

PROPOSED 36 UNIT APARTMENT DEVELOPEMENT

COLONEL LEDYARD HIGHWAY (RTE 117) & IRON STREET (RTE 214)
LEDYARD, CONNECTICUT

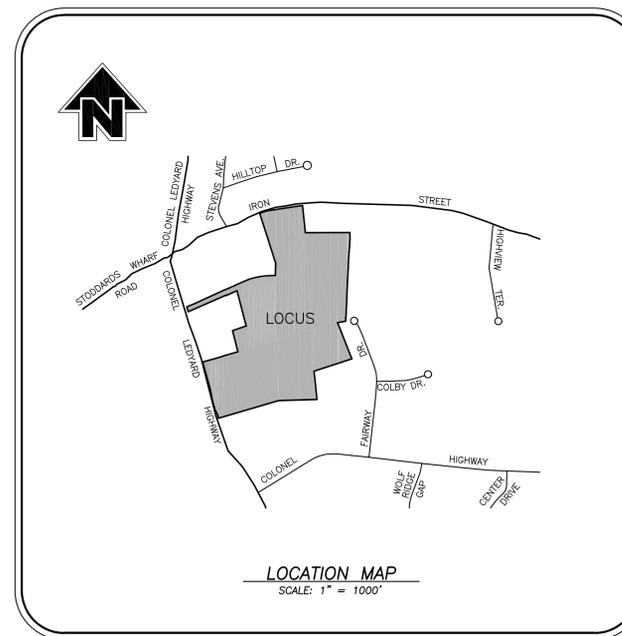
PREPARED FOR:
LEDYARD CENTER, LLC

LEGEND

○	IRON PIN
○ DH	DRILL HOLE
□	CHD MONUMENT
□ CHD	CHD MONUMENT POINT
□ PNT	
□ CB	CATCH BASIN
⊗	UTILITY POLE
---	EXISTING CONTOURS
---	PROPOSED CONTOURS
---	BUILDING SETBACK LINE
○ ○ ○ ○ ○	STONE WALL
○ ○ ○ ○ ○	STONE WALL REMAINS
-----	SILT FENCE

CONSTRUCTION NOTES

- All Materials and methods of construction shall conform to "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 817", and supplements thereto.
- In the event that ground water or evidence thereof is encountered, sufficient dewatering equipment, shall be installed and maintained to accommodate same.
- All existing site features not scheduled to remain shall be removed and disposed of in a proper manner, by the contractor.
- All reinforced concrete storm drainage pipes shall have gasketed rubber joints.
- All disturbed areas not scheduled for pavement, walks, etc. shall be permanently established as turf.
- The location of existing utilities is shown for informational purposes only. It is the responsibility of the contractor to verify the location and elevation of all utilities. Contact "CALL BEFORE YOU DIG" at 1-800-922-4455, and obtain all applicable permits, prior to any excavation around utilities.



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DETAIL SHEET - No. 3	7 OF 7

**BEFORE YOU DIG
CALL BEFORE YOU DIG**
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
DIAL 811 OR 1-800-922-4455

PREPARED BY:

REVISIONS	
DATE	DESCRIPTION

Killingly Engineering Associates
Civil Engineering & Surveying

114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

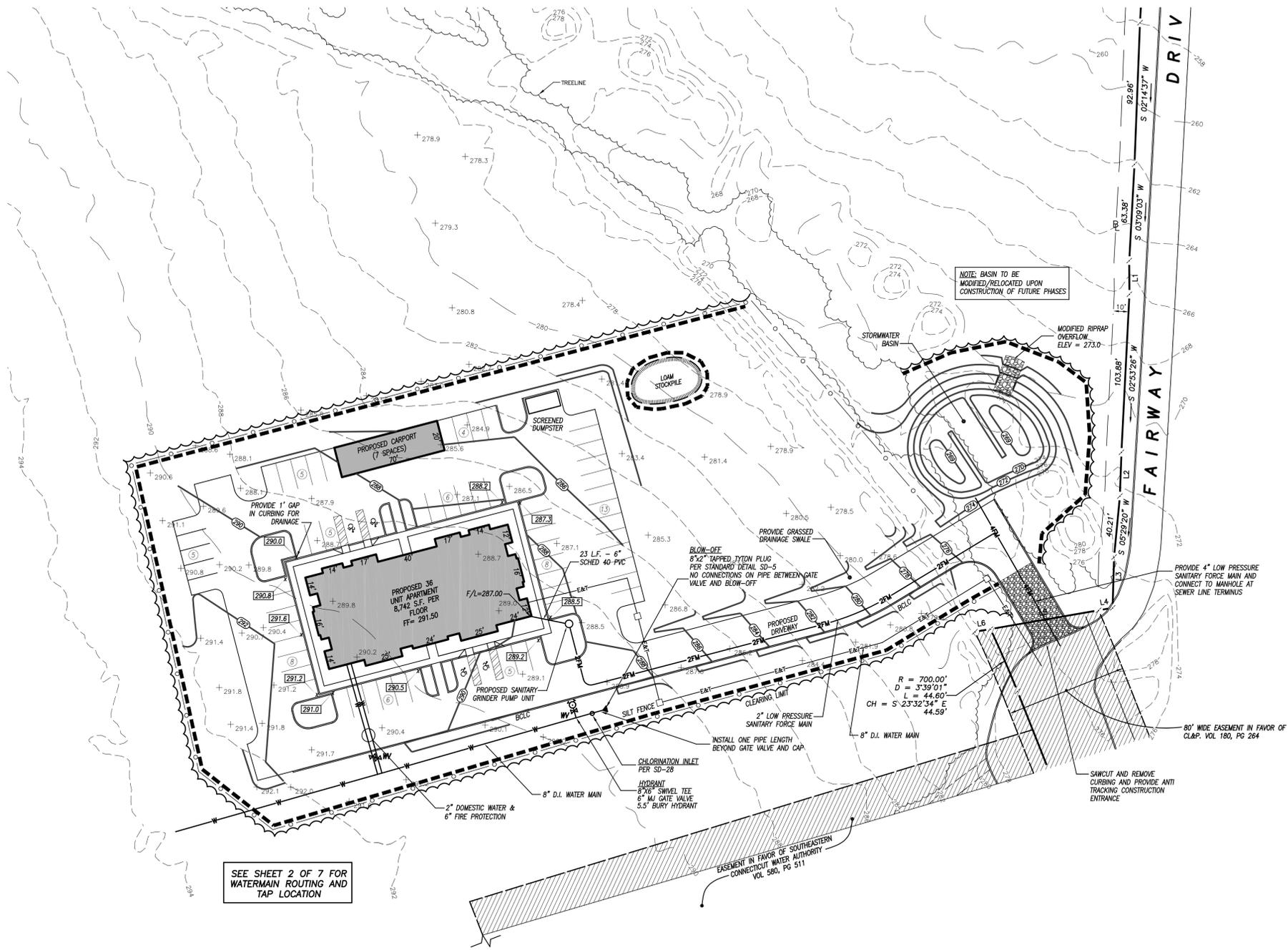
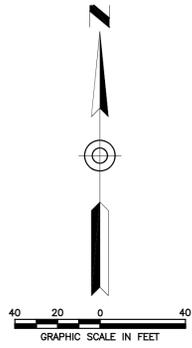
JANUARY 2026

