

OPERATION & MAINTENANCE MANUAL
FOR
STORMWATER MANAGEMENT FACILITIES

PRELIMINARY & FINAL SITE PLAN

Block 622 Lot 2

City of Plainfield

Union County, New Jersey

March 27, 2020

Prepared by EKA Associates, P.A.

328 Park Avenue

Scotch Plains NJ 07076

908 322 2030

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INTRODUCTION & OPERATION DATA

The subject of this narrative is a 0.92 acre site located at 1008-1014 South Avenue in the City of Plainfield, Union County, New Jersey. The site is designated as Tax Lot 2 Block 622 in the City's TODN/TSC/PO2 Zones.

The development plan proposes to construct a new 10,205 square foot 5-story multi-family building with retail space and garage parking on the ground floor fronting on South Avenue. In addition to the garage parking, a surface parking lot will be constructed at the rear of the new building with access from South Avenue.

On-site stormwater management facilities include a new underground detention basin located in the driveway and a series of catch basins located throughout the parking lot and the parking garage which convey all stormwater runoff to the detention basin. An outlet control manhole is also located in the driveway immediately downstream of the detention basin. The attenuated discharge from the outlet control structure flows off-site through underground pipe conveyance to a curb inlet located in South Avenue.

All onsite stormwater facilities and conveyance are highlighted on the Stormwater Facilities Location Plan (See Figure 1). This report has been written pursuant to N.J.A.C. 7:8-5.8 Stormwater Management Maintenance Requirements.

OWNERSHIP AND MAINTENANCE RESPONSIBILITY

The following parties shall be responsible for the construction and maintenance of the proposed stormwater management facilities:

**1014 South Avenue LLC
PO Box 702
Perth Amboy, NJ 08862
Phone: 732-826-4084**

INSPECTION & MAINTENANCE

The responsible party will have the obligation to inspect and maintain the Stormwater Management Facilities as described below. The inspections and maintenance shall be performed by an authorized representative of the responsible party. It will be the responsibility of this person to complete the Annual Report Form (See Appendix A) and provide copies to the City Engineer in an interval to be determined by the City but no less frequent than yearly. In addition, copies of the Annual Report Form shall be available along with copies of the as-built construction plan upon request to any public entity with administrative, environmental, or safety authority over the site.

This section of the report has been broken down into the various components of the Stormwater Management Facilities and the maintenance and inspection required for them. A Maintenance Checklist (Figure 2) has been created for this project and can be used as an aid in determining

when the inspections should take place and which tasks to perform. It should also be used by the responsible party in charge during the actual inspection so that the items can be marked off after each component has been inspected.

Storm Sewer Conveyance System

The storm sewer conveyance inspection is meant to intercept any debris or objects that may clog or impede the flow of stormwater into or through the inlets. Special attention should be given to the structures in the fall after the leaves have fallen from the trees. The inlet grates should be kept clean of any leaves as they can cause clogging and prevent the runoff from entering into the system. The inlets should be inspected for accumulation of debris inside that may cause standing water. All such debris/sediment shall be cleaned out. All inlets are to be inspected for cracking, subsidence, spalling, erosion and deterioration at least annually.

Attention should be given to the inlet casings to make sure they are firmly secured. Should any inlet casings become dislodged by vehicles, they shall be reset at once.

The proposed pipes should be inspected to identify any clogs or debris that would prevent the runoff from flowing through the system. Any access to confined spaces such as inlets and pipes themselves should be done by licenses professionals trained to work in confined spaces should the need arise to perform any work in those places.

The chart below lists the tasks required and the interval when they should be performed.

| Storm Sewer Maintenance Chart | | |
|--------------------------------------|----------------|---|
| Inspection Item | Task Interval* | Date to Perform |
| Inspect Inlets and Pipes | Quarterly | Nov 1 st , Feb 1 st , May 1 st , Aug 1 st |

*The recommended task schedule should be adjusted to include inspections following storm events of more than 1".

