

FOR REGISTRY USE ONLY

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

TIMOTHY R. BENNETT P.L.S. #36856 DATE _____

SITE PLAN APPROVED DATE: _____

SCITUATE PLANNING BOARD



REVISIONS	
JUNE 19, 2023	RESPOND TO TEC PEER REVIEW COMMENTS

SITE PLAN
COUNTRY WAY ESTATES
 # 817 COUNTRY WAY
 ASSESSORS PARCEL 12-2-38-F
 SCITUATE, MASSACHUSETTS

PREPARED FOR: OPTION C PROPERTIES L.L.C. FEBRUARY 2, 2023
 P.O. BOX 263 SCALE: 1" = 20'
 WEYMOUTH, MA 02190 JOB No. 20-475

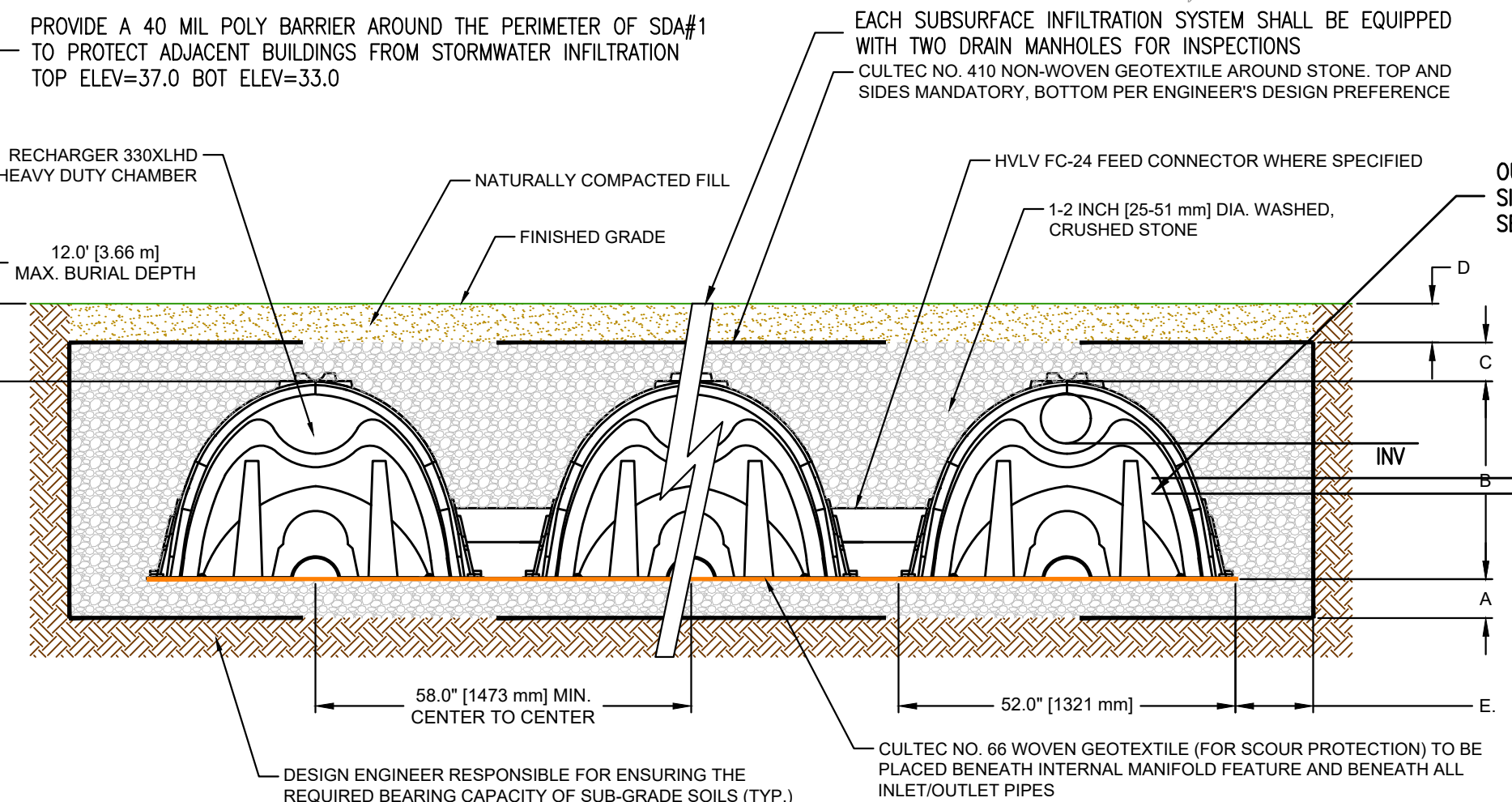
GRADY CONSULTING, L.L.C.
 Civil Engineers, Land Surveyors & Landscape Architects
 71 Evergreen Street, Suite 1, Kingston, MA 02364
 Phone (781) 585-2300 Fax (781) 585-2378

CULTEC 330 XLHD RECHARGER DATA

SDA#	100 YR FLOOD EL.				
	1	2	3	4	5
1	36.84	39.11	38.3	38.3	33.9
2	36.84	39.11	38.3	38.3	33.9
3	36.84	39.11	38.3	38.3	33.9
4	36.84	39.11	38.3	38.3	33.9
5	36.84	39.11	38.3	38.3	33.9

IMPERMEABLE LINER	NO		YES	
	NO	YES	NO	YES
BOTTOM OF STONE	33.16	35.70	18.00	34.50
TOP OF STONE (A)	6" 33.66	12" 36.70	6" 18.50	6" 35.00
CHAMBER (B)	2.5' 36.16	2.5' 39.20	2.5' 21.00	2.5' 37.50
STONE COVER (C)	8" 36.86	12' 40.20	6" 21.50	20" 39.17
FINISHED GRADE/OUTLET/INSPECTION PORT (D)	4" 37.20	4" 40.60	6" 22.00	4" 39.50
SIDE STONE (E)	12" -	12" -	20" (SECTION A) 24" (SECTION B) 23" (SECTION C)	12" -
END STONE	12" -	12" -	33" (SECTION A) 15" (SECTION B) 31" (SECTION C)	12" -
INV(OUT)	6" HDPE 34.25	4" HDPE 38.70	8" HDPE 19.30	CAPPED 4" HDPE W/3" ORIFICE 36.05
GROUNDWATER	-	33.63	16.00	32.50

* SDA #5 IS A UNIT USED FOR STORAGE, NO INFILTRATION WILL OCCUR IN THIS UNIT. THE ENTIRE SYSTEM SHALL BE INSTALLED WITH AN IMPERMEABLE LINER. SEE SHEET 22 FOR DIMENSION DETAILS.



