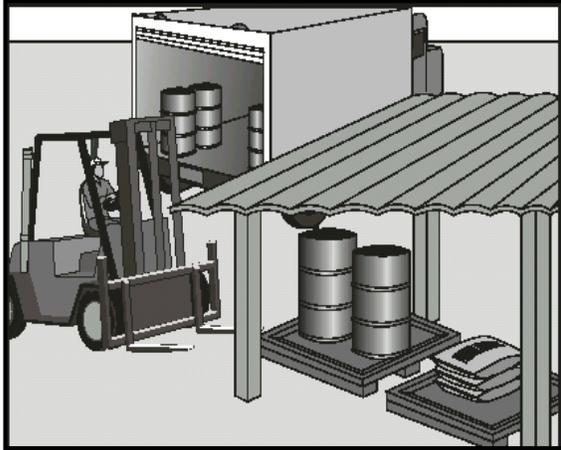
Spill Response
and Reporting

- Provide spill containment dikes or secondary containment around stored oils and other fluid storage drum(s).
- Conduct cleanups of any fuel spills immediately after discovery. Spills are to be cleaned using dry cleaning methods only. Spills shall be cleaned up with a dry, absorbent material (e.g., kitty litter, sawdust, etc.) and the rest of the area is to be swept.
- Collected waste is to be disposed of properly.
- Contact the South Orange Village Public Works at 973-378-7741.

Maintenance
and Inspection

- Periodically check for leaks and damaged equipment and make repairs as necessary.

South Orange Village Standard Operating Procedure Good Housekeeping



South Orange Village Good Housekeeping Goals

- Proper Recycling
- Proper Waste Disposal
- Pollution Prevention

Introduction and Purpose

This SOP contains the basic practices of good housekeeping to be implemented at maintenance yards including maintenance activities at ancillary operations in South Orange Village. The purpose of this SOP is to provide a set of guidelines for the employees of South Orange Village for Good Housekeeping Practices at their maintenance yards including maintenance yards at ancillary operations.

Scope This SOP applies to all maintenance yards including maintenance activities at ancillary operations in South Orange Village.

Standards and Specifications (General)

- All containers should be properly labeled and marked, and the labels must remain clean and visible.
- All containers must be kept in good condition and tightly closed when not in use.
- When practical, chemicals, fluids and supplies should be kept indoors.
- If containers are stored outside, they must be covered and placed on spill platforms.
- Keep storage areas clean and well organized.
- Spill kits and drip pans must be kept near any liquid transfer areas, protected from rainfall.
- Absorbent spill clean-up materials must be available in maintenance areas and shall be disposed of properly after use.
- Place trash, dirt and other debris in the dumpster.
- Collect waste fluids in properly labeled containers and dispose of them properly.
- Establish and maintain a recycling program by disposing, papers, cans, bottles and trash in designated bins.

- Standards and Specifications (Salt and De-icing Material Handling)
- During loading and unloading of salt and de-icing materials, prevent and/or minimize spills. If salt or de-icing materials are spilled, remove the materials using dry cleaning methods. All collected materials shall be either reused or properly discarded.
 - Sweeping should be conducted once a week to get rid of dirt and other debris. Sweeping should also be conducted immediately following loading/unloading activities, when practical.
 - Minimize the tracking of materials from storage and loading/unloading areas.
 - Minimize the distance that salt and de-icing materials are transported during loading/unloading activities.
 - Any materials that are stored outside must be tarped when not actively being used.

- Spill Response and Reporting
- Conduct clean-up of any spill(s) immediately after discovery.
 - Spills are to be cleaned using dry cleaning methods only.
 - Contact the South Orange Village Public Works 973-378-7741.

- Maintenance and Inspection
- Periodically check for leaks and damaged equipment and make repairs as necessary.
 - Perform monthly inspections of all (indoor and outdoor if applicable) storage locations.

