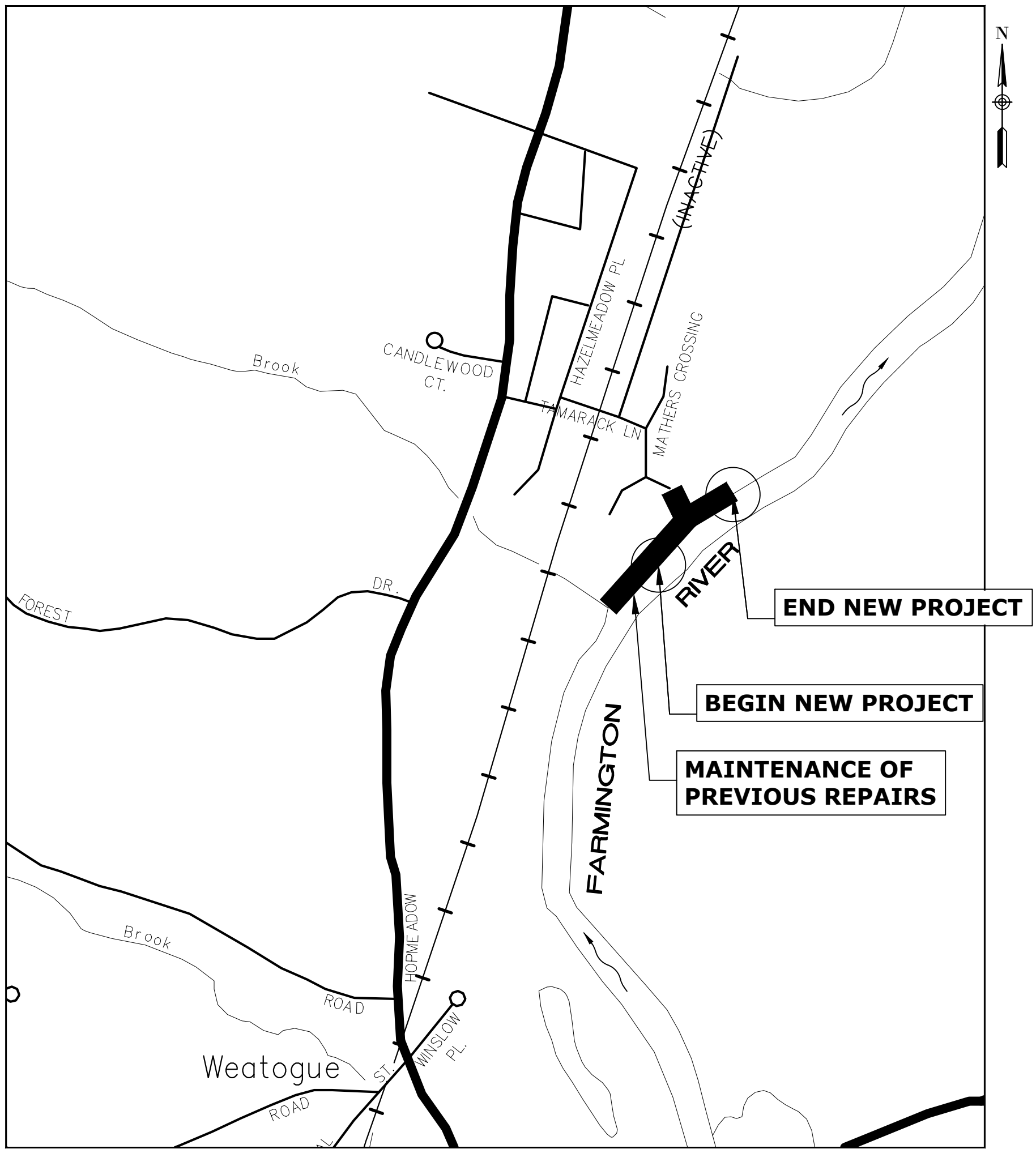


TOWN OF SIMSBURY CONNECTICUT

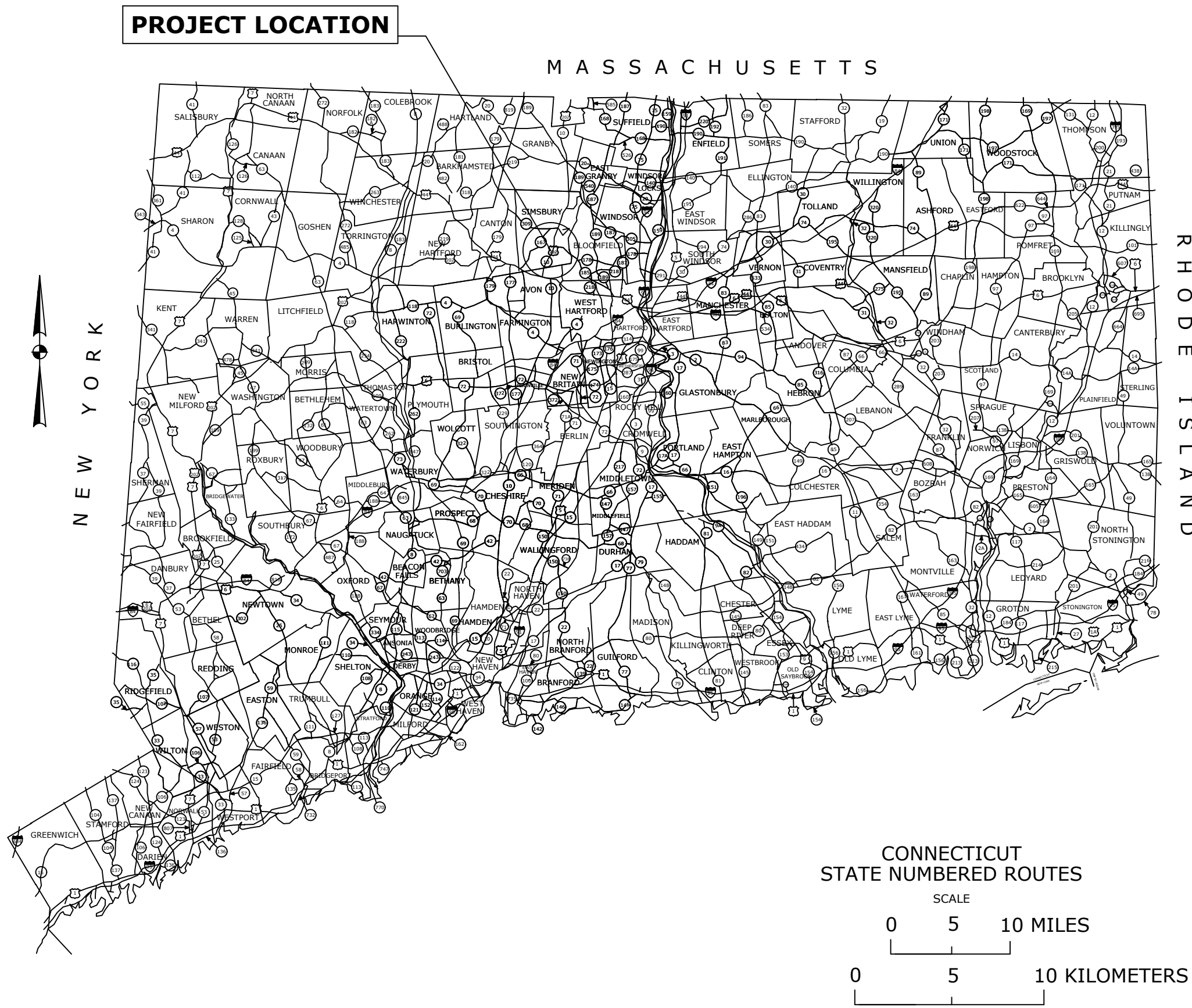
FARMINGTON RIVER BANK STABILIZATION PLAN BEHIND MATHERS CIRCLE

RIVER BANK STABILIZATION
STATION 1+12.00 TO STATION 5+50.00
TO BE MAINTAINED BY THE
SIMSBURY WATER POLLUTION CONTROL
SEPTEMBER 3, 2015

REVISED AUGUST 19, 2016



LOCATION MAP
SCALE: 1" = 500'



TECHNICAL SPECIFICATIONS: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION (FORM 816) AND ALL LATEST SUPPLEMENTAL SPECIFICATIONS THERETO, AS WELL AS THE TOWN OF SIMSBURY PUBLIC IMPROVEMENT SPECIFICATIONS.

SURVEY: ALL COORDINATES ON THE PROJECT ARE BASED ON NAD 83. ALL ELEVATIONS ARE BASED ON NAVD 1988.

CONNECTICUT DEPARTMENT OF TRANSPORTATION OR TOWN OF SIMSBURY BIDDING AND OTHER INFORMATION AND DOCUMENTS WHICH ARE OBTAINED THROUGH THE INTERNET, WORLD WIDE WEB SITES OR OTHER SOURCES ARE NOT TO BE CONSTRUED TO BE OFFICIAL INFORMATION FOR THE PURPOSES OF BIDDING OR CONDUCTING OTHER BUSINESS WITH THE TOWN OF SIMSBURY.

IT IS THE RESPONSIBILITY OF EACH BIDDER AND ALL OTHER INTERESTED PARTIES TO OBTAIN ALL BIDDING RELATED INFORMATION AND DOCUMENTS FROM OFFICIAL SOURCES WITHIN THE TOWN OF SIMSBURY.

