

TOWN OF EXETER, NEW HAMPSHIRE

10 FRONT STREET • EXETER, NH • 03833-3792 • (603) 778-0591 •FAX 772-4709 <u>www.exeternh.gov</u>

PUBLIC NOTICE EXETER CONSERVATION COMMISSION

Monthly Meeting

The Exeter Conservation Commission will meet virtually (see connection info below* and details attached) on Tuesday, June 8th, 2021 at 7:00 P.M.

Call to Order:

- 1. Introduction of Members Present
- 2. Public Comment
- 3. Election of Officers

Action Items:

• Wetland Conditional Use Permit review for a 12-lot open space subdivision for Scott Carlisle III at 19 Watson Road. Tax Map 33-26 (Scott Carlisle, Barry Gier)

Non-public Session

• Non-public session pursuant to RSA 91-A:3, II (d) for the consideration of the acquisition, sale, or lease of real or personal property

Action Items Cont'd:

- LCHIP Grant Application Update and Request for Matching Funds from two sources:
 - *a.* Expenditure of up to \$50,000 from the Conservation Fund as partial matching funds for the LCHIP grant application for Raynes Barn improvements at 61 Newfields Road.
 - b. Expenditure of up to \$1940 from the Conservation Fund for Phase I Archaeological Study around the perimeter of the Raynes barn.
- Committee Reports
 - a. Trail Committee: Discussion of Trail Use (Dave & Kristen)
 - b. Tree Committee Update: Draft Ordinance and Appointment of Tree Committee Rep
- Approval of Minutes: May 11th 2021 Meeting
- Other Business
- Next Meeting: Date Scheduled (7/13/21), Submission Deadline (7/2/21)

Andrew Koff

Exeter Conservation Commission

Posted June 4, 2021 Exeter Town Website www.exeternh.gov and Town Office kiosk.

***ZOOM MEETING INFORMATION:**

Virtual Meetings can be watched on Channel 22 and on Exeter TV's Facebook and YouTube pages.

To participate in public comment, click this link: https://exeternh.zoom.us/j/82243124127

To participate via telephone, call: +1 646 558 8656 and enter the Webinar ID: 822 4312 4127

Please join the meeting with your full name if you want to speak.

Use the "Raise Hand" button to alert the chair you wish to speak. On the phone, press *9.

More instructions for how to participate can be found here: https://www.exeternh.gov/townmanager/virtual-town-meetings

Contact us at extvg@exeternh.gov or 603-418-6425 with any technical issues.

TOWN OF EXETER PLANNING DEPARTMENT MEMORANDUM

Dε	,
To	Conservation Commission Board Members
Fr	± 4 ,
Su	ect: June 8 th Conservation Commission Meeting
1.	Clection of Officers: Proposing the same slate of officers as last year with a replacement for Clerk Chair: Drew Koff Vice-Chair: Trevor Mattera Treasurer: Dave Short Clerk:
	uggested Motion: Move to appoint the slate of officers as presented
2.	CUP for open space subdivision 19 Watson Road (Carlisle) A joint site walk with the Planning Board is scheduled for Tuesday June 8 th at 8:00 AM. The ield plan approval was tabled by the planning board at their last meeting. They are reearing the application on June 10 th .
	have provided motions for the CUP applications, should you feel you have sufficient information to make a recommendation to the planning board.
	Luggested Motion for Wetland Conditional Use Permit: We reviewed this application and feel the need to table the application to a date certain due to insufficient information on criteria necessary for the Commission to make a recommendation to the planning board as noted below: As agreed to by the applicant, the required information will be submitted by the next meeting submission deadline of to be heard at the conservation commission meeting date.
	We have reviewed this application and have no objection to the approval of the conditional use permit as proposed.
	We have reviewed this application and recommend that the wetland conditional use permit be (approved with conditions) (denied) as noted below:

- 3. **Non-Public Session:** See non-public session checklist in packet for process and motions.
- 4. **LCHIP Grant Application for Raynes:** We have been working on the LCHIP grant application which is due June 11th. As you are aware, we contracted with S. Bedard to prepare an update to our 2018 Historic Structures Report so that we have current list of needed repairs as well as updated costs for the grant application. The update indicated the current total project cost would be \$241,200. LCHIP requires a minimum of a 50% match with more points awarded if a higher match is provided. I have included a budget worksheet showing the LCHIP grant request of \$100k and a proposed plan for match. Since two of these items include conservation fund dollars, I am requesting your consideration and hopeful approval of the following expenditures from the conservation fund. \$50k as part of

our cash match, \$1940 for a Phase 1a archeological sensitivity assessment of the area adjacent to the barn. As authorized by RSA 36-a expenditures from the conservation fund may occur following a majority vote of the commission. You can review the <u>conservation</u> fund guidebook if you have questions.

Suggested Motions:
To approve the expenditure of up to \$50,000 from the Conservation Fund to
provide as cash match for the LCHIP grant application in support of repairs to Raynes
Barn.
To approve the expenditure of up to \$1,940 from the Conservation Fund for a
Phase 1a archeological sensitivity assessment in the area adjacent to Raynes barn.

5. Committee Reports: Trails

Dave and I will provide an update at the meeting but in general concerns have been expressed by Fire and Safety as well as trail users that the intensity of trail use has had a dramatic increase and there is significant amount of trail braiding and widening.

6. Committee Reports: Tree

With the stepping down of Sally, we need a new representative to the Tree Committee. The committee has been working on a draft ordinance and it is included in your packet for your early thoughts. If you have any concerns/comments feel free to share at the meeting or email them to me. We can bring the final draft ordinance back in July.



85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885 603.772.4746 - JonesandBeach.com

December 21, 2020

Exeter Planning Board Attn. Langdon Plumer, Chair 10 Front Street Exeter, NH 03833

RE: Conditional Use Application 19 Watson Road, Exeter, NH Tax Map 33, Lot 26 JBE Project No. 19102

Dear Mr. Plumer:

Jones & Beach Engineers, Inc. respectfully submits a Conditional Use application for wetland buffer impacts associated with the construction of a 1,128 sq.ft. road in support of a proposed 12-lot single-family residential subdivision on the above-referenced parcel on behalf of our client and property owner, Scott W. Carlisle, III. Impacts are required for the construction of the proposed roadway, driveways, and drainage system associated with the proposed construction.

The following are the required conditions for approval of the Conditional Use permit and how the applicant believes the proposal meets the condition.

1. That the proposed use is permitted in the underlying zoning district.

The proposed project is a residential subdivision which is permitted in the underlying zone.

2. No alternative design which does not impact a wetland or wetland buffer which has less detrimental impact on the wetland or wetland buffer is feasible.

This project required NO wetland impacts.

The proposed project was designed to minimize or avoid any wetland or wetland buffer impacts to the extent practicable. Project area drains east to west (toward Watson Road) thereby requiring stormwater features be constructed along the Watson Road property line. The property along Watson Road is mostly wetland, therefore, wetland buffer impacts are required.

3. A wetland scientist has provided an impact evaluation that includes the "functions and values" of the wetland(s), an assessment of the potential project-related impacts

and concluded to the extent feasible, the proposed impact is not detrimental to the value and function of the wetlands(s) or the greater hydrologic system.

Function and values is being completed at this time and will be submitted once complete.

4. That the design, construction, and maintenance of the proposed use will, to the extent feasible, minimize detrimental impact on the wetland or wetland buffer.

Majority of the wetland buffer impact is associated with the construction of stormwater features along the western property line. These stormwater features will infiltrate and treat stormwater prior to discharge to the wetlands. Stormwater features will collect stormwater within the wetland buffer and therefore not be detrimental to the wetland buffer or wetland.

Temporary grading within the wetland parking/structure setback will be revegetated and therefore minimize detrimental impact on the wetland buffer.

Permanent impact on the wetland parking/structure setback for driveway to Lot #3 has been minimized and located as distance as practicable to the wetland to minimize the detrimental impact to the wetland.

5. That the proposed use will not create a hazard to individual or public health, safety, and welfare due to the loss of wetland, the contamination of groundwater, or other reasons.

The proposed buffer impacts pose no threat to health, safety, and/or welfare. No loss of wetland is proposed and the proposed uses within the buffer pose no threat of groundwater contamination.

6. The applicant may propose an increase in wetland buffers elsewhere on the site that surround a wetland of equal or greater size, and of equal or greater functional value than the impacted wetland.

The applicant is proposing no increase in wetland buffers elsewhere on the site at this time.

7. In cases where the proposed use is temporary or where construction activity disturbs areas adjacent to the immediate use, the applicant has included a restoration proposal revegetating any disturbed area within the buffer with the goal to restore the site as nearly as possible to its original grade and condition following construction.

All proposed impacts (with the exception of driveway installation) are to be revegetated as per the project plans.

8. That all required permits shall be obtained from the New Hampshire Department of Environmental Services Water Supply and Pollution Control Division under NH



RSA 485-A: 17, the New Hampshire Wetlands Board under NH RSA 483-A, and the United States Army Corps of Engineers under Section 404 of the Clean Water Act.

No wetland impacts are proposed. All required permits will be obtained prior to the start of construction.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,

JONES & BEACH ENGINEERS, INC.

Barry W. Gier, PE Vice President

Town of Exeter



Planning Board Application for Conditional Use Permit: Wetlands Conservation Overlay District

March 2020



Town of Exeter Planning Board Application

Conditional Use Permit: Wetland Conservation Overlay District In accordance with Zoning Ordinance Article: 9.1

SUBMITTAL REQUIREMENTS: (Note: See Application Deadlines and Submission Requirements for Conservation Commission Requirements)

- 1. Fifteen (15) copies of the Application
- 2. Fifteen (15) 11"x17" and three (3) full sized copies of the plan which must include:

Existing Conditions

- a. Property Boundaries
- b. Edge of Wetland and associated Buffer (Wetlands Conservation Overlay District WCOD)

--Prime wetland: 100'

-- Very Poorly Drained: 50'

--Vernal Pool (>200 SF): 75'

-- Poorly Drained: 40'

--Exemplary Wetland: 50'

--Inland Stream: 25'

c. Structures, roads/access ways, parking, drainage systems, utilities, wells and wastewater disposal systems and other site improvements

Proposed Conditions

- a. Edge of Wetlands and Wetland Buffers and distances to the following:
 - i. Edge of Disturbance
 - ii. Structures, roads/access ways, parking, drainage systems, utilities, wells and wastewater disposal systems and other site improvements
- b. Name and phone number of all individuals whose professional seal appears on the plan
- 3. If applicant and/or agent is not the owner, a letter of authorization must accompany this application
- 4. Supporting documents i.e. Letters from the Department of Environmental Services, Standard Dredge and Fill Application and Photos of the property
- 5. A Town of Exeter Assessors list of names and mailing addresses of all abutters

Required Fees:		
Planning Board Fee: \$50.00	Abutter Fee: \$10.00	Recording Fee (if applicable): \$25.00

The Planning Office must receive the completed application, plans and fees on the day indicated on the Planning Board Schedule of Deadlines and Public Hearings.

APPLICANT	Name: Scott W. Carlisle, III		
	Address: 4 Cass Street, Exeter, NH 03833		
	Email Address:		
	Phone:		
PROPOSAL	Address: 19 Watson Road		
	Tax Map #33 Lot#26 Zoning District: R-1		
	Owner of Record: Scott W. Carlisle, III		
Person/Business	Name: Barry W. Gier, P.E., Jones & Beach Engineers, Inc.		
performing work	Address: PO Box 219, Stratham, NH 03885		
outlined in proposal	Phone: 603-772-4746		
Professional that	Name: James Gove, Gove Environmental Services, Inc.		
delineated wetlands	Address: 8 Continental Drive , Unit H, Exeter, NH 03833		
	Phone: 603-778-0644		

Town of Exeter Planning Board Application Conditional Use Permit: Wetland Conservation Overlay District

Detailed Proposal including intent, project description, and use of property: (Use additional sheet as needed) Proposed project includes the construction of a 920' linear foot roadway in support of a 12-lot single-family open space residential subdivision. Project includes construction of drainage features in support of proposed development. Lots to be serviced by on-site septic and wells. Wetland Conservation Overlay District Impact (in square footage): Wetland: Buffer: Temporary Impact (SQ FT.) (SQ FT.) ☐ Prime Wetlands ☐ Prime Wetlands Exemplary Wetlands ■ Exemplary Wetlands 607 ☐ Vernal Pools (>200SF) X Vernal Pools (>200SF) ☐ VPD X VPD 5,910 S.F. □ PD □ PD ☐ Inland Stream ☐ Inland Stream Permanent Impact Wetland: Buffer: Prime Wetlands Prime Wetlands ■ Exemplary Wetlands ■ Exemplary Wetlands 1,215 S.F. ☐ Vernal Pools (>200SF) X Vernal Pools (>200SF) ☐ VPD ☐ VPD □ PD ☐ PD ☐ Inland Stream ☐ Inland Stream List any variances/special exceptions granted by Zoning Board of Adjustment including dates: None Describe how the proposal meets conditions in Article 9.1.6.B of the Zoning Ordinance (attached for reference): See Conditional Use Cover Letter.

ABUTTERS: PLEASE LIST ALL PERSONS WHOSE PROPERTY IS LOCATED IN NEW HAMPSHIRE AND ADJOINS OR IS DIRECTLY ACROSS THE STREET OR STREAM FROM THE LAND UNDER CONSIDERATION BY THE BOARD. THIS LIST SHALL BE COMPILED FROM THE EXETER TAX ASSESSOR'S RECORDS.

TAX MAP SEE ATTACHED ABUTTERS LIST	TAXMAP
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- 9.1.6. B: <u>Conditions</u>: Prior to issuance of a conditional use permit, the Planning Board shall conclude and make a part of the record, compliance with the following criteria:
 - 1. That the proposed use is permitted in the underlying zoning district;
 - No alternative design which does not impact a wetland or wetland buffer or which has less detrimental impact on the wetland or wetland buffer is feasible;
 - 3. A wetland scientist has provided an impact evaluation that includes the "functions and values" of the wetland(s), an assessment of the potential project-related impacts and concluded to the extent feasible, the proposed impact is not detrimental to the value and function of the wetland(s) or the greater hydrologic system.
 - 4. That the design, construction and maintenance of the proposed use will, to the extent feasible, minimize detrimental impact on the wetland or wetland buffer;
 - 5. That the proposed use will not create a hazard to individual or public health, safety and welfare due to the loss of wetland, the contamination of groundwater, or other reasons:
 - The applicant may propose an increase in wetland buffers elsewhere on the site that surround a wetland of equal or greater size, and of equal or greater functional value than the impacted wetland
 - In cases where the proposed use is temporary or where construction activity disturbs areas adjacent to the immediate use, the applicant has included a restoration proposal revegetating any disturbed area within the buffer with the goal to restore the site as nearly as possible to its original grade and condition following construction.
 - 8. That all required permits shall be obtained from the New Hampshire Department of Environmental Services Water Supply and Pollution Control Division under NH RSA §485-A: 17, the New Hampshire Wetlands Board under NH RSA §483-A, and the United States Army Corps of Engineers under Section 404 of the Clean Water Act.;



GOVE ENVIRONMENTAL SERVICES, INC.

Memorandum

Date: Tuesday, January 12, 2021

To: Barry Gier, P.E.

Company: Jones & Beach Engineers, Inc.

From: Jim Gove

Re: 19 Watson Road, Exeter, NH Subject: Conditional Use Requirements

Attached are evaluations of the 5 wetland buffer impacts. The evaluations cover the functions and values wetlands that are adjacent to the buffer impacts and assesses the potential project-related impacts.

It is the finding of the evaluations that the proposed buffer impacts are not detrimental to the value and functions of the wetlands or the greater hydrologic system.

The design of the proposed use, to the extent feasible, minimizes the detrimental impact on the wetland and on the wetland buffer.

Where appropriate, I have suggested mitigating measures, such at buffer plantings to restore the forested buffer that is being impacted.



1-11-2021

GES 2019104



GES PROJECT NO.: 2019104 DATE: 1-11-2021 STAFF: James Gove

WETLAND ID: Near buffer impact 1 SIZE: small PHOTOS: Yes

DOMINANT CLASSIFICATION: PF01E NUMBER OF VEGETATIVE CLASSES: 1

WETLAND TYPE

\square Bog		Sand Dune
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- ☐ Deciduous Wooded Swamp ☐ Scrub-Shrub Swamp
- □ Drainage Swale□ Seasonal Stream□ Evergreen Wooded Swamp□ Tidal Marsh
- □ Evergreen Wooded Swamp□ Tidal Marsh□ Freshwater Deep Marsh□ Wet Meadow
- ☐ Freshwater Shallow Marsh
- ☐ Mixed Wooded Swamp ☐ Excavated Ditch
- ☐ Perennial Stream ☐ Excavated Wetland
- □ Pond/Lake□ Graded Wetland□ Potential Vernal Pool□ Wetland Detention
 - □ Wetland Detention Basin□ Wetland w/ Spoil Piles



View looking north into wetland.





View looking east into wetland.

PLANT SPECIES

Trees Red Maples Saplings Red Maples Shrubs Highbush Blueberry Winterberry

Herbaceous Cinnamon Fern

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GROUNDWATER RECHARGE/DISCHARGE ☐ Restrictive layer ☐ Gravel or sands ☐ Till ☐ Marine/Lacustrine	Function Present: ☐ Yes ☐ No ☐ Groundwater discharge: Seep/Spring ☐ Variable water levels ☐ Constant water levels
FLOODFLOW ALTERATION ☐ H ☐ M ☐ L Watershed position Topo of wetland	Function Present: \square Yes \square No Slopes in watershed:
☐ L ☐ M ☐ S Size relative to watershed☐ Other storage in watershed present☐	☐ Constricted outlet☐ Associated with water course
SEDIMENT/TOXICANT/PATHOGEN RETENTION Sediment/toxicants sources present upslope Flat wetland topo Organic fine soils Flood storage occurs Broad transition Ditching	Function Present: ☐ Yes ☐ No ☐ Associated w/ surface water ☐ Erosion or sedimentation ☐ Diffuse flows ☐ Vegetation interspersion ☐ Dense herbaceous
NUTRIENT REMOVAL/RETENTION/TRANSFORM Hydrologic regime	ATION Function Present: \square Yes \square No
□ Open water□ Sediment trapping□ Nutrients upslope	 □ Aquatic diversity abundance □ Slow moving water □ Organic soils
PRODUCTION EXPORT ☐ Wildlife food sources ☐ Detritus ☐ Wildlife use ☐ H ☐ M ☐ L Vegetation Density ☐ H ☐ M ☐ L Interspersion	Function Present: ☐ Yes ☐ No ☐ H ☐ M ☐ L Diversity ☐ Aquatic plants ☐ Permanent outlet ☐ Signs of Export
SEDIMENT/SHORELINE STABILIZATION Association w/ surface water: ☐ Yes ☐ No ☐ Topo gradient ☐ Bank or shoreline ☐ Vegetated bank	Function Present: ☐ Yes ☐ No ☐ High flows ☐ Channelized flow ☐ Open water fetch
WILDLIFE HABITAT Degradation Type: Adjacent to Watson Road, a Upland buffer Width: Directly adjacent Watson For Type of buffer: Other than Watson Wetland connections Corridor Islands Loafing logs Vernal pool species identified.	



View of upland between the wetland and the buffer impact 1.

The grading impact for a fill slope is 78 feet away. The grading impact will not detrimentally affect the ground water recharge/discharge function, as it will not significantly impact the uplands directly adjacent the wetland. Similarly sediment and nutrient retention will not be impacted, again because the slopes adjacent the wetland are not being graded or filled, and there is no additional water being directed into the wetland. Wildlife habitat potentially could be impacted, though not significantly, as the grading impact is at a significant distant away and limited to just the east of the wetland, with the remaining areas around the wetland not being proposed for grading or filling.

Mitigating measures to further reduce the impact to wildlife would be additional plantings between the buffer impact and the wetland, and tree/shrub plantings of the fill slope in the buffer. As can be seen in the photo above, a woods road and cleared area exists is the existing condition of the buffer area. Tree and shrub plantings in the area would enhance the buffer, and help protect the wildlife use of the wetland.

In conclusion, I believe buffer impact #1 is not detrimental to the value and function of the wetland and proposed use will, to the extent feasible, minimize the impact on the wetland buffer.

GES PROJECT NO.: 2019104 DATE: 1-11-2021 STAFF: James Gove

WETLAND ID: Near buffer impact 2 SIZE: small PHOTOS: Yes

DOMINANT CLASSIFICATION: PSS1E NUMBER OF VEGETATIVE CLASSES: 1

WETLAND TYPE

Bog		Sand Dune

- ☐ Deciduous Wooded Swamp ☐ Scrub-Shrub Swamp ☐ Drainage Swale ☐ Seasonal Stream
- ☐ Evergreen Wooded Swamp Tidal Marsh
- ☐ Freshwater Deep Marsh ☐ Wet Meadow
- ☐ Freshwater Shallow Marsh ☐ Excavated Ditch
- ☐ Mixed Wooded Swamp ☐ Perennial Stream ☐ Excavated Wetland
- □ Pond/Lake ☐ Graded Wetland
- ☐ Potential Vernal Pool ☐ Wetland Detention Basin
- □ River Wetland w/ Spoil Piles ☐ Salt Marsh



View looking north into wetland.





View looking east into wetland.

PLANT SPECIES

Trees Red Maples (at the edges) Saplings Red Maples Shrubs Highbush Blueberry Winterberry

Herbaceous Cinnamon Fern Poison Ivy

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GROUNDWATER RECHARGE/DISCHARGE ☐ Restrictive layer ☐ Gravel or sands ☐ Till ☐ Marine/Lacustrine	Function Present: ☐ Yes ☐ No ☐ Groundwater discharge: Seep/Spring ☐ Variable water levels ☐ Constant water levels
FLOODFLOW ALTERATION ☐ H ☐ M ☐ L Watershed position Topo of wetland	Function Present: \square Yes \square No Slopes in watershed:
☐ L ☐ M ☐ S Size relative to watershed☐ Other storage in watershed present☐	☐ Constricted outlet☐ Associated with water course
SEDIMENT/TOXICANT/PATHOGEN RETENTION ☐ Sediment/toxicants sources present upslope ☐ Flat wetland topo ☐ Organic fine soils ☐ Flood storage occurs ☐ Broad transition ☐ Ditching	Function Present: ☐ Yes ☐ No ☐ Associated w/ surface water ☐ Erosion or sedimentation ☐ Diffuse flows ☐ Vegetation interspersion ☐ Dense herbaceous
NUTRIENT REMOVAL/RETENTION/TRANSFORM Hydrologic regime	ATION Function Present: \square Yes \square No
□ Open water□ Sediment trapping□ Nutrients upslope	 □ Aquatic diversity abundance □ Slow moving water □ Organic soils
PRODUCTION EXPORT ☐ Wildlife food sources ☐ Detritus ☐ Wildlife use ☐ H ☐ M ☐ L Vegetation Density ☐ H ☐ M ☐ L Interspersion	Function Present: ☐ Yes ☐ No ☐ H ☐ M ☐ L Diversity ☐ Aquatic plants ☐ Permanent outlet ☐ Signs of Export
SEDIMENT/SHORELINE STABILIZATION Association w/ surface water: ☐ Yes ☐ No ☐ Topo gradient ☐ Bank or shoreline ☐ Vegetated bank	Function Present: ☐ Yes ☐ No ☐ High flows ☐ Channelized flow ☐ Open water fetch
WILDLIFE HABITAT ☐ Degradation Type: ☐ Upland buffer Width: All Exeter buffer present.	Function Present: \square Yes \square No
 □ Type of buffer: A forested buffer. □ Wetland connections □ Corridor □ Islands □ Loafing logs Vernal pool species identified. 	 □ Aquatic habitat □ Cavity trees □ Rock crevices □ Fish habitat

The soil disturbance buffer impact for a cut slope is 81 feet away. This is a small wetland with vernal pool activity. Its primary functions are wildlife habitat (for vernal pool species) and production export (the vernal pool species are a food source for other species that will visit the pool in the spring time). Otherwise, this wetland is too small to have flood storage or sediment and nutrient trapping.

Mitigating measures to further reduce the impact to wildlife would be just maintaining the forested buffer. The cut face begins on the opposite side of the fill from the wetland, so additional plantings would not be needed in the remaining buffer.

In conclusion, I believe buffer impact #2 is not detrimental to the value and function of the wetland and proposed use will, to the extent feasible, minimize the impact on the wetland buffer.

GES PROJECT NO.: 2019104 DATE: 1-11-2021 STAFF: James Gove

WETLAND ID: Near buffer impacts 3&5 SIZE: large PHOTOS: Yes

DOMINANT CLASSIFICATION: PFO/SS/EM NUMBER OF VEGETATIVE CLASSES: 1

WETLAND TYPE

Bog
Deciduous Wooded Swamp

- ☐ Drainage Swale
- ☐ Evergreen Wooded Swamp
- ☐ Freshwater Deep Marsh
- ☐ Freshwater Shallow Marsh
- ☐ Mixed Wooded Swamp
- ☐ Perennial Stream
- □ Pond/Lake
- ☐ Potential Vernal Pool
- \square River
- ☐ Salt Marsh

- ☐ Sand Dune
- ☐ Scrub-Shrub Swamp
- ☐ Seasonal Stream
- ☐ Tidal Marsh
- ☐ Wet Meadow
- ☐ Excavated Ditch
- ☐ Excavated Wetland
- ☐ Graded Wetland
- ☐ Wetland Detention Basin
- ☐ Wetland w/ Spoil Piles



View looking west into wetland with Watson Road in the background.





