

April 19, 2021

TFM Project No: 47388.11

Juliette Walker, Planning Director Portsmouth Planning Department City Hall, 3rd Floor 1 Junkins Avenue Portsmouth, NH 03801

Re: TAC Review for Peverly Hill Road Condominiums, Tax Map 242, Lot 4

Dear: Juliette,

On behalf of our client, Green & Company, we are submitting the following plans and materials for review by the Technical Advisory Committee (TAC). Included with this letter are the following materials:

- 01 Letter of Authorization
- 02 Abutters List
- 03 Site Plan Check List
- 04 Subdivision Check List
- 05 Waiver Request
- 06 Traffic Memorandum (Traffic Evaluation)
- 07 Traffic Memorandum (Traffic Calming)
- 08 Sewer Calculations
- 09 Architectural Housing Plans
- 10 Drainage Letter
- 11 Set of the "Peverly Hill Road Condominiums", Peverly Hill Road, Portsmouth, NH, Tax Map 242, Lot 4, Dated April 19, 2021.

This proposal is for an Open Space Planned Unit Development Condominium Site Plan, consisting of 56 single-family dwelling units and 2,950-ft of public roadway. Associated improvements include underground utility installation, (2) recreational pocket parks, a public pike path, landscaping, and open space.



This project has been presented before City Staff during (2) informal meetings and at a TAC Work Session on February 9<sup>th</sup>, 2021. These plans reflect the suggested changes based upon comments received during those meetings.

We look forward to discussing this project with you and the rest of TAC at the May 4th, 2021 meeting.

Sincerely,

MSC a division of TFMoran, Inc.

John McTigue, PE, CPE9

Project Manager

### Letter of Authorization

We, Philip J. Stokel of 73 South Street, Concord, NH 03301, and Stella B. Stokel 1993 Trust. Stella B. Stokel, Trustee, of 83 Peverly Hill Road, Portsmouth, NH 03801, as owners of certain real property situated in Portsmouth, New Hampshire further described as 83 Peverly Hill Road, Portsmouth, consisting of approximately 107 acres of land as shown on the City of Portsmouth Tax Assessor Map 242, Lot 4, improved with a single-family residence with 665 feet of frontage on Peverly Hill Road, along with all easement and rights of record, do hereby authorize Green & Company Building and Development Corp. and its Affiliates, Agents, Assigns and Engineers to act on our behalf and to appear before the conservation commission, zoning board of adjustment and/or the planning board of Portsmouth, New Hampshire and/or any of its boards or commissions, in our behalf for the purpose of seeking any regulatory relief that may be requested by the person we have above authorized, including variances, special exceptions, dimensional waivers, site plan approval, lot line adjustment approval and subdivision approval, hereby ratifying any actions taken by him/her/them to obtain any such relief. We authorize Green & Company Building and Development Corp. and its Affiliates, Agents, Assigns and Engineers to act in our behalf in all matters concerning the development and approval process, without limitation, for the above stated property, to include any required signatures.

We shall cooperate fully with Green & Company Building and Development Corp. and its Affiliates, Agents, Assigns and Engineers in seeking timely public approvals and for the completion of the sale contemplated herein. We agree to use our good faith efforts to provide any assistance we reasonably can to Green & Company Building and Development Corp. and its Affiliates, Agents, Assigns and Engineers throughout the development process, including but not limited to signing permit applications as needed.

la B. Stabel

In Stokel

Owner: Stella B. Stokel. Trustee of the

Stella B. Stokel 1993 Trust



### **Abutters List**

### Green & Company 83 Peverly Hill Rd, Portsmouth, NH

April 19, 2021 47388-11

	Assessors Map		Abutter Name	Mailing Address	
	Мар	Lot	Abutter Name		
	LOCUS 242	4	S B & N A STOKEL TRUST & PHILIP J.	83 PEVERLY HILL ROAD	
1	10003 242		STOKEL	PORTSMOUTH, NH 03801	
	165	14	BOSTON & MAINE CORPORATION	IRON HORSE PARK HIGH STREET	
2	103	17	BOSTON & MAINE COM CHATTON	NORTH BILLERICA, MA 01862	
	232	87	SUSAN L. DIXON	68 WIBIRD STREET	
3	232	87	SOSAN E. DIXON	PORTSMOUTH, NH 03801	
	232	88	NATHAN M. & SHERRI M. TARLETON	74 LEAVITT AVENUE	
4	232		TATTAN W. & STERM W. TAREET ON	PORTSMOUTH, NH 03801	
	232	92	DYANNA L. INNES	78 PEVERLY HILL ROAD	
5	232		DIAMINA E. MINES	PORTSMOUTH, NH 03801	
	232	93	KENNETH T. BLACK	82 PEVERLY HILL ROAD	
6	252		KENVETT TO BOOK	PORTSMOUTH, NH 03801	
	232	95	CITY OF PORTSMOUTH DPW	PO BOX 628	
7	232			PORTSMOUTH, NH 03802	
	242	1	STATE OF NEW HAMPSHIRE FISH & GAME	11 HAZEN DRIVE	
8	272		DEPT	CONCORD, NH 03301	
	242	3	NEW HOPE BAPTIST CHURCH	PO BOX 1473	
9	272			PORTSMOUTH, NH 03802	
	242	5	ROMAN CATHOLIC BISHOP OF	153 ASH STREET	
10	272		MANCHESTER CHURCH OF IMMAC	MANCHESTER, NH 03104	
	243	50	ASRT, LLC	266 MIDDLE STREET	
11	243	30	7,011,000	PORTSMOUTH, NH 03801	
	243	51	AJEI REAL ESTATE LLC	163 SPINNEY ROAD	
12	240		TODAY NEW YORK TO A STATE OF THE STATE OF TH	PORTSMOUTH, NH 03801	
	243	52	CITY OF PORTSMOUTH DPW	PO BOX 628	
13	243	J.		PORTSMOUTH, NH 03802	
	255	5	THOMAS E. & MARYBETH B. REIS AND	305 PEVERLY HILL ROAD	
14	233		JAMES B. & MEEGAN C. REIS	PORTSMOUTH, NH 03801	
	255	8	MERRIMAC VALLEY HOMES, INC.	1794 BRIDGE STREET, UNIT 6	
15	255			DRACUT, MA 01826	
	256	56 1	swift water girl scout council	SWIFT WATER GIRL SCOUT COUNCIL	ONE COMMERCE DRIVE
16	2.50			BEDFORD, NH 03110	
	265	5 2 MARK H. ODIORNE	520 BANFIELD ROAD		
17	203			PORTSMOUTH, NH 03801	
	265	2A	DAVID W. ECKER	875 BANFIELD ROAD	
18	200			PORTSMOUTH, NH 03801	
	265	2B	LEE ANN & RICHARD M. RILEY	470 BANFIELD ROAD	
19	203			PORTSMOUTH, NH 03801	
	265	2C	APOSTOLIC CHURCH OF J CHRIST	500 BANFIELD ROAD	
20				PORTSMOUTH, NH 03801	
	265	2D	CITY OF PORTSMOUTH DPW	PO BOX 628	
21				PORTSMOUTH, NH 03802	
	265 2E		CITY OF PORTSMOUTH	1 JUNKINS AVENUE	
22				PORTSMOUTH, NH 03801	
	0.45		TSN40mm Inc	170 Commerce Way - Suite 102	
	Civil Engineers / Surveyor		TFMoran, Inc.	Portsmouth, NH 03801	
	Environment	al / Wetlands	Cour Environmental Samisas Inc	8 Continental Drive, Unit H	
	Scientist		Gove Environmental Services, Inc.	Exeter, NH 03833	
- 1	- Coloredo				



### City of Portsmouth, New Hampshire Site Plan Application Checklist

This site plan application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Planning Board review. A pre-application conference with a member of the planning department is strongly encouraged as additional project information may be required depending on the size and scope. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all site plan review requirements. Please refer to the Site Plan review regulations for full details.

Applicant Responsibilities (Section 2.5.2): Applicable fees are due upon application submittal along with required attachments. The application shall be complete as submitted and provide adequate information for evaluation of the proposed site development. Waiver requests must be submitted in writing with appropriate justification. STOKEL SB & NA TRUST. STOKEL PHILIP J

Name of Owner/Applicant: Green & Company Building & Dev	velopment Corp. Date Submitted: 4/19/21
Phone Number: 603-964-7572	E-mail: mgreen@greenandcompany.com
Site Address: 83 Peverly Hill Road	Map: 242 Lot: 4
Zoning District: Single Residence A (SRA) & B (SRB)	Lot area: 4,604,509 sq. ft.

	Application Requirements					
V	Required Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)	Waiver Requested			
<b>/</b>	Fully executed and signed Application form. (2.5.2.3)	Submitted online and (1) copy to City	N/A			
<b>✓</b>	All application documents, plans, supporting documentation and other materials provided in digital Portable Document Format (PDF) on compact disc, DVD or flash drive.  (2.5.2.8)	Submitted online	N/A			

	Site Plan Review Application Required Information				
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested		
	Statement that lists and describes "green" building components and systems. (2.5.3.1A)	N/A			
<b>✓</b>	Gross floor area and dimensions of all buildings and statement of uses and floor area for each floor. (2.5.3.1B)	Submitted online and (1) copy to City	N/A		
<b>✓</b>	Tax map and lot number, and current zoning of all parcels under Site Plan Review. (2.5.3.1C)	See sheet S-01	N/A		
<b>✓</b>	Owner's name, address, telephone number, and signature. Name, address, and telephone number of applicant if different from owner. <b>(2.5.3.1D)</b>	See sheet C-00	N/A		

	Site Plan Review Application Required Information				
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested		
<b>\</b>	Names and addresses (including Tax Map and Lot number and zoning districts) of all direct abutting property owners (including properties located across abutting streets) and holders of existing conservation, preservation or agricultural preservation restrictions affecting the subject property.  (2.5.3.1E)	See sheet S-01	N/A		
<b>✓</b>	Names, addresses and telephone numbers of all professionals involved in the site plan design. (2.5.3.1F)	See sheet C-00	N/A		
<b>✓</b>	List of reference plans. (2.5.3.1G)	See sheet S-01	N/A		
<b>✓</b>	List of names and contact information of all public or private utilities servicing the site. (2.5.3.1H)	See sheet C-00/C-01	N/A		

	Site Plan Specifications				
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested		
<b>✓</b>	Full size plans shall not be larger than 22 inches by 34 inches with match lines as required, unless approved by the Planning Director. Submittals shall be a minimum of 11 inches by 17 inches as specified by Planning Dept. staff.  (2.5.4.1A)	Required on all plan sheets	N/A		
<b>✓</b>	Scale: Not less than 1 inch = 60 feet and a graphic bar scale shall be included on all plans.  (2.5.4.1B)	Required on all plan sheets	N/A		
<b>✓</b>	GIS data should be referenced to the coordinate system New Hampshire State Plane, NAD83 (1996), with units in feet. (2.5.4.1C)	Required on all plan sheets	N/A		
<b>✓</b>	Plans shall be drawn to scale. (2.5.4.1D)	Required on all plan sheets	N/A		
<b>✓</b>	Plans shall be prepared and stamped by a NH licensed civil engineer. (2.5.4.1D)	Required on all plan sheets	N/A		
<b>✓</b>	Wetlands shall be delineated by a NH certified wetlands scientist. (2.5.4.1E)	S-01	N/A		
<b>✓</b>	Title (name of development project), north point, scale, legend. (2.5.4.2A)	Required on all plan sheets	N/A		
<b>✓</b>	Date plans first submitted, date and explanation of revisions. <b>(2.5.4.2B)</b>	Required on all plan sheets	N/A		
<b>✓</b>	Individual plan sheet title that clearly describes the information that is displayed. (2.5.4.2C)	Required on all plan sheets	N/A		

	Site Plan Specifications		
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
<b>✓</b>	Source and date of data displayed on the plan. (2.5.4.2D)	Required on all plan sheets	N/A
<b>\</b>	A note shall be provided on the Site Plan stating: "All conditions on this Plan shall remain in effect in perpetuity pursuant to the requirements of the Site Plan Review Regulations."  (2.5.4.2E)	Required on all plan sheets See sheet C-03	N/A
•	Plan sheets submitted for recording shall include the following notes:  a. "This Site Plan shall be recorded in the Rockingham County Registry of Deeds."  b. "All improvements shown on this Site Plan shall be constructed and maintained in accordance with the Plan by the property owner and all future property owners. No changes shall be made to this Site Plan without the express approval of the Portsmouth Planning Director."  (2.13.3)	See sheet C-03	N/A
	Plan sheets showing landscaping and screening shall also include the following additional notes:  a. "The property owner and all future property owners shall be responsible for the maintenance, repair and replacement of all required screening and landscape materials."  b. "All required plant materials shall be tended and maintained in a healthy growing condition, replaced when necessary, and kept free of refuse and debris. All required fences and walls shall be maintained in good repair."  c. "The property owner shall be responsible to remove and replace dead or diseased plant materials immediately with the same type, size and quantity of plant materials as originally installed, unless alternative plantings are requested, justified and approved by the Planning Board or Planning Director."  (2.13.4)	See sheet C-54	N/A

	Site Plan Specifications – Required Exhibits and Data				
Ø	Required Items for Submittal		Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested	
	1.	Existing Conditions: (2.5.4.3A)			
<b>/</b>	a.	Surveyed plan of site showing existing natural and built features;	S-01		
<b>/</b>	b.	Zoning boundaries;	S-01		
1	c.	Dimensional Regulations;	S-05		
<b>/</b>	d.	Wetland delineation, wetland function and value assessment;	S-01		
<b>✓</b>	e.	SFHA, 100-year flood elevation line and BFE data.	S-01		
	2.	Buildings and Structures: (2.5.4.3B)			
<b>✓</b>	a.	Plan view: Use, size, dimensions, footings, overhangs, 1st fl. elevation;	Attached		
<b>✓</b>	b.	Elevations: Height, massing, placement, materials, lighting, façade treatments;	Attached		
<b>✓</b>	c.	Total Floor Area;	Attached		
<b>/</b>	d.	Number of Usable Floors;	Attached		
<b>✓</b>	e.	Gross floor area by floor and use.	Attached		
	3.	Access and Circulation: (2.5.4.3C)			
<b>/</b>	a.	Location/width of access ways within site;	C-04 - C-12		
<b>✓</b>	b.	Location of curbing, right of ways, edge of pavement and sidewalks;	C-04 - C-12		
<b>✓</b>	c.	Location, type, size and design of traffic signing (pavement markings);	C-04 - C-12		
<b>✓</b>	d.	Names/layout of existing abutting streets;	S-01		
	e.	Driveway curb cuts for abutting prop. and public roads;	C-02 & C-04		
<b>✓</b>	f.	If subdivision; Names of all roads, right of way lines and easements noted;	S-03		
	g.	AASHTO truck turning templates, description of minimum vehicle allowed being a WB-50 (unless otherwise approved by TAC).	N/A (Fire truck turning provided)	✓	<u>'</u>
	4.	Parking and Loading: (2.5.4.3D)			
	a.	areas/buffers;	C-04 - C-12		
<b>✓</b>	b.	Parking Calculations (# required and the # provided).	C-03		
	5.	Water Infrastructure: (2.5.4.3E)			
$\checkmark$	a.	Engineering data;	C-28 - C-35		
	b.	Location of wells and monitoring wells (include protective radii).	N/A		
	6.	Sewer Infrastructure: (2.5.4.3F)			
<b>✓</b>	a.	Size, type and location of sanitary sewage facilities & Engineering data.	C-28 - C-35 & C-37 - C-40		
	7.	Utilities: (2.5.4.3G)			
<b>✓</b>	a.	The size, type and location of all above & below ground utilities;	C-28 - C-35		
<b>✓</b>	b.	Size type and location of generator pads, transformers and other fixtures.	C-28 - C-35		<u></u>

	Site Plan Specifications – Required Exhibits and Data				
<b>V</b>		Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested	
	8. S	olid Waste Facilities: (2.5.4.3H)			
<b>/</b>	a.	The size, type and location of solid waste facilities.	C-27 - C-35 & C-37 - C-40		
	9. St	torm water Management: (2.5.4.3I)			
	a.	The location, elevation and layout of all storm-water drainage.	C-17 - C-26		
	10. O	utdoor Lighting: (2.5.4.3J)			
<b>✓</b>	a. b.	Type and placement of all lighting (exterior of building, parking lot and any other areas of the site) and; photometric plan.	C-64 - C-72		
<b>✓</b>		ndicate where dark sky friendly lighting measures have een implemented. <b>(10.1)</b>	C-64 - C-72		
	12. La	andscaping: (2.5.4.3K)			
<b>✓</b>	a.	Identify all undisturbed area, existing vegetation and that which is to be retained;	C-54 - C-63		
	b.	. Location of any irrigation system and water source.	TBD		
	13. C	ontours and Elevation: (2.5.4.3L)		<u> </u>	
<b>✓</b>	a.	Existing/Proposed contours (2 foot minimum) and finished grade elevations.	C-17 - C-26		
	14. O	pen Space: (2.5.4.3M)			
<b>/</b>	a.	. Type, extent and location of all existing/proposed open space.	S-05		
<b>✓</b>		ll easements, deed restrictions and non-public rights of vays. (2.5.4.3N)	S-01		
		ocation of snow storage areas and/or off-site snow emoval. (2.5.4.30)	N/A (Road shoulders)		
		haracter/Civic District (All following information shall be acluded): (2.5.4.3Q)	N/A		
	a.	Applicable Building Height (10.5A21.20 & 10.5A43.30);			
	b.	Applicable Special Requirements (10.5A21.30);			
	c.	Proposed building form/type (10.5A43);			
	d.	Proposed community space (10.5A46).			

	Other Required Information				
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested		
<b>✓</b>	Traffic Impact Study or Trip Generation Report, as required. (Four (4) hardcopies of the full study/report and Six (6) summaries to be submitted with the Site Plan Application) (3.2.1-2)	Traffic Memo			
<b>✓</b>	Indicate where Low Impact Development Design practices have been incorporated. (7.1)	Drainage Letter			
<b>✓</b>	Indicate whether the proposed development is located in a wellhead protection or aquifer protection area. Such determination shall be approved by the Director of the Dept. of Public Works. (7.3.1)	In wellhead protection area. To be provided in final drainage report.			
<b>✓</b>	Indicate where measures to minimize impervious surfaces have been implemented. (7.4.3)	Narrowed roadways			
<b>✓</b>	Calculation of the maximum effective impervious surface as a percentage of the site. <b>(7.4.3.2)</b>	C-03			
	Stormwater Management and Erosion Control Plan. (Four (4) hardcopies of the full plan/report and Six (6) summaries to be submitted with the Site Plan Application) (7.4.4.1)	C-17 - C-26 & C-41 - C-50. Final report to be provided in Planning Board submittal.			

	Final Site Plan Approval Required Information				
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested		
<b>✓</b>	All local approvals, permits, easements and licenses required, including but not limited to:  a. Waivers; b. Driveway permits; c. Special exceptions; d. Variances granted; e. Easements; f. Licenses.  (2.5.3.2A)	C-00			
<b>✓</b>	Exhibits, data, reports or studies that may have been required as part of the approval process, including but not limited to:  a. Calculations relating to stormwater runoff;  b. Information on composition and quantity of water demand and wastewater generated;  c. Information on air, water or land pollutants to be discharged, including standards, quantity, treatment and/or controls;  d. Estimates of traffic generation and counts pre- and post-construction;  e. Estimates of noise generation;  f. A Stormwater Management and Erosion Control Plan;  g. Endangered species and archaeological / historical studies;  h. Wetland and water body (coastal and inland) delineations;  i. Environmental impact studies.  (2.5.3.2B)	a. To be provided in final stormwater report at Planning Board submittal b. See sewer report c. N/A d. Traffic Memo e. N/A f. C-17 to C-26 & C-41 to C-50 g. NHB21-0943 h. S-01 i. N/A			

	Final Site Plan Approval Required Information					
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested			
	A document from each of the required private utility service providers indicating approval of the proposed site plan and indicating an ability to provide all required private utilities to the site.  (2.5.3.2D)	To be provided in Planning Board submittal.				
1	A list of any required state and federal permit applications required for the project and the status of same.  (2.5.3.2E)	C-00				
Appli	pplicant's Signature Date: 4/192					



### City of Portsmouth, New Hampshire Subdivision Application Checklist

This subdivision application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Planning Board review. A pre-application conference with a member of the planning department is strongly encouraged as additional project information may be required depending on the size and scope. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all subdivision review requirements. Please refer to the Subdivision review regulations for full details.

**Applicant Responsibilities (Section III.C):** Applicable fees are due upon application submittal along with required number of copies of the Preliminary or final plat and supporting documents and studies. Please consult with Planning staff for submittal requirements.

Owner: STOKEL SB & NA TRUST. STOKEL PHILI	P J Date Submitted: 4/19/2021
Applicant: Green & Company Building & Develop	oment Corp.
Phone Number: 603-964-7572	E-mail: mgreen@greenandcompany.com
Site Address 1: 83 Peverly Hill Road	
Site Address 2:	Map: Lot: 4

	Application Requirements				
Ø	Required Items for Submittal	Item Location (e.g. Page or Plan Sheet/Note #)	Waiver Requested		
<b>✓</b>	Completed Application form. (III.C.2-3)	Submitted online and (1) copy to City	N/A		
<b>V</b>	All application documents, plans, supporting documentation and other materials provided in digital Portable Document Format (PDF) on compact disc, DVD or flash drive.  (III.C.4)	Submitted online and (1) copy to City	N/A		

Requirements for Preliminary/Final Plat				
Ø	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Required for Preliminary / Final Plat	Waiver Requested
<b>V</b>	Name and address of record owner, any option holders, descriptive name of subdivision, engineer and/or surveyor or name of person who prepared the plat. (Section IV.1/V.1)	C-00	☑ Preliminary Plat ☑ Final Plat	N/A

	Requirements for Pr	eliminary/Final Plat		
Ŋ	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Required for Preliminary / Final Plat	Waiver Requested
<b>\</b>	Preliminary Plat Names and addresses of all adjoining property owners. (Section IV.2) Final Plat Names and addresses of all abutting property owners, locations of buildings within one hundred (100) feet of the parcel, and any new house numbers within the subdivision. (Section V.2)	S-01 - S-05	☑ Preliminary Plat ☑ Final Plat	N/A
<b>\</b>	North point, date, and bar scale. (Section IV.3/V3)	Required on all Plan Sheets	☑ Preliminary Plat ☑ Final Plat	N/A
<b>✓</b>	Zoning classification and minimum yard dimensions required. (Section IV.4/V.4)	S-01 - S-05	☑ Preliminary Plat ☑ Final Plat	N/A
	Preliminary Plat Scale (not to be smaller than one hundred (100) feet = 1 inch) and location map (at a scale of 1" = 1000'). (Section IV.5) Final Plat Scale (not to be smaller than 1"=100'), Location map (at a scale of 1"=1,000') showing the property being subdivided and its relation to the surrounding area within a radius of 2,000 feet. Said location map shall delineate all streets and other major physical features that my either affect or be affected by the proposed development. (Section V.5)	S-01 - S-05	☑ Preliminary Plat ☑ Final Plat	N/A
<b>\</b>	Location and approximate dimensions of all existing and proposed property lines including the entire area proposed to be subdivided, the areas of proposed lots, and any adjacent parcels in the same ownership. (Section IV.6)	S-01 - S-05	☑ Preliminary Plat ☑ Final Plat	
	Dimensions and areas of all lots and any and all property to be dedicated or reserved for schools, parks, playgrounds, or other public purpose. Dimensions shall include radii and length of all arcs and calculated bearing for all straight lines.  (Section V.6/ IV.7)	S-01 - S-05	☑ Preliminary Plat ☑ Final Plat	N/A
<b>✓</b>	Location, names, and present widths of all adjacent streets, with a designation as to whether public or private and approximate location of existing utilities to be used. Curbs and sidewalks shall be shown.  (Section IV.8/V.7)	S-01 - S-05	☑ Preliminary Plat ☑ Final Plat	

	Requirements for Pr	eliminary/Final Plat		
<u> </u>	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Required for Preliminary / Final Plat	Waiver Requested
<b>\</b>	Location of significant physical features, including bodies of water, watercourses, wetlands, railroads, important vegetation, stone walls and soils types that my influence the design of the subdivision.  (Section IV.9/V.8)	S-01 - S05	☑ Preliminary Plat ☑ Final Plat	
	Preliminary Plat Proposed locations, widths and other dimensions of all new streets and utilities, including water mains, storm and sanitary sewer mains, catch basins and culverts, street lights, fire hydrants, sewerage pump stations, etc. (Section IV.10) Final Plat Proposed locations and profiles of all proposed streets and utilities, including water mains, storm and sanitary sewer mains, catchbasins and culverts, together with typical cross sections. Profiles shall be drawn to a horizontal scale of 1"=50' and a vertical scale of 1"=5', showing existing centerline grade, existing left and right sideline grades, and proposed centerline grade. (Section V.9)	C-03 - C-42	☑ Preliminary Plat ☑ Final Plat	
<b>✓</b>	When required by the Board, the plat shall be accompanied by profiles of proposed street grades, including extensions for a reasonable distance beyond the subject land; also grades and sizes of proposed utilities.  (Section IV.10)	C-13 - C-16	☑ Preliminary Plat ☑ Final Plat	
<b>\</b>	Base flood elevation (BFE) for subdivisions involving greater than five (5) acres or fifty (50) lots.  (Section IV.11)	S-05, Note 3	☑ Preliminary Plat ☑ Final Plat	
<b>\</b>	For subdivisions of five (5) lots or more, or at the discretion of the Board otherwise, the preliminary plat shall show contours at intervals no greater than two (2) feet.  Contours shall be shown in dotted lines for existing natural surface and in solid lines for proposed final grade, together with the final grade elevations shown in figures at all lot corners. If existing grades are not to be changed, then the contours in these areas shall be solid lines.  (Section IV.12/ V.12)	S-01 (existing) C-17 - C-26 (proposed)	☑ Preliminary Plat ☑ Final Plat	

	Requirements for Pr	eliminary/Final Plat		
A	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Required for Preliminary / Final Plat	Waiver Requested
<b>\</b>	Dates and permit numbers of all necessary permits from governmental agencies from which approval is required by Federal or State law.  (Section V.10)	C-00	☐ Preliminary Plat ☑ Final Plat	
	For subdivisions involving greater than five (5) acres or fifty (50) lots, the final plat shall show hazard zones and shall include elevation data for flood hazard zones.  (Section V.11)	N/A (Flood Zone X)	☐ Preliminary Plat ☑ Final Plat	
<b>\</b>	Location of all permanent monuments. (Section V.12)	S-03	☐ Preliminary Plat ☑ Final Plat	

	General Requireme	nts <sup>1</sup>	
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
	<ul> <li>1. Basic Requirements: (VI.1)</li> <li>a. Conformity to Official Plan or Map</li> <li>b. Hazards</li> <li>c. Relation to Topography</li> <li>d. Planned Unit Development</li> </ul>	All sheets N/A S-01 S-01	
\ \ \	2. Lots: (VI.2)  a. Lot Arrangement  b. Lot sizes  c. Commercial and Industrial Lots	S-05 S-05 S-05	
	a. Relation to adjoining Street System b. Street Rights-of-Way c. Access d. Parallel Service Roads e. Street Intersection Angles f. Merging Streets g. Street Deflections and Vertical Alignment h. Marginal Access Streets i. Cul-de-Sacs j. Rounding Street Corners k. Street Name Signs l. Street Names m. Block Lengths n. Block Widths o. Grade of Streets p. Grass Strips	a. S-05 b. S-05 c. S-05 d. S-05 e. C-XX (To be prov.) f. N/A g. C-13 - C-16 h. N/A i. N/A j. C-13 - C-16 k. TBD I. TBD m. N/A n. N/A o. C-17 - C-26 p. C-04 - C-12	
	4. Curbing: (VI.4)	C-04 - C-12	
<u> </u>	5. Driveways: (VI.5)	C-04 - C-12	
	6. Drainage Improvements: (VI.6)	C-18 - C-26	
<u> </u>	7. Municipal Water Service: (VI.7)	C-28 - C-36	
$\checkmark$	8. Municipal Sewer Service: (VI.8)	C-37 - C-40	
	<ul><li>9. Installation of Utilities: (VI.9)</li><li>a. All Districts</li><li>b. Indicator Tape</li></ul>	C-27 - C-36	
	10. On-Site Water Supply: (VI.10)	C-27 - C-36	
	11. On-Site Sewage Disposal Systems: (VI.11)	C-27 - C-36 & C-37 - C-40	
	<ul><li>12. Open Space: (VI.12)</li><li>a. Natural Features</li><li>b. Buffer Strips</li><li>c. Parks</li><li>d. Tree Planting</li></ul>	a. S-05 b. C-54 - C-63 c. S-05 d. C-54 - C-63	
	13. Flood Hazard Areas: (VI.13)  a. Permits  b. Minimization of Flood Damage  c. Elevation and Flood-Proofing Records  d. Alteration of Watercourses	N/A	
	14. Erosion and Sedimentation Control (VI.14)	C-42 - C-51	

A	Required Items for Submittal		Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
   \   \	15. Easements (VI.15)  a. Utilities  b. Drainage		S-01 - S-05	
1	16. Monuments: (VI.16)		S-01 - S-05	
1	17. Benchmarks: (VI.17)	60	S-01 - S-05	
4	18. House Numbers (VI.18)		S-05 (Final numbers TBD)	

		Design Standards		
		Required Items for Submittal	Indicate compliance and/or provide explanation as to alternative design	Waiver Requested
<b>▼</b>		Streets have been designed according to the design standards required under Section (VII.1).  a. Clearing b. Excavation c. Rough Grade and Preparation of Sub-Grade d. Base Course e. Street Paving f. Side Slopes g. Approval Specifications h. Curbing i. Sidewalks j. Inspection and Methods	Yes	
~	2.	Storm water Sewers and Other Drainage Appurtenances have been designed according to the design standards required under Section (VII.2).  a. Design  b. Standards of Construction	Yes (final stormwater design to be provided in Planning Board submittal)	
<b>V</b>	3.	Sanitary Sewers have been designed according to the design standards required under Section (VII.3).  a. Design b. Lift Stations c. Materials d. Construction Standards	Yes	
<b>V</b>	4.	Water Mains and Fire Hydrants have been designed according to the design standards required under Section (VII.4).  a. Connections to Lots b. Design and Construction c. Materials d. Notification Prior to Construction	Yes	

Applicant's/Representative's Signature:

\_\_Date:\_\_\_\_4/19/2021

<sup>&</sup>lt;sup>1</sup> See City of Portsmouth, NH Subdivision Rules and Regulations for details. Subdivision Application Checklist/January 2018



April 19, 2021

Mr. Dexter Legg, Chair Portsmouth Planning Board 1 Junkins Avenue Portsmouth, NH 03801

RE: Waiver Requests for Condominium Development, Banfield Road, Tax Map 256, Lot 2

Dear Chairman Legg:

On behalf of our client, Green and Company, we respectfully request the following waivers as part of the submittal of the Village at Banfield Woods Condominium Development:

<u>Waiver Request:</u> for Subdivision Rules and Regulations, Residential Street Minimum Standards (page 36), requiring 32' of pavement width.

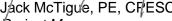
**Explanation:** The pavement width of 26.1' is provided pursuant to City Staff recommendations. This recommendation is based on "City of Portsmouth Complete Street Design Guidelines," dated June 2017. Page 8 of this document suggests a pavement width of 20' for a neighborhood slow street, which best describes the street for this Planned Unit Development. A with of 26.1' is provided to meet fire code standards for road over 750' long.

**Waiver Request:** for Subdivision Rules and Regulations Section VI(3)(b), "The minimum right-of-way for main thoroughfares shall be as shown on the City's Master Plan or Official Map and shall, when not indicated on such Master Plan or Official Map, be not less than sixty (60) feet; for residential streets, fifty (50) feet."

**Explanation:** The ROW width of 40' was provided pursuant to City Staff recommendations. This recommendation is based on the narrower road width and by the applicant's desire to avoid impacting the remainder of the property. This is in alignment with a Planned Unit Development.

We look forward to your review of these waiver requests at the next Planning Board hearing.

Respectfully, **TFMoran, Inc.** 



Project Manager



P.O. Box 1721 • Concord, NH 03302 tel: (603) 731-8500 • fax: (866) 929-6094 • sgp@ pernaw.com

Transportation: Engineering • Planning • Design

### MEMORANDUM

Ref: 2047A

Δ

To: Michael Green

Green & Company

From: Stephen G. Pernaw, P.E., PTOE

Subject: Proposed Residential Development – Traffic Evaluation

Portsmouth, New Hampshire

Date: October 6, 2020

As requested, Pernaw & Company, Inc. has conducted this "Traffic Evaluation" regarding your proposed residential development project located on the west side of Peverly Hill Road in Portsmouth, New Hampshire. This study evaluates the Peverly Hill Road / Private Road A intersection and in terms of traffic operations, capacity, and safety based on 2032 Build traffic volumes. The purpose of this memorandum is to summarize our research of available traffic count data, our recent traffic counts at the subject site, the trip generation analysis for the proposed development, the post-development traffic projections, and the results of the various technical analyses. This study has determined that this proposed intersection will function safely and adequately as a conventional three-leg T-intersection with one shared general-purpose travel lane on each approach. To summarize:

<u>Proposed Development</u> – The conceptual design plan entitled "*Concept A-PUD Plan*," prepared by TFM, Inc., Sheet A-02, dated July 28, 2020 shows that the proposed development will create 60 single-family detached residential units along a private roadway system (see Attachment 1). Private Road A is proposed to intersect the west side of Peverly Hill Road approximately 450-feet south of NH33 (Middle Road). The location of the automatic traffic recorders and the subject site with respect to the area roadway system is shown on Figure 1.

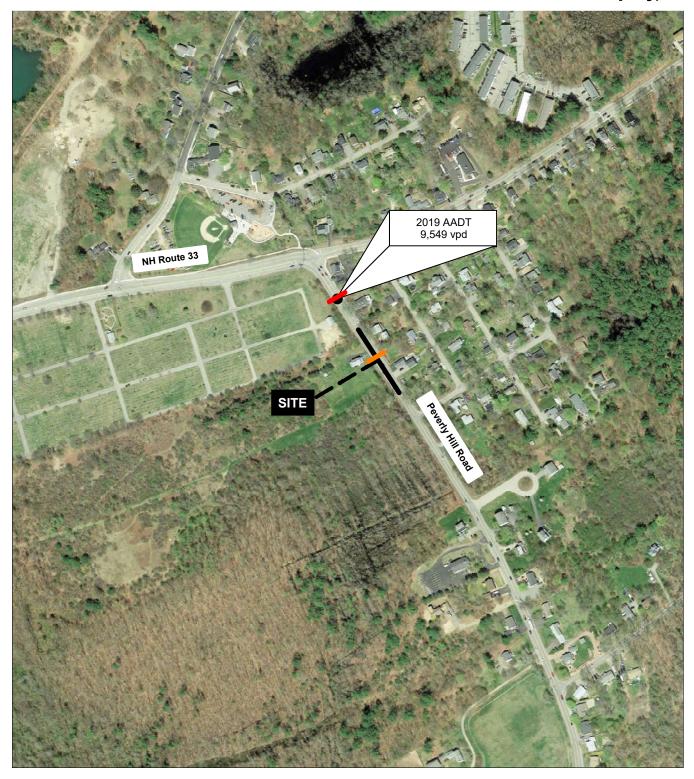
Existing Conditions – Peverly Hill Road extends in a general north-south direction along the site frontage and provides access between NH33 and US1. This road provides one travel lane in each direction in the vicinity of the subject site. The pavement width is delineated with a four-inch double yellow centerline and four-inch single white edge lines. Paved, grass and gravel shoulders of variable width are present along both sides of the roadway. The speed limit is posted at 25 mph in each direction in this area.

Existing Traffic Volumes – According to a short-term NHDOT traffic count conducted on Peverly Hill Road (south of NH33) in June 2019, this roadway section carried an estimated Annual Average Daily Traffic (AADT) volume of approximately 9,549 vehicles per day in 2019. The hourly data indicates that weekday volumes typically reached peak levels from 8:00 to 9:00 AM and from 4:00 to 5:00 PM. The diagrams on Page 3 summarize the daily and hourly variations in traffic demand at this location (see Attachments 2 & 3). This information was supplemented by a 24-hour Automatic Traffic Recorder count conducted by our office in September 2020.

1



### Pernaw & Company, Inc.

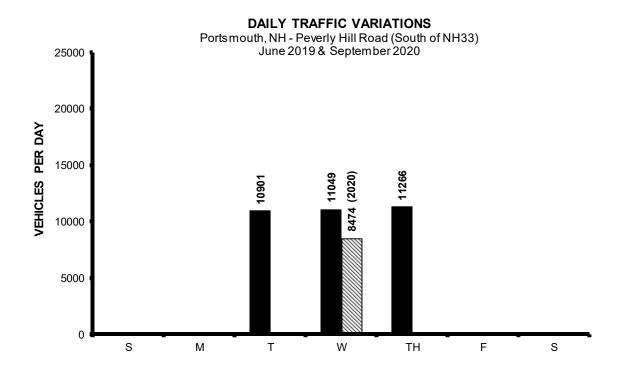


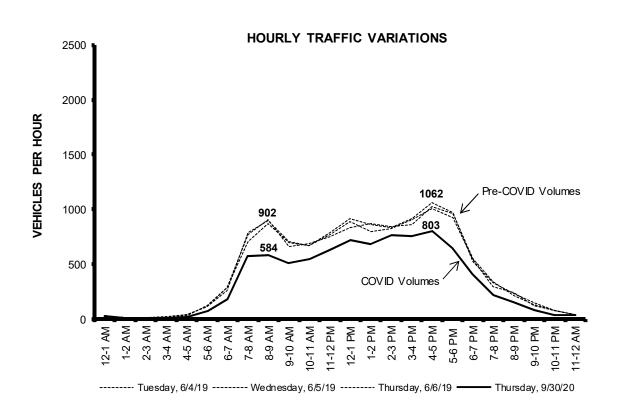
- = AUTOMATIC TRAFFIC RECORDER LOCATION (NHDOT)
- = AUTOMATIC TRAFFIC RECORDER LOCATION (PERNAW & CO., INC.)

NORTH

2047A

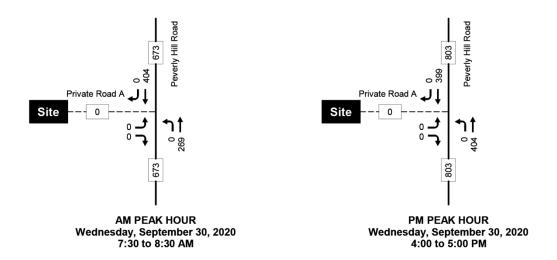








The raw 2020 directional traffic volume data on Peverly Hill Road are summarized in the diagrams below. This data shows that travel in the southbound direction is predominant during the morning peak hour, and this reverses to northbound during the evening peak hour. This pattern is indicative of the employment opportunities in the city, and the proximity of Interstate Route 95.



When compared with the 2019 NHDOT count data, it is obvious that the current traffic levels on Peverly Hill Road have been affected by the COVID-19 pandemic. For this reason, the subsequent post-development traffic volumes contained herein reflect the use of a separate COVID adjustment factor. The raw traffic count data is attached (see Attachment 4).

<u>Trip Generation</u> - To estimate the quantity of vehicle-trips that will be produced by the proposed residential development, the standard trip generation rates and equations published by the Institute of Transportation Engineers<sup>1</sup> (ITE) were considered. Both Land Use Code 210 and 220 are somewhat applicable, for different reasons. LUC 210 applies to single-family detached dwellings; however, the proposed units are condominiums and are much smaller in size than is found in a conventional residential subdivision. LUC 220 applies to condominiums, apartments, and townhouses; however, with multiple units in the same building. Consequently, the trip rates per person for LUC 210 and the trip rates per dwelling unit for LUC 220 were considered; and the higher of the two results were utilized for traffic projection and analysis purposes. According to Green & Company's experience with similar development projects, there are approximately two persons per unit in this type of housing.

<sup>&</sup>lt;sup>1</sup> Institute of Transportation Engineers, *Trip Generation*, 10<sup>th</sup> Edition (Washington, D.C., 2017)

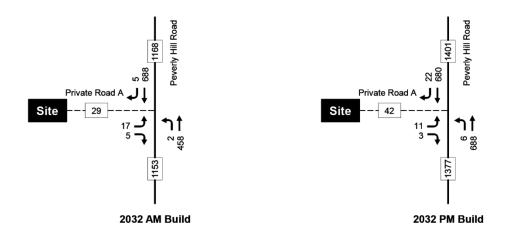


Table 1	Т	Trip Generation Summary		
Weekday AM Pea	k Hour	Estimate A LUC 210 120 Residents <sup>1</sup>	Estimate B LUC 220 60 Units <sup>2</sup>	
	Entering Exiting Total	8 veh <u>17</u> <u>veh</u> 25 trips	7 veh <u>22 veh</u> 29 trips	
Weekday PM Peal	k Hour			
	Entering Exiting Total	28 veh <u>14 veh</u> 42 trips	23 veh <u>14 veh</u> 37 trips	
Weekday Total (2	4-hours)			
	Entering Exiting Total	198 veh 198 <u>veh</u> 396 trips	207 veh 207 veh 414 trips	

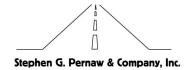
 $<sup>{}^1\</sup>text{ITE Land Use Code 210 - Single-Family Detached Housing (Use 2 persons per unit, Trip Equation Method)}$ 

Based upon ITE Land Use Code 210 (Single-Family Detached Housing) and ITE Land Use Code 220 (Multifamily Housing – Low Rise), the overall development is expected to generate approximately 29 vehicle-trips (7 arrivals, 22 departures) during the AM peak hour, and 42 vehicle-trips (28 arrivals, 14 departures) during the PM peak hour, on an average weekday basis (see Attachment 5).

<u>Future Build Traffic Projections</u> – The diagrams below summarize the Build traffic projections for the 2032 horizon year. These projections are based on the September 2020 traffic count data, a peak-month seasonal adjustment factor of 1.05 (see Attachment 6), a 2.0% background traffic growth rate, compounded annually (see Attachment 7), and a COVID-19 adjustment factor of 1.28 (see Attachment 8). The trip distribution analysis (see Attachment 9) indicates that the majority of site traffic (78%) will travel to/from points north on Peverly Hill Road.



 $<sup>^2</sup>$ ITE Land Use Code 220 - Multifamily Housing - Low-Rise (60 Dwelling Units, Trip Equation Method)



<u>Intersection Capacity and Level of Service</u> - The long-range (2032) traffic projections form the basis for assessing traffic operations at the Peverly Hill Road / Private Road A intersection from a capacity and delay standpoint. This intersection was analyzed according to the methodologies of the *Highway Capacity Manual* 2010<sup>2</sup> as replicated by the latest edition of the *Synchro Signal Timing Software (Version 10)*, which is capable of analyzing unsignalized intersections as well.

Capacity and Level of Service (LOS) calculations pertaining to unsignalized intersections address the quality of service for those vehicles turning into and out of the intersecting side street or driveway. The availability of adequate gaps in the traffic stream on the major street actually controls the potential capacity for vehicle movements to and from the minor approaches, in terms of vehicles per hour.

The results of the analysis for the subject intersection show that all applicable turning movements will operate well <u>below</u> capacity through 2032 with the proposed development fully occupied. Nevertheless, departures from the Private Road A approach to Peverly Hill Road can be expected to encounter moderate delays during the peak hour periods in 2032: Level of Service E during the morning peak hour; Level of Service D during the evening peak hour (see Attachments 10 & 11).

### Auxiliary Turn Lane Warrants Analysis

Left-Turn Treatment - The type of treatment needed to accommodate left-turning vehicles from any street or highway to an intersecting side street (or driveway) can range from no treatment, where turning volumes are low; to the provision of a bypass lane for through traffic to travel around left-turning vehicles; to the addition of a formal center turn lane used exclusively by left-turning vehicles for deceleration and storage while waiting to complete their maneuvers.

Analysis of the 2032 traffic volumes using NCHRP 457 guidelines confirmed that no special treatment is needed for left-turn arrivals from Peverly Hill Road. The results of the analysis are summarized on Table 2. This finding means that the northbound through lane on Peverly Hill Road will function safely and adequately as a shared through-left lane (see Attachments 12 & 13).

Right-Turn Treatment - The type of treatment needed to accommodate right-turning vehicles from any street or highway to any intersecting side street (or driveway) can range from a radius only, where turning volumes are low; to the provision of a short 10:1 right-turn taper; to the addition of an exclusive right-turn lane, where turning volumes and through traffic volumes are significant.

Analysis of the 2032 traffic volumes contained herein using NCHRP 457 guidelines confirmed that right-turn treatment is <u>not warranted</u> at the subject intersection. The results of these analyses are summarized on Table 2 and the computations are attached (Attachments 14 & 15).

Minor Road Approach Treatment - The type of treatment needed to accommodate exiting vehicles from the minor-road approach at a stop-controlled intersection can range from a single lane (shared left-right lane) in low-volume conditions, to two exit lanes (exclusive left-turn lane and exclusive right-turn lane) where turning volumes and through traffic volumes are significant,

<sup>2</sup> Transportation Research Board, *Highway Capacity Manual* (Washington, D.C., 2010).

6 2047A



to multiple exit lanes in extreme cases. The analysis is summarized on Table 2 and shows that a single departure lane on the Private Road A approach to Peverly Hill Road is sufficient (see Attachments 16 & 17).

Table 2

Auxiliary Turn Lane Warrants Analysis

Peverly Hill Road / Private Road A

	2032 AM	2032 PM
	Build Volumes	Build Volumes
FT-TURN LANE WARRANTS ANALYSIS		
Peak Hour Inputs:		
Left-Turn Volume (NB)	2	6
Advancing Volume (NB)	460	694
Opposing Volume (SB)	693	702
Percent Lefts	0.4%	0.9%
Speed (mph)	25	25
Limiting Advancing Volume (veh/h)	>1000	>1000
Left-Turn Treatment Warranted?	NO	NO
IGHT-TURN LANE WARRANTS ANALYSIS Peak Hour Inputs:		
Right-Turn Volume (SB)	5	22
Approach Volume (SB)	693	702
Speed (mph)	25	25
Limiting Right-Turn Volume (veh/h)	225	208
Add Right-Turn Bay?	NO	NO
INOR-ROAD APPROACH GEOMETRY ANALYS	IS	
Peak Hour Inputs:	_	
Major-Road Volume (NB-SB)	1153	1396
% Right-Turns on Minor (⊞)	23	21
Minor-Road Approach Volume	22	14
Limiting Minor-Road Volume (veh/h)	132	95
Consider TWO Approach Lanes?	NO	NO



### Findings & Conclusions

- 1. The September 2020 traffic count conducted on Peverly Hill Road at the subject site revealed that this section of roadway carried approximately 8,500 vehicles on a typical weekday, with 673 vehicles observed passing the site during the AM peak hour (7:30 to 8:30 AM) and 803 vehicles observed during the PM peak hour (4:00 to 5:00 PM). The predominant travel direction was southbound during the AM, and northbound during the PM.
- 2. The proposed residential development is expected to generate approximately 29 (AM) and 42 (PM) vehicle-trips during the peak hour periods. The majority (78%) are expected to travel to/from points north on Peverly Hill Road (via NH33).
- 3. Site traffic is expected to increase the two-way traffic volume on Peverly Hill Road by +2% north of the site, and +1% south of the site by 2032.
- 4. The intersection capacity and Level of Service analysis indicates that all applicable traffic movements at this intersection will operate well below capacity through 2032 with the development fully occupied. By 2032, departures from the site are expected to operate at Level of Service E during the morning peak hour, and at Level of Service D during the PM peak hour. Left-turn arrivals (from Peverly Hill Road northbound) will operate at Level of Service B, or higher, during all hours of the day through 2032. Vehicle queuing on the Private Road A approach to Peverly Hill Road is expected to be minimal.
- 5. The 2032 Build traffic volumes do <u>not</u> satisfy the NCHRP guidelines for left-turn treatment or right-turn treatment at the Private Road A intersection on Peverly Hill Road. The subject intersection will function safely and efficiently with one shared travel lane on each approach to the subject intersection.

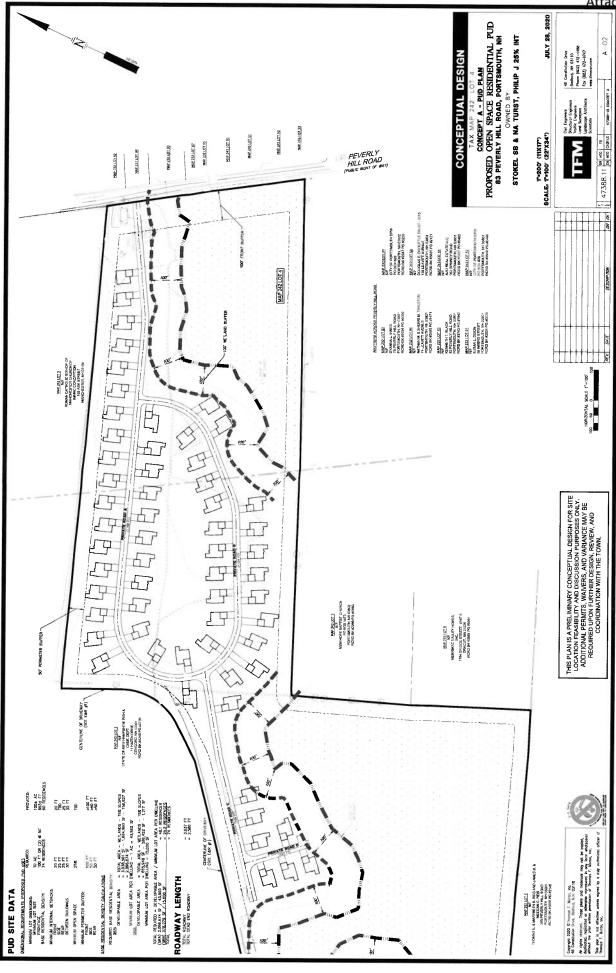
From a traffic operations and safety standpoint, providing ample sight distances looking left and right from the Proposed Road A approach to Peverly Hill Road is an important safety consideration. This new access road should operate under stop sign control, and be delineated with a 18-inch white stop line and a short section of 4-inch double-yellow centerline to separate inbound and outbound vehicles.

### Attachments





ATTACHMENTS







### Transportation Data Management System

Record	1 D D of 1 Goto Record	go	
Location ID		MPO ID	
	SPOT	HPMS ID	
On NHS		On HPMS	Yes
	L3790080	LRS Loc Pt.	
SF Group	04	Route Type	
AF Group	04	Route	
GF Group	E	Active	Yes
Class Dist Grp	Default	Category	3
Seas Clss Grp	Default		
WIM Group	Default		
QC Group	Default		
Fnct'l Class	Major Collector	Milepost	
Located On	Peverly Hill Rd		
Loc On Alias	PEVERLY HILL RD SOUTH OF NH 33		
More Detail			

		6	

<b>AADT</b> 9,549	<b>DHV-30</b> 1,062	<b>K</b> % 11	D %	<b>PA</b> 8,748 (92%)	<b>BC</b> 801 (8%)	Src
10,823 <sup>3</sup>		11		9,978 (92%)	845 (8%)	Grown from 2017
10,611 <sup>3</sup>		11		9,847 (93%)	764 (7%)	Grown from 2016
10,403	1,150	11		9,487 (91%)	916 (9%)	
10,527 <sup>3</sup>	I					Grown from 2014
	9,549 10,823 <sup>3</sup> 10,611 <sup>3</sup> 10,403	9,549 1,062 10,823 <sup>3</sup> 10,611 <sup>3</sup> 10,403 1,150	9,549 1,062 11 10,823 <sup>3</sup> 11 10,611 <sup>3</sup> 11 10,403 1,150 11 10,527 <sup>3</sup>	9,549 1,062 11 10,823 <sup>3</sup> 11 10,611 <sup>3</sup> 11 10,403 1,150 11 10,527 <sup>3</sup>	9,549 1,062 11 8,748 (92%) 10,823 <sup>3</sup> 11 9,978 (92%) 10,611 <sup>3</sup> 11 9,847 (93%) 10,403 1,150 11 9,487 (91%) 10,527 <sup>3</sup>	9,549 1,062 11 8,748 (92%) 801 (8%) 10,823 <sup>3</sup> 11 9,978 (92%) 845 (8%) 10,611 <sup>3</sup> 11 9,847 (93%) 764 (7%) 10,403 1,150 11 9,487 (91%) 916 (9%) 10,527 <sup>3</sup>

> >> 1-5 of 20

Travel Demand	Model								
Model Year	Model AADT	AM PHV	AM PPV	MD PHV	MD PPV	PM PHV	PM PPV	NT PHV	NT PPV

VOLUM	IE COUNT	VOLUME TR	END C		
	Date	Int	Total	Year	Annual Growth
4	Thu 6/6/2019	60	11,266	2019	-12%
*	Wed 6/5/2019	60	11,049	2018	2%
÷	Tue 6/4/2019	60	10,901	2017	2%
ş	Tue 7/19/2016	60	12,808	2017	
4	Mon 7/18/2016	60	12,033		-1%
th.	Sun 7/17/2016	60	6,806	2015	3%
45	Fri 9/13/2013	60	11,838	2014	2%
4	Thu 9/12/2013	60	11,713	2013	4%
45	Wed 9/11/2013	60	11,902	2010	-7%
45	Tue 9/10/2013	60	11,404	2007	-10%





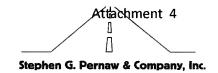
### **Transportation Data Management System**



### Excel Version

Location ID:	82379124	Туре:	SPOT
Located On:	Peverly Hill Rd	:	
Direction:	2-WAY		
Community:	PORTSMOUTH	Period:	Mon 6/3/2019 - Sun 6/9/2019
AADT:	9549		

Start Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Avg	Graph
12:00 AM		14	28	24				22	0.2%
1:00 AM		11	18	12				14	0.1%
2:00 AM		16	13	13				14	0.1%
3:00 AM		13	17	20				17	0.2%
4:00 AM		35	39	40				38	0.3%
5:00 AM		125	113	115				118	1.1%
6:00 AM		286	290	263				280	2.5%
7:00 AM		710	771	786				756	6.8%
8:00 AM		867	906	902				892	8.1%
9:00 AM		700	664	707			5	690	6.2%
10:00 AM		666	688	674				676	6.1%
11:00 AM		773	751	792				772	7.0%
12:00 PM		893	835	916				881	8.0%
1:00 PM		802	872	858				844	7.6%
2:00 PM		828	840	830				833	7.5%
3:00 PM		904	861	916				894	8.1%
4:00 PM		1004	1025	1062	)			1,030	9.3%
5:00 PM		926	963	973				954	8.6%
6:00 PM		543	548	524				538	4.9%
7:00 PM		299	340	336				325	2.9%
8:00 PM		246	216	237				233	2.1%
9:00 PM		124	133	148				135	1.2%
10:00 PM		74	78	79				77	0.7%
11:00 PM		42	40	39				40	0.4%
Total	0	10,901	11,049	11,266	0	0	0		
24hr Total		10901	11049	11266				11,072	
AM Pk Hr		8:00	8:00	8:00					
AM Peak		867	906	902				892	
PM Pk Hr		4:00	4:00	4:00					
PM Peak		1004	1025	1062				1,030	
% Pk Hr		9.21%	9.28%	9.43%				9.31%	



### <u>Automatic Traffic Recorder Count - Peverly Hill Road, Portsmouth, NH (South of NH Route 33)</u> Wednesday, September 30, 2020

Period	CA	RS	TRU	ICKS	то	TAL			Period	CA	RS	TRU	CKS	TO	TAL		
Beginning	SB	NB	SB	NB	SB	NB	тот		Beginning	SB	NB	SB	<u>NB</u>	SB	<u>NB</u>	тот	_
	_																
12:00 AM	6	3	0	0	6	3	9		12:00 PM	98	80	10	10	108	90	198	683
12:15 AM	5	2	0	0	5	2	7		12:15 PM	88	86	3	2	91	88	179	714
12:30 AM	4	1	0	0	4	1	5		12:30 PM	92	81	8	2	100	83	183	740
12:45 AM	2	2	0	0	2	2	4	25	12:45 PM	88	66	2	3	90	69	159	719
1:00 AM	0	1	0	0	0	1	1	17	1:00 PM	75	81	4	2	79	83	162	683
1:15 AM	2	0	0	0	2	0	2	12	1:15 PM	79	74	4	3	83	77	160	664
1:30 AM	1	1	0	0	1	1	2	9	1:30 PM	79	76	8	6	87	82	169	650
1:45 AM	1	1	0	1	1	2	3	8	1:45 PM	100	80	3	8	103	88	191	682
2:00 AM	1	0	1	0	2	0	2	9	2:00 PM	94	68	8	6	102	74	176	696
2:15 AM	1	1	0	0	1	1	2	9	2:15 PM	92	79	6	6	98	85	183	719
2:30 AM	1	0	0	0	1	0	1	8	2:30 PM	107	68	5	5	112	73	185	735
2:45 AM	1	1	0	0	1	1	2	7	2:45 PM	110	102	3	7	113	109	222	766
3:00 AM	1	2	0	1	1	3	4	9	3:00 PM	113	90	7	2	120	92	212	802
3:15 AM	0	0	0	0	0	0	0	7	3:15 PM	89	81	3	5	92	86	178	797
3:30 AM	0	0	0	1	0	1	1	7	3:30 PM	91	91	8	6	99	97	196	808
3:45 AM	3	0	0	0	3	0	3	8	3:45 PM	94	68	3	2	97	70	167	753
4:00 AM	1	1	0	0	1	1	2	6	4:00 PM	93	110	0	3	93	113	206	747
4:15 AM	1	2	0	0	1	2	3	9	4:15 PM	99	111	2	1	101	112	213	782
4:30 AM	1	0	0	0	1	0	1	9	4:30 PM	86	92	5	0	91	92	183	769
4:45 AM	4	4	1	0	5	4	9	15	4:45 PM	110	82	4	5	114	87	201	803
5:00 AM	6	2	1	0	7	2	9	22	5:00 PM	89	100	2	0	91	100	191	788
5:15 AM	17	4	0	0	17	4	21	40	5:15 PM	100	71	2	0	102	71	173	748
5:30 AM	9	10	1	0	10	10	20	59	5:30 PM	79	76	1	1	80	77	157	722
5:45 AM	20	3	1	1	21	4	25	75	5:45 PM	76	48	0	0	76	48	124	645
6:00 AM	13	13	3	1	16	14	30	96	6:00 PM	72	55	0	0	72	55	127	581
6:15 AM	17	7	0	0	17	7	24	99	6:15 PM	60	40	Ö	0	60	40	100	508
6:30 AM	26	11	3	2	29	13	42	121	6:30 PM	49	40	Ö	1	49	41	90	441
6:45 AM	63	22	4	1	67	23	90	186	6:45 PM	58	32	Ö	0	58	32	90	407
7:00 AM	50	27	5	Ö	55	27	82	238	7:00 PM	31	43	0	Ö	31	43	74	354
7:15 <b>AM</b>	76	33	4	3	80	36	116	330	7:15 PM	33	25	Ö	0	33	25	58	312
7:30 AM	91	41	2	<del>-</del> 7	93	48	141	429	7:30 PM	29	21	0	0	29	21	50 50	272
7:45 AM	150	73	8	6	158	79	237	576	7:45 PM	20	19	0	1	20	20	40	
8:00 AM	76	72	4	6	80	78	158	652	8:00 PM	21	23	0	0	21	23	44	192
8:15 AM	69	61	4	3	73	64	137	673	8:15 PM	16	23 19	0	0	16	23 19		
8:30 AM	<u>03</u> 71	36	<u>-</u>	7	<u>73</u>	43	116	648	8:30 PM	17	23	0	0		23	35 40	169
8:45 AM	91	72	3	7	73 94	79	173		8:45 PM	20	13	0	0	17 20	23 13	40	159
	71	54	1	2	72	56	173	554	9:00 PM	20 15	9	1			9	33	152
9:00 AM	68	43	7	2	75						6	0	0	16	-	25	133
9:15 AM			•			45 57	120	537	9:15 PM	11	•	•	0	11	6	17	115
9:30 AM	65 ee	50	4	7	69 87	57	126	547	9:30 PM 9:45 PM	6	9	0	0	6	9	15	90
9:45 AM	86	45	1	2	87	47	134	508		12	11	2	0	14	11	25	82
10:00 AM	80	44	7	0	87	44	131	511	10:00 PM	3	11	0	0	3	11	14	71
10:15 AM	79 C4	60	8	6	87	66	153	544	10:15 PM	5	7	0	0	5	7	12	66
10:30 AM	64 05	51	2	1	66 03	52 50	118	536	10:30 PM	1	1	0	0	1	1	2	53
10:45 AM	85	53	7	3	92	56	148	550	10:45 PM	2	7	0	0	2	7	9	37
11:00 AM	79	51	7	3	86	54	140	559	11:00 PM	5	5	0	0	5	5	10	33
11:15 AM	77	60	7	4	84	64	148	554	11:15 PM	2	5	0	0	2	5	7	28
11:30 AM	81	61	6	9	87	70	157	593	11:30 PM	9	4	0	0	9	4	13	39
11:45 AM	93	71	7	9	100	80	180	625	11:45 PM	2	7	0	0	2	7	9	39
T 00 000 :-	45 :				1920	1247	3167		1.00					2824	2483	5307 »	,
7:30 - 8:30 A	VI Peak	Hour			404	269	673		4:00 - 5:00 PM	vi Peak	Hour			399	404	803	ı

DAILY TRAFFIC VOLUME = 8,474 vehicles per day

### **Trip Generation Summary**

Alternative: Alternative 1

Phase:

Project:

出

210

220

2047A Gen

10/5/2020 10/5/2020 Open Date: Analysis Date:

Total 42 37 Weekday PM Peak Hour of Adjacent Street Traffic Ĕ 4 4 Enter 28 23 × Total 25 29 54 Weekday AM Peak Hour of Adjacent Street Traffic ΕX 1 22 Enter 5 ∞ / \* Total 396 413 Weekday Average Daily Trips 206 EX 198 Enter 198 207 \* **Dwelling Units** Residents LOW-RISE 1 SFHOUSE 1 Unadjusted Volume Land Use 120 8

Total Weekday Average Daily Trips Internal Capture = 0 Percent

0 0 6

0 0 8

51 0

5

809

404

405 0

Volume Added to Adjacent Streets

Internal Capture Trips

Pass-By Trips

0 0

0 0

0

0

0 0 %

0 39

0 0

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Custom rate used for selected time period.

### Year 2019 Monthly Data - Urban

		Adjustn	nent to
<u>Month</u>	ADT	Average	Peak
Jan	11,431	1.12	1.23
Feb	11,848	1.08	1.18
Mar	12,141	1.06	1.15
Apr	12,860	1.00	1.09
May	13,551	0.95	1.03
Jun	13,785	0.93	1.02
Jul	13,942	0.92	1.01
Aug	14,016	0.92	1.00
Sep	13,379	0.96	1.05
Oct	13,339	0.96	1.05
Nov	12,265	1.05	1.14
Dec	11,496	1.12	1.22

### Year 2018 Monthly Data - Urban

	Adjustment to		
ADT	Average	Peak	
11,282	1.13	1.24	
11,848	1.08	1.18	
11,828	1.08	1.18	
12,491	1.02	1.12	
13,587	0.94	1.03	
13,911	0.92	1.00	
13,765	0.93	1.01	
13,945	0.92	1.00	
13,168	0.97	1.06	
13,367	0.96	1.04	
12,215	1.05	1.14	
11,963	1.07	1.17	
	11,282 11,848 11,828 12,491 13,587 13,911 13,765 13,945 13,168 13,367 12,215	ADT Average 11,282 1.13 11,848 1.08 11,828 1.08 12,491 1.02 13,587 0.94 13,911 0.92 13,765 0.93 13,945 0.92 13,168 0.97 13,367 0.96 12,215 1.05	

### Year 2017 Monthly Data - Urban

		Adjustment to					
<u>Month</u>	ADT	Average	Peak				
Jan	12254	1.21	1.33				
Feb	13494	1.10	1.21				
Mar	14335	1.03	1.14				
Apr	15004	0.99	1.09				
May	15547	0.95	1.05				
Jun	16310	0.91	1.00				
Jul	15523	0.95	1.05				
Aug	15974	0.93	1.02				
Sep	15546	0.95	1.05				
Oct	15104	0.98	1.08				
Nov	14544	1.02	1.12				
Dec	14151	1.05	1.15				

September to Peak-Month Factor = 1.05



STEPHEN G. PERNAW & COMPANY, INC.

PROJECT: Proposed Residential Development, Portsmouth New Hampshire

NUMBER: 2047A COUNT STATION: 82379124

### HISTORICAL GROWTH CALCULATIONS

**LOCATION:** Peverly Hill Road (S. of NH33)

CASE: AADT

### ARITHMETIC PROJECTIONS

YEAR	AADT			PROJI	ECTIONS
		Regression Ou	ıtput:		
2015	10527	Constant	-210417.4	2020	10975
2016	10403	Std Err of Y Est	129.62099	2021	11084
2017	10611	R Squared	0.6412368	2022	11194
2018	10823	No. of Observations	4	2023	11303
		Degrees of Freedom	2	2024	11413
				2025	11523
		X Coefficient	109.6	2026	11632
		Std Err of Coef.	57.968267	2027	11742
				2028	11851
				2029	11961
				2030	12071

RATE = 110 VPD/YEAR

### GEOMETRIC PROJECTIONS

YEAR	AADT	Ln AADT			PROJ	ECTIONS
			Regression Οι	utput:		
2015	10527	9.26170	Constant	-11.49974	2020	10979
2016	10403	9.24985	Std Err of Y Est	0.0122527	2021	11092
2017	10611	9.26965	R Squared	0.6384951	2022	11207
2018	10823	9.28943	No. of Observations	4	2023	11323
			Degrees of Freedom	2	2024	11440
					2025	11559
			X Coefficient	0.0102987	2026	11678
			Std Err of Coef.	0.0054796	2027	11799
					2028	11921
					2029	12045
					2030	12170



RATE = 1.0 % / YEAR



Project:	Portsmouth - Res.	Job Number:	2047A
Calculated By:	SGP	Date:	10/5/2020
Checked By:	CA	Date:	10/5/2020
Sheet No:	1	Of:	1
Subject:	COVID-19 Adjustment F	actor	

Given:	
NHDOT traffic count on Pe	verly Hill Road (south of NH33) in June 2019 (Pre-covid conditions)
Average AM peak hour =	892 veh.
Average PM peak hour =	1,030 veh.
Average weekday = 11,07	'2 veh.
2. SGP ATR count on Wedne	sday, September 30, 2020
AM peak hour = 673 veh.	
PM peak hour = 803 veh.	
Weekday = 8,474 veh.	
3. NHDOT Group 4 (Urban Hi	ghways) seasonal adjustment factors
September to peak month	n = 1.05 (average of 2017, 2018 & 2019)
June to peak month = 1.0	1 (average of 2017, 2018 & 2019)
4. Background growth rate = 1	1.0/year; use 2.0% to account for other unknown development projects
Calculate 2020 peak month vol	umes using NHDOT June 2019 data (pre-covid conditions)
1. AM = 892 x 1.02 x 1.01 = 9	19 veh
2. PM = 1,030 X 1.02 x 1.01 =	1,061 veh
3. Weekday = 11,072 x 1.02 x	: 1.01 = 11.406 veh
Calculate 2020 peak month vo	lumes using SGP September 2020 data (during covid)
1. AM = 673 x 1.05 = 707 veh	
2. PM = 803 X 1.05 = 843 veh	
3. Weekday = 8,474 x 1.05 = 8	8 898 veh
0. 1100kddy 0, 11 1 X 1.00 K	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
. Calculate individual COVID-19	factors
1. AM = 919 / 707 = 1.30	
2. PM = 1,061 / 843 = 1.26	
3. Weekday = 11,406 / 8,898 =	= 1 28
0. vvcckday = 11,4007 0,030 -	1,20
Calculate average COVID-19 fa	actor.
Average covid factor = (1.30 +	
Trotage covid factor = (1.50 +	1.60 - 1.60/10 1.20
	<del>                                     </del>
	<del></del>



Location: Portsmouth, New Hampshire Job Number: 2047A

## TRIP DISTRIBUTION ANALYSIS

# Work Destination Report - Where Workers are Employed Who Live in the Selection Area - by County Subdivisions

Total All Jobs									
			Gateway %		'	Gate	Gateway Allocation	ation	
Jobs Counts by County Subdivisions Where Workers are Employed - All Jobs	orkers are Employed - All Jobs	<b>⋖</b> !	<b>co</b> i	O		۷I	اه	O	
	Count								
Portsmouth city (Rockingham, NH)	4,355	0.40	0.40	0.20	1.00	1742	1742	871	4355
Dover city (Strafford, NH)	604	0.50		0.50	1.00	302	0	302	604
Exeter town (Rockingham, NH)	423	1.00			1.00	423	0	0	423
Manchester city (Hillsborough, NH)	399	1.00			1.00	399	0	0	399
Boston city (Suffolk, MA)	371	1.00			1.00	371	0	0	371
Newington town (Rockingham, NH)	343	0.50		0.50	1.00	172	0	172	344
Hampton town (Rockingham, NH)	266	0.70		0.30	1.00	186	0	80	266
Durham town (Strafford, NH)	266	0.30		0.70	1.00	8	0	186	266
Nashua city (Hillsborough, NH)	249	1.00			1.00	249	0	0	249
Salem town (Rockingham, NH)	193	1.00			1.00	193	0	0	193
KEY	7469					4117	1742	1611	7470
A=To/From Points West via NH Route 33 B=To/From Points East via NH Route 33						55.1%	23.3%	21.6%	100%
C=To/From Points South via Peverly Hill Road					] asn	55	23	22	100

#### 3: Peverly Hill Road & Proposed Site Driveway

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			4	<u>∪001</u>	0011
Traffic Vol, veh/h	17		/ 2.	<b>√</b> 458	<b>√</b> 688	/ 5,
Future Vol, veh/h	17		2	458	688	5
Conflicting Peds, #/hr	0		0	0	0	Ō
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	e,#0	-	-	0	0	-
Grade, %	0	-	-	0	0	_
Peak Hour Factor	90	90	85	85	64	64
Heavy Vehicles, %	0	0	0	8	5	0
Mvmt Flow	19	6	2	539	1075	8
Major/Minor I	Minor2	P	Major1	A	Major2	
Conflicting Flow All	1622		1083	0	viajuiz -	0
Stage 1	1079	1079	1003	U	=	U
Stage 2	543	-	-	_	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4		4. 1	-	-	-
Critical Howy Stg 2	5.4 5.4		-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	114		652	-	-	-
Stage 1	329	200	002	-	-	-
Stage 2	586	-	-	-	-	-
Platoon blocked, %	500	•	-	-	-	-
Mov Cap-1 Maneuver	114	268	652	-	-	-
Mov Cap-1 Maneuver	114	200	002	-	-	-
Stage 1	328	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Glaye Z	500	-	-	-	-	-
Approach	EB		NB 0		SB	
HCM Control Delay, s	38.7		0		0	
HCM LOS	Е					
Minor Lane/Major Mvm	nt	NBL	NBT E	BLn1	SBT	SBR
Capacity (veh/h)		652	-	131	-	-
HCM Lane V/C Ratio		0.004	-	0.187	_	-
HCM Control Delay (s)		10.5	0	38.7	-	-
HCM Lane LOS		В	Α	Ε	-	_
HCM 95th %tile Q(veh)	)	0	-	0.7	-	-

#### 3: Peverly Hill Road & Proposed Site Driveway

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		III	4	<b>.</b>	OBIT
Traffic Vol, veh/h		V 3v	/ 6	<b>√</b> 688,		/ 22 /
Future Vol, veh/h	11		6	688	680	22
Conflicting Peds, #/hr	0		0	0	0	0
Sign Control	Stop		Free	Free	Free	Free
RT Channelized	· -		_	None	_	None
Storage Length	0		-	-	_	-
Veh in Median Storage			_	0	0	-1
Grade, %	0		_	0	0	=
Peak Hour Factor	90	90	89	89	88	88
Heavy Vehicles, %	0		0	2	3	0
Mvmt Flow	12		7	773	773	25
		J	•	. , ,	.,,	_~
Major/Minor A	lino∽	R.	Acie=4		Ania-M	
	Minor2		Major1		/lajor2	
Conflicting Flow All	1573		798	0	-	0
Stage 1	786		-	-	-	-
Stage 2	787	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Howy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	123	395	833	-	-	-
Stage 1	453	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	121	395	833	-	-	-
Mov Cap-2 Maneuver	121	-	-	-	-	-
Stage 1	446	_	_	-	-	_
Stage 2	452	-	_	_	-	_
Approach	EB		NB		SB	
	33.4		0.1	· · · · · · · · · · · · · · · · · · ·	0	
HCM LOS	55.4 D		U. 1		U	
110111 200	D					
Minor Long // A-i 1 A		NIDI	NIDT	-DL 4	OPT	ODE
Minor Lane/Major Mvmt	Ţ.	NBL		EBLn1	SBT	SBR
Capacity (veh/h)		833	-	142	-	-
HCM Lane V/C Ratio		0.008	-	0.11	-	-
HCM Control Delay (s)		9.4	0	33.4	-	-
HCM Lane LOS		A	Α	D	-	-
HCM 95th %tile Q(veh)		0	-	0.4	-	-



Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)

Variable	Valley		
0.25.15.	value		
85 <sup>m</sup> percentile speed, mph:	25	008 <b>4/</b> 4	
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	%0	00 √ <b>6</b> ∤	
Advancing volume (V <sub>A</sub> ), veh/h:	460		
Opposing volume (V <sub>O</sub> ), veh/h:	693	β •∧	
		200 16	
OUTPUT		<b>um</b> 400	
Variable	Value	ر ۱۰/	
Limiting advancing volume (V <sub>A</sub> ), veh/h:	1456		
Guidance for determining the need for a major-road left-turn bay:	ay:	<b>nia</b>	Left-turn freafment not
Left-turn treatment NOT warranted.		100	warranted

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s.	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-turn treatment warranted.		009
Left-turn tr warranted.		200
		400
		300
		200
	Left-turn treatment not warranted.	100
500		



Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English) INPUT

Variable	Value					
85 <sup>th</sup> percentile speed, mph;	25	 8 <b>ų</b> /•				
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	1%	.‱ 19/				
Advancing volume (V <sub>A</sub> ), veh/h:	694					
Opposing volume (V <sub>O</sub> ), veh/h:	702	ο • <b>Λ</b>				
OUTPUT		<b>9me</b>				
Variable	Value					
Limiting advancing volume (V <sub>A</sub> ), veh/h:	1023					
Guidance for determining the need for a major-road left-turn bay:	ıy:	nia 200	Left-turn treatment not			
Left-turn treatment NOT warranted.		900	warranted.			
		ldc				
			100	200	300	

Left-turn treatment warranted.

700

009

200

Advancing Volume (V<sub>A</sub>), veh/h

CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Stephen G. Pernaw & Company, Inc.

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

			Add right - turn bay						/	/		400 600 800 1000 1200 1400	Major-Road Volume (one direction), veh/h
		Value 740	25 120 120 120 120 120 120 120 120 120 120		2 100	anje	oV m	Value 40	_յւ	07   <b>6</b> i)	<b>A</b>	200	
INPUT	2-lane roadway	Variable Variable Variable	Major-road speed, mph:	Major-road volume (one direction), veh/h:	Right-turn volume, veh/h:		OUTPUT	Variable	Limiting right-turn volume, veh/h:	Guidance for determining the need for a major-road	right-turn bay for a 2-lane roadway:	Do NOT add right-turn bay.	

I I Stephen G. Pernaw & Company, Inc.

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

		140	120 Add ngnt - turn bay		100	08	09	40		707		200 400 600 800 1000 1200 1400	Major-Road Volume (one direction), veh/h
		Value	72 72	702	22	unic	oV m	Value	208	lgi.	<u>H</u>		
INPUT	2-lane roadway	Variable	Major-road speed, mph:	Major-road volume (one direction), veh/h:	Right-turn volume, veh/h:		OUTPUT	Variable	Limiting right-turn volume, veh/h:	Guidance for determining the need for a major-road	right-turn bay for a 2-lane roadway:	Do NOT add right-furn bay.	

1600



Figure 2 - 4. Guideline for determining minor-road approach geometry at two-way stop-controlled intersections.

INPUT				
Variable	Value			
Major-road volume (total of both directions), veh/h:	1153	'(।	200	
Percentage of right-turns on minor road, %:	23%	uoi		
Minor-road volume (one direction), veh/h:	22	)	/	
		uo)	300	
OUTPUT		կ/և əւ		/
Variable	Value	un Let		/
Limiting minor-road volume (one direction), veh/h:	132	\  0 <i> </i>	200	
Guidance for determining minor-road approach geometry:		/ p	_	
ONE approach lane is o.k.		BO	00	
		- Я-	20	
		IOU	One appr	One approach lane is o.k.
		iΜ	0	
		1		

Consider two approach lanes

Percentage of right-turns on minor road, %:	23%
Minor-road volume (one direction), veh/h:	22
OUTPUT	
Variable	Value
Limiting minor-road volume (one direction), veh/h:	132
Guidance for determining minor-road approach geometry:	
ONE approach lane is o.k.	

CALIBRATION CONSTANTS		
Minor Road	Critical gap, s:	Critical gap, s: Follow-up gap, s:
Right-turn capacity, veh/h:	6.2	3.3
Left-turn and through capacity veh/h:	u w	0.1

800

900

400

200

Major-Road Volume (total of both directions), veh/h

\* according to Table 17 - 5 of the HCM

Stephen G. Pernaw & Company, Inc.

Figure 2 - 4. Guideline for determining minor-road approach geometry at two-way stop-controlled intersections.

H
=
n
=
۷.

Major-road volume (total of both directions), veh/h: Percentage of right-turns on minor road, %: Minor-road volume (one direction), veh/h:  OUTPUT  Variable Limiting minor-road volume (one direction), veh/h:  Guidance for determining minor-road approach geometry:  ONE approach lane is o.k.	Variable	Value	
Value   Value   One direction	Major-road volume (total of both directions), veh/h:	1396	'(
Value   Value	Percentage of right-turns on minor road, %:	21%	uoį
Value   Value	Minor-road volume (one direction), veh/h:	14	j)
Value 95 95 08d Volume	TIGHTIO		-
Value 95 Oad Volui			
95 IoV bso	Variable	Value	
	Limiting minor-road volume (one direction), veh/h:	92	
	Guidance for determining minor-road approach geometry:		۱ þ
	ONE approach lane is o.k.		БO

# CALIBRATION CONSTANTS

Minor Road	Critical gap, s:	Critical gap, s: Follow-up gap, s:
Right-turn capacity, veh/h:	6.2	3.3
Left-turn and through capacity, veh/h:	6.5	4.0

\* according to Table 17 - 5 of the HCM

Consider two approach lanes			One approach lane is o k	200 400 600 800 1000 1200 1400 1600 1800 2000	Major-Road Volume (total of both directions), veh/h
500	9000	200	100	0 20	2
Minor-Road Volume (one direction), veh/h					

P.O. Box 1721 • Concord, NH 03302 tel: (603) 731-8500 • fax: (866) 929-6094 • sgp@ pernaw.com

Transportation: Engineering • Planning • Design

#### MEMORANDUM

Ref: 2047A

To: Jack McTigue, P.E., CPESC

TFMoran - Seacoast Division

From: Stephen G. Pernaw, P.E., PTOE

Subject: Proposed Residential Development – 83 Peverly Hill Road

Portsmouth, New Hampshire

Date: April 5, 2021

Thank you for forwarding the "Open Space Residential PUD" plans for us to review (Attachments 1-5), and explaining the city's concern with vehicle speeds throughout the neighborhood. In reviewing the plans, we believe the horizontal curves shown on Sheets C-14, C-15, and C-16 will regulate or limit travel speeds in those areas. The stop condition shown on C-16, where the loop road terminates at a T-intersection, will also serve to reduce speeds in that area.

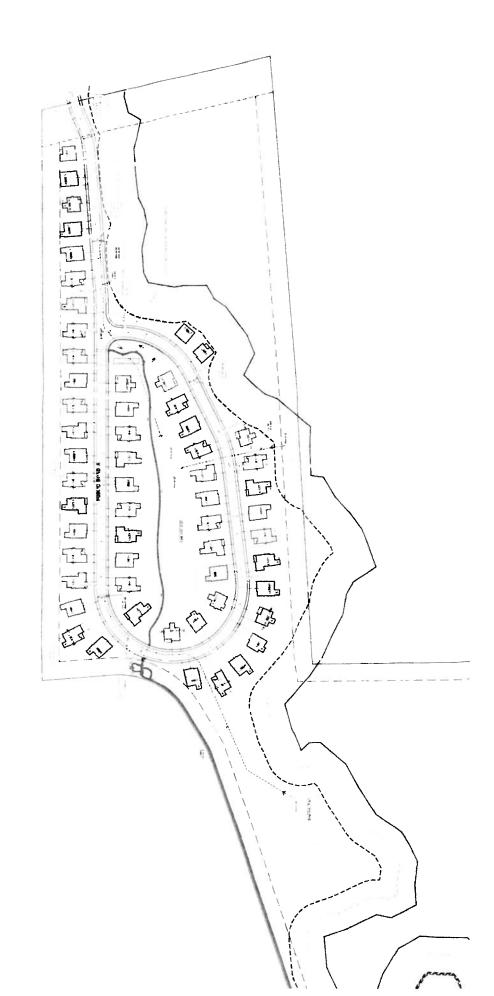
We recognize that travel speeds could be higher than desirable on the straight tangent section shown on Sheets C-13 and C-14. To address this concern, we recommend consideration be given to providing the following traffic calming measures:

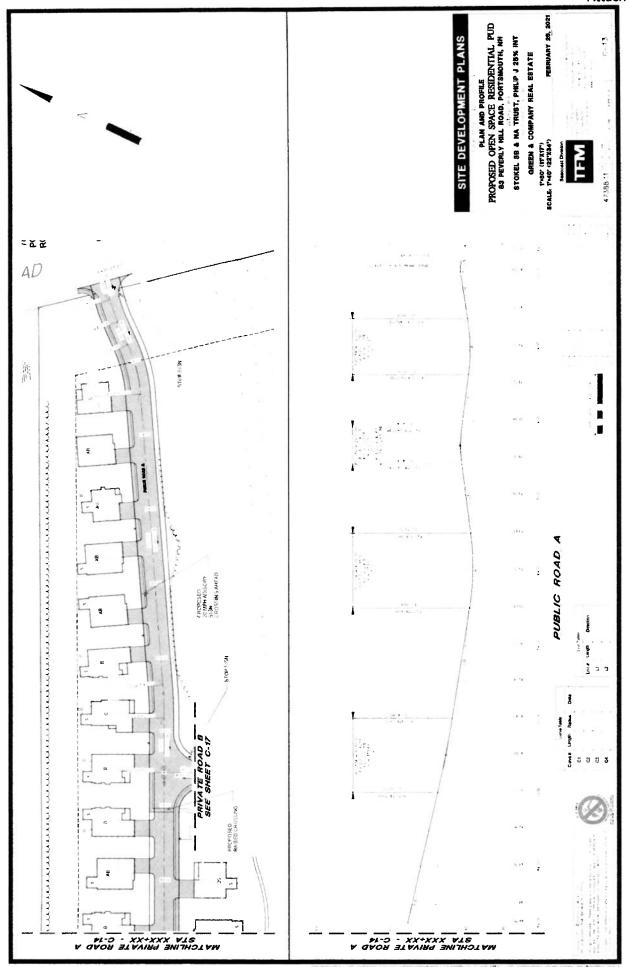
- Installation of a marked crosswalk for pedestrians on the main access road, adjacent to the internal T-intersection.
- Placement of a "Supplemental Crosswalk Identification Device" on the centerline of the road, adjacent to the crosswalk (see Attachment 6).
- Installation of Advanced Warning signs for the crosswalk (MUTCD W11-2).
- Installation of a Stop Ahead sign (MUTCD W3-1) on Sheet C-16 where the loop road terminates at the T-intersection.
- Installation of Advisory Speed Plaque (MUTCD W13-1) signs with 20 mph posted below the W11-2 crosswalk signs.

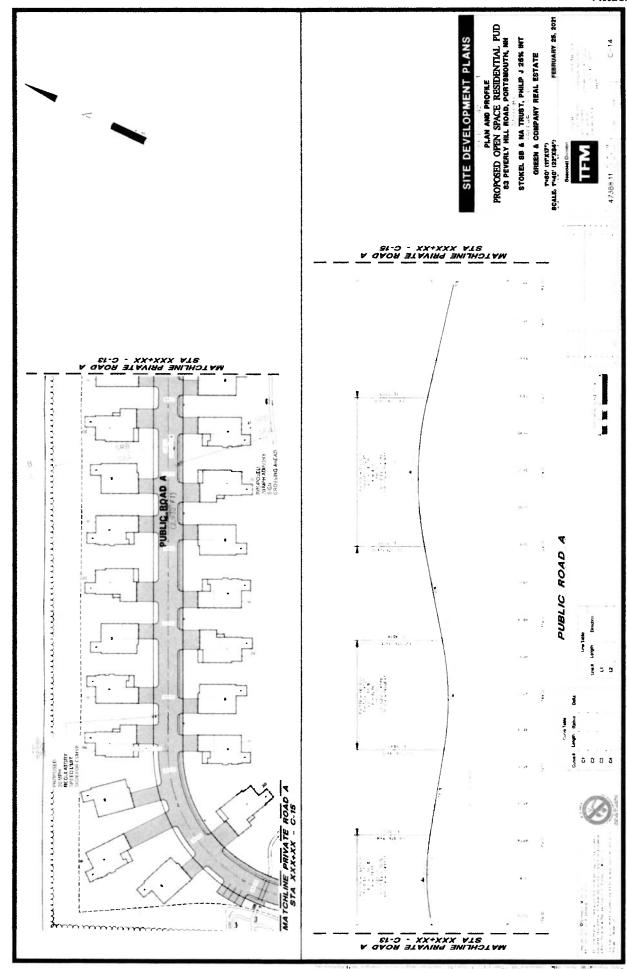
Recognizing that this a cozy residential development with no potential for through traffic, it is reasonable to expect that neighbors will police themselves in terms of speed management. Nevertheless, the traffic calming measures cited above are aimed more at the occasional delivery driver or visitor, and less so for the full-time residents within the development.

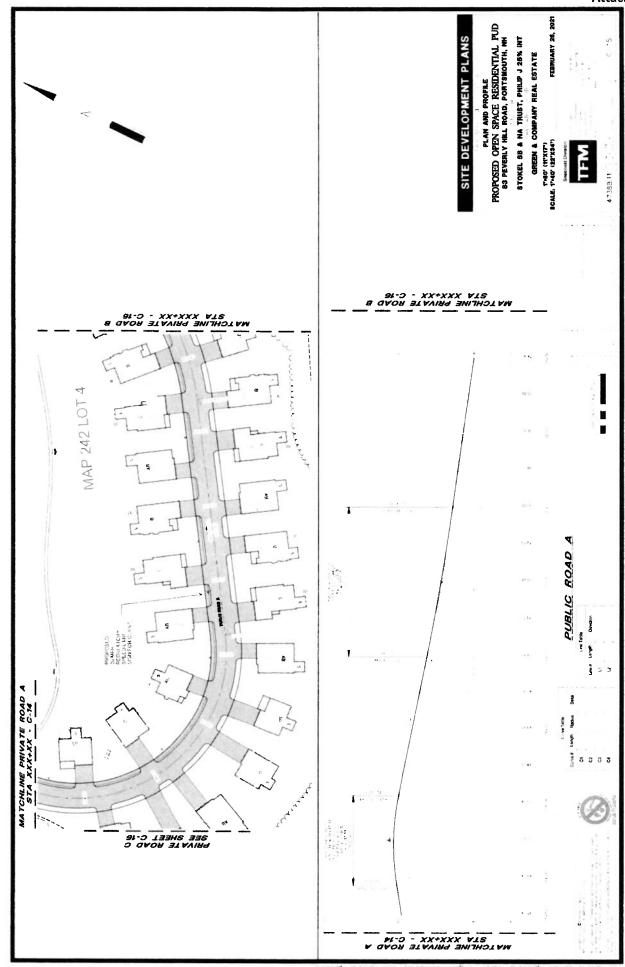
#### Attachments

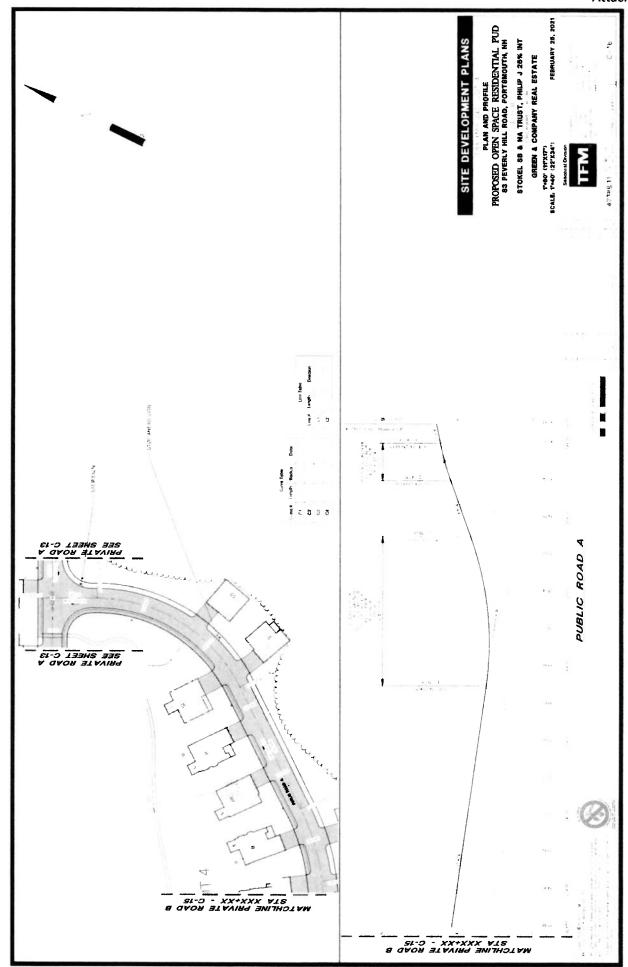
cc: Michael Green, Green and Company











## **CROSSING HAZARDS** CHAPTER 7

## Introduction

RAFFIC

NSI C

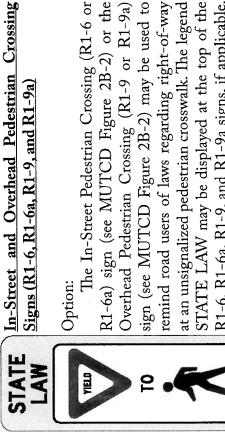
This Chapter describes signs that warn motorists of locations where they might encounter unexpected crossing hazards. Potential hazards might be persons, animals or vehicles. The determining factor for use of these signs is the amount of time available for the driver to see the hazard and react properly. Also included in this chapter are signs warning pedestrians of hazardous crossing of roadways.

LTANDBOOK

Note: State of New Hampshire Supplemental Crosswalk Identification Devices: The Supplemental Crosswalk Identification Devices inform drivers of pedestrian crosswalks. The State of New Hampshire DOT has approved it for temporary use on the center line of roads adiacent to crosswalks. As a supplemental sign, local governments must still install traffic signs described in this chapter and pavement markings as described in the MUTCD 2009 Edition. The device should not be used as a substitute, for, or on poles with Crossing Sign W11-2.

Technology Transfer Center

New Hampshire LTAP at UNH



The In-Street Pedestrian Crossing (R1-6 or R1-6a) sign (see MUTCD Figure 2B-2) or the Overhead Pedestrian Crossing (R1-9 or R1-9a) sign (see MUTCD Figure 2B-2) may be used to remind road users of laws regarding right-of-way at an unsignalized pedestrian crosswalk. The legend STATE LAW may be displayed at the top of the R1-6, R1-6a, R1-9, and R1-9a signs, if applicable. On the R1-6 and R1-6a signs, the legends STOP or YIELD may be used instead of the appropriate STOP sign or YIELD sign symbol.

800-423-0060 (in NH) or 603-862-2826

Fax: 603-862-0620 t2.center@unh.edu

www.t2.unh.edu

Durham NH 03824

**UNH Technology Transfer Center** 

33 Academic Way

CROSSWALK

**April** 2010

#### **NHDES**

#### **Application for Sewer Connection Permit**

F O R

## Peverly Hill Road Development

Peverly Road
Portsmouth, New Hampshire
Rockingham County

Tax Map 242, Lot 04

April 19, 2021

Dennis Greene April 19, 2021 Prepared By:



Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

(This Page is Intentionally Blank)





April

TFM Project No: 47388.11

Dennis Greene, PE NHDES WWEB PO Box 95 Concord, NH 03302-0095

Re: Sewer Connection Permit – Peverly Hill Road Portsmouth, NH – Tax Map 242 Lot 4
Peverly Hill Road Development

TFM PIN: 47388.11

Dear Mr. Greene:

On behalf of Green and Company Building and Development Corp., we respectfully submit an Application for Sewer Connection Permit relative to the above referenced project. The following materials are included in this submission:

- Application for Sewer Connection Permit;
- Check for the amount of \$2,760.00 for the Sewer Connection Permit;
- Table 1008-1, Unit Design Flow from Pages 47-49 from the NH Code of Administrative Rules, ENV-Wq 1000;
- Calculated Design Sewer Flow
- Full Flow and Approximate Partial Flow Calculations for gravity sewer, Dated April 19, 2021;
- Environmental One Corporation Pressure Sewer Design Analysis for Peverly Hill Road Development;
- Cover Sheet, Existing Conditions, Utility Plans, Sewer Profile and Details of the Site Plan Set titled, "Peverly Hill Road Condominiums; Peverly Hill Road; Tax Map 242, Lot 4; 83 Peverly Hill Road; Portsmouth, New Hampshire; County of Rockingham; Prepared for Green and Company Real Estate. dated April 19, 2021" prepared by TFMoran, Inc."

This project consists of 56 single unit homes. The homes are serviced by a combination of low-pressure sewers and gravity sewers. 21 of the low-pressure systems discharges into Sewer Manhole 9, after which the flow



becomes gravity. 3 of the low-pressure systems discharges into Sewer Manhole 3, subsequently the flow becomes gravity. The remaining 33 residences are gravity flow.

The proposed project consists of 820 linear feet 2" low-pressure SDR 11 line, 274 linear feet of 1-1/2" low-pressure SDR11 line, 1,696 linear feet of 8" SDR 35 gravity sewer main, 10 proposed sewer manholes and 2 cleanouts for the low-pressure lines.

The City of Portsmouth concurrently reviewing this application. Any revisions based on there comments will be circled on the plans and forwarded to you.

On behalf of our client, we respectfully request review of the application package for approval.

Sincerely,

MSC a division of TFMoran, Inc.

Jack McTigue, PE, CPESC Project Manager

cc: Rick Green (Green and Company), Michael Green (Green and Company), Jenna Green (Green and Company), and Juliet Walker (City of Portsmouth)

NHDES-W-09-008



## APPLICATION FOR SEWER CONNECTION PERMIT Water Division/Wastewater Engineering Bureau Design Review Section



RSA/Rule: RSA 485-A:37 / Env-Wq 703.07

#### **TYPE OR PRINT CLEARLY**

Use this application for Sewer Connection Permit to request NHDES review/approval for any proposed sewerage design. Under RSAs 485 and 485-A, design plans for new sewerage facilities – whether publicly or privately owned, and regardless of design flow – must be submitted to NHDES for review/approval action at least 30 days prior to construction. Pursuant to Env-Wq 703, design submittals must include 1 set of engineering plans/specifications, pertinent design calculations, the required fee, and a Municipal Certification (signed by an authorized municipal official, see page 2).

(0.80	<del>a ,</del> a a	att. 101120a 111a 11101pa 1011101a 1, 000	P ∞ B ⊂ = /·			
1. Er	ngineer	of Record - Contact Info	rmation			
Engineer / Contact: Jack McTigue, PE				Company: TFMoran, Inc.		
Maili	Mailing Address: 170 Commerce Way					
Town/City: Portsmouth Stat				State: NH		ZIP: 03801
Phone Number: (603) 431-2222			Email: jmctigue@Tl	FMora	n.com	
2. Description of Proposed Work (check all that apply)						
An extension of a collector or interceptor;						
		A sewage pumping station gr	reater than 50 gpm or	serving more than o	ne bu	ilding;
	$\boxtimes$	A proposed sewer that serve	s more than one build	ding or that requires	a man	hole at the connection.
Proje	ct Name	or Description: 56 3-bedroon	n single family unit re	sdiential condominiu	ım	
Proje	ct Locat	ion - Street Address: 83 Peverly	y Hill Road			
Proje	ct Locat	ion - Town / City: Portsmouth,	NH			
Name Of Receiving WWTF: Sewer Division of the Portsmouth NH Department of Public Works					ks	
Averd	age Desi	gn Flow (ADF, gal/day): 25,200	O GPD			
Propo	osed Sev	ver Length (Linear ft)	Pipe Diameter (inch	es)	Pipe N	Material
274			1-1/2" Pressure Sew	er Services	HDPE	SDR-11
820 2" Pressure Sewer N			/lain	HDPE	SDR-11	
1,696			8" Gravity Sewer SDR-35		5	
3. R	equire	d Fee				
	Sewer	connection design submittals r	must be accompanied	by a review fee payı	ment l	pased on the project's
$\boxtimes$	average	e design flow - \$0.10 per gal/d	ay ("a dime a gallon")	for design flows up	to 10,0	000 gal/day, plus \$0.05 per
	gal/day for any flows in excess thereof.					
	A fee o	f \$200 per plan sheet shall be	paid for review of mo	difications to private	ely owi	ned pump stations, force
	mains,	interceptors, and wastewater	treatment facilities w	hich are not associat	ted wit	th an increase in wastewater
	flow.					
	Fees ar	e not required of municipalitie	es for municipal proje	cts.		
Eoo E	Foo Enclosed: \$2760.00 Please make checks navable to "Treasurer State of NH"					

Italics indicate items are optional.

www.des.nh.gov

29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095 (603) 271-3503 • TDD Access: Relay NH 1-800-735-2964

RSA/Rule: RSA 485-A:37 / Env-Wq 703.07

4. Municipal Certification				
On behalf of Peverly Hill Road Condominiums, the Town or City of Portsmouth hereby provides				
the following municipal certification.				
The municipal sewage collection system and wastewater treatment facilities have been demonstrated, pursuant to				
Env-Wq 703.07(d), to have adequate processing capability for the proposed added hydraulic flow and organic flow at				
the time of connection. The proposed sewer connection and/or sewerage design meet with the approval of the local				
jurisdictional authority.				
Name Of Municipal Official (Project Location): Title:				
ignature: Date:				
Email Address:				
When the Receiving WWTF is in a different Municipality from the	at of the Project Location, the following additional			
certification is required.				
Name Of WWTF Official (Host Community): Title:				
Signature: Date:				
Email Address:				

#### Submit completed application package to:

NHDES Wastewater Engineering Bureau
Design Review Section
29 Hazen Drive
P.O. Box 95
Concord, NH 03302-0095

**NOTE:** A Separate INDUSTRIAL WASTEWATER INDIRECT DISCHARGE REQUEST (IDR) May be Required For Industrial Waste Contributions, Depending On Quantity And Quality. For Further Information, Contact The Industrial Pretreatment Supervisor Of The Wastewater Engineering Bureau At (603)-271-2052.

