

# TOWN OF WILTON INLAND WETLANDS COMMISSION APPLICATION FOR A SIGNIFICANT REGULATED ACTIVITY

77 DANBURY ROAD WILTON, CONNECTICUT

PROJECT NO.: 31401378.021 DATE: OCTOBER 2020

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# SIGNATURES

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# **1.0 INTRODUCTION**

## 1.1 Overview

On behalf of ASML (the applicant), WSP USA (WSP)<sup>1</sup> has prepared this application for a Significant Regulated Activity (the Application) to the Town of Wilton Inland Wetlands Commission (the Commission) for the ASML facility located at 77 Danbury Road., Wilton, Connecticut (the Site). The Application is being submitted to conduct remove petroleum-impacted fill at one additional area (hereafter referred to as Excavation EX-5) proximate to the Norwalk River at the Site. The area will be restored to match existing conditions and will not result in any changes to the current grade level.

This new Application is submitted to the Commission due to the expiration of our prior permit to conduct the same scope of work (Resolution Number 0415-15 WET and Wetlands Permit #2307). This approval was granted on April 14, 2015; however, it expired on April 9, 2020. WSP understands that the permit cannot be renewed after it expires; therefore, this Application includes the same submittal information, except for updated site figures, surveys and an updated biological evaluation and mitigation plan. ASML and WSP now intend to conduct this scope of work in 2020 or 2021.

The new Application form for the planned work at excavation EX-5 (southeastern portion of the Site) is provided in Appendix I.

## 1.2 Background

The Site is entered into the Connecticut Department of Energy and Environmental Protection (CTDEEP) Property Transfer Program (PTP), which requires ASML to investigate and remediate environmental conditions in accordance with the Remediation Standard Regulations (RSRs). Once these activities are completed, the Site will be verified by a Connecticut Licensed Environmental Professional (LEP). In accordance with requirements of the PTP, ASML completed the public notification of remediation by placing a notice in the Connecticut Post and mailing notices to abutting property owners on December 19, 2013. No comments were received regarding planned remedial actions at the Site.

In 2014 polluted fill was identified by a construction crew. This fill consisted primarily of petroleum-impacted sawdust and soil. From October 2014 to January 2015, WSP sampled, characterized and coordinated the export of the polluted fill offsite to a State-approved treatment facility. Approximately 500 tons of polluted fill was exported from the ASML site to Phoenix Soil, LLC over this period.

Concurrent with this work, WSP completed two subsurface investigations to fully characterize subsurface conditions by advancing soil borings and installing temporary monitor wells (Appendix II, figures 1 and 2). WSP evaluated various remedial measures and determined that excavation and offsite disposal was the remedial technology that offered the surety of successfully remediating this area in accordance with the CTDEEP Remediation Standard Regulations (RSRs). The vast majority of the excavation area is located within 100 feet of flagged wetlands. This narrative has been prepared to provide an overview of the additional work in its entirety with detailed information specific to Regulated Areas.

<sup>&</sup>lt;sup>1</sup> WSP acquired Leggette, Brashears and Graham, Inc (LBG) in 2017 and LBG became WSP in 2018.

# 2.0 SETTING

## 2.1 Physical Setting

The Site is located in a mixed industrial/commercial and residential portion of Wilton on Danbury Road. The Site is located just north of the Norwalk and Wilton Town boundary and consists of 28.6 acres of developed and undeveloped land (figure 1). The Norwalk River is present on the eastern and southern portions the Site, flowing from north to south, before bending westward, near the southern property line. Two buildings and a parking garage support ongoing manufacturing operations. Along with the parking garage, there are parking areas, consisting of both asphalt and unpaved surfaces present surrounding the buildings. The updated survey is provided in Appendix V.

## 2.2 Environmental Setting

The land surface at the Site ranges from approximately 220 feet above mean sea level (ft msl) atop the bedrock ridge at the north central portion of the property to about 120 ft msl at the base of the Norwalk River. Aside from the presence of the bedrock ridge and Norwalk River, the surrounding land surface is generally flat with less significant changes in grade elevation (approximately 20 feet or less for the remainder of the Site).

Bedrock at the Site is mapped as: Granitic gneiss, thought to be Ordovician in age, consisting of light-colored, foliated granitic gneiss (Rodgers, 1985). Five types of shallow surficial soil are mapped for the Site. These include:

- The predominant soil present at the Site is mapped as urban land, such as where structures cover more than 85 percent of land surface (USDA, 1981).
- Proximate to the Norwalk River, soils are mapped as the Pootatuck Fine Sandy Loam (to the north) and the Rippowam Sandy Loam (to the south) (USDA, 1981). Both groups consist of nearly level poorly drained soils on the flood plains of major streams.
- Proximate to the bedrock ridge, soils are mapped as the Hollis-Rock Outcrop Charlton Complex (eastern side of the ridge) and the Charlton Fine Sandy Loam (west side of the ridge) (USDA, 1981). Both soil groups are predominantly present on hills and ridges.

Three types of surficial materials are mapped for the Site including: 1) thin till proximate to and overlying the bedrock ridge at the northern portion of the Site; 2) sand and gravel (for the majority of the Site); and 3) alluvium overlying sand gravel (surrounding the Norwalk River)<sup>2</sup>.

## 2.2 Groundwater and Surface Water

Groundwater beneath the Site has a quality classification of "GA". A "GA" classification is assigned to ground water which is tributary to public water supply watersheds or within the area of influence of water supply wells. The groundwater is presumed suitable for direct human consumption without the need for treatment. The State's goal is to maintain the drinking water quality of "GA" areas (CTDEEP, 1999).

<sup>&</sup>lt;sup>2</sup> CT ECO Advanced Map Viewer - http://www.cteco.uconn.edu/index.htm

To the east of the Norwalk River (the work area), the direction of groundwater flow is to the west/southwest prior towards the Norwalk River. In general, the water table is present approximately 6 to 8 ft bg (feet below grade).

A small unnamed brook is also present at the northeastern portion of the Site before it converges with the Norwalk River to the east of the northeastern parking lot. The Norwalk River has a water-quality classification of "B". Class "B" waters may be suitable for certain fish and wildlife habitat, certain recreational activities, agricultural and industrial supply and navigation (CTDEEP, February 2011). A map showing the watershed boundary for the Site is provided in Appendix III.

