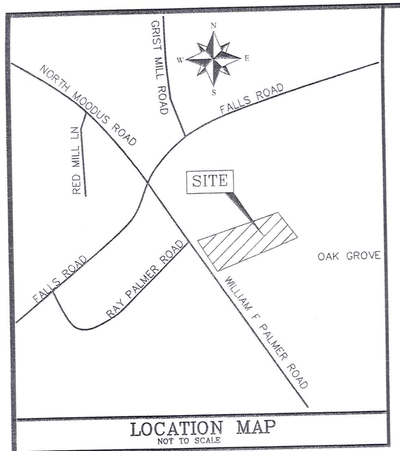


LOCATION MAP
NOT TO SCALE

ZONING TABLE

C/B/IG DISTRICT

MINIMUM LOT AREA	1/2 ACRE
MINIMUM LOT WIDTH	100 FT.
MINIMUM FRONT YARD	30 FT.
MINIMUM SIDE YARD & REAR	10-40* FT.
MINIMUM BUILDING SIZE	1000 SQ. FT.
MAXIMUM BUILDING COVERAGE	20%
MAXIMUM LOT COVERAGE	60%
MAXIMUM BUILDING HEIGHT	SEE SECT. 10.1.4

*SIDE YARD SETBACK IS AN AGGREGATE OF 40 FT. WITH THE NARROWEST BEING 10 FT. EXCEPT WHEN IT ABUTS A RESIDENTIAL DISTRICT OR TOWN ROAD, THE SETBACK IS A MINIMUM 20 FT.

PROPOSED BUILDING COVERAGE & LOT COVERAGE :

BUILDING COVERAGE: EXISTING BUILDING = 2,614 SQ. FT
PROPOSED BUILDING = 1,200 SQ. FT
TOTAL = 3,814.0 SQ. FT.

PROPOSED BUILDING COVERAGE=3,814 SQ. FT./52,280 SQ. FT.=7.3%

LOT COVERAGE: EXISTING BUILDING & IMP. AREA = 11,300 SQ. FT
PROPOSED BUILDING & IMP AREA = 6,400 SQ. FT
TOTAL = 17,700 SQ. FT.

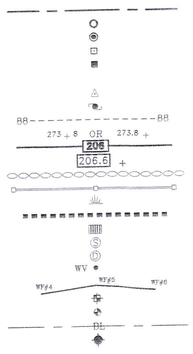
PROPOSED LOT COVERAGE=17,700 SQ. FT./52,280 SQ. FT.=33.9%

SEPTIC SYSTEM NOTE:
THE PROPOSED BUILDING IS FOR STORAGE ONLY AND WILL HAVE NO SINKS OR BATHROOMS, SEE ARCHITECTURAL PLANS FOR MORE INFORMATION

PARKING NOTE:
THE PROPOSED BUILDING IS FOR STORAGE ONLY AND HAS BEEN PROVIDED WITH ONE PROPOSED PARKING SPACE AS REQUIRED BY THE CURRENT ZONING REGULATIONS

LEGEND

PROPERTY LINE
ANGLE POINT IN PROPERTY LINE (COMPUTED)
IRON PIN OR DRILL HOLE (SET OR FOUND)
CONCRETE MONUMENT (COMPUTED)
CONCRETE MONUMENT (FOUND OR SET)
CHD: CONNECTICUT HIGHWAY DEPT. (MONUMENT)
SURVEY CONTROL POINT
UTILITY POLE
EXISTING CONTOUR LINE
EXISTING SPOT ELEVATION
PROPOSED CONTOUR LINE
PROPOSED SPOT ELEVATION
STONE WALL
WOOD FENCE
WETLANDS SYMBOL
SILTATION BARRIER (SILT FENCE OR HAY BALES)
CATCH BASIN
SANITARY SEWER MANHOLE
STORM DRAIN MANHOLE
WV: WATER VALVE
DELINEATED INLAND WETLANDS
TEST PIT
PERC HOLE
BUILDING SETBACK LINE
HYDRANT
PVC: POLYVINYLCHLORIDE PIPE
RCP: REINFORCED CONCRETE PIPE
CMP: CORRUGATED METAL PIPE
CPP: CORRUGATED PLASTIC PIPE
N/F: NOW OR FORMERLY



NOTES:

1. THIS MAP AND SURVEY WERE PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THROUGH 20-300B-20 OF THE REGULATIONS OF THE STATE OF CONNECTICUT AS WERE FILED WITH THE SECRETARY OF STATE ON JUNE 21, 1996 AND AS WERE AMENDED EFFECTIVE OCTOBER 26, 2018. THIS MAP AND SURVEY COMPRISE A TOPOGRAPHIC SURVEY MEETING THE STANDARDS FOR CLASS A-2 HORIZONTAL ACCURACY, V-2 VERTICAL ACCURACY, AND T-2 TOPOGRAPHIC ACCURACY. THE BOUNDARY INFORMATION SHOWN ON THIS PLAN IS FROM MAP REFERENCE #1.

