

REFERENCE IS MADE TO:

Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines).

2. N.R.C.S. Soil Survey of Connecticut.

GENERAL CONSTRUCTION SEQUENCE (HOUSE LOTS):

Limits of disturbance and proposed improvements shall be staked by a Connecticut licensed land surveyor. The Zoning and Wetlands Officer shall be contacted for an inspection after the limits of disturbance are

Install construction entrance.

- Clear trees and brush. Cleared material shall be removed from the site or chipped for use in stabilizing the
- Install silt fence or staked haybale perimeter erosion controls as shown on the plot plan. The Zoning and Wetlands Officer shall be contacted for an inspection after all soil erosion and sediment controls are in place.
- Grub stumps from the development area. Stumps shall be removed from the site an be properly disposed of. No stumps, brush or other unsuitable materials shall be buried on site.
- Strip topsoil and stockpile on site for use in final site stabilization. Stockpiles shall be protected with a perimeter silt fence or staked haybale barrier. If stockpiles will be in place for an extended time period, they shall be stabililized with a vegetative cover.
- Rough grade the site for the installation of the house foundation and driveway.
- 8. Install the foundation and driveway as shown on the plot plan. Continue construction of the house.
- 9. Install utilities to the house.

10. When house construction and weather conditions permit, the site shall be permanently stabilized with topsoil, seed and mulch to establish a permanent vegetative cover. Temporary perimeter controls shall be removed and disposed of when the site has been permanently stabilized.

DEVELOPMENT CONTROL PLAN:

- Development of the site will be performed by the individual lot owner, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout construction.
- The sedimentation control mechanisms shall remain in place from start of construction until permanent vegetation has been established. The Zoning and Wetlands Officer 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.
- 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 soil and erosion control barrier is to surround each stockpile and a temporary
- Dust control will be accomplished by spraying with water and if necessary, the application of calcium chloride.
- 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:

- 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.
- 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.
- 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
- If any erosion and sediment control measures fail or are not installed or maintained as per the directive of the Zoning and Wetlands Officer, all construction activities on the lot shall cease until such time as said erosion and sediment control measures have been installed in accordance to the directive of the Zoning and Wetlands Officer.
- 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:

- . 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.
- 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.
- 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.
- . 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

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

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

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.

cleat marks shall be perpendicular to the anticipated direction of the flow of surface water.

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.

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 rill 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 reoccurrence 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
- 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, retill compacted areas.
- 5. Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August
- 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.

EROSION AND SEDIMENT CONTROL NARRATIVE:

PRINCIPLES OF EROSION AND SEDIMENT CONTROL

The primary function of erosion and sediment controls is to absorb erosional energies and reduce runoff velocities that force the detachment and transport of soil and/or encourage the deposition of eroded soil particles before they reach any sensitive area.

KEEP LAND DISTURBANCE TO A MINIMUM

The more land that is in vegetative cover, the more surface water will infiltrate into the soil, thus minimizing stormwater runoff and potential erosion. Keeping land disturbance to a minimum not only involves minimizing the extent of exposure at any one time, but also the duration of exposure. Phasing, sequencing and construction scheduling are interrelated. Phasing divides a large project into distinct sections where construction work over a specific area occurs over distinct periods of time and each phase is not dependent upon a subsequent phase in order to be functional. A sequence is the order in which construction activities are to occur during any particular phase. A sequence should be developed on the premise of "first things first" and "last things last" with proper attention given to the inclusion of adequate erosion and sediment control measures. A construction schedule is a sequence with time lines applied to it and should address the potential overlap of actions in a sequence which may be in conflict with each other.

- Limit areas of clearing and grading. Protect natural vegetation from construction equipment with fencing, tree armoring, and retaining walls or tree wells.
- Route traffic patterns within the site to avoid existing or newly planted vegetation.
- Phase construction so that areas which are actively being developed at any one time are minimized and only that area under construction is exposed. Clear only those areas essential for construction.
- Sequence the construction of storm drainage systems so that they are operational as soon as possible during construction. Ensure all outlets are stable before outletting storm drainage flow

Schedule construction so that final grading and stabilization is completed as soon as possible. SLOW THE FLOW

Detachment and transport of eroded soil must be kept to a minimum by absorbing and reducing the erosive energy of water. The erosive energy of water increases as the volume and velocity of runoff increases. The volume and velocity of runoff increases during development as a result of reduced infiltration rates caused by the removal of existing vegetation, removal of topsoil, compaction of soil and the construction of impervious surfaces.