View looking west into wetland with Watson Road beyond the wetland.



Looking south into larger portion of the wetland with Watson Road in background.

PLANT SPECIES

Trees Red Maples Gray Birch Saplings Red Maples Gray Birch

Shrubs Highbush Blueberry Winterberry Bittersweet (vine) Herbaceous Cinnamon Fern Cattails

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GROUNDWATER RECHARGE/DISCHARGE ☐ Restrictive layer ☐ Gravel or sands ☐ Till ☐ Marine/Lacustrine	Function Present: ☐ Yes ☐ No ☐ Groundwater discharge: Seep/Spring ☐ Variable water levels ☐ Constant water levels
FLOODFLOW ALTERATION ☐ H ☐ M ☐ L Watershed position	Function Present: \square Yes \square No
Topo of wetland	Flat slopes.
 □ L □ M □ S Size relative to watershed □ Other storage in watershed present 	☐ Constricted outlet☐ Associated with water course
SEDIMENT/TOXICANT/PATHOGEN RETENTION Sediment/toxicants sources present upslope Flat wetland topo Organic fine soils Flood storage occurs Broad transition Ditching	Function Present: ☐ Yes ☐ No ☐ Associated w/ surface water ☐ Erosion or sedimentation ☐ Diffuse flows ☐ Vegetation interspersion ☐ Dense herbaceous
NUTRIENT REMOVAL/RETENTION/TRANSFORM Hydrologic regime	
 □ Open water □ Sediment trapping □ Nutrients upslope 	 □ Aquatic diversity abundance □ Slow moving water □ Organic soils
PRODUCTION EXPORT ☐ Wildlife food sources ☐ Detritus ☐ Wildlife use ☐ H ☐ M ☐ L Vegetation Density ☐ H ☐ M ☐ L Interspersion	Function Present: ☐ Yes ☐ No ☐ H ☐ M ☐ L Diversity ☐ Aquatic plants ☐ Permanent outlet ☐ Signs of Export
SEDIMENT/SHORELINE STABILIZATION Association w/ surface water: ☐ Yes ☐ No ☐ Topo gradient ☐ Bank or shoreline ☐ Vegetated bank	Function Present: ☐ Yes ☐ No ☐ High flows ☐ Channelized flow ☐ Open water fetch
WILDLIFE HABITAT ☐ Degradation Type: Adjacent to Watson Road, a	Function Present: \square Yes \square No
	son Road and Rte 101, has a forested buffer. Aquatic habitat Cavity trees Rock crevices Fish habitat



View of Watson Road proximity to the wetland.

The grading impact for a fill slope is 40 feet away. This is a large wetland that exhibits all of the wetland functions. However, the buffer impact is located adjacent a wetland finger of this larger wetland, that has already been impacted by runoff from Watson Road. The grading impact will not detrimentally affect the ground water recharge/discharge function, as this is a large wetland and the grading is minimally to the edges of the overall complex. Similarly sediment and nutrient retention will not be impacted, again because this is a large wetland, and the buffer impacts are to a wetland finger that already receives sediment and nutrients from Watson Road, and there is no additional water being directed into the wetland. Wildlife habitat potentially could be impacted, though not significantly, as the buffer impact is at a significant distant away from the main wetland area, and limited to just the wetland finger, with the remaining areas around the wetland not being proposed for grading or filling.

There are no mitigating measures here with the exception of maintaining the forested buffer to the larger wetland area. As can be seen in the photo above, Watson Road runs along a large portion of this wetland and does contribute sediment and nutrients to the wetland.

In conclusion, I believe buffer impacts # 3/5 are not detrimental to the value and function of the wetland and proposed use will, to the extent feasible, minimize the impact on the wetland buffer.

GES PROJECT NO.: 2019104 DATE: 1-11-2021 STAFF: James Gove

WETLAND ID: Near buffer impact 4 SIZE: small PHOTOS: Yes

DOMINANT CLASSIFICATION: PEMx NUMBER OF VEGETATIVE CLASSES: 1

WETLAND TYPE

\square Bog		Sand Dune
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- ☐ Scrub-Shrub Swamp ☐ Deciduous Wooded Swamp
- ☐ Drainage Swale Seasonal Stream ☐ Tidal Marsh ☐ Evergreen Wooded Swamp
- ☐ Freshwater Deep Marsh ☐ Wet Meadow
- ☐ Freshwater Shallow Marsh
- ☐ Mixed Wooded Swamp ☐ Excavated Ditch
- ☐ Perennial Stream ☐ Excavated Wetland ☐ Pond/Lake ☐ Graded Wetland
- ☐ Potential Vernal Pool ☐ Wetland Detention Basin □ River
 - ☐ Wetland w/ Spoil Piles



View looking south into wetland.





View looking west into wetland.

PLANT SPECIES *Trees*

Saplings

Shrubs Highbush Blueberry Winterberry (on the edges)

Herbaceous Cinnamon Fern Poison Ivy Raspberry

.

GROUNDWATER RECHARGE/DISCHARGE ☐ Restrictive layer ☐ Gravel or sands ☐ Till ☐ Marine/Lacustrine	Function Present: ☐ Yes ☐ No ☐ Groundwater discharge: Seep/Spring ☐ Variable water levels ☐ Constant water levels
FLOODFLOW ALTERATION ☐ H ☐ M ☐ L Watershed position	Function Present: \square Yes \square No Slopes in watershed:
Topo of wetland □ L □ M □ S Size relative to watershed □ Other storage in watershed present	☐ Constricted outlet☐ Associated with water course
SEDIMENT/TOXICANT/PATHOGEN RETENTION ☐ Sediment/toxicants sources present upslope ☐ Flat wetland topo ☐ Organic fine soils ☐ Flood storage occurs ☐ Broad transition ☐ Ditching	Function Present: ☐ Yes ☐ No ☐ Associated w/ surface water ☐ Erosion or sedimentation ☐ Diffuse flows ☐ Vegetation interspersion ☐ Dense herbaceous
NUTRIENT REMOVAL/RETENTION/TRANSFORM Hydrologic regime ☐ Open water ☐ Sediment trapping ☐ Nutrients upslope	ATION Function Present: ☐ Yes ☐ No ☐ Aquatic diversity abundance ☐ Slow moving water ☐ Organic soils
PRODUCTION EXPORT ☐ Wildlife food sources ☐ Detritus ☐ Wildlife use ☐ H ☐ M ☐ L Vegetation Density ☐ H ☐ M ☐ L Interspersion	Function Present: ☐ Yes ☐ No ☐ H ☐ M ☐ L Diversity ☐ Aquatic plants ☐ Permanent outlet ☐ Signs of Export
SEDIMENT/SHORELINE STABILIZATION Association w/ surface water: ☐ Yes ☐ No ☐ Topo gradient ☐ Bank or shoreline ☐ Vegetated bank	Function Present: ☐ Yes ☐ No ☐ High flows ☐ Channelized flow ☐ Open water fetch
WILDLIFE HABITAT □ Degradation Type: Excavated wetland, with wo Upland buffer Width: Exeter buffer intact. Type of buffer: A forested buffer Wetland connections □ Corridor □ Islands □ Loafing logs	•

Buffer impact # 4 is 46 feet away from an excavated wetland area that has received woody spoils from logging activities. This wetland has virtually no functions or values. Therefore, any impact to the buffer of this wetland will have no impact to its functional value.

In conclusion, I believe buffer impact #4 is not detrimental to the value and function of the wetland and proposed use will, to the extent feasible, minimize the impact on the wetland buffer.

OPEN-SPACE RESIDENTIAL SUBDIVISION "CARLISLE SUBDIVISION"

TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH

LOCUS MAP

SCALE 1'' = 20,0000'

SHEET INDEX

CS COVER SHEET

OVERALL YIELD PLAN

Y1A-Y1B YIELD PLANS

A1-A5 SUBDIVISION PLAN

C1 OVERALL EXISTING CONDITIONS PLAN

OVERALL SITE PLAN

C1A - C1B EXISTING CONDITIONS PLANS

C2A - C2B SITE PLAN

OVERALL GRADING AND DRAINAGE PLAN

C3A - C3B GRADING AND DRAINAGE PLANS

P1-P2 PLAN AND PROFILE

D1-D3 DETAIL SHEETS

EROSION AND SEDIMENT CONTROL DETAILS

OWNER OF RECORD SCOTT W. CARLISLE, III

14 CASS STREET EXETER, NH 03833 (603) 772-2086

E1-E2

CIVIL ENGINEER / SURVEYOR JONES & BEACH ENGINEERS, INC.

85 PORTSMOUTH AVENUE
PO BOX 219
STRATHAM, NH 03885
(603) 772-4746
CONTACT: JOSEPH CORONATI
EMAIL: JCORONATI@JONESANDBEACH.COM

WETLAND CONSULTANT

GOVE ENVIRONMENTAL SERVICES, INC. 8 CONTINENTAL DR UNIT H EXETER, NH 03833 (603) 580-4120 CONTACT: JAMES P. GOVE

WATER AND SEWER

EXETER DEPARTMENT OF PUBLIC WORKS 13 NEWFIELDS ROAD EXETER, NH 03833 (603) 773-6157

ELECTRIC

EVERSOURCE 740 N COMMERCIAL ST PO BOX 330 MANCHESTER, NH 03105-0330 (800) 662-7764

ELECTRIC

UNITIL NEW HAMPSHIRE 6 LIBERTY LANE WEST HAMPTON, NH 03842 (603) 772-0775

TELEPHONE

CONSOLIDATED COMMUNICATIONS
100 TRI CITY ROAD
SOMERWORTH, NH 03878
ATTN:DAVE KESTNER
(603) 743-1114

CABLE TV

COMCAST COMMUNICATION CORPORATION 334-B CALEF HIGHWAY EPPING, NH 03042-2325 (603) 679-5695

REDBERRY

PERMITS

RESPONSIBLE CONSULTANT:

JONES & BEACH ENGINEERS, INC.

RESPONSIBLE CONSULTANT:

JONES & BEACH ENGINEERS, INC.

TYPE OF PERMIT STATUS EXETER SUBDIVISION PLAN APPROVAL SUBMITTED: TOWN OF EXETER PLANNING BOARD 10 FRONT STREET PERMIT NO. **EXETER, NEW HAMPSHIRE 03833** RESPONSIBLE CONSULTANT: JONES & BEACH ENGINEERS, INC. **EXPIRATION:** NHDES ALTERATION OF TERRAIN PERMIT SUBMITTED: NEW HAMPSHIRE DEPARTMENT OF **ENVIRONMENTAL SERVICES - WATER DIVISION** PERMIT NO. 29 HAZEN DRIVE, P.O. BOX 95 CONCORD, NEW HAMPSHIRE 03302-0095 DATED: (603) 271-3503 RESPONSIBLE CONSULTANT: **EXPIRATION:** JONES & BEACH ENGINEERS, INC. SUBMITTED: NHDES SUBDIVISION PERMIT **NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES -**PERMIT NO. SUBSURFACE SYSTEMS BUREAU 29 HAZEN DRIVE, P.O. BOX 95 CONCORD, NEW HAMPSHIRE 03302-0095 DATED:

USEPA NPDES PHASE II CONSTRUCTION GENERAL PERMIT,
NOTICE OF INTENT (NOI), AND NOTICE OF TERMINATION
(NOT) TO BE FILED IN ACCORDANCE WITH FEDERAL AND
LOCAL REGULATIONS PRIOR TO AND FOLLOWING CONSTRUCTION:
EPA STORMWATER NOTICE PROCESSING CENTER
MAIL CODE 4203M,
US EPA
1200 PENNSYLVANIA AVENUE, NW
WASHINGTON. DC 20460

EXPIRATION:

GENERAL LEGEND

<u>DESCRIPTION</u> PROPERTY LINES SETBACK LINES FRESHWATER WETLANDS LINE STREAM CHANNEL TREE LINE STONEWALL BARBED WIRE FENCE STOCKADE FENCE FLOOD PLAIN LINE ZONELINE **EASEMENT** MAJOR CONTOUR MINOR CONTOUR EDGE OF PAVEMENT DRAINAGE LINE WATER SERVICE OVERHEAD ELECTRIC UNDERGROUND ELECTRIC IRON PIPE/IRON ROD DRILL HOLE IRON ROD/DRILL HOLE STONE/GRANITE BOUND BENCHMARK (TBM) DOUBLE POST SIGN SINGLE POST SIGN TEST PIT MONITORING WELL TREES AND BUSHES UTILITY POLE LIGHT POLES DRAIN MANHOLE SEWER MANHOLE WATER SHUT OFF SINGLE GRATE CATCH BASIN CULVERT W/WINGWALLS CULVERT W/FLARED END SECTION CULVERT W/STRAIGHT HEADWALL FRESHWATER WETLANDS GRANITE BOUND TO BE SET IRON PIN TO BE SET

PROJECT PARCEL
TOWN OF EXETER
TAX MAP 33 LOT 26

APPLICANT/OWNER
WW. SCOTT CARLISLE, III
14 CASS STREET
EXETER, NH 03833

TOTAL LOT AREA 4,268,578 SQ. FT. 97.99 ACRES

TOWN OF EXETER PLANNING BOARD

DATE:

CHAIRMAN

Design: BWG | Draft: DJP | Date: 3/18/21 |
Checked: BWG | Scale: AS NOTED | Project No.: 19102 |
Drawing Name: 19102-PLAN.dwg |
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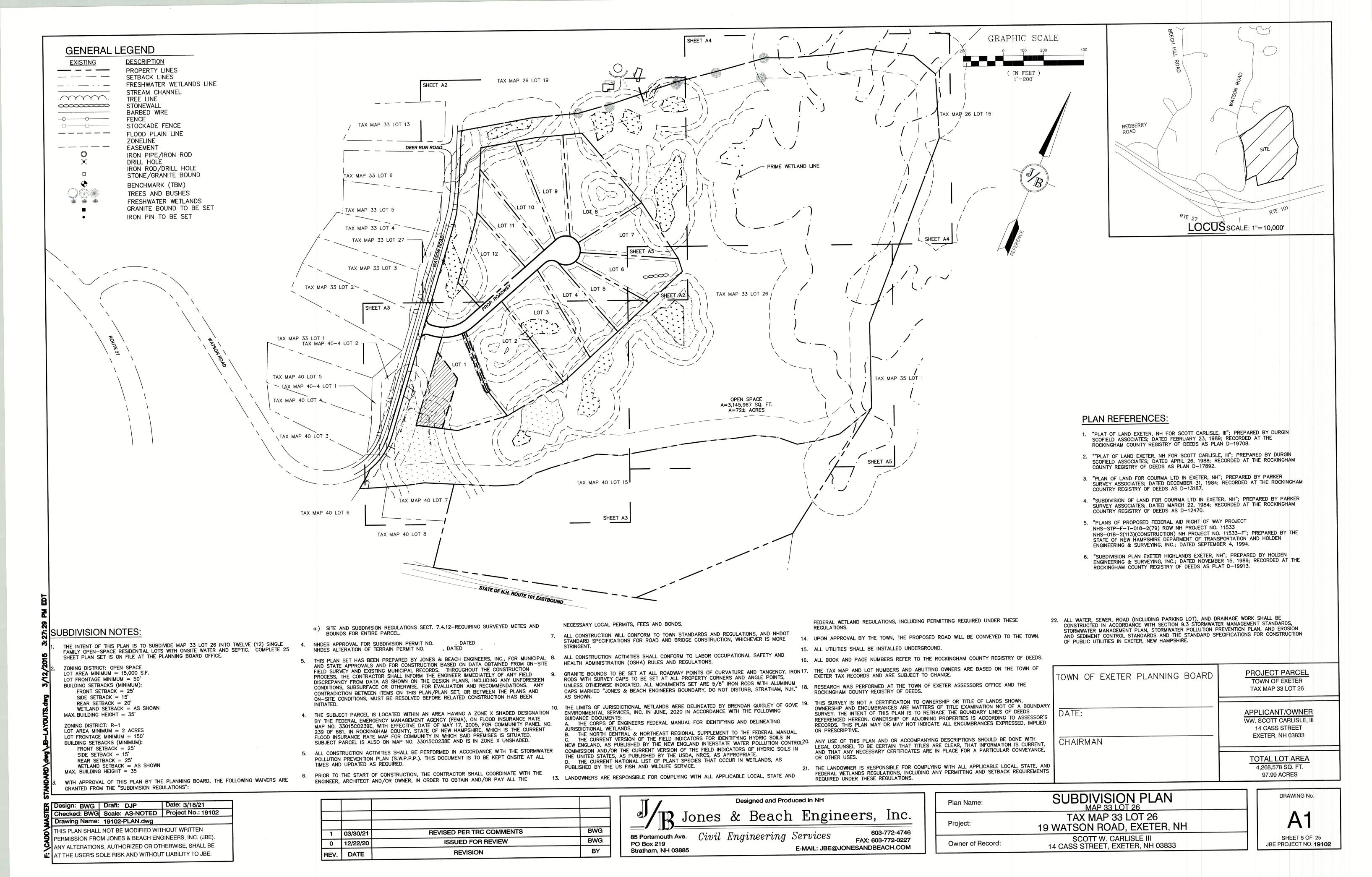
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0	12/22/20	ISSUED FOR REVIEW	BWG
REV.	DATE	REVISION	BY

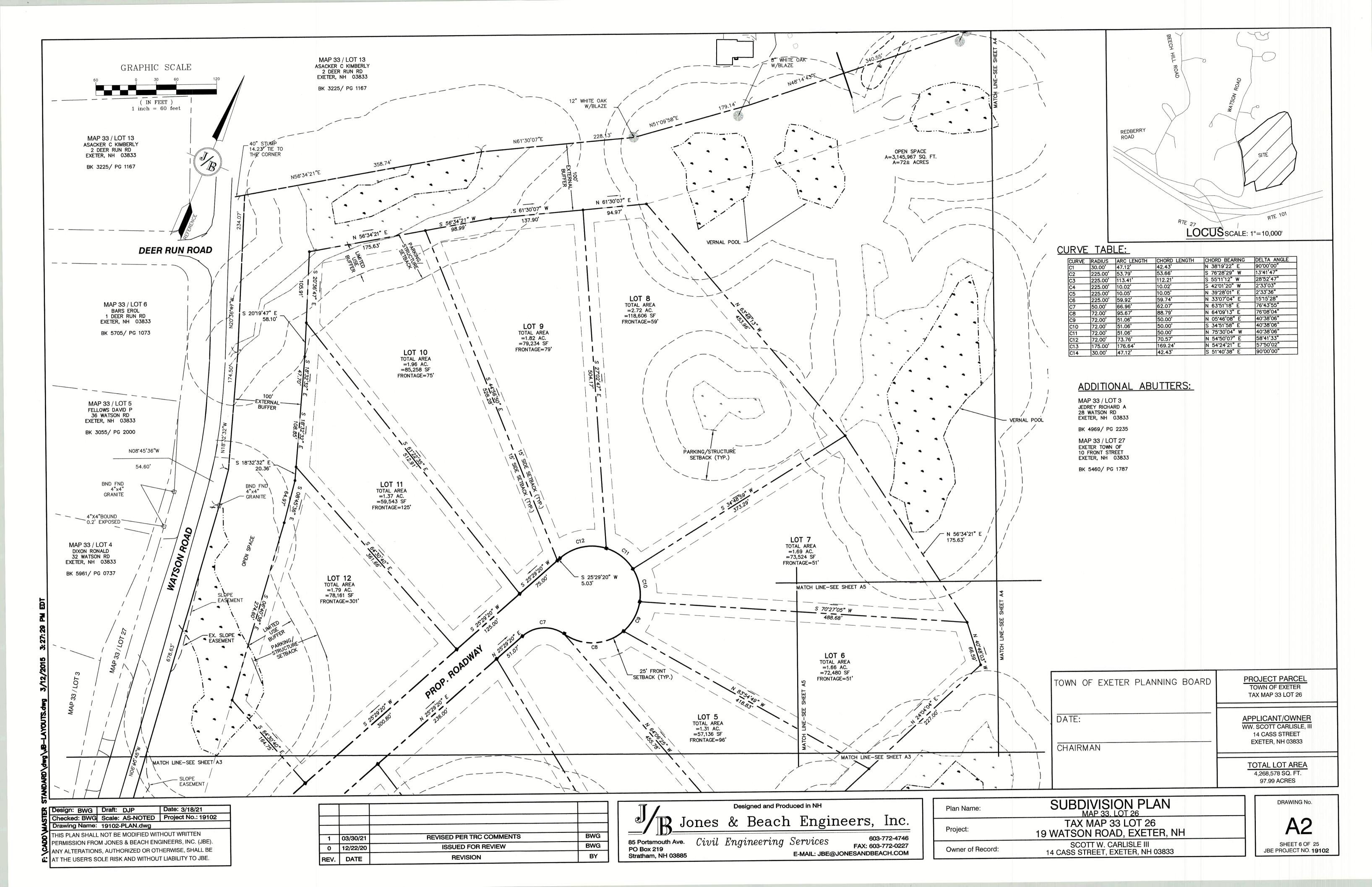


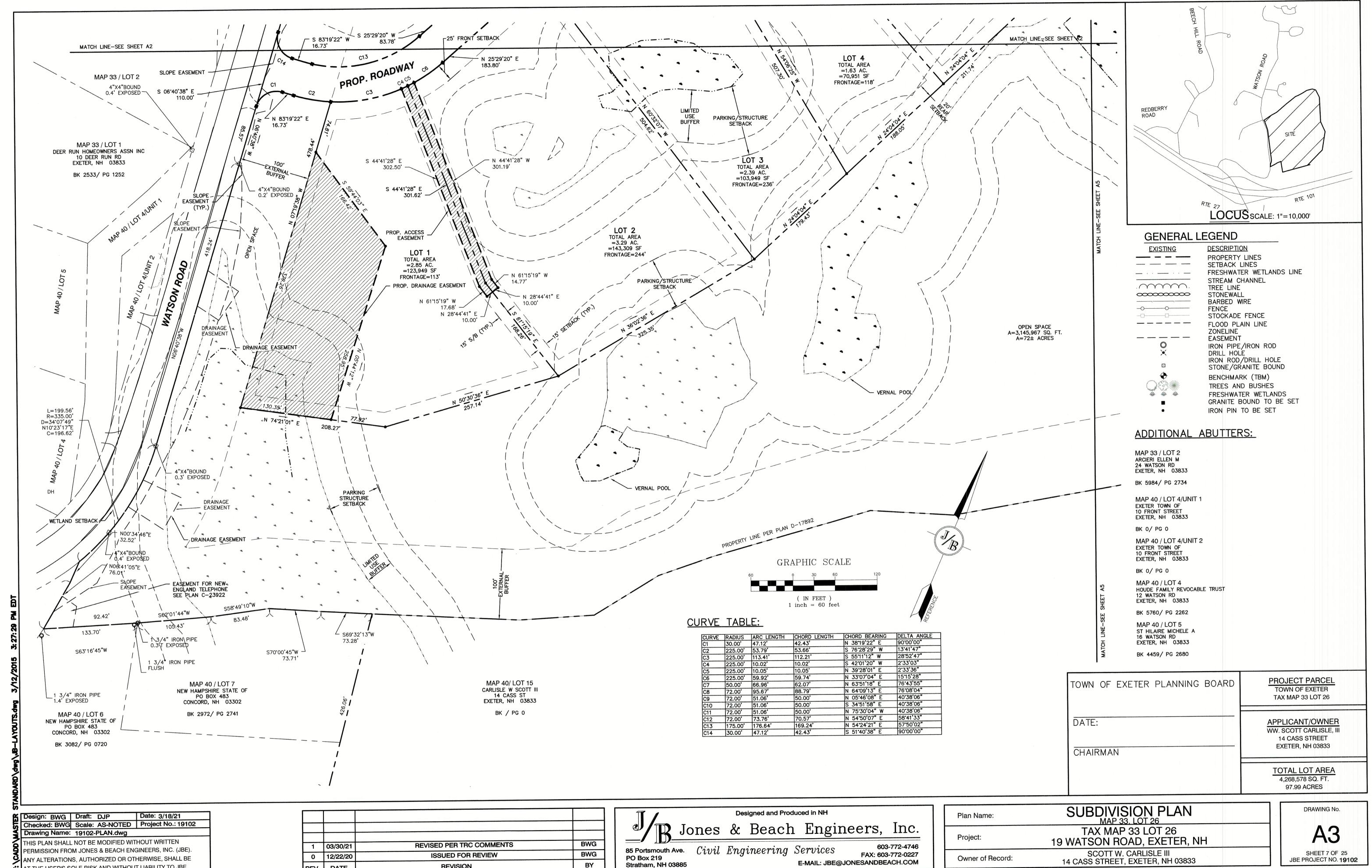
Plan Name:	COVER SHEET	
Project:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH	
Owner of Record:	SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833	

DRAWING No.