GENERAL NOTES
 RECHARGER 330XL HD BY CULTEC, INC. OF BROOKFIELD, CT. STORAGE PROVIDED = 11.32 CF/FT (1.05 m³/m) PER DESIGN UNIT. REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS

ALL RECHARGER 330XL HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. ALL RECHARGER 330XL HD CHAMBERS MUST BE INSTALLED ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS

Scale 1" = 40'

BRIEF NARRATIVE DESCRIBING BMP'S
 DEEP SUMP CATCH BASINS SHALL BECOME PART OF THE ROADWAY SYSTEM AND SHALL BE INSPECTED AFTER EVERY MAJOR STORM EVENT DURING CONSTRUCTION AND CLEANED WHEN SEDIMENT EXCEEDS 18" DEPTH. AFTER CONSTRUCTION WHEN ALL SLOPES HAVE BEEN STABILIZED, BASINS SHALL BE CLEANED A MINIMUM OF TWICE PER YEAR. DISPOSAL OF THE ACCUMULATED SEDIMENT SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL GUIDELINES AND REGULATIONS.

SUBSURFACE DRAINAGE SYSTEMS MAINTENANCE SCHEDULE
 INSPECT INLETS AND ACCESS MANHOLES TWICE PER YEAR
 REMOVE ANY DEBRIS THAT MIGHT CLOG THE SYSTEM

AFTER CONSTRUCTION, THE SYSTEMS SHOULD BE INSPECTED FOR STANDING WATER 1-2 DAYS AFTER ANY SIGNIFICANT RAINFALL EXCEEDING 1" OF RAINFALL IN 24 HOURS OR MAJOR STORM EVENT. IF THE SYSTEM IS CONTINUING TO HOLD STANDING WATER AFTER 2 DAYS THE OWNER SHOULD HAVE IT INSPECTED AND REPAIRED. THE SYSTEMS SHOULD ALSO BE INSPECTED TO VERIFY WHETHER INFILTRATION FUNCTION HAS BEEN LOST. IF INFILTRATION CAPACITY HAS BECOME DEGRADED, IT SHOULD BE RESTORED UNDER THE DIRECTION OF A QUALIFIED PROFESSIONAL.

THE SUBSURFACE SYSTEMS SHOULD BE INSPECTED TWICE PER YEAR AND AT LEAST ONCE PER YEAR BY A DRAINAGE SYSTEM PROFESSIONAL TO ENSURE THAT THE SYSTEM IS OPERATING AS INTENDED. THE OWNER SHALL IMPLEMENT AND PAY FOR THE INSPECTOR'S RECOMMENDATIONS.

FOR A FULL DESCRIPTION SEE OPERATION AND MAINTENANCE PLAN FILED WITH THIS APPLICATION

SUBSURFACE DRAINAGE - BMP PLAN

EXCAVATION – REMOVE AND REPLACE NOTES AND VOLUME ESTIMATE:

SDS #1
EXCAVATE ALL MATERIAL (A, B LAYER) TO SANDY LOAM C1 LAYER (30"±), BELOW SYSTEM. REPLACE WITH CLEAN COURSE SAND IN ACCORDANCE WITH 310 CMR 15.255 (3). EXCAVATION TO BE INSPECTED BY GRADY CONSULTING L.L.C. AND TOWN PRIOR TO SOIL REPLACEMENT

APPROXIMATE PERC SAND VOLUME = 1583 SF X (33.1 - 33.1±) / 27 + 20% = NO SAND REQUIRED

SDS #2
EXCAVATE ALL MATERIAL (A, B LAYER) TO LOAMY SAND C1 LAYER (30"±), ELOW SYSTEM. REPLACE WITH CLEAN COURSE SAND IN ACCORDANCE WITH 310 CMR 15.255 (3). EXCAVATION TO BE INSPECTED BY GRADY CONSULTING L.L.C. AND TOWN PRIOR TO SOIL REPLACEMENT

APPROXIMATE PERC SAND VOLUME = 1960 SF X (34.7 - 34.6±) / 27 + 20% = 100± CY

SDS #3
EXCAVATE ALL MATERIAL (A, B, C1 LAYER) TO LOAMY SAND C2 LAYER (60"±), ELOW SYSTEM. REPLACE WITH CLEAN COURSE SAND IN ACCORDANCE WITH 310 CMR 15.255 (3). EXCAVATION TO BE INSPECTED BY GRADY CONSULTING L.L.C. AND TOWN PRIOR TO SOIL REPLACEMENT

APPROXIMATE PERC SAND VOLUME = 1209 SF X (18.0 - 15.2±) / 27 + 20% = 150± CY

SDS #4
EXCAVATE ALL MATERIAL (A, B, C1 LAYER) TO LOAMY SAND C2 LAYER (50"±), BELOW SYSTEM. REPLACE WITH CLEAN COURSE SAND IN ACCORDANCE WITH 310 CMR 15.255 (3). EXCAVATION TO BE INSPECTED BY GRADY CONSULTING L.L.C. AND TOWN PRIOR TO SOIL REPLACEMENT

APPROXIMATE PERC SAND VOLUME = 484 SF X (34.5 - 31.0±) / 27 + 20% = 75± CY

817 Country Way Post Type III 24-hr 100-Year Rainfall=6.68"
Prepared by (enter your company name here) Printed 1/20/2023
HydroCAD 10.00.21 s/n 09955 S 2018 HydroCAD Software Solutions LLC

Pond 1P: DETENTION TANK - Chamber Wizard Field A

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 8 rows

52.0" Wide x 6.0" Spacing = 58.0" C-C Row Spacing

5 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 36.50' Row Length +12.0" End Stone x 2 = 38.50' Base Length
8 Rows x 52.0" Wide x 6.0" Spacing x 5 + 12.0" Side Stone x 2 = 30.50' Base Width
6.0" Stone Base + 30.5" Chamber Height + 6.0" Cover = 3.54' Field Height

30 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 8 Rows = 1,831.8 of Chamber Storage
4,158.8 of Field - 1,831.8 of Chambers = 2,327.0 of Stone x 40.0% Voids = 1,010.8 of Stone Storage

Chamber Storage + Stone Storage = 2,842.6 cf = 0.061 af
Overall Storage Efficiency = 63.5%
Overall System Size = 38.50' x 30.50' x 3.54'

30 Chambers
154.0 cy Field
94.0 cy Stone

SUBSURFACE DRAINAGE AREA #5

817 Country Way Post Type III 24-hr 100-Year Rainfall=6.68"
Prepared by (enter your company name here) Printed 1/20/2023
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Pond 2P: SUBSURFACE DRAINAGE AREA #2 - Chamber Wizard Field B

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 3 rows

52.0" Wide x 6.0" Spacing = 58.0" C-C Row Spacing

17 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 120.50' Row Length +12.0" End Stone x 2 = 132.50' Base Length
3 Rows x 52.0" Wide x 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 16.00' Base Width
12.0" Stone Base + 30.5" Chamber Height = 12.0" Cover = 4.54' Field Height

51 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 3 Rows = 2,893.5 of Chamber Storage
8,901.7 of Field - 2,893.5 of Chambers = 6,008.1 of Stone x 40.0% Voids = 2,483.3 of Stone Storage

Chamber Storage + Stone Storage = 5,176.8 cf = 0.119 af
Overall Storage Efficiency = 56.2%
Overall System Size = 122.50' x 16.00' x 4.54'

51 Chambers
330.1 cy Field
229.9 cy Stone

SUBSURFACE DRAINAGE AREA #2

817 Country Way Post Type III 24-hr 100-Year Rainfall=6.68"
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Pond SSD4: SUBSURFACE DRAINAGE AREA #4 - Chamber Wizard Field A