- Use diversions, stone dikes, silt fences and similar measures to break flow lines and dissipate
- Avoid diverting one drainage system into another without calculating the potential for downstream flooding or erosion.

KEEP CLEAN RUNOFF SEPARATED

storm water energy.

Clean runoff should be kept separated from sediment laden water and should not be directed over disturbed areas without additional controls. Additionally, prevent the mixing of clean off-site generated runoff with sediment laden runoff generated on-site until after adequate filtration of on-site waters has

- Segregate construction waters from clean water.
- Divert site runoff to keep it isolated from wetlands, watercourses and drainage ways that flow through or near the development until the sediment in that runoff is trapped or detained

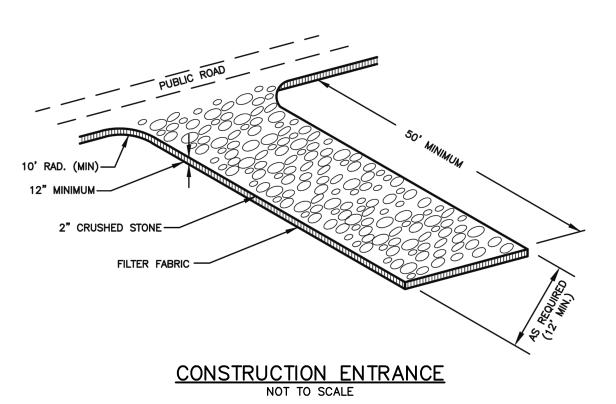
REDUCE ON SITE POTENTIAL INTERNALLY AND INSTALL PERIMETER CONTROLS

- While it may seem less complicated to collect all waters to one point of discharge for treatment and just install a perimeter control, it can be more effective to apply internal controls to many small sub-drainage basins within the site. By reducing sediment loading from within the site, the chance of perimeter control failure and the potential off-site damage that it can cause is reduced. It is generally more expensive to correct off-site damage than it is to install proper
- Control erosion and sedimentation in the smallest drainage area possible. It is easier to control erosion than to contend with sediment after it has been carried downstream and deposited in unwanted areas.
- Direct runoff from small disturbed areas to adjoining undisturbed vegetated areas to reduce the potential for concentrated flows and increase settlement and filtering of sediments.
- Concentrated runoff from development should be safely conveyed to stable outlets using rip rapped channels, waterways, diversions, storm drains or similar measures.
- Determine the need for sediment basins. Sediment basins are required on larger developments where major grading is planned and where it is impossible or impractical to control erosion at the source. Sediment basins are needed on large and small sites when sensitive areas such as wetlands, watercourses, and streets would be impacted by off-site sediment deposition. Do not locate sediment basins in wetlands or permanent or intermittent watercourses. Sediment basins should be located to intercept runoff prior to its entry into the wetland or watercourse.
- Grade and landscape around buildings and septic systems to divert water away from them.

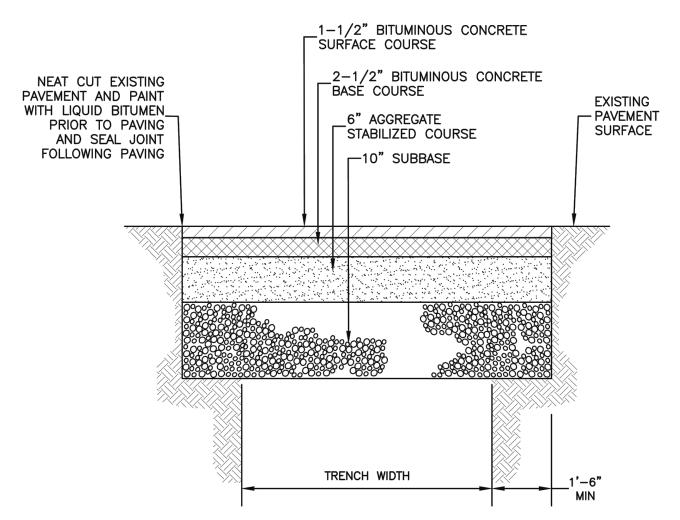
(2)-2"x2"X3' STAKES 4" INTO EXISTING GRADE

