

SITE LOCATION MAP
SCALE: 1"=1,000'

CHURCHILL SUBDIVISION 31 HOPEWELL RD.

PREPARED FOR
CONTRAIL, LLC
GLASTONBURY, CONN.

INDEX TO SHEETS

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APPLICANT
CONTRAIL, LLC
C/O BRADLEY CHURCHILL
85 DUG RD
SOUTH GLASTONBURY, CONN. 06073

ZONE: VILLAGE RESIDENTIAL/GW-1

TOTAL AREA=40,802 S.F.
=0.936 AC.

TOWN PLAN & ZONING COMMISSION APPROVAL	
CHURCHILL SUBDIVISION	VILLAGE RESIDENTIAL/GW-1
SUBDIVISION NAME	ZONE
CONTRAIL, LLC	
SUBDIVIDER	
SUBDIVISION APPROVAL DATE	PLAN & ZONING COMMISSION CHAIRMAN
COMPLETION DATE FOR SUBDIVISION IMPROVEMENTS	COMMUNITY DEVELOPMENT DIRECTOR
FILE NO.	TOWN ENGINEER

THIS MAP IS NOT VALID IF MODIFIED IN ANY WAY AND/OR DOES NOT BEAR THE EMBOSSED SEAL OF THE UNDERSIGNED

I HEREBY DECLARE TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS PLAN IS SUBSTANTIALLY CORRECT.

MARK W. FRIEND P.E. # 13818

MEGSON, HEAGLE & FRIEND
CIVIL ENGINEERS & LAND SURVEYORS, LLC
81 RANKIN ROAD
GLASTONBURY, CONN. 06033
PHONE (860)-659-0587

COVER SHEET
CHURCHILL SUBDIVISION
PREPARED FOR
CONTRAIL, LLC
SOUTH GLASTONBURY, CONN.

REV. 6-1-21 CONSERVATION COMMISSION RECOMMENDATION

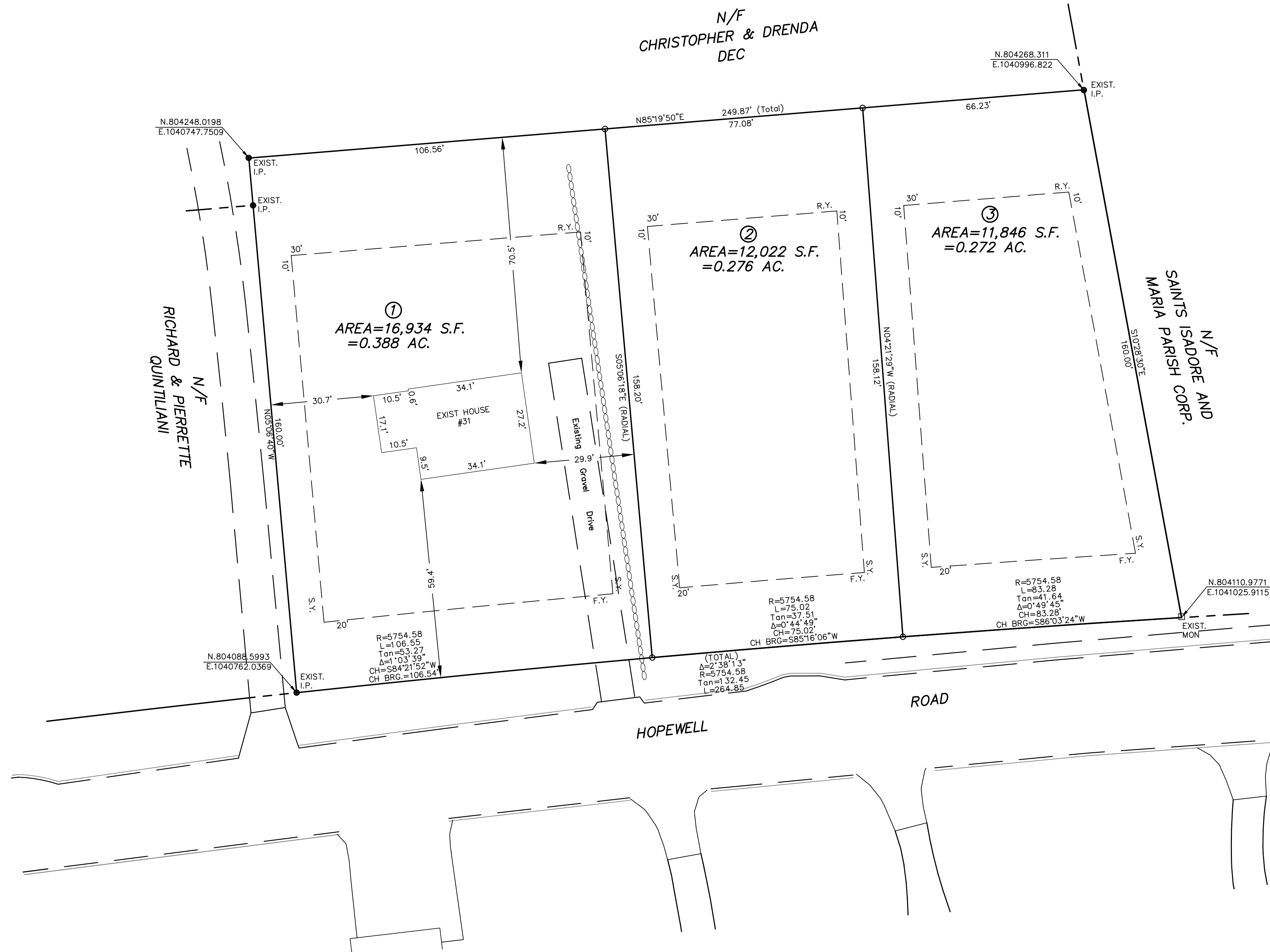
CK. BY: MWF
DRW. BY: TCJ
DATE: 5-6-21
SCALE: NONE
SHEET 1 OF 6
MAP NO. 129-20-1CS

BEARINGS AND COORDINATES REFER TO THE NAD 83 COORDINATE SYSTEM.

THE SUBDIVISION REGULATIONS OF THE TOWN OF GLASTONBURY TOWN PLAN & ZONING COMMISSION ARE A PART OF THIS PLAN AND APPROVAL OF THIS PLAN IS CONTINGENT ON COMPLIANCE WITH ALL REQUIREMENTS OF SAID SUBDIVISION REGULATIONS.

ABUTTING PROPERTIES ARE ZONED VILLAGE RESIDENTIAL & GW-1

WARNING: THESE PLANS NOT TO BE USED FOR LOCATION OF UNDERGROUND UTILITIES - CALL BEFORE YOU DIG 1-800-922-4455 TWO WORKING DAYS BEFORE YOU DIG.



LEGEND

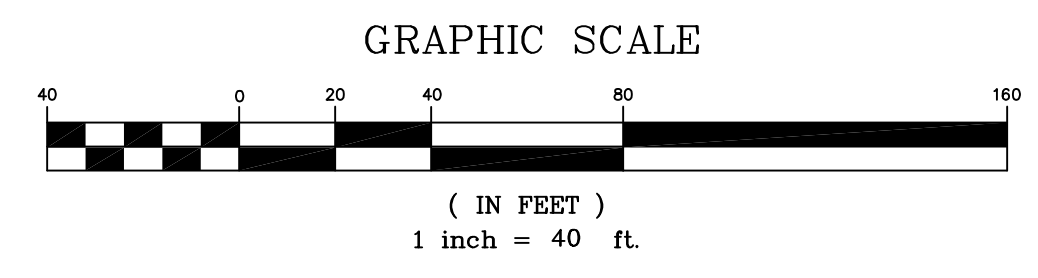
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APPLICANT
CONTRAIL, LLC
 C/O BRADLEY CHURCHILL
 85 DUG RD
 SOUTH GLASTONBURY, CONN. 06073

ZONE: VILLAGE RESIDENTIAL
 GROUNDWATER PROTECTION ZONE 1 (GW1)

TOTAL AREA=40,802 S.F.
 =0.936 AC.

TOWN PLAN & ZONING COMMISSION APPROVAL	
CHURCHILL SUBDIVISION	VILLAGE RESIDENTIAL/GW-1
SUBDIVISION NAME	ZONE
BRAD CHURCHILL	
SUBDIVIDER	
SUBDIVISION APPROVAL DATE	PLAN & ZONING COMMISSION CHAIRMAN
COMPLETION DATE FOR SUBDIVISION IMPROVEMENTS	COMMUNITY DEVELOPMENT DIRECTOR
FILE NO.	TOWN ENGINEER



REFERENCE MADE TO MAPS TITLED:
 PREPARED FOR AMY L PRATT GLASTONBURY, CONN BY MEGSON & HYPPA CIVIL ENGINEERS GLASTONBURY, CONN SCALE 1"=40' DATE: 7-2-85 MAP NO: 44-65-2

*SUBDIVISION PLAN MAIN STREET-HOPEWELL ROAD SUBDIVISION PREPARED FOR ROBERT & VICTORIA SAGLIO GLASTONBURY, CONN. BY MEGSON & HEAGLE CIVIL ENGINEERS AND LAND SURVEYORS DATE: 10-23-89 SCALE: 1"=20' MAP NO: 90-89-1S

*TOWN OF GLASTONBURY RIGHT OF WAY-HOPEWELL ROAD GLASTONBURY, CONN BY MEGSON & HYPPA CIVIL ENGINEERS GLASTONBURY, CONN SCALE 1"=40' DATE: 3-21-81 MAP NO: 69-60-1 SHEET 1 OF 6

