

Owner Information

Hazelett Strip-Casting Corporation

Planning & Zoning Information

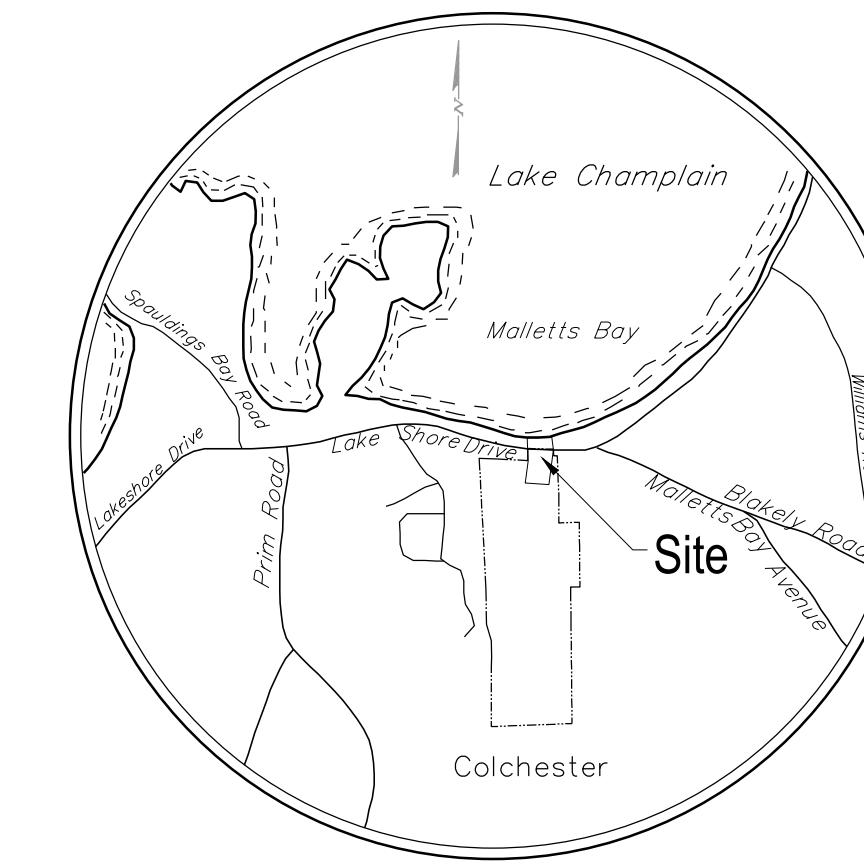
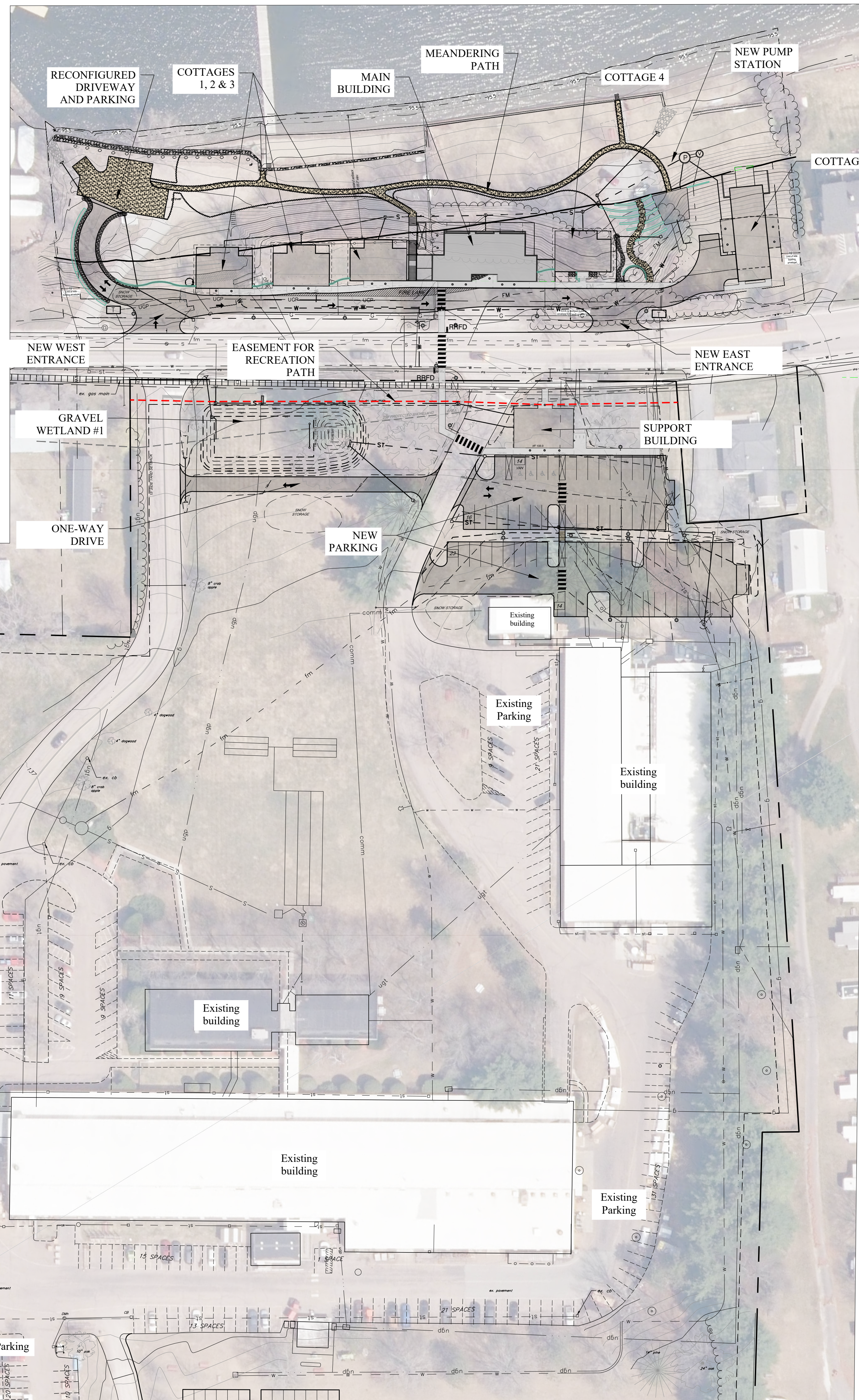
Parcel ID: 65-019002-00000 & 65-020002-00000
 Zoning: Lake Shore 1 (LS1)

180 W. Lakeshore Drive Area = 1.11 Ac
 166 W. Lakeshore Drive Area = 1.36 Ac.

Total Lot Coverage: 40% maximum allowed
 Minimum Lot Size: 30,000 sf
 Lot Frontage: 120 ft
 Front Yard Setback: 15 ft
 Side Yard Setback: 15 ft
 Rear Yard Setback: 15 ft
 Building Height Max: 40ft Ridge - 35ft Flat (com.)

LOT COVERAGE

LOT COVERAGE	Existing	Proposed
166 & 180 W. Lakeshore Drive	22.3%	30.4%
135 W. Lakeshore Drive	5.05%	5.44%
FRONT YARD COVERAGE		
166 & 180 W. Lakeshore Drive	46.8%	46.7%
135 W. Lakeshore Drive	17.0%	18.8%



Location Map
not to scale

Notes:

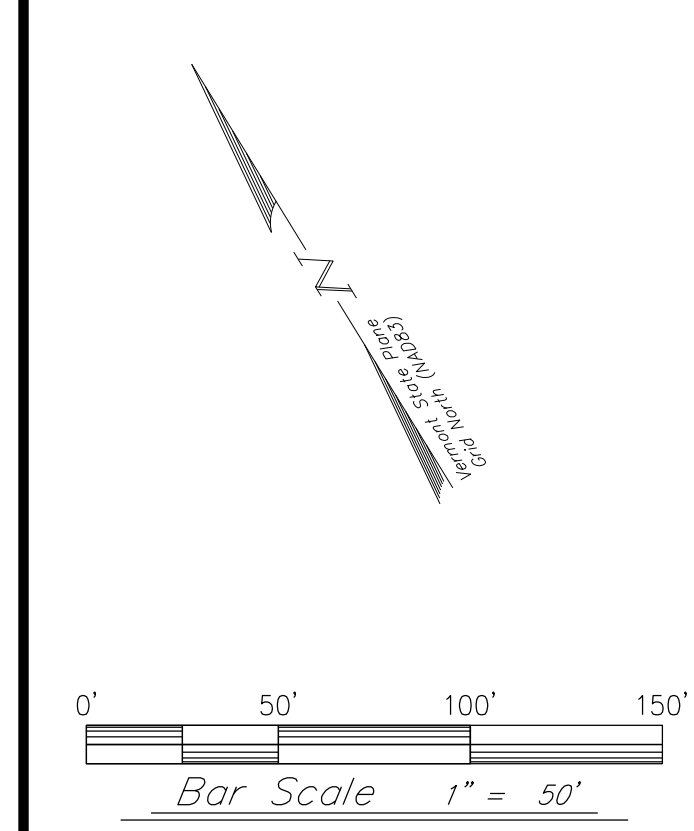
- This plan is not a boundary survey. Refer to Boundary Survey prepared by Krebs and Lansing Consulting Engineers, "Lands of Hazelett Strip-Casting Corporation, dated March 3, 2025."
- The underground utilities shown on this plan are based on visible utilities located during a topographic survey performed by Krebs & Lansing in June 2017 and January 2025. Underground utilities are approximate and not warranted to be exact or complete. Dig Safe shall be contacted prior to any excavation.
- The location of the Malletts Bay sanitary sewer and force main are taken from design plans prepared by Aldrich & Elliot Water Resource Engineers, entitled "West Lakeshore Drive Mainline Sewers Contract No.1A", dated Dec. 2023.
- Elevations are based on the NAVD 88 (Geoid 12A) vertical datum.
- Project Horizontal Coordinates derived from GPS observation using reference frame NAD83 (2011) 2010.00 epoch.
- Aerial photography is based on information provided by the Vermont Center for Geographical Information, 2023 flight.

Legend

	Iron pipe or rebar found
	Survey Control Point
	Existing Sign
	Existing Light Pole
	Existing Deciduous Tree
	Existing Evergreen Tree
	Existing Spot Grade Elevation
	Existing 1ft Contour Interval
	Existing 95.5 Contour Interval
	Existing Gas Line/Valve
	Existing Sewer Line/Manhole
	Existing Sewer Forcemain
	Existing Storm Line/Manhole/Basin
	Existing Overhead Electric Line/Power Pole
	Existing Overhead Utility
	Existing Communications Line
	Existing Underground Electric & Telephone Line
	Existing Site Lite Line
	Existing Guardrail
	Existing Tree Line
	Existing Chain Link Fence
	Existing Barbed Wire Fence
	Existing Stockade Fence
	Existing Underground Power
	Existing Water Line/Hydrant/Valve/Shutoff
	Approximate Property Line
	Existing Setback
	Existing Easement
	Existing Rock Retaining Wall
	New Gas Line/Valve
	New Sewer Line/Manhole
	New Sewer Forcemain
	New Storm Line/Manhole/Basin
	New Water Line/Hydrant/Valve/Shutoff
	New Underground Power
	Rectangular flashing beacon with B-B pedestrian crosswalk signs (w11-2, 30" x 30" & w16-7p, 24" x 12", tyg)

STAMP:

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 CONSULTING ENGINEERS
 164 Main Street, Suite 201 P: (802) 878-0375
 Colchester, Vermont 05446 www.krebsandlansing.com



Project:
**THE 'H'
 AT
 MALLETT'S BAY**
 180 & 166 W. Lakeshore Drive
 Colchester, Vermont

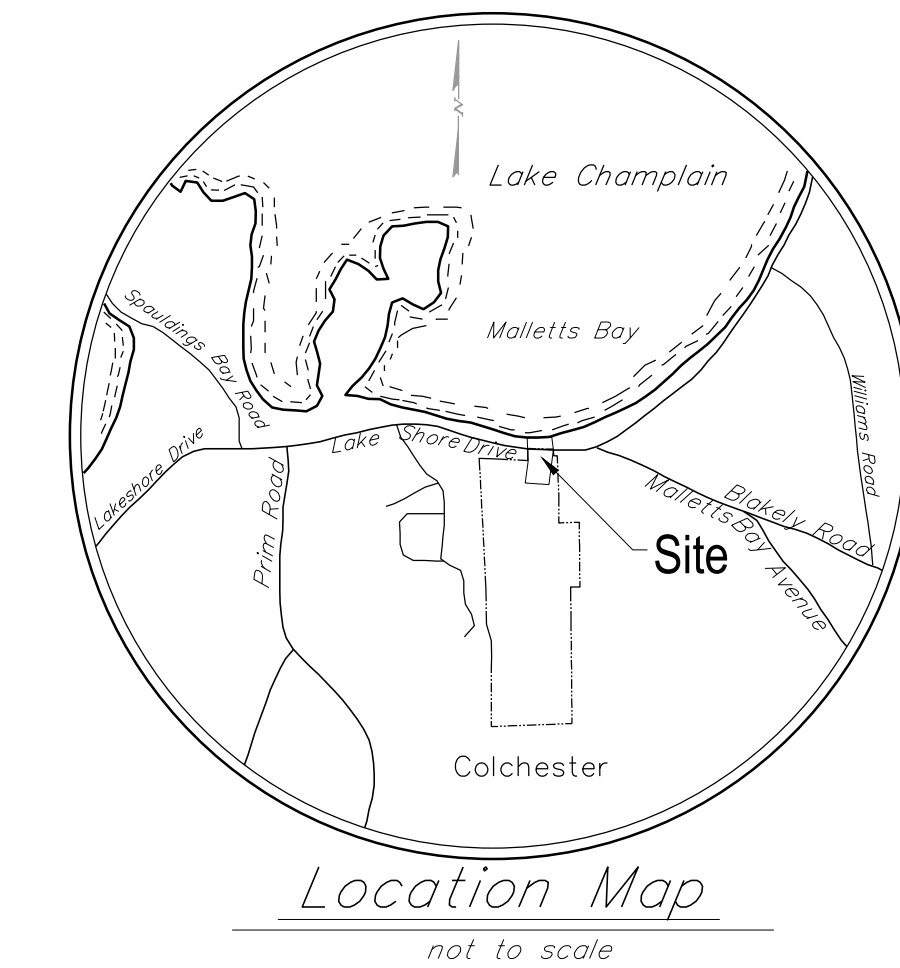
Project No. 23314
 Scale 1" = 50'
 Drawn by SWH
 Checked by
 Date 03/03/25

Revisions

No.	Date	Description
05/09/25		site layout
06/10/25		entrance; lot coverage; rec path easement
06/19/25		Town resubmittal
07/10/25		Revised rec path easement
10/03/25		Town Final

Drawing Title
**OVERALL SITE
 PLAN**

Drawing No.
C-1.0



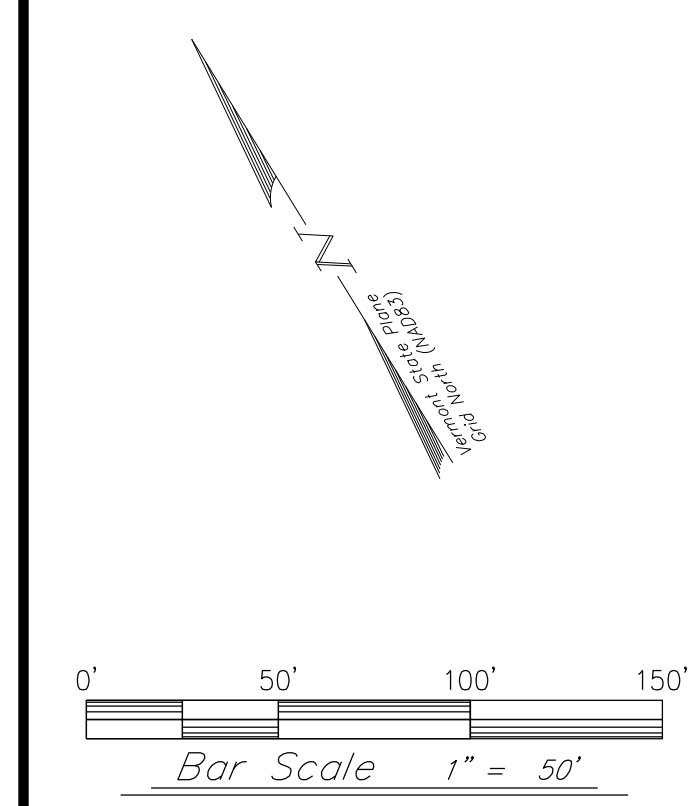
Notes:

1. This plan is not a boundary survey. Refer to Boundary Survey prepared by Krebs and Lansing Consulting Engineers, "Lands of Hazellet Strip-Casting Corporation, dated March 3, 2025.
2. The underground utilities shown on this plan are based on visible utilities located during a topographic survey performed by Krebs & Lansing in June 2017 and January 2025. Underground utilities are approximate and not warranted to be exact or complete. Dig Safe shall be contacted prior to any excavation.
3. The location of the Malletts Bay sanitary sewer and force main are taken from design plans prepared by Aldrich & Elliot Water Resource Engineers, entitled "West Lakeshore Drive Mainline Sewers Contract No.1A", dated Dec. 2023.
4. Elevations are based on the NAVD 88 (Geoid 12A) vertical datum.
5. Project Horizontal Coordinates derived from GPS observation using reference frame NAD83 (2011) 2010.00 epoch.
5. Aerial photography is based on information provided by the Vermont Center for Geographical Information, 2023 flight.

PARKING SUMMARY	
166 & 180 W. LAKESHORE DRIVE	6
135 W. LAKESHORE DRIVE (EXISTING STRIPED)	185
135 W. LAKESHORE DRIVE (PROPOSED)	67
135 W. LAKESHORE DRIVE (TO BE STRIPED)	31
TOTAL	289
FUTURE RESERVE	50
FUTURE TOTAL WITH RESERVE	339

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Project:
THE 'H' AT MALLETT'S BAY
180 & 166 W. Lakeshore Drive Colchester, Vermont

Project No. 23314
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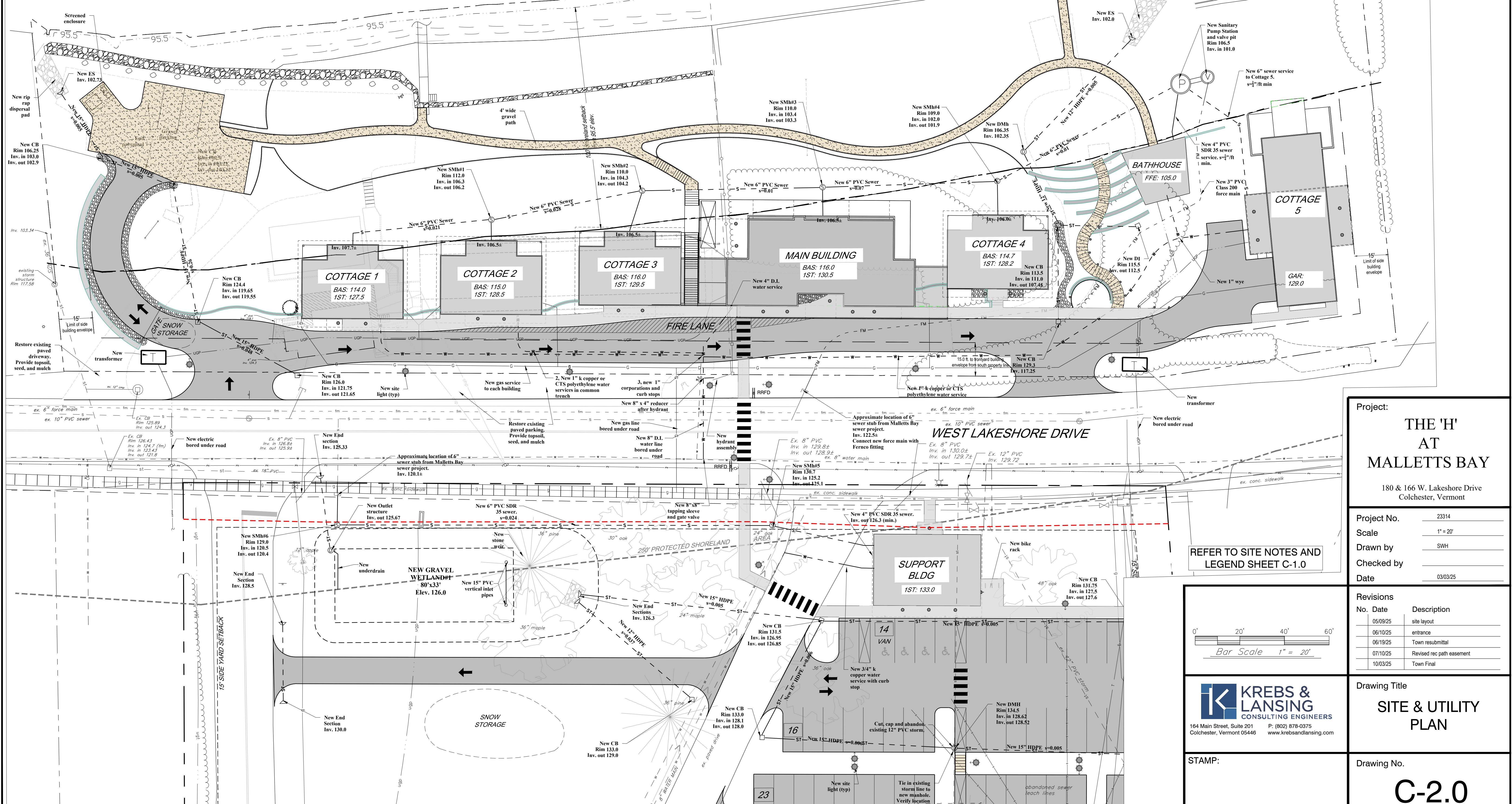
Drawing Title
OVERALL PARKING PLAN

Drawing No.
C-1.1

CONSTRUCTION NOTES

- The Contractor shall be responsible for repairing all disturbed areas back to original condition, including but not limited to curbing, sidewalks, road, parking areas, landscaping, site lighting, electrical, and etc. All asphalt shall be sawcut prior to paving.
- All stumps, rock, and other non-approved trench backfill material discovered during construction is the exclusive property of the Contractor and shall be removed from the property and disposed of in a State approved disposal location. All existing soils reused for fill shall conform to all applicable sections of VTRANS specifications Section 203 Excavation & Embankments. Any soil reused to establish subgrade under roads and applicable concrete sidewalks shall pass a subgrade proof roll with a loaded tandem. Reused soils that do not pass a subgrade proof roll shall be removed and replaced at the Contractor's expense.
- All passing sieve, proctor, and compaction testing expenses shall be paid by Owner. Testing coordination, all other required testing, and expenses for failed tests shall be the Contractor's responsibility.
- The Contractor shall contact Green Mountain Power and Vermont Gas Systems prior to any work in the vicinity of the respective utilities.
- This project requires coverage under a State Construction Stormwater Discharge Permit. The Contractor shall be the On-site Coordinator for the project and shall be responsible for all required inspections (minimum weekly and after any storm event that produces a discharge), turbidity readings, maintenance, and reporting. The Contractor shall be responsible for installing, maintaining and removing all erosion and sediment control devices shown on the plans or details
- Contractor shall be responsible for all "As-built" measurement and drafting requirements as outlined on the Detail Sheets. All trench excavations shall remain open until all as-built survey shots have been taken. Progress Record Drawings shall be submitted to the Engineer on a bi-weekly basis.
- Contractor shall be responsible for importing topsoil as required to complete the project. Contractor shall test topsoil for approval by the Owner and Engineer. Refer to Post Construction Stabilization Plan for additional soil preparation requirements.
- All new storm pipes shall be PVC SDR 35 unless otherwise noted.
- Temporary groundwater and stormwater by-pass pumping and/or diversion is the responsibility of the Contractor. The Contractor is responsible for providing all necessary pumps and equipment to perform the work. Overnight pumping is not allowed.
- Removal of all erosion control matting and inlet protection is the responsibility of the Contractor.
- Electrical and communication lines on this plan are shown for illustrative/coordination purposes only. Refer to Electrical plans and specifications for design.
- Buried natural gas is shown for alignment purposes only. Contact Vermont Gas Systems for design and details of new gas line. Contractor shall be responsible for the excavation,

- and, to the maximum extent practical, to minimize potential contamination of stormwater runoff from the construction activities.
- backfill, and restoration for the construction of the natural gas lines. Vermont Gas Systems will provide the piping, labor to install, and testing for the new gas main. Coordinate work and all gas shut down procedures with the Owner.
- Refer to Plumbing plans for waterline and sewer design within five feet of building.
- Excavations within or across public highways for purposes of installing or replacing utilities are generally prohibited. In all possible instances, such work shall be achieved through jacking and boring beneath the road surface, without disturbance to any paved portion of the roadway. If jacking and boring is not feasible, the applicant must present justification for excavation to the Director of Public Works for review and approval.
- The contractor shall notify "DIGSAFE" at 1-888-DIG-SAFE prior to any excavation. The Town of Colchester is not associated with Digsafe and shall be contacted separately prior to excavation.
- Stopping traffic on adjacent public roadway shall not be permitted without necessary traffic control measures in accordance with MUTCD including approach signing and flagmen. Deliveries and haul operations shall be coordinated not to occur during times of peak traffic volumes (7:30-8:30 am & 4:30-5:30 pm).
- Contractor shall be responsible for applying for and obtaining an excavation permit from the Colchester Department of Public Works. This includes all application material, traffic control design, fees and other material necessary to obtain the permit.

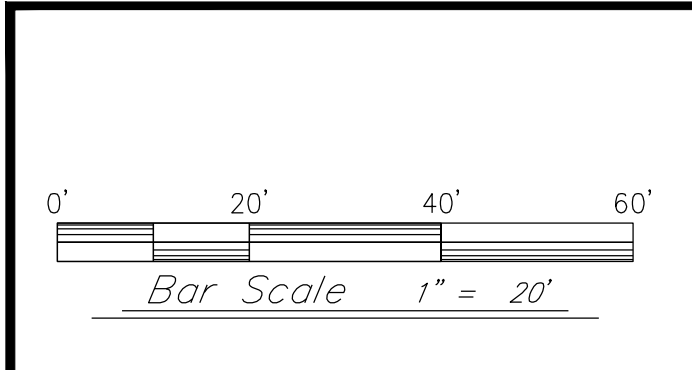


Project: **THE 'H' AT MALLETT'S BAY**
 180 & 166 W. Lakeshore Drive
 Colchester, Vermont

Project No. 23314
 Scale 1" = 20'
 Drawn by SWH
 Checked by
 Date 03/03/25

Revisions		
No.	Date	Description
05/09/25		site layout
06/10/25		entrance
06/19/25		Town resubmittal
07/10/25		Revised rec path easement
10/03/25		Town Final

REFER TO SITE NOTES AND LEGEND SHEET C-1.0



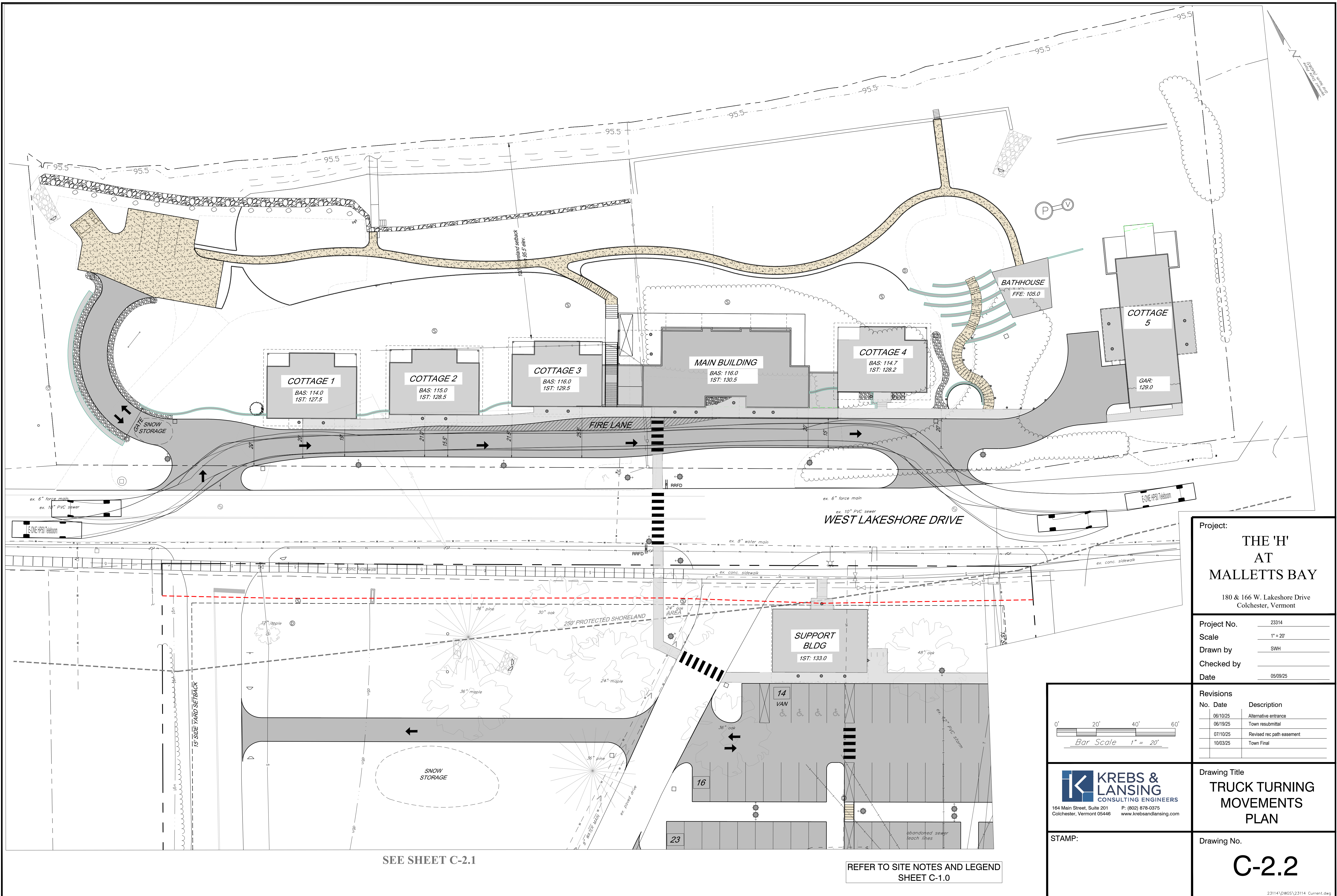
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Drawing Title
SITE & UTILITY PLAN

STAMP:

Drawing No.
C-2.0

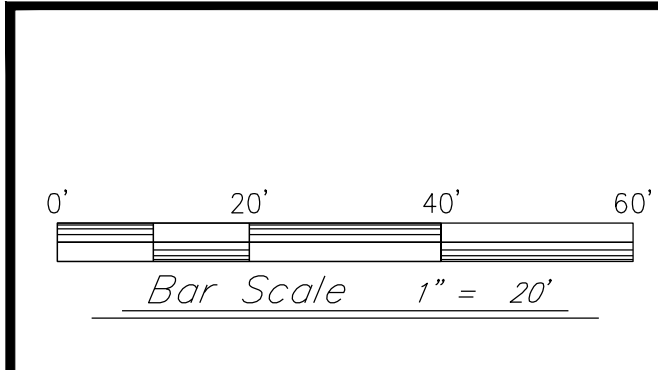
SEE SHEET C-2.1



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06/10/25		Alternative entrance
06/19/25		Town resubmittal
07/10/25		Revised rec path easement
10/03/25		Town Final



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Drawing Title
**TRUCK TURNING
 MOVEMENTS
 PLAN**

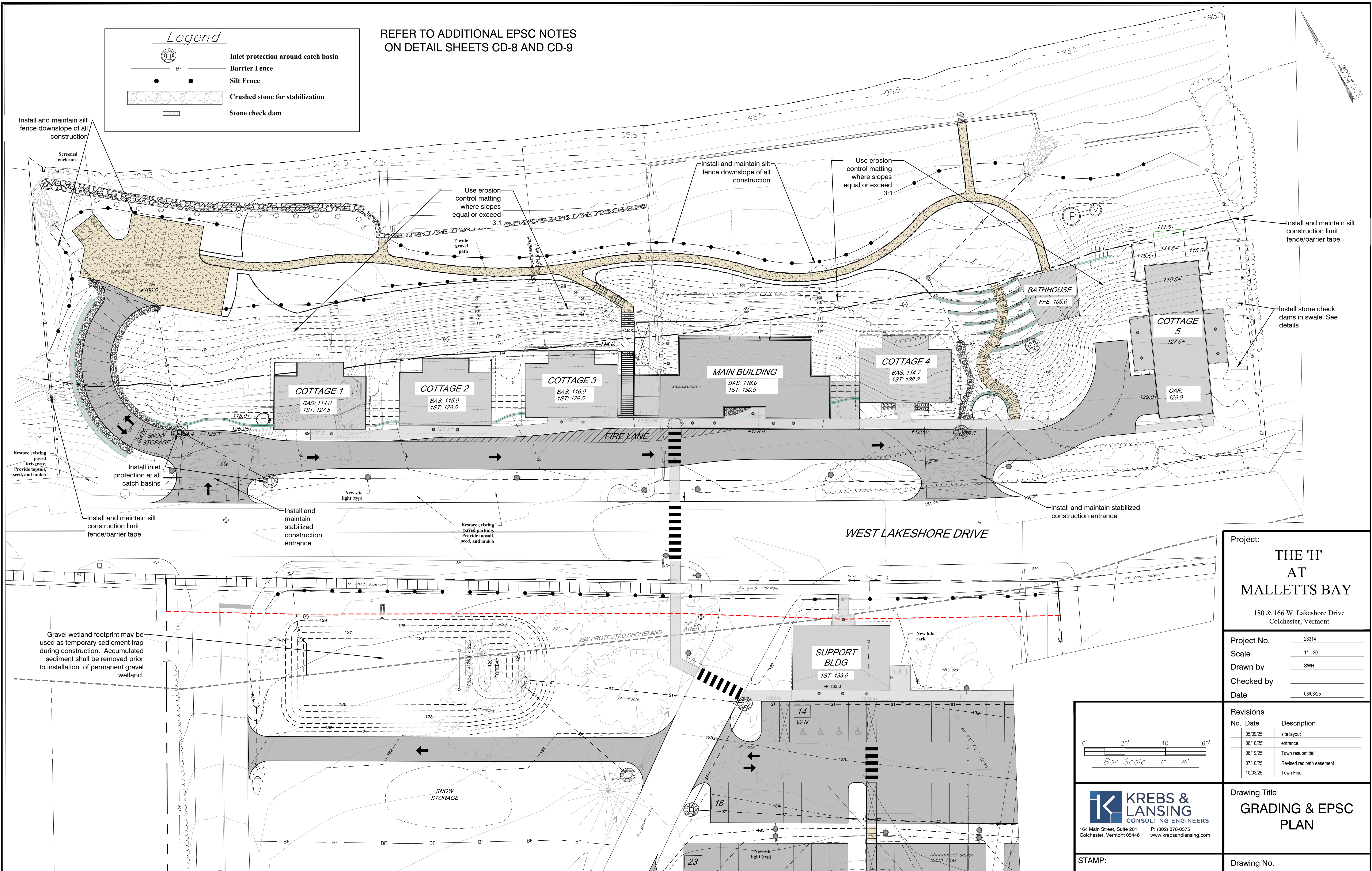
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Drawing No.
C-2.2

Legend

- Inlet protection around catch basin
- Barrier Fence
- Silt Fence
- Crushed stone for stabilization
- Stone check dam

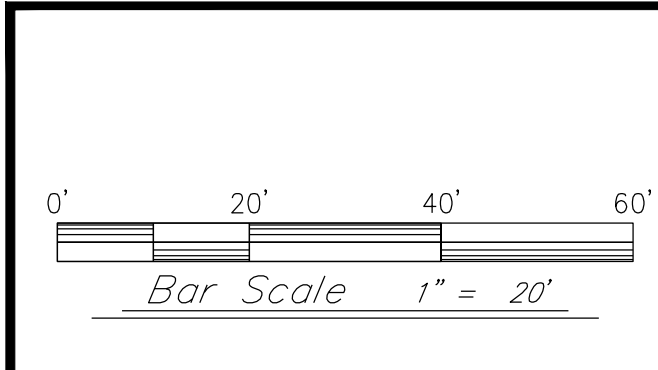
REFER TO ADDITIONAL EPSC NOTES
ON DETAIL SHEETS CD-8 AND CD-9



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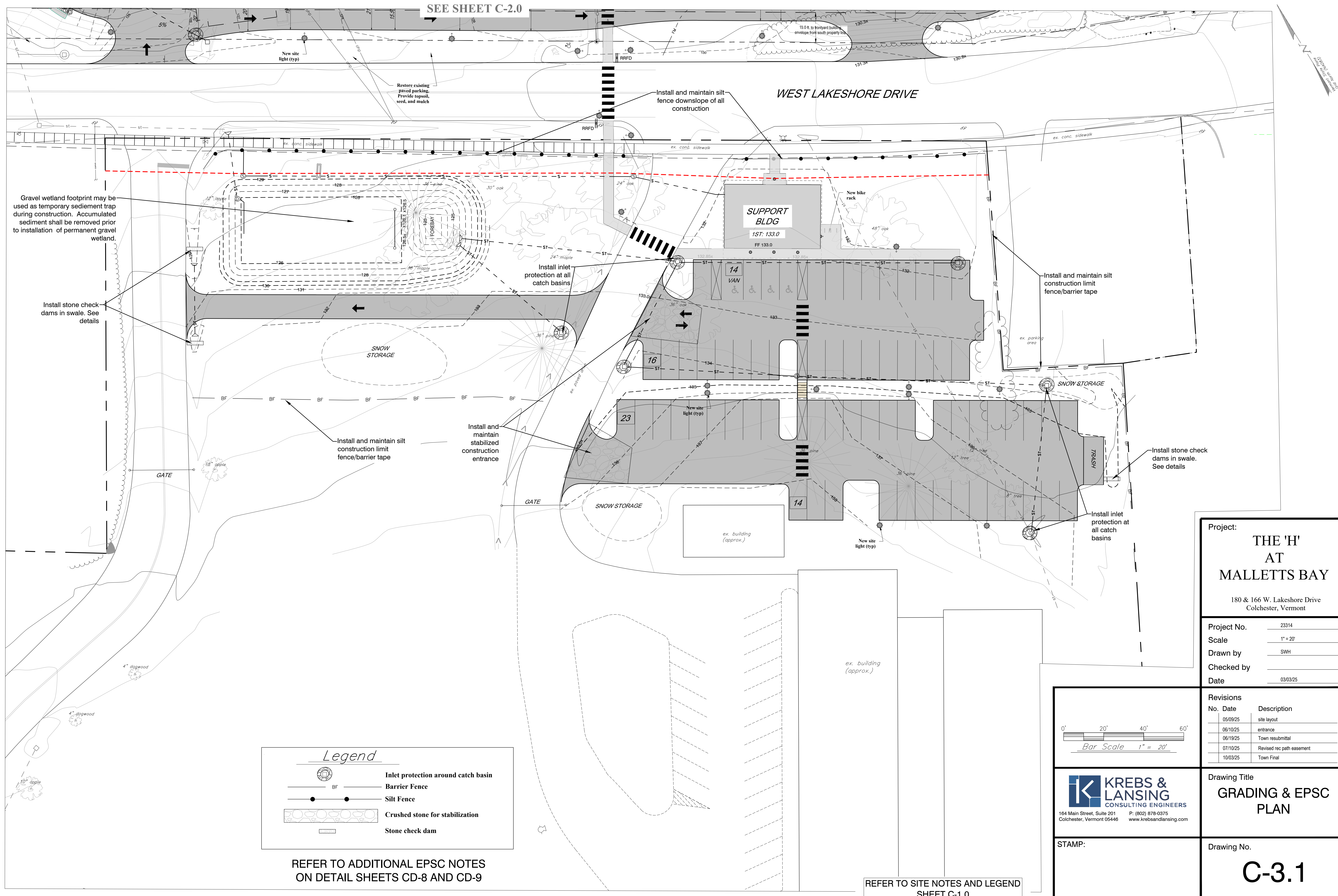
Drawing Title
GRADING & EPSC PLAN

STAMP:

Drawing No.

C-3.0

SEE SHEET C-2.0



Gravel wetland footprint may be used as temporary sediment trap during construction. Accumulated sediment shall be removed prior to installation of permanent gravel wetland.

Install stone check dams in swale. See details

SNOW STORAGE

Install and maintain silt construction limit fence/barrier tape

Install and maintain stabilized construction entrance

GATE

SNOW STORAGE

ex. building (approx.)

ex. building (approx.)

