

Location Plan

SLOPE CHART

SITE SLOPE ANALYSIS:

EAST-WEST AXIS
LENGTH = 584'
STARTING ELEVATION = 510' ENDING ELEVATION = 484'
SLOPE = 4.4%

NORTH-SOUTH AXIS
LENGTH = 455'
STARTING ELEVATION = 500' ENDING ELEVATION = 496'
SLOPE = 0.9%

PARKING COMPUTATIONS

REQUIREMENTS FOR WAREHOUSE PER TABLE 3.3 OF ESSEX ZONING REGULATIONS:
2 SPACES PER 3 EMPLOYEES, OR 1 SPACE PER 400SF
30 EMPLOYEES * (2 SPACES/3 EMPLOYEES) = 20 SPACES
TOTAL PARKING REQUIRED = 20 SPACES
41250SF / (400SF/1 SPACE) = 103 SPACES
TOTAL PARKING REQUIRED = 103 SPACES
TOTAL PARKING PROPOSED: 34 SPACES (INCLUDES 2 HANDICAP SPACES)

Zoning Information

55 THOMPSON DRIVE - SAXON HILL INDUSTRIAL PARK
ZONING DISTRICT: RESOURCE PRESERVATION DISTRICT (RPD-1)
DIMENSIONAL REQUIREMENTS

	REQUIRED	PROPOSED
MINIMUM LOT AREA	40,000 SF.	376,800 SF.
MINIMUM LOT FRONTAGE	200'	540'
MINIMUM FRONT BUFFER	50'	54'
MINIMUM SIDE SETBACK	25'	27'
MINIMUM REAR SETBACK	25'	35'
MINIMUM BUFFER RESIDENTIAL	200'	N/A
MAXIMUM LOT COVERAGE	60%	23%
MAXIMUM BUILDING HEIGHT	40'	40'
WATER	MUNICIPAL	
SEWER	MUNICIPAL	
STORM	ON-SITE	

Legend

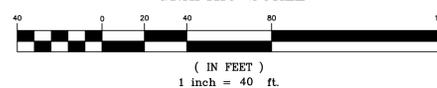
- PROPERTY LINE - PROJECT
- PROPERTY LINE - ABUTTER
- EASEMENT
- SETBACK
- EXISTING GROUND CONTOUR
- WETLAND BOUNDARY
- 50' WETLAND BUFFER
- SLOPE ANALYSIS AXIS
- PROPOSED GRADING
- 20% SLOPE
- 15-20% SLOPE

NOTES:

- THIS PLAN IS NOT TO BE USED FOR PROPERTY CONVEYANCE PURPOSES. SEE PROPERTY PLAT FOR PROPERTY CONVEYANCE PURPOSES.
- A REPRESENTATIVE OF THE TOWN OF ESSEX PUBLIC WORKS DEPARTMENT SHALL WITNESS ALL CONNECTIONS TO THE TOWN'S EXISTING WATER AND SEWER INFRASTRUCTURE.

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

GRAPHIC SCALE



DATE: 12/03/25
SURVEY: OBCA
DESIGN: RCM
DRAWN: WKC
CHECKED: BWC
SCALE: 1" = 40'

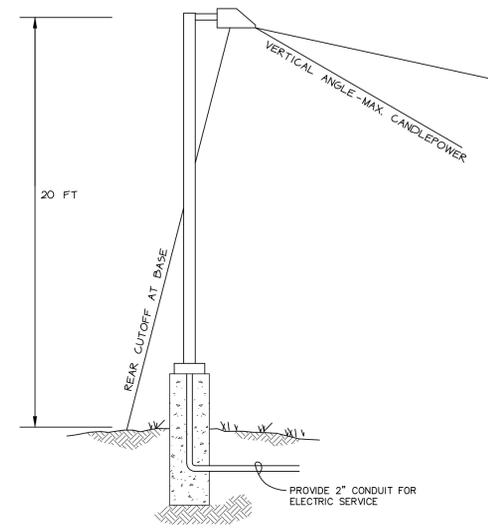
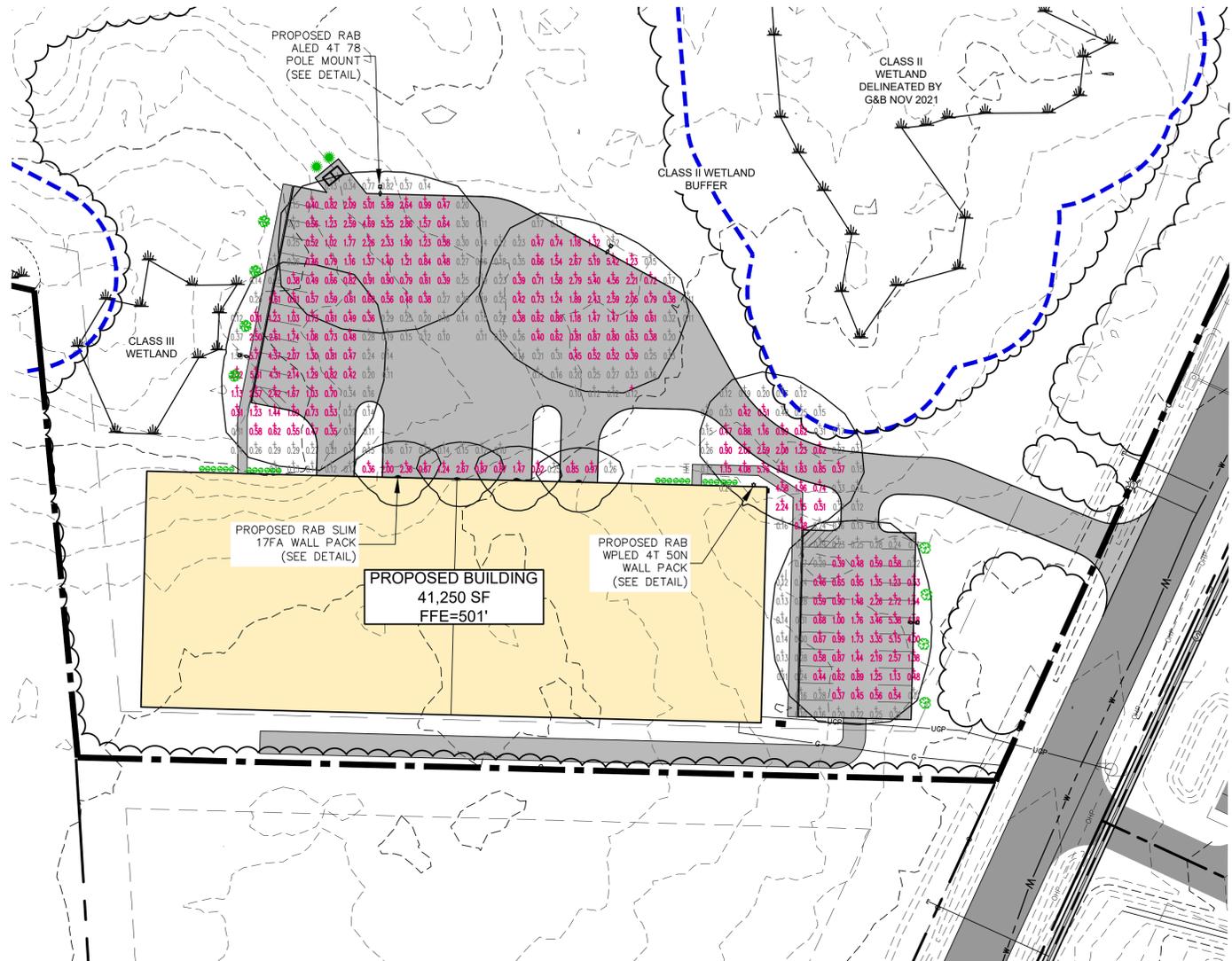
REVISION: [] RECORD DRAWING [] PRELIMINARY [] SKETCH/CONCEPT [] FINAL []
DPW COMMENTS:

O'LEARY-BURKE CIVIL ASSOCIATES, PLC
13 CORPORATE DRIVE
ESSEX, VT
PHONE: 878-9589
FAX: 878-9589
E-MAIL: ocb@olearyburke.com

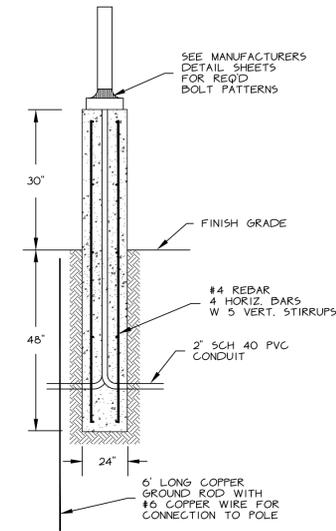
55 THOMPSON DRIVE
THOMPSON DRIVE ESSEX JCT, VT

SITE PLAN

BY: WKC
DATE: 12/03/25
JOB#: 2025-53
FILE: S16
PLAN SHEET # 1



LUMINAIRE DETAIL
NTS



TYPICAL LIGHT POLE FOUNDATION
NTS

ALED4T78N **RAB**

Project: _____ Type: _____
Prepared By: _____ Date: _____

Driver Info

Type	Watts	50W
120V	450W	4000lm/footcandle
240V	900W	8000lm/footcandle
277V	900W	8000lm/footcandle
300V	900W	8000lm/footcandle
347V	900W	8000lm/footcandle
480V	1800W	16000lm/footcandle

Technical Specifications

Lighting: Suitable for use in 40°C ambient temperature.

Field Adjustability: Suitable for use in 40°C ambient temperature.

Beam Spread: 120° beam spread.

Color Temperature: 4000K, 5000K, 6000K, 7000K, 8000K, 9000K.

Color Rendering Index (CRI): 90+.

Beam Spread: 120° beam spread.

Color Temperature: 4000K, 5000K, 6000K, 7000K, 8000K, 9000K.

Color Rendering Index (CRI): 90+.

WPLED4T50N/PC **RAB**

Project: _____ Type: _____
Prepared By: _____ Date: _____

Driver Info

Type	Watts	50W
120V	450W	4000lm/footcandle
240V	900W	8000lm/footcandle
277V	900W	8000lm/footcandle
300V	900W	8000lm/footcandle
347V	900W	8000lm/footcandle
480V	1800W	16000lm/footcandle

Technical Specifications

Lighting: Suitable for use in 40°C ambient temperature.

Field Adjustability: Suitable for use in 40°C ambient temperature.

Beam Spread: 120° beam spread.

Color Temperature: 4000K, 5000K, 6000K, 7000K, 8000K, 9000K.

Color Rendering Index (CRI): 90+.

