

Memo

To: Board of Adjustment Chairperson McGinley and Secretary Kester
Verona Board of Adjustment (BoA)

From: Plan Review Committee of the Verona Environmental Commission

c: Verona Environmental Commission Chair

Date: November 10, 2024

Re: **Case # 2024-19**
45 Woodland Avenue [Block 905, Lot 13]
Verona, New Jersey

Zone: R-60 (Residential Medium Density)

The Plan Review Committee of the Verona Environmental Commission (VEC) reviewed the application for 45 Woodland Avenue in Verona submitted Peter Malanga, which we received on October 21, 2024. We understand that the Applicant is seeking to obtain multiple variances to add a pool, and associated patio areas, and a front porch which will encroach into the front yard setback and taken together, will exceed total improved lot coverage by almost 11%. The comments below are provided for the Board's consideration:

- 1) Existing and Proposed Improved Lot Coverage is listed as 36.7% and 51.4% on the application, respectively. Scaling off the drawing, we calculated an Existing Improved Lot Coverage of 36.7% based on an Existing "Improved Area" of 3,051.6 ft² (please see attached annotated pdf). Furthermore, we calculated a Proposed Improved Lot Coverage of 50.9% based on a Proposed "Improved Area" of 4,234.1 ft² (an increase of about 1,182.5 ft²). We understand that the maximum Improved Lot Coverage for the R-60 Zone is 40%.
- 2) The VEC PRC understands that the Applicant intends to increase impervious surface on the site beyond 400 ft², which triggers Verona's Minor Development criteria for stormwater management. However, the Applicant has not filed the minor development stormwater management application and submitted other necessary documents for Board and Engineer review, as required in Zoning Code [§150-25-10](#).
- 3) The Applicant's Zoning Notes Table on the Sheet titled: "Pool Plan, Soil Erosion, Sediment Control Plan, Notes & Details for Malanga," proposes to add 1,237 ft² of new impervious coverage to the site. According to [§150-25.7A\(1\)](#), the Applicant would be required to retain 3 inches of stormwater per square foot of increased impervious surface or almost 2,400 gallons of stormwater runoff. However, the Proposed [Cul-Tec Recharger 330x LHD](#) system, with a capacity of approximately 400 gallons, appears to be inadequately undersized. We note that the Applicant's Engineer used stormwater retainage values from Verona Ordinances that were superseded in March 2024 (i.e., 2 gallons of stormwater managed per square foot of new impervious surface).
- 4) According to the Stormwater Ordinance in Verona's Zoning Code [§150-25.7A\(1\)](#) requires the use of green infrastructure for on-site retention. Table 7 lists multiple green infrastructure BMP's (best management practices) for potential installation and use. The st

ategies include pervious paving systems, small scale bioretention basins, cisterns, swales, etc. The Applicant may also consider planting trees on the site to help aid in stormwater retention.

- 5) The Applicant may also provide any planned planting lists in accordance with [Recommended Plant Selection List](#) included in Verona's Zoning Code, §150.
- 6) We recommend that downspout pipes on the home be disconnected from storm drains and redirected to flow away from the home, over the property's permeable areas, gardens, and lawns.
- 7) The Applicant identifies that one tree will be removed as a result of this project, but does not offer planned mitigation. The Applicant should address the tree removal and also provide mitigation plantings in accordance with [§493, Article II](#), which became effective in 2019, and [Recommended Plant Selection List](#) included in Verona's Zoning Code, §150.
- 8) In addition to the above comments, please see attached the Low Impact Planning and Construction Checklist. This suggested list was compiled by the VEC based on best available practices.

[JP/STD/WS]

