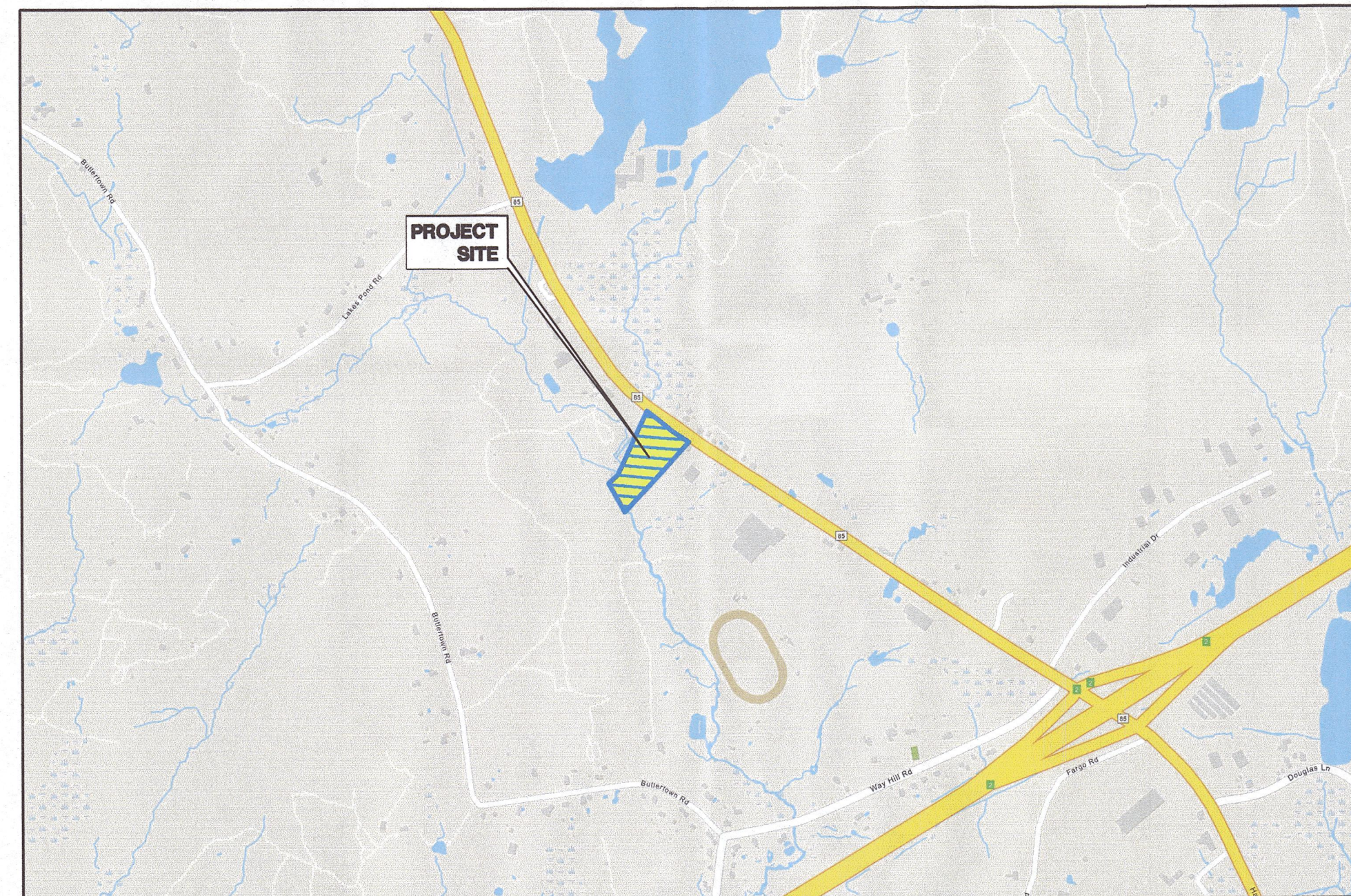


EAST LYME TREE SERVICES

1122 & 1124 HARTFORD TURNPIKE WATERFORD, CT

LEGEND:

---	PROPERTY LINE
---	EDGE OF PAVEMENT
---	DRAINAGE
---	WATER
---	SEWER
---	GAS
---	ELECTRIC
---	CONTOUR
---	TREE LINE
---	GUIDERAIL
---	SIGNS
---	CATCH BASIN
---	IRON PIN, IRON PIPE
---	MS, CHD, MON
---	FIRE HYDRANT
---	ELECTRIC MANHOLE
---	SEWER MANHOLE
---	GAS GATE, WATER GATE
---	LAMP



LOCATION MAP
SCALE: 1"= 1000'

INDEX TO DRAWINGS

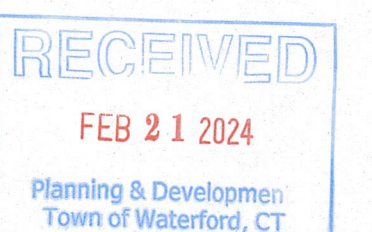
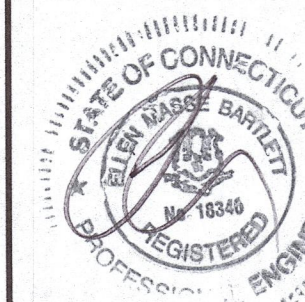
DRAWING NO.	DESCRIPTION OF DRAWINGS
1	EXISTING CONDITIONS
2	SITE PLAN
3	GRADING PLAN
4	E&S DETAILS
5	SITE DETAILS

OWNER/APPLICANT:
EAST LYME TREE SERVICES
67 UPPER PATTAGANSETT RD EAST LYME, CT

ADDRESS:
1122 & 1124 HARTFORD TURNPIKE
WATERFORD, CT

February 16, 2024
February 2, 2024
January 12, 2024
December 7, 2023
July 28, 2023
May 2023

CLA Engineers, Inc.
CIVIL • STRUCTURAL • SURVEYING
317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

