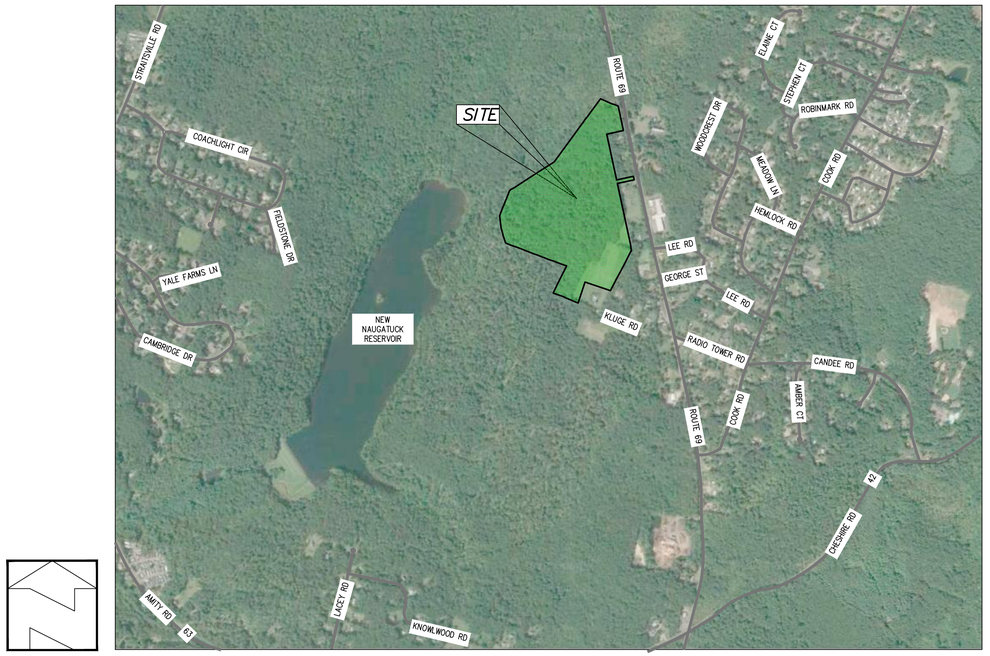
PROSPECT SPORTING CLUB

PERMITTING SET

NOT FOR CONSTRUCTION

178 NEW HAVEN ROAD
PROSPECT, CT



APPLICANT

PROSPECT GUN CLUB, INC.
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

OWNER

PETER VISOCKIS, VICTOR VISOCKIS,
& VICTOR VISOCKIS, JR.
73 GRANDVIEW AVENUE
NEWINGTON, CT 06111

ENGINEER / SURVEYOR

CIVIL 1
43 SHERMAN HILL ROAD, SUITE D-101
WOODBURY, CT

VICINITY MAP

1000 0 500 1000 2000

1 inch = 1000 ft.

CIVIL 1

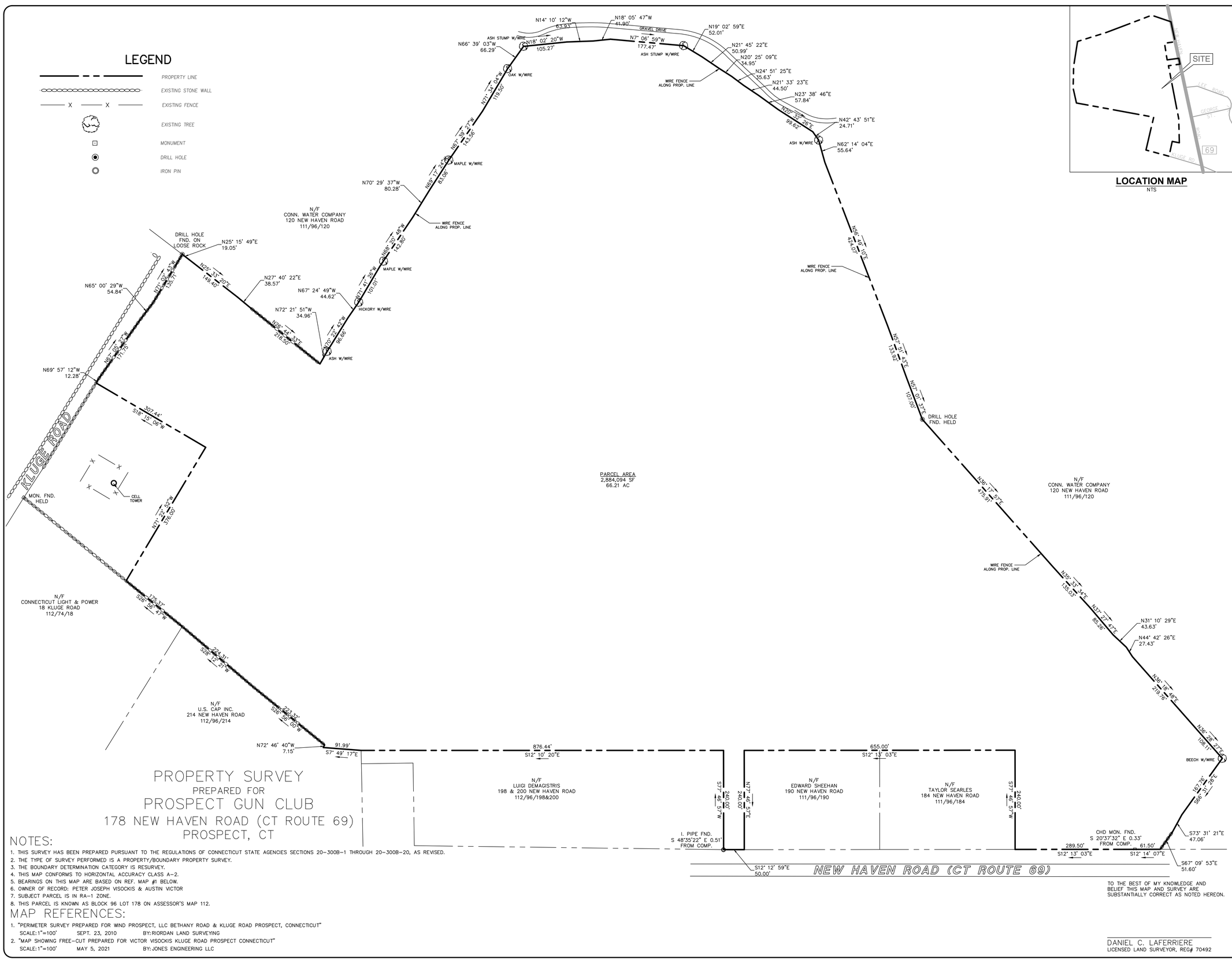
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266-0778 CONNECTICUT

JANUARY 24, 2023

SHEET NUMBER	DESCRIPTION
S 1.1	ZONING LOCATION SURVEY
C 1.1	EXISTING CONDITIONS MAP
C 2.0	OVERALL SITE PLAN
C 2.1	GRADING, DRAINAGE & EROSION CONTROL PLAN
C 2.2	GRADING, DRAINAGE & EROSION CONTROL PLAN
C 2.3	GRADING, DRAINAGE & EROSION CONTROL PLAN
C 3.1	DRIVEWAY PROFILE & STORM DRAINAGE PROFILES
C 4.1	SEPTIC SYSTEM DESIGN, NOTES AND DETAILS
C 5.1	DETAILS
C 5.2	DETAILS
C 5.3	DETAILS
C 6.1	EROSION CONTROL NARRATIVE & PROJECT NOTES

LEGEND

- PROPERTY LINE
- EXISTING STONE WALL
- EXISTING FENCE
- EXISTING TREE
- MONUMENT
- DRILL HOLE
- IRON PIN



PROPERTY SURVEY
PREPARED FOR
PROSPECT GUN CLUB
178 NEW HAVEN ROAD (CT ROUTE 69)
PROSPECT, CT

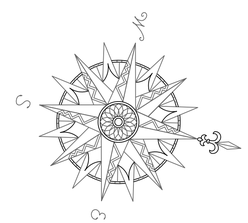
NOTES:
1. THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THROUGH 20-300B-20, AS REVISED.
2. THE TYPE OF SURVEY PERFORMED IS A PROPERTY/BOUNDARY PROPERTY SURVEY.
3. THE BOUNDARY DETERMINATION CATEGORY IS RESURVEY.
4. THIS MAP CONFORMS TO HORIZONTAL ACCURACY CLASS A-2.
5. BEARINGS ON THIS MAP ARE BASED ON REF. MAP #1 BELOW.
6. OWNER OF RECORD: PETER JOSEPH VISOCKIS & AUSTIN VICTOR
7. SUBJECT PARCEL IS IN RA-1 ZONE.
8. THIS PARCEL IS KNOWN AS BLOCK 96 LOT 178 ON ASSESSOR'S MAP 112.

MAP REFERENCES:
1. "PERIMETER SURVEY PREPARED FOR WIND PROSPECT, LLC BETHANY ROAD & KLUGE ROAD PROSPECT, CONNECTICUT"
   SCALE: 1"=100' SEPT. 23, 2010 BY: RIORDAN LAND SURVEYING
2. "MAP SHOWING FREE-CUT PREPARED FOR VICTOR VISOCKIS KLUGE ROAD PROSPECT CONNECTICUT"
   SCALE: 1"=100' MAY 5, 2021 BY: JONES ENGINEERING LLC

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP AND SURVEY ARE SUBSTANTIALLY CORRECT AS NOTED HEREON.

DANIEL C. LAFERRIERE
LICENSED LAND SURVEYOR, REG# 70492

LOCATION MAP
NTS



NO.	REVISION	
	Previous Editions Obsolete	

100 0 50 100 200
1 inch = 100 feet

PROSPECT GUN CLUB
221 CHESHIRE ROAD
PROSPECT, CT 06712

PROPERTY SURVEY

178 NEW HAVEN ROAD (CT ROUTE 69)

PROSPECT CONNECTICUT

CIVIL C1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

DRAWN: DCL	APPROVED: DCL
SCALE:	1" = 100'
DATE:	17 DEC 21
PROJ. NO.:	3094
CADD FILE NAME:	3094-SURVEY
DRAWING NO.:	1 OF 1

NOTES:

1. BOUNDARY INFORMATION TAKEN FROM MAP ENTITLED "PROPERTY SURVEY PREPARED FOR PROSPECT GUN CLUB 178 NEW HAVEN ROAD" PREPARED BY CIVIL 1.
2. THE TOTAL AREA OF THE PROPERTY IS 66.21 AC.
3. ZONING OF THE PROPERTY IS RA-1
4. WETLANDS ON THE PROPERTY WERE FLAGGED BY VHB, INC.
5. OWNER OF RECORD: PETER JOSEPH & AUSTIN VICTOR VISOCKIS
6. FOR LOCATION OF UNDERGROUND ELECTRIC, TELEPHONE, OR OTHER FACILITIES OF PUBLIC UTILITIES, INQUIRE OF THE APPROPRIATE UTILITY COMPANY
7. LOCATION AND ELEVATIONS OF UTILITIES ARE TAKEN FROM FIELD SURVEY AND BEST AVAILABLE INFORMATION. SOME MAY BE APPROXIMATE.
8. ALL UTILITIES SHALL BE CONFIRMED PRIOR TO CONSTRUCTION.

LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING CONTOUR
- TREE LINE
- WETLAND LINE
- 100' UPLAND REVIEW BOUNDARY
- WETLAND FLAG
- WETLANDS AREA
- EXISTING STONE WALL
- EXISTING FENCE

N/F
CONN. WATER COMPANY
120 NEW HAVEN ROAD
111/96/120

MBL: 112-96-178
178 NEW HAVEN ROAD (CT ROUTE 69)
TOTAL PARCEL AREA: 2,884,094 SF = 66.21 AC.

N/F
CONN. WATER COMPANY
120 NEW HAVEN ROAD
111/96/120

N/F
CONNECTICUT LIGHT & POWER
18 KLUGE ROAD
112/74/18

N/F
U.S. CAP INC.
214 NEW HAVEN ROAD
112/96/214

N/F
MICHAEL BRUNETTI
VOL. 476, P. 143

N/F
LUIGI DEMAGISTRIS
198 & 200 NEW HAVEN ROAD
112/96/198&200

N/F
EDWARD SHEEHAN
190 NEW HAVEN ROAD
111/96/190

N/F
TAYLOR SEARLES
184 NEW HAVEN ROAD
111/96/184

GEORGE ST.

LEE RD.

NO.	REVISION	

Previous Editions Obsolete

100 0 50 100 200
1 inch = 100 feet

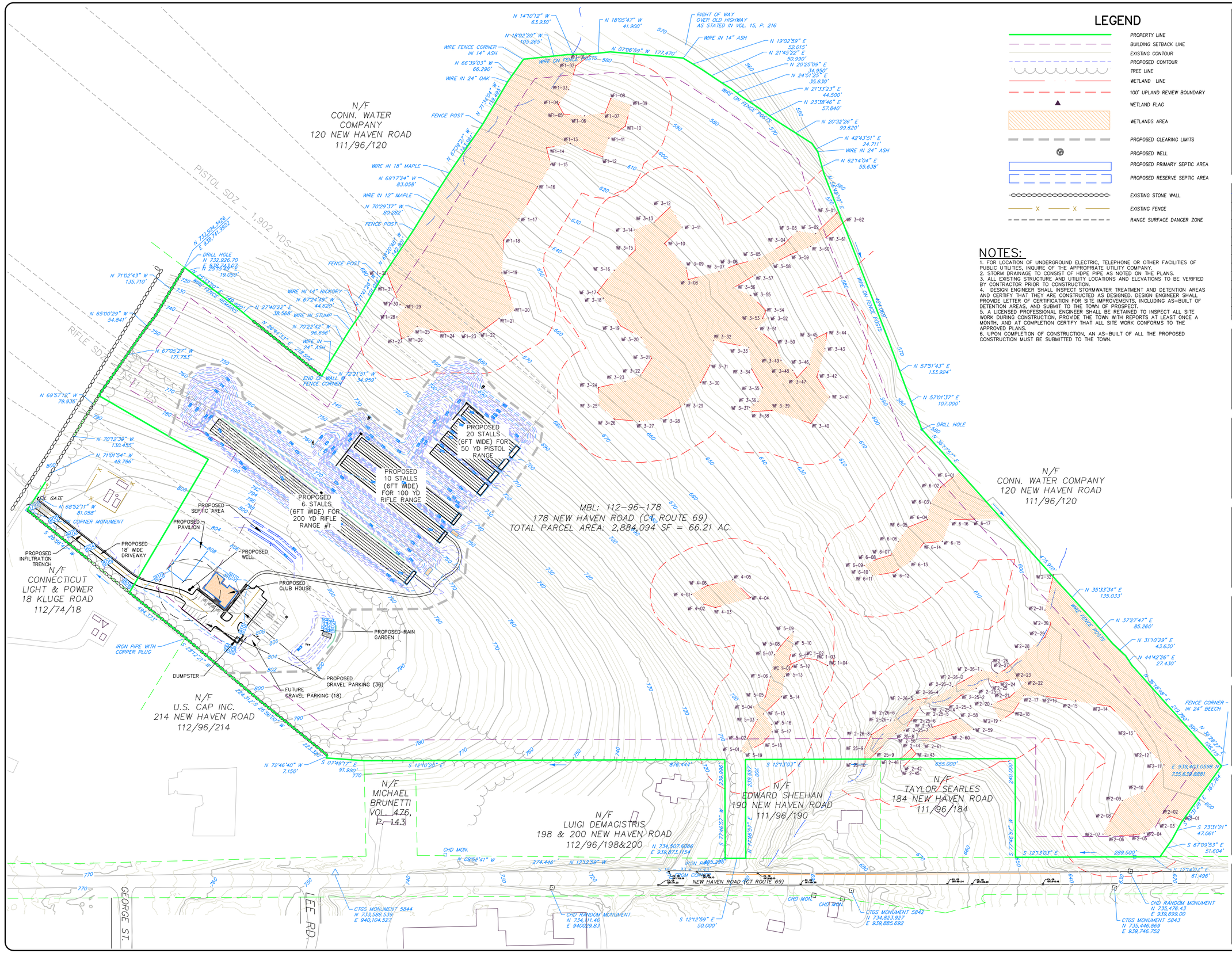
PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

EXISTING CONDITIONS MAP

PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD
PROSPECT CONNECTICUT

CIVIL 1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

DRAWN: EJ/JL	APPROVED: CJ
SCALE:	1" = 100'
DATE:	24 JAN 23
PROJ. NO.:	3094
CADD FILE NAME:	3094
DRAWING NO.:	C 1.1



LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TREE LINE
- WETLAND LINE
- 100' UPLAND REVIEW BOUNDARY
- WETLAND FLAG
- WETLANDS AREA
- PROPOSED CLEARING LIMITS
- PROPOSED WELL
- PROPOSED PRIMARY SEPTIC AREA
- PROPOSED RESERVE SEPTIC AREA
- EXISTING STONE WALL
- EXISTING FENCE
- RANGE SURFACE DANGER ZONE

NOTES:

1. FOR LOCATION OF UNDERGROUND ELECTRIC, TELEPHONE OR OTHER FACILITIES OF PUBLIC UTILITIES, INQUIRE OF THE APPROPRIATE UTILITY COMPANY.
2. STORM DRAINAGE TO CONSIST OF HDPE PIPE AS NOTED ON THE PLANS.
3. ALL EXISTING STRUCTURE AND UTILITY LOCATIONS AND ELEVATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
4. DESIGN ENGINEER SHALL INSPECT STORMWATER TREATMENT AND DETENTION AREAS AND CERTIFY THAT THEY ARE CONSTRUCTED AS DESIGNED. DESIGN ENGINEER SHALL PROVIDE LETTER OF CERTIFICATION FOR SITE IMPROVEMENTS, INCLUDING AS-BUILT OF DETENTION AREAS, AND SUBMIT TO THE TOWN OF PROSPECT.
5. A LICENSED PROFESSIONAL ENGINEER SHALL BE RETAINED TO INSPECT ALL SITE WORK DURING CONSTRUCTION, PROVIDE THE TOWN WITH REPORTS AT LEAST ONCE A MONTH, AND AT COMPLETION CERTIFY THAT ALL SITE WORK CONFORMS TO THE APPROVED PLANS.
6. UPON COMPLETION OF CONSTRUCTION, AN AS-BUILT OF ALL THE PROPOSED CONSTRUCTION MUST BE SUBMITTED TO THE TOWN.

NO.	REVISION	

Previous Editions Obsolete

100 0 50 100 200

1 inch = 100 feet

PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

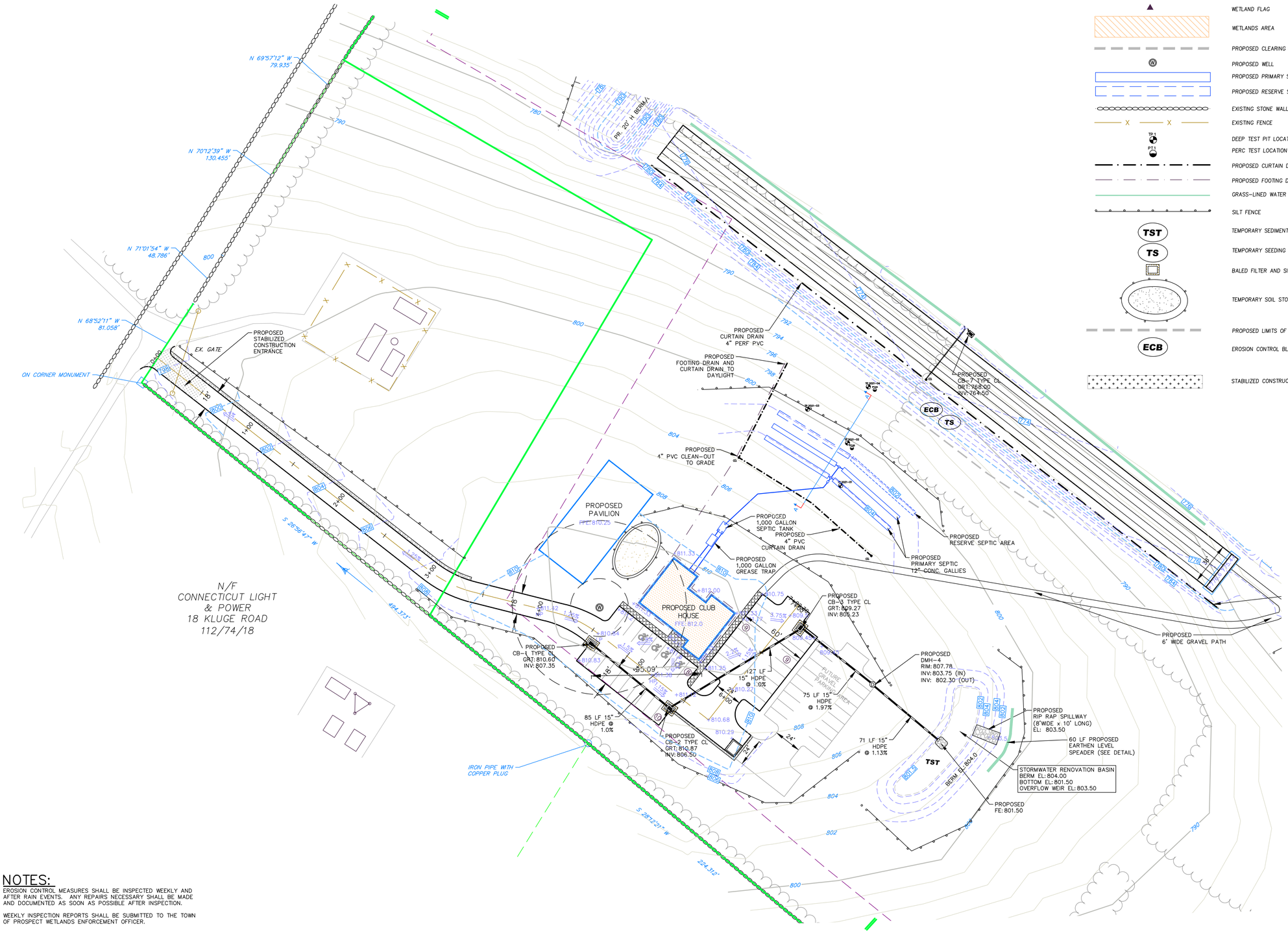
OVERALL SITE PLAN

PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD

PROSPECT CONNECTICUT

CIVIL C1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

DRAWN:	EJ/JL
APPROVED:	CJ
SCALE:	1" = 100'
DATE:	24 JAN 23
PROJ. NO.:	3094
CADD FILE NAME:	3094
DRAWING NO.:	C 2.0



LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TREE LINE
- WETLAND LINE
- 100' UPLAND REVIEW BOUNDARY
- WETLAND FLAG
- WETLANDS AREA
- PROPOSED CLEARING LIMITS
- PROPOSED WELL
- PROPOSED PRIMARY SEPTIC AREA
- PROPOSED RESERVE SEPTIC AREA
- EXISTING STONE WALL
- EXISTING FENCE
- DEEP TEST PIT LOCATION WITH NUMBER
- PERC TEST LOCATION WITH NUMBER
- PROPOSED CURTAIN DRAIN
- PROPOSED FOOTING DRAIN
- GRASS-LINED WATER QUALITY SWALE
- SILT FENCE
- TST — TEMPORARY SEDIMENT TRAP
- TS — TEMPORARY SEEDING
- BALED FILTER AND SILT SACK
- TEMPORARY SOIL STOCKPILE AREA
- PROPOSED LIMITS OF DISTURBANCE
- ECB — EROSION CONTROL BLANKET
- STABILIZED CONSTRUCTION ENTRANCE

NOTES:

EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER RAIN EVENTS. ANY REPAIRS NECESSARY SHALL BE MADE AND DOCUMENTED AS SOON AS POSSIBLE AFTER INSPECTION.

WEEKLY INSPECTION REPORTS SHALL BE SUBMITTED TO THE TOWN OF PROSPECT WETLANDS ENFORCEMENT OFFICER.