VEC_2024-11-10 Comments 45 Woodland Avenue.docx

WOODLAND AVENUE

MH (50' R.O.W.)
Rim=520.84

P.O.B.
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E 566664.024

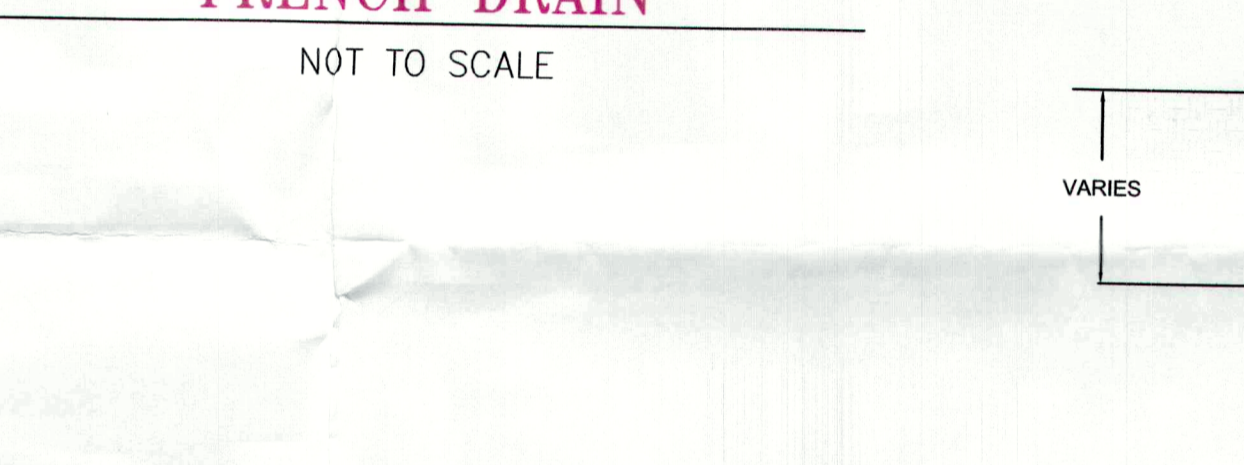
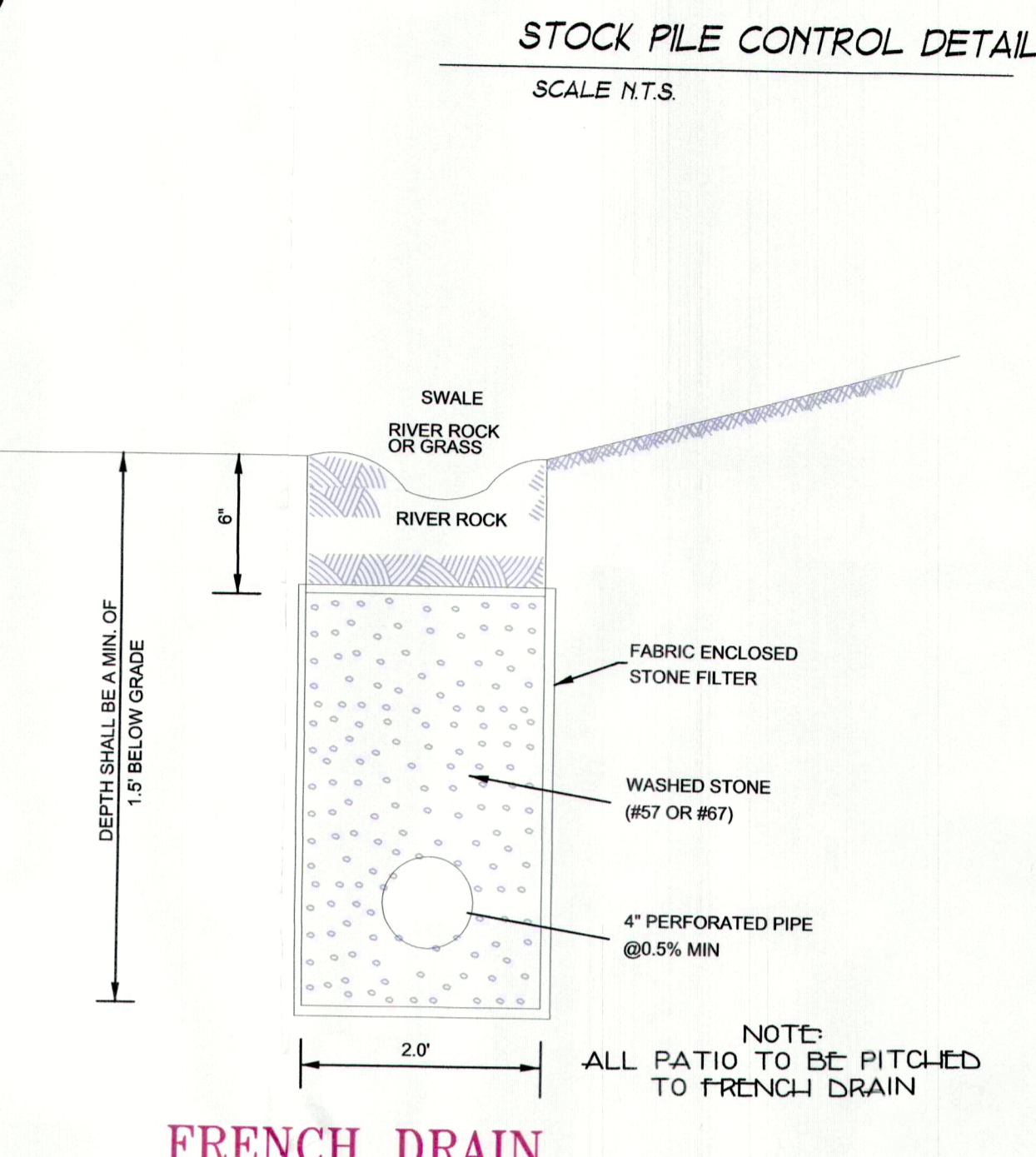
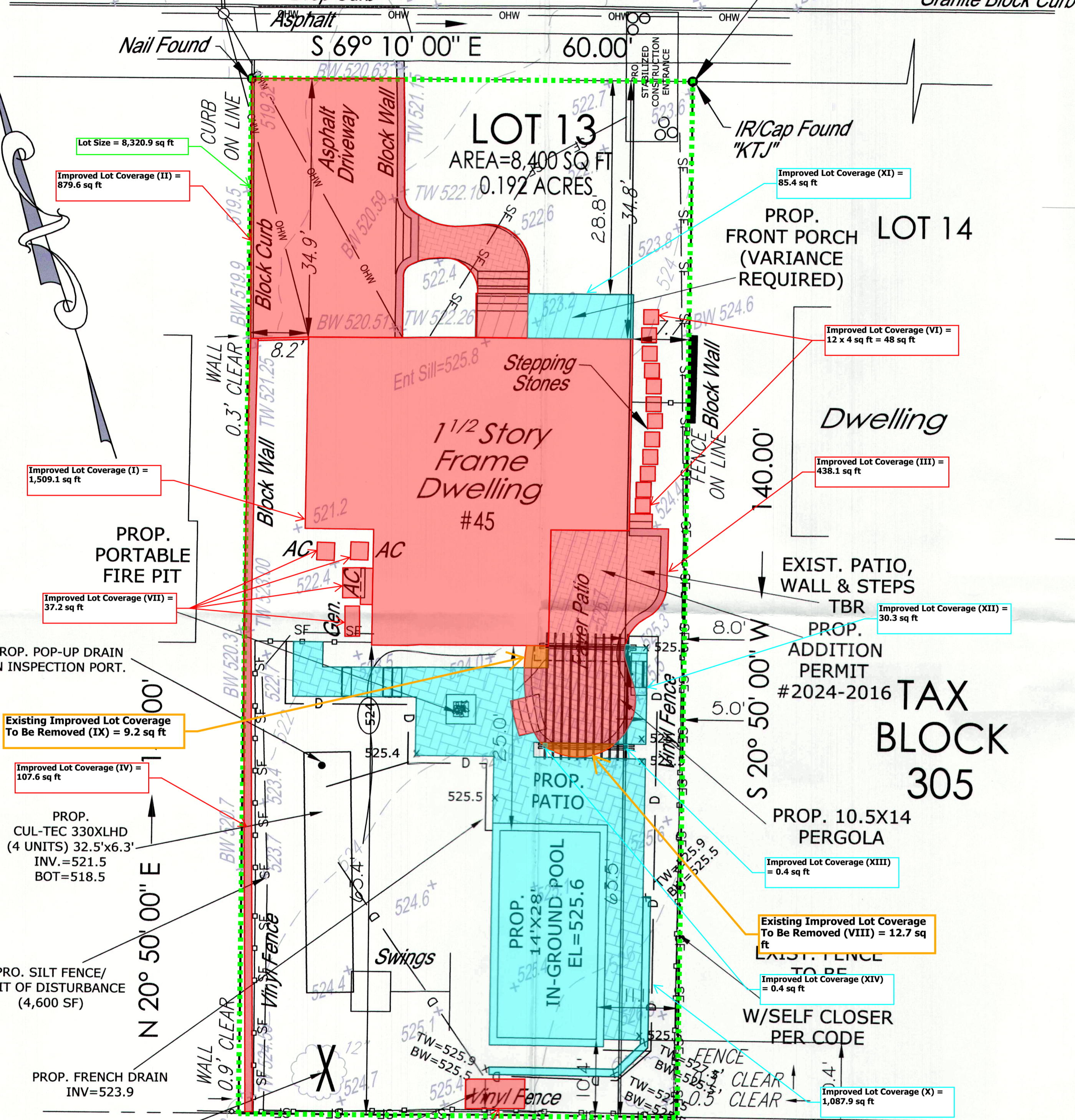
Areas (scaled off plan)
Lot Size = 8,320.9 sq ft
Existing "Improved Area" = 1,509.1 (I) + 879.6 (II) + 438.1 (III) + 107.6 (IV) + 32 (V) + 48 (VI) + 37.2 (VII) = 3,051.6 sq ft
Existing Improved Lot Coverage = 3,051.6 ÷ 8,320.9 = 36.7%
Proposed "Improved Area" = 3,051.6 - 12.7 (VIII) - 9.2 (IX) + 1,087.9 (X) + 85.4 (XI) + 30.3 (XII) + 0.4 (XIII) + 0.4 (XIV) = 4,234.1 sq ft
Proposed Improved Lot Coverage = 4,234.1 ÷ 8,320.9 = 50.9%
Definitions:
IMPROVED LOT COVERAGE = The percentage of lot area which is improved with principal and accessory buildings and structures, including all impervious surface areas such as buildings, driveways, parking lots and garages and other man-made improvements, and swimming pools.
PERVIOUS INTERLOCKING PAVERS = Any pavers with a void area of 20% or less will be considered completely impervious for the purposes of the Stormwater Management rules. In pavers with greater than 20% void area, the applicant may count only the non-void area as impervious, provided the void areas are not grouted or made impermeable in any way.