*TOPOGRAPHIC MAP PREPARED FOR SAINT AUGUSTINE'S CHURCH CORPORATION GLASTONBURY, CONN BY JOHN J. MOZZOCHI & ASSOCIATES CIVIL ENGINEERS GLASTONBURY, CONN MAP NO: 69-92 SCALE 1"=20' DATE 11-25-69

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REV. 6-1-21 CONSERVATION COMMISSION RECOMMENDATION

CK. BY:	JLH
DRW. BY:	TCJ
DATE:	5-6-21
SCALE:	1"=20'
SHEET	2 OF 6
MAP NO.	129-20-1S

MEGSON, HEAGLE & FRIEND
 CIVIL ENGINEERS & LAND SURVEYORS, LLC
 81 RANKIN ROAD
 GLASTONBURY, CONN. 06033
 PHONE (860)-659-0587

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON. THIS SURVEY WAS PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTION 20-300b-1 THE STATE OF CONNECTICUT. THIS SURVEY AND MAPS IN THE STATE OF CONNECTICUT, HAS BEEN APPROVED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC., ON SEPTEMBER 26, 1996. TYPE OF SURVEY: SUBDIVISION MAP. BOUNDARY DETERMINATION CATEGORY: DEPENDENT RESURVEY/ORIGINAL SURVEY. CLASS OF ACCURACY: A-2
 JOHN L. HEAGLE L.S. # 9396

NOTES:
TOPOGRAPHY TAKEN FROM ACTUAL FIELD SURVEY AND TOWN OF GLASTONBURY TOPOGRAPHIC MAPS.
VERTICAL DATUM REPRESENTS NAVD 88.
ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH WITH TOWN OF GLASTONBURY SPECIFICATIONS OR AS DIRECTED BY THE TOWN ENGINEER.

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 8:00-4:30 PM MONDAY THRU FRIDAY AT (860) 652-7735.

RIGHTS TO DRAIN FROM LOT TO LOT RESERVED ON ALL LOTS

LOTS SERVED BY PUBLIC WATER SUPPLY & SEWERS

WARNING: THESE PLANS NOT TO BE USED FOR UNDERGROUND UTILITIES - CALL BEFORE YOU DIG 1-800-922-4455 TWO WORKING DAYS BEFORE YOU DIG.

GENERAL NOTES

ALL CONSTRUCTION METHODS TO CONFORM TO CONN. D.O.T. FORM 818 AND/OR THE TOWN STANDARD SPECIFICATIONS.

THE LOCATION OF ALL EXISTING UTILITIES SHOWN IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATION OF EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND FOR COORDINATING CONNECTION OF PROPOSED AND EXISTING UTILITIES.

ALL UNDERGROUND UTILITIES TO BE INSTALLED/DIRECTED BY APPROPRIATE AUTHORITIES.

FOUNDATION DRAINS SHALL BE DEPICTED ON ALL PLOT PLANS.

RAIN GARDEN DESIGN

LOT 1
AREA TO RAIN GARDEN = 4000 S.F.
IMPERVIOUS AREA = 750 S.F. (DRIVEWAY)
REQUIRED W.Q.V. = 72 C.F.

LOTS 2 & 3
AREA TO RAINGARDEN = 3350 S.F.
IMPERVIOUS AREA = 1115 S.F.
REQUIRED W.Q.V. = 102 C.F.
(W.Q.V. TO BE ADJUSTED AT PLOT PLAN SUBMISSION)

ROOF INFILTRATION DESIGN

LOTS 2 & 3
ROOF AREA = 1500 S.F. (ASSUMED)
STORAGE = 1" OF RAINFALL
1,500 X 1" X 1FT/12" = 125 C.F.
(VOLUME TO BE ADJUSTED AT PLOT PLAN SUBMISSION)

IMPERVIOUS COVERAGE

PRE-DEVELOPMENT

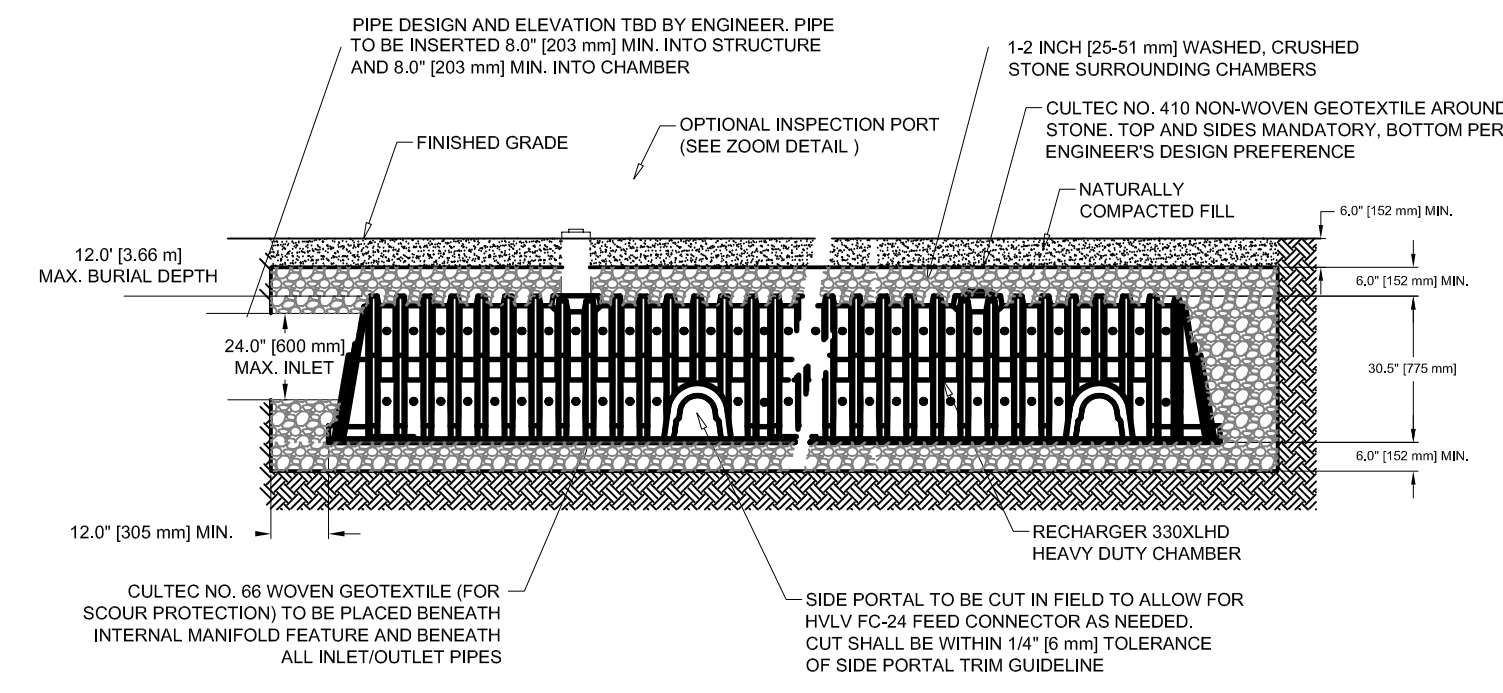
TOTAL AREA = 40,802
IMPERVIOUS AREA = 2,000
COVERAGE = 4.9%

POST-DEVELOPMENT

TOTAL AREA = 40,802 S.F.
IMPERVIOUS AREA = 7,230 S.F.
COVERAGE = 17.7%

MS4 INFORMATION

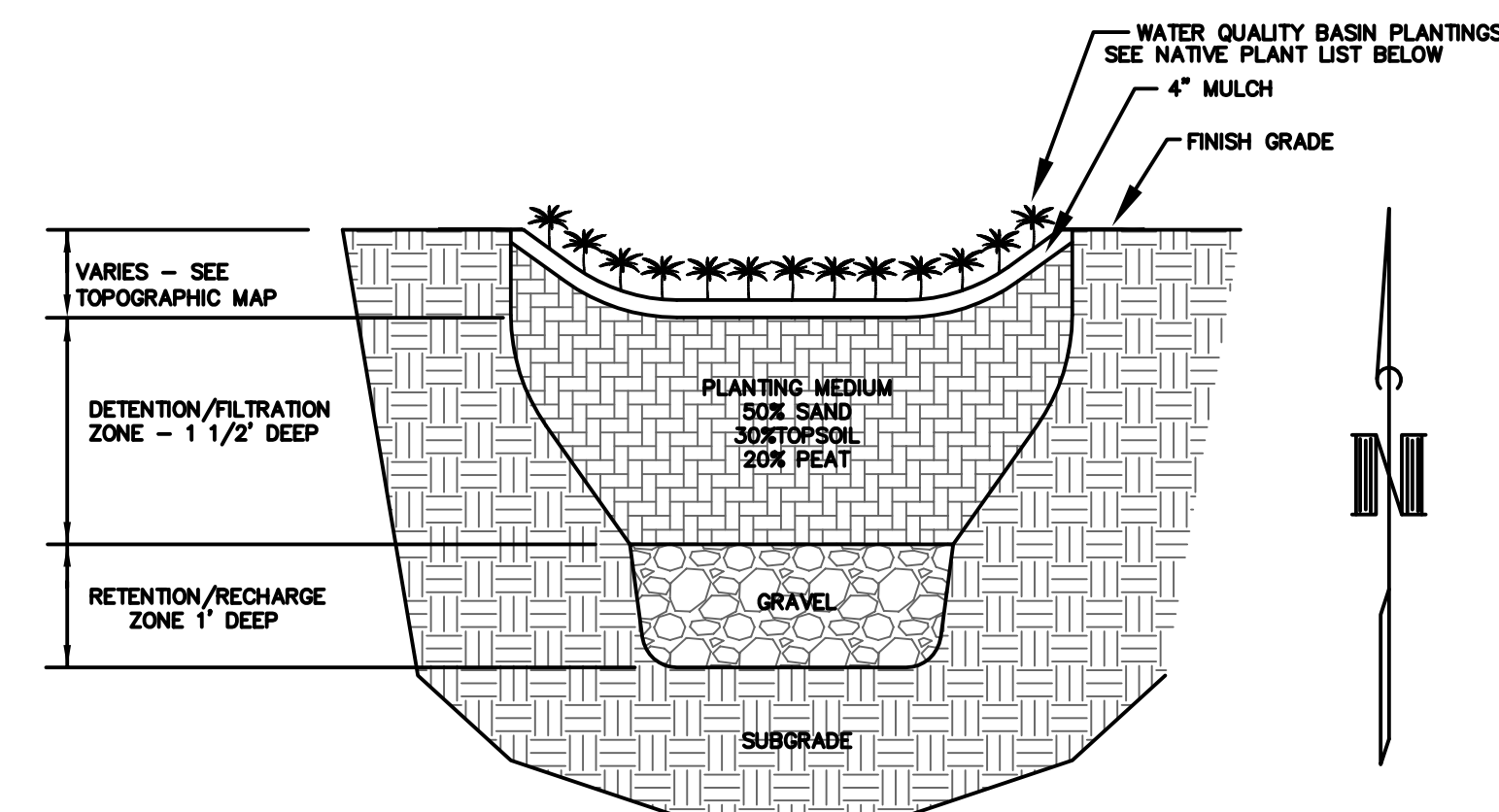
DIRECTLY CONNECTED IMPERVIOUS AREA
PRE-DEVELOPMENT = 0 S.F.
POST-DEVELOPMENT = 0 S.F.