Italics indicate items are optional.

www.des.nh.gov

29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095

(603) 271-3503 • TDD Access: Relay NH 1-800-735-2964

Rev. 8/15/2019 Page **2** of **2** 

Project	Peverly Hill Rd Condominiums	Date:	4/9/2021
Location	Peverly Hill Rd	<u></u>	
	Portsmouth, NH		

#### **Unit Sewer Flows**

Total Number of Units 56

Based on 100% 3 Bedroom Units

3	Redr	oom	House	٩ς
J	DEUI	OUIII	11003	CO

Residences Single Family - 2 Bedroom	300
Additional Flow for 1 Additional Bedroom	150
Gallons Perd Day per 3 Bedroom Unit	450
4 Bedroom Houses	
Residences Single Family - 2 Bedroom	300
Additional Flow for 2 Additional Bedroom	300
Gallons Perd Day per 4 Bedroom Unit	600

#### **Design Sewer Flows**

	Number	GPD/	GPD
	of Units	Unit	GFD
Number of 3 Bedroom	56	450	25,200
Number of 4 Bedroom	-	600	-
Total Design Flow	56		25,200

#### **State Fee**

Cost per GPD	\$	0.10	10,000	\$ :	1,000.00
In Excess of 10,000 GPD	\$	0.05	15,200	\$	760.00
Pump Station	\$200.00		5	\$	1,000.00

Total Cost \$ 2,760.00



#### NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

- (2) Metered water readings for uses that are as similar as possible to the proposed use, taking into consideration factors such as occupancy and frequency of use, determined as specified in (d), below.
- (d) Design flows based on metered water readings shall be calculated:
  - (1) By finding the average of water meter readings over a period of time that is representative of the volume of water used and multiplying the average by a minimum peaking factor of 2 for commercial light flow or a maximum peaking factor of 3 for commercial heavy flow; or
  - (2) By measuring not less than 6 months of consecutive daily meter readings, including the month(s) of heaviest use for uses that are seasonal in nature, and using the highest daily flow without application of a peaking factor;
- (e) The unit design flow figures referenced in (b) and (c), above, shall be as listed in Table 1008-1, below, subject to (f), below:

Table 1008-1: <u>Unit Design Flow Figures</u>

Use	Unit Design Flow
AIRPORTS	5 GPD/Transient plus 10 GPD/Employee
APARTMENTS	See Dwellings
BARS, LOUNGES	See Food Service
BED & BREAKFAST	60 GPD/Guest, based on the greater of 2 guests per
	room or the actual number of guests the room is
	designed to accommodate, plus 10 GPD/Employee
BUNKHOUSE	60 GPD/Person
CAMPS:	
Campground with Central Comfort Station	45 GPD/site, plus 20 GPD/Site for the dump station
Recreational Campgrounds with 3-way hookups	60 GPD/Site
Construction Camps	50 GPD/Person
Day Camps (not including meals)	15 GPD/Person
Dining Facility	3 GPD/Person/meal
Residential Youth Recreation Camps	25 GPD/Person plus 3 GPD/Person/meal
CATERERS – Function Rooms	12 GPD/patron
CHURCHES:	-
Sanctuary Seating	3 GPD/Seat
Church Suppers	12 GPD/Seat
COUNTRY CLUBS – PRIVATE	
Dining Room	10 GPD/Seat
Snack Bar	10 GPD/Seat
Locker & Showers	20 GPD/Locker
DAY CARE CENTERS	10 GPD/Person
DENTISTS	10 GPD/Chair plus 35 GPD/Staff Member
DOCTOR'S OFFICES	250 GPD/Doctor
DOG KENNELS	50 GPD/Kennel, with one dog per kennel
DWELLINGS:	
Apartment - Studio or One-Bedroom	225 GPD
Apartment - 2 or More Bedrooms	150 GPD/Bedroom
Residence - Single-Family	300 GPD plus 150 GPD for each bedroom over 2
Residence - Duplex	300 GPD plus 150 GPD for each bedroom over 2 for
	each unit
Rooming House – With Meals	60 GPD/Person
Rooming House – Without Meals	40 GPD/Person
Senior Housing	See Senior Housing





## Sewer Flow Calculations Peverly Hill Road Condominiums PIN # 47388.11

#### Areas to be filled in are highlighted in yellow

$P_f$	6	Peak Factor		$\mathbf{Q}_{\text{full}}$	Full Pipe Flow	$V_{cal1}$	Velocity from the approximate flow depth
1/1	300	gpd/in/mile	5.28E-07 cfs	$\mathbf{Q}_{cal}$	Calculated Flow - Based on Flow Height	$V_{cal2}$	Velocity based on the iterative flow depth

n<sub>f</sub> 0.010 Manning Q<sub>needed</sub> Required Flow (Q<sub>per-use</sub>+Q<sub>inf</sub>)
k 1.485 Converstion Factor Q<sub>inf</sub> Flow needed for infiltration K<sub>h</sub> Constant used to calculate the approximate flow depth

Q<sub>per-use</sub> Flow Needed Per Use Based on an approximation method presented by Esen (1993)

Q Difference between  $Q_{needed}$  and  $Q_{cal}$  y Depth of flow

Ø Angle of partial flow based on flow depth

Flow (cfs) Flow with Peaking A Area of partial flow Factor P Wetted Perimeter

Residence (4-Bedroom) 600 gpd 0.0009 cfs 0.0056 cfs R<sub>h</sub> Hydraulic Radius

#### **TABLE 1 - FULL FLOW AND APPROXIMATE PARTIAL FLOW CALCULATIONS**

								Full	low	Partial Flow											
From	То	Length	th Inverts		Slope	Dia		$V_{\text{full}}$	$\mathbf{Q}_{full}$	K <sub>h</sub>	Ø <sub>full</sub>	Ø	y/Y	У	Α	Units		Q (cfs)		V <sub>cal1</sub>	Notes
		(ft)	Out	In	(ft/ft)	(in)	(ft)	fps	cfs		rad.	rad.		ft	sf	#	Q <sub>per-use</sub>	Q <sub>inf</sub>	Q <sub>needed</sub>	fps	
	Pressure	Sewer #1											Ì			21.00	0.117	0.0000	0.117	NA	Units 22-32, 46-55
PSMH-9	PSMH-8	92	42.20	41.60	0.007	8	0.67	3.63	1.27	0.030	1.94	1.94	0.22	0.14	0.06	1.00	0.006	0.0004	0.123	2.20	Unit 45 / L-P Sewer Sys #1
PSMH-8	PSMH-7	92	41.50	40.90	0.007	8	0.67	3.63	1.27	0.030	1.94	1.94	0.22	0.14	0.06	0.00	0.000	0.0004	0.123	2.20	
PSMH-7	PSMH-6	92	40.80	40.20	0.007	8	0.67	3.63	1.27	0.035	2.01	2.01	0.23	0.15	0.06	3.00	0.017	0.0004	0.140	2.30	Unit s 20-21, 44
PSMH-6	PSMH-5	143	40.10	39.35	0.005	8	0.67	3.21	1.12	0.047	2.17	2.17	0.27	0.18	0.08	5.00	0.028	0.0006	0.169	2.25	Unit s 17-19, 42-43
PSMH-5	PSMH-4	299	39.25	37.75	0.005	8	0.67	3.18	1.11	0.060	2.33	2.33	0.30	0.20	0.09	8.00	0.045	0.0013	0.215	2.42	Units 13-16, 38-41
PSMH-4	PSMH-3	293	37.65	36.15	0.005	8	0.67	3.18	1.11	0.072	2.44	2.44	0.33	0.22	0.10	7.00	0.039	0.0012	0.255	2.56	Units 9-12, 35-37
	Pressure	Sewer #2														3.00	0.017	0.0000	0.017	NA	Units 56 and 33-34
PSMH-3	PSMH-2	240	36.05	34.95	0.005	8	0.67	3.02	1.05	0.087	2.58	2.58	0.36	0.24	0.11	4.00	0.022	0.0010	0.295	2.58	Units 5-8
PSMH-2	PSMH-1	283	34.85	33.65	0.004	8	0.67	2.91	1.02	0.096	2.66	2.66	0.38	0.25	0.12	3.00	0.017	0.0012	0.313	2.57	Units 2-4
PSMH-1	SMH-E1	162	33.55	32.80	0.005	8	0.67	3.02	1.05	0.094	2.65	2.65	0.38	0.25	0.12	1.00	0.006	0.0007	0.319	2.65	Units 1

## Sewer Flow Calculations Peverly Hill Road Condominiums PIN # 47388.11

4/19/2021

Total Units 56.00



#### **Environment One Corporation**

# Pressure Sewer Preliminary Cost and Design Analysis For Peverly Hill Road Condominiums Peverly Hill Road

**Prepared For:** 

**TFMoran** 

170 Commerce Way - Suite 102

Portsmouth NH 03801

Tel: (603) 431-2222

Fax:

Prepared By: Jack McTigue

<u>April 19, 2021</u>

#### Peverly Hill Road Condominiums Peverly Hill Road

Prepared by: Jack McTigue On: April 19, 2021

**Notes:** Two Zones

Zone 1 - Units Units 22-32, 46-55 - Connecting to MH-09

Zone 2 - Units 56 and 33-34 - Connecting to MH-03

#### PRELIMINARY PRESSURE SEWER - PIPE SIZING AND BRANCH ANALYSIS

Peverly Hill Road Condominiums

Prepared By: Jack McTigue Peverly Hill Road April 19, 2021

Zone	Connects	Number	Accum	Gals/day	Max Flow	Max	Max Flow	Pipe Size	Max	Length of Main	Friction Loss	Friction	Accum Fric	Max Main	Minimum Pump	Static Head	Total
Number	to Zone	of Pumps	Pumps	per Pump	Per Pump	Sim Ops	(GPM)	(inches)	Velocity	this Zone	Factor	Loss This	Loss (feet)	Elevation	Elevation	(feet)	Dynamic
		in Zone	in Zone		(gpm)				(FPS)		(ft/100 ft)	Zone					Head (ft)
This spread	This spreadsheet was calculated using pipe diameters for: SDR11HDPE Friction loss calculations were based on a Constant for inside roughness "C" of: 150																
1.00	1.00	21	21	450	11.90	5	59.50	2.00	6.44	820.00	7.51	61.55	61.55	43.20	30.00	13.20	74.75
2.00	2.00	3	3	450	13.90	2	27.80	1.50	4.70	274.00	5.44	14.90	14.90	37.05	30.00	7.05	21.95

#### PRELIMINARY PRESSURE SEWER - ACCUMULATED RETENTION TIME (HR)

Peverly Hill Road Condominiums Peverly Hill Road

Prepared By: Jack McTigue

verage Retention Time (Hr)	Accumulated Retention Time (Hr)
	450

April 19, 2021

Zone Number		Accumulated Total of Pumps this Zone	Pipe Size (inches)	Gallons per 100 lineal feet	Length of Zone	Capacity of Zone	Average Daily Flow	Average Fluid Changes per Day	Average Retention Time (Hr)	Accumulated Retention Time (Hr)		
This spread	This spreadsheet was calculated using pipe diameters for: SDR11HDPE  Gals per Day per Dwelling											
1.00	1.00	21	2.00	15.40	820.00	126.30	9,450	74.82	0.32	0.32		
2.00	2.00	3	1.50	9.85	274.00	27.00	1,350	50.00	0.48	0.48		

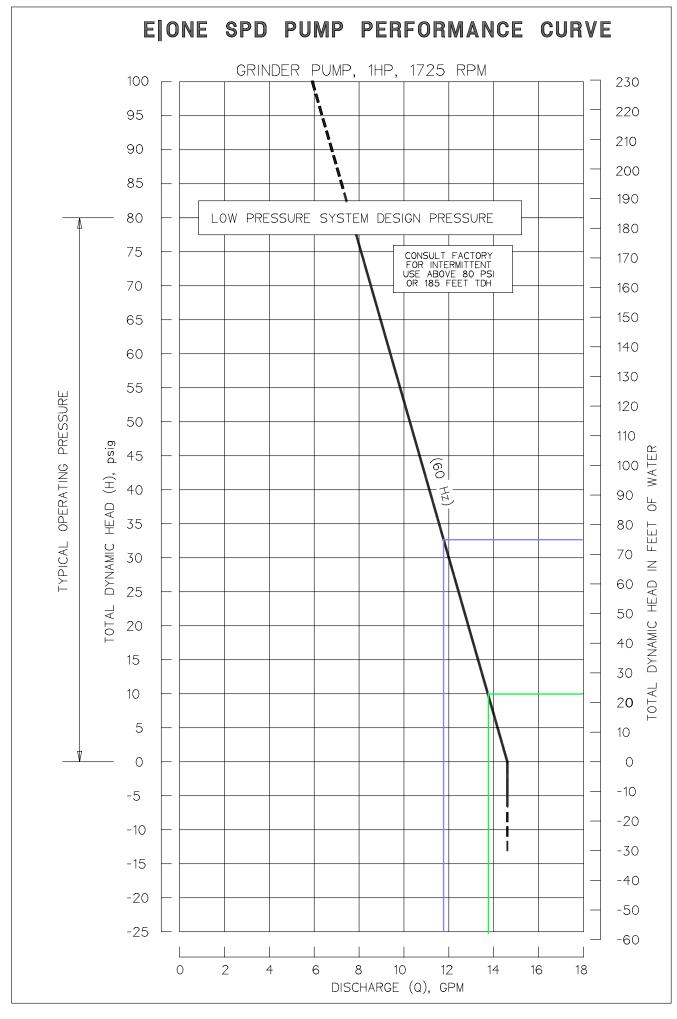
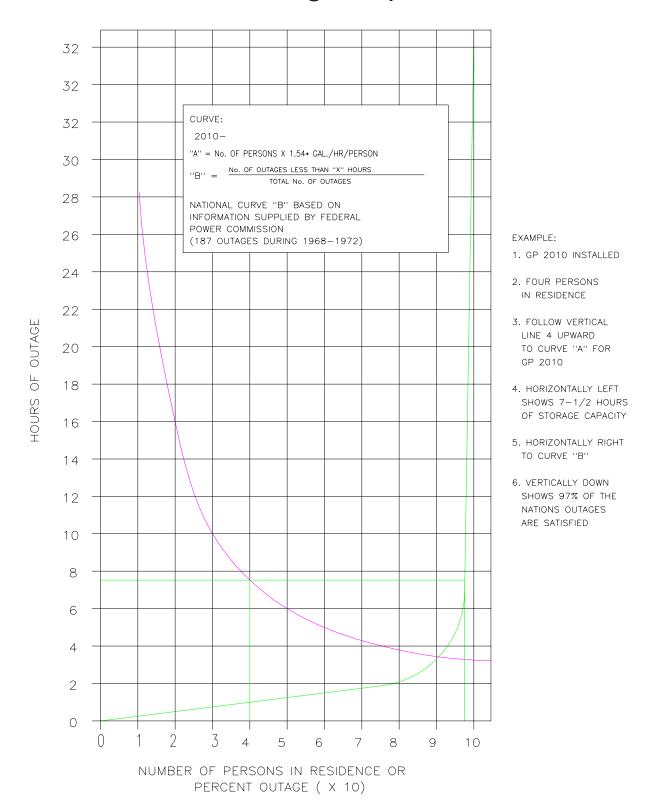




Figure 2

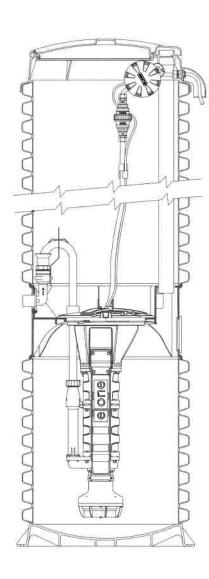
## Relationship of GP Storage Capacity to Power Outage Experience







## DH071/DR071



#### **General Features**

The model DH071 or DR071 grinder pump station is a complete unit that includes: the grinder pump, check valve, HDPE (high density polyethylene) tank, controls, and alarm panel. A single DH071 or DR071 is a popular choice for one, average single-family home

- Rated for flows of 700 gpd (2650 lpd)
- · 70 gallons (265 liters) of capacity
- · Indoor or outdoor installation
- Standard outdoor heights range from 61 inches to 160 inches

The DH071 is the "hardwired," or "wired," model where a cable connects the motor controls to the level controls through watertight penetrations.

The DR071 is the "radio frequency identification" (RFID), or "wireless," model that uses wireless technology to communicate between the level controls and the motor controls.

#### **Operational Information**

#### Motor

1 hp, 1,725 rpm, high torque, capacitor start, thermally protected, 120/240V, 60 Hz, 1 phase

#### Inlet Connections

4-inch inlet grommet standard for DWV pipe. Other inlet configurations available from the factory.

#### Discharge Connections

Pump discharge terminates in 1.25-inch NPT female thread. Can easily be adapted to 1.25-inch PVC pipe or any other material required by local codes.

#### Discharge

15 gpm at 0 psig (0.95 lps at 0 m) 11 gpm at 40 psig (0.69 lps at 28 m) 7.8 gpm at 80 psig (0.49 lps at 56 m)

#### Accessories

E/One requires that the Uni-Lateral, E/One's own stainless steel check valve, be installed between the grinder pump station and the street main for added protection against backflow.

Alarm panels are available with a variety of options, from basic monitoring to advanced notice of service requirements.

The Remote Sentry is ideal for installations where the alarm panel may be hidden from view.

Patent Numbers: 5,752,315 5,562,254 5,439,180

NA0050P01 Rev C



# E/One Sentry

### Alarm Panel — Basic Package



#### **Description**

The E/One Sentry panels are custom designed for use with Environment One grinder pump stations. They can be configured to meet the needs of your application, from basic alarm indication to advanced warning of pending service requirements.

E/One Sentry panels are supplied with audible and visual high level alarms. They are easily installed in accordance with relevant national and local codes. Standard panels are approved by UL, CSA, CE and NSF to ensure high quality and safety.

The panel features a corrosion-proof, NEMA 4X-rated, thermoplastic enclosure. A padlock is provided to prevent unauthorized entry (safety front).

#### **Standard Features**

Circuit breakers, 240 or 120 VAC service

Terminal blocks and ground lugs

Audible alarm with manual silence

Manual run feature and run indicator

Redundant "Start" function with high level alarm

Conformal-coated alarm board (both sides)

Alarm board overload protection

#### **Optional Features**

Contact group (dry, powered and Remote Sentry)

Inner cover (dead front)

Hour meter

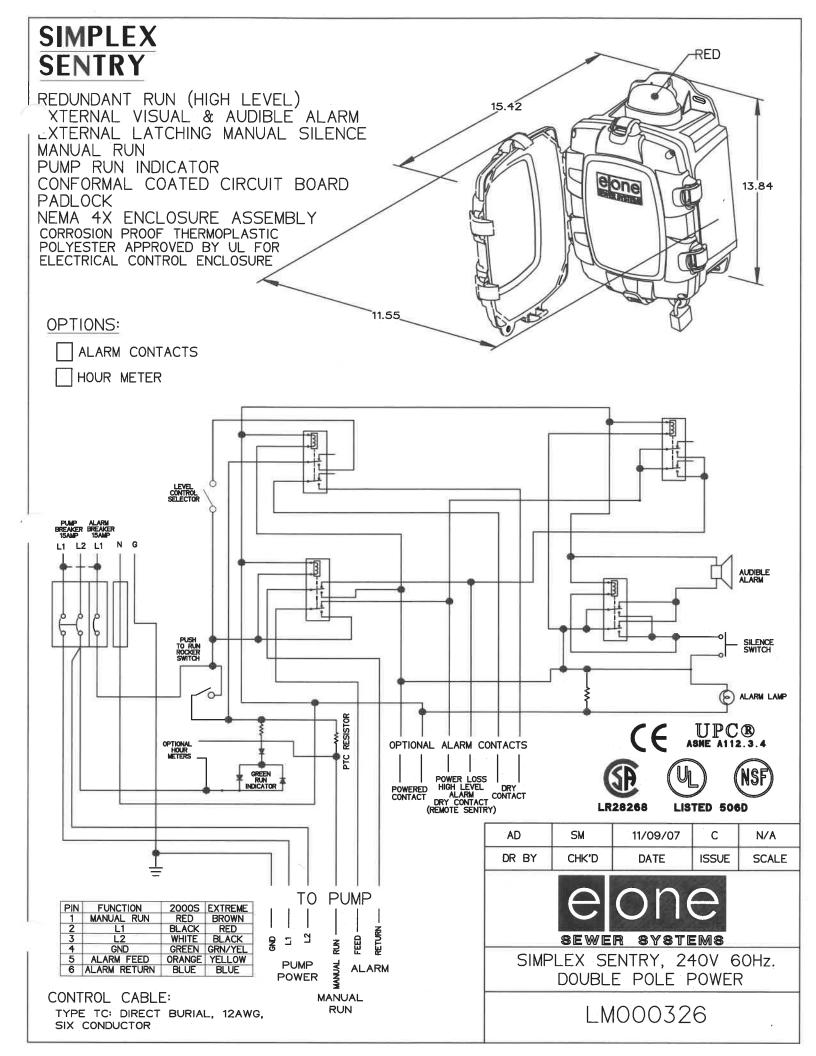
Generator receptacle with auto transfer

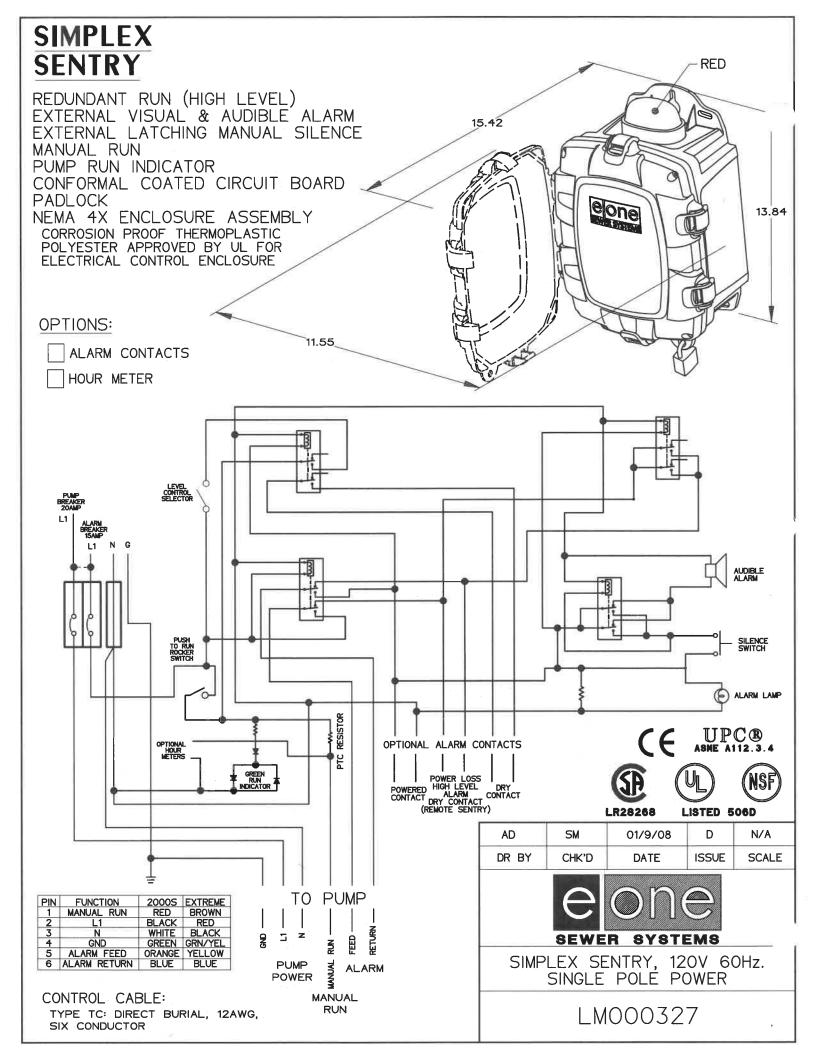
**GFCI** 

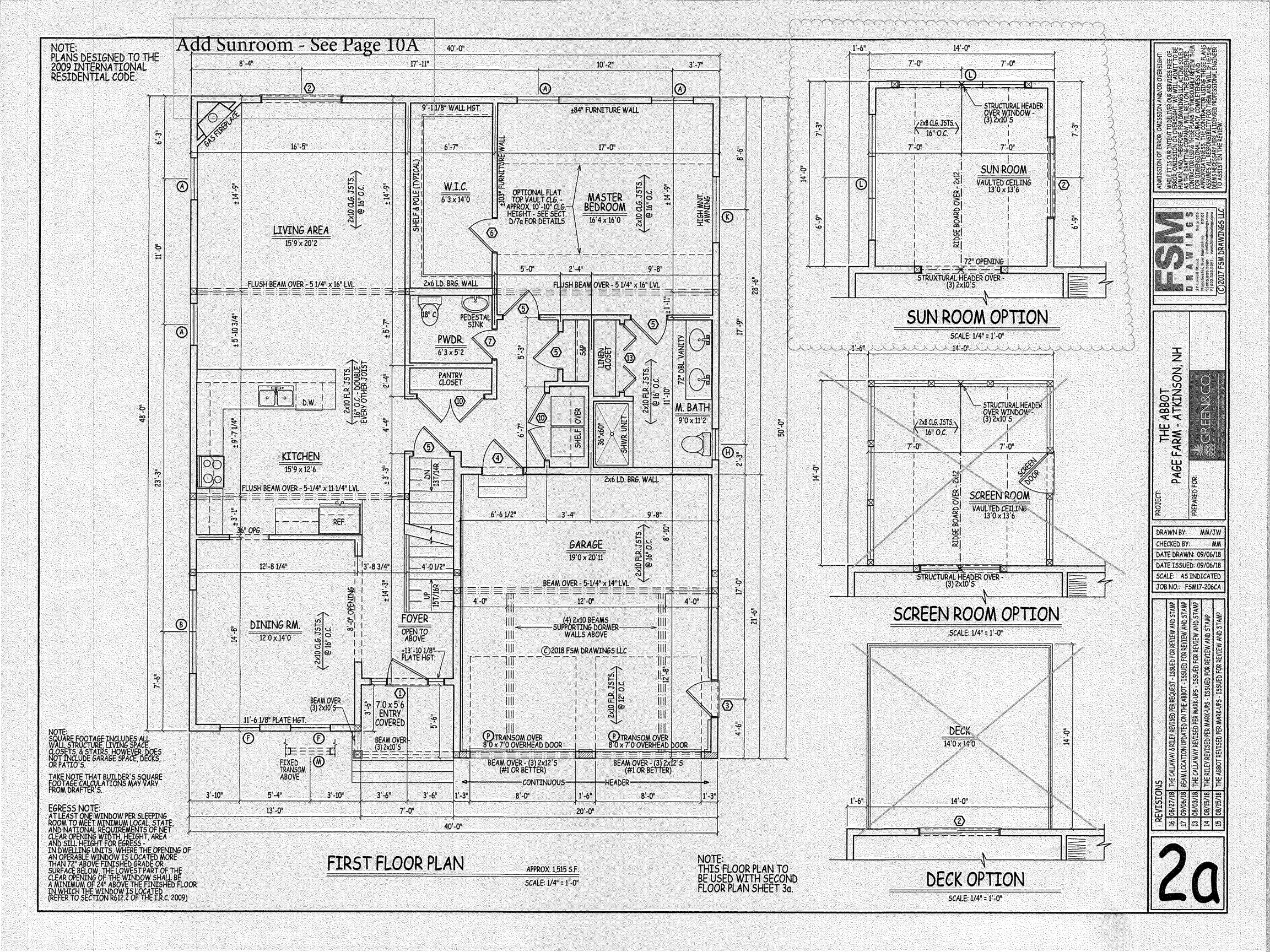
Main service disconnect

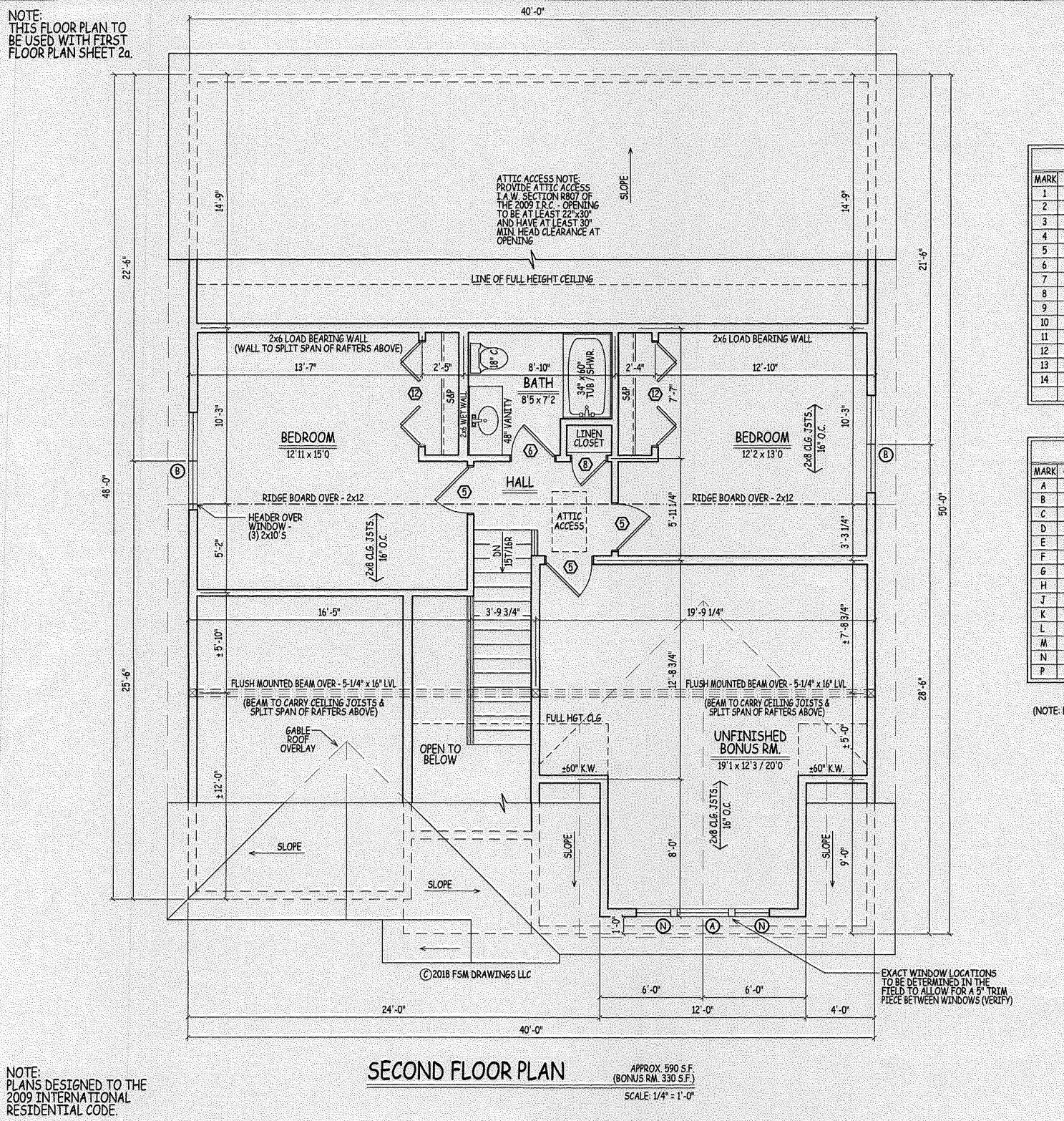
Brownout protection

Please consult factory for special applications.









NOTE: THESE SCHEDULES ARE TO BE USED WITH FIRST FLOOR PLAN SHEET 2a, & 3a.

DOOR SCHEDULE					
MARK	QTY	STZE	R50	NOTES	
1		3'-0" x 6'-8"		EXT. ENTRY DOOR W/ SIDELITE	
2		6'-0" x 6'-8"		EXT. GLASS SLIDER	
3		2'-8"×6'-8"		EXT. 9-LITE	
4		3'-0" x 6'-8"		FIRE RATED DOOR	
5		2'-8" x 6'-8"		INTERIOR	
6		2'-6" × 6'-8"		INTERIOR	
7		2'-4" x 6'-8"		INTERIOR	
8		2'-0" x 6'-8"		INTERIOR	
9		5'-0"×6'-8"		INT. DBL. FRENCH DOORS	
10		5'-0" x 6'-8"		INT. DBL. DOORS	
11		4'-0" x 6'-8"		INT, DBL. DOORS	
12		6'-0"×6'-8"		INT, BI-FOLDS	
13		5'-0"×6'-8"		INT, BI-FOLDS	
14		4'-0" x 6'-8"		INT, BI-FOLDS	

RSO TO BE DETERMINED BY DOOR MANUFACTURER-CONTRACTOR TO DETERMINE FINAL DOOR COUNT

WINDOW SCHEDULE				
MARK	QTY	UNIT	RSO	NOTES
A		DH3862		DOUBLE HUNG (EGRESS)
В		DH3862-2		2 WIDE DBL. HUNG (EGRESS)
С		DH3462		DOUBLE HUNG
D		DH3462-2		2 WIDE DBL, HUNG
Ε		DH3469-2		2 WIDE DBL. HUNG
F		DH3662		DOUBLE HUNG
G		DH3442		DOUBLE HUNG
Н		DH2842		DOUBLE HUNG
J		C4445		DOUBLE CASEMENT
K		A6024		AWNING WINDOW
L		DH3862-3		3 WIDE DBL. HUNG
W		CF3624		FIXED TRANSOM
N		DH2462		DOUBLE HUNG
P				6-LITE GARAGE DOOR TRANSOM

RSO TO BE DETERMINED BY WINDOW MANUFACTURER-CONTRACTOR TO DETERMINE FINAL WINDOW COUNT (NOTE: HARVEY WINDOW (VERIFY SERIES WITH CONTRACTOR) SIZES ARE GIVEN ABOVE ONLY FOR THE PURPOSE OF PROVIDING A REFERENCE FOR COMPARING ROUGH OPENING SIZES WITH ANOTHER MANUFACTURER. CONSULT HOME-OWNER FOR THE EXACT WINDOW MANUFACTURER CHOSEN FOR THIS HOME)

> NOTE: SQUARE FOOTAGE INCLUDES ALL WALL STRUCTURE LIVING SPACE CLOSETS, & STAIRS, HOWEVER, DOE NOT INCLUDE GARAGE SPACE, DECK OR PATIO'S.

TAKE NOTE THAT BUILDER'S SQUARE FOOTAGE CALCULATIONS MAY VARY FROM DRAFTER'S.

EGRESS NOTE:
AT LEAST ONE WINDOW PER SLEEPING
ROOM TO MEET MINIMUM LOCAL STATE,
AND NATIONAL REQUIREMENTS OF NET
CLEAR OPENING WIDTH HEIGHT, AREA
AND SILL HEIGHT FOR EGRESS IN DWELLING UNITS WHERE THE OPENING OF
AN OPERABLE WINDOW IS LOCATED MORE
THAN 72" ABOVE FINISHED GRADE OR
SURFACE BELOW. THE LOWEST PART OF THE
CLEAR OPENING OF THE WINDOW SHALL BE
A MINIMUM OF 24" ABOVE THE FINISHED FLOOR
IN WHICH THE WINDOW IS LOCATED
(REFER TO SECTION R612.2 OF THE IR.C. 2009)

ADMISSION OF ERROR, OMISSION AND/OR OVERSIGHT:
WHILE IT IS OUR INTENT TO DELIVER OUR SERVICES FREE OF
FRACO, OMISSION OVERSIGHT, WE WILL ADMIT TO BE
HUMAN AND THEREORE FSM DRAWINSS LLC ACTING SOLELY
AS THE DRAFTING COMPRETED ON THE ZYBEIT NEED
CONTRACTOR JUSTIG THESE PLANS TO THOROUGHLY REVIEW THEM
FOR DIMENSIONAL ACCURACY, COMPLETENESS AND
ASPROPRIATE SOLVE CONTRACTOR THESE PLANS
ASPROPRIATE SOLVE THE CONTRACTOR USING THESE PLANS
ASPROPRIATE SOLVE THE CONTRACTOR USING THESE PLANS
ASPROPRIATE SOLVE THE ALLICENSED ROFESSIONAL ENGINEER
TO ASSIST IN THE REVIEW

DR R A W I M E S ET LOWER STRONG COST I TO CLASS SHOW THOSE SHOWN THE COST I TO CLASS SHOW THOSE LCC III.C.

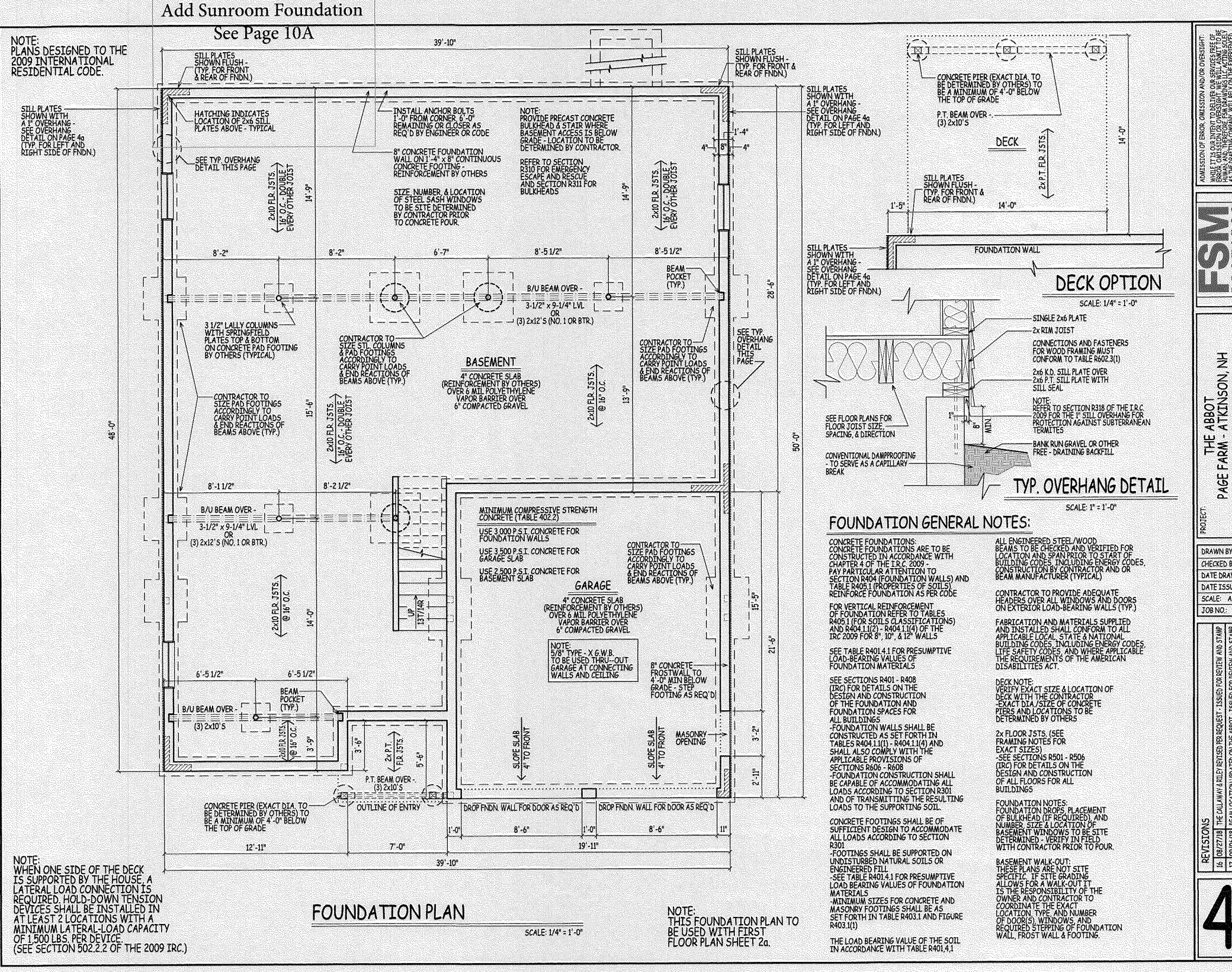
PROJECT:
THE ABBOT
PAGE FARM - ATKINSON, NH
PREPARED FOR:

DRAWN BY: MM/JW
CHECKED BY: MM
DATE DRAWN: 09/06/18
DATE ISSUED: 09/06/18
SCALE: AS INDICATED
JOB NO: FSM17-206CA

ESTONS

27/18 THE CALLAWAY A RILEY REVISED PER REQUEST - 15SUED FOR REVIEW AND STAMP
06/18 BEAM LOCATION UPDATED ON THE ABBOT - 15SUED FOR REVIEW AND STAMP
03/18 THE CALLAWAY REVISED PER MARK-UPS - 15SUED FOR REVIEW AND STAMP
15/18 THE RILEY REVISED PER MARK-UPS - 15SUED FOR REVIEW AND STAMP
15/18 THE ABBOT REVISED PER MARK-UPS - 15SUED FOR REVIEW AND STAMP

30

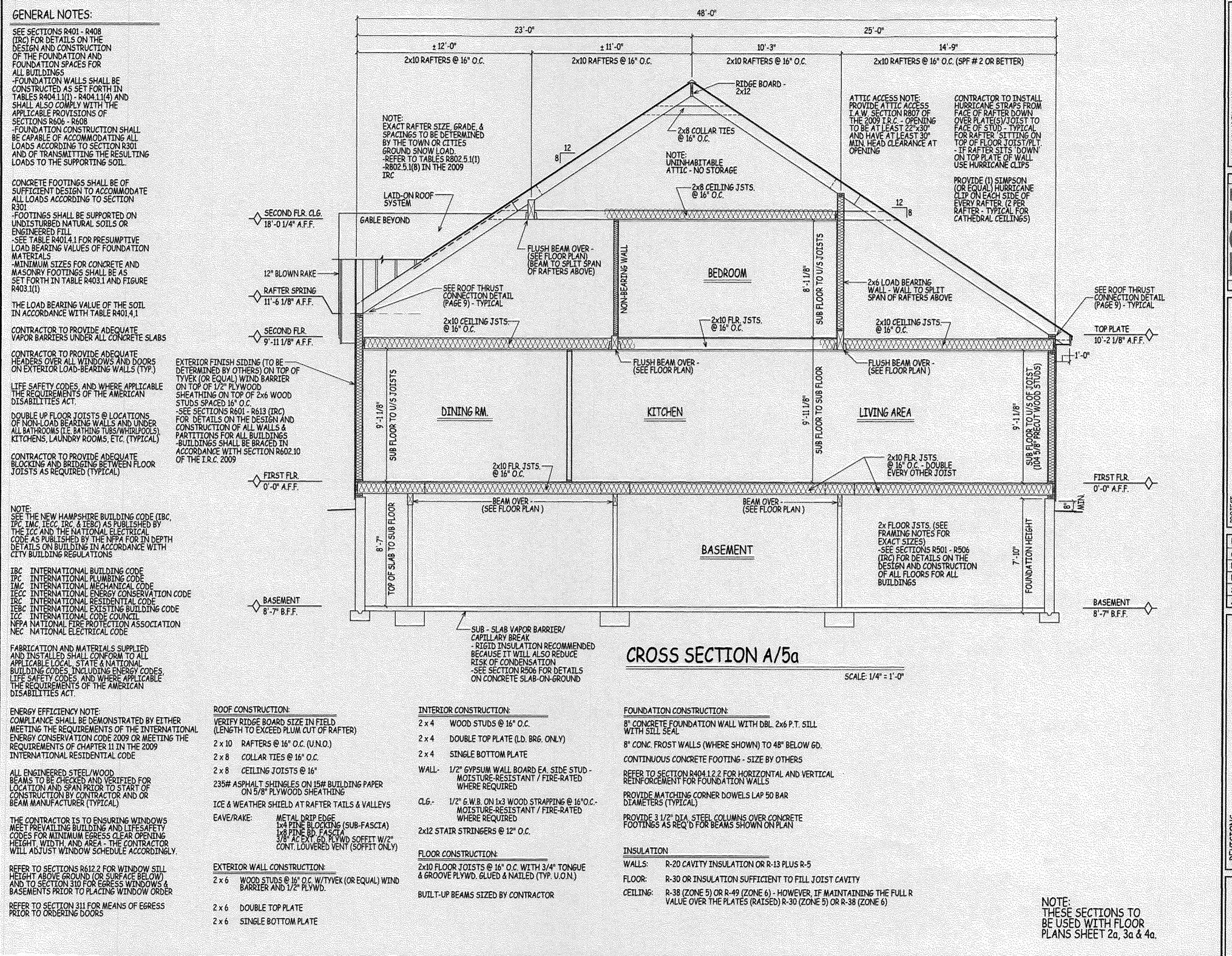


WHIELD HUMAN CONTAC ASSUMEN ASSUMENS MENSION

g 623 Se o d **m** ká ří

> THE ABBOT FARM - ATKINSON, I

DRAWN BY: MM/JW CHECKED BY: DATE DRAWN: 09/06/18 DATE ISSUED: 09/06/18 SCALE: AS INDICATED JOB NO: FSM17-206CA



ADMISSION OF ERROR, OMISSION AND/OR COVERSIGHT.
WHILE IT IS OUR INTENT TO DELYCE OUR SERVICES FREE OF
ERROR, OMISSION OR OVERSIGHT, WE WILL ADMIT TO BE
HUMAN AND THEREFORE FSA DRAWINGS ILL ACTING SOLELY
AS THE DRAFTING COMPANY, WILL RELY ON THE EXPRIENCED
CONTRACTOR USING THESE PLANS TO THOROUGHLY REVIEW THEM
FOR DIMENSIONAL ACCURACY, COMPLETENESS AND
APPROACH THE CONTRACTOR USING THESE PLANS
ASSUMES ALL REPONSIBILITY FOR THEM AND WILL IF HE'SHE
DEEMS NECESSARY HIRE A LICENSED PROFESSIONAL ENGINEER
TO ASSIST IN THE REVIEW.

To see the family of the see that the see th

THE ABBOT FARM - ATKINSON, NH

DRAWN BY: MM/JW
CHECKED BY: MM
DATE DRAWN: 09/06/18
DATE ISSUED: 09/06/18
SCALE: AS INDICATED
JOB NO: FSM17-206CA

AGE

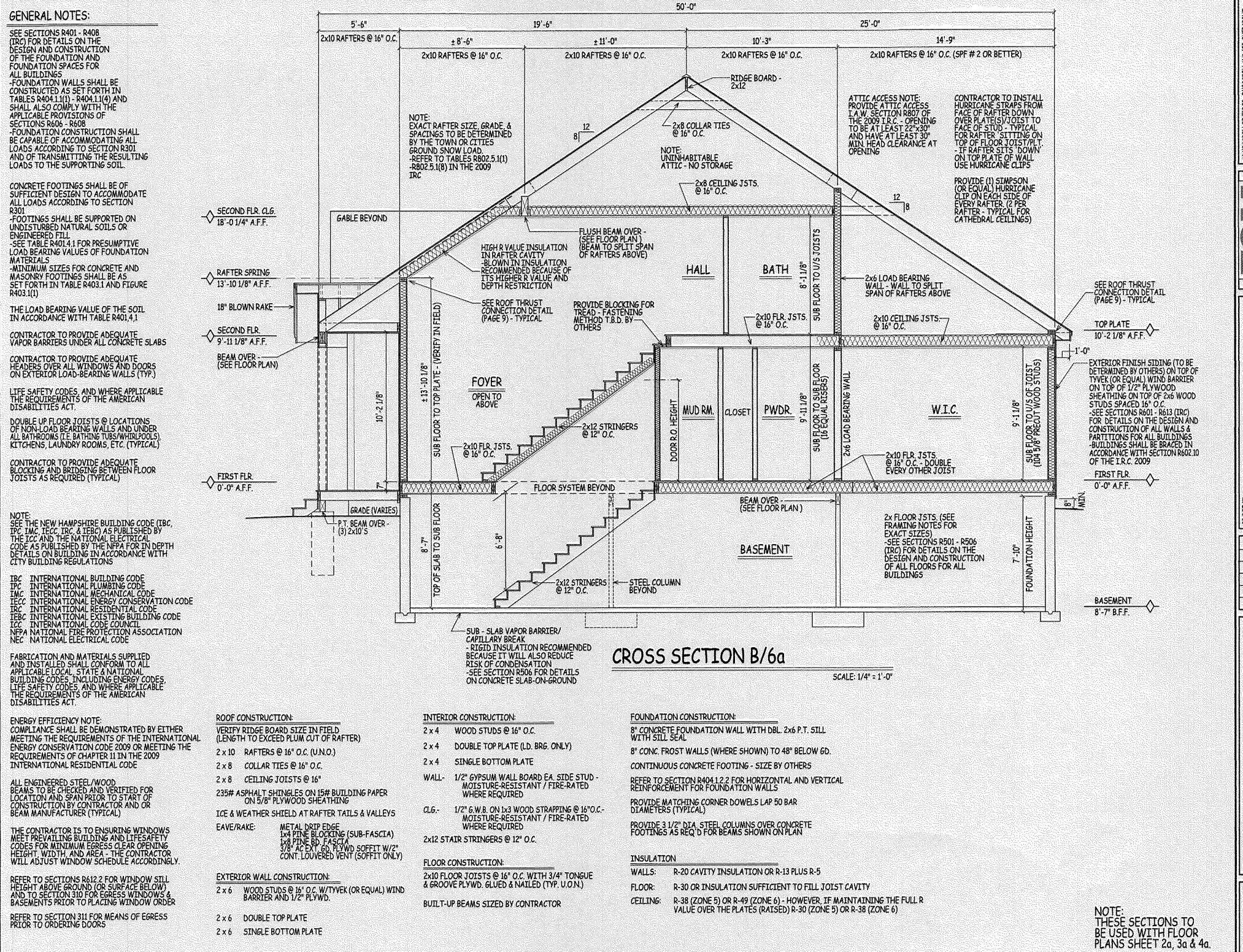
△\_

RILEY REVISED PER REQUEST - ISSUED FOR REVIEW AND STAMP
I UPDATED ON THE ABBOT - ISSUED FOR REVIEW AND STAMP
REVISED PER MARK-UPS - ISSUED FOR REVIEW AND STAMP
SED PER MARK-UPS - ISSUED FOR REVIEW AND STAMP
ISSUED PER MARK-UPS - ISSUED FOR REVIEW AND STAMP

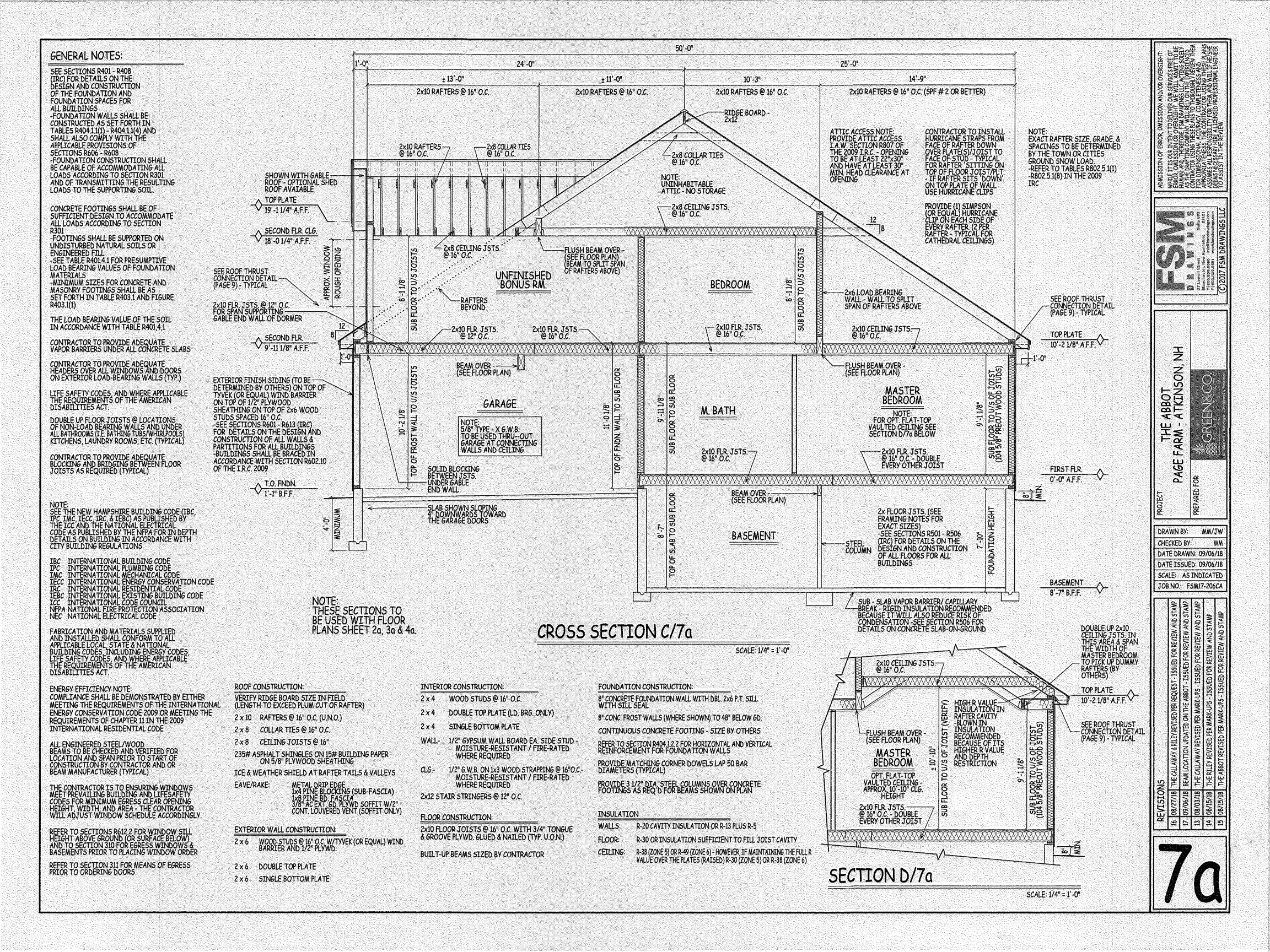
08/15/18 THE CALLAWAY & RILEY REVISED PER REQUISE/17/18 BEAM LOCATION UPDATED ON THE ABBC 08/03/18 THE CALLAWAY REVISED PER MARK-UPS 08/15/18 THE RILEY REVISED PER MARK-UPS - IS:

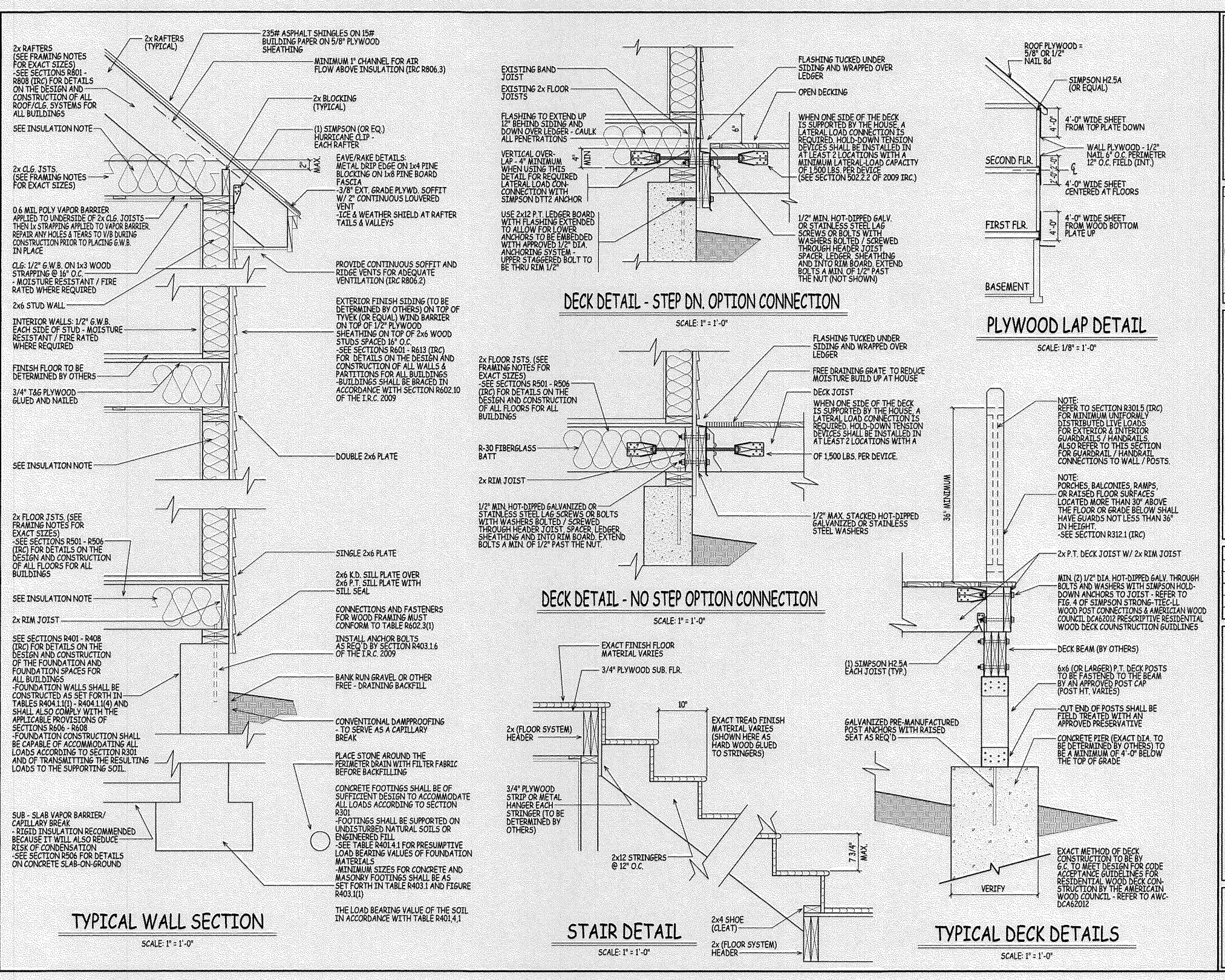
50

14 13 17 16



WHILE IT IS OUR INTENT TO DELIVER OUR SERVICES FREE OF ERROR, OMISSION OR OVERSIGHT. WE WILL ADMIT TO BE HUMAN, AND THEREFORE FSM DRAWINGS LLC ACTING SOLEY AS THE DRAFTING COMPANY WILL RELY ON THE EXPRENCED CONTRACTION USING THEER PLANS TO THOMOUGHLY REFIRM THEM FOR DIMENSIONAL ACCURACY COMPLETENESS AND APPROPRIATENESS. THE CONTRACTOR JUSTING THESE PLANS ASSUMES ALL RESPONSIBILITY FOR THEM AND WILL IF HEISHED FOR ASSUME THE THE FILE ALLICENSED PROFESSIONAL FINETHER. # C## = DESCRIPTION OF THE PERSON OF T Mai sə də ti 麦 THE ABBOT FARM - ATKINSON, N PAGE MM/JW DRAWN BY: CHECKED BY: **DATE DRAWN: 09/06/18** DATE ISSUED: 09/06/18 SCALE: AS INDICATED JOB NO: F5M17-206CA

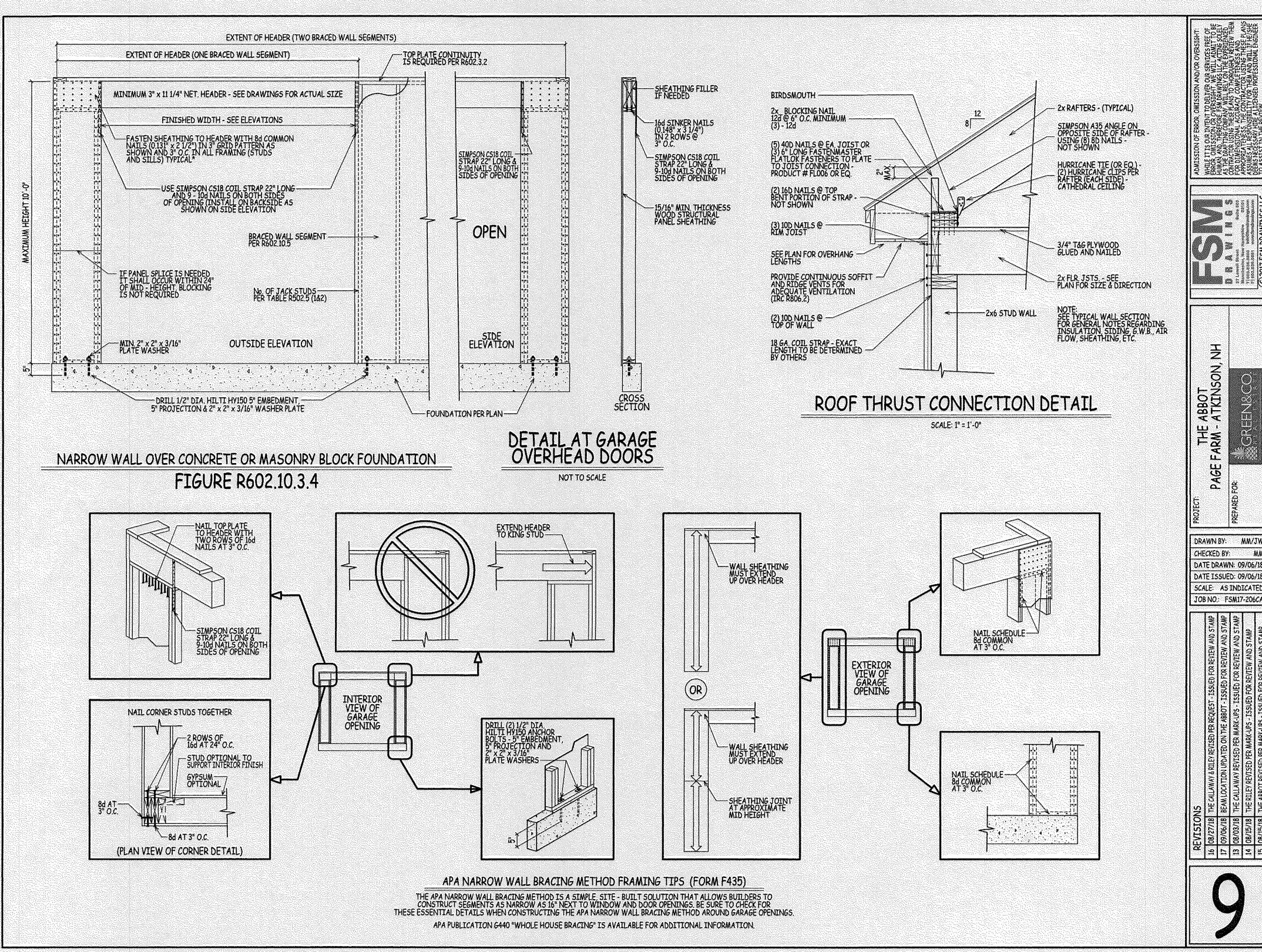




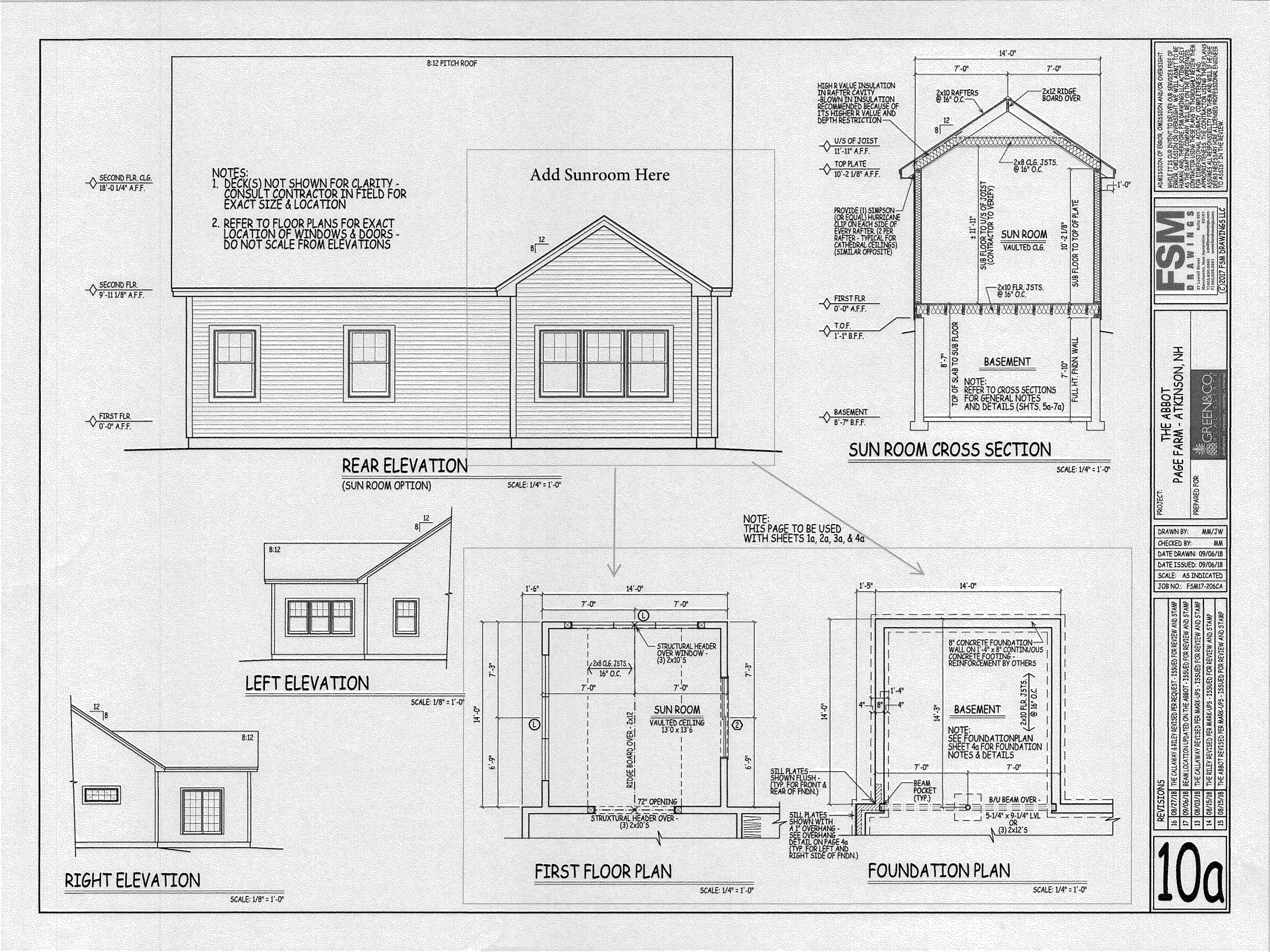


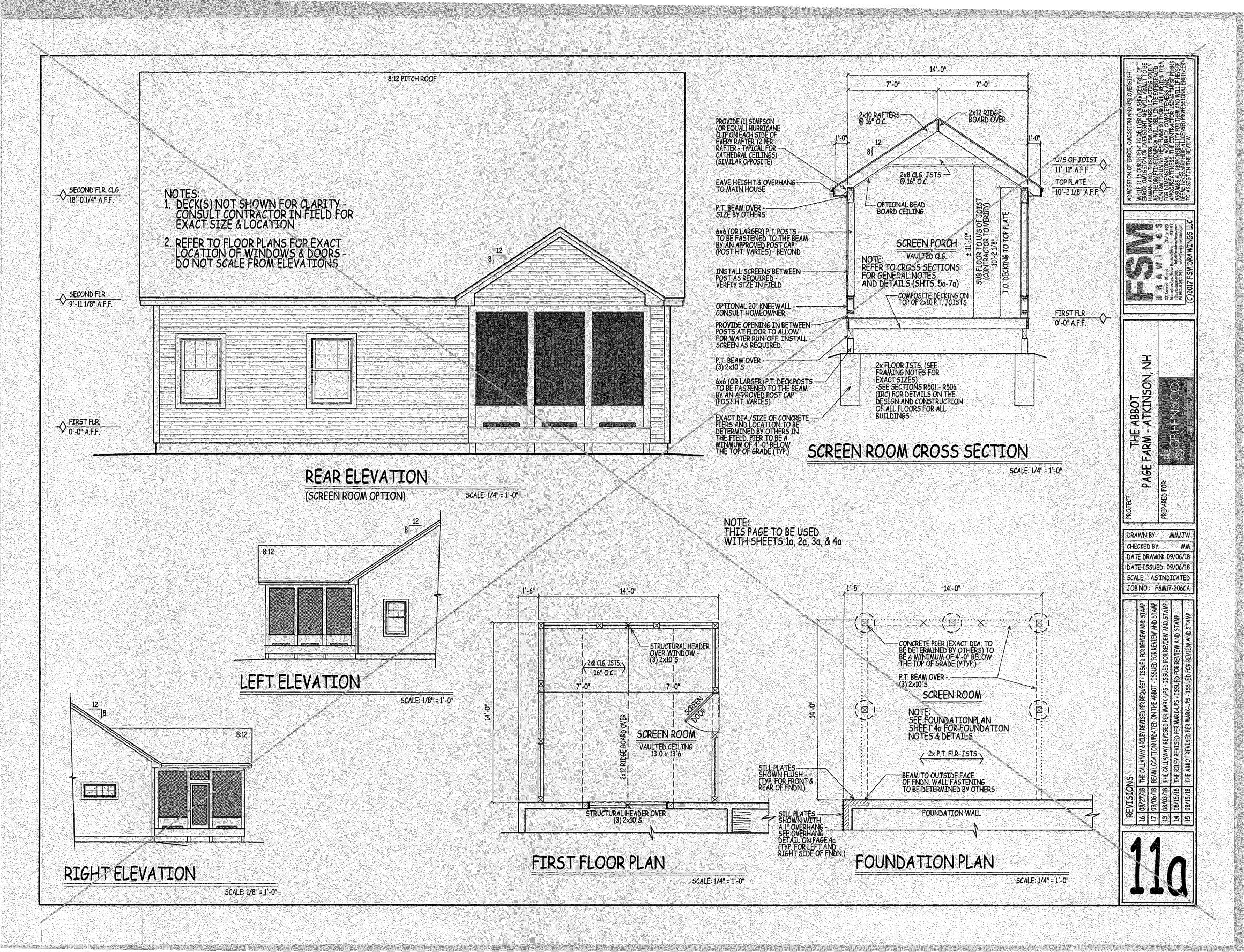
DRAWN BY: MM/JW
CHECKED BY: MM
DATE DRAWN: 09/06/18
DATE ISSUED: 09/06/18
SCALE: AS INDICATED
JOB NO: F5M17-206CA

ALLAWAY & RILEY REVISED PER REQUEST - ISSUED FOR REVIEW AND STAM LOCATION UPDATED ON THE ABBOT - ISSUED FOR REVIEW AND STAM ALLAWAY REVISED PER MARK-UPS - ISSUED FOR REVIEW AND STAM ILEY REVISED PER MARK-UPS - ISSUED FOR REVIEW AND STAMP



THE ABBOT FARM - ATKINSON, NH Chrenisto PAGE MM/JW DRAWN BY:







	Main	Future	Apt	Main + Future	Main + Apt	All
Living Area	2302 SF	0 SF	0 SF	2302 SF	2302 SF	2302 SF
Bedrooms	3	1	0	4	3	4
Baths	2.5	0.0	0.0	2.5	2.5	2.5

<u>Use of this document</u> is governed by our <u>Terms and Conditions</u>, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2017 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.



Dear Builders and Home Buyers,

In addition to our Terms and Conditions (the "Terms"), please be aware of the following:

This design may not yet have Construction Drawings (as defined in the Terms), and is, therefore, only available as a Design Drawing (as defined in the Terms and together with Construction Drawings, "Drawings'). It is possible that during the conversion of a Design Drawing to a final Construction Drawing, changes may be necessary including, but not limited to, dimensional changes. Please see Plan Data Explained on www.ArtformHomePlans.com to understand room sizes, dimensions and other data provided. We are not responsible for typographical errors.

Artform Home Plans ("Artform") requires that our Drawings be built substantially as designed. Artform will not be obligated by or liable for use of this design with markups as part of any builder agreement. While we attempt to accommodate where possible and reasonable, and where the changes do not denigrate our design, any and all changes to Drawings must be approved in writing by Artform. It is recommended that you have your Drawing updated by Artform prior to attaching any Drawing to any builder agreement. Artform shall not be responsible for the misuse of or unauthorized alterations to any of its Drawings.

#### Facade Changes:

- To maintain design integrity, we pay particular attention to features on the front facade, including but not limited to door surrounds, window casings, finished porch column sizes, and roof friezes. While we may allow builders to add their own flare to aesthetic elements, we don't allow our designs to be stripped of critical details. Any such alterations require the express written consent of Artform.
- Increasing ceiling heights usually requires adjustments to window sizes and other exterior elements.

#### Floor plan layout and/or Structural Changes:

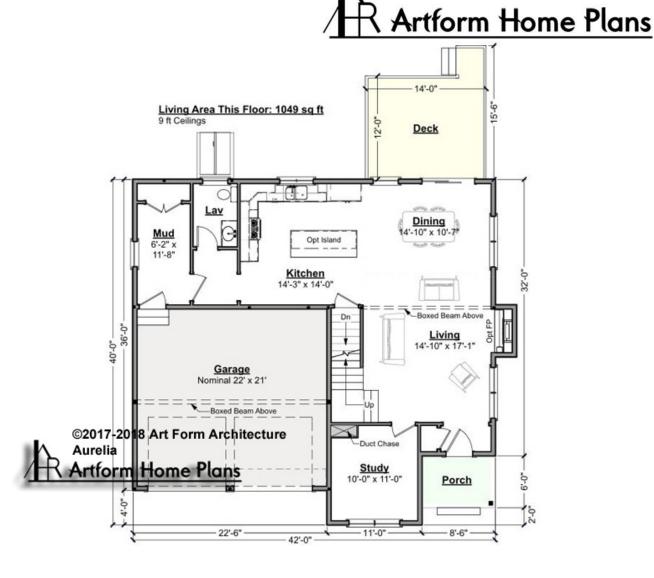
- Structural changes always require the express written consent of Artform
- If you wish to move or remove walls or structural elements (such as removal of posts, increases in house size, ceiling height changes, addition of dormers, etc), please do not assume it can be done without other additional changes (even if the builder or lumber yard says you can).

### **First Floor**

	Area	Beds	Baths
Main	1049 SF	0	0.5
Future	0 SF	1	0
Apt	0 SF	0	0
Total	1049 SF	1	0.5

Ceiling	Height
Shown	9'-0"

Possible\* 8'-0"



 $\underline{\textbf{Use of this document}} \text{ is governed by our } \textbf{Terms and Conditions}, \text{ found on our website:} \\ \underline{\textbf{http://www.artformhomeplans.com/TermsConditions.a5w}}$ 

© 2017 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

<sup>\*</sup> See Major Change information on plan page for cost



	Area	Beds	Baths
Main	1253 SF	3	2
Future	0 SF	0	0
Apt	0 SF	0	0
Total	1253 SF	3	2
	Ceiling	Height	
	Shown	8'-0"	
	Possible*	8'-0"	

<sup>\*</sup> See Major Change information on plan page for cost





<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2017 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

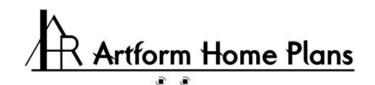
You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

#### **Basement Floor**

	Area	Beds	Baths
Main	0 SF	0	0
Future	0 SF	0	0
Apt	0 SF	0	0
Total	0 SF	0	0
	Ceiling	Height	
	Shown	7'-8"	
	Possible*	9'-0"	

<sup>\*</sup> See Major Change information on plan page for cost





<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2017 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

# Artform Home Plans

### **Front Elevation**



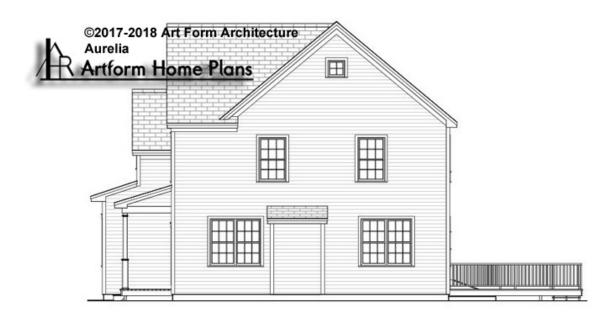
<u>Use of this document</u> is governed by our <u>Terms and Conditions</u>, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2017 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

# Artform Home Plans

### **Right Elevation**



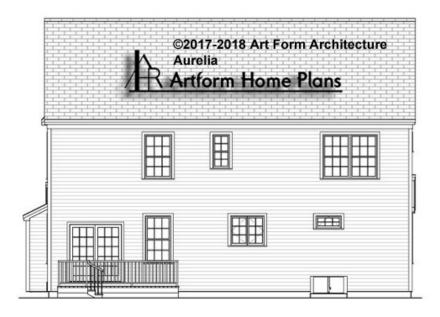
<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2017 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

# Artform Home Plans

### **Rear Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2017 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

## Artform Home Plans

### **Left Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2017 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.



	Main	Future	Apt	Main + Future	Main + Apt	AII
Living Area	2670 SF	0 SF	0 SF	2670 SF	2670 SF	2670 SF
Bedrooms	3	0	0	3	3	3
Baths	2.5	0.0	0.0	2.5	2.5	2.5

<u>Use of this document</u> is governed by our <u>Terms and Conditions</u>, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.



Dear Builders and Home Buyers,

In addition to our Terms and Conditions (the "Terms"), please be aware of the following:

This design may not yet have Construction Drawings (as defined in the Terms), and is, therefore, only available as a Design Drawing (as defined in the Terms and together with Construction Drawings, "Drawings'). It is possible that during the conversion of a Design Drawing to a final Construction Drawing, changes may be necessary including, but not limited to, dimensional changes. Please see Plan Data Explained on www.ArtformHomePlans.com to understand room sizes, dimensions and other data provided. We are not responsible for typographical errors.

Artform Home Plans ("Artform") requires that our Drawings be built substantially as designed. Artform will not be obligated by or liable for use of this design with markups as part of any builder agreement. While we attempt to accommodate where possible and reasonable, and where the changes do not denigrate our design, any and all changes to Drawings must be approved in writing by Artform. It is recommended that you have your Drawing updated by Artform prior to attaching any Drawing to any builder agreement. Artform shall not be responsible for the misuse of or unauthorized alterations to any of its Drawings.

#### Facade Changes:

- To maintain design integrity, we pay particular attention to features on the front facade, including but not limited to door surrounds, window casings, finished porch column sizes, and roof friezes. While we may allow builders to add their own flare to aesthetic elements, we don't allow our designs to be stripped of critical details. Any such alterations require the express written consent of Artform.
- Increasing ceiling heights usually requires adjustments to window sizes and other exterior elements.

#### Floor plan layout and/or Structural Changes:

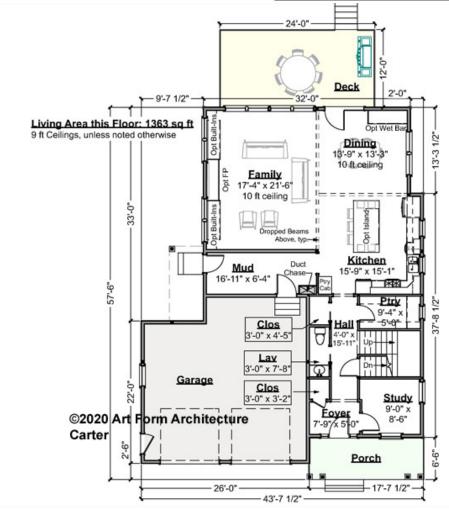
- Structural changes always require the express written consent of Artform
- If you wish to move or remove walls or structural elements (such as removal of posts, increases in house size, ceiling height changes, addition of dormers, etc), please do not assume it can be done without other additional changes (even if the builder or lumber yard says you can).

### Artform Home Plans

### **First Floor**

	Area	Beds	Baths
Main	1363 SF	0	0.5
Future	0 SF	0	0
Apt	0 SF	0	0
Total	1363 SF	0	0.5
	Ceiling	Height	
	Shown	9'-0"	
	Possible*	9'-0"	

<sup>\*</sup> See Major Change information on plan page for cost



<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

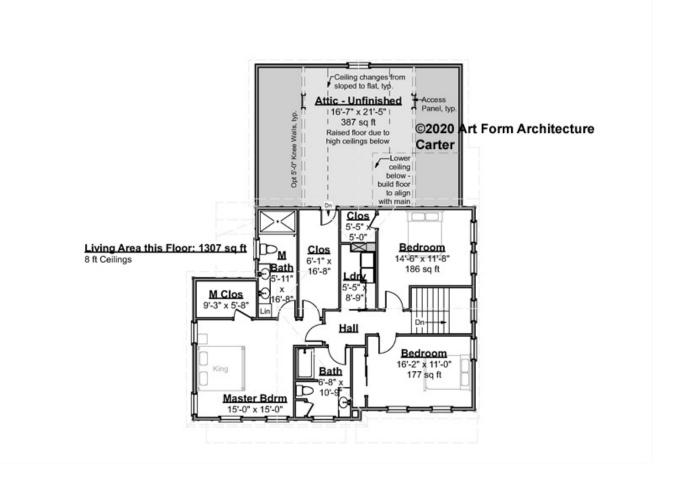
Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

# Artform Home Plans

### **Second Floor**

	Area	Beds	Baths
Main	1307 SF	3	2
Future	0 SF	0	0
Apt	0 SF	0	0
Total	1307 SF	3	2
	Ceiling	Height	
	Shown	8'-0"	
	Possible*	8'-0"	

<sup>\*</sup> See Major Change information on plan page for cost



<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

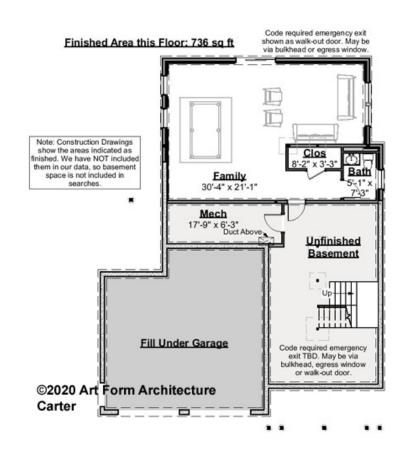
Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

### **Basement Floor**

	Area	Beds	Baths
Main	0 SF	0	0
Future	0 SF	0	0
Apt	0 SF	0	0
Total	0 SF	0	0
	Ceiling	Height	
	Shown	7'-8"	
	Possible*	8'-4"	

<sup>\*</sup> See Major Change information on plan page for cost





<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

## Artform Home Plans

### **Front Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

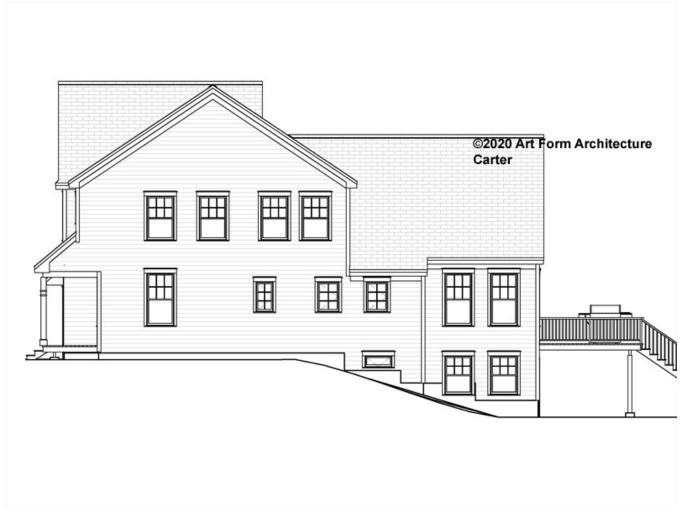
whether items are labeled optional in this document or not.

Some features show are optional. Your Purchase & Sale Agreement governs,

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

## Artform Home Plans

### **Right Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

# Artform Home Plans

### **Rear Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

### Artform Home Plans

### **Left Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

We are not responsible for typographical errors.

whether items are labeled "optional" in this document or not.

Some features show are optional. Your Purchase & Sale Agreement governs,

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

### **Rear Render**





<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

### Wall Types

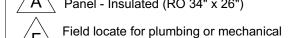
Exterior walls 2x6 wood stud Interior walls 2x4 wood stud, unless noted otherwise

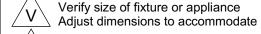
### Wall Keys

- 2 2x wood studs on the flat
- 3 2x3 wood stud wall, 16" oc
- 6 2x6 wood stud wall, 16" ocNote: 2x4 wood stud wall, 16" oc unless otherwise noted

### **Key Notes**

A 30" x 22" Minimum Attic Access Panel - Insulated (RO 34" x 26")





Snug - Door or Window trim will be snug and may need to be cut down

Center - Place door or window centered on wall

Double Stud or structural mull – adapt to suit chosen window brand.
Object is to have some "bite" for curtain

hardware and exterior aesthetics.

(SD) Smoke Detector

CO Carbon Monoxide Detector



#### **Dimensions**

Dimensions are to face of stud, unless noted otherwise.
 Closets are 24" clear inside, unless dimensioned otherwise.

#### Square Footages

materials differ.

Sq ft numbers are interior to room for use in calculating finishes.
 Cabinets and fixtures not subtracted.
 Add for doorways when floor finishes run through.

#### <u>Notes</u>

1. Exterior walls 2x6 wood stud @ 16" oc. Provide insulation & vapor barrier conforming to state or local codes. Interior sheathing 1/2" gypsum board. Provide 1/2" exterior rated sheathing, house wrap with drainage plane and siding. Provide step flashing at walls adjacent to roof planes.

2. Interior walls 2x4 wood stud @ 16" oc, unless noted otherwise.

3. Roof - see structural for rafter sizes. Provide 5/8" exterior rated roof sheathing 15# roofing felt, ice & water shield at eaves and valleys, aluminum drip edge and asphalt shingles or metal roofing. Structure not calculated to support slate or tile. Flash all penetrations. Provide cricket at any added chimneys.

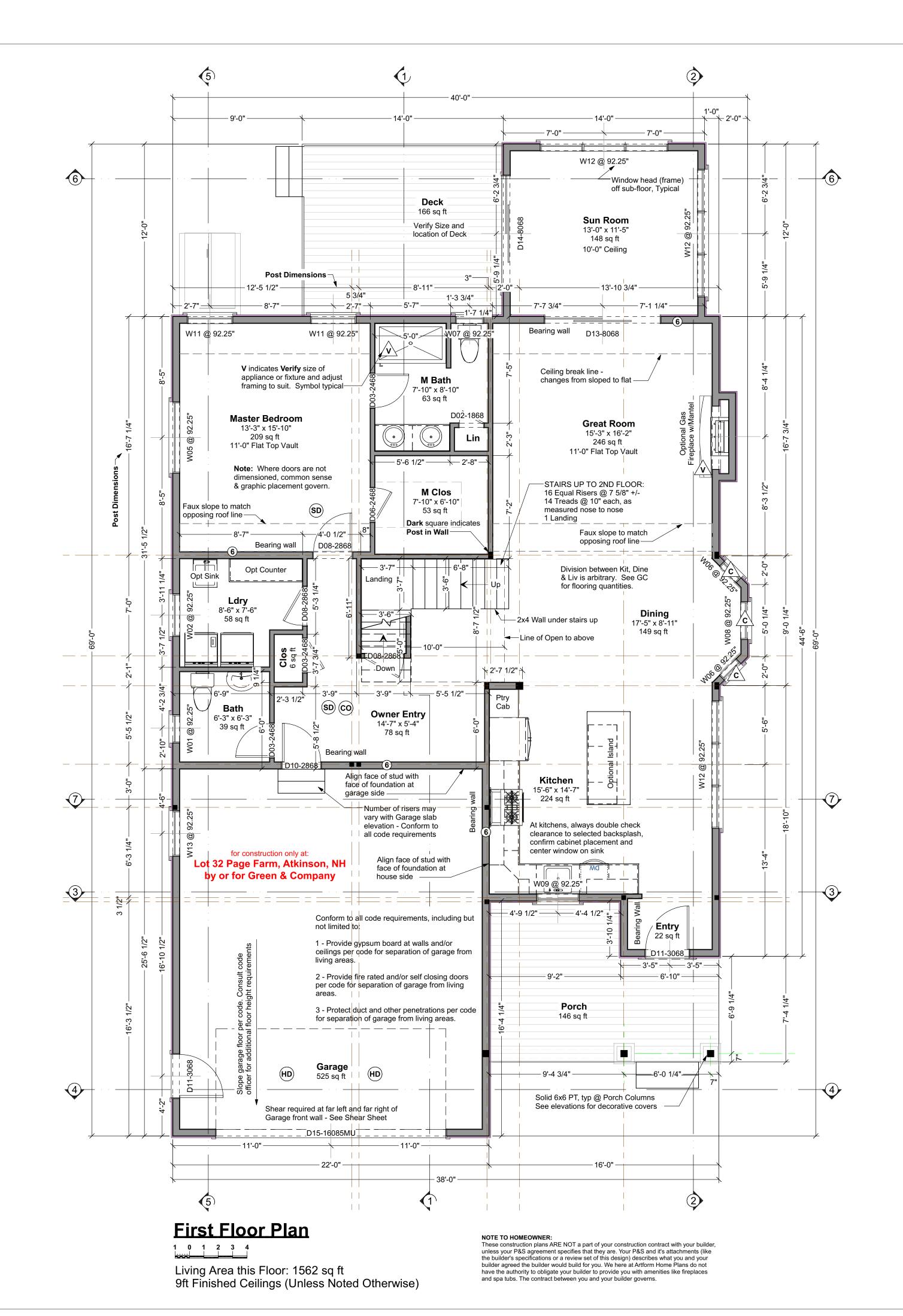
4. Provide roof and/or ceiling insulation per code. Provide soffit and ridge vents where required for insulation strategy. (Verify with code officer - closed cell spray foam or dense-pack cellulose installed at rafters and filling ridge and eaves generally contra-indicates venting, batt insulation always requires venting).

5. Provide smoke detectors where shown, where required by code and where required by local authorities.

6. Provide fire resistive materials where required by code, including but not limited to, firestopping at penetrations, 1/2" drywall on walls and 5/8" drywall on ceilings to separate garage (where garage present in design) from dwelling, and separation of dwellings (where more than one dwelling present in design), and protection of flammable insulation materials.

7. Compliance with code requirements for rooms size and clearances, (hallway widths, room sizes, etc) assume 1/2" drywall on walls and 1/2" drywall on 3/4" strapping on ceilings. Adjust as required if

8. Shear is only called out where Continuous Portal Frame will not suffice. See Section R602.10.4 (Pages 173 - 179) of the IRC 2009.





### **Dear Code Officer.**

These are predesigned home plans, designed to bring good design and construction drawings to people at more affordable prices and

faster time frames than traditional architecture. Where traditional "Internet" home plans disclaim all responsibility, we split responsibility between us (Artform) and the owner. We encourage the future homeowners to use a quality builder who can assist them with this. They are responsible for thermal and moisture decisions and for meeting code in ways that a quality builder should know without an explicit detail. We are responsible for things that are directly related to the design and/or that a quality builder couldn't reasonably figure out on their own - specifically the following IRC 2009 code sections:

1 - Room sizes (Section R304) 2 - Ceiling Height (Section R305)

3 - Floor space & ceiling height at Toilet, Bath and Shower Spaces (Section R307)

4 - Hallway widths (Section R311.6)
5 - Door types & sizes (Section R311.2)

6 - Floor space in front of doors (Section R311.3)
7 - Stair width - The stairs in our designs will be a minimum of 36"
wide measured wall surface to wall surface, allowing compliance with
R311.7.1 with installation of correct handrail.
8 - Stairway headroom (Section R311.7.2)

9 - Stair treads and risers (Section R311.7.5)
10 - Landings for stairways (Section R311.7.6)
11 - Emergency Escape Window Sizes (Section R310.2.1, R310.2.2, R310.2.3 and R310.2.4). Casement windows may require manufacturer's emergency escape window hardware. Will also

comply with NFPA 101.

12 - Structural Floor Framing (Section R502.3) Where dimensional lumber is shown, framing members will be sized according to this section of the code. Where engineered wood products are shown, those framing members will be size according to the manufacturer's tables for loads and spans, or sizes will have been calculating using manufacturer's published materials properties.

13 - See structural sheets for additional notes.

The builder can and should add information to this set, such as Rescheck, a hand markup of our generic thermal and moisture section, additional information about doors and windows (such as fire rating, tempering, etc), foundation drops relative to site grading, and sometimes their chosen method of basement egress. These drawings are not intended to be used without that additional information.

Where a construction address is shown on the drawings, it is for

copyright control only. We have not inspected the site, adapted the

design to state specific laws (except where it says so in the drawings) or site or region specific climate conditions. Homeowner and/or Builder shall be responsible for thermal and moisture control strategies, materials choices and compliance with applicable laws and ordinances.

Please do feel free to call us with any questions. We can and do

update our drawings and standard notes to address specific concerns, especially in jurisdictions where our clients will be building again.

### Dear Everybody,

With these drawings a copyright license is granted for a single construction only at Lot 32 Page Farm, Atkinson, NH by or for Green & Company. This is a License to Build, and does not include a License to Modify, except as required to conform to building code or fulfill builder's/owners responsibilities.

### Permissible uses of these drawings:

All activities associated with construction at the listed address.
 Pricing or preliminary discussions with zoning or code officials for construction at other addresses, with prior notification to Artform Home Plans - just use the Contact form on the web site –

### Not Permitted:

Application for any permits or other approvals for construction at properties other than the listed address, including but not limited to construction, zoning, conservation, or design review.
 Modification of the basic design.

Use of these drawings outside these parameters is a violation of federal copyright law, punishable by both civil action and criminal prosecution, as it is stealing or enabling theft of "intellectual property". Making modifications to plans, even significant ones, does not change this, under copyright law, that's considered "derivative works"

We can provide drawings suitable for use in obtaining design or zoning approvals without incurring the expense of a full set of construction drawings. Contact us for more information.

AFHP CD Commons 18 4 X 10

These drawings are intended for use by an experienced professional builder in responsible charge of the entire project, including but not limited to mechanical, electrical and sitework. Any additional adaptation for these trades or other trades must be determined prior to start of construction. Contact Artform for any adjustments needed.

Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.



Balmalcolm
Lot 32 Page Farm
Atkinson, NH

1/4"=1'-0" unless noted otherwise / Print @ 1:1
PDF created on: 6/13/2019, drawn by ACJ

Issued for:
Construction

2. Trimmed Openings: Trimmed openings not shown on schedule. See Plan.

3. Window Tempering: Provide tempered windows where required by local codes or local authorities. Tempering column provided here for convenience. Windows have not been reviewed for tempering

**4. Window RO's:** 1/4" or 1/2" on each of 4 sides allowed for window RO's, typical. Review framing size vs RO size. Adjust per manufacturer's requirements and/or builder preference.

5. Egress Windows: Provide minimum one door or window meeting egress requirements in basement, in each sleeping room, in each potential sleeping room, and other locations required by local code, in sizes required by local code. Note that casement windows coded by manufacturer as meeting IRC 2006 egress requirements typically need to be ordered with specific hardware. Emergency Escape Window Sizes (Section R310.1.1, R310.1.2, R310.1.3 and R310.1.4). Will also comply with NFPA 101.

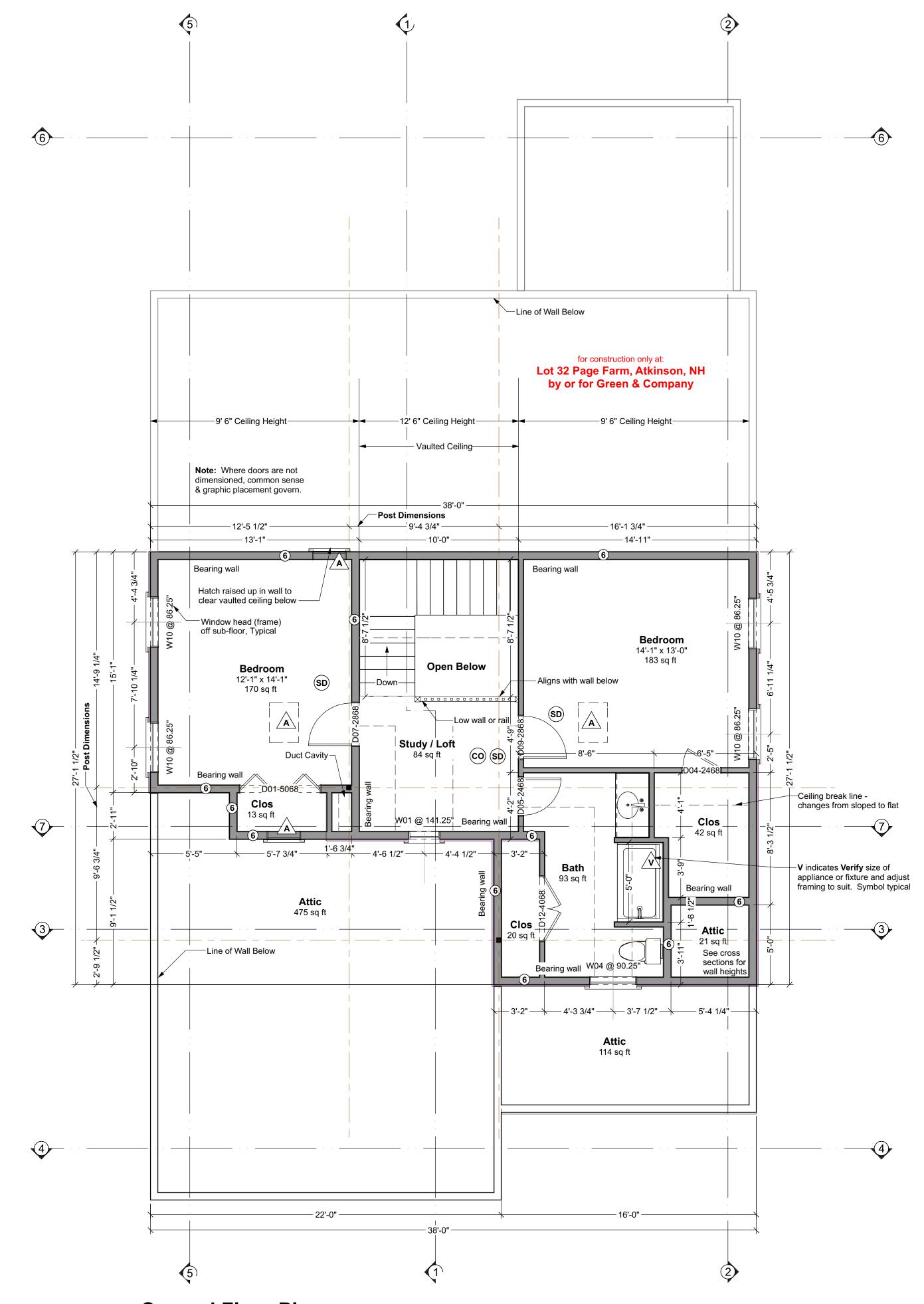
6. Basement Windows: Add basement windows as required to meet state or local code requirements, including but not limited to egress and light/ventilation.