SPPP Form 17 – Employee Training

Municipality	Municipality: <u>South Orange Village</u>	County: <u>Essex County</u>
	NJPDES # : NJG <u>0150762</u>	PI ID #: <u>214790</u>
	Team Member/Title: <u>Tom Michetti, Public Works Director</u>	
	Effective Date of Permit Authorization (EDPA): <u>January 1, 2018</u>	
	Date of Completion: <u>December 8, 2017</u> Date of most recent update:	

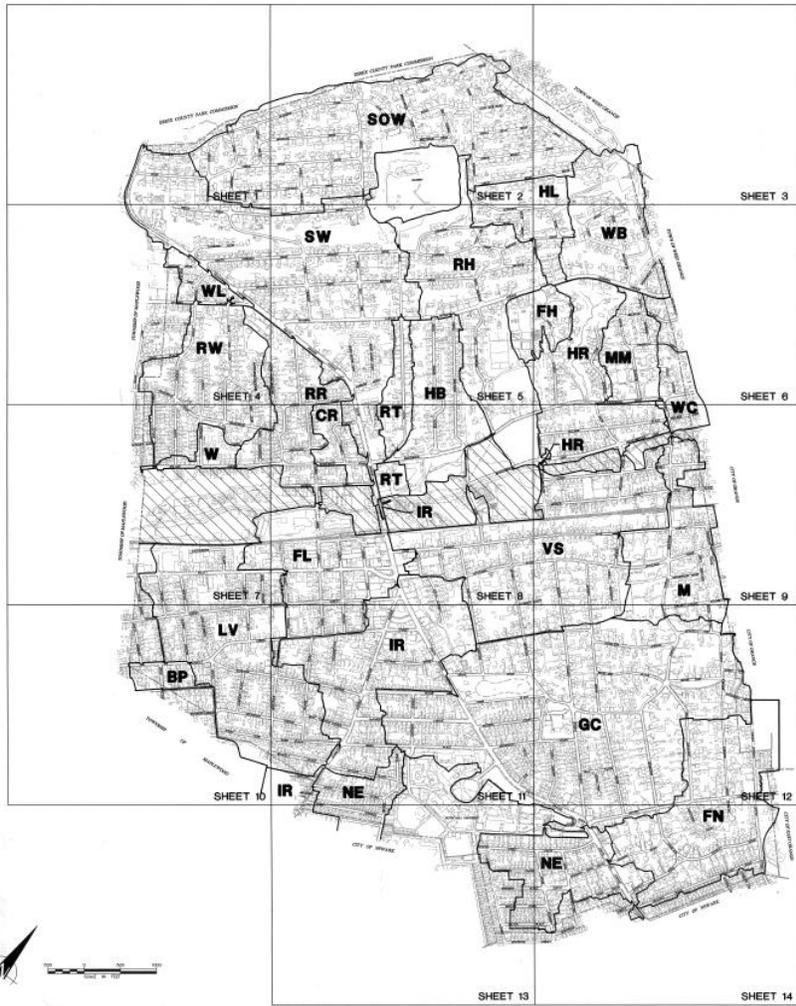
The following topics will be covered by a computer generated training program:

<u>Course:</u>	<u>Who will attend</u>
Waste Disposal Education	Environmental Commission members
Municipal Ordinances	code enforcement and local police departments, public works employees
Yard Waste Collection Program	public works employees
Street Sweeping	public works employees
Storm water Facility Maintenance	public works employees
Road Erosion Control	public works employees
Outfall Pipe Stream Scouring Remediation	public works employees
Construction Activity/Post Construction Storm water Management in New Development and Redevelopment (for municipally owned projects)	public works employees Planning Board members

The following topics will be part computer training, and part practical field training:

<u>Course:</u>	<u>Who will attend</u>
Illicit Connection Elimination and Outfall Pipe Mapping (field training will include procedures to properly conduct illicit connection detection's, investigations, and elimination's)	public works employees
Maintenance Yard Operations (including Ancillary Operations) (field training will include the SOPs for fueling, vehicle and equipment maintenance, general good housekeeping, and good housekeeping for de-icing materials storage)	public works employees