NO.	REVISION	
	Previous Editions Obsolete	

40 0 20 40 80

1 inch = 40 feet

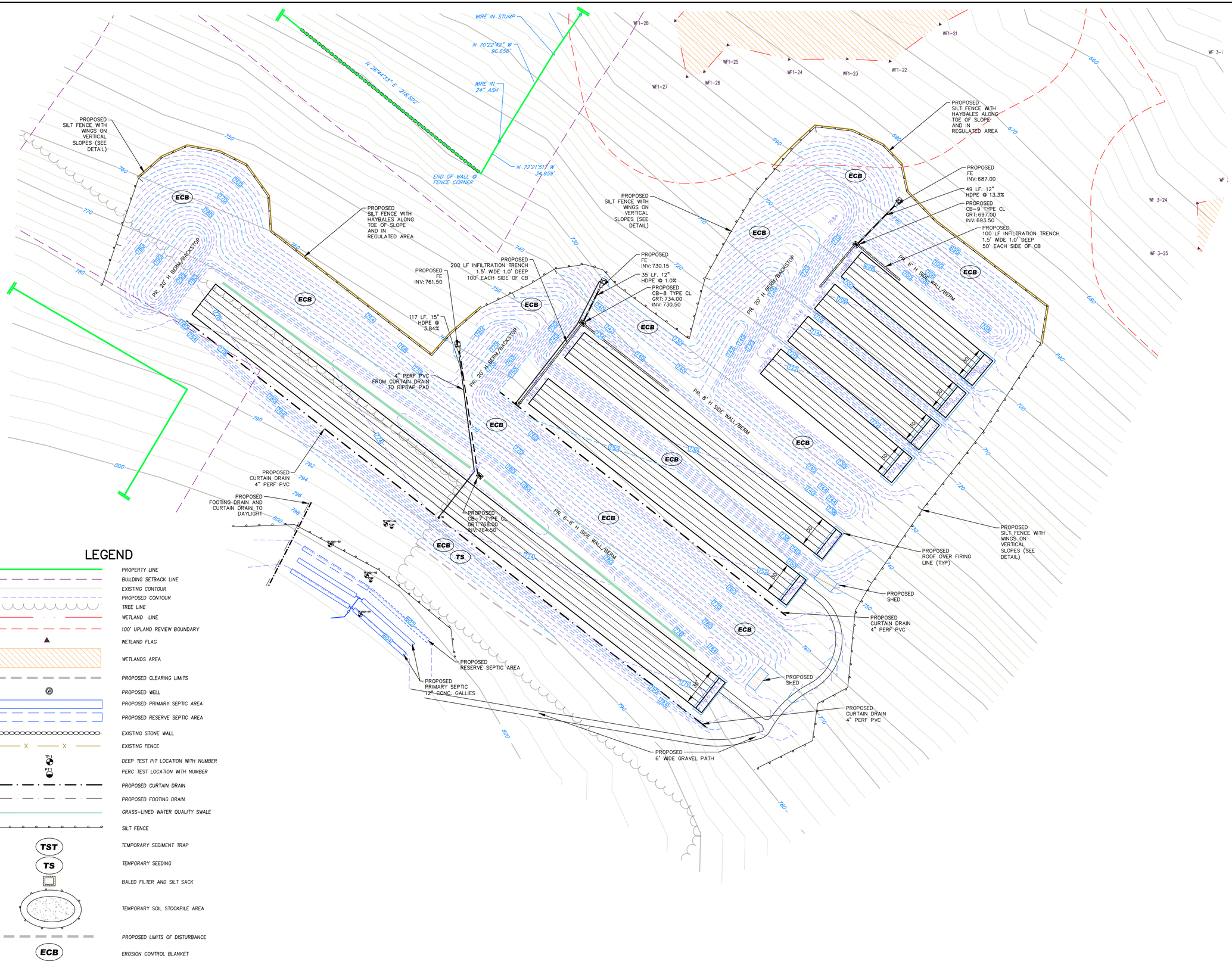
PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

GRADING & DRAINAGE PLAN

PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD
PROSPECT CONNECTICUT

CIVIL 1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

DRAWN:	EJ/JL
APPROVED:	CJ
SCALE:	1" = 40'
DATE:	24 JAN 23
PROJ. NO.:	3094
CADD FILE NAME:	3094
DRAWING NO.:	C 2.1



LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TREE LINE
- WETLAND LINE
- 100' UPLAND REVIEW BOUNDARY
- WETLAND FLAG
- WETLANDS AREA
- PROPOSED CLEARING LIMITS
- PROPOSED WELL
- PROPOSED PRIMARY SEPTIC AREA
- PROPOSED RESERVE SEPTIC AREA
- EXISTING STONE WALL
- EXISTING FENCE
- DEEP TEST PIT LOCATION WITH NUMBER
- PERC TEST LOCATION WITH NUMBER
- PROPOSED CURTAIN DRAIN
- PROPOSED FOOTING DRAIN
- GRASS-LINED WATER QUALITY SWALE
- SILT FENCE
- TST — TEMPORARY SEDIMENT TRAP
- TS — TEMPORARY SEEDING
- BALED FILTER AND SILT SACK
- TEMPORARY SOIL STOCKPILE AREA
- PROPOSED LIMITS OF DISTURBANCE
- ECB — EROSION CONTROL BLANKET

NO.	REVISION	

Previous Editions Obsolete

40 0 20 40 80

1 inch = 40 feet

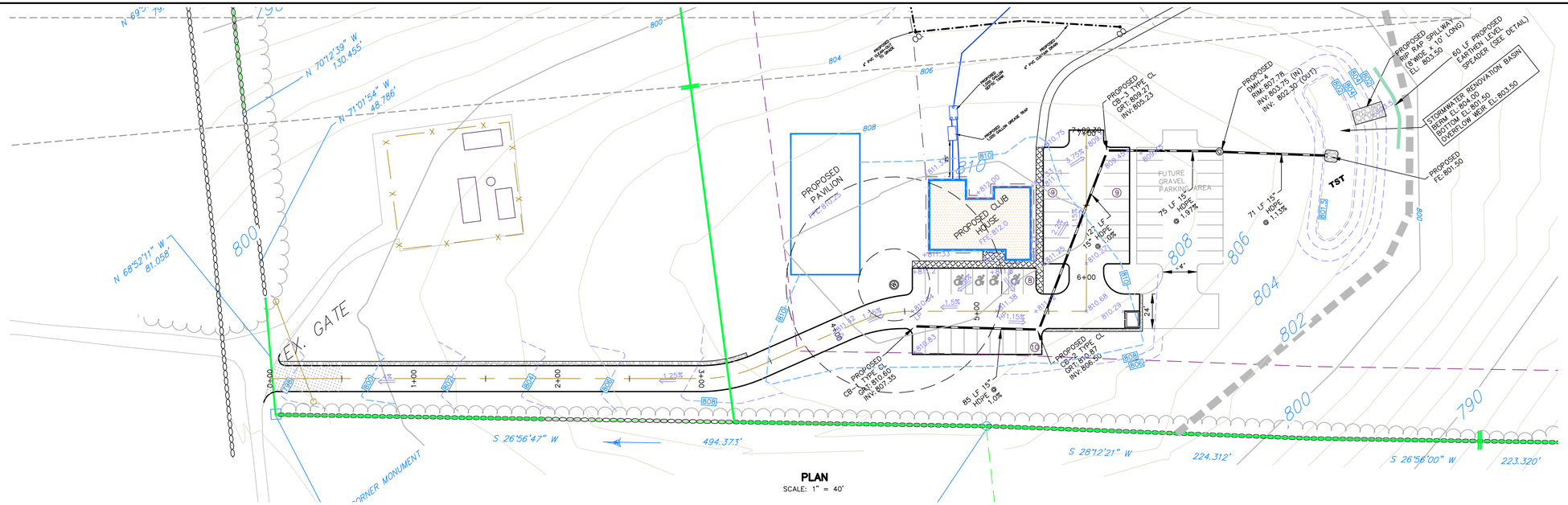
PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

GRADING, DRAINAGE & EROSION CONTROL PLAN FIRING RANGE

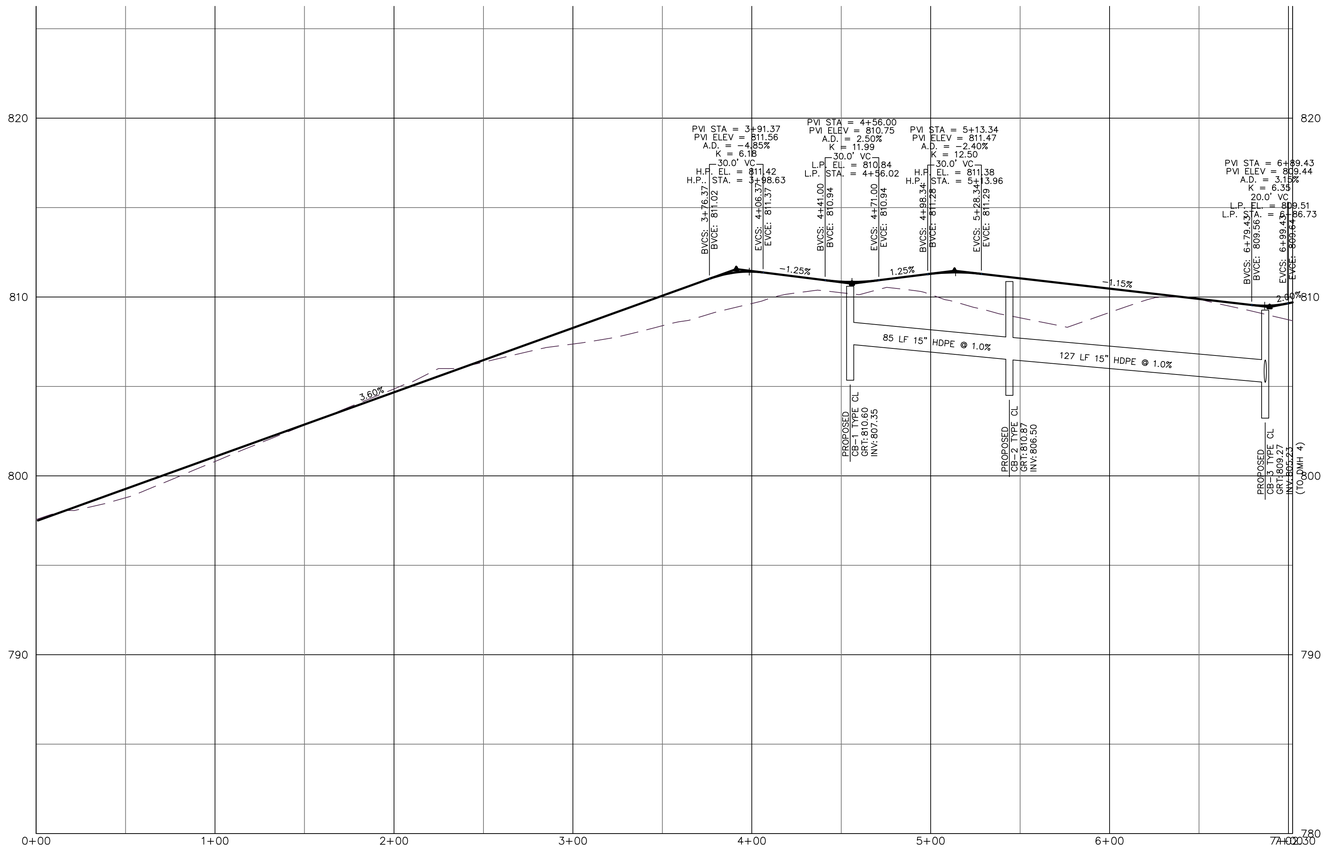
PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD
PROSPECT CONNECTICUT

CIVIL C1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266-0778 CONNECTICUT

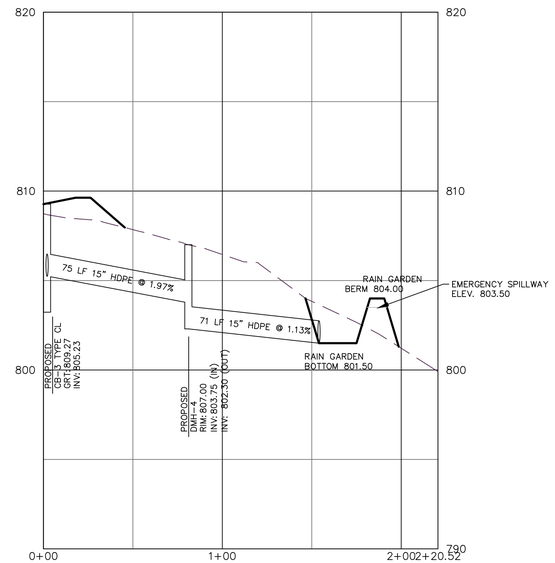
DRAWN: EJ/JL APPROVED: CJ
SCALE: 1" = 40'
DATE: 24 JAN 23
PROJ. NO.: 3094
CADD FILE NAME: 3094
DRAWING NO.: C 2.2



PLAN
SCALE: 1" = 40'



DRIVEWAY CENTERLINE PROFILE
SCALE: 1" = 40' HOR.
1" = 4' VERT.



CB 3 TO STORMWATER RENOVATION AREA
SCALE: 1" = 40' HOR.
1" = 4' VERT.

NO.	REVISION	
	Previous Editions Obsolete	

40 0 20 40 80
1 inch = 40 feet

PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

DRIVEWAY PLAN & PROFILE & STORM DRAINAGE PROFILES

PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD
PROSPECT CONNECTICUT

CIVIL C1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

DRAWN: EJ/JL APPROVED: CJ
SCALE: 1" = 40'
DATE: 24 JAN 23
PROJ NO.: 3094
CADD FILE NAME: 3094
DRAWING NO.:
C 3.1

SOIL TESTING RESULTS

Deep Hole Test Pits witness by Chesprocott (Julia Burdack), Civil 1 (Michael Lambert) and Propsect Gun Club (Bob Wnek)
On November 17, 2021 at 11:00am, Cloudy, 45°

Deep Test Pit #2021–01
0–11" Topsoil
10–21" Orange Brown Fine Sandy Loam
21–63" Brown Fine Sandy Loam
Ground Water at 21"
No Mottling Witnessed
Ledge at 63"

Deep Test Pit #2021–02
0–10" Topsoil
10–20" Orange Brown Fine Sandy Loam
20–56" Brown Fine Sandy Loam
Ground Water at 20"
No Mottling Witnessed
Ledge at 56"

Deep Test Pit #2021–03
0–10" Topsoil
10–18" Orange Brown Fine Sandy Loam
18–60" Brown Fine Sandy Loam
Ground Water at 18"
No Mottling Witnessed
Ledge at 60"

Deep Test Pit #2021–04
0–9" Topsoil
9–20" Orange Brown Fine Sandy Loam
20–52" Brown Fine Sandy Loam
Ground Water at 20"
No Mottling Witnessed
Ledge at 52"

Percolation Test #2021–02 November 17, 2021
Depth of Hole: 16" Presoak: 11/16/2021
2:00pm
Time Reading
11:05 5"
11:15 7"
11:30 9– 1/2"
11:45 11"
12:00 12– 1/4"
12:13 14"
< 3"
Percolation Rate = 10.1–20.0 minutes per inch

Percolation Test #2021–04 November 17, 2021
Depth of Hole: 16" Presoak: 11/16/2021
2:00pm
Time Reading
11:07 2– 1/2"
11:17 5– 1/4"
11:32 7– 3/4"
11:47 9– 1/4"
12:02 10– 1/2"
12:15 11– 1/2"
< 3"
Percolation Rate = 10.1–20.0 minutes per inch

SOIL TESTING RESULTS

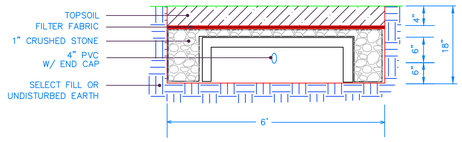
Deep Hole Test Pits witness by Michael Lambert, Civil 1
On November 15, 2021 at 1:00pm, Cloudy, 45°

Deep Test Pit #2021–01
0–10" Topsoil
10–18" Light Brown Fine Sandy Loam
18–63" Brown Fine Sandy Loam
Seepage/Ground Water at 18"
No Mottling Witnessed
Ledge at 63"

Deep Test Pit #2021–02
0–10" Topsoil
10–21" Light Brown Fine Sandy Loam
21–56" Brown Fine Sandy Loam
Seepage/Ground Water at 21"
No Mottling Witnessed
Ledge at 56"

Deep Test Pit #2021–03
0–8" Topsoil
8–18" Light Brown Fine Sandy Loam
18–60" Brown Fine Sandy Loam
Seepage/Ground Water at 18"
No Mottling Witnessed
Ledge at 60"

Deep Test Pit #2021–04
0–8" Topsoil
8–22" Light Brown Fine Sandy Loam
22–52" Brown Fine Sandy Loam
Seepage/Ground Water at 22"
No Mottling Witnessed
Ledge at 52"



12" LEACHING GALLERY DETAIL
N.T.S.

SEPTIC SYSTEM SIZING ANALYSIS – PROPOSED CONDITIONS

DESIGN FLOW:
200 MEMBERS AT 5 GPD/MEMBERS = 1,000 GPD DESIGN FLOW

PRIMARY LEACHING AREA:
PERC RATE: 10.1–20.0 MIN/INCH
APPLICATION RATE (TABLE 7 – KITCHEN USE): 0.7 GPD/SF OF ELA
EFFECTIVE LEACHING AREA REQUIRED = 1,000 / 0.7 = 1,428.5 SF REQUIRED
EFFECTIVE LEACHING AREA PROVIDED = 256 LF OF 12" CONCRETE GALLERIES X 5.9 SF/LF = 1,510.4 SF PROVIDED

RESERVE LEACHING AREA:
PERC RATE: 10.1–20.0 MIN/INCH
EFFECTIVE LEACHING AREA REQUIRED = 1,428.5 SF REQUIRED
EFFECTIVE LEACHING AREA PROVIDED = 144 LF OF CTL–18 GALLERIES X 10.7 SF/LF = 1,540.8 SF PROVIDED

SEPTIC SYSTEM SIZING ANALYSIS – PROPOSED CONDITIONS

DESIGN FLOW:
125 MEMBERS AT 15 GPD/MEMBERS = 1,875 GPD DESIGN FLOW

LEACHING AREA:
PERC RATE: 10.1–20.0 MIN / INCH
APPLICATION RATE (TABLE 7 – KITCHEN USE): 0.7 GPD/SF OF ELA
EFFECTIVE LEACHING AREA REQUIRED = 1,875 / 0.7 = 2,678.5 SF REQUIRED
EFFECTIVE LEACHING AREA PROVIDED = 312 LF OF 48" CONCRETE GALLERIES X 9.2 SF/LF = 2,870.4 SF PROVIDED

INVERT ELEVATIONS

BUILDING CONNECTIONS	809.00
GREASE TRAP TANK–IN	807.25
GREASE TRAP TANK – OUT	807.00
SEPTIC TANK–IN	806.75
SEPTIC TANK – OUT	806.50
UPPER D–BOX (HIGH LEVEL OVERFLOW)	803.30
UPPER LEACHING TRENCH INV.	803.10
BOTTOM OF UPPER TRENCH	802.60
LOWER LEACHING TRENCH INV.	802.30
BOTTOM OF LOWER TRENCH	801.80

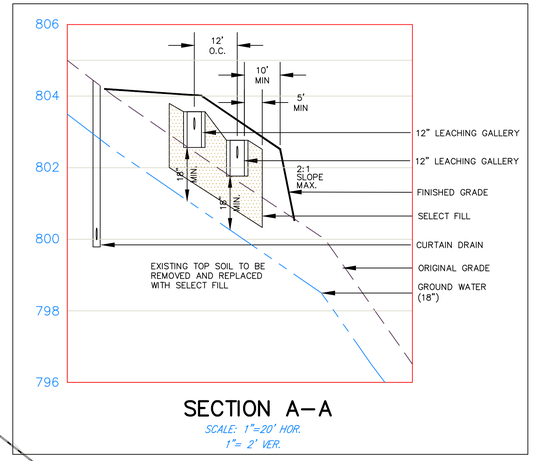
DESIGN DATA

1. SYSTEM IS DESIGNED FOR A MEMBERS ONLY CLUB HOUSE (UP TO 200 MEMBERS) FOR BATHROOMS AND A SMALL KITCHEN.
2. MINIMUM SIZE SEPTIC TANK SHALL BE 1,000 GALLONS AS REQUIRED BY THE STATE HEALTH CODE. MINIMUM SIZE GREASE TRAP FOR KITCHEN WASTE TO BE 1,000 GALLONS AS REQUIRED BY THE STATE HEALTH CODE.
3. SYSTEM IS DESIGNED BASED ON A PERCOLATION RATE OF 1" IN 10.1– 20 MINUTES.
4. MINIMUM SIZE OF LEACHING AREA REQUIRED BY THE STATE HEALTH CODE IS 1,428.5 SQUARE FEET.
5. THE SIZE OF PRIMARY LEACHING AREA PROVIDED IS 256 LINEAR FEET OF 12" CONCRETE LEACHING GALLERIES WITH AN EFFECTIVE LEACHING AREA OF 5.9 S.F./L.F. FOR A TOTAL EFFECTIVE LEACHING AREA OF 1,510.4 SF.
6. WELL SHALL BE LOCATED A MINIMUM OF 75 FEET FROM THE LEACHING AREA.
7. AREA OF LOT IS ±66 ACRES.

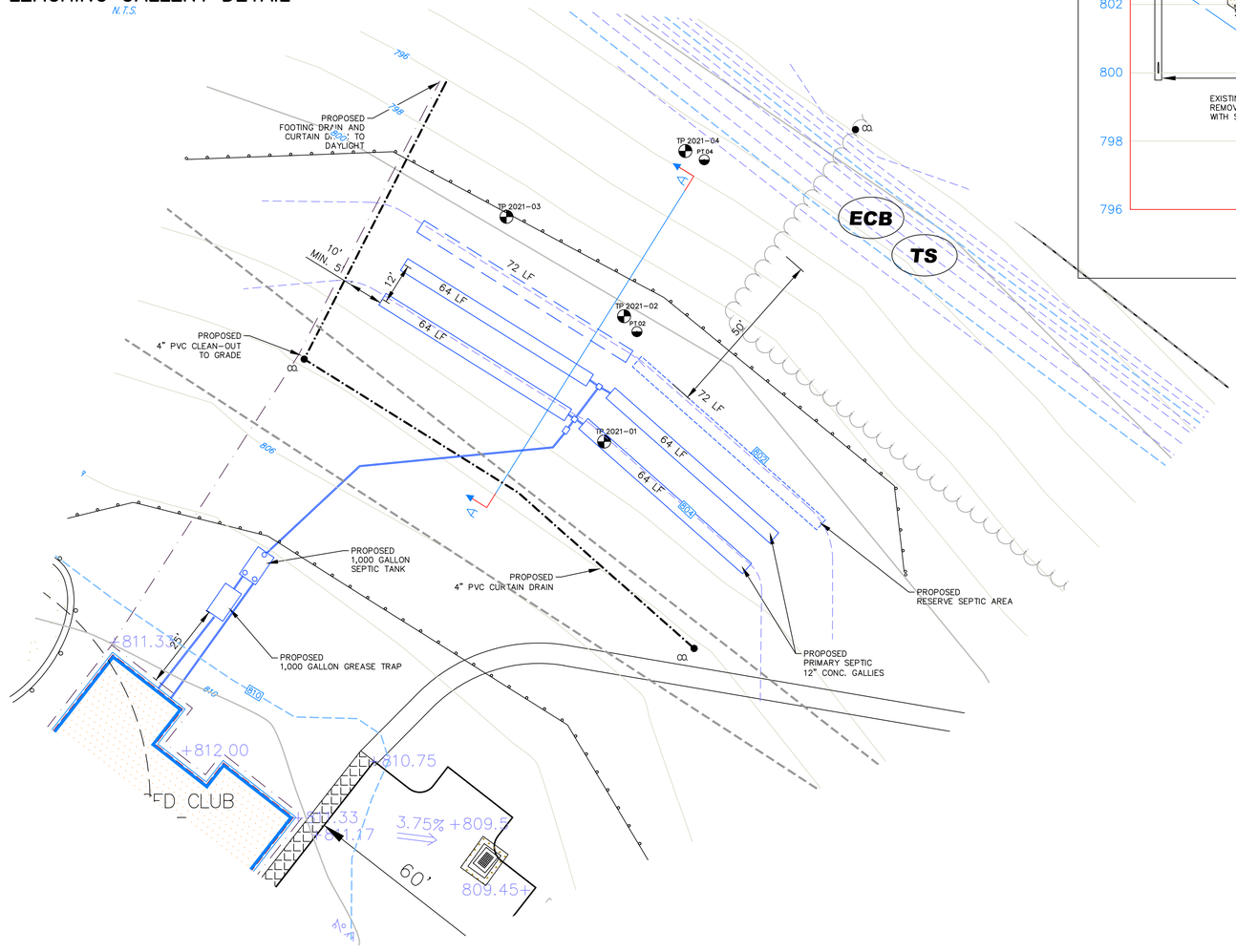
MLSS CALCULATION

DEPTH TO RESTRICTIVE LAYER = 18"
HYDRAULIC SLOPE = 10.1– 15%
HYDRAULIC FACTOR, HF= 28
FLOW FACTOR, FF= 1,000/300 = 3.33
PERC FACTOR, PF= 1.25
MLSS= (28)(3.33)(1.25)= 116.5'
128' PROVIDED

THE HYDRAULIC GRADIENT WAS DETERMINED BY MEASURING THE SLOPE OF THE LAND FROM A POINT 25' ABOVE TO A POINT 50' BELOW THE PROPOSED LEACHING TRENCHES.



