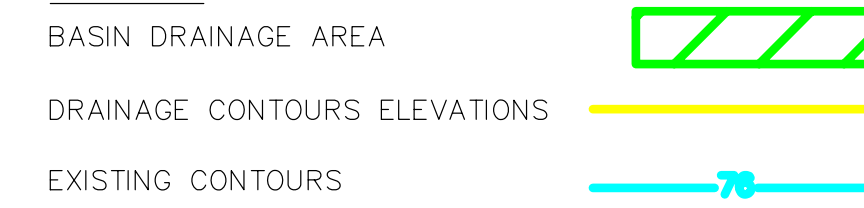




**NOTES:**

1. THE SITE TO THE LEFT IS THE UNION COUNTY VOCATIONAL-TECHNICAL SCHOOL. DURING A SITE VIST, THERE WAS HEAVY EROSION FROM CHANNELIZED RUNOFF IN THE FRONT ISLAND OF THE SCHOOL BETWEEN RARITAN ROAD AND THE PARKING LOT. SEE PICTURES BELOW.
2. A STORMWATER SWALE IS PROPOSED TO STOP THE MASSIVE EROSION FROM THE STORM EVENTS. THE SWALE WILL HAVE AN ELEVATED OUTLET PIPE TO INFILTRATE ANY STORM LESS THAN 3.5 INCHES.
3. THE SWALE IS SIZED TO HANDLE A 100 YEAR STORM (8.7 INCHES)
4. ASSUMING 90% OF ALL STORMS ARE LESS THAN 1.25 INCHES FOR EACH YEAR; THIS SWALE WILL INFILTRATE AT LEAST 9.425 ACRE - FEET PER YEAR. THIS IS AN APPROXIMATE CALCULATION THE AMOUNT OF INFILTRATION IS HEAVILY DEPENDENT ON THE SIZE AND FREQUENCY OF STORMS. THIS INFILTRATES ALL RUNOFF FROM 3.5 " STORMS AND LESS.
5. THIS SWALE SHALL REMOVE 60% OF TSS, 30% OF TOTAL PHOSPHOROUS AND 30% OF TOTAL NITROGEN.
6. AERIAL PHOTOGRAPHY IS FROM NJDEP 2002 AND EXISTING CONTOURS ARE FROM NJ DEMS.
7. THIS IS NOT FOR PERMITTING OR CONSTRUCTION USE, THIS DRAWING IS ONLY TO BE USED FOR CONCEPTUAL PURPOSES.

