# STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

APPLICATION OF OPTASITE TOWERS LLC AND OMNIPOINT COMMUNICATIONS, INC. FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE AND OPERATION OF A TELECOMMUNICATIONS FACILITY AT 52 STADLEY ROUGH ROAD, DANBURY, CONNECTICUT

DOCKET NO. 366

JANUARY 22, 2009

## APPLICANTS' REBUTTAL REPORT AND TESTIMONY REGARDING WETLANDS

Annexed hereto is a report prepared by Kleinfelder and dated January 21, 2009 which will be offered as the rebuttal testimony of Benjamin Rieger with respect to matters associated with the project and on-site wetlands.

#### CERTIFICATE OF SERVICE

I hereby certify that on this day, an original and twenty copies of the Applicants Rebuttal Report and Testimony Regarding Wetlands were served on the Connecticut Siting Council by hand with an electronic copy sent via email and copy served via overnight mail and email to:

City of Danbury
Laslo L. Pinter, Esq.
Robin L. Edwards, Esq.
City of Danbury
Office of the Corporation Counsel
155 Deer Hill Avenue
Danbury, Connecticut 06810
(203) 797-4518
R.Edwards@ci.danbury.ct.us
L.Pinter@ci.danbury.ct.us

Dated: January 22, 2009

Christopher Fisher

cc:

Charles Regulbuto Hans Fiedler Benjamin Rieger



99 Lamberton Road, Suite 201 Windsor, CT 06095 p| 860.683.4200 f| 860.683.4206 kleinfelder.com

January 21, 2009

Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

Re: Docket Number 366

Rebuttal of Comments in Danzer Letters/Reports dated November 19, 2008

and December 22, 2008

To Whom It May Concern:

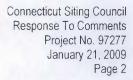
We are writing in advance of the upcoming hearing on January 26, 2009 to provide our rebuttal comments with respect to the various comments from Steven Danzer and provided by the City of Danbury to the Siting Council. Of note, Mr. Danzer is apparently an outside consultant who works for the City's EIC on occasion. At the outset, we note that the EIC has not provided separate comments to the Siting Council despite receiving and reviewing Optasite's application at its July 9, 2008 Meeting as noted in its meeting minutes available online.

# 1. Locations and Origins of the On-Site Mapped Wetlands

Danzer Comment: Wetland man made as opposed to man altered?

Response: This area of Danbury was historically agricultural and the mapped on-site wetlands are along a stone wall, which blocks water flow and increases the water present. Site visits indicate that it is man made with the depressional wetland appearing to have been excavated some time ago with man modified hydrology. The soils types could be either naturally occurring or have developed over the past 70 years or so subsequent to agricultural use and man made features. We don't believe the genesis of the soils is, however, relevant to evaluating their quality in this instance.

Danzer Comment: Differences in delineated wetland sizes and shapes, and suggestion that they are not isolated but rather part of a larger historical wetland.





Response: The attached figure from CHA (sheet CO2) depicts both the URS delineated wetland areas and the Kleinfelder delineated wetland areas. The total wetland area delineated by URS was 564 square feet. The total wetland area delineated by Kleinfelder was 936 square feet. Two differences between the delineations are app arent. First the northern depressional wetland is smaller and of a slightly different shape in the Kleinfelder delineation. Based on the URS delineation the northern wetland is approximately 35 feet east of the access road at its closest point, and 45 feet from the access road based on the Kleinfelder delineation. Both are significant distances and based on both delineations there will be no direct impact to this wetland. The closest distance from the compound to the northern wetland is the same for both delineations. The Kleinfelder delineation of the southern, linear wetland along the stone wall, identified more area to both the northeast and southwest of the stone wall. This delineation results in a larger wetland area which is closer to the proposed compound and is therefore the more conservative of the two delineations.

The nearest wetland soils mapped by the NRCS (Natural Resources Conservation Service) are approximately 1,200 feet to the northeast. Mapped wetland soils to the south west are approximately 2,200 feet away from the site along Beaver Brook. This was the basis for the statement regarding isolation from surrounding wetlands. Information recently obtained from the Town of Danbury EIC records identifies separate delineated wetlands on the property to the south as well as delineated wetlands on the property to the west. These wetlands are not depicted on NRCS or DEP wetland maps and the site wetland soils do not connect to the off site wetlands. During periods of precipitation there may be overland flow connections between the wetlands and also hydrologic connection through the local shallow groundwater, but these are not contiguous wetlands resources.

# 2. Quality and Value of Wetland Resources

Danzer Comment: Wildlife corridor value is provided by the wooded strip between the house and the church.

Response: A large are a of upland habitat surrounding the wetlands is being maintained and the wildlife corridor and habitat value will still exist after the proposed development. The total post development undisturbed area within 100' of the wetlands is 50,867 square feet, and the proposed development will have a post construction disturbed area of 7,303 square feet within 100 feet of the wetlands. A corridor between the proposed compound and the church driveway will be maintained, at an approximate width of 90 feet.

Danzer Comment: Standing water and amphibian habitat may exist due to semipermanent saturated or flooded conditions.

Response: Conditions of seasonal inundation of duration necessary to support amphibians have not been observed. It is possible that some use of the wetland system by amphibians may occur but we do not currently have evidence to show such use.



A study of pond breeding amphibians conducted in Rhode Island suggest s that in most years ponds must be inundated for 4 to 9 months, with water in ponds from March through August, for successful reproduction of the majority of pond breeding amphibians.

In areas of seasonal inundation the typical amphibian life cycle includes adult movement to the standing water in early spring where adults mate and deposit eggs. Following egg mass placement adults move to surrounding uplands where they spend the rest of the year. The young of year develop in the surface water over time and once they achieve their terrestrial form emigrate from the water.

Species typical of this reproductive pattern include wood frogs and spotted salamanders. Although there is some plasticity in terms of maturation rate some minimum period of time is required for development of the terrestrial life form. A second study conducted in Rhode Island showed that wood frog required inundation until late June for 50% emigration of the young of year and mid July for 95% emigration. The spotted salamander required surface water until mid-August for 50% emigration and late September for 95% emigration.

No standing water was observed in either the depressional wetland or the linear wetland along the stone wall in March of 2008 when Kleinfelder conducted the wetland delineation.

Under typical conditions a vernal pool or vernal water course would be inundated during early spring in southern New England due to snow melt resulting in surface flow and/or spring groundwater elevation rise. Two thousand and eight was a "much above normal precipitation" year for Connecticut as defined by NOAA and based on NOAA data. The preceding year, potentially indicative of the elevation of groundwater elevation going into 2008, was a normal precipitation year. Based on the above average precipitation for 2008 and normal precipitation during 2007 the wetlands would have been expected to be inundated in early spring of 2008 if spring inundation was their typical condition.

Due to the observation of no inundation in March 2008 and the above average precipitation for that year combined with the lengthy sustained duration of inundation required by most amphibians to reproduce we do not believe these wetlands provide routine breeding habitat for amphibians.

In their site observations associated with preparation of the NEPA screening report dated June 7, 2008, EBI concluded that "Limited or no hydric vegetation was observed at the tower site. Additionally, no surface water was observed at the proposed tower site, however two small wetland areas (are) located directly west/northwest of the Project Site." Their field observations were made in January 2006.

Mr. Danzer's observation of standing water in the linear wetland on November 18, 2008 would be expected due to rainfall four of the six days prior to his site visit and the fact that the wetland is fed at least partially by overland flow and inflow from the small culvert. A



single observation of standing water following a rain event does not indicate that standing water is present at durations sufficient to support amphibians.

Additionally, both wetland areas are being preserved along with the stone walls which Mr. Danzer correctly identifies as cover habitat for amphibians and small animals that may use the wetlands. A large area of upland habitat surrounding these wetlands is being maintained, see response above. The wetland areas will be protected during the construction process using appropriate best management practices. Due to the lack of direct impact to the wetlands, the preservation of the stone walls for cover habitat and the preservation of a large area of upland habitat no significant impact to wildlife using the wetlands is expected.

## 3. Jurisdiction of City of Danbury Environmental Impact Commission

Danzer Comment: Mr. Danzer suggests that Optasite submit an application to the EIC and that the Council include provision for City review of the D&M plans.

Response: The Applicant has noted previously that the EIC lacks jurisdiction over the project and the EIC has had a copy of the Siting Council application since at least June of 2008. However no comments have been submitted to date. To the extent the City wishes to refer D&M plans that would be developed post issuance of any Certificate and served on them as a party to its own EIC for review and any comment prior to Council D&M Plan approval, the Applicants would have no objection to same.

# 4. Potential Impacts to Wetland Resources?

#### Danzer Comment: Ecological impacts

Response: The construction of the tower compound will remove some amount of buffer habitat surrounding the wetland, however the functions provided by the buffer habitat will still be present on-site. See the discussion above regarding maintenance of undisturbed land and a corridor between the proposed compound and the church driveway.

#### Danzer Comment: Erosion and Sedimentation impacts

Response: SBA/Optasite employs best management practices to assure no migration of sediments and to minimize erosion. These methods typically include the use of silt fencing and hay bales to prevent soil migration, the use of gravel track off areas to prevent soil migration on truck tires, the use of silt fence around temporary soil piles, and revegetation of disturbed soil areas following construction. These and any other prudent methods will be employed to protect the onsite wetland resources.



#### Danzer Comment: Hydrologic impacts

Response: The current grade in the proposed lease area flows away from the wetland. This existing grade will be maintained after construction and water flow to the wetlands will not be altered. The existing water flow to the northeast and southeast of the wetlands will not be altered.

A small portion of the proposed area will be of impervious cover type, concrete and equipment shelters. These areas will be surrounded by gravel areas where infiltration can occur.

A change to the hydrology of the wetlands is not anticipated because the existing grades in the lease area will be maintained and pervious areas surrounding the impervious areas are provided to allow for infiltration. Therefore, there is no anticipated impact on the hydrology of the wetlands.

## Additional Danzer Comments in 12/22/08 Report

#### Danzer Comment: City of Danbury requirements for Environmental Impact Statements

Response: In order to gain a better understanding of what the City of Danbury typically requires in terms of environmental impact assessment associated for potential impact to wetlands that are present in the vicinity of the proposed tower development the application made by the abutting property owners and the associated approvals were reviewed. The abutters at 14 Indian Spring Road have delineated w etlands along the western side of their property that are not associated with the wetlands at 52 Stadley Rough Road. The 14 Indian Springs Road property also has portions of the 100 foot upland review area for the wetlands located on the 52 Stadley Rough Road property along the eastern side of their property line.

Based on the available public record, the City of Danbury received an application on April 22, 2005 from the owner of 14 Indian Springs Road that included a set of erosion and sediment control drawings. The Erosion Control Plan, Sheet E1, dated 4-22-05 by CCA of Brookfield CT shows a proposed 4 bedroom house, proposed gravel driveway, proposed leaching field near the northern end of the eastern property boundary, proposed 5 foot deep curtain drain along the northern end of the eastern property boundary, and footing drain around the proposed house with both the curtain drain and footing drain daylighting at a riprap splash pad approximately 20 feet from the wetland line on the western side of the property. This plan also provided locations for soil stock piles, silt fencing, and an anti-tracking construction entrance.

The wetland lines located on Sheet E1 do not take into account the wetlands located at 52 Stadley Rough Road or the associated upland review area. It appears that the regulated



upland area associated with these wetlands was not considered during the City EIC approval process. It appears inconsistent for the City to assign potential significant value to the 52 Stadley Rough Road wetlands associated with the currently proposed tower site when the application at 14 Indian Springs Road had no consideration to these wetlands and no impact evaluation for the wetlands identified on the plan were documented in the available record or apparently deemed important by the EIC and its staff.

Based on the aerial photographs and upland review areas of the known wetlands at 52 Stadley Rough Road it appears that approximately 1300 square feet of the upland review area was cleared and grubbed for the installation of a lawn on 14 Indian Springs Road.

There was no information in the record regarding any hydrologic impact assessment associated with either the installation of a five foot deep curtain drain proposed along the eastern property boundary. There was also no information in the record regarding any assessment of impact associated with discharging water collected by the proposed trench drain or the proposed foundation drains to the upland review area within 20 feet of wetland on the Indian Spring Road property. No evaluation was found in the record associated with this application documenting consideration of this potential increase in flow through this wetland. Further, it appears that there were no habitat or ecological evaluations performed for that property.

The application for 14 Indian Spring Road was approved administratively without any public hearing. The City of Danbury issued an approval notice by certified mail on July 1, 2005 indicating that the application had been reviewed and approved having found that the proposed activity will cause no greater than minimal impact upon wetlands or water courses if carried out as proposed. The approval included a permit for:

- The homes driveway in and within 6 or 7 feet of the westerly wetlands on the 14 Indian Springs Road site including a pproximately 85 square feet of wetlands fill;
- Clearing and use of upland review area for lawn and drainage features

## Danzer Comment: Impact of the removal of trees on hydrology?

Response: The objection to removal of nine mature trees surrounding the wetland is inconsistent with the City's treatment of abutting properties where significant clearing in and adjacent to wetlands was permitted. The removal of trees in this area will indeed eliminate the function provided by the individual trees being removed, however the ecological function of mature trees in the area of the compound will remain. The creation of gaps in the forest canopy will allow additional light to reach the forest floor, similar to what occurs naturally when a tree dies from disease or blow down. The light reaching the forest floor allows saplings to grow more rapidly filling the void. The brushy communities provide important wildlife habitat including increase ground cover for small animals and tender shoots used as



a food source for many species. This habitat, although different than a mature forest with little established understory, does provide ecological value.