CS
SHEET 1 OF 25
JBE PROJECT NO. 19102



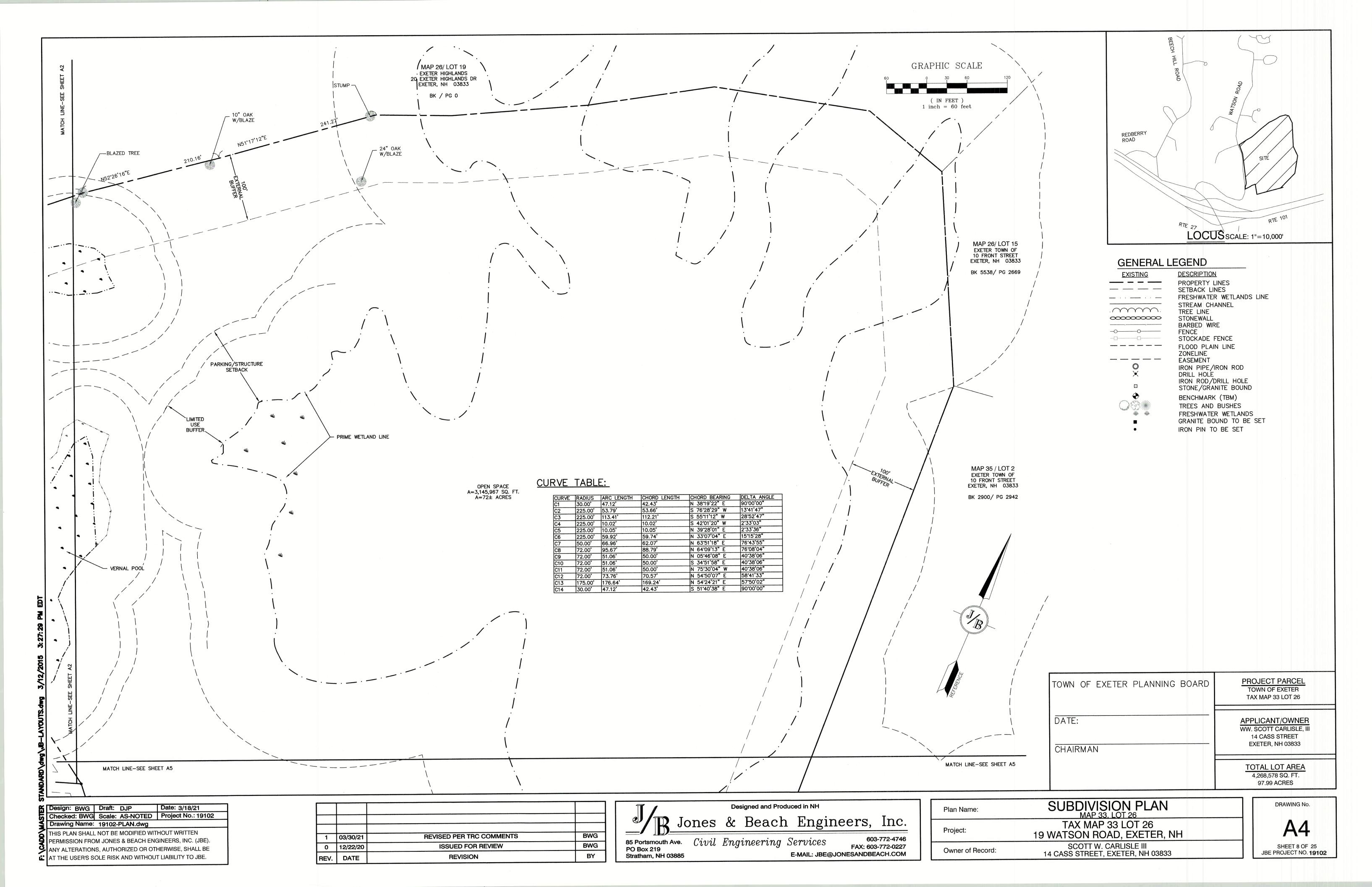


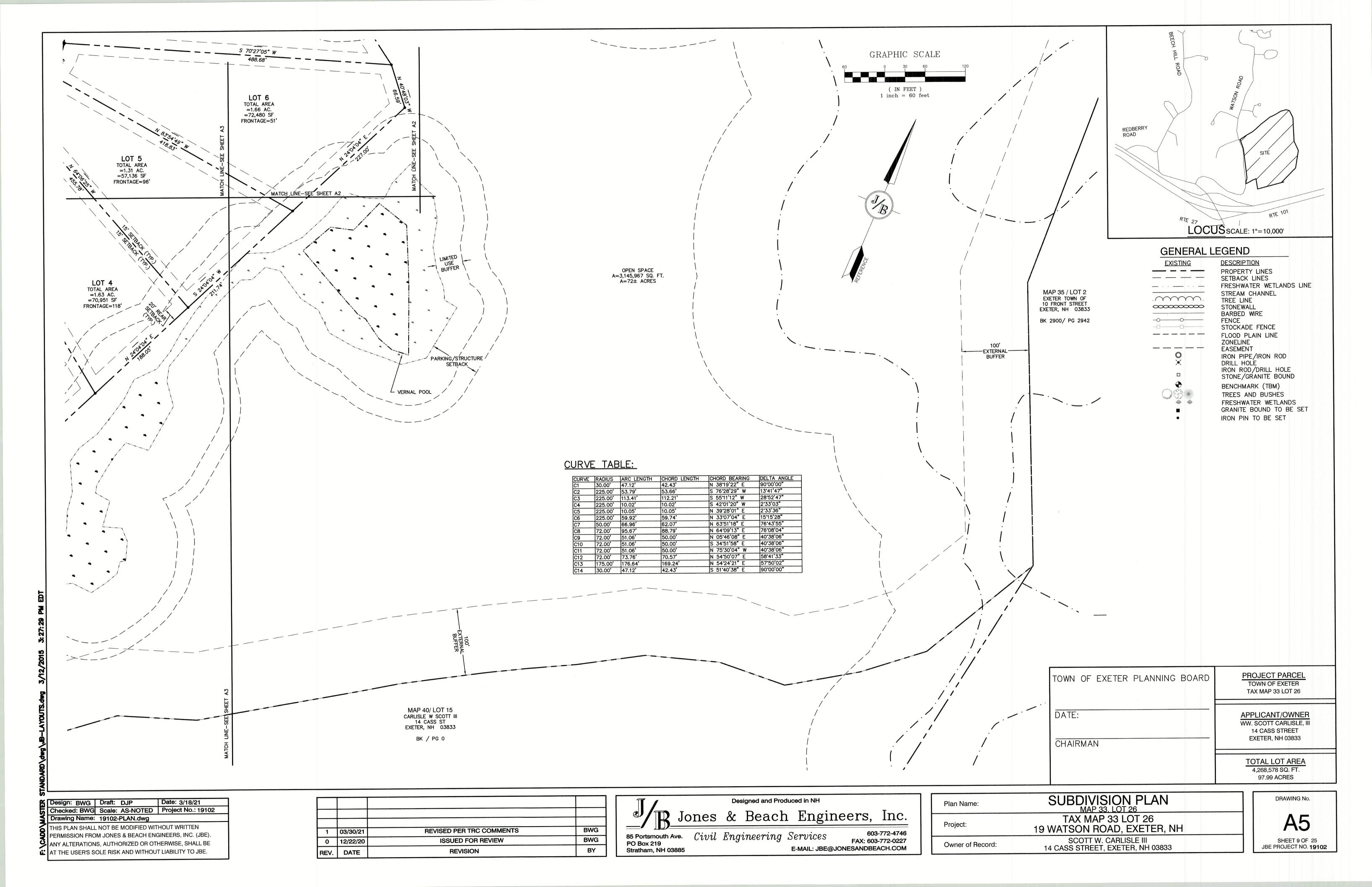


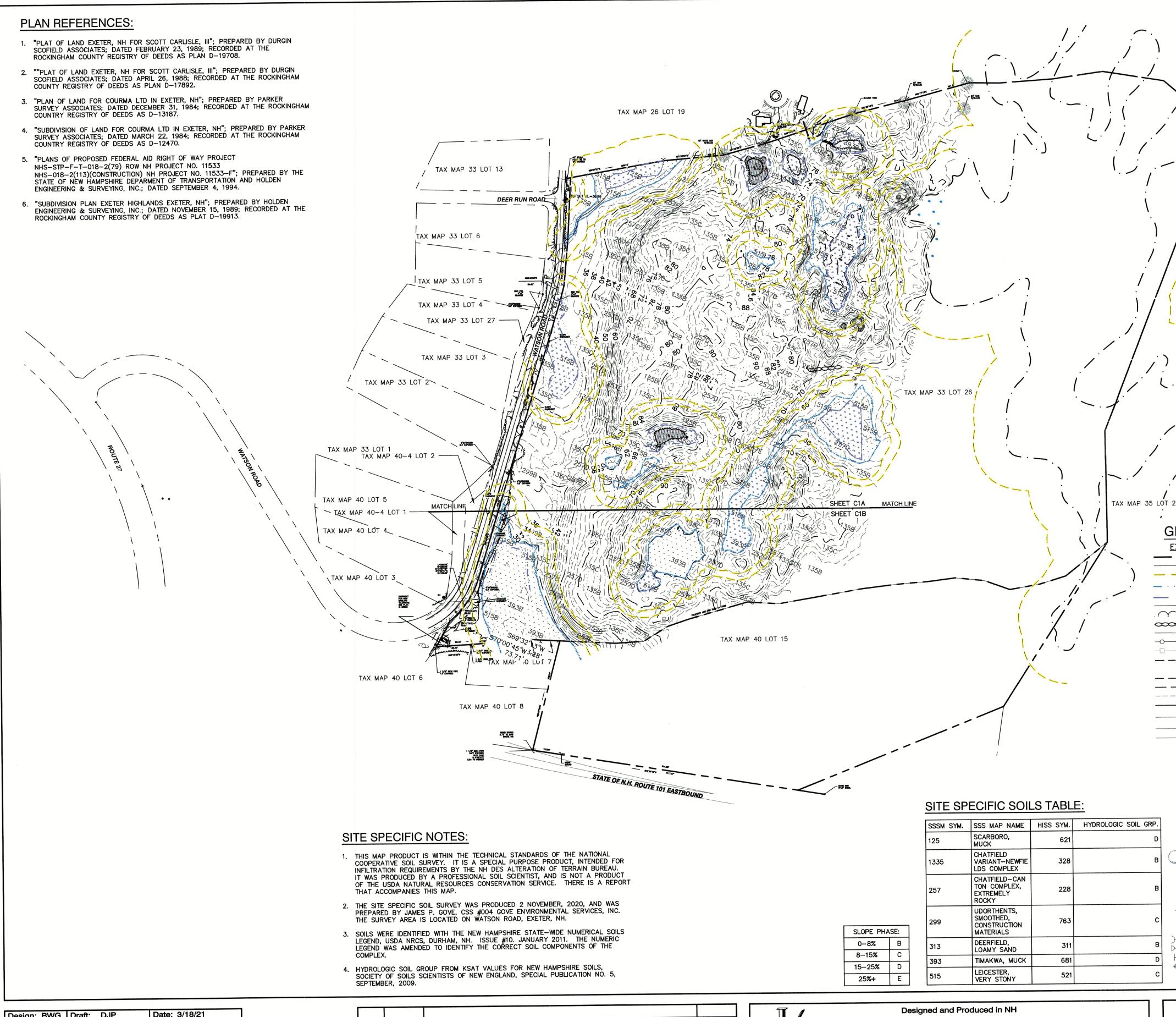
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- 4			
1	03/30/21	REVISED PER TRC COMMENTS	BWG
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REV.	DATE	REVISION	BY

Plan Name:	SUBDIVISION PLAN MAP 33, LOT 26	
Project:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH	
Owner of Record:	SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833	







SITE RTE 101 LOCUS SCALE: 1"=2000'

NOTES:

GRAPHIC SCALE

(IN FEET) 1 inch = 200 feet

TAX MAF 26 LOT 15

GENERAL LEGEND

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FAX: 603-772-0227

E-MAIL: JBE@JONESANDBEACH.COM

PROPERTY LINES

WETLAND SETBACK LINES

FRESHWATER WETLANDS LINE

SETBACK LINES

VERNAL POOL

TREE LINE

FENCE

STONEWALL

ZONELINE

EASEMENT

BARBED WIRE

STREAM CHANNEL

STOCKADE FENCE

MAJOR CONTOUR

MINOR CONTOUR

DRAINAGE LINE

DRILL HOLE

WELL

TEST PIT

EDGE OF PAVEMENT

OVERHEAD ELECTRIC

IRON PIPE/IRON ROD

IRON ROD/DRILL HOLE

BENCHMARK (TBM)

DOUBLE POST SIGN

SINGLE POST SIGN

MONITORING WELL

UTILITY POLE

LIGHT POLES

WATER GATE

HYDRANT

DRAIN MANHOLE

SEWER MANHOLE

WATER SHUT OFF

SINGLE GRATE CATCH BASIN

CULVERT W/FLARED END SECTION

CULVERT W/STRAIGHT HEADWALL

CULVERT W/WINGWALLS

FRESHWATER WETLANDS

TREES AND BUSHES

STONE/GRANITE BOUND

UNDERGROUND ELECTRIC

FLOOD PLAIN LINE

- 1. THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS DEPICTED HEREON TAX MAP 33 LOT 26.
- 2. ZONING DISTRICT: OPEN SPACE LOT AREA MINIMUM = 15,000 S.F. LOT FRONTAGE MINIMUM = 50' BUILDING SETBACKS (MINIMUM): FRONT SETBACK = 25SIDE SETBACK =15' REAR SETBACK = 20'WETLAND SETBACK = AS SHOWN MAX. BUILDING HEIGHT = 35'
- ZONING DISTRICT: R-1 LOT AREA MINIMUM = 2 ACRES LOT FRONTAGE MINIMUM = 150' BUILDING SETBACKS (MINIMUM): FRONT SETBACK = 25' SIDE SETBACK = 15'REAR SETBACK = 25
- WETLAND SETBACK = AS SHOWN MAX. BUILDING HEIGHT = 35 3. THE UTILITY LOCATIONS SHOWN HEREON WERE DETERMINED BY OBSERVED ABOVE GROUND EVIDENCE AND SHOULD BE CONSIDERED APPROXIMATE IN LOCATION ONLY. LOCATION, DEPTH, SIZE, TYPE, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR UNDERGROUND STORAGE TANKS WAS NOT VERIFIED BY THIS SURVEY. ALL CONTRACTORS SHOULD NOTIFY IN WRITING ALL UTILITY COMPANIES
- 4. THE SUBJECT PARCEL IS LOCATED WITHIN AN AREA HAVING A ZONE X SHADED DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NO. 33015CO239E, WITH EFFECTIVE DATE OF MAY 17, 2005, FOR COMMUNITY PANEL NO. 239 OF 681, IN ROCKINGHAM COUNTY, STATE OF NEW HAMPSHIRE, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR COMMUNITY IN WHICH SAID PREMISES IS SITUATED. SUBJECT PARCEL IS ALSO ON MAP NO. 33015C0238E AND IS IN ZONE X UNSHADED.

AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK OR CALL DIG-SAFE

- 5. BASIS OF BEARING: HORIZONTAL -STATE PLANE COORDINATES . VERTICAL -
- 6. CERTAIN DATA HEREON MAY VARY FROM RECORDED DATA DUE TO DIFFERENCES IN DECLINATION, ORIENTATION, AND METHODS OF MEASUREMENT.
- 7. ALL BOOK AND PAGE NUMBERS REFER TO THE ROCKINGHAM COUNTY REGISTRY OF
- 8. THE TAX MAP AND LOT NUMBERS ARE BASED ON THE TOWN OF EXETER TAX
- RECORDS AND ARE SUBJECT TO CHANGE. 9. RESEARCH WAS PERFORMED AT THE TOWN OF EXETER ASSESSOR'S OFFICE AND
- THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
- 10. THIS SURVEY IS NOT A CERTIFICATION TO OWNERSHIP OR TITLE OF LANDS SHOWN. OWNERSHIP AND ENCUMBRANCES ARE MATTERS OF TITLE EXAMINATION NOT OF A BOUNDARY SURVEY. THE INTENT OF THIS PLAN IS TO RETRACE THE BOUNDARY LINES OF DEEDS REFERENCED HEREON. OWNERSHIP OF ADJOINING PROPERTIES IS ACCORDING TO ASSESSOR'S RECORDS. THIS PLAN MAY OR MAY NOT INDICATE ALL ENCUMBRANCES EXPRESSED, IMPLIED OR PRESCRIPTIVE.
- 11. ANY USE OF THIS PLAN AND OR ACCOMPANYING DESCRIPTIONS SHOULD BE DONE WITH LEGAL COUNSEL, TO BE CERTAIN THAT TITLES ARE CLEAR, THAT INFORMATION IS CURRENT, AND THAT ANY NECESSARY CERTIFICATES ARE IN PLACE FOR A PARTICULAR CONVEYANCE, OR OTHER USES.
- 12. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN QUIGLEY OF GOVE ENVIRONMENTAL SERVICES, INC. IN JUNE, 2020 IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
 - THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND
- DELINEATING JURISDICTIONAL WETLANDS.
- THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL
- THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
- 15. THIS PLAN IS THE RESULT OF A CLOSED TRAVERSE WITH A RAW, UNADJUSTED LINEAR ERROR OF CLOSURE GREATER THAN 1 IN 46,000.
- 16. SURVEY TIE LINES SHOWN HEREON ARE NOT BOUNDARY LINES. THEY SHOULD ONLY BE USED TO LOCATE THE PARCEL SURVEYED FROM THE FOUND MONUMENTS SHOWN AND LOCATED BY THIS SURVEY.

Design: BWG Draft: DJP Date: 3/18/21 Checked: BWG Scale: AS-NOTED | Project No.: 19102 Drawing Name: 19102-PLAN.dwg

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REV.	DATE	REVISION	BY



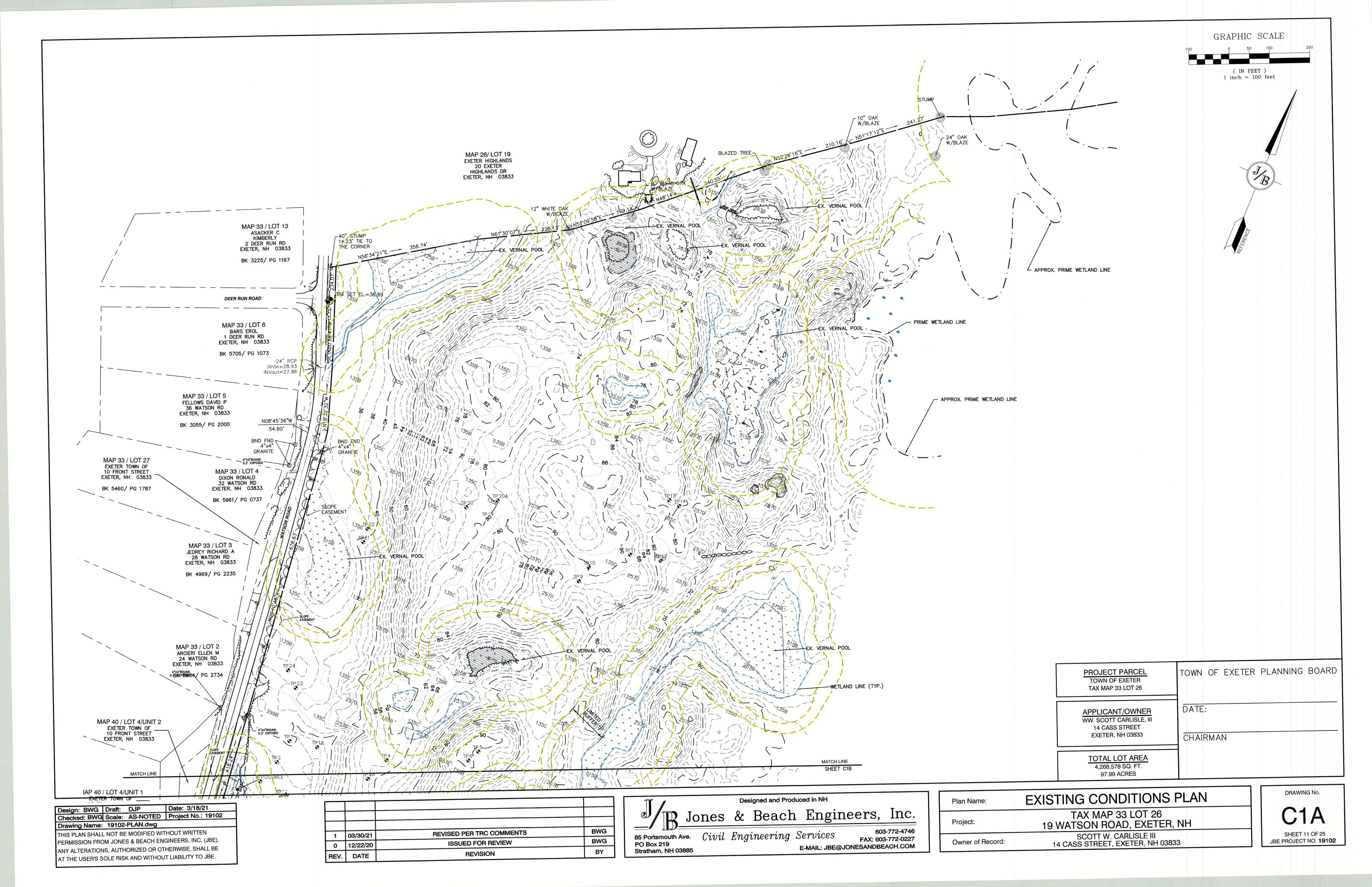
PO Box 219

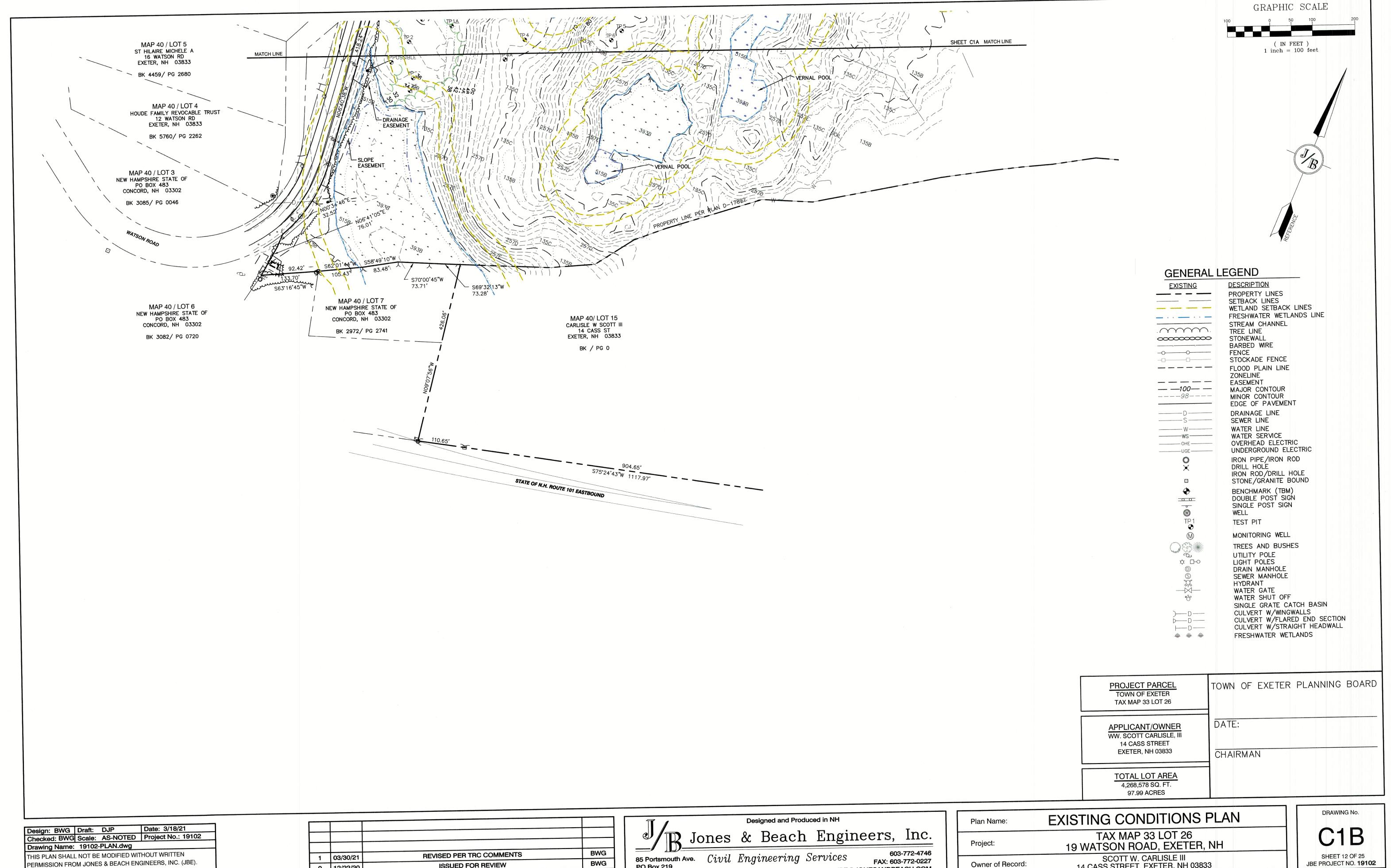
Stratham, NH 03885

Plan Name:	OVERALL EX-CONDITIONS
Project:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH
Owner of Record:	SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833

DRAWING No.

