



Beckley Phase 5 Steep Slope Seeding Procedure

After final grading is complete, apply starter fertilizer and lime to the surface at rates recommended based on soil tests. Then apply erosion control blankets (see sheet DN-4). Finally apply Ernst Native Steep Slope Mix with Annual Ryegrass via hydroseed (ERNMX-181). Seeding rates found below.

Ernst Conservation Seeds
8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Native Steep Slope Mix w/Annual Ryegrass - ERNMX-181

Botanical Name Common Name Price/lb

31.10 % *Sorghastrum nutans*, New England 2 Ecotype Indiangrass, New England 2 Ecotype 14.47
20.00 % *Lolium multiflorum* Annual Ryegrass 0.88
14.00 % *Andropogon gerardii*, 'Niagara' Big Bluestem, 'Niagara' 11.31
10.00 % *Elymus virginicus*, 'Madison' Virginia Wildrye, 'Madison' 4.68
7.00 % *Elymus canadensis* Canada Wildrye 5.22
4.00 % *Agrostis perennans*, Albany Pine Bush-NY Ecotype Autumn Bentgrass, Albany Pine Bush-NY Ecotype 15.40
4.00 % *Panicum virgatum*, 'Carthage', NC Ecotype Switchgrass, 'Carthage', NC Ecotype 5.32
3.00 % *Panicum clandestinum*, Tioga Deertongue, Tioga 18.40
1.50 % *Echinacea purpurea* Purple Coneflower 39.60
1.30 % *Chamaecrista fasciculata*, PA Ecotype Partridge Pea, PA Ecotype 6.60
1.20 % *Heliopsis helianthoides*, PA Ecotype Oxeye Sunflower, PA Ecotype 30.80
1.00 % *Coreopsis lanceolata* Lanceleaf Coreopsis 26.40
1.00 % *Rudbeckia hirta* Blackeyed Susan 22.00
0.30 % *Monarda fistulosa*, Fort Indiantown Gap-PA Ecotype Wild Bergamot, Fort Indiantown Gap-PA Ecotype 110.00
0.20 % *Asclepias syriaca* Common Milkweed 149.60
0.20 % *Solidago rugosa*, PA Ecotype Wrinkleleaf Goldenrod, PA Ecotype 308.00
0.10 % *Aster lateriflorus* Calico Aster 308.00
0.10 % *Aster pilosus*, PA Ecotype Heath Aster, PA Ecotype 67.77

100.00 % Mix Price/lb Bulk: \$11.63

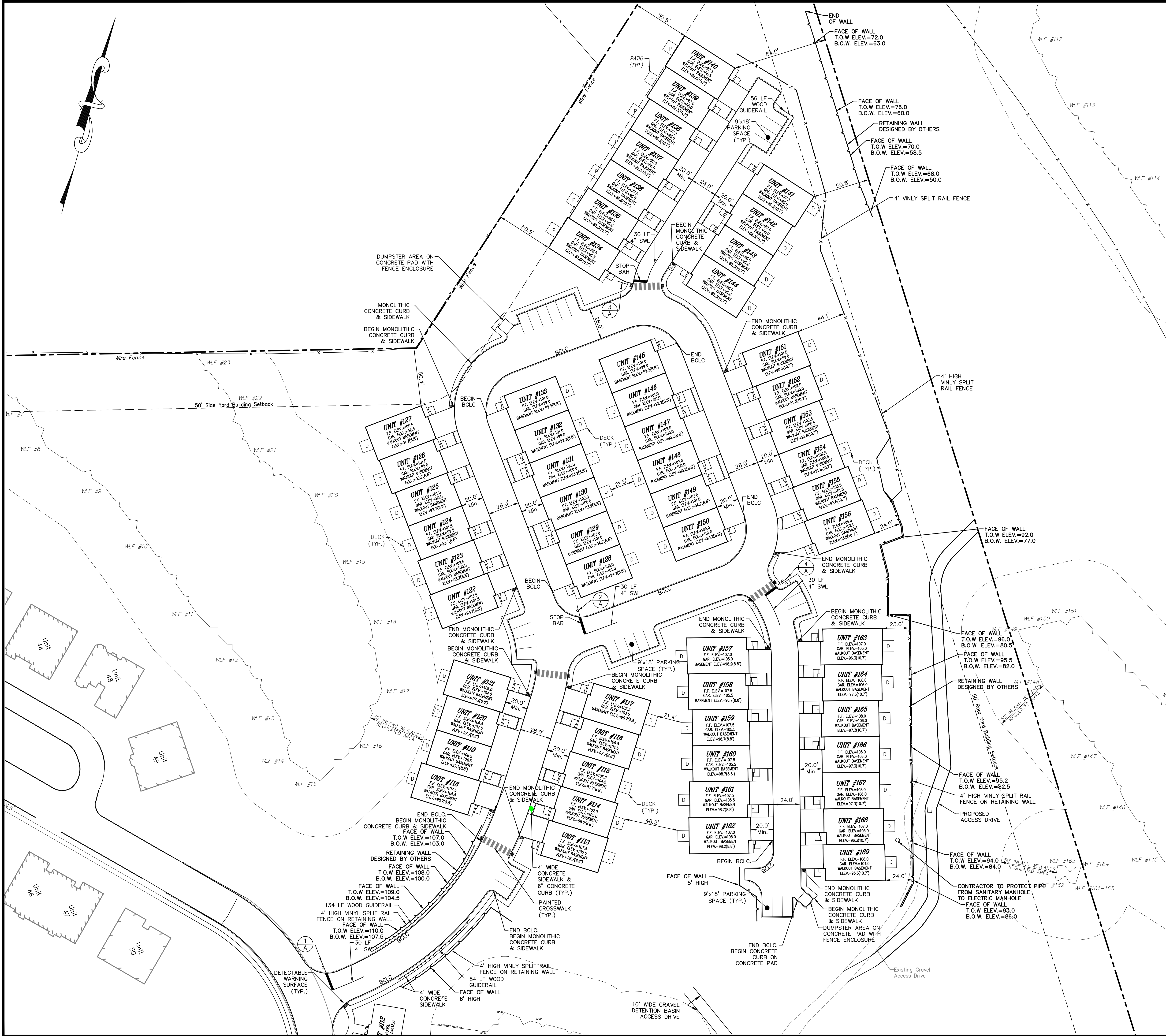
Seeding Rate: 60 lb per acre, or 1.5 lb per 1,000 sq ft

Erosion Control & Revegetation

The native grass and forb species tolerate poor soils typically found on steep slopes in the eastern United States. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Price quotes guaranteed for 30 days.
All prices are FOB Meadville, PA.
Please check our web site at www.ernstseed.com
for current pricing when placing orders.

Note: Rip-rap generated on site can be used in lieu of the erosion control blanket and seeding at the developer's discretion.



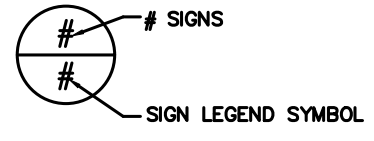
GENERAL NOTES:

- REFER TO OTHER PLANS, DETAILS AND PROJECT MANUAL FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE SITE ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE.
- THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE DETAIL SHEETS.
- THE CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING AND DUMPSTER ENCLOSURE.
- SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
- DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
- ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES AND UNIFORMED TRAFFIC OFFICERS AS REQUIRED, ORDERED BY THE ENGINEER OR REQUIRED BY THE LOCAL GOVERNING AUTHORITIES.
- REFER TO DETAIL SHEETS FOR PAVEMENT, CURBING AND SIDEWALK INFORMATION.
- TRAFFIC CONTROL SIGNAGE SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. SIGNS SHALL BE INSTALLED PLUMB WITH THE EDGE OF THE SIGN 2' OFF THE FACE OF THE CURB.
- THE CONTRACT LIMIT IS THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED.
- OSHA REGULATIONS MAKE IT UNLAWFUL TO OPERATE CRANES, BOOMS, HOISTS, ETC. WITHIN TEN (10) FEET OF ANY ELECTRIC LINE UNDER 50KV. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINE(S), CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS.
- THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PAINT MIXTURE PRIOR TO STRIPING.
- PAVEMENT MARKING KEY:
 - 4" SYDL - 4" SOLID YELLOW DOUBLE LINE
 - 4" SYL - 4" SOLID YELLOW LINE
 - 4" SWL - 4" SOLID WHITE LINE
 - 12" SWSB - 12" SOLID WHITE STOP BAR
- PARKING SPACES SHALL BE STRIPED WITH 4" SWL.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF CONSTRUCTION.
- ALL CONSTRUCTION SHALL COMPLY WITH TOWN STANDARDS AND SPECIFICATIONS.
- THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL STATE AND TOWN PERMITS FOR WORK WITHIN ROAD RIGHT OF WAYS, INCLUDING SEWER AND WATER CONNECTION PERMITS. AN EROSION CONTROL BOND IS REQUIRED BEFORE THE START OF ANY ACTIVITY. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE, AND PROVIDE TRAFFIC PROTECTION NECESSARY FOR THIS WORK.
- EXISTING PROPERTY AND TOPOGRAPHY BASED ON MAPPING PREPARED BY LRC ENGINEERING & SURVEYING, LLC.
- ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, SITE ENGINEER AND TOWN ENGINEER PRIOR TO INSTALLATION.
- INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE OF DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT CALL BEFORE YOU DIG 72 HOURS BEFORE COMMENCEMENT OF WORK AT (800)922-4455 AND VERIFY ALL LOCATIONS.
- PAVEMENT MARKINGS SHALL BE 15 MINUTE FAST DRYING TYPE.
- THE SITE IS CURRENTLY SERVICED BY PUBLIC WATER, SANITARY SEWER AND GAS.
- 12" SWSB (STOP BAR) AND 4" SYDL AND SWL PAVEMENT MARKINGS LOCATED IN DRIVEWAYS TO BE EPOXY RESIN TYPE.
- ALL CURB/HANDICAP RAMP DESIGNS SHALL CONFORM TO ANSI STANDARDS OR THE TOWN SITE PLAN STANDARDS, WHICHEVER IS MORE RESTRICTIVE.
- BEFORE THE START OF ANY WORK ON SITE THE CONTRACTOR SHALL SETUP A PRE-CONSTRUCTION MEETING WITH TOWN STAFF, WHICH SHALL INCLUDE BUT NOT LIMITED TO, BUILDING INSPECTORS OFFICE, HEALTH DEPARTMENT, PUBLIC WORKS DEPARTMENT AND PLANNING DEPARTMENT.
- SIGNS SHALL CONFORM TO THE MUTCD FOR SHAPE, COLOR, SIZE, LEGEND AND RETROREFLECTIVITY.
- BCLC - BITUMINOUS CONCRETE LIP CURB.

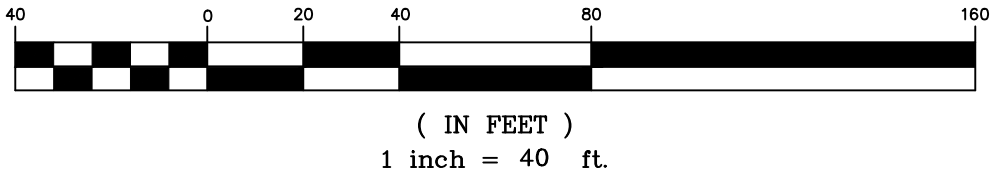
NOTE: The minimum spacing between adjacent structures shall be 20 feet.

SIGN LEGEND

SYM.	LEGEND	QTY.
P	PATIO	
D	DECK	
A	STOP 30"	4



GRAPHIC SCALE



Date	Revisions
12/15/20	REVISIONS FOR TOWN ENGINEER REVIEW COMMENTS
1/17/21	REVISIONS FOR TOWN ENGINEER REVIEW COMMENTS
2/2/21	REVISIONS FOR TOWN ENGINEER REVIEW COMMENTS



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SITE PLAN

BECKLEY FARMS
PHASE 5 REDESIGN
BECKLEY ROAD
TOWN OF BERLIN
STATE OF CONNECTICUT

Designed	RHR	CAD File	SP10108601.dwg	Sheet No.
Drawn	RHR	Project No.	11-1173	
Checked	JW/REM	Date	2/22/18	
Approved	JW/REM	Scale	1"=40'	

SP-1



Storm Drainage Data

Structure Information	Top Of Frame	Invert In	Invert Out	Pipe Information
CB #1 Type C	108.41	-----	Match Existing	
CB #2 Type C	102.50	-----	99.00	53" - 15" HDPE @ S=2.0%
CB #3 Type C	101.70	93.08 (N) 97.94 (W)	93.08 (E)	
CB #4 Type C	98.08	-----	94.30	25" - 15" HDPE @ S=1.0%
CB #5 Type C-L	98.32	94.05	94.05	139" - 15" HDPE @ S=0.5%
CB #26 Type C	101.08	93.35	93.35	54" - 15" HDPE @ S=0.5%
CB #3 Type C	101.70	93.08 (N) 97.94 (W)	93.08 (E)	126" - 15" HDPE @ S=1.0%
CB #7 Type C	102.20	98.49 (N) 91.82 (W)	91.82 (E)	
CB #6 Type C	102.29	-----	98.70	21" - 15" HDPE @ S=1.0%
CB #7 Type C	102.20	98.49 (N) 91.82 (W)	91.82 (E)	54" - 15" HDPE @ S=1.0%
CB #8 Type C	103.23	99.53 (E) 91.36 (N)	91.11 (S)	
CB #9 Type C	103.20	-----	99.70	244" - 15" HDPE @ S=1.0%
CB #10 Type C	102.50	99.53 (E) 98.00 (E) 88.67 (N)	87.17 (S)	5" - 18" HDPE @ S=10.0%
Stormceptor 2400 #11	102.50	86.67 (N)	86.58 (S)	177" - 24" HDPE @ S=3.5%
FES #12	-----	-----	80.38	
CB #13 Type C-L	88.50	-----	83.60	122" - 12" HDPE @ S=3.8%
FES #14	-----	-----	79.00	
CB #15 Type C-L	95.75	-----	92.23	15" - 15" HDPE @ S=1.0%
CB #16 Type C	95.92	92.08	92.08	
CB #17 Type C-L	95.92	-----	92.30	22" - 15" HDPE @ S=1.0%
CB #16 Type C	95.92	92.08	92.08	64" - 15" HDPE @ S=1.0%
CB #18 Type C	96.83	91.44 (W) 86.30 (N)	86.05 (E)	
CB #22 Type C-L	94.35	-----	90.85	17" - 15" HDPE @ S=1.0%
CB #21 Type C-L	94.35	90.68	90.68	116" - 15" HDPE @ S=1.0%
CB #20 Type C-L	96.00	89.52	86.80	27" - 15" HDPE @ S=1.0%
CB #19 Type C-L	96.24	86.53	86.53	23" - 15" HDPE @ S=1.0%
CB #18 Type C	96.80	91.44 (W) 86.30 (N)	86.05 (E)	56" - 18" HDPE @ S=1.0%
Stormceptor 2400 #23	98.00	85.49	85.41	62" - 18" HDPE @ S=10.0%
CB #24	86.50	81.87 (W) 83.00 (S)	81.87	21" - 18" HDPE @ S=2.0%
DMH #25	86.20	81.45 (W)	81.45 (E)	
DMH #28	89.00	79.07	78.00	82" - 12" CORR. HDPE @ S=14.0%
DMH #29	70.00	66.50	57.08	59" - 12" HDPE @ S=4.1%
FES #30	-----	-----	54.66	

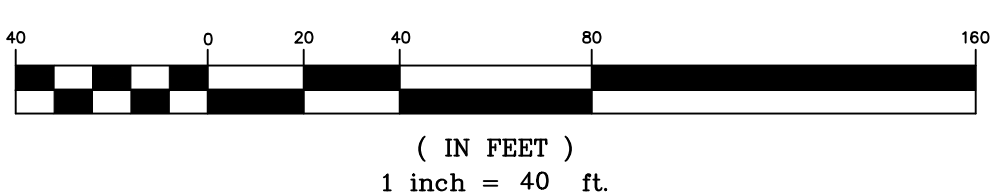
GRADING AND DRAINAGE NOTES:

- SEE SITE PLAN FOR ADDITIONAL GENERAL NOTES.
- THIS DRAWING IS INTENDED TO DEPICT SITE GRADING AND DRAINAGE INSTALLATION. REFER TO SITE PLAN FOR GENERAL INFORMATION, AND DETAIL SHEETS FOR DETAILS.
- THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON DRAWINGS. REFER TO EROSION CONTROL PLAN FOR LIMIT OF DISTURBANCE AND NOTES.
- TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR USE IN FINAL LANDSCAPING.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED BY GOVERNMENT AND LOCAL AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE LOCAL MUNICIPALITIES REQUIRED TO PERFORM ALL REQUIRED WORK. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
- CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE LOCAL MUNICIPALITIES TO SECURE PERMITS AND FEES FOR STREET CUTS AND CONNECTIONS TO EXISTING UTILITIES.
- THE CONTRACTOR SHALL COMPACT FILL IN 8" MAXIMUM LIFTS UNDER ALL PARKING, BUILDING, AND DRIVE AREAS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR TEST) OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. TEST PITS SHALL BE DUG AT ALL LOCATIONS WHERE PROPOSED UTILITIES, CROSS-EXISTING UTILITIES AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE UTILITIES SHALL BE DETERMINED. THE CONTRACTOR SHALL CONTACT THE SITE ENGINEER IN THE EVENT OF ANY UNRESOLVED CONFLICTS BETWEEN EXISTING AND PROPOSED UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
- SHOP DRAWINGS: THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF MATERIALS AND STRUCTURES FOR REVIEW AND APPROVAL PRIOR TO DELIVERY TO THE SITE. ALLOW 14 WORKING DAYS FOR REVIEW.
- CORRUGATED POLYETHYLENE PIPE (HDPE) AND FITTINGS SHALL BE SOLID TYPE S WITH A SMOOTH INTERIOR WALL BY HANCOY "HI-Q", OR EQUAL WITH SNAP AND SPIN-ON COUPLINGS, AND MEET THE REQUIREMENTS OF ASTM A405, F667, AND AASHTO M249.
- SAW CUT ALL EXISTING PAVEMENT WHERE UTILITY PIPING IS TO BE INSTALLED.
- ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
- THE CONTRACTOR SHALL COMPACT THE PIPE BACKFILL IN 8" LIFTS ACCORDING TO THE PIPE BEDDING DETAILS. TRENCH BOTTOMS SHALL BE STABLE IN HIGH GROUNDWATER AREAS. A PIPE FOUNDATION SHALL BE USED IN AREAS OF ROCK EXCAVATION. STORM SEWERS MAY BE PLACED PRIOR TO PLACING FILL.
- UNDERDRAINS SHALL BE ADDED, IF DETERMINED NECESSARY IN THE FIELD BY THE OWNER/ENGINEER, AFTER SUBGRADE IS ROUGH GRADED.
- A SIX-INCH MINIMUM CLEARANCE SHALL BE MAINTAINED BETWEEN STORM AND SANITARY SEWER LINES.
- CONTRACTOR SHALL PROVIDE ALL BENDS, FITTINGS, ADAPTERS, ETC., AS REQUIRED FOR PIPE CONNECTIONS FROM ROOF/FOOTING DRAIN CONNECTION TO ROOF LEADERS AND TO STORM DRAINAGE SYSTEM.
- MANHOLE RIMS AND CATCH BASIN GRATES SHALL BE SET TO ELEVATIONS SHOWN. SET ALL EXISTING MANHOLE RIMS AND VALVE COVERS TO BE RAISED OR LOWERED FLUSH WITH FINAL GRADE AS NECESSARY.
- SITE CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND CABLES FOR SITE LIGHTING WITH THE BUILDING ELECTRICIAN.
- ALL CONSTRUCTION IS SUBJECT TO INSPECTION PRIOR TO APPROVAL. FOR BACKFILL IN ACCORDANCE WITH THE APPROPRIATE TOWN REQUIREMENTS.
- THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, OR LANDSCAPED AREAS DISTURBED DURING CONSTRUCTION, TO ITS ORIGINAL CONDITION OR BETTER.
- CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE TOWN AGENT AND/OR OWNER'S REPRESENTATIVE PRIOR TO THE START OF WORK ON THE SITE.
- PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILTING OF ANY WATERCOURSE OR WETLANDS IN ACCORDANCE WITH THE REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION GUIDELINES FOR SOIL EROSION AND SEDIMENT POLLUTION CONTROL. IN ADDITION, THE CONTRACTOR SHALL STRICTLY ADHERE TO THE "EROSION CONTROL PLAN" CONTAINED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE TO POST ALL BONDS AS REQUIRED BY THE LOCAL MUNICIPALITIES, WHICH WOULD GUARANTEE THE PROPER IMPLEMENTATION OF THE PLAN.
- ALL SITE WORK, MATERIALS OR CONSTRUCTION AND CONSTRUCTION METHODS SHALL CONFORM TO THE SPECIFICATIONS AND DETAILS AND APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION. ALL FILL MATERIAL UNDER STRUCTURES AND PAVED AREAS SHALL BE "LOAD BEARING FILL" (COURSE AGGREGATE #2A) AND SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENT OF THE CTDOT UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. COMPACTION SHALL BE 95% MAXIMUM MODIFIED PROCTOR DENSITY AT 3 PERCENT OF OPTIMUM MOISTURE CONTENT.
- INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES PRIOR TO ANY CONSTRUCTION. CONTACT CALL BEFORE YOU DIG AT (800) 922-4455 AND VERIFY ALL UNDERGROUND AND OVERHEAD UTILITY LOCATIONS.
- THE CONTRACTOR MAY SUBSTITUTE MASONRY STRUCTURES FOR PRECAST STRUCTURES IF APPROVED BY THE SITE ENGINEER AND ALLOWED BY THE TOWN ENGINEER.
- PIPE SEPARATIONS - 10' MIN. BETWEEN WATER AND SEWER, 10' MIN. BETWEEN WATER AND BUILDINGS, AND 5' MIN. BETWEEN WATER AND CATCH BASINS AND DRAIN PIPES.
- SHEETING, SHORING OR OTHER MEANS OF PROTECTION FOR WORKERS, ADJACENT PROPERTY AND THE GENERAL PUBLIC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. HE SHALL FOLLOW ALL REGULATIONS OF THE TOWN AND ALL REQUIREMENTS OF STATE AND FEDERAL REGULATIONS AS THEY APPLY TO UNDERGROUND TRENCHING AND IN CUT SITUATIONS.
- ALL PROPOSED CATCH BASINS HAVE A TYPE C BITUMINOUS CURB TOP UNLESS OTHERWISE NOTED.
- ALL DRAINAGE STRUCTURES SHALL BE CLEARED PRIOR TO FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER.
- A PATIO INSTEAD OF A DECK HAVING A HEIGHT OF LESS THAN EIGHT INCHES ABOVE THE GROUND LEVEL MUST BE CONSTRUCTED AT THE BUILDING LOCATIONS SHOWN ON THE PLANS CONFORMING TO THE REQUIREMENTS OF THE ZONING REGULATIONS FOR ADULT HOUSING GROUPING.
- CONSTRUCTION ACTIVITIES FOR THE SUBSEQUENT PHASES WILL NOT BE PERMITTED UNTIL FINAL STABILIZATION OF THE PERMANENT GROUNDCOVER OF THE PHASE HAS BEEN ESTABLISHED. IF THE DEVELOPER DETERMINES THAT PROPOSED HOUSE SITES IN THE ACTIVE PHASE ARE NOT SELLING, THE HOUSE SITES WILL HAVE LOAM AND SEED PLACED TO ESTABLISH PERMANENT GROUNDCOVER.
- THE PROPERTY IS SHOWN IN ZONE X ON THE FLOOD INSURANCE RATE MAP PANEL 513 OF 675, MAP #0900300513F, EFFECTIVE DATE: SEPTEMBER 26, 2008, TOWN OF BERLIN, HARTFORD COUNTY CONNECTICUT.
- THE DEVELOPMENT OF THE SITE WILL REQUIRE SUBSTANTIAL EARTHMOVING. APPROXIMATELY 160,000 CUBIC YARDS OF EXCESS MATERIAL WILL BE PRODUCED FROM THE DEVELOPMENT OF ALL PHASES OF THE PROJECT. A MAJORITY OF THE EXCESS MATERIAL WILL BE TRANSPORTED OFF SITE WHEN IMPORTED MATERIAL IS REQUIRED FROM AN OFF SITE LOCATION. A DUMP TRUCK WILL LEAVE THE SITE FULL OF MATERIAL FROM THE SITE AND RETURN FULL WITH ROAD BASE MATERIAL OR OTHER NECESSARY AGGREGATES.
- THE PROPOSED WETLANDS BUFFER PLACARD SHALL BE INSTALLED IN PHASE 5 AT THE LOCATIONS SHOWN ON THE PLAN UNLESS OTHERWISE DIRECTED BY THE TOWN. THE PLACARD SHALL BE CONSTRUCTED OF WEATHERPROOF MATERIAL AND BE INSTALLED ON A 4"x4" P.T. POST OR LARGE TREE ALONG THE PROPOSED TREELINE. THE PROPERTY OWNER SHALL HAVE THE PLACARD LANGUAGE REVIEWED AND APPROVED BY THE TOWN PRIOR TO HAVING THEM MADE. REFER TO THE CONSTRUCTION DETAIL.