SUPPORT BLDG
1ST: 133.0
FF 133.0

14
VAN

16

23

14

SNOW STORAGE

TRASH

Install inlet protection at all catch basins

Install stone check dams in swale. See details

Install and maintain silt construction limit fence/barrier tape

Install and maintain silt fence downslope of all construction

WEST LAKESHORE DRIVE

Legend

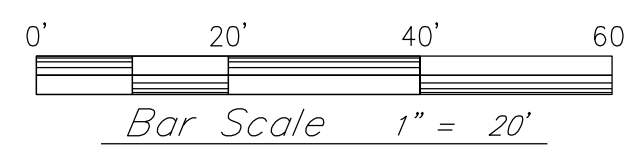
- Inlet protection around catch basin
- Barrier Fence
- Silt Fence
- Crushed stone for stabilization
- Stone check dam

REFER TO ADDITIONAL EPSC NOTES ON DETAIL SHEETS CD-8 AND CD-9

REFER TO SITE NOTES AND LEGEND SHEET C-1.0

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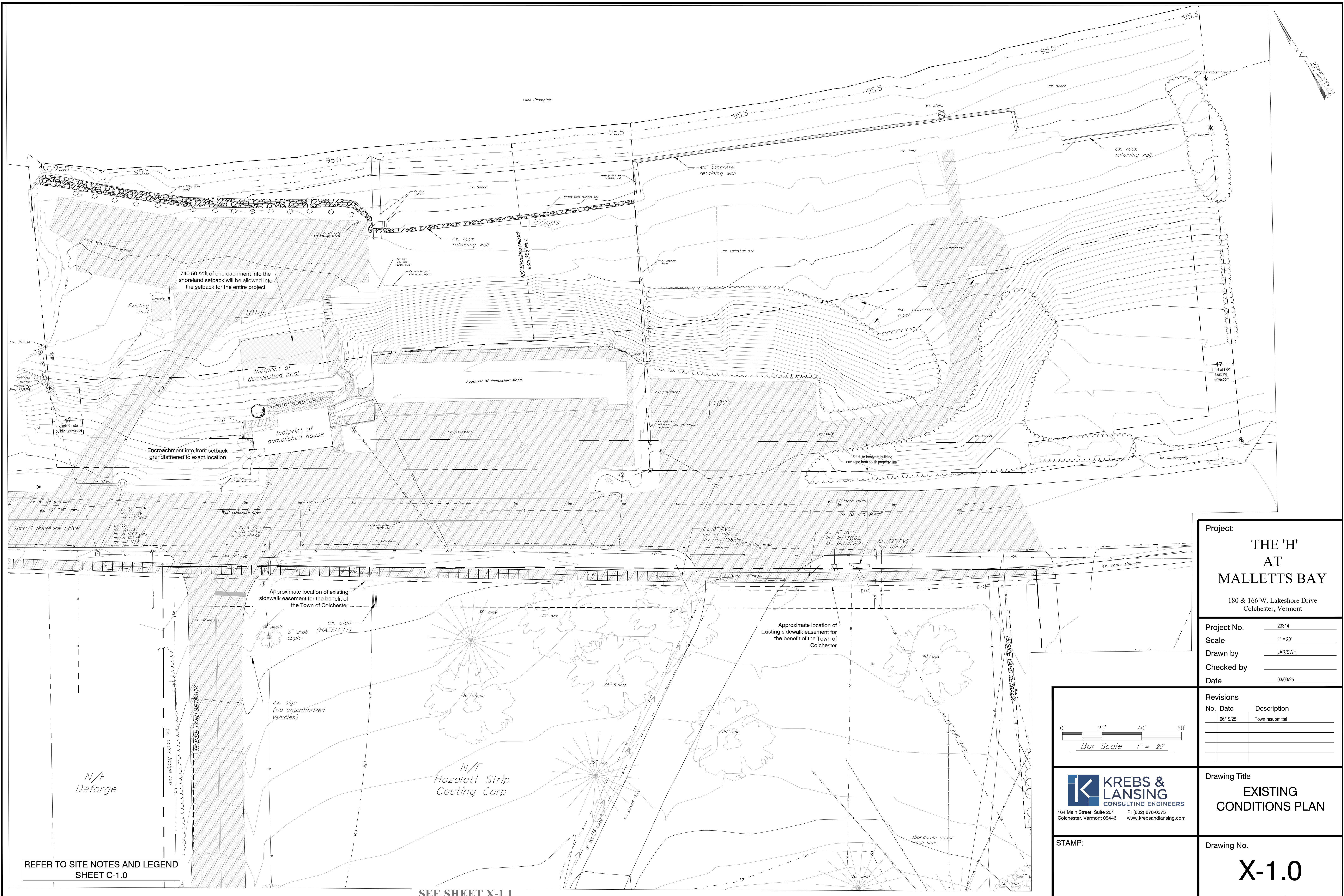
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Drawing Title
GRADING & EPSC PLAN

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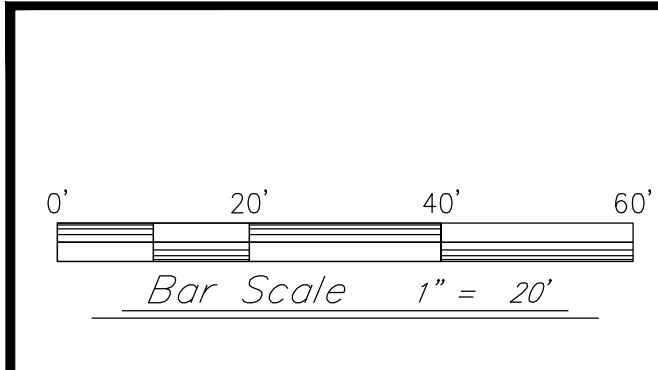
Drawing No.
C-3.1



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Revisions		
No.	Date	Description
06/19/25		Town resubmittal



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Drawing Title
EXISTING
CONDITIONS PLAN

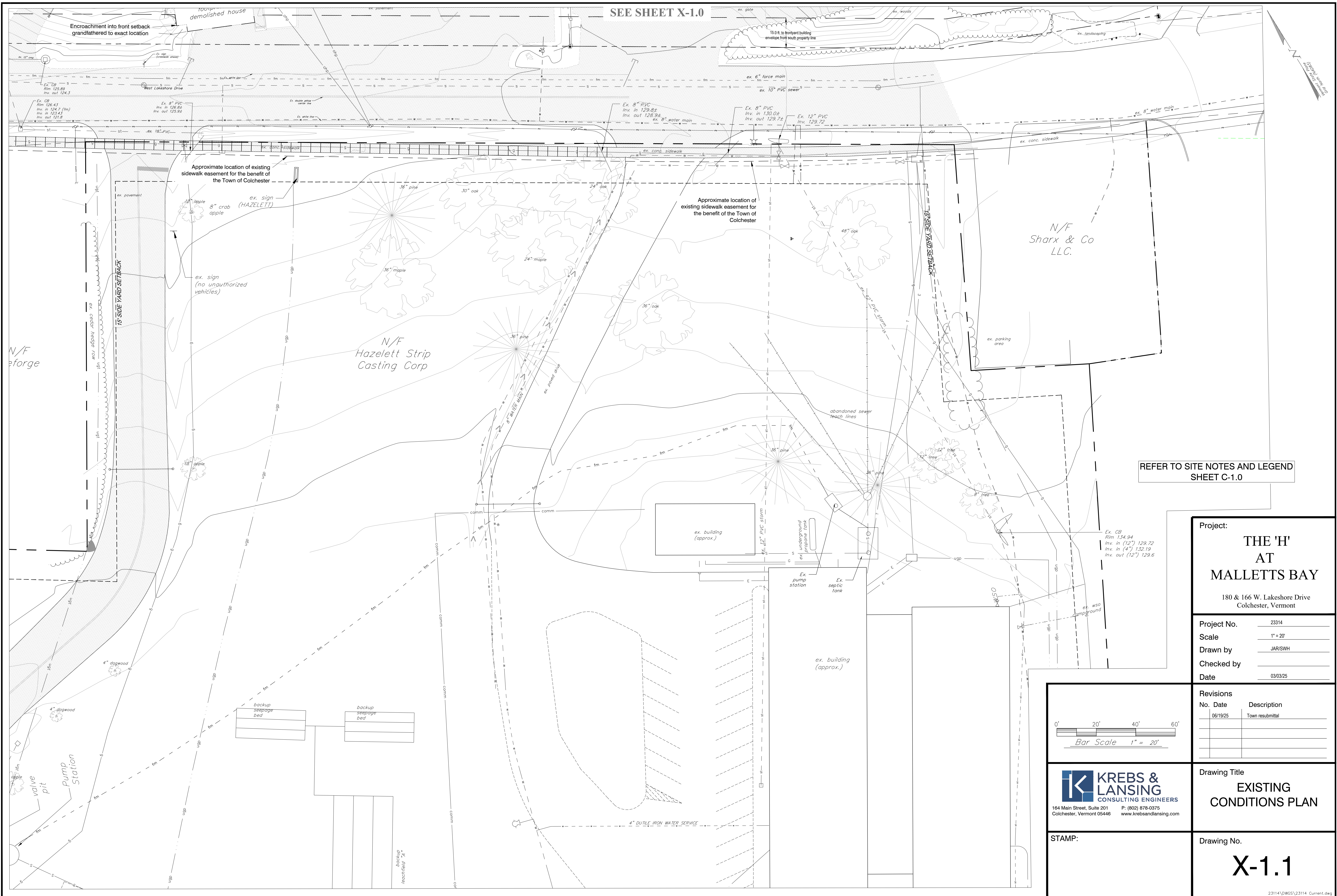
STAMP:

Drawing No.
X-1.0

REFER TO SITE NOTES AND LEGEND SHEET C-1.0

SEE SHEET X-1.1

SEE SHEET X-1.0

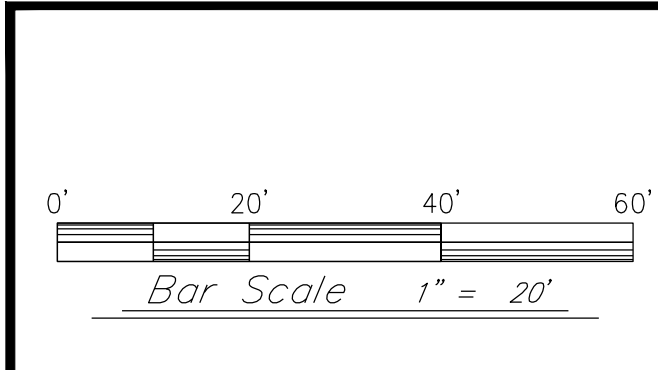


REFER TO SITE NOTES AND LEGEND SHEET C-1.0

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Drawing Title
**EXISTING
 CONDITIONS PLAN**

STAMP:

Drawing No.
X-1.1

GENERAL CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DISTURBED AREAS BACK TO ORIGINAL CONDITION, INCLUDING BUT NOT LIMITED TO CURBING, SIDEWALKS, ROAD, PARKING AREAS, LANDSCAPING, SITE LIGHTING, ELECTRICAL, AND ETC. ALL ASPHALT SHALL BE SAW-CUT PRIOR TO PAVING.
- THE METHODS AND MATERIALS OF CONSTRUCTION SHALL CONFORM TO THE LATEST STANDARDS OF THE STATE OF VERMONT AND TOWN OF COLCHESTER. ALL WORK SHALL BE IN CONFORMANCE WITH ALL PERMITS AND APPROVALS ISSUED FOR THE PROJECT. IN CASE OF CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY AS DIRECTED BY ENGINEER. ALL WORK SHALL BE DONE IN A WORKMANLIKE MANNER AND COMPLETED IN THE TIME SPECIFIED BY OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS SHOWN AND REQUIRED TO MAKE THE JOB COMPLETE. THESE DRAWINGS DO NOT SHOW EVERY FITTING OR APPURTENANCE. MATERIALS SHALL BE AS SPECIFIED ON THE DRAWINGS. MANUFACTURER'S PRODUCT SPECIFICATIONS SHALL BE SUBMITTED FOR ALL MATERIALS TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- THE LOCATION AND SIZE OF EXISTING UNDERGROUND UTILITIES IS NOT WARRANTED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES AND SHALL CONTACT THE AFFECTED UTILITY COMPANY, THE ENGINEER AND THE MUNICIPALITY PRIOR TO MAKING ANY HOOK UPS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXISTING UTILITIES AND THEIR UNINTERRUPTED SERVICES. ALL OFF-SITE BACKFILL, SHEETING, SHORING, DEWATERING, CLEARING AND GRUBBING, EROSION CONTROL, DUST CONTROL, TRAFFIC CONTROL, GRADING, AND ALL INCIDENTALS SHALL BE INCLUDED AS PART OF THE REQUIRED WORK.
- THE CONTRACTOR SHALL VERIFY ALL TEMPORARY BENCH MARKS BEFORE USE.
- THE WORKMEN AND PUBLIC SHALL BE PROTECTED BY THE CONTRACTOR FROM ANY AND ALL HAZARDS CONNECTED WITH THE CONSTRUCTION WORK. OPEN TRENCHES, MATERIALS, OR EQUIPMENT WITHIN THE WORKING LIMITS ARE TO BE GUARDED BY THE USE OF ADEQUATE BARRICADES OR FLAGMEN. ALL BARRICADES LEFT IN POSITION OVERNIGHT ARE TO BE PROPERLY LIGHTED. WHEN WORK NARROWS THE USABLE PAVEMENT, FLAGMEN SHALL BE EMPLOYED TO AID THE FLOW OF TRAFFIC SO THAT THERE WILL BE NO UNDUE DELAYS. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE SAFETY OF ALL WORKMEN, THE GENERAL PUBLIC AND ALL DAMAGES TO PROPERTY OCCURRING FROM OR UPON THE WORK OCCASIONED BY NEGLIGENCE OR OTHERWISE GROWING OUT OF A FAILURE ON THE PART OF THE CONTRACTOR TO PROTECT PERSONS OR PROPERTY FROM HAZARDS OF OPEN TRENCHES, MATERIALS, OR EQUIPMENT AT ANY TIME OF THE DAY OR NIGHT WITHIN THE WORKING AREA. ALL WORK SHALL BE IN CONFORMANCE TO OSHA REGULATIONS, TITLE 19, PARTS 1926.651 AND 1926.652, AND APPLICABLE TO VOSHA REGULATIONS.
- THE CONTRACTOR SHALL VERIFY ALL UTILITY INTERSECTIONS AND CONTACT ENGINEER AND OWNER WITH CONFLICTS.
- THE CONTRACTOR SHALL CALL, DIG SAFE PRIOR TO ANY EXCAVATION.
- THE CONTRACTOR SHALL COORDINATE FINAL LOCATION AND INVERTS FOR WATER, SEWER, AND STORM BUILDING CONNECTIONS WITH THE ARCHITECT, STRUCTURAL ENGINEER, AND MECHANICAL ENGINEER.
- ALL STUMPS, ROCK, AND OTHER NON-APPROVED TRENCH BACKFILL MATERIAL DISCOVERED DURING CONSTRUCTION IS THE EXCLUSIVE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROPERTY AND DISPOSED OF IN A STATE APPROVED DISPOSAL LOCATION. ALL EXISTING SOILS REUSED FOR FILL SHALL CONFORM TO ALL APPLICABLE SECTIONS OF VTRANS SPECIFICATIONS SECTION 203-EXCAVATION & EMBANKMENTS OR ENGINEER APPROVED EQUAL. CONTRACTOR SHALL REVIEW SOIL INVESTIGATION REPORT AND SOIL LOGS PRIOR TO BID. ANY SOIL REUSED AS FILL UNDER ROADS AND APPLICABLE CONCRETE SIDEWALKS SHALL PASS A SUBGRADE PROOF ROLL WITH A LOADED ANODEM. FILL SOILS THAT DO NOT PASS A SUBGRADE PROOF ROLL SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- THE ABOVE NOTE (NOTE #10) DOES NOT INCLUDE TOPSOIL. CONTRACTOR SHALL REUSE THE TOPSOIL AS NEEDED FOR THE PROJECT'S CONSTRUCTION. ANY ADDITIONAL TOPSOIL IS THE PROPERTY OF THE PROJECT OWNER. IF NOT USED DURING CONSTRUCTION, THE CONTRACTOR SHALL DISCUSS ANY REMAINING TOPSOIL WITH THE PROPERTY OWNER. CONTRACTOR SHALL PLACE REMAINING TOPSOIL IN A LOCATION DETERMINED BY THE PROPERTY OWNER OR REMOVE IT FROM THE PROPERTY.
- ALL PASSING SIEVE, PROCTOR, AND COMPACTION TESTING EXPENSES SHALL BE PAID BY THE CONTRACTOR. TESTING COORDINATION, ALL OTHER REQUIRED TESTING, AND EXPENSES FOR FAILED TESTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- THE CONTRACTOR SHALL CONTACT THE GREEN MOUNTAIN POWER (GMP) AND/OR VERMONT ELECTRIC COOPRIOR TO ANY WORK IN THE VICINITY OF THE EXISTING ELECTRIC CONDUITS.
- THIS PROJECT WILL REQUIRE COVERAGE UNDER AN STATE OF VERMONT GENERAL CONSTRUCTION STORMWATER DISCHARGE PERMIT. THE CONTRACTOR WILL FOLLOW THE PERMIT AS WELL AS THE RULES, REGULATIONS, AND DIRECTION OUTLINED IN THE STATE OF VERMONT "LOW RISK HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL" FROM FEBRUARY 2020. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING, MAINTAINING AND REMOVING ALL EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THE PLANS OR DETAILS AND, TO THE MAXIMUM EXTENT PRACTICAL, TO MINIMIZE POTENTIAL CONTAMINATION OF STORMWATER RUNOFF FROM THE CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL "AS-BUILT" MEASUREMENT AND DRAFTING REQUIREMENTS AS OUTLINED ON THE DETAIL SHEETS. ALL TRENCH EXCAVATIONS SHALL REMAIN OPEN UNTIL ALL AS-BUILT SURVEY SHOTS HAVE BEEN TAKEN. PROGRESS RECORD DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AS INDICATED IN THE RECORD DRAWING SPECIFICATIONS.
- SEE EROSION PREVENTION AND SEDIMENT CONTROL AND LOGISTICS PLANS FOR LOCATIONS OF STAGING / STORAGE AREAS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SIGNAGE AND CONSTRUCTION BARRIER/SAFETY FENCING NECESSARY FOR PROVIDING SAFE VEHICULAR AND PEDESTRIAN ACCESS THROUGH OR AROUND THE SITE DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE THIS WITH THE TOWN OF Colchester AND THE TOWN'S DEPARTMENT OF PUBLIC WORKS.
- DEFINITION OF "PRECONSTRUCTION EXCAVATION" FOR THESE CONTRACT DOCUMENTS SHALL BE: THE SITE CONTRACTOR SHALL EXPOSE UTILITIES AND OBTAIN ALL NECESSARY INFORMATION, INCLUDING BUT NOT LIMITED TO, INVERT ELEVATION, SIZE, DEPTH, PIPE TYPE, JOINT LOCATION, ETC. CONTRACTOR SHALL TRANSIT SURVEY THE LOCATION AND ELEVATIONS OF THE UTILITY. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SKETCHES INDICATING HORIZONTAL AND VERTICAL INFORMATION OF PIPE OR CONDUIT TYPE AND SIZE, CROSS-SECTION INFORMATION, CONCRETE ENCASEMENT INFORMATION (TOP AND BOTTOM ELEVATIONS, WIDTH, ETC.), JOINT LOCATION, ETC. OF EACH REQUIRED EXISTING UNDERGROUND UTILITY. ACCURACY OF HORIZONTAL LOCATION IS WITHIN 1 FOOT, AND ACCURACY OF VERTICAL ELEVATION IS WITHIN 0.02 FT. (1/4"). COORDINATE ALL EXCAVATION WITH CITY, OWNER, AND ENGINEER. PRECONSTRUCTION EXCAVATIONS SHALL OCCUR PRIOR TO ORDERING STRUCTURES AND PRIOR TO UTILITY CONSTRUCTION TO FACILITATE REDESIGN AND/OR DESIGN CONFIRMATION.
- THE LOCATION OF THE PRECONSTRUCTION EXCAVATION SYMBOLS DOES NOT NECESSARILY INDICATE THE LOCATION OF THE BURIED UTILITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIND AND EXPOSE THE UTILITY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF IMPORTING AND PLACING TOPSOIL AND/OR COMPOST NECESSARY TO COMPLETE THE PROJECT. CONTRACTOR SHALL TEST TOPSOIL FOR APPROVAL BY THE OWNER AND ENGINEER.
- ALL SEWER AND STORM PIPES SHALL BE PVC SDR 35 UNLESS OTHERWISE NOTED. ALL NEW SANITARY AND STORM PIPES SHALL BE LAID WITH A LASER TO ELEVATION AND SLOPE AS SHOWN ON THE PLANS.
- CORE AND BOOT ALL EXISTING STRUCTURES UNLESS OTHERWISE NOTED.
- ALL NEW CATCH BASINS AND SANITARY SEWER MANHOLE MUST HAVE ONE 6" PRECAST CONCRETE GRADE RING.
- ALL WATERLINE PIPE SHALL BE DUCTILE IRON CLASS 52 OR C900 PVC. ALL BENDS AND FITTINGS SHALL HAVE POURED IN PLACE THRUST BLOCKS, MIXED ONSITE CONCRETE IS NOT ALLOWED.
- TEMPORARY GROUNDWATER, STORMWATER, AND SEWER BY-PASS PUMPING AND/OR DIVERSION IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY PUMPS AND EQUIPMENT TO PERFORM THE WORK. OVERNIGHT PUMPING IS NOT ALLOWED.
- ALL SIDEWALKS SHALL HAVE 2% MAXIMUM CROSS SLOPE. ALL RAMPS AND STAIRS SHALL HAVE A LANDING AT THE BOTTOM WITH A MAXIMUM SLOPE OF 2% FOR 5 FEET.
- CONTRACTOR TO PIN CONCRETE SIDEWALKS/SLABS TO ALL CONTACT POINTS WITH STAIRS, BUILDING, BIKE SLAB, RETAINING WALLS, ETC.
- CONTRACTOR SHALL MAINTAIN FULL OCCUPANCY AND FIRE DEPARTMENT ACCESS TO ALL SURROUNDING BUILDINGS. COORDINATE ALL TEMPORARY ACCESS WITH THE MUNICIPALITY.
- BURIED NATURAL GAS IS SHOWN FOR ALIGNMENT PURPOSES ONLY. CONTACT VERMONT GAS SYSTEMS FOR DESIGN AND DETAILS OF NEW GAS LINE. SEE ADDITIONAL NOTES ON C-1.01 AND C-1.02.
- REMOVAL OF ALL EROSION CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR.
- AT THE END OF THE PROJECT, CLEAN THE SUMPS OF ALL NEW AND EXISTING CATCH BASINS AND STORM MANHOLES WITHIN THE PROJECT LIMITS.
- ELECTRICAL AND LIGHTING ARE SHOWN FOR ILLUSTRATIVE/COORDINATION PURPOSES ONLY. REFER TO ELECTRICAL PLANS AND SPECIFICATIONS FOR DESIGN.
- SEE LANDSCAPE AND/OR STRUCTURAL PLANS FOR ALL RETAINING WALLS, UTILITY PADS, STAIRS, AND EXTERIOR CONCRETE AT DOORS.
- REFER TO PLUMBING, MECHANICAL AND/OR FIRE PROTECTION PLANS FOR WATER, SEWER AND STORM DESIGN WITHIN FIVE FEET OF THE BUILDING.

EPSC GENERAL NOTES:

- EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PRACTICES SHALL BE IMPLEMENTED IN ALL AREAS WHERE THERE IS AN INCREASED RISK OF EROSION, AND WHERE THERE IS POTENTIAL FOR DISCHARGE OF STORMWATER RUNOFF (EITHER DIRECT OR INDIRECT) TO A WATER BODY.
- EPSC MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITIES WITHIN A GIVEN DRAINAGE AREA WITH THE EXCEPTION OF LAND DISTURBANCE THAT MAY RESULT FROM ACCESSING THE AREA(S) WITH EQUIPMENT IN WHICH EPSC MEASURES ARE TO BE INSTALLED. THIS EXCEPTION INCLUDES LAND DISTURBANCE THAT MAY RESULT FROM ACCESS OF EQUIPMENT THAT IS NEEDED FOR: EXPLORATION AND/OR EPSC MEASURE INSTALLATION PHASES OF THE PROJECT, TEMPORARY SEDIMENT BASINS, TEMPORARY SEDIMENT TRAPS, PERIMETER DIKES, TEMPORARY SEDIMENT BARRIERS, AND OTHER TEMPORARY MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE WITH THE EXCEPTION OF THOSE ACTIVITIES STATED ABOVE. EARTH DISTURBANCE INCLUDES STUMPING AND GRUBBING OF CLEARED AREAS.
- EPSC MEASURES SHALL BE INSTALLED PURSUANT TO THE EPSC PLAN, THE 2020 STATE OF VERMONT LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL, THE 2020 VERMONT EROSION PREVENTION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS, AND/OR ANY OTHER RELEVANT PROJECT PERMITS.
- ALL PROPOSED CHANGES SHALL BE APPROVED BY THE ON-SITE PLAN COORDINATOR (OSPC) OR HIS/HER DESIGNEE PRIOR TO IMPLEMENTATION.
- LOGGING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH ACCEPTABLE MANAGEMENT PRACTICES FOR MAINTAINING WATER QUALITY ON LOGGING JOBS IN VERMONT (AMPS, 2006).
- PERMISSION MUST BE GRANTED BY VT DEC PRIOR TO USE OF ANY SUPPORT ACTIVITIES OCCURRING OUTSIDE OF THE APPROVED PROJECT BOUNDARIES.
- ALL PARTIES ASSOCIATED WITH CONSTRUCTION ACTIVITIES WHO MEET EITHER OF THE FOLLOWING TWO CRITERIA OF "PRINCIPAL OPERATOR" MUST OBTAIN COVERAGE UNDER THE CONSTRUCTION STORMWATER DISCHARGE PERMIT FOR THE PROJECT PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES BY THAT OPERATOR:
 - THE PARTY HAS OPERATIONAL CONTROL OVER CONSTRUCTION PLANS AND SPECIFICATION, INCLUDING BUT NOT LIMITED TO THE ABILITY TO MAKE MODIFICATIONS TO THOSE PLANS AND SPECIFICATIONS; OR
 - THE PARTY HAS CONTINUOUS DAY-TO-DAY OPERATIONAL CONTROL OF THOSE ACTIVITIES AT THE PROJECT THAT ARE NECESSARY TO ENSURE COMPLIANCE WITH AN EPSC PLAN FOR THE SITE OR OTHER PERMIT CONDITIONS (E.G., THEY ARE AUTHORIZED TO DIRECT WORKERS AT A SITE TO CARRY OUT ACTIVITIES REQUIRED BY THE EPSC PLAN OR COMPLY WITH OTHER PERMIT CONDITIONS).
- EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED TO THE EXTENT PRACTICABLE.
- A VEGETATED BUFFER SHALL BE MAINTAINED FOR WATER BODIES WHERE FEASIBLE (E.G., WETLANDS AND STREAMS).
- TO THE EXTENT PRACTICABLE, SURFACE FLOW SHALL BE DIVERTED AWAY FROM EXPOSED SOILS VIA DIVERSION BERMS, EARTH DIKES, PERIMETER DIKES/SWALES, TEMPORARY SWALES, WATER BARS, AND/OR CHECK DAMS.
- RESOURCE AREAS (E.G., WETLANDS, STREAMS, RTE PLANT SPECIES) SHALL BE FLAGGED PRIOR TO ANY CONSTRUCTION RELATED ACTIVITIES OCCURRING WITHIN CLOSE PROXIMITY TO THOSE AREAS.
- EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT VIOLATE WATER QUALITY STANDARDS OR CONTRIBUTE TO EROSION. DEWATERING DETAILS SHALL BE REVIEWED AND APPROVED BY OSPC PRIOR TO USE.
- CONCENTRATED RUNOFF SHALL NOT FLOW DOWN STEEP SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL (SEE DETAILS), FLUME, OR SLOPE DRAIN STRUCTURE.
- UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
 - EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES, WHERE FEASIBLE, BUT NOT IN RESOURCE AREAS.
- WHERE FEASIBLE, ALL SEDIMENT REMOVED FROM SEDIMENT CONTROL PRACTICES AS PART OF MAINTENANCE SHALL BE DISPOSED OF IN AN AREA THAT IS AT LEAST ONE OF THE FOLLOWING, WITH IMMEDIATE STABILIZATION FOLLOWING DISPOSAL OF MATERIAL:
 - LESS THAN 5% SLOPE
 - AT LEAST 100 FEET FROM ANY DOWNSLOPE WATER BODY OR CONVEYANCE TO A WATER BODY, INCLUDING A DITCH
 - VEGETATED
- DISTURBED AREAS BORDERING OR DRAINING TO EXISTING ROADS SHALL HAVE AN APPROPRIATE SEDIMENT BARRIER (E.G., SILT FENCE) SPANNING THE EDGE OF THE DISTURBANCE TO PREVENT WASHING OF SEDIMENT ONTO ROADWAYS OR INTO ROAD DITCHES.
- IN ADVANCE OF PREDICTED RAINFALL OR SNOWMELT, ALL EPSC MEASURES THAT ARE LOCATED IN ACTIVE AREAS OF EARTH DISTURBANCE SHALL BE INSPECTED AND REPAIRED, AS NEEDED. IF NECESSARY, THIS SHALL INCLUDE TEMPORARY STABILIZATION OF ALL DISTURBED SOILS ON THE SITE IN ADVANCE OF THE ANTICIPATED RUNOFF PERIOD.
- DUST CONTROL SHALL BE HANDLED VIA WATER APPLICATION TO ROADWAYS AND OTHER AREAS WHERE DUST MAY BE GENERATED.

GENERAL GRADING AND SITE WORK NOTES

- ALL AREA DISTURBED AND ALL AREAS WITHIN THE CLEARING LIMITS SHALL BE GRADED AND COVERED WITH A MINIMUM OF 4" OF LOAM TOPSOIL. THE AREAS TO BE LOAMED SHALL BE FREE AND CLEAR OF ROOTS, WASTE MATERIAL AND OTHER DELETERIOUS MATERIAL. TOPSOIL SHALL BE SPREAD AND LIGHTLY COMPACTED TO A DEPTH OF 6". TOPSOIL SHALL BE APPROVED BY THE ENGINEER. ALL SIDE SLOPES ARE TO BE LOAMED.
- ALL TURF ESTABLISHMENT SHALL BE IN ACCORDANCE WITH SECTION 651 OF THE VT STANDARD SPECIFICATIONS 2018 AND THE MUNICIPALITY SPECIFICATIONS. MULCHING SHALL FOLLOW SEEDING BY NO MORE THAN 24 HOURS.
- ALL CUT SLOPES SHALL BE NO STEEPER THAN 2:0H ON 1:0V. ALL FILL SLOPES SHALL BE NO STEEPER THAN 2:0H ON 1:0V.
- THE CONTRACTOR SHALL NOT DISTURB ANY GROUND BETWEEN OCTOBER 15TH BETWEEN APRIL 15TH WINTER MONTHS, UNLESS APPROVED BY THE ENGINEER.
- TEMPORARY SILT FENCE SHALL BE ERECTED PRIOR TO ANY CLEARING OR CONSTRUCTION. FENCING MAY BE ERECTED IN PHASES, BUT IN NO CASE SHALL GROUND DISTURBANCE PROCEED FENCING. SPECIAL AREAS MAY BE DESIGNATED BY THE OWNER FOR PRESERVATION OF EXISTING TREES. THESE AREAS SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSURE NO DAMAGE IS DONE TO DESIGNATED TREES.
- EXISTING PLANTINGS ARE LOCATED IN GENERAL AREAS AS SHOWN ON THIS PLAN. CONTRACTOR SHALL PROTECT PLANTINGS SO AS NOT TO DAMAGE THESE OR THEIR ROOT SYSTEMS.
- SLOPE STABILITY BASED UPON UNSATURATED SOIL CONDITIONS. IF DURING CONSTRUCTION SATURATED SOILS ARE ENCOUNTERED, CONTACT THE ENGINEER IMMEDIATELY.

ALL CONNECTIONS TO MUNICIPAL WATER UTILITIES INSTALLED ON THE PROJECT TO BE OBSERVED BY THE ENGINEER AND THE AUTHORIZED REPRESENTATIVE OF THE UTILITY; TOWN OF COLCHESTER AND COLCHESTER FIRE DISTRICT PRIOR TO BACKFILLING THE UTILITY BEING INSTALLED. THE ENGINEER SHALL BE NOTIFIED 48 HOURS BEFORE THE WORK IS PLANNED TO BEGIN. ALL DETAILS ARE SUBJECT TO THE MOST RECENT REVISIONS OF THE COLCHESTER PUBLIC WORKS SPECIFICATIONS AND DETAILS FOR THE INSTALLATION OF WATER LINES AND APPURTENANCES. PROJECT SHALL FOLLOW ALL DETAILS IN THIS PLAN SET, COLCHESTER DPW SPECIFICATIONS, AND THE COLCHESTER FIRE DISTRICT SPECIFICATIONS. THE MOST STRINGENT DETAILS WILL APPLY.

WATER & SEWER CONSTRUCTION NOTES

- THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL CONSTRUCTION OF WATER MAIN, STORM AND SANITARY SEWER SYSTEMS AS SHOWN ON THE PLANS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL NECESSARY ADAPTERS, FITTINGS, ETC. TO MAKE CONNECTIONS TO THE EXISTING AND PROPOSED UNITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK SHOWN OR IMPLIED ON THE PLANS AND/OR REFERENCED IN THE SPECIFICATIONS AND PERMITS. THE CONTRACTOR SHALL SUBMIT, FOR APPROVAL BY THE ENGINEER, ALL TYPES OF MATERIALS AND PRODUCTS USED.
- THE CONTRACTOR SHALL COORDINATE ALL WORK ON THE WATER SUPPLY SYSTEM WITH THE OWNER, THE TOWN OF COLCHESTER, COLCHESTER PUBLIC WORKS, COLCHESTER FIRE DISTRICT #2, AND THE CIVIL ENGINEER. ALL WATER INSTALLATION WORK AND WATER DISTRIBUTION MATERIALS MUST COMPLY WITH THE CURRENT COLCHESTER PUBLIC WORK SPECIFICATIONS.
- THESE PLANS ARE NOT RESPONSIBLE FOR DESIGN OF WATER AND SEWER SERVICES WITHIN 5 FEET OF THE BUILDING. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR EXTENDING THE SERVICES TO THE PLUMBING AND/OR FIRE SYSTEM CONNECTION WITHIN THE BUILDING. SEE PLUMBING ENGINEER, MECHANICAL ENGINEER AND/OR FIRE PROTECTION PLANS FOR SCOPE, DESIGN AND SPECIFICATIONS WITHIN 5 FT. OF THE BUILDING.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS AND APPURTENANCES TO COMPLETE THE WATERLINE CONSTRUCTION WORK. THIS INCLUDES TEMPORARY FITTINGS AND GAUGES NECESSARY TO SAFELY COMPLETE THE FLUSHING ACTIVITIES REQUIRED PRIOR TO MAKING CONNECTIONS WITH BUILDING PLUMBING.
- THE PROJECT SHALL BE CONSTRUCTED, COMPLETED, MAINTAINED, AND OPERATED IN ACCORDANCE WITH THE APPROVED PLANS. NO CHANGES SHALL BE MADE IN THE PROJECT WITH OUT THE WRITTEN APPROVAL OF THE TOWN, CFD#2, AND THE CIVIL ENGINEER. A COPY OF THE FINAL APPROVED PLANS SHALL BE SUBMITTED TO CWD AND THE TOWN PRIOR TO CONSTRUCTION OF THE WATER SYSTEM IMPROVEMENTS.
- THE TOWN AND CFD#2 SHALL BE NOTIFIED IN ADVANCE TO INSPECT ALL MECHANICAL JOINTS FITTINGS, MAIN LINE TAPS, APPURTENANCES, THRUST BLOCKS, WATER LINE CROSSINGS, AND TESTING PRIOR TO OCCURRENCE OR BACKFILLING.
- ALL DOMESTIC SERVICES AND FIRE SPRINKLER SYSTEMS THAT ARE CONNECTED TO THE PUBLIC WATER SYSTEM SHALL BE PROTECTED WITH A BACKFLOW PREVENTION ASSEMBLY, AND AN APPROPRIATE THERMAL EXPANSION SYSTEM. THE MECHANICAL CONTRACTOR SHALL COORDINATE APPROVED BACKFLOW PREVENTION WITH THE TOWN AND CFD#2.
- COLCHESTER FIRE DISTRICT #2 (CFD#2) OWNS AND OPERATES THE WATERLINE IN THE AREA OF THIS PROJECT. THE CONTRACTOR SHALL NOTIFY CFD#2 PRIOR TO ANY CONSTRUCTION.

WATER MAINS

- APPLIES TO NEW DOMESTIC WATER MAINS AND SERVICES.
- THE PIPE FOR WATER MAIN SHALL BE CL52 DUCTILE IRON, ALL D.I. PIPE SHALL BE POLYETHYLENE ENCASED. DUCTILE IRON FITTINGS SHALL CONFORM TO AWWA C110, 350 POUNDS WORKING PRESSURE. VALVES SHALL BE MANUFACTURED TO MEET ALL REQUIREMENTS OF AWWA SPECIFICATION C509 OR C515. FOUR-INCH AND SIX-INCH PIPE SHALL HAVE NO LESS THAN 2 BRASS WEDGES INSTALLED AT EACH JOINT. EIGHT-INCH AND 10" PIPE SHALL HAVE NO LESS THAN 3 WEDGES INSTALLED AT EACH JOINT.
- ALL PIPE SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C600. THE PIPE SHALL BE KEPT FREE OF FOREIGN MATTER AND DEBRIS DURING INSTALLATION. WHEN THE PROCESS OF PIPE LAYING HAS STOPPED, ANY OPEN ENDS OF PIPE SHALL BE PLUGGED. THERE SHALL BE A MINIMUM OF 6'-0" COVER OVER ALL PIPE AND SERVICE LINES. ANY PIPE DEFLECTION SHALL NOT EXCEED FIFTY (50%) PERCENT OF RECOMMENDED MANUFACTURER'S MAXIMUM DEFLECTION. BACKFILL MATERIALS AND PROCEDURES SHALL BE AS DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL SHEETING AND/OR SHORING NECESSARY TO COMPLY WITH OSHA - VOSHA REGULATIONS.
- THE TESTING OF THE WATER MAIN SHALL CONSIST OF THE TESTING OF ALL INSTALLED PIPE, SERVICES AND HYDRANTS IN ACCORDANCE WITH AWWA C600. THE TESTING SHALL CONSIST OF A PRESSURE TEST AND LEAKAGE TEST. ALL TESTING SHALL BE DONE WITH POTABLE WATER AND IN THE PRESENCE OF THE ENGINEER, REPRESENTATIVES FROM THE MUNICIPALITY AND THE MUNICIPALITY PUBLIC WORKS. THE PRESSURE TEST CONSISTS OF MAINTAINING A MINIMUM INTERNAL PIPE PRESSURE OF 200 PSI FOR TWO (2) HOURS. THE TESTING ALLOWANCE SHALL BE DEFINED AS THE MAXIMUM QUANTITY OF MAKEUP WATER THAT IS ADDED INTO A PIPELINE UNDERGOING HYDROSTATIC PRESSURE TESTING, OR ANY VALVED SECTION THEREOF, IN ORDER TO MAINTAIN PRESSURE WITHIN +/- 5 PSI OF THE SPECIFIED TEST PRESSURE (AFTER THE PIPELINE HAS BEEN FILLED WITH WATER AND THE AIR HAS BEEN EXPELLED). NO PIPE INSTALLATION WILL BE ACCEPTED IF THE QUANTITY OF MAKEUP WATER IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA:

$$L = \frac{S \cdot \sqrt{P}}{148,000}$$

L = TESTING ALLOWANCE (MAKEUP WATER), IN GALLONS PER HOUR
 S = LENGTH OF PIPE TESTED, IN FEET
 D = NOMINAL PIPE DIAMETER, IN INCHES
 P = AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST, IN POUNDS PER SQUARE INCH (GAUGE)
- CHLORINATING OF THE SYSTEM SHALL BE ACCOMPLISHED AFTER THE WATER MAIN HAS BEEN SUCCESSFULLY PRESSURE TESTED AND THOROUGHLY FLUSHED. DISINFECTING SHALL BE IN ACCORDANCE WITH AWWA C-651. THE DISINFECTING PROCESS SHALL BE DEEMED ACCEPTABLE ONLY AFTER TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES, TAKEN FROM THE FLUSHED AND DISINFECTED MAIN 24 HOURS APART, SHOWS NO EVIDENCE OF BACTERIOLOGICAL CONTAMINATION. FOR PROPER DISINFECTION USE MINIMUM 25 MG/L CHLORINE CONCENTRATION FOR 24 HOURS, THE CONCENTRATION MUST REMAIN ABOVE 10 MG/L. TABLET DISINFECTING IS NOT ACCEPTABLE. DECHLORINATION SHALL BE REQUIRED WHILE FLUSHING THE ORIGINAL CHLORINE FROM THE NEW LINE. COORDINATE WITH THE THE MUNICIPALITY AND THE MUNICIPALITY PUBLIC WORKS REGARDING THE THE DISPOSAL OF THE HIGHLY CHLORINATED WATER FLUSHED FROM THE NEW WATERLINE.
- THE WATER MAIN SHALL BE THOROUGHLY FLUSHED WITH A MINIMUM FLOW VELOCITY OF 2.5 FT/S TO FLUSH FOREIGN MATERIALS OUT OF THE VALVES AND HYDRANTS. AT LEAST 48 HOURS PRIOR TO WATERLINE FLUSHING, THE CONTRACTOR SHALL CONTACT THE OWNER, MUNICIPALITY FIRE DEPARTMENT, THE DISTRICT WATER SUPPLY COMPANY, AND THE ENGINEER.

SANITARY SEWER

- ALL SEWER LINES AND MANHOLES SHALL BE THOROUGHLY TESTED BY THE CONTRACTOR IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION RULES (11/06/2023).
- ALL SANITARY MANHOLES SHALL BE VACUUM TESTED IN THE PRESENCE OF THE ENGINEER. THE STRUCTURE SHALL BE TESTED PRIOR TO BACKFILL WITH THE LOWEST SEAM EXPOSED. TEST PROCEDURES AND PRESSURE SHALL BE DETERMINED JOINTLY BY THE LOCAL APPROVAL AGENCY AND THE ENGINEER. FAILURE OF ANY VACUUM TEST SHALL NECESSITATE REPAIR AND/OR REPLACEMENT OF THE STRUCTURE AND RETEST. WATER TESTING MANHOLES IS NOT ACCEPTABLE.
- ALL SANITARY MAINS SHALL BE AIR TESTED IN THE PRESENCE OF THE ENGINEER. AT A MINIMUM, THE TEST PRESSURE SHALL BE 4 POUNDS PER SQUARE INCH AT THE HIGHEST POINT ALONG THE TEST FOR 4 MINUTES.
- UTILITY TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING SANITARY TESTING AT A MINIMUM OF 24 HOURS PRIOR TO THE TEST. BASED ON AVAILABILITY OF ENGINEER'S STAFF, THE ENGINEER SHALL ACCOMMODATE THE TESTING SCHEDULE WITHIN 24 HOURS OF THE CONTRACTOR REQUESTED TEST DATE/TIME.
- THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER IF PRE-SCHEDULED TESTING AND/OR WATER/SEWER CONSTRUCTION IS CANCELED. IF CONTRACTOR DOES NOT CONTACT ENGINEER AND ENGINEER VISITS THE SITE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENGINEER'S FEES/MILEAGE FOR SITE VISIT.

ADDITIONAL NOTES AND TESTING REQUIREMENTS

- IN ADDITION TO THE ABOVE REQUIREMENTS AND APPLIES TO WATER AND SANITARY SEWER.
- ALL WATER LINES AND SEWER LINES SHALL BE THOROUGHLY TESTED BY THE CONTRACTOR IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION RULES (11/06/2023) AND THE CHAPTER 21 WATER SUPPLY RULES (03/17/2020) (THE MORE STRINGENT RULE SHALL APPLY).
- ALL PRIVATE OR MUNICIPAL WATERLINES SHALL BE TESTED BY THE CONTRACTOR IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN AWWA C600 AND/OR NFPA 24.
- NO WATER MAIN SHALL BE CLOSER THAN TEN (10) FEET TO ANY SANITARY SEWER OR SANITARY MANHOLE AND FIVE (5) FEET TO ANY CATCH BASIN OR STORM SEWER LINE. PROVIDE MINIMUM OF 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND STORM/SANITARY SEWER CROSSING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION AS-BUILTS TO SERVICE LOCATIONS, AND ANY WATER MAIN FITTINGS. AS-BUILTS SHALL BE RECORDED IN ACCORDANCE WITH THE OUTLINED PROCEDURES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ENGINEER AT LEAST 24 HOURS PRIOR TO STARTING CONSTRUCTION ON ANY PORTION OF THE EXTERIOR WATER OR SANITARY SYSTEMS. THIS NOTIFICATION REQUIREMENT SHALL CONTINUE TO THE COMPLETION OF THE WATER AND SANITARY SYSTEMS.
- UTILITY TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING WATER AND SANITARY TESTING, WITH THE ENGINEER AND MUNICIPALITY PUBLIC WORKS, AT A MINIMUM OF 24 HOURS PRIOR TO THE TEST. BASED ON AVAILABILITY OF ENGINEER'S STAFF, THE ENGINEER SHALL ACCOMMODATE THE TESTING SCHEDULE WITHIN 24 HOURS OF THE CONTRACTOR REQUESTED TEST DATE/TIME.
- THE CONTRACTOR SHALL PRE-TEST WATER FOR 2 HOURS. THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF PRE-TEST FAILED.
- THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER IF PRE-SCHEDULED TESTING AND/OR WATER/SEWER CONSTRUCTION IS CANCELED. IF CONTRACTOR DOES NOT CONTACT ENGINEER AND ENGINEER VISITS THE SITE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENGINEER'S FEES/MILEAGE FOR SITE VISIT.
- THE CONTRACTOR SHALL COORDINATE WATER/SEWER CONSTRUCTION WITH THE MUNICIPALITY. THE CONTRACTOR SHALL LEAVE THRUST BLOCKS AND OTHER REQUIRED SECTIONS OF NEW LINE EXPOSED UNTIL MUNICIPALITY HAS INSPECTED AND APPROVED IT.

**HAZELETT
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COLCHESTER, VT



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**THE 'H'
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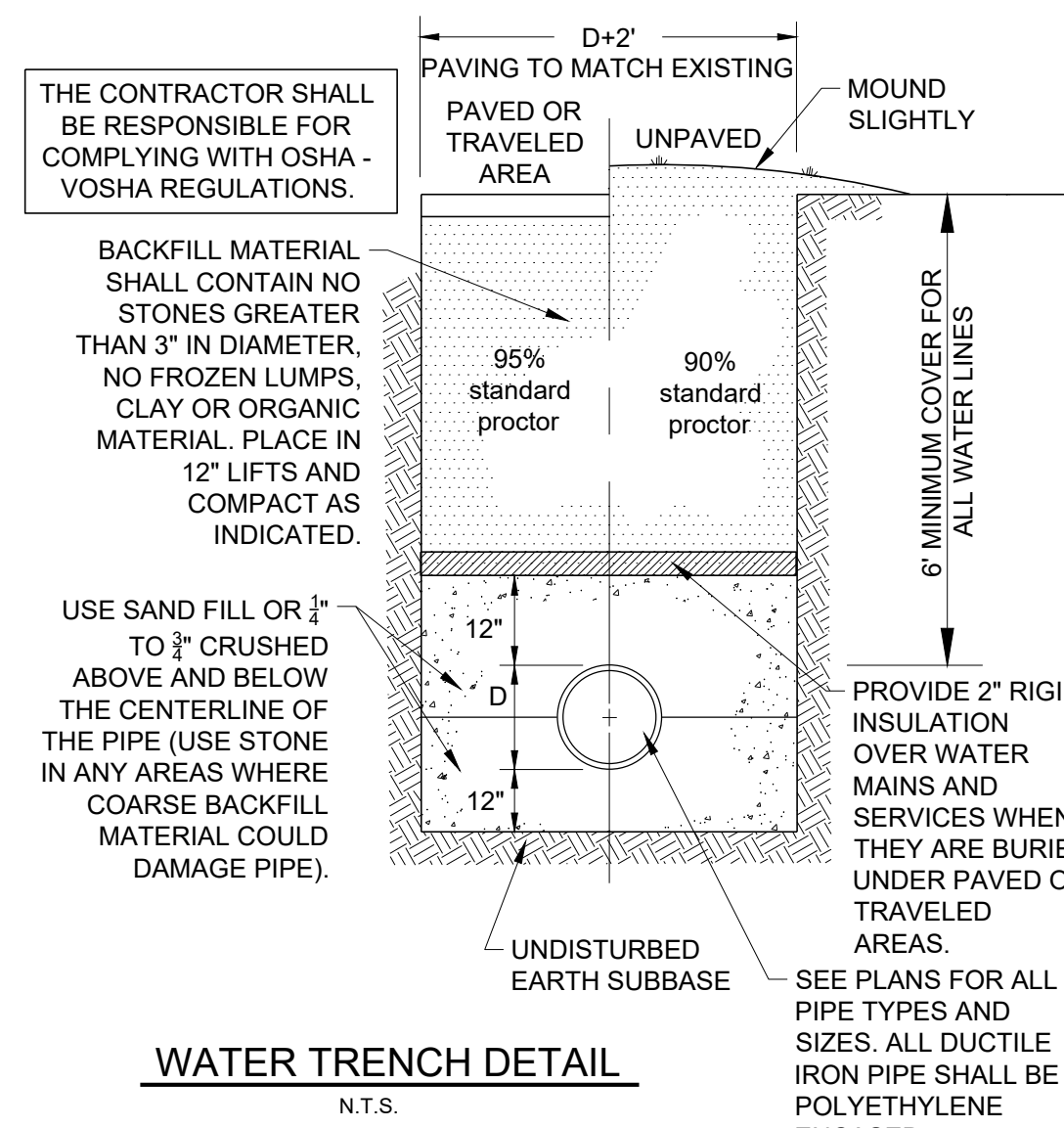
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Drawn by	SWH
Checked by	
Date	03/03/25

No.	Date	Description
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	10/03/25	Town Final

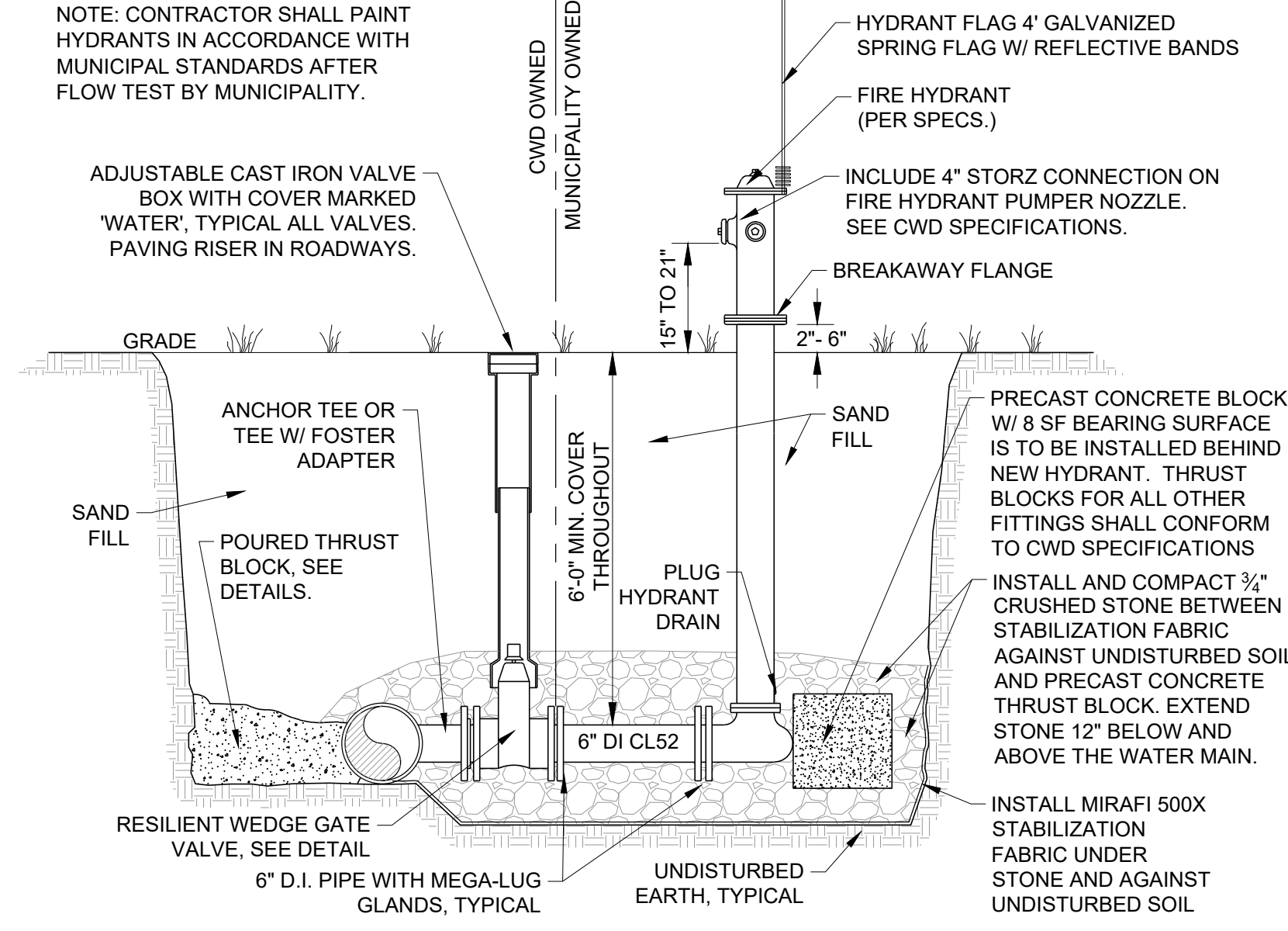
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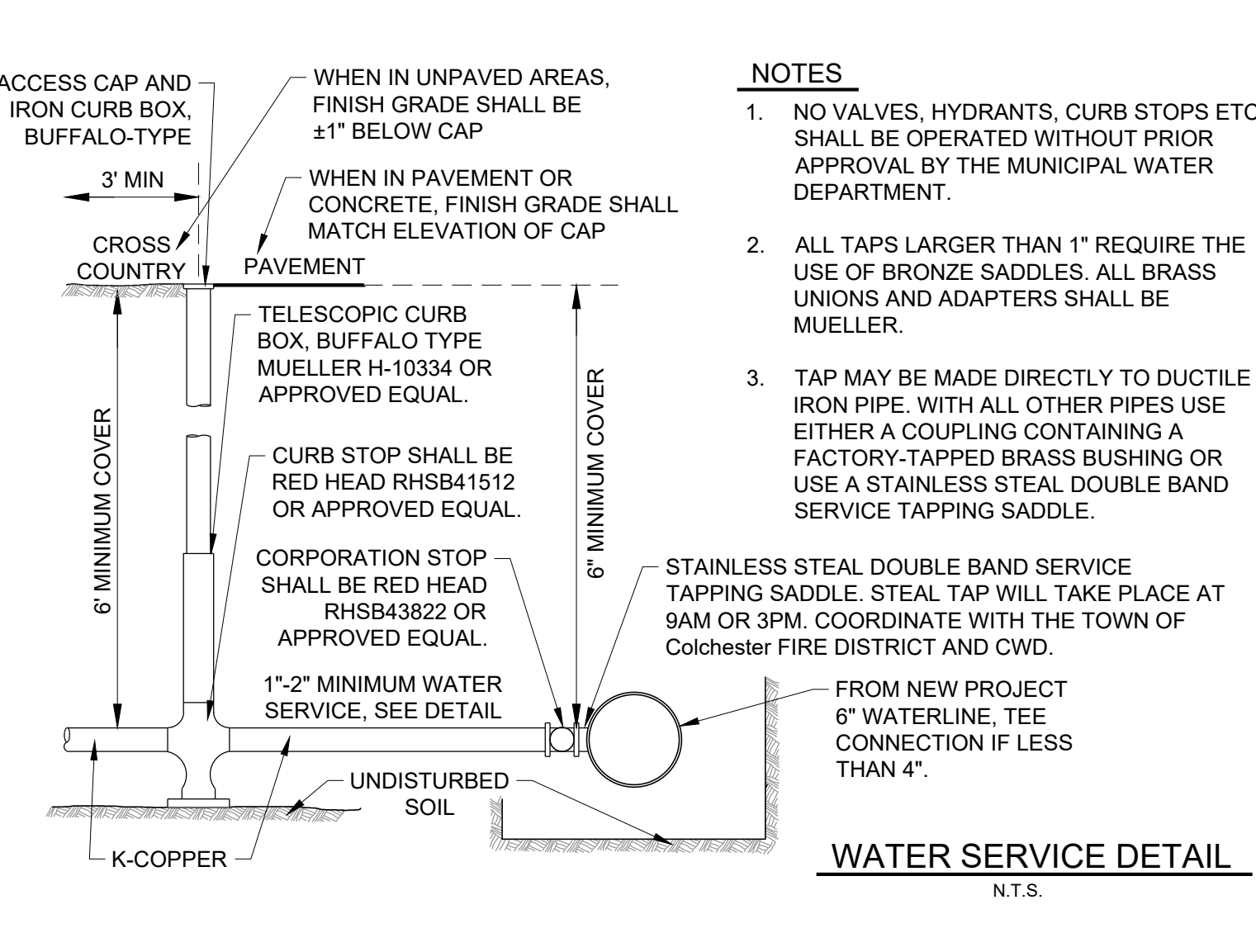
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WATER TRENCH DETAIL
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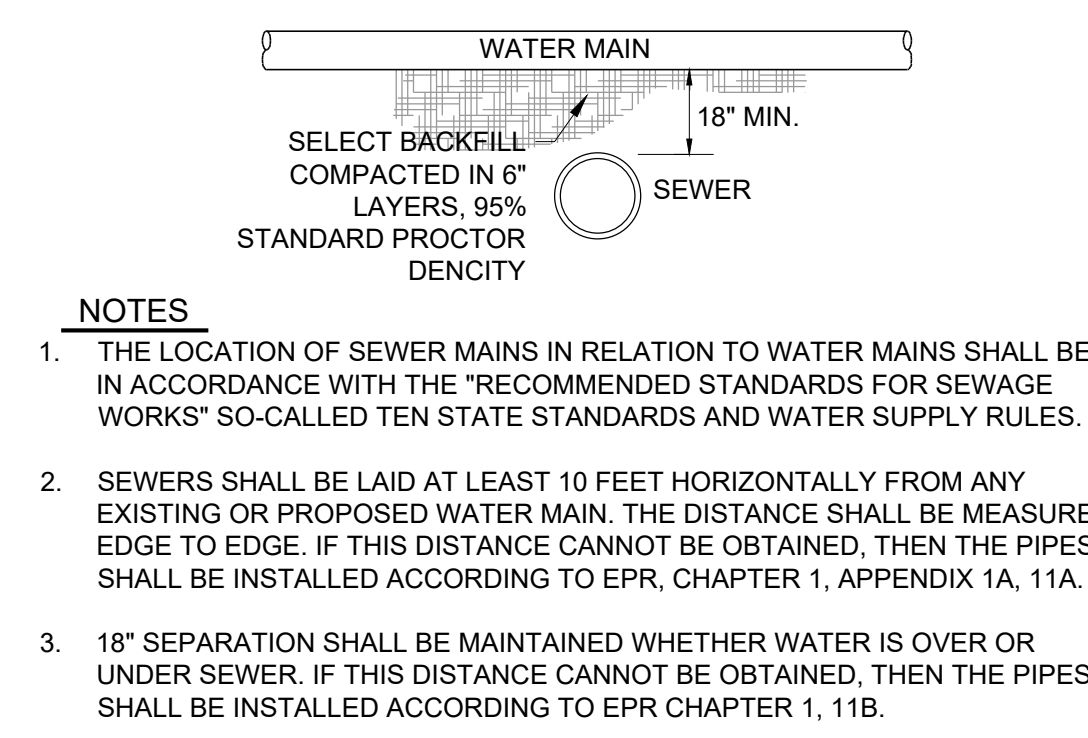


TYPICAL HYDRANT DETAIL
N.T.S.