The compound area will be finished with a gravel substrate for the majority of the surface. The porosity of the gravel will allow for significant infiltration and is not expected to increase the amount of surface water run off.

Nine trees are a small portion of the total within the forested upland area surrounding the wetlands. It is unlikely that the loss of evapotranspiration by these individual trees replaced over time by natural forest succession will have any significant short term or long term effect on local hydrology.

Nevertheless, to the extent the Siti ng Council deems tree removal a significant adverse effect, the Applicant could incorporate into a D&M Plan the construction of a series of deer exclosures located within the lease area outside of the fenced compound and plant them with the species of trees to be removed in order to more quickly replace the function of those specific trees eliminated. Additionally, normal maintenance of the tower compound area could include perio dic removal of any invasive species for a period of time following development to limit the influx of invasive species that can occur following disturbance.

#### Danzer Comment: Dewatering?

Response: This issue is primarily an engineering consideration that will be addressed as part of any tower foundation design and construction that will be overseen by Clough Harbor and can be addressed in a D&M Plan. Specifically, a temporary dewatering area could be located downgradient of the wetlands if needed and could be incorporated into the construction phasing for the site and shown on D&M Plans

#### Danzer Comment: Mischaracterization of the wetland as "isolated"

Response: As noted above, the nearest wetland soils mapped by the NRCS (Natural Resources Conservation Service) are approximately 1,200 feet to the northeast. Mapped wetland soils to the southwest are approximately 2,200 feet away from the site along Beaver Brook. This along with on-site soil delineations were the basis for our statements regarding isolation from any surrounding wetlands. Information recently obtained from the Town of Danbury records indicates delineated wetlands on the property to the south, some of which were described as "man-made or man disturbed cut and/or fill areas", as well as delineated wetlands on the property to the west at 14 Indian Springs Road. These wetlands are not depicted on NRCS or DEP wetland maps and are not immediately adjacent to the wetlands mapped at 52 Stadley Rough Road. Additionally, the site wetland soils do not continuous to off site wetlands. During period of precipitation there may be overland flow connections between the wetlands and also hydrologic connection through the local shallow groundwater. Based on prior City EIC reviews and approvals of wetlands permit



applications to the south, it is clear that any wetlands on-site at 52 Stadley Rough Road were not evaluated and implicitly deemed "isolated".

Danzer Comment: Potential impacts to the wetlands due to slope?

Response: See comments above regarding existing and finished grades and overall project with minimal impervious surfaces.

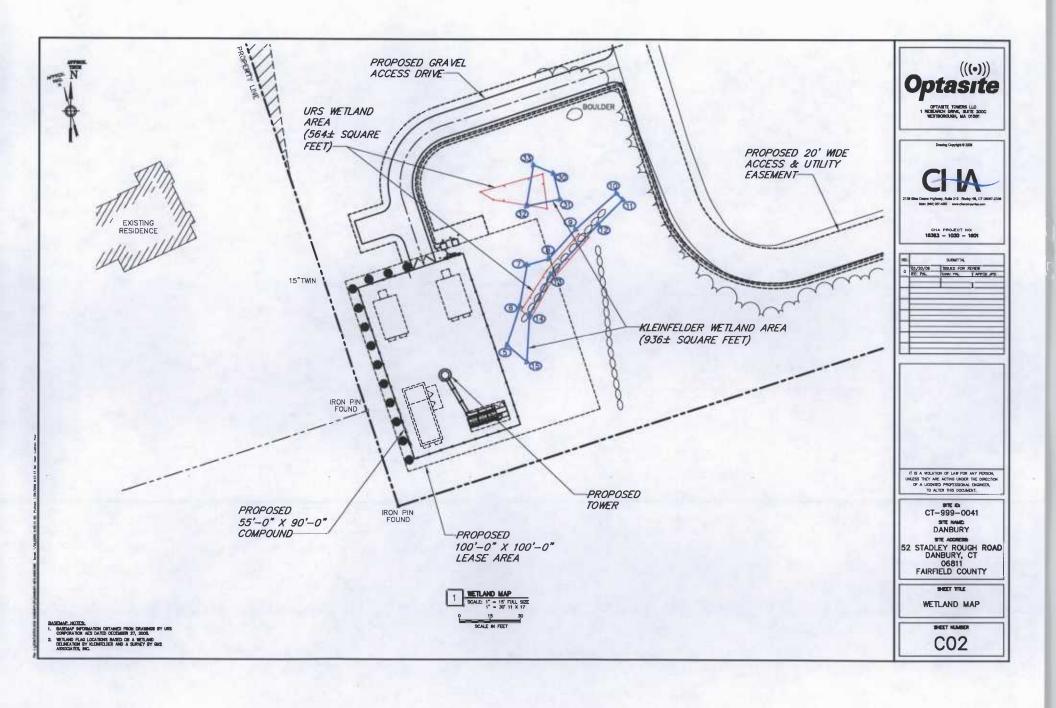
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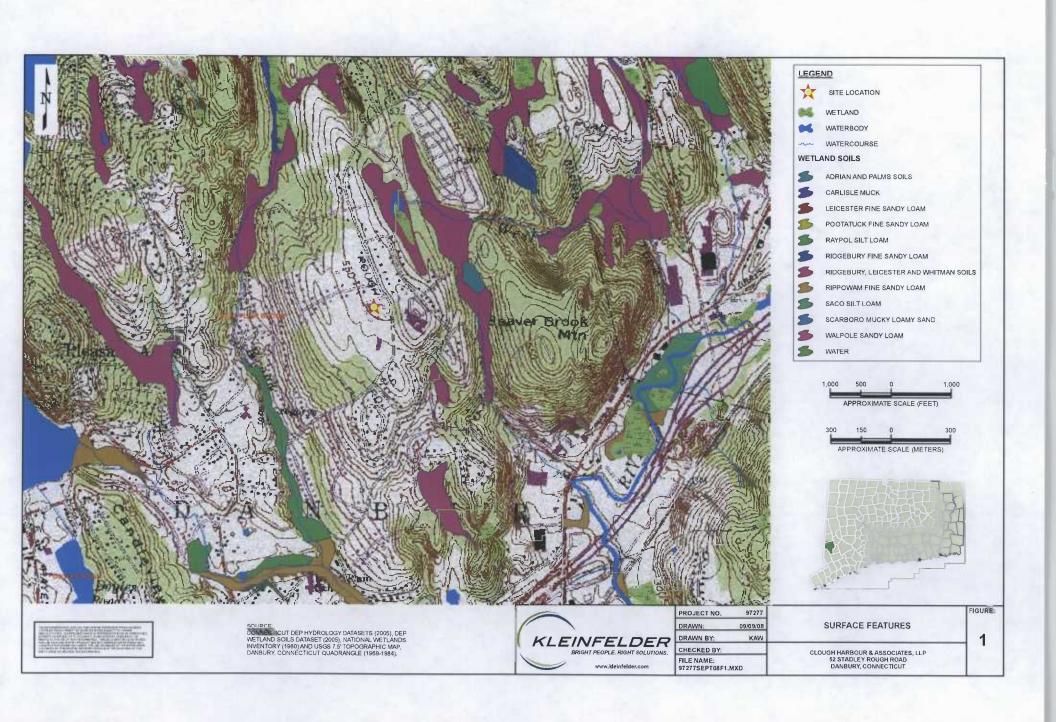
Sincerely,

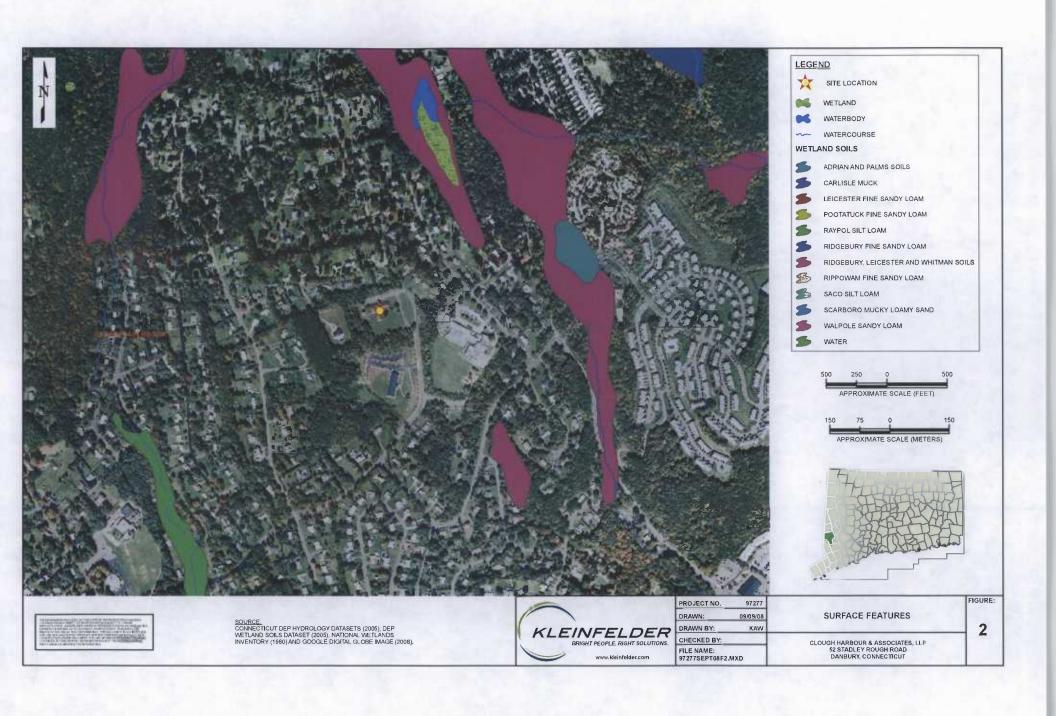
Kleinfelder, Inc.

Benjamin Rieger, LEED AP

Attachments







## NCDC / Climate At A Glance / Climate Monitoring / Search / Help

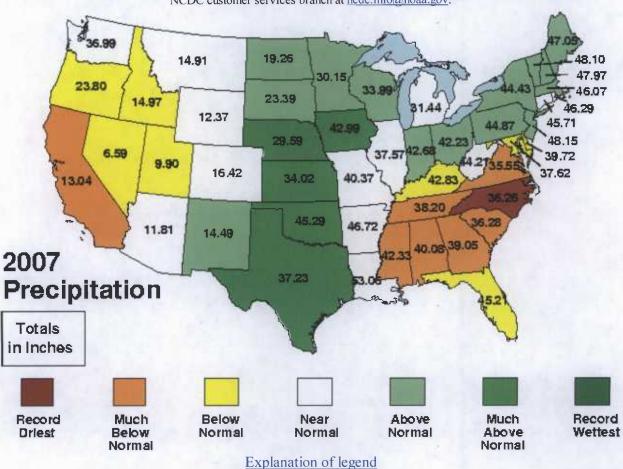


# Climate At A Glance



# **Annual 2007 Precipitation**

Some of the following data are preliminary and have not been quality controlled. For official data, please contact the NCDC customer services branch at <a href="mailto:ncdc.info@noaa.gov">ncdc.info@noaa.gov</a>.



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NCDC / Climate At A Glance / Climate Monitoring/ Search / Help

Please send questions to <u>Karin L. Gleason@noaa.gov</u>

Please see the NCDC Contact Page if you have questions or comments.

# S NCDC / Climate At A Glance / Climate Monitoring/ Search / Help

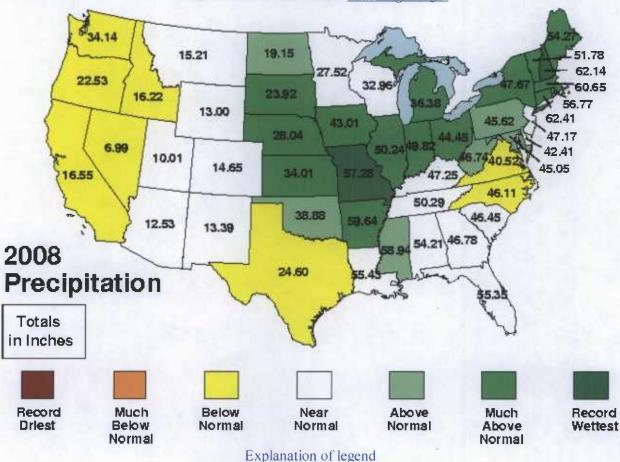


# Climate At A Glance



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NCDC / Climate At A Glance / Climate Monitoring/ Search / Help

Please send questions to Karin.L.Gleason@noaa.gov

Please see the NCDC Contact Page if you have questions or comments.

# QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Station Location: DANBURY MUNICIPAL AIRPORT (54734)

DANBURY, CT

Lat. 41.371 Lon. -73.483

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Richard W. Howard, Jr., P.E. ssell T. Posthauer, Jr., P.E. hael J. Lillis, P.E. kichard A. Bunnell, R.L.S. Kenneth S. Hrica, P.E., R.L.S. Ronald J. George, P.E. Ralph A. Klass, P.E., L.E.P. Roderick E. Cameron, ASLA, AICP Steven C. Sullivan, P.E.



RECEIVED

40 Old New Milford Road Brookfield, CT 06804 (203) 775-6207 Fax (2007) Fax (2007)

Litchfield, CT 06759 (860) 567-3179 Fax (860) 567-1716 Email: cca\_litchfield@snet.net

May 9, 2005

Mr. Scott LeRoy City of Danbury 155 Deer Hill Ave. Danbury, CT 06810

Attention:

Mr. Scott LeRoy

Senior Environmental Inspector

RE:

Parcel "B", Indian Springs Road

Danbury, CT

Dear Mr. LeRoy:

On behalf of our client, Mr. John Degross, we request that the Danbury Environmental Impact Commission table the application for the above referenced site at the May 11, 2005 meeting. We are presently awaiting the field location and a soils report by Michael Klein of Environmental Planning Services (EPS), for the re-flagging of the wetlands on this site. A location sketch is provided should any commission members wish to walk the site.

