



TOWN OF NORTH CASTLE

WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898

RESIDENTIAL PROJECT
REVIEW COMMITTEE
Adam R. Kaufman AICP, Chair

Telephone: (914) 273-3000 x 43
Fax: (914) 273-3554
www.nortcastleny.com

RESIDENTIAL PROJECT REVIEW COMMITTEE (RPRC) APPLICATION

Section I- PROJECT

ADDRESS: 10 CAT ROCKS DRIVE

Section III- DESCRIPTION OF WORK:

PROPOSED IN-GROUND SWIMMING POOL, PROPOSED STONE TERRACE,
STONE FIRE PLACE, + STONE RETAINING WALL

Section III- CONTACT INFORMATION:

APPLICANT: DANIEL SHERMAN

ADDRESS: 4 BROADWAY, SUITE #9, VALHALLA, NY 10595

PHONE: 914-824-0999 MOBILE: 914-753-0855 EMAIL: DAN.DANSHERMANLANDSCAPE@GMAIL.COM

PROPERTY OWNER:

ANTHONY TRIMARCHI

ADDRESS: 10 CAT ROCKS DRIVE, BEDFORD, NY 10506

PHONE: _____ MOBILE: _____ EMAIL: _____

PROFESSIONAL: DANIEL SHERMAN

ADDRESS: 4 BROADWAY, SUITE #9, VALHALLA, NY 10595

PHONE: 914-824-0999 MOBILE: 914-753-0855

EMAIL: DAN.DANSHERMANLANDSCAPE@GMAIL.COM

Section IV- PROPERTY INFORMATION:

Zone: R-2A Tax ID (lot designation) 102.01-2-52



**Town of North Castle
Residential Project Review Committee**

17 Bedford Road Armonk, New York 10504
(914) 273-3542 (914) 273-3554 (fax)

RPRC COMPLETENESS REVIEW FORM

This form represents the standard requirements for a completeness review for all Residential Project Review Committee submissions. Failure to provide all of the information requested will result in a determination that the application is incomplete.

Project Name on Plan:

TRIMARCHI RESIDENCE

Initial Submittal Revised Preliminary

Street Location:

10 CAT ROCKS DRIVE

Zoning District: R-2A Property Acreage: 1.53 Tax Map Parcel ID: 102 01-2-52

Date: 10/13/20

DEPARTMENTAL USE ONLY

Date Filed: _____ Staff Name: _____

Preliminary Plan Completeness Review Checklist

Items marked with a are complete, items left blank are incomplete and must be completed, "NA" means not applicable.

1. Plan prepared by a registered architect or professional engineer
2. Aerial photo (Google Earth) showing the applicant's entire property and adjacent properties and streets
3. Map showing the applicant's entire property and adjacent properties and streets
4. A locator map at a convenient scale
5. The proposed location, use and design of all buildings and structures
6. Existing topography and proposed grade elevations
7. Location of drives
8. Location of all existing and proposed site improvements, including drains, culverts, retaining walls and fences

RPRC COMPLETENESS REVIEW FORM

Page 2

| | |
|--------------------------|--|
| <input type="checkbox"/> | 9. Description of method of water supply and sewage disposal and location of such facilities |
| <input type="checkbox"/> | 10. The name and address of the applicant, property owner(s) if other than the applicant and of the planner, engineer, architect, surveyor and/or other professionals engaged to work |
| <input type="checkbox"/> | 1. Submission of a Zoning Conformance Table depicting the plan's compliance with the minimum requirements of the Zoning District |
| <input type="checkbox"/> | 2. If a tree removal permit is being sought, submission of a plan depicting the location and graphical removal status of all Town-regulated trees within the proposed area of disturbance. In addition, the tree plan shall be accompanied by a tree inventory includes a unique ID number, the species, size, health condition and removal status of each tree. |
| <input type="checkbox"/> | 3. If a wetlands permit is being sought, identification of the wetland and the 100-foot wetland buffer. |

More information about the items required herein can be obtained from the North Castle Planning Department. A copy of the Town Code can be obtained from Town Clerk or on the North Castle homepage: <http://www.northcastleny.com/townhall.html>

| | |
|-------|---|
| _____ | On this date, all items necessary for a technical review of the proposed site plan have been submitted and constitute a COMPLETE APPLICATION. |
|-------|---|



TOWN OF NORTH CASTLE
 WESTCHESTER COUNTY
 17 Bedford Road
 Armonk, New York 10504-1898

PLANNING DEPARTMENT
 Adam R. Kaufman, AICP
 Director of Planning

Telephone: (914) 273-3542
 Fax: (914) 273-3554
www.northcastlenny.com

GROSS LAND COVERAGE CALCULATIONS WORKSHEET

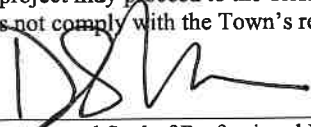
Application Name or Identifying Title: TRIMARCHI RESIDENCE Date: 10/13/20

Tax Map Designation or Proposed Lot No.: 102.01-2-52

Gross Lot Coverage

1. Total lot Area (Net Lot Area for Lots Created After 12/13/06): 66,843
2. **Maximum** permitted gross land coverage (per Section 355-26.C(1)(b)): 13,270
3. **BONUS** maximum gross land cover (per Section 355-26.C(1)(b)):
 Distance principal home is beyond minimum front yard setback
27 x 10 = 270 270
4. **TOTAL Maximum Permitted gross land coverage** = Sum of lines 2 and 3 13,540
5. Amount of lot area covered by **principal building**:
2305 existing + 0 proposed = 2305
6. Amount of lot area covered by **accessory buildings**:
0 existing + 0 proposed = 0
7. Amount of lot area covered by **decks**:
926 existing + 0 proposed = 926
8. Amount of lot area covered by **porches**:
0 existing + 0 proposed = 0
9. Amount of lot area covered by **driveway, parking areas and walkways**:
4704 existing + 120 proposed = 4824
10. Amount of lot area covered by **terraces**:
0 existing + 2314 proposed = 2314
11. Amount of lot area covered by **tennis court, pool and mechanical equip**:
0 existing + 630 proposed = 630
12. Amount of lot area covered by **all other structures**:
0 existing + 0 proposed = 0
13. Proposed **gross land coverage**: Total of Lines 5 – 12 = 10,999

If Line 13 is less than or equal to Line 4, your proposal **complies** with the Town's maximum gross land coverage regulations and the project may proceed to the Residential Project Review Committee for review. If Line 13 is greater than Line 4 your proposal **does not comply** with the Town's regulations.


 Signature and Seal of Professional Preparing Worksheet

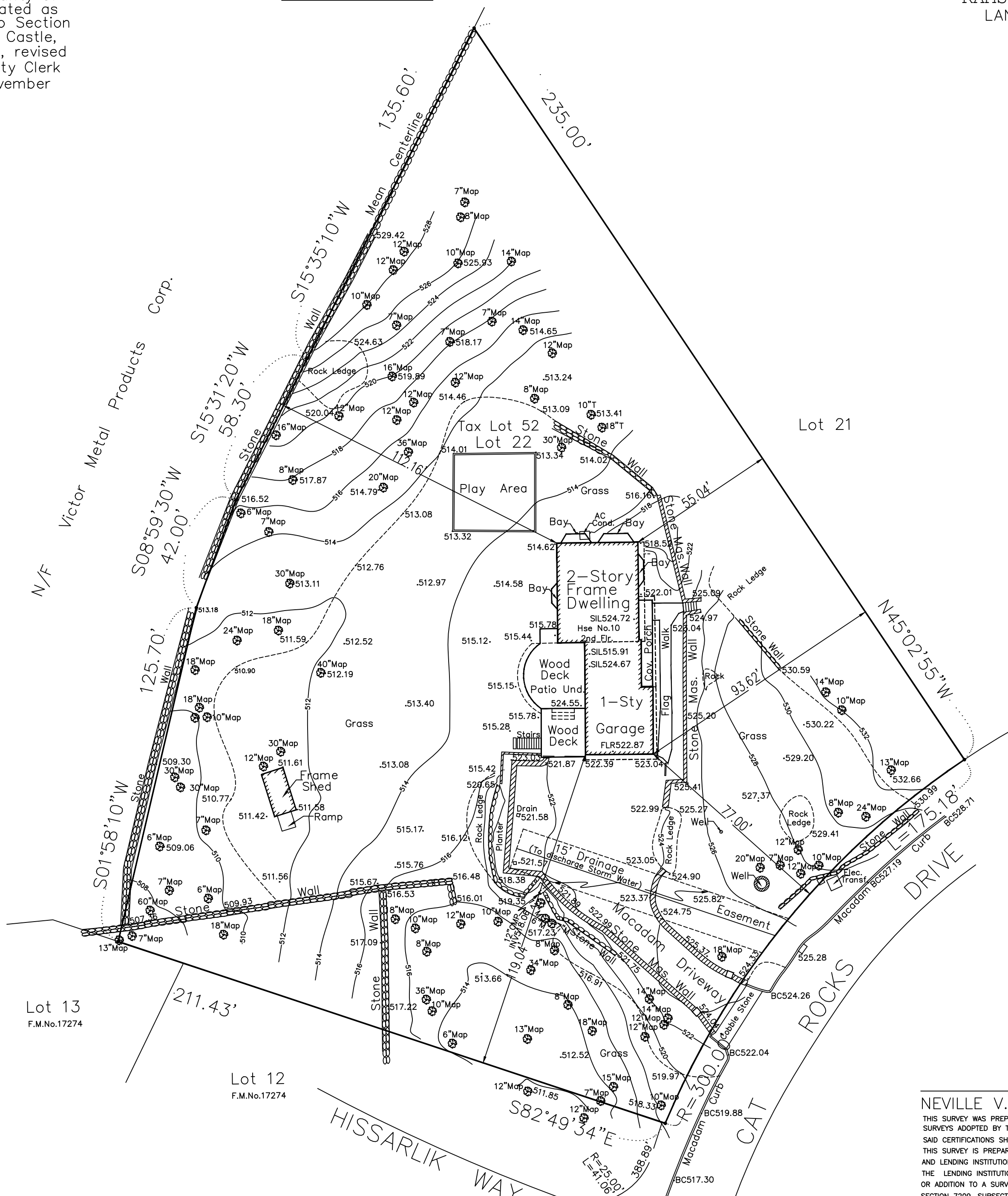
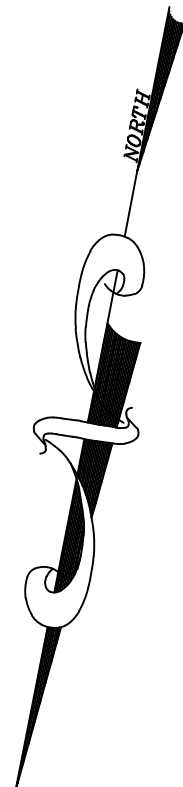
10/14/20
 Date

Survey of plot situate in the Town of North Castle, County of Westchester and State of New York, shown and designated as Lot No. 22 on a certain Map entitled "Subdivision Map Section No. 4 Mt. Hissarlik Glen situated in the Town of North Castle, Westchester County, New York", dated January 3, 1975, revised September 8, 1976 and filed in the Office of the County Clerk of Westchester County Division of Land Records on November 12, 1976 as Map No. 18992.

Block 2, Lot 52 Town of North Castle Tax Maps.
Area = 66,843 sq. ft. 1.53 acres

CERTIFICATIONS: 1) Town of North Castle

RAMSAY LAND SURVEYING, LLC.
LAND SURVEYORS - PLANNERS
3024 RADCLIFF AVENUE
BRONX, NEW YORK 10469
PH. : (718) 882-1496
MOBILE : (646) 423-6986



NOTES:

- The size and locations of all buildings, structures and improvements (collectively "improvements") located on the land described on this Survey (the "land") are shown on the Survey and except as shown thereon, there are no encroachments of the improvements onto the land of others and no encroachments of improvements located on the lands of others onto the Land, and the title lines and the lines of actual The Information Depicted On This Map Represents The Results Of Surveys Made On The Dates Indicated And Can Only Be Considered As Indicating The General Conditions Existing At The Time. No abstract of title or title report furnished; this property may be subject to easements, rights of way, covenants and restrictions of record, and to any state of facts that an accurate examination of title may disclose.
- The undersigned hereby certifies that the acreage of each parcel delineated on the Survey is as set forth hereon, that these parcels are contiguous without any strips, gaps or gores existing between any of said parcels, and that said parcels when combined, form and create one complete and uninterrupted parcel without any strips, gaps or gores.
- All Elevations are based on NAVD 88 Datum.
88.00 Denotes Spot Elevations in Feet.
- Locations of all utilities and substructures are approximate only based on surface evidence and existing plans. The information given on the survey pertaining to utilities and substructures is not certified to accuracy or completeness. Consult with the appropriate company or agency before designing or constructing improvements. NVREC INC Surveyors and Planners will not be responsible for any damage subsequently caused to personnel, structures, or utilities. Portions of on site utilities are based on markout found during survey.
- This is to certify that there are no visible streams or natural water courses across the property as shown on this survey.
- This Survey is not a Title Survey and is Not to be used for Title Purposes.

Surveyed: July 18, 2020

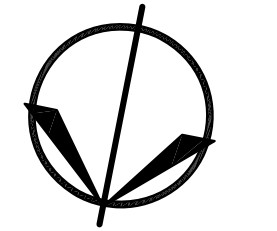
1 inch = 30 ft.

NEVILLE V. RAMSAY LIC. No. 050294-1
THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THE PERSON AND OR THE ORGANIZATION FOR WHOM THIS SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENT AGENCY AND LENDING INSTITUTION LISTED HEREON AND TO THE SUCCESSORS AND OR ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBSECTION 2, OF THE NEW YORK EDUCATION LAW. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY STAMPED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED OR INKED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.



| TREE REMOVAL SCHEDULE | | | | |
|-----------------------|------|-------|-----------|--------|
| TREE # | SIZE | TYPE | CONDITION | NOTES |
| TR # 1 | 18" | MAPLE | GOOD | REMOVE |
| TR # 2 | 10" | MAPLE | GOOD | REMOVE |
| TR # 3 | 8" | MAPLE | GOOD | REMOVE |
| TR # 4 | 12" | MAPLE | GOOD | REMOVE |
| TR # 5 | 10" | MAPLE | GOOD | REMOVE |

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REVISION DATE

| REVISION | DATE |
|----------|------|
| | |
| | |
| | |

TRIMARCHI RESIDENCE

10 CAT ROCKS DRIVE
 BEDFORD, NY 10506

DEMOLITION PLAN

DANIEL SHERMAN
 LANDSCAPE ARCHITECT

4 BROADWAY - SUITE 9
 VALHALLA, NY 10595
 PHONE: (914) 824 - 0999
 FAX: (914) 824-0251

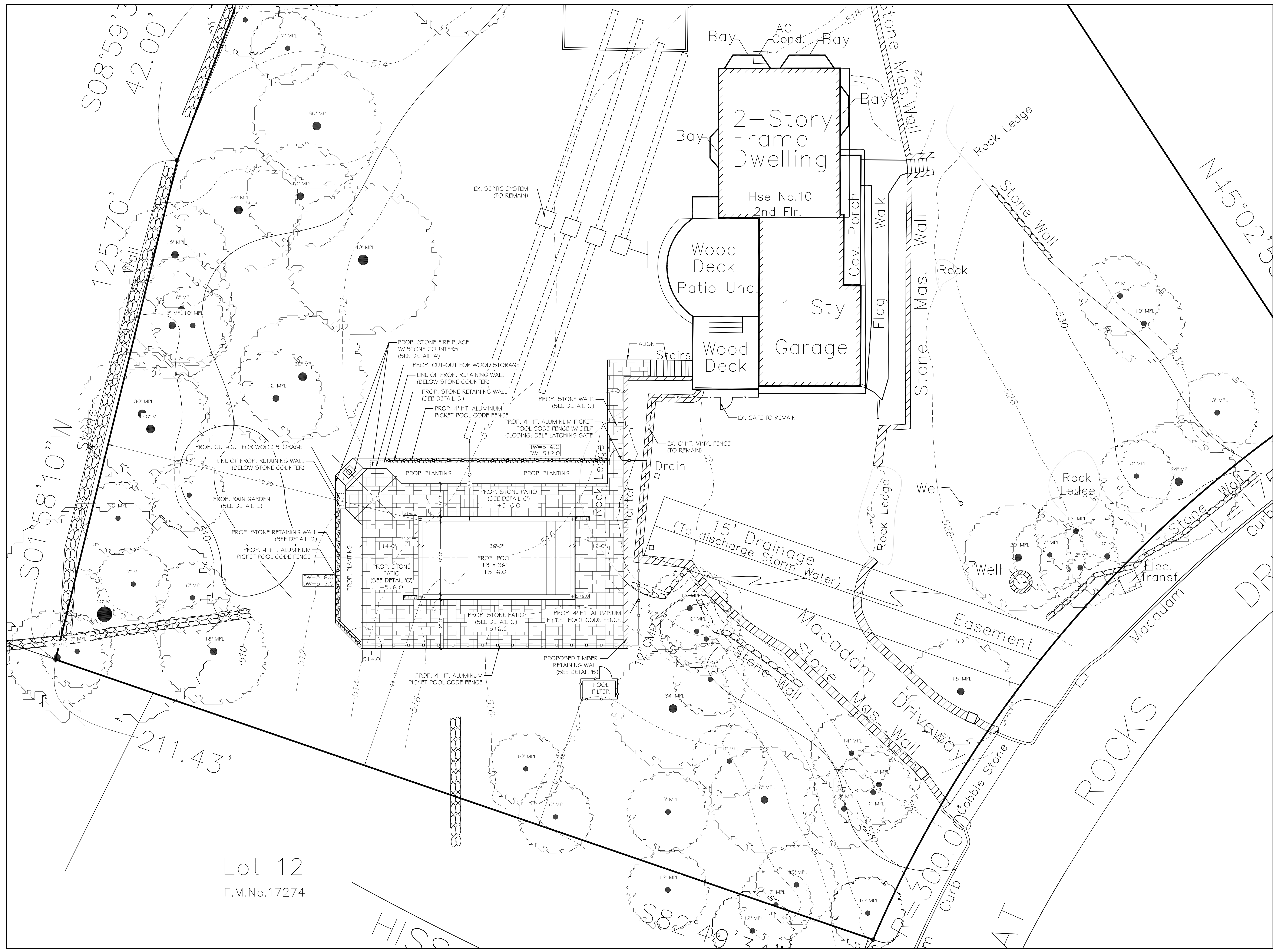
dan.danshermanlandscape@gmail.com
 www.danshermanlandscape.com



DATE: SCALE:
 OCT. 15, 2020 1" = 10' - 0"

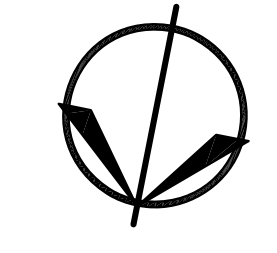
DRAWN BY: DRAWING #
 AL L - 1

Lot 12
 F.M.No.17274



Lot 12
F.M.No.17274

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REVISION DATE

| REVISION | DATE |
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TRIMARCHI RESIDENCE

10 CAT ROCKS DRIVE
BEDFORD, NY 10506

SITE PLAN
(POOL)

