

TOWN OF SHERMAN
PLANNING & ZONING COMMISSION
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May 6, 2021

Connecticut Siting Council
 Executive Director: Melanie Bachman
 Ten Franklin Square
 New Britain, CT 06051

Re: Docket # 499 - Homeland/ AT&T/Sherman

Ms. Bachman,

The Sherman Planning and Zoning Commission along with Mr. Ron Cooper (Zoning Enforcement Officer) have reviewed application #499 of the Connecticut Siting Council of Homeland Towers LLC and New Cingular Wireless PCS, LLC d/b/a AT&T for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 16 Coote Hill Road, Sherman Connecticut.

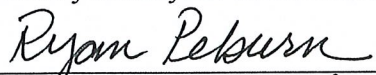
While the Commission recognizes the long standing need for cell service in this part of Sherman we have two major concerns with the plan as submitted.

-First is with the Site Evaluation Report and the Site Impact Statement. These are attachments #3 and #4, and specifically maps SP-2; C-2; C-3. We ask the Siting Council to take steps to thoroughly assess the plan submitted by Homeland Towers and New Cingular wireless to insure that impact on wetlands, neighboring properties and Lake Mauweehoo is mitigated. To that end our recommendations are attached.

-Second concern is the fact that Coote Hill Road is a narrow, winding, one lane, mostly unpaved, road with little to no shoulder. We ask that a plan be in place for emergency access should a crisis unpredictably arise during the construction phase and the road should be blocked by equipment. This is critical to the safety of the residents of the road. We would be derelict in our duties if we neglected this recommendation.

Attached is a report from Sherman Zoning Enforcement Officer Ron Cooper, detailing areas of concern for the Commission.

Thank you for your consideration.


 Ryan Peburn *CEB*
 Chairman, Sherman Planning and Zoning Commission

Comments and Concerns Regarding Environmental Compatibility

**Subject: Proposed Telecommunication Tower
16 Coote Hill Road
Sherman, Connecticut**

**Reference: Application to Siting Council
Docket No.499 – Homeland Towers, LLC and New Cingular Wireless
PCS, LLC d/b/a AT&T**

The following comments were prepared by the Sherman Land Use Enforcement Officer, Ron Cooper, as a result of a review of the application that includes technical documents, drawings, data and engineered plans for the construction of a telecommunication site at 16 Coote Hill Road in Sherman, Connecticut.

Partial Site Plan SP-2 shows the relocated road, tree locations, trees that are proposed to be cut/removed, topography, wetland delineation, proposed tower location/pad, proposed drainage and required road construction grading. With no storm water calculations, planned erosion controls, no planting planning, limited topography of the entire site and engineering details of the proposed storm water management and water quality plan this is a general review with comments of what was provided.

- **Erosion** – the proposed plan changes two key influencing factors for erosion, reduced vegetative cover, steeper and highly erodible topography. Vegetative cover plays an important role in controlling erosion in the following ways:
 - Protects the soil surface from the impact of falling rain.
 - Holds soil particles in place.
 - Enhances the soils capacity to absorb water
 - Slows the velocity of runoff
 - Removes subsurface water between rain falls through the process of evapo-transportation
 - Improves infiltration rates.

- **Topography** – The planned change in topography increases both the slope length and gradient increase. This increases the rate of runoff while the potential for erosion increases. Reference Chapter 2-5 – 2002 Connecticut Guidelines on Soil Erosion and Sediment Control.

Along the proposed driveway/road along the wetlands near the northerly most property line, a cut is proposed on the southerly edge of the road. This creates approximately a 2:1 slope for approx. 300' and in one area 25' wide that is void of vegetation on the slope and at the crest of the slope where trees have to be cut. See Section entitled: "Number of trees cut", "More prudent alternative" and "Run-off" of this report. The proposed area of the steep slope should be reviewed carefully. There is a high probability that ground water will seep out of this embankment causing instability to the slope where you could expect to see "sluffing" of material. The entire area should be covered with temporary erosion blankets and planted with vegetation for long term stability. During construction, if ground water surfaces on the slope or at the toe of the slope, the site should be reviewed by an engineer and the appropriate drainage should be installed. An appropriate Vegetative Soil Cover should be planted on all disturbed area on completion of the grading.