HAYBALE BARRIER

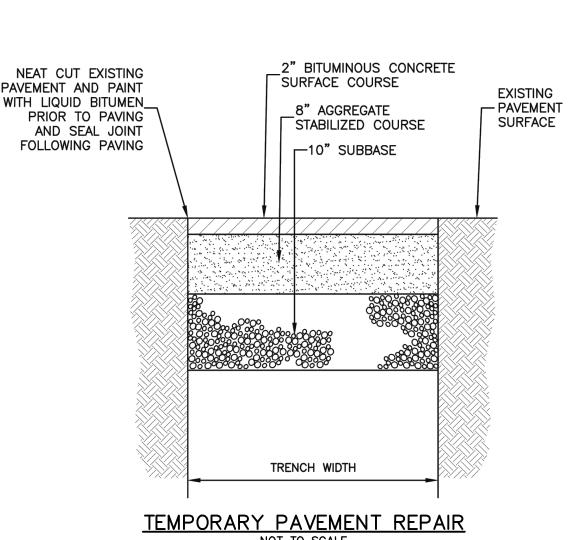
NOT TO SCALE

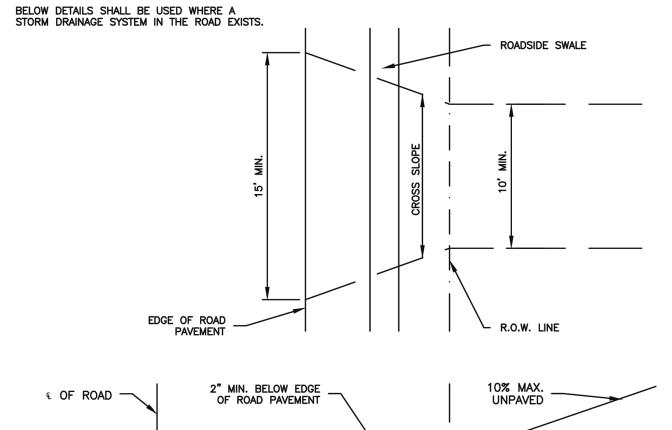


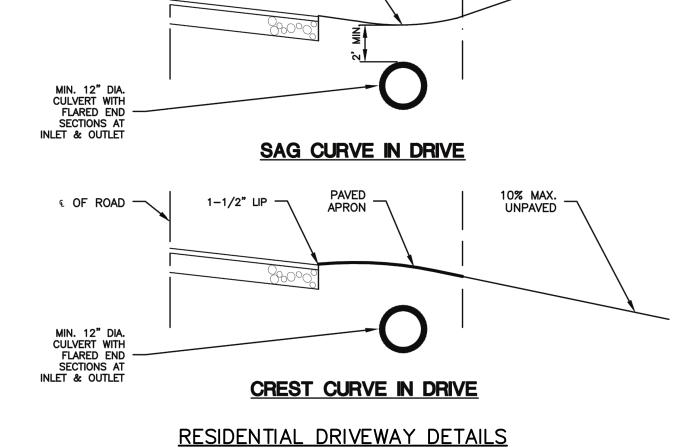
THE CONTRACTOR SHALL MAINTAIN A MINIMUM 15' WIDE TRAVEL WAY AT ROAD CROSSINGS AT ALL TIMES DURING CONSTRUCTION.

