**Bureau of Environmental Health**

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

[www.hchealth.org](http://www.hchealth.org)Facebook: [www.facebook.com/hocohealth](https://www.facebook.com/hocohealth)

Maura J. Rossman, M.D., Health Officer

RECEIPT DATE: 8-16-21 **ONSITE SEWAGE DISPOSAL SYSTEM**P 570108APPROVAL DATE: 09/21/2021 **PERMIT: CONSTRUCTION**

A \_\_\_\_\_

PROPERTY ADDRESS: 3001 Skye Meadow WaySUBDIVISION: Rover Mill EstatesLOT: 7

TAX ID: \_\_\_\_\_

CONTRACTOR: WTC Contractors Inc EMAIL: \_\_\_\_\_CONTRACTOR ADDRESS: 3033 Salem Bottom Rd, Westminster, MD 21157 PHONE: 410-458-7024PROPERTY OWNER: Security Development LLC EMAIL: \_\_\_\_\_OWNER ADDRESS: 8480 Baltimore National Pike, Ellicott City, MD 21043 PHONE: 410-465-4244SEPTIC TANK SIZE (GALLONS): 1500 TANK MANUFACTURER: Mayer Bros BABYLOONPUMP MODEL: \_\_\_\_\_ PUMP SIZE \_\_\_\_\_ PUMP TANK CAPACITY: 1500DISTRIBUTION SYSTEM: ☒ GRAVITY ☐ PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 0.8

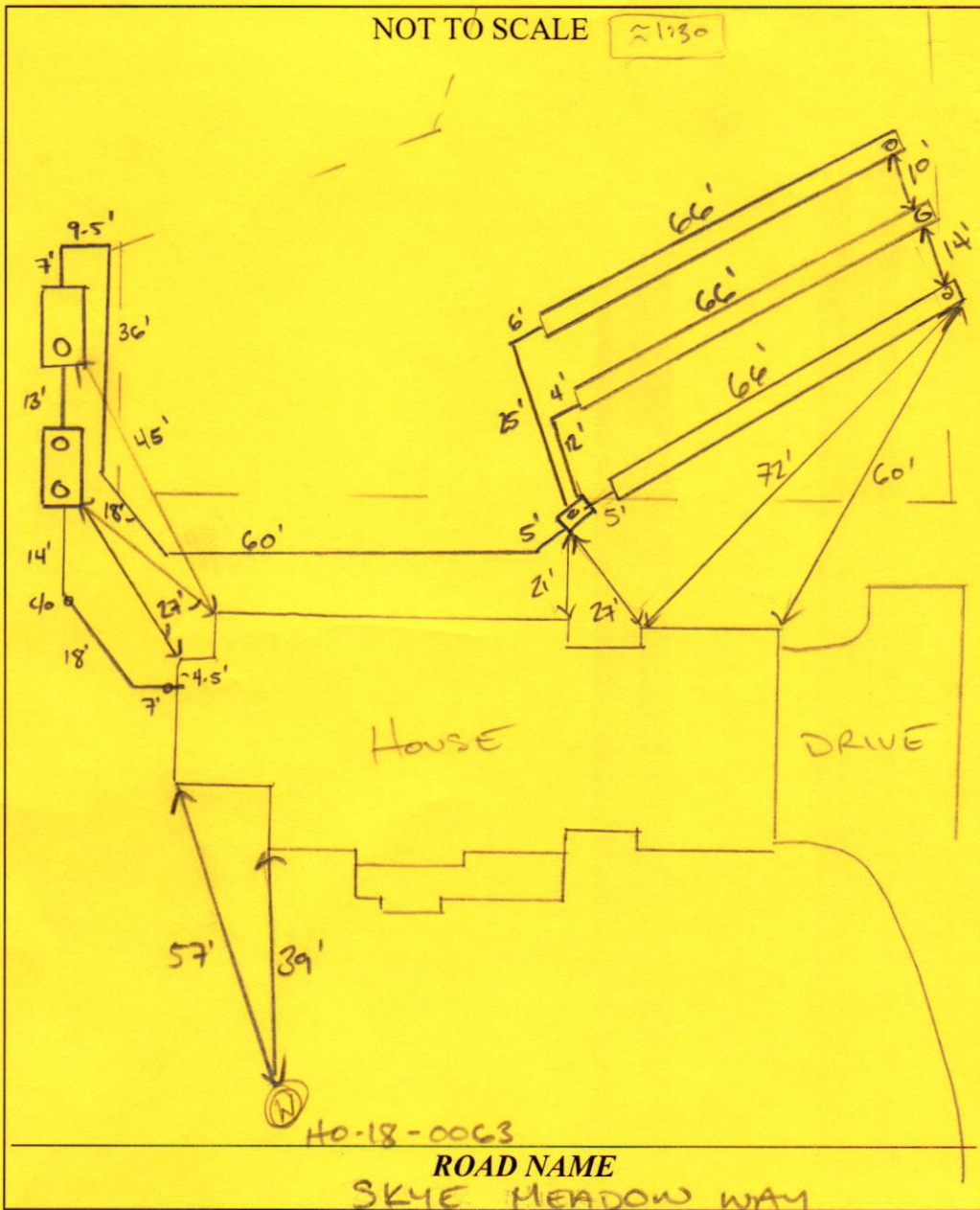
|           |   |  |
|-----------|---|--|
| TRENCHES: | LINEAR FEET REQUIRED: <u>197</u>  | INLET DEPTH: <u>3</u>                    |
|           | TRENCH WIDTH: <u>3</u>  | MAXIMUM BOTTOM DEPTH: <u>6</u>           |
|           | MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>   | EFFECTIVE AREA BEGINNING DEPTH: <u>4</u> |
|           |   |  |
| LOCATION: | PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION. |  |
| NOTES:    |   |  |