HUDSON ESSEX PASSAIC COUNTY SOIL CONSERVATION DISTRICT
SOIL EROSION AND SEDIMENT CONTROL NOTES

- All soil erosion and sediment control practices on this plan will be constructed in accordance with the "New Jersey Standards for Soil Erosion and Sediment Control", 7th Edition last revised July 2017, Edition last revised December 2017. These practices will be installed prior to any major soil disturbance or in their proper sequence and maintained until permanent stabilization is established.
- Soil to be exposed or stockpiled for a period of greater than 14 days, and not under active construction, may be required to be temporarily mulched, and seeded or otherwise provided with vegetative cover as per Appendix A3. This temporary cover shall be maintained until such time whereby permanent revegetation is established.
- Seeding Dates: The following seeding dates are recommended to establish permanent vegetative cover within most locations in the HESCD: Seeding - 3/15/15 and Fall - 9/15 - 10/1
- Sediment fences are to be properly installed and maintained until permanent vegetative cover is established.
- All storm drainage inlets shall be protected by one of the practices outlined in the Standards, and protection shall remain until permanent stabilization has been established. Storm drainage outlet points shall be protected as required before they become functional.
- Mulch materials shall be un-rotted small grain straw applied at the rate of 70 to 90 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting to down. Other suitable materials may be used if approved by the Soil Conservation District.
- All erosion control devices shall be periodically inspected, maintained and corrected by the contractor. Any damage incurred by erosion shall be rectified immediately.
- The Hudson-Exeter-Passaic Soil Conservation District will be notified in writing at least 48 hours prior to any soil disturbing activities. Fax: (908) 333-4987 OR email: INFORMATION@HESCD.ORG
- The applicant must obtain a District based Report of Compliance prior to applying for the Certificate of Occupancy or Letter of Completion. Information on how to obtain this information is available on the District's website. Contact the District at 862-333-4505 to request a Final Inspection. A performance deposit may be posted with the District when weather or snow cover prohibits the proper application of seed, mulch, fertilization or hydro-seed.
- Paved roadways must be kept clean at all times. Do not utilize a fire or garden hose to clean roads unless the runoff is directed to a properly designed and functioning sediment basin. Water removed from the roadway shall be contained in sedimentation tanks and/or silt control bags.
- All surfaces having lawn or landscaping at final cover are to be provided topsoil prior to re-seeding, sodding or planting. A depth of 5.0 inches, firm in place, is required, as per the Standards for Topsoiling and Land Grading, effective December 2017.
- All plan revisions must be submitted to the District for proper review and approval.
- A crushed stone wheel cleaning truck-pad is to be installed at all site exits using 2 1/2" crushed angular stone (ASTM C 2 or 3) to a minimum length of 50 feet and minimum depth of 6". All driveways must be provided with crushed stone until paving is complete.
- Slope slopes incurring disturbance may require additional stabilization measures. These "special" measures shall be designed by the applicant's engineer and be approved by the Soil Conservation District.
- The Hudson-Exeter-Passaic Soil Conservation District shall be notified in writing for the sale of any portion of the project or for the sale of individual lots. New Jersey information that is provided, additional measures deemed necessary by District officials shall be implemented as conditions warrant.



ZONE: R-60	PERMITTED		PROPOSED	
	EXISTING	PROPOSED	EXISTING	PROPOSED
MIN. LOT AREA (SF)	7,200	8,400	8,400	8,400
MIN. LOT WIDTH (FT)	60.0	80.0	60.0	28.8**
MIN. FRONT YARD (FT.)	30.0	34.8	30.0	63.4
MIN. REAR YARD (FT.)	30.0	63.4	30.0	7.7*
MIN. SIDE YARD (EACH) (FT.)	8.0	15.9*	8.0	15.9*
MIN. SIDE YARD SUM (BOTH) (FT.)	18	31.8	18	31.8
MAX. BLDG HEIGHT (FT)	2.5/30.0	2/21.5	2.5/29.5	2.5/29.5
MAX. LOT COVERAGE (%)	25.0	18.3(1534)	23.9(2008)	23.9(2008)
MAX. IMPROVED LOT COVERAGE (%)	40.0	36.7(3084)	51.4(4321)**	51.4(4321)**
MIN. SIDE YARD (POOL)	10.0	NA	11.1	NA
MIN. REAR YARD (POOL)	10.0	NA	10.4	NA
MIN. DIST. TO PRINCIPAL STRUC.	10.0	NA	25.0	NA
MIN. SIDE YARD (PATIO)	5.0	NA	5.0	NA
MIN. REAR YARD (PATIO)	5.0	NA	10.4	NA
MIN. SIDE YARD (EOPAD)	5.0	NA	21.2	NA
MIN. REAR YARD (EOPAD)	5.0	NA	21.2	NA
MIN. ACC. COVERAGE (%)	15.0	NA	33.9**	NA
UNENC. BALC./PORCH PROJECTION (FT.)	15.0	NA	5.0**	NA
MAX. SF OF PORCH (SF)	35	NA	147**	NA