Underground Cultec 280HD Recharger Detention Basin

The detention basin comprises three rows of Cultec 280HD Recharger units installed within a stone filled trench designed in conjunction with an outlet control structure to meter the discharge from the basin prior to leaving the site. The system is designed to fully evacuate all runoff and replenish its full storage volume within approximately 2 hours. The system may be inspected and maintained from cleanouts at all four corners of the basin located at grade within the pavement area. The system should be inspected for accumulation of debris or silt that may cause standing water. All such debris or silt shall be cleaned out immediately.

| Detention Basin Maintenance Chart | | |
|--|----------------|---|
| Inspection Item | Task Interval* | Date to Perform |
| Inspect Basin | Semi Annually | May 1 st , Nov 1 st |

*The recommended task schedule should be adjusted to include inspections following storm events of more than 1".

EQUIPMENT AND MATERIALS

The following is a list of maintenance equipment and materials that would be required for the general maintenance of the Stormwater Management Facilities. It will be at the discretion of the responsible party whether to perform the work themselves or hire a landscape and/or maintenance service to maintain the Stormwater Facilities. Should the responsible party choose to hire a service to maintain the Stormwater Facilities, the responsibility of inspecting the facilities per the above report will still be the job of the responsible party. The following is a list of general maintenance equipment and materials for the various Stormwater Components and what equipment may be needed to maintain them. The equipment may be rented for a particular task or stored on-site as part of the maintenance program. Disposal of debris, trash, sediment, and other waste material should be done at suitable disposal and recycling sites and should be done in compliance with local, state and federal waste regulations.

1. Debris, Trash, and Sediment Removal Equipment
 - a) Stadia Rod
 - b) Vacuum Truck
 - c) Pump for Dewatering
 - d) Mechanical Snake
2. Miscellaneous
 - a) Shovels
 - b) Rakes
 - e) Gloves

The above list is comprised of equipment that will be required for general maintenance tasks. It is not the responsibility of the property owner to have all the equipment listed above stored on-site at all times but should have readily available access to it for maintenance purposes.

COST ESTIMATE

The cost associated with the above outlined inspection and maintenance program will vary depending on the number of components that will require of maintenance from year to year. In general, a yearly maintenance contract can be obtained from a landscape contractor for approximately \$1,500.00 per year, exclusive of large scale repairs brought on by an extreme weather event.

REFERENCES

1. Stormwater Management Report, dated November 4, 2019 and revised through March 27, 2020, prepared by EKA Associates, P.A.
2. Preliminary & Final Site Plan, dated February 11, 2019 and revised through March 27, 2020, prepared by EKA Associates, P.A.
3. New Jersey Stormwater Best Management Practices Manual dated April 2004 revised September 2017, New Jersey Division of Watershed Management

Appendix A

Stormwater Management Facilities Annual Report Form

Check All That Apply

Date _____

- ☐ All Maintenance has been accomplished for this period according to the Maintenance Manual and as per plans.
- ☐ Copy of the Stormwater Management Maintenance Checklist is attached.

Exceptions and Notes:

Signed _____ Date _____

Print Name

Phone Number

- STORM STRUCTURES
- UNDERGROUND DETENTION BASIN
- STORM SEWER CONVEYANCE SYSTEM

WOODLAND AVENUE
(50' RIGHT OF WAY)