ISSUED BY: Dana Bernard ISSUE DATE: 8-18-21 EXPIRATION DATE: 8-16-22**NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION****NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING****NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.****NOTE: WATERTIGHT TANKS REQUIRED****NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRAIDENT FROM ANY WATER WELL****NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS****NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM**☒ ELECTRICAL PERMIT ISSUED E 2002639**NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA****NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.****PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.****CALL 410-313-1771 TO SCHEDULE INSPECTIONS.**



NOT TO SCALE

~1:30

**TRENCH/DRAINFIELD DATA**

| WIDTH                                     | INLET | BOTTOM |
|---|-------|--------|
| 3'  | 3'    | 6'     |
| NUMBER OF TRENCHES 3                      |       |        |
| TOTAL LENGTH 198'                         |       |        |
| ABSORPTION AREA 594 sq ft + 12' SIDE WALL |       |        |
| DISTRIBUTION BOX LEVEL PUMP               |       |        |
| DISTRIBUTION BOX BAFFLE 45' TURN          |       |        |
| DISTRIBUTION BOX PORT YES                 |       |        |

**SEPTIC TANK DATA**

|                     |            |
|---------------------|------------|
| SEPTIC TANK 1 LEVEL | YES        |
| MANUFACTURER        | BAByLON    |
| CAPACITY            | 1500 GAL   |
| SEAM LOC            | TOP        |
| TANK LID DEPTH      | 13'        |
| BAFFLES             | YES        |
| BAFFLE FILTER       | -          |
| MANHOLE LOC         | FRONT/BACK |
| 6" PORT LOC         | -          |
| WATERTIGHT TEST     | -          |
| SLOTTED             | YES        |
| DATE ON LID         |            |

**PUMP/SEPTIC TANK LEVEL**

|                     |          |
|---------------------|----------|
| SEPTIC TANK 2 LEVEL | YES      |
| MANUFACTURER        | BAByLON  |
| CAPACITY            | 1500 GAL |
| SEAM LOC            | TOP      |
| TANK LID DEPTH      | 13'      |
| BAFFLES             | -        |
| BAFFLE FILTER       | -        |
| MANHOLE LOC         | FRONT    |
| 6" PORT LOC         | -        |
| WATERTIGHT TEST     | -        |
| SLOTTED             | -        |
| DATE ON LID         |          |

**PRE-CONSTRUCTION:**

9/10/21 3x66' trenches staked out on contour according to plan. (SR)

INSTALLATION: 09/16/2021 INSTALLED SHC, SL, TANKS SET. OK TO REMOVE C/O BETWEEN TANKS. (P) 09/17/2021 INSTALLED FM, DBOX; LOWER AND MID TRENCHES (P) 09/20/2021 UPPER TRENCH COMPLETE. (P) 12/3/21 P/A test: alarm not labeled on circuit box, P-box covered by turn down, could not obs flow. Alarm not obs to function. (SR) 12/6/21 Pump obs to function, water flowing in d-box. Alarm obs to function, located in basement. Circuit with alarm labeled in circuit panel. (SR)

FINAL INSPECTOR

DATE OF APPROVAL

09/21/2021

12/6/21





# HOWARD COUNTY HEALTH DEPARTMENT

70108

PS

DATE

8/16/21

Received  
From

WTC Contractors  
Inc.