APPROVED BY THE TOWN OF LEDYARD
PLANNING & ZONING COMMISSION

CHAIRMAN _____ DATE _____

Expiration Date _____ DATE _____

NORMAND THIBEAULT, JR., P.E. No. 22834 DATE _____



SEE SHEET 2 OF 7 FOR WATERMAIN ROUTING AND TAP LOCATION

NOTE: BASIN TO BE MODIFIED/RELOCATED UPON CONSTRUCTION OF FUTURE PHASES

LEGEND

F.F.	FINISHED FLOOR
---100---	EXISTING CONTOURS
(100)	PROPOSED CONTOURS
⊠	BUILDING SETBACK LINE
---	SILT FENCE

- WATER MAIN INSTALLATION NOTES:**
- PROJECT MUST BE BUILT TO GROTON PUBLIC UTILITIES WATER COMPANY SPECIFICATIONS.
 - CLASS 52 DUCTILE IRON PIPE REQUIRED.
 - COPPER AND/OR DUCTILE IRON SERVICE LATERAL MATERIAL REQUIRED.
 - GATE VALVES OPEN LEFT.
 - FIRE HYDRANTS OPEN LEFT. HYDRANTS ARE 5.5' BURY DEPTH. CT WATER COMPANY WILL FURNISH MATERIALS INCLUDING TEE, VALVE, PIPE, HYDRANT AND ACCESSORIES. FIRE HYDRANTS TO BE INSTALLED WITH FACE OF HYDRANT 3'-FEET OFF FACE OF CURB. HYDRANTS ARE NOT TO BE INSTALLED IN SIDEWALKS. WHERE 3'-FEET CANNOT BE OBTAINED, INSTALL HYDRANT BEHIND SIDEWALK UNLESS OTHERWISE NOTED OR AS DIRECTED BY A CT WATER COMPANY PROJECT MANAGER. 10'-FEET HORIZONTAL SEPARATION REQUIRED BETWEEN HYDRANTS, SEWER MANHOLES AND STORM DRAINS. **FIRE HYDRANTS TO BE INSTALLED WITH FINISH GRADE AT THE BURY LINE CAST INTO THE LOWER BARREL. CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENTS OF WATER MAIN AND LATERAL ELEVATION TO ACHIEVE PROPER BURY DEPTH. ANY COSTS RELATED TO ADJUSTMENTS REQUIRED BY GPU WATER COMPANY WILL BE THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR AND/OR APPLICANT OF RECORD.
 - ALL WATER MAIN PIPING AND APPURTENANCES MUST BE POLYETHYLENE ENCASED IN ACCORDANCE WITH ANWA ANSI-AWWA C105/A21.5-99(10). POLYETHYLENE ENCASEMENT SHALL BE V-BIO ENHANCED POLYETHYLENE ENCASEMENT ONLY AND CONSIST OF THREE CO-EXTRUDED LAYERS OF LINEAR LOW-DENSITY POLYETHYLENE (LLDPE) FILM THAT ARE FUSED INTO ONE.
 - MEGALIG RESTRAINTS REQUIRED ON ALL FITTINGS, BENDS, OFFSETS, TEES, GATE VALVES AND HYDRANTS.
 - FIELD LOK (U.S. PIPE) OR SURE STOP 350 (MCWANE) RESTRAINING GASKETS ARE REQUIRED 2 PIPE JOINTS BEFORE AND AFTER EACH FITTING AND ON THE LAST 3 PIPE LENGTHS ON DEAD ENDS.
 - THRUST BLOCKING IS REQUIRED ON ALL BENDS, TEES, OFFSETS, HYDRANTS AND DEAD ENDS.
 - ALL WATER MAINS SHALL BE INSTALLED TO A DEPTH OF 4'-FEET OF COVER BASED ON THE ROADWAY GRADE, EXCEPT AS NOTED.
 - 3'-FT MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER AND ANY OTHER UTILITY/UNDERGROUND STRUCTURE. 10'-FT MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER AND SEWER/SEPTIC ("SEWER")*** SLEEVE REQUIRED WHERE WATER CROSSES SEWER IF WATER IS BELOW SEPTIC AND/OR WHEN 18" VERTICAL SEPARATION CANNOT BE ACHIEVED WHEN WATER IS ABOVE SEWER. 4'-FEET MINIMUM HORIZONTAL SEPARATION REQUIRED BETWEEN WATER MAIN AND DRAINAGE WHEN AT LIKE ELEVATIONS.
 - WATER MAINS TO BE DEFLECTED UNDER ALL STORM DRAINS UNLESS OTHERWISE NOTED OR AS DIRECTED BY A CT WATER COMPANY PROJECT MANAGER. A VERTICAL CLEARANCE OF 18" TO BE MAINTAINED BETWEEN STORM DRAIN AND WATER MAINS. THE CONTRACTOR IS RESPONSIBLE FOR PROPER COMPACTION AROUND AND UNDER EXISTING DRAINAGE FACILITIES WHICH MAY INCLUDE REMOVAL AND RESETTling TO PROPER GRADE.
 - ANGLE OF BENDS TO BE FIELD DETERMINED.
 - MAXIMUM ALLOWABLE DEFLECTION PER FULL LENGTH PUSH-ON JOINT FOR 4" TO 12" IS FIVE (5) DEGREES AND THREE (3) DEGREES FOR 14" AND GREATER DUCTILE IRON PIPE.
 - EXISTING SERVICES TO SITE THAT WILL NO LONGER BE USED MUST BE TERMINATED AT THE WATER MAIN BY EXPOSING AND SHUTTING OFF THE CORPORATION VALVE. THE LINE MUST BE SEVERED IMMEDIATELY AFTER THE CORPORATION VALVE. SAID SERVICES MUST BE SHOWN ON PLANS.
 - WHERE A WATER SUPPLY WELL FOR ANY PURPOSE EXISTS OR IS APPROVED WITHIN THE LIMITS OF THIS PROJECT, ALL SERVICE LINES CONNECTED TO THE PUBLIC WATER SUPPLY REQUIRE A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER (RPD), AND MUST MEET THE REQUIREMENTS OF SEC.19A-209A OF THE CONNECTICUT GENERAL STATUTES ("CGS"), AND SEC. 19-13-B38A OF THE PUBLIC HEALTH CODE.
 - WHERE AN AIR RELIEF IS REQUIRED, GPU WATER COMPANY WILL PERFORM TAP AND INSTALL WHILE THE INSTALLATION CONTRACTOR IS RESPONSIBLE FOR THE EXCAVATION AND RESTORATION UNLESS OTHERWISE NOTED. LABOR AND MATERIALS FOR THE INSTALLATION(S) WILL BE CHARGED TO THE PROJECT.

DATE	DESCRIPTION

GRADING & UTILITIES PLAN
 PREPARED FOR
LEDYARD CENTER, LLC
 COLONEL LEDYARD HIGHWAY (RTE 117) & IRON STREET (RTE 214)
 LEDYARD, CONNECTICUT

Killingly Engineering Associates
 Civil Engineering & Surveying

114 Westcott Road
 P.O. Box 421
 Killingly, Connecticut 06241
 (860) 779-7299
 www.killinglyengineering.com

DATE: 1/17/2026	DRAWN: RGS
SCALE: 1" = 40'	DESIGN: NET
SHEET: 3 OF 7	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 23038

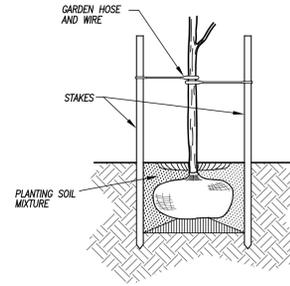
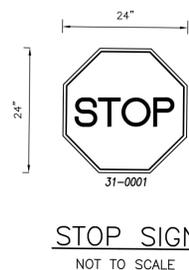
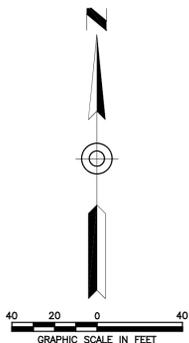
NORMAND E. THIBEAULT, JR., P.E. DATE
 LIC #PEN 0022834

New England Erosion Control/Restoration Mix For Detention Basins and Moist Sites

The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation. This mix is particularly appropriate for detention basins that do not hold standing water for extended periods. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding. The mix may be applied by hand, by mechanical spreader, or by hydro-seeder. After sowing, lightly rake, roll or cultipack to insure good seed to soil contact. Best results are obtained with a Spring or late Summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. A light mulching of clean, weed-free straw is recommended.