7. Skylights: Skylights are not shown on this schedule, but may be required. Consult builder and/or see floor

8. Minimum window sill height: IRC 2009 and later requires that floor window sills be 24" from floor. Confirm bottom of window opening relative to frame. Adjust head heights as required to conform to IRC

	DOOR SCHEDULE						
NUMBER	QTY	FLOOR	SIZE	WIDTH	HEIGHT	TYPE	COMMENTS
D01	1	2	5068 L/R	60 "	80 "	4 DR. BIFOLD	
D02	1	1	1868 R IN	20 "	80 "	HINGED	
D03	3	1	2468 L IN	28 "	80 "	HINGED	
D04	1	2	2468 R IN	28 "	80 "	HINGED	
D05	1	2	2468 L IN	28 "	80 "	HINGED	
D06	1	1	2468 R IN	28 "	80 "	HINGED	
D07	1	2	2868 L IN	32 "	80 "	HINGED	
D08	3	1	2868 R IN	32 "	80 "	HINGED	
D09	1	2	2868 R IN	32 "	80 "	HINGED	
D10	1	1	2868 L EX	32 "	80 "	HINGED	
D11	2	1	3068 R EX	36 "	80 "	HINGED	
D12	1	2	4068 L/R IN	48 "	80 "	DOUBLE HINGED	
D13	1	1	8068 R IN	96 "	80 "	SLIDER	
D14	1	1	8068 L EX	96 "	80 "	SLIDER	
D15	1	1	16085	192 "	101 "	MULLED UNIT	GARAGE W/ TRANSOM

WINDOW SCHEDULE										
NUMBER	QTY	WIDTH	HEIGHT	R/O	EGRESS	TEMPERED	DESCRIPTION	MANUFACTURER	COMMENTS	
W01	2	23 1/2 "	23 1/2 "	24"X24"			SINGLE AWNING			
W02	1	35 1/2 "	23 1/2 "	36"X24"			SINGLE AWNING			
W03	1	35 1/2 "	35 1/2 "	36"X36"			SINGLE AWNING			
W04	1	35 1/2 "	35 1/2 "	36"X36"		YES	SINGLE AWNING			
W05	1	59 1/2 "	23 1/2 "	60"X24"			SINGLE AWNING			
W06	2	19 1/2 "	65 1/2 "	20"X66"			DOUBLE HUNG			
W07	1	23 1/2 "	51 1/2 "	24"X52"		YES	DOUBLE HUNG			
W08	1	31 1/2 "	65 1/2 "	32"X66"			DOUBLE HUNG			
W09	1	35 1/2 "	47 1/2 "	36"X48"			DOUBLE HUNG			
W10	4	38 "	61 1/2 "	38 1/2"X62"	YES		DOUBLE HUNG			
W11	2	38 "	65 1/2 "	38 1/2"X66"	YES		DOUBLE HUNG			
W12	3	106 1/2 "	65 1/2 "	107"X66"			3X DH			
W13	1	38 "	65 1/2 "	38 1/2"X66"			DOUBLE HUNG			



### Second Floor Plan

1 0 1 2 3 4 Living Area this Floor: 793 sq ft 9'-6" Ceilings, unless noted otherwise Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

Window Story Pole
Scale 1/4"=1'-0"

Purpose of story pole is to demonstrate compliance with 20 ft

exterior maximum and 24" interior

Sill Delta - distance from bottom of frame to window opening. Sill

Dimensions shown apply to typical

brand/type chosen and/or planned foundation or framing height differ

Double Hung windows. Manually adjust dimensions where alternate

Delta Varies from 2<sup>3</sup>/<sub>4</sub>" to 4" in most brands. Confirm Sill Delta with

window manufacturer.

from these drawings.

(2) 2x10 Header -

Sill Delta, see notes —

Opening, min 2'-0"——

Fin Floor to

Maximum of 20'-0" to grade or substatial Deck for

one egress window at each bedroom.

Provide Deck,

required. —

raised grade or exterior balcony as

> If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans AFHP Design # 540.126.v16 ER © 2008-2019 Art Form Architecture 603.431.9559 Balmalcolm

PDF created on: 6/13/2019, drawn by ACJ

Lot 32 Page Farm Atkinson, NH 1/4"=1'-0" unless noted otherwise / Print @ 1:1 2. Builder shall maintain a safe worksite, including but not limited to, provision of temporary supports where appropriate and adherence to applicable safety standards.

3. Design is based on the snow load listed on the framing plans, 100 mph basic wind speed, Exposure type B, soil bearing capacity of 2000 psf, and Seismic Category C, unless otherwise noted on the framing plans. Builder shall promptly inform Artform Home Plans of differing conditions.

### **Foundations**

1. No footing shall be poured on loose or unsuitable soils, in water or on frozen ground.

2. All exterior footings to conform to all applicable code requirements for frost protection.

3. All concrete shall have a minimum compressive strength of at least 3000 PSI at 28 days.

4. Foundation anchorage to comply with IRC 2009 Section R403.1.6, it shall consist of minimum size 1/2" diameter anchor bolts with 3/16" x 2" x 2" washers at a maximum of 72" oc for two stories or 48" oc for more than two stories, max of 12" from each corner, min of 2 bolts per wall. Anchor bolt shall extend 7" into concrete or grouted cells of concrete masonry units. Be aware that a garage under may be counted by your code officer as a story. Additional anchorage may be required at braced walls.

### Wood Framing

1. All structural wood shall be identified by a grade mark or certificate of inspection by a recognized inspection agency.

2. Structural wood shall be Spruce-Pine-Fir (SPF) #2 or better.

3. When used, LVL or PSL indicate Laminated Veneer Lumber or Parallel Strand Lumber, respectively. Products used shall equal or exceed the strength properties for the size indicated as manufacturered by TrusJoist.

4. When used, AJS indicates wood I-joists as manufactured by Boise Cascade. Products of alternate manufacturers may be substituted provided they meet or exceed the strength properties for the member specified.

5. All floor joists shall have bridging installed at mid-span or at 8'-0" oc maximum.

6. Floor systems are designed for performance with subfloor glued and screwed.

7. At posts, provide solid framing/blocking to supports below. Provide minimum 1 1/2" bearing length for all beams and headers, unless noted otherwise.

8. All wood permanently exposed to the weather, in contact with concrete or in contact with the ground shall meet code requirements for wood in these environments.

9. Deck ledgers shall be securely attached to the structure and/ or independently supported, including against lateral movement, per building code requirements and best practices. Unless otherwise noted, decks shall have solid 4x4 pt posts up to 6 ft above grade, and solid 8x8 for heights

10. Wherever beams are noted as Flush framed, install joist hangers at all joists, sized appropriately for the members

11. Support the lower end of roof beams via minimum 2" horizontal bearing on a post, ledger or via an appropriately sized and configured hanger.

12. Where multiple beams are supported on one post, provide min 2" bearing for each, via either appropriately sized post cap or additional post(s).

13. Hangers, post caps, ties and other connectors shall be as manufactured by Simpson Strong Tie, as designed to connect the members shown, and shall be installed per manufacturer's instructions.

Foundation Contractor Check List
Confirm or review the following prior to forming & pouring foundation
Initials Date Checked

Confirmed soil bearing

Checked w/GC for added foundation steps to suit grade

Confirm sill plate thickness (foundation bolts to extend through all)

Confirmed garage door size

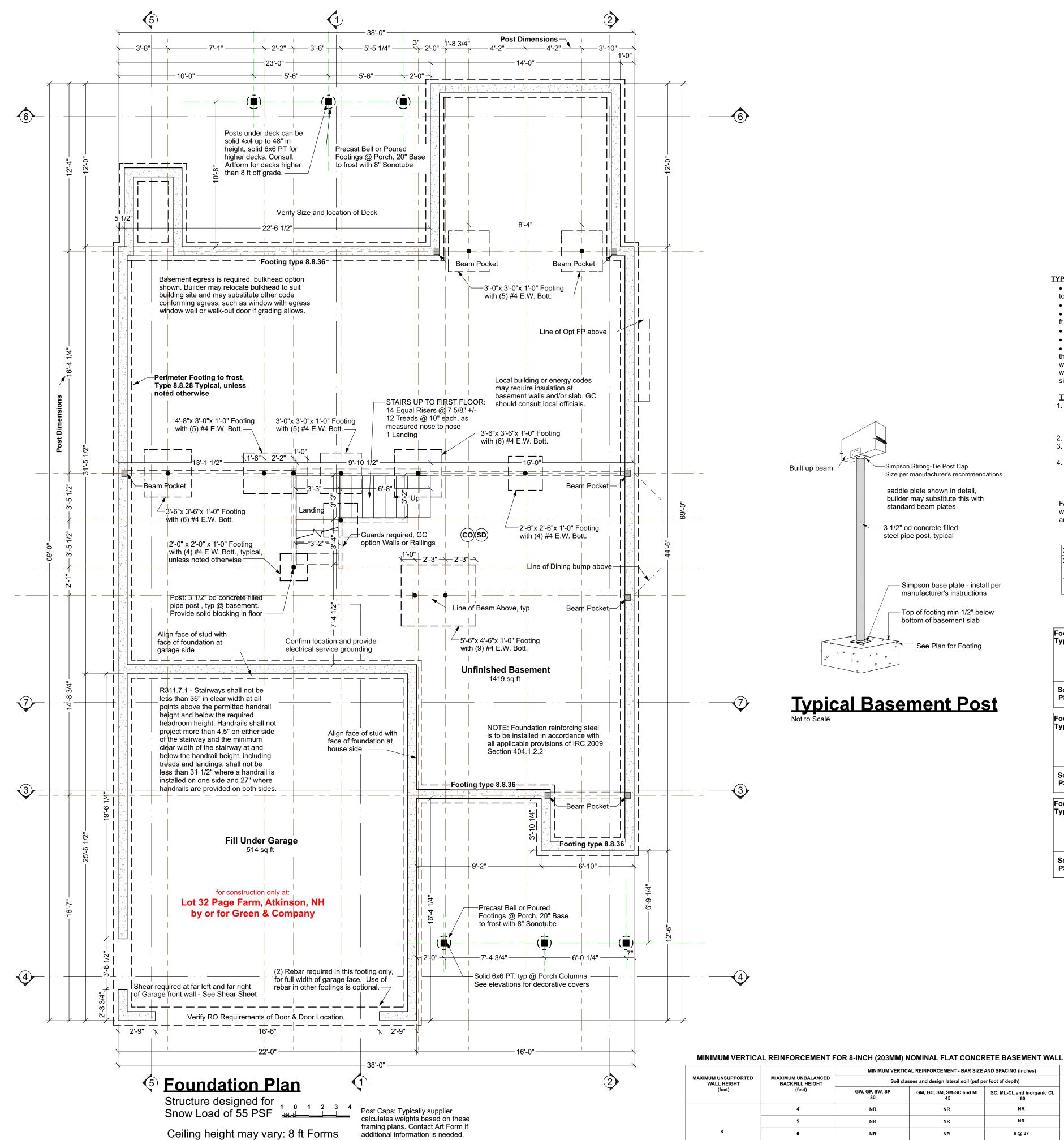
Checked w/GC for added basement windows

Checked w/GC for added basement man doors

Confirmed sizes & locations mech/plbg penetrations

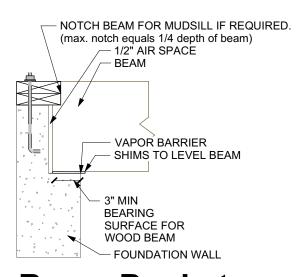
Confirmed sizes and locations of beams w/GC, added or adjusted beam pockets

Confirmed location and installed electrical service grounding - See GC for location



7

6 @ 41



### Beam Pocket

TYPICAL PERIMETER FOUNDATION WALL:

• 8" poured concrete, 8 ft forms, min 7'-10" finished, with total of 3 rebar, as follows:

(1) #4 rebar, 4" from top
(1) #4 rebar @ vertical midpoint. Omit this rebar at walls 4

ft high or less.

• (1) #4 rebar, min 3" from bottom or per code

Lap corners & splices of rebar per code.
Secure sill to foundation with 1/2" diameter anchor bolts that extend 7" into concrete and tightened with a nut and

that extend 7" into concrete and tightened with a nut and washer @ 6' oc & max 12" from each corner & each end @ wood sill splices - if built-up sill, bolts must extend through all sill plates or straps must secure all sill plates.

### TYPICAL PERIMETER FOOTING:

 Verify that depth of home matches chart. Depth is foundation dimension eave to eave. Contact Artform Home Plans if you believe the chart does not match the

Select column for snow load shown on the structural plans.
 Select soil bearing pressure based on soil type and/or consultation with code officer.

4. The required footing size is at the intersection of the Snow Load and Soil PSI. Rebar is not required. Key or pin foundation wall to footing per code. For the purposes of permitting, soil bearing for New England is assumed to be

2,000 PSI.

FAQ - Adding rebar to footings does not reduce the required width. Rebar affects performance with earth movement, like an earthquake and has near zero effect on bearing capacity.

### Guide to Soil PSI

3,000 Sandy gravel and/or gravel (GW and GP)
2,000 Sand, silty sand, clayey sand, silty gravel and clayey gravel (SW, SP, SM, SC, GM and GC)
1,500 Clay, sandy clay, silty clay, clayey silt, silt and sandy silt (CL, ML, MH and CH)

Footing Size Type 8.8.28		up to 28 ft plan depth 8 ft nominal basement height 8" foundation wall Full basement plus 2 stories						
		Snow Load						
		50	60	70	80			
Soil PSI	3,000	16" x 8"	16" x 8"	16" x 8"	16" x 8"			
	2,000	18" x 8"	18" x 8"	18" x 8"	20" x 8"			
	1,500	22" x 8"	22" x 8"	24" x 8"	24" x 8"			
		Full basement plus 2 stories  Snow Load						
		50	60	70	80			
Sail	3,000	50 16" x 8"	60 16" x 8"	70 16" x 8"	80 16" x 8"			
Soil	3,000 2,000							
Soil PSI	•	16" x 8"	16" x 8"	16" x 8"	16" x 8"			

### Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

50 60 70 80

 Soil PSI
 3,000
 16" x 8"
 16" x 8"
 16" x 8"
 16" x 8"
 16" x 8"

 2,000
 20" x 8"
 20" x 8"
 22" x 8"
 24" x 8"

 1,500
 26" x 8"
 28" x 8"
 30" x 8"
 30" x 8"

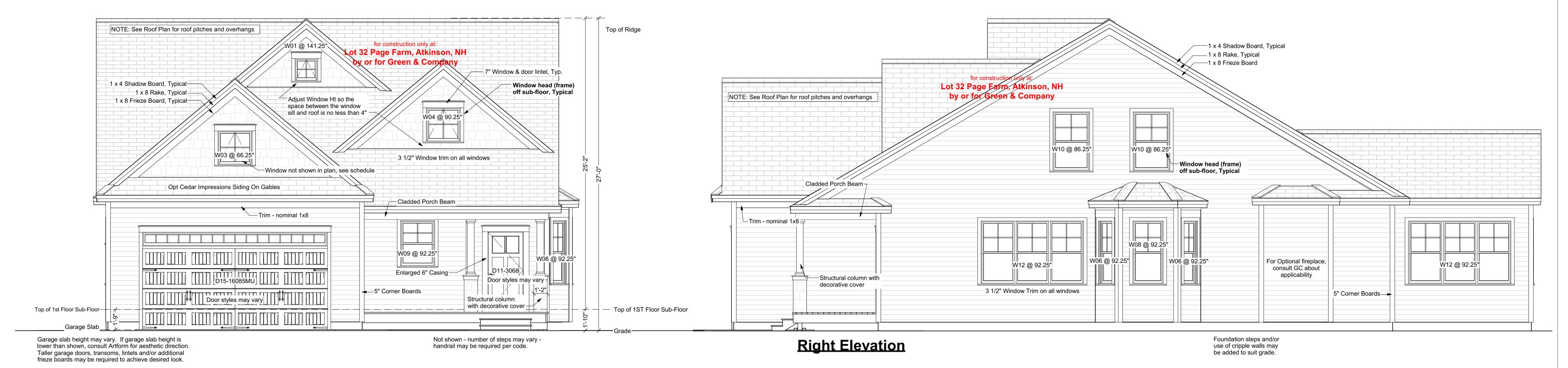
If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans	
AFHP Design # 540.126.v16 ER 2008-2019 Art Form Architecture 603.431.9559	
Balmalcolm	
Lot 32 Page Farm	3
Atkinson, NH	
4"=1'-0" unless noted otherwise / Print @ 1:1	Issued for:
OF created on: 6/13/2019, drawn by ACJ	Construction

6@35

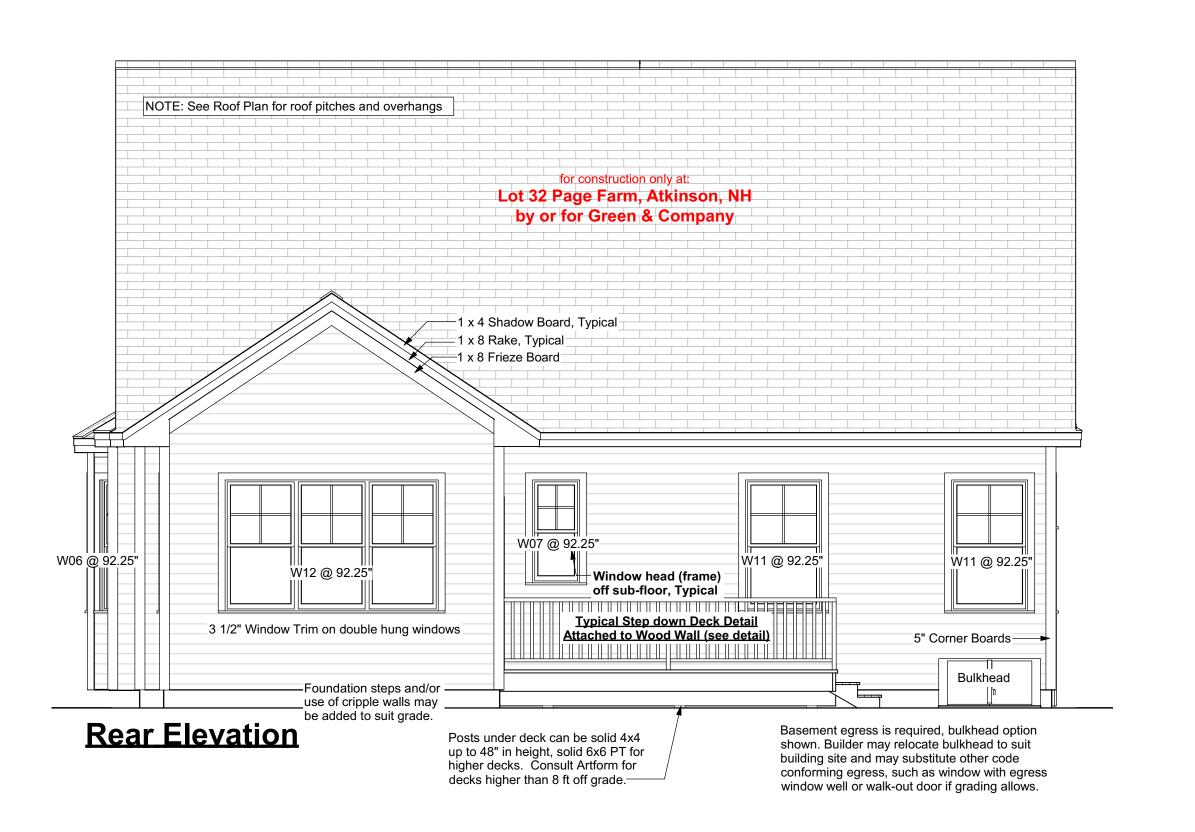
6@26

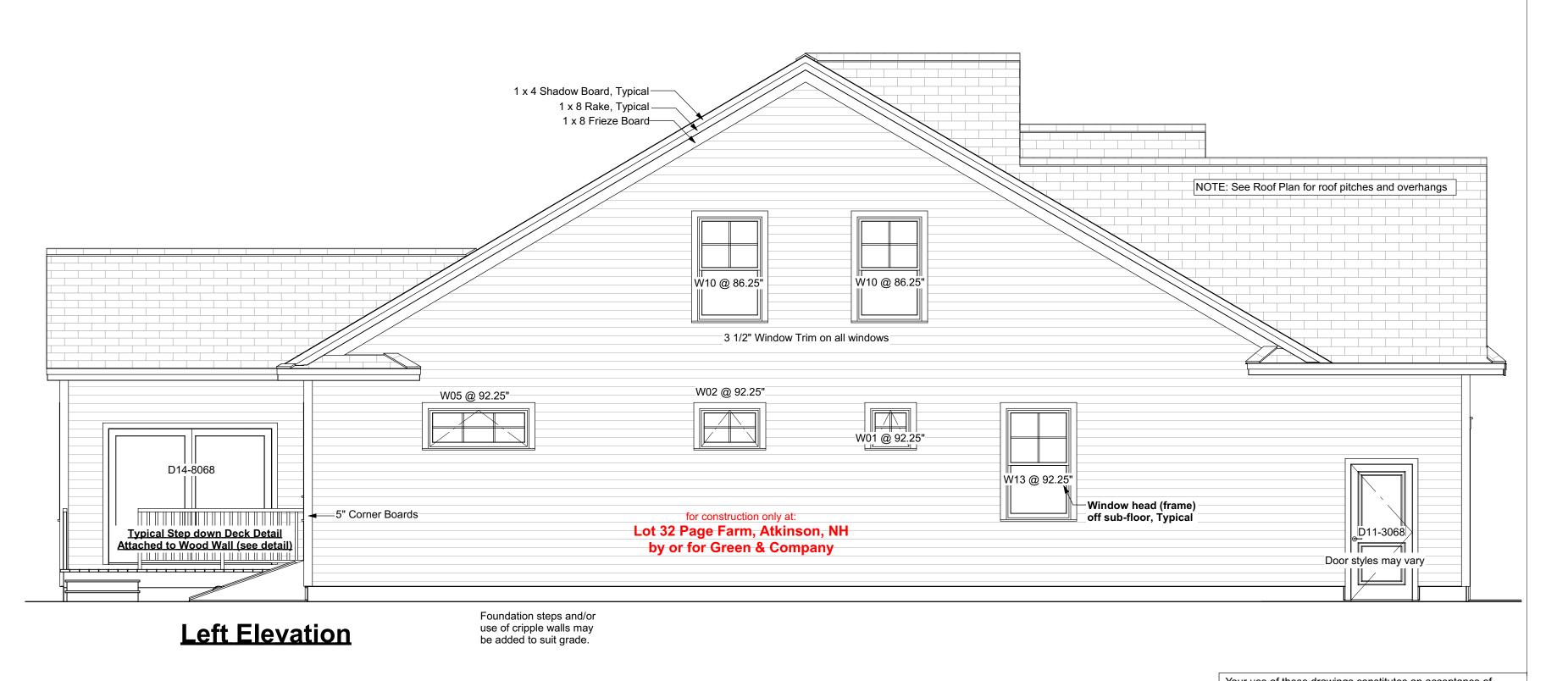
6 @ 35



### **Front Elevation**

Note - Actual grade level may vary. Where zoning height restrictions apply, builder shall verify conformance. Manual markup of drawings to demonstrate compliance is recommended.





Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site:

http://www.artformhomeplans.com/TermsConditions.a5w

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

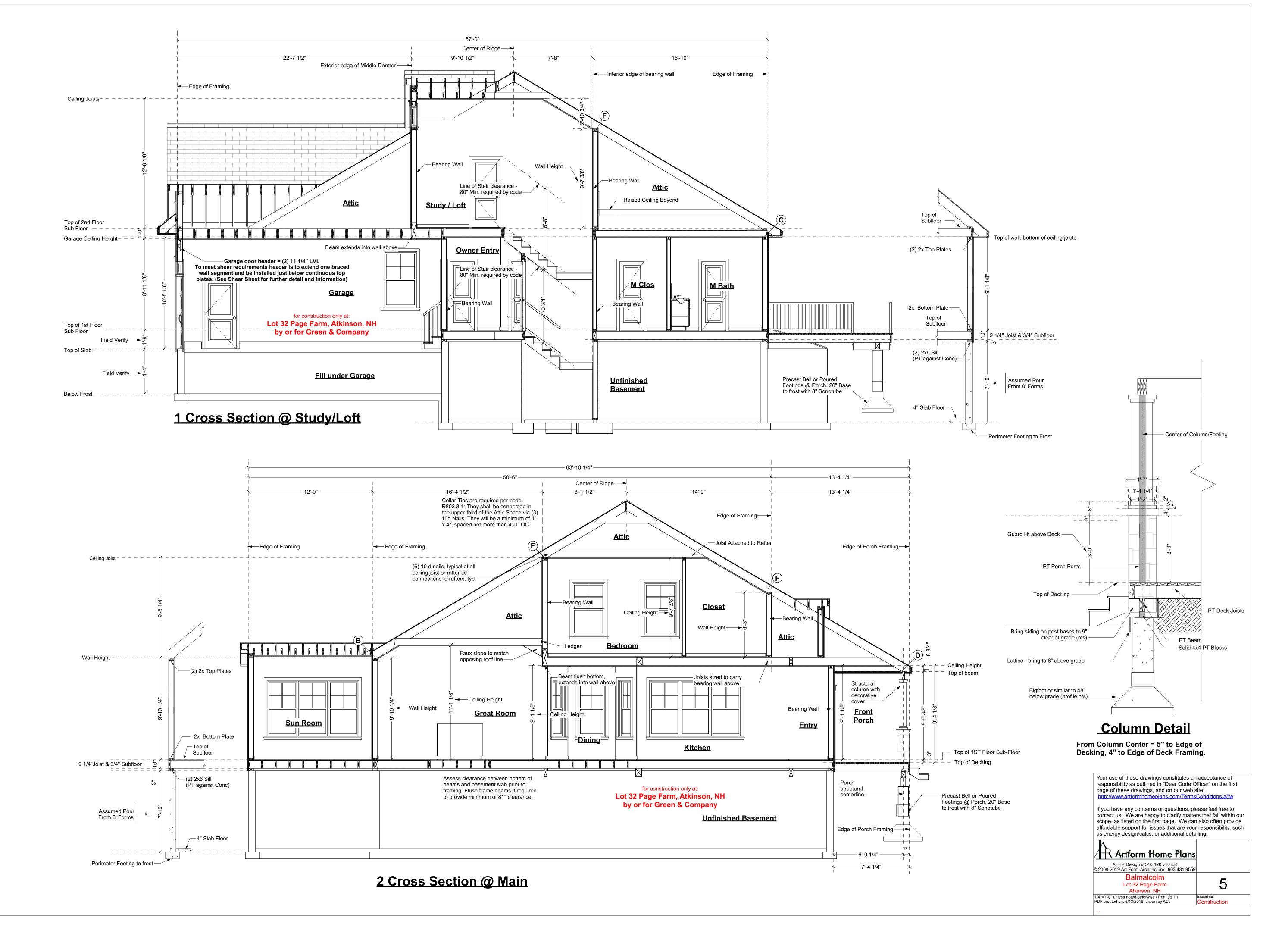
Artform Home Plans

AFHP Design # 540.126.v16 ER
© 2008-2019 Art Form Architecture 603.431.9559

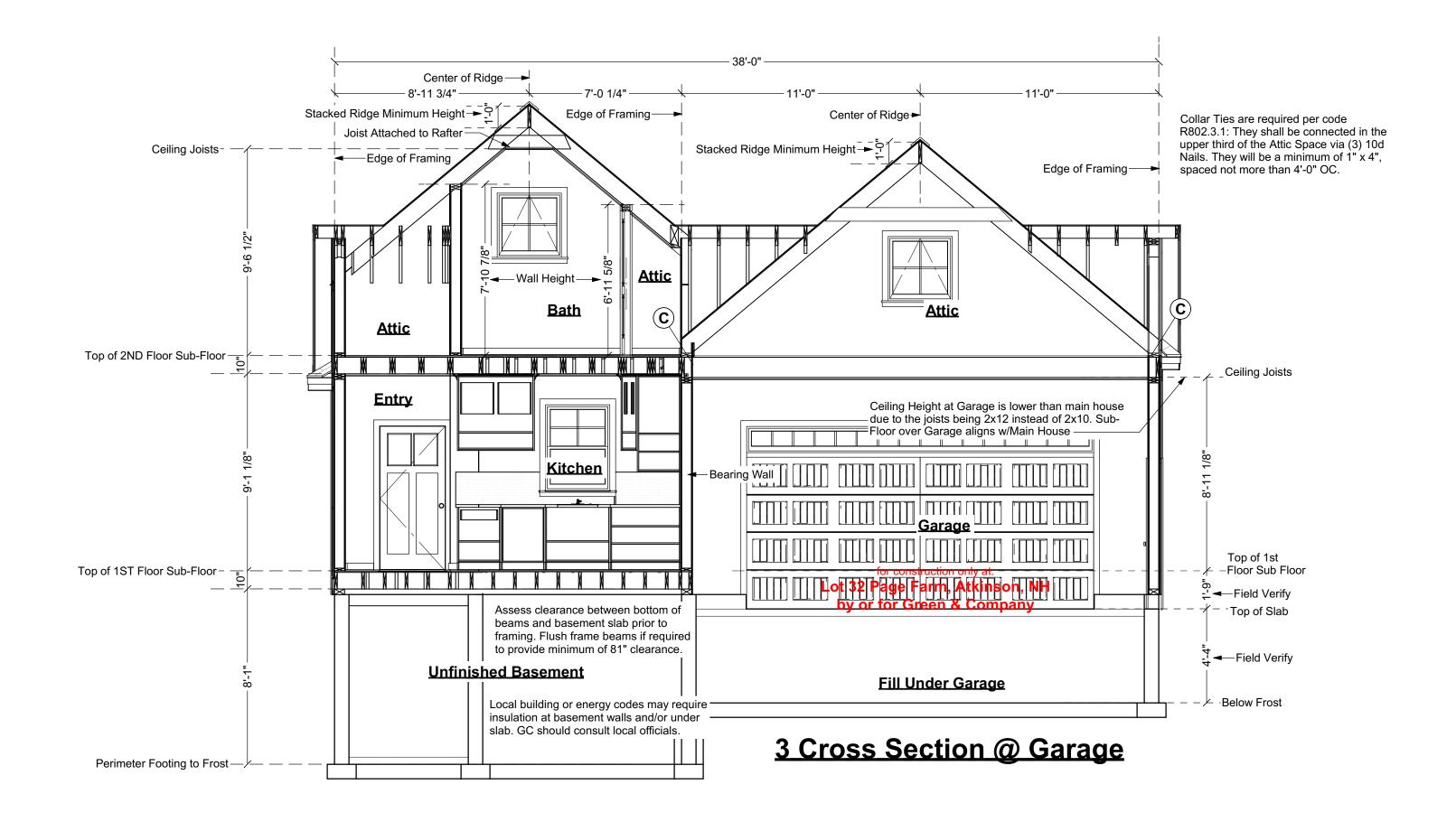
Balmalcolm
Lot 32 Page Farm
Atkinson, NH

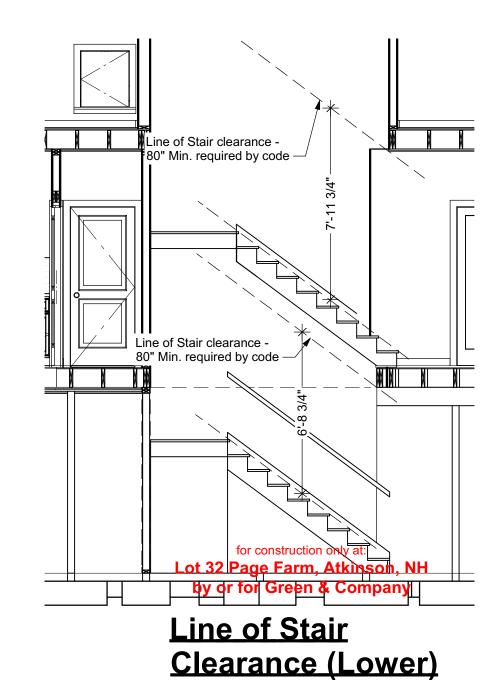
1/4"=1'-0" unless noted otherwise / Print @ 1:1
PDF created on: 6/13/2019, drawn by ACJ

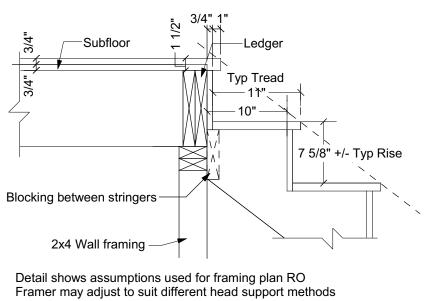
ued for:



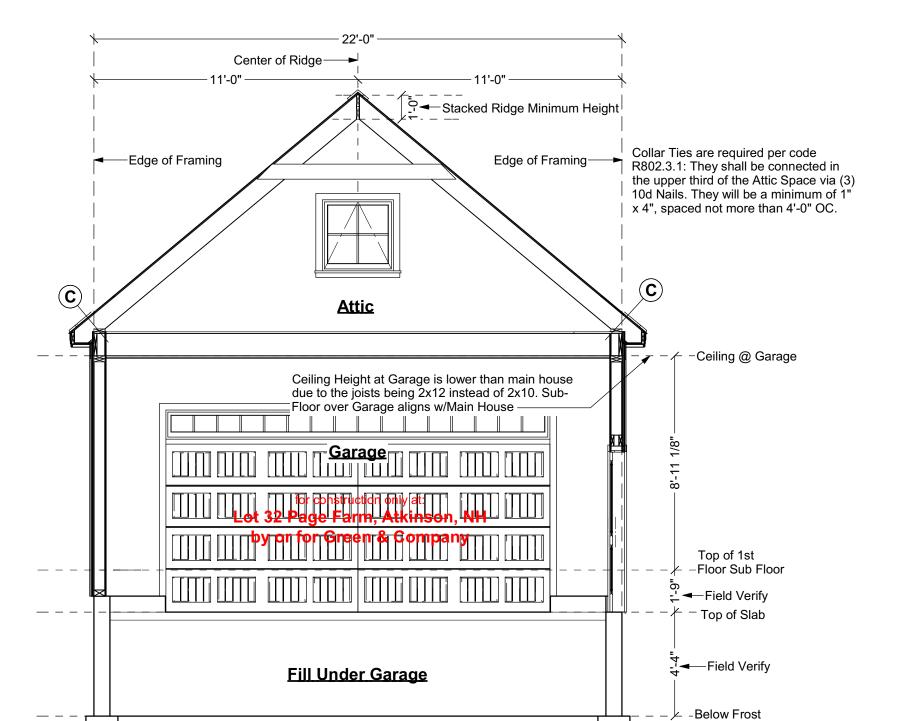
ation\AFA StaffAccess\-Home Designs\by Project\Green & Co - Page Farm\Balmalcolm 540\540.126.v16 Bigger Garage & Porch\CD 540.126.v16 ER 2573 Balmalcolm - Lot 32 Page Farm.layout



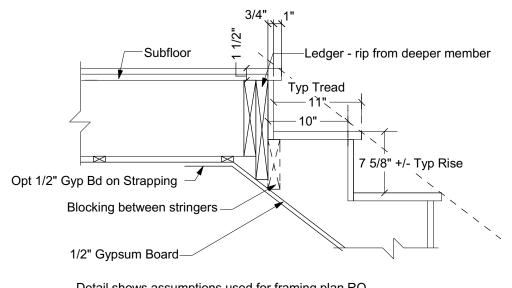




**Top of Carriage (B)**Scale: 1" = 1'-0"



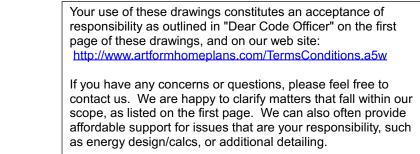
4 Cross Section @ Front Porch



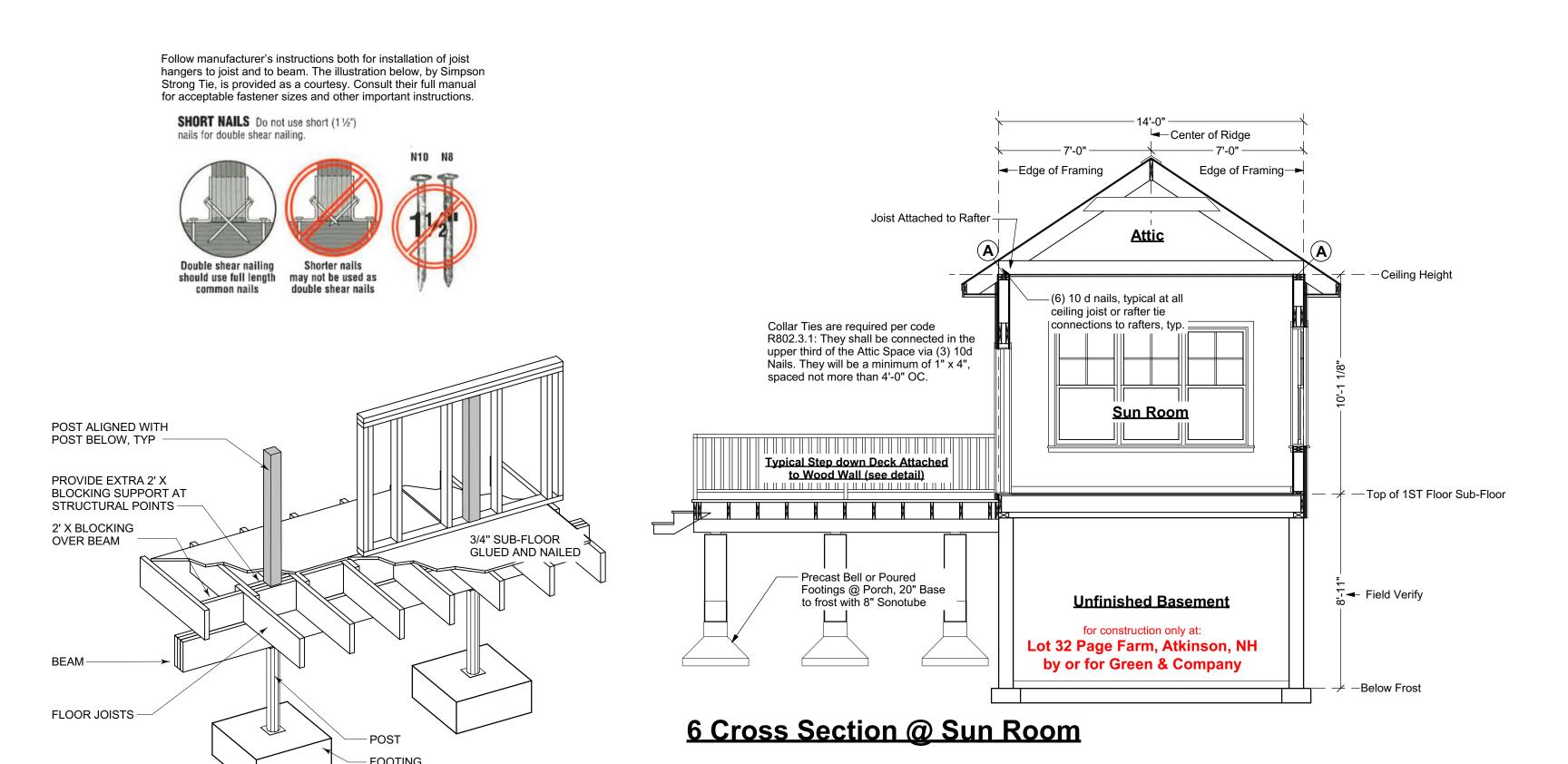
Detail shows assumptions used for framing plan RO Framer may adjust to suit different head support methods

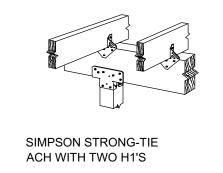
Top of Carriage (C)

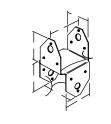
Scale: 1" = 1'-0"

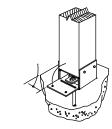


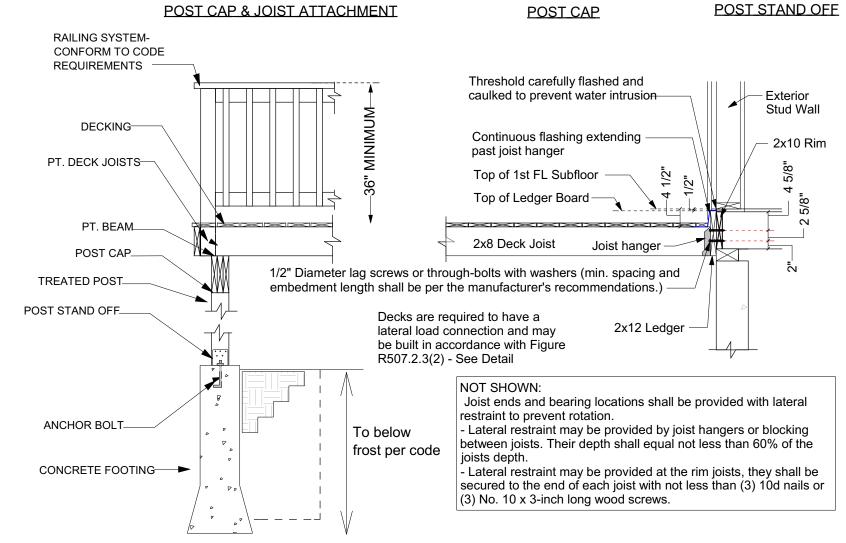












# **Deck Ledger Attachment Detail for Step Down**

Scale: 1/2" = 1'-0"

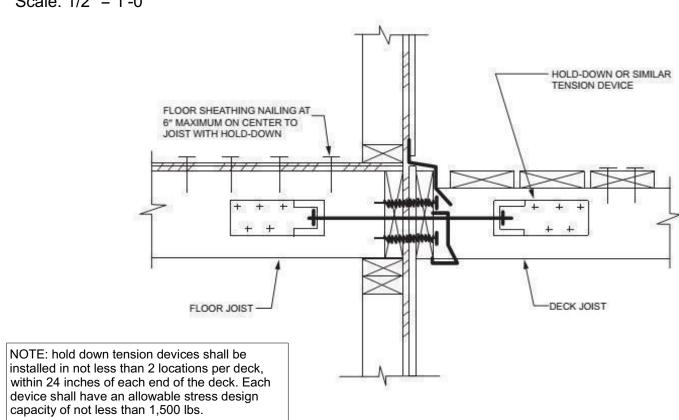
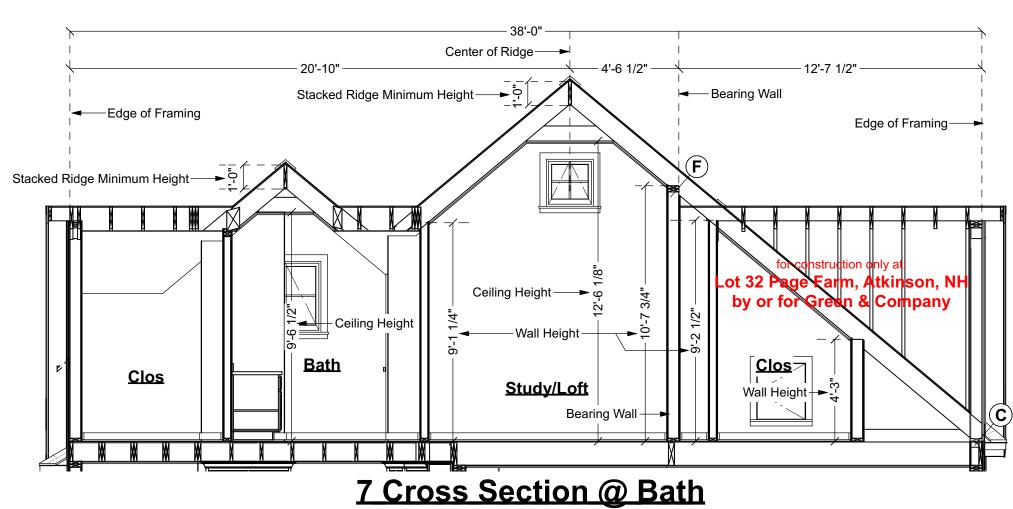


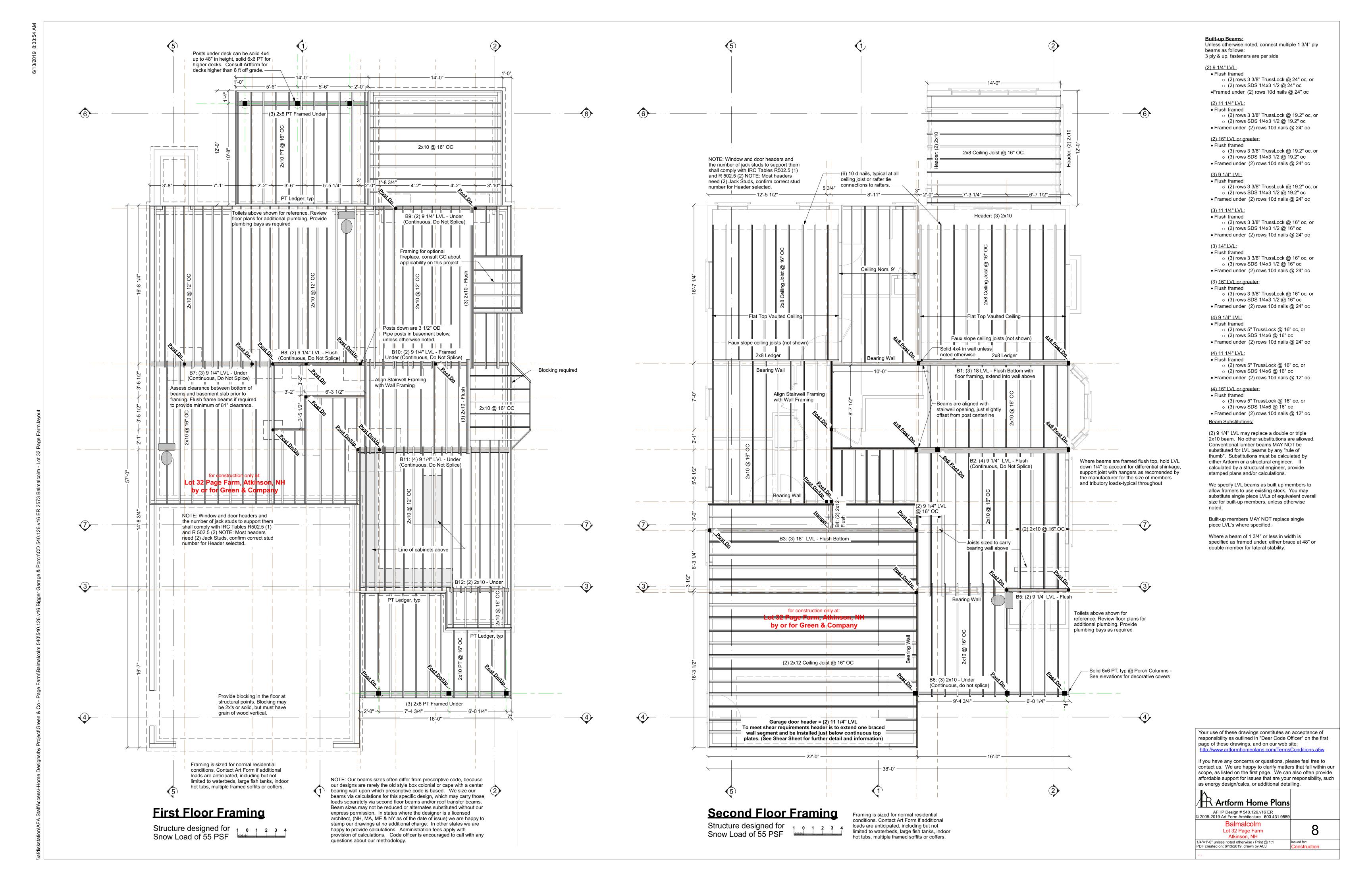
FIGURE R507.2.3(2) DECK ATTACHMENT FOR LATERAL LOADS



Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans AFHP Design # 540.126.v16 ER © 2008-2019 Art Form Architecture 603.431.9559 Balmalcolm Lot 32 Page Farm Atkinson, NH 1/4"=1'-0" unless noted otherwise / Print @ 1: PDF created on: 6/13/2019, drawn by ACJ



Perspective View of Detail C

**Valley Beam Attachment Options** 

Typical at each

rafter of roof edge

denoted by callout

G

Atkinson, NH

1/4"=1'-0" unless noted otherwise / Print @ 1

PDF created on: 6/13/2019, drawn by ACJ

## Wall Types

Exterior walls 2x6 wood stud Interior walls 2x4 wood stud, unless noted otherwise

#### Wall Keys

2 2x wood studs on the flat

(6) 2x6 wood stud wall, 16" oc

Note: 2x4 wood stud wall, 16" oc unless otherwise noted

### Key Notes

30" x 22" Minimum Attic Access A \ Panel - Insulated (RO 34" x 26")

Field locate for plumbing or mechanical

Verify size of fixture or appliance

Center - Place door or window centered

Adjust dimensions to accommodate

(SD) Smoke Detector (HD) Heat Detector

(CO) Carbon Monoxide Detector

## **Dimensions**

1. Dimensions are to face of stud, unless noted otherwise. 2. Closets are 24" clear inside, unless dimensioned otherwise.

#### Square Footages

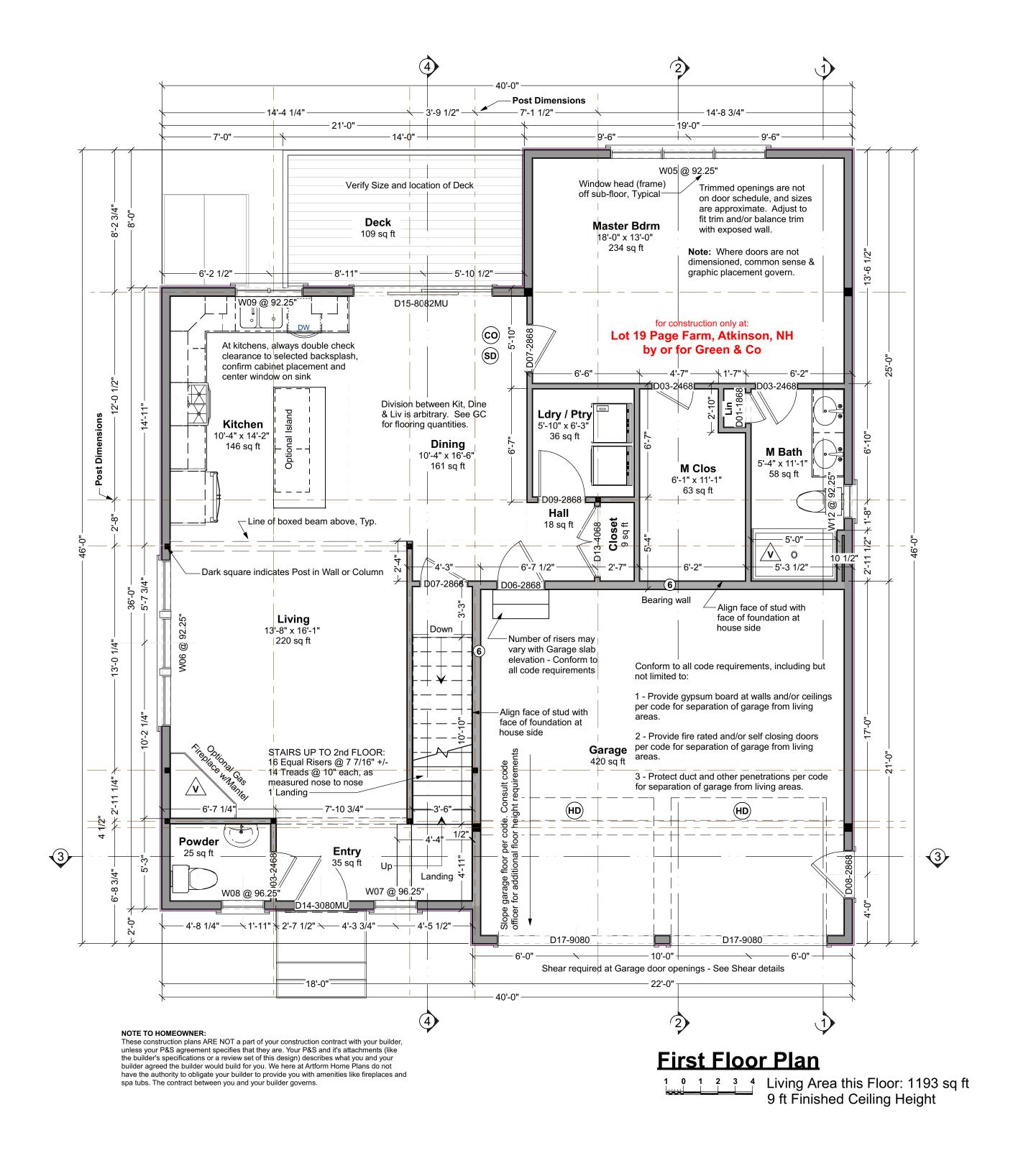
1. Sq ft numbers are interior to room for use in calculating finishes. 2. Cabinets and fixtures not subtracted. 3. Add for doorways when floor finishes run through.

#### <u>Notes</u>

- 1. Exterior walls 2x6 wood stud @ 16" oc. Provide insulation & vapor barrier conforming to state or local codes. Interior sheathing 1/2" gypsum board. Provide 1/2" exterior rated sheathing, house wrap with drainage plane and siding. Provide step flashing at walls adjacent to roof planes.
- 2. Interior walls 2x4 wood stud @ 16" oc, unless noted otherwise.
- 3. Roof see structural for rafter sizes. Provide 5/8" exterior rated roof sheathing 15# roofing felt, ice & water shield at eaves and valleys, aluminum drip edge and asphalt shingles or metal roofing. Structure not calculated to support slate or tile. Flash all penetrations. Provide cricket at any added chimneys.
- 4. Provide roof and/or ceiling insulation per code. Provide soffit and ridge vents where required for insulation strategy. (Verify with code officer - closed cell spray foam or dense-pack cellulose installed at rafters and filling ridge and eaves generally contra-indicates venting, batt insulation always requires venting).
- 5. Provide smoke, carbon monoxide, and heat detectors where shown and where required by code and where required by local authorities.
- 6. Provide fire resistive materials where required by code, including but not limited to, firestopping at penetrations, 5/8" Type X drywall on walls and ceilings to separate garage (where garage present in design) from dwelling, and separation of dwellings (where more than one dwelling present in design), and protection of flammable insulation materials. See Table R306.6 IRC 2015.
- 7. Compliance with code requirements for rooms size and clearances, (hallway widths, room sizes, etc) assume 1/2" drywall on walls and 1/2" drywall on 3/4" strapping on ceilings. Adjust as required if materials differ.
- 8. Shear is only called out where Continuous Portal Frame will not suffice. See Section R602.10.4 (Pages 177 - 188) of the IRC 2015.

# **General Design Notes**

- 1 Builder shall consult and follow the building code and other regulations in effect for the building site for all construction details not shown in these drawings. Requirements described here are specific to this design and/or are provided as reference. Additional building code or local requirements may apply.
- 2 Builder shall maintain a safe worksite, including but not limited to, provision of temporary supports where appropriate and adherence to applicable safety standards.
- 3 Design is based on the snow load listed on the framing plans, 100 mph basic wind speed, Exposure type B, soil bearing capacity of 2000 psf, and Seismic Category C, unless otherwise noted on the framing plans. Builder shall promptly inform Artform Home Plans of differing conditions.



# Gaira

#### Dear Code Officer,

These are predesigned home plans, designed to bring good design and construction drawings to people at more affordable prices and faster time frames than traditional architecture. Where traditional "internet" home plans disclaim all responsibility, we split responsibility between us (Artform) and the owner. We encourage the future homeowners to use a quality builder who can assist them with this. They are responsible for thermal and moisture decisions and for meeting code in ways that a quality builder should know without an explicit detail. We are responsible for things that are directly related to the design and/or that a quality builder couldn't reasonably figure out on their own - specifically the following IRC 2015 code sections:

1 - Room sizes (Section R304)

(Section R307)

- 2 Ceiling Height (Section R305) 3 - Floor space & ceiling height at Toilet, Bath and Shower Spaces
- 4 Hallway widths (Section R311.6)
- 5 Door types & sizes (Section R311.2)
- 6 Floor space in front of doors (Section R311.3) 7 - Stair width - The stairs in our designs will be a minimum of 36" wide measured wall surface to wall surface, allowing compliance with
- R311.7.1 with installation of correct handrail. 8 - Stairway headroom (Section R311.7.2)
- 9 Stair treads and risers (Section R311.7.5)
- 10 Landings for stairways (Section R311.7.6) 11 - Emergency Escape Window Sizes (Section R310.2.1, R310.2.2, R310.2.3 and R310.2.4). Casement windows may require
- manufacturer's emergency escape window hardware. Will also comply with NFPA 101. 12 - Structural Floor Framing (Section R502.3) Where dimensional

The builder can and should add information to this set, such as

Rescheck, a hand markup of our generic thermal and moisture

lumber is shown, framing members will be sized according to this section of the code. Where engineered wood products are shown, those framing members will be size according to the manufacturer's tables for loads and spans, or sizes will have been calculating using manufacturer's published materials properties. 13 - See structural sheets for additional notes.

rating, tempering, etc), foundation drops relative to site grading, and sometimes their chosen method of basement egress. These drawings are not intended to be used without that additional Where a construction address is shown on the drawings, it is for copyright control only. We have not inspected the site, adapted the design to state specific laws (except where it says so in the

drawings) or site or region specific climate conditions. Homeowner

and/or Builder shall be responsible for thermal and moisture control

strategies, materials choices and compliance with applicable laws

section, additional information about doors and windows (such as fire

Please do feel free to call us with any questions. We can and do update our drawings and standard notes to address specific concerns, especially in jurisdictions where our clients will be building

# Dear Everybody.

With these drawings a copyright license is granted for a single construction only at Lot 19 Page Farm, Atkinson, NH by or for Green & Co. This is a License to Build, and does not include a License to Modify, except as required to conform to building code or fulfill builder's/owners responsibilities.

# Permissible uses of these drawings:

1. All activities associated with construction at the listed address. 2. Pricing or preliminary discussions with zoning or code officials for construction at other addresses, with prior notification to Artform Home Plans - just use the Contact form on the web site http://www.artformhomeplans.com/contact.a5w

Not Permitted:

1. Application for any permits or other approvals for construction at properties other than the listed address, including but not limited to construction, zoning, conservation, or design review. 2. Modification of the basic design.

Use of these drawings outside these parameters is a violation of federal copyright law, punishable by both civil action and criminal prosecution, as it is stealing or enabling theft of "intellectual property". Making modifications to plans, even significant ones, does not change this, under copyright law, that's considered "derivative

We can provide drawings suitable for use in obtaining design or zoning approvals without incurring the expense of a full set of construction drawings. Contact us for more information.

These drawings are intended for use by an experienced professional builder in responsible charge of the entire project, including but not limited to mechanical, electrical and sitework. Any additional adaptation for these trades or other trades must be determined prior to start of construction. Contact Artform for any adjustments needed.

Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

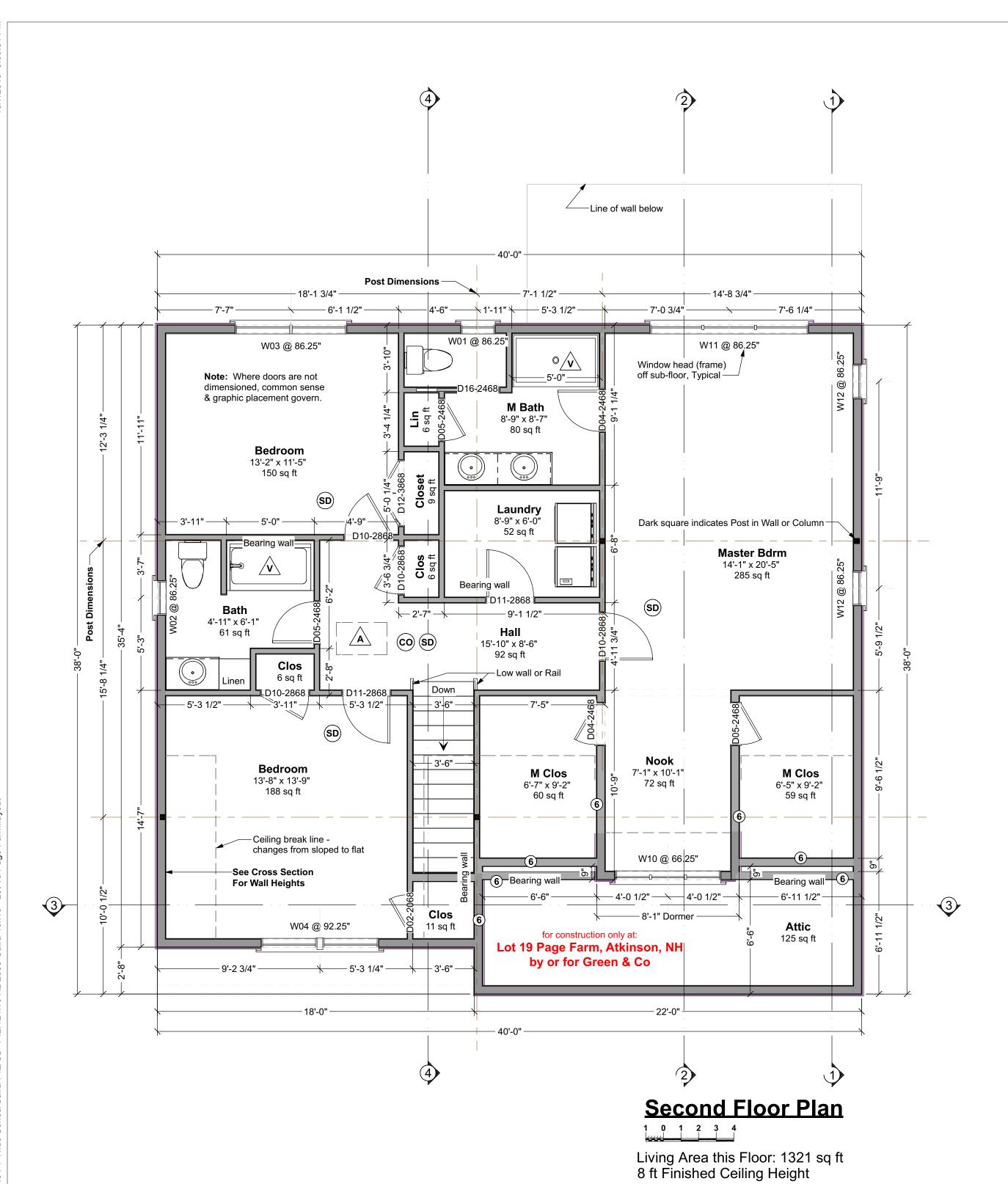
If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

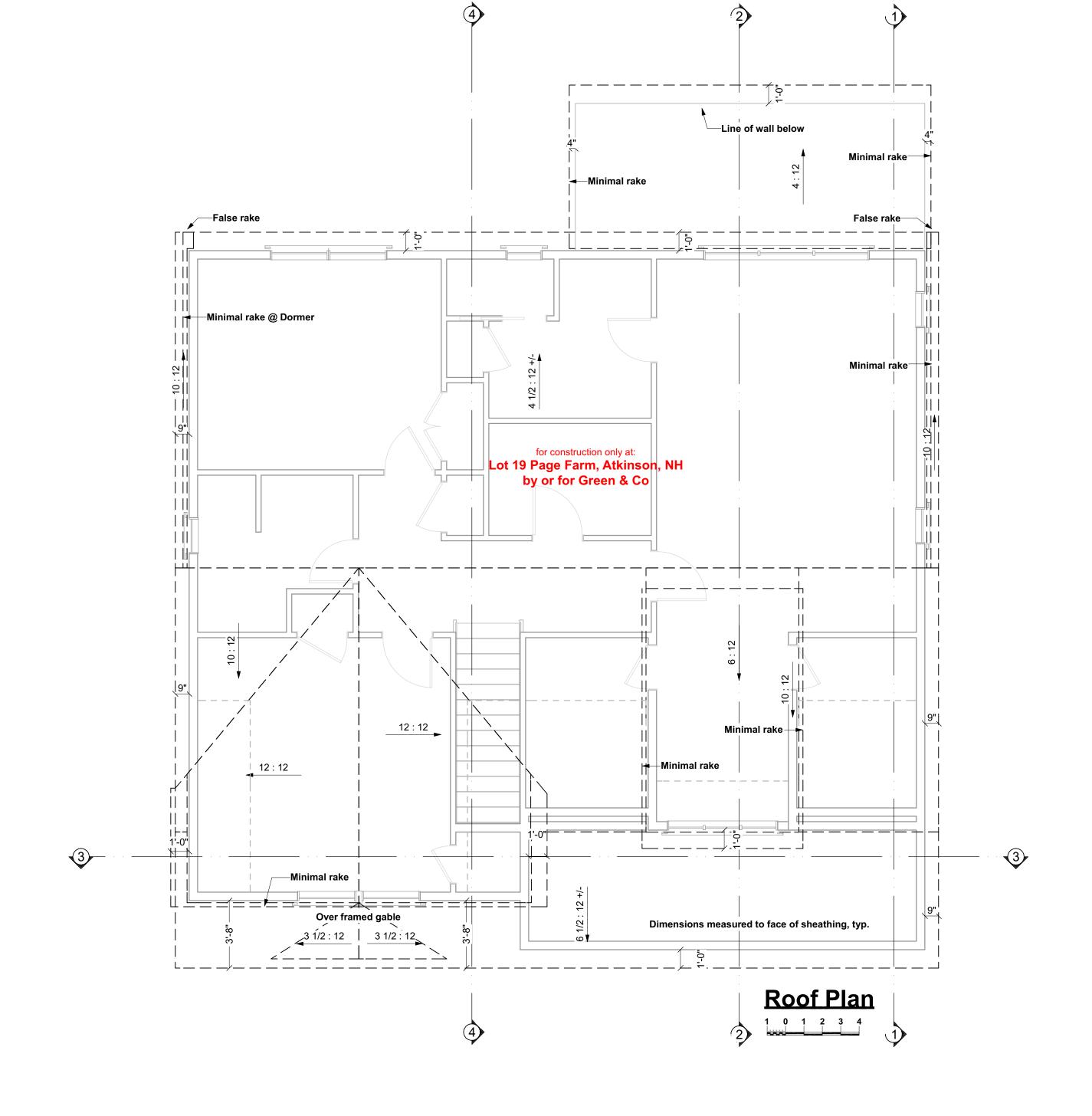


Gaira 40x46 Lot 19 Page Farm

PDF created on: 10/7/2019, drawn by ACJ

Atkinson, NH 1/4"=1'-0" unless noted otherwise / Print @ 1:





# Door & Window Notes

- 1. Rated Doors: Provide fire rated and/or self-closing doors where required by local codes or local authorities
- **2. Trimmed Openings:** Trimmed openings not shown on schedule. See Plan.
- 3. Window Tempering: Provide tempered windows where required by local codes or local authorities. Tempering column provided here for convenience. Windows have not been reviewed for tempering requirements.
- **4. Window RO's:** 1/4" or 1/2" on each of 4 sides allowed for window RO's, typical. Review framing size vs RO size. Adjust per manufacturer's requirements and/or builder preference.
- **5. Egress Windows:** Provide minimum one door or window meeting egress requirements in basement, in each sleeping room, in each potential sleeping room, and other locations required by local code, in sizes required by local code. Note that casement windows coded by manufacturer as meeting IRC 2015 egress requirements typically need to be ordered with specific hardware. Emergency Escape Window Sizes (Section R310.2.1, R310.2.2, R310.2.3 and R310.2.4). Will also comply with NFPA 101.
- **6. Basement Windows:** Add basement windows as required to meet state or local code requirements, including but not limited to egress and light/ventilation.
- 7. Skylights: Skylights are not shown on this schedule, but may be required. Consult builder and/or see floor
- **8. Minimum window sill height:** IRC 2015 requires that floor window sills be 24" from floor. Confirm bottom of window opening relative to frame. Conform to IRC 2015 R312.1.

	DOOR SCHEDULE							
NUMBER	QTY	FLOOR	SIZE	WIDTH	HEIGHT	TYPE	COMMENTS	
D01	1	1	1868 L IN	20 "	80 "	HINGED		
D02	1	2	2068 L IN	24 "	80 "	HINGED		
D03	3	1	2468 R IN	28 "	80 "	HINGED		
D04	2	2	2468 R IN	28 "	80 "	HINGED		
D05	3	2	2468 L IN	28 "	80 "	HINGED		
D06	1	1	2868 R EX	32 "	80 "	HINGED		
D07	2	1	2868 R IN	32 "	80 "	HINGED		
D08	1	1	2868 L EX	32 "	80 "	HINGED		
D09	1	1	2868 L IN	32 "	80 "	HINGED		
D10	4	2	2868 R IN	32 "	80 "	HINGED		
D11	2	2	2868 L IN	32 "	80 "	HINGED		
D12	1	2	3868 L/R IN	44 "	80 "	DOUBLE HINGED		
D13	1	1	4068 L/R IN	48 "	80 "	DOUBLE HINGED		
D14	1	1	3080	36 "	95 7/8 "	MULLED UNIT	HINGED W/TRANSOM	
D15	1	1	8082	96 "	98 "	MULLED UNIT	SLIDER W/TRANSOM	
D16	1	2	2468 R	28 "	80 "	POCKET		
D17	2	1	9080	108 "	96 "	GARAGE		

WADED.	IOTV	IWIDTH	TUEIQUE	ID/O		WINDOW SCI		LOOMMENTO
	QTY	WIDTH	HEIGHT		EGRESS		DESCRIPTION	COMMENTS
W01	1	23 1/2 "	35 1/2 "	24"X36"			DOUBLE HUNG	
W02	1	23 1/2 "	47 1/2 "	24"X48"		YES	DOUBLE HUNG	
W03	1	76 "	61 1/2 "	76 1/2"X62"	YES		2X DH	
W04	1	80 "	61 1/2 "	80 1/2"X62"			2X DH	
W05	1	108 "	61 1/2 "	108 1/2"X62"	YES		3X DH	
W06	1	115 1/2 "	61 1/2 "	116"X62"			3X DH	
W07	1	30 "	41 1/2 "	30 1/2"X42"		YES	SINGLE CASEMENT-HR	
W08	1	30 "	41 1/2 "	30 1/2"X42"			SINGLE CASEMENT-HL	
W09	1	47 "	47 1/2 "	47 1/2"X48"			DOUBLE CASEMENT-LHL/RHR	
W10	1	72 "	23 1/2 "	72 1/2"X24"			TRIPLE CASEMENT-LHL/RHR	
W11	1	108 "	47 1/2 "	108 1/2"X48"	YES		TRIPLE CASEMENT-LHL/RHR	
W12	3	23 1/2 "	23 1/2 "	24"X24"			SINGLE AWNING	

Your use of these drawings constitutes an acceptance of
responsibility as outlined in "Dear Code Officer" on the first
page of these drawings, and on our web site:
http://www.artformhomeplans.com/TermsConditions.a5w

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans
AFHP Design # 742.124.v6 KL © 2008-2019 Art Form Architecture 603.431.9559

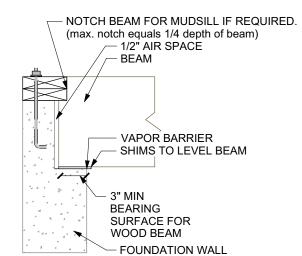
Gaira 40x46
Lot 19 Page Farm
Atkinson, NH

1/4"=1'-0" unless noted otherwise / Print @ 1:1
PDF created on: 10/7/2019, drawn by ACJ

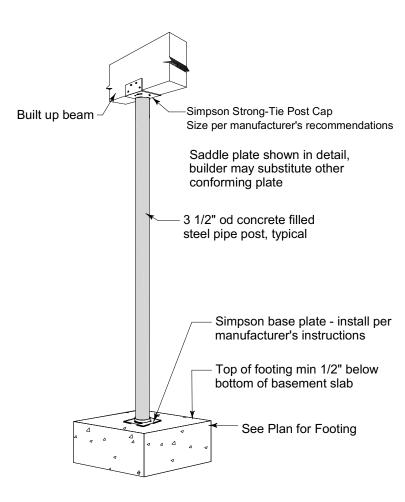
| Issued for: Construction

#### **Foundations**

- No footing shall be poured on loose or unsuitable soils, in water or on frozen ground.
- 2. All exterior footings to conform to all applicable code requirements for frost protection.
- 3. All concrete shall have a minimum compressive strength of at least 5000 PSI at 28 days.
- 4. Foundation anchorage to comply with IRC 2015 Section R403.1.6, it shall consist of minimum size 1/2" diameter anchor bolts with 3/16" x 2" x 2" washers at a maximum of 72" oc for two stories or 48" oc for more than two stories, max of 12" from each corner, min of 2 bolts per wall. Anchor bolt shall extend 7" into concrete or grouted cells of concrete masonry units. Be aware that a garage under may be counted by your code officer as a story. Additional anchorage may be required at braced walls
- 5. Foundation reinforcing steel is to be installed in accordance with all applicable provisions of IRC 2015 Section 404.1.3.2



**Beam Pocket** 



# Typical Basement Post Not to Scale

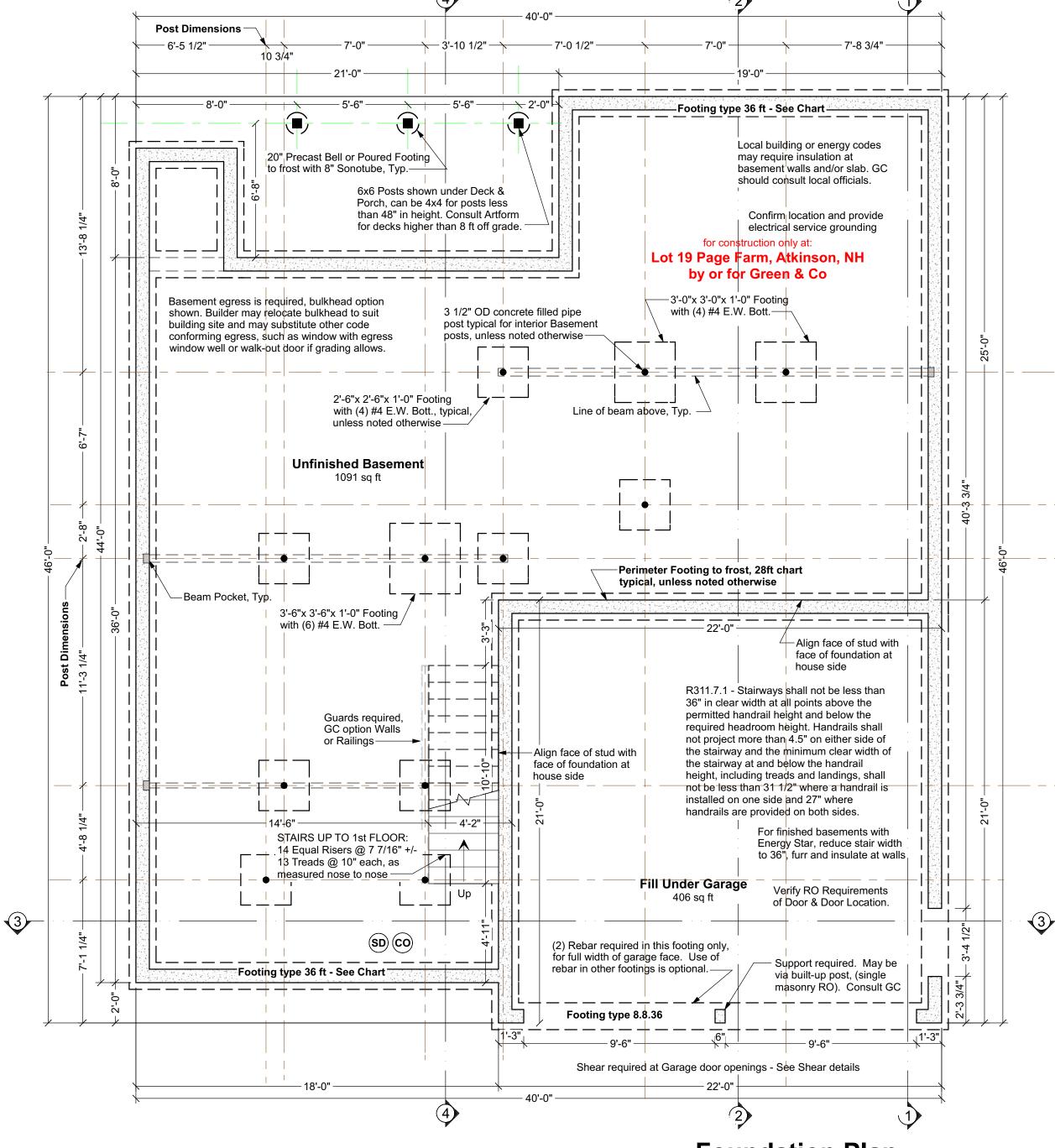
Foundation Contractor Check List
Confirm or review the following prior to forming & pouring foundation

Initials Date Checked

Confirmed soil bearing
Checked w/GC for added foundation steps to suit grade
Confirm sill plate thickness (foundation bolts to extend through all)

Confirmed garage door size
Checked w/GC for added basement windows
Checked w/GC for added basement man doors
Confirmed sizes & locations mech/plbg penetrations
Confirmed sizes and locations of beams w/GC, added or adjusted beam pockets

Confirmed location and installed electrical service grounding - See GC for location



# Foundation Plan

Structure designed for Snow Load of 55 psf Ceiling Height may vary: 8 ft forms

# MINIMUM VERTICAL REINFORCEMENT FOR 8-INCH (203MM) NOMINAL FLAT CONCRETE BASEMENT WALL

		MINIMUM VERTICAL REINFORCEMENT - BAR SIZE AND SPACING (inches)				
MAXIMUM UNSUPPORTED WALL HEIGHT	MIAXIMUM UNBALANCED BACKFILL HEIGHT	Soil classes and design lateral soil (psf per foot of depth)				
(feet)	(feet)	GW, GP, SW, SP 30	GM, GC, SM, SM-SC and ML 45	SC, ML-CL and inorganic CL 60		
	4	NR	NR	NR		
	5	NR	NR	NR		
8	6	NR	NR	6 @ 37		
	7	NR	6 @ 36	6 @ 35		
	8	6 @ 41	6 @ 35	6 @ 26		

#### TYPICAL PERIMETER FOUNDATION WALL:

8" poured concrete, 8 ft forms, min 7'-10" finished, with total of 3 rebar, as follows:
(1) #4 rebar, 4" from top

• (1) #4 rebar @ vertical midpoint. Omit this rebar at walls 4

ft high or less.

• (1) #4 rebar, min 3" from bottom or per code

Lap corners & splices of rebar per code.
Secure sill to foundation with 1/2" diameter anchor bolts that extend 7" into concrete and tightened with a nut and washer @ 6' oc & max 12" from each corner & each end @ wood sill splices - if built-up sill, bolts must extend through all

#### **TYPICAL PERIMETER FOOTING:**

sill plates or straps must secure all sill plates.

Use Footing chart(s) below to verify that depth of home matches chart. Depth is foundation dimension eave to eave. Contact Artform Home Plans if you believe the chart.

does not match the plan.

2. Select row for snow load shown on the structural plans.

3. Select a column for soil bearing pressure based on soil type and/or consultation with code officer.

4. The required footing size is at the intersection of the Snow Load and Soil PSF. Rebar is not required. Key or pin

foundation wall to footing per code.

FAQ - Adding rebar to footings does not reduce the required

FAQ - Adding rebar to footings does not reduce the required width. Rebar affects performance with earth movement, like an earthquake and has near zero effect on bearing capacity.

8" wall - Footing Size for 28 Ft wide house						
Snow	Story and	Load Bearing Value of Soil (PSF)				
Load	type of structure	1500 PSF	2000 PSF	3000 PSF		
50 PSF	2 Story - Plus Basement	23 x 7.5	17 x 6	12 x 6		
55 PSF	2 Story - Plus Basement	23.5 x 7.75	17.25 x 6	12 x 6		
60 PSF	2 Story - Plus Basement	24 x 8	17.5 x 6	12 x 6		
65 PSF	2 Story - Plus Basement	24.5 x 8.25	17.75 x 6	12 x 6		
70 PSF	2 Story - Plus Basement	25 x 8.5	18 x 6	12 x 6		

Snow	Story and	Load Bea	ring Value of	f Soil (PSF)
Load	type of structure	1500 PSF	2000 PSF	3000 PSI
50 PSF	2 Story - Plus Basement	25 x 8.5	19 x 6	12 x 6
55 PSF	2 Story - Plus Basement	25.5 x 8.75	19.25 x 6	12.5 x 6
60 PSF	2 Story - Plus Basement	26 x 9	19.5 x 6	13 x 6
65 PSF	2 Story - Plus Basement	26.5 x 9.25	19.75 x 6	13.5 x 6
70 PSF	2 Story - Plus Basement	27 x 9.5	20 x 6	14 x 6

8" wall - Footing Size for 36 Ft wide house						
Story and	Load Bearing Value of Soil (PSF)					
type of structure	1500 PSF	2000 PSF	3000 PSF			
2 Story - Plus Basement	27 x 9.5	21 x 7	14 x 7			
2 Story - Plus Basement	27.5 x 9.75	21.25 x 7	14.5 x 7			
2 Story - Plus Basement	28 x 10	21.5 x 7	15 x 7			
2 Story - Plus Basement	28.5 x 10.25	21.75 x 7	15.5 x 7			
2 Story - Plus Basement	29 x 10.5	22 x 7	16 x 7			
	Story and type of structure 2 Story – Plus Basement 2 Story – Plus Basement 2 Story – Plus Basement 2 Story – Plus Basement	Story and   Load Bear	Story and type of structure   1500 PSF   2000 PSF			

Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site:

http://www.artformhomeplans.com/TermsConditions.a5w

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans

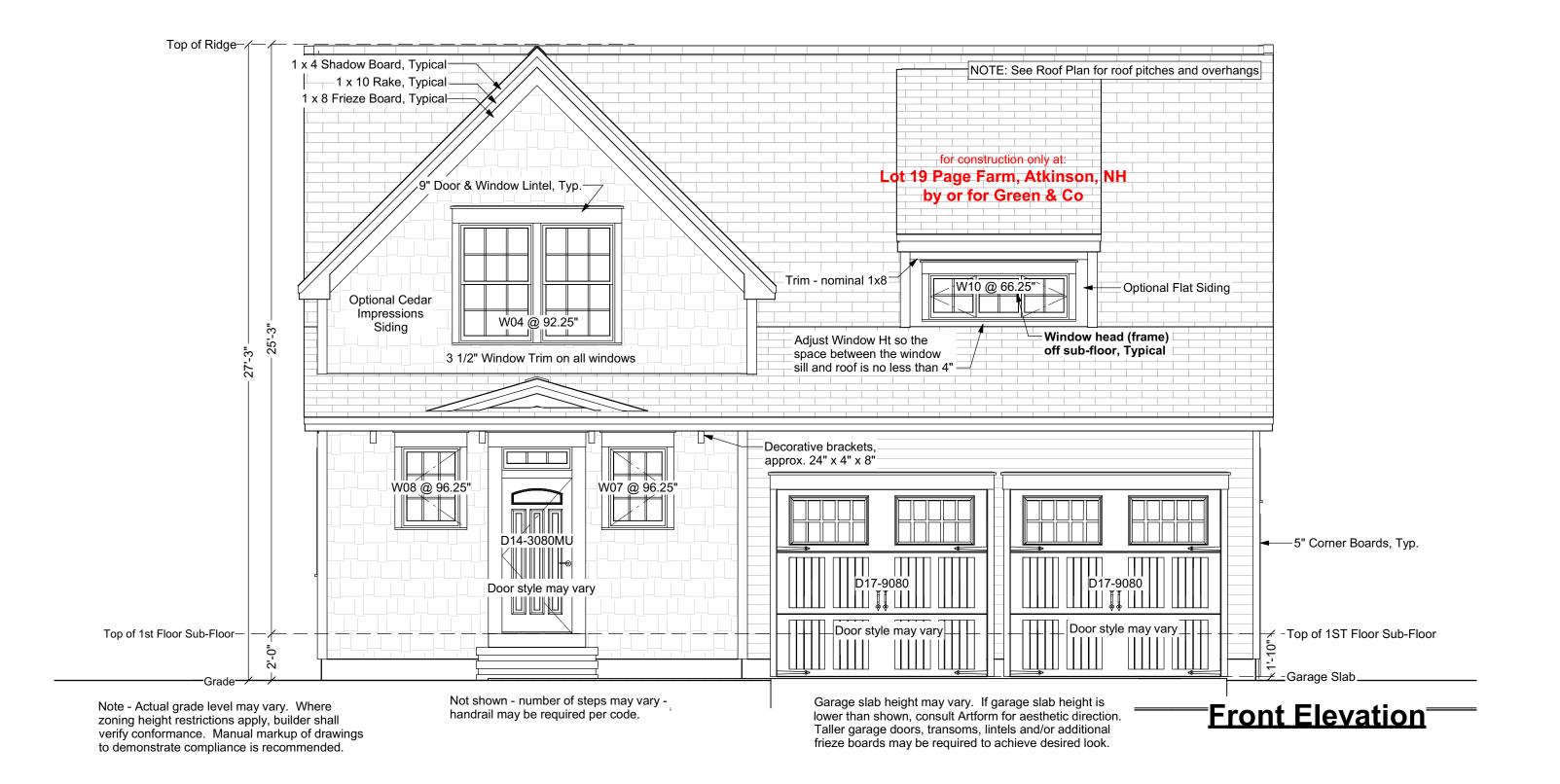
AFHP Design # 742.124.v6 KL © 2008-2019 Art Form Architecture 603.431.9559 Gaira 40x46 Lot 19 Page Farm

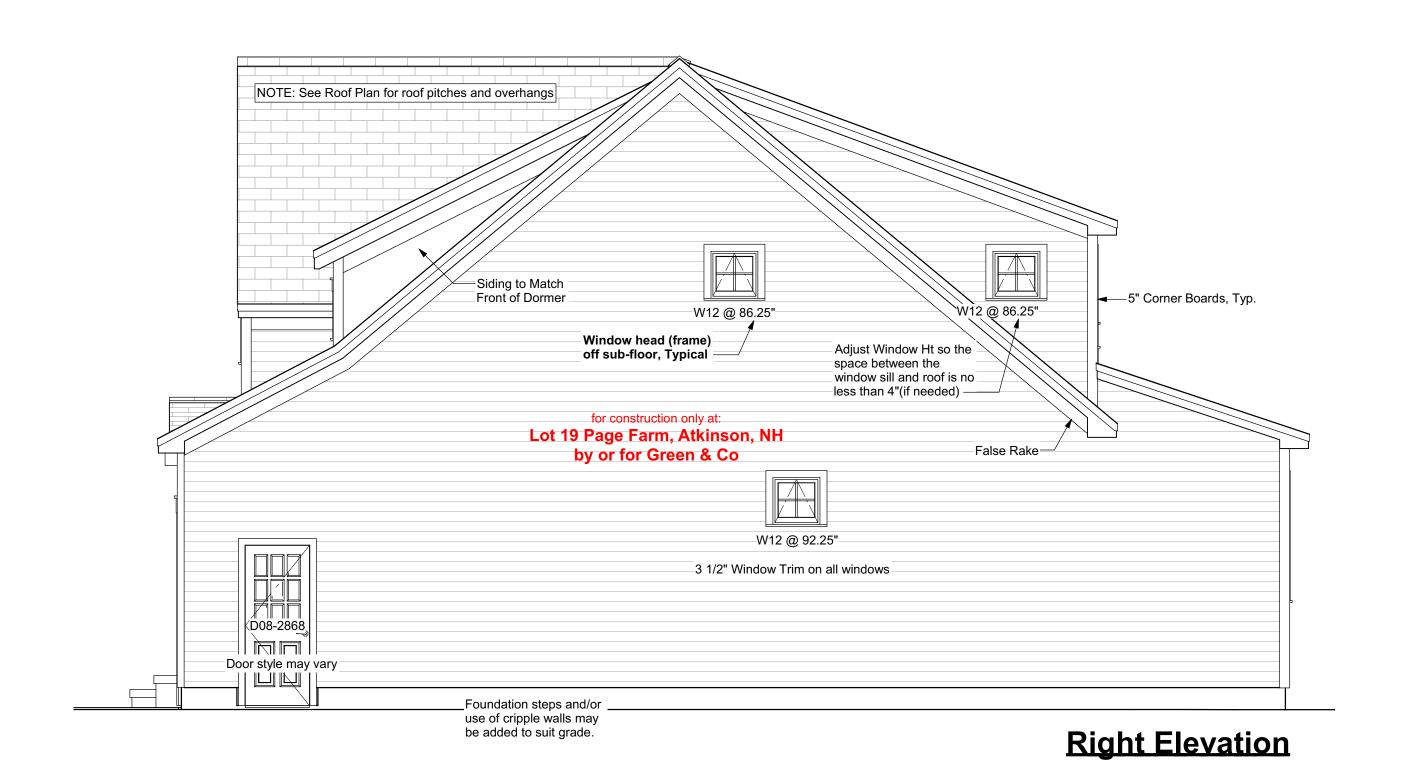
Atkinson, NH

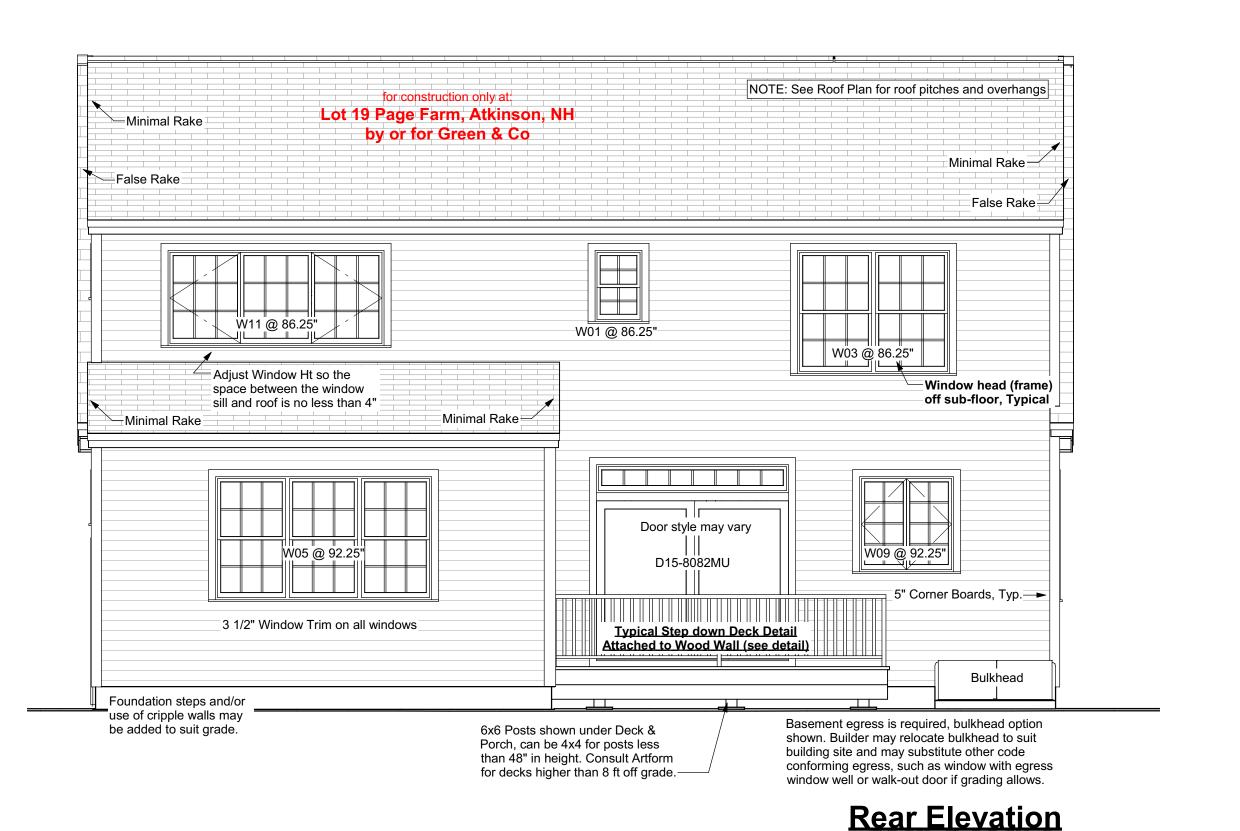
1/4"=1'-0" unless noted otherwise / Print @ 1:1
PDF created on: 10/7/2019, drawn by ACJ