PHONE #

410 875-9773

For

Septic Permit (2) Povey Mill  
Lots 3-7

☐ CASH

☒ CHECK

NO.

42910 Seven hundred ninety-two

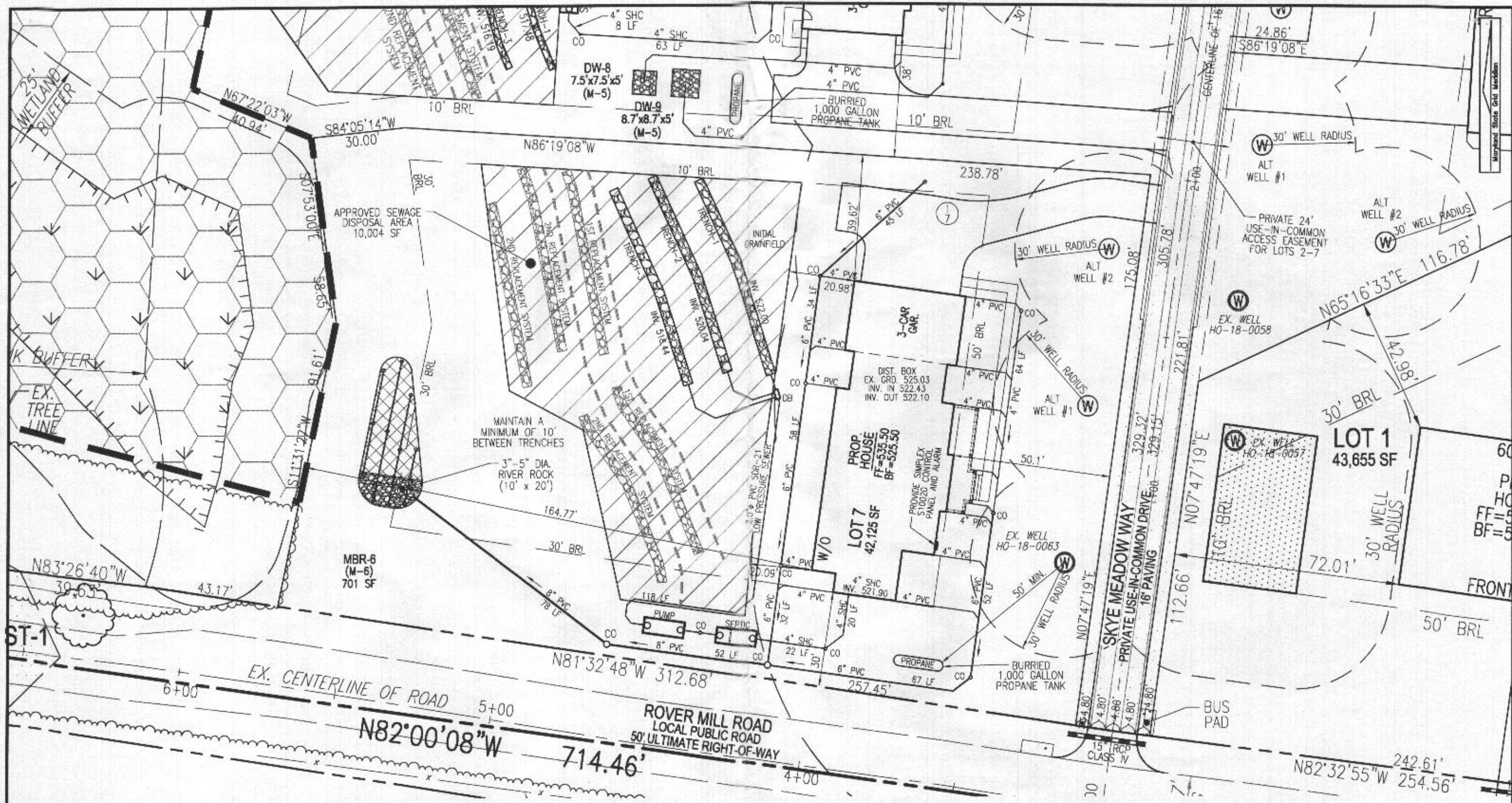
Dollars

\$

792.00

Received By

King



SCALE 1"=30'  