## 3.0 PROJECT DESCRIPTION

To remediate areas of the Site where soil exceeds CTDEEP RSR criteria, one additional soil excavation (EX-5) is proposed in the regulated area. The excavation area, the limit of the wetlands, and the 100-foot setback line from the wetlands are shown in Appendix II, Plate 1 and in figure 2. An updated A2 Site survey is provided in Appendix IV. In this area, soil is impacted with petroleum substances due to polluted fill, consisting of soil and mixed with sawdust. These releases have resulted in laboratory detections of substances above RSR soil criteria which include: polynuclear aromatic hydrocarbons ((PAHs), a group of semi-volatile organic compounds (SVOCs)), extractable total petroleum hydrocarbons (ETPH), and lead and chromium. The petroleum-impacted soil is generally present from 3 ft bg to approximately 6 ft bg (Appendix II, Plate 1, figures 2 and 3). The work includes the following:

- <u>Project Team:</u> All work would be conducted by a qualified remedial contractor and all remedial work would be supervised by WSP.
- <u>Excavations EX-5 in Regulated Area:</u> ASML plans to close the parking lot to ASML employees to create a safe and efficient work zone. Utilities would be identified in the work area using ground-penetrating radar (GPR). One excavation (EX-5) would be completed within 100 feet of the Norwalk River (Appendix II, figure 2). A cross-section and a topographic map has been prepared to provide details regarding the planned excavation to the south of the 71 Building (figure 3). The surficial soil from the excavation would be temporarily stockpiled in the parking area as shown in Appendix II, Plate 1. This soil would be sampled for potential onsite reuse by WSP; however, it is expected that much of this soil can be reused onsite as clean fill.

At this time, WSP intends to collect a limited amount of "post-remediation closure samples" from the area. The excavation will be completed in either the paved parking lot or unpaved areas proximate to the Norwalk River. The approximate depths of excavation, calculated soil area, volume and mass of excavation EX-5 are also shown in Appendix II, Plate 1. Photographs of the area are provided in Appendix II, figure 4.

Based on the existing data, EX-5 excavation proximate to the Norwalk River (see Zone A, figure 3) will extend to a depth of approximately 4 to 6 ft bg. Following excavation, the area would be backfilled with clean fill to match existing conditions. The EX-5 excavation is expected to result in the excavation and offsite disposal of approximately 1,200 tons of petroleum-impacted soil (Appendix II, figure 4, photographs 1 and 2). Following backfilling and compaction, the entire parking lot would be repaved.

- <u>Loading and Stockpiling:</u> Ideally, polluted soil generated from each excavation will be directly loaded into triaxle dump trucks and sent for offsite disposal. Alternatively, polluted soil would be temporarily stored in the parking lot, adjacent to clean fill. WSP plans to transport all polluted soil offsite for disposal within 1 week or less following excavation, to minimize stockpiled volumes. The location of soil stockpiles and erosion controls surrounding this area are provided on Appendix II, Plate 1.
- <u>Groundwater Control:</u> Groundwater control is not anticipated, but in the event that any excavation extends below the water table and groundwater evacuation is required, the remedial contractor would evacuate groundwater using a vacuum truck. The evacuated groundwater would be transported offsite for disposal to Tradebe, a licensed wastewater treatment and oil reclamation facility, located in Bridgeport, Connecticut. Alternatively, groundwater may be discharged to the sanitary sewers under a CTDEEP General Permit.
- <u>Disposal:</u> It is envisioned that all of the soil generated from the excavations would be transported as Connecticut-regulated (non-hazardous) waste to an approved transport storage and disposal facility (TSDF) in CT, NY or other surrounding states.
- <u>Restoration</u>: Each excavation will be backfilled with clean soil, compacted in two foot lifts and repaved to match current conditions and grade level. Any incoming soil would be sampled by WSP to assure that soil meets the definition of "natural soil" in the RSRs. The parking lot would be repaved following backfilling.
- <u>Project Schedule:</u> It is estimated that this project would be initiated at the end of 2020 or early 2021 and be two to three weeks in duration.

# 4.0 WETLANDS DELINEATION

On January 23, 2013, Tighe and Bond prepared and submitted an Application to conduct an SRA (the T&B Application). Contained within the T&B application, a wetland delineation was completed on July 23, 2012 by Matthew Davidson, a Professional soil scientist. The delineation included the flagging of a portion of the Norwalk River (numbers 1 to 46) and the limit of the wetlands was used to establish the 100-foot setback line. A copy of the wetlands delineation report from the T&B Application (clearly showing the flags) is provided in Appendix IV. Although the wetlands survey was completed prior to the river widening project in 2014-2015, most of the area planned for excavation is to the south of the area disturbed during the widening earthwork.

# 5.0 BIOLOGICAL EVALUATION

Ms. Kate Throckmorton of Environmental Land Solutions (ELS) prepared a biological assessment report and provided recommendations to ASML for restorative plantings. The ELS report outlined the existing conditions, wetland and water course functions, proposed conditions and provided a summary of mitigation measures (including a restoration plan). The ELS documents are provided in Appendix V.

# 6.0 SEDIMENTATION AND EROSION CONTROLS

To address soil erosion as a result of the proposed excavations, WSP has prepared a comprehensive erosion and sedimentation control plan. The locations of soil stockpiles, catch basins and the planned construction sequence pertaining to erosion and sedimentation controls are provided in Appendix II, Plate 1.

# 7.0 MITIGATION MEASURES

To mitigate any potential impacts at EX-5, the western portion of EX-5 (Zone A) would be excavated and backfilled near the Norwalk River prior to undertaking the remainder of the excavation work at EX-5. A cross-section showing Zone A and Zone B, is provided in (Appendix II, figure 3). Surrounding the excavation, erosion controls would be in place.

## 8.0 REVIEW OF ALTERNATIVES

Due to the shallow, accessible nature of the soil contamination, and type of contaminants present in soil, excavation and offsite disposal is the most practical approach to remediate these areas. The remediation of soil using a soil vapor extraction (SVE), commonly employed following releases of gasoline, would not be capable of remediating soil at EX-5 to concentrations below RSR criteria, even if these systems were to operate for many years. Institutional controls, such as environmental land use restrictions (ELURs), were considered; however, ELURs would not fully address the fill; partial excavation would still be required. The ELURs would also allow for some polluted fill to remain in place; which could impact groundwater and result in a potentially structurally unstable parking lot. Overall, excavation and backfilling provides both the highest degree of success and would remediate the area quickly and in a costeffective manner.

# 9.0 ABUTTING PROPERTY OWNERS

A list of the names and addresses of the abutting property owners is provided in Appendix VI. Envelopes addressed to the abutting property owners, ASML and WSP are also provided in Appendix VI.

# 10.0 REFERENCES

Connecticut Department of Environmental Protection, 1999, "Water Quality Classifications for the Housatonic River, Hudson River and Southwest Coastal Basins", Water Compliance Unit.

Rodgers, John, 1985, "Bedrock Geological Map of Connecticut", Connecticut Geological and Natural History Survey.