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 2 rows

52.0" Wide x 6.0" Spacing = 58.0" C-C Row Spacing

4 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 29.50' Row Length +12.0" End Stone x 2 = 31.50' Base Length
2 Rows x 52.0" Wide x 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 11.17' Base Width
6.0" Stone Base + 30.5" Chamber Height + 19.0" Cover = 4.63' Field Height

8 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 2 Rows = 439.6 of Chamber Storage
1,626.8 of Field - 439.6 of Chambers = 1,187.2 of Stone x 40.0% Voids = 474.9 of Stone Storage

Chamber Storage + Stone Storage = 914.5 cf = 0.021 af
Overall Storage Efficiency = 58.2%
Overall System Size = 31.50' x 11.17' x 4.63'

8 Chambers
80.3 cy Field
44.0 cy Stone

SUBSURFACE DRAINAGE AREA #4A

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Pond SSD3: SUBSURFACE DRAINAGE AREA #3 - Chamber Wizard Field A

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 1 rows

11 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 78.50' Row Length +15.0" End Stone x 2 = 91.00' Base Length
1 Rows x 52.0" Wide x 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 8.32' Base Width
6.0" Stone Base + 30.5" Chamber Height + 6.0" Cover = 3.54' Field Height

11 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 1 Rows = 584.9 of Chamber Storage
2,390.6 of Field - 584.9 of Chambers = 1,805.7 of Stone x 40.0% Voids = 722.3 of Stone Storage

Chamber Storage + Stone Storage = 1,307.2 cf = 0.030 af
Overall Storage Efficiency = 58.7%
Overall System Size = 81.00' x 8.32' x 3.54'

11 Chambers
88.0 cy Field
66.9 cy Stone

SUBSURFACE DRAINAGE AREA #3A

817 Country Way Post Type III 24-hr 100-Year Rainfall=6.68"
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HydroCAD 10.00.21 s/n 09955 S 2018 HydroCAD Software Solutions LLC

Pond SSD1: SUBSURFACE DRAINAGE AREA #1 - Chamber Wizard Field A

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 5 rows

52.0" Wide x 6.0" Spacing = 58.0" C-C Row Spacing

2 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 50.50' Row Length +12.0" End Stone x 2 = 52.00' Base Length
5 Rows x 52.0" Wide x 6.0" Spacing x 4 + 12.0" Side Stone x 2 = 25.67' Base Width
6.0" Stone Base + 30.5" Chamber Height + 8.0" Cover = 3.71' Field Height

35 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 5 Rows = 1,881.4 of Chamber Storage
4,967.0 of Field - 1,881.4 of Chambers = 3,115.6 of Stone x 40.0% Voids = 1,246.2 of Stone Storage

Chamber Storage + Stone Storage = 3,127.6 cf = 0.072 af
Overall Storage Efficiency = 62.8%
Overall System Size = 52.50' x 25.67' x 3.71'

35 Chambers
185.1 cy Field
115.4 cy Stone

SUBSURFACE DRAINAGE AREA #1A

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Pond SSD4: SUBSURFACE DRAINAGE AREA #4 - Chamber Wizard Field B

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 1 rows

1 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 8.50' Row Length +12.0" End Stone x 2 = 10.50' Base Length
1 Rows x 52.0" Wide x 12.0" Side Stone x 2 = 6.33' Base Width
6.0" Stone Base + 30.5" Chamber Height + 18.0" Cover = 4.54' Field Height

1 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 1 Rows = 63.3 of Chamber Storage
302.0 of Field - 63.3 of Chambers = 238.7 of Stone x 40.0% Voids = 95.5 of Stone Storage

Chamber Storage + Stone Storage = 158.8 cf = 0.004 af
Overall Storage Efficiency = 52.8%
Overall System Size = 10.50' x 6.33' x 4.54'

1 Chambers
11.2 cy Field
8.8 cy Stone

SUBSURFACE DRAINAGE AREA #4B

817 Country Way Post Type III 24-hr 100-Year Rainfall=6.68"
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Pond SSD3: SUBSURFACE DRAINAGE AREA #3 - Chamber Wizard Field B

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 2 rows

52.0" Wide x 6.0" Spacing = 58.0" C-C Row Spacing

3 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 22.50' Row Length +33.0" End Stone x 2 = 28.00' Base Length
2 Rows x 52.0" Wide x 6.0" Spacing x 1 + 20.0" Side Stone x 2 = 12.50' Base Width
6.0" Stone Base + 30.5" Chamber Height + 6.0" Cover = 3.54' Field Height

8 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 2 Rows = 335.3 of Chamber Storage
1,289.6 of Field - 335.3 of Chambers = 954.3 of Stone x 40.0% Voids = 381.7 of Stone Storage

Chamber Storage + Stone Storage = 697.0 cf = 0.016 af
Overall Storage Efficiency = 56.2%
Overall System Size = 28.00' x 12.50' x 3.54'

8 Chambers
11.2 cy Field
8.8 cy Stone

SUBSURFACE DRAINAGE AREA #3B

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Pond SSD1: SUBSURFACE DRAINAGE AREA #1 - Chamber Wizard Field B

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 2 rows

52.0" Wide x 6.0" Spacing = 58.0" C-C Row Spacing

2 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.00' Base Length
2 Rows x 52.0" Wide x 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 11.17' Base Width
6.0" Stone Base + 30.5" Chamber Height + 8.0" Cover = 3.71' Field Height

4 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 2 Rows = 231.0 of Chamber Storage
724.7 of Field - 231.0 of Chambers = 493.7 of Stone x 40.0% Voids = 197.5 of Stone Storage

Chamber Storage + Stone Storage = 428.5 cf = 0.010 af
Overall Storage Efficiency = 69.1%
Overall System Size = 17.50' x 11.17' x 3.71'

4 Chambers
28.8 cy Field
18.3 cy Stone

SUBSURFACE DRAINAGE AREA #1B

SUBSURFACE DRAINAGE AREA #1

SECTION A SECTION B SECTION C

SUBSURFACE DRAINAGE AREA #3

SUBSURFACE DRAINAGE AREA #4

SUBSURFACE DRAINAGE AREA #5

IMPERMEABLE LINER (40 MIL POLY OR APPROVED EQUAL)

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Pond SSD4: SUBSURFACE DRAINAGE AREA #4 - Chamber Wizard Field C

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 1 rows

1 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 8.50' Row Length +12.0" End Stone x 2 = 10.50' Base Length
1 Rows x 52.0" Wide x 12.0" Side Stone x 2 = 6.33' Base Width
6.0" Stone Base + 30.5" Chamber Height + 19.0" Cover = 4.83' Field Height

1 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 1 Rows = 63.3 of Chamber Storage
307.6 of Field - 63.3 of Chambers = 244.2 of Stone x 40.0% Voids = 97.7 of Stone Storage

Chamber Storage + Stone Storage = 161.0 cf = 0.004 af
Overall Storage Efficiency = 52.4%
Overall System Size = 10.50' x 6.33' x 4.83'

1 Chambers
11.4 cy Field
9.0 cy Stone

SUBSURFACE DRAINAGE AREA #4C

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Pond SSD3: SUBSURFACE DRAINAGE AREA #3 - Chamber Wizard Field C