If you have any questions, please feel free to contact me.

Very truly yours,

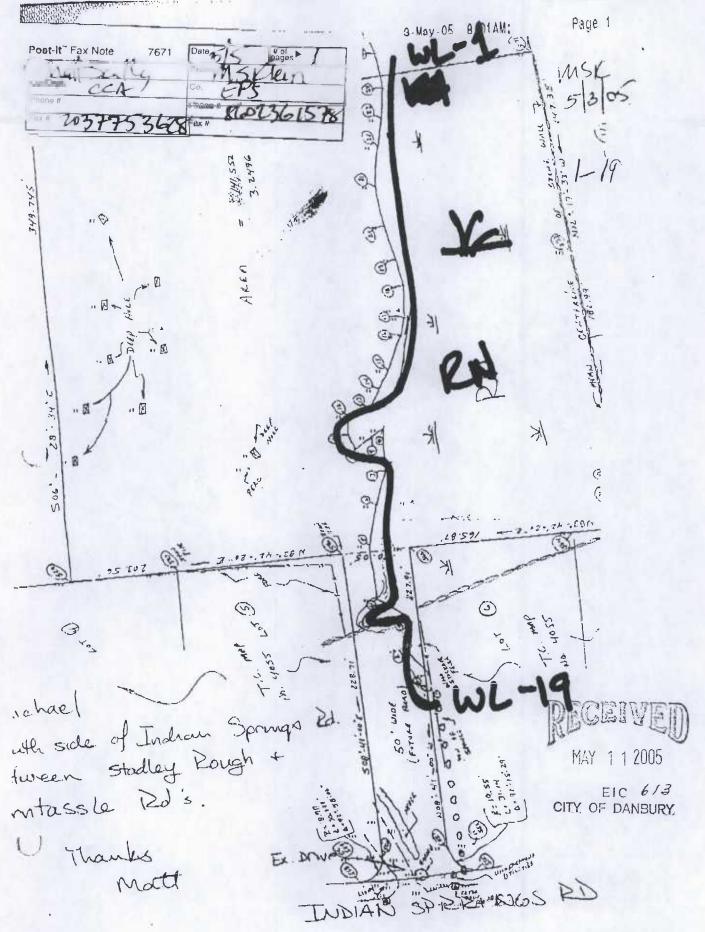
Matthew Scully Project Engineer

MS/hf

Cc: John Degross

MAY 1 1 2005

EIC 6/3 CITY OF DANBURY,



105921 SECG



### **ENVIRONMENTAL PLANNING SERVICES**

May 11, 2005

Mr. Matt Scully CCA Engineers 40 Old New Milford Road Brookfield, CT 06804

RE:

Indian Springs Road Brookfield, CT

Dear Mr. Scully:

EPS was retained to delineate the wetlands and watercourses on the referenced site. The wetland delineation was conducted by a soil scientist, according to the requirements of the CT Inland Wetlands and Watercourses Act (P.A. 155). Wetlands are defined as areas of poorly drained, very poorly drained, floodplain, and alluvial soils, as delineated by a soil scientist. Watercourses are defined as bogs, swamps, or marshes, as well as lakes, ponds, rivers, streams, etc., whether natural or man-made, permanent or intermittent. Any competent professional may delineate watercourses.

The wetlands were delineated by walking across the parcel in question on May 3, 2005, and examining the upper 20" of the soil profile with a spade and auger. The limits of the wetlands were marked with pink plastic flagging tape numbered WL1-19. The wetland soil map unit is Ridgebury, Leicester, and Whitman, extremely stony, fine sandy loam (RN). This is an undifferentiated mapping unit consisting of two poorly drained (Ridgebury and Leicester) and very poorly drained (Whitman) soils developed on glacial till in depressions and drainageways in uplands and valleys. Their use interpretations are very similar, and they typically are so intermingled on the landscape that separation is not practical. The Ridgebury and Leicester series have a seasonal high water table at or near the surface (0-6") from fall through spring. They differ in that the Leicester soil has a more friable compact layer or hardpan, while the Ridgebury soils have a dense to very dense compact layer. The Whitman soil has a high water table for much of the year and may frequently be ponded.

The non-wetland soils were not examined in detail, except as was necessary to mark the wetland boundary. They consist primarily of Paxton (Pb) and Woodbridge (Wx) fine sandy loam (Pb). The Paxton series consists of well drained loamy soils formed in subglacial till. The soils are very deep to bedrock and moderately deep to a densic contact (known locally as hardpan). They are nearly level to steep soils on till plains, hills, and drumlins. The depth to the densic contact and material is commonly 20 to 40 inches but the range includes 18 to 40 inches. Depth to bedrock is commonly more than 6 feet. Rock fragments range from 5 to 35 percent by volume. Some pedons have a thin E horizon below the A horizon. It has her of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 to 3.

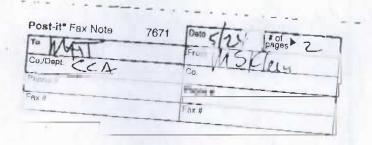
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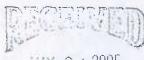
CITY OF DANBURY

The Woodbridge series consists of moderately well drained loamy soils formed in compact, subglacial till. They are very deep to bedrock. They are nearly level to moderately steep soils on till plains, hills, and drumlins. Depth to the compact layer (hardpan) is 18 to 40 inches. Depth to bedrock is commonly more than 6 feet. Woodbridge soils have a seasonal high water table on top of the compact layer (18-40") from fall through late spring.

Respectfully submitted,

Michael S. Klein, Principal Registered Soil Scientist





A 2 ÷ 2005

EIG 613 CITY OF DANBURY City of Danbury

Health & Housing Department 155 Deer Hill Ave, Danbury, CT 06810 Phone 797 4625 Fax 796 1596

Date: 7/1/05

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John DeGross 19 Hamilton Drive Danbury, CT 06810

RE: Parcel B Indian Springs Rd, file 613

You have submitted an application for a permit to conduct regulated activity under the City Of Danbury Inland Wetland and Watercourses Regulations. Having delegated authority (section 10.1a) that require the City of Danbury to grant permit extensions and approve summary rulings (section 7.6) the Department has reviewed and approves your application having found that the proposed activity will cause no greater than minimal impact upon wetlands or watercourses if carried out as proposed.

The regulation stipulates that our ruling may be limited or revoked by the EIC Commission if it is later shown that a regulated activity or non-permitted use is a consequence of the proposed activity. This new permit is valid for five years from the date of approval. This permit expires upon completion of all regulated activities.

# Conditions of Approval:

- 1. Approved as per DEIC discussion and plans submitted: by CCA revised 6/15/05 with planting plans and easement, Project No. 05931, "Erosion Control Plan".
- 2. The owner/developer shall field locate all wetlands boundaries and buffers prior to the initiation of any site work, and mark them with permanent monuments. The wetland buffer is defined as a undisturbed area adjacent to the wetland characterized by dense natural or native vegetation. It is an essential wetland enhancement/protection measure, and relates primarily to wildlife habitat and water quality protection.
- 3. The owner/developer shall evaluate the condition of the buffers and re-plant with native species as required.
- 4. A split rail type fence (or acceptable substitute) shall be utilized as a permanent delineation for all buffers.

- 5. The following restrictive covenants listed in these conditions shall be recorded on the land records for this parcel prior to issuance of the Certificate of Occupancy:
  - a. The following language shall be recorded on the land records for this parcel and proof shall be submitted to the commission prior to issuance of the certificate of occupancy:

This property contains wetlands and watercourses, the location of which are indicated on the A-2 survey or other site plans. These areas and the buffer areas adjacent to them, are considered to be environmentally sensitive areas and as such are regulated as to their use. Any alteration or disturbance of the vegetation, soils, surface or ground water (hydrology) may be a regulated activity subject to issuance of a permit by the City of Danbury Environmental Impact Commission.

- b. The owner/ developer and all subsequent property owners should follow the guidelines for a low maintenance lawn and use of organic fertilizers.
- 6. No further clearing, grading or other activities not shown on the approved site plan are authorized by this permit. Any developmental activities other than that shown on the approved site plan is subject to further review and approval by Danbury Environmental Impact Commission.
  - All land clearing and construction debris shall be properly disposed of off site.
     Absolutely no woody land clearing debris shall be disposed of within the designated buffer area.
- 8. The developer shall provide a conservation easement in a form acceptable to the City Of Danbury on all wetlands and watercourses that restrict use of such open space to passive recreational activities only. The conservation easement must be in a form acceptable to the Health Department and approved by the Office of the Corporation Counsel, along with all documentation required by the Office of the Corporation Counsel. The final easement and all necessary documentation shall be delivered to the Office of Corporation Counsel for recording and shall be recorded before a Certificate of Occupancy is issued.

9. All wetland boundaries and buffers shall be located on the A-2 survey and subsurface sewage disposal plan.

This permit is not assignable or transferable without the written permission of the Commission. If you require further information, please let me know.

Sincerely,

Scott LeRoy MPH, MS, RS

Senior Environmental Inspector

Environmental Health Section

c: Planning Department
 Zoning Department
 CCA, LLC, Matthew Scully, Project Engineer
 40 Old New Milford Road
 Brookfield, CT 06804

City of Danbury

Health & Housing Department 155 Deer Hill Ave, Danbury, CT 06810 Phone 797 4625 Fax 796 1596

August 31, 2005

Jose & Christina Carvalheiro 90 Highland Avenue Danbury, CT 06810

RE: Parcel B Indian Springs Rd, file 613

Permit Date 7/1/05

Former Owner: John DeGross.

You have submitted an application for a permit to conduct regulated activity under the City Of Danbury Inland Wetland and Watercourses Regulations. Having delegated authority (section 10.1a) that require the City of Danbury to grant permit extensions and approve summary rulings (section 7.6) the Department has reviewed and approves your application having found that the proposed activity will cause no greater than minimal impact upon wetlands or watercourses if carried out as proposed.

The regulation stipulates that our ruling may be limited or revoked by the EIC Commission if it is later shown that a regulated activity or non-permitted use is a consequence of the proposed activity. This new permit is valid for five years from the date of approval. This permit expires upon completion of all regulated activities. (Expiration Date 7/1/10)

## Conditions of Approval:

- 1. Approved as per DEIC discussion and plans submitted: by CCA revised 6/15/05 with planting plans and easement, Project No. 05931, "Erosion Control Plan".
- 2. The owner/developer shall field locate all wetlands boundaries and buffers prior to the initiation of any site work, and mark them with permanent monuments. The wetland buffer is defined as a undisturbed area adjacent to the wetland characterized by dense natural or native vegetation. It is an essential wetland enhancement/protection measure, and relates primarily to wildlife habitat and water quality protection.
- 3. The owner/developer shall evaluate the condition of the buffers and re-plant with native species as required.
- 4. A split rail type fence (or acceptable substitute) shall be utilized as a permanent delineation for all buffers.

- 5. The following restrictive covenants listed in these conditions shall be recorded on the land records for this parcel prior to issuance of the Certificate of Occupancy:
  - a. The following language shall be recorded on the land records for this parcel and proof shall be submitted to the commission prior to issuance of the certificate of occupancy:

This property contains wetlands and watercourses, the location of which are indicated on the A-2 survey or other site plans. These areas and the buffer areas adjacent to them, are considered to be environmentally sensitive areas and as such are regulated as to their use. Any alteration or disturbance of the vegetation, soils, surface or ground water (hydrology) may be a regulated activity subject to issuance of a permit by the City of Danbury Environmental Impact Commission.

- b. The owner/ developer and all subsequent property owners should follow the guidelines for a low maintenance lawn and use of organic fertilizers.
- 6. No further clearing, grading or other activities not shown on the approved site plan are authorized by this permit. Any developmental activities other than that shown on the approved site plan is subject to further review and approval by Danbury Environmental Impact Commission.
- 7. All land clearing and construction debris shall be properly disposed of off site.

  Absolutely no woody land clearing debris shall be disposed of within the designated buffer area.
- 8. The developer shall provide a conservation easement in a form acceptable to the City Of Danbury on all wetlands and watercourses that restrict use of such open space to passive recreational activities only. The conservation easement must be in a form acceptable to the Health Department and approved by the Office of the Corporation Counsel, along with all documentation required by the Office of the Corporation Counsel. The final easement and all necessary documentation shall be delivered to the Office of Corporation Counsel for recording and shall be recorded before a Certificate of Occupancy is issued.

All wetland boundaries and buffers shall be located on the A-2 survey and subsurface sewage disposal plan.

This permit is not assignable or transferable without the written permission of the Commission. If you require further information, please let me know.

Sincerely,

Scott LeRoy MPH, MS, RS

Senior Environmental Inspector

**Environmental Health Section** 

John DeGuoss AUG312005

480.

To: City Of Danbury, EIC Commission

John B. DeGross, 19 Hamilton Dr. Danbury, CT 06811 From

Parcel "B" Indian Springs Road - File 613 - Project #05931, Erosion Control Plan RE:

I am selling my property, Parcel "B" on Indian Springs Road, to Jose and Christina Carvalheiro. I would like to have the Inland Wetland permit transferred to them as soon as possible. I have enclosed a copy of the permit and a copy of the plan which has not been changed in any way.

Regards,

John B. DeGross

Vose & Cheistians Convolheino Adness.