SECTION A–A
SCALE: 1"=20' HOR.
1"= 2' VER.



LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TREE LINE
- WETLAND LINE
- 100' UPLAND REVIEW BOUNDARY
- PROPOSED WELL
- PROPOSED PRIMARY SEPTIC AREA
- PROPOSED RESERVE SEPTIC AREA
- DEEP TEST PIT LOCATION WITH NUMBER
- PERC TEST LOCATION WITH NUMBER
- PROPOSED CURTAIN DRAIN
- PROPOSED FOOTING DRAIN
- EXISTING STONE WALL
- EXISTING FENCE
- SILT FENCE

NO.	REVISION	

Previous Editions Obsolete

PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM

PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD
PROSPECT CONNECTICUT

CIVIL 1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

DRAWN: EJ/JL APPROVED: CJ
SCALE: 1" = 20'
DATE: 24 JAN 23
PROJ. NO.: 3094
CADD FILE NAME: 3094
DRAWING NO.: C 4.1

GENERAL SEPTIC NOTES

1. ALL CONSTRUCTION OF THE SEWAGE DISPOSAL SYSTEM IS TO BE IN ACCORDANCE WITH THE STANDARDS OF THE CHESPROCOTT HEALTH DEPARTMENT AND THE STATE OF CONNECTICUT DEPARTMENT OF HEALTH, PUBLIC HEALTH CODE SECTION 19-13-B103A THROUGH 19-13-B103F.
2. ALL PIPING BETWEEN HOUSE AND SEPTIC TANK SHALL BE FOUR INCHES IN DIAMETER. MATERIALS MAY BE CAST IRON (HUBLESS OR BELL AND SPIGOT) ASTM A74, DUCTILE IRON ANSI A21.51, PVC SCHEDULE 40, ASTM D 1785, ATSM D 2665, EXTRA STRENGTH PVC AWWA C-900 100 PSI MIN, DUCTILE IRON ANDI A 21.51, OR PVC ASTM 7 1760. MINIMUM SLOPE SHALL BE ¼" PER FOOT.
3. THE SEPTIC TANK SHALL BE A 1,000 GALLON SEPTIC TANK AS MANUFACTURED BY UNITED CONCRETE PRODUCTS, INC., YALESVILLE, CT., OR APPROVED EQUAL.
4. SEPTIC TANK SHALL BE INSTALLED SUCH THAT THE ACCESS COVERS ARE ACCESSIBLE WITHIN SIX INCHES OF THE FINISHED GRADE. IF THE DESIGN REQUIRES THAT AN ACCESS MANHOLE BE CONSTRUCTED DUE TO THE DEPTH OF THE TANK, IT SHALL BE PLACED OVER THE INLET, OUTLET AND CENTER BAFFLES AND EXTENDED TO WITHIN TWELVE INCHES OF FINISHED GROUND LEVEL.
5. ALL PIPING BETWEEN THE SEPTIC TANK AND LEACHING AREA SHALL BE TIGHT JOINTED FOUR INCH DIAMETER PVC ASTM D-3034. PIPE SHALL BE SET ON A MINIMUM SLOPE OF ¼" PER FOOT.
6. DISTRIBUTION BOXES SHALL BE CONCRETE DISTRIBUTION BOXES AS MANUFACTURED BY UNITED CONCRETE PRODUCTS, INC., YALESVILLE, CT., OR APPROVED EQUAL. ALL DISTRIBUTION BOXES SHALL BE 4" HIGH LEVEL OVERFLOW UNLESS OTHERWISE NOTED. ALL DISTRIBUTION BOXES SHALL BE SET ON A MINIMUM OF SIX INCHES OF COMPACTED GRAVEL OR SIX INCHES OF 1" CRUSHED STONE.
7. BEFORE CONSTRUCTION ACTIVITIES COMMENCE ON THE SITE, THE LEACHING AREA SHALL BE DELINEATED TO PROTECT THE AREA FROM DAMAGE DUE TO EROSION OR COMPACTION.
8. ALL PIPING WITHIN 25 FEET OF A CURTAIN DRAIN OR FOOTING DRAIN SHALL CONFORM TO TABLE 2C OF THE TECHNICAL STANDARDS FOR THE DESIGN AND CONSTRUCTION OF SUBSURFACE SEWAGE DISPOSAL SYSTEMS PURSUANT TO SECTION 19-13-B103.
9. RESERVE AREA NEED NOT BE PREPARED AT THIS TIME, BUT WILL REQUIRE A DESIGN SYSTEM PREPARED BY A LICENSED PROFESSIONAL ENGINEER IF REQUIRED TO BE USED USED IN THE FUTURE.
10. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE PLANS PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES OR CONFLICTS SHALL BE REPORTED TO THE ENGINEER WHO SHALL HAVE FINAL SAY AS TO ACTUAL DIMENSIONS AND ELEVATIONS TO BE USED.
11. ALL OTHER DISTURBED AREAS SHALL BE LOAMED AND SEEDED AS SOON AS PRACTICABLE.
12. LEACHING AREAS SHALL BE PROTECTED AT ALL TIMES FROM SURFACE WATER RUNOFF BY APPROPRIATE GRADING. SURFACE WATER RUNOFF SHALL NOT BE PERMITTED TO ENTER ANY PART OF THE LEACHING SYSTEM.
13. THERE ARE NO WELLS WITHIN 75' OF THE PROPOSED SEPTIC SYSTEM.
14. THERE ARE NO SEPTIC SYSTEMS WITHIN 75' OF THE PROPOSED WELL.
15. GARBAGE GRINDERS ARE NOT RECOMMENDED FOR USE WITH SUBSURFACE SEWAGE DISPOSAL SYSTEMS. IF A GARBAGE GRINDER IS TO BE INSTALLED, THE SIZE OF THE SEPTIC TANK MUST BE INCREASED BY 250 GALLONS IN ACCORDANCE SECTION 19-13-B103 OF THE CONNECTICUT PUBLIC HEALTH CODE.
16. DISCHARGE WASTEWATER FROM WATER TREATMENT SYSTEMS (e.g. WATER SOFTENERS, IRON OR MANGANESE REMOVAL FILTERS) TO SUBSURFACE SEWAGE DISPOSAL SYSTEM IS PROHIBITED. ON-SITE WATER TREATMENT WASTEWATER DISPOSAL SYSTEMS SHALL HAVE A MINIMUM 10 FEET OF SEPARATION DISTANCE FROM SUBSURFACE SEWAGE DISPOSAL SYSTEM AND SHALL BE DESIGNED IN ACCORDANCE WITH DEP GUIDANCE OR GENERAL PERMIT.

INSPECTIONS

1. THE CONTRACTOR IS RESPONSIBLE TO HAVE THE CONSTRUCTION OF THE SUBSURFACE DISPOSAL SYSTEM INSPECTED BY A LICENSED PROFESSIONAL ENGINEER AT THE FOLLOWING STAGES OF CONSTRUCTION:
   A. FOLLOWING REMOVAL OF TOPSOIL AND PRIOR TO PLACEMENT OF FILL
   B. AFTER PLACEMENT OF SEPTIC TANK, DISTRIBUTION BOXES, PIPE STONE AND FILTER FABRIC BUT PRIOR TO BACKFILLING.
   C. FOLLOWING FINE GRADING, SEEDING AND MULCHING.
2. THE CONTRACTOR IS ALSO RESPONSIBLE FOR COORDINATING THE ABOVE INSPECTIONS WITH THE CHESPROCOTT HEALTH DEPARTMENT.
3. A LICENSED PROFESSIONAL ENGINEER SHALL PERFORM THREE PERCOLATION TEST IN THE SELECT FILL AFTER PLACEMENT. THE PERCOLATION RATE IN THE SELECT FILL SHALL BE AT LEAST AS FAST AS THE NATURALLY OCCURRING MATERIAL UNDERNEATH.
4. TO ENSURE THAT THE SELECT FILL PLACED ON THE SITE MEETS THE GRADATION REQUIRED BY THE PUBLIC HEALTH CODE A LICENSED PROFESSIONAL ENGINEER SHALL COLLECT A SAMPLE OF THE SELECT FILL AT THE SITE AND WILL ARRANGE FOR A SIEVE ANALYSIS TO BE PERFORMED. IT IS STRONGLY SUGGESTED THAT A SAMPLE OF THE SELECT FILL BE TESTED ONE WEEK PRIOR TO THE INSTALLATION OF THE SYSTEM.
5. AN AS-BUILT PLAN SHALL BE SUBMITTED ALONG WITH A STATEMENT BY A PROFESSIONAL ENGINEER STATING THAT THE SYSTEM AS INSTALLED SUBSTANTIALLY MEETS THE INTENT OF THE APPROVED PLANS TO THE CHESPROCOTT HEALTH DEPARTMENT.

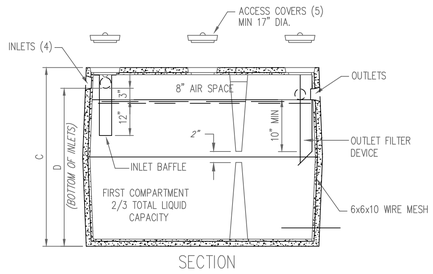
FILL REQUIREMENTS

1. LARGE GRAIN SIZE LIMITS – FILL PLACED FOR THE LEACHING AREA SHALL CONTAIN NO MATERIAL LARGER THAN THE 3" SIEVE. THE FILL SHOULD ALSO CONTAIN NO MORE THAN 45% GRAVEL (MATERIAL BETWEEN THE NO. 4 AND 3" SIEVES).
2. SMALL GRAIN SIZE LIMITS – FILL LESS GRAVEL PLACED FOR THE LEACHING AREA SHALL COMPLY WITH THE FOLLOWING GRADATION:

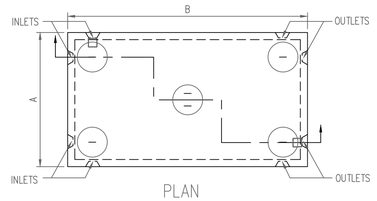
SIEVE	% PASSING (WET)	% PASSING (DRY)
NO. 4	100	100
NO. 10	70 – 100	70 – 100
NO. 40	10 – 50	10 – 75
NO. 100	0 – 20	0 – 5
NO. 200	0 – 5	0 – 2.5

NOTE: PERCENT PASSING THE NO. 40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF PERCENT PASSING THE NO. 100 SIEVE DOES NOT EXCEED 10% AND THE NO. 200 SIEVE DOES NOT EXCEED 5%. THE SIEVE ANALYSIS MUST BE APPROVED BY THE DESIGN ENGINEER OR THE LOCAL HEALTH DEPARTMENT.

3. THE FOLLOWING SEQUENCE SHALL BE USED FOR PLACING FILL.
   A. REMOVE ALL VEGETATION AND DEBRIS FROM AREA TO RECEIVE FILL. REMOVE LARGE STONES FROM SURFACE.
   B. REMOVE TOPSOIL FROM AREA TO RECEIVE FILL AND STOCKPILE AWAY FROM SYSTEM AREA FOR FUTURE USE.
   C. SCARIFY SURFACE WITH A MACHINE WORKING PARALLEL TO THE CONTOURS.
   D. FILL SHALL BE PLACED AT THE EDGE OF THE LEACHING AREA AND PUSHED ONTO THE SCARIFIED AREA.
4. FILL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 90 – 95% MODIFIED OPTIMUM DENSITY BY ASTM 1557 METHOD "C" UNTIL THE REQUIRED ELEVATION IS OBTAINED.
5. SELECT FILL SHALL EXTEND A DISTANCE OF FIVE FEET IN ALL DIRECTIONS FROM ANY PORTION OF THE LEACHING TRENCHES, HOWEVER WHERE THE PRIMARY SYSTEM IS ADJACENT TO THE RESERVE AREA, THE SELECT FILL MUST BE INCREASED TO 10 FEET.



SECTION



PLAN

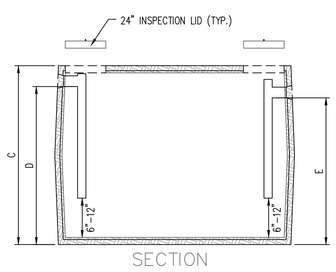
CAPACITY gallons	DIMENSIONS (inches)				EXCAVATION SIZE (feet)
	A	B	C	D	
1000	62	102	64	55	6x10
1100	62	98	69	60	6x10
1250	64	98	69	60	6x10

NOTES:

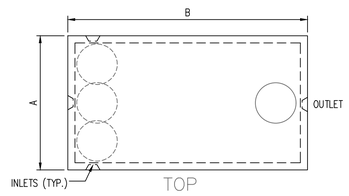
1. TWO COMPARTMENT SEPTIC TANK BE RICHARD SEPTIC SYSTEMS, INC., OR APPROVED EQUAL.
2. REINFORCED WITH 6x6x10 WIRE MESH
3. WALLS: 3" THICK, TOP: 4" THICK, BOTTOM: 3" THICK
4. ALL COVERS TO ACCEPT RISER SECTIONS.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL SEALANT.

TWO COMPARTMENT SEPTIC TANK

N.T.S.



SECTION



TOP

CAPACITY gallons	DIMENSIONS (inches)						EXCAVATION SIZE (feet)
	A	B	C	D	E	BOTTOM THICKNESS	
1,000	68	106	64	48	45	5	7x10
1,250	72	132	64	49	46	6	8X12
1,500	72	132	72	57	54	6	8X12
2,000	72	132	90	75	72	6	8X12

NOTES:

1. GREASE INTERCEPTOR TANKS AS MANUFACTURED BY CONNECTICUT PRECAST CORP., OR APPROVED EQUAL.
2. DESIGN LOADING: AASHTO HS-20
3. WALLS: 6" THICK, TOP: 6" THICK
4. PROVIDE TWO (2) INSPECTION MANHOLES TO GRADE
5. ALL SHIPLAP JOINTS SEALED WITH BUTYL RUBBER

GREASE INTERCEPTOR TANK

NO.	REVISION	
	Previous Editions Obsolete	

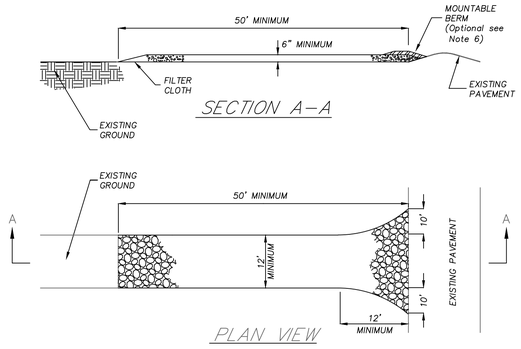
PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

SEPTIC DETAILS

PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD
PROSPECT CONNECTICUT

CIVIL C1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266-0778 CONNECTICUT

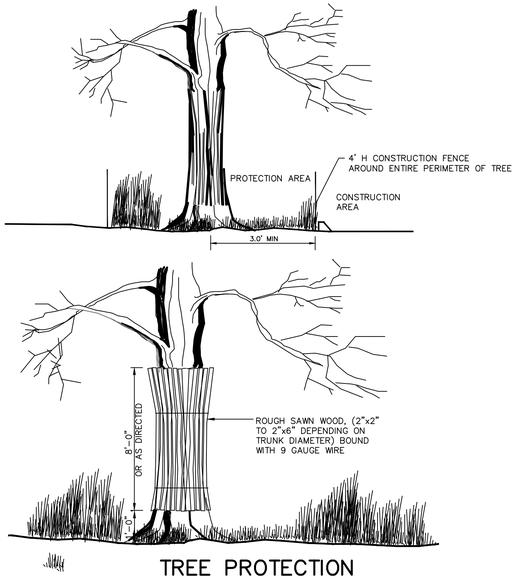
DRAWN: EJ/JL APPROVED: CJ
SCALE:
DATE: 24 JAN 23
PROJ. NO.: 3094
CADD FILE NAME: 3094
DRAWING NO.: C 4.2



NOTES:

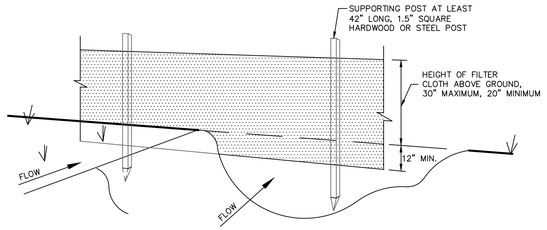
1. STONE SIZE – USE 1" – 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – TO BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DRIPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

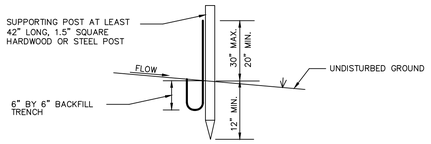


TREE PROTECTION

N.T.S.



PERSPECTIVE VIEW



SECTION

CONSTRUCTION NOTES FOR SILT FENCE

1. EXCAVATE A TRENCH A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE ON THE UP SIDE OF THE FENCE LOCATION.

2. DRIVE SUPPORT POSTS ON THE DOWN SLOPE SIDE OF THE TRENCH TO A DEPTH OF AT LEAST 12 INCHES INTO ORIGINAL GROUND.

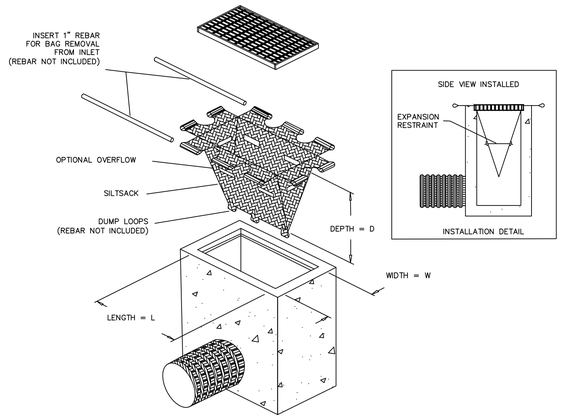
3. STAPLE OR SECURE THE GEOTEXTILE TO THE SUPPORT POSTS PER MANUFACTURER'S INSTRUCTIONS SUCH THAT AT LEAST 6 INCHES OF GEOTEXTILE LIES WITHIN THE TRENCH.

4. BACKFILL THE TRENCH WITH TAMPED SOIL OR AGGREGATE OVER THE GEOTEXTILE.

POSTS: 1.5" SQUARE HARDWOOD OR STEEL

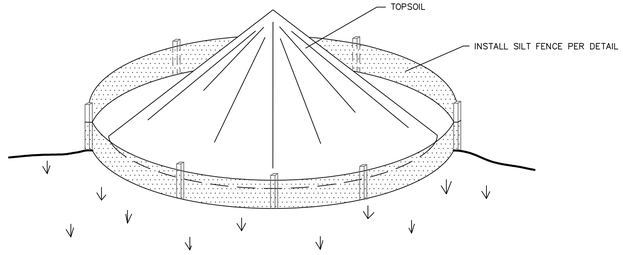
FILTER CLOTH: MIRAFI 100X, ENVIROFENCE OR APPROVED EQUAL

SILT FENCE DETAIL



SILT SACK DETAIL

N.T.S.

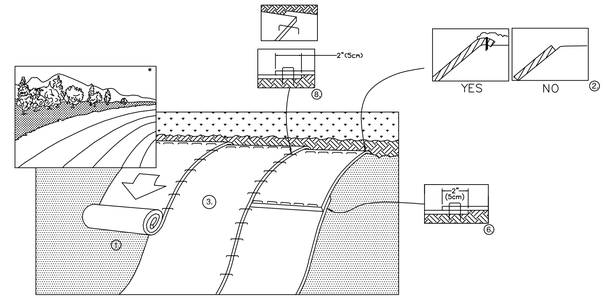


STOCKPILE MANAGEMENT PER 2002 CT GUIDELINES FOR E & S CONTROL:

1. LOCATE STOCKPILE SO THAT NATURAL DRAINAGE IS NOT OBSTRUCTED.
2. DIVERT RUNOFF WATER AWAY FROM OR AROUND THE STOCKPILE.
3. INSTALL A GEOTEXTILE SILT FENCE OR HAY BALE BARRIER AROUND THE STOCKPILE AREA APPROXIMATELY 10 FEET FROM PROPOSED TOE OF THE SLOPE.
4. THE SIDE SLOPES OF STOCKPILED MATERIAL SHOULD BE NO STEEPER THAN 2:1.
5. STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS NEED TO BE SEEDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE.
6. AFTER STOCKPILE HAS BEEN REMOVED, THE SITE SHOULD BE GRADED AND PERMANENTLY STABILIZED.

TEMPORARY TOPSOIL STOCKPILE

N.T.S.



INSTALLATION PROCEDURE

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
   NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. START UNROLLING THE FUTERRA F4 NETLESS 1–2' ABOVE THE SLOPE CREST.
3. ANCHOR TOP OF BLANKET ON 1' CENTERS
4. APPLY PINS OR STAPLES ALONG BLANKET LENGTH, ONE EVERY 2.5 LINEAR FEET. PLACE PIN OR STAPLE EVERY EVERY 5' DOWN CENTER OF BLANKET, CREATING AN X PATTERN WITH THE ANCHORING SYSTEM.
5. RAKE LOOSE SOIL OVER TOP EDGE ALONG BLANKET WIDTH. MOUND TO A MIN. HEIGHT OF 4".
6. OVERLAP SHINGLE STYLE A MAX. OF 2". ANCHOR ON 1' CENTER ACROSS THE ROLL WIDTH.
7. UNROLL THE NEXT BLANKET DOWN THE SLOPE.
8. OVERLAP ROLLS A MAX. OF 2". USE ONE PIN OR STAPLE EVERY 5'.

FUTERRA F4 NETLESS EROSION CONTROL BLANKETS
MATERIAL:
THERMALLY REFINED WOOD AND DEGRADABLE MAN–MADE FIBERS

CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE
1. HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
2. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS IN EXCESS OF 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.
3. SLOPE CREST TRENCHING MAY BE SPECIFIED ON SOME PROJECTS. TOP EDGE WIDTH OF THE FUTERRA F4 NETLESS SHOULD THEN BE STAPLED OR STAKED IN THE TRENCH BOTTOM. BACKFILL AND COMPACT SOIL.IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
4. FUTERRA F4 NETLESS CAN BE APPLIED HORIZONTALLY ON SHALLOW SLOPES.*

FUTERRA F4 NETLESS EROSION CONTROL BLANKET

N.T.S.