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 2 rows

52.0" Wide x 6.0" Spacing = 58.0" C-C Row Spacing

1 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 8.50' Row Length +31.0" End Stone x 2 = 13.67' Base Length
2 Rows x 52.0" Wide x 6.0" Spacing x 1 + 23.0" Side Stone x 2 = 13.00' Base Width
6.0" Stone Base + 30.5" Chamber Height + 6.0" Cover = 3.54' Field Height

2 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 2 Rows = 126.6 of Chamber Storage
629.2 of Field - 126.6 of Chambers = 502.6 of Stone x 40.0% Voids = 201.0 of Stone Storage

Chamber Storage + Stone Storage = 327.7 cf = 0.008 af
Overall Storage Efficiency = 52.1%
Overall System Size = 13.67' x 13.00' x 3.54'

2 Chambers
23.3 cy Field
18.6 cy Stone

SUBSURFACE DRAINAGE AREA #3C

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Pond SSD1: SUBSURFACE DRAINAGE AREA #1 - Chamber Wizard Field C

Chamber Model = CULTEC R-330XLHD (CULTEC RECHARGER®330XLHD)
Effective Size= 47.8"W x 30.0"H => 7.45 ft x 7.00 ft = 52.2 cf
Overall Size= 52.0"W x 30.0"H x 8.50'L with 1.50' Overlap
Row Length Adjustment= +1.50' x 7.45 ft x 1 rows

52.0" Wide x 6.0" Spacing = 58.0" C-C Row Spacing

2 Chambers/Row x 7.00' Long +1.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.00' Base Length
1 Rows x 52.0" Wide x 12.0" Side Stone x 2 = 6.33' Base Width
6.0" Stone Base + 30.5" Chamber Height + 8.0" Cover = 3.71' Field Height

2 Chambers x 52.2 cf of +1.50' Row Adjustment x 7.45 ft x 1 Rows = 115.5 of Chamber Storage
411.0 of Field - 115.5 of Chambers = 295.5 of Stone x 40.0% Voids = 118.2 of Stone Storage

Chamber Storage + Stone Storage = 233.7 cf = 0.005 af
Overall Storage Efficiency = 58.9%
Overall System Size = 17.50' x 6.33' x 3.71'

2 Chambers
16.2 cy Field
10.8 cy Stone

SUBSURFACE DRAINAGE AREA #1C

FOR REGISTRY USE ONLY

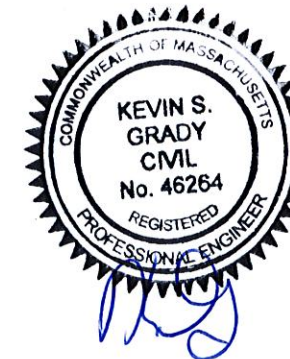
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

TIMOTHY R. BENNETT P.L.S. #36856 DATE _____

SITE PLAN APPROVED

DATE: _____

SCITUATE PLANNING BOARD



REVISIONS	
JUNE 19, 2023	RESPOND TO TEC PEER REVIEW COMMENTS

SITE PLAN
COUNTRY WAY ESTATES
817 COUNTRY WAY
ASSESSORS PARCEL 12-2-38-F
SCITUATE, MASSACHUSETTS

PREPARED FOR: FEBRUARY 2, 2023
OPTION C PROPERTIES L.L.C. SCALE: 1" = 20'
P.O. BOX 263 JOB No. 20-475
WEYMOUTH, MA 02190

GRADY CONSULTING, L.L.C.
Civil Engineers, Land Surveyors & Landscape Architects
71 Evergreen Street, Suite 1, Kingston, MA 02364
Phone (781) 585-2300 Fax (781) 585-2378

STORMWATER CONSTRUCTION PRACTICES

ALL AREAS WHERE RECHARGE/INFILTRATION SYSTEMS ARE BEING PROPOSED, SHALL BE PROTECTED FROM DEGRADATION BY CONSTRUCTION BY INCORPORATING THE FOLLOWING CONSTRUCTION PRACTICES:

- HEAVY EQUIPMENT SHALL NOT PASS, RE-PASS, OR HAUL MATERIALS IN THE EXCAVATED AREAS OF THE STORMWATER RECHARGE CHAMBERS SO AS TO COMPACT AND ALTER THE INFILTRATION CHARACTERISTICS OF THE UNDISTURBED MATERIAL BENEATH THE SYSTEM BY COMPACTION.
- NO HEAVY EQUIPMENT SHALL BE PARKED, STORED, OR DRIVEN OVER THE EXCAVATED AREAS PREPARED FOR STORMWATER TREATMENT.
- ONLY HEAVY EQUIPMENT USED DIRECTLY IN THE CONSTRUCTION OF THE STORMWATER BASINS SHALL BE ALLOWED IN THE EXCAVATED AREAS OF THE STORMWATER MANAGEMENT SYSTEMS.
- NO STORMWATER FROM CONSTRUCTION ACTIVITIES OR DISTURBED AREAS SHALL BE DISCHARGED INTO THE STORMWATER INFILTRATION SYSTEMS. ALL SUCH DISCHARGES SHALL BE ROUTED THROUGH APPROVED TEMPORARY CONTROLS PRIOR TO RELEASE OFF SITE OR TO RESOURCE AREAS.

GENERAL CONSTRUCTION SEQUENCING:

- SILT SOCK EROSION CONTROL BARRIER SHALL BE PLACED AROUND SITE LOT LINE PERIMETER AS SHOWN. CONSTRUCTION STABILIZED ENTRANCE AND ASSOCIATED STAGING AND PARKING AREAS SHALL BE INSTALLED.
- SITE SHALL BE CLEARED AND PREPARED WITH LIGHT GRADING AND GROUND COVER STABILIZATION AS NEEDED SUCH AS CRUSHED STONE, WOOD CHIP COVER, GEO TEXTILES, ETC.
- ALL STOCKPILING SHALL BE TEMPORARY OR SHORT TERM ON THIS SITE HAVING A SILT SOCK AT THE PERIMETER.
- INSTALL BUILDING UTILITIES, SANITARY LINES, ELECTRIC, WATER LINE AND SERVICE CONNECTIONS.
- INSTALL BUILDING FOOTING, BIO RETENTION WALLS, AND FOUNDATIONS, HAUL OFF EXCESSIVE STOCKPILES OF EARTHEN MATERIALS.
- CONSTRUCT FRAME AND SHELL OF BUILDINGS.
- INSTALL UTILITY SERVICE CONNECTIONS.
- INSTALL INTERIOR FINISH WORK OF BUILDINGS.
- HAUL OFF ANY STOCKPILES OF EARTHEN MATERIALS.
- ROUGH GRADE PARKING LOT AREAS.
- INSTALL ALL STORMWATER CONTROL SYSTEMS AND MAKE ALL CONNECTIONS CONNECT.
- PERFORM FINE GRADING OF GREEN SPACE AREAS AND PARKING AREAS.
- INSTALL BASE COURSE PAVEMENT.
- INSTALL LANDSCAPE PLANTINGS ALONG WITH LOAM & SEED.
- INSTALL FINISH COURSE PAVEMENT.