Dates for the above training programs are March 14, June 13, September 12, December 12



LEGEND: (SHEETS 2 THROUGH 13)

- EXISTING CONTOURS
- EXISTING SPOT ELEVATIONS
- EXISTING VILLAGE BOUNDARY
- EXISTING BUILDING
- EXISTING RAILROAD
- EXISTING FENCE LINE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING MANHOLE
- EXISTING DRAINAGE INLET
- EXISTING HEDGE ROW
- EXISTING TREE
- EXISTING STORM SEWER
- EXISTING INLET DESIGNATION
- EXISTING OUTFALL DESIGNATION
- EXISTING PIPE/CONDUIT DESIGNATION
- EXISTING JUNCTION/MANHOLE DESIGNATION
- INLET DRAINAGE BOUNDARY
- SYSTEM DRAINAGE BOUNDARY
- LIMIT OF WETLANDS
- 100 YEAR FLOODPLAIN
- 500 YEAR FLOODPLAIN
- AREAS OF SHEET FLOW TO RIVER
- PIPES RECOMMENDED FOR ENLARGEMENT

DRAINAGE AREAS:

ABBR.	DRAINAGE AREAS
SOW	SOUTH ORANGE BEOT
FB	FOREST HAVEN
HL	HARDENS CONCOURSE
TR	TRICHARD DRIVE
MM	MONTESE MELROSE
RH	REDMOND HARDING
RT	RIDGEWOOD TILLOW
SW	SOUTH ORANGE WYMING
WT	WYOMING TERRACE
CR	CONWAY RIDGEWOOD
HR	HEDGE RIDGEWOOD
RR	RIDGEWOOD RYNSIA
W	WALTON
WL	WYOMING LENOX
RW	RIDGEWOOD WEST END
WV	WALTON VALLEY
LV	LACK VALLEY
LV	LENOX
FN	FINLEY
VS	VOSE AREA
NE	NEWARK
GC	GRACE CHANNEL
BP	BALWIN PROSPECT
IR	IRVINGTON-SOUTH ORANGE AVENUE
FL	FLATS

NOTES:

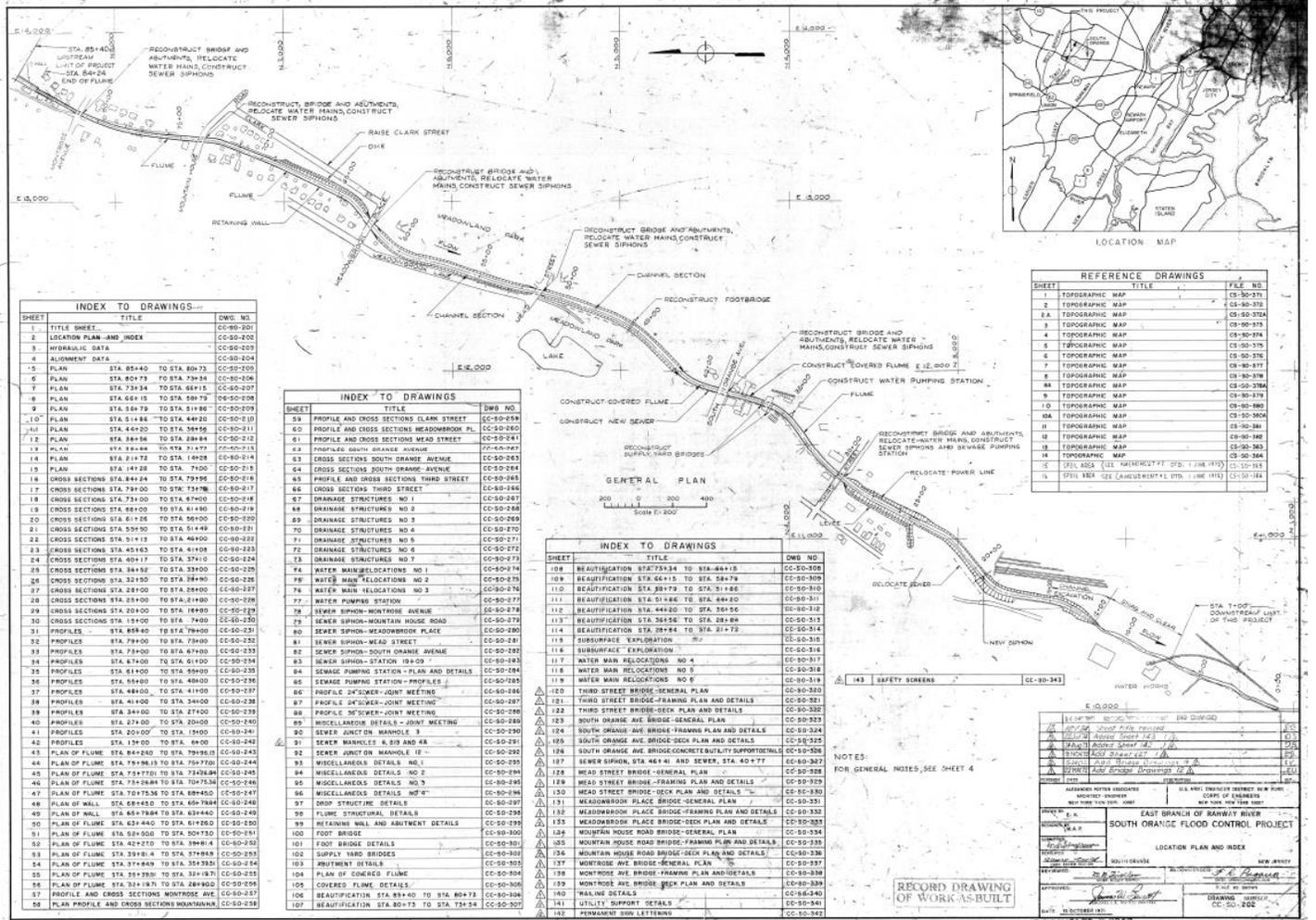
- 1) AERIAL TOPOGRAPHY PREPARED BY ATLANTIS AERIAL SURVEYS BASED ON 1998 PHOTOGRAPHS
- 2) LOCATION OF EXISTING STORM SEWERS ARE APPROXIMATE. FIELD VERIFICATION IS REQUIRED ON ALL STRUCTURES.

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 100 NEW JERSEY DRIVE
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VILLAGE OF SOUTH ORANGE
 08862 COUNTY, NEW JERSEY
 STORM SEWER COLLECTION SYSTEM
 INDEX MAP

