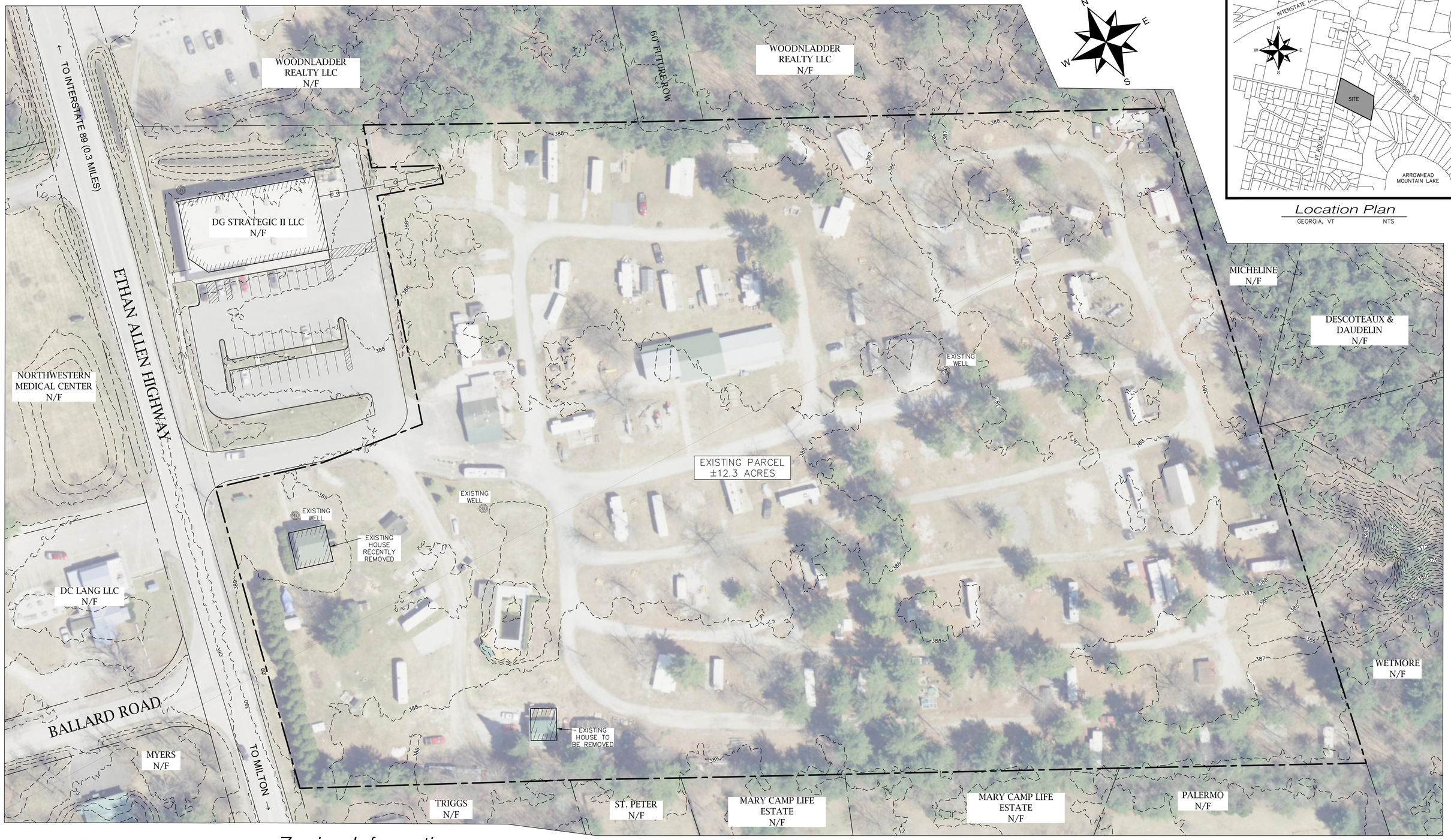

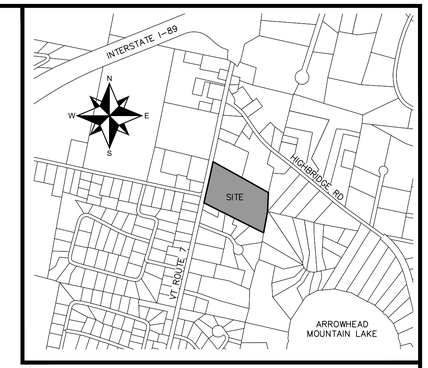

Location Plan

GEORGIA, VT NTS

LEGEND

- PROJECT BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- SETBACK
- 380 EXISTING CONTOUR LINE

Zoning Information

ADDRESS: 864 ETHAN ALLEN HIGHWAY
PARCEL ID: 117200000
DEED RECORDED IN VOLUME 316, PAGE 289

ZONING DISTRICT: SOUTH VILLAGE CORE
DISTRICT DIMENSIONAL REQUIREMENTS:

FRONT YARD	8' MIN. / 16' MAX.
SIDE YARD	10'
REAR YARD	10'
MINIMUM LOT SIZE	3,000 SF

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft

Owner/Applicant

864 ETHAN ALLEN HIGHWAY, LLC
218 OVERLAKE DRIVE
COLCHESTER, VT 05446

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT
BRYAN W. CURRIER
No. 018.0114132
REGISTERED
PROFESSIONAL ENGINEER

DATE	REVISION	BY
OBCA	☐ RECORD DRAWING ■ PRELIMINARY ☐ FINAL ☐ SKETCH/CONCEPT	DATE 1/18/24
DESIGN BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC	JOB # 2081-44
DRAWN GRT	13 CORPORATE DRIVE ESSEX JUNCTION, VT 05452 PHONE: 802-878-9990 FAX: 802-878-9989 E-MAIL: obca@olearyburke.com	FILE 2018-44-23
CHECKED BWC	HOMESTEAD CAMPGROUND GEORGIA, VERMONT	SHEET # 1
SCALE 1" = 40'	EXISTING CONDITIONS	

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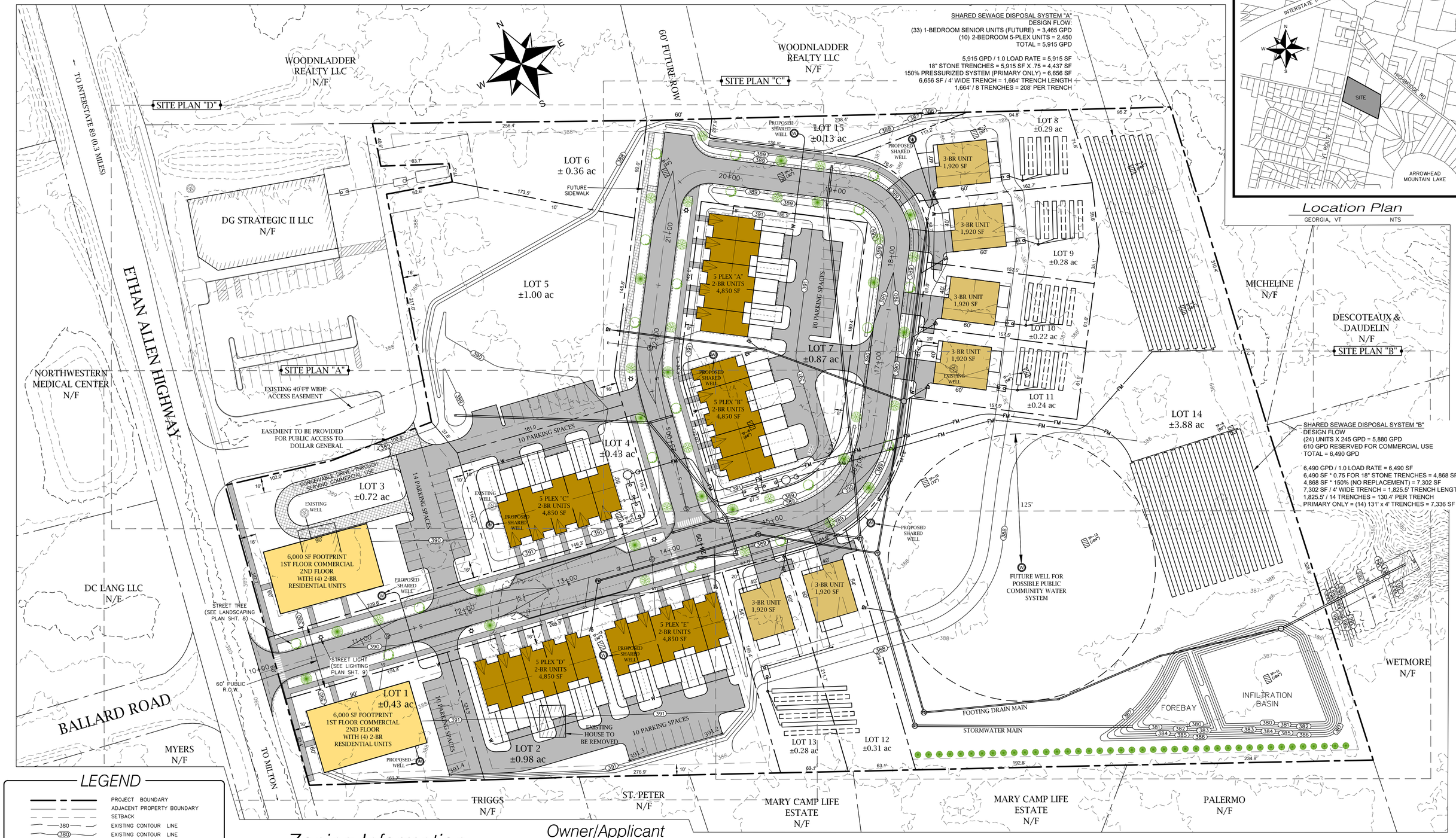
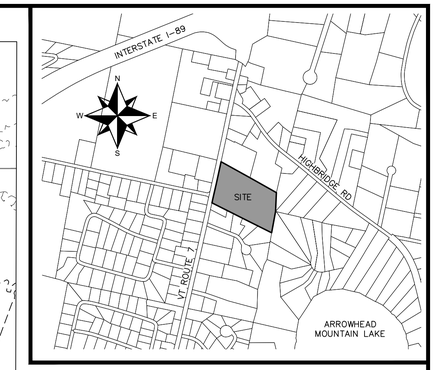
SHARED SEWAGE DISPOSAL SYSTEM "A"
DESIGN FLOW:
(33) 1-BEDROOM SENIOR UNITS (FUTURE) = 3,465 GPD
(10) 2-BEDROOM 5-PLEX UNITS = 2,450
TOTAL = 5,915 GPD

5,915 GPD / 1.0 LOAD RATE = 5,915 SF
18" STONE TRENCHES = 5,915 SF X .75 = 4,437 SF
150% PRESSURIZED SYSTEM (PRIMARY ONLY) = 6,656 SF
6,656 SF / 4' WIDE TRENCH = 1,664' TRENCH LENGTH
1,664' / 8 TRENCHES = 208' PER TRENCH

SHARED SEWAGE DISPOSAL SYSTEM "B"
DESIGN FLOW
(24) UNITS X 245 GPD = 5,880 GPD
610 GPD RESERVED FOR COMMERCIAL USE
TOTAL = 6,490 GPD

6,490 GPD / 1.0 LOAD RATE = 6,490 SF
6,490 SF * 0.75 FOR 18" STONE TRENCHES = 4,868 SF
4,868 SF * 150% (NO REPLACEMENT) = 7,302 SF
7,302 SF / 4' WIDE TRENCH = 1,825.5' TRENCH LENGTH
1,825.5' / 14 TRENCHES = 130.4' PER TRENCH
PRIMARY ONLY = (14) 131' x 4' TRENCHES = 7,336 SF





Location Plan

GEORGIA, VT NTS

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- PROPOSED MIXED USE BUILDING
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- TP-10 (72") SOIL TEST PIT

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REAR YARD	10'
MINIMUM LOT SIZE	3,000 SF

Owner/Applicant

864 ETHAN ALLEN HIGHWAY, LLC
218 OVERLAKE DRIVE
COLCHESTER, VT 05446

(39) TOTAL RESIDENTIAL UNITS

- (8) 2-BR UNITS WITHIN MXD USE BUILDINGS
- (25) 2-BR TOWNHOME UNITS
- (6) 3-BR SINGLE FAMILY UNITS
- 12,000 SF FIRST FLOOR COMMERCIAL SPACE

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

DATE 1/27/24	REVISION REMOVED FUTURE SENIOR LIVING BUILDING PER TOWN OF GEORGIA REVIEW COMMENTS		BY GRT
SURVEY OBCA	☐ RECORD DRAWING ■ PRELIMINARY ☐ FINAL ☐ SKETCH/CONCEPT	HOMESTEAD CAMPGROUND GEORGIA, VERMONT	DATE 1/18/24
DESIGN BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC		JOB # 2081-44
DRAWN GRT	13 CORPORATE DRIVE ESSEX JUNCTION, VT 05452 PHONE: 802-878-9990 FAX: 802-878-9989 E-MAIL: obca@olearyburke.com		FILE 2018-44-23
CHECKED BWC		OVERALL PLAN	SHEET # 2
SCALE 1" = 40'			

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STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

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CHECKED BWC		20-SCALE PLAN 'A'	SHEET # 3
SCALE 1" = 20'			

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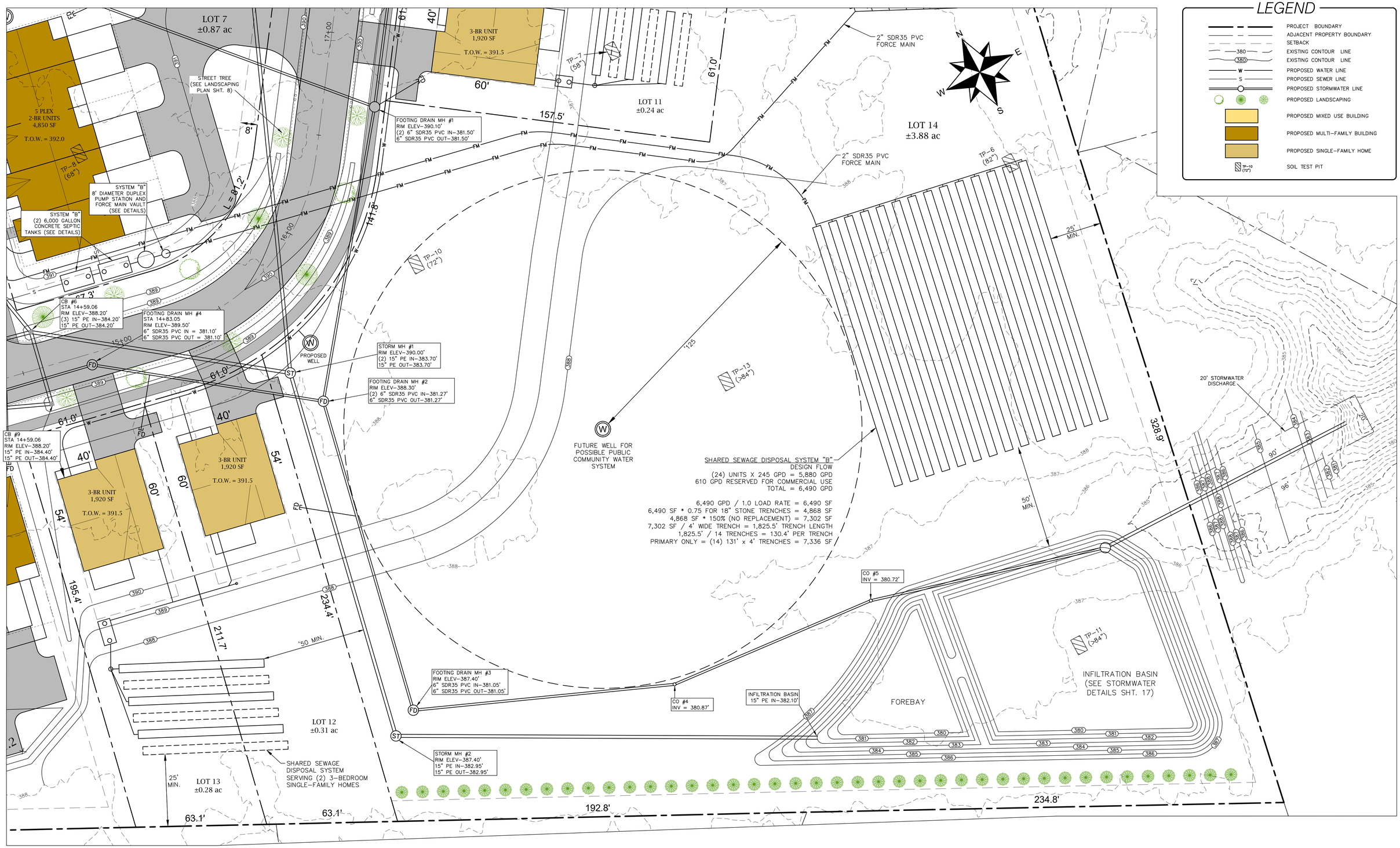

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft

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STATE OF VERMONT
BRYAN W. CURRIER
No. 018.0114132
REGISTERED PROFESSIONAL ENGINEER

DATE	REVISION		BY
SURVEY OBCA	☐ RECORD DRAWING ☐ FINAL	■ PRELIMINARY ☐ SKETCH/CONCEPT	DATE 1/18/24
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DRAWN GRT			FILE 2018-44-23
CHECKED BWC	13 CORPORATE DRIVE ESSEX JUNCTION, VT 05452 PHONE: 802-878-9990 FAX: 802-878-9989 E-MAIL: obca@olearyburke.com	20-SCALE PLAN 'B'	SHEET # 4
SCALE 1" = 20'			

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LEGEND

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- SETBACK
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- PROPOSED SINGLE-FAMILY HOME
- TP-10 (72") SOIL TEST PIT

LOT 15 ±0.13 ac

LOT 7 ±0.87 ac

LOT 8 ±0.29 ac

LOT 9 ±0.28 ac

LOT 10 ±0.22 ac

LOT 11 ±0.24 ac

LOT 14 ±3.88 ac

5 PLEX 2-BR UNITS 4,850 SF T.O.W. = 392.0

3-BR UNIT 1,920 SF T.O.W. = 391.5

PROPOSED WELL

STREET TREE (SEE LANDSCAPING PLAN SHT. 8)

STREET LIGHT (SEE LIGHTING PLAN SHT. 9)

CB #1 STA 19+06.23 RIM ELEV=388.20' 15" PE OUT=385.20'

CB #2 STA 19+06.23 RIM ELEV=388.20' 15" PE IN=385.00' 15" PE OUT=385.00'

CO #1 INV = 381.75'

CO #2 INV = 381.72'

CO #3 INV = 382.00'

SEWER MH #3 STA 22+09.23 RIM ELEV=390.20' (2) 6" SDR35 PVC IN=386.00' 6" SDR35 PVC OUT=385.90'

CB #5 STA 22+77.29 RIM ELEV=389.70' 15" PE OUT=384.80'

CB #4 STA 22+77.29 RIM ELEV=389.70' (2) 15" PE IN=384.70' 15" PE OUT=384.70'

SYSTEM "A" 8' DIAMETER DUPLEX PUMP STATION AND FORCE MAIN VAULT (SEE DETAILS)

SYSTEM "A" (2) 6,000 GALLON CONCRETE SEPTIC TANKS (SEE DETAILS)

SYSTEM "B" 8' DIAMETER DUPLEX PUMP STATION AND FORCE MAIN VAULT (SEE DETAILS)

SYSTEM "B" (2) 6,000 GALLON CONCRETE SEPTIC TANKS (SEE DETAILS)

SEWER MH #4 STA 23+64.32 RIM ELEV=389.50' 6" SDR35 PVC IN=384.30' 6" SDR35 PVC OUT=384.20'

FOOTING DRAIN MH #1 RIM ELEV=390.10' (2) 6" SDR35 PVC IN=381.50' 6" SDR35 PVC OUT=381.50'

TYPICAL 3-BEDROOM PRIMARY AND REPLACEMENT SEWAGE DISPOSAL SYSTEMS (INTER-FINGERED)

2" SDR35 PVC FORCE MAIN

TP-1 (33") TP-2 (30") TP-3 (50") TP-4 (84") TP-5 (84") TP-6 (82") TP-7 (58") TP-8 (68") TP-9 (42") TP-10 (72")

SHARED SEWAGE DISPOSAL SYSTEM "A"
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(33) 1-BEDROOM SENIOR UNITS (FUTURE) = 3,465 GPD
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5,915 GPD / 1.0 LOAD RATE = 5,915 SF
18" STONE TRENCHES = 5,915 SF X .75 = 4,437 SF
150% PRESSURIZED SYSTEM (PRIMARY ONLY) = 6,656 SF
6,656 SF / 4' WIDE TRENCH = 1,664' TRENCH LENGTH
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6,490 SF * 0.75 FOR 18" STONE TRENCHES = 4,868 SF
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GRAPHIC SCALE
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(IN FEET)
1 inch = 20 ft

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STATE OF VERMONT BRYAN W. CURRIER No. 018.0114132 REGISTERED PROFESSIONAL ENGINEER

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SURVEY OBCA	☐ RECORD DRAWING ☐ FINAL ■ PRELIMINARY ☐ SKETCH/CONCEPT	HOMESTEAD CAMPGROUND GEORGIA, VERMONT	DATE 1/18/24
DESIGN BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC		JOB # 2081-44
DRAWN GRT	13 CORPORATE DRIVE ESSEX JUNCTION, VT 05452 PHONE: 802-878-9990 FAX: 802-878-9989 E-MAIL: obca@olearyburke.com		FILE 2018-44-23
CHECKED BWC		20-SCALE PLAN 'C'	SHEET # 5
SCALE 1" = 20'			

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LEGEND

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STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

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DESIGN BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC		JOB # 2081-44
DRAWN GRT	13 CORPORATE DRIVE ESSEX JUNCTION, VT 05452 PHONE: 802-878-9990 FAX: 802-878-9989 E-MAIL: obca@olearyburke.com		FILE 2018-44-23
CHECKED BWC		20-SCALE PLAN 'D'	SHEET # 6
SCALE 1" = 20'			

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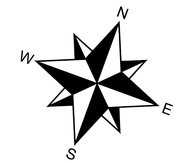
PLAN

SCALE: 1" = 50'



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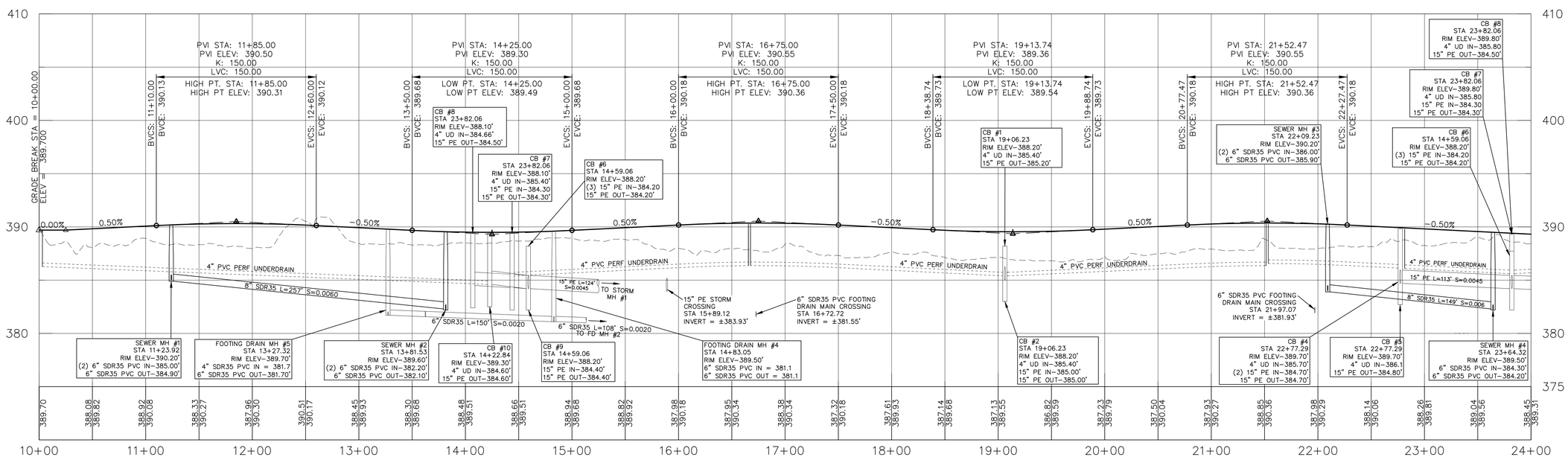
GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft



BUTTERNUT LANE
STA. 10+00 - 24+00

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

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STATE OF VERMONT PROFESSIONAL ENGINEER BRYAN W. CURRIER No. 018.0114132 REGISTERED

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DRAWN GRT			FILE 2018-44-23
CHECKED BWC	13 CORPORATE DRIVE ESSEX JUNCTION, VT 05452 PHONE: 802-878-9990 FAX: 802-878-9989 E-MAIL: obca@olearyburke.com	PLAN & PROFILE	SHEET # 7
SCALE 1" = 50'			

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GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
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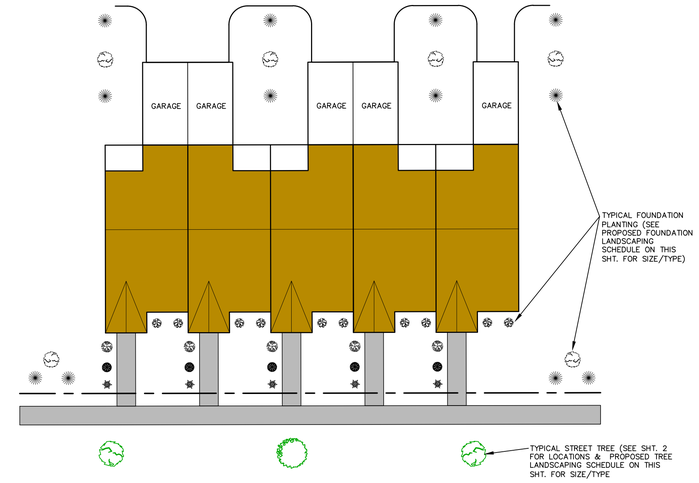


TYPICAL FOUNDATION PLANTING PLAN AND 5-PLEX DRIVEWAY DETAIL

NTS

PROPOSED FOUNDATION LANDSCAPE SCHEDULE

SYMBOL	QUANTITY	COMMON NAME	BOTANIC NAME	SIZE	COST
	5	SUMMER WINE NINEBARK	PHYSOCARPOS	5 GAL.	$60 EA. / $2,880
	5	ANNABELLE HYDRANGEA	HYDRANGEA	5 GAL.	$60 EA. / $1,440
	5	BLUESTAR JUNIPER	JUNIPERUS SABINA	5 GAL.	$60 EA. / $1,440
	10	GOLDEN PRINCESS SPIREA	SPIRAEA	5 GAL.	$60 EA. / $2,880
	12	NORTHLAND BLUEBERRY	VACCINIUM	5 GAL.	$60 EA. / $2,880
	6	BLACK LACE ELDERBERRY	SAMBUCCUS	5 GAL.	$60 EA. / $1,440
				TOTAL	$12,960

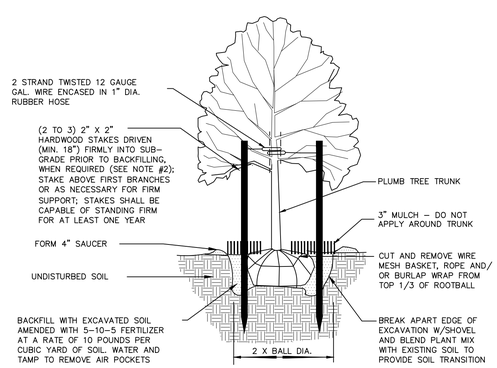
PROPOSED SCREENING LANDSCAPE SCHEDULE

SYMBOL	QUANTITY	COMMON NAME	BOTANIC NAME	HEIGHT	COST
	41	EASTERN WHITE CEDAR	THUJA OCCIDENTALIS	6 FT	$300 EA. / $12,300
				TOTAL	$12,300

PROPOSED STREET TREE LANDSCAPING SCHEDULE

SYMBOL	QUANTITY	COMMON NAME	BOTANIC NAME	SIZE	COST
	17	LITTLELEAF LINDEN	TILIA CORDATA	2 -2 1/2" CALIPER	$600 EACH / $10,200
	19	EUROPEAN HORSECHESTNUT	AESCULUS HIPPOCASTANUM	2 -2 1/2" CALIPER	$600 EACH / $11,400
	20	THORNLESS HONEYLOCUST	GLEDITSIA TRIANCANTHOS INERMIS	2 -2 1/2" CALIPER	$600 EACH / $12,000
TOTAL	56; 40' ON CENTER				$33,600

*NOTE: ALL PLANTING SPECIES MAY BE SUBSTITUTED WITH ALTERNATIVE STREET TREES PER TOWN OF GEORGIA REGULATIONS.