PERSONS AND/OR ENTITIES WHICH REPRODUCE AND/OR MAKE SUCH INFORMATION AVAILABLE BY ANY MEANS ARE NOT AUTHORIZED BY THE TOWN OF SIMSBURY TO DO SO AND MAY BE LIABLE FOR CLAIMS RESULTING FROM THE DISSEMINATION OF UNOFFICIAL, INCOMPLETE AND/OR INACCURATE INFORMATION.

LIST OF DRAWINGS	
SHEET NO.	TITLE
1	TITLE SHEET
2	EXISTING CONDITIONS PLAN
3	SITE IMPROVEMENT PLAN
4	TYPICAL RIVER BANK SECTIONS
5	CONSTRUCTION & EROSION CONTROL DETAILS
6	PLANTING PLAN
HW-949_02	PLANTING DETAILS FOR SHRUBS

STANDARD CONVENTIONS	
North Arrow W/No. Coord.	Grid Arrow
Edge Of Road	Limit Of Marsh
Concrete Pavement	Stone Wall
Dirt Road	Ledge Outcrop
B.C.L.C.	Inland Wetland Limits
Concrete Curb	STATE LINE
Guide Rail	Power Line
Concrete Median Barrier	Swamp
Bit. Walk	Building
Conc. Sidewalk	Transmission Tower
Railroad Tracks	Riprap
Chain Link Fence	Hedge Row
Rustic Fence	Tree Line
Pipe Fence	Shrub
Board Fence	Evergreen Tree
Water Edge	Deciduous Tree
Stream	Retaining Wall
Ditch	Highway Line
TOWN LINE	Street Line
Boring Location	Property Line
	Lot Line
	Easement Line

LEGEND:	
○ Iron Pin (Found)	
□ Monument (Found)	
△ Sign	
⊙ Manhole	
▣ 'C' Catch Basin	
■ 'C-L' Catch Basin	
○ Utility Pole	
☆ Light Pole	
○ Metal Post	
⋈ Guy Anchor	
⊗ Water Gate	
⊕ Gas Valve	
⊕ Gas Meter	
⇒ Mail Box	
== == == ==	Underground Piping (San, Stm.)
	U/G Elec. Line
— W —	Water Line
— OH —	Overhead Utilities
— T —	U/G Tele. Line