PROP. CULTEC RECHARGER 330XLHD STORMWATER CHAMBER NOT TO SCALE

MAINTENANCE OF RAIN GARDEN (TO BE DONE BY HOMEOWNER)

- FIRST SEASON
- WEED (3-5" LAYER OF MULCH WILL LIMIT WEEDS)
- WATER (GENERAL RULE OF THUMB IS 1" OF WATER PER WEEK)
- ANNUAL
EARLY SPRING
- CUT AND REMOVE DEAD STALKS AND SEED HEADS FROM PREVIOUS SEASON.
- REMOVE STICKS AND DEBRIS
- WEED
- PRUNE SHRUBS IF NECESSARY
- WHERE PLANTS ARE TOO CROWDED, DIVIDE AND MOVE PLANTS TO DIFFERENT AREA
- REPLENISH MULCH TO 3-5" LAYER
- SPRING AND SUMMER
- WEED
- WATER DURING SEVERE DROUGHT
- FALL
- REMOVE WEEDS AND DISEASED PLANTS
- CUT BACK DEAD STALKS
- REMOVE EXCESS TREE LEAVES FROM GARDEN
- IF FALL IS DRY, WATER PLANTS UNTIL GROUND BEGINS TO FREEZE (EARLY NOVEMBER)



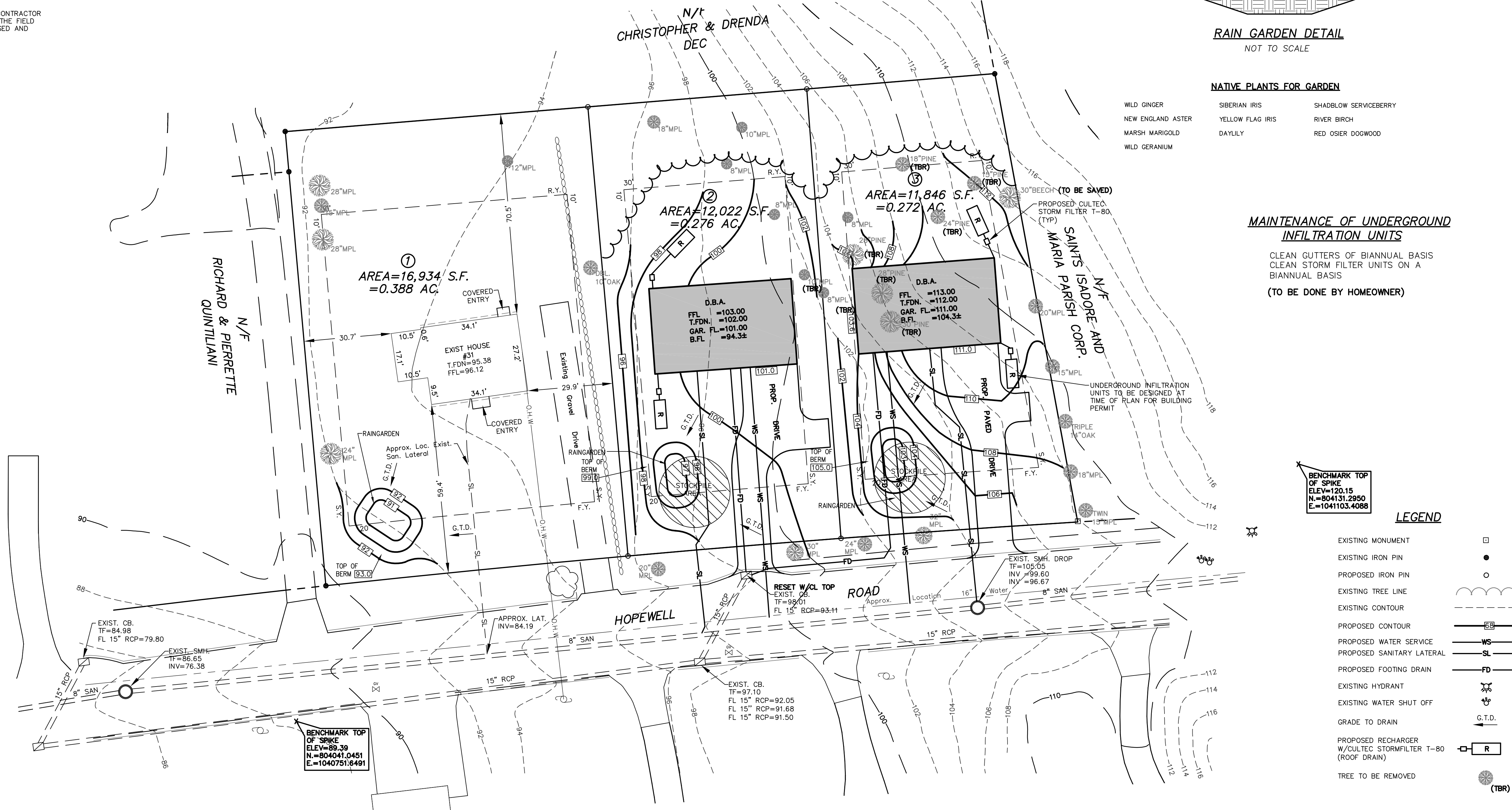
RAIN GARDEN DETAIL NOT TO SCALE

NATIVE PLANTS FOR GARDEN

- | | | |
|-------------------|------------------|-----------------------|
| WILD GINGER | SIBERIAN IRIS | SHADBLOW SERVICEBERRY |
| NEW ENGLAND ASTER | YELLOW FLAG IRIS | RIVER BIRCH |
| MARSH MARIGOLD | DAYLILY | RED OSIER DOGWOOD |
| WILD GERANIUM | | |

MAINTENANCE OF UNDERGROUND INFILTRATION UNITS

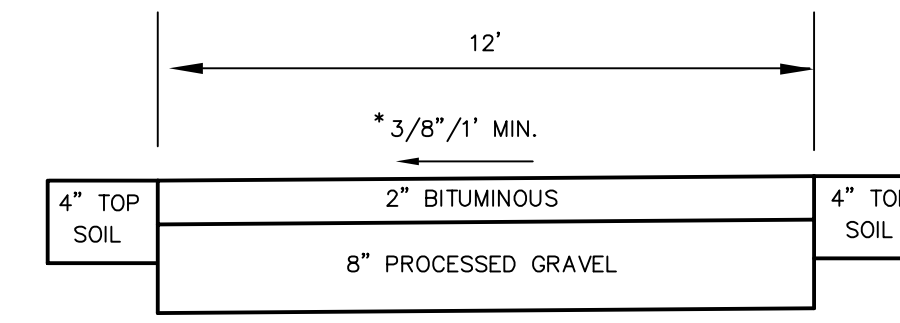
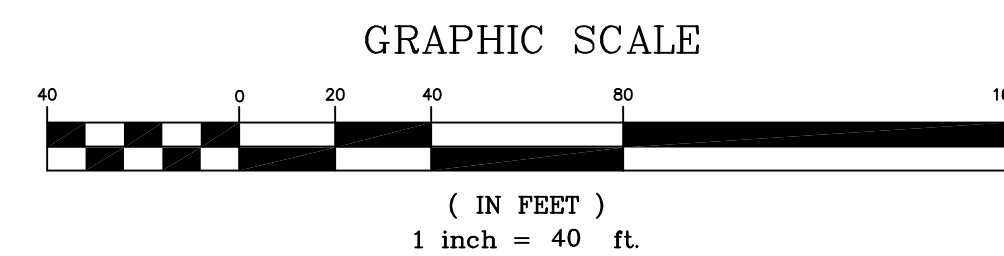
CLEAN GUTTERS OF BIENNIAL BASIS
CLEAN STORM FILTER UNITS ON A BIENNIAL BASIS
(TO BE DONE BY HOMEOWNER)



LEGEND

- EXISTING MONUMENT
- EXISTING IRON PIN
- PROPOSED IRON PIN
- EXISTING LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED WATER SERVICE
- PROPOSED SANITARY LATERAL
- PROPOSED FOOTING DRAIN
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF
- GRADE TO DRAIN
- PROPOSED RECHARGER W/CULTEC STORMFILTER T-80 (ROOF DRAIN)
- TREE TO BE REMOVED

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SUBDIVIDER	
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FILE NO.	TOWN ENGINEER



* DRIVEWAYS TO BE CONSTRUCTED TO DIRECT SURFACE WATER TO PROPOSED RAIN GARDENS

APPLICANT
CONTRAIL, LLC
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85 DUG RD
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ZONE: VILLAGE RESIDENTIAL
GROUNDWATER PROTECTION ZONE 1 (GW1)

TOTAL AREA = 40,802 S.F.
= 0.936 AC.