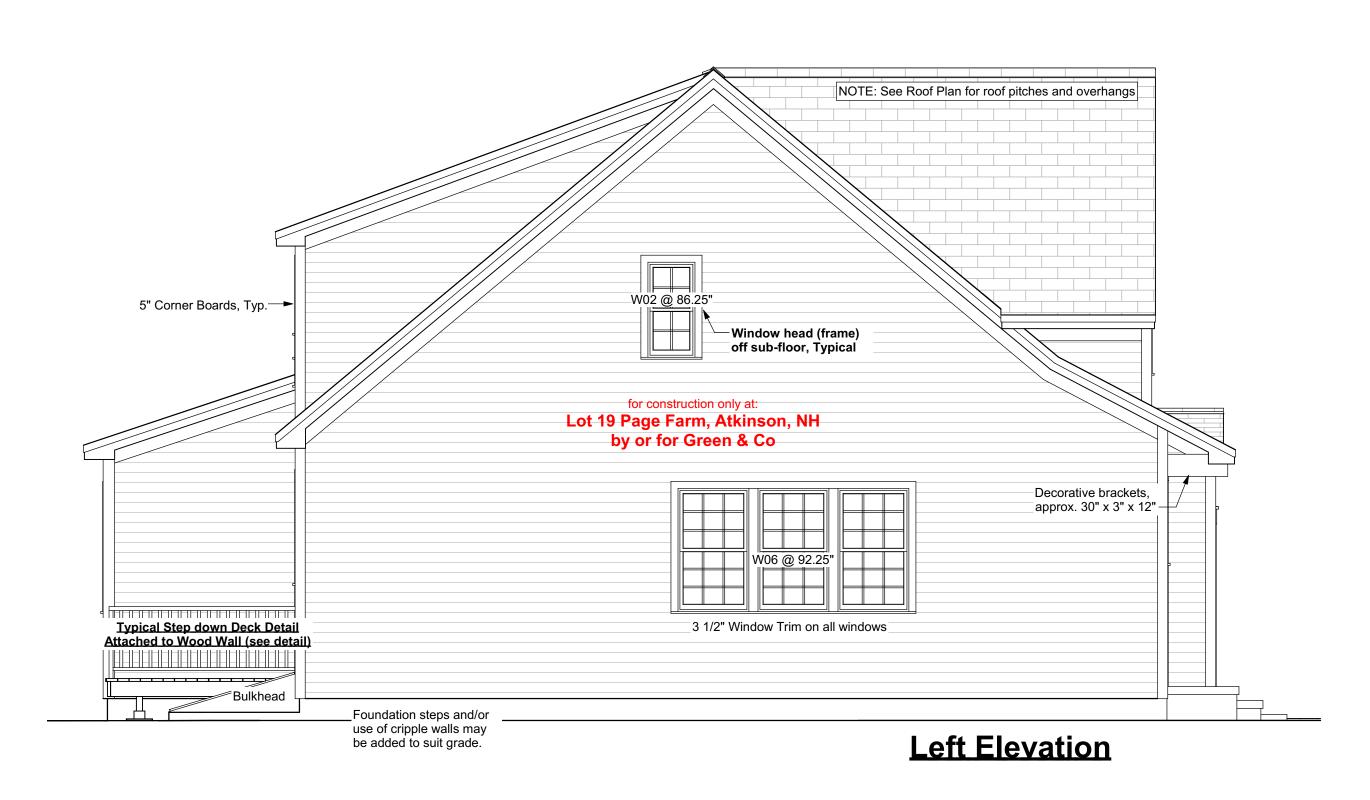
| Issued for: Construction











Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

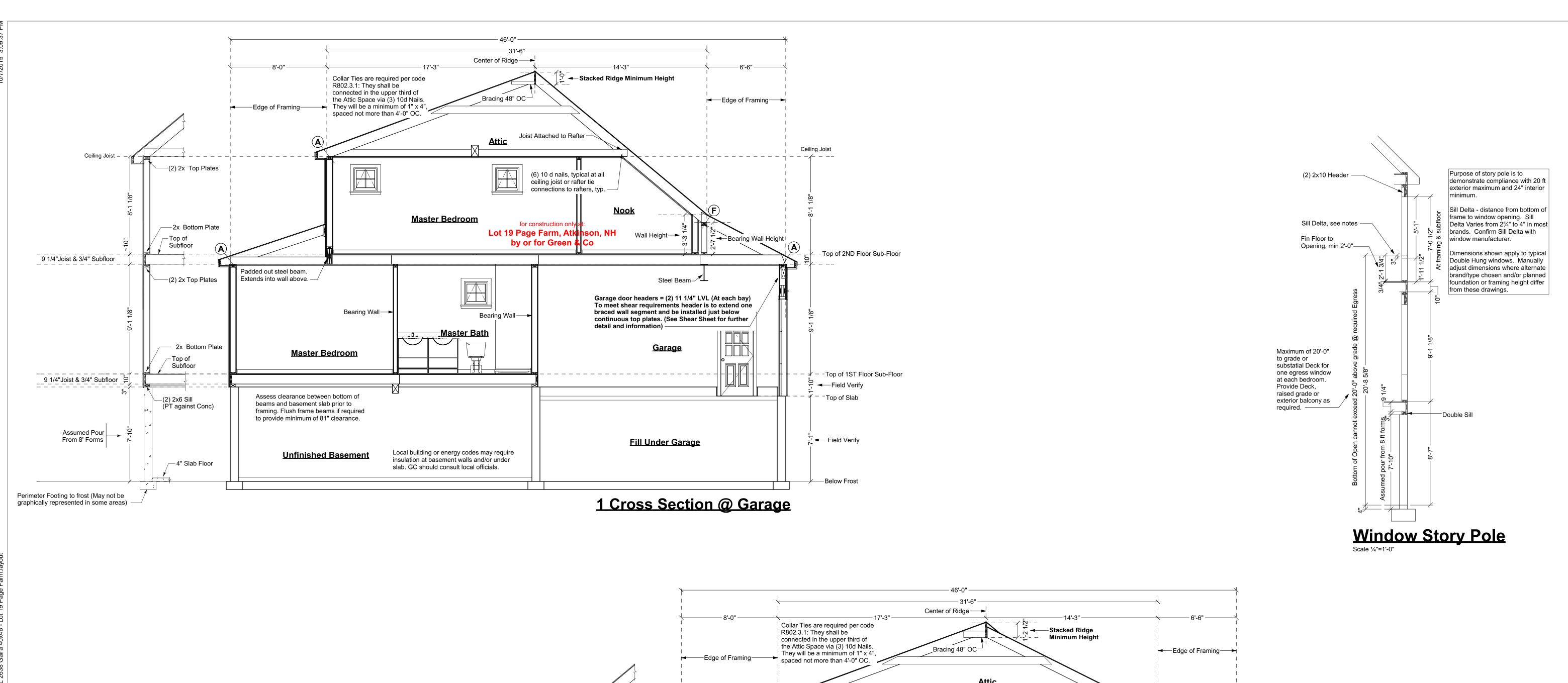
Artform Home Plans

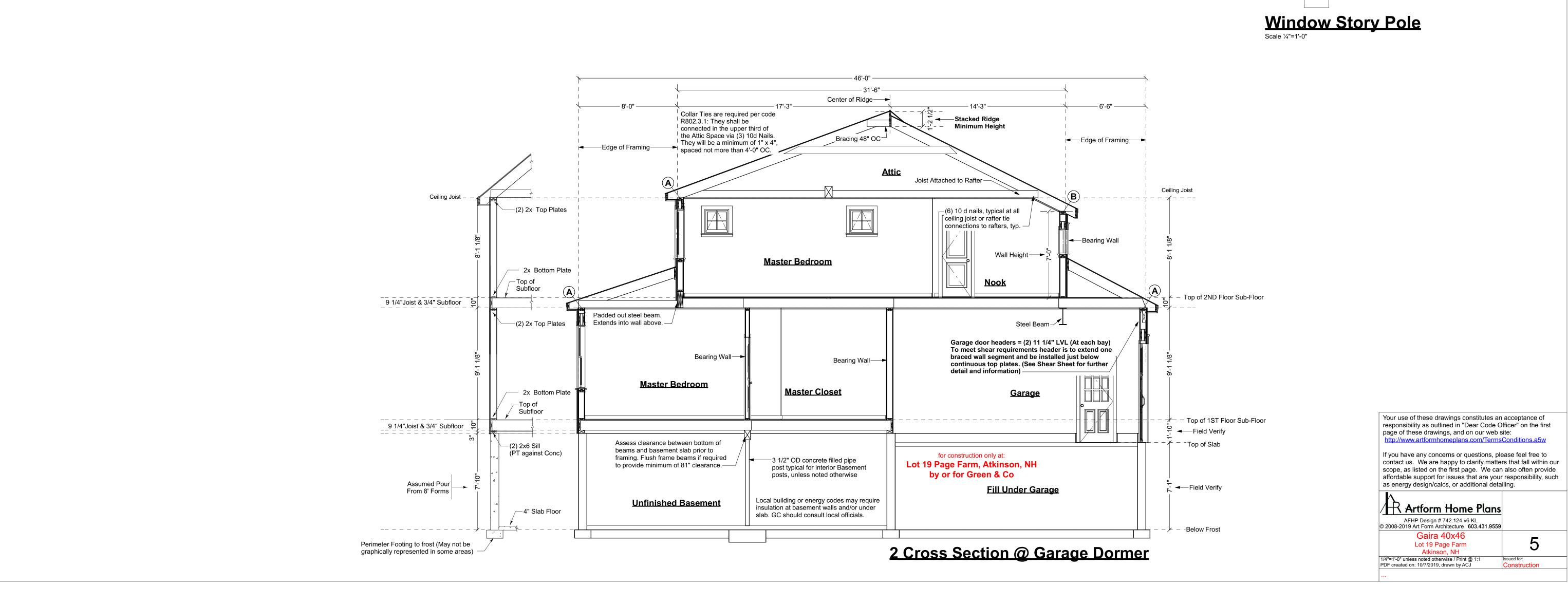
AFHP Design # 742.124.v6 KL
© 2008-2019 Art Form Architecture 603.431.9559

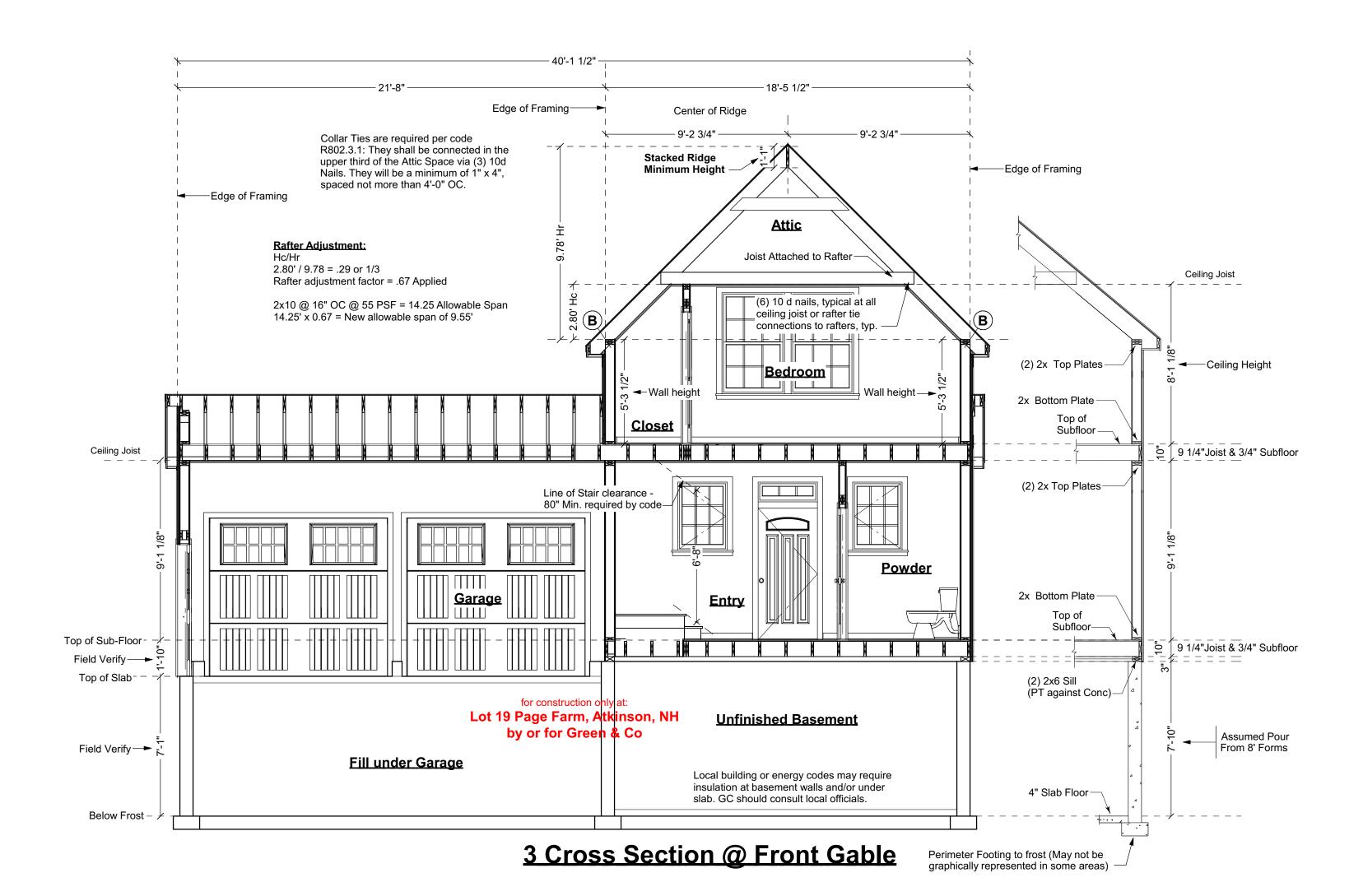
Gaira 40x46

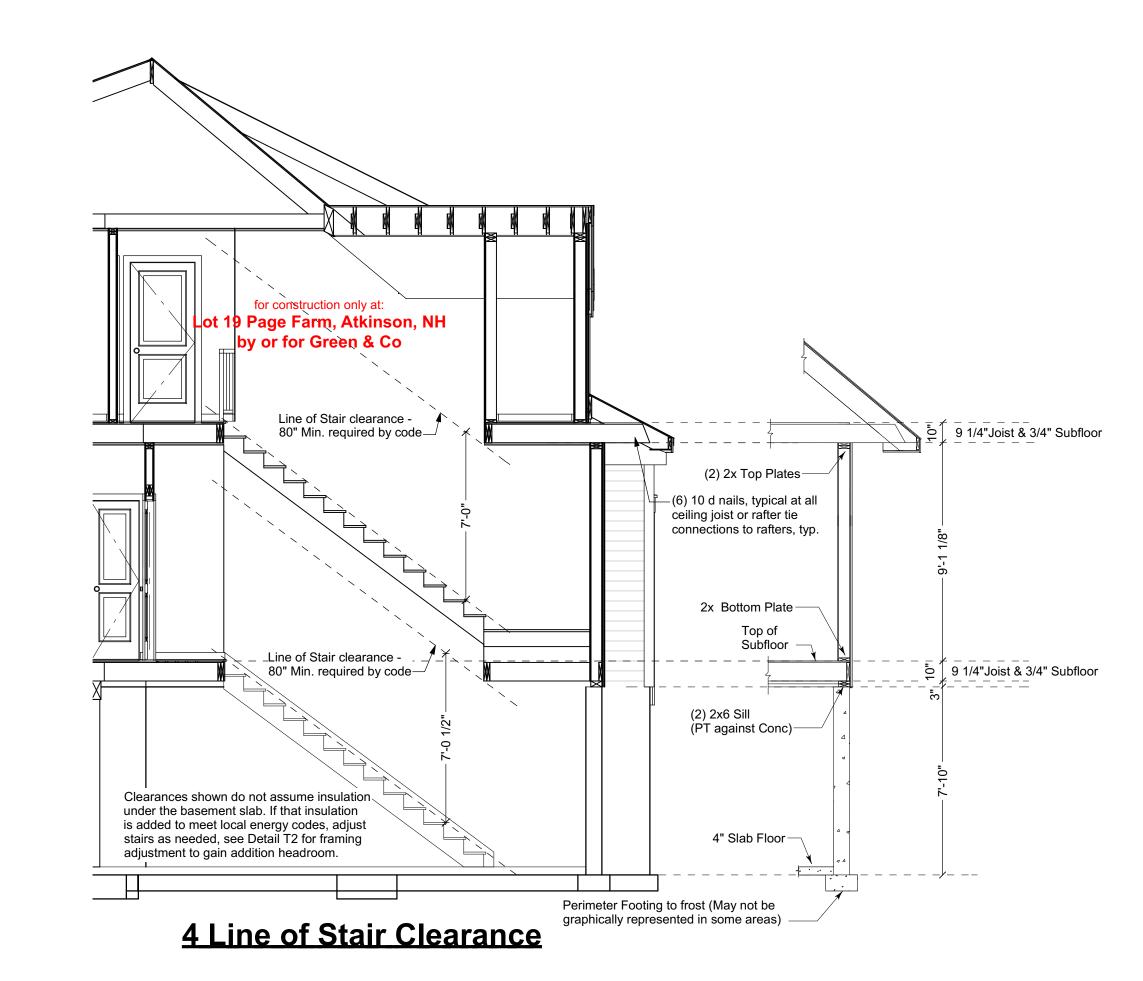
Lot 19 Page Farm Atkinson, NH

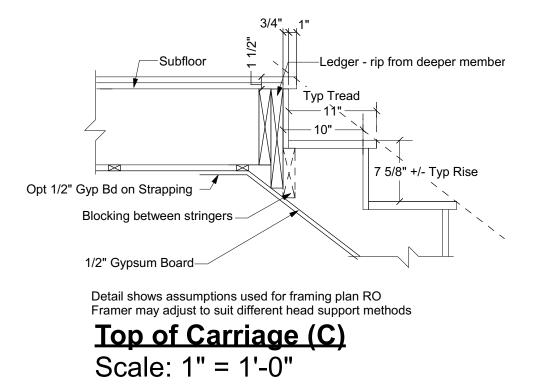
1/4"=1'-0" unless noted otherwise / Print @ 1:1 PDF created on: 10/7/2019, drawn by ACJ

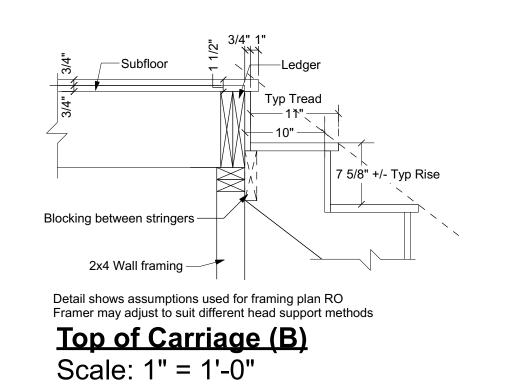


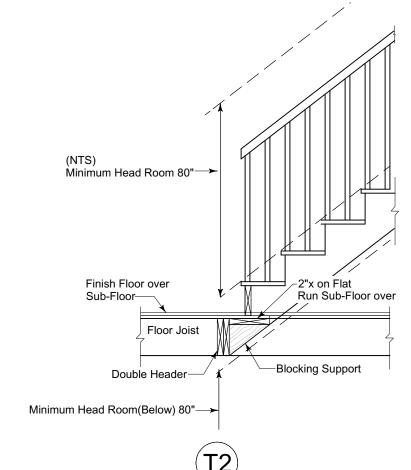












Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans

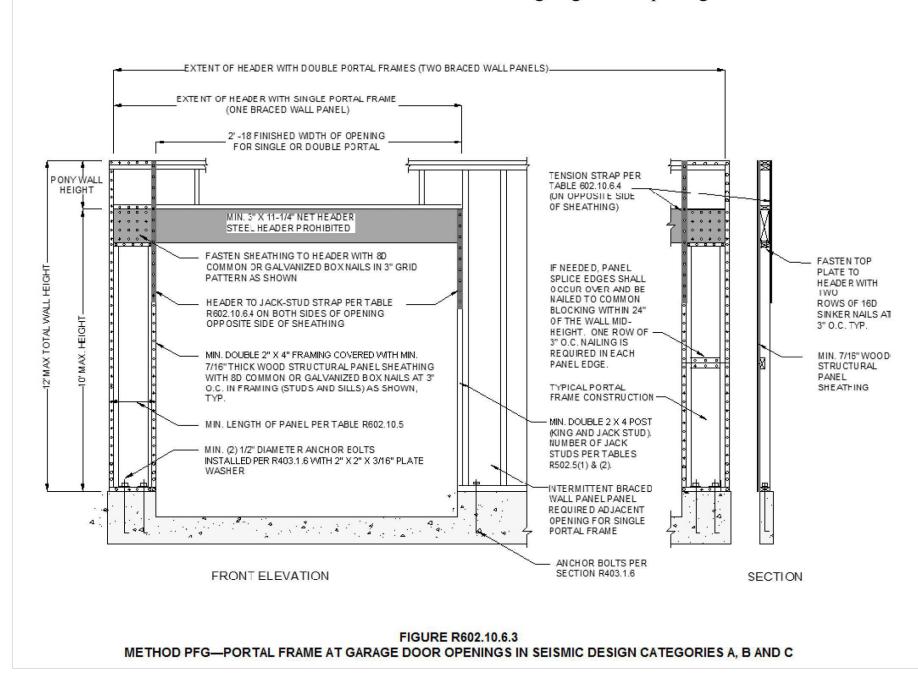
AFHP Design # 742.124.v6 KL
© 2008-2019 Art Form Architecture 603.431.9559

PDF created on: 10/7/2019, drawn by ACJ

Gaira 40x46
Lot 19 Page Farm
Atkinson, NH

1/4"=1'-0" unless noted otherwise / Print @ 1:1 Issued for:

TABLE R602.10.4 BRACING METHODS



Method CS-PF: Continuously sheathe portal frame shall be constructed in accordance with Figure 602.10.6.4. The number of continuously sheathed portal frame panels in a single braced wall line shall not exceed four.

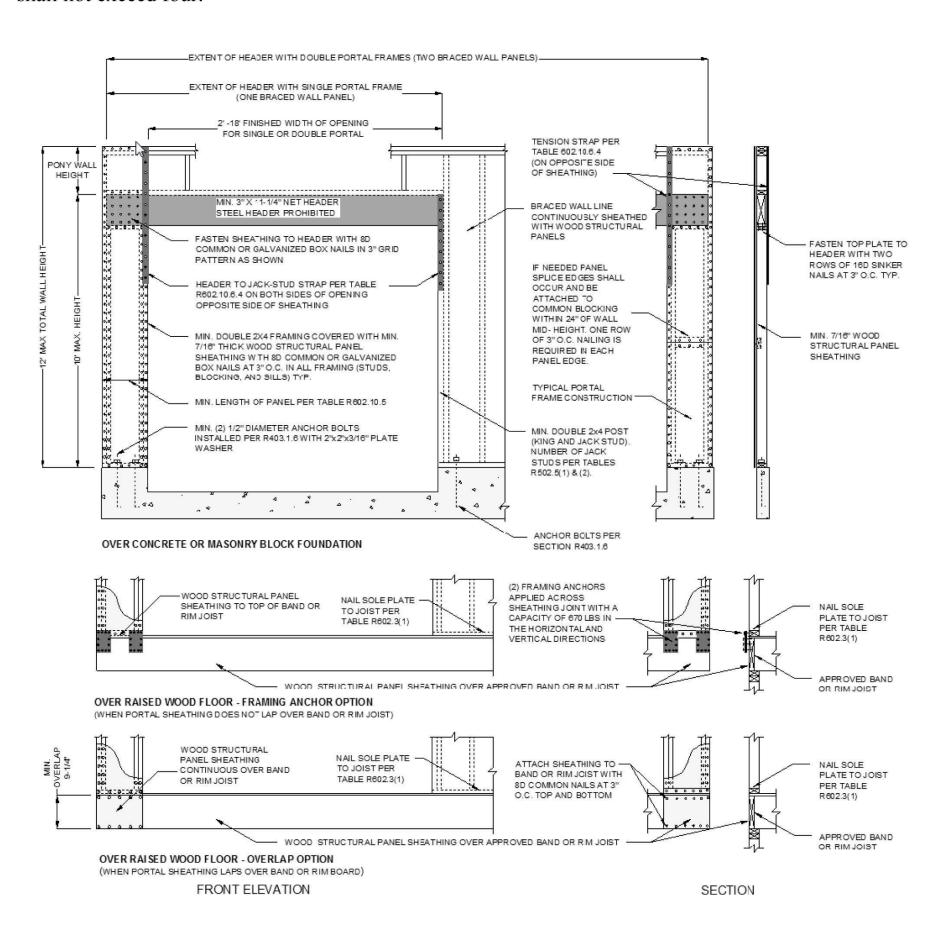
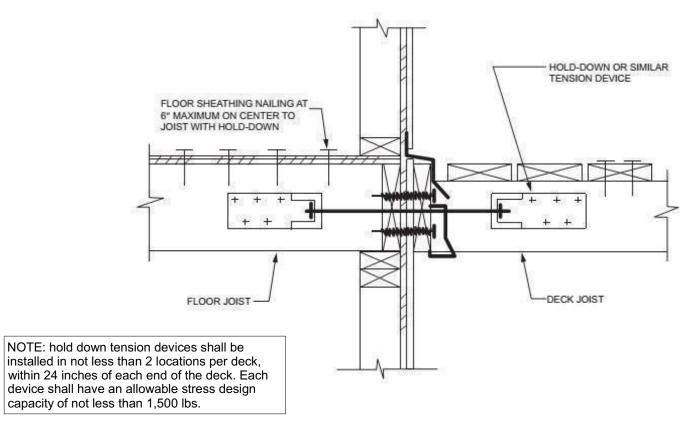
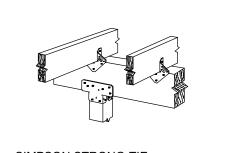
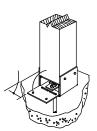


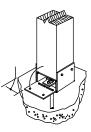
FIGURE R602.10.6.4 METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION



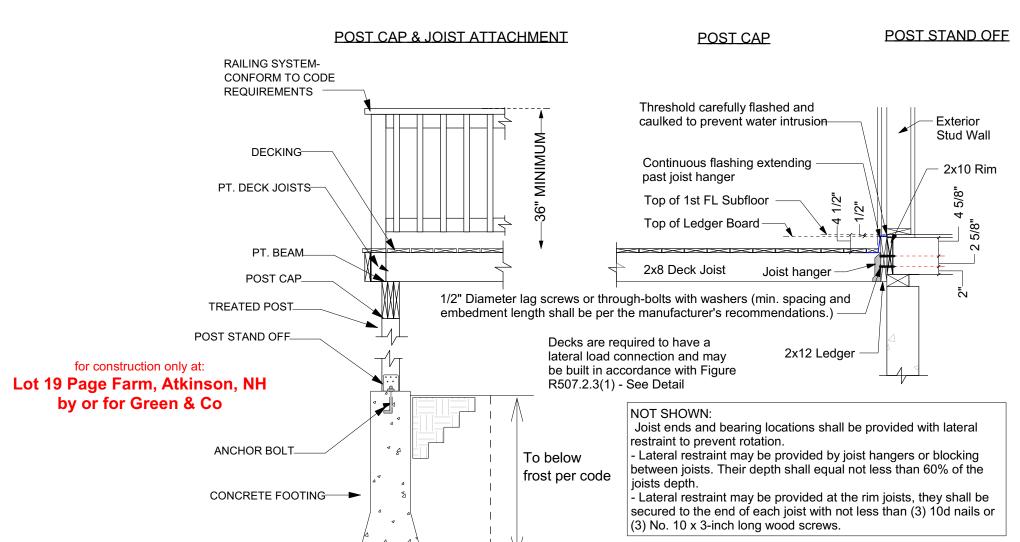
**FIGURE R507.2.3(1)** DECK ATTACHMENT FOR LATERAL LOADS







SIMPSON STRONG-TIE ACH WITH TWO H1'S



# **Deck Ledger Attachment Detail for Step Down**

Scale: 1/2" = 1'-0"

# **Shear Wall Details**

Notes:

Details shown here are for one method and for typical conditions. An alternate shear method allowed per code or approved by the code officer may be substituted.

See plans for locations where shear panels are required.

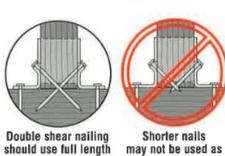
If the method at left is used at Garages where width of panel is 20" or more, wall height may be 10 ft as shown in detail at left. Where panel width is 18"-20", wall height may be 9 ft. Where panel is 16"-18", wall height may be 8 ft. Where panel is less, consult architect for additional design.

If the method at left is used, increase foundation wall height at front and for 2 ft along wall returns as required to meet maximum wood stud wall heights, and extend sheathing and siding in front of wall to achieve desired aesthetics. Untreaded wood may not be in direct contact with concrete - use treated wood or provide a barrier, such as a rubber membrane or felt paper.

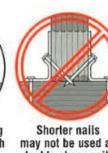
Note that if sheathing is to be used as wall bracing all vertical joints in required braced wall panels must be blocked. [2015 IRC section R602.10.10]

Follow manufacturer's instructions both for installation of joist hangers to joist and to beam. The illustration below, by Simpson Strong Tie, is provided as a courtesy. Consult their full manual for acceptable fastener sizes and other important instructions.

SHORT NAILS Do not use short (11/2") nails for double shear nailing.



common nails





POST ALIGNED WITH POST BELOW, TYP PROVIDE EXTRA 2' X **BLOCKING SUPPORT AT** STRUCTURAL POINTS -2' X BLOCKING 3/4" SUB-FLOOR OVER BEAM GLUED AND NAILED FLOOR JOISTS

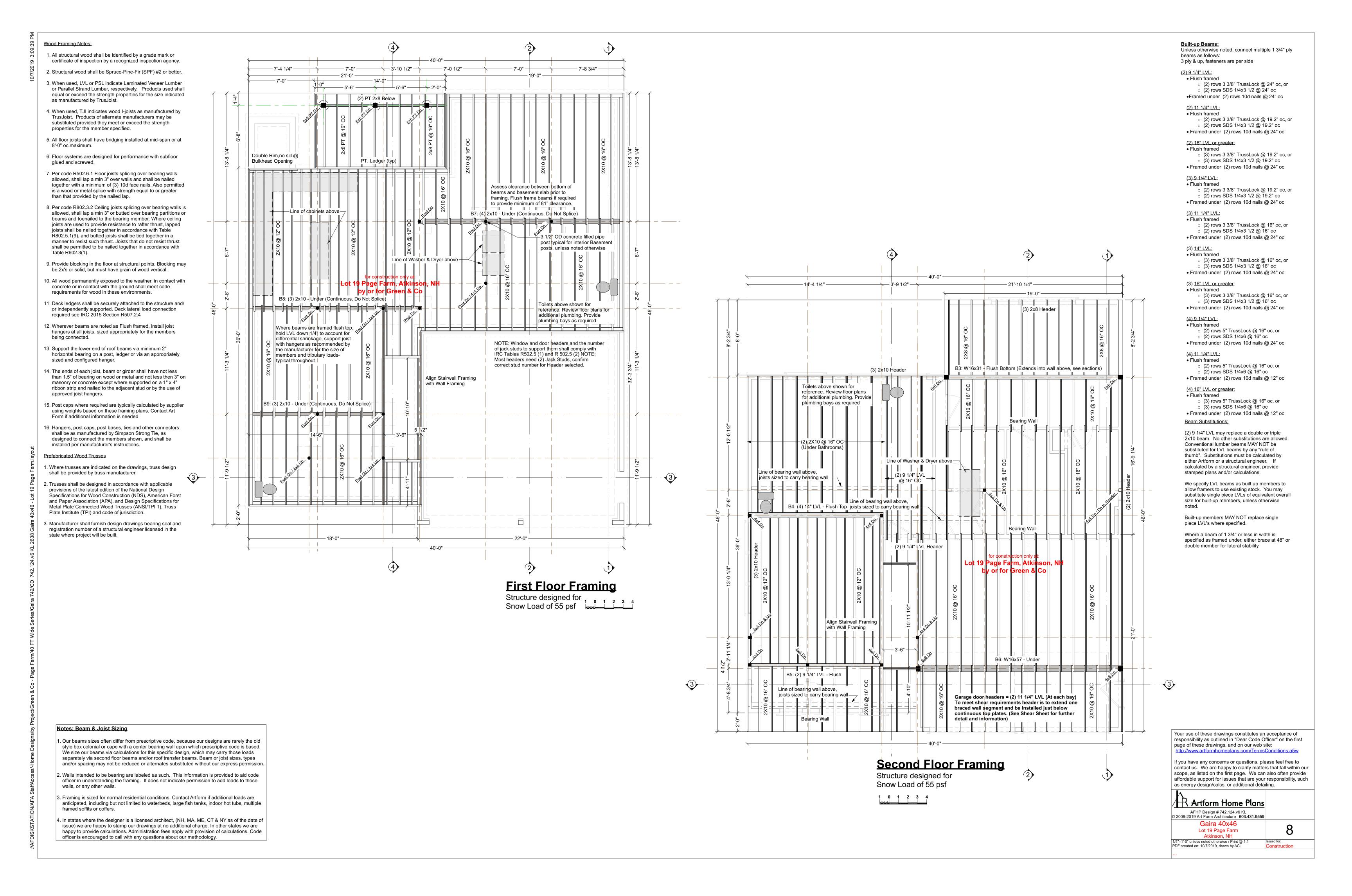
Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

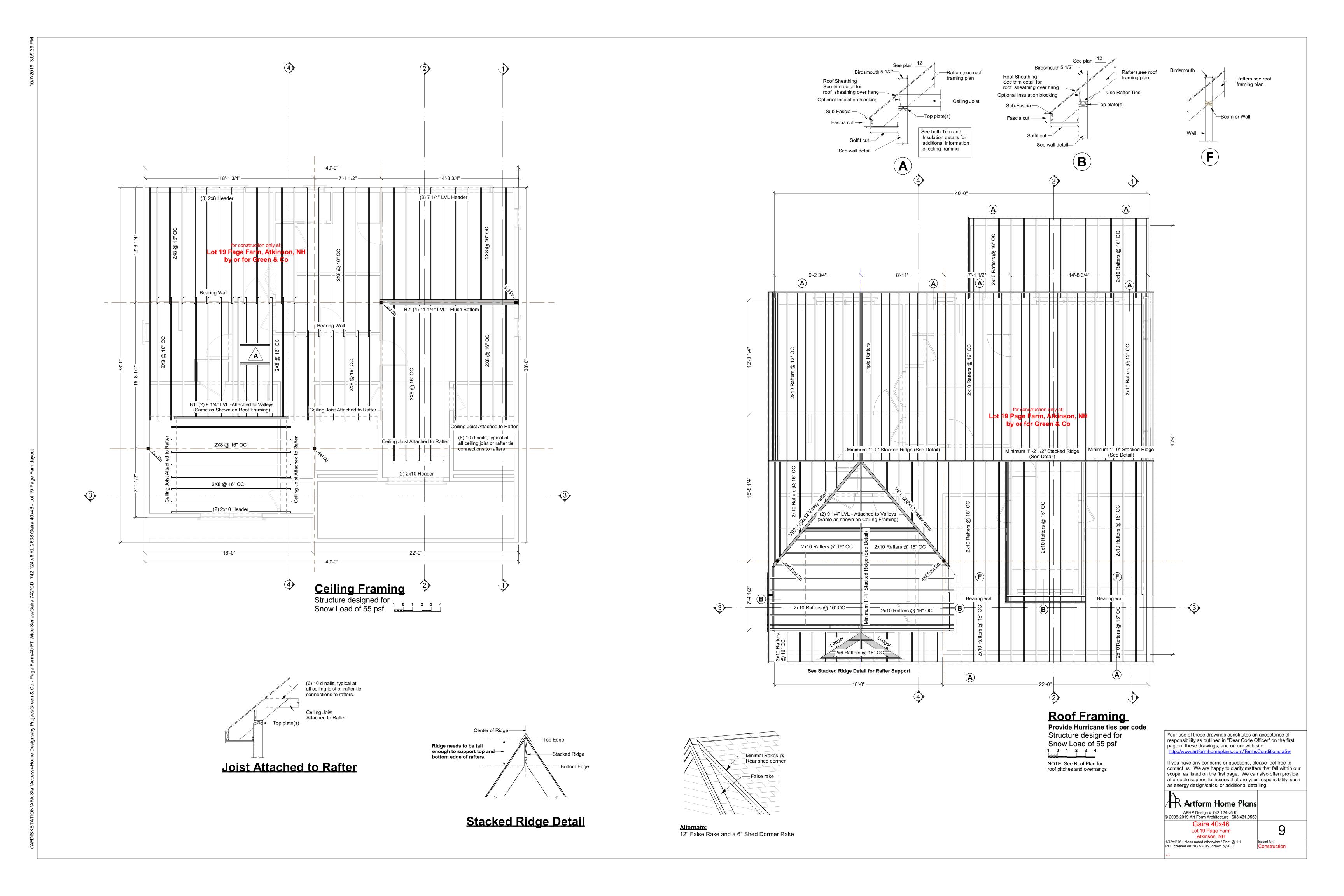
If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans AFHP Design # 742.124.v6 KL

© 2008-2019 Art Form Architecture 603.431.9559 Gaira 40x46 Lot 19 Page Farm

Atkinson, NH 1/4"=1'-0" unless noted otherwise / Print @ 1: PDF created on: 10/7/2019, drawn by ACJ







	Main	Future	Apt	Main + Future	Main + Apt	All
Living Area	2404 SF	0 SF	0 SF	2404 SF	2404 SF	2404 SF
Bedrooms	3	1	0	4	3	4
Baths	2.5	0.0	0.0	2.5	2.5	2.5

<u>Use of this document</u> is governed by our <u>Terms and Conditions</u>, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2012 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.



Dear Builders and Home Buyers,

In addition to our Terms and Conditions (the "Terms"), please be aware of the following:

This design may not yet have Construction Drawings (as defined in the Terms), and is, therefore, only available as a Design Drawing (as defined in the Terms and together with Construction Drawings, "Drawings'). It is possible that during the conversion of a Design Drawing to a final Construction Drawing, changes may be necessary including, but not limited to, dimensional changes. Please see Plan Data Explained on www.ArtformHomePlans.com to understand room sizes, dimensions and other data provided. We are not responsible for typographical errors.

Artform Home Plans ("Artform") requires that our Drawings be built substantially as designed. Artform will not be obligated by or liable for use of this design with markups as part of any builder agreement. While we attempt to accommodate where possible and reasonable, and where the changes do not denigrate our design, any and all changes to Drawings must be approved in writing by Artform. It is recommended that you have your Drawing updated by Artform prior to attaching any Drawing to any builder agreement. Artform shall not be responsible for the misuse of or unauthorized alterations to any of its Drawings.

#### Facade Changes:

- To maintain design integrity, we pay particular attention to features on the front facade, including but not limited to door surrounds, window casings, finished porch column sizes, and roof friezes. While we may allow builders to add their own flare to aesthetic elements, we don't allow our designs to be stripped of critical details. Any such alterations require the express written consent of Artform.
- Increasing ceiling heights usually requires adjustments to window sizes and other exterior elements.

#### Floor plan layout and/or Structural Changes:

- Structural changes always require the express written consent of Artform
- If you wish to move or remove walls or structural elements (such as removal of posts, increases in house size, ceiling height changes, addition of dormers, etc), please do not assume it can be done without other additional changes (even if the builder or lumber yard says you can).

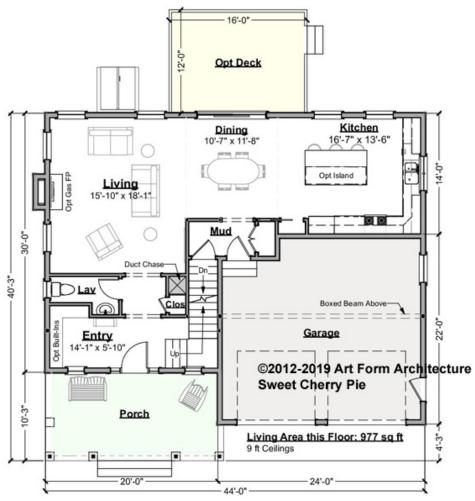


#### **First Floor**

	Area	Beds	Baths
Main	977 SF	0	0.5
Future	0 SF	0	0
Apt	0 SF	0	0
Total	977 SF	0	0.5

Ceiling Height			
Shown	9'-0"		

Possible\* 8'-0"



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2012 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

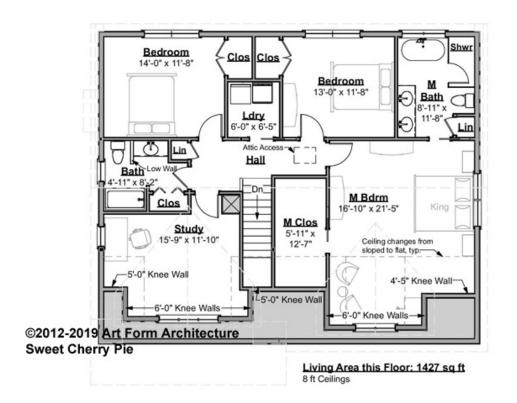
<sup>\*</sup> See Major Change information on plan page for cost



#### **Second Floor**

	Area	Beds	Baths
Main	1427 SF	3	2
Future	0 SF	1	0
Apt	0 SF	0	0
Total	1427 SF	4	2
	Ceiling	Height	
	Shown	8'-0"	
	Possible*	9'-0"	

<sup>\*</sup> See Major Change information on plan page for cost



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2012 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

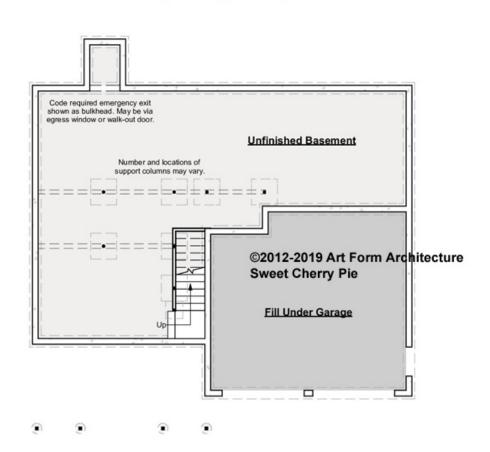
Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.



#### **Basement Floor**

	Area	Beds	Baths
Main	0 SF	0	0
Future	0 SF	0	0
Apt	0 SF	0	0
Total	0 SF	0	0
	Ceiling	Height	
	Shown	7'-8"	
	Possible*	9'-0"	

<sup>\*</sup> See Major Change information on plan page for cost



<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

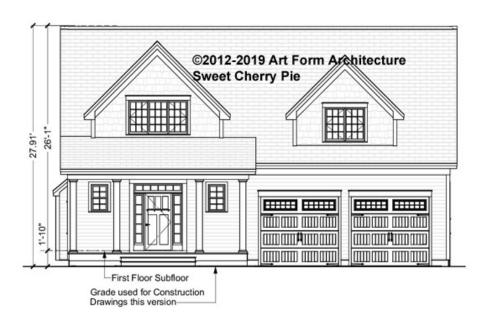
© 2012 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

# Artform Home Plans

#### **Front Elevation**



<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2012 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

# Artform Home Plans

#### **Right Elevation**



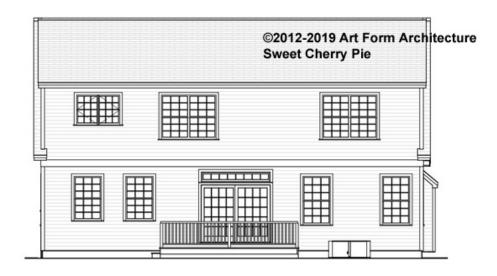
<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2012 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

# Artform Home Plans

#### **Rear Elevation**



<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2012 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

# Artform Home Plans

#### **Left Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2012 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.



	Main	Future	Apt	Main + Future	Main + Apt	All
Living Area	2886 SF	0 SF	0 SF	2886 SF	2886 SF	2886 SF
Bedrooms	4	1	0	5	4	5
Baths	3.5	0.0	0.0	3.5	3.5	3.5

<u>Use of this document</u> is governed by our <u>Terms and Conditions</u>, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.



Dear Builders and Home Buyers,

In addition to our Terms and Conditions (the "Terms"), please be aware of the following:

This design may not yet have Construction Drawings (as defined in the Terms), and is, therefore, only available as a Design Drawing (as defined in the Terms and together with Construction Drawings, "Drawings'). It is possible that during the conversion of a Design Drawing to a final Construction Drawing, changes may be necessary including, but not limited to, dimensional changes. Please see Plan Data Explained on www.ArtformHomePlans.com to understand room sizes, dimensions and other data provided. We are not responsible for typographical errors.

Artform Home Plans ("Artform") requires that our Drawings be built substantially as designed. Artform will not be obligated by or liable for use of this design with markups as part of any builder agreement. While we attempt to accommodate where possible and reasonable, and where the changes do not denigrate our design, any and all changes to Drawings must be approved in writing by Artform. It is recommended that you have your Drawing updated by Artform prior to attaching any Drawing to any builder agreement. Artform shall not be responsible for the misuse of or unauthorized alterations to any of its Drawings.

#### Facade Changes:

- To maintain design integrity, we pay particular attention to features on the front facade, including but not limited to door surrounds, window casings, finished porch column sizes, and roof friezes. While we may allow builders to add their own flare to aesthetic elements, we don't allow our designs to be stripped of critical details. Any such alterations require the express written consent of Artform.
- Increasing ceiling heights usually requires adjustments to window sizes and other exterior elements.

#### Floor plan layout and/or Structural Changes:

- Structural changes always require the express written consent of Artform
- If you wish to move or remove walls or structural elements (such as removal of posts, increases in house size, ceiling height changes, addition of dormers, etc), please do not assume it can be done without other additional changes (even if the builder or lumber yard says you can).

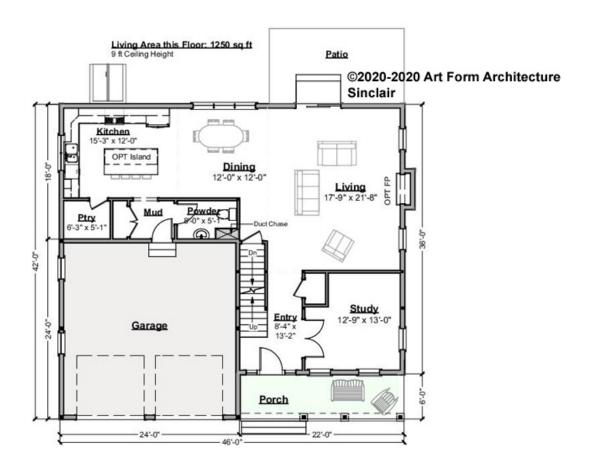


	Area	Beds	Baths
Main	1250 SF	0	0.5
Future	0 SF	1	0
Apt	0 SF	0	0
Total	1250 SF	1	0.5
	Ceiling	Height	
	Shown	9'-0"	

<sup>\*</sup> See Major Change information on plan page for cost

Possible\* 8'-0"





<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

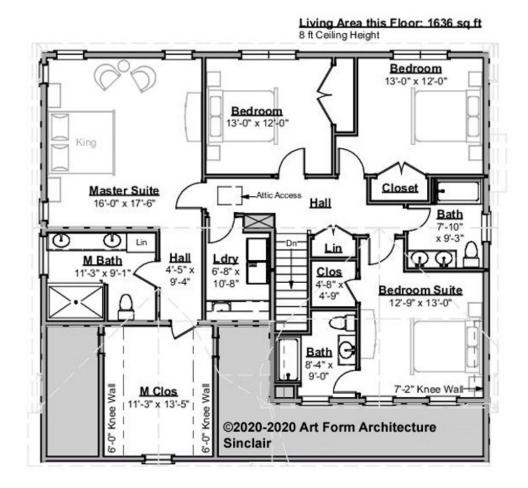
Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

# Artform Home Plans

#### **Second Floor**

	Area	Beds	Baths
Main	1636 SF	4	3
Future	0 SF	0	0
Apt	0 SF	0	0
Total	1636 SF	4	3
	Ceiling	Height	
	Shown	8'-0"	
	Possible*	8'-0"	

<sup>\*</sup> See Major Change information on plan page for cost



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

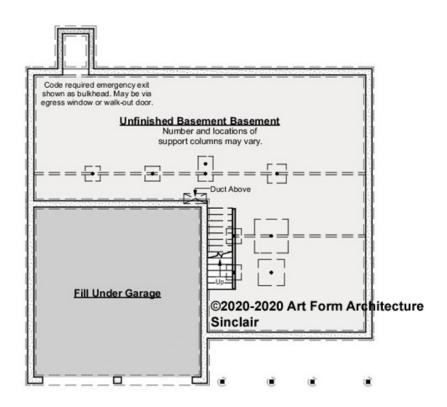
Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

# Artform Home Plans

#### **Basement Floor**

	Area	Beds	Baths
Main	0 SF	0	0
Future	0 SF	0	0
Apt	0 SF	0	0
Total	0 SF	0	0
	Ceiling	Height	
	Shown	7'-8"	
	Possible*	9'-0"	

<sup>\*</sup> See Major Change information on plan page for cost



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

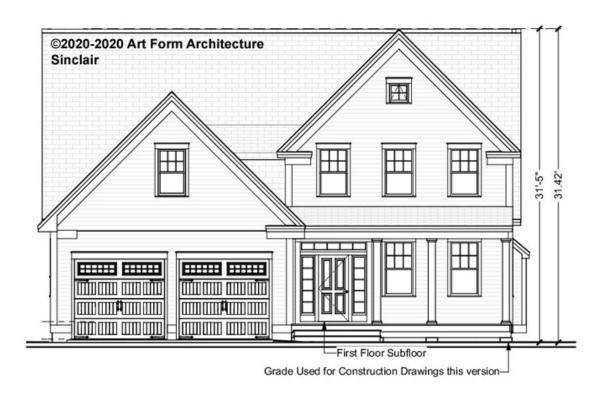
© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

# Artform Home Plans

#### **Front Elevation**



<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

# Artform Home Plans

#### **Right Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

# Artform Home Plans

#### **Rear Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

# Artform Home Plans

#### **Left Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

© 2020 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.



	Main	Future	Apt	Main + Future	Main + Apt	All
Living Area	1797 SF	0 SF	0 SF	1797 SF	1797 SF	1797 SF
Bedrooms	3	1	0	4	3	4
Baths	2.5	0.0	0.0	2.5	2.5	2.5

<u>Use of this document</u> is governed by our <u>Terms and Conditions</u>, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2011 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.



Dear Builders and Home Buyers,

In addition to our Terms and Conditions (the "Terms"), please be aware of the following:

This design may not yet have Construction Drawings (as defined in the Terms), and is, therefore, only available as a Design Drawing (as defined in the Terms and together with Construction Drawings, "Drawings'). It is possible that during the conversion of a Design Drawing to a final Construction Drawing, changes may be necessary including, but not limited to, dimensional changes. Please see Plan Data Explained on www.ArtformHomePlans.com to understand room sizes, dimensions and other data provided. We are not responsible for typographical errors.

Artform Home Plans ("Artform") requires that our Drawings be built substantially as designed. Artform will not be obligated by or liable for use of this design with markups as part of any builder agreement. While we attempt to accommodate where possible and reasonable, and where the changes do not denigrate our design, any and all changes to Drawings must be approved in writing by Artform. It is recommended that you have your Drawing updated by Artform prior to attaching any Drawing to any builder agreement. Artform shall not be responsible for the misuse of or unauthorized alterations to any of its Drawings.

#### Facade Changes:

- To maintain design integrity, we pay particular attention to features on the front facade, including but not limited to door surrounds, window casings, finished porch column sizes, and roof friezes. While we may allow builders to add their own flare to aesthetic elements, we don't allow our designs to be stripped of critical details. Any such alterations require the express written consent of Artform.
- Increasing ceiling heights usually requires adjustments to window sizes and other exterior elements.

#### Floor plan layout and/or Structural Changes:

- Structural changes always require the express written consent of Artform
- If you wish to move or remove walls or structural elements (such as removal of posts, increases in house size, ceiling height changes, addition of dormers, etc), please do not assume it can be done without other additional changes (even if the builder or lumber yard says you can).

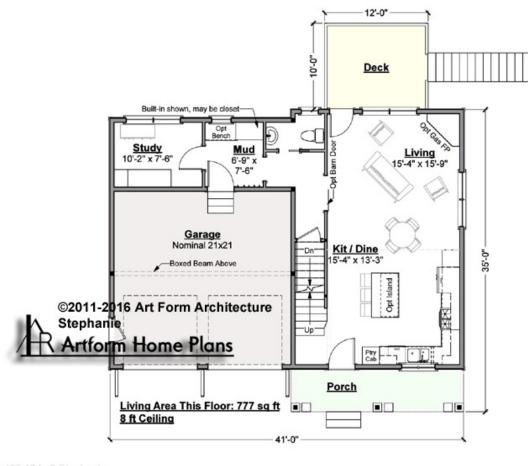
#### **First Floor**

	Area	Beds	Baths
Main	777 SF	0	0.5
Future	0 SF	1	0
Apt	0 SF	0	0
Total	777 SF	1	0.5

Ceiling F	Ceiling Height		
Shown	8'-0"		
Shown	8'-0"		

Possible\* 8'-8"





WEB 405.124.v2 Stephanie

 $\underline{\textbf{Use of this document}} \text{ is governed by our Terms and Conditions}, found on our website: \\ \underline{\textbf{http://www.artformhomeplans.com/TermsConditions.a5w}}$ 

© 2011 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

<sup>\*</sup> See Major Change information on plan page for cost

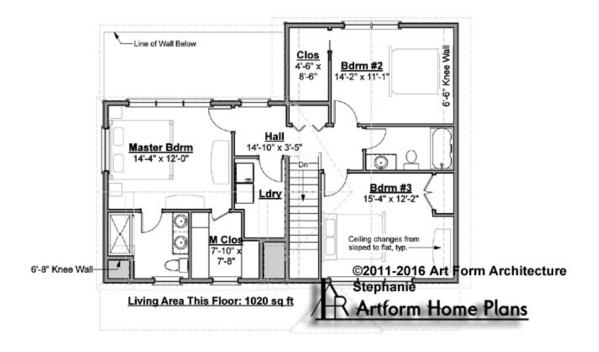
#### **Second Floor**

	Area	Beds	Baths
Main	1020 SF	3	2
Future	0 SF	0	0
Apt	0 SF	0	0
Total	1020 SF	3	2
	Ceiling	Height	
	Shown	8'-0"	

<sup>\*</sup> See Major Change information on plan page for cost

Possible\* 9'-0"





WEB 405.124.v2 Stephanie

 $\underline{\textbf{Use of this document}} \text{ is governed by our Terms and Conditions}, found on our website: \\ \underline{\textbf{http://www.artformhomeplans.com/TermsConditions.a5w}}$ 

© 2011 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

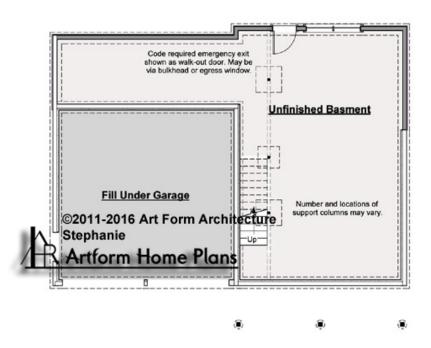
#### **Basement Floor**

	Area	Beds	Baths
Main	0 SF	0	0
Future	0 SF	0	0
Apt	0 SF	0	0
Total	0 SF	0	0
	Ceilin	g Height	

Possible\* 9'-0"

Shown 7'-8"





WEB 405.124.v2 Stephanie

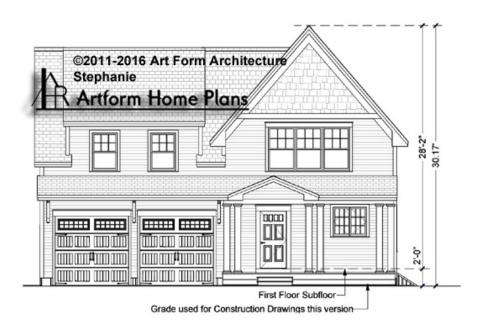
<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2011 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

<sup>\*</sup> See Major Change information on plan page for cost

#### **Front Elevation**





WEB 405.124.v2 Stephanie

<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2011 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

## **Right Elevation**





<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2011 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

## 405.124.v2 KR Stephanie

## **Rear Elevation**





VVEB 405.124.VZ Stephanie

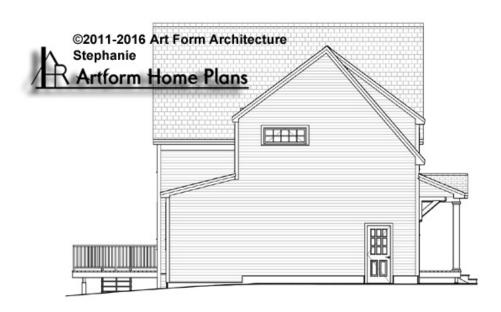
<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2011 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

## 405.124.v2 KR Stephanie

## **Left Elevation**





WEB 405.124.v2 Stephanie

<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2011 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.



	Main	Future	Apt	Main + Future	Main + Apt	All
Living Area	2413 SF	0 SF	0 SF	2413 SF	2413 SF	2413 SF
Bedrooms	3	0	0	3	3	3
Baths	2.5	0.0	0.0	2.5	2.5	2.5

 $\underline{\textbf{Use of this document}} \text{ is governed by our Terms and Conditions, found on our website:} \\ \underline{\textbf{http://www.artformhomeplans.com/TermsConditions.a5w}}$ 

© 2009 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.



Dear Builders and Home Buyers,

In addition to our Terms and Conditions (the "Terms"), please be aware of the following:

This design may not yet have Construction Drawings (as defined in the Terms), and is, therefore, only available as a Design Drawing (as defined in the Terms and together with Construction Drawings, "Drawings'). It is possible that during the conversion of a Design Drawing to a final Construction Drawing, changes may be necessary including, but not limited to, dimensional changes. Please see Plan Data Explained on www.ArtformHomePlans.com to understand room sizes, dimensions and other data provided. We are not responsible for typographical errors.

Artform Home Plans ("Artform") requires that our Drawings be built substantially as designed. Artform will not be obligated by or liable for use of this design with markups as part of any builder agreement. While we attempt to accommodate where possible and reasonable, and where the changes do not denigrate our design, any and all changes to Drawings must be approved in writing by Artform. It is recommended that you have your Drawing updated by Artform prior to attaching any Drawing to any builder agreement. Artform shall not be responsible for the misuse of or unauthorized alterations to any of its Drawings.

#### Facade Changes:

- To maintain design integrity, we pay particular attention to features on the front facade, including but not limited to door surrounds, window casings, finished porch column sizes, and roof friezes. While we may allow builders to add their own flare to aesthetic elements, we don't allow our designs to be stripped of critical details. Any such alterations require the express written consent of Artform.
- Increasing ceiling heights usually requires adjustments to window sizes and other exterior elements.

#### Floor plan layout and/or Structural Changes:

- Structural changes always require the express written consent of Artform
- If you wish to move or remove walls or structural elements (such as removal of posts, increases in house size, ceiling height changes, addition of dormers, etc), please do not assume it can be done without other additional changes (even if the builder or lumber yard says you can).

## **First Floor**

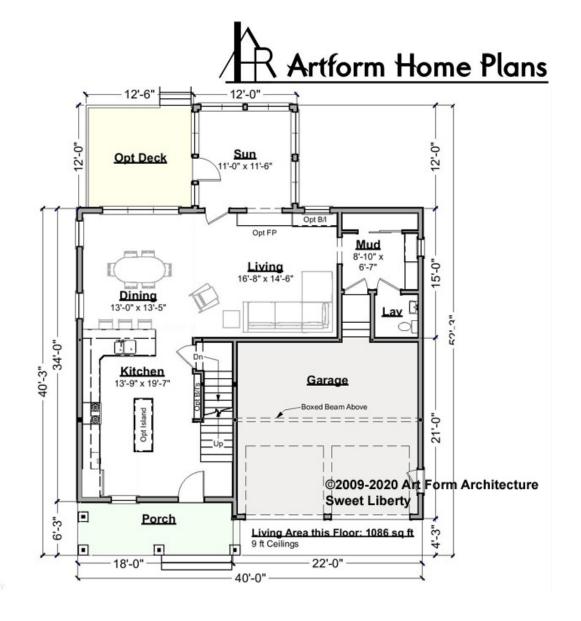
	Area	Beds	Baths
Main	1086 SF	0	0.5
Future	0 SF	0	0
Apt	0 SF	0	0
Total	1086 SF	0	0.5

	Ceiling I	Height
	Shown	9'-0"
De	sccible*	טי טיי

<sup>\*</sup> See Major Change information on plan page for cost

#### Notes This Design:

Side entry garage will require some structural redesign - a beam to transfer load from that post.



<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2009 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

## **Second Floor**

	Area	Beds	Baths
Main	1327 SF	3	2
Future	0 SF	0	0
Apt	0 SF	0	0
Total	1327 SF	3	2

Ceiling Height		
Shown	8'-0"	

Possible\* 9'-0"



5'-0" x

8'-7"

5'-4"

Knee Wall

M Clos

6'-10" Knee Wall

<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2009 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

15'-8" x 16'-1"

3'-6" Knee Wall-

Ceiling changes from

7'-0" Knee Wall

Living Area this Floor: 1327 sq ft

We are not responsible for typographical errors.

8 ft Ceilings

<sup>\*</sup> See Major Change information on plan page for cost

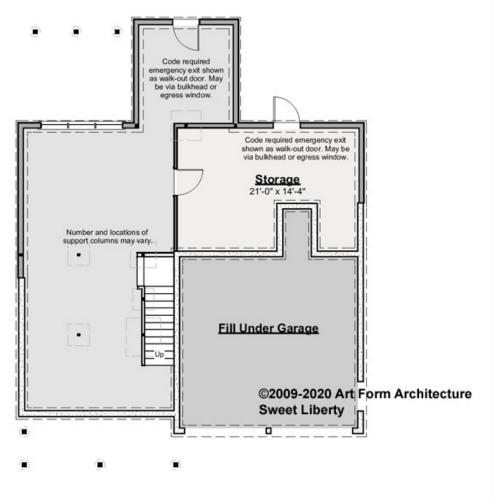
## **Basement Floor**

	Area	Beds	Baths
Main	0 SF	0	0
Future	0 SF	0	0
Apt	0 SF	0	0
Total	0 SF	0	0

Ceiling	Height
Shown	7'-8"

Possible\* 9'-0"





<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2009 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

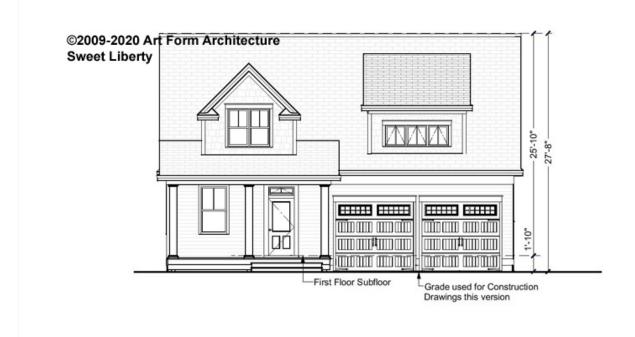
You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

<sup>\*</sup> See Major Change information on plan page for cost

# Artform Home Plans

## **Front Elevation**



<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

We are not responsible for typographical errors.

© 2009 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

# Artform Home Plans

## **Right Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2009 Art Form Architecture, Inc. ALL RIGHTS RESERVED.

You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement.

Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

# Artform Home Plans

## **Rear Elevation**



<u>Use of this document</u> is governed by our **Terms and Conditions**, found on our website: http://www.artformhomeplans.com/TermsConditions.a5w

© 2009 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

# Artform Home Plans

## **Left Elevation**



<u>Use of this document</u> is governed by our Terms and Conditions, found on our website: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

© 2009 Art Form Architecture, Inc. ALL RIGHTS RESERVED. You may not build this Design without purchasing a License to Build (as defined in our Terms). Unauthorized changes are not permitted and violate copyright laws, which provide substantial penalties for infringement. Some features show are optional. Your Purchase & Sale Agreement governs, whether items are labeled "optional" in this document or not.

## Wall Keys

2 2x wood studs on the flat

(6) 2x6 wood stud wall, 16" oc

Note: 2x4 wood stud wall, 16" oc unless otherwise noted

## Key Notes

30" x 22" Minimum Attic Access A \ Panel - Insulated (RO 34" x 26")

Field locate for plumbing or mechanical

Verify size of fixture or appliance Adjust dimensions to accommodate

Center - Place door or window centered

(SD) Smoke Detector (HD) Heat Detector

(CO) Carbon Monoxide Detector

## **Dimensions**

1. Dimensions are to face of stud, unless noted otherwise. 2. Closets are 24" clear inside, unless dimensioned otherwise.

## Square Footages

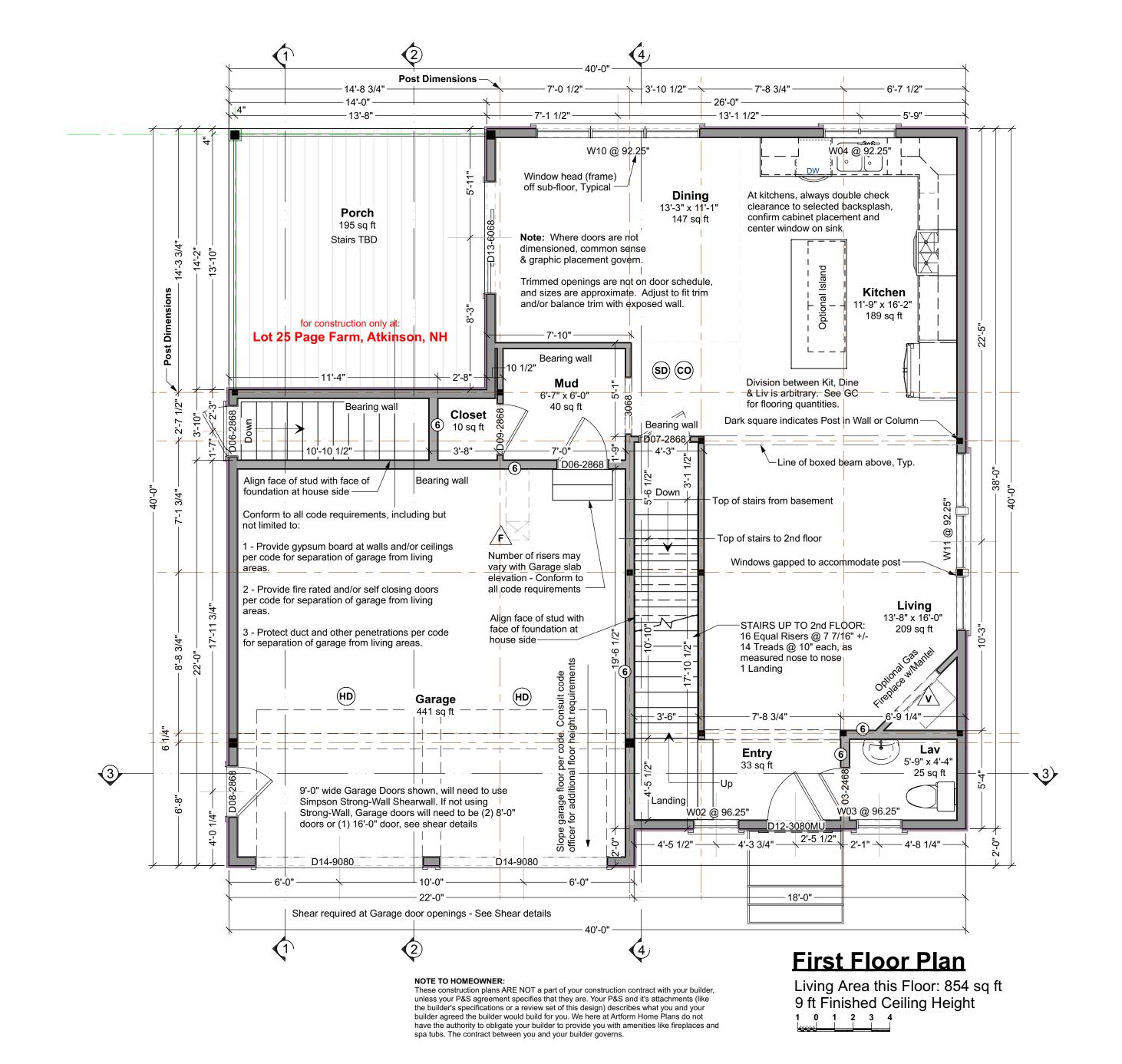
1. Sq ft numbers are interior to room for use in calculating finishes. 2. Cabinets and fixtures not subtracted. 3. Add for doorways when floor finishes run through.

## <u>Notes</u>

- 1. Exterior walls 2x6 wood stud @ 16" oc. Provide insulation & vapor barrier conforming to state or local codes. Interior sheathing 1/2" gypsum board. Provide 1/2" exterior rated sheathing, house wrap with drainage plane and siding. Provide step flashing at walls adjacent to roof planes.
- 2. Interior walls 2x4 wood stud @ 16" oc, unless noted otherwise.
- 3. Roof see structural for rafter sizes. Provide 5/8" exterior rated roof sheathing 15# roofing felt, ice & water shield at eaves and valleys, aluminum drip edge and asphalt shingles or metal roofing. Structure not calculated to support slate or tile. Flash all penetrations. Provide cricket at any added chimneys.
- 4. Provide roof and/or ceiling insulation per code. Provide soffit and ridge vents where required for insulation strategy. (Verify with code officer - closed cell spray foam or dense-pack cellulose installed at rafters and filling ridge and eaves generally contra-indicates venting, batt insulation always requires venting).
- 5. Provide smoke, carbon monoxide, and heat detectors where shown and where required by code and where required by local authorities.
- 6. Provide fire resistive materials where required by code, including but not limited to, firestopping at penetrations, 5/8" Type X drywall on walls and ceilings to separate garage (where garage present in design) from dwelling, and separation of dwellings (where more than one dwelling present in design), and protection of flammable insulation materials. See Table R306.6 IRC 2015.
- 7. Compliance with code requirements for rooms size and clearances, (hallway widths, room sizes, etc) assume 1/2" drywall on walls and 1/2" drywall on 3/4" strapping on ceilings. Adjust as required if materials differ.
- 8. Shear is only called out where Continuous Portal Frame will not suffice. See Section R602.10.4 (Pages 177 - 188) of the IRC 2015.

## **General Design Notes**

- 1 Builder shall consult and follow the building code and other regulations in effect for the building site for all construction details not shown in these drawings. Requirements described here are specific to this design and/or are provided as reference. Additional building code or local requirements may apply.
- 2 Builder shall maintain a safe worksite, including but not limited to. provision of temporary supports where appropriate and adherence to applicable safety standards.
- 3 Design is based on the snow load listed on the framing plans, 100 mph basic wind speed, Exposure type B, soil bearing capacity of 2000 psf, and Seismic Category C, unless otherwise noted on the framing plans. Builder shall promptly inform Artform Home Plans of differing conditions.



## **Door & Window Notes**

- 1. Rated Doors: Provide fire rated and/or self-closing doors where required by local codes or local authorities
- 2. Trimmed Openings: Trimmed openings not shown on schedule. See Plan.
- 3. Window Tempering: Provide tempered windows where required by local codes or local authorities. Tempering column provided here for convenience. Windows have not been reviewed for tempering
- **4. Window RO's:** 1/4" or 1/2" on each of 4 sides allowed for window RO's, typical. Review framing size vs RO size. Adjust per manufacturer's requirements and/or builder preference.
- 5. Egress Windows: Provide minimum one door or window meeting egress requirements in basement, in each sleeping room, in each potential sleeping room, and other locations required by local code, in sizes required by local code. Note that casement windows coded by manufacturer as meeting IRC 2015 egress requirements typically need to be ordered with specific hardware. Emergency Escape Window Sizes (Section R310.2.1, R310.2.2, R310.2.3 and R310.2.4). Will also comply with NFPA 101.
- 6. Basement Windows: Add basement windows as required to meet state or local code requirements, including but not limited to egress and light/ventilation.
- 7. Skylights: Skylights are not shown on this schedule, but may be required. Consult builder and/or see floor
- 8. Minimum window sill height: IRC 2015 requires that floor window sills be 24" from floor. Confirm bottom of window opening relative to frame. Conform to IRC 2015 R312.1.

	DOOR SCHEDULE							
NUMBER	QTY	FLOOR	SIZE	WIDTH	HEIGHT	TYPE	COMMENTS	
D01	1	2	2068 R IN	24 "	80 "	HINGED		
D02	1	2	2468 L	28 "	80 "	POCKET		
D03	1	1	2468 L IN	28 "	80 "	HINGED		
D04	3	2	2468 L IN	28 "	80 "	HINGED		
D05	3	2	2468 R IN	28 "	80 "	HINGED		
D06	2	1	2868 L EX	32 "	80 "	HINGED		
D07	1	1	2868 L IN	32 "	80 "	HINGED		
D08	1	1	2868 R EX	32 "	80 "	HINGED		
D09	1	1	2868 R IN	32 "	80 "	HINGED		
D10	3	2	2868 L IN	32 "	80 "	HINGED		
D11	2	2	2868 R IN	32 "	80 "	HINGED		
D12	1	1	3080	36 "	96 "	MULLED UNIT	HINGED W/TRANSOM	
D13	1	1	6068 R EX	72 "	80 "	SLIDER		
D14	2	1	9080	108 "	96 "	GARAGE		

NUMBER	QTY	WIDTH	HEIGHT	R/0	EGRESS	TEMPERED	DESCRIPTION	COMMENTS
W01	2	23 1/2 "	23 1/2 "	24"X24"			SINGLE AWNING	
W02	1	29 1/2 "	41 1/2 "	30"X42"		YES	SINGLE CASEMENT-HL	
W03	1	29 1/2 "	41 1/2 "	30"X42"			SINGLE CASEMENT-HR	
W04	1	47 "	47 1/2 "	47 1/2"X48"			DOUBLE CASEMENT-LHL/RHR	
W05	1	70 1/2 "	23 1/2 "	71"X24"			TRIPLE CASEMENT-LHL/RHR	
W06	1	106 1/2 "	47 1/2 "	107"X48"	YES		TRIPLE CASEMENT-LHL/RHR	
W07	1	23 1/2 "	35 1/2 "	24"X36"			DOUBLE HUNG	
80W	1	23 1/2 "	47 1/2 "	24"X48"		YES	DOUBLE HUNG	
W09	2	76 "	61 1/2 "	76 1/2"X62"	YES		2X DH	
W10	1	106 1/2 "	65 1/2 "	107"X66"			3X DH	
W11	1	115 1/2 "	65 1/2 "	116"X66"			3X DH	

WINDOW SCHEDULE

# Giselle 40x40



## **Dear Code Officer.**

These are predesigned home plans, designed to bring good design and construction drawings to people at more affordable prices and faster time frames than traditional architecture. Where traditional "internet" home plans disclaim all responsibility, we split responsibility between us (Artform) and the owner. We encourage the future homeowners to use a quality builder who can assist them with this. They are responsible for thermal and moisture decisions and for meeting code in ways that a quality builder should know without an explicit detail. We are responsible for things that are directly related to the design and/or that a quality builder couldn't reasonably figure out on their own - specifically the following IRC 2015 code sections:

1 - Room sizes (Section R304) 2 - Ceiling Height (Section R305)

3 - Floor space & ceiling height at Toilet, Bath and Shower Spaces

4 - Hallway widths (Section R311.6) 5 - Door types & sizes (Section R311.2)

6 - Floor space in front of doors (Section R311.3) 7 - Stair width - The stairs in our designs will be a minimum of 36" wide measured wall surface to wall surface, allowing compliance with R311.7.1 with installation of correct handrail.

8 - Stairway headroom (Section R311.7.2) 9 - Stair treads and risers (Section R311.7.5) 10 - Landings for stairways (Section R311.7.6)

11 - Emergency Escape Window Sizes (Section R310.2.1, R310.2.2, R310.2.3 and R310.2.4). Casement windows may require manufacturer's emergency escape window hardware. Will also comply with NFPA 101.

12 - Structural Floor Framing (Section R502.3) Where dimensional lumber is shown, framing members will be sized according to this section of the code. Where engineered wood products are shown, those framing members will be size according to the manufacturer's tables for loads and spans, or sizes will have been calculating using manufacturer's published materials properties. 13 - See structural sheets for additional notes.

The builder can and should add information to this set, such as Rescheck, a hand markup of our generic thermal and moisture section, additional information about doors and windows (such as fire rating, tempering, etc), foundation drops relative to site grading, and sometimes their chosen method of basement egress. These drawings are not intended to be used without that additional information.

Where a construction address is shown on the drawings, it is for

design to state specific laws (except where it says so in the drawings) or site or region specific climate conditions. Homeowner

copyright control only. We have not inspected the site, adapted the

and/or Builder shall be responsible for thermal and moisture control

strategies, materials choices and compliance with applicable laws and ordinances. Please do feel free to call us with any questions. We can and do update our drawings and standard notes to address specific concerns, especially in jurisdictions where our clients will be building

## Dear Everybody,

With these drawings a copyright license is granted for a single construction only at Lot 25 Page Farm, Atkinson, NH by or for Green & Company. This is a License to Build, and does not include a License to Modify, except as required to conform to building code or fulfill builder's/owners responsibilities.

#### Permissible uses of these drawings: 1. All activities associated with construction at the listed address.

2. Pricing or preliminary discussions with zoning or code officials for construction at other addresses, with prior notification to Artform Home Plans - just use the Contact form on the web site http://www.artformhomeplans.com/contact.a5w

## Not Permitted:

1. Application for any permits or other approvals for construction at properties other than the listed address, including but not limited to construction, zoning, conservation, or design review. 2. Modification of the basic design.

Use of these drawings outside these parameters is a violation of federal copyright law, punishable by both civil action and criminal prosecution, as it is stealing or enabling theft of "intellectual property". Making modifications to plans, even significant ones, does not change this, under copyright law, that's considered "derivative

We can provide drawings suitable for use in obtaining design or zoning approvals without incurring the expense of a full set of construction drawings. Contact us for more information. AFHP CD Commons 20.2 X11 - IRC 2015

These drawings are intended for use by an experienced professional builder in responsible charge of the entire project, including but not limited to mechanical, electrical and sitework. Any additional adaptation for these trades or other trades must be determined prior to start of construction. Contact Artform for any adjustments needed.

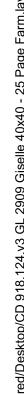
Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

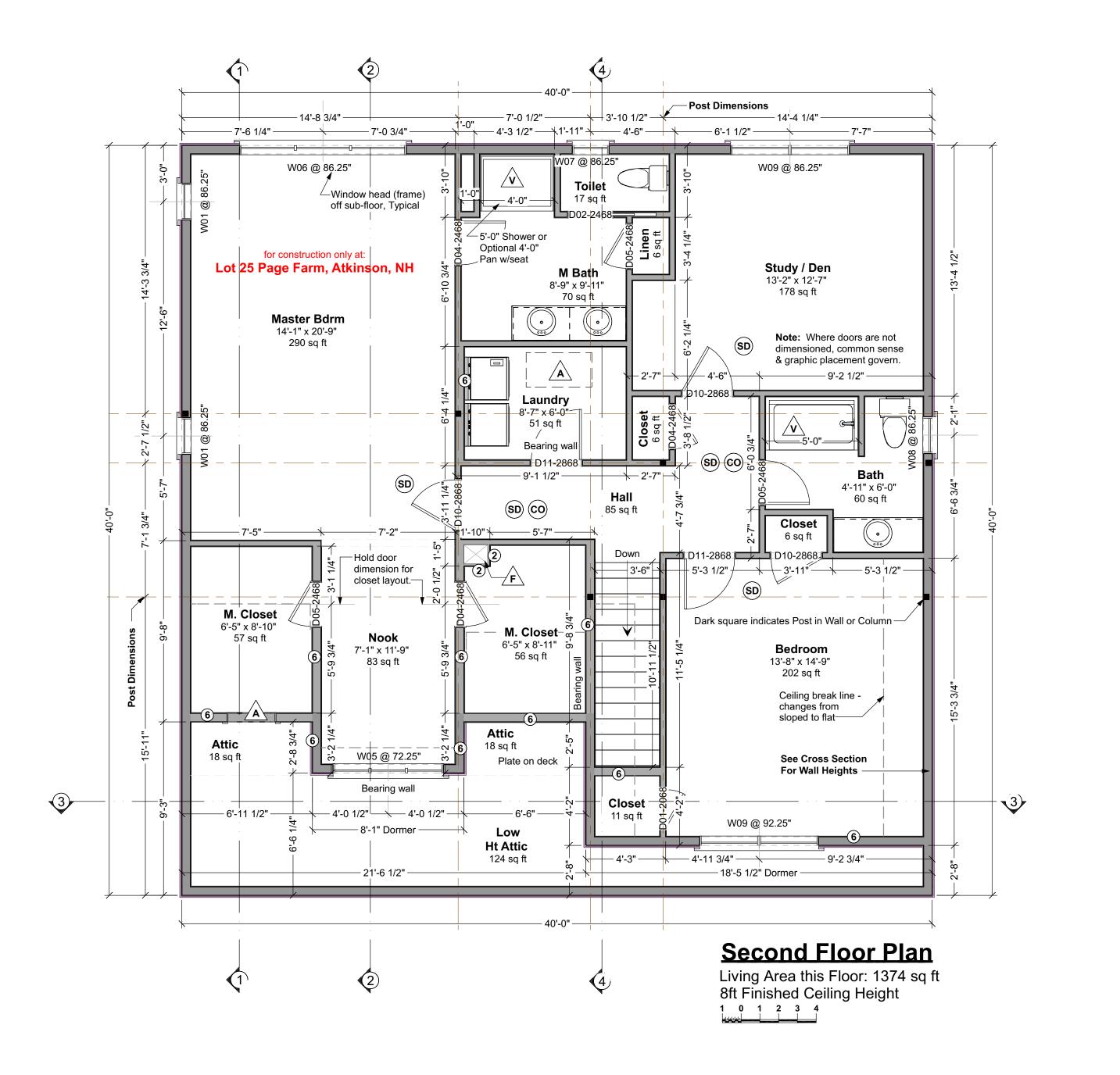
If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

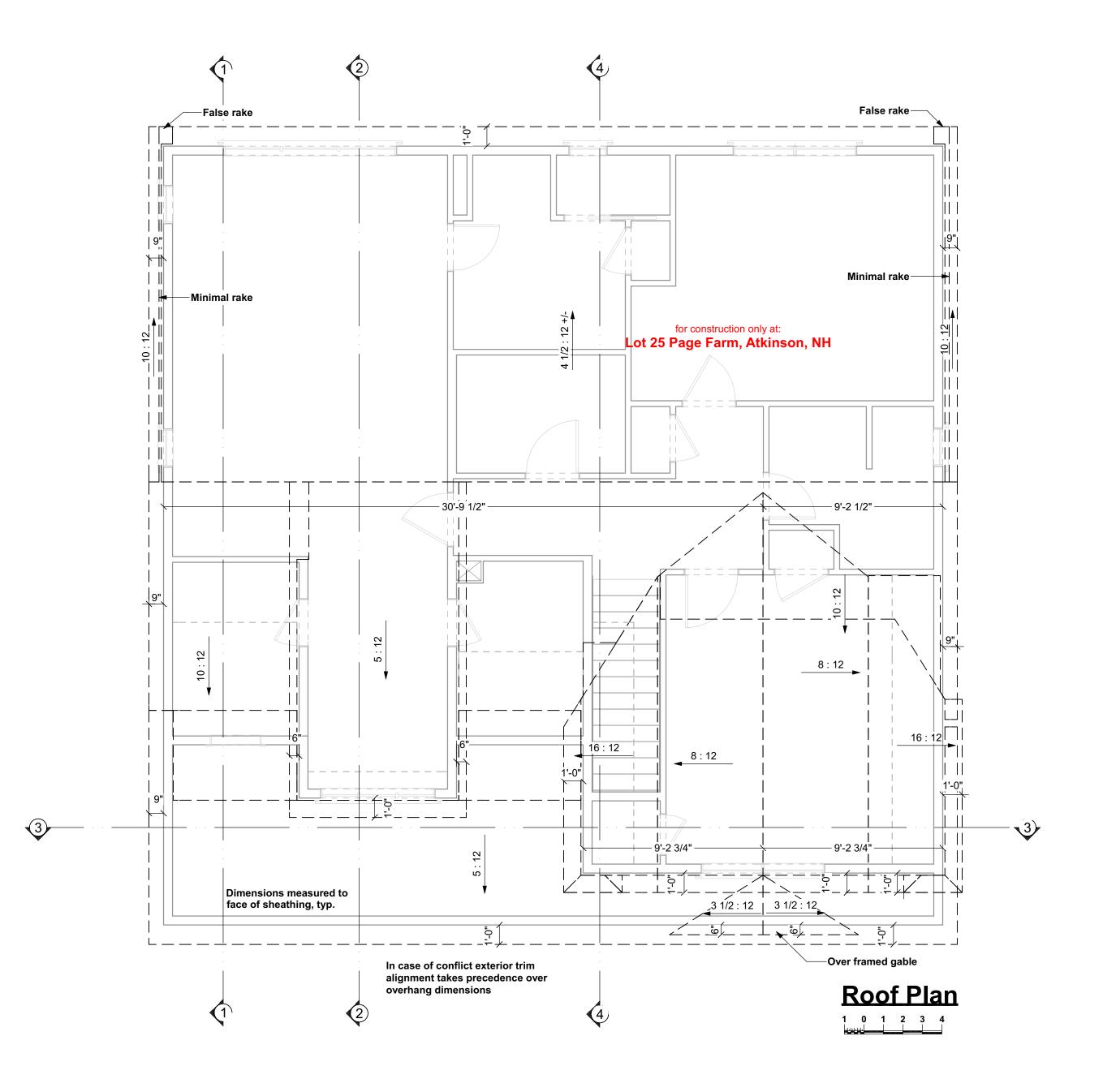


Giselle 40x40 Lot 25 Page Farm Atkinson, NH

1/4"=1'-0" unless noted otherwise / Print @ 1:1 PDF created on: 4/23/2020, drawn by ACJ







Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans

AFHP Design # 918.124.v3 GL © 2008-2020 Art Form Architecture 603.431.9559 Giselle 40x40 Lot 25 Page Farm

Atkinson, NH 1/4"=1'-0" unless noted otherwise / Print @ 1:1 PDF created on: 4/23/2020, drawn by ACJ

## **Foundations**

- 1. No footing shall be poured on loose or unsuitable soils, in water or on frozen ground.
- 2. All exterior footings to conform to all applicable code requirements for frost protection.
- 3. All concrete shall have a minimum compressive strength of at least 3000 PSI at 28 days.
- 4. Foundation anchorage to comply with IRC 2015 Section R403.1.6, it shall consist of minimum size 1/2" diameter anchor bolts with 3/16" x 2" x 2" washers at a maximum of 72" oc for two stories or 48" oc for more than two stories, max of 12" from each corner, min of 2 bolts per wall. Anchor bolt shall extend 7" into concrete or grouted cells of concrete masonry units. Be aware that a garage under may be counted by your code officer as a story. Additional anchorage may be required at braced walls.
- 5. Foundation reinforcing steel is to be installed in accordance with all applicable provisions of IRC 2015 Section 404.1.3.2

## **TYPICAL PERIMETER FOUNDATION WALL:**

- 8" poured concrete, 8 ft forms, min 7'-10" finished, with total of 3 rebar, as follows: • (1) #4 rebar, 4" from top
- (1) #4 rebar @ vertical midpoint. Omit this rebar at walls 4
- ft high or less.
- (1) #4 rebar, min 3" from bottom or per code
- Lap corners & splices of rebar per code.
- Secure sill to foundation with 1/2" diameter anchor bolts that extend 7" into concrete and tightened with a nut and washer @ 6' oc & max 12" from each corner & each end @ wood sill splices - if built-up sill, bolts must extend through all sill plates or straps must secure all sill plates.

#### TYPICAL PERIMETER FOOTING:

- 1. Use Footing chart(s) below to verify that depth of home matches chart. Depth is foundation dimension eave to eave. Contact Artform Home Plans if you believe the chart does not match the plan.
- 2. Select row for snow load shown on the structural plans. 3. Select a column for soil bearing pressure based on soil
- type and/or consultation with code officer.
- 4. The required footing size is at the intersection of the Snow Load and Soil PSF. Rebar is not required. Key or pin foundation wall to footing per code. FAQ - Adding rebar to footings does not reduce the required
- width. Rebar affects performance with earth movement, like an earthquake and has near zero effect on bearing capacity.

## Guide to Soil PSF

- 3,000 Sandy gravel and/or gravel (GW and GP) 2,000 Sand, silty sand, clayey sand, silty gravel and
- clayey gravel (SW, SP, SM, SC, GM and GC) 1,500 Clay, sandy clay, silty clay, clayey silt, silt and sandy silt (CL, ML, MH and CH)

8" wall - Footing Size for 28 Ft wide house						
Snow	Story and	Load Bearing Value of Soil (PSF)				
Load	type of structure	1500 PSF	2000 PSF	3000 PSF		
50 PSF	2 Story - Plus Basement	23 x 7.5	17 x 6	12 x 6		
55 PSF	2 Story - Plus Basement	23.5 x 7.75	17.25 x 6	12 x 6		
60 PSF	2 Story - Plus Basement	24 x 8	17.5 x 6	12 x 6		
65 PSF	2 Story - Plus Basement	24.5 x 8.25	17.75 x 6	12 x 6		
70 PSF	2 Story - Plus Basement	25 x 8.5	18 x 6	12 x 6		

Snow	Story and	Load Bear	ring Value of	f Soil (PSF)
Load	type of structure	1500 PSF	2000 PSF	3000 PSF
50 PSF	2 Story - Plus Basement	25 x 8.5	19 x 6	12 x 6
55 PSF	2 Story - Plus Basement	25.5 x 8.75	19.25 x 6	12.5 x 6
60 PSF	2 Story - Plus Basement	26 x 9	19.5 x 6	13 x 6
65 PSF	2 Story - Plus Basement	26.5 x 9.25	19.75 x 6	13.5 x 6
70 PSF	2 Story - Plus Basement	27 x 9.5	20 x 6	14 x 6

8" wall - Footing Size for 36 Ft wide house					
Snow	Story and	Load Bear	ing Value of	f Soil (PSF)	
Load	type of structure	1500 PSF	2000 PSF	3000 PSF	
50 PSF	2 Story - Plus Basement	27 x 9.5	21 x 7	14 x 7	
55 PSF	2 Story - Plus Basement	27.5 x 9.75	21.25 x 7	14.5 x 7	
60 PSF	2 Story - Plus Basement	28 x 10	21.5 x 7	15 x 7	
65 PSF	2 Story - Plus Basement	28.5 x 10.25	21.75 x 7	15.5 x 7	
70 PSF	2 Story - Plus Basement	29 x 10.5	22 x 7	16 x 7	

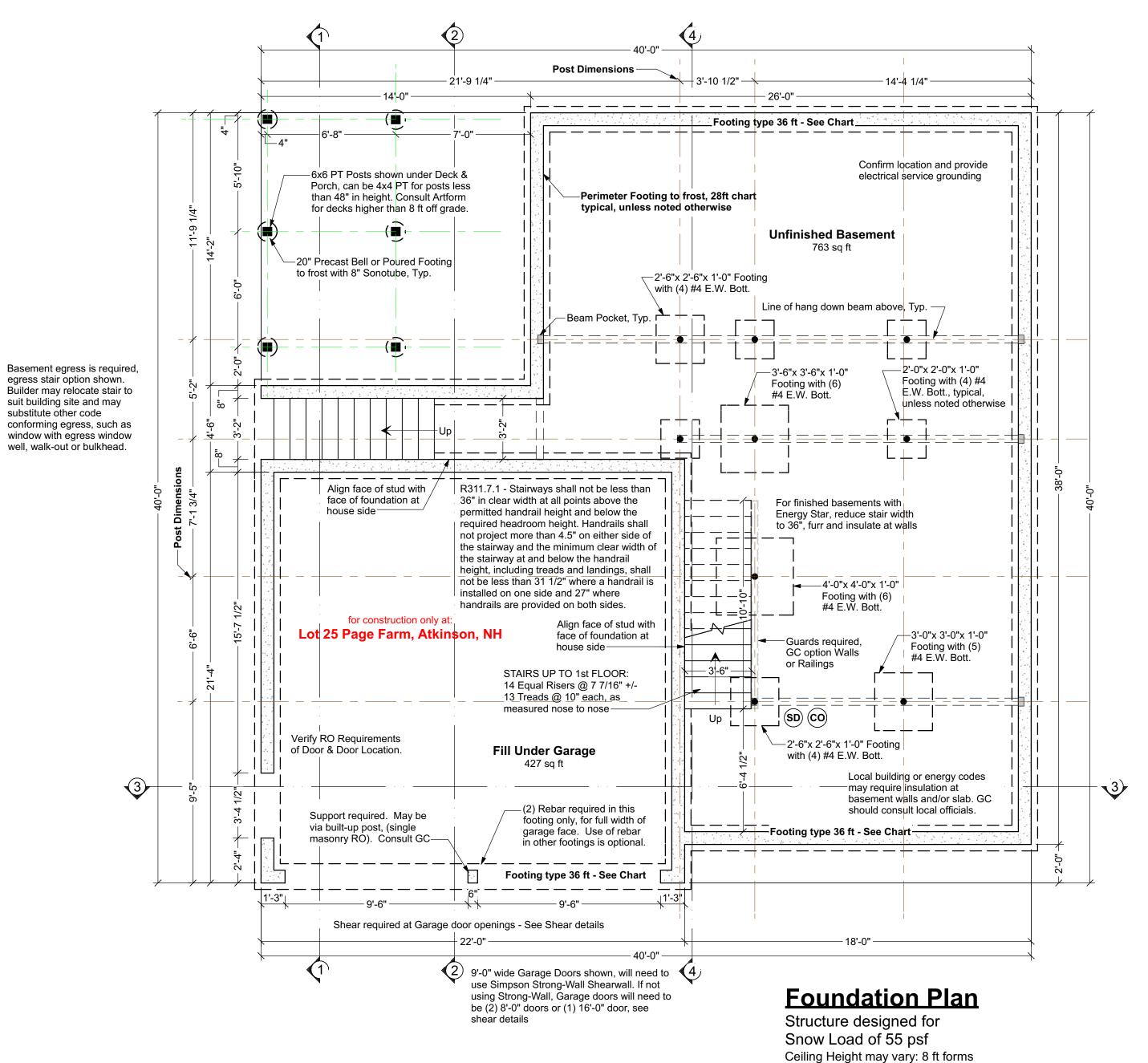
#### **Foundation Contractor Check List** Confirm or review the following prior to forming & pouring foundation

## Initials Date Checked

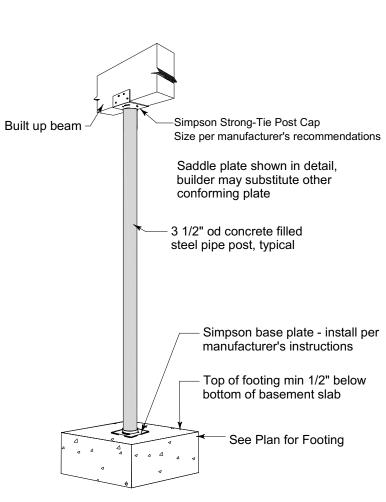
	 Confirmed soil bearing
	 Checked w/GC for added foundation steps to suit grade
	 Confirm sill plate thickness (foundation bolts to extend through all)
	 Confirmed garage door size
	 Checked w/GC for added basement windows
	 Checked w/GC for added basement man doors
	 Confirmed sizes & locations mech/plbg penetrations
	 Confirmed sizes and locations of beams w/GC, added or adjusted beam pockets
	 Confirmed location and installed electrical service grounding - See GC for location

## MINIMUM VERTICAL REINFORCEMENT FOR 8-INCH (203MM) NOMINAL FLAT CONCRETE BASEMENT WALL

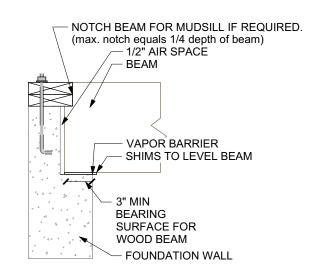
		MINIMUM VERTICAL REINFORCEMENT - BAR SIZE AND SPACING (Inches)					
MAXIMUM UNSUPPORTED WALL HEIGHT (feet)	MIAXIMUM UNBALANCED BACKFILL HEIGHT (feet)	Soil classes and design lateral soil (psf per foot of depth)					
		GW, GP, SW, SP 30	GM, GC, SM, SM-SC and ML 45	SC, ML-CL and inorganic CL 60			
	4	NR	NR	NR			
	5	NR	NR	NR			
8	6	NR	NR	6 @ 37			
	7	NR	6 @ 36	6 @ 35			
	8	6 @ 41	6 @ 35	6 @ 26			



1 0 1 2 3 4







## **Beam Pocket**

Scale 1/2"=1'-0"

Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide

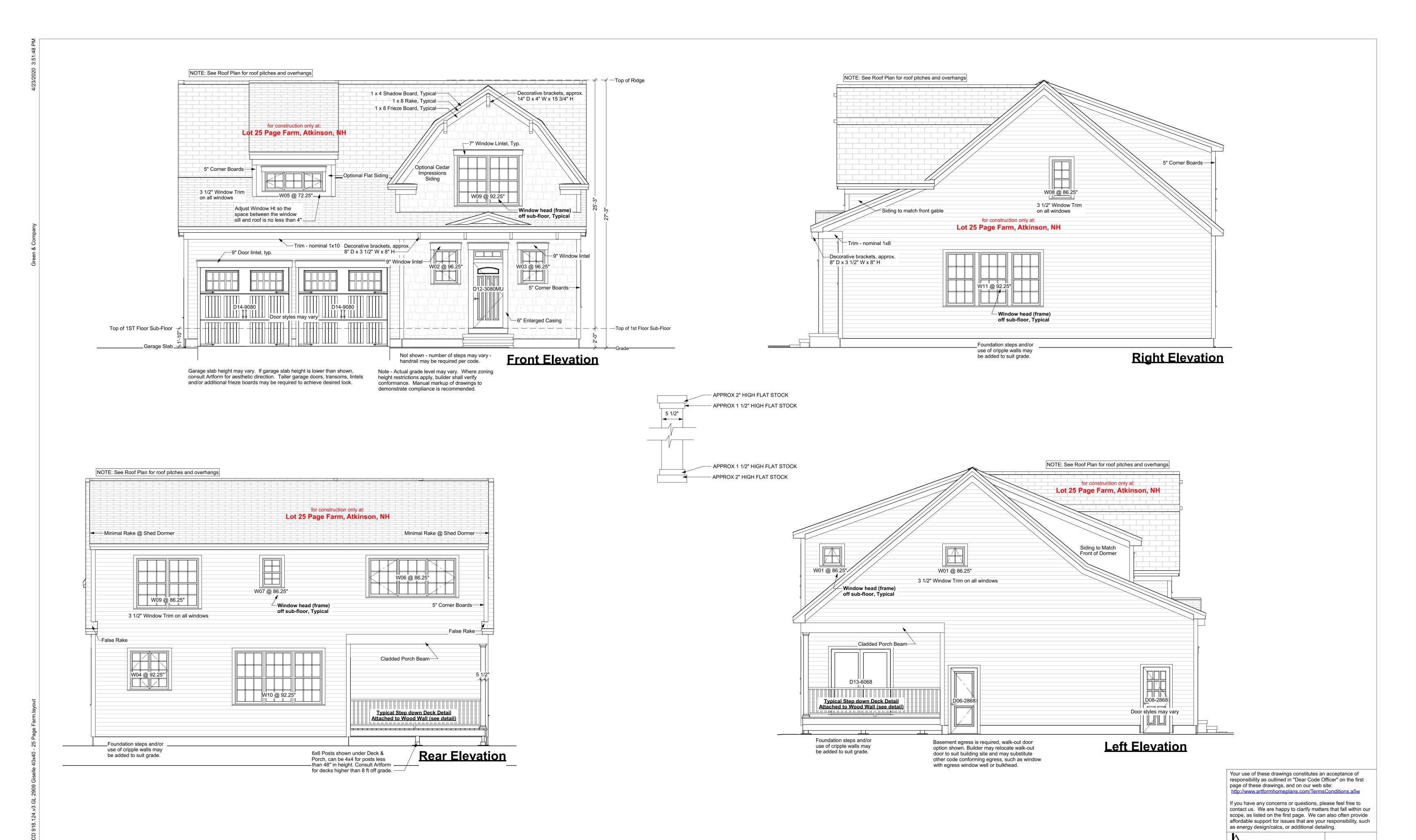
affordable support for issues that are your responsibility, such

Artform Home Plans

as energy design/calcs, or additional detailing.