DESIGNED BY WMC CONSULTING ENGINEERS

SUBMITTED BY _____ DATE _____

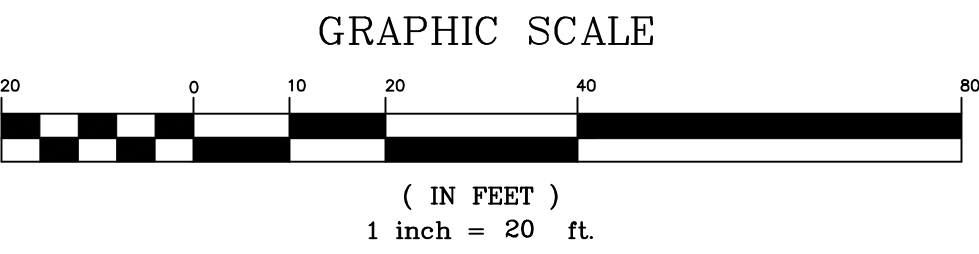
SUPERINTENDENT - WATER POLLUTION CONTROL

ANTHONY PIAZZA
DATE: 05/10/16

"AS-BUILT MAP OF EXCLUSIVE USE AREAS FOR HAZELMEADOW PLACE
IV SIMSBURY, CONNECTICUT" 1"=20' OCTOBER, 1979

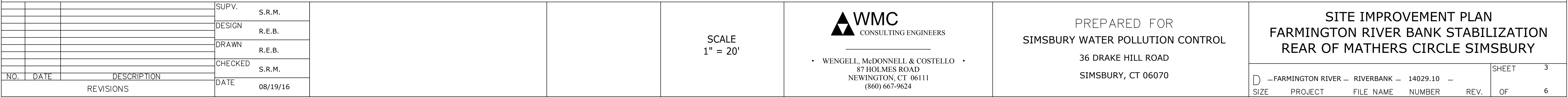
MCKENZIE CAROL A
1 MATHERS CROSSING
BATCHELDER SARNA JACKSON
10 MATHERS CROSSING
CLOUTIER NICOLE C AND COLLINS
11 MATHERS CROSSING
POMPA MICHAEL A
12 MATHERS CROSSING
HURLBUT CAROL E
2 MATHERS CROSSING
OZMEK JENNIFER A
3 MATHERS CROSSING
RAMESH VENKATKRISHNAN
4 MATHERS CROSSING
SCANLON CHARLES F AND PATRICIA A
5 MATHERS CROSSING
SANSONE EDWARD J
6 MATHERS CROSSING
HICKEY MARTHA J
7 MATHERS CROSSING
GREENE MARK A AND CARRIE A
8 MATHERS CROSSING
SPINA DEBORAH H
9 MATHERS CROSSING

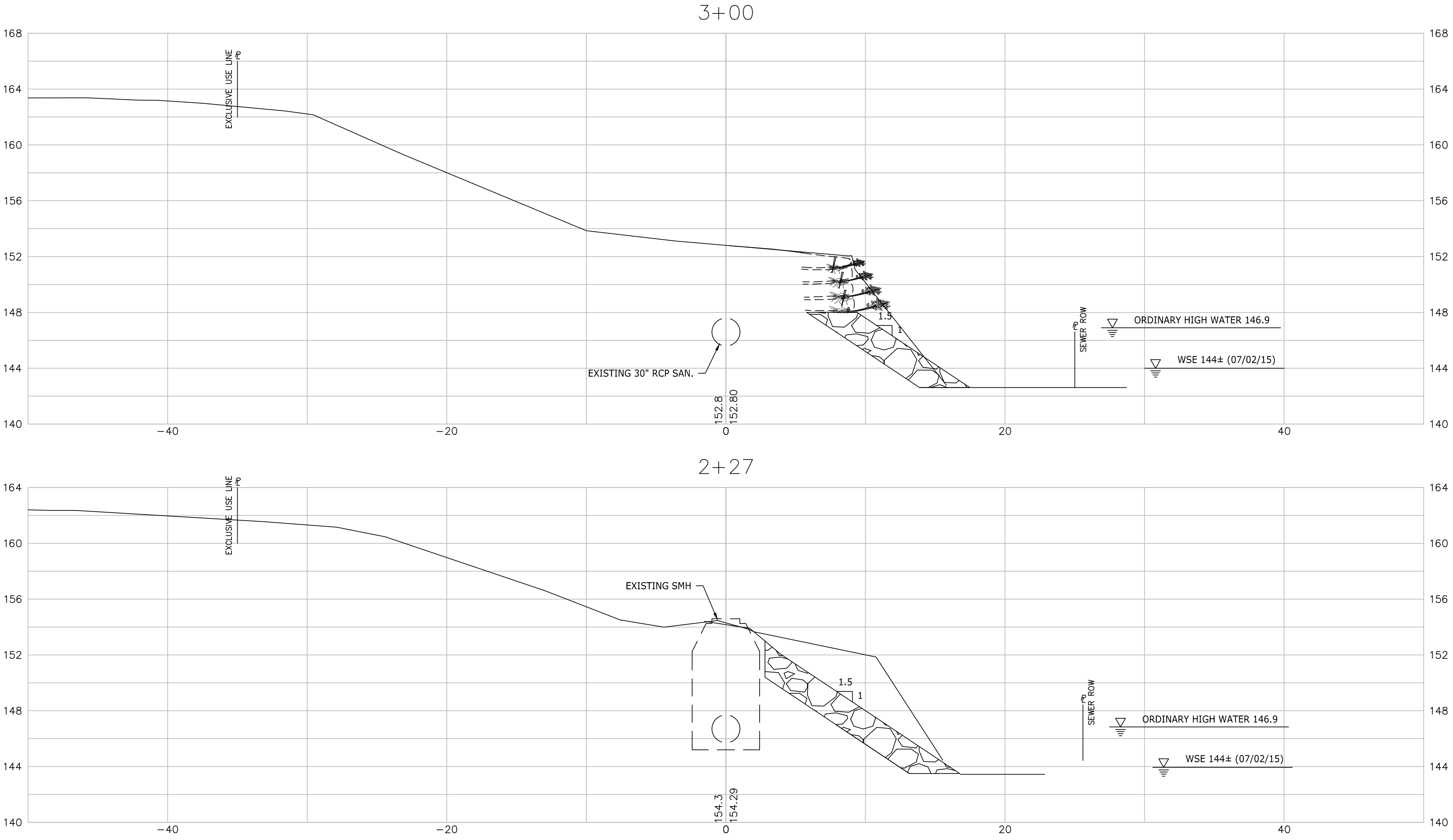
#1 DAVID PERIEAULT
#2 PAMELA SIMMONS
#3 DEBORAH MCDONALD
#4 MICHELLE FRADETTE
#5 CYNTHIA KAUFMANN
#6 PETER JENKELUNAS



			SUPV.	S.R.M.					 WMC CONSULTING ENGINEERS	PREPARED FOR SIMSBURY WATER POLLUTION CONTROL 36 DRAKE HILL ROAD SIMSBURY, CT 06070	EXISTING CONDITIONS PLAN FARMINGTON RIVER BANK STABILIZATION REAR OF MATHERS CIRCLE SIMSBURY				
			DESIGN	R.E.B.											
			DRAWN	R.E.B.											
			CHECKED	S.R.M.											
NO.	DATE	DESCRIPTION	DATE	08/19/16											
REVISIONS											D — FARMINGTON RIVER — RIVERBANK — 14029.10 — SIZE PROJECT FILE NAME NUMBER REV. OF 6				