WATER SERVICE DETAIL
N.T.S.

- NOTES**
- NO VALVES, HYDRANTS, CURB STOPS ETC. SHALL BE OPERATED WITHOUT PRIOR APPROVAL BY THE MUNICIPAL WATER DEPARTMENT.
 - ALL TAPS LARGER THAN 1" REQUIRE THE USE OF BRONZE SADDLES. ALL BRASS UNIONS AND ADAPTERS SHALL BE MUELLER.
 - TAP MAY BE MADE DIRECTLY TO DUCTILE IRON PIPE, WITH ALL OTHER PIPES USE EITHER A COUPLING CONTAINING A FACTORY-TAPPED BRASS BUSHING OR USE A STAINLESS STEEL DOUBLE BAND SERVICE TAPPING SADDLE.



CROSSINGS
SEWERS CROSSING WATER MAINS SHALL BE LAID BENEATH THE WATER MAIN WITH AT LEAST 18 INCHES VERTICAL CLEARANCE BETWEEN THE OUTSIDE OF THE SEWER AND THE OUTSIDE OF THE WATER MAIN. WHEN IT IS POSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION:

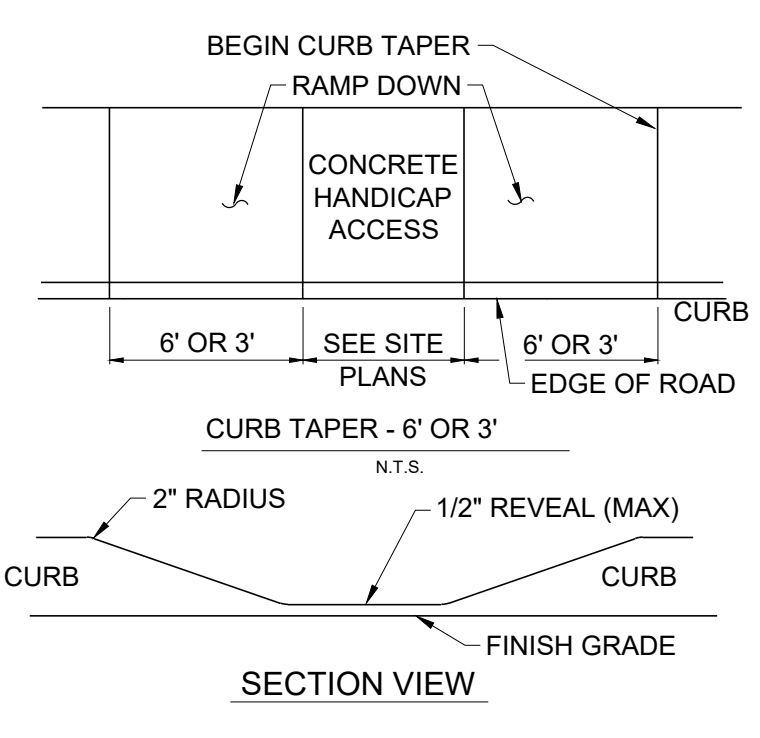
- THE CROSSING SHALL BE ARRANGED SO THAT ONE FULL LENGTH OF SEWER IS CENTERED ABOVE OR BELOW THE WATER LINE WITH SEWER JOINTS AS FAR AS POSSIBLE FROM WATER JOINTS;
- THE SEWER PIPE MUST BE CONSTRUCTED TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 20 FEET EITHER SIDE OF THE CROSSING OR A TOTAL OF THREE PIPE LENGTHS, WHICHEVER IS GREATER;
- THE SECTION CONSTRUCTED TO WATER STANDARDS MUST BE PRESSURE TESTED TO MAINTAIN 50 PSI FOR 15 MINUTES WITHOUT LEAKAGE PRIOR TO BACKFILLING BEYOND ONE FOOT ABOVE THE PIPE TO ASSURE WATER TIGHTNESS;
- WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

WATER AND SEWER CROSSINGS DETAIL
N.T.S.

FIRE SERVICE MAIN
UNDERGROUND PIPING, FROM THE WATER SUPPLY TO THE SYSTEM RISER, AND LEAD-IN CONNECTIONS TO THE SYSTEM RISER SHALL BE COMPLETELY FLUSHED BEFORE THE CONNECTION IS MADE TO DOWNSTREAM FIRE PROTECTION SYSTEM PIPING. ACCEPTABLE WATER MAIN FLUSHING REQUIREMENTS ARE PROVIDED BELOW. PRIOR TO FLUSHING, THE CONTRACTOR SHALL CONTACT THE OWNER, MUNICIPAL FIRE DEPARTMENT, THE DISTRICT WATER SUPPLY COMPANY, AND THE ENGINEER. THE FLUSHING OPERATION SHALL BE CONTINUED FOR A SUFFICIENT TIME TO ENSURE THOROUGH CLEANING. THE MINIMUM RATE OF FLOW SHALL BE NOT LESS THAN ONE OF THE FOLLOWING:

- HYDRAULICALLY CALCULATED WATER DEMAND FLOW RATE OF THE SYSTEM, INCLUDING ANY HOSE REQUIREMENTS. (PROVIDED BY THE MECHANICAL/SPRINKLER CONSULTANT)
- FLOW NECESSARY TO PROVIDE A VELOCITY OF 10 FT/SEC (3.1 M/SEC) IN ACCORDANCE WITH THE TABLE.
- MAXIMUM FLOW RATE AVAILABLE TO THE SYSTEM UNDER FIRE CONDITIONS. FLOW REQUIRED TO PRODUCE A VELOCITY OF 10 FT/SEC (3 M/S) IN PIPES

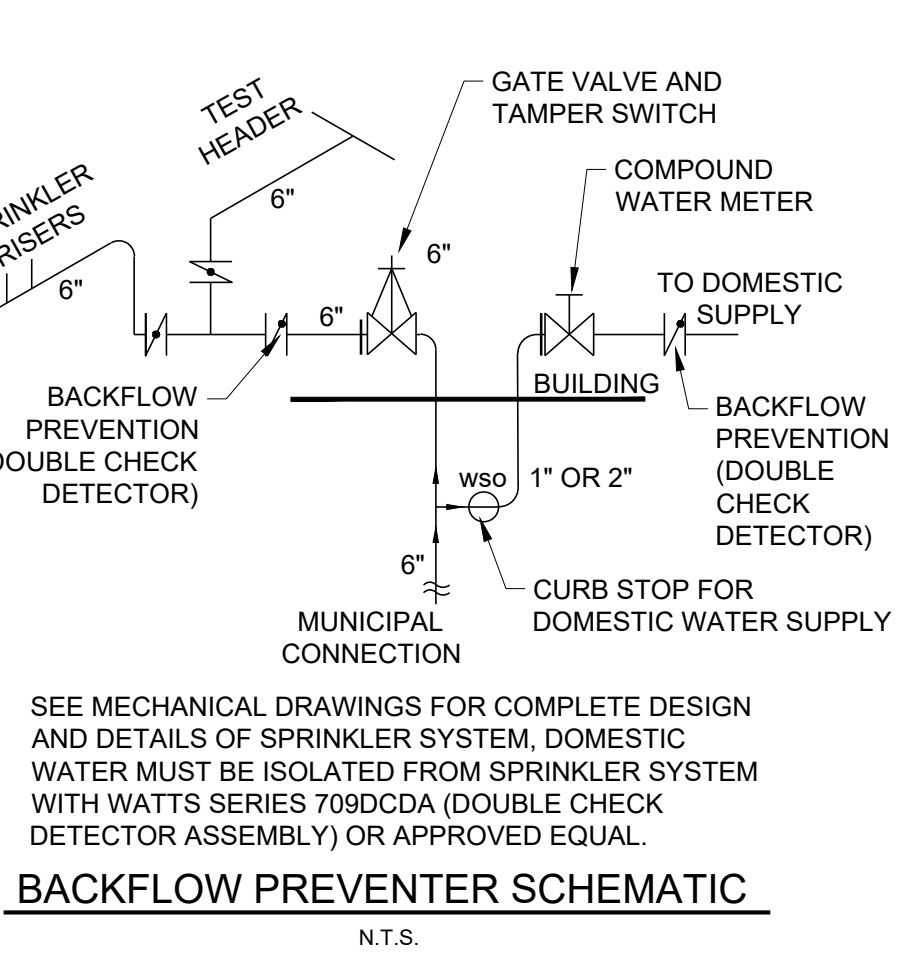
Pipe Size	Flow Rate
in. mm	gpm L/min
4 102	390 1,476
6 152	880 3,331
8 203	1,560 5,905
10 254	2,440 9,235
12 305	3,520 13,323



CURB TAPER - 6\"/>

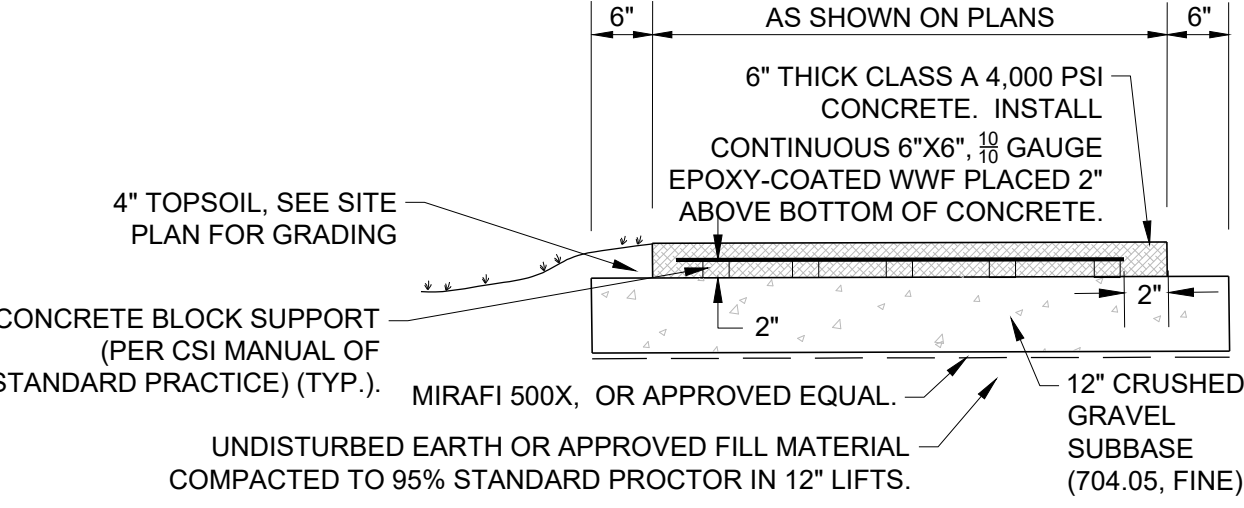
NOTES

- THE LOCATION OF SEWER MAINS IN RELATION TO WATER MAINS SHALL BE IN ACCORDANCE WITH THE "RECOMMENDED STANDARDS FOR SEWAGE WORKS" SO-CALLED TEN STATE STANDARDS AND WATER SUPPLY RULES.
- SEWERS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IF THIS DISTANCE CANNOT BE OBTAINED, THEN THE PIPES SHALL BE INSTALLED ACCORDING TO EPR, CHAPTER 1, APPENDIX 1A, 11A.
- 18" SEPARATION SHALL BE MAINTAINED WHETHER WATER IS OVER OR UNDER SEWER. IF THIS DISTANCE CANNOT BE OBTAINED, THEN THE PIPES SHALL BE INSTALLED ACCORDING TO EPR CHAPTER 1, 11B.



BACKFLOW PREVENTER SCHEMATIC
N.T.S.

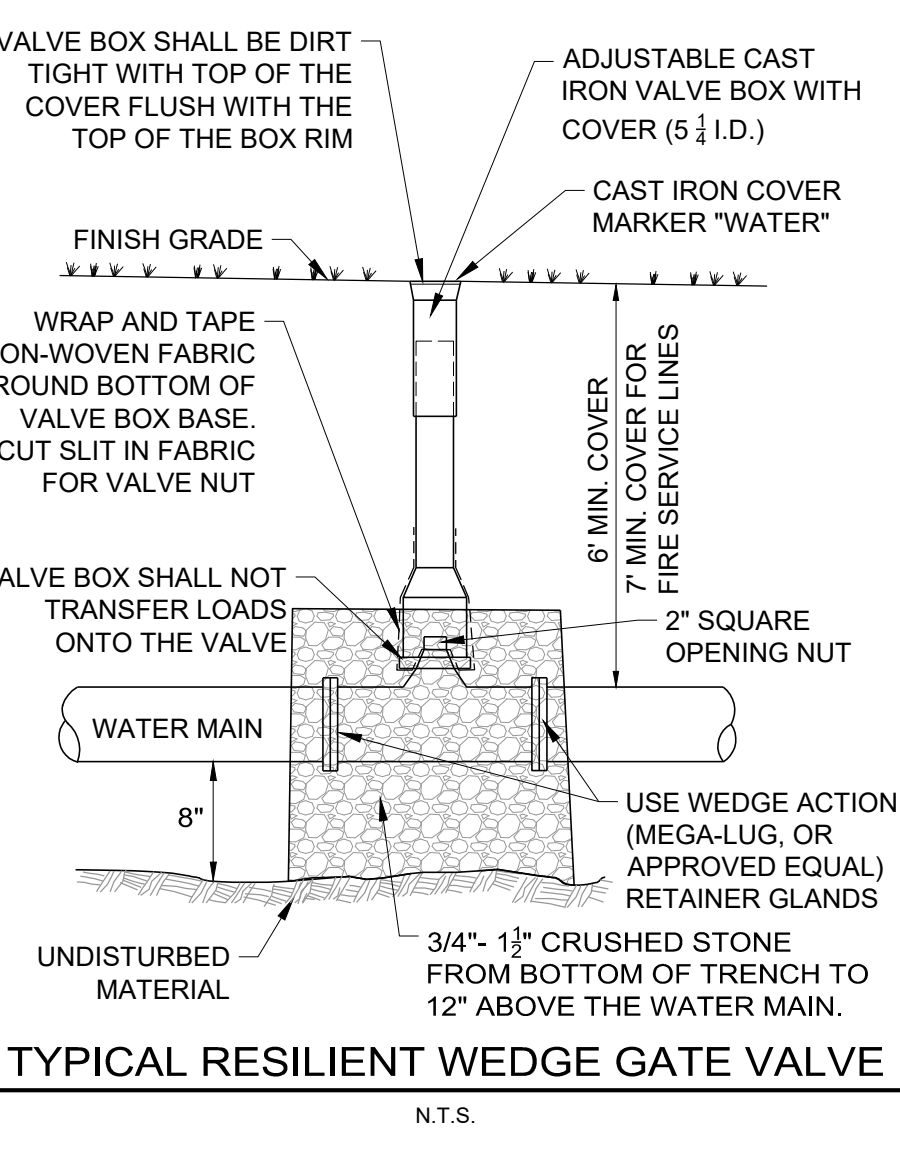
ALL CONNECTIONS TO MUNICIPAL WATER UTILITIES INSTALLED ON THE PROJECT TO BE OBSERVED BY THE ENGINEER AND THE AUTHORIZED REPRESENTATIVE OF THE UTILITY; TOWN OF COLCHESTER AND COLCHESTER FIRE DISTRICT PRIOR TO BACKFILLING THE UTILITY BEING INSTALLED. THE ENGINEER SHALL BE NOTIFIED 48 HOURS BEFORE THE WORK IS PLANNED TO BEGIN. ALL DETAILS ARE SUBJECT TO THE MOST RECENT REVISIONS OF THE COLCHESTER PUBLIC WORKS SPECIFICATIONS AND DETAILS FOR THE INSTALLATION OF WATER LINES AND APPURTENANCES. PROJECT SHALL FOLLOW ALL DETAILS IN THIS PLAN SET, COLCHESTER DPW SPECIFICATIONS, AND THE COLCHESTER FIRE DISTRICT SPECIFICATIONS. THE MOST STRINGENT DETAILS WILL APPLY.



NEW MULTI-USE CONCRETE SIDEWALK DETAIL
N.T.S.

- NOTES FOR CONCRETE**
- BROOM FINISH CONCRETE. CONSTRUCTION JOINTS SHALL BE SPACED MAXIMUM 24" IN ALL DIRECTIONS. SAWCUT CONTROL JOINTS 1/2" DEPTH AT INTERVALS EQUAL TO WIDTH OF SIDEWALK.
 - APPLY SPECICHEM CURE SHIELD, CURE & SEAL AGENT TO ALL CONCRETE SURFACES IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
 - CONCRETE CONSTRUCTION AND CURING SHALL CONFORM TO SECTION 618.03 OF THE CURRENT VAOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 - CONCRETE MAY NOT BE POURED IF FROST IS PRESENT OR THAWING IN THE SUBGRADE, IF THE TEMPERATURE IS 40° F OR LESS, OR DURING UNSEASONABLE WEATHER CONDITIONS.
 - ALL CONCRETE USED IN THE CONSTRUCTION OF MULTI-USE CONCRETE SHALL BE MADE WITH PORTLAND CEMENT. THE CONCRETE SHALL MEET SECTION 541 OF THE STATE OF VERMONT STANDARD SPECIFICATIONS FOR CONSTRUCTION, HAVE 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI, AND MEET THE FOLLOWING MIX DESIGN.
- | | |
|------------------------------------|-------|
| MAX. WATER-CEMENT RATIO (LB./LB.) | 0.44 |
| MIN. CEMENT FACTOR (LBS/C.Y.) | 660 |
| ENTRAINED AIR CONTENT (%) | 5 - 7 |
| SLUMP (INCHES, BEFORE ADDING HRWR) | 2 - 4 |
- USE AIR ENTRAINMENT AGENT CONFORMING TO ASTM C260 WITH 5-7% TOTAL AIR. USE HIGH RANGE WATER REDUCING AGENT CONFORMING TO ASTM C494 IN ALL CONCRETE.

- NOTES**
- VALVES SHALL BE MANUFACTURED TO MEET ALL REQUIREMENTS OF AWWA C509 OR C515 LATEST EDITION. VALVES TWELVE INCHES (12") AND SMALLER SHALL BE BUBBLE TIGHT, ZERO LEAKAGE AT 200 PSI WORKING PRESSURE. VALVES SHALL HAVE NON-RISING STEMS, OPEN COUNTER CLOCKWISE (LEFT) AND PROVIDE A TWO INCH (2") SQUARE OPERATING NUT WITH AN ARROW CAST IN THE METAL INDICATING DIRECTION OF OPENING. EACH VALVE SHALL HAVE THE MAKER'S NAME, PRESSURE RATING AND YEAR IN WHICH IT WAS MANUFACTURED CAST ON THE BODY. VALVES SHALL BE MECHANICAL JOINT ON EACH END, AND SECURED TO THE ADJOINING PIPE WITH AN APPROVED RETAINER GLAND, PRIOR TO SHIPMENT FROM THE FACTORY. EACH VALVE SHALL BE TESTED BY HYDROSTATIC PRESSURE EQUAL TO TWICE THE SPECIFIED WORKING PRESSURE.
 - GATE VALVES SHALL BE MUELLER, KENNEDY, AFC, M&H OR APPROVED EQUAL ON WATER DISTRIBUTION MAINS AND MUELLER, AFC, OR APPROVED EQUAL ON CWD TRANSMISSION MAINS.
 - GATE VALVES USED TO CONVEY OR DISPENSE WATER FOR HUMAN CONSUMPTION SHALL COMPLY WITH THE VERMONT LAW (ACT 193) AN ACT RELATING TO PREVENTION OF LEAD POISONING BY EXPOSURE TO LEAD IN CONSUMER PRODUCTS, AND SHALL CONTAIN NO MORE THAN 0.25% LEAD BY WEIGHTED AVERAGE. FIXTURES CONTAINING BRASS MUST COMPLY WITH NSF/ANSI 61 ANNEX G.
 - BURIED GATE VALVES SHALL BE PROVIDED WITH A TWO INCH (2") SQUARE WRENCH NUT AND SHALL BE INSTALLED WITH A CAST IRON VALVE BOX AS REQUIRED TO ALLOW ACCESS TO THE VALVE OPERATING NUT AT ALL TIMES. IN INSTALLATIONS WHERE THE DEPTH FROM GRADE TO TOP OF VALVE OPERATING NUT IS GREATER THAN FIVE FEET (5'), A VALVE STEM RISER SHALL BE PROVIDED AND INSTALLED SUCH THAT THE DEPTH FROM THE VALVE STEM RISER NUT TO GRADE IS FROM FOUR FEET TO FIVE FEET (4'-5"). VALVE STEM RISERS SHALL BE OF HIGH STRENGTH STAINLESS STEEL AND OF WELDED CONSTRUCTION (SEE VALVE STEM EXTENSION DETAIL IN CWD STANDARD SPECIFICATIONS).
 - ALL GATE VALVE BOLTS, STUDS AND NUTS SHALL BE MADE FROM CORROSION RESISTANT STAINLESS STEEL.
 - TAPPING VALVE INLET AND OUTLET CONNECTION SHALL BE STANDARDIZED MECHANICAL JOINT UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS FOR THE TYPE OF PIPE REQUIRED FOR THE BRANCH OR LATERAL PIPELINE.
 - VALVE BOXES LOCATED IN ROADWAYS SHALL HAVE ONE NON-ADJUSTABLE PAVING RISER OF A HEIGHT RANGING FROM ONE AND A HALF INCHES (1.5") TO SIX INCHES (6") AS NEEDED, TO BE BROUGHT TO FINAL PAVEMENT GRADES



TYPICAL RESILIENT WEDGE GATE VALVE
N.T.S.

THURST BLOCK DETAIL
N.T.S.

NOTES

- A THURST BLOCK SHALL BE INSTALLED AT ALL WATER MAIN BENDS, REDUCERS, END CAPS AND TEES.
- PRECAST THURST BLOCKS ARE NOT ACCEPTABLE.
- POURED CONCRETE (2,500 PSI MIN) MUST BE USED FOR THURST BLOCKS. SACRETE IS NOT ACCEPTABLE.
- USE EBAA MEGA-LUG, SIGMA, OR EQUAL, WEDGE-ACTION MECHANICAL JOINT RESTRAINTS WITH TWIST OFF NUTS AT ALL FITTINGS.

MINIMUM AREA OF BEARING SURFACE OF CONCRETE THURST BLOCK (IN SQUARE FEET)

3"		4"		6"		8"		12"		SOIL CONDITION	SAFE BEARING LOAD(P/SF)										
ENDS & TEES	VALV. REDU.	ENDS & TEES	VALV. REDU.	ENDS & TEES	VALV. REDU.	ENDS & TEES	VALV. REDU.	ENDS & TEES	VALV. REDU.												
0.5	0.5	0.5	0.5	1.0	0.5	1.0	1.5	1.0	0.5	2.0	2.5	1.5	1.0	4.0	5.5	3.0	1.5	Sound shale	10,000		
1.0	1.0	1.0	1.5	2.0	1.0	0.5	3.0	4.0	2.0	1.0	4.5	6.5	3.5	2.0	10.0	14.0	7.5	4.0	Cemented gravel & sand	4,000	
1.0	1.0	1.0	0.5	2.0	0.5	1.5	1.0	3.5	5.0	3.0	1.5	6.0	8.5	5.0	2.5	13.0	18.5	10.0	5.0	Coarse & fine compact sand	3,000
1.5	2.5	1.5	1.0	2.5	3.5	2.0	1.0	5.5	7.5	4.0	2.0	9.0	13.0	7.0	3.5	20.0	27.5	15.0	8.0	Medium clay (can be spaded)	2,000
3.0	4.5	2.5	1.5	5.0	7.0	4.0	2.0	10.5	15.0	8.0	4.0	18.0	25.0	14.0	7.0	39.0	55.0	30.0	15.0	Soft clay	1,000

MAXIMUM WATER PRESSURE = 200 PSI (140,620 KG/M²)

HAZELETT STRIP-CASTING CORPORATION

COLCHESTER, VT

KREBS & LANSING CONSULTING ENGINEERS
164 Main Street, Suite 201 Colchester, Vermont 05446 P: (802) 878-0375 www.krebsandlansing.com

STAMP:

Project: **THE 'H' AT MALLETT'S BAY**
180 & 166 W. Lakeshore Drive Colchester, Vermont

Project No.	23314
Scale	N.T.S.
Drawn by	SWH
Checked by	
Date	03/03/25

Revisions

No.	Date	Description
05/09/25		hydrant detail
10/03/25		Town Final

Drawing Title: **CIVIL DETAILS**

Drawing No. **CD-2**

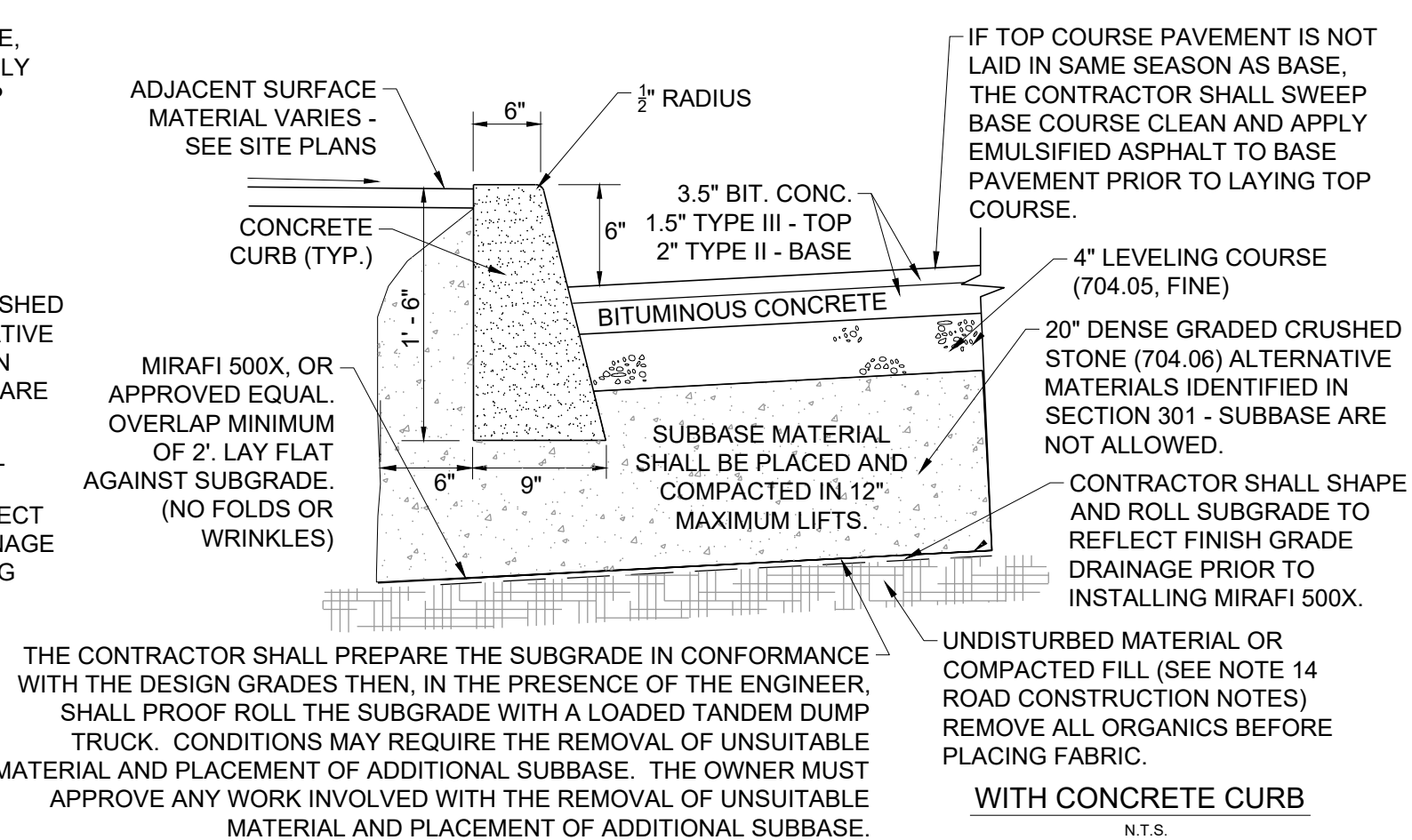
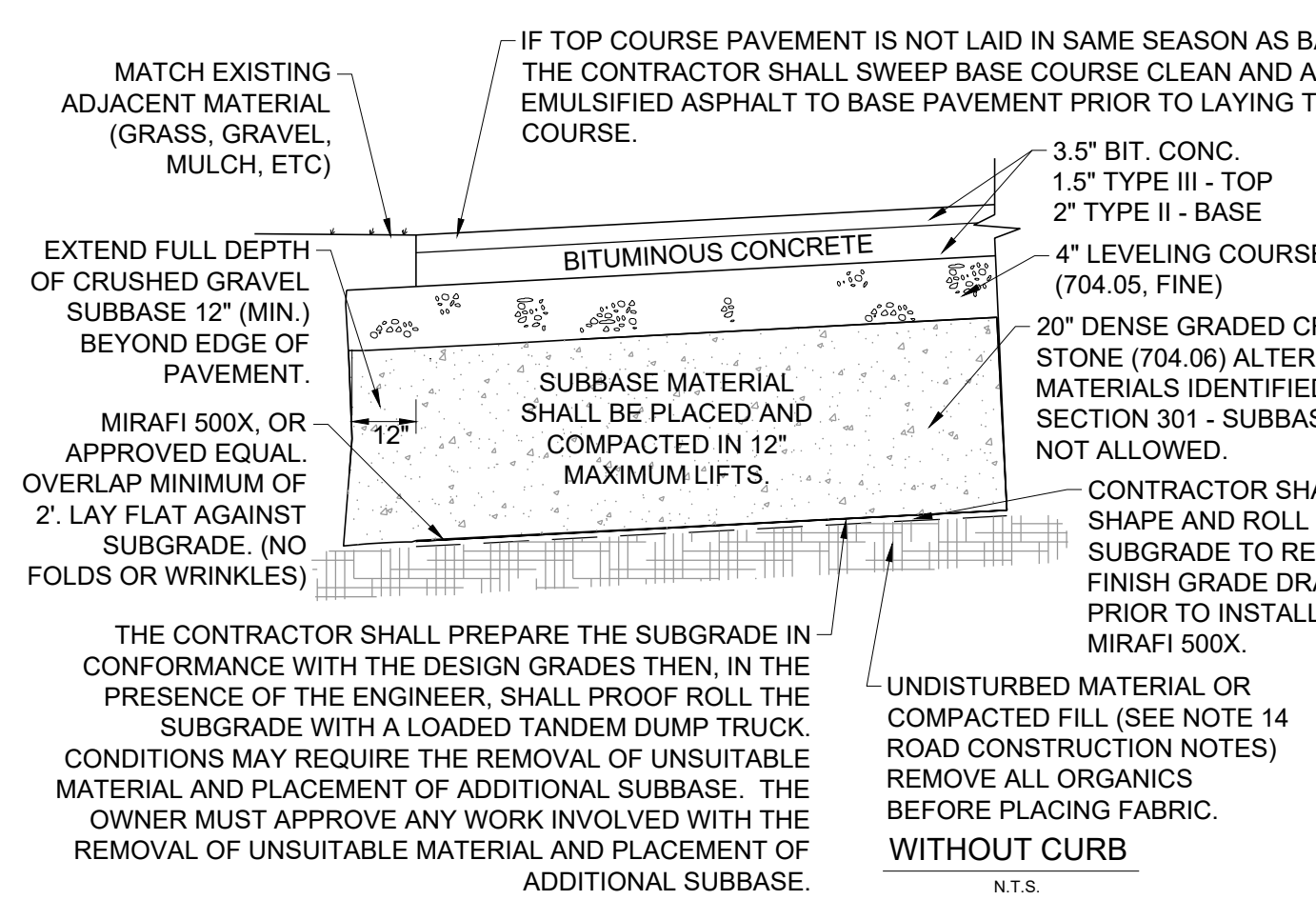
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ROAD CONSTRUCTION NOTES

- ALL REFERENCES TO ROAD SHALL APPLY TO PARKING AREAS AS WELL.
- NEW ROAD SHALL BE CONSTRUCTED TO THE LINE AND GRADE SHOWN ON THE DRAWINGS. THE ROAD AND UTILITY LOCATIONS SHALL BE AS TYPICALLY DETAILED UNLESS OTHERWISE SHOWN.
- ALL ROAD AND PARKING CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE VERMONT AGENCY OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" 2018, HEREAFTER CALLED VERMONT HIGHWAY SPECIFICATIONS, SPECIFICATIONS FOUND ON THESE PLANS, AND CITY/TOWN SPECIFICATIONS. IN CASE OF CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY AS DETERMINED BY THE ENGINEER. ALL GRAVEL AND STORM SEWER STRUCTURES SHALL BE APPROVED BY TOWN ENGINEER.
- THE CONTRACTOR SHALL FOLLOW VERMONT HIGHWAY SPECIFICATIONS (2018) SECTION 203.11 FOR PLACING AND SPREADING EMBANKMENTS.
- FILL MATERIAL FOR ROAD EMBANKMENT SHALL BE APPROVED BY THE ENGINEER. FILL SHALL BE PLACED IN 12" LIFTS, WETTED AND COMPACTED WITH SATISFACTORY COMPACTION EQUIPMENT TO 95% OF MAXIMUM DENSITY (STANDARD PROCTOR).
- ROAD IN FILL SECTIONS SHALL BE PLACED AND COMPACTED A MINIMUM OF 3 FEET ABOVE TOP OF ANY UTILITY TO BE INSTALLED BEFORE TRENCH IS EXCAVATED FOR PIPE PLACEMENT. IN TRENCHES AND CUT SECTIONS, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SHEETING, SHORING AND BRACING TO MAINTAIN COMPLIANCE WITH ALL OSHA/VOSH REGULATIONS.
- METHODS FOR CONSTRUCTION OF SUBGRADE SHALL CONFORM TO VERMONT HIGHWAY SPECIFICATIONS (2018) 203.12 OR AS DETERMINED BY THE ENGINEER.
- ANY SUBGRADE OR SUBBASE DISTURBED BY CONTRACTOR, OR RENDERED UNSUITABLE BY CONSTRUCTION MACHINERY, SHALL BE REMOVED AND REPLACED WITH APPROVED GRANULAR BACKFILL AT THE CONTRACTOR'S EXPENSE. THE SUBGRADE SHALL BE COMPACTED TO ATTAIN AT LEAST 95% OF THE MAXIMUM DENSITY (STANDARD PROCTOR)

- BEFORE PLACING ROAD OR EMBANKMENT MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF COMPACTION IN THE ROAD AND UTILITY TRENCHES.
 - SAND FILL SHALL CONFORM TO VERMONT HIGHWAY SPECIFICATIONS (2018) 703.03, TABLE 703.03A. GRANULAR BORROW SHALL CONFORM TO THE VERMONT HIGHWAY SPECIFICATIONS 703.04 GRANULAR BORROW, TABLE 703.04A.
 - GRAVEL SUBBASE FOR PAVEMENT SHALL CONFORM TO VERMONT HIGHWAY SPECIFICATIONS (2018) 704.05, TABLE 704.05A, COARSE.
 - LEVELING COURSE SHALL CONFORM TO VERMONT HIGHWAY SPECIFICATIONS (2018) 704.05, TABLE 704.05A, FINE. SHOULDERS SHALL CONFORM TO SECTION 704.12, AGGREGATE FOR SHOULDERS.
 - BITUMINOUS CONCRETE PAVEMENT SHALL CONFORM TO VERMONT HIGHWAY SPECIFICATIONS (2018) SECTION 404 AND 406. BINDER COURSE SHALL BE TYPE II, AND FINISH WEARING COURSE SHALL BE TYPE III OR IV. BASE COURSE PAVING TO BE PLACED FIRST YEAR, SURFACE COURSE TO BE PLACED THE SECOND OR THIRD YEAR, DETERMINED BY THE ENGINEER.
 - EMBANKMENT FILL FOR ROAD AND PARKING SHALL BE A SIEVE SPECIFICATION AS FOLLOWS:

SIEVE	% FINER
4"	100
2"	85-100
#4	60-100
#200	12 MAXIMUM
 - IF PROOF ROLL FAILS, CONTRACTOR SHALL REMOVE THE SITE SOIL AND REPLACE IT WITH SAND WITH THE ABOVE SPEC. UNTIL A PROOF ROLL CAN BE PLACED WITHOUT FAILING. ENGINEER WILL JUDGE PASS/FAILURE OF PROOF ROLL. THIS WILL BE PERFORMED WITHOUT FURTHER COSTS TO THE OWNER.



GRAVEL NOTES

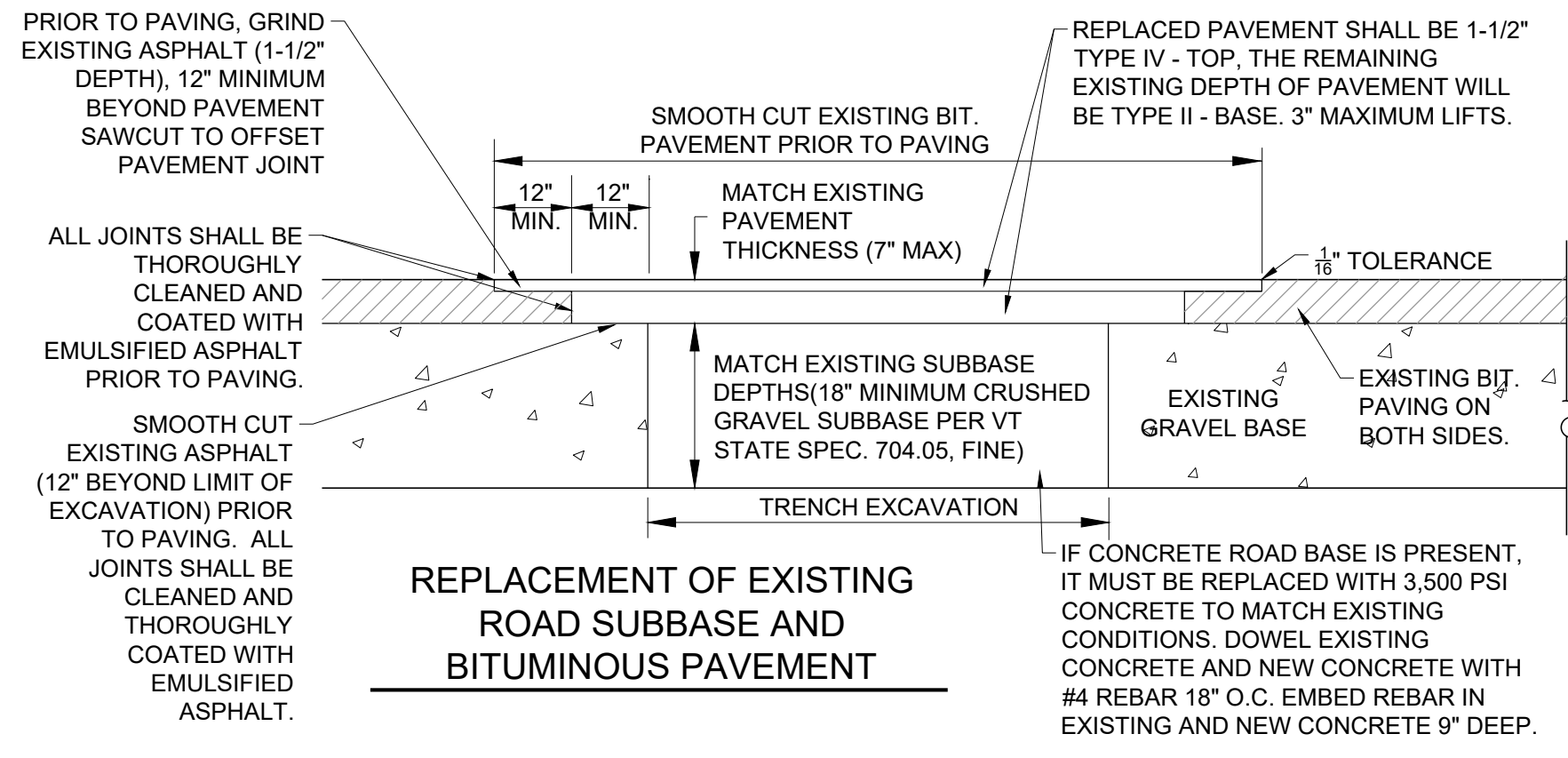
- THE CONTRACTOR TO TAKE SIEVE ANALYSIS OF GRAVEL AS SOON IT ARRIVES ON SITE.
- TRAVEL OVER GRAVEL WITH ANY VEHICLE TRACKING SOIL PRIOR TO PLACEMENT OF PAVEMENT IS PROHIBITED.
- IF GRAVEL IS CONTAMINATED AFTER PLACEMENT, THE SITE CONTRACTOR SHALL BE RESPONSIBLE REMOVAL OF ALL CONTAMINATED GRAVEL AND PAYING FOR ALL RECOMMENDED SIEVE ANALYSIS AS DETERMINED BY THE ENGINEER.

NOTES FOR CONCRETE CURB

- BROOM FINISH CONCRETE, ALL JOINTS TO BE TOOL FINISHED. EXPANSION/CONTRACTION JOINTS EVERY 20' WITH 1/2" JOINT FILLER. SCORE 1/3 TOTAL DEPTH AT 10' INTERVALS.
- APPLY 2 COATS OF SPECHEM CURE/SEAL CURE/SEAL COMPOUND TO ALL CONCRETE SURFACES, PER THE MANUFACTURER'S SPECIFICATIONS.
- CONCRETE MAY NOT BE POURED IF FROST IS PRESENT OR THAWING IN THE SUBGRADE, IF THE TEMPERATURE IS 40° F OR LESS, OR DURING UNSEASONABLE WEATHER CONDITIONS.