- 90 High Land Auc Dowlung, Ct-06810



# CITY OF DANBURY

155 DEER HILL AVENUE DANBURY, CONNECTICUT 06810

ENVIRONMENTAL IMPACT COMMISSION 191-4525

DATE REC'D.	APR 2 2 2005
FILE NO	E1C 613

# APPLICATION FOR PERMIT TO CONDUCT REGULATED ACTIVITY

FOR COMMISSION USE ONLY:
Filing Fee: \$\frac{\pi}{205}\$ Filing Date: APR 27 2005
Date of Regular Meeting for Consideration: 4/27/05
APPROVED: 7/1/05
DENIED:
*** NOTICE ***  Please refer to the Inland Wetlands and Watercourses Regulations of the City of Danbury (the "Regulations") for all requirements for submission of applications.  Zona: RA-40
1. LOCATION AT WHICH ACTIVITY IS PROPOSED:
Address: Parcel B Indian Springs Rd. Assessor's Lot No.: K07020
Descriptive location attach map if necessary:
Property is located on the (north) (south) (east) (west) side of the above street, and distant approximately 750 feet (north) (south) (east) (west) from Stadley Rough R
2. APPLICANT:
Name: John DeGross
Address: 19 Hamilton Drive City Danbury State CT Zip 06810
Telephone: (203) 775-1975
APR 2 2 2005
Matt Reynolds CITY OF DANBURY

CCA, LLC

	9. CH.	ECK WHETHER ANY OF THE FOLLOWING CIRCUMSTANCES APPLY:
7		Any portion of the wetlands or watercourses for which the regulated activity is proposed is located within five hundred (500) feet of the boundary of an adjoining municipality (see Section 7.13 of Regulations).
		Any portion of the property affected by the decision of the commission is located within five hundred (500) feet of the boundary of an adjoining municipality (see Section 7.14 of Regulations).
		A significant portion of the traffic to the completed project on the site will use streets within the adjoining municipality to enter or exit the site (see Section 7.14 of Regulations).
		A significant portion of the sewer or water drainage from the project site will flow through and significantly impact the sewage or drainage system within the adjoining municipality (see Section 7.14 of Regulations).
		Water run-off from the improved site will impact streets or other municipal or private property within the adjoining municipality (see Section 7.14 of Regulations).
		Any portion of the wetland or watercourse on which the regulated activity is proposed is within the watershed of a water company (see Section 7.15 of Regulations).
	10. DO	CUMENTS (to be submitted for complete application):
		Completed and signed "Application for Permit to Conduct Regulated Activity"
)	Z	Fourteen copies of site plans, drawings, cross sections, and reports.
		Site plans must show existing and proposed conditions in relation to wetlands and watercourses, including soil types, vegetation and existing and proposed improvements.
	X	Fourteen Copies of Narrative Description of Proposed Activity.
		Describe the proposed activity, its purpose and intended use, area of wetlands to be altered, mount and type of materials to be removed or deposited, structures and construction activities, the manner in which the work will be carried out, anticipated time of construction, and the relationship of proposed work to existing facilities, projects or activities.
	X	Fourteen Copies of Narrative Description of Alternatives:
		Describe alternatives considered and why the proposal set forth in the application was chosen.
		List of names and mailing addresses of all owners of property abutting or across the street from the subject property.
		Payment of all required fees for review.  APR 2 2 2005
		EIC 6/3 CITY OF DANBURY
	11. AD	DITIONAL INFORMATION
)		The Commission may require additional information from the applicant pursuant to Sections 7.4. and 7.7 of the Regulations.

	b. If applicant is not owner, give na	ame, address and davtim	ne number of owner(s):
	Name:		hone: ( )
	Address:		State Zip
4. A	GENT (if applicable):		- 5-
	Name:	Title:	
	Address:	City	State Zip
	Telephone: ( )		
7. D	OCUMENTS (Submit 14 copies of each	h document): s, cross sections with th	e latest revision dates, and an
7. D	OCUMENTS (Submit 14 copies of each	h document): s, cross sections with th on and are accompanyi	e latest revision dates, and an
7. D	OCUMENTS (Submit 14 copies of each List the titles of site plans, drawings reports that are part of the application	h document): s, cross sections with th on and are accompanyi	e latest revision dates, and an ng this form:
	OCUMENTS (Submit 14 copies of each List the titles of site plans, drawings reports that are part of the application	h document): s, cross sections with the on and are accompanying	e latest revision dates, and an ng this form:
	OCUMENTS (Submit 14 copies of each List the titles of site plans, drawings reports that are part of the applicationSee attached.	h document): s, cross sections with the on and are accompanying the companying th	e latest revision dates, and any ng this form:
	OCUMENTS (Submit 14 copies of each List the titles of site plans, drawings reports that are part of the application See attached.  OES THE PROPOSED ACTIVITY RE	h document): s, cross sections with the on and are accompanying a companying a comp	e latest revision dates, and any ng this form:
	OCUMENTS (Submit 14 copies of each List the titles of site plans, drawings reports that are part of the application See attached.  OES THE PROPOSED ACTIVITY RESubdivision or resubdivision approval	h document): s, cross sections with the on and are accompanying the companying th	e latest revision dates, and any ng this form:  APR 2 2 2005
	OCUMENTS (Submit 14 copies of each List the titles of site plans, drawings reports that are part of the application See attached.  OES THE PROPOSED ACTIVITY RESubdivision or resubdivision approvation of the subdivision approvation.	h document):  s, cross sections with the on and are accompanying the section of t	e latest revision dates, and any ng this form:    DECLE VI   OF     APR 2 2 2005
	CCUMENTS (Submit 14 copies of each List the titles of site plans, drawings reports that are part of the application of the appl	h document):  s, cross sections with the on and are accompanying the companying t	e latest revision dates, and annual mannage this form:  APR 222000

3. PROPERTY OWNERSHIP:

### 12. OWNER'S CONSENT TO INSPECTIONS OF PROPERTY

The undersigned, as owner of the property, hereby consents to necessary and proper inspections of the above-mentioned property by agents of the Environmental Impact Commission of the City of Danbury, at reasonable times, both before and after a final decision has been issued by the Commission.

Sign ture of Owner

Date

### 13. APPLICANT'S CERTIFICATION TO SUBMIT IND INFORMATION

The undersigned hereby certifies that the information provided in this application including its supporting documentation is true and correct, and is aware of the penalties for obtaining a permit through deception or through inaccurate or misleading information.

St hature of Applicant

ECEIVED

APR 22 2005

EIC 6/3 CITY OF DANBURY

regacapp



FORM COMPLETED: YES NO

CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION 79 Elm Street Hartford, CT 06106-5127

Arthur J. Rocque, Jr., Commissioner



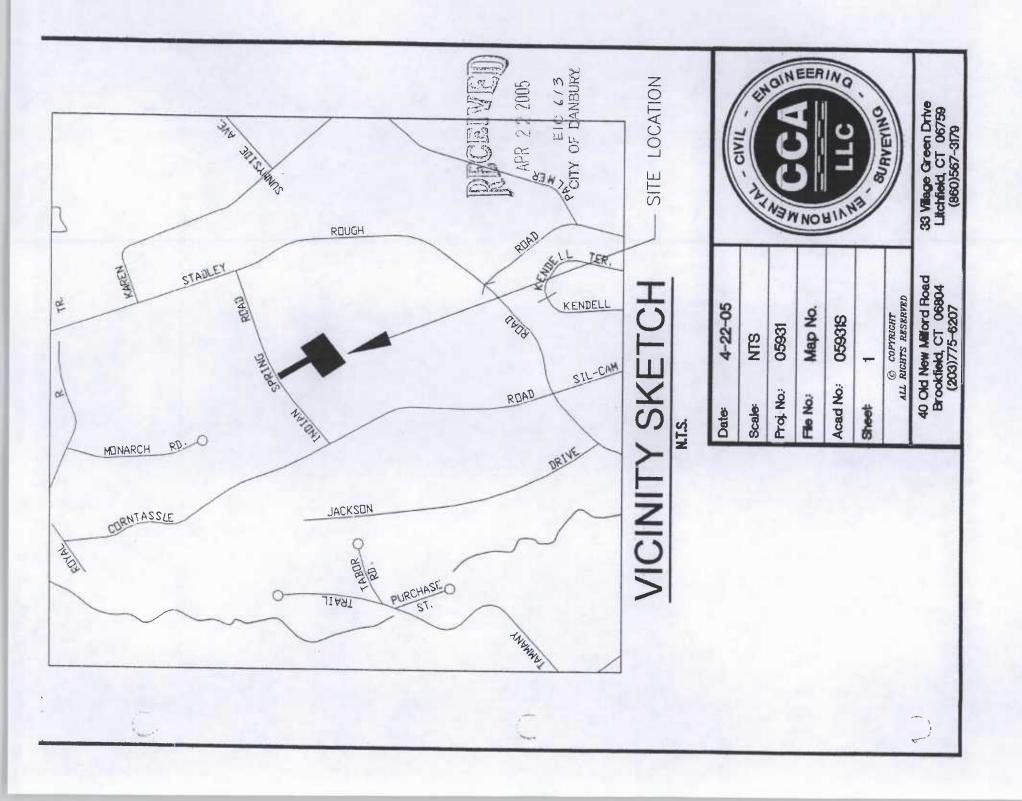


# Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions. Please print or type.

<ol> <li>3.</li> </ol>	DATE ACTION WAS TAKEN: Year 2005 Month July  ACTION TAKEN: A (Approved)  WAS A PUBLIC HEARING HELD? Yes No Danbury, Connecticut 06810
4.	(print) P. M. Lee (signature) . The signature)
	PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant
5.	TOWN IN WHICH THE ACTION IS OCCURRING: Danbury (EIC 613)
- /2	Does this project cross municipal boundaries? YesNo _X
1	If Yes, list the other town(s) in which the action is occurring:
i.	LOCATION: USGS Quad Map Name: <u>Danbury</u> AND Quad Number: <u>76</u>
	Subregional Drainage Basin Number: 6600
	NAME & ADDRESS/LOCATION OF PROJECT SITE: Parcel B Indian Springs Road
	Briefly describe the action/project/activity: Construction of Single family residence
	ACTIVITY PURPOSE CODE: _B
0.	ACTIVITY TYPE CODE(S): 12,
	WETLAND / WATERCOURSE AREA ALTERED [must be provided in acres or linear feet as indicated]:
	Wetlands: 0 acres Open Water Body: 0 acres Stream: 0 linear fee
	UPLAND AREA ALTERED [must be provided in acres as indicated]: . 17 acres
	AREA OF WETLANDS AND / OR WATERCOURSES RESTORED, ENHANCED OR CREATED: acres [must be provided in acres as indicated]
<b>)</b>	PART III: To Be Completed By The DEP . DATE RETURNED TO DEF

FORM CORRECTED / COMPLETED: YES NO





## ADJOINING PROPERTY OWNERS

PREPARED FOR JOHN DEGROSS DANBURY, CT 06810

	ASSESSOR'S#	OWNER'S ADDRESS
--	-------------	-----------------

K0792 LORRAINE D. & AUSTIN C. WARNER

32 CORN TASSLE ROAD DANBURY, CT 06810

K0790 ROBIN MARIE & CHRISTOPHER CHRISTOFORIDES

28 CORN TASSLE ROAD DANBURY, CT 06810

K0712 BARRY D. & DOREEN M. BLAIN

18 INDIAN SPRING ROAD DANBURY, CT 06811-3216

K0713 ANTHONY C. & VINCENZA DIMAURO

16 INDIAN SPRING ROAD DANBURY, CT 06811-3216

K0714 KATHI TWOMBLY

12 INDIAN SPRING ROAD DANBURY, CT 06811

K0715 CHARLES H. & RUTH R. SNODGRASS

10 INDIAN SPRING ROAD DANBURY, CT 06811

K0719 CANDLEWOOD BAPTIST CHURCH

52 STADLEY ROUGH ROAD DANBURY, CT 06811-3237

K07105 COLONIAL HILLS BAPTIST CHURCH

40 STADLEY ROUGH ROAD DANBURY, CT 06811-3276

APR 22 2005

CITY OF DANBURY.

K0720 WILLIAM COFFEY

45 BEAVER BROOK ROAD DANBURY, CT 06810

K076 DONNAL L. & JAMES M. MOORE

11 INDIAN SPRING ROAD DANBURY, CT 06811-3215

K077 JEANNETTE M. SR. & MARY ANNE HUNTLEY

13 INDIAN SPRING ROAD DANBURY, CT 06811



## **ENVIRONMENTAL PLANNING SERVICES**

May 11, 2005

Mr. Matt Scully CCA Engineers 40 Old New Milford Road Brookfield, CT 06804

RE: Indian Springs Road

Brookfield, CT

Dear Mr. Scully:

EPS was retained to delineate the wetlands and watercourses on the referenced site. The wetland delineation was conducted by a soil scientist, according to the requirements of the CT Inland Wetlands and Watercourses Act (P.A. 155). Wetlands are defined as areas of poorly drained, very poorly drained, floodplain, and alluvial soils, as delineated by a soil scientist. Watercourses are defined as bogs, swamps, or marshes, as well as lakes, ponds, rivers, streams, etc., whether natural or man-made, permanent or intermittent. Any competent professional may delineate watercourses.

The wetlands were delineated by walking across the parcel in question on May 3, 2005, and examining the upper 20" of the soil profile with a spade and auger. The limits of the wetlands were marked with pink plastic flagging tape numbered WL1-19. The wetland soil map unit is Ridgebury, Leicester, and Whitman, extremely stony, fine sandy loam (RN). This is an undifferentiated mapping unit consisting of two poorly drained (Ridgebury and Leicester) and very poorly drained (Whitman) soils developed on glacial till in depressions and drainageways in uplands and valleys. Their use interpretations are very similar, and they typically are so intermingled on the landscape that separation is not practical. The Ridgebury and Leicester series have a seasonal high water table at or near the surface (0-6") from fall through spring. They differ in that the Leicester soil has a more friable compact layer or hardpan, while the Ridgebury soils have a dense to very dense compact layer. The Whitman soil has a high water table for much of the year and may frequently be ponded.