1. WMC CONSULTING ENGINEERS, INC. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
2. ALL EXISTING UTILITIES, LOCATIONS, DIMENSIONS AND ELEVATIONS FROM BEST INFORMATION AVAILABLE, SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY FOR DETERMINATION.
3. EFFLUENT FROM DEWATERED WORK AREA(S) SHOULD NOT BE DISCHARGED DIRECTLY TO THE RIVER BUT MUST BE PROCESSED THROUGH TREATMENT STRUCTURE(S). SUCH STRUCTURE(S) SHOULD NOT BE LOCATED WITHIN THE RIVER CHANNEL OR ADJACENT WETLANDS.
4. ALL APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE ESTABLISHED PRIOR TO AND MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.
5. INLAND WETLANDS AS FLAGGED BY SOIL SCIENCE AND ENVIRONMENTAL SERVICES (SSES).
6. THE BURIAL OF STUMPS IS PROHIBITED ONSITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY HAUL AND DISPOSE OF STUMPS OFFSITE TO AN APPROVED LOCATION.
7. ORDINARY HIGH WATER (OHW) = ELEVATION 146.9





			SUPV.	S.R.M.
			DESIGN	R.E.B.
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			CHECKED	S.R.M.
NO.	DATE	DESCRIPTION	DATE	08/19/16
REVISIONS				

SCALE
1" = 5'

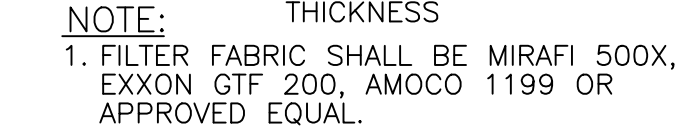
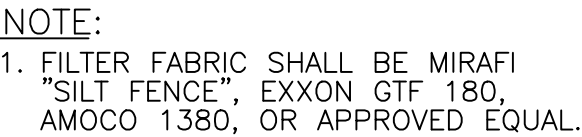


PREPARED FOR
SIMSBURY WATER POLLUTION CONTROL
36 DRAKE HILL ROAD
SIMSBURY, CT 06070

TYPICAL RIVERBANK SECTIONS
FARMINGTON RIVER BANK STABILIZATION
REAR OF MATHERS CIRCLE SIMSBURY

D — FARMINGTON RIVER — RIVERBANK — 14029.10 —					SHEET	4
SIZE	PROJECT	FILE NAME	NUMBER	REV.	OF	6

1. THE BRUSH MATTRESS SHALL CONSIST OF APPROXIMATELY EQUAL PARTS CORNUS AMOMUM (SILKY DOGWOOD) AND CORNUS SERICEA (RED-OSIER DOGWOOD). CUTTINGS ARE TO BE ± 3 FEET LONG.
2. CUTTINGS ARE TO BE PLACED IN A SINGLE LAYER BEFORE EACH LIFT OF VEGETATIVE GEOGRID IS INSTALLED.
3. THE CUTTINGS ARE TO BE PLACED WITH 6-9 INCHES OF REVEAL BEYOND THE FACE OF THE VEGETATIVE GEOGRID LIFT ABOVE THE BRUSH MATTRESS LAYER.
4. CARE IS TO BE TAKEN THAT THE BRUSH MATTRESS LAYERS ARE NOT BROKEN AS WORK ADVANCES.



THIS PLAN PROPOSES EROSION CONTROL MEASURES TO HELP CONTROL ACCELERATED EROSION AND SEDIMENTATION AND REDUCE THE DANGER FROM STORM WATER RUNOFF AT THE SITE. THE RUNOFF SHALL BE CONTROLLED BY THE INTERCEPTION, DIVERSION, AND SAFE DISPOSAL OF PRECIPITATION. RUNOFF SHALL ALSO BE CONTROLLED BY STAGING CONSTRUCTION ACTIVITY AND PRESERVING NATURAL VEGETATION WHENEVER POSSIBLE. EXISTING VEGETATION SHALL BE PROTECTED AND ONLY THAT CLEARING AND GRUBBING ABSOLUTELY NECESSARY FOR THE PROPOSED CONSTRUCTION SHALL BE PERFORMED. ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND CONTOUR, UNLESS OTHERWISE INDICATED ON THE PLANS. THE CONTRACTOR SHALL TAKE SPECIAL CARE WITH HIS CONSTRUCTION METHODS AND SHALL COMPLY WITH THE FOLLOWING GUIDELINES. REFERENCE IS MADE TO THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" (2002), AS AMENDED. THE GUIDELINES ARE OBTAINABLE FROM THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION, 79 ELM STREET, HARTFORD, CONNECTICUT 06106, AND SHOULD BE USED AS A REFERENCE IN CONSTRUCTING THE EROSION AND SEDIMENTATION CONTROLS INDICATED ON THESE PLANS. AN ADDITIONAL REFERENCE IS THE 1994 CONNDOT PUBLICATION "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

ALL AREAS SHALL BE PROTECTED FROM EROSION DURING AND AFTER CONSTRUCTION, PARTICULARLY THE STORAGE OF EXCAVATED OR STOCKPILED MATERIAL. THE CONTRACTOR SHALL CAREFULLY STRIP ALL TOPSOIL, LOAM, OR ORGANIC MATTER PRIOR TO TRENCHING OR OTHER OPERATIONS AND SHALL STORE THEM SEPARATELY FROM ALL OTHER MATERIALS DURING EXCAVATION. EACH STOCKPILE MUST BE ADEQUATELY RINGED WITH SEDIMENTATION CONTROL SYSTEM (I.E. HAY BALES AND/OR GEOTEXTILE FENCE). DEBRIS AND OTHER WASTE RESULTING FROM EQUIPMENT MAINTENANCE AND CONSTRUCTION WILL NOT BE DISCARDED ON SITE. STABILIZING OF SLOPES SHALL BE DONE IMMEDIATELY AFTER CONSTRUCTION OF SLOPES. SLOPES STEEPER THAN 4:1 SHALL BE PROTECTED WITH EROSION CONTROL MATTING. THIS MATTING IS MANUFACTURED COMBINATIONS OF MULCH AND NETTING AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL OTHER AREAS SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 2 TO 3 TONS PER ACRE. STRAW OR HAY MULCH MUST BE ANCHORED IMMEDIATELY AFTER SPREADING TO PREVENT WINDBLOWING. THE METHODS RECOMMENDED BY THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" SHALL BE USED FOR THE ANCHORING OF MULCH OR NETTING.