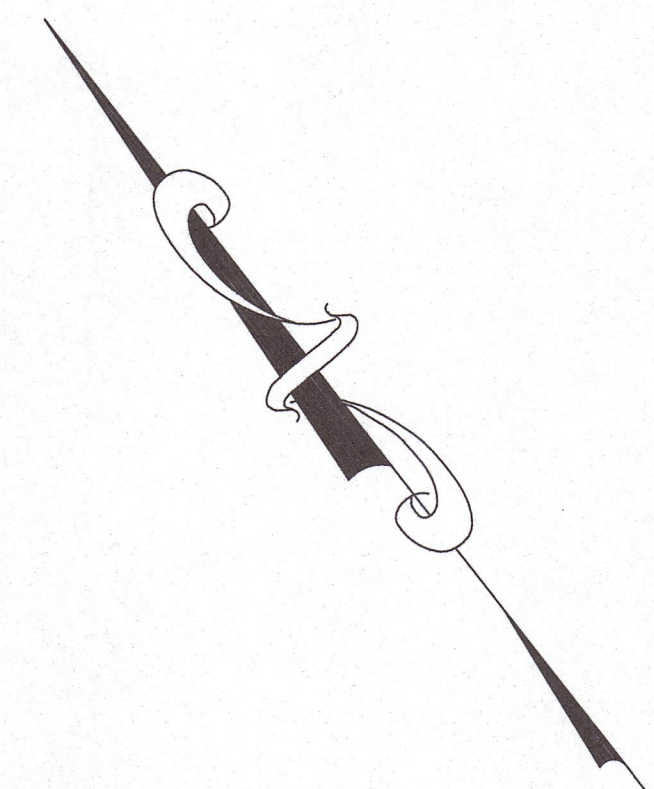
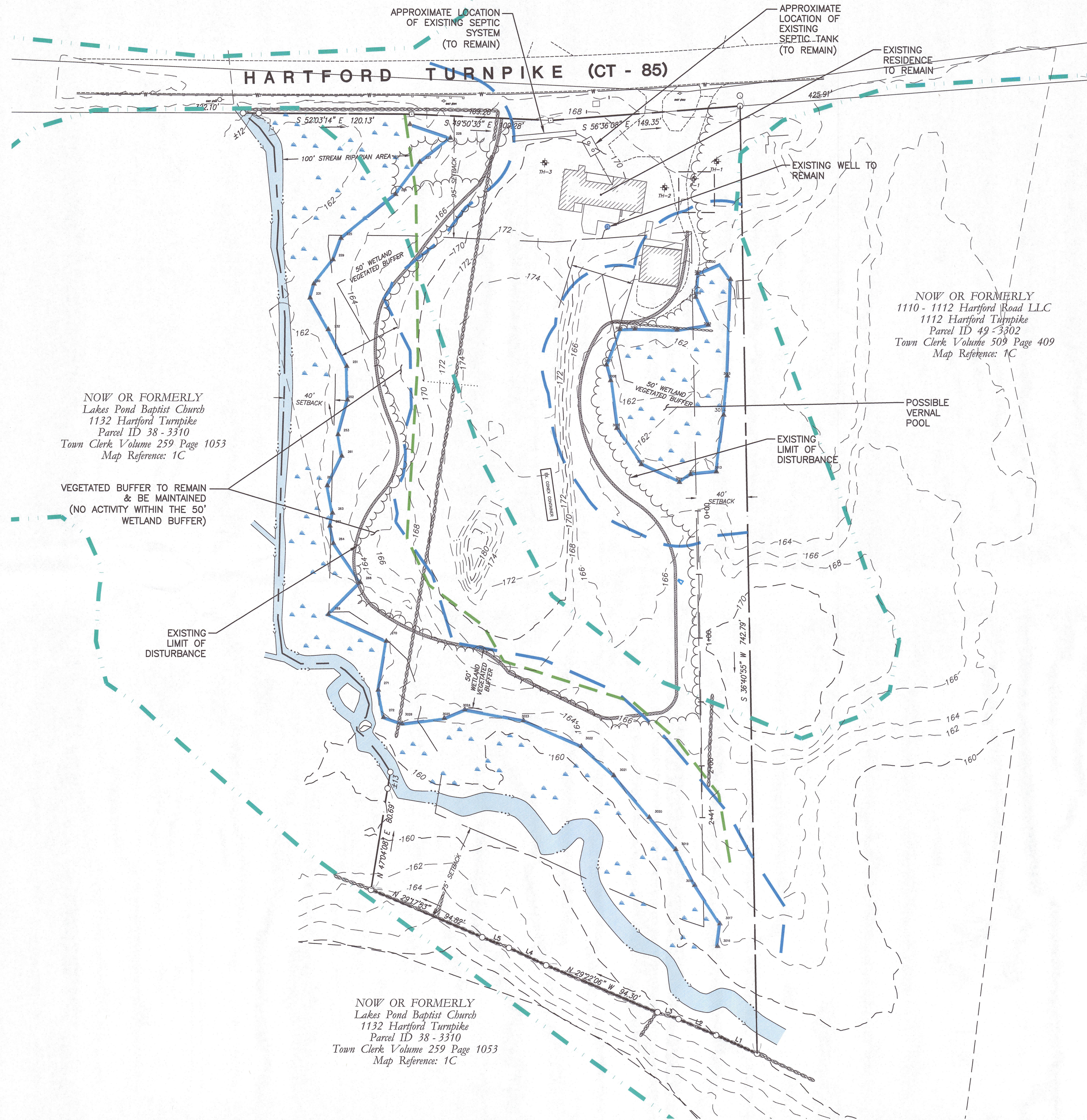


EROSION & SEDIMENT CONTROL PLAN CERTIFIED BY THE VOTE OF THE WATERFORD PLANNING & ZONING COMMISSION

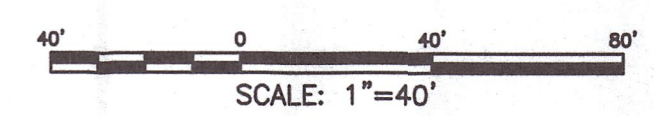
CHAIRMAN OR SECRETARY OF THE COMMISSION _____ DATE _____

I HAVE REVIEWED THE WETLANDS ON THE PROPERTY IN THE FIELD AND HAVE REVIEWED THE WETLANDS AS SHOWN ON THE PLAN AND FIND THAT THEY SUBSTANTIALLY REPRESENT THE WETLANDS AS DELINEATED IN THE FIELD.

ROBERT C. RUSSO _____ DATE _____
CERTIFIED SOIL SCIENTIST



- LEGEND**
- FEMA 100 YEAR FLOOD HAZARD AREA BOUNDARY
 - 100' STREAM/RIPARIAN AREA
 - 50' WETLANDS VEGETATED BUFFER



			CLA Engineers, Inc. CIVIL • STRUCTURAL • SURVEYING	
			317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165	
No.	DATE	REVISION	1122 & 1124 HARTFORD TURNPIKE	
			EAST LYME TREE SERVICES	
			EXISTING CONDITIONS	
			1	
3	2/16/24	REVIEW COMMENTS	Project No. CLA-7226	Proj. Engineer E.M.B.
2	2/02/24	HEALTH DEPT. COMMENTS	Date: 4/19/23	Sheet No.
1	7/28/23	PRELIMINARY REVIEW COMMENTS		

ZONING COMPLIANCE CHART

ZONING DISTRICT: IP-3

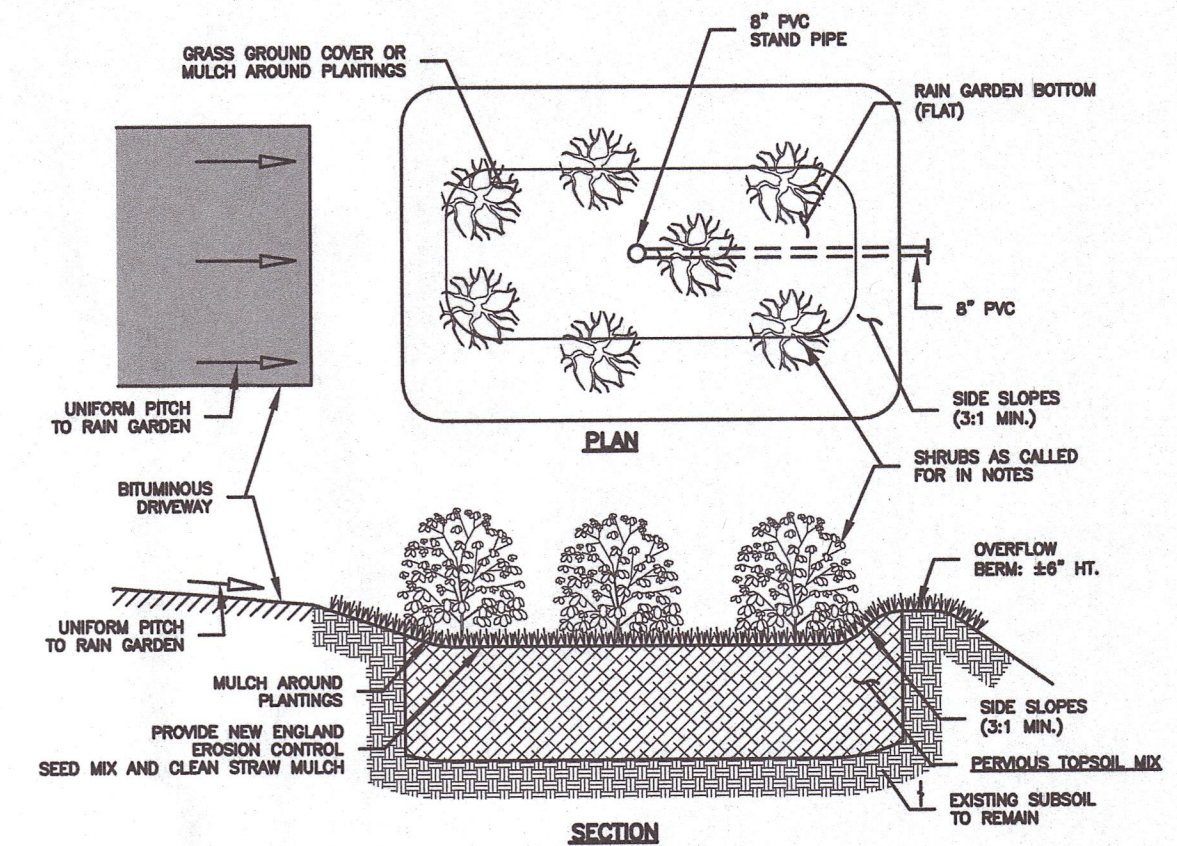
ITEM	REQUIRED	PROPOSED
MINIMUM LOT AREA	40,000 SF	229,710 SF
LOT FRONTAGE	200 FT	391 FT
FRONT YARD SETBACK	95 FT	36 FT (EXIST.)
SIDE YARD SETBACK	40 FT	47 FT
REAR YARD SETBACK	75 FT	525 FT
MAXIMUM LOT COVERAGE	30%	1%