AFHP Design # 918.124.v3 GL Giselle 40x40 Lot 25 Page Farm

Atkinson, NH 1/4"=1'-0" unless noted otherwise / Print @ 1:1 PDF created on: 4/23/2020, drawn by ACJ



Artform Home Plans

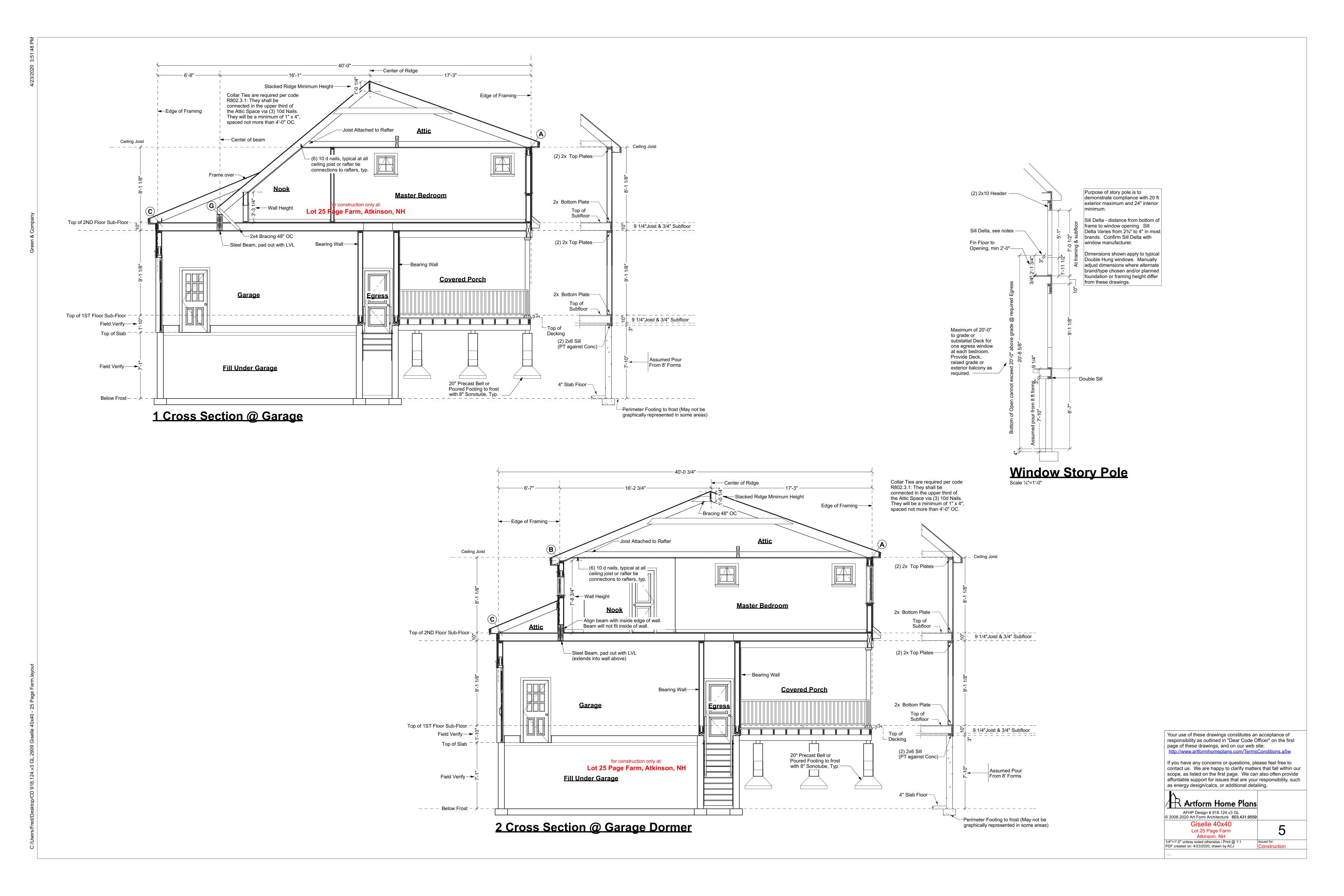
AFHP Design # 918.124.v3 GL
© 2008-2020 Art Form Architecture 603.431.9559

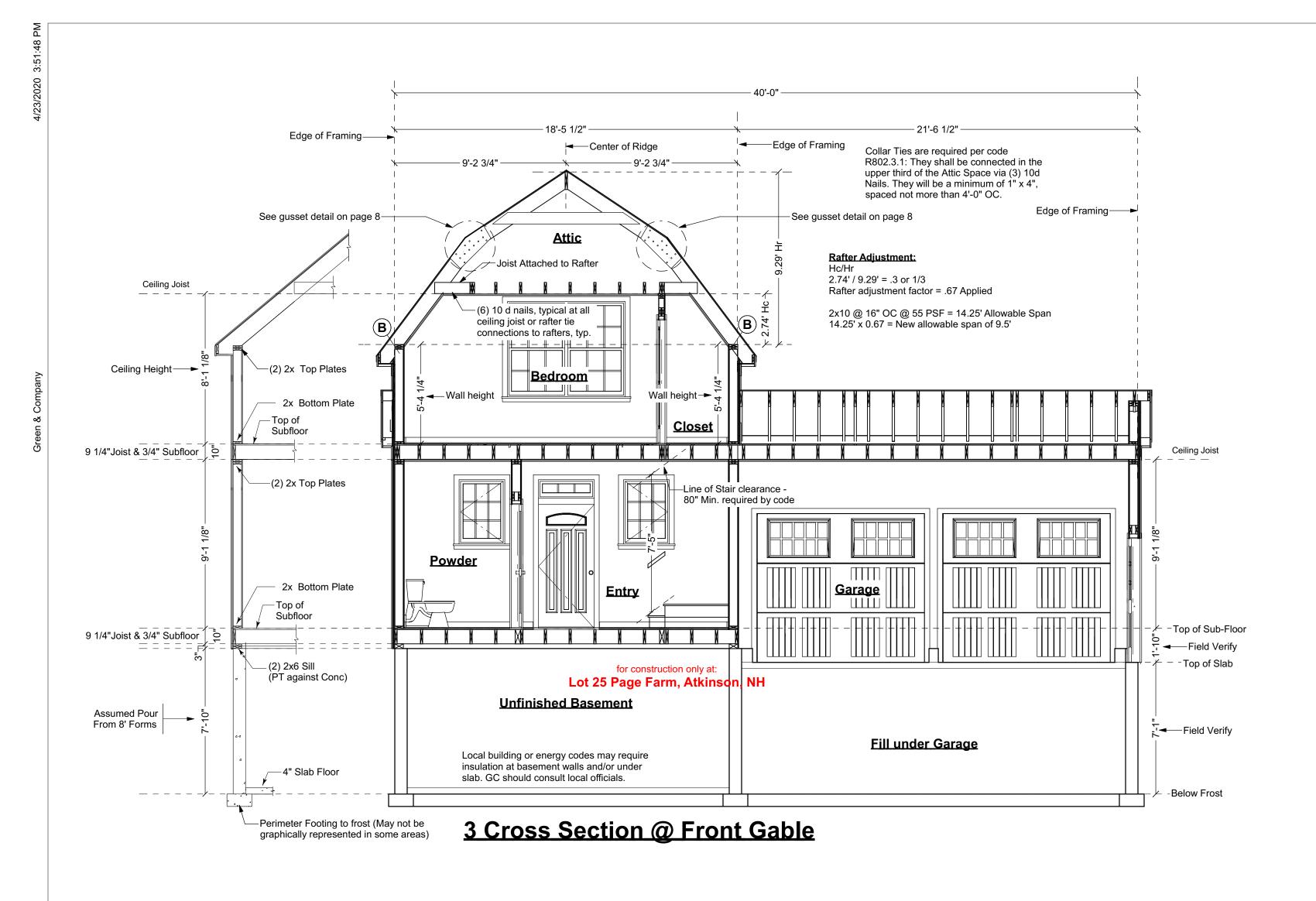
Giselle 40x40

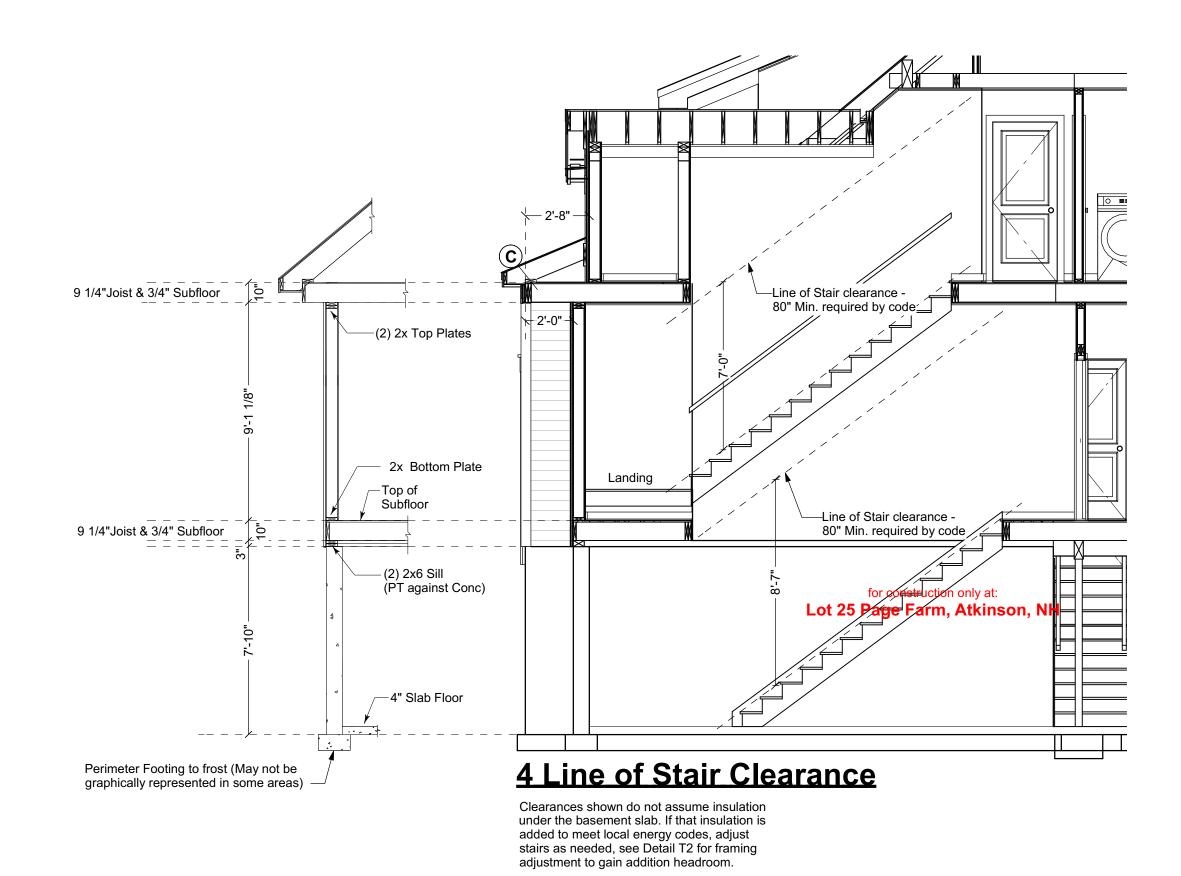
Lot 25 Page Farm

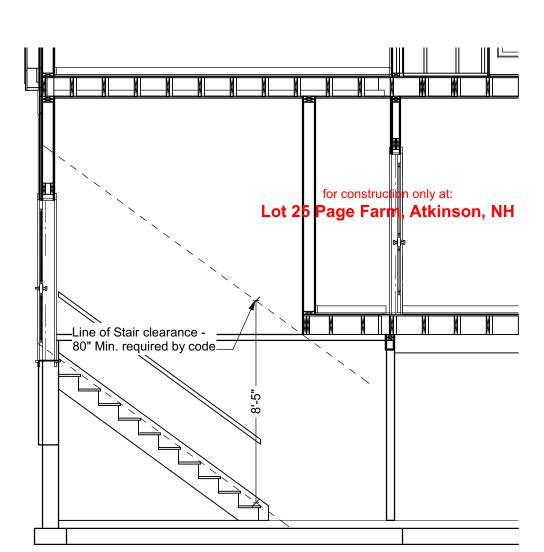
Atkinson, NH

1/4"=1'-0" unless noted otherwise / Print @ 1:1 PDF created on: 4/23/2020, drawn by ACJ

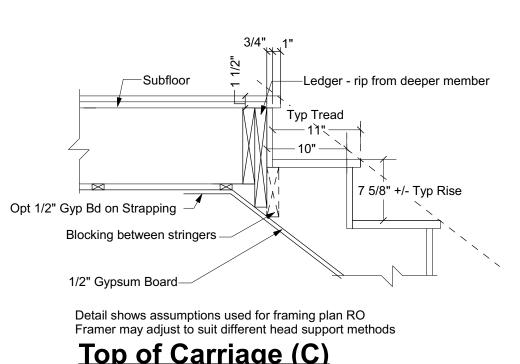




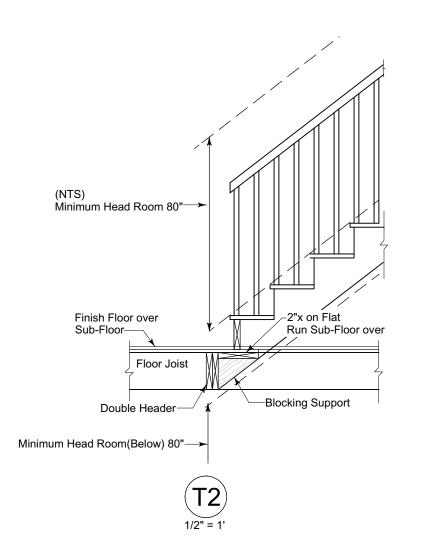








Top of Carriage (C)
Scale: 1" = 1'-0"



Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

If you have any concerns or questions, please feel free to

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans

AFHP Design # 918.124.v3 GL
© 2008-2020 Art Form Architecture 603.431.9559

Art Form Architecture 603.431.9559

Giselle 40x40

Lot 25 Page Farm

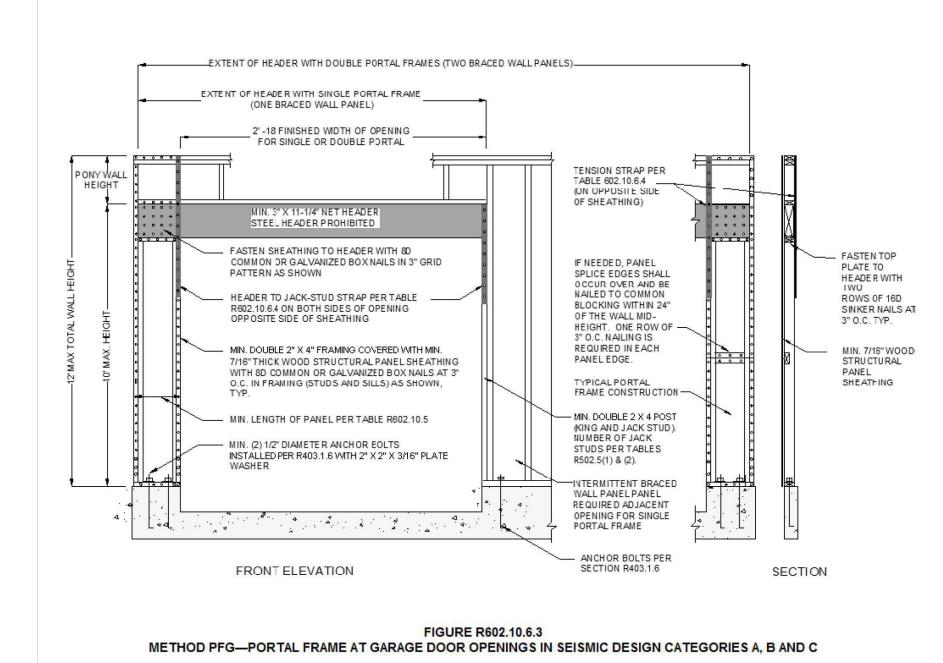
Atkinson, NH

Lot 25 Page Farm
Atkinson, NH

1/4"=1'-0" unless noted otherwise / Print @ 1:1
PDF created on: 4/23/2020, drawn by ACJ

Construction

Method PFG: Portal frame at garage door openings shall be constructed in accordance with Figure R602.10.6.3. Note this method is allowed on either side of garage door openings.



## TABLE R602.10.6.4

MINIMUM WALL STUD FRAMING NOMINAL SIZE AND GRADE	MAXIMUM PONY WALL HEIGHT (feet)	MAXIMUM TOTAL WALL HEIGHT (feet)	MAXIMUM OPENING WIDTH (feet)	TENSION STRAP CAPACITY REQUIRED  (pounds) <sup>a, b</sup> Ultimate Design Wind Speed V <sub>ult</sub> (mph)					
				Exposure B			Exposure C		
					0	10	18	1,000	1,000
		10	9	1,000	1,000	1,000	1,000	1,000	1,750
	1		16	1,000	1,025	2,050	2,075	2,500	3,950
			18	1,000	1,275	2,375	2,400	2,850	DR
			9	1,000	1,000	1,475	1,500	1,875	3,125
2 × 4 No. 2 Grade	2	10	16	1,775	2,175	3,525	3,550	4,125	nph)  130  1,050 1,750 3,950 DR 3,125 DR
			18	2,075	2,500	3,950	3,975	DR	DR
			9	1,150	1,500	2,650	2,675	3,175	DR
	2	12	16	2,875	3,375	DR	DR	DR	DR
			18	3,425	3,975	DR	DR	DR	DR
		42	9	2,275	2,750	DR	DR	DR	DR
	4	12	12	3,225	3,775	DR	DR	DR	DR
2 × 6 Stud Grade			9	1,000	1,000	1,700	1,700	2,025	3,050
	2	12	16	1,825	2,150	3,225	3,225	3,675	DR
			18	2,200	2,550	3,725	3,750	DR	DR
		E	9	1,450	1,750	2,700	2,725	3,125	DR
	4 12	12	16	2,050	2,400	DR	DR	DR	DR
			18	3,350	3,800	DR	DR	DR	DR

a. DR = Design Required.

b. Straps shall be installed in accordance with manufacturer's recommendations.

R602.10.4 Construction methods for braced wall panels

Intermittent and continuously sheathed braced wall panels shall be constructed in accordance with this section and the methods listed in Table R602.10.4.

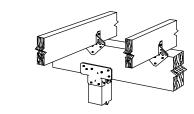
TABLE 91.5.602.10.4

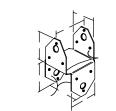
		BRAG	ING METHODS				
METHODS, MATERIAL		мімімим	FIGURE	CONNECTION CRITERIA <sup>a</sup>			
		THICKNESS	FIGURE	Fasteners	Spacing		
Intermittent Bracing Method	PFG Portal frame at garage	15/32"	The site	See Section R602.10.6.3	See Section R602.10.6.3		
Continuous	CS-WSP Continuously sheathed			Exterior sheathing per Table R602.3(3)	6" edges 12' field		
Sheathing Methods	wood structural panel	15/32"		Interior sheathing per Table 91.5.602.3(1) or 91.5.602.3(2)	Varies by fastener		

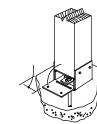
## **Shear Wall Details**

Notes:

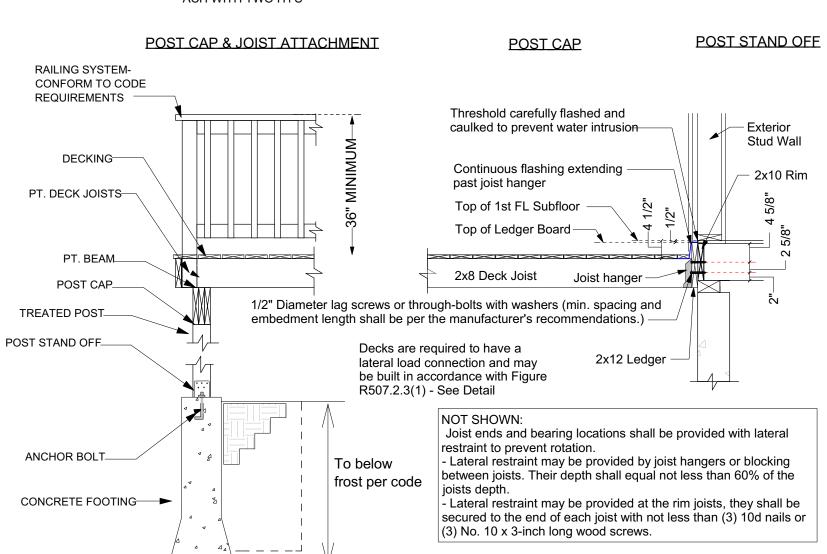
- See plans for locations where shear panels are required.
- Details shown here are for one method and for typical conditions. An alternate shear method allowed per code or approved by the code officer may be substituted.
- Note that if sheathing is to be used as wall bracing all vertical joints in required braced wall panels must be blocked. [2015 IRC section R602.10.10]





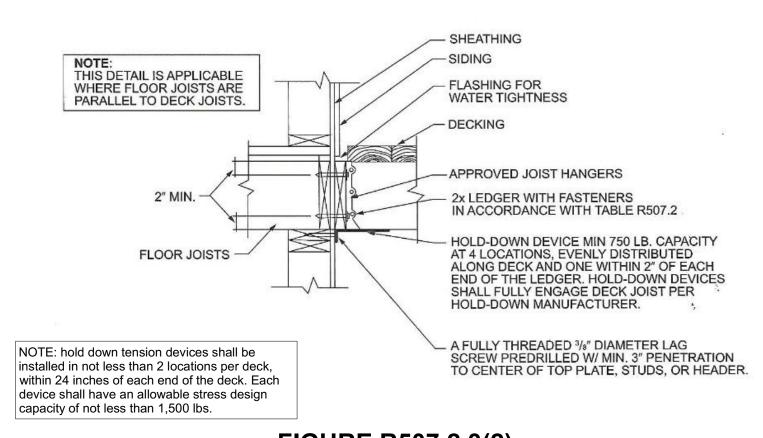


SIMPSON STRONG-TIE ACH WITH TWO H1'S



## **Deck Ledger Attachment Detail for Step Down**

Scale: 1/2" = 1'-0"



## FIGURE R507.2.3(2) DECK ATTACHMENT FOR LATERAL LOADS

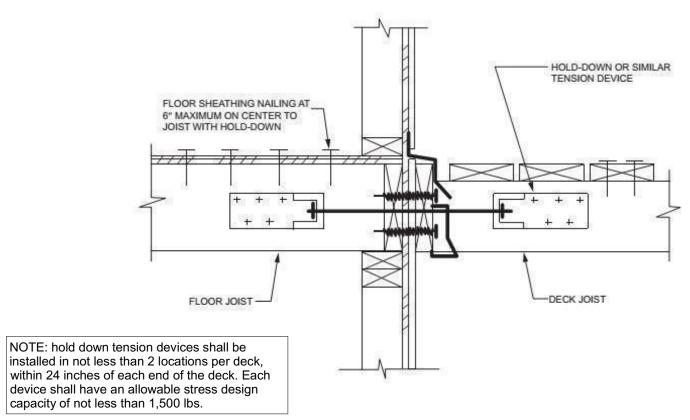
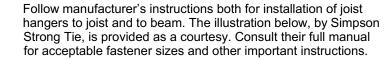
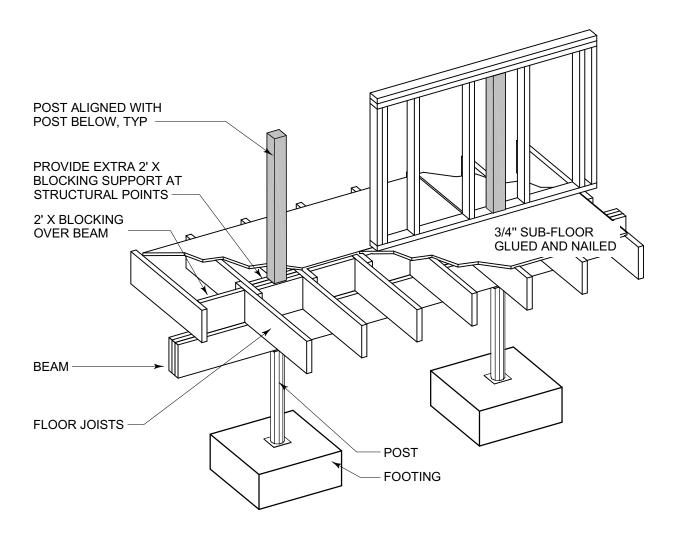


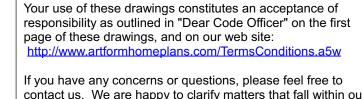
FIGURE R507.2.3(1) DECK ATTACHMENT FOR LATERAL LOADS



SHORT NAILS Do not use short (11/2") nails for double shear nailing.







contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans AFHP Design # 918.124.v3 GL © 2008-2020 Art Form Architecture 603.431.9559

Giselle 40x40 Lot 25 Page Farm Atkinson, NH

1/4"=1'-0" unless noted otherwise / Print @ 1:1 PDF created on: 4/23/2020, drawn by ACJ

#### Wood Framing Notes:

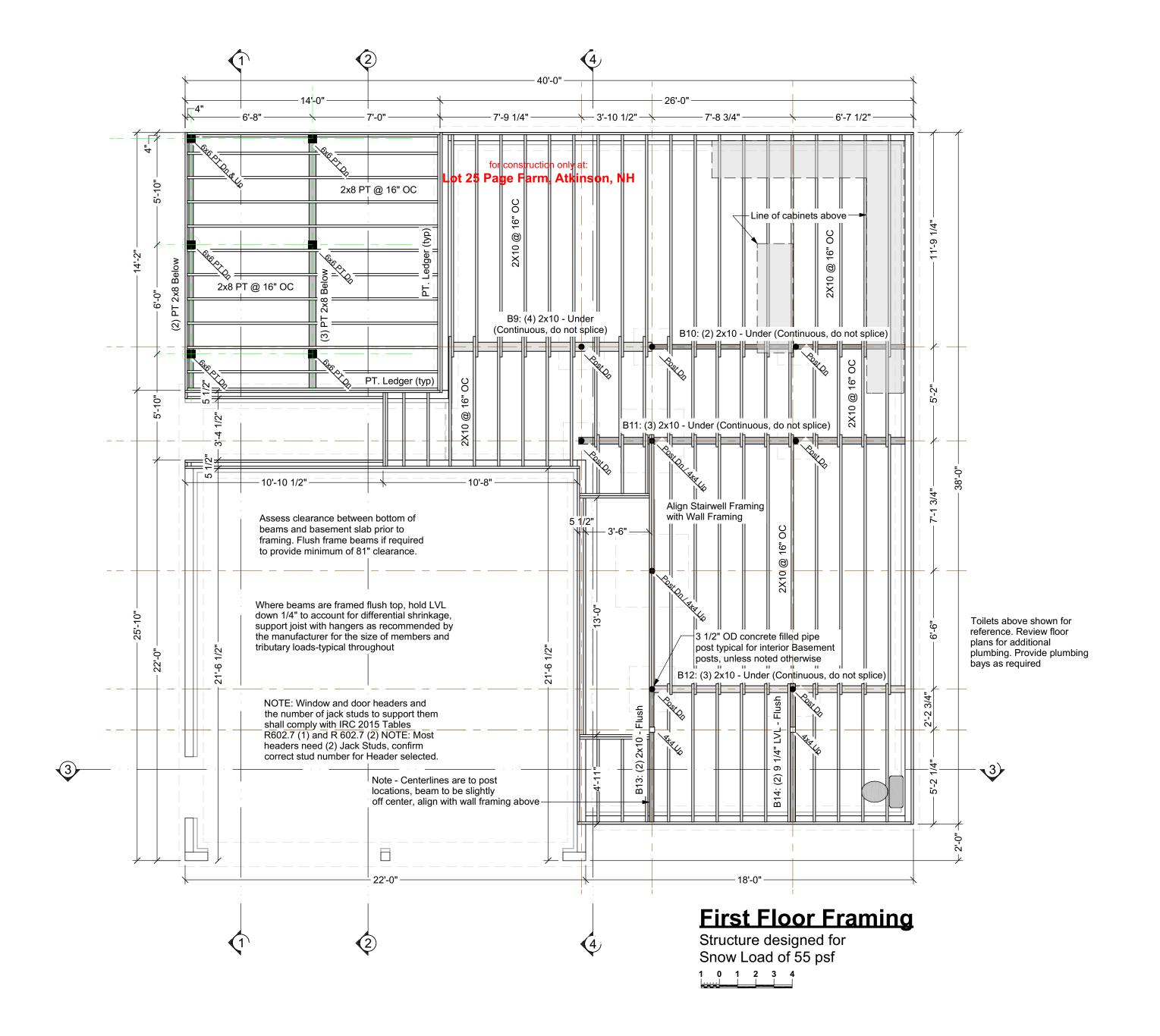
- 1. All structural wood shall be identified by a grade mark or certificate of inspection by a recognized inspection agency.
- 2. Structural wood shall be Spruce-Pine-Fir (SPF) #2 or better.
- 3. When used, LVL or PSL indicate Laminated Veneer Lumber or Parallel Strand Lumber, respectively. Products used shall equal or exceed the strength properties for the size indicated as manufactured by TrusJoist.
- 4. When used, TJI indicates wood I-joists as manufactured by TrusJoist. Products of alternate manufacturers may be substituted provided they meet or exceed the strength properties for the member specified.
- 5. All floor joists shall have bridging installed at mid-span or at 8'-0" oc maximum.
- 6. Floor systems are designed for performance with subfloor glued and screwed.
- 7. Per code R502.6.1 Floor joists splicing over bearing walls allowed, shall lap a min 3" over walls and shall be nailed together with a minimum of (3) 10d face nails. Also permitted is a wood or metal splice with strength equal to or greater than that provided by the nailed lap.
- 8. Per code R802.3.2 Ceiling joists splicing over bearing walls is allowed, shall lap a min 3" or butted over bearing partitions or beams and toenailed to the bearing member. Where ceiling joists are used to provide resistance to rafter thrust, lapped ioists shall be nailed together in accordance with Table R802.5.1(9), and butted joists shall be tied together in a manner to resist such thrust. Joists that do not resist thrust shall be permitted to be nailed together in accordance with Table R602.3(1).
- 9. Provide blocking in the floor at structural points. Blocking may be 2x's or solid, but must have grain of wood vertical.
- 10. All wood permanently exposed to the weather, in contact with concrete or in contact with the ground shall meet code requirements for wood in these environments.
- 11. Deck ledgers shall be securely attached to the structure and/ or independently supported. Deck lateral load connection required see IRC 2015 Section R507.2.4
- 12. Wherever beams are noted as Flush framed, install joist hangers at all joists, sized appropriately for the members being connected.
- 13. Support the lower end of roof beams via minimum 2" horizontal bearing on a post, ledger or via an appropriately sized and configured hanger.
- 14. The ends of each joist, beam or girder shall have not less than 1.5" of bearing on wood or metal and not less then 3" on masonry or concrete except where supported on a 1" x 4" ribbon strip and nailed to the adjacent stud or by the use of approved joist hangers.
- 15. Post caps where required are typically calculated by supplier using weights based on these framing plans. Contact Art Form if additional information is needed.
- 16. Hangers, post caps, post bases, ties and other connectors shall be as manufactured by Simpson Strong Tie, as designed to connect the members shown, and shall be installed per manufacturer's instructions.

## Prefabricated Wood Trusses

- 1. Where trusses are indicated on the drawings, truss design shall be provided by truss manufacturer.
- 2. Trusses shall be designed in accordance with applicable provisions of the latest edition of the National Design Specifications for Wood Construction (NDS), American Forst and Paper Association (APA), and Design Specifications for Metal Plate Connected Wood Trusses (ANSI/TPI 1), Truss Plate Institute (TPI) and code of jurisdiction.
- 3. Manufacturer shall furnish design drawings bearing seal and registration number of a structural engineer licensed in the state where project will be built.

## Notes: Beam & Joist Sizing

- 1. Our beams sizes often differ from prescriptive code, because our designs are rarely the old style box colonial or cape with a center bearing wall upon which prescriptive code is based. We size our beams via calculations for this specific design, which may carry those loads separately via second floor beams and/or roof transfer beams. Beam or joist sizes, types and/or spacing may not be reduced or alternates substituted without our express permission.
- 2. Walls intended to be bearing are labeled as such. This information is provided to aid code officer in understanding the framing. It does not indicate permission to add loads to those walls, or any other walls.
- 3. Framing is sized for normal residential conditions. Contact Artform if additional loads are anticipated, including but not limited to waterbeds, large fish tanks, indoor hot tubs, multiple framed soffits or coffers.
- 4. In states where the designer is a licensed architect, (NH, MA, ME, CT & NY as of the date of issue) we are happy to stamp our drawings at no additional charge. In other states we are happy to provide calculations. Administration fees apply with provision of calculations. Code officer is encouraged to call with any questions about our methodology.



## <u>Built-up Beams:</u>

Unless otherwise noted, connect multiple 1 3/4" ply beams as follows: 3 ply & up, fasteners are per side

## (2) 9 1/4" LVL:

 Flush framed o (2) rows 3 3/8" TrussLock @ 24" oc, or o (2) rows SDS 1/4x3 1/2 @ 24" oc •Framed under (2) rows 10d nails @ 24" oc

#### (2) 11 1/4" LVL: Flush framed

o (2) rows 3 3/8" TrussLock @ 19.2" oc, or o (2) rows SDS 1/4x3 1/2 @ 19.2" oc • Framed under (2) rows 10d nails @ 24" oc

## (2) 16" LVL or greater:

 Flush framed o (3) rows 3 3/8" TrussLock @ 19.2" oc, or o (3) rows SDS 1/4x3 1/2 @ 19.2" oc

• Framed under (2) rows 10d nails @ 24" oc (3) 9 1/4" LVL:

## Flush framed

 (2) rows 3 3/8" TrussLock @ 19.2" oc, or o (2) rows SDS 1/4x3 1/2 @ 19.2" oc • Framed under (2) rows 10d nails @ 24" oc

#### (3) 11 1/4" LVL: Flush framed

o (2) rows 3 3/8" TrussLock @ 16" oc, or o (2) rows SDS 1/4x3 1/2 @ 16" oc • Framed under (2) rows 10d nails @ 24" oc

(3) <u>14" LVL:</u> Flush framed

o (3) rows SDS 1/4x3 1/2 @ 16" oc • Framed under (2) rows 10d nails @ 24" oc

o (3) rows 3 3/8" TrussLock @ 16" oc, or

#### (3) 16" LVL or greater: Flush framed

o (3) rows 3 3/8" TrussLock @ 16" oc, or o (3) rows SDS 1/4x3 1/2 @ 16" oc • Framed under (2) rows 10d nails @ 24" oc

#### (4) 9 1/4" LVL: Flush framed

o (2) rows 5" TrussLock @ 16" oc, or o (2) rows SDS 1/4x6 @ 16" oc • Framed under (2) rows 10d nails @ 24" oc

## (4) 11 1/4" LVL: Flush framed

 (2) rows 5" TrussLock @ 16" oc, or o (2) rows SDS 1/4x6 @ 16" oc • Framed under (2) rows 10d nails @ 12" oc

## (4) 16" LVL or greater:

 Flush framed o (3) rows 5" TrussLock @ 16" oc, or o (3) rows SDS 1/4x6 @ 16" oc • Framed under (2) rows 10d nails @ 12" oc

## Beam Substitutions:

(2) 9 1/4" LVL may replace a double or triple 2x10 beam. No other substitutions are allowed. Conventional lumber beams MAY NOT be substituted for LVL beams by any "rule of thumb". Substitutions must be calculated by either Artform or a structural engineer. If calculated by a structural engineer, provide stamped plans and/or calculations.

We specify LVL beams as built up members to allow framers to use existing stock. You may substitute single piece LVLs of equivalent overall size for built-up members, unless otherwise

#### Built-up members MAY NOT replace single piece LVL's where specified.

Where a beam of 1 3/4" or less in width is specified as framed under, either brace at 48" or double member for lateral stability.

Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: http://www.artformhomeplans.com/TermsConditions.a5w

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

# Artform Home Plans

AFHP Design # 918.124.v3 GL

Giselle 40x40 Lot 25 Page Farm Atkinson, NH 1/4"=1'-0" unless noted otherwise / Print @ 1:1

PDF created on: 4/23/2020, drawn by ACJ



Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site: <a href="http://www.artformhomeplans.com/TermsConditions.a5w">http://www.artformhomeplans.com/TermsConditions.a5w</a>

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans

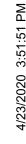
AFHP Design # 918.124.v3 GL
© 2008-2020 Art Form Architecture 603.431.9559

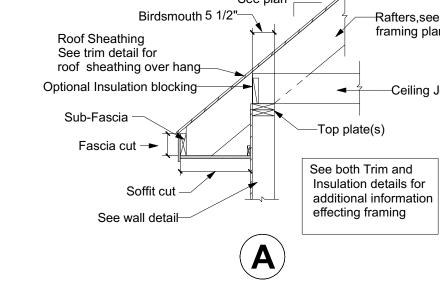
Giselle 40x40
Lot 25 Page Farm

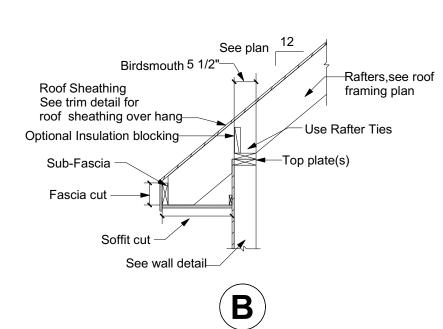
Atkinson, NH

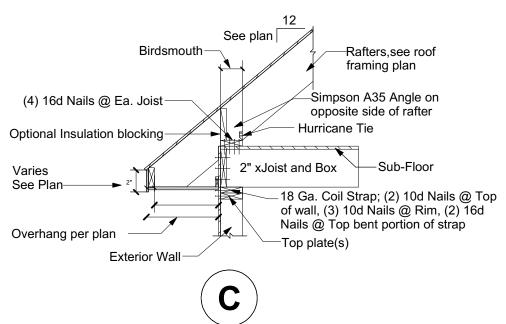
1/4"=1'-0" unless noted otherwise / Print @ 1:1
PDF created on: 4/23/2020, drawn by ACJ

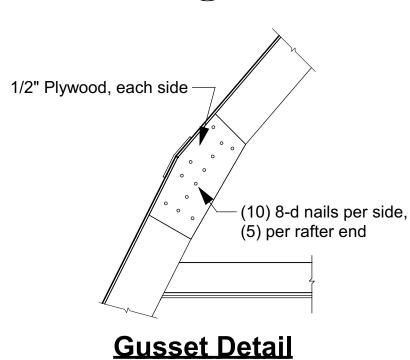
Construction

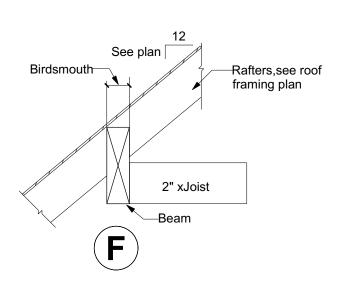


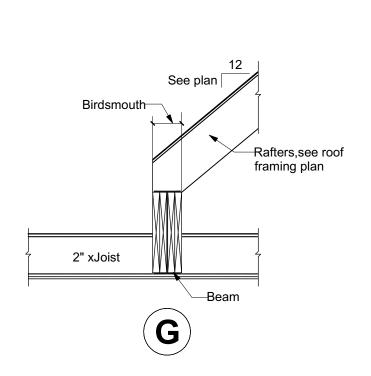


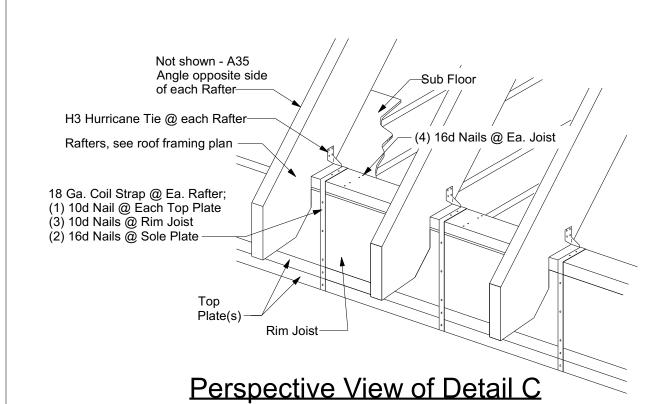


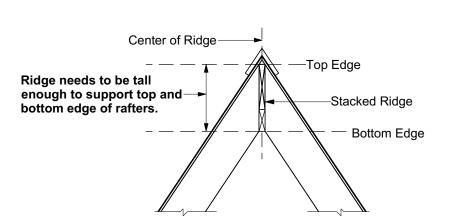




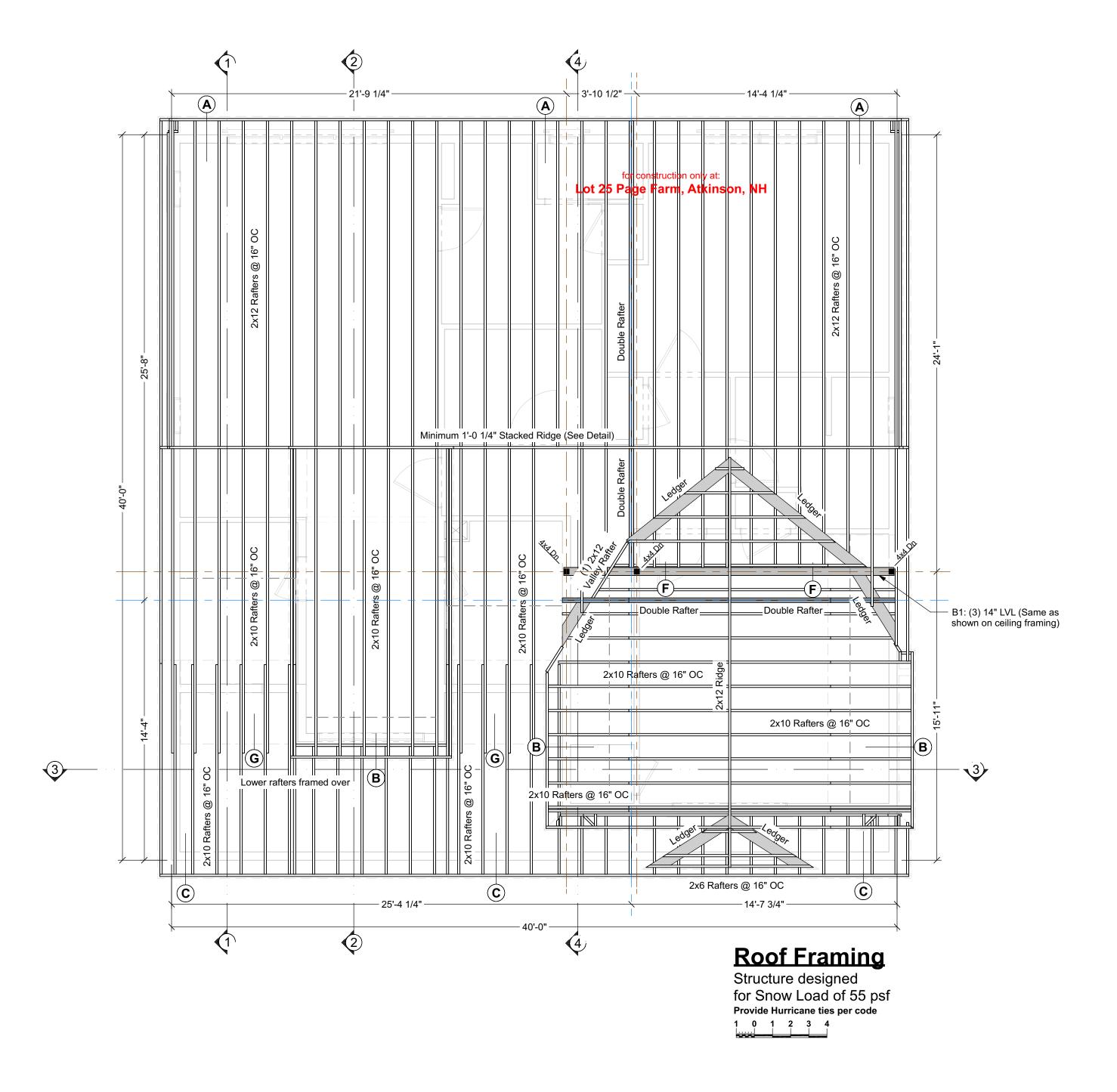


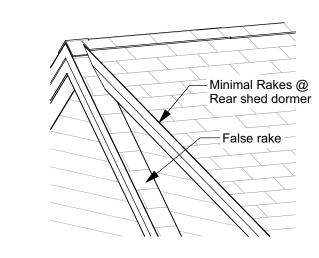






Stacked Ridge Detail





Alternate:
12" False Rake and a 6" Shed Dormer Rake

Your use of these drawings constitutes an acceptance of responsibility as outlined in "Dear Code Officer" on the first page of these drawings, and on our web site:

http://www.artformhomeplans.com/TermsConditions.a5w

If you have any concerns or questions, please feel free to contact us. We are happy to clarify matters that fall within our scope, as listed on the first page. We can also often provide affordable support for issues that are your responsibility, such as energy design/calcs, or additional detailing.

Artform Home Plans

AFHP Design # 918.124.v3 GL
© 2008-2020 Art Form Architecture 603.431.9559

Giselle 40x40

Lot 25 Page Farm

Lot 25 Page Farm
Atkinson, NH

1/4"=1'-0" unless noted otherwise / Print @ 1:1
PDF created on: 4/23/2020, drawn by ACJ

Issued for:
Construction

25 D247

## DRAINAGE ANALYSIS

## F O R

# The Peverly Hill Road Condominiums

86 Peverly Hill Road Portsmouth, NH Rockingham County

Tax Map 242, Lot 4

Month April 19, 2021

Prepared By:





	7.p 20) 2022
Contents	
1.0 - SUMMARY & PROJECT DESCRIPTION	1
2.0 - CALCULATION METHODS	1
3.0 – EXISTING SITE CONDITIONS	2
4.0 - PRE-DEVELOPMENT CONDITIONS	2
5.0 - POST-DEVELOPMENT CONDITIONS	2
6.0 - REGULATORY COMPLIANCE	3
6.1 – ALTERATION OF TERRAIN (AOT) CRITERIA	3
7.0 - BEST MANAGEMENT PRACTICES	4
7.1 – TEMPORARY PRACTICES	4
7.2 – PERMANENT PRACTICES	5
7.3 – BEST MANAGEMENT PRACTICE EFFICIENCIES	5
7.3.1 – LID PRACTICES	6
9.0 – CONCLUSION	6
APPENDIX A – EXTREME PRECIPITATION RATES	8
APPENDIX B – PRE-DEVELOPMENT CALCULATIONS	10
APPENDIX C – PRE-DEVELOPMENT CALCULATIONS (10-YEAR STORM EVENT)	2
APPENDIX D – POST-DEVELOPMENT CALCULATIONS	2
APPENDIX E – POST-DEVELOPMENT CALCULATIONS (10-YEAR STORM EVENT)	2

## **Table of Figures**

Table 1 – 24-Hour Rainfall Rates......



#### 1.0 - SUMMARY & PROJECT DESCRIPTION

The project includes the development of a 56-Unit PUD on 83 Peverly Hill Road, Portsmouth, NH. The existing Tax Map 242 Lot 6 is approximately 4,604,509 sf / 105.7 Acres and currently contains one residential building. The site is within the Single Residence A (SRA) & Single Residence B (SRB) Zoning district is adjacent to a Calvary Cemetery to the North and a wetland to the south. The majority of the buildings on Peverly Hill Road are residential and the surrounding area consists of residential neighborhoods.

The proposed project is to construct 56 single-family unit condominium. Associated improvements include and are not limited to access, grading, utilities, stormwater management system, lighting, and landscaping. The project proposes 56 homes and a public road for access. The 56 buildings and roadway total 252,834 sf / 5.8 acres of impervious area with approximately 775,754 sf / 17.8 acres of disturbance to facilitate the development, this is approximately 5% effective impervious cover. Aside from the 17.8 acres of disturbance, the approximately 87.9 remaining acreage is to be held in a conservation easement. A path is to be constructed connecting the neighborhood with the existing bike path that is under development along the Boston and Main Railroad Tracks.

This analysis has been completed to verify the project will not pose adverse stormwater effects on-site and off-site. Compared to the pre-development conditions, the post-development stormwater management system has been designed to reduce peak runoff rates, reduces runoff volume, reduces the risk of erosion and sedimentation, and improves stormwater runoff quality. In addition, Best Management Practices employed to formulate a plan that assures stormwater quality both during and after construction. The following summarizes the findings from the study.

#### 2.0 - CALCULATION METHODS

The design storms analyzed in this study are the 2-year, 10-year, and 50-year 24-hour storm events. The software program, HydroCAD version  $10.00^1$  was utilized to calculate the peak runoff rates from these storm events. The program estimates the peak rates using the TR-20 method. A Type III storm pattern was used in the model. Rainfall frequencies for the analyzed region were also incorporated into the model. Rainfall frequencies from the higher of the Extreme Precipitation Rates from Cornell University's Northeast Regional Climate Center (see Appendix A) were used to determine the storm-event intensities, see Table 1. The site lies withing the Great Bay Region, and the rainfalls were increased to take this into account. Design standards were taken from the New Hampshire Stormwater Manual, December 2008<sup>2</sup>.

	24-HOUR RAINFALL RATES					
Storm-Event (year)	Cornell University Rainfall (in)	Factor of Increase For the Great Bay Region	Design Rainfall (in)			
2	3.22	115%	3.70			
10	4.89	115%	5.62			
50	7.43	115%	8.54			

<sup>&</sup>lt;sup>1</sup> HydroCAD version 10.00, HydroCAD Software Solutions LLC, Chocorua, NH, 2013.

<sup>&</sup>lt;sup>2</sup> New Hampshire Stormwater Manual: Volume One - Stormwater and Antidegradation, December 2008; Volume Two - Post-Construction Best Management Practices Selection and Design, December 2008; Volume Three - Erosion and Sediment Controls During Construction, December 2008.

#### Table 1 – 24-Hour Rainfall Rates

Time of Concentration is the time it takes for water to flow from the hydraulically most remote point in the watershed (with the longest travel time) to the watershed outlet. This time is determined by calculating the time it takes runoff to travel this route under one of three hydrologic conditions: sheet flow, shallow concentrated flow, or channel flow. Because the Intensity-Duration-Frequency (IDF) curve is steep with short TC's, estimating the actual intensity is subject to error and overestimates actual runoff. Due to this, the TC's are adjusted to a minimum of 6 minutes.

#### 3.0 - EXISTING SITE CONDITIONS

The soils within the proposed area of disturbance are identified in accordance with the Site-Specific Soil Survey (see Existing Conditions detail and soil locations). The Site-Specific Soil Survey identifies the soils within the disturbed project area as primarily Newfields sandy loam (HSG B), Hoosic gravelly loamy sand (HSG A), Deerfield loamy sand (HSG B) and Canton sandy loam (HSG B). Hydrologic Soil Group A is classified as having low runoff potential and Hydrologic Soil Group B is classified as moderately low runoff potential.

All other areas that contribute runoff to the project site are composed of Boxford silt loam (HSG C), Scitico silt loam (HSG C), Walpole sandy loam, (HSG C). Hydrologic Soil Group C is classified as having moderately high runoff potential when thoroughly wet.

Offsite soils draining onto the site are classified by the Natural Resource Conservation Service (NRCS) as Scitico Silt Loam (HSG C/D), Eldridge Fine Sandy Loam (HSG C/D), Maybid Silt Loam (HSG C/D), Deefield Loamy Fine Sand (HSG A), Pennichuck Channery Very Fine Sand Loam (HSG C), Natchaug Mucky Peat (HSG B/D), Hoosic Gravelly Fine Sandy Loam (HSG A) and Squamscott Fine Sandy Loam (HSG C/D). In dual group classifications, the first letter is for drained areas while the second is for un-drained areas.

#### 4.0 - PRE-DEVELOPMENT CONDITIONS

The pre-development condition is characterized by six watersheds. Pre-development subcatchment areas are depicted on the attached plan entitled "Pre-Development Drainage Map," Sheet D-01 in.

Stormwater runoff from the site that does not infiltrates into the soil, drains into the wetland along the south side of the property (EPOI-1, EPOI-2, EPOI-3 and EPOI-5). A small portion, along the northern edge of the property, drains into the woodlands on the abutting property (EPOI-4 and EPOI-6).

In the pre-development condition, the total impervious area is 78,390 sf over a total drainage analysis area of 775,754 sf.

#### 5.0 - POST-DEVELOPMENT CONDITIONS

The post-development condition is characterized by six watershed divided into many subcatchment areas. Post-development subcatchment areas are depicted on the attached plan entitled "Post-Development Drainage Map," sheet D-02.

In the post-development condition, the total impervious area is 335,600 sf over a total drainage analysis area of 775,754 sf. Impervious area from the project consists 56 single-family residential buildings, 2925 lf of roadway and associated improvements. Two bioretention areas

and one subsurface gravel wetland are proposed to treat and mitigate the stormwater runoff from the impact of the new impervious area from the proposed development.

The proposed project will reduce peak rates of runoff compared to existing conditions for all storm events, in accordance with AoT regulations and City stormwater regulations. Additionally, per NHDES, the 2-year 24-hour storm will not result in an increased peak flow rate or volume from the pre-development to post-development condition. There will be no adverse effects on the abutting properties from the proposed stormwater management system.

Appendices B and D summarizes all 24-hour storm events for pre- and post-development drainage calculations using HydroCAD analysis. Appendices C and E provide a full summary of the 10-year, 24-hour storm for the pre- and post-development drainage calculations using HydroCAD analysis.

#### 6.0 - REGULATORY COMPLIANCE

The project shall meet the stricter of the stormwater standards identified in the New Hampshire Department of Environmental Services (DES) Env-Wq 1500 Alteration of Terrain Regulations and City/Town stormwater management regulations.

#### 6.1 – ALTERATION OF TERRAIN (AOT) CRITERIA

The following regulatory requirements are provided to show the project conformance to the applicable criteria of the NHDES Env-Wq 1500 Alteration of Terrain Regulations which include and are not limited to the following:

<u>Env-Wq 1507.03(a)</u> Pollutant Discharge Minimization Requirements: Stormwater treatment practices described in Env-Wq 1508.03 through Env-Wq 1508.10 shall be acceptable methods for minimizing pollutant discharges to surface waters.

Stormwater is treated using an infiltration practice, specifically a subsurface infiltration basin. The subsurface infiltration basins are designed in accordance with the applicable criteria of Env-Wg 1508.06 as follows:

Per 1508.06(e), the volume of the practice shall be large enough to contain the WQV without depending on infiltration. Refer to the corresponding BMP Worksheet in Section 12 for verification.

Per 1508.06(f), the practice completely drains the WQV within 72 hours or less. Refer to the corresponding BMP Worksheet in Section 12 for verification.

<u>Env-Wq 1507.03(c)</u> Pollutant Discharge Minimization Requirements: Stormwater treatment practices shall be designed with infiltration rates in accordance with Env-Wq 1504.14

Per 1508.06(a), the design infiltration rate of underlaying native soil was considered in accordance with Env-Wq 1504.14. The design infiltration rate for each subsurface infiltration basin is the average from each infiltration test in each basin. Refer to the Infiltration Feasibility Report.

<u>Env-Wq 1507.03(e)</u> Pollutant Discharge Minimization Requirements: Stormwater treatment practices shall be designed for the WQV/WQF, calculated in accordance with Env-Wq 1504.10 and Env-Wq 1504.11.

The regulation is met. Refer to the corresponding BMP Worksheets.

<u>Env-Wq 1507.04(a)</u> Groundwater Recharge Requirements: The proposed development shall reduce to the maximum extent practicable by using groundwater recharge practices as described in Env-Wq 1508.16.

The regulation is met. Refer to the corresponding BMP Worksheet in Section 12 for verification.

<u>Env-Wq 1507.04(c)</u> Groundwater Recharge Requirements: Design Infiltration rates for groundwater recharge practices shall be determined in accordance with Env-Wq 1504.14.

Design infiltration rates were obtained per Ksat testing using a Guelph Permeameter (Amoozemeter) per Env-Wq 1504.14(d). The design infiltration rate for each subsurface infiltration basin is the average from each infiltration test in each basin. Refer to the Infiltration Feasibility Report in Section 16 for verification.

<u>Env-Wq 1507.05</u> Channel Protection Requirements: The 2-year 24-hour post development peak rate shall not exceed the pre-development peak flow rate for all flows leaving the site and the conditions of Env-Wq 1507.05(b), Env-Wq 1507.05(b)(2), or Env-Wq 1507.05(b)(3).

The 2-year 24-hour post development peak rate and volume is less than the predevelopment rate per Env-Wq 1507.05(b)(1)(a). Refer to 5.0 Post Development Conditions.

<u>Env-Wq 1507.06</u> Control Peak Runoff: The 10-year and 50-year 24-hour post development peak rate shall not exceed the pre-development peak flow rate for all flows leaving the site.

The regulation is met. Refer to Table 2 for peak discharge rate comparison.

#### 7.0 - BEST MANAGEMENT PRACTICES

Best Management Practices will be developed in accordance with the *New Hampshire Stormwater Manual, Volumes Two and Three, December 2008*<sup>3</sup> to formulate a plan that assures stormwater quality both during and after construction. The intent of the outlined measures is to minimize erosion and sedimentation during construction, stabilize and protect the site from erosion after construction is complete and mitigate any adverse impacts to stormwater quality resulting from development. Best Management Practices for this project include:

- Temporary practices to be implemented during construction.
- Permanent practices to be implemented after construction.

#### 7.1 – TEMPORARY PRACTICES

- 1. Erosion, sediment, and stormwater detention measures must be installed as directed by the engineer.
- 2. All disturbed areas, as well as loam stockpiles, shall be seeded and contained by a silt barrier.

<sup>&</sup>lt;sup>3</sup> New Hampshire Stormwater Manual: Volume One - Stormwater and Antidegradation, December 2008; Volume Two - Post-Construction Best Management Practices Selection and Design, December 2008; Volume Three - Erosion and Sediment Controls During Construction, December 2008.

- 3. Silt barriers must be installed prior to any construction commencing. All erosion control devices including silt barriers and storm drain inlet filters shall be inspected at least once per week and following any rainfall. All necessary maintenance shall be completed within twenty-four (24) hours.
- 4. Any silt barriers found to be failing must be replaced immediately. Sediment is to be removed from behind the silt fence if found to be one-third the height of the silt barrier or greater.
- Any area of the site, which has been disturbed and where construction activity will not occur for more than twenty-one (21) days, shall be temporarily stabilized by mulching and seeding.
- 6. No construction materials shall be buried on-site.
- 7. After all areas have been stabilized, temporary practices are to be removed, and the area they are removed from must be smoothed and revegetated.
- 8. Areas must be temporarily stabilized within 14 days of disturbance or seeded and mulched within 3 days of final stabilization.
- 9. After November 15<sup>th</sup>, incomplete driveways or parking areas must be protected with a minimum of 3" of crushed gravel, meeting the standards of NHDOT item 304.3.
- 10. An area shall be considered stable if one of the following has occurred:
  - a) Base course gravels are 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 as stone or rip rap has been installed.
  - d) Erosion control blankets have been properly installed.

#### 7.2 - PERMANENT PRACTICES

The objectives for developing permanent Best Management Practices for this site include the following:

- 1. Maintain existing runoff flow characteristics.
  - a) Drainage is structured to minimize any offsite increase in runoff
- 2. Treatment BMP's are established to ensure the water quality.
- 3. Maintenance schedules are set to safeguard the long term working of the stormwater BMP's.

A Stormwater Management Operations & Maintenance Manual is provided to ensure the proper functioning of the system over time.

#### 7.3 – BEST MANAGEMENT PRACTICE EFFICIENCIES

Appendix E of Volume 2 of the New Hampshire Stormwater <sup>4</sup> lists the pollutant removal efficiencies of various BMP's. All proposed BMP's meet all state and City requirements for

<sup>&</sup>lt;sup>4</sup> New Hampshire Stormwater Manual: Volume One - Stormwater and Antidegradation, December 2008; Volume Two - Post-Construction Best Management Practices Selection and Design, December 2008; Volume Three - Erosion and Sediment Controls During Construction, December 2008.

total suspended solids (TSS) and pollutant removal, Total Nitrogen (TN), and Total Phosphorous (TP).

Bioretention Systems have a 90% TSS removal efficiency, 65% TN removal efficiency, and 65% TP efficiency.

Gravel Wetlands have a 95% TSS removal efficiency, 85% TN removal efficiency, and 64% TP efficiency. Gravel Wetlands have the have the highest removal rating for total nitrogen. The surface of the wetland creates an aerobic zone allowing nitrification of the organic nitrogen and plant debris, and the rock area under the wetland soil allows for an anaerobic zone causing denitrification of the stormwater, releasing nitrogen gas back into the atmosphere.

Bioretention Area #1 and Gravel Wetland #1 both use sediment forebays to pretreat the stormwater. Bioretention Area #2 only receives impervious runoff from roofs and not pretreatment is required. The pretreatment areas help to settle sediment and prevent clogging of treatment areas.

#### 7.3.1 – LID PRACTICES

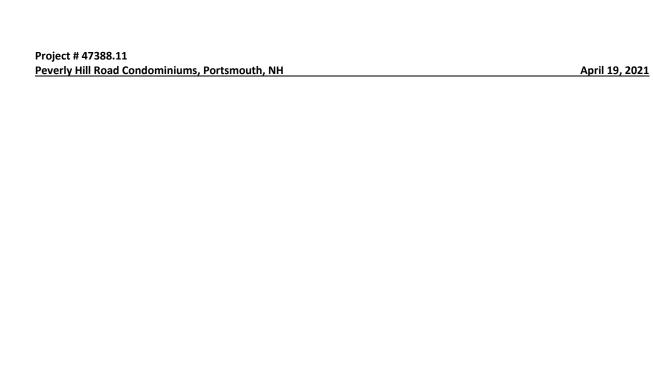
Gravel Wetlands and Bioretention Areas are both Low Impact Design. The goal of LID systems is to mimic a site's precondition hydrology by infiltrating, filtering, storming, evaporating and detaining stormwater but use of natural landscape features. These treatments filter and detain the stormwater. They use natural processes, such as soil filtration, evapotranspiration (from the plants in the system) and anaerobic and aerobic treatment of stormwater. The detain the stormwater and release it to mimic the predevelopment storm flows.

#### 9.0 - CONCLUSION

The proposed stormwater management system will treat, infiltrate, and mitigate the runoff generated from the proposed development and provide protection of groundwater and surface waters as required through the Alteration of Terrain Bureau and City stormwater management regulations. The project has been designed in accordance with NHDES and City regulations. There is little change in the flow characteristics of the site. The proposed project has been designed to pose no adverse effects on surrounding properties.

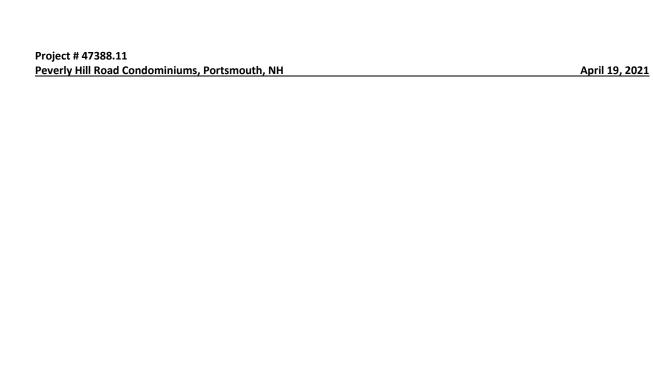
Respectfully, **TFMoran, Inc.** 

Jack McTigue, PE, CPESC Project Manager



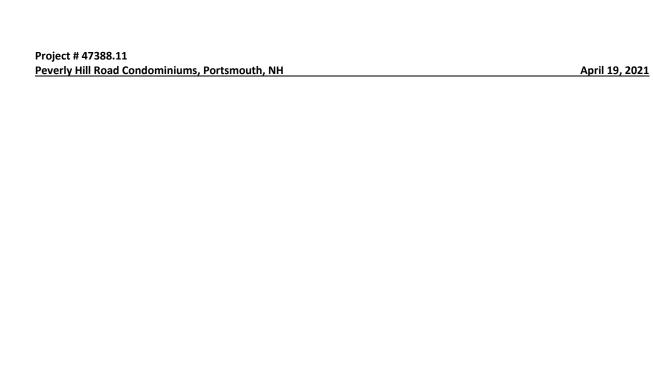
(This Page Is Intentionally Blank)

# APPENDIX A – EXTREME PRECIPITATION RATES



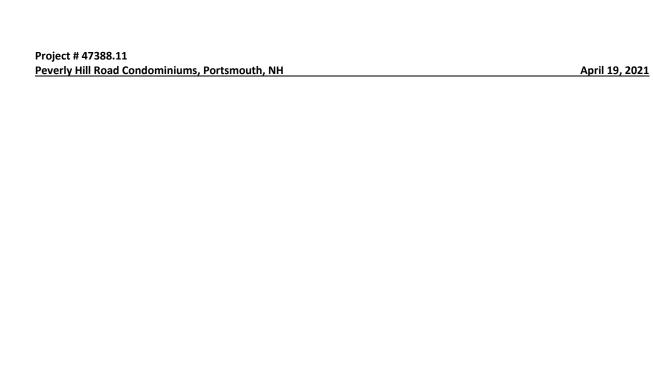
(This Page Is Intentionally Blank)

# APPENDIX B – PRE-DEVELOPMENT CALCULATIONS



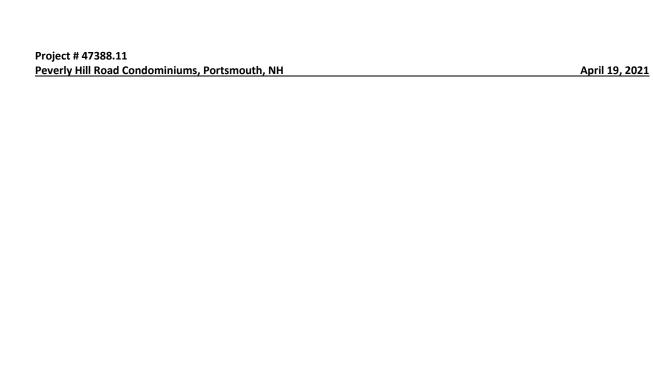
(This Page Is Intentionally Blank)

# APPENDIX C - PRE-DEVELOPMENT CALCULATIONS (10-YEAR STORM EVENT)



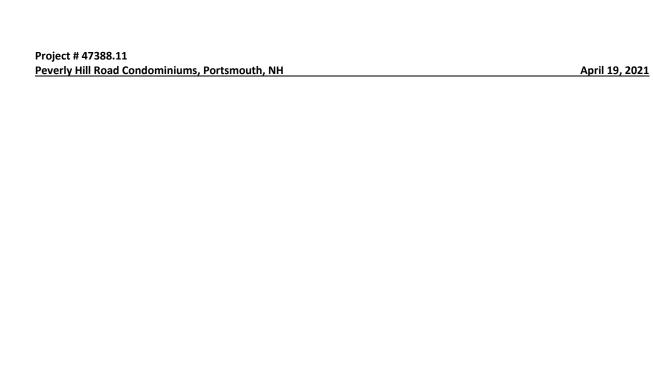
(This Page Is Intentionally Blank)

# APPENDIX D - POST-DEVELOPMENT CALCULATIONS



(This Page Is Intentionally Blank)

# APPENDIX E - POST-DEVELOPMENT CALCULATIONS (10-YEAR STORM EVENT)



(This Page Is Intentionally Blank)

## **GENERAL INFORMATION**

#### **OWNER**

MAP 242 LOT 4 STOKEL SB & NA TRUST 37.5% INT. PHILIP J 25% INT 83 PEVERLY HILL RD PORTSMOUTH, NH 03801

## APPLICANT/PREPARED

GREEN AND COMPANY REAL ESTATE 11 LAFAYETTE RD NORTH HAMPTON, NH 03868

#### RESOURCE LIST

PLANNING/ZONING DEPARTMENT 1 JUNKINS AVE PORTSMOUTH, NH 03801 603-610-7216

#### BUILDING DEPARTMENT

1 JUNKINS AVE PORTSMOUTH, NH 03801 603-610-7243 ROBERT MARSILIA, CHIEF BUILDING INSPECTOR

#### PUBLIC WORKS 600 PEVERLY HILL RD

PORTSMOUTH, NH 03801 603-472-1530 PETER RICE, PUBLIC WORKS DIRECTOR

#### POLICE DEPARTMENT 3 JUNKINS AVE

PORTSMOUTH, NH 03801 603-427-1510 MARK NEWPORT, CHIEF

FIRE DEPARTMENT 170 COURT ST PORTSMOUTH, NH 03801 603-427-1515 PATRICK HOWE, CHIEF

#### **ASSOCIATED PROFESSIONALS**

ENVIRONMENTAL SERVICES GOVE ENVIRONMENTAL SERVICES 8 CONTINENTAL DRIVE BUILDING 2 - UNIT H EXETER. NH 03833

SOIL SCIENTIST GOVE ENVIRONMENTAL SERVICES 8 CONTINENTAL DRIVE BUILDING 2 - UNIT H EXETER, NH 03833

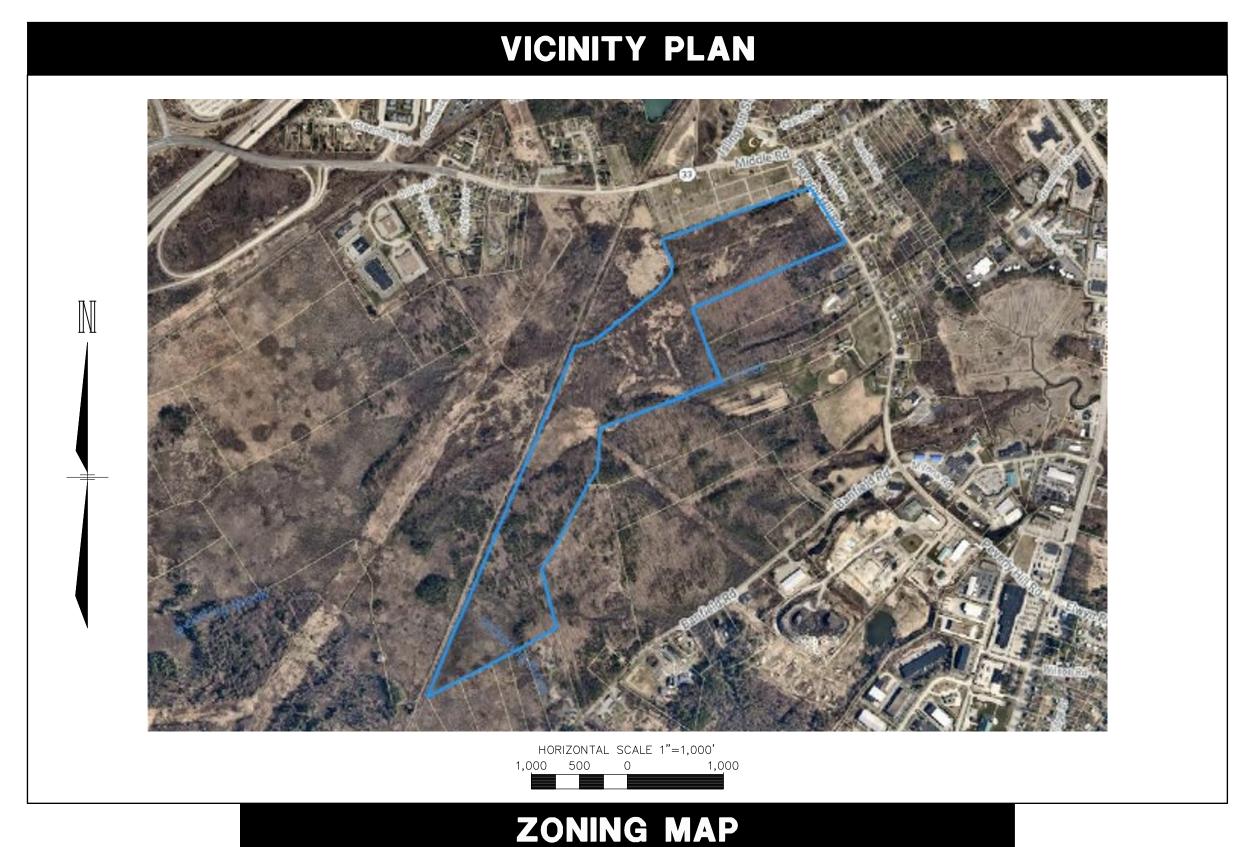
TRAFFIC ENGINEER STEPHEN G. PERNAW & COMPANY, INC. PO BOX 1721 CONCORD, NH 03302 603-731-8500

STEPHEN G. PERNAW, PE, PTOE

JIM GOVE, CERTIFIED SOIL SCIENTIST

# PEVERLY HILL ROAD CONDOMINUMS

PEVERLY HILL ROAD PORTSMOUTH, NEW HAMPSHIRE **APRIL 19, 2021** 



HORIZONTAL SCALE 1"=1,000'

#### INDEX OF SHEETS **REVISION DATE** SHEET SHEET TITLE C - 00COVER C - 01NOTES AND LEGEND S-01 - S-04EXISTING CONDITIONS PLAN S-05 CONDOMINIUM SITE PLAN C - 02SITE PREPARATION & DEMOLITION PLAN C - 03OVERALL SITE LAYOUT PLAN C-04 - C-12SITE LAYOUT PLANS C-13 - C-16ROAD-A PLAN & PROFILE C-17 OVERALL GRADING & DRAINAGE PLAN C-18 - C-26GRADING & DRAINAGE PLANS C - 27OVERALL UTILITY PLAN C-28 - C-36UTILITY PLANS C-37 - C-40SEWER PLAN & PROFILE C - 41OVERALL EROSION CONTROL PLAN C-42 - C-51EROSION CONTROL PLANS C - 54OVERALL LANDSCAPE PLAN C-55 - C-63LANDSCAPE PLANS C-64 OVERALL LIGHTING PLAN LIGHTING PLANS C-65 - C-72FIRE TRUCK MOVEMENT PLAN C - 73C - 75SITE DISTANCE PLAN & PROFILE

## **WAIVERS**

THE FOLLOWING WAIVERS FROM THE CITY OF PORTSMOUTH SITE REVIEW REGULATIONS ARE BEING REVIEWED BY THE PLANNING BOARD:

## PERMITS/APPROVALS

	NUMBER	APPROVED	EXPIRES
CITY SITE PLAN REVIEW	PENDING	-	-
OPEN SPACE PLANED UNIT DEVELOPMENT CONDITIONAL USE PERMIT	PENDING	-	-
NHDES ALT. OF TERRAIN	PENDING	_	-
NHDES SEWER CONNECTION PERMIT	PENDING	-	-
EPA SWPPP	PENDING	-	-

THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.

## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

PEVERLY HILL ROAD CONDOMINIUMS

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

**GREEN & COMPANY REAL ESTATE** 

SCALE: NTS

DR CK

DESCRIPTION

REV. DATE

**APRIL 19, 2021** 



Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

47388.11 | DR | JSM | FB | CK | JJM | CADFILE | 47388-11\_COVER

Copyright 2021 © Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

Thomas F. Moran, Inc.

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of

COVER

83 PEVERLY HILL ROAD, PORTSMOUTH, NH

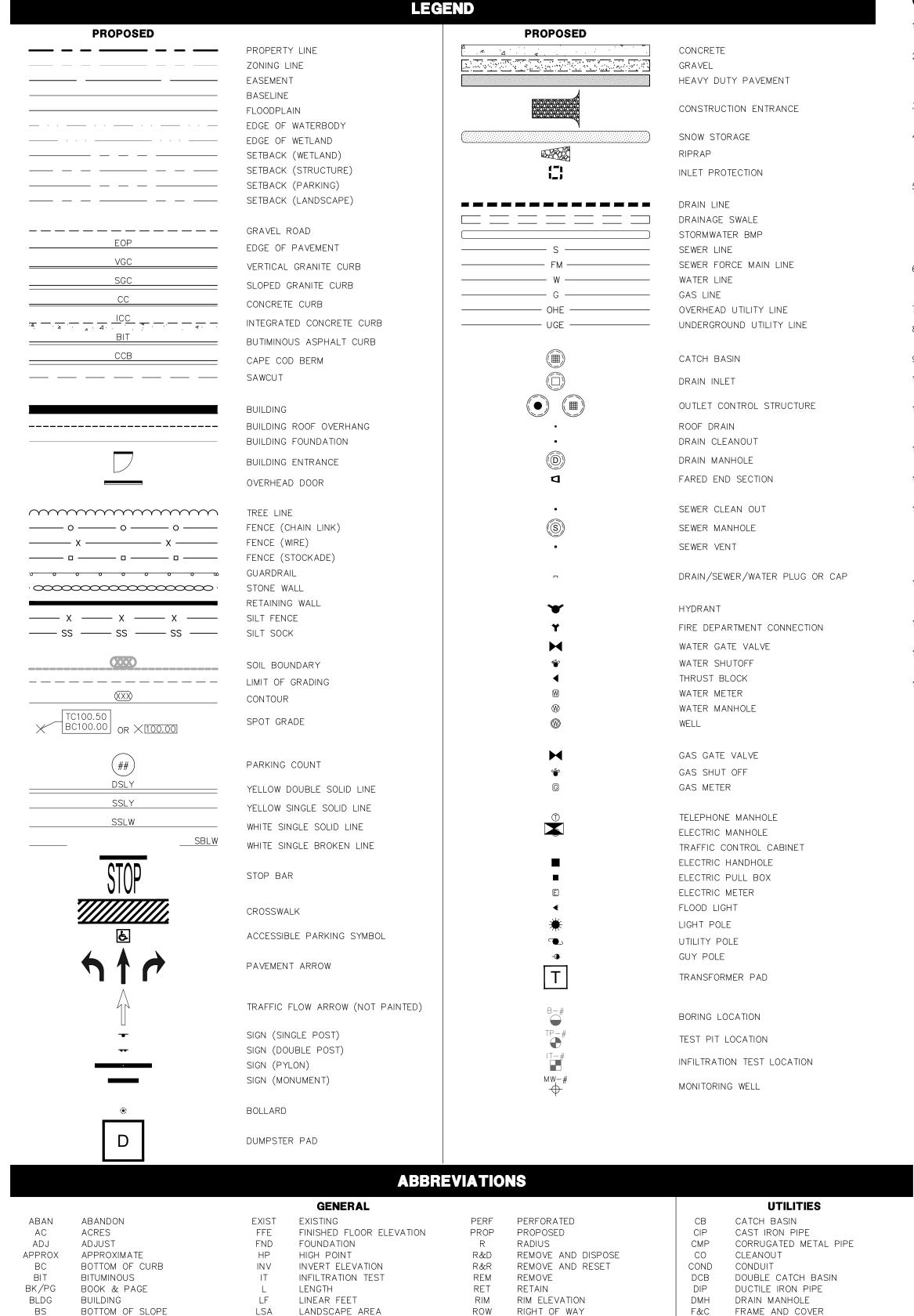
C-77 - C-82

DETAILS

Structural Engineers Land Surveyors Landscape Architects

| 170 Commerce Way, Suite 102

C - 00



F&G

FES

GT

HDPE

HH

HW

HYD

OCS

PVC

RCP

RD

SMH

SOS

FRAME AND GRATE

GREASE TRAP

HANDHOLE

HEADWALL

LIGHT POLE

ROOF DRAIN

UTILITY POLF

SEWER MANHOLE

HYDRANT

FLARED END SECTION

HIGH DENSITY POLYETHYLENE PIPE

OUTLET CONTROL STRUCTURE

POLYVINYL CHLORIDE PIPE

SEDIMENT OIL SEPARATOR

TAPPING SLEEVE, VALVE, AND BOX

REINFORCED CONCRETE PIPE

SLOPE

SIDEWALK

TEST PIT

TYPICAL

WITH

SW

TBM

TYP

UG

WCR

SQUARE FEET

TOP OF CURB

TOP OF WALL

UNDERGROUND

TEMPORARY BENCHMARK

ACCESSIBLE WHEELCHAIR RAMP

## **GENERAL NOTES**

- 1. THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.
- 2. THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. TFMORAN, INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE
- 3. THE CONDOMINIUM SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
- 4. ALL IMPROVEMENTS SHOWN ON THE SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE CITY OF PORTSMOUTH.
- 5. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF PORTSMOUTH, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL WORK TO CONFORM TO CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS. ALL WORK WITHIN THE RIGHT-OF-WAY OF THE CITY AND/OR STATE SHALL COMPLY WITH APPLICABLE STANDARDS. COORDINATE ALL WORK WITHIN THE RIGHT-OF-WAY WITH APPROPRIATE CITY, COUNTY, AND/OR STATE AGENCY.
- 6. AN ALTERATION OF TERRAIN PERMIT IS REQUIRED PER ENV-WQ 1503.02. THE SITE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF NHDES ENV-WQ 1500 OR AS APPLICABLE.
- 7. SEE EXISTING CONDITIONS PLAN FOR THE HORIZONTAL AND VERTICAL DATUM.
- 8. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION. VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
- 9. CONTACT EASEMENT OWNERS PRIOR TO COMMENCING ANY WORK WITHIN THE EASEMENTS.
- 10. PRIOR TO COMMENCING ANY SITE WORK ALL LIMITS OF WORK SHALL BE CLEARLY MARKED IN THE FIELD.
- 11. SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES ARE DETAILED ON EVERY PLAN. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN
- 12. TFMORAN, INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
- 13. TEMPORARY FENCING SHALL BE PROVIDED AND COVERED WITH A FABRIC MATERIAL TO CONTROL DUST MITIGATION.
- 14. ALL DEMOLITION SHALL INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKWAYS, AND ANY OTHER ADJACENT OPERATING FACILITIES. PRIOR WRITTEN PERMISSION FROM THE OWNER/DEVELOPER AND LOCAL PERMITTING AUTHORITY IS REQUIRED IF CLOSURE/OBSTRUCTIONS TO ROADS, STREET, WALKWAYS, AND OTHERS IS DEEMED NECESSARY. CONTRACTOR TO PROVIDE ALTERNATE ROUTES AROUND CLOSURES/OBSTRUCTIONS PER LOCAL/STATE/FEDERAL REGULATIONS
- 15. REFER TO ARCHITECTURAL PLANS FOR LAYOUT OF BUILDING FOUNDATIONS AND CONCRETE ELEMENTS WHICH ABUT THE BUILDING SUCH AS STAIRS, SIDEWALKS, LOADING DOCK RAMPS, PADS, AND COMPACTOR PADS. DO NOT USE SITE PLANS FOR LAYOUT OF FOUNDATIONS.
- 16. IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
- 17. IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
- 18. CONTRACTOR'S GENERAL RESPONSIBILITIES:

SITE ELEMENTS AND BUILDINGS.

- A. BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS, AND STANDARDS.
- B. NOTIFY ENGINEER IN WRITING OF ANY DISCREPANCIES OF PROPOSED LAYOUT AND/OR EXISTING FEATURES.
- C. EMPLOY A LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES AND LAYOUT OF
- D. THE CONTRACTOR SHALL BE RESPONSIBLE TO BECOME FAMILIAR WITH THE SITE AND ALL SURROUNDING CONDITIONS. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
- E. TAKE APPROPRIATE MEASURES TO REDUCE, TO THE FULLEST EXTENT POSSIBLE, NOISE, DUST AND UNSIGHTLY DEBRIS. CONSTRUCTION ACTIVITIES SHALL BE CARRIED OUT BETWEEN THE HOURS OF 7:00 AM AND 9:00 PM, MONDAY THROUGH FRIDAY IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION, PORTSMOUTH, NEW HAMPSHIRE"
- F. MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY WORK AT ALL TIMES.
- G. IN ACCORDANCE WITH RSA 430:53 AND AGR 3800, THE CONTRACTOR SHALL NOT TRANSPORT INVASIVE SPECIES OFF THE PROPERTY, AND SHALL DISPOSE OF INVASIVE SPECIES ON-SITE IN A LEGAL MANNER.
- H. COORDINATE WITH ALL UTILITY COMPANIES AND CONTACT DIGSAFE (811 OR 888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
- I. PROTECT NEW AND EXISTING BURIED UTILITIES DURING INSTALLATION OF ALL SITE ELEMENTS. DAMAGED UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL
- J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY TFMORAN, INC., DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
- WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
- L. VERIFY LAYOUT OF PROPOSED BUILDING FOUNDATIONS WITH ARCHITECT AND THAT PROPOSED FOUNDATION MEETS PROPERTY LINE SETBACKS PRIOR TO COMMENCING ANY FOUNDATION CONSTRUCTION
- M. PROVIDE AN AS-BUILT PLAN AT THE COMPLETION OF THE PROJECT TO THE PLANNING DIRECTOR AND PER CITY REGULATIONS.
- N. IF ANY DEVIATIONS FROM THE APPROVED PLANS AND SPECIFICATIONS HAVE BEEN MADE, THE SITE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS STAMPED BY A LICENSED SURVEYOR OR QUALIFIED ENGINEER ALONG WITH A LETTER STAMPED BY A QUALIFIED ENGINEER DESCRIBING ALL SUCH DEVIATIONS, AND BEAR ALL COSTS FOR PREPARING AND FILING ANY NEW PERMITS OR PERMIT AMENDMENTS THAT MAY BE REQUIRED.
- O. AT COMPLETION OF CONSTRUCTION, THE SITE CONTRACTOR SHALL PROVIDE A LETTER CERTIFYING THAT THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND A LETTER STAMPED BY A QUALIFIED ENGINEER THAT THEY HAVE OBSERVED ALL UNDERGROUND DETENTION SYSTEMS, INFILTRATION SYSTEMS, OR FILTERING SYSTEMS PRIOR TO BACKFILL, AND THAT SUCH SYSTEMS CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS.

### **GRADING NOTES**

- 1. THE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF NHDES ENV-WQ 1500 AS APPLICABLE.
- 2. THE CONTRACTOR SHALL PREPARE, MAINTAIN, AND EXECUTE A S.W.P.P.P. IN ACCORDANCE
- WITH EPA REGULATIONS AND THE CONSTRUCTION GENERAL PERMIT. 3. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SUBMIT AN eNOI AT LEAST 14
- DAYS IN ADVANCE OF ANY EARTHWORK ACTIVITIES AT THE SITE. 4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK THE ACCURACY OF THE
- TOPOGRAPHY AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO ANY EARTHWORK BEING PERFORMED ON THE SITE. NO CLAIM FOR EXTRA WORK WILL BE CONSIDERED FOR PAYMENT AFTER EARTHWORK HAS COMMENCED. 5. THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR INFORMATION ABOUT
- SOIL AND GROUNDWATER CONDITIONS. THE CONTRACTOR SHALL FOLLOW THE GEOTECHNICAL ENGINEERS RECOMMENDED METHODS TO ADDRESS ANY SOIL AND GROUNDWATER ISSUES THAT ARE FOUND ON SITE.
- 6. COORDINATE WITH GEOTECHNICAL/STRUCTURAL PLANS FOR SITE PREPARATION AND OTHER BUILDING INFORMATION.
- 7. COORDINATE WITH ARCHITECTURAL PLANS FOR DETAILED GRADING AT BUILDING, AND SIZE AND LOCATION OF ALL BUILDING SERVICES. 8. COORDINATE WITH MECHANICAL AND PLUMBING PLANS FOR ROOF DRAIN INFORMATION.
- 9. LIMITS OF WORK ARE SHOWN AS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE ALL
- WORK TO PROVIDE SMOOTH TRANSITIONS. THIS INCLUDES GRADING, PAVEMENT, CURBING, SIDEWALKS, AND ALIGNMENTS.
- 10. THE CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE, RAMPS AND LOADING
- 11. THE SITE SHALL BE GRADED SO ALL FINISHED PAVEMENT HAS POSITIVE DRAINAGE AND SHALL NOT POND WATER DEEPER THAN 1/4" FOR A PERIOD OF MORE THEN 15 MINUTES AFTER FLOODING.
- 12. ALL ELEVATIONS SHOWN AT CURB ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED. CURBS HAVE A 6" REVEAL UNLESS OTHERWISE NOTED.
- 13. ALL SIDEWALK AND OTHER CURB REVEALS SHALL BE 6" WITH A TOLERANCE OF PLUS OR MINUS 3/8". WHERE SIDEWALK IS TO BE FLUSH, THE PAVEMENT REVEAL SHALL BE 1/4" WITH A TOLERANCE OF 1/8".
- 14. THE FINISHED GRADE AT BOTTOM OF ALL ACCESSIBLE RAMPS SHALL BE FLUSH WITH PAVEMENT WITH A TOLERANCE OF PLUS OR MINUS 1/4".
- 15. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE PRIOR TO INSTALLATION OF FINISHED PAVEMENT.
- 16. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND SHALL MEET LOCAL STANDARDS AND THE REQUIREMENTS OF THE LATEST NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION AND THE NHDOT STANDARD STRUCTURE DRAWINGS UNLESS OTHERWISE
- 17. STORMWATER DRAINAGE SYSTEM SHALL BE CONSTRUCTED TO LINE AND GRADE AS SHOWN ON THE PLANS. CONSTRUCTION METHODS SHALL CONFORM TO NHDOT STANDARD SPECIFICATIONS, SECTION 603. CATCH BASINS AND DRAIN MANHOLES SHALL CONFORM TO SECTION 604. ALL CATCH BASIN GRATES SHALL BE TYPE B AND CONFORM TO NHDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
- 18. NO FILL SHALL BE PLACED IN ANY WETLAND AREA.
- 19. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.
- 20. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER AND MULCH.
- 21 DENSITY REQUIREMENTS:
  - MINIMUM DENSITY\* LOCATION BELOW PAVED OR CONCRETE AREAS 95%
- TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL 95% BELOW LOAM AND SEED AREAS \*ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE
- OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C. FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM D-6938.

#### **UTILITY NOTES**

- 1. LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED
- 2. ALL PROPOSED UTILITY WORK, INCLUDING MATERIAL, INSTALLATION, TERMINATION, EXCAVATION, BEDDING, BACKFILL, COMPACTION, TESTING, CONNECTIONS, AND CONSTRUCTION SHALL BE COORDINATED WITH AND COMPLETED IN ACCORDANCE WITH THE APPROPRIATE REQUIREMENTS, CODES, AND STANDARDS OF ALL CORRESPONDING UTILITY ENTITIES AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT "DIGSAFE" (811) AT LEAST 72 HOURS BEFORE DIGGING.
- 4. COORDINATE ALL WORK ADJACENT TO PROPOSED BUILDINGS WITH ARCHITECTURAL BUILDING DRAWINGS. CONFIRM UTILITY PENETRATIONS AND INVERT ELEVATIONS ARE COORDINATED PRIOR TO INSTALLATION.
- 5. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND. WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE AS NECESSARY WITH THE UTILITY COMPANIES OF SAID UTILITIES. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
- 6. THE EXACT LOCATION OF NEW UTILITY CONNECTIONS SHALL BE DETERMINED BY THE CONTRACTOR IN COORDINATION WITH UTILITY COMPANY, COUNTY AGENCY, AND/OR PRIVATE
- 7. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES. BOXES, FITTINGS. CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE UTILITY INSTALLATION COMPLETE AND
- 8. ALL UTILITY COMPANIES REQUIRE INDIVIDUAL CONDUITS. CONTRACTOR TO COORDINATE WITH TELEPHONE, CABLE, AND ELECTRIC COMPANIES REGARDING NUMBER, SIZE, AND TYPE OF
- CONDUITS REQUIRED PRIOR TO INSTALLATION OF ANY CONDUIT. 9. SANITARY SEWER SHALL BE CONSTRUCTED TO THE STANDARDS AND SPECIFICATIONS AS SHOWN ON THESE PLANS. ALL SEWER MAINS AND FITTINGS SHALL BE PVC AND SHALL
- CONFORM TO ASTM F 679 (SDR 35 MINIMUM). ALL SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH NH CODE OF ADMINISTRATIVE RULES ENV-WQ 700. SANITARY MANHOLES SHALL CONFORM TO NHDES WATER DIVISION WASTEWATER ENGINEERING BUREAU STANDARDS AND SPECIFICATIONS SHOWN HEREON. 10. ON-SITE WATER DISTRIBUTION SHALL BE TO CITY OF PORTSMOUTH STANDARDS AND SPECIFICATIONS. WATER MAINS SHALL HAVE A MINIMUM OF 5.5' COVER. WHERE WATER
- PIPES CROSS SEWER LINES A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL BE OBSERVED. HORIZONTAL SEPARATION BETWEEN WATER AND SEWER SHALL BE 10' MINIMUM. WHERE A SANITARY LINE CROSSES A WATER LINE, ENCASE THE SANITARY LINE IN 6" THICK CONCRETE FOR A DISTANCE OF 10' EITHER SIDE OF THE CROSSING, OR SUBSTITUTE RUBBER-GASKETED PRESSURE PIPE FOR THE SAME DISTANCE. WHEN SANITARY LINES PASS BELOW WATER LINES, LAY PIPE SO THAT NO JOINT IN THE SANITARY LINE WILL BE CLOSER THAN 3' HORIZONTALLY TO THE WATER LINE.
- 11. THRUST BLOCKS SHALL BE PROVIDED AT ALL LOCATIONS WHERE WATER LINE CHANGES DIRECTIONS OR CONNECTS TO ANOTHER WATER LINE.
- 12. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONDUIT AND WIRING TO ALL SIGNS AND LIGHTS. CONDUIT TO BE A MINIMUM OF 24" BELOW FINISH GRADE.
- 13. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES.
- 14. THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL INSPECTIONS, TESTING AND RELATED SERVICES AND SUBMIT COPIES OF ACCEPTANCE TO THE OWNER, UNLESS OTHERWISE
- 15. PROVIDE PERMANENT PAVEMENT REPAIR FOR ALL UTILITY TRENCHES IN EXISTING ROAD OR PAVEMENT TO REMAIN. SAW CUT TRENCH, PAVEMENT AND GRANULAR BASE THICKNESS TO MATCH EXISTING PAVEMENT. OBTAIN ALL PERMITS REQUIRED FOR TRENCHING.
- 16. UNLESS OTHERWISE SPECIFIED, ALL UNDERGROUND STRUCTURES, PIPES, CHAMBERS, ETC. SHALL BE COVERED WITH A MINIMUM OF 18" OF COMPACTED SOIL BEFORE EXPOSURE TO VEHICLE LOADS.
- 17. THE PROPERTY WILL BE SERVICED BY THE FOLLOWING:

DRAINAGE MUNICIPAL SEWER MUNICIPAL WATER MUNICIPAL

**EVERSOURCE** 

CONSOLIDATED COMMUNICATIONS FKA FAIRPOINT COMMUNICATIONS CABLE COMCAST

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

## **NOTES AND LEGEND**

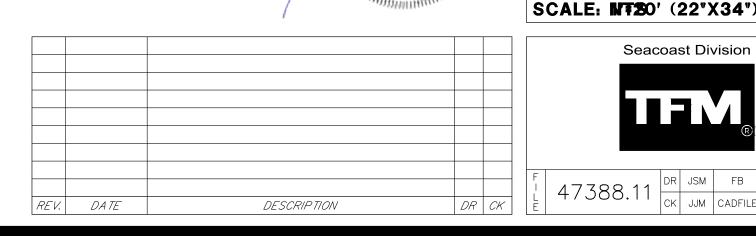
PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR **GREEN & COMPANY REAL ESTATE** 

1"=40' (11"X17")

**APRIL 19, 2021** 





ivil Engineers Structural Engineers affic Engineers ind Surveyors andscape Architects cientists

| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

DR JSM FB C - 01

CK JJM CADFILE 47388-11\_NOTES

BW

CONC

COORD

DIA

ELEV

homas F. Moran, Inc.

BOTTOM OF WALL

EDGE OF PAVEMENT

All rights reserved. These plans and materials may not be copied,

without the prior written permission of Thomas F. Moran, Inc.

luplicated, replicated or otherwise reproduced in any form whatsoever

This plan is not effective unless signed by a duly authorized officer of

CONCRETE

DIAMETER

Copyright 2021 © Thomas F. Moran, Inc

ELEVATION

48 Constitution Drive, Bedford, N.H. 03110

COORDINATE

MAX

MIN

NTS

PAVE

MAXIMUM

MINIMUM

NOW OR FORMERLY

NOT TO SCALE

ON CENTER

PAVFMFNT

RURAL ZONE

RCRD ROCKINGHAM COUNTY REGISTRY OF DEEDS CENTRAL ANGLE SQUARE FEET SRA SINGLE RESIDENCE A ZONE SRB SINGLE RESIDENCE B ZONE TRANSPORTATION CORRIDOR ZONE

- BOUNDARY LINE STONE WALL ---- X ----- WIRE FENCE - · · - · · - · · - EDGE OF WETLAND --- WETLAND BUFFER

WELL

WETLANDS

LINE TABLE

LINE # | BEARING | DISTANCE

N78°08'44"E

N51°37'18"E

N50°33'19"E 248.37' L45 S68°46'51"W 56.81' L46 S67°27'31"W 81.81' N38°55'51"E 136.50' L47 S67°26'04"W 87.58' N24°30'55"W 199.99' L48 S68°24'11"W 247.91' N69°46'08"E L49 S70°35'06"W 20.09' N70°28'21"E 57.22' L50 S02°20'46"W 96.94' 146.93' 71.99' L10 N70°58'09"E L51 S04°10'09"W N69°38'29"E 122.30' L52 S02°55'30"W 60.89' L53 S04°46'48"W L12 N71°01'01"E 69.20' 64.75' N70°36'35"E 73.15' L54 S04°06'17"W 73.30' N70°09'53"E 65.99 L55 S02°44'38"W 55.33' N68°45'39"E 56.30 L56 S30°51'45"W 36 06' L16 N71°22'53"E 90.32 L57 S29°37'18"W N69°46'51"E 792.39' L58 S30°17'36"W N33°28'11"W L59 S29°36'04"W L19 N30°43'03"W 25.87' L60 S29°36'07"W 107.77' 59.65' N32°23'37"W L62 S27°41'10"W L22 N32°36'14"W L63 S30°19'04"W 62.95' L23 N32°30'33"W L64 S28°10'44"W N31°38'38"W L65 S27°46'33"W L25 N33°17'28"W 36.28 L66 S28°09'12"W 63.04' N33°32'47"W L67 S29°23'48"W 74.83' N32°28'55"W L68 S29°32'16"W S65°32'22"W L69 S29°00'39"W S69°39'32"W L70 S28°38'51"W 79.24' S66°43'10"W 699.69 L71 S15°03'54"E 206.01' S61°50'59"W 21.03' L72 S15°34'48"E 56.79' L32 | S21°45'52"E | 10.17' L73 S16°34'18"E 55 67' S20°39'30"E 392.22' L74 S14°35'44"E 35.23' S24°19'08"E L75 S15°16'42"E S22°34'53"E L76 S16°55'11"E S23°02'43"E 111.50' L77 S15°41'57"E S22°45'01"E 171.93' L78 N62°33'20"E S67°19'43"W 152.24' L79 N60°22'36"E 85.15' S69°35'00"W 360.76' L80 N60°02'43"E 125.36' S71°11'01"W L81 N61°36'13"E 1100.89' S69°52'05"W 74.38' L82 S22°55'14"W 3930.00'

Copyright 2021 © Thomas F. Moran, Inc

All rights reserved. These plans and materials may not be copied,

PLAN REFERENCES:

1. "PLAN OF A LOT OF LAND BELONGING TO CHARLES H. HAYES PORTSMOUTH, N.H." BY A.C. HOYT SURVEYOR, DATED JULY 1896. RCRD PLAN #0171.

"PLAN OF LAND FOR JOHN & MAUD HETT PORTSMOUTH, N.H. SURVEY BY ME JENKINS, LEE, N.H.", DATED DEC. 1988. RCRD PLAN #C-19399. 3. "PROPERTY OF SWIFTWATER GIRL SCOUT COUNCIL CITY OF PORTSMOUTH N.H." SURVEYED BY JON

MOORE, DATED AUGUST 1972. RCRD PLAN #D-3206. "SUBDIVISION OF LAND FOR ROBERT E. DOWD IN PORTSMOUTH, N.H." BY BRUCE L. POHOPEK LAND SURVEYORS DOVER, N.H., DATED MAY 31, 1978, REVISED OCT 5, 78. RCRD PLAN #D-8312.

5. "SUBDIVISION PLAN OF LAND FOR THEODORE C. BURTT BANFIELD ROAD COUNTY OF ROCKINGHAM PORTSMOUTH, N.H." BY RICHARD P. MILLETTE AND ASSOCIATES, DATED DECEMBER 1981, WITH REVISION 2 DATED JANUARY, 1982. RCRD PLAN #D-10795.

FOR THE NATURE CONSERVANCY N.H. ROUTE 33 GREENLAND ROAD COUNTY OF ROCKINGHAM STATE OF NEW HAMPSHIRE" BY AMBIT ENGINEERING, INC., DATED FEBRUARY 2006, WITH REVISION 1, DATED 4/13/06. RCRD PLAN #D-33859.