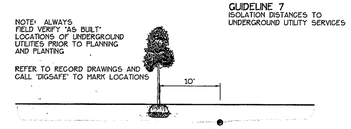


NOTE:

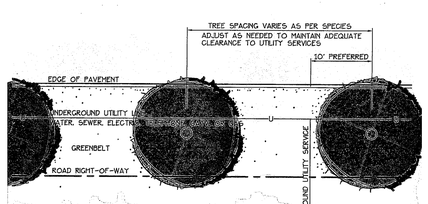
1. PLANT TREE SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
2. STAKING AS REQUIRED ONLY IN SITUATIONS WHERE TREES WILL BE SUBJECTED TO WINDY CONDITIONS AS DETERMINED BY THE PROJECT LANDSCAPE ARCHITECT.
3. TREES SHALL BE GUARANTEED FOR A PERIOD OF TWO YEARS AFTER PLANTING.
4. EXAMINE ENTIRE TREE AND REMOVE ALL NURSERY TAGS, ROPE, STRING AND SURVEYOR TAPE PRIOR TO PLANTING TO PREVENT GIRDLING.
5. STREET TREES SHALL BE LOCATED AT LEAST 10' FROM THE NEAREST UTILITY SERVICE.

TREE PLANTING

NTS



7A OFFSET TO UNDERGROUND UTILITY SERVICES – SECTION



7B OFFSET TO UNDERGROUND UTILITY SERVICES – PLAN

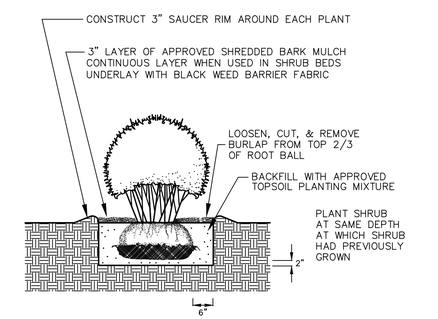
LANDSCAPING SPECIFICATIONS

ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEEDING AND MULCHING PRIOR TO NOVEMBER 1 OF EACH YEAR. ANY DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED AND MULCHED WITHIN 15 DAYS. ANY WORK PERFORMED AFTER OCTOBER 1 OF EACH YEAR SHALL BE STABILIZED WITH MULCH OR NETTING SUFFICIENT TO PREVENT EROSION AND SHALL BE IMMEDIATELY SEEDED AND REMULCHED AS SOON AS WEATHER PERMITS IN THE SPRING. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL AND BE SEEDED, FERTILIZED, LIMED, AND MULCHED IN ACCORDANCE WITH THE FOLLOWING:

1. SEED MIXTURE IN ALL AREAS SHALL BE URBAN MIX CONFORMING TO THE TABLE SHOWN ON THE PLANS. FOR SEEDING BETWEEN SEPTEMBER 1 AND NOVEMBER 1, WINTER RYE SHALL BE USED AT AN APPLICATION RATE OF 100 POUNDS PER ACRE.
2. FERTILIZER SHALL BE STANDARD COMMERCIAL GRADE CONFORMING TO THE STATE FERTILIZER LAW AND TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. DRY FERTILIZER, IF USED, SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. LIQUID FERTILIZER, IF USED, SHALL BE APPLIED IN A 1-2-1 RATIO WITH THE MINIMUM RATE TO INCLUDE 100 POUNDS OF NITROGEN, 200 POUNDS OF PHOSPHATE, AND 100 POUNDS OF POTASH PER ACRE.
3. LIMESTONE SHALL CONFORM TO ALL STATE AND FEDERAL REGULATIONS AND TO THE STANDARDS OF THE THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. THE LIMESTONE SHALL BE APPLIED AT A RATE OF TWO TONS PER ACRE OR AS DIRECTED.
4. WITHIN 24 HOURS OF APPLICATION OF FERTILIZER, LIME, AND SEED, THE SURFACE SHALL BE MULCHED WITH A HAY MULCH. MULCH SHALL BE SPREAD UNIFORMLY OVER THE AREA AT A RATE OF TWO TONS PER ACRE OR AS ORDERED BY THE ENGINEER.

URBAN MIX GRASS SEED		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
37.5	45	CREEPING RED FESCUE
31.25	37.5	KENTUCKY BLUEGRASS
31.25	37.5	WINTER HARDY, PERENNIAL RYE
100	120 # LIVE SEED PER ACRE	

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.



SHRUB PLANTING

NTS

STATE OF VERMONT
BRYAN W. CURRIER
No. 018.0114132
REGISTERED
PROFESSIONAL ENGINEER

DATE 1/27/24	REVISION REMOVED FUTURE SENIOR LIVING BUILDING PER TOWN OF GEORGIA REVIEW COMMENTS		BY GRT
SURVEY OBCA	☐ RECORD DRAWING ☐ FINAL ■ PRELIMINARY ☐ SKETCH/CONCEPT	HOMESTEAD CAMPGROUND GEORGIA, VERMONT	DATE 1/18/24
DESIGN BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC		JOB # 2081-44
DRAWN GRT			FILE 2018-44-23
CHECKED BWC	13 CORPORATE DRIVE ESSEX JUNCTION, VT 05452 PHONE: 802-878-9990 FAX: 802-878-9989 E-MAIL: obca@olearyburke.com	LANDSCAPING PLAN	SHEET # 8
SCALE 1" = 50'			

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ALED5T52N

RAB

High output LED pole top area light with IES type V circular distribution. Wide and uniform 360 degree pattern ideal for large outdoor areas such as parking lots, corporate parks, and retail settings.

Color: Bronze

Weight: 22.1 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type	Constant Current	Watts	52W
120V	0.45A	Color Temp	4000K (Neutral)
208V	0.26A	Color Accuracy	70 CRI
240V	0.23A	L70 Lifespan	100,000 Hours
277V	0.19A	Lumens	6,978
Input Watts	52.8W	Efficacy	132.2 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: PRJUV75T

LED Characteristics

LEDs:

4x13W high-output, long-life LEDs

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Performance

Lifespan:

100,000 Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Effective Projected Area:

EPA = 1.2

Housing:

Precision die-cast aluminum, Type V distribution

Support Arms:

Extruded aluminum

Lens:

Clear tempered glass lens

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ALED5T52N

RAB

Technical Specifications (continued)

Construction

Reflector:

Specular vacuum-metallized polycarbonate, Type V distribution

Gaskets:

High-temperature silicone

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free, RoHS-compliant components.

Optical

BUG Rating:

B3 U0 G2

Other

Equivalency:

Equivalent to 150W Metal Halide

Patents:

The designs of the ALED5T52 are protected by patents pending in US, Canada, China, Taiwan and Mexico

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA-compliant.

Electrical

Drivers:

Constant Current, Class 2 with 6kV surge protection, 120-277VAC, 50/60 Hz, 120V: 0.45A, 208V: 0.26A, 240V: 0.19A, 277V: 0.12A

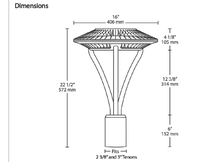
THD:

3.27% at 120V, 6.42% at 277V

Power Factor:

99.9% at 120V, 96.4% at 277V

Dimensions



Features

IES type V (circular) distribution

100,000-hour LED lifespan

Compatible with standard 2 3/8" and 3" tenons

"Air-Flow" fins for maximum heat dissipation

5-Year, No-Compromise Warranty

Ordering Matrix

Family	Distribution	Wattage	Color Temp	Finish	Driver Option	Options	Other Options
ALED	5T	52	N				
	5T = Type V	26 = 26W 52 = 52W 78 = 78W	Blank = 5000K Cool N = 4000K Neutral Y = 3000K Warm	Blank = Bronze W = White K = Black RG = Gray	Blank = 120-277V /D10 = Dimmable /BL = Bi-Level /480 = 480V /480/D10 = 480V w/ Dimmable	Blank = No Option /LC = LightCloud® Controller /PCT = 120-277V Twistlock Photocell /PCT4 = 480V Twistlock Photocell	Blank = Standard USA = BAA Compliant

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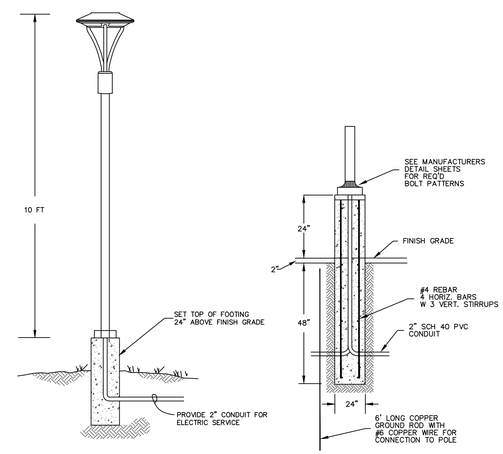
LIGHTING CUT SHEETS

NTS



TYPICAL LIGHT POLE DETAIL

NTS

CALCULATION SUMMARY

AREA NAME	DIMENSIONS	GRID NAME	AVE	MAX	MIN	MAX/MIN	AVE/MIN
SITE PLAN		NEW GRID	<+> 0.53	2.16	0.10	22.6	5.57

LUMINAIRE SCHEDULE

TYP	SYMB.	DESCRIPTION	LAMP	LUMENS	MOUNTING	LLF	QTY
AREA	☼	RAB ALED5T52N POLE TOP AREA LIGHT	52W	6495	12' POLE MOUNT	1.00	5

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

DATE 1/27/24	REVISION REMOVED FUTURE SENIOR LIVING BUILDING PER TOWN OF GEORGIA REVIEW COMMENTS		BY GRT
SURVEY OBCA	☐ RECORD DRAWING ■ PRELIMINARY ☐ FINAL ☐ SKETCH/CONCEPT	HOMESTEAD CAMPGROUND GEORGIA, VERMONT	DATE 1/18/24
DESIGN BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC		JOB # 2081-44
DRAWN GRT	13 CORPORATE DRIVE ESSEX JUNCTION, VT 05452 PHONE: 802-878-9990 FAX: 802-878-9989 E-MAIL: obca@olearyburke.com	LIGHTING PLAN	FILE 2018-44-23
CHECKED BWC			SHEET # 9
SCALE			

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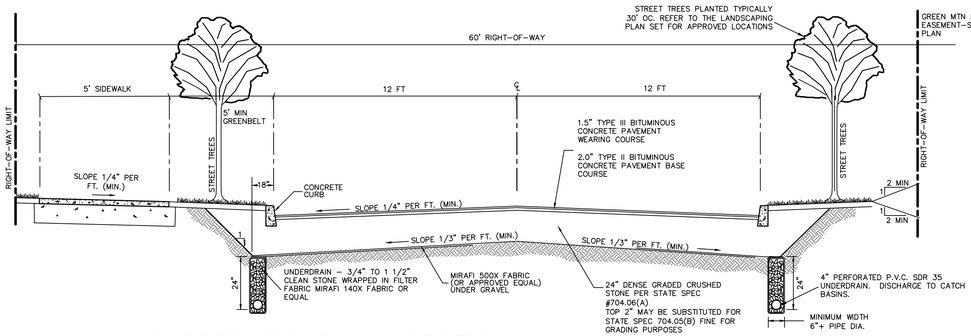
ROADWAY NOTES:

1. ALL WORK SHALL BE PREFORMED IN ACCORDANCE WITH LOCAL REGULATIONS, THE VERMONT STATE STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND THE APPROVED ENGINEERING PLANS AND SPECIFICATIONS.
2. SOIL BORINGS AND TEST PITS ARE RECOMMENDED TO CONFIRM DESIGN CONDITIONS AND APPLICABLE ROADWAY SECTIONS.
3. THE ROADWAY FINISH GRADE SHALL BE AS SHOWN ON THE DRAWING BUT NOT LESS THAN A SLOPE OF 0.5%.
4. IF THE TOP COURSE OF PAVEMENT IS NOT INSTALLED WITHIN 60 DAYS OF THE BASE COURSE, THE CONTRACTOR SHALL APPLY EMULSION TO THE FULL WIDTH OF THE BASE COURSE BEFORE INSTALLING THE TOP COURSE.
5. IF LEDGE EXISTS IN A SUBGRADE IT SHALL BE SHATTERED TO 12 INCHES BELOW GRAVEL BASE.
6. UNDERDRAINS; UNDERDRAINS SHALL BE CONSTRUCTED ON ALL ROADWAYS AND SHALL FOLLOW THE ROADWAY SLOPE AND DAYLIGHT INTO CATCH BASINS UNLESS OTHERWISE NOTED.
7. ALL HANDICAP RAMPS ARE TO HAVE EXPOSED AGGREGATE SURFACES, WITH 1/4" CURB REVEAL.
8. RECREATION PATHS ARE TO CONTINUE AT CONSTANT GRADE ACROSS DRIVEWAYS.
9. PAVED PARKING AREAS SHALL BE CONSTRUCTED TO THE SAME CONFIGURATION AS THIS ROADWAY SECTION.
10. GAS MAIN LOCATED BY VERMONT GAS SYSTEMS.
11. 10' UTILITY EASEMENT FOR POWER, CABLE AND PHONE. ONE SIDE ONLY. SEE SITE PLAN.
12. ALL LINES AND MARKINGS TO BE TAPE.
13. ALL INTERSECTIONS WITH STOP CONTROL TO COMPLY WITH LATEST MUTCD.
14. THE ROAD WIDTH, GREENBELT WIDTH, AND TYPE OF PEDESTRIAN WALKWAY SHALL BE DETERMINED FROM THE SITE PLANS.



CURBED ROADWAY SECTION

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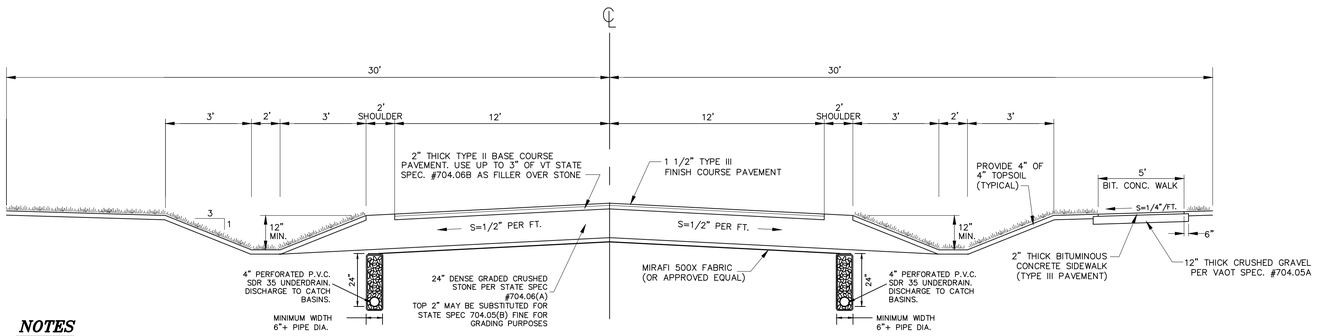
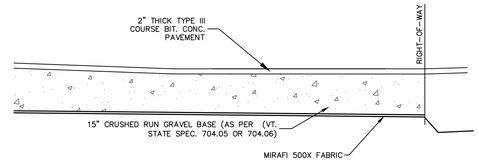


NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN PUBLIC WORKS REQUIREMENTS, THE VERMONT STATE STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND THE APPROVED ENGINEERING PLANS AND SPECIFICATIONS.
2. THE ROAD FINISH GRADE SHALL HAVE A MINIMUM SLOPE OF 0.5%.
3. IF THE TOP COURSE OF PAVEMENT IS NOT INSTALLED WITHIN 60 DAYS OF THE BASE COURSE, THE CONTRACTOR SHALL APPLY EMULSION TO THE FULL WIDTH OF THE BASE COURSE BEFORE INSTALLING THE TOP COURSE.
4. YELLOW OR ORANGE WARNING TAPE SHALL BE BURIED 15" ABOVE ALL GAS, ELECTRIC, TELEPHONE AND T. V. LINES.
5. PRIOR TO PLACEMENT OF GRAVEL, A MINIMUM OF ONE (1) GRADATION TEST SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE FOR EACH DIFFERENT BASE MATERIAL USED EVERY 500' SECTION OF ROAD. A COMPACTION TEST SHALL ALSO BE PERFORMED AT THE CONTRACTOR'S EXPENSE EVERY 200' SECTION OF ROAD OR MORE OFTEN IF THE TEST FAILS TO MEET THE COMPACTION REQUIREMENTS. THE TEST LOCATIONS SHALL BE SELECTED BY THE ENGINEER.

UNCURBED ROADWAY SECTION

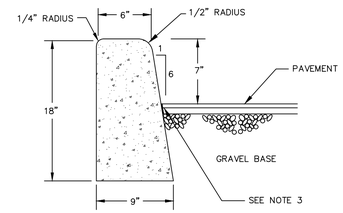
NTS



NOTE: REFER TO SITE PLAN FOR DRIVEWAY WIDTHS

DRIVEWAY SECTION

NTS



END AREA = 0.94 S.F.

NOTES :

1) CURBING SHALL BE CONSTRUCTED WITH 3,500 PSI, (CLASS B) CONCRETE IN 10' SECTIONS WITH 1/8" JOINTS BETWEEN SECTIONS.

2) CURBING EXPANSION JOINTS SHALL BE CONSTRUCTED EVERY 20' AND SHALL BE CONSTRUCTED OF MATERIAL CONFORMING TO AASHTO DESIGNATION M-153 (1/2" SPONGE RUBBER OR CORK).

3) PRIOR TO PAVING, THE PORTION OF CURBING TO BE IN CONTACT WITH THE PAVEMENT SHALL BE COATED WITH EMULSIFIED ASPHALT.

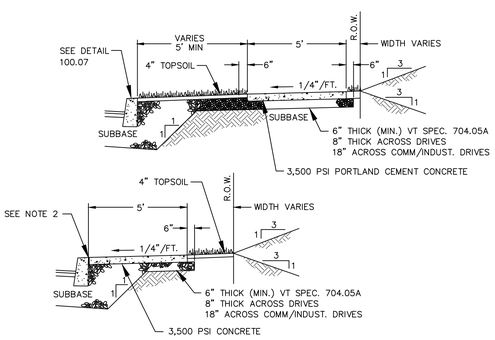
4) ALL EXPOSED CONCRETE CURB SHALL RECEIVE TWO COATS OF ANTI-SPALLING COMPOUND AFTER THE INITIAL CURING PERIOD (APPROXIMATELY 28 DAYS).

CONCRETE CURB

NTS

GENERAL CONSTRUCTION SPECIFICATIONS

1. ALL WORK AND MATERIALS SHALL BE APPROVED BY AND IN ACCORDANCE WITH THE LATEST VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE TOWN SPECIFICATIONS AND REQUIREMENTS, THE WRITTEN TECHNICAL SPECIFICATIONS, AND THESE PLANS.
2. THE CONTRACTOR SHALL CONTACT ALL UTILITIES BEFORE EXCAVATION TO VERIFY THE LOCATION OF ANY UNDERGROUND LINES. THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-344-7233 AND THE TOWN OF ESSEX PUBLIC WORKS DEPARMENT PRIOR TO ANY EXCAVATION.
3. UTILITIES INFORMATION SHOWN HEREON WERE OBTAINED FROM BEST AVAILABLE SOURCE AND MAY OR MAY NOT BE EITHER ACCURATE OR COMPLETE. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, SHOWN OR NOT SHOWN HEREON. CONTRACTOR SHALL CONNECT OR RECONNECT ALL UTILITIES TO THE NEAREST SOURCE THROUGH COORDINATION WITH UTILITY OWNER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND REMOVAL OF ALL EXISTING VEGETATION, PAVEMENT AND STRUCTURES NECESSARY TO CONSTRUCT THIS PROJECT UNLESS OTHERWISE NOTED ON THESE PLANS. THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL, DEBRIS AND TRASH FROM THE SITE UPON COMPLETION OF CONSTRUCTION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS OWN EXPENSE FOR ENSURING THAT THE DUST CREATED AS A RESULT OF CONSTRUCTION DOES NOT CREATE A NUISANCE OR A SAFETY HAZARD. WHERE AND WHEN DEEMED NECESSARY BY THE ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO WET SECTIONS OF THE CONSTRUCTION AREA WITH WATER, APPLY CALCIUM CHLORIDE OR SWEEP ASPHALT ROADS WITH A POWER BROOM AS DUST CONTROL.
6. ANY SURFACES, LINES, OR STRUCTURES WHICH HAVE BEEN DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THE CONDITION AT LEAST EQUAL TO THAT IN WHICH THEY WERE FOUND IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS.
7. THE DESIGN ON THESE PLANS SHALL BE INSPECTED BY O'LEARY-BURKE CIVIL ASSOCIATES, ESSEX JUNCTION, VERMONT, TO ENSURE COMPLIANCE WITH THE PLANS AND REQUIREMENTS. O'LEARY- BURKE WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS THAT MAY ARISE FROM THE FAILURE OF THE CONTRACTOR TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THAT THE PLANS CONVEY, AND FROM FAILURE TO HAVE BEEN NOTIFIED TO INSPECT THE WORKS AND TESTS IN PROGRESS.
8. FOR ANY WORK WITHIN THE HIGHWAY RIGHT-OF-WAY A MINIMUM OF ONE-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. CONTINUOUS TWO-WAY TRAFFIC WILL BE REQUIRED AT NIGHT, DURING PEAK-HOURS, AND WHENEVER POSSIBLE DURING ACTUAL CONSTRUCTION ACTIVITIES. UNIFORMED TRAFFIC CONTROL OFFICERS SHALL DIRECT TRAFFIC DURING PEAK HOURS WHEN THERE IS ONE-WAY TRAFFIC OR WHEN DEEMED NECESSARY BY THE TOWN OR STATE. TEMPORARY CONSTRUCTION SIGNS AND TRAFFIC CONTROL SIGNS SHALL BE ERECTED BY THE CONTRACTOR IN ACCORDANCE WITH STATE AND TOWN STANDARDS.
9. TO ENSURE COMPLIANCE WITH THE PLAN(S), THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE TOWN OF ESSEX PUBLIC WORKS DEPARMENT 24 HOURS IN ADVANCE OF STARTING ANY WORK, CUTTING THE PAVEMENT, BEGINNING THE INSTALLATION OF ANY UTILITIES, BRINGING IN ANY NEW GRAVEL FOR THE NEW BASE, PAVING, AND FINAL INSPECTION.
10. THE HORIZONTAL AND VERTICAL SEPARATION FOR SEWER AND WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE "TEN STATE STANDARDS - RECOMMENDED STANDARDS FOR WATER."
11. TOPSOIL SHALL BE STOCKPILED, SEEDED, AND MULCHED UNTIL REUSED. SILT FENCES SHALL BE PLACED AND STAKED CONTINUOUSLY AROUND THE BOTTOM OF THE TOPSOIL PILES.
12. HEALTHY EXISTING TREES ON AND ADJACENT TO THE SITE SHALL BE SAVED AND PROTECTED AS ORDERED BY THE ENGINEER.
13. OPEN CUT AREAS SHALL BE MULCHED OUTSIDE OF ACTUAL WORK AREAS, AND BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO CONFINE SHEET WASH AND RUNOFF TO THE IMMEDIATE OPEN AREA AS ORDERED BY THE ENGINEER. THE CONTRACTOR SHALL REFERENCE ALL STORMWATER BMP'S PROVIDED BY THE STATE OF VERMONT
14. AT COMPLETION OF GRADING, SLOPES, DITCHES, AND ALL DISTURBED AREAS SHALL BE SMOOTH AND FREE OF POCKETS WITH SUFFICIENT SLOPE TO ENSURE DRAINAGE.
15. FINISH SLOPES, DITCHES AND DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4 INCHES OF TOPSOIL AND BE FERTILIZED, SEEDED, LIMED, AND MULCHED. TURF ESTABLISHMENT SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 OF THE VERMONT HIGHWAY DEPARTMENT SPECIFICATIONS AND THE SPECIFICATIONS INCLUDED ON THESE PLANS.
16. ALL FILL SHALL BE PLACED IN 6 INCH LIFTS AND THOROUGHLY COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 STANDARD PROCTOR, UNLESS OTHERWISE SPECIFIED.
17. DRAINAGE COURSES AND STREAMS SHALL BE CONTROLLED IN DISTURBED CONSTRUCTION AREAS BY THE FOLLOWING METHODS:
    A) PRESERVING NATURAL VEGETATION WHENEVER POSSIBLE;
    B) AVOIDING UNECESSARY DISTURBANCE OF SOILS;
    C) EARLY INSTALLATION OF STORM PIPES AND DITCHES;
    D) SEEDING AND MULCHING DIRECTLY UPON COMPLETION OF CONSTRUCTION;
    E) CONSTRUCTION OF EROSION CONTROL DEVICES AS DIRECTED BY THE ENGINEER.
18. THE SILT FENCES, DITCHES, AND OTHER EROSION CONTROL DEVICES, SHALL BE INSPECTED, MAINTAINED AND REPAIRED BY THE CONTRACTOR AFTER EVERY RAINFALL OR AS ORDERED BY THE ENGINEER UNTIL ALL DISTURBED AREAS HAVE BEEN GRASSED AND APPROVED BY THE ENGINEER. THE MAINTENANCE OF THE EROSION CONTROL DEVICES WILL INCLUDE REMOVAL OF ANY ACCUMULATED SEDIMENTATION.
19. PRIOR TO CONSTRUCTION, ALL MATERIALS SHALL BE APPROVED BY THE ENGINEER. ALL MATERIALS TO BE TAKEN OVER BY THE TOWN SHALL BE APPROVED BY THE PUBLIC WORKS DEPARMENT.
20. ALL WORK INCLUDING BUT NOT LIMITED TO SHALL CONFORM TO THE WILLISTON PUBLIC WORKS STANDARD SPECIFICATIONS

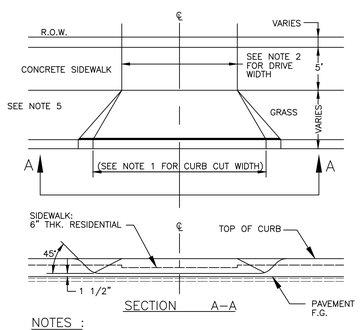


NOTES:

1. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3,500 PSI AT 28 DAYS AND SHALL BE AIR ENTRAINED WITH AN ADMIXTURE PRODUCING AN AIR CONTENT OF 5% TO 7% BY VOLUME.
2. HALF INCH (1/2") TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT INTERVALS NOT EXCEEDING TWENTY FEET (20'). SIDEWALKS SHALL BE SCORED TO A DEPTH OF ONE INCH (1") EVERY FIVE (5') FEET. CURB AND SIDEWALK SECTIONS SHALL BE SEPARATED BY A PREMOLDED JOINT FILLER.
3. AFTER THE INITIAL CURING PERIOD IS OVER (APPROXIMATELY 28 DAYS), ALL EXPOSED SURFACES SHALL RECEIVE TWO COATS OF ANTI-SPALLING COMPOUND.
4. SEE WRITTEN SPECIFICATION FOR APPROVED CONSTRUCTION METHODS AND MATERIAL REQUIREMENTS.
5. SIDEWALK BASE SHALL BE VT SPEC. 704.05A OR APPROVED EQUAL
6. SIDEWALKS AT RESIDENTIAL DRIVEWAY CROSSING SHALL BE AT LEAST 8" THICK.
7. WHEN CONNECTING NEW SIDEWALK TO AN EXISTING SIDEWALK, STEEL DOWELS SHALL BE DRILLED INTO THE EXISTING SIDEWALK A MINIMUM OF 6" AND SHALL EXTEND INTO THE NEW SIDEWALK A MINIMUM OF 6".

