

NOTE: APPROXIMATELY 80 SQUARE FEET OF WETLAND SOILS ALONG THE STREAM CHANNEL ITSELF WILL BE SLIGHTLY IMPACTED BY THE PLACEMENT OF MODIFIED RIPRAP ON THE SLOPES ABOVE THE NOMINAL WATER LINE FOR 20 LINEAR FEET FROM THE END OF THE FLARED END.

NOTE: THE UNDERGROUND DETENTION SYSTEM IS LOCATED WITHIN THE 100' UPLAND REVIEW AREA FROM THE SOUTH SIDE OF THE PERENNIAL STREAM ON THE NORTH SIDE OF MOUNTAIN ROAD. APPROXIMATELY 3,675 SQUARE FEET OF THE UPLAND REVIEW AREA WILL BE DISTURBED FOR THE INSTALLATION OF THE UNDERGROUND DETENTION SYSTEM.

NOTE: ALL SURVEY DATA, INCLUDING THE LOCATION OF PHYSICAL IMPROVEMENTS ON THE SITE AS WELL AS EXISTING FIELD TOPOGRAPHIC CONDITIONS WAS OBTAINED IN THE FIELD BY MEGSON, HEAGLE & FRIEND IN THE LATE FALL OF 2021 AND REFLECTS THE CURRENT CONDITIONS OF THE PROPERTY AT 30 MOUNTAIN ROAD.

NOTE: THE INVERT OF THE PROPOSED 12" RCP WHERE IT DISCHARGES INTO THE PERENNIAL STREAM ON THE NORTH SIDE OF MOUNTAIN ROAD IS LOCATED AT THE ELEVATION OF THE NOMINAL WATER SURFACE OF THE STREAM. THIS IS THE APPROPRIATE LOCATION FROM A CIVIL ENGINEERING PERSPECTIVE SO THE DISCHARGE FROM THE 12" RCP EASILY ENTERS THE EXISTING FLOW IN THE STREAM. THIS ALSO ALLOWS FOR THE PLACEMENT OF MODIFIED RIPRAP IN THE STREAM BOTTOM AND SIDE SLOPES AS SHOWN ON THIS PLAN SET TO SUPPLEMENT THE EXISTING STONY BOTTOM OF THE CHANNEL TO PREVENT EROSION OF ANY SOIL AREAS ON THE STREAM BOTTOM OR STREAMBANK.

NOTE: THE EXISTING TREE LINE WAS LOCATED IN THE FIELD BY MEGSON, HEAGLE & FRIEND AND IS ACCURATELY REFLECTED ON THIS SITE PLAN. ONLY A SMALL PORTION OF THE PROPOSED UNDERGROUND DETENTION IS LOCATED WITHIN THE EXISTING TREE LINE. HOWEVER, THE FEW (<6) TREES IN THE AREA OF THE PROPOSED DETENTION SYSTEM ARE NOT HEALTHY OR HAVE ALREADY DIED. THIS IS BASED ON MY ASSESSMENT IN THE FIELD AS STEVE TRINKAUS, PE HAS A BACHELOR OF SCIENCE IN FOREST MANAGEMENT AND IS THUS QUALIFIED TO MAKE THIS ASSESSMENT. IF DESIRED BY THE OWNER, ADDITIONAL DECIDUOUS OR EVERGREEN TREES COULD BE PLANTED BETWEEN THE NORTHWEST END OF THE DETENTION SYSTEM AND MOUNTAIN ROAD, NEAR THE DRIVEWAY.

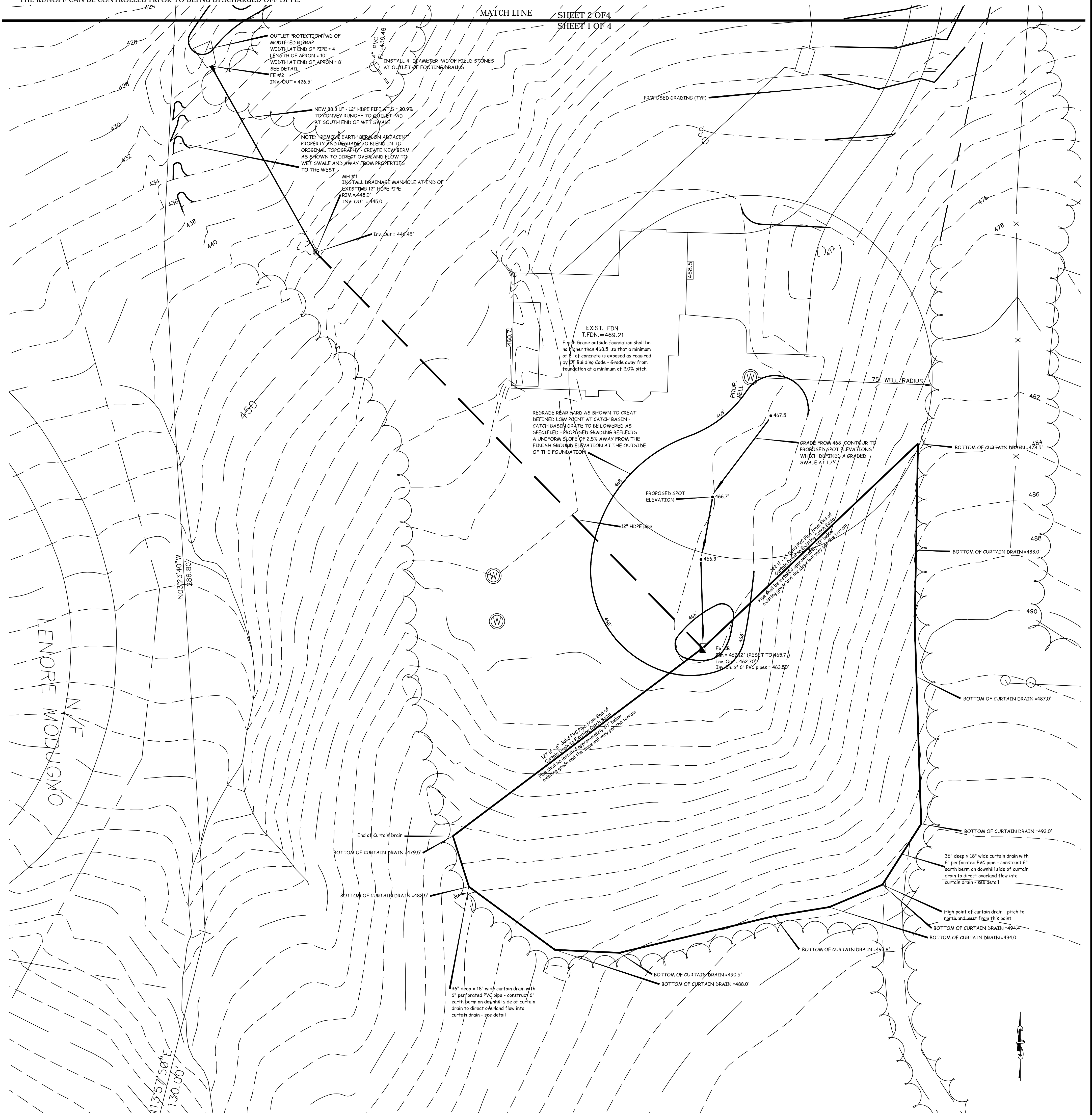
NOTE: DURING THE DESIGN PHASE, MULTIPLE OTHER LOCATIONS WERE CONSIDERED FOR THE INSTALLATION OF THE UNDERGROUND DETENTION SYSTEM WHICH WERE LOCATED UPHILL OF THE CURRENTLY PROPOSED LOCATION, BUT WERE NOT DEEMED PRACTICAL OR APPROPRIATE AS DETENTION WAS REQUIRED CLOSE TO MOUNTAIN ROAD IN ORDER TO CAPTURE AS MUCH RUNOFF FROM THE EXISTING DRIVEWAY TO PROVIDE A ZERO INCREASE IN THE PEAK RATE OF RUNOFF AS REQUIRED BY THE CT DOT (DUE TO CAPACITY ISSUES OF THE CULVERT UNDER ROUTE 83). THE MODIFICATION OF THE DETENTION AREA CONSTRUCTED BY THE SITE CONTRACTOR AND NOT DESIGNED BY AN ENGINEER IS PROVIDING ADDITIONAL DETENTION WHICH IS NECESSARY IN ADDITION TO THE UNDERGROUND DETENTION SYSTEM TO PROVIDE THE ZERO INCREASE IN THE PEAK RATE OF RUNOFF. IT IS STANDARD CIVIL ENGINEERING PRACTICE TO PLACE STORMWATER MANAGEMENT PRACTICES NEAR THE BOTTOM OF A SUBJECT PARCEL SO THAT THE MAJORITY OF THE RUNOFF CAN BE CONTROLLED PRIOR TO BEING DISCHARGED OFF SITE.