SHEET 13 OF 13

Storm Drain Mapping



SHEET	TITLE	DWG. NO.
1	TITLE SHEET	CC-90-201
2	LOCATION PLAN AND INDEX	CC-90-202
3	HYDRAULIC DATA	CC-90-203
4	ALIGNMENT DATA	CC-90-204
5	PLAN STA. 85+400 TO STA. 86+75	CC-90-205
6	PLAN STA. 86+75 TO STA. 79+34	CC-90-206
7	PLAN STA. 79+34 TO STA. 68+15	CC-90-207
8	PLAN STA. 68+15 TO STA. 58+75	CC-90-208
9	PLAN STA. 58+75 TO STA. 51+86	CC-90-209
10	PLAN STA. 51+86 TO STA. 44+20	CC-90-210
11	PLAN STA. 44+20 TO STA. 38+56	CC-90-211
12	PLAN STA. 38+56 TO STA. 28+84	CC-90-212
13	PLAN STA. 28+84 TO STA. 21+77	CC-90-213
14	PLAN STA. 21+77 TO STA. 14+28	CC-90-214
15	PLAN STA. 14+28 TO STA. 7+00	CC-90-215
16	CROSS SECTIONS STA. 84+24 TO STA. 79+92	CC-90-216
17	CROSS SECTIONS STA. 79+00 TO STA. 75+78	CC-90-217
18	CROSS SECTIONS STA. 59+50 TO STA. 51+48	CC-90-218
19	CROSS SECTIONS STA. 68+00 TO STA. 61+80	CC-90-219
20	CROSS SECTIONS STA. 61+26 TO STA. 56+00	CC-90-220
21	CROSS SECTIONS STA. 51+13 TO STA. 44+00	CC-90-221
22	CROSS SECTIONS STA. 45+63 TO STA. 41+08	CC-90-222
23	CROSS SECTIONS STA. 40+17 TO STA. 37+10	CC-90-223
24	CROSS SECTIONS STA. 32+50 TO STA. 28+80	CC-90-224
25	CROSS SECTIONS STA. 28+00 TO STA. 28+00	CC-90-225
26	CROSS SECTIONS STA. 28+00 TO STA. 21+00	CC-90-226
27	CROSS SECTIONS STA. 20+00 TO STA. 18+90	CC-90-227
28	CROSS SECTIONS STA. 15+00 TO STA. 7+00	CC-90-228
29	PROFILES STA. 85+400 TO STA. 79+00	CC-90-229
30	PROFILES STA. 79+00 TO STA. 67+00	CC-90-230
31	PROFILES STA. 67+00 TO STA. 61+00	CC-90-231
32	PROFILES STA. 61+00 TO STA. 58+00	CC-90-232
33	PROFILES STA. 58+00 TO STA. 48+00	CC-90-233
34	PROFILES STA. 48+00 TO STA. 41+00	CC-90-234
35	PROFILES STA. 41+00 TO STA. 34+00	CC-90-235
36	PROFILES STA. 34+00 TO STA. 27+00	CC-90-236
37	PROFILES STA. 27+00 TO STA. 20+00	CC-90-237
38	PROFILES STA. 20+00 TO STA. 19+00	CC-90-238
39	PROFILES STA. 13+00 TO STA. 6+00	CC-90-239
40	PLAN OF FLUME STA. 84+200 TO STA. 79+920	CC-90-240
41	PLAN OF FLUME STA. 79+000 TO STA. 75+780	CC-90-241
42	PLAN OF FLUME STA. 51+770 TO STA. 73+026	CC-90-242
43	PLAN OF FLUME STA. 73+026 TO STA. 70+753	CC-90-243
44	PLAN OF FLUME STA. 70+753 TO STA. 68+440	CC-90-244
45	PLAN OF WALL STA. 68+440 TO STA. 65+784	CC-90-245
46	PLAN OF WALL STA. 65+784 TO STA. 63+440	CC-90-246
47	PLAN OF FLUME STA. 63+440 TO STA. 61+800	CC-90-247
48	PLAN OF FLUME STA. 61+800 TO STA. 50+730	CC-90-248
49	PLAN OF FLUME STA. 50+730 TO STA. 39+814	CC-90-249
50	PLAN OF FLUME STA. 39+814 TO STA. 37+983	CC-90-250
51	PLAN OF FLUME STA. 37+983 TO STA. 35+932	CC-90-251
52	PLAN OF FLUME STA. 35+932 TO STA. 34+181	CC-90-252
53	PLAN OF FLUME STA. 34+181 TO STA. 28+920	CC-90-253
54	PROFILE AND CROSS SECTIONS MONTROSE AVE.	CC-90-254
55	PLAN PROFILE AND CROSS SECTIONS MOUNTAIN HOUSE ROAD	CC-90-255