WPLED4T50N/PC **RAB**

Project: _____ Type: _____
Prepared By: _____ Date: _____

Driver Info

Type	Watts	50W
120V	450W	4000lm/footcandle
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480V	1800W	16000lm/footcandle

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Lighting: Suitable for use in 40°C ambient temperature.

Field Adjustability: Suitable for use in 40°C ambient temperature.

Beam Spread: 120° beam spread.

Color Temperature: 4000K, 5000K, 6000K, 7000K, 8000K, 9000K.

Color Rendering Index (CRI): 90+.

SLIM17FA15ADJ **RAB**

Project: _____ Type: _____
Prepared By: _____ Date: _____

Driver Info

Type	Watts	15W
120V	135W	1200lm/footcandle
240V	270W	2400lm/footcandle
277V	270W	2400lm/footcandle
300V	270W	2400lm/footcandle
347V	270W	2400lm/footcandle
480V	540W	4800lm/footcandle

Technical Specifications

Lighting: Suitable for use in 40°C ambient temperature.

Field Adjustability: Suitable for use in 40°C ambient temperature.

Beam Spread: 120° beam spread.

Color Temperature: 4000K, 5000K, 6000K, 7000K, 8000K, 9000K.

Color Rendering Index (CRI): 90+.

SLIM17FA15ADJ **RAB**

Project: _____ Type: _____
Prepared By: _____ Date: _____

Driver Info

Type	Watts	15W
120V	135W	1200lm/footcandle
240V	270W	2400lm/footcandle
277V	270W	2400lm/footcandle
300V	270W	2400lm/footcandle
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480V	540W	4800lm/footcandle

Technical Specifications

Lighting: Suitable for use in 40°C ambient temperature.

Field Adjustability: Suitable for use in 40°C ambient temperature.

Beam Spread: 120° beam spread.

Color Temperature: 4000K, 5000K, 6000K, 7000K, 8000K, 9000K.

Color Rendering Index (CRI): 90+.

CALCULATION SUMMARY

AREA NAME	DIMENSIONS	GRID NAME	AVE	MAX	MIN	MAX/MIN	AVE/MIN
SITE PLAN	544.70' X 341.70'	NEW GRID	<+>	1.65	5.89	0.35	16.82

LUMINAIRE SCHEDULE

TYP	SYMB	DESCRIPTION	LAMP	LUMENS	MOUNTING	LLF	QTY
BLDG	☀	RAB WPLED 4T 50N WALL PACK	50W	10,504	14' BUILDING MOUNT	1.00	1
BLDG	☀	RAB SLIM 17FA WALL PACK	15W	1,904	12' BUILDING MOUNT	1.00	4
POLE	☀	RAB ALED 4T 78 POLE MOUNT	78W	7,520	20' POLE MOUNT	1.00	4

*Note: Lighting values shown in black illustrate the lighting coverage, while lighting value shown in red have been used to calculate the uniformity ratio (avg./min.)

18745 BILEVEL SENSOR FOR D10 **RAB LIGHTING**

Thank you for buying RAB lighting fixtures. Our goal is to design the best quality products to get the job done right. We'd like to hear your comments. Call the Marketing Department at 888-408-1800 or email: market@rablighting.com

IMPORTANT
READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.
FSP-21 is used with a 120-277VAC dimmable driver and is shipped with the factory pre-set as described in the Specifications and Operation below for details. If settings other than factory pre-sets are desired, the consumer must purchase FSR-1000RAB CAT4 VISEM wireless commissioning tool (remote) to re-program sensor settings.
CAUTION: If replacing lens for proper weatherproof function gasket must be properly sealed.

SPECIFICATIONS
Sensor is IP66 rated. Suitable for Wet locations as factory installed.
MAX Load: 800W at 120V, 1200W at 277V.
Operating Temperature: -40°C to +75°C (-40°F to +167°F)
Blink Rate: 200,000 cycles

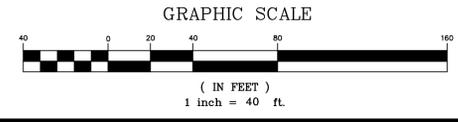
Factory Settings:
-High Mode: 10V (100% lumen output)
-Low Mode: 1V (10% lumen output)
-Time Delay: 5 minutes
-Cut-off: 1 hour
-Sensitivity: 4 ft
-Sensitivity: Max
-Ramp-up Time: none
-Ramp-down Time: none

OPERATION (DIMMABLE DRIVER)
-Ambient light above the Setpoint causes sensor to keep fixture light off, despite detected motion
-High Mode activates with initial motion detection
-After High Mode activation, no motion detection for duration of Time Delay activates Low Mode
-After Low Mode activation, no motion detection for duration of Cut-off turns off light fixture

Note:
ALL OUTDOOR PARKING AREA LIGHTING FIXTURES SHALL HAVE THE RAB 18745 BILEVEL SENSOR INSTALLED. THE SENSOR CAN BE PROGRAMMED TO DIM LIGHTS TO 10% (ADJUSTABLE) OUTPUT AT NIGHT, WHEN THE SENSOR DETECTS MOTION. LIGHTING FIXTURES WILL RETURN TO 100% OUTPUT, IF NO MOTION IS DETECTED FOR A TIME PERIOD OF FIVE MINUTES, LIGHT FIXTURES WILL DIM AGAIN TO 10% OUTPUT. THE SENSOR'S "CUT-OFF" FEATURE TURNS LIGHTS OFF COMPLETELY IN THE ABSENCE OF MOTION DETECTION. THIS FEATURE WILL BE DISABLED ENSURING THAT PARKING AREA LIGHTS REMAIN AT A MINIMUM OF 10% OUTPUT THROUGHOUT THE NIGHT.

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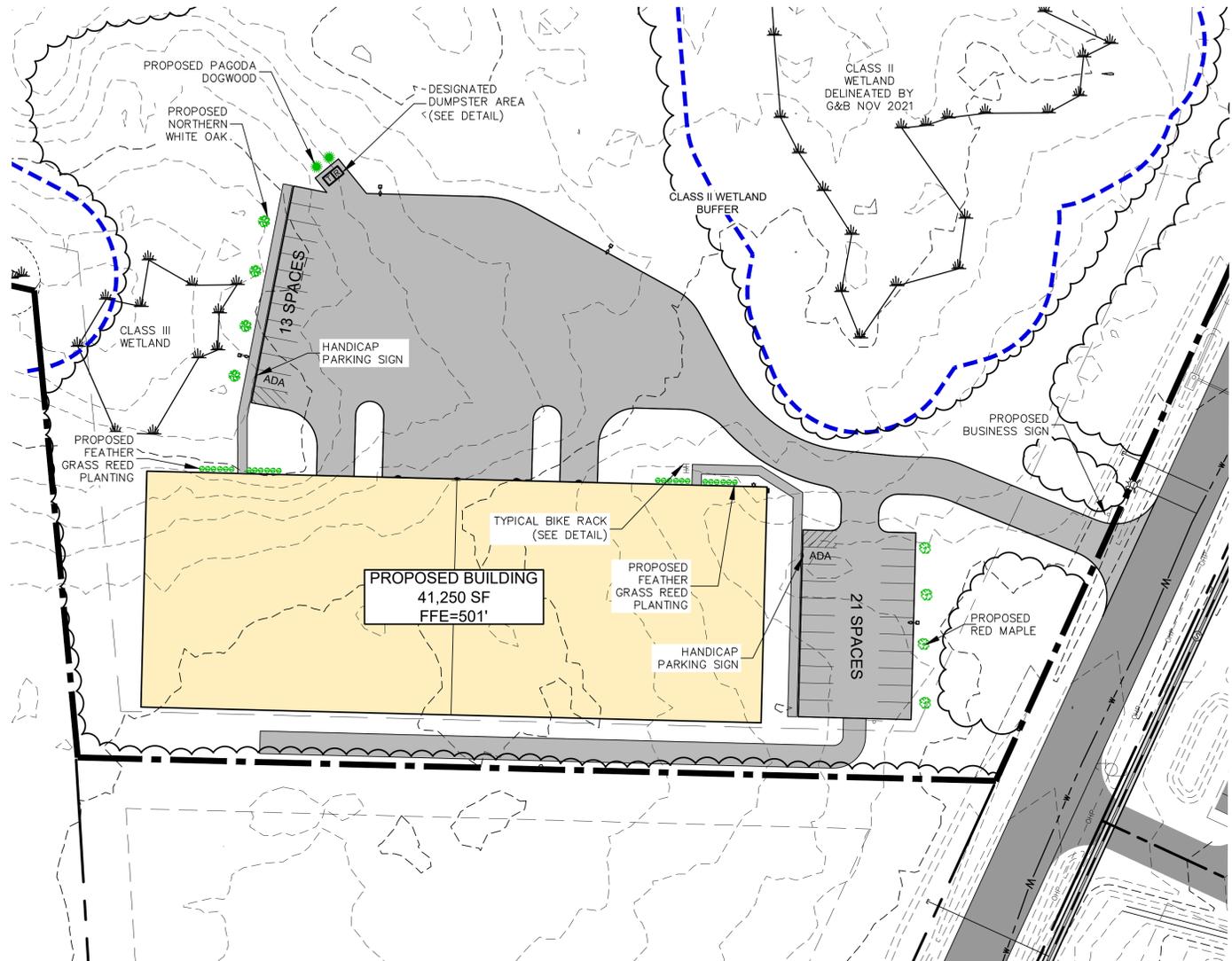


DATE: 12/03/25
REVISION: _____
SURVEY: OBCA
DESIGN: OBCA
DRAWN: WKC
CHECKED: BWC
SCALE: 1" = 40'

O'LEARY-BURKE CIVIL ASSOCIATES, P.L.C.
13 CORPORATE DRIVE
ESSEX, VT
PHONE: 878-9589
FAX: 878-9589
E-MAIL: obca@olearyburke.com

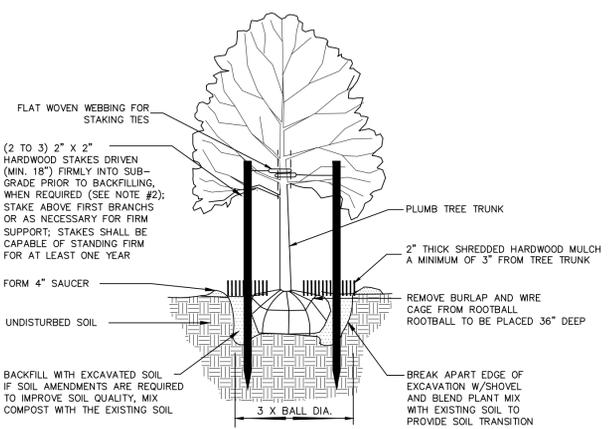
BY: WKC
DATE: 12/03/25
JOB#: 2025-53
FILE: S16
PLAN SHEET # 2

55 THOMPSON DRIVE
THOMPSON DRIVE ESSEX JCT, VT
LIGHTING PLAN



TREE PROTECTION MEASURES

1. ALL CLEARING LIMITS SHALL BE STAKED OUT PRIOR TO ANY CONSTRUCTION
2. ALL TREES TO BE SAVED SHALL BE KEPT OUTSIDE OF THE CONSTRUCTION TAPE OR SILT FENCE PERIMETER



- NOTE:
1. PLANT TREE SO THAT THE ROOT FLARE IS AT OR 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.