 DRAWN BY JMR  
 CHECKED BY RHV  
 DATE 01/11/21  
 W. O. # 15-36  
 SHEET# 1 OF 4

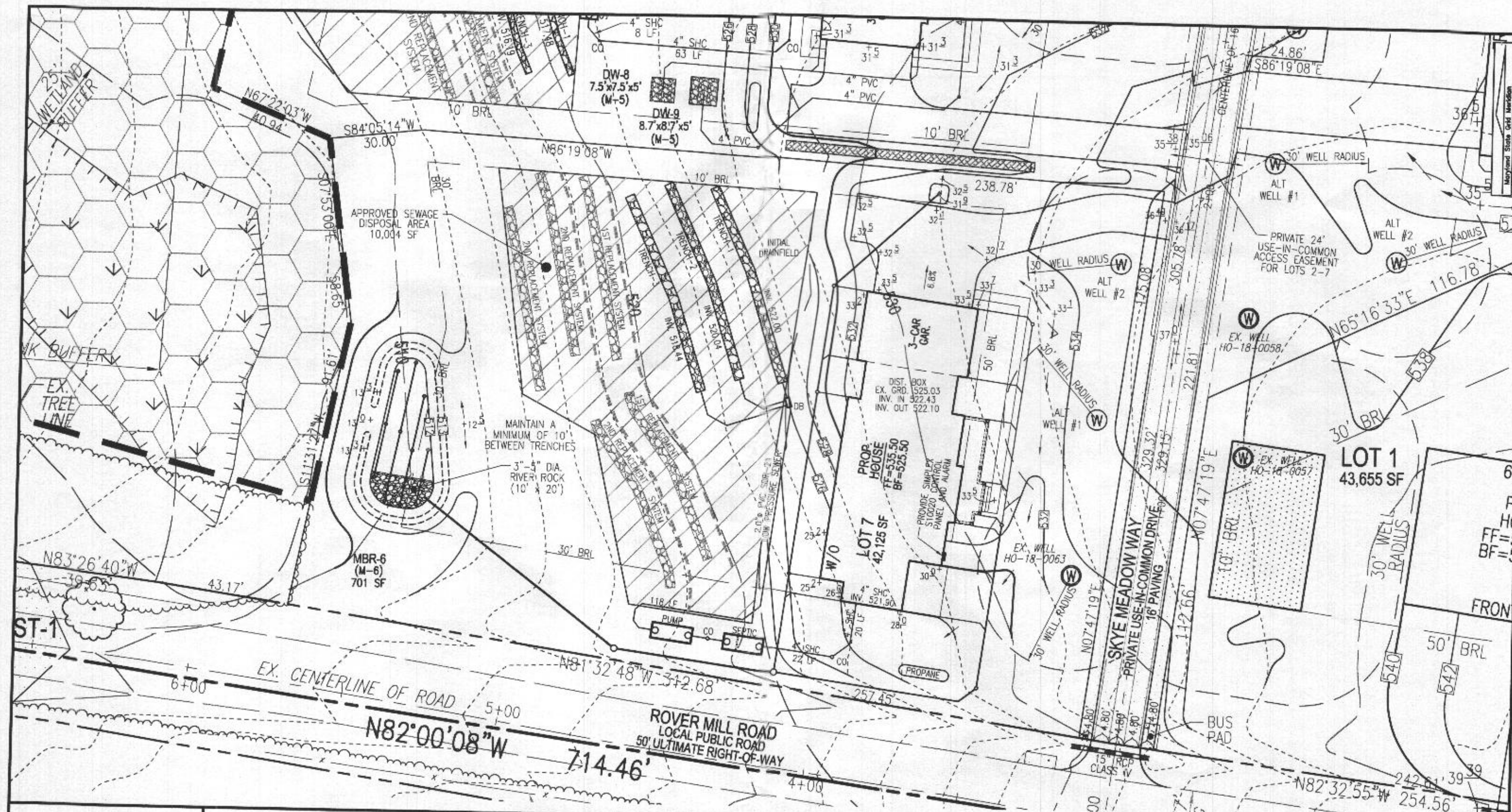
**PLOT PLAN**  
**ROVER MILL ESTATES**  
**LOT 7**  
**3001 SKYE MEADOW WAY**  
 REF: F-19-056