NOTE: AS CLEARLY STATED IN THE CONSTRUCTION NARRATIVE ON SHEET 4 OF THE PLAN SET, THE NEW DRAINAGE SYSTEM WILL BE INSTALLED FROM THE DISCHARGE POINT BACK UPHILL AS IS STANDARD CIVIL ENGINEERING PRACTICE. AS COMPONENTS OF THE DRAINAGE SYSTEM ARE INSTALLED, THEY ARE BACKFILLED, THE SOIL COMPACTED AS NECESSARY TO MINIMIZE FUTURE SETTLEMENT, COVERED WITH TOPSOIL AND SEEDED. THIS APPROACH MINIMIZES THE AREAS WHICH ARE DISTURBED AT EACH TIME, AS ALL APPROPRIATE EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO ANY EXCAVATION WORK BEING DONE. THERE WILL BE NO INCREASED RISK OF EROSION AND STORMWATER RUNOFF BY FOLLOWING THIS PROPOSED PLAN.

NOTE: ACCORDING TO A CONVERSATION THAT TRINKAUS ENGINEERING HAD WITH MONIQUE BURNS OF THE CT DOT DRAINAGE OFFICE IN BERLIN, CT, THE EXISTING CULVERT UNDER ROUTE 83 IS NOT ADEQUATE TO FULLY CONVEY THE FLOWS FROM THE STREAM ON THE NORTH SIDE OF MOUNTAIN ROAD. WHEN CERTAIN STORMWATER EVENTS OCCUR, SUCH AS SHORT DURATION, BUT HIGH RAINFALL INTENSITY STORMS, A BACKWATER CONDITION OCCURS AT THE EASTERN END OF THE CULVERT UNDER ROUTE 83 AND HAS CAUSED RUNOFF IN THE STREAM TO GO INTO THE POND ON PRIVATE PROPERTY AS WELL AS RAISE THE WATER SURFACE WITHIN THE STREAM. THIS CULVERT IS ON THE CT DOT LIST FOR BEING IMPROVED ACCORDING TO MS. BURNS, BUT ACTUAL REPLACEMENT WORK IS UNLIKELY TO OCCUR FOR AT LEAST THREE YEARS FROM TODAY. THERE ARE NO OTHER CAPACITY ISSUES WITHIN THE STREAM ACROSS FROM 30 MOUNTAIN ROAD AND THE EXISTING DOT CULVERT.

NOTE: AS DESIGNED THE PROPOSED DISCHARGE PIPE INTO THE STREAM AS WELL AS THE PLACEMENT OF RIPRAP REQUIRE MINIMAL MAINTENANCE WHICH CAN BE DONE BY THE OWNER OF 30 MOUNTAIN ROAD. THE ONLY MAINTENANCE IS THE REMOVAL OF ORGANIC DEBRIS, SUCH AS TWIGS/BRANCHES WHICH MIGHT GET CAUGHT IN THE MODIFIED RIPRAP. THE RIPRAP WOULD BE INSPECTED TWICE A YEAR (LATE SPRING, LATE FALL) AND ANY WOODY ORGANIC DEBRIS WOULD BE REMOVED BY HAND AND DISPOSED OF IN AN UPLAND AREA.

NOTE: THE CONTRACTOR SHALL NOTIFY THE TOWN OF GLASTONBURY ENGINEERING DIVISION 24 HOURS PRIOR TO BEGINNING ANY STORM DRAINAGE, SANITARY SEWER INSTALLATION, ROADWAY PREPARATION, PAVING, SIDEWALK, CURBING, OR ANY EXCAVATION IN THE TOWN RIGHT-OF-WAY TO SCHEDULE INSPECTIONS. THE DIVISION CAN BE REACHED BETWEEN 8:00 AM - 4:30 PM MONDAY THROUGH FRIDAY AT 860-652-7735.

