IN THE MATTER OF:

PROPOSED 20-MW SOLAR PHOTOVOLTAIC PROJECT
CANDLEWOOD MOUNTAIN ROAD
NEW MILFORD, CONNECTICUT
CANDLEWOOD SOLAR, LLC – APPLICANT

PREFILED WRITTEN TESTIMONY OF VINCENT C. MCDERMOTT, FASLA, AICP AND MATTHEW J. SANFORD, PWS MILONE & MACBROOM, INC.

MAY 6, 2019

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PREFILED WRITTEN TESTIMONY OF
VINCENT C. MCDERMOTT, FASLA, AICP
AND
MATTHEW J. SANFORD, PWS
MILONE & MACBROOM, INC.
MAY 6, 2019

1.0 INTRODUCTION

Q. ***Please state your names, titles and business address.***

A. Vincent C. McDermott, Senior Vice President
Milone & MacBroom, Inc.
99 Realty Drive, Cheshire, Connecticut 06410

Matthew J. Sanford
Manager of Natural Resources Planning
Milone & MacBroom, Inc.
99 Realty Drive, Cheshire, Connecticut 06410

Q. ***Please state your current responsibilities and professional experience.***

A. Mr. McDermott: I am the Senior Vice President and corporate officer responsible for oversight of the landscape architecture and planning groups in the firm. I am a licensed landscape architect in Connecticut and a certified planner with nearly 50 years of professional experience in managing large-scale public-sector projects including the planning for greenways, bikeways, and open space and providing technical assistance to municipal land use boards and commissions. (See Attachment D.)

Mr. Sanford: I am the firm's Manager of Natural Resources Planning with experience in the area of natural resources with specific expertise in vegetation management, invasive species control, GPS mapping, GIS modeling, biological inventories, water quality monitoring, watershed planning, and vernal pool surveys; wetland delineation, assessment, and functions; inland wetland and tidal wetland mitigation; and peer review services. (See Attachment D.)

Q. ***Have you had previous involvement with the Connecticut Siting Council?***

A. Mr. McDermott: I represented the Town of Woodbury in my capacity as Town Planner in the matter of the expanded Carmel Hill transmission line in the mid 1970s. I managed the Milone & MacBroom, Inc. team for the environmental inspection services on behalf of the Siting Council for the installation of the 50-mile Iroquois Gas Transmission line from the New York state line in Sherman to Long Island Sound in Milford.

Mr. Sanford: I represented O & G Industries with a petition to construct a new 56-MW fuel cell energy park in the town of Bethany. I served as the lead biologist related to wetlands and watercourses, listed species, and natural resource systems impact analysis. I presented our findings before the Connecticut Siting Council (CSC). I assisted with the preparation of petition application materials for the construction of Kleen Energy Systems.

Q. ***What has been your involvement in this project?***

A. We have assisted the Town of New Milford in the review of Candlewood Solar's (CS) application to the Connecticut Department of Energy & Environmental Protection (CTDEEP) for a Stormwater General Permit for Construction Sites. We also reviewed the Development and Management (D&M) Plan and assessed the visual impacts of the proposed development of the solar arrays and related site improvements on the properties located to the south and west of the proposed development.

Q. ***What is the purpose of your testimony?***

A. The purpose of this testimony is to present the findings of our firm's assessment of the visual impact of the installation of the solar arrays and related site improvements on the properties located on Candlewood Mountain southerly and westerly of the Candlewood Solar project. This work was done on behalf of the Town of New Milford.

2.0 ASSESSMENT METHODOLOGY

Q. ***What did the Town of New Milford ask you to do?***

A. The Town of New Milford asked our firm to assess the visual impacts of the solar arrays and other site improvements on the properties on Candlewood Mountain Road in New Milford located to the west of the above-referenced project. The genesis of the request is the representation by CS that the placement of the solar arrays will not be visible from those properties even during the winter months when there is no foliage on the deciduous vegetation. In assessing the impact of the development, it is important to consider both what exists today and what could occur on the adjoining properties at such time as they may be developed as of right under the current zoning standards taking into consideration the physical attributes of the property to support a prudent residential development.

Q. ***What specific tasks did you and your firm undertake in preparing this assessment?***

A. To prepare this assessment, the professional staff at Milone & MacBroom, Inc. undertook the following tasks:

- We prepared a base map of existing conditions showing the boundaries of the CS property, the location of the solar arrays, and the limit of site disturbance caused by the construction of access roads and drainage improvements located along the perimeter of the property. This information was taken from the D&M Plan previously submitted to the CSC by the applicant. The specific plan set is entitled: "CANDLEWOOD SOLAR, 20 MW (AC) Solar PV Development, Candlewood Mountain Road, New Milford, Connecticut, December 19, 2018, Issued for Construction." The plans were prepared by Wood Environment & Infrastructure Solutions.

- We performed a reconnaissance of the perimeter of the site from the properties located to the south and west of the proposed development. Observations were made of the nature and quality of the existing vegetation. The observations were recorded using digital photography. A photo log has been generated. Positions of the photographs were identified using GPS having an accuracy of 1 meter. We undertook our site reconnaissance on March 27, 2019. Mr. McDermott visited the site a second time on April 12, 2019.

- We prepared a series of cross sections showing the existing and proposed topography and vegetation in locations that fairly represent the visual and other impacts from the

development. The cross sections were based on the information shown on drawings C-102, C-103, C-104, C-106, C-107, C-108, and C-110 in the set of plans identified above.

Q. ***What maps or plans were used in the visual assessment?***

A. This assessment is based on the site plans titled "Candlewood Solar 20 MW PV Development Candlewood Mountain Road" dated December 18, 2018, that were included in the D&M Plan Appendix B submitted to the CSC. These are the same site plans that were submitted to and rejected by the CTDEEP as part of the application for a Stormwater General Permit for Construction Sites (SWGP). Therefore, this assessment may need to be updated at such time as new site plans become available.

Q. ***Please discuss the accuracy of the maps and plans that have been made available for your assessment.***

A. We understand that the maps and plans submitted to CTDEEP and CSC are not based on site-specific boundary and topographic surveys and relied on GIS data that is in the public domain. This information is generally acceptable for planning purposes but not for detailed site planning because there are inherent inaccuracies. Therefore, our opinion of the visual impact may need to be revised as more accurate information becomes available and the site plans are refined.

Q. ***What maps and other supporting documents has your firm prepared in support of this prefiled written testimony?***

A. The following documents have been prepared in support of our testimony:

- Prefiled Testimony Document
- Visual Assessment Analysis Photo Locations Map (Attachment A)
- Photo Log (Attachment B)
- Visual Assessment Analysis Index Map and Cross Sections (Attachment C)

3.0 EXISTING AND PROPOSED CONDITIONS

Q. ***Please describe in general terms the existing site conditions of the properties that you evaluated.***

A. At present, there are four single-family homes on the east side and one (Candlelight Farms Inn) on the west side of Candlewood Mountain Road that are immediately adjacent to the project. The land on the west and south sides of the proposed solar development is zoned R-60 Residential (one dwelling unit/60,000 square feet). The property associated with the Candlelight Farms Inn is zoned B-3 Lake Business. Generally, the existing homes are situated close to the road; however, there is one property, 183 Candlewood Mountain Road, where the guesthouse/studio is located on a knoll toward the rear of the property approximately 275 feet from the boundary with CS. All the structures are situated at a lower elevation from the proposed development. There are no residential structures at present on the southerly side of the proposed development.

The vegetation on the properties along the south and west perimeters of the project is variable based on existing soil types, topographic position, and land use practices and can generally be classified as a mix of open meadow, maintained residential lawns with ornamental landscaping, edge habitat, young to middle-aged stands of mixed deciduous hardwood forest, and emergent/wet meadow/scrub shrub wetlands.

Q. ***Please describe in general terms the proposed conditions of the site as it relates to the visual impacts on the properties you evaluated.***

A. Based on the available site plans, the solar arrays in some locations are proposed to be located approximately 75 feet from the boundary of the adjacent residential properties. Please see Visual Assessment Photo Location Map. However, drainage improvements, including stormwater detention facilities and swales, are proposed to be located along the property line in some locations notwithstanding the difficulty of constructing such facilities on steep slopes. In order to construct the proposed improvements, vegetation will be cleared to the property line of the adjacent residentially zoned properties. In short, based on the plans that have been submitted to date, there will not be any remaining vegetative buffer separating the applicant's property from the adjoining properties in these locations. (See drawings C-107 and C-108.)

