

NOTES:

1. THE AREA INDICATED ON THE MAP IS SELECTED FOR STREAM BANK AND HABITAT RESTORATION. AS SHOWN IN THE PICTURES BELOW, OVER THE YEARS, THE STREAM BANK HAS ERODED INTO AN UNSTABLE PART OF THE STREAM. THIS CAN BE A SERIOUS HAZARD TO CHILDREN PLAYING IN THIS PARK. THE DROP FROM THE TOP OF THE BANK TO THE STREAM BED IS OVER 3 FEET. THIS PART OF THE STREAM IS LOCATED IN FOUNDATION FARMS PARK, THEREFORE CHILDREN ARE AROUND THIS HAZARD ON A FREQUENT BASIS.
2. THE PROBLEM IS THE ERODED STREAM BANK FOR THIS SECTION OF THE STREAM. IT CAN BE A HAZARD TO PEOPLE WHO MIGHT FALL IN. WHEN A STORM EVENT OCCURS THE STREAM LEVEL RISES AND ERODES THE STREAM BANK EVEN MORE CONTAMINATING THE STREAM WITH HEAVY LEVELS OF TOTALS SUSPENDED SOLIDS. THE GOAL OF THIS RESTORATION TO STABILIZE THE STREAM BANK WHILE CONTINUING TO ALLOW FOR RECREATIONAL FISHING.
3. THE VARIOUS DETAILS BELOW DEMONSTRATE DIFFERENT METHODS THAT COULD BE BUILT TO REPAIR THE ERODED STREAM BANK.
4. THE TWO DETAILS ON THE FAR LEFT THAT INCLUDE ECO-NET STABILIZATION INVOLVE THE STREAM BANK BEING GRADED BACK FROM A NEAR STRAIGHT DROP TO A 2:1 SLOPE. THIS ELIMINATES THE FALL HAZARD FROM THE SITE. AFTER THE SITE IS REGRADED IT IS PLANTED WITH VARIOUS PLANTS MUCH LIKE THE ONES BELOW IN THE SUGGESTED PLANT LIST. THE PLANTS AS THEY GROW WILL HOLD THE SOIL AND VASTLY REDUCE THE AMOUNT OF TOTAL SUSPENDED SOLIDS FROM THAT STREAM BANK.
6. A LIVE TIMBER CRIBWALL COULD ALSO BE CONSTRUCTED. THE SYSTEM WOULD BE FAMILAR TO THAT IN THE DETAIL BELOW. THE STREAM BANK IS REBUILT USING LOGS, WIRE MESH AND LIVE STAKINGS. THE VOIDS BETWEEN THE LOGS ARE FILLED WITH ROCKS AND SOIL. LIVE STAKINGS ARE LIKE PLANTING PARTS OF LIVE PLANTS THAT CAN GROW INTO A NEW PLANT. IT IS CHEAPER THAN BUYING PLANTS AND JUST AS EFFECTIVE FOR CERTAIN PLANTS. AS THE PLANTS GROW THE LOGS DECAY AND THE ROOTS FROM THE NEW PLANTS REPLACE THE LOGS FOR SOIL STABILITY.
7. THE LAST DETAIL ON THE RIGHT IS A KIND OF COMBINATION OF THE OTHER TWO. THE STREAM BANK IS REGRADED BUT NOT AS SHALLOW ECO-NET AND INSTEAD OF JUST VARIOUS AMOUNTS OF PLANTINGS, IT RELIES MORE ON LIVE STAKINGS OF PLANTS.
8. DURING A SITE VISIT, ONE OF THE PIPES PRODDING OUT FROM THE STREAMBANK HAD WATER RUNNING FROM IT AND IT HAD NOT RAINED FOR AT LEAST 3 DAYS. RCE RECOMMENDS INVESTIGATING WHERE THIS WATER IS COMING FROM BEFORE RESTORING THIS STREAM BANK.