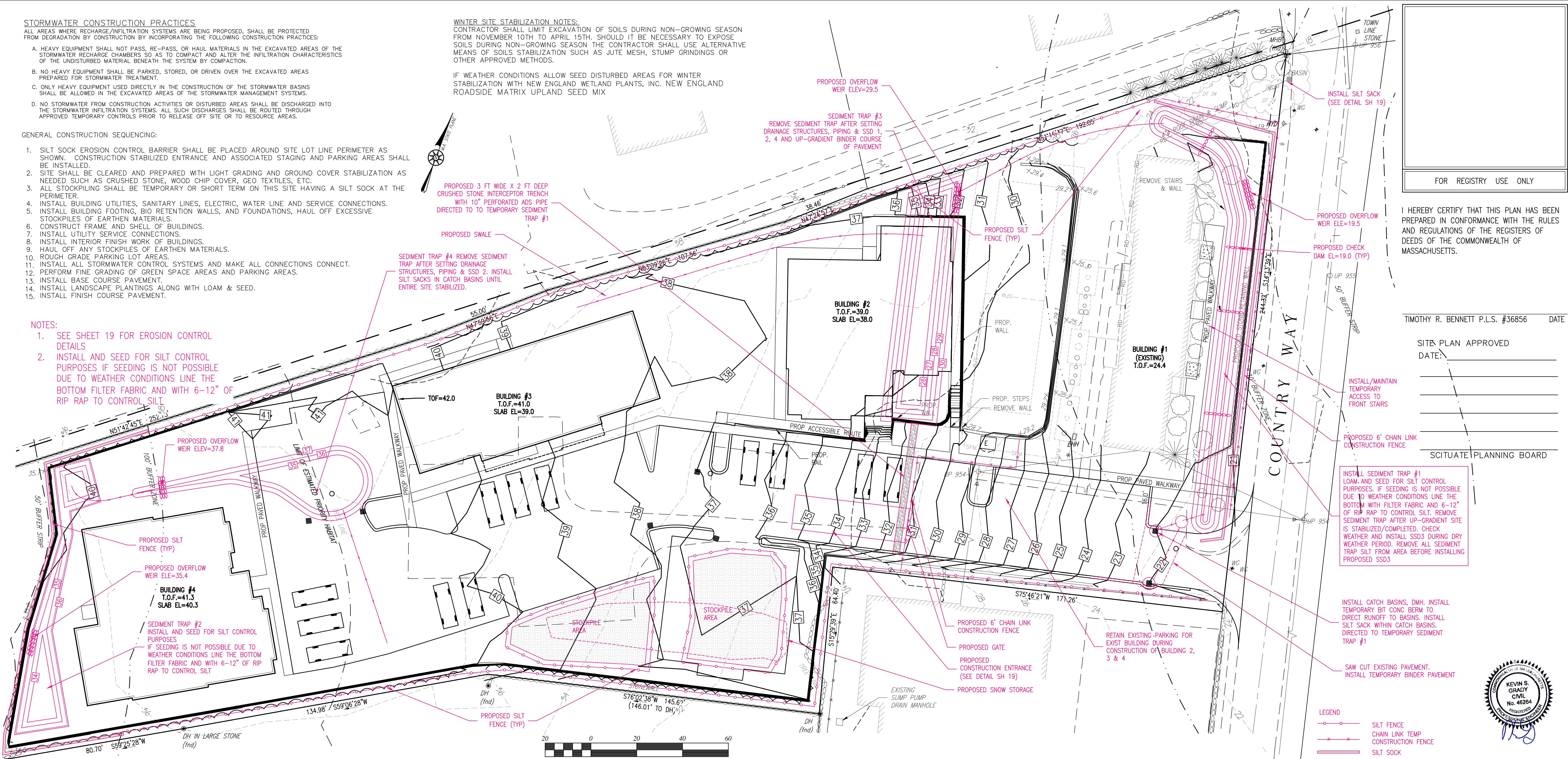
NOTES:

- SEE SHEET 19 FOR EROSION CONTROL DETAILS
- INSTALL AND SEED FOR SILT CONTROL PURPOSES IF SEEDING IS NOT POSSIBLE DUE TO WEATHER CONDITIONS LINE THE BOTTOM FILTER FABRIC AND WITH 6-12" OF RIP RAP TO CONTROL SILT

WINTER SITE STABILIZATION NOTES:

CONTRACTOR SHALL LIMIT EXCAVATION OF SOILS DURING NON-GROWING SEASON FROM NOVEMBER 10TH TO APRIL 15TH. SHOULD IT BE NECESSARY TO EXPOSE SOILS DURING NON-GROWING SEASON THE CONTRACTOR SHALL USE ALTERNATIVE MEANS OF SOILS STABILIZATION SUCH AS JUTE MESH, STUMP GRINDINGS OR OTHER APPROVED METHODS.

IF WEATHER CONDITIONS ALLOW SEED DISTURBED AREAS FOR WINTER STABILIZATION WITH NEW ENGLAND WETLAND PLANTS, INC. NEW ENGLAND ROADSIDE MATRIX UPLAND SEED MIX



EROSION AND SEDIMENT CONTROL PLAN

OBJECTIVE

TO PROTECT THE MUNICIPAL INFRASTRUCTURE AND RESOURCE AREAS LOCATED ON SITE FROM ANY DAMAGE, HARM, AND OR ALTERATIONS RESULTING FROM NEGLIGENT CONSTRUCTION ACTIVITIES OR PRACTICES. SAID NEGLIGENT ACTIVITIES OR PRACTICES INCLUDE BUT ARE NOT LIMITED TO:

- THE DISCHARGE OR PUMPING OF WATER CONTAMINATED WITH SILT INTO THE WETLANDS.
- ALLOWING UNTREATED RUNOFF INTO THE WETLANDS.
- ALLOWING EROSION TO OCCUR IN THE WETLANDS.
- STOCKPILING FILL OF ANY CONSTRUCTION MATERIAL IN WETLANDS OR NEAR THE WETLANDS WITHOUT ADEQUATE PROTECTIVE MEASURES IN PLACE.

DISTURBED DEVELOPMENT AREA

- TOTAL AREA OF DISTURBANCE FOR PAVING, DRAINAGE, UTILITY AND SITE RELATED ACTIVITIES=2.0 ACRES
- ACRES. THE MAXIMUM AREA OF DISTURBANCE AT ANY ONE TIME AND THE AMOUNT OF BARE EARTH TO BE EXPOSED AT ANY ONE TIME =2.0 ACRES WITH LENGTH OF TIME OF EXPOSURE BEING 120 DAYS. STABILIZATION SHOULD OCCUR WITHIN 24 HOURS OF DISTURBANCE IF NO FURTHER WORK IS NECESSARY IN ANY PARTICULAR AREA. OTHERWISE, THE PARTICULAR CONSTRUCTION ACTIVITY SHOULD BE CONDUCTED SO AS TO COMPLY WITH THE TOWN'S CONSTRUCTION REQUIREMENTS AND THEN STABILIZE THE AREA WITHIN 24 HOURS OF COMPLETION OF THAT PARTICULAR CONSTRUCTION ACTIVITY. AFTER ROUGH GRADING IS COMPLETED SAID AREAS SHALL BE PROPERLY STABILIZED WITHIN 24 HOURS OF COMPLETION.