TYPICAL SIDEWALK SECTION

NTS



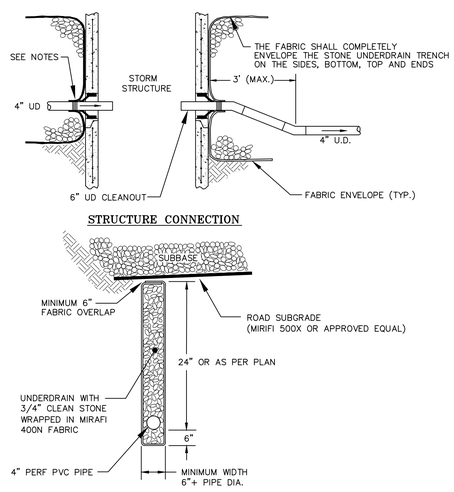
SECTION A-A

NOTES :

1) CURB CUT WIDTHS SHALL BE AS FOLLOWS
   SINGLE DRIVE: 15 FEET (MIN.)
   DOUBLE DRIVE: 20 FEET (MAX.)
   COMMERCIAL DRIVE: 45 FEET (MAX.)
2) DRIVE WIDTHS SHALL BE AS FOLLOWS
   SINGLE DRIVE: 10 FEET (MIN.)
   DOUBLE DRIVE: 15 FEET (MAX.)
   COMMERCIAL DRIVE: 40 FEET (MAX.)
3) ALL APRONS WITHIN PUBLIC RIGHTS-OF-WAY SHALL BE PAVED.
4) APRON SUBBASE SHALL MATCH THE ROADWAY SUBBASE FOR MATERIALS AND THICKNESS.
5) CURBING EXPANSION JOINTS SHALL BE CONSTRUCTED BETWEEN DRIVE APRON AND CURB.

DRIVEWAY APRON

NTS



NOTE

1. THE FABRIC SHALL BE PULLED AROUND THE PIPE AND WRAPPED WITH DUCT TAPE OR WIRE TO PROVIDE A TIGHT ANCHOR.
2. CAST IN PLACE RUBBER BOOTS SHALL BE USED AROUND ALL STRUCTURE PENETRATIONS.

ROADWAY UNDERDRAIN

NTS

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

DATE	REVISION		BY
SURVEY: OBCA	☐ RECORD DRAWING ■ PRELIMINARY ☐ FINAL ☐ SKETCH/CONCEPT	HOMESTEAD CAMPGROUND — GEORGIA, VERMONT	DATE: 1/18/24
DESIGN: BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC		JOB #: 2081-44
DRAWN: GRT	13 CORPORATE DRIVE, ESSEX JUNCTION, VT 05452, PHONE: 802-878-9990, FAX: 802-878-9989, E-MAIL: obca@olearyburke.com		FILE: 2018-44-23
CHECKED: BWC		ROADWAY DETAILS	SHEET #: 10
SCALE: 1" = 40'			

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SEWAGE DESIGN INFORMATION

1. IT IS THE OPINION OF THE ENGINEER THAT THE SOIL CONDITIONS WITHIN THE PROPOSED SEWAGE DISPOSAL AREAS MEET THE STATE OF VERMONT EPR RULES & ARE SUITABLE FOR CONVENTIONAL SEWAGE DISPOSAL AS SHOWN ON THIS PLAN.
2. THE SEWAGE DISPOSAL SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF COLCHESTER REGULATIONS AND THE VERMONT ENVIRONMENTAL PROTECTION RULES.
3. THE FOLLOWING MINIMUM ISOLATION DISTANCES SHALL BE MAINTAINED FROM THE DISPOSAL AREA TO:

PROPERTY LINE	25 FEET
BUILDINGS (UPSLOPE / SIDESLOPE)	20 FEET
BUILDINGS (DOWNSLOPE)	75 FEET
DRIVEWAYS	10 FEET
TREES	10 FEET

4. BASIS OF DESIGN:

TYPICAL 3-BEDROOM SINGLE-FAMILY HOME SEWAGE SYSTEM:

DESIGN FLOW:	420 GPD
APPLICATION RATE (FINE SAND):	1.0 GAL/DAY/SF
REQUIRED ABSORPTION AREA:	
420 GPD / 1.0 GAL/DAY/SF =	420 SF
PROPOSED PRIMARY SYSTEM:	
THREE (3) TRENCHES @ 4 FT X 35 FT =	420 SF PROVIDED
PROPOSED INTER-FINGERED REPLACEMENT AREA:	
THREE (3) TRENCHES @ 4 FT X 35 FT =	420 SF PROVIDED

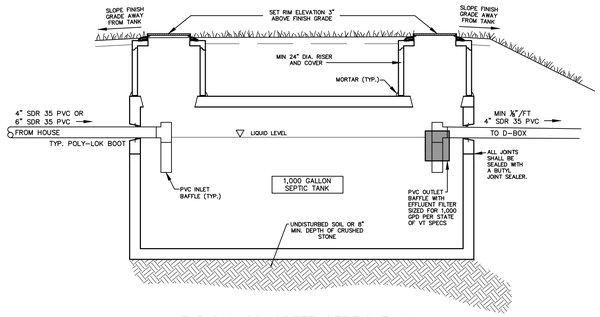
TWO (2) 3-BEDROOM SINGLE-FAMILY HOME SHARED SEWAGE SYSTEM:

DESIGN FLOW:	840 GPD
APPLICATION RATE (FINE SAND):	1.0 GAL/DAY/SF
REQUIRED ABSORPTION AREA:	
840 GPD / 1.0 GAL/DAY/SF =	840 SF
PROPOSED PRIMARY SYSTEM:	
THREE (3) TRENCHES @ 4 FT X 70 FT =	840 SF PROVIDED
PROPOSED INTER-FINGERED REPLACEMENT AREA:	
THREE (3) TRENCHES @ 4 FT X 70 FT =	840 SF PROVIDED

5. SEPTIC TANK:
   3-BEDROOM HOME DESIGN FLOW = 420 GPD > 560 GPD = 1,000 GAL
   (2) 3-BEDROOM HOME SHARED SYSTEM = 840 GPD X 2 = 1,680 GAL MIN.

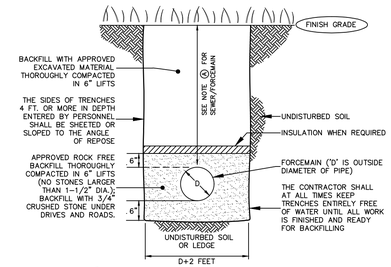
A. USE 1,000 GALLON (TYPICAL S.F. HOME) AND 2,000 GALLON (SHARED SYSTEM) PRECAST CONCRETE SEPTIC TANKS, CAMP PRECAST OR APPROVED EQUAL, WITH TWO ACCESS COVERS; 4,000 PSI CONCRETE; WATERPROOF JOINTS AND SET ON THOROUGHLY COMPACTED SUBBASE. THE OUTLET BAFFLE SHALL HAVE AN EFFLUENT FILTER.

B. THE USE OF GARBAGE DISPOSALS IS NOT ALLOWED.



TYPICAL CONCRETE SEPTIC TANK

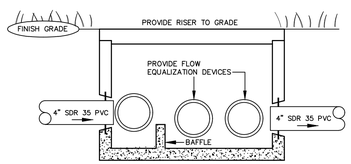
NTS



NOTE Ⓐ (FOR SEWER AND FORCEMAIN TRENCHES):
IF COVER IS LESS THAN 4' OVER FORCEMAIN, PLACE 2' WIDE BY 4" THICK INSULATION BOARD, SUITABLE FOR BURIAL, ON A 6" BED OF SAND OVER THE PIPE. IN NO CASE SHALL DEPTH OF FORCEMAIN COVER BE LESS THAN 3'. BUILDING SEWER SHALL HAVE A MIN. DEPTH OF COVER OF 2'.

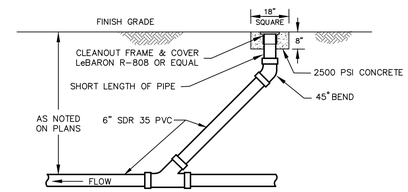
TYPICAL SEWER & FORCEMAIN TRENCH

NTS



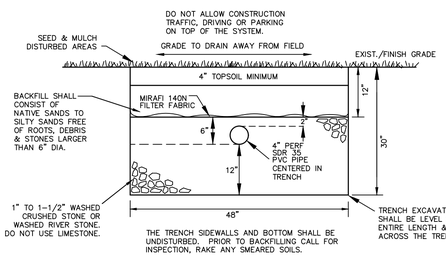
TYPICAL GRAVITY DISTRIBUTION BOX

NTS



SEWER CLEANOUT DETAIL

NTS



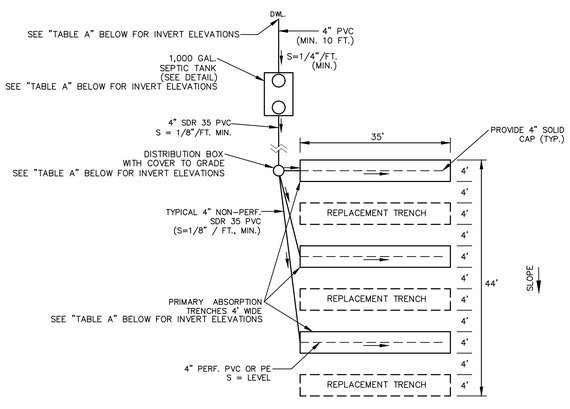
ABSORPTION TRENCH (CONVENTIONAL SYSTEM)
(LOTS 1, 2, AND 3)

NTS

TABLE A – SEWAGE SYSTEM INVERT ELEVATIONS KEY

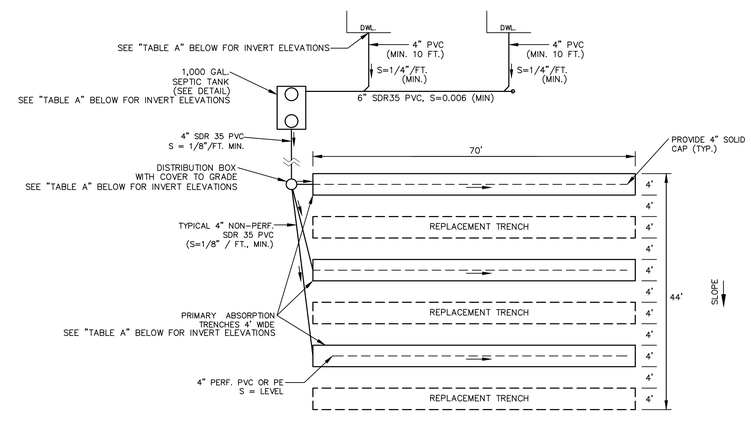
SYSTEM	HOUSE	SEPTIC TANK			D-BOX		TRENCH LATERALS					
	4" OUTLET	4" INLET	4" OUTLET	(2) COVERS	4" INLET	4" OUTLETS	#1 (PRIMARY)	#2 (REPLACEMENT)	#3 (PRIMARY)	#4 (REPLACEMENT)	#5 (PRIMARY)	#6 (REPLACEMENT)
LOT 8 INDIVIDUAL SEWAGE SYSTEM	387.5' (MIN.)	387.25'	387.0'	* 390.0'	386.8'	386.7'	386.5'	386.5'	386.5'	386.5'	386.5'	386.5'
LOT 9 INDIVIDUAL SEWAGE SYSTEM	387.5' (MIN.)	387.25'	387.0'	* 390.0'	386.8'	386.7'	386.5'	386.5'	386.5'	386.5'	386.5'	386.5'
LOT 10 INDIVIDUAL SEWAGE SYSTEM	387.0' (MIN.)	386.75	386.5'	* 390.0'	386.3'	386.2'	386.0'	386.0'	386.0'	386.0'	386.0'	386.0'
LOT 11 INDIVIDUAL SEWAGE SYSTEM	386.5' (MIN.)	386.25'	386.0'	* 390.0'	375.8'	375.7'	385.5'	385.5'	385.5'	385.5'	385.5'	385.5'
LOT 12 SHARED SEWAGE SYSTEM	387.0' (MIN.)	386.75	386.5'	* 390.0'	386.3'	386.2'	386.0'	386.0'	386.0'	386.0'	386.0'	386.0'
LOT 13 SHARED SEWAGE SYSTEM	387.0' (MIN.)	386.75	386.5'	* 390.0'	386.3'	386.2'	386.0'	386.0'	386.0'	386.0'	386.0'	386.0'

* COVERS TO BE SET 3"–6" ABOVE EXISTING GROUND.



TYPICAL 3-BEDROOM SINGLE-FAMILY HOME SEWAGE DISPOSAL SYSTEM LAYOUT

NTS



TWO (2) SINGLE-FAMILY HOME SHARED SEWAGE DISPOSAL SYSTEM LAYOUT

NTS

GENERAL SPECIFICATIONS

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST AGENCY OF NATURAL RESOURCES STANDARDS, 10-STATE STANDARDS, AWWA STANDARDS, AND THESE PLANS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS OWN EXPENSE FOR ENSURING THAT THE DUST CREATED AS A RESULT OF CONSTRUCTION DOES NOT CREATE A NUISANCE OR A SAFETY HAZARD. WHERE AND WHEN DEEMED NECESSARY BY THE ENGINEER, THE CONTRACTOR WILL BE REQUIRED TO WET SECTIONS OF THE CONSTRUCTION AREA WITH WATER OR APPLY CALCIUM CHLORIDE OR SWEEP THE ROADWAY WITH A POWER BROOM AS DUST CONTROL.
3. ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEEDING AND MULCHING PRIOR TO OCTOBER 1 OF EACH YEAR. ANY DISTURBED AREAS OUTSIDE THE ROADWAY SHALL BE IMMEDIATELY SEEDED AND MULCHED WITHIN 15 DAYS. ANY WORK PERFORMED AFTER OCTOBER 1 OF EACH YEAR SHALL BE STABILIZED WITH MULCH AND NETTING SUFFICIENT TO PREVENT EROSION AND SHALL BE IMMEDIATELY SEEDED AND REMULCHED AS SOON AS WEATHER PERMITS IN THE SPRING.
4. THE CONTRACTOR SHALL ENCLOSE THE TRUNKS OF LARGE TREES NEAR THE NEAR THE NEW CONSTRUCTION WITH SNOW FENCING TO PROTECT THE TREES FROM INJURY BY EQUIPMENT.
5. ALL SLOPES, DITCHES, AND DISTURBED AREAS SHALL BE GRADED SMOOTH AND BE FREE OF POCKETS WITH SUFFICIENT SLOPE TO ENSURE DRAINAGE.
6. ALL FILL OR BACKFILL SHALL BE PLACED IN 6 INCH LIFTS AND THOROUGHLY COMPACTED TO 95% OF MAXIMUM DENSITY OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 STANDARD PROCTOR.
7. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4 INCHES OF TOPSOIL AND BE SEEDED, FERTILIZED, LIMED, AND MULCHED IN ACCORDANCE WITH THE FOLLOWING:
   - A) SEED MIXTURE IN ALL AREAS SHALL BE URBAN MIX CONFORMING TO THE TABLE TO THE RIGHT. FOR SEEDING BETWEEN SEPTEMBER 1 AND OCTOBER 1, WINTER RYE SHALL BE USED AT A RATE OF 100 LBS PER ACRE.
   - B) FERTILIZER SHALL BE STANDARD COMMERCIAL GRADE CONFORMING TO THE STATE FERTILIZER LAW AND TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. DRY FERTILIZER, IF USED, SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. LIQUID FERTILIZER, IF USED, SHALL BE APPLIED IN A 1-2-1 RATIO WITH THE MINIMUM RATE TO INCLUDE 100 POUNDS OF NITROGEN, 200 POUNDS OF PHOSPHATE, AND 100 POUNDS OF POTASH PER ACRE.
   - C) LIMESTONE SHALL CONFORM TO ALL STATE AND FEDERAL REGULATIONS AND TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. THE LIMESTONE SHALL BE APPLIED AT A RATE OF ONE TON PER ACRE AS DIRECTED.
   - D) WITHIN 24 HOURS OF APPLICATION OF FERTILIZER, LIME, AND SEED, THE SURFACE SHALL BE MULCHED WITH A HAY MULCH. MULCH SHALL BE SPREAD UNIFORMLY OVER THE AREA AT A RATE OF TWO TONS PER ACRE AS ORDERED BY THE ENGINEER.
   - E) ALL TURF ESTABLISHMENT SHALL BE PERFORMED IN ACCORDANCE WITH THE VERMONT STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTION 651.
   - F) TOPSOIL SHALL BE STOCKPILED, SEEDED, AND MULCHED UNTIL REUSED. HAYBALES SHALL BE PLACED AND STAKED CONTINUOUSLY AROUND THE BOTTOM OF THE TOPSOIL PILES.

STAKE-OUT REQUIREMENTS

1. THE SEWAGE SYSTEM LOCATIONS SHALL BE STAKED OR VERIFIED BY O'LEARY-BURKE CIVIL ASSOCIATES, PLC. PRIOR TO CONSTRUCTION.

TESTING REQUIREMENTS

THE CONTRACTOR SHALL FURNISH ALL FACILITIES AND PERSONNEL FOR CONDUCTING THE FOLLOWING TESTS:

1. STRUCTURES TEST:
   THE SEPTIC TANKS SHALL BE TESTED BY FILLING WITH WATER TO A POINT ONE (1) FOOT BELOW THE ACCESS LID UNLESS A TOP JOINT TANK IS USED. A STABILIZATION PERIOD OF ONE (1) HOUR SHALL BE PROVIDED TO ALLOW FOR ABSORPTION. AT THE END OF THE STABILIZATION PERIOD, THE STRUCTURES SHALL BE REFILLED IF NECESSARY TO ONE (1) FOOT BELOW THE ACCESS LID AND THE TEST PERIOD OF 24 HOURS SHALL BEGIN. AT THE END OF THE TEST, THERE SHALL BE NO VISIBLE OR MEASURABLE EXFILTRATION OR INFILTRATION, OR THE TEST SHALL BE CONSIDERED FAILED. IF THE TEST FAILS, THE CONTRACTOR SHALL REPAIR OR WATERPROOF AND RE-TEST AT NO EXTRA EXPENSE TO THE OWNER.
2. FORCE MAIN PRESSURE TEST:
   THE PVC FORCE MAIN SHALL BE FILLED WITH WATER AND TESTED BY THE CONTRACTOR TO A MINIMUM PRESSURE OF 50 PSI AT THE HIGHEST POINT ALONG THE FORCE MAIN FOR TWO HOURS AND THE PRESSURE SHALL NOT VARY MORE THAN 5 PSI. THE NEW LINES SHALL NOT BE ACCEPTED IF THE LEAKAGE DURING THE TWO-HOUR TEST IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA:

   WHERE $L = \frac{ND\sqrt{P}}{7{,}400}$

   L = THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR
   N = THE NUMBER OF JOINTS IN THE LENGTH OF PIPELINE TESTED
   D = THE NOMINAL DIAMETER OF THE PIPE IN INCHES
   P = THE AVERAGE TEST PRESSURE DURING THE LEAKAGE TEST IN POUNDS PER SQUARE INCH

   LEAKAGE IS DEFINED AS THE QUANTITY OF WATER THAT MUST BE SUPPLIED INTO THE NEWLY LAID PIPE TO MAINTAIN THE PRESSURE OF 50 PSI. THE CONTRACTOR SHALL AT ONCE LOCATE ANY LEAKS AND ACHIEVE THE ACCEPTABLE LIMIT AT NO EXTRA CHARGE TO THE OWNER.
3. PUMP STATION TEST (LOTS 4, 5, 6, 7, AND 8):
   THE CONTRACTOR AND THE ENGINEER SHALL BE PRESENT DURING START-UP. THE CONTRACTOR SHALL PROVIDE A WATER SOURCE TO PERFORM A FULL OPERATIONAL CHECK OF THE STATION, INCLUDING ALL FLOAT FUNCTIONS AND ALARM TESTING. THE PUMP SHALL BE FIELD-TESTED TO INSURE THE TESTED TO PUMPING CAPACITY MEETS THE PROJECT REQUIREMENTS.
4. DISTRIBUTION LINES TEST (LOTS 4, 5, 6, 7, AND 8):
   THE ENGINEER MUST PERFORM A PRESSURE AND DISTRIBUTION TEST OF THE LATERALS BEFORE COVERING. AFTER DRILLING THE HOLES AS SPECIFIED & BEFORE TURNING ORIFICES DOWNWARD & INSTALLING ORIFICE SHIELDS, THE UNIFORMITY & HEIGHT SHALL BE TESTED. WHILE PRESSURIZED BY THE PUMP STATION, THE HEIGHT OF THE WATER COLUMN BEING DISCHARGED FROM EACH HOLE WILL BE MEASURED TO VERIFY ADEQUATE PRESSURE AND EVEN DISTRIBUTION. WATER COLUMNS 2.3 FT OR HIGHER WILL CONSTITUTE A PASSING TEST.

PRESSURIZED SYSTEM CONSTRUCTION REQUIREMENTS

1. THE OULET PIPE FROM THE SEPTIC TANK TO THE PUMP STATION SHALL BE 4" SDR 35 PVC, AT A MINIMUM SLOPE OF 1/8"/FT. THE PIPE SHALL BE LAID ON UNDISTURBED GROUND OR PROPERLY BEDDED.
2. WHEN THE TRENCHES HAVE BEEN EXCAVATED, THE SIDES AND BOTTOM SHALL BE RAKED TO LOOSEN ANY SMEARED SOIL SURFACES.
3. CONSTRUCTION EQUIPMENT SHALL BE KEPT OFF THE AREA TO BE USED FOR SEWAGE DISPOSAL AS MUCH AS POSSIBLE TO PREVENT COMPACTION OF THE SOILS.
4. PLACEMENT OF CRUSHED STONE IN THE TRENCHES SHALL BE INITIATED IMMEDIATELY AFTER TRENCH EXCAVATION IS COMPLETED. THIS WILL REQUIRE THAT THE ENGINEER & AUTHORIZED TOWN INSPECTOR BE PRESENT AT THE TIME OF COMPLETION OF TRENCH EXCAVATION (SEE INSPECTION SPECIFICATIONS).
5. 12" OF CLEAN CRUSHED STONE (1 TO 1-1/2 INCHES) SHALL BE PLACED IN THE BOTTOM OF THE TRENCHES IN ACCORDANCE WITH THE PLANS. THE DISTRIBUTION LINE SHALL BE CAREFULLY PLACED ON THE BEDDING AT A UNIFORM SLOPE (1/8 INCH PER 10 FEET) AND COVERED WITH AT LEAST 2 INCHES OF STONE. THE ENDS OF THE DISTRIBUTION LINES SHALL BE CAPPED.
6. THE GRADING SHALL DIRECT RUN-OFF AWAY FROM THE SEPTIC SYSTEM AREAS AND BE SMOOTH AND FREE OF POCKETS WITH SUFFICIENT SLOPE TO ENSURE DRAINAGE. SEE TESTING REQUIREMENTS #4 FOR LATERAL DISCHARGE REQUIREMENTS

CONVENTIONAL SYSTEM CONSTRUCTION REQUIREMENTS

1. THE OULET PIPE FROM THE SEPTIC TANK TO THE DISTRIBUTION BOX SHALL BE 4" SDR 35 PVC, AT A MINIMUM SLOPE OF 1/8"/FT. THE PIPE SHALL BE LAID ON UNDISTURBED GROUND OR PROPERLY BEDDED.
2. A DISTRIBUTION BOX SHALL BE INSTALLED BETWEEN THE SEPTIC TANK AND THE ABSORPTION TRENCHES. THE DISTRIBUTION BOX SHALL BE SET LEVEL, ON UNDISTURBED GROUND TO EVENLY DISTRIBUTE THE EFFLUENT TO EACH DISTRIBUTION LINE. ADEQUATE PROVISIONS SHALL BE TAKEN TO ASSURE THE STABILITY AND ACCESSIBILITY OF THE DISTRIBUTION BOX FOR INSPECTIONS. LEVELNESS OF THE DISTRIBUTION BOX SHALL BE WITNESSED BY THE ENGINEER & AN AUTHORIZED TOWN REPRESENTATIVE.
3. EACH DISTRIBUTION LINE SHALL CONNECT INDIVIDUALLY TO THE DISTRIBUTION BOX AND EXIT AT THE SAME SLOPE FOR THE FIRST 5 FEET TO 10 FEET. THE PIPE CONNECTING THE DISTRIBUTION BOX TO THE DISTRIBUTION LINES SHALL BE WATERTIGHT AND LAID ON UNDISTURBED GROUND OR PROPERLY BEDDED.
4. WHEN THE TRENCHES HAVE BEEN EXCAVATED, THE SIDES AND BOTTOM SHALL BE RAKED TO LOOSEN ANY SMEARED SOIL SURFACES.
5. CONSTRUCTION EQUIPMENT SHALL BE KEPT OFF THE AREA TO BE USED FOR SEWAGE DISPOSAL AS MUCH AS POSSIBLE TO PREVENT COMPACTION OF THE SOILS.
6. PLACEMENT OF CRUSHED STONE IN THE TRENCHES SHALL BE INITIATED IMMEDIATELY AFTER TRENCH EXCAVATION IS COMPLETED. THIS WILL REQUIRE THAT THE ENGINEER & AUTHORIZED TOWN INSPECTOR BE PRESENT AT THE TIME OF COMPLETION OF TRENCH EXCAVATION (SEE INSPECTION SPECIFICATIONS).
7. 12" OF CLEAN CRUSHED STONE (1 TO 1-1/2 INCH) SHALL BE PLACED IN THE BOTTOM OF THE TRENCHES IN ACCORDANCE WITH THE PLANS. THE DISTRIBUTION LINE SHALL BE CAREFULLY PLACED ON THE BEDDING AT A UNIFORM SLOPE (1/8 INCH PER 10 FEET) AND COVERED WITH AT LEAST 2 INCHES OF STONE. THE ENDS OF THE DISTRIBUTION LINES SHALL BE CAPPED.
8. THE GRADING SHALL DIRECT RUN-OFF AWAY FROM THE SEPTIC SYSTEM AREAS AND BE SMOOTH AND FREE OF POCKETS WITH SUFFICIENT SLOPE TO ENSURE DRAINAGE.

INSPECTION REQUIREMENTS

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER & AUTHORIZED TOWN INSPECTOR A MINIMUM OF 24 HOURS IN ADVANCE FOR INSPECTION OF THE BOTTOM OF THE TRENCHES PRIOR TO PLACEMENT OF STONE AND PIPING.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER & AUTHORIZED TOWN INSPECTOR A MINIMUM OF 24 HOURS IN ADVANCE FOR INSPECTION OF THE SYSTEM PRIOR TO BACKFILLING, INCLUDING THE DISTRIBUTION BOX (LOTS 2, 3 & 4 AND LOT 6 REPLACEMENT AREA) LEVELNESS CHECK & SEPTIC TANK.
3. THIS DESIGN MUST BE INSPECTED BY O'LEARY-BURKE CIVIL ASSOCIATES, PLC ESSEX JUNCTION, VERMONT TO ENSURE COMPLIANCE WITH THESE PLANS, O'LEARY-BURKE CIVIL ASSOCIATES WAIVES ANY AND ALL RESPONSIBILTY AND LIABILITY FOR PROBLEMS THAT ARISE FROM FAILURE TO FOLLOW FAILURE TO FOLLOW SPECIFICATIONS, AND THE DESIGN INTENT THAT THE THE PLANS CONVEY, ARISE FROM FAILURE TO HAVE BEEN NOTIFIED BY THE CONTRACTOR FOR INSPECTIONS.