Q. ***Please describe the existing and proposed conditions at the undeveloped Dunham Property south of the proposed development.***

A. The property located to the south of the CS property is situated at an elevation similar to where the solar arrays are proposed. Part of the Dunham property is open meadow, and the balance is young deciduous forest with low-density understory. Given its size, vistas, access, and topography, the property has a high development potential in the underlying residential zone.

The plans now show that the arrays will be located approximately 75 feet from the property line with the clearing of vegetation up to the property line. (See note regarding limit of clearing on drawing C-102. Please see Attachment A and Attachment B, Photos B1 and B2 for a clear depiction of existing vegetative conditions.) Some of the arrays in this area will be located in an open field at the southerly boundary of the CS property. The vegetation immediately abutting the open field is classified as edge habitat and has short-lived trees such as grey birch and black birch. Evidence of fungal diseases on the existing birch species is present along portions of the property and will likely lead to the death of these trees over time. In its present state, the vegetation bordering this southern portion of the property will not provide viable long-term screening to future development.

Other arrays will be located in another open field that is now separated by more densely populated deciduous forest. The deciduous forest in this area consists of a mix of young and middle-aged stands of trees including eastern red oak, northern white oak, hickory, black birch, black cherry, and maple. (See Attachment B, Photo B2.) Many of these trees are considered long living. The understory is limited in density consisting of maple saplings and pole-sized trees. At its present state, this forested area would provide visual buffering to this southern property; however, the array development plans show this forest stand as being removed. Upon project completion, the arrays will be totally visible from the Dunham parcel. This is particularly significant given the future development potential of the property.

Q. ***Please describe the existing and proposed conditions at the property located at 195 Candlewood Mountain Road (N/F Dunham).***

A. This property has frontage on Candlewood Mountain Road and extends approximately 1,000 feet from the road to the common boundary with CS. There is a dwelling approximately 150 feet from the road with a maintained landscape extending approximately 450 feet from the road. Beyond the landscaped area is mixed deciduous vegetation with a low-density understory. The property

is gently sloping in the front and moderately sloping in the rear along the CS property line. The rear of the property has some development potential in the underlying residential zone.

The plans now show that the arrays will be located approximately 75 feet from the common property line. However, vegetation will be cleared to the property line for approximately 900 feet to accommodate the construction of drainage improvements as illustrated on drawings C-107 and C-108. (See Attachment A and Attachment B, Photos C1 and C2.) The proposed improvements will be somewhat visible from the landscaped rear yard of the residence. If the rear of the property were to be developed with dwellings permitted in the underlying zone, the new dwellings would have a full uninterrupted view of the solar arrays.

Q. ***Please describe the existing and proposed conditions at the property located at 183 Candlewood Mountain Road (N/F Watson).***

A. This property has frontage on Candlewood Mountain Road and extends approximately 650 feet from the road to the common boundary with the CS property. There are several structures present on this property including a main residence that is located close to the road and a guesthouse/studio situated on a knoll approximately 275 feet from the CS boundary. The property does not have significant development potential in the underlying zone.

The plans now show that the solar arrays will be located approximately 75 feet from the property line with clearing for drainage improvements up to the property line. (See drawing C-107. See also Attachment A.) The area located between the cleared zone and guesthouse/studio consists of emergent wet meadow and has specimen-sized sugar and red maple trees along an existing New England style stone wall. (See Attachment B, Photo D1.) There is no woody understory located on this property. The array site consists of a mixed hardwood forest consisting of sugar maples and ash trees and has little to no understory. (See Attachment B, Photo D2.) Once this area is cleared to the CS property line to allow for drainage improvements, there will be no significant vegetation screening for the guesthouse/ studio. While the improvements will not be directly visible from the dwelling, they will be visible from the guesthouse/studio since the structure is slightly elevated and closer to the elevation of the solar arrays, and the understory in this location is thin.

Q. **Please describe the existing and proposed conditions at the property located at 175 Candlewood Mountain Road (N/F Ostrove).**

A. This property has frontage on Candlewood Mountain Road and extends approximately 800 feet from the road to the common boundary with the CS property. The residence is located close to the road with outbuildings, play area, and maintained landscape extending approximately 350 feet from the road. The vegetation to the rear of the property is a mix of deciduous trees with a thin understory and emergent/scrub shrub wetland. The forested area consists of sugar maple, red maple, hickory, and black birch with little to no understory. The topography is gentle in the front but moderately sloping to the rear. The rear of the property has development potential in the underlying zone.

The plans now show that solar arrays will be 75 feet from the property line in the southeast corner. However, vegetation will be cleared to the property line in this location to allow for the installation of drainage improvements as shown on drawing C-107 (See Attachment B, Photos E1 and E2.) While there may be limited direct visibility of the improvements from the dwelling, the

visibility will be more significant from the maintained landscape. If the rear of the property were to be developed, the arrays would be significantly more visible.

Q. ***Please describe the existing and proposed visual conditions from the Candlelight Farms Inn.***

A. The Candlelight Farms Inn is located on the west side of Candlewood Mountain Road south of the proposed construction entrance to the project site. Barns and a small parking area associated with the inn are located on the east side of the road. There is an open meadow extending 350 feet easterly from the road to the edge of the forest. Thereafter, the wooded slope extends approximately 400 feet to the CS property line. The vegetation consists of a mixture of hardwoods with a thin understory.

The solar arrays will have minimal if any direct visibility from the Candlelight Farms Inn. However, the removal of vegetation for the improvements to the access road and clearing for the arrays will open the forest canopy. More importantly, the mobilization area for construction in the field to the north of the inn will be fully visible. (See Attachment B, Photos F1 and F2.)

4.0 MAINTAINING NATURAL TREE BUFFERS

Q. ***What is your opinion of the basis of the Town's recommendation for maintaining a natural tree buffer?***

A. During the initial proceedings before the CSC, the New Milford Zoning Commission recommended that a 100-foot vegetated buffer be maintained between the arrays and the residential properties on Candlewood Mountain Road (Finding of Fact #30). While the rationale for that recommendations does not appear in the Finding of Fact that accompanied the CSC's Decision and Order, it is reasonable to assume that the origin of the recommendation comes from a provision in the New Milford Zoning Regulations requiring the preservation of a 100-foot buffer between an industrial use and a residential use (Section 130-040, Zoning Regulations). It is acknowledged that the Zoning Commission does not have jurisdiction in this matter, but its recommendation should be considered when evaluating the adequacy of the buffer between the proposed improvements that would be a nonresidential use and the existing residentially zoned properties.

Q. ***Please comment on Candlewood Solar's recently proposed basis for providing a 50' buffer.***

A. In the May 2, 2019, response to the Court Ordered Remand Regarding Interrogatories, CS noted that it would cooperate with the New Milford Zoning Commission to change the underlying zone from MPRDD to R-80 where the setback for residential uses would be 50 feet. This is an incorrect interpretation of the New Milford Zoning Regulations. Solar farms are not identified in the Regulations as being a permitted use in a residential zone; it is being allowed in this case only because the CSC has jurisdiction for the siting of power generation facilities.

The North American Industrial Classification System (NAICS) clearly places solar generation facilities in their own category (221114) distinguishing them from single-family residential uses. Therefore, the appropriate interpretation of the applicable zoning standards would be to consider a solar farm as an industrial use, not a residential one. Therefore, a 100-foot buffer would be consistent with the intent of the Zoning Commission to separate incompatible uses.

Q. ***How much of the vegetation along the border between the Candlewood Solar property and the adjoining properties to the south and west will be removed as part of the installation of the solar arrays and related site improvements?***

A. Based on the plans that have been submitted to date, approximately 3,000 feet of the property line along the residential properties to the south and west of the project will be clear cut, removing all existing vegetative buffer on the CS property and exposing the improvements to view from the adjoining properties. As noted in the above discussion of the individually affected properties, the vegetation removal is necessitated by the location of the drainage improvements associated with the installation of the arrays. (See drawings C-107, C-108, and C-110.)

Q. ***What can be done to maintain the existing vegetation along the property lines?***

A. Consideration should be given to maintaining a buffer by relocating the solar arrays and drainage improvements away (inward) from the property lines. In the case along the southerly border where solar arrays are proposed to be located in an open field, an evergreen buffer could be installed to block direct visibility of the panels from the property N/F Dunham.