EROSION CONTROL

- THE EASIEST AND MOST EFFECTIVE WAY TO CONTROL EROSION IS THROUGH SOURCE REDUCTION. THIS IS EFFECTIVELY DONE BY CAREFULLY PLANNING EXCAVATION ACTIVITIES DURING FAVORABLE WEATHER CONDITIONS. OPEN EXCAVATION AREAS MAY ALSO POSE A THREAT TO OFF SITE AREAS IF NEGLECTED OR LEFT OPEN FOR LONG PERIODS OF TIME. PROPER STOCKPILING MANAGEMENT WILL PREVENT EROSION PROBLEMS. ALL STOCKPILES SHALL BE STABILIZED ON SITE OR REMOVED OFF SITE PRIOR TO ANY RAINFALL EVENT.
- ANOTHER EFFECTIVE METHOD OF SOURCE REDUCTION IS TO PROMPTLY TREAT DISTURBED AREAS. A DISTURBED AREA LEFT IN A NON-STABILIZED CONDITION IS A PROBLEM WAITING TO HAPPEN. DISTURBED AREAS CAN BE STABILIZED BY LOAMING AND SEEDING. IF THIS IS IMPRACTICAL DUE TO SEASONAL TIMING OR BEING IN A HIGH TRAFFIC AREA, THE AREA MAY BE STABILIZED THROUGH THE USE OF APPLYING A 6" LAYER OF CRUSHED STONE TO THE AREA. WOOD CHIPS AND MULCHING HAVE BEEN USED IN SUCH AREAS TO SOME SUCCESS AS WELL. FOR NON TRAFFIC AREAS, STRAW CAN BE PUT DOWN TO RETARD THE EFFECTS OF EROSION.
- AREAS THAT CAN NOT BE STABILIZED DUE TO THE NATURE OF THE ACTIVITY SHOULD BE CONTAINED. CONTAINMENT MAY BE ACHIEVED BY INSTALLING A TEMPORARY SILT FENCE AROUND THE AREA OR ALONG THE DOWN GRADIENT EDGE OF THE DISTURBED AREA. THE CONTRACTOR SHALL USE GOOD JUDGMENT TO PREVENT EROSION AND DISCHARGES INTO RESOURCE AREAS. RELYING ONLY ON THE SEDIMENT BARRIER LINE AT THE LIMIT OF WORK LINE IS IMPROPER AND CAN PUT THE PROJECT AT RISK TO ENFORCEMENT ORDERS.
- STREET SHALL BE SWEEP AT THE END OF EACH DAY IF SEDIMENT IS EVIDENT.

DE-WATERING PRACTICES

- DE-WATERING OF TRENCHES AND OPEN EXCAVATIONS SHALL BE PERFORMED SO AS TO ACHIEVE AT A MINIMUM THE FOLLOWING STANDARDS:
 - NO BUCKETING OR PUMPING OF DE-WATERING ACTIVITIES SHALL HAVE A DIRECT DISCHARGE INTO RESOURCE AREAS ON OR OFF THE SITE.
 - MUD PUMPS SHALL BE PLACED IN A 5 GALLON BUCKET FILLED WITH CRUSHED STONE TO FILTER OUT HEAVY SEDIMENTS
 - THE CONTRACTOR MAY USE ANY PRE-TREATMENT DEVICES SHOWN ON THE PLANS OR MAY IMPLEMENT OTHER DEVICES OR PRACTICES WITH THE APPROVAL OF THE TOWN AND THE DESIGNING ENGINEER.
 - THE PREFERRED PRE-TREATMENT METHOD IS TO SET A SILT BAG IN THE BACK OF A TRUCK AND PUMP INTO IT WHILE THE TRUCK IS PARKED IN A STABILIZED AREA. CLEAN WATER LEACHES OUT OF THE BAG AND RUNS OFF OVER AN UNDISTURBED AREA. WHEN THE BAG IS FULL, THE TRUCK DRIVES OFF AND EMPTIES THE BAG IN A PROPER LOCATION. THIS METHOD OFFERS THE CONTRACTOR A LOT OF FLEXIBILITY, MAKES EXCAVATION GO FASTER, AND IS A VERY SAFE METHOD OF DE-WATERING.

STOCKPILING PRACTICES

- LONG TERM STOCKPILES OF LOAM AND FILL MATERIALS SHALL BE CONTAINED OR STABILIZED THROUGH LOAMING AND SEEDING IF THE PILE IS TO SIT FOR A PERIOD OF TIME EXCEEDING 30 DAYS.
- COVERING PILES DURING DOWN POURS WITH TARPS CAN BE AN EFFECTIVE METHOD OF TEMPORARY EROSION CONTROL.
- STOCKPILES SHALL BE LOCATED AT LEAST 100' AWAY FROM WETLANDS AND SURROUNDED BY A SILTATION BARRIER.
- FABRIC IN PLACE AT THE TOP AND BOTTOM OF THE PIPE
- DESIGNATED STOCKPILE LOCATIONS SHALL BE IN SECURE AREAS OF THE SITE.

SEDIMENT BASIN/SILT TRAP MAINTENANCE

- SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO 1/2 OF THE DESIGN DEPTH IN THE TRAP. SEDIMENT SHALL BE REMOVED AND DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- THE TRAP SHALL BE INSPECTED AFTER EACH RAIN STORM AND CLEANED OR REPAIRED IF NECESSARY.
- THE TOP 2/3 OF THE RISER SHALL BE PERFORATED WITH 1" DIAMETER HOLES 6" HORIZ. AND VERTICALLY. NO HOLES SHALL BE ALLOWED WITHIN 6" OF THE HORIZONTAL PIPE.
- THE RISER SHALL BE WRAPPED WITH FILTER FABRIC. THE FILTER FABRIC SHALL BE 6" ABOVE THE HIGHEST HOLE AND 6" BELOW THE LOWEST. CONNECTING BANDS SHALL BE USED TO HOLD THE FILTER FABRIC IN PLACE AT THE TOP AND BOTTOM OF THE PIPE.
- THE RISER SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE TO PREVENT FLOATATION.
- EARTH DAM FILL MATERIAL SHALL BE FREE OF ROCKS, ROOTS, OR OTHER ORGANIC MATERIAL.