PAVEMENT MARKING NOTES

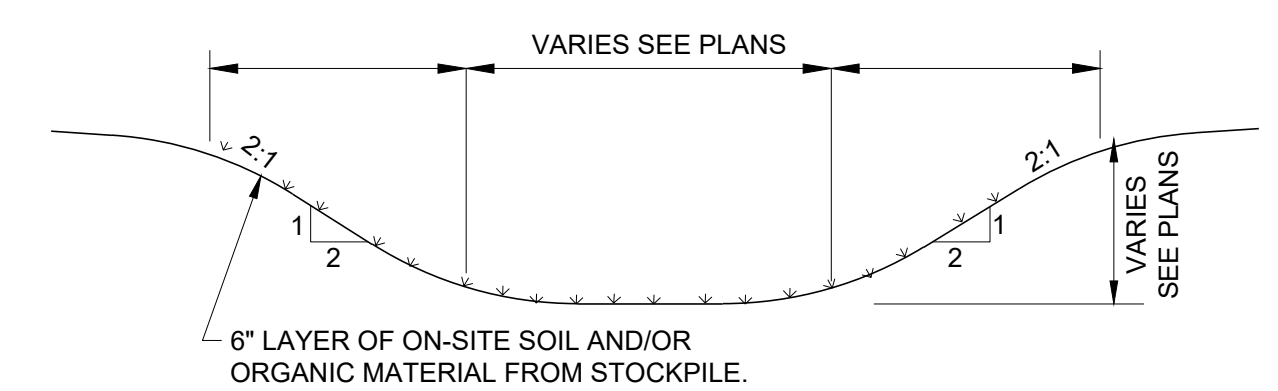
- TYPICAL TOWN OF COLCHESTER PARKING SPACE IS 9'-0" CENTER OF LINE TO CENTER OF LINE MARKED WITH 4" WIDE YELLOW OR WHITE PAINT.
- ADA SPACE IS YELLOW/WHITE STENCIL, YELLOW/WHITE TRIM. COORDINATE EXACT REQUIREMENTS WITH TOWN OF COLCHESTER.
- PAINT FOR PAVEMENT MARKINGS SHALL BE HYDROPHAST WATERBORNE TRAFFIC PAINT BY FRANKLIN PAINT COMPANY. IT SHALL BE REFLECTIVE, VOC COMPLIANT FAST DRYING, 100% ACRYLIC WATERBORNE TRAFFIC PAINT. PAINT FOR STOP BARS AND CROSSWALKS SHALL BE WHITE ALL OTHER LINE STRIPING SHALL BE YELLOW. CONFIRM PAINT COLOR WITH TOWN OF COLCHESTER AND OWNER.
- TRAFFIC PAINT SHALL BE APPLIED WITH A UNIFORM THICKNESS AND AT A RATE SUCH THAT NO PAVEMENT IS VISIBLE AFTER DRYING. ADDITIONAL PAINT APPLICATION WILL BE REQUIRED IF UNDERLYING PAVEMENT IS VISIBLE.



WHEN IN THE TOWN RIGHT OF WAY (R.O.W.), CONTRACTOR SHALL BE NOTIFY THE TOWN 48 HOURS BEFORE THE WORK IS PLANNED TO BEGIN. ALL DETAILS ARE SUBJECT TO THE MOST RECENT REVISION OF THE TOWN OF COLCHESTER DPW STANDARDS AND SPECIFICATIONS. THE MOST STRINGENT DETAILS WILL APPLY.

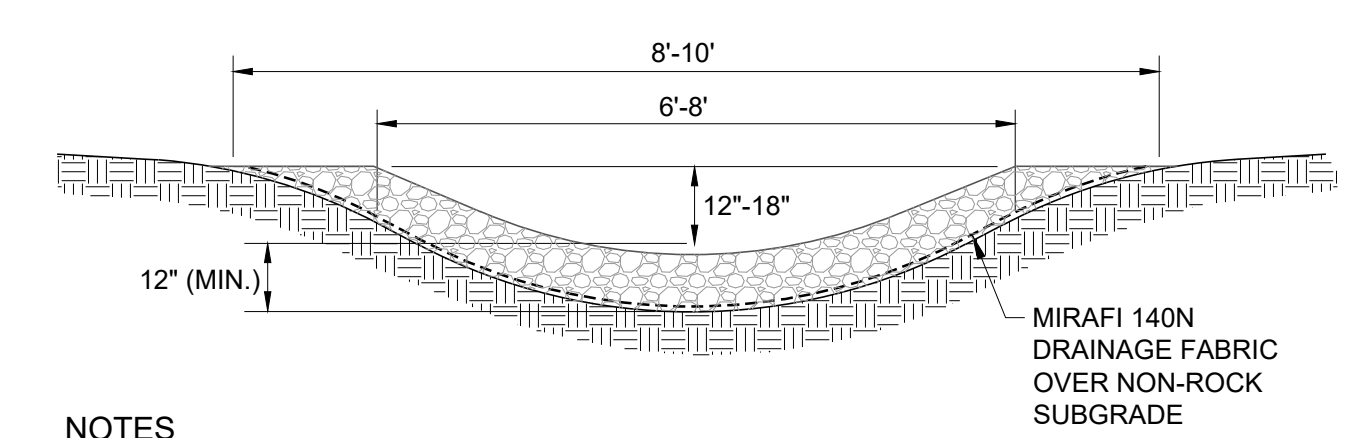
- NOTES**
- SET UP AND MAINTAIN SIGNS AND OTHER SAFETY CONTROL DEVICES.
 - RESHAPE HOLE PATCH AREA BY CUTTING WITH A CONCRETE SAW INTO SQUARE OR RECTANGULAR SHAPE AND CUT SIDE FACED VERTICALLY. RESHAPE DOWNWARD SOLID MATERIAL AND AROUND HOLE TO SOUND PAVEMENT.
 - BACKFILL TRENCH IN 6" LIFTS AND COMPACT EACH TO 95% OF MAXIMUM DENSITY OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 STANDARD PROCTOR.
 - REMOVE ALL LOOSE MATERIAL AND THOROUGHLY SWEEP THE HOLE AREA, CLEAN ANY MUD AND STANDING WATER.
 - APPLY LIQUID ASPHALT TRACK TO VERTICAL FACES IN UNIFORM MANNER. DO NOT PUDDLE TRACK COAT ON BOTTOM HOLE.
 - FILL TOP OF HOLE WITH TYPE IV BITUMINOUS CONCRETE AND COMPACT IN LIFTS NO MORE THAN 2" THICK. EACH LIFT SHOULD BE THOROUGHLY COMPACTED WITH A VIBRATORY PLAT COMPACTOR OR A PORTABLE ROLLER. EXPERIENCE HAS SHOWN THAT 15 TO 20 PASSES WITH THE VIBRATORY ROLLER AND MIX TEMPERATURE ABOVE 250°F (121°C) ARE NECESSARY TO ENSURE GOOD COMPACTION. HAND TAMP SHOULD ONLY BE USED FOR SMALL AREAS LESS THAN 1 S.F.
 - CLEAN UP AREA. DO NOT LEAVE EXCESS FILL OR EXCAVATED MATERIAL ON THE PAVEMENT. REMOVE SAFETY SIGNS.

TYPICAL ROAD CROSS SECTION DETAILS - WITH CONCRETE CURBS AND WITHOUT CURBS



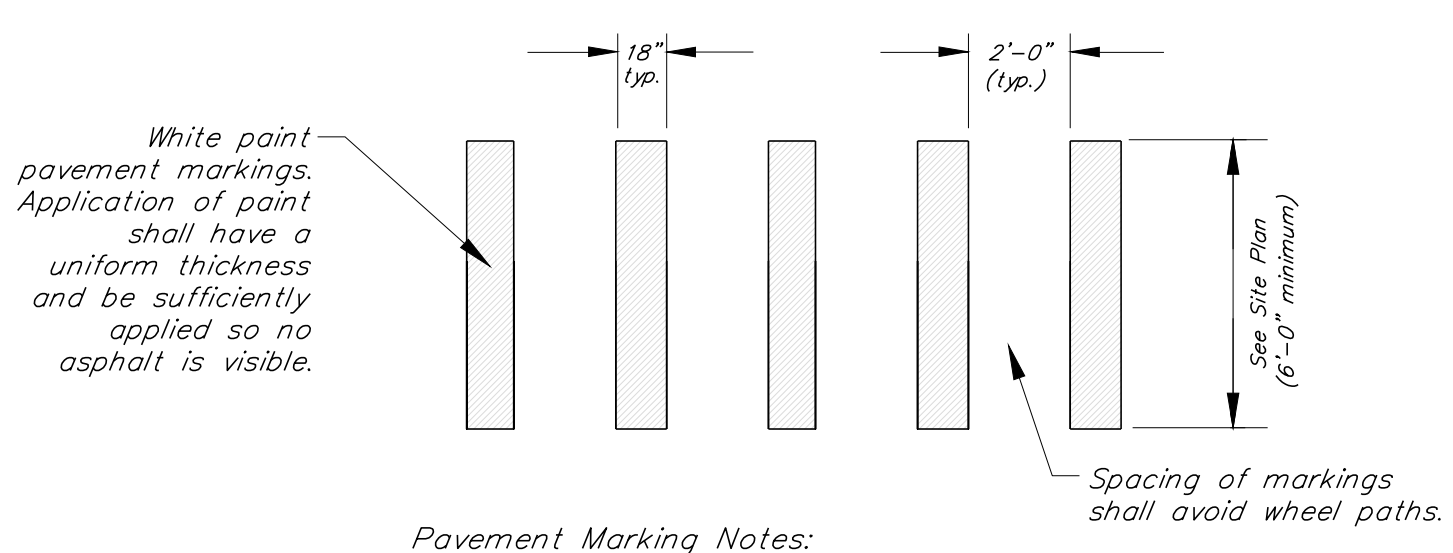
- NOTES**
- TYPICAL GRASS SWALE CROSS SECTION. SEE PLAN VIEW FOR LOCATIONS.
 - SWALE TO HAVE 2' WIDE FLAT BOTTOM OR WIDER. TYPICAL SIDE SLOPES TO BE 2:1.
 - APPLY SEED AND MULCH. APPLY UNIFORMLY OVER AREA.
 - CROSS-SECTION SHALL BE EXCAVATED TO NEAT LINES AND GRADES. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH MOIST SOIL COMPACTED TO DENSITY OF SURROUNDING MATERIAL.
 - ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF IN APPROVED UPLAND AREA (PER OSPC) SUCH THAT IT DOES NOT INTERFERE WITH FUNCTIONING OF SWALE. ALL EXCAVATED SOIL SHALL REMAIN ON SITE.

GRASS SWALE CROSS SECTION



- NOTES**
- STONE-LINED SWALES TO BE USED ON SLOPES ≥5%. DESIGNED FOR VELOCITIES LESS THAN 10 FEET PER SECOND.
 - USE RIP RAP STONE. PROVIDE QUARRY GRADATION TO ENGINEER FOR APPROVAL.
 - SIDE SLOPES NOT TO EXCEED 2:1.
 - STONE LINING THICKNESS SHALL BE 1.5 X MAX. STONE SIZE PLUS THE THICKNESS OF FILTER OR BEDDING.
 - ALL DISTURBED AREAS SHALL BE STABILIZED AND OTHERWISE PROTECTED AGAINST SOIL EROSION.

STONE SWALE CROSS SECTION



- Pavement Marking Notes:**
- All markings shall meet the requirements for the Manual of Uniform Traffic Control Devices (section 3B.17) and Vermont Pavement Marking Placing Guidelines.
 - Painted crosswalk markings shall be reflective white non-chlorinated water based paint (Hydrophast Waterborne Traffic Paint) by Franklin Paint Company, or approved equal.

Crosswalk Pavement Marking Detail

HAZELETT STRIP-CASTING CORPORATION

COLCHESTER, VT

KREBS & LANSING CONSULTING ENGINEERS
 164 Main Street, Suite 201 Colchester, Vermont 05446 P: (802) 878-0375 www.krebsandlansing.com

STAMP:

Project: **THE 'H' AT MALLETT'S BAY**
 180 & 166 W. Lakeshore Drive Colchester, Vermont

Project No.	23314
Scale	N.T.S.
Drawn by	SWH
Checked by	
Date	03/03/25

No.	Date	Description
06/19/25		Town resubmittal, road section
10/03/25		Town Final

Drawing Title CIVIL DETAILS

Drawing No. **CD-3**

SANITARY MAINS NOTES

- THE PIPE AND FITTINGS FOR SANITARY SEWER SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATION D3034 FOR 4" - 15" SDR 35 AND F679 FOR 18" - 27". ALL PIPE SHALL BE LAID TO THE LINE AND GRADE SHOWN ON THE PLANS.
- THE PIPE FOR GRAVITY SANITARY SEWER SHALL BE AS SHOWN ON THE PLANS AND DETAILED BELOW:
 - ALL PIPE SHALL BE LAID TO THE LINE AND GRADE AS SHOWN ON THE PLANS.
 - PVC SDR 35 - POLYVINYL CHLORIDE PIPE - PIPE SHALL CONFORM TO ASTM SPECIFICATION D-3034 OR F679. (PVC) SEWER PIPE AND FITTINGS, SDR35.
 - PIPE WITH RECYCLED CONTENT IS NOT ACCEPTABLE.
- PVC SDR 35 SANITARY AND STORM PIPES SHALL BE INSTALLED SO THAT THE INITIAL DEFLECTION SHALL BE LESS THAN 5%.
- PVC SDR 35 PIPE SHALL NOT BE INSTALLED WHEN THE TEMPERATURE DROPS BELOW 32° F OR GOES ABOVE 100° F UNLESS PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER. 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. IF PVC PIPE IS TO BE STORED ON SITE FOR 1 MONTH OR LONGER IT SHALL BE COVERED WITH CANVAS OR OTHER OPAQUE MATERIAL.
- THE INSTALLED GRAVITY SANITARY SEWER PIPE SHALL BE LOW PRESSURE AIR TESTED IN THE PRESENCE OF THE ENGINEER. AFTER CLEANING THE PIPE, THE PIPE SECTION (MANHOLE TO MANHOLE) SHALL BE TESTED ACCORDING TO THE PROCEDURES OUTLINED IN THE STATE OF VERMONT WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES, EFFECTIVE APRIL 12, 2019.

SANITARY TESTING AND CONTRACTOR COORDINATION REQUIREMENTS

- ALL SEWER LINES (MAIN LINES AND SERVICES) AND MANHOLES SHALL BE THOROUGHLY TESTED BY THE CONTRACTOR IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION RULES (09/29/07).
- ALL GRAVITY SANITARY MAINS SHALL BE AIR TESTED IN THE PRESENCE OF THE ENGINEER, AT A MINIMUM, THE TEST PRESSURE SHALL BE 4 POUNDS PER SQUARE INCH AT THE HIGHEST POINT ALONG THE TEST FOR 4 MINUTES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE ENGINEER AND THE LOCAL MUNICIPALITY PUBLIC WORKS DEPARTMENT AT LEAST 24 HOURS PRIOR TO STARTING CONSTRUCTION ON ANY PORTION OF THE PUBLIC CONNECTIONS TO WATER OR SANITARY SYSTEMS. THIS NOTIFICATION REQUIREMENT SHALL CONTINUE TO THE COMPLETION OF THE SANITARY SYSTEMS.
- THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER IF PRE-SCHEDULED TESTING AND/OR SEWER CONSTRUCTION IS CANCELED. IF CONTRACTOR DOES NOT CONTACT ENGINEER AND ENGINEER VISITS THE SITE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENGINEER'S FEES/MILEAGE FOR SITE VISIT.
- MAINTAIN A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN WATER MAIN AND STORM/SANITARY SEWER CROSSING.
- UTILITY TESTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING SANITARY TESTING AT A MINIMUM OF 24 HOURS PRIOR TO THE TEST. BASED ON AVAILABILITY OF ENGINEER'S STAFF, THE ENGINEER SHALL ACCOMMODATE THE TESTING SCHEDULE WITHIN 24 HOURS OF THE CONTRACTOR REQUESTED TEST DATE/TIME.
- THE CONTRACTOR SHALL PRE-TEST UTILITY PRIOR TO CONTACTING THE ENGINEER. THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF PRE-TEST FAILED.

FORCE MAIN PRESSURE & LEAKAGE TEST

UPON COMPLETION OF CONSTRUCTION OF A FORCE MAIN, THE LINE SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE.

- PRESSURE TEST:**
AFTER THE PIPE HAS BEEN LAID, ALL NEWLY LAID PIPE OR ANY VALVED SECTION THEREOF SHALL BE SUBJECTED TO A HYDROSTATIC PRESSURE OF AT LEAST 1.5 X THE HIGHEST WORKING PRESSURE IN THE SECTION.
- TEST PRESSURE RESTRICTIONS. TEST PRESSURE SHALL:
 - NOT BE LESS THAN 50 PSI AT THE HIGHEST POINT ALONG THE TEST SECTION.
 - NOT EXCEED PIPE OR THRUST RESTRAINT DESIGN PRESSURES.
 - BE AT LEAST 2 HOURS IN DURATION.
 - NOT VARY BY MORE THAN 5 PSI
 - NOT EXCEED TWICE THE RATED PRESSURE OF THE VALVES WHEN PRESSURE BOUNDARY OF THE TEST SECTION INCLUDES CLOSED GATE VALVES.

PRESSURIZATION. EACH VALVED SECTION OF PIPE SHALL BE FILLED WITH WATER SLOWLY AND THE SPECIFIED TEST PRESSURE, BASED ON THE ELEVATION OF THE LOWEST POINT OF THE LINE OR SECTION UNDER TEST AND CORRECTED TO THE ELEVATION OF THE TEST GAUGE, SHALL BE APPLIED BY MEANS OF A PUMP CONNECTED TO THE PIPE.

AIR REMOVAL. BEFORE APPLYING THE SPECIFIED TEST PRESSURE, AIR SHALL BE EXPELLED COMPLETELY FROM THE PIPE AND VALVES.

EXAMINATION. ALL EXPOSED PIPE, FITTINGS, VALVES, AND JOINTS SHALL BE EXAMINED CAREFULLY DURING THE TEST. ANY DAMAGED OR DEFECTIVE PIPE, FITTINGS, OR VALVES, THAT ARE DISCOVERED FOLLOWING THE PRESSURE TEST SHALL BE REPAIRED OR REPLACED WITH SOUND MATERIAL AND THE TEST SHALL BE REPEATED.

LEAKAGE TEST:
A LEAKAGE TEST SHALL BE CONDUCTED CONCURRENTLY WITH THE PRESSURE TEST.
LEAKAGE DEFINED. LEAKAGE SHALL BE DEFINED AS THE QUANTITY OF WATER THAT MUST BE SUPPLIED INTO THE NEWLY LAID PIPE, OR ANY VALVED SECTION THEREOF, TO MAINTAIN PRESSURE WITHIN 5 PSI OF THE SPECIFIED TEST PRESSURE AFTER THE AIR IN THE PIPELINE HAS BEEN EXPELLED AND THE PIPE HAS BEEN FILLED WITH WATER.
ALLOWABLE LEAKAGE. NO PIPE INSTALLATION WILL BE ACCEPTED IF LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA:

$$L = \frac{N \cdot D \cdot \sqrt{P}}{7400}$$

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

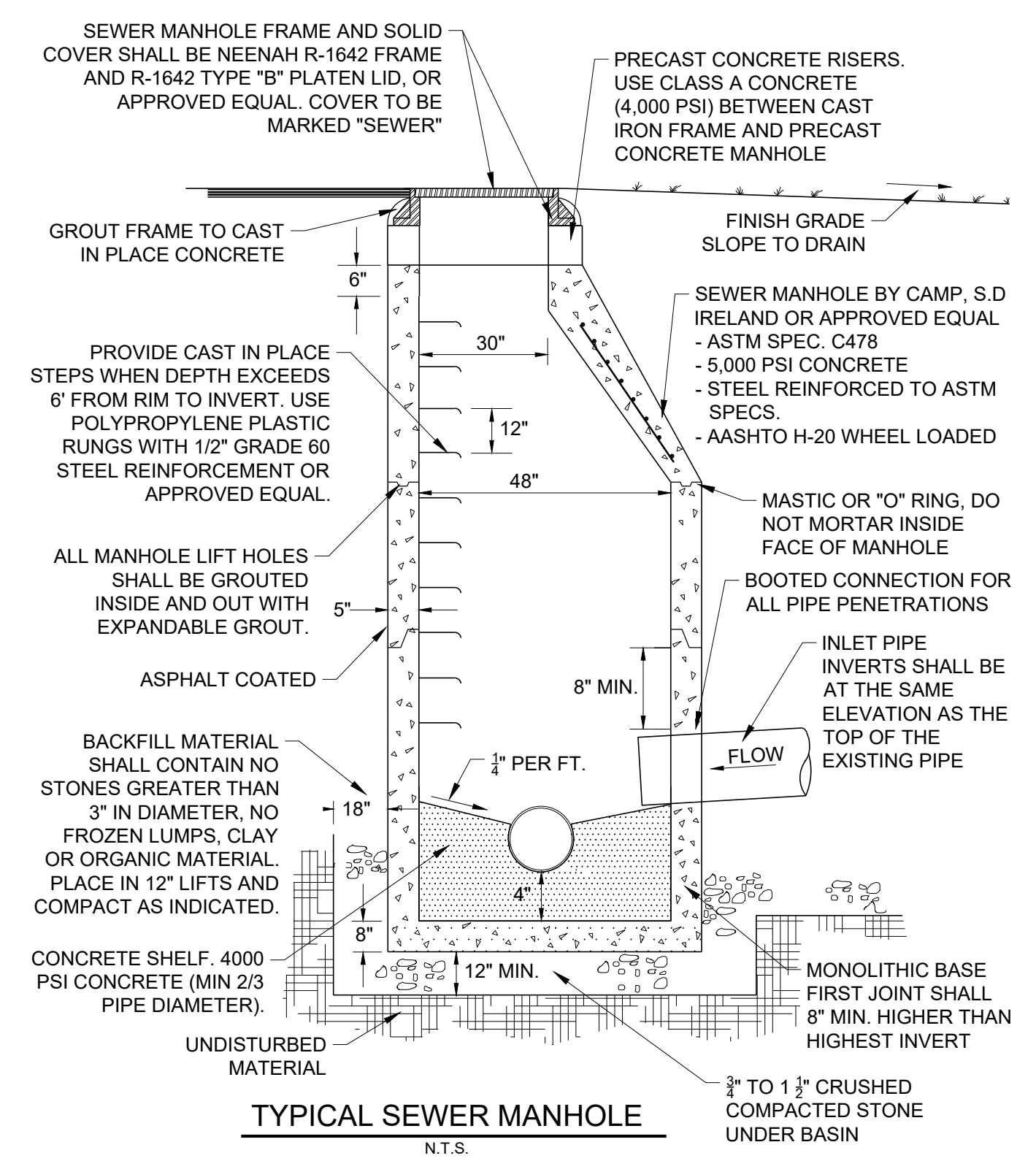
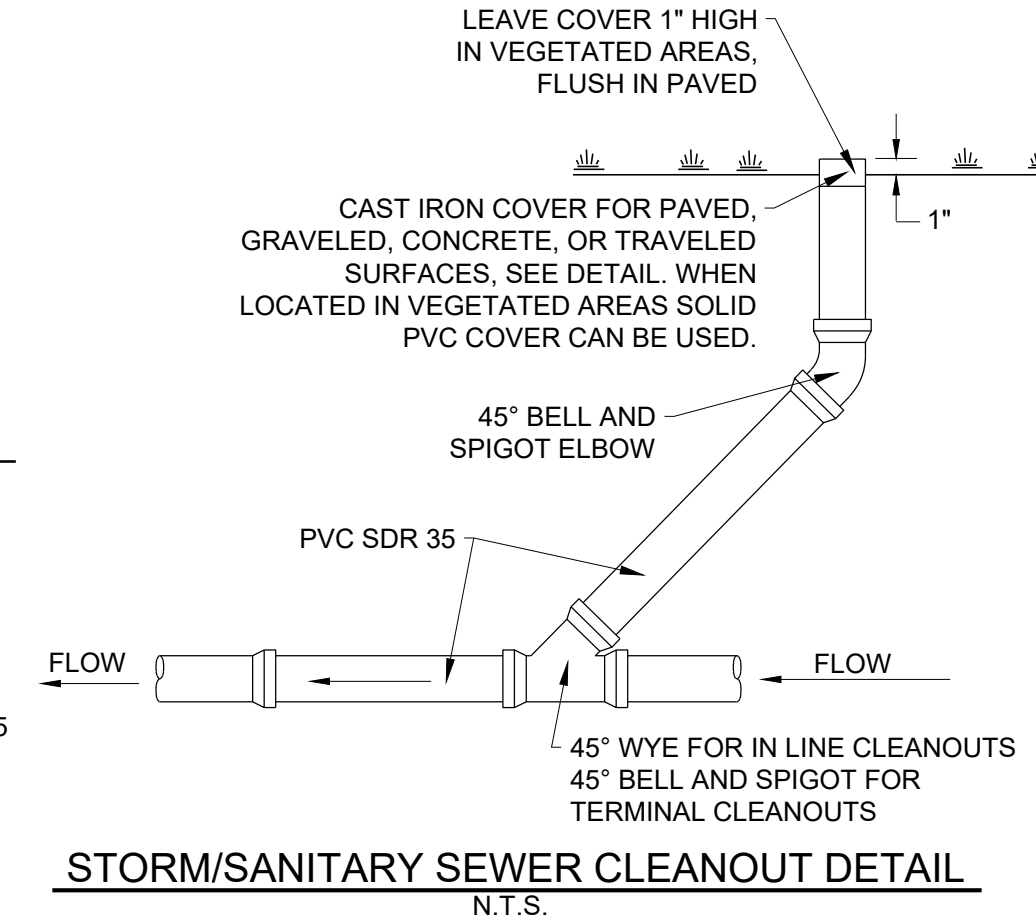
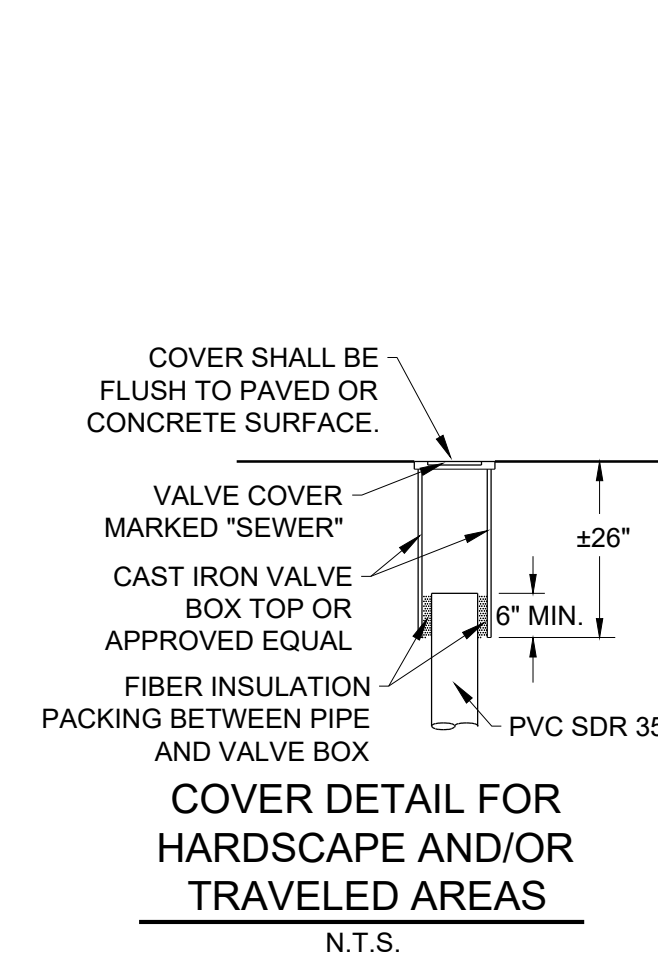
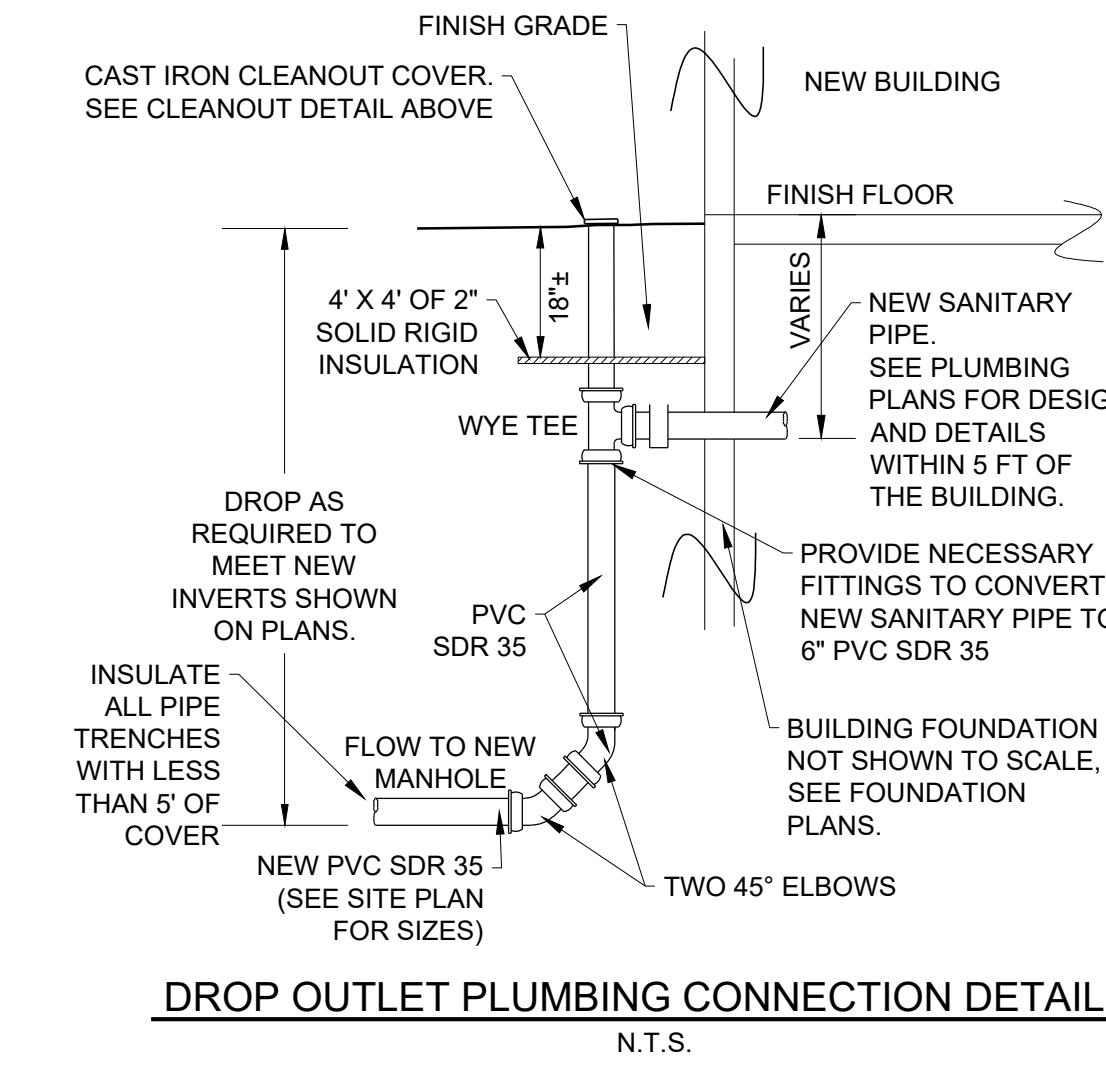
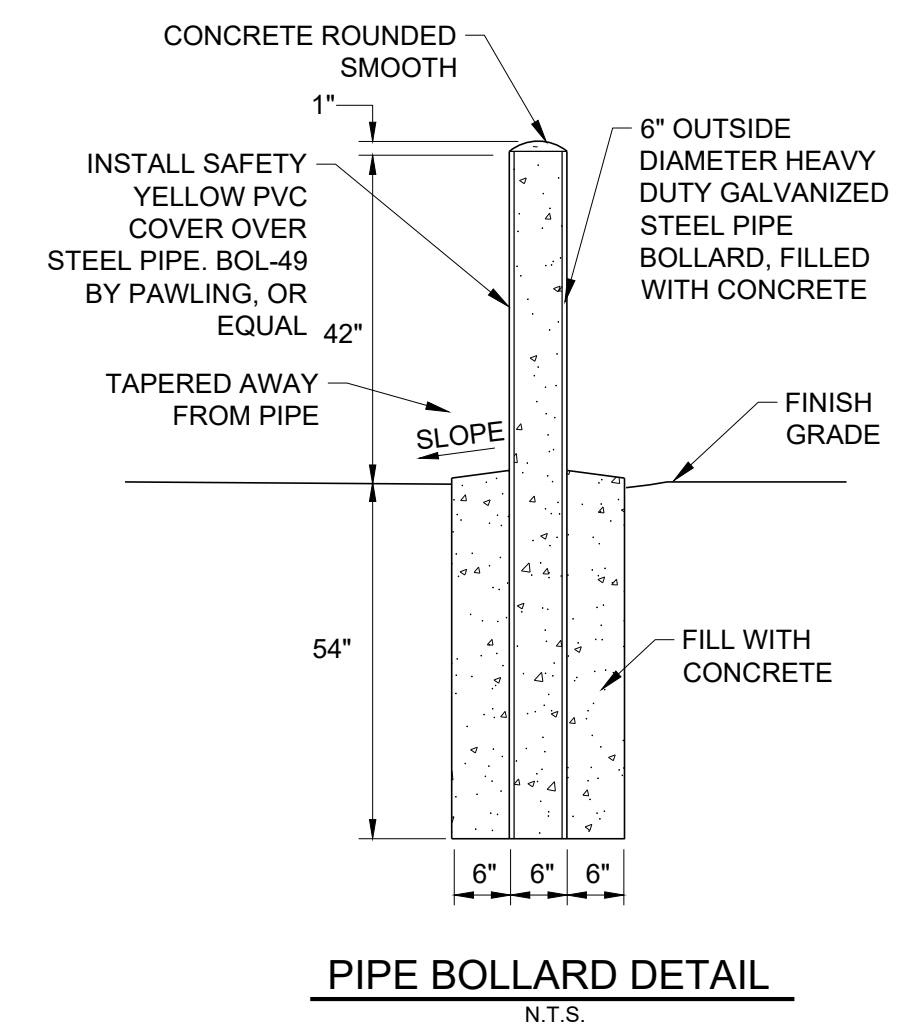
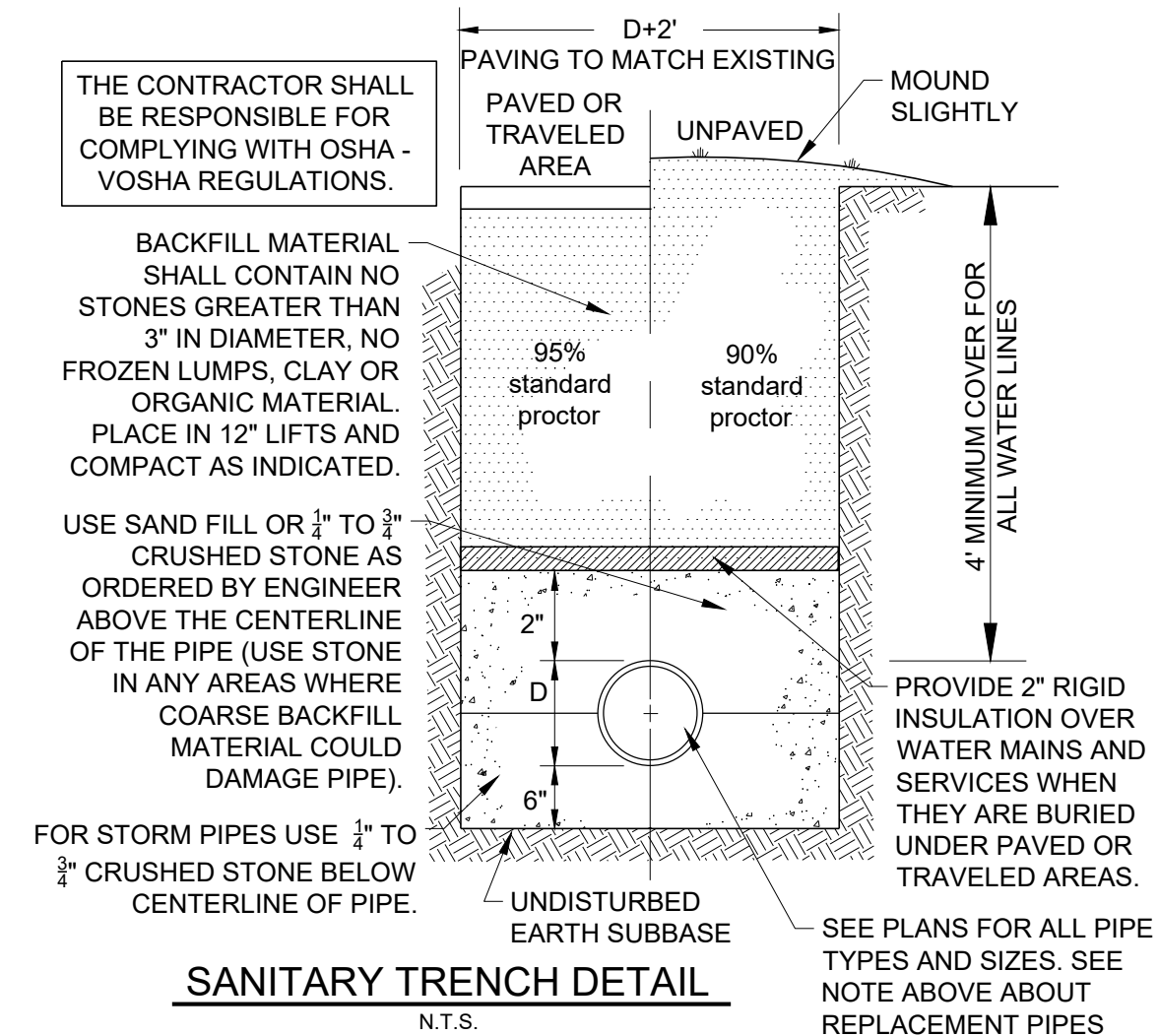
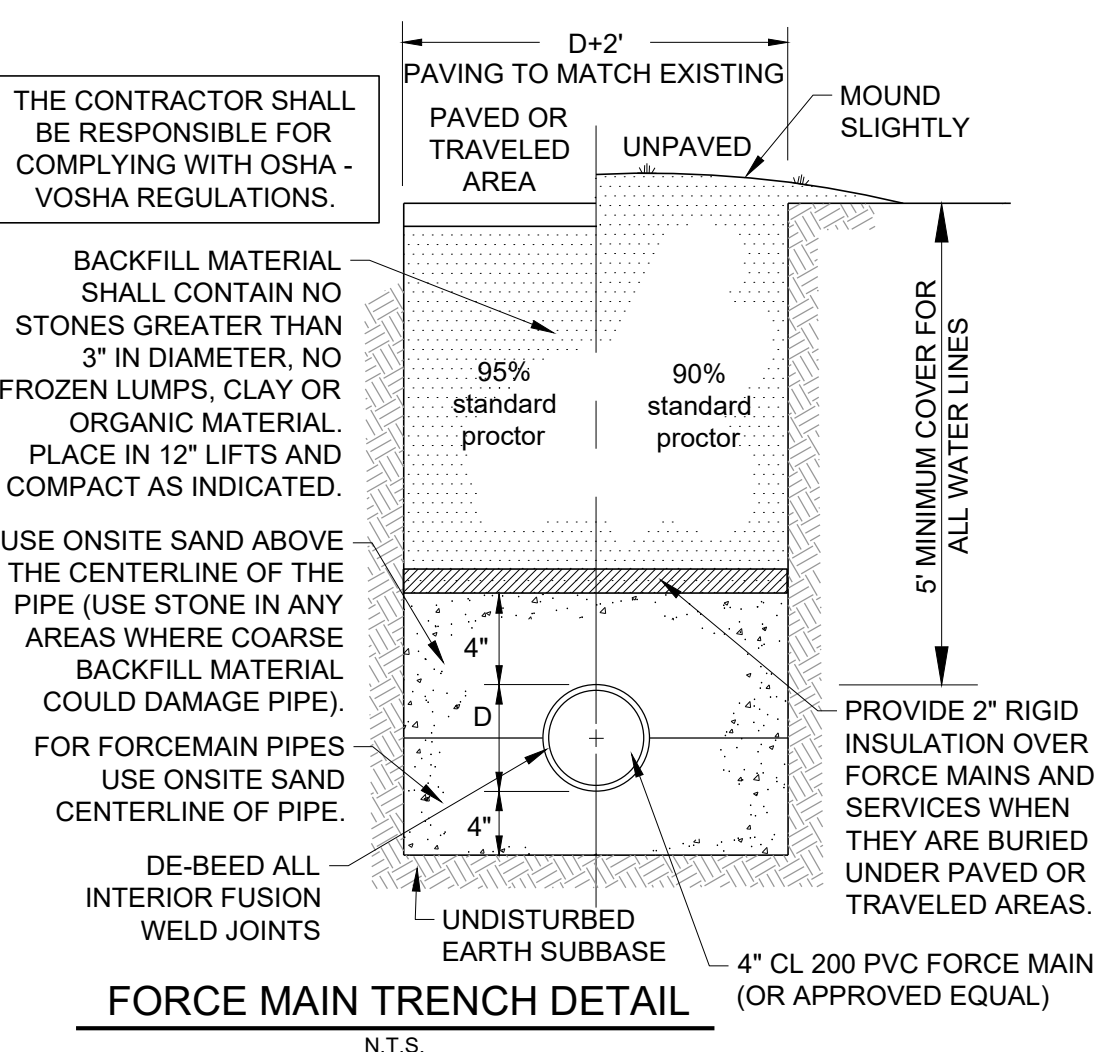
SECTIONS WHICH FAIL THE PRESSURE/LEAKAGE TEST SHALL BE REPAIRED AND RETESTED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.