TREE PLANTING

NTS

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 SEEDING 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 SEEDING AND REMULCHED AS SOON AS WEATHER PERMITS IN THE SPRING. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL AND BE SEEDING, 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
37.25	37.5	KENTUCKY BLUEGRASS
31.25	37.5	WINTER HARDY, PERENNIAL RYE
100	120 # LIVE SEED PER ACRE	



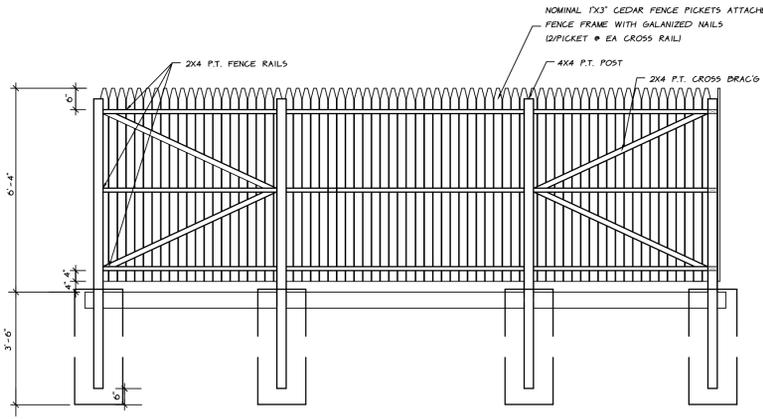
BICYCLE PARKING DETAIL

OR APPROVED EQUAL

Proposed Landscaping Schedule

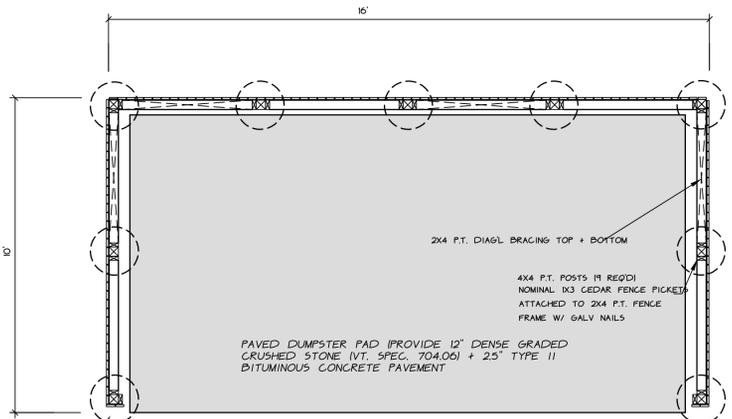
SYMBOL	QUANTITY	COMMON NAME	BOTANIC NAME	SIZE
	4	RED MAPLE*	ACER RUBRUM	2-2 1/2" CAL.
	2	PAGODA DOGWOOD*	CORNUS ALTERNIFOLIA	2-2 1/2" B&B
	4	NORTHERN WHITE OAK*	QUERCUS ALBA WHITE OAK	3 GALLON
	8	FEATHER GRASS REED*	CALAMAGROSTIS X ACUTIFLORA	AREA PLANTINGS

*Or Approved Equals Based on Local Suppliers



DUMPSTER FENCING (SECTION VIEW)

NTS



DUMPSTER FENCING (PLAN VIEW)

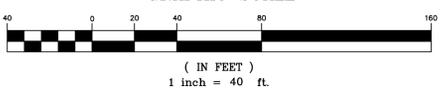
NTS

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

GRAPHIC SCALE

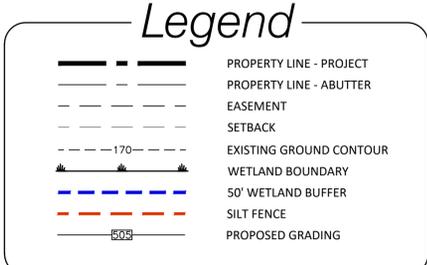
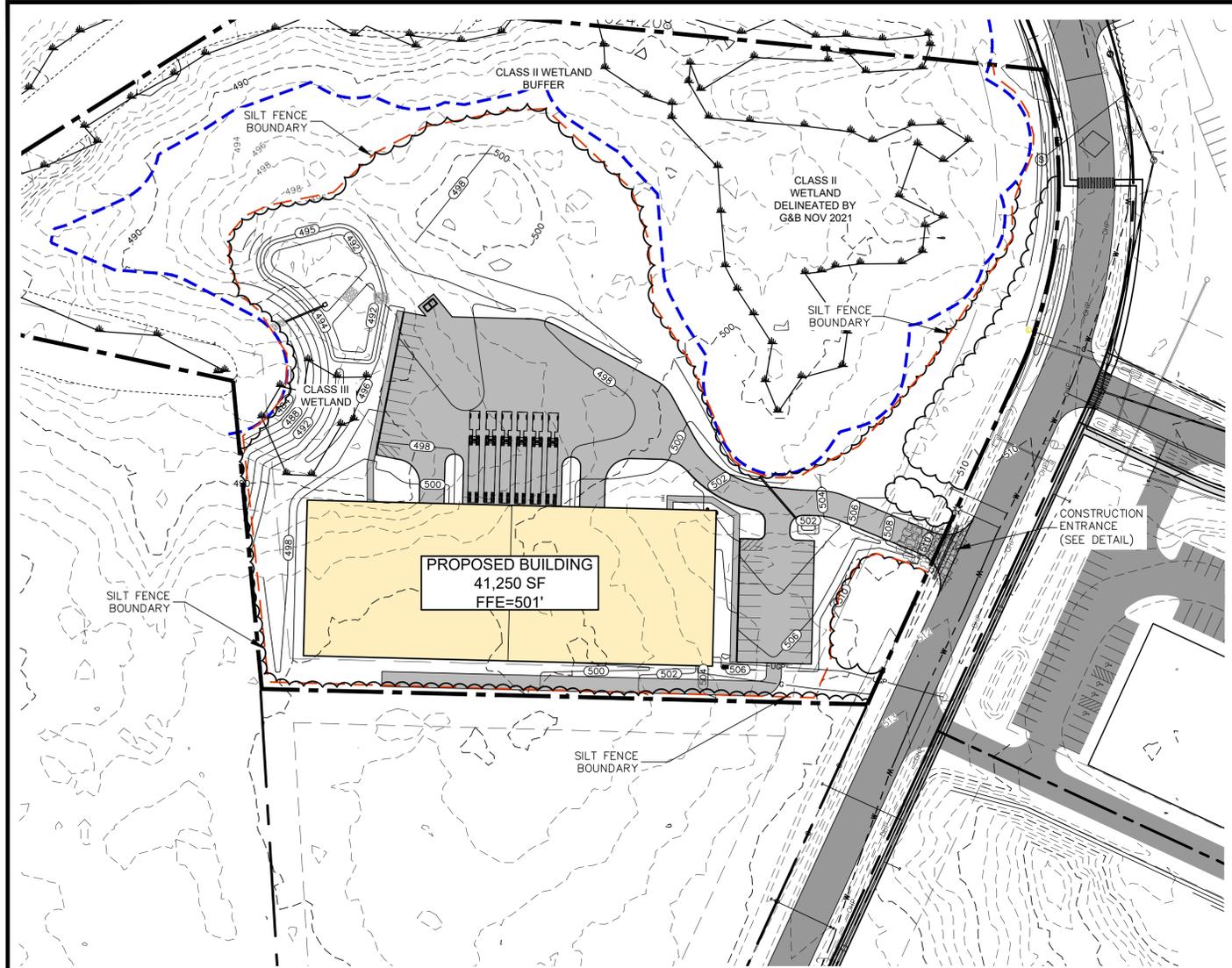


DATE: 12/03/25	REVISION	DPW COMMENTS
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DESIGN: OBCA	<input checked="" type="checkbox"/> FINAL	<input type="checkbox"/> SKETCH/CONCEPT
DRAWN: WKC	O'LEARY-BURKE CIVIL ASSOCIATES, PLC	
CHECKED: BWC	13 CORPORATE DRIVE ESSEX, VT 05730 PHONE: 878-9589 FAX: 878-9589 E-MAIL: obc@olearyburke.com	

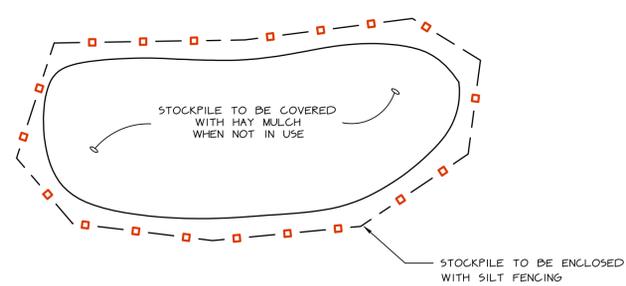
55 THOMPSON DRIVE
THOMPSON DRIVE ESSEX JCT, VT

LANDSCAPING PLAN

BY: WKC
DATE: 12/03/25
JOB#: 2025-53
FILE: S16
PLAN SHEET # **3**



NOTE: MIGRATION OF MATERIAL ONTO THE PAVED SURFACES BEYOND THE CONSTRUCTION ENTRANCE SHALL REQUIRE THE NEED TO CLEAN THE ROAD WITH A SWEEPER AND RE-ESTABLISH THE CONSTRUCTION ENTRANCE WITH NEW CLEAN STONE AS DIRECTED BY THE ON-SITE COORDINATOR / ENGINEER / ESSEX PUBLIC WORKS DEPT.