AN EROSION AND SEDIMENTATION CONTROL PLAN MUST BE SUBMITTED IN WRITING TO THE ENGINEER AND APPROVED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

SEDIMENTATION CONTROL SYSTEM – THE SEDIMENTATION CONTROL SYSTEM SHALL CONSIST OF A GEOTEXTILE BARRIER FENCE. THE SEDIMENTATION CONTROL SYSTEM SHALL BE INSTALLED IMMEDIATELY AFTER A CUT SLOPE HAS BEEN GRADED, BEFORE A FILL SLOPE HAS BEEN CREATED AND AS INDICATED ON THE PLANS. THE SYSTEM IS DESIGNED TO INTERCEPT SILT AND SEDIMENT BEFORE IT REACHES THE WETLANDS OR WATERCOURSES. DEPOSITS OF SEDIMENT AND SILT ARE TO BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE FENCE. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT ON. THE SEDIMENTATION CONTROL SYSTEM IS TO BE REPLACED AS NECESSARY TO PROVIDE PROPER FILTERING ACTION. THE SYSTEM IS TO REMAIN IN PLACE AND BE MAINTAINED TO INSURE EFFICIENT SILTATION CONTROL UNTIL ALL AREAS ABOVE THE FENCE ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED.

STACKED HAY BALES - HAY OR STRAW BALES USED FOR EROSION CONTROL SHALL BE STACKED AT CATCH BASINS WHERE SEDIMENT MAY ENTER THE CATCH BASIN OR AS DIRECTED BY THE RESIDENT ENGINEER. DEPOSITS OF SEDIMENT AND SILT ARE TO BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE EROSION CHECKS. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT ON. HAY OR STRAW BALES ARE TO BE REPLACED AS NECESSARY TO PROVIDE PROPER FILTERING ACTION. THE SYSTEM IS TO REMAIN IN PLACE AND BE MAINTAINED TO INSURE EFFICIENT SILTATION CONTROL UNTIL ALL AREAS ABOVE THE EROSION CHECKS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED.

IN ALL AREAS, REMOVAL OF TREES, BUSHES, AND OTHER VEGETATION, AND DISTURBANCE OF THE SOIL, IS TO BE KEPT TO AN ABSOLUTE MINIMUM WHILE ALLOWING PROPER DEVELOPMENT OF THE SITE.

DURING CONSTRUCTION, AS SMALL AN AREA OF SOIL AS POSSIBLE SHOULD BE EXPOSED FOR AS SHORT A TIME AS POSSIBLE. AFTER CONSTRUCTION, GRADE, RESPREAD TOPSOIL, AND STABILIZE SOIL BY SEEDING AND MULCHING AS TO PREVENT EROSION.

ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED DURING CONSTRUCTION ON A DAILY BASIS AND FOLLOWING ALL STORMS BY THE RESIDENT ENGINEER. THE CONTRACTOR SHALL MAINTAIN AND MAKE REPAIRS AND REMOVE SEDIMENT AS REQUESTED BY THE RESIDENT ENGINEER. THIS WORK SHALL BE PERFORMED WITHIN 24 HOURS OF THE REQUEST AND THERE SHALL BE NO SEPARATE PAYMENT FOR THIS WORK.

THE CONTRACTOR SHALL CLEAN SEDIMENT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, AND PIPES AT THE COMPLETION OF CONSTRUCTION, AND AS REQUESTED BY THE RESIDENT INSPECTOR TO KEEP THE SYSTEM FUNCTIONING PROPERLY DURING CONSTRUCTION.

FOLLOWING COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REPAIR ALL ERODED AREAS AND ENSURE A GOOD STAND OF TURF IS ESTABLISHED THROUGHOUT. THE CONTRACTOR SHALL REPAIR ALL ERODED OR DISPLACED RIPRAP, AND CLEAN SEDIMENT COVERED STONES.

ALL APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE ESTABLISHED PRIOR TO AND BE MAINTAINED THROUGH ALL CONSTRUCTION PHASES.

ALL DISTURBED AREAS NOT PAVED OR LANDSCAPED SHALL BE LOAMED WITH A 4" MINIMUM OF TOPSOIL, SEED AS INDICATED BELOW. CONDITION SOIL WITH FERTILIZER APPLIED AT THE RATE OF 870 POUNDS PER ACRE OR 20 POUNDS PER 1,000 SQ. FT. USING 10-10-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS OF 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED FOR TOP DRESSING. APPLY GROUND LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT THE RATE REQUIRED TO MAINTAIN A SOIL PH LEVEL BETWEEN PH6 - PH7 (SOIL TEST REQUIRED).

SEEDING DATES: APRIL 1 TO JUNE 15 AND AUGUST 15 TO OCTOBER 1

PERMANENT VEGETATION COVER:

USE THE FOLLOWING MIXTURE IN MOWED LAWN AREAS OUTSIDE PLANTING AREAS:

CREeping RED FESCUE	50%
PERENNIAL RYE GRASS	50%

APPLY 4.5 POUNDS PER 1,000 SQ. FT. OR 196 POUNDS PER ACRE WITH ANCHORED HAY MULCH AT 2 TONS PER ACRE

TEMPORARY VEGETATIVE COVER MIX
PERENNIAL RYE GRASS
APPLY 1 - 3 POUNDS PER 1,000 SQ. FT.
MULCHES STRAW 70 - 90 POUNDS PER 1,000 SQ. FT.
WOOD FIBER IN HYDRO-MULCH SLURRY 25 - 50 POUNDS PER 1,000 SQ. FT.