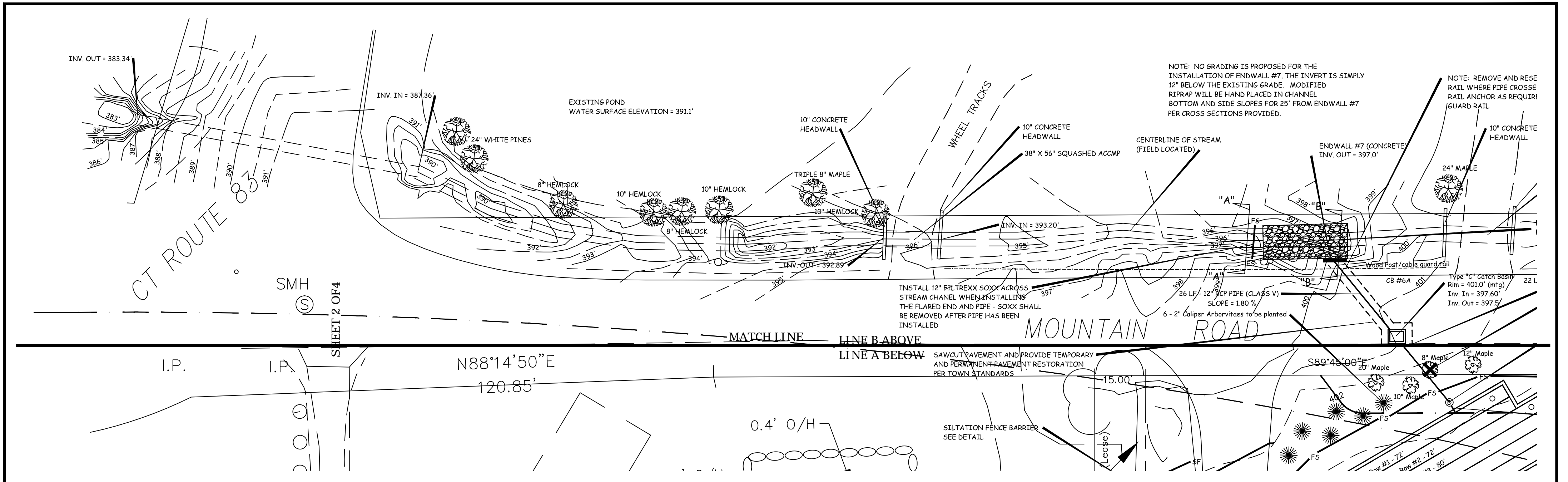


PREPARED FOR
MICHAEL WEISS
30 MOUNTAIN ROAD
GLASTONBURY - CONNECTICUT

STORMWATER MANAGEMENT PLAN
SHEET 1 of 5
PROJECT #087-2021
SCALE: 1" = 20'
DATE: 12/3/21, Rev. 1/22/22, 2/7/22



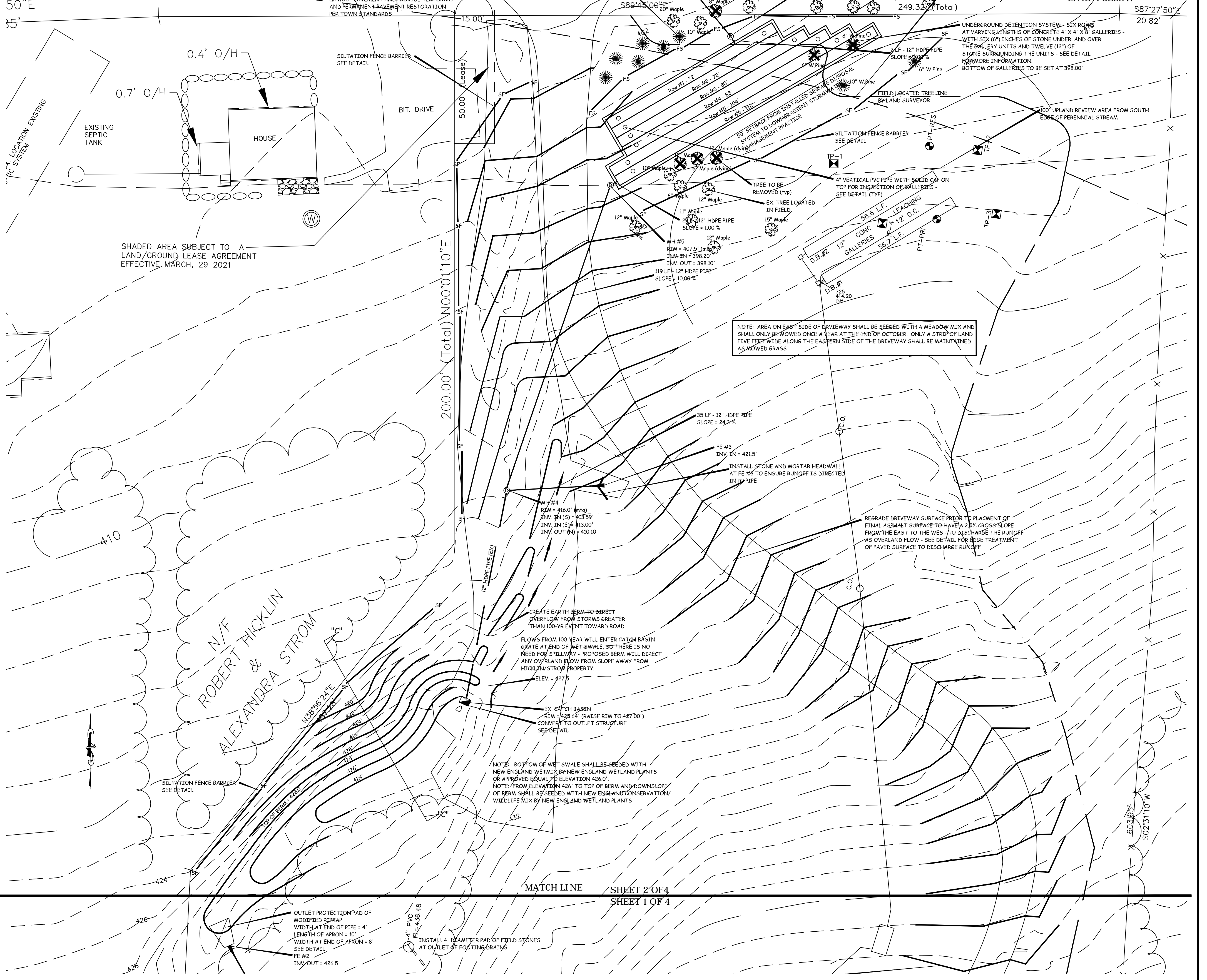
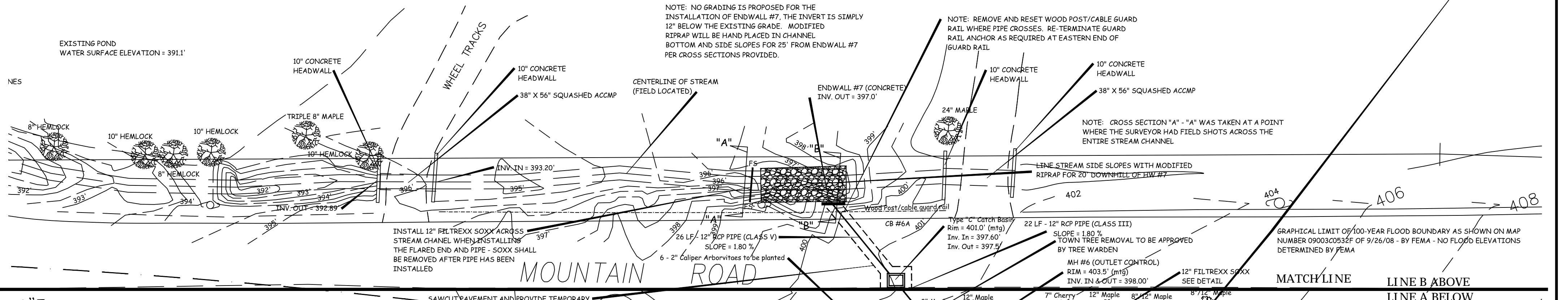
TRINKAUS ENGINEERING, LLC
CIVIL ENGINEERS
114 HUNTERS RIDGE ROAD
SOUTHURY, CONNECTICUT 06488
203-264-4558 (office), 203-525-5153 (mobile)
Email: strinkaus@earthlink.net
Website: www.trinkausengineering.com