SHEET	TITLE	DWG. NO.
59	PROFILE AND CROSS SECTIONS CLARK STREET	CC-90-256
60	PROFILE AND CROSS SECTIONS MEADOWBROOK PL.	CC-90-257
61	PROFILE AND CROSS SECTIONS MEAD STREET	CC-90-258
62	PROFILE AND CROSS SECTIONS SOUTH ORANGE AVENUE	CC-90-259
63	CROSS SECTIONS SOUTH ORANGE AVENUE	CC-90-260
64	CROSS SECTIONS SOUTH ORANGE AVENUE	CC-90-261
65	PROFILE AND CROSS SECTIONS THIRD STREET	CC-90-262
66	CROSS SECTIONS THIRD STREET	CC-90-263
67	DRAINAGE STRUCTURES NO. 1	CC-90-264
68	DRAINAGE STRUCTURES NO. 2	CC-90-265
69	DRAINAGE STRUCTURES NO. 3	CC-90-266
70	DRAINAGE STRUCTURES NO. 4	CC-90-267
71	DRAINAGE STRUCTURES NO. 5	CC-90-268
72	DRAINAGE STRUCTURES NO. 6	CC-90-269
73	DRAINAGE STRUCTURES NO. 7	CC-90-270
74	WATER MAIN RELOCATIONS NO. 1	CC-90-271
75	WATER MAIN RELOCATIONS NO. 2	CC-90-272
76	WATER MAIN RELOCATIONS NO. 3	CC-90-273
77	WATER PUMPING STATION	CC-90-274
78	SEWER SIPHON-MONTROSE AVENUE	CC-90-275
79	SEWER SIPHON-MOUNTAIN HOUSE ROAD	CC-90-276
80	SEWER SIPHON-MEADOWBROOK PLACE	CC-90-277
81	SEWER SIPHON-MEAD STREET	CC-90-278
82	SEWER SIPHON-SOUTH ORANGE AVENUE	CC-90-279
83	SEWER SIPHON-CLARK STREET	CC-90-280
84	SEWER PUMPING STATION-PLAN AND DETAILS	CC-90-281
85	SEWER PUMPING STATION-PROFILES	CC-90-282
86	PROFILE 24" SEWER-JOINT MEETING	CC-90-283
87	PROFILE 24" SEWER-JOINT MEETING	CC-90-284
88	PROFILE 36" SEWER-JOINT MEETING	CC-90-285
89	MISCELLANEOUS DETAILS - JOINT MEETING	CC-90-286
90	SEWER JOINT ON MANHOLE 8	CC-90-287
91	SEWER JOINT ON MANHOLE 9	CC-90-288
92	SEWER JOINT ON MANHOLE 10	CC-90-289
93	MISCELLANEOUS DETAILS NO. 1	CC-90-290
94	MISCELLANEOUS DETAILS NO. 2	CC-90-291
95	MISCELLANEOUS DETAILS NO. 3	CC-90-292
96	MISCELLANEOUS DETAILS NO. 4	CC-90-293
97	SEWER STRUCTURE DETAILS	CC-90-294
98	FLUME STRUCTURE DETAILS	CC-90-295
99	RETAINING WALL AND ABUTMENT DETAILS	CC-90-296
100	FOOT BRIDGE	CC-90-297
101	FOOT BRIDGE DETAILS	CC-90-298
102	SUPPLY YARD BRIDGES	CC-90-299
103	PIVOTING DETAILS	CC-90-300
104	PLAN OF COVERED FLUME	CC-90-301
105	COVERED FLUME DETAILS	CC-90-302
106	BEAUFIFICATION STA. 85+400 TO STA. 80+75	CC-90-303
107	BEAUFIFICATION STA. 80+75 TO STA. 75+34	CC-90-304
108	BEAUFIFICATION STA. 75+34 TO STA. 68+15	CC-90-305
109	BEAUFIFICATION STA. 68+15 TO STA. 58+75	CC-90-306
110	BEAUFIFICATION STA. 58+75 TO STA. 51+86	CC-90-307
111	BEAUFIFICATION STA. 51+86 TO STA. 44+20	CC-90-308
112	BEAUFIFICATION STA. 44+20 TO STA. 38+56	CC-90-309
113	BEAUFIFICATION STA. 38+56 TO STA. 28+84	CC-90-310
114	BEAUFIFICATION STA. 28+84 TO STA. 21+77	CC-90-311
115	BEAUFIFICATION STA. 21+77 TO STA. 14+28	CC-90-312
116	BEAUFIFICATION STA. 14+28 TO STA. 7+00	CC-90-313
117	WATER MAIN RELOCATIONS NO. 4	CC-90-314
118	WATER MAIN RELOCATIONS NO. 5	CC-90-315
119	WATER MAIN RELOCATIONS NO. 6	CC-90-316
120	THIRD STREET BRIDGE-GENERAL PLAN	CC-90-317
121	THIRD STREET BRIDGE-FRAMING PLAN AND DETAILS	CC-90-318
122	THIRD STREET BRIDGE-DECK PLAN AND DETAILS	CC-90-319
123	SOUTH ORANGE AVE BRIDGE-GENERAL PLAN	CC-90-320
124	SOUTH ORANGE AVE BRIDGE-FRAMING PLAN AND DETAILS	CC-90-321
125	SOUTH ORANGE AVE BRIDGE-DECK PLAN AND DETAILS	CC-90-322
126	SOUTH ORANGE AVE BRIDGE-CONNECTIBILITY SUPPLEMENTALS	CC-90-323
127	SEWER SIPHON, STA. 461+41 AND SEWER, STA. 40+77	CC-90-324
128	MEAD STREET BRIDGE-GENERAL PLAN	CC-90-325
129	MEAD STREET BRIDGE-FRAMING PLAN AND DETAILS	CC-90-326
130	MEAD STREET BRIDGE-DECK PLAN AND DETAILS	CC-90-327
131	MEADOWBROOK PLACE BRIDGE-GENERAL PLAN	CC-90-328
132	MEADOWBROOK PLACE BRIDGE-FRAMING PLAN AND DETAILS	CC-90-329
133	MEADOWBROOK PLACE BRIDGE-DECK PLAN AND DETAILS	CC-90-330
134	MOUNTAIN HOUSE ROAD BRIDGE-GENERAL PLAN	CC-90-331
135	MOUNTAIN HOUSE ROAD BRIDGE-FRAMING PLAN AND DETAILS	CC-90-332
136	MOUNTAIN HOUSE ROAD BRIDGE-DECK PLAN AND DETAILS	CC-90-333
137	MONTROSE AVE BRIDGE-GENERAL PLAN	CC-90-334
138	MONTROSE AVE BRIDGE-FRAMING PLAN AND DETAILS	CC-90-335
139	MONTROSE AVE BRIDGE-DECK PLAN AND DETAILS	CC-90-336
140	WALKING DETAILS	CC-90-337
141	UTILITY SUPPORT DETAILS	CC-90-338
142	PERMANENT SIGN LETTERING	CC-90-339