Q. ***How would you summarize the visual impacts of the development on the surrounding residential properties to the south and west?***

A. Contrary to the assertions made by CS (Finding of Fact #218), the proposed solar arrays and related site improvements will be visible to the residential properties located on Candlewood Mountain Road to the west of the site. The arrays will be approximately 75 feet from the residential property lines, and there will be significant removal of trees and construction of drainage improvements along the property lines on the slopes facing the residential properties thereby opening the visibility to the site. (See Attachment C.)

Q. ***How will the proposed development affect the future development of the adjacent residentially zoned properties to the south and west?***

A. Some of the properties along Candlewood Mountain Road have excess acreage that has the potential to be developed with new homes permitted in the underlying single-family residential zone. If this were to occur, the new homes would have an unrestricted view of the arrays particularly from the farm field located to the south.

Q. ***What would be the effect on the location of the solar arrays and related improvements if the CSC were to require the maintenance of a 100-foot buffer of existing natural vegetation along the perimeter of the southerly and westerly border?***

A. As noted by CS in its May 2, 2019, response, where a 50-foot buffer is now being proposed the drainage system as it is now configured would need to be moved inward from the boundary, and the solar arrays would need to be reconfigured. Similarly, a 100-foot buffer as suggested by the Zoning Commission would require the drainage system to be relocated farther inward. On the assumption that the current perimeter of the arrays has maximized the available portions of the overall property, the number of arrays would likely have to be reduced.

Q. ***In its May 2, 2019 response, specifically Int.6.c, the applicant states that there will be a 50-foot buffer and where none exists, plants may be installed. In your opinion, is this adequate to reduce the visibility of the solar arrays?***

A. The applicant is relying on its assumption that the existing vegetation is of the quality and density to actually provide a buffer. Moreover, the applicant is relying on the vegetation on the property

of its neighbors to provide the buffering without taking into account the future rights to develop the properties in the underlying zone.

As we noted elsewhere in our testimony, the density of the vegetation on both the applicant's and abutters' properties is thin, and in one location along the border with n/f Dunham, the vegetation is dying. The CSC should eliminate the discretion of the applicant to plant a buffer in these locations and require the planting of a buffer and to show it on revised plans.

Q. Is there any way for the Siting Council, the Town of New Milford, or affected owners of adjacent property to assess the adequacy of a change in the buffer (or lack thereof) from what is now shown on the site plans?

A. Without having revised plans to review, a complete assessment of the visual impact on the surrounding residential properties cannot be done. Moreover, if the increased buffer requirement will require modification of the configuration of the solar arrays, it is conceivable that such modification will reduce the desired generation of power. In short, the available plans do not conform to the revisions stated in the applicant's text of the responses to the interrogatories.

Attachments

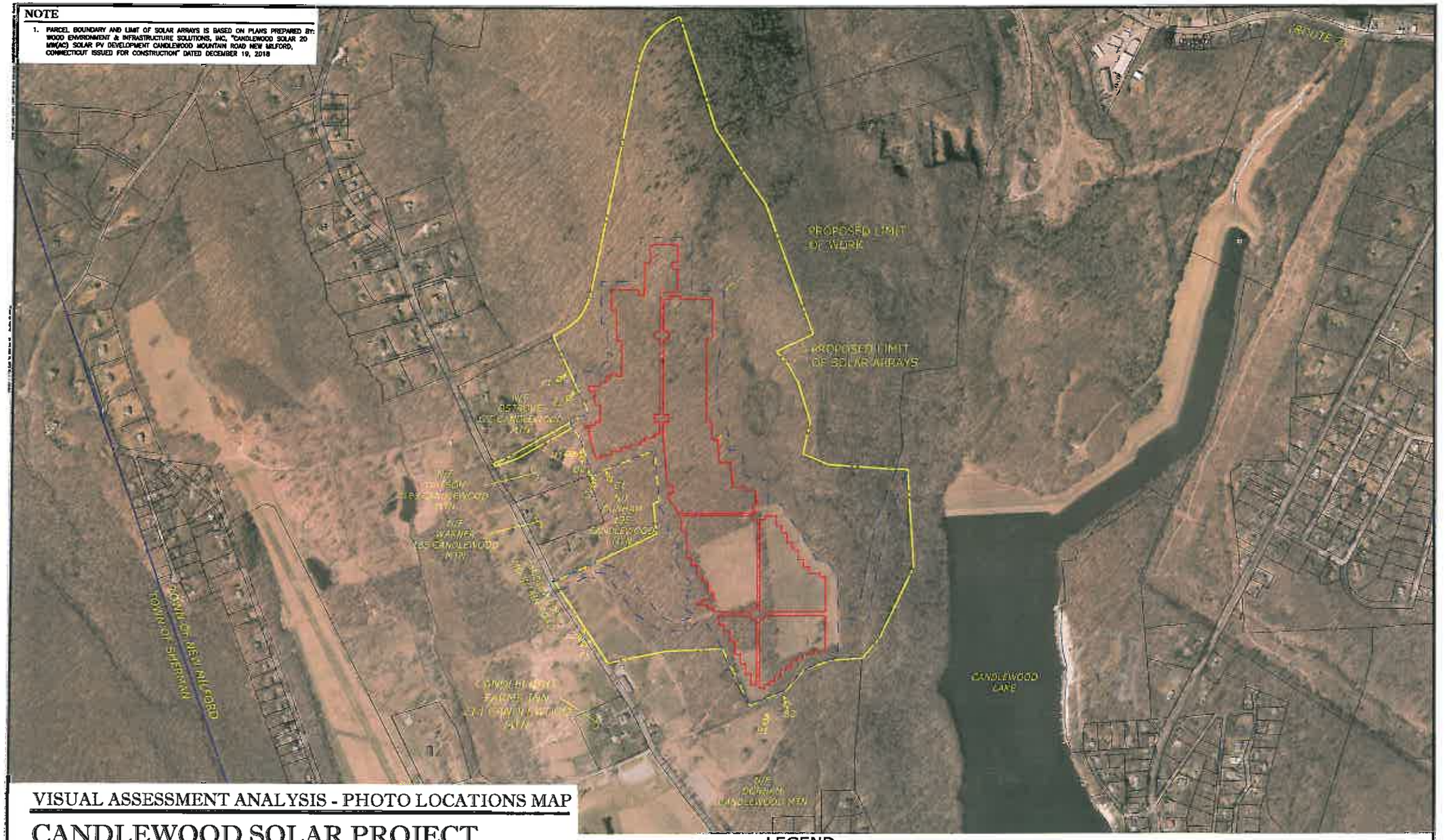
1481-57-02-m619-rpt.docx

ATTACHMENT A

Visual Assessment – Photo Location Map

NOTE

1. PARCEL BOUNDARY AND LIMIT OF SOLAR ARRAYS IS BASED ON PLANS PREPARED BY: WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC, "CANDLEWOOD SOLAR 20 MW(AC) SOLAR PV DEVELOPMENT CANDLEWOOD MOUNTAIN ROAD NEW MILFORD, CONNECTICUT ISSUED FOR CONSTRUCTION" DATED DECEMBER 19, 2018



VISUAL ASSESSMENT ANALYSIS - PHOTO LOCATIONS MAP

CANDLEWOOD SOLAR PROJECT

CANDLEWOOD MOUNTAIN
NEW MILFORD,CT MAY 6, 2019

MILONE & MACBROOM

LEGEND

- PROPOSED LIMIT OF SOLAR ARRAYS
- PARCEL BOUNDARY
- LIMIT OF WORK
- A1 PHOTO DIRECTION & LOCATION WITH PHOTO ID NUMBER

0 300' 600' 900' 1200' NORTH

ATTACHMENT B

Candlewood Solar Photo Log (5 sheets)

MILONE & MACBROOM **PHOTOGRAPHIC LOG**

Client Name:	Site Location:	Project No.
Town of New Milford	Candlewood Mountain Road, New Milford – CT Candlewood Solar Site	1481-57-02

Photo No.	Date:
B1	03/27/19

Direction Photo Taken:
North

Description:
Photo looking north at future solar array field. According to current plans the trees located in background are to be cleared to the Candlewood Solar Site property line.

Photo No.	Date:
B2	03/27/19

Direction Photo Taken:
North

Description:
Photo looking north from Dunham Candlewood Mountain parcel. Existing mixed hardwood forest buffer to be cleared to rock wall/property line for construction of solar array field.