OPERATION & MAINTENANCE RECOMMENDATIONS

1. THE SEPTIC TANK'S PURPOSE IS TO SETTLE OUT SOLIDS, CONTAIN THE SCUM AND PASS TREATED EFFLUENT. BACTERIA WITHIN THE SEPTIC TANK HELPS DECOMPOSE THE SOLIDS. SHOULD ANY SOLIDS PASS THROUGH THE SEPTIC TANK INTO THE SYSTEM, PREMATURE CLOGGING OF THE PIPING, STONE OR NATIVE SOIL BENEATH THE SYSTEM IS LIKELY TO OCCUR. ONLY HUMAN WASTES SHOULD ENTER THE SEWAGE SYSTEM, WATER USE SHOULD BE CONSERVATIVE AND CLEANING AGENTS CAN NOT ENTER THE SYSTEM, AS THEY KILL BACTERIA.
2. THE STATE FLOW FIGURES OF ARE BASED ON SHORT TERM PEAK USE PERIODS (IE. DAILY EVENTS). ACTUAL FLOWS FOR A 4 BEDROOM HOME SHOULD AVERAGE 175 – 225 GALLONS PER DAY.
3. ONCE PER YEAR, THE DEPTH OF SCUM AND SLUDGE IN THE SEPTIC TANK SHOULD BE MEASURED AND THE TANK SHALL BE PUMPED IF:
   - A) THE SLUDGE LEVEL IS WITHIN 12 INCHES OF THE BOTTOM OF THE INLET TEE.
   - B) THE SCUM LAYER IS WITHIN 3 INCHES OF THE TOP OF THE OUTLET TEE.
   - C) IF A OR B IS ANTICIPATED TO OCCUR PRIOR TO THE NEXT INSPECTION.
   - D) IN ANY CASE, THE TANK SHALL BE PUMPED AT A MAXIMUM 5 YEAR INTERVAL.
4. ONCE A YEAR, THE DISTRIBUTION BOX SHOULD BE INSPECTED AND ANY SETTLED SOLIDS REMOVED.
5. ONCE A YEAR, THE PUMP STATION (LOTS 5–8) SHOULD BE INSPECTED FOR PROPER OPERATION AND SETTLED SOLIDS REMOVED, IF ANY.
6. ABOVE ITEMS 1 – 5 ARE INTENDED TO PROLONG THE LIFE OF THE SYSTEM, NOT GUARANTEE IT. A PROPERLY OPERATED & MAINTAINED SYSTEM GENERALLY FUNCTIONS PROPERLY FOR 8 – 25 YEARS.

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

DATE	REVISION		BY
SURVEY: OBCA	☐ RECORD DRAWING ■ PRELIMINARY ☐ FINAL ☐ SKETCH/CONCEPT	HOMESTEAD CAMPGROUND — GEORGIA, VERMONT	DATE: 1/18/24
DESIGN: BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC		JOB #: 2081-44
DRAWN: GRT			FILE: 2018-44-23
CHECKED: BWC	13 CORPORATE DRIVE, ESSEX JUNCTION, VT 05452, PHONE: 802-878-9990, FAX: 802-878-9989, E-MAIL: obca@olearyburke.com	INDIVIDUAL SEWAGE DISPOSAL DETAILS	SHEET #: 11
SCALE: 1" = 40'			

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Soil Logs – Homestead Campground – Georgia, VT
Logged by Graham R. Tidman, BW on 8/31/18

Test Pit #1
0 – 5" FSL, SG, LOOSE, 10 YR 3/3 (DRK BRN)
5 – 10" FSL, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
10 – 32" FS, SG, LOOSE, 10 YR 4/3 (BRN)
32 – 44" FS, SG, LOOSE, 10 YR 4/2 (DRK GRYSH BRN)
44 – 75" VFS, SG, FR, 10 YR 4/2 (DRK GRYSH BRN)
Water @ 75", No Ledge, Redox @ 33"

Test Pit #2
0 – 6" FSL, SG, LOOSE, 10 YR 3/3 (DRK BRN)
6 – 12" FSL, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
12 – 46" FS, SG, LOOSE, 10 YR 4/3 (BRN)
46 – 54" FS, SG, LOOSE, 10 YR 4/2 (DRK GRYSH BRN)
54 – 84" VFS, SG, FR, 10 YR 4/1 (DRK GRY)
No Water, No Ledge, Redox @ 30"

Test Pit #3
0 – 5" L, SG, LOOSE, 10 YR 3/3 (DRK BRN)
5 – 11" FSL, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
11 – 25" FS, SG, LOOSE, 10 YR 4/3 (BRN)
25 – 50" FS, SG, LOOSE, 10 YR 4/2 (DRK GRYSH BRN)
50 – 84" VFS, SG, FR, 10 YR 4/1 (DRK GRY)
No Water, No Ledge, Redox @ 50"

Test Pit #4
0 – 10" L, SG, LOOSE, 10 YR 3/3 (DRK BRN)
10 – 15" FS, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
15 – 30" FS, SG, LOOSE, 10 YR 4/3 (BRN)
30 – 72" FS, SG, LOOSE, 10 YR 4/2 (DRK GRYSH BRN)
72 – 84" S, SG, LOOSE, 10 YR 4/3 (BRN)
84 – 90" VFS, SG, FR, 10 YR 4/3 (BRN)
No Water, No Ledge, No Redox

Test Pit #5
0 – 11" L, SG, LOOSE, 10 YR 3/3 (DRK BRN)
11 – 19" FS, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
19 – 28" FS, SG, LOOSE, 10 YR 5/4 (YLLWSH BRN)
28 – 42" FS, SG, LOOSE, 10 YR 4/3 (BRN)
42 – 61" S, SG, LOOSE, 10 YR 5/2 (GRYSH BRN)
61 – 84" VFS, SG, FR, 10 YR 5/3 (BRN)
No Water, No Ledge, No Redox

Test Pit #6
0 – 10" FSL, SG, LOOSE, 10 YR 3/3 (DRK BRN)
10 – 15" FSL, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
15 – 30" FS, SG, LOOSE, 10 YR 4/3 (BRN)
30 – 72" FS, SG, LOOSE, 10 YR 5/3 (BRN)
72 – 84" S, SG, LOOSE, 10 YR 5/3 (BRN)
84 – 90" VFS, SG, FR, 10 YR 4/2 (DRK GRYSH BRN)
No Water, No Ledge, Redox @ 82"

Test Pit #7
0 – 6" FSL, SG, LOOSE, 10 YR 3/3 (DRK BRN)
6 – 14" FSL, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
14 – 21" FS, SG, LOOSE, 10 YR 4/3 (BRN)
21 – 43" VFS, SG, LOOSE, 10 YR 5/3 (BRN)
43 – 60" S, SG, LOOSE, 10 YR 5/3 (BRN)
60 – 84" VFS, SG, FR, 10 YR 4/2 (DRK GRYSH BRN)
No Water, No Ledge, Redox @ 58"

Test Pit #8
0 – 6" FSL, SG, LOOSE, 10 YR 3/3 (DRK BRN)
6 – 14" FSL, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
14 – 27" FS, SG, LOOSE, 10 YR 4/3 (BRN)
27 – 45" VFS, SG, LOOSE, 10 YR 5/3 (BRN)
45 – 64" S, SG, LOOSE, 10 YR 5/3 (BRN)
64 – 84" VFS, SG, FR, 10 YR 4/2 (DRK GRYSH BRN)
Water @ 72", No Ledge, Redox @ 68"

Test Pit #9
0 – 10" FSL, SG, LOOSE, 10 YR 3/3 (DRK BRN)
10 – 38" FS, SG, LOOSE, 10 YR 5/3 (BRN)
38 – 52" FS, SG, LOOSE, 10 YR 4/3 (BRN)
52 – 84" VFS, SG, FR, 10 YR 4/2 (DRK GRYSH BRN)
Water @ 70", No Ledge, Redox @ 42"

Test Pit #10
0 – 5" FSL, SG, LOOSE, 10 YR 3/3 (DRK BRN)
5 – 12" FSL, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
12 – 21" FS, SG, LOOSE, 10 YR 4/3 (BRN)
21 – 54" VFS, SG, LOOSE, 10 YR 5/3 (BRN)
54 – 72" S, SG, LOOSE, 10 YR 5/3 (BRN)
72 – 84" VFS, SG, FR, 10 YR 4/2 (DRK GRYSH BRN)
No Water, No Ledge, Redox @ 72"

Test Pit #11
0 – 5" FSL, SG, LOOSE, 10 YR 3/3 (DRK BRN)
5 – 12" FSL, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
12 – 22" FS, SG, LOOSE, 10 YR 4/3 (BRN)
22 – 48" VFS, SG, LOOSE, 10 YR 5/3 (BRN)
48 – 56" S, SG, LOOSE, 10 YR 5/3 (BRN)
56 – 84" VFS, SG, FR, 10 YR 4/2 (DRK GRYSH BRN)
No Water, No Ledge, No Redox

Test Pit #12
0 – 6" L, SG, LOOSE, 10 YR 3/3 (DRK BRN)
6 – 15" FSL, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
15 – 21" FS, SG, LOOSE, 10 YR 4/3 (BRN)
21 – 34" FS, SG, LOOSE, 10 YR 4/2 (DRK GRYSH BRN)
34 – 70" VFS, SG, FR, 10 YR 4/1 (DRK GRY)
Water @ 70", No Ledge, Redox @ 30"

Test Pit #13
0 – 6" FSL, SG, LOOSE, 10 YR 3/3 (DRK BRN)
6 – 17" FSL, SG, LOOSE, 10 YR 4/4 (DRK YLLWSH BRN)
17 – 31" FS, SG, LOOSE, 10 YR 4/3 (BRN)
31 – 42" VFS, SG, LOOSE, 10 YR 5/3 (BRN)
42 – 55" S, SG, LOOSE, 10 YR 5/3 (BRN)
55 – 84" VFS, SG, FR, 10 YR 4/2 (DRK GRYSH BRN)
No Water, No Ledge, No Redox

SEWAGE DESIGN INFORMATION

1. IT IS THE OPINION OF THE ENGINEER THAT THE SOIL CONDITIONS WITHIN THE PROPOSED SEWAGE DISPOSAL AREAS MEET THE STATE OF VERMONT EPR RULES & ARE SUITABLE FOR CONVENTIONAL SEWAGE DISPOSAL AS SHOWN ON THIS PLAN.
2. THE SEWAGE DISPOSAL SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF COLCHESTER REGULATIONS AND THE VERMONT ENVIRONMENTAL PROTECTION RULES.
3. THE FOLLOWING MINIMUM ISOLATION DISTANCES SHALL BE MAINTAINED FROM THE DISPOSAL AREA TO:

PROPERTY LINE	25 FEET
BUILDINGS (UPSLOPE / SIDESLOPE)	20 FEET
BUILDINGS (DOWNSLOPE)	75 FEET
DRIVEWAYS	10 FEET
TREES	10 FEET

4. BASIS OF DESIGN:

SYSTEM A:
DESIGN FLOW:
(33) 1–BEDROOM SENIOR UNITS (FUTURE)
33 UNITS X 105 GPD/UNIT = 3,465 GPD
(10) 2–BEDROOM 5–PLEX UNITS
10 UNITS X 245 GPD/UNIT = 2,450 GPD
TOTAL = 5,915 GPD

APPLICATION RATE (FINE SAND): 1.0 GAL/DAY/SF
REQUIRED ABSORPTION AREA:
5,915 GPD / 1.0 GAL/DAY/SF = 5,915 SF
25% REDUCTION – 18" OF STONE UNDER LATERALS: 4,437 SF
(150% REQUIRED SIZE – PRIMARY ONLY): 6,656 SF REQUIRED

PROPOSED SYSTEM:
EIGHT (8) TRENCHES @ 4 FT X 208 FT = 6,656 SF PROVIDED

SYSTEM B:
DESIGN FLOW:
(24) 2–BEDROOM 5–PLEX UNITS = 5,880 GPD
COMMERCIAL USES (TBD) = 610 GPD
TOTAL = 6,490 GPD

APPLICATION RATE (FINE SAND): 1.0 GAL/DAY/SF
REQUIRED ABSORPTION AREA:
6,490 GPD / 1.0 GAL/DAY/SF = 6,490 SF
25% REDUCTION – 18" OF STONE UNDER LATERALS: 4,868 SF
(150% REQUIRED SIZE – PRIMARY ONLY): 7,302 SF REQUIRED

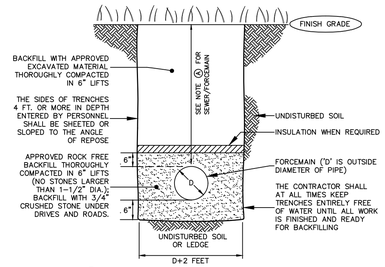
PROPOSED SYSTEM:
FOURTEEN (14) TRENCHES @ 4 FT X 131 FT = 7,336 SF PROVIDED

5. SEPTIC TANK:
SYSTEM A: 5,915 GPD X 2 = 11,830 GAL MINIMUM

A. USE TWO (2) 6,000 GALLON PRECAST CONCRETE SEPTIC TANKS IN SERIES, CAMP PRECAST OR APPROVED EQUAL, WITH TWO ACCESS COVERS; 4,000 PSI CONCRETE; WATERPROOF JOINTS AND SET ON THOROUGHLY COMPACTED SUBBASE. THE OUTLET BAFFLE OF THE SECOND TANK SHALL HAVE AN EFFLUENT FILTER.

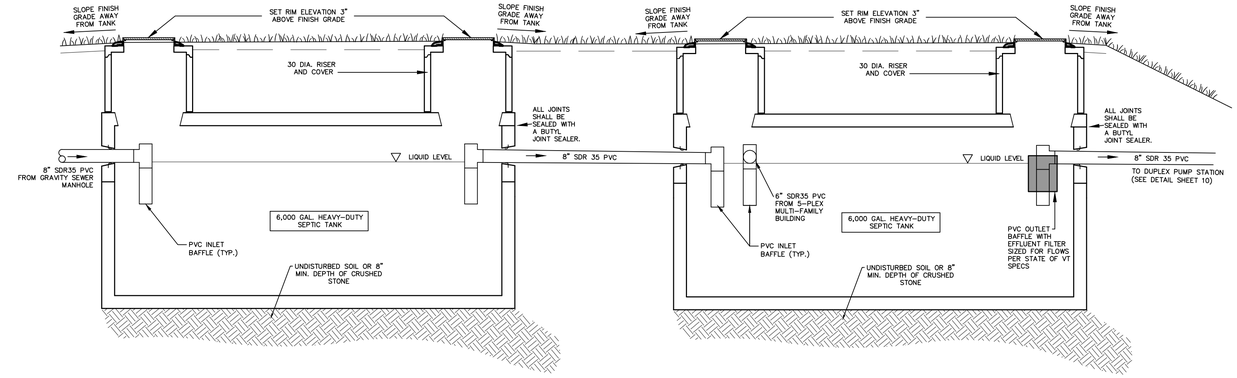
B. THE USE OF GARBAGE DISPOSALS IS NOT ALLOWED.

6. PUMP STATION: SEE DUPLEX PUMP STATION DETAILS SHEET 10.



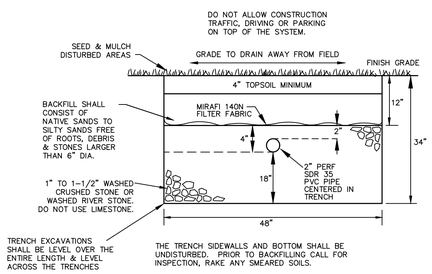
NOTE (A) (FOR SEWER AND FORCEMAIN TRENCHES):
IF COVER IS LESS THAN 5' OVER FORCEMAIN, PLACE 2' WIDE BY 4" THICK INSULATION BOARD, SUITABLE FOR BURIAL, ON A 6" BED OF SAND OVER THE PIPE. IN NO CASE SHALL DEPTH OF FORCEMAIN COVER BE LESS THAN 3'. BUILDING SEWER SHALL HAVE A MIN. DEPTH OF COVER OF 2'.

TYPICAL SEWER & FORCEMAIN TRENCH
NTS



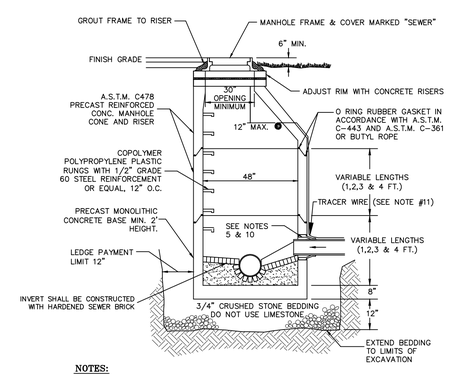
SYSTEM "A" AND "B"
DUAL 6,000 GALLON SEPTIC TANKS IN SERIES
NTS

NOTES:
1. 6,000 GAL SEPTIC TANK SHALL BE CAMP PRECAST HD7–14–6000 OR APPROVED EQUIVALENT.



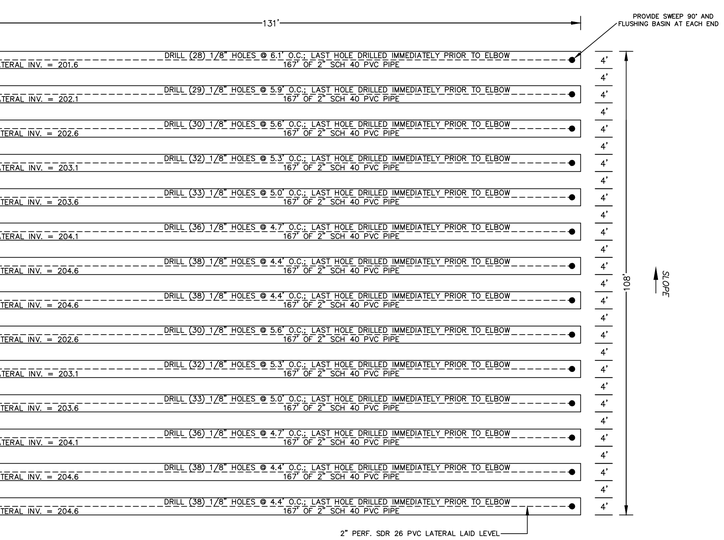
ABSORPTION TRENCH
(SHARED SYSTEMS "A" AND "B")
NTS

SHARED SYSTEM "A" LAYOUT
NTS

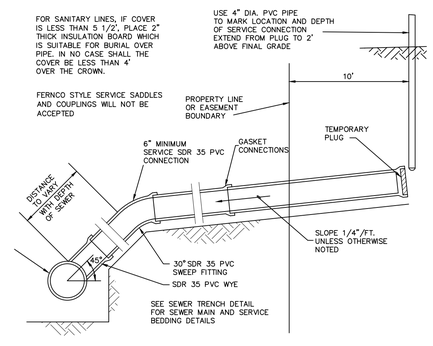


NOTES:
1. THERE SHALL BE NO PARGING OF INTERIOR SURFACES WITH MORTAR. ALL JOINTS SHALL BE SEALED ON EXTERIOR SURFACES ONLY.
2. REFER TO THE WRITTEN SPECIFICATIONS FOR BACKFILL AND COMPACTION REQUIREMENTS
3. REFER TO THE WRITTEN SPECIFICATIONS FOR SANITARY SEWER STRUCTURE MATERIAL REQUIREMENTS AND TESTING REQUIREMENTS.
4. RAISE FRAME TO FINISH GRADE ONLY AFTER BASE COURSE OF PAVEMENT IS IN PLACE. RAISE FRAME TO BASE COURSE GRADE IF WEARING COURSE IS TO BE PLACED NEXT CONSTRUCTION SEASON.
5. CAST IN PLACE RUBBER BOOTS SHALL BE USED ON ALL SEWER CONNECTIONS. A CORE–N–SEAL STYLE BOOT MAY BE USED UPON TOWN APPROVAL.
6. HIGH STRENGTH NON–SHRINK GROUT SHALL BE USED TO SET FRAME AND GRADE RINGS.
7. IN GRASS AREAS, FRAME AND COVER ARE TO BE INSTALLED A MINIMUM OF 6" ABOVE GRADE.
8. BACKFILL MANHOLES WITH MATERIAL APPROVED BY TOWN.
9. IF THE INVERT IN ELEVATION IS GREATER THAN 2' ABOVE THE INVERT OUT ELEVATION, REFER TO DROP MANHOLE DETAIL.
10. FRAME AND COVER SHALL CONFORM TO H–20 LOADING REQUIREMENTS.
11. INSERT A SECTION OF PVC CONDUIT OR TUBING THROUGH THE SIDEWALL OF THE STRUCTURE AS SHOWN FOR THE TRACER WIRE TO ENTER THE STRUCTURE. ONCE THE TRACER WIRE IS INSTALLED, SEAL THE VOID BETWEEN THE CONDUIT OR TUBING AND THE TRACER WIRE WITH A WATERPROOF SEALANT. INSIDE THE MANHOLE, A COIL OF WIRE LONG ENOUGH TO REACH THE COVER SHALL BE ATTACHED TO THE INSIDE OF THE STRUCTURE BY MEANS OF PLASTIC "ZIP–TIES" TO A STAINLESS STEEL RING.

PRECAST SANITARY MANHOLE
NTS



SHARED SYSTEM "B" LAYOUT
NTS



SANITARY SEWER SERVICE CONNECTION
NTS

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1–888–DIG–SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

DATE 1/27/24	REVISION REMOVED FUTURE SENIOR LIVING BUILDING PER TOWN OF GEORGIA REVIEW COMMENTS		BY GRT
SURVEY OBCA	☐ RECORD DRAWING ■ PRELIMINARY ☐ FINAL ☐ SKETCH/CONCEPT	HOMESTEAD CAMPGROUND GEORGIA, VERMONT	DATE 1/18/24
DESIGN BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC		JOB # 2081-44
DRAWN GRT	13 CORPORATE DRIVE ESSEX JUNCTION, VT 05452 PHONE: 802-878-9990 FAX: 802-878-9989 E-MAIL: obca@olearyburke.com	SHARED SEWAGE DISPOSAL DETAILS	FILE 2018-44-23
CHECKED BWC			SHEET # 12
SCALE 1" = 40'			

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PUMP STATION 'A' DATA

A. TOTAL DESIGN FLOW (USING EPR RULES):

(33) SENIOR LIVING UNITS @ 105 GPD/UNIT = 3,465 GPD
(10) 2-BEDROOM CONDO UNITS @ 245 GPD/UNIT = 2,450 GPD

TOTAL DESIGN FLOW FOR SIZING PUMP STATION = 5,915 GPD

B. AVERAGE DAILY FLOW :

$$\frac{5{,}915 \text{ GPD}}{24 \text{ HR/DAY} \times 60 \text{ MIN/HR}} \times 4 = 16.43 \text{ GPM}$$

C. HEAD LOSSES:

STATIC LIFT (389' - 382')	7.0	FT
FRICTION LOSSES	7.0	FT (FORCE MAIN)
MINOR LOSSES	3.0	FT (PUMP STATION)
PRESSURE HEAD TO BE MAINTAINED	3.0	FT
TOTAL HEAD LOSS	20.0	FT

PROVIDE A PUMP CAPABLE OF 80 GPM @ 20' TDH; VELOCITY > 2.0 FT/SEC

D. CYCLE TIME

16 HR DELIVERY RATE

$$\frac{5{,}915 \text{ GPD}}{(16 \text{ HR/DAY})(60 \text{ MIN/HR})} = 6.16 \text{ GPM}$$

FILL TIME = 376 GAL/VF / 6.16 GPM INFLOW = 61.0 MINUTES

PUMP TIME = 376 GALLONS/(80 GPM-6.16 GPM) = 5.1 MINUTES

TOTAL CYCLE TIME = 61.0 + 5.1 = 66.1 MINUTES

E. CONTROLS: NEMA 4 DUPLEX CONTROL PANEL FOUR FLOAT SYSTEM CONTROL LOGIC; AUTOMATIC PUMP ALTERNATOR; 115 VAC CONTROL CIRCUIT; INDIVIDUAL PUMP RUN INDICATOR LIGHTS; INDIVIDUAL H-O-A SWITCHES; 115 VAC ALARM LIGHT AND HORN MOUNTED ON TOP OF PANEL; 0-5 SEC ADJUSTABLE TIME DELAY FOR EACH PUMP; PANEL HEATER WITH THERMOSTAT; INDIVIDUAL CIRCUIT BREAKERS FOR EACH PUMP, CONTROL CIRCUIT TRANSFORMER IF REQUIRED, HEATER, AND ONE SPARE; INDIVIDUAL ELAPSED TIME METERS. ALL ELECTRIC WIRING SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE.

F. FLOATS: MERCURY SWITCH TO BE COMPLETELY SEALED, MADE OF CORROSIVE RESISTANT SOLUTION AND INTRINSICALLY SAFE. ELECTRICAL CABLE TO BE FLEXIBLE TWO CONDUCTOR WITH NEOPRENE JACKET.

G. EMERGENCY STORAGE

PROVIDE FOUR (4) HOUR STORAGE BASED ON A 16 HR DELIVERY RATE

$$\frac{5{,}915 \text{ GPD}}{(16 \text{ HR/DAY})} \times 4 \text{ HR/DAY} = 1{,}479 \text{ GALLONS}$$

H. SUBMITTALS REQUIRED: PUMPS, ACCESS LID, WETWELL, VALVE PIT, FLOATS AND FLOAT HANGER BRACKET, CHECK VALVES, GATE VALVES AND OPERATION AND MAINTENANCE MANUALS.

TESTING DATA

A. FORCE MAIN PRESSURE TEST: ALL FORCE MAINS SHALL BE PRESSURE TESTED TO NOT LESS THAN 50 PSI AT THE HIGHEST POINT OF THE TEST SECTION. THE TEST SHALL BE OF A TWO HOUR DURATION AND THE TEST PRESSURE SHALL NOT VARY BY MORE THAN +/- 5 PSI. A LEAKAGE TEST SHALL BE PERFORMED CONCURRENTLY WITH THE PRESSURE TEST. THE ALLOWABLE LEAKAGE SHALL BE DETERMINED BY THE FOLLOWING FORMULA:

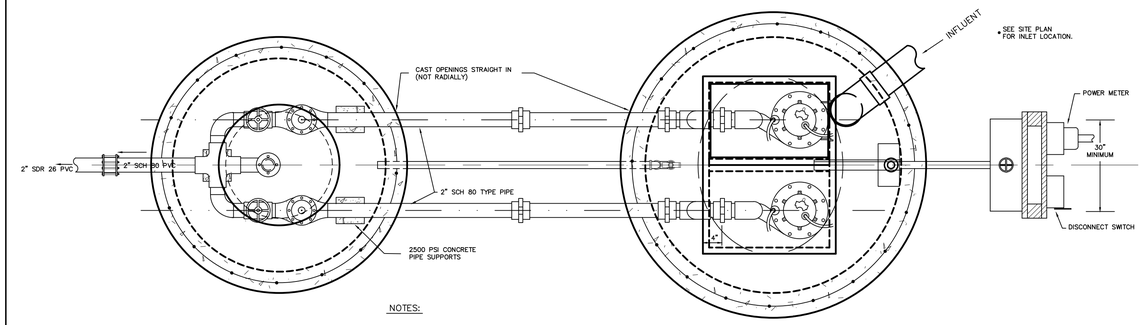
$$L = \frac{ND\sqrt{P}}{7400}$$

WHERE L = THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR, N IS THE NUMBER OF JOINTS, D IS THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND P IS THE AVERAGE TEST PRESSURE IN PSI.