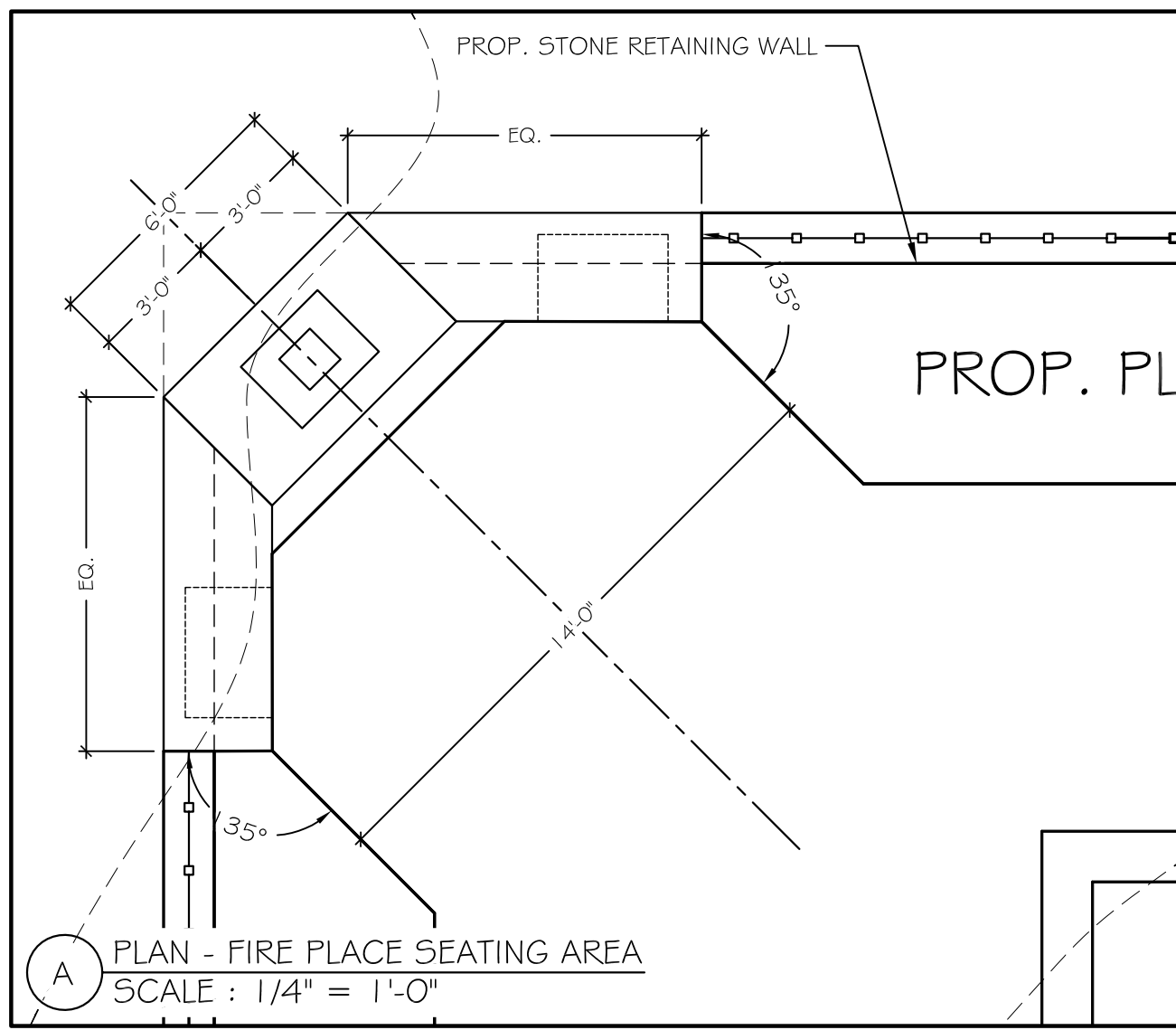
DANIEL SHERMAN
LANDSCAPE ARCHITECT
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PHONE: (914) 824 - 0999
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dan.danshermanlandscape@gmail.com
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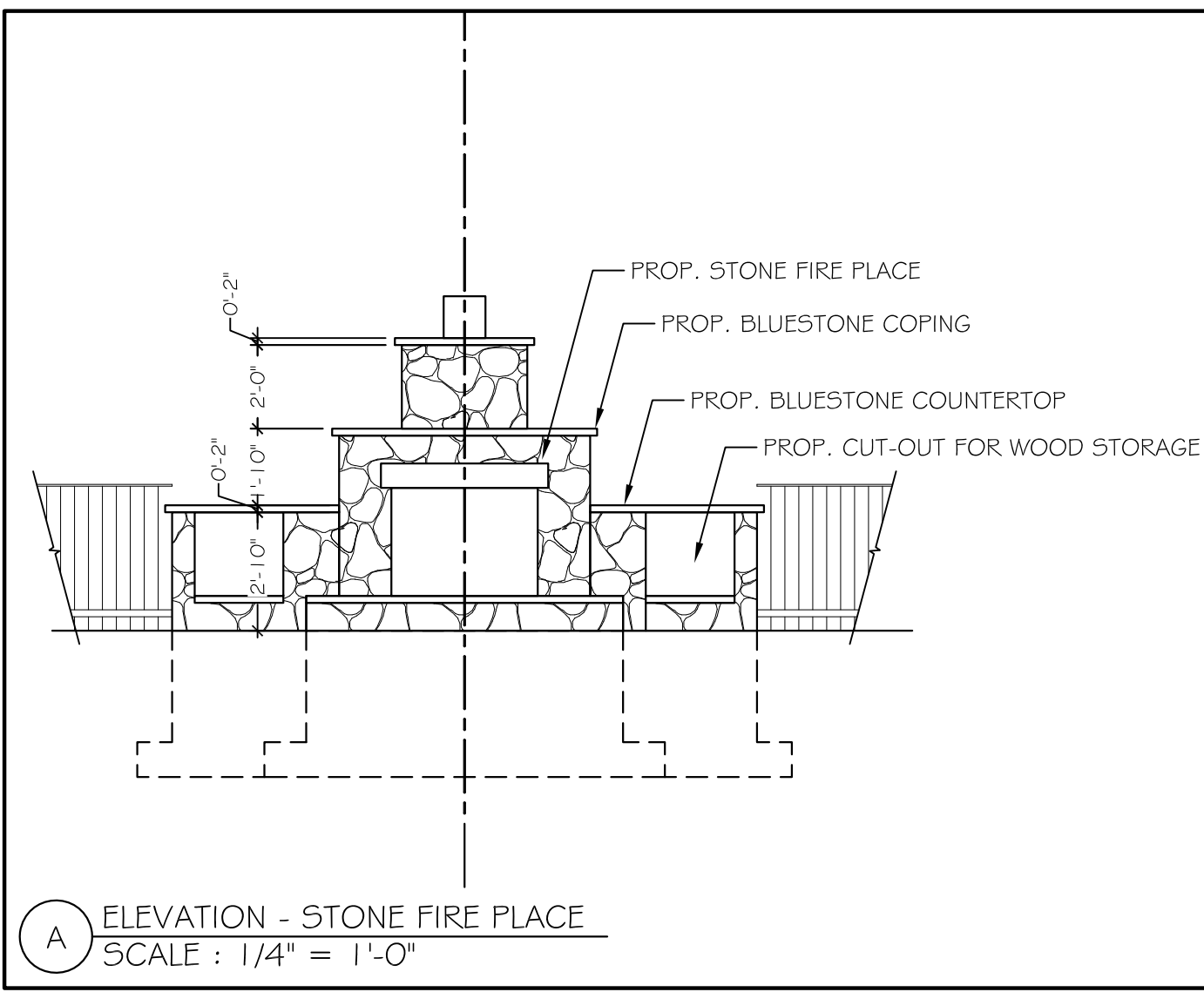


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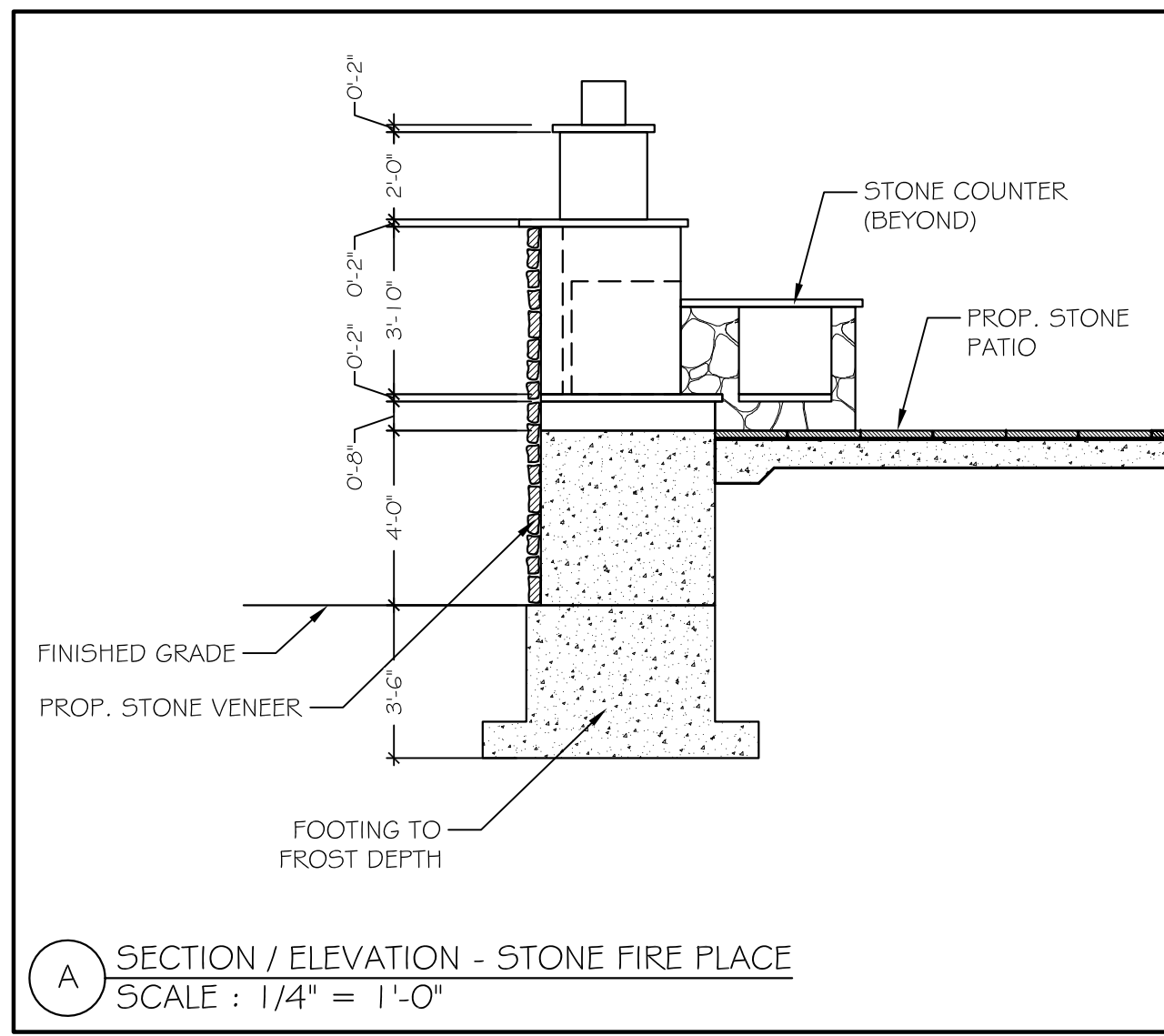
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AL L - 2



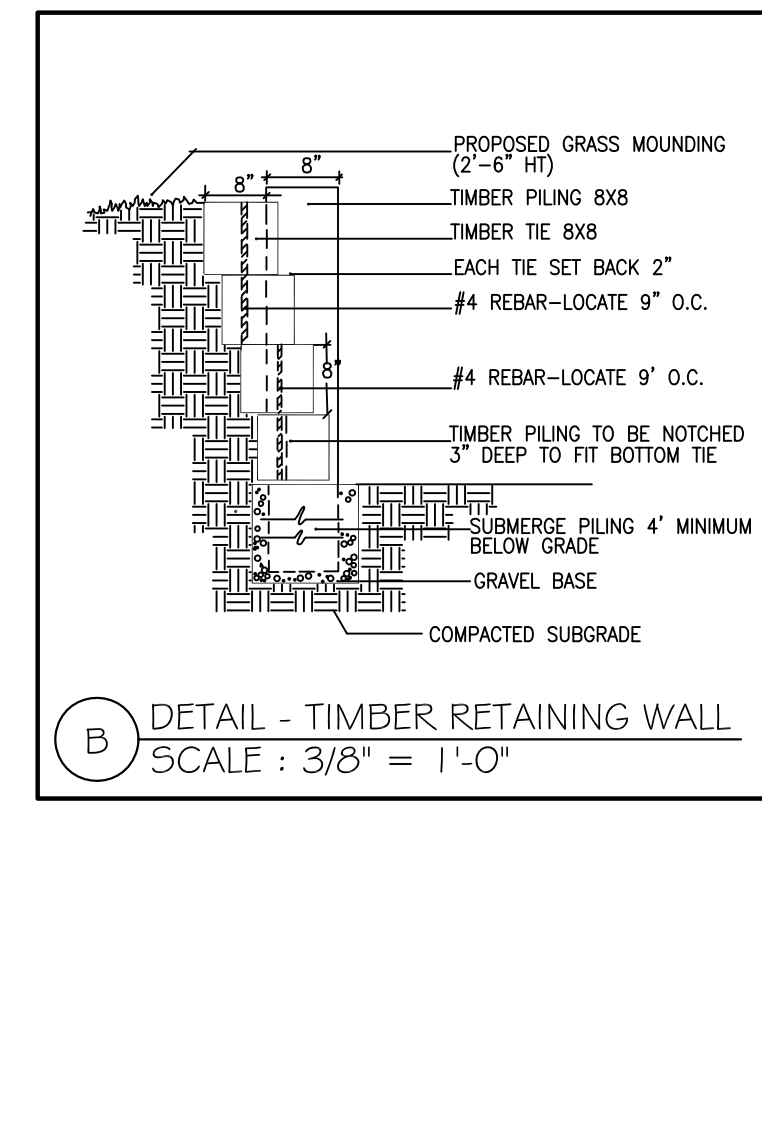
A PLAN - FIRE PLACE SEATING AREA
SCALE : 1/4" = 1'-0"



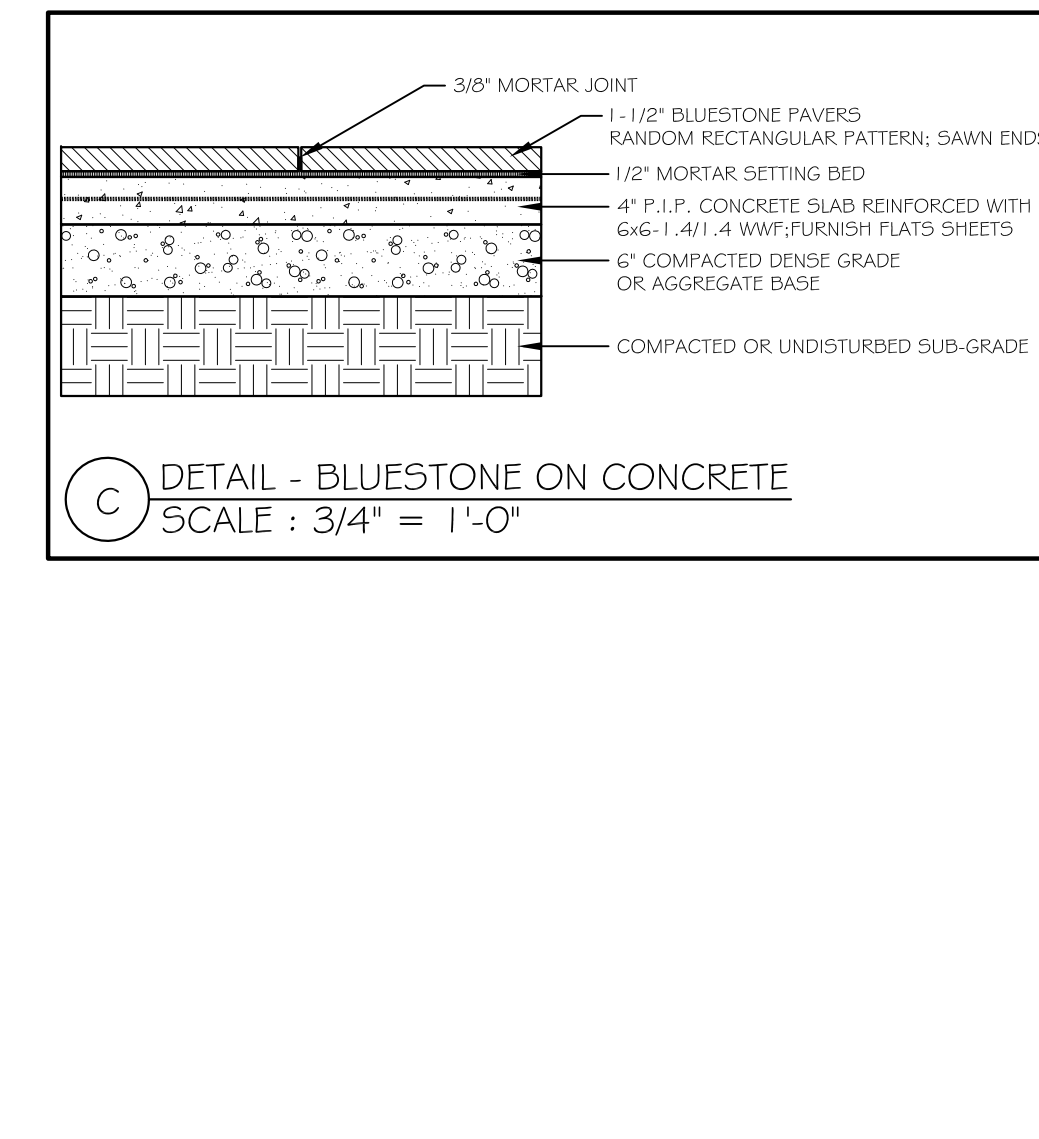
A ELEVATION - STONE FIRE PLACE
SCALE : 1/4" = 1'-0"



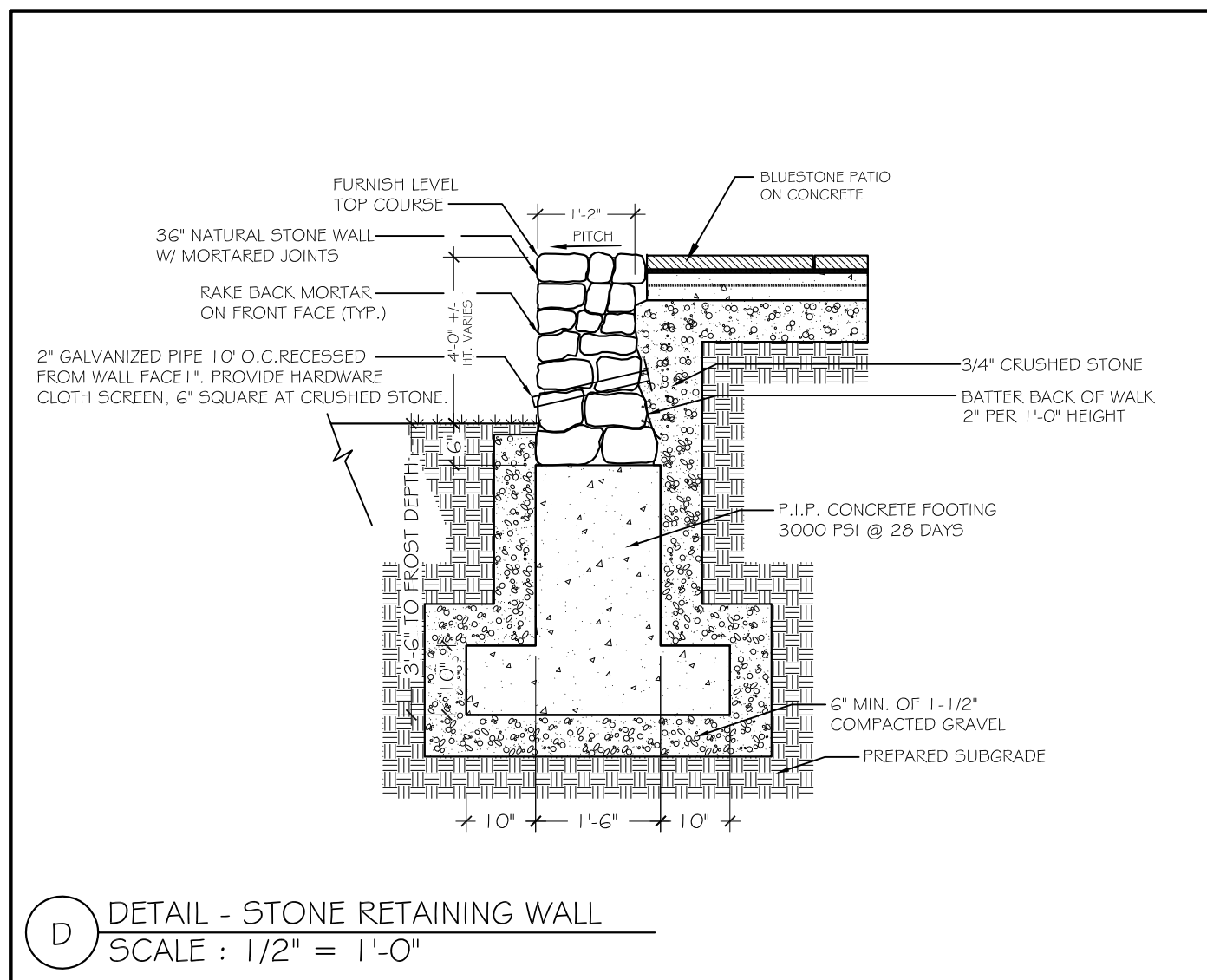
A SECTION / ELEVATION - STONE FIRE PLACE
SCALE : 1/4" = 1'-0"



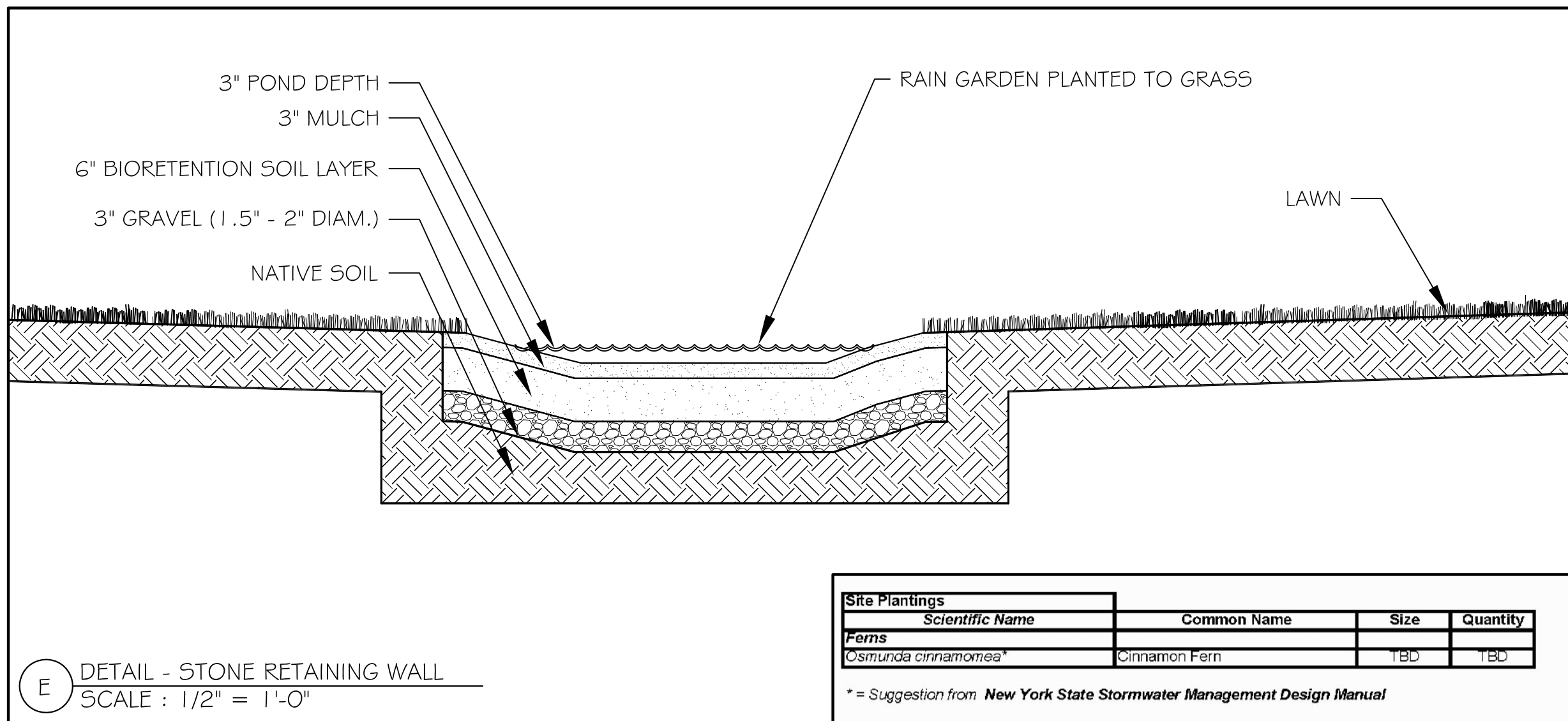
B DETAIL - TIMBER RETAINING WALL
SCALE : 3/8" = 1'-0"