PUBLIC WATER
PUBLIC SANITARY SEWER

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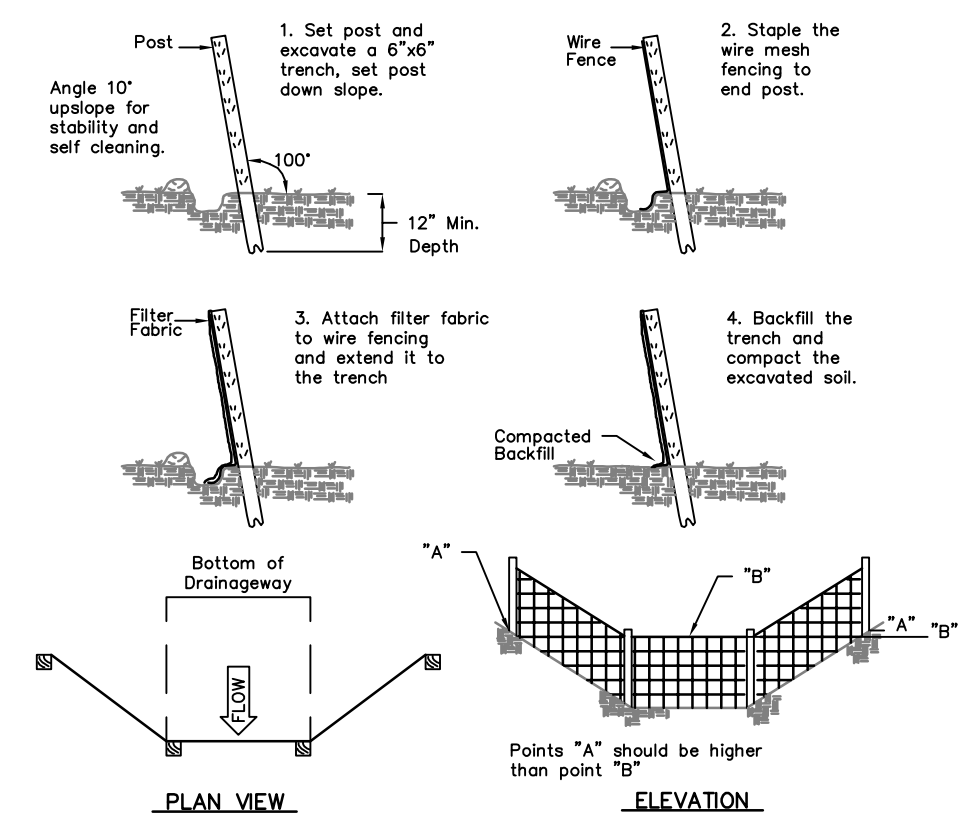
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TOPOGRAPHIC PLAN
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PREPARED FOR
CONTRAIL, LLC
SOUTH GLASTONBURY, CONN.

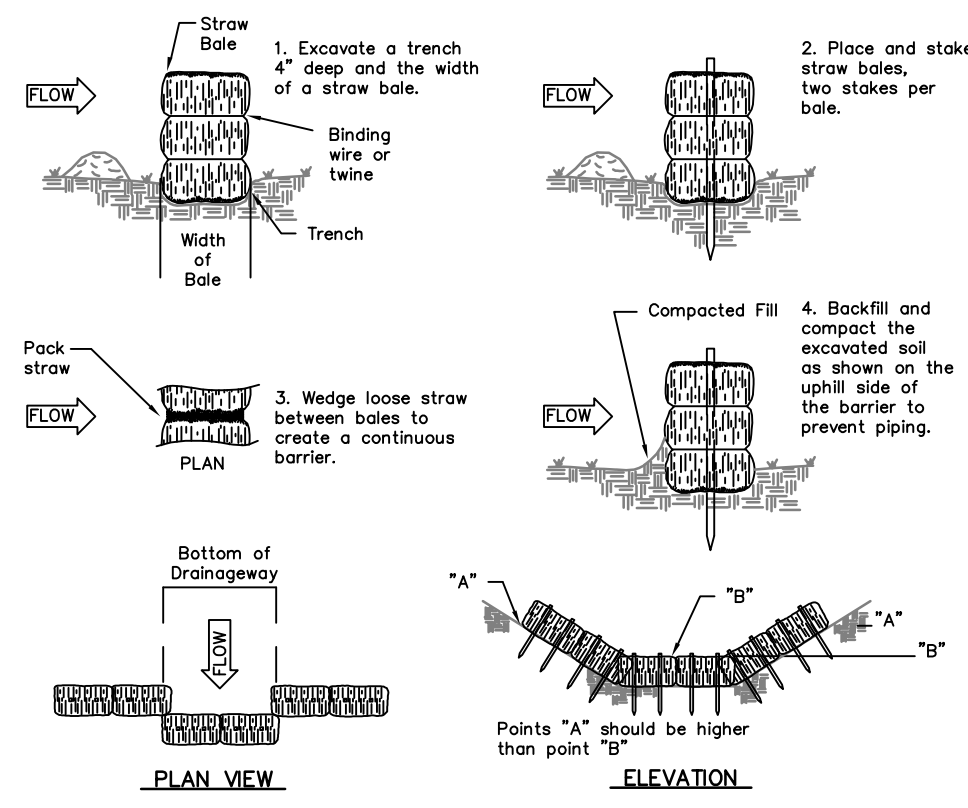
REV. 6-1-21 CONSERVATION COMMISSION RECOMMENDATION

CK. BY:	MWF
DRW. BY:	TCJ
DATE:	5-6-21
SCALE:	1"=20'
SHEET:	3 OF 6
MAP NO.	129-20-1T



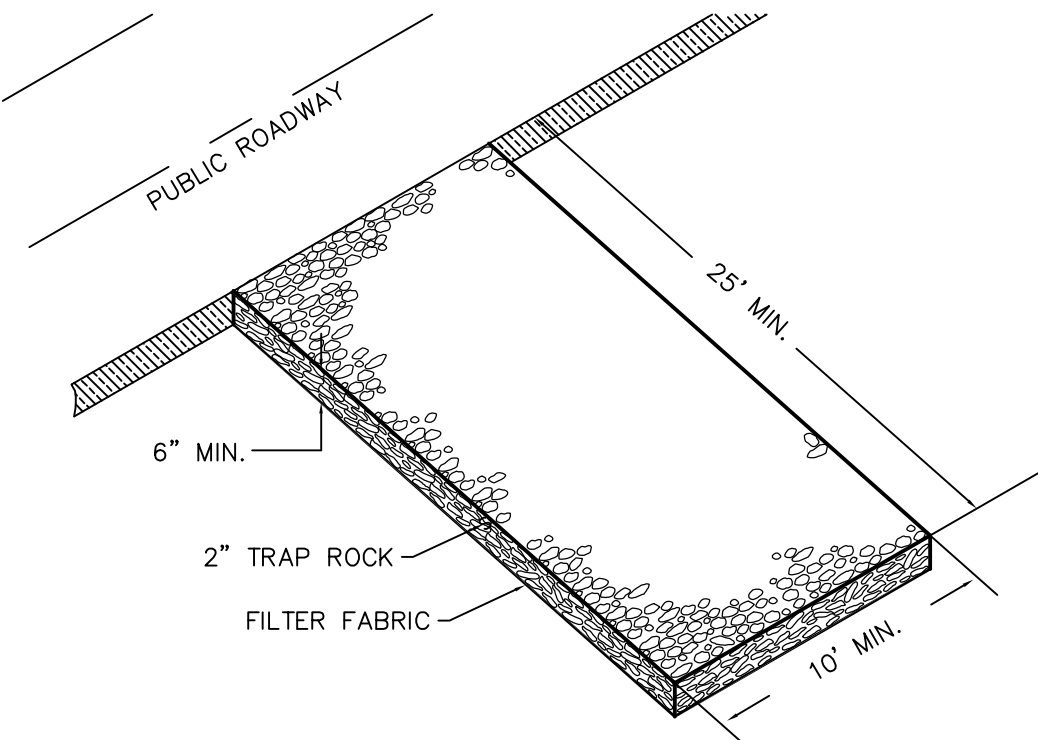
Source: U.S. Department of Agriculture, Soil Conservation Service, Storrs, Connecticut