B. VALVE PIT AND PUMP STATION TEST: THE STRUCTURES SHALL BE TESTED IN THE PRESENCE OF THE ENGINEER FOR EXFILTRATION BY FILLING THE STRUCTURES TO 1' BELOW THE ACCESS LID. A STABILIZATION PERIOD OF 1 HR SHALL BE PROVIDED TO ALLOW FOR ABSORPTION. AT THE END OF THE STABILIZATION PERIOD THE STRUCTURES SHALL BE REFILLED IF NECESSARY AND THE TEST PERIOD OF 48 HOURS SHALL BEGIN. AT THE END OF THE TEST PERIOD, THERE SHALL BE NO VISIBLE OR MEASURABLE EXFILTRATION OR INFILTRATION OR THE TEST FAILS. IF THE TEST FAILS, THE CONTRACTOR SHALL REPAIR OR WATERPROOF AND RETEST.

C. PUMP STATION: AN AUTHORIZED REPRESENTATIVE OF THE PUMP MANUFACTURER OR AN ELECTRICIAN FAMILIAR WITH THE OPERATION AND SETTING OF THE PUMP STATION AND THE ENGINEER SHALL BE PRESENT DURING STARTUP. AMPERAGE READINGS ON EACH MOTOR LEAD SHALL BE MEASURED AND RECORDED. THE CONTRACTOR SHALL PROVIDE A WATER SOURCE TO PERFORM A FULL OPERATIONAL CHECK OF THE STATION INCLUDING ALL FLOAT FUNCTIONS, ALARM TESTING, INDICATOR LIGHTS, H-O-A SWITCHES, PUMP ALTERNATOR AND PHASE MONITOR IF THREE PHASE PUMPS ARE USED. THE CONTROL SYSTEM SHALL BE CYCLED THROUGH MORE THAN ONCE TO INSURE PROPER SEQUENCING AND OPERATION OF THE PUMPS. EACH PUMP SHALL BE FIELD TESTED TO INSURE THE PUMPING CAPACITY MEETS THE PROJECT REQUIREMENTS.

D. ENGINEER SHALL BE GIVEN AT LEAST 24 HOURS NOTICE PRIOR TO TESTING.

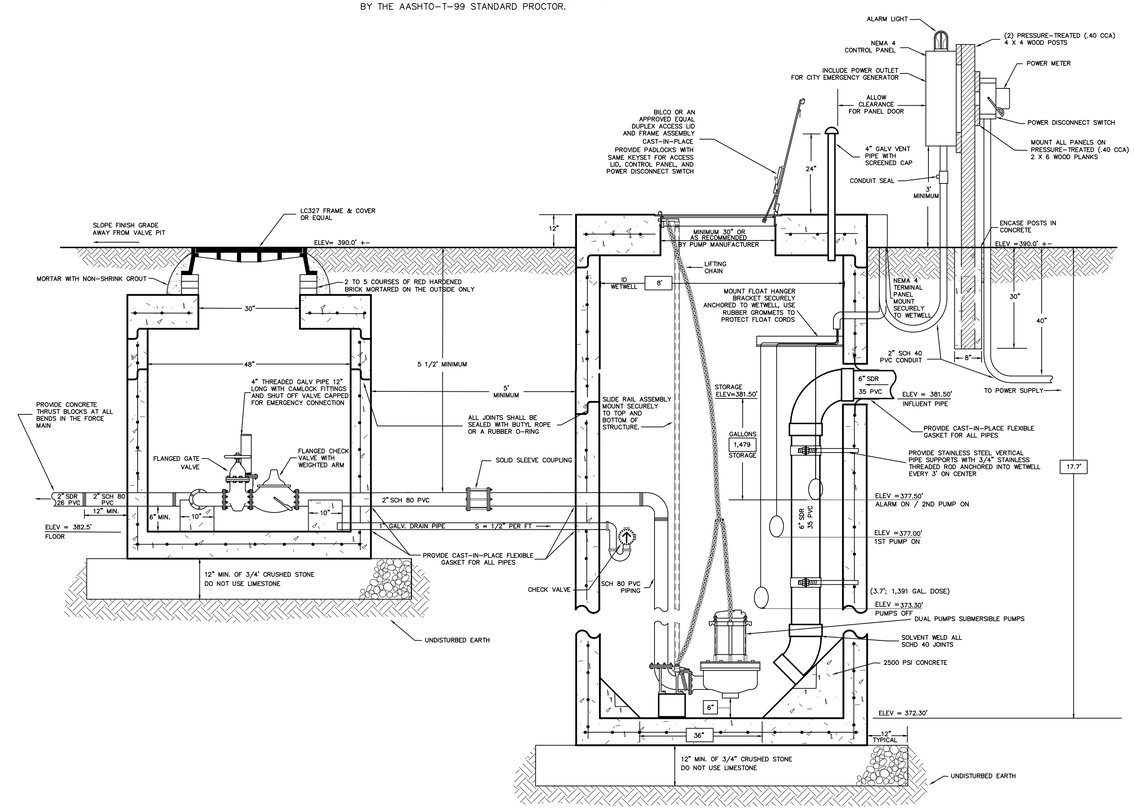


VALVE PIT

PUMP STATION

NOTES:

1. WETWELL AND VALVE PIT SHALL BE PRE-ENGINEERED 4000 PSI REINFORCED CONCRETE STRUCTURES DESIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF VERMONT AND CONSTRUCTED TO WITHSTAND H-20 WHEEL LOADINGS.
2. EXTERNALLY COAT ALL CONCRETE STRUCTURES WITH TWO COATS OF BITUMINOUS WATERPROOFING AND TEST FOR WATERTIGHTNESS.
3. ALL FORCE MAIN PIPING INSIDE OF THE STRUCTURES AND THROUGH THE WALLS SHALL BE GALVANIZED STEEL, EXTRA STRONG WEIGHT.
4. ALL BACKFILL MATERIAL AROUND THE STRUCTURES SHALL BE THOROUGHLY COMPACTED TO NOT LESS THAN 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY THE AASHTO-T-99 STANDARD PROCTOR.



PUMP STATION 'A' DETAIL

NTS

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

DATE	REVISION		BY
SURVEY OBCA	☐ RECORD DRAWING ☐ FINAL ■ PRELIMINARY ☐ SKETCH/CONCEPT	HOMESTEAD CAMPGROUND GEORGIA, VERMONT	DATE 1/18/24
DESIGN BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC		JOB # 2081-44
DRAWN GRT			FILE 2018-44-23
CHECKED BWC	13 CORPORATE DRIVE ESSEX JUNCTION, VT 05452 PHONE: 802-878-9990 FAX: 802-878-9989 E-MAIL: obca@olearyburke.com	PUMP STATION "A" DETAILS AND SPECIFICATIONS	SHEET # 13
SCALE 1" = 40'			

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PUMP STATION 'B' DATA

A. TOTAL DESIGN FLOW (USING EPR RULES):

COMMERCIAL USES (TBD)	=	610 GPD
(24) 2-BEDROOM CONDO UNITS @ 245 GPD/UNIT	=	5,880 GPD
TOTAL DESIGN FLOW FOR SIZING PUMP STATION	=	6,490 GPD

B. AVERAGE DAILY FLOW :

$$\frac{6{,}490 \text{ GPD}}{24 \text{ HR/DAY} \times 60 \text{ MIN/HR}} \times 4 = 18.03 \text{ GPM}$$

C. HEAD LOSSES:

STATIC LIFT (389' – 382')	7.0	FT
FRICTION LOSSES	7.0	FT (FORCE MAIN)
MINOR LOSSES	3.0	FT (PUMP STATION)
PRESSURE HEAD TO BE MAINTAINED	3.0	FT
TOTAL HEAD LOSS	20.0	FT

PROVIDE A PUMP CAPABLE OF 80 GPM @ 20' TDH; VELOCITY > 2.0 FT/SEC

D. CYCLE TIME

16 HR DELIVERY RATE

$$\frac{6{,}490 \text{ GPD}}{(16 \text{ HR/DAY})(60 \text{ MIN/HR})} = 6.76 \text{ GPM}$$

FILL TIME = 376 GAL/VF / 6.76 GPM INFLOW = 55.6 MINUTES

PUMP TIME = 376 GALLONS/(80 GPM–6.76 GPM) = 5.1 MINUTES

TOTAL CYCLE TIME = 55.6 + 5.1 = 60.7 MINUTES

E. CONTROLS: NEMA 4 DUPLEX CONTROL PANEL FOUR FLOAT SYSTEM CONTROL LOGIC; AUTOMATIC PUMP ALTERNATOR; 115 VAC CONTROL CIRCUIT; INDIVIDUAL PUMP RUN INDICATOR LIGHTS; INDIVIDUAL H–O–A SWITCHES; 115 VAC ALARM LIGHT AND HORN MOUNTED ON TOP OF PANEL; 0–5 SEC ADJUSTABLE TIME DELAY FOR EACH PUMP; PANEL HEATER WITH THERMOSTAT; INDIVIDUAL CIRCUIT BREAKERS FOR EACH PUMP, CONTROL CIRCUIT TRANSFORMER IF REQUIRED, HEATER, AND ONE SPARE; INDIVIDUAL ELAPSED TIME METERS. ALL ELECTRIC WIRING SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE.

F. FLOATS: MERCURY SWITCH TO BE COMPLETELY SEALED, MADE OF CORROSIVE RESISTANT SOLUTION AND INTRINSICALLY SAFE. ELECTRICAL CABLE TO BE FLEXIBLE TWO CONDUCTOR WITH NEOPRENE JACKET.

G. EMERGENCY STORAGE

PROVIDE FOUR (4) HOUR STORAGE BASED ON A 16 HR DELIVERY RATE

$$\frac{6{,}490 \text{ GPD}}{(16 \text{ HR/DAY})} \times 4 \text{ HR/DAY} = 1{,}623 \text{ GALLONS}$$

H. SUBMITTALS REQUIRED: PUMPS, ACCESS LID, WETWELL, VALVE PIT, FLOATS AND FLOAT HANGER BRACKET, CHECK VALVES, GATE VALVES AND OPERATION AND MAINTENANCE MANUALS.

TESTING DATA

A. FORCE MAIN PRESSURE TEST: ALL FORCE MAINS SHALL BE PRESSURE TESTED TO NOT LESS THAN 50 PSI AT THE HIGHEST POINT OF THE TEST SECTION. THE TEST SHALL BE OF A TWO HOUR DURATION AND THE TEST PRESSURE SHALL NOT VARY BY MORE THAN +/– 5 PSI. A LEAKAGE TEST SHALL BE PERFORMED CONCURRENTLY WITH THE PRESSURE TEST. THE ALLOWABLE LEAKAGE SHALL BE DETERMINED BY THE FOLLOWING FORMULA:

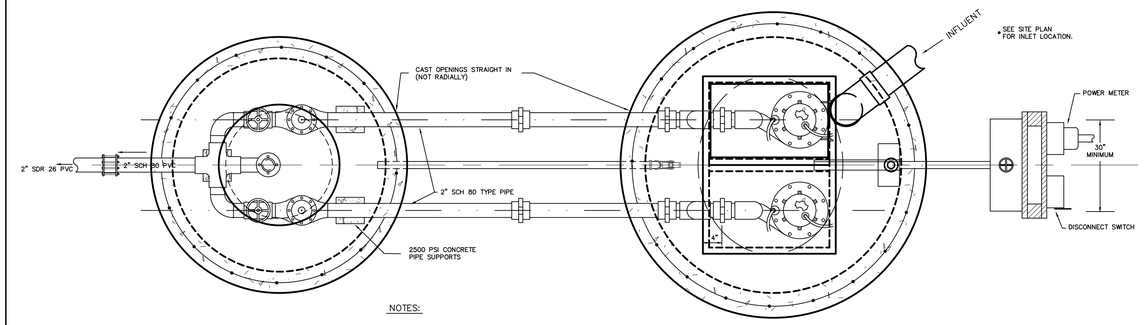
$$L = \frac{ND\sqrt{P}}{7400}$$

WHERE L = THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR, N IS THE NUMBER OF JOINTS, D IS THE NOMINAL DIAMETER OF THE PIPE IN INCHES, AND P IS THE AVERAGE TEST PRESSURE IN PSI.

B. VALVE PIT AND PUMP STATION TEST: THE STRUCTURES SHALL BE TESTED IN THE PRESENCE OF THE ENGINEER FOR EXFILTRATION BY FILLING THE STRUCTURES TO 1' BELOW THE ACCESS LID. A STABILIZATION PERIOD OF 1 HR SHALL BE PROVIDED TO ALLOW FOR ABSORPTION. AT THE END OF THE STABILIZATION PERIOD THE STRUCTURES SHALL BE REFILLED IF NECESSARY AND THE TEST PERIOD OF 48 HOURS SHALL BEGIN. AT THE END OF THE TEST PERIOD, THERE SHALL BE NO VISIBLE OR MEASURABLE EXFILTRATION OR INFILTRATION OR THE TEST FAILS. IF THE TEST FAILS, THE CONTRACTOR SHALL REPAIR OR WATERPROOF AND RETEST.

C. PUMP STATION: AN AUTHORIZED REPRESENTATIVE OF THE PUMP MANUFACTURER OR AN ELECTRICIAN FAMILIAR WITH THE OPERATION AND SETTING OF THE PUMP STATION AND THE ENGINEER SHALL BE PRESENT DURING STARTUP. AMPERAGE READINGS ON EACH MOTOR LEAD SHALL BE MEASURED AND RECORDED. THE CONTRACTOR SHALL PROVIDE A WATER SOURCE TO PERFORM A FULL OPERATIONAL CHECK OF THE STATION INCLUDING ALL FLOAT FUNCTIONS, ALARM TESTING, INDICATOR LIGHTS, H–O–A SWITCHES, PUMP ALTERNATOR AND PHASE MONITOR IF THREE PHASE PUMPS ARE USED. THE CONTROL SYSTEM SHALL BE CYCLED THROUGH MORE THAN ONCE TO INSURE PROPER SEQUENCING AND OPERATION OF THE PUMPS. EACH PUMP SHALL BE FIELD TESTED TO INSURE THE PUMPING CAPACITY MEETS THE PROJECT REQUIREMENTS.

D. ENGINEER SHALL BE GIVEN AT LEAST 24 HOURS NOTICE PRIOR TO TESTING.

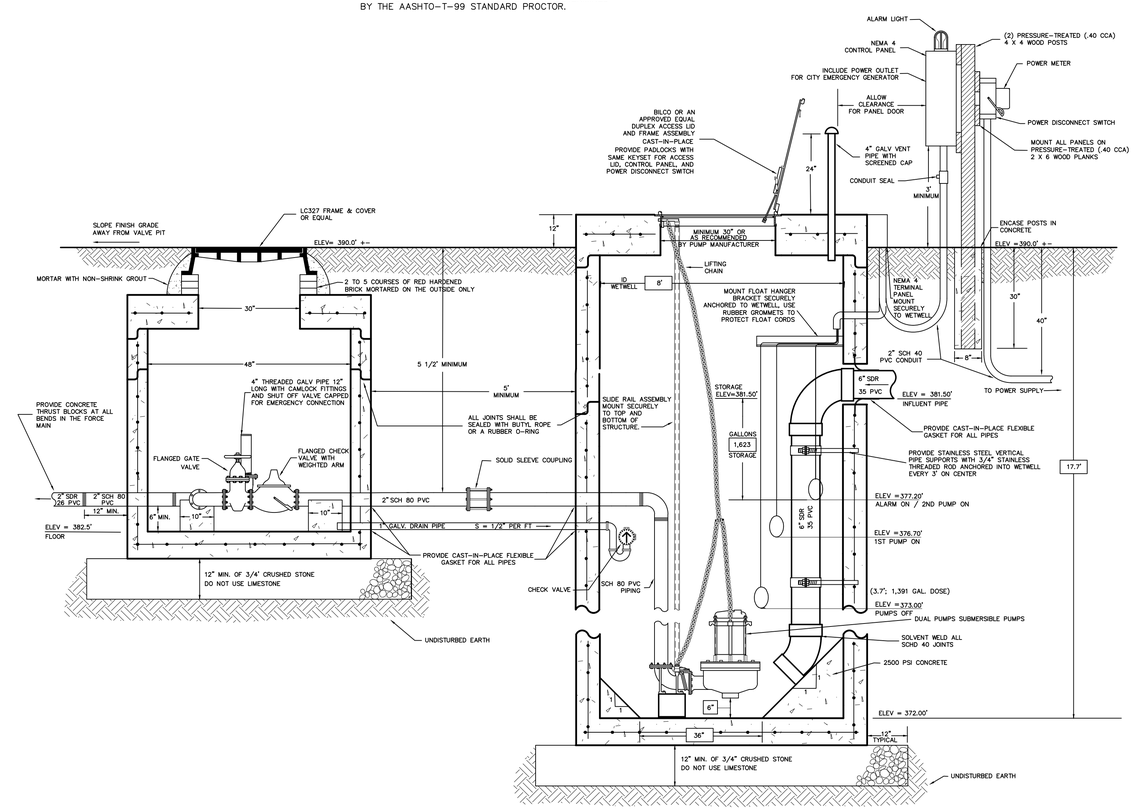


VALVE PIT

PUMP STATION

NOTES:

1. WETWELL AND VALVE PIT SHALL BE PRE–ENGINEERED 4000 PSI REINFORCED CONCRETE STRUCTURES DESIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF VERMONT AND CONSTRUCTED TO WITHSTAND H–20 WHEEL LOADINGS.
2. EXTERNALLY COAT ALL CONCRETE STRUCTURES WITH TWO COATS OF BITUMINOUS WATERPROOFING AND TEST FOR WATERTIGHTNESS.
3. ALL FORCE MAIN PIPING INSIDE OF THE STRUCTURES AND THROUGH THE WALLS SHALL BE GALVANIZED STEEL, EXTRA STRONG WEIGHT.
4. ALL BACKFILL MATERIAL AROUND THE STRUCTURES SHALL BE THOROUGHLY COMPACTED TO NOT LESS THAN 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY THE AASHTO–T–99 STANDARD PROCTOR.



PUMP STATION 'B' DETAIL

NTS

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1–888–DIG–SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

DATE	
SURVEY	OBCA
DESIGN	BWC GRT
DRAWN	GRT
CHECKED	BWC
SCALE	1" = 40'

REVISION: ☐ RECORD DRAWING ■ PRELIMINARY ☐ FINAL ☐ SKETCH/CONCEPT

O'LEARY-BURKE CIVIL ASSOCIATES, PLC
13 CORPORATE DRIVE
ESSEX JUNCTION, VT 05452
PHONE: 802-878-9990
FAX: 802-878-9989
E-MAIL: obca@olearyburke.com

HOMESTEAD CAMPGROUND
GEORGIA, VERMONT

PUMP STATION "B" DETAILS AND SPECIFICATIONS

BY	
DATE	1/18/24
JOB #	2081-44
FILE	2018-44-23
SHEET #	14

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GENERAL SEWER SPECIFICATIONS

GENERAL:

THIS ITEM SHALL CONSIST OF THE EXCAVATION AND BACKFILLING REQUIRED FOR THE COMPLETE CONSTRUCTION OF GRAVITY SANITARY SEWERS, FORCE MAINS, AND ALL APPURTENANT CONSTRUCTION RELATED THERETO, INCLUDING CHIMNEYS, SERVICE CONNECTIONS, THRUST BLOCKS, AND OTHER ITEMS NECESSARY FOR A COMPLETE SANITARY SEWER SYSTEM AS INDICATED ON THE DRAWINGS. ALL SEWER INFRASTRUCTURE SHALL MEET OR EXCEED THE TOWN OF ESSEX STANDARDS FOR CONSTRUCTION. THE TESTING OF TAPS, SERVICE CONNECTIONS, AIR TESTING, ETC., SHALL BE WITNESSED BY THE TOWN OF ESSEX.

MATERIALS:

A. TYPES OF PIPE

TYPES OF PIPE WHICH SHALL BE USED FOR THE VARIOUS PARTS OF WORK ARE AS FOLLOWS:
GRAVITY SEWERS SHALL BE PVC SOLID WALL PIPE MEETING ASTM SPECIFICATIONS D-3034 OR F679.

B. PVC SEWER PIPE

PVC SEWER PIPE SHALL CONFORM IN ALL RESPECTS TO THE LATEST REVISION OF ASTM SPECIFICATIONS D-3034 OR F679, TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, SDR35. WALL THICKNESS OF ALL PVC SHALL MEET ASTM SPECIFICATIONS FOR SDR35 PIPE. ALL PIPE AND FITTINGS SHALL BE CLEARLY MARKED AS FOLLOWS:

MANUFACTURER'S NAME AND TRADEMARK
NOMINAL PIPE SIZE
MATERIAL DESIGNATION 12454C PVC
LEGEND "TYPE PSM SDR35 PVC SEWER PIPE" OR
"PS 46 PVC SEWER PIPE"
DESIGNATION ASTM D-3034 OR F679

JOINTS SHALL BE PUSH-ON TYPE USING ELASTOMERIC GASKETS AND SHALL CONFORM TO ASTM D-3212. THE GASKETS SHALL BE FACTORY INSTALLED.

THE PIPE SHALL BE FURNISHED IN NOMINAL 13 FOOT LENGTHS. SUFFICIENT NUMBERS OF SHORT LENGTHS AND FULL MACHINE FITTINGS SHALL BE PROVIDED FOR USE AT MANHOLES, CHIMNEYS, AND CONNECTIONS. ALL CONNECTIONS WILL REQUIRE THE USE OF MANUFACTURED FITTINGS. FIELD FABRICATED, SADDLE-TYPE CONNECTIONS WILL NOT BE CONSIDERED ACCEPTABLE.

ANY PIPE OR FITTING HAVING A CRACK OR OTHER DEFECT OR WHICH HAS RECEIVED A SEVERE BLOW SHALL BE MARKED REJECTED AND REMOVED AT ONCE FROM THE WORK SITE. ALL FIELD CUTS ARE TO BE MADE WITH SAW AND 90 DEGREE MITRE BOX. BEVEL THE CUT END TO THE SAME AS THE FACTORY BEVEL AND REMOVE ALL INTERIOR BURRS. MEASURE AND PLACE A HOMING MARK ON THE PIPE BEFORE ASSEMBLING.

THE PIPE INSTALLED UNDER THIS SPECIFICATION SHALL BE INSTALLED SO THAT THE INITIAL DEFLECTION, MEASURED AS DESCRIBED BELOW, SHALL BE LESS THAN FIVE PERCENT (5%).

DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE AFTER THE FINAL BACKFILL HAS BEEN IN PLACE FOR AT LEAST 30 DAYS. THE DEFLECTION TEST SHALL BE RUN USING A RIGID BALL OR MANDREL HAVING A DIAMETER EQUAL TO 95 PERCENT OF THE INSIDE DIAMETER OF THE PIPE. NO MECHANICAL PULLING DEVICES SHALL BE USED DURING THE DEFLECTION TESTS. ALL PIPE NOT MEETING THE DEFLECTION TEST SHALL BE REEXCAVATED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

THE MANHOLE WATER STOP GASKET AND STAINLESS STEEL CLAMP ASSEMBLY MUST BE APPROVED BY THE ENGINEER PRIOR TO THE INSTALLATION OF ANY PIPE.

THE CONTRACTOR WILL SUBMIT CERTIFICATION THAT THE MATERIALS OF CONSTRUCTION HAVE BEEN SAMPLED, TESTED, AND INSPECTED, AND THAT THEY MEET ALL THE REQUIREMENTS--INCLUDING WALL THICKNESS--IN ACCORDANCE WITH ASTM C-3034 OR ASTM F679 FOR ALL PIPE AND FITTINGS TO BE INCLUDED IN THE PROJECT WORK.

PVC PIPE SHALL NOT BE INSTALLED WHEN THE TEMPERATURE DROPS BELOW 32 DEGREES FAHRENHEIT OR GOES ABOVE 100 DEGREES FAHRENHEIT. DURING COLD WEATHER, THE FLEXIBILITY AND IMPACT RESISTANCE OF PVC PIPE IS REDUCED.

EXTRA CARE IS REQUIRED WHEN HANDLING PVC PIPE DURING COLD WEATHER. PVC PIPE SHALL NOT BE STORED OUTSIDE AND EXPOSED TO PROLONGED PERIODS OF SUNLIGHT AS PIPE DISCOLORATION AND REDUCTION IN PIPE IMPACT STRENGTH WILL OCCUR. CANVAS OR OTHER OPAQUE MATERIAL SHALL BE USED TO COVER PVC PIPE STORED ONSITE.

E. MANHOLES

THE CONTRACTOR SHALL CONSTRUCT REINFORCED CONCRETE MANHOLES AND DROP MANHOLES TO THE DIMENSIONS AT THE LOCATIONS SHOWN ON THE CONTRACT DRAWINGS. ALL PRECAST REINFORCED CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST VERSION OF THE ASTM SPECIFICATIONS C478. THE EXTERIOR OF THE MANHOLE SHALL BE COATED WITH A WATERPROOF SEALANT.

THE FOOTING SHALL BE CLASS B PRECAST CONCRETE AND SHALL CONFORM TO THE DIMENSIONS INDICATED ON THE PLANS.

SHELVES SHALL BE CONSTRUCTED WITH HARDENED RED SEWER BRICK. ALL BRICK SHALL BE TYPE SS MEETING THE STANDARDS IN ASTM C32. INVERTS FOR SEWER MANHOLES SHALL BE AS SHOWN ON THE PLANS AND DETAILS.

INVERTS SHALL HAVE THE EXACT SHAPE OF THE SEWER TO WHICH THEY ARE CONNECTED, AND ANY CHANGE IN SIZE OR DIRECTION SHALL BE GRADUAL AND EVEN.

ALL CONSTRUCTION OF SEWER MANHOLES MUST BE CARRIED OUT TO ENSURE WATERTIGHT WORK. ANY LEAKS IN MANHOLES SHALL BE CAULKED AND COMPLETELY REPAIRED TO THE SATISFACTION OF THE ENGINEER OR THE ENTIRE STRUCTURE SHALL BE REMOVED AND REBUILT. REPAIRS SHALL ONLY BE ALLOWED TO THE EXTERIOR OF THE MANHOLE.

ALL MANHOLES ARE TO BE PROVIDED WITH COPOLYMER POLYPROPYLENE PLASTIC RUNGS WITH STEEL REINFORCEMENT TWELVE INCHES (12") ON CENTER. ALL MANHOLES SHALL BE PROVIDED WITH TOUGH, GRAY, CAST IRON MANHOLE FRAMES AND COVERS. ALL IRON CASTINGS SHALL BE THOROUGHLY CLEANED AND THEN COATED WITH HOT TAR BEFORE BEING DELIVERED. FRAMES AND COVERS SHALL BE LEBARON LC 266 TYPE C, OR AN APPROVED EQUAL, AND HAVE A MINIMUM WEIGHT OF 400 POUNDS. MANHOLE COVERS SHALL HAVE THE WORD SEWER PRINTED ON THEM.

PRECAST RISERS AND BASES FOR MANHOLES SHALL CONFORM TO ASTM SPECIFICATIONS C-361. THE PIPE OPENING IN THE PRECAST MANHOLE RISER SHALL HAVE A CAST-IN-PLACE FLEXIBLE GASKET OR AN EQUIVALENT SYSTEM FOR PIPE INSTALLATION AS APPROVED BY THE ENGINEER. JOINTS BETWEEN MANHOLE RISERS SHALL BE RUBBER "O" RING SEALS OR SOFT BUTYL JOINT SEALER (ROPE FORM).