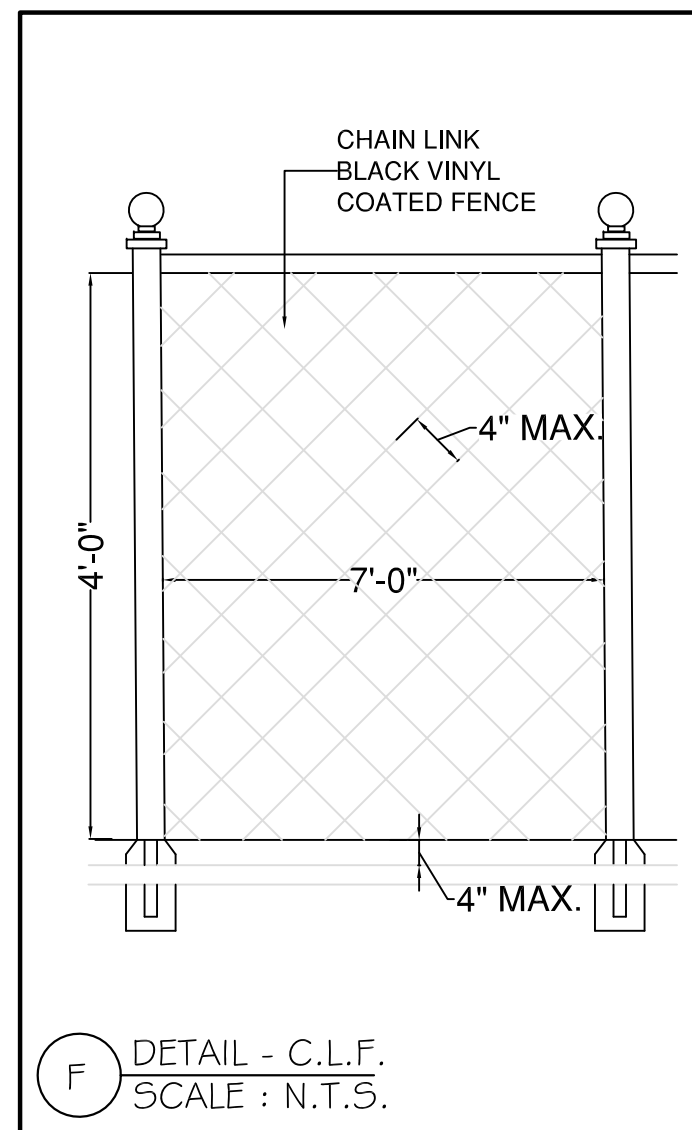
C DETAIL - BLUESTONE ON CONCRETE
SCALE : 3/4" = 1'-0"



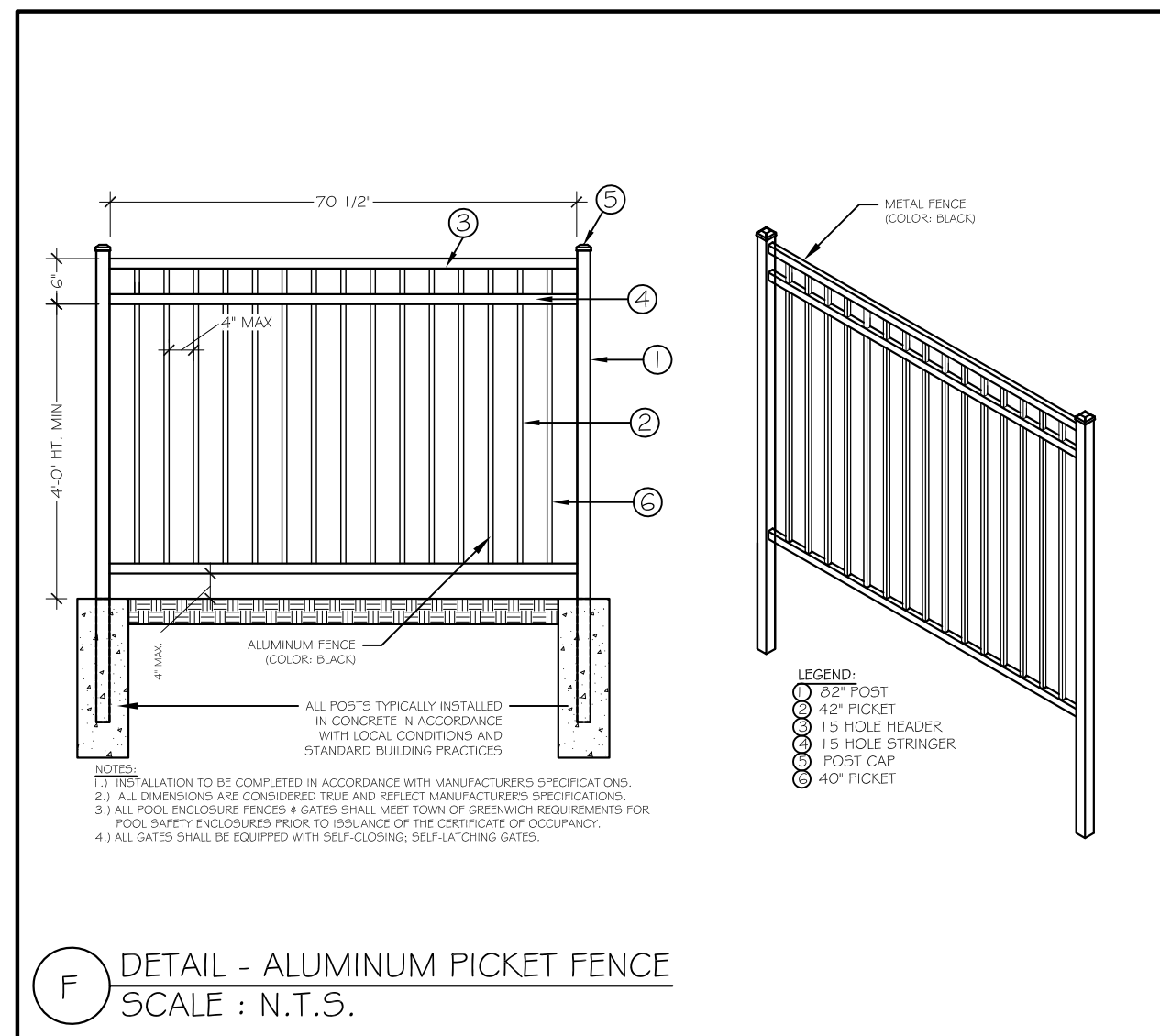
D DETAIL - STONE RETAINING WALL
SCALE : 1/2" = 1'-0"



E DETAIL - STONE RETAINING WALL
SCALE : 1/2" = 1'-0"



F DETAIL - C.L.F.
SCALE : N.T.S.



F DETAIL - ALUMINUM PICKET FENCE
SCALE : N.T.S.

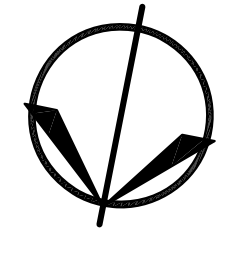
ZONING DATA:

| | | |
|----------------------|--------------|----------------------------------|
| ZONE: | R-2A | |
| TAX MAP: | 18992 | SHEET: 102.01, BLOCK: 2, LOT: 52 |
| FIRE DISTRICT: | NORTH CASTLE | |
| SCHOOL DISTRICT: | BYRAM HILLS | |
| GROSS LOT AREA: | 66,243 SF | |
| | PERMITTED | EXISTING |
| MAX. F.A.R. | | |
| MIN. LOT AREA | 2 ACRES | 1.53 ACRES |
| DEPTH | 150 FT. | 240.01' |
| WIDTH | 150 FT. | 175.18' |
| FRONT | 50 FT. | 79.29' |
| REAR | 50 FT. | 44.14' |
| DEVELOPMENT COVERAGE | 8% | 3.44% |
| BUILDING COVERAGE | 20% | 16% |

| Site Plantings | Scientific Name | Common Name | Size | Quantity |
|----------------|----------------------------|---------------|------|----------|
| Ferns | | | | |
| | <i>Cyathea ornatifolia</i> | Cinnamon Fern | TBD | TBD |

* = Suggestion from: New York State Stormwater Management Design Manual

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REVISION DATE

TRIMARCHI RESIDENCE
10 CAT ROCKS DRIVE
BEDFORD, NY 10506

CONSTRUCTION DETAILS

DANIEL SHERMAN
LANDSCAPE ARCHITECT
4 BROADWAY - SUITE 9
VALHALLA, NY 10595
PHONE: (914) 824 - 0999
FAX: (914) 824-0251
dan.danshermanlandscape@gmail.com
www.danshermanlandscape.com



| | |
|---------------|-----------|
| DATE: | SCALE: |
| OCT. 15, 2020 | AS NOTED |
| DRAWN BY: | DRAWING # |
| AL | L - 3 |

PLANTING SPECIFICATIONS:

GENERAL: All plants, trees, and shrubs shall meet the specifications for "plant material" as per the American Standard for Nursery Stock. The landscape architect reserves the right to inspect all plants prior to shipping and installation. There are to be no substitutions of the plants without the consent of the landscape architect.

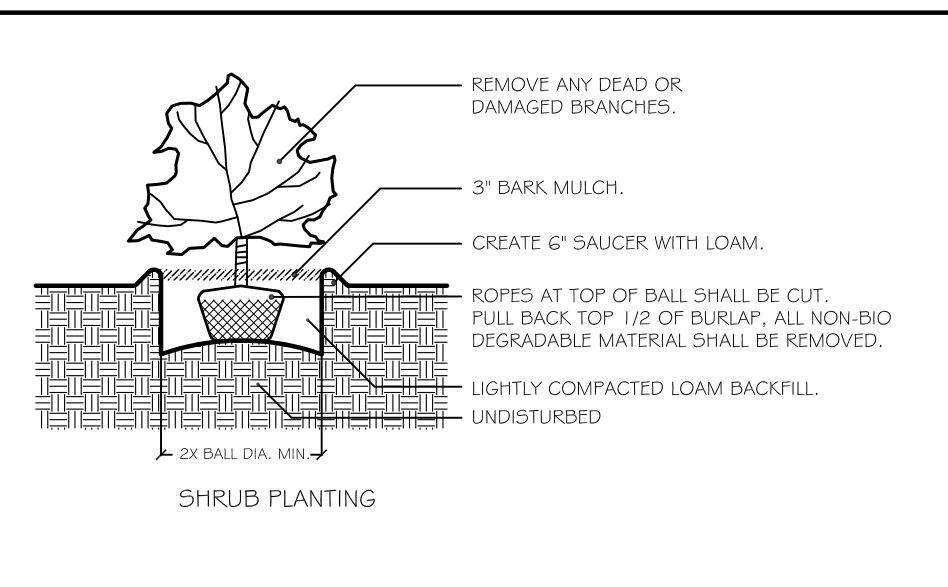
PLANTING: All plants shall be planted in pits two times the diameter of the root ball or container. Plant height should be placed at or slightly above previous grade. Pull back burlap from top of ball and cut wire on tree basket. Ensure that the burlap is not exposed above grade because of water loss. Staking and guying shall be used only when necessary. When the method is used, care should be taken to protect the tree bark and wires should be removed as soon as possible.

MULCHING: All planting beds (EXCEPT GROUND COVER) shall be mulched with three inches of shredded bark to conserve water and keep roots covered during initial growth stage. Do not place mulch heavily around crown of plants.

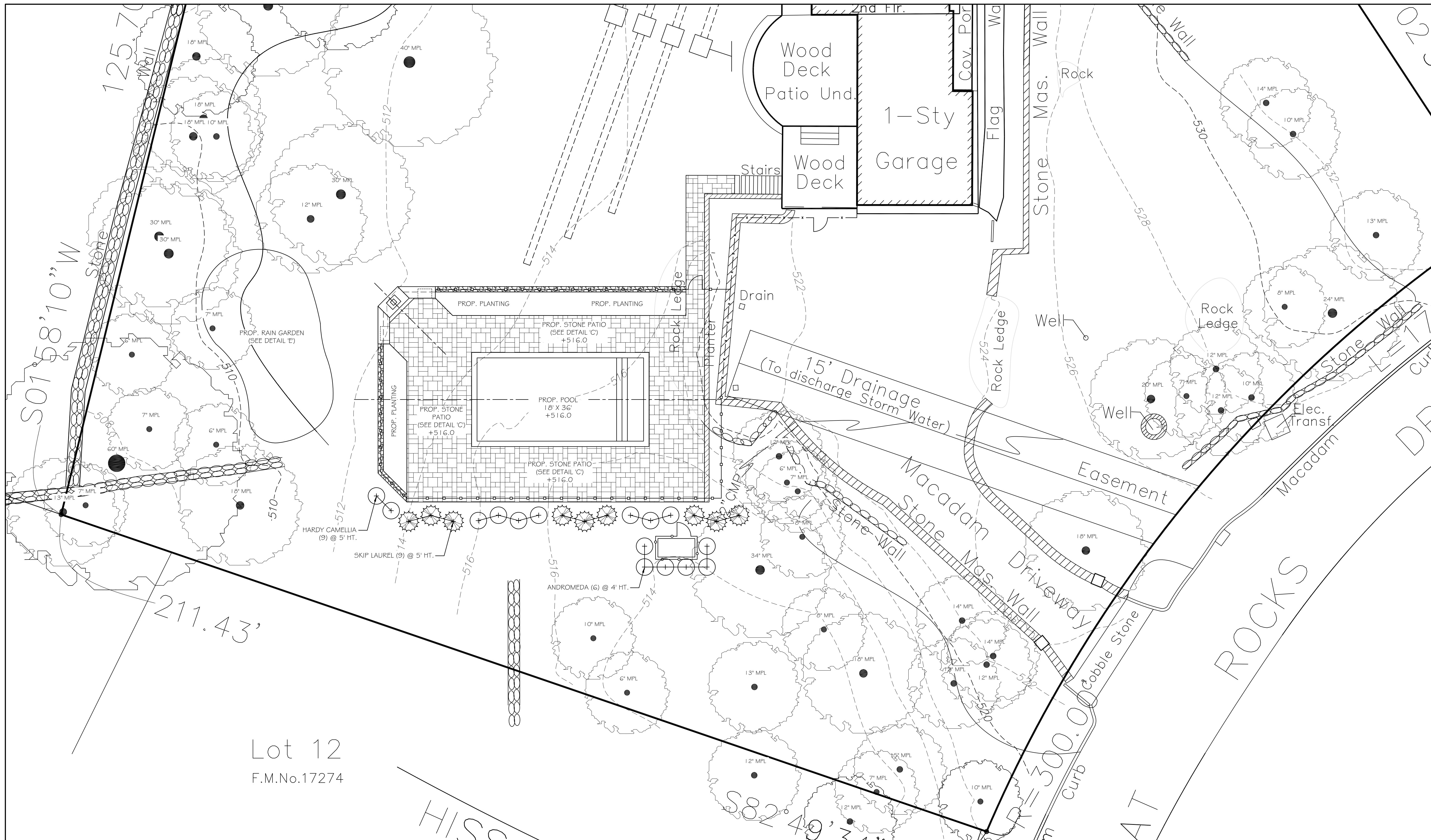
WINTER CARE: All trees and shrubs shall be sprayed with an anti-desiccant the first November after planting.

WATERING: All plants shall be watered by the contractor during the initial growth stage. Trees shall be heavily watered several times during the first month after planting and then regularly for the next two summers.

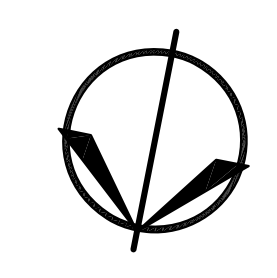
PLANT GUARANTEE: Contractor shall guarantee all newly installed plants for one-year provided that they are given proper watering/care and contractor is notified of unhealthy stressed plants immediately.



| Pool Screen Planting | | | |
|---|-------------------------|------|----------|
| Scientific Name | Common Name | Size | Quantity |
| Shrubs | | | |
| <i>Camellia japonica</i> 'Hardy Camellia' | Hardy Camellia | 5' | 9 |
| <i>Pieris x Mountain Fire</i> | Mountain Fire Andromeda | 4' | 6 |
| <i>Prunus laurocerasus</i> 'Schipkaensis' | Skip Laurel | 5' | 9 |



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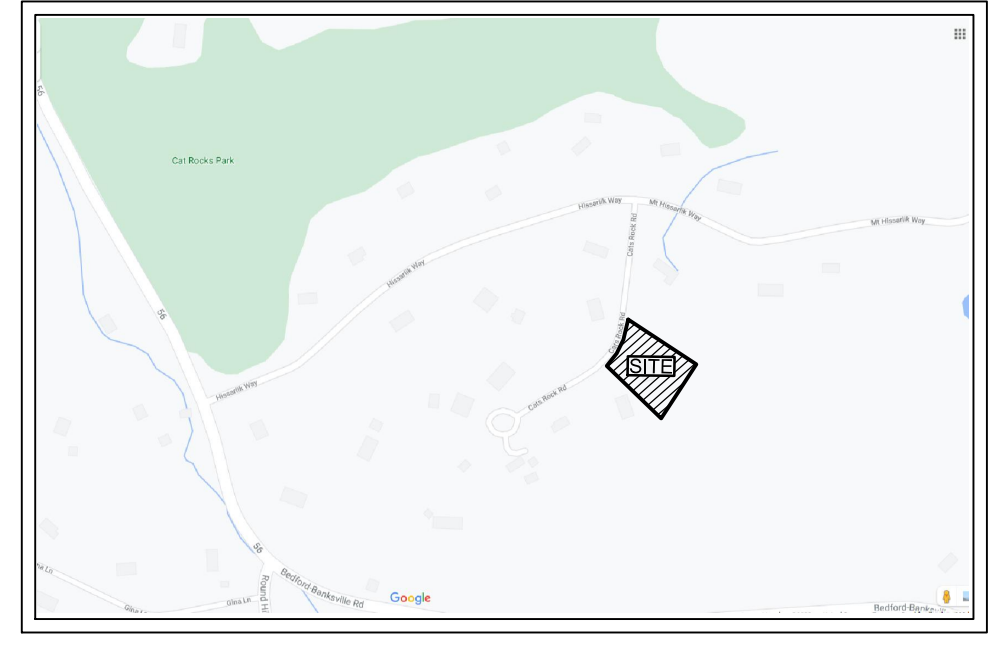
TRIMARCHI RESIDENCE
10 CAT ROCKS DRIVE
BEDFORD, NY 10506

PLANTING PLAN

DANIEL SHERMAN
LANDSCAPE ARCHITECT
4 BROADWAY - SUITE 9
VALHALLA, NY 10595
PHONE: (914) 824 - 0999
FAX: (914) 824-0251
dan.danshermanlandscape@gmail.com
www.danshermanlandscape.com



| | |
|------------------------|-------------------------|
| DATE: OCT. 15, 2020 | SCALE: 1" = 10' - 0" |
| DRAWN BY: AL | DRAWING # L - 4 |



General Notes

- Contractor to verify all conditions and dimensions prior to the start of work, any discrepancies are to be reported to the design engineer immediately.
- The contractor shall notify DigSafelyNY at 811, no less than two days prior to commencing excavating activities.
- All work shall conform to the official rules and regulations of the State of New York Building Construction, Fire, Safety and all other applicable Municipal, State and Federal regulations.
- Underground Utilities are shown schematically and all utilities may not be shown hereon contractor to verify all utilities have been field marked by the appropriate agency and rely on those representations over locations indicated hereon.
- Grading of the property shall be performed to provide positive drainage away from the proposed foundation.