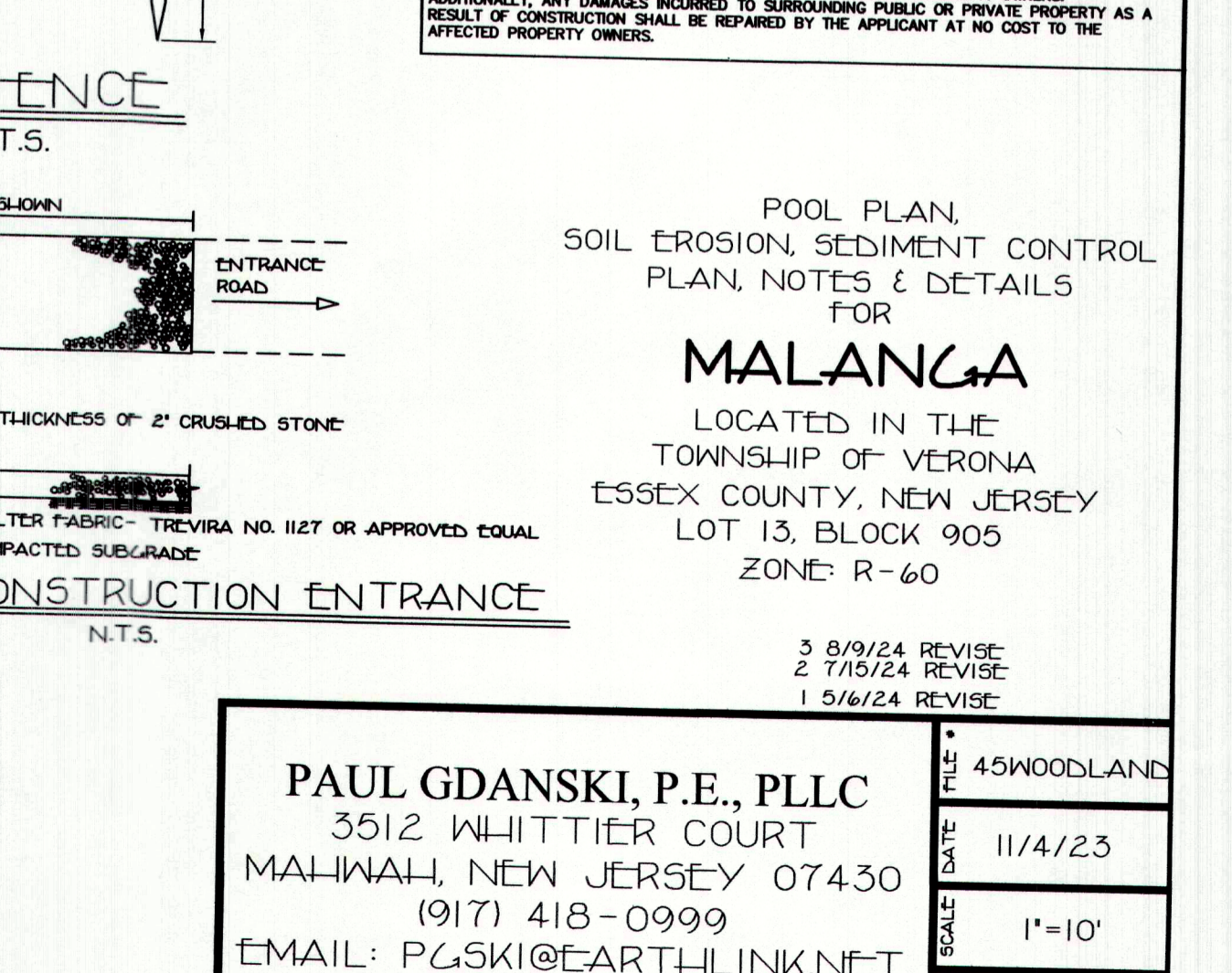
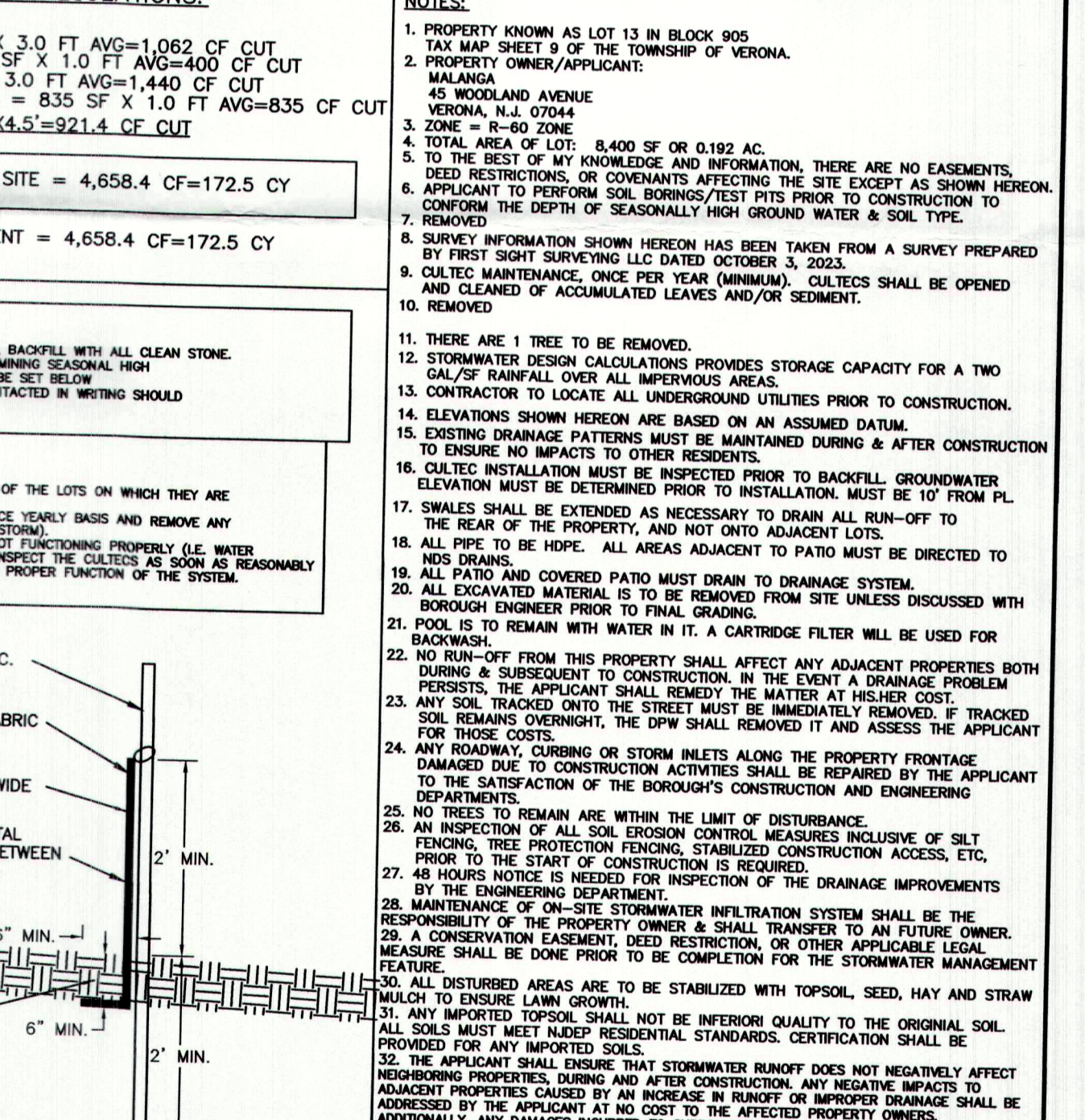
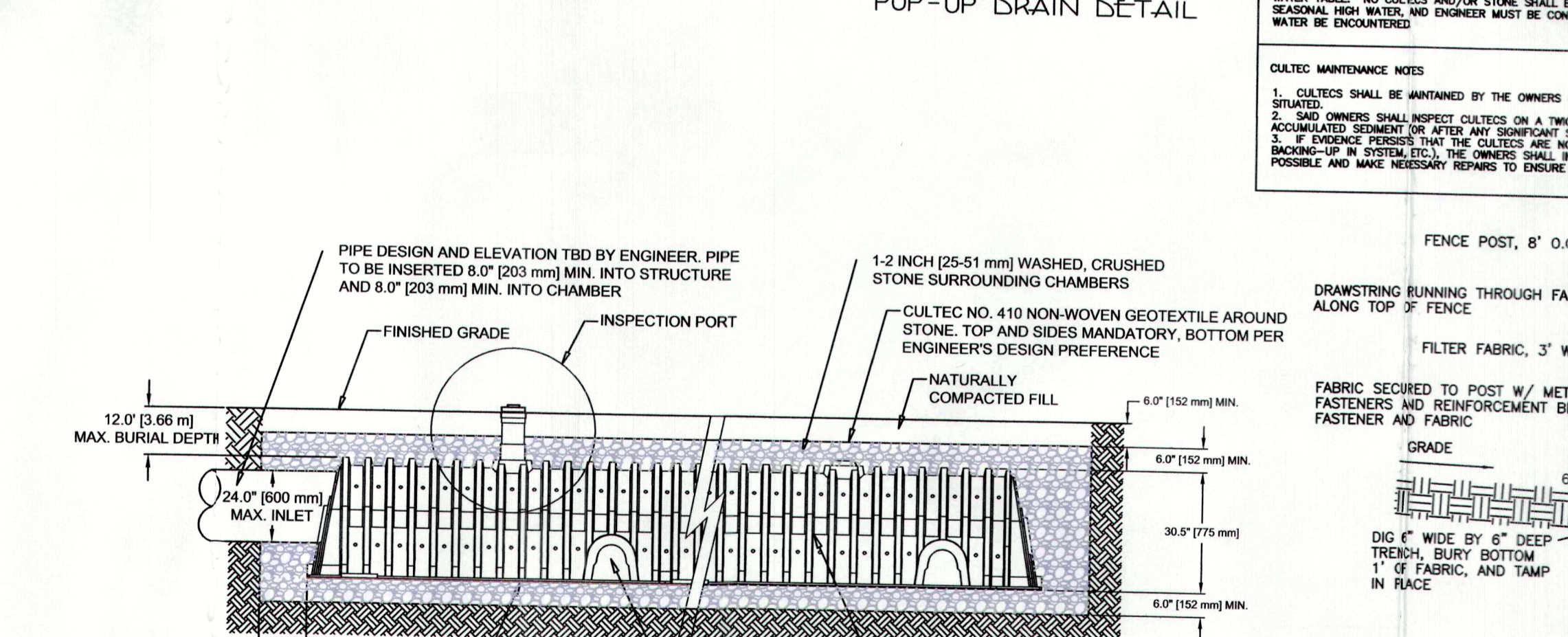