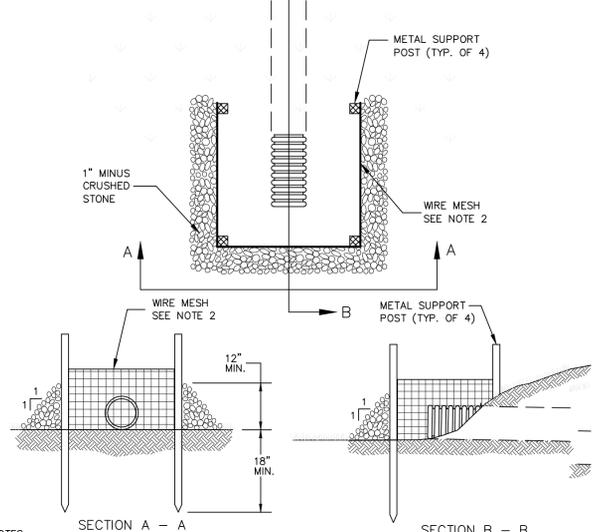


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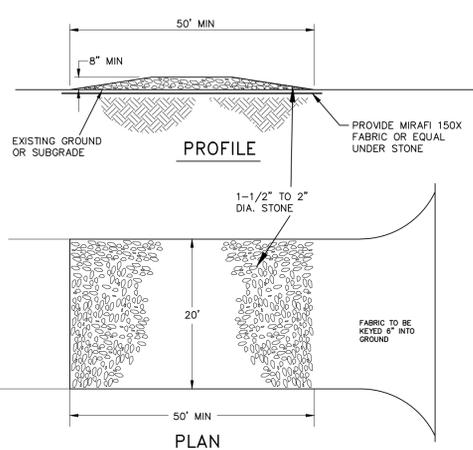
EROSION CONTROL SPECIFICATIONS

- SEE OTHER DRAWINGS OF THESE PLANS FOR ADDITIONAL STORMWATER AND EROSION CONTROL SPECIFICATIONS AND DETAILS.
- 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.
- ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEEDING AND MULCHING PRIOR TO OCTOBER 1 OF EACH YEAR. ANY DISTURBED AREAS OUTSIDE OF THE ROADWAY SHALL BE IMMEDIATELY SEEDED AND MULCHED WITHIN 15 DAYS.
- CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE OF VERMONT CONSTRUCTION GENERAL PERMIT.
- THE EROSION CONTROL METHODS USED DURING CONSTRUCTION OF THE DEVELOPMENT SHALL PROCEED IN THE FOLLOWING SEQUENCE:
 - THE CONTRACTOR SHALL INSTALL AND MAINTAIN SILT FENCES, INLET PROTECTION, 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.
 - 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.
 - IN AREAS NEAR THE NEW CONSTRUCTION, THE CONTRACTOR SHALL PROTECT THE TRUNKS OF TREES TO BE SAVED WITH WOODEN SNOW FENCING ALONG THE DRIFLINE TO PROTECT THEM FROM INJURY. IN THESE PROTECTED AREAS NO CONSTRUCTION ACTIVITIES SHALL OCCUR. NO STORAGE OF MATERIALS, RUNNING OF MACHINERY, PORTO-LETS ETC. PLACE STAY OUT SIGNS. THESE INSTRUCTIONS MUST BE CONVEYED TO THE CONSTRUCTION CREW.
 - THE SITE GRADING WILL THEN BE DONE, AND THE PIPELINES WILL BE INSTALLED IMMEDIATELY FOLLOWING GRADING. THE CONTRACTOR WILL INSTALL AND MAINTAIN INLET PROTECTION AROUND THE CATCH BASINS UNTIL THE ROADWAY HAS BEEN PAVED AND GRASS HAS BEEN ESTABLISHED ON THE SLOPES.
 - THE CONTRACTOR WILL TOPSOIL, SEED, AND MULCH THE DISTURBED AREAS AS SOON AS POSSIBLE FOLLOWING COMPLETION OF ADJACENT CONSTRUCTION.



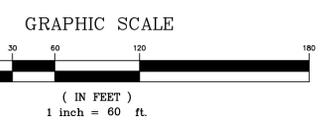
- NOTES:**
- THE CONTRACTOR SHALL MAINTAIN THE CULVERT INLET PROTECTION THROUGHOUT CONSTRUCTION. THE CULVERT INLETS SHALL BE MAINTAINED AFTER EACH STORM EVENT. ANY DAMAGE OR EROSION SHALL BE REPAIRED IMMEDIATELY.
 - WIRE MESH WITH 1/2" MAXIMUM OPENINGS. SECURE MESH TIGHTLY TO METAL POSTS BEFORE PLACEMENT OF CRUSHED STONE.
 - THE CONTRACTOR SHALL MAINTAIN ALL INLET PROTECTION THROUGH THE DURATION OF THE PROJECT.

CULVERT INLET PROTECTION



- NOTES:**
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAYS. 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-WAYS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
 - THE USE OF CALCIUM CHLORIDE OR WATER MAY BE NECESSARY TO CONTROL DUST DURING DRY PERIODS.
 - PROVIDE APPROPRIATE TRANSITION BETWEEN CONSTRUCTION ENTRANCE AND EDGE OF RIGHT-OF-WAY.

STABILIZED CONSTRUCTION ENTRANCE



GENERAL CONSTRUCTION SPECIFICATIONS

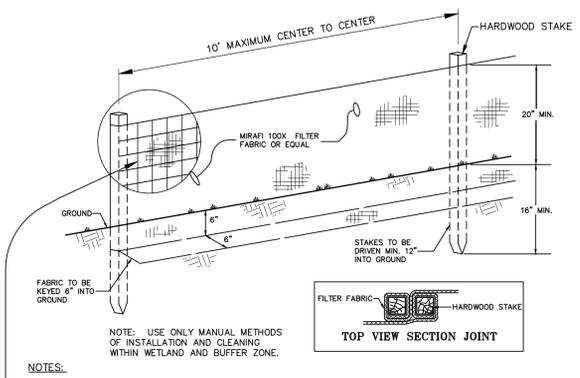
- ALL WORK AND MATERIALS SHALL BE APPROVED BY AND IN ACCORDANCE WITH THE LATEST VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE TOWN OF ESSEX SPECIFICATIONS AND REQUIREMENTS, THE WRITTEN TECHNICAL SPECIFICATIONS, AND THESE PLANS.
- 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 DEPARTMENT PRIOR TO ANY EXCAVATION.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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 ERCTED BY THE CONTRACTOR IN ACCORDANCE WITH STATE AND TOWN STANDARDS.
- TO ENSURE COMPLIANCE WITH THE PLAN(S), THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE TOWN OF ESSEX PUBLIC WORKS DEPARTMENT 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.
- 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."
- TOPSOIL SHALL BE STOCKPILED, SEED, AND MULCHED UNTIL REUSED. SILT FENCES SHALL BE PLACED AND STAKED CONTINUOUSLY AROUND THE BOTTOM OF THE TOPSOIL PILES.
- HEALTHY EXISTING TREES ON AND ADJACENT TO THE SITE SHALL BE SAVED AND PROTECTED AS ORDERED BY THE ENGINEER.
- 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.
- AT COMPLETION OF GRADING, SLOPES, DITCHES, AND ALL DISTURBED AREAS SHALL BE SMOOTH AND FREE OF POCKETS WITH SUFFICIENT SLOPE TO ENSURE DRAINAGE.
- FINISH SLOPES, DITCHES AND DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4 INCHES OF TOPSOIL AND BE FERTILIZED, SEED, 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.
- 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.
- DRAINAGE COURSES AND STREAMS SHALL BE CONTROLLED IN DISTURBED CONSTRUCTION AREAS BY THE FOLLOWING METHODS:
 - PRESERVING NATURAL VEGETATION WHENEVER POSSIBLE;
 - AVOIDING UNNECESSARY DISTURBANCE OF SOILS;
 - EARLY INSTALLATION OF STORM PIPES AND DITCHES;
 - SEEDING AND MULCHING DIRECTLY UPON COMPLETION OF CONSTRUCTION;
 - CONSTRUCTION OF EROSION CONTROL DEVICES AS DIRECTED BY THE ENGINEER.
- 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.
- PRIOR TO CONSTRUCTION, ALL MATERIALS SHALL BE APPROVED BY THE ENGINEER. ALL MATERIALS TO BE TAKEN OVER BY THE TOWN OF ESSEX SHALL BE APPROVED BY THE PUBLIC WORKS DEPARTMENT.

STUMP DISPOSAL SPECIFICATIONS

ALL SUITABLE TREES THAT MUST BE CUT WILL BE USED AS FUELWOOD OR TIMBER. THE STUMPS, BRUSH, AND EXCESS UNSUITABLE EARTH WILL BE DISPOSED OF AT THE LOCATION DESIGNATED BY THE ENGINEER AS STUMP DISPOSAL AREA WELL ABOVE THE SEASONAL HIGH GROUNDWATER OR HAULED OFF-SITE TO A STATE-APPROVED LANDFILL. IF ON-SITE STUMP DISPOSAL IS IMPLEMENTED, THE FOLLOWING GUIDELINES SHALL BE MET:

- WHENEVER POSSIBLE, STUMP DISPOSAL SITES SHOULD BE LOCATED ON NEARLY LEVEL TO MODERATELY SLOPING LANDS (SLOPES LESS THAN 12%).
- DISPOSAL SITES WILL NOT BE LOCATED IN OR WITHIN 100 FEET OF FLOWING WATERCOURSES OR STREAMS OR IN ACTIVELY ERODING GULLIES.
- DISPOSAL SITES SHALL NOT BE LOCATED IN FLOODED OR FLOOD-PRONE LANDS, MARSHES, OR OTHER AQUIFER RECHARGE AREAS.
- 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.
- STUMPS DEPOSITED IN DRAINAGEWAYS OR DEPRESSIONS SHALL BE BACKFILLED AND BERMED SO AS TO DIVERT OVERLAND FLOWS FROM THE DISPOSAL AREA.
- A MINIMUM OF TWO FEET (2') OF OVERBURDEN WILL BE PLACED OVER ALL DISPOSAL SITES.
- THE TWO FEET OF OVERBURDEN WILL BE COVERED WITH A MINIMUM OF FOUR INCHES (4") OF TOPSOIL, GRADED, SEED, AND MULCHED IN ACCORDANCE WITH THE SPECIFICATIONS.