SHEET 10 OF 25 JBE PROJECT NO. 19102





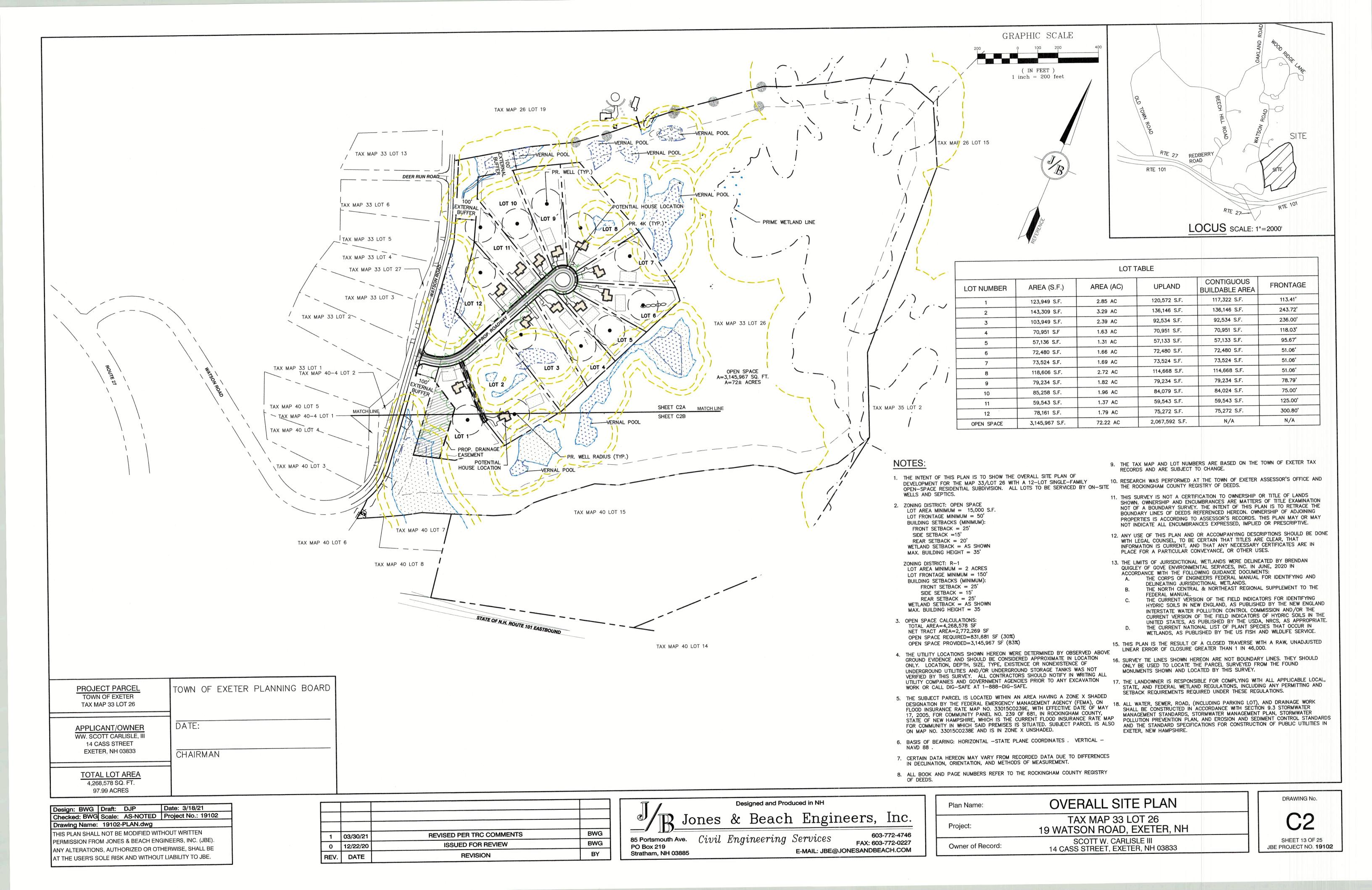
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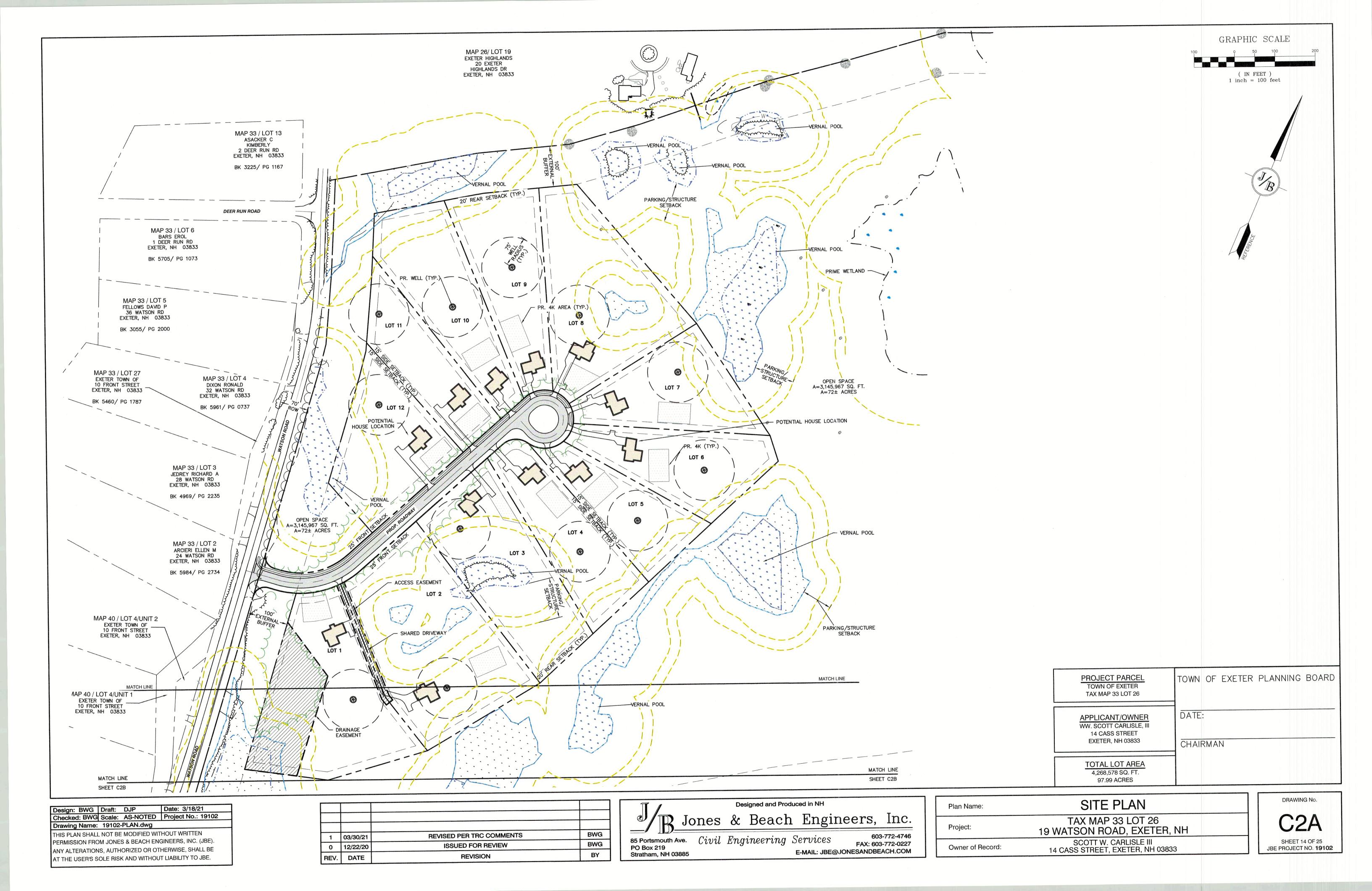
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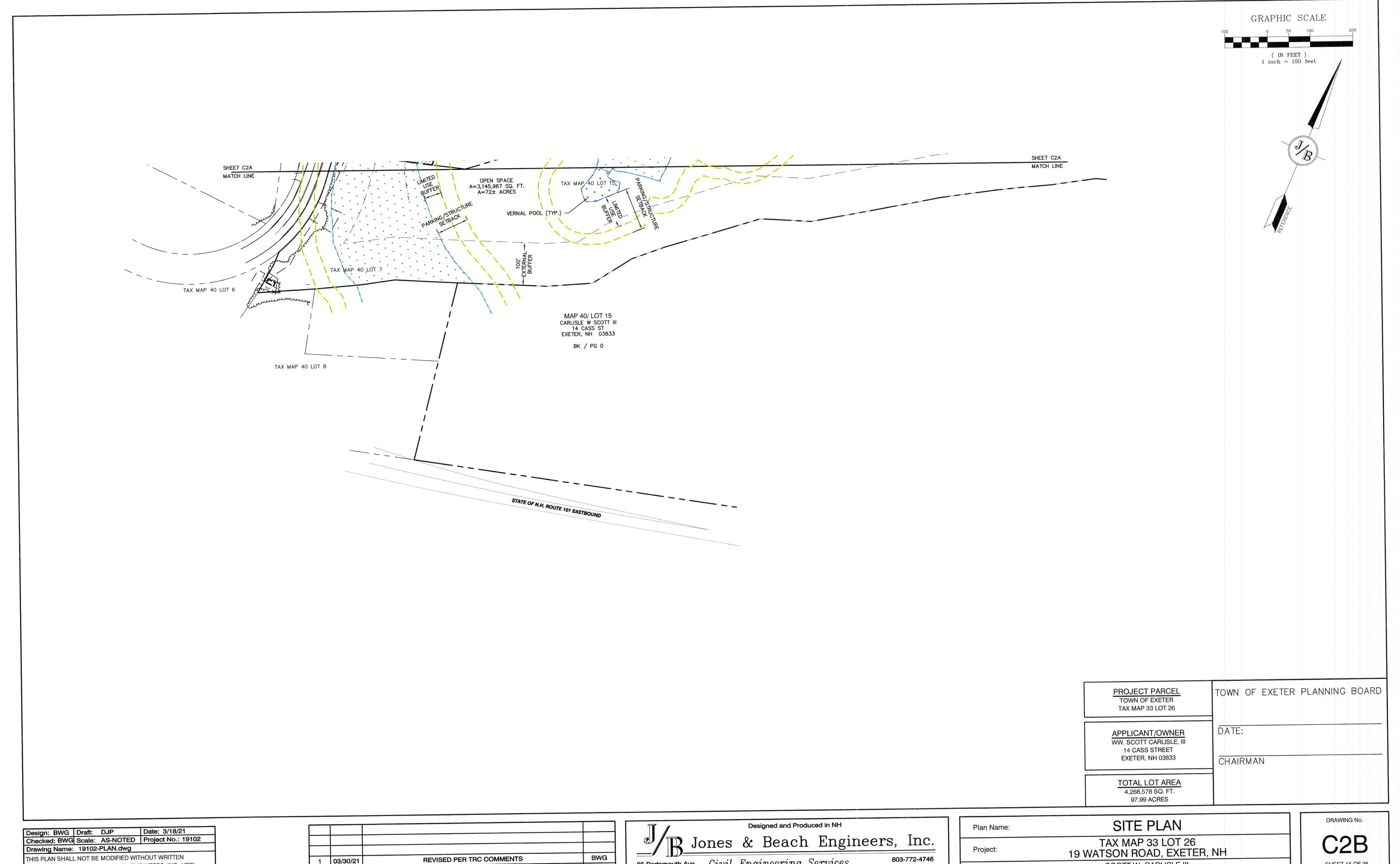
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Jo Jo	nes	&	Beach	ı	Engine	ers,	Inc.
			in eering	Se		603 FAX: 603	3-772-4746 3-772-0227

	Project:
4746	
0227	Owner
СОМ	Owner

lame:	EXISTING CONDITIONS PLAN	
t:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH	
of Record:	SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833	







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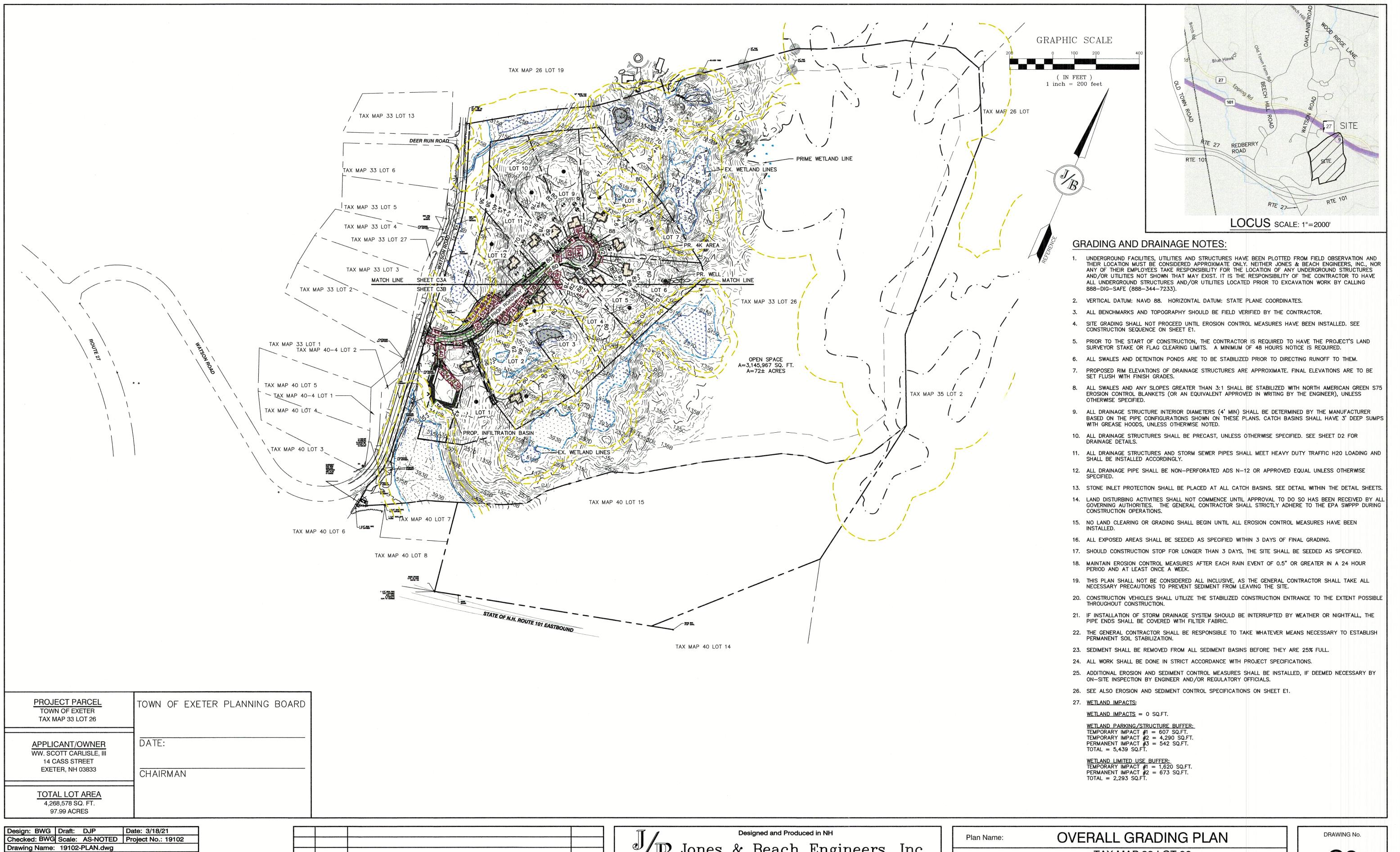
-1	03/30/21	REVISED PER TRC COMMENTS	BWG
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REV.	DATE	REVISION	BY

85 Portsmouth Ave. Civil Engineer's PO Box 219
Stratham, NH 03885

ring	Services	FAX: 603-772-0227
	E-MAIL: JBE@J	ONESANDBEACH.COM

Plan Name:	SITE PLAN	
Project:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH	
Owner of Record:	SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833	

SHEET 15 OF 25 JBE PROJECT NO. **19102**



Design: BWG Draft: DJP Date: 3/18/21

Checked: BWG Scale: AS-NOTED Project No.: 19102

Drawing Name: 19102-PLAN.dwg

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REV.	DATE	REVISION	BY

Designed and Produced in NH

Jones & Beach Engineers, Inc.

85 Portsmouth Ave. Civil Engineering Services
PO Box 219

Designed and Produced in NH

Engineers, Inc.

603-772-4746
FAX: 603-772-0227

Stratham, NH 03885

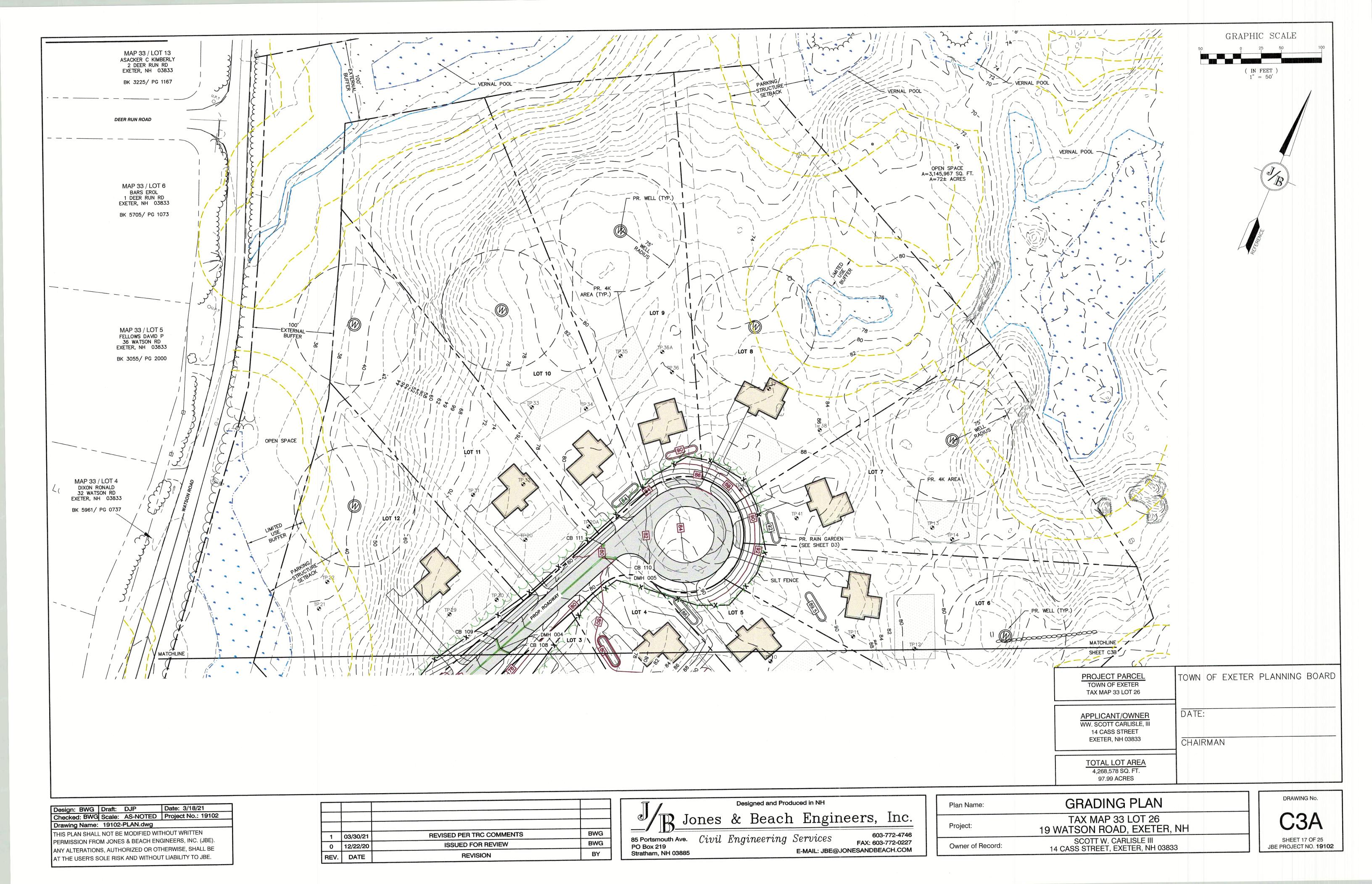
Engin	Project:		
Services	603-772-4746		
	FAX: 603-772-0227 DNESANDBEACH.COM		Owner of Record:
L WITHL. ODLEGO	JIALO/AIADDL/AOI I.OOM		

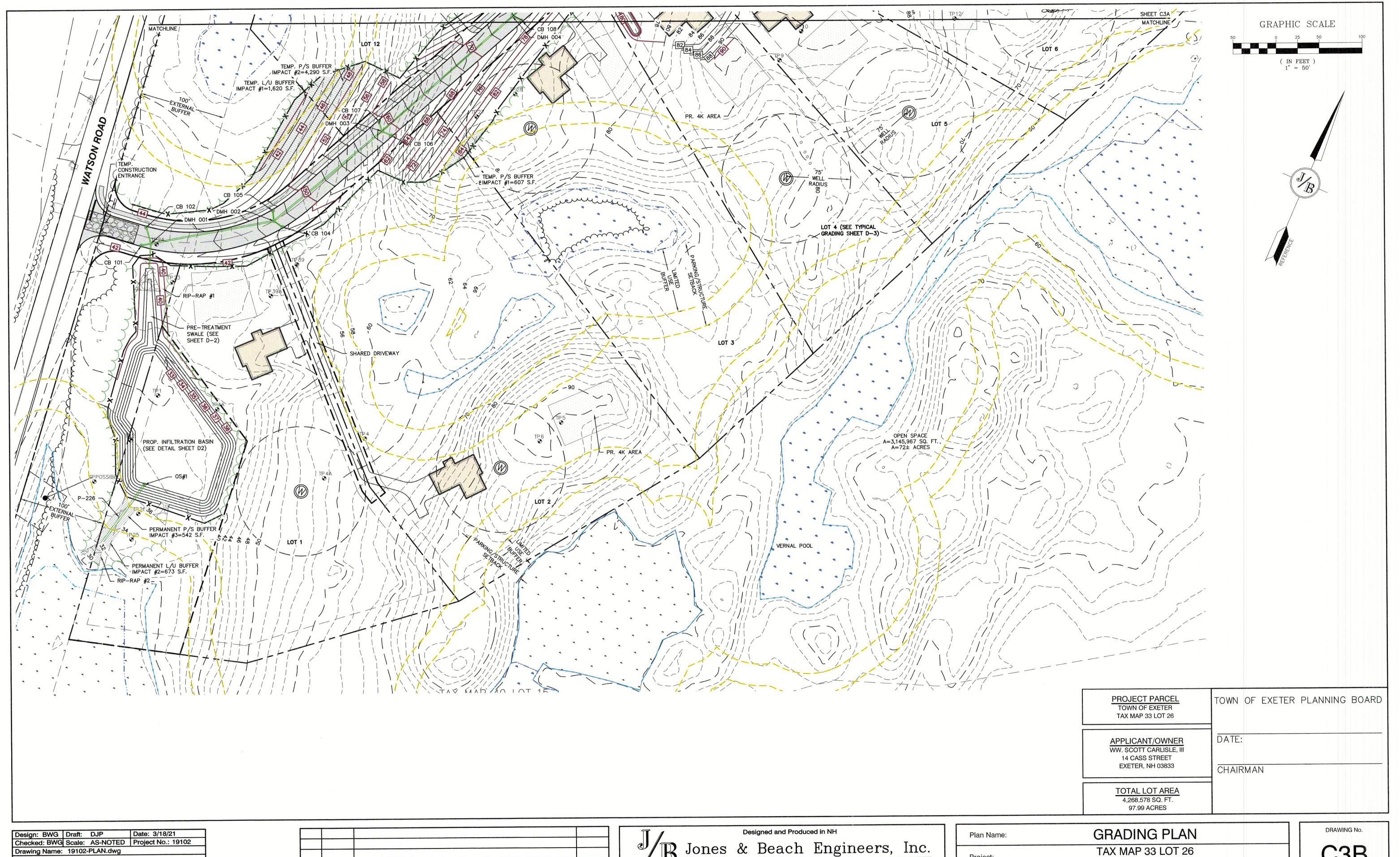
OVERALL GRADING PLAN

TAX MAP 33 LOT 26
19 WATSON ROAD, EXETER, NH
SCOTT W. CARLISLE III

14 CASS STREET, EXETER, NH 03833

C3
SHEET 16 OF 25
JBE PROJECT NO. 19102





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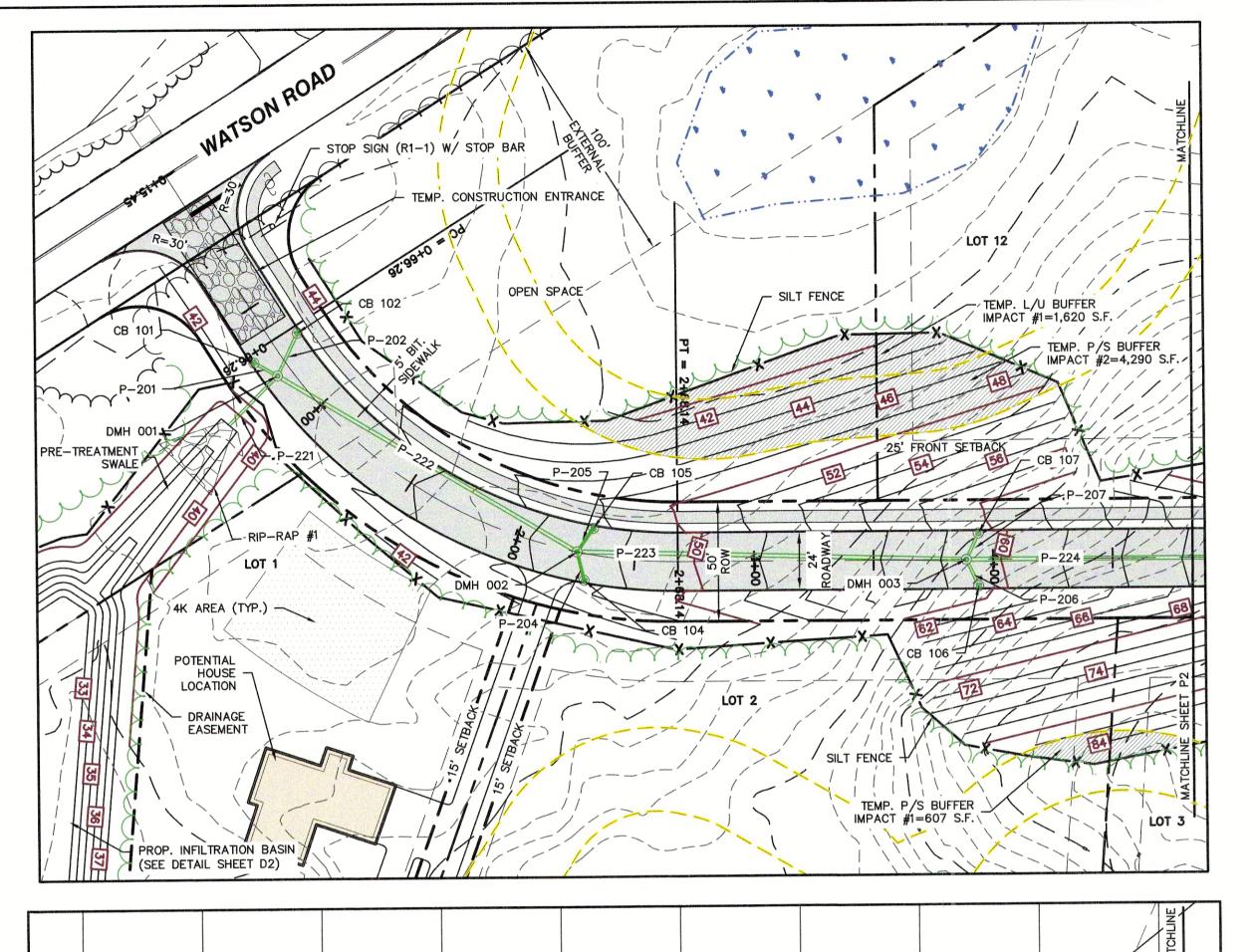
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REV.	DATE	REVISION	BY