THE MANHOLE COVER FRAMES SHALL BE SET TO FINAL GRADE ONLY AFTER THE BASE COURSE PAVING HAS BEEN COMPLETED. MANHOLES SHALL BE CONSTRUCTED TO GRADE WITH AT LEAST TWO, AND NOT MORE THAN FIVE, COURSES OF BRICK. WITH THE EXCEPTION OF INVERTS, ALL SURFACES OF MANHOLE BRICKWORK SHALL BE PLASTERED WITH CEMENT MORTAR, THE PLASTER BEING CARRIED UP AS THE BRICKWORK PROGRESSES, AND ALL MANHOLE LIFT HOLES SHALL BE GROUTED INSIDE AND OUT WITH EXPANDABLE GROUT.

MANHOLES SHALL BE PLACED AT ALL CHANGES IN SLOPE, SIZE, ALIGNMENT OF PIPE, AT THE ENDS OF EACH LINE, AND AT LEAST EVERY 300 FEET.

F. MASONRY

EACH BRICK SHALL BE WETTED AND COMPLETELY BEDDED IN MORTAR AT ITS BOTTOM, SIDES, AND ENDS IN ONE OPERATION WITH CARE BEING TAKEN TO FILL EVERY JOINT. BRICKWORK SHALL BE WELL-BONDED, AND JOINTS SHALL BE AS CLOSE AS PRACTICABLE. NO BRICK MASONRY SHALL BE LAID IN WATER NOR SHALL ANY WATER BE ALLOWED TO RISE ON OR AROUND ANY BRICK MASONRY UNTIL IT HAS SET AT LEAST 24 HOURS. NO MASONRY SHALL BE LAID IN FREEZING WEATHER.

THE BRICK FOR ORDINARY BRICKWORK SHALL BE COMMON HARD-BURNED CLAY BRICK. ALL BRICK SHALL BE REGULAR AND UNIFORM IN SHAPE AND SIZE WITH PLANE, PARALLEL BEDS, AND FACES. ORDINARY BRICK SHALL CONFORM TO ASTM SPECIFICATION C-32, LATEST VERSION, AND SHALL BE GRADE SS.

BRICK MASONRY SHALL BE LAID IN PORTLAND CEMENT MORTAR COMPOSED OF ONE PART PORTLAND CEMENT AND TWO PARTS OF SAND, MEASURED BY VOLUME, TO WHICH NOT MORE THAN 10 POUNDS OF LIME SHALL BE ADDED FOR EACH BAG OF CEMENT. WATER FOR MORTAR SHALL BE CLEAN AND ONLY AN AMOUNT SUFFICIENT TO PRODUCE A WORKABLE MORTAR SHALL BE USED. MORTAR SHALL BE USED WITHIN ONE HOUR FROM THE TIME THE CEMENT WAS ADDED TO THE MIX.

THE SAND FOR MORTAR FOR BRICK MASONRY SHALL BE UNIFORMLY GRADED, CLEAN, SHARP, AND CONTAIN NO GRADES LARGER THAN WILL PASS A ONE-EIGHTH INCH (1/8") MESH SCREEN.

CONSTRUCTION METHODS:

A. EXCAVATION:

EXCAVATIONS SHALL BE MADE TO A POINT AT LEAST SIX INCHES (6") BELOW THE PIPE INVERT TO ACCOMMODATE THE BEDDING MATERIAL. ALL EXCAVATIONS ARE TO BE KEPT DRY WHILE PIPE IS BEING LAID AND UNTIL EACH JOINT AND PIPE HAS BEEN INSPECTED BY THE ENGINEER AND APPROVAL GIVEN TO COMMENCE BACKFILLING OPERATIONS.

B. LAYING SEWER PIPE:

THE BELL END OF THE PIPE SHALL FACE UPGRADE AT ALL TIMES AND BE PLACED IN SUCH A POSITION AS TO MAKE THE INVERT EVEN WHEN THE SUCCEEDING SECTION IS INSERTED. WHERE REQUIRED BY ADVERSE GRADING CONDITIONS, THE CONTRACTOR SHALL FILL ANY GULLY TO MAKE A SUITABLE BEDDING FOR THE SEWER PIPE. THE FILL SHALL BE PNEUMATICALLY COMPACTED TO A 95 PERCENT DRY DENSITY BY THE AASHTO-T-99, METHOD A (STANDARD PROCTOR) TEST, UPON WHICH THE SIX INCHES (6") OF BEDDING MATERIAL SHALL BE PLACED.

ANY PIPE WHICH IS NOT LAID TO GRADE AND ALIGNMENT SHALL BE RELAID TO THE SATISFACTION OF THE ENGINEER. THE BEDDING MATERIAL SHALL BE PLACED AND COMPACTED ON EACH SIDE OF THE PIPE TO A HEIGHT EQUAL TO ONE-HALF THE PIPE DIAMETER AND FOR THE FULL WIDTH OF THE EXCAVATED TRENCH AND AS SHOWN ON THE ACCEPTED PLANS.

C. BACKFILL:

BACKFILL SHALL CONSIST OF APPROVED MATERIAL PLACED IN SIX INCH (6") LAYERS WITH EACH LAYER BEING THOROUGHLY COMPACTED TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY THE AASHTO-T-99 STANDARD PROCTOR BY MEANS APPROVED BY THE ENGINEER.

THE BACKFILL SHALL BE BROUGHT UP EVENLY ON BOTH SIDES OF THE PIPE FOR ITS FULL LENGTH. WALKING OR WORKING ON THE COMPLETED PIPELINE, EXCEPT AS MAY BE NECESSARY IN TAMPING OR BACKFILLING, SHALL NOT BE PERMITTED UNTIL THE TRENCH HAS BEEN BACKFILLED TO A HEIGHT OF AT LEAST TWO FEET (2') ON THE TOP OF THE PIPES. DURING CONSTRUCTION, ALL OPENINGS TO THE PIPELINES SHALL BE PROTECTED FROM THE ENTERING OF EARTH OR OTHER MATERIALS.

THE CONTRACTOR SHALL CONTACT THE TOWN OF ESSEX PRIOR TO BACKFILLING ANY NEW SEWER INFRASTRUCTURE FOR INSPECTION AND APPROVAL.

D. CONCRETE CRADLE AND ENCASEMENT FOR PIPE:

WHERE REQUIRED ON THE PLANS OR AS DIRECTED BY THE ENGINEER, A CONCRETE CRADLE SHALL BE USED TO BOLSTER AND STRENGTHEN PIPE. WHERE REQUIRED ON THE PLANS OR AS DIRECTED BY THE ENGINEER, CONCRETE ENCASEMENT OR SEWER WILL BE MADE TO PROTECT NEARBY WELLS OR WATERLINES FOR STREAM CROSSINGS OR FOR SIMILAR PURPOSES. ALL CONCRETE WILL BE CLASS B AS DEFINED IN THE VERMONT STANDARD SPECIFICATIONS FOR CONSTRUCTION, SECTION 501, AND WILL MEET THE REQUIREMENTS OF THAT SECTION.

E. FROST PROTECTION FOR SHALLOW SEWERS:

SEWERS WITH LESS THAN FIVE AND ONE-HALF FEET (5 1/2') OF COVER OVER THE CROWN OR WHERE INDICATED ON THE PLANS SHALL BE PROTECTED AGAINST FREEZING BY INSTALLATION OF TWO, 2" THICK (4" TOTAL) STYROFOAM SM INSULATING SHEETS WITH A TOTAL WIDTH OF FOUR FEET (4') OR TWICE THE PIPE DIAMETER, WHICHEVER IS GREATER. THE SHEETS SHALL BE PLACED SIX INCHES (6") ABOVE THE CROWN OF THE SEWER AFTER COMPACTION OF THE SIX INCH LIFT IMMEDIATELY ABOVE THE CROWN. CARE SHALL BE EXERCISED BY THE CONTRACTOR DURING BACKFILL, AND COMPACTION OVER THE STYROFOAM SM SHEETS SHALL MEET THE COMPRESSIVE STRENGTH REQUIREMENTS OF ASTM D1621-73 AND SHALL BE AS MANUFACTURED BY DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN, OR EQUAL. IN NO CASE SHALL THE SEWER LINES HAVE LESS THAN FOUR (4') FEET OF COVER OVER THE TOP OF THE PIPE.

F. LEAKAGE TESTS AND ALLOWANCES FOR GRAVITY SEWERS:

THE LOW PRESSURE AIR TEST WILL BE USED TO SIMULATE INFILTRATION OR EXFILTRATION RATES INTO OR OUT OF ALL GRAVITY SEWERS. THE CONTRACTOR WILL FURNISH ALL FACILITIES AND PERSONNEL FOR CONDUCTING THE TEST.

FINAL ACCEPTANCE OF THE SEWER SHALL DEPEND UPON THE SATISFACTORY PERFORMANCE OF THE SEWER UNDER TEST CONDITIONS. THE TEST SHALL BE PERFORMED ON PIPE BETWEEN ADJACENT MANHOLES AFTER BACKFILLING HAS BEEN COMPLETED AND COMPACTED.

ALL WYES, TEES, LATERALS, OR END-OF-SIDE SEWER STUBS SHALL BE PLUGGED WITH FLEXIBLE-JOINT CAPS, OR AN ACCEPTABLE ALTERNATE, SECURELY FASTENED TO WITHSTAND THE INTERNAL TEST PRESSURE. SUCH PLUGS OR CAPS SHALL BE READILY REMOVABLE, AND THEIR REMOVAL SHALL PROVIDE A SOCKET SUITABLE FOR MAKING A FLEXIBLE-JOINTED LATERAL CONNECTION OR EXTENSION.

PRIOR TO TESTING FOR ACCEPTANCE, THE PIPE SHOULD BE CLEANED BY PASSING THROUGH THE PIPE A FULL GAUGE SQUEEGEE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THE PIPE CLEANED. IMMEDIATELY FOLLOWING THE PIPE CLEANING, THE PIPE INSTALLATION SHALL BE TESTED WITH LOW-PRESSURE AIR.

AIR SHALL BE SLOWLY SUPPLIED TO THE PLUGGED AIR INSTALLATION UNTIL THE INTERNAL AIR PRESSURE REACHES FOUR POUNDS PER SQUARE INCH (4.0 PSI) GREATER THAN THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY SUBMERGE THE PIPE. AT LEAST TWO MINUTES SHALL BE ALLOWED FOR TEMPERATURE STABILIZATION BEFORE PROCEEDING FURTHER.

THE PIPELINE SHALL BE CONSIDERED ACCEPTABLE WHEN TESTED AT AN AVERAGE PRESSURE OF THREE POUNDS PER SQUARE INCH (3.0 PSI) GREATER THAN THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY SUBMERGE THE PIPE IF:

1. THE TOTAL RATE OF AIR LOSS FROM ANY SECTION TESTED IN ITS ENTIRETY BETWEEN MANHOLE AND CLEANOUT STRUCTURES DOES NOT EXCEED 2.0 CUBIC FEET PER MINUTE; OR

2. THE SECTION UNDER TEST DOES NOT LOSE AIR AT A RATE GREATER THAN 0.0030 CUBIC FEET PER MINUTE PER SQUARE FOOT OF INTERNAL PIPE SURFACE.

THE REQUIREMENTS OF THIS SPECIFICATION SHALL BE CONSIDERED SATISFIED IF THE TIME REQUIRED IN SECONDS FOR THE PRESSURE TO DECREASE FROM 3.5 OR 2.5 PSI GREATER THAN THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY SUBMERGE THE PIPE IS NOT LESS THAN THAT COMPUTED ACCORDING TO THE FOLLOWING TABLE:

MINIMUM TEST TIME FOR VARIOUS PIPE SIZES

DIAMETER (INCHES)	TIME (SEC./100 FT.)
3	10
4	18
6	40
8	70
10	110
12	158
15	248
18	356
21	485
24	634
27	765
30	851
33	935
36	1,020
39	1,105
42	1,190

THE TABLE GIVES THE REQUIRED TEST TIME IN SECONDS PER 100 FOOT LENGTHS OF PIPE FOR A GIVEN DIAMETER. IF THERE IS MORE THAN ONE PIPE SIZE IN THE SECTION OF LINE BEING TESTED, COMPUTE THE TIME FOR EACH DIAMETER; AND SUM THE TIMES TO FIND THE TOTAL REQUIRED TEST TIME.

IF THE PIPE INSTALLATION FAILS TO MEET THESE REQUIREMENTS, THE CONTRACTOR SHALL DETERMINE AT HIS OR HER OWN EXPENSE THE SOURCE OR SOURCES OF LEAKAGE AND SHALL REPAIR (IF THE EXTENT AND TYPE OF REPAIRS PROPOSED BY THE CONTRACTOR APPEAR REASONABLE TO THE ENGINEER) OR REPLACE ALL DEFECTIVE MATERIALS OR WORKMANSHIP. THE COMPLETED PIPE INSTALLATION SHALL MEET THE REQUIREMENTS OF THIS TEST BEFORE BEING CONSIDERED ACCEPTABLE.

SINCE THIS TEST DOES NOT DETERMINE THE TIGHTNESS OF MANHOLES, THEY SHALL BE TESTED SEPARATELY. THE EXFILTRATION LEAKAGE ALLOWANCE OUT OF MANHOLES SHALL BE NO GREATER THAN ONE GALLON PER DAY PER VERTICAL FOOT TO DEPTH. THE MANHOLE SHALL BE FILLED WITH WATER TO A POINT ONE FOOT (1') ABOVE THE HIGHEST POINT BETWEEN MANHOLE SECTIONS. IN AREAS OF HIGH GROUNDWATER, THERE SHALL BE NO VISIBLE LEAKAGE DUE TO INFILTRATION. IF A VACUUM TEST IS DESIRED, THE FOLLOWING PROCEDURE SHALL BE FOLLOWED: (THIS PREFERRED METHOD OF TESTING MANHOLES FOR LEAKAGE INVOLVES THE USE OF A DEVICE FOR SEALING THE TOP OF THE MANHOLE CONE SECTION AND PUMPING AIR OUT OF THE MANHOLE, CREATING A VACUUM AND HOLDING THIS VACUUM FOR A PRESCRIBED PERIOD OF TIME.)

1. ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR. THE COMPLETED MANHOLE SHALL NOT BE BACKFILLED PRIOR TO TESTING. MANHOLES WHICH HAVE BEEN BACKFILLED SHALL BE EXCAVATED TO EXPOSE THE ENTIRE EXTERIOR PRIOR TO VACUUM TESTING OR THE MANHOLE SHALL BE TESTED FOR LEAKAGE BY MEANS OF A HYDROSTATIC TEST. REPAIRS SHALL ONLY BE MADE TO THE EXTERIOR OF THE MANHOLE.

2. ALL PIPE AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED IN A MANNER TO PREVENT DISPLACEMENT.

3. A PLATE WITH AN INFLATABLE RUBBER RING THE SIZE OF THE TOP OF THE MANHOLE SHALL BE INSTALLED BY INFLATING THE RING WITH AIR TO PRESSURE ADEQUATE TO PREVENT LEAKAGE OF AIR BETWEEN THE RUBBER RING AND MANHOLE WALL.

4. AIR SHALL THEN BE PUMPED OUT OF THE MANHOLE THROUGH AN OPENING IN THE PLATE UNTIL A VACUUM IS CREATED INSIDE OF THE MANHOLE EQUAL TO TEN INCHES (10") OF MERCURY ON AN APPROVED VACUUM GAUGE. THE REMOVAL OF AIR SHALL THEN BE STOPPED AND THE TEST TIME BEGUN.

5. THE VACUUM MUST NOT DROP TO BELOW NINE INCHES (9") OF MERCURY WITH A TWO MINUTE TEST PERIOD. IF MORE THAN A ONE INCH (1") DROP IN VACUUM OCCURS WITHIN THE TWO MINUTE TEST PERIOD, THE MANHOLE HAS FAILED AND SHALL BE REPAIRED OR RECONSTRUCTED AND THEN RETESTED.

6. FOLLOWING SATISFACTORY TEST RESULTS, THE MANHOLE MAY BE BACKFILLED.

IT IS NOTED THAT ALL EXISTING SANITARY SEWERS SHALL BE KEPT OPERATIONAL UNTIL NEW WORK HAS BEEN TESTED AND APPROVED BY THE ENGINEER. AT SUCH TIME, EXISTING SEWERS AND SEWER SERVICES SHALL BE CONNECTED TO THE NEW SEWERS.

G. LEAKAGE AND PRESSURE TESTING FOR FORCE MAIN

ALL PIPELINES SHALL BE TESTED IN ACCORDANCE WITH THE VERMONT DEPARTMENT OF WATER RESOURCES ENVIRONMENTAL PROTECTION RULES, LATEST EDITION. A LEAKAGE AND PRESSURE TEST SHALL BE PERFORMED CONCURRENTLY.

THE HYDROSTATIC TEST PRESSURE SHALL BE A MINIMUM OF 50 PSI AT THE HIGHEST POINT ALONG THE TEST SECTION AND SHALL NOT VARY BY MORE THAN FIVE PSI DURING THE ENTIRE TWO HOUR TEST. IF AND WHEN DURING THE TEST THE PRESSURE DROPS BY FIVE PSI, THE QUANTITY OF WATER REQUIRED TO RESTORE THE TEST PRESSURE SHALL BE MEASURED.

AT THE END OF THE TWO HOUR TEST, THE PRESSURE SHALL BE RETURNED TO THE TEST PRESSURE AND THE ADDITIONAL VOLUME OF WATER MEASURED. THE TOTAL AMOUNT OF WATER USED DURING AND AT THE END OF THE TEST SHALL CONSTITUTE THE ACTUAL LEAKAGE. THE MAXIMUM ALLOWABLE LEAKAGE SHALL BE DETERMINED BY THE FOLLOWING FORMULA:

$$L = SD(P)^{5} /133,200$$

WHERE:
L = LEAKAGE IN GALLONS PER HOUR
D = DIAMETER OF PIPE IN INCHES
P = AVERAGE TEST PRESSURE IN PSI
S = LENGTH OF PIPE BEING TESTED

H. CLEANING PIPELINES AND APPURTENANCES:

UPON COMPLETION OF CONSTRUCTION, ALL DIRT AND OTHER FOREIGN MATERIAL SHALL BE REMOVED FROM PIPELINES AND THEIR APPURTENANT CONSTRUCTIONS. NO MATERIALS SHALL BE LEFT IN THE PIPELINES TO IMPEDE NORMAL FLOW THROUGH THEM.

I. SEWER SERVICE CONNECTIONS:

WHERE REQUIRED ON THE PLANS, SEWER SERVICE CONNECTIONS FOR ONE HOUSE SHALL BE CONSTRUCTED OF SIX INCH (6") PIPE UNLESS OTHERWISE NOTED ON THE PLANS OF THE TYPE MATERIAL SPECIFIED UNDER THIS SECTION. THE PIPE SHALL BE LAID AND ITS JOINTS MADE AS REQUIRED FOR SEWER CONSTRUCTION IN THIS SPECIFICATION.

OPEN ENDS OF PIPES SHALL BE PROPERLY SEALED TO PREVENT DAMAGE AND INTRUSION OF FOREIGN MATTER WHERE HOOKUP TO THE BUILDING SEWER IS NOT COINCIDENT WITH SEWER MAIN CONSTRUCTION. ADDITIONALLY, THE CONTRACTOR WILL PROVIDE A PVC PIPE TEMPORARY MARKER APPROVED BY THE ENGINEER FROM THE SEWER SERVICE INVERT UP TO TWENTY-FOUR INCHES (24") ABOVE THE FINISHED GRADE. THE MARKER SHALL BE SEATED SECURELY INTO THE GROUND FOR EASE IN RELOCATING THE END OF SEWER SERVICE CONNECTION FOR HOOKING UP THE BUILDING SEWER.

IN THE CASE OF RECONNECTION OF EXISTING SERVICES, SUCH RECONNECTIONS WILL BE MADE ONLY AFTER THE NEW SEWER MAIN HAS BEEN COMPLETED, TESTED, AND ACCEPTED. THE EXCAVATION, BEDDING MATERIAL, INSTALLATION, AND BACKFILL FOR SERVICE CONNECTIONS SHALL BE THE SAME AS FOR SEWER MAINS.

J. CLEANOUTS FOR SEWERS:

CLEANOUTS FOR GRAVITY SEWERS AND FORCE MAINS SHALL BE PROVIDED EVERY 100 FT OR WHERE THE SUM OF BENDS = 45 DEGREES. CLEANOUT FRAMES AND COVERS SHALL BE OF TOUGH GRAY CAST IRON. CASTINGS SHALL BE TRUE TO PATTERN AND FREE FROM FLAWS. THE BEARING SURFACE OF CLEANOUT FRAMES AND COVERS AGAINST EACH OTHER SHALL BE MACHINED TO GIVE CONTINUOUS CONTACT THROUGHOUT THEIR CIRCUMFERENCE. ALL IRON CASTINGS SHALL BE THOROUGHLY CLEANED AND THEN COATED WITH HOT COAL TAR BEFORE BEING DELIVERED.

GENERAL WATER SPECIFICATIONS

1. CONTRACTOR SHALL CONTACT ALL UTILITIES BEFORE EXCAVATION TO VERIFY THE LOCATION OF ANY UNDERGROUND LINES. THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-800-DIG-SAFE PRIOR TO ANY EXCAVATION. UTILITIES INFORMATION SHOWN ON THESE PLANS WERE OBTAINED FROM THE BEST AVAILABLE SOURCE AND MAY OR MAY NOT BE EITHER BE ACCURATE OR COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, SHOWN OR NOT SHOWN HEREON.

2. THE HORIZONTAL AND VERTICAL SEPARATION FOR SEWER AND WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE "VERMONT WATER SUPPLY RULE".

3. THE WATER MAINS SHALL BE CONSTRUCTED, TESTED, AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS C-600 AND C-651 WITH THE EXCEPTION OF THE TABLET METHOD OF DISINFECTION. THE CONTRACTOR SHALL FURNISH ALL GAUGES, TESTING PLUGS, CAPS, AND ALL OTHER NECESSARY EQUIPMENT AND LABOR TO PERFORM LEAKAGE, PRESSURE AND DISINFECTION TESTS IN SECTIONS OF AN APPROVED LENGTH. EACH VALVED SECTION OR A MAXIMUM OF ONE THOUSAND FEET (1,000') OF THE PIPE SHALL BE TESTED. ALL WATER REQUIRED FOR TESTING SHALL BE POTABLE. ALL TESTING SHALL BE CONDUCTED IN THE PRESENCE OF THE ENGINEER.

   FOR THE PRESSURE TEST, THE CONTRACTOR SHALL DEVELOP AND MAINTAIN 200 POUNDS PER SQUARE INCH FOR TWO HOURS. FAILURE TO HOLD THE DESIGNATED PRESSURE FOR THE TWO-HOUR PERIOD CONSTITUTES A FAILURE OF THE SECTION TESTED. THE LEAKAGE TEST SHALL BE PERFORMED CONCURRENTLY WITH THE PRESSURE TEST. DURING THE TEST, THE CONTRACTOR SHALL MEASURE THE QUANTITY OF WATER REQUIRED TO MAINTAIN THE TEST PRESSURE. LEAKAGE SHALL NOT EXCEED THE QUANTITY GIVEN BY:

   L = SD (SQUARE ROOT OF P) / 148,000

   L = LEAKAGE IN GALLONS/HOUR
   S = LENGTH OF PIPELINE TESTED
   D = DIAMETER OF PIPE IN INCHES
   P = AVERAGE TEST PRESSURE IN PSI

   ALL TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH AWWA C600 LATEST REVISION. SHOULD ANY SECTION OF THE PIPE FAIL EITHER THE PRESSURE OR LEAKAGE TESTS, THE CONTRACTOR SHALL DO EVERYTHING NECESSARY TO LOCATE AND REPAIR OR REPLACE THE DEFECTIVE PIPE, FITTINGS, OR JOINTS AT NO EXPENSE TO THE OWNER. IF, FOR ANY REASON, THE ENGINEER SHOULD ALTER THE FOREGOING PROCEDURES, THE CONTRACTOR SHALL REMAIN RESPONSIBLE FOR THE TIGHTNESS OF THE LINE WITH THE ABOVE REQUIREMENTS. THE METHOD OF DISINFECTION SHALL BE BY THE CONTINUOUS FEED METHOD UNLESS OTHERWISE APPROVED BY THE ENGINEER. AFTER FILLING, FLUSHING, AND THE INITIAL ADDITION OF CHLORINE SOLUTION, THE FREE CHLORINE CONCENTRATION WITHIN THE PIPE SHALL BE AT LEAST 20 MG/L. THE CHLORINATED WATER SHALL REMAIN IN THE MAIN FOR A PERIOD OF AT LEAST 24 HOURS. AT THE END OF THIS PERIOD, THE TREATED WATER IN ALL PORTIONS OF THE MAIN SHALL HAVE A RESIDUAL OF NOT LESS THAN 10 MG/L FREE CHLORINE. ALL DISINFECTION SHALL BE PERFORMED UNDER THE SUPERVISION OF THE ENGINEER. THE DISINFECTION PROCESS SHALL BE DEEMED ACCEPTABLE ONLY AFTER SAMPLES OF WATER FROM THE FLUSHED, DISINFECTED MAIN TAKEN BY THE ENGINEER AND TESTED AT AN APPROVED LABORATORY SHOW NO EVIDENCE OF BACTERIOLOGICAL CONTAMINATION. DISINFECTION SHALL CONFORM TO THE LATEST AWWA C651 REVISION. THE PIPELINE AND APPURTENANCES SHALL BE MAINTAINED IN AN UNCONTAMINATED CONDITION UNTIL FINAL ACCEPTANCE. DISINFECTION SHALL BE REPEATED WHEN AND WHERE REQUIRED AT NO EXPENSE TO THE OWNER UNTIL FINAL ACCEPTANCE BY THE OWNER.

4. ALL NEW WATER MAIN PIPE SHALL BE OF THE SIZE AND TYPE SHOWN ON THE PLANS. ALL C900 PVC PIPE IS TO BE CLASS DR14 WITH A PRESSURE RATING OF 305 PSI. PVC PIPE SHALL BE IN ACCORDANCE WITH AWWA C-901. ALL FITTINGS SHALL BE CEMENT-LINED DUCTILE IRON, 350 POUNDS WORKING PRESSURE, AND CONFORM TO AWWA C-104, C-111, AND C-110 OR C-153 FOR COMPACT FITTINGS. MECHANICAL JOINT NUTS AND BOLTS SHALL BE HIGH STRENGTH, LOW ALLOY STEEL PER ANSI A-21.11. ALL CURB STOPS AND CORPORATION STOPS SHALL MEET AWWA C-800 STANDARDS.

5. ALL HYDRANTS SHALL BE KENNEDY MODEL K-81D MEULLER SUPER CENTURION 250 AND CONFORM TO AWWA C-502 WITH A 5 1/4" VALVE OPENING, A MECHANICAL JOINT INLET, A 6" MECHANICAL JOINT SHOE, AND BE LEFT OPENING WITH NATIONAL STANDARD THREADS AND 4" STORZ CONNECTION. THE CONTRACTOR SHALL PROVIDE AND INSTALL AN AUXILIARY VALVE OF THE TYPE INDICATED ON THE CONTRACT DRAWINGS AND A LENGTH OF 6" DUCTILE IRON PIPE SUFFICIENT TO CONNECT THE HYDRANT TO THE MAIN.

6. ALL GATE VALVES SHALL BE CEMENT-LINED AND MEET THE REQUIREMENTS OF AWWA C-509. ALL VALVES SHALL BE MECHANICAL JOINT, CAST IRON BODY, PARALLEL BRASS SEATS, NON-RISING STEM, INSIDE SCREW, RESILIENT SEAT CONSTRUCTION WITH O-RING STEM SEALS.