SHEET	TITLE	DWG. NO.
108	BEAUFIFICATION STA. 75+34 TO STA. 68+15	CC-90-305
109	BEAUFIFICATION STA. 68+15 TO STA. 58+75	CC-90-306
110	BEAUFIFICATION STA. 58+75 TO STA. 51+86	CC-90-307
111	BEAUFIFICATION STA. 51+86 TO STA. 44+20	CC-90-308
112	BEAUFIFICATION STA. 44+20 TO STA. 38+56	CC-90-309
113	BEAUFIFICATION STA. 38+56 TO STA. 28+84	CC-90-310
114	BEAUFIFICATION STA. 28+84 TO STA. 21+77	CC-90-311
115	BEAUFIFICATION STA. 21+77 TO STA. 14+28	CC-90-312
116	BEAUFIFICATION STA. 14+28 TO STA. 7+00	CC-90-313
117	WATER MAIN RELOCATIONS NO. 4	CC-90-314
118	WATER MAIN RELOCATIONS NO. 5	CC-90-315
119	WATER MAIN RELOCATIONS NO. 6	CC-90-316
120	THIRD STREET BRIDGE-GENERAL PLAN	CC-90-317
121	THIRD STREET BRIDGE-FRAMING PLAN AND DETAILS	CC-90-318
122	THIRD STREET BRIDGE-DECK PLAN AND DETAILS	CC-90-319
123	SOUTH ORANGE AVE BRIDGE-GENERAL PLAN	CC-90-320
124	SOUTH ORANGE AVE BRIDGE-FRAMING PLAN AND DETAILS	CC-90-321
125	SOUTH ORANGE AVE BRIDGE-DECK PLAN AND DETAILS	CC-90-322
126	SOUTH ORANGE AVE BRIDGE-CONNECTIBILITY SUPPLEMENTALS	CC-90-323
127	SEWER SIPHON, STA. 461+41 AND SEWER, STA. 40+77	CC-90-324
128	MEAD STREET BRIDGE-GENERAL PLAN	CC-90-325
129	MEAD STREET BRIDGE-FRAMING PLAN AND DETAILS	CC-90-326
130	MEAD STREET BRIDGE-DECK PLAN AND DETAILS	CC-90-327
131	MEADOWBROOK PLACE BRIDGE-GENERAL PLAN	CC-90-328
132	MEADOWBROOK PLACE BRIDGE-FRAMING PLAN AND DETAILS	CC-90-329
133	MEADOWBROOK PLACE BRIDGE-DECK PLAN AND DETAILS	CC-90-330
134	MOUNTAIN HOUSE ROAD BRIDGE-GENERAL PLAN	CC-90-331
135	MOUNTAIN HOUSE ROAD BRIDGE-FRAMING PLAN AND DETAILS	CC-90-332
136	MOUNTAIN HOUSE ROAD BRIDGE-DECK PLAN AND DETAILS	CC-90-333
137	MONTROSE AVE BRIDGE-GENERAL PLAN	CC-90-334
138	MONTROSE AVE BRIDGE-FRAMING PLAN AND DETAILS	CC-90-335
139	MONTROSE AVE BRIDGE-DECK PLAN AND DETAILS	CC-90-336
140	WALKING DETAILS	CC-90-337
141	UTILITY SUPPORT DETAILS	CC-90-338
142	PERMANENT SIGN LETTERING	CC-90-339