PARCEL: 169  
 TAX MAP: 15 GRID: 14  
 3RD ELECTION DISTRICT

ZONED: RR-DEO  
 L. 19082 / F. 490  
 HOWARD COUNTY, MARYLAND

**VOGEL ENGINEERING**  
**⊕**  
**TIMMONS GROUP**  
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
 P: 410.461.7666 F: 410.461.8961 www.timmons.com





SCALE 1"=30'

DRAWN BY JMR

CHECKED BY RHV

DATE 01/11/21

W. O. # 15-36

SHEET# 2 OF 4

PARCEL: 169

TAX MAP: 15 GRID: 14

3RD ELECTION DISTRICT

PLOT PLAN

ROVER MILL ESTATES

LOT 7

3001 SKYE MEADOW WAY

REF: F-19-056

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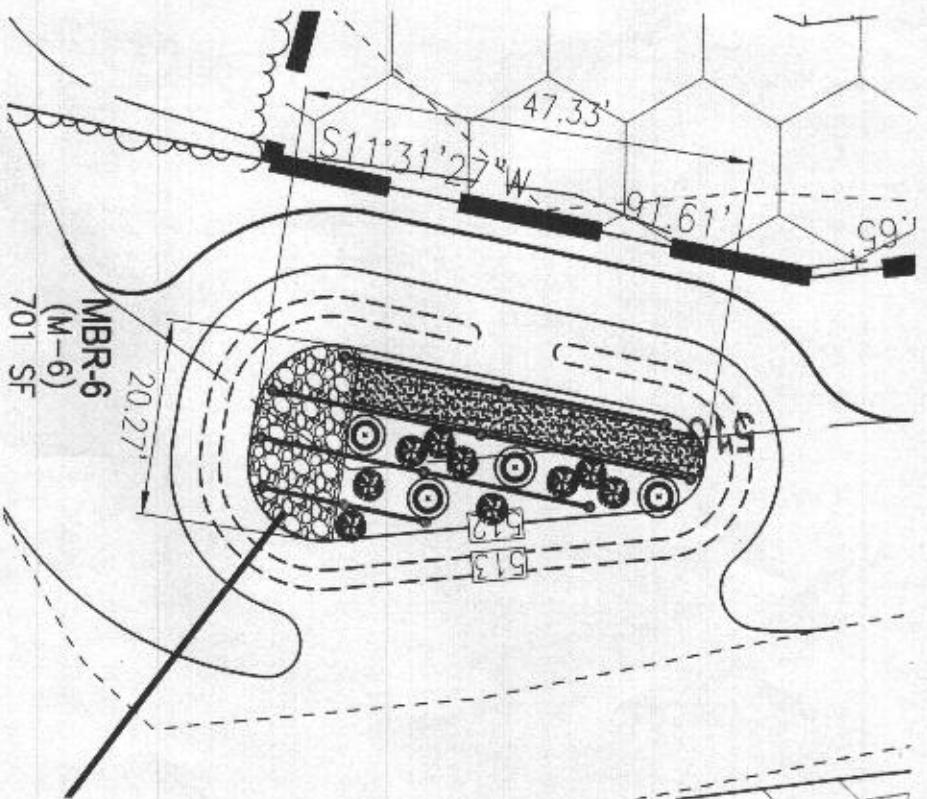
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043

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# "MICRO-BIORETENTION" PLANTING SCHEDULE NOTES:

1. ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AAS SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HOWARD COUNTY PLANTING SPECIFICATIONS.
  2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
  3. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.
  4. CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.
  5. MICROBIORETENTION AREAS ARE TO BE PLANTED BASED ON A MINIMUM DENSITY OF 1000 STEMS PER PLANTED ACRE (.0229 STEMS PER SQUARE FOOT). ABOVE PLANTING RATIOS ARE TO BE APPLIED TO THE AREAS PROVIDED IN THE ES&V SUMMARY.
  6. FILTER AREA SHALL BE 50% COVERED BY PLANTINGS AT FULL GROWTH
1. TABLE A.4 IS TAKEN FROM THE "2000 MARYLAND STORMWATER MANUAL, VOLUME II - APPENDIX A.
  2. CONTRACTOR SHALL BE FAMILIAR WITH APPENDIX B.4.C "CONSTRUCTION SPECIFICATIONS", AND TABLE B.4.1 "MATERIAL SPECIFICATIONS". IN ADDITION, THE "2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II - APPENDIX A, OFFERS ADDITIONAL HELPFUL INFORMATION.
  3. NO TREES SHALL BE PLANTED WITHIN A MICRO-BIORETENTION FACILITY. USE ONLY SHRUB OR HERBACEOUS SPECIES.
  4. ABOVE TABLE A.4 IS FOR INFORMATIONAL PURPOSES ONLY. LANDSCAPE CONTRACTOR SHALL INSTALL PLANTINGS SPECIFIED IN THE PLANTING SCHEDULES SHOWN HEREON. CHOOSE FROM THE ABOVE TABLE, OR USE APPROVED EQUAL SPECIES WHICH ARE TOLERANT TO FLUCTUATING WATER LEVELS. IF SUBSTITUTIONS ARE CHOSEN, APPROVAL FROM THE ENGINEER IS REQUIRED.
  5. PLANTINGS SHOWN HEREON ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THIS FINAL PLAN.



MBR-6 PLANTING DETAIL (701 SF)

SCALE: 1"=20'

| MICRO-BIORETENTION PLANTING SCHEDULE (MBR-6) |                                    |          |         |  |
|--|------------------------------------|----------|---------|--|
| QTY  | BOTANICAL NAME/COMMON NAME         | SIZE     | REMARKS |  |
| 4  | LINDERA BENZOIN SPICEBUSH          | 3 GALLON | CONT    |  |
| 9  | ILEX GLABRA INKBERY                | 3 GALLON | CONT    |  |
| 150 SF                                       | LOBELIA CARDINALIS CARDINAL FLOWER | 2" POT   | 1" O.C. |  |

1. SF x 0.0229 STEMS PER SQUARE FOOT = PLANTS REQUIRED
2. PLANTINGS REQUIRED: 16
3. (50 SF) CARDINAL FLOWER = 1 PLANTING UNIT

Table A.4 Commonly Used Species for Bioretention Areas

| Trees  | Shrubs  | Herbaceous Species                                  |
|--|---|---|
| <i>Acer rubrum</i><br>Red Maple                  | <i>Aesculus parviflora</i><br>Bottlebrush Buckeye | <i>Andropogon virginicus</i><br>Broomsedge          |
| <i>Betula nigra</i><br>River Birch               | <i>Cephalanthus occidentalis</i><br>Butterbush    | <i>Eupatorium perfoliatum</i><br>Joe Pye Weed       |
| <i>Juniperus virginiana</i><br>Eastern Red Cedar | <i>Hamamelis virginiana</i><br>Witch Hazel        | <i>Scirpus pungens</i><br>Three Square Bulrush      |
| <i>Chionanthus virginicus</i><br>Fringe-tree     | <i>Vaccinium corymbosum</i><br>Highbush Blueberry | <i>Iris versicolor</i><br>Blue Flag                 |
| <i>Myrica sylvatica</i><br>Black Gum             | <i>Ilex glabra</i><br>Inkberry                    | <i>Lobelia cardinalis</i><br>Cardinal Flower        |
| <i>Diospyros virginiana</i><br>Persimmon         | <i>Ilex verticillata</i><br>Winterberry           | <i>Panicum virgatum</i><br>Switchgrass              |
| <i>Platanus occidentalis</i><br>Sycamore         | <i>Viburnum dentatum</i><br>Arrowwood             | <i>Dichanthelium scoparium</i><br>Broom Panic Grass |
| <i>Quercus palustris</i><br>Pin Oak              | <i>Lindera benzoin</i><br>Spicebush               | <i>Rudbeckia laciniata</i><br>Tall Coneflower       |
| <i>Quercus phellos</i><br>Willow Oak             | <i>Myrica pennsylvanica</i><br>Bayberry           | <i>Scirpus cyperinus</i><br>Woolgrass               |
| <i>Salix nigra</i><br>Black willow               |   | <i>Vernonia noveboracensis</i><br>New York Ironweed |

Note 1: For more options on plant selection for bioretention, consult Bioretention Manual (ETAB, 1993) or the Design of Stormwater Filtering Systems (Claytor and Schueler, 1997).