2. THE CURRENT OWNER OF THIS PARCEL IS GLENN DURAND, AND THE CURRENT DEED CAN BE FOUND AT VOLUME 1146 PAGE 158. THIS PARCEL IS CURRENTLY ZONED COMMERCIAL/BUSINESS/ LIGHT INDUSTRIAL DISTRICT (C/B/IG).

3. THE PURPOSE OF THIS MAP IS FOR THE REGULATORY APPROVAL NECESSARY TO CONSTRUCT THE PROPOSED STORAGE BUILDING AND ASSOCIATED SITE IMPROVEMENTS.

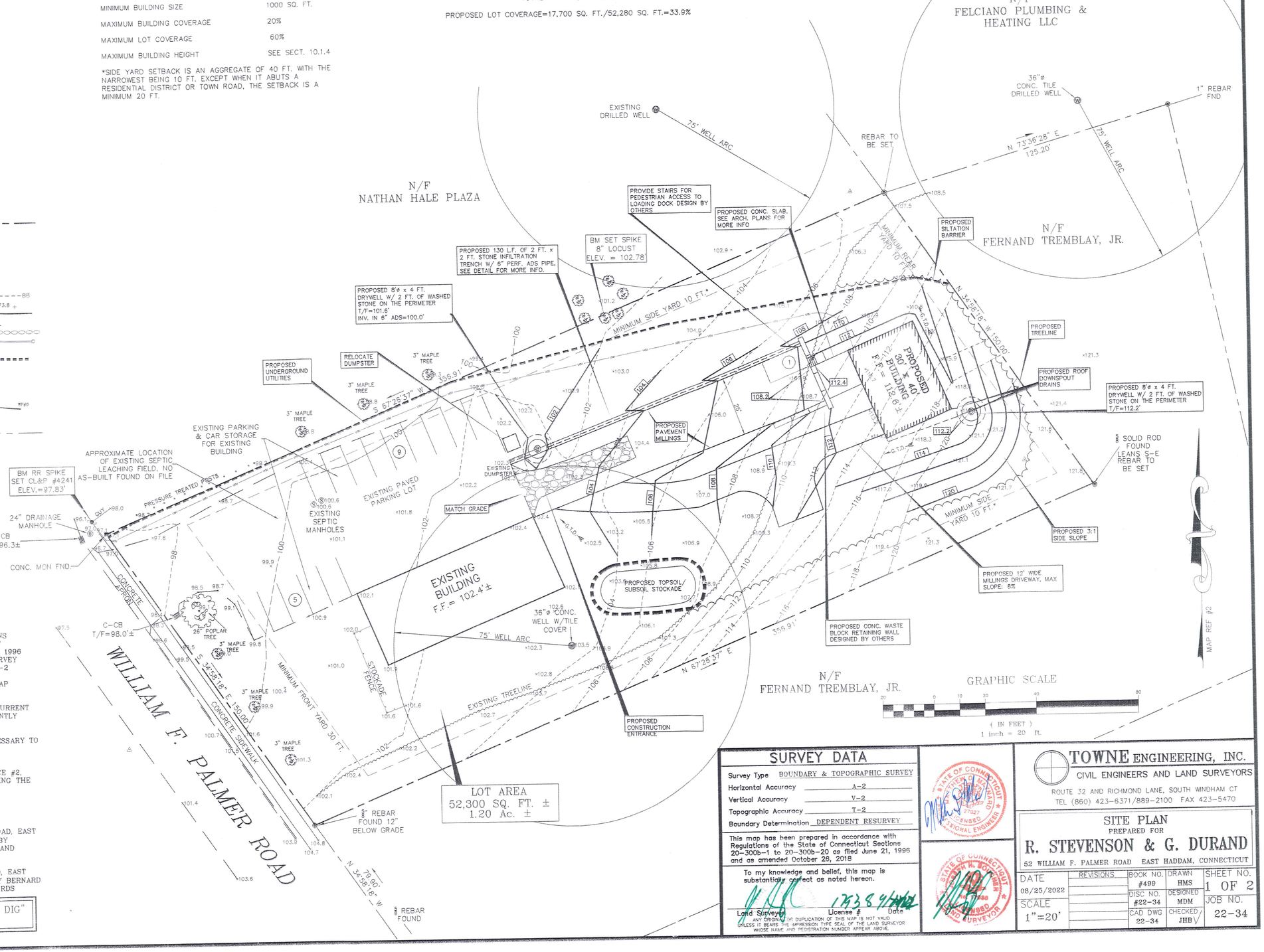
5. THE BEARING ORIENTATION OF THIS MAP IS BASED ON MAP REFERENCE #2, AND THE ELEVATION DATUM IS ASSUMED AND CAN BE REFERENCED BY USING THE BENCHMARKS SHOWN ON THIS MAP.