SHEET	TITLE	FILE NO.
1	TOPOGRAPHIC MAP	CC-90-371
2	TOPOGRAPHIC MAP	CC-90-372
3	TOPOGRAPHIC MAP	CC-90-373
4	TOPOGRAPHIC MAP	CC-90-374
5	TOPOGRAPHIC MAP	CC-90-375
6	TOPOGRAPHIC MAP	CC-90-376
7	TOPOGRAPHIC MAP	CC-90-377
8	TOPOGRAPHIC MAP	CC-90-378
9	TOPOGRAPHIC MAP	CC-90-379
10	TOPOGRAPHIC MAP	CC-90-380
11	TOPOGRAPHIC MAP	CC-90-381
12	TOPOGRAPHIC MAP	CC-90-382
13	TOPOGRAPHIC MAP	CC-90-383
14	TOPOGRAPHIC MAP	CC-90-384
15	SPILL AREA (SEE PARAGRAPH 17 OF 1.1.1.1.1.1)	CC-90-385
16	SPILL AREA (SEE PARAGRAPH 18 OF 1.1.1.1.1.1)	CC-90-386

NOTES:
FOR GENERAL NOTES SEE SHEET 4

RECORD DRAWING OF WORKS-BUILT

EAST BRANCH OF RAYWAY RIVER
SOUTH ORANGE FLOOD CONTROL PROJECT

LOCATION PLAN AND INDEX

DATE: 10/20/2008

DRAWING NUMBER: CC-90-202

Outfall Pipe Mapping