The non-wetland soils were not examined in detail, except as was necessary to mark the wetland boundary. They consist primarily of Paxton (Pb) and Woodbridge (Wx) fine sandy loam (Pb). The Paxton series consists of well drained loamy soils formed in subglacial till. The soils are very deep to bedrock and moderately deep to a densic contact (known locally as hardpan). They are nearly level to steep soils on till plains, hills, and drumlins. The depth to the densic contact and material is commonly 20 to 40 inches but the range includes 18 to 40 inches. Depth to bedrock is commonly more than 6 feet. Rock fragments range from 5 to 35 percent by volume. Some pedons have a thin E horizon below the A horizon. It has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 to 3.

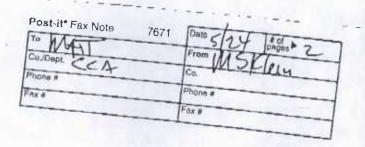
EIC 6/3 CITY OF DANBURY The Woodbridge series consists of moderately well drained loamy soils formed in compact, subglacial till. They are very deep to bedrock. They are nearly level to moderately steep soils on till plains, hills, and drumlins. Depth to the compact layer (hardpan) is 18 to 40 inches. Depth to bedrock is commonly more than 6 feet. Woodbridge soils have a seasonal high water table on top of the compact layer (18-40") from fall through late spring.

Respectfully submitted,

Michael S. Klein, Principal Registered Soil Scientist

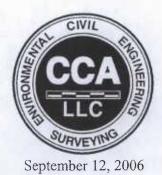
> DECEMED MY 2: 2005

CITY OF DANBURY



Richard W. Howard, Jr., P.E.
Russell T. Posthauer, Jr., P.E.
Michael J. Lillis, P.E.
Richard A. Bunnell, R.L.S.
Ronald J. George, P.E.
John A. Klass, P.E., L.E.P.
Jerick E. Cameron, ASLA, AICP
Steven C. Sullivan, P.E.
Matthew Scully, P.E.

Mr. Daniel Baroody City of Danbury Health Department 155 Deer Hill Avenue Danbury, CT 06810



40 Old New Milford Road Brookfield, CT 06804 (203) 775-6207 Fax (203) 775-3628 Email: mail@ccaengineering.com 33 Village Green Drive Litchfield, CT 0675-7379 (860) 567-3179 Fax (860) 567-1716 Email: cca litchfield@snet.net

RECEIVED

SEP 1 3 2006

613

ENVIRONMENTAL IMPACT COMMISSION CITY OF DANBURY

RE:

14 Indian Springs Road Wetland Remediation Plan

#### Dear Dan:

Attached you will find the Wetlands Remediation Plan for the above referenced project. The plan is being submitted in response to comments and issues raised during our site visit on June 28, 2006. Shown on the plan are the locations of the originally approved house, driveway, pool and conservation easement, along with the existing and proposed locations of the same, as well as the location of the unapproved existing asphalt pad.

The issues raised during the site walk were as follows.

- 1) The encroachment, on the western side of the existing driveway, into the wetlands, between flags 13 and 14.
- 2) The increase in area, associated with the additional parking and turnaround areas within the existing driveway and the additional impervious area associated with the asphalt pad in the rear yard.
- 3) The additional clearing and grading performed along the western side of the property, within the review area.

The Wetland Remediation Plan addresses these issues as follows.

- 1) A Wetland Restoration Area has been created to match the amount of wetlands disturbed by the construction of the driveway. A planting list is shown on the plan for this area.
- 2) The Conservation Easement has been moved, farther to the east, to create a larger buffer between the lawn area and the wetlands. The originally approved Buffer Plantings have also been relocated to follow the new Conservation Easement Line.
- The grading slope, to the west of the house, is to be seeded with a conservation mix and is not to be maintained.

In addition, to prevent any further encroachment into the Conservation Easement area, a split rail fence is proposed along the Conservation Easement as shown.

City of Danbury September 12, 2006 Page -2-

If any additional information is required, with regard to this request, please feel free to contact me.

Very truly yours,

Matthew Scully, P.E. Project Manager

MS/hf

Cc: Jose Carvalheiro



Daniel Baroody City of Danbury

TO:

40 OLD NEW MILFORD ROAD BROOKFIELD, CONNECTICUT 06804 (203) 775-6207 (203) 775-3628 FAX

September 12, 2006

Re: 14 Indian Springs Road

Job No.: 05-931

# LETTER OF TRANSMITTAL

Date:

COPIES	DATE	NO.		RIPTION
6			Wetland Remediation Plan	RECEIVED SEP 1 3 2006 #1
				ENVIRONMENTAL IMPACT COMMISSION CITY OF DANBURY
COLORD A TOTAL	<b>FRANSMIT</b>	TED as checke	d below:	
		☐ For your use	☐ As requested	For review and comment
For approva		∃ For your use	□ As requested	For review and comment
For approva		∃ For your use	□ As requested	For review and comment

Indian Spring Road - Parcel B

John DeGross

Date of Receipt: 4/27/05.

Regulated Activity # 613

Assessor's Lot # K07020, RA-40 Zone.

Single-family residence.

First 65 Days: 7/1/05. Second 65 Days: 9/4/05. CCA, LLC. Matthew Scully, P.E., took the mic at 10:14 pm. Scully described the vicinity. It's an interior parcel with an accessway, about 3¼ acres. One single-family house is proposed with a 12-foot wide driveway. Wetlands come within 6 or 7 feet of the driveway. We are within the regulated area. Scully went to the easel to show the "very gentle slope". The driveway will remain gravel, and minimal grading is needed. "It's basically at grade", so we propose to replant the area with a New England Conservation mix. As for the other disturbance, we'll have a small splash pad and a riprap pad for the drainage. Lees had a question on the Conservation Easement. He, Scully and LeRoy discussed the elevations, slopes, pipes, basement excavation, daylighting the footing drains, keeping the house elevated, curtain drain requirements, only one trench will be put in, planting & stabilizing that outlet area, the Conservation Easement and monuments. LeRoy asked who is the soil scientist. Are the flags up in the field? Scully replied Henry T. Moeller is the soil scientist, and he's on vacation. Regarding the flags, Scully does not know if they're up, but he will have it reflagged as needed. The corners are staked. Pinkham made a motion to table. Mills seconded the motion and it carried unanimously.

### Indian Spring Road - Parcel B

### John DeGross

Date of Receipt: 4/27/05.

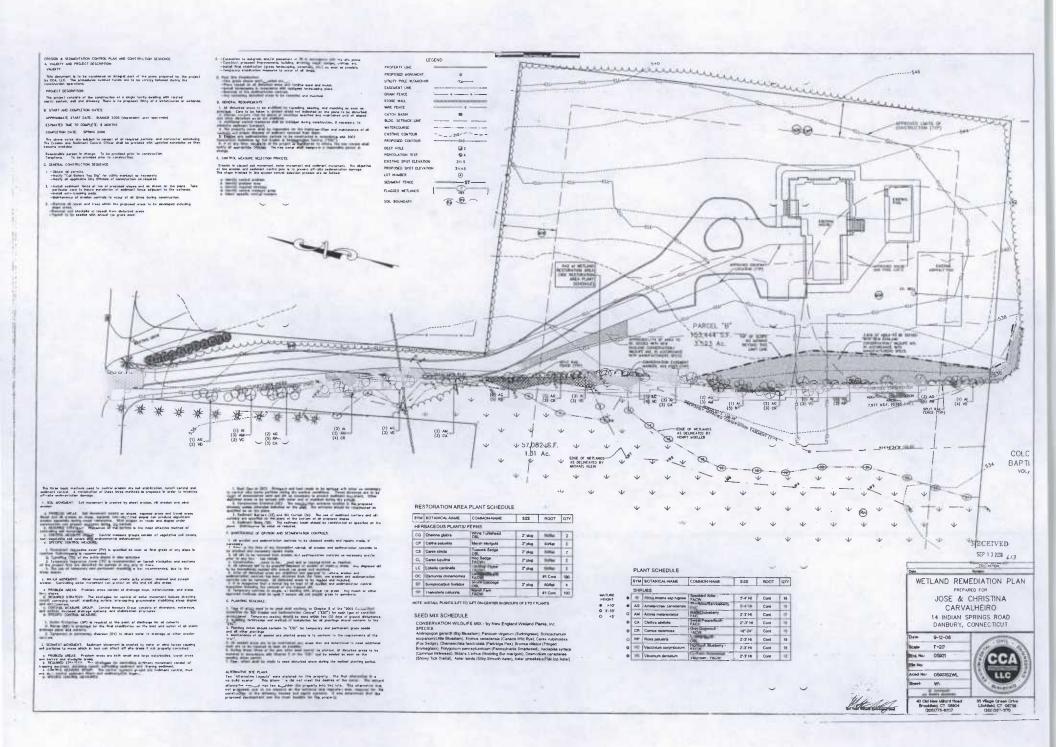
#### Regulated Activity # 613

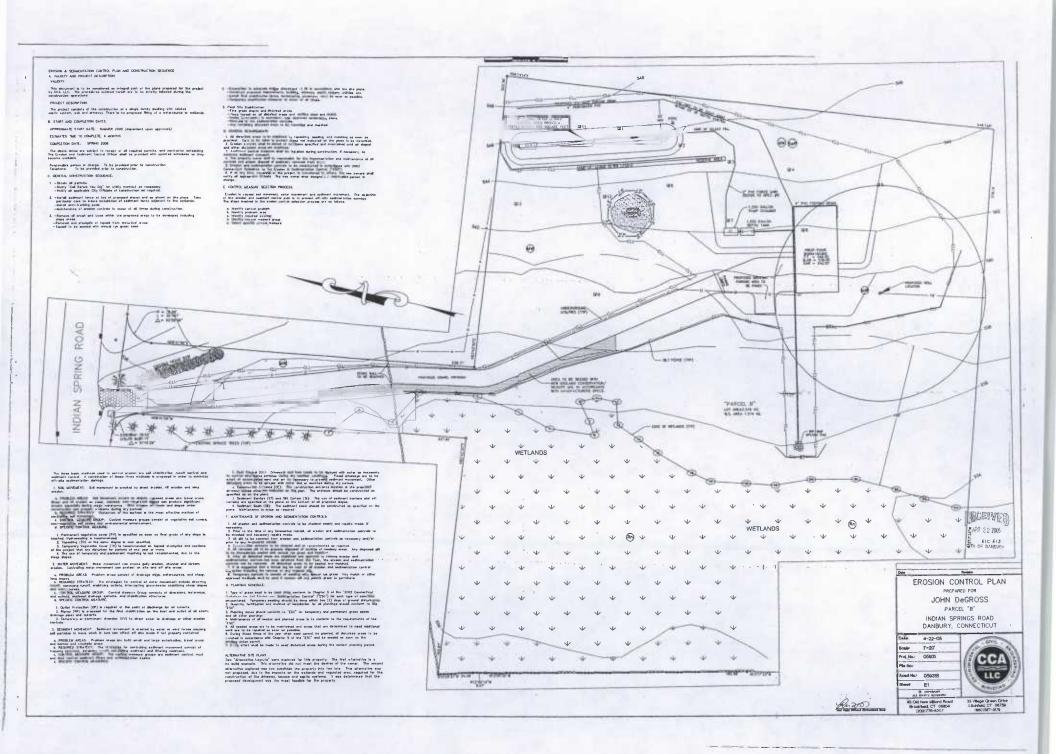
Assessor's Lot # K07020, RA-40 Zone.

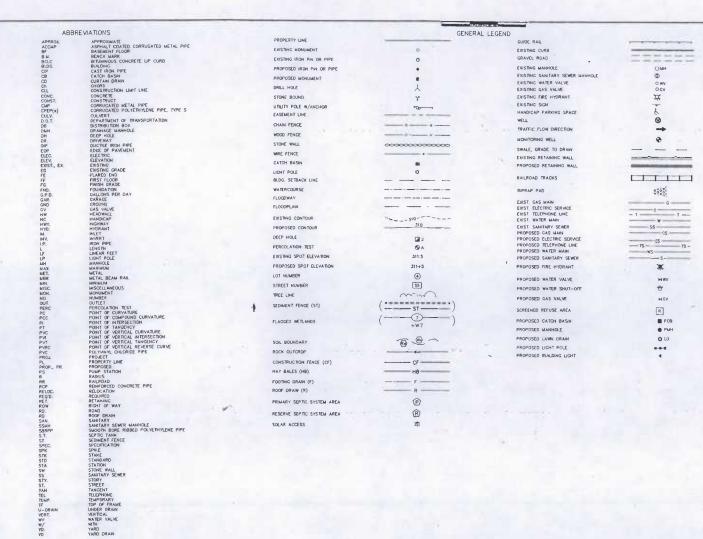
Single-family residence.