Erosion Control

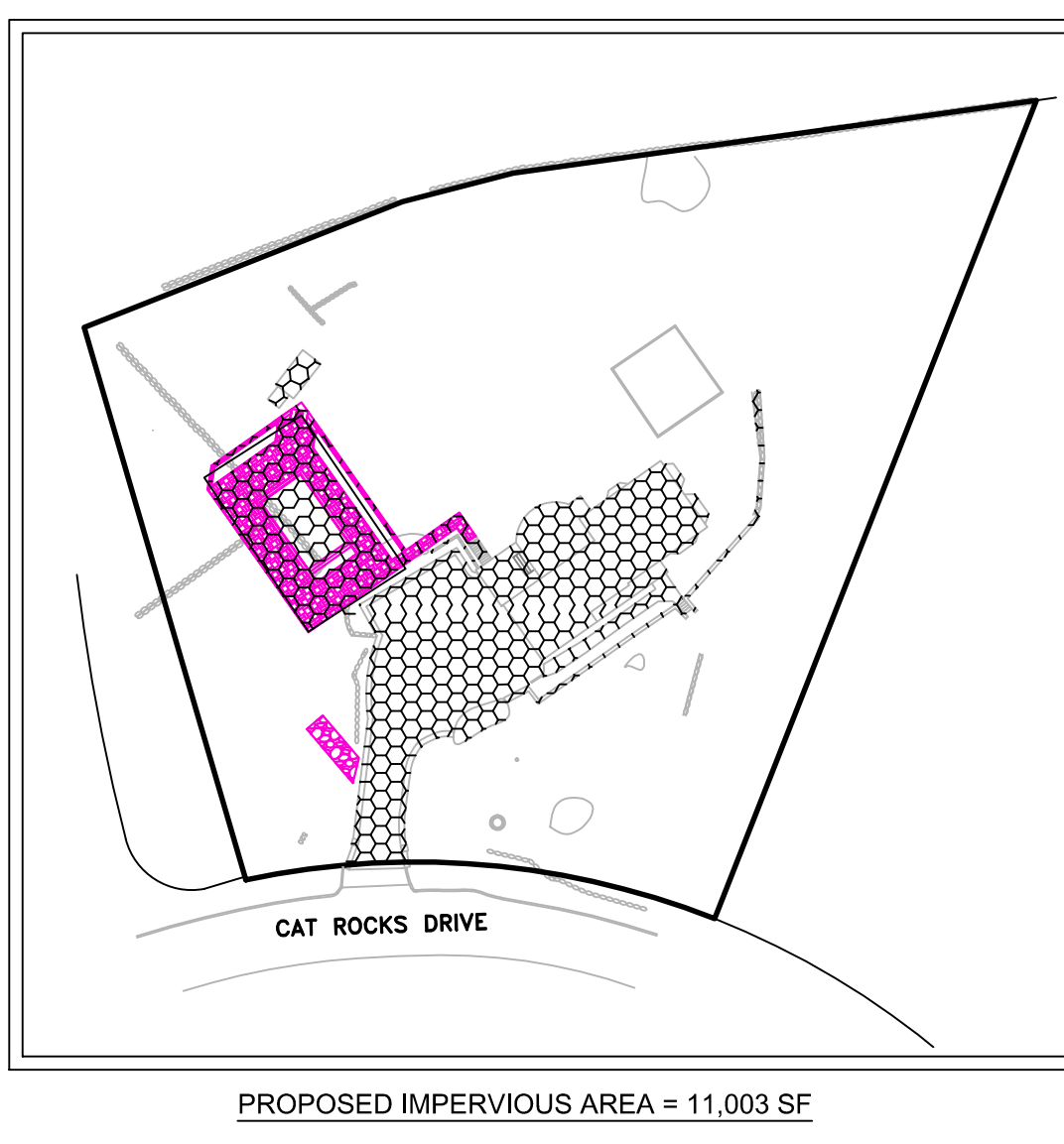
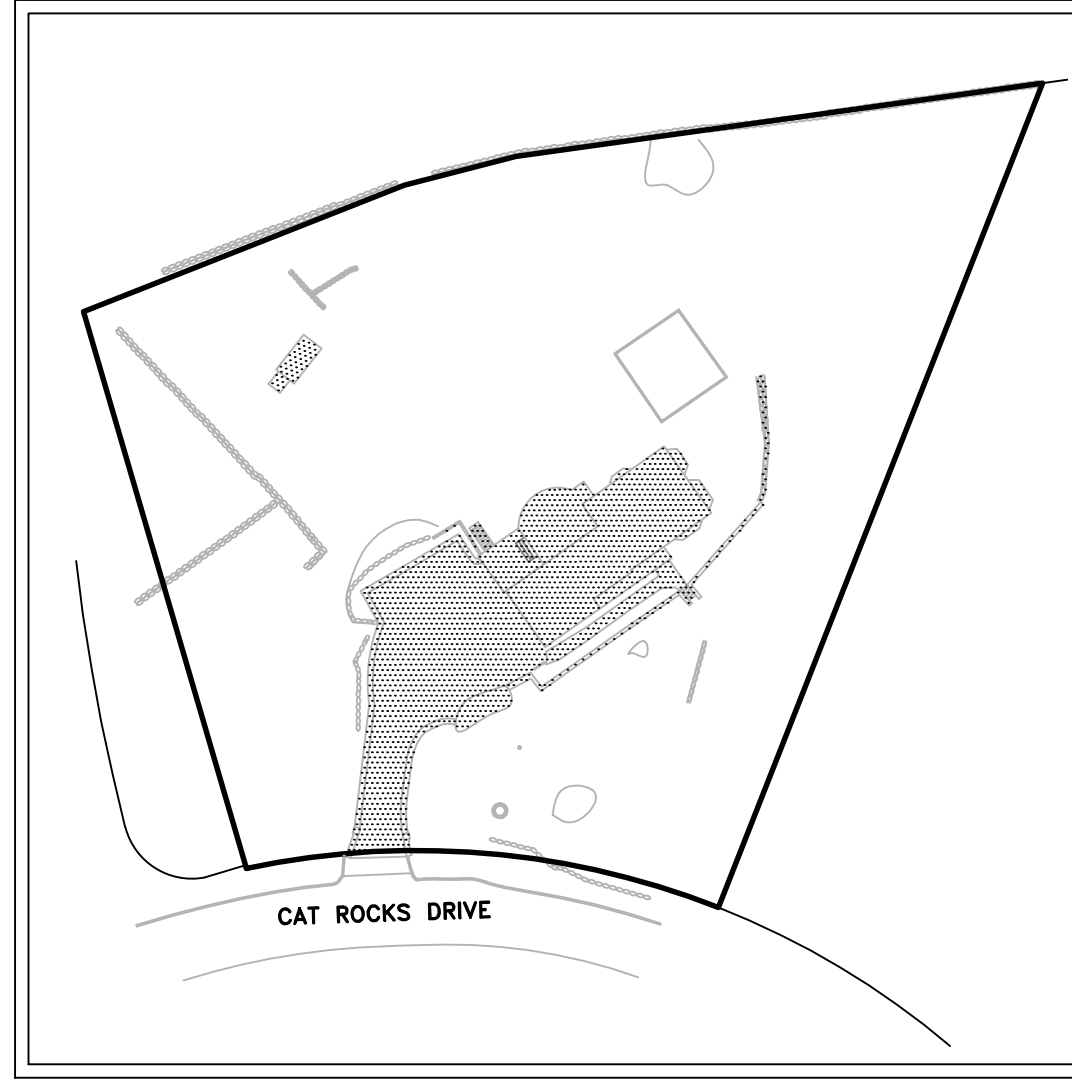
- Erosion control measures shall be installed as the first phase of work, and be maintained throughout the duration of the project
- Maintenance and installation shall be in accordance with NYSDEC "Standards and Specifications for Erosion and Sediment Control".
- The Town can require additional measures to be implemented at their discretion.
- The plans indicate locations of erosion control measures however the contractor must use best management practices as necessary to assure proper controls.
- The final subgrade shall receive no less than 4" of topsoil and be seeded and mulched.

Town of North Castle Notes

- All driveway work shall conform with the Town of North Castle code
- Erosion control measures must be properly installed, maintained so the dirt and debris is not deposited on street.
- Exposed areas must be stabilized as soon as alterations are completed.
- Any under ground structures must be inspected prior to backfilling.
- A minimum of 24 hours notice is required for any inspection
- No Town Regulated tree removal is proposed.

Map Reference

- Survey information shown was taken from a Survey of property prepared by Ramsay Land Surveying, PLLC dated July 18, 2020
 - See Architectural Plans by Daniel Sherman, Landscape Architect for Zoning compliance table
- Architectural plans supercede in all building dimension cases



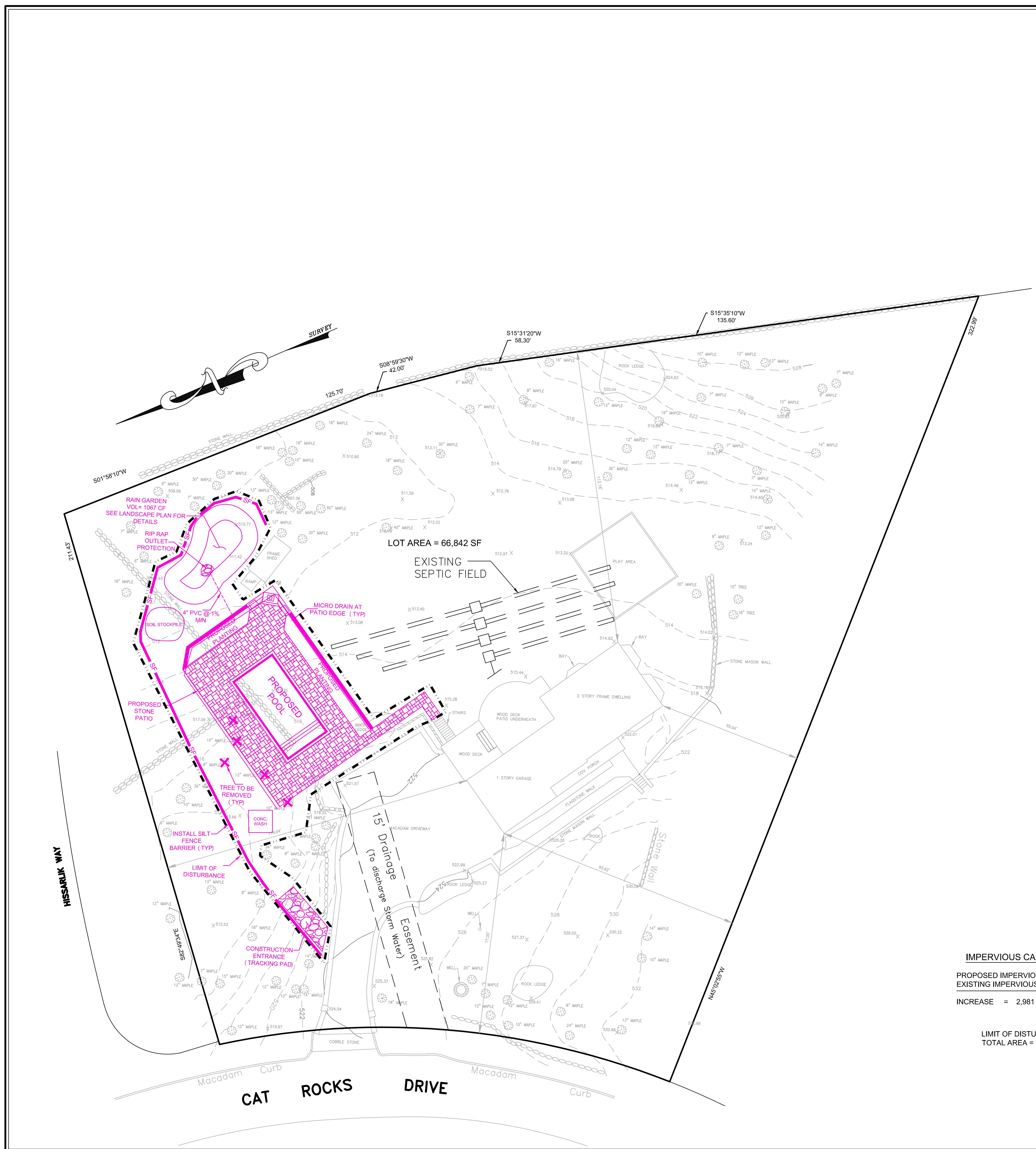
IMPERVIOUS CALCULATIONS

PROPOSED IMPERVIOUS AREA = 11,003 SF
 EXISTING IMPERVIOUS AREA = 8,022 SF
 INCREASE = 2,981 SF

LIMIT OF DISTURBANCE
 TOTAL AREA = 7,735 SF±

LEGEND

| | | | | | | | |
|--|-----------------------------------|--|-----------------------------|--|---------------------------|--|---|
| | CATCH BASIN | | SEWER CLEAN-OUT | | EXISTING TREE, SIZE, TYPE | | HYDRANT |
| | DRAINAGE INLET | | SEWER MANHOLE | | FIRE ALARM SPLICE BOX | | W.V. WATER VALVE |
| | SEWER MANHOLE | | LOT STORM SERVICE | | TRAFFIC SIGN | | G.V. GAS VALVE |
| | DRAINAGE MANHOLE | | LOT WATER SERVICE | | ROOF LEADER | | UTILITY BOX |
| | ELECTRIC MANHOLE | | ELECTRIC CROSSING | | STREET SIGN | | UTILITY BOX |
| | MANHOLE | | LIGHTPOLE | | EXISTING SPOT ELEVATION | | TEST PIT |
| | MONUMENT SET | | UTILITY POLE | | TRANSFORMER | | PERCULATION TEST |
| | PROPERTY LINE | | CURB LINE | | CURB CUT | | APPROXIMATE LOCATION OF WATER MAIN |
| | EXISTING CONTOUR - INDEX | | EXISTING CONTOUR - INTER | | DRAINAGE LINE | | APPROXIMATE LOCATION OF 8" PVC SANITARY SEWER |
| | PROPOSED CONTOURS | | FENCE | | LIMIT OF DISTURBANCE | | |
| | SILT FENCE AND CONSTRUCTION FENCE | | EXISTING TREE TO BE REMOVED | | | | |



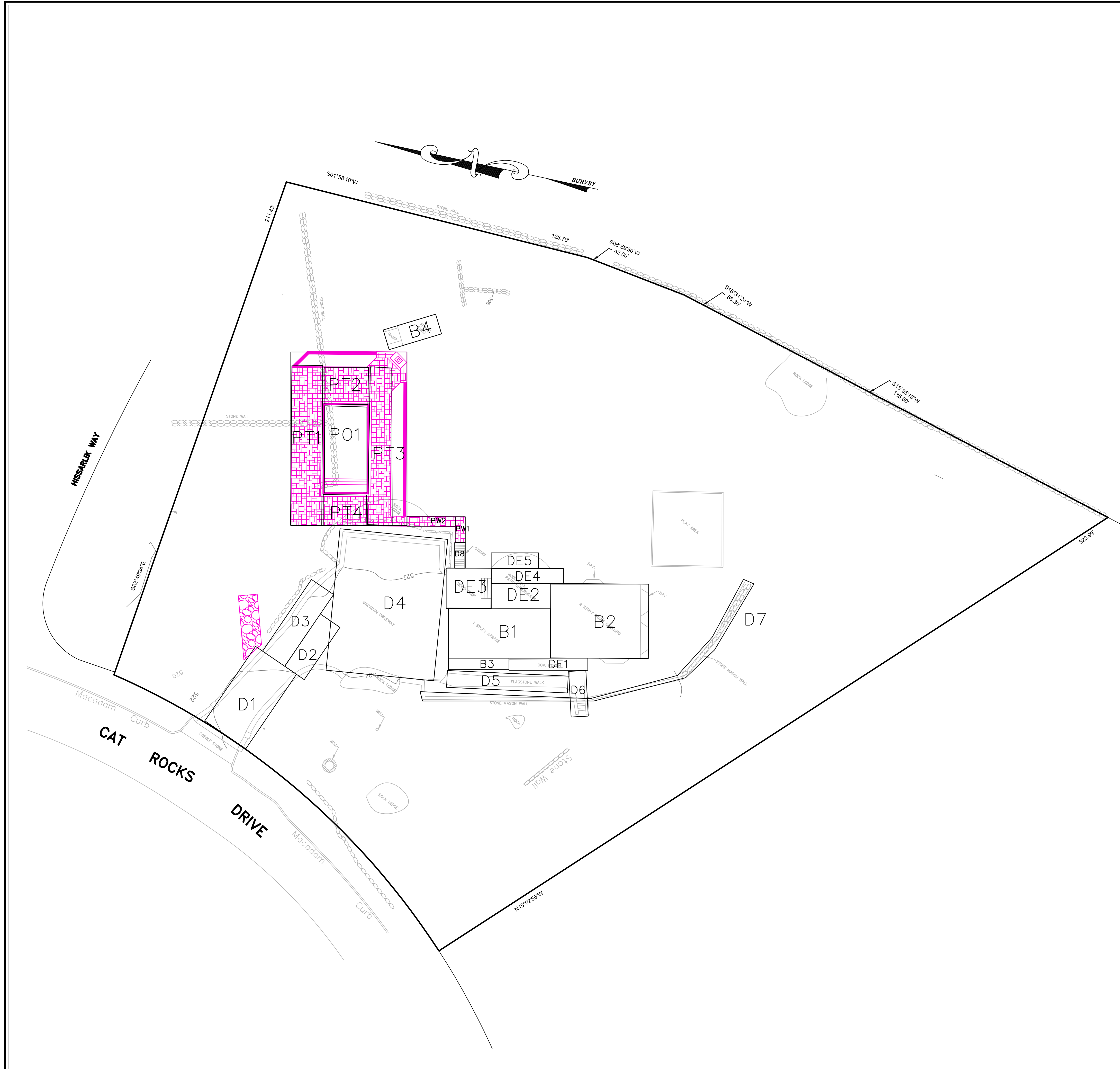
| NO. | DESCRIPTION | DATE |
|-----|-------------|------|
| | | |
| | | |
| | | |
| | | |

CHRISTOPHER S. UTSCHIG
 NYS P.E. LIC. # 09038-1

SITE PLAN
 TRIMARCHI RESIDENCE
 10 Cat Rocks Drive
 Bedford, N.Y. 10504

CHRISTOPHER S. UTSCHIG, P.E.
 Civil Engineering Design
 Stormwater Construction Management
 Site
 85 Ralph Avenue
 White Plains, NY 10606
 (914) 397-9550

SCALE: 1"=20'
 DATE: SEPT 30, 2020
 SHEET 1 OF 3
 JOB No. 1202



| EX BUILDING AREA (B) SF | | |
|-------------------------|---------|------|
| B1 | 41 X 20 | 820 |
| B2 | 40 X 30 | 1200 |
| B3 | 25 X 5 | 125 |
| B4 | 20 X 8 | 160 |
| TOTAL | | 2305 |

| EX DECK AREA (DE) SF | | |
|----------------------|---------|-----|
| DE1 | 22 X 5 | 110 |
| DE2 | 24 X 10 | 240 |
| DE3 | 18 X 16 | 288 |
| DE4 | 29 X 6 | 174 |
| DE5 | 19 X 6 | 114 |
| TOTAL | | 926 |

| EX DRIVE AND WALKS AREA (P) SF | | |
|--------------------------------|---------|------|
| D1 | 36 X 20 | 720 |
| D2 | 25 X 9 | 225 |
| D3 | 35 X 11 | 385 |
| D4 | 44 X 57 | 2508 |
| D5 | 50 X 5 | 250 |
| D6 | 7 X 18 | 126 |
| D7 | 10 X 4 | 40 |
| D7 | 150 X 3 | 450 |
| TOTAL | | 4704 |

| PROP POOL AREA (PO) SF | | |
|------------------------|---------|-----|
| PO1 | 35 X 18 | 630 |
| TOTAL | | 630 |

| PROP WALKS (PW) SF | | |
|--------------------|--------|-----|
| PW1 | 4 X 20 | 80 |
| PW2 | 4 X 10 | 40 |
| TOTAL | | 120 |

| PROP TERRACE AREA (PT) SF | | |
|---------------------------|---------|------|
| PT1 | 14 X 63 | 882 |
| PT2 | 18 X 15 | 270 |
| PT1 | 8 X 63 | 504 |
| PT2 | 14 X 17 | 658 |
| TOTAL | | 2314 |

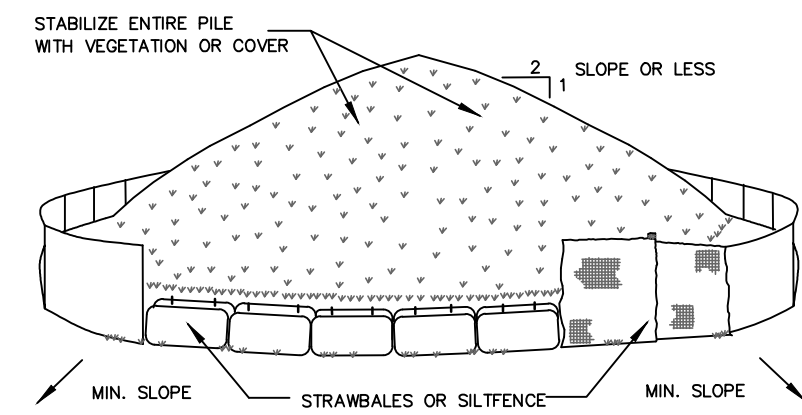
TOTAL COVERGAE 10.999SF

LEGEND

| | | | |
|---|--|--|---|
| <ul style="list-style-type: none"> ▣ CATCH BASIN ▣ DRAINAGE INLET ⊕ SEWER MANHOLE ⊕ DRAINAGE MANHOLE ⊕ ELECTRIC MANHOLE ⊕ MANHOLE ⊕ # 215 MONUMENT SET | <ul style="list-style-type: none"> ● SS LOT SEWER SERVICE ● SCD SEWER CLEAN-OUT ● STS LOT STORM SERVICE ● WS LOT WATER SERVICE ● -X ELECTRIC CROSSING ● LIGHTPOLE ● UTILITY POLE ● TRANSFORMER | <ul style="list-style-type: none"> ⊕ EXISTING TREE, SIZE, TYPE ⊕ FIRE ALARM SPICE BOX ⊕ TRAFFIC SIGN ⊕ ROOF LEADER ⊕ STREET SIGN ⊕ EXISTING SPOT ELEVATION | <ul style="list-style-type: none"> ⊕ HYDRANT ⊕ W.V. WATER VALVE ⊕ G.V. GAS VALVE ⊕ UTILITY BOX ⊕ UTILITY BOX ⊕ TEST PIT ⊕ PERCOLATION TEST |
|---|--|--|---|

| | |
|---|---|
| <ul style="list-style-type: none"> — PROPERTY LINE — EXISTING CONTOUR - INDEX — EXISTING CONTOUR - INTER — PROPOSED CONTOURS — FENCE — SILT FENCE AND CONSTRUCTION FENCE — EXISTING TREE TO BE REMOVED | <ul style="list-style-type: none"> — CURB LINE — CURB CUT — APPROXIMATE LOCATION OF WATER MAIN — DRAINAGE LINE — APPROXIMATE LOCATION OF 8" PVC SANITARY SEWER — LIMIT OF DISTURBANCE |
|---|---|

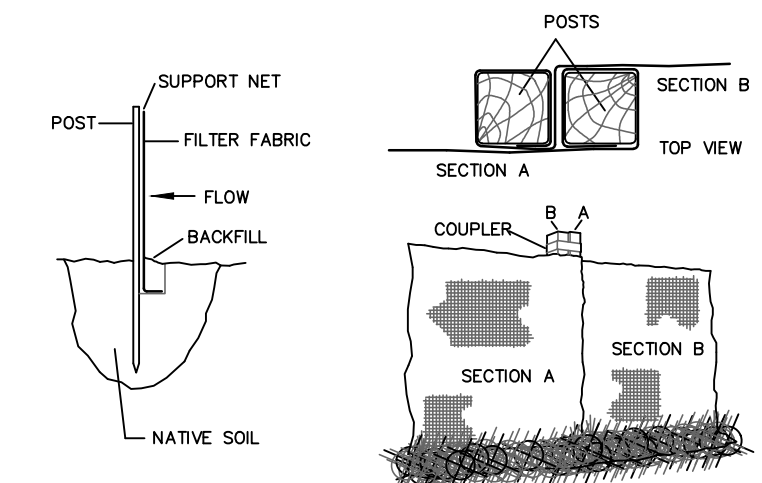
| REVISIONS | COVERAGE CALCULATION | DATE: SEPT 30, 2020 |
|-----------|--|---|
| | <p>TRIMARCHI RESIDENCE 10 Cat Rocks Drive Bedford, N.Y. 10504</p> | <p>CHRISTOPHER S. UTSCHIG, P.E. Civil Engineering Design Stormwater - Construction Management Site - 85 Ralph Avenue White Plains, NY 10606 (914) 397-9550</p> |
| | SCALE: 1"=20' | SHEET 2 OF 3 |
| | | JOB No. 1202 |



INSTALLATION NOTES

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED AS NOTED.
4. TEMPORARILY STABILIZE AS NOTED IN SPECIFICATIONS.