MILONE & MACBROOM — **PHOTOGRAPHIC LOG**

Client Name:	Site Location:	Project No.
Town of New Milford	Candlewood Mountain Road, New Milford – CT Candlewood Solar Site	1481-57-02

Photo No.	Date:
C1	03/27/19

Direction Photo Taken:
North

Description:
Photo taken from 195 Candlewood Mountain Road. Looking north at clearing limits along mixed hardwood forested slope. Rock wall on left side of photo is property line separating 183 Candlewood Mountain Road and Candlewood Solar property. All trees along slope to be cleared for grading associated with construction of stormwater management basins.

Photo No.	Date:
C2	03/27/19

Direction Photo Taken:
North

Description:
Photo taken from 195 Candlewood Mountain Road. Looking north at clearing limits along mixed hardwood forested slope. Rockwall in background is property line separating 183 Candlewood Mountain Road and Candlewood Solar property. All trees along slope to be cleared for grading associated with construction of stormwater management basins.

MILONE & MACBROOM **PHOTOGRAPHIC LOG**

Client Name: Town of New Milford	**Site Location:** Candlewood Mountain Road, New Milford – CT Candlewood Solar Site	**Project No.** 1481-57-02

Photo No.	**Date:**
D1	03/27/19

Direction Photo Taken: East

Description: Photo taken from 183 Candlewood Mountain Road in back portion of property that has an existing guest house/studio. The rock wall in the background demarcates the property line between 183 Candlewood Mountain Road and Candlewood Solar property. The existing mixed hardwood forest located on slope behind rock wall will be cleared for grading associated with construction of stormwater management basins.

Photo No.	**Date:**
D2	03/27/19

Direction Photo Taken: East

Description: Photo taken from 183 Candlewood Mountain Road in back portion of property. The rock wall in the foreground demarcates the property line. The existing mixed hardwood forest located on slope behind rock wall will be cleared for grading associated with construction of stormwater management basins. Red circle depicts what appears to be stormwater basin location stakes.

MILONE & MACBROOM — **PHOTOGRAPHIC LOG**

Client Name:	**Site Location:**	**Project No.**
Town of New Milford	Candlewood Mountain Road, New Milford – CT Candlewood Solar Site	1481-57-02

Photo No.	**Date:**
E1	03/27/19

Direction Photo Taken:
Northeast

Description:
Photo looking northeast at property line at 175 Candlewood Mountain Road and Candlewood Solar property. Existing mixed hardwood forest in back of rock wall will be cleared for grading associated with construction of stormwater management swales and basins.

Photo No.	**Date:**
E2	03/27/19

Direction Photo Taken:
East

Description:
Photo looking east at property line at 175 Candlewood Mountain Road and Candlewood Solar property. Red circle demarcates wooden clearing line stakes. Existing mixed hardwood forest on right side of stakes will be cleared for grading associated with construction of stormwater management swales and basins..

MILONE & MACBROOM — **PHOTOGRAPHIC LOG**

Client Name:	**Site Location:**	**Project No.**
Town of New Milford	Candlewood Mountain Road, New Milford – CT Candlewood Solar Site	1481-57-02

Photo No.	**Date:**
F1	03/27/19

Direction Photo Taken:
East

Description:
Photo looking east from Candlewood Mountain Road and Candlewood Light Inn. Location of future main access road to solar array facility and proposed construction laydown area.

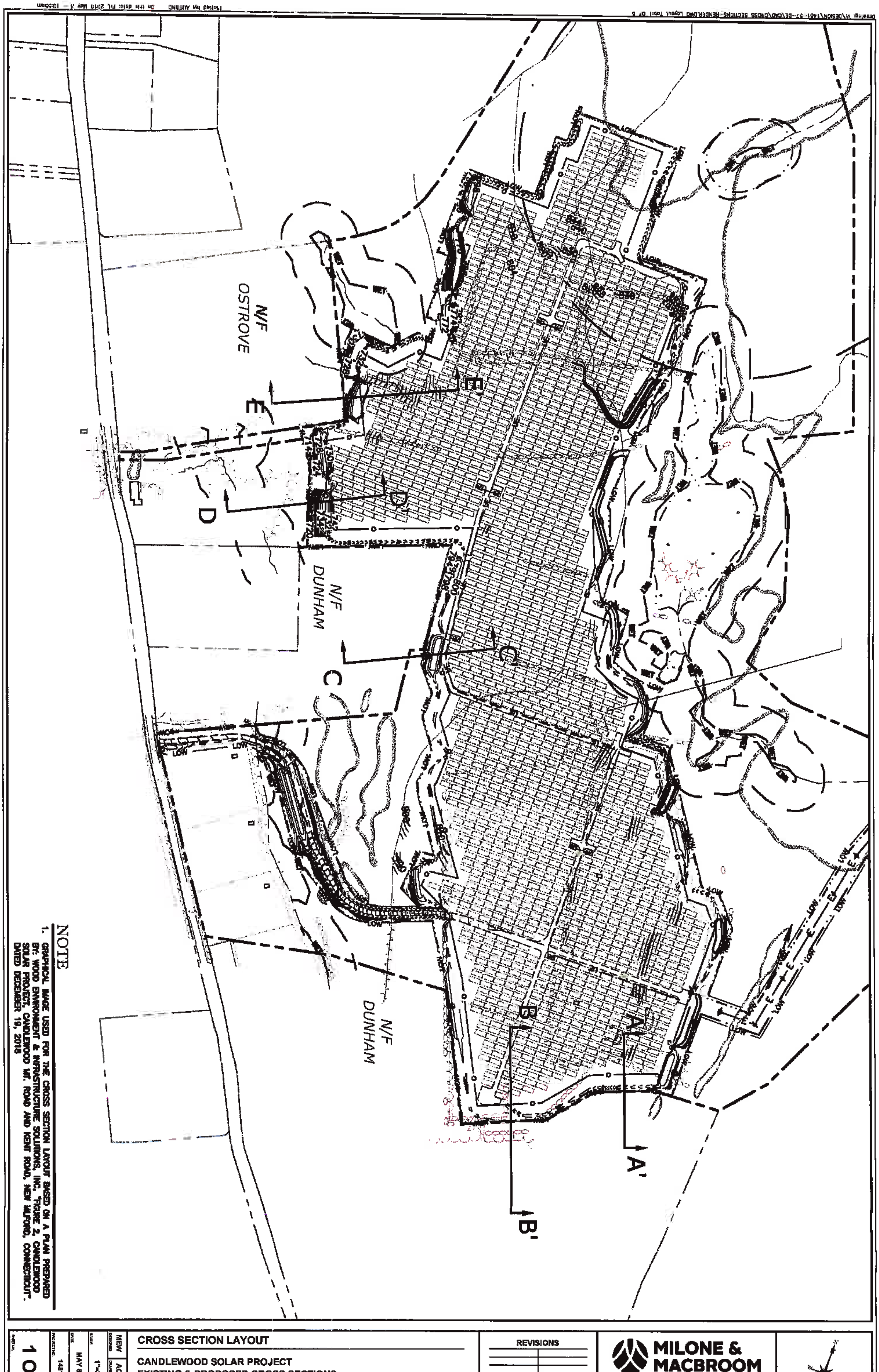
Photo No.	**Date:**
F2	03/27/19

Direction Photo Taken:
Northeast

Description:
Description:
Photo looking northeast from Candlewood Mountain Road and Candlewood Light Inn. Location of future main access road to solar array facility and proposed construction laydown area.