AMBIT ENGINEERING, INC., DATED MAY 2000, WITH REVISION 0 DATED 5/26/00. RCRD PLAN #D-28209.

## EASEMENTS AND RESTRICTIONS (E&R):

- 1. THE RIGHT TO USE SAID DRIVEWAY IN COMMON WITH PETER STOKEL AND HIS HEIRS FROM SAID GREENLAND ROAD, ALONG BY SAID CEMETERY, AND ALONG THE BOUNDARY BETWEEN THE LANDS OF SAID PETER AND STELLA TO SAID RAILROAD, AND SUBJECT TO SAID PETER'S RIGHT TO USE THE SAME IN COMMON (SEE RCRD BK.#5066 PG.#1603).
- HEIRS AND ASSIGNS SHALL HAVE EQUAL RIGHTS TO THE WATER OF SAID WELL, SAID PUMP, THE PIPES AND ANY OTHER EQUIPMENT USED NOW OR HEREAFTER IN COMMON. CHARGES OF CARE, UPKEEP, REPAIRS OR REPLACEMENT TO BE BORNE EQUALLY, WITH MUTUAL EASEMENTS TO ENTER ON THE LAND OF THE OTHER WHENEVER NECESSARY FOR ANY OF SAID PURPOSES (SEE RCRD BK.#5066 PG.#1603).
- ELECTRIC COMPANY. (SEE RCRD BK.#1052 PG.#321).

#### MAP 242 LOT 1 STATE OF NEW HAMPSHIRE MAP 242 LOT 4 FISH & GAME DEPT SOIL LEGEND 11 HAZEN DRIVE CONCORD, NH 03301 (PER SITE SPECIFIC SOIL SURVEY)

MAP 242 LOT 3

NEW HOPE BAPTIST CHURCH

PO BOX 1473

PORTSMOUTH, NH 03802

RCRD BK.#2269 PG.#0663

MERRIMACK VALLEY HOMES, INC.

1794 BRIDGE STREET, UNIT 6 DRACUT MA 01826

RCRD BK #5881 PG #0981

ROMAN CATHOLIC BISHOP OF

MANCHESTER CHURCH OF

IMMAC CONCEPTION

153 ASH STREET

MANCHESTER, NH 03104

L=231.25' R=211.20' \( =62'44'12'' \)

CHB=N07°12'06"E, CHL=219.87

(S-03)

SYMBOL	DESCRIPTION	HYDROLOGIC SOIL GROUP
32	BOXFORD SILT LOAM	С
33	SCITICO SILT LOAM	С
42	CANTON SANDY LOAM	В
313	DEERFIELD LOAMY SAN	В
444	NEWFIELDS SANDY LOAM	В
510	HOOSIC GRAVELLY LOAMY SAND	А
546	WALPOLE SANDY LOAM	С

PEVERLY HILL

ROAD

(PUBLIC RIGHT OF WAY)

#### SOIL LEGEND (PER USDA NRCS WEB SOIL SURVEY)

L24÷

SYMBOL	DESCRIPTION	HYDROLOGIC SOIL GROUP
33A	SCITICO SILT LOAM, 0% — 5% SLOPES	C/D
38A	ELDRIDGE FINE SANDY LOAM, 0% — 3% SLOPES	C/D
134	MAYBID SILT LOAM	C/D
140C	CHATFIELD—HOLLIS—CANTON COMPLEX, ROCKY 8 TO 15 PERCENT SLOPES	В
313A	DEERFIELD LOAMY FINE SAND, 0% - 3% SLOPES	А
460C	PENNICHUCK CHANNERY VERY FINE SAND LOAM, 8% — 15% SLOPES	С
495	NATCHAUG MUCKY PEAT, 0% — 2% SLOPES	B/D
510B	HOOSIC GRAVELLY FINE SANDY LOAM, 3% — 8% SLOPES	А
510C	HOOSIC GRAVELLY FINE SANDY LOAM, 8% — 15% SLOPES	А
538A	SQUAMSCOTT FINE SANDY LOAM, 0% — 5% SLOPES	C/D

## **SOIL NOTE:**

SWIFT WATER GIRL SCOUT COUNCIL

ONE COMMERCE DRIVE

BEDFORD, NH 03110

NEWHAMPSHIRE SOILS". SEPTEMBER, 2009.

CENTERLINE OF DRIVEWAY

CENTERLINE OF DRIVEWAY

4' DIAMETER

(SEE E&R #2)

L=184.76' R=400.00' △ =26°27'54"

CHB=N64°52'18"E, CHL=183.12

STONE WELL -

(SEE E&R #1)

L58—

L59—

MAP 265 LOT 2A

DAVID W. ECKER

875 BANFIELD ROAD

PORTSMOUTH, NH 03801

RCRD BK #6091 PG #0374

LEE ANN & RICHARD M. RILEY 470 BANFIELD ROAD

PORTSMOUTH, NH 03801

RCRD BK #3491 PG #2344

(SEE E&R #1)

RCRD BK #5248 PG #0739

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, INTENDED FOR INFILTRATION REQUIREMENTS BY THE NH DES ALTERATION OF TERRAIN BUREAU. IT WAS PRODUCED BY A PROFESSIONAL SOIL SCIENTIST. AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. THERE IS A REPORT THAT ACCOMPANIES THIS MAP THE SITE SPECIFIC SOIL SURVEY WAS PRODUCED 04-17-2021, AND WAS PREPARED BY JAMES P. GOVE, CSS # 004, GOVE ENVIRONMENTAL SERVICES, INC., FOR SITE LOCATED OF PEVERLY HILL ROAD, PORTSMOUTH, NH. SOILS WERE IDENTIFIED WITH THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, USDA NRCS, DURHAM, NH. ISSUE # 10, JANUARY 2011.

MAP 255 LOT 5 N/F

THOMAS E. & MARYBETH B. REIS AND

JAMES B. & MEEGAN C. REIS

305 PEVERLY HILL ROAD

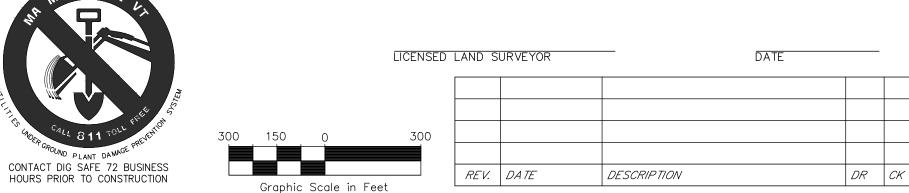
PORTSMOUTH, NH 03801

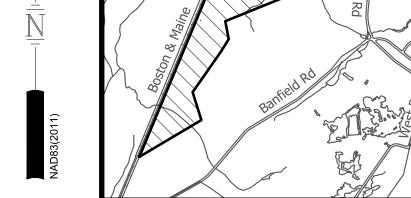
RCRD BK #5560 PG #2148

HIGH INTENSITY SOIL SURVEY (HISS) CONVERSION IS DETERMINED BY THE SOIL PROPERTIES IDENTIFIED IN "HIGH INTENSITY SOIL MAPPING STANDARD FOR NH', SSSNNE SPECIAL PUBLICATION NUMBER 1, DECEMBER, 2017. HYDROLOGIC SOIL GROUPS ARE DETERMINED FROM SSSNNE SPECIAL PUBLICATION NUMBER 5, "KSAT VALUES FOR

SOIL SYMBOL	SOIL MAP UNIT	HYDROLOGIC GROUP
32	BOXFORD SILT LOAM	C
33	SCITICO SILT LOAM	C
42	CANTON SANDY LOAM	В
313	DEERFIELD LOAMY SAND	В
444	NEWFIELDS SANDY LOAM	В
510	HOOSIC GRAVELLY LOAMY SAND	A
546	WALPOLE SANDY LOAM	C
B SLOPE = 0-8%		
C SLOPE = 8-15%		
D SLOPE = 15 -25%		

CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY THOSE UNDER MY DIRECT SUPERVISION AND ARE THE RESULT OF A FIELD SURVEY CONDUCTED IN APRIL—MAY 2020. THIS SURVEY CONFORMS TO THE ACCURACY REQUIREMENTS OF AN URBAN SURVEY OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. FURTHER CERTIFY THAT THIS SURVEY IS CORRECT TO THE BEST OF MY PROFESSIONAL





LOCATION PLAN

#### NOTES:

1. THE PARCEL IS LOCATED IN THE SINGLE RESIDENCE A (SRA) & SINGLE RESIDENCE B (SRB) ZONING DISTRICTS.

2. THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 242 AS LOT 4.

3. THE PARCEL IS LOCATED IN ZONE X AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM (NFIP). FLOOD INSURANCE RATE MAP (FIRM) ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL 270 OF 681, MAP NUMBER 33015C0270F, MAP REVISED JANUARY 29, 2021.

4.	DIMENSIONAL REQUIREMENTS:	REQUIRED:	
	MINIMUM LOT AREA: LOT AREA PER DWELLING UNIT: CONTINUOUS STREET FRONTAGE: LOT DEPTH:	SRA 1 ACRE 1 ACRE 150' 200'	SRB 15,000 SI 15,000 SI 100' 100'
	MINIMUM YARD DIMENSIONS: FRONT: SIDE: REAR: MAXIMUM STRUCTURE DIMENSIONS: STRUCTURE HEIGHT:	30' 20' 40'	30' 10' 30'
	SLOPED ROOF FLAT ROOF BUILDING COVERAGE: MINIMUM OPEN SPACE: PER THE CITY OF PORTSMOUTH ZONING ORDINA	35' 30' 10% 50% NCE SECTION 1	35' 30' 20% 40% 10.520.

5. OWNER OF RECORD: MAP 242 LOT 4: STELLA B. STOKEL 1993 TRUST, NANCY A. STOKEL 1993 TRUST & PHILIP J. STOKEL 83 PEVERLY HILL ROAD PORTSMOUTH, NH 03801 RCRD BK.#5066 PG.#1603

6. PARCEL AREA: MAP 242 LOT 4: 4,604,509 S.F. (105.7050 ACRES)

7. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH THE CURRENT LEGAL DESCRIPTIONS. IT IS NOT AN ATTEMPT TO DEFINE THE EXTENT OF OWNERSHIP OR DEFINE THE LIMITS OF TITLE.

THE PURPOSE OF THIS PLAN IS TO SHOW THE OVERALL BOUNDARY LINES OF MAP 242 LOT 4. FIELD SURVEY COMPLETED BY TCE, MVP & PJT IN APRIL-MAY 2020 USING A TOPCON DS103,

TOPCON HIPER-SR. TOPCON HIPER-V AND A CARLSON RT4 DATA COLLECTOR. 10. HORIZONTAL DATUM IS NAD83 (2011) PER STATIC GPS OBSERVATIONS. THE VERTICAL DATUM IS NAVD88 (GEOID12B) PER STATIC GPS OBSERVATIONS. THE CONTOUR INTERVAL IS 2 FEET.

11. EASEMENTS, RIGHTS, AND RESTRICTIONS SHOWN OR IDENTIFIED ARE THOSE WHICH WERE FOUND DURING RESEARCH PERFORMED AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. OTHER RIGHTS, EASEMENTS, OR RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF SUBJECT PARCEL(S) WOULD DETERMINE

12. THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. TFMORAN, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UNDERGROUND UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE

13. WETLAND DELINEATION WAS COMPLETED BY GOVE ENVIRONMENTAL SERVICES ON FEBRUARY 18, 2020 AND REVISED ON MAY 14, 2020 IN ACCORDANCE WITH THE 1987 ARMY CORP OF ENGINEERS WETLAND MANUAL AND THE 2012 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION. FIELD

LOCATED BY TEMORAN, INC. 14. THE ABANDONED CEMETERY SHOWN ON SHEET S-03 IS BELIEVED TO BE THE FORMER HAYES FAMILY CEMETERY. CURRENT OWNERS OF THE PROPERTY ACKNOWLEDGE THAT ALL BODIES HAVE BEEN EXHUMED FROM THIS LOCATION. NO GRAVESTONES EXIST AT THIS CEMETERY. THE 25' BUFFER TO THE CEMETERY IS SHOWN AS AN ABUNDANCE OF CAUTION.

TAX MAP 242 LOT 4

OVERALL EXISTING CONDITIONS PLAN PEVERLY HILL ROAD 83 PEVERLY HILL ROAD PORTSMOUTH, NEW HAMPSHIRE **COUNTY OF ROCKINGHAM** 

STELLA B. STOKEL 1993 TRUST, NANCY A. STOKEL 1993 TRUST & PHILIP J. STOKEL

OWNED BY

SCALE: 1' = 300' (22x34) 1" = 600' (11x17)

**APRIL 19, 2021** 



Civil Engineers Structural Engineers Traffic Engineers Land Surveyors Landscape Architects Scientists

170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

S-01 CK BMK CADFILE

8 Constitution Drive, Bedford, N.H. 03110

Thomas F. Moran, Inc.

duplicated, replicated or otherwise reproduced in any form whatsoever

LINE # | BEARING | DISTANCE L43 S69°37'42"W

L44 S69°05'04"W

LINE TABLE

85.94'

72.38' 108.68' 113.60' 68.75'

90.88' 84.72'

94.54' 86 86'

66.01' 94.64' 93.63' 210.79'

L42 S68°05'19"W 38.26'

without the prior written permission of Thomas F. Moran, Inc. This plan is not effective unless signed by a duly authorized officer of

6. "STANDARD BOUNDARY SURVEY MAP 242 - LOT 1 MAP 258 - LOT 54 MAP 263 - LOT 1-6 & 2 7. "LOT LINE RELOCATION PLAN MAP R-65 LOTS 2A & 2B FOR HAROLD & MARILYN ECKER AND ELIZABETH K. HURLEY 422 & 470 BANFIELD ROAD PORTSMOUTH, N.H. COUNTY OF ROCKINGHAM" BY

2. RIGHTS OF PETER AND STELLA STOKEL AND THEIR RESPECTIVE

3. 110' WIDE POWER LINE EASEMENT TO THE NEW HAMPSHIRE GAS &

MAP 165 LOT 14 **BOSTON & MAINE CORPORATION** 

IRON HORSE PARK HIGH STREET

NORTH BILLERICA, MA 01862

POWER LINE EASEMENT

(SEE E&R #3)

MAP 232 LOT 92 DYANNA L. INNES 78 PEVERLY HILL ROAD PORTSMOUTH, NH 03801 RCRD BK #3754 PG #0099

ABUTTERS ACROSS PEVERLY HILL ROAD

MAP 232 LOT 88 NATHAN M. & SHERRI M. TARLETON 74 LEAVITT AVENUE PORTSMOUTH NH 03801 RCRD BK.#5885 PG.#1471 MAP 232 LOT 93

KENNETH T. BLACK 82 PEVERLY HILL ROAD PORTSMOUTH, NH 03801 RCRD BK.#3743 PG.#1942 MAP 232 LOT 87

SUSAN L. DIXON 68 WIBIRD STREET PORTSMOUTH, NH 03801 RCRD BK #2504 PG #0028 MAP 232 LOT 95

CITY OF PORTSMOUTH DPW

PO BOX 628

PORTSMOUTH, NH 03802 RCRD BK #2247 PG #0239 MAP 243 LOT 50 ASRT, LLC 266 MIDDLE STREET PORTSMOUTH, NH 03801 RCRD BK #6184 PG #1176

MAP 243 LOT 51 AJEI REAL ESTATE LLC 163 SPINNEY ROAD PORTSMOUTH, NH 03801 RCRD BK.#5887 PG.#0463 MAP 243 LOT 52

CITY OF PORTSMOUTH DPW PO BOX 628 PORTSMOUTH, NH 03802 RCRD BK.#2042 PG.#0498

MAP 265 LOT 2D N/F CITY OF PORTSMOUTH DPW PO BOX 628 PORTSMOUTH, NH 03802

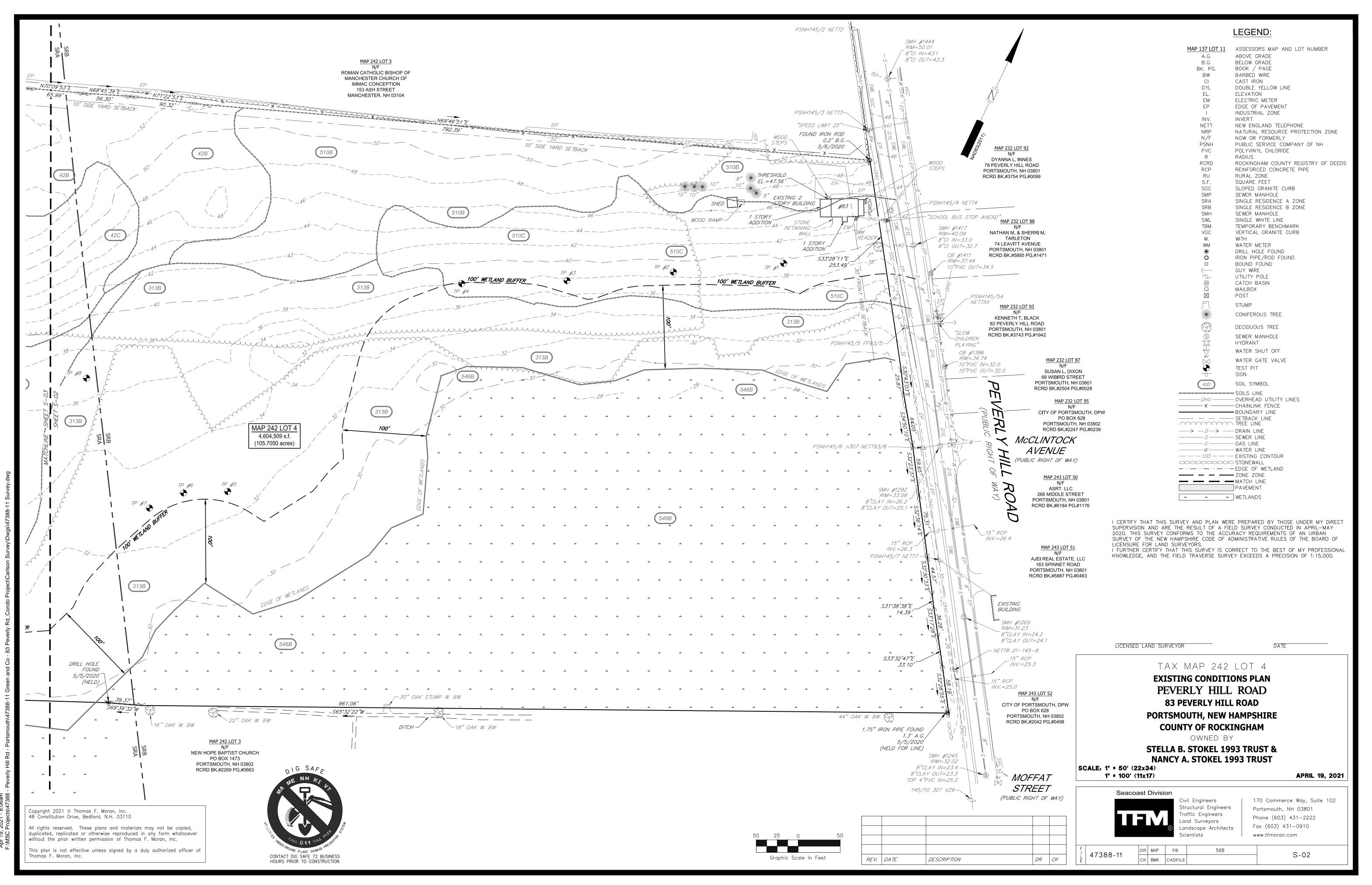
RCRD BK.#2413 PG.#0222

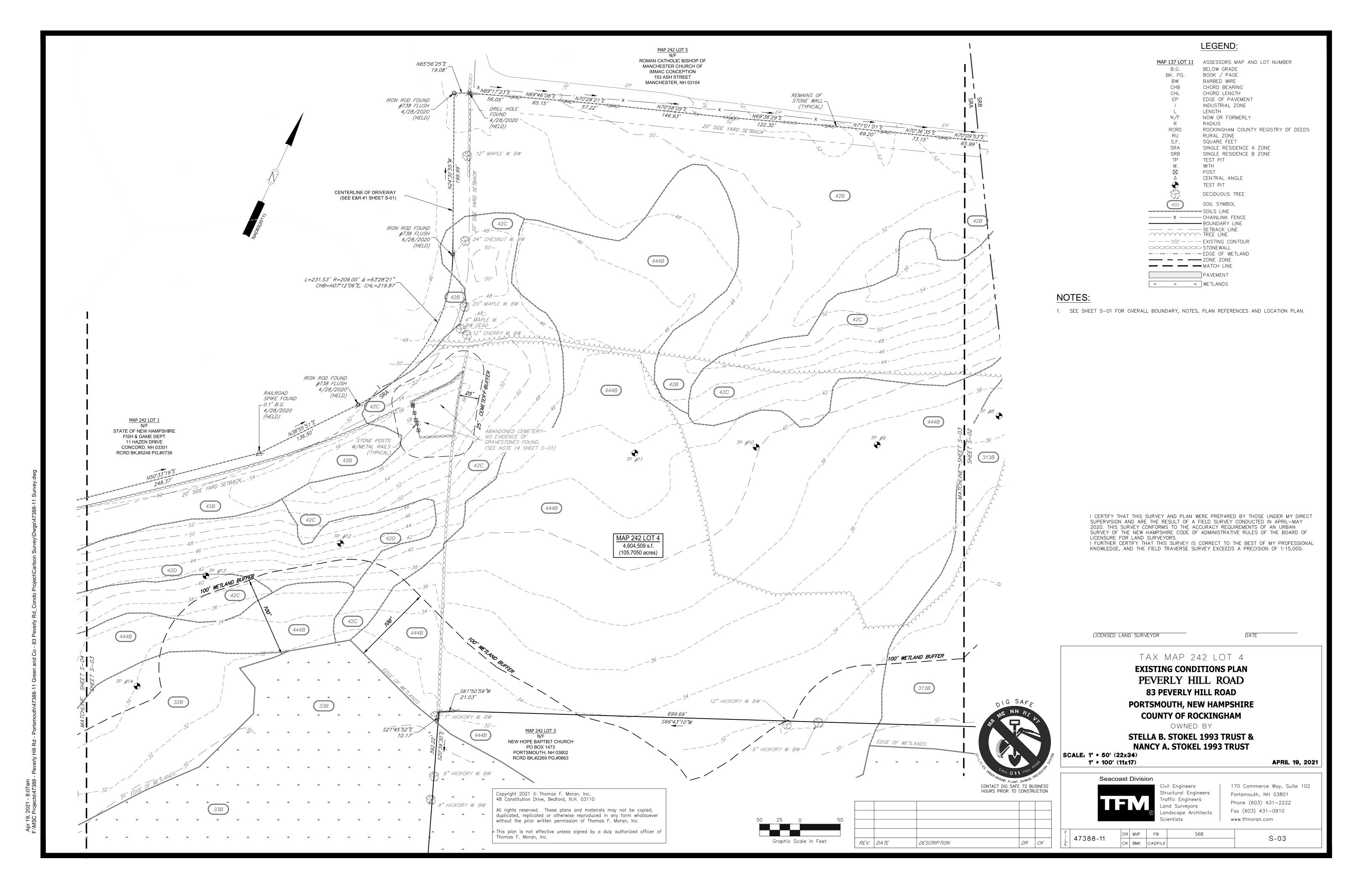
MAP 265 LOT 2E CITY OF PORTSMOUTH 1 JUNKINS AVENUE PORTSMOUTH, NH 03801 RCRD BK #5077 PG #1943

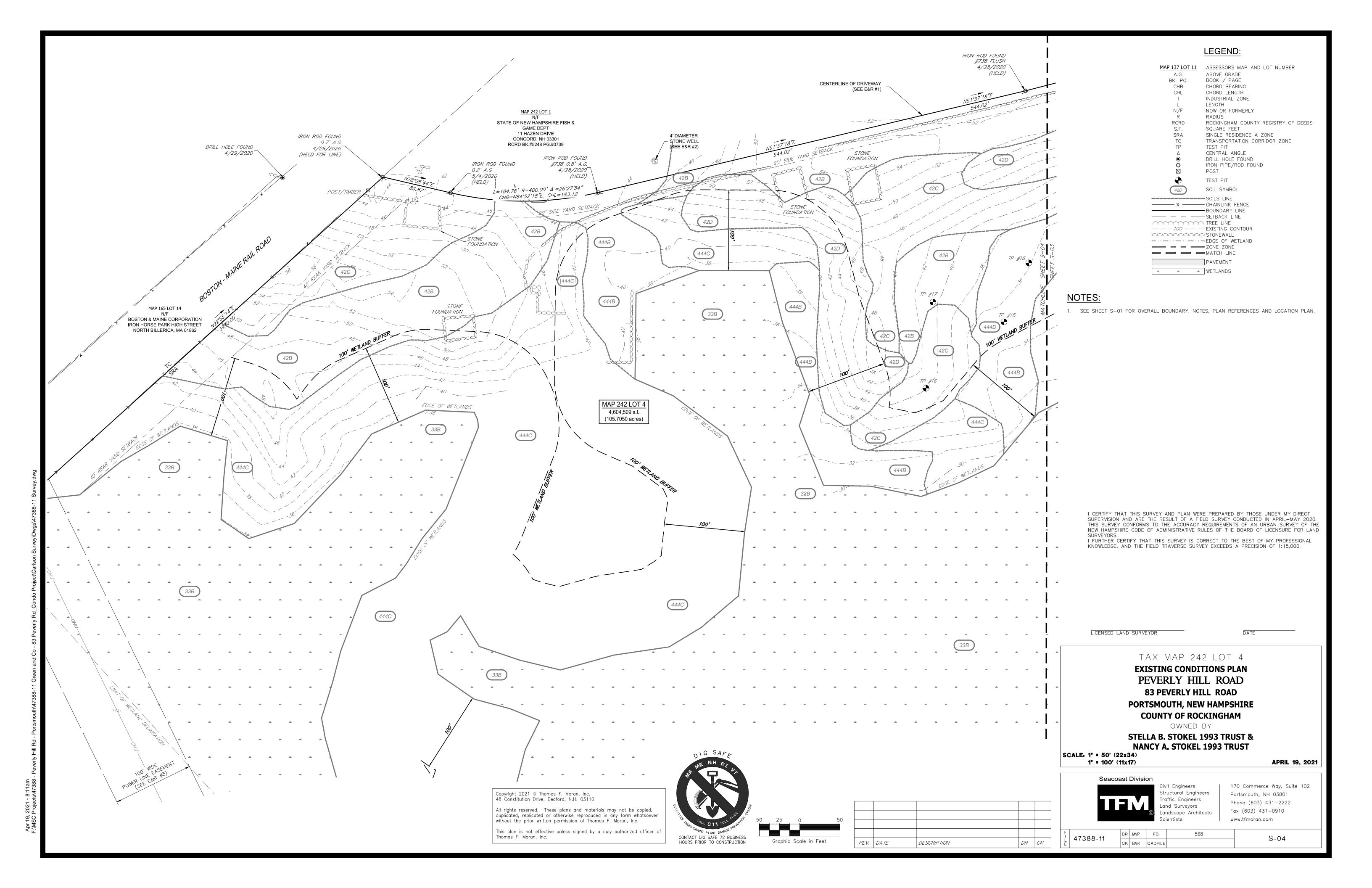
MARK H. ODIORNE MAP 265 LOT 2C 520 BANFIELD ROAD PORTSMOUTH, NH 03801 APOSTOLIC CHURCH OF J CHRIST RCRD BK #3353 PG #2213 500 BANFIELD ROAD PORTSMOUTH, NH 03801 RCRD BK.#2739 PG.#0043

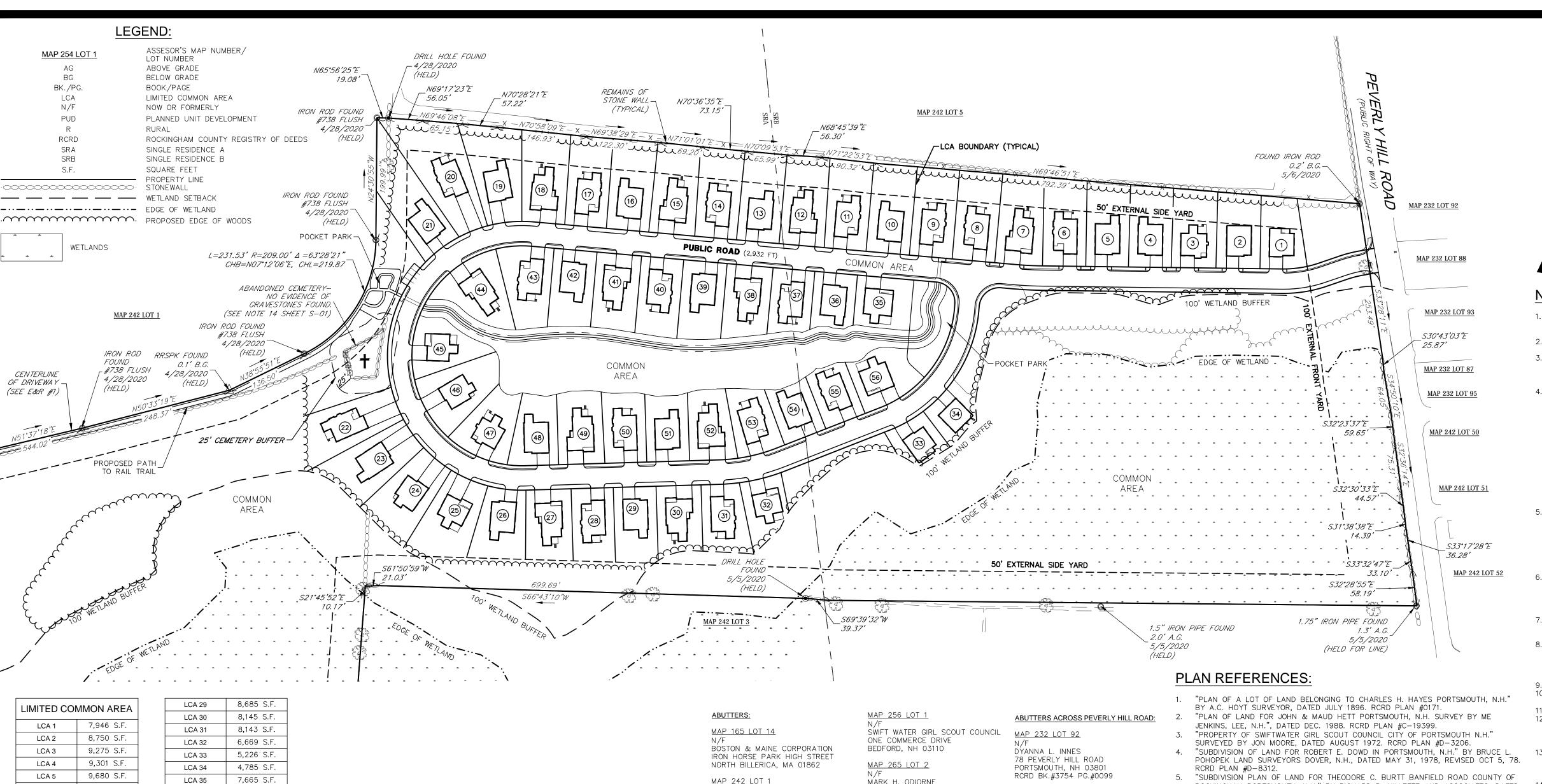
MAP 265 LOT 2

KNOWLEDGE, AND THE FIELD TRAVERSE SURVEY EXCEEDS A PRECISION OF 1:15,000.









LIIVII I LD OC	/WIIVIOIN / WE/
LCA 1	7,946 S.F.
LCA 2	8,750 S.F.
LCA 3	9,275 S.F.
LCA 4	9,301 S.F.
LCA 5	9,680 S.F.
LCA 6	10,046 S.F
LCA 7	10,669 S.F.
LCA 8	10,257 S.F.
LCA 9	10,154 S.F.
LCA 10	10,341 S.F.
LCA 11	10,268 S.F.
LCA 12	10,589 S.F.
LCA 13	10,115 S.F.
LCA 14	10,370 S.F.
LCA 15	10,708 S.F.
LCA 16	10,552 S.F.
LCA 17	10,135 S.F.
LCA 18	11,167 S.F.
LCA 19	12,724 S.F.
LCA 20	16,604 S.F.
LCA 21	12,873 S.F.
LCA 22	11,550 S.F.
LCA 23	11,625 S.F.
LCA 24	11,288 S.F.
LCA 25	11,597 S.F.
LCA 26	9,163 S.F.
LCA 27	8,786 S.F.
LCA 28	8,294 S.F.

		i	LOASI	0,110 0.11
LCA 2	8,750 S.F.		LCA 32	6,669 S.F.
LCA 3	9,275 S.F.		LCA 33	5,226 S.F.
LCA 4	9,301 S.F.		LCA 34	4,785 S.F.
LCA 5	9,680 S.F.		LCA 35	7,665 S.F.
LCA 6	10,046 S.F		LCA 36	6,209 S.F.
LCA 7	10,669 S.F.		LCA 37	7,074 S.F.
LCA 8	10,257 S.F.		LCA 38	8,774 S.F.
LCA 9	10,154 S.F.		LCA 39	9,083 S.F.
LCA 10	10,341 S.F.		LCA 40	8,885 S.F.
LCA 11	10,268 S.F.		LCA 41	9,066 S.F.
LCA 12	10,589 S.F.		LCA 42	8,840 S.F.
LCA 13	10,115 S.F.		LCA 43	9,906 S.F.
LCA 14	10,370 S.F.		LCA 44	9,954 S.F.
LCA 15	10,708 S.F.		LCA 45	8,034 S.F.
LCA 16	10,552 S.F.		LCA 46	10,638 S.F.
LCA 17	10,135 S.F.		LCA 47	8,840 S.F.
LCA 18	11,167 S.F.		LCA 48	8,126 S.F.
LCA 19	12,724 S.F.		LCA 49	8,825 S.F.
LCA 20	16,604 S.F.		LCA 50	7,961 S.F.
LCA 21	12,873 S.F.		LCA 51	7,593 S.F.
LCA 22	11,550 S.F.		LCA 52	8,127 S.F.
LCA 23	11,625 S.F.		LCA 53	7,613 S.F.
LCA 24	11,288 S.F.		LCA 54	6,366 S.F.
LCA 25	11,597 S.F.		LCA 55	6,410 S.F.
LCA 26	9,163 S.F.		LCA 56	6,520 S.F.

#### EASEMENTS AND RESTRICTIONS (E&R):

- THE RIGHT TO USE SAID DRIVEWAY IN COMMON WITH PETER STOKEL AND HIS HEIRS FROM SAID GREENLAND ROAD, ALONG BY SAID CEMETERY. AND ALONG THE BOUNDARY BETWEEN THE LANDS OF SAID PETER AND STELLA TO SAID RAILROAD, AND SUBJECT TO SAID PETER'S RIGHT TO USE THE SAME IN COMMON. (SEE RCRD BK.#5066 PG.#1603).
- 2. RIGHTS OF PETER AND STELLA STOKEL AND THEIR RESPECTIVE HEIRS AND ASSIGNS SHALL HAVE EQUAL RIGHTS TO THE WATER OF SAID WELL, SAID PUMP, THE PIPES AND ANY OTHER EQUIPMENT USED NOW OR HEREAFTER IN COMMON, CHARGES OF CARE, UPKEEP, REPAIRS OR REPLACEMENT TO BE BORNE EQUALLY, WITH MUTUAL EASEMENTS TO ENTER ON THE LAND OF THE OTHER WHENEVER NECESSARY FOR ANY OF SAID PURPOSES. (SEE RCRD BK.#5066 PG.#1603).
- 3. 110' WIDE POWER LINE EASEMENT TO THE NEW HAMPSHIRE GAS & ELECTRIC COMPANY. (SEE RCRD BK.#1052 PG.#321).

## CITY OF PORTSMOUTH PLANNING BOARD

48 Constitution Drive, Bedford, N.H. 03110

Copyright 2021 © Thomas F. Moran, Inc.

All rights reserved. These plans and materials may not be copied, luplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.

MAP 242 LOT 1 STATE OF NEW HAMPSHIRE FISH & GAME DEPT 11 HAZEN DRIVE CONCORD, NH 03301

RCRD BK.#5248 PG.#0739 MAP 242 LOT 3 NEW HOPE BAPTIST CHURCH PO BOX 1473

PORTSMOUTH, NH 03802

RCRD BK.#2269 PG.#0663

MAP 242 LOT 5 ROMAN CATHOLIC BISHOP OF MANCHESTER CHURCH OF IMMAC

CONCEPTION 153 ASH STREET MANCHESTER, NH 03104 MAP 255 LOT 5

THOMAS E. & MARYBETH B. REIS AND JAMES B. & MEEGAN C. REIS 305 PEVERLY HILL ROAD PORTSMOUTH, NH 03801 RCRD BK.#5560 PG.#2148

MAP 255 LOT 8 MERRIMAC VALLEY HOMES, INC. 1794 BRIDGE STREET, UNIT 6 DRACUT, MA 01826 RCRD BK.#5881 PG.#0981

OIG SAFE

MARK H. ODIORNE 520 BANFIELD ROAD PORTSMOUTH, NH 03801 RCRD BK.#3353 PG.#2213

MAP 265 LOT 2A DÁVID W. ECKER 875 BANFIELD ROAD PORTSMOUTH, NH 03801 RCRD BK.#6091 PG.#0374

MAP 265 LOT 2B LÉE ANN & RICHARD M. RILEY 470 BANFIELD ROAD PORTSMOUTH, NH 03801 RCRD BK.#3491 PG.#2344

MAP 265 LOT 2C APOSTOLIC CHURCH OF J CHRIST 500 BANFIELD ROAD PORTSMOUTH, NH 03801 RCRD BK.#2739 PG.#0043

MAP 265 LOT 2D CITY OF PORTSMOUTH DPW PO BOX 628 PORTSMOUTH, NH 03802 RCRD BK.#2413 PG.#0222

MAP 265 LOT 2E CÍTY OF PORTSMOUTH 1 JUNKINS AVENUE PORTSMOUTH, NH 03801 RCRD BK.#5077 PG.#1943

MAP 232 LOT 95 CÍTY OF PORTSMOUTH DPW PO BOX 628 PORTSMOUTH, NH 03802

> MAP 243 LOT 50 ASRT, LLC 266 MIDDLE STREET PORTSMOUTH, NH 03801 RCRD BK.#6184 PG.#1176 MAP 243 LOT 51

MAP 232 LOT 88

MAP 232 LOT 93

MAP 232 LOT 87

SÚSAN L. DIXON

68 WIBIRD STREET

KÉNNETH T. BLACK

82 PEVERLY HILL ROAD

PORTSMOUTH, NH 03801

RCRD BK.#3743 PG.#1942

PORTSMOUTH, NH 03801

RCRD BK.#2504 PG.#0028

RCRD BK.#2247 PG.#0239

74 LEAVITT AVENUE

PORTSMOUTH, NH 03801

RCRD BK.#5885 PG.#1471

NATHAN M. & SHERRI M. TARLETON

AJEI REAL ESTATE LLC 163 SPINNEY ROAD PORTSMOUTH, NH 0380° RCRD BK.#5887 PG.#0463

- ROCKINGHAM PORTSMOUTH, N.H." BY RICHARD P. MILLETTE AND ASSOCIATES, DATED DECEMBER 1981, WITH REVISION 2 DATED JANUARY, 1982. RCRD PLAN #D-10795. "STANDARD BOUNDARY SURVEY MAP 242 - LOT 1 MAP 258 - LOT 54 MAP 263 -LOT 1-6 & 2 FOR THE NATURE CONSERVANCY N.H. ROUTE 33 GREENLAND ROAD
- COUNTY OF ROCKINGHAM STATE OF NEW HAMPSHIRE" BY AMBIT ENGINEERING, INC., DATED FEBRUARY 2006, WITH REVISION 1, DATED 4/13/06. RCRD PLAN #D-33859. 7. "LOT LINE RELOCATION PLAN MAP R-65 LOTS 2A & 2B FOR HAROLD & MARILYN ECKER AND ELIZABETH K. HURLEY 422 & 470 BANFIELD ROAD PORTSMOUTH, N.H. COUNTY OF ROCKINGHAM" BY AMBIT ENGINEERING, INC., DATED MAY 2000, WITH REVISION 0 DATED 5/26/00. RCRD PLAN #D-28209.

I HEREBY CERTIFY THAT THIS PLAN IS ACCURATE AND COMPLIES WITH NHRSA 356-B: 20(I). ALL UNITS OR PORTIONS THEREOF DEPICTED ON ANY PORTION OF THE SUBMITTED LAND OTHER THAN WITHIN THE BOUNDARIES OF ANY CONVERTIBLE LAND HAVE NOT YET BEGUN.

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION. THIS SURVEY IS AN URBAN SURVEY AS CLASSIFIED IN THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THE TRAVERSE WAS COMPLETED BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

DESCRIPTION

LICENSED LAND SURVEYOR

REV. DATE



REOURED.

4,604,509 S.F.

PROPOSED:

(SEE CHART)

**NOTES:** 

1. THE PARCEL IS LOCATED IN THE SINGLE RESIDENCE A (SRA) & SINGLE RESIDENCE B (SRB) ZONING DISTRICTS.

- 2. THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 242 AS LOT 4.
- THE PARCEL IS LOCATED IN ZONE X AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM (NFIP), FLOOD INSURANCE RATE MAP (FIRM) ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL 270 OF 681, MAP NUMBER 33015C0270F, MAP REVISED JANUARY 29, 2021.

4. DIMENSIONAL REQUIREMENT OF OPEN SPACE RESIDENTIAL PUD (OS-PUD)

SI ACE RESIDENTIAL FOD (OS FOD)	ILQUITED.	I NOI OSLD.
MINIMUM LOT AREA:	10 ACRES	105.705 ACRES
MINIMUM STREET FRONTAGE:	100'	665'
MINIMUM EXTERNAL YARDS:		
FRONT:	100'	113.9'
SIDE & REAR:	50'	50.2'; 1,191.4'
MINIMUM INTERNAL YARDS:		
FRONT:	20'	20.9'
SIDE & REAR:	25'	30.0'
MINIMUM SEPARATION BETWEEN STRUCTURES:	30'	30.0'
COMMON OPEN SPACE:	25%	83%
PER THE CITY OF PORTSMOUTH ZONING ORDINANC	E SECTION 10.725	

OWNER OF RECORD:

4,604,509 S.F.

STELLA B. STOKEL 1993 TRUST, NANCY A. STOKEL 1993 TRUST & PHILIP J. STOKEL 83 PEVERLY HILL ROAD PORTSMOUTH, NH 03801

RCRD BK.#5066 PG.#1603 PARCEL AREA: SUBMITTED AREA: COMMON AREA: LIMITED COMMON AREA: MAP 242 LOT 4:

4,604,509 S.F.

- (105.7050 ACRES) (105.7050 ACRES) (105.7050 ACRES) THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH THE CURRENT LEGAL DESCRIPTIONS. IT IS NOT AN ATTEMPT TO DEFINE THE EXTENT OF
- OWNERSHIP OR DEFINE THE LIMITS OF TITLE. THE PURPOSE OF THIS PLAN IS TO DEPICT THE COMMON AREAS AND LIMITED COMMON AREAS ASSOCIATED WITH THE OPEN SPACE PLANNED UNIT DEVELOPMENT OF MAP 242 LOT 4. CONSTRUCTION OF UNITS NOT YET BEGUN. THE FINAL METES AND BOUNDS OF THE UNITS ANI THEIR ASSIGNED LIMITED COMMON AREAS SHALL BE DETERMINED BY AS-BUILT PLANS WITH AN AMENDED CONDOMINIUM SITE PLAN TO BE RECORDED UPON COMPLETION OF EACH UNIT.
- THESE UNITS ARE FOR RESIDENTIAL USE ONLY. FIELD SURVEY COMPLETED BY TCE, MVP & PJT IN APRIL-MAY 2020 USING A TOPCON DS103,
- TOPCON HIPER-SR, TOPCON HIPER-V AND A CARLSON RT4 DATA COLLECTOR. HORIZONTAL DATUM IS NAD83 (2011) PER STATIC GPS OBSERVATIONS. 12. EASEMENTS, RIGHTS, AND RESTRICTIONS SHOWN OR IDENTIFIED ARE THOSE WHICH WERE FOUND DURING RESEARCH PERFORMED AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. OTHER
- RIGHTS, EASEMENTS, OR RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF SUBJECT PARCEL(S) WOULD DETERMINE. 13. THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. TFMORAN, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF
- UNDERGROUND UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFF WETLAND DELINEATION WAS COMPLETED BY GOVE ENVIRONMENTAL SERVICES ON FEBRUARY 18,
- 2020 AND REVISED ON MAY 14, 2020 IN ACCORDANCE WITH THE 1987 ARMY CORP OF ENGINEERS WETLAND MANUAL AND THE 2012 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION. FIELD LOCATED BY TEMORAN, INC.
- THE UNITS SHOWN HEREON ARE TO BE SERVED BY THE CITY OF PORTSMOUTH PUBLIC WATER SUPPLY. AN EASEMENT SHALL BE GRANTED TO THE CITY OF PORTSMOUTH TO ALLOW WATER DEPARTMENT PERSONNEL ACCESS TO VALVES, HYDRANTS AND METERS FOR LEAK DETECTION, METERING AND MAINTENANCE
- 16. THE UNITS SHOWN HERE TO BE SERVICED BY MUNICIPAL SEWER. 17. TRASH AND SNOW REMOVAL IS THE RESPONSIBILITY OF THE PRIVATE HOMEOWNERS.

TAX MAP 242 LOT 4

**CONDOMINIUM SITE PLAN** PEVERLY HILL ROAD 83 PEVERLY HILL ROAD PORTSMOUTH, NEW HAMPSHIRE **COUNTY OF ROCKINGHAM** 

STELLA B. STOKEL 1993 TRUST, NANCY A. STOKEL 1993 TRUST & PHILIP J. STOKEL

OWNED BY

SCALE: 1" = 100' (22x34) 1" = 200' (11x17)

**APRIL 19, 2021** 

Seacoast Division

Civil Engineers Structural Engineers Traffic Engineers and Surveyors andscape Architects | 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 l www.tfmoran.com

47388-11

DATE

S-05 CADFILE

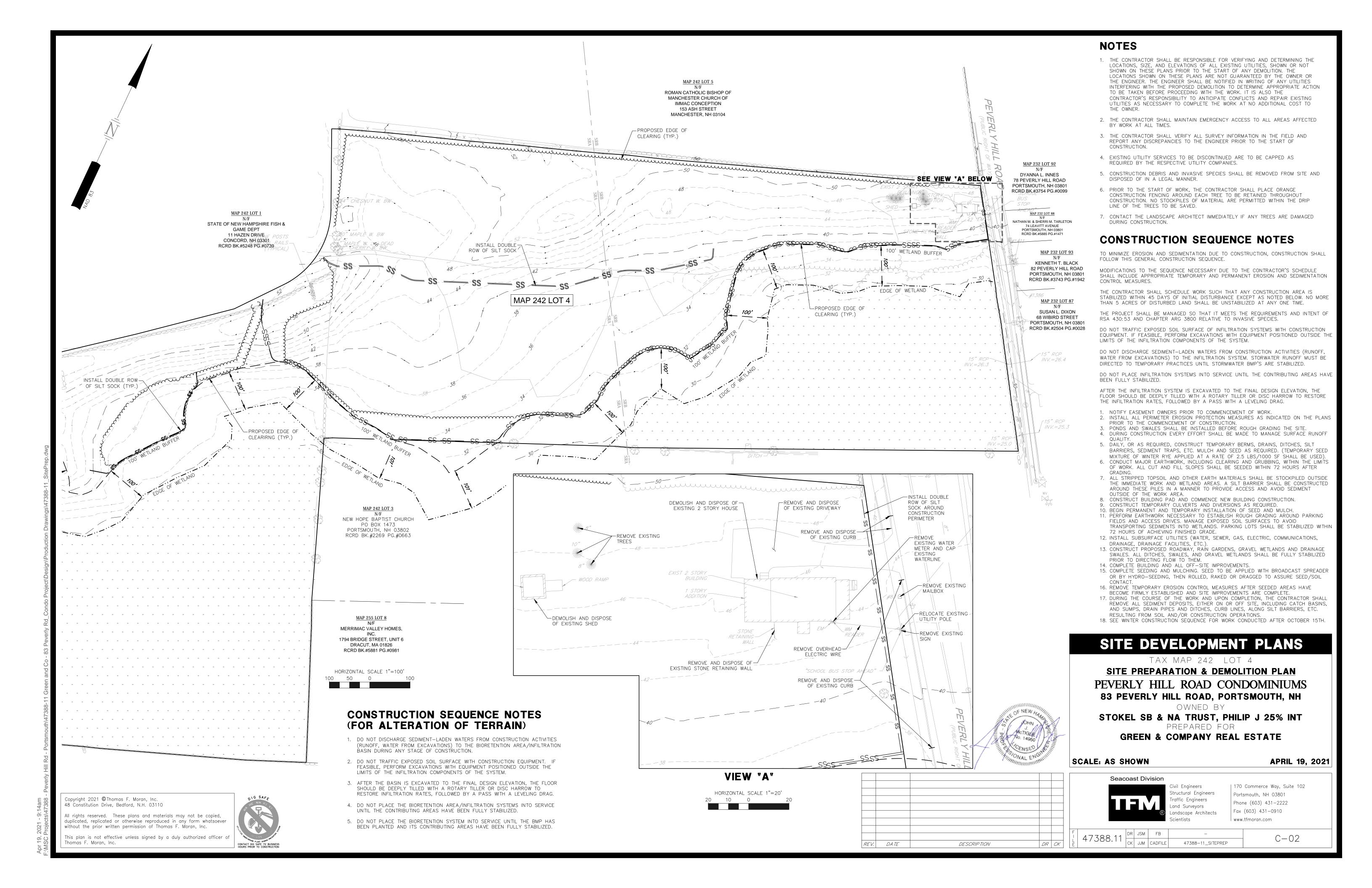
DATE CHAIRPERSON

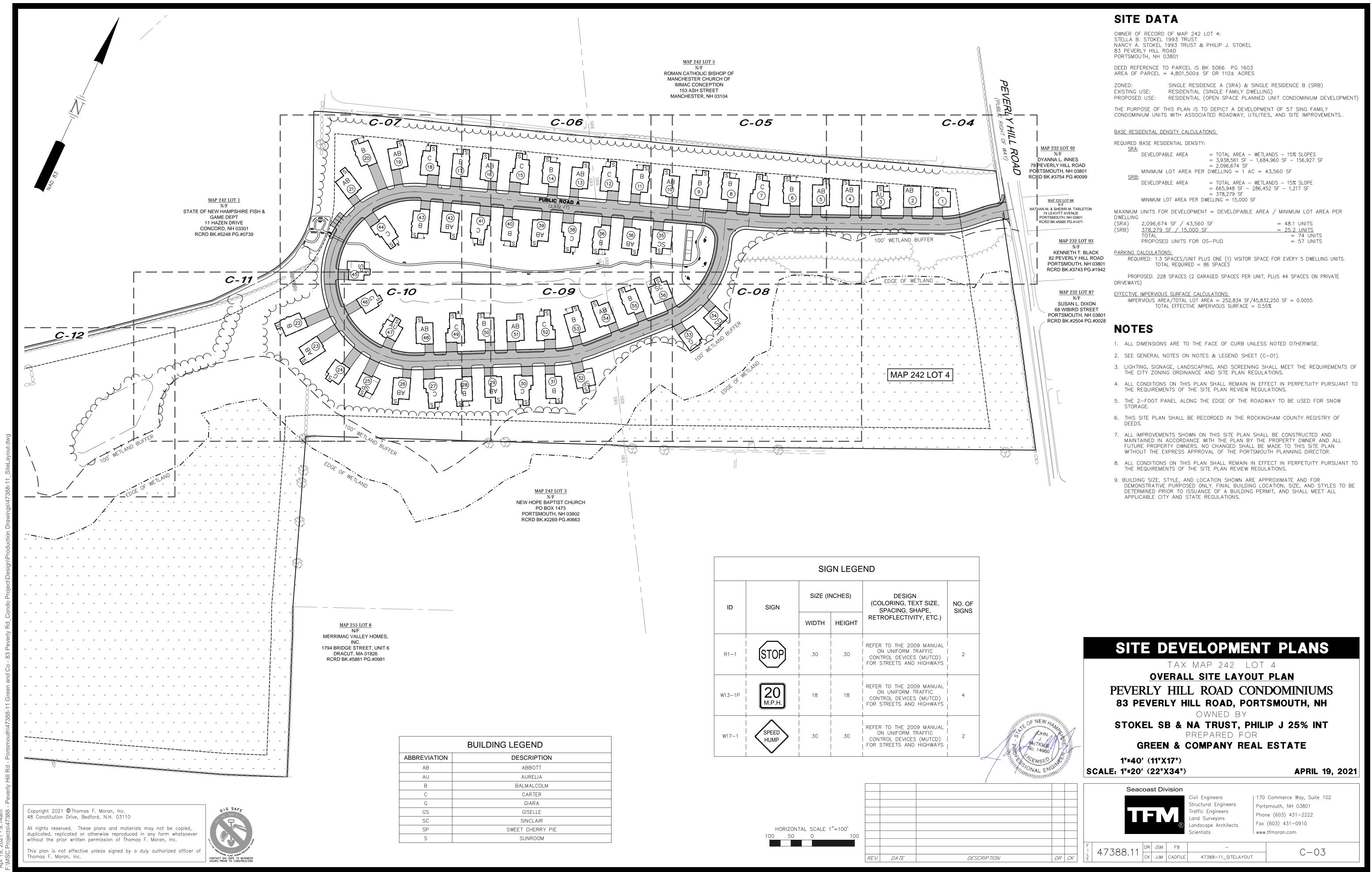
CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

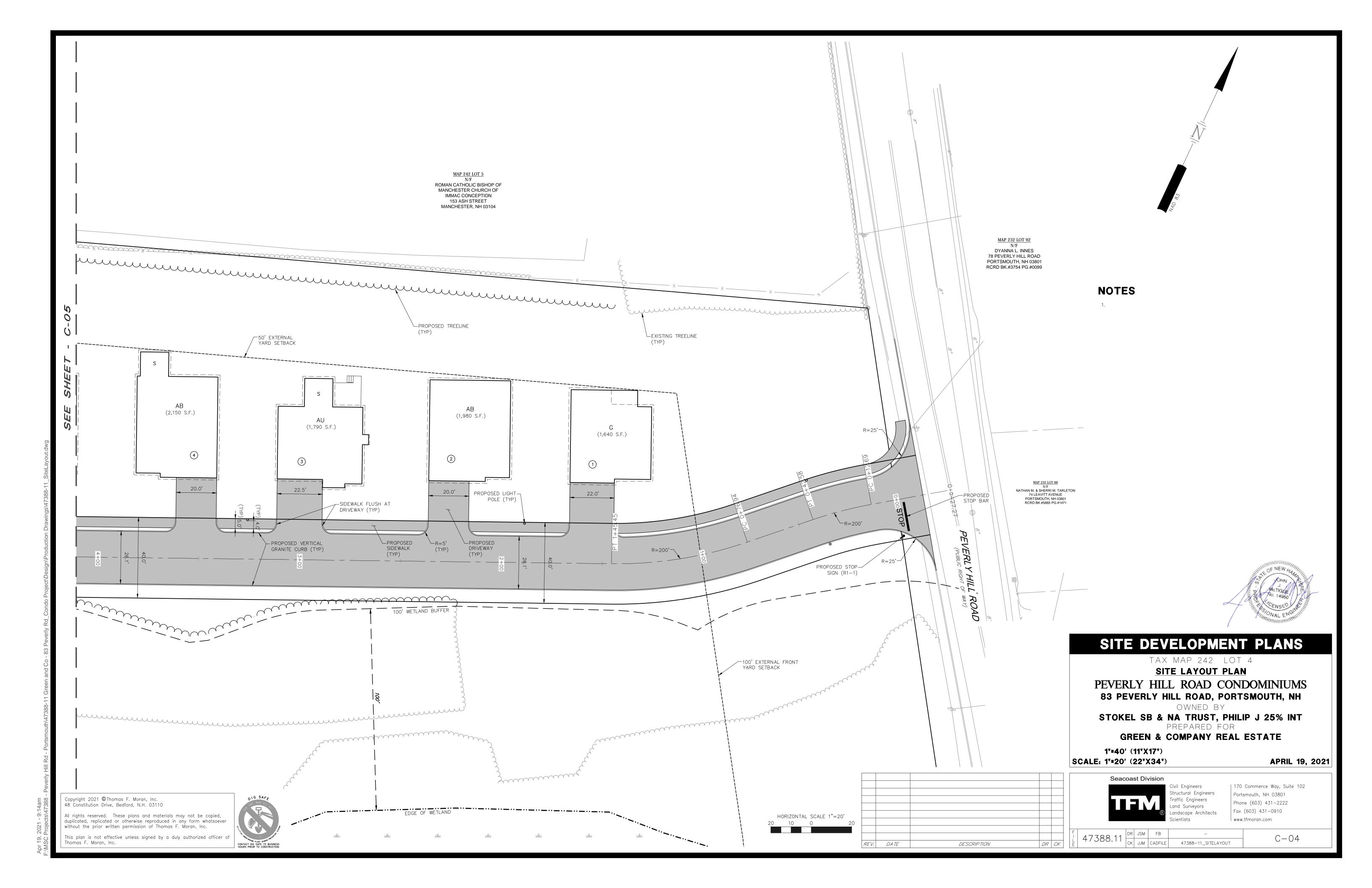
HORIZONTAL SCALE 1"=100' 100 50 0 

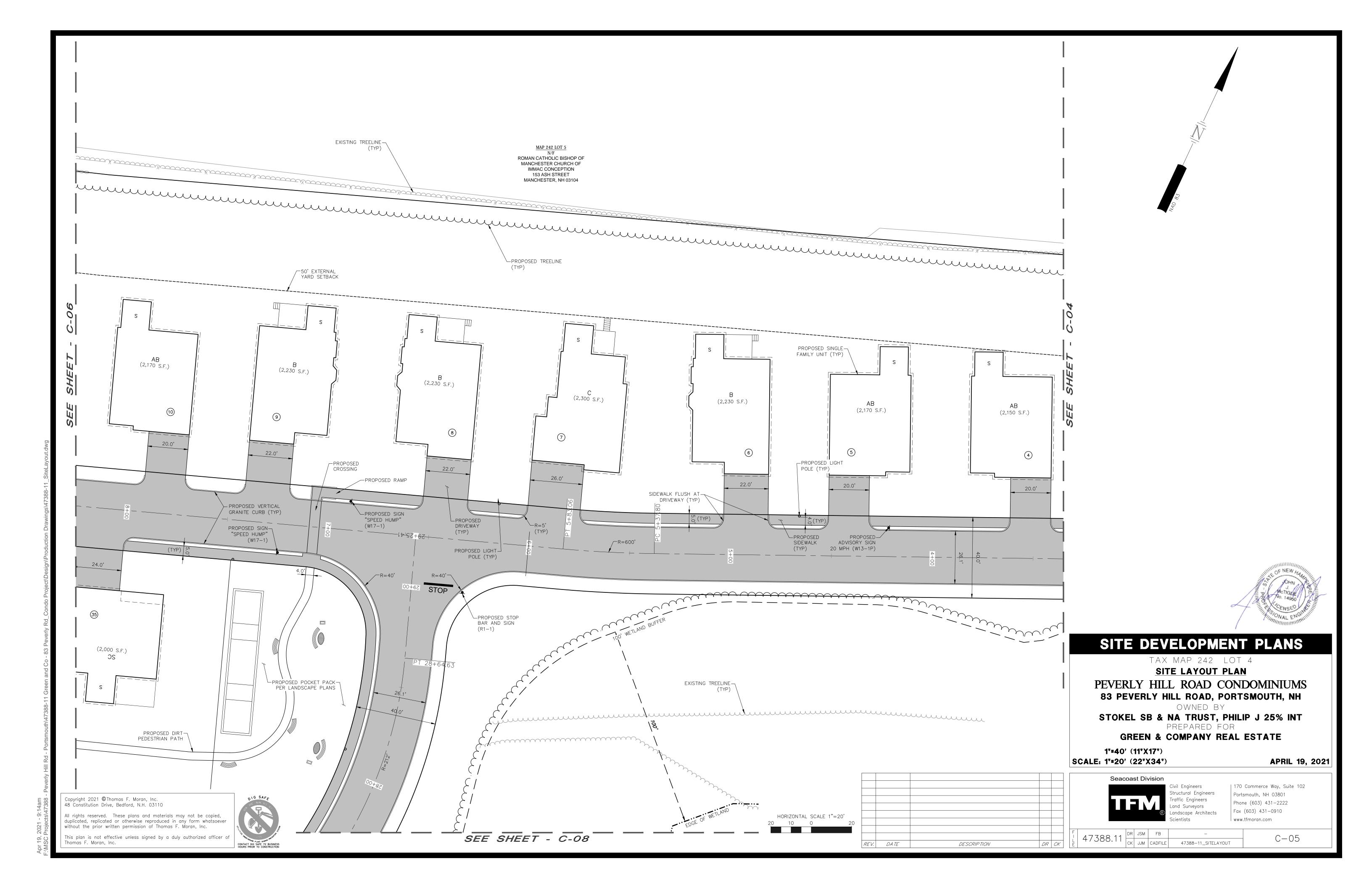
MAP 243 LOT 52

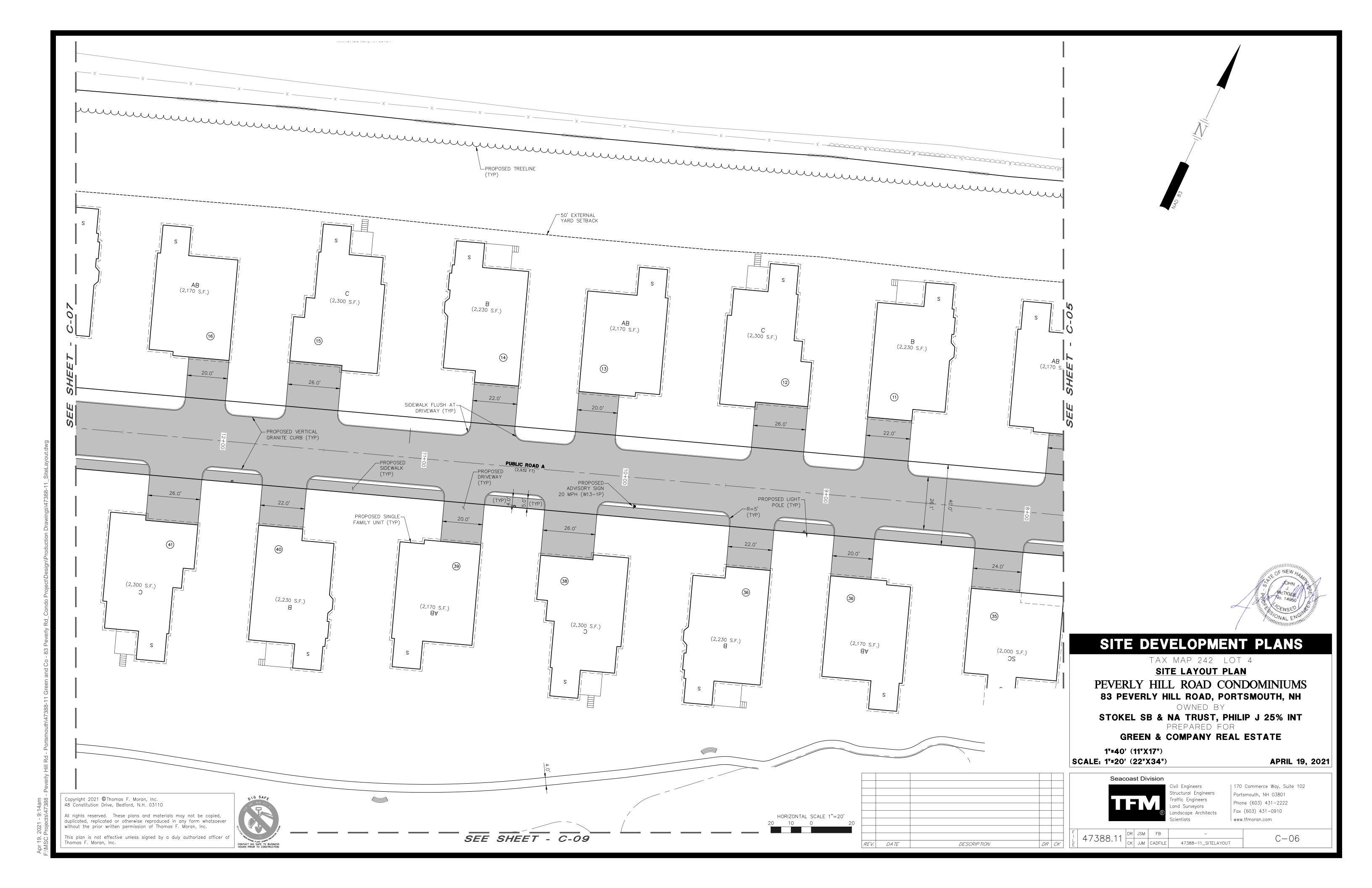
CITY OF PORTSMOUTH DPW PO BOX 628 PORTSMOUTH, NH 03802 RCRD BK.#2042 PG.#0498

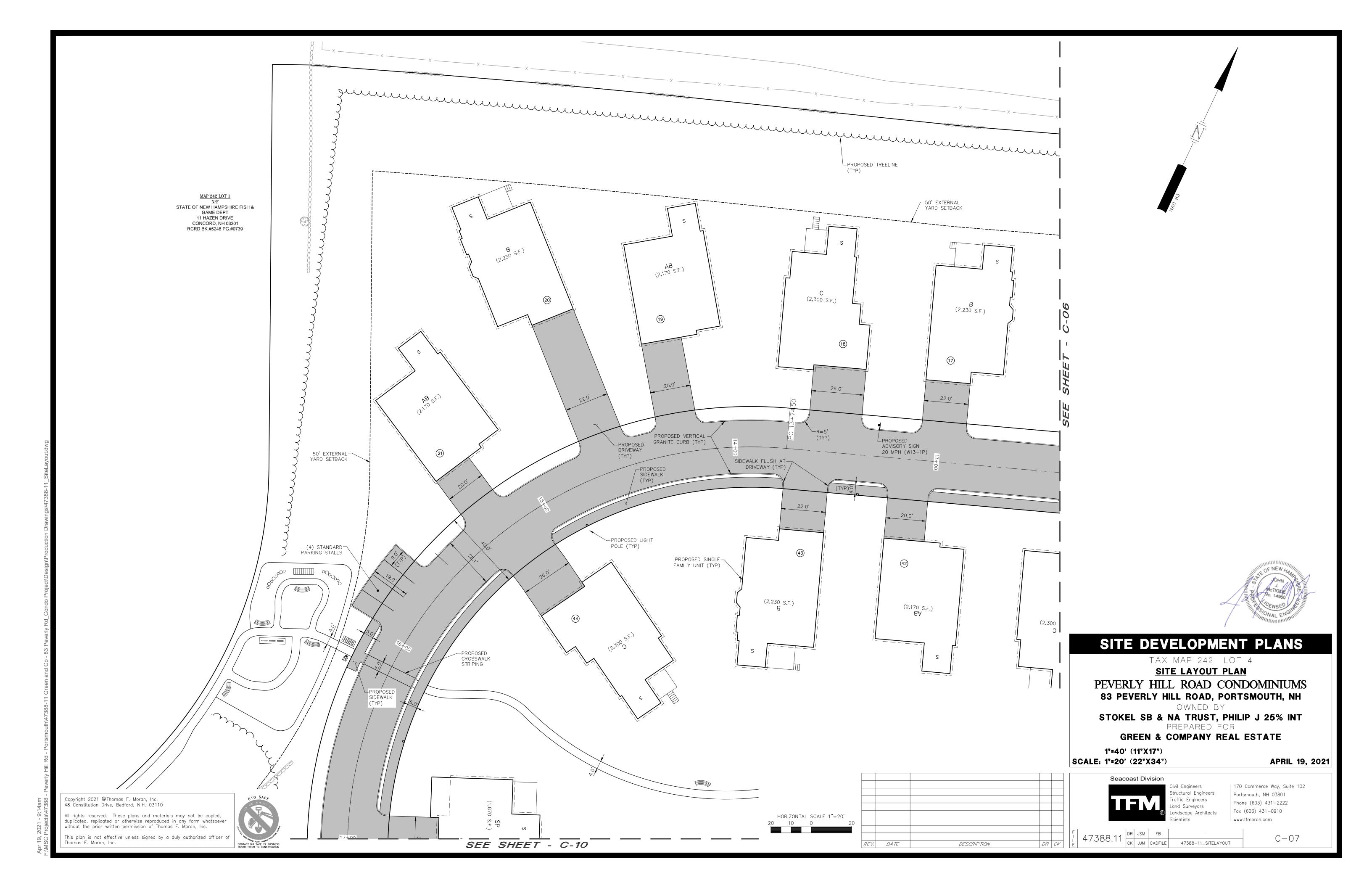


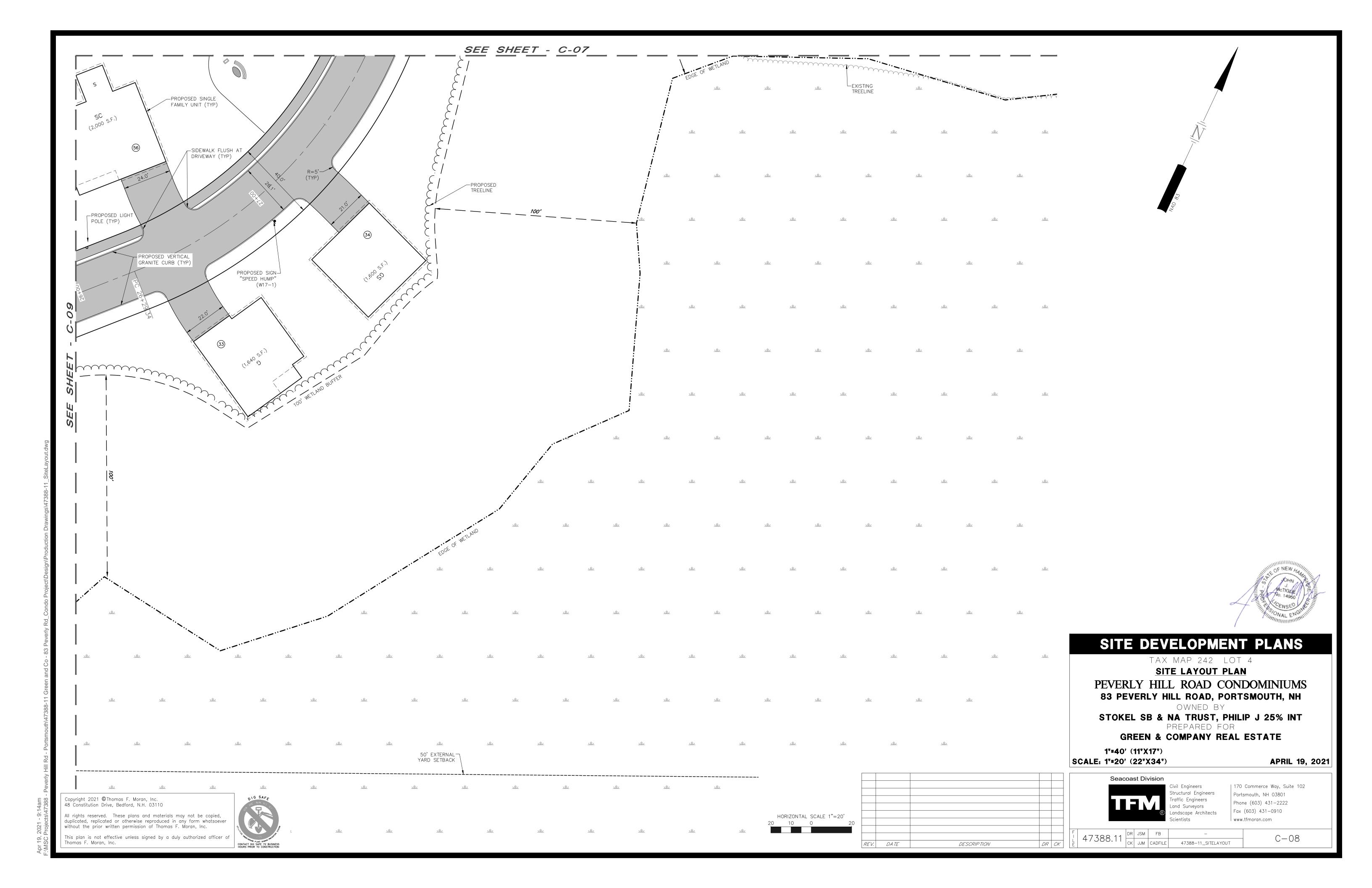


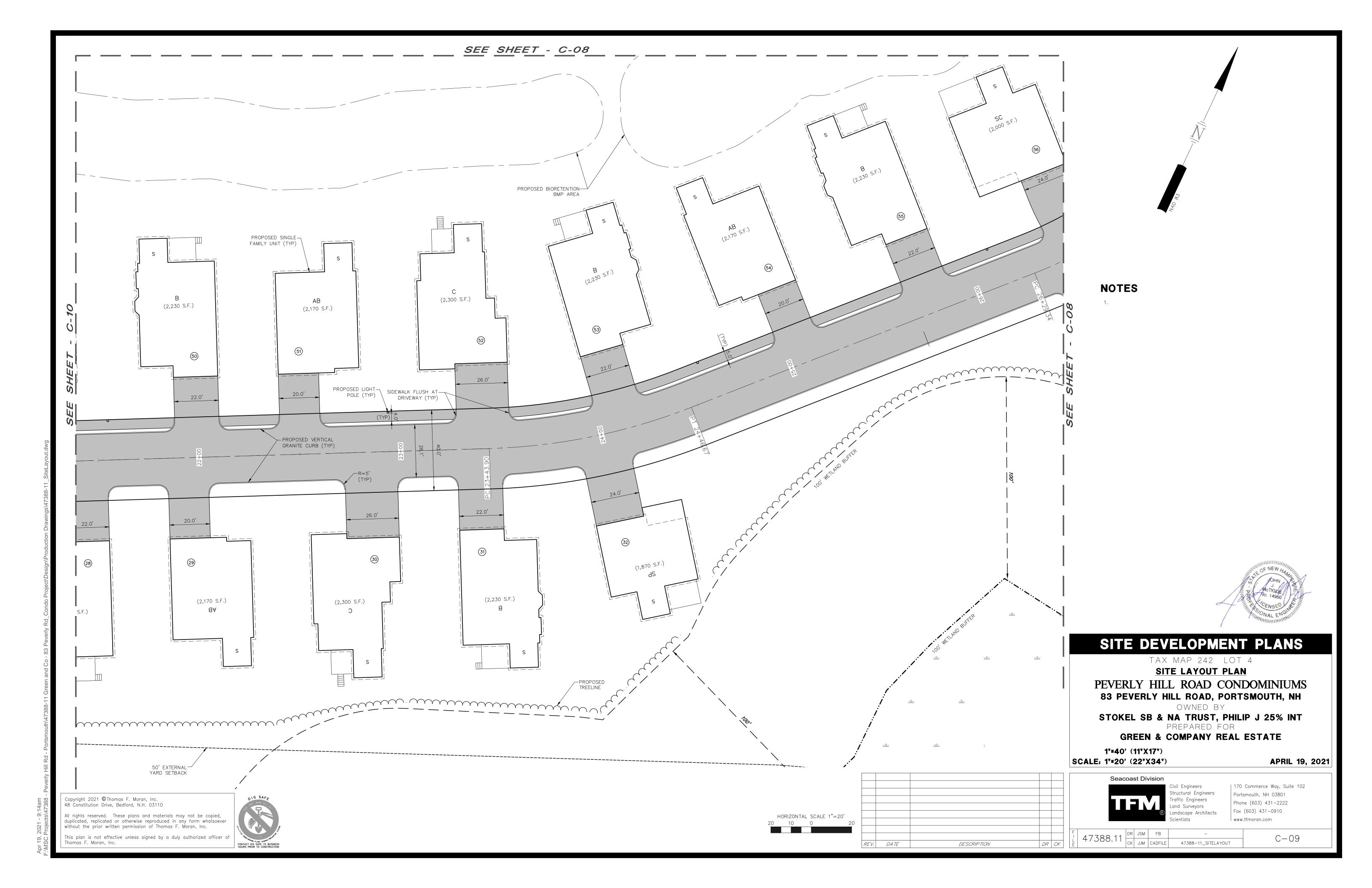


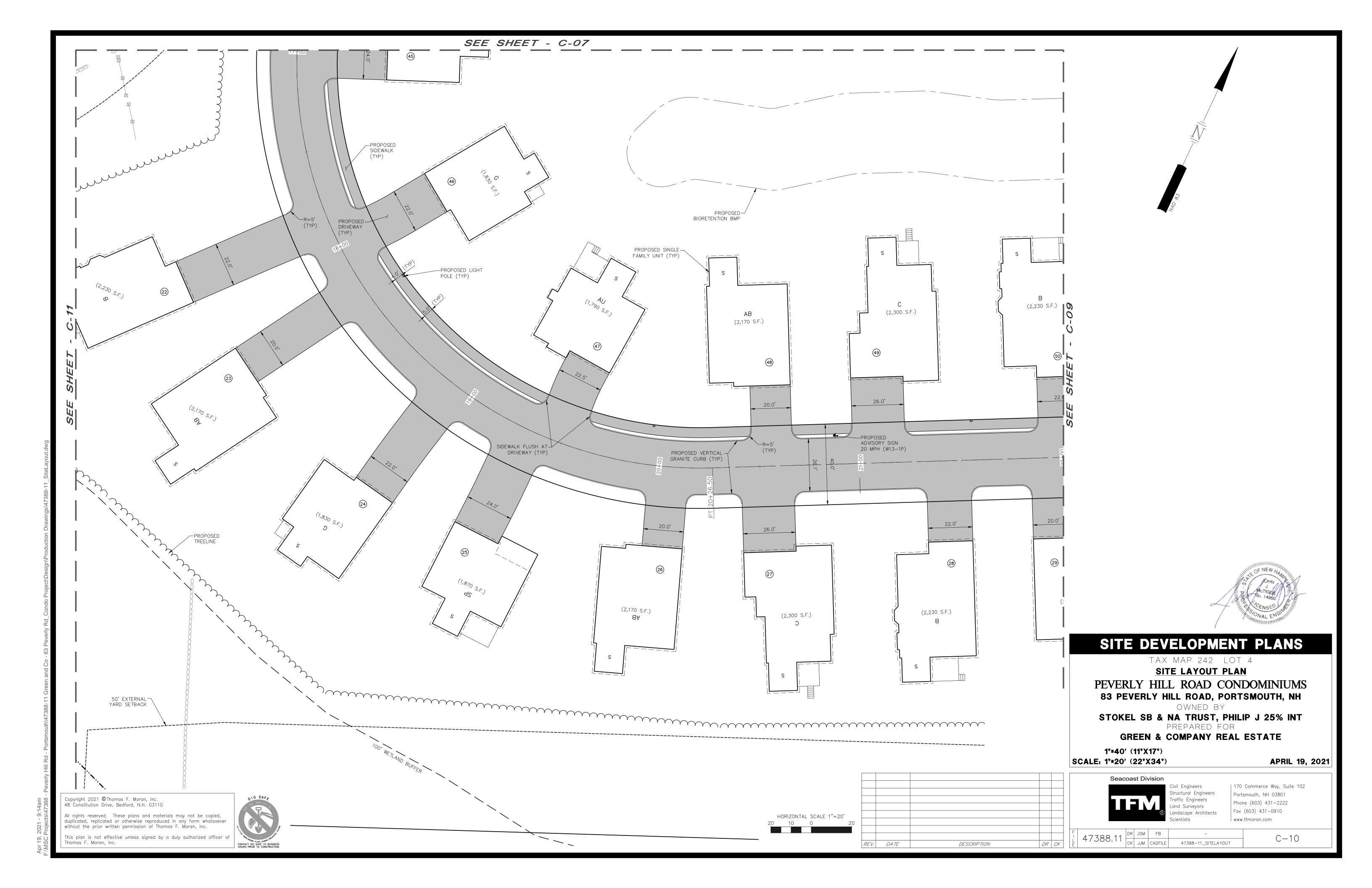


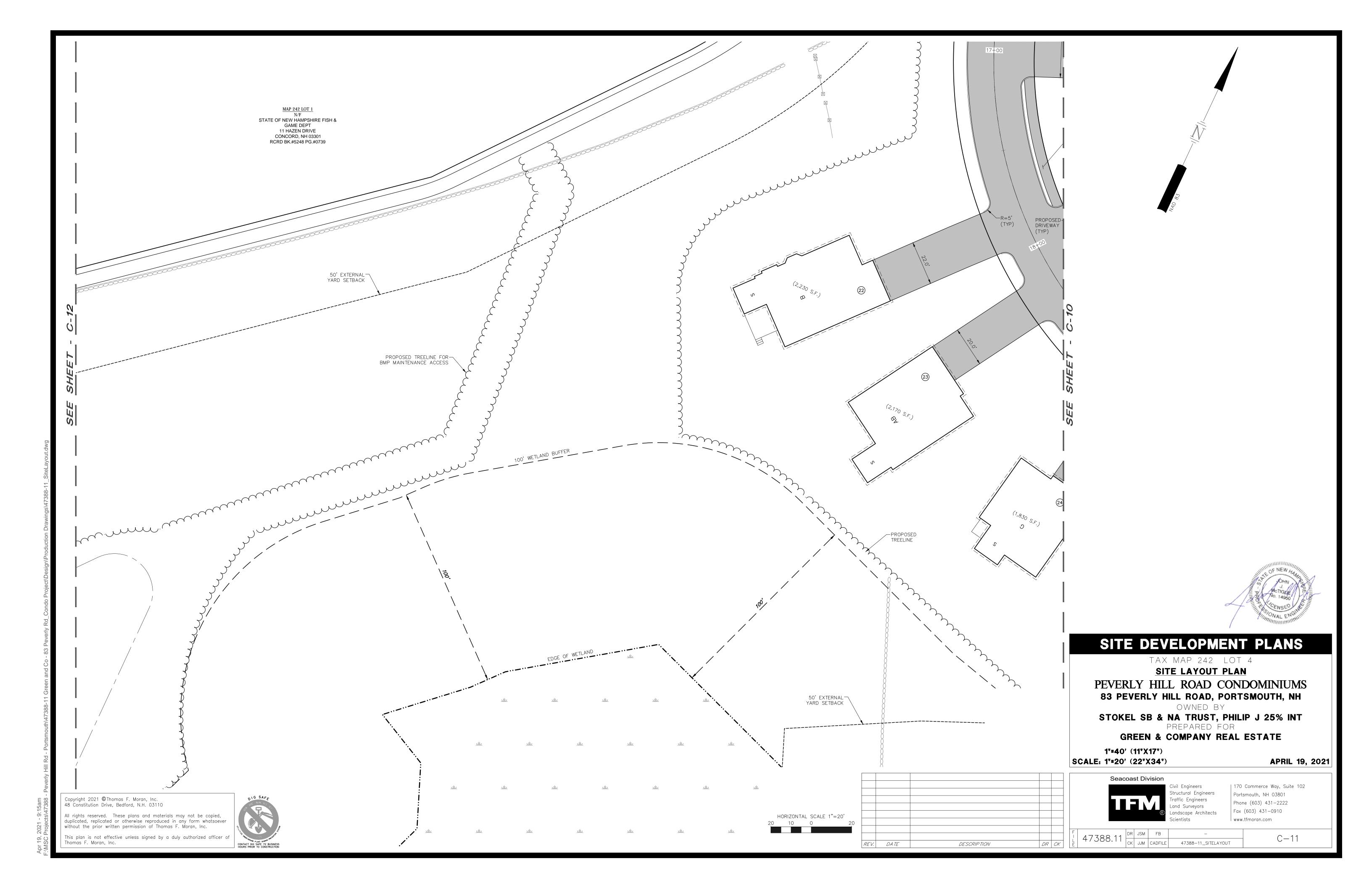


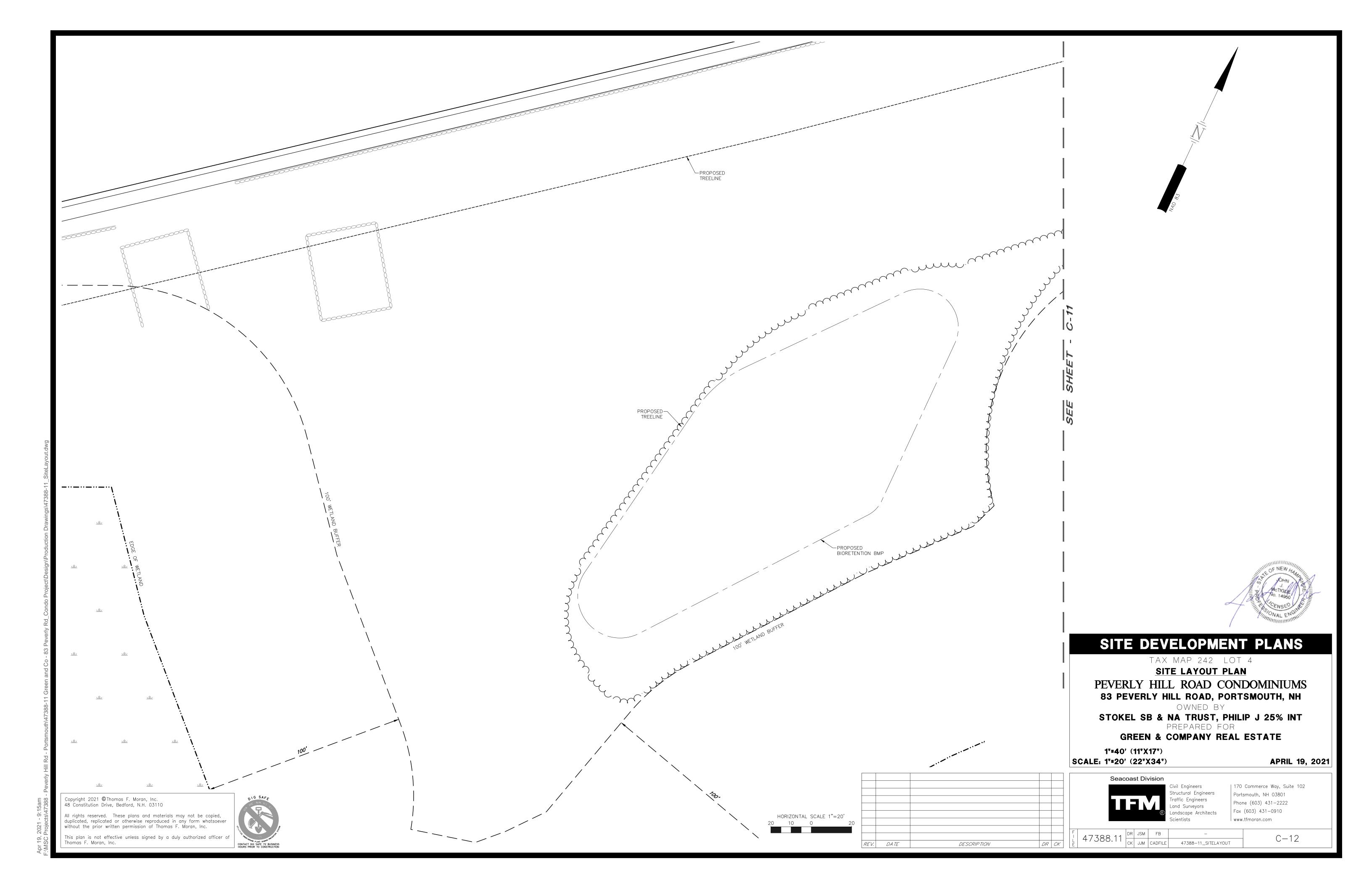


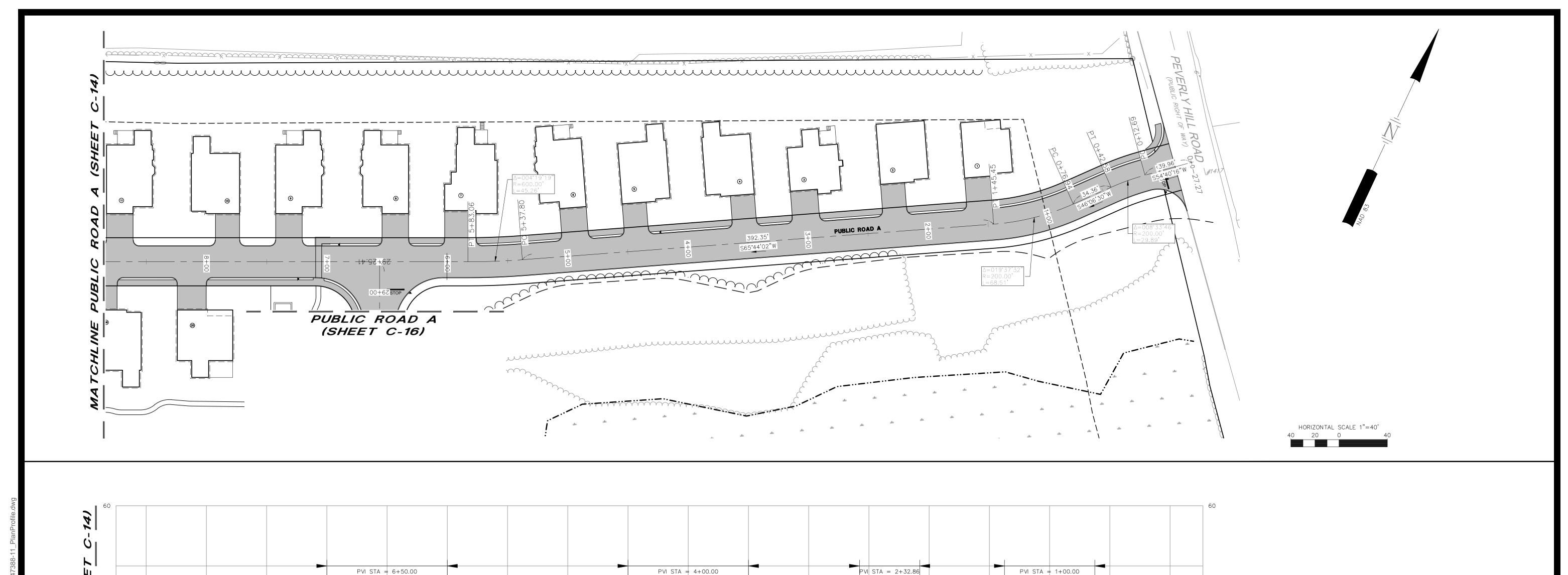


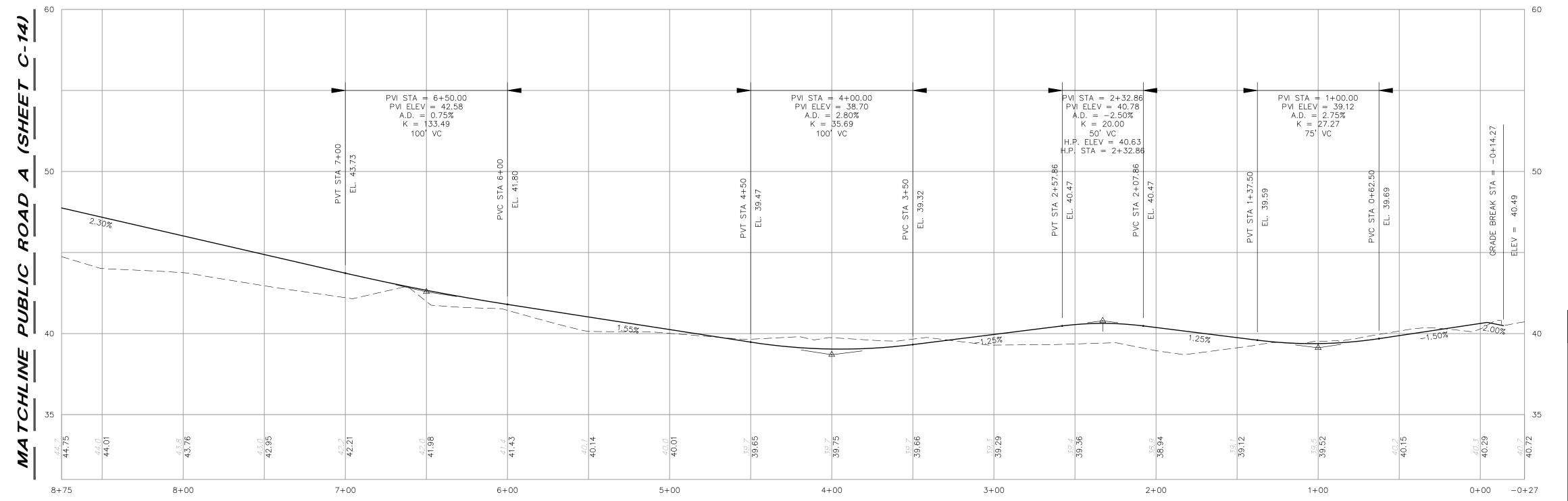




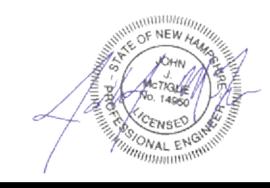








PUBLIC ROAD A



## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

**ROAD-A PLAN & PROFILE** PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT

PREPARED FOR **GREEN & COMPANY REAL ESTATE** 

1"=80' (11"X17")

SCALE: 1"=40' (22"X34")

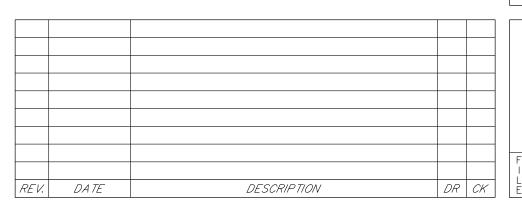
**APRIL 19, 2021** 

Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.



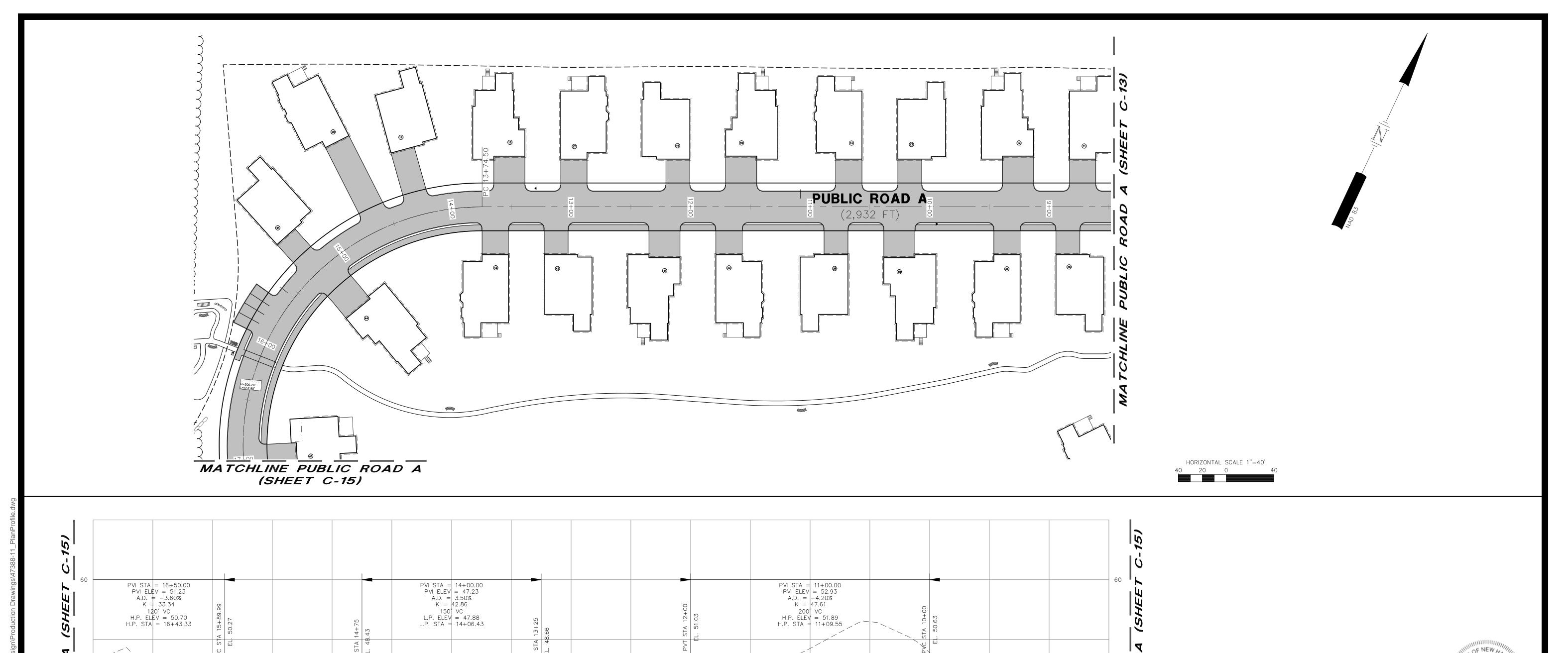


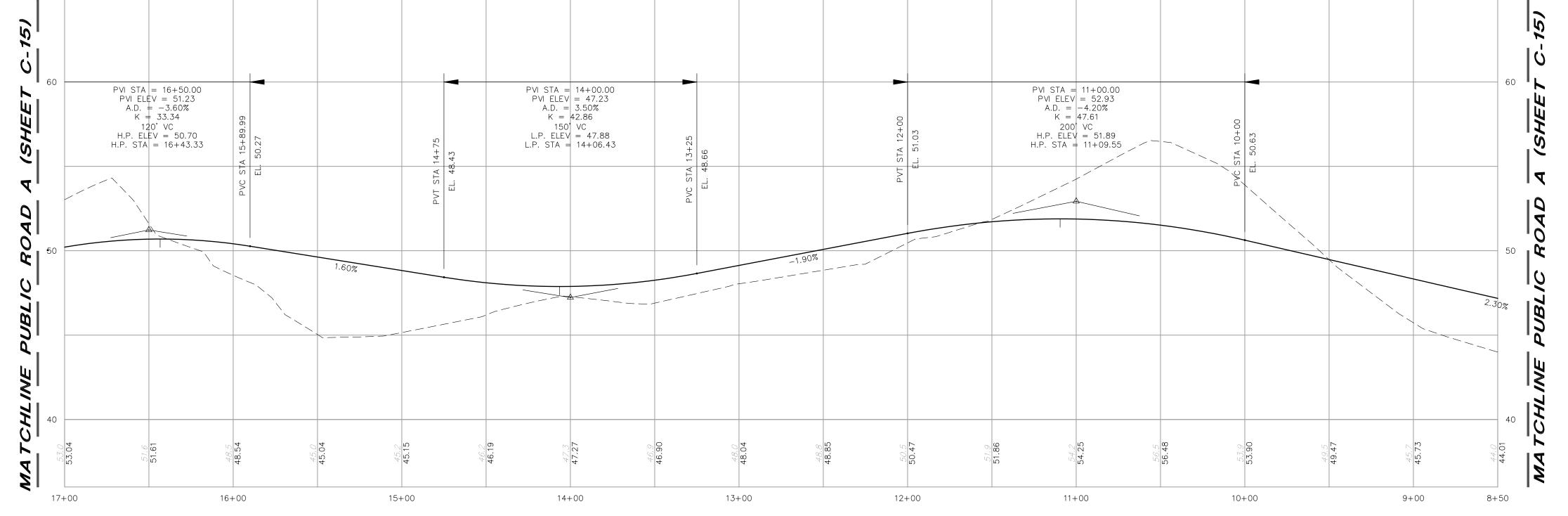


Civil Engineers Structural Engineers Traffic Engineers Land Surveyors Landscape Architects

| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

47388.11 DR JSM FB - CK JJM CADFILE 47388-11\_PLANPROFILE C - 13





PUBLIC ROAD A



## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

ROAD-A PLAN & PROFILE
PEVERLY HILL ROAD CONDOMINIUMS
83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT
PREPARED FOR

GREEN & COMPANY REAL ESTATE

1"=80' (11"X17") SCALE: 1"=40' (22"X34")

APRIL 19, 2021

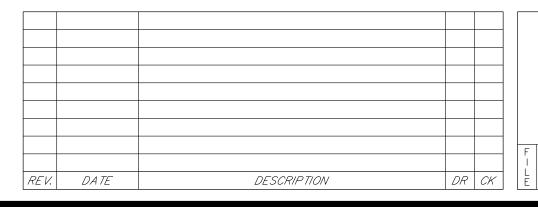
Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.