SPECIES: Riverbank Wild Rye (*Elymus riparius*), Creeping Red Fescue (*Festuca rubra*), Little Bluestem (*Schizachyrium scoparium*), Big Bluestem (*Andropogon gerardii*), Switch Grass (*Panicum virgatum*), Upland Bentgrass (*Agrostis perennans*), Nodding Bur Marigold (*Bidens cernua*), Hollow-Stem Joe Pye Weed (*Eupatorium fistulosum/Eutrochium fistulosum*), New England Aster (*Aster novae-angliae*), Boneset (*Eupatorium perfoliatum*), Blue Vervain (*Verbena hastata*), Soft Rush (*Juncus effusus*), Wool Grass (*Scirpus cyperinus*).</P>

LANDSCAPE SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
PP	Prunus pendula	Dwarf Flowering Cherry	8	2" caliper
RP	Rhododendron 'PJM'	PJM Rhododendron	20	3 gal.
BW	Buxus "green velvet"	Boxwood	60	2 gal
PV	Pennisetum villosum	Feathertop fountaingrass	50	1 gal.
AR	Acer rubrum	Red Maple	10	3" cal



REFERENCE: GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL

PLANTING CROSS SECTION FOR TREES UNDER 20'

NOT TO SCALE

UPON ACHIEVEMENT OF FINAL GRADES, 4" OF TOPSOIL SHALL BE SPREAD AND SEEDED WITH FOLLOWING MIX:

SEED	LBS./1000 S.F.
CREeping RED FESCUE	0.45
REDTOP	0.05
CROWN VETCH/INOCULANT	0.35
TOTAL:	0.85

CONSTRUCTION NOTES

- All Materials and methods of construction shall conform to "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 819", and supplements thereto.
- All site improvements shall be staked in the field by a licensed surveyor prior to any site disturbance.
- All existing site features not scheduled to remain shall be removed and disposed of in a proper manner, by the contractor.
- All disturbed areas not scheduled for pavement, walks, etc. shall be permanently established as turf.
- It is the responsibility of the contractor to verify the locations and elevations of all existing utilities prior to construction. Contact "CALL BEFORE YOU DIG" at 1-800-922-4455, and obtain all applicable permits, prior to any excavation around utilities.

DATE	DESCRIPTION

IMPROVEMENT LOCATION SURVEY LAYOUT & LANDSCAPING PLAN

PREPARED FOR **LEDYARD CENTER, LLC**

COLONEL LEDYARD HIGHWAY (RTE 117) & IRON STREET (RTE 214)
LEDYARD, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying

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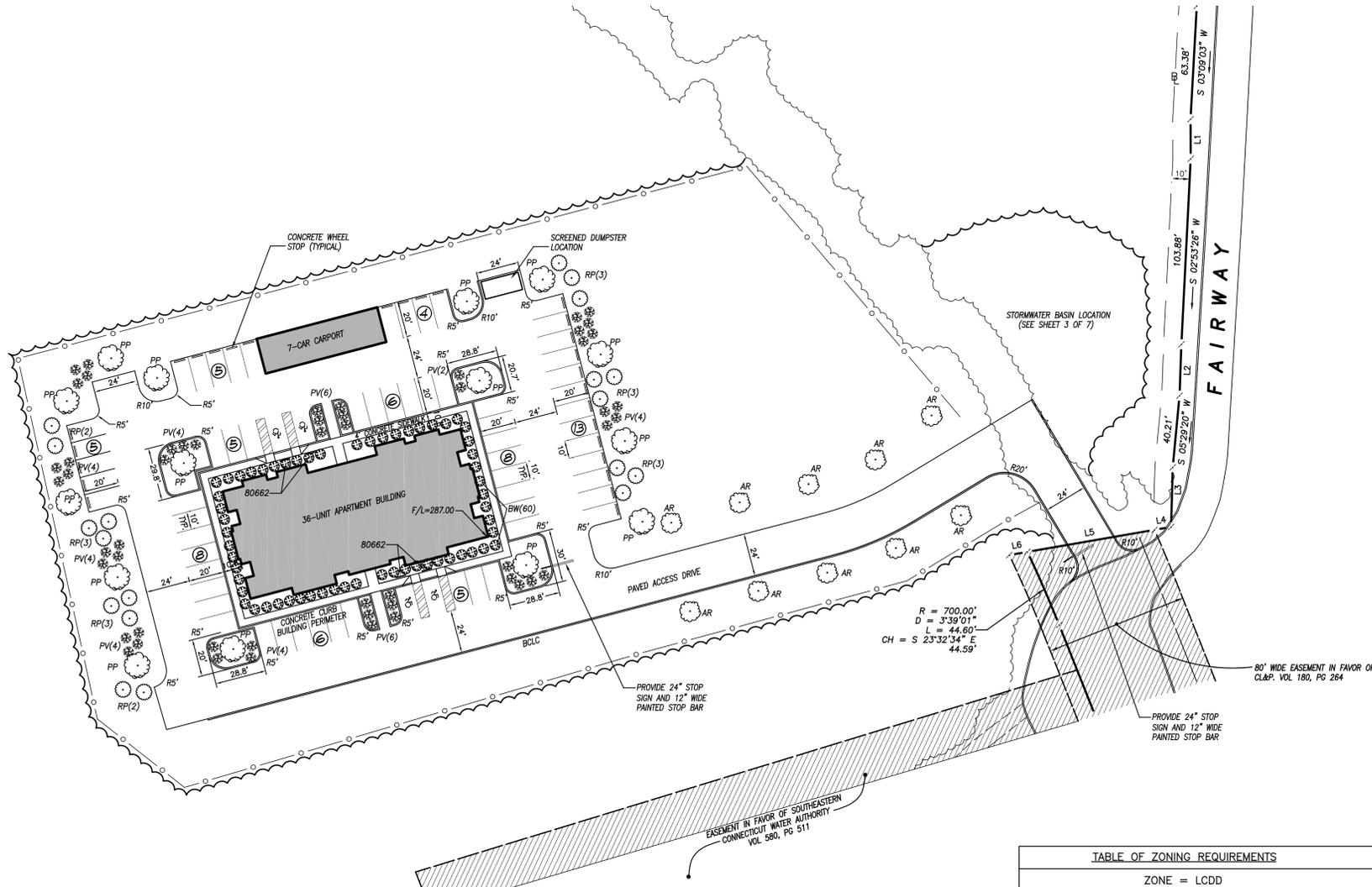


TABLE OF ZONING REQUIREMENTS		
ZONE = LCDD		
	REQUIRED	PROVIDED
Lot Area	20,000 S.F.	1,818,738 S.F.
Front Yard Setback	15'	583'
Side Yard Setback	25'	452'
Rear Yard Setback	25'	389'
Building Height	50' Max.*	±35'
Lot Frontage	100'	1,048.67**
Lot Coverage	70% Max	7.1%

*Building height may be increased to 65' for multi-family and/or mixed use buildings with full sprinkler systems, located in areas with functioning fire hydrants, and where all sides of the structure are accessible by a ladder fire engine.
**Colonel Ledyard Highway & Iron Street

PARKING REQUIREMENTS	
ADA COMPLIANCE	
Parking space : 8' wide minimum 5' min. wide access isle	
Van parking space 11' wide min. 5' min. wide access isle or 8' wide with an 8' wide access isle	
1 of every 6 spaces must be van accessible but always at least 1 van space must be provided	
1 - 25 = 1 HC (1 must be van)	
26 - 50 = 2 HC (1 must be van)	
51 - 75 = 3 HC (1 must be van)	
76 - 100 = 4 HC (1 must be van)	
101 - 150 = 5 HC (1 must be van)	
151 - 200 = 6 HC (1 must be van)	
201 - 300 = 7 HC (2 must be van)	
301 - 400 = 8 HC (2 must be van)	
401 - 500 = 9 HC (2 must be van)	
NOTE: WHERE 4 OR FEWER SPACES ARE PROVIDED ON A SITE, SIGNAGE IDENTIFYING THE VAN-ACCESSIBLE SPACE IS NOT REQUIRED	

PARKING REQUIREMENTS - RESIDENTIAL USE

Proposed use - 36 Residential Apartments consisting 18 one-bedroom units and 18 two-bedroom units.
Parking requirements:
36 apartments x 2 spaces per apartments = 72 spaces required & provided
3 Handicapped spaces required - 4 provided

NORMAND E. THIBEAULT, JR., P.E. DATE
LIC #PEN 0022834

LEGEND

- F.F. FINISHED FLOOR
- - - - - EXISTING CONTOURS
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- ⊕ BUILDING SETBACK LINE
- ⊕ SILT FENCE

EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

1. Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines).
2. U.S.D.A. N.R.C.S. Web Soil Survey.