TEMPORARY SILT FENCE



- NOTES:**
- WHERE SILT FENCE IS WITHIN 100' UPSLOPE OF RECEIVING WATERS, ADDITIONAL WOVEN WIRE FENCE SHALL BE SECURELY FASTENED TO FENCE POSTS WITH WIRE TIES.
 - FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE WITH TIES SPACED EVERY 24" AT TOP AND MID-SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
 - PREFABRICATED UNITS SHALL BE GEOFAB, ENVROFENCE OR APPROVED EQUIVALENT.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

DATE: 12/03/25	REVISION: DPW COMMENTS	BY: WKC
SURVEY: OBCA	<input type="checkbox"/> RECORD DRAWING <input type="checkbox"/> PRELIMINARY	DATE: 12/03/25
DESIGN: OBCA	<input checked="" type="checkbox"/> FINAL <input type="checkbox"/> SKETCH/CONCEPT	JOB#: 2025-53
DRAWN: WKC		FILE: S16
CHECKED: BWC		PLAN SHEET #
SCALE: 1" = 60'		4

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THOMPSON DRIVE ESSEX JCT, VT

EROSION PREVENTION & SEDIMENT CONTROL PLAN



GENERAL WATER SPECIFICATIONS

1.1 GENERAL:

THIS ITEM SHALL CONSIST OF THE LABOR, EQUIPMENT, AND MATERIAL REQUIRED FOR THE COMPLETE CONSTRUCTION OF THE WATERMAINS AND SERVICES WHICH SHALL INCLUDE EXCAVATION, BACKFILLING, PIPE, VALVES, TEES, HYDRANTS, ELBOWS, REDUCERS, AND ALL OTHER APPURTENANCES NECESSARY FOR A COMPLETE WATERMAIN SYSTEM AS INDICATED ON THE ACCEPTED DRAWINGS. ALL MATERIALS AND INSTALLATIONS SHALL BE APPROVED BY THE LOCAL MUNICIPAL WATER AUTHORITY.

1.2 WATER PIPE MATERIALS:

PVC PIPE
PIPE SHALL BE A MINIMUM DIAMETER OF EIGHT INCHES (8") AND CONFORM TO CURRENT AWWA C110 OR ANSI SPECIFICATION A21.10. PUSH-ON JOINT PIPE SHALL BE MINIMUM THICKNESS CLASS 52. PUSH-ON JOINT ACCESSORIES SHALL CONFORM TO APPLICABLE REQUIREMENTS OF AWWA C111 OR ANSI SPECIFICATION A21.11.

PIPE SHALL BE CEMENT MORTAR-LINED ON THE INSIDE IN ACCORDANCE WITH AWWA C104 OR ANSI SPECIFICATION A21.4 EXCEPT THAT THE CEMENT-LINING THICKNESS SHALL NOT BE LESS THAN THREE-SIXTEENTHS INCH (3/16"). A PLUS TOLERANCE OF ONE-EIGHTHS INCH (1/8") WILL BE PERMITTED.

DUCTILE IRON PIPE (ENTERING BUILDING)

PIPE SHALL BE CEMENT MORTAR-LINED ON THE INSIDE IN ACCORDANCE WITH AWWA C104 OR ANSI SPECIFICATION A21.4 EXCEPT THAT THE CEMENT-LINING THICKNESS SHALL NOT BE LESS THAN THREE-SIXTEENTHS INCH (3/16"). A PLUS TOLERANCE OF ONE-EIGHTHS INCH (1/8") WILL BE PERMITTED.

1.3 FITTINGS:

DUCTILE IRON FITTINGS SHALL BE CEMENT-LINED, HAVE 350 POUNDS WORKING PRESSURE, AND BE IN ACCORDANCE WITH 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. DUCTILE IRON FITTINGS LARGER THAN TWELVE INCHES (12") SHALL HAVE A STANDARD BODY LENGTH EQUAL TO CLASS 250 CAST IRON FITTINGS. CAST IRON CLASS 250 FITTINGS WILL BE ALLOWED IN LIEU OF DUCTILE IRON FITTINGS IN SIZES LARGER THAN TWELVE INCHES (12").

MEGALUG RETAINER GLANDS OR AN APPROVED EQUAL SHALL BE USED ON ALL VERTICAL BEND AND AS SHOWN ON THE PLANS.

1.8 WATER SERVICE CONNECTION:

A. GENERAL REQUIREMENTS

THE CONTRACTOR SHALL INSTALL AN EIGHT INCH (8") C900 PVC WATER SERVICE AS INDICATED ON THE CONTRACT DRAWINGS OR AS DIRECTED BY THE ENGINEER.

1.9 CONSTRUCTION METHODS

A. INSPECTION AND TESTING

ALL PIPE AND FITTINGS SHALL BE INSPECTED AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE AFOREMENTIONED AWWA SPECIFICATIONS. THE CONTRACTOR SHALL FURNISH FOR APPROVAL CERTIFICATION FROM THE PIPE MANUFACTURER THAT ALL TESTS HAVE BEEN PERFORMED WITH SATISFACTORY RESULTS. PIPE SHALL NOT BE INSTALLED WITHOUT THE ENGINEER'S OR WATER AUTHORITY'S APPROVAL.

B. INSTALLATION

PIPES, FITTINGS, AND ACCESSORIES SHALL BE CAREFULLY HANDLED TO AVOID DAMAGE. PRIOR TO THE DATE OF ACCEPTANCE OF THE PROJECT WORK BY THE OWNER, THE CONTRACTOR SHALL REPLACE ANY NEW PIPE OR ACCESSORY FOUND TO BE DEFECTIVE AT ANY TIME, INCLUDING AFTER INSTALLATION, AT NO EXPENSE TO THE OWNER. ALL INSTALLATION AND TESTING SHALL BE DONE IN ACCORDANCE WITH AWWA STANDARD C-600 AND ANSI SPECIFICATION A21.11.

ALL PIPES SHOWING CRACKS SHALL BE REJECTED. IF CRACKS OCCUR IN THE PIPE, THE CONTRACTOR MAY, AT HIS OWN EXPENSE AND WITH THE APPROVAL OF THE ENGINEER, CUT OFF THE CRACKED PORTIONS AT A POINT AT LEAST TWELVE INCHES (12") FROM THE VISIBLE LIMITS OF THE CRACK AND USE THE SOUND PORTION OF THE PIPE. ALL PIPES AND FITTINGS SHALL BE CLEARED OF ALL FOREIGN MATTER AND DEBRIS PRIOR TO INSTALLATION AND SHALL BE KEPT CLEAN UNTIL THE TIME OF ACCEPTANCE BY THE OWNER.

AT ALL TIMES, WHEN THE PIPE LAYING IS NOT ACTUALLY IN PROGRESS, THE OPEN ENDS OF THE PIPE SHALL BE CLOSED BY TEMPORARY WATERTIGHT PLUGS OR BY OTHER APPROVED MEANS. IF WATER IS IN THE TRENCH WHEN WORK IS RESUMED, THE PLUG SHALL NOT BE REMOVED UNTIL ALL DANGER OF WATER ENTERING THE PIPE HAS PASSED. THE PIPE SHALL BE INSTALLED IN TRENCHES AND AT THE LINE AND GRADE SHOWN ON THE CONTRACT DRAWINGS.

ANY DEFLECTION JOINTS SHALL BE WITHIN THE LIMITS SPECIFIED BY THE MANUFACTURER. ALL PIPING AND APPURTENANCES CONNECTED TO THE EQUIPMENT SHALL BE SUPPORTED SO THAT NO STRAIN WILL BE IMPOSED ON THE EQUIPMENT. IF THE EQUIPMENT MANUFACTURER'S SPECIFICATIONS INCLUDE THAT PIPING LOADS ARE NOT TO BE TRANSFERRED, THE CONTRACTOR SHALL SUBMIT CERTIFICATION OF COMPLIANCE.

CONCRETE THRUST BLOCKS SHALL BE INSTALLED ON ALL PLUGS, TEES, AND BENDS DEFLECTING 1 1/4 DEGREES OR MORE. CARE SHALL BE TAKEN TO ENSURE THAT CONCRETE WILL NOT COME IN CONTACT WITH FLANGES, JOINTS, OR BOLTS. THE REQUIRED AREA OF THRUST BLOCKS ARE INDICATED ON THE PLANS OR SHALL BE AS APPROVED BY THE ENGINEER.

WHENEVER SEWERS CROSS UNDER WATERMAINS, THE WATERMAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATERMAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. THIS VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATERMAIN LOCATED WITHIN TEN FEET (10') HORIZONTALLY OF ANY SEWER IT CROSSES.

THERE SHALL BE NO PHYSICAL CONNECTION BETWEEN THE DISTRIBUTION SYSTEM AND ANY PIPES, PUMPS, HYDRANTS, OR TANKS WHICH ARE SUPPLIED OR MAY BE SUPPLIED WITH A WATER THAT IS, OR MAY BE, CONTAMINATED. IN INSTANCES WHERE THE USE OF DIFFERENT TYPES OF PIPE REQUIRE JOINING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY ADAPTERS.

ALL TRENCHING SAFETY STANDARDS SHALL BE IN CONFORMANCE WITH ALL APPLICABLE STATE AND FEDERAL GUIDELINES AND AS SPECIFIED ON THE PLANS.

THE CONTRACTOR SHALL, AT ALL TIMES, KEEP THE TRENCHES ENTIRELY FREE OF WATER UNTIL ALL WORK IS FINISHED AND READY FOR BACKFILLING. AFTER THE VARIOUS PIPELINES HAVE BEEN INSTALLED, THE TRENCHES AND OTHER AREAS TO BE FILLED SHALL BE BACKFILLED TO SURGRADE WITH, WHEREVER POSSIBLE, MATERIAL EXCAVATED FROM THE TRENCH. NO BACKFILLING WILL BE ALLOWED UNTIL ANY CONCRETE MASONRY HAS SET SUFFICIENTLY, AS DETERMINED BY THE ENGINEER.

ALL MATERIAL FOR BACKFILLING SHALL BE FREE OF ROOTS, STUMPS, AND FROST. MATERIALS USED FOR BACKFILLING TRENCHES SHALL BE FREE OF STONES WEIGHING OVER 30 POUNDS. NO STONES MEASURING OVER ONE AND ONE-HALF INCHES (1 1/2") IN THE LONGEST DIMENSION SHALL BE PLACED WITHIN ONE FOOT (1') OF THE PIPELINE BEING BACKFILLED.

BACKFILL FOR ALL PIPELINES SHALL BE PLACED IN SIX INCH (6") LAYERS, EACH LAYER BEING THOROUGHLY COMPACTED TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM-D-1557 STANDARD PROCTOR. PARTICULAR PRECAUTIONS SHALL BE TAKEN IN THE PLACEMENT AND COMPACTION OF THE BACKFILL MATERIAL IN ORDER NOT TO DAMAGE THE PIPE OR STRUCTURE. THE BACKFILL SHALL BE BROUGHT UP EVENLY. ALL WATERMAINS SHALL BE INSTALLED WITH A MINIMUM COVER DEPTH OF SIX (6').