WASTEWATER BASIS OF DESIGN

EXISTING ALLOCATION = 4,482 GALLONS/DAY (GPD)
(PER WW-C0671 FOR A 166 SEAT RESTAURANT SERVING 2 MEALS/DAY))

- PROPOSED PROJECT**
- DINING
 - 48 SEATS X 27 GPD (2 MEALS/DAY) = 1296 GPD
 - MEETING SPACE
 - 60 PARTICIPANTS X 4 GPD/PARTICIPANT = 240 GPD
 - SPA
 - 1 MASSAGE THERAPIST X 32 GPD = 32 GPD
 - 8 PARTICIPANTS X 4 GPD = 32 GPD
 - GUEST ROOMS
 - MAIN BUILDING STAFF MANAGER/OWNER BEDROOM = 140 GPD
 - COTTAGES
 - 46 TOTAL SLEEPING SPACES X 50 GPD = 2300 GPD
 - FUTURE PHASE BUILDING
 - 6 SLEEPING SPACES X 50 GPD = 300 GPD

TOTAL PROPOSED DESIGN FLOW = 4,340 GPD



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Project: **THE 'H' AT MALLETT'S BAY**

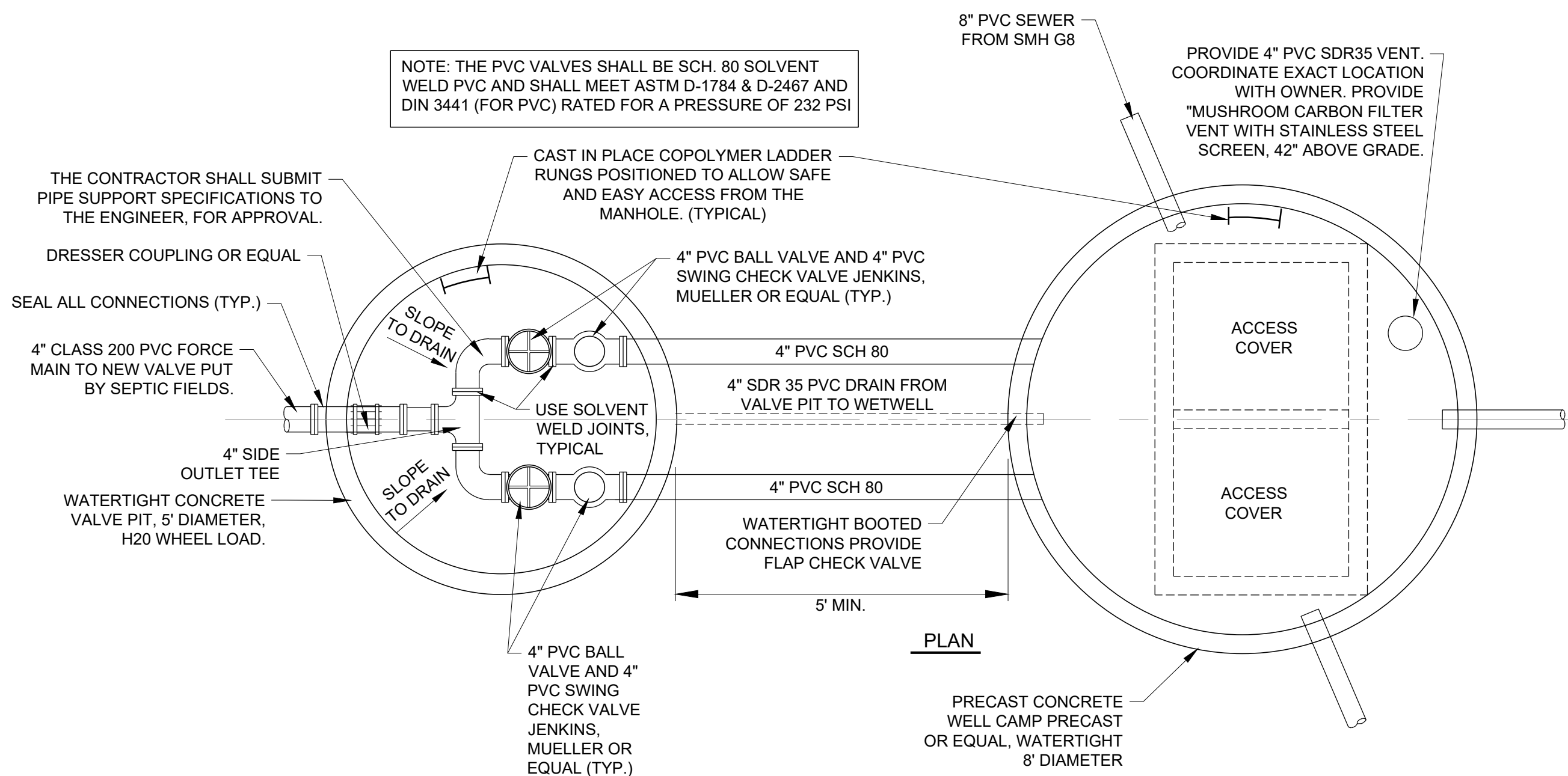
180 & 166 W. Lakeshore Drive Colchester, Vermont

Project No.	23314
Scale	N.T.S.
Drawn by	SWH
Checked by	
Date	03/03/25

Revisions	No.	Date	Description
	10/03/25		Town Final

Drawing Title: **CIVIL DETAILS**

Drawing No.: **CD-4**



SYSTEM CURVE FOR PUMP SELECTION

FLOWRATE (GPM)	VELOCITY (FT/SEC)	STATIC HEAD (FT)	FRICTION LOSS (FT)	MINOR LOSS (FT)	DISCHARGE HEAD (FT)	TOTAL DYNAMIC HEAD (FT)
60	2.38	20.0	1.69	10.0	2.31	34.0
75	2.97	20.0	2.57	10.0	2.31	34.9
90	3.57	20.0	3.61	10.0	2.31	35.9

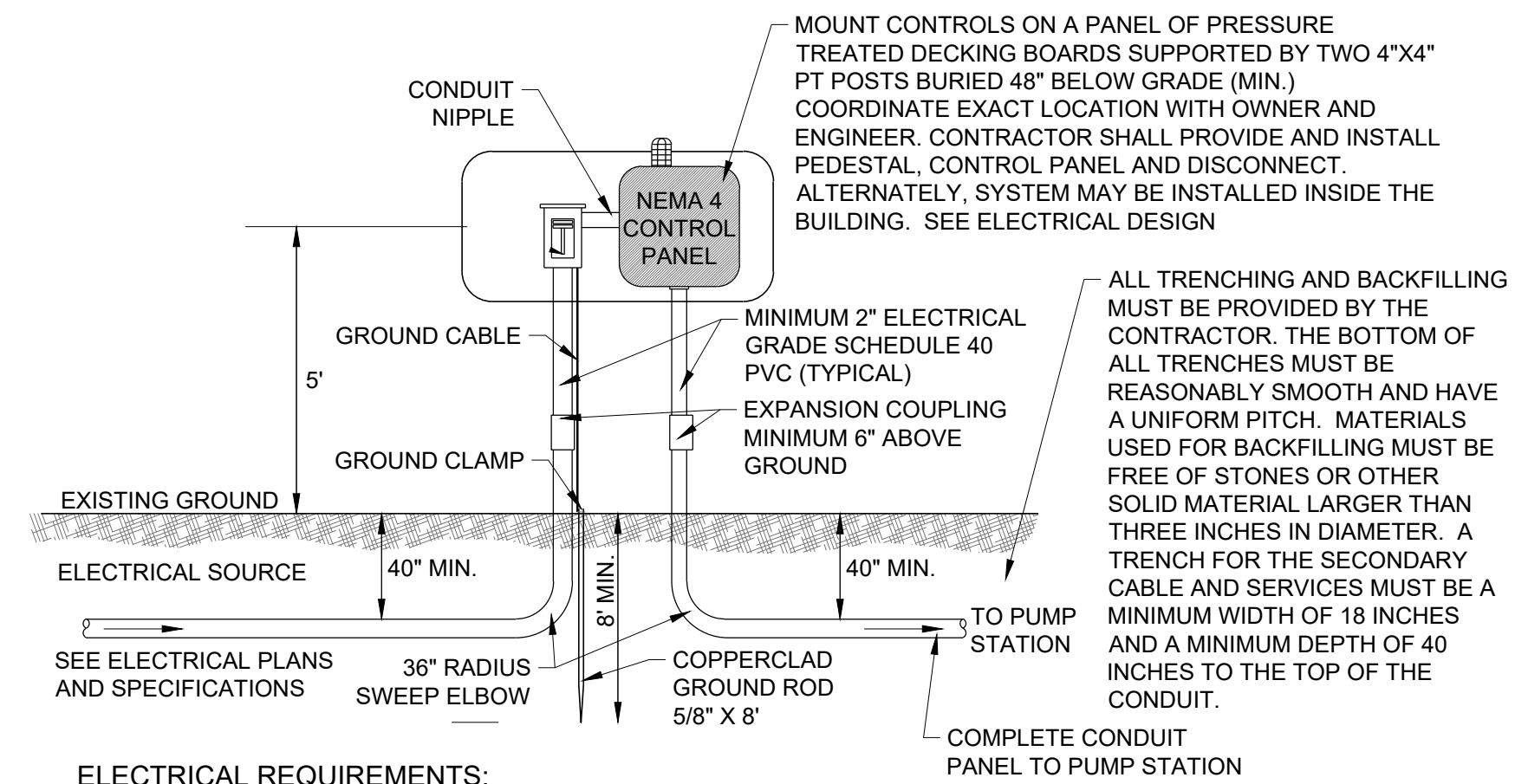
- PUMP SPECIFICATIONS**
- DIAMETER OF FORCE MAIN = 3 INCH
 - LENGTH OF FORCE MAIN = ±260 FEET

STATIC HEAD = 20± FEET
 PRESSURE HEAD TO BE MAINTAINED = 2.3 FEET
 MINOR LOSSES FOR ALL FIXTURES AND FITTINGS = 10.0 FEET

PUMP STATION DESIGN CRITERIA

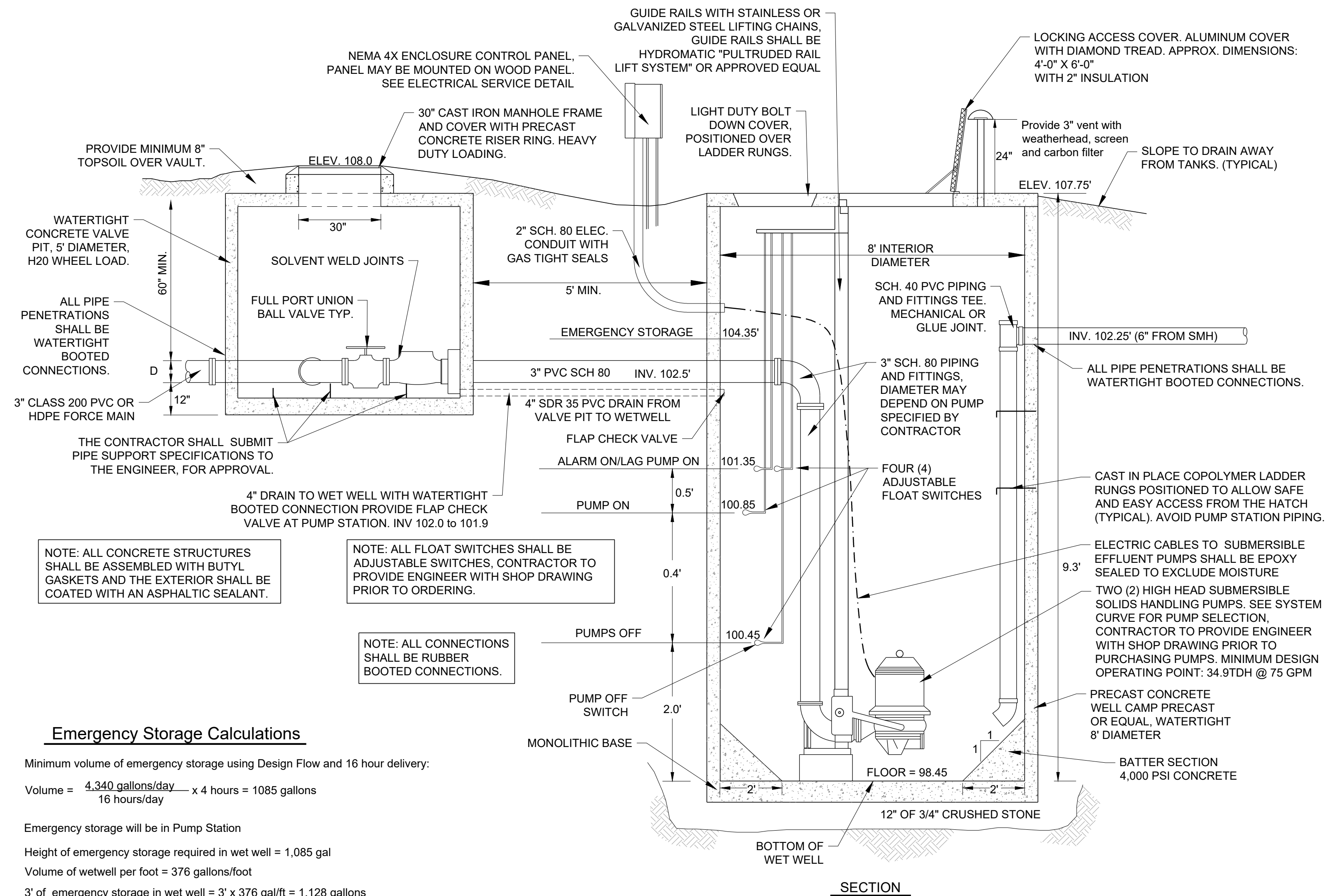
The wastewater disposal system is designed for domestic sanitary waste only for 4,340 gallons per day.
 Design Flow = 4,340 gallons/day
 Use duplex pumps in 8 foot diameter wetwell.
 Volume of wetwell per foot = 376 gallons/foot
 Dose of 32 cycles/day for 30 min. retention time based on 16 hour day
 Volume of minimum dose = 4,340 gallons/32 cycles = 135.6 gallons/cycle
 Height of pump cycle = $\frac{135.6 \text{ gallons/cycle}}{376 \text{ gallons/foot}} = 0.36 \text{ feet/cycle}$
 Provide 0.4 feet/cycle

- CONTROL PANEL REQUIREMENTS:**
- PANELS SHALL BE NEMA 4 (LOCKABLE) AND HOLDING TANK PANELS SHALL BE EXPLOSION PROOF.
 - TANK PANEL SHALL INCLUDE (AT A MINIMUM) THE FOLLOWING EQUIPMENT:
 - FUSED DISCONNECT FOR MAIN POWER FEED
 - INDIVIDUAL CIRCUIT BREAKERS
 - UL508 STAMP AND APPROVAL
 - INTRINSICALLY SAFE RELAYS
 - AUXILIARY CONTACTS TO CONNECT TO SECURITY SYSTEM
 - AUTO DIALER FUNCTION
 - AUDIBLE ALARM AND THREE LIGHTS ON TOP OF CONTROL PANEL
 - YELLOW LIGHT FOR 75% FULL - LIGHT FLASHES ON ELECTRIC PANEL TO INDICATE TANK IS 75% FULL
 - RED LIGHT - AUDIBLE ALARM AND RED LIGHT FLASHES TO INDICATE THE TANK IS FULL.
 - COORDINATE WITH ELECTRICIAN TO VERIFY ELECTRIC SERVICE.
 - CONTROL PANEL AND FLOAT CONTROL ALARM SYSTEM SHALL BE TESTED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE TO DEMONSTRATE THAT ALL EQUIPMENT IS FULLY OPERATIONAL



- ELECTRICAL REQUIREMENTS:**
- ALL MATERIALS AND EQUIPMENT SHALL MEET THE STANDARDS OF THE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION AND UNDERWRITERS LABORATORIES, INC. AND SHALL BEAR THEIR LABEL WHEREVER STANDARDS HAVE BEEN ESTABLISHED AND LABEL SERVICE IS AVAILABLE.
 - INSTALLATION OF ELECTRIC SYSTEMS AND CONTROLS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE, LOCAL ORDINANCES AND REGULATIONS PRESCRIBED BY THE LOCAL POWER COMPANY.
 - ALL ELECTRICAL COMPONENTS FOR THE HOLDING TANK SHALL MEET CLASS I, DIVISION 1, GROUP C & D EXPLOSION PROOF REQUIREMENTS.
 - COMPLETED ELECTRIC WORK PERFORMED SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE UNDERWRITERS LABORATORIES REGULATIONS AND ALL MUNICIPAL, STATE AND OTHER PUBLIC OR PRIVATE AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS. ALL EQUIPMENT AND WORKMANSHIP SHALL BE GUARANTEED TO BE FREE FROM MECHANICAL AND ELECTRICAL DEFECTS FOR A PERIOD OF ONE YEAR FROM THE DAY OF FINAL ACCEPTANCE. ANY REPLACEMENT OF PARTS OR ADJUSTMENTS, INCLUDING LABOR MADE NECESSARY BY SUCH DEFECTS AND ADJUSTMENTS, SHALL BE RECTIFIED WITHOUT COST TO THE OWNER.
 - ALL WIRES SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE AND SHALL BE COLOR-CODED AS INDICATED ON THE WIRING DIAGRAM. ALL WIRING OUTSIDE THE PANEL SHALL BE IN CONDUIT, ALL CONDUIT FOR HOLDING TANKS SHALL MEET CLASS 1, DIVISION 1, GROUP C & D EXPLOSION PROOF REQUIREMENTS.

ELECTRIC SERVICE DETAIL FOR NEW PUMP STATION
 N.T.S.



NOTE: ALL CONCRETE STRUCTURES SHALL BE ASSEMBLED WITH BUTYL GASKETS AND THE EXTERIOR SHALL BE COATED WITH AN ASPHALTIC SEALANT.

NOTE: ALL FLOAT SWITCHES SHALL BE ADJUSTABLE SWITCHES, CONTRACTOR TO PROVIDE ENGINEER WITH SHOP DRAWING PRIOR TO ORDERING.

NOTE: ALL CONNECTIONS SHALL BE RUBBER BOOTED CONNECTIONS.

Emergency Storage Calculations

Minimum volume of emergency storage using Design Flow and 16 hour delivery:
 $\text{Volume} = \frac{4,340 \text{ gallons/day}}{16 \text{ hours/day}} \times 4 \text{ hours} = 1,085 \text{ gallons}$
 Emergency storage will be in Pump Station
 Height of emergency storage required in wet well = 1,085 gal
 Volume of wetwell per foot = 376 gallons/foot
 3' of emergency storage in wet well = $3' \times 376 \text{ gal/ft} = 1,128 \text{ gallons}$
 Total Emergency Storage Provided = 1,128gal

NOTES

- THE STRUCTURE IS TO BE A PACKAGE PUMP STATION W/ EXTERIOR VALVE VAULT. PLANS FOR THE PUMP STATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- THE SUBMERSIBLE PUMPS SHALL BE ASSEMBLED AND TESTED AT THE FACTORY.
- THE CONTRACTOR SHALL PROVIDE THE DESIGN FOR FLOATION PREVENTION, APPROVED BY THE ENGINEER, PRIOR TO CONSTRUCTION.
- THE STATION SHALL INCLUDE ALL NECESSARY CONTROLS, ALARMS, SWITCHES, FITTINGS, POWER SERVICE, AND SUPPLY ALL APPURTENANCES NECESSARY TO MAKE THE STATION COMPLETE AND OPERABLE.
- ALL ELECTRICAL EQUIPMENT SHALL COMPLY WITH LOCAL AND NATIONAL ELECTRICAL CODE REQUIREMENTS.
- ANY MODIFICATIONS TO PUMP STATION DESIGN OR LOCATION MUST BE APPROVED BY THE ENGINEER AND OTHER PERMITTING AUTHORITIES.
- THE CONTRACTOR SHALL USE SCHEDULE 80 PVC WITH SOLVENT WELD JOINTS FOR ALL PIPING INSIDE PUMP STATION AND VALVE PIT. ALL PENETRATIONS AND JOINTS SHALL HAVE WATERTIGHT SEALS.

PUMP STATION TESTING NOTES

- THE CONTRACTOR SHALL TEST BOTH THE PUMP STATION WETWELL AND THE VALVE PIT FOR WATERTIGHTNESS PRIOR TO BACKFILL. THE WATERTIGHTNESS TEST SHALL CONFORM TO THE ENVIRONMENTAL PROTECTION RULES, CHAPTER 1, WASTEWATER SYSTEM AND POTABLE WATER SUPPLY (CURRENT EDITION) SECTION 1-1010. THIS TEST SHALL BE WITNESSED BY THE ENGINEER AND SHALL BE PERFORMED AS FOLLOWS:
- AFTER THE STRUCTURE HAS BEEN ASSEMBLED IN PLACE, ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR. ALL PIPES AND OTHER OPENINGS INTO THE STRUCTURE SHALL BE SUITABLY PLUGGED AND THE PLUGS PLACED TO PREVENT BLOWOUT.
 - 1-1010(b) When required to be tested for watertightness by a permit, tanks shall be tested using the ASTM for testing of tanks or the following:
 - For concrete tanks, complete one of the following tests:
 - Using a water pressure test, seal the tank and risers, fill with water to the top of the risers, and let stand for 24 hours. Refill the tank. The tank is considered watertight if the water level is held for 1 hour.
 - Using a vacuum test, seal the empty tank and risers and apply a vacuum to 2 inches (50 mm) of mercury. The tank is considered watertight if 90 percent of the vacuum is held for 2 minutes.
 - IF THE STRUCTURE FAILS THE TEST IT SHALL BE THOROUGHLY CLEANED AND RESEALED, FROM THE OUTSIDE, AND RETESTED AT THE CONTRACTORS EXPENSE.

PUMP STATION MAINTENANCE NOTES

- AT LEAST ONCE A YEAR THE PUMP STATION AND TANKS SHOULD BE OPENED AND SETTLED SOLIDS REMOVED AS NECESSARY AND CHECKED FOR LEVELNESS. THOROUGHLY CLEAN ANY COMPONENTS WITH SOLIDS BUILDUP AND CHECK FOR SOURCE OF SOLIDS.
- TOXIC OR HAZARDOUS MATERIALS SHOULD, IN GENERAL, NOT BE DISPOSED OF IN SEPTIC SYSTEMS. THESE SUBSTANCES MAY PASS THROUGH THE SYSTEM IN AN UNALTERED STATE AND CONTAMINATE GROUNDWATER OR REMAIN IN THE SEPTAGE AND SUBSEQUENTLY CONTAMINATE THE SOIL.
- A CONTINUOUS LOG OF INSPECTIONS AND OBSERVATIONS SHALL BE KEPT. THE LOG SHALL NOTE ALL CLEANING AND OTHER REQUIRED MAINTENANCE.

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Project: **THE 'H' AT MALLETT'S BAY**
 180 & 166 W. Lakeshore Drive Colchester, Vermont

Project No. 23314
 Scale N.T.S.
 Drawn by SWH
 Checked by
 Date 03/03/25

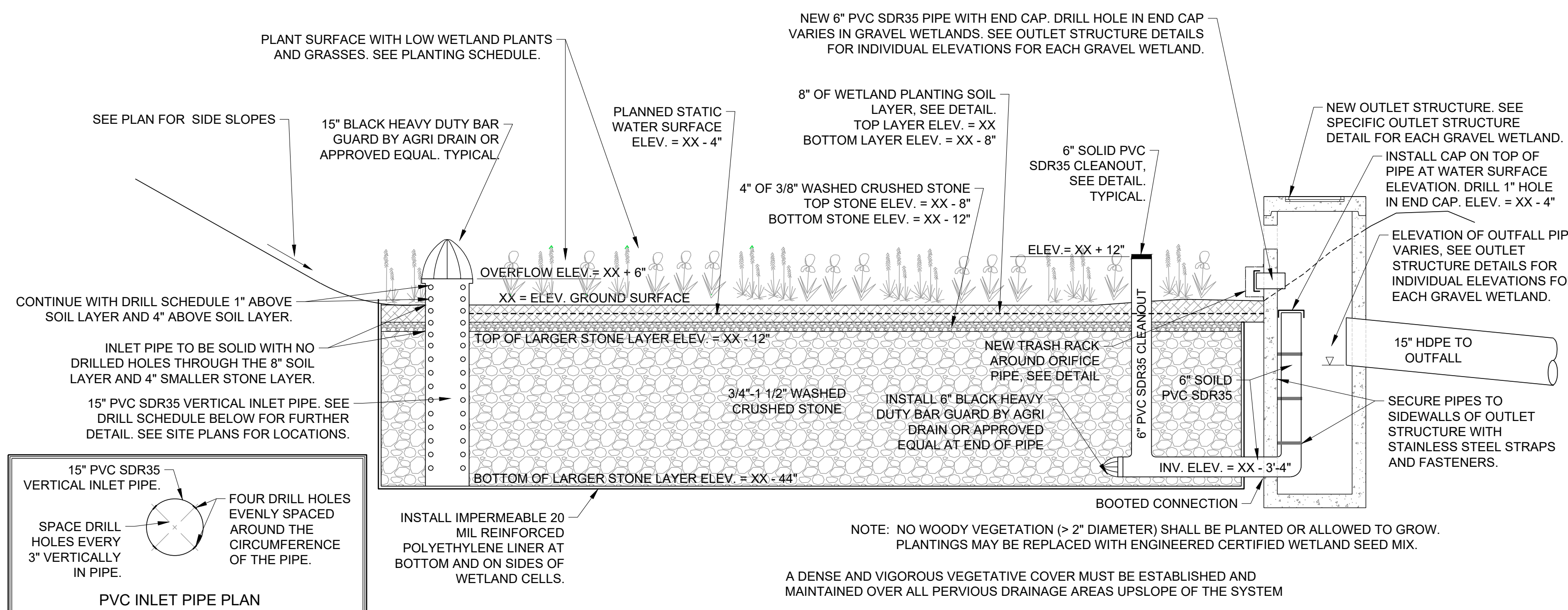
Revisions

No.	Date	Description
	10/03/25	Town Final

Drawing Title
CIVIL DETAILS

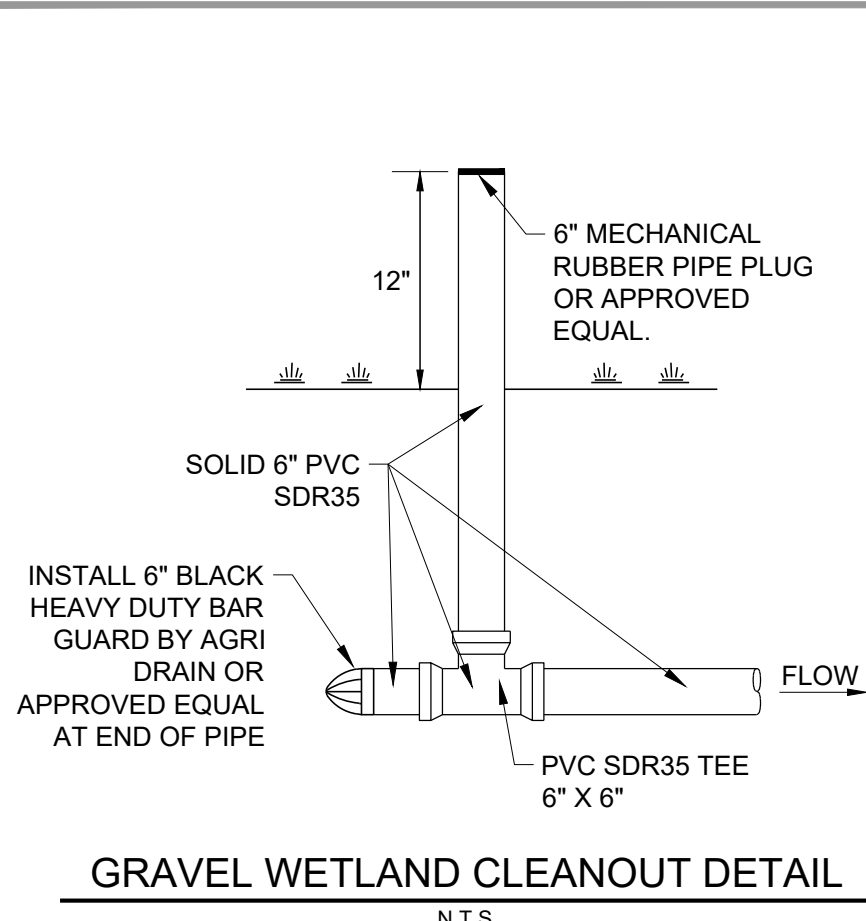
Drawing No.

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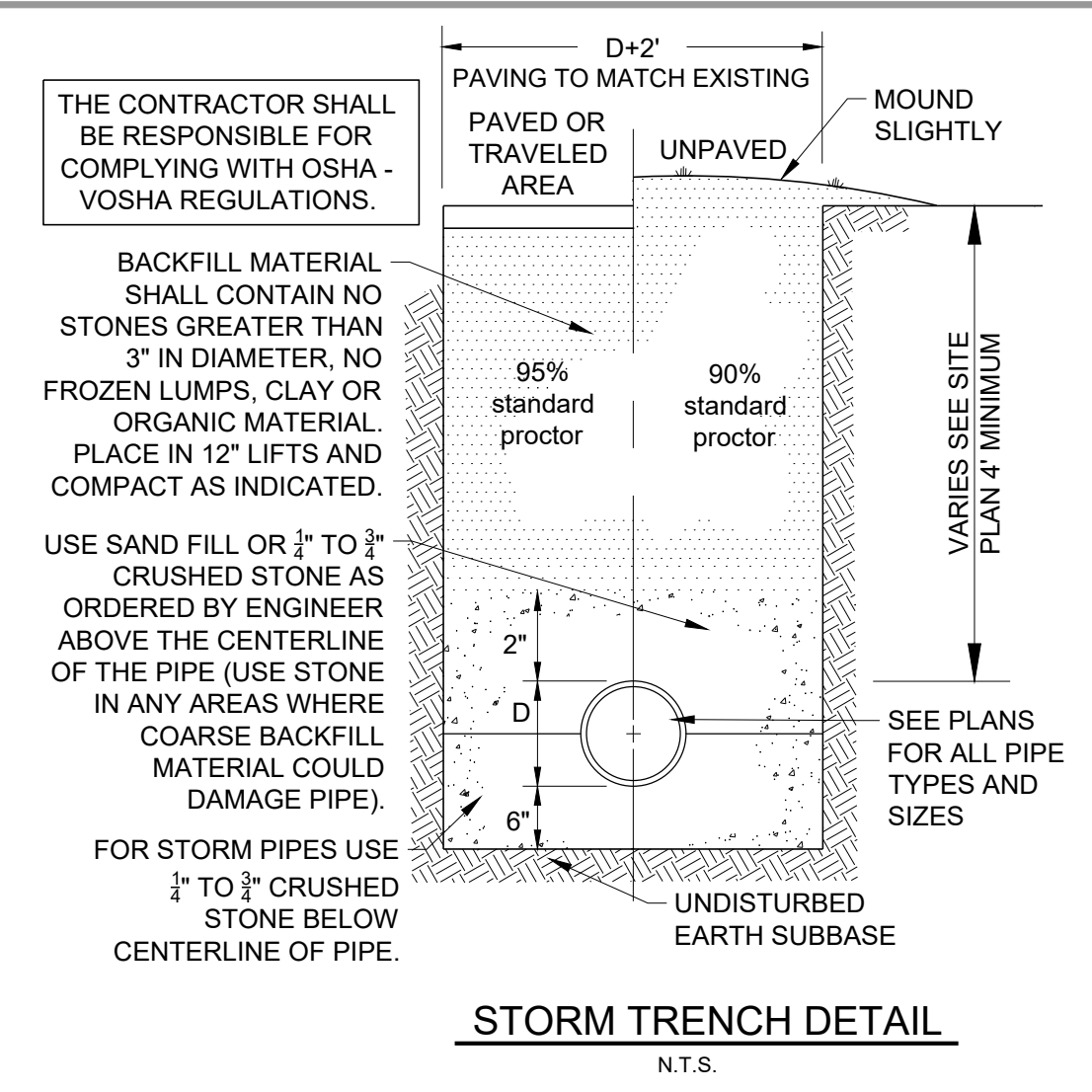


GRAVEL WETLAND DETAIL
N.T.S.

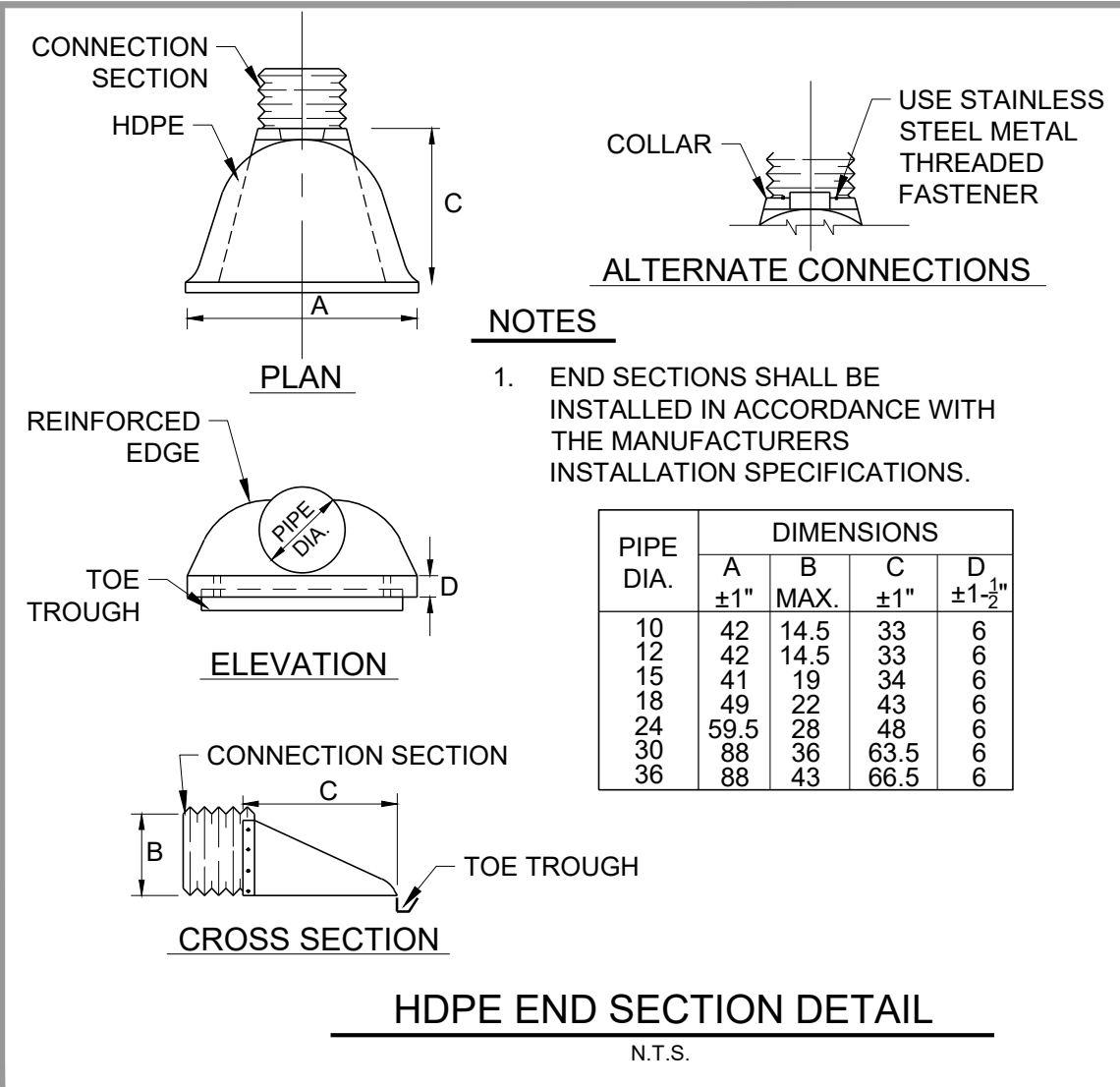
Gravel Wetland Elevation Schedule					
Gravel Wetland	Bottom of Pond & Top of Wetland Cell Elev. (ft) (ELEV. XX in Detail)	Planned Static Water Elev. (ft)	Top Smaller Stone Elev. (ft)	Transition from Small to Large Stone Elev. (ft)	Bottom of Stone & Bottom of Gravel Cell Elev. (ft)
1	126.00	125.67	125.33	125.00	122.33



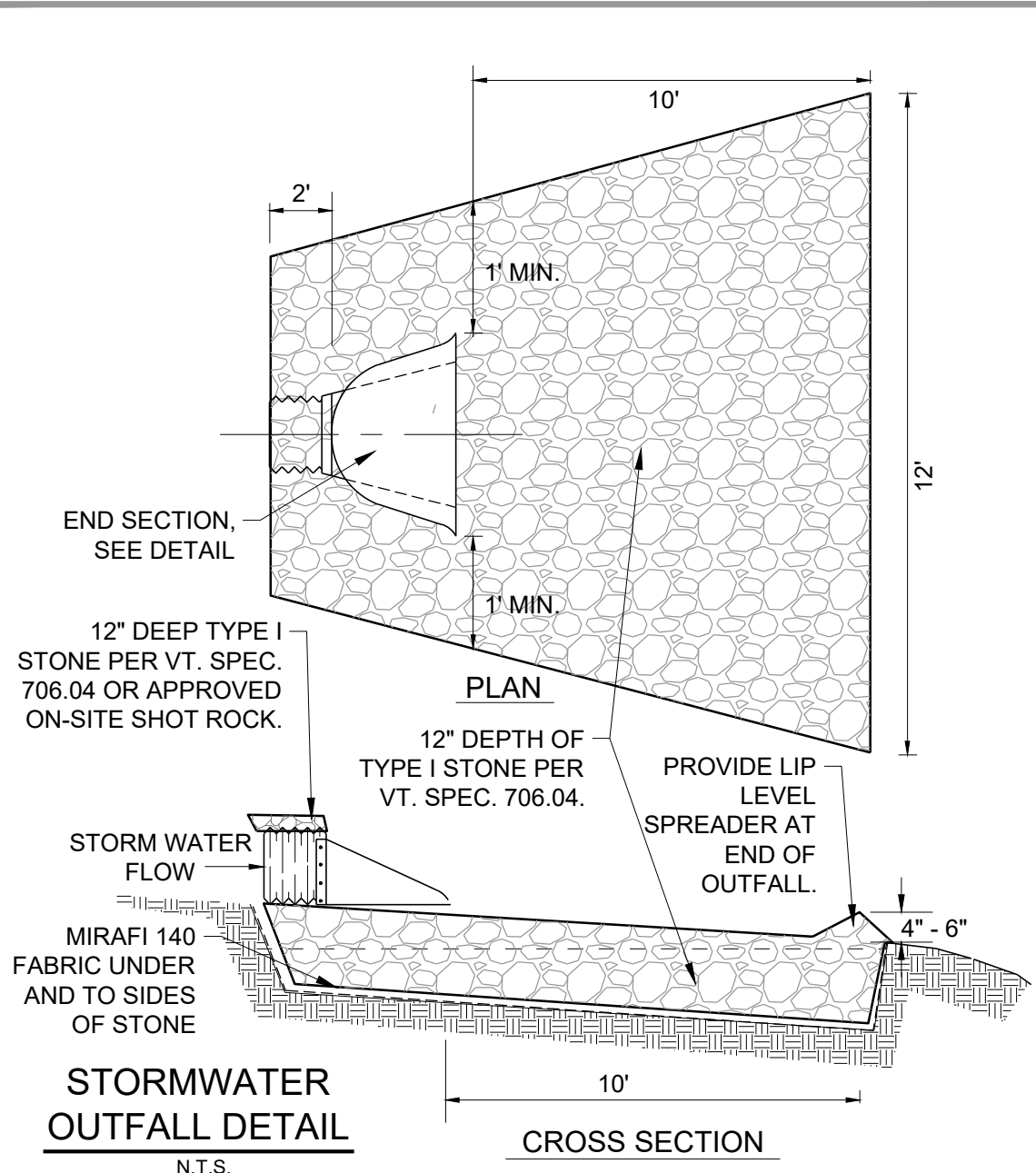
GRAVEL WETLAND CLEANOUT DETAIL
N.T.S.



STORM TRENCH DETAIL
N.T.S.



HDPE END SECTION DETAIL
N.T.S.



STORMWATER OUTFALL DETAIL
N.T.S.

GRAVEL WETLAND PLANTING SOIL CHARACTERISTICS

PARAMETER	VALUE
PH RANGE	6.0 to 7.0
SOIL (LOW HYDRAULIC CONDUCTIVITY (0.1-0.01 FT/DAY) WITH SOIL TEXTURE CONFORMING TO HYDROLOGIC SOIL GROUP D)	
SIEVE SIZE	PERCENT PASSING BY WEIGHT
NO. 16	100%
NO. 40	85-100%
NO. 60	40-60%
NO. 200	5-10%

GRAVEL WETLAND SOIL SHALL CONFORM TO THE "BIORETENTION AND GRAVEL WETLAND SOIL MEDIA TESTING GUIDANCE" DOCUMENT PREPARED BY THE UNIVERSITY OF VERMONT, SEA GRANT LAKE CHAMPLAIN, AND WATERSHED CONSULTING

THE GRAVEL WETLAND SOIL SHALL BE TESTED IN ACCORDANCE WITH THE PHOSPHORUS TESTING PROCEDURE BELOW. PHOSPHORUS TESTING IS REQUIRED FOR THE UPPER MEDIA LAYER OF THE GRAVEL WETLAND SOIL. FINAL MIXES MUST HAVE A PHOSPHORUS SATURATION RATIO (PSR) LESS THAN OR EQUAL TO 0.10 AND SHALL BE TESTED IN ACCORDANCE WITH THE FOLLOWING PROTOCOL:

- SAMPLES ARE TO BE AIR DRIED AND SIEVED THROUGH 2MM PRIOR TO TESTING.
- AIR-DRIED, SIEVED SOIL SAMPLES ARE TO THEN BE EXTRACTED WITH THE MEHLICH-3 SOLUTION (0.2 M CH₃COOH + 0.25 M NH₄NO₃ + 0.015 M HNO₃ + 0.001 M EDTA) BY SHAKING A SOIL-SOLUTION SUSPENSION FOR 5 MINUTES AT A 1:10 RATIO (SOIL MASS IN GRAMS: SOLUTION VOLUME IN ML), FOLLOWED BY FILTERING TO REMOVE PARTICLES (PORE SIZE OF 2 UM IS RECOMMENDED, MAX PORE SIZE = 8 UM).
- EXTRACTS FROM THE MEHLICH-3 PROCEDURE ARE TO BE ANALYZED FOR P, FE, AND AL BY ICP-OES.
- THE PHOSPHORUS SATURATION RATIO (PSR) IS CALCULATED AS FOLLOWS:

$$PSR = \frac{\left(\frac{P_{M3}}{31}\right)}{\left(\frac{Fe_{M3}}{56}\right) + \left(\frac{Al_{M3}}{27}\right)}$$

WHERE,

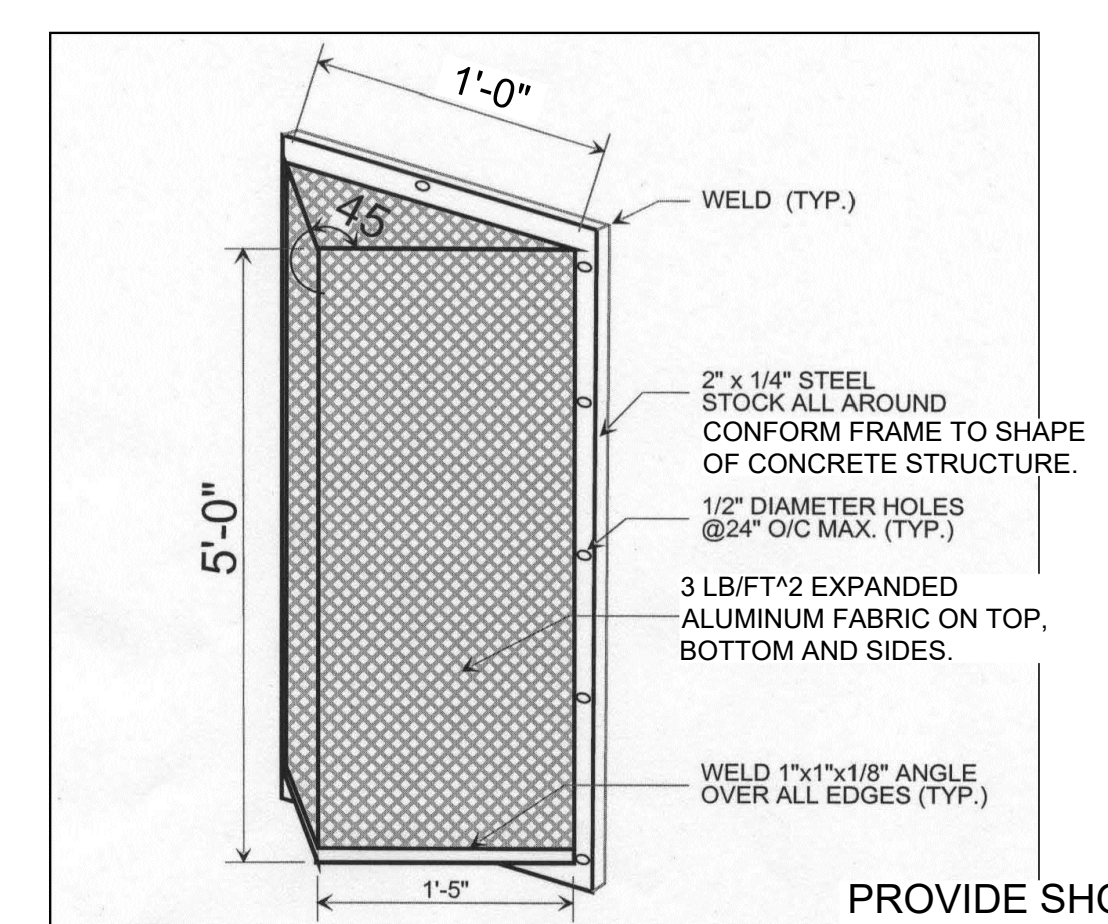
- P_{M3} = MEHLICH-3 P IN MG P PER KG DRY SOIL
- Fe_{M3} = MEHLICH-3 FE IN MG FE PER KG DRY SOIL
- Al_{M3} = MEHLICH-3 AL IN MG AL PER KG DRY SOIL

MEHLICH-3 EXTRACTIONS FOLLOW THE ABOVE PROTOCOL. OTHER SOIL EXTRACTIONS, OR EXTRACTIONS USED TO QUANTIFY TOTAL ELEMENTS, ARE NOT ACCEPTABLE FOR THIS REQUIREMENT.

IN CASES WHERE INGREDIENT MIXING HAS NOT YET OCCURRED, INGREDIENTS CAN BE MIXED AT THE INTENDED VOLUMETRIC PROPORTIONS IN A SMALL BATCH (AT LEAST ONE QUART IN VOLUME) FOR TESTING PURPOSES. IF THIS SMALL BATCH TESTING APPROACH IS TAKEN, THE FINAL MATERIAL TO BE USED DURING INSTALLATION MUST BE RETESTED TO CONFIRM ACCEPTABLE PSR.

SOIL SAMPLES FOR P, FE, AND AL ANALYSIS VIA MEHLICH-3 EXTRACTION CAN BE SUBMITTED TO THE AGRICULTURAL AND ENVIRONMENTAL TESTING LABORATORY (AETL) LOCATED AT UVM. PLAN TO ALLOW 3-4 WEEKS FOR ANALYSIS.

HOW TO TAKE A SOIL SAMPLE [GO.UVM.EDU/SOIL-SAMPLING]
SUBMITTING A SOIL SAMPLE [GO.UVM.EDU/UVM-SOIL-LAB]



NOTES FOR TRASH RACK

- TRASH RACK TO BE CENTERED OVER OPENING.
- STEEL TO CONFORM TO ASTM A-36.
- ALL SURFACES TO BE COATED WITH ZRC COLD GALVANIZING COMPOUND AFTER WELDING.
- TRASH RACK TO BE FASTENED TO THE WALL WITH 1/2" MASONRY ANCHORS. TRASH RACK TO BE REMOVABLE.

Figure D.1. Trash Rack Protection for Low Flow Orifice

TRASH RACK DETAIL
N.T.S.

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Project: **THE 'H' AT MALLETT'S BAY**

180 & 166 W. Lakeshore Drive Colchester, Vermont

Project No. 23314
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Date 02/14/25

Revisions		
No.	Date	Description

Drawing Title
CIVIL DETAILS

Drawing No.

CD-6

STORMWATER MAINTANCE NOTES

- A. **GRASS-LINED SWALE:** LOCATED ALONG ALL DRIVEWAYS.
 1. INSPECT REGULARLY FOR ACCUMULATION OF SEDIMENT OR DEBRIS, PARTICULARLY AFTER LARGE STORM EVENTS.
 2. INSPECT AND REPAIR ANY EROSION AND RE-SEED BARE SPOTS AS NEEDED.
 3. REMOVE SEDIMENT AND RESHAPE SWALE WHEN 6 INCHES OF SEDIMENT HAS ACCUMULATED.
- B. **GRAVEL WETLANDS:**
 1. INSPECT FOR PROLONGED STANDING WATER AFTER RAIN EVENTS. INSPECT GRATES AND OBSERVATION PORTS.
 2. INSPECT FOR EROSION, ACCUMULATED SEDIMENT, AND ENSURE PLANTS ARE HEALTHY. REMOVE SEDIMENT AND REPLACE PLANTS AS NECESSARY.
 3. INSPECT OUTLET STRUCTURE TO ENSURE GOOD REPAIR AND NO CLOGGING.
- E. **STONE SPLASH PADS/WEIRS:** LOCATED AT POND PIPE OUTLETS AND FOREBAY OVERFLOWS INTO GRAVEL WETLANDS.
 1. INSPECT REGULARLY FOR SIGNS OF EROSION OR DISPLACEMENT OF STONE. REPAIR AS NEEDED.
 2. INSPECT FOR DEBRIS/TRASH ACCUMULATION AND REMOVE AS NEEDED.
 3. MONITOR FOR EVIDENCE OF CONCENTRATED FLOW CHANNELS OR EROSION AT OUTLET. LEVEL STONE IF NEEDED TO RESTORE EVEN FLOW DISTRIBUTION.

POST-CONSTRUCTION SOIL DEPTH AND QUALITY NOTES

SOIL RETENTION: RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE.

SOIL QUALITY: ALL AREAS SUBJECT TO THE STANDARD SHALL DEMONSTRATE THE FOLLOWING:

A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 4% DRY WEIGHT IN PLANTING BEDS AND TURF AREAS. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF 4 INCHES, EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA.