SOILS:

The proposed site is comprised mainly of four (6) soil types: Hinckley (38C), Gloucester (58B), Gloucester (58C), Gloucester (59C), Canton (62C) and Charlton-Chatfield (73C)

38C-Hinckley gravelly sandy loam, 3 to 15 percent slopes

Included with this soil in mapping are areas of excessively drained Windsor soils which are sandy throughout. Also included are somewhat excessively drained Merrimac soils and well drained Agawam soils. Merrimac soils are sandy over sand and gravel and Agawam soils are loamy over sand and gravel. Small areas of moderately well drained Sudbury soils are included in slightly lower areas, poorly drained Walpole soils and very poorly drained Scarboro soils are included in shallow depressions and drainageways. A few areas in Litchfield and Hartford counties include soils with a reddish brown color. Windham County includes some soils with a fine sandy loam surface. New London County includes some soils with less gravel or a gravelly silt loam surface and subsoil. New Haven County includes some soils with less gravel or a gravelly loamy sand surface. Minor components make up about 20 percent of this map unit

58B/C-Gloucester gravelly sandy loam, very stony

Included with this soil in mapping are areas of excessively drained Hinckley soils formed in stratified glacial outwash. Well drained Canton, Charlton, and Paxton soils are included in areas of finer textured soils. Paxton soils have a dense substratum. Areas of moderately well drained Sutton soils are in slightly lower areas, and poorly drained Leicester soils are in depressions and drainageways. Minor components make up about 20 percent of this map unit

59C-Gloucester gravelly sandy loam, 3 to 15 percent slopes, extremely stony

Included with this soil in mapping are areas of excessively drained Hinckley soils formed in stratified glacial outwash. Well drained Canton, Charlton, and Paxton soils are included in areas of finer textured soils. Paxton soils have a dense substratum. Areas of moderately well drained Sutton soils are in slightly lower areas, and poorly drained Leicester soils are in depressions and drainageways. Minor components make up about 20 percent of this map unit.

62C Canton and Charlton soils, 3 to 15 percent slopes, extremely stony

surface. Minor components make up about 20 percent of the map unit.
Surface cover: 3 to 15 percent stones
Size of map unit: Areas commonly range from 3 to 100 acres.

73C Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky.

soils and poorly drained Leicester soils. Sutton soils are in slight depressions in the landscape; Leicester soils are in depressions and drainageways. Also included are small areas of shallow, somewhat excessively drained Hollis soils where bedrock is 10 to 20 inches below the surface. A few areas in Litchfield County have a yellowish red surface layer and subsoil. Other areas in Litchfield County include sandier soils over bedrock. Minor components make up about 25 percent of the map unit.
Slope: gently sloping to strongly sloping
Landscape: bedrock-controlled hills, bedrock-controlled uplands
Surface cover: 0 to 3 percent stones

DEVELOPMENT CONTROL PLAN:

1. Development of the site will be performed by the Contractor, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout construction.
2. The sedimentation control mechanisms shall remain in place from start of construction until permanent vegetation has been established. The representative for the Town of Killingly will be notified when sediment and erosion control structures are initially in place. Any additional soil & erosion control measures requested by the Town or its agent, shall be installed immediately. Once the proposed development, seeding and planting have been completed, the representative shall again be notified to inspect the site. The control measures will not be removed until this inspection is complete.
3. All stripping is to be confined to the immediate construction area. Topsoil shall be stockpiled so that slopes do not exceed 2 to 1. A hay bale sediment barrier is to surround each stockpile and a temporary vegetative cover shall be provided.
4. Dust control will be accomplished by spraying with water. The application of calcium chloride is not permitted adjacent to wetland resource areas or within 100' of these areas.
5. The proposed planting schedule is to be adhered to during the planting of disturbed areas throughout the proposed construction site.
6. Final stabilization of the site is to follow the procedures outlined in "Permanent Vegetative Cover". If necessary a temporary vegetative cover is to be provided until a permanent cover can be applied.

SILT FENCE INSTALLATION AND MAINTENANCE:

1. Dig a 6" deep trench on the uphill side of the barrier location.
2. Position the posts on the downhill side of the barrier and drive the posts 1.5 feet into the ground.
3. Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill.
4. Inspect and repair barrier after heavy rainfall.
5. Inspections will be made at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater to determine maintenance needs.
6. Sediment deposits are to be removed when they reach a height of 1 foot behind the barrier or half the height of the barrier and are to be deposited in an area which is not regulated by the inland wetlands commission.
7. Replace or repair the fence within 24 hours of observed failure. Failure of the fence has occurred when sediment fails to be retained by the fence because:
 - the fence has been overtopped, undercut or bypassed by runoff water,
 - the fence has been moved out of position (knocked over), or
 - the geotextile has decomposed or been damaged.

HAY BALE INSTALLATION AND MAINTENANCE:

1. Bales shall be placed as shown on the plans with the ends of the bales tightly abutting each other.
2. Each bale shall be securely anchored with at least 2 stakes and gaps between bales shall be wedged with straw to prevent water from passing between the bales.
3. Inspect bales at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs.
4. Remove sediment behind the bales when it reaches half the height of the bale and deposit in an area which is not regulated by the Inland Wetlands Commission.
5. Replace or repair the barrier within 24 hours of observed failure. Failure of the barrier has occurred when sediment fails to be retained by the barrier because:
 - the barrier has been overtopped, undercut or bypassed by runoff water,
 - the barrier has been moved out of position, or
 - the hay bales have deteriorated or been damaged.

TEMPORARY VEGETATIVE COVER:

SEED SELECTION

Grass species shall be appropriate for the season and site conditions. Appropriate species are outlined in Figure TS-2 in the 2002 Guidelines.

TIMING CONSIDERATIONS

Seed with a temporary seed mixture within 7 days after the suspension of grading work in disturbed areas where the suspension of work is expected to be more than 30 days but less than 1 year.

SITE PREPARATION

Install needed erosion control measures such as diversions, grade stabilization structures, sediment basins and grassed waterways.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application, and mulch anchoring.

SEEDBED PREPARATION

Loosen the soil to a depth of 3-4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, discing, harrowing, raking or dragging with a section of chain link fence. Avoid excessive compaction of the surface by equipment traveling back and forth over the surface. If the slope is tracked, the cleat marks shall be perpendicular to the anticipated direction of the flow of surface water.

If soil testing is not practical or feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10-10-10 or equivalent. Additionally, lime may be applied using rates given in Figure TS-1 in the 2002 Guidelines.

SEEDING

Apply seed uniformly by hand cyclone seeder, drill, cultipacker type seeder or hydroseeder at a minimum rate for the selected species. Increase seeding rates by 10% when hydroseeding.

MULCHING

Temporary seedings made during optimum seeding dates shall be mulched according to the recommendations in the 2002 Guidelines. When seeding outside of the recommended dates, increase the application of mulch to provide 95%-100% coverage.