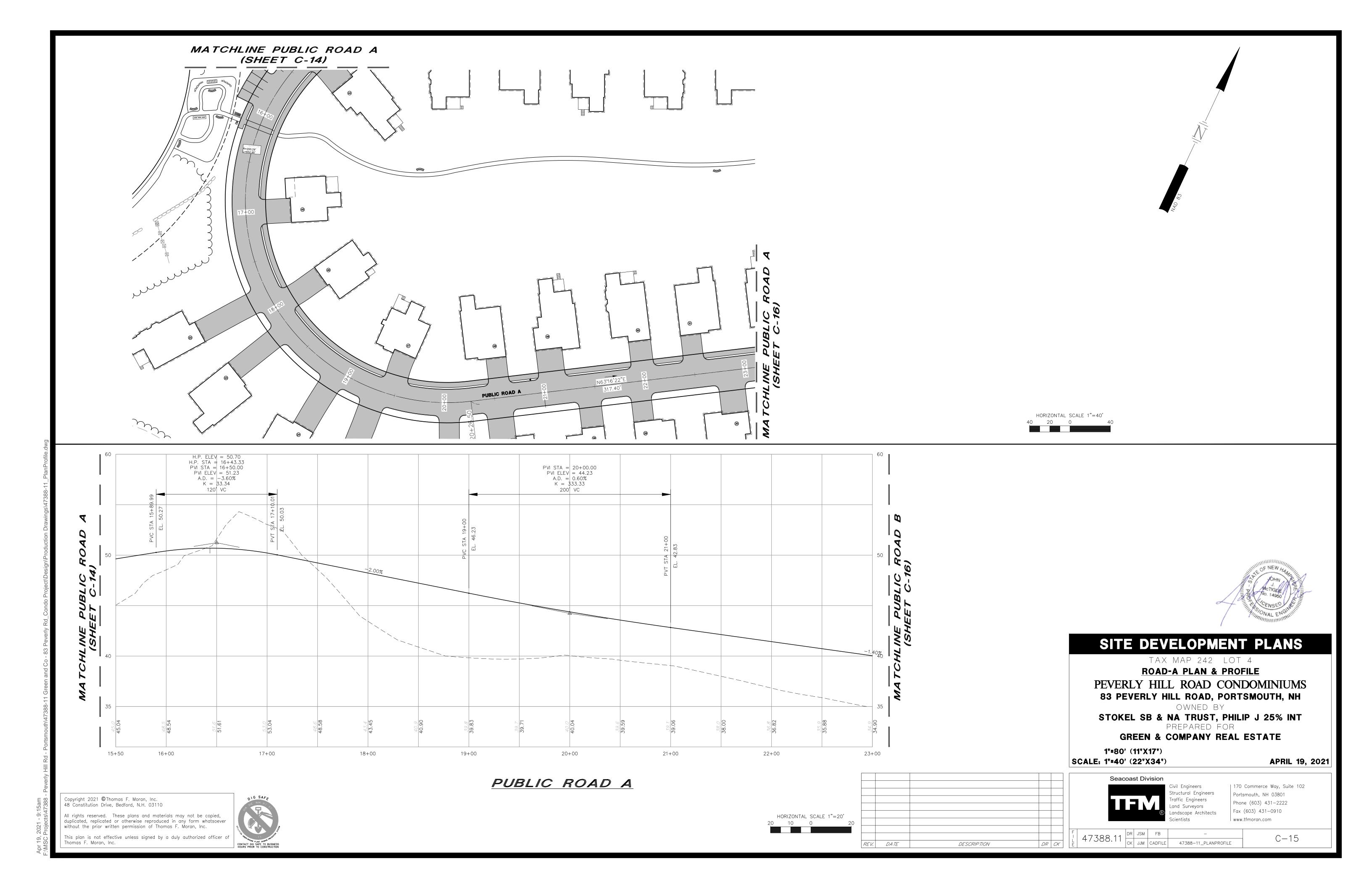
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

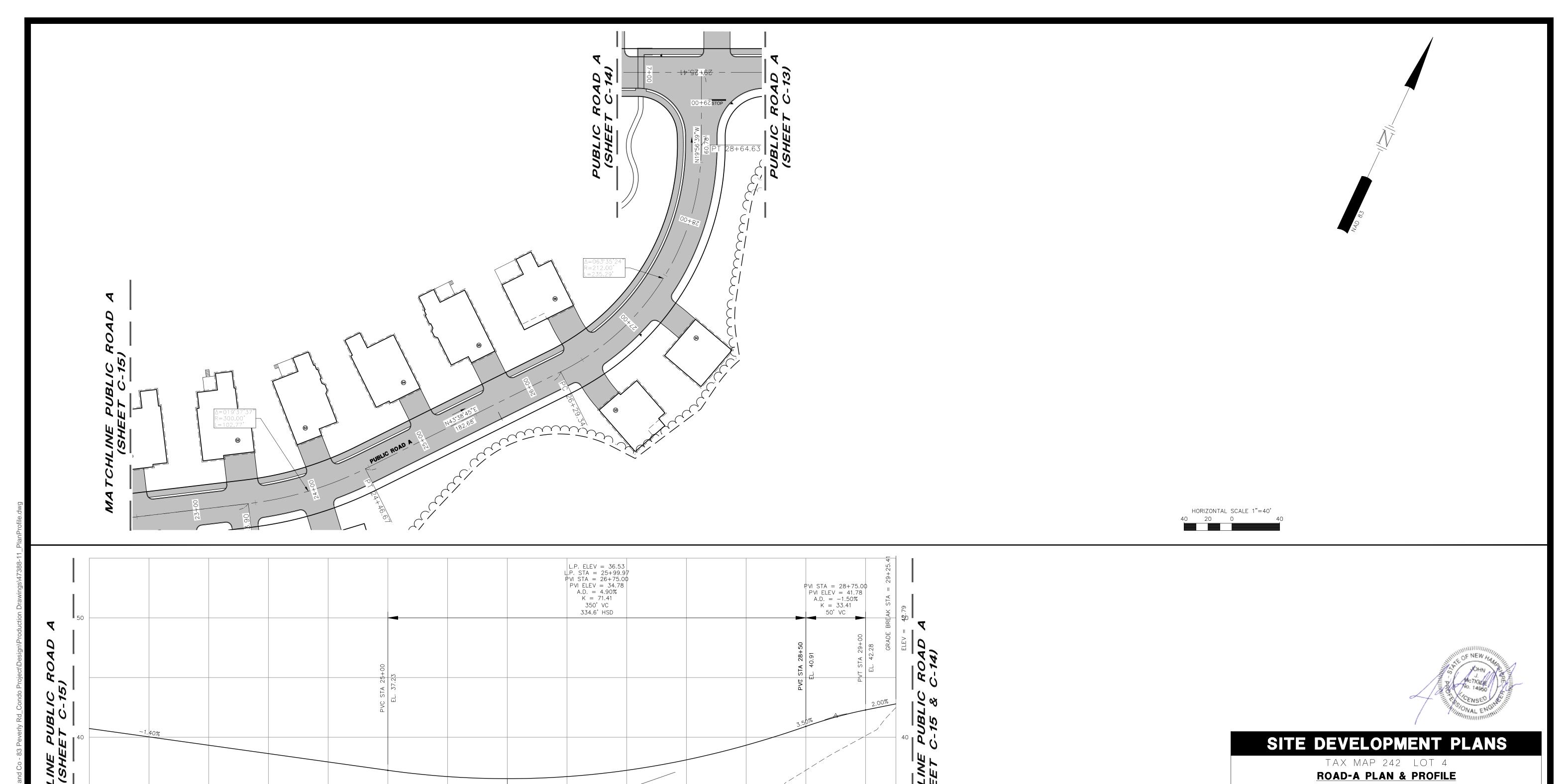
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

38.11 DR JSM FB 
CK JJM CADFILE 47388-11\_PLANPROFILE

C-14

Apr 19, 2021 - 9:15am





PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH OWNED BY

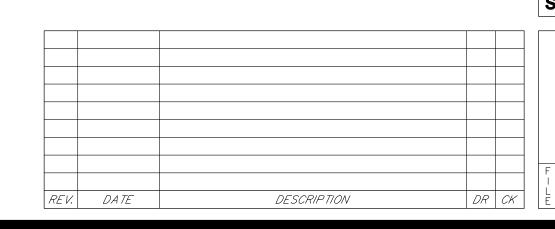
STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

GREEN & COMPANY REAL ESTATE

1"=80' (11"X17") SCALE: 1"=40' (22"X34")

**APRIL 19, 2021** 

C-16





| 170 Commerce Way, Suite 102 Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 Land Surveyors Fax (603) 431-0910 Landscape Architects www.tfmoran.com

47388.11 DR JSM FB - CK JJM CADFILE 47388-11\_PLANPROFILE

Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

23+00

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.



24+00

25+00

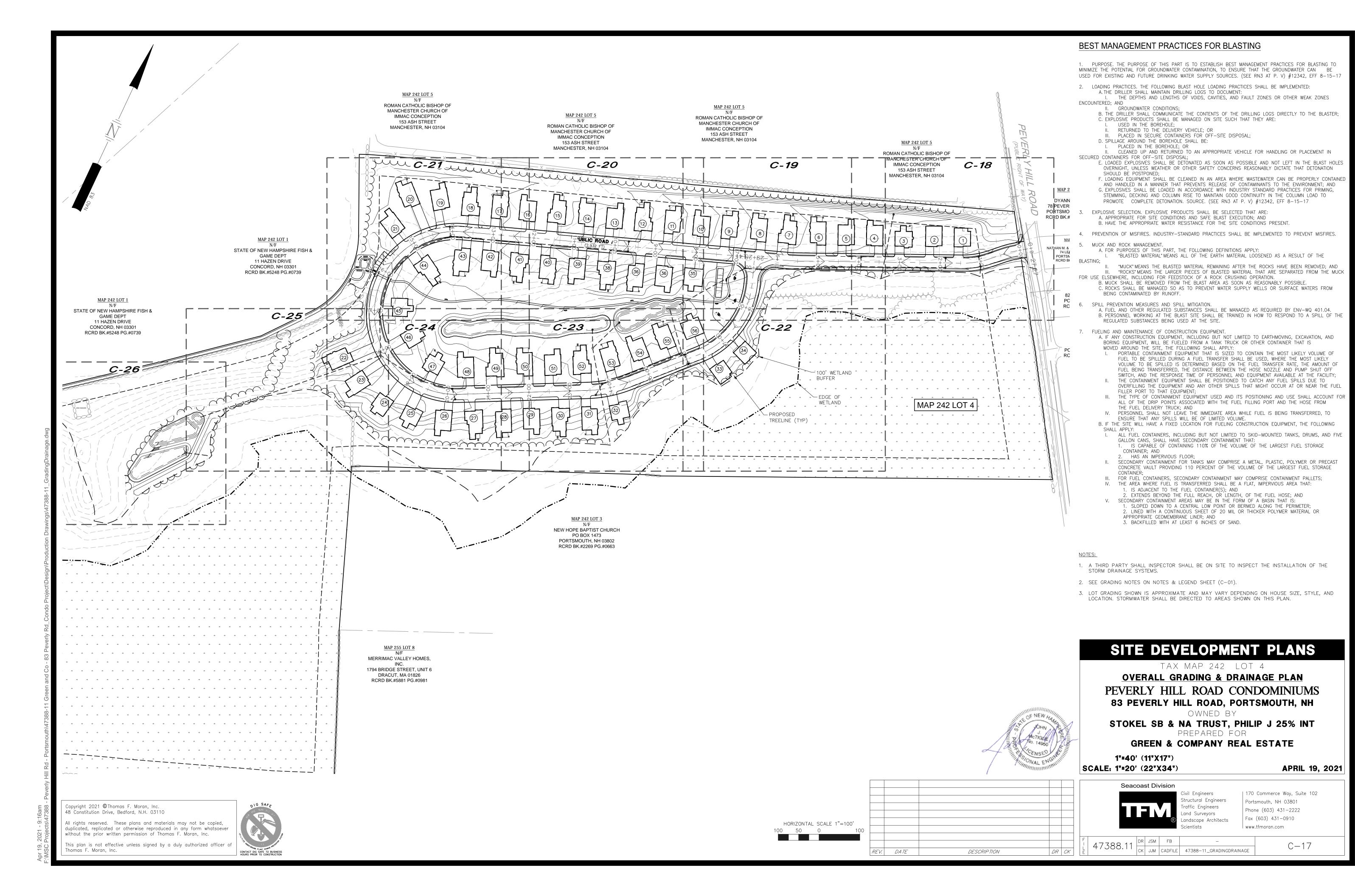
26+00

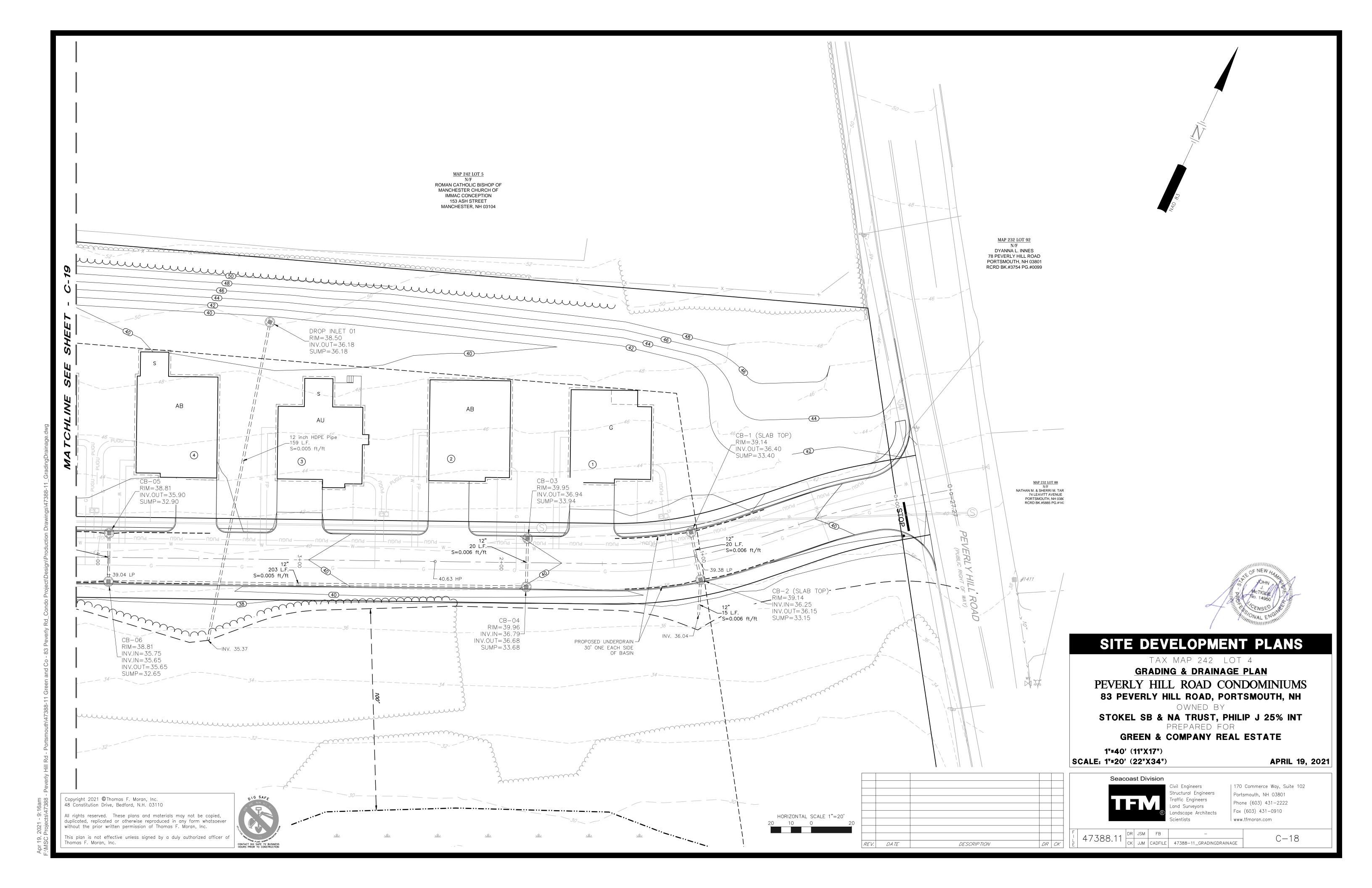
PUBLIC ROAD A

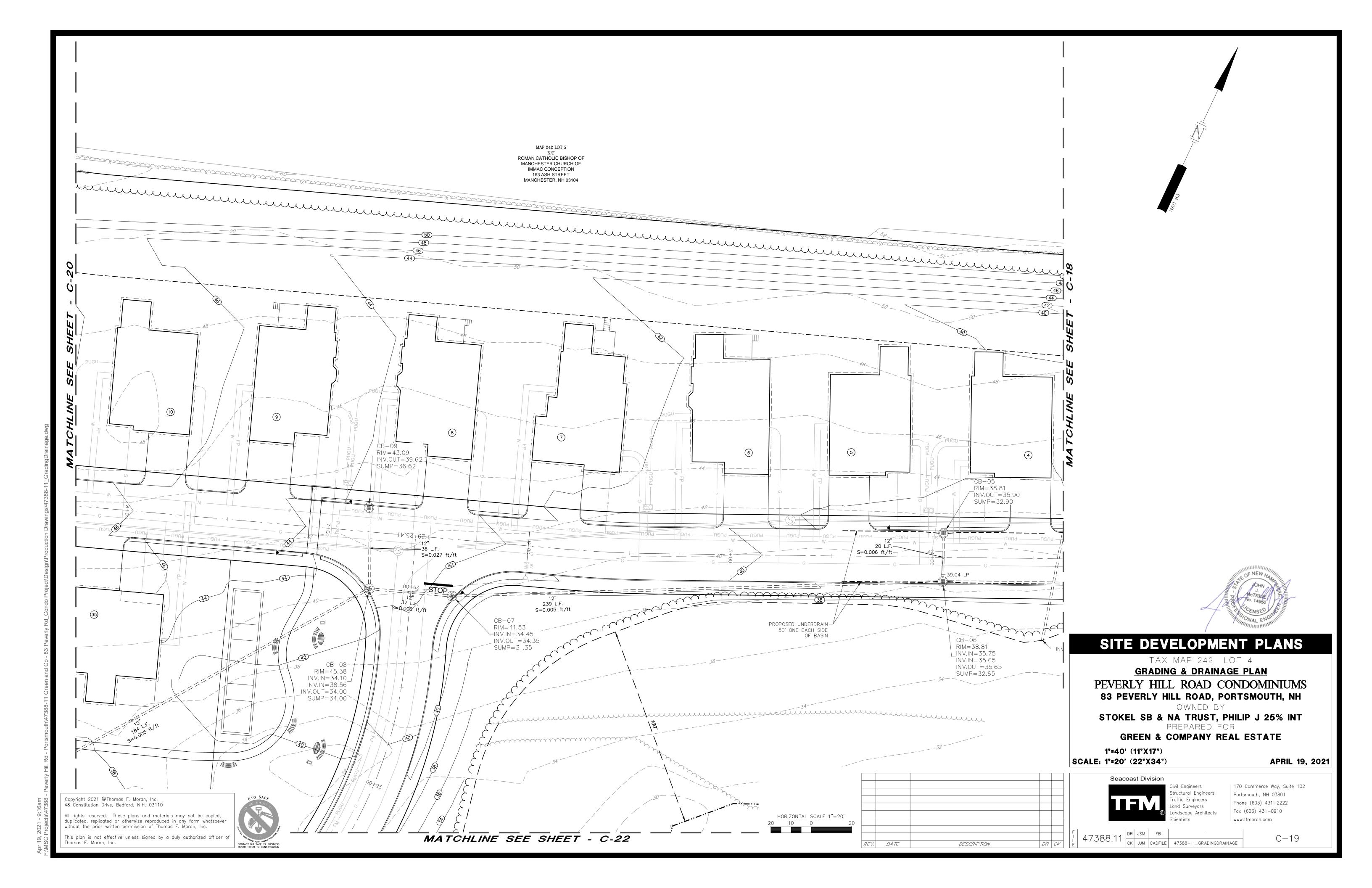
27+00

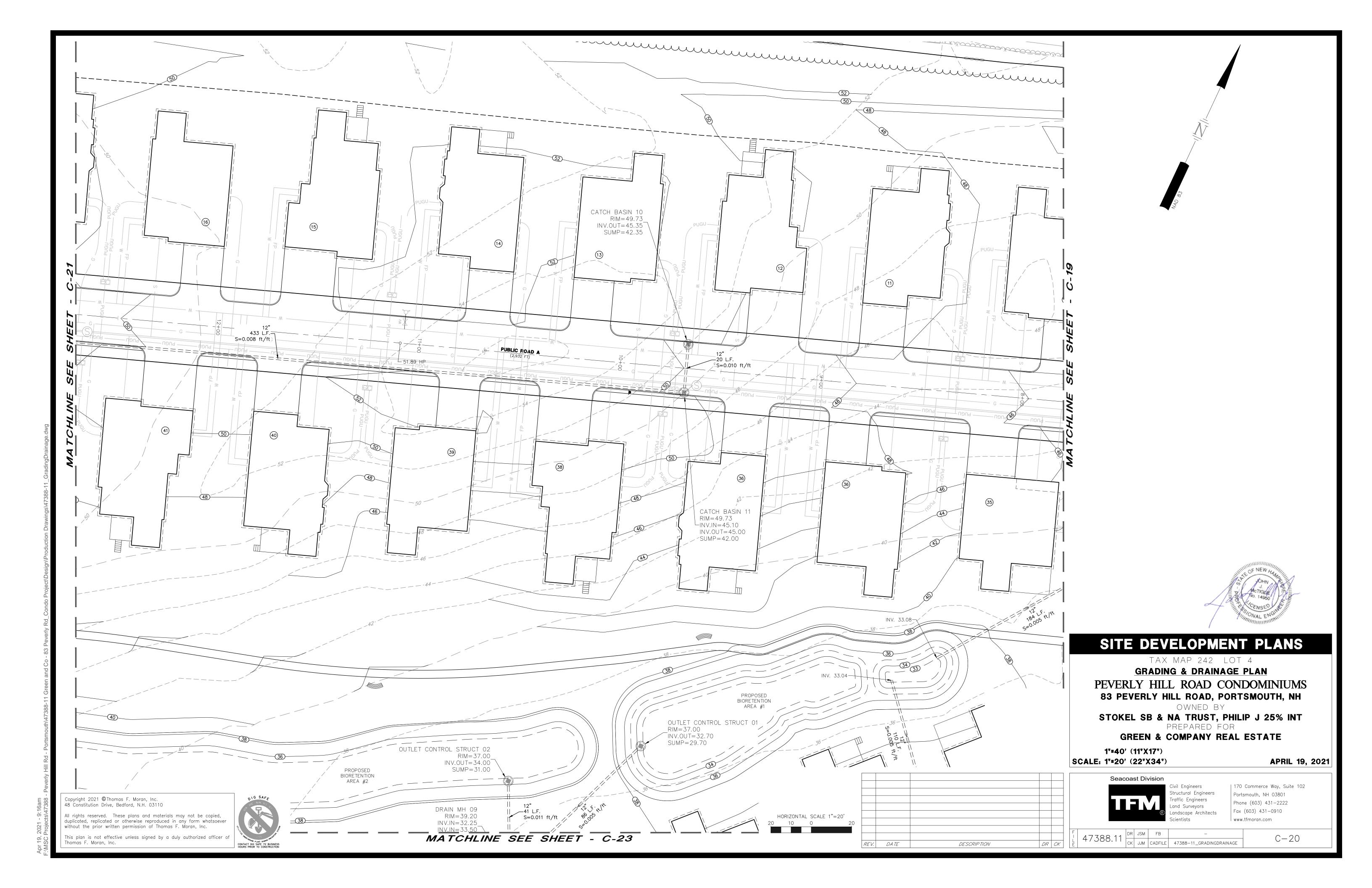
28+00

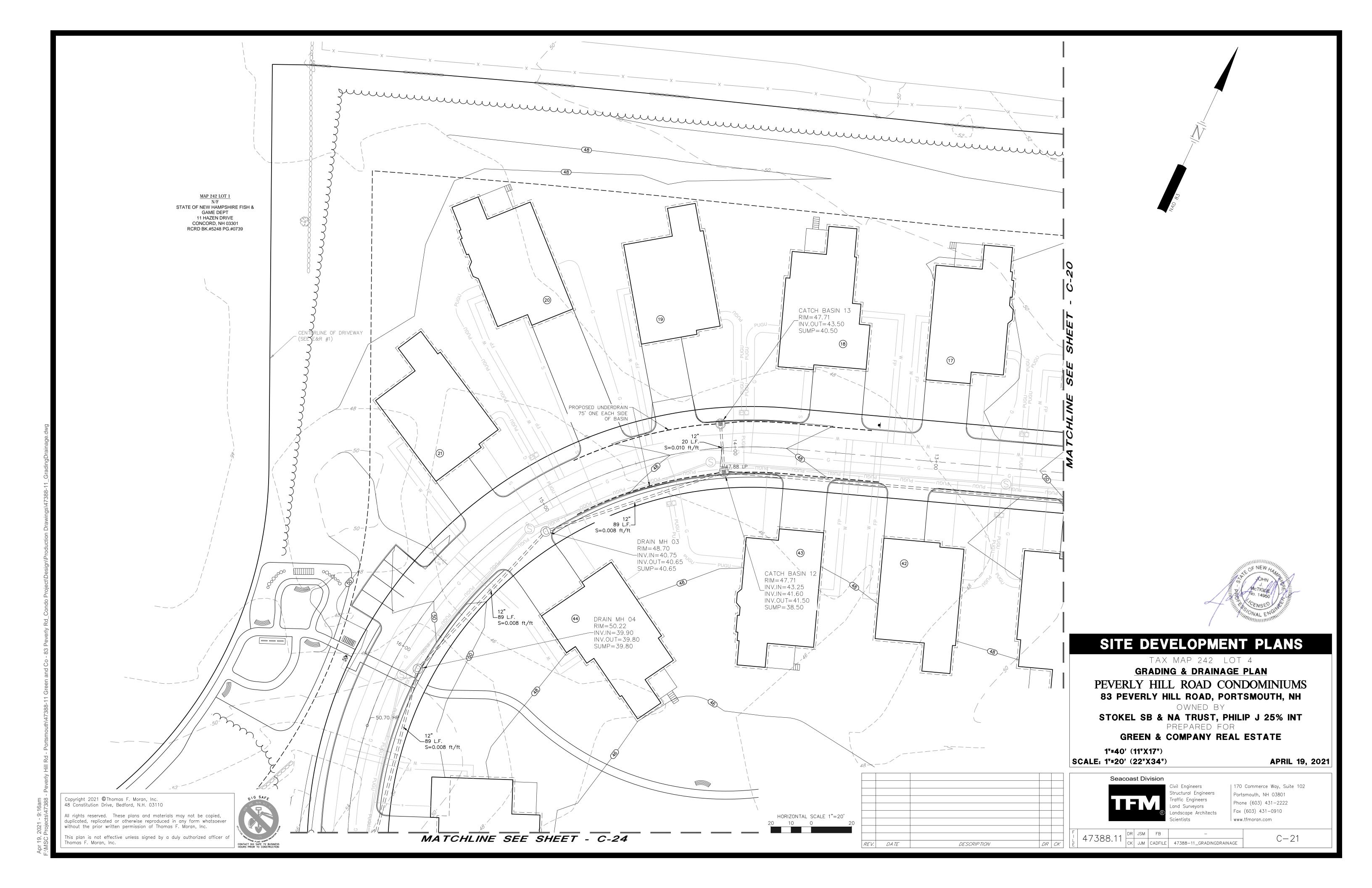
29+00 29+25

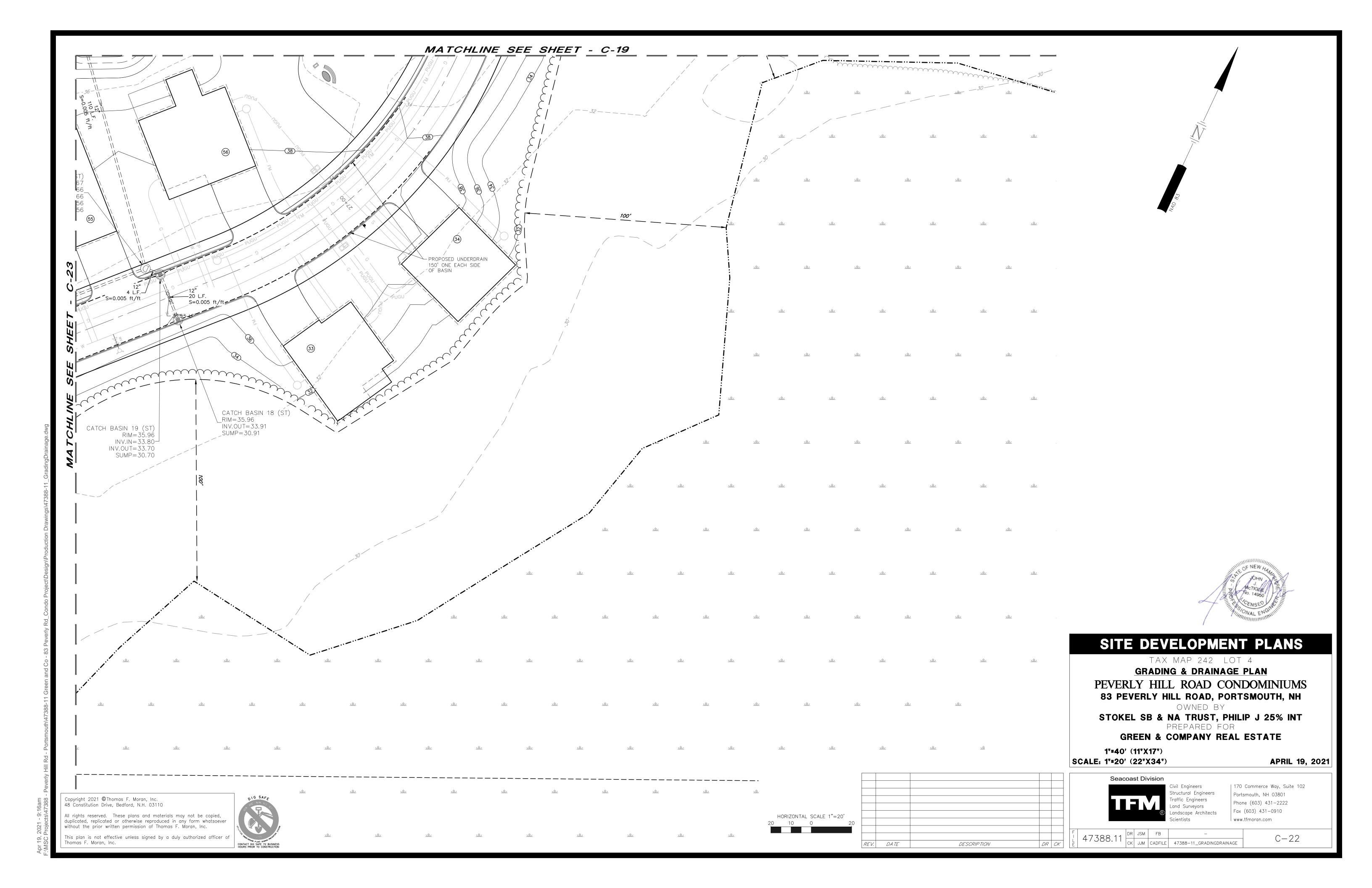


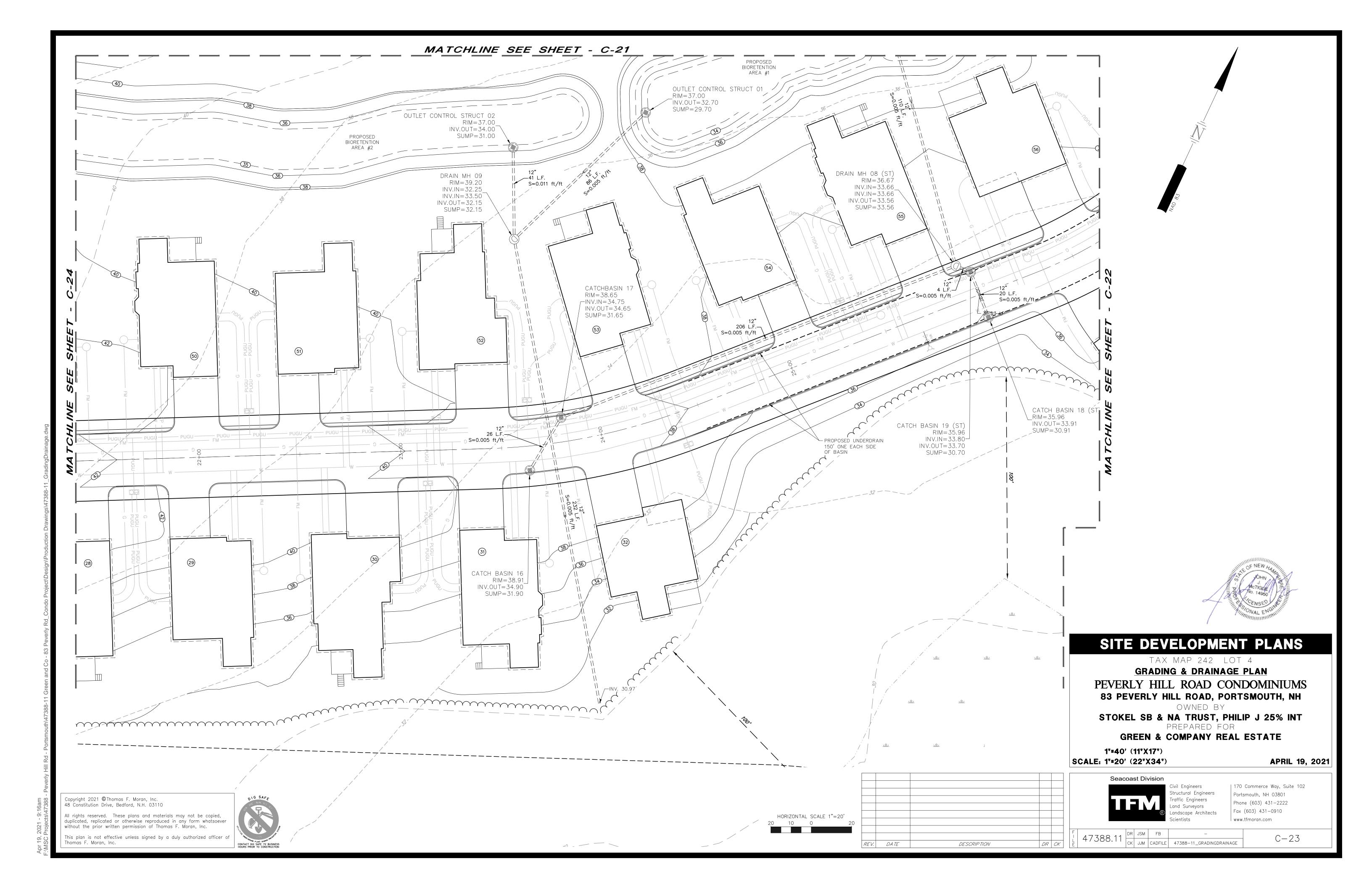


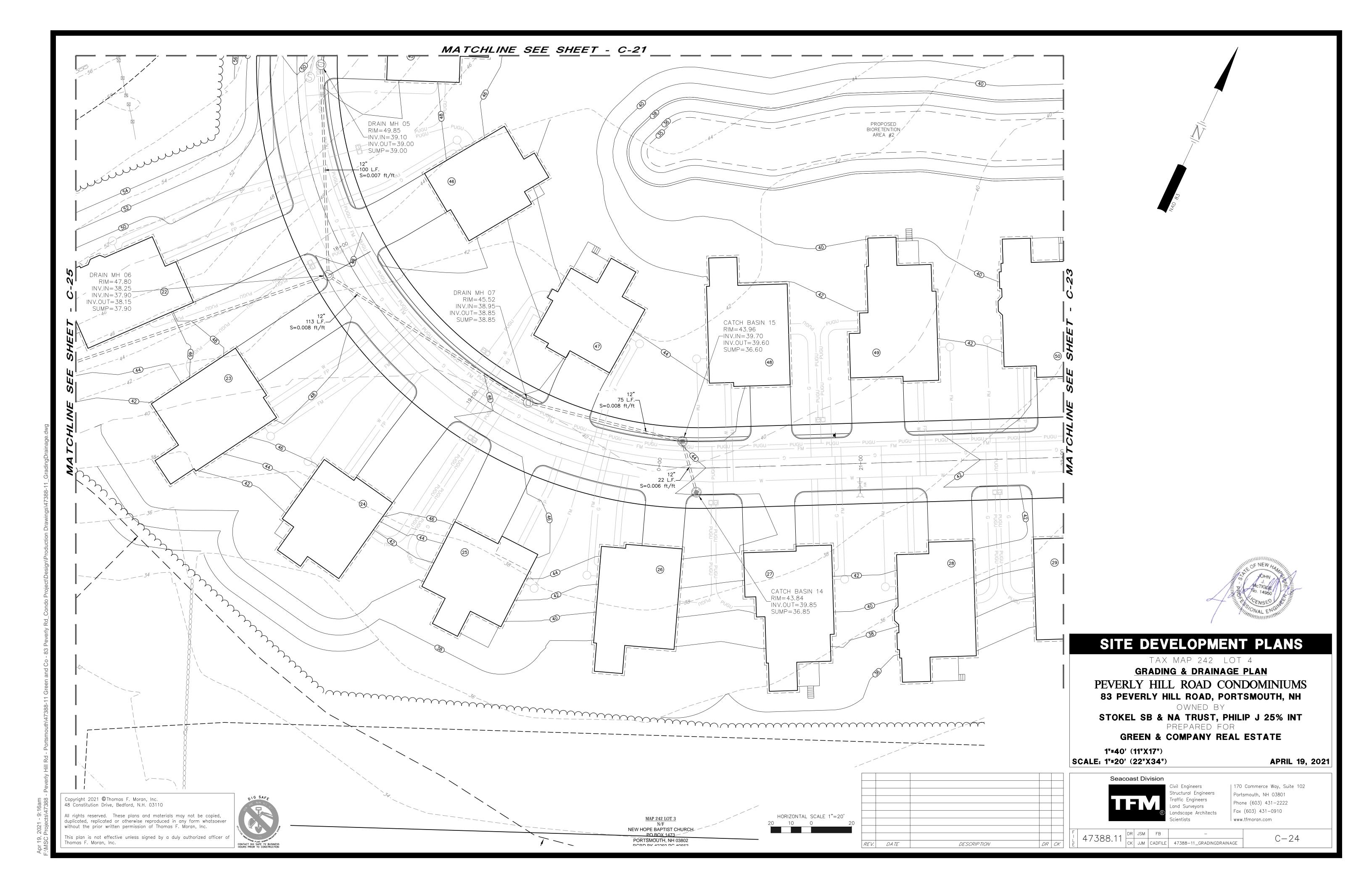


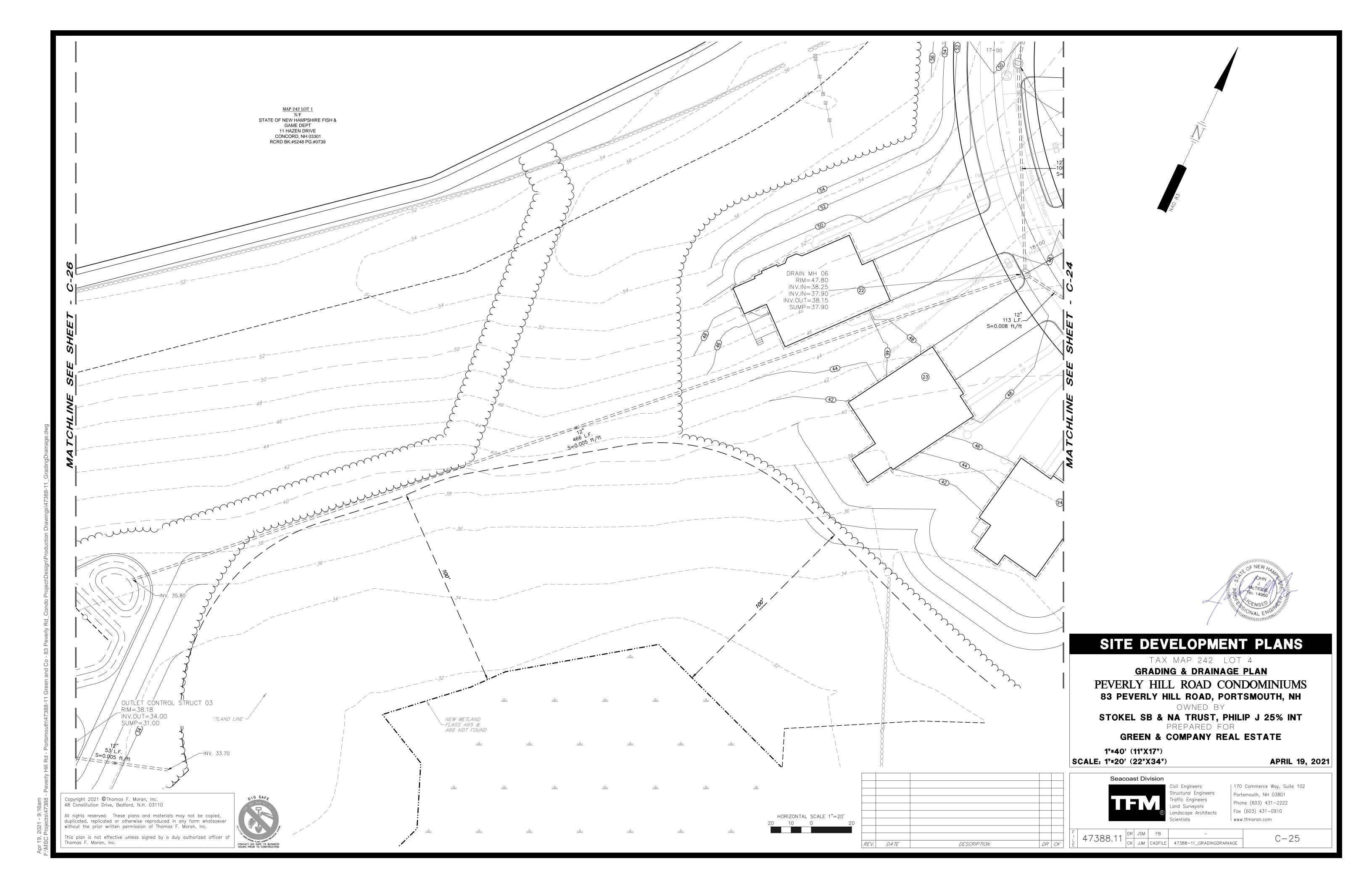


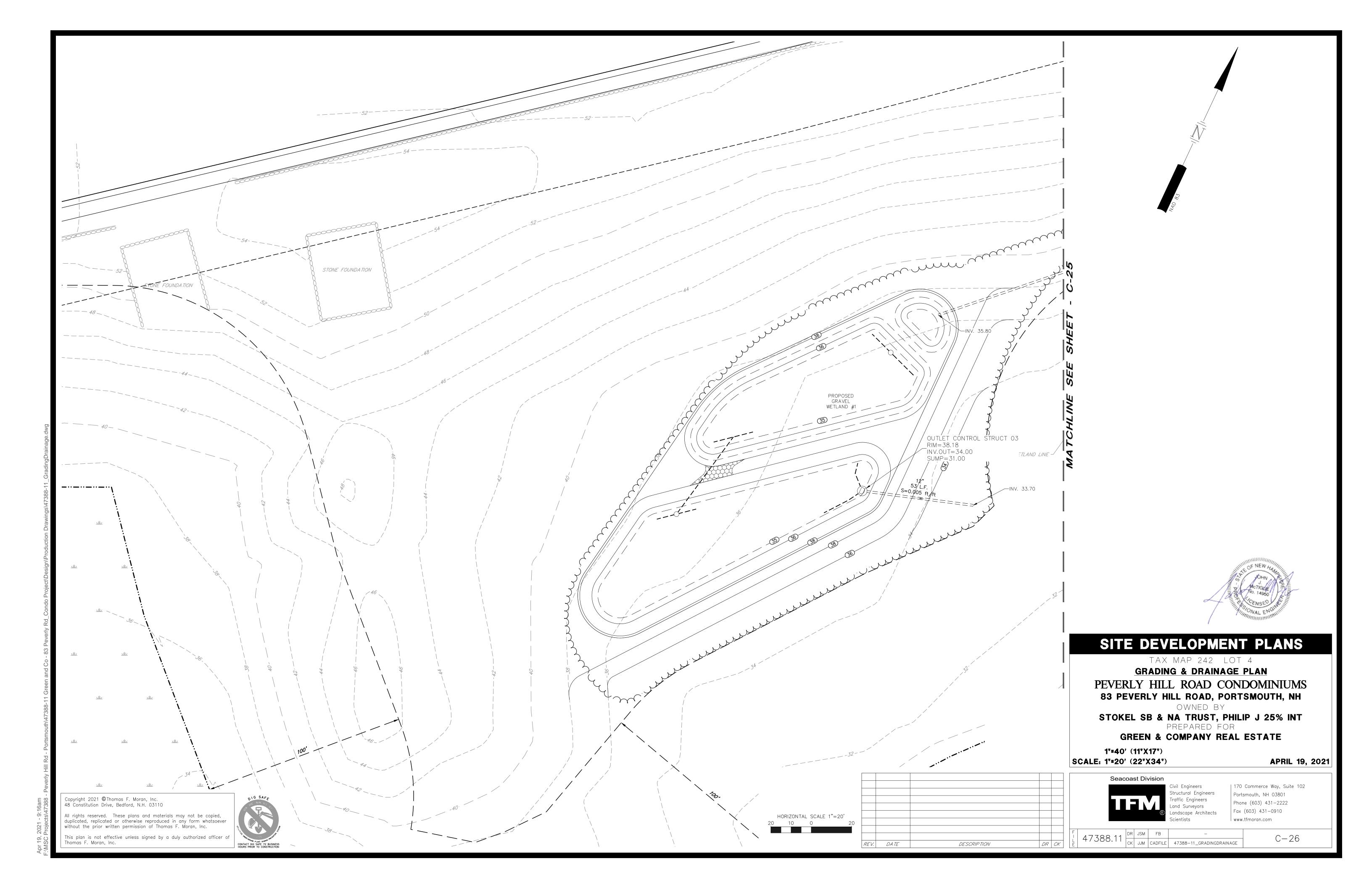


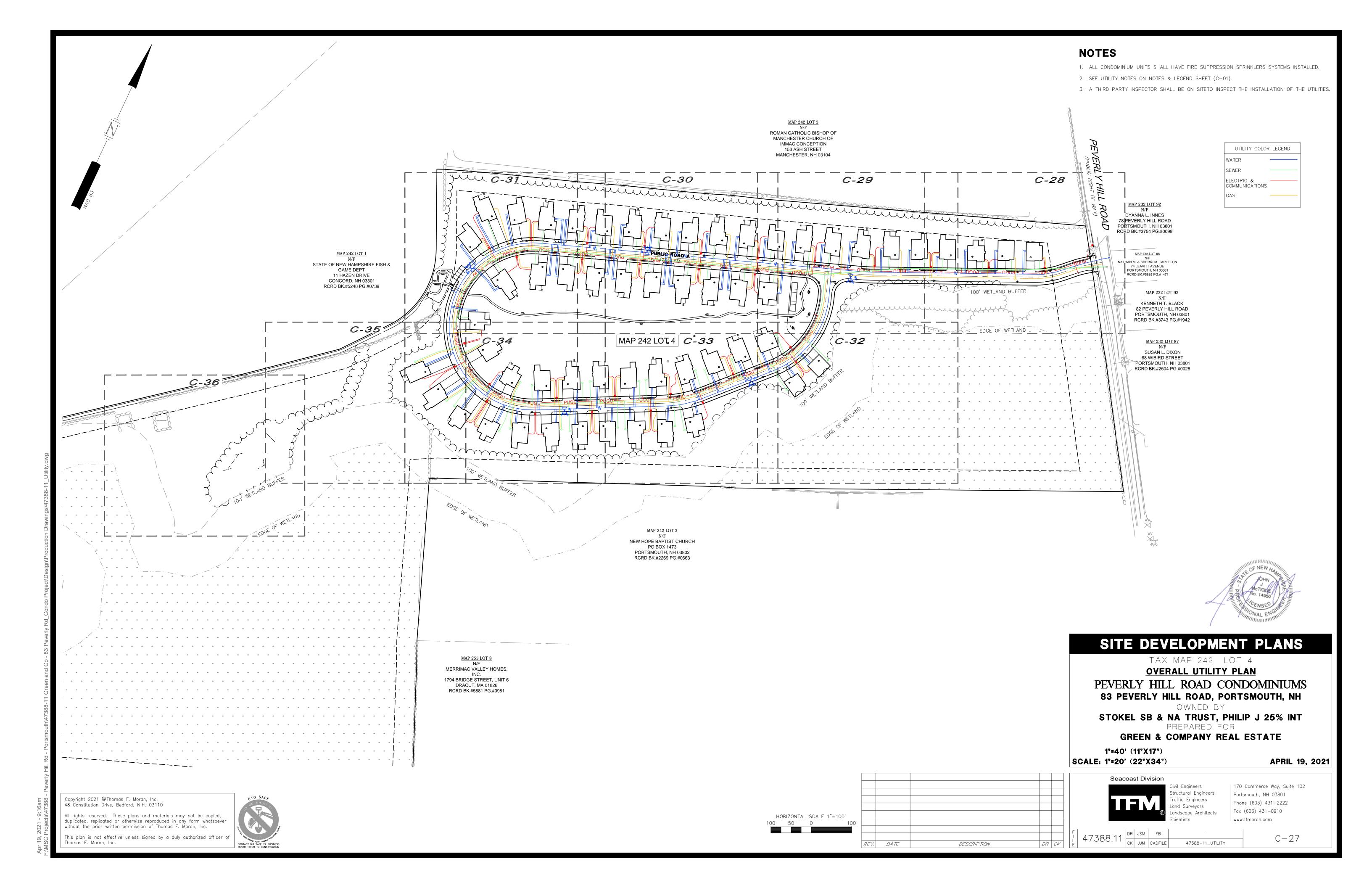


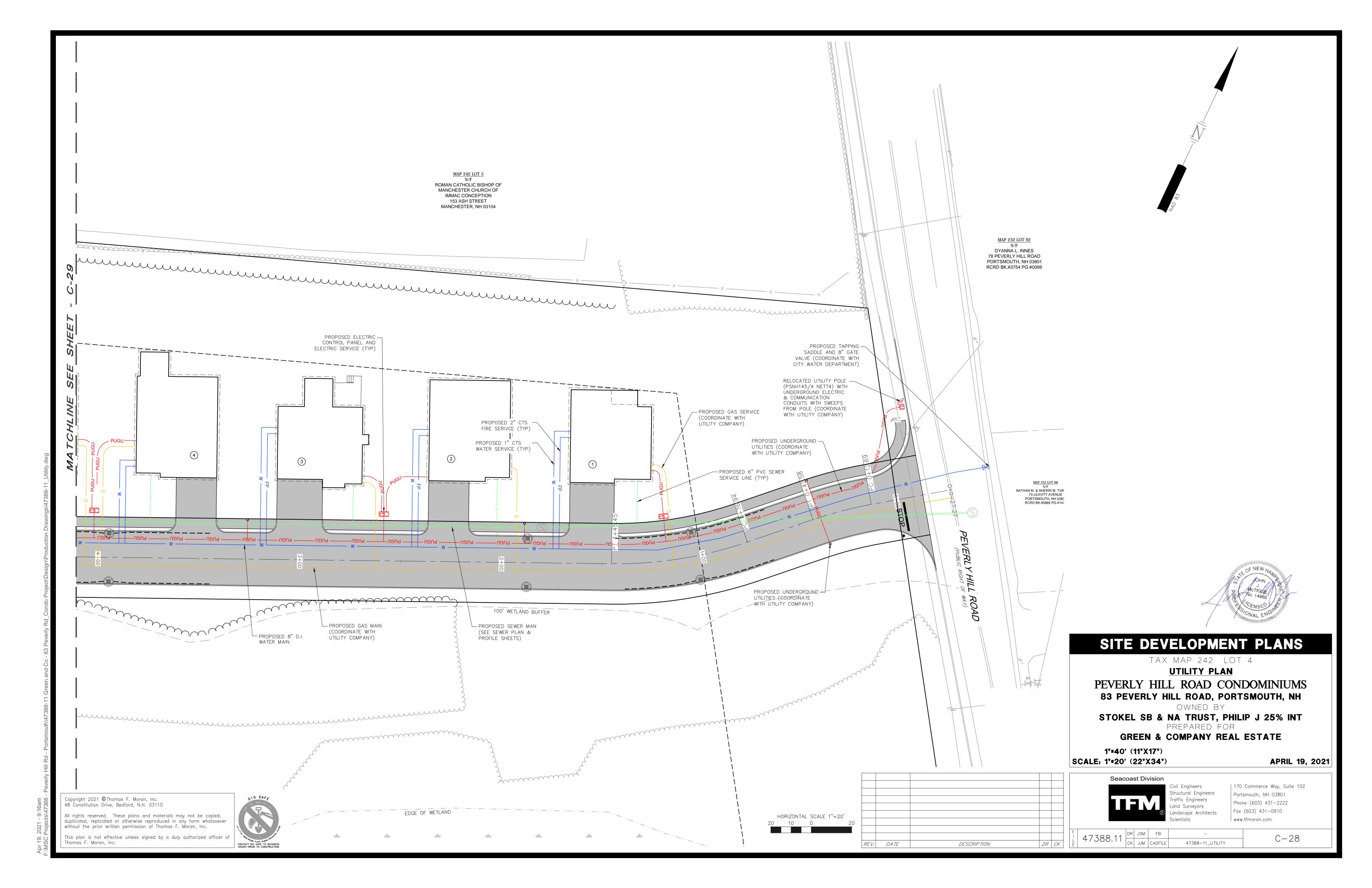


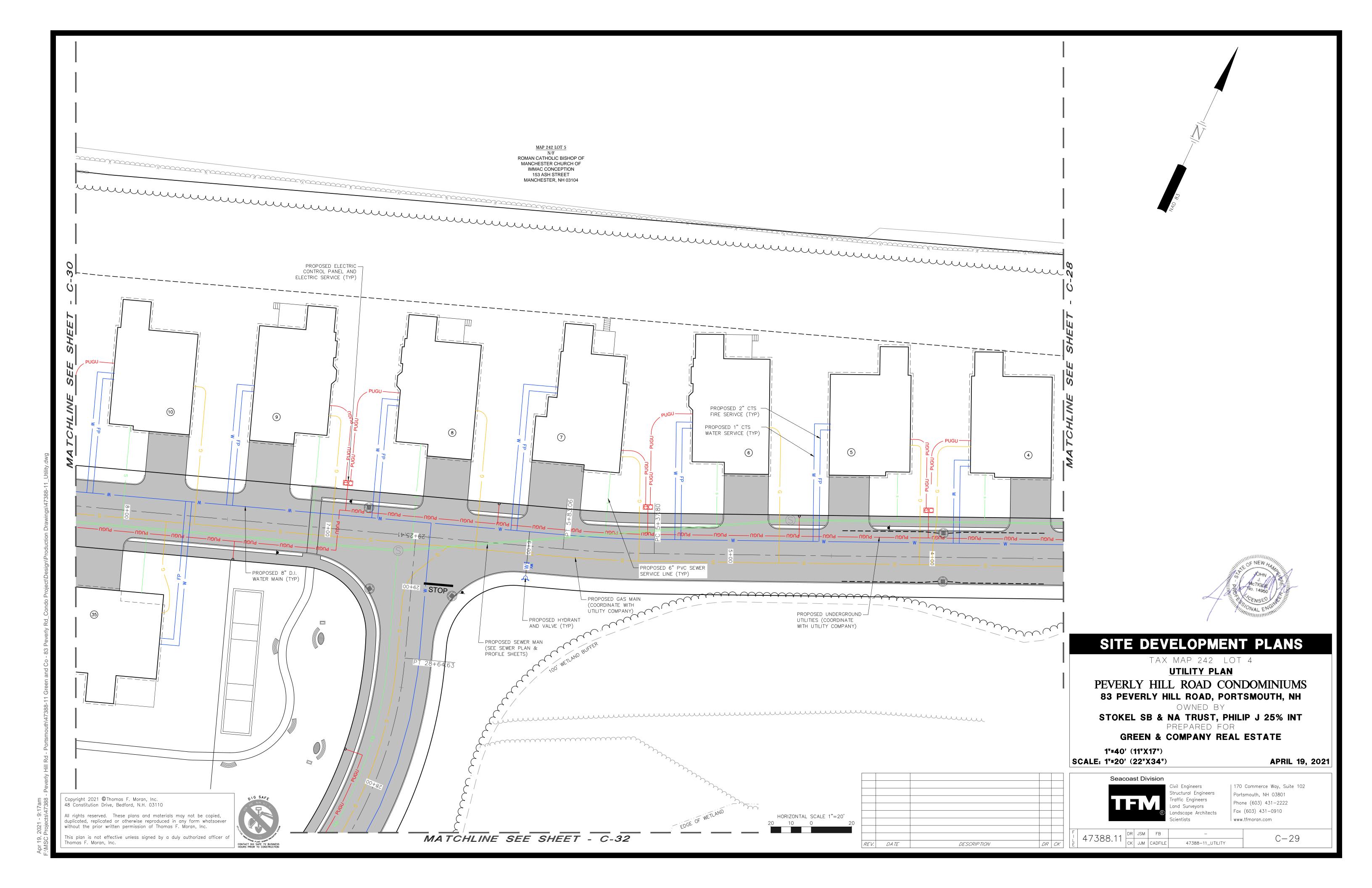


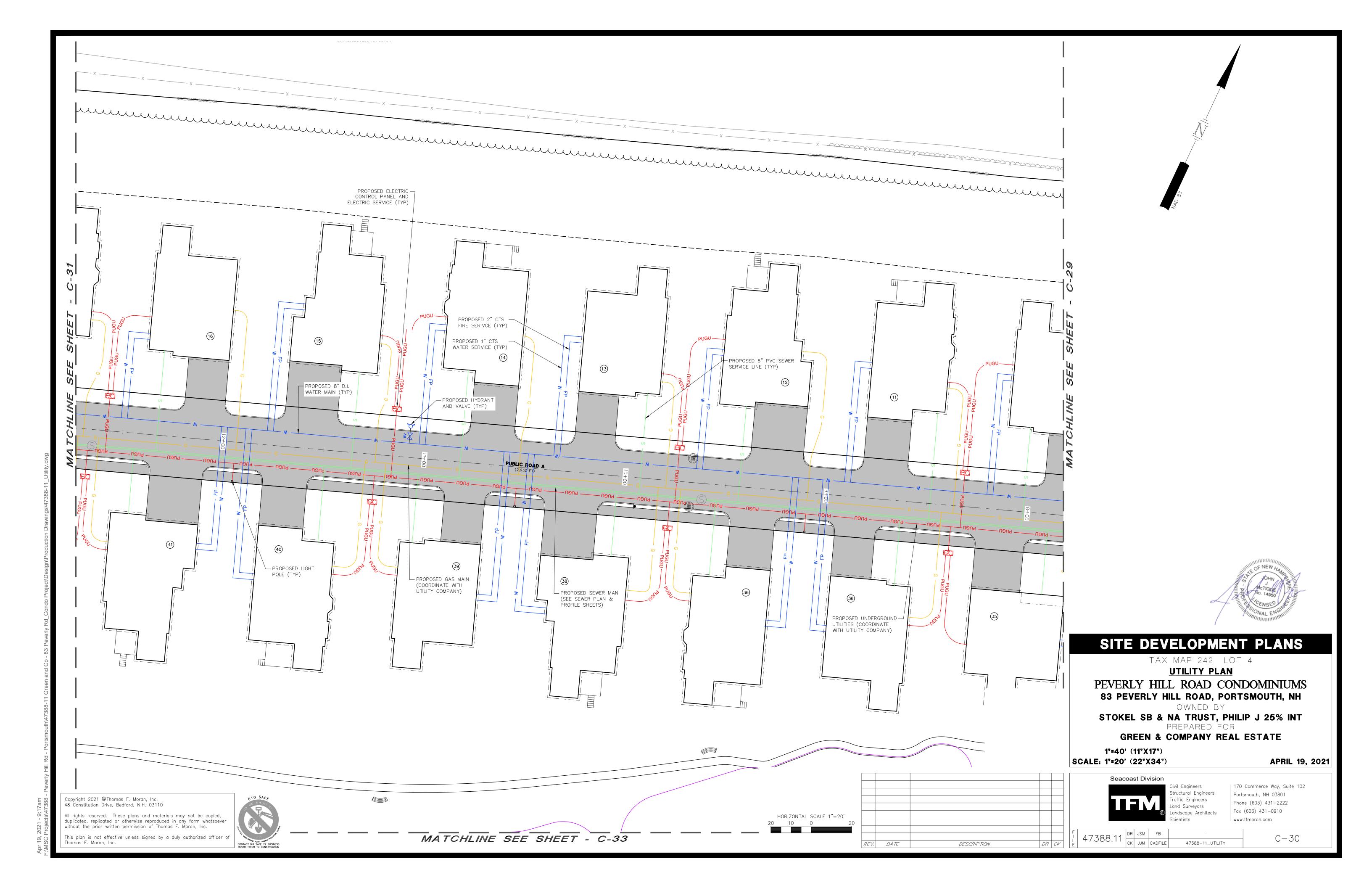


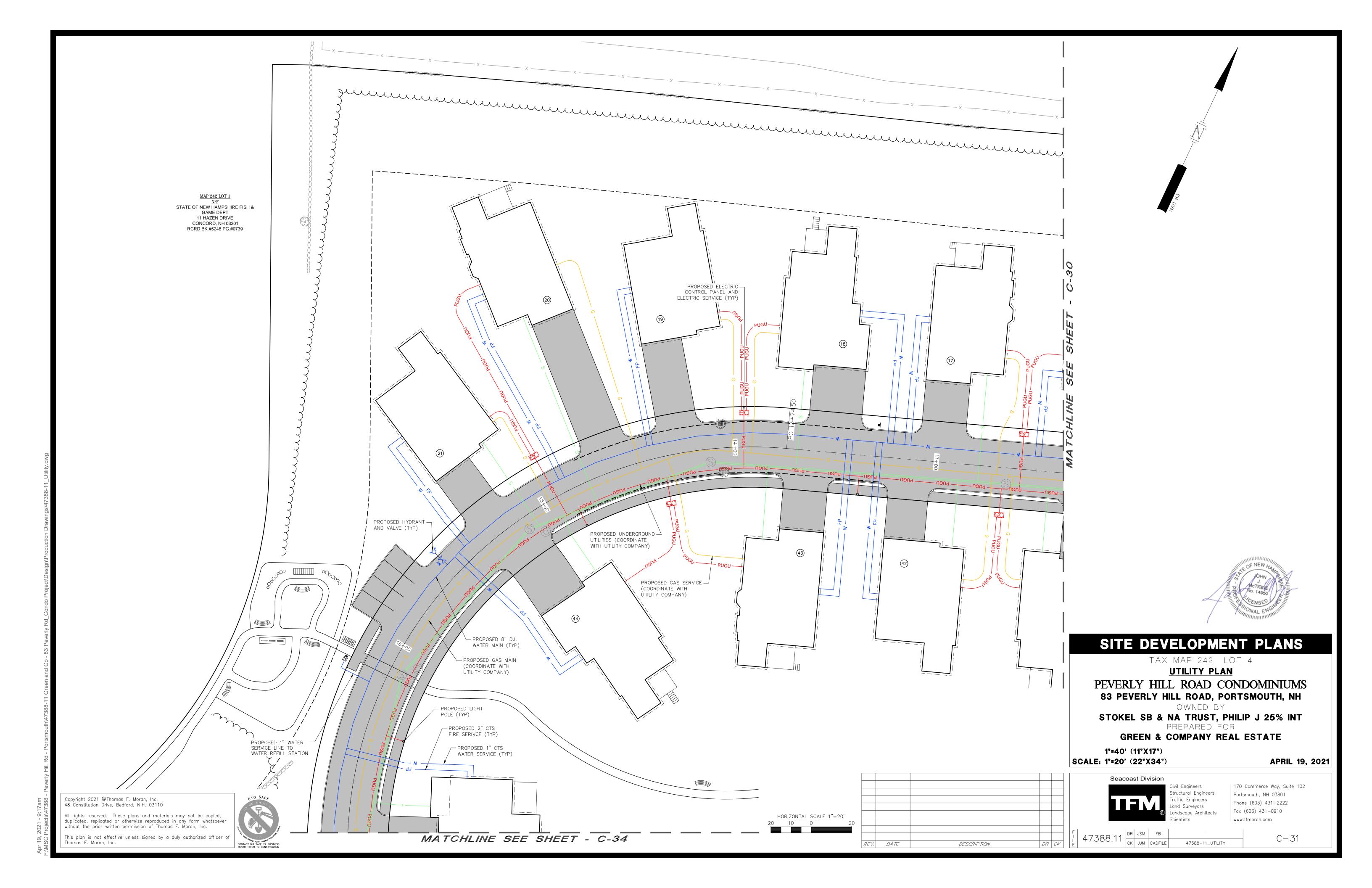


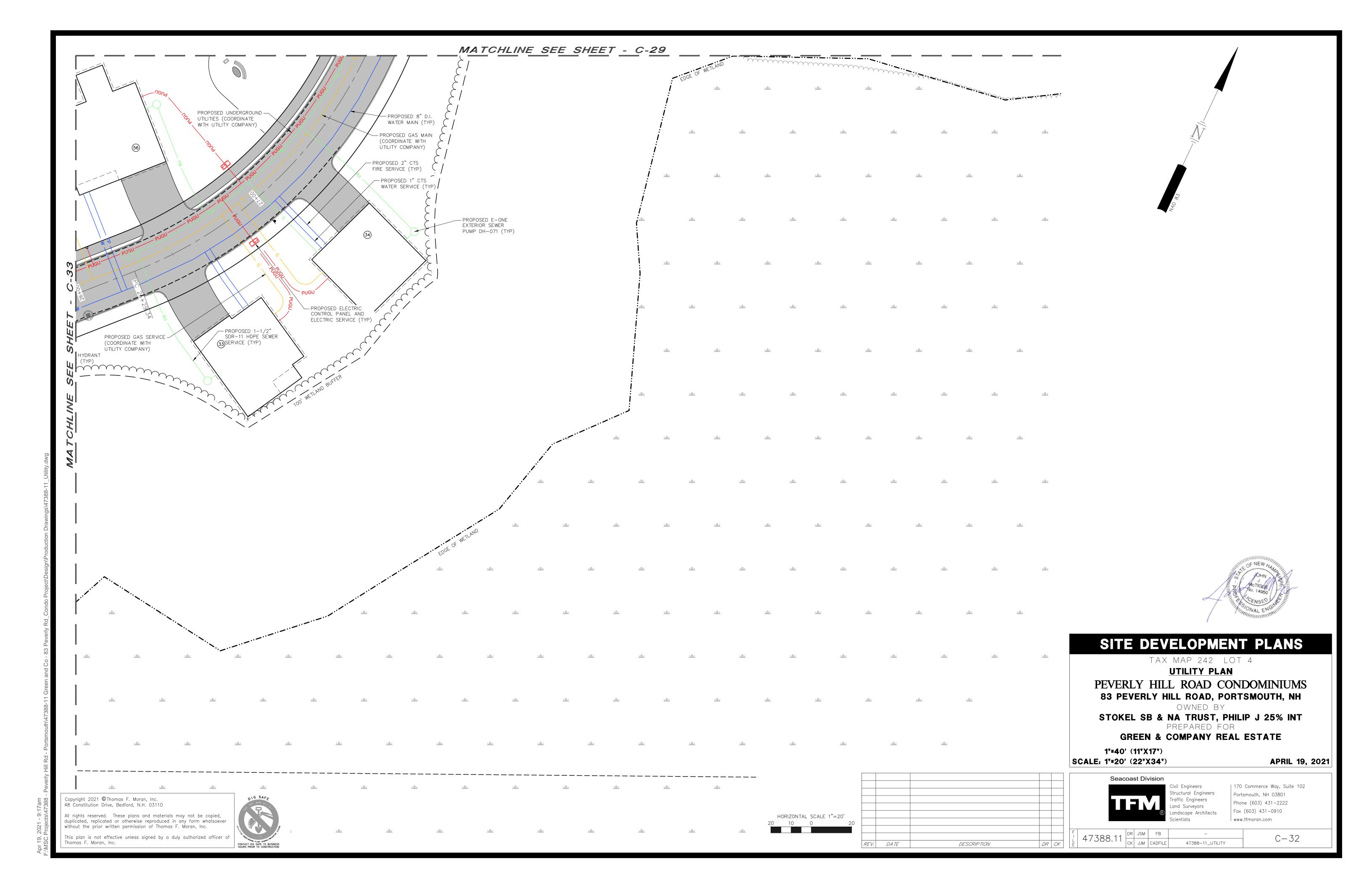




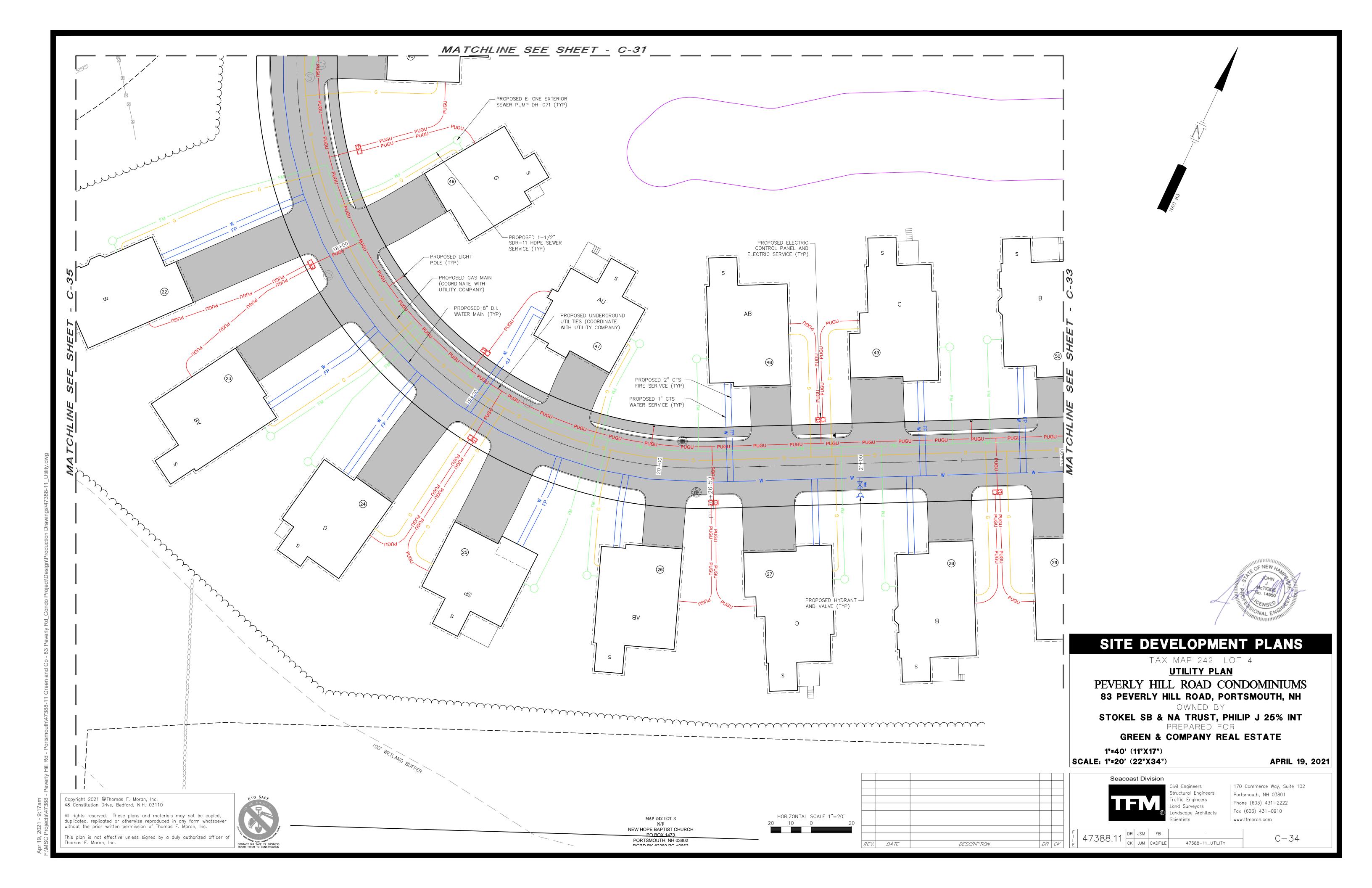


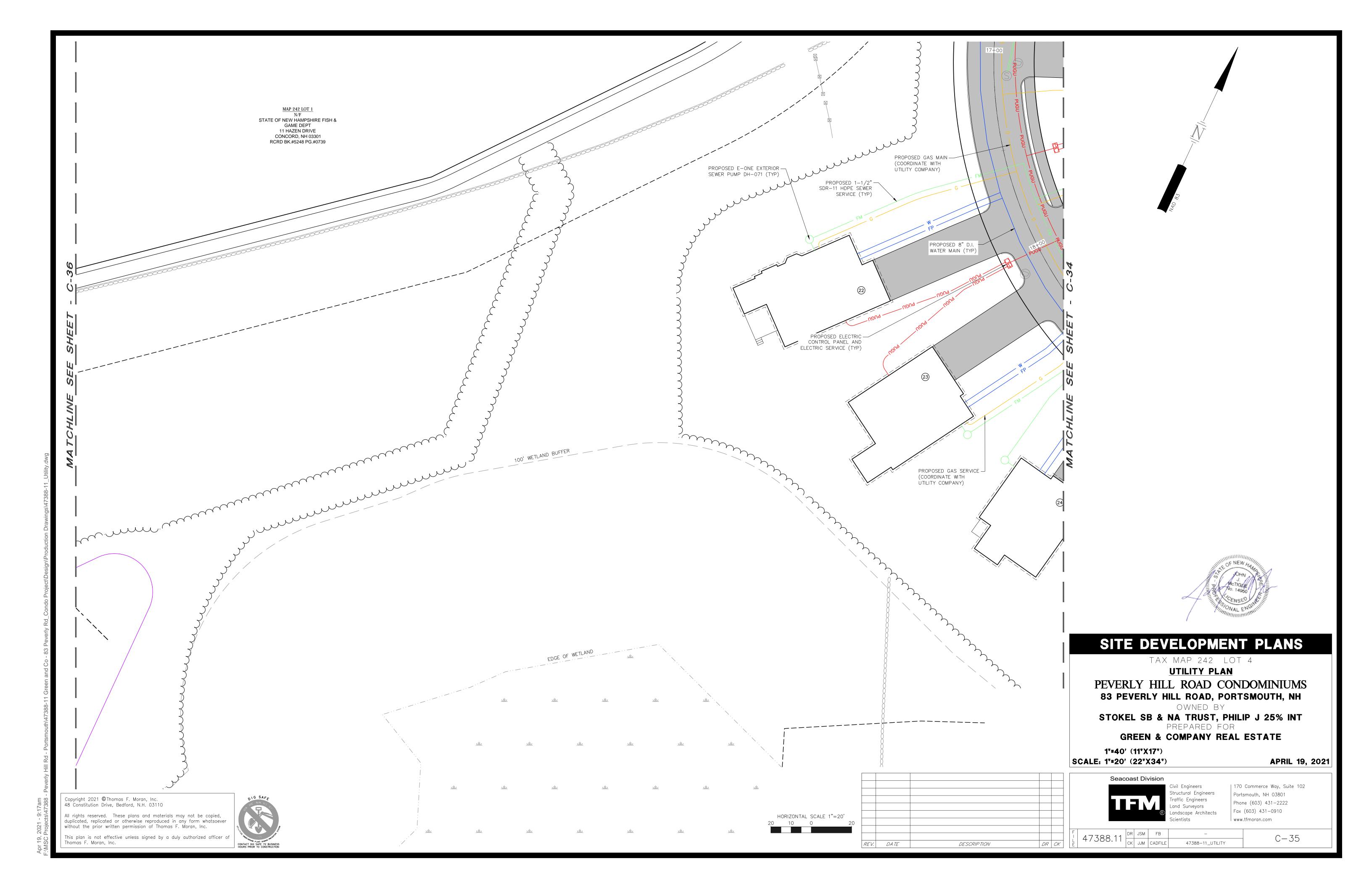


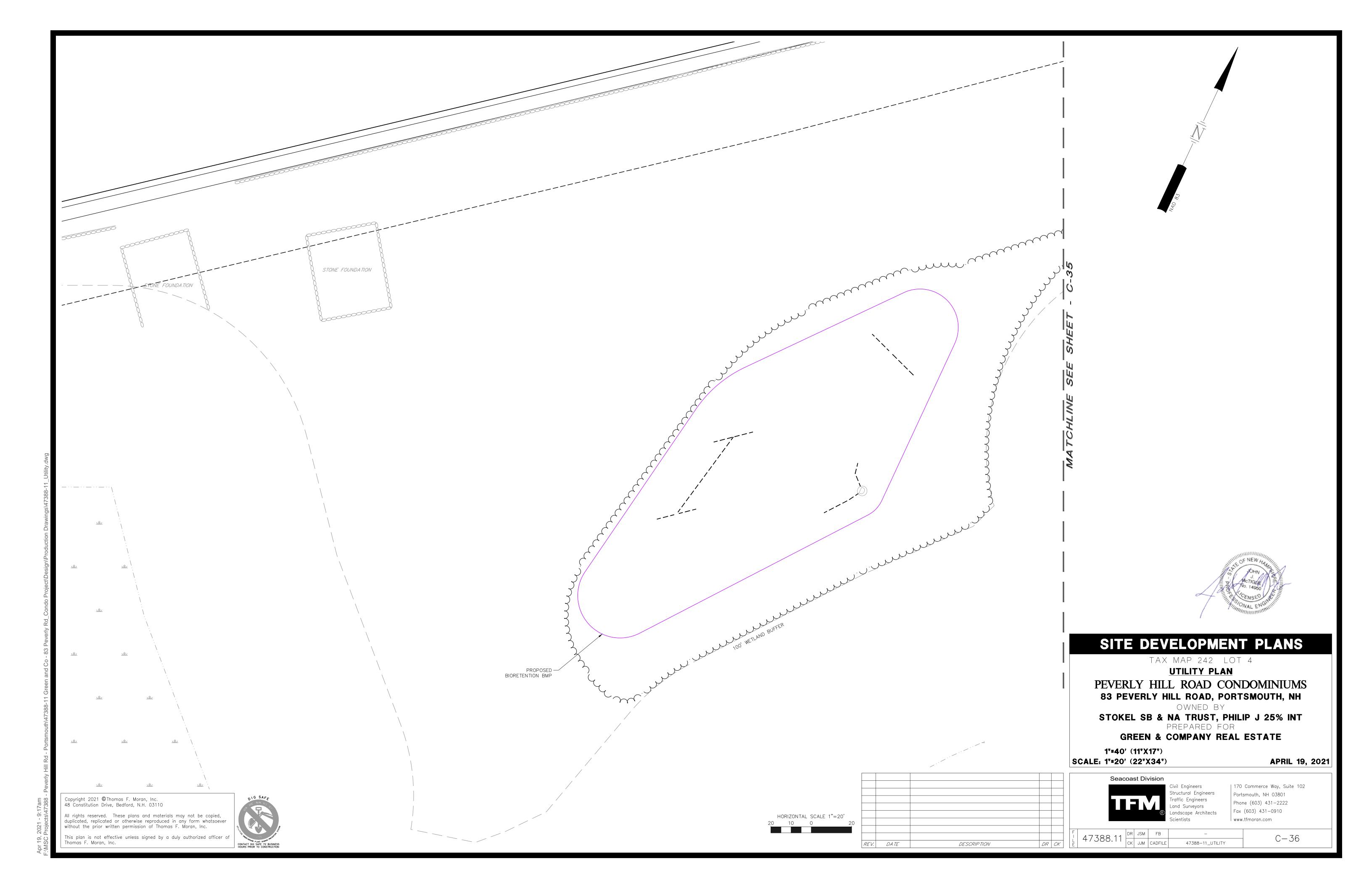


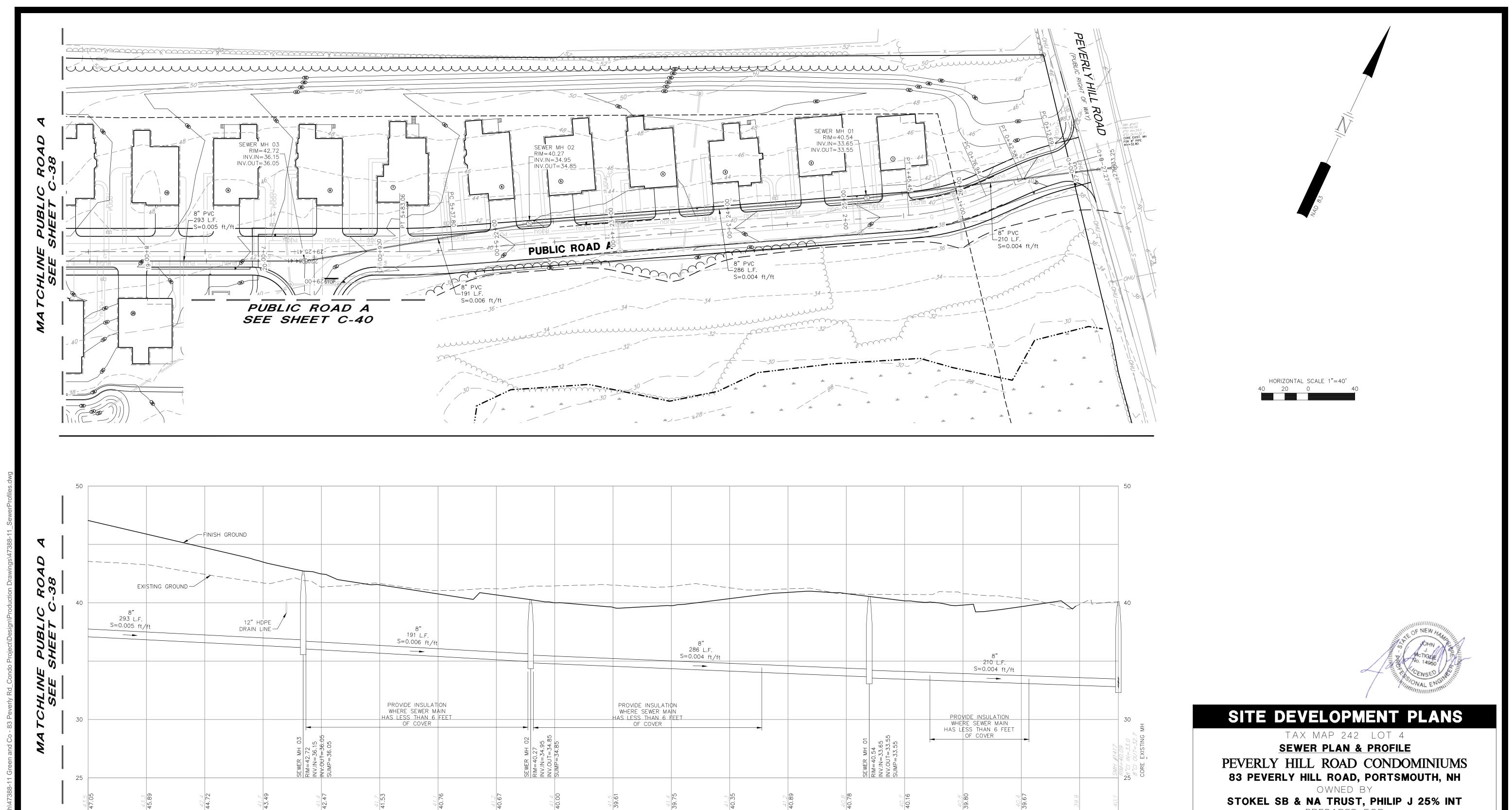












24+00

25+00

26+00

Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

18+50

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

19+00

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.



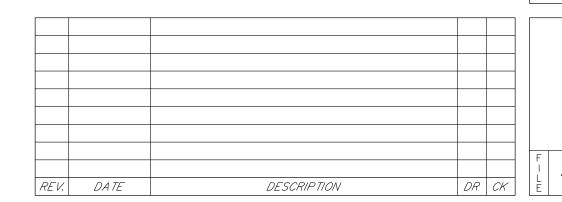
20+00

21+00

22+00

23+00

PUBLIC ROAD A



27+00 27+33

PREPARED FOR

**GREEN & COMPANY REAL ESTATE** 

1"=80' (11"X17") SCALE: 1"=40' (22"X34")

**APRIL 19, 2021** 



| 170 Commerce Way, Suite 102 Civil Engineers Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 Land Surveyors Fax (603) 431-0910 Landscape Architects www.tfmoran.com

DR JSM FB CK JJM CADFILE 47388-11\_SEWERPROFILES C - 37





# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

**SEWER PLAN & PROFILE** PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

**GREEN & COMPANY REAL ESTATE** 

1"=80' (11"X17") SCALE: 1"=40' (22"X34")

**APRIL 19, 2021** 

C - 38

REV. DATE DESCRIPTION

18+00

DR CK

19+00



| 170 Commerce Way, Suite 102 Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 Land Surveyors Fax (603) 431-0910 Landscape Architects www.tfmoran.com

DR JSM FB 
CK JJM CADFILE 47388-11\_SEWERPROFILES

Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

10+00

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.



12+00

13+00

14+00

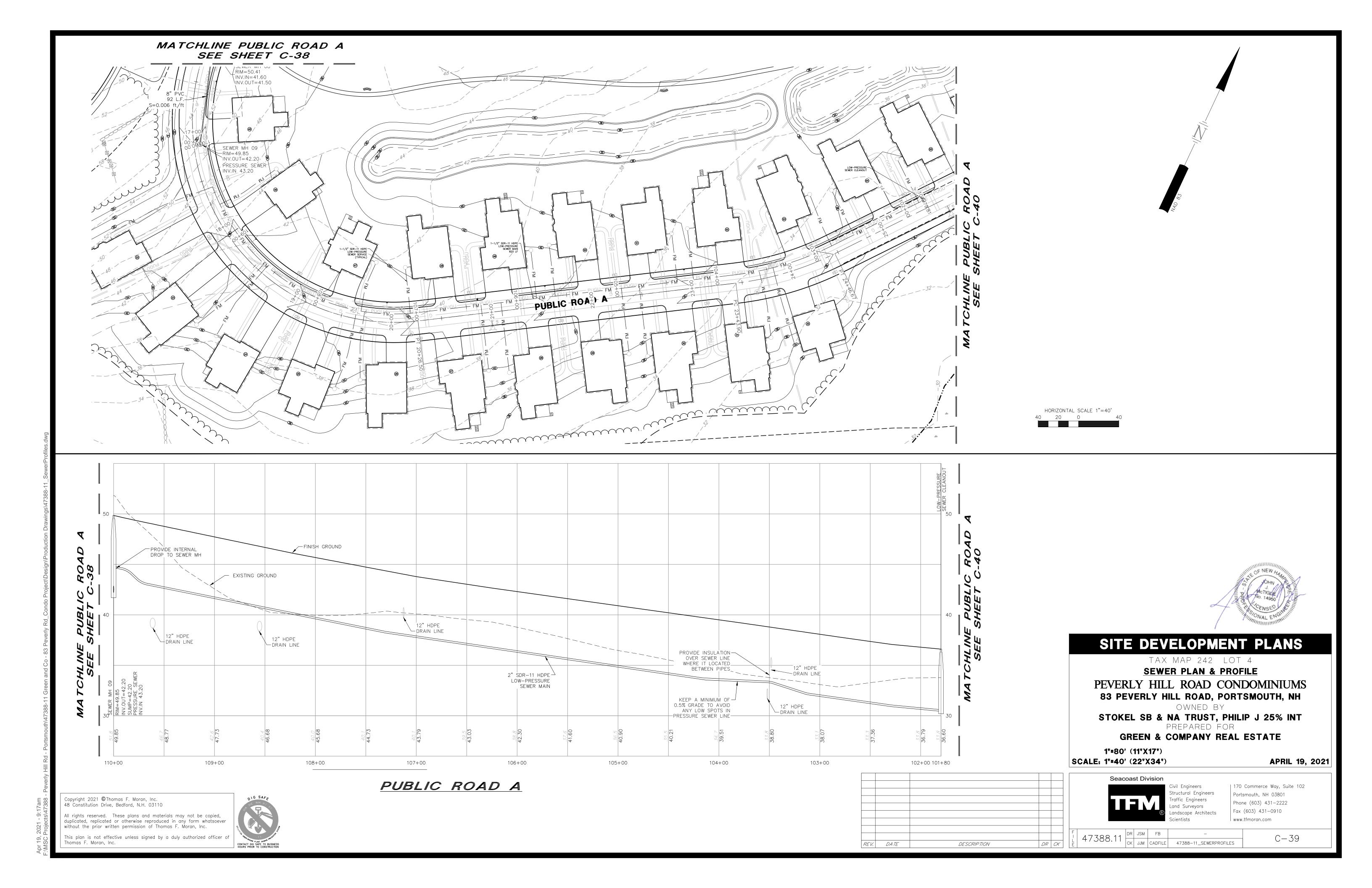
15+00

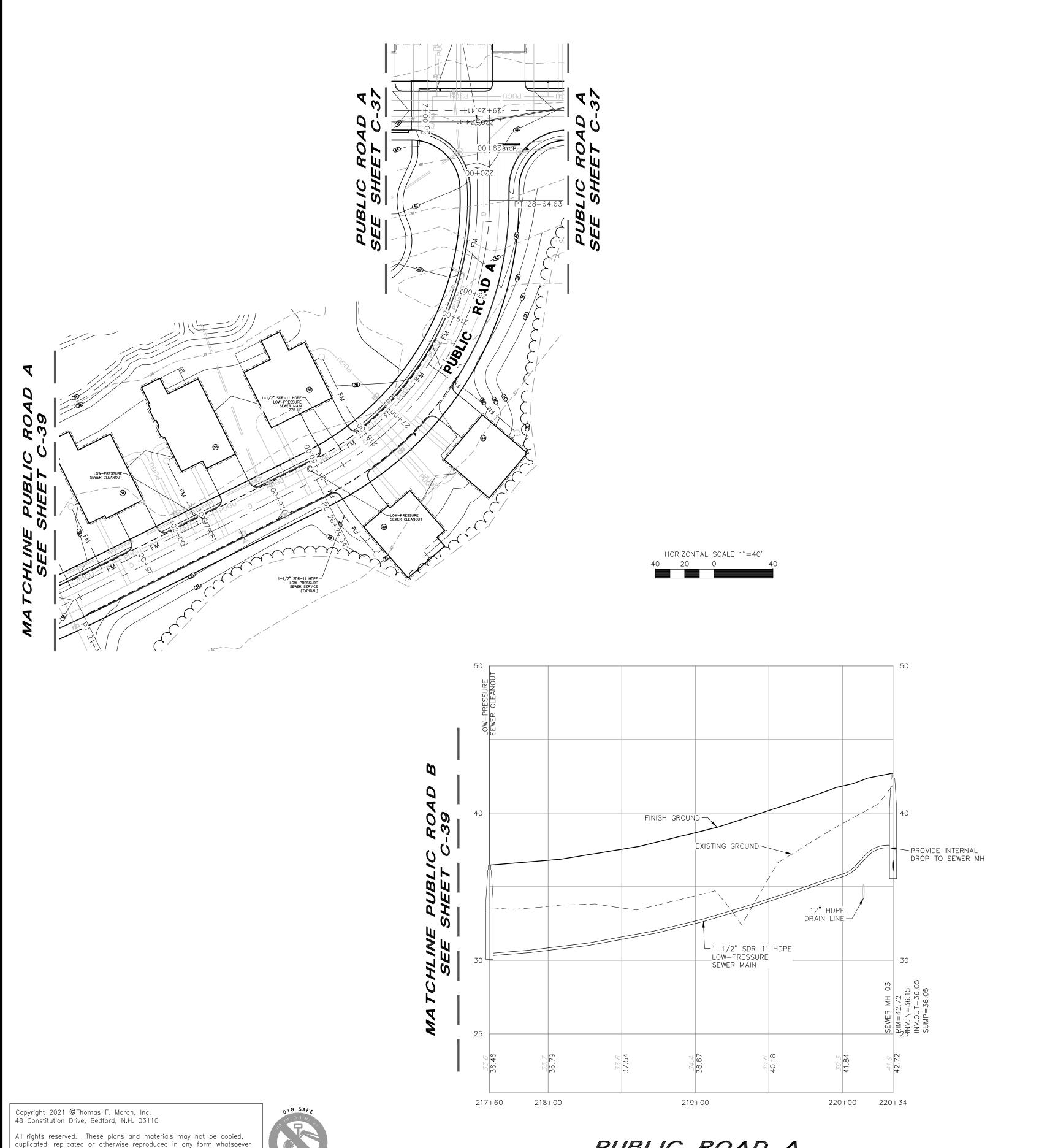
PUBLIC ROAD A

16+00

17+00

11 + 00







# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

**SEWER PLAN & PROFILE** PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

GREEN & COMPANY REAL ESTATE

1"=80' (11"X17") SCALE: 1"=40' (22"X34")

**APRIL 19, 2021** 



Seac	oas	t Div	/isic	n	
I			1	R	Civi Stru Trat Lan Lan Scie

| 170 Commerce Way, Suite 102 ivil Engineers tructural Engineers Portsmouth, NH 03801 raffic Engineers Phone (603) 431-2222 and Surveyors Fax (603) 431-0910 andscape Architects www.tfmoran.com cientists

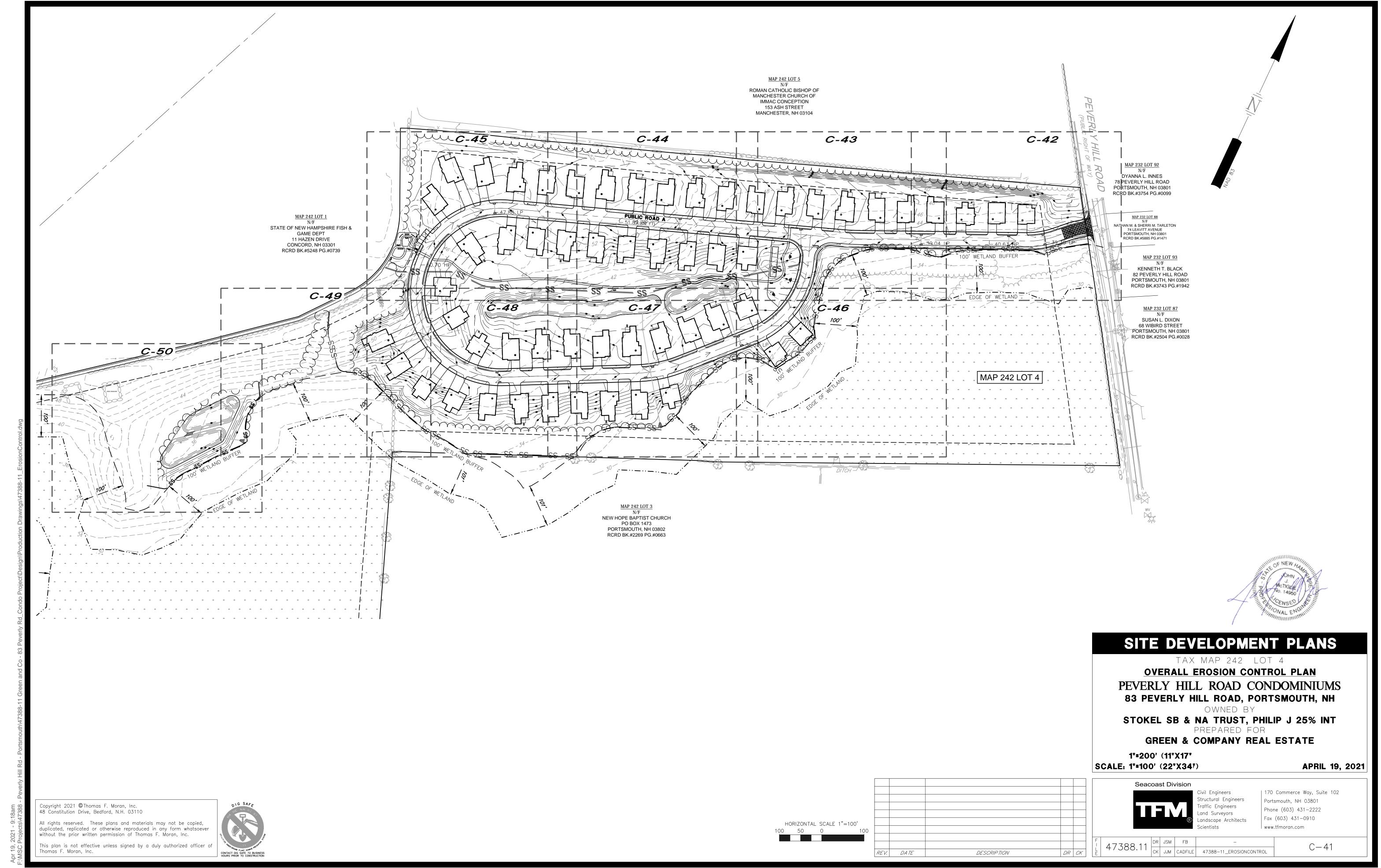
47388.11 DR JSM FB - CK JJM CADFILE 47388-11\_SEWERPROFILES

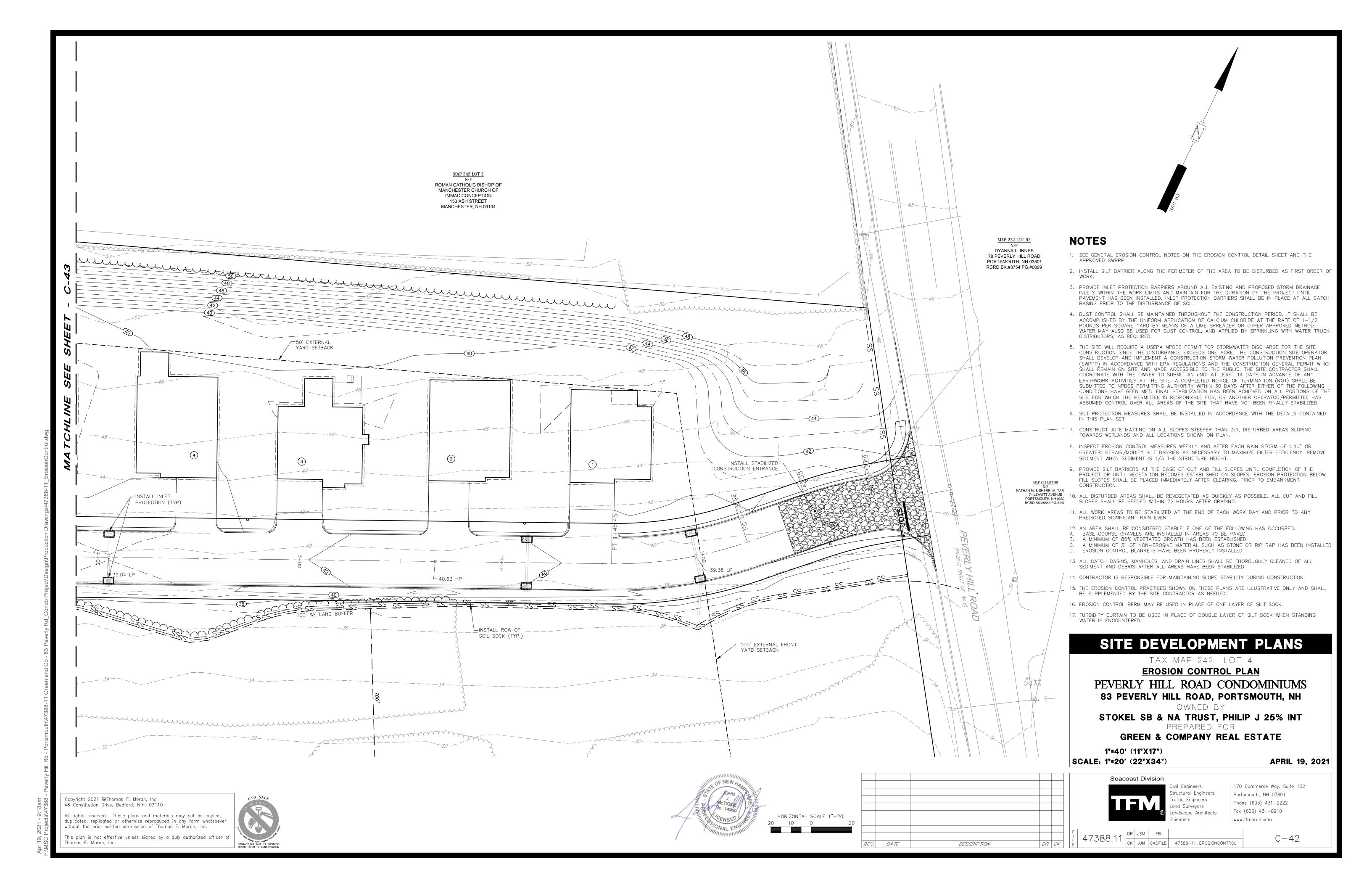
C - 40

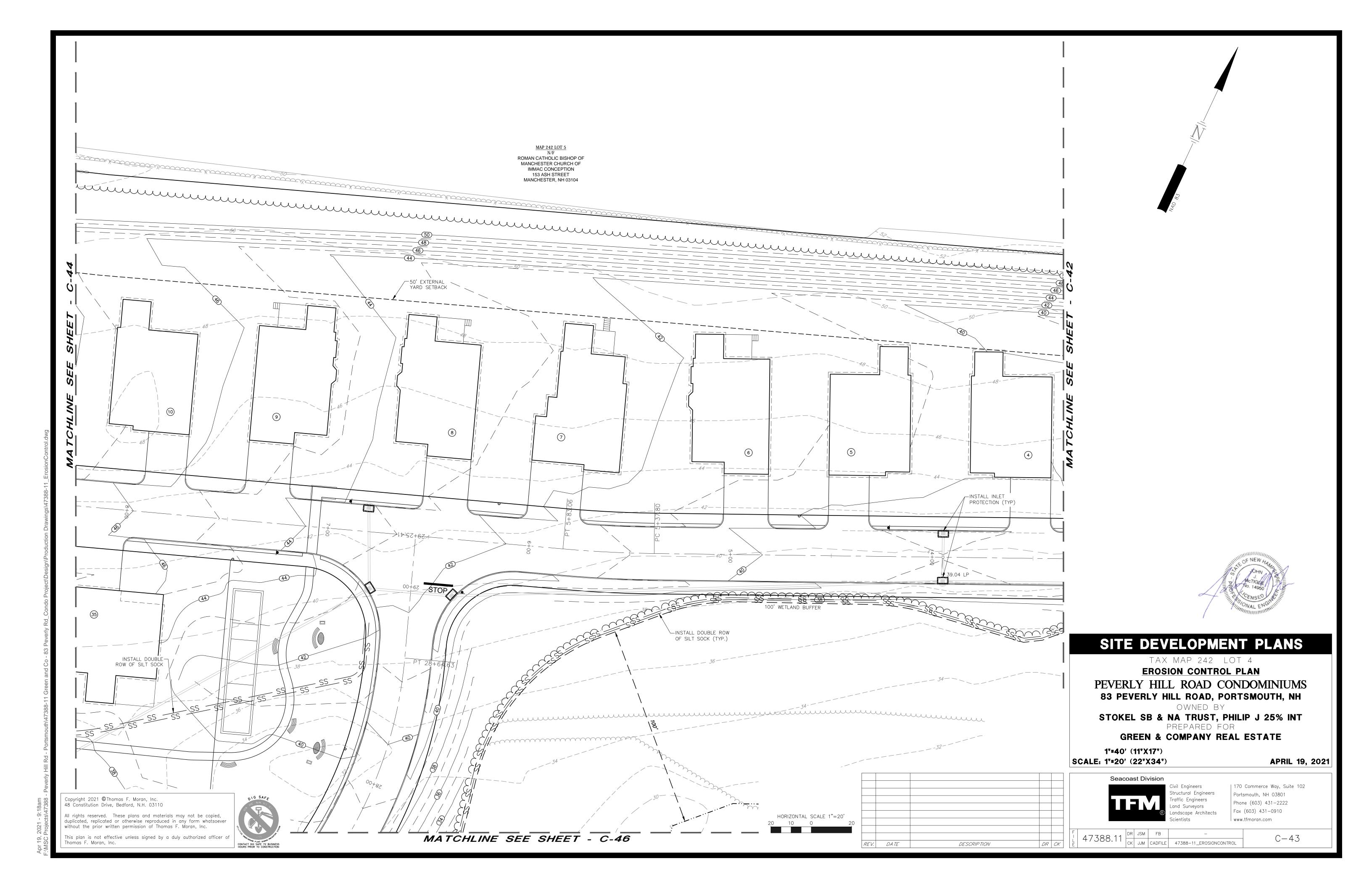
All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc. This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.