- **Hard or impervious surfaces** – Gravel surfaces are not usually considered an impervious surface. It's my observations that packed sand and gravel surfaces are less pervious than one thinks. The two tire "paths" are usually compacted more than the center and sides of the road. This prevents sheet flow and causes accelerated flow down the road to usually a point of concentrated run-off. At these locations, stormwater management techniques should be utilized. Hard or impervious surfaces will increase accelerated run-off and prevent infiltration into the ground. This will result in the accumulation of stormwater with collection at concentrated points of discharge. At these locations storm water management techniques should be utilized.
- **More prudent alternative** – The length of the driveway/road can be reduced by relocating it in a more direct path away from abutting properties and the length of wetlands located to the north. The relocated driveway/road will reduce the amount of hard (impervious surface), reduce the number of trees needed to be cut for construction, eliminate a sharp bend in the road that will be troublesome to maneuver sections of the tower around during construction, eliminate the adverse impact to abutting properties and the wetlands where storm water is intended to sheet flow off, eliminate the need for ledge removal approximately 200' from the start of the driveway/road, and eliminate the long grading bank (cut) on the uphill side of the driveway/road along the wetlands. **(See Exhibit 1).**
- **Number of Trees Cut** – The number of trees shown on the plan that are proposed to be cut appear to be under estimated. The trees they recognize for removal have an X through them, but further examination shows tree trunks located at the edge of the proposed grading. The grading will either expose tree roots or bury them to the point where the tree will be choked and killed. When looking at the plan the trees are shown with a symbol that would lead you to believe the tree crowns are only 10'-12' in diameter. Many of the trees on the property are over 20 to 30' or greater in height. These trees have crowns greater in diameter reaching far into the areas proposed for

disturbance. Root systems usually extend to the drip edge of the crown. Depending on their size, many of the trees at the edge of the grading areas and between the proposed road/driveway and the wetlands will be cut or lost due to soil compaction or root exposure. Reference Chapter 5-1-6, Figure TP-2 "Diagram of Zones Relating To Tree Protection" in the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. Tree Protection Zone (TPZ) Diameter of TPZ equals 20 times the DBH (Diameter 4.5' above the Ground)(See Exhibit 2). Relocating the road/driveway to the alternate location will ensure a buffer will be maintained along the wetlands where in some locations the proposed road/driveway would be constructed within 10' to 20' of the edge of the wetland soils. This can result in a change of the hydrology and hydrogeology of the wetlands. The removal of the tree canopy near the wetlands will allow sunlight into wetland areas that were once shaded. This will change the vegetation and introduce invasive species.

- **Run-Off** – Any accelerated run-off is a concern for erosion. All of the wetlands shown on the plan drain to the north, onto the adjacent property, into a stream and across a lot near Lake Mauweehoo. This water course has steep eroded banks that will erode further as water flow increases. It is important to provide measures to prevent an increase in flow from the site and retain it on site for infiltration and water treatment.
- **Required ledge removal** – The anticipated ledge removal along the driveway/road adjacent to the abutting property owner at roughly the 200' mark may require blasting. This will require interior and exterior inspections of the homes pre and post blasting to ensure no damage has occurred. This will be totally unnecessary if the driveway/road is relocated as suggested.