MAP REFERENCE:

1. SUBDIVISION OF LOTS 1, 2, 3, & 4. KENNETH COSSELETT, PALMER ROAD, EAST HADDAM, CONN. SCALE: 1"=40', DATED: NOVEMBER 13, 1972, AS PREPARED BY BERNARD F. STONE, P.E., L.S., SAID MAP IS #735 OF THE EAST HADDAM LAND RECORDS

2. RE-SUBDIVISION OF LOT #2, & 3. KENNETH COSSELTT, PALMER ROAD, EAST HADDAM, CONN. SCALE: 1"=40', DATED: JANUARY 18, 1973, AS PREPARED BY BERNARD F. STONE, P.E., L.S., SAID MAP IS #744 OF THE EAST HADDAM LAND RECORDS

ALL CONTRACTORS MUST CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 PRIOR TO ANY EXCAVATION.



SURVEY DATA

Survey Type	BOUNDARY & TOPOGRAPHIC SURVEY
Horizontal Accuracy	A-2
Vertical Accuracy	V-2
Topographic Accuracy	T-2
Boundary Determination	DEPENDENT RESURVEY

This map has been prepared in accordance with Regulations of the State of Connecticut Sections 20-300b-1 to 20-300b-20 as filed June 21, 1996 and as amended October 26, 2018

To my knowledge and belief, this map is substantially correct as noted hereon.

Land Surveyor — License # 17388 — Date 9/5/2022

ANY ORIGINAL OR DUPLICATION OF THIS MAP IS NOT VALID UNLESS IT BEARS THE IMPRESSION TYPE SEAL OF THE LAND SURVEYOR WHOSE NAME AND REGISTRATION NUMBER APPEAR ABOVE.

STATE OF CONNECTICUT — JOHN H. BOTTIMER — 17388 — LICENSED PROFESSIONAL ENGINEER

STATE OF CONNECTICUT — JOHN H. BOTTIMER — 17388 — LICENSED LAND SURVEYOR

TOWNE ENGINEERING, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
ROUTE 32 AND RICHMOND LANE, SOUTH WINDHAM CT
TEL (860) 423-6371/889-2100 FAX 423-5470

SITE PLAN
PREPARED FOR
R. STEVENSON & G. DURAND
52 WILLIAM F. PALMER ROAD EAST HADDAM, CONNECTICUT

DATE	REVISIONS	BOOK NO.	DRAWN	SHEET NO.
08/25/2022		#499	HMS	1 OF 2
SCALE		DISC NO.	DESIGNED	JOB NO.
1"=20'		#22-34	MDM	22-34
		CAD DWG	CHECKED	
		22-34	JHB	

EROSION AND SEDIMENTATION CONTROL NOTES

PROJECT DESCRIPTION:

THE PROJECT CONSISTS OF A PROPOSED BUILDING ADDITION, PARKING LOT EXPANSION, AND ASSOCIATED UTILITY INSTALLATIONS.

CONSTRUCTION SCHEDULE:

[A] INSTALL HAY BALES OR SILT FENCE AS SHOWN ON THE PLAN

[B] INSTALL CONSTRUCTION ENTRANCE, AND CLEAR AND GRUB SITE.

[C] CONSTRUCT BUILDING & ROUGH GRADE SITE.

[D] INSTALL REMAINING ASSOCIATED UTILITIES AND STORM DRAINAGE.

[E] INSTALL PROCESSED AGGREGATE / MILLINGS OF FINISHED GRADE AND COMPACT.

[F] FINISH GRADE SITE.

[G] FERTILIZE, SEED, & MULCH ALL DISTURBED AREAS.

ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO OR THE START OF CONSTRUCTION AND SHALL REMAIN IN EFFECT UNTIL ALL DISTURBED AREAS ARE STABILIZED WITH A STRONG AND HARDY STAND OF VEGETATION.

OPERATION AND MAINTENANCE:

IN GENERAL, EROSION AND SEDIMENTATION CONTROL AND RESTORATION MEASURES SHALL CONFORM TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION, AND TO LOCAL TOWN REQUIREMENTS.

THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE SITE TO ENSURE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES AND IMMEDIATELY MAKE NECESSARY REPAIRS.

WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA OR WHEN GRADING ACTIVITY HAS TEMPORARILY CEASED FOR A PERIOD OF TIME EXPECTED TO EXCEED ONE MONTH, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT CONTROL MEASURES ARE USED.

ADDITIONAL SEDIMENTATION AND/OR EROSION CONTROL MEASURES IF REQUESTED BY THE TOWN SHALL BE INSTALLED IMMEDIATELY UPON REQUEST.

ALL DISTURBED AREAS SHALL BE PROTECTED WITH A MINIMUM VEGETATION COVER AS SHOWN IN ACCOMPANYING CHART.

THE CONTRACTOR SHALL PLAN ALL LAND DISTURBING ACTIVITIES IN A MANNER AS TO MINIMIZE THE EXTENT OF THE DISTURBED AREAS.

THE CONTRACTOR HEREBY ACKNOWLEDGES HIS RESPONSIBILITY TO INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ON THIS SITE AND THAT HIS FAILURE TO INSTALL AND MAINTAIN THESE DEVICES COULD RESULT IN FINES OR SUSPENSION OF WORK.

ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED UNTIL SITE IS STABILIZED.

GENERAL NOTES

ALL CONTRACTORS AND USERS OF THIS PLAN MUST BE CERTAIN THAT THEY ARE USING AN APPROVED PLAN FOR CONTRACT AND CONSTRUCTION PURPOSES.

ALL STORMWATER CULVERTS SHALL BE ADS N-12, REINFORCED CONCRETE, OR APPROVED EQUAL. ALL CULVERTS INSTALLED SHALL BE BACKFILLED CAREFULLY WITH SELECT MATERIAL, AND COMPACTED TO AVOID ANY MEASURABLE SETTLEMENT. ALL CULVERTS ARE TO BE LAID ON A UNIFORM GRADE (AS SET BY LENGTH AND INVERTS SHOWN) AND IN A STRAIGHT LINE.

FILL SHALL BE PLACED ON SUITABLE, COMPACTED, STRUCTURAL SUBGRADE, IN 6" LIFTS. EACH LIFT SHALL BE COMPLETELY COMPACTED BEFORE THE NEXT LIFT IS INSTALLED. FILL SHALL BE CLEAN, STRUCTURAL FILL MEETING CLASS "A" REQUIREMENT FOR M.02.01 OF FORM 816.

ALL STUMPS AND DEBRIS ENCOUNTERED SHALL BE DISPOSED OF PROPERLY OFF SITE AND SHALL NOT BE BURIED ON SITE.

CATCH BASIN/DRY WELLS SHALL BE PRECAST CONCRETE WITH CAST IRON GRATES. CATCH BASINS SHALL BE INSTALLED LEVEL AND ON SUITABLE STRUCTURAL SUBGRADE. THE CATCH BASIN/DRY WELLS SHALL BE INSPECTED EVERY YEAR AND SHALL BE CLEANED OUT AS NECESSARY BY THE LAND OWNER.

ALL UNDERGROUND UTILITIES SHALL BE INSTALLED INSIDE A CONDUIT. ALL CONDUIT SHALL BE INSTALLED WITH SIX INCHES OF STONE FREE SAND ABOVE AND BELOW THE UTILITY LINE. MARKING TAPE SHALL ALSO BE PLACED DIRECTLY OVERTOP OF THE UTILITY CONDUIT AND BACKFILLED CAREFULLY.

THE EXISTING ENTRANCE ON PALMER ROAD SHALL BE UTILIZED FOR THIS PROJECT.

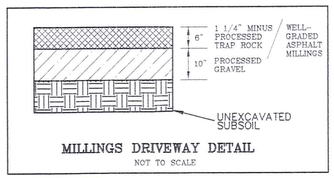
PARKING SHALL CONSIST OF 10" BANK RUN GRAVEL SUB-BASE MEETING GRADING "A" FOR THE REQUIREMENT FOR M.02.06, 6" PROCESS GRAVEL BASE OR WELL GRADED ASPHALT MILLINGS MEETING THE REQUIREMENTS OF M.05.01 OF FORM 816.