NO.	REVISION	
	Previous Editions Obsolete	

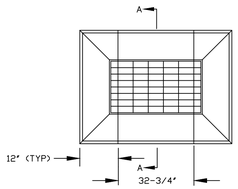
PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

DETAILS

PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD
PROSPECT CONNECTICUT

CIVIL C1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266-0778 CONNECTICUT

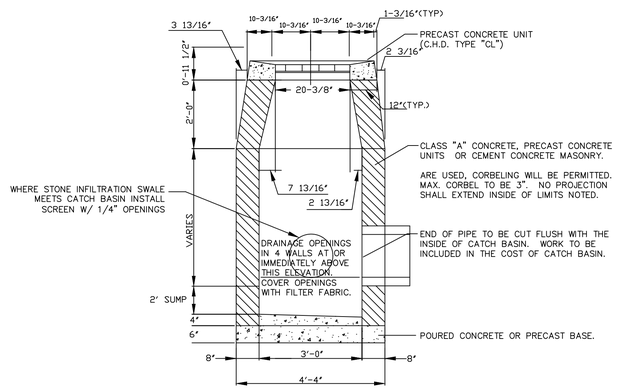
DRAWN: EJ/JL	APPROVED: CJ
SCALE:	
DATE:	24 JAN 23
PROJ. NO.:	3094
CADD FILE NAME:	3094
DRAWING NO.:	C 5.1



NOTE:

OVER 10' DEEP SHALL BE INCREASED TO 12" THICKNESS.
2. SUMPS MAY BE REQUIRED AT LOCATIONS SPECIFIED BY THE TOWN ENGINEER.
3. BACKFILL BASINS WITH GRAVEL. LEAVE WEEP JOINTS AT LEVELS ABOVE TOP OF PIPE.

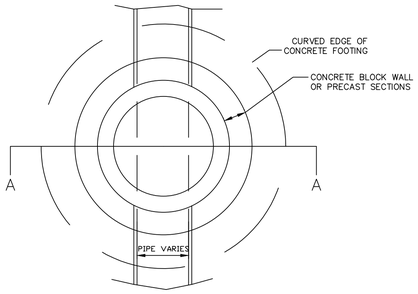
PLAN VIEW

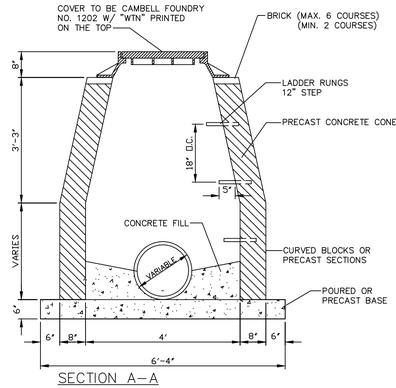


SECTION A–A

STANDARD TYPE "CL" CATCH BASIN

N.T.S.



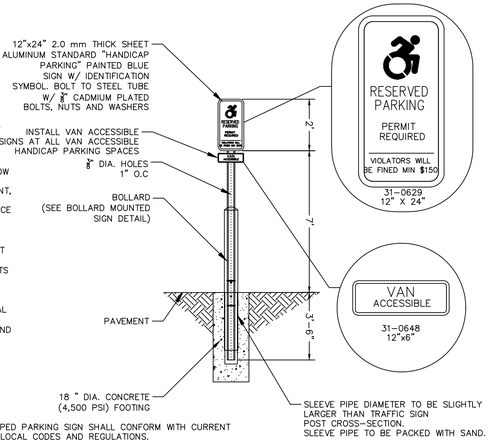


SECTION A–A

DRAINAGE MANHOLE

WITHOUT SUMP

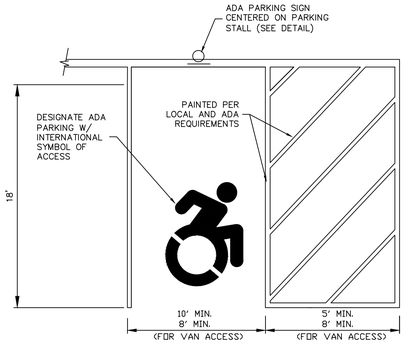
NOTES:
1. ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
2. ALL POSTS SHALL BE EMBEDDED 4'–6" MINIMUM BELOW GRADE.
3. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT, AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT A.S.T.M. SPECIFICATION A123–78 (OR LATEST REVISED).
4. POSTS SHALL BE BREAKAWAY TYPE II TWO–PIECE U–POST OR OTHER BREAKAWAY STRUCTURAL SUPPORT HARDWARE AS NOTED IN THE LATEST EDITION OF AASHTO'S "SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS."
5. SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBERS AS SHOWN ON THIS DETAIL AND DIRECTIONAL SIGN SHEET.
6. BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT BUT SHALL ENGAGE ALL THREADS IN THE NUT.



HANDICAPPED PARKING SIGN SHALL CONFORM WITH CURRENT STATE & LOCAL CODES AND REGULATIONS.

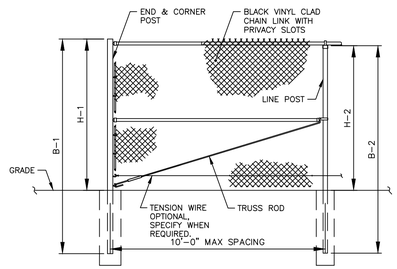
ADA ACCESSIBLE PARKING SIGN

N.T.S



ACCESSIBLE PARKING STALL STRIPING

N.T.S

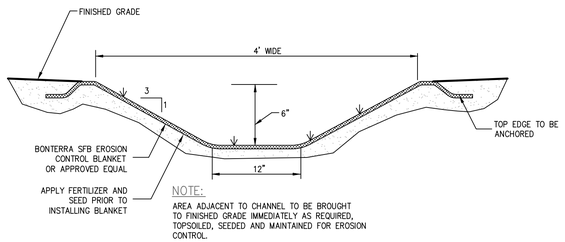


FENCE SECTION ELEVATION
WITH TOP RAIL & WITHOUT BARBED WIRE

FENCE HEIGHT	END & CORNER POSTS		LINE POSTS	
NOMINAL HEIGHT	B–1 BAR LENGTH	H–1 HEIGHT ABOVE GRADE	B–2 BAR LENGTH	H–2 HEIGHT ABOVE GRADE
5'–0" [1524MM]	8'–0" [2438MM]	5'–0 5/8" [1540MM]	7'–8" [2337MM]	4'–8 7/8" [1445MM]
6'–0" [1829MM]	9'–0" [2743MM]	6'–0 5/8" [1845MM]	8'–8" [2642MM]	5'–8 7/8" [1749MM]
7'–0" [2134MM]	10'–0" [3048MM]	7'–0 5/8" [2150MM]	9'–8" [2946MM]	6'–8 7/8" [2054MM]
8'–0" [2438MM]	11'–0" [3353MM]	8'–0 5/8" [2454MM]	10'–8" [3251MM]	7'–8 7/8" [2359MM]
9'–0" [2743MM]	12'–0" [3658MM]	9'–0 5/8" [2759MM]	11'–8" [3556MM]	8'–8 7/8" [2664MM]
10'–0" [3048MM]	13'–0" [3962MM]	10'–0 5/8" [3064MM]	12'–8" [3861MM]	9'–8 7/8" [2969MM]
11'–0" [3353MM]	14'–0" [4267MM]	11'–0 5/8" [3369MM]	13'–8" [4166MM]	10'–8 7/8" [3273MM]
12'–0" [3658MM]	15'–0" [4572MM]	12'–0 5/8" [3674MM]	14'–8" [4470MM]	11'–8 7/8" [3578MM]

NOTES:
1. INSTALLATION TO BE IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
2. INSTALLATION TO BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL BUILDING CODES.

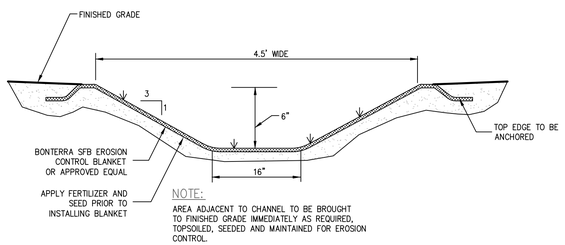
CHAIN LINK FENCE DETAIL



NOTE:
AREA ADJACENT TO CHANNEL TO BE BROUGHT TO FINISHED GRADE IMMEDIATELY AS REQUIRED, TOPSOILED, SEEDED AND MAINTAINED FOR EROSION CONTROL.

GRASS LINED SWALE

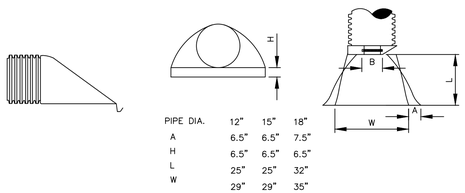
(N.T.S.)



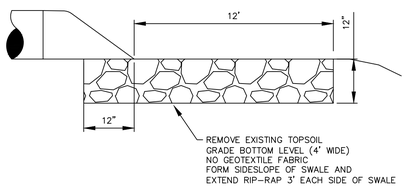
NOTE:
AREA ADJACENT TO CHANNEL TO BE BROUGHT TO FINISHED GRADE IMMEDIATELY AS REQUIRED, TOPSOILED, SEEDED AND MAINTAINED FOR EROSION CONTROL.

GRASS LINED SWALE

(N.T.S.)



FLARED END SECTION



CPP END–SECTION & RIPRAP APRON

N.T.S.

NO.	REVISION	
	Previous Editions Obsolete	

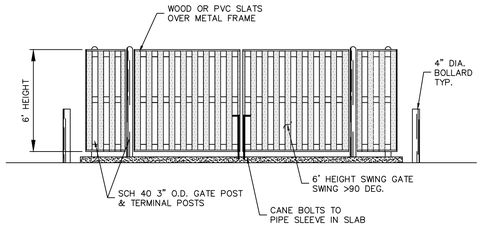
PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

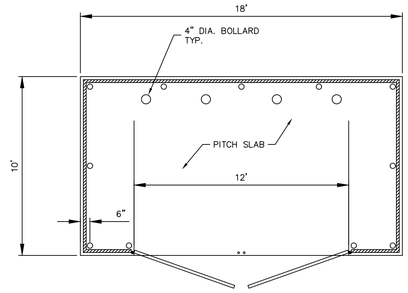
DETAILS

PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD
PROSPECT CONNECTICUT

CIVIL 1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

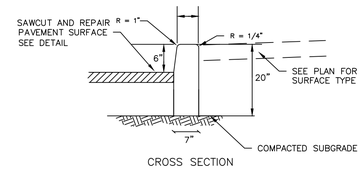
DRAWN: EJ/JL APPROVED: CJ
SCALE:
DATE: 24 JAN 23
PROJ. NO.: 3094
CADD FILE NAME: 3094
DRAWING NO.: C 5.2



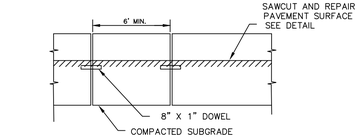


DUMPSTER ENCLOSURE

N.T.S.



CROSS SECTION

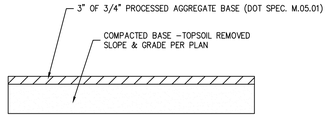


LONGITUDINAL SECTION

NOTES
1. CONCRETE FOR CURB SHALL BE 5000 PSI WITH 5–7% AIR ENTRAINMENT
2. ALL GAPS AND JOINTS OF 1/2" OR GREATER SHALL BE FILLED WITH MORTAR.
3. MANUFACTURED TO CT D.O.T. SPECIFICATIONS.
4. 2 X 6" LG#5 REBAR CONNECTING PINS.

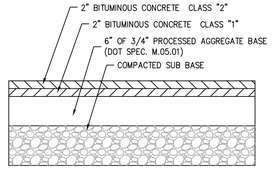
PRE–CAST CONCRETE CURB (INSTALLED ALONG FACE OF CONC. SIDEWALKS)

N.T.S.



SEPTIC ACCESS DRIVE SECTION

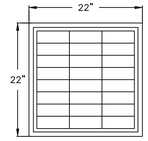
N.T.S.



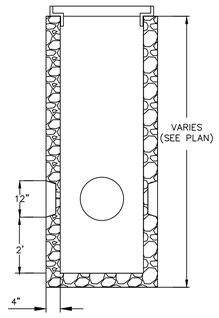
DRIVEWAY PAVEMENT SECTION

N.T.S.

TOP

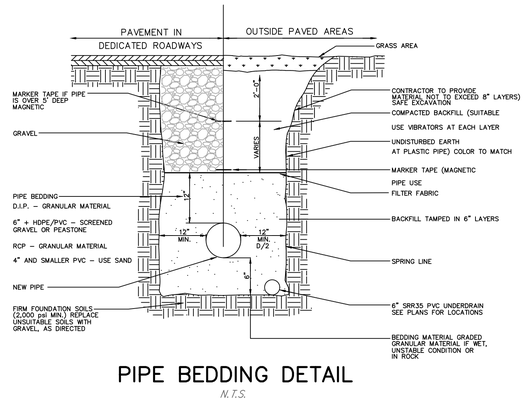


FRONT



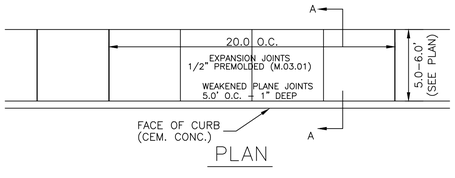
YARD DRAIN DETAIL

N.T.S

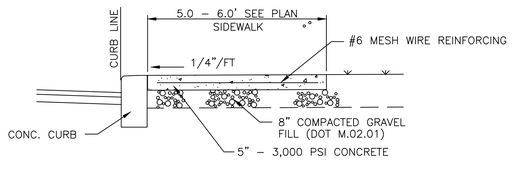


PIPE BEDDING DETAIL

N.T.S.



PLAN



SECTION A–A

ON SITE SIDEWALK DETAIL

N.T.S.

NO.	REVISION	
	Previous Editions Obsolete	

PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

DETAILS

PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD
PROSPECT CONNECTICUT

CIVIL 1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

DRAWN: EJ/JL APPROVED: CJ
SCALE:
DATE: 24 JAN 23
PROJ. NO.: 3094
CADD FILE NAME: 3094
DRAWING NO.: C 5.3

GENERAL PRINCIPLES

The following general principles shall be maintained as effective means of minimizing erosion and sedimentation during the development process.

Stripping away of vegetation, regrading or other development shall be done in such a way as to minimize erosion.

Grading and development plans shall preserve important natural features, keep cut and fill operations to a minimum, and insure conformity with topography so as to create the least erosion potential and adequately handle the volume and velocity of surface water runoff.

Whenever feasible, natural vegetation shall be retained, protected and supplemented wherever indicated on the site development plan.

The undisturbed area and the duration of exposure shall be kept to a practical minimum.

Disturbed soils shall be stabilized as quickly as possible.

Temporary vegetation and/or mulching shall be used to protect exposed critical areas during development when expected to be exposed in excess of 7 days.

The permanent (final) vegetation and mechanical erosion control measures shall be installed as soon as practical during construction.

Sediment in the runoff water shall be trapped until the disturbed areas are stabilized by the use of debris basins, sediment basins, silt traps or similar measures.

All lots, tracts or developments shall be final graded to provide proper drainage away from buildings and dispose of it without ponding, and all land within a development shall be graded to drain and dispose of surface water without ponding.

Land disturbance will be kept to a minimum. Restabilization will be scheduled as soon as practical. Not more than 5 acres will be disturbed at any one time.

Catch basins will be protected with haybale filters throughout the construction period and until all disturbed areas are thoroughly stabilized.

Haybale filters will be installed at all outlets and along the toe of slope of all critical cut and fill slopes.

All control measures will be maintained in effective condition throughout the construction period.

The responsibility for implementing the erosion and sediment control plan will rest with the developer of record. He acknowledges that he is responsible for informing all concerned of the requirements of the plan and for notifying the planning administration of any transfer of responsibility.

Additional control measures will be installed during construction if necessary or required.

Concentration of surface runoff shall be only permitted by piping and/or through drainage swales or natural watercourses.

Excavation and Fills ——

Slopes created by cuts or fills shall not be steeper than 2:1 unless noted specifically on the plans and shall be restabilized by temporary or permanent measures, as required during the development process. Erosion control blankets will be used on slopes in the vicinity of wetlands regulated areas and on additional slopes as needed.

Adequate provisions shall be made to prevent surface water from damaging the cut face of excavations or the sloping surfaces of fills.

Cuts and fills shall not endanger adjoining property.

All fills shall be compacted to provide stability of material and to prevent undesirable settlement. The fill shall be spread in a series of layers each not exceeding twelve (12) inches in thickness and shall be compacted by a mechanical roller or other approved method after each layer is spread.

Fills shall not encroach on natural watercourses, constructed channels or regulated flood plain areas, unless permitted by license or permit from authority having jurisdiction.

Fills placed adjacent to natural watercourses, constructed channels or flood plains shall have suitable protection against erosion during periods of flooding.

Grading shall not be done in such a way as to divert water onto the property of another landowner without their express written consent.

During grading operations, necessary measures for dust control shall be exercised.

All erosion and sediment control measures will be constructed in accordance with the standards and specifications of the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (2002) – State of Connecticut DEP Bulletin 34.

FILL MATERIAL & COMPACTION REQUIREMENTS

1. Fill material shall be free of brush, rubbish, large rocks, logs, stumps, building debris and other objectionable material that would interfere with, or prevent construction of, satisfactory fills, where embankments are to be constructed on slopes steeper than 3:1. Deeply scarify the existing slope or cut into steps before filling is begun.

2. Place and compact all fill in layers not exceeding 1 foot in thickness. No fill should be placed on surfaces of snow, ice or frozen or unstable surfaces. If fill placement is not completed within 1 day, then install temporary erosion and sediment controls such as a temporary fill berm to redirect runoff water away from the unstable slope until fill placement resumes.

3. No frozen material be incorporated into the fill envelope. Material shall be placed in horizontal layers in 12 inch loose lifts and each layer compacted. During construction, the surface of the material shall be sloped to drain. The material shall be free from lenses, pockets, streaks, or layers of material differing substantially in texture or gradation from the surrounding material.

4. The moisture content of the material shall be controlled to meet the necessary requirements of compaction. When necessary, moisture shall be added by the use of approved sprinkling equipment. Water shall be added uniforEJ/JLy and each layer shall be thoroughly disked or harrowed to provide proper mixing. Any layer found too wet for compaction shall be allowed to dry before rolling. Placing or rolling of materials will not be permitted during or immediately after rainfalls which increase the moisture content beyond the limit of satisfactory compaction.

5. The material shall be brought up uniforEJ/JLy and its top shall be kept graded and sloped so that a minimum of rain water will be retained thereon. Compacted material damaged by runoff shall be replaced immediately by the contractor.

6. Material shall be compacted to 95% of the standard proctor density at or near optimum moisture content and by the compaction equipment specified herein. The compaction equipment shall traverse the entire surface of each layer of material. Approved tamping rollers shall be used for compacting. The contractor shall demonstrate the effectiveness of the roller by actual soil compaction test results of the soil with laboratory work performed by an approved soil testing laboratory. Compaction tests shall include modified proctor and nuclear density tests made at the Engineer's discretion.

RESPONSIBILITY FOR THE PLAN

The responsibility for implementing and maintaining the Erosion and Sedimentation Control Plan rests with the PROSPECT GUN CLUB, where any development of the parcel gives cause to erosion and sedimentation. The PROSPECT GUN CLUB shall be held responsible for informing all concerned regarding responsibility of the plan.

The responsibility of all drainage, erosion and sedimentation control measures will therefore rest with the PROSPECT GUN CLUB.

Whenever sedimentation is caused by stripping vegetation and/or grading, it shall be the responsibility of the person, corporation or other entity having responsibility to remove sedimentation from all lower properties, drainage systems and watercourses and to repair any damage at their expense as quickly as possible.

Maintenance of all drainage facilities and watercourses within any land development shall be the responsibility of the PROSPECT GUN CLUB. All control measures will be maintained in effective condition throughout the construction period. Surface inlets shall be kept open and free of sediment and debris. The system shall be checked after every major storm and sediment shall be disposed of at an approved location consistent with the plan.

It shall be the responsibility of any person, corporation or other entity engaging in any act on or near any stream, watercourse or swale or upon the flood plain or right-of-way thereof to maintain as nearly as possible in its present state that same stream, watercourse, swale, flood plain or right-of-way for the duration of the activity and to return it to its original or equal condition after such activity is completed.

Maintenance of drainage facilities or watercourses originating and completely on private property shall be the responsibility of the PROSPECT GUN CLUB to their point of open discharge at the property line or at a communal watercourse within the property.

No person, corporation or other entity shall block, impede the flow of, alter, construct any structure or deposit any material or thing or commit any act which affects normal or flood flow in any communal stream or watercourse without having obtained prior approval from the Town.

An adequate right-of-way and/or easement shall be provided for all drainage facilities and watercourses which are proposed either for acceptance by the Town or provided by other property owners for the convenience of the OWNER.

SEEDING AND PLANTING REQUIREMENTS

Seedbed Preparation
Fine grade and rake surface to remove stones larger than 2" in diameter. Install needed erosion control devices such as surface water diversions. Grade stabilization structures, sediment basins or drainage channels to maintain grassed areas. Apply limestone at a rate of 2 tons/Ac. or 90 lbs/1000 SF unless otherwise required according to soil test results. Apply fertilizers with 10–10–10 at a rate of 300 lbs./Ac. or 7.5 lbs/1000 SF. At least 50% of the nitrogen shall be from organic sources. Work lime and fertilizer into soil uniformity to a depth of 4" with a whisk, springtooth harrow or other suitable equipment following the contour lines.

Seed Application
Apply grass mixtures at rates specified by hand, cyclone seeder or hydroseeder. Increase seed mixture by 10% if hydroseeder is used. Lightly drag or roll the seeded surface to cover seed. Seeding for selected fine grasses should be done between April 1 and June 1 or between August 15 and October 15. If seeding cannot be done during these times, repeat mulching procedure below until seeding can take place or seed with a quick germinating seed mixture to stabilize slopes. A quick germinating seed mixture (Domestic Rye) can be applied between June 15 through August 15 as approved by the Engineer.

Mulching
Immediately following seeding, mulch the seeded surface with straw, hay or wood fiber at a rate of 1.5 to 2 tons/Ac. except as otherwise specified elsewhere. Mulches should be free of weeds and coarse matter. Spread mulch by hand or mulch blower. Punch mulch into soil surface with track machine or disk harrow set straight up. Mulch material should be "tucked" approximately 2– 3" into the soil surface. Chemical mulch binders or netting, in combination with the straw, hay or wood fibers, will be used where difficult slopes do not allow harrowing by machines.

Grass Seed Mixtures

Temporary Covers		Permanent Covers	
Perennial ryegrass 20 lbs/Ac.		Creeping Red Fescue	40 lbs/Ac.
Annual ryegrass 20 lbs/Ac.		Canada Bluegrass	20 lbs/Ac.

IN CASE OF AN EMERGENCY (e.g. severe flooding, rains, or other environmental problems): THE PARTY RESPONSIBLE AND THE TOWN'S WEO SHALL BE NOTIFIED.

EMERGENCY CONTACT: MR. JERRY WILLIAMS (203) 982–4124

EARTHWORK QUANTITY ESTIMATE FOR TOTAL SITE WORK

Phase 1: Driveway, Clubhouse, Pavilion, Parking, Septic, & Rain Garden
CUT: 549 CY
FILL: 2,913 CY
NET: 2,364 CY FILL

Phase 2: Firing Ranges
CUT: 24,968 CY
FILL: 26,787 CY
NET: 1,819 CY

Total:
CUT: 25,517 CY
FILL: 29,700 CY
NET: 4,183 CY FILL

EARTHWORK QUANTITY ESTIMATE FOR WETLANDS REGULATED AREAS

Total Activity in Wetlands — 0 SF = 0 AC.
CUT : 0 CY
FILL : 0 CY

Total Activity in 100' Regulated Area — 3,725 SF = 0.09 AC.
CUT : 0 CY
FILL : 315 CY

CONSTRUCTION OF RAIN GARDEN EXTERIOR BERMS

A. MATERIALS

1. Fill material shall be free of frozen material, sod, brush, roots, stumps and other organic material. Earth embankments shall contain no stones over six inches in diameter. The material used in the core portion of the embankment shall be the most impervious material obtained from the borrow areas, as required. The more pervious materials shall be used in the outer fill portion of the embankment as shown on the plans.