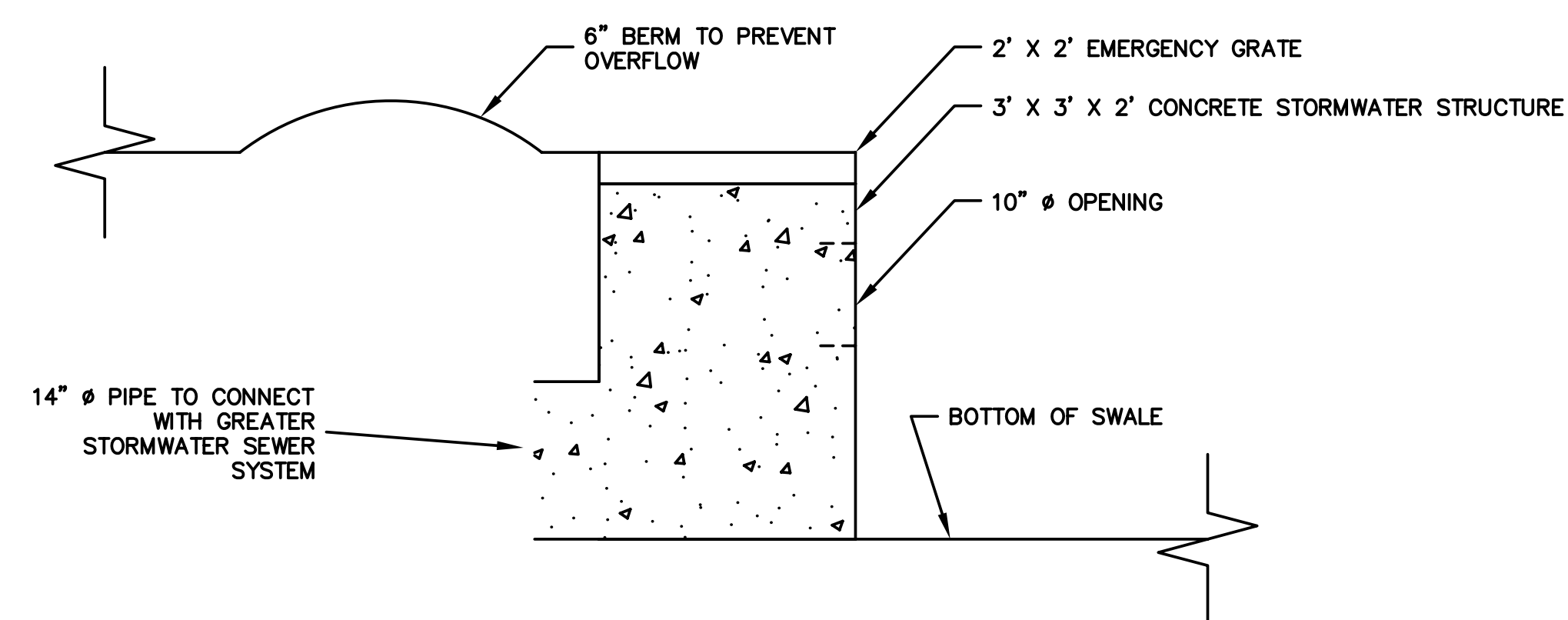
**LEGEND**



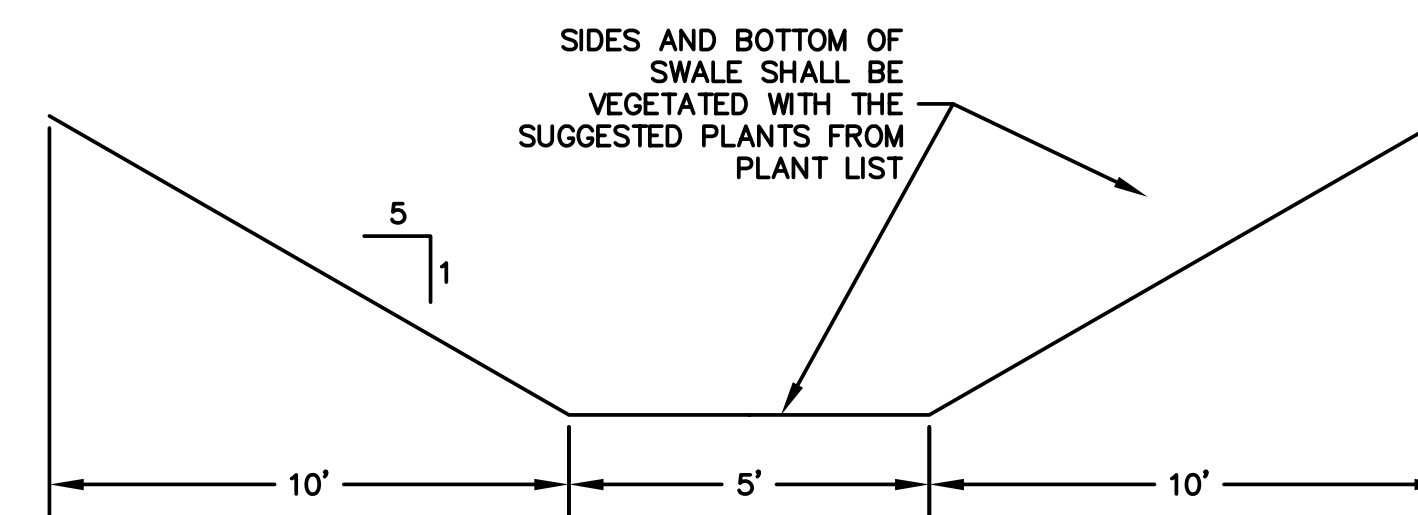
**SUGGEST PLANT LIST**

PLANT NAME	SCIENTIFIC NAME
CARDINAL FLOWER	LOBELIA CARDINALIS
SOFT RUSH	JUNCUS EFFUSUS
FRINGED SEDGE	CAREX CRINITA
TUSSOCK SEDGE	CAREX STRICTA
FOX SEDGE	CAREX VULPINOIDEA
VIRGINIA WILD-RYE	ELYMUS VIRGINICUS
SWITCHGRASS	PANICUM VIRGATUM
WOOL GRASS	SCIRPUS CYPERINUS

VEGETATION FOR THE SIDE SLOPE AND BOTTOM OF THE SWALE SHALL BE SEEDED WITH "RETENTION BASIN FLOOR SEEDING LOW MAINTENANCE GRASS-LIKE SPECIES" FROM ERNST CONSERVATION SEEDS.



**PROFILE OF STORMWATER STRUCTURE AND SWALE**  
(NOT TO SCALE)



**CROSS SECTION OF STORMWATER STRUCTURE AND SWALE**  
(NOT TO SCALE)



**PICTURES OF EXISTING SITE**

CHRISTOPHER C. OBROPTA, Ph.D., P.E.  
PROFESSIONAL ENGINEER - NJ LICENSE # 37632

DESIGNED: **SPW CCO** CHECKED: \_\_\_\_\_ APPROVED: \_\_\_\_\_  
DATE: \_\_\_\_\_ DATE: \_\_\_\_\_

MILESTONE 4 OF REGIONAL STORMWATER MANAGEMENT PLAN FOR THE  
ROBINSON'S BRANCH  
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
UNION COUNTY VOCATIONAL-TECHNICAL SCHOOL  
DEMONSTRATION STORMWATER SWALE

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

JOB	CONCEPT SHEET #
RBRANCH	2
BIO	TOTAL
2	7

**DRAFT**