PLACEMENT AND CONSTRUCTION OF A SYNTHETIC FILTER BARRIER

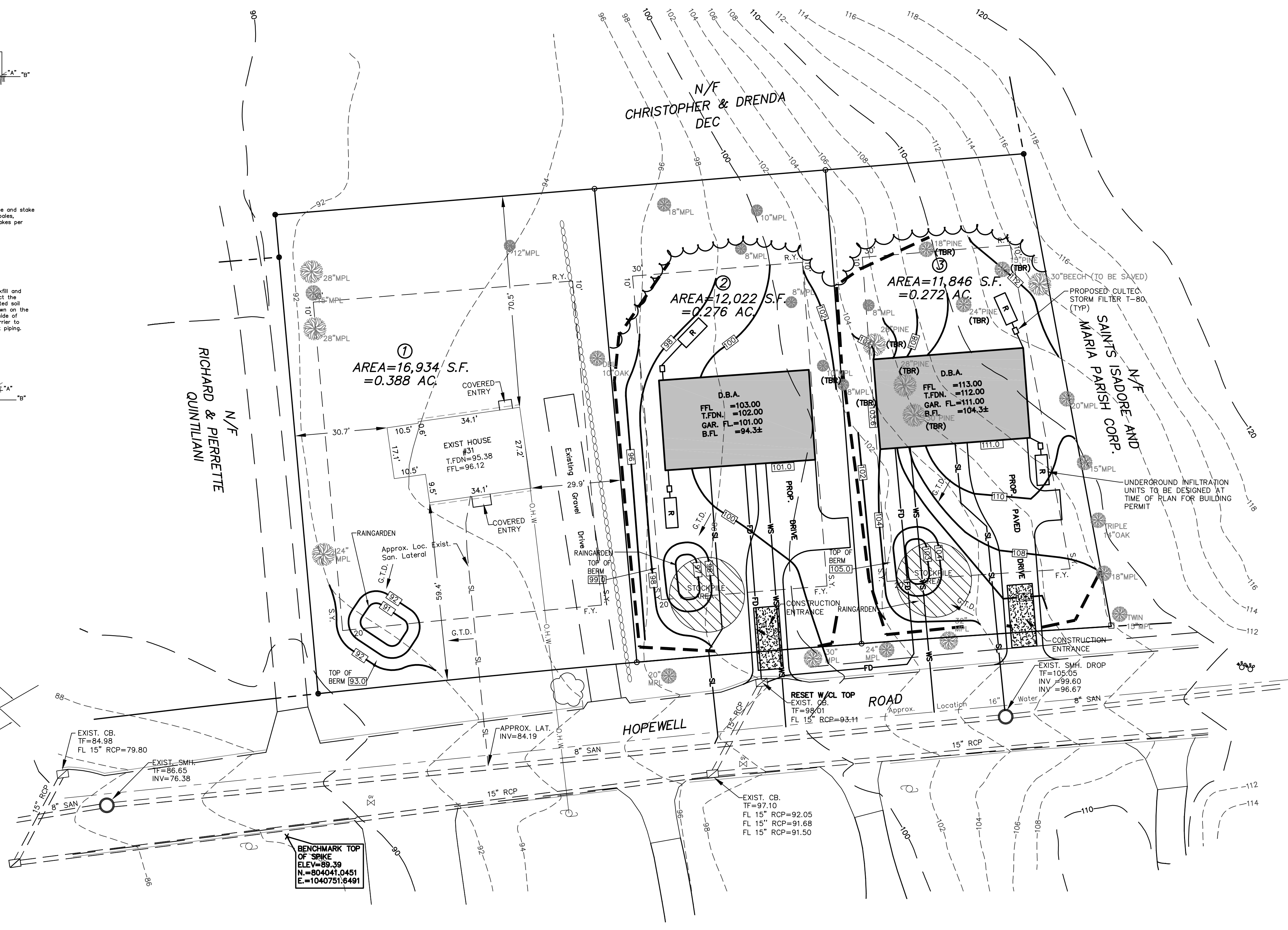


Source: U.S. Department of Agriculture, Soil Conservation Service, Storrs, Connecticut

PLACEMENT AND CONSTRUCTION OF A STRAW BALE BARRIER



CONSTRUCTION ENTRANCE



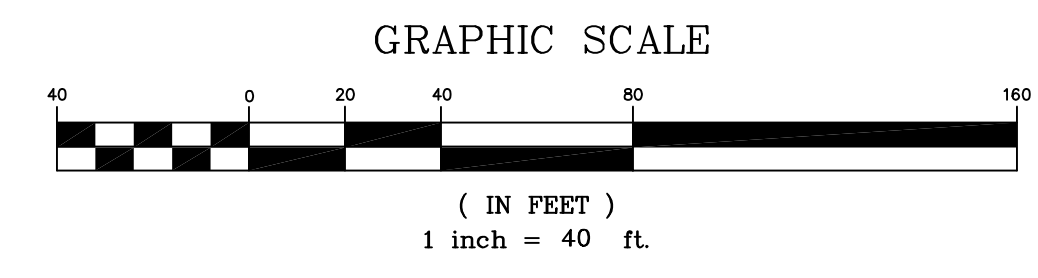
SOIL TYPES HAVEN & ENFIELD

LEGEND

- EXISTING MONUMENT
- EXISTING IRON PIN
- PROPOSED IRON PIN
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROP. HAY BALE/SILT FENCE
- PROPOSED WATER
- PROPOSED SANITARY LATERAL
- FOOTING DRAIN
- PROPOSED DRYWELL
- FOOTING DRAIN
- PROPOSED DRYWELL

TOWN PLAN & ZONING COMMISSION APPROVAL

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 PUBLIC SANITARY SEWER

EROSION & SEDIMENTATION CONTROL PLAN
CHURCHILL SUBDIVISION
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CK. BY:	MWF
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SHEET	4 OF 6
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REV. 6-1-21 CONSERVATION COMMISSION RECOMMENDATION

GENERAL NOTES

ALL CONSTRUCTION METHODS TO CONFORM TO CONN. D.O.T. FORM 818 AND/OR THE TOWN STANDARD SPECIFICATIONS. ALL UTILITIES TO BE INSTALLED UNDERGROUND. ALL DRAINAGE EASEMENTS, UNLESS OTHERWISE NOTED, TO BE CONVEYED TO THE TOWN. THE LOCATION OF ALL EXISTING UTILITIES SHOWN IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATION OF EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND FOR COORDINATING CONNECTION OF PROPOSED AND EXISTING UTILITIES. ANY UNSUITABLE MATERIAL IN PAVEMENT AREAS TO BE REMOVED AND REPLACED WITH SUITABLE MATERIAL AS DIRECTED BY THE TOWN. TOWN MAY REQUIRE CHANGES TO THE PLAN TO ADDRESS PROBLEMS THAT MAY RESULT IN THE FIELD. ALL UNDERGROUND UTILITIES TO BE INSTALLED/DIRECTED BY APPROPRIATE AUTHORITIES. ALL UNDERGROUND UTILITIES MUST BE INSTALLED BEFORE ROADWAY PAVEMENT. FOUNDATION DRAINS SHALL BE DEPICTED ON ALL PLOT PLANS.

HOUSE SITE DEVELOPMENT

ALL DRIVEWAY SHOULDERS SHOULD BE STABILIZED IMMEDIATELY UPON COMPLETION OF ROUGH GRADING. SHOULDER SEED BED PREPARATION SHOULD FOLLOW THE GENERAL NOTES PROVIDED. HAY BALES OR FILTER FABRIC SHOULD BE USED TO ENTRAP ANY SEDIMENT GENERATED FROM EXPOSED SOIL SURFACES. DRIVEWAY ROADBEDS SHALL BE STABILIZED WITH COMPACTED ROAD AGGREGATE AS SOON AS POSSIBLE. TOPSOIL AND EXCAVATED SUBSOIL FROM THE FOUNDATION AREA SHOULD BE STOCKPILED WITHIN THE AREA OF DISTURBANCE IF NOT USED FOR ONSITE REGRADING. EACH STOCKPILE MUST BE ADEQUATELY RINGED WITH SEDIMENT CONTROL MATERIALS (I.E. HAY BALES AND/OR FABRIC FENCE). ANY ADDITIONAL STOCKPILING OF LUMBER OR BUILDING MATERIALS SHOULD ALSO BE CONFINED TO THE AREA OF DISTURBANCE. SIMILARLY, VEHICULAR MOVEMENT SHOULD BE DIRECTED TO ESTABLISHED PARKING AREAS. STUMPAGE AND DEBRIS SHALL NOT BE BURIED ON SITE. BLASTED ROCK THAT CANNOT BE USED AS LANDSCAPE BACKDROP OR AS STABILIZATION MATERIAL SHALL BE TAKEN OFF SITE TO A SUITABLE LOCATION. PLOT PLANS FOR EACH LOT SHALL INDICATE PROPOSED SEDIMENTATION AND EROSION CONTROLS. ALSO THE PROPOSED HOUSE LOCATION, LOT GRADING LIMIT OF TREE CLEARING, DRIVEWAY DESIGN, AND SITE DRAINAGE PLAN SHALL BE SHOWN. THESE PLANS SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE TOWN. UPON APPROVAL OF INDIVIDUAL SITE PLAN DEVELOPMENT, THE LIMITS OF DEVELOPMENT SHOULD BE ESTABLISHED IN THE FIELD FOR EACH PROPOSED RESIDENTIAL STRUCTURE. DISTURBANCE LIMITS OF 25-30 FEET BEYOND THE PHYSICAL DIMENSIONS OF THE STRUCTURE ARE RECOMMENDED.

GENERAL

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT. IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATERBODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INsofar AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS, AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES AND WATERBODIES, AND TO PREVENT, INsofar AS POSSIBLE, EROSION ON THE SITE. CONSTRUCTION METHODS, IN GENERAL, SHALL BE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" (2001) BY THE STATE OF CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.