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REVISIONS				

SCALE
AS NOTED
NOT TO SCALE



• WENGELL, McDONNELL & COSTELLO •
87 HOLMES ROAD
NEWINGTON, CT 06111
(860) 667-9624

PREPARED FOR
SIMSBURY WATER POLLUTION CONTROL

36 DRAKE HILL ROAD

SIMSBURY, CT 06070

CONSTRUCTION & EROSION CONTROL DETAILS
FARMINGTON RIVER BANK STABILIZATION
REAR OF MATHERS CIRCLE SIMSBURY

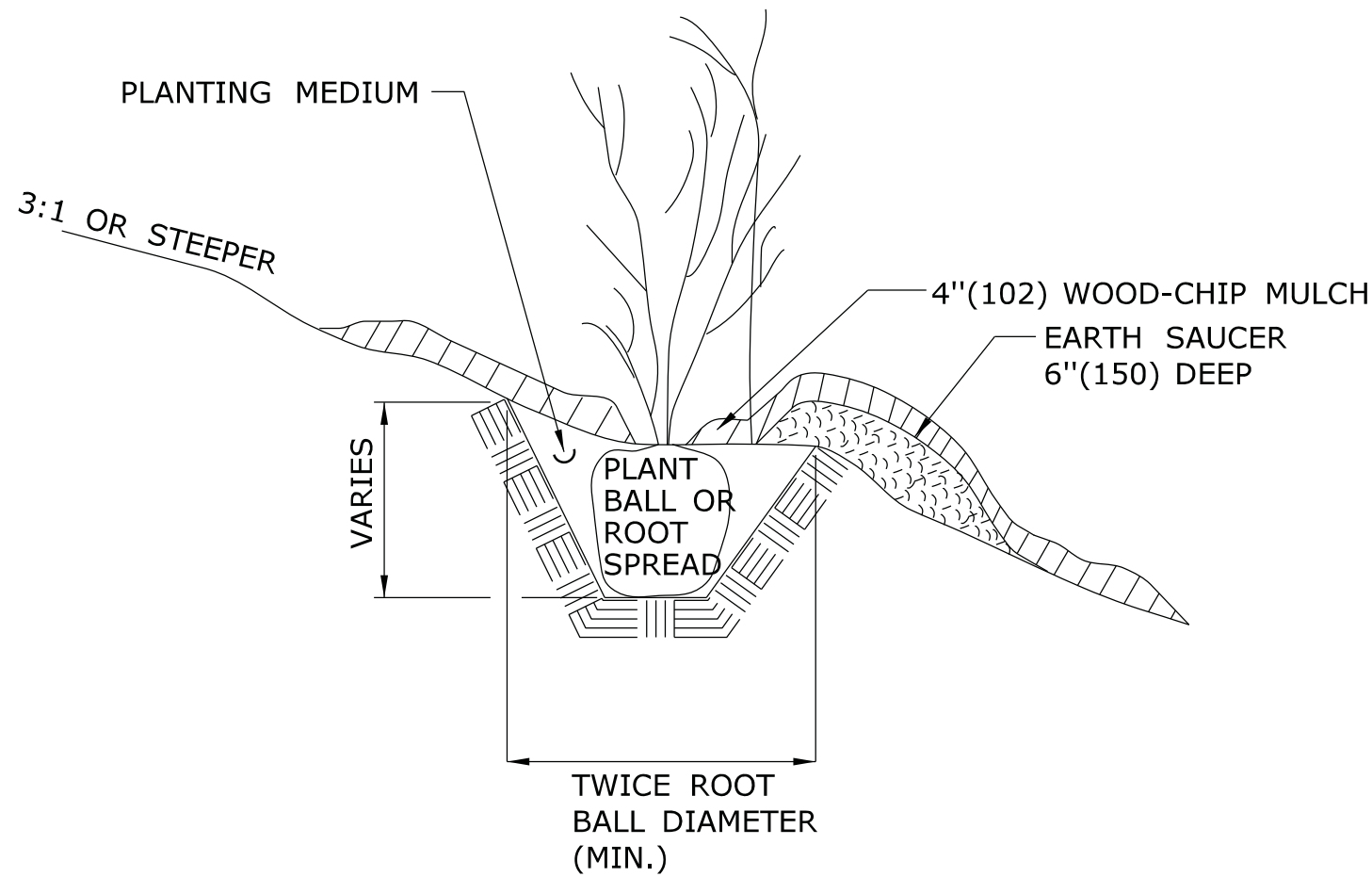
D	—FARMINGTON RIVER —	RIVERBANK —	14029.10	—	SHEET	5
SIZE	PROJECT	FILE NAME	NUMBER	REV.	OF	6

EXAMPLES OF MINIMUM CONTAINER SIZES FOR NURSERY GROWN PLANTS		
CALIPER* INCHES(mm)	HEIGHT** FEET(mm)	CONTAINER SIZE GALLONS(LITERS)
-	1(305)	0.7-1.1(2.6-4.2)
-	2(610)	0.7-1.1(2.6-4.2)
-	3(914)	0.7-1.1(2.6-4.2)
-	4(1219)	1.4-2.0(5.3-7.6)
-	5(1524)	3.4-4.2(12.9-15.9)
-	6(1829)	4.7-5.4(17.8-20.4)
1(25)	7(2134)	5.8-7.8(21.9-29.5)
-	8(2438)	9.0-11.5*34.1-43.5)
1½(38)	-	12.0-16.0(45.4-60.6)
2(51)	-	25.0-29.7(94.6-112.4)
2½(64)	-	25.0-29.7(94.6-112.4)

* THE CALIPER IS MEASURED 4"(102) ABOVE GROUND LEVEL.

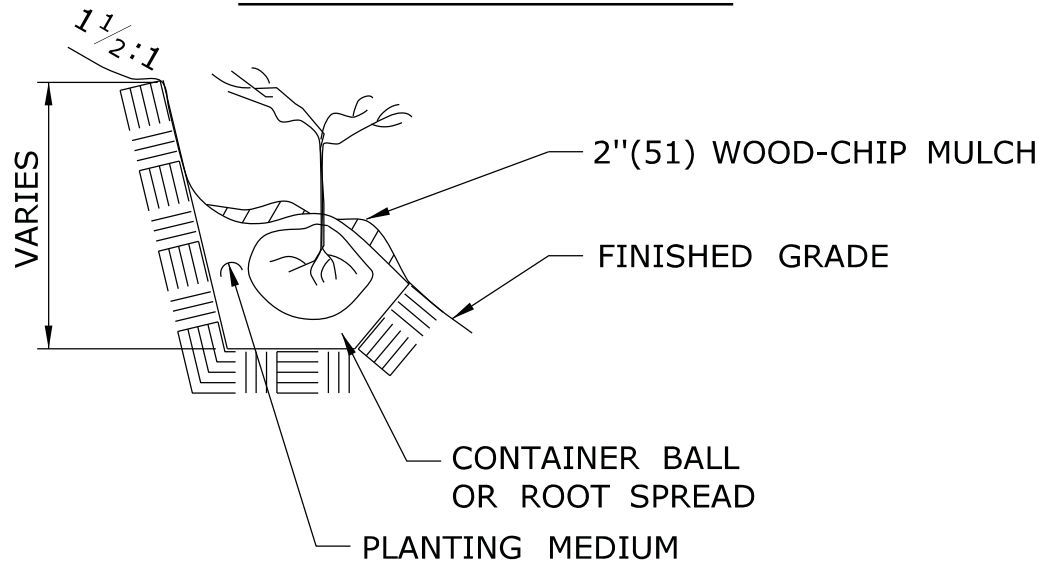
** ONLY DECIDUOUS SHRUBS ARE INCLUDED IN THIS TABLE. EVERGREEN SHRUBS ARE MEASURED BY HEIGHT BUT, CONTAINER SIZE DEPENDS ON BOTH SIZE AND SHAPE AND ARE GENERALLY 1 TO 2 SIZES LARGER THAN DECIDUOUS PLANTS.