United States Department of Agriculture, 1981, "Soil Survey Geographic (SSURGO) database for the State of Connecticut", United States Department of Agriculture, Natural Resources Conservation Service

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# **APPENDIX I**

INLAND WETLANDS COMMISSION Telephone (203) 563-0180 Fax (203) 563-0284



TOWN HALL 238 Danbury Road Wilton, Connecticut 06897

## APPLICATION FOR A SIGNIFICANT REGULATED ACTIVITY

For Office Use Only:	WET#		
Filing Fee \$	Wilton Land Record Map#		
Date of Submission	Volume # Page #		
Date of Acceptance	Assessor's Map # Lot#		
APPLICANT IN	FORMATION:		
Applicant <u>ASML US, LLC - C/O Ervins Ozolins</u>	Agent (if applicable) <u>WSP USA</u>		
Address 77 Danbury Road	Address 4 Research Drive, Suite 204		
Wilton, CT 06897	Shelton, CT 06484		
Telephone (203) 761-4454	Telephone (475) 882-1707		
Email_ervins.ozolins@asml.com	Email <u>william.flick@wsp.com</u>		
PROJECT INFO	ORMATION:		
Property Address 77 Danbury Road	Site Acreage28.6		
Acres of altered Wetlands On-Site 0.002	Cu. Yds. of Material Excavated <u>766 buffer / 800 total</u>		
Linear Feet of Watercourse 1,830	Cu. Yds. of Material to be Deposited <u>766 buffer / 800 total</u>		
Linear Feet of Open Water 1,830	Acres of altered upland buffer <u>0.16</u>		
Sq. Ft. of proposed and/or altered impervious coverageN/A	Sq. Ft. of disturbed land in regulated area <u>7,200</u>		
APPLICATION RE	EQUIREMENTS:		

Is The Site Within a Public Water Supply Watershed Boundary? NO <u>x</u>YES\*

Is The Site Within 500 Feet of a Town Boundary? NO\_\_\_\_\_ YES\*\_\_\_\_\_

\* If the answer is yes, then the applicant is responsible for notifying the appropriate water authority and/or adjoining community's Wetlands Department. Instructions for notification are available at the office of the commission.

Page 2 Application for a Significant Regulated Activity

Project Description and Purpose: \_ Excavation of petroleum-impacted soil and sawdust, backfilling and restoration to match existing conditions. One area of excavation is within regulated areas east of the Norwalk River. The work is conducted per Connecticut Property Transfer Program in accordance with the Remediation Standard Regulations (RSRs). Work would be completed under the direction of Licensed Environmental Professionals (LEPs) from WSP USA.

In addition, the applicant shall provide eleven (11) collated copies of the following information as well as an electronic submission via email to mike.conklin@wiltonct.org & elizabeth.larkin@wiltonct.org \*\*

( x)	А.	Written consent from the owner authorizing the agent to act on his/her behalf		
( x)	В.	A Location Map at a scale of 1" = 800'		
(x)	C.	A Site Plan showing existing and proposed features at a scale not to exceed 1" = 40' accurate to the level of a A-2 property and T-2 topographic surveys		
(x)	D.	Sketch Plans depicting the alternatives considered		
(x)	E.	Engineering Reports and Analysis and additional drawing to fully describe the proposed project		
(x)	F.	Sedimentation and Erosion Control Plan, including the Construction Sequence		
(x)	G.	Names and addresses of adjoining property owners		
(x)	Н.	A narrative describing, in detail		
		a. the proposed activityc. impactsb. the alternatives consideredd. proposed mitigation measures		
(x)	I.	Soils Report prepared by a Certified Soil Scientist and Wetlands Map prepared by a Registered Land Surveyor		
(x)	J.	A Biological Evaluation prepared by a biologist or other qualified professional		
(x)	K	Description of the chemical and physical characteristics of fill material to be used in the Regulated Area		
(x)	L.	Description and maps detailing the watershed of the Regulated Area		
(x)	М.	Envelopes addressed to adjacent neighbors, the applicant, and/or agent, with <u>certified</u> postage and no return address		

\*\*Application materials shall be collated and copies of documents more than two pages in length shall be double sided.

See Section 7 of the Wetlands and Watercourses Regulations of the Town of Wilton for a more detailed description of applications requirements.

The Applicant or his/her agent certifies that he is familiar with the information provided in this application and is aware of the penalties for obtaining a permit through deception, inaccurate or misleading information.

By signing this application, permission is hereby given to necessary and proper inspections of the subject property by the Commissioners and designated agents of the Commission or consultants to the Commission, at reasonable times, both before and after a final decision has been rendered.

Applicant's Signature: Ervins Ozolins

Date: 10/20/20

Agent's Signature (if applicable) William Flick

# **APPENDIX II**







KEY MAP SCALE: 1" = 500'







PHOTOGRAPH 1: AREA WHERE EXCAVATION EX-5 IS PLANNED. VIEW LOOKING TO WEST-SOUTHWEST



PHOTOGRAPH 4: AN EXAMPLE OF PETROLEUM IMPACTED SOIL AND SAWDUST IN THE EX-5 AREA.



PHOTOGRAPH 2: VIEW OF RECENTLY INSTALLED DRAINAGE FEATURES IN THE AREA OF THE EX-5 EXCAVATION. VIEW LOOKING TO NORTHEAST.





PHOTOGRAPH 3: VIEW OF IMPACTED SUB-SURFACE MATERIAL IN THE VICINITY OF EX-5.





SOIL EROSION AND SEDIMENTATION CONTROL: NARRATIN	/E
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## A. DESCRIPTION

The purpose of the remediation activities is to remove soil that contains concentrations of site-related constituents of concern at concentrations which exceed the Remediation Standard Regulations of the State of Connecticut. Each excavation will be completed as a single event. Restoration of the area will follow the completion of the excavation work. The areas will be restored to the pre-excavation conditions.

## B. SEQUENCE FOR EROSION AND SEDIMENTATION CONTROLS

- (1) Notify the Town of Wilton prior to commencing remediation activities and providing same with name and phone number of person responsible for sedimentation and erosion control.
- (2) Install sedimentation and erosion control structures at a work area as shown on the construction plans and details prior to initiating remediation work in that area; adjusting control structures at the direction of the responsible person as may be needed to address any changes to field conditions. Sedimentation control installation and/or application shall be in accordance with "Connecticut Guidelines for Soil Erosion and Sediment Control" handbook, latest revision.
- (3) Inspect all soil erosion and sediment controls within 24-hour period after 0.1 inch or more of rain falls to determine maintenance needs. All sediment and erosion controls are to be inspected by the Engineer or Project Manager. Any corrective action to mitigate environmental concerns ordered at that time are to be completed by the Contractor
- (4) The Contractor shall cover all stockpiles with plastic at the end of each work day.
- (5) Maintain and adjust all sedimentation and erosion control structures as needed to address the progress and type of work being conducted.
- (6) All material stockpiles, if needed, will have straw/hay bales with concrete block backing installed around their perimeter if such stockpiles are to remain for a period longer than two days. Stockpiles are to be located at the approximate areas shown on the plans.
- (7) All sedimentation and erosion controls shall be maintained in good working order in accordance with "Guidelines for Soil Erosion and Sediment Control" until all disturbed areas are stabilized. Accumulated sediment shall be periodically removed from sediment and erosion controls as specified.
- (8) Storm water runoff will be managed and controls will be established and maintained, as shown on the plans, during remediation to minimize the potential for erosion and sediment transport. As applicable water from roof drains will be diverted away from excavation areas and stockpiles.