SURPLUS EXCAVATED MATERIALS NOT USED FOR BACKFILL SHALL BE DISPOSED OF IN A MANNER SATISFACTORY TO THE ENGINEER. ALL SURPLUS MATERIAL OR SOIL SHALL BE REMOVED PROMPTLY AND DISPOSED OF SO AS NOT TO BE OBJECTIONABLE TO ABUTTERS OR TO THE GENERAL PUBLIC.

THE CONTRACTOR SHALL PROVIDE A STABLE, TEMPORARY PVC MARKER APPROVED BY THE ENGINEER AT ALL GATE VALVES, CURB STOPS, AND AT THE END OF WATERLINES TO A POINT SIX INCHES (6") ABOVE FINISH GRADE. THE MARKER SHALL BE SEATED SECURELY INTO THE GROUND.

C. FIELD TESTING

EXCEPT AS OTHERWISE DIRECTED, ALL PIPELINES SHALL BE TESTED. PIPELINES LAID IN EXCAVATION OR BEDDED IN CONCRETE SHALL BE TESTED PRIOR TO BACKFILLING OR THE PLACING OF CONCRETE, AND ANY EXPOSED PIPING SHALL BE TESTED PRIOR TO FIELD PAINTING. THE CONTRACTOR SHALL FURNISH ALL GAUGES, TESTING PLUGS, CAPS, AND ALL OTHER NECESSARY EQUIPMENT AND LABOR TO PERFORM LEAKAGE AND PRESSURE TEST 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:

$$L = SD (\text{SQUARE ROOT OF } P) / 148,000$$

WHERE: 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 C-600 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.

D. DISINFECTION:

CHLORINATION OF THE WATERMAIN SHALL BE CONDUCTED ONLY AFTER THE MAIN HAS BEEN FLUSHED AND A CLEAR STREAM IS OBTAINED AS DETERMINED BY THE ENGINEER.

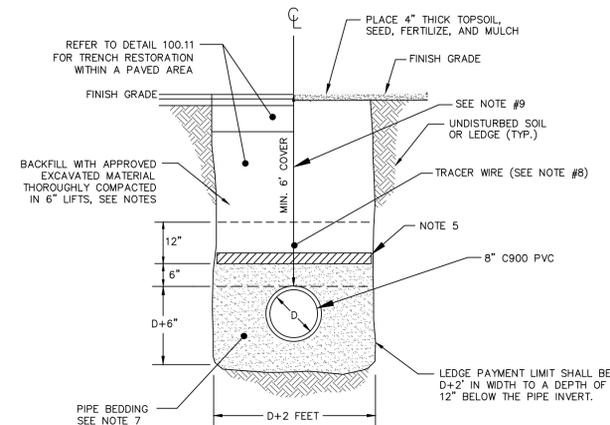
THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS, AND TOOLS NECESSARY TO DISINFECT THE PIPE AND APPURTENANCES IN ACCORDANCE WITH THE AWWA STANDARD FOR DISINFECTING WATERMAINS, C-651, WITH THE EXCEPTION OF THE TABLET METHOD.

THE METHOD OF DISINFECTION SHALL BE BY THE CONTINUOUS FEED METHOD UNLESS OTHERWISE APPROVED BY THE ENGINEER. AFTER FILING, FLUSHING, AND THE ADDITION OF CHLORINE SOLUTION, THE FREE CHLORINE CONCENTRATION WITHIN THE PIPE SHALL BE AT LEAST 25 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 NOT HAVE A RESIDUAL OF LESS THAN 10 MG/L OF FREE CHLORINE. ALL DISINFECTION SHALL BE PERFORMED UNDER THE SUPERVISION OF THE ENGINEER. THE DISINFECTION PROCESS SHALL BE DEEMED ACCEPTABLE ONLY AFTER (2) 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 C-651 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.

E. FROST PROTECTION OF SHALLOW WATERLINES

In no case shall there be less than six feet (6') of cover over new waterlines installed in the Town of Essex. Waterlines with less than six feet (6') of cover over the crown must be approved by the Town Public Works Director. As shown on Detail 400.09 of these Specifications, protection against freezing shall be provided by installation of two inch (2") thick Styrofoam SM insulating sheets with a width of 3 feet or twice the pipe diameter, whichever is greater. In no case shall there be less than five feet (5') of cover. The sheets shall be placed six inches (6") above the crown of the main after compaction of the 6 inch (6") lift immediately above the crown. Care shall be exercised by the developer/contractor during backfill and compaction over the Styrofoam sheets to prevent damage to the sheets.

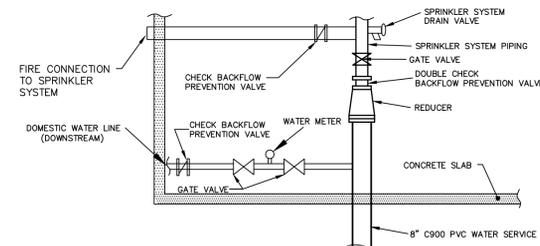


NOTES:

- THE CONTRACTOR SHALL KEEP THE TRENCH ENTIRELY FREE OF WATER AT ALL TIMES UNTIL THE WORK IS COMPLETE AND READY FOR BACKFILLING.
- THE SIDES OF THE TRENCHES SHALL BE SHEETED OR SLOPED TO THE ANGLE OF REPOSE IF THE TRENCH IS 4' OR MORE IN DEPTH.
- BACKFILL TRENCH IN 6" LIFTS AND COMPACT EACH LIFT TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 STANDARD PROCTOR.
- BACKFILL SHALL HAVE NO STONES LARGER THAN 1.5-INCHES IN DIAMETER.
- SEE DETAIL 400.09 FOR PIPE INSULATION REQUIREMENTS.
- ALL WORK SHALL CONFORM TO THESE SPECIFICATIONS AND PLANS UNLESS OTHERWISE SPECIFIED.
- THE PIPE BEDDING FOR DUCTILE IRON PIPE SHALL BE THOROUGHLY COMPACTED SAND OR GRAVEL, 3/4" STONE BEDDING SHALL BE USED AS PIPE BEDDING FOR PVC OR PE PIPE.
- INSTALL A CONTINUOUS SHEATHED SOLID CONDUCTOR COPPER TRACER WIRE OVER PIPE. THE WIRE SHALL BEGIN IN A TEST BOX ADJACENT TO ONE HYDRANT AND RUN TO A TEST BOX ADJACENT TO THE NEXT HYDRANT. SEE DETAIL 400.02.
- IF COVER OVER SERVICE IS BETWEEN 5'-6", PLACE 2" THICK INSULATION BOARD OVER PIPE. IF COVER IS BETWEEN 4'-5" THEN PLACE 4" THICK INSULATION BOARD OVER PIPE. IN NO CASE SHALL THERE BE LESS THAN 5' OF COVER IN PAVED AREAS OR 4' COVER IN GRASSED AREAS.

WATER TRENCH

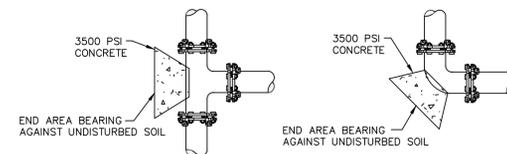
NTS



WATER / SPRINKLER CONNECTION

NTS

NOTE: PLACE 4 mil POLYETHYLENE BETWEEN FITTINGS AND THRUST BLOCK



TEES - CAPS

BENDS: 11', 25', 22.5', 45', 90'

SOIL TYPE - CLAY/SILT				SOIL TYPE - SAND				SOIL TYPE - TILL/SHALE			
SIZE FITTING	6"	8"	12"	SIZE FITTING	6"	8"	12"	SIZE FITTING	6"	8"	12"
1 1/4" & 2 1/2"	3	4	9	1 1/4" & 2 1/2"	2	2	5	1 1/4" & 2 1/2"	1	1	2
45'	4	8	17	45'	2	4	9	45'	1	2	4
90'	9	16	35	90'	4	8	17	90'	2	4	9
TEES OR END CAPS	6	11	25	TEES OR END CAPS	3	6	12	TEES OR END CAPS	2	3	6
VALVES	3	3	3	VALVES	2	2	2	VALVES	2	2	2

SQ FT BEARING AREA

BASED ON 100 PSI WORKING PRESSURE PLUS 100 PSI SURGE ALLOWANCE AND BEARING CAPACITY OF 1000 LBS/SQ FT

SQ FT BEARING AREA

BASED ON 100 PSI WORKING PRESSURE PLUS 100 PSI SURGE ALLOWANCE AND BEARING CAPACITY OF 2000 LBS/SQ FT

SQ FT BEARING AREA

BASED ON 100 PSI WORKING PRESSURE PLUS 100 PSI SURGE ALLOWANCE AND BEARING CAPACITY OF 4000 LBS/SQ FT

THRUST BLOCK DETAIL

NTS

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



DATE	REVISION	DPW COMMENTS	BY	WKC
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CHECKED				PLAN SHEET #
SCALE				5

O'LEARY-BURKE CIVIL ASSOCIATES, PLC

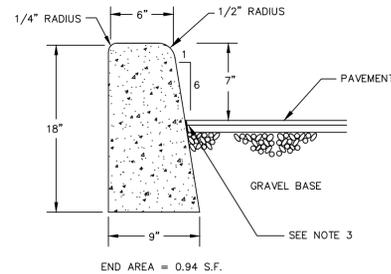
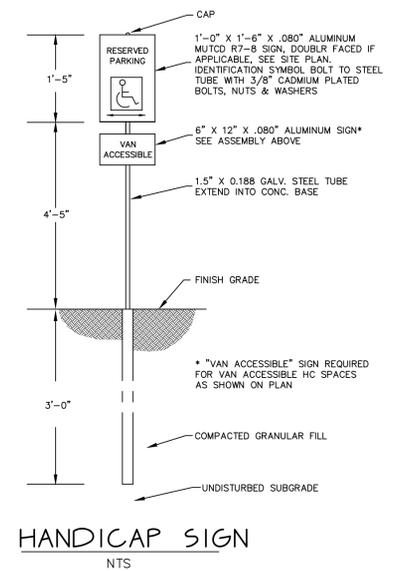
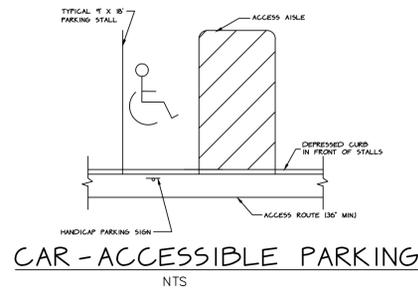
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E-MAIL: obca@olearyburke.com