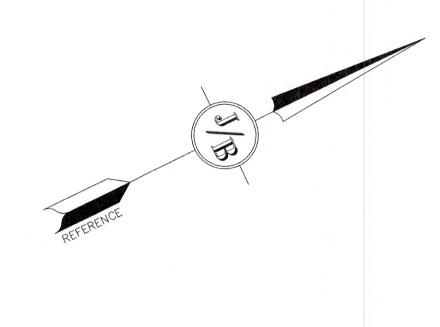
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PO Box 219
Stratham, NH 03885

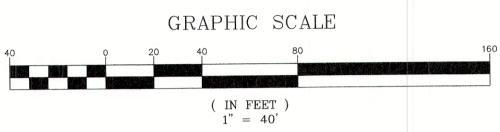
E-MAIL: JBE@G 603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

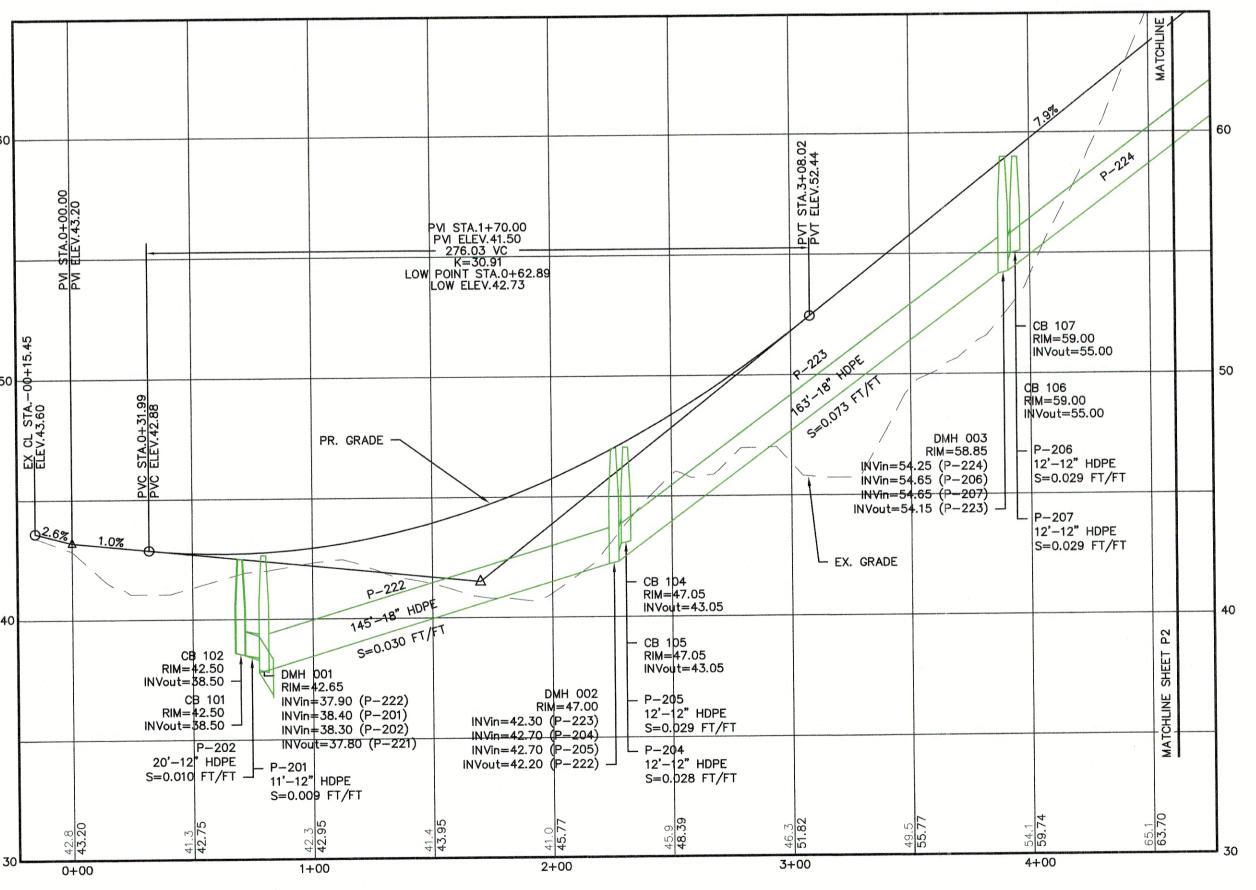
Plan Name:	GRADING PLAN	
Project:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH	
Owner of Record:	SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833	AND THE RESIDENCE OF THE PARTY

SHEET 18 OF 25 JBE PROJECT NO. **19102**

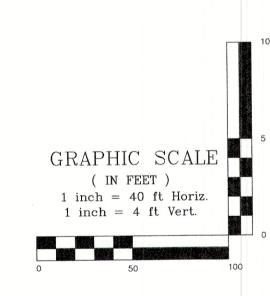








Stratham, NH 03885



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E	Checked: BWG	Scale:	AS-NOTED	Project No.: 19102		
3	Drawing Name: 19102-PLAN.dwg					
2	THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN					
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ü	AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.					

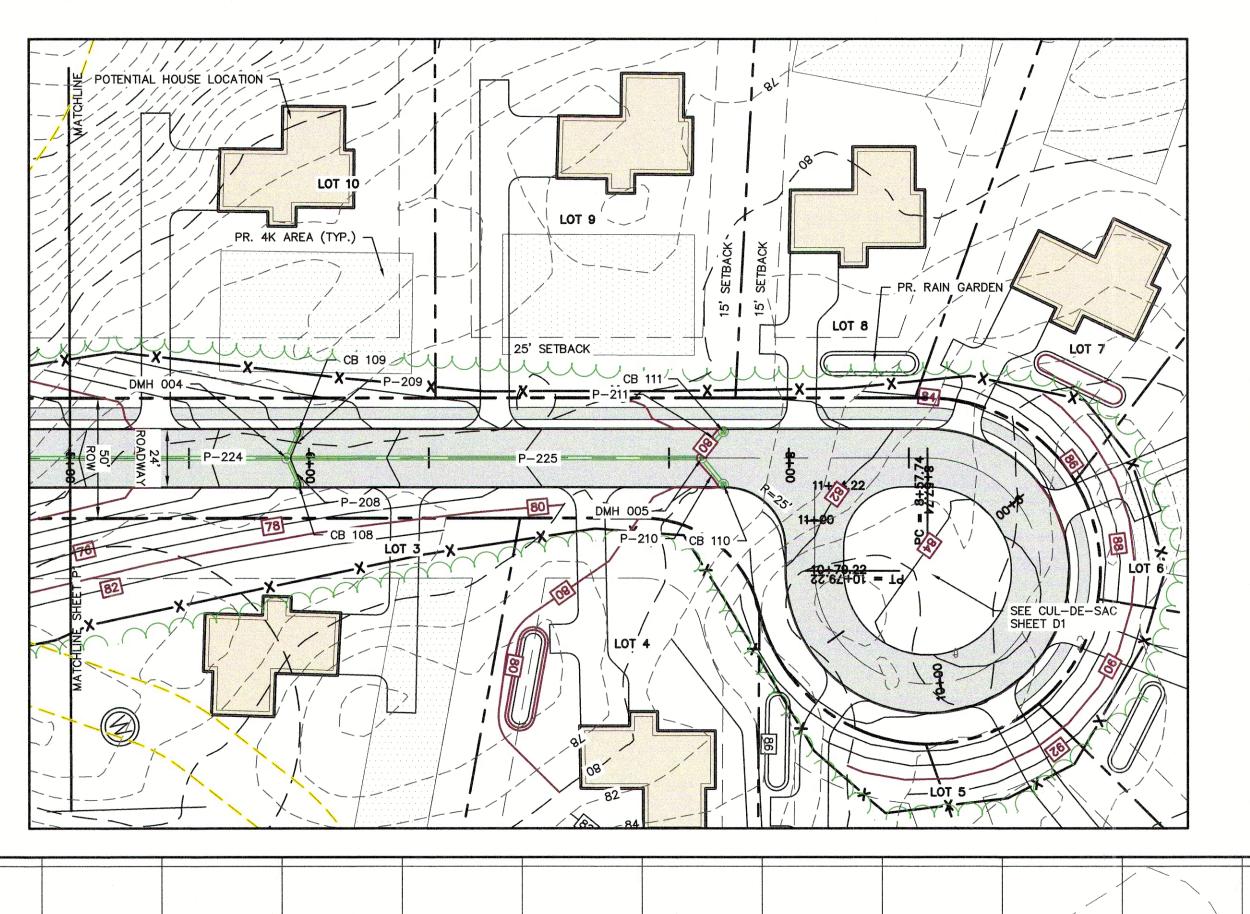
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0	12/22/20	ISSUED FOR REVIEW	BWG
REV.	DATE	REVISION	BY

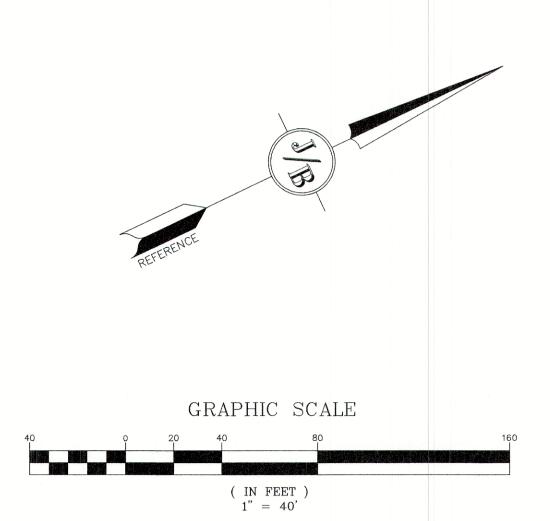
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$\mathbb{B}_{\mathbb{I}}$	ones	&	Beach	n Engin	eers,	Inc.
85 Portsmouth Ave. PO Box 219	Civil	Eng	in eering	Services	603 FAX: 603	3-772-4746 3-772-0227

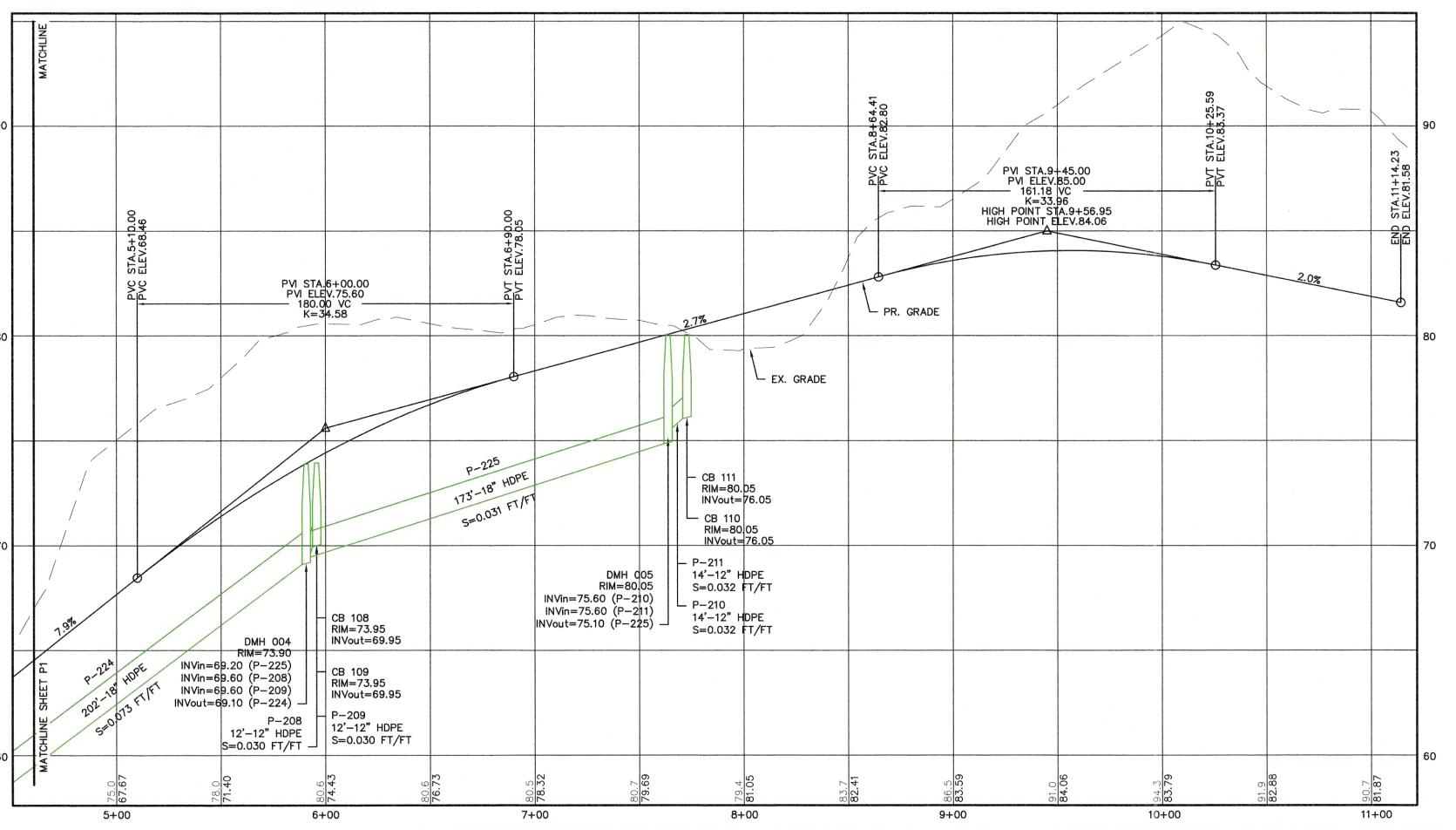
E-MAIL: JBE@JONESANDBEACH.COM

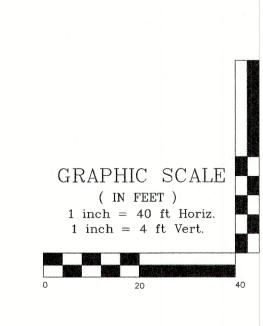
Plan Name:	ROADWAY - PLAN AND PROFILE MAP 33, LOT 26	auder glaus von von von von von von von von
Project:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH	
Owner of Record:	SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833	

DRAWING No. SHEET 19 OF 25 JBE PROJECT NO. 19102









K	Design: BWG	Draft: DJP	Date: 3/18/21
S	Checked: BWG	Scale: AS-NOTED	Project No.: 19102
X	Drawing Name:	19102-PLAN.dwg	

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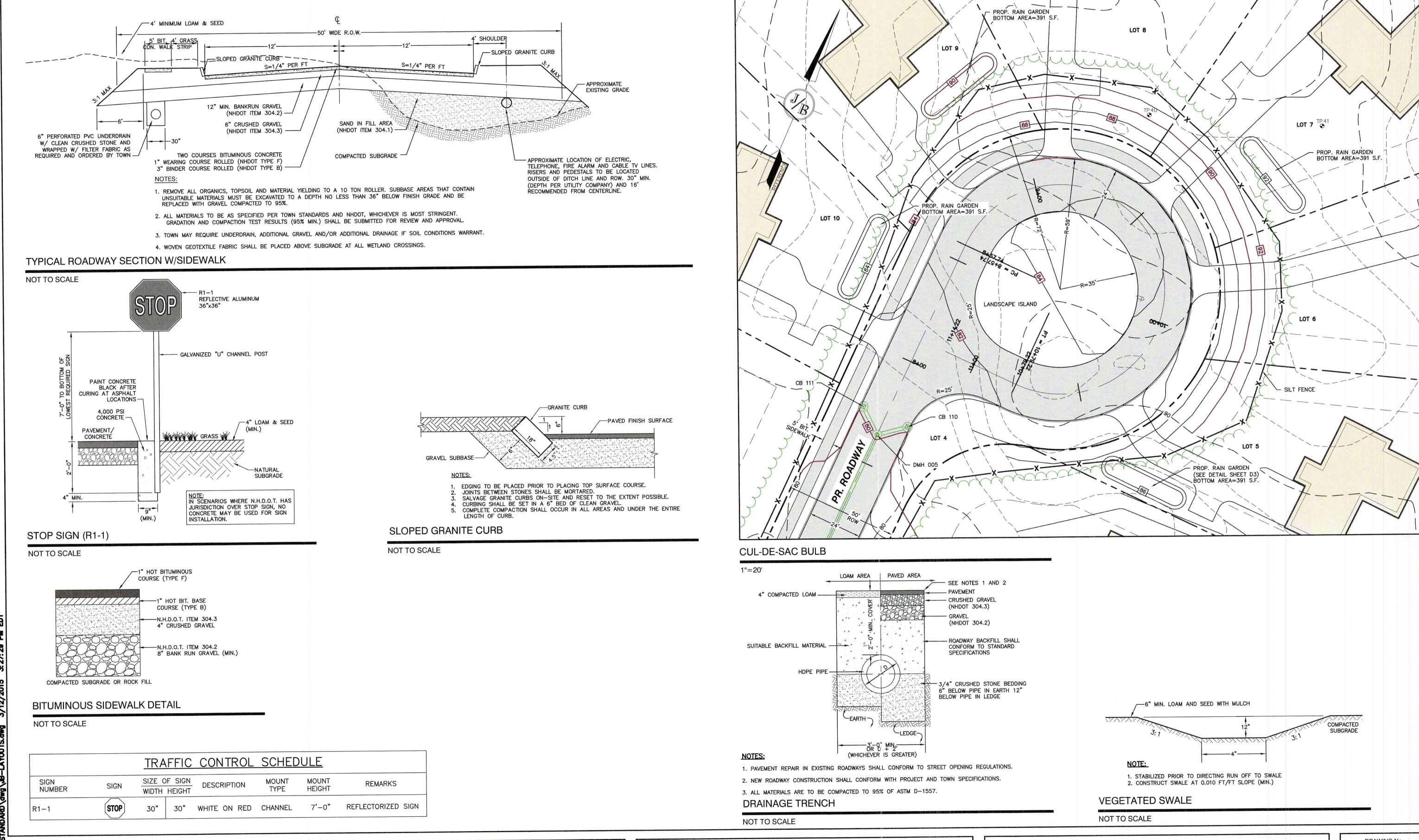
Jones & Beach Engineers, Inc.

85 Portsmouth Ave. Civil Engineering Services
PO Box 219
Stratham, NH 03885

Civil Engineering Services
FAX: 603-772-4746
FAX: 603-772-0227
FAX: 603-772-0227

Plan Name:	ROADWAY - PLAN AND PROFILE MAP 33, LOT 26
Project:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH
Owner of Record:	SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833

P2
SHEET 20 OF 25
JBE PROJECT NO. 19102



Design: BWG Draft: DJP Date: 3/18/21
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85 Portsmouth Ave.	Civil	Engineering	Services	603-772-4746
PO Box 219	00000	Brig tricer trig		FAX: 603-772-0227
Stratham, NH 03885			E-MAIL: JBE@	JONESANDBEACH.COM

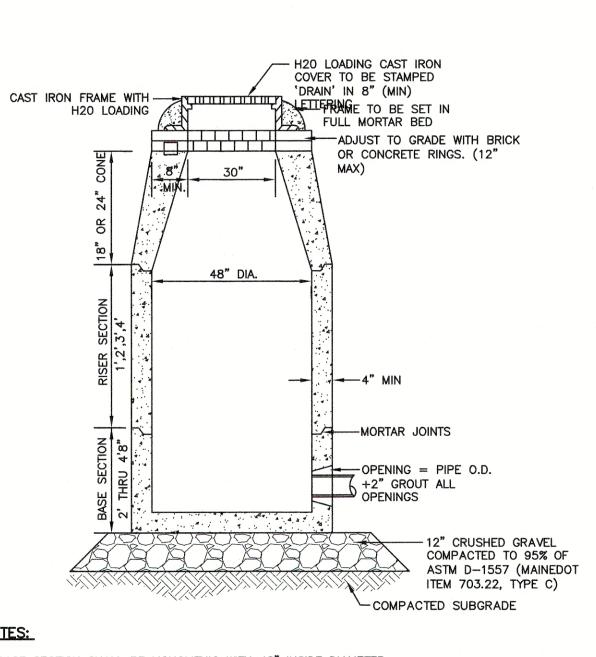
Plan Name:	DETAIL SHEET	
Project:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH	
Owner of Record:	SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833	

DRAWING No.

D1

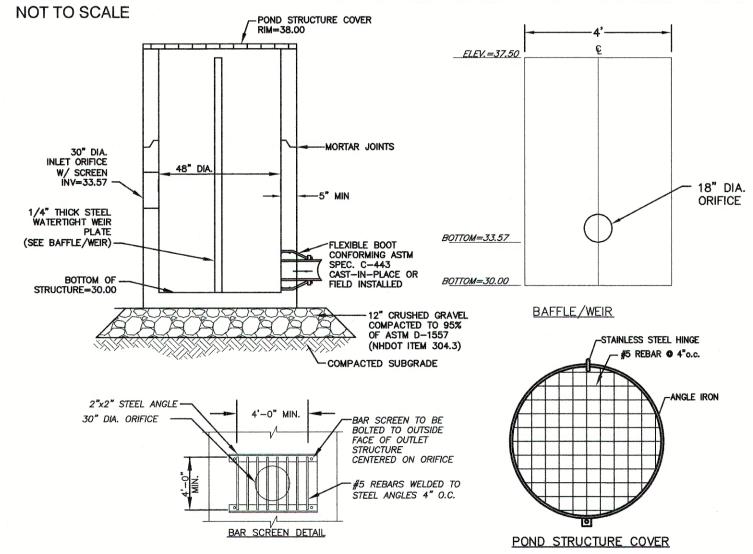
SHEET 21 OF 25

JBE PROJECT NO. 19102



- 1. BASE SECTION SHALL BE MONOLITHIC WITH 48" INSIDE DIAMETER.
- 2. ALL SECTIONS SHALL BE DESIGNED FOR H20 LOADING.
- 3. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
- 4. FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H20 LOADING.
- 5. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
- 6. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
- 7. ALL DRAIN MANHOLE FRAMES AND GRATES SHALL BE NEENAH R-1798 OR APPROVED EQUAL (30" DIA.
- 8. STANDARD FRAME(S) AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12"), OR PRECAST CONCRETE 'DONUTS'.

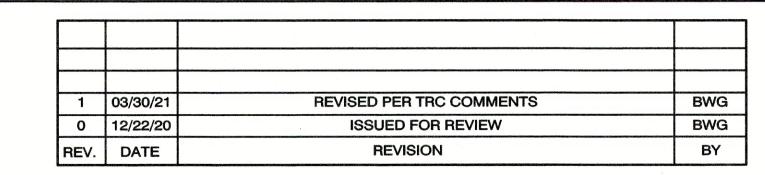
DRAIN MANHOLE (4' DIAM.)