NOTE: CURRENT BOUNDARY SURVEY DATA CONFORMS TO CLASS A-2 STANDARDS, TOPOGRAPHIC INFORMATION IS BASED UPON A FIELD SURVEY CONFORMS TO CLASS T-2 STANDARDS. SURVEY WORK SHOWN ON THESE PLANS WAS PERFORMED BY MEGSON & HEAGLE, & FRIEND, CIVIL ENGINEERS AND LAND SURVEYORS, LLC FOR THE OWNER.

NOTE: DUTTON ASSOCIATES OF GLASTONBURY, CT WILL PREPARE A CLASS A-2, T-2 SURVEY SUITABLE FOR FILING IN THE GLASTONBURY LAND RECORDS WITH ALL REQUIRED INFORMATION ON IT AFTER THE APPLICATION HAS BEEN APPROVED BY THE INLAND WETLANDS COMMISSION.

NOTE: AREA OF PROPERTY ON THE EAST SIDE OF THE DRIVEWAY TO MOUNTAIN ROAD TO BE SEED WITH A MEADOW SEED MIXTURE WHICH WILL ATTRACT POLLINATORS AND NOT BE MAINTAINED AS LAWN AREA. THE AREA WILL BE MOWED ONCE A YEAR AT THE END OF OCTOBER.