FOR REGISTRY USE ONLY

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

TIMOTHY R. BENNETT P.L.S. #36856 DATE _____

SITE PLAN APPROVED
DATE: _____
SCITUATE PLANNING BOARD

INSTALL SEDIMENT TRAP #1
LOAM AND SEED FOR SILT CONTROL PURPOSES. IF SEEDING IS NOT POSSIBLE DUE TO WEATHER CONDITIONS LINE THE BOTTOM WITH FILTER FABRIC AND 6-12" OF RIP RAP TO CONTROL SILT. REMOVE SEDIMENT TRAP AFTER UP-GRADIENT SITE IS STABILIZED/COMPLETED. CHECK WEATHER AND INSTALL SSD3 DURING DRY WEATHER PERIOD. REMOVE ALL SEDIMENT TRAP SILT FROM AREA BEFORE INSTALLING PROPOSED SSD3

INSTALL CATCH BASINS, DMH, INSTALL TEMPORARY BIT CONC BERM TO DIRECT RUNOFF TO BASINS. INSTALL SILT SOCK WITHIN CATCH BASINS. DIRECTED TO TEMPORARY SEDIMENT TRAP #1

SAW CUT EXISTING PAVEMENT. INSTALL TEMPORARY BINDER PAVEMENT

- LEGEND**
- SILT FENCE
 - CHAIN LINK TEMP CONSTRUCTION FENCE
 - SILT SOCK

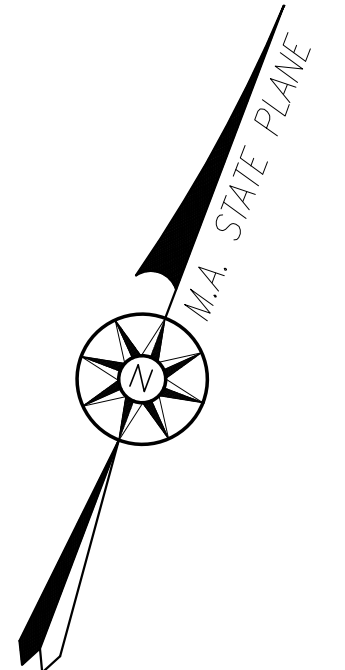
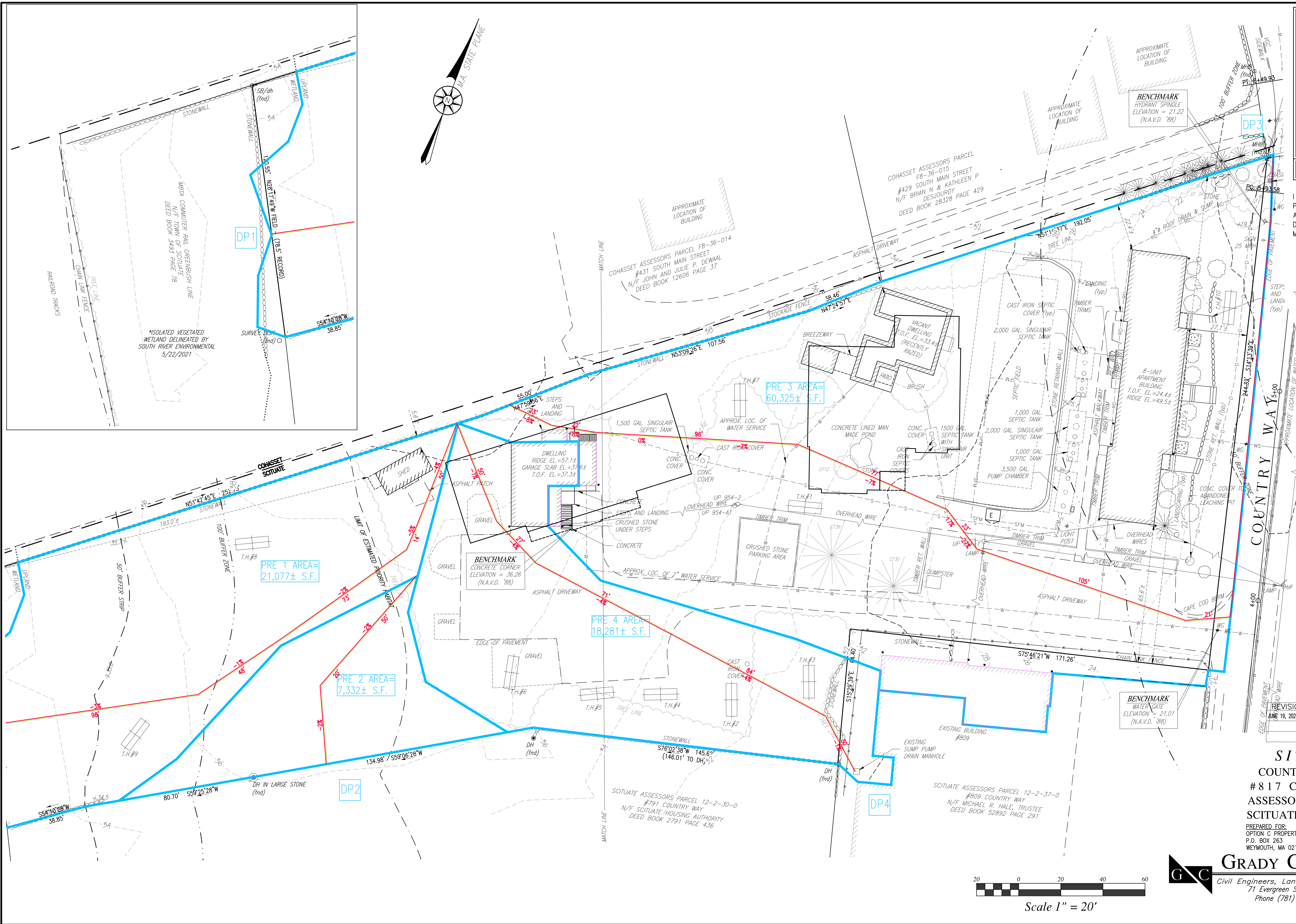
REVISIONS

JUNE 19, 2023	RESPOND TO TEC PEER REVIEW COMMENTS
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SITE PLAN
COUNTRY WAY ESTATES
817 COUNTRY WAY
ASSESSORS PARCEL 12-2-38-F
SCITUATE, MASSACHUSETTS

PREPARED FOR: FEBRUARY 2, 2023
OPTION C PROPERTIES L.L.C. SCALE: 1"=20'
P.O. BOX 263 JOB No. 20-475
WEYMOUTH, MA 02190

GRADY CONSULTING, L.L.C.
Civil Engineers, Land Surveyors & Landscape Architects
71 Evergreen Street, Suite 1, Kingston, MA 02364
Phone (781) 585-2300 Fax (781) 585-2378