- COMPOST AND OTHER MATERIALS SHALL BE USED THAT MEET THE FOLLOWING REQUIREMENTS:
- THE COMPOST OR OTHER MATERIALS SHALL HAVE A CARBON TO NITROGEN RATIO BELOW 25:1.
 - COMPOST SHALL MEET THE DEFINITION OF "COMPOST" IN THE AGENCY'S SOLID WASTE MANAGEMENT RULES OR SHALL MEET THE CONTAMINANT STANDARDS IN THE VERMONT SOLID WASTE MANAGEMENT RULES §6-1104(G)(6-7), §6-1105(E)(6-9), AND §6-1106(E)(7-9). COMPOST OR OTHER ORGANIC MATERIALS MAY BE AMENDED TO MEET THE FOREGOING REQUIREMENTS.
 - EXCEPTIONAL QUALITY BIOSOLIDS (EO BIOSOLIDS) MAY BE USED AS A SOIL AMENDMENT, AT A MAXIMUM PROPORTION OF 35% OF THE TOTAL SOIL VOLUME, AND SHALL BE WELL MIXED WITH EXISTING SOIL BEFORE OR DURING APPLICATION.
 - THE RESULTING SOIL SHALL BE CONDUCIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

THE SOIL QUALITY REQUIREMENTS SHALL BE MET BY USING ONE OR A COMBINATION OF THE FOLLOWING METHODS:

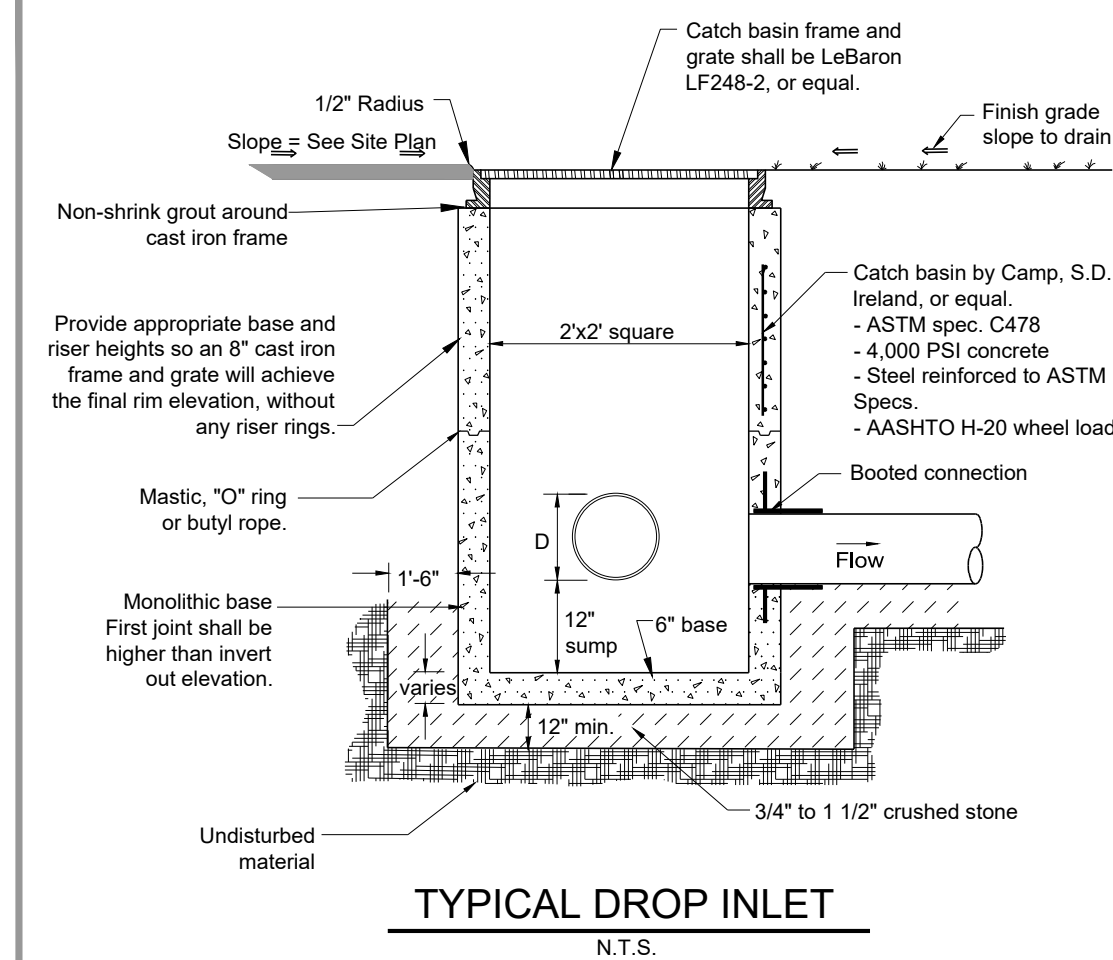
- OPTION 1: LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION. FAILURE TO ESTABLISH AND MAINTAIN EXCLUSIONARY CONTROLS AROUND THESE AREAS DURING THE CONSTRUCTION PHASE MAY TRIGGER THE REQUIREMENT TO RESTORE SOILS PER ONE OF THE FOLLOWING OPTIONS.
- OPTION 2: AMEND EXISTING SITE TOPSOIL OR SUBSOIL IN PLACE.
 - a. SCARIFY OR TILL SUBSOILS TO 4 INCHES OF DEPTH OR TO DEPTH NEEDED TO ACHIEVE A TOTAL DEPTH OF 8 INCHES OF UNCOMPACTED SOIL AFTER CALCULATED AMOUNT OF AMENDMENT IS ADDED. EXCEPT FOR WITHIN THE DRIP LINE OF EXISTING TREES, THE ENTIRE SURFACE SHALL BE DISTURBED BY SCARIFICATION;
 - b. AMEND SOIL TO MEET ORGANIC CONTENT REQUIREMENTS:
 1. PRE-APPROVED RATE: PLACE 1 INCH OF COMPOSTED MATERIAL WITH AN ORGANIC MATTER CONTENT BETWEEN 40 AND 65% AND ROTOTILL INTO 3 INCHES OF SOIL, OR
 2. CALCULATED RATE: PLACE CALCULATED AMOUNT OF COMPOSTED MATERIAL OR APPROVED ORGANIC MATERIAL AND ROTOTILL INTO DEPTH OF SOIL NEEDED TO ACHIEVE 4 INCHES OF SETTLED SOIL AT 4% ORGANIC CONTENT. *CONTRACTOR TO PROVIDE CALCULATION AND SITE SKETCH INDICATING AREAS USED FOR CALCULATIONS.
 - c. RAKE BEDS TO SMOOTH AND REMOVE SURFACE ROCKS LARGER THAN 2 INCHES IN DIAMETER, AND
 - d. WATER OR ROLL TO COMPACT SOIL IN TURF AREAS TO 85% OF MAXIMUM DRY DENSITY.
- OPTION 3: REMOVE AND STOCKPILE EXISTING TOPSOIL DURING GRADING.
 - a. STOCKPILE SOIL ON SITE IN A DESIGNATED CONTROLLED AREA, AT LEAST 50 FEET FROM SURFACE WATERS, WETLANDS, FLOODPLAINS, OR OTHER CRITICAL RESOURCE AREAS;
 - b. SCARIFY OR TILL SUBGRADE TO A DEPTH OF 4 INCHES. EXCEPT FOR WITHIN THE DRIP LINE OF EXISTING TREES, THE ENTIRE SURFACE SHALL BE DISTURBED BY SCARIFICATION;
 - c. STOCKPILED TOPSOIL SHALL ALSO BE AMENDED, IF NEEDED, TO MEET THE ORGANIC CONTENT REQUIREMENTS:
 1. PRE-APPROVED RATE: COMPOST SHALL BE INCORPORATED WITH AN ORGANIC MATTER CONTENT BETWEEN 40 AND 65% INTO THE TOPSOIL AT A RATIO 1:3, OR
 2. CALCULATED RATE: INCORPORATE COMPOSTED MATERIAL OR APPROVED ORGANIC MATERIAL AT A CALCULATED RATE TO ACHIEVE 4 INCHES OF SETTLED SOIL AT 4% ORGANIC CONTENT.*
 - d. REPLACE STOCKPILED TOPSOIL PRIOR TO PLANTING, SCREEN TOPSOIL, AND;
 - e. RAKE TO LEVEL, AND REMOVE SURFACE ROCKS LARGER THAN 2 INCHES IN DIAMETER.
 - f. OPTION 4: IMPORT TOPSOIL MIX, OR OTHER MATERIALS FOR MIXING, INCLUDING COMPOST, OF SUFFICIENT ORGANIC CONTENT AND DEPTH.
 - g. SCARIFY OR TILL SUBGRADE TO A DEPTH OF 4 INCHES. EXCEPT FOR WITHIN THE DRIP LINE OF EXISTING TREES, THE ENTIRE SURFACE SHALL BE DISTURBED BY SCARIFICATION;
 - h. PLACE 4 INCHES OF IMPORTED TOPSOIL MIX ON SURFACE. THE IMPORTED TOPSOIL MIX SHALL CONTAIN 4% ORGANIC MATTER. SOILS USED IN THE MIX SHALL BE SAND OR SANDY LOAM AS DEFINED BY THE USDA; SHOP DRAWING SUBMITTAL IS REQUIRED. FIND USDA SIEVE FOR SAND AND SANDY LOAM.
 - i. RAKE BEDS TO SMOOTH AND REMOVE SURFACE ROCKS LARGER THAN 2 INCHES IN DIAMETER;
 - j. WATER OR ROLL TO COMPACT SOIL IN TURF AREAS TO 85% OF MAXIMUM DRY DENSITY.

SOIL MANAGEMENT

- IDENTIFIES AREAS ON THE SITE SUBJECT TO THE STANDARD;
- SOIL DEPTH AND QUALITY SHALL BE ESTABLISHED TOWARDS THE END OF CONSTRUCTION AND ONCE ESTABLISHED, PROTECTED FROM COMPACTION, SUCH AS FROM LARGE MACHINERY, VEHICLE TRAFFIC, AND FROM EROSION;
- AFTER SOIL AMENDMENTS AND PLACEMENT IS COMPLETE, AND PRIOR TO SEEDING AND MULCHING, CONTRACTOR SHALL PERFORM VERIFICATION SAMPLING IN LOCATIONS INDICATED ON SAMPLING PLAN. VERIFICATION SAMPLING SHALL INCLUDE NINE, 8 INCH DEEP (MIN) TEST HOLES PER ACRE OF AREA SUBJECT TO THE STANDARD. TEST HOLES SHALL BE EXCAVATED USING ONLY A SHOVEL DRIVEN SOLELY BY INSPECTOR'S WEIGHT AND SHALL BE AT LEAST 50 FEET APART FROM EACH OTHER.
- A DENSE AND VIGOROUS VEGETATIVE COVER SHALL BE ESTABLISHED OVER TURF AREAS.

ADDITIONAL SOILS RESTORATION

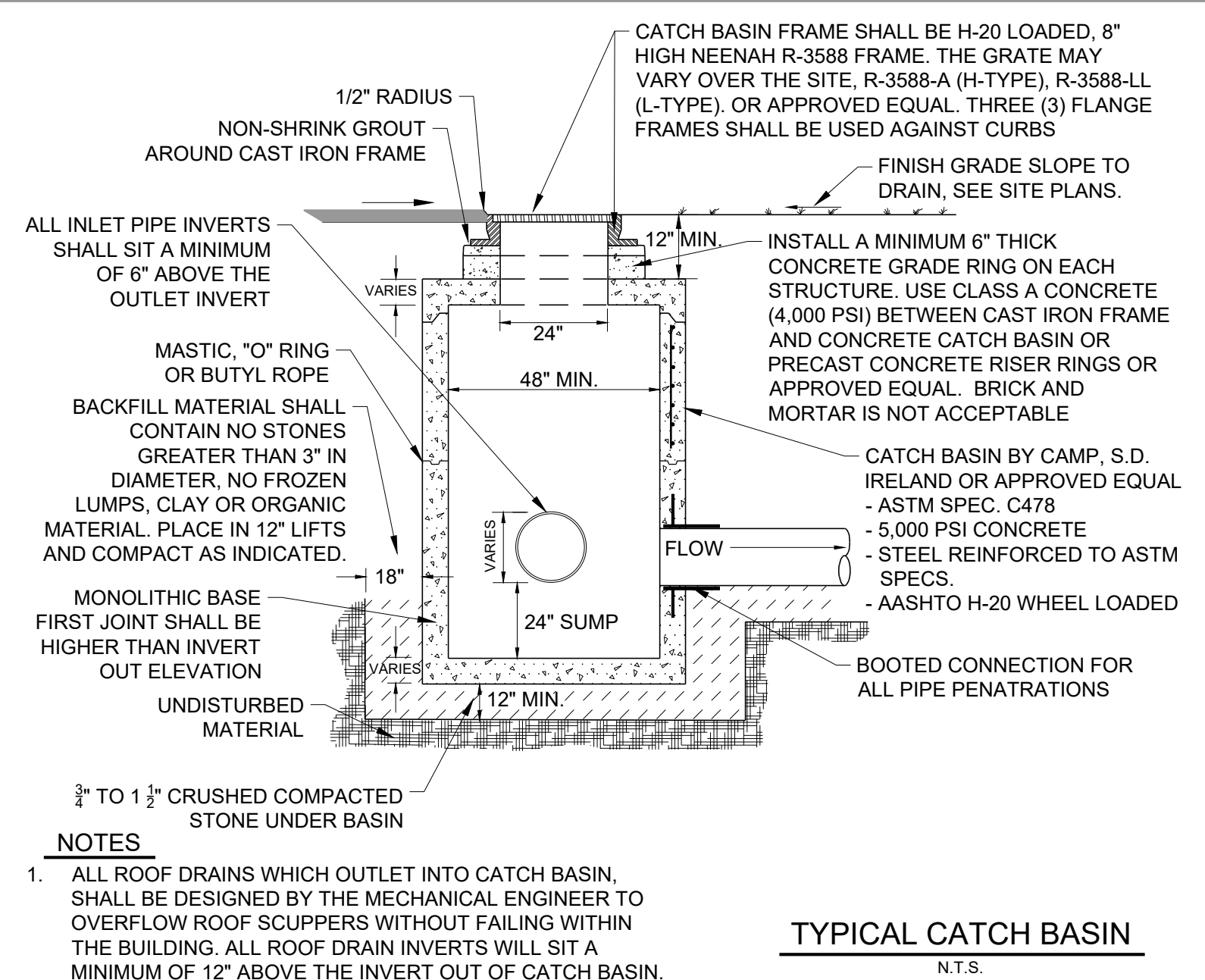
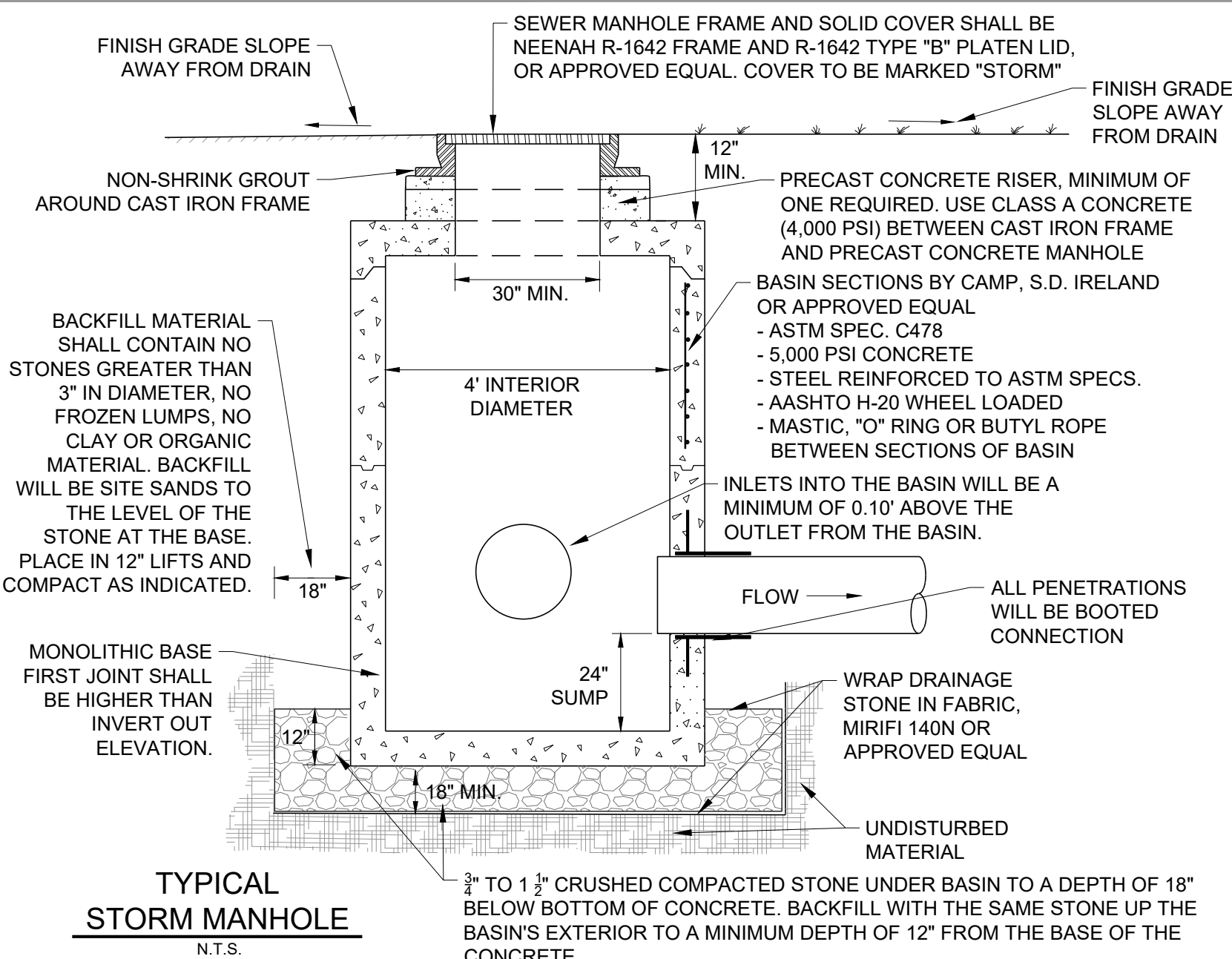
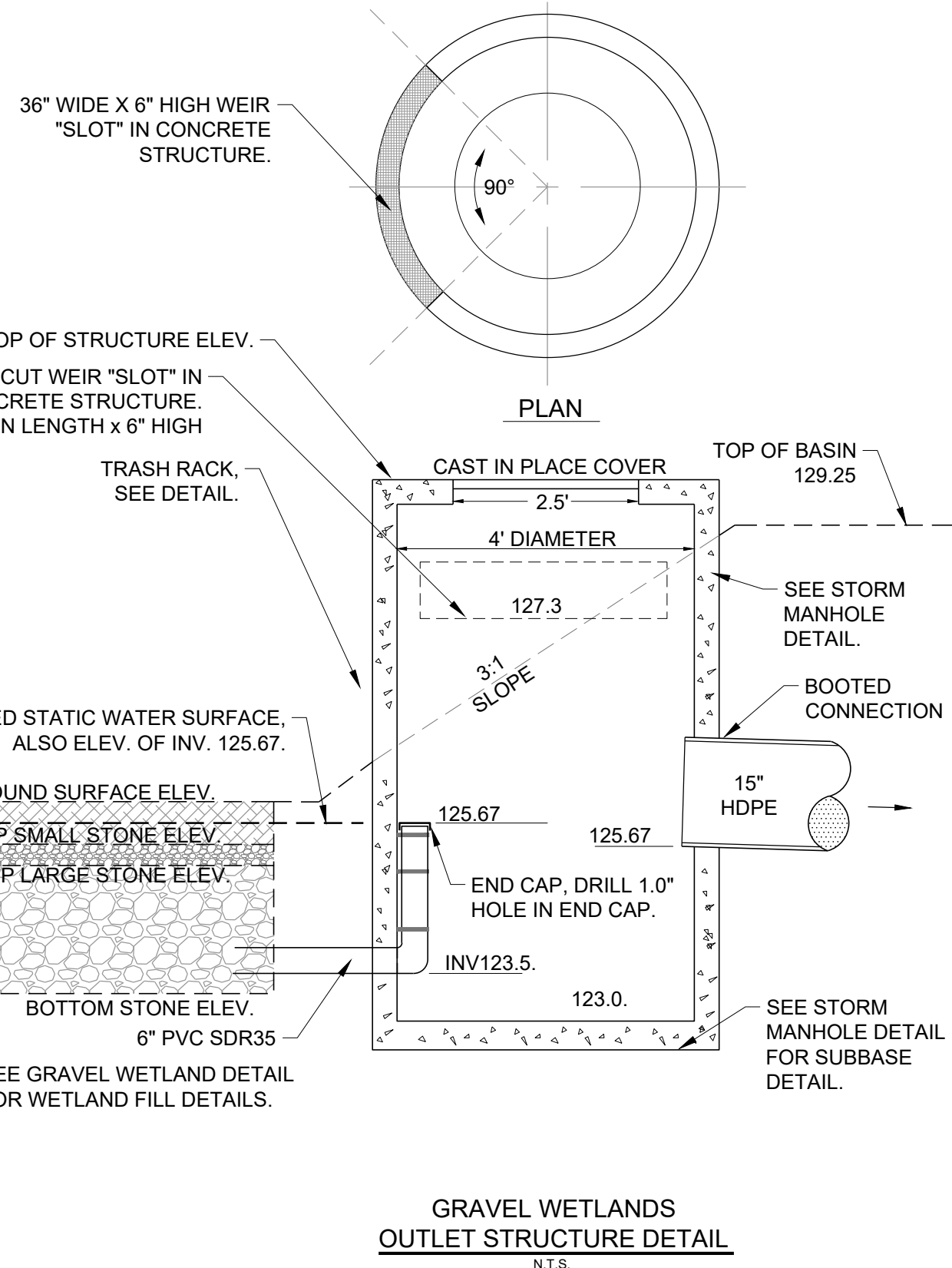
1. SOIL DEPTH AND QUALITY SHALL BE ESTABLISHED TOWARDS THE END OF CONSTRUCTION, AND ONCE ESTABLISHED, BE PROTECTED FROM COMPACTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE POST CONSTRUCTION SOIL DEPTH AND QUALITY.
3. VERIFICATION SHALL BE VIA A SAMPLING SCHEME THAT INCLUDES NINE 8" DEEP TEST HOLES PER ACRE OF AREA SUBJECT TO THE STANDARD.
4. TEST HOLES SHALL BE EXCAVATED USING ONLY A SHOVEL DRIVEN SOLELY BY THE INSPECTOR'S WEIGHT AND SHALL BE AT LEAST 50 FEET APART FROM EACH OTHER.
5. ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS (LOD) ARE SUBJECT TO THE POST-CONSTRUCTION SOIL DEPTH AND QUALITY STANDARD
6. THERE IS NO PROPOSED EXCAVATION OR RE-GRADING ANTICIPATED WITHIN THE SOLAR ARRAY BEYOND WHAT IS NECESSARY FOR SETTING POSTS AND INSTALLING CONDUIT. IT IS ANTICIPATED THAT SOME GROUND DISTURBANCE WILL OCCUR WITHIN THE ARRAY FROM FREQUENT TRACKING OF EQUIPMENT. THE CONTRACTOR AND ENGINEER SHALL EVALUATE GROUND DISTURBANCE WITHIN THE SOLAR ARRAY AND EITHER:
 - CONFIRM THAT SOILS HAVE NOT BEEN EXCESSIVELY COMPACTED VIA TEST PITS AND PHOTO DOCUMENTATION
 - IMPLEMENT THE MEASURES OUTLINED IN THE "POST CONSTRUCTION SOIL DEPTH & QUALITY STANDARD" IF EXCESSIVE COMPACTION HAS OCCURRED.



EARTH EMBANKMENT CONSTRUCTION NOTES

1. THE AREA WITHIN THE EMBANKMENT AND 15 FEET BEYOND SHALL BE CLEARED AND GRUBBED (EXCEPT IN THE WETLAND BUFFER). ORGANICS AND MATERIALS DEEMED UNSUITABLE BY THE ENGINEER (SUCH AS LOOSE, FROZEN, DISTURBED SOILS, DEBRIS, VEGETATION, TREE STUMPS, OVER SATURATED AND UNSTABLE SOILS) SHALL BE REMOVED AND A FIRM STABLE SUBGRADE SHALL BE PREPARED ON UNDISTURBED SOILS. ALL SUBGRADE SOILS SHALL BE OBSERVED BY THE ENGINEER. EXCAVATION SHALL BE PERFORMED IN A MANNER TO LIMIT DISTURBANCE AND LOOSENING OF THE SUBGRADE.
2. SCHEDULE AND COORDINATE EXCAVATION AND BACKFILL WORK WITH A DRY WEATHER FORECAST TO PREVENT OPEN EXCAVATIONS AND ACCUMULATION OF STORMWATER RUNOFF.
3. THE ENGINEER SHALL BE PRESENT TO OBSERVE THE SUBGRADE SOILS PRIOR TO PLACING THE SELECT EMBANKMENT FILL SOILS. PRIOR TO BACKFILL THE SUBGRADE SHALL BE PROOF-ROLL COMPACTED. IN THE PRESENCE OF THE ENGINEER, USING A SMOOTH DRUM ROLLER IN STATIC MODE AND/OR WITH BUCKET DOWN PRESSURE AS DIRECTED BY THE ENGINEER. THE ENGINEER SHALL BE CONTACTED WITH AT LEAST 48 HOURS NOTICE TO SCHEDULE SUBGRADE PREPARATION AND PROOF COMPACTION.
4. SELECT SOIL SHALL BE USED FOR CONSTRUCTION OF THE CUT-OFF TRENCH AND EARTH EMBANKMENT. THE SOIL SHALL MEET THE UNIFIED SOIL CLASSIFICATION SYSTEM DESIGNATION FOR EITHER CLAYEY SAND (SC) OR SILTY CLAYS (CL) WITH A LOW TO MEDIUM PLASTICITY. A MINIMUM OF TWO UNIFIED SOIL CLASSIFICATION TESTS SHALL BE PERFORMED ON STOCKPILE SOIL SAMPLES FOR APPROVAL. THE SOIL SHALL HAVE NO ROCKS LARGER THAN 2", FROZEN LUMPS, ORGANICS, OR OTHER DELETERIOUS MATERIALS.
5. ALL SELECT EMBANKMENT SOILS SHALL BE PLACED IN 6" LIFTS. SOIL SHALL BE COMPACTED TO 95% OF THE STANDARD PROCTOR.

6. IT IS IMPORTANT THAT THE EXISTING SUBGRADE AND SELECT SOILS BE PROTECTED DURING CONSTRUCTION IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
 - 6.1. TO THE MAXIMUM EXTENT POSSIBLE WORK SHALL BE PLANNED SO SUBGRADE SOILS AND THE EMBANKMENT SOILS ARE NOT EXPOSED TO PRECIPITATION.
 - 6.2. PRIOR TO EXCAVATING, POTENTIAL SOURCES OF SURFACE WATER SHALL BE DIRECTED AWAY FROM THE EXCAVATIONS.
 - 6.3. PLACEMENT OF SELECT EMBANKMENT FILL SOILS SHALL NOT BE PLACED DURING A RAIN EVENT.
 - 6.4. PRIOR TO PERIODS OF FORECASTED RAIN, THE SELECT SOILS SHALL BE GRADED TO DRAIN AND ROLLED SMOOTH WITH A DRUM ROLL COMPACTOR.
 - 6.5. SOIL THAT IS NOT PROTECTED AND BECOMES WEAKENED BY PRECIPITATION SHALL BE REMOVED AND DISPOSED OF AT NO COST TO THE OWNER.
7. THE GRAVEL FILTER LAYER FOR THE EMERGENCY SPILLWAY SHALL BE PLACED WITH THE FOLLOWING REQUIREMENTS:
 - 7.1. MINIMUM 6" SEPARATION BETWEEN PREPARED/ACCEPTED SUBGRADE AND IN PLACE STONE FILL. SEE BELOW FOR MATERIAL SPECIFICATION. THIS LAYER WILL BE PLACED IN A SINGLE 6" LIFT COMPACTED TO 90% STANDARD PROCTOR. THE GRAVEL FILTER MATERIAL SHALL NOT BE FROZEN AND SHALL NOT BE PLACED ON FROZEN SUBGRADE.
 - 7.2. PLACEMENT OF STONE FILL SHALL NOT OCCUR UNTIL FULL COMPACTED THICKNESS OF GRANULAR FILTER HAS BEEN PLACED.
8. THE STONE FILL FOR THE EMERGENCY SPILLWAY SHALL BE PLACED BY METHODS THAT AVOID SEGREGATION AND SHALL BE PLACED TO THE REQUIRED THICKNESS, IN LIFTS RESULTING IN A WELL GRADED HOMOGENOUS MASS WITH A RELATIVELY LOW VOID RATIO AND TIGHTLY INTEGRATED WITH PRIOR LIFTS. GRAVEL FILTER MATERIAL SHALL BE PLACED AND "WASHED IN" WITH WATER TO MINIMIZE VOIDS IN THE STONE FILL. STONE FILL SHALL NOT BE PLACED ON FROZEN MATERIAL.



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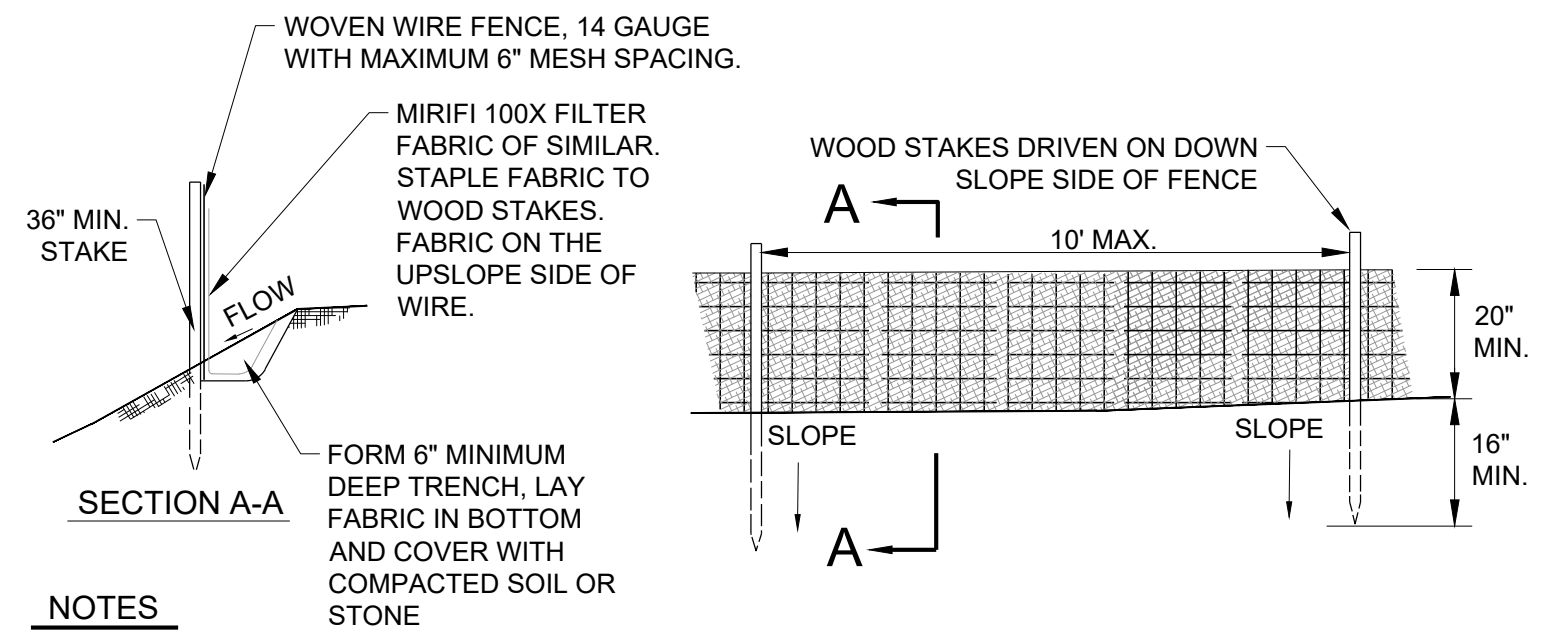
Project: **THE 'H' AT MALLETT'S BAY**
180 & 166 W. Lakeshore Drive
Colchester, Vermont

Project No.	23314
Scale	N.T.S.
Drawn by	SWH
Checked by	
Date	03/03/25

No.	Date	Description
	10/03/25	Town Final

Drawing Title: **CIVIL DETAILS**

Drawing No.: **CD-7**

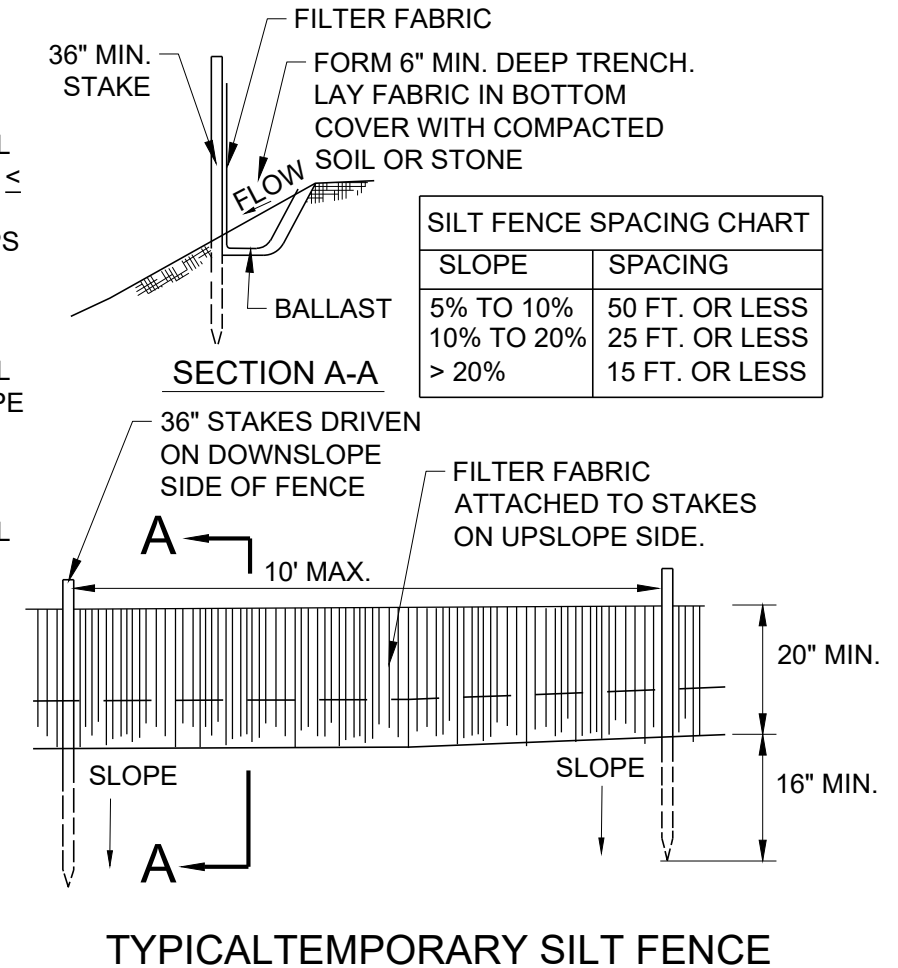


- NOTES**
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES WIRE FENCE REINFORCEMENT REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS.
 - FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH ITIES SPACED 24" AT THE TOP AND MID SECTION.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED. FILTER CLOTH SHALL BE MIRAFI 100X OR APPROVED EQUIVALENT.
 - PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR EQUIVALENT.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF SILT FENCE IN ALL LOCATIONS SHOWN ON THE PLANS.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT. REMOVE SILT FENCE AFTER SUCCESSFUL ESTABLISHMENT OF VEGETATION.
 - OTHER MEASURES MAY BE USED TO REINFORCE SILT FENCE IN PLACE OF WIRE MESH, CONTRACTOR WILL APPROVE ALL MEASURES WITH ENGINEER PRIOR TO USE.
 - IF SILT FENCE IS INSTALLED WHEN GROUND IS FROZEN, A GRAVEL, SAND OR WATTLE BALLAST MUST BE USED.
 - CONTRACTOR MAY USE (VI) WIRE BACK SILT FENCE (IVI PRODUCT 940-3610-B48-W6H) OR EQUIVALENT.
 - SILT FENCE SHALL BE INSTALLED ALONG CONTOURS.
 - SILT FENCE SHALL NOT BE LOCATED IN AREAS OF CONCENTRATED FLOW.
 - DRAINAGE AREA SHALL BE $\leq \frac{1}{4}$ ACRE PER 100 LINEAR FEET OF SILT FENCE.

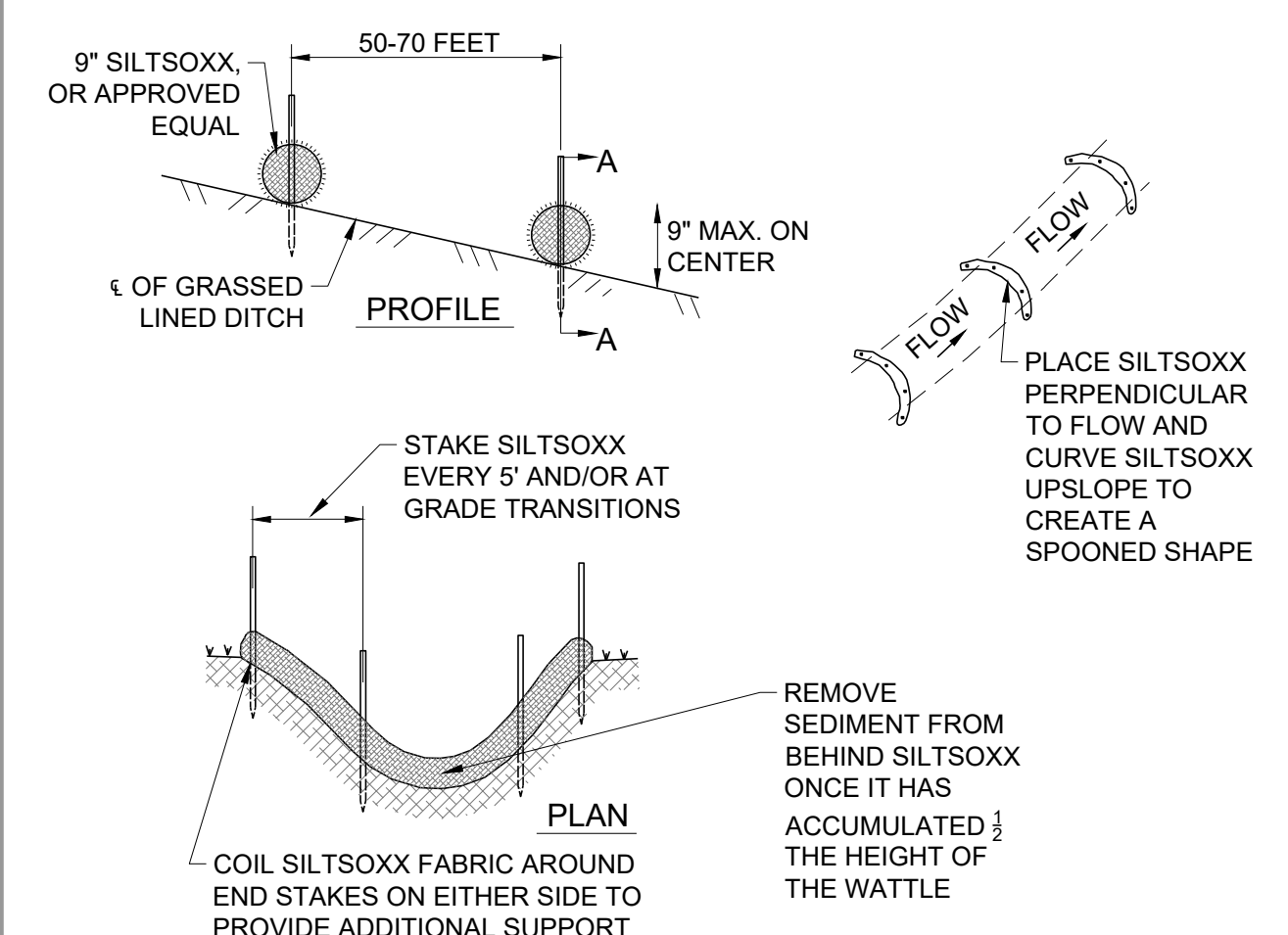
TYPICAL TEMPORARY REINFORCED SILT FENCE
N.T.S.

PERIMETER EROSION CONTROL SCHEDULE		
DISTANCE FROM RECEIVING WATER AND ALL WATER RESOURCE AREAS (WRA)	SLOPE	ACCEPTABLE EPSC MEASURE
≤ 100 FEET	ALL	REINFORCED SILT FENCE, TWO ROWS OF NONREINFORCED SILT FENCE OR ROW OF WATTLE INSIDE OF NONREINFORCED SILT FENCE
> 100 FEET	ALL	NONREINFORCED SILT FENCE OR WATTLE PER SPECIFICATIONS BELOW

- NOTES**
- AT A MINIMUM, EPSC MEASURES MEET VT DEC STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL OR PREVIOUSLY APPROVED INTERCHANGEABLE PRACTICES.
 - PERIMETER CONTROLS SHALL BE UTILIZED IN SMALL AREAS ≤ 1 ACRE. IN AREAS > 1 ACRE, TEMPORARY SEDIMENT TRAPS OR TEMPORARY SEDIMENT BASINS ARE TO BE UTILIZED.
 - PERIMETER CONTROLS SHALL BE INSTALLED ON DOWNSLOPE SIDE OF PLANNED EARTH DISTURBANCE.
 - PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITIES WITHIN UPSLOPE CONTRIBUTING AREA.
 - SILT FENCE SHALL NOT BE USED AS CONSTRUCTION DEMARCATION.
 - SILT SOXX CAN BE USED AS A SILT FENCE ALTERNATIVE, WITH PRIOR APPROVAL OF THE ENGINEER. SEE DETAIL.
 - IF SILT FENCE IS INSTALLED WHEN GROUND IS FROZEN, A GRAVEL, SHOT ROCK, OR SAND BALLAST MUST BE USED.



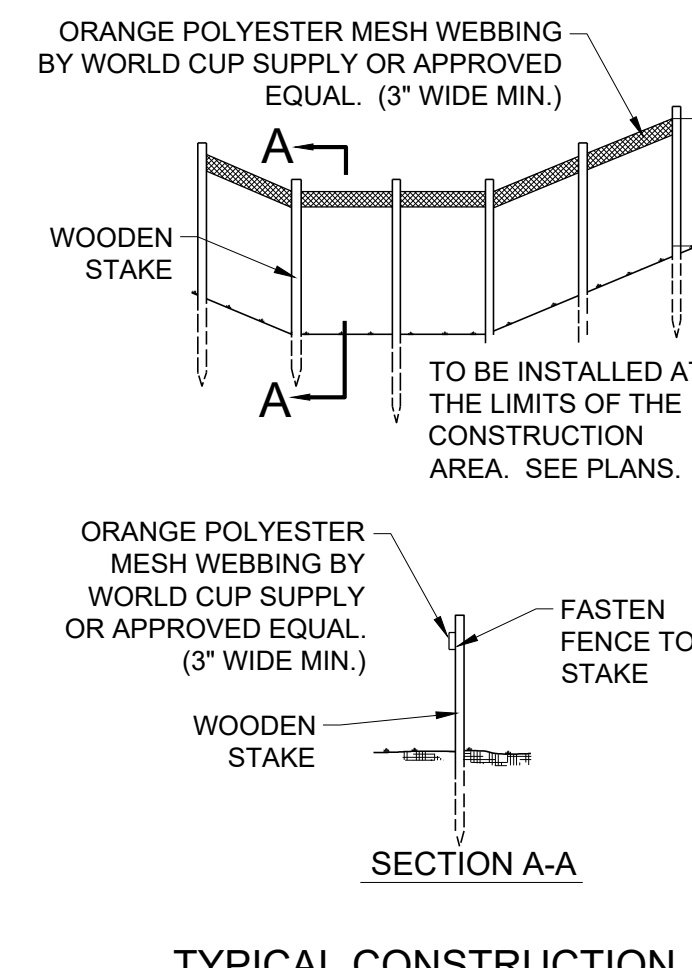
TYPICAL TEMPORARY SILT FENCE
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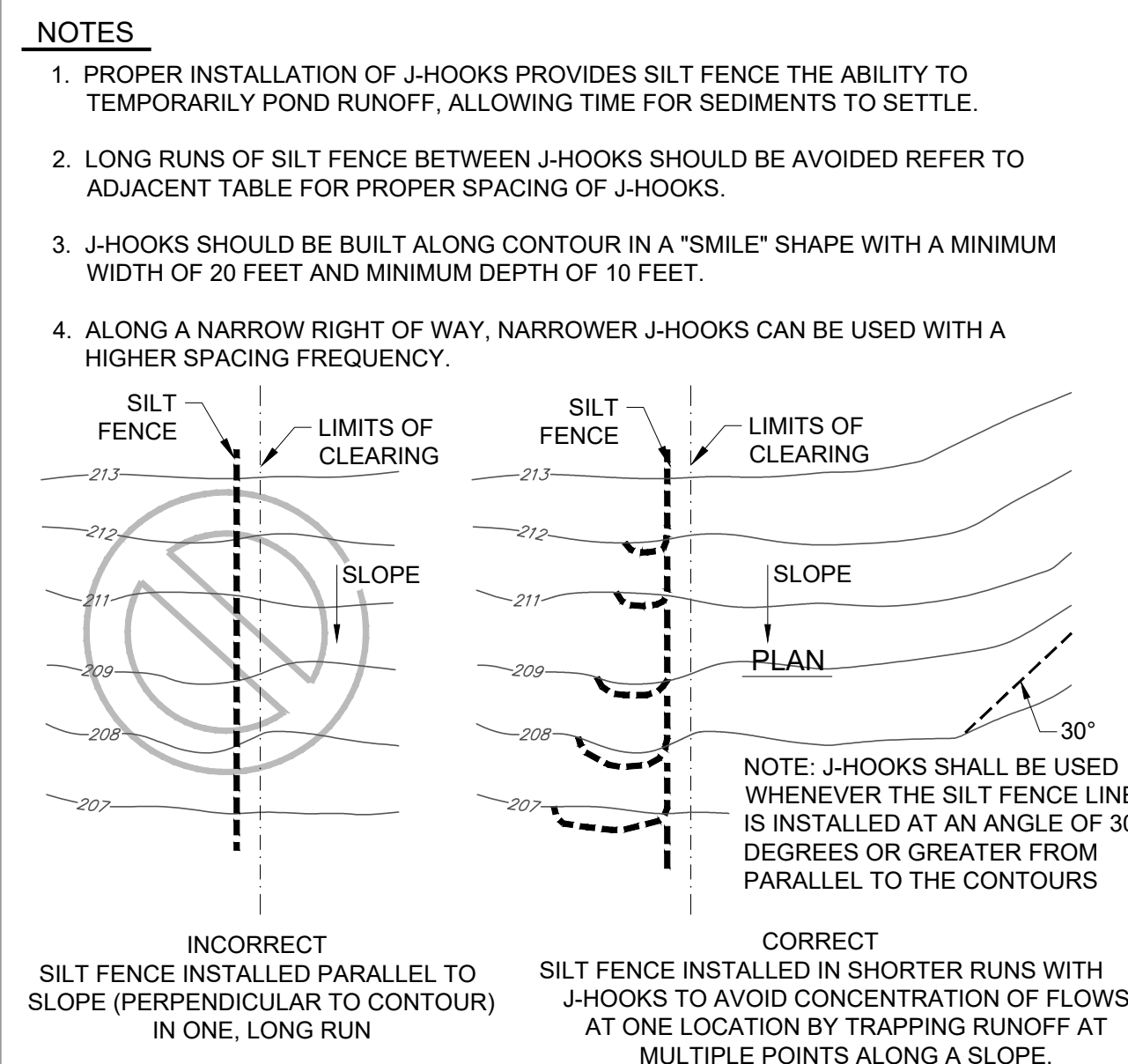
- NOTES**
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF SILT SOXX IN ALL LOCATIONS SHOWN ON THE PLANS. SILT SOXX MAY BE LEFT IN PLACE IF THE CONTRACTOR SEEDS AND MULCHES SILT SOXX FOR GROWTH POST CONSTRUCTION.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND ADDITIONAL SILT SOXX WILL BE ADDED WHEN SEDIMENT REACHES HALF OF PRODUCT HEIGHT.
 - WHEN INSTALLING LENGTHS OF SILT SOXX, LENGTHS WILL OVERLAP BY MINIMUM 18" WHEN TRANSITIONING TO A NEW LENGTH OF SILT SOXX.
 - CONTRACTOR SHALL REFER TO ALL MANUFACTURES SPECIFICATIONS AND DETAILS.
 - SILT SOXX CAN ONLY BE USED IN A GRASS LINED SWALE. MAY NOT BE USED IN STONE LINED SWALES.
 - SILT SOXX CHECK DAM CAN ONLY BE USED IN CHANNELS WITH SLOPES LESS THAN 5%.
 - SILT SOXX IS A SPECIFIC MANUFACTURER, OTHER MANUFACTURERS WITH EQUAL PRODUCTS MAY BE USED IF APPROVED BY ENGINEER.