7. ALL WATER MAIN THRUST BLOCKS SHALL BE CONSTRUCTED OF 3,500 PSI CONCRETE.

8. THE WATER MAINS SHALL HAVE A MINIMUM DEPTH OF COVER OF 6'.

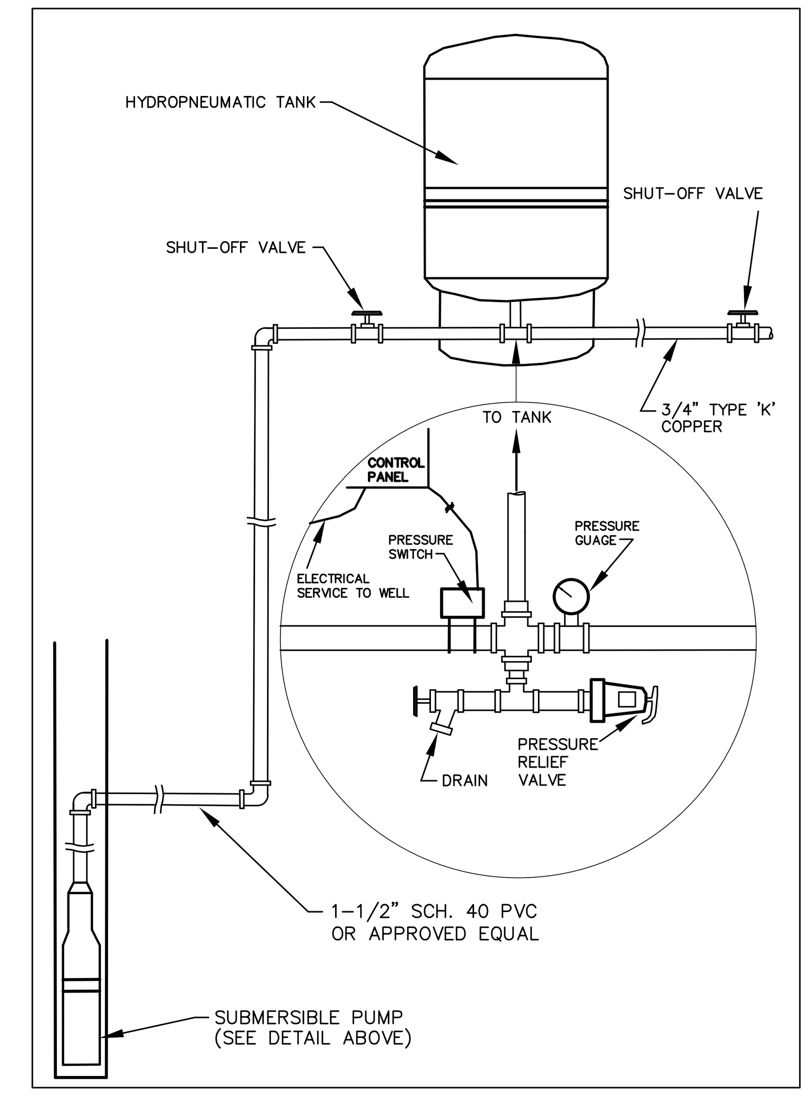
9. ANY SURFACES, LINES, OR STRUCTURES WHICH HAVE BEEN DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO A CONDITION AT LEAST EQUAL TO THAT IN WHICH THEY WERE FOUND IMMEDIATELY PRIOR TO THE BEGINNING OF CONSTRUCTION.

10. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND INSTALLATION OF THE INDIVIDUAL LOT WATER LINE SERVICES WITH THE OWNER AT THE TIME OF CONSTRUCTION.

11. THE CONTRACTOR SHALL USE "MEGALUG" RESTRAINTS ON ALL M.J. FITTINGS.

12. ALL MAIN LINE GATE VALVES SHALL BE BEDDED IN A MINIMUM OF 6" OF 3/4" - 1" STONE. CONCRETE SHALL NOT BE USED.

13. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR THE 1ST NEW UNIT, THE EXISTING WATER SERVICES, CURB STOPS AND EXISTING WATER METERING INFRASTRUCTURE MUST BE UPGRADED TO THE TOWN OF ESSEX CURRENT STANDARDS



TYPICAL SHARED WATER SYSTEM

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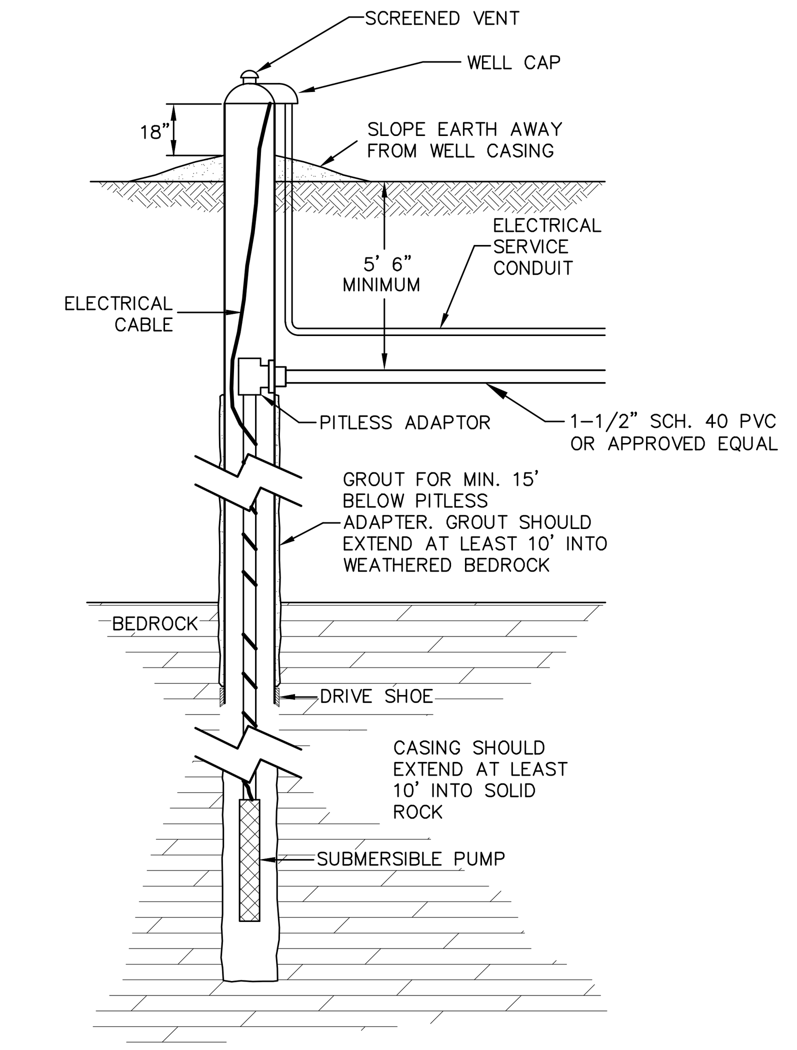


TYPICAL SHARED DRILLED WELL

NTS

DRILLED WELL ISOLATION DISTANCES

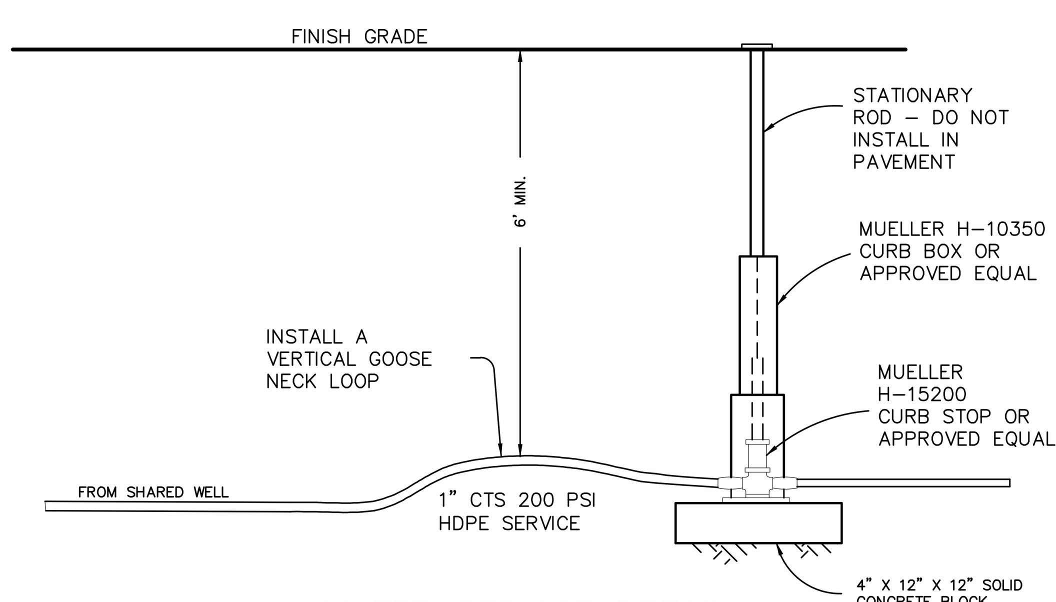
ROADWAY, PARKING	*25 FEET*
DRIVES, < 3 RESIDENCES	*15 FEET*
SEWAGE PIPING / TANKS	*50 FEET*
PROPERTY LINE	*10 FEET*
SURFACE WATER	*10 FEET*
BUILDINGS	*10 FEET*
SEWAGE SYSTEM:	
DOWNSLOPE WELL	*200 FEET*
UPSLOPE WELL	*100 FEET*

SHARED DRILLED WELL DESIGN DATA

1. THE DRILLED WELL(S) CONSTRUCTION, LOCATION, DISINFECTION AND TESTING SHALL BE IN ACCORDANCE WITH THE STATE OF VERMONT - WATER SUPPLY

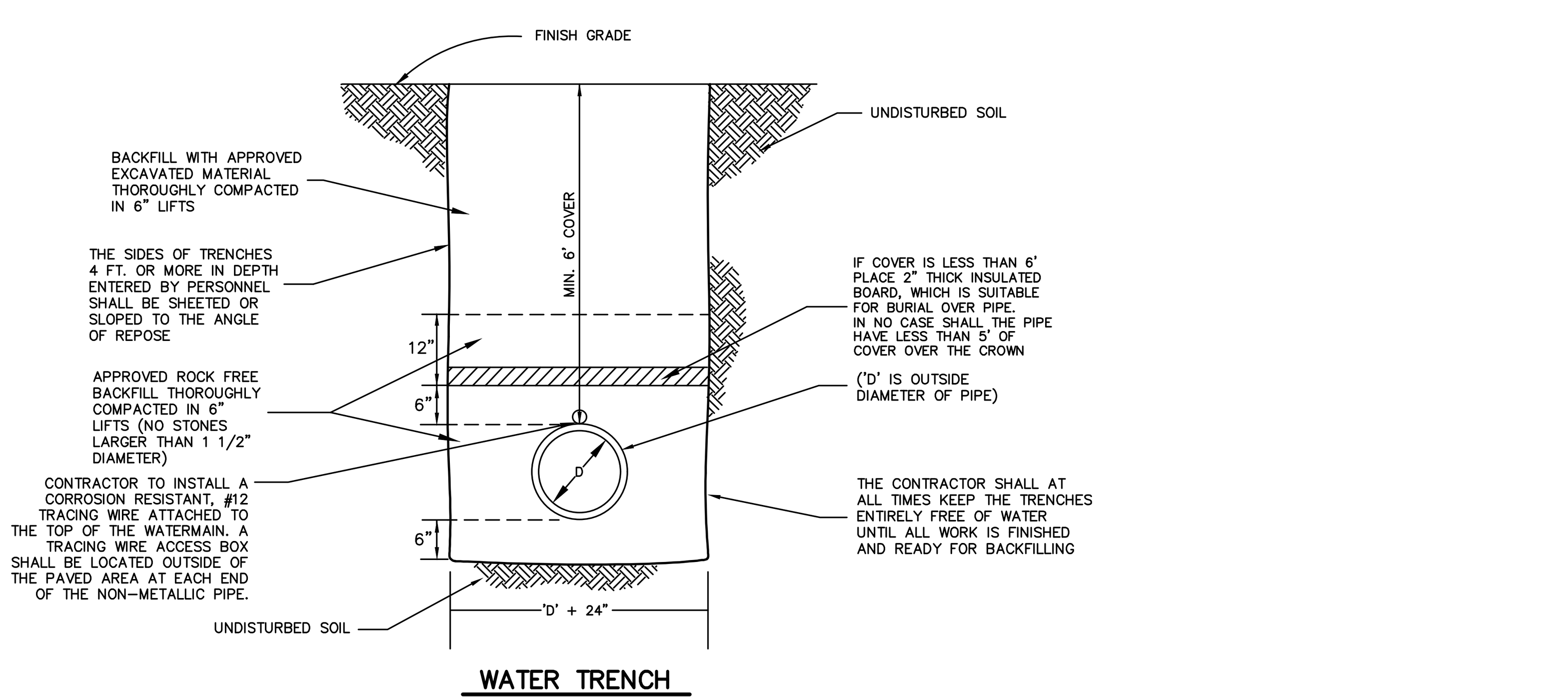
2. THE BASIS OF DESIGN FOR THE DRILLED WELL IS

A. AVG. DAY DEMAND : 1,400 GPD (5 x 2-BEDROOM UNITS)
B. MAX. DAY DEMAND : 1,400 GPD/720 MIN/DAY = 1.94 GPM
C. INSTANTANEOUS PEAK DEMAND: 5 GPM X 5 UNITS = 25 GPM
D. SOURCE CAPACITY: TO BE DETERMINED
E. STORAGE CAPACITY: SIZE TO BE DETERMINED BASED ON WELL YIELD (IF REQUIRED)
F. PUMP CAPACITY AT UNITS: 5 UNITS @ 5 GPM = 25 GPM MINIMUM
G. OPERATING PRESSURE RANGE; 40 - 60 PSI AT PRESSURE SWITCH



WATER SERVICE DETAIL

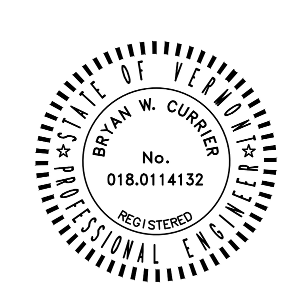
NTS



WATER TRENCH

NTS

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.



DATE	REVISION	BY
SURVEY: OBCA	☐ RECORD DRAWING ■ PRELIMINARY ☐ FINAL ☐ SKETCH/CONCEPT	DATE: 1/18/24
DESIGN: BWC GRT		JOB #: 2081-44
DRAWN: GRT		FILE: 2018-44-23
CHECKED: BWC		SHEET #: 15
SCALE: 1" = 40'		

O'LEARY-BURKE
CIVIL ASSOCIATES, PLC
13 CORPORATE DRIVE
ESSEX JUNCTION, VT 05452
PHONE: 802-878-9990
FAX: 802-878-9989
E-MAIL: obca@olearyburke.com

HOMESTEAD CAMPGROUND
GEORGIA, VERMONT

WATER AND SEWER DETAILS AND SPECIFICATIONS

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MULCHING SPECIFICATIONS

DISTURBED AREAS ARE TO BE MULCHED WITHIN A WEEK OF DISTURBANCE. HAY MULCH SHALL BE SPREAD UNIFORMLY OVER THE AREA AT A RATE OF TWO TONS PER ACRE OR AT A RATE THAT IS SUFFICIENT TO PROVIDE ADEQUATE COVERAGE.

WITHIN 48 HOURS OF FINAL GRADING, THE EXPOSED SOIL MUST BE SEEDED AND MULCHED.

SNOW MANAGEMENT PLAN :

FOLLOWING THE ACCUMULATION OF ANY SNOW FALL EVENT WHICH GENERATES MORE THAT 1" OF SNOW OR ICE THE SITE SHALL BE CLEARED AND ALL SNOW AND ICE STORED IN THE IDENTIFIED SNOW STORAGE AREAS ON THE EPSC CONSTRUCTION PLANS. ALL SNOW STORAGE AREAS SHALL BE DOWN GRADIENT OF ANY DISTURBED AREAS AND THE STORAGE OF SNOW IN STORMWATER TREATMENT STRUCTURES IS PROHIBITED.

WINTER CONSTRUCTION REQUIREMENTS

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL.
2. PROVIDE ENLARGED ACCESS POINTS, STABILIZED TO PROVIDE FOR SNOW STOCKPILING.
3. A MINIMUM 25 FT BUFFER SHALL BE MAINTAINED FROM PERIMETER CONTROLS SUCH AS SILT FENCE.
4. DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
5. SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE MUST BE INSTALLED AHEAD OF FROM GROUND.
6. MULCH USED FOR TEMPORARY STABILIZATION MUST BE APPLIED AT DOUBLE THE STANDARD RATE, OR A MINIMUM OF 3 INCHES WITH AN 80–90% COVER.
7. TO ENSURE COVER OF DISTURBED SOIL IN ADVANCE OF A MELT EVENT, AREAS OF DISTURBED SOIL MUST BE STABILIZED AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
   - IF NO PRECIPITATION WITHIN 24 HOURS IS FORECAST AND WORK WILL RESUME IN THE SAME DISTURBED AREA WITHIN 24 HOURS, DAILY STABILIZATION IS NOT NECESSARY.
   - DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS HOUSE FOUNDATIONS OR OPEN UTILITY TRENCHES.
8. PRIOR TO STABILIZATION, SNOW OR ICE MUST BE REMOVED TO LESS THAN 1 INCH THICKNESS.
9. USE STONE TO STABILIZE AREAS SUCH AS THE PERIMETER OF BUILDINGS UNDER CONSTRUCTION OR WHERE CONSTRUCTION VEHICLE TRAFFIC IS ANTICIPATED. STONE PATHS SHOULD BE 10–20 FEET WIDE TO ACCOMMODATE VEHICULAR TRAFFIC.
10. IN AREAS OF DISTURBANCE THAT DRAIN TO A WATER BODY WITHIN 100 FEET, TWO ROWS OF SILT FENCE MUST BE INSTALLED ALONG THE CONTOUR.

WINTER INSPECTION SCHEDULE	AFTER A THAW OR A RAINFALL GENERATING RUNOFF FROM SITE
INSPECT SILT FENCING WITH SKI TAPE	X
INSPECT AREAS TEMPORARILY MULCHED	X
INSPECT TEMPORARY STOCKPILES	X
INSPECT STABILIZED CONSTRUCTION ENTRANCES	X
INSPECT AREAS THAT HAVE BEEN TOPSOILED & MULCHED	X
INSPECT STORMWATER SWALES, SPREADERS, OUTFLOW DEVICES	X

STUMP DISPOSAL SPECIFICATIONS

ALL SUITABLE TREES THAT MUST BE CUT WILL BE USED AS FIREWOOD. THE STUMPS, BRUSH, & EXCESS UNSUITABLE EARTH WILL BE DISPOSED OF AT THE LOCATION DESIGNATED BY THE ENGINEER, CONTINGENT UPON APPROVAL FROM THE TOWN BUILDING INSPECTOR. SAID AREA(S) SHALL BE A MINIMUM OF TWO FEET ABOVE THE SEASONAL HIGH GROUNDWATER OR THE STUMPS SHALL BE HAULED OFF–SITE TO A STATE–APPROVED LANDFILL. IF ON–SITE STUMP DISPOSAL IS IMPLEMENTED, THE FOLLOWING GUIDELINES SHALL BE MET:

1. WHENEVER POSSIBLE, STUMP DISPOSAL SITES SHOULD BE LOCATED ON NEARLY LEVEL TO MODERATELY SLOPING LANDS (SLOPES LESS THAN 12%).
2. DISPOSAL SITES WILL NOT BE LOCATED IN OR WITHIN 100 FEET OF FLOWING WATERCOURSES OR STREAMS OR IN ACTIVELY ERODING GULLIES.
3. DISPOSAL SITES SHALL NOT BE LOCATED IN FLOODED OR FLOOD–PRONE LANDS, MARSHES, OR OTHER AQUIFER RECHARGE AREAS.
4. STUMPS WILL BE PLACED ON THE SITE IN A SINGLE LIFT PRIOR TO BACKFILLING. WHEN ADDITIONAL STUMPS ARE TO BE DEPOSITED ON THE SAME SITE, EACH SUCCESSIVE LAYER OR LIFT OF STUMPS WILL BE BACKFILLED.
5. STUMPS DEPOSITED IN DRAINAGEWAYS OR DEPRESSIONS SHALL BE BACKFILLED AND BERMED SO AS TO DIVERT OVERLAND FLOWS FROM THE DISPOSAL AREA.
6. A MINIMUM OF TWO FEET (2') OF OVERBURDEN WILL BE PLACED OVER ALL DISPOSAL SITES.
7. THE TWO FEET OF OVERBURDEN WILL BE COVERED WITH A MINIMUM OF FOUR INCHES (4") OF TOPSOIL, GRADED, SEEDED, AND MULCHED IN ACCORDANCE WITH THE SPECIFICATIONS.

EROSION CONTROL SPECIFICATIONS

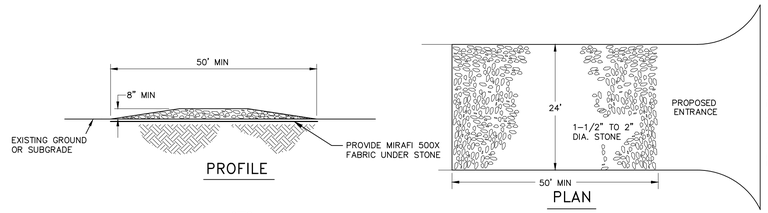
1. SEE OTHER DRAWINGS OF THESE PLANS FOR ADDITIONAL STORMWATER AND EROSION CONTROL SPECIFICATIONS AND DETAILS.
2. THE ROADWAY AND YARD FINISH GRADE SLOPES SHALL NOT BE STEEPER THAN 3 ON 1. THE FINISHED GRADE SLOPES SHALL BE IMMEDIATELY GRADED AND MULCHED.
3. ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEEDING AND MULCHING PRIOR TO NOVEMBER 1 OF EACH YEAR. ANY DISTURBED AREAS OUTSIDE OF THE ROADWAY SHALL BE IMMEDIATELY SEEDED AND MULCHED WITHIN 15 DAYS.
4. THE EROSION CONTROL METHODS USED DURING CONSTRUCTION OF THE DEVELOPMENT SHALL PROCEED IN THE FOLLOWING SEQUENCE:
   A) THE CONTRACTOR SHALL INSTALL AND MAINTAIN SILT FENCES, AND OTHER EROSION CONTROL MEASURES, IF REQUIRED, AS ORDERED BY THE ENGINEER. THE EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AFTER EVERY RAINFALL UNTIL THE NEW IMPROVEMENTS ARE PAVED AND ALL DISTURBED AREAS HAVE BEEN GRASSED. THE REPAIR OF THE EROSION CONTROL MEASURES WILL INCLUDE REMOVING ANY SEDIMENTATION. THE SEDIMENT MAY BE PLACED AS FILL IN THE LOW AREAS, IF APPROVED BY THE ENGINEER.
   B) THE TOPSOIL SHALL BE REMOVED FROM THE AREAS TO BE GRADED AND STOCKPILED. A SILT FENCE SHALL BE PLACED CONTINUOUSLY AROUND THE BOTTOM OF THE PILE.
   C) IN AREAS NEAR THE NEW CONSTRUCTION, THE CONTRACTOR SHALL ENCLOSE THE TRUNKS OF TREES TO BE SAVED WITH WOODEN SNOW FENCING ALONG THE DRIPLINE TO PROTECT THE FROM INJURY.
   D) THE SITE GRADING AND BUILDING/UTILITY INFRASTRUCTURE SHALL BE CONSTRUCTED. THE CONTRACTOR WILL INSTALL INLET PROTECTION AROUND THE CATCH BASINS UNTIL THE ROADWAY HAS BEEN PAVED AND GRASS HAS BEEN ESTABLISHED ON THE SLOPES.
   E) THE CONTRACTOR WILL TOPSOIL, SEED, AND MULCH THE DISTURBED AREAS AS SOON AS POSSIBLE FOLLOWING COMPLETION OF ADJACENT CONSTRUCTION.
   F) OPEN CUT AREAS SHALL BE MULCHED OUTSIDE OF ACTUAL WORK AREAS, AND SILT FENCE SHALL BE EMPLOYED TO CONFINE SHEET WASH AND RUNOFF TO THE IMMEDIATE OPEN AREA AS ORDERED BY THE ENGINEER.
5. DURING CONSTRUCTION, THE PROJECT SHALL BE IN COMPLIANCE WITH THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL.

LANDSCAPING SPECIFICATIONS

ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEEDING AND MULCHING PRIOR TO NOVEMBER 1 OF EACH YEAR. ANY DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED AND MULCHED WITHIN 15 DAYS. ANY WORK PERFORMED AFTER NOVEMBER 1 OF EACH YEAR SHALL BE STABILIZED WITH MULCH OR NETTING SUFFICIENT TO PREVENT EROSION AND SHALL BE IMMEDIATELY SEEDED AND REMULCHED AS SOON AS WEATHER PERMITS IN THE SPRING. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL AND BE SEEDED, FERTILIZED, LIMED, AND MULCHED IN ACCORDANCE WITH THE FOLLOWING:

1. SEED MIXTURE IN ALL AREAS SHALL BE URBAN MIX CONFORMING TO THE TABLE SHOWN ON THE PLANS. FOR SEEDING BETWEEN SEPTEMBER 1 AND NOVEMBER 1, WINTER RYE SHALL BE USED AT AN APPLICATION RATE OF 100 POUNDS PER ACRE.
2. FERTILIZER SHALL BE STANDARD COMMERCIAL GRADE CONFORMING TO THE STATE FERTILIZER LAW AND TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. DRY FERTILIZER, IF USED, SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. LIQUID FERTILIZER, IF USED, SHALL BE APPLIED IN A 1–2–1 RATIO WITH THE MINIMUM RATE TO INCLUDE 100 POUNDS OF NITROGEN, 200 POUNDS OF PHOSPHATE, AND 100 POUNDS OF POTASH PER ACRE.
3. LIMESTONE SHALL CONFORM TO ALL STATE AND FEDERAL REGULATIONS AND TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. THE LIMESTONE SHALL BE APPLIED AT A RATE OF TWO TONS PER ACRE OR AS DIRECTED.
4. WITHIN 24 HOURS OF APPLICATION OF FERTILIZER, LIME, AND SEED, THE SURFACE SHALL BE MULCHED WITH A HAY MULCH. MULCH SHALL BE SPREAD UNIFORMLY OVER THE AREA AT A RATE OF TWO TONS PER ACRE OR AS ORDERED BY THE ENGINEER.

URBAN MIX GRASS SEED		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
37.5	45	CREEPING RED FESCUE
31.25	37.5	KENTUCKY BLUEGRASS
31.25	37.5	WINTER HARDY, PERENNIAL RYE
100	120 # LIVE SEED PER ACRE	

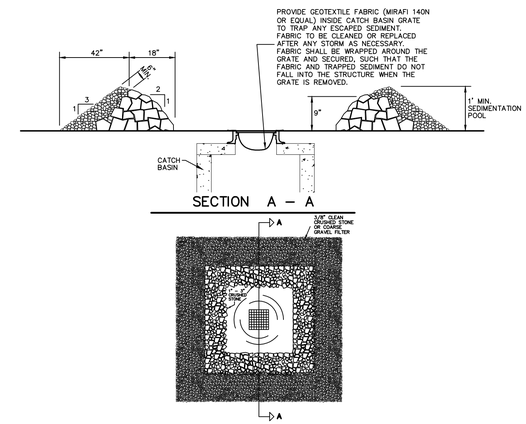


NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING 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 MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT TRACKED, SPILLED, OR WASHED ONTO PUBLIC RIGHTS–OF–WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
2. THE USE OF CALCIUM CHLORIDE OR WATER MAY BE NECCESSARY TO CONTROL DUST DURING DRY PERIODS.
3. PROVIDE APPROPRIATE TRANSITION BETWEEN CONSTRUCTION ENTRANCE AND THE EXISTING ROADWAY

STABILIZED CONSTRUCTION ENTRANCE

NTS



CONSTRUCTION INLET PROTECTION DETAIL

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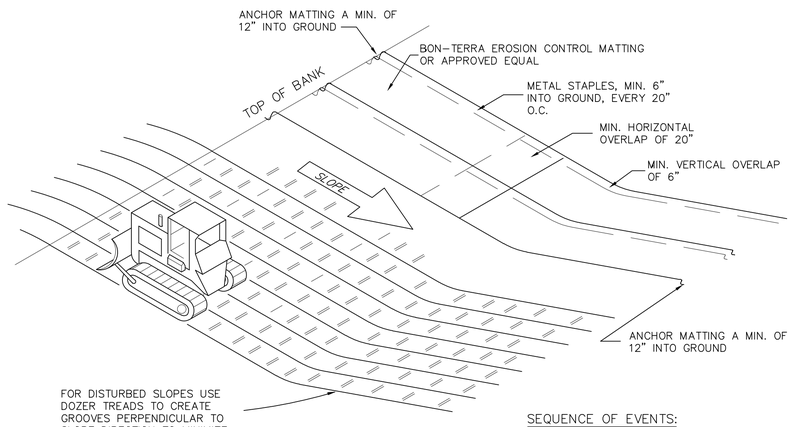


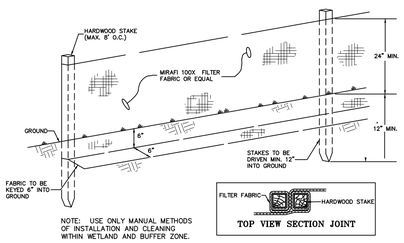
FOR DISTURBED SLOPES USE DOZER TREADS TO CREATE GROOVES PERPENDICULAR TO SLOPE DIRECTION TO MINIMIZE RUNOFF VELOCITIES.

