



NOTES:

1. 38 ACRE SITE IS A TARGET FOR A RAIN GARDEN PROGRAM. RAIN GARDENS ARE A POWERFUL TOOL IN STORMWATER TREATMENT AND INFILTRATION ON A SITE SPECIFIC SCALE. THIS SITE WAS CHOSEN BECAUSE IT IS SMALL ENOUGH THAT THE PROJECT IS IMPOSSIBLE TO COMPLETE WHILE AT THE SAME TIME LARGE ENOUGH TO HAVE A LARGE IMPACT ON THE WATERSHED THROUGHOUT THE YEAR. THIS PROJECT WAS CONCEIVED WITHOUT ANY TOPOGRAPHY OF THE SITE. THIS IS SIMPLY A CONCEPT PLAN THE DEMONSTRATES THE MAXIMUM POTENTIAL FOR THIS PROGRAM ALONG THE LINES OF GROUNDWATER RECHARGE AND STORMWATER TREATMENT.
2. FOR THE STORMWATER MODEL THE SITE WAS BROKEN INTO 3 DIFFERENT TYPES: ROOFS, ROADS AND LAWNS. THE SURFACE AREAS OF THE ROAD WAS MEASURED OUT FROM AN AERIAL PHOTOGRAPH. THE AREA OF THE HOUSES WAS DETERMINED BY GIVING EACH HOUSE AN AREA OF 3,500 SQ. FT. AND MULTIPLYING THAT BY THE NUMBER FOR HOUSES, 45. THE AREA OF THE LAWNS WAS DETERMINED BY FINDING THE TOTAL AREA OF THE SITE AND SUBTRACTING THE AREA OF THE ROADS AND THE HOUSES.
3. THE RAIN GARDENS IN THIS PROGRAM ARE DESIGNED TO INFILTRATE THE NEW JERSEY WATER QUALITY STORM FOR THE ENTIRE AREA. THE RAIN GARDENS DESIGNED WILL HAVE TO BE A COMBINATION OF RAIN GARDENS FOR COLLECTING RUNOFF FROM LAWNS, ROOFS AND ROADWAYS. FOR EVERY NJ WATER QUALITY STORM THE SITE WILL PRODUCE 271,500 GALLONS OF STORMWATER RUNOFF. 90% OF ALL RAIN EVENTS IN NEW JERSEY ARE LESS THAN OR EQUAL TO THE NJ WATER QUALITY STORM. FOR AN ENTIRE YEAR, THIS RAIN GARDEN PROGRAM WILL INFILTRATE ADDITIONAL 7.5 MILLION GALLONS A YEAR INTO THE GROUNDWATER.
4. THE NEW RAIN GARDENS WILL INFILTRATE RUNOFF FROM IMPERVIOUS SURFACES SUCH AS ROADS AND ROOFS. THE CONTAMINANTS IN THIS RUNOFF IS CALCULATED FROM USING AERIAL LOADING RATES FOR LOW/RURAL RESIDENTIAL LANDUSE. THE EXISTING LOADS FOR PHOSPHORUS, NITROGEN AND TOTAL SUSPENDED SOLIDS ARE 4.5 LBS, 37.5 LBS, AND 750 LBS, RESPECTIVELY. THE RAIN GARDENS WILL REDUCE THE CONTAMINANTS TO THE FOLLOWING LOADING RATES 1.8 LBS, 26.25 LBS, AND 75 LBS, RESPECTIVELY.
5. PRIOR TO IMPLEMENTING THIS PLAN, SOIL TESTING SHOULD BE PERFORMED TO DETERMINE THAT THIS RESIDENTIAL DEVELOP HAS THE MINIMUM REQUIRED INFILTRATION RATE FOR RAIN GARDENS USAGE (0.5 INCHES PER HOUR).



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PROFESSIONAL ENGINEER - NJ LICENSE # 37632

DESIGNED _____ DATE _____
CHECKED _____ APPROVED _____ DATE _____
SPW CCO

MILESTONE 4 OF REGIONAL STORMWATER MANAGEMENT PLAN FOR THE
POMPESTON CREEK
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
COMMERCIAL SITES, MOORESTOWN, NJ
RETROFIT PARKING LOT

RUTGERS
New Jersey Agricultural
Experiment Station
WATER RESOURCES PROGRAM
14 COLLEGE FARM ROAD
NEW BRUNSWICK, NJ 08901

JOB	CONCEPT SHEET #
POMP	3
B/O	TOTAL
3	12

DRAFT