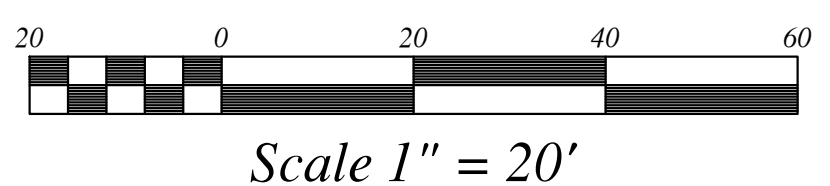
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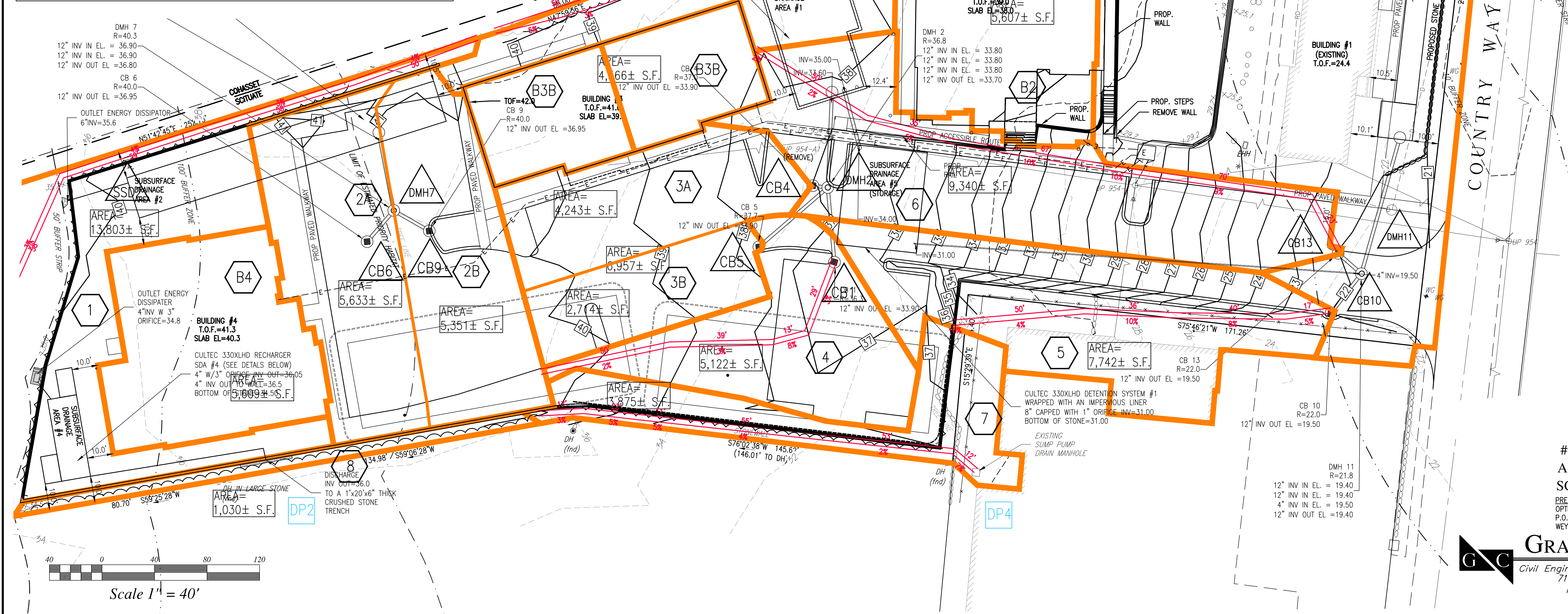
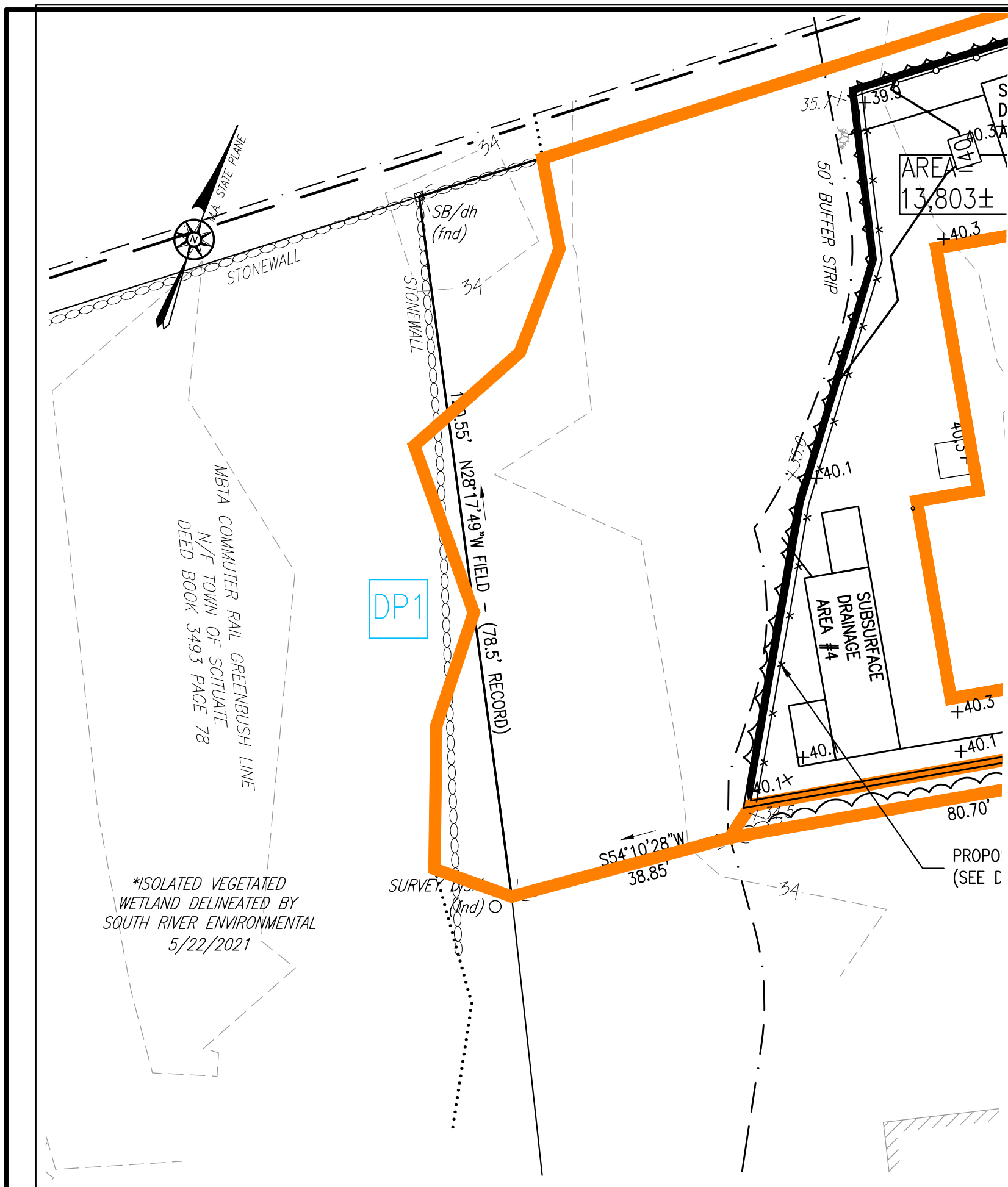
TIMOTHY R. BENNETT P.L.S. #36856 DATE _____

SITE PLAN APPROVED DATE: _____

SCITUATE PLANNING BOARD



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TIMOTHY R. BENNETT P.L.S. #36856 DATE _____

SITE PLAN APPROVED
DATE: _____

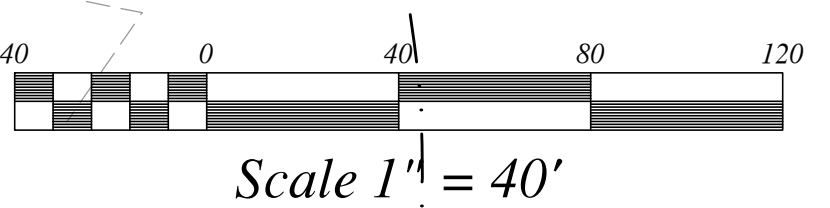
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