LAND GRADING

GENERAL: 1. THE RESHAPING OF THE GROUND SURFACE BY EXCAVATION AND FILLING OR A COMBINATION OF BOTH, TO OBTAIN PLANNED GRADES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING BASIC CRITERIA: A) THE CUT FACE OF EARTH EXCAVATION SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1). B) THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1). C) THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO FOUR VERTICAL (1:4). D) NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE, OR WASH UPON THE PREMISES OF ANOTHER OWNER OR UPON ADJACENT WETLANDS, WATERCOURSE OR WATERBODY. E) INSTALLATION OF SEDIMENT AND EROSION CONTROLS SUCH AS HAY BALES AND SILT FENCES SHALL BE ESTABLISHED PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITIES. ALL SEDIMENT AND EROSION CONTROL STRUCTURES MUST BE MONITORED AND MAINTAINED BY THE CONTRACTOR UNTIL THE SOIL SURFACE IS STABILIZED. F) IF NECESSARY, LATERAL WATER DIVERSIONS SHALL BE INSTALLED ACROSS THE GRADED ROADWAY TO PREVENT DOWNSLOPE OUTFLOW AND EROSION. G) HAY BALES SHALL BE STAKED AND SILT FENCES SHALL BE PROPERLY SECURED. SEDIMENT WILL BE REMOVED FROM ALL CATCHMENTS AS NECESSARY. H) PRIOR TO ANY REGRADING, STONE APRON SHALL BE PLACED BY THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE. I) PROVISIONS SHOULD BE MADE TO CONDUCT SURFACE WATER SAFELY TO STORM DRAINS, TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES, AND FILL SLOPES. J) EXCAVATIONS SHOULD NOT BE MADE SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT PROTECTING SUCH PROPERTY FROM EROSION, SLIDING, SETTLING OR CRACKING.

TOPSOILING

GENERAL: 1. TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED AREAS IN ORDER TO PROVIDE A SOIL MEDIUM HAVING FAVORABLE CHARACTERISTICS FOR THE ESTABLISHMENT, GROWTH AND MAINTENANCE OF VEGETATION. 2. REMOVE ALL LARGE STONES, TREE LIMBS, ROOTS, AND CONSTRUCTION DEBRIS. 3. APPLY LIME ACCORDING TO SOIL TEST OR AT THE RATE OF TWO (2) TONS PER ACRE. MATERIAL: 1. TOPSOIL SHOULD HAVE PHYSICAL, CHEMICAL AND BIOLOGICAL CHARACTERISTICS FAVORABLE TO THE GROWTH OF PLANTS. 2. TOPSOIL SHOULD HAVE A SANDY OR LOAMY TEXTURE. 3. AN ORGANIC MATTER CONTENT OF OVER (6-20%) IS HIGHLY DESIRABLE. AVOID LIGHT COLORED LOWER SUBSOIL MATERIAL. APPLICATION: 1. AVOID SPREADING WHEN TOPSOIL IS WET OR FROZEN. 2. SPREAD TOPSOIL UNIFORMLY TO A DEPTH OF AT LEAST FOUR (4") INCHES.

EROSION CHECKS

GENERAL: 1. TEMPORARY PERVIOUS BARRIERS USING BALES OF HAY OR STRAW, HELD IN PLACE WITH STAKES DRIVEN THROUGH THE BALES AND INTO THE GROUND, OR SEDIMENT FILTER FABRIC FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION. CONSTRUCTION: 1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. 2. EACH BALE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR (4") INCHES. 3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES OR REINFORCEMENT BARS DRIVEN THROUGH THE BALES AND INTO THE GROUND. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER. 4. FILTER FABRIC SHALL BE SECURELY FASTENED AT THE TOP OF A THREE (3') FOOT HIGH FENCE AND BURIED A MINIMUM OF FOUR (4") INCHES INTO THE SOIL. SEAMS BETWEEN SECTIONS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF TWO (2') FEET. INSTALLATION AND MAINTENANCE: 1. BALED HAY EROSION BARRIERS SHALL BE INSTALLED AT ALL STORM SEWER INLETS. 2. BALED HAY EROSION BARRIERS AND SEDIMENT FILTER FENCES SHALL BE INSTALLED AT THE LOCATIONS INDICATED ON THE PLAN AND IN ADDITIONAL AREAS AS MAY BE DEMAED APPROPRIATE DURING CONSTRUCTION. 3. ALL EROSION CHECKS SHALL BE MAINTAINED UNTIL ADJACENT AREAS ARE STABILIZED. 4. INSPECTION SHALL BE FREQUENT (AT MINIMUM MONTHLY AND BEFORE AND AFTER HEAVY RAIN) AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED. 5. EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.

WINDBLOWN SEDIMENT

GENERAL: 1. ALL WINDBLOWN SEDIMENTS SHALL BE CONTROLLED AT ALL TIMES. THE SITE CONTRACTOR IS RESPONSIBLE FOR APPLYING DUST CONTROL AS OFTEN AS NEEDED TO PREVENT ANY WINDBLOWN SEDIMENTS FROM LEAVING THE SITE. PREDETERMINED TRAFFIC ROUTES FOR ALL TRAFFIC SHALL BE ESTABLISHED BY THE SITE CONTRACTOR TO STABILIZED ROUTES. TEMPORARY AND PERMANENT MULCHING AND TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE USED TO MINIMIZE THE NEED FOR DUST CONTROL. MECHANICAL SWEEPERS SHALL BE USED ON ALL PAVED SURFACES TO PREVENT DUST BUILD UP DURING THE COURSE OF SITE WORK. METHODS: 1. SPRAY ON ADHESIVES ARE ACCEPTABLE AND SHOULD BE APPLIED ACCORDING TO MANUFACTURER'S GUIDELINES. 2. WATER IS ACCEPTABLE BUT MUST BE APPLIED OFTEN IN HOT, DRY WEATHER. 3. CALCIUM CHLORIDE IS ACCEPTABLE BUT MUST BE APPLIED AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. 4. CRUSHED STONE OR COARSE GRAVEL CAN ALSO BE USED.

TEMPORARY VEGETATIVE COVER

GENERAL: 1. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL UNPROTECTED AREAS THAT PRODUCE SEDIMENT, AREAS WHERE FINAL GRADING HAS BEEN COMPLETED AND AREAS WHERE THE ESTIMATED PERIOD OF BARE SOIL EXPOSURE IS LESS THAN 12 MONTHS. SITE PREPARATION: 1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES. 2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA. 3. APPLY LIME ACCORDING TO SOIL TEST OR AT A RATE OF ONE (1) TON OF GROUND DOLOMITIC LIMESTONE PER ACRE (5 LBS. PER 100 SQUARE FEET). 4. APPLY FERTILIZER ACCORDING TO SOIL TEST OR AT THE RATE OF 300 LBS. OF 10-10-10 PER ACRE (7 LBS. PER 1,000 SQUARE FEET). 5. UNLESS HYDROSEEDDED, WORK IN LIME AND FERTILIZER TO A DEPTH OF FOUR (4") INCHES USING A DISK OR ANY SUITABLE EQUIPMENT. 6. TILLAGE SHOULD ACHIEVE A REASONABLY UNIFORM, LOOSE SEEDBED. WORK ON CONTOUR IF SITE IS SLOPING. ESTABLISHMENT: 1. USE ANNUAL RYEGRASS AT A RATE OF 40 LBS./AC. OR SUITABLE EQUIVALENT AS SPECIFIED IN THE "GUIDELINES". 2. SEEDING TO BE DONE FROM APRIL 1ST TO JUNE 15 OR AUGUST 1ST TO OCTOBER 1ST. WINTER STABILIZATION PLANTINGS TO BE NO LATER THAN OCTOBER 1ST. THIS INCLUDES STOCKPILE AREAS. 3. APPLY SEED UNIFORMLY ACCORDING TO THE RATE INDICATED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION. 4. UNLESS HYDROSEEDDED, COVER RYEGRASS SEEDS WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE EQUIPMENT. COVER SUDANGRASS AND SMALL GRAINS WITH 1/2 INCH SOIL. 5. MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO THE GUIDELINES IN THE "GUIDELINES".

PERMANENT VEGETATIVE COVER

GENERAL: 1. PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS VARIOUS SECTIONS OF THE PROJECT ARE COMPLETED IN ORDER TO STABILIZE THE SOIL, REDUCE DOWNSTREAM DAMAGE FROM SEDIMENT AND RUNOFF AND TO ENHANCE THE AESTHETIC NATURE OF THE SITE. IT WILL BE APPLIED TO ALL CONSTRUCTION AREAS SUBJECT TO EROSION WHERE FINAL GRADING HAS BEEN COMPLETED AND A PERMANENT COVER IS NEEDED. SITE PREPARATION: 1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES. 2. REMOVE LOOSE ROCK, STONE AND CONSTRUCTION DEBRIS FROM AREA. 3. PERFORM ALL PLANTING OPERATIONS PARALLEL TO THE CONTOURS OF THE SLOPE. 4. APPLY TOPSOIL AS INDICATED ELSEWHERE HEREIN. 5. APPLY FERTILIZER ACCORDING TO SOIL TEST OR:

- SPRING SEEDING: WORK DEEPLY IN SOIL BEFORE SEEDING, 300 LBS OF 10-10-10 FERTILIZER PER ACRE (7 LBS PER 1,000 SQUARE FEET); THEN SIX (6) TO EIGHT (8) WEEKS LATER APPLY ON THE SURFACE AN ADDITIONAL 300 LBS OF 10-10-10 FERTILIZER PER ACRE. - FALL SEEDING: WORK DEEPLY IN SOIL BEFORE SEEDING, 600 LBS OF 10-10-10 FERTILIZER PER ACRE (14 LBS PER 1,000 SQUARE FEET).

ESTABLISHMENT: 1. SMOOTH AND FIRM SEEDBED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING (EXCEPT WHEN HYDROSEEDING). 2. SELECT ADAPTED SEED MIXTURE AS FOLLOWS. NOTE RATES AND THE SEEDING DATES.

SUNNY TO PARTIALLY SUNNY SITES

Table with 3 columns: Species, Rate (lbs/acre), and Total Rate. Includes Kentucky Bluegrass, Creeping Red Fescue, and Perennial Ryegrass.