OUTLET STRUCTURE #1 (OS #1)

Design: BWG | Draft: DJP Date: 3/18/21 Checked: BWG | Scale: AS NOTED | Project No.: 19102

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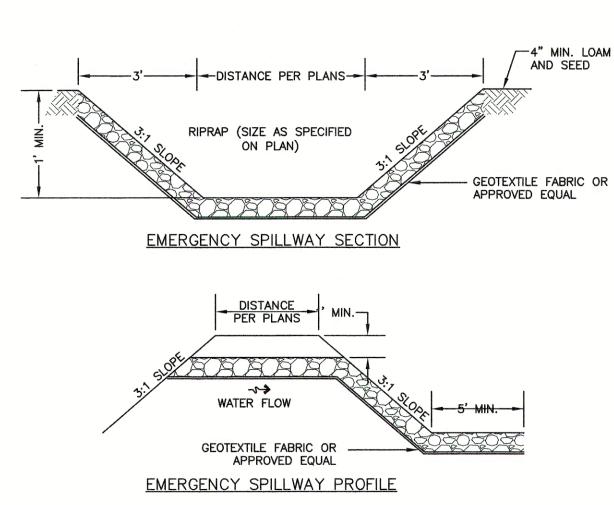
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ALT. SLAB TOP REINFORCED TO MEET OR EXCEED REQUIREMENTS OF H20 LOADING AS REQUIRED CAST IRON FRAME AND GRATE WITH H20 LOADING (TYPE B. NEEENAH MODEL R-3570) -FRAME TO BE SET IN FULL MORTAR BED ADJUST TO GRADE WITH 24" BRICK OR PRE-CAST SQUARE T CONCRETE RINGS **OPENING** (12" MAX.) KENT SEAL ALL 5" MIN-----FLEXIBLE BOOT CONFORMING ASTM SPEC. C-443 CAST-IN-PLACE OR FIELD INSTALLED MIN .12 SQ. IN. STEEL -PER VERTICAL FOOT PLACED ACCORDING TO AASHTODESIGNATION COMPACTED SUBGRADE -- 6" OF 3/4" CRUSHED STONE COMPACTED TO 95% OF ASTM -1557 (NHDOT ITEM 304.3)

- 1. BASE SECTION SHALL BE MONOLITHIC WITH 48" INSIDE DIAMETER.
- 2. ALL SECTIONS SHALL BE DESIGNED FOR H20 LOADING.
- 3. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
- 4. FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H20 LOADING
- 5. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
- 6. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
- 7. ALL CATCH BASIN FRAMES AND GRATES SHALL BE NHDOT CATCH BASIN TYPE ALTERNATE 1 OR NEENAH R-3570 OR APPROVED EQUAL (24"x24" TYPICAL).
- 8. STANDARD CATCH BASIN FRAME AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12"), OR PRECAST CONCRETE 'DONUTS'.

CATCH BASIN

NOT TO SCALE



EMERGENCY SPILLWAY INFILTRATION BASIN

Designed and Produced in NH Jones & Beach Engineers, Inc.

29' - 18" HDPE

NVout≥38.00

L1=26', W1=4.5'

SILT FENCE

W2=30.5', D50=4"

PROP. PRE-TREATMENT SWALE

PROP. INFILTRATION BASIN

87' - 24" HDPE

NOTES:

S=0.012 FT/FT

INVout=32.00

(P-226)

OS#1 (SEE DETAIL

10' EMERGENCY OVERFLOW

1. DO NOT DISCHARGE SEDIMENT LADEN WATERS

FROM CONSTRUCTION ACTIVITIES (RUNOFF,

2. DO NOT TRAFFIC EXPOSE SOIL SURFACE WITH

CONSTRUCTION EQUIPMENT. IF FEASIBLE,

PERFORM EXCAVATION WITH EQUIPMENT

POSITIONED OUTSIDE THE LIMITS OF THE

INFILTRATION COMPONENTS OF THE SYSTEM.

3. AFTER THE BASIN IS EXCAVATED TO THE FINAL

DESIGN ELEVATION, THE FLOOR SHOULD BE

HARROW TO RESTORE INFILTRATION RATES,

4. VEGETATION SHOULD BE ESTABLISHED

PONDS SHALL BE FREE-DRAINING.

BEEN FULLY STABILIZED.

UNSUITABLE MATERIAL.

5. DO NOT PLACE INFILTRATION SYSTEM INTO

IMMEDIATELY.

DEEPLY TILLED WITH A ROTARY TILLER OR DISC

FOLLOWED BY A PASS WITH A LEVELING DRAG.

SERVICE UNTIL THE CONTRIBUTING AREA HAS

6. ANY FILL MATERIAL USED UNDER INFILTRATION

SUBGRADE MATERIAL SHALL BE FREE OF ORGANICS, SILTS, CLAY, ROOTS AND ANY

8. IF AN INFILTRATION SYSTEM DOES NOT DRAIN

WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT.

THE CONDITION OF THE FACILITY TO DETERMINE

MEASURES REQUIRED TO RESTORE INFILTRATION

FUNCTION, INCLUDING BUT NOT LIMITED TO

REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE INFILTRATION SYSTEM.

THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS

WATER FROM EXCAVATIONS) TO INFILTRATION

ELEV.=37.50

BOTTOM=33.00'

L=100'; W=4'

SLOPE=0.02 FT/FT

(SEE DETAIL SHEET D1)

85 Portsmouth Ave. Civil Engineering Services FAX: 603-772-0227 PO Box 219 E-MAIL: JBE@JONESANDBEACH.COM Stratham, NH 03885

INFILTRATION BASIN

WATERTIGHT WEIR PLATE

SEE OUTLET

24" HDPE OUT

INV = 33.00

STRUCTURE #1

(SEE DETAIL)

Ev-

BOTTOM=30.00-

1"=30'

PROP. BERM

ELEV. = 38.00

Project:

- N.E. WETLAND SEED MIX

SURFACE TO BE

INDICATED IN NOTES

-18" BIO-INFILTRATION

MIX (SEE NOTES)

PREPARED AS

L1=20.5', W1=6'

W2=26.5', D50=12"

EX. DRAINAGE

EASEMENT

OUTLET STRUCTURE: OS #1

POND STRUCTURE

-RIM ELEV. = 38.00

- 18" DIA. ORIFICE

ELEV.=33.57

WITH TRASH RACK

POND BOTTOM = 33.00

NATIVE SOILS-

SEDIMENT POOL

ELEV.=32.50

DETAIL SHEET Plan Name: TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833 Owner of Record:

BIO-INFILTRATION MIX AND PROCEDURE: REMOVE EXISTING FOREST LITTER FROM

LOT 1

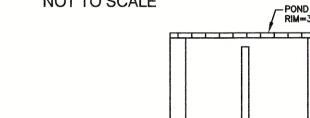
PROP. DRAINAGE EASEMENT

2. REMOVE SANDY LOAM AND STOCKPILE (SCREEN LARGE ROOTS).

INFILTRATION BASIN SITE.

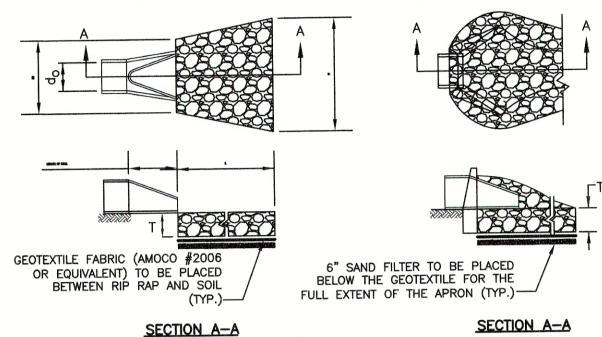
- 3. REMOVE SANDY LAYERS TO 18" BELOW BASIN FLOOR ELEVATION.
- 4. BIO-INFILTRATION MIX: (BY VOLUME) 4.1. 50%-55% ASTM C-33 CONCRETE SAND. 4.2. 20%-30% LOAMY SAND TOPSOIL WITH 15%-25% FINES PASSING A #200 SIEVE
- 4.3. 20%-30% MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 5% PASSING THE #200 SIEVE.
- 5. INSTALL TO BIO-INFILTRATION MIX TO BASIN BOTTOM ELEVATION
- 6. SEED WITH "NEW ENGLAND WARM SEASON GRASS MIX" AS SOLD BY NEW ENGLAND WETLAND PLANTS, INC. OR EQUAL AS APPROVED BY ENGINEER.
- APPLICATION RATE = 1900 SQ.FT. / LB.
- 6.1. LIGHTLY MULCH WITH WEED FREE STRAW.





NOT TO SCALE

Drawing Name: 19102-PLAN.dwg



(TYP.)——/	FULL EXTENT OF THE APRON (TIP.)
SECTION A-A	SECTION A-A
PIPE OUTLET TO FLAT AREA	PIPE OUTLET TO WELL-DEFINED CHANNEL

TABLE 7-24RECOMMENDE	ED RIP RAP GRADATION RANGES
THICKNESS OF RIP RAP =	1.5 FEET
d50 SIZE= 0.50	FEET 6 INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM TO
100%	9 12
85%	8 11
50%	6 9
15%	2 3

TABLE 7-24-RECOMMENDE	D RIP RAP GRADAT	TON RANGES
THICKNESS OF RIP RAP = .	3.0 FEET	
d50 SIZE= 0.50	FEET 12	INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STO FROM	NE (INCHES) TO
100%	18	24
85%	16	22
50%	12	18
15%	4	6

NOTES:

- 1. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- 2. THE RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.

WITH NO DEFINED CHANNEL

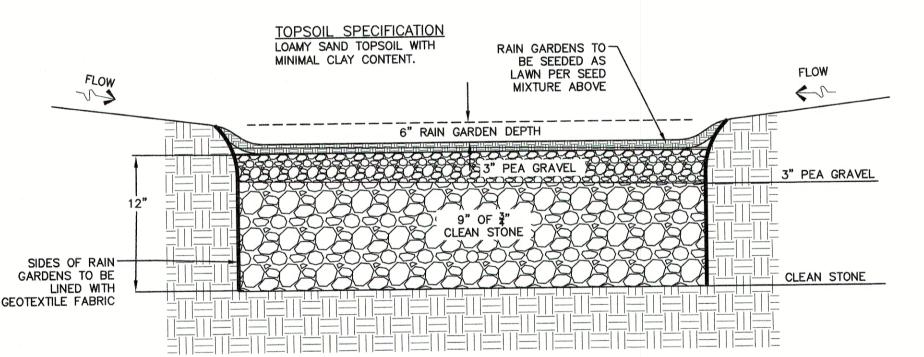
- 3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
- 4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
- 5. OUTLETS TO A DEFINED CHANNEL SHALL HAVE 2:1 OR FLATTER SIDE SLOPES AND SHOULD BEGIN AT THE TOP OF THE CULVERT AND TAPER DOWN TO THE CHANNEL BOTTOM THROUGH THE LENGTH OF THE APRON.
- 6. MAINTENANCE: THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO OUTLET PROTECTION.

RIP RAP OUTLET PROTECTION APRON

NOT TO SCALE

SEED MIXTURE

PENN RK4 TALL FESCUE REBEL XLR TALL FESCUE REBEL V TALL FESCUE SOPRANO PERENNIAL RYEGRASS 15% BLUE BONNET KENTUCKY BLUEGRASS ORACLE RED FESCUE



DESIGN CONSIDERATIONS

- 1. DO NOT PLACE RAIN GARDEN AREAS INTO SERVICE UNTIL IT HAS BEEN PLANTED AND ITS
- CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED. 2. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUN-OFF, WATER
- FROM EXCAVATIONS) TO THE RAIN GARDEN AREA DURING ANY STAGE OF CONSTRUCTION. 3. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT OUTSIDE THE LIMITS OF THE RAIN GARDEN COMPONENTS OF THE

MAINTENANCE REQUIREMENTS:

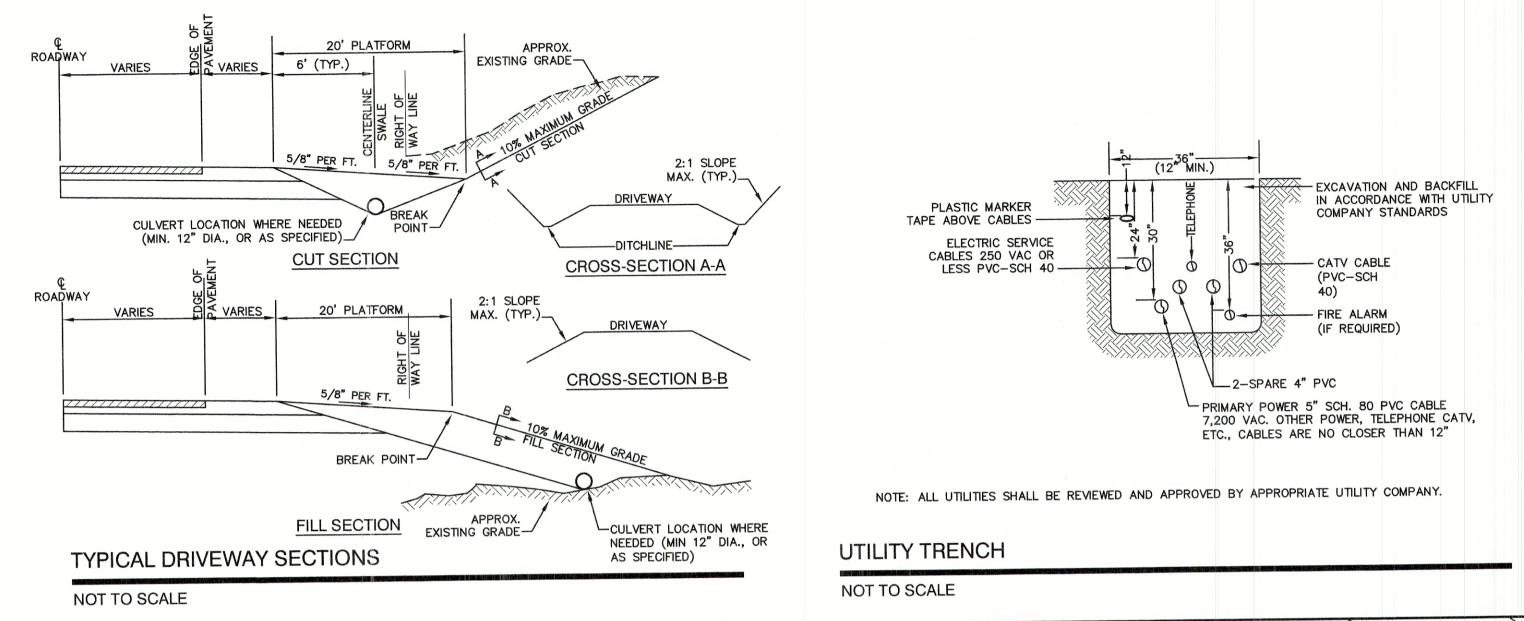
- 4. HOMEOWNERS SHOULD INSPECT THE RAIN GARDEN AFTER LARGE STORMS TO ENSURE THAT NO CHANNELS HAVE FORMED AND THAT ANY PLANTINGS ARE HEALTHY. TRASH AND DEBRIS SHOULD BE REMOVED AT EACH INSPECTION.
- 5. RAIN GARDEN AREAS TO REMAIN AS LAWN AREAS AND SHOULD MOWED REGULARLY.
- 6. NO BUSHES OR TREES SHOULD BE PLANTED IN THIS AREA, AREA TO REMAIN AS GRASS.

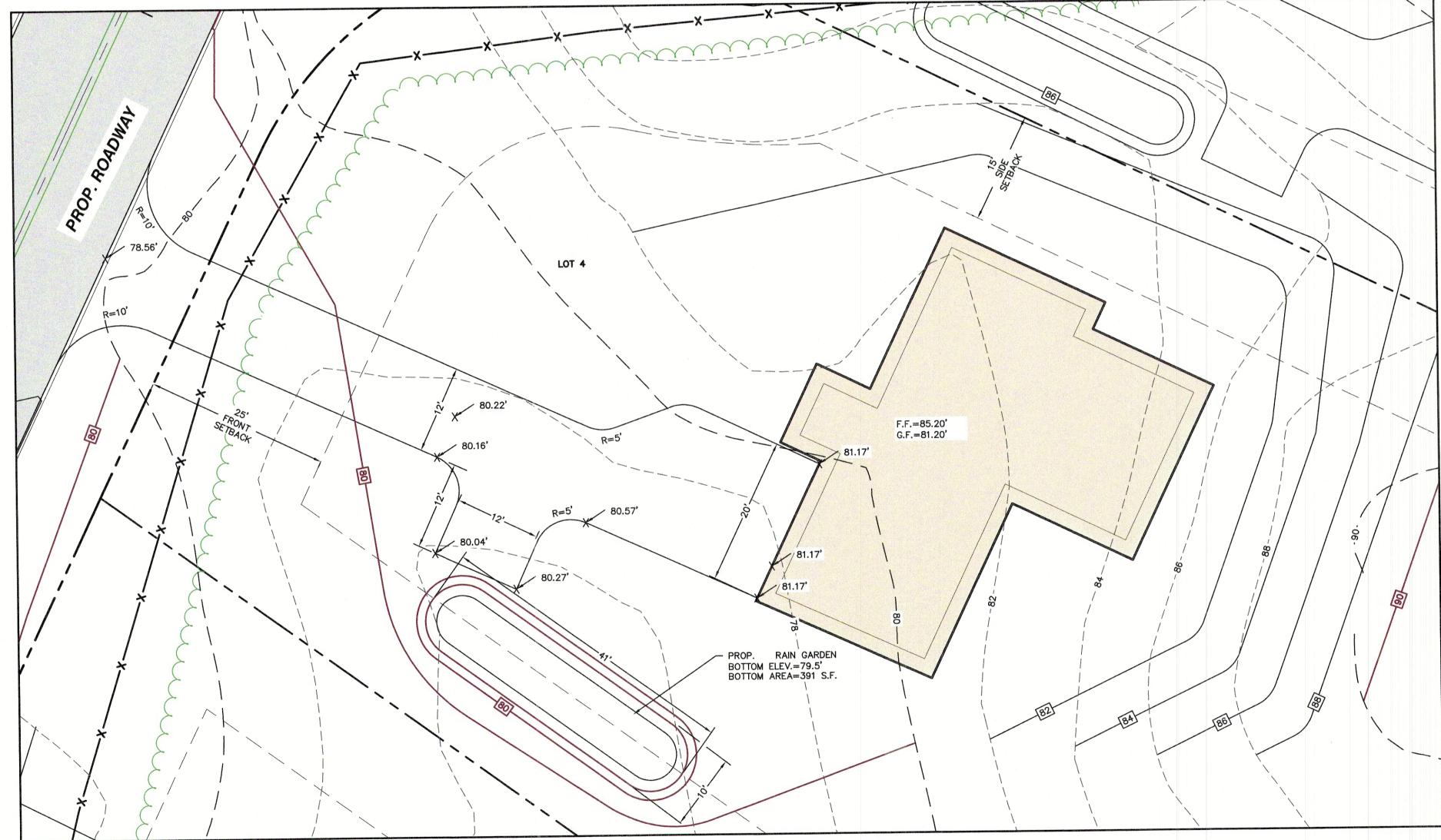
RESIDENTIAL RAIN GARDEN DETAIL

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TYPICAL LOT DEVELOPMENT - LOT 4

PO Box 219

Stratham, NH 03885

1'' = 10'

Designed and Produced in NH P Jones & Beach Engineers, Inc. 603-772-4746 85 Portsmouth Ave. Civil Engineering Services FAX: 603-772-0227

E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	DETAIL SHEET	
Project:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH	
Owner of Record:	SCOTT W. CARLISLE III 14 CASS STREET, EXETER, NH 03833	

SHEET 23 OF 25 JBE PROJECT NO. 19102

DRAWING No.

TEMPORARY EROSION CONTROL NOTES

- 1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME. AT NO TIME SHALL AN AREA IN EXCESS OF 5 ACRES BE EXPOSED AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
- EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
- ALL DISTURBED AREAS (INCLUDING POND AREAS BELOW THE PROPOSED WATERLINE) SHALL BE RETURNED TO PROPOSED GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 6" OF SCREENED ORGANIC LOAM AND SEEDED WITH SEED MIXTURE 'C' AT A RATE NOT LESS THAN 1.10 POUNDS OF SEED PER 1,000 S.F. OF AREA (48 LBS. / ACRE).
- SILT FENCES AND OTHER BARRIERS SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR GREATER. ALL DAMAGED AREAS SHALL BE REPAIRED, AND SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
- 5. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
- AREAS MUST BE SEEDED AND MULCHED OR OTHERWISE PERMANENTLY STABILIZED WITHIN 3 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED WITHIN 14 DAYS OF THE INITIAL DISTURBANCE OF SOIL. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
- 7. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING NORTH AMERICAN GREEN S75 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER) ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURÉD WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- 8. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- 9. AFTER OCTOBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.
- 10. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- a. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
- b. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
- c. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED; OR
- d. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- 11. FUGITIVE DUST CONTROL IS REQUIRED TO BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000, AND THE PROJECT IS TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO
- 12. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR'S NAME, ADDRESS, AND PHONE NUMBER SHALL BE SUBMITTED TO DES VIA EMAIL (SEE BELOW).
- 13. PRIOR TO CONSTRUCTION, A PHASING PLAN THAT DELINEATES EACH PHASE OF THE PROJECT SHALL BE SUBMITTED. ALL TEMPORARY SEDIMENT BASINS THAT WILL BE NEEDED FOR DEWATERING WORK AREAS SHALL BE LOCATED AND IDENTIFIED ON THIS PLAN.
- 14. IN ORDER TO ENSURE THE STABILITY OF THE SITE AND EFFECTIVE IMPLEMENTATION OF THE SEDIMENT AND EROSION CONTROL MEASURES SPECIFIED IN THE PLANS FOR THE DURATION OF CONSTRUCTION, THE CONTRACTOR SHALL BE IN STRICT COMPLIANCE WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS IN ADDITION TO THOSE CALLED FOR IN THE SWPPP:
 - a. A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL OR A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE ("MONITOR") SHALL BE EMPLOYED TO INSPECT THE SITE FROM THE START OF ALTERATION OF TERRAIN ACTIVITIES UNTIL THE SITE IS IN FULL COMPLIANCE WITH THE SITE SPECIFIC PERMIT ("PERMIT").
 - b. DURING THIS PERIOD, THE MONITOR SHALL INSPECT THE SUBJECT SITE AT LEAST ONCE A WEEK, AND IF POSSIBLE, DURING ANY 1/2 INCH OR GREATER RAIN EVENT (I.E. 1/2 INCH OF PRECIPITATION OR MORE WITHIN A 24 HOUR PERIOD). IF UNABLE TO BE PRESENT DURING SUCH A STORM, THE MONITOR SHALL INSPECT THE SITE WITHIN 24 HOURS OF THIS EVENT.
 - c. THE MONITOR SHALL PROVIDE TECHNICAL ASSISTANCE AND RECOMMENDATIONS TO THE CONTRACTOR ON THE APPROPRIATE BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROLS REQUIRED TO MEET THE REQUIREMENTS OF RSA 485 A:17 AND ALL APPLICABLE DES PERMIT

SEEDING SPECIFICATIONS

- . GRADING AND SHAPING A. SLOPES SHALL NOT BE STEEPER THAN 2:1 WITHOUT APPROPRIATE EROSION CONTROL MEASURES AS
- SPECIFIED ON THE PLANS (3:1 SLOPES OR FLATTER ARE PREFERRED) B. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

- 2. SEEDBED PREPARATION A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
- B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND FERTILIZER AND LIME MIXED INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

3. ESTABLISHING A STAND

- A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. TYPES AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE
- AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ.FT.
- NITROGEN(N), 50 LBS. PER ACRE OR 1.1 LBS. PER 1,000 SQ.FT. PHOSPHATE(P205), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
- POTASH(K20), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
- (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10.)
- B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING. C. REFER TO THE 'SEEDING GUIDE' AND 'SEEDING RATES' TABLES ON THIS SHEET FOR APPROPRIATE SEED
- MIXTURES AND RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT, TREFOIL AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT PRIOR TO THEIR INTRODUCTION TO THE SITE. D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20th

A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING. B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90 LBS PER 1000 S.F.

5. MAINTENANCE TO ESTABLISH A STAND

OR FROM AUGUST 10th TO SEPTEMBER 1st.

- A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED
- B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME FULLY ESTABLISHED.
- C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, ANNUAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

AREA OF EMBANKMENT CONSTRUCTION OR ANY DISTURBED AREA TO BE STABILIZED (UPHILL)-GEOTEXTILE FENCE WITH PROPEX-SILT STOP SEDIMENT CONTROL FABRIC OR APPROVED EQUAL XISTING GRADE 48" HARDWOOD -16" POST DEPTH (MIN)

CONSTRUCTION SPECIFICATIONS:

- WOVEN FABRIC FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP, MID AND BOTTOM AND EMBEDDED IN THE GROUND A MINIMUM OF 8" AND THEN COVERED WITH SOIL.
- 2. THE FENCE POSTS SHALL BE A MINIMUM OF 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.
- 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED 6", FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING. . MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED AND PROPERLY DISPOSED OF
- 5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.

Date: 3/18/21

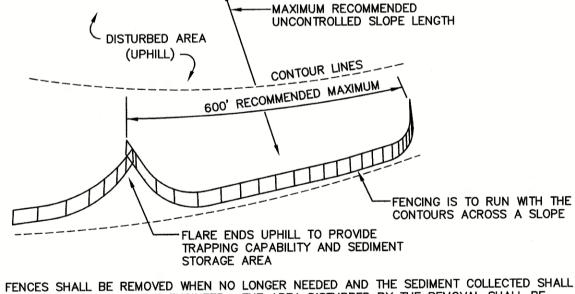
WHEN IT IS 6" DEEP OR VISIBLE 'BULGES' DEVELOP IN THE SILT FENCE.

SILT FENCE SHALL REMAIN IN PLACE FOR 24 MONTHS.