## C. STRAW / HAY BALES

- (1) Catch Basin/Field Drain Application
- (a) Bales shall be placed in a square or rectangular shape around catch basin, positioned firmly against each other, and held in place with sand bags placed on top of the bales.
- (2) Maintenance
- (a) Inspections shall be made daily and repair or replacement shall be made promptly as needed. (b) Removal of accumulated sediment behind the bales is necessary if 1/2 of the original height of the bales becomes filled in with sediment.

### D. GEOTEXTILE WRAPPED HAY BALES

(1) Stockpile application (a) Bales should be wrapped in geotextile filter fabric and placed approximately 10 feet away from estimated toe of stockpile.

### E. STOCKPILE MANAGEMENT

- (1) Locate stockpiles at specified areas.
- (2) Divert runoff water away from or around the stockpile.
- (3) Install a geotextile wrapped hay bale around the stockpile area approximately 10 feet from the estimated toe of the slope of the stockpile, except at entrance where temporary hay bales shall be placed at the end of each work day.
- (4) Side slopes of the stockpile should not be steeper than 2:1 (H:V).

## F. DUST CONTROL

(1) Dust will be mitigated as necessary through the use of water sprays over the work areas.

## G. PUBLIC ROAD SWEEPING

(1) Use mechanical sweeping on public roads if sediment is conveyed offsite to prevent sediment entry into the storm-sewer system.

#### H. GENERAL REQUIREMENTS

- (1) The Engineer or the Project Manager will serve as the Erosion Control Supervisor/Onsite Agent who will inspect work activities and associated erosion and sedimentation controls on a daily basis during active remediation periods to ensure that the proposed sedimentation and erosion controls, and others as may be deemed necessary, will be implemented, maintained, and repaired as needed to meet the control objectives. It will also be the responsibility of the Erosion Control Supervisor to ensure the restoration of the site relative to erosion controls, seeing that controls are removed when no longer needed, stockpiles are removed, sediment basins are cleaned and other actions are taken as needed.
- (2) At least 10 spare hay bales are to be kept on site at all times during the period of work for these tasks for use in an emergency.
- (3) WSP will notify a representative from the Town of Wilton in the event that substantive changes to these plans are made.

CONSTRUCTION SEQUENCE:

## MOBILIZE TO SITE.

- MARK THE LIMITS OF WORK LIMIT; MARK ANY PROTECTED TREES. MARK OUT THE AREAS DESIGNATED FOR STOCKPILES.
- CONSTRUCT SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- PREPARE WORK AREAS FOR EXCAVATION. EXCAVATE AREAS AND PLACE CLEAN FILL.
- RESTORATION OF THE WORK AREA SHALL FOLLOW THE COMPLETION OF EXCAVATION WORK.
- REPAIR ASPHALT AS NECESSARY. AFTER THE SITE IS STABILIZED, REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES.
- CLEAN UP/SWEEP IF NECESSARY/ RESTORE/ DEMOBILIZE FROM SITE. • DISPOSE ANY EXCESS MATERIALS AND CONTAMINATED SOIL IN COMPLIANCE WITH LOCAL/STATE RULES.

CONSTRUCTION NOTES:

- 1. CONTRACTOR MUST COVER THE GROUND WITH PLASTIC SHEET UNDER CONTAMINATED FILL STOCKPILE.
- 2. CONTRACTOR MUST COVER ALL STOCKPILES WITH PLASTIC SHEET AT THE END OF EACH WORK DAY. 3. IF SIGNIFICANT RAIN WATER ACCUMULATES INSIDE BARRIER SURROUNDING THE CONTAMINATED SOIL
- STOCKPILE THE WATER MUST BE EVACUATED. 4. CONTRACTOR MUST REPAIR/REPLACE STORM-WATER SEWER PIPE IF PIPE BREAKS OR IS DAMAGED
- DURING EXCAVATION.
- 5. EXCAVATED SOIL IS TO BE DIRECT LOADED ONTO TRUCKS FOR TRANSPORT OFFSITE. THE STOCKPILE STRUCTURES WILL BE USED ONLY AS A CONTINGENCY.
- 6. TRUCKS WILL NOT ENTER THE EXCAVATION AREAS. EXCAVATION EQUIPMENT WILL NOT ENTER THE EXCAVATION AREAS EXCEPT WHEN NECESSARY.



# **APPENDIX III**





# **APPENDIX IV**



## WETLAND DELINEATION REPORT

Project: ASML Norwalk River Channel Improvements Wilton, Connecticut Project No. 10-0964-09 Site Inspection Date 7/23/2012

**PROJECT DESCRIPTION:** Inland wetland/watercourse identification and delineation.

#### METHOD FOR IDENTIFICATION OF MAP UNITS

#### Wetlands

<u>X</u> Field marking (flagging) for survey

\_\_\_\_Field plotting on \_\_

\_\_\_\_Field plotting on aerial photography

#### Non Wetland Soils

\_\_\_\_High intensity field identification by Soil Scientist.

X\_Medium intensity identification from USDA, Soil Conservation Service Soil Maps.

#### METHOD OF SOIL IDENTIFICATION

<u>X</u> Spade and Auger

\_\_\_\_ Deep test pits (backhoe)

#### \_\_\_\_ Other\_\_\_\_\_

## Dry Moist X Wet

SOIL MOISTURE CONDITION

Frost Depth \_\_\_\_\_\_in. Snow Depth \_\_\_\_\_\_in.

The classification system of the National Cooperative Soil Survey, USDA, Soil Conservation Service and the County Identification Legend were used in this investigation. The investigation was conducted by the undersigned Professional Soil Scientist.

All wetland boundary lines established by the undersigned Soil Scientist are subject to change until officially adopted by local, state or federal regulatory agencies.

Respectively submitted by,

TIGHE & BOND, INC.