First 65 Days: 7/1/05. Second 65 Days: 9/4/05. CCA, LLC. Soils report and erosion control plan rec'd.5/24/05. Sewer plan & alternate plan rec'd. 5/31/05. Matthew Scully, P.E., identified himself and took the microphone at 9:38 pm. He said Henry T. Moeller did the original wetland flagging. Michael Klein visited the site in early May. I've submitted his report, Scully said. We have not changed the driveway location due the wetlands. "We held the more conservative line". LeRoy asked is there no mitigation? Can you describe the wetlands? I have not seen this area. Scully replied there are only 85 sq.ft. of wetlands, and no mitigation is proposed. John DeGross came forward and identified himself. He said the neighbors were using this land as a dump site. We haven't touched any of it. "We'll go back in and clean this up." LeRoy asked for a planting plan. John DeGross, using sheet E-1 on the easel, said I've no problem with a planting plan. LeRoy asked the EIC do the Commissioners want a Conservation Easement. He explained what this is to DeGross. DeGross said a Conservation Easement is not an issue for me. Chianese asked should we move this to Administrative Approval? Mills motioned to move EIC 613 to Administrative Approval. Russell seconded the motion, and it carried unanimously at 9:44 pm.

6/3/05 ten







GENERAL NOTES

GENERAL NOTES

1 ALL WORK TO WEET TOWN OR CITY, STATE AND FEDERAL CODES,
REQUATIONS AND STANDARDS AS APPLICABLE.

2 REQUATIONS AND STANDARDS AS APPLICABLE.

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3 ALL PERMATS SHALL BE GETAINED PRIOR TO CONSTRUCTION.

3 ALL PERMATS SHALL BE GETAINED PRIOR TO CONSTRUCTION.

4 ALL PERMATS SHALL BE GETAINED PRIOR TO CONSTRUCTION.

5 ALL MATERIAS AND HERDOSO OF CONSTRUCTION SHALL WEET CONNECTICUT.

6 ALL CATCH BASHS, AMMERICES, PIPPIC, AND DISH TOWN OR CITY WEIGHT AND THE TOWN OR CITY WITHOUT THE CITY WITHOUT THE TOWN OR CITY WITHOUT THE CITY WITHOUT THE

DECEIAEU APR 2 2 2005 CITY OF DANSURY

GENERAL LEGEND, NOTES AND ABBREVIATIONS

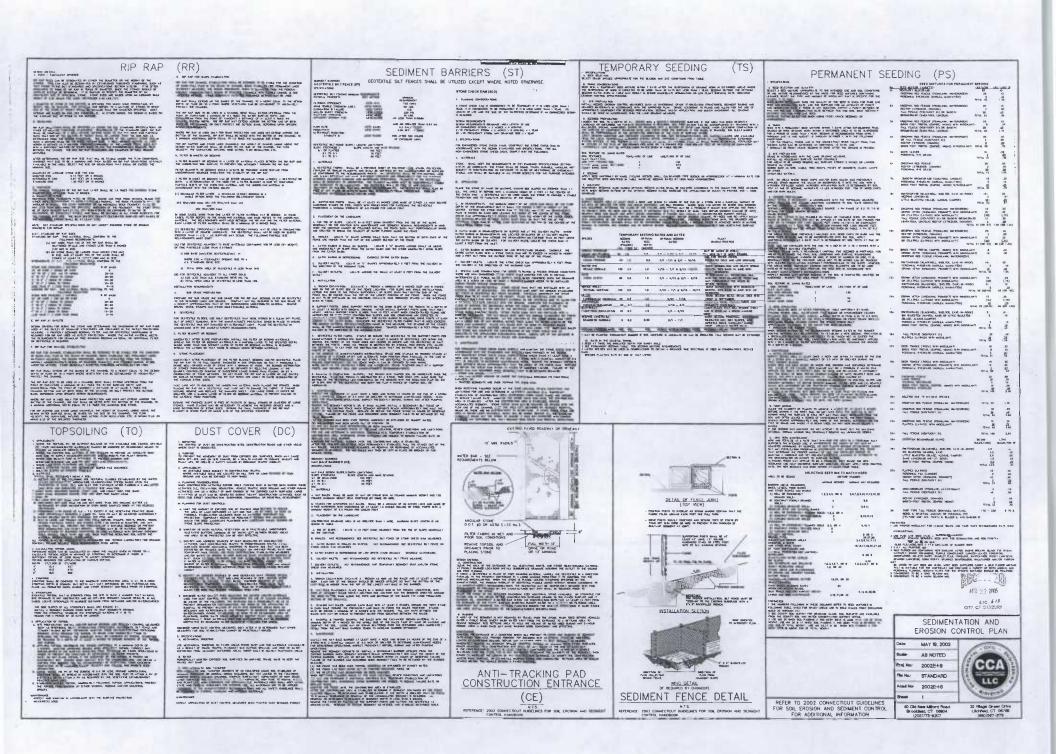
8EPT. 2002 NT.B. Fro No OENERAL File No. 8TD.

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35 VBega Green Driv LikeWest CT 06750

CCA

LLC



## Roy Shook Associates

Soil & Environmental Consultants

Roy A. Shook Jr. 441 Geraldine Drive Coventry, CT 06238 (860) 742-7283

June 3, 2001

Job No. 01E292

Mr. Richard W. Howard, Jr., P.E. CCA, LLC 40 Old New Milford Road Brookfield, CT 06804

Dear Mr. Howard:

RE:

WETLAND DELINEATION
COLONIAL HILL BAPTIST CHURCH PROPERTY
40 STADLEY ROUGH ROAD, DANBURY, CONNECTICUT

At your request, I made an on-site investigation of the above referenced tract. The purpose of my visit was to identify and delineate the Connecticut Inland Wetlands and Watercourses. The fieldwork was done on May 29, 2001.

The wetland boundaries are marked with red flagging numbered RSA-1 through RSA-52. Please refer to the enclosed sketch for the approximate location of the inland wetland boundaries and key wetland flag numbers.

The identification of the wetlands was based on field observations of the soils on this site and the guidelines of the National Cooperative Soil Survey Program. The non-wetland soils were not studied in detail. Observations were made of these soils only in the process of identifying the wetland sites. The following descriptions do not constitute a detailed soil survey, but may be used as an aid in site planning.

The soil map and narrative are a refinement of data contained in the Soil Survey of Fairfield County, Connecticut. The symbols on the map identify map units. Each map unit has a unique combination of soils. Areas with the same symbol have similar composition. The following map unit descriptions are based on the data collected at this particular site. For this reason, there may be some differences between these descriptions and those provided in the Soil Survey of Fairfield County, Connecticut.

#### WETLAND SOILS

Map Unit AQ

The AQ map unit consists primarily of man-made or man-disturbed cut and/or fill areas that are wet. Slopes range from 0 to 3 percent. These soils have a seasonally high watertable at less

than 2 feet; have an aquic moisture regime and can be expected to support hydrophytic vegetation. Typically, these soils are in places where a less than 2 foot thick layer of earthy material has been placed over poorly and very poorly drained soils; or where the natural soils have been mixed so that the natural soil layers are not identifiable; or where the soil materials have been excavated to the ground watertable. These soils are inland wetland soils.

Map Unit Rd

The Rd map unit consists primarily of Ridgebury soils on 0 to 3 percent slopes. Ridgebury soils are very deep poorly drained soils formed in compact glacial till derived mainly from gneiss and schist. Typically, they have a friable loam or fine sandy loam surface layer and subsoil over a firm fine sandy loam or sandy loam dense till substratum. Ridgebury soils have a perched watertable within 1.5 feet of the surface much of the year. They are inland wetland soils.

#### NON-WETLAND SOILS

Map Unit PbB

The PbB map unit consists primarily of Paxton soils on 3 to 8 percent slopes. Paxton soils are very deep well drained soils formed in compact glacial till derived mainly from gneiss and schist. Typically they have a friable fine sandy loam or loam surface layer and subsoil over a firm fine sandy loam or sandy loam dense till substratum.

Map Unit UA

The UA map unit consists primarily of man-made cut and/or fill areas that have a seasonally high watertable within 2 to 4 feet of the surface. Slopes range from 0 to 8 percent. Typically, these soils are in places that have 2 feet or more of fill material placed over poorly and very poorly drained soils or where the soil materials have been mixed so that natural soil layers are not identifiable. The fill is mostly earthy materials with minor amounts of non-earthy materials such as pieces of concrete, bricks, wood, metals, and glass. In cut areas, the natural soil material has been excavated and the unconsolidated geologic material is exposed.

Map Unit UD

The UD map unit consists primarily of man-made cut and/or fill areas. Slopes range from 0 to 15 percent. The fill is mostly earthy materials with minor amounts of non-earthy materials such as pieces of concrete, bricks, wood, metals and glass. In cut areas the natural soil has been excavated and the unconsolidated loamy glacial deposit is exposed.

Map Unit WxB

The WxB map unit consists primarily of Woodbridge soils on 2 to 8 percent slopes. Woodbridge soils are very deep moderately well drained soils formed in compact glacial till derived mainly from gneiss and schist. Typically, they have a friable fine sandy loam or loam surface layer and subsoil over a firm fine sandy loam or sandy loam dense till substratum. Woodbridge soils have a perched seasonal watertable at 1.5 to 2.5 feet from late fall to early spring.

Please contact me if you have any questions or if I can be of further assistance.

Respectfully yours,

Day a Shock of Roy A. Shook, Jr. Soil Scientist



# CITY OF DANBURYMET 15 2002

155 DEER HILL AVENUE

DANBURY, CONNECTICUT 06810

ENVIRONMENTAL IMPACT COMMISSION 191-4515

FILE NO. \

# APPLICATION FOR PERMIT TO CONDUCT

	Filing Fee: 135.00 Filing Date: 3/27/02
6 27 to	Date of Regular Meeting for Consideration:
	APPROVED:
	DENIED:
	*** NOTICE *** er to the Inland Wetlands and Watercourses Regulations of the City of Danbury (tons") for all requirements for submission of applications.
egulatio LOCAT	er to the Inland Wetlands and Watercourses Regulations of the City of Danbury (t
LOCAT	er to the Inland Wetlands and Watercourses Regulations of the City of Danbury (tons") for all requirements for submission of applications.  ION AT WHICH ACTIVITY IS PROPOSED:
LOCAT Ad De	er to the Inland Wetlands and Watercourses Regulations of the City of Danbury (tons") for all requirements for submission of applications.  ION AT WHICH ACTIVITY IS PROPOSED:  dress: 40 STADLEY ROUGH ROAD Assessor's Lot No.: KO7105
LOCAT Ad De	r to the Inland Wetlands and Watercourses Regulations of the City of Danbury (tons") for all requirements for submission of applications.  ION AT WHICH ACTIVITY IS PROPOSED:  dress: 40 STADLEY ROUGH ROAD Assessor's Lot No.: K07105  scriptive location attach map if necessary:  sperty is located on the (north) (south) (east) (west) side of the above street, and distant proximately 200 feet (north) (south) (east) (west) from HAWLEY ROAD arest intersection).
LOCAT Ad De Pro app (ne	r to the Inland Wetlands and Watercourses Regulations of the City of Danbury (tons") for all requirements for submission of applications.  ION AT WHICH ACTIVITY IS PROPOSED:  dress: 40 STADLEY ROUGH ROAD Assessor's Lot No.: K07105  scriptive location attach map if necessary:  sperty is located on the (north) (south) (east) (west) side of the above street, and distant proximately 200 feet (north) (south) (east) (west) from HAWLEY ROAD arest intersection).

3. PROPERTY OWNERSHIP:			
a. Applicant's interest in property (	circle one):		
Owner Developer Opt	ion Holder Other (des	scribe)	
b. If applicant is not owner, give na	me, address and daytime	number of	owner(s):
Name:	Telepho	ne:_()	
Address:	City	State	Zip
4. AGENT (if applicable):			
Name:	Title:		
Address:	City	State	Zip
Telephone: ()			
List the titles of site plans, drawings reports that are part of the application of the application of the state of t	, cross sections with the lon and are accompanying	this form:	
LANDSCAPE PLAN 3-11-	.02		
NOTES & DETAILS 3-11 GENERAL LEGEND & NOTES	- 02		
SEDIMENTATION + ERUSION	CONTROL PLAN		4
Subdivision or resubdivision approval  Special Permit from Zoning Commiss  Special Exception from Planning Commiss  When the Total of the Parallel of the Para	sion nmission	¥ .	
Variance from the Zoning Board of A  Site Plan approval by Planning Depart		13.	
Zoning Permit		à	8

3. PF	OPERTY OWNERSHIP:			
	a. Applicant's interest in property (circle of	one):		
	Owner Developer Option H	older Other (de	escribe)	
	b. If applicant is not owner, give name, ac	idress and daytime	number of	owner(s):
	Name:	Telepho	one: ( )_	
	Address:	City	State	Zip
4. AC	PENT (if applicable):			
	Name:	Title:		
	Address:		State	Zip
	Telephone: ( )			
5. IN	FENDED USE OF PROPERTY: EXIST.	CHURCH/SCHOOL	- W/ PROPE	SED GYMNASIUM
6. TO	TAL AMOUNT OF AFFECTED WETLAN	DS OR WATERC	OURSES:	
Wetla	nds: square feet	watercourses:		linear feet
7. DO	OCUMENTS (Submit 14 copies of each docu	ment):		
	List the titles of site plans, drawings, cross reports that are part of the application and			on dates, and any
	SITE PLAN 3-8-02 LANDSCAPE PLAN 3-11-02			
	LANDSCAPE PLAN 3-11-02			
	NOTES DETAILS 3-11-02			
	GENERAL LEGEND I NOTES SEDIMENTATION   ERUSION CON	TON PEAN		
	SCIMING NIATION TO ESTIVE COL	TEUC TEAM	4	1
8. DO	ES THE PROPOSED ACTIVITY REQUIR	E:		
	Subdivision or resubdivision approval		**	
	Special Permit from Zoning Commission			
	Special Exception from Planning Commissi	on	4	
	Variance from the Zoning Board of Appeal	ls	e 15.	
	Site Plan approval by Planning Department	76		\$
	Zoning Permit			

9.	CHECK WHETHER ANY OF THE FOLLOWING CIRCUMSTANCES APPLY:
	Any portion of the wetlands or watercourses for which the regulated activity is proposed is located within five hundred (500) feet of the boundary of an adjoining municipality (see Section 7.13 of Regulations).
	Any portion of the property affected by the decision of the commission is located within five hundred (500) feet of the boundary of an adjoining municipality (see Section 7.14 of Regulations).
	A significant portion of the traffic to the completed project on the site will use streets within the adjoining municipality to enter or exit the site (see Section 7.14 of Regulations).
	A significant portion of the sewer or water drainage from the project site will flow through and significantly impact the sewage or drainage system within the adjoining municipality (see Section 7.14 of Regulations).
	Water run-off from the improved site will impact streets or other municipal or private property within the adjoining municipality (see Section 7.14 of Regulations).
	Any portion of the wetland or watercourse on which the regulated activity is proposed is within the watershed of a water company (see Section 7.15 of Regulations).
10.	DOCUMENTS (to be submitted for complete application):
M	Completed and signed "Application for Permit to Conduct Regulated Activity"
Ø	Fourteen copies of site plans, drawings, cross sections, and reports.
	Site plans must show existing and proposed conditions in relation to wetlands and watercourses, including soil types, vegetation and existing and proposed improvements.
$\boxtimes$	Fourteen Copies of Narrative Description of Proposed Activity.
	Describe the proposed activity, its purpose and intended use, area of wetlands to be altered, mount and type of materials to be removed or deposited, structures and construction activities, the manner in which the work will be carried out, anticipated time of construction, and the relationship of proposed work to existing facilities, projects or activities.
X	Fourteen Copies of Narrative Description of Alternatives:
	Describe alternatives considered and why the proposal set forth in the application was chosen.
<u> </u>	List of names and mailing addresses of all owners of property abutting or across the street from the subject property.
X	Payment of all required fees for review.