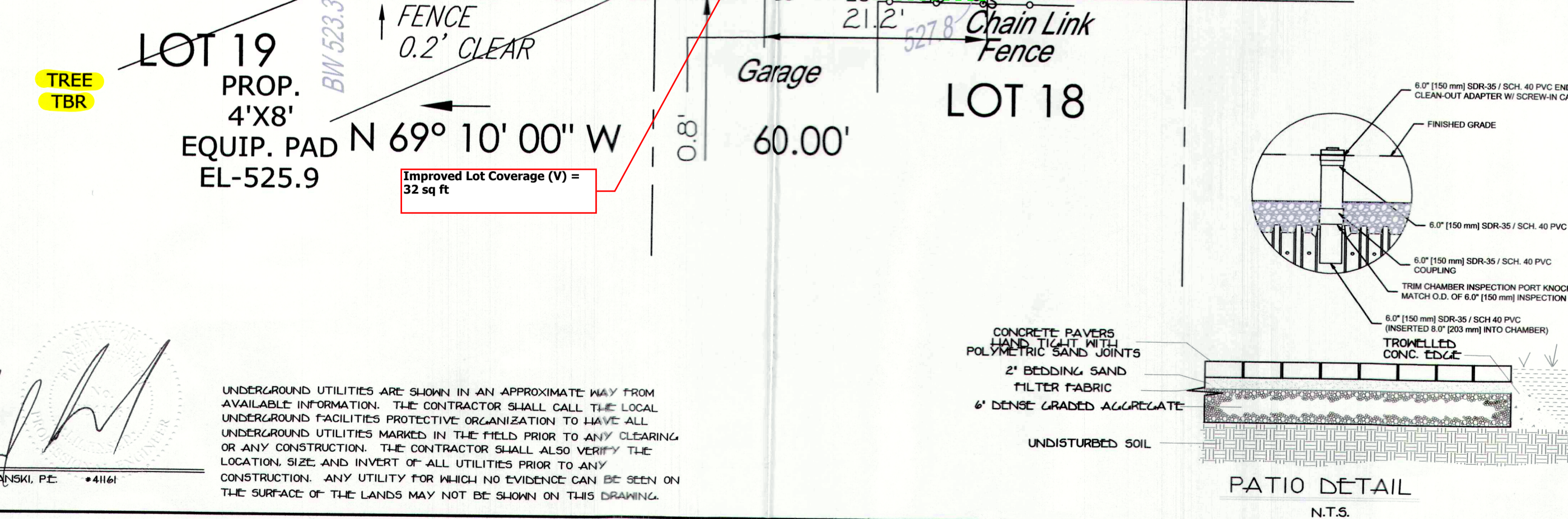
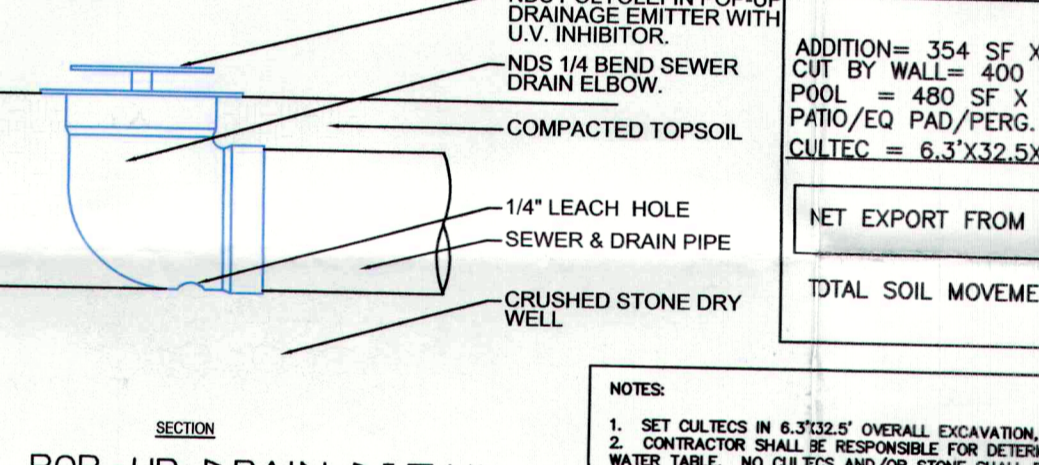
CONSTRUCTION SEQUENCE (SITEWORK)

ACTIVITY	DURATION
1. PROPOSED STABILIZED CONSTRUCTION ENTRANCE.	1 DAY
2. CONSTRUCT EROSION CONTROL ENTRANCE.	1 DAY
3. CLEAR SITE WITHIN LIMIT OF DISTURBANCE, STRIP AND STOCKPILE TOPSOIL AND GRADE SITE.	1 DAY
4. EXCAVATE FOR POOL & DETENTION.	1 WEEK
5. CONSTRUCT POOL AND APPURTENANCES.	2 MONTHS
6. CONSTRUCT PATIO AND DETENTION.	2 MONTHS
7. AFTER CONSTRUCTION IS COMPLETE, PERFORM FINAL GRADING, SPREAD TOPSOIL AND INSTALL LANDSCAPING.	1 WEEK
8. RE-ESTABLISH EXISTING SWALE.	1 DAY
9. REMOVE SOIL EROSION CONTROL DEVICES WHEN ALL DISTURBED AREAS HAVE BEEN INSTALLED.	1 DAY

SOIL MOVEMENT CALCULATIONS:

ADDITION = 354 SF X 3.0 FT AVG = 1,062 CF OF CUT
 CUT BY WALL = 400 SF X 1.0 FT AVG = 400 CF OF CUT
 POOL = 480 SF X 3.0 FT AVG = 1,440 CF OF CUT
 PATIO/EG PAD/PERG. = 835 SF X 1.0 FT AVG = 835 CF OF CUT
 CUT/TEC = 6.3' X 32.5' X 4.5' = 921.4 CF OF CUT

NET EXPORT FROM SITE = 4,658.4 CF = 172.5 CY
 TOTAL SOIL MOVEMENT = 4,658.4 CF = 172.5 CY



UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY FROM AVAILABLE INFORMATION. THE CONTRACTOR SHALL CALL THE LOCAL UNDERGROUND UTILITIES PROTECTIVE ORGANIZATION TO HAVE ALL UNDERGROUND UTILITIES MARKED IN THE FIELD PRIOR TO ANY CLEARING OR ANY CONSTRUCTION. THE CONTRACTOR SHALL ALSO VERIFY THE LOCATION, SIZE AND INVERT OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. ANY UTILITY FOR WHICH NO EVIDENCE CAN BE SEEN ON THE SURFACE OF THE LANDS MAY NOT BE SHOWN ON THIS DRAWING.

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 NJ LIC. #41161

Low Impact Checklist: Construction

This suggested list has been compiled by the Verona Environmental Commission based on best available practices. This is not a requirement of the uniform construction code. It is intended to be beneficial to all residents considering renovations and new construction. The purposes of this list are to 1) assist those planning construction projects to do so in a manner that causes the least disruption to the environment; 2) establish a healthy setting for those occupying the new or renovated space; and 3) reduce waste and save resources. Implementing environmentally friendly practices can be economical when considered at pre-construction stages and are often beneficial in the long term.

General Construction

- Recycle and/or salvage non-hazardous construction and demolition debris
- Use renewable building material and products
- Incorporate renewable energy (i.e. geothermal, solar)
- Use local products (i.e. local and sustainable woods)
- Use local construction products and companies
- Conserve energy and reduce electricity use as much as possible

Grounds & Landscaping

- Create a sedimentation control plan to prevent sediment from moving off site.
- Use native plantings (Native plants are adapted to thrive in local conditions)
- Use captured rainwater or recycled grey water for irrigation
- Provide bicycle parking to help reduce overcrowded streets and CO2 emissions.

Storm Water Management

- Avoid runoff to other properties by installing an underground cistern or rain garden. This will keep water on your own property and out of the sewer system.
- Limit impervious surfaces – use an open grid pavement system (at least 50% pervious)
- Promote infiltration that captures and treats storm water runoff from rainfall
- Use a water retention system (i.e. rain barrel) to collect rainwater for non-potable uses

Lighting

- Choose LED lights (the most environmentally-efficient option)
- Purchase renewable electricity, either directly from your power supplier, from an independent clean power generator, or through renewable energy certificates.
- Use skylights or solo tubes for natural daytime lighting. Use sensor controls in commercial or industrial settings and solar lighting outdoors.

Foundation & Basement

- Use environmentally friendly foundation sealants (rather than black tar)
- Prevent sump pump water from flowing into the sewer system

Roofing

- Use light color roofing materials to limit heat absorption created by darker roofs
- Use roofing material with a solar reflectance index (SRI) equal to or greater than 78 for low roofs and 29 for steep-sloped roofs
- Install tile or metal roofs
- Consider installing a vegetated roof

Heating & Cooling

- Use 2 x 6 studs instead of 2 x 4 to increase amount of insulation
- Install programmable thermostats that adjust temperatures throughout the day
- Use occupant sensing and/or remote control thermostat technologies
- Install heat pumps to transfer energy heat and cold Use high-efficiency boilers/furnaces
- Use attic fans to regulate heating and cooling

Windows

- Choose ultraviolet window protection to protect against sun damage
- Install triple pane windows or windows with Argon or Kryton gas between panes

Products

- Choose products with low VOCs (VOCs are found in adhesives, interior paints, cabinets, etc)
- Avoid products that contain hazardous chemicals such as formaldehyde and cyanide
- Choose ENERGY STAR® appliances
- Install dual flush toilets Install low flow shower heads
- Avoid garbage disposals and make provisions for composting

Verona Environmental Commission

Low Impact Checklist: Planning

This suggested list has been compiled by the Verona Environmental Commission based on best available practices. This list is intended to assist individuals involved in planning and building projects in Verona Township towards submitting low impact plans. The goal of a low impact plan is not only to increase cost savings and add value to your project but to make environmentally responsible choices and eliminate project delays in early stages of the planning process.

General Construction & Design

- Provide occupants with connection to outdoor space through increased natural light and views
- Orient buildings facing southwest to maximize potential solar installation
- Use orientation and design to maximize passive solar heat/cooling
- Use proper planning to prevent damage to surrounding properties and public spaces
- Minimize disturbance to soils and vegetation
- Recycle and/or salvage non-hazardous construction and demolition debris
- Use renewable building materials and products
- Use local and sustainable woods
- Incorporate renewable energy and reduce energy use

Grounds & Landscaping

- Create a sedimentation control plan Limit altering steep slope areas
- Encourage landscaping that requires limited moving, trimming, and watering
- Create landscapes that limit the need for lawn chemicals and maintenance
- Position evergreens to the north to shield wind/ Position deciduous trees to the south to cool buildings
- Use native plantings (Native plants are adapted to thrive in local conditions)
- Place parking spaces in shaded areas
- Place bicycle parking racks in secure areas near entrances
- Use paving materials with an SRI value >29. This will reflect, not absorb solar heat.

Storm Water Management

- Limit impervious surfaces – use an open grid pavement system (at least 50% pervious)
- Reduce impervious cover to promote infiltration that captures and treats storm water
- Use a water retention system (i.e. rain barrel) to collect rainwater or recycled gray water for non-potable uses

Foundation & Basement

- Use alternative practices (rather than black tar) for foundation sealants
- Encourage aeration and ventilation
- Draw sunlight into basement areas through access windows

Roofing

- Use light color roofing materials to limit heat absorbed by dark colored roofs
- Use roofing material with a solar reflectance index (SRI) equal to or greater than 78 for low roofs and 29 for steep sloped roofs
- Consider Tile or Metal roofs
- Construct roofs that can support solar installations

Lighting

- Use solar lighting outdoors
- Use skylights or solo tubes for natural daytime lighting
- Use motion sensor lighting where applicable
- Choose energy-efficient light bulbs

Products

- Avoid products that contain hazardous chemicals such as formaldehyde and cyanide
- Use local products (i.e. local and sustainable woods)
- Use local construction equipment and companies when possible

For more information and resources please see:

The Native Plant Society of New Jersey - <http://www.npsnj.org>

The Association of New Jersey Environmental Commissions - <http://www.anjec.org>

US Green Building Council NJ Chapter - <http://usgbc.org>

New Jersey Green Building Manual - <http://greenmanual.rutgers.edu>

The New Jersey Department of Transportation Master Plan - <http://njbikepedplan.com>

Rutgers Center for Green Building - <http://greenbuilding.rutgers.edu>

The Verona Environmental Commission - <http://www.veronaec.org>