2. The impervious core fill material shall be glacial till, to be provided in sufficient quantities to complete the work. Fill to be approved by the Engineer prior to placement. Glacial till to consist of hard and durable particles or fragments and shall be free from organic matter and other objectionable materials. Glacial till shall conform to the following gradation requirements.

U. S. Standard Sieve Size	Percentage Passing By Weight
3 inch	100
No. 4	60– 95
No. 10	50– 95
No. 40	30– 95
No. 100	20– 65
No. 200	10– 40

B. BERM FOUNDATION PREPARATION
1. The area where the berm is to be constructed shall be cleared and grubbed of all topsoil and other organic materials to a depth of at least 12". Unless otherwise specified on the plans, berm foundation areas shall be scarified to a minimum depth of three inches prior to placement of fill material.

C. PLACEMENT OF FILL

1. No fill shall be placed until the foundation preparation and excavations in the foundation have been completed and approved by the Engineer. No fill shall be placed on a frozen surface nor shall frozen material be incorporated.

2. Embankment material shall be placed in horizontal layers in 12 inch loose lifts. During construction, the surface of the fill shall be sloped to drain. Each layer or lift shall extend over the entire area of the fill.

3. The fill shall be free from lenses, pockets, streaks, or layers of material differing substantially in texture or gradation from the surrounding material. The more pervious material shall be placed in the outside portion of the berm or as indicated on the drawings. The finished fill shall be shaped and graded to the lines and grade shown on the drawings.

4. Pipe backfill shall be placed in horizontal layers not to exceed 6– 8 inch loose lifts and shall be brought up uniformly around the outlet pipe and flared end section.

D. MOISTURE CONTROL

1. The moisture content of materials in the berm shall be controlled to meet the requirements of Section E "Compaction of Berm". When necessary, moisture shall be added by the use of approved sprinkling equipment. Water shall be added uniformly and each layer shall be thoroughly disked or harrowed t provide proper mixing. Any layer found too wet for compaction shall be allowed to dry before rolling. Placing or rolling of materials on earth fills will not be permitted during or immediately after rainfalls which increase the moisture content beyond the limit of satisfactory compaction. The earth fill shall be brought up uniformly and its top shall be kept graded and sloped so that a minimum of rain water will be retained thereon. Compacted earth fill damaged by runoff shall be replaced immediately by the contractor.

E. Compaction

1. Berm material shall be compacted to 95% of the standard proctor density at or near optimum moisture content and by the compaction equipment specified herein. The compaction equipment shall traverse the entire surface of each layer of fill material.

2. Approved tamping rollers shall be used for compacting all parts of the berm. The contractor shall demonstrate the effectiveness of the roller by actual soil compaction test results of the soil to be used in the berm with laboratory work performed by an approved soil testing laboratory. Compaction tests shall include modified proctor and nuclear density tests made at the Engineer's discretion. A minimum of three proctor tests shall be performed and density tests shall be performed every 1500 square feet.

3. Pipe backfill shall be compacted by hand tamping with mechanical tampers. Heavy equipment shall not be operated within three feet of any structure. Equipment shall not be allowed to operate over the outlet culverts until there is at least two feet of cover over the pipes.

F. FINISHING EMBANKMENTS

1. The berm shall be constructed to the elevations, lines and grades and cross sections as shown on the plans. The berm shall be maintained in a manner satisfactory to the Engineer and the Town and surfaces shall be compact and and accurately graded before topsoil is placed on them.

G. MISCELLANEOUS CONDITIONS

1. Clearing limits for the berm area shall be as staked in the field by a licensed surveyor.

2. Test pits can be ordered by the Engineer or the Town at any time during construction to locate or confirm the elevation and condition of existing soils or the content of the embankment fill. This work shall be done at no additional cost to the Owner.

3. If apparent changes occur in the fill material, additional sieve analyses can be ordered by the Engineer at no additional cost to the Owner.

CONSTRUCTION SEQUENCE

THE SEQUENCE OF CONSTRUCTION WILL BE AS FOLLOWS:

PHASE 1: CLUBHOUSE, PAVILION, & PARKING AREA

Field stakeout the limits of all construction activities.

Haybales and/or siltation fence and other erosion control features will be placed as shown on the enclosed plan prior to the start of any construction.

Remove stumps and vegetation from the area of construction.

Install the anti-tracking pad as shown on the plan. At the end of each working day any accumulated silt shall be swept from the existing town roads.

Install temporary sediment traps as necessary during construction.

Strip and stockpile topsoil and subsoil material at the locations shown on the plans.

The cuts and fills will be made and all slopes loamed, seeded and mulched.

The drainage will now be installed. Haybales shall be placed around the catch basins to stop silt from entering the drainage system. The gravel around the catch basin rim shall be graded to ensure that no water enters the catch basin until pavement is installed. Use additional water bars to divert surface runoff away from catch basins, if necessary. The haybales around the catch basins shall be kept in place until the road is paved and the area has sufficient ground cover to control erosion.

Place gravel on driveway.

The building/pavilion slabs will be excavated and the slabs constructed.

The area surrounding the building slabs will be final graded.

Install underground utilities and septic system components

Water breaks will be installed to control lateral runoff along both sides of the proposed driveway prior to paving.

Haybale sediment check dams will be installed to control lateral runoff along both sides of the proposed road prior to paving.

Replace any necessary gravel on driveway.

Provide temporary seeding measures on all exposed soils which were damaged due to construction activities and are not to be permanently restored or are outside of construction traffic zones for a period in access of 30 days.

Seed all disturbed areas.

Clean all silt from drainage structures.

Finish grade and seed Rain Garden areas, remove any sediment/debris collected during construction.

PHASE 2: RANGES

Field stakeout the limits of all construction activities.

Haybales and/or siltation fence and other erosion control features will be placed as shown on the enclosed plan prior to the start of any construction.

Remove stumps and vegetation from the area of construction.

At the end of each working day any accumulated silt shall be swept from the existing town roads.

Install temporary sediment traps as necessary during construction.

Strip and stockpile topsoil and subsoil material at the locations shown on the plans.

The cuts and fills will be made and all slopes loamed, seeded and mulched.

Berms and backstops shall be graded per NRA guidelines and per site plans.

The cart path shall be graded, graveled, and side slopes shall be topsoiled and seeded.

The drainage will now be installed.

Provide temporary seeding measures on all exposed soils which were damaged due to construction activities and are not to be permanently restored or are outside of construction traffic zones for a period in access of 30 days.

Seed all disturbed areas and install backstop material.

Clean all silt from drainage structures.

The starting time for the construction is unknown, however the time limit for the site construction and building is approximately 270 days.

The following general specifications will also be adhered to:

Land disturbance will be kept to a minimum. Restabilization will be scheduled as soon as practical.

Haybale filters will be installed at all culvert outlets and along the toe of all critical cut and fill slopes.

Culvert discharge areas will be protected with riprap channels. Energy dissipaters will be provided as necessary.

Catch basins will be protected with haybale filters throughout the construction period and until all disturbed areas are thoroughly stabilized.

All erosion and sediment control measures will be constructed in accordance with the standards and specifications of the Guidelines for Erosion and Sediment Control (2002) of the State of Connecticut.

Erosion and sediment control measures will be installed prior to construction whenever possible.

All control measures will be maintained in effective condition throughout the construction period.

Additional control measures will be installed during construction if necessary or required.

CONSTRUCTION HOURS AND EQUIPMENT

Hours of Operation: 7am – 5pm Monday–Saturday

Equipment:
Earth Moving Equipment (loaders, bull dozers, etc) – QTY 3
Haul Trucks – QTY 2

MAINTENANCE SCHEDULE FOR EROSION CONTROL MEASURES

EROSION CONTROL FEATURE	ROUTINE INSPECTION & MAINTENANCE REQUIREMENTS	SIGNS OF FAILURE	REMOVAL CRITERIA
CONSTRUCTION ENTRANCE	INSPECT AT END OF EACH WORKING DAY AND ACCUMULATED SILT SHALL BE REMOVED FROM TOWN ROADS DAMAGE SHALL BE REPAIRED IMMEDIATELY AND PERIODIC REPLACEMENT OR EXTENSION OF ENTRANCE MATERIAL MAY BE REQUIRED	ACCUMULATION OF SILT IN TOWN ROADWAYS	UPON PERMANENT SITE STABILIZATION AND COMPLETION OF ON-SITE PAVING
SILT FENCE	INSPECT WEEKLY AND WITHIN 24 HOURS OF A STORM EVENT TOTALLING 0.5 INCHES OR GREATER REPAIR IMMEDIATELY IF BREACHED OR TORN AND REMOVE ANY SEDIMENT BUILDUP OVER 1/2 THE TRENCH HEIGHT	PHYSICAL DAMAGE - TEARS, EXCESSIVE WEAR, DECOMPOSITION OVERTOPPING OR UNDERCUTTING OF FENCE SIGNIFICANT EROSION ADJACENT TO FENCED AREAS	UPON STABILIZATION OF PROTECTED, UPHILL DRAINAGE AREAS
HAYBALE INLET PROTECTION	INSPECT AFTER ANY RAIN EVENT ANDDURING ROUTINE SILT FENCE INSPECTION	SIGNIFICANT SILTING OF CATCH BASINS DAMAGE TO HAYBALES OR GAPS IN BARRIER	UPON PERMANENT SITE STABILIZATION AND COMPLETION OF ON-SITE PAVING
TOPSOIL STOCKPILES	INSPECT AT END OF EACH WORKING DAY AND REPAIR ANY DAMAGE IMMEDIATELY PERIODIC REPLACEMENT OF SILT FENCE OR STAKING MAY BE REQUIRED	SILT FENCE FAILURE (SEE ABOVE) EVIDENCE OF STOCKPILED MATERIAL WASHING OUT	UPON FULL USE OR REMOVAL OF PROTECTED STOCKPILE

MAINTENANCE PLAN FOR STORM DRAINAGE SYSTEM

CATCH BASINS AND PIPING:
Annual:
Catch basins and storm drainage piping will be inspected on an annual basis. Any floatables, trash, debris or sediment build up shall be removed by a licensed contractor.

An inspection report will be submitted to Land Use Office after each inspection for verification that the proper maintenance has been performed.

The on–site catch basins, rain gardens and all aspects of the storm drainage system must be maintained in good working condition in accordance with the intent of these site plans.

RAIN GARDEN & SWALES:
Semi–Annual: (Generally Spring and Fall).
1. Cut or mow grass lined slopes and swales. Areas with slopes steeper than 3H:1V shall be cut with a line trimmer.
2. Inspect for and remove invasive vegetation.
3. Clean and remove any trash or debris paying particular attention to inlet and outlet areas.
4. Monitor filter bed for evidence of standing water or clogging from accumulated sediments. Sediment shall be removed when the accumulation exceeds one inch, or the capacity of the filter bed is significantly reduced (observed standing water above the design level or drawdown time exceeds 36–48 hours).
5. If standing water remains ponded for more than the above times then the filter media must be mitigated or repaired to correct this condition. This typically involves removal and replacement of the top several inches of discolored material (preferably by hand raking).
6. Remove sediment once it has built up to a depth of 2" or greater near the inlets in the forebay area.
7. Remove excess leaves and debris. Plant matter shall be left in place over winter months to insulate the soil and add organic matter to the soil. Removal criteria shall include when plant matter is smothering or killing vegetation and aesthetics.
8. Add supplemental plantings or seed as needed to maintain 80% area cover for turf areas and 50% area cover for tree/shrub areas.

RESPONSIBILITY:
The on–site catch basins, and stormwater renovation areas and all aspects of the storm drainage system must be maintained in good working condition in accordance with the intent of these site plans.

The owner will be responsible for the long term maintenance of the storm drainage system as listed above. Maintenance reports indicating that the system has been maintained in accordance with the intent of the plan shall be submitted to the Town Land Use Offices on a semi–annual basis after the maintenance & inspections have occurred.

TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

THE FOLLOWING ARE PLANNED AS TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION:

1. A CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE SITE ACCESS.

2. FILTER FABRIC SILT FENCE SHALL BE INSTALLED ALONG THE DOWN GRADIENT SIDE OF ALL FILL SECTIONS. IN AREAS ADJACENT TO WETLANDS THE SILT FENCE WILL BE BACKED BY STAKED HAYBALES. SILT FENCE WILL BE MAINTAINED IN PLACE UNTIL THE TRIBUTARY AREA PROTECTED BY THE FENCE IS REVEGETATED OR STABILIZED BY PERMANENT MEASURES. SYNTHETIC FILTER FABRIC, POST MATERIAL, SPACING AND EMBEDMENT, AND TRENCH DETAILS, SHALL BE AS SHOWN ON THE DRAWINGS. FILTER BARRIER SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL GREATER THAN 0.1 INCH AND AT LEAST DAILY DURING PROLONGED RAINFALL. REFER TO THE CHAPTER 7 OF THE "GUIDELINES" FOR ADDITIONAL MAINTENANCE REQUIREMENTS.

3. DUST CONTROL SHALL BE USED TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES AND REDUCE THE PRESENCE OF DUST WHICH MAY CAUSE OFF–SITE DAMAGE, BE A HEALTH HAZARD TO HUMANS, WILDLIFE AND PLANT LIFE. THE NEED FOR DUST CONTROL WILL BE MINIMIZED BY REDUCING AREA OF LAND DISTURBANCE AT ANY ONE TIME, MAINTAINING AS MUCH VEGETATION AS PRACTICABLE, USE OF MULCHING AND TEMPORARY VEGETATIVE COVER. THE CONTRACTOR SHALL USE MECHANICAL SWEEPERS ON PAVED AREAS AND UTILIZE FINE WATER SPRAYS NEAR SOURCES OF DUST. THE EXPOSED SOIL AREAS SHALL BE PERIODICALLY MOISTENED. SPRAY–ON ADHESIVES DILUTED IN WATER MAY BE USED.

4. TEMPORARY SOIL STOCKPILES SHALL BE PROTECTED BY A SEDIMENT BARRIER. SIDE SLOPES OF THE STOCKPILES SHALL NOT EXCEED 2 TO 1. THE STOCKPILES SHALL BE STABILIZED WITHIN THIRTY DAYS OF FORMATION OF THE STOCKPILE BY TEMPORARY SEEDING OR COVERING WITH MULCH.

5. TEMPORARY VEGETATIVE COVERS SHALL BE INSTALLED ON ALL DISTURBED AREAS NOT INTENDED FOR PRIMARY CONSTRUCTION AND HAVING THE POTENTIAL TO PRODUCE SEDIMENT AND CAUSE ON– AND OFF–SITE DAMAGES. SUCH AREAS BASED ON RECOMMENDATIONS SHALL BE COVERED WITH TOPSOIL AND SEEDED OF FIGURE 6–1 OF THE "GUIDELINES". FOR ADDITIONAL SEEDING REQUIREMENTS REFER TO CHAPTER 6 OF THE "GUIDELINES".

6. STONE CHECK DAMS SHALL BE INSTALLED AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS.

7. STORM DRAIN CATCH BASIN INLET PROTECTION SHALL BE PROVIDED THROUGH THE USE OF FILTER FABRIC FENCE OR STONE BARRIERS AROUND THE CATCH BASINS AS INDICATED ON THE SEDIMENT AND EROSION CONTROL DRAWINGS. THE BARRIERS SHALL ONLY BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA HAS BEEN STABILIZED.

PERMANENT EROSION CONTROL MEASURES

ALL PERMANENT EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE "GUIDELINES", THE FOLLOWING PERMANENT EROSION CONTROL MEASURES HAVE BEEN DESIGNED AS PART OF THE EROSION AND SEDIMENT CONTROL PLAN:

1. PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL EXPOSED/DISTURBED AREAS THAT ARE NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC). INSTALLATION AND MAINTENANCE REQUIREMENTS OF CHAPTER 6 OF THE "GUIDELINES" SHALL BE FOLLOWED. EXPOSED AREAS SHALL BE LOAMED, LIMED, FERTILIZED AND SEEDED. LIMESTONE AND FERTILIZER SHALL BE APPLIED IN ACCORDANCE WITH THE RESULTS OF SOIL TESTING OR AS RECOMMENDED BY THE "GUIDELINES". ALL PERMANENT SEEDING WILL BE DONE IN THE SPRING OR LATE SUMMER (BEFORE OCTOBER 31). ANY AREAS TO BE SEEDED OUTSIDE OF THIS TIME FRAME SHALL BE COVERED WITH AN EROSION CONTROL BLANKET TO STABILIZE THE SOIL UNTIL GROWTH CAN BE ESTABLISHED. SEEDING MIXTURES SHALL BE SELECTED IN ACCORDANCE WITH FIGURES 6–2 OR 6–3 OF THE "GUIDELINES" OR AS RECOMMENDED BY THE SOIL CONSERVATION SERVICE. HYDROSEEDING SHALL BE USED WHERE INDICATED ON THE PLANS AND IN CRITICAL AREAS. MULCH SHALL BE APPLIED AND ANCHORED AS RECOMMENDED UNDER "EROSION AND SEDIMENT CONTROL DEVICES" ABOVE. SLOPES STEEPER THAN 3:1 SHALL RECEIVE NORTH AMERICAN GREEN S150 STRAW TURF REINFORCEMENT BLANKET OR APPROVED EQUAL.

2. THE RIPRAP APRONS SHALL BE CONSTRUCTED AND STABILIZED AT THE PIPE OUTLETS PRIOR TO DIRECTING RUNOFF TO EITHER STORMWATER RENOVATION AREA AND AT ALL STORM DRAINAGE OUTLETS.

NO.	REVISION	DATE
	Previous Editions Obsolete	

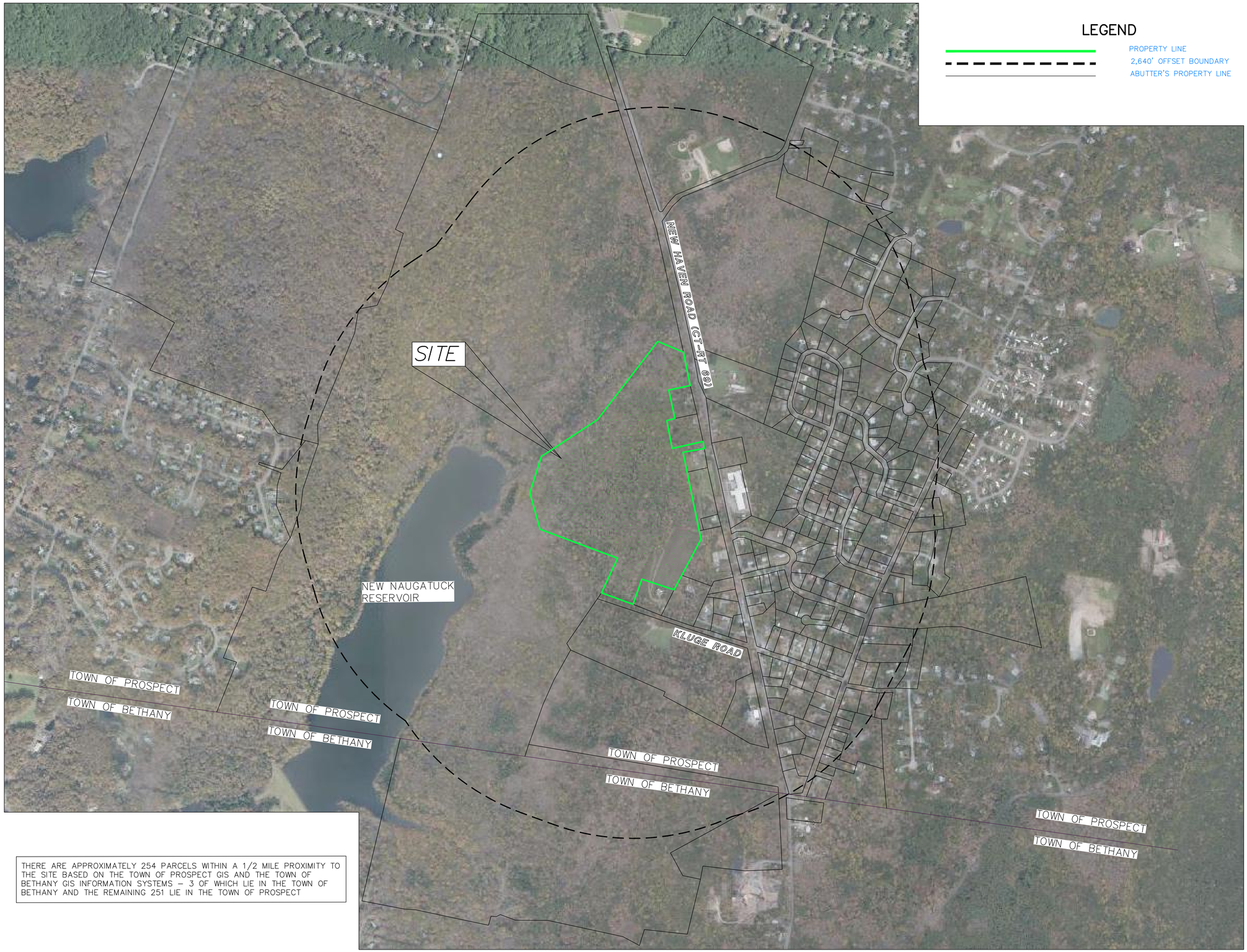
PROSPECT GUN CLUB
221 CHESHIRE ROAD
P.O. BOX 7293
PROSPECT CT 06712

EROSION CONTROL NARRATIVE

PROSPECT SPORTING CLUB
178 NEW HAVEN ROAD
PROSPECT CONNECTICUT

CIVIL C1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

DRAWN: EJ/JL APPROVED: CJ
SCALE:
DATE: 24 JAN 23
PROJ. NO.: 3094
CADD FILE NAME: 3094
DRAWING NO.: **C 6.1**



LEGEND

PROPERTY LINE

2,640' OFFSET BOUNDARY

ABUTTER'S PROPERTY LINE

THERE ARE APPROXIMATELY 254 PARCELS WITHIN A 1/2 MILE PROXIMITY TO THE SITE BASED ON THE TOWN OF PROSPECT GIS AND THE TOWN OF BETHANY GIS INFORMATION SYSTEMS – 3 OF WHICH LIE IN THE TOWN OF BETHANY AND THE REMAINING 251 LIE IN THE TOWN OF PROSPECT

W E S

NO.	REVISION	DATE

Previous Editions Obsolete

1000 0 500 1000 2000

1 inch = 1,000 feet

PROSPECT GUN CLUB, INC.
221 CHESHIRE ROAD
PO BOX 7293
PROSPECT, CT 06712

VICINITY MAP - PROPERTIES WITHIN 1/2 MILE

178 NEW HAVEN ROAD
MBL: 112/96/178

PROSPECT CONNECTICUT

CIVIL C1
CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

STATE OF CONNECTICUT · CURTIS C. JOY · No. 17208 · LICENSED PROFESSIONAL ENGINEER

DRAWN: SQ	APPROVED: CJ
SCALE:	1" = 1,000'
DATE:	30 JAN 23
PROJ. NO.:	3094
CADD FILE NAME:	3094
DRAWING NO.:	1 OF 1

CIVIL 1
Civil Engineers

February 1, 2023

Planning and Zoning Commission
Town of Prospect
36 Center Street
Prospect, CT 06712

Re: 178 New Haven Road, Prospect, Connecticut
Prospect Gun Club, Inc. ("Applicant")
Peter Visockis, Victor Visockis, and Victor Visockis, Jr. ("Owners")
Site Plan and Special Permit Application Submission Transmittal

Dear Commissioners:

This firm represents the above-referenced applicant, Prospect Gun Club, Inc. ("Applicant"), the contract purchasers for the property at 178 New Haven Road currently owned by Peter Visockis, Victor Visockis, and Victor Visockis, Jr. ("Owners")" in connection with all land use applications, including Site Plan and Special Permit applications for the property.