SOIL STOCKPILING
NOT TO SCALE



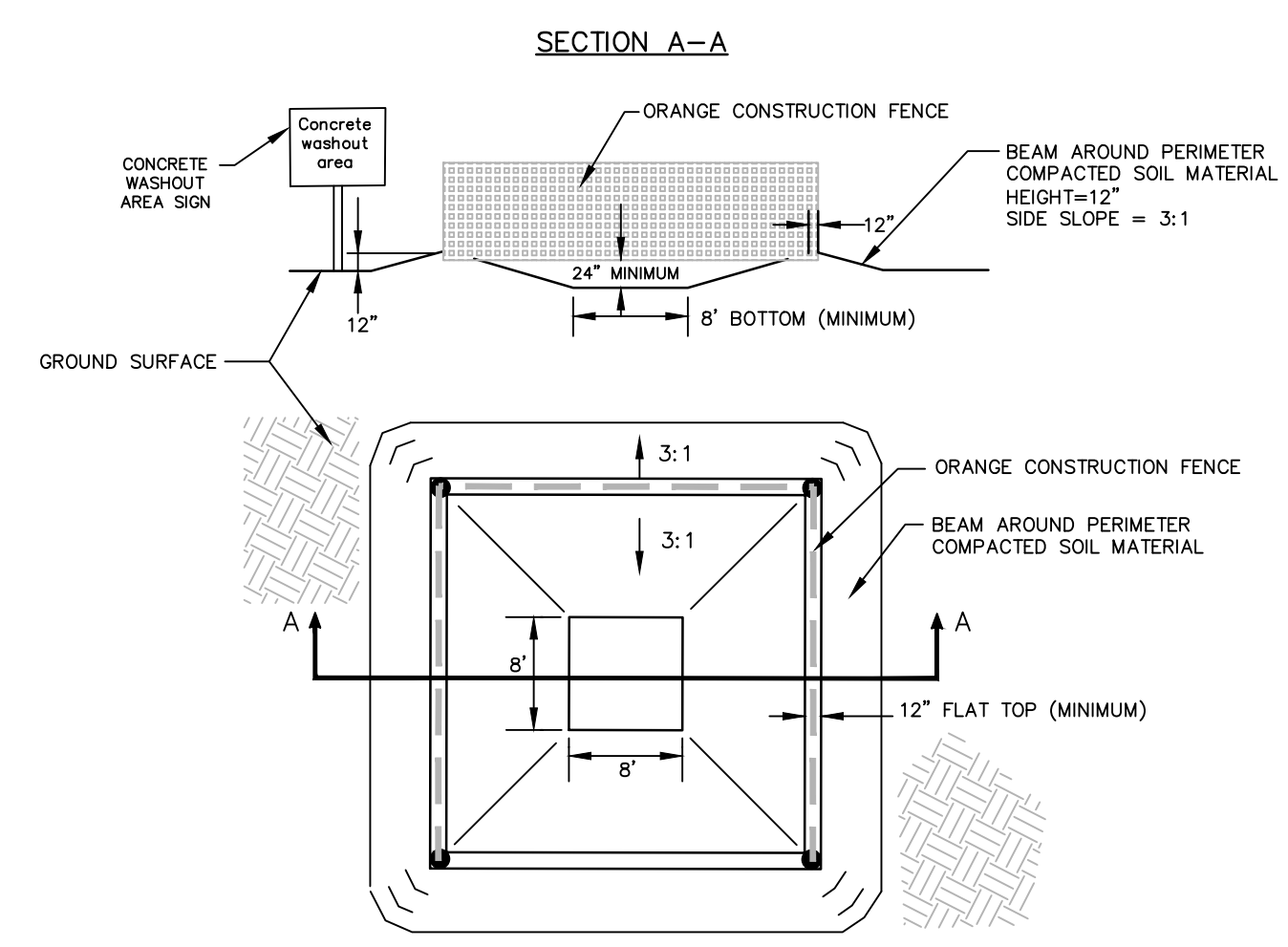
TOE-IN METHOD

JOINING SECTIONS OF FENCING

INSTALLATION NOTES

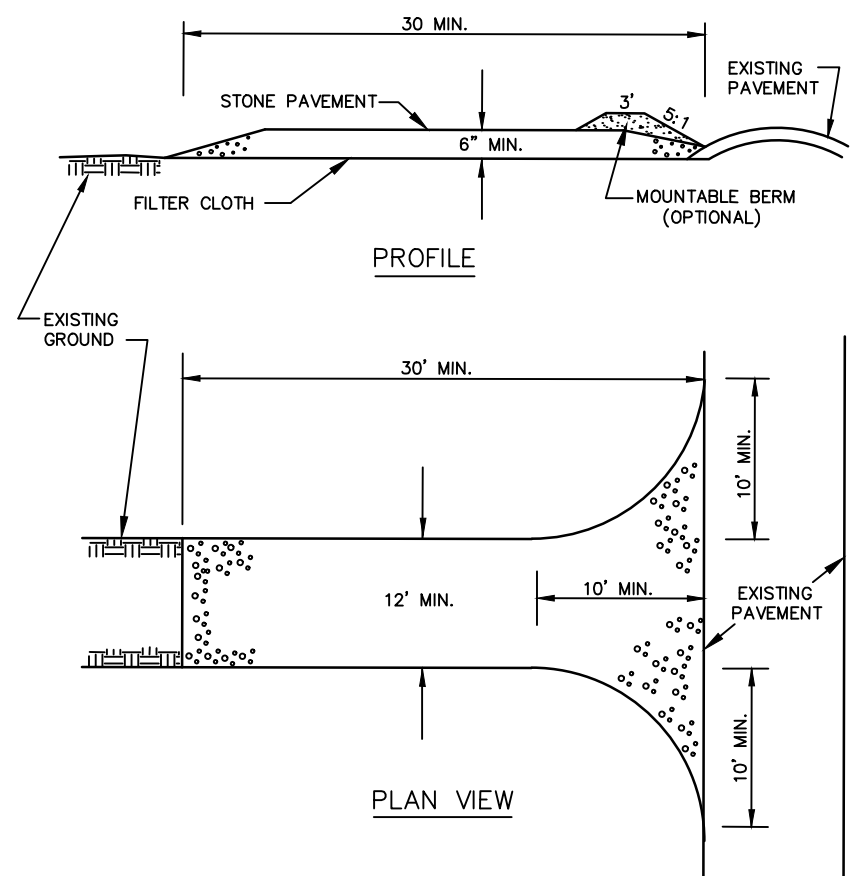
1. EXCAVATE A 4 INCH X 4 INCH TRENCH ALONG THE PROPOSED FENCE ALIGNMENT.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL.
5. JOIN SECTIONS AS SHOWN ABOVE.
6. CONTRIBUTING AREA SLOPE LENGTH SHALL BE LIMITED TO LENGTHS ON N.Y.S. GUIDELINES.

SILT FENCE
NOT TO SCALE



PLAN VIEW

CONCRETE WASHOUT DETAIL
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAINFALL EVENT.

REVISIONS

CHRISTOPHER S. UTSCHIG
NYS P.E. LIC. # 090138-1

CONSTRUCTION DETAILS

TRIMARCHI RESIDENCE
10 Cat Rocks Drive
Bedford, N.Y. 10504

CHRISTOPHER S. UTSCHIG, P.E.
Civil Engineering Design
Site - Stormwater - Construction Management
85 Ralph Avenue
White Plains, NY 10606

SCALE: AS SHOWN
DATE: SEPT 30, 2020
SHEET 3 OF 3
JOB No. 1202

Engineer's Report
for
The Trimarchi Residence

10 Cat Rock Drive
Bedford, New York

Dated 10/12/20

Revised _____

Prepared by:
Christopher S. Utschig P.E.
65 Ralph Ave White Plains, NY
914 391-9550

NYS Professional Engineer Lic # 090138

Introduction

This report has been prepared in support of the improvements to the property at 10 Cat Rock Drive. The proposed improvements will include a pool and new patio. The report and associated plans were prepared in accordance with the Westchester County, NY, Stormwater Management Best Management Practices for Stormwater Runoff Control in compliance with the requirements of the Town of North Castle pursuant to a Surface Water Control Permit. The existing conditions identified on the site plan were taken from a survey prepared by TC Merritts dated 12/15/19.

A. Existing Conditions

The existing property is a 1.53 Ac residentially zoned property within the R1-A zone. The property is occupied by a 2 story single family home; additional improvements include a driveway, patio, , deck, and walks. The balance of the property is landscaped lawn area and wooded areas. The existing condition includes 8,022 sf of impervious area. The subject properties topography can be described as gently sloping. All Stormwater leaves the property in an overland fashion, no evidence of existing Stormwater systems or alternate conveyance means are apparent. Based on Westchester County Soil Mapping the onsite soils in the area of infiltration and proposed development are (CrC) Charlton Chatfield type soils, having a type "B" hydrologic group.

C. Proposed Condition

The proposed condition includes a rear yard in ground pool, reconstructed and expanded patio and walkways. The grading as proposed leaves the existing yard grading essentially untouched and thereby leaving the existing drainage patterns unchanged. The proposed condition will result in an impervious area of 11,003 sf. the balance of the property will remain unchanged, this represents an increase in impervious area of 2,981 sf. The comparative analysis was performed in Hydrocad for the entire property for both the Existing and Proposed condition, the results of that analysis indicated an increase in the volume of runoff for the 25-Year storm event to be 1,011 cf

The on-site drainage has been designed to provide mitigation for the proposed increase in impervious area when analyzing for the 25 Year storm event. The design was analyzed using the Westchester County Best Management Practices Manual for Type III storms, modeled with Hydro Cad, for the 25-yr(6.4") storm event. The design proposes an rain garden to provide mitigation for the additional impervious area. The system has been sized such that the additional volume of runoff from the design storm is fully mitigated through storage and infiltration. The total volume of runoff for the existing condition was calculated to be 13,534 cf. The runoff volume for the proposed condition was calculated to be 14,545 cf, the required mitigation being the difference between pre and post development was calculated to be 1,011 cf. Storage provided by the rain garden was calculated to be 1,067 cf.

D. Construction Phasing Plan and Sediment and Erosion Control Management

Maintenance of Temporary and Permanent Structures and Practices

Temporary and permanent erosion controls measures will be maintained and inspected in accordance with the **Grading and Drainage Plan**. All proposed soil erosion and sediment control practices are designed in accordance with the following publications:

- New York State Standards and Specifications for Erosion and Sediment Control, August 2005, latest

edition.

- New York State Guidelines for Urban Erosion and Sediment Control, latest edition,
- New York State General Permit for Stormwater Discharges,
- "Reducing the Impacts of Stormwater Runoff from New Development", as published by the New York State Department of Environmental Conservation (NYSDEC), second edition, April 1993.

The proposed soil erosion and sediment control devices include: protective earthmoving procedures and grading practices, soil stabilization, inlet protection, stabilized construction entrance and silt fencing. The approach of the plan is to control off-site sedimentation, and re-establish vegetation as soon as practicable.

Construction shall be implemented in the following order:

1. Erosion and sediment control (ESC) measures and Pollution Prevention (PP) implementation,
 - a) Install silt fences along easterly project limits,
 - b) Maintain existing macadam driveway to utilize as a site construction entrance to the project area, material storage area and dumpster location.
 - i) Contractor shall install stone stabilized entrance at end of the existing paved driveway in advance of construction vehicles requiring access from graded /exposed soils to City Streets.
 - c) Install Tree Protection
 - d) Install temporary sanitary facilities (portable toilets) in a location that is at least 20 from any drainage facility or flow path. Recommend staking the facility to prevent accidental tipping by construction activity or wind.
 - e) Install waste container – maintain rigorous site cleaning schedule to prevent debris from blowing off site. Construction waste shall be stored in a dumpster and carried off-site on a regular basis
 - f) Allocate concrete washout areas
2. Clearing and grubbing.
 - a) Strip top soil and stockpile. Initiate cover practices and sediment controls at the base of the stockpile. Stockpile can be temporarily stabilized with tarp or mulch and/or temporary seeding.
 - b) Disturbed areas where construction will cease for more than 14 days will be stabilized with erosion controls, such hydro-seeding, hydro-mulch, or hay
3. Excavate for pool.
 - a) Install dewatering practice if necessary.
4. Construct hardscape
5. Install rain garden infiltration system and site drainage to capture runoff.
6. Final stabilization of disturbed areas
 - a) Install minimum 4" topsoil and final stabilize with lawn or mulch in landscape areas.
 - b) Remove all ESC and PP measures upon approval of design engineer and/or ESC inspector.

Awarded contractor shall be responsible for the proper implementation of the ESC and PP practices. The following maintenance program is proposed in order to maintain the proper function of all drainage and erosion and sediment control facilities:

- Inspect sediment control devices and construction access point routinely and if necessary, remove accumulated sedimentation and debris; at no point should the filter bed be allowed to continue operations beyond 50% of its capacity being compromised by debris.
- All disturbed area will be stabilized and the sediment build-up in the filter removed. After the construction is completed, any areas disturbed shall be stabilized immediately after the required work is completed.
- Restore and re-seed any eroded areas as soon as possible

- The Stormwater Management Facilities Maintenance Program will be managed by the home owner and shall include removal of sediment from the on-site catch basins and underground storage facilities.

The contractor shall provide a Trained Individual to be present on site at all times during soil disturbing activities

Any disturbed areas shall be re-vegetated as soon as possible. Topsoil shall be temporarily stockpiled for future use in grading and landscaping. Stockpile locations have been provided on the Erosion and Sediment Control Plan and shall be contained within a silt fence/hay bale barrier.

The existing driveway shall be maintained throughout construction to be utilized for the site construction entrance. A temporary stabilized construction entrance comprised of a stone anti-track pad shall be installed as necessary to minimize dirt tracking. The purpose of a stabilized entrance is to remove as much soil from the construction vehicle tires prior to exiting the site and traveling on the existing roadways.

For dewatering activities during excavation of the footings, a dewatering pump shall be located in a perforated tub surrounded by filter fabric and stone (or approved alternative). Clean discharge should be directed to onsite drainage appurtenances to minimize erosion of soils. Discharge with suspended sediment shall be connected to a sediment bag on undisturbed ground in a location where the discharge will not cause erosion or flow over exposed soils.

If the contractor encounters ground water during the excavation of the filtering system, he shall notify the design engineer immediately. The contractor shall store all excavated material at the designated location show on the Grading and Erosion Control Plan with the appropriate erosion control measures corresponding to the stockpile detail.

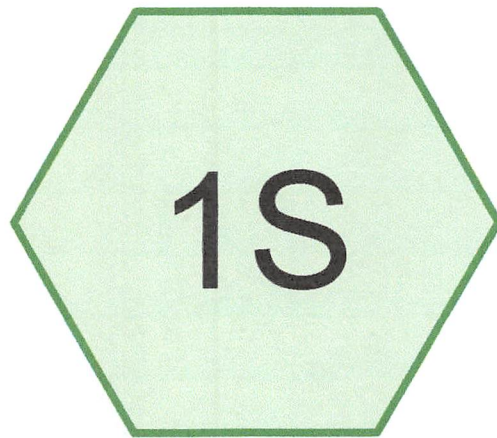
Contractor shall be responsible for maintaining the cleanliness of the streets (driveways/parking and adjacent areas) and storm drain inlet protection (as applicable) Best Management Practices (BMPs) throughout the construction project.

Permanent seeding shall be installed immediately after the final design grades are achieved but no later than fourteen (14) days after construction activities have ceased. After stabilization, accumulated sediment shall be removed from site for disposal along with construction debris, trash and temporary BMPs

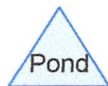
E. Conclusion:

The implementation of this stormwater management plan will mitigate the post development stormwater flows and not adversely affect the adjacent properties or the existing drainage system. The additional stormwater runoff generated by the proposed addition has been attenuated by the construction of an underground storage system.

APPENDIX A
Existing Condition Calculations



Existing



Existing

Prepared by Microsoft

HydroCAD® 10.00-20 s/n 09858 © 2017 HydroCAD Software Solutions LLC

Printed 10/15/2020

Page 2

Area Listing (all nodes)

| Area (sq-ft) | CN | Description (subcatchment-numbers) |
|-----------------|-----------|---------------------------------------|
| 58,820 | 61 | >75% Grass cover, Good, HSG B (1S) |
| 8,022 | 98 | Paved parking, HSG B (1S) |
| 66,842 | 65 | TOTAL AREA |

Existing

Prepared by Microsoft

HydroCAD® 10.00-20 s/n 09858 © 2017 HydroCAD Software Solutions LLC

Printed 10/15/2020

Page 3

Soil Listing (all nodes)

| Area (sq-ft) | Soil Group | Subcatchment Numbers |
|-----------------|---------------|-------------------------|
| 0 | HSG A | |
| 66,842 | HSG B | 1S |
| 0 | HSG C | |
| 0 | HSG D | |
| 0 | Other | |
| 66,842 | | TOTAL AREA |

Existing

Prepared by Microsoft

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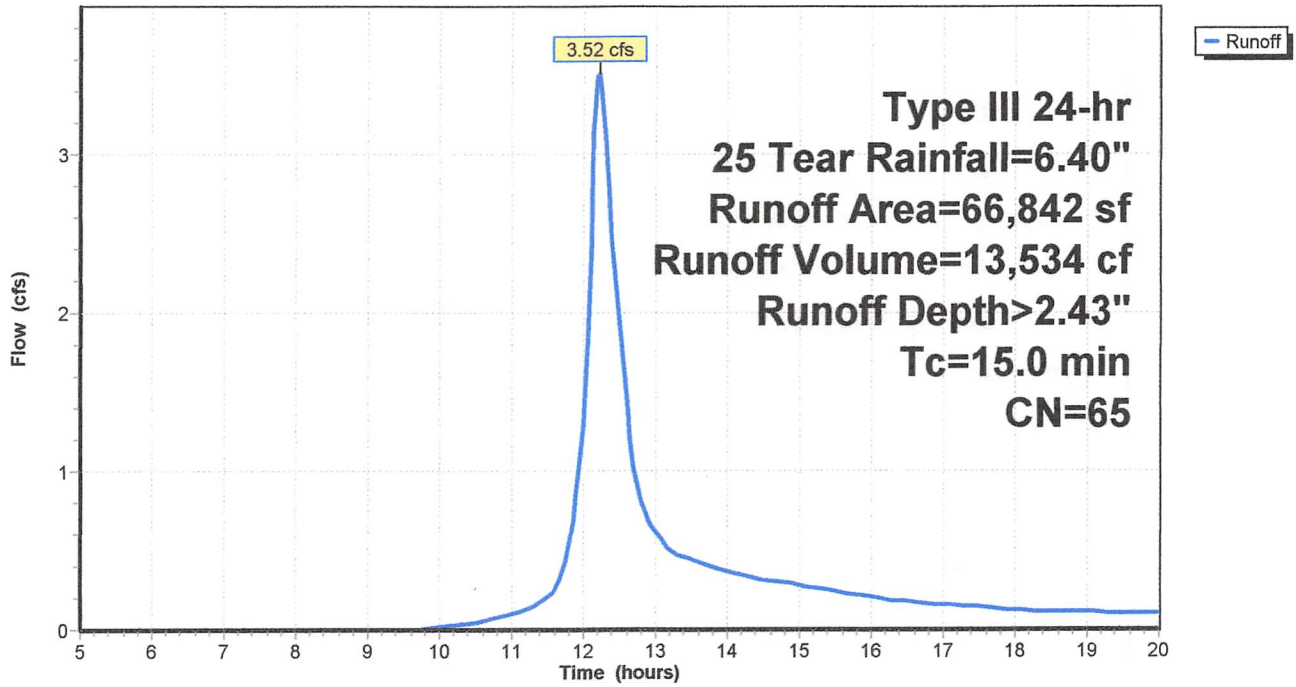
Type III 24-hr 25 Tear Rainfall=6.40"

Printed 10/15/2020

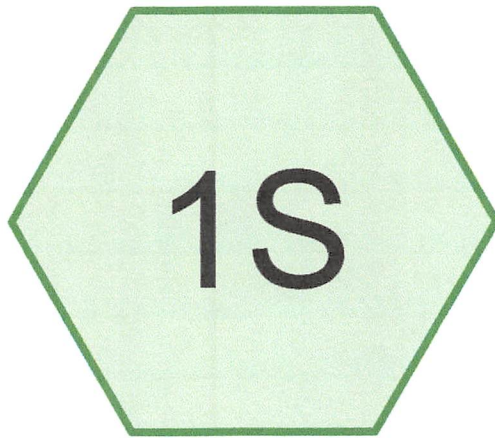
Page 4

Subcatchment 1S: Existing

Hydrograph



APPENDIX B
Proposed Condition Calculations



Proposed



Proposed

Prepared by Microsoft

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Printed 10/15/2020

Page 2

Area Listing (all nodes)

| Area (sq-ft) | CN | Description (subcatchment-numbers) |
|-----------------|-----------|---------------------------------------|
| 55,839 | 61 | >75% Grass cover, Good, HSG B (1S) |
| 11,003 | 98 | Paved parking, HSG B (1S) |
| 66,842 | 67 | TOTAL AREA |

Proposed

Prepared by Microsoft

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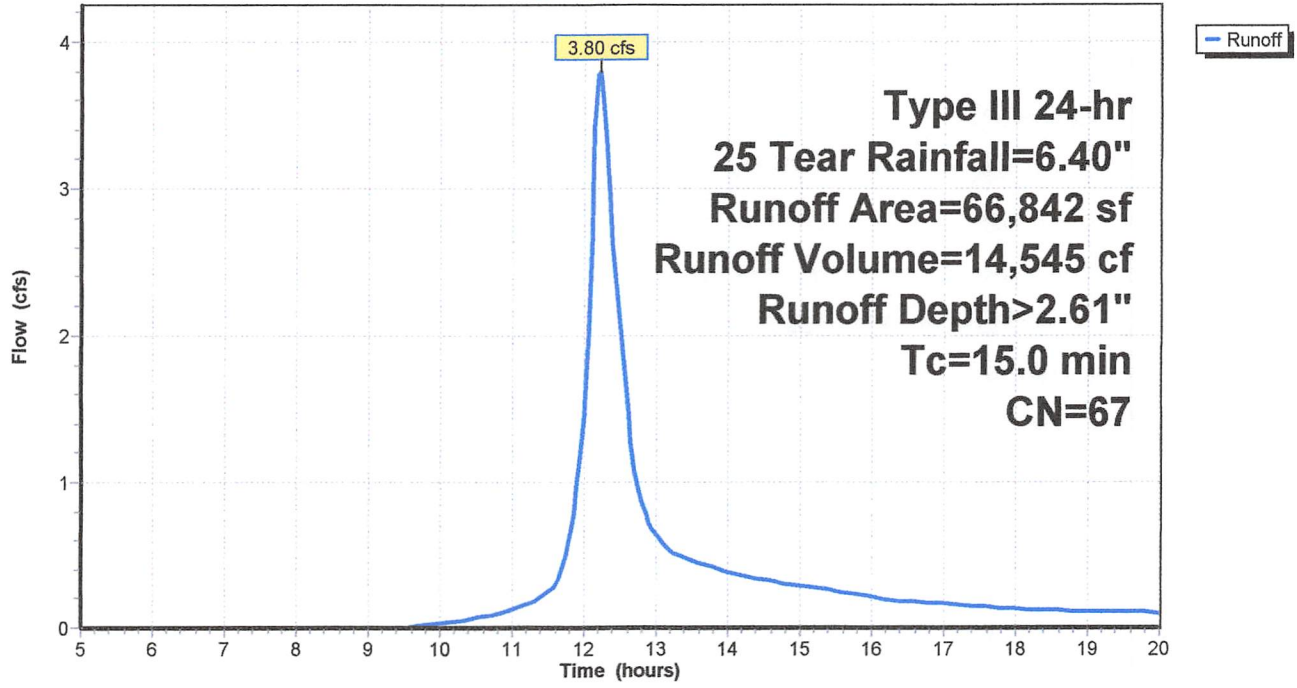
Page 3