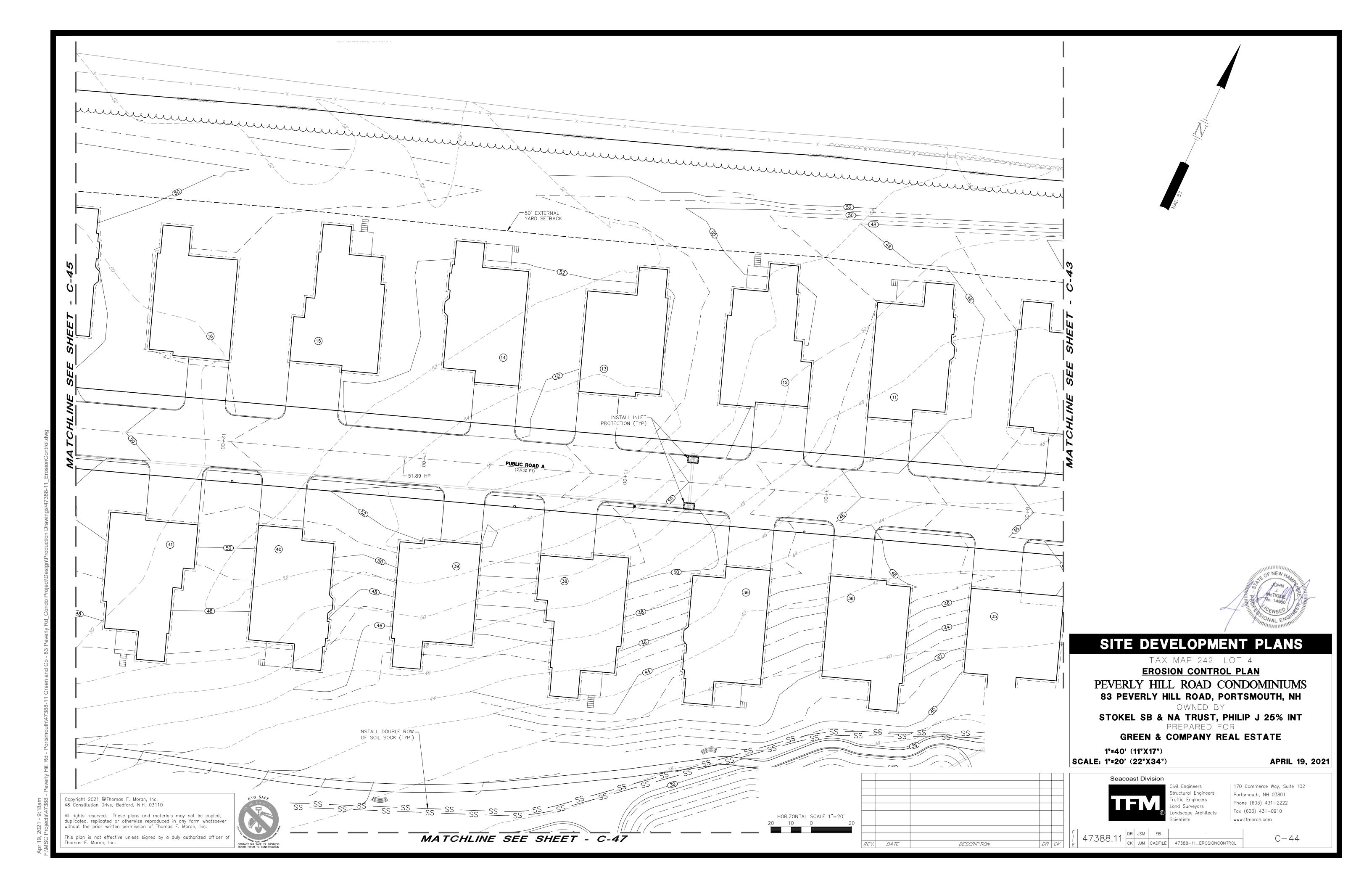


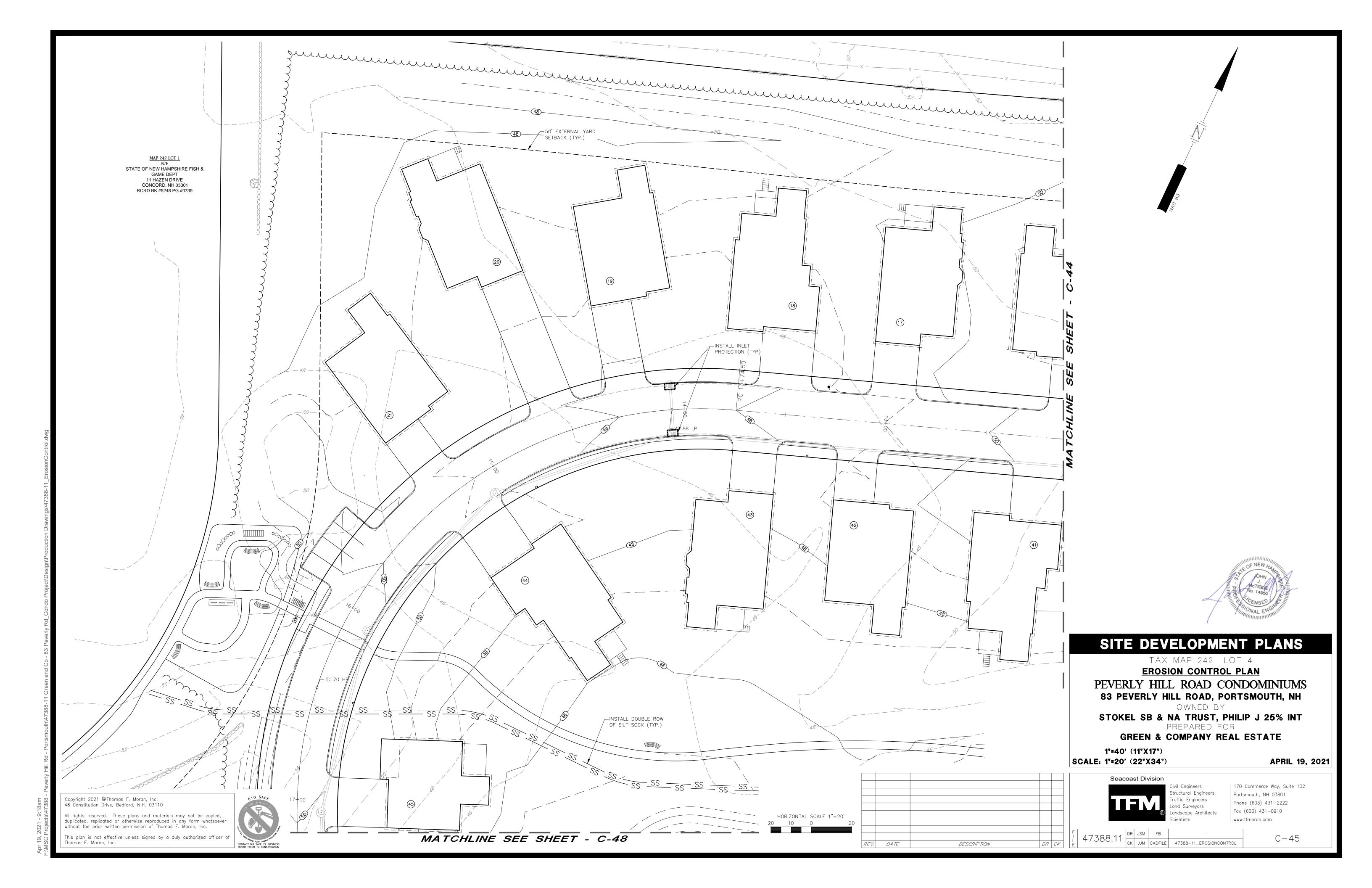
PUBLIC ROAD A

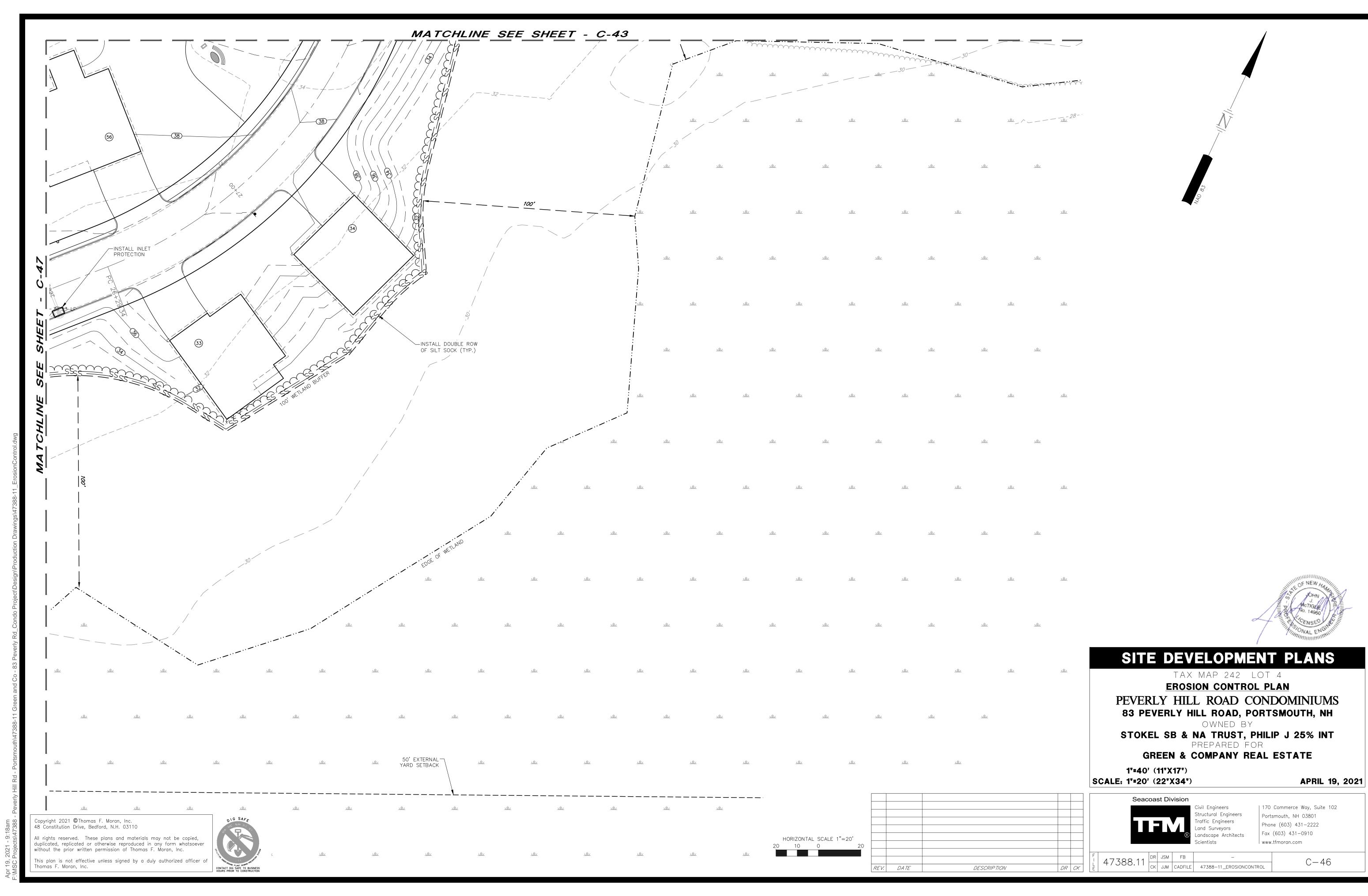


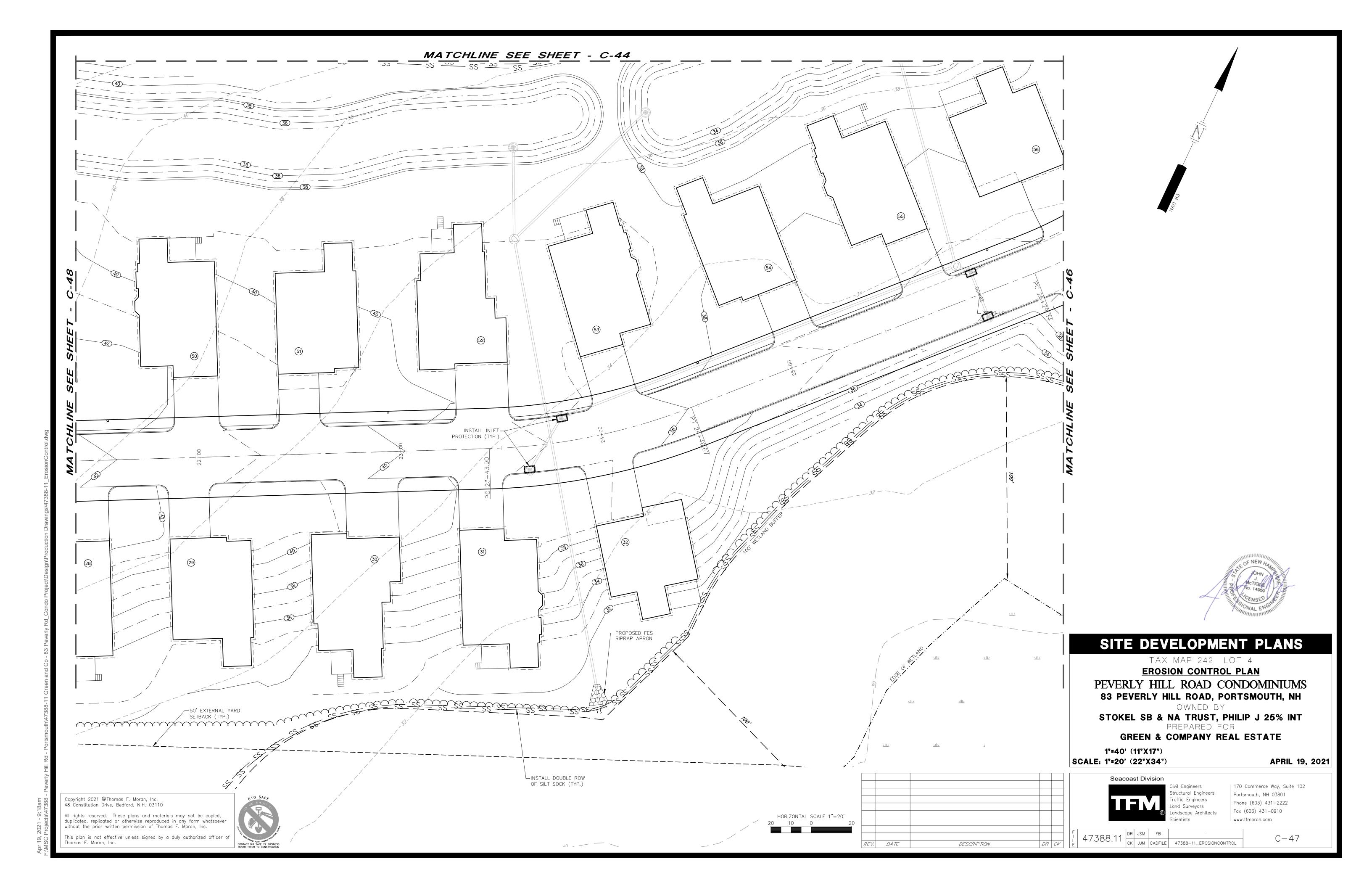


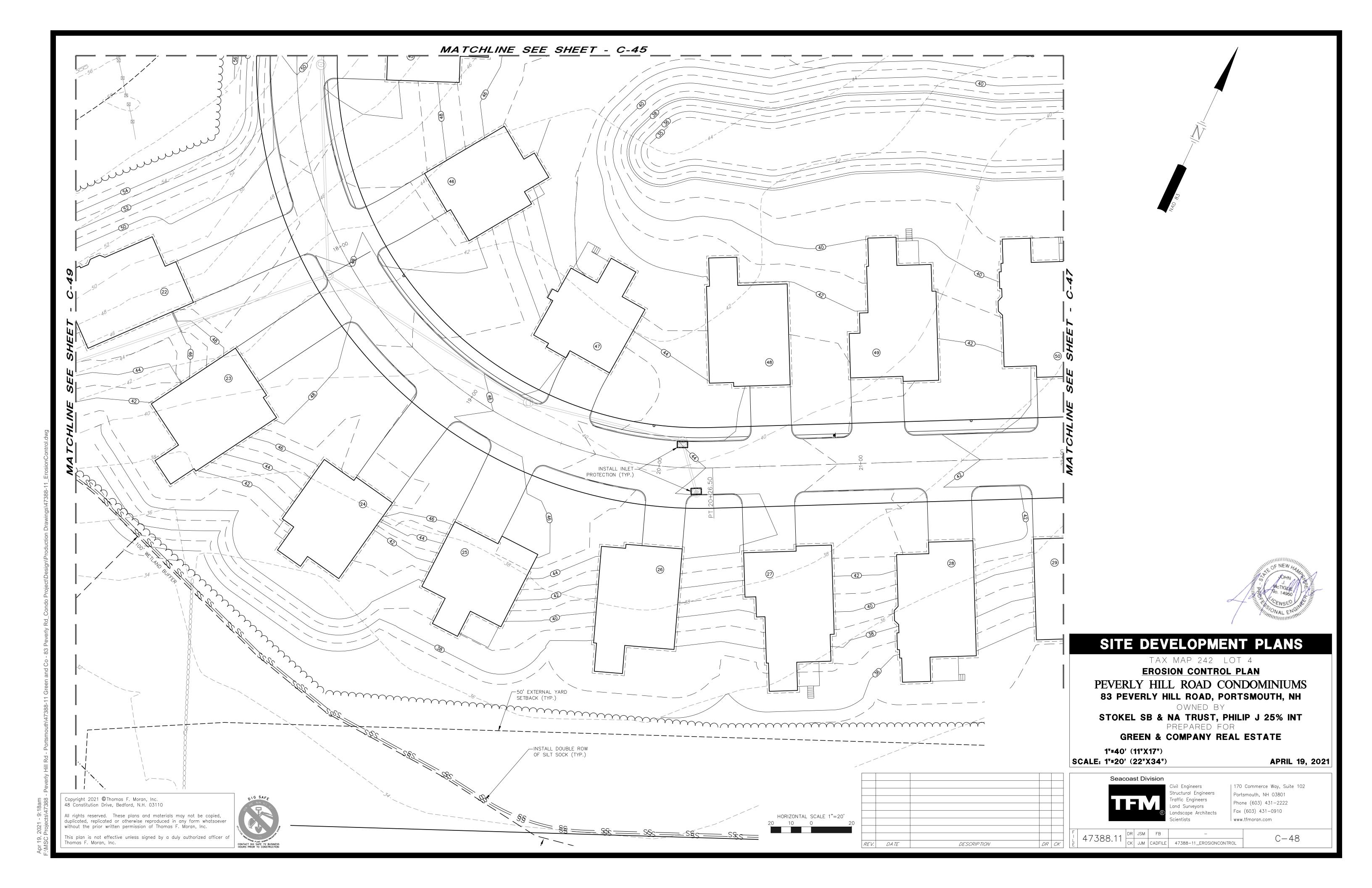


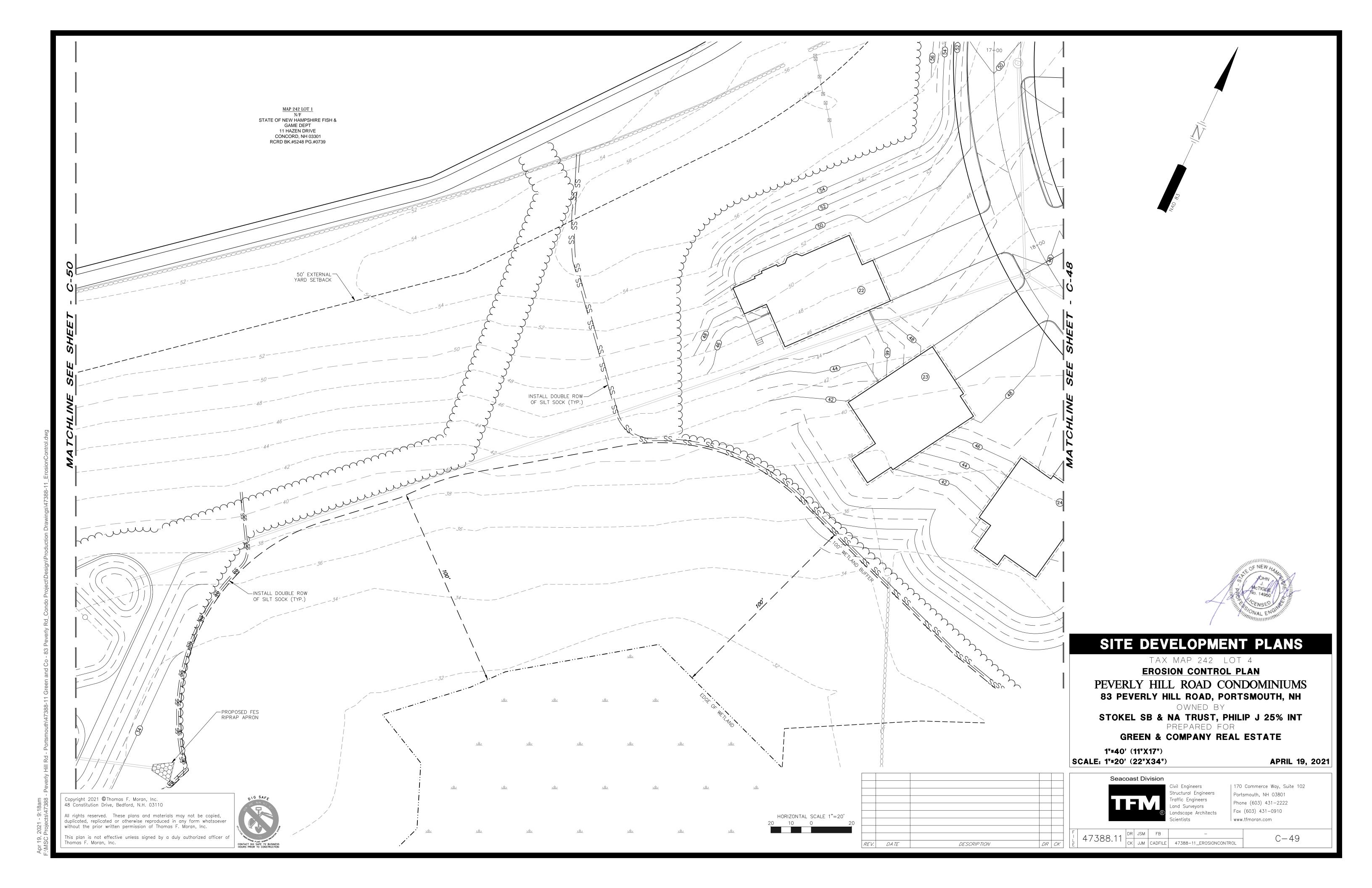


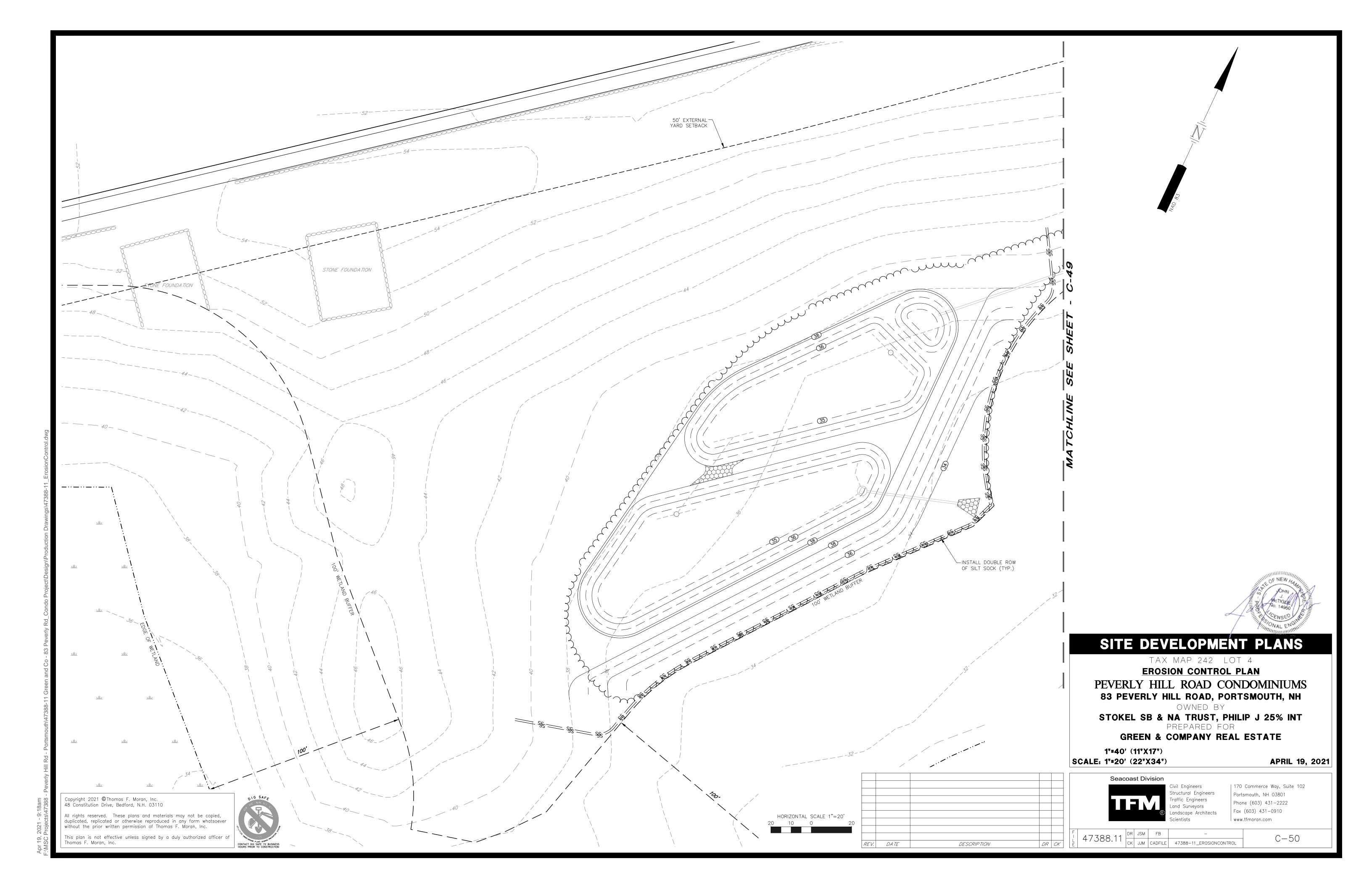












THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 775,000 SQUARE FEET (17.80 ACRES).

CRITICAL NOTE: THIS DRAWING IS PROVIDED FOR GENERAL GUIDANCE. ALL SPECIAL EROSION CONTROL MEASURES MUST BE EXECUTED IN ACCORDANCE WITH CURRENT STATE AND LOCAL REGULATIONS, APPROVED SWPPP AND PERMIT REQUIREMENTS. SEQUENCE OF MAJOR ACTIVITIES

- 1. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND TEMPORARY EROSION CONTROL MEASURES PER APPROVED SWPPP IF REQUIRED.
- DEMOLISH EXISTING SITE WORK DESIGNATED FOR REMOVAL.
- COMPLETE MAJOR GRADING OF SITE.
- CONSTRUCT BUILDING PAD, STORMWATER SYSTEM, AND SITE UTILITIES. CONSTRUCT PARKING LOT.
- 3. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND SITE IS STABILIZED, REMOVE ALL INLET PROTECTION, SILT BARRIERS AND SEDIMENT THAT HAS BEEN TRAPPED BY THESE DEVICES.
- 7. CONSULT APPROVED SWPPP FOR CONDITIONS RELATED TO NOTICE OF TERMINATION, IF REQUIRED.

### EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES AND DISTURBED AREAS WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR MORE THAN TWENTY ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE

- 1. BASE COURSE GRAVELS, WHICH MEET THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2, HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
- 2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
- 3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
- 4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT BARRIERS. ALL STORM DRAIN INLETS SHALL BE PROVIDED WITH BARRIER FILTERS. STONE RIPRAP SHALL BE PROVIDED AT THE OUTLETS OF DRAINAGE PIPES WHERE EROSIVE VELOCITIES ARE ENCOUNTERED.

## OFF SITE VEHICLE TRACKING

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED.

NSTALLATION, MAINTENANCE AND INSPECTION OF EROSION AND SEDIMENT CONTROLS

THESE ARE THE GENERAL INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO IMPLEMENT THE PLAN.

- 1. STABILIZATION OF ALL SWALES, DITCHES AND PONDS IS REQUIRED PRIOR TO DIRECTING FLOW TO THEM.
- 2. THE SMALLEST PRACTICAL PORTION OF THE SITE WILL BE DENUDED AT ONE TIME. (5 AC MAX)
- 3. ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND FOLLOWING ANY STORM EVENT
- 4. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED
- WITHIN 24 HOURS OF REPORT. 5. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT BARRIER WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF
- THE BARRIER.

7. TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY

- 6. ALL DIVERSION DIKES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
- GROWTH.
- 8. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
- 9. THE CONTRACTOR'S SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.
- B. <u>FILTERS</u> / BARRIERS
  - 1. SILT SOCKS
  - A. KNOTTED MESH NETTING MATERIAL SHALL BE DELIVERED TO SITE IN A 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" MATERIAL, FILLED WITH COMPOST CONFORMING TO THE FOLLOWING REQUIREMENTS:

PHYSICAL PROPERTY <u>TEST</u> REQUIREMENTS 5.0 TO 8.0

PARTICLE SIZE TMECC 02.02-B 2" SIEVE AND MIN. 60% GREATER

THE EXPOSED HEIGHT OF THE SILT SOCK.

THAN THE 3" SIEVE

MOISTURE CONTENT STND TESTING < 60%

MATERIAL SHALL BE RELATIVELY FREE OF INERT OR FOREIGN MAN-MADE MATERIALS

MATERIAL SHALL BE WEED FREE AND DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER,

- FREE FROM ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. B. SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK SHALL BE REMOVED ONCE IT HAS REACHED 1/3 OF
- C. SILT BARRIER SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE E. CATCH BASIN INLET PROTECTION
- UPSLOPE AREAS HAS BEEN PERMANENTLY STABILIZED. 2. SEQUENCE OF INSTALLATION

SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.

# 3. MAINTENANCE

- A. SILT BARRIERS SHALL BE INSPECTED WEEKLY AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
- B. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- C. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) THE HEIGHT OF THE BARRIER.
- D. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFIRM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

IN ORDER FOR MULCH TO BE EFFECTIVE, IT MUST BE IN PLACE PRIOR TO MAJOR STORM EVENTS. THERE ARE TWO (2) TYPES OF STANDARDS WHICH SHALL BE USED TO ASSURE THIS:

A. APPLY MULCH PRIOR TO ANY STORM EVENT.

THIS IS APPLICABLE WHEN WORKING WITHIN 100' OF WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS, USUALLY BY CONTACTING THE NATIONAL WEATHER SERVICE, TO HAVE ADEQUATE

B. REQUIRED MULCHING WITHIN A SPECIFIED TIME PERIOD.

THE TIME PERIOD CAN RANGE FROM 14 TO 21 DAYS OF INACTIVITY ON AN AREA, WHERE THE LENGTH OF TIME VARIES WITH SITE CONDITIONS. PROFESSIONAL JUDGMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS (SOIL ERODIBILITY, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS TO CHOOSE AN APPROPRIATE TIMING OF CONTROLS/MEASURES TIME RESTRICTION.

2. GUIDELINES FOR WINTER MULCH APPLICATION.

WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT A RATE OF 6,000 POUNDS OF HAY OR STRAW PER ACRE. A TACKIFIER MAY BE ADDED TO THE MULCH.

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED.

### D. <u>VEGETATIVE PRACTICE</u>

- 1. AFTER ROUGH GRADING OF THE SUBGRADE HAS BEEN COMPLETED AND APPROVED, THE SUB GRADE SURFACE SHALL BE SCARIFIED TO A DEPTH OF 4". THEN, FURNISH AND INSTALL A LAYER OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE PLANS. ANY DEPRESSIONS WHICH MAY OCCUR DURING ROLLING SHALL BE FILLED WITH ADDITIONAL LOAM, REGRADED AND REROLLED UNTIL THE SURFACE IS TRUE TO THE FINISHED LINES AND GRADES. ALL LOAM NECESSARY TO COMPLETE THE WORK UNDER THIS SECTION SHALL BE SUPPLIED BY THE
- 2. ALL LARGE STIFF CLODS, LUMPS, BRUSH, ROOTS, DEBRIS, GLASS, STUMPS, LITTER AND OTHER FOREIGN MATERIAL, AS WELL AS STONES OVER 1" IN DIAMETER, SHALL BE REMOVED FROM THE LOAM AND DISPOSED OF OFF SITE. THE LOAM SHALL BE RAKED SMOOTH AND EVEN.
- 3. THE LOAM SHALL BE PREPARED TO RECEIVE SEED BY REMOVING STONES, FOREIGN OBJECTS AND GRADING TO ELIMINATE WATER POCKETS AND IRREGULARITIES PRIOR TO PLACING SEED. FINISH GRADING SHALL RESULT IN STRAIGHT UNIFORM GRADES AND SMOOTH, EVEN SURFACES WITHOUT IRREGULARITIES TO LOW POINTS.
- 4. SHAPE THE AREAS TO THE LINES AND GRADES REQUIRED. THE SITE SUBCONTRACTOR'S ATTENTION IS DIRECTED TO THE SCHEDULING OF LOAMING AND SEEDING OF GRADED AREAS TO PERMIT SUFFICIENT TIME FOR THE STABILIZATION OF THESE AREAS. IT SHALL BE THE SITE SUBCONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE AREAS DURING THE CONSTRUCTION PERIOD AND REGRADE, LOAM AND RESEED ANY DAMAGED AREAS.
- 5. ALL AREAS DISTURBED BY CONSTRUCTION WITHIN THE PROPERTY LINES AND NOT COVERED BY STRUCTURES, PAVEMENT, OR MULCH SHALL BE LOAMED AND SEEDED.
- 6. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF 2 TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5.
- 7. FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 500 POUNDS PER ACRE OF 10-20-20 FERTILIZER.
- 8. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4 1/2 POUNDS AND 5 1/2 POUNDS PER INCH OF WIDTH.
- 9. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4" AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF
- 10. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AT A RATE OF 1.5 TO 2 TONS PER ACRE. MULCH THAT BLOWS OR WASHES AWAY SHALL BE REPLACED IMMEDIATELY AND ANCHORED USING APPROPRIATE TECHNIQUES FROM THE EROSION AND SEDIMENT CONTROL HANDBOOK.
- 11. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH 2. GRASS SHALL BE RESEEDED, AND ALL NOXIOUS WEEDS REMOVED.
- 12. THE SITE SUBCONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED, INCLUDING CUTTING, AS SPECIFIED HEREIN AFTER UNDER MAINTENANCE AND PROTECTION.
- 13. UNLESS OTHERWISE APPROVED, SEEDING SHALL BE DONE DURING THE APPROXIMATE PERIODS OF EARLY SPRING TO SEPTEMBER 30, WHEN SOIL CONDITIONS AND WEATHER ARE SUITABLE FOR SUCH WORK. IN NO CASE SHALL THE WEED CONTENT EXCEED 1 PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. FOR TEMPORARY PLANTINGS AFTER SEPTEMBER 30, TO EARLY SPRING AND FOR TEMPORARY PROTECTION OF DISTURBED AREAS:
- A. FOLLOW ABOVE SLOPE, LOAM DEPTH AND GRADING REQUIREMENTS.
- B. FERTILIZER SHALL BE SPREAD AND WORKED INTO THE SURFACE AT A RATE OF 500 POUNDS PER ACRE.

2.5 LBS/1,000 SF

MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES: WINTER RYE (FALL SEEDING)

OATS (SPRING SEEDING)

2.0 LBS/1,000 SF 1.5 TONS/ACRE

1. INLET BASKET STRUCTURE

MULCH

- A. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY PRIOR TO DISTURBING PAVEMENT AND SHALL REMAIN IN PLACE AND MAINTAINED UNTIL PAVEMENT BINDER COURSE IS COMPLETE.
- B. MOLD 6X6, 42 LB. WIRE SUPPORT AROUND INLET FRAME AND GRATE AND EXTEND 6" BEYOND SIDES. SECURE FILTER FABRIC TO WIRE SUPPORT. C. THE FILTER FABRIC SHALL BE A GEOTEXTILE FABRIC; POLYESTER, POLYPROPYLENE, STABILIZED NYLON,
- POLYETHYLENE OR POLYVINYLIDENE CHLORIDE MEETING THE FOLLOWING SPECIFICATIONS: GRAB STRENGTH: 45 LB. MINIMUM IN ANY PRINCIPAL DIRECTION (ASTM D1682) MULLEN BURST STRENGTH: MIN. 60PSI (ASTM D774)
- D. THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A MINIMUM PERMEABILITY OF 120 GPM.
- E. THE INLET PROTECTION SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM REACHING THE DRAINAGE SYSTEM AND/OR CAUSING SURFACE FLOODING.
- F. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT, OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED.

# F. <u>WINTER CONSTRUCTION SEQUENCE</u>

- 1. ALL PROPOSED POST-DEVELOPMENT LANDSCAPED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1 AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT 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 EVENT.
- 2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- 3. AFTER OCTOBER 15TH, INCOMPLETE PARKING AREAS WHERE ACTIVE CONSTRUCTION HAS STOPPED FOR THE WINTER ALL TRAVEL SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOWFALL AFTER EACH STORM EVENT.

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, SILT BARRIERS SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY ONE (21) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, SILT BARRIERS AND ANY EARTH/DIKES WILL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.

## WASTE DISPOSAL

ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN A DUMPSTER. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ON SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

# SPILL PREVENTION

. <u>MATERIAL MANAGEMENT PRACTICES</u>

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:

GOOD HOUSEKEEPING THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION

- A. AN EFFORT WILL BE MADE TO STORE ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB.
- B. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- C. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- D. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
- E. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER. F. WHENEVER POSSIBLE ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- THE FOLLOWING PRACTICES WILL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
- A. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- B. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED FOR IMPORTANT PRODUCT C. SURPLUS PRODUCT THAT MUST BE DISPOSED OF WILL BE DISCARDED ACCORDING TO THE
- MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL

WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PRODUCT SPECIFICATION PRACTICES

MANUFACTURER'S RECOMMENDATIONS.

CONTAINED AREA DESIGNATED ON SITE.

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:

### <u>PETROLEUM PRODUCTS:</u> ALL ON SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO THE

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS. ONCE APPLIED FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

REV. DATE

DESCRIPTION

CONCRETE TRUCKS WILL DISCHARGE AND WASH OUT SURPLUS CONCRETE OR DRUM WASH WATER IN A

## SPILL CONTROL PRACTICES

IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

- A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND
- CLEANUP SUPPLIES. B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS
- C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

SPECIFICALLY FOR THIS PURPOSE.

- D. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- E. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
- F. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING AND HOW TO CLEANUP THE SPILL IF IT RECURS. A DESCRIPTION OF THE SPILL, ITS CAUSE, AND THE CLEANUP MEASURES WILL BE INCLUDED.
- G. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

## DUST CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL METHODS SHALL INCLUDE, BUT NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.



# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

**EROSION CONTROL NOTES** PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

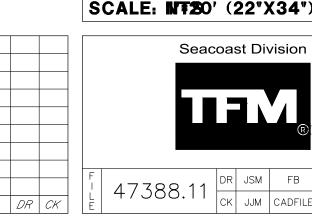
STOKEL SB & NA TRUST, PHILIP J 25% INT

PREPARED FOR **GREEN & COMPANY REAL ESTATE** 

1"=40' (11"X17")

Seacoast Division

**APRIL 19, 2021** 



ivil Engineers Structural Engineers raffic Engineers and Survevors andscape Architects cientists

| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

DR JSM FB C - 51

CK JJM CADFILE 47388-11\_NOTES

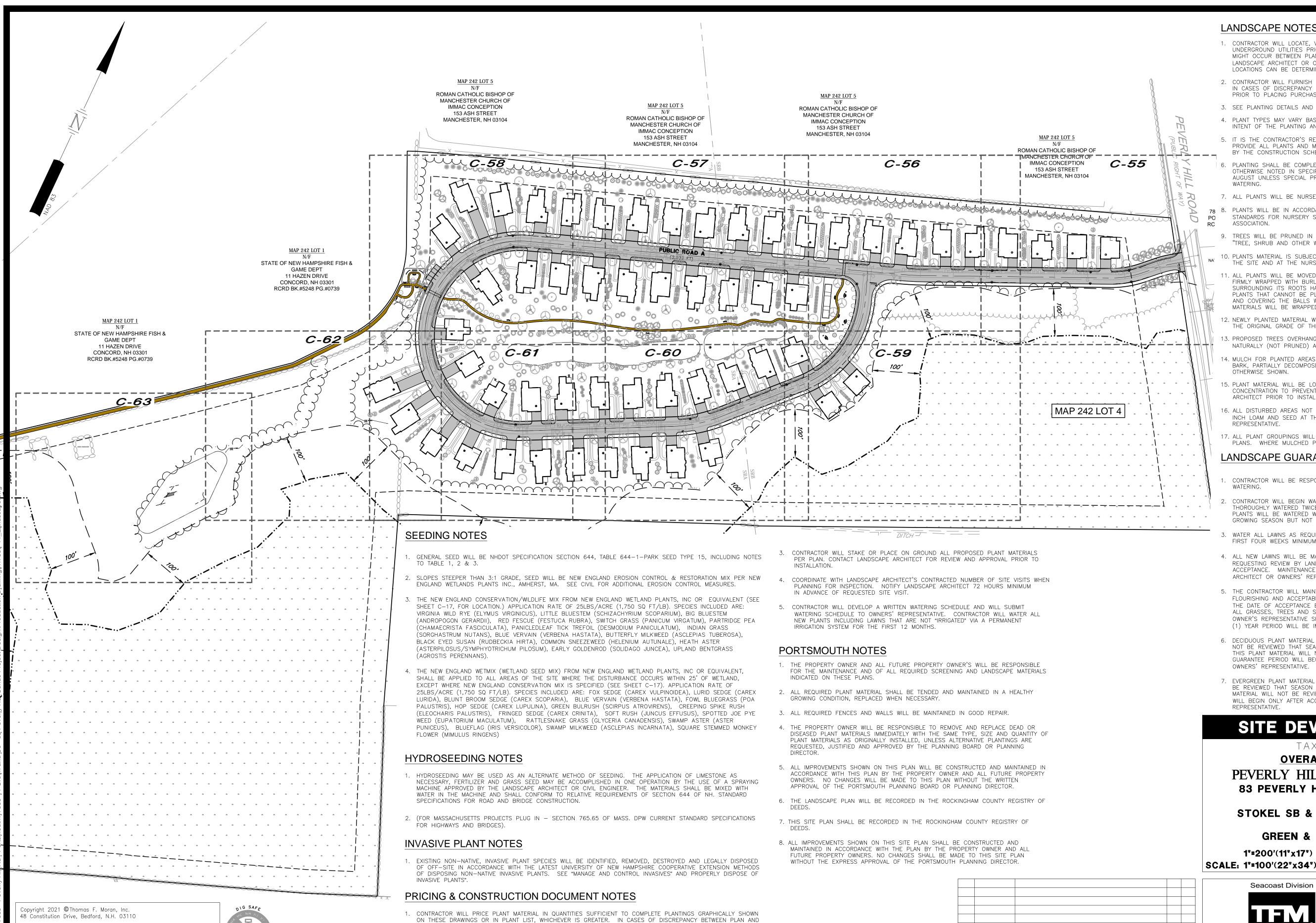
Copyright 2021 © Thomas F. Moran, Inc 48 Constitution Drive, Bedford, N.H. 03110

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran. Inc.

This plan is not effective unless signed by a duly authorized officer of



homas F. Moran, Inc.



LIST CLARIFY WITH LANDSCAPE ARCHITECT PRIOR TO PLACING PURCHASE ORDER AND AGAIN PRIOR TO PLANTING.

2. CONTRACTOR WILL VERIFY PRIOR TO PRICING IF SITE SOILS ARE VERY POORLY DRAINING OR IF LEDGE IS PRESENT.

PROPOSED PLANTING PLAN, NOTIFY LANDSCAPE ARCHITECT OR OWNERS' REPRESENTATIVE FOR DIRECTION PRIOR TO

IF CONTRACTOR ENCOUNTERS VERY POORLY DRAINING SOILS (BATH TUB EFFECT) OR LEDGE THAT IMPACTS

PRICING AND AGAIN PRIOR TO PERFORMING ANY WORK.

All rights reserved. These plans and materials may not be copied,

without the prior written permission of Thomas F. Moran, Inc.

homas F. Moran, Inc.

duplicated, replicated or otherwise reproduced in any form whatsoever

This plan is not effective unless signed by a duly authorized officer o

LANDSCAPE NOTES

- 1. CONTRACTOR WILL LOCATE, VERIFY AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWNWORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTING AND UTILITIES WILL IMMEDIATELY BE REPORTED TO THE LANDSCAPE ARCHITECT OR OWNERS' REPRESENTATIVE, SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
- 2. CONTRACTOR WILL FURNISH AND PLANT ALL PLANTS IN QUANTITIES AS SHOWN ON THIS PLAN. IN CASES OF DISCREPANCY BETWEEN PLAN AND LIST CLARIFY WITH LANDSCAPE ARCHITECT PRIOR TO PLACING PURCHASE ORDER AND AGAIN PRIOR TO PLANTING.
- 3. SEE PLANTING DETAILS AND IF INCLUDED, SPECIFICATIONS FOR ADDITIONAL INFORMATION
- 4. PLANT TYPES MAY VARY BASED ON AVAILABILITY AND SUPPLY. THIS LAYOUT REPRESENTS TH INTENT OF THE PLANTING AND APPROXIMATE NUMBERS OF PLANTS TO BE PROVIDED.
- 5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE THE APPROPRIATE ARRANGEMENTS TO PROVIDE ALL PLANTS AND MATERIALS TO ACCOMMODATE PLANTING WITHIN THE TIME ALLOWED BY THE CONSTRUCTION SCHEDULE
- . PLANTING SHALL BE COMPLETED FROM APRIL 15TH THROUGH OCTOBER 15TH UNLESS OTHERWISE NOTED IN SPECIFICATIONS. THERE WILL BE NO PLANTING DURING JULY AND AUGUST UNLESS SPECIAL PROVISIONS ARE MADE FOR DROUGHT BY PROVIDING ADDITIONAL
- 7. ALL PLANTS WILL BE NURSERY GROWN.
- 78 8. PLANTS WILL BE IN ACCORDANCE, AT A MINIMUM, WITH CURRENT EDITION OF "AMERICAN STANDARDS FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN HORTICULTURE INDUSTRY
- . TREES WILL BE PRUNED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI A300 PART 1, "TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE STANDARD PRACTICES".
- 10. PLANTS MATERIAL IS SUBJECT TO APPROVAL / REJECTION BY THE LANDSCAPE ARCHITECT AT THE SITE AND AT THE NURSERY.
- 1. ALL PLANTS WILL BE MOVED WITH ROOT SYSTEMS AS SOLID UNITS AND WITH BALLS OF EARTH FIRMLY WRAPPED WITH BURLAP. NO PLANT WILL BE ACCEPTED WHEN BALL OF EARTH SURROUNDING ITS ROOTS HAS BEEN BADLY CRACKED OR BROKEN BEFORE PLANTING. ALL PLANTS THAT CANNOT BE PLANTED AT ONCE WILL BE HEELED-IN BY SETTING IN THE GROUND AND COVERING THE BALLS WITH SOIL AND THEN WATERING. DURING TRANSPORT, ALL PLANT MATERIALS WILL BE WRAPPED WITH WIND PROOF COVERING.
- 12. NEWLY PLANTED MATERIAL WILL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL GRADE OF THE PLANT PRIOR TO DIGGING.
- 13. PROPOSED TREES OVERHANGING SIDEWALKS, ROADS OR PARKING WILL BEGIN BRANCHING NATURALLY (NOT PRUNED) AT 6' HEIGHT.
- 14. MULCH FOR PLANTED AREAS (NOT INCLUDING RAIN GARDENS) WILL BE AGED SHREDDED PINE BARK, PARTIALLY DECOMPOSED, DARK BROWN IN COLOR AND FREE OF WOOD CHIPS UNLESS
- 15. PLANT MATERIAL WILL BE LOCATED OUTSIDE BUILDING DRIPLINES AND ROOF VALLEY POINTS C CONCENTRATION TO PREVENT DAMAGE TO PLANTS. CLARIFY DISCREPANCIES WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 16. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED, WILL RECEIVE SIX (6) INCH LOAM AND SEED AT THE DIRECTION OF THE LANDSCAPE ARCHITECT OR OWNER'S
- 17. ALL PLANT GROUPINGS WILL BE IN MULCH BEDS UNLESS OTHERWISE SPECIFIED OR NOTED ON PLANS. WHERE MULCHED PLANT BED ABUTS LAWN, PROVIDE TURF CUT EDGE.

## LANDSCAPE GUARANTEE AND MAINTENANCE NOTES

- CONTRACTOR WILL BE RESPONSIBLE FOR ALL MEANS, METHODS AND TECHNIQUES OF
- CONTRACTOR WILL BEGIN WATERING IMMEDIATELY AFTER PLANTING. ALL PLANTS WILL BE THOROUGHLY WATERED TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS WILL BE WATERED WEEKLY, OR MORE OFTEN, IF NECESSARY DURING THE FIRST GROWING SEASON BUT NOT LESS THAN ONE YEAR.
- . WATER ALL LAWNS AS REQUIRED. DO NOT LET NEWLY PLANTED LAWNS DRY OUT DURING TH FIRST FOUR WEEKS MINIMUM.
- 4. ALL NEW LAWNS WILL BE MAINTAINED AND MOWED A MINIMUM THREE (3) TIMES BEFORE ACCEPTANCE. MAINTENANCE AND MOWING WILL CONTINUE UNTIL ACCEPTED BY LANDSCAPE ARCHITECT OR OWNERS' REPRESENTATIVE IS ISSUED IN WRITING.
- 5. THE CONTRACTOR WILL MAINTAIN AND GUARANTEE ALL PLANTINGS TO BE IN GOOD HEALTHY, FLOURISHING AND ACCEPTABLE CONDITION FOR A PERIOD OF ONE (1) YEAR BEGINNING AT THE DATE OF ACCEPTANCE BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. ALL GRASSES, TREES AND SHRUBS THAT, IN THE OPINION OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE SHOWING LESS THAN 80% HEALTHY GROWTH AT THE END OF ONE (1) YEAR PERIOD WILL BE IMMEDIATELY REPLACED BY THE CONTRACTOR.
- 6. DECIDUOUS PLANT MATERIAL INSTALLED AFTER SEPTEMBER 30 AND BEFORE APRIL 15 WILL NOT BE REVIEWED THAT SEASON FOR ACCEPTANCE DUE TO STAGE OF LEAF PHYSIOLOGY. THIS PLANT MATERIAL WILL NOT BE REVIEWED UNTIL FOLLOWING GROWING SEASON. GUARANTEE PERIOD WILL BEGIN ONLY AFTER ACCEPTANCE BY LANDSCAPE ARCHITECT OR OWNERS' REPRESENTATIVE.
- 7. EVERGREEN PLANT MATERIAL INSTALLED AFTER OCTOBER 30 AND BEFORE APRIL 15 WILL NOT BE REVIEWED THAT SEASON FOR ACCEPTANCE DUE TO END OF GROWTH SEASON. THIS PLANT MATERIAL WILL NOT BE REVIEWED UNTIL FOLLOWING GROWING SEASON. GUARANTEE PERIOD WILL BEGIN ONLY AFTER ACCEPTANCE BY LANDSCAPE ARCHITECT OR OWNERS'

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

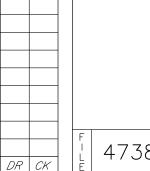
OVERALL LANDSCAPE PLAN PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR GREEN & COMPANY REAL ESTATE

1"=200'(11"x17") | SCALE: 1"=100'(22"x34")

**APRIL 19, 2021** 



HORIZONTAL SCALE 1"=100'

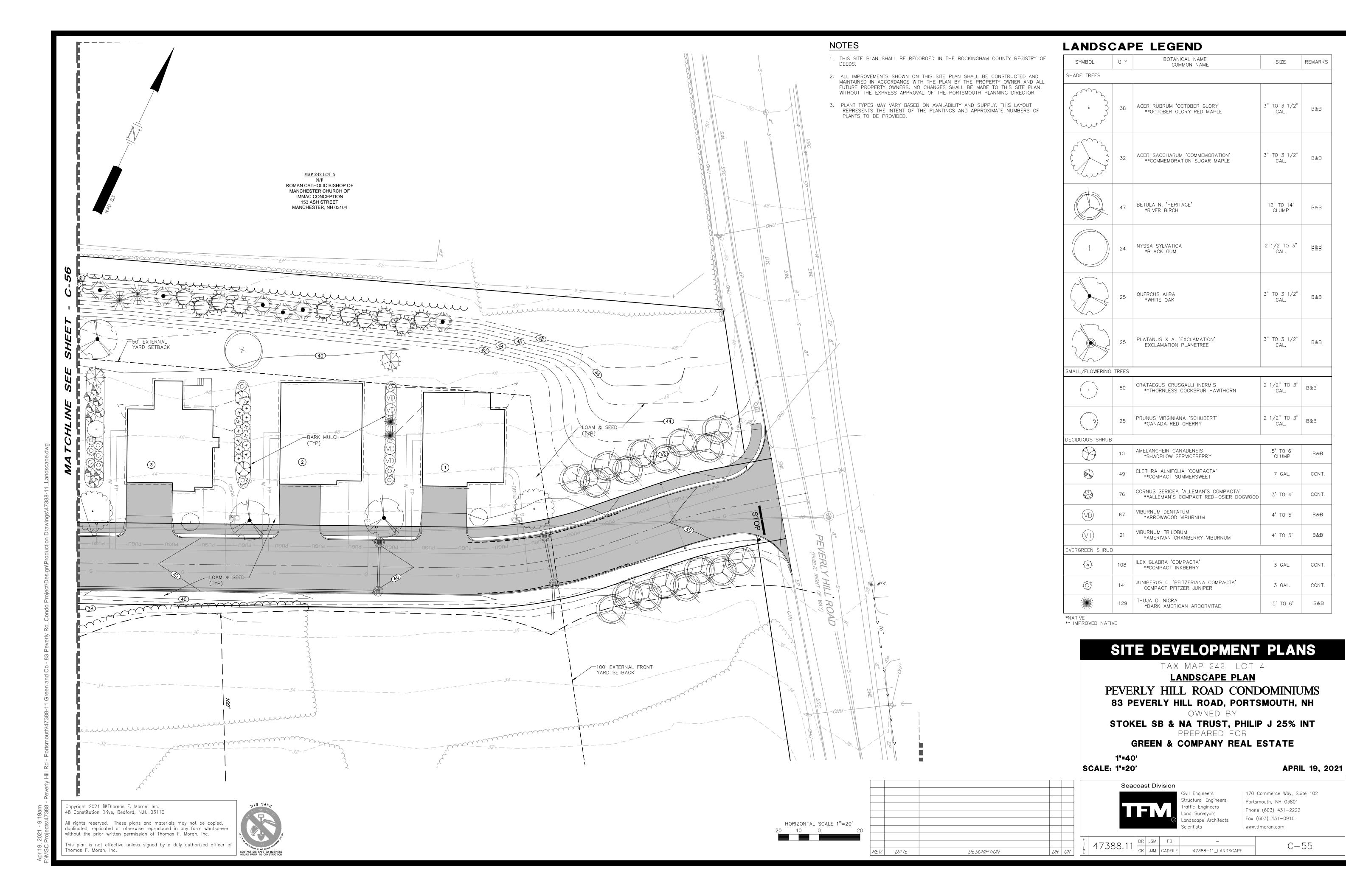
REV. DATE

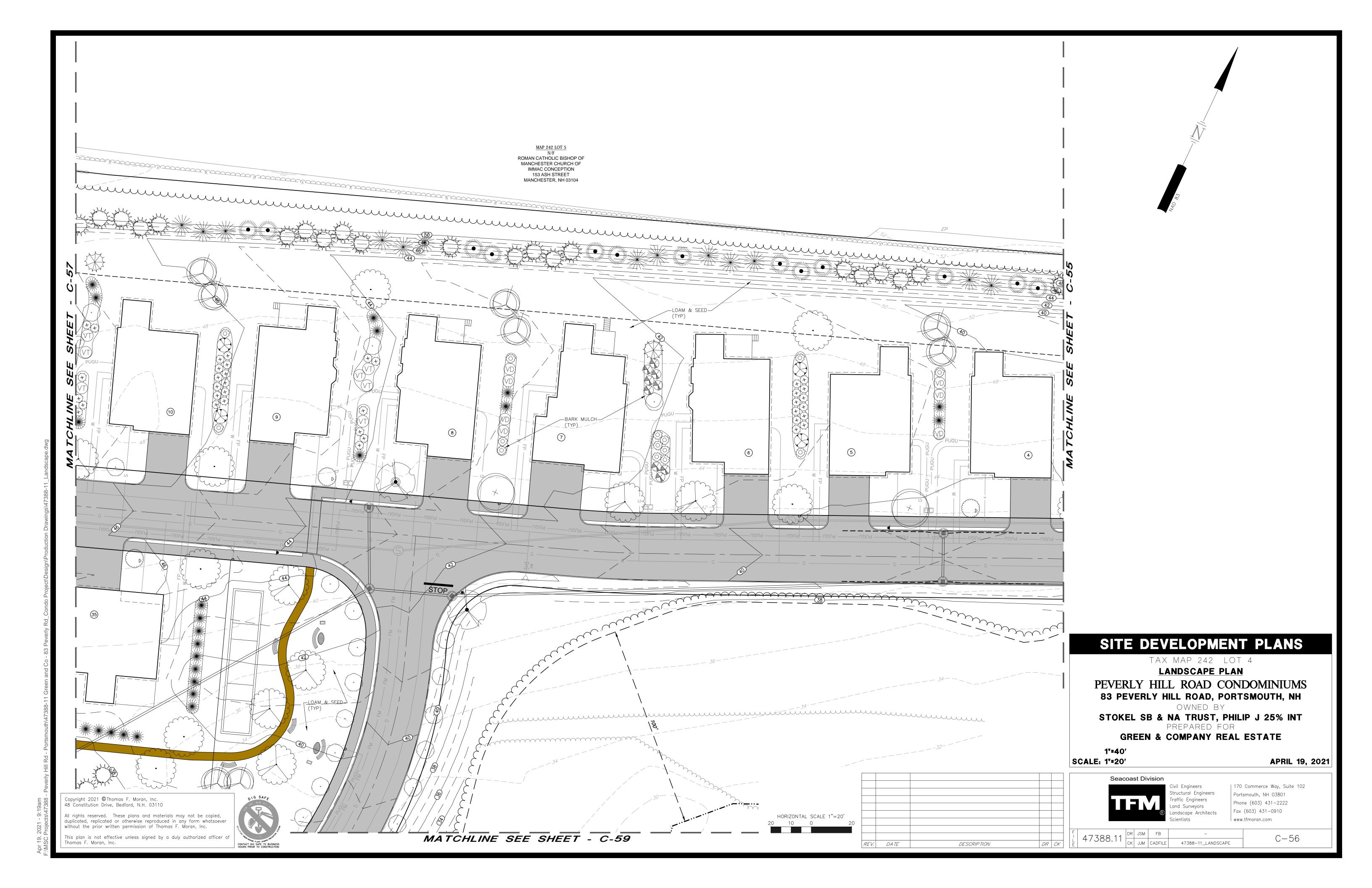
DESCRIPTION

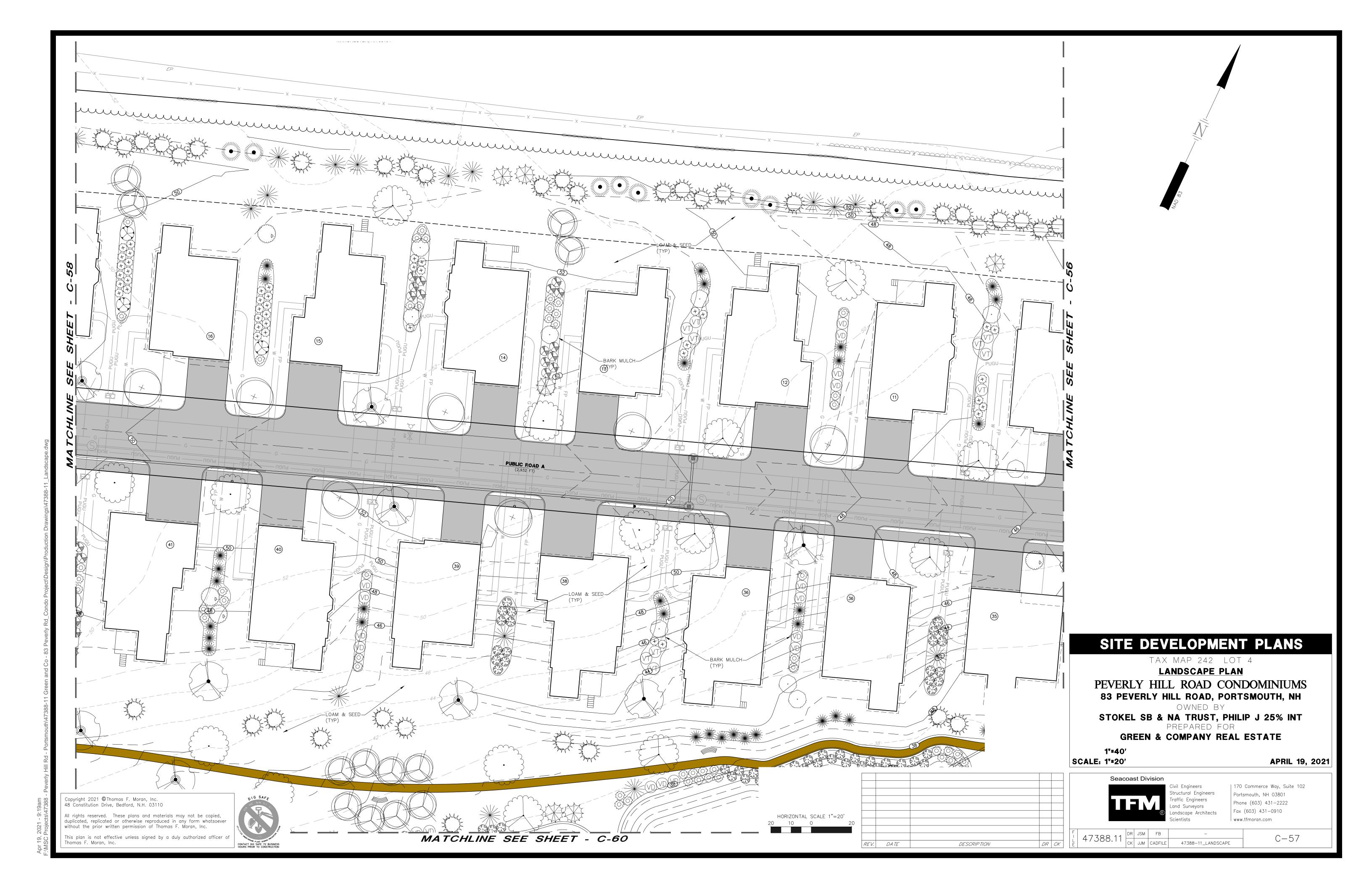
il Engineers Structural Engineers Traffic Engineers Land Surveyors Landscape Architects

| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

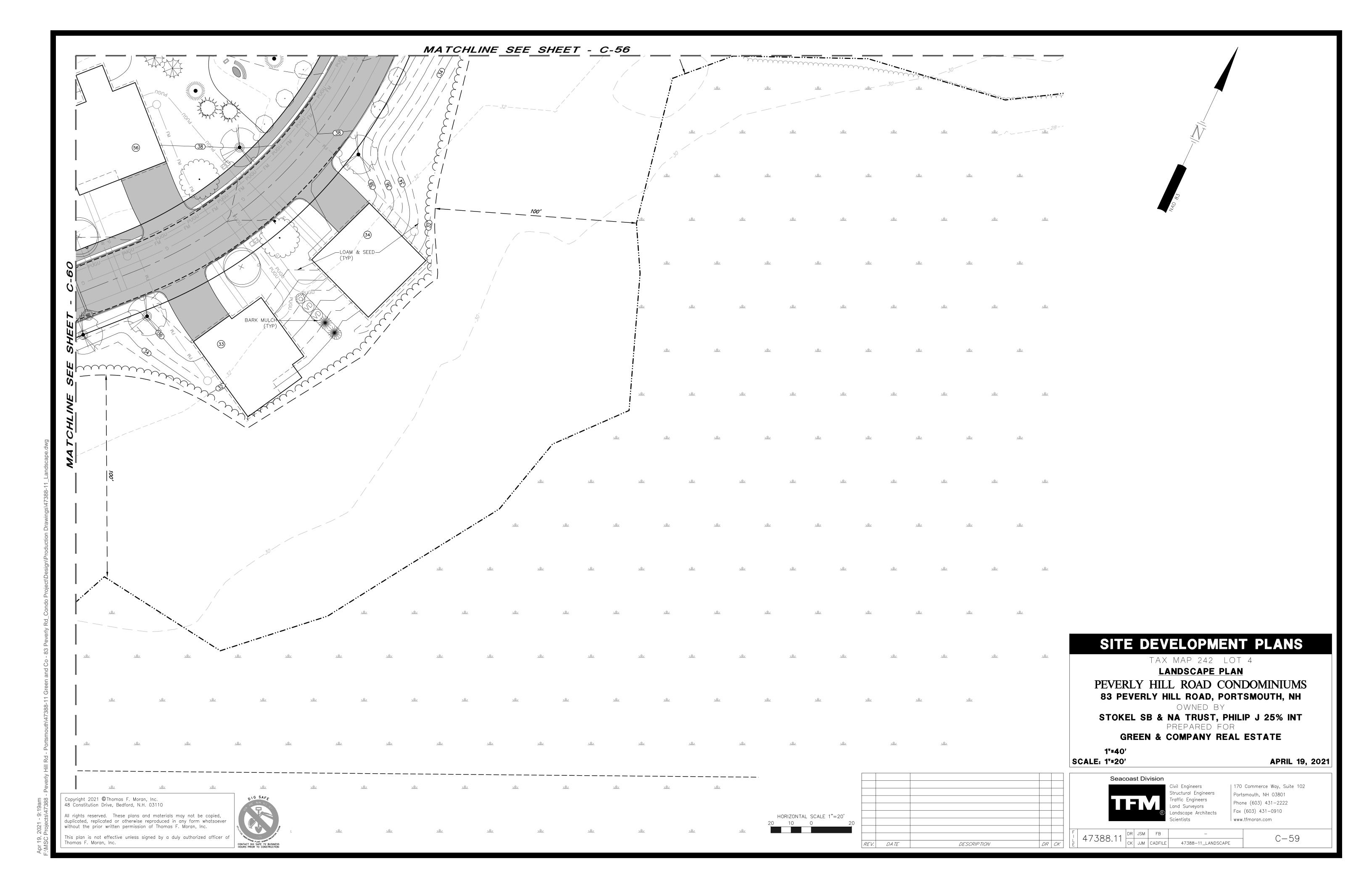
CK JJM CADFILE 47388-11\_LANDSCAPE

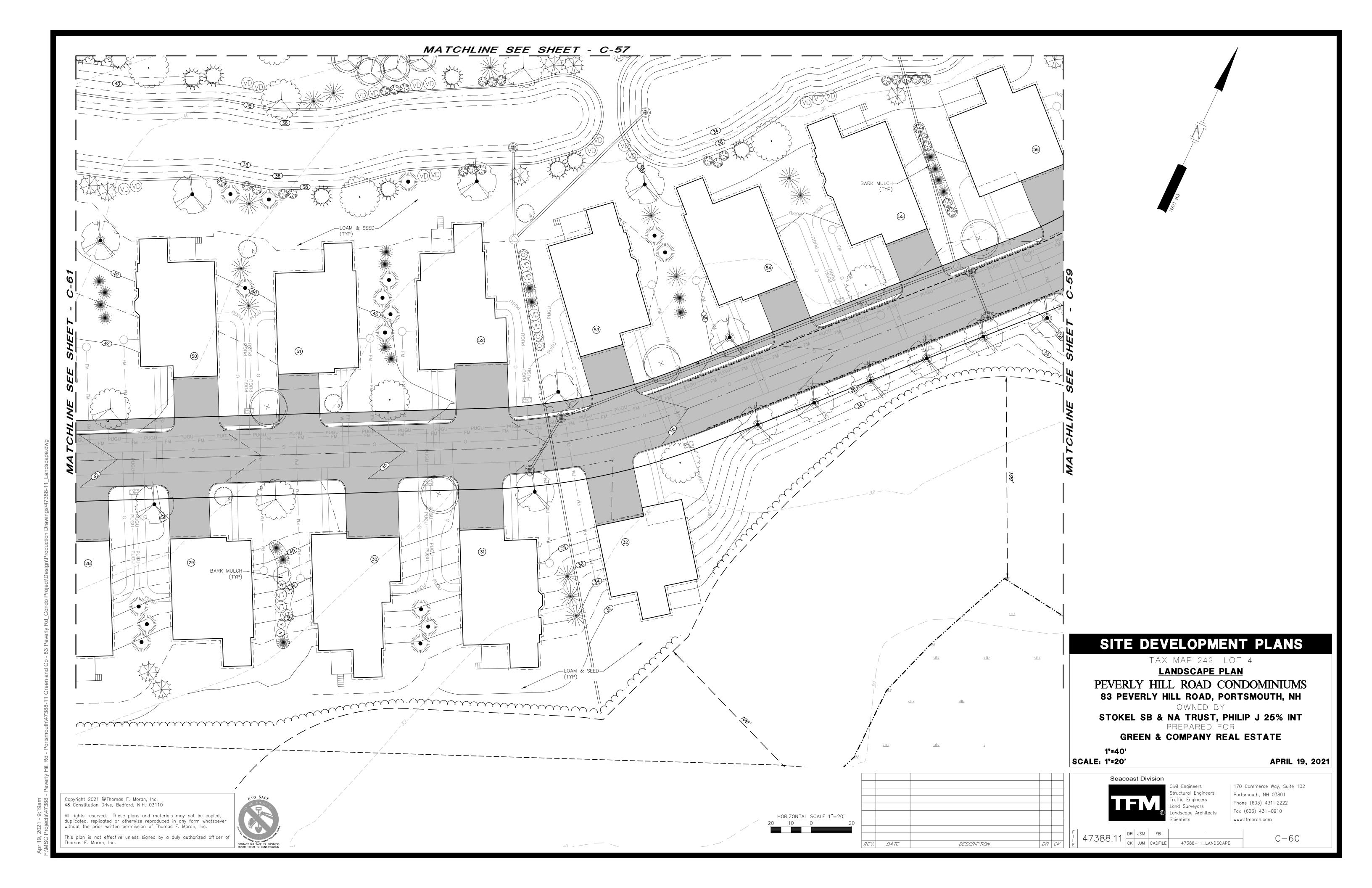


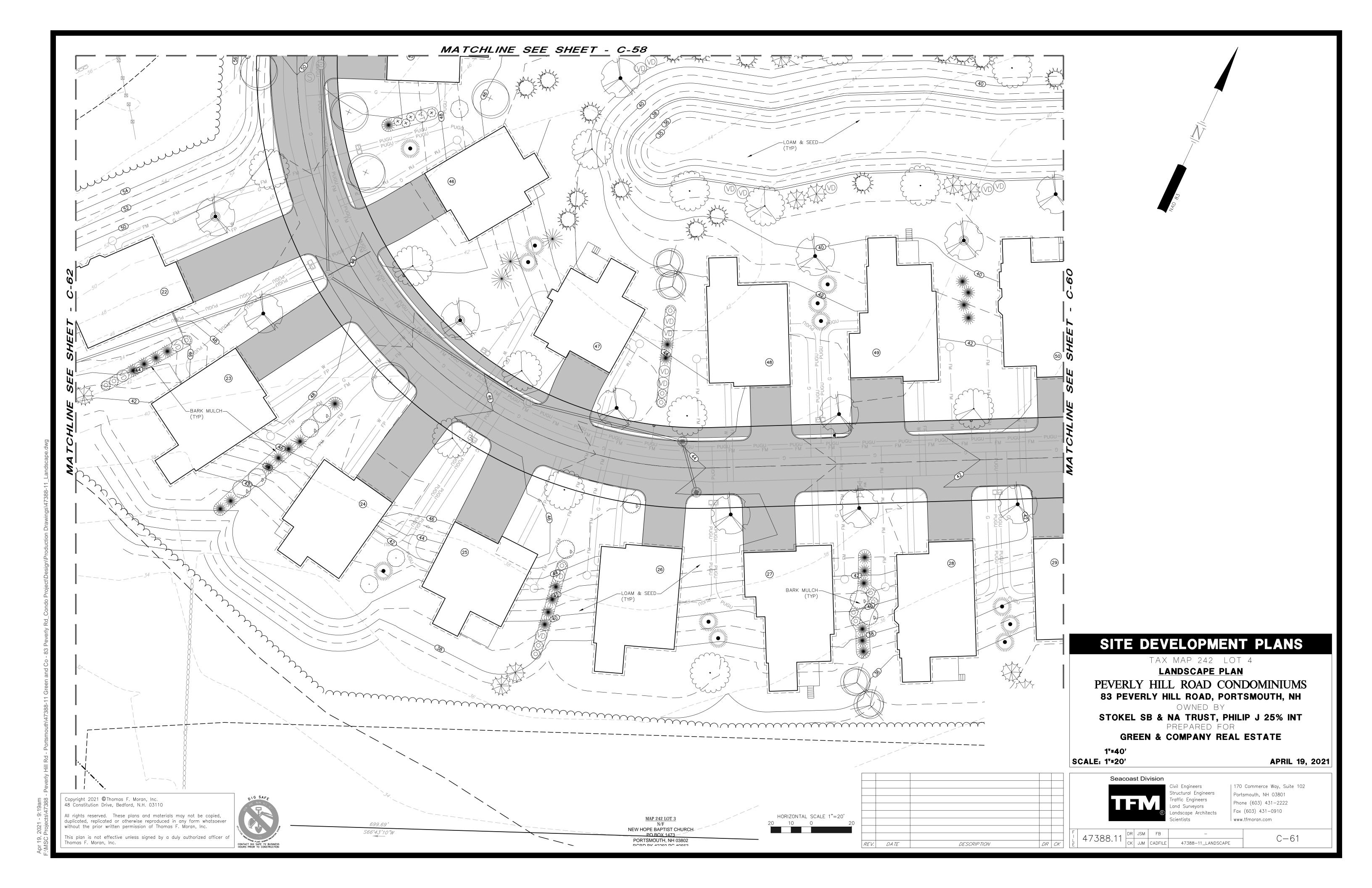


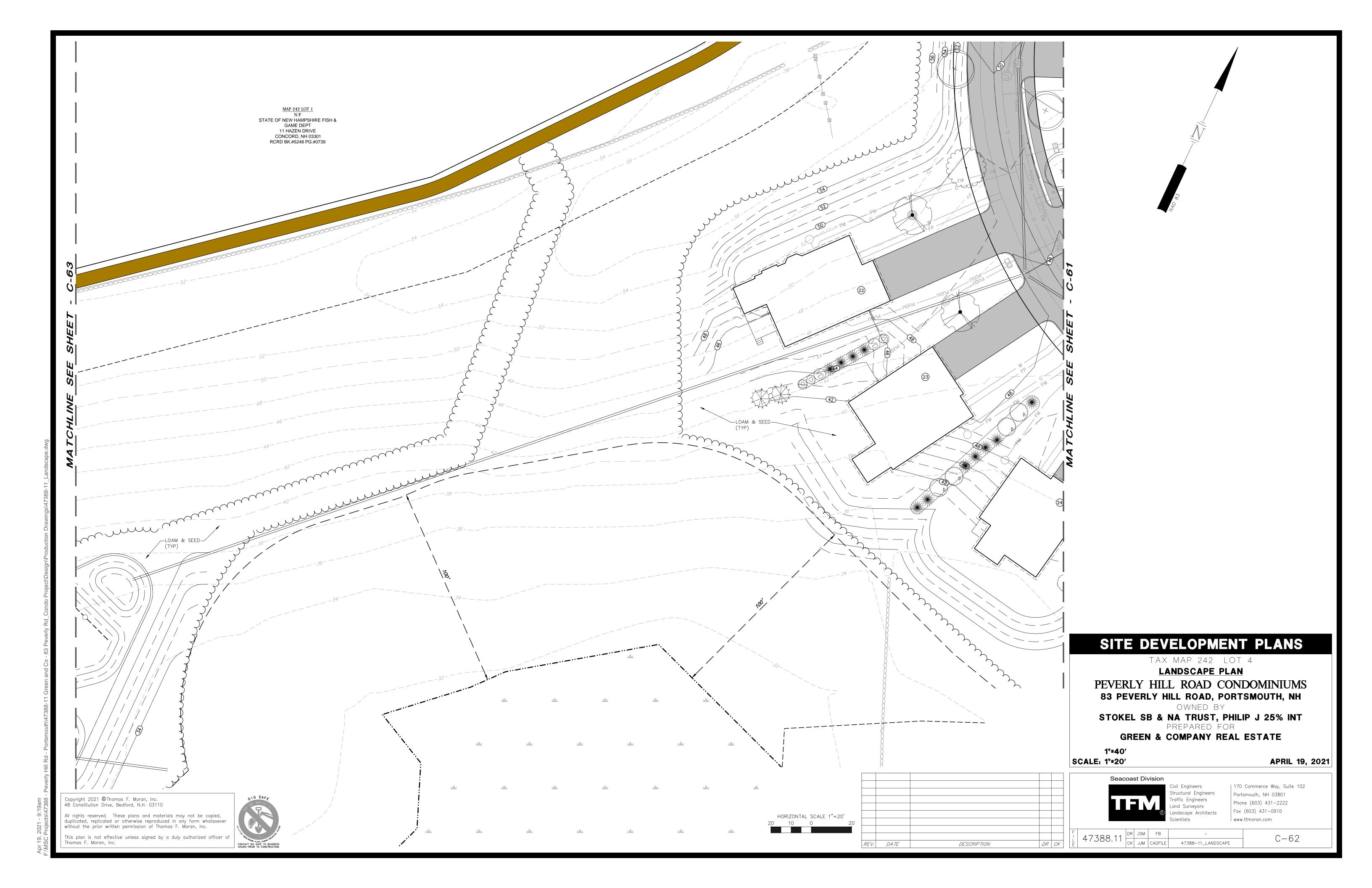


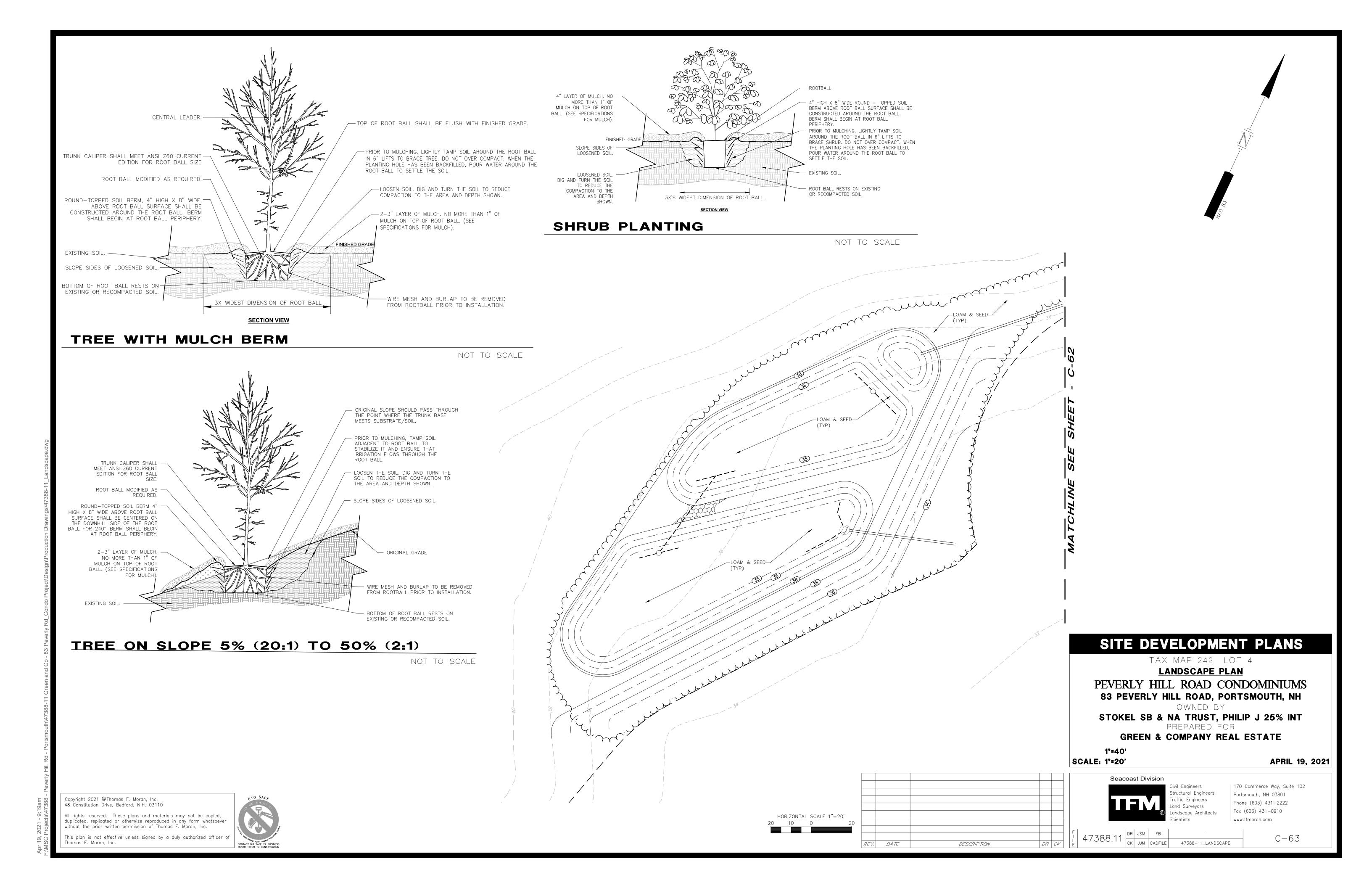


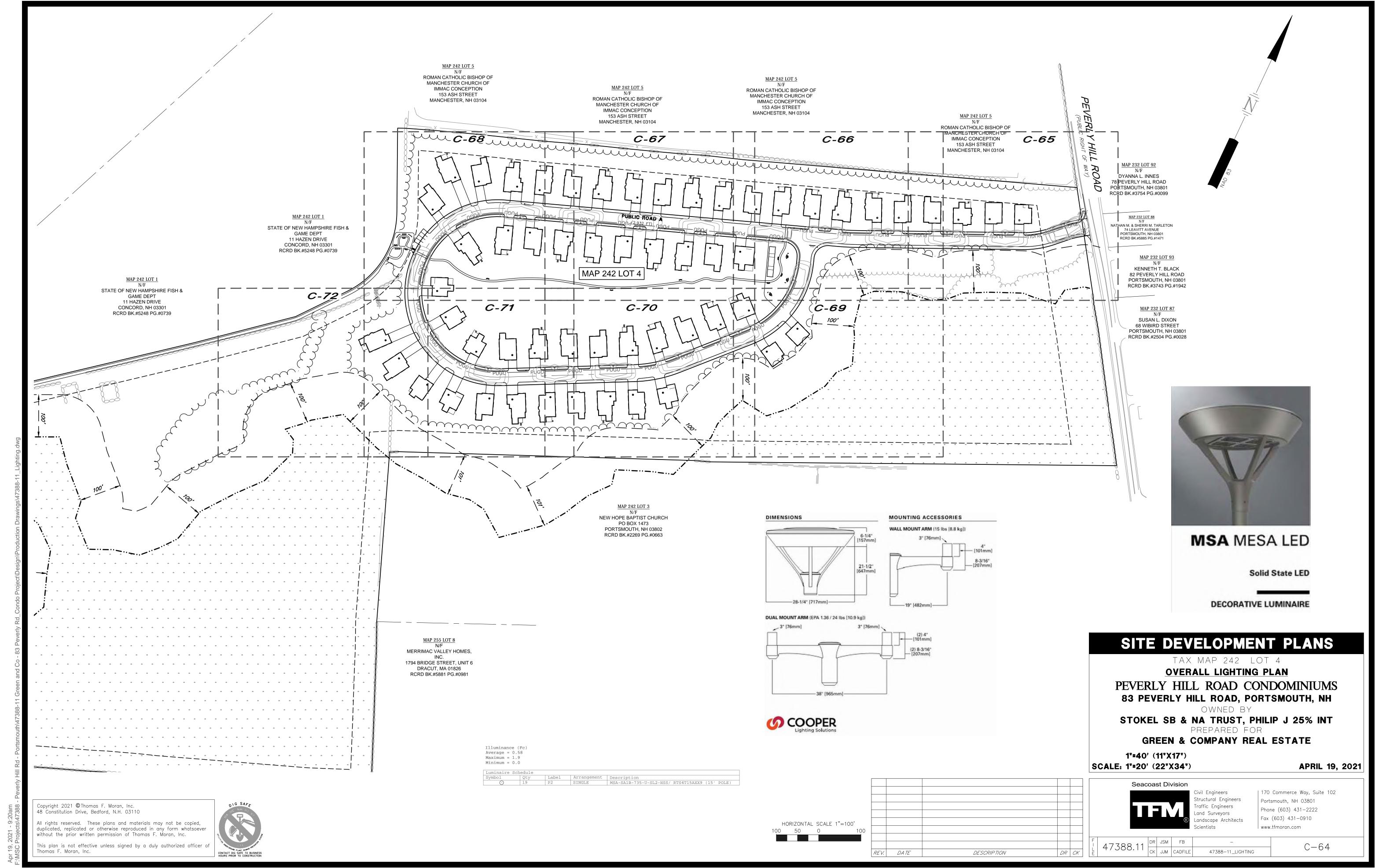


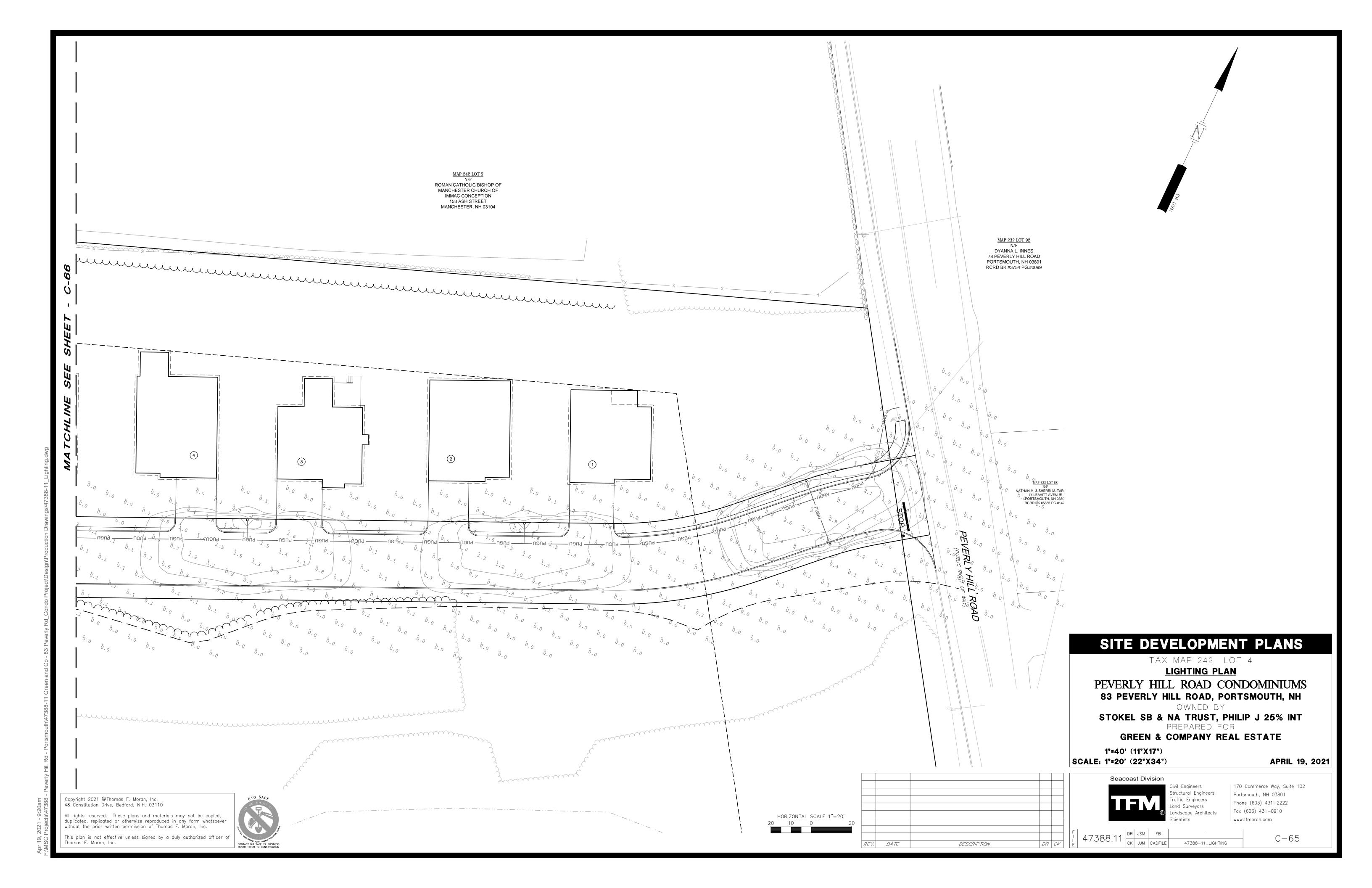