55 THOMPSON DRIVE

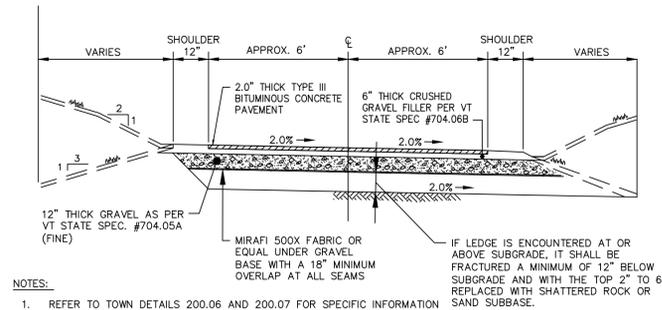
THOMPSON DRIVE ESSEX JCT, VT

WATER DETAILS SHEET

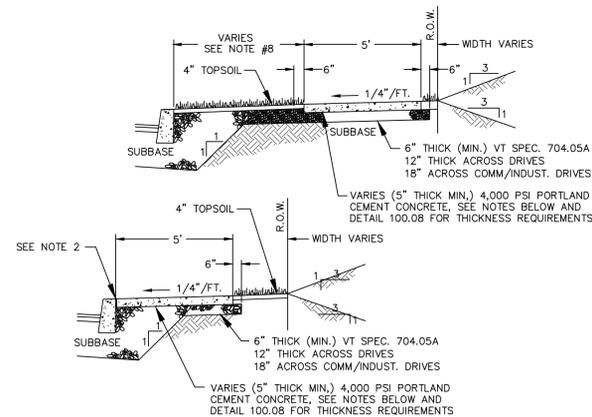
GRADATION REQUIREMENTS		
MATERIAL	SEIVE SIZE	PERCENT (%) PASSING
SAND CUSHION - VT SPEC 703.03	2"	100 %
	1 1/2"	90-100 %
	1/2"	70-100 %
	#4	60-100 %
	#100	0-20 %
GRAVEL FOR SUBBASE - VT SPEC 704.04	#4	20-60 %
	#100	0-12 %
	#200	0-5 %
CRUSHED GRAVEL FOR SUBBASE VT SPEC 704.05	2"	100 %
	1 1/2"	90-100 %
	#4	30-60 %
	#100	0-12 %
	#200	0-6 %
DENSE GRADED CRUSHED STONE VT SPEC 704.06	3 1/2"	100 %
	3"	90-100%
	2"	75-100%
	1"	50-80%
	1/2"	30-60%
	#4	15-40%
	#200	0-6 %



- NOTES :
- CURBING SHALL BE CONSTRUCTED WITH 3,500 PSI (CLASS B) CONCRETE IN 10' SECTIONS WITH 1/8" JOINTS BETWEEN SECTIONS.
 - 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).
 - PRIOR TO PAVING, THE PORTION OF CURBING TO BE IN CONTACT WITH THE PAVEMENT SHALL BE COATED WITH EMULSIFIED ASPHALT.
 - ALL EXPOSED CONCRETE CURB SHALL RECEIVE TWO COATS OF ANTI-SPALLING COMPOUND AFTER THE INITIAL CURING PERIOD (APPROXIMATELY 28 DAYS).

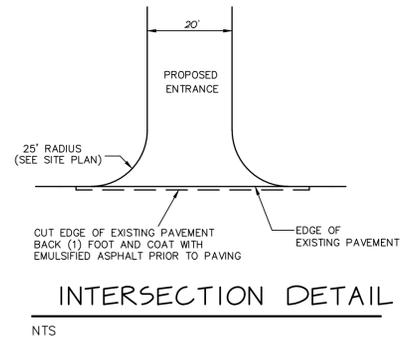


- NOTES:
- REFER TO TOWN DETAILS 200.06 AND 200.07 FOR SPECIFIC INFORMATION REGARDING DRAINAGE.
 - THE PATH FINISH GRADE SHALL HAVE A MINIMUM CROSS SLOPE OF 2% SWALE CONSTRUCTION, WHERE THE PATH GRADE EXCEEDS 5.0%, DRAINAGE DITCHES SHALL BE STONE LINED.
 - DEPENDING ON THE DESIGN, A CROWNED PATH MAY BE DESIRABLE W/DRAINAGE ALONG BOTH SIDES.

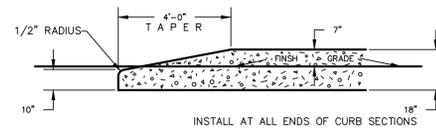


- NOTES:
- CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3,500 PSI AT 28 DAYS AND SHALL BE AIR ENTRAINED WITH AN ADMIXTURE PRODUCING AN AIR CONTENT OF 5% TO 7% BY VOLUME.
 - HALF INCH (1/2") TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT INTERVALS NOT EXCEEDING TWENTY FEET (20'). SIDEWALKS SHALL BE SCORED TO A DEPTH OF ONE INCH (1") EVERY FIVE (5) FEET. CURB AND SIDEWALK SECTIONS SHALL BE SEPARATED BY A PREMOLDED JOINT FILLER.
 - AFTER THE INITIAL CURING PERIOD IS OVER (APPROXIMATELY 28 DAYS), ALL EXPOSED SURFACES SHALL RECEIVE TWO COATS OF ANTI-SPALLING COMPOUND.
 - SEE WRITTEN SPECIFICATION FOR APPROVED CONSTRUCTION METHODS AND MATERIAL REQUIREMENTS.
 - SIDEWALK BASE SHALL BE VT SPEC. 704.05A OR APPROVED EQUAL
 - SEE DETAIL 100.08 FOR THICKNESS OF SIDEWALK AT DRIVE APRONS
 - 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".
 - DESIGNS SHOULD MAXIMIZE GREEN SPACE WIDTH TO THE EXTRENT PRACTICABLE

TYPICAL SIDEWALK SECTION
NTS

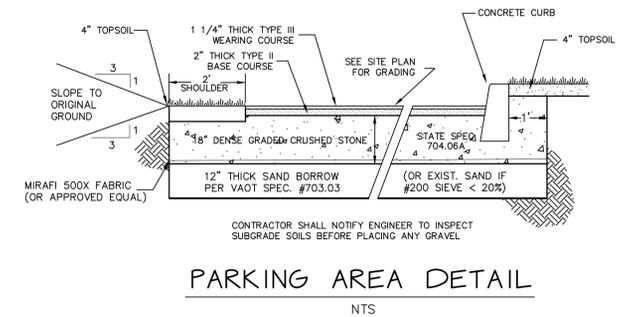


INTERSECTION DETAIL
NTS



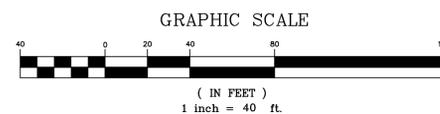
- NOTES :
- CURBING SHALL BE CONSTRUCTED IN 10' SECTIONS WITH 1/8" JOINT BETWEEN SECTIONS.
 - CURBING EXPANSION JOINTS SHALL BE CONSTRUCTED EVERY 20' AND SHALL BE CONSTRUCTED OF MATERIAL CONFORMING TO AASHTO DESIGNATION M-153 (1/2" SPONGE RUBBER OR CORK.)
 - ALL EXPOSED CONCRETE CURB SHALL RECEIVE TWO COATS OF ANTI-SPALLING COMPOUND AFTER THE INITIAL CURING PERIOD (APPROXIMATELY 28 DAYS).

TYPICAL TAPERED CURB
NTS



PARKING AREA DETAIL
NTS

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



DATE	REVISION	DPW COMMENTS	BY	WKC
12/03/25				
SURVEY	OBCA	RECORD DRAWING		
DESIGN	OBCA	FINAL		
DRAWN	WKC	PRELIMINARY		
CHECKED	BWC	SKETCH/CONCEPT		
SCALE				