Mathew Davie

Matthew Davison Professional Soil Scientist CT Certified Forester

Middletown, CT 06457 • Tel 860.704.4760 •

Fax 860.704.4775

## WETLAND DELINEATION REPORT continued

#### PROJECT: ASML, Norwalk River Channel Improvements

#### **MAPS/PLANS GENERATED**

\_\_\_\_ Site Plan \_\_\_\_ Wetland Flagging Sketch (attached) \_\_\_\_ None

#### WETLAND NUMBERING SEQUENCES AND DESCRIPTION

WF 1 to 17; 27 to 46 – The delineated boundary is generally characterized as the banks of the Norwalk River. Within the areas of delineation, the banks are generally armored and the delineated boundary is characterized as the oridinary high water mark. Within the southern portion of the delineation (south of the channel constriction), a narrow floodplain comprised of poorly and moderately well drained alluvial soils is included within the delineated wetland area. A level terrace exists on the east side of the river in proximity to WF 27. This area includes maintained lawn and landscaping. Characteristics of the soil profile are similar to Pootatuck, a moderately well drained alluvial soil type. However, this soil type is subject to common flooding and no visible signs of common flooding were observed within this area. If any activities are proposed within this area, an evaluation of the 5 and/or 10 year floodplain may be prudent in order to evaluate the extent of the active floodplain (Connecticut jurisdictional wetlands). Representative vegetation within the delineated wetland includes bebb willow (*Salix bebbiana*), speckled alder (*Alnus rugosa*), purple loosetrife (*Lythrum salicaria*), spicebush (*Lindera benzoin*) and jewelweed (*Impatiens capensis*).

#### SUMMARY SOIL DESCRIPTIONS

Digitally available updated soil survey information was obtained from the Natural Resources Conservation Service as depicted on the attached soil map. The following soil types were identified during the delineation:

#### Wetland Soils

#### Pootatuck fine sandy loam (Map Unit 102)

The Pootatuck series consists of very deep, moderately well drained loamy soils formed in alluvial sediments. They are nearly level soils on floodplains subject to common flooding. Slope ranges from 0 to 3 percent. Permeability is moderate or moderately rapid in the loamy upper horizons and rapid or very rapid in the sandy substratum layers.

#### Rippowam fine sandy loam (Map Unit 103)

The Rippowam series consists of very deep, poorly drained loamy soils formed in alluvial sediments. They are nearly level soils on flood plains subject to frequent flooding. Slope ranges from 0 to 3 percent. Permeability is moderate or moderately rapid in the loamy layers and rapid or very rapid in the underlying sandy materials.

#### **Nonwetland Soils**

#### Udorthents-Urban land complex (Map Unit 306)

Udorthents is a miscellaneous land type used to denote moderately well to excessively drained earthen material which has been so disturbed by cutting, filling, or grading that the original soil profile can no longer be discerned.

Urban land is a miscellaneous land type consisting mostly of buildings, paved roads and parking lots. Typically included with this unit are small, intermingled areas disturbed by cutting, filling, or grading such that the original soil profile can no longer be discerned.

Soil Map—State of Connecticut (ASML, Wilton, Connecticut)



Area of Interest (AOI)       Wery Story Spot       Map Scale: 1:3,200 if printed on A size (8.5" × 11") sheet.         Soil Map Units       Special Line Features       Other         Soil Map Units       Special Line Features       Gully         Warning: Soil Map units       Special Line Features       Warning: Soil Map may not be valid at this scale.         Brow Pit       Shot Steep Skipe       Clay Spot         Clay Spot       Other         Political Features       Other         Clay Spot       Other         Political Features       Other         Clay Spot       Other         Political Features       Other         A Gravel Pit       Water Features         Clay Spot       Cities         Soil Map Units       Streams and Canals         Transportation       Cities         A Lava Flow       His Rails         Marsh or Swamp       Interstate Highways         Mine or Quarry       US Routes         Pereinal Water       Local Reads         Pack Rok Outcrop       The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shift or map unit boundaries may be evident.	MAP	MAP INFORMATION
Severely Eroded Spot Sinkhole Silde or Slip Sodic Spot	Area of Interest (AOI)         Area of Interest (AOI)         Soils         Soil Area of Interest (AOI)         Soils         Soil Map Units         Special Point Features         Blowout         EX         Blowout         EX         Clay Spot         Clay Spot         Gravel Pil         Gravel Pil         Gravel Pil         Gravel Pil         Gravel Pil         Handfill         A         Lava Flow         Mine or Quarry         Perennial Water         Rock Outcrop         +         Saline Spot         Sinkhole         Sinkhole         Sinkhole         Sinkhole         Sinkhole         Sinkhole	MAP INFORMATION         Map Scale: 1:3,200 if printed on A size (8.5" × 11") sheet.         The soil surveys that comprise your AOI were mapped at 1:12         Warning: Soil Map may not be valid at this scale.         Enlargement of maps beyond the scale of mapping can caus misunderstanding of the detail of mapping and accuracy of sc placement. The maps do not show the small areas of contras soils that could have been shown at a more detailed scale.         Please rely on the bar scale on each map sheet for accurate measurements.         Source of Map:       Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov.Coordinate System:         This product is generated from the USDA-NRCS certified data the version date(s) listed below.         Soil Survey Area:       State of Connecticut         Merei(s) listed below.       The orthophoto or other base map on which the soil lines were compled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor so of map unit boundaries may be evident.

USDA Natural Resources Conservation Service

Web Soll Survey National Cooperative Soil Survey

7/23/2012 Page 2 of 3

State of Connecticut (CT600)				
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
32B	Haven and Enfield soils, 3 to 8 percent slopes	0.4	1.0%	
75E	Hollis-Chatfield-Rock outcrop complex, 15 to 45 percent slopes	1.1	2.7%	
102	Pootatuck fine sandy loam	1.7	4.1%	
103	Rippowam fine sandy loam	5.5	13.4%	
260C	Charlton-Urban land complex, 8 to 15 percent slopes	2.0	4.9%	
306	Udorthents-Urban land complex	11.2	27.4%	
307	Urban land	17.9	43.7%	
w	Water	1.1	2.7%	
Totals for Area of Interest		41.0	100.0%	

## Map Unit Legend







# **APPENDIX V**

## Environmental Land Solutions, LLC

Landscape Architecture & Environmental Planning 8 Knight Street, Suite 203, Norwalk, CT 06851 Tel: (203) 855-7879 Fax: (203) 855-7836

October 20, 2020

Inland Wetlands Commission Town Hall Annex 238 Danbury Road Wilton, CT 06897

Re: Inland Wetlands Application 77 Danbury Road, Wilton, CT

Dear Members of the Commission:

The applicant, ASML, US, Inc., (ASML) has applied and received approval for soil remediation adjacent to building #71 through soil removal in 2015. Due to the reduced work force on the site, during the COVID-19 situation, ASML believes this was an opportunity to implement this plan with less parking disruption. However, it was discovered that this permit was allowed to expire, without a requested extension, on 4/8/20, therefore a new permit must be applied for to complete this work. The scope of work for this application is the same as the approved 2015 approved permit.