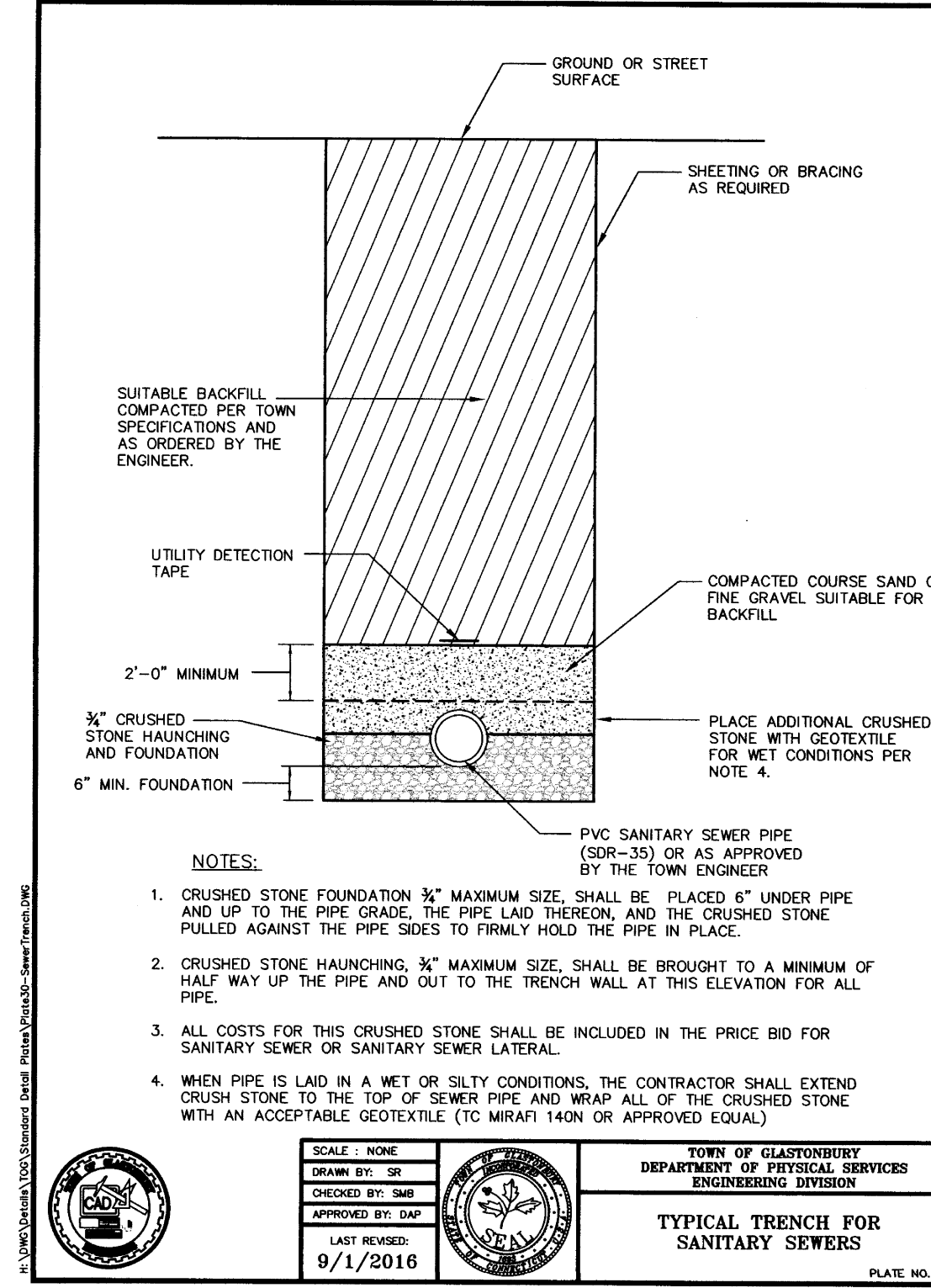
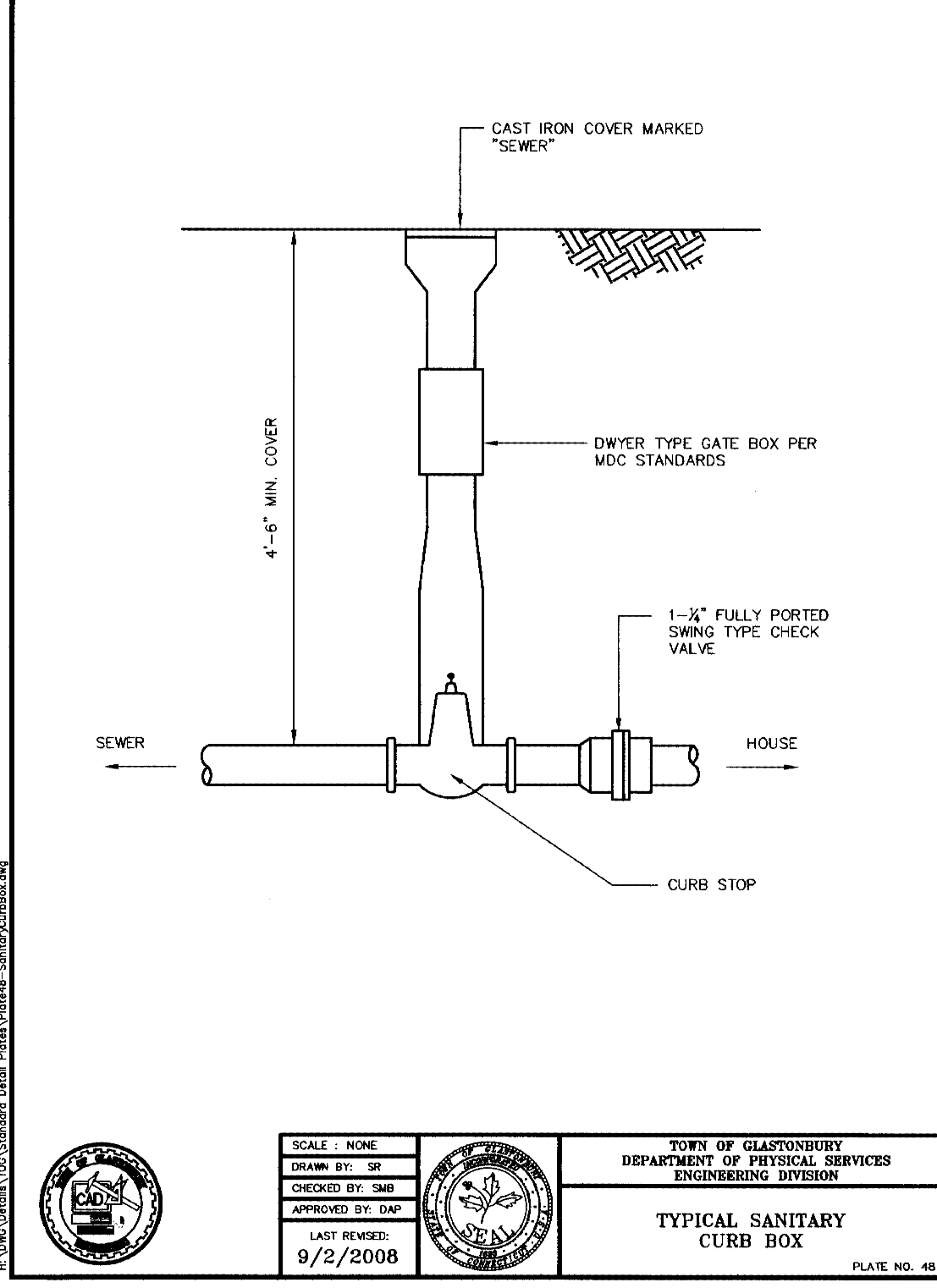
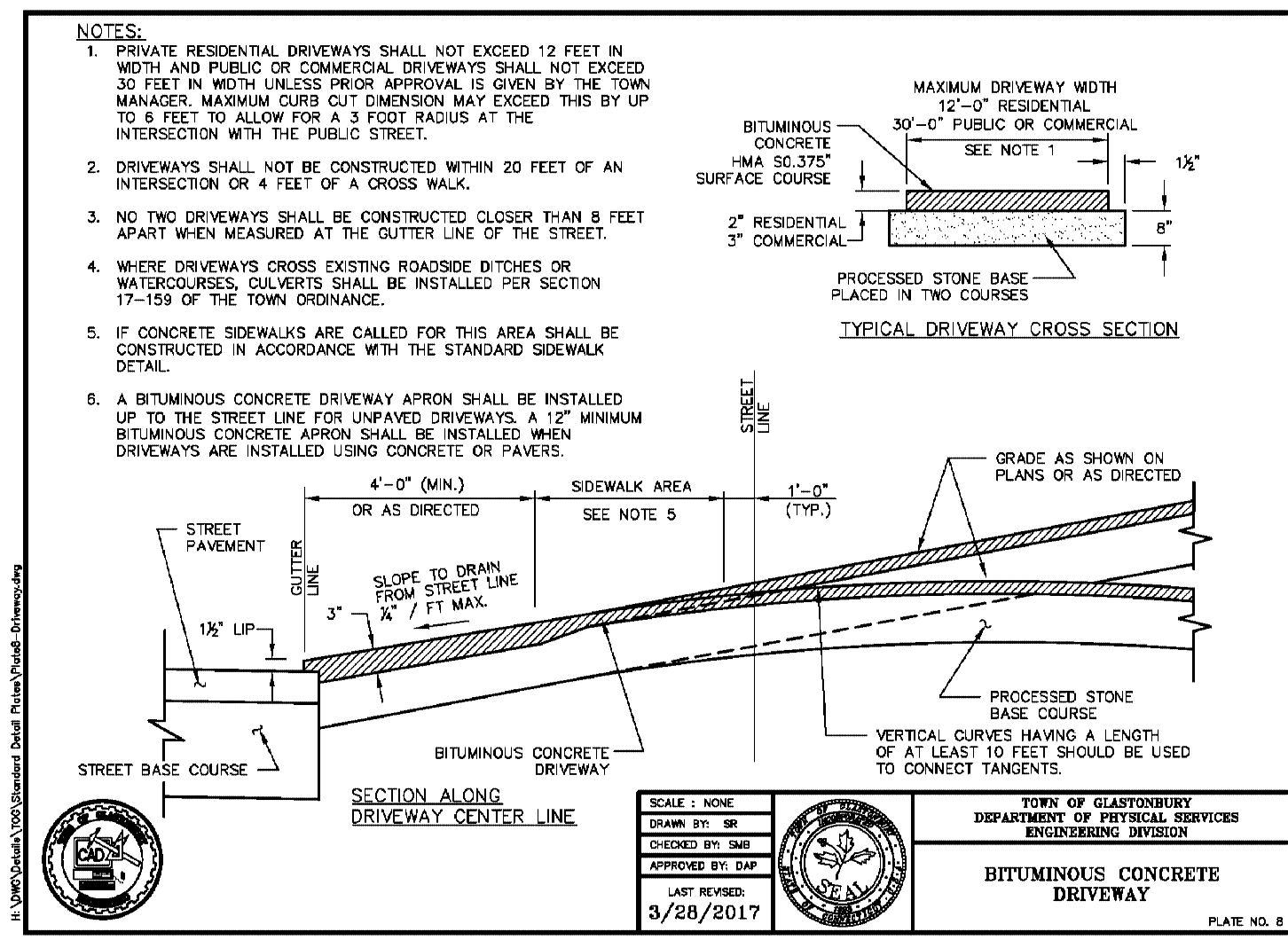
SHADY SITES