ALL PARKING SHALL CONFORM TO THE LOCAL ZONING REGULATIONS. ALL PARKING STALLS SHALL BE 9' WIDE AND 18' LONG, WITH THE MINIMUM AISLE WIDTH OF 24'. PARKING BUMPERS WHEN NEEDED, SHALL BE PRE-CAST CONCRETE, PLASTIC, OR APPROVED EQUAL. BUMPERS SHALL BE SECURED TO THE PAVEMENT USING STEEL DOWELS OR REBARS. PROPOSED BUMPERS SHALL BE INSTALLED 2.5 FT. BACK FROM THE EDGE OF PARKING LOT.

PROPOSED RETAINING WALL SHALL BE CONSTRUCTED OF PRECAST WASTE BLOCKS, DESIGNED BY OTHERS, AND SHALL BE PLACED 8" (MIN) COMPACTED PROCESSED GRAVEL OR OTHER SUITABLE MATERIAL.

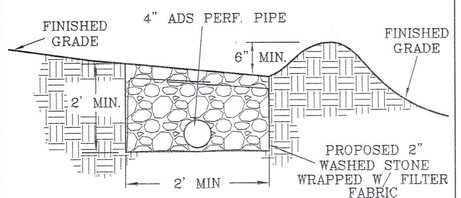
ALL BENCHMARKS AND TOPOGRAPHY SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ALL BENCHMARKS SET WITH A SPIKE ARE REFERENCING THE TOP OF THE NAIL HEAD FOR THE ELEVATION GIVEN, NOT THE SHAFT. THE TOPOGRAPHY IS FROM A FIELD SURVEY PERFORMED BY TOWNE ENGINEERING, INC.

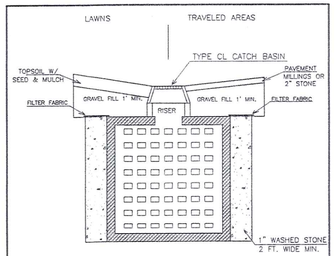
PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO DETERMINE AND MARK ANY UNDERGROUND UTILITIES.



MILLINGS DRIVEWAY DETAIL
NOT TO SCALE

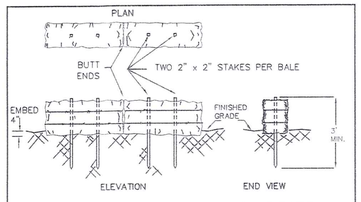
STONE INFILTRATION TRENCH
(NOT TO SCALE)



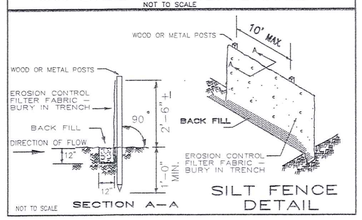


8' DIAMETER X 4' DEEP ROUND
PRE-CAST DRY WELL H-20 LOADING

LEACHING CATCH BASIN DETAIL
NOT TO SCALE

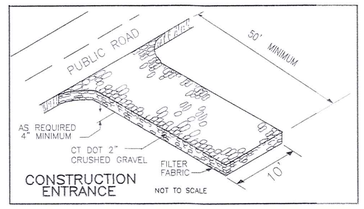


HAY BALE SILTATION BARRIER
NOT TO SCALE

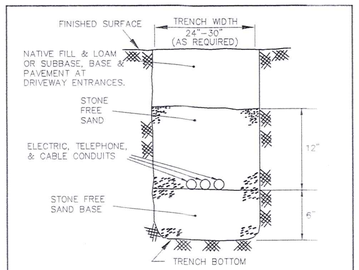


NOT TO SCALE SECTION A-A

SILT FENCE DETAIL



CONSTRUCTION ENTRANCE
NOT TO SCALE



NOTE:
PROPOSED UNDERGROUND UTILITIES SHALL BE INSTALLED IN FULL ACCORDANCE WITH CURRENT INDIVIDUAL UTILITY COMPANY SPECIFICATIONS

TRENCH SECTION FOR UTILITY CONDUITS
NOT TO SCALE

VEGETATIVE COVER FOR DISTURBED AREAS

SEEDING SCHEDULE

	SEED MIX	SEEDING SEASON
TEMPORARY	100% ANNUAL RYEGRASS	MARCH 1 TO JUNE 15 AUGUST 15 TO OCT. 1
PERMANENT	45% KENTUCKY BLUEGRASS 45% CREEPING RED FESCUE 10% PERENNIAL RYE GRASS (OR EQUAL)	APRIL 15 TO JUNE 15 AUGUST 15 TO SEPT. 15

APPLICATION RATES PER 1000 S.F.