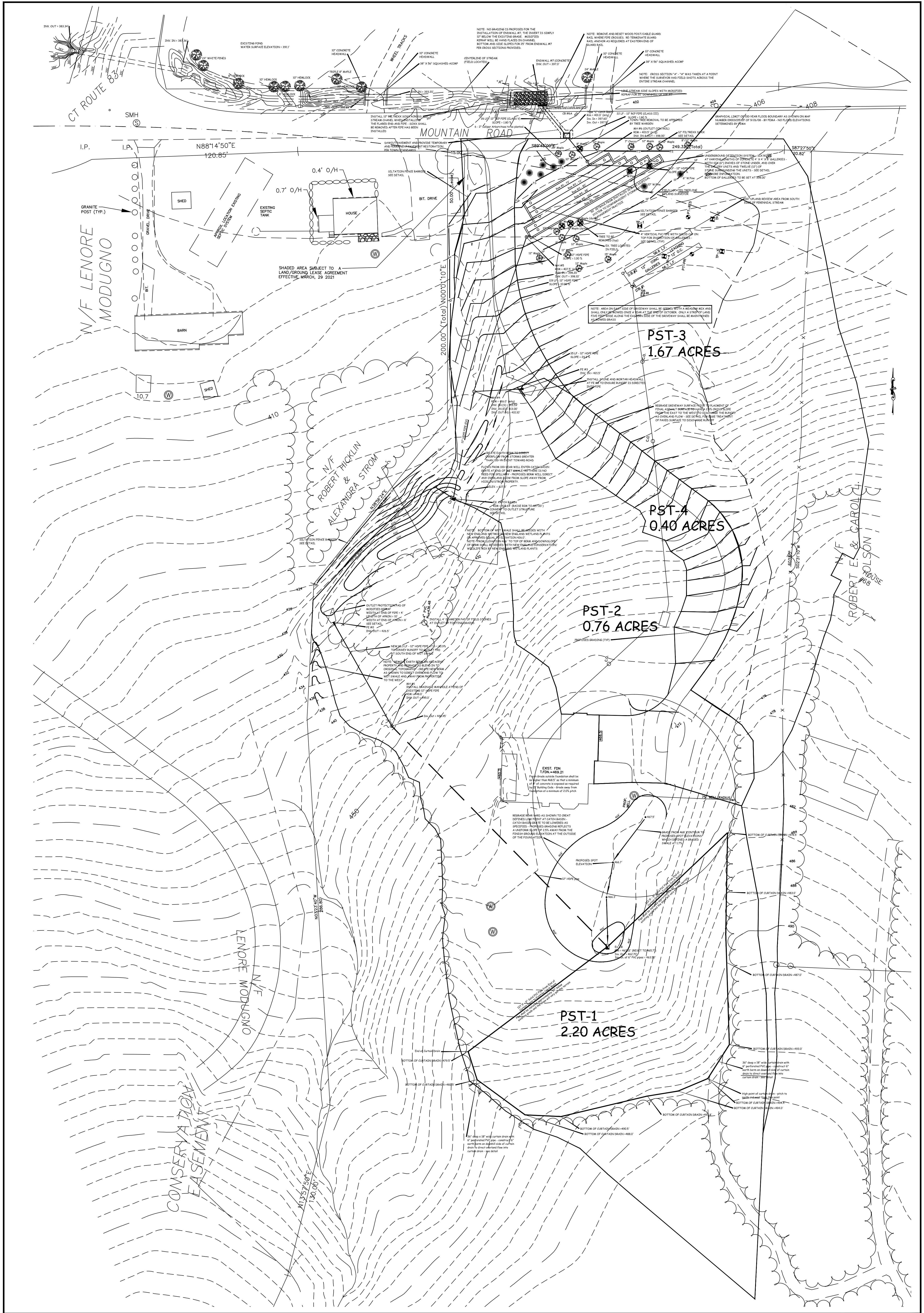


PREPARED FOR
MICHAEL WEISS
30 MOUNTAIN ROAD
GLASTONBURY - CONNECTICUT

STORMWATER MANAGEMENT PLAN
SHEET 2 of 5
PROJECT #087-2021
SCALE: 1" = 20'
DATE: 12/3/21, Rev. 1/22/22, 2/7/22



TRINKAUS ENGINEERING, LLC
CIVIL ENGINEERS
114 HUNTERS RIDGE ROAD
SOUTHURY, CONNECTICUT 06488
203-264-4558 (office), 203-525-5153 (mobile)
Email: strinka@earthlink.net
Website: www.trinkaengineering.com



PREPARED FOR
 MICHAEL WEISS
 30 MOUNTAIN ROAD
 GLASTONBURY - CONNECTICUT

WATERSHED MAP
 SHEET 3 of 5
 PROJECT #087-2021
 SCALE: 1" = 30'
 DATE: 12/3/21, Rev. 1/22/22, 2/7/22



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 CIVIL ENGINEERS
 114 HUNTERS RIDGE ROAD
 SOUTHURY, CONNECTICUT 06488
 203-264-4558 (office), 203-525-5153 (mobile)
 Email: strinkaus@earthlink.net
 Website: www.trinkausengineering.com

CONSTRUCTION NARRATIVE:

1. Project land surveyor shall stake out components of stormwater management improvements as may be requested by the owner or site contractor.
2. Perimeter erosion control measures shall be installed in those locations shown on the plan prior to work being done above these areas.

SEQUENCE OF CONSTRUCTION:

1. The drainage pipe under Mountain Road shall be installed first after approval has been obtained from the Town of Glastonbury Inland Wetlands Commission. The 12" Filtrexx Soxx shall be installed prior to excavating for the pipe.
2. After the pipe has been installed, modified riprap shall be placed in the existing stream channel as shown on the site plan.
3. After the pipe has been installed, a temporary pavement patch shall be made for the trench across Mountain Road.
4. The pipe shall be extended to the Outlet Control Manhole and the Manhole shall be installed at this time.
5. The underground detention system shall be installed as shown on the plan and in accord with the construction detail and specifications.
6. After the underground detention system has been installed, the new piping for the stormwater management system shall be installed from the gallery system going uphill to the new manhole, the field inlet with headwall shall be installed and the system shall be connected to the existing 12" HDPE pipe as shown.
7. The existing outlet structure at the north end of the previously installed detention area shall be modified per the plan and details.
8. The existing detention basin berm shall be regraded per the plan to lower the height to a maximum of four (4) feet above existing grade and the bottom of the basin shall be regraded per the plan. That portion of the berm on the adjacent property shall be removed and the area restored per the plan.
9. The existing drainage pipe from the rear yard catch basin shall be extended per the plan and the riprap apron installed at the end of the pipe.
10. A pad of field stones shall be installed at the end of the existing footing drains per the plan.
11. The curtain drain and low berm shall be installed at the top of the slope per the plan and in accord with the details shown on this page. The elevations for the curtain shall conform to those shown on the site plan.
12. The ends of the curtain drain shall be connected to the existing catch basin and the basin top shall be lowered as specified on the plan.
13. The rear yard shall be graded per the plan to a subgrade elevation which is 4" below the final grade to allow for the placement of topsoil.
14. All disturbed areas shall be seeded with an appropriate grass or meadow mixture as they are regraded.
15. The driveway and adjacent areas shall be regraded per the plan and in accord with the detail shown on this plan.
16. Only after all disturbed areas have been covered with vegetation shall the erosion control measures be removed.

LONG TERM MAINTENANCE SCHEDULE:

Best Management Practices (BMP's) program, for post-development conditions on the project has been developed to manage both the storm water quality. The recommendations are proposed to protect the site and downgradient wetland areas.

The success of the BMP controls requires professional and regulatory input, and monitoring through the implementation of a long-term maintenance program.

PLAN OBJECTIVES AND PRINCIPALS:

The objectives of the Soil Erosion and Sediment Control Plan are to manage both the runoff and the earthwork operations by using Best Management Practices. The objectives are as follows:

- a. Control erosion at its source with temporary control measures, minimize the runoff from areas of disturbance, distribute stormwater through natural vegetation before being discharged into wetland systems.
- b. Keep land disturbance to a minimum.
- c. Construct the project in phases to minimize the area of the site under active construction at one time.
- d. Retain existing vegetation wherever feasible. Siltation fence or other barriers will be used to limit the extent of earthwork. Substantial buffers will be provided to the wetland/watercourse systems.
- e. Stabilize disturbed areas as soon as practical. Earth disturbance shall not occur on a given area until active construction is to take place in this area.
- f. Minimize the length and steepness of slopes.
- g. Maintain low runoff velocities.
- h. Trap sediment on site. Siltation fence barriers and road construction entrance will trap sediment during the construction period.
- i. Establish a maintenance and repair program during the construction period. Erosion control measures will be inspected weekly during the spring months, twice a month during the summer and/or following rainfall events of greater than 0.5 inches and repaired as needed to ensure that they function properly.
- j. Assign responsibility for the maintenance program. The responsibility for the maintenance program will be assigned to the contractor who shall designate one of its supervisory personnel to be the liaison to the owner's representative. The owner shall retain the services of a licensed professional who shall inspect and monitor the contractor's methods and have the authority to require modifications to the Erosion and Sediment Control Plan. The town will be copied on all inspection reports prepared on behalf of the project.

TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES - MAINTENANCE REQUIREMENTS:

1. Siltation Fence Barriers: All barriers shall be installed in accordance with the detail shown on the plans, sediment shall be removed from behind the siltation fence when sediment has accumulated to 25% of the original height of the fence.
2. Dust Control: Water shall be applied by sprinkler or water truck as necessary during the grading operations to minimize sediment transport and maintain acceptable air quality conditions. Repetitive treatments will be done as needed until grades are paved or seeded.
3. Filtrexx Soxx: All Soxx shall be inspected twice a year for sediment accumulation. If the sediment depth against the Soxx is greater than 25% of the height of the Soxx, the sediment shall be removed and disposed of in a proper manner.
4. Construction Entrance: Entrances shall be inspected every two months during the active construction period. If sediment is clogging the stone surface, an additional layer of crushed stone shall be added to the Construction Entrance.

CONTROL PLAN IMPLEMENTATION:

1. The contractor shall inspect the effectiveness and condition of erosion control devices during storm events, and after each rainfall event of 0.5" or more, prior to weekends and prior to forecasted large storm events.
2. The contractor shall repair or replace damaged erosion control measures immediately, and in case, more than four hours after observing such deficiencies.
3. The contractor shall be prepared to implement interim drainage controls and erosion control measures as may be necessary during the course of construction.
4. The contractor shall make available on-site all equipment, materials and labor necessary to effect emergency erosion control measures within four hours of any impending emergency situation.
5. The contractor shall make a final inspection, clean all cross culverts and sweep off roadways before the road is dedicated to the town.
6. The contractor shall have on call at all times, a responsible representative who, when authorized, will mobilize the necessary personnel, materials and equipment and otherwise provide the required action when notified of any impending emergency situation.
7. The contractor shall supply a telephone number to the town engineer, planning agent so that the contractor may be contacted during the evenings and on weekends, if necessary.
8. The contractor shall maintain a minimum of 100 lf of silt fence on the site for use during emergencies during the development of the project.

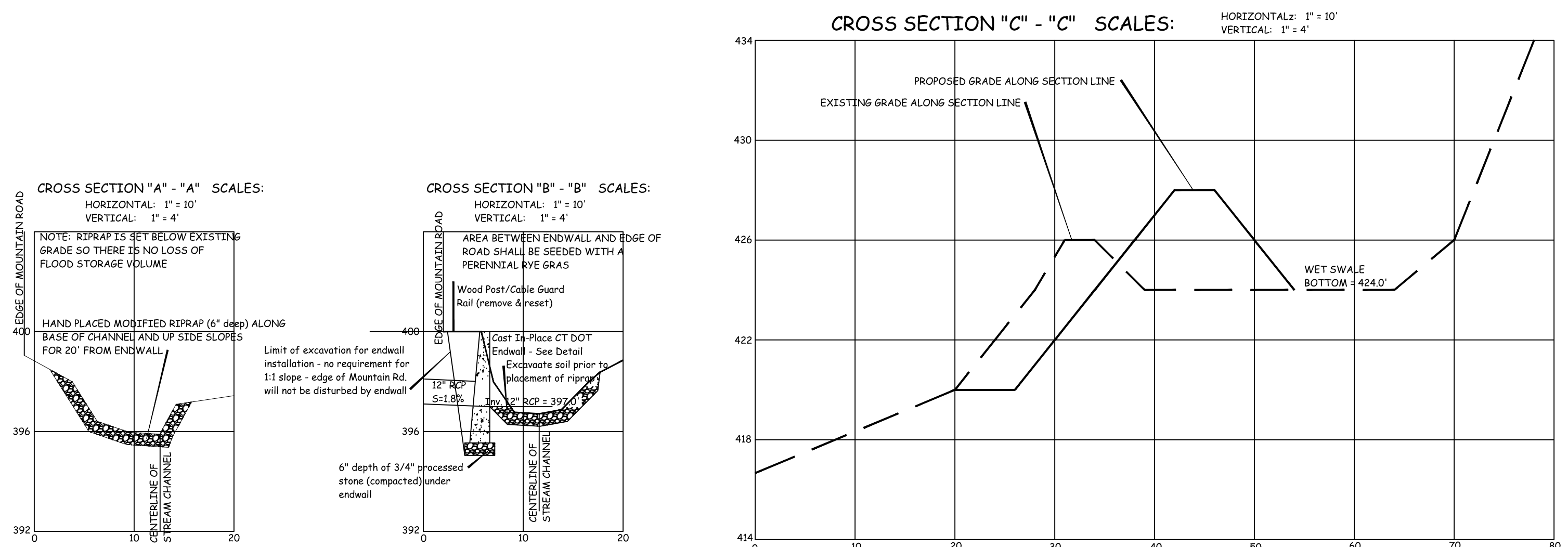
GENERAL EROSION AND SEDIMENTATION CONTROL PLAN NOTES:

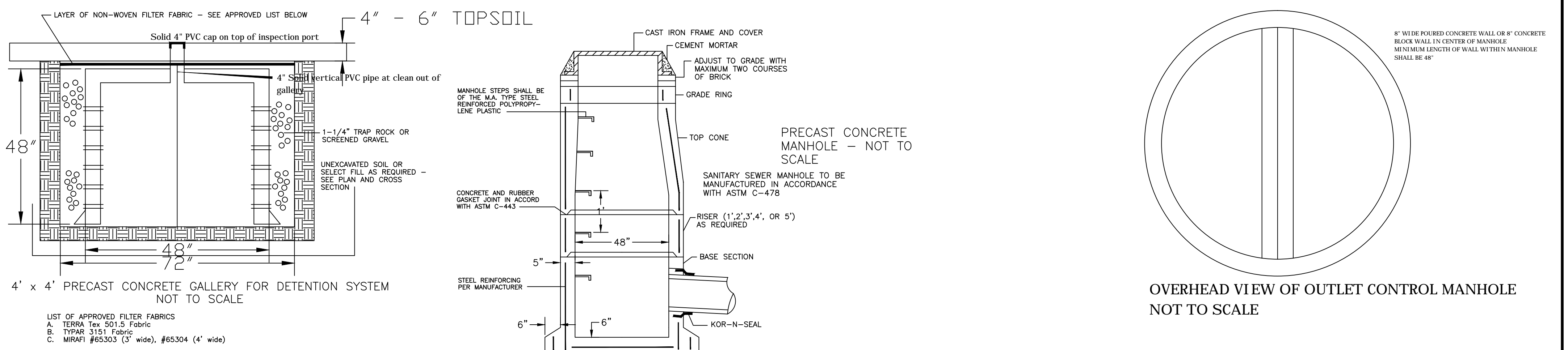
1. Regrading on this site shall done in such a manner as to prevent stagnant water from collecting in depressions.
2. All erosion and sedimentation control measures will be installed prior to the start of any construction activity.
3. All erosion and sedimentation control measures shall be constructed in accordance with the submitted construction details and in compliance with the specifications and standards found in the "Guidelines for Soil Erosion and Sediment Control" as prepared by the State of Connecticut, revised to 2002.
4. Siltation fence barriers will be installed at the limit of all disturbed areas. Staked straw bales, will be utilized as necessary during the construction period. All work done shall be in accordance with the details shown on the plans.
5. Land disturbance will be kept to a minimum. Restabilization of all disturbed areas will occur as soon as final grading is complete.
6. All erosion and sedimentation control measures will be maintained in an effective conditions throughout the construction period.
7. Accumulated sediment will be removed from the control structures and disposed of in a lawful and safe manner.
8. Additional control measures will be installed during the construction period if the Zoning or Wetland Enforcement Officer requires them. The design engineer shall inspect the site periodically to ensure the proper installation of erosion control measures.
9. Regular inspections of the construction site shall be made by a representative of the Town of Glastonbury and a professional retained by the owner to assure compliance with the approved plans.
10. The responsibility for implementing the erosion and sedimentation control plan, informing all parties engaged on the construction site of the requirements and objectives of the plan, notifying the appropriate town agencies of any transfer of this responsibility and for conveying a copy of the erosion and sedimentation control plan if title to the land is transferred is place upon the owner of record.