The applicant hereby submits the following materials for consideration of approval by the Prospect Planning and Zoning Commission at their next regularly scheduled meeting on February 15, 2023:

Ten (10) copies – Site Plan Application and Authorization Letters from Owner/Applicant
Ten (10) copies – Special Permit Application, Statement of Use, and Authorization Letters from Owner/Applicant
Eleven (11) copies - Plan Set entitled "Prospect Sporting Club Permitting Set, Not for Construction – 178 New Haven Road, Prospect, CT" prepared by Civil 1 and dated January 24, 2023
Eleven (11) copies - Plan entitled "Vicinity Map – Properties within ½ Mile", prepared by Civil 1 and dated January 30, 2023
Two (2) copies - Document entitled "Stormwater Management Report, Prospect Gun Club, 178 New Haven Road, Prospect, Connecticut" prepared by Civil 1 and dated January 31, 2023
Ten (10) copies - Document entitled "Prospect Gun Club, Inc. d/b/a Prospect Sporting Club, 221 Cheshire Rd. Prospect, CT 06712 – Best Management Practices" prepared by Prospect Gun Club, Inc. and last updated January 29, 2023
Ten (10) copies - Document entitled "Prospect Gun Club, Inc. d/b/a Prospect Sporting Club, 221 Cheshire Rd. Prospect, CT 06712 – Range Rules and Safety Management" prepared by Prospect Gun Club, Inc. and last updated January 29, 2023
One (1) copy - USB Drive containing all application materials listed above

Please contact me with any questions or if you need any additional information.

Sincerely yours,
CIVIL 1

Emily M. Jones, P.E.

T 203 266 0778
F 203 266 4759

Cornerstone
Professional Park
Suite D-101
43 Sherman Hill Road
Woodbury, CT 06798
info@CIVIL1.com
www.CIVIL1.com

PLANNING & ZONING COMMISSION
PROSPECT, CONNECTICUT

SITE PLAN APPLICATION

THIS FORM MUST BE COMPLETELY FILLED OUT BY THE APPLICANT
(Please type or print legibly)

APPLICANT Prospect Gun Club, Inc. d/b/a Prospect Sporting Club TELEPHONE 203-982-4124

EMAIL prospectgunpresident@gmail.com

MAILING ADDRESS 221 Cheshire Road (PO Box 7293), Prospect, CT 06712

OWNER OF RECORD Peter Visockis, Victor Visockis, & Victor Visockis Jr.

MAILING ADDRESS 73 Grandview Avenue, Newington, CT 06111

LOCATION OF PROPERTY 178 New Haven Road (CT Route 69)

ASSESSOR'S MAP PLATE # 112-96 LOT # 178 LAND RECORDS: Vol.____ Page____

I hereby apply for a Site Plan for:

Commercial Outdoor Recreation (Firing Range) Clubhouse, Pavilion, Parking/Drainage, Ranges

Have any previous applications been filed in connection with this Site Plan application?

Yes____ No ✔ If yes, described briefly:____

All the above statements and the statements contained in any documents and plans submitted herewith are true to the best of my knowledge.

Signature – Applicant(s)/Owner of record

1/30/23
Date

THIS APPLICATION MUST BE ACCOMPANIED WITH THE FOLLOWING:

1. If the applicant is other than the property owner, a letter signed by the property owner(s) authorizing the applicant to proceed with the Site Plan application at the above address must be submitted to the Planning & Zoning Commission.

2. (1) Original and Eight (8) copies of detailed plans of proposal required by the Zoning Regulations or as otherwise required, (depending upon the nature of the application).

3. An application fee in the amount of $____ and State of CT fee in the amount of $____

4. The names and current mailing addresses (as derived from the Assessor's Records) for all abutting property owners, including those properties separated by a common roadway from the applicant's.

DATE OF OFFICIAL RECEIPT____

PILICY RYAN & WARD, P.C.
ATTORNEYS AT LAW

FRANKLIN G. PILICY
fpilicy@prwpc.com
Also Admitted in MA

WILLIAM W. WARD
billward@prwpc.com
Fellow, College of Community Association Lawyers

DONALD J. RINALDI
drinaldi@prwpc.com
As of Counsel to the Firm

www.PRWPC.com

235 Main Street
Watertown, Connecticut 06795
Phone (860) 274-0018
Fax (860) 274-0061

1318 Bedford Street
Stamford, Connecticut 06905
Phone (203) 975-1151
Fax (203) 975-1821

CHARLES A. RYAN
cryan@prwpc.com
Also Admitted in MA

JILLIAN A. JUDD
jjudd@prwpc.com

BENJAMIN A. SAAVEDRA
bsaavedra@prwpc.com
Also Admitted in MA

January 30, 2023

Planning & Zoning Commission
Town of Prospect, CT
36 Center Street
Prospect, CT 06712
mbarton@townofprospect.org

RE: 178 New Haven Road, Prospect, Connecticut
Prospect Gun Club, Inc. ("Applicant")
Peter Visockis, Victor Visockis, and Victor Visockis, Jr. ("Owners")
Site Plan

Planning & Zoning Commission

This firm represents the above-referenced applicant, Prospect Gun Club, Inc. ("Applicant") in their purchase of the property known as 178 New Haven Road, Prospect, Connecticut ("Property"), currently owned by Peter Visockis, Victor Visockis, and Victor Visockis, Jr. ("Owners"). Furthermore, this firm is authorized to represent the Applicant in connection with all land use applications, including a Site Plan Application for the Property, prior to and extending past the closing of the Property.

Owners confirm that Applicant has the authority to pursue all land use applications for the Property, including a Site Plan Application with the Planning & Zoning Commission.

Furthermore, the Applicant hereby authorizes Civil 1, Inc. ("Civil") and its agents to represent the Applicant in all land use application matters for the Property, including a Site Plan Application with the Planning & Zoning Commission, as its engineer.

And lastly, the Applicant hereby authorizes Pilicy Ryan & Ward, P.C. ("Pilicy") and its agents to represent the Applicant in all land use application matters for the Property, including a Site Plan Application with the Planning & Zoning Commission, as its agent/legal counsel.

Owner and Applicant hereby attest to the above. This letter may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original, and all of which when taken together shall constitute one and the same letter.

APPLICANT: Prospect Gun Club, Inc.

1/29/23

BY: Jerry Williams, Its President Date

OWNERS:

1/30/23

Peter Visockis Date

1/30/2023

Victor Visockis Date

1/30/23

Victor Visockis, Jr. Date

Yours Truly,
Pilicy Ryan & Ward, PC

Jillian Judd, Esq.

PLANNING & ZONING COMMISSION
PROSPECT, CONNECTICUT

SPECIAL PERMIT APPLICATION Amendment

THIS FORM MUST BE COMPLETELY FILLED OUT BY THE APPLICANT
(Please type or print legibly)

APPLICANT Prospect Gun Club, Inc. d/b/a Prospect Sporting Club TELE# 203-982-4124

MAILING ADDRESS 221 Cheshire Road (PO Box 7293), Prospect, CT 06712 EMAIL prospectgunpresident@gmail.com

OWNER OF RECORD Peter Visockis, Victor Visockis, & Victor Visockis Jr. TELE# _____

MAILING ADDRESS 73 Grandview Avenue, Newington, CT 06111

LOCATION OF PROPERTY: 178 New Haven Road (CT Route 69)

ASSESSOR'S MAP PLATE # 112-96 LOT # 178 LAND RECORDS: Vol. _____ Page _____

I hereby apply for an Amendment to a Special Permit approved by the Prospect Planning and Zoning Commission to : Construct a firing range, which falls under the definition of "Recreation Facility, Commercial Outdoor" as permitted in the RA-1 zoning district.

Please attach a detailed statement of use explaining your business; what do you do in your business, list the number of employees, hours of operation, days of the week the business will operate, will clients be visiting the property?

Have any previous applications been filed in connection with this Special Permit application?

Yes ___ No X If yes, describe briefly: _____

All the above statements and the statements contained in any documents and plans submitted herewith are true to the best of my knowledge.

Gerald D Villano
Signature – Applicant(s)/Owner of record

1/30/23
Date

THIS APPLICATION MUST BE ACCOMPANIED WITH THE FOLLOWING:

1. If the applicant is other than the property owner, a letter signed by the property owner(s) authorizing the applicant to proceed with the Special Permit application at the above address must be submitted to the Planning & Zoning Commission.

2. Ten (10) copies of detailed plans of the proposal as required by the Zoning Regulations or as otherwise required, (depending upon the nature of the application).

3. An application fee in the amount of $ _____

4. The names and current mailing addresses (as derived from the Assessor's Records) for all abutting property owners, including those properties separated by a common roadway from the applicants.

DATE OF OFFICIAL RECEIPT _____

**** If the applicant is not the owner and does not sign the application please provide a separate letter of authorization from the property owner granting permission to submit the application. *****

PILICY RYAN & WARD, P.C.
ATTORNEYS AT LAW

FRANKLIN G. PILICY
fpilicy@prwpc.com
Also Admitted in MA

WILLIAM W. WARD
billward@prwpc.com
Fellow, College of Community Association Lawyers

DONALD J. RINALDI
drinaldi@prwpc.com
As of Counsel to the Firm

www.PRWPC.com

235 Main Street
Watertown, Connecticut 06795
Phone (860) 274-0018
Fax (860) 274-0061

1318 Bedford Street
Stamford, Connecticut 06905
Phone (203) 975-1151
Fax (203) 975-1821

CHARLES A. RYAN
cryan@prwpc.com
Also Admitted in MA

JILLIAN A. JUDD
jjudd@prwpc.com

BENJAMIN A. SAAVEDRA
bsaavedra@prwpc.com
Also Admitted in MA

January 31, 2023

Planning & Zoning Commission
Town of Prospect, CT
36 Center Street
Prospect, CT 06712
mbarton@townofprospect.org

RE: 178 New Haven Road, Prospect, Connecticut
Prospect Gun Club, Inc. ("Applicant")
Peter Visockis, Victor Visockis, and Victor Visockis, Jr. ("Owners")
Special Permit

Planning & Zoning Commission

This firm represents the above-referenced applicant, Prospect Gun Club, Inc. ("Applicant") in their purchase of the property known as 178 New Haven Road, Prospect, Connecticut ("Property"), currently owned by Peter Visockis, Victor Visockis, and Victor Visockis, Jr. ("Owners"). Furthermore, this firm is authorized to represent the Applicant in connection with all land use applications, including a Special Permit Application for the Property, prior to and extending past the closing of the Property.

The Applicant hereby submits the following to be attached to the Special Permit Application. Specifically, below is the detailed statement of use for the business of the Applicant.

The Business is a private club used for outdoor recreation. Specially, the recreation is for the shooting of approved and legal Connecticut Firearms (this includes guns and/or archery equipment). All of the recreation shall be conducted outdoors.

There shall be no storage, sale, trading, rental, or repair of any firearms at the Property. The Business is member-only, so the general public will not be visiting the Business. Members may bring a guest. Members each bring their own firearms with them. There are no firearms for rent or use provided by the Business.

In the future, the Applicant plans to build a clubhouse for social events for the Members. No shooting shall take place indoors.

The Business does not have any employees as the Applicant is an organization for which Members join and pay an annual fee. Any "workers" are volunteers.

The proposed days and hours of outdoor shooting are: Seven days a week from 9 AM to dusk.

The proposed hours of operation for the club house: Seven days a week from 8 AM to 12 AM.

APPLICANT: Prospect Gun Club, Inc.

1/31/23

BY: Jerry Williams, Its President Date

PILICY RYAN & WARD, P.C.
ATTORNEYS AT LAW

FRANKLIN G. PILICY
fpilicy@prwpc.com
Also Admitted in MA

WILLIAM W. WARD
billward@prwpc.com
Fellow, College of Community Association Lawyers

DONALD J. RINALDI
drinaldi@prwpc.com
As of Counsel to the Firm

www.PRWPC.com

235 Main Street
Watertown, Connecticut 06795
Phone (860) 274-0018
Fax (860) 274-0061

1318 Bedford Street
Stamford, Connecticut 06905
Phone (203) 975-1151
Fax (203) 975-1821

CHARLES A. RYAN
cryan@prwpc.com
Also Admitted in MA

JILLIAN A. JUDD
jjudd@prwpc.com

BENJAMIN A. SAAVEDRA
bsaavedra@prwpc.com
Also Admitted in MA

January 30, 2023

Planning & Zoning Commission
Town of Prospect, CT
36 Center Street
Prospect, CT 06712
mbarton@townofprospect.org

RE: 178 New Haven Road, Prospect, Connecticut
Prospect Gun Club, Inc. ("Applicant")
Peter Visockis, Victor Visockis, and Victor Visockis, Jr. ("Owners")
Special Permit

Planning & Zoning Commission

This firm represents the above-referenced applicant, Prospect Gun Club, Inc. ("Applicant") in their purchase of the property known as 178 New Haven Road, Prospect, Connecticut ("Property"), currently owned by Peter Visockis, Victor Visockis, and Victor Visockis, Jr. ("Owners"). Furthermore, this firm is authorized to represent the Applicant in connection with all land use applications, including a Special Permit Application for the Property, prior to and extending past the closing of the Property.

Owners confirm that Applicant has the authority to pursue all land use applications for the Property, including a Special Permit Application with the Planning & Zoning Commission.

Furthermore, the Applicant hereby authorizes Civil 1, Inc. ("Civil") and its agents to represent the Applicant in all land use application matters for the Property, including a Special Permit Application with the Planning & Zoning Commission, as its engineer.

And lastly, the Applicant hereby authorizes Pilicy Ryan & Ward, P.C. ("Pilicy") and its agents to represent the Applicant in all land use application matters for the Property, including a Special Permit Application with the Planning & Zoning Commission, as its agent/legal counsel.

Owner and Applicant hereby attest to the above. This letter may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original, and all of which when taken together shall constitute one and the same letter.

APPLICANT: Prospect Gun Club, Inc.

1/29/23

BY: Jerry Williams, Its President Date

OWNERS:

1/30/23

Peter Visockis Date

1/30/2023

Victor Visockis Date

1/30/23

Victor Visockis, Jr. Date

Yours Truly,
Pilicy Ryan & Ward, PC

Jillian Judd, Esq.

PROSPECT GUN CLUB, INC.
d/b/a
PROSPECT SPORTING CLUB
221 Cheshire Rd.
Prospect, CT 06712

BEST MANAGEMENT PRACTICES

Preamble:

These Best Management Practices have been written in accordance and consultation with accepted EPA standards and guidelines. In addition to the below, the Club incorporates by reference and adopts Best Management Practices for Lead at Outdoor Shooting Ranges by the United States Department of Environmental Protection, Document No. EPA-902-B-01-001. The goal of these Best Management Practices is to ensure the safe operation of this outdoor sporting range that is as environmentally protective as is practicable through the implementation of an integrated lead management program which incorporates a variety of appropriate Best Management Practices.

Daily Range Management Checklist:

(To be performed by Range Officers, primarily, but also required of all members participating in range activities)

- Check range and surroundings for any damage or vandalism.
- Check proper working operation of the buzzer system (horn, amplifier, and strobe system)
- Check presence and contents of first aid kit and trauma bleed kit.
- Check shooting area for any live rounds on the ground and dispose of them in the appropriate receptacle immediately upon discovery.
- Check the parking areas for dropped items or fall hazards.
- Check operation of security system and CCTV cameras, monitor, and hard drive.
- Check all doors and locks for function.
- Check log-in book to ensure it is present and ready for use by members.

- Check steel plates & frames for damage and remove from use until repaired and/or replaced.
- Check backstop signs of excessive wear. In the event the backstop is in an unsafe or deteriorated condition, cease all shooting until remedied, repaired, or otherwise approved for continued use by the Executive Range Officer.
- Backstop logs are to be replaced as needed (or every other year).
- Check perimeter warning signage annually to ensure that all approaching perimeters have adequate warnings that an active range is present in the area.
- Range is to be swept 6-12 times daily during normal operational hours or more as needed. The range ground and surrounding area(s) is to always be safe and free from defects, hazards, and obstruction.
- Brass is to be collected throughout each range day and placed in an approved container for recycling as required and as needed.
- Lime will be applied to range field annually in accordance with EPA guidelines/recommendations. *To maintain proper PH levels in the soil.*

Bullet/Projectile Containment and Control

- The range is to be divided into separate shooting stalls wherein projectiles will only travel downrange and into the range backstop.
- Backstop design and construction shall always be comprised of natural and renewable projectile-containing materials. The backstop design is to incorporate:
- Earthen backstops and berm mound(s) sufficient in height and width to contain all errant projectiles sent downrange that are not contained by the below, in accordance with NRA range safety guidelines and engineering.
- Replaceable, renewable, and repurposed wooden backstop and logging and/or shock absorbing concrete in accordance with NRA range safety guidelines and engineering.

- Shot containment zone- shot fall zones and buffer zones engineered in accordance with NRA guidelines and specifications.

Prevention of Lead Migration

- Monitor and adjust soil PH.
- Control runoff and vegetation impact in accordance with engineering done in accordance with EPA standards.
- Immobilize lead through phosphate spreading.
- Mitigate lead escapement and contamination though safe containment practices.
- Avoid soil disturbance to prevent unwanted migration.
- Range design and construction will be completed in accordance with engineering, NRA, and EPA standards with particular focus on lead migration prevention and safeguarding.

Remove and Recycle Procedures

- In the event that disturbance of the affected soil is unavoidable and necessary to safe range operations or use of the land, or the range lead migration design, systems, and protocols fail, removal and recycling procedures may be necessary.
- Regular testing may yield a need for removal and recycling procedures.
- Removal and recycling procedures may include, but are not limited to:
    - Soil removal
    - Hand raking and sifting
    - Screening
    - Soil washing
    - Working with a lead reclaimer/recycling expert as needed
- All unfired lead will be disposed of safely and in accordance with regulation and range procedure.

Record Keeping

- Ph to be checked regularly to ensure soil meets standards and guidelines.
- Water samples to be taken regularly and inspected. Historical range Water Reports are currently held by the Town of Prospect as per regulation and requirements of both the State and local EPA guidelines.
- Range usage numbers will be maintained by the Club.
- The Club will maintain all necessary records in compliance and accordance with NRA and EPA guidelines.

Last Updated 01/29/2023

PROSPECT GUN CLUB, INC.
d/b/a
PROSPECT SPORTING CLUB
221 Cheshire Rd.
Prospect, CT 06712

RANGE RULES AND SAFETY MANAGEMENT

Preamble:

This Range Rules and Safety Management Plan has been established and implemented to ensure the health and safety of those individuals who use, visit, and frequent this facility and its community at large. It is a plan developed to ensure the continuity of the Range and Club facility and its continued safe operation. This safety plan outlines safe practice and procedure for members and guests with respect to regular/routine range usage and operation(s).

New Member Safety Orientation Procedure

- All new member applicants must hold a valid Connecticut Firearms Permit or Long Gun Permit in accordance with Club Bylaws.
- Upon vote and acceptance into the Club, all new members are required to participate in a Range Safety Orientation Class to be conducted by an NRA Certified Range Safety Officer.
- The NRA Certified Range Safety Officer shall address any and Club safety protocol and procedure as well as the Range Safety Rules, below.
- All new members must successfully complete the Range Safety Orientation Class prior to engaging in any range activities.
- New members must sign and agree to the Range Safety Rules following successful completion of the Orientation class prior to engaging in any range activities.
- Members may call on the NRA Certified Range Safety Officer or any other Club Range Officer at any time for guidance, consultation, or direction.

Range Rules:

1. All Firearms coming to and from the range must be encased and unloaded.
   **Exception-If you are holster carrying this rule does not apply.

2. Upon entering the range cases are to be placed on the shooting tables with muzzle side facing down range. If the range is on a cease fire do NOT unpack firearms. Move behind the yellow line and wait until the range is hot to move forward and unpack firearms. Empty cases can then be stored behind the yellow line.

3. When you are finished using the range and ready to pack up bring your case to the shooting table to pack up your firearms as long as the range is hot and NOT on a cease fire.

4. DO NOT handle any firearms during a cease fire.

5. Muzzles are ALWAYS to be pointed down range.*Exception-If you are moving from one shooting station to another muzzles are to be pointed up with firearms unloaded , actions open and finger off of the trigger.

6. An immediate cease fire MUST be called if anyone is working behind the town garage- or anywhere adjacent to the firing line.

7. Membership cards MUST be displayed at all times when at the range.

8. Members MUST sign in when arriving and sign out when leaving the range.

9. It is MANDATORY to wear eye protection and hearing protection once you enter the paved area of the range while it is hot and range is in use.

10. Members bringing guest(s) MUST have them sign a guest waiver the first time they come to the range each and every calendar year.

11. Members may bring the same guest up to 3 times per year.

12. Members are allowed to bring 1 guest only while using the range.

13. Members are responsible for their guest and his/her actions and MUST accompany them at all times when on the firing line. Guest(s) must share your shooting table or use the one directly adjacent to it if it is not being utilized by another member.

14. During shooting hours NO children under the age of 18 are allowed on the paved area of the range without an adult. Absolutely NO children under the age of 10 are allowed on the paved area of the range at any time.

15. CEASE FIRE-If a member would like to call a cease fire, start at one end of the firing line and inform EVERY shooter. Then go to the center button station and wait until all shooters have made their firearms safe and have moved behind the yellow line. You may then press the red button once and verify that the red light has come on. The chain can then be removed and shooters may proceed down range.

16. GOING LIVE OR HOT-After the last person has returned from being down range the chain must be put up and the red button can be pushed 2 times to get everyone's attention before pushing the green button 1 time to go live and shut off the red light. You may now announce eyes and ears and that we are live.

17. MAKING FIREARMS SAFE-Firearms are safe when unloaded , chambers empty , actions / cylinders /gates open and laying on their left side with muzzles pointing down range.*Chamber flags are recommended.*

18. Members are responsible for cleaning up and disposing of all garbage, targets , boxes, spent casings / shells that are used while using the range. Please dispose of in the appropriate bins. The front side of the firing line can only be cleaned during a cease fire.

19. Full auto is NOT allowed.

20. Shooting animals is NOT allowed.

21. Exploding targets are NOT allowed.

22. Bottles or cans are NOT allowed to be used as targets.

23. Excessive rapid fire is NOT allowed.

24. Hip shooting is NOT allowed.

25. Bowling pins are NOT allowed as targets.

26. Bump fire is NOT allowed.

27. The 50 BMG caliber is NOT allowed at the range.

28. Fast draw is NOT allowed.

29. Any shooter using a cross draw or shoulder holster MUST turn 90 degrees on the firing line so that they do not sweep the muzzle of the firearm across the firing line from the draw.

30. Silhouette targets with a face and those resembling a person are NOT allowed. Political or character targets are also NOT allowed. Silhouettes are approved.

31. No shooting past/in front of the firing line or behind the yellow line is permitted.

32. No cleaning firearms on the firing line. Muzzle-loaders may swab the barrel in between shots.

33. No shooting outside of the 100-yard boundary flags.

34. No cross shooting allowed. Stop at the center line of the range.

35. No shooting other members targets or property without their express permission.

36. Utilize shooting screens when someone is in the stall next to you. Use the ladder when rolling screens up and down. *Do NOT climb on tables or stools*

37. The minimum distance from the firing line for steel plates and reactive targets is 50 feet. The minimum distance from the firing line for AR500 steel targets is 50 yards when firing centerfire rifles and long guns.

38. The minimum distance from the firing line for the cardboard stands is 25 feet. (Far side of bridge).

39. Center targets on stands so that stands are not damaged.

40. Do not discard cigarette buts on the range. There are several butt cans at the range. No smoking is allowed near black powder. If smoking is offensive to someone, please move.

41. CLUB PROPERTY-If you use items from the closet (spotting scopes, bench rests, hearing protection, or eye protection) please return it when you are done. If you are using the dueling trees or poppers make sure you are using the correct ones for the caliber you are using and return them when you are done. If you are the last one leaving the range make sure everything is put away and ALL doors are locked. If the garbage is full or used cardboard is piling up empty it when you are leaving. We are allowed

to use the dumpster on the left side of the town garage as you enter from Cheshire Rd.