TYPICAL SILT SOXX CHECK DAM DETAIL
N.T.S.

- NOTES**
- ACCEPTABLE EPSC MEASURE DETAILS ARE PROVIDED BELOW.
 - AT A MINIMUM, EPSC MEASURES MEET VT DEC STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL OR PREVIOUSLY APPROVED INTERCHANGEABLE PRACTICES.
 - LIMITS OF DISTURBANCE (OR "CONSTRUCTION DEMARCATION") SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITIES.
 - BARRIER TAPE/ROPE: FOR USE WHERE PROPOSED DISTURBANCE BORDERS NON-WOODED, VEGETATED AREAS MORE THAN 100 FT FROM THE NEAREST WATER RESOURCE (STREAM, BROOK, LAKE, POND, WETLAND, ETC.). BARRIER TAPE IS HIGH VISIBILITY FIBERGLASS TAPE, MINIMUM 3" IN WIDTH COMMONLY USED IN 5KI AREAS FOR DEMARCATING CLOSED AREAS. BARRIER TAPE AND ROPE SHOULD BE ATTACHED TO STAKES, AT A MINIMUM HEIGHT OF 4 FT FROM THE GROUND.
 - MINIMUM 1 TO 2 ROWS OF MESH BARRIER TAPE TO BE INSTALLED ALONG CONSTRUCTION PERIMETER.
 - EACH ROW OF BARRIER TAPE TO BE 3" WIDE MINIMUM.
 - BARRIER TAPE TO BE ORANGE.
 - SECURE BARRIER TAPE TO STAKES OR EXISTING TREE TRUNKS WITH BOTTOM ROW AT 4' DISTANCE FROM GROUND SURFACE (MINIMUM).
 - MAINTAIN AND REPLACE AS NEEDED. REMOVE AT COMPLETION OF PROJECT PER OSPC.
 - IN EVENT THE OSPC DETERMINES BARRIER TAPE IS NOT SUFFICIENT, REPLACE WITH ORANGE CONSTRUCTION FENCE OR SNOW FENCE.

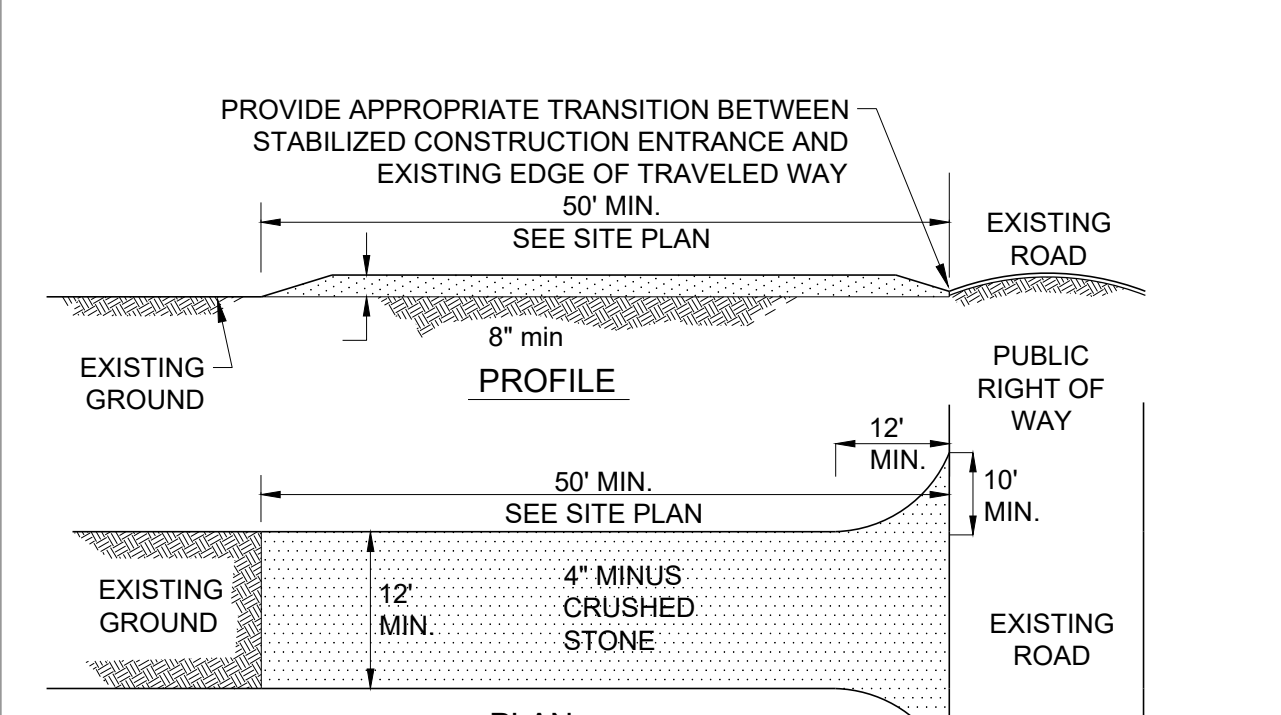


TYPICAL CONSTRUCTION LIMIT BARRIER
N.T.S.



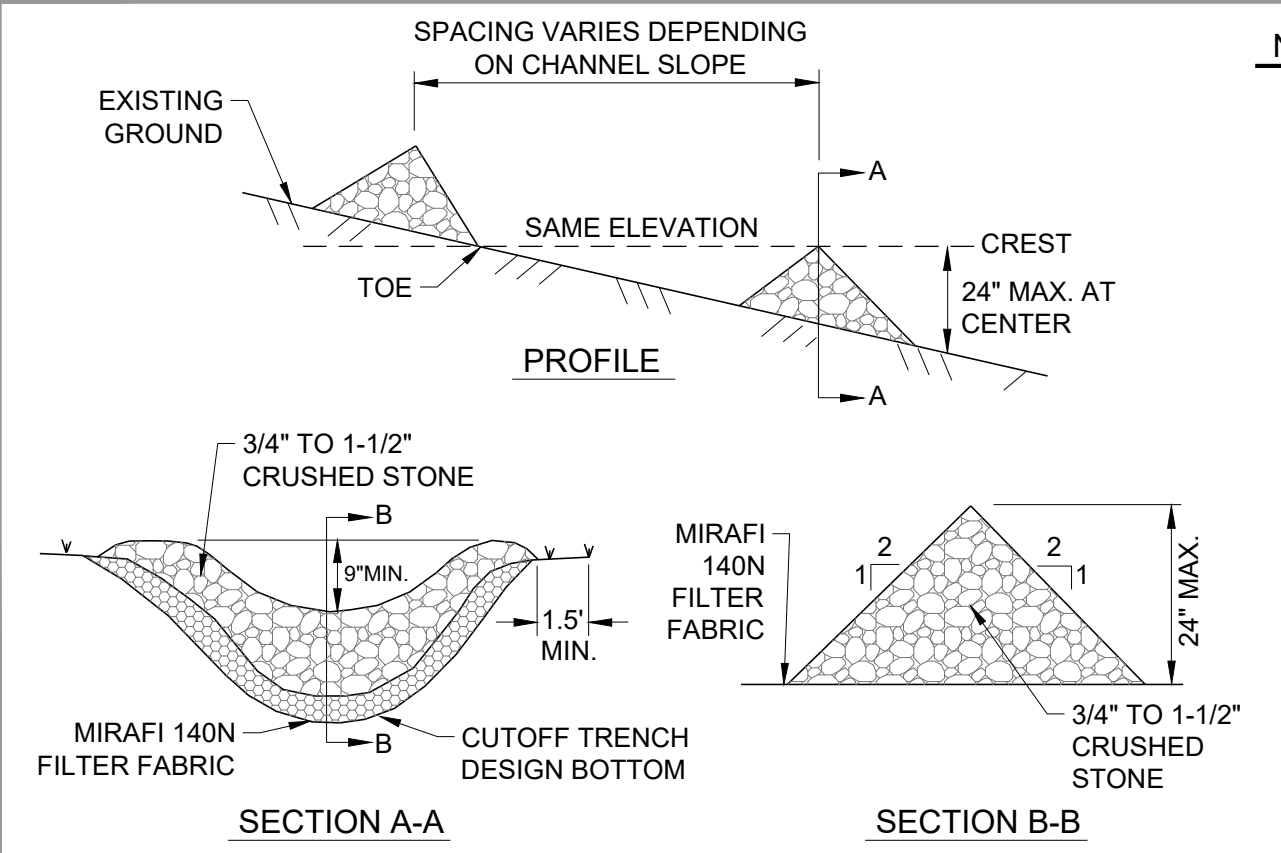
SLOPE STEEPNESS	MAXIMUM SPACING BETWEEN SILT FENCE J-HOOKS (FT.)
2:1 SLOPE (50%)	25
3:1 SLOPE (33%)	50
4:1 SLOPE (25%)	75
5:1 SLOPE OR FLATTER (50%)	100

TYPICAL SILT FENCE "J-HOOK" CONSTRUCTION
N.T.S.

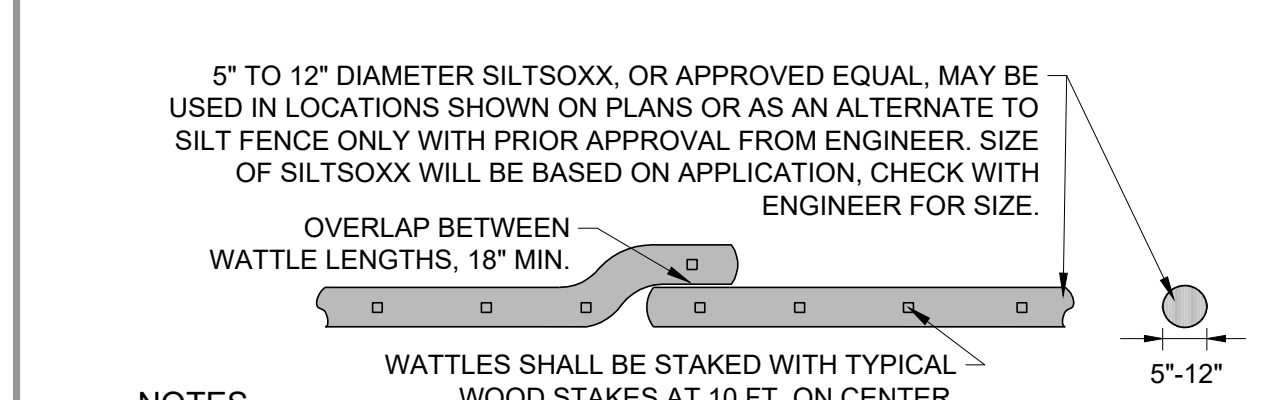


- NOTES**
- CONTRACTOR SHALL STABILIZE CONSTRUCTION ENTRANCE AS REQUIRED TO PREVENT TRACKING OF SEDIMENT OFF-SITE.
 - CONTRACTOR TO USE MIRAFI 500X UNDER STONE FOR TEMPORARY CONSTRUCTION ROADS.
 - CRUSHED STONE SHALL BE ADDED OR REPLACED WHEN 80% OF THE VOIDS ARE FILLED WITH SEDIMENT.
 - STONE SIZE SHALL BE 1-4".
 - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES IS ALLOWED.

STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

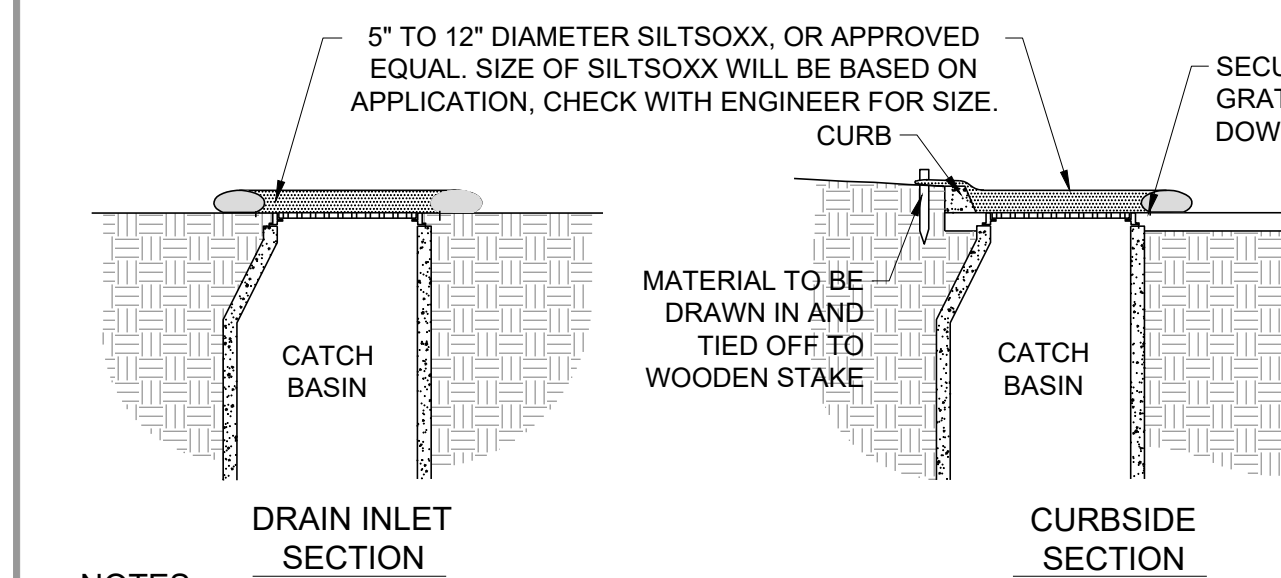
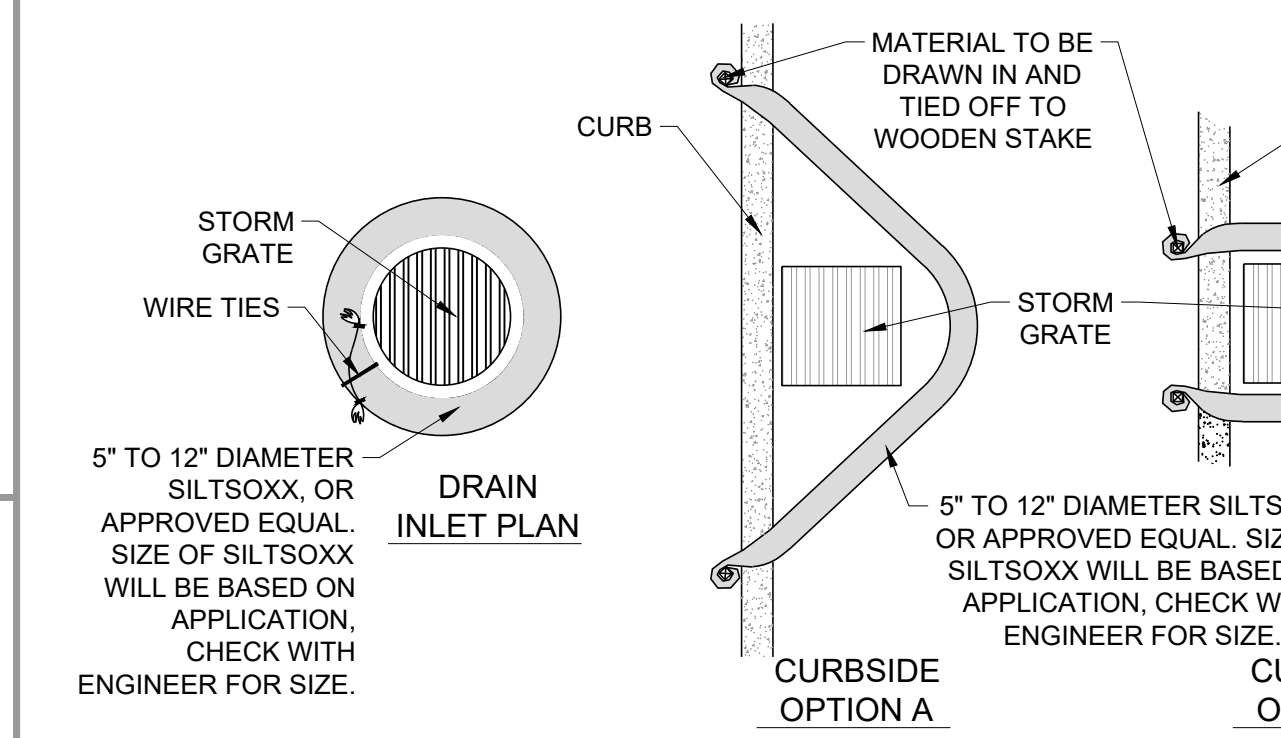


STONE CHECK DAM
N.T.S.



- NOTES**
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF SILT SOXX IN ALL LOCATIONS SHOWN ON THE PLANS. SILT SOXX MAY BE LEFT IN PLACE IF THE CONTRACTOR SEEDS AND MULCHES OVER SILT SOXX FOR GROWTH POST CONSTRUCTION.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND ADDITIONAL WATTLES WILL BE ADDED WHEN SEDIMENT REACHES HALF OF PRODUCT HEIGHT.
 - WHEN INSTALLING LENGTHS OF SILT SOXX, LENGTHS WILL OVERLAP BY MINIMUM 18" WHEN TRANSITIONING TO A NEW LENGTH OF SILT SOXX.
 - CONTRACTOR SHALL REFER TO ALL MANUFACTURES SPECIFICATIONS AND DETAILS.
 - SILT SOXX IS A SPECIFIC MANUFACTURER, OTHER MANUFACTURERS WITH EQUAL PRODUCTS MAY BE USED IF APPROVED BY ENGINEER.
 - SILT SOXX CAN BE USED AS A SILT FENCE ALTERNATIVE, WITH PRIOR APPROVAL OF THE ENGINEER.

TYPICAL SILT SOXX SEDIMENT CONTROL
N.T.S.



- NOTES**
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF SILT SOXX IN ALL LOCATIONS SHOWN ON THE PLANS.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND ADDITIONAL SILT SOXX WILL BE ADDED WHEN SEDIMENT REACHES HALF OF PRODUCT HEIGHT.
 - WHEN INSTALLING LENGTHS OF SILT SOXX, LENGTHS WILL OVERLAP BY MINIMUM 2" WHEN TRANSITIONING TO A NEW LENGTH OF WATTLE.
 - CONTRACTOR SHALL REFER TO ALL MANUFACTURES SPECIFICATIONS AND DETAILS.
 - SILT SOXX IS A SPECIFIC MANUFACTURER, OTHER MANUFACTURERS WITH EQUAL PRODUCTS MAY BE USED IF APPROVED BY ENGINEER.

SILT SOXX INLET PROTECTION
N.T.S.

GUIDE TO MULCH MATERIALS, RATES, AND USES					
	QUALITY STANDARDS	PER 1000 SQ. FT.	PER ACRE	DEPTH OF APPLICATION	REMARKS
WOOD CHIPS OR SHAVINGS	AIR-DRIED, FREE OF OBJECTIONABLE COARSE MATERIAL	500-900 LBS	10-20 TONS	2-7"	USED PRIMARILY AROUND SHRUB AND TREE PLANTINGS AND RECREATION TRAILS TO INHIBIT WEED COMPETITION. RESISTANT TO WIND BLOWING, DECOMPOSES SLOWLY.
WOOD FIBER CELLULOSE (PARTLY DIGESTED WOOD FIBERS)	MADE FROM NATURAL WOOD USUALLY WITH GREEN DYE AND DISPERSING AGENT	50 LBS	2,000 LBS.	-	APPLY WITH HYDROMULCHER. NO TIE DOWN REQUIRED. LESS EROSION CONTROL PROVIDED THAN 2 TONS OF HAY OR STRAW.
GRAVEL, CRUSHED STONE OR SLAG	WASHED, SIZE 2B OR 3A - 1/2"	9 CU. YDS.	405 CU. YDS.	3"	EXCELLENT MULCH FOR SHORT SLOPES AND AROUND PLANTS AND ORNAMENTALS. USE 2B WHERE SUBJECT TO TRAFFIC. (APPROXIMATELY 2,000 LBS./CU. YD.). FREQUENTLY USED OVER FILTER FABRIC FOR BETTER WEED CONTROL.
HAY OR STRAW	AIR-DRIED, FREE OF UNDESIRABLE SEEDS & COARSE MATERIALS	90-100 LBS 2-3 BALES	2 TONS (100-120 BALES)	COVER ABOUT 90% SURFACE	USE SMALL GRAIN STRAW WHERE MULCH IS MAINTAINED FOR MORE THAN THREE MONTHS. SUBJECT TO WIND BLOWING UNLESS ANCHORED. MOST COMMONLY USED MULCHING MATERIAL. PROVIDES THE BEST MICRO-ENVIRONMENTAL FOR GERMINATING SEEDS.
COMPOST	UP TO 3" PIECES, MODERATELY TO HIGHLY STABLE	3-9 CU. YDS.	134-402 CU. YDS.	1-3"	COARSER TEXTURED MULCHES MAY BE MORE EFFECTIVE IN REDUCING WEED GROWTH AND WIND EROSION.
EROSION CONTROL MIX	WELL-GRADED MIXTURE OF PARTICLE SIZES. ORGANIC CONTENT BETWEEN 80-100% DRY WEIGHT. PARTICLE SIZE SHALL PASS 6" SCREEN (100%)	* SLOPES 3(HZ):1(VERT.) OR FLATTER = 2 INCH DEPTH PLUS ADDITIONAL 1/2 INCH DEPTH PER 20 FT. OF SLOPE UP TO 100 FT. ** SLOPES BETWEEN 2(HZ):1(VERT.) AND 2(HZ):1(VERT.) = 4 INCH DEPTH PLUS ADDITIONAL 1/2 INCH PER 20 FT. OF SLOPE UP TO 100 FT. *** SLOPES STEEPER THAN 2(HZ):1(VERT.) USE OF EROSION CONTROL MIX AND MULCH DEPTH TO BE REVIEWED AND APPROVED PRIOR TO USE BY OSPC OR EPSC SPECIALIST			COMPRISED OF SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. MAY CONTAIN ROCK < 4" IN DIAMETER. ORGANICS SHALL BE FIBROUS AND ELONGATED. NO LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS.

NOTE: THIS MULCHING DETAIL IS FOR EROSION PREVENTION AND SEDIMENT CONTROL ONLY. THIS IS TO BE USED DURING CONSTRUCTION AS A BEST MANAGEMENT PRACTICE. LANDSCAPING MULCH IS DIFFERENT, SEE LANDSCAPE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING LANDSCAPE MULCH.

- NOTES**
- STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
 - SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
 - EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
 - PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
 - ENSURE THAT CHANNEL APURTANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

SEEDING SPECIFICATIONS

SEED	% WEIGHT	% GERMINATION
RED FESCUE	50%	85% MIN.
SHEEP FESCUE	25%	80% MIN.
RED TOP	5%	90% MIN.
WHITE CLOVER	10%	90% MIN.
ANNUAL RYE	10%	

SEED	% WEIGHT	% GERMINATION
WINTER RYE	80% MIN.	85% MIN.
RED FESCUE (CREEPING)	4% MIN.	80% MIN.
PERENNIAL RYE GRASS	3% MIN.	90% MIN.
RED CLOVER	3% MIN.	90% MIN.
OTHER CROP GRASS	0.5% MAX.	
NOXIOUS WEED SEED	0.5% MAX.	
INERT MATTER	1% MAX.	

HAZELETT STRIP-CASTING CORPORATION

COLCHESTER, VT

KREBS & LANSING
CONSULTING ENGINEERS
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STAMP:

Project: **THE 'H' AT MALLETT'S BAY**
180 & 166 W. Lakeshore Drive Colchester, Vermont

Project No.	23314
Scale	N.T.S.
Drawn by	SWH
Checked by	
Date	03/03/25

Revisions		
No.	Date	Description
	10/03/25	Town Final

Drawing Title: **EPSC DETAILS**

Drawing No.

CD-8

CONSTRUCTION STORMWATER DISCHARGE PERMIT INFORMATION

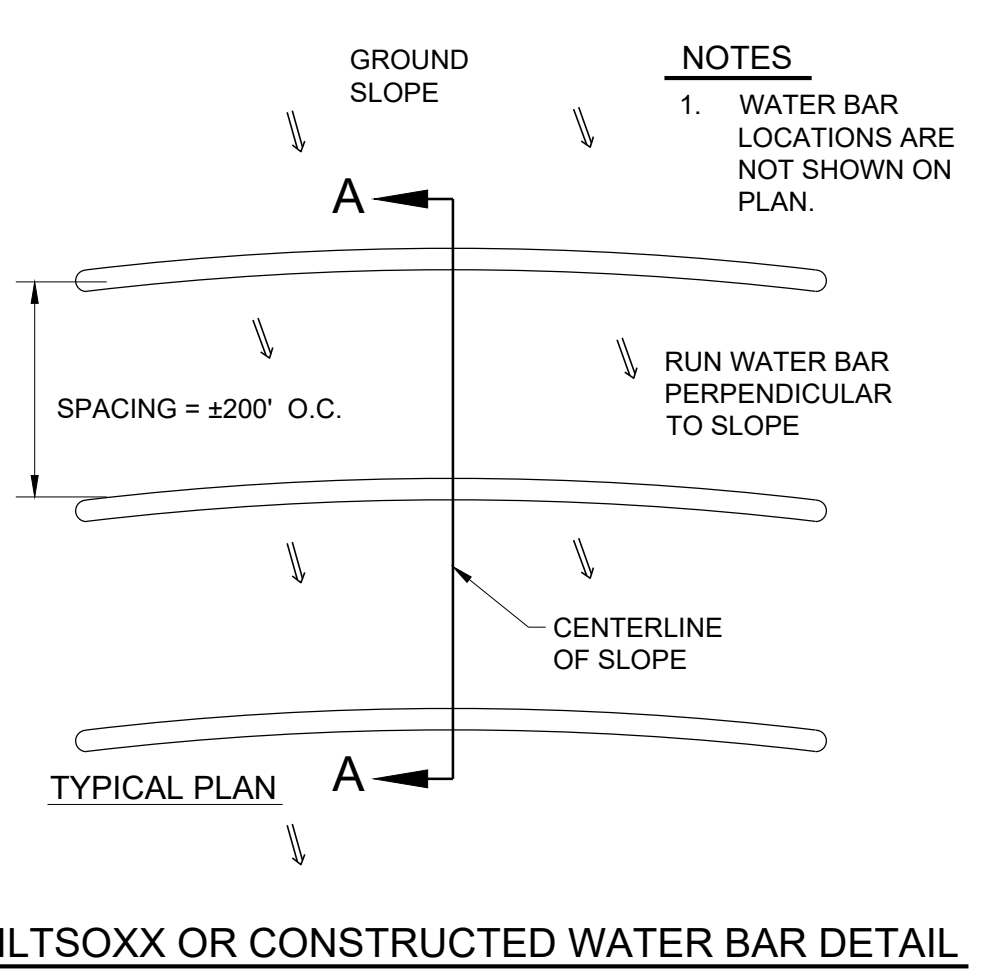
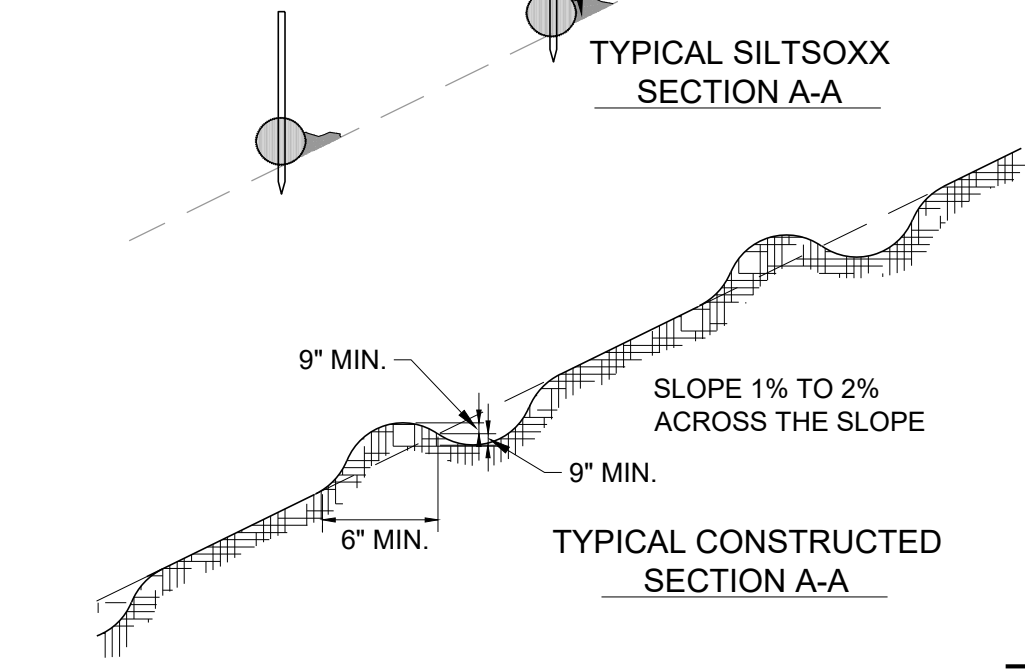
- THIS PROJECT PROPOSES GREATER THAN 1 ACRE OF SOIL DISTURBANCE ON SITE. THE PROJECT WILL FOLLOW THIS CONSTRUCTION GENERAL PERMIT 3-9020.
- THE PROPOSED PROJECT HAS BEEN SCORED USING THE STATE OF VERMONT APPENDIX-A RISK EVALUATION. THE PROJECT IS SCORED "MODERATE RISK" BASED ON THE EVALUATIONS CRITERIA.
- THE MAXIMUM AREA OF EARTH DISTURBANCE AT ANY ONE TIME SHALL NOT EXCEED 5 ACRES.
- ALL AREAS OF EARTH DISTURBANCE ASSOCIATED WITH THIS PROJECT MUST BE STABILIZED WITHIN 14-DAYS OF INITIAL DISTURBANCE. AFTER THIS INITIAL 14-DAY PERIOD, ALL EARTH DISTURBANCE AREAS ASSOCIATED MUST BE STABILIZED ON A DAILY BASIS, WITH THE FOLLOWING EXCEPTIONS:
 - STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE WITHIN THE AREA WITHIN THE NEXT 24 HOURS AND THERE IS NO PRECIPITATION FORECAST FOR THE NEXT 24 HOURS.
 - STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION (I.E., NO OUTLET FOR STORMWATER) WITH A DEPTH OF 2 FEET OR GREATER (E.G., UNDERGROUND LINE INSTALLATION).
- PROJECT DOES PROPOSE WINTER CONSTRUCTION.
- ALL TEMPORARY EPSC MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY EPSC MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED AND APPROVED IN WRITING BY THE OWNER.
- SOIL STABILIZATION SHALL BE ACHIEVED BY SEED AND MULCH, HYDROSEEDING WITH MULCH TACKIFIER, SOD, STONE, AND/OR ROLLED EROSION CONTROL PRODUCTS (E.G., EROSION CONTROL BLANKET). MULCH SHALL BE COMPRISED OF STRAW, HAY, COMPOST, WOODCHIPS, WOOD STUMP GRINDINGS, AND/OR EROSION CONTROL MIX.
- APPROPRIATE SEED MIX SHALL BE APPLIED TO DESIGNATED AREAS PER THIS EPSC PLAN AND SEED SPECIFICATIONS.

TEMPORARY & FINAL STABILIZATION NOTES

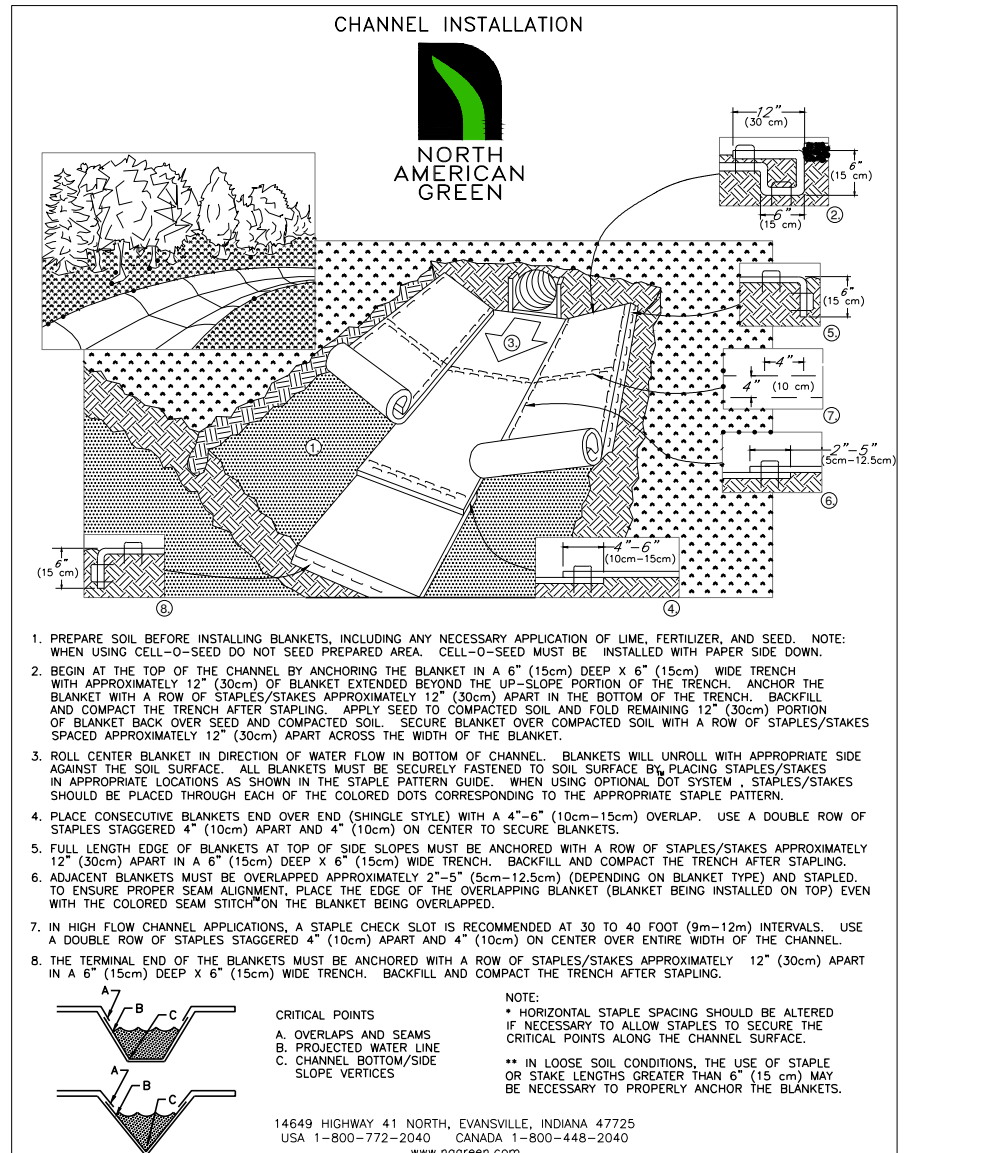
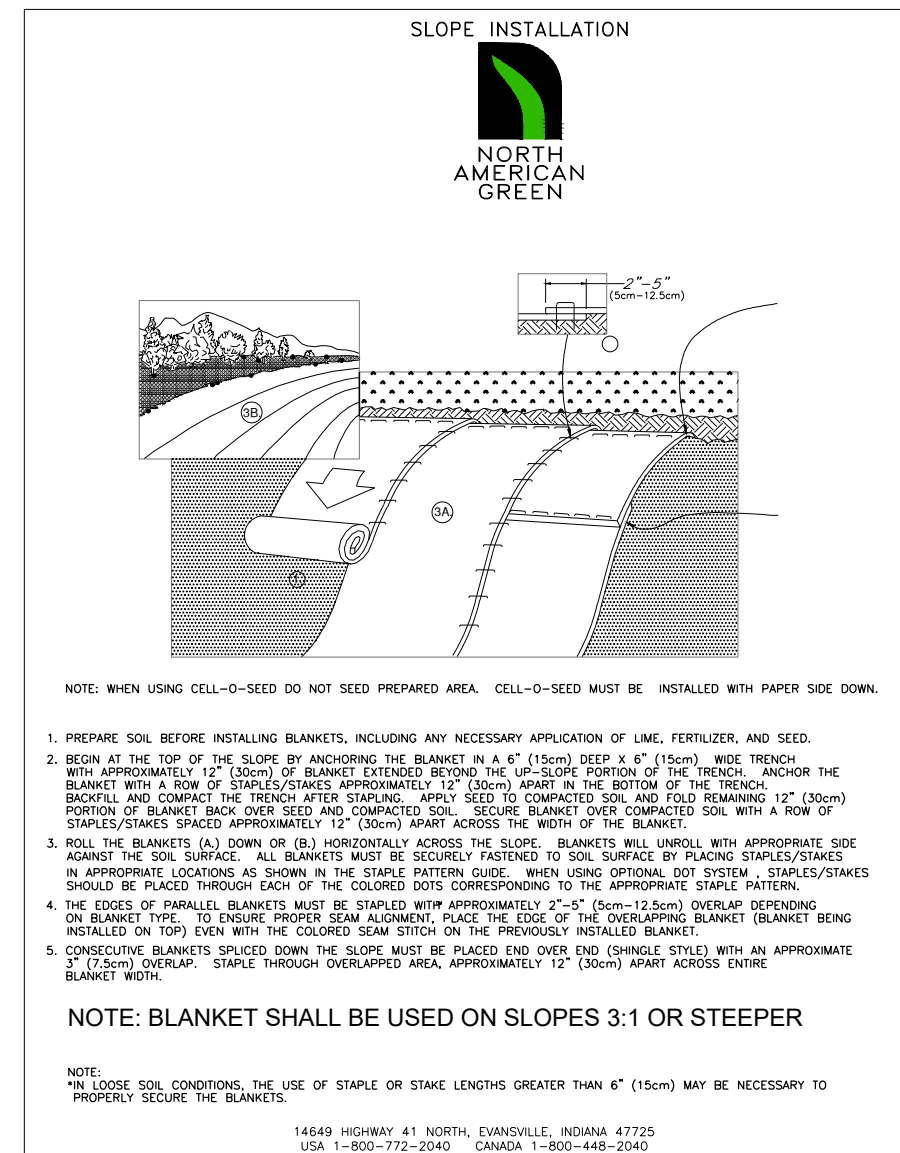
- ALL AREAS OF EARTH DISTURBANCE ASSOCIATED WITH THIS PROJECT MUST BE STABILIZED WITHIN 14 DAYS OF INITIAL DISTURBANCE. AFTER THIS INITIAL 14-DAY PERIOD, ALL EARTH DISTURBANCE AREAS ASSOCIATED MUST BE STABILIZED ON A DAILY BASIS, WITH THE FOLLOWING EXCEPTIONS:
 - STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE WITHIN THE AREA WITHIN THE NEXT 24 HOURS AND THERE IS NO PRECIPITATION FORECAST FOR THE NEXT 24 HOURS.
 - STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION (I.E., NO OUTLET FOR STORMWATER) WITH A DEPTH OF 2 FEET OR GREATER (E.G., UNDERGROUND LINE INSTALLATION).
- THE MAXIMUM AREA OF EARTH DISTURBANCE AT ANY ONE TIME SHALL NOT EXCEED 5 ACRES.
- SOIL STABILIZATION SHALL BE ACHIEVED BY SEED AND MULCH (SEE DETAILS). HYDROSEEDING WITH MULCH TACKIFIER, SOD, STONE, AND/OR ROLLED EROSION CONTROL PRODUCTS (E.G., EROSION CONTROL BLANKET; SEE DETAIL). MULCH SHALL BE COMPRISED OF STRAW, HAY, COMPOST, WOODCHIPS, WOOD STUMP GRINDINGS, AND/OR EROSION CONTROL MIX (SEE DETAIL).
- APPROPRIATE SEED MIX SHALL BE APPLIED TO DESIGNATED AREAS PER THIS EPSC PLAN AND SEED SPECIFICATIONS (SEE DETAILS). FOR AN AREA TO BE STABILIZED FOR WINTER BY VEGETATED COVER, SEEDING MUST BE COMPLETED BY SEPTEMBER 15.
- AREAS TO BE STABILIZED FOR WINTER THAT DO NOT HAVE ESTABLISHED VEGETATION BY OCTOBER 15 SHALL BE STABILIZED BY ANCHORED MULCH AT THE WINTER APPLICATION RATE, OR OTHER APPROVED STABILIZATION MEASURES (E.G., ROLLED EROSION CONTROL PRODUCT; SEE DETAIL). DORMANT SEEDING WITH WINTER RYE IS RECOMMENDED (SEE DETAIL).
- ALL TEMPORARY EPSC MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY EPSC MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED AND APPROVED IN WRITING BY THE OWNER.
- FOLLOWING TEMPORARY OR PERMANENT STABILIZATION, MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.
- EXCEPT AS NOTED BELOW, ALL AREAS OF DISTURBANCE SHALL BE SEED AND STABILIZED WITH EPSC MEASURES (E.G., MULCH, EROSION CONTROL MIX, ROCK RIP RAP, OR ROLLED EROSION CONTROL PRODUCT), INCLUDING AREAS WHERE CONSTRUCTION HAS BEEN SUSPENDED OR SECTIONS COMPLETED. THE FOLLOWING SHALL ALSO APPLY:
 - FOR ACTIVE CONSTRUCTION AREAS SUCH AS BORROW OR STOCKPILE AREAS, ROADWAY IMPROVEMENTS, AND AREAS WITHIN 50 FEET OF A BUILDING UNDER CONSTRUCTION, A PERIMETER SEDIMENT CONTROL SYSTEM (E.G., SILT FENCE) SHALL BE INSTALLED AND MAINTAINED TO CONTAIN SOIL. EXPOSED DISTURBED AREAS ADJACENT TO A CONVEYANCE THAT PROVIDES RAPID OFFSITE DISCHARGE OF SEDIMENT (E.G., A CUT SLOPE AT AN ENTRANCE) SHALL BE COVERED WITH PLASTIC OR GEOTEXTILE TO PREVENT SOIL LOSS UNTIL THE AREA CAN BE STABILIZED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE MAINTAINED TO CONTROL EQUIPMENT AND VEHICLES FROM TRACKING MATERIAL OFF SITE.
 - PERMANENT SEEDING SHALL ONLY BE UNDERTAKEN IN THE SPRING SEASON FROM APRIL THROUGH MAY AND IN LATE SUMMER AND EARLY FALL UNTIL SEPTEMBER 15; SUMMER PLANTING MAY BE CONDUCTED IF ADEQUATE WATERING IS PROVIDED. DURING THE PEAK SUMMER MONTHS AND IN THE FALL AFTER SEPTEMBER 15, AN APPROPRIATE TEMPORARY SEEDING SHALL BE IMPLEMENTED. TEMPORARY SUMMER PLANTING MAY SUFFICE FOR PERMANENT SEEDING IF ADEQUATE NATURAL RAINFALL ALLOWS FOR VIGOROUS GROWTH DURING THE MID SUMMER PERIOD. THE CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE RETURN TO THE SITE THE SPRING FOLLOWING CONSTRUCTION TO PERFORM ANY FURTHER SEEDING THAT MAY BE REQUIRED AND TO REMOVE ANY REMAINING EROSION CONTROL MEASURES THAT ARE NO LONGER NEEDED.
 - TEMPORARY SEDIMENT TRAPPING DEVICES (E.G., SILT FENCE) SHALL NOT BE REMOVED UNTIL PERMANENT STABILIZATION IS ESTABLISHED IN ALL CONTRIBUTORY DRAINAGE AREAS. SIMILARLY, STABILIZATION SHALL BE ESTABLISHED PRIOR TO CONVERTING SEDIMENT TRAPS AND/OR SEDIMENT BASINS INTO PERMANENT (POST-CONSTRUCTION) STORMWATER MANAGEMENT PRACTICES.
 - STABILIZATION MEASURES SHALL BE APPLIED TO BARE EARTH SURFACES WITH SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES (E.G., ROLLED EROSION CONTROL PRODUCT) AS SOON AS POSSIBLE AFTER DISTURBANCE.

*EPSC - EROSION PREVENT & SEDIMENT CONTROL
*OSPC - ON-SITE PLAN COORDINATOR

ALLOW DISTURBED SEDIMENT TO FILL BEHIND SILT SOXX. ADD AN ADDITIONAL SILT SOXX TO TOP IF SOIL BEHIND EXCEEDS THE HEIGHT OF THE SILT SOXX. POST CONSTRUCTION LEAVE IN PLACE ADD AN ADDITIONAL SILT SOXX BEHIND CONSTRUCTION, SEED AND MULCH OVER WHOLE AREA



SILT SOXX OR CONSTRUCTED WATER BAR DETAIL
N.T.S.



EROSION CONTROL BLANKET

NORTH AMERICAN GREEN S75BN

MATERIAL SPECIFICATIONS:

- EROSION CONTROL BLANKET SHALL BE A MACHINE-PRODUCED MAT OF 100% AGRICULTURAL STRAW.
- THE BLANKET SHALL BE OF CONSISTENT THICKNESS WITH THE STRAW EVENLY DISTRIBUTED OVER THE ENTIRE AREA OF THE MAT. THE BLANKET SHALL BE COVERED ON THE TOP SIDE WITH 100% BIODEGRADABLE WOVEN NATURAL ORGANIC FIBER NETTING HAVING AN APPROXIMATE 1/2" X 1" MESH AND BE SEWN TOGETHER WITH BIODEGRADABLE THREAD.
- STRAW EROSION CONTROL BLANKET SHALL BE S75BN AS MANUFACTURED BY NORTH AMERICAN GREEN, INC. (812-867-8632) OR EQUIVALENT. EROSION CONTROL BLANKET SHALL HAVE THE FOLLOWING PROPERTIES:

MATERIAL CONTENT:

- STRAW: 100% (0.50 lbs/sq.yd.) (0.27 kg/m²)
- NETTING: ONE SIDE ONLY, LENO WOVEN 100% BIODEGRADABLE NATURAL ORGANIC FIBER (APPROX. WEIGHT 9.3 lbs./100 sq. ft.)
- THREAD: BIODEGRADABLE

PHYSICAL SPECIFICATIONS (ROLL):

- WIDTH: 6.67 feet (2.03 m)
- LENGTH: 108 feet (32.92 m)
- WEIGHT: 46.4 lbs. ± 10% (21.05 kg)
- AREA: 80 sq. yd. (50 m²)

RELEVANT DEFINITIONS AS DEFINED BY VT DEC (GP 3-9020, APPENDIX C)

"COMMENCEMENT OF CONSTRUCTION ACTIVITIES"

- THE INITIAL DISTURBANCE OF SOILS ASSOCIATED WITH CLEARING, GRADING, OR EXCAVATING ACTIVITIES OR OTHER CONSTRUCTION-RELATED ACTIVITIES (E.G., STOCKPILING OF FILL MATERIAL), WITHOUT LARGE BARE AREAS.

"CONSTRUCTION AND CONSTRUCTION-RELATED ACTIVITIES"

- ALL CLEARING, GRADING, EXCAVATION, AND STOCKPILING ACTIVITIES THAT WILL RESULT IN THE DISTURBANCE OF ONE OR MORE ACRES OF LAND AREA, EARTH DISTURBANCE THAT IS A NORMAL PART OF THE LONG-TERM USE OR MAINTENANCE OF A PROPERTY IS NOT COVERED (BY THE PERMIT) (E.G., MINING OPERATIONS, DIRT ROAD REGRADING, ROUTINE ROAD RESURFACING).