TABLE FOR SHRUBS



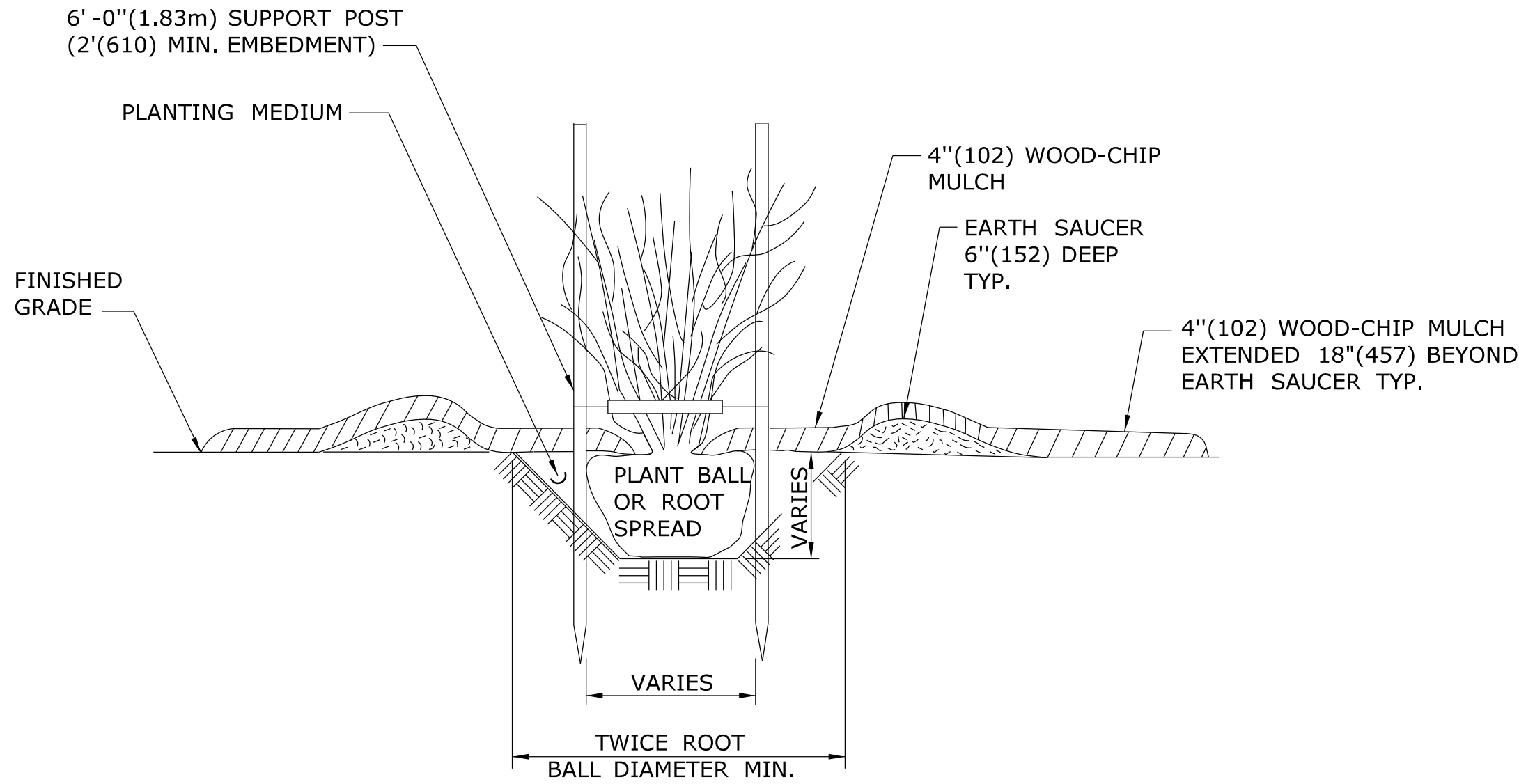
SECTION

PLANTING FOR SHRUBS IN INDIVIDUAL PITS ON SLOPES

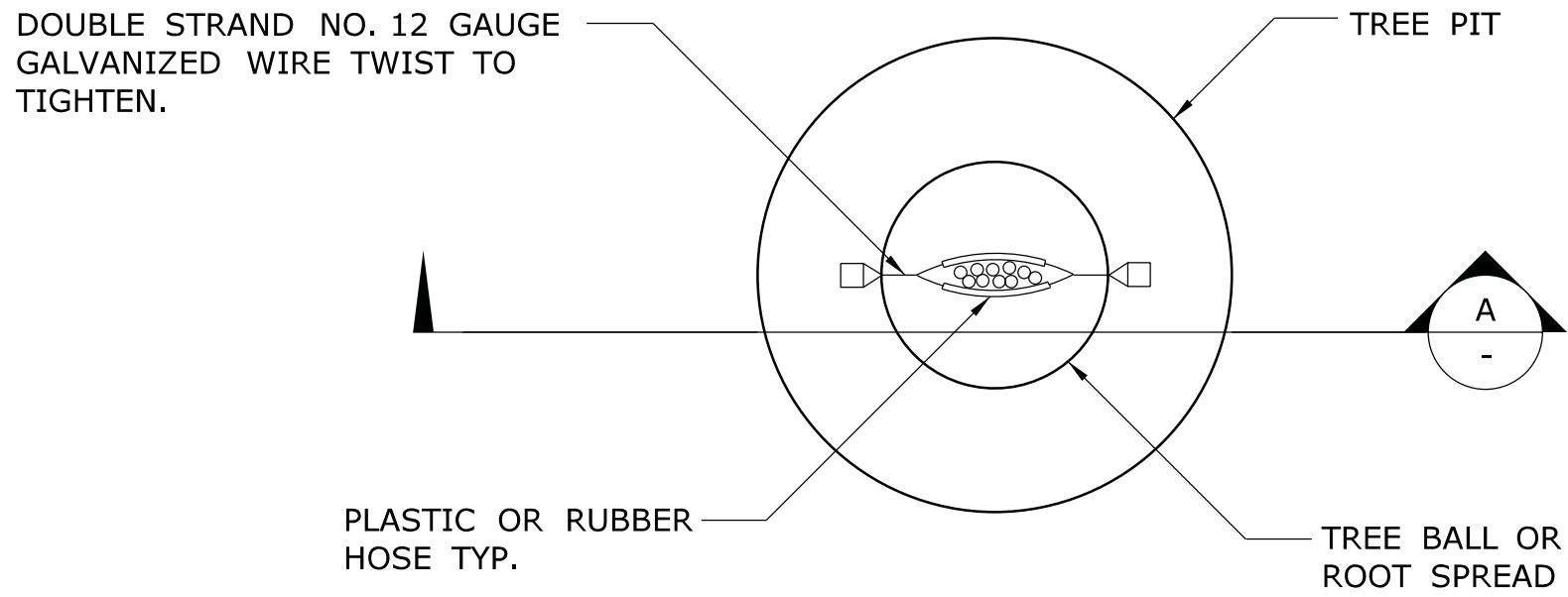
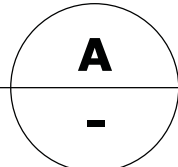