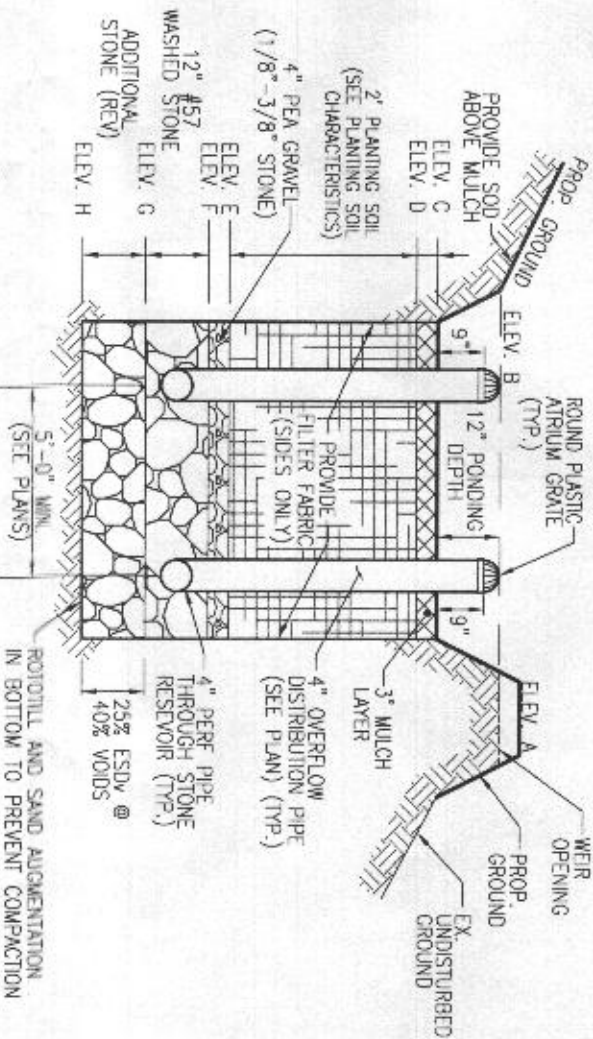
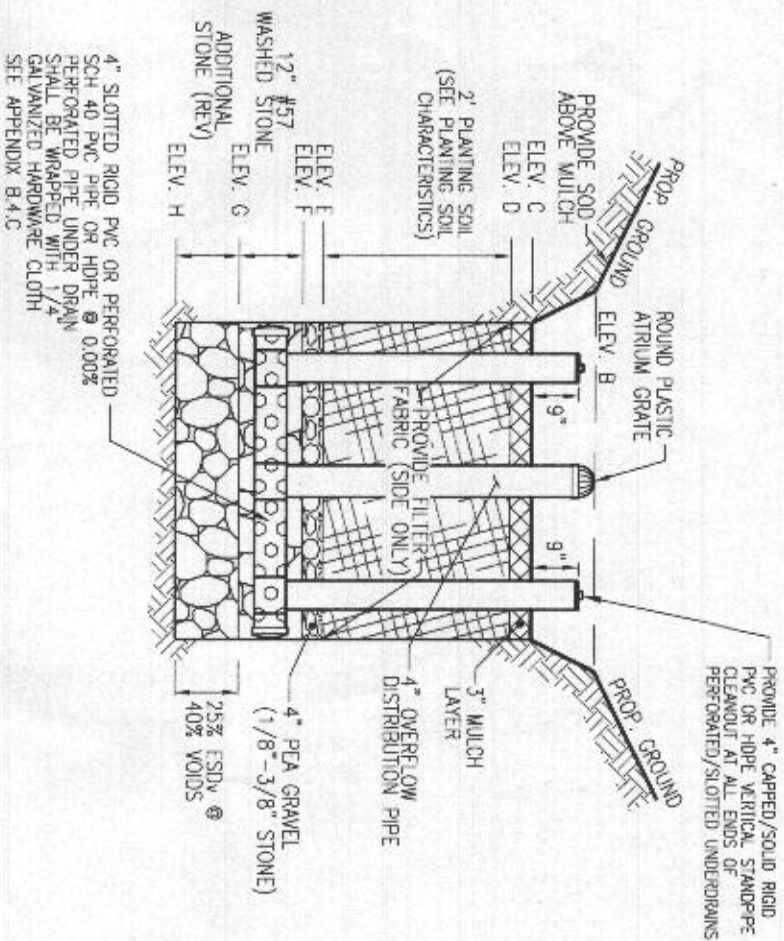
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W. O. # 15-36  
SHEET# 4 OF 4