The Norwalk River and its riparian wetlands, cross the site. The focus area for soil remediation/removal is located within the 100' wetland's upland review area of the Norwalk River. The proposed work will involve the removal and deposition of more than 100 cubic yards (cy) of soil material within the upland review area. Therefore, an application has been classified as a Significant Activity as stipulated within Section 2.1-3a of the Town of Wilton Inland Wetlands and Watercourses Regulations.

Environmental Land Solutions, LLC (ELS) has been authorized by ASML to prepare this biological assessment report as required for this application and to provide recommendations for mitigation planting. This report compliments a project narrative prepared by WSP, that details the purpose, scope and methods of the site work. To complete this evaluation, a site visit was made by ELS staff on October 18, 2020. Plans prepared by WSP for this proposed site work were reviewed as part of this evaluation.

### **EXISTING CONDITIONS**

The focus area for this permit, is the southeastern corner of the site adjacent to building #71, on the eastern side of the River. The subject 29.31 acre property is located at 77 Danbury Road, with the site's entrance across from Grumman Hill Road. The property is accessed from Danbury Road by a centrally located drive and bridge over the Norwalk River. The site is presently developed with structures covering more than 100,000 sf. of area. The developed portions of the site are nearly level with surface parking spaces and a newly construction parking garage in the northwest area of the site. Landscape areas have been developed between the river and parking area and around the sides of the building. The most recent permit from the Inland Wetland Agency was issued in 2018 for a major addition to the main building. These improvements remain underway.

The focus area for this application is the section of river that is south of Building #71. Under the prior permit, this stretch of the river was widened and a portion of the existing building and foot bridge removed. It was during this site work that additional contaminated soil was discovered on the eastern side of the river.

On the site visit of October 18, 2020, the following site conditions were evident south of building #71 along the river's eastern bank, where the river was widened and live stakes used for vegetation reestablishment. The area are is now well vegetation with woody plants over  $15' \pm$  in height. Along some portions of the this bank Asiatic bittersweet vines have become established in the new plants along the slope, and Japanese knotweed is the dominant plant in the southern most reaches of the river bank. The southern property line is defined with a row of evergreens trees, between the evergreen trees and the paved parking lot appear to be a lawn 0-20' in width.

The remaining developed portion of the site is gently sloping to nearly level from west to east with slopes becoming moderately steep as one approaches the riparian wetland and river. The north-central area of the site is undeveloped and contains a large rock outcrop and naturalized woods that dips back down to a flood plain wetland along the northern property line. The current parking is located 10 to  $20' \pm$  from the river, with a narrow lawn area and woody planted bluffer that extend 5 to 20' from the river and wetland boundary.

### Wetlands and Watercourses

The Norwalk River is a predominate feature of the site and defines the development to the south and east. The wetlands along the subject remediation area were previously flagged by Matthew Davidson, Professional Soil Scientist, with Tighe-Bond. The wetland on the site lies adjacent to the river, and is a seasonally flooded palustrine wetland. Flagged wetland soils were identified as Pootatuck, moderately well drained alluvial soils. Please refer to the soil report for additional information. The Norwalk River is a perennial watercourse that has been channelized but includes riffle-pool morphology.

#### Wetland and Watercourse Functions

Beyond the reconfiguration of the river bed the river is characterized by a well-embedded substrate compromised of co

bbles and sand. The functional evaluation of the wetlands is based on professional experience and the suggested criteria cited in the publication entitled "<u>The Highway Methodology</u> <u>Workbook</u> *Supplement*, Wetland Functions and Values, *A Descriptive Approach*," prepared by the US Army Corps of Engineers, NEDEP-360-1-30a, September 1999. Using this publication, the primary functions provided by the wetlands include sediment retention, nutrient removal and transformation, stormwater storage, wildlife habitat, visual quality, and limited recreational usage such as nature photography and wildlife observations. The Norwalk River corridor functions as a habitat for fin fish and aquatic waterfowl and other aquaticdependent species, serves as a wildlife corridor (together with its fringe wetlands), a groundwater discharge point, and offers recreational potential such as fishing and small craft boating.

### **PROPOSED CONDITIONS**

The focus of this application is to remediate contaminated soils, through removal and replacement of soil adjacent to Building #71, in the southeastern portion of the site. The soils are primarily located beneath the existing paved parking area. The soil will be excavated and replaced in kind. All disturbed area will be returned to the existing topography now present on the site. Work site areas within the upland review area are shown on "Detail of 71 Building Area and Excavation EX-5", prepared by WSP, dated 10/20/20.

The soil remediation area is located south of Building #71. This excavation work may be needed to come within 10' of the river and potentially excavate the perimeter edge of the flagged wetland. The perimeter of this excavation area reflects "clean" soil areas and therefore is probably the maximum limit of excavation. As previously proposed from the wetland application last year this area, will be handled as two separate zones to reduce and control excavation along the river. The excavation will begin with Zone A, as depicted in the crossed section prepared by WSP, with excavation beginning at the curb line of the parking lot and moving toward the river in 2' lifts.

The majority of the soil contamination has been confirmed within the parking lot. The outer sets of soil samples immediately adjacent to the wetland are noted to be "clean" soil areas. For the purpose of this application we are assuming the largest area will be disturbed. The maximum area of wetland disturbance is anticipated to be  $88 \pm$  sf. The estimated soil volume in Zone A is  $200 \pm$  cubic yards. Excavation work in Zone A is expected to be complete within three days time. Once contamination in Zone A has been removed and backfilled and stabilized, the larger excavation within the parking lot will begin. This procedure will protect and buffer the river bank during the larger excavation in the parking lots. The total amount of soil to be removed is estimated at  $800 \pm$  cubic yards and replaced with clean soil of the same

amount. It is estimated that the entire excavation would be completed in one to two weeks. The surfaces will be restored to their existing surfaces and blended back into the existing adjacent grades. The parking lot will be repaved. The areas beyond the pavement will be replanted to replace the vegetation that was removed for soil remediation.

#### Wetland/Watercourse Impacts and Mitigation Measures

The primary goal of this site work is to remove and replace contaminated soils. Contaminated soil occurs just above and between wetland flag#41 to #44. Complete avoidance of the wetland may not be attainable if the soil is properly remediation as recommended. However, the following provisions have been incorporated for the implementation of this work to limit the wetland intrusion and mitigation this disturbance.

The following mitigation measures will compensate for the disturbance to the banks of the Norwalk River resulting from the proposed excavation.