NOTE: PLACE PLANTS AT THE SAME DEPTH THAT THE SEEDLING WAS GROWN IN THE NURSERY.

PLANTING FOR SEEDLINGS, VINES AND GROUND COVER PLANTS IN PITS ON SLOPES

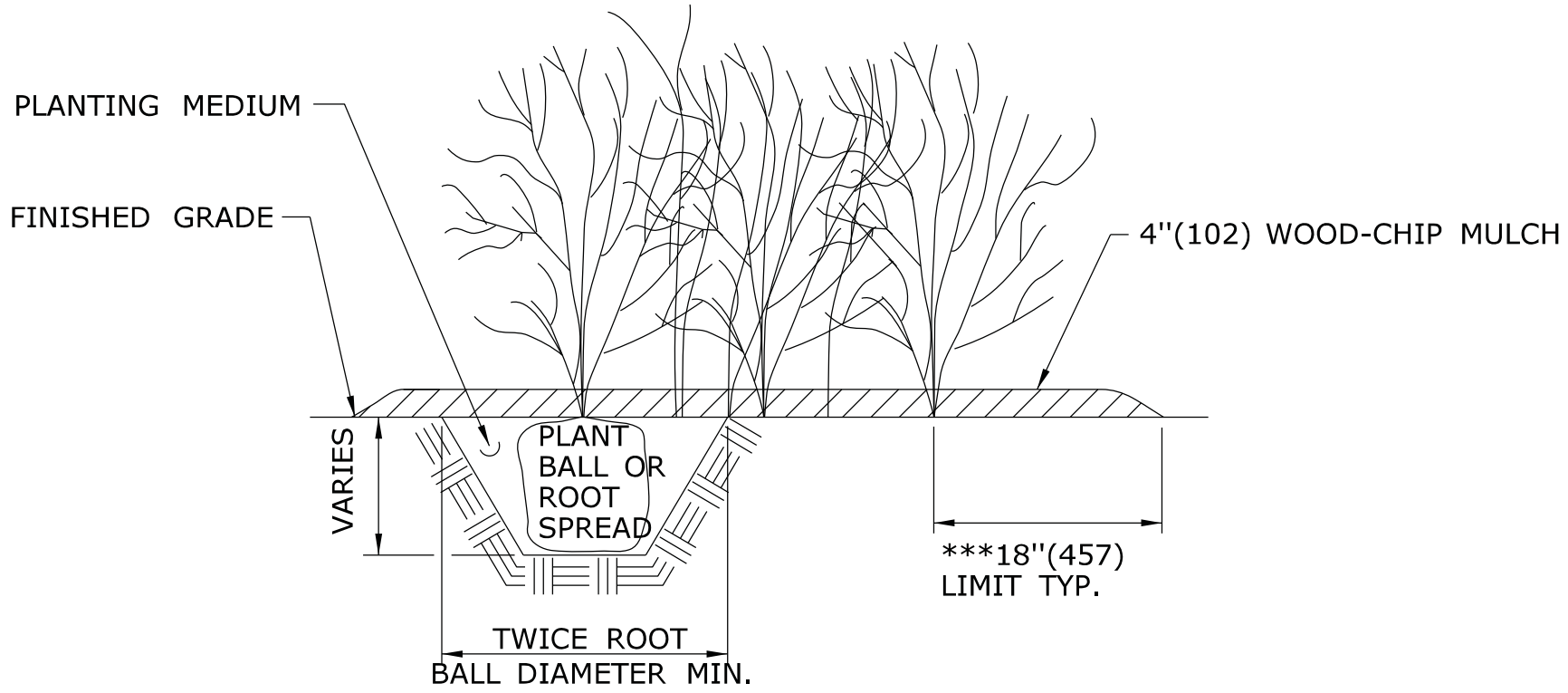


SECTION



PLAN

STAKING FOR MULTI-STEMMED DECIDUOUS TREES FROM 5'(1.5m) TO 10'(3.0m) HIGH



*** UNLESS OTHERWISE DIRECTED, WOOD-CHIP MULCH SHALL BE PLACED TO A LIMIT OF 18"(457) BEYOND THE CENTER OF THE OUTERMOST SHRUBS IN SHRUB BED.

PLANTING FOR SHRUBS IN BEDS

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

-	-	-	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	NOT TO SCALE	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	Submitted By: Approved By: NAME/DATE/TIME: James H. Norman 2012.07.12 09:44:37 -04'00'	CTDOT STANDARD SHEET OFFICE OF ENGINEERING	STANDARD SHEET TITLE: PLANTING DETAILS FOR SHRUBS	STANDARD SHEET NO.: HW-949_02
-	-	-							
-	-	-							
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-	-	-							
REV.	DATE	REVISION DESCRIPTION	Plotted Date: 6/23/2011		Filename: CTDOT_HIGHWAY.STD_JUNE2011.dgn Model: 72 -HW-949_02				