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TAX MAP: 15  
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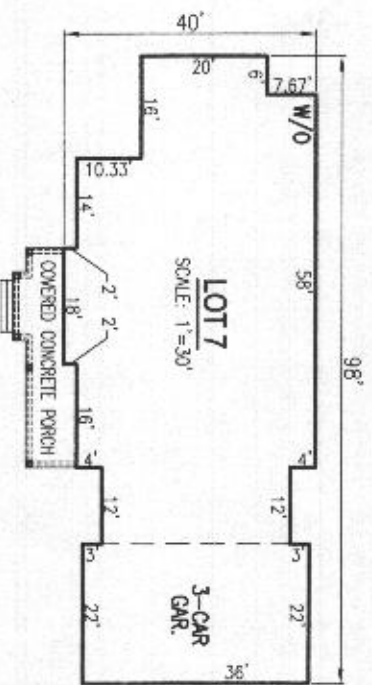


### MICRO-BIORETENTION (MBR-6) W/ WEIR ONLY NOT TO SCALE

| MICRO-BIORETENTION FACILITY ELEVATIONS (M-6) |        |        |        |        |        |        |        |        |                  |
|--|--------|--------|--------|--------|--------|--------|--------|--------|------------------|
| FACILITY                                     | A      | B      | C      | D      | E      | F      | G      | H      | WEIR             |
| MBR-6  | 513.30 | 513.00 | 512.00 | 511.75 | 509.75 | 509.42 | 508.42 | 507.59 | 513.00           |
|  |        |        |        |        |        |        |        |        | UNDERDRAIN INERT |
|  |        |        |        |        |        |        |        |        | 701 SF           |

**MBR-6**  
 $D.A.=6.534 \text{ SF}$   $IMP=5.227$   $I=80$   
 $R_v=0.05+(0.009)(80)=-.77$   
 $ESD_v=(6.534)(2.2)(0.77)/(12)=922 \text{ CF (MIN.)}$   
 $AREA \text{ ABOVE MULCH}=(922 \text{ CF})(0.75)=692 \text{ SF (MIN.)}$   
 $ESD_v \text{ PROVIDED } 593 \text{ SF} / .75 = 935 \text{ CF}$

- OPERATION AND MAINTENANCE SCHEDULE FOR (M-6) MICROBIORETENTION AREAS**
1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARIAN AND STORMWATER DESIGN MANUAL VOL. II, TABLE A.4.1 AND 2.
  2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DISEASED STAKES AND WIRES.
  3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
  4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.
- MICROBIORETENTION NOTES:**
1. ONLY THE SIDES OF MICROBIORETENTION ARE TO BE WRAPPED IN FILTER FABRIC. FILTER FABRIC BETWEEN LAYER OR AT THE BOTTOM OF THE MICROBIORETENTION WILL CAUSE THE MBR TO FAIL, AND THEREFORE SHALL NOT BE INSTALLED.
  2. WRAP THE PERFORATED MBR UNDERDRAIN PIPE WITH 1/4" MESH (4x4) OR SMALLER GALVANIZED HARDWARE CLOTH.
  3. PROVIDE 5" MINIMUM SPACING BETWEEN UNDER DRAIN AND PERFORATED PIPE THROUGH STONE RESERVOIR OR SPACE PIPE EQUALLY ACROSS BOTTOM FOR SMALL BIOS. (SEE PLANS)



SCALE 1"=30'  
 DRAWN BY JMR  
 CHECKED BY RHY  
 DATE 01/11/21  
 W.O.# 15-36  
 SHEET# 3 OF 4

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