MAINTENANCE

Inspect seeded area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and soil erosion.

Where seed has moved or where soil erosion has occurred, determine the cause of the failure. Repair eroded areas and install additional controls if required to prevent recurrence of erosion.

Continue inspections until the grasses are firmly established. Grasses shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and to survive severe weather conditions (approximately 80% vegetative cover).

PERMANENT VEGETATIVE COVER:

Refer to Permanent Seeding Measure in the 2002 Guidelines for specific applications and details related to the installation and maintenance of a permanent vegetative cover. In general, the following sequence of operations shall apply:

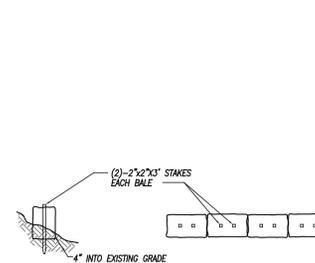
1. Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
2. Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
3. Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10-10-10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
4. Inspect seedbed before seeding. If traffic has compacted the soil, refill compacted areas.
5. Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 - October 1.
6. Following seeding, firm seedbed with a roller. Mulch immediately following seeding. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting, mat or organic mulch.

DEVELOPMENT SCHEDULE/SEQUENCE OF OPERATIONS:

1. Flag the limits of disturbance and schedule pre-construction meeting with Town of Ledyard wetlands Agent & Zoning officer.
2. Contact utility companies for scheduling installation of utilities and connections
3. Install the anti-tracking construction entrance(s).
4. Cut trees within the defined clearing limits and remove the cut wood.
5. Install perimeter erosion and sedimentation controls in accordance with the site development plan.
6. Chip brush and slash, stockpile chips for use on site or remove off site.
7. Box out roadway and stockpile topsoil in locations shown on the plans. Install erosion controls around stockpiles and apply temporary seeding.
8. Install utilities and drainage.
9. Install and compact processed gravel for roadway base.
10. Remove tree stumps and dispose of at an approved disposal site. Alternatively, stumps may be chipped in place. No stumps shall be buried on site.
11. Strip and stockpile topsoil that is within the footprint of the site. Surround stockpile with silt fence or staked haybales, and apply temporary seeding in accordance with recommended mixtures. Divert runoff around the perimeter of the stockpile.
12. Make all required cuts and fills. Establish the subgrade for the driveway as required and install additional erosion controls as necessary and as shown on the plans.
13. Inspect perimeter erosion and sedimentation controls weekly and after rain events in excess of 0.5". Repair any damaged controls and provide additional erosion control devices as necessary to address areas of concentrated runoff that may develop as a result of the construction activities. The contractor shall review discharge conditions with the design engineer or the Town of Stonington prior to installing additional erosion controls. Apply water as necessary for dust control.
14. Prepare sub-base for roadway for final grading.
15. Install first course of pavement.
16. Excavate for building footings, stockpile soil and pour footings & slab. Begin building construction.
17. Place topsoil where required and install any proposed landscaping upon completion of each building.
18. When the remainder of the site work is near completion, sweep all paved areas for the final course of paving. Inspect erosion controls and remove any accumulated sediment.
19. Install final course of pavement upon the completion of the final phase.
20. Fine grade, rake, seed and mulch to within 2' of the pavement.
21. Remove and dispose of all silt fence and hay bales after the site has been stabilized to the satisfaction of the Town of Stonington.

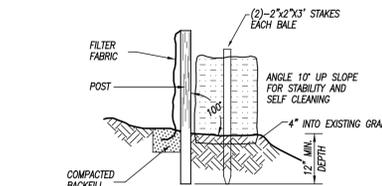
RESPONSIBLE PARTY FOR E&S MAINTENANCE:

Acranom Masonry
c/o Sal Manarone
80 Industrial Park Access Road
Middlefield, CT 06455
(860) 349-9000



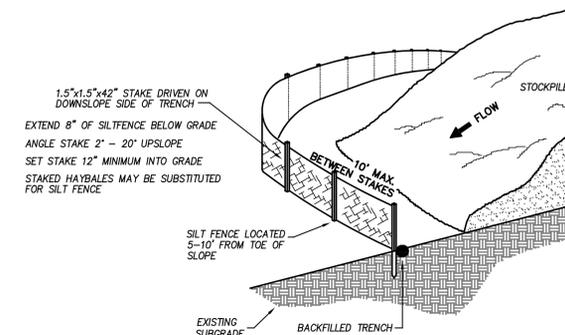
HAYBALE BARRIER

NOT TO SCALE



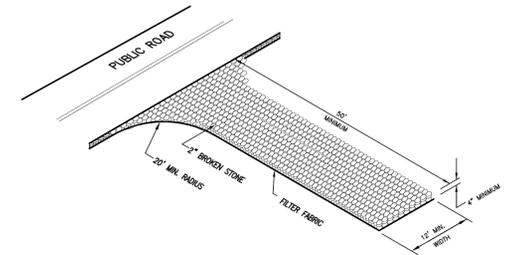
SILT FENCE - BACKED WITH HAYBALES

NOT TO SCALE



SILT FENCE @ TOE OF SLOPE APPLICATION

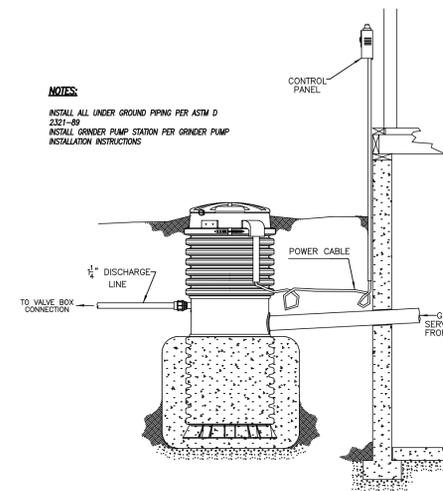
NOT TO SCALE



CONSTRUCTION ENTRANCE

NOT TO SCALE

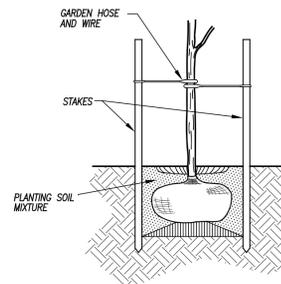
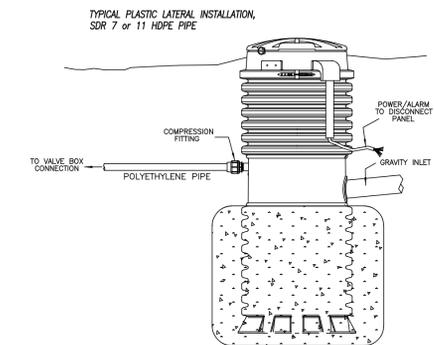
NOTE ACCESS RADIUS SHALL BE ADJUSTED ACCORDINGLY TO ACCOMMODATE CONSTRUCTION VEHICLES



NOTES:
INSTALL ALL UNDER GROUND PIPING PER ASTM D 2387-99
INSTALL GRINDER PUMP STATION PER GRINDER PUMP INSTALLATION INSTRUCTIONS

RESIDENTIAL LOW PRESSURE GRINDER PUMP SYSTEM

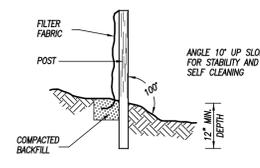
NOT TO SCALE



REFERENCE: GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL

PLANTING CROSS SECTION FOR TREES UNDER 20'