ATTACHMENT C

Candlewood Solar Existing and Proposed Cross Sections
May 6, 2019 (6 sheets)

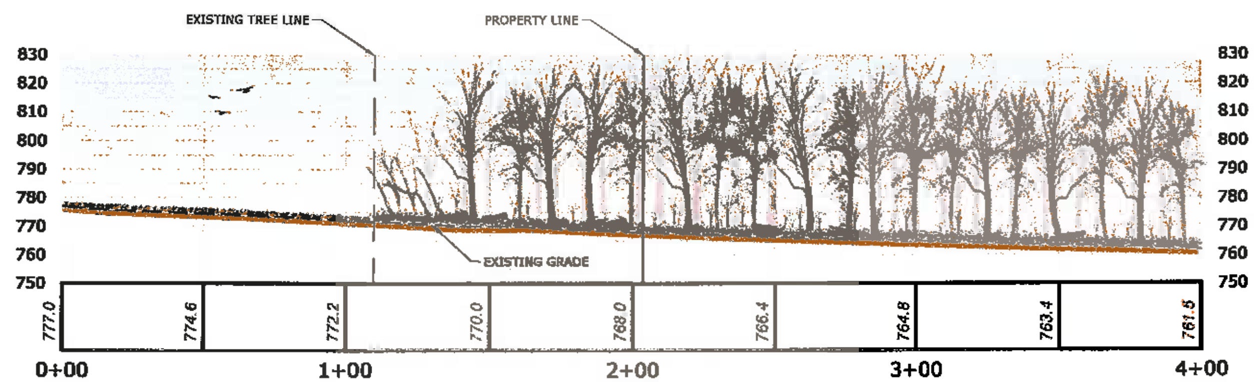


NOTE

1. GRAPHICAL IMAGE USED FOR THE CROSS SECTION LAYOUT BASED ON A PLAN PREPARED BY: WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC. "FIGURE 2, CANDLEWOOD SOLAR PROJECT, CANDLEWOOD MT. ROAD AND KENT ROAD, NEW MILFORD, CONNECTICUT". DATED DECEMBER 19, 2018

SHEET NO.	PROJECT NO.	DATE	SCALE	DESIGNED / DRAWN / CHECKED		REVISIONS	
1 OF 6	1481-57	MAY 8, 2019	1"=300'	MEW / ACD / VCM	CROSS SECTION LAYOUT CANDLEWOOD SOLAR PROJECT EXISTING & PROPOSED CROSS SECTIONS CANDLEWOOD MOUNTAIN NEW MILFORD, CONNECTICUT		MILONE & MACBROOM

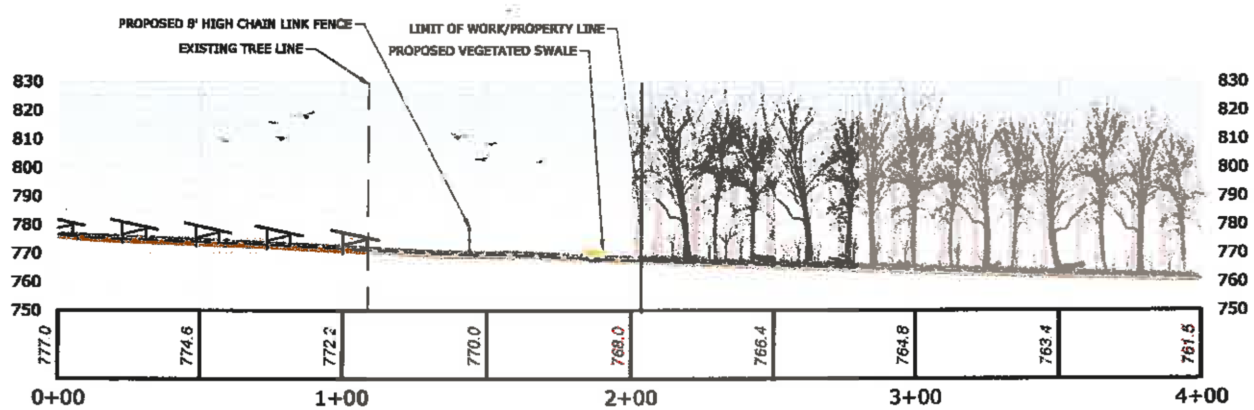
EXISTING CONDITIONS



PROFILE VIEW

1"=50' H
1"=50' V

PROPOSED CONDITIONS



PROFILE VIEW

1"=50' H
1"=50' V

MILONE & MACBROOM

REVISIONS

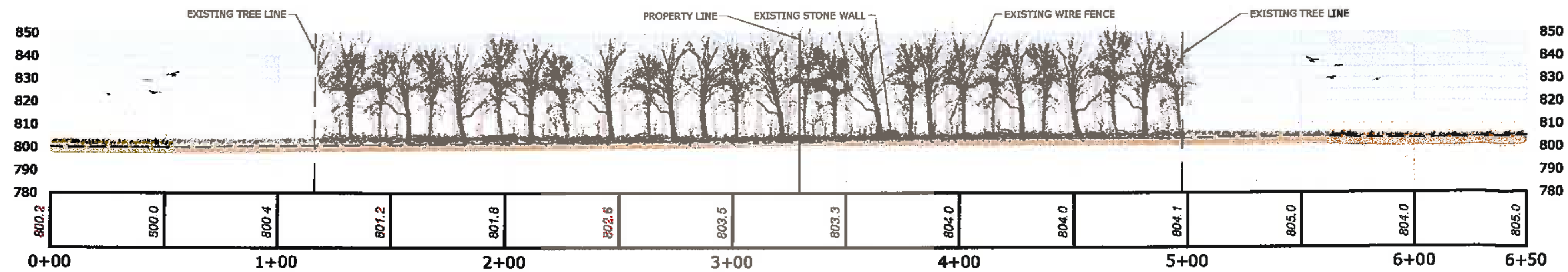
CROSS SECTION A

CANDLEWOOD SOLAR PROJECT
EXISTING & PROPOSED CROSS SECTIONS

CANDLEWOOD MOUNTAIN
NEW MILFORD, CONNECTICUT

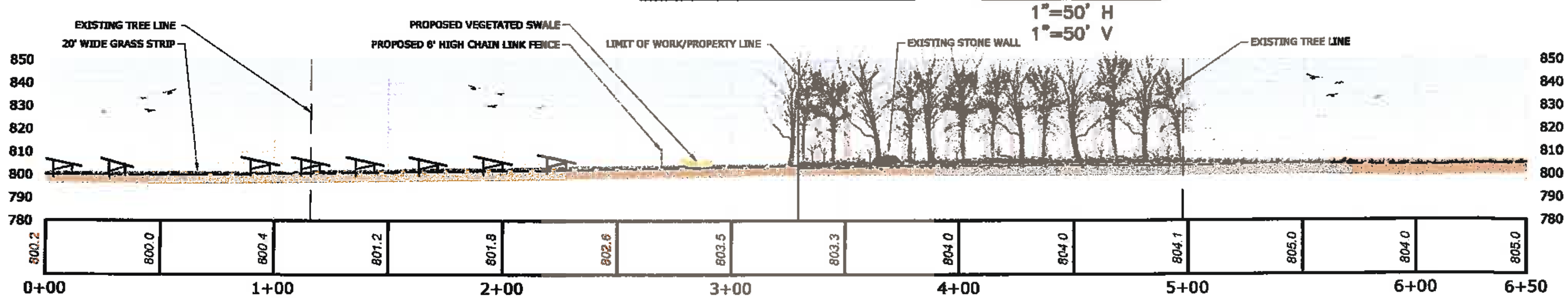
DESIGNED	DRAWN	CHECKED
MEW	MEW	VCM

SCALE: AS SHOWN
DATE: MAY 8, 2018
PROJECT NO.: 1481-57
SHEET NO.: 2 OF 6



EXISTING CONDITIONS

PROFILE VIEW
1"=50' H
1"=50' V



PROPOSED CONDITIONS

PROFILE VIEW
1"=50' H
1"=50' V

REVISIONS

MILONE & MACBROOM

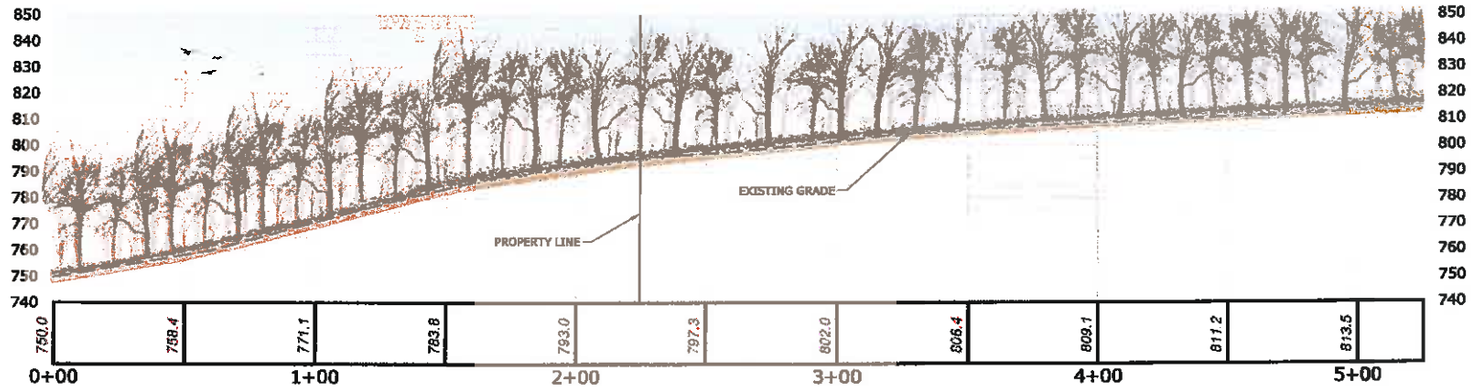
CROSSSECTION B
CANDLEWOOD SOLAR PROJECT
EXISTING & PROPOSED CROSS SECTIONS
CANDLEWOOD MOUNTAIN
NEW MILFORD, CONNECTICUT