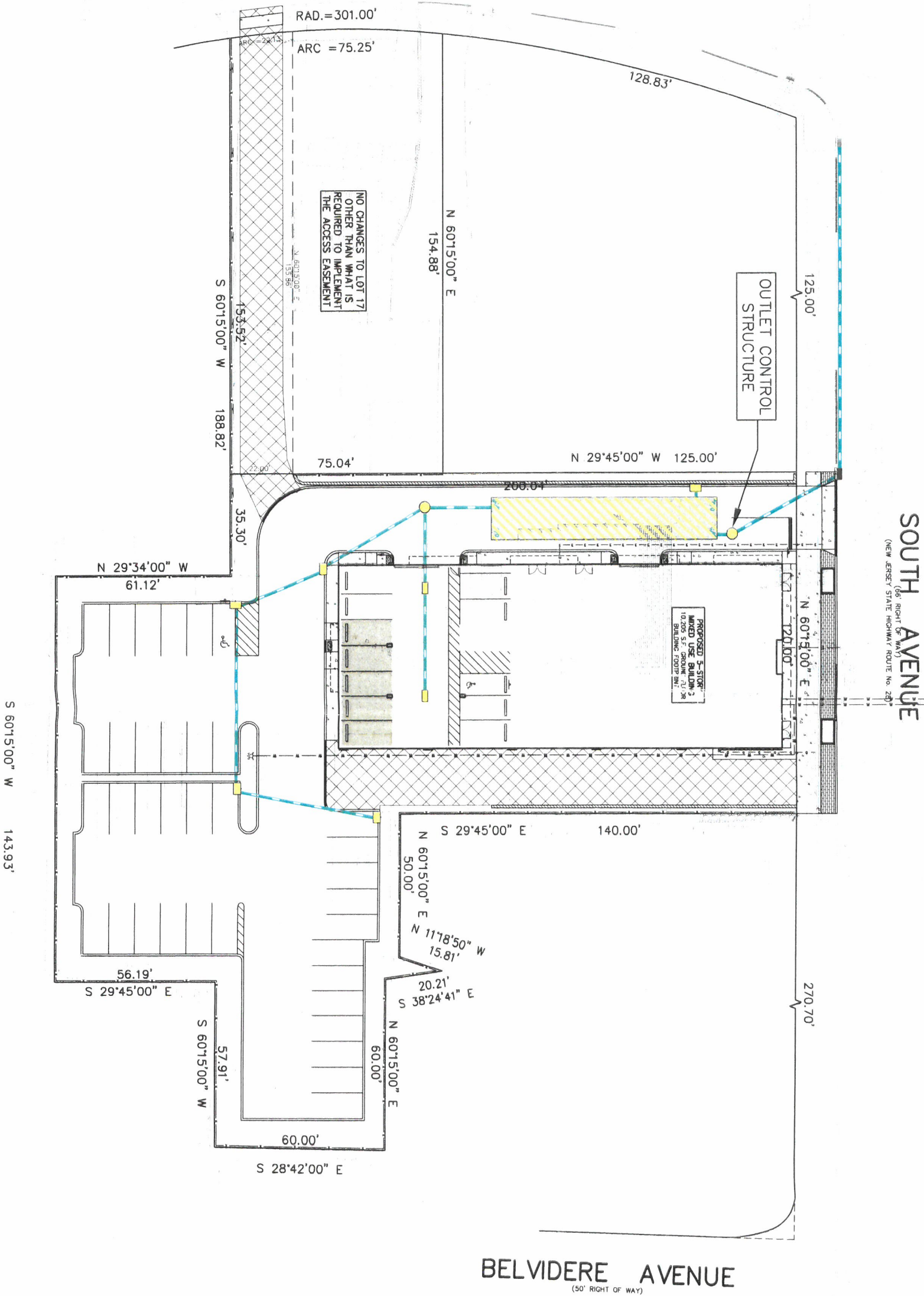
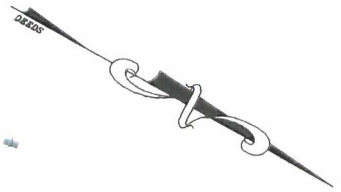


FIGURE 1 — STORMWATER FACILITIES LOCATION PLAN
TAX LOT 2 BLOCK 622
CITY OF PLAINFIELD, UNION COUNTY, NEW JERSEY

EKA ASSOCIATES, P.A.
Engineers • Surveyors • Planners
328 Park Avenue, Scotch Plains, N.J. 07076
908-322-2030

Job No. 845985

Date 3/27/2020

Scale 1"=40'

Drawn SK

Map No.

Sheet 1 of 1

MAINTENANCE CHECKLIST

| COMPONENT | JANUARY | | | | FEBRUARY | | | | MARCH | | | | APRIL | | | | MAY | | | | JUNE | | | | JULY | | | | AUGUST | | | | SEPTEMBER | | | | OCTOBER | | | | NOVEMBER | | | | DECEMBER | | | |
|--|---------|--------|--------|--------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------|--------|--------|---------|--|--|--|----------|--|--|--|----------|--|--|--|
| | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | | | | | | | | | | | | |
| STORM SEWER MAINTENANCE—INSPECT INLETS AND PIPES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| INSPECT UNDERGROUND DETENTION BASIN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTES:

1. HIGHLIGHTED BOX INDICATES TIME FOR TASK TO BE PERFORMED.

2. INSPECTOR SHOULD PLACE A CHECK MARK IN HIGHLIGHTED BOX ONCE THE TASK HAS BEEN COMPLETED.

FIGURE 2 – MAINTENANCE CHECKLIST
TAX LOT 2 BLOCK 622
CITY OF PLAINFIELD, UNION COUNTY, NEW JERSEY

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