NOT TO SCALE



SILT FENCE

NOT TO SCALE

CONSTRUCTION NOTES/GENERAL PROVISIONS

1. The locations of existing utilities are based upon visible field observations, record mapping and interviews with the property owner and abutting property owners. They are shown for informational purposes only. Contractor shall coordinate exploratory test hole excavation with the Engineer if necessary to verify and/or determine actual locations of some utilities & structures. It is the responsibility of the contractor to verify the location and elevation of all utilities. Contact "CALL BEFORE YOU DIG" at 1-800-922-4455, and obtain all applicable permits, prior to any excavation around utilities.
2. All existing site features not scheduled to remain shall be removed and disposed of in a proper manner, by the contractor.
3. All Materials and methods of construction shall conform to "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816", and supplements thereto.
4. The Contractor shall obtain copies of all regulatory agency permits from the Owner prior to any site disturbance.
5. Unless otherwise noted on the plans, the contractor shall use the geometry provided on the construction plans. Benchmark information shall be provided to the contractor by the Owner or the Owner's surveyor. Any discrepancies between field measurements and construction plan information shall be brought to the attention of the Engineer or Surveyor immediately.
6. The Contractor shall not revise elevations or locations of items shown on the plans without written consent of the project Engineer or Surveyor.
7. The Contractor shall protect benchmarks, property corners, and other survey monuments from damage or displacement. If a marker needs to be removed, it shall be referenced by a licensed land surveyor and replaced as necessary by the same.
8. The Contractor shall be responsible for preparing and compacting base for proposed pavement. Owner shall provide general fill to establish subgrade - contractor shall spread and compact. Contractor shall provide, spread and compact required processed aggregate.
9. The entire project site shall be thoroughly cleaned at the completion of the work. Clean all installed paved areas, accumulated silt and sediment, plus all adjacent areas affected by the construction activities as directed by the Owner or the jurisdictional Agency.

DATE	DESCRIPTION

DETAIL SHEET - No.1

PREPARED FOR

LEDYARD CENTER, LLC

COLONEL LEDYARD HIGHWAY (RTE 117) & IRON STREET (RTE 214)
LEDYARD, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying



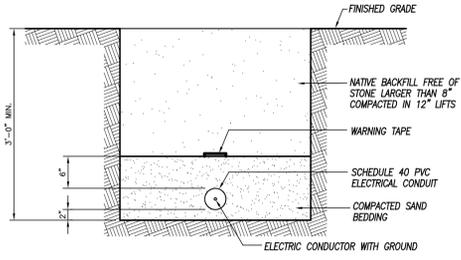
114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

DATE: 1/17/206	DRAWN: RGS
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 5 OF 7	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 23038

NORMAND E. THIBEAULT, JR., P.E. DATE
LIC #PEN 0022834

APPROVED BY THE TOWN OF LEDYARD PLANNING & ZONING COMMISSION

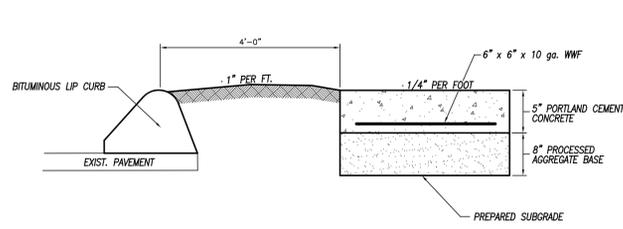
CHAIRMAN	DATE
Expiration Date	DATE



NOTE: CONTRACTOR SHALL PROVIDE SILT/CLAY DAMS AT 100' INTERVALS ALONG PROPOSED UTILITY TRENCH TO AVOID TRANSPORTING INTERCEPTED WATER.

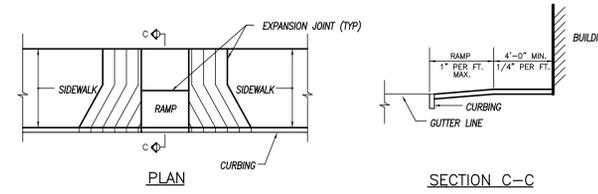
ELECTRICAL CONDUIT IN TRENCH

NOT TO SCALE



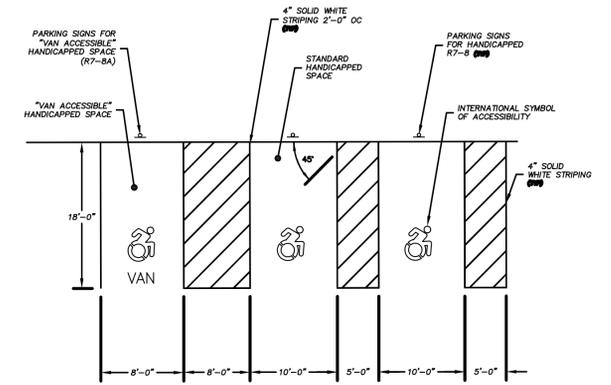
CONCRETE SIDEWALK AND BCLC WITH GRASS STRIP

NOT TO SCALE



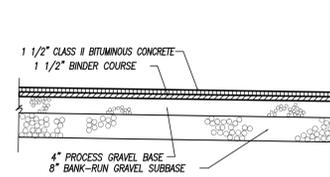
SIDEWALK RAMP

NOT TO SCALE



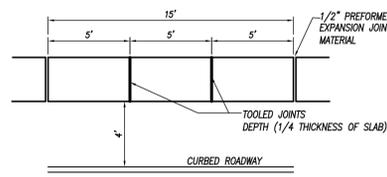
HANDICAPPED PARKING STALL LAYOUT

NOT TO SCALE

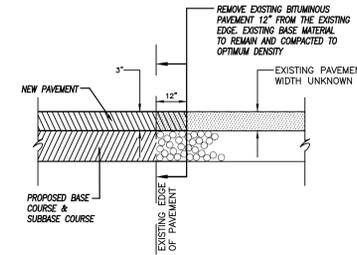


BITUMINOUS CONCRETE PAVEMENT

NOT TO SCALE



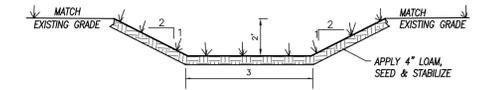
PLAN VIEW



1. SAW CUT PAVEMENT WITH POWER DRIVEN SAW 12" FROM THE EXISTING EDGE. SAW CUT TO BE PERPENDICULAR TO THE EXISTING SURFACE.
2. REMOVE ENTIRE WIDTH OF PAVEMENT.
3. CLEAN JOINT WITH COMPRESSED AIR HAVING A MINIMUM RATED CAPACITY OF 90 PSI.
4. APPLY TACK COAT TO THE SAW CUT EDGE AND MATCH THIS EDGE WITH THE PROPOSED EDGE.

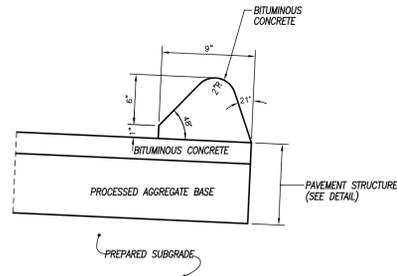
TYPICAL CROSS SECTION FOR MATCHING EXISTING AND PROPOSED PAVEMENT

NOT TO SCALE



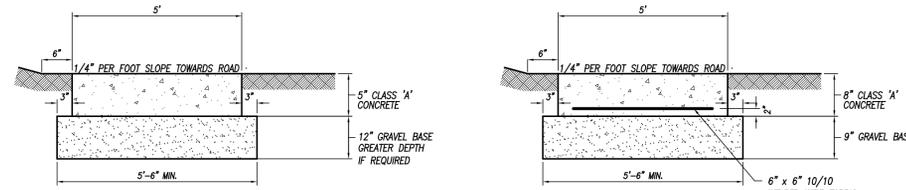
GRASS LINED SWALE

NOT TO SCALE



BITUMINOUS CONCRETE LIP CURBING DETAIL

NOT TO SCALE

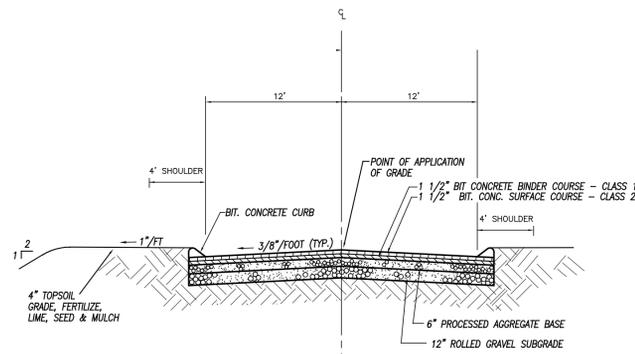


SECTION THRU 5" THICK CONCRETE SIDEWALK

NOT TO SCALE

SECTION THRU 8" THICK CONCRETE SIDEWALK (DRIVEWAY)