#### 11. ADDITIONAL INFORMATION

The Commission may require additional information from the applicant pursuant to Sections 7.4. and 7.7 of the Regulations.

#### 12. OWNER'S CONSENT TO INSPECTIONS OF PROPERTY

The undersigned, as owner of the property, hereby consents to necessary and proper inspections of the above-mentioned property by agents of the Environmental Impact Commission of the City of Danbury, at reasonable times, both before and after a final decision has been issued by the Commission.

Signature of Owner

#### 13. APPLICANT'S CERTIFICATION TO SUBMITTED INFORMATION

The undersigned hereby certifies that the information provided in this application including its supporting documentation is true and correct, and is aware of the penalties for obtaining a permit through deception or through inaccurate or misleading information.

Signature of Applicant

regacapp

#### 12. OWNER'S CONSENT TO INSPECTIONS OF PROPERTY

The undersigned, as owner of the property, hereby consents to necessary and proper inspections of the above-mentioned property by agents of the Environmental Impact Commission of the City of Danbury, at reasonable times, both before and after a final decision has been issued by the Commission.

Signature of Owner,

#### 13. APPLICANT'S CERTIFICATION TO SUBMITTED INFORMATION

The undersigned hereby certifies that the information provided in this application including its supporting documentation is true and correct, and is aware of the penalties for obtaining a permit through deception or through inaccurate or misleading information.

Signature of Applicant

regacapp

Ador 3/13/02 Date



CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION 79 Elm Street Hartford, CT 06106-5127

GIS CODE #: For DEP Use Only		_
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Arthur J. Rocque, Jr., Commissioner

### Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions. Please print or type.

	PART I: To Be Completed By The Inland Wetlands	Agency Only
2.	DATE ACTION WAS TAKEN: Year Month	VVIRONMENTAL IMPACT COMMISSION City Hark 155 Deer Hill Avenue Danbury, Connecticut 06810
	PART II: To Be Completed By The Inland Wetlands Age	ncy Or The Applicant
5.	TOWN IN WHICH THE ACTION IS OCCURRING: DANBURY	(EIC 445)
	Does this project cross municipal boundaries? Yes No	
	If Yes, list the other town(s) in which the action is occurring:	
6.	LOCATION: USGS Quad Map Name: DAN BUZY	AND Quad Number. 76
	Subregional Drainage Basin Number: 6600	
7.	NAME OF APPLICANT, VIOLATOR OR PETITIONER:COLONIAL HIL	LS BAPTIST CHURCH
8.	NAME & ADDRESS/LOCATION OF PROJECT SITE: 40 STADLEY P	ough Road
	Briefly describe the action/project/activity: ConsTruct Gymnasium ;	EXPAND PARKING AREA
9.	ACTIVITY PURPOSE CODE:	
10	D. ACTIVITY TYPE CODE(S):,,,	
11.	1. WETLAND / WATERCOURSE AREA ALTERED [must be provided in acres or linear	r feet as indicated]:
	Wetlands: Open Water Body: Open Water Bo	Stream: o linear feet
12	2. UPLAND AREA ALTERED [must be provided in acres as indicated]:	acres
13	3. AREA OF WETLANDS AND / OR WATERCOURSES RESTORED, ENHANCED O. [must be provided in acres as indicated]	R CREATED: acres
1		

### ADJOINING PROPERTY OWNERS COLONIAL HILLS BAPTIST CHURCH STADLEY ROUGH ROAD DANBURY, CT

#### City of Danbury

K07021 Raymond F. & Sharon P. Kelly 38 Stadley Rough Road Danbury, CT 06811

K07101 Emilio A. Pandolfi 48 North Street Danbury, CT 06810

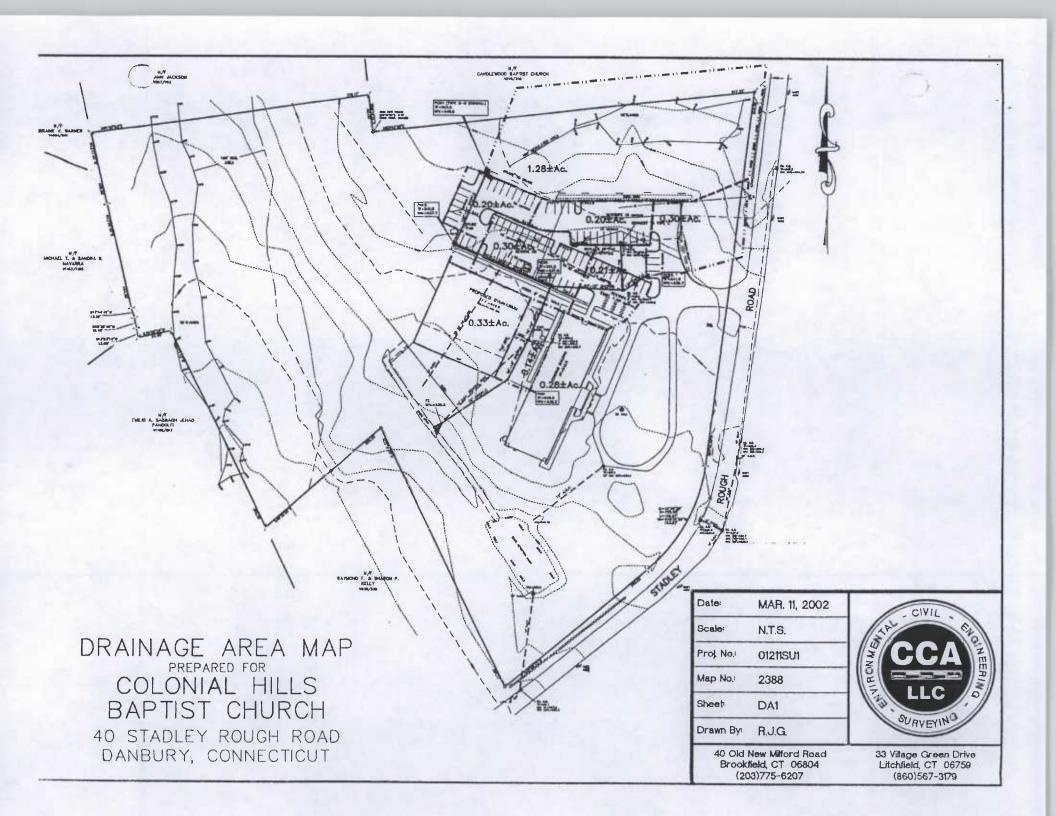
K07093 Michael T. and Sandra R. Navarra 32 Corn Tassle Road Danbury, CT 06811

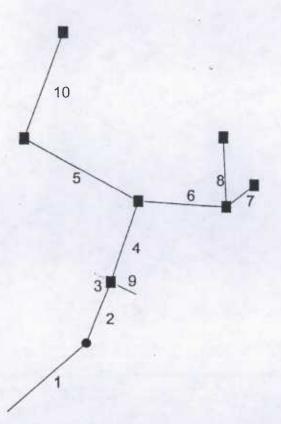
K07092 Lorraine V. Warner 32 Corn Tassle Road Danbury, CT 06811

Ko7o20 Terry Ann Jackson 449 16<sup>th</sup> Street, Apt. 4L Brooklyn, NY 11215

K07019 Candlewood Baptist Church 52 Stadley Rough Road Danbury, CT 06811

## DRAINAGE CALCULATIONS





Project file: COLONIAL HILLS.stm

IDF file: sampleFHA.IDF

No. Lines: 10

03-14-2002

# **Hydraflow Summary Report**

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	Dn line No
10	PCB4-PCB2	2.19	12 c	106.0	537.70	540.50	2.641	540.12	541.13	0.28	5
9	ROOF2-ECB1	1.79	9 c	30.0	536.70	537.00	1.000	539.03*	539.33*	0.25	2
8	ECB3-ECB2	1.28	12 c	63.0	538.00	539.00	1.587	539.96	540.00	0.04	6
7	PCB3-ECB2	0.85	12 c	37.0	538.00	538.20	0.541	539.96*	539.98*	0.02	6
6	ECB2-PCB1	2.76	15 c	98.0	537.00	538.00	1.020	539.69*	539.85*	0.12	4
5	PCB2-PCB1	3.14	15 c	138.0	537.00	537.70	0.507	539.69°	539.97*	0.15	4
4	PCB1-ECB1	6.95	18 c	80.0	536.70	537.00	0.375	539.03*	539.33*	0.36	2
3	ROOF1-ECB1	2.11	12 c	20.0	536.70	537.00	1.500	539.03*	539.09*	0.11	2
2	ECB1-PMH1	9.99	18 c	61.0	536.20	536.70	0.820	537.82*	538.29*	0.75	1
1	PMH1-FE1	9.92	18 c	106.0	535.50	536.20	0.660	536.88	537.58	0.24	En

NOTES: c = circular; e = elliptical; b = box; Return period = 25 Yrs.; \* Indicates surcharge condition.

# Hydradow Storm Sewer Tabulation

Sta	tion	Len	Drng	Area	Rnoff	Are	axC	To	C	Rain	Total	Cap	Vel	Pi	ipe	Inver	t Elev	HGL	Elev	Grnd / R	im Elev	Line ID
ne	To Line	(ft)	Incr (ac)	Total	coeff (C)	Incr	Total	Inlet (min)	Syst (min)	(l) (in/hr)	flow (cfs)	full (cfs)	(ft/s)	Size	Slope	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
		(11)	(ac)	(ac)	(0)			(11111)	(11111)	(IIIIIII)	(CIS)	(CIS)	(105)	(111)	(76)	(11)	(11)	(11)	(11)	(11)	(11)	
0	5	106.0	1.28	1.28	0.30	0.38	0.38	10.0	10.0	5.7	2.19	6.27	3.50	12	2.64	540.50	537.70	541.13	540.12	543.50	541.00	PCB4-PCB2
	2	30.0	0.28	0.28	0.90	0.25	0.25	5.0	5.0	7.1	1.79	1.79	4.04	9	1.00	537.00	536.70	539.33	539.03	541.00	539.60	ROOF2-ECB
	6	63.0	0.20	0.20	0.90	0.18	0.18	5.0	5.0	7.1	1.28	4.86	1.62	12	1.59	539.00	538.00	540.00	539.96	541.40	540.50	ECB3-ECB2
	6	37.0	0.30	0.30	0.50	0.15	0.15	10.0	10.0	5.7	0.85	2.84	1.09	12	0.54	538.20	538.00	539.98	539.96	541.00	540.50	PCB3-ECB2
	4	98.0	0.21	0.71	0.79	0.17	0.50	5.0	10.6	5.6	2.76	7.07	2.25	15	1.02	538.00	537.00	539.85	539.69	540.50	541.00	ECB2-PCB1
	4	138.0	0.20	1.48	0.90	0.18	0.56	5.0	10.6	5.6	3.14	4.98	2.55	15	0.51	537.70	537.00	539.97	539.69	541.00	541.00	PCB2-PCB1
	2	80.0	0.30	2.49	0.78	0.23	1.29	5.0	11.6	5.4	6.95	6.97	3.93	18	0.37	537.00	536.70	539.33	539.03	541.00	539.60	PCB1-ECB1
	2	20.0	0.33	0.33	0.90	0.30	0.30	5.0	5.0	7.1	2.11	4.72	2.68	12	1.50	537.00	536.70	539.09	539.03	541.00	539.60	ROOF1-ECB
	1	61.0	0.14	3.24	0.30	0.04	1.88	10.0	11.9	5.3	9.99	10.30	5.65	18	0.82	536.70	536.20	538.29	537.82	539.60	540.00	ECB1-PMH1
	End	106.0	0.00	3.24	0.00	0.00	1.88	0.0	12.1	5.3	9.92	9.24	5.83	18	0.66	536.20	535.50	537.58	536.88	540.00	538.00	PMH1-FE1
Pro	oject Fli	e: COL	ONIAL	HILLS.s	tm			IDF F	ile: sam	pleFHA	IDF					Total n	umber of I	ines: 10		Run Da	ate: 03-14	-2002