Legend

	EXISTING	PROPOSED
Property Line	---	---
Sanitary Sewer	---	---
Water Main	---	---
Gas Main	---	---
Sanitary Sewer Lateral	---	---
Water Service	---	---
Water Gate	○wg	○wg
Gas Gate	○gg	○gg
Drainage Manhole	⊙	⊙
Sanitary Manhole	⊙	⊙
Index Contour	---200---	---200---
Intermediate Contour	---202---	---202---
Storm Drainage Pipe	---	---
Curbside Catch Basin	---	---
Curb Inlet Catch Basin	---	---

GRAPHIC SCALE



Date

12/29/2023

Revisions

1. 12/29/2023 REVISIONS FOR TOWN ENGINEER REVIEW COMMENTS

2. 1/12/2024 REVISIONS FOR TOWN ENGINEER REVIEW COMMENTS

3. 1/22/2024 REVISIONS FOR TOWN ENGINEER REVIEW COMMENTS

LRC GROUP

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● Landscape Architecture

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GRADING AND DRAINAGE PLAN

BECKLEY FARMS
PHASE 5 REDESIGN
BECKLEY ROAD
TOWN OF BERLIN
STATE OF CONNECTICUT

Designed RHR
Drawn RHR
Checked JW/REM
Approved JW/REM

CAD File
GD10108601.dwg

Project No.
11-1173

Date
2/22/18

Scale
1"=40'

Sheet No.

11-1173

GD-1



- ### EROSION CONTROL NOTES:
1. AT ANY PARTICULAR TIME, LAND DISTURBANCE SHALL BE KEPT TO A MINIMUM. RESTABILIZATION SHALL BE SCHEDULED AS SOON AS POSSIBLE. DO NOT WAIT FOR BUILDING CONSTRUCTION TO BE COMPLETED FOR STABILIZATION OF GRASS AND PAVED AREAS TO PROCEED.
 2. IF PERMANENT SLOPES CAN NOT BE COMPLETED IMMEDIATELY UPON THEIR PLACEMENT, TEMPORARY MULCH OR GRASS COVER SHALL BE ESTABLISHED. SILT FENCE AND/OR HAY BALE BERMS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS AT THE LOCATIONS SHOWN ON THE PLANS AND STAKED IN PLACE. ALL SUCH PROTECTIVE MEASURES SHALL BE IN PLACE PRIOR TO ANY CUTTING OR FILLING PROCEEDS.
 3. CATCH BASINS SHALL BE PROTECTED WITH SILT FENCE, HAY BALES OR SILT SACKS THROUGHOUT THE CONSTRUCTION PERIOD. THE STRUCTURES SHALL BE ENCLOSED COMPLETELY AT LOW POINTS.
 4. ON SLOPED AREAS THE SILT FENCE SHALL FORM A POCKET TO TRAP WATER IMMEDIATELY UPSTREAM FROM THE STRUCTURE. STABILIZATION OF GRASS AND PAVED AREAS SHALL BE COMPLETE BEFORE REMOVAL OF THE FENCE. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL".
 5. ALL CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE STABILIZED WITH EITHER PAVEMENT, GRASS OR APPROVED GROUND COVER. CONTROL MEASURES SHALL BE CHECKED BY THE RESPONSIBLE INDIVIDUAL OR HIS DESIGNATED REPRESENTATIVE BEFORE AND AFTER ALL RAIN STORMS AND AFTER EACH WORKING DAY.
 6. THE SITE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. HE SHALL APPOINT A SITE REPRESENTATIVE FOR DAILY INSPECTIONS, AND SHALL FURNISH THAT NAME TO THE TOWN. THE RESPONSIBILITY STILL SHALL REST WITH THE PERSON NAMED ABOVE FOR THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE TOWN OF ANY TRANSFER OF SITE RESPONSIBILITY. A COPY OF THE PLAN SHALL BE TRANSFERRED TO THE NEW OWNERS IN THE CASE OF TRANSFER OF TITLE. COPIES OF MONITORING REPORTS TO BE SUBMITTED TO THE TOWN ZONING AND WETLANDS AGENT ON A BI-WEEKLY BASIS, AFTER MAJOR STORMS AND UPON REQUEST FOR SPECIAL REPORTS.
 7. ADDITIONAL CONTROL MEASURES SHALL BE IMMEDIATELY INSTALLED, AS REQUIRED BY THE INTENT OF THIS PLAN AND/OR IF REQUESTED BY THE TOWN.
 8. THE CONTRACTOR SHALL STORE THE FOLLOWING ADDITIONAL MATERIALS ON SITE FOR MAINTENANCE AND EMERGENCIES TO MEET UNEXPECTED EROSION CONTROL NEEDS.
 - 300 LF OF SILT FENCE
 - 50 HAYBALES
 - 30 CY OF 1 1/4" STONE
 9. ALL DISTURBED AND STOCKPILED MATERIALS SHALL BE SEED AS SOON AS POSSIBLE. IN THE CASE OF WINTER CONSTRUCTION, MULCH SHALL BE PLACED AND EROSION CONTROL MEASURES PLACED TO PREVENT WASHOUTS OF THE STOCKPILED MATERIAL. THE SAME REQUIREMENTS MAY BE NEEDED FOR CONSTRUCTION DURING OTHER SEASONS AS DIRECTED BY THE TOWN AND THE ENGINEER. IF IN THE OPINION OF THE TOWN, HAY BALES SHOULD BE USED INSTEAD OF SILT FENCE, SUCH SUBSTITUTION SHALL BE MADE AT THE LOCATIONS REQUESTED. FOR ANY AREAS WHERE SILT FENCE IS DIFFICULT TO MAINTAIN DUE TO WATER FLOW OR OTHER REASON, THE FENCE SHALL BE BACKED UP WITH HAY BALES STAKED INTO PLACE.
 10. A SCHEDULE OF PLANNED ACTIVITIES INCLUDING EROSION AND SEDIMENT CONTROL MEASURE INSTALLATION SHALL BE SUBMITTED TO THE TOWN ALONG WITH ANY OTHER REPORTS REQUESTED BY THE COMMISSION. PLANNED ACTIVITIES SHALL INCLUDE PLANNED PERIODS WHEN SEEDING AND/OR PAVING WILL BE PLACED, WHEN UTILITY LINES WILL BE INSTALLED, WHEN BUILDING CONSTRUCTION WILL BE PLACED, WHEN CUTTING AND FILLING WILL OCCUR. THE SCHEDULE SHALL ALSO INCLUDE DATA ON TRUCK MOVEMENT TO AND FROM THE SITE TO MOVE MATERIAL ONTO OR OFF OF THE SITE.
 11. TRUCK MOVEMENTS OFF OF THE SITE SHALL BE RESTRICTED AS DIRECTED BY THE TOWN FOR PEAK TRAFFIC TIMES AND FOR TIMES WHEN NOISE WOULD DISTURB THE PROPERTY NEIGHBORS.
 12. SEEDING MIXTURES SHALL BE IN COMPLIANCE WITH CHAPTER 6 OF THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL". TEMPORARY SEEDING SHALL BE USED WHEN THE GROWING SEASON REMAINING IS LESS THAN 60 DAYS. PERMANENT SEEDING SHALL BE USED WHEN 60 DAYS REMAINS. FOR SEASONS WHEN SEEDING IS NOT POSSIBLE, SUCH AS THE WINTER OR THE DRY PART OF THE SUMMER, MULCH SHALL BE USED AT THE RATE OF TWO TONS PER ACRE. PERMANENT SEEDING SHALL REPLACE TEMPORARY SEEDING AS SOON AS THE SEASON PERMITS AND AS APPROVED BY THE TOWN ENGINEER. HAY MULCH SHOULD BE APPLIED AT THE RATE OF TWO TONS PER ACRE (40 BALES PER ACRE) ON AREAS TO BE LEFT BARE FOR UP TO 30 DAYS. TEMPORARY SEEDING SHOULD BE USED ON THOSE AREAS FOR MORE THAN 30 DAYS.
 13. CONSTRUCTION SEDIMENT TRAPS (ROUGH GRADED DEPRESSIONS) SHALL BE INSTALLED WHERE PRACTICAL DURING CONSTRUCTION IN AREAS THAT WILL NOT BE IN THE AREAS OF MACHINE TRAFFIC. THESE SHALL ALSO BE USED AT THE ENDS OF LONG SWALES PRIOR TO ANY WATER RUNNING OFF-SITE.
 14. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR USE IN FINAL LANDSCAPING. ALL EARTH STOCKPILES SHALL HAVE HAYBALES OR SILT FENCE AROUND THE LIMIT OF THE PILE. PILES SHALL BE TEMPORARY SEED IF PILE IS TO REMAIN IN PLACE FOR MORE THAN 2 MONTHS. REPLACE HAYBALES AND SILT FENCE DURING CONSTRUCTION THAT ARE NOT FUNCTIONING AS INTENDED.
 15. INSTALL TEMPORARY DIVERSION SWALES IN THE LOCATIONS SHOWN ON THE DRAWINGS AND IN OTHER NECESSARY LOCATIONS.
 16. THE DETENTION BASINS SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF CONSTRUCTION AND ACT AS TEMPORARY SEDIMENT TRAPS. INSTALL TEMPORARY SEDIMENT TRAPS IN THE DETAIL. THE CONTRACTOR SHALL ROUGH GRADE THE BASIN WITH 12 INCHES OF TOPSOIL PLACED IN THE BOTTOM, 6 INCHES OF TOPSOIL ON SIDE SLOPES AND STONE BERMS. SEED AND MULCH BASIN. THE SEDIMENT TRAPS SHALL PROVIDE A MINIMUM STORAGE OF 134 CUBIC YARDS PER DISTURBED ACRE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN THE DEPTH REACHES 6 INCHES.
 17. ALL DEWATERING DURING CONSTRUCTION SHALL BE PUMPED TO A SETTLING BASIN OR GRASS FILTER WITHIN THE LIMITS OF CONSTRUCTION. DISCHARGE TO THE STORM DRAINAGE SYSTEM OR SURFACE WATERS SHALL BE CLEAR AND FREE OF SEDIMENT.
 18. INSTALL EROSION CONTROL BLANKET ON 3:1 SLOPES OR GREATER. SEE DETAIL SHEET.
 19. SITE CONTRACTOR TO COORDINATE THE ROOF LEADER DRAINS AND FOOTING DRAINS WITH ARCHITECTURAL PLANS. INSTALL ROOF LEADER/FOUNDATION DRAIN OUTLET SPLASH PAD AT OUTLETS UNLESS OTHERWISE PIPED TO DRAINAGE SYSTEM.
 20. THE TREELINE SHOWN ON THE PLANS IS THE LIMIT OF CLEARING AND DISTURBANCE.
 21. INSTALL DOUBLE ROW OF SILT FENCE AROUND ALL STOCKPILE AREAS.
 22. A BOND MAY BE REQUIRED FOR THE EROSION CONTROL MAINTENANCE AND INSTALLATION. CONTRACTOR SHALL VERIFY WITH THE TOWN OF BERLIN.
 23. A CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION AND SHALL BE MAINTAINED DURING ALL EXCAVATION AND CONSTRUCTION ACTIVITIES.
 24. MINIMIZE LAND DISTURBANCE. SEED AND MULCH DISTURBED AREAS WITH TEMPORARY MIX AS SOON AS PRACTICAL (2 WEEK MAXIMUM UNSTABILIZED PERIOD) USING PERENNIAL RYEGRASS AT 40 LBS/ACRE. MULCH ALL CUT AND FILL SLOPES AND SWALES WITH LOOSE HAY AT A RATE OF 2 TONS PER ACRE. IF NECESSARY REPLACE LOOSE HAY ON SLOPES WITH EROSION CONTROL BLANKET OR JUTE CLOTH.
 25. BUILDING FOUNDATIONS WILL REQUIRE FOUNDATION DRAINS THAT EITHER CONNECT TO THE DRAINAGE SYSTEM OR DAYLIGHT TO PROPOSED GRADES. INSTALL APPROPRIATE OUTLET PROTECTION.
 26. CONSTRUCTION IN PHASE 5 IS ANTICIPATED TO BEGIN AS SOON AS POSSIBLE (SUMMER 2020).