42. 100 YARD TARGETS-Do NOT set targets in the field directly in front of the 100 yard stands so that they will be damaged by rounds going through cardboard targets or any misses with other targets. If you damage a 100-yard target by shooting the straps off of it you are responsible for repairing it before you leave. (Parts are in clubhouse closet).

43. DO NOT USE GREEN TIP OR STEEL CORE AMMO ON ANY OF THE CLUBS TARGETS.

44. TRAP SHOOTING-The trap house is only to be loaded on a cease fire. Make sure the machine is "Disarmed" before you load it and when you are finished using it. Clay targets are supplied by the shooter and not the club. No hand or portable throwers are allowed. Use only the club thrower. When shooting trap from the thrower The shooter is not allowed to go past station #3. Clay targets are allowed as targets on the range for rifle and pistol shooters. Place clay targets on the ground or use approved holders. Do NOT lean against target stands.

45. The metal pipe target stands are for the club competitions only. If you want to shoot steel you may bring your own stand to use. The club will leave a few stands available as long as they are not abused. The Texas Star is also for competitions only.

46. RANGE OFFICERS-The range officers are there to help keep everyone safe and follow the rules as stated. All members also have the responsibility to keep everyone safe. The range officers all have orange hats. Do NOT argue with a range officer. If there is something you disagree with report it to the Executive Range Officer. If you see a SAFETY violation let one of the range officers know. If no range officer is present, take the following steps:

a. Instruct the shooter to cease firing and explain the violation.
b. Ask to see the members card.
c. Instruct them to leave the range if needed.
d. If necessary, call the police.
e. Notify Executive Range Officer.

47. No member or guest shall consume alcohol, drugs, and/or other substances that impair their physical or mental faculties while at the range.

48. No member or guest will be permitted at the range while under the influence of alcohol , drugs, and/or other substances that impair their physical or mental faculties.

Persons violating any of these rules shall be reported to the Executive Range Officer for disciplinary action. Executive Range Officer is authorized to revoke shooting privileges for a period of up to 30 days. Further disciplinary action may be initiated during this period as provided by Article IX of the club by-laws.

The Executive Range Officer may make an exception to any of these rules upon his discretion.

REMEMBER, ALWAYS

KEEP YOUR FIREARM POINTED IN A SAFE DIRECTION

KEEP YOUR FINGER OFF OF THE TRIGGER UNTIL YOU ARE READY TO SHOOT

KNOW YOUR TARGET AND WHAT IS BEYOND IT

I have read all the above Range rules and agree to abide by them.

Print Name Member #

Members Signature _____ Date_____

Executive Range Officer _____ Date_____

Last Updated 01/29/2023 MC/JR

STORMWATER MANAGEMENT REPORT

PROSPECT GUN CLUB
178 NEW HAVEN ROAD
PROSPECT, CONNECTICUT

Prepared by:

CIVIL 1
43 Sherman Hill Road
Suite D-101
Woodbury, CT 06798

January 31, 2023

TABLE OF CONTENTS

1.0 PROJECT INTRODUCTION 1-1
1.1 SITE SUMMARY 1-1
1.1.1 Existing Conditions 1-1
1.1.2 Project Description 1-1
1.2 COASTAL CONSISTENCY REVIEW 1-1
1.3 ENDANGERED OR THREATENED SPECIES 1-2
1.4 SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS 1-2
1.4.1 Soil type(s) 1-2
1.4.2 Slopes 1-2
1.4.3 Drainage Patterns 1-2
1.4.4 Vegetation 1-2
1.5 SITE FEATURES AND SENSITIVE AREAS TO BE PROTECTED 1-2
1.5.1 Receiving Waters and TMDL Applicability 1-2
1.5.2 Wetlands 1-2
2.0 CONSTRUCTION ACTIVITIES 2-1
2.1 DESCRIPTION OF CONSTRUCTION ACTIVITY 2-1
2.2 CONSTRUCTION SITE ESTIMATES 2-1
2.3 PROPOSED STORMWATER MANAGEMENT PRACTICES 2-1
2.3.1 Stormwater Treatment Practices 2-1
2.3.2 Stormwater Conveyance ..... **Error! Bookmark not defined.**
2.3.3 Stormwater Quality Measures ..... **Error! Bookmark not defined.**
3.0 BEST MANAGEMENT PRACTICES 3-1
3.1 STRUCTURAL CONTROL PRACTICES 3-1
3.2 TEMPORARY EROSION CONTROL PRACTICES 3-1
3.2.1 Sediment Fence (GSF) 3-1
3.2.2 Hay Bale Barrier (HB) 3-2
3.2.3 Stone Check Dam (SCD) 3-2
3.2.4 Temporary Diversion (TD) 3-2
3.2.5 Temporary Fill Berm (TFB) 3-2
3.2.6 Temporary Sediment Trap (TST) 3-3
3.2.7 Construction Entrance (CE) 3-3
3.2.8 Tree Protection (TP) 3-3
3.2.9 Temporary Erosion Control Blankets (ECB) 3-3
3.3 SOIL STABILIZATION PRACTICES 3-3
3.4 MAINTENANCE AND INSPECTIONS 3-4
3.5 FINAL STABILIZATION 3-4
3.5.1 Seeding 3-4
3.5.2 Fertilizer 3-4
3.5.3 Mulching 3-4
3.5.4 Topsoiling 3-5
3.5.5 Temporary Control Removal 3-5
4.0 GOOD HOUSKEEPING BMP'S 4-1

4.1 POTENTIAL SOURCES OF POLLUTION 4-1
4.2 CONTROLS TO REDUCE POLLUTION FROM THE CONSTRUCTION SITE 4-1
4.2.1 Material Handling and Waste Management 4-1
4.2.2 Establish Proper Building Material Staging Areas 4-1
4.2.3 Allowable Non-Stormwater Discharge Management 4-1
4.2.4 Maintenance of Controls 4-1
5.0 HAZARDOUS SUBSTANCE OR OIL SPILL REPORTING 5-1
5.1 MATERIAL MANAGEMENT PRACTICES 5-1
5.2 NON-PETROLEUM PRODUCTS 5-1
5.3 PETROLEUM PRODUCTS 5-1
5.4 SPILL CONTROL AND CLEAN UP 5-2
6.0 APPENDICES 6-1

APPENDICES

Appendix A Stormwater Runoff Volume Calculations
Appendix B Stormwater Conveyance Sizing Calculations
Appendix C Rain Garden Water Quality Calculations
Appendix D Soils Mapping

Contact Information / Responsible Parties:

Permittee(s):
Prospect Gun Club, Inc.
221 Cheshire Road
P.O. Box 7293
Prospect, CT 06712
(203) 982-4124

Contractor Co-Permittee:
To be determined

Contractor Operator(s):
To be determined

Civil Engineer:
Civil 1
Attn: Emily Jones, P.E.
43 Sherman Hill Road Suite D-101
Woodbury, CT 06798
(203) 266-0778 x 106

Section 1.0
PROJECT INTRODUCTION

1.0 PROJECT INTRODUCTION

Project/Site Information:

Project/Site Name: Prospect Gun Club d/b/a Prospect Sporting Club

Location: 178 New Haven Road
Prospect, Connecticut

Latitude/Longitude:	Latitude:	Longitude:
	41º 28' 31" N	72º 58' 20" W

Method for determining latitude/longitude: Google Earth

1.1 SITE SUMMARY

1.1.1 Existing Conditions

Located at 178 New Haven Road the project site consists of approximately 68.7 acres, within 2 parcels of primarily undeveloped property. The larger property of 66.2 acres is currently undeveloped. A smaller property to the southeast of the project site consists of approximately 2.5 acres and is also under contract to be purchased by the developer for access to the larger site. Development on the smaller property is limited to a telecommunications tower, height approximately 160 feet, in the center of that site. The Property is located approximately 1,760 feet from the Prospect and Bethany town line and approximately 430 feet from the New Naugatuck reservoir. The surrounding land uses are mixed, consisting of both commercial and residential development. The site is currently accessed via Kluge Road. This access point will be maintained throughout the construction process. Currently, there are no structural stormwater discharge points. All stormwater flows over land to discharge points off site.

1.1.2 Project Description

The developer proposes to utilize the property as the new location for the Prospect Sporting Club. The project consists of an access drive off of Kluge Road, a clubhouse and proposed recreational pavilion, and the associated parking, drainage, and utility improvements. The site will be served by an on-site well and private septic system. Additionally, the developer proposes to construct firing ranges in the south-central portion of the site as shown on the site plans prepared by Civil 1. These ranges will be constructed in conformance with National Rifle Association (NRA) guidelines with applicable safety and noise abatement features incorporated into the design. Following completion of the project, all temporary structures will be removed and the site returned to pre-construction conditions.

1.2 COASTAL CONSISTENCY REVIEW

After review of the applicable policies and standards in Connecticut's Coastal Management Act (CCMA), codified in Sections 22a-90 through 22a-112 of the Connecticut General Statutes (CGS), as amended, it has been determined that this project does not require a coastal consistency review.

1.3 ENDANGERED OR THREATENED SPECIES

The project site is not located within an area identified on the National Diversity Database mapping.

1.4 SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS

1.4.1 Soil type(s)

Based upon a review of typical geologic conditions and the National Soil Cooperative Survey, the soils have been classified as (1) Ridgebury, Leicester, and Whitman soils - Extremely stony; (2) Canton and Charlton 3 to 15 percent slopes - extremely stony; (3) Paxton and Montauk fine sandy loams ranging from 3 to 25 percent slopes; and (4) Paxton and Montauk fine sandy loams ranging from 8 to 15 percent slopes - very stony. Soils mapping can be found in Appendix D.

1.4.2 Slopes

The project site consists of varying slope conditions ranging from relatively flat conditions in the area of the existing cell tower and proposed clubhouse to steep slopes along the northern and western property boundary.

1.4.3 Drainage Patterns

Existing site topography is such that runoff migrates, typically via overland sheet flow, through the site to a delineated wetland area. These wetlands generally occur on the hillside where the topographical gradient subsides and the seasonal high groundwater persists long enough for reducing soil conditions to exist. Additional drainage patterns were identified through several hillside seepage areas that were delineated on side slopes with exfiltrated groundwater.

1.4.4 Vegetation

The majority of the property is covered by second growth, upland forest, but also includes several forested hillside seep wetlands and watercourses as well as nine acres of early old field meadow habitat situated at the highest elevation on the property.

1.5 SITE FEATURES AND SENSITIVE AREAS TO BE PROTECTED

1.5.1 Receiving Waters and TMDL Applicability

New Naugatuck Reservoir, located approximately 430 feet to the west / southwest of the property boundary and approximately 1200 feet from the nearest proposed tower location. This water body is not considered impaired and is not listed on the most current 303(d) listing of impaired waterways.

1.5.2 Wetlands

Within the property boundary wetland areas have been identified and delineated by VHB, Inc.

Section 2.0
CONSTRUCTION ACTIVITIES

2.0 CONSTRUCTION ACTIVITIES

2.1 DESCRIPTION OF CONSTRUCTION ACTIVITY

Prior to construction, Prospect Gun Club will complete all pre-construction planning activities. Prospect Gun Club will continue to consult with municipalities, state agencies and federal agencies, as applicable, and will conduct site surveys to determine construction methodologies and procedures to minimize adverse effects to the environment and public.

Construction will typically consist of activities such as:

- Surveys to stake access driveways and structure locations
- Establishment of construction staging area
- Installation of sediment and erosion control devices
- Excavation and installation of access driveways and parking areas
- Excavation and installation of foundations and erection of new structures
- Excavation and installation of stormwater management features
- Excavation and installation of subsurface sanitary sewer system, private well, and utilities
- Restoration of site, including re-establishment of vegetative areas

2.2 CONSTRUCTION SITE ESTIMATES

The following are estimates of the construction site:

Property Area: 68.7 acres
Area to be disturbed: 9.76 acres
Percentage impervious area before construction: 1.4%
Runoff coefficient before construction: 71
Percentage impervious area after construction: 2.16%
Runoff coefficient after construction: 71
Summary of Runoff Volume: See Appendix A for runoff calculations

2.3 PROPOSED STORMWATER MANAGEMENT PRACTICES

2.3.1 Stormwater Treatment Practices

Stormwater Management throughout the site focuses on both runoff volume control and water quality. A rain garden is proposed on the site to capture and infiltrate the runoff from the proposed clubhouse rooftop and a majority of the parking area and access drive. This rain garden is sized retain and infiltrate the increase in runoff volume anticipated for that property area. The rifle and pistol range design incorporates water quality and infiltration swales to accommodate any increase in runoff from each range area. It should be noted that the ranges will be seeded and restored to a grass/meadow condition and that the total increase in impervious area on the site is less than 1%. The sizing calculations for the rain garden and infiltration swales can be found in Appendix A of this report.

2.3.2 Stormwater Conveyance

Permanent stormwater conveyance structures such a storm drains, catch basins, and the like are planned to accommodate the runoff from the proposed driveway and clubhouse/pavilion rooftop. They have been analyzed using the Rational Method and designed to convey the 25-year storm as required by the Town of Prospect regulations. The stormwater conveyance calculations for the storm drainage system are included in Appendix B.

2.3.3 Stormwater Quality Measures

In addition to mitigating post development runoff volume increases, another goal of the stormwater management system is to ensure that long-term post-development stormwater quality is protected. This is being accomplished through the installation of a rain garden, water quality swales, and infiltration trenches. The rain garden has been designed to hold and renovate the Water Quality Volume (WQV), which is defined by the CT DEEP as the initial flush of stormwater that contains most of the sediment and pollutants and is generally accepted as being the first inch of runoff from impervious areas. The water quality sizing calculation for the rain garden is shown in Appendix C. In the area of the firing ranges, there is no impervious area proposed that would require sanding or salting, or on which vehicles would drive. The runoff from these grassed areas is assumed to contain minimal pollutants and sediment. However, the design incorporates the above-mentioned water quality swales and infiltration trenches, which will provide water quality treatment through infiltration and containment.

Section 3.0
BEST MANAGEMENT PRACTICES

3.0 BEST MANAGEMENT PRACTICES

Soil erosion and sediment controls are measures that are used to reduce the amount of soil particles that are carried from a land area and deposited in receiving waters. This section provides a general description of the most appropriate control measures proposed for the Project. Based on field conditions at the time of construction, the contractors or subcontractors may adjust the locations and types of BMPs so that erosion and sedimentation are controlled to the maximum extent practicable. However, in no case will modifications to the erosion controls result in any less stringent erosion and sedimentation control measures than specified herein.

All applicable soil erosion and sediment control measures will be implemented in accordance with this report and land use permits prior to commencement of field construction activities. Measures will be maintained during and after the construction activity, until final stabilization of the soil is accomplished. Upon final stabilization of disturbed areas, all temporary soil erosion and sediment control measures will be removed.

3.1 STRUCTURAL CONTROL PRACTICES

Structural control practices divert flows from exposed soils, store water flow, or otherwise limit runoff from exposed areas of the site. Such practices may include silt fences, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, rock outlet protection (rip-rap), reinforced soil retaining systems, and temporary or permanent sediment basins. Some of these practices may be used as both temporary and permanent control measures. Structural control practices should be placed in upland areas to the degree practicable to prevent erosion and reduce sedimentation in lower elevation areas.

3.2 TEMPORARY EROSION CONTROL PRACTICES

Erosion and sediment control measures will be in place prior to the initiation of soil disturbing activities and will be maintained throughout construction. The contractor may need erosion control measures in other locations of the project as work progresses to keep sediment from leaving the construction site. These measures will be determined by the contractor in the field; if measures are changed in the field, the Town of Prospect land use office shall be notified accordingly. All temporary erosion controls will be removed after the protected area is finally stabilized. The minimum temporary erosion and sediment control practices that will be used for the Project are discussed in the following sections.

3.2.1 Sediment Fence (GSF)

Will retain sediment from small disturbed areas. Sediment fence will be placed along slopes as shown on construction details. The contractor will use his best judgment to install additional sediment fence as necessary to prevent loss of sediment. Refer to section 5-11 of 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.
Maintenance: Inspect the silt fence at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. When used for dewatering operations, inspect frequently before, during and after pumping operations. Remove the sediment deposits, or if room allows, install a second silt fence up slope from the existing fence when deposits reach approximately one half the height of the existing fence. Replace or repair within 24 hours of an observed failure. Refer to Connecticut Guidelines for Soil Erosion and

Sediment Control figure GF-5 for troubleshooting failures. Maintain silt fence until the contributing area is stabilized.

3.2.2 Hay Bale Barrier (HB)

Will retain sediment from small disturbed areas. Hay bales will be placed along slopes as shown on construction details. The contractor will use his best judgment to install additional hay bales as necessary to prevent loss of sediment. Refer to section 5-11 of 2002 Connecticut Guidelines for Soil and Sediment Control.

Maintenance: Inspect the hay bale barrier at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. When used for dewatering operations, inspect frequently before, during and after pumping operations. Remove the sediment deposits, or if room allows, install a secondary barrier up slope from the existing barrier when deposits reach approximately one half the height of the barrier. Replace or repair within 24 hours of an observed failure. Refer to Connecticut Guidelines for Soil Erosion and Sediment Control figure HB-5 for troubleshooting failures. Maintain hay bale barrier until the contributing area is stabilized.

3.2.3 Stone Check Dam (SCD)

Will be used to reduce velocity of concentrated flows, thus reducing of the drainage way.

Maintenance: Inspect the stone check dam at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. Remove the sediment deposits when deposits reach approximately one half the height of the Check dam. Replace or repair within 24 hours of an observed failure. Maintain until the contributing area is stabilized.

3.2.4 Temporary Diversion (TD)

Will be used to divert sediment laden runoff from a disturbed area to a sediment trapping facility.

Maintenance: When the temporary diversion is located within close proximity to on going construction activities, inspect the diversion at the end of each work day and immediately repair damage caused by construction equipment. Otherwise, inspect the temporary diversion and associated measures at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. Repair within 24 hours of an observed failure.

3.2.5 Temporary Fill Berm (TFB)

Will be used to divert runoff from unprotected fill slopes during construction to a stabilized outlet or sediment trapping facility.

Maintenance: Inspect the temporary fill berm and associated controls at the end of each work day to ensure the criteria for installing the measures have been met. Determine if repair or modification is needed. This measure is temporary and under most situations will be covered the next work day. Maintenance requirements should be minimal. The contractor should avoid placing other material over the berm and construction traffic should not be allowed to cross.

3.2.6 Temporary Sediment Trap (TST)

Will be used to detain sediment laden runoff from small disturbed areas long enough to allow the majority of sediment to settle out.

Maintenance: Inspect the temporary sediment trap and associated controls at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. Check the outlet to verify that it is structurally sound and has not been damaged by erosion or construction equipment. The height of the stone outlet should be maintained at least 1 foot below the crest of the embankment. When sediment has accumulated more than one quarter of the minimum wet storage volume, dewater and remove sediment as necessary to restore the trap to its original dimensions.

3.2.7 Construction Entrance (CE)

Will be used to reduce tracking of sediment off site to paved areas.

Maintenance: Maintain the entrance in a condition which will prevent tracking and washing of sediment onto paved surfaces. Provide periodic top dressing with additional stone or additional length as required. Immediately remove all sediment spilled, dropped, washed or tracked onto paved surfaces.

3.2.8 Tree Protection (TP)

Will be used to ensure the survival of existing desirable trees for their effectiveness in soil erosion and sediment control during construction.

Maintenance: Inspect tree protection zones weekly during site construction for damage to the tree crown, trunk and root system. When trees have been damaged or the protection zone has been compromised, consult an arborist licensed in CT to determine how damage should be addressed.

3.2.9 Temporary Erosion Control Blankets (ECB)

Will be used to provide temporary surface protection to disturbed soils to absorb raindrop impact and to reduce sheet and rill erosion.

Maintenance: Inspect temporary erosion control blankets at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. Repair any dislodged or failed blankets immediately.

3.3 SOIL STABILIZATION PRACTICES

Soil stabilization involves covering disturbed soils with grass, mulch, straw, geotextiles, trees, vines, or shrubs. Stabilization practices for exposed disturbed soils are extremely important while conducting construction activities. Vegetative cover serves to reduce the erosion potential by absorbing the energy of raindrops, promoting infiltration in lieu of runoff, and reducing the velocity of runoff. Stabilization measures shall be initiated as soon as practicable, but no more than 14 days after construction activities have temporarily or permanently ceased on any portion of the site.

3.4 MAINTENANCE AND INSPECTIONS

All erosion and sediment control devices shall be installed pursuant to the specifications in the construction details. They will be maintained so that they remain effective at all times.

Erosion and sediment control devices will be inspected by qualified personnel at least once every seven calendar days or at least once every 14 calendar days and within 24 hours of each 0.5-inch or greater rainfall event. During each inspection, the construction inspector will complete the Inspection and Maintenance Report Form located in the appendix. This form will be copied and used as necessary. Ineffective temporary erosion control measures will be repaired or replaced before the next storm event or as soon as practicable. The permittee will immediately install additional temporary erosion control devices in any area deemed in need of protection.

Following temporary or final stabilization, inspections must be conducted at least once a month. If construction has been halted due to frozen conditions, regular inspections are not mandatory until one month before the expected thaw. If vegetation establishment is not satisfactory, special steps to correct the problem will be implemented such as over seeding, mulching, sodding, or the use of erosion control blankets. Once a definable area of the construction site has been finally stabilized, no further inspection requirements apply to that area.

3.5 FINAL STABILIZATION

3.5.1 Seeding

The contractor will be responsible for labor, materials, tools, equipment, and other related items required for preparing ground, providing for sowing of seeds, fertilizing, mulching and top dressing, and other management practices required for erosion control and to achieve final stabilization. It will be the contractor's responsibility to make sure that the soil seedbed is not blown, washed, or otherwise removed from the site. The contractor will make repairs (including replacement of lost topsoil and mulch) to the seedbed preparation site in the event of heavy rain, wind, or other natural events that cause damage. When practicable, native plant species should be used for landscaping.

3.5.2 Fertilizer

Soil in areas of disturbance may need supplementation from fertilizer. Soil tests may be necessary to determine the most appropriate fertilizer for each location. Once applied, the fertilizer will be worked into the soil to limit exposure to stromwater. Fertilizer spills will be cleaned up immediately and will not be applied along or in a waterway.

3.5.3 Mulching

Mulching will be used in conjunction with both temporary and permanent seeding practices to enhance success by providing erosion protection prior to the onset of vegetative growth. Mulches enhance plant establishment by moderating soil temperatures and conserving moisture. After seeding, straw or hay mulch will be applied at a rate of two to three tons per acre on the disturbed areas. Other forms of mulch will be applied at a rate designated by the Project Engineer. Mulch will not be applied in wetlands, on lawns, and areas where hydro-mulch is used. Mulch will be anchored immediately after placement on steep slopes and stream banks. Mulch will be held in

place by a very thin covering of topsoil, small brush, pins, stakes, wire mesh, asphalt binder, or other adhesive material approved by the project engineer.

3.5.4 Topsoiling

Topsoil should be applied in areas where the subsoil or existing surface soil does not provide an adequate growth medium for the desired vegetation, where soil is too shallow to provide adequate rooting depth, or where the soil contains substances toxic to the desired vegetation. Topsoil shall be reasonably free from subsoil and stumps, roots, brush, stones, and clay lumps or similar objects.

3.5.5 Temporary Control Removal

Temporary erosion controls will be left in place until the Project site is stabilized with a uniform vegetative cover of 70 percent density of the native background vegetative cover on all unpaved areas. Following re-vegetation, the permittee will conduct periodic site visits to make sure that vegetation establishment is satisfactory. If sufficient vegetative cover has not been achieved, additional restoration measures will be implemented. Inspection results will be documented using the Inspection and Maintenance Report Form found in the appendix. All temporary soil erosion and sediment control measures will be removed and disposed of after final site stabilization is achieved.

Section 4.0
GOOD HOUSEKEEPING BMP'S

4.0 GOOD HOUSKEEPING BMP'S

4.1 POTENTIAL SOURCES OF POLLUTION

Potential exists for construction sediment to be contained in any runoff that occurs on the project site. This sediment is a result of clearing and grading activities.