"CONSTRUCTION SITE"

- THE LAND OR WATER AREA WHERE ANY FACILITY OR ACTIVITY IS PHYSICALLY LOCATED OR CONDUCTED, INCLUDING ADJACENT LAND USED IN CONNECTION WITH THE FACILITY OR ACTIVITY OR THE AREA OF EARTH DISTURBANCE DIRECTLY ASSOCIATED WITH THE PERMITTED ACTIVITY.

"DISTURBED EARTH"

- ANY SOIL ON A CONSTRUCTION SITE OR ASSOCIATED SUPPORT ACTIVITIES (E.G., STAGING AREA, BORROW AREA, DISPOSAL SITE FOR EXCESS FILL) THAT IS EXPOSED TO EROSION EFFECTS OF WIND, RAIN, OR RUNOFF DUE TO CONSTRUCTION OR CONSTRUCTION RELATED ACTIVITIES.

"FINAL (OR PERMANENT) STABILIZATION"

- ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND EITHER OF THE TWO FOLLOWING CRITERIA ARE MET:
 - A UNIFORM (E.G., EVENLY) DISTRIBUTED, WITHOUT LARGE BARE AREAS) PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OF THE NATIVE BACKGROUND VEGETATIVE COVER FOR THE AREA HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, OR
 - EQUIVALENT FINAL STABILIZATION MEASURES (SUCH AS THE USE OF GRAVEL, RIPRAP, SHOT ROCK, GABIONS, GEOTEXTILES, OR EROSION CONTROL MIX) HAVE BEEN EMPLOYED.

"PRINCIPAL OPERATOR"

- ANY PARTY ASSOCIATED WITH A CONSTRUCTION PROJECT THAT MEETS EITHER OF THE FOLLOWING TWO CRITERIA:
 - THE PARTY HAS OPERATIONAL CONTROL OVER CONSTRUCTION PLANS AND SPECIFICATIONS INCLUDING, BUT NOT LIMITED TO, THE ABILITY TO MAKE MODIFICATIONS TO THOSE PLANS AND SPECIFICATIONS; OR
 - THE PARTY HAS DAY-TO-DAY OPERATIONAL CONTROL OF THOSE ACTIVITIES AT A PROJECT WHICH ARE NECESSARY TO ENSURE COMPLIANCE WITH A EPSC PLAN FOR THE SITE OR OTHER PERMIT CONDITIONS (E.G., THEY ARE AUTHORIZED TO DIRECT WORKERS AT A

SITE TO CARRY OUT ACTIVITIES REQUIRED BY THE EPSC PLANNER COMPLY WITH OTHER PERMIT CONDITIONS).

"STORMWATER"

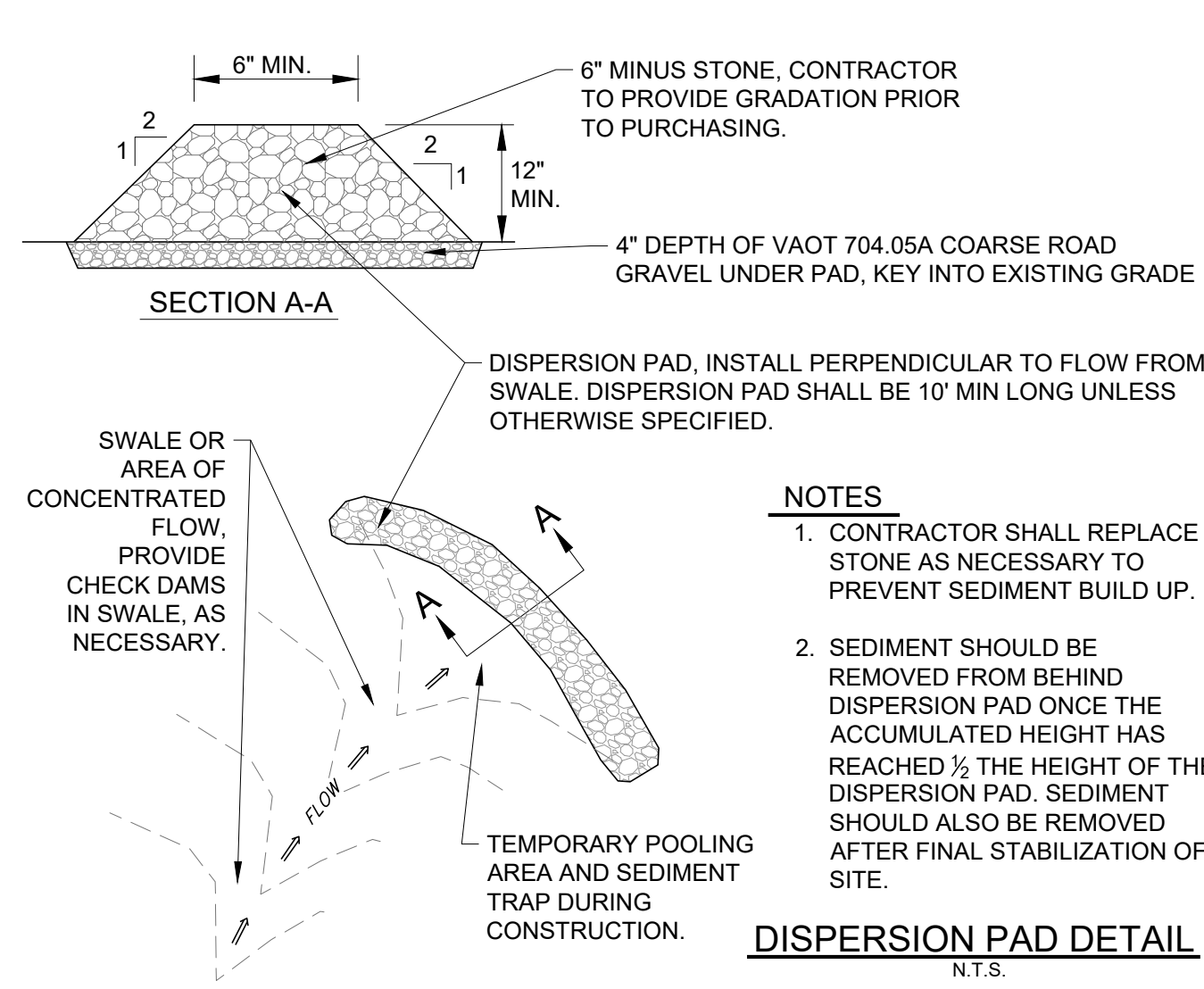
- STORMWATER RUNOFF, SNOWMELT RUNOFF, AND SURFACE RUNOFF AND DRAINAGE.
- STORMWATER DISCHARGE-RELATED ACTIVITIES
- ACTIVITIES THAT CAUSE, CONTRIBUTE TO, OR RESULT IN STORMWATER POINT SOURCE POLLUTANT DISCHARGES, INCLUDING BUT NOT LIMITED TO: EXCAVATION, SITE DEVELOPMENT, GRADING AND OTHER SURFACE DISTURBANCE ACTIVITIES; AND MEASURES TO CONTROL STORMWATER INCLUDING THE SITING, CONSTRUCTION AND OPERATION OF BMPs TO CONTROL, REDUCE OR PREVENT STORMWATER POLLUTION.

"TEMPORARY STABILIZATION"

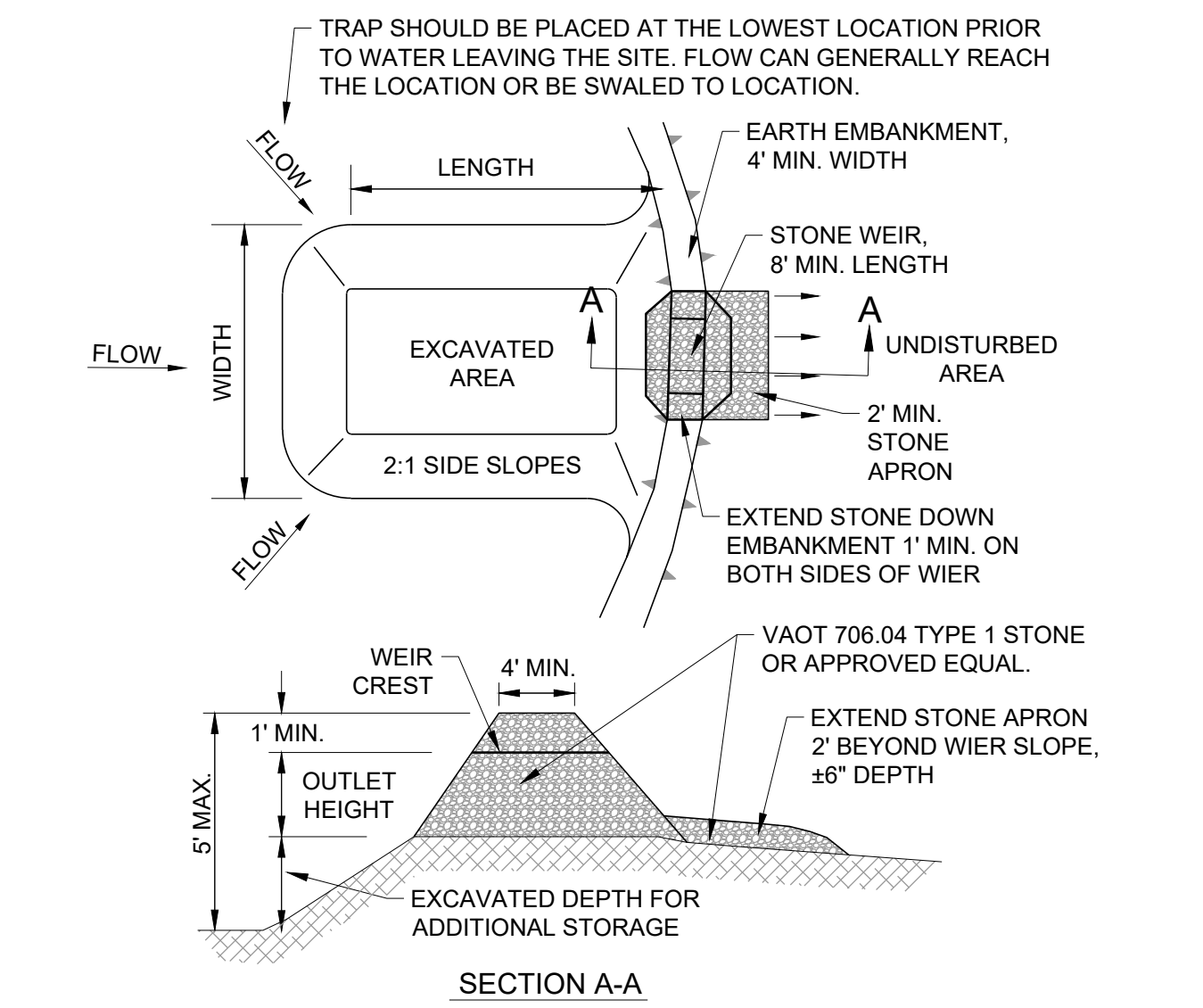
- PROTECTING SOILS IN AREAS WHERE ADDITIONAL SOIL DISTURBANCE ACTIVITIES FROM EROSION BY RAINFALL, RUNOFF, OR WIND, WITH A SURFACE COVER, INCLUDING, BUT NOT LIMITED TO, ESTABLISHMENT OF GROUND VEGETATION, APPLICATION OF MULCH, ROLLED EROSION CONTROL PRODUCTS, SHOT ROCK, GRAVELING, EROSION CONTROL MIX OR PAVING.

"WATERS OF THE STATE"

- ALL RIVERS, STREAMS, CREEKS, BROOKS, RESERVOIRS, PONDS, LAKES, SPRINGS, AND ALL BODIES OF SURFACE WATERS, ARTIFICIAL OR NATURAL, WHICH ARE CONTAINED WITHIN, FLOW THROUGH OR BORDER UPON THE STATE OF VERMONT OR ANY PORTION OF IT.



DISPERSION PAD DETAIL
N.T.S.



NOTES

- AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT (VEGETATION DUFF LAYER). THE POOL AREA SHALL BE CLEARED.
- THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER. THE USE OF GREATER SLOPES MAYBE PERMITTED WITH OSPC OR EPSC SPECIALIST APPROVAL.
- THE STONE USED IN THE OUTLET SHALL BE VAOT 706.04 TYPE 1 STONE OR APPROVED ON SITE SHOT ROCK, PLACED ON MIRAFI 140N OR APPROVED EQUAL DRAINAGE FABRIC.
- SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. IT SHALL BE PLACED ON SITE AND STABILIZED.
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND AS REQUIRED BY THE PERMIT.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
- IF THE SEDIMENT TRAP IS NOT IN THE LOCATION OF A PERMANENT STORMWATER POND, THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS 5 ACRES.
- GENERAL SIZING REQUIREMENTS FOR ANY SEDIMENT TRAPS NOT IN THE LOCATION OF A PERMANENT STORMWATER POND, SHALL BE 3,600 CUBIC FEET PER ACRE OF DRAINAGE AREA. VOLUME CALCULATION FOR NATURAL SEDIMENT TRAPS MAY BE APPROXIMATED USING THE SURFACE AREA AT OUTLET ELEVATION (A), TRAPS MAXIMUM DEPTH (D) AND THE FOLLOWING EQUATION:

$$\text{TOTAL VOLUME} = 0.4 \cdot A \cdot (D) \cdot (\text{FEET})$$

FOR CONSTRUCTED/EXCAVATED TEMPORARY SEDIMENT TRAPS THE SIZE SHALL BE ADJUSTED PROPORTIONALLY FOR LARGER DRAINAGE AREAS BASED ON THE BELOW CHART.

APPROX. DRAINAGE AREA	APPROX. STORAGE VOLUME	RECOMMENDED BOTTOM DIMENSIONS	RECOMMENDED DIMENSIONS AT OUTLET	DEPTH AT OUTLET	SIDE SLOPES
0.25 ACRES (610,000 S.F.)	4900 C.F.	10 FT. WIDE X 13 FT. LONG	22 FT. WIDE X 25 FT. LONG	3 FT.	2:1

- FOR THOSE TEMPORARY SEDIMENT TRAPS TO BE PERMANENT DRY OR WET PONDS, SEDIMENT SHALL BE REMOVED AND THE ENTIRE AREA SEED AND MULCHED OR COVERED WITH EROSION CONTROL MATTING PRIOR TO PUTTING THE STORMWATER POND INTO USE.
- LOCATIONS FOR TEMPORARY SEDIMENT TRAPS TO BE APPROVED BY THE OSPC OR THE EPSC SPECIALIST.

TYPICAL TEMPORARY SEDIMENT TRAP
N.T.S.

WINTER EROSION CONTROL PROCEDURES

(FOR ANY EARTH WORK PERFORMED BETWEEN OCTOBER 15TH AND APRIL 15TH)

WINTER EROSION CONTROL NARRATIVE:
OBJECTIVE - ANY SITE WORK PERFORMED LATER THAN OCTOBER 15TH WILL RESULT IN EXPOSED SOIL THROUGH THE WINTER. THIS PRESENTS A POTENTIAL FOR EROSION THROUGH THE WINTER. THE WINTER EROSION CONTROL MEASURES ARE INTENDED TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION ZONE DURING THAWS AND RAINSTORMS.

WINTER EROSION CONTROL SEQUENCE:
ON-SITE COORDINATOR - THE ON-SITE COORDINATOR SHALL BE SURE ALL EROSION CONTROL MEASURES REQUIRED FOR WINTER CONSTRUCTION ARE INSTALLED BY OCTOBER 15TH AND PRIOR TO GROUND FREEZING. IF A PERMITTED AREA CAN BE LEFT UNDISTURBED UNTIL THE SPRING THE CONTRACTOR SHALL MAKE EVERY EFFORT TO LIMIT THESE AREAS OF DISTURBANCE.

THE CONTRACTOR SHALL STABILIZE ANY PORTION OF THE SITE THAT IS BEING WORKED AND DISTURBED PRIOR TO BEGINNING CONSTRUCTION AT ANOTHER AREA OF THE SITE. AT NO TIME DURING WINTER CONSTRUCTION SHALL THERE BE MORE THAN 1 ACRE OF EXPOSED SOIL ON SITE.

ANTICIPATED WINTER CONSTRUCTION ACTIVITIES WILL INCLUDE ALL ASPECTS OF THE PROJECT PROPOSED DURING SUMMER CONSTRUCTION. THIS IS A CONTINUATION OF WORK WHICH WAS NOT COMPLETED DURING THE SUMMER. MAJOR GRADING IS EXPECTED TO BE COMPLETE BEFORE OCTOBER 15TH.

LIMITS OF DISTURBANCE - LOD WILL BE MOVED AND/OR REPLACED TO REFLECT THE BOUNDARY OF WINTER WORK. CONTRACTOR WILL MAINTAIN A MINIMUM 25' BUFFER FROM PERIMETER CONTROLS TO ALLOW FOR SNOW CLEARING AND MAINTENANCE.

SNOW STORAGE ON SITE - CONTRACTOR WILL CREATE A SNOW MANAGEMENT PLAN. PLAN WILL IDENTIFY LOCATIONS FOR ADEQUATE SNOW STORAGE AND CONTROL SNOW MELT. SNOW STORAGE WILL BE DOWN GRADIENT OF ALL DISTURBED AREAS AND WILL NOT PROHIBIT THE FUNCTION OF ALL PERMANENT STORMWATER TREATMENT STRUCTURES. CONTRACTOR SHALL KEEP ALL DRAINAGE STRUCTURES OPEN AND FREE OF SNOW AND ICE DAMS.

INSTALL SILT FENCE - SILT FENCE SHALL BE INSTALLED ON THE DOWNHILL SIDE OF THE WINTER CONSTRUCTION AREAS AND SOIL STOCKPILE AREAS, AS SHOWN ON THE PLAN, BY OCTOBER 15TH. IF THE GROUND IS UNFROZEN THE SILT FENCE SHALL BE DUG IN AS NORMAL. IF THE GROUND IS FROZEN CONTACT THE ENGINEER FOR ALTERNATE OPTIONS (STONE BERM, FILTREXX SILT SOXX, STRAW WATTLES, ETC.).

STABILIZED CONSTRUCTION ENTRANCE - THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL STABILIZED CONSTRUCTION ENTRANCES TO PREVENT SEDIMENT TRACKING OFF SITE. CONTRACTOR SHALL ENLARGE THE WIDTH OF ACCESS TO PROVIDE ADDITIONAL ROOM FOR SNOW STOCKPILING, IF NEEDED. ADDITIONAL STONE SHALL BE ADDED OR THE LENGTH SHALL BE INCREASED, IF ICE AND SNOW LIMITS CONSTRUCTION ENTRANCES' ABILITY TO HOLD SEDIMENTS ON SITE. WINTER STABILIZATION AREAS NOT INVOLVED IN WINTER CONSTRUCTION SHALL BE AT LEAST TEMPORARILY STABILIZED BY OCTOBER 15. AFTER OCTOBER 15TH, ALL AREAS DISTURBED DURING WINTER CONSTRUCTION SHALL BE STABILIZED DAILY TO PREVENT EXPOSURE FROM RAIN EVENTS AND ACCUMULATION OF SNOWFALL (SEE EXCEPTIONS BELOW). CONTRACTOR SHALL ADD ADDITIONAL STONE, AS NECESSARY, TO PROVIDE STABILIZATION THROUGH WINTER CONSTRUCTION ON ALL AREAS WHERE CONSTRUCTION TRAFFIC IS ANTICIPATED.

EXCEPTIONS:

- HYDROSEEDING AFTER OCTOBER 15TH AND BEFORE APRIL 15TH MUST BE STABILIZED WITH STRAW MULCH OR EROSION CONTROL MATTING.
- SNOW AND/OR ICE MUST BE REMOVED TO, AT MOST, ONE INCH PRIOR TO APPLYING MULCH OR EROSION CONTROL STABILIZATION MATTING.
- IF NO PRECIPITATION, WITHIN 24 HOURS, IS FORECASTED AND WORK WILL REMAIN IN THE SAME DISTURBED AREA WITHIN 24 HOURS, DAILY STABILIZATION IS NOT NECESSARY.
- DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS OPEN UTILITY TRENCHES, REQUIRE STABILIZATION AT THE END OF EACH WORK WEEK.

MAINTENANCE - ALL DISTURBED AREAS SHALL BE MONITORED BY THE CONTRACTOR AND THE ON-SITE PLAN COORDINATOR IN ACCORDANCE WITH THE INSPECTION REQUIREMENT OUTLINED IN THE INDIVIDUAL CONSTRUCTION STORMWATER PERMIT. THE CONTRACTOR AND ON-SITE PLAN COORDINATOR SHALL EVALUATE THE SITE AFTER A THAW OR RAINSTORM. THE CONTRACTOR OR ON-SITE PLAN COORDINATOR SHALL NOTIFY THE ENGINEER IF ANY EROSION CONTROL MEASURES APPEAR TO BE INADEQUATE. THE CONTRACTOR OR ON-SITE PLAN COORDINATOR SHALL IMMEDIATELY (WITHIN THE SAME BUSINESS DAY) IMPLEMENT ANY FURTHER EROSION CONTROL MEASURES SPECIFIED BY THE ENGINEER. THE CONTRACTOR OR ON-SITE PLAN COORDINATOR SHALL ADD MULCH, AS NECESSARY, THROUGHOUT THE WINTER AFTER THAWS OR RAINSTORMS. THE MULCH DEPTH SHALL BE BROUGHT UP TO 2". THE MULCH AND SILT FENCE SHALL BE MAINTAINED UNTIL A PERMANENT GROUND COVER (70% STABILIZATION) IS ESTABLISHED IN THE SPRING. THE SITE SHALL BE REMULCHED AND RESEEDED, IN THE SPRING, AS REQUIRED TO ESTABLISH A VIGOROUS PERMANENT GROUND COVER.

INSPECTION - THE ON-SITE COORDINATOR SHALL BE RESPONSIBLE FOR, AT A MINIMUM, DAILY WRITTEN INSPECTIONS WHILE THE SITE IS DISTURBED OR WEEKLY IF EVERYTHING IS STABILIZED BUT CONSTRUCTION IS ON-GOING. IF DURING WINTER CONSTRUCTION, EARTH DISTURBANCE ACTIVITIES TEMPORARILY CEASE AND THE SITE HAS BEEN FULLY STABILIZED, INSPECTION AND MONITORING REQUIREMENTS FOR THE ON-SITE COORDINATOR MAY BE REDUCED TO ONE PER MONTH MINIMUM. ALL INSPECTION SHEETS SHALL BE KEPT ON SITE AND BE AVAILABLE UPON REQUEST.

ON-SITE PLAN COORDINATOR (OSPC) NOTES

- A QUALIFIED PERSON OR PERSONS SHALL BE DESIGNATED AS THE ON-SITE PLAN COORDINATOR (OSPC).
- THE OSPC SHALL BE KNOWLEDGEABLE IN PRINCIPLES AND PRACTICES OF EROSION PREVENTATION AND POSSESS SKILLS TO ASSESS CONDITIONS AT THE CONSTRUCTION SITE THAT COULD IMPACT STORMWATER QUALITY AND TO ASSESS EFFECTIVENESS OF EPSC MEASURES SELECTED TO CONTROL QUALITY OF STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY.
- THE OSPC SHALL BE RESPONSIBLE FOR ON-SITE IMPLEMENTATION OF THIS EPSC PLAN, INCLUDING INSPECTION REPORTS, TURBIDITY MONITORING AND DISCHARGE REPORTING.
- THE OSPC SHALL HAVE AUTHORITY TO STOP AND/OR MODIFY CONSTRUCTION ACTIVITIES AS NECESSARY TO COMPLY WITH THIS EPSC PLAN AND TERMS AND CONDITIONS OF THE PERMIT.
- THE OSPC SHALL BE RESPONSIBLE FOR INSPECTIONS AND REPORTING PER THE PERMIT.
- THE OSPC OR HIS/HER DESIGNEE SHALL BE ON-SITE ON A DAILY BASIS DURING ACTIVE CONSTRUCTION.
- THE OSPC'S CONTACT INFORMATION SHALL BE PROVIDED TO VT DEC PRIOR TO START OF CONSTRUCTION.

HAZELETT STRIP-CASTING CORPORATION

COLCHESTER, VT



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STAMP:

Project: **THE 'H' AT MALLETT'S BAY**

180 & 166 W. Lakeshore Drive
Colchester, Vermont

Project No. 23314

Scale N.T.S.

Drawn by SWH

Checked by

Date 03/03/25

Revisions

No.	Date	Description
	10/03/25	Town Final

EPSC DETAILS

CD-9

HAZELETT STRIP-CASTING CORPORATION

COLCHESTER, VT



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STAMP:

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THE 'H' AT MALLETTS BAY

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Drawn by SWH

Checked by

Date 10/03/25

Revisions

No.	Date	Description

Drawing Title

CIVIL DETAILS

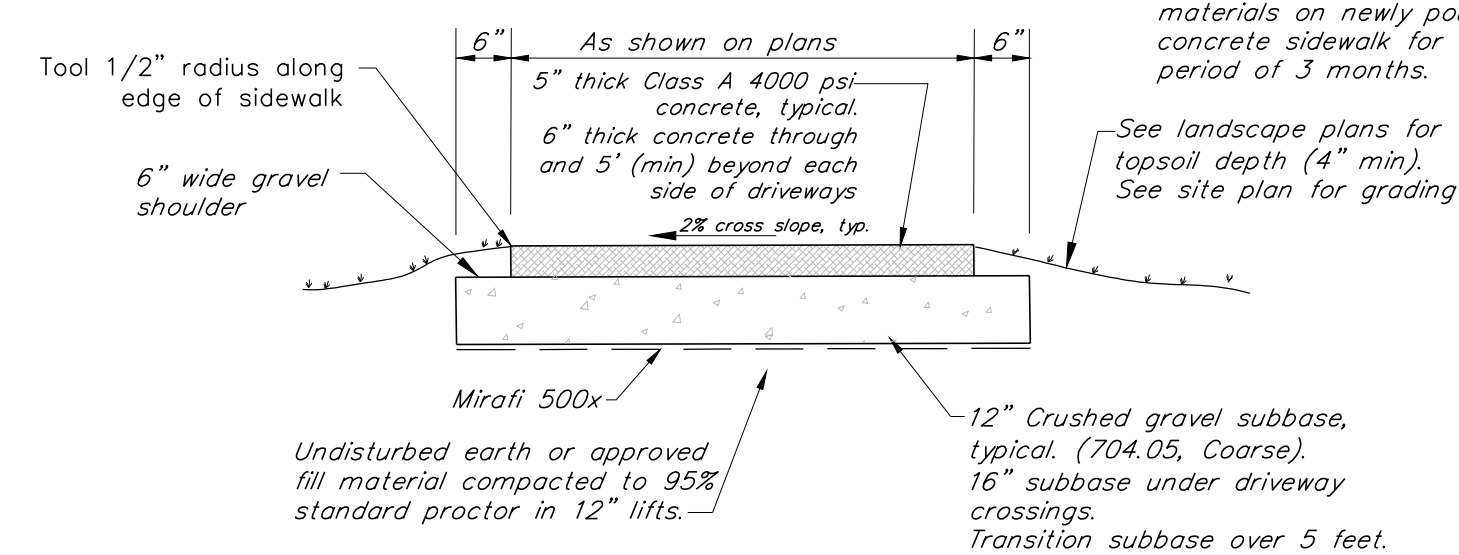
Drawing No.

CD-10

Concrete Notes

- All concrete used in the construction of concrete sidewalk shall be air entrained and made with Portland cement. The concrete shall meet section 541 of the State of Vermont Standard Specification for Construction for Class A concrete and have 28 day compressive strength of 4,000 psi.
- Broom finish concrete.
- Construction joints shall be spaced max. 20' in all directions. Joint filler shall be resilient non-extruding cellular fiber joint, uniformly saturated with asphalt, offering a minimum of 70% recovery after compression.
- Score control joints 1-1/2" depth at intervals equal to width of sidewalk. All joints shall be tooled.
- Apply SpecChem Cure Shield cure and seal product to all concrete surfaces, per the manufacturer's specifications.
- Concrete construction and curing shall conform to section 618.03 of the current VAOT Standard Specifications for Construction. Appropriate precautions shall be taken to properly install and cure concrete to prevent surface cracking, especially during periods of high winds and high ambient air temperatures. Surface cracks that form from failure to manage concrete curing and addressing environmental conditions will be grounds for concrete replacement.

Note:
Owner or Contractor is not allowed to place deicing materials on newly poured concrete sidewalk for a period of 3 months.



New Concrete Sidewalk Detail

(For Concrete Walks 6ft. Wide or Less)
N.T.S.

Note:
Owner or Contractor is not allowed to place deicing materials on newly poured concrete sidewalk for a period of 6 months.

All concrete used in the construction of Multi-Use Concrete shall be made with Portland cement. The concrete shall meet section 541 of the State of Vermont Standard Specifications for Construction, have 28 day compressive strength of 5,000 psi, and meet the following mix design.

Max. water-cement ratio (lb./lb.)	0.44
Min. cement factor (lbs./C.Y.)	705
Entrained air content (%)	5 - 7
Slump (inches, before adding HRWR)	2 - 4

Use air entrained agent conforming to ASTM C260 with 5-7% total air. Use high range water reducing agent conforming to ASTM C494 in all concrete.

Concrete Slab

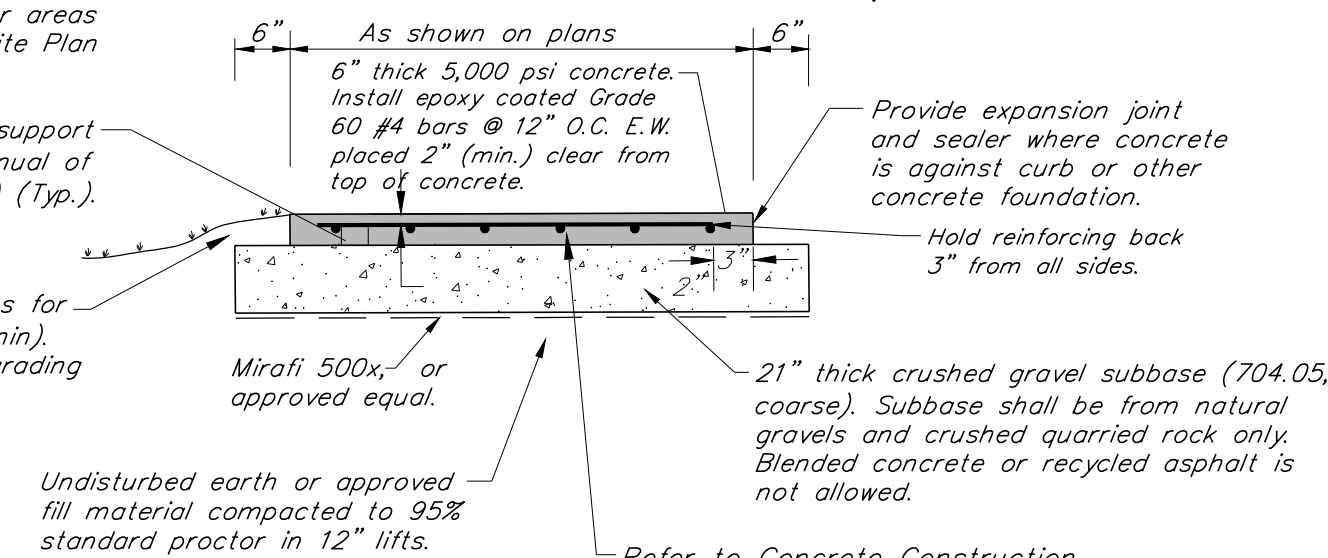
- Broom finish concrete
- Construction joints shall be spaced max. 24' in all directions. See New Concrete Construction Joint Detail.
- See Site Plan for construction joint layout.
- Tool finish control joints 1-1/2" depth at intervals equal to width of sidewalk or as shown on the Site Plans.
- Apply SpecChem Cure Shield cure and seal product to all concrete surfaces, per the manufacturer's specifications.
- Concrete may not be poured if frost is present or thawing in the subgrade, if the temperature is 40°F or less, or during unseasonable weather conditions.
- Concrete construction and curing shall conform to section 618.03 of the current VAOT Standard Specifications for Construction

Concrete shall be installed in alternating pours at construction joints. Continuous pours through construction joints is not allowed. Refer to Concrete Construction Joint/Control Joint Detail.

Refer to Concrete Thickened Edge Detail for areas identified on Site Plan

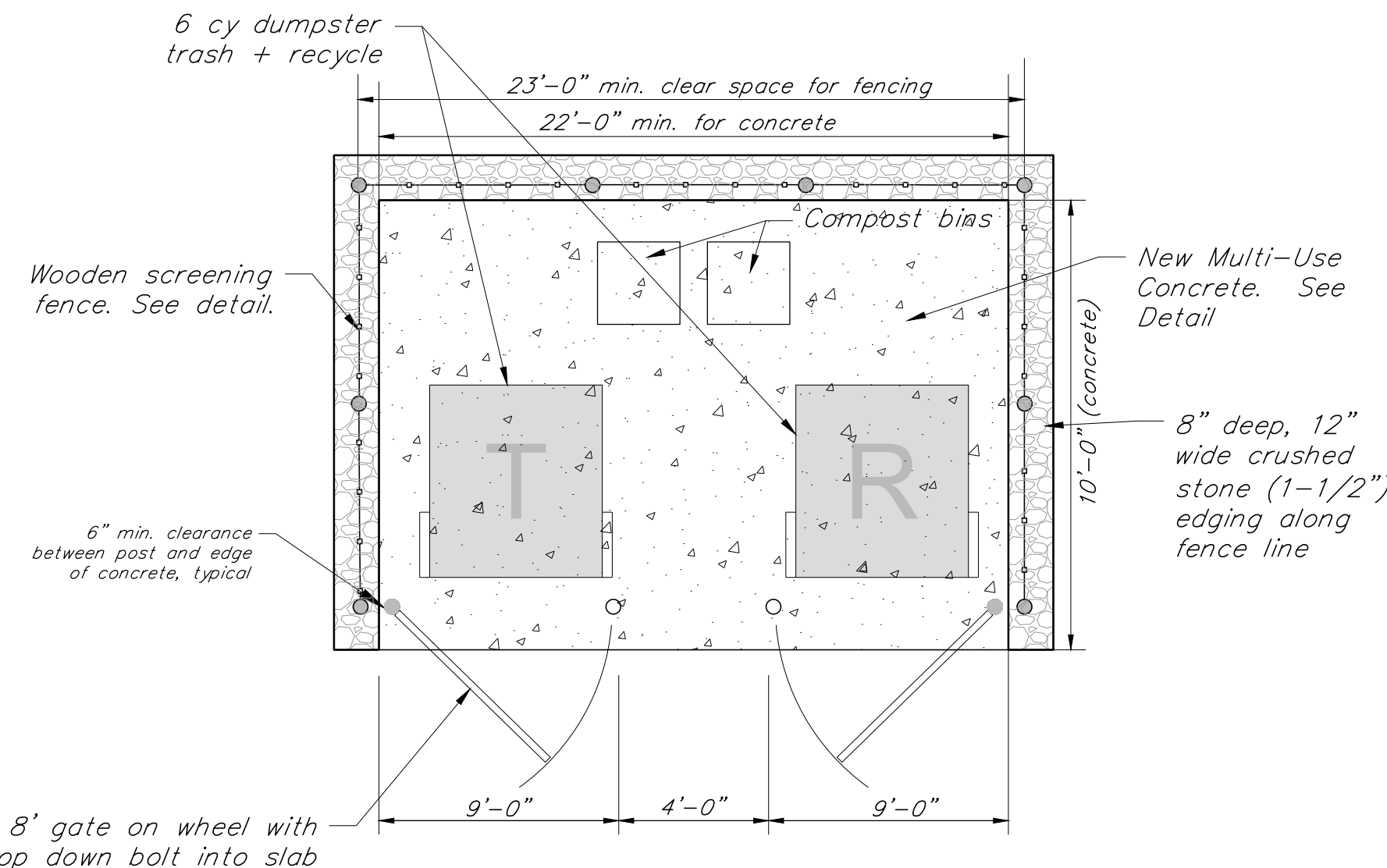
Concrete block support (per CSI Manual of Standard Practice) (Typ.).

See landscape plans for topsoil depth (4" min). See site plan for grading



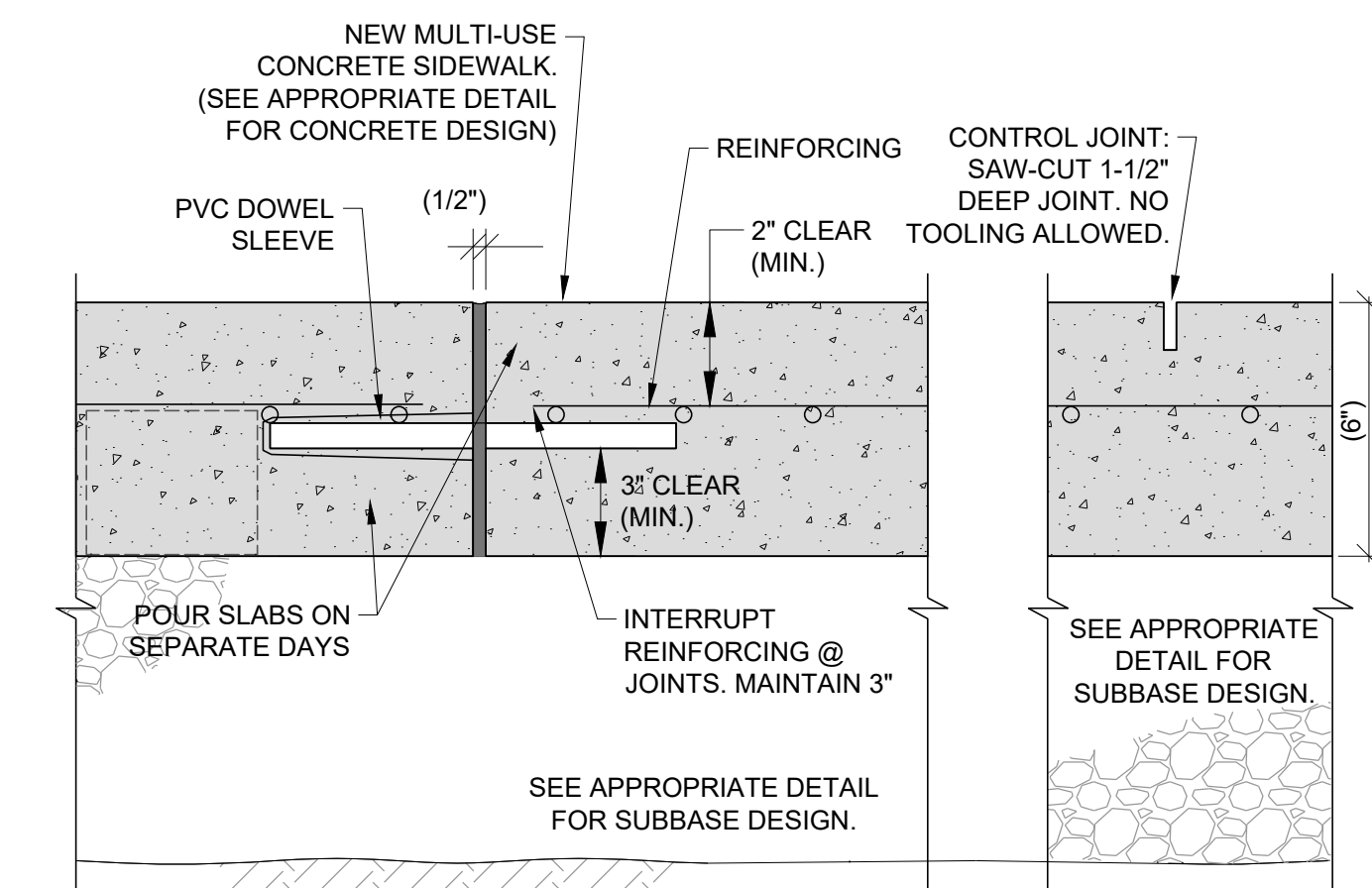
New Multi-Use Concrete Detail

N.T.S.



Trash Enclosure Detail

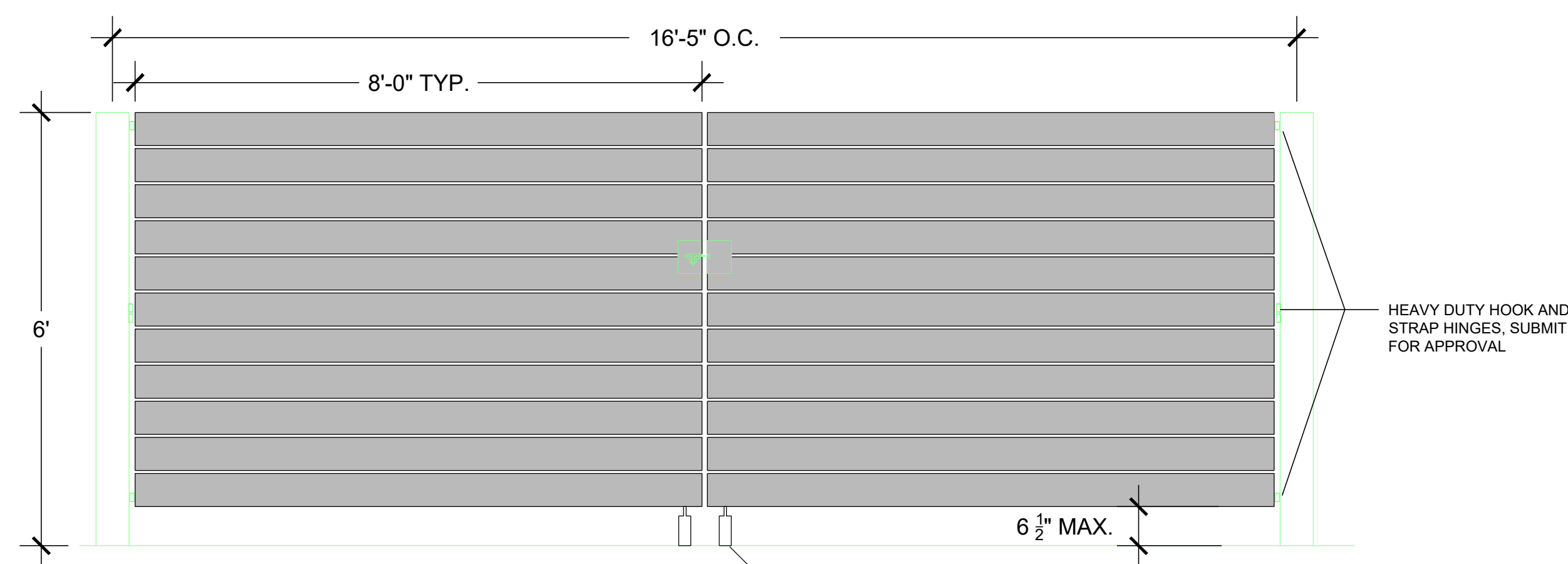
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CONTRACTOR TO USE THIS PINNING DETAIL TO PIN NEW CONCRETE TO NEW CONCRETE (WALK TO WALK, WALK TO RETAINING WALLS, STAIRS, ETC).

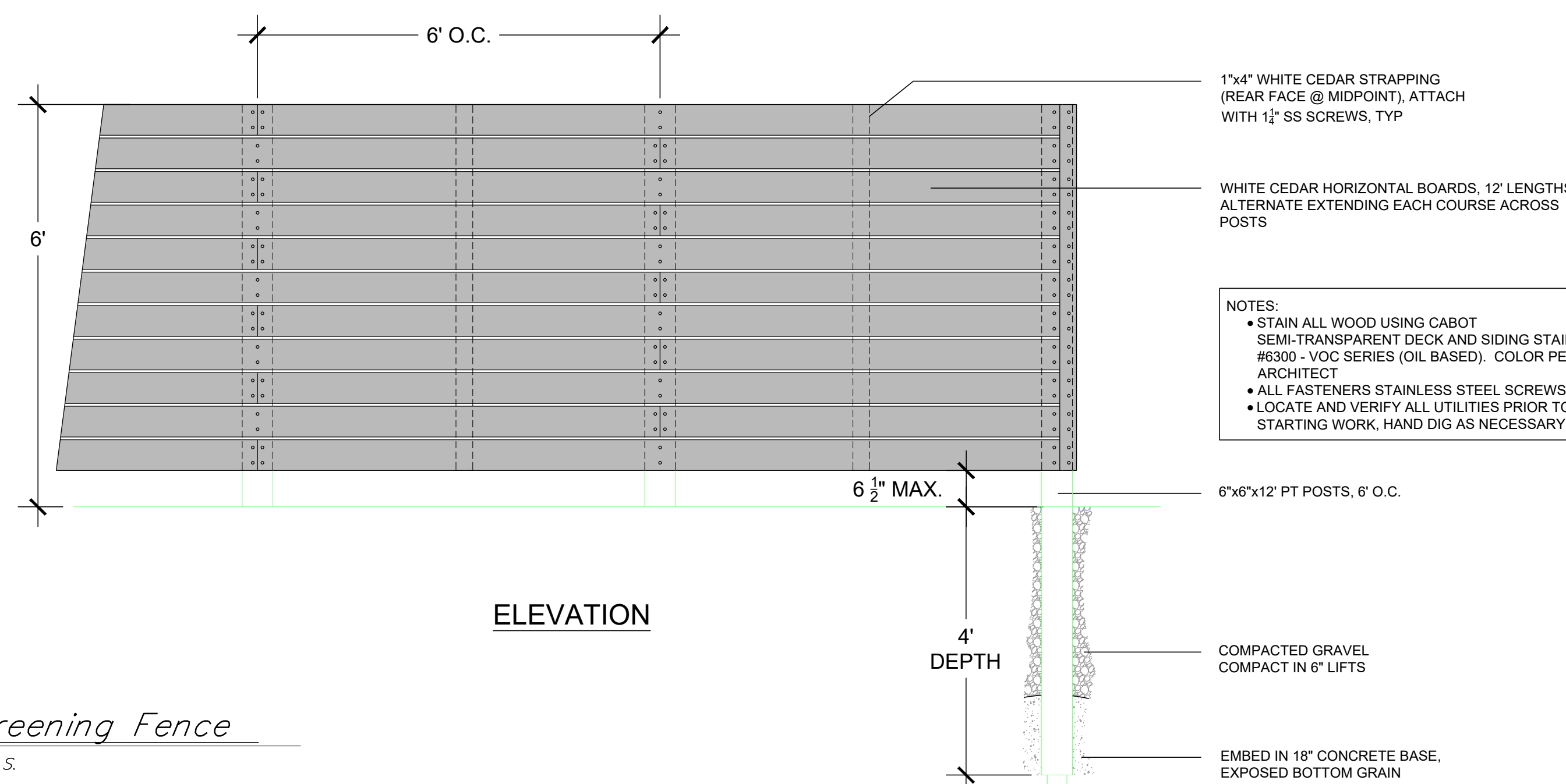
NEW CONCRETE CONSTRUCTION JOINT/CONTROL JOINT DETAIL

N.T.S.



GATE FRONT

- GATE NOTES:
- PROVIDE SHOP DRAWING FOR GATE FRAMING, HINGES AND LATCHING MECHANISM
 - MATCH HORIZONTAL BOARD SPACING OF ADJACENT PANELS
 - PROVIDE HEAVY-DUTY SPRING-LOADED GATE CASTERS, SUBMIT FOR APPROVAL
 - ALL FASTENERS STAINLESS STEEL SCREWS
 - LOCATE AND VERIFY ALL UTILITIES PRIOR TO STARTING WORK, HAND DIG AS NECESSARY



ELEVATION

Wooden Screening Fence

N.T.S.