Storm water Management/Quality and Off-Site Impacts

- **Reduce area of disturbance** – If the driveway/road is relocated, the total area of tree removal and ground disturbance will be reduced. This will cut down on the total volume of run-off and reduce the required water treatment measures to maintain healthy water quality in the wetlands and Lake Mauweehoo which is located in the watershed of Candlewood Lake.
- The design should result in **zero increase in storm water run-off** volume from pre-construction to post construction during peak storm events. By calculations it should be shown that there will not be an increase in total storm water run-off from the site or the wetlands onto adjacent land. Problems already exist on the lot known as 15 Cote Hill Road, A/K/A 51-20 (Ilic & Wildman) property located at the shore of Lake Mauweehoo where high water in the water course and accelerated run off has created a deep ravine

on the property (**See Exhibit 3**). Additional flow during peak storm events will only aspirate this problem.

- **Water quality and designed treatment** – There are some storm water treatment measures shown on the plan. For example, grass lined swales with stone check dams, rip rapped “flares” at discharge points and one detention pond on the uphill side of the driveway/road near the northern property line. Details of the designs were not provided in the package the Town received. The designs of these structures are very important and equally is the installation/construction. Depending on the size and invert of the outlet pipe, the installation of the detention pond may not handle the volume of storm water anticipated. The lack of maintenance (silt from the gravel road) will also impact their effectiveness. Again, if the alternative driveway/road location is used, this detention basin will not be required. With the property owners’ permission, downstream enhancements near Lake Mauweehoo could be considered. The stone check dams in the grass lined swales will dissipate the energy of the flow allowing sediment to settle into the grass behind the dams, but due to the lack of maintenance, if sediment is allowed to fill the swale behind the dams you will lose the storage capacity for silt and the dams will no longer slow down the flow which allows the suspended solids to settle. In addition, if the swales are not maintained and woody vegetation is allowed to grow and debris collects on top of the dams, the flow can be directed to the side walls of the swale/dam and erosion will occur. This erosion will impact the structural integrity of the dam where they anchor into the swale side walls and failure of the structures will occur.

Recommendations

- **Alternative Site Design:** The most important improvement to the design would be to relocate the proposed road/driveway to the proposed alternate location shown on the attached marked up plan (**Exhibit 1**). I have been on the property and the alternate location is feasible. This will accomplish the following:

Fewer trees cut

Reduced impact to the neighbors

Reduced impact to the wetlands

Reduced hard/impervious surface

Elimination of the proposed detention pond

Eliminated need for ledge removal

Shorter road to maintain

- **Erosion and Sedimentation Control:** Dry Detention Ponds with fore bays should be added at the end of the proposed grass lined swales. The fore bays will catch the remaining sediment that the grass lined swales don’t and if the grass lined swales don’t function properly, the detention basins will provide the water quality treatment needed. The fore bays are easy to maintain as long as they are not rip rap lined. The Dry Detention Ponds will act as a stormwater basin designed to capture, temporarily

hold, and gradually release a volume of stormwater runoff to attenuate and delay stormwater runoff peaks. Dry detention ponds provide water quantity control (peak flow control and stream channel protection) as opposed to water quality control the grass lined swale with stone check dams and the fore bays will provide. Reference Chapter 7.6 Peak Flow Control and Chapter 11- S1 & 11-S8 Treatment Practices – 2004 Connecticut Stormwater Manual.

- **Performance Monitoring:** Require site inspections by an engineer and require a report after each 1" storm event the erosion controls are monitored for their effectiveness during construction. Further monitoring and reporting should be required during the rainy season each of the 5 years following the completion of construction.
- **Security of Work Performance:** A Cash Bond should be required to cover possible road (Cote Hill) damage during construction. I understand that a maintenance fee may have been provided for on-going yearly maintenance, but to cover the owner of the road for a project where very large equipment and payload will be used, a Bond should be held for the period during construction and after construction. The Bond money could then be used to make repairs up to a year after construction ends and or returned to the developer if no damage occurred.