4.2 CONTROLS TO REDUCE POLLUTION FROM THE CONSTRUCTION SITE

Minimize Disturbed Area, Protect Natural Features, and Soil:
This project will not be mass graded. Only areas required for construction activities will be graded. This practice will reduce sediment transport into receiving bodies.

4.2.1 Material Handling and Waste Management

The contractor will establish control measures to prevent discharge and dispose of construction and sanitary waste on site.

4.2.2 Establish Proper Building Material Staging Areas

The contractor will establish a permanent staging area within the project site for materials and equipment storage.

4.2.3 Allowable Non-Stormwater Discharge Management

Non-stormwater discharges are allowable provided the non-stormwater component of the discharge is in compliance applicable state regulation. Prior to any non storm discharge, the appropriate BMP will be installed and inspected.

4.2.4 Maintenance of Controls

All erosion and sediment control practices will be checked for stability and operation following every runoff-producing rainfall, but in no case less than once every week. Any needed repairs will be made immediately to maintain all practices as designed.

All sediment control features shall be maintained until final stabilization has been obtained.

Contractor will maintain appropriate recording keepings as required by DEP-PED-GP-015. Maintenance records shall describe repair, replacement, and maintenance of BMPs undertaken based on the inspections and maintenance procedures described above and the individual requirements of the BMPs. Actions related to the findings of inspections should reference the specific inspection report. Records should describe actions taken, dates completed, and note the party that completed the work.

During construction the contractor will be responsible for maintaining integrity of all permanent and temporary structures. Prior to project closeout, the contractor and owner will inspect permanent structures to remain in place and correct all noted deficiencies. Upon acceptance from contractor, the owner will maintain responsibility for inspection of the structure semi-annually.

Section 5.0

HAZARDOUS SUBSTANCE OR OIL SPILL REPORTING

5.0 HAZARDOUS SUBSTANCE OR OIL SPILL REPORTING

The Spill Prevention Control and Countermeasure Plan (SPCC), which describes measures to prevent, control, and minimize impacts from a spill of a hazardous, toxic, or petroleum substance during construction of the proposed project. This plan identifies the potentially hazardous materials to be used during this project, describes the transport, storage, and disposal procedures for these substances, and outlines the procedures to be followed in the event of a spill of a contaminating or toxic substance.

As per 40 CFR 112, a Spill Prevention Control and Countermeasures Plan (SPCC) must be prepared if the construction site will have 1,320 gallons of above ground storage capacity (or 42,000 gallons in underground storage not regulated by UST rules) or more in 55-gallon-sized (or larger) containers. This would include any temporary tanks or fueling trucks used to "store" petroleum on-site. The truck would be subject to the SPCC Plan rules when parked on the construction site and used for "storage." If, at any time, a subcontractor's cumulative above ground storage capacity on-site exceeds 1,320 gallons, the subcontractor shall maintain a certified SPCC Plan (40 CFR 112).

5.1 MATERIAL MANAGEMENT PRACTICES

Properly managing materials on the construction site will greatly reduce the potential for stormwater pollution of materials. Good housekeeping, along with proper use and storage of construction materials, form the basis for proper management of potentially hazardous materials.

5.2 NON-PETROLEUM PRODUCTS

Due to the chemical makeup of specific products, certain handling and storage procedures are required to promote the safety of handlers and prevent the possibility of pollution. Care shall be taken to follow all directions and warnings for products used on the site. All pertinent information can be found on the MSDS for each product. The MSDS will be kept on-site.

5.3 PETROLEUM PRODUCTS

On-site vehicles will be monitored for leaks and receive regular maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers that are clearly labeled. Preferably, the containers will be stored in a covered truck or trailer that provides secondary containment for the products. Bulk storage tanks having a capacity of greater than 55 gallons will be provided with secondary containment. Containment can be provided by a temporary earthen berm or other means. After each rainfall event, the contractor shall inspect the contents of the secondary containment area for excess water. If no sheen is visible, the collected water can be pumped to the ground in a manner that does not cause scouring. If any sheen is present, it must be treated prior to discharging the water. Otherwise, the contaminated water must be transported and disposed off-site in accordance with local, state, and federal requirements. Bulk fuel or lubricating oil dispensers shall not have a self-locking mechanism that allows for unsupervised fueling. Fueling operations shall be observed to immediately detect and contain spills. No waste oil or other petroleum-based products will be disposed of on-site (e.g. buried, poured, etc.), but shall be taken off-site for proper disposal.

5.4 SPILL CONTROL AND CLEAN UP

In addition to the material management practices discussed previously, the following spill control and cleanup practices will be adhered to prevent stormwater pollution in the event of a spill:

- Personnel on-site will be made aware of cleanup procedures and the location of spill cleanup.
- Equipment spills will be contained and cleaned up immediately after discovery.
- Manufacturer methods for spill cleanup of a material will be followed as described on the material's MSDS.
- Materials and equipment needed for cleanup procedures will be kept readily available on the site, either at an equipment storage area or on contractor's trucks; equipment to be kept on the site will include, but not be limited to, brooms, dust pans, shovels, granular absorbents, sand, saw dust, absorbent pads and booms, plastic and metal trash containers, gloves, and goggles.
- Toxic, hazardous or petroleum product spills required to be reported by regulation will be documented to the appropriate federal, state, and local agencies.
- Spills will be documented and a record of the spills will be kept on site.

The federal reportable spill quantity for petroleum products is defined in 40 CFR 110 as any oil spill that:

- violates applicable water quality standards;
- causes a film or sheen upon or discoloration of the water surface or adjoining shoreline; or
- causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.

Section 6.0
APPENDICES

6.0 APPENDICES

Appendix A – Stormwater Runoff Volume Calculations

Appendix B – Stormwater Conveyance Sizing Calculations

Appendix C – Rain Garden Water Quality Calculations

Appendix D – Soils Mapping

Appendix A

STORMWATER RUNOFF VOLUME CALCULATIONS

CIVIL 1
Civil Engineers

DRAINAGE CALCULATIONS FOR SIZING OF RAIN GARDEN FOR DRIVEWAY & ROOF RUNOFF
DRAINAGE AREA 1
PROSPECT SPORTING CLUB, 178 NEW HAVEN ROAD
PROSPECT, CT.
January 31, 2023

ZERO INCREASE IN VOLUME
100-YEAR DESIGN STORM

SCS Runoff Curve Number Method:

$Q = (P - 0.2S)^2 / (P + 0.8S)$

and

$S = 1000 / CN - 10$

Where:
Q = runoff (in.)
P = rainfall (in.)
S = potential maximum retention after runoff begins (in.)
CN = runoff curve number
V = Volume

Existing Conditions:
Area of Drainage Being Collected = 48,652 sf
100% Type C Soil – Grass Meadow (CN = 71)
CN=70

$S = 1000/71 - 10 = 4.09$
$Q = (7.0 - 0.2(4.09))^2 / (7.0 + 0.8(4.09)) = 3.72$in. = 0.31 ft.

Volume =48,652 sq. ft. x 0.31 ft. = 15,082cu. ft.

Proposed Conditions:
Area of Drainage Being Altered = 48,652 sf
9% Type C soil – Roof/Walk (CN=98)
46% Type C soil -Grass/Meadow (CN=71)
45% Type C Soil -Gravel (CN=96)
CN=85

$S = 1000/85 - 10 = .42$
$Q = (7.0 - 0.2(1.77))^2 / (7.0 + 0.8(1.77)) = 5.23$ in. = 0.44 ft.
volume =48,652 sf. x 0.44 ft. = 21,406 cu. ft.

Increase in Volume = 21,406 cu. ft. – 15,082 cu. ft. = 6,324 cu. ft.

Total Capacity Provided in 2' Deep Rain Garden = **7,021 cu. ft**
Excess Capacity Provided = 7,021 cu. ft. – 6,324 cu. ft. = **697 cu. ft.**

Percolation Rate of 20 min./in. for 24-hour period = 72 in./24 hours = 6'/24 hours

Area of bottom of Pond = 2,663 sf x 6'/24 hours = 13,434 cu. ft.
13,434 cu. ft. is greater than storage volume: Rain Garden will drain within 24 hr.

DRAINAGE CALCULATIONS FOR RANGE 1 RUNOFF
DRAINAGE AREA 2

PROSPECT SPORTING CLUB, 178 NEW HAVEN ROAD
PROSPECT, CT.
June 1, 2022

ZERO INCREASE IN VOLUME
100-YEAR DESIGN STORM

SCS Runoff Curve Number Method:

$Q = (P - 0.2S)^2 / (P + 0.8S)$

and

$S = 1000 / CN - 10$

Where:
Q = runoff (in.)
P = rainfall (in.)
S = potential maximum retention after runoff begins (in.)
CN = runoff curve number
V = Volume

STDA-6 DRAINAGE AREA
Existing Conditions:
Area of Drainage Area Being Collected = 180,000 sf
30% Type C Soil -Woods (CN=70)
70% Type C Soil- Meadow (CN=71)
CN=71

$S = 1000/71 - 10 = 4.28$
$Q = (7.0 - 0.2(4.09))^2 / (7.0 + 0.8(4.09)) = 3.72$ in. = 0.31 ft.

Volume = 180,000 sq. ft. x 0.31 ft. = 55,800cu. ft.

Proposed Conditions:
Area of Drainage Being Altered = 180,000 sf
Type C Soil- Meadow (CN=71)
CN=71

$S = 1000/71 - 10 = 4.28$
$Q = (7.0 - 0.2(4.09))^2 / (7.0 + 0.8(4.09)) = 3.72$ in. = 0.31 ft.

Volume = 180,000 sq. ft. x 0.31 ft. = 55,800cu. ft.

No Increase in Volume

CIVIL C1
Civil Engineers

DRAINAGE CALCULATIONS FOR RANGE 2 RUNOFF
DRAINAGE AREA 3
PROSPECT SPORTING CLUB, 178 NEW HAVEN ROAD
PROSPECT, CT.
January 31, 2023

ZERO INCREASE IN VOLUME
100-YEAR DESIGN STORM

SCS Runoff Curve Number Method:

$Q = (P - 0.2S)^2 / (P + 0.8S)$

and

$S = 1000 / CN - 10$

Where:
Q = runoff (in.)
P = rainfall (in.)
S = potential maximum retention after runoff begins (in.)
CN = runoff curve number
V = Volume

Existing Conditions:
Area of Drainage Being Collected = 71,507 sf
95.6% Type C Soil – Woods (CN = 70)
4.4% Type C Soil – Grass Meadow (CN = 71)
CN=70

$S = 1000/70 - 10 = 4.28$
$Q = (7.0 - 0.2(4.28))^2 / (7.0 + 0.8(4.28)) = 3.62$ in. = 0.30 ft.

Volume = 71,507 sq. ft. x 0.30 ft. = 21,452 cu. ft.

Proposed Conditions:
Area of Drainage Being Altered =71,507 sf
100% Type C Soil – Meadow (CN = 71)

$S = 1000/71 - 10 = 4.28$
$Q = (7.0 - 0.2(4.09))^2 / (7.0 + 0.8(4.09)) = 3.72$ in. = 0.31 ft.

Volume = 71,507 sf. x .31 ft. = 22,167 cu. ft.

Increase in Volume = 22,167 cu. ft. – 21,452 cu. ft. = 715 cu. ft.

Percolation Rate of 20 min./in. for 24 hour period = 72 in./24 hours = 6'/24 hours

Area of bottom of Infiltration Trench = 200'L x 1.5'W = 300 sf x 6'/24 hours = 1,800 cu. ft.

Total infiltration Provided in 24 hours = 1,800 cu. ft.

Total Capacity Provided = **1,800 cu. ft.**
Excess Capacity Provided = 1,800 cu. ft. – 715 cu. ft. = **1,085 cu. ft.**

CIVIL C1
Civil Engineers

DRAINAGE CALCULATIONS FOR RANGE 3 RUNOFF
DRAINAGE AREA 4
PROSPECT SPORTING CLUB, 178 NEW HAVEN ROAD
PROSPECT, CT.
January 31, 2023

ZERO INCREASE IN VOLUME
100-YEAR DESIGN STORM

SCS Runoff Curve Number Method:

$Q = (P - 0.2S)^2 / (P + 0.8S)$

and

$S = 1000 / CN - 10$

Where:
Q = runoff (in.)
P = rainfall (in.)
S = potential maximum retention after runoff begins (in.)
CN = runoff curve number
V = Volume

Existing Conditions:
Area of Drainage Being Collected = 43,656 sf
Type C Soil – Woods (CN = 70)

$S = 1000/70 - 10 = 4.28$
$Q = (7.0 - 0.2(4.28))^2 / (7.0 + 0.8(4.28)) = 3.62$ in. = 0.30 ft.

Volume = 43,656 sq. ft. x 0.30 ft. = 13,096cu. ft.

Proposed Conditions:
Area of Drainage Being Altered =43,656 sf
95.4% Type C Soil – Meadow (CN = 71)
4.6% Type C Soil – Roof (CN = 98)
Impervious (CN=72)

$S = 1000/72 - 10 = 3.89$
$Q = (7.0 - 0.2(3.89))^2 / (7.0 + 0.8(3.89)) = 3.83$ in. = .319 ft.

Volume = 43,656 sf. x .319 ft. = 13,926 cu. ft.

Increase in Volume = 13,926 cu. ft. – 13,096 cu. ft. = 830 cu. ft.

Percolation Rate of 20 min./in. for 24-hour period = 72 in./24 hours = 6'/24 hours

Area of bottom of Infiltration Trench = 200'L x 1.5'W = 300 sf x 6'/24 hours = 1,800 cu. ft.

Total Infiltration Capacity Provided = **1,800 cu. ft.**
Excess Capacity Provided = 1,800 cu. ft. – 830 cu. ft. = **970 cu. ft.**

CIVIL 1
Civil Engineers

DRAINAGE CALCULATIONS FOR DRIVEWAY RUNOFF
DRAINAGE AREA 5
PROSPECT SPORTING CLUB, 178 NEW HAVEN ROAD
PROSPECT, CT.
January 31, 2023

ZERO INCREASE IN VOLUME
100-YEAR DESIGN STORM

SCS Runoff Curve Number Method:

$Q = (P - 0.2S)^2 / (P + 0.8S)$

and

$S = 1000 / CN - 10$

Where:
Q = runoff (in.)
P = rainfall (in.)
S = potential maximum retention after runoff begins (in.)
CN = runoff curve number
V = Volume

Existing Conditions:
Area of Drainage Being Collected = 15,032 sf
100% Type C Soil – Grass Meadow (CN = 71)
CN=71

$S = 1000/71 - 10 = 4.28$
$Q = (7.0 - 0.2(4.09))^2 / (7.0 + 0.8(4.09)) = 3.72$ in. = 0.31 ft.

Volume = 15,032 sq. ft. x 0.31 ft. = 4,660 cu. ft.

Proposed Conditions:
Area of Drainage Being Altered =15,032 sf
53% Type C Soil – Meadow (CN = 71)
47% Impervious (CN = 98)
CN = 84

$S = 1000/84 - 10 = 1.9$
$Q = (7.0 - 0.2(1.9))^2 / (7.0 + 0.8(1.9)) = 5.14$ in. = 0.43 ft.

Volume = 15,032 sf. x .43 ft. = 6,440 cu. ft.

Increase in Volume = 6,440 cu. ft. – 4,660 cu. ft. = 1,780 cu. ft.

Percolation Rate of 20 min./in. for 24 hour period = 72 in./24 hours = 6'/24 hours

Area of bottom of Infiltration Trench = 330'L x 1.5'W = 495 sf x 6'/24 hours = 2,970 cu. ft.

Total infiltration Provided in 24 hours = 2,970 cu. ft.

Total Infiltration Capacity Provided = **2,970 cu. ft.**
Excess Capacity Provided = 2,970 cu. ft. – 1,780 cu. ft. = **1,190 cu. ft.**

Appendix B

STORMWATER CONVEYANCE SIZING CALCULATIONS

STORM SEWER SYSTEM DESIGN
Prospect Gun Club
25 Year Design Storm

Drainage Area	Impervious (0.9)	Grass (0.3)	Wooded (0.2)	Total Area (Ac.)	Average C	Sum of AxC	Tc
STDA-A	0.120	0.050	0.000	0.170	0.724	0.123	5.00
STDA-B	0.130	0.010	0.000	0.140	0.857	0.120	5.00
STDA-C	0.170	0.020	0.000	0.190	0.837	0.159	5.00

STORM SEWER SYSTEM DESIGN
Prospect Gun Club
25 Year Design Storm

LINE SEGMENT	SEGMENT TYPE	TIME TO INLET	TIME IN PIPE	ACCUM. TIME	RUNOFF COEFF "C	AREA (acres)	SUM OF AxC	ACCUM. AxC	RAINFALL I	SYSTEM Q (cfs)	PIPE SIZE (in)	PIPE (ft) LENGTH	SLOPE (ft/ft)	Vfull (fps)	Qfull (cfs)	N'	CAPACITY CHECK
CB 1 TO	I	5.00	0.25	5.00	0.20	0.00											
CB 2					0.30	0.05											
(STDA A)					0.90	0.12											
							0.12	0.12	6.70	0.82	15	85	0.0100	5.70	7.00	0.0120	WITHIN CAPACITY
CB 2 TO	C	5.00	0.37	#REF!	0.20	0.00											
CB 3					0.30	0.01											
(STDA B)					0.90	0.13											
							0.12	0.24	6.70	1.63	15	127	0.0100	5.70	7.00	0.0120	WITHIN CAPACITY
CB 3 TO	C	5.00	0.16	#REF!	0.20	0.00											
DMH 4					0.30	0.02											
(STDA C)					0.90	0.17											
							0.16	0.40	6.70	2.69	15	75	0.0197	8.00	9.82	0.0120	WITHIN CAPACITY
DMH 4 TO	C	5.00	0.20	#REF!	0.20	0.00											
RAIN GARDEN					0.30	0.00											
NO STDA					0.90	0.00											
							0.00	0.40	6.70	2.69	15	71	0.0113	6.06	7.44	0.0120	WITHIN CAPACITY

Appendix C

RAIN GARDEN WATER QUALITY CALCULATIONS

CIVIL 1
Civil Engineers

WATER QUALITY VOLUME CALCULATIONS FOR
PROSPECT GUN CLUB – RAIN GARDEN
PROSPECT, CT
(PER DEP 2004 STORMWATER QUALITY MANUAL)

Water Quality Volume (WQV) = 1" x R x A/ 12

Where R = Volumetric Runoff Coefficient = 0.05 + 0.009 x I
I = Percent impervious cover
A = Site area in acres

TO RAIN GARDEN

A = 1.12 acres

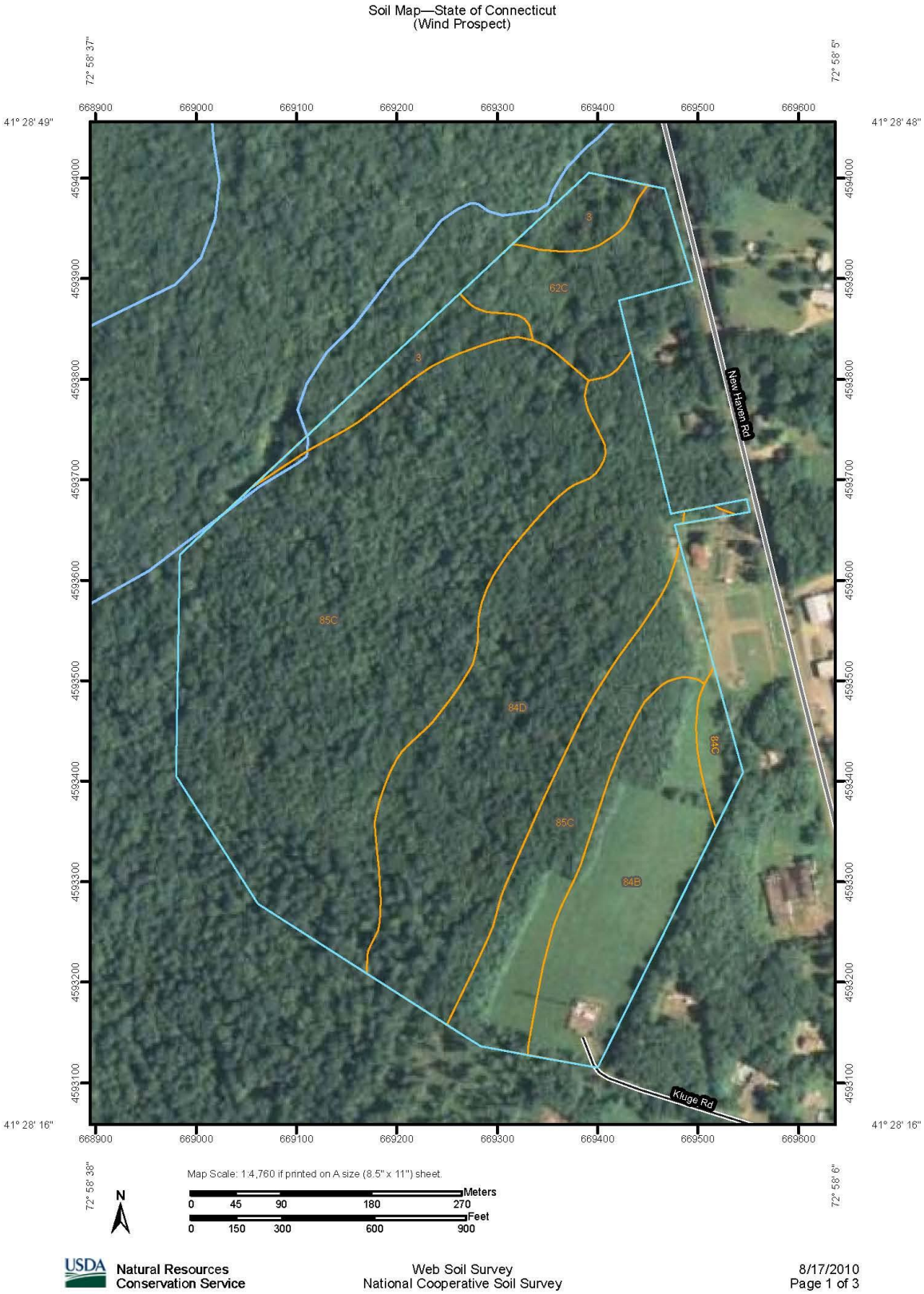
I = 0.60 ac = 54%
R = 0.05 + 0.009 × 54 = 0.54
WQV (Drainage Area) = 1" × 0.6 × 0.54 / 12 = 0.027 ac-ft = 1,176 CF
WQV Required = 1,176 CF

Total volume provided in rain garden below overflow swale = 7,021 CF

Total WQV Provided = 7,021 CF

Appendix D

SOILS MAPPING


Soil Map—State of Connecticut
(Wind Prospect)
72° 58' 37"
72° 58' 5"
41° 28' 49"
41° 28' 48"
41° 28' 16"
72° 58' 38"
72° 58' 6"
668900
669000
669100
669200
669300
669400
669500
669600
4594000
4593900
4593800
4593700
4593600
4593500
4593400
4593300
4593200
4593100
3
62C
3
85C
84D
84C
85C
84B
New Haven Rd
Kluge Rd
Map Scale: 1:4,760 if printed on A size (8.5" x 11") sheet.
N
Meters
0 45 90 180 270
Feet
0 150 300 600 900
USDA Natural Resources Conservation Service
Web Soil Survey
National Cooperative Soil Survey
8/17/2010
Page 1 of 3

Map Unit Legend

State of Connecticut (CT600)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
3	Ridgebury, Leicester, and Whitman soils, extremely stony	3.5	4.4%
62C	Canton and Charlton soils, 3 to 15 percent slopes, extremely stony	4.9	6.1%
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	8.9	11.1%
84C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes	1.0	1.3%
84D	Paxton and Montauk fine sandy loams, 15 to 25 percent slopes	19.7	24.6%
85C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes, very stony	42.0	52.5%
Totals for Area of Interest		**80.0**	**100.0%**