DESIGNED	DRAWN	CHECKED
MEW	MEW	VCM

SCALE: AS SHOWN
DATE: MAY 8, 2019
PROJECT NO. 1481-57

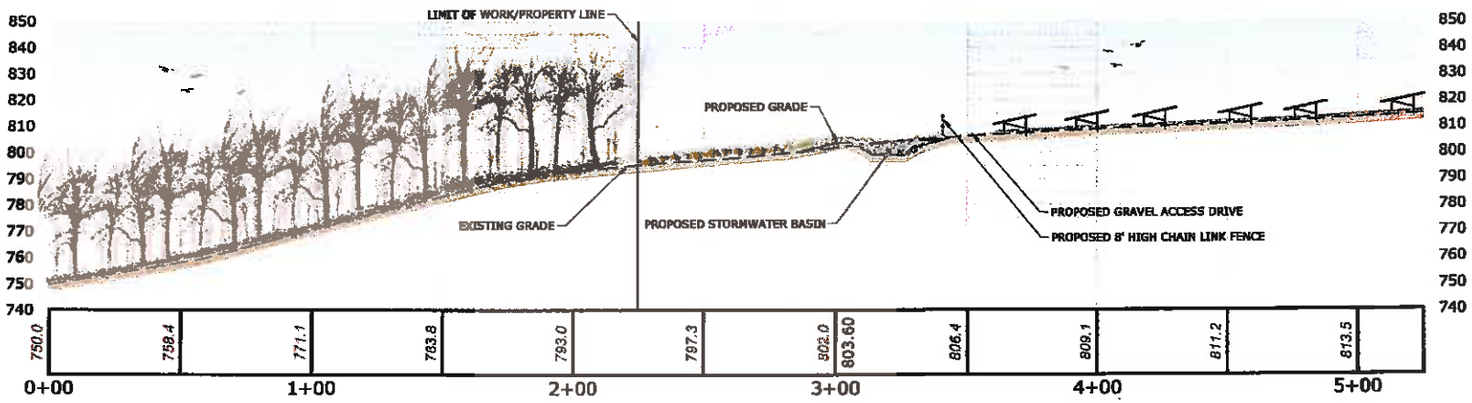
SHEET NO. 3 OF 6

EXISTING CONDITIONS



PROFILE VIEW
1"=50' H
1"=50' V

PROPOSED CONDITIONS



PROFILE VIEW
1"=50' H
1"=50' V

MILONE & MACBROOM

REVISIONS

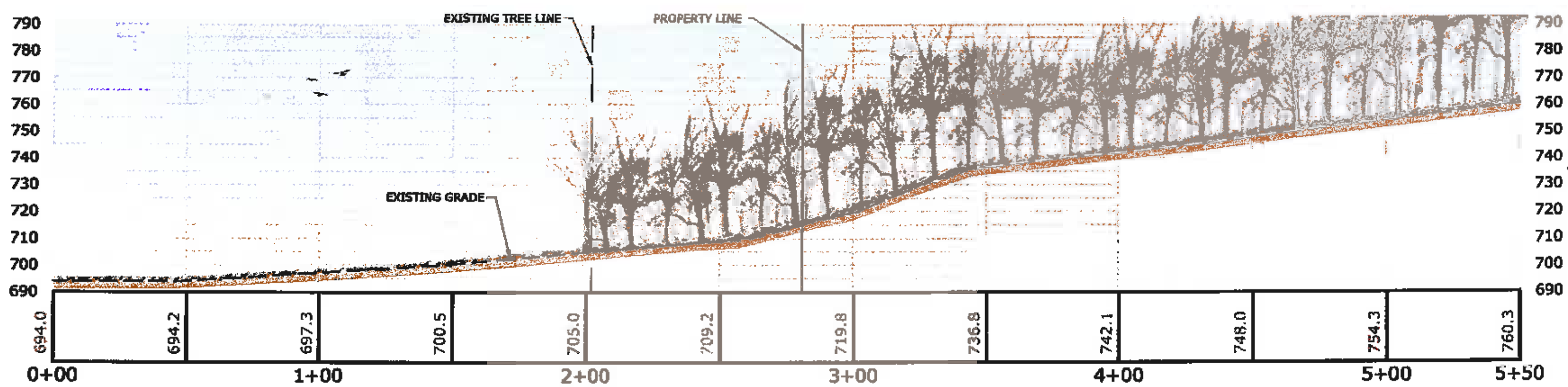
CROSS SECTION C
CANDLEWOOD SOLAR PROJECT
EXISTING & PROPOSED CROSS SECTIONS
CANDLEWOOD MOUNTAIN
NEW MILFORD, CONNECTICUT

MEW	MEW	VCM
DESIGNED	DRAWN	CHECKED

SCALE: AS SHOWN
DATE: MAY 6, 2019
PROJECT NO.: 1481-57

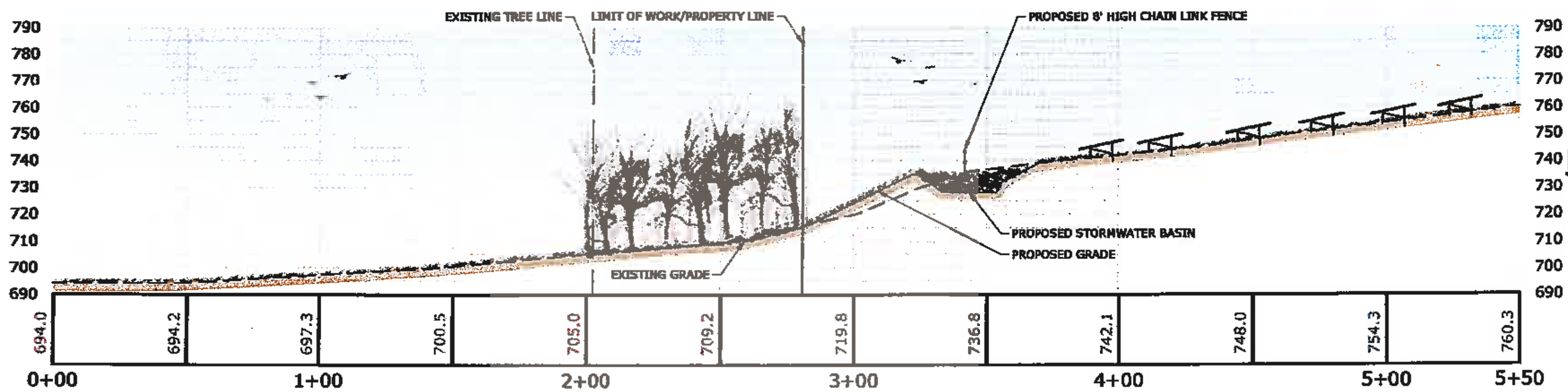
4 OF 6
SHEET NO.