SILT FENCE

NOT TO SCALE

Design: BWG | Draft: DJP



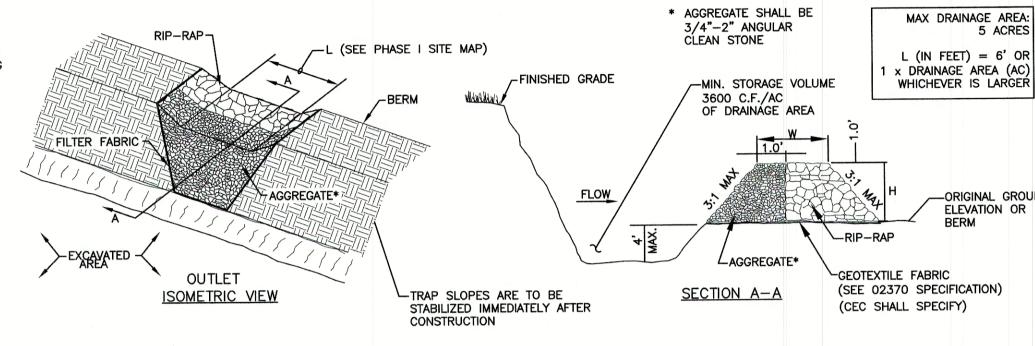
7. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND REVEGETATED.

MAINTENANCE:

- 1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE DONE IMMEDIATELY.
- 2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- 3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
- 4. SEDIMENT DEPOSITS THAT ARE REMOVED, OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED, SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

MAINTENANCE NOTES:

- SEDIMENT TRAPS MUST BE INSPECTED AND MUST BE CLEANED WHEN THE ORIGINAL CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR LESS, AS REQUIRED BY THE GOVERNING
- 2. ALL MATERIAL EXCAVATED FROM BEHIND SEDIMENT BARRIERS OR FROM TRAPS SHALL BE INCORPORATED INTO ON-SITE SOILS OR SPREAD OUT ON AN UPLAND PORTION OF THE SITE AND STABILIZED.
- 3. VERIFY THAT NO EROSION IS OCCURRING AT DISCHARGE POINTS TO AND FROM IMPOUNDMENTS AND VERIFY THAT TRAP SIDE SLOPES ARE STABILIZED AND SHOW NO SIGNS
- 4. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE.
- 5. TRAP TO BE CLEANED WHEN 50% OF ORIGINAL VOLUME IS
- 6. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.



TEMPORARY SEDIMENT TRAP

NOT TO SCALE

YET COMPLETE.

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL	A B C	FAIR POOR POOR	GOOD GOOD	GOOD FAIR EXCELLENT	FAIR FAIR GOOD
AREAS	D	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENC SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.		GOOD GOOD	GOOD EXCELLENT	GOOD EXCELLENT	FAIR FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A B C	GOOD GOOD GOOD	GOOD GOOD EXCELLENT	GOOD FAIR EXCELLENT	FAIR POOR FAIR
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	E F	FAIR FAIR	EXCELLENT EXCELLENT	EXCELLENT EXCELLENT	<u>2/</u> <u>2/</u>

GRAVEL PIT, SEE NH-PM-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS. / REFER TO SEEDING MIXTURES AND RATES IN TABLE BELOW.

2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR OATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCTOBER 15th, IF PERMANENT SEEDING NOT

SEEDING GUIDE

	MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft			
	A. TALL FESCUE CREEPING RED FESCUE RED TOP TOTAL	20 20 2 42	0.45 0.45 <u>0.05</u> 0.95			
	B. TALL FESCUE CREEPING RED FESCUE CROWN VETCH OR	15 10 15	0.35 0.25 0.35			
	FLAT PEA TOTAL	30 40 OR 55	0.75 0.95 OR 1.35			
*	C. TALL FESCUE CREEPING RED FESCUE BIRDS FOOT TREFOIL TOTAL	20 20 <u>8</u> 48	0.45 0.45 <u>0.20</u> 1.10			
	D. TALL FESCUE FLAT PEA TOTAL	20 30 50	0.45 <u>0.75</u> 1.20			
	E. CREEPING RED FESCUE 1/ KENTUCKY BLUEGRASS 1/ TOTAL	50 50 100	1.15 1.15 2.30			
	F. TALL FESCUE 1	150	3.60			
	1/ FOR HEAVY USE ATHLETIC FIELDS CONSULT THE UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION TURF SPECIALIST FOR CURRENT VARIETIES AND SEEDING RATES.					

SEEDING RATES

CONSTRUCTION SEQUENCE

- PRIOR TO THE START OF ANY ACTIVITY, IT IS THE RESPONSIBILITY OF THE SITE'S SITE DEVELOPER (OR OWNER) TO FILE A NOTICE OF INTENT (NOI) FORM WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) IN ORDER TO GAIN COVERAGE UNDER THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. A PRE CONSTRUCTION MEETING IS TO BE HELD WITH ALL DEPARTMENT HEADS PRIOR TO THE START OF CONSTRUCTION.
- 2. WETLAND BOUNDARIES ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.
- 3. CUT AND REMOVE TREES IN CONSTRUCTION AREA AS REQUIRED OR DIRECTED.
- 4. INSTALL SILT FENCING, HAY BALES AND CONSTRUCTION ENTRANCES PRIOR TO THE START OF CONSTRUCTION. THESE ARE TO BE MAINTAINED UNTIL THE FINAL PAVEMENT SURFACING AND LANDSCAPING AREAS ARE ESTABLISHED.
- CLEAR, CUT, GRUB AND DISPOSE OF DEBRIS IN APPROVED FACILITIES. THIS INCLUDES ANY REQUIRED DEMOLITION OF EXISTING STRUCTURES, UTILITIES, ETC.
- 6. CONSTRUCT AND/OR INSTALL TEMPORARY OR PERMANENT SEDIMENT AND/OR DETENTION BASIN(S) AS REQUIRED. THESE FACILITIES
- STRIP LOAM AND PAVEMENT, OR RECLAIM EXISTING PAVEMENT WITHIN LIMITS OF WORK PER THE RECOMMENDATIONS OF THE PROJECT ENGINEER AND STOCKPILE EXCESS MATERIAL. STABILIZE STOCKPILE AS NECESSARY.
- 8. PERFORM PRELIMINARY SITE GRADING IN ACCORDANCE WITH THE PLANS.
- 9. INSTALL THE DRAINAGE SYSTEMS FIRST, THEN ANY OTHER UTILITIES IN ACCORDANCE WITH THE PLAN AND DETAILS. ANY CONFLICTS BETWEEN UTILITIES ARE TO BE RESOLVED WITH THE INVOLVEMENT AND APPROVAL OF THE ENGINEER.
- 10. INSTALL INLET PROTECTION AT ALL CATCH BASINS AS THEY ARE CONSTRUCTED IN ACCORDANCE WITH DETAILS.
- 11. ALL SWALES AND DRAINAGE STRUCTURES ARE TO BE CONSTRUCTED AND STABILIZED PRIOR TO HAVING RUN-OFF DIRECTED TO THEM.
- 12. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINAGE DITCHES, CHECK DAMS, SEDIMENT TRAPS, ETC., TO PREVENT EROSION ON THE SITE AND PREVENT ANY SILTATION OF ABUTTING WATERS AND/OR PROPERTY.
- 13. PERFORM FINAL FINE GRADING, INCLUDING PLACEMENT OF 'SELECT' SUBGRADE MATERIALS.
- 14. PAVE ALL ROADWAYS WITH INITIAL 'BASE COURSE'.
- 15. PERFORM ALL REMAINING SITE CONSTRUCTION (i.e. BUILDING, CURBING, UTILITY CONNECTIONS, ETC.).
- 16. LOAM AND SEED ALL DISTURBED AREAS AND INSTALL ANY REQUIRED SEDIMENT AND EROSION CONTROL FACILITIES (i.e. RIP RAP, EROSION CONTROL BLANKETS, ETC.).
- 17. FINISH PAVING ALL ROADWAYS WITH 'FINISH' COURSE.
- 18. ALL ROADWAYS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 19. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 20. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- 21. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE BEEN 75%-85% ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE. SMOOTH AND RE-VEGETATE ALL DISTURBED AREAS.
- 22. CLEAN SITE AND ALL DRAINAGE STRUCTURES, PIPES AND SUMPS OF ALL SILT AND DEBRIS.
- 23. INSTALL ALL PAINTED PAVEMENT MARKINGS AND SIGNAGE PER THE PLANS AND DETAILS.
- 24. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL.
- 25. UPON COMPLETION OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ANY RELEVANT PERMITTING AGENCIES THAT THE CONSTRUCTION HAS BEEN FINISHED IN A SATISFACTORY MANNER.

Designed and Produced in NH

PO Box 219 Stratham, NH 03885

Jones & Beach Engineers, Inc. 603-772-4746 85 Portsmouth Ave. Civil Engineering Services FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EROSION AND SEDIMENT CONTROL DETAILS

TAX MAP 33 LOT 26 Project: 19 WATSON ROAD, EXETER, NH SCOTT W. CARLISLE III Owner of Record: 14 CASS STREET, EXETER, NH 03833

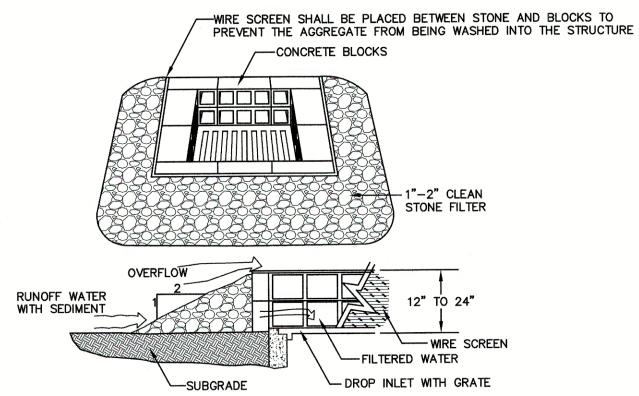
DRAWING No.

SHEET 24 OF 25 JBE PROJECT NO. 19102

Drawing Name: 19102-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

Checked: BWG Scale: AS NOTED Project No.: 19102

REVISED PER TRC COMMENTS **BWG** 3/12/21 **BWG** 12/22/20 ISSUED FOR REVIEW BY REVISION DATE

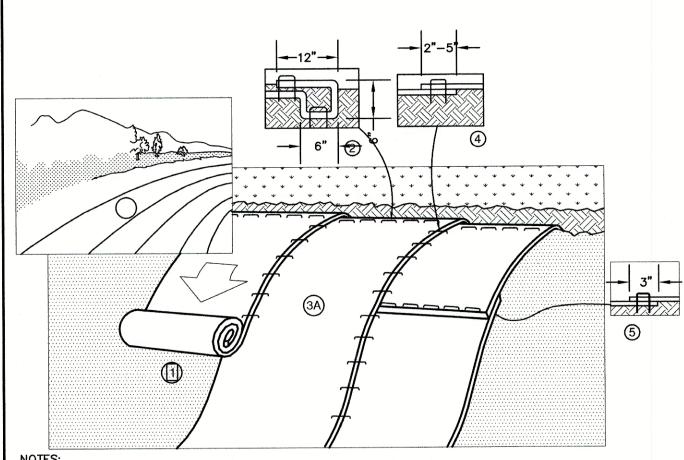


MAINTENANCE NOTE:

1. ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAINFALL AND REPAIRS MADE AS NECESSARY. SEDIMENT SHOULD BE REMOVED FROM TRAPPING DEVICES AFTER THE SEDIMENT HAS REACHED A MAXIMUM OF ONE HALF THE DEPTH OF THE TRAP. THE SEDIMENT SHOULD BE DISPOSED IN A SUITABLE UPLAND AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURE OR VEGETATIVE MEANS. THE TEMPORARY TRAPS SHOULD BE REMOVED AND THE AREA REPAIRED AS SOON AS THE CONTRIBUTING DRAINAGE AREA TO THE INLET HAS BEEN COMPLETELY STABILIZED.

TEMPORARY CATCH BASIN INLET PROTECTION (Block and Gravel Drop Inlet Sediment Filter)

NOT TO SCALE



- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- 3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEMTM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- . THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED
- 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.



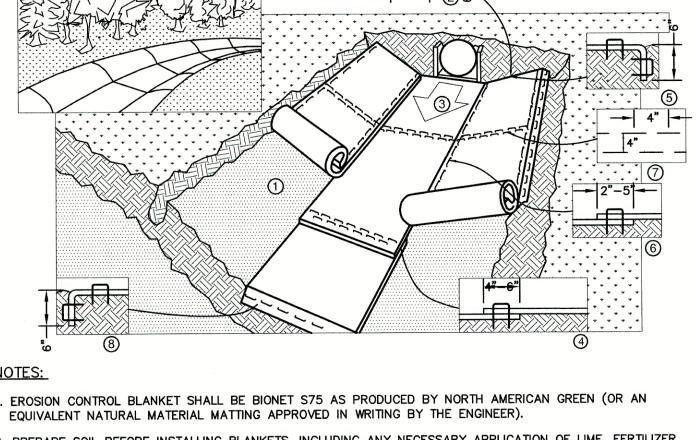
NORTH AMERICAN GREEN 14649 HIGHWAY 41 NORTH EVANSVILLE, INDIANA 47725 1-800-772-2040

EROSION CONTROL BLANKET SLOPE INSTALLATION

(North American Green)

AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

NOT TO SCALE

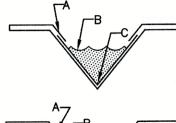


- 1. EROSION CONTROL BLANKET SHALL BE BIONET S75 AS PRODUCED BY NORTH AMERICAN GREEN (OR AN
- 2. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 3. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- 4. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 5. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS
- 6. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 7. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (DEPENDING ON BLANKET TYPE) AND STAPLED. TO INSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
- 8. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE
- 9. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



NORTH AMERICAN GREEN

14649 HIGHWAY 41 NORTH EVANSVILLE, INDIANA 47725 1-800-772-2040



CRITICAL POINTS:

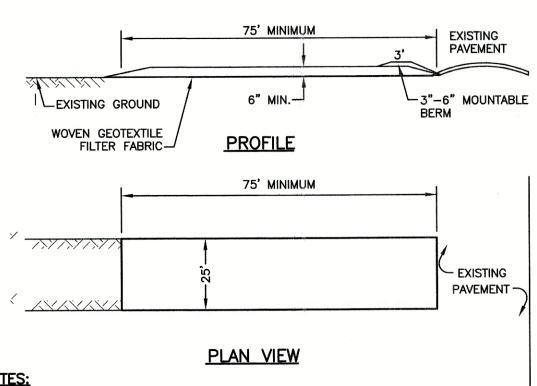
A. OVERLAPS AND SEAMS B. PROJECTED WATER LINE C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL ** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS

GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

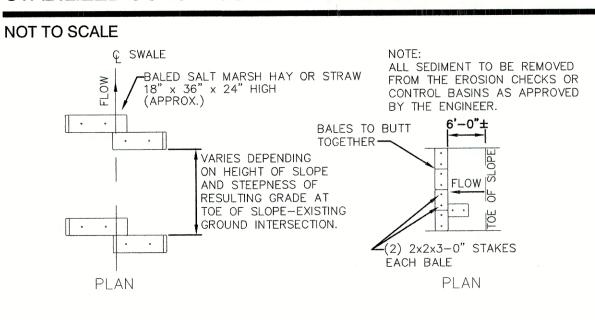
EROSION CONTROL BLANKET SWALE INSTALLATION (North American Green)

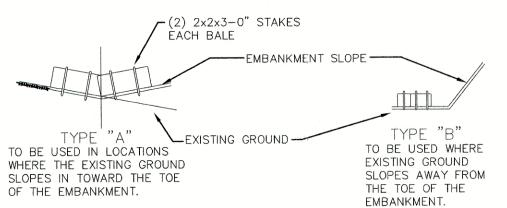
NOT TO SCALE



- 1. STONE FOR STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED
- 2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 75 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- 3. THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- 4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS, OR 10 FEET, WHICHEVER IS GREATER.
- 5. GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER FABRIC IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENTIAL LOT.
- 6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A STONE BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- 7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE REMOVED

STABILIZED CONSTRUCTION ENTRANCE



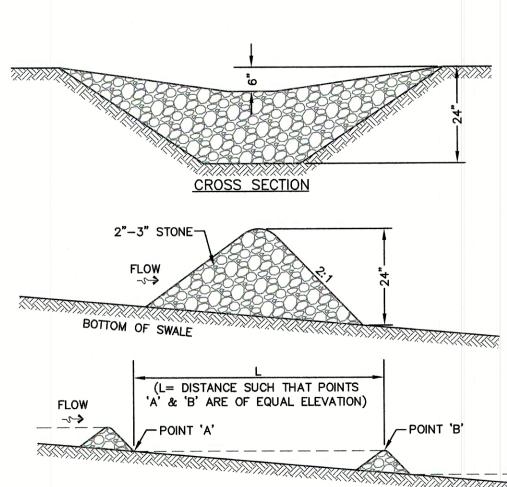


E-MAIL: JBE@JONESANDBEACH.COM

BALED HAY OR STRAW EROSION CHECK DETAIL

NOT TO SCALE

Stratham, NH 03885

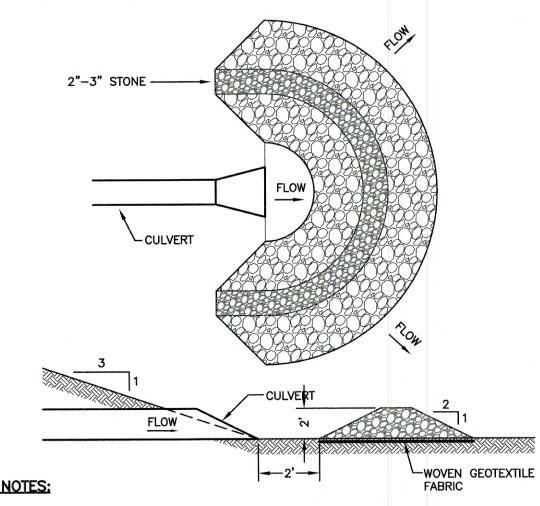


MAINTENANCE NOTE:

1. STONE CHECK DAMS SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.

STONE CHECK DAM

NOT TO SCALE



- TEMPORARY CULVERT INLET PROTECTION CHECK DAMS SHALL BE CONSTRUCTED OF 2-3" STONE OVER WOVEN GEOTEXTILE FABRIC.
- 3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURE WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE STRUCTURE.
- 4. STRUCTURE SHALL BE REMOVED WHEN THE SITE IS STABILIZED WITH THE PROPOSED RIP RAP FIELD. AREAS OUTSIDE THE RIP RAP FIELD ARE TO BE VEGETATED AND SMOOTHED.

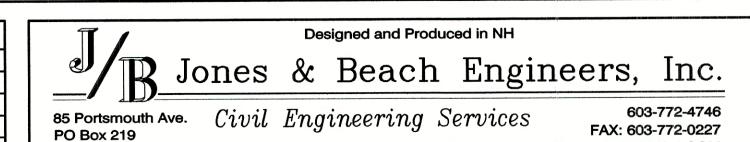
TEMPORARY CULVERT OUTLET PROTECTION CHECK DAM

NOT TO SCALE

Owner of Record:

Design: BWG | Draft: DJP Date: 3/18/21 Checked: BWG | Scale: AS NOTED | Project No.: 19102 Drawing Name: 19102-PLAN.dwg THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE

1	3/12/21	REVISED PER TRC COMMENTS	BWG
0	12/22/20	ISSUED FOR REVIEW	BWG
REV.	DATE	REVISION	BY



Plan Name:	an Name: EROSION AND SEDIMENT CONTROL DETA				
Project:	TAX MAP 33 LOT 26 19 WATSON ROAD, EXETER, NH				
0	SCOTT W. CARLISLE III				

14 CASS STREET, EXETER, NH 03833

DRAWING No.

SHEET 25 OF 25 JBE PROJECT NO. 19102

Non-Public Session Checklist

Motion to enter non-public session pursuant to RSA 91-A: 3, II(c) made by
Motion is seconded by
Roll Call Vote to enter non-public session is taken (need to answer <u>YES</u> or <u>NO</u>):
Enter Non-Public Session, confirm cameras off
Note Time for minutes:
Discussion of issue, decisions made:
Agree to seal the minutes, roll call vote (need to answer YES or NO)
Motion to leave nonpublic session and return to public session made by, seconded
by
Note Time for minutes:
Return to Public Session:
Motion made to seal the minutes in accordance with RSA 91-A:3 III, because <u>divulgence of this</u>
information will likely render the proposed action ineffective: made by
Motion to seal seconded by
Roll Call Vote to seal minutes
Public Session Reconvened

Historic Resource Project Budget 10 Points **Project Name** City/Town **Income Sources** Cash Non-Cash **Total Secured or Expected** (give date) (donated value) **Total Income** (must equal or exceed TPC*) **Eligible Expenses** Non-Cash Expended? Cash **Total** (donated value) (If yes, give date.) **Total Expenses** ← Total Project Cost

Non-Cash

(donated value)

Total

Cash

Expended?

(If yes, give date.)

Ineligible Project Expenses

Independent Archaeological Consulting, LLC 34 Dover Point Road, Suite 300 Dover, New Hampshire 03820

Phase IA Archaeological Sensitivity Assessment Wiggins Barn Exeter, New Hampshire

June 2, 2021

		# Hours	Hourly		
Objective: Evaluate archaeological sensitivity of project area			Rate	Total Cost	
Project Management	Principal Investigator	1	\$95.00	\$	95.00
Phase IA Walkover	Project Archaeologist	4	\$75.00	\$	300.00
Phase IA Walkover	Archaeological Technician	4	\$55.00	\$	220.00
Analysis & Assessment	Project Archaeologist	2	\$75.00	\$	150.00
Labwork	Archaeological Technician	2	\$55.00	\$	110.00
Report Preparation	Principal Investigator	2	\$95.00	\$	190.00
Report Preparation	Project Archaeologist	8	\$75.00	\$	600.00
Report Preparation	Archaeological Technician	4	\$55.00	\$	220.00
Miscellaneous	Supplies, postage, photocopies			\$	50.00
Total for Phase IA Archaeological Sensitivity Assessment				\$	1,935.00

The Phase IA scope consists of an New Hampshire Division of Historical Resources site file review, as well as review of secondary historic sources, maps, and photographs of the project area. We also conduct a site inspection to look for landforms suitable for Pre-Contact habitation or hunting/gathering sites and Post-Contact features (e.g., cellarholes) As part of the inspection, archaeologists excavate small test pits to assess the integrity of deposits. Our final report offers an assessment of whether archaeological resources are known or expected to be present within the project area, and whether a Phase IB intensive archaeological investigation is recommended.

Archaeological Review Process Summary RPR Preparation, Phase IA Sensitivity Assessment and Phase IB Intensive Archaeological Investigation

The first step in the review process is the submission of a Request for Project Review form (RPR) to the New Hampshire Division of Historical Resources (NHDHR). NHDHR will review the project location and impacts and offer recommendations for archaeological survey should they identify the project area as having a potential for Pre-Contact Native American and/or Post-Contact Euroamerican archaeological resources.

A Phase IA Archaeological Sensitivity Assessment forms the first step in the archaeological survey process, combining the tasks of background research, fieldwork, and report preparation. Background research includes a review of archaeological site files as inventoried in the NHDHR online database EMMIT; desktop analysis of soils, topography and proximal natural resources; and a review of local maps and historic collections at local libraries and historical societies. The Phase IA fieldwork consists of a site inspection to identify landforms suitable for Native American activity and/or occupation sites and simultaneously search for Euroamerican features. If appropriate, IAC will hand-excavate soil tests to begin to assess archaeological integrity. The Phase IA assessment will establish whether Native American or Euroamerican archaeological resources are expected in the project area and will offer recommendations about whether further archaeological survey is warranted.

Should IAC identify portions of the project footprint as having a potential for Pre-Contact and/or Post-Contact archaeological resources, we will recommend a Phase IB Intensive Archaeological Investigation to confirm whether archaeological resources are present that could be affected by the project impacts. The Phase IB testing would include the hand-excavation of 0.5-m-x-0.5-m (1.8-ft-x-1.8-ft) shovel test pits (STPs) to look for evidence of Native American or Euroamerican occupation. STPs will be arranged at 8-m (26-ft) intervals along linear transects placed at the most likely locations for archaeological deposits. Should testing confirm the presence of archaeological resources, we will offer appropriate recommendations for further study and work closely with the design team to find an appropriate solution that not only protects the site but also allows the project to move forward. Should the Phase IB effort yield no evidence of archaeological resources, we will recommend no further archaeological survey.

The results of the Phase IA and Phase IB efforts will be reported to NHDHR in accordance with the NHDHR Guidelines for Historic/Architectural/Engineering Resources: Phase 1- Revised July 2005. The Phase IA and Phase IB work is authorized under Section 106 of the Historic Preservation Act of 1966 (P.L. 89-665), as amended, and as implemented by regulations of the Advisory Council of Historic Preservation (36CFR Part 800), coordinated at the state level by the State Historic Preservation Officer (SHPO).

CHAPTER X TREE ORDINANCE

XXX PURPOSE

The purpose of this Chapter is to encourage the proper management of community trees within the Town of Exeter; and to establish a standard of care and provide clear guidance to Town officials, public utilities, arborists, and residents regarding the planning, planting, preservation, maintenance, care, and removal of trees on public parks and public rights-of-way within the Town of Exeter; and to establish and assign proper authority regarding care of community trees on these lands within the Town of Exeter.

XXX JURISDICTION

Areas subject to the Ordinance: All streets, highways, parks, cemeteries, or other grounds owned by the Town. This includes public easements along all public roads to the property line. The Conservation Commission has its own procedures for dealing with trees on conservation land, therefore this Ordinance does not apply to Conservation easements.