Reference: 2002 Connecticut Guidelines for Soil and Sedimentation Control
By The Connecticut Council on Soil and Water Conservation in cooperation
with the Connecticut Department of Environmental Protection

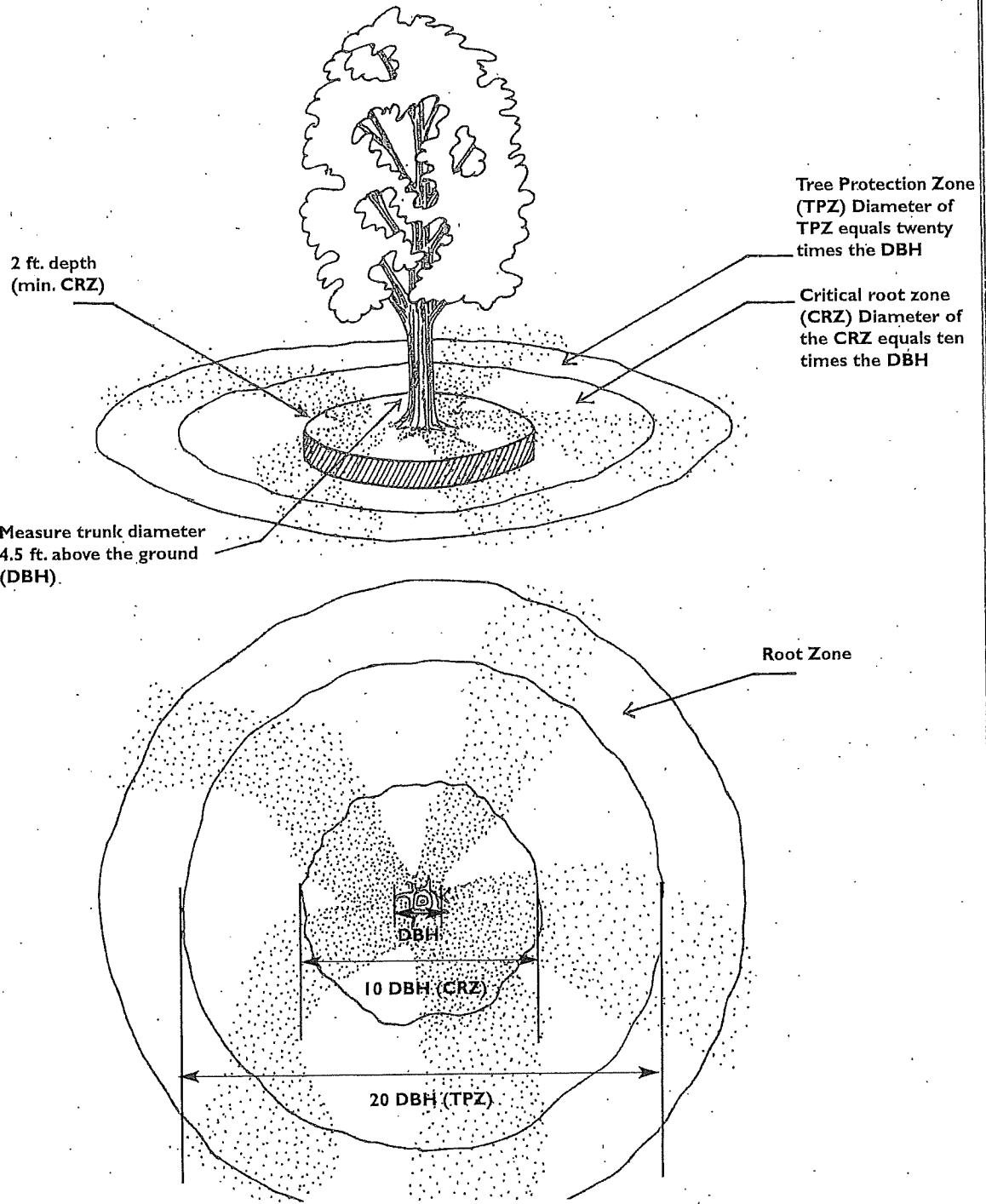
2004 Connecticut Stormwater Quality Manual
By the Connecticut Department of Environmental Protection