Soil Listing (all nodes)

| Area (sq-ft) | Soil Group | Subcatchment Numbers |
|-----------------|---------------|-------------------------|
| 0 | HSG A | |
| 66,842 | HSG B | 1S |
| 0 | HSG C | |
| 0 | HSG D | |
| 0 | Other | |
| 66,842 | | TOTAL AREA |

Subcatchment 1S: Proposed

Hydrograph



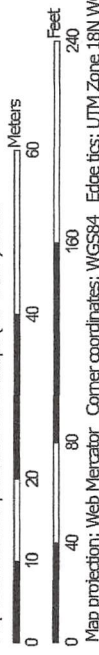
APPENDIX C

USDA Soils Report

Soil Map—Westchester County, New York



Map Scale: 1:921. If printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

| | |
|--|---|
|  Area of Interest (AOI) |  Spoil Area |
|  Area of Interest (AOI) |  Stony Spot |
|  Soils |  Very Stony Spot |
|  Soil Map Unit Polygons |  Wet Spot |
|  Soil Map Unit Lines |  Other |
|  Soil Map Unit Points |  Special Line Features |
|  Special Point Features |  Streams and Canals |
|  Blowout |  Water Features |
|  Borrow Pit |  Transportation |
|  Clay Spot |  Rails |
|  Closed Depression |  Interstate Highways |
|  Gravel Pit |  US Routes |
|  Gravelly Spot |  Major Roads |
|  Landfill |  Local Roads |
|  Lava Flow |  Background |
|  Marsh or swamp |  Aerial Photography |
|  Mine or Quarry | |
|  Miscellaneous Water | |
|  Perennial Water | |
|  Rock Outcrop | |
|  Saline Spot | |
|  Sandy Spot | |
|  Severely Eroded Spot | |
|  Sinkhole | |
|  Slide or Slip | |
|  Sodic Spot | |

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Westchester County, New York
 Survey Area Data: Version 16, Jun 11, 2020

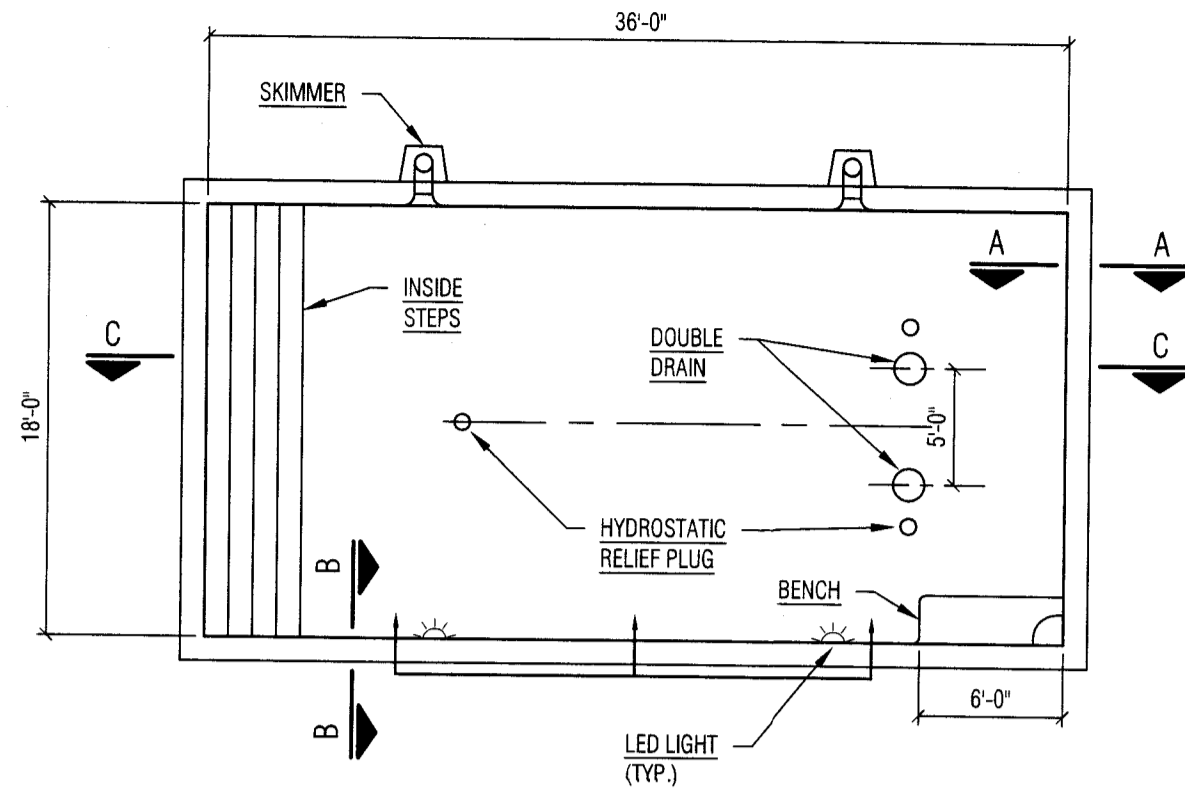
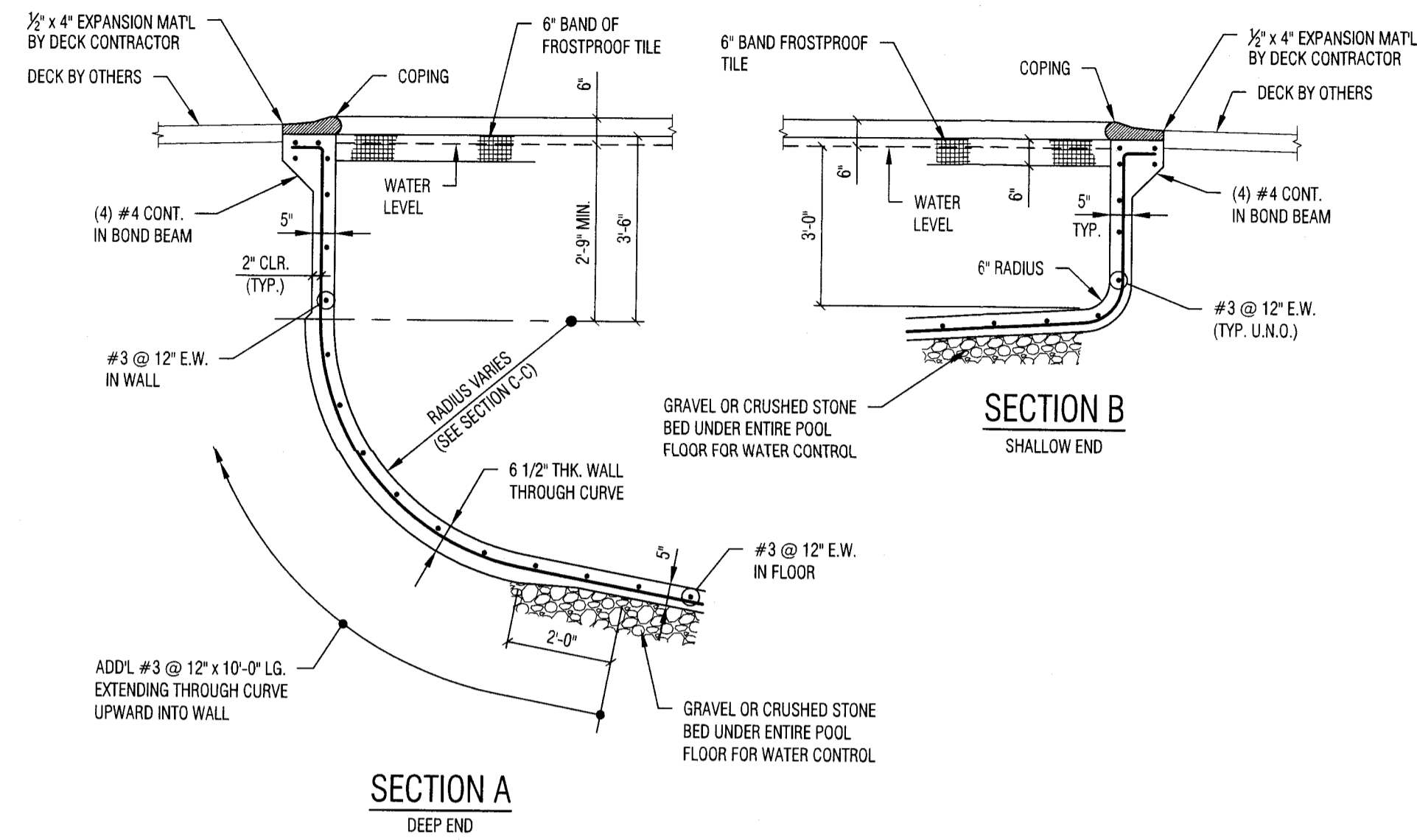
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 16, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

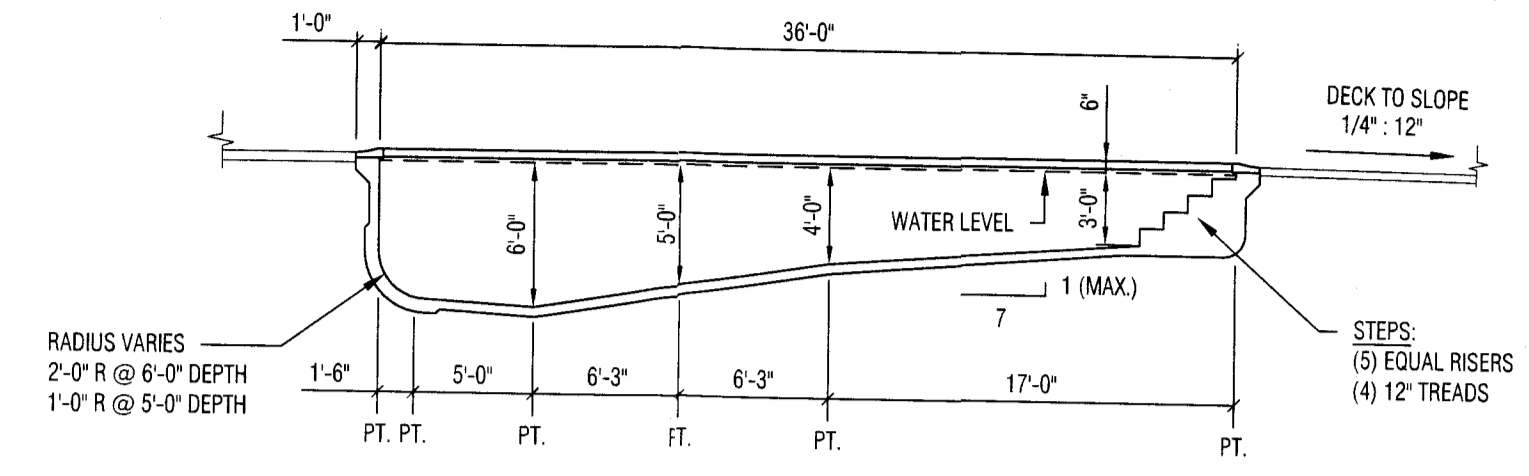
| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|------------------------------------|--|--------------|----------------|
| CrC | Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky | 1.7 | 100.0% |
| Totals for Area of Interest | | 1.7 | 100.0% |



PLAN

| ANSI/NSPI-5 | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--------------------------|------------------------|-------------------------|---|---|---|-------------------------|---|---|---|--------------------------------|----|----|----|----|----|--|--|--|--|--|--|
| POOL | MAX. DIVING BOARD LENGTH | MAX. HEIGHT OVER WATER | MINIMUM DEPTHS AT POINT | | | | MINIMUM WIDTHS AT POINT | | | | MINIMUM LENGTHS BETWEEN POINTS | | | | | | | | | | | |
| | | | A | B | C | D | A | B | C | D | WA | AB | BC | CD | DE | WE | | | | | | |
| 0 | | | | | | | | | | | | | | | | | | | | | | |

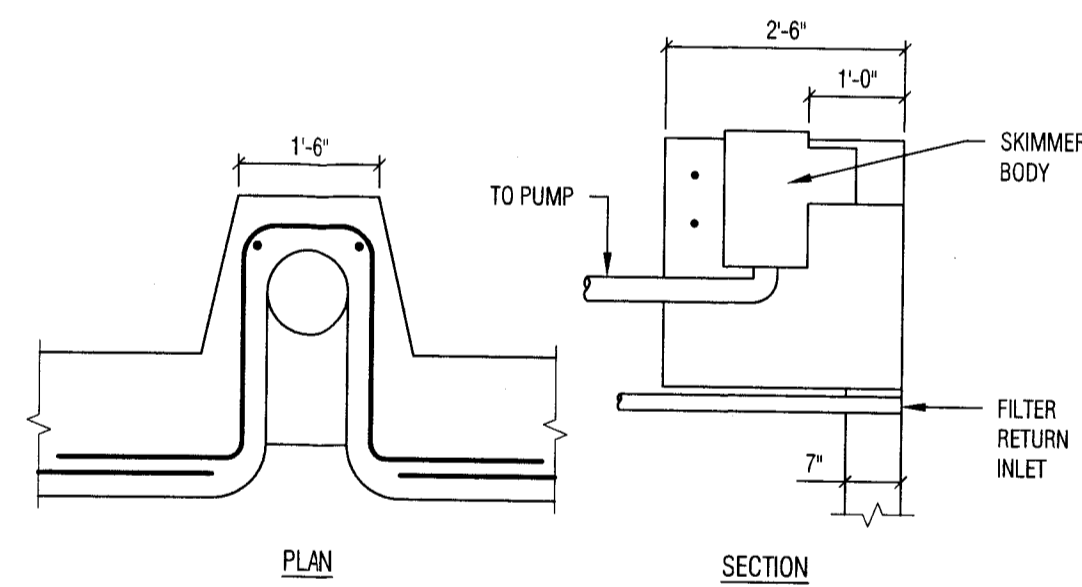
DIVING EQUIPMENT IS PROHIBITED



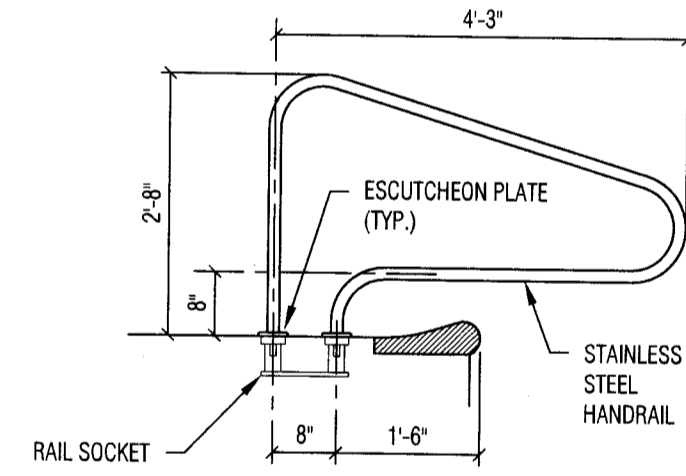
SECTION C-C

NOTES

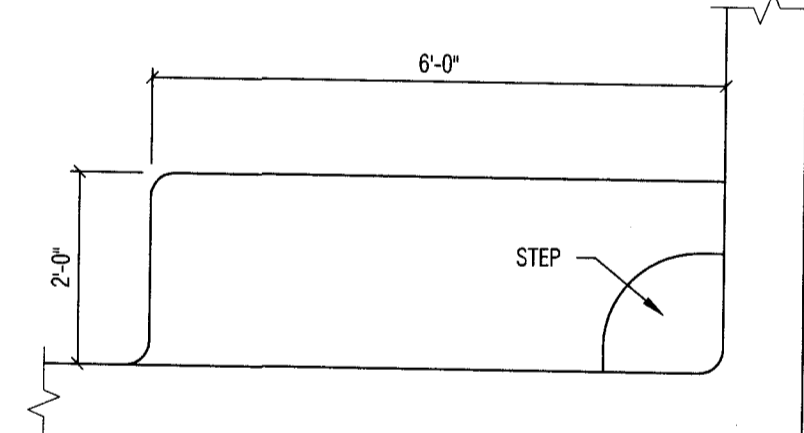
- THESE CONSTRUCTION DOCUMENTS ARE STANDARDS AND APPLY TO ALL POOL SHAPES.
- POOL FLOOR TO BE PLACED ON UNDISTURBED NATURAL SOIL. NATURAL SOIL SHALL BE A WELL DRAINING GRANULAR TYPE WITH A MINIMUM ALLOWABLE BEARING CAPACITY = 2,000 PSF.
- POOL STRUCTURES DESIGNED IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI) STANDARD FOR "BUILDING CODE REQUIREMENTS FOR REINFORCING CONCRETE - 318".
- PNEUMATICALLY APPLIED CONCRETE TO DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS.
- ALL STEEL REINFORCING SHALL BE DEFORMED BARS COMPLYING WITH AMERICAN SOCIETY FOR TESTING AND MATERIAL (ASTM) SPECIFICATION A615-40. LAP BARS A MINIMUM OF 15 INCHES.
- POOL SHELL CONSTRUCTION SHALL BE IN CONFORMANCE WITH ALL APPLICABLE ANSI/NSPI POOL STANDARDS, LATEST EDITIONS.
- ALL SUCTION DRAINS SHALL HAVE A MINIMUM SEPARATION OF 36".
- ALL SUCTION COVERS MUST COMPLY WITH ANSI/ASME A112.19.8M.



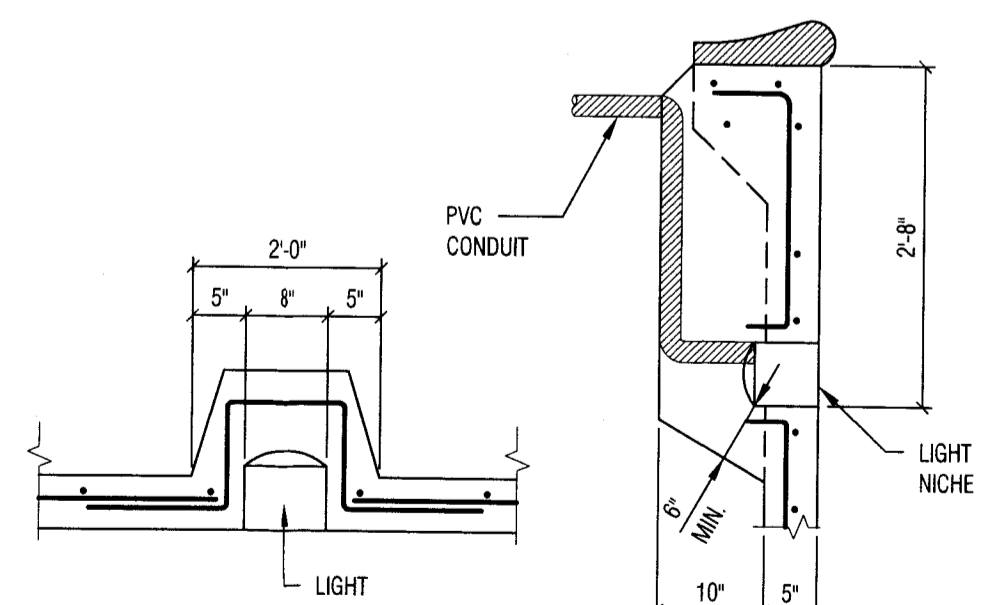
SKIMMER DETAIL



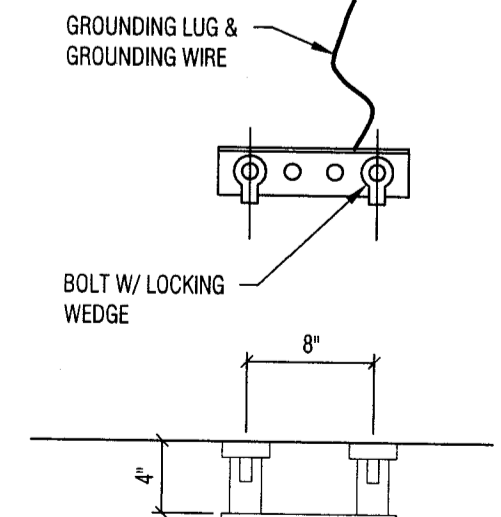
DECK MOUNTED HANDRAIL (OPTIONAL)



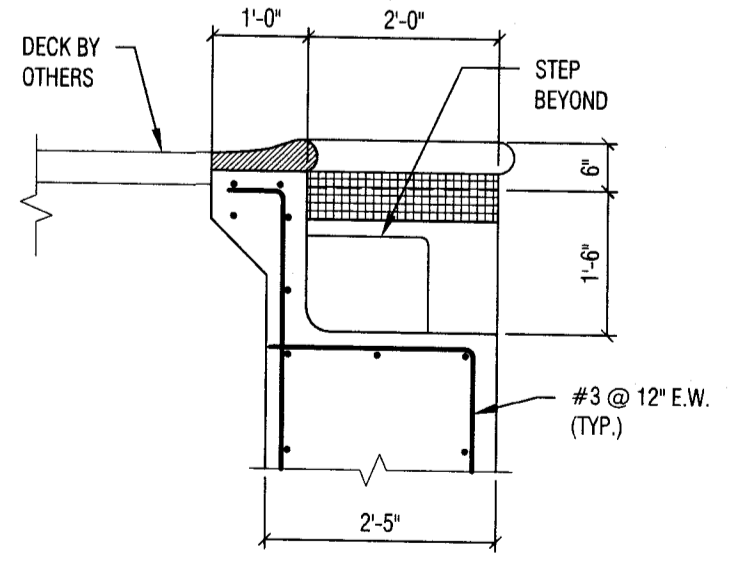
PLAN



LIGHT NICHE DETAIL



DECK MOUNTED STAIR/SPA RAIL SOCKET DETAIL



SECTION

engineering, LLC
1606 N. 18th Street
Rear Building
Allentown, PA 18104
610-730-2221

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9/17/2020
D. SCOTT BIGLEY
NEW YORK PROFESSIONAL ENGINEER
LICENSE NO. 068393