NOTES: Intensity = 73.49 / (Infet time + 11.60) ^ 0.83; Return period = 25 Yrs.; Initial tailwater elevation = 536.88 (ft)

# Hydrelow FL-DOT Report

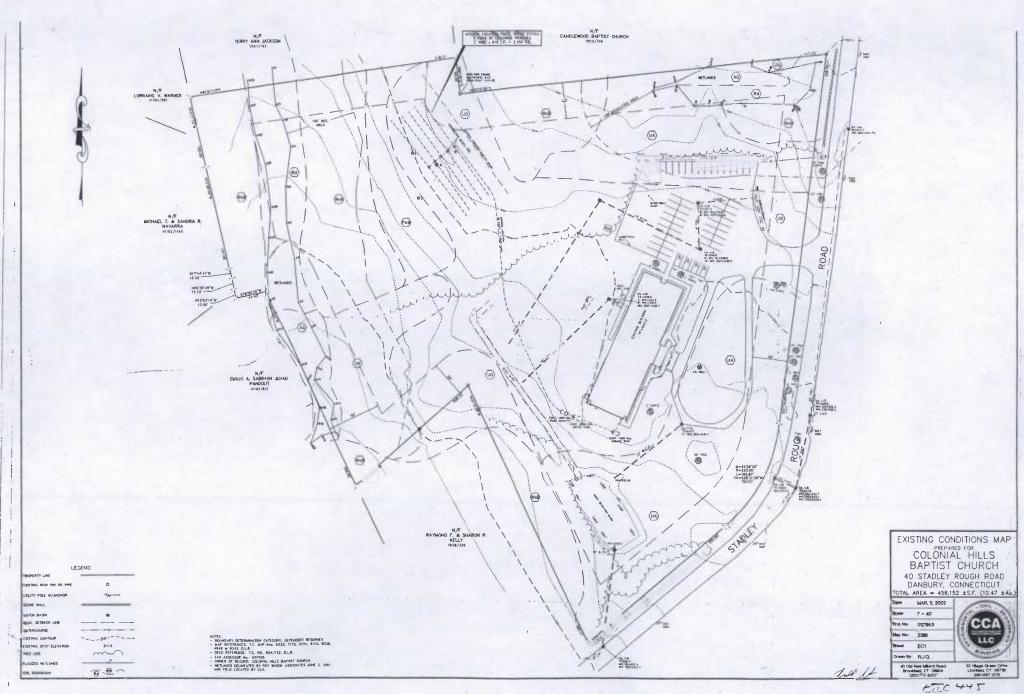
		Type	n - value	Len	Dra	inage A	rea	Time	Time	Inten (I)	Total CA	Add	Inlet	EI	ev of HGL		Rise	HGL	Act	ual	Date: 03-14-2002	
	Litto	struc	Value		1	0.1 = 0.3 $0.2 = 0.5$		conc	flow	(•)	OA.	Total	Cicv	E	ev of Crow	/n	Span	Pipe	Full Flow		Frequency: 25 yrs	
					1	3 = 0.9			sect			flow		Ei	ev of Inver	t					Project: COLONIAL HIL	
				(ft)	Incre- ment (ac)	Sub- total (ac)	Sum CA	(min)	(mln)	(in/hr)		Q (cfs)	(ft)	Up (ft)	Down (ft)	Fall (ft)	Size (in)	Slope (%)	Vel (ft/s)	Cap (cfs)	Line description	
10	5	DrGrt	0.012	106.0	1.28 0.00 0.00	1.28 0.00 0.00	0.38 0.00 0.00	10.00	0.63	5.7	0.38	0.00 2.19	543.50	541.13 541.50 540.50	540.12 538.70 537.70	1.00	12 12 Cir	0.95 2.64	3.50 7.98	2.19 6.27	PCB4-PCB2	
9	2	None	0.012	30.0	0.00 0.00 0.28	0.00 0.00 0.28	0.00 0.00 0.25	5.00	0.12	7.1	0.25	0.00	541.00	539.33 537.75 537.00	539.03 537.45 536.70	0.30	9 9 Clr	1.00	4.04 4.05	1.79 1.79	ROOF2-ECB1	
8	6	Comb	0.012	63.0	0.00 0.00 0.20	0.00 0.00 0.20	0.00 0.00 0.18	5.00	0.65	7.1	0.18	0.00	541.40	540.00 540.00 539.00	<b>539.96</b> 539.00 538.00	0.04	12 12 Cir	0.06 1.59	1.62 6.19	1.28 4.86	ECB3-ECB2	
7	6	Comb	0.012	37.0	0.20 0.00 0.10	0.20 0.00 0.10	0.06 0.00 0.09	10.00	0.57	5.7	0.15	0.00	541.00	539.98 539.20 538.20	539.96 539.00 538.00	0.02	12 12 Cir	0.05 0.54	1.09	0.85 2.84	PCB3-ECB2	
6	4	Grate	0.012	98.0	0.04 0.00 0.17	0.24 0.00 0.47	0.07 0.00 0.42	10.57	0.73	5.8	0.50	0.00 2.76	540.50	539.85 539.25 538.00	539.69 538.25 537.00	0.15	15 15 Cir	0.16 1.02	2.25 5.76	2.76 7.07	ECB2-PCB1	
5	4	Comb	0.012	138.0	0.00 0.00 0.20	1.28 0.00 0.20	0.38 0.00 0.18	10.63	0.94	5,6	0.56	0.00	541.00	539.97 538.95 537.70	539.69 538.25 537.00	0.28	15 15 Clr	0.20 0.51	2.55 4.06	3.14 4.98	PCB2-PCB1	
4	2	Comb	0. <b>0</b> 12	80.0	0.06 0.00 0.24	1.58 0.00 0.91	0.47 0.00 0.82	11.57	0.37	5.4	1.29	0.00 6.95	541.00	539.33 538.50 537.00	539.03 538.20 536.70	0.30	18 18 Cir	0.37 0.37	3.93 3.94	6.95 6.97	PCB1-ECB1	
3	2	None	0.012	20.0	0.00 0.00 0.33	0.00 0.00 0.33	0.00 0.00 0.30	5.00	0.12	7.1	0.30	0.00 2.11	541.00	539.09 538.00 537.00	539.03 537.70 536.70	0.06	12 12 Cir	0.30 1.50	2.68 6.02	2.11 4.72	ROOF1-ECB1	
2	1	Grate	0.012	61.0	0.14 0.00 0.00	1.72 0.00 1.52	0.52 0.00 1.37	11.94	0.20	5.3	1.88	0.00	539.60	538.29 538.20 536.70	537.82 537.70 536.20	0.47	18 18 Cir	0.77 0.82	5.65 5.83	9.99 10.30	ECB1-PMH1	

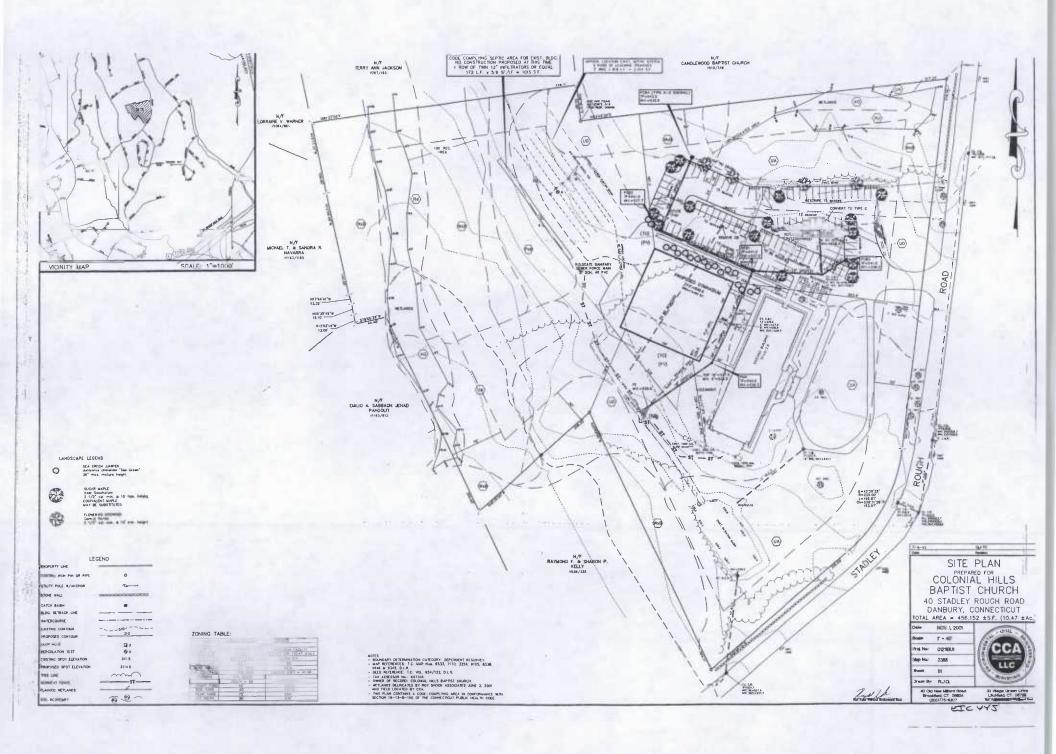
NOTES: Intensity = 73.49 / (Inlet time + 11.60) ^ 0.83 (in/hr); Time of flow in section is based on full flow.; Initial tailwater elevation = 536.88 (ft)

# Hydr FL-DOT Report

Line No	To Line	Type of	n - value	Len	Dra	inage A	rea	Time	Time of	Inten	Total CA	Q elev					Elev of HGL		Rise	HGL	HGL Actual		Date: 03-14-2002
NO	Line	struc	value	м	0	1 = 0.3 $2 = 0.5$		conc	flow	(1)	CA	Total	elev	E	lev of Crow	vn	Span	Pipe	Full Flow		Frequency: 25 yrs		
					C	3 = 0.9			sect			flow		E	lev of Inve	rt					Project: COLONIAL HIL		
				(ft)	Incre- ment (ac)	Sub- total (ac)	Sum CA	(min)	(min)	(In/hr)		Q (cfs)	(ft)	Up (ft)	Down (ft)	Fali (ft)	Size (in)	Slope (%)	Vel (ft/s)	Cap (cfs)	Line description		
1	End	МН	0.012	106.0	0.00 0.00 0.00	1.72 0.00 1.52	0.52 0.00 1.37	12.14	0.36	5.3	1.88	0.00	540.00	537.58 537.70 536.20	536.88 537.00 535.50	0.70	18 18 Cir	0.66 0.66	5.83 5.23	9.92 9.24	PMH1-FE1		

NOTES: Intensity = 73.49 / (Inlet time + 11.60) ^ 0.83 (In/hr); Time of flow in section is based on full flow.; Initial tailwater elevation = 536.88 (ft)







HOR 980230 103LORS OWN YTIGLAN

CONIFEROUS TREE DETAIL 1/1, w'YEAS HOME ON 1 DW CYLAVASED MAN 1/4/20 garbed as 12-MEE SEAN AST SHOT PHTY-but A lost so so may recen the 8 to 1004 (907A Lynn) & 104 and 1 type and 1004 Lynn) & 104 and 1 type and 1004 Lynn B

DECIDIONS TREE DETAIL The effort at U. 1. a. bedas are 100 and 100 a YPON MIN TO CHOOK AN

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TYPICAL DETAIL - PLAN WEW
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CODE COMPLYING CALCULATIONS.

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EXCLUSE CHECK:

DYNBERGY CT COLORNAL HULLS BAPTIST CHURCH WATER METER READINGS

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NO MYSES

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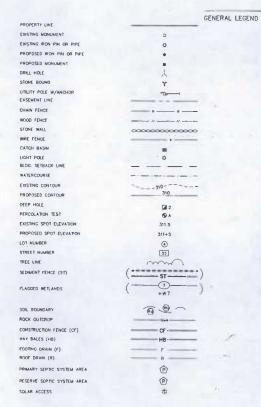
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PROPOSED CYMNASIUM: PRIVATE AND USED BY STUDENTS ONLY. FACILITIES: TOILETS ONLY. СИЧИСИ Я 2СНООГ ВО ИОЈ СОИСОЕ 100ЕµНЕВ
ИО ОМИКВА ЗЕЧЈИО

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8 R S TO 1/2 - 3594 R7
8 R S TO







8-8-6

PROPOSED LIGHT POLE

#### GENERAL NOTES

GENERAL NOTES

1. ALL WORK TO MEET TOWN OR CITY, STATE AND FEDERAL COOES.
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3. ALL DEPARTS SHALL BE OBTAINED PRICE TO CONSTRUCTION.

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5. ALL DEPARTS SHALL BE OBTAINED PRICE TO CONSTRUCTION.

6. ALL CATCH BASING, MAINTENED OF CONSTRUCTION SHALL MEET CONNECTION.

7. ILL STANDAMOS AND MEMORY SHAPE AND OTHER HILLTY COMPONENTS WHEN THATE'S EARS SHALL BE CAPABLE OF DEPARTS HE TO CONSTRUCTION.

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GENERAL LEGEND, NOTES AND ABBREVIATIONS

RTS CCA Prof. No. CIENERAL Map No. BTD. LLC theel Nt Dresen By CCA LLC 40 Old New Millord Road Brookfield, CT 08804 (203)775-6207