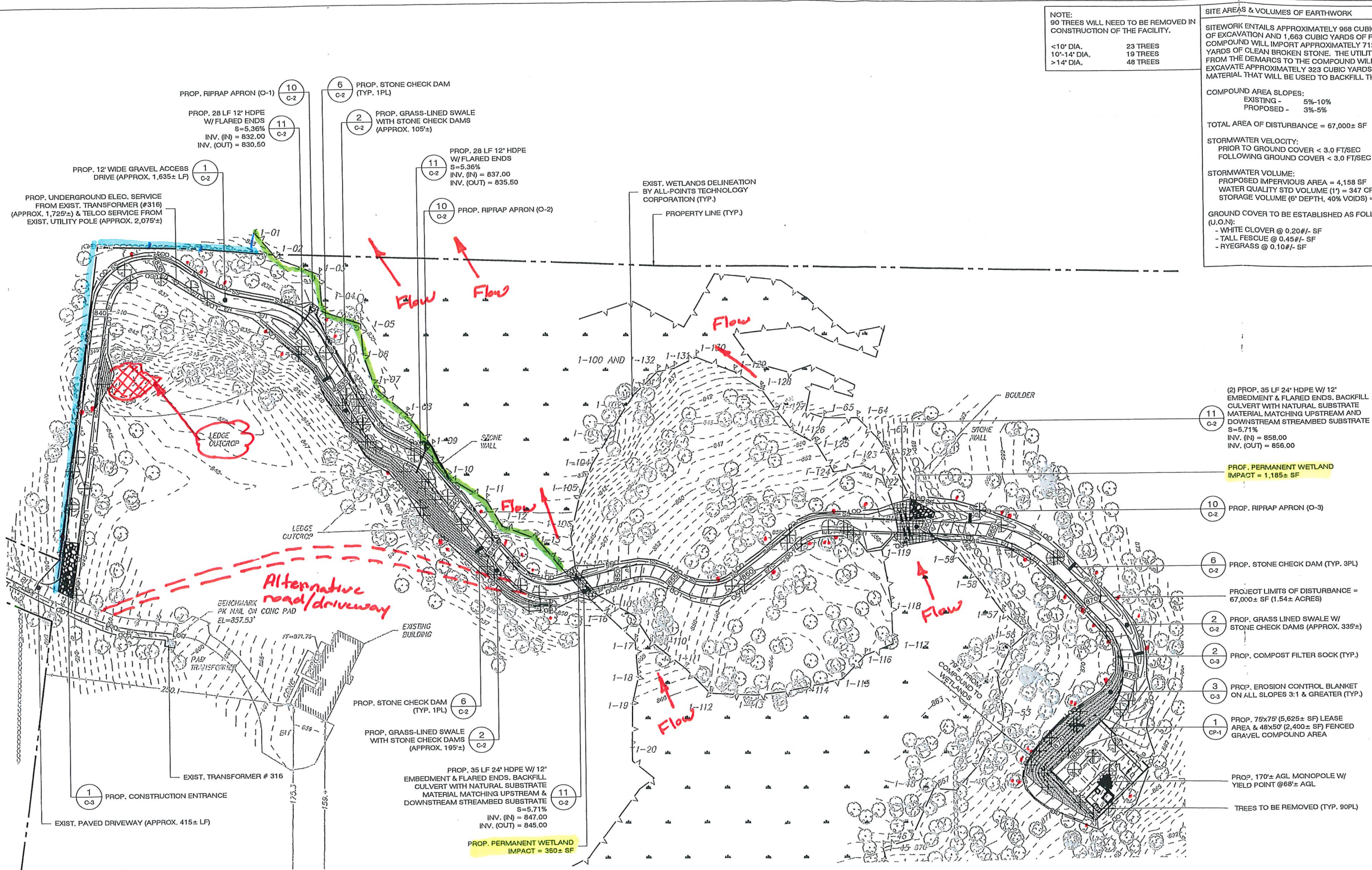
Ron Cooper

Town of Sherman, Connecticut
Land Use Enforcement Officer
Zoning Enforcement Officer
Inland Wetlands Agent

May 6, 2021

Figure TP-2 Diagram of Zones Relating To Tree Protection





NOTE:
90 TREES WILL NEED TO BE REMOVED IN CONSTRUCTION OF THE FACILITY.