EROSION CONTROL LEGEND

CONTROL MEASURE	ILLUSTRATION
INLET PROTECTION	
SILT FENCE	
CONSTRUCTION ENTRANCE	
LIMIT OF CLEARING	
STOCKPILE AREA	

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 ft.

Date	Revisions	By	Check	Appr
5/19/20	1	JW	REM	REM
7/12/20	2	JW	REM	REM
7/22/20	3	JW	REM	REM

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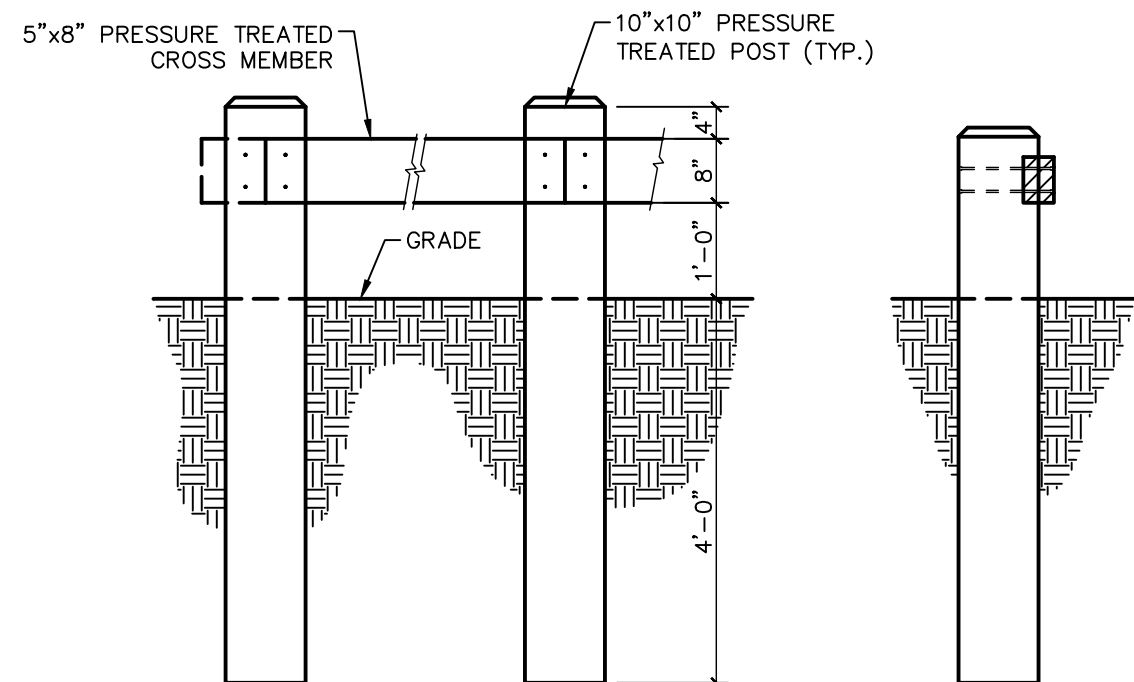
Land Resource Consultants, Inc.
LRC Engineering and Surveying, D.P.C.
LRC Environmental Services, Inc.
LRC Engineering and Surveying, LLC

EROSION AND SEDIMENT CONTROL PLAN

BECKLEY FARMS PHASE 5 REDESIGN BECKLEY ROAD TOWN OF BERLIN STATE OF CONNECTICUT

Designed	RHR	CAD File	EC10108601.dwg	Sheet No.
Drawn	RHR	Project No.	11-1173	
Checked	JW/REM	Date	2/22/18	
Approved	JW/REM	Scale	1"=40'	

EC-1



After final grading is complete, apply starter fertilizer and lime to the surface at rates recommended based on soil tests. Then apply erosion control blankets (see sheet DN-4). Finally apply Ernst Native Steep Slope Mix with Annual Ryegrass via hydroseed (ERNMX-181). Seeding rates found below.