NOT TO SCALE

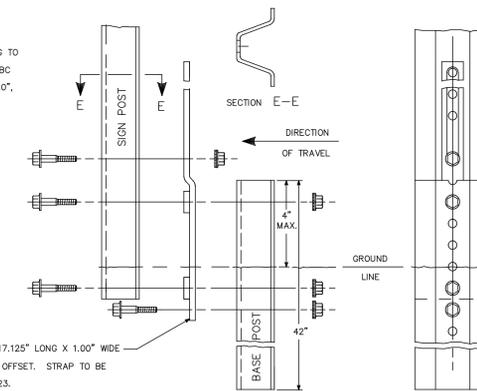


- ROADWAY CROSS SECTION**
- NOT TO SCALE
1. ALL MATERIAL THICKNESSES ARE FOR COMPACTED DEPTH
 2. IF BINDER COURSE IS LEFT AS A TOP COURSE FOR AN EXTENDED PERIOD, A TACK COAT OF BITUMINOUS MATERIAL SHALL BE APPLIED BEFORE LAYING THE BITUMINOUS CONCRETE

BOLTS - HEX HEAD, INTEGRAL FLANGE CONFORMING TO ASTM A354 - 18 UNC X 1.75", GRADE BC FOR 3.00 LBS./FT. POSTS - 18 UNC X 2.0", GRADE BD FOR 4.00 LB./FT. POSTS.

NUTS - 18 UNC HEX HEAD, INTEGRAL FLANGE CONFORMING TO ASTM A563, GRADE DH.

LOCKWASHERS - HEAVY DUTY EXTERNAL TYPE.



BREAKAWAY TYPE I INSTALLATION - FOR 3 & 4 LB. POSTS

RETAINER-SPACER STRAP 17.125" LONG X 1.00" WIDE X .375" THICK WITH .375" OFFSET. STRAP TO BE GALVANIZED TO ASTM A 123.

APPROVED BY THE TOWN OF LEDYARD PLANNING & ZONING COMMISSION

CHAIRMAN	DATE
Expiration Date	DATE

DATE	DESCRIPTION

DETAIL SHEET - No.2
 PREPARED FOR
LEDYARD CENTER, LLC
 COLONEL LEDYARD HIGHWAY (RTE 117) & IRON STREET (RTE 214)
 LEDYARD, CONNECTICUT

Killingly Engineering Associates
 Civil Engineering & Surveying

114 Westcott Road
 P.O. Box 421
 Killingly, Connecticut 06241
 (860) 779-7299
 www.killinglyengineering.com

DATE: 1/17/2026	DRAWN: RGS
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 6 OF 7	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 23038

NORMAND E. THIBEAULT, JR., P.E. DATE
 LIC #PEN 0022834

New England Erosion Control/Restoration Mix For Detention Basins

The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation.

This mix is particularly appropriate for detention basins that do not hold standing water. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding. The mix may be applied by hand, by mechanical spreader, or by hydro-seeder. After sowing, lightly rake, roll or cultipack to insure good seed-to-soil contact. Best results are obtained with a Spring or late Summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. A light mulching of clean, weed-free straw is recommended.

APPLICATION RATE: 35 lbs/acre | 1250 sq ft/lb

SPECIES: Virginia Wild Rye, (*Elymus virginicus*), Creeping Red Fescue, (*Festuca rubra*), Little Bluestem, (*Schizachyrium scoparium*), Big Bluestem, (*Andropogon gerardii*), Fox Sedge, (*Carex vulpinoidea*), Switch Grass, (*Panicum virgatum*), Rough Bentgrass, (*Agrostis scabra*), New England Aster, (*Aster novae-angliae*), Boneset, (*Eupatorium perfoliatum*), Grass Leaved Goldenrod, (*Euthamia graminifolia*), Green Bulrush, (*Scirpus atrovirens*), Blue Vervain, (*Verbena hastata*), Soft Rush, (*Juncus effusus*), Wool Grass, (*Scirpus cyperinus*).

DETENTION BASIN CONSTRUCTION NOTES:

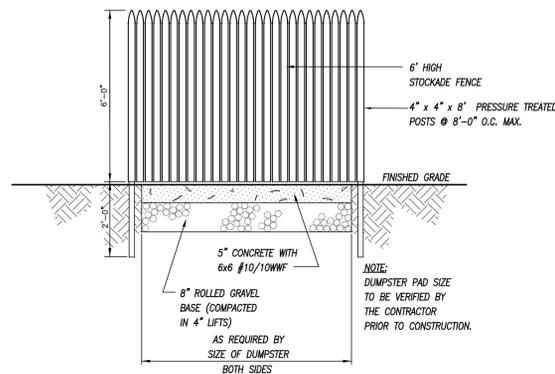
1. Detention basin embankments shall be constructed of silty sand and/or clayey sand materials. On-site borrow material may be used if suitable deposits are found. Embankment fill shall contain at least 15% by weight of material passing the #200 sieve and not more than 50% passing the #200 sieve.
2. Embankment fill shall have no stones larger than 6" in their greatest dimension. No stones larger than 3" in their greatest dimension shall be allowed within 2 feet of structures or pipes.
3. All fill material shall be free of topsoil, roots, stumps, organics, frozen material and other deleterious matter.
4. All embankment material shall be compacted to 95% minimum relative compaction as determined by ASTM D1557 - Modified Proctor. The maximum loose lift thickness of embankment fill shall be 12".
5. Sufficient dewatering equipment shall be provided to dewater excavations for proposed embankments, cutoff trenches and other construction.
6. All topsoil, organics, roots and other deleterious matter shall be removed from the existing ground surface prior to construction of the proposed embankments.
7. All embankments and disturbed areas of the detention basin shall be permanently stabilized with 4" of loam, seed and mulch. Suitable hydroseeding equipment may be used for application of seed, mulch and/or fertilizer. The following seed mix shall be used in these areas:

DETENTION BASIN OPERATION AND MAINTENANCE NOTES:

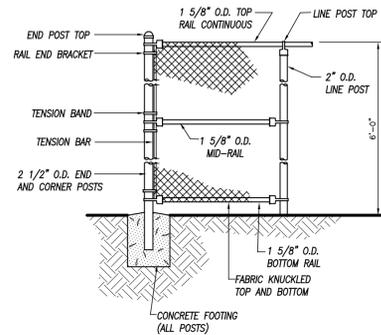
1. The contractor shall be responsible for all maintenance and inspections prior to acceptance of the roadway.
2. During the first year of operation, the basin shall be inspected on a weekly basis or within 24 hours after a rainfall event of 0.5" or greater. Any erosion of embankments or outlet areas shall be repaired promptly. Any debris shall be removed from trash racks and disposed of. Sedimentation that would interfere with proper operation of the basin shall be removed and disposed of and the area restored and stabilized as required.
3. After the basin has been in operation for one year, inspections shall be performed quarterly or within 24 hours after a storm event of 2.0" or greater. Quarterly inspections shall include the following items:
 - Noxious weeds shall be removed. Perform any mowing operations required.
 - Inspect embankments for any woody growth. All trees, vines and other woody plants shall be removed and voids left from their removal shall be repaired.
 - Inspect embankments for animal burrows. All burrows and voids shall be repaired immediately.
 - Accumulated sediment shall be removed from the basin forebay and other areas to restore original design grades. Disturbed areas shall be restabilized as required after removal of sediment.
 - Inlets and outlets shall be inspected for scour damage and erosion and repaired as required.
 - Outlet structures shall be cleaned of accumulated sediment.
 - Any evidence of piping or seepage at the toe of embankments or around inlet/outlet structures shall be investigated by a qualified professional engineer and reported to the Town. Required repairs to maintain the proper function or repair potential structural deficiencies in the basin shall be implemented within one month of the discovery of the problem or at the discretion of the responsible professional engineer performing the investigation or designing such repairs. The engineer shall certify that all repairs are to his/her satisfaction and shall provide such certification to the Town.