SUGGESTED PLANTS

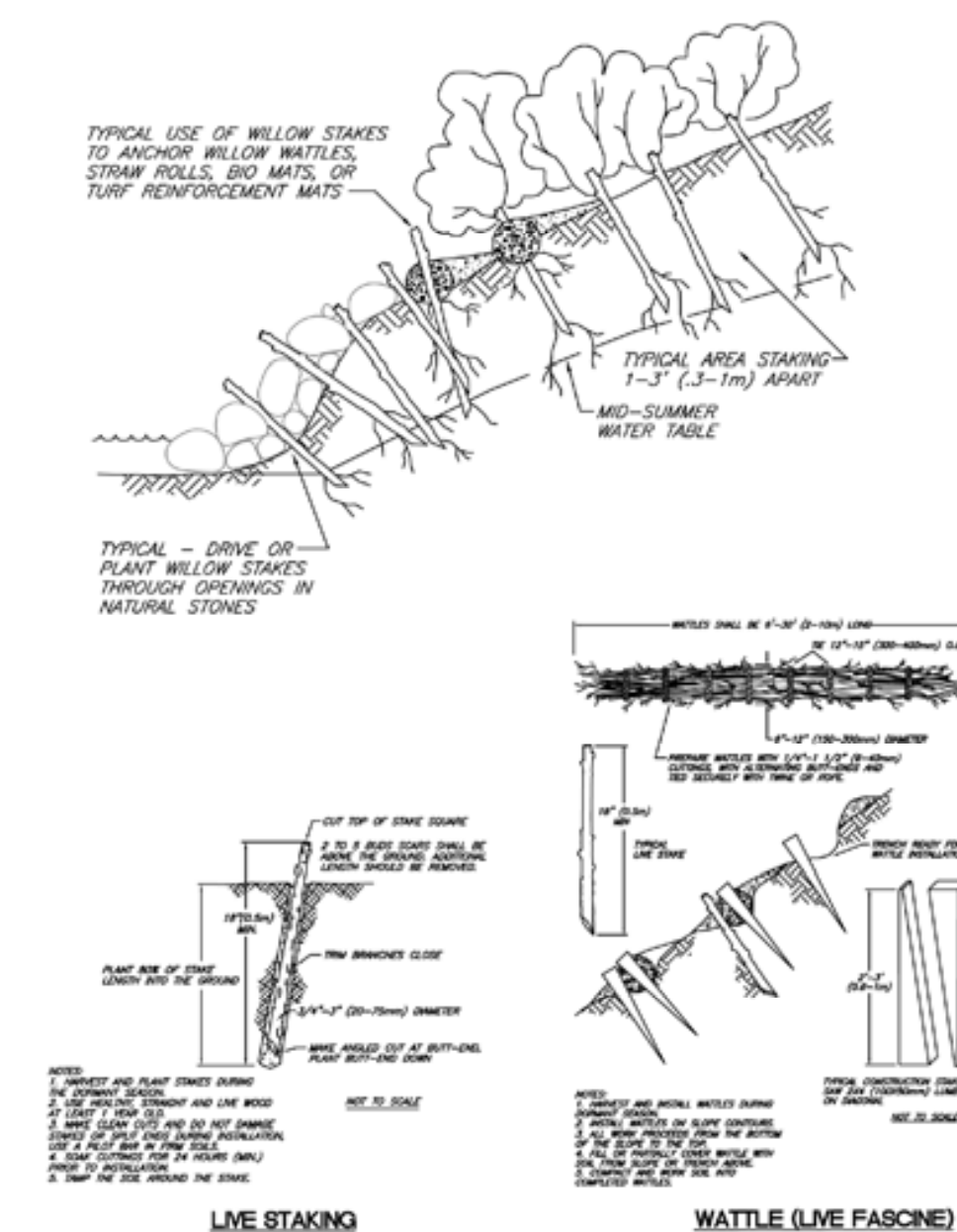
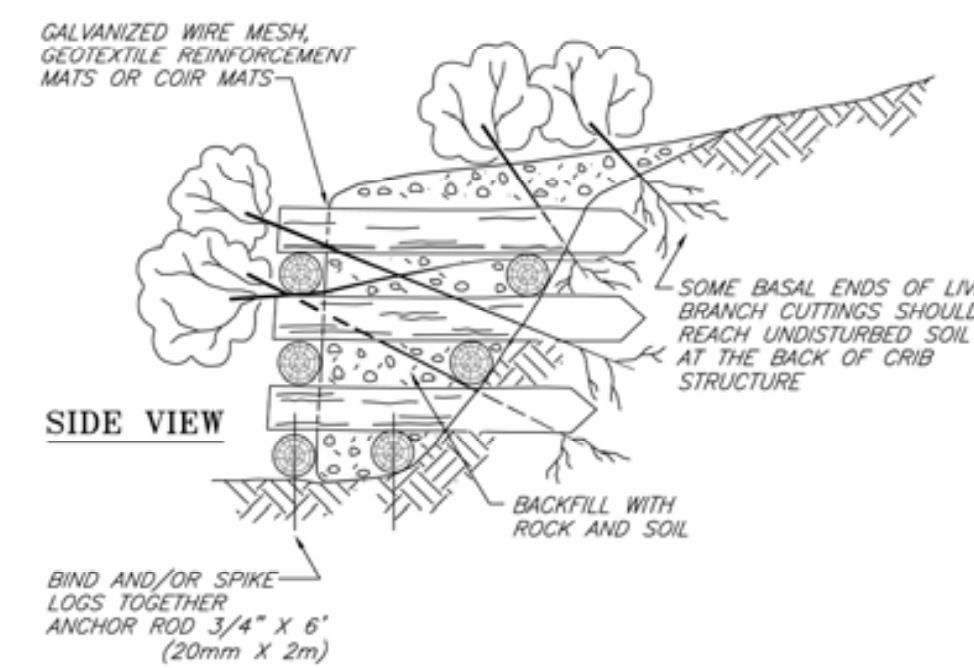
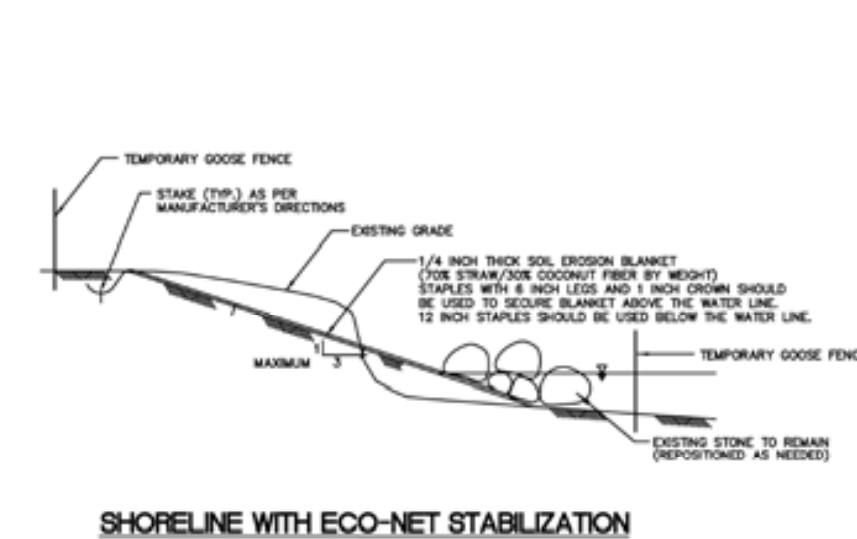
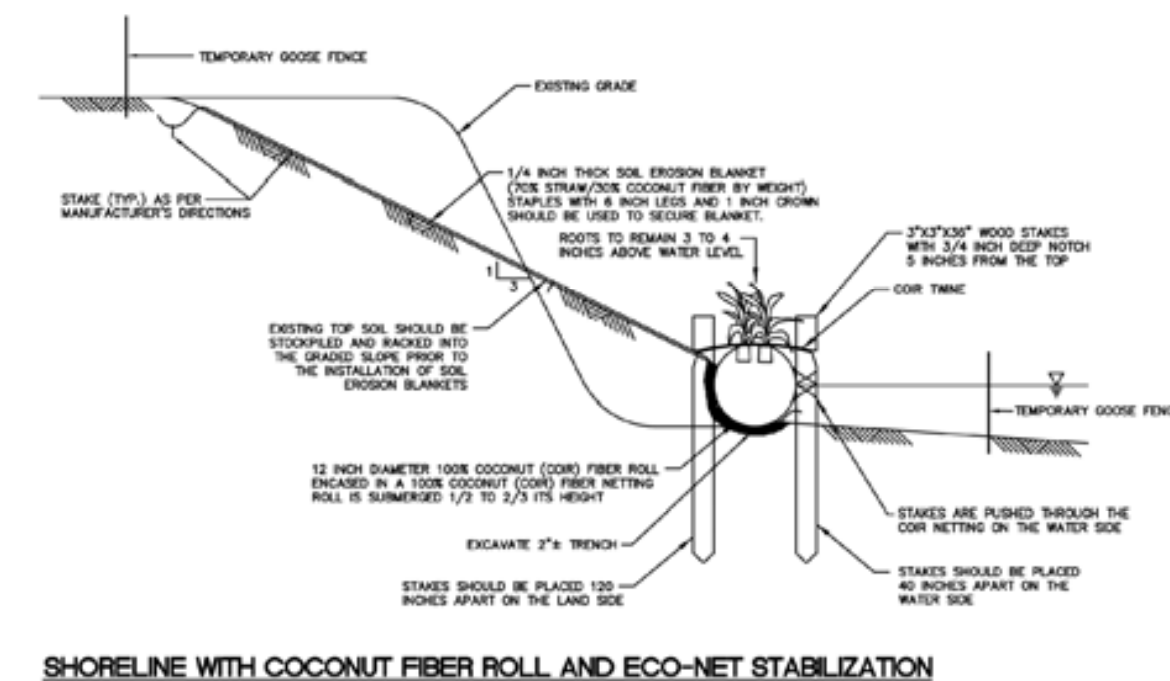
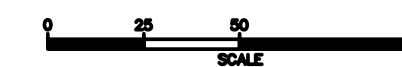
TYPE	COMMON	SCIENTIFIC	DISTANCE FROM WATER
TREE	RED MAPLE	ACE RUBRUM	8 - 20 FT.
TREE	SMOOTH ALDER	ALNUS SERRULATA	8 - 20 FT.
TREE	RIVER BIRCH	BETULA NIGRA	8 - 20 FT.
SHRUB	SPICE BUSH	LINDERA BENZOIN	8 - 20 FT.