- 1. The construction sequence will begin with Zone A shown on a cross section prepared by WSP (Figure 3). Excavation work will begin at the curb line of the parking lot and work toward the river in 2' shifts. This procedure will limit, contain and stabilize soil disturbance along the river prior to moving onto the larger excavation in the parking lot.
- 2. Sediment and erosion control will be maintained throughout the work schedule. Work on the river bank will be scheduled outside known flooding periods. Due to the fairly flat nature of the site, particularly within the areas of larger areas of excavation, the potential for transport sediments to the river during site excavation can be controlled with diligence paid to the proper installation and maintenance of sediment and erosion controls. Refer to WSP's detailed construction sequence and expanded sedimentation erosion controls for this area
- 3. Removal of invasive species within the disturbance area will be performed and the area replanted with natives plants, for stabilization and increase plant diversity in the riparian buffer. Refer to the Mitigation Planting Plan prepared by ELS for specifications. Plant roots of invasive plants will be pulled out where feasible.

### SUMMARY

The proposed soil remediation will take place primarily on existing paved and gravel parking areas, with the exception of the perimeter western perimeter. ELS and WSP have collaborated in developing a detailed construction sequence to control and contain work along the river. Potential short-term impacts from soil disturbance to regulated areas will be controlled with proper implementation and maintenance of sedimentation and erosion controls. Potential long term effects to the regulated area and its resources will be ameliorated by the removal of

pollutants from area in proximity to the river, removing invasive plants and the planting of native plant species. The proposed site work, in conjunction with the mitigation measures, will provide a net benefit to the wetland after the contaminated soils are removed and the area is stabilized with native vegetation. The character and functions of the onsite river environment and wetland functions are expected to be preserved after the completion of this site work.

Sincerely,

at

Kate Throckmorton, ASLA Landscape Architect Professional in Erosion and Sediment Control

Danbury Road 77-wilton-ea3.wpd



## NOTES:

- 1. EXISTING SITE INFORMATION TAKEN FROM A DIGITAL AUTOCADD SURVEY BY WSP, ENTITLED "GENERAL LOCATION AND TOPOGRAPGHY SURVEY", DATED OCTOBER 16, 2020.
- 2. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO HAVE UNDERGROUND UTILITY LINES MARKED BY THEM PRIOR TO START OF ANY EXCAVATION WORK.
- 3. EXACT LOCATION OF PROPOSED PLANTINGS AND SPECIES TYPES MAY VARY FROM THIS PLAN BASED ON SITE PLAN REVISIONS AND/OR ACTUAL FIELD CONDITIONS.
- 4. SEED AREAS AT THE METHODS AND 150% THE RATE RECOMMENDED BY THE MANUFACTURER. LIGHTLY MULCH SEEDED AREA WITH WEED-FREE CLEAN HAY. A NURSE CROP SHALL BE ADDED TO THE SEED MIX ON SLOPES OF EXCESS OF 10% AND AS SPECIFIED. SEED MIX SUBSTITUTIONS SHALL BE EQUIVALENT TO THAT SPECIFIED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO USE. EXCEPT FOR LAWN AREAS, DO NOT FERTILIZE AREAS TO BE SEEDED. LIGHTLY RAKE OR ROLL GROUND SURFACE AFTER SOWING. SEED AREAS AS PER THE FOLLOWING SCHEDULE:
- A. WETLAND BUFFERS (UPLAND AREAS): SEED THIS AREA WITH "NEW ENGLAND CONSERVATION / WILDLIFE SEED MIX" BY FROM NEW ENGLAND WETLAND PLANTS, INC. (413-548-8000).
- B. WETLAND RESTORATION / CREATION (WOODY AND HERBACEOUS PLANTS): SEED THIS AREA WITH "NEW ENGLAND ROADSIDE MATRIX WET MEADOW SEED MIX" BY NEW ENGLAND WETLAND PLANTS, INC. (413-548-8000).
- 5. SPRAY NEW PLANTINGS IMMEDIATELY AFTER INSTALLATION WITH A WHITE-TAILED DEER REPELLENT AND CONTINUE AS NEEDED TO MAINTAIN PLANTS FREE OF SIGNIFICANT DEER BROWSING.
- 6. PLANT SPECIES SUBSTITUTIONS MAY BE MADE WITH THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING. SUBSTITUTED PLANTS SHALL BE AT AN EQUAL OR GREATER SIZE AS NOTED USING A SIMILAR TYPE PLANT.
- 7. MULCH PLANTING BEDS AND TREES WITH A 2.5" THICK LAYER OF SHREDDED BARK MULCH. AREAS WITHIN 4" OF TREE TRUNKS SHALL BE MAINTAINED FREE OF MULCH.
- 8. ALL PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE "AMERICAN STANDARDS FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
- 9. THE CONTRACTOR SHALL VERIFY WITH THE PROJECT ENGINEER THAT THE NEW PLANTINGS DO NOT INTERFERE WITH EXISTING AND/OR PROPOSED UTILITIES, SIGHT LINES, AND/OR STRUCTURES.
- 10. IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITIES OF PLANTS IN THE "PLANT LIST" AND THE ACTUAL QUANTITIES SHOWN ON THE PLAN, THE PLAN SHALL GOVERN.
- 11. THIS PLAN FOR PLANTING PURPOSES ONLY. SEE PLANS BY OTHERS FOR ADDITIONAL INFORMATION.
- 12. INVASIVE PLANTS (ie MULTIFLORA ROSE, JAPANESE KNOTWEED, ASIATIC BITTERSWEET) SHALL BE REMOVED FROM ALL PLANTING AREAS. TARGET SPECIES SHALL BE GRUBBED OUT AND DISPOSED OF IN ACCORDANCE WITH INVASIVE SPECIES PLANT GROUP GUIDELINES FOR DISPOSAL. ALL ASIATIC BITTER SHALL BE CUT AND REMOVED FROM EXISTING TREES IN THE IMMEDIATE VICINITY OF THE WORK AREA.

## PLANT LIST

QTY KEY BOTANICAL NAME

AR ACER RUBRUM

BB CEPHALANTHUS OCCIDENTALIS CR CORNUS RACEMOSA

## COMMON NAME RED MAPLE BUTTONBUSH GREY DOGWOOD

SIZE 3-4' HT.

CONT. CONT.

ROOT REMARKS

3-4' HT

2 1/2-3" CAL. B&B FULL

# LEGEND



------ 100' WETLAND UPLAND REVIEW LIMIT NEW / EX. LAWN AREA

EX. EVERGREEN/DECIDUOUS IN REMAIN (APPROX. LOCATION) EX. EVERGREEN/DECIDUOUS TREE TO



- PLANT TREE SO THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL OR MULCH.