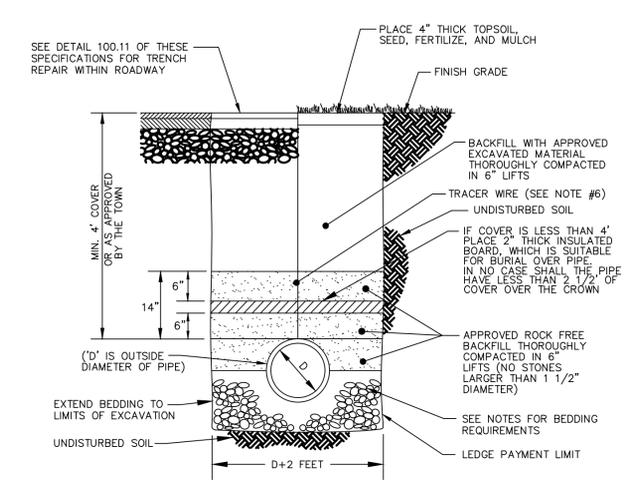
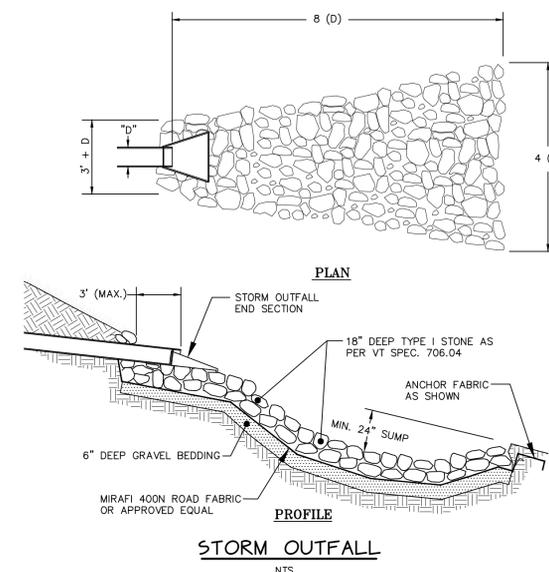
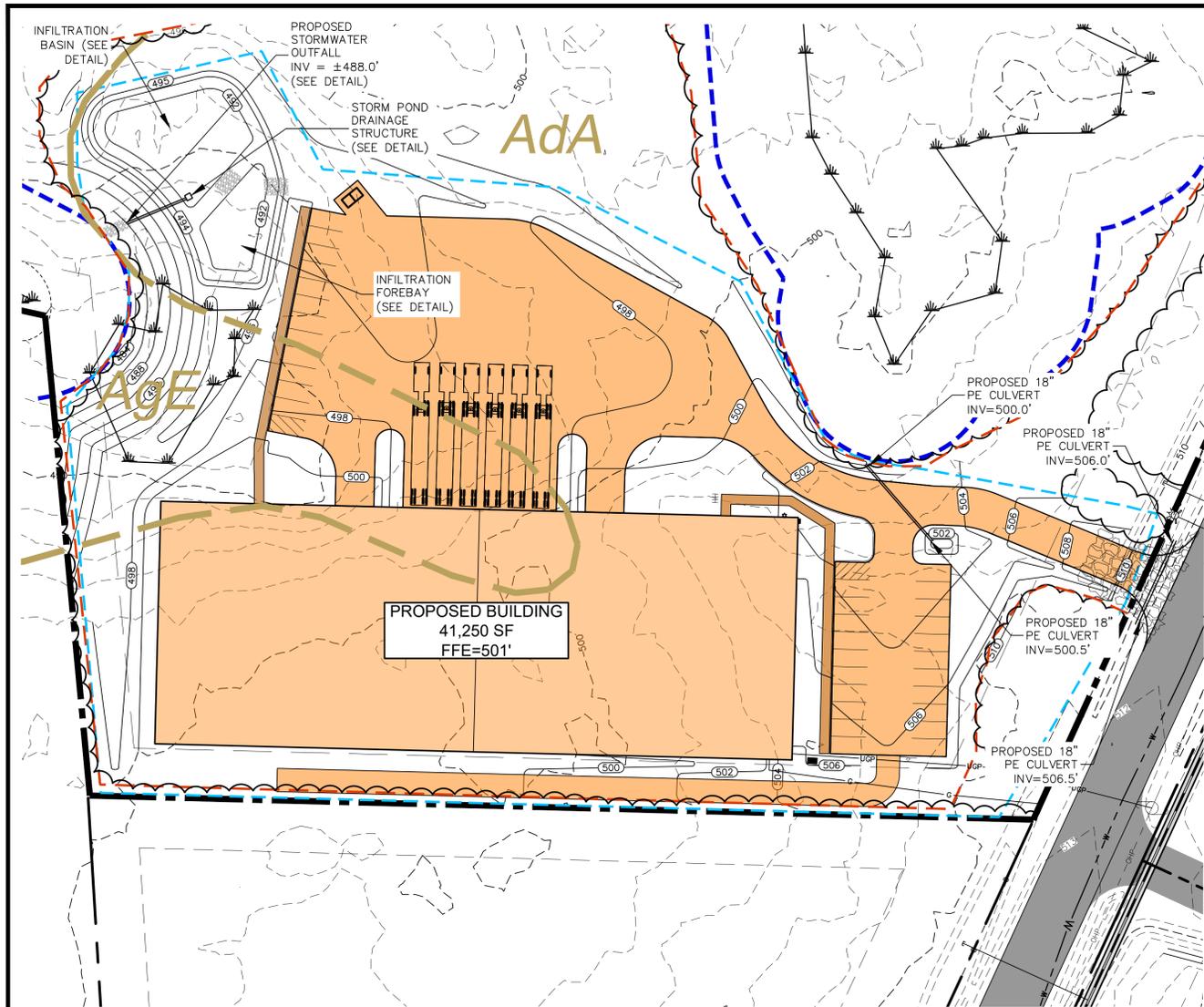
55 THOMPSON DRIVE

THOMPSON DRIVE ESSEX JCT, VT

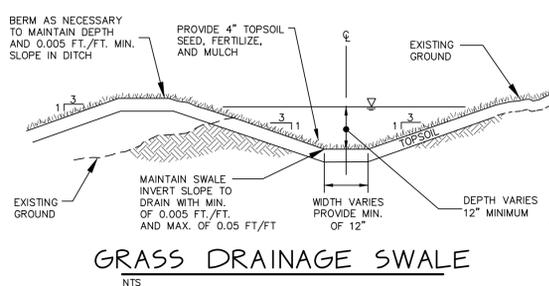
ROADWAY DETAILS

FILE S16

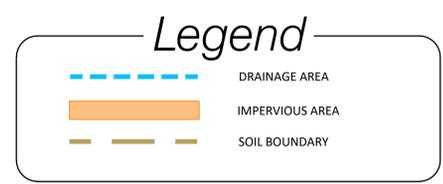
PLAN SHEET # **7**



- 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\"/>
 - 6. INSTALL A CONTINUOUS SHEATHED SOLID CONDUCTOR COPPER TRACER WIRE OVER PIPE. THE WIRE SHALL BEGIN INSIDE ONE CATCH BASIN OR MANHOLE AND RUN TO THE NEXT CATCH BASIN OR MANHOLE. INSIDE THE BASIN AND/OR MANHOLES, A COIL OF WIRE LONG ENOUGH TO REACH THE COVER SHALL BE ATTACHED TO THE INSIDE OF THE STRUCTURE. SEE DETAILS 200.01 - 200.03.



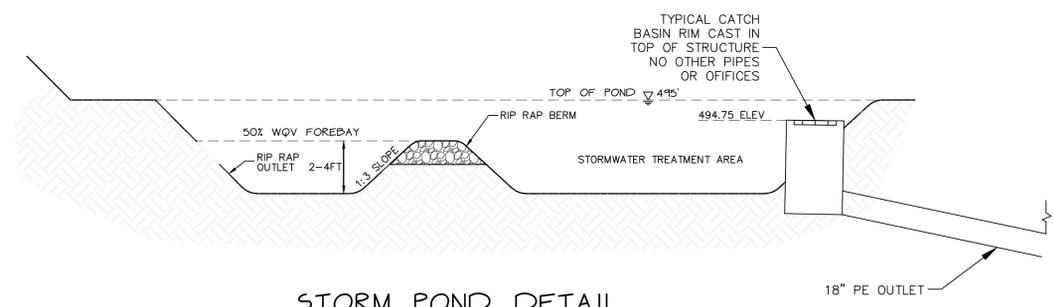
- STORM DRAIN TRENCH**
NTS
- STORM SYSTEM MAINTENANCE**
- SYSTEM MAINTENANCE IS IMPORTANT FOR TREATMENT AND CONTROL OF STORM RUNOFF FROM THE IMPERVIOUS SURFACES (BUILDINGS, ROAD, DRIVEWAY, AND SIDEWALKS). THE FOLLOWING ELEMENTS FORM THE MINIMUM REQUIREMENTS:
1. THE OWNER (OR REPRESENTATIVE) SHALL PERFORM 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. FOLLOWING ANY MAJOR STORMS 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 ANY CONVEYANCE SWALES OR THE SEDIMENT FOREBAY 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. THE CATCH BASIN 'SUMPS' SHALL BE CLEANED WHEN THE ACCUMULATED SEDIMENT EXCEEDS 12\"/>
 - E. 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.
 3. THE OWNER SHALL MECHANICALLY SWEEP AND REMOVE SEDIMENTS IN THE ROADWAY AREAS AND CATCH BASIN SUMPS AS NECESSARY PRIOR TO MAY 15TH.



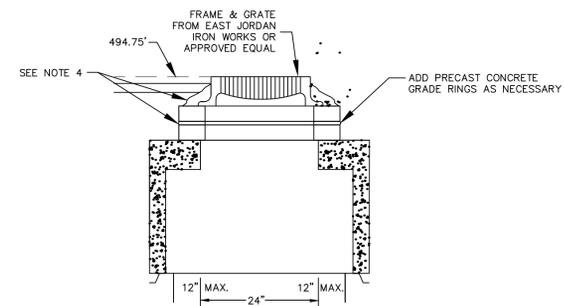
Site Soil Conditions

Soil Type	HSG Value	Impacted Area (acres)
AdA - Adams and Windsor Sand, 0-5 percent slopes	A	2.76
AgE - Agawam Fine Sandy Loam, 30-60 percent slopes	A	0.5

Total Drainage Area: 3.3 Acres



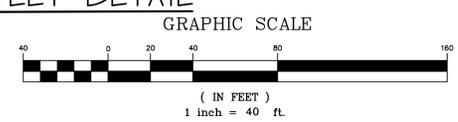
STORM POND DETAIL
NTS



- NOTES:**
1. REFER TO WRITTEN THE SPECIFICATIONS FOR BACKFILL AND COMPACTION REQUIREMENTS.
 2. REFER TO WRITTEN THE SPECIFICATIONS FOR DRAINAGE STRUCTURE AND MATERIAL REQUIREMENTS.
 3. RUBBER BOOTS SHALL BE USED AROUND ALL STORM CONNECTIONS.
 4. HIGH STRENGTH NON-SHRINK GROUT SHALL BE USED TO SET FRAME AND GRADE RINGS.

CATCH BASIN OUTLET DETAIL
NTS

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



- STORMWATER DESIGN**
- DRAINAGE AREA: 3.3 ACRES (142,839 SQFT)
 - PROPOSED IMPERVIOUS AREA: 1.96 ACRES (85,200 SQFT)
 - PRE-TREATMENT: 50% WQV IN PROPOSED FOREBAY
 - SYSTEM SIZED TO INFILTRATE THE WQV, 1-YR, 10-YEAR STORM EVENTS
 - SYSTEM DESIGNED TO MEET GIVEN BELOW RAINFALL EVENTS FROM NOAA ATLAS 14
 - 1 YEAR (2.02 IN) PRE-DEVELOPMENT FLOW: 0.0 CFS, PRE-ROUTED POST: 6.54 CFS, ROUTED POST: 0.0 CFS
 - 10 YEAR (3.54 IN) PRE-DEVELOPMENT FLOW: 0.0 CFS, PRE-ROUTED POST: 11.64 CFS, ROUTED POST: 0.0 CFS
 - A STORMWATER OVERFLOW STRUCTURE IS PROPOSED FOR STORM EVENTS GREATER THAN THE 10-YEAR EVENT.

- NOTES:**
- 1) THIS PLAN IS NOT TO BE USED FOR PROPERTY CONVEYANCE PURPOSES. SEE PROPERTY PLAT FOR PROPERTY CONVEYANCE PURPOSES.



DATE: 12/03/25	REVISION: DPW COMMENTS	BY: WKC
SURVEY: OBCA	<input type="checkbox"/> RECORD DRAWING <input type="checkbox"/> PRELIMINARY	DATE: 12/03/25
DESIGN: OBCA	<input checked="" type="checkbox"/> FINAL <input type="checkbox"/> SKETCH/CONCEPT	JOB#: 2025-53
DRAWN: WKC	O'LEARY-BURKE CIVIL ASSOCIATES, PLC	FILE: S16
CHECKED: BWC	13 CORPORATE DRIVE ESSEX JCT., VT PHONE: 878-9589 FAX: 878-9589 E-MAIL: odba@olearyburke.com	PLAN SHEET #
SCALE: 1" = 40'	55 THOMPSON DRIVE THOMPSON DRIVE ESSEX JCT, VT	ST1