EXISTING CONDITIONS



PROFILE VIEW
1"=50' H
1"=50' V

PROPOSED CONDITIONS



PROFILE VIEW
1"=50' H
1"=50' V

MILONE & MACBROOM

REVISIONS

CROSS SECTION D

CANDLEWOOD SOLAR PROJECT
EXISTING & PROPOSED CROSS SECTIONS

CANDLEWOOD MOUNTAIN
NEW MILFORD, CONNECTICUT

DESIGNED	DRAWN	CHECKED
MEW	MEW	VCM

SCALE: AS SHOWN

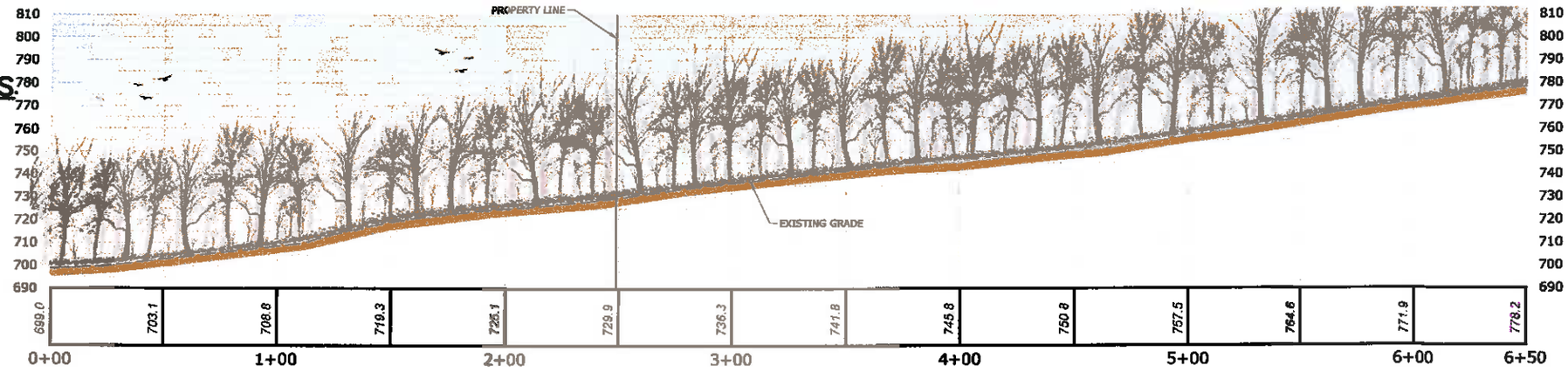
DATE: MAY 6, 2019

PROJECT NO.: 1481-57

5 OF 6

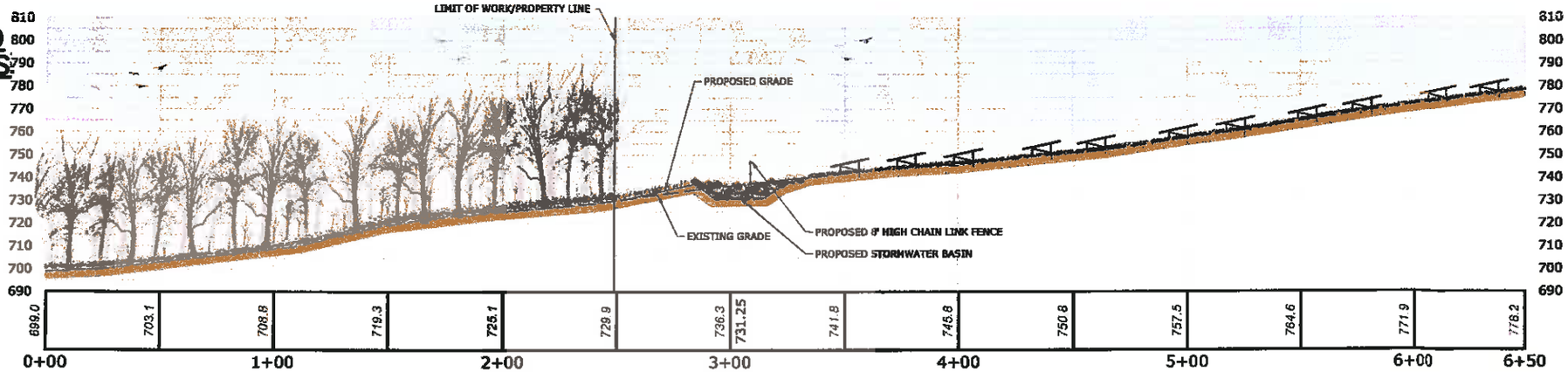
EXISTING CONDITIONS:

PROFILE VIEW
1"=50' H
1"=50' V



PROPOSED CONDITIONS:

PROFILE VIEW
1"=50' H
1"=50' V



MILONE & MACBROOM
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773
WWW.MMM2C.COM

REVISIONS

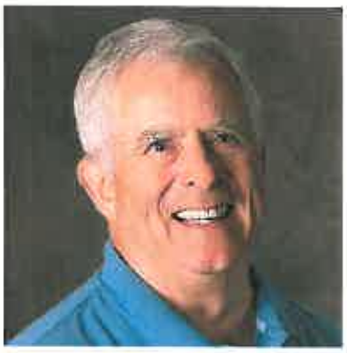
CROSS SECTION E
CANDLEWOOD SOLAR PROJECT
EXISTING & PROPOSED CROSS SECTIONS
CANDLEWOOD MOUNTAIN
NEW MILFORD, CONNECTICUT

DESIGNED	DRAWN	CHECKED
MEW	MEW	VCM

SCALE: AS SHOWN
DATE: MAY 6, 2019
PROJECT NO.: 1461-67
SHEET NO.: 6 OF 6

ATTACHMENT D

Resumes of Vincent McDermott and Matthew Sanford



Vincent C. McDermott, FASLA, AICP

Senior Vice President

Mr. McDermott has over 45 years of experience with planning, engineering, and land development firms, as well as with governmental and academic institutions. As Senior Vice President of Milone & MacBroom's Landscape Architecture and Planning Department, he is responsible for technical oversight on such projects as streetscape improvements, land use planning, parks and recreational facilities, bikeways and greenways, community and master planning, and site development for commercial and residential facilities. He is routinely involved in community development and public outreach programs.

Mr. McDermott has contributed to the recognition and advancement of landscape architecture through his extensive service on the Connecticut Board of Landscape Architects and his leadership and involvement as President of the Council of Landscape Architecture Registration Board. He was elected a Fellow of the American Society of Landscape Architects in 1997.

Comprehensive Zoning Regulatory Update | Mansfield, CT
Project Director to review zoning regulations to identify opportunities to clarify, modernize, and update them to respond to current land use issues, provide for desirable development opportunities and goals, and ensure compliance with recent case law for the Town of Mansfield.

Downtown Mansfield Master Plan | Mansfield, CT
Developed a master plan for the Mansfield downtown area to include a mix of residential and nonresidential uses typically found in collegiate communities. An analysis was completed of existing conditions of the downtown areas, and additional services included researching the market conditions, developing a target market strategy for the area, and developing the master plan.

Fairfield Hills Development | Newtown, CT
Reuse development of a state-owned former medical institution located on approximately 185 acres. The proposed plan calls for a mixed use of commercial, retail, residential, and open space.

Ft. Trumbull Environmental Impact Evaluation / Municipal Development Plan | New London, CT
Conducted an Environmental Impact Evaluation and prepared a Municipal Development Plan for this $64 million, 75-acre redevelopment area along the Thames River in an area subject to coastal flooding.

State Pier Municipal Development Plan | New London, CT
Developed a Municipal Development Plan for approximately 125 acres which includes a variety of land uses. The project goal was to improve the efficiency of the multimodal port facility by removing incompatible land uses to provide sites for warehouses and port-related manufacturing. Studies of infrastructure capacity, traffic, environmental conditions, and housing relocation were included in the plan.

Industrial Park Expansion Municipal Development Plan | Killingly, CT
Prepared a Municipal Development Plan for a proposed industrial park expansion adjacent to the town's existing industrial park.

YEARS EXPERIENCE

31 With This Firm

18 With Other Firms

EDUCATION

MLA, Landscape Architecture
University of Massachusetts

BS, Plant Science
University of Connecticut

LICENSE & CERTIFICATIONS

Landscape Architect - CT, MA, NY, NJ, RI, SC, ME, NC, NH, VI

AFFILIATIONS

Fellow, American Society of Landscape Architects

Council of Landscape Architectural Registration Boards

Certified Planner, American Institute of Certified Planners

Connecticut Board of Landscape Architects 1980-2015, Chairman

National Council of Landscape Architecture Registration Boards 1995-1996, President

American Planning Association

Woodbury-Bethlehem Youth Soccer – 1987 to 1989 President

Connecticut Junior Soccer Association – 1991 to 1992 Treasurer

Flanders Nature Center, Woodbury, CT – 1981 to 1990, Director

Connecticut Recreation & Park Association

Pomperaug River Watershed Coalition, Chairman

AFFILIATIONS CONT.