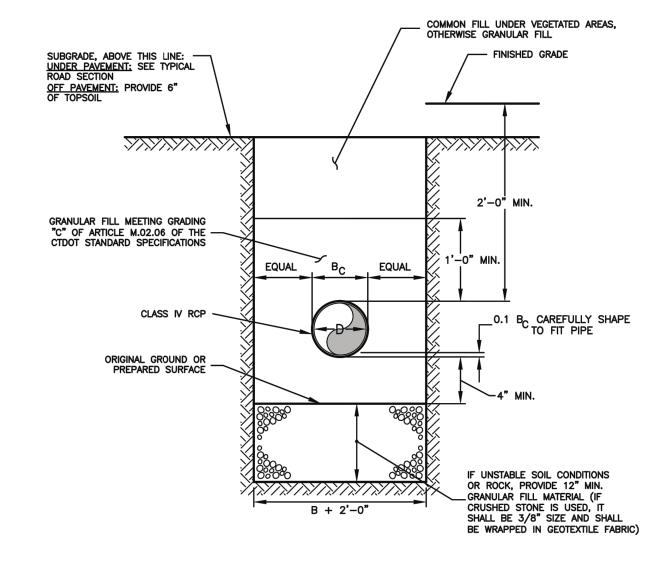












1. CONTRACTOR SHALL PROTECT EXCAVATIONS BY SHORING, BRACING, SHEET PILING, UNDERPINNING OR OTHER METHODS TO PREVENT CAVE-IN OR LOOSE SOIL FROM FALLING INTO THE EXCAVATION AND DAMAGING THE WORK OR ADJACENT STRUCTURES AND UTILITIES. PIPE TRENCH DETAIL NOT TO SCALE

TITLE	SHEET NO.
PROPERTY & TOPOGRAPHIC SURVEY	1
RECORD SUBDIVISION MAP	2
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CONSTRUCTION NOTES & DETAILS No. 1	4
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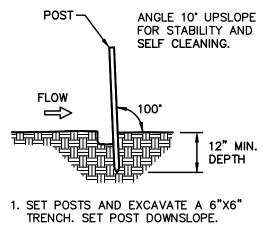
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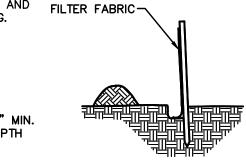
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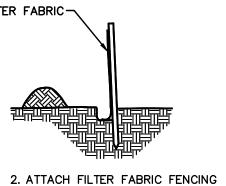
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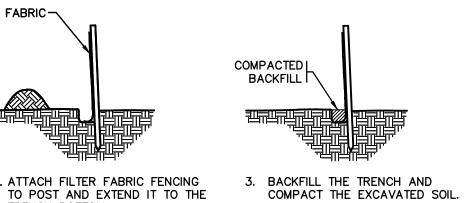
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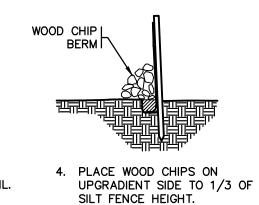
JULY 27, 2022 SCALE: AS SHOWN 4 OF 5 DWG. NO.:





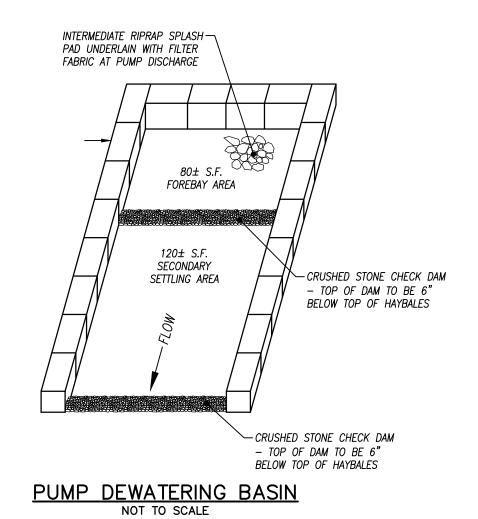


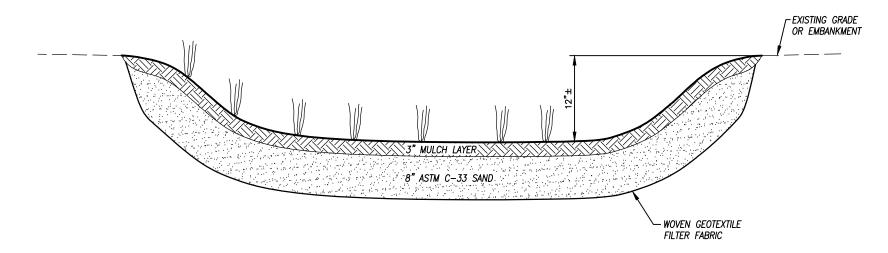




SILT FENCE WITH WOOD CHIPS

NOT TO SCALE





RAIN GARDEN CROSS SECTION

CONNECTICUT RAIN GARDENS SUGGESTED PLANT LIST

PERENNIALS

A. Swamp Milkweed (Asclepias incarnata)
B. New York aster (Aster novae—belgii) C. Astilbe (Astilbe spp.)

L. Royal fern (Osmunda regalis)
M. Marsh fern (Thelypteris palustris)
N. Spiderwort (Tradescantia virginiana)
O. Black-Eyed Susan (Rudbeckia birta) D. Tickseed sunflower (Bidens aristosa)
E. Joe Pye weed (Eupatorium fistulosum) F. Rose mallow (Hibiscus moscheutos) G. Iris (Iris versicolor)

H. Cardinal flower (Lobelia cardinalis)

<u>GRASSES</u> p. Creeping bentgrass (Agrostis stolonifera)
 Q. Meadow foxtail (Alopecurus pratensis)
 R. Blue joint (Calamogrostis Canadensis)
 S. Tussock sedge (Carex stricta)

T. Tufted hair grass (Deschampsia caespitosa)U. Switch grass (Panicum virgatum)V. Ribbon grass (Phalaris arundinacea)

I. Spiked gay feather (Liatris spicata)
J. Sensitive fern (Onoclea sensibilis)
K. Cinnamon fern (Osmunda cinnamomea)

 Red chokeberry (Aronia arbutifolia)
 Buttonbush (Cephalanthus occidentalis) Pinxterbloom azalea (Rhododendron periclymenoides)
 Swamp azalea (Rhododendron viscosum) 3. Summersweet clethra (Clethra alnifolia)
4. Silky dogwood (Cornus amomum)
5. Gray dogwood (Cornus racemosum)
6. Red osier dogwood (cornus sericea) Swamp azaled (Moddaendron viscosum)
 Elderberry (Sambuscus Candensis)
 Lowbush blueberry (Vacinium angusifolium)
 Highbush blueberry (Vaccinium corymbosum) 15. Witherod (Viburnum cassinoides)16. Arrowwood (Viburnum dentatum) 7. Inkberry (llex glabra) 8. Winterberry (Illex vertifillata)
9. Spicebush (Lindera aestivale benzoin) 17. Nannyberry (Viburnum legtago)18. Black haw (Viburnum prunifolium)

One or more trees can be added to a rain garden, depending upon its size. Caution should be used though, as a tree can quickly take over the garden and create a different look. Remember, most trees will grow very large unless they are purposely kept small. If a tree is desired, the following types are recommended:

20. River birch (Betula negra) 21. Red maple (Acer rubrum) 22. Sweetgum (Liquidambar styraciflua) 23. Swamp white oak (Quercus bicolor) 24. Pin oak (Quercus palustris)

25. Larch (larix laricina) 26. Cottonwood (Populus deltoides)

19. American cranberry (Viburnum trilobum)

27. Shadblow (Amelanchier spp.) 28. Green ash (Fraxinus pennsylvanica)

> SHEET NO. TITLE PROPERTY & TOPOGRAPHIC SURVEY RECORD SUBDIVISION MAP SITE DEVELOPMENT PLAN CONSTRUCTION NOTES & DETAILS No. 1 CONSTRUCTION NOTES & DETAILS No. 2

2	10/24/22	TOWN COMMENTS	DJH
1	09/27/22	TOWN COMMENTS, HOUSE FOOTPRINT	MJB
NO.	DATE	DESCRIPTION	BY

Drovost & Dovero, Inc.

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JULY 27, 2022

AS SHOWN

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SCALE:

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