STORMWATER SYSTEM OPERATION AND MAINTENANCE NOTES:

- Provide annual street sweeping, preferably after final snow melt to alleviate sediment buildup in catch basin sumps and to insure efficient TSS removal from stormwater.
- Remove sediment from catch basin sumps when sediment reaches half the depth of the sump (2').
- Inspect catch basins for trash and debris bi-annually. Remove accumulated sediment and debris from pipe inlets and outlets to prevent clogging.
- Remove accumulated trash and leaves from catch basin grates to insure adequate grate inflow capacities.



CONCRETE DUMPSTER PAD WITH STOCKADE FENCE
NOT TO SCALE

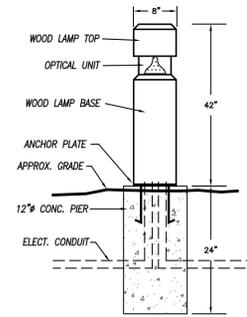


CHAIN LINK FENCE DETAIL
NOT TO SCALE

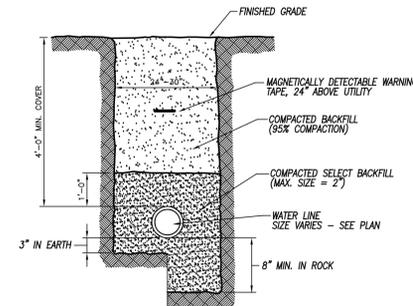


BUILDING MOUNTED LIGHT

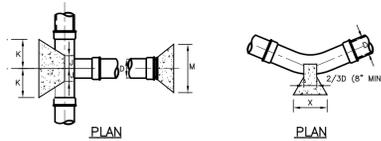
W2_B
Philips Gardco
PWS-140L-1675-CW-G2-4-UNV-PCB-BK
W1_G
Philips Gardco
PWS-140L-1150-CW-G2-3-UNV-PCB-MGY
(Fixtures shall be dark sky compliant)
12 FIXTURES TOTAL TO BE POSITIONED ABOVE UNIT ENTRANCES



WALKWAY LAMP (BOLLARD TYPE)
NOT TO SCALE



WATER MAIN TRENCH DETAIL
NOT TO SCALE



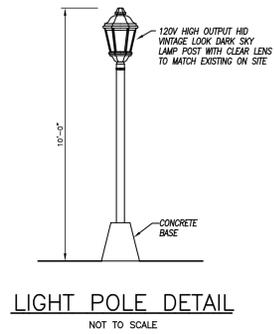
NOTES:
1. ALL CONCRETE SHALL BE 3000 PSI @ 28 DAYS
2. DIMENSIONS SHOWN ARE MINIMUM AND ARE BASED ON SOIL PRESSURE OF 3000 PSF AND STATIC WATER PRESSURE OF 150 PSI.
3. CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.

	90° BEND				45° BEND				22-1/2° BEND				11-1/4° BEND						
D	6"	8"	12"	16"	24"	6"	8"	12"	16"	24"	6"	8"	12"	16"	24"	6"	8"	12"	16"
X	1'-0"	1'-8"	2'-6"	3'-4"	3'-6"	1'-0"	1'-8"	2'-6"	3'-6"	1'-0"	1'-4"	1'-8"	2'-0"	3'-6"	1'-0"	1'-0"	1'-2"	1'-6"	3'-6"
Y	1'-0"	1'-2"	1'-3"	1'-8"	2'-4"	1'-0"	1'-0"	1'-0"	1'-4"	2'-4"	1'-0"	1'-0"	1'-2"	2'-4"	1'-0"	1'-0"	1'-0"	1'-2"	2'-4"

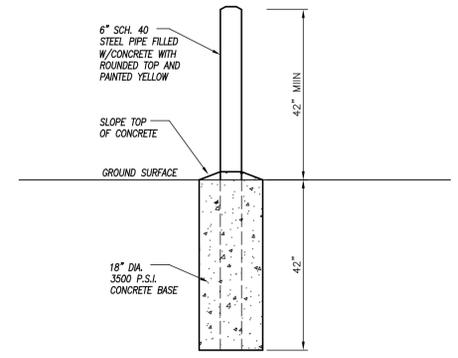
SIZE OF BRANCH	J	K	L	M	N	O
6"	8"	8"	10"	1'-6"	1'-2"	8"
8"	10"	10"	1'-0"	2'-0"	1'-6"	10"
12"	1'-0"	1'-2"	1'-3"	3'-0"	2'-0"	1'-2"
16"	1'-0"	1'-6"	1'-8"	3'-10"	10'-11"	6"
24"	1'-4"	2'-0"	2'-8"	6'-0"	3'-6"	1'-8"

TEES & PLUGS

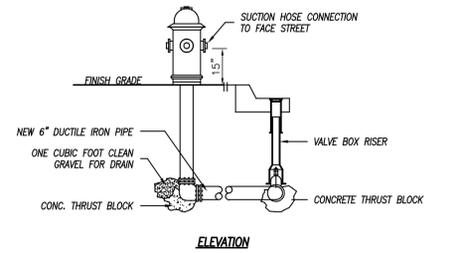
THRUST BLOCK DETAILS
NOT TO SCALE



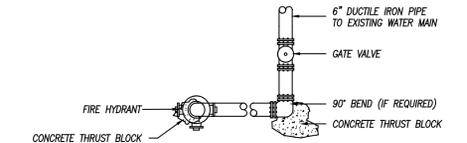
LIGHT POLE DETAIL
NOT TO SCALE



STEEL BOLLARD DETAIL
NOT TO SCALE

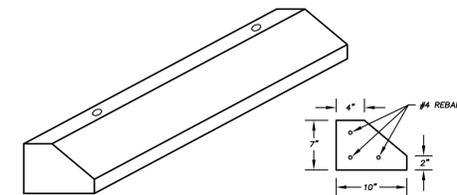


ELEVATION



SECTION

FIRE HYDRANT DETAIL
NOT TO SCALE



PRECAST WHEEL STOP
NOT TO SCALE

NOTES:

1. BUMPER STOPS ARE 6' LONG WITH 2" PINS
2. CONCRETE COMPRESSIVE STRENGTH: 4000 PSI @ 28 DAYS
3. METHOD OF MANUFACTURE: WET CAST
4. REINFORCING STEEL DEFORMED BARS CONFORM TO THE LATEST ASTM SPECIFICATION A615
5. MANUFACTURED TO CONNECTICUT DOT SPECIFICATIONS
6. UNIT WEIGHT: 300 LBS

DATE	DESCRIPTION
	REVISIONS

DETAIL SHEET No. 3
PREPARED FOR
LEDYARD CENTER, LLC
COLONEL LEDYARD HIGHWAY (RTE 117) & IRON STREET (RTE 214)
LEDYARD, CONNECTICUT

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DATE: 1/17/2026	DRAWN: RGS
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 7 OF 7	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 23038

APPROVED BY THE TOWN OF LEDYARD
PLANNING & ZONING COMMISSION

CHAIRMAN _____ DATE _____

Expiration Date _____ DATE _____

NORMAND E. THIBEAULT, JR., P.E. DATE _____
LIC #PEN 0022834