Table with 3 columns: Species, Rate (lbs/acre), and Total Rate. Includes Creeping Red Fescue and Perennial Ryegrass.

DROUGHTY SITES

Table with 3 columns: Species, Rate (lbs/acre), and Total Rate. Includes Creeping Red Fescue and Tall Fescue.

3. FINAL SEEDING SHALL TAKE PLACE PRIOR TO OCTOBER 1ST AS SEEDING AFTER THIS DATE RUNS A DISTINCT CHANCE OF FAILURE DUE TO ADVERSE WEATHER. ANY AREAS THAT ARE DISTURBED BETWEEN OCTOBER 1ST AND APRIL 1ST SHALL BE STABILIZED BY NON-VEGETATIVE MEANS SUCH AS HEAVY MULCHING WITH A BINDER OR JUTE MATTING WHICH WILL HAVE TO BE REMOVED BEFORE FINAL SEEDING AND THEN REPLACED AFTER FINAL SEEDING. 4. APPLY SEED UNIFORMLY ACCORDING TO RATE INDICATED, BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION. 5. COVER GRASS AND LEGUME SEEDS WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE EQUIPMENT (EXCEPT WHEN HYDROSEEDING). 6. MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO THE GUIDELINES IN THE "GUIDELINES". 7. USE PROPER INOCULANT ON ALL LEGUME SEEDINGS, USE FOUR (4) TIMES NORMAL RATE WHEN HYDROSEEDING.



TOWN PLAN & ZONING COMMISSION APPROVAL form with fields for subdivision name, zone, and approval dates.

THIS MAP IS NOT VALID IF MODIFIED IN ANY WAY AND/OR DOES NOT BEAR THE EMBOSSED SEAL OF THE UNDERSIGNED

MEGSON, HEAGLE & FRIEND CIVIL ENGINEERS & LAND SURVEYORS, LLC 81 RANKIN ROAD GLASTONBURY, CONN. 06033 PHONE (860)-859-0587

GENERAL NOTES & DETAILS CHURCHILL SUBDIVISION PREPARED FOR CONTRAIL, LLC SOUTH GLASTONBURY, CONN.

CK. BY: MWF DRW. BY: TCJ DATE: 5-6-21 SCALE: NONE SHEET 5 OF 6 MAP NO. 129-20-1N

MEMORANDUM

To: Town Plan & Zoning Commission
 From: Thomas Mocko, Environmental Planner
 Date: May 28, 2021

Re: **Proposed 3-lot Churchill Subdivision** – 3 frontage lots including an **existing house at 31 Hopewell Road** (north side) on 0.94 acre – Village Residential Zone and Groundwater Protection Zone 1 – Megson, Heagle & Friend, C.E. & L.S., LLC – **Conrail, LLC (c/o Bradley Churchill), landowner/applicant**

During its Regular Meeting of May 27, 2021, the Conservation Commission recommended to the Town Plan and Zoning Commission subdivision approval concerning the proposed 3-lot Churchill Subdivision at 31 Hopewell Road within the Village Residential Zone and Groundwater Protection Zone 1. The attached motion was approved by the Commission.

TM:gfm

cc: Daniel A. Pennington, Town Engineer/Manager of Physical Services
 Peter R. Carey, Building Official
 Mark Friend, Megson, Heagle & Friend, C.E. & L.S., LLC

7. Installation of soil erosion and sedimentation control and stabilization measures shall be the Permittee's responsibility. Once installed these measures shall then be inspected by the Environmental Planner prior to land disturbance activities. Afterwards it then shall be the Permittee's responsibility to inspect these control measures during, and immediately following, substantial storm events and maintain and/or replace the control measures, when needed, on a regular basis until the site is vegetatively stabilized. Hay bales shall be replaced every 60 days. The Environmental Planner is hereby authorized to require additional soil erosion and sediment controls and stabilization measures to address situations that arise on the site.
8. Prior to the issuance of a Certificate of Occupancy, certification from a professional engineer shall be required confirming that the stormwater management system was constructed in conformance with the approved design.
9. Where applicable, the homebuilder shall explore opportunities to incorporate solar energy options.

APPROVED RECOMMENDATION TO THE TOWN PLAN & ZONING COMMISSION

MOVED, that the Conservation Commission recommends to the Town Plan & Zoning Commission subdivision approval of Conrail, LLC's proposed 3-lot Churchill Subdivision located at 31 Hopewell Road, in accordance with plans on file in the Office of Community Development, and in compliance with the following conditions:

1. The site plans shall be revised to provide a more detailed detail of the three proposed driveways to each house. The revised detail(s) shall: indicate that each drive be cross-sloped to the west in order to maximize the amount of runoff into the designed rain gardens from land areas uphill/east of the drive on each lot; and to state/note that no curbing or driveway crown be constructed that would divert runoff onto Hopewell Road. Such revision shall be reviewed by the Environmental Planner or Assistant Town Engineer for their approval prior to the submission of a complete subdivision application to the Town Plan & Zoning Commission.
2. The plot plan required for building permit application shall contain and comply with these conditions of approval. If construction including limits of clearing is proposed in areas other than the indicated locations on these plans, the Office of Community Development shall be notified and the Office of Community Development and the Chairman of the Town Plan and Zoning Commission are hereby authorized to approve or deny the alternative. Each plot plan shall indicate the limits of vegetative clearing, existing and proposed contours, soil erosion and sediment controls, all subsurface drainage, all stockpile areas, and temporary and permanent vegetative stabilization measures, including details of seedbed preparation, seed mix selection, application rates, seeding dates and mulching requirements. Vegetative clearing for stockpiling shall be minimized and subject to the approval of the Environmental Planner.
3. Healthy mature trees shall be preserved and saved when possible. Said trees shall be protected with the use of high visibility construction fence during construction or otherwise protected as required by staff.
4. Dry wells shall be designed and installed to facilitate the roof runoff in order to attenuate increased flows to downgradient receiving water and provide recharge to the groundwater. Such dry well design shall appear on the site plan submitted for a building permit. An as-built statement from the contractor that constructed the dry wells shall be required for obtaining a certificate of occupancy.
5. Tree stumps and blasted rock material shall not be buried at the site.
6. Underground fuel storage tanks shall be prohibited to reduce the potential of contamination to wetlands, watercourses, and groundwater resources.

**APPLICANT
 CONTRAIL, LLC
 C/O BRADLEY CHURCHILL
 85 DUG RD
 SOUTH GLASTONBURY, CONN. 06073**

TOWN PLAN & ZONING COMMISSION APPROVAL	
CHURCHILL SUBDIVISION	VILLAGE RESIDENTIAL/GW-1
SUBDIVISION NAME	ZONE
BRAD CHURCHILL	
SUBDIVIDER	
_____	_____
SUBDIVISION APPROVAL DATE	PLAN & ZONING COMMISSION CHAIRMAN
_____	_____
COMPLETION DATE FOR SUBDIVISION IMPROVEMENTS	COMMUNITY DEVELOPMENT DIRECTOR
_____	_____
FILE NO.	TOWN ENGINEER
_____	_____

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I HEREBY DECLARE TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS PLAN IS SUBSTANTIALLY CORRECT.

MARK W. FRIEND P.E. # 15818

MEGSON, HEAGLE & FRIEND
 CIVIL ENGINEERS & LAND SURVEYORS, LLC
 81 RANKIN ROAD
 GLASTONBURY, CONN. 06033
 PHONE (860)-659-0587

CONDITIONS OF APPROVAL
 CHURCHILL SUBDIVISION
 PREPARED FOR
CONTRAIL, LLC
 SOUTH GLASTONBURY, CONN.

CK. BY: MWF
 DRW. BY: TCJ
 DATE: 5-6-21
 SCALE: NONE
 SHEET 6 OF 6
 MAP NO. 129-20-1CA

REV. 6-1-21 CONSERVATION COMMISSION RECOMMENDATION