Native Steep Slope Mix w/Annual Ryegrass - ERNMX-181

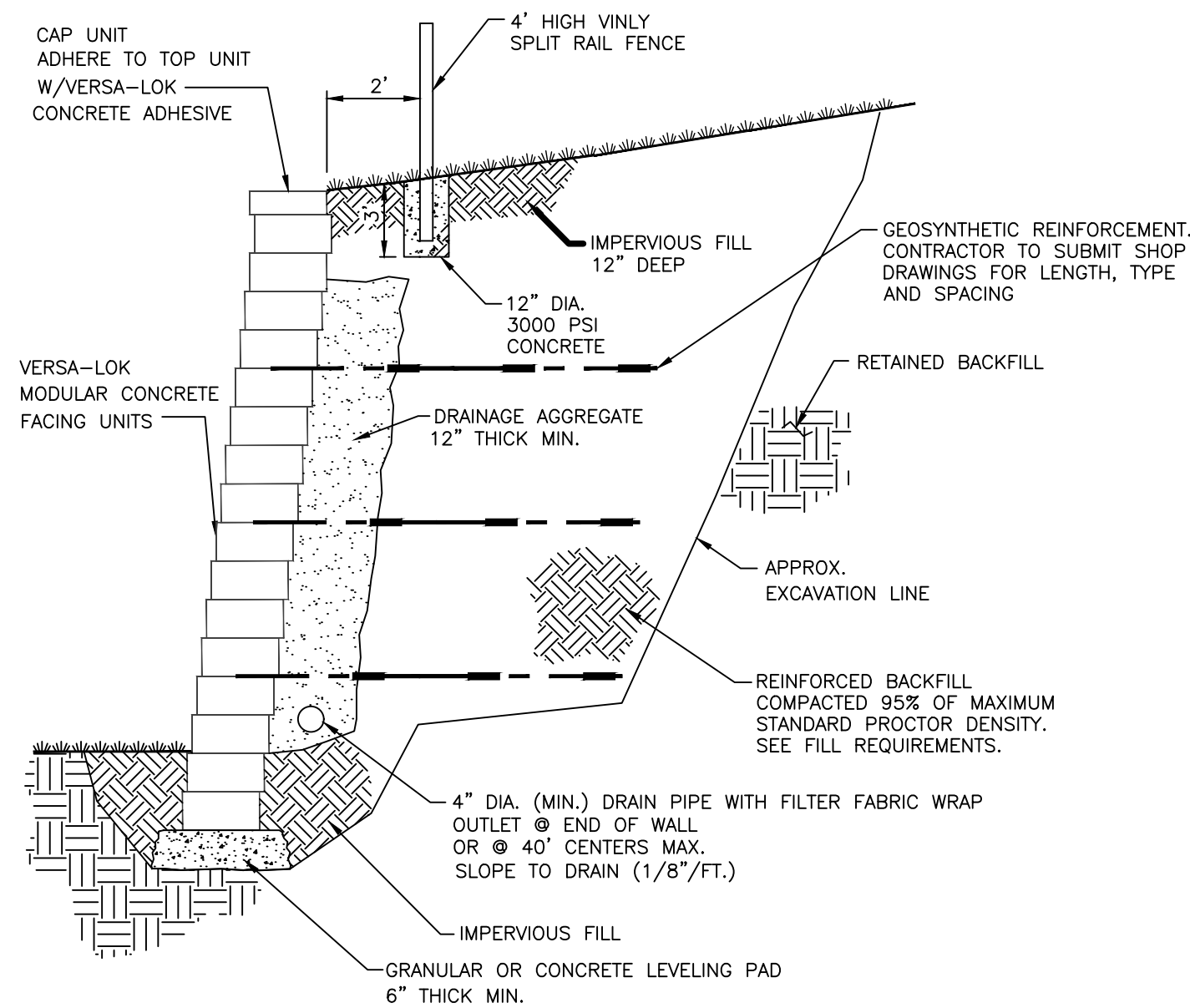
100.00 % Mix Price/lb Bulk: \$11.63

Seeding Rate: 60 lb per acre, or 1.5 lb per 1,000 sq ft

Erosion Control & Revegetation
The native grass and forb species tolerate poor soils typically found on steep slopes in the eastern United States. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Price quotes guaranteed for 30 days.
All prices are FOB Meadville, PA.
Please check our web site at www.ernstseed.com
for current pricing when placing orders.

Note: Rip-rap generated on site can be used in lieu of the erosion control blanket and seeding at the developer's discretion.



CAP UNIT ADHERES TO TOP UNIT W/VERSA-LOK CONCRETE ADHESIVE

VERSA-LOK ACCENT MODULAR CONCRETE UNITS

IMPERVIOUS FILL 12" DEEP

3/4" STONE DRAINAGE AGGREGATE 12" THICK MIN.

4" DIA. DRAIN PIPE WITH FILTER FABRIC WRAP OUTLET. SLOPE TO DRAIN (1/8"/FT.) CONNECT TO ROOF LEADER DRAINAGE SYSTEM OR CATCH BASIN.