SEQUENCE OF EVENTS:

SEED, FERTILIZE, MULCH, AND APPLY EROSION CONTROL MATTING

EROSION MATTING

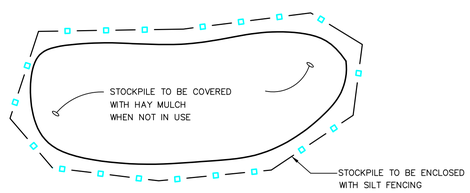
NTS



NOTE: USE ONLY MANUAL METHODS OF INSTALLATION AND CLEANING WITHIN WETLAND AND BUFFER ZONE.

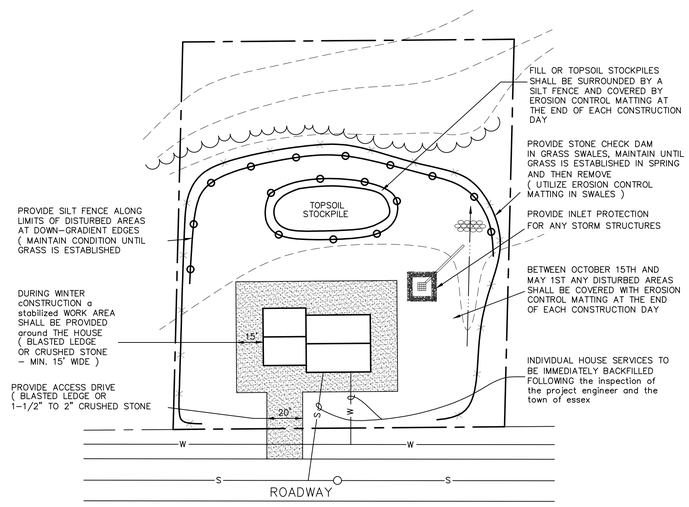
TEMPORARY SILT FENCE

NTS



TEMPORARY FILL MATERIAL STOCKPILE

NTS



INDIVIDUAL LOT
EROSION AND SEDIMENT CONTROL
(FOR WINTER CONSTRUCTION)

NTS

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1–888–DIG–SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

DATE	REVISION	BY
SURVEY: OBCA	☐ RECORD DRAWING ■ PRELIMINARY ☐ FINAL ☐ SKETCH/CONCEPT	DATE: 1/18/24
DESIGN: BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC	JOB #: 2081-44
DRAWN: GRT	HOMESTEAD CAMPGROUND — GEORGIA, VERMONT	FILE: 2018-44-23
CHECKED: BWC	13 CORPORATE DRIVE, ESSEX JUNCTION, VT 05452, PHONE: 802-878-9990, FAX: 802-878-9989, E-MAIL: obca@olearyburke.com	SHEET #: 16
SCALE: 1" = 40'	EROSION CONTROL DETAILS AND SPECIFICATIONS	

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STORM SYSTEM MAINTENANCE

MAINTENANCE PLAN

SYSTEM MAINTENANCE IS IMPORTANT FOR TREATMENT AND CONTROL OF STORM RUNOFF FROM THE IMPERVIOUS SURFACES (ROAD, PARKING, BUILDING AND WALKWAY). THE FOLLOWING ELEMENTS FORM THE MINIMUM REQUIREMENTS:

1. THE OWNER (OR REPRESENTATIVE) SHALL PERFORM INSPECTIONS ANNUALLY AND FOLLOWING SIGNIFICANT (LARGE) STORM EVENTS. THE FOLLOWING ITEMS SHALL BE REVIEWED: CONDITION OF THE VEGETATION, CONDITION OF THE DITCH SURFACES, DEPTH OF ACCUMULATED SEDIMENT (IF ANY), THE PRESENCE OF EROSION (IF ANY), CONDITION OF THE STORM PIPES, AND THE CONDITION OF THE PIPE INLETS AND OUTLETS. ANY OBSERVABLE DEGRADATION OF THE STORM SYSTEM SHALL BE NOTED.

2. THE OWNER (OR REPRESENTATIVE) SHALL COMPLETE REPAIR OF ANY ITEMS, AS REQUIRED TO MAINTAIN OPTIMAL SYSTEM OPERATION. AT A MINIMUM, THE FOLLOWING ITEMS SHALL BE INCLUDED:

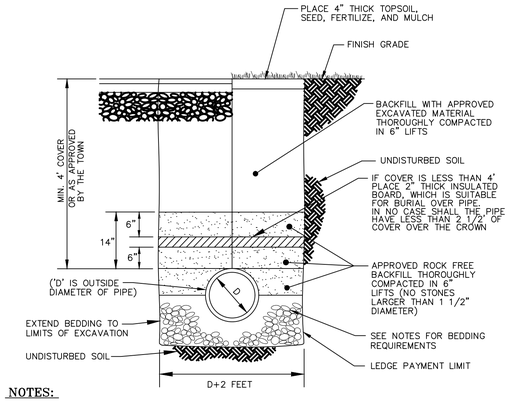
A. ANY EROSION GULLIES 6 INCHES OR DEEPER SHALL BE FILLED AND VEGETATION ESTABLISHED IN THE DISTURBED AREA.

B. SEDIMENT ACCUMULATED TO A DEPTH OF MORE THAN 6 INCHES IN THE ROAD DITCHES SHALL BE REMOVED AND DISPOSED OF IN AN UPLAND AREA THAT IS NOT WITHIN 100 FEET OF WATERS OF THE STATE. VEGETATION SHALL BE ESTABLISHED IN ALL DISTURBED AREAS.

C. VEGETATION SHALL BE ESTABLISHED AS NEEDED, IN AREAS OF BARE SOIL. THIS IS PARTICULARLY IMPORTANT IN FLOW AREAS WHERE VEGETATION PROVIDES SEDIMENT REMOVAL.

D. SILT FENCES SHALL BE USED IF NEEDED TO PREVENT EROSION AND AID IN THE ESTABLISHMENT OF VEGETATION. THESE TEMPORARY MEASURES SHALL BE REMOVED AFTER THE SITE IS STABILIZED AND THE RISK OF EROSION IS REDUCED.

E. THE GRASSED AREAS SHALL BE MOWED AS NEEDED TO PREVENT THE ESTABLISHMENT OF WOODY VEGETATION.

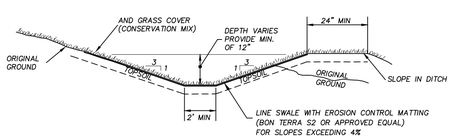


NOTES:

1. THE CONTRACTOR SHALL AT ALL TIMES KEEP THE TRENCHES ENTIRELY FREE OF WATER UNTIL ALL WORK IS FINISHED AND READY FOR BACKFILLING.
2. REFER TO THE WRITTEN SPECIFICATIONS FOR BACKFILL AND COMPACTION REQUIREMENTS.
3. REFER TO THE WRITTEN SPECIFICATIONS FOR STORM DRAINAGE PIPE REQUIREMENTS.
4. THE SIDES OF THE TRENCHES 4 FEET OR MORE IN DEPTH TO BE ENTERED BY PERSONNEL SHALL BE SHEETED, SLOPED, OR PROPERLY SUPPORTED, CONFORMING TO VOSHA REQUIREMENTS.
5. PIPE BEDDING SHALL BE CRUSHED STONE, FROM 6" BELOW THE INVERT, TO THE SPRINGLINE OF THE PIPE.

STORM TRENCH

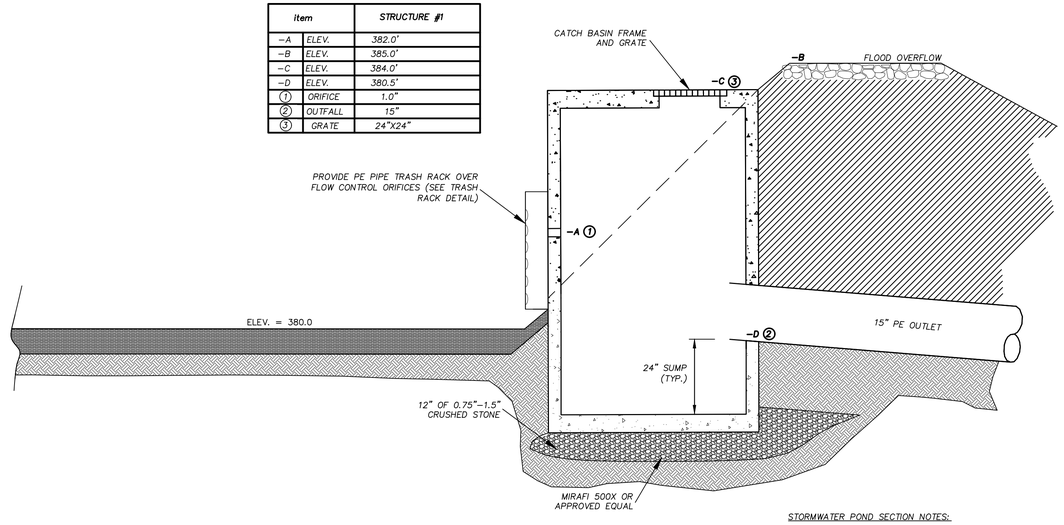
NTS



GRASS DRAINAGE SWALE

NTS

item		STRUCTURE #1
–A	ELEV.	382.0'
–B	ELEV.	385.0'
–C	ELEV.	384.0'
–D	ELEV.	380.5'
1	ORIFICE	1.0"
2	OUTFALL	15"
3	GRATE	24"X24"

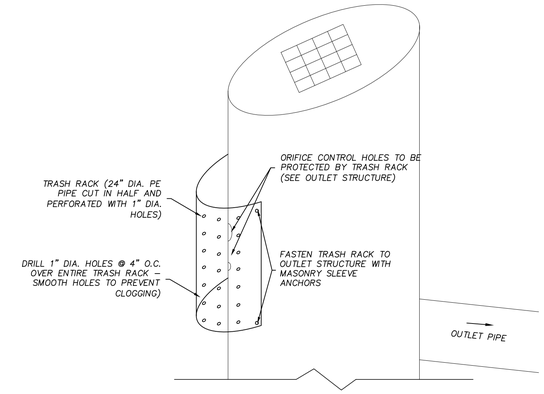


DRY POND/OUTLET STRUCTURE DETAIL

NTS

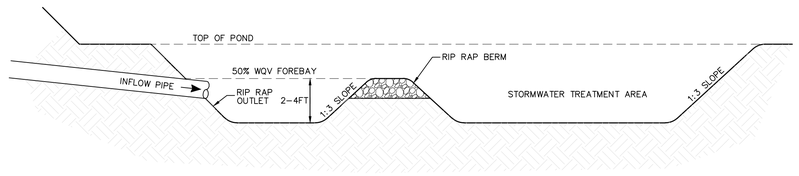
STORMWATER POND SECTION NOTES:

1. MINIMUM CONCRETE STRENGTH – 5,000 PSI @ 28 DAYS
2. PLUG OUTLET ORIFICES UNTIL SITE IS STABILIZED
3. SEE PLANS FOR POND, PIPE, CHANNEL, WEIR, AND BASIN LOCATIONS.
4. FOREBAY SEDIMENT SHALL BE REMOVED EVERY 10 YEARS OR WHEN FOREBAY VOLUME IS REDUCED BY 50%



TRASH RACK

NTS

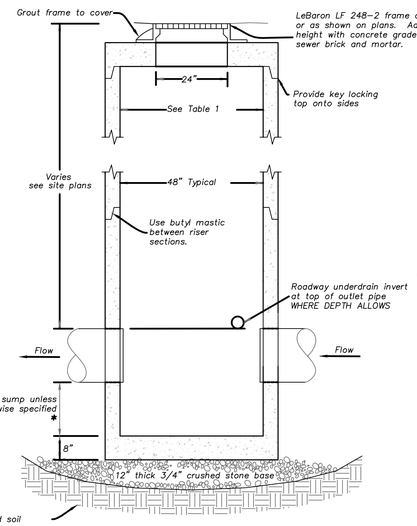


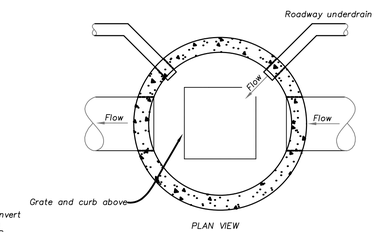
SEDIMENT FOREBAY DETAIL

NTS

NOTES:

1) CONTRACTOR SHALL SUB–CUT THE INFILTRATION AREA AS SHOWN ON THE PLANS. WHERE POSSIBLE, EXCAVATION SHOULD BE PERFORMED WITH A BACKHOE AND WORK SHOULD BE DONE FROM THE SIDES AND OUTSIDE THE FOOTPRINT OF THE INFILTRATION AREA TO AVOID SOIL COMPACTION. IF IT IS NECESSARY TO WORK IN THE INFILTRATION AREA, ONLY LOW GROUND PRESSURE TRACKED EQUIPMENT SHOULD BE ALLOWED TO COMPLETE THE WORK. RUBBER TIRE EQUIPMENT SHALL BE STRICTLY PROHIBITED WITHIN THE INFILTRATION AREA, UNLESS WORKING FROM PAVEMENT OUTSIDE OF THE BASIN OR TRENCH. THE CONTRACTOR SHALL START THE WORK AT THE FAR SIDE OF THE TRENCH OR BASIN AND WORK THEIR WAY OUT.
2) SUBSOIL DECOMPACTION IS REQUIRED IN ALL INFILTRATION AREAS. DECOMPACT SUBSOIL WITH A BACKHOE RIPPER ATTACHMENT OR OTHER APPROVED METHOD TO A DEPTH OF AT LEAST 18 INCHES BELOW SUBGRADE.
3) THE CONTRACTOR SHALL TOPSOIL, SEED, AND MULCH THE DISTURBED AREAS AS SOON AS POSSIBLE FOLLOWING COMPLETION OF ADJACENT CONSTRUCTION. TOPSOIL SHALL MEET THE POST–CONSTRUCTION SOIL DEPTH AND QUALITY STANDARD.





PLAN VIEW

TABLE 1

Storm Catch Basin Diameter	Minimum Wall Thickness	Largest Pipe Dia. Allowed	Minimum Concrete Cover Thickness
48"	5"	30"	10"
60"	6.75"	36"	12"
72"	7"	48"	18"

Raise frame to finished grade only after base course of pavement is in place – raise frame to base course grade if wear course is to be placed during the following construction season.

4000 psi concrete by SD IRELAND, CAMP PRECAST or approved equal.

Flexible manhole sleeves shall be provided for all pipe penetrations.

Backfill structure with Granular backfill VAOT 703.04

STRUCTURE SHALL BE H20 RATED WITHIN ROADWAYS

CATCH BASIN DETAIL

NTS

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1–888–DIG–SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT — BRYAN W. CURRIER — No. 018.0114132 — REGISTERED PROFESSIONAL ENGINEER

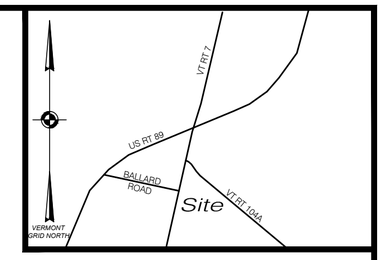
DATE	REVISION	BY
SURVEY: OBCA	☐ RECORD DRAWING ■ PRELIMINARY ☐ FINAL ☐ SKETCH/CONCEPT	DATE: 1/18/24
DESIGN: BWC GRT	O'LEARY-BURKE CIVIL ASSOCIATES, PLC	JOB #: 2081-44
DRAWN: GRT	13 CORPORATE DRIVE, ESSEX JUNCTION, VT 05452, PHONE: 802-878-9990, FAX: 802-878-9989, E-MAIL: obca@olearyburke.com	FILE: 2018-44-23
CHECKED: BWC	HOMESTEAD CAMPGROUND — GEORGIA, VERMONT	SHEET #: 17
SCALE: 1" = 40'	STORMWATER DETAILS AND SPECIFICATIONS	

C:\Users\Employee\O'Leary Burke Civil Associates, PLC\O'Leary Burke Shared – Documents\2018\2018-44\dwg\2018-44-S25.dwg

This is an Original Mylar

Legend

- BOUNDARY LINE
- ABUTTER LINE
- SPLIT AIL FENCE (PVC)
- CONCRETE MONUMENT FOUND
- IRON PIPE FOUND
- PK NAIL WITH BRASS DISK
- IRON BAR FOUND
- IRON BAR SET
- A.G — ABOVE GRADE
- B.G — BELOW GRADE
- FL — FLUSH
- C B — CHORD BEARING
- C — CHORD DISTANCE
- UNMONUMENTED CORNER, NO MARKER FOUND OR SET



Location Plan-n.t.s.

GENERAL SURVEY NOTES

1. The purpose of this plan is to depict the re-subdivision of the property known as 864 Ethan Allen Highway in Georgia, Vermont.

2. Reference is made to the following plats and plans recovered within the Town of Georgia Land Records

a. "ALTA/ACSM Land Title Survey and Boundary Line Adjustment, DG Strategic II, LLC, Portion of Lands of S. T. Mack Inc, Volume 151, Page 738" 864 Ethan Allen Highway, Georgia, Vermont, sheet 1 of 2," dated 9-26-12, last revised 4-23-14, by Button Professional Land Surveyors, P.C. as recorded in Slide 230A of the Town of Georgia Land Records.

b. "ALTA/ACSM Land Title Survey, DG Strategic II, LLC, Volume 262, Page 246", 864 Ethan Allen Highway, Georgia, Vermont, sheet 1 of 2,"dated 10-27-14, by Button Professional Land Surveyors, P.C. as recorded in Slide ??? of the Town of Georgia Land Records.

c. "ALTA/ACSM Land Title Survey , Dearborn Land Investment LLC, Portion of Lands of S. T. Mack Inc, Volume 151, Page 738", 864 Ethan Allen Highway, Georgia, Vermont, sheet 1 of 2, dated 9-28-12, last revised 8-8-13, by Button Professional Land Surveyors, P.C. as recorded in Slide 228A of the Town of Georgia Land Records.

d. "ALTA/ACSM Land Title Survey , Dearborn Land Investment LLC, Portion of Lands of S. T. Mack Inc, Volume 151, Page 738",864 Ethan Allen Highway, Georgia, Vermont, Sheet 2 of 2" dated 9-28-12, last revised 8-8-13, by Button Professional Land Surveyors, P.C. as recorded in Slide 228B of the Town of Georgia Land Records.

e. Sheet 2 of Project Georgia ST 237 M as prepared by the State of Vermont Department of Highways, undated as filed with the Vermont Agency of Transportation.

f. Sheet 9 of 12 of Project Georgia BP 237 M as prepared by the State of Vermont Department of Highways, undated as filed with the Vermont Agency of Transportation.

g. Sheet 9 of 12 of Project Georgia BP 019-5 6676 as prepared by the State of Vermont Department of Highways, undated as filed with the Vermont Agency of Transportation.

h. "Arrowhead Lake Village, (Property Plat West)Vermont Route 104A, Georgia, Vermont", dated 7-11-94, as prepared by Lamoureux & Dickinson and recorded in slide 185 of the Town of Georgia Land Records

i. "Arrowhead Lake Village, (Property Plat East)Vermont Route 104A, Georgia, Vermont", dated 7-11-94, as prepared by Lamoureux & Dickinson and recorded in slide 185A of the Town of Georgia Land Records

j. "Plat of Survey, Raymond & Ethel Bovat Property, 11.04 acres" as prepared by Warren A. Robenstien, L.S. dated November, 1982 and recorded in slide 150 of the Town of Georgia Land Records.

k. "David M. & Julie M. Malloy property" as prepared by John E. Buck dated 12 May, 1966 and recorded in slide 41 of the Town of Georgia Land Records.

l. "Meadowood Park, Proposed Five Lot Subdivision", as prepared by JHStuart , dated Feb, 1986 and recorded in slide 105 of the Town of Georgia Land Records.

m. "Myott Subdivision" as prepared by David A. Tudhope L.S., dated 5-17-08, and recorded in slide 192 of the Town of Georgia Land Records.

3. The variable Rights-of-Way widths for Route 7 and Route 104A are based on the plans referenced in notes 1E-G above.

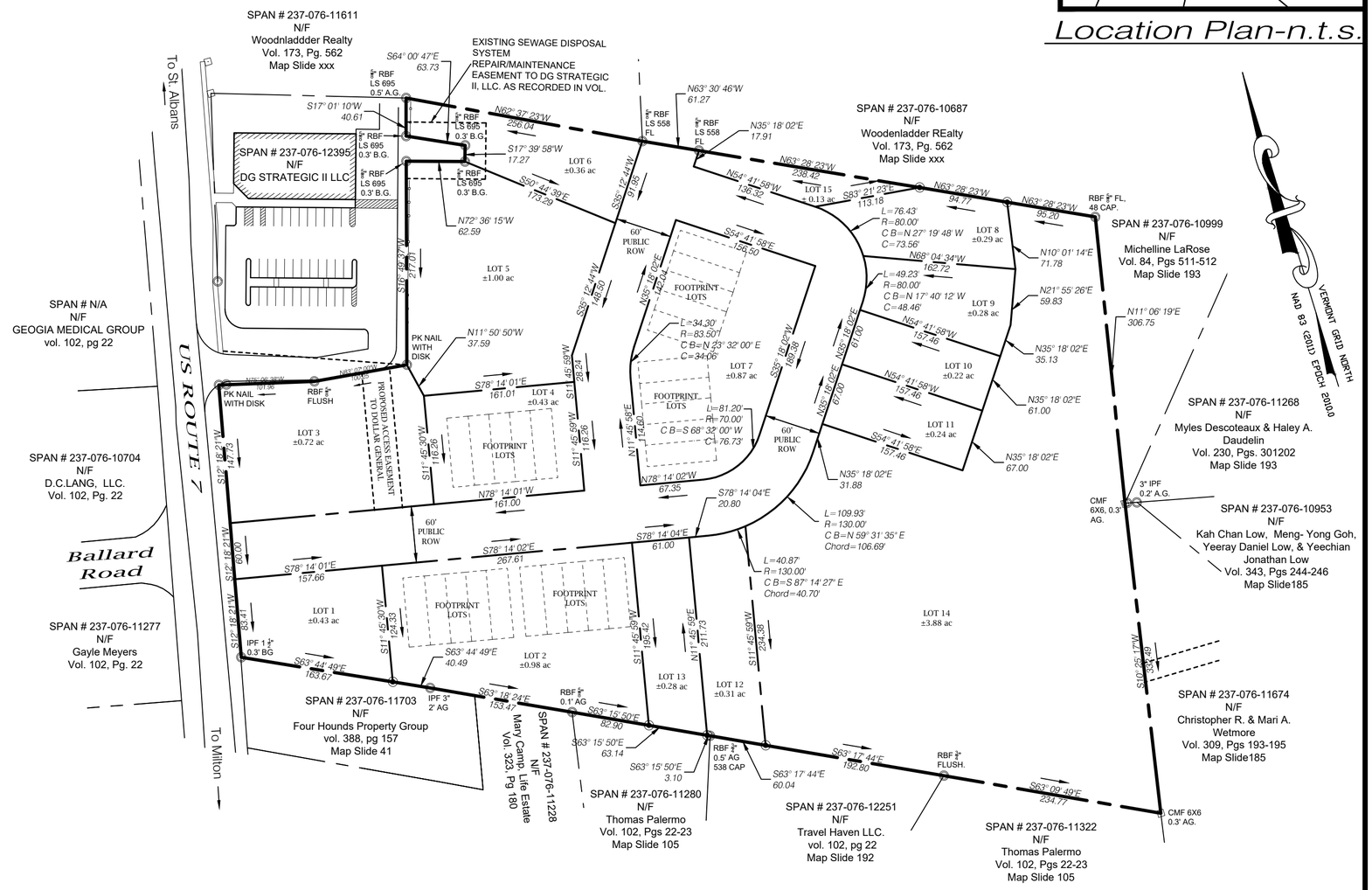
4. This property was conveyed to 864 Ethan Allen Highway, LLC.by deed recorded in Vol. 316, Pgs 289-290 of the Town of Georgia Land Records.

5. The key deed for this property is recorded in Vol. 151, Pg 738 of the Town of Georgia Land Records.

6. All iron bars set are ⅝" iron bars with aluminum caps marked OBCA property corner , LS 656. all monumentation found is as noted.

7. This property may be subject to other easements or rights of way.

8. Bearings shown on this plat are based on the Vermont State Plane Coordinate System and are given in U.S. Survey Foot values (NAD83 (2011), VT-4400). Bearings were determined by Network RTK-GPS observations made on site January 25, 2024.



"Approved by the Development Review Board of the Town of Georgia Vermont, on the _____ day of _____, 2024, subject to all requirements and conditions of said approval. Signed this _____ day of _____, 2024 by

_____
Chair"

TOWN CLERK'S OFFICE

TOWN OF GEORGIA, VT. _____ , 2024
RECEIVED FOR RECORD AT_____ O'CLOCK
__ M., AND RECORDED IN SLIDE# _____
ATTEST: _____ TOWN CLERK

TO THE BEST OF MY KNOWLEDGE, THIS PLAT IS BASED ON INFORMATION ABSTRACTED FROM PERTINENT DEEDS AND/OR OTHER OFFICIAL RECORDS, AND MARKERS EVIDENT ON THE PROPERTY, AND CONFORMS WITH THE REQUIREMENTS OF 27 VSA & 1403.

DATED THIS ____ DAY OF _____, 2024

_____

Graphic Scale

100 0 50 100 200 400

1 inch = 100 ft.

STATE OF VERMONT — DOUGLAS L. HENSON No. 656 — LICENSED LAND SURVEYOR

DATE	
SURVEY	OBCA
DESIGN	OBCA
DRAWN	DLH
CHECKED	DWB
SCALE	1"=100'

REVISION — BY

☐ RECORD DRAWING ■ PRELIMINARY
☐ FINAL ☐ SKETCH/CONCEPT

O'LEARY-BURKE
CIVIL ASSOCIATES, PLC
13 Corporate Drive
Essex JCT., VT
Phone: 878-9990
FAX: 878-9989
E-MAIL: obca@olearyburke.com

Resubdivision of lands of 864 Ethan Allen Highway LLC.

Vol. 316, Pgs 289-290

864 U.S. ROUTE 7 - Georgia, Vermont

DATE	01/25/24
JOB#	2018-44
FILE	2018-44 SUBPLAT
PLAN SHEET #	PL1