SEEDING MIXTURES FOR AREAS TO BE MAINTAINED AS GRASS:

MIXTURE #1	
KENTUCKY BLUEGRASS	20 LBS/ACRE
CREeping RED FESCUE	20 LBS/ACRE
PERENNIAL RYEGRASS	5 LBS/ACRE
MIXTURE #2	
CREeping RED FESCUE	20 LBS/ACRE
REDTOP	2 LBS/ACRE
TALL FESCUE	20 LBS/ACRE

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALL "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION FOR THE LOCATION OF ANY UNDERGROUND UTILITIES ON THIS PROPERTY.



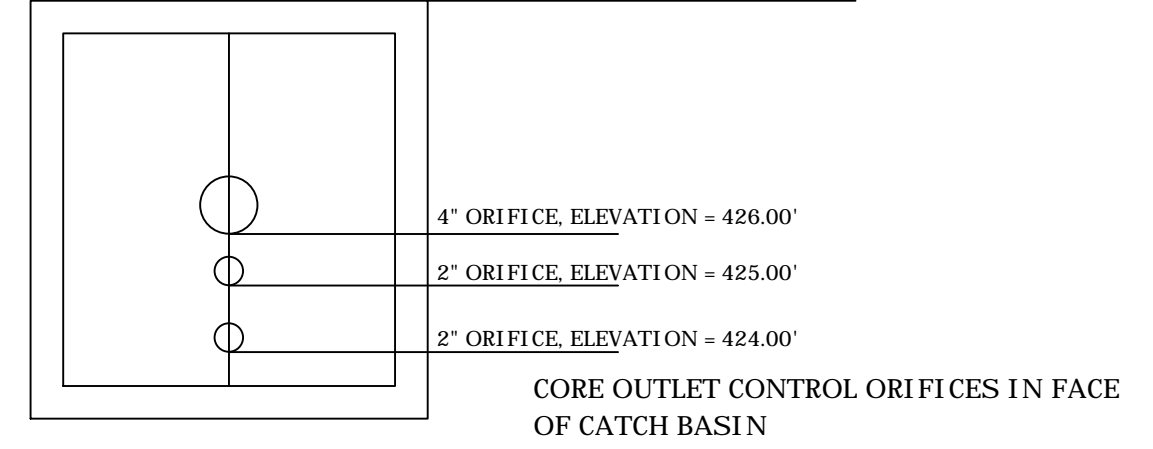


NOTE: SEE PLAN FOR LAYOUT OF UNDERGROUND DETENTION SYSTEM. THERE SHALL BE 6" OF 1-1/4" OR LARGER CRUSHED STONE UNDERNEATH AND ON TOP OF THE PRECAST GALLERIES. THERE SHALL BE 12" OF 1-1/4" OR LARGER CRUSHED STONE SURROUNDING THE PERIMETER OF THE GALLERY SYSTEM.