<10' DIA.	23 TREES
10'-14' DIA.	19 TREES
>14' DIA.	48 TREES

SITE AREAS & VOLUMES OF EARTHWORK

SITEWORK ENTAILS APPROXIMATELY 968 CUBIC YARDS OF EXCAVATION AND 1,663 CUBIC YARDS OF FILL. THE COMPOUND WILL IMPORT APPROXIMATELY 712 CUBIC YARDS OF CLEAN BROKEN STONE. THE UTILITY TRENCH FROM THE DEMARCS TO THE COMPOUND WILL EXCAVATE APPROXIMATELY 323 CUBIC YARDS OF MATERIAL THAT WILL BE USED TO BACKFILL THE TRENCH.

COMPOUND AREA SLOPES:
EXISTING - 5%-10%
PROPOSED - 3%-5%

TOTAL AREA OF DISTURBANCE = 67,000± SF

STORMWATER VELOCITY:
PRIOR TO GROUND COVER < 3.0 FT/SEC
FOLLOWING GROUND COVER < 3.0 FT/SEC

STORMWATER VOLUME:
PROPOSED IMPERVIOUS AREA = 4,158 SF
WATER QUALITY STD VOLUME (1") = 347 CF
STORAGE VOLUME (6" DEPTH, 40% VOIDS) = 630 CF

GROUND COVER TO BE ESTABLISHED AS FOLLOWS (U.O.N.):
- WHITE CLOVER @ 0.20#/- SF
- TALL FESCUE @ 0.45#/- SF
- RYEGRASS @ 0.10#/- SF

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9 HARMONY STREET
2nd FLOOR
DANBURY, CT 06810
(203) 297-6345

at&t

340 MOUNT KEMBLE AVENUE
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PERMITTING DOCUMENTS

NO	DATE	REVISION
0	09/28/20	FOR REVIEW: RCB
1	10/01/20	FOR REVIEW: RCB
2	02/09/21	CLIENT REVS: RCB
3	02/16/21	CLIENT REVS: RCB
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: ROBERT C. BURNS P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

DEVELOPER: HOMELAND TOWERS, LLC
ADDRESS: 9 HARMONY STREET 2ND FLOOR DANBURY, CT 06810

HOMELAND TOWERS SHERMAN II

SITE 16 COOTE HILL ROAD
ADDRESS: SHERMAN, CT 06784

APT FILING NUMBER: CT283390

DATE: 09/28/20 DRAWN BY: ELZ
CHECKED BY: RCB

SHEET TITLE:
PARTIAL SITE PLAN

SHEET NUMBER:
SP-2

Impact to neighbors
Impact to wetlands

Total area of wetland taking = 1545±

1 PARTIAL SITE PLAN
SP-2 SCALE: 1" = 50'-0"

MAP REFERENCES:
1. "BOUNDARY & TOPOGRAPHIC SURVEY, 16 COOTE HILL ROAD, SHERMAN, CT, VB101; PREPARED BY LANGAN CT, INC., 55 LONG WHARF DRIVE, NEW HAVEN, CT 06511. DATED: AUGUST 27, 2020, REVISED JANUARY 26, 2021.

Exhibit 3

Water Course

Flow

Heavy erosion

15 Cooke Hill Road

GOOTE HILL ROAD

Alternative road/drainway

PROP. STONE CHECK DAM

Antony
4/22/2021