4" HIGH EARTH SAUCER BEYOND EDGE OF ROOT BALL

- ADD MYCOR TREE SAVER AT MANUFACTURER'S RECOMMENDED RATE

IF SHIPPED WITH A WIRE BASKET ROUND THE BALL, CUT WIRE BASKET IN 4 PLACES AND FOLD DOWN 8" INTO THE PLANTING HOLE. REMOVE ALL TWINE, ROPE WIRE AND BURLAP FROM THE TOP OF THE ROOT

PLACE ROOT BALL ON UNEXCAVATED OR COMPACTED SOIL UNDER BALL TO PREVENT SETTLEMENT

## SOURCE: INTERNATIONAL SOCIETY OF ARBORICULTURE

MARK THE NORTH SIDE OF THE TREE AT THE NURSERY AND ROTATE MARKED AREA TO FACE NORTH AT THE SITE WHEN POSSIBLE

#### SET TOP OF ROOT BALL FLUSH TO GRADE IN WELL DRAINED SOILS AND 1-2" ABOVE GRADE IN SLOWLY DRAINAGE SOILS

## 1:1 SIDE SLOPES —

6' DIA. MIN. BY 2.5" MULCH LAYER FREE OF -WEEDS. DO NOT PLACE THE MULCH IN CONTACT WITH THE TREE TRUNK.

## EXISTING SOIL (LOAMY SOIL)

BACKFILL WITH SOIL (SEE SOIL NOTES BELOW). IN SANDY LOAM SOILS, ADD CLEAN COMPOSTED ORGANIC MATERIAL (20% MAX. BY VOLUME) TO THE EXISTING SOIL.

TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT BALL DOES NOT SHIFT

## PLANTING NOTES:

1. DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

MULCH RING - MINIMUM 8' DIA.

2. STAKE TREE BASED ON CRITERIA BELOW OR AS REQUESTED BY THE LANDSCAPE ARCHITECT. 3. WRAP TREE TRUNKS ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.

## SOIL NOTES:

- 1. CLEAN FILL MATERIAL SHALL BE A LOAMY SOIL. LOAMY SOILS INCLUDE THE FOLLOWING USDA TEXTURAL CLASSIFICATIONS AND HAVE A CLAY CONTENT BETWEEN 7% TO 27%: LOAM, SANDY LOAM AND SILT LOAM. NOTE THAT SOILS AT THE OUTER LIMITS OF THE LOAM CLASSIFICATION MAY PRESENT SPECIAL PLANTINGS PROBLEMS NOT ANTICIPATED BY THE DETAIL. THE SOIL STRUCTURE SHALL NOT BE PLATY OR MASSIVE. A SUITABLE PLANTING SOIL IS 65 % SAND, 20% COMPOST, AND 15% CLAY LOAM.
- 2. LOAMY SOILS ARE DEFINED AS A GRANULAR OR BLOCKY FRIABLE SOILS, A MIXTURE OF SAND, SILT AND CLAY PARTICLES WITH A WITH A MINIMUM OF 1.5% BY DRY WEIGHT OF ORGANIC MATTER. THE SOIL MUST NOT BE SO COMPACTED AS TO IMPEDED ROOT GROWTH OR DRAINAGE.

## STAKING NOTES:

- 1. STAKE TREES ONLY IF IT IS EXPECTED THAT THE TREE WILL NOT BE ABLE TO SUPPORT ITSELF AND REMAIN STRAIGHT. STAKE TREES FOR THE FOLLOWING REASONS:
- A. THE TREE IS INSTALLED WITHIN VERY SANDY SOIL OR VERY WET CLAY SOIL. B. THE TREE IS LOCATED IN A PLACE OF EXTREMELY WINDY CONDITIONS.
- 2. CONTACT THE PROJECT LANDSCAPE ARCHITECT FOR STAKING DETAIL IF NEEDED.

# TREE PLANTING DETAIL (IN ALL SOIL TYPES)

SCALE: NOT TO SCALE

REVIS	SIONS:			DRAWING TITLE:	
				ך MITIGATION PL	_ANTING PLAN
				PROJECT: ASML	
				77 DANBURY ROAI	D TICUT
\$\$ 	LANDSCAPE 🐇	ENVIRONMENTAL LA	ND SOLUTIONS, LLC	SEAL:	DATE: OCT. 20, 2020
		Landscape Architecture and Environmental Planning 8 KNIGHT STREET, SUITE 203 NORWALK, CONNECTICUT 06851	K/Les	scale: 1"=20'	
				DRAWING NO.:	
		Tel: (203) 855-7879 info@elsllc.net	Fax: (203) 855-7836 www.elsllc.net	5	MP.1

# **APPENDIX VI**

#### 68-22

69-28

WILTON

69-58

84-15A

SUGGS MARY F

SCOTTSDALE

**33 ARROWHEAD RD** 

MCCHORD HOLT **1 GRUMMAN HILL RD** CT 06897 WILTON

68-36-B

WILTON TOWN OF 238 DANBURY RD WILTON CT 06897

88 DANBURY RD LLC C/O FURST PROP

14648 N SCOTSDALE RD SUITE 140

CONNECTICUT STATE OF

2800 BERLIN TPKE

WILTON 40/60 LLC

59-65 DANBURY RD

**301 MERRITT 7** 

NORWALK

68-36

WILTON

NEWINGTON

68-33-60

WILTON PROPERTIES RSK LLC 470 WEST AVE STE 2007 STAMFORD CT 06902

69-22

CT 06897

AZ 85254

CT 06131

CT 06851

CT 06897

69-26

68-23

69-29

WILTON

69-59

**DELFINO ROCKY A** 

**39 ARROWHEAD RD** 

**DANBURY 84 LLC** 

2 RUBY ST

NORWALK

MILLAR PETER FLEMING **269 WEST LA** RIDGEFIELD CT 06877

69-18 ASML US LLC 6115 CAMP BOWIE #152 FORT WORTH TX 76116

TROFA PROPERTY DEVELOPMENT LLC 236 COLONIAL DR FAIRFIELD CT 06824

68-30 CLARK HOLDINGS LLC 245 NEWTOWN TPKE WESTON CT 06883

**ARNOLD LAURENCE J & SANDRA P** 

CT 06897

CT 06897

CT 06131

69-20

WILTON

WILTON

69-30

69-27

**HICKEY THOMAS F** 

**29 ARROWHEAD RD** 

CONNECTICUT STATE OF

2800 BERLIN TPKE

NEWINGTON

**89 DANBURY RD** 

69-60 **GRUMMAN SEVEN ASSOCIATES LLC** 82 DANBURY RD WILTON CT 06897

68-33-50 WILTON 50 DANBURY ROAD OWNER LLC 280 PARK AVE 5TH FL NY 10017 NEW YORK

CT 06897

CT 06850

70-16-1 **CONN LIGHT & POWER CO THE PO BOX 270** HARTFORD CT 06141

68-36-C WILTON PROJECT LLC METRO CENTER ONE STATION PL STAMFORD CT 06902

68-33-64 WILTON 64 DANBURY ROAD OWNER LLC 280 PARK AVE 5TH FL NY 10017 NEW YORK

68-36-A WILTON PROJECT LLC METRO CENTER ONE STATION PL CT 06902 STAMFORD