BLUE HAVEN POOLS
CALVITTI POOLS AND SPAS INC.
BLUE HAVEN POOLS & SPAS
2273 NORTH PENN ROAD
HATFIELD, PA 18440
P: 732-982-4680

ANTHONY & STEFANIE TRIMARCHI RESIDENCE
10 CAT ROCKS DRIVE
BEDFORD, NY 10506

| REVISION/RELEASE | DATE |
|---------------------------|-----------|
| 0 ISSUED FOR CONSTRUCTION | 9/17/2020 |
| 1 | |
| 2 | |
| 3 | |

DRAWING TITLE
CUSTOM POOL PLAN

| | |
|----------|-----------|
| DESIGNED | SB |
| DRAWN | MS |
| CHECKED | SB |
| JOB. NO. | BHPS2016 |
| SCALE | AS NOTED |
| DATE | 9/17/2020 |
| DWG. NO. | |

S101
SHEET NO. 1 OF 1 SHEET(S) REV. 0

CERTIFICATION OF COMPLIANCE

Contains: **WG1048E** or **WG1048EW** Description: 8" Round Suction Outlet Cover
 Ratings: Floor: 125 GPM Wall: 72 GPM Open Area: 8.1 sq-in
 Certified to Comply with Section 1404 of the Virginia Graeme Baker Act (VGB) Pool & Spa Safety Act
 Test Results can be obtained from: www.Haywardnet.com and/or <http://www.nsf.org/Certified/Pool/>

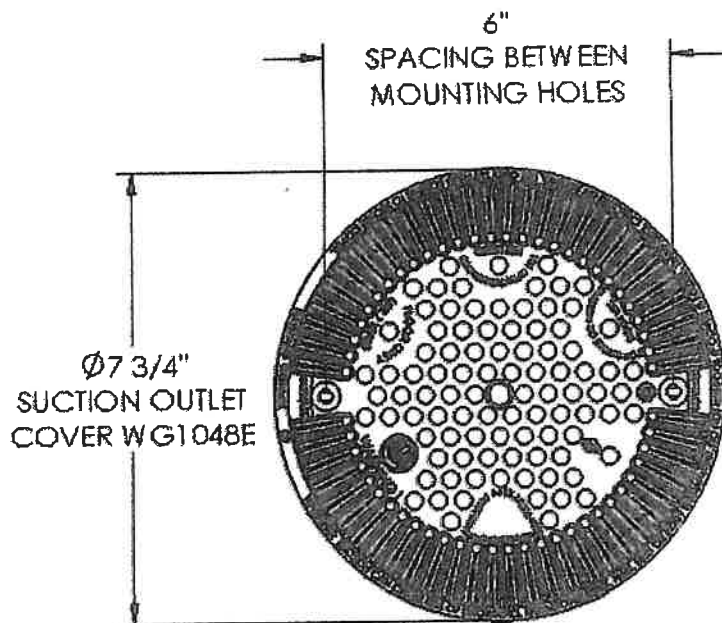
Manufactured: After December 20, 2008, by Hayward Pool Products in Jiangsu Province, China and Clemmons, NC Divisions of Hayward Industries, Inc. 620 Division Street, Elizabeth, NJ 07207, Phone 908-355-7995

Date of Mfr: The Lot Number shown on the product label contains the Year & Month of manufacture. The first number represents the year (ex 8 = 2008) and the second character the month (A=Jan, B=Feb, H=Aug, I is skipped, J=Sep, etc)

Tested to ANSI/ASME 112.19.8-2007 (addendum 8a-2008) per Section 1404 of the Virginia Graeme Baker Act (VGB) Pool & Spa Safety Act. Certified by NSF International, 789 N. Dixboro, Road, Ann Arbor, MI. 48105 1(800)-NSF-MARK.

Date of Installation: _____

ISWG1048COC Rev B



USED ON FOLLOWING SERIES:

- | | |
|---------------------|---------------------|
| WG1030AVPAK2 | SP1030AVPAK2 |
| WG1048AVPAK2 | SP1048AVPAK2 |
| WG1049AVPAK2 | SP1049AVPAK2 |
| WG1051AVPAK2 | SP1051AVPAK2 |
| WG1052AVPAK2 | SP1052AVPAK2 |
| WG1053AVPAK2 | SP1053AVPAK2 |
| WG1054AVPAK2 | SP1054AVPAK2 |
| WG1153AVPAK2 | SP1153AVPAK2 |
| WG1154AVPAK2 | SP1154AVPAK2 |

HAYWARD®

Underwater ColorLogic™ LED Lighting Fixtures

FOR SWIMMING POOLS AND SPAS

OWNER'S GUIDE

INSTALLATION AND
OPERATING INSTRU-
CTIONS

GENERAL INFORMATION

MANUEL DE L'UTILISATEUR

INSTRUCTIONS
D'INSTALLATION
ET DE FONCTIONNEMENT

INFORMATIONS GÉNÉRALES

GUÍA DEL USUARIO

INSTRUCCIONES DE
INSTALACIONY
OPERACIÓN

INFORMACIÓN GENERAL

SP0524(S) SP0532(S)
SP0525(S) SP0533(S)
SP0527(S) SP0535(S)

The Hayward® ColorLogic™ LED (light-emitting diode) underwater lighting fixture you have purchased is designed to mount into Hayward fixture housings (niches) manufactured 1993 and later. Hayward light fixtures may fit into other niches, but the installation will not carry a UL approval.

Hayward SP0524, SP0525, and SP0527 Series ColorLogic LED pool lights are UL listed under file number E39338 and, to be approved, must be used with Hayward models SP0600, SP0607, SP0604C, or SP0609C fixture housings (niches). Hayward SP0532, SP0533 and SP0535 Series ColorLogic LED spa lights are UL listed under file number E39338 and, to be approved, must be used with Hayward models SP0601, SP0608, SP0606C, or SP0610C fixture housings (niches). Installation of light and niche must be in accordance with Article 680 of the National Electric Code (NEC) and any applicable local codes. If non-metallic conduit is used, a #8 AWG grounding conductor must be run through the conduit and connected to the grounding connector on the inside of the niche. This connection must be encapsulated using a listed potting compound in accordance with NEC Article 680-20, such as 3M Scotch Cast Wet Niche Potting Compound No. 2135 (UL file E130394) or equivalent. The integral external connection on the niche should be connected to a #8 AWG bonding conductor also required by the NEC. Please refer to your niche instructions for details.

Except when the fixture is installed in an area of the swimming pool or spa that is not used for swimming and the lens is adequately guarded to keep any person from contacting it, the fixture must be installed in or on a wall of the pool or spa, with the top of the lens not less than 18 inches (46 cm) below the normal water level of the pool or spa.

Important Note When Installing Niches in Concrete/Gunité Pools

SP0600, SP0601 and SP0608 Niches: A cardboard cover and 2 screws are provided with the niche to protect the niche and mounting screw holes. Leave these in place during construction to prevent intrusion of concrete which may damage the niche or screw threads. REMOVE and discard both the screws and the protective cardboard cover when ready to install the light fixture.

SP0604C, SP0606C, SP0609C, and SP0610C Niches: A plastic cover is provided with the niche to protect the niche and mounting screw holes. Leave the cover in place during construction to prevent intrusion of concrete which may damage the niche or screw threads. Before applying plaster, the outer edge of the cover may be torn off to allow plastering up to the edge of the niche. REMOVE and discard the plastic cover when ready to install the light fixture. If the light fixture is installed in the niche before pool or spa construction, the plastic cover may be reversed and taped to the edge of the light's face plate to protect the light from concrete during construction.

GIVE THESE INSTRUCTIONS TO POOL/SPA OWNER AFTER INSTALLATION

Le projecteur ColorLogic à diode électroluminescente de Hayward que vous avez acheté est conçu pour être installé dans les enfoncements Hayward manufacturés après 1993. Les projecteurs Hayward peuvent être compatibles avec d'autres enfoncements, mais l'installation ne bénéficiera pas de l'homologation UL.

Les séries SP0524, SP0525 et SP0527 de projecteurs ColorLogic de Hayward pour piscines figurent sur la liste UL sous le numéro E39338 et, pour être approuvés, ils doivent être utilisés avec les modèles d'enfoncements Hayward SP0600, SP0607, SP0604C ou SP0609C. Les séries SP0532, SP0533 et SP0535 de projecteurs ColorLogic de Hayward pour spas figurent sur la liste UL sous le numéro E39338 et, pour être approuvés, ils doivent être utilisés avec les modèles d'enfoncements Hayward SP0601, SP0608, SP0606C ou SP0610C. L'installation du projecteur et de l'enfoncement doit être conforme à l'article 680 du National Electric Code - NEC (code national en électricité) et de tout autre code local en vigueur. Si vous utilisez un cordon conducteur non métallique, vous devez passer un conducteur de mise à la terre de taille 8 (calibre de fils américain) dans le cordon conducteur et le brancher au connecteur de mise à la terre à l'intérieur de l'enfoncement. Ce branchement doit être recouvert d'une pâte de remplissage conformément à l'article 680-20 du NEC, notamment la pâte de remplissage 3M Scotch Cast pour enfoncement submergé no 2135 (no dossier UL E130394) ou équivalent. Le connecteur externe intégral de l'enfoncement devrait être branché à un connecteur de raccordement de taille 8 (calibre de fils américain), également exigé par le NEC. Veuillez vous référer aux instructions de l'enfoncement pour de plus amples renseignements.

Le projecteur doit être installé dans ou sur un mur de la piscine ou du spa, de façon à ce que le haut de la lentille soit au moins 18 pouces (46 cm) sous la surface normale de l'eau, sauf si le projecteur est installé dans une zone qui n'est pas utilisée pour la baignade et que la lentille est adéquatement protégée afin d'éviter tout contact avec celle-ci.

Remarque importante concernant l'installation des enfoncements dans les piscines en béton/gunité

Enfoncements SP0600, SP0608 et SP0601 : 2 vis et un couvercle en carton sont fournis avec l'enfoncement pour le protéger ainsi que les trous d'installation. Veuillez les laisser en place tout au long de l'installation afin d'éviter que le ciment ne s'infilte et n'endommage l'enfoncement ou le filetage des vis. ENLEVEZ et jetez les 2 vis et le couvercle en carton pour installer le projecteur.

Enfoncements SP0604C, SP0606C, SP0609C et SP0610C : un couvercle de plastique est fourni avec l'enfoncement afin de le protéger ainsi que les trous d'installation. Veuillez laisser le couvercle en place tout au long de l'installation afin d'éviter que le ciment ne s'infilte et n'endommage l'enfoncement ou le filetage des vis. Avant d'appliquer le plâtre, vous pouvez déchirer le rebord externe du couvercle afin de pouvoir plâtrer le contour de l'enfoncement. ENLEVEZ et jetez le couvercle de plastique pour installer le projecteur. Si le projecteur est installé dans l'enfoncement avant la construction de la piscine ou du spa, le couvercle de plastique peut être inversé et fixé avec du ruban adhésif au rebord du projecteur afin de le protéger du béton durant la construction.

REMETTEZ LES PRÉSENTES INSTRUCTIONS AU PROPRIÉTAIRE DE LA PISCINE OU DU SPA APRÈS L'INSTALLATION

La lámpara de subacuática de LED (diodo emisor de luz) ColorLogic de Hayward que ha adquirido está diseñada para instalarse en huecos (nichos) para lámparas Hayward fabricados a partir de 1993. Es posible que las lámparas Hayward se adapten a otros nichos, pero la instalación carecerá de la aprobación UL.

Las lámparas ColorLogic de LED Hayward de las series SP0524, SP0525 y SP0527 para piscinas están aprobadas por UL bajo el registro número E39338 y, para contar con la aprobación, deben utilizarse en los nichos para lámparas modelos SP0600, SP0607, SP0604C o SP0609C de Hayward. Las lámparas para jacuzzi de LED ColorLogic de Hayward, de las series SP0532, SP0533 y SP0535, están aprobadas por UL bajo el registro número E39338 y, para contar con la aprobación, deben utilizarse con nichos para lámparas modelos SP0601, SP0608, SP0606C o SP0610C de Hayward. La instalación de la lámpara y el nicho debe efectuarse de conformidad con el Artículo 680 del Código Nacional de Electricidad (NEC, siglas en Inglés) y todo código local pertinente. Si se utilizan conductos no metálicos, se debe tender un cable a tierra calibre 8 AWG a través del conducto y fijarlo al conector a tierra del interior del nicho. De conformidad con el Artículo 680-20 de NEC, esta conexión debe encapsularse con un compuesto aprobado, por ejemplo el Scotch Cast Wet Niche Potting Compound No. 2135 de 3M (registro E130394 de UL), o uno equivalente. La NEC exige, además, que la totalidad de la conexión externa del nicho se haga a un cable calibre 8 AWG para metalización. Consulte las instrucciones del nicho para obtener información detallada.

La lámpara debe empotrarse en la pared de una piscina o jacuzzi, o colocarse sobre la ella, y la parte superior del lente no debe estar a menos de 18 pulgadas (46 cm) por debajo del nivel normal del agua, excepto si la lámpara se instala en una zona de la piscina o jacuzzi que no se utiliza para nadar y el lente se protege de forma adecuada para evitar que alguna persona lo toque.

Nota importante sobre la instalación de nichos en piscinas de concreto o gunita

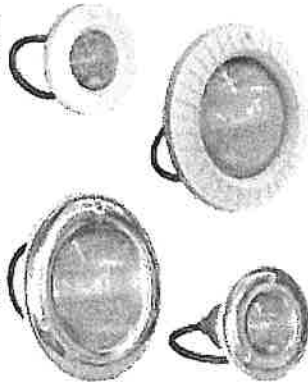
Nichos SP0600, SP0608 y SP0601: con el nicho se suministran 2 tornillos y una cubierta de cartón para proteger el nicho y los orificios de los tornillos de montaje. Durante la construcción, déjelos en su sitio para evitar que el concreto penetre y dañe el nicho o las roscas para los tornillos. RETIRE y desheche tanto los tornillos como la cubierta protectora de cartón cuando esté listo para instalar la lámpara.

Para los nichos SP0604C, SP0606C, SP0609C y SP0610C: El nicho se suministra con una cubierta plástica protectora y orificios para los tornillos de montaje. Durante la construcción, mantenga la cubierta en su sitio para evitar que el concreto penetre y dañe el nicho o las roscas para los tornillos. Antes de aplicar el yeso, se puede desprender el borde exterior de la cubierta para esparcir el yeso hasta el borde del nicho. RETIRE y desheche la cubierta plástica cuando esté listo para instalar la lámpara. Si la lámpara se instala en el nicho antes de construir la piscina o el jacuzzi, puede usar la cubierta plástica por el reverso y pegarla con cinta en el borde del lado anterior de la lámpara para protegerla del concreto durante la construcción.

ENTREGAR ESTAS INSTRUCCIONES AL PROPIETARIO DE LA PISCINA O JACUZZI DESPUÉS DE LA INSTALACIÓN



FILE E39338



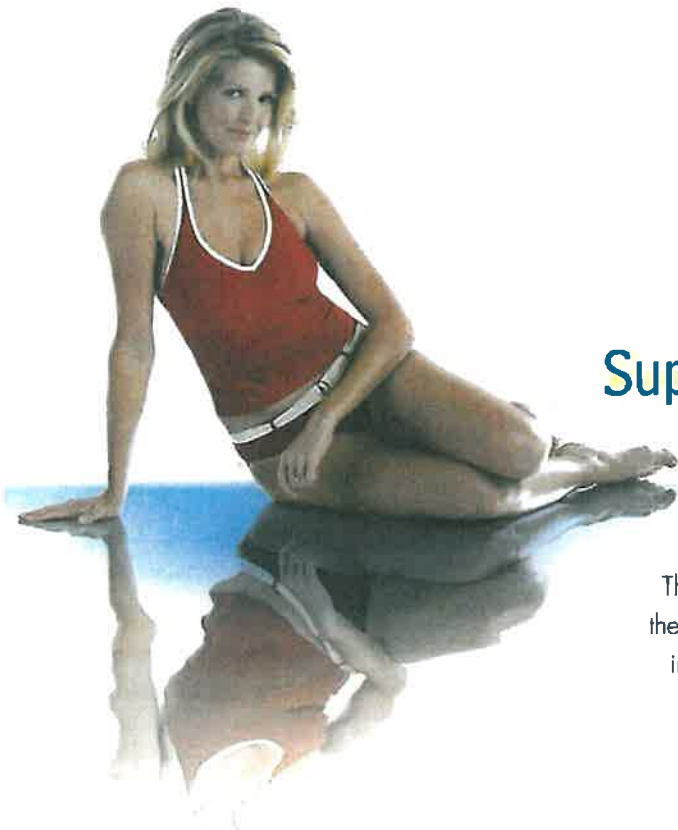
092153A



**Superior performance.
Superior energy efficiency.
Superior value.**

The TriStar Pump's advanced hydraulic design optimizes the three essential pump elements to deliver superior flow, impressive energy efficiency and value. The heavy-duty pump and motor run cooler for years of dependability.

The first to feature a Tri-Lock cam and ramp strainer cover that closes with less than a quarter turn, TriStar also sports a super-sized, smooth, no-rib basket with extra leaf-holding capacity that's a snap to clean. With a variety of bases, TriStar seamlessly retrofits to existing filtration systems.



Pumps

Filters

Heaters

Heat Pumps

Cleaners

Lighting

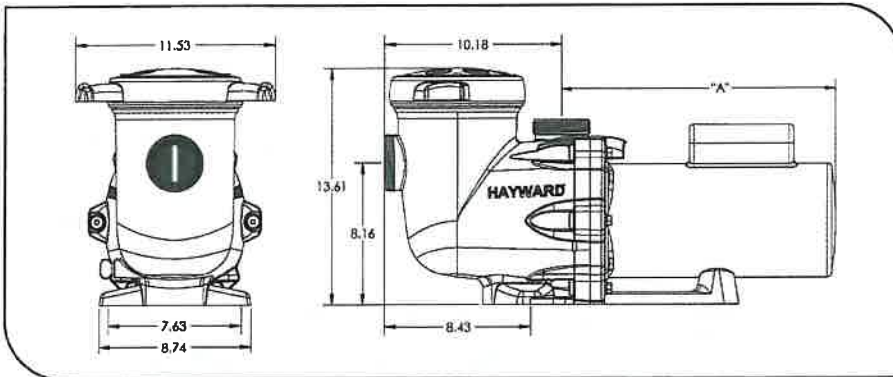
Controls

Electronic Chlorine
Generators

Total System

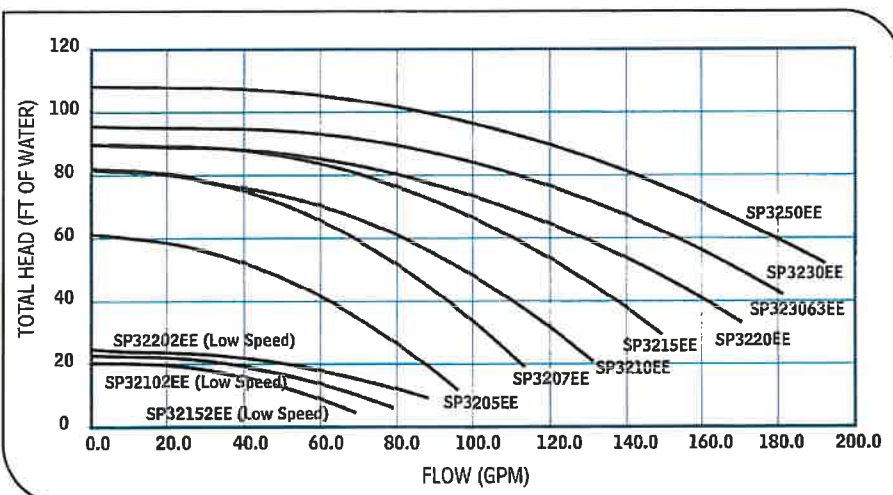
TriStar Pump

Technology incorporated into TriStar creates a new benchmark in residential pool pumps and its higher flow rates can allow for stepping down in pump horsepower. Overall, TriStar features the most energy efficient hydraulics, an innovative motor cooling design for longer motor life, and is the simplest pump to install, retrofit and service.



| ENERGY EFFICIENT MODELS | TOTAL HP | FULL RATE HP | SERVICE FACTOR | VOLTS | PIPE SIZE Inches | DIMENSION "A" Inches |
|-------------------------|----------|--------------|----------------|-------------|------------------|----------------------|
| SP3205EE | .99 | 1/2 | 1.98 | 115/208/230 | 2" / 2-1/2" | 13-5/8" |
| SP3207EE | 1.39 | 3/4 | 1.85 | 115/208/230 | 2" / 2-1/2" | 13-7/8" |
| SP3210EE | 1.85 | 1 | 1.85 | 115/208/230 | 2" / 2-1/2" | 14-3/8" |
| SP3215EE | 2.40 | 1-1/2 | 1.60 | 115/208/230 | 2" / 2-1/2" | 14-7/8" |
| SP3220EE | 2.70 | 2 | 1.35 | 208/230 | 2" / 2-1/2" | 14-7/8" |
| SP322063EEV* | 2.70 | 2 | 1.35 | 208/230 | 2" / 2-1/2" | 13-1/2" |
| SP3230EE | 3.60 | 3 | 1.20 | 208/230 | 2" / 2-1/2" | 17-1/8" |
| SP320363EE* | 3.60 | 3 | 1.20 | 208/230/460 | 2" / 2-1/2" | 17-1/8" |
| SP3250EE | 5.0 | 5 | 1.00 | 208/230 | 2" / 2-1/2" | 17-1/8" |
| DUAL SPEED MODELS | BRAKE HP | FULL RATE HP | PEAK KW | VOLTS | PIPE SIZE Inches | DIMENSION "A" Inches |
| SP32102EE | 1.85 | 1 | 1.85 | 208/230 | 2" / 2-1/2" | 14-3/8" |
| SP32152EE | 2.40 | 1-1/2 | 1.60 | 208/230 | 2" / 2-1/2" | 14-7/8" |
| SP32202EE | 2.70 | 2 | 1.35 | 208/230 | 2" / 2-1/2" | 14-7/8" |

*Three Phase



Features

- Advanced hydraulic design delivers superior flow, energy efficiency and value.
- Heavy-duty, high performance motor with dynamic air-flow for quieter, cooler operation and longer motor life.
- Heat resistant, industrial size ceramic seal.
- Balanced, high head impeller provides high-flow to accommodate the most demanding installations, such as pool/spa and in-floor cleaning systems. Impeller/diffuser system with anti-rotational brass insert/lock screw configuration prevents impeller spin-off.
- Extra leaf-holding capacity basket extends time between cleanings. Exclusive no-rib design insures easy debris removal.
- Tri-Lock cam and ramp strainer cover design seals with less than a quarter turn.
- Crystal clear strainer cover lets you see when the basket needs cleaning. Can test to 50 PSI maximum
- Components molded of corrosion-proof PermaGlass™ XL for extra durability and long life.
- Motor power-end assembly can be removed without disturbing plumbing or mounting connections, simply by removing six bolts.
- Variety of bases available for easy retrofit.