Greater New Haven Chamber of Commerce, Director

American Sports Builder's Association

Member, Connecticut Economic Development AssociationYears

Farmington Canal Greenway | New Haven, CT
Project Director responsible for overseeing master planning, design, and construction support services for approximately 3 miles of greenway extending from the original turning basin of the Farmington Canal at New Haven Harbor to the Hamden town line. The route passes through downtown New Haven and a section of Yale University in a below-grade railroad cut and tunnel, as well as Science Park and the Newhallville residential neighborhood.

Farmington Canal Greenway, Phases I & II | Cheshire, CT
Project Director responsible for the design of a linear park along a 3-mile section of an abandoned railroad bed. The work involved renovation and/or replacement of five bridges, construction of 3 miles of paved pedestrian bicycle pathway, special pavements and intersection treatment of five roadways, and signage for both intersecting roadways and pathways.

Hamden High School Athletic Fields Master Plan | Hamden, CT
Principal-in-Charge overseeing the study and design to Hamden High School's athletic fields. The project included an evaluation of the existing athletic fields, renovation of the existing multipurpose synthetic turf multi-use field, conversion of the existing grass baseball field to a multipurpose synthetic field, bleacher seating, and construction phase services.

Athletic Complex, Choate Rosemary Hall School | Wallingford, CT
Design and construction administration for two synthetic multisport fields, including event lighting, entrance plaza, and terraced spectator seating.

Reese Stadium, Yale University | New Haven, CT
Oversaw the design and construction administration for Yale University's soccer and lacrosse teams. The project included a synthetic field, event lighting, and the reconstruction of the grandstands.

Park Improvement Plan | Middletown, CT
Project Manager for comprehensive plan to upgrade the outdoor field system for the City. Project includes existing condition analysis, demand-capacity analysis, and improvement plans and budgets for 15 sites.

Parks Master Plan | Bristol, CT
Principal-in-Charge of the preparation of an inventory and analysis of the existing conditions of the city's park system. The project included field observations with the focus on safety and function, identification of improvements and the preparation of capital budgets for each facility.

Downtown Torrington Preliminary Design Improvements | Torrington, CT
Project Manager responsible for Phase I infrastructure improvements which focused on new pedestrian and vehicular circulation systems and aesthetic improvements to the streetscape. Managed site design including roadway overlay and full-depth reconstruction, sidewalk and parking improvements, storm drainage improvements, signing and pavement marking design, utility coordination, and quantity take-off.

Matthew J. Sanford, PWS, ASSOCIATE

Manager of Natural Resources Planning

Mr. Sanford is the firm's Manager of Natural Resources Planning with experience in the areas of natural resources and specific expertise in vegetation management, invasive species control, GPS mapping, GIS modeling, biological inventories, water quality monitoring, watershed planning, vernal pool surveys; wetland delineation, assessment, and functions; inland wetland and tidal wetland mitigation; and peer review services. Mr. Sanford's project experience includes computer modeling and design in ArcGIS and TR-20. He is a Professional Wetland Scientist (PWS) and is a registered soil scientist. He has expertise in United States Army Corps of Engineer (USACE) wetland delineations and has conducted USACE delineations in New York, Connecticut, Vermont, and Massachusetts. Mr. Sanford served as Vice President and President of the Connecticut Association of Wetland Scientists (CAWS).

Killingworth Reservoir Wetland Mitigation | Killingworth, CT
Inspected construction of approximately 6.2 acres of deep marsh, shallow marsh, and scrub/shrub wetlands along the littoral zone of Killingworth Reservoir. Responsibilities included monitoring of proposed grading activities within the creation areas, and observation of the placement of wetland soils and wetland plants within creation area. Provided five years of post construction annual monitoring and report preparation for wetland mitigation area in accordance with the USACE and CTDEEP special permit conditions.

Rockwell Park Wetland Mitigation | Bristol, CT
Inspected the creation of a 1.3 acre open water pond and a 2.2 acre emergent marsh/scrub shrub wetland community within former Phragmites dominated lagoon. Responsibilities included monitoring of proposed grading activities within the creation areas, and observation of the placement of wetland soils and wetland plants within creation area. Provided post construction annual monitoring and report preparation for wetland mitigation in accordance with CTDEEP special permit conditions.

Kleen Energy Wetland Mitigation | Middletown, CT
Prepared final design plans for the construction of two vernal pools, large shallow and deep marsh wetland system, and restoration of existing emergent/scrub shrub wetlands. Implemented invasive species management plan for common reed (Phragmites australis). Provided construction supervision of the wetland creation areas including placement of organic soils, leaf duff, woody debris, sunning boulders, and plantings.

Rentschler Field Wetland Restoration | East Hartford, CT
Prepared invasive species management plan for common reed (Phragmites australis), purple loostrife, and Japanese knotweed as part of the proposed wetland restoration areas. The wetland restoration includes two acres of emergent and scrub shrub wetland, riparian zone plantings, and half acre wet meadow/scrub shrub wetland restoration. Prepared final design plans and technical specifications for restoration implementation. Provided construction oversight for management of invasive species and replanting of wetland restoration areas.

YEARS EXPERIENCE

18 With This Firm

1 With Other Firms

EDUCATION

MS, Wetland Biology
Southern Connecticut State University

BS, Natural Resource Management (Magna Cum Laude)
University of Connecticut

LICENSE & CERTIFICATIONS

Certified ACOE Wetland Delineator

Certified Professional Soil Scientist

Professional Wetland Scientist

AFFILIATIONS

Board of Directors of the Connecticut Association of Wetland Scientists (CAWS) - Former President, Former Vice President

Society of Wetland Scientists

Association of Massachusetts Wetland Scientists

Connecticut Entomological Society

Matthew J. Sanford, PWS, ASSOCIATE

Newtown Natural Resource Inventory | Newtown, CT
Performed extensive evaluation of existing natural resources in the Town of Newtown including wetlands, watercourse, wildlife corridors, soils, vernal pools, endangered and threatened species, APA areas, vistas, and nightsky resources. Data was compiled and summarized for the Town for use in future Plan of Conservation and Development Planning.

Farmington Natural Resource Inventory | Farmington, CT
Performed extensive evaluation of existing wetlands in the Town of Farmington. Prioritized wetland and watershed protection areas. Collected water quality samples including macroinvertebrate studies conducted at select reaches of streams within town. Conducted vernal pool and sensitive wetland area assessment. Recommendations were made for future watershed development, acquisition of open space/sensitive areas, and updating local planning regulation language.

Stony Brook Watershed Management Plan | Waterford, CT
Identified and located vernal pools within the Stony Brook watershed using GPS. Prioritized wetland and watershed protection areas. Collected water quality samples including macroinvertebrate studies conducted at select reaches of streams within town. Recommendations were made for future watershed development and protection of critical wetland resources.

Yale Farm | Norfolk, CT
Intensive biological inventory, wetland delineation, and assessment of an approximately 800-acre parcel of land. Assisted Michael Klemens with vernal pool and bog turtle assessments within wetlands on site.

Wetland Delineation Support
Conducted numerous small- and large-scale wetland delineations for both private developers and municipal agencies and provided permit assistance as needed.

Dockside Park Shoreline Stabilization | Cold Spring, NY
Under contract with New England Interstate Water Pollution Control Commission and NYSDEC, acted as Technical Specialist for design of a living shoreline that provides improved ecological functions, resists erosion, and will be sustainable under future sea level rise and storm surge conditions. Project tasks included federal wetland delineation, evaluation of submerged aquatic, emergent, and terrestrial vegetative communities and design development of living shoreline.

Quinnipiac River Trail Phase III (CTDOT Project No. 148-198) | Wallingford, CT
Delineated inland wetland and watercourse resources and completed listed species surveys for sensitive flora and fauna species. Coordination with CTDOT OEP for Permit Needs Determination Form and Section 106 approvals , CTDEEP Fishery Biologist through the CTDOT Fishery Review requirements, CTDEEP NDDB for preliminary and final determinations, and preparation of USACE Individual permit and CTDEEP 401 Water Quality Certificate.

Salt Marsh Restoration | New Haven, CT
Performed site evaluation and design.

West River Memorial Park | New Haven, CT
Performed inland and tidal wetland delineation as part of a salt marsh restoration project.

YMCA Camp Ingersoll | Portland, CT
Conducted wetland delineation, evaluation, and impact analysis.

Hamden Middle School | Hamden, CT
Conducted wetland delineation, impact assessment, and mitigation designs for construction of a new middle school.