SHRUB	ARROWWOOD	VIBURNUM DENTATUM	8 - 20 FT.
SHRUB	SILKY DOGWOOD	CORNUS AMOMUM	2 - 8 FT.
SHRUB	BUTTON BUSH	CEPHALANTHUS OCCIDENTALS	2 - 8 FT.
SHRUB	PUSSY WILLOW	SALIX DISCOLOR	2 - 8 FT.
SHRUB	WINTERBERRY	ILIX VERTICILLATA	2 - 8 FT.
PLANTS	BLUE-FLAG	IRIS VERSICOLOR	0 - 2 FT.
PLANTS	SOFT RUSH	JUNCUS EFFUSUS	0 - 2 FT.
PLANTS	GREAT LOBELIA	LOBELIA SIPHILITICA	0 - 2 FT.
PLANTS	SHALLOW SEDGE	CAREX LURIDA	0 - 2 FT.



PHOTOS OF EXISTING UNSTABLE STREAM BANK

LEGEND

AREA OF RESTORATION



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DESIGNED: SPW CCO  
 CHECKED: CCO  
 APPROVED: CCO

DATE: \_\_\_\_\_

MILESTONE 4 OF REGIONAL STORMWATER MANAGEMENT PLAN FOR THE  
 POMPESTON CREEK  
 NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 FOUNDATION FARMS PARK, CINNAMINSON, NJ  
 STREAM BANK STABILIZATION

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

JOB	CONCEPT SHEET #
POMP	4
BID	TOTAL
4	12

DRAFT