PARKING CALCULATIONS:

RESIDENTIAL: 2 SPACES
 2 EMPLOYEES @ 1 SPACE PER EMPLOYEE = 2 SPACES
 PARKING SPACES PROVIDED: 8 SPACES

NOTES:

1. NO TRUCK OR EQUIPMENT REPAIRS WILL BE DONE ON-SITE.
2. NO FUELING OF TRUCKS OR EQUIPMENT WILL BE DONE ON-SITE.
3. WOODCHIPS/TIMBER WILL NOT BE SOLD ON-SITE.
4. A SPILL KIT CONTAINING SORBENT PIGS AND SPEEDI-DRY SHALL BE KEPT IN THE BARN.
5. NO PROCESSING OF WOOD CHIPS WILL BE DONE ON-SITE.



- NOTES:**
1. PERVIOUS TOPSOIL MIX SHALL MEET THE REQUIREMENTS OF DOT FORM 816, ARTICLE M.13.01.1 WITH THE FOLLOWING GRADATION:
 SIEVE #10 100%
 #40 60-80%
 #60 5%
 #200 0%
 DO NOT COMPACT MATERIAL DURING INSTALLATION.
 2. EXCAVATE RAIN GARDEN TO THE GRADES SPECIFIED. INSTALL PERVIOUS TOPSOIL MIX. DO NOT COMPACT TOPSOIL MIX.
 3. SEED MIX SHALL CONFORM TO THE REQUIREMENTS SPECIFIED IN THE VEGETATIVE COVER NARRATIVE HEREIN.
 4. INSTALL SHRUBS AND ALL PLANTINGS IN CONFORMANCE WITH THE CONSTRUCTION DETAILS AND LANDSCAPING NOTES HEREIN.
- LANDSCAPE SCHEDULE:**
1. EACH RAIN GARDEN SHALL BE PLANTED WITH A MINIMUM OF 9 SHRUBS. CONTRACTOR MAY SELECT FROM THE FOLLOWING PLANT SPECIES:
 A. WINTERBERRY HOLLY
 B. ARROWWOOD VIBURNUM
 C. HIGBUSH BLUEBERRY
 D. SWEET PEPPERBUSH
- TYPICAL MAINTENANCE:**
1. MOW BOTTOM 2-3 TIMES PER YEARS, AS NEEDED.
 2. REPLENISH MULCH AROUND PLANTINGS AS NEEDED.
 3. REMOVE SEDIMENT AND LEAF LITTER TWICE YEARLY.
 A. BETWEEN NOVEMBER 15 AND DECEMBER 15 (AFTER LEAF FALL)
 B. DURING APRIL (AFTER SNOW MELT)

TYPICAL RAIN GARDEN DETAILS

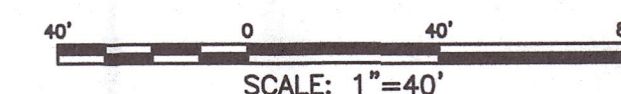
NOT TO SCALE

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
Trees:	5	PINUS STROBUS	EASTERN WHITE PINE	6' HT
Pp	3	PIGEA PUNGENS	COLORADO BLUE SPRUCE	6' HT

LEGEND

- FEMA 100 YEAR FLOOD HAZARD AREA BOUNDARY
- 100' STREAM/RIPARIAN AREA
- 50' WETLANDS VEGETATED BUFFER



No.	DATE	REVISION
5	2/16/24	REVIEW COMMENTS
4	2/1/24	HEALTH DEPT. COMMENTS
3	1/5/24	REVIEW COMMENTS
2	12/7/23	D.O.T. COMMENTS
1	7/28/23	PRELIMINARY REVIEW COMMENTS

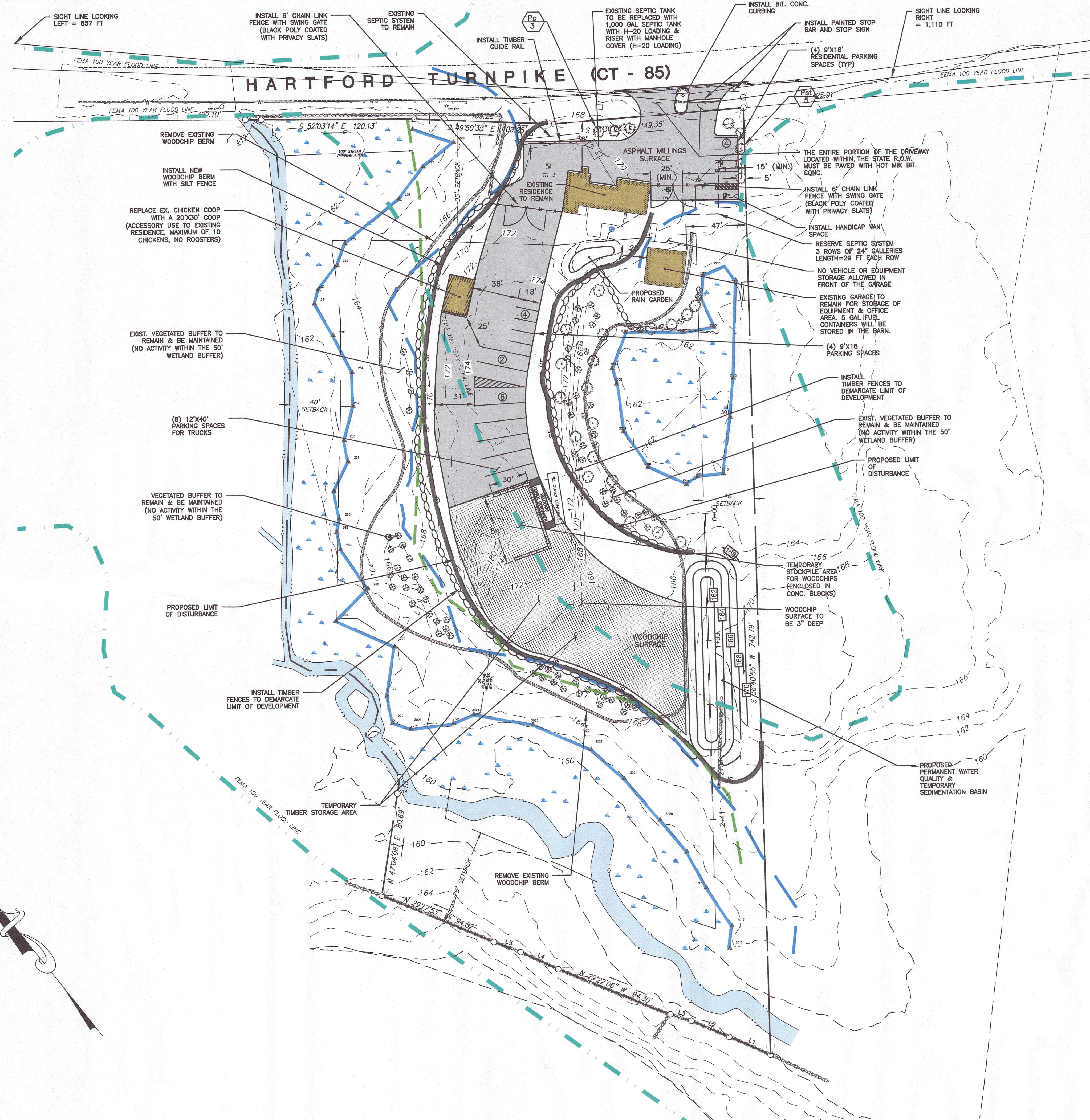
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 (860) 886-1966 Fax (860) 886-9165

Project No. CLA-7228
 Proj. Engineer E.M.B.
 Date: 4/19/23
 Sheet No.

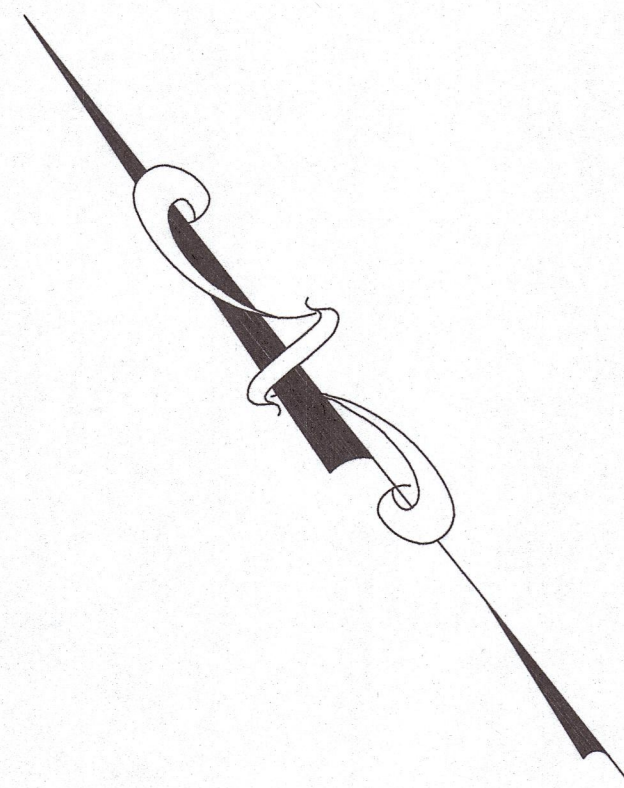
EAST LYME TREE SERVICES

SITE PLAN

2



CLA

[illegible]

2' (MIN.)

2:1

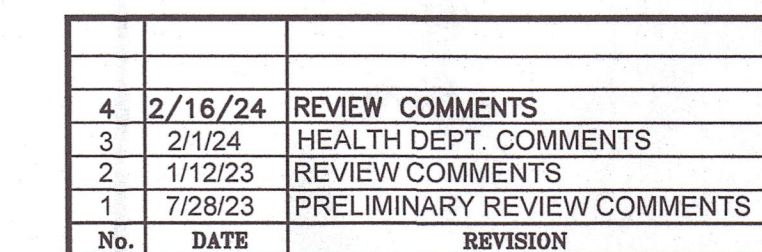
1'

2:1

4" GRAVEL BASE

2" BIT. CONC. MILLING

PAVED SWALE
NOT TO SCALE



317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

GRADING PLAN

Project No.	CLA-7226
Proj. Engineer	E.M.B.
Date:	4/19/23
Sheet No.	3

EROSION CONTROL & SEDIMENTATION NARRATIVE

1. PRIOR TO THE INSTALLATION OF ANY EROSION AND SEDIMENT CONTROL MEASURES, THE OWNER AND CONTRACTOR SHALL MEET WITH THE TOWN OF WATERFORD ENVIRONMENTAL PLANNER.
2. THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE. ADDITIONAL EROSION & SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED TO BE NECESSARY BY THE ENVIRONMENTAL PLANNER. ALL WORK SHOWN ON SHEET 5, EROSION & SEDIMENT PLAN SHALL BE COMPLETED.
3. STAKE LIMITS OF CLEARING
4. INSTALL CONSTRUCTION ENTRANCE PER DETAIL
5. THE CONTRACTOR SHALL CONTACT THE ENVIRONMENTAL PLANNER FOR INSPECTION OF THE SEDIMENT AND EROSION CONTROL MEASURES, PRIOR TO SITE DISTURBANCE. CONSTRUCTION SHALL NOT BEGIN UNTIL SUCH TIME AS THE ENVIRONMENTAL PLANNER HAS REVIEWED AND APPROVED THE INSTALLATION OF THE SEDIMENTATION AND EROSION CONTROL MEASURES.
6. CONTRACTOR TO INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES AT LEAST WEEKLY AND AFTER EVERY STORM EVENT AND REPAIR AND MAINTAIN AS
7. CLEARING AND GRUBBING OF THE AREA TO BE GRADED. TOPSOIL TO BE REMOVED AND STOCKPILED IN AN AREA AS SHOWN ON THE PLANS, & SURROUNDED WITH A WOOD CHIP BERM
8. STAKED HAY BALE SILT BARRIERS OR SILT FENCE SHALL BE INSTALLED AROUND ANY TEMPORARY STOCKPILE AREAS.
9. CONSTRUCTION OF TEMPORARY SEDIMENT TRAP PRIOR TO ROUGH GRADING OF SOIL. INSTALL NORTH AMERICAN GREEN S-150 EROSION MATS ON SIDE WALLS, IMMEDIATELY SEED. INSTALL RIPRAP IN BOTTOM OF BASIN AND WHERE SHOWN ON SIDE SLOPE.
10. SEDIMENT TRAP TO BE INSTALLED & MAINTAINED THROUGHOUT EACH PHASE OF SITE CONSTRUCTION, TO CONTROL THE RUNOFF IMPACTS & DIRECT RUNOFF TO THE TEMP. SEDIMENTATION BASIN.
11. INSTALLATION OF PAVEMENT FOR THE ENTIRE SITE CAN BE INSTALLED.
12. TOPSOIL SHALL BE RE-APPLIED TO PROVIDE A MINIMUM DEPTH OF FOUR INCHES.
13. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS RE-ESTABLISHED.
14. SEEDING SHOULD TAKE PLACE BETWEEN APRIL 1 AND JUNE 1 OR AUGUST 15 AND
15. THE FOLLOWING SEEDING MIXTURES SHALL BE PROVIDED ON ALL DISTURBED SOILS

KENTUCKY BLUE GRASS	100 LB's/AC
CREeping RED FESCUE	100 LB's/AC
PERENNIAL RYEGRASS	25 LB's/AC

16. CLEAN OUT BASIN & OUTLET
17. UNFORESEEN PROBLEMS WHICH ARE ENCOUNTERED IN THE FIELD SHALL BE SOLVED ACCORDING TO 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
18. REMOVE TEMPORARY E&S UPON VEGETATIVE STABILIZATION.

POLLUTION PREVENTION PLAN

1. POLLUTION PREVENTION TEAM
THE OWNERS WILL BE RESPONSIBLE FOR CARRYING OUT THE PROVISIONS OF THIS PLAN.
- PARKING AREAS AND OTHER IMPERVIOUS SURFACES SHALL BE SWEEPED CLEAN OF SAND AND LITTER AND ANY OTHER POLLUTANTS AT LEAST TWICE A YEAR.
- A. BETWEEN NOVEMBER 15 AND DECEMBER 15 (AFTER LEAF FALL)
- B. DURING APRIL (AFTER SNOW MELT) NO WASHING VEHICLES OR EQUIPMENT IN PARKING AREAS.
2. MAINTENANCE AND INSPECTION
- A. MONTHLY INSPECTION OF STORM WATER BASIN AND OUTFALLS.
- B. CLEAN SEDIMENT AND DEBRIS FROM STRUCTURES AND OUTFALLS ONCE A YEAR DURING APRIL.
- C. SUBMIT MAINTENANCE & INSPECTION REPORT TO THE PLANNING DEPARTMENT AND THE DIRECTOR OF PUBLIC WORKS
3. CLEAN SEDIMENT AND DEBRIS FROM BASIN ONCE A YEAR, DURING APRIL
4. SPILL OR ACCIDENTAL DISCHARGE
COMPLY WITH STATE AND FEDERAL REGULATIONS TO CONTAIN AND CLEAN UP ANY SPILL OR DISCHARGE AND DISPOSE OF MATERIALS AT AN APPROVED FACILITY.
- CONTACT CONNECTICUT DEEP OIL AND CHEMICAL SPILL RESPONSE DIVISION (860) 424-3338 AND THE WATERFORD FIRST SELECTMAN.
- IN THE EVENT A SPILL OCCURS THE FOLLOWING STEPS SHOULD BE PERFORMED AS SOON AS POSSIBLE:
- A. STOP THE SOURCE OF THE SPILL
- B. CONTAIN THE SPILL
- C. COVER SPILL WITH ABSORBENT MATERIAL SUCH AS KITTY LITER, SAWDUST OR OIL ABSORBENT PADS. DO NOT USE STRAW.
- D. DISPOSE OF ABSORBER IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.
5. BEST MANAGEMENT PRACTICES FOR FUTURE UPKEEP OF THE SITE WILL INCLUDE NON-CHEMICAL LAWN CARE & MINIMAL USE OF FERTILIZERS, DE-ICING OR WINTER OPERATIONS WITHOUT THE USE OF CALCIUM, AND NO EXTERIOR WASHING OF VEHICLES OR DISCHARGING OF INTERIOR WASH WATER.

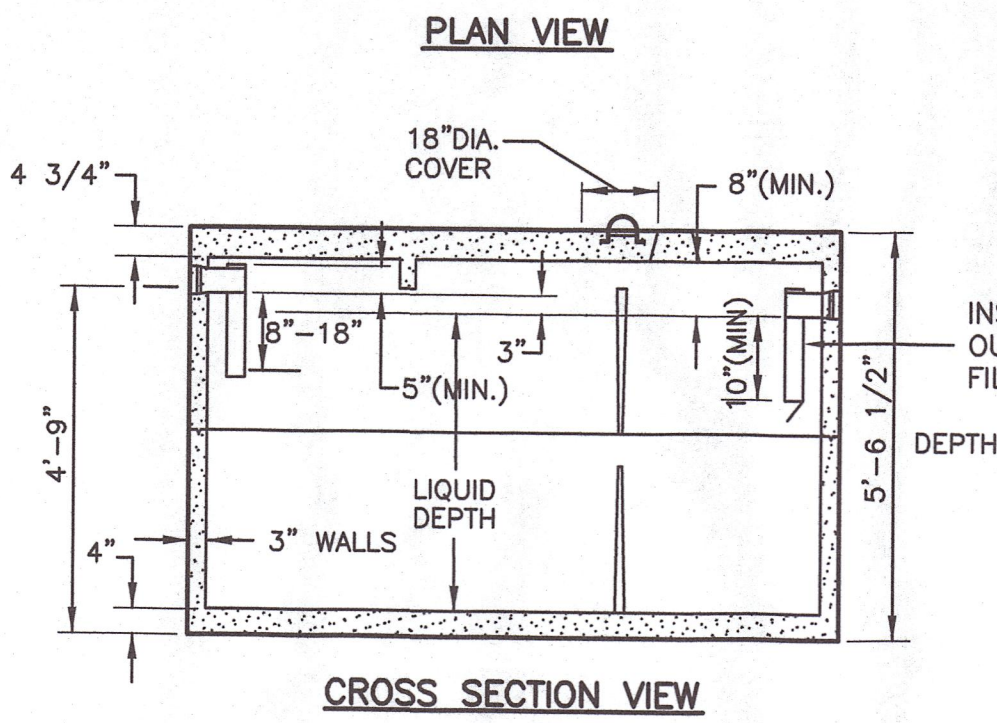
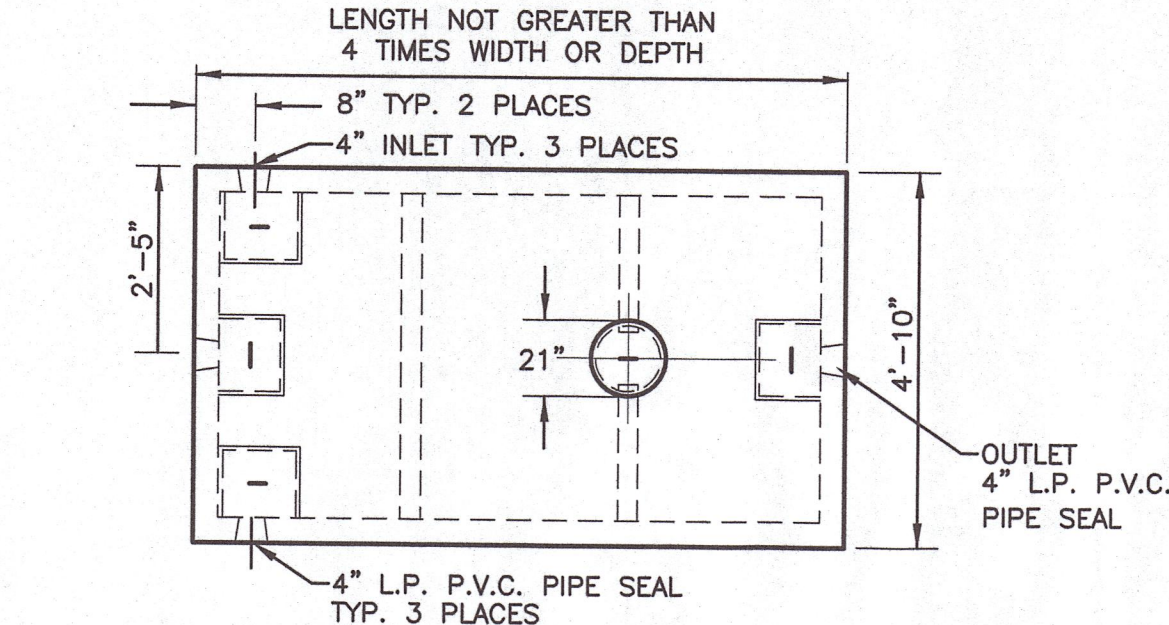
SEED MIX FOR STORMWATER BASIN

THE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES CONTAINS A SELECTION OF NATIVE GRASSES AND WILDFLOWERS DESIGNED TO COLONIZE RECENTLY DISTURBED SITES WHERE QUICK GROWTH OF VEGETATION IS DESIRED TO STABILIZE THE SOIL SURFACE. IT IS AN EXCELLENT SEED MIX FOR ECOLOGICALLY APPROPRIATE RESTORATIONS ON MOIST SITES THAT REQUIRE QUICK STABILIZATION AS WELL AS LONG-TERM ESTABLISHMENT OF NATIVE VEGETATION. THIS MIX IS PARTICULARLY APPROPRIATE FOR DETENTION BASIN THAT DO NOT NORMALLY HOLD STANDING WATER. SOME PLANTS IN THIS MIX CAN TOLERATE INFREQUENT INUNDATION, BUT NOT CONSTANT FLOODING.

SEEDING: THE MIX MAY BE APPLIED BY HYDROSEEDING, BY MECHANICAL SPREADER, BY HYDRO-SEEDING OR ON SMALL SITES IT CAN BE SPREAD BY HAND. WHEN APPLYING ON BARE SOIL, RAKE THE SOIL TO CREATE GROOVES, APPLY SEED, THEN LIGHTLY RAKE OVER. IN NEW ENGLAND, THE BEST RESULTS ARE OBTAINED WITH A SPRING OR EARLY FALL SEEDING. SUMMER AND LATE FALL SEEDING WILL BENEFIT WITH A LIGHT MULCHING OF WEED-FREE STRAW TO CONSERVE MOISTURE. WINTER FALL AND WINTER DORMANT SEEDING REQUIRE A SLIGHT INCREASE IN THE SEEDING RATE. FERTILIZATION IS NOT REQUIRED UNLESS THE SOILS ARE PARTICULARLY INFERTILE.

APPLICATION RATE: 35 LBS/ACRE (1250 SQ. FT./LB.)

SPECIES *: SWITCHGRASS (PANICUM VIRGATUM), VIRGINIA WILD RYE (ELYMUS VIRGINICUS), CREEPING RED FESCUE (FESTUCA RUBRA), FOX SEDGE (CAREX VULPINOIDEA), CREEPING BENTGRASS (AGROSTIS STOLONIFERA), SOFT RUSH (JUNCUS EFFUSUS), NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE), GRASS-LEAVED GOLDENROD (EUTHAMIA GRAMINIFOLIA), GREEN BULRUSH (SCIRPUS ATROVIRENS), BONESET (EUPATORIUM PERFOLIATUM), BLUE VERVAIN (VERBENA HASTATA) UPLAND BENTGRASS (AGROSTIS PERENNANS), BIG BLUESTEM, NIAGRA (ANDROPOGON GERARDII), SENSITIVE FERN (ONOCLEA SENSIBILIS), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), WOOLGRASS (SCIRPUS CYPERINUS).



1,000 GALLON SEPTIC TANK
H-20 LOADING
NOT TO SCALE

TEST HOLE DATA:

WITNESSED BY DANIELLE HOLMES OF LEDGE LIGHT HEALTH DISTRICT IN 2020

TH #1: DEPTH 102"
0-7" TOPSOIL
7"-88" YELLOW BROWN FINE TO MEDIUM COARSE SAND, TRACE GRAVEL;
ALTERNATING BANDS OF FINE AND MEDIUM SAND LAYERS WITH
STAINING THROUGHOUT.
GW STANDING @ 88"
REDOX @ 68"
ROOTS TO 65"
NO REFUSAL

TH #2: DEPTH 105"
0-10" TOPSOIL
10"-94" STRATIFIED FINE TO MEDIUM COARSE SAND & GRAVEL (15%) WITH
BANDS OF STAINING
GW STANDING @ 94"
REDOX @ 72"
ROOTS TO 43"
NO REFUSAL

TH #3: DEPTH 101"
0-10" TOPSOIL
10"-26" ORANGE BROWN FINE SANDY LOAM
26"-101" YELLOW TO ORANGE BROWN MEDIUM COARSE SAND & GRAVEL (25%)
NO GW
NO REDOX
ROOTS TO 70"
NO REFUSAL

PERC TEST #1 DATA

PERC TEST CONDUCTED BY
CLA ENGINEERS INC. ON 5/7/2020
HOLE DEPTH 38"
PRESOAKED 5/7/20 @9:28am
DRAINED @9:36am
WATER @ 28" AT START OF TEST

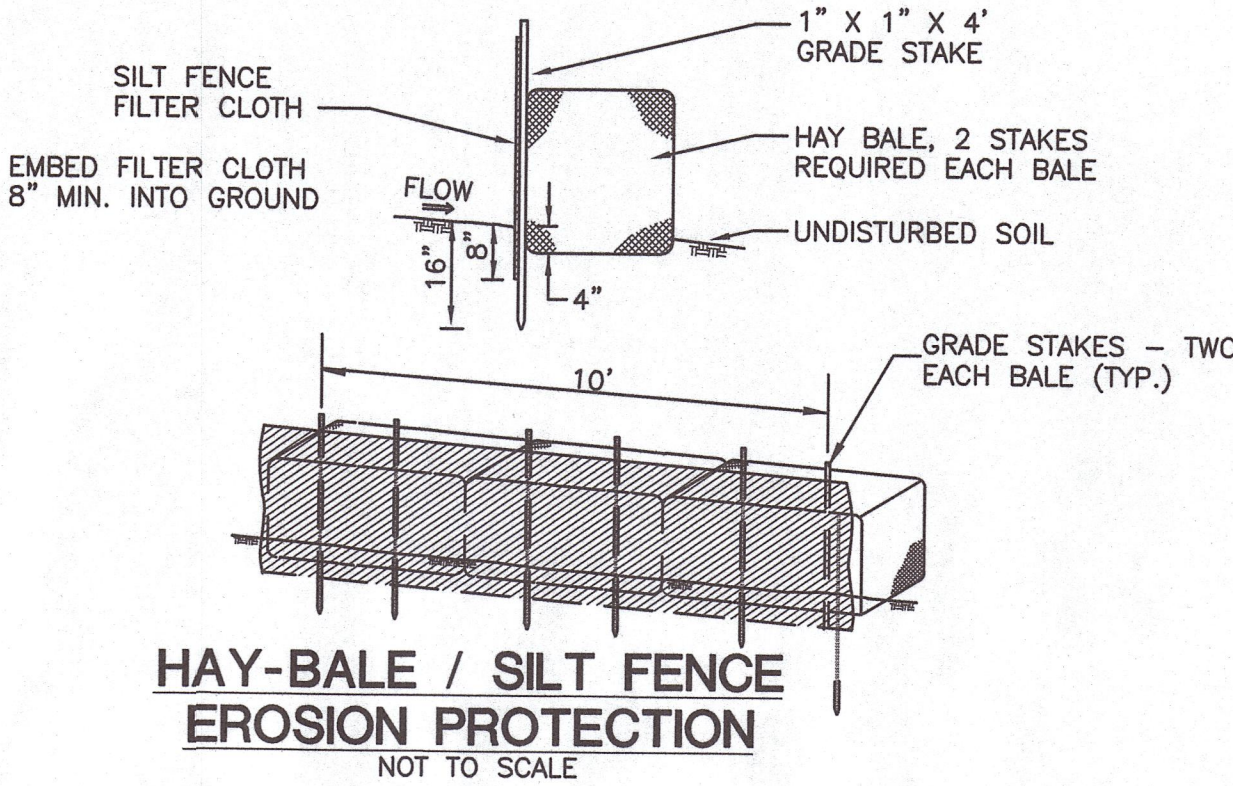
TIME	DEPTH	CHANGE
9:57	26"	
9:58	28"	3"
9:59	30.5"	1.5"
10:00	32"	1.5"
10:01	33.5"	1.5"
10:02	34.5"	1.0"
10:03	35.5"	1.0"
10:04	36.5"	1.0"
10:05	37"	0.5"
10:06	38"	1.0"

TO ENSURE A MORE REPRESENTATIVE PERC. RATE,
READINGS FROM 9:59 AND 10:04 WERE USED.

PERC. RATE= 6.0MINS/7.5" = 0.80 MIN./INCH.

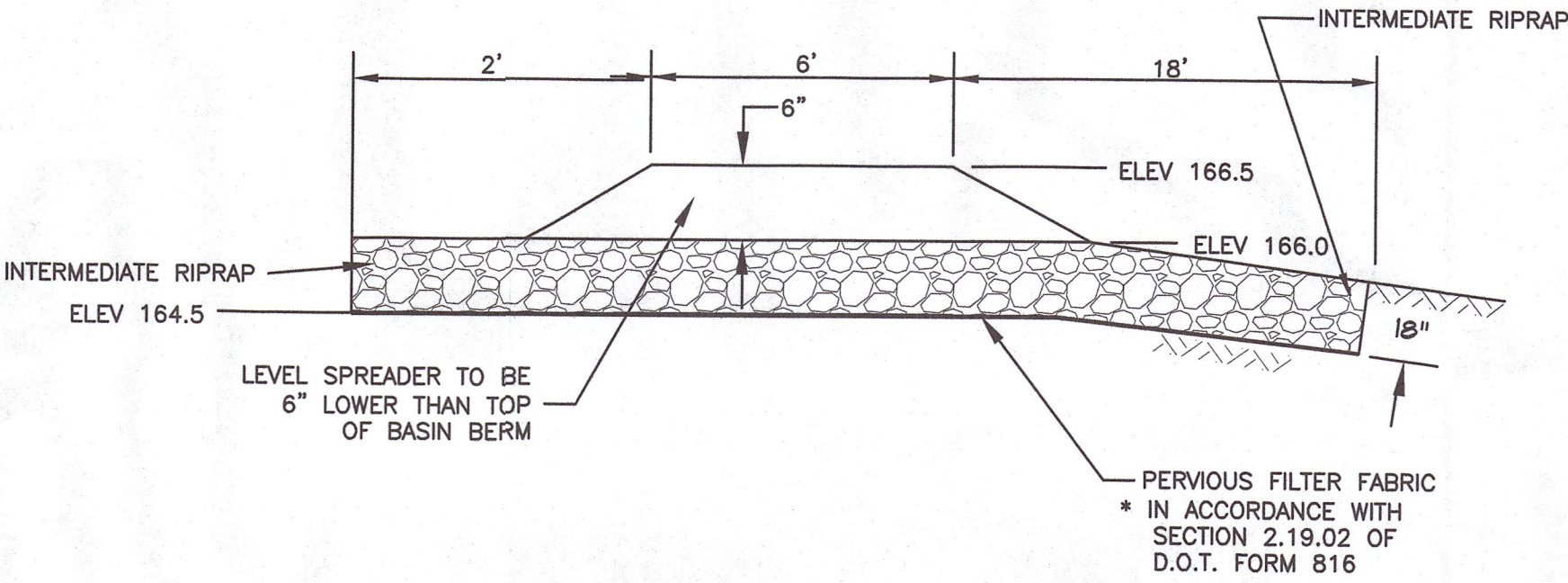
RESERVE SEPTIC SYSTEM

4 BEDROOM RESIDENCE = 577.5 ELA
USE 24" CONCRETE GALLERIES = 6.8 SF/LF
(577.5 ELA)/(6.8 SF/LF) = 84.9 LF
USE 3 ROWS OF 24" GALLERIES - 29 LF EACH ROW
MLSS DOES NOT APPLY

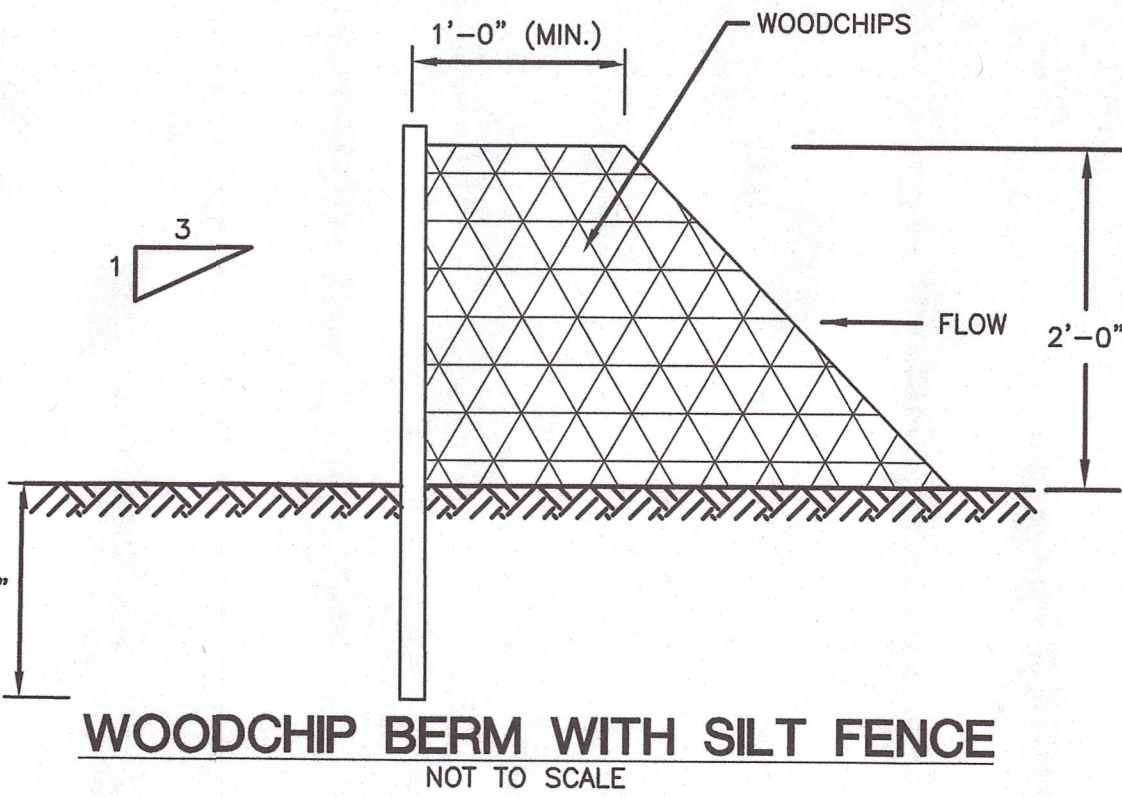


CONSTRUCTION NOTES:

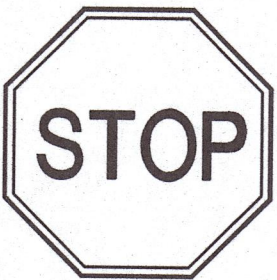
1. SILT FENCE FILTER CLOTH TO BE SECURELY FASTENED TO GRADE STAKE WITH STAPLES, 6" ON CENTER.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN ONE ANOTHER THEY SHALL OVERLAP BY 6" AND BE FOLDED.
3. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.



LEVEL SPREADER
NOT TO SCALE



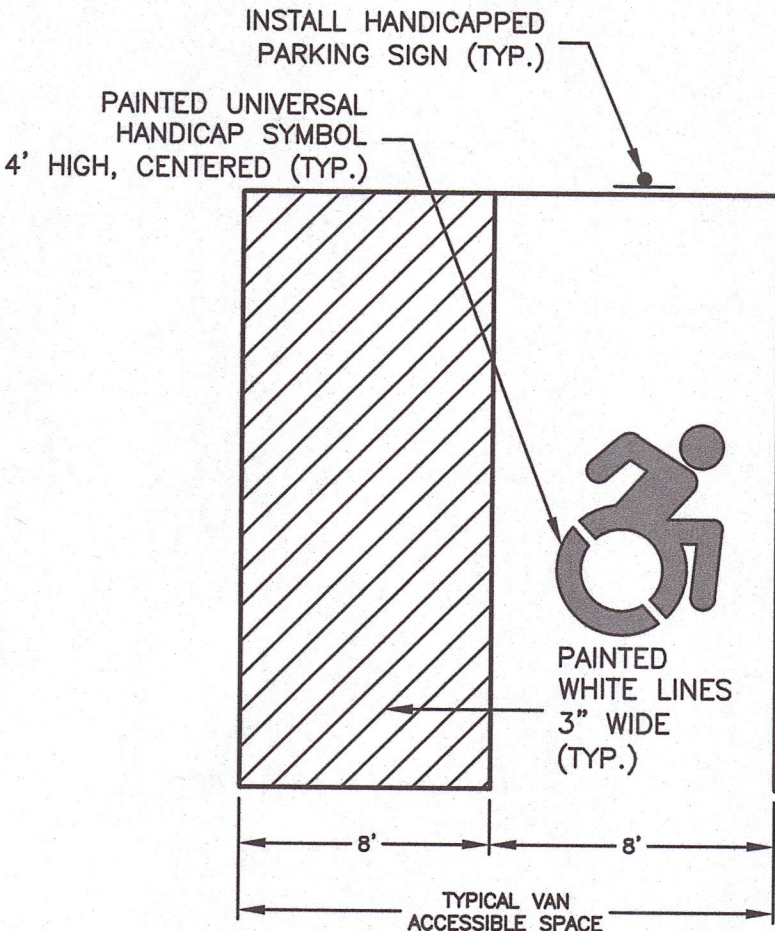
WOODCHIP BERM WITH SILT FENCE
NOT TO SCALE



NOTE:
SIGNS TO BE INSTALLED IN
ACCORDANCE WITH STATE OF
CONNECTICUT D.O.T. STANDARDS

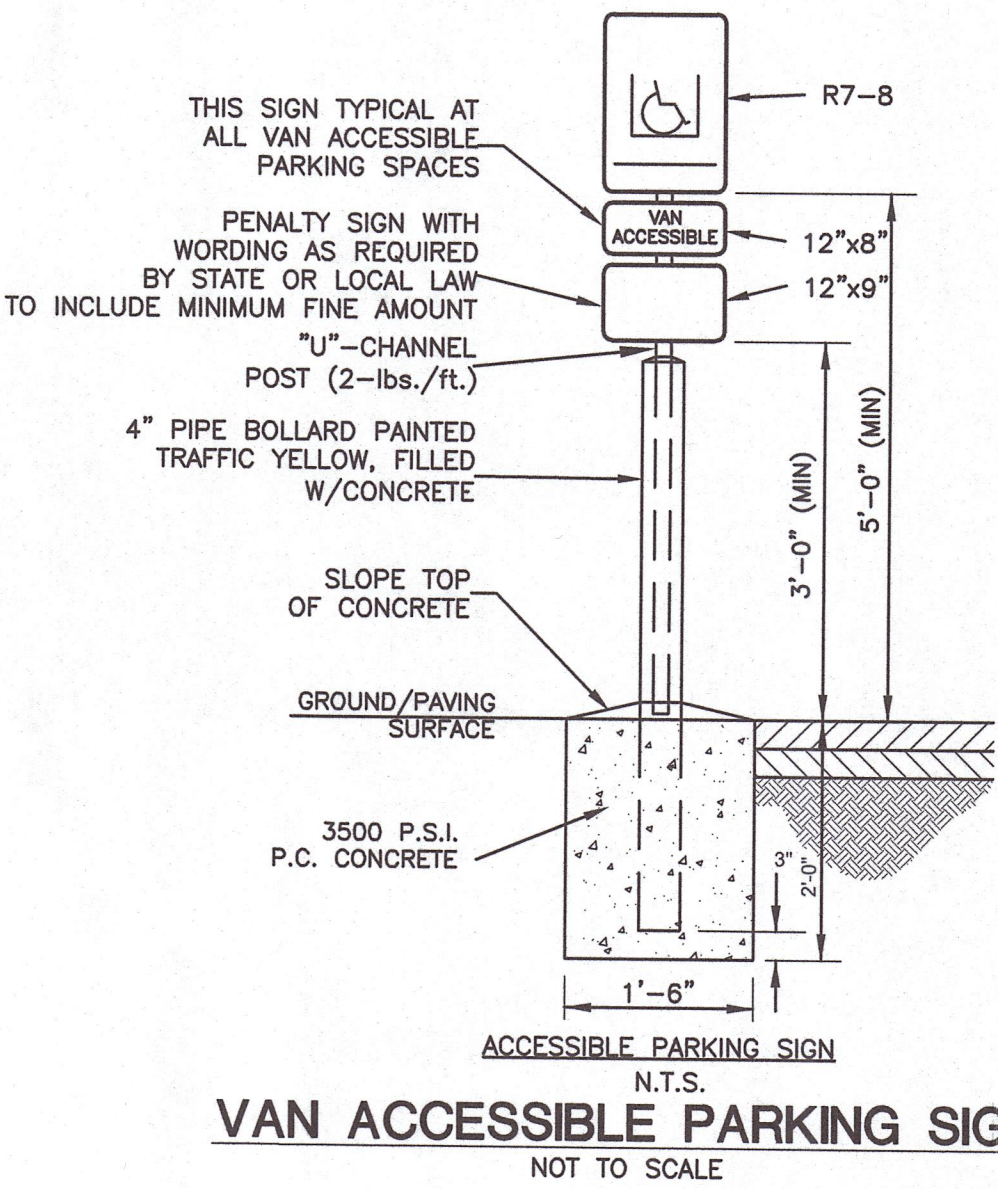
SECURE ALL SIGNS TO 1/2" DIA.
GALVANIZED STEEL POST WITH (2)
1/4" DIA. GALVANIZED BOLTS (1
TOP, 1 BOTTOM) (TYP)

TRAFFIC SIGNAGE
NOT TO SCALE



NOTES:
1. ALL ADA ACCESSIBLE SIGNING, DIMENSIONS AND SPACE MARKINGS SHALL BE IN ACCORDANCE WITH CGS 14-253az(h) AND THE 2003 PORTION OF THE STATE BUILDING CODE

TYPICAL HANDICAP VAN PARKING SPACE
NOT TO SCALE



VAN ACCESSIBLE PARKING SIGN
NOT TO SCALE

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1	2/02/24	HEALTH DEPT. COMMENTS		
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			Project No. CLA-7228	
			Proj. Engineer E.M.B.	
			Date: 4/19/23	
			Sheet No.	4