GRANULAR LEVELING PAD MIN. 6" THICK

USE UNREINFORCED RETAINING WALL DETAIL FOR WALLS LESS THAN 3 FEET IN HEIGHT



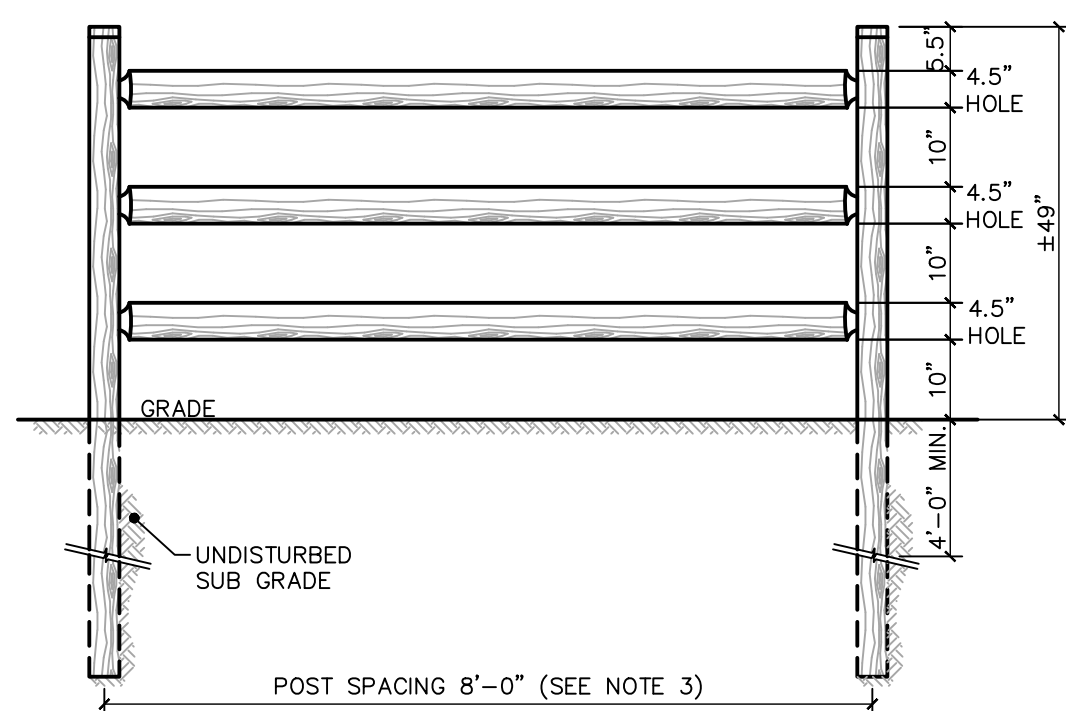
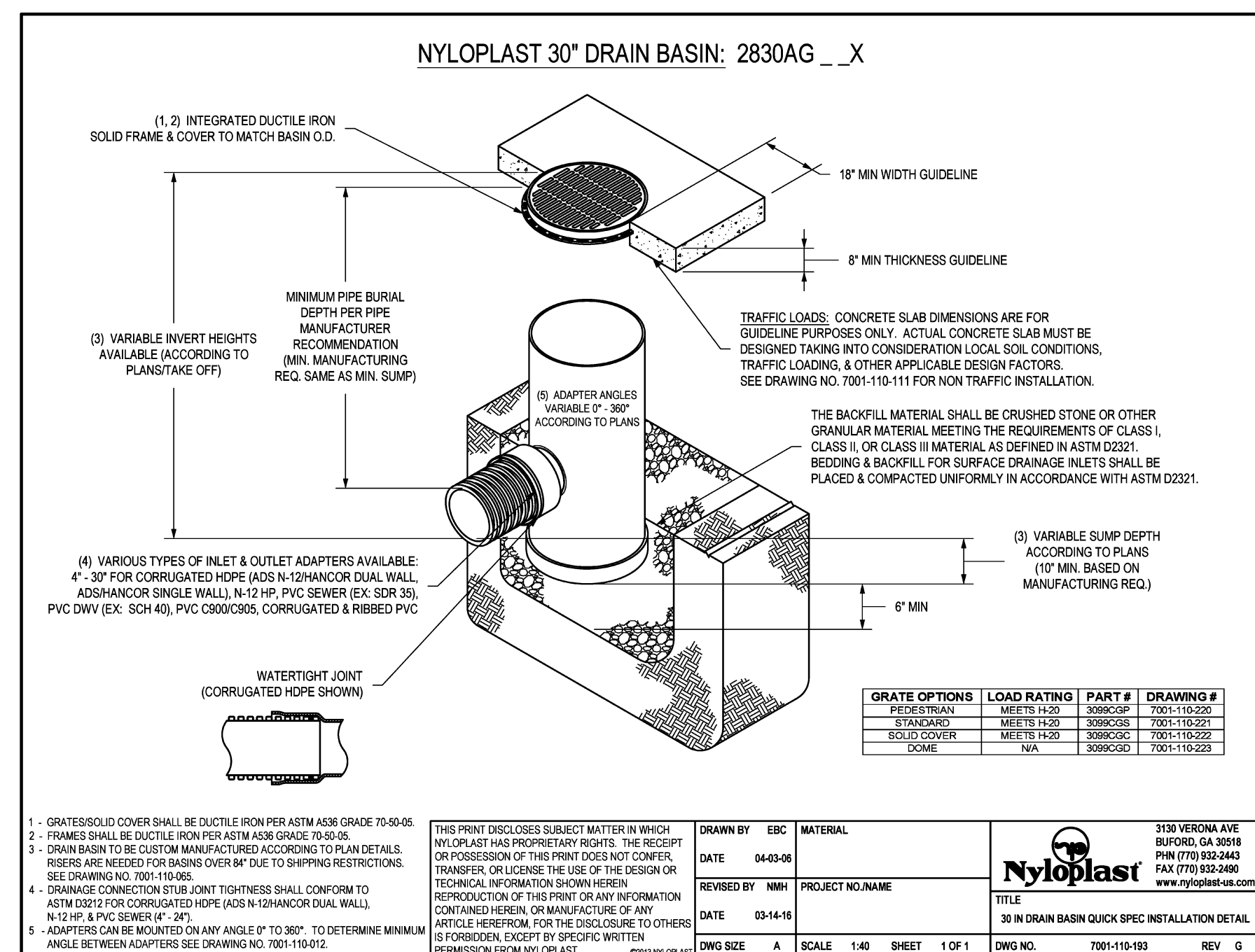
General Notes

1. Strip all vegetation and organic soil from the wall and grid alignment.
2. Bench cut into excavated slopes.
3. Do not over excavate unless directed by the site soil engineer to remove unstable soil.
4. Site soil engineer shall verify foundation soils as being competent per the design standards and parameters.
5. Retaining wall shall consist of a 3/4" foundation stone, minimum 6" thick or 3,000 psi concrete.
6. Contractor may opt for a concrete footing. Concrete footing shall be unreinforced. Depth of concrete to be a minimum of 6" thick.
7. Minimum embedment of wall below finished grade shall be 16" for wall heights from 4' to 10'.
8. Wall shall conform to the manufacturers requirements and specifications.
9. Install wall drain pipe to remove water from the wall foundation. See plan for outlet location.
10. Compaction tests shall be taken as the wall is installed. The minimum number of tests shall be determined by the site soil engineer.
11. Compaction shall be 95% of the maximum dry density per ASTM D1557.
12. Geogrid shall be per block manufacturers design requirements.
13. Full geogrid tight prior to backfilling. Length of geogrid shall be measured from front of segmental concrete units.
14. Provide lateral drainage swales to direct flows around the ends of the wall.
15. Establish turf as soon as the wall is completed.
16. Slope stabilization shall be located in the area of preparation for an abutment plan.
17. Reinforced back fill requirements for the slope shall conform to the following specifications:

Sieve size	Percent passing reinforced back fill
pass 5 inch	100
pass 3-1/2 inch	90-100
pass 1-1/2 inch	55-95
pass 1/4 inch	25-60
no. 10	15-45
no. 40	5-25
no. 100	0-10
no. 200	0-5

Plasticity index (p_i) less than or equal to 10 and a liquid limit less than or equal to 40, reinforced back fill shall be placed and compacted in lifts not exceeding 8 inches. Reinforced back fill shall be compacted to 95 percent of the maximum density as determined by astm-1557. The moisture content of the back fill material prior to and during compaction shall be within 2 percentage points of dry optimum.

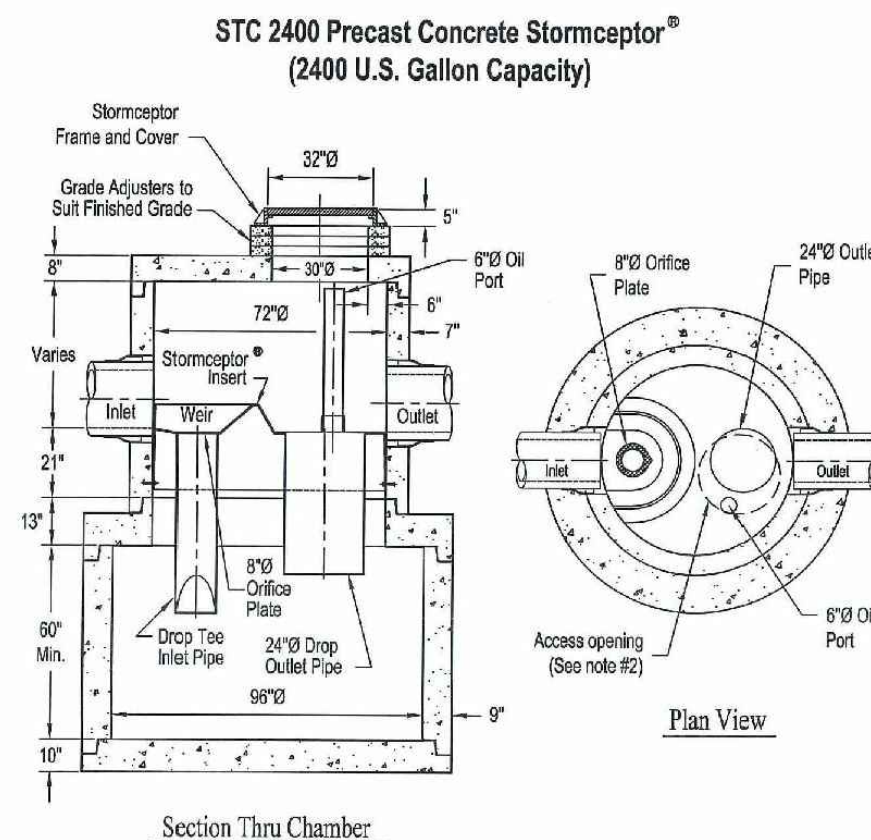
If conditions are different than those stated in these drawings and specifications, the contractor must contact the engineer prior to proceeding with the construction of the slope.



NOTES:

1. ALL DIMENSIONS AREA APPROXIMATE
2. DIMENSIONS WILL VARY WITH POST INSTALLATION DEPTH
3. POST SPACING WILL VARY WITH LENGTH OF RAILS AND INSTALLATION PROCEDURE.

Rinker  Concrete Pipe Division



Notes:

1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Outlet Drop Pipe and The Oil Port.
3. The Stormport System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

STORMCEPTOR STC 2400
N.T.S.