Activities subject to the Ordinance: Planning, planting, preservation, maintenance, care, and removal of trees on public parks and public rights-of-way within the Town of Exeter

XXX DEFINITIONS

As used in this Chapter, the following terms are defined as follows:

Diameter at Breast Height (DBH)

The measurement of a tree's trunk diameter in inches at breast height 4 $\frac{1}{2}$ feet above ground level at the tree's base. For trees with les than 4 $\frac{1}{2}$ feet of clear trunk, the diameter shall be of the largest leader measured 4 $\frac{1}{2}$ feet above ground level. For multi-trunk trees, it shall be the sum of the diameter of the individual trunks measured 4 $\frac{1}{2}$ feet above ground level.

Hazard Tree

A tree or tree part that has defects or structural weaknesses that poses a high risk upon its failure to cause personal injury or death, or damage to property; public or private. A tree becomes a potential hazard when its woody structure is weakened by one or more defects, which decreases its structural integrity and increases its potential for failure. Defects are visible signs that a tree has failed, is failing, or has the potential to fail. There are seven main categories of defects:

- 1. Cracks,
- 2. Weak branch unions,
- 3. Stem or branch decay,
- 4. Cankers.

- 5. Dead trees, tops or branches,
- 6. Root problems and,
- 7. Poor tree architecture.

As defined by the International Society of Arboriculture (ISA), a hazard tree must meet three (3) criteria:

- (1) The tree is sufficiently large enough to cause damage should it fall;
- (2) The tree has a target that would be damaged should it fall;
- (3) The tree has a condition that would make it likely to fall.

By definition, a hazard tree = a defective tree plus a target

Invasive Species

An alien or an introduced organism that causes ecological harm, or is likely to cause harm in a new environment where it is not native. Invasive species can lead to extinction of native plants or animals, destroy biodiversity and permanently alter habitats. The NH Department of Agriculture maintains the list of NH Invasive Species in accordance with the State Invasive Species Act.

Park

An area of land, usually in a largely natural state, owned and managed by the Town and set aside for environmental protection and/or recreation.

A list of parks can be found here.

Property Owner

A person or business entity with a legal or equitable interest in a property. (As shown by the Town's Assessor's list.)

Pruning

A horticultural practice of selectively cutting/removing specific portions of a tree (such as roots, buds, branches) that are dead, undesirable or overgrown OR trimming for healthy plant development and aesthetic purposes. Pruning can be considered preventive maintenance.

Public Places

Includes all streets, highways, parks, cemeteries, easements or other grounds owned by the Town. This includes public easements along all public roads to the property line. Property owners should ascertain the public easement along their property line before any tree work, including pruning, removal, or planting occurs. Questions can be addressed to the Tree Warden or the Code Enforcement Officer of the Town.

Public Trees and Street Trees

Public Trees refers to trees, shrubs and other woody vegetation within the public right-of-way and on any public property. This includes shade, ornamental and forest trees or shrubs growing on any street, park, cemetery, or public place. Street Trees refers to trees and other woody vegetation growing on public streets and on land lying within the public rights-of-way.

Replacement Trees

A tree or trees to be planted to replace any trees removed (or an equivalent replacement value that shall be paid to the Town's tree fund).

Equivalent Replacement: The replacement of a removed or damaged tree to compensate for that tree's removal, or its damage, with one tree the same diameter, or a combination of smaller trees that will equal that removed tree's DBH as defined herein.

Tree-for-Tree Replacement: Replacing a removed tree with a tree, or trees, with a minimum of three inches in cumulative trunk diameter at breast height (DBH). The replacement trees will be nursery grown, native trees. The Tree Warden and the Tree Committee will develop and maintain within the regulations an up-to-date list of approved trees for planting under appropriate circumstances.

Significant Trees

Significant trees, as defined in Exeter's Site and Subdivision regulations (7.4.7), are 20-inches or greater in diameter at breast height (DBH).

Tree Maintenance

Activities, equipment, plans and provisions to keep trees alive and flourishing.

XXX TREE WARDEN

The Exeter Tree Warden is an appointed official with relevant training and/or experience, who is the contact person for questions about public trees, and for permission to prune and/or remove trees in public places. The Tree Warden works with and is supported by the Exeter Tree Committee.

The Tree Warden's job may include, but is not limited to the oversight of the following:

- Pruning of trees for health and safety;
- Removal of trees that are dead or dying as a result of storms, insects, disease or old age;
- Identification of sites for planting new trees;
- Planting new trees;
- Maintaining an inventory of public trees;
- Supervising Town tree workers;
- Inspecting contracted tree work;
- Utility arboricultural operations;

- Assessment of trees for potential hazards to public safety;
- The Site Review Technical Advisory Committee may request that the Tree Warden or his/her designee provide advice on tree removal, tree selection, and placement of trees on projects that come before the Planning Board.

Questions about Public Trees are addressed to the Tree Warden.

XXX TREE COMMITTEE

The Exeter Tree Committee was created in 2019 as part of the Town of Exeter's efforts to be officially recognized as a Tree City. The Committee is a subcommittee of the Conservation Commission, and is made up of volunteers who will:

- Coordinate efforts in support of Exeter's Tree City USA designation;
- Aid in carrying out the provisions of this ordinance;
- Collaborate with the Tree Warden, Town departments, and other Town officials to foster a tree-rich community;
- Help monitor the health and protection of public trees;
- Work to update our inventory of public trees;
- Seek grants and secure funds to further and support the work of the committee:
- Advance educational efforts to promote awareness and knowledge of the benefits of trees.

More information on the Tree Committee can be found here.

XXX PERMITS / PERMISSION REQUIRED

Permission must be obtained from the Tree Warden prior to doing any of the following work:

- Removal of public trees;
- Trimming of public trees;
- Site preparation, alteration or excavation within the public right-of-way or public property which may disturb the roots, trunks, or limbs of public trees. This can include but is not limited to the installation of utilities.
- Planting, fertilizing, cutting or otherwise disturbing any public trees

No person shall apply pesticides or herbicides within the Town's ROW without first procuring written permission from the Tree Warden or his/her designee.

Any person engaging in the business of cutting, planting, pruning, removing, spraying or otherwise treating trees on Public Property must first produce evidence of certification/license to the Tree Warden or his/her designee.

XXX TREE PLANTING, MAINTENANCE AND REMOVAL

All planting, replacing, maintaining and other work done on public trees shall comply with the tree regulations regardless of whether such work involves private individuals, businesses, public utility companies, contractors, town officials or employers.

The Tree Warden shall have the authority, and it shall be the duty of the Tree Warden, to order the trimming, spraying, preservation, or removal of trees upon property owned by or controlled by the Town, or in any Town right-of-way.

The Tree Warden, subject to the approval of the Tree Committee, shall take such action necessary to order the removal of street trees and trees in public places wherever necessary to preserve public safety or to prevent the spread of disease or insects to public trees and places. The approval of the Tree Committee is not necessary in emergency situations when public safety, health and welfare, is at risk.

No significant street tree or tree in a public place (having a diameter larger than two inches as measured, four feet above the ground), shall be removed without approval of the Tree Committee, and after public input, except where delay in the removal of the tree would pose an imminent threat to public safety or property.

The planting of street trees (by the abutting property owner) within the public right-of-way is permissible and encouraged provided that the Tree Warden approves the location and selection of such trees. The selected tree or trees will be planted by the Tree Warden, and it will be the responsibility of the abutting property owner to water and provide care for the tree(s).

XXX INJURIES TO TREES

No person shall, willfully or mischievously, break down, injure, climb upon, or commit any injury to public trees, nor shall they interfere with the roots, place signs or posters or any other fixture on a tree using nails or other devices which may damage the tree.

XXX REPLACEMENT TREES

- The Tree Warden shall approve the replacement tree, or trees, and the place where it is (they are) planted.
- When a public tree has been damaged or destroyed, the responsible party shall be responsible for removal, replacement and maintenance costs.
- The Tree Warden, in consultation with the Tree Committee, will determine the tree value and replacement costs.
- The responsible party shall bear the costs of removal and disposal of the removed tree, the grinding of the stump, and any resulting sidewalk and or landscape repairs.

There shall be a 5-year maintenance plan and guarantee.

XXX PENALTIES

Anyone who violates any provision of this ordinance, upon being found guilty of violation, shall be subject to a fine not to exceed (\$300) for each separate offense. If the injury, mutilation, or death of any tree(s) in public parks and public rights-of-way within the Town of Exeter is caused, the cost of repair or replacement, or the appraised dollar value of such tree(s) shall be borne by the party in violation.

XXX ENFORCEMENT

The Town Warden or his/her designee, in consultation with the Tree Committee, shall have the power to promulgate and enforce regulations, rules and specifications concerning the spraying, trimming, removal, planting and protection of trees upon the right-of-way of any street, sidewalk, or other public place in the Town of Exeter.

XXX PRIVATE TREES

If the Tree Warden determines that a tree on private property is a public hazard and needs to be trimmed or removed, the Tree Warden will send a certified letter to the landowner to make him/her aware of the problem. A hazard tree on public property could have any of the following issues:

- 1. An infectious disease or insect problem;
- 2. Be dead or dying:
- 3. Have limbs that obstruct street lights or traffic signs;
- 4. Prevent the free passage of pedestrians or vehicles:
- 5. Constitute a hazard to life or safety of people, buildings, or other public property.

XXX STANDARDS FOR PROPER PLANTING

XXX NATIVE TREES AND SHRUBS

See Exhibit A-Notes on Approved Trees and Shrubs; Recommended Native Trees

See Exhibit B-Notes on Native Trees and Shrubs; Invasive Trees and Plants to be avoided.

XXX FUNDING

It is the goal of the Tree Committee to work with the Town to establish a fund that will support the activities of the Committee.

This would cover for activities and purchases including:

- Tree work such as labeling public trees in Town;
- The expense of a Town arborist;
- The purchase, planting, and maintenance of new trees in public places;
- The purchase of equipment for emergency and tree maintenance work to be done in-house.

Version: May 24, 2021

NOTES:

- 1. Details on XXX PENALTIES still need to be worked out. (To whom would the fine/s be paid. Where would the fines be held. Etc.)
- 2. Is the \$300 'not to exceed' amount in the XXX PENALTIES chapter too much, or not enough?
- 3. Under XXX ENFORCEMENT, should anyone, in addition to the Tree Warden and his/her designee, be able to enforce this regulation?
- 4. In the TREE COMMITTEE section, are we ready to add a section on 'Memorial Trees'? This was discussed at the last meeting, and the thinking was that the Parks and Recreation Department would make arrangements to put this fund in place.

Exeter Conservation Commission May 11, 2021 Virtual Meeting Draft Minutes

Call to Order

1. Introduction of Members Present (by Roll Call)

Present at tonight's meeting were by roll call, Chair Andrew Koff, Vice-Chair Trevor Mattera, Bill Campbell, Carlos Guindon, Donald Clement, (Alternate), Kristen Osterwood (Alternate), Conor Madison (Alternate) and Kristen Murphy, Natural Resource Planner.

Members present indicated there was no one else present in the room with them during this meeting.

Absent: Allison Eberhardt, Dave Short, Julie Gilman Select Board Liaison, Ginny Raub, (Alternate) and Nick Campion (Alternate)

Mr. Koff read the meeting preamble indicated that an emergency exists and the provisions of RSA 91-A:2 III (b) are being invoked. As federal, state and local officials have determined gatherings of ten or more people pose a substantial risk to the community and the meeting imperative to the continued operation of Town and government and services which are vital to public, health, safety and confidence. This meeting will be conducted without a quorum physically present in the same location and welcome members of the public accessing the meeting remotely.

Mr. Koff called the meeting to order at 7 PM and indicated Alternates Donald Clement and Conor Madison would be active and voting for this meeting.

2. Public Comment (7:00 PM)

Mr. Koff asked if there were any members of the public who wanted to speak to an item not on the agenda and being none closed public comment.

Action Items

1. Continuation of the Wetland/Shoreland CUP review for an open space development at Cullen Way/Tamarind Lane. Tax Map 96-15 and 96-9 (Brian Griset, Justin Pasay, Christian Smith, Jim Gove, Luke Hurley)

Mr. Campbell commented that he and Mr. Mattera had been on a site walk of the premises.

A wetlands delineation error was disclosed of the prime wetlands boundary along the railroad corridor and discussed. It was determined the boundary did not affect the areas impacted by the CUP as it is not

in the developed portion of the site. Ms. Murphy noted if there were a material change to the Planning Board analysis it would come back to the Commission. Mr. Koff clarified if it materially affected the CUP application.

Mr. Koff opened the hearing to the public for comments and questions at 7:12 PM.

Nail Bleicken of 11 Tamarind Lane expressed concerns about the maps being incorrect and requested the Commission get an independent analysis.

Mr. Koff reported receipt of two similar letters from abutters asking for independent review of the wetland delineation.

Mr. Pasay stated he did not believe the Commission has the authority to order this for the Planning Board but noted he believed Mr. Sharples is trying to get some names together. Mr. Pasay clarified that realtor Scott Gove has no relation to wetlands scientist Jim Gove. Ms. Murphy corrected that the Commission does have the authority to request an independent wetland review. Ms. Murphy indicated that Mr. Sharples is looking at the availability of wetland scientists but the Planning Board has not requested a review.

Conor Madison joined the meeting at 7:17 PM.

Laura Knott of 15 Tamarind Lane requested an independent wetland review.

David Hadden of 12 Tamarind Lane felt the information should be answered before moving forward and expressed concerns about the loss of field for the animals.

Mr. Koff noted the Commission has a complete application and obligation to deliberate. Other than general uneasiness there has been no specific issuance of challenge. The easement area will be discussed at a later date. Ms. Murphy noted the Planning Board approved the Yield Plan in February.

Mr. Koff reviewed the criteria for the CUP.

Criteria #1 concerns permitted zoning. The premises are single-family, residential condominium open space units. The applicant received a variance from the ZBA for density on January 21, 2020.

Criteria #2 concerns alternative design. Mr. Pasay noted the 64 acres on 3 parcels with 18 units in an open space upland development. A conventional subdivision would have been 12,000 SF of impact so the applicant pursued the open space design. 50 acres will be preserved. The existing ROW was utilized. Soils were previously disturbed. There is no legitimate alternative design.

Criteria #3 concerns functions and values. Mr. Gove discussed the impacts on the edge and man made pond which is not a vernal pool, has fish, minnows and sunfish, and will continue to exist. The forested rea has a road bed expansion in an already impacted area. There are no loss to functions or values.

Ms. Oster.... asked Mr. Gove about the concerns of abutters about drainage of soils and any negative impact to abutters. Mr. Gove explained the flow of water from the development goes to the south. Water doesn't flow uphill. There are detention basins proposed at the lower areas and water will flow away from abutting properties. Clay soils in the abutters' properties create water problems because they don't drain well and problems with footing drains.

Criteria #4 concerns design/construction/maintenance. Mr. Gove noted the applicant did a good job to avoid wetland impact and with the proposal to manage stormwater volume and quality. Maintenance will minimize detrimental impact. Christian Smith noted the HOA will be responsible for inspections and annual reports to DPW if requested. Mr. Pasay added the plan is designed to use the best suitable uplands avoiding a line of swamp white oaks with the greatest benefit and minimum impact.

Criteria #5 concerns hazards to individuals or public, health, safety and welfare due to loss or contamination of groundwater. Mr. Pasay noted the impact is totally unavoidable to get to the uplands and impacts the lowest value wetlands and slightly to individual units. Mr. Gove clarified the criteria is meant to address issues IF there is a loss of wetland which causes flooding, as when wetlands are filled which is not the case here. There is no concern with contamination of groundwater as the units are residential not industrial or commercial.

Criteria #6 concerns wetland of equal or greater size. Mr. Pasay noted the Mendez Trust property is being conveyed which has higher value. Mr. Koff agreed.

Criteria #7 concerns temporary disturbance and restoration of vegetation or grade. Mr. Smith noted the disturbed areas will be seeded with a NE Conservation seed mix.

Criteria #8 concerns requirement of state and federal permits being obtained. Mr. Smith noted he will provide a list of those. Mr. Koff noted the applicant will need to come back to the Commission for recommendation of the State permit.

Mr. Mattera noted as far as the CUP goes it fits nicely. He agrees with minimization and that the functions are not heavily affected.

MOTION: Mr. Koff motioned after reviewing the application and criteria the Conservation Commission has no objection to the approval of the conditional use permit as proposed with the condition that if the impact increases the Planning Board should seek a revised recommendation from us. Mr. Guindon seconded the motion. A roll call vote was taken Koff – aye, Guindon – aye, Mattera – aye, Madison – aye, Campbell – aye and Clement – abstained. The motion passed 5-0-1.

Mr. Koff reviewed Page 16 concerning the Shoreland CUP within 150' of the brook, a major tributary that feeds to Little River which feeds to the Exeter River. Mr. Smith displayed the plan. Mr. Pasay pointed out the roadway impacts to access the uplands and entrance with 8,000 SF of permanent impact and 4,100 SF of impervious. Runoff goes to a treatment system outside the protected district a minimum of 100' from the shoreland district.

Mr. Koff reviewed the criteria. First that it not detrimentally affect the surface water quality of the adjacent river. Mr. Gove noted the runoff is controlled. Water quality is being treated. Discharge is through a thickly wooded area before it gets to the brook. Mr. Smith addressed the gutter line of the roadway curbing and catch basins. Mr. Koff noted the gravel road exists today and currently there is untreated runoff. Second, there be no discharge of wastewater other than domestic. There is no onside hazardous or toxic waste. Mr. Smith noted the development will be on municipal water and sewer. All are residential units with no hazardous materials. Third concerns damage to spawning grounds or other wildlife habitat. Mr. Gove noted vernal pools are on the other side of the site. The area does not have the hydrology for wetland spawning.

Mr. Koff noted the next criteria concerns Regulation 934 of Exeter Shoreline Protection. Mr. Pasay noted there is nothing other than permitted uses.

Mr. Koff noted the next criteria concerns consistency with Regulation 931. Mr. Pasay noted the proposal is designed to preserve the quality of the environment and minimize impact.

Mr. Mattera noted in relation to the brook stormwater management is bring the stormwater out of the buffer itself adding a level of protection to the brook. Mr. Clement agreed it is an improvement to the existing gravel road.

MOTION: Mr. Campbell motioned after reviewing the application and criteria the Conservation Commission has no objection to the approval of the conditional use permit as proposed. Mr. Koff seconded the motion. A roll call vote was taken Koff – aye, Guindon – aye, Mattera – aye, Madison – aye, Campbell – aye, and Clement – aye. The motion passed unanimously 6-0-0.

Laura Knott asked about third party review. Mr. Koff noted it was already discussed and the Commission needs a material reason to request it and has not been presented with one.

Mr. Pasay asked about continuing the meeting to discuss the easement so that it will not have to be renoticed. Mr. Koff noted the Commission would need to get a legal document to review. Ms. Murphy noted the next meeting already had a full agenda and added that other items such as a baseline, discussion and agreement on stewardship fees and survey markers and edge walk be done to ensure the boundary markers on plan. Mr. Campbell added that discussions concerning conditions such as hunting need to be finalized. Ms. Murphy noted the Commission does not require a letter of notification so renoticing is not a concern.

Neil Bleicken asked about third party review and believes the map being wrong could affect the whole project. Mr. Koff noted if the Yield Plan was affected it would come back before the Commission. The impacts are not related to what was discussed tonight.

2. Standard Dredge and Fill Wetland Permit Application by Exeter Station, LLC for 1500 SF of temporary impact within the Exeter River at 53 Water Street (former IOKA theater) at Tax Map 72, Lot 34 (Sergio Bonilla, Dave Cowie, et al)

Mr. Koff read the Notice out loud for 1,500 SF of impact to the Exeter River at 53 Water Street.

Sergio Bonilla of Mission Wetlands presented the plan on behalf of the applicant which is to repair the concrete archway piers located in the river on the parcel which is an iconic downtown building. There will be decks to the basement speak easy and first floor commercial space and residents on the second floor. Mr. Bonilla noted the application has been reviewed by the Natural Heritage Bureau, NOAA, Fish & Game, the Army Corp and is on the agenda for review by the River Advisory Committee on the 25th. PVC boxes will hold river stone and there will be temporary sediment bags and settlement bladders. Impact would be foot traffic.

Mr. Campbell asked about the footprint and Mr. Bonilla noted the property line within the river shown on the plan. Mr. Koff asked about the Planning Board and Site Plan Review. Mr. Campbell asked about whether the development would be enlarged and Mr. Bonilla noted it would be in the same spot and dimensions.

Mr. Campbell asked about the decks and Mr. Clement asked how far they will extend over the river. Mr. Cowie noted they are within the footprint of the building. The area is dry in the summer and wet in the winter with some flow.

Mr. Clement asked how high off the surface of the water the decks would be. Mr. Bonilla referenced Sheet 3. Mr. Clement referenced the elevations before the dam.

Mr. Campbell asked if the decks would be cantilevered and Mr. Bonilla noted they would and that a variance was obtained.

Mr. Clement asked if the basement deck was beyond the archway and Mr. Bonilla noted it was within.

Christina O'Brian from Market Square Architects shared the drawing.

Mr. Koff asked if the deck is being constructed while the coffer dams are in place.

Mr. Koff noted the upper decks do not require a wetland permit.

Mr. Clement asked bout vegetation and loss of light transmission which is detrimental to aquatics. Mr. Bonilla noted the area is riverbed stone with one shrub. Mr. Clement asked about impact on fish during flows and Mr. Bonilla noted Fish & Game will weigh it on that.

Ms. Murphy asked about the tidal marsh influence and noted the Coastal Project Worksheet is not in the packet. Mr. Bonilla noted he will keep the Town apprised of discussions with Army Corp.

Mr. Bonilla noted the project would be done in the summer in a three-week window. Mr. Koff noted there is usually no flow in the summer especially during the drought. Mr. Clement noted DES will determine when the work can be done.

Mr. Koff asked about the elevation of the lower deck and whether it could be raised any and Mr. Clement noted if it were raised any it would go up under the arches.

Mr. Campbell asked the purpose of the deck and Mr. Clement noted it was for the restaurant.

MOTION: Mr. Koff motioned after reviewing the application and criteria the Conservation Commission has no objection to the application as proposed. Mr. Campbell seconded the motion.

Mr. Guindon expressed concerns with the elevation of the lower deck.

A roll call vote was taken Koff – aye, Guindon – aye, Mattera – aye, Madison – aye, Campbell – aye and Clement – nay. The motion passed 5-1-0.

Mr. Clement noted the basement deck was a concern for him.

3. Todd Johnson Ash Tree Study on Emerald Ash Borer Defense Research Request for a portion of the town-owned lands within the Little River Conservation Area

Mr. Koff noted the proposal is for a three-year USDA funded project.

Mr. Johnson noted the project concerns research of the Emerald Ash Borer on the Ash trees. The smaller trees appear to be more resistant than the larger trees. Once the pests are detected the trees die rapidly.

The Commission reviewed the proposed location ½ mile within the entry. Ms. Murphy pointed to the project area on the map in relation to the gas line south of Continental Drive.

Mr. Johnson noted 68 White Ash trees would be artificially infested then cut down. They are not bringing in an insect that is not already there and at this stage the insect which takes a year to develop would not accidentally escape. The trees would be taken down and the bark scraped. Biological control wasps would be released. The largest tree is 16 cm. The trail would be watched on both ends when the trees are fell.

Mr. Guindon noted he was excited to see the area used for research and is in support.

Mr. Madison asked about posting signage during the project and Mr. Johnson posted a copy of the laminated signs with QR codes for UNH.

MOTION: Mr. Guindon motioned after reviewing the proposal and find the activity to be in compliance with the terms of the deed as proposed. Mr. Campbell seconded the motion. A roll call vote was taken Koff – aye, Guindon – aye, Mattera – aye, Madison – aye, Campbell – aye and Clement – aye. The motion passed unanimously 6-0-0.

4. Andrew Butler Furbearer Study Technique Evaluation Research Request for Oaklands Town Forest, Colcord Pond and Stone/Leighton

Ms. Murphy noted the project is for three game cameras and to evaluate wildlife tracks. Jay Caswell is not her. The project is a non-invasive study on town-owned property. Mr. Koff noted it was not unlike the cameras already out there.

MOTION: Mr. Koff motioned after reviewing the proposal and find the activity to be in compliance with the terms of the deeds as proposed. Mr. Mattera seconded the motion. A roll call vote was taken Koff – aye, Guindon – aye, Mattera – aye, Madison – aye, Campbell – aye and Clement – aye. With all in favor the motion passed unanimously 6-0-0.

5. Committee Reports

a. Tree Committee Update

Ms. Murphy noted the Tree Committee is working on an ordinance.

6. Approval of Minutes:

March 9, 2021 Meeting

April 13, 2021 Meeting

- 7. Correspondence
 - a. Piscassic River WMA Timber Harvest Notice
 - b. NHDOT Rocky Hill Brook Culvert Repair Notice
- 8. Other Business

Mr. Guindon asked about the materials left at the Newfields Road entrance, at the intersection, and whether they could be stored further off the trail. Ms. Murphy will follow-up.

Mr. Koff noted the Alewife are running and encouraged people to get photos.

9. Next Meeting: Date Scheduled (6/8/21), Submission Deadline (5/28/21)

Adjournment

MOTION: Mr. Koff moved to adjourn at 10:15 PM. Mr. Campbell seconded the motion. A roll call vote was taken Koff – aye, Mattera – aye, Campbell – aye, Guindon – aye, and Madison – aye. With all in favor the motion passed unanimously 5-0-0.

Respectfully submitted,

Daniel Hoijer, Recording Secretary