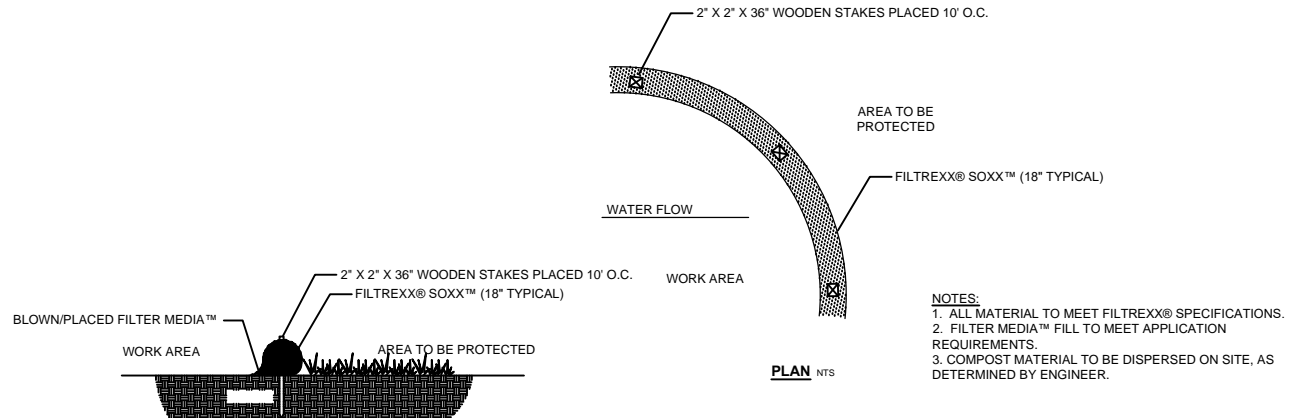
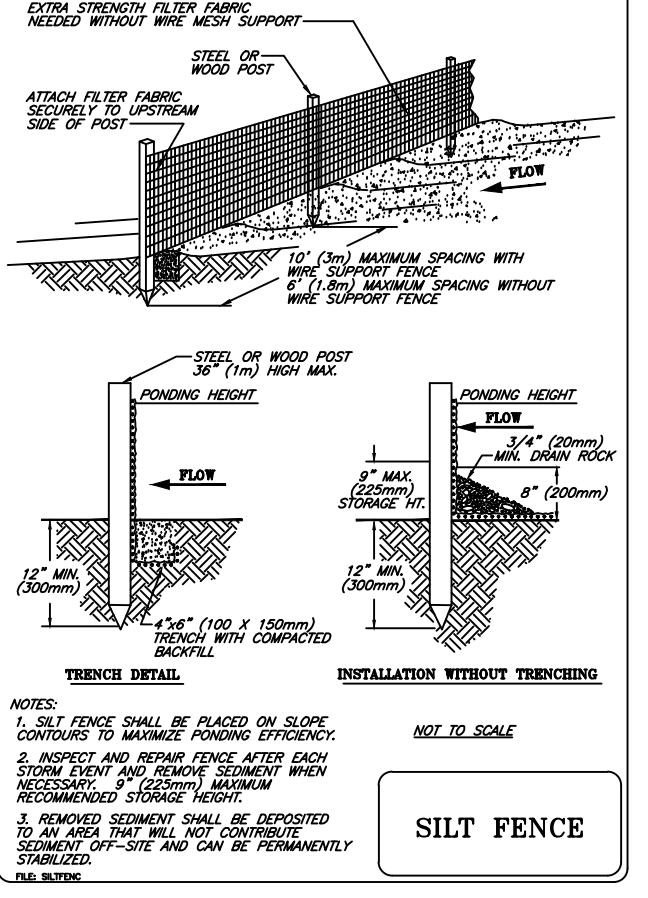
NOTE: A STANDARD MANHOLE WITH A MINIMUM 36" DIAMETER (INTERNAL) SHALL BE USED FOR ALL MANHOLES EXCEPT THE OUTLET STRUCTURE MANHOLE. THE OUTLET STRUCTURE MANHOLE SHALL BE A MINIMUM 48" DIAMETER (INTERNAL) IN ORDER TO CONSTRUCT THE OUTLET CONTROL WALL WITH ORIFICES AND BROAD CRESTED WEIR. SEE DETAIL BELOW FOR THE OUTLET CONTROL STRUCTURE.

OVERHEAD VIEW OF OUTLET CONTROL MANHOLE NOT TO SCALE

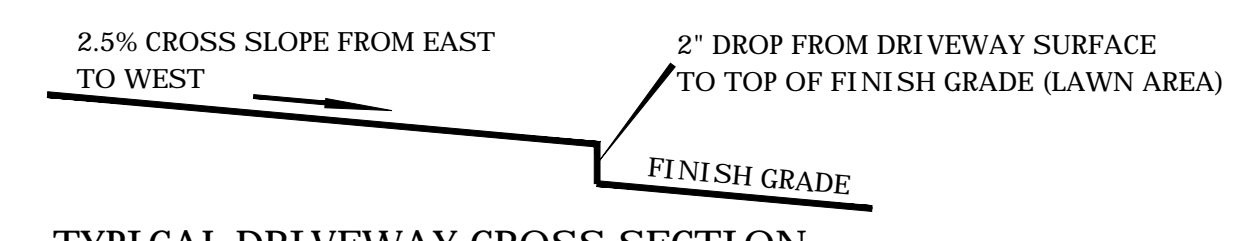
CURRENT ELEVATION OF CATCH BASIN GRATE IS 425.64'. THE GRATE ASSEMBLY SHALL BE RAISED SO THAT THE GRATE IS SET AT 427.00'



EXISTING CATCH BASIN AT END OF PROPOSED WET SWALE - NOT TO SCALE

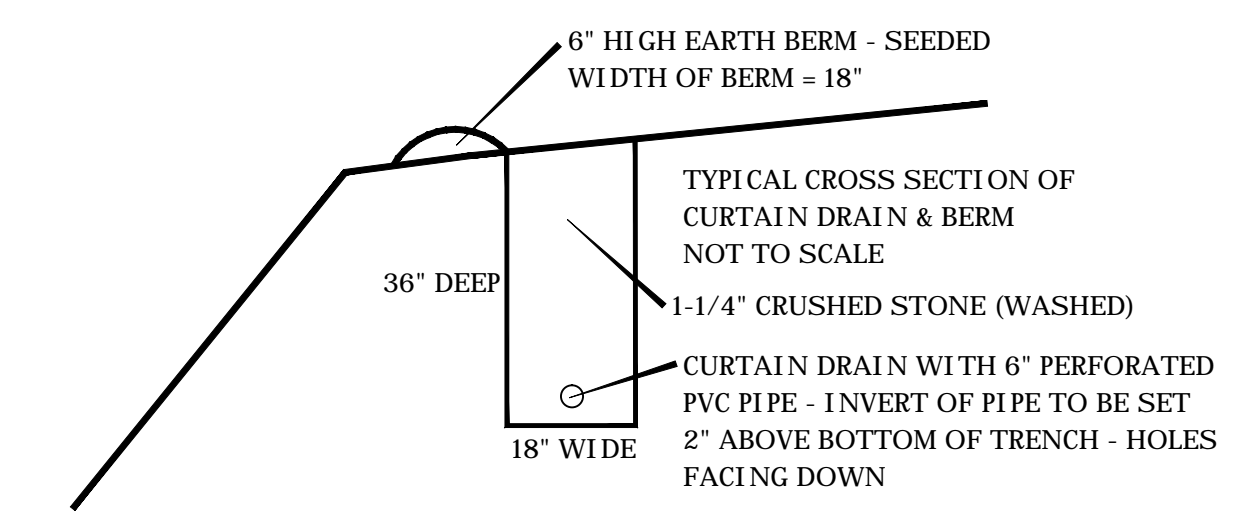


FILTREXX® SEDIMENT CONTROL



TYPICAL DRIVEWAY CROSS SECTION NOT TO SCALE

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALL "CALL-BEFORE-YOU-DIG" AT 1-800-922-4455 AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION FOR THE LOCATION OF ANY UNDERGROUND UTILITIES ON THIS PROPERTY.



TYPICAL CROSS SECTION OF CURTAIN DRAIN & BERM NOT TO SCALE