[illegible]

DN-6

MC-4500 ISOLATOR ROW DETAIL
NTS

CATCH BASIN OR MANHOLE

SUMP DEPTH TBD BY SITE DESIGN ENGINEER
(24\"/>

COVER PIPE CONNECTION TO END CAP WITH ADS GEOSYNTHETICS BUT NON-WOVEN GEOTEXTILE

STORMTECH HIGHLY RECOMMENDS FLEXSTORM PURE INSERTS IN ANY UPSTREAM STRUCTURES WITH OPEN GRATES

MC-4500 CHAMBER

OPTIONAL INSPECTION PORT

MC-4500 END CAP

24\"/>

PART # MC-4500REPE24MC OR MC-4500REPE24WB

TWO LAYERS OF ADS GEOSYNTHETICS 315WTM WOVEN GEOTEXTILE BETWEEN FOUNDATION STONE AND CHAMBERS 10.3' (3.1 m) MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS

6 MIL POLYETHYLENE BELOW STONE BASE AND UP SIDES. PROVIDE 2 FT FLAT AT SEAMS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT

- REMOVE OPEN LID. ON NYLOPLAST INLINE DRAIN.
- REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED.
- USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG.
- LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL).
 - IF SEDIMENT IS AT, OR ABOVE, 3\"/>

B. ALL ISOLATOR ROWS

- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW.
- USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE.
- MIRRORS OR POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY.
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE.
 - IF SEDIMENT IS AT, OR ABOVE, 3\"/>

STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS

- A FIXED QUIPVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED.
- APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAR.
- VACUUM STRUCTURE SUMP AS REQUIRED.

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

CONNECTION DETAIL
NTS

4\"/>

NYLOPLAST INSPECTION PORT BODY (PART# Z70SA/G4/PK7) OR TRAFFIC RATED BOX WISOLD LOCKING COVER

CONCRETE COLLAR NOT REQUIRED FOR UNPAVED APPLICATIONS

CONCRETE COLLAR

PAVEMENT

CONCRETE SLAB
6\"/>

STORMTECH CHAMBER

12\"/>

4\"/>

4\"/>

4\"/>

8\"/>

CORE 4.5\"/>

ANY VALLEY LOCATION

**4\"/>

NTS**

UNDERDRAIN DETAIL

NTS

STORMTECH CHAMBERS

STORMTECH END CAP

OUTLET MANIFOLD

FOUNDATION STONE BENEATH CHAMBERS

6 MIL. POLYETHYLENE BELOW STONE BASE AND UP SIDES. PROVIDE 2 FT OVERLAP AT SEAMS

SECTION A-A

DUAL WALL PERFORATED HDPE UNDERDRAIN

STORMTECH END CAP

FOUNDATION STONE BENEATH CHAMBERS

6 MIL. POLYETHYLENE BELOW STONE BASE AND UP SIDES. PROVIDE 2 FT OVERLAP AT SEAMS

NUMBER AND SIZE OF UNDERDRAINS PER SITE DESIGN ENGINEER
 4" (100 mm) TYP FOR SC-310 & SC-180 SYSTEMS
 6" (150 mm) TYP FOR SC-740, DC-780, MC-3500 & MC-4500 SYSTEMS

MC-CRSE END CAP INSERTION DETAIL

NTS

STORMTECH END CAP

12" (300 mm) MIN INSERTION

MANIFOLD STUB

MANIFOLD HEADER

12" (300 mm) MIN SEPARATION

MANIFOLD STUB

MANIFOLD STUB

12" (300 mm) MIN INSERTION

12" (300 mm) MIN SEPARATION

NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

MC-4500 TECHNICAL SPECIFICATION

NTS

VALLEY STIFFENING RIB

CREST

WEB

UPPER JOINT CORRUGATION

CREST STIFFENING RIB

FOOT

← BUILD ROW IN THIS DIRECTION

48.3" (1227 mm) INSTALLED

100.0" (2540 mm)

60.0" (1524 mm)

90.0" (2286 mm)

52.0" (1321 mm)

32.8" (833 mm) INSTALLED

38.0" (965 mm)

NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)
 CHAMBER STORAGE
 MINIMUM INSTALLED STORAGE*
 WEIGHT (NOMINAL)

100.0" X 60.0" X 48.3" (2540 mm X 1524 mm X 1227 mm)
 106.5 CUBIC FEET (3.01 m³)
 162.6 CUBIC FEET (4.60 m³)
 125.0 lbs. (56.7 kg)

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)
 END CAP STORAGE
 MINIMUM INSTALLED STORAGE*
 WEIGHT (NOMINAL)

60.0" X 61.0" X 32.8" (1524 mm X 1549 mm X 833 mm)
 36.5 CUBIC FEET (1.02 m³)
 115.3 CUBIC FEET (3.26 m³)
 90 lbs. (40.8 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	C	
		42.54" (1081 mm)	0.86" (22 mm)
MC4500EPP0RT	6" (150 mm)	—	0.86" (22 mm)
MC4500EPP0RB	—	40.50" (1029 mm)	—
MC4500EPP0RB	8" (200 mm)	—	1.01" (26 mm)
MC4500EPP10T	10" (250 mm)	38.37" (975 mm)	—
MC4500EPP10B	—	—	1.33" (34 mm)
MC4500EPP12T	12" (300 mm)	35.68" (907 mm)	—
MC4500EPP12B	—	—	1.55" (39 mm)
MC4500EPP15T	15" (375 mm)	32.72" (831 mm)	—
MC4500EPP15B	—	—	1.70" (43 mm)
MC4500EPP18T	18" (450 mm)	29.38" (746 mm)	—
MC4500EPP18TW	—	—	1.97" (50 mm)
MC4500EPP18B	—	—	—
MC4500EPP18BW	—	—	—
MC4500EPP24T	24" (600 mm)	23.05" (585 mm)	—
MC4500EPP24TW	—	—	2.28" (57 mm)
MC4500EPP24B	—	—	2.45" (62 mm)
MC4500EPP24BW	—	—	2.65" (67 mm)
MC4500EPP30BW	30" (750 mm)	—	3.25" (83 mm)
MC4500EPP30BW	36" (900 mm)	—	3.55" (90 mm)
MC4500EPP42BW	42" (1050 mm)	—	—

NOTE: ALL DIMENSIONS ARE NOMINAL.

CUSTOM PARTIAL CUT INVERTS ARE AVAILABLE UPON REQUEST
 INVENTORIED MANIFOLDS INCLUDE 12-24" (305-600 mm) SIZE ON SIZE AND 16-48" (407-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATION ON THE MC-4500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN "B" ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

#	Date	REVISIONS FOR TOWN ENGINEER REVIEW COMMENTS 2 3/16/20 1 7/2/20	ELIMINATED DETENTION BASIN & REMOVED RETAINING WALL  ● Land Planning ● Civil Engineering ● Environmental Services ● Land Surveying ● Landscape Architecture 160 West Street, Suite E Cromwell, CT 06416 Tel: 860.632.2877 85 Civic Center Plaza, Suite 103 Poughkeepsie NY 12601 Tel: 845.243.2880 40 Beaver Ave., Suite 5 Clinton, NJ 08809 Tel: 908.603.5730 www.lrcconsult.com Land Resource Consultants, Inc. LRC Engineering and Surveying, D.P.C. LRC Environmental Services, Inc. LRC Engineering and Surveying, LLC	REVISIONS FOR TOWN ENGINEER REVIEW COMMENTS 2 3/16/20 1 7/2/20	ELIMINATED DETENTION BASIN & REMOVED RETAINING WALL  ● Land Planning ● Civil Engineering ● Environmental Services ● Land Surveying ● Landscape Architecture 160 West Street, Suite E Cromwell, CT 06416 Tel: 860.632.2877 85 Civic Center Plaza, Suite 103 Poughkeepsie NY 12601 Tel: 845.243.2880 40 Beaver Ave., Suite 5 Clinton, NJ 08809 Tel: 908.603.5730 www.lrcconsult.com Land Resource Consultants, Inc. LRC Engineering and Surveying, D.P.C. LRC Environmental Services, Inc. LRC Engineering and Surveying, LLC
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DETAIL SHEET

BECKLEY FARMS PHASE 5 REDESIGN

BECKLEY ROAD TOWN OF BERLIN STATE OF CONNECTICUT

Designed	RHR	CAD File	DN10108607.dwg
Drawn	RHR	Project No.	11-1173
Checked	JW/REM	Date	2/22/18
Approved	JW/REM	Scale	AS NOTED

Sheet No. DN-7