	SEED MIX	FERTILIZER (10x10x10)	LIME	HAY MULCH
TEMPORARY	1 LB.	7.5 LBS.	45 LBS.	70-90 LBS.
PERMANENT	1 LB.	7.5 LBS.	90 LBS.	70-90 LBS.

TEMPORARY MULCH

TO BE USED IN AREAS WHICH CANNOT BE SEEDED WITHIN THE SPECIFIED SEEDING SEASONS.

APPLICATION RATE 70-90 LBS./1000 SF

ASPHALT OR SYNTHETIC LIQUID MULCH BINDER SHALL BE APPLIED OVER ALL HAY MULCH AT THE RATES SPECIFIED BY THE MANUFACTURER.

DRAINAGE NARRATIVE:
Proposed Condition
Peak storm analysis

Impervious Area
6,400 sq. ft. / 0.15 Ac.

Time of Concentration:
Sheet: all impervious
Using: Tc = 5 min

Runoff Coefficient:
(all impervious)
Using: C = 1.0

Rainfall Intensity:
(per NOAA ATLAS-14)
2 Yr. & Tc=5: I = 4.8 in/hr.
10 Yr. & Tc=5: I = 7.3 in/hr.
25 Yr. & Tc=5: I = 8.9 in/hr.
100 Yr. & Tc=5: I = 11.3 in/hr.

Peak Flow:
Q(yr) = CIA
Q(2)= 4.8 in/hr (0.15 Ac.) 1.0= 0.72 cfs.
Q(10)= 7.3 in/hr (0.15 Ac.) 1.0= 1.10 cfs.
Q(25)= 8.9 in/hr (0.15 Ac.) 1.0= 1.34 cfs.
Q(100)= 11.3 in/hr (0.15 Ac.) 1.0= 1.70 cfs.

Peak Flow Volume: (unit Hygrograph method)
Tc = 5 min, Tt = 12.5 min
Volume = ½ [Qp * Tt * 60 min/sec]
V(2)=0.5[0.72 cfs. x 12.5 min. x 60 min/sec.] = 270 cu. ft.
V(10)=0.5[1.10 cfs. x 12.5 min. x 60 min/sec.] = 412.5 cu. ft.
V(25)=0.5[1.34 cfs. x 12.5 min. x 60 min/sec.] = 502.5 cu. ft.
V(100)=0.5[1.70 cfs. x 12.5 min. x 60 min/sec.] = 637.5 cu. ft.

Proposed stormwater control:
Proposing: Two 8 ft. ø x 4 ft. tall concrete dry wells, along with 130 ft. of 2 ft. x 2 ft. stone infiltration trench.

Proposed Dry Storage Capacity

Leaching trench volume:(utilizing 30% pore space)

Dry Storage: 2 ft. x 2 ft. x 130 ft. long x 0.3 = 156 cu. ft.

Drywell Dry Storage Volume:
V=A x H = π x R^2 x H =(π x 8 FT.^2) x 4 FT =201.0 CU. FT

Drywell Stone Volume: (utilizing 30% pore space)
proposing 2 ft. of stone on both drywells
V=A x H = π x R^2 x H
=π x ((8 FT.^2)-(12^2)) x 4 FT x 0.3 =75.4 CU. FT/drywell
=75.4 cu. ft. x 2 drywells =150.8 cu. ft.

Total Storage Proposed:

Item	Capacity
Drywells	402.0 cu. ft.
Leaching Trench	156.0 cu. ft.
Drywell leaching	150.8 cu. ft.
Total proposed dry storage	708.8 cu. ft.

Conclusion: The total predicted rain amount for the storms analyzed are a minimum of 270 cu. ft. and a maximum of 637.5, which is significantly less than the proposed stormwater control capacity of 708 cu. ft., and therefore this design is acceptable.

TOWNE ENGINEERING, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
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SITE PLAN
PREPARED FOR
R. STEVENSON & G. DURAND
52 WILLIAM F. PALMER ROAD EAST HADDAM, CONNECTICUT

DATE	REVISIONS	BOOK NO.	DRAWN	SHEET NO.
08/25/2022		#499	HMS	2 OF 2
SCALE		DISC NO.	DESIGNED	JOB NO.
N.T.S.		#22-34	MDM	22-34
		CAD DWG	CHECKED	
		22-34	JHB	