Hayward is a registered trademark and TriStar and PermaGlass™ XL are trademarks of H-Tech, Inc. © 2008 Hayward Industries, Inc.

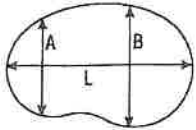
www.haywardnet.com
1-888-HAYWARD

HAYWARD Pool Products
One source. Every pool.

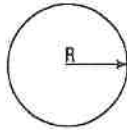
Selecting the correct size H-Series heater:

For Your Swimming Pool

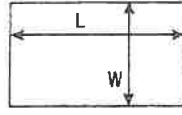
Determine your pool's surface area in square feet:



$$\text{Area} = (A+B) \times L \times .45$$



$$\text{Area} = R \times R \times 3.14$$



$$\text{Area} = L \times W$$

| MODEL | SURFACE AREA |
|-------|--------------|
| H400 | 1,200 |
| H350 | 1,050 |
| H300 | 900 |
| H250 | 750 |
| H200 | 600 |
| H150 | 450 |

In this table, locate the surface area that is equal to or just greater than the pool's surface area. To the left of this number is the appropriate H-Series model that will fit the selected area.

For indoor pool installations, divide the pool's surface area by 3.

Table is based on a 30°F temperature rise, 3½ mph average wind velocity and elevation of up to 2,000 feet above sea level.

Specifications and Dimensions

Universal H-Series Heater

| | H400FD | H350FD | H300FD | H250FD | H200FD | H150FD |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| BTU/Hr | 400,000 | 350,000 | 300,000 | 250,000 | 200,000 | 150,000 |
| Width (Inches) | 38" | 33" | 30" | 28" | 25" | 21" |
| Depth (Inches) | 29½" | 29½" | 29½" | 29½" | 29½" | 29½" |
| Height (Inches) | 24" | 24" | 24" | 24" | 24" | 24" |
| Water Connections | 2" x 2½" | 2" x 2½" | 2" x 2½" | 2" x 2½" | 2" x 2½" | 2" x 2½" |
| Heat Exchanger | Cupro Nickel | Cupro Nickel | Cupro Nickel | Cupro Nickel | Cupro Nickel | Cupro Nickel |
| Indoor Vent Pipe Diameter (Inches) | 8" | 8" | 8" | 6" | 6" | 6" |
| Heater Weight (lbs.) | 160 | 158 | 145 | 134 | 123 | 110 |
| Gas Connection at Heater | ¾" | ¾" | ¾" | ¾" | ¾" | ¾" |

For Your Spa or Hot Tub

Determine your spa capacity in gallons (surface area x average depth x 7½).

The reference table lists the time required in minutes to raise the temperature of the spa/hot tub by 30°F. In the table below, locate the column with the spa/hot tub size in gallons that is closest to yours. Select the desired time to raise the spa/hot tub temperature 30°F, read to the left and select the appropriate H-Series model.

This guide can be adjusted for other temperature rises. For example, if you desire a 15°F increase in temperature, simply divide the time for 30°F rise by the ratio of 30/15, or 2.

Note: Heat lost and/or heat absorbed by spa walls or other objects will add to the time it takes the spa to heat up.

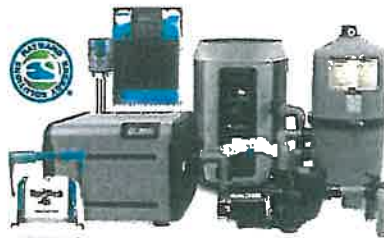
Spa sizing is based on an insulated and covered spa. Always cover your spa or hot tub when not in use to minimize heat loss and evaporation.

| MODEL | SPA/TUB SIZE IN GALLONS | | | | | | | | |
|-------|---|-----|-----|-----|-----|-----|-----|-----|-------|
| | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1,000 |
| | Time in Minutes to Raise Spa/Tub Temperature 30°F | | | | | | | | |
| H400 | 9 | 14 | 19 | 23 | 28 | 33 | 37 | 42 | 47 |
| H350 | 11 | 16 | 21 | 27 | 32 | 37 | 43 | 48 | 54 |
| H300 | 12 | 19 | 25 | 31 | 37 | 44 | 50 | 56 | 62 |
| H250 | 15 | 22 | 30 | 37 | 45 | 52 | 60 | 67 | 75 |
| H200 | 19 | 28 | 37 | 47 | 56 | 66 | 75 | 84 | 94 |
| H150 | 25 | 37 | 50 | 62 | 75 | 87 | 100 | 112 | 125 |

Millivolt Heaters

| | H250 | H200 | H150 |
|------------------------------------|--------------|--------------|--------------|
| BTU/Hr | 250,000 | 200,000 | 150,000 |
| Width (Inches) | 27" | 24½" | 21½" |
| Depth (Inches) | 27½" | 27½" | 27½" |
| Height (Inches) | 28½" | 28½" | 28½" |
| Water Connections | 1½" x 2" | 1½" x 2" | 1½" x 2" |
| Heat Exchanger | Cupro Nickel | Cupro Nickel | Cupro Nickel |
| Indoor Vent Pipe Diameter (Inches) | 7" | 7" | 6" |
| HWS Stack Height (Inches) | 17¼" | 15¼" | 14" |
| Heater Weight (lbs.) | 144 | 141 | 131 |
| Gas Connection at Heater | ¾" | ¾" | ¾" |

H-Series heaters are available in a comprehensive range of BTU sizes for natural or propane gas. All units are certified by the Canadian Standards Association and carry Hayward's exclusive warranty.



Efficiency. Performance. Innovation.

Whether you want to extend your swimming season or swim year-round, Universal H-Series gives you comfort with efficiency. It's the perfect addition to your Totally Hayward® System.

To take a closer look at Hayward Heaters, go to www.haywardnet.com or call 1-888-HAYWARD



620 Division Street | Elizabeth, NJ 07201





SwimClear™

QUAD-CLUSTER CARTRIDGE FILTERS

High performance.
Operational convenience.

Hayward SwimClear reaches new horizons in cartridge filter technology. Industry leading hydraulic performance with maximum flow through all cartridge elements via a top manifold configuration ensures superior water clarity, extended time between maintenance and maximum energy savings. A cluster of four reusable polyester cartridge elements provides a choice of 225, 325, 425, 525 and now 700 square feet of heavy-duty, dirt-holding capacity and extra-long filter cycles. SwimClear filter tanks are made from a reinforced co-polymer material for the ultimate in strength, durability and long life – even for the toughest applications and environmental conditions. Discover the crystal clear results and reliable performance of SwimClear by Hayward – the first choice of pool professionals.

FILTERS



Total System: Pumps | Filters | Heating | Cleaners | Sanitization | Automation | Lighting | Safety | White Goods

Manual Air Relief

is a high capacity, rapid release manual air relief valve that bleeds air with a quick quarter turn of the lever.

Top Manifold

provides industry's best energy saving hydraulic performance and utilizes the entire cartridge surface area to maximize time between cleaning

Heavy-Duty, Tamper-Proof, One-Piece Clamp

securely fastens tank top and bottom together and allows quick access to all internal components without disturbing piping or connections.

High-Strength Filter Tank

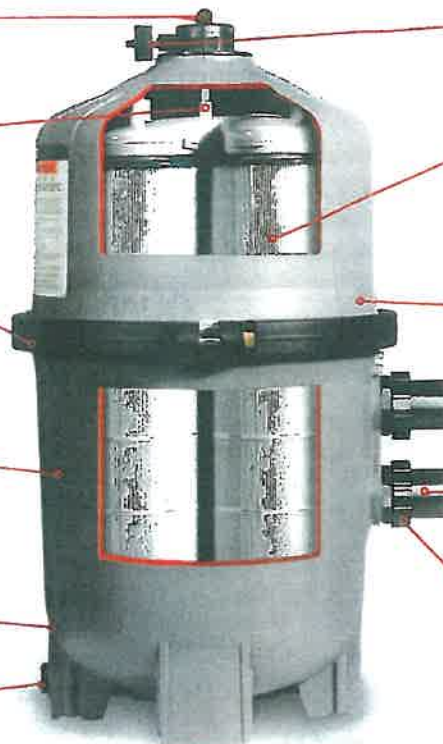
is made from durable, glass reinforced co-polymer to meet the demands of the toughest applications and environmental conditions, including in-floor cleaning systems.

Uniform Low-Profile Tank Base Design

makes removal of cartridge elements fast and simple.

Full-Size 1½" Integral Drain

provides fast clean-out and flushing.



Combination Pressure and Cleaning-Cycle-Indicator Gauge

gives visual indication when cartridge filter elements need cleaning.

Quad-Cluster Cartridge Elements

provide 225, 325, 425, 525 or industry's largest 700 ft² of filter area and extra dirt-holding capacity for long filter cycles. Precision-engineered core provides extra strength and superior flow.

Self-Aligned Tank Top and Bottom

make access to servicing Quad-Cluster cartridge elements quick and easy.

CPVC Union Coupling Connection

provides plumbing options of 2" or 2½" plumbing with 2" full flow internal plumbing for maximum hydraulic performance.

Noryl® Bulkhead Fittings

for extra strength and heat resistance.

SPECIFICATIONS – SWIMCLEAR QUAD-CLUSTER CARTRIDGE FILTERS

| | |
|--------------------------|--|
| FILTER TYPE | Quad-Cluster cartridge elements: 225, 325, 425, 525 and 700 ft ² total (20.9, 30.2, 39.5, 48.8 and 65.0 m ²) |
| FILTER TANK | Injection-molded, glass reinforced co-polymer |
| FILTER ELEMENTS | Reinforced Polyester |
| PERFORMANCE RANGE | ½ to 3 HP (30 to 150 GPM) .37 to 2.24 kW (114 to 568 LPM) |
| DIMENSIONS | C2030 – 23" W x 32 ½" H (58 cm x 81 cm) |
| | C3030 – 23" W x 34 ½" H (58 cm x 87 cm) |
| | C4030 – 23" W x 40 ½" H (58 cm x 102 cm) |
| | C5030 – 23" W x 46 ½" H (58 cm x 117 cm) |
| | C7030 – 23" W x 52 ½" H (58 cm x 134 cm) |



CPVC Union Connections

PERFORMANCE DATA

| MODEL NUMBER | EFFECTIVE FILTRATION AREA | | DESIGN FLOW RATE | | TURNOVER | | | |
|--------------|---------------------------|----------------|------------------|-----|----------|---------|------------|---------|
| | ft. ² | m ² | GPM | LPM | GALLONS | | KILOLITERS | |
| | | | | | 8 hrs. | 10 hrs. | 8 hrs. | 10 hrs. |
| C2030 | 225 | 20.9 | 84* | 318 | 40,320 | 50,400 | 153 | 191 |
| C3030 | 325 | 30.2 | 122* | 462 | 58,560 | 73,200 | 222 | 277 |
| C4030 | 425 | 39.5 | 150** | 568 | 72,000 | 90,000 | 273 | 341 |
| C5030 | 525 | 48.8 | 150** | 568 | 72,000 | 90,000 | 273 | 341 |
| C7030 | 700 | 65.0 | 150** | 568 | 72,000 | 90,000 | 273 | 341 |

*Based on NSF recommended rate for commercial use at .375 GPM/ft.²

**Determined by pump size and piping system hydraulics; 2" piping is recommended for flow rates equal to or greater than 90 GPM (341 LPM). Hayward doesn't recommend flow rates above 150 GPM.

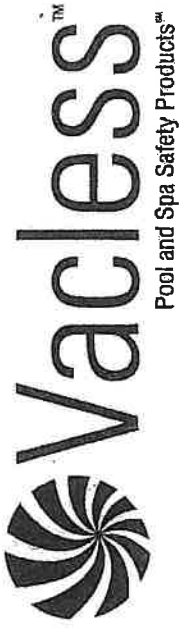


Pressure and Cleaning Gauge



To take a closer look at Hayward Filters or other Hayward Products, go to www.hayward.com or call 1-888-HAYWARD

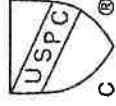




INSTALLATION & OPERATION GUIDE
SAFETY VACUUM RELEASE SYSTEM
(SVRS)

BY
VAGLESS SYSTEMS
Sylmar, CA 91342

Model: Breather I-ADJ



ASME A112.19.17 Certified
Meets SVRS Requirements of Virginia Graeme Baker Act

INSTALLATION & OPERATION GUIDE SAFETY VACUUM RELEASE SYSTEM

WARRANTY INFORMATION & WARRANTY CARD

1. PARTS LIST (See Figure 1)

Breather I-ADJ Parts List
 P/N SVRS-10ADJ or P/N SVRS-T1ADJ



| Item # | Name | P/N | Qty | Picture |
|--------|--------------------|--|-----|---|
| 1 | SVRS Valve - Auto | VAL-10 ADJ (for center port) Or VAL-11 ADJ (for offset port) | 1 |  |
| 2 | Installation Elbow | FI-10 | 1 |  |
| 3 | User Manual | MAN-10 ADJ | 1 | N/A |

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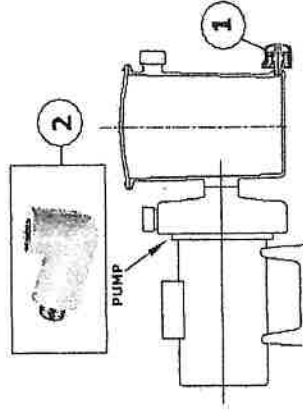


Figure 1. Breather I-ADJ System Schematic



Figure 2. Vertical or angled installation

2. INTRODUCTION

- 2.1 Breather I-ADJ serves three main purposes: Besides its intended function as an added layer of protection against entrapment that could lead to serious injury including drowning and death, it also functions as a winterizing device and a surge suppressor.
 - 2.2 The valve is to be attached to swimming pool, wading pool, spa and hot tub pumps ranging between 0.5HP and 10HP; in place of any suction side Drain Plug.
 - 2.3 Upon entrapment, the valve will open, allowing ambient air to rapidly fill the pump suction side and cause the pump to lose its suction ability to ease the removal of the entrapment. The valve seal will automatically return to the closed (priming) position.
 - 2.4 The winterization function is achieved by simply removing the valve (item # 1) until all water in the pump is fully drained.
 - 2.5 The surge suppressor function is achieved by venting off startup vacuum rises while the seal is momentarily depressed. At this rate, the valve protects the pump filtration equipment against water hammers, shocks and vibrations during pump start-ups leading to reduced maintenance costs, less down time and longer equipment life.
- BREATHER I-ADJ SHALL NOT BE EMPLOYED TO GUARD AGAINST EVISCERATION OR HAIR SNARE**
- 2.6 Breather I-ADJ is factory set for normal pool suction variations 5 to 23" Hg included in suction lift or submerged pump applications. Abnormal conditions may require site adjustment per paragraphs 5.3.
 - 2.7 Breather I-ADJ shall only be installed in conjunction with an ASME A112.19.8 suction fitting, or a 12 in X 12 in (305 mm X 305 mm) drain grate or larger, or an approved channel drain system at each suction outlet or drain outlet.
 - 2.8 Check valves and hydrostatic valves shall not be used in suction systems protected by SVRS devices.

WARNING: THE PRESENCE OF A HYDROSTATIC VALVE IN THE SUCTION PIPING HAS BEEN SHOWN TO PROLONG THE HIGH VACUUM PRESENT AT THE DRAIN, EVEN THOUGH THE DRAIN WAS PROTECTED BY AN SVRS DEVICE.

- 2.9 One SVRS valve shall be installed for each circulating pump plumbed directly to the suction outlet(s) without the use of valves that could isolate the SVRS device from the suction system.

3. MATERIALS AND TOOLS YOU NEED

None required

4. INSTALLATION

- 4.1 Perform normal maintenance of the filtration system.
- 4.2 While the pump is turned "on", remove a suction side drain (winterization) plug.
- 4.3 Quickly hand-tighten the valve (item # 1) onto the pump in place of the removed plug. One or two of the provided fittings (item # 2) may be used to facilitate the valve installation. Teflon tape may be used for enhanced seal.

Note 1: Do not over tighten the valve.

Note 2: Vertical or angled installation using the 90° elbow is recommended. (See Figure 2)

5. OPERATION

- 5.1 The pump will continue to operate normally while the valve is venting off startup vacuum surges to protect the pump and the filtration equipment against water hammers and shocks.
- 5.2 Observe the vacuum gauge reading. The vacuum gauge should show a steady reading of anywhere from 8-18 in. Hg for suction lift piping and 3-10 in Hg for submerged suction piping. Actually, the readings are not as important as a steady needle. Erratic (unstable) pointer usually means excessive air induction into the pump.
- 5.3 Correct for the erratic readings as follows: (See Figure 3)
 - Remove the bolts (item # 1)
 - While holding the Adapter Plate (item # 3), rotate the valve Cap (item # 2) clockwise or counter clockwise until the Vacuum Gauge needle becomes steady.
 - a. Clockwise rotation increases gauge reading and corrects for air leakage during pump normal operation.
 - b. Counter clockwise rotation decreases gauge reading and corrects for failed entrapment tests.
 - Using the Bolts (item #1) lock the valve in the position achieved above. Do not over tighten the bolts.
- 5.4 Upon entrapment, the valve will open, allowing ambient air to rapidly fill the pump suction side and cause the pump to lose its suction ability to ease the removal of the entrapment. The valve seal will automatically return to the closed (priming) position.

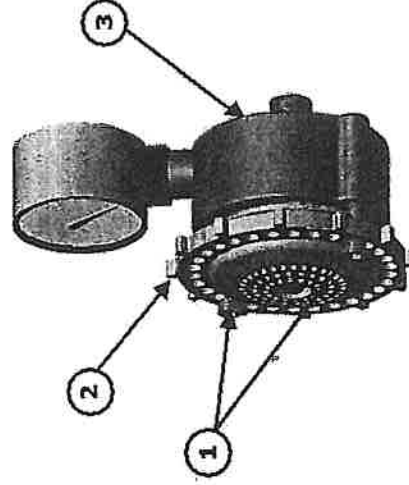


Figure 3. Adjustability for Air leakage

- 5.5 For winterization where freezing conditions occur, remove the SVRS valve until all the water is drained from the pump casings.

6. SYSTEM VALIDATION & TEST

- 6.1 Leave the main suction inlet open and plug all other inlet ports to the pump including skimmers.
- 6.2 Simulate entrapment by completely plugging off the open suction inlet using a ball, butterfly or a sliding gate valve installed within 2 feet upstream from the pump. You can also simulate entrapment by completely plugging off the open suction outlet / inlet using a 10"x10" rubber mat attached to a long pole or equivalent (See Figure 4). If a mat is used, pull & slice the mat off.



Figure 4. Test Mat

- 6.3 The valve seal (piston) should activate allowing the pump to lose its suction ability or the mat (entrapment) to be freed. The valve seal will automatically return to the closed (priming) position.
- 6.4 The entrapment should be freed. The pump will then resume normal operation after the test.
- 6.5 Repeat above test three times
- 6.6 This system must be tested at least once every month to insure vacuum safe operation of the pump.

7. TROUBLE SHOOTING

| Problem | Possible Cause | Solution |
|---|---|---|
| Valve leaks air | Defective O-Ring | Replace the defective O-Ring |
| Valve closed to operate | Defective Springs | Replace Springs |
| Valve does not respond to vacuum variations | Valve is installed in the pressure side of the pump | Reinstall the valve in the suction side of the pump |
| Seal locks in the open position prematurely | Insufficient spring compression | Increase spring compression per paragraph 5.2.a |
| Presence of Air bubbles during operation | Low spring compression | Increase spring compression per paragraph 5.2.a |
| Unusable gauge readings | Intrinsically air induction into this pump | Increase spring compression per paragraph 5.3.a |
| Valve does not open upon entrapment | Excessive spring compression | Decrease spring compression per paragraph 5.3.b |

8. THREE YEAR LIMITED WARRANTY

- 8.1 Vacless Systems, Inc. (hereafter referred to as "VSI") hereby warrants, to the original purchaser, that all its SVRS products are free from defects in material and workmanship under normal use for a period of three (3) years from the date of original purchase, as registered with VSI through our website submission or by the return of the enclosed Warranty Registration Card. A two (2) year extended warranty is available through our website registration for an additional cost within 90 days from the date of original purchase.
- 8.2 If the product is determined to be defective during the warranty period, and upon proof of purchase, the Vacless SVRS unit will be repaired or replaced with the same or similar unit or the purchase price of the unit will be refunded such refund shall be solely at the discretion of VSI. This is the sole and exclusive remedy for the consumer under a claim of defect in materials or workmanship. VSI will not be responsible for any shipping charges or installation labor associated with any of the warranty claims.

LIMITATION ON WARRANTY:

- 8.3 This warranty does not apply to corrosion, wear and tear from normal use, misuse, abuse damage as a result of improper installation as determined by VSI's authorized service and repair personnel, or damage caused by environmental factors, electrical surges, or operation of the units in a manner not consistent with its intended use or as authorized in the VSI's User Guide supplied at the time of the product purchase or that have been repaired or altered other than by an authorized VSI repair facility. Except where prohibited by law, in no event shall VSI be liable for any loss or damage arising from the SVRS product, whether direct, indirect, special, punitive, incidental or consequential whether based upon warranty, contract, negligence or strict liability or any other legal theory. Some states and countries do not allow the exclusion of incidental or consequential damages. This warranty gives you specific legal rights and you may have other rights that vary from state to state or country to country. VSI neither assumes nor authorizes any authorized distributor or dealer or any other person or entity to assume for it any other obligation beyond which is expressly provided for in this limited warranty including, without limitation, the provider or seller of any extended warranty or service agreement.
- 8.4 By purchasing this product, you agree that any action to enforce any provision of this limited warranty shall be filed in the Los Angeles Superior Court (general or limited jurisdiction) and shall be governed by the laws of the State of California. The prevailing party in any action or proceeding arising out of or to enforce any provision of this warranty shall be awarded reasonable attorneys' fees and costs.
- 8.5 To obtain service or a replacement unit, contact your Vacless Systems, Inc. authorized distributor or call Vacless Systems, Inc. directly at: (818) 899-1700.

Website registration and extended warranty purchase is available at www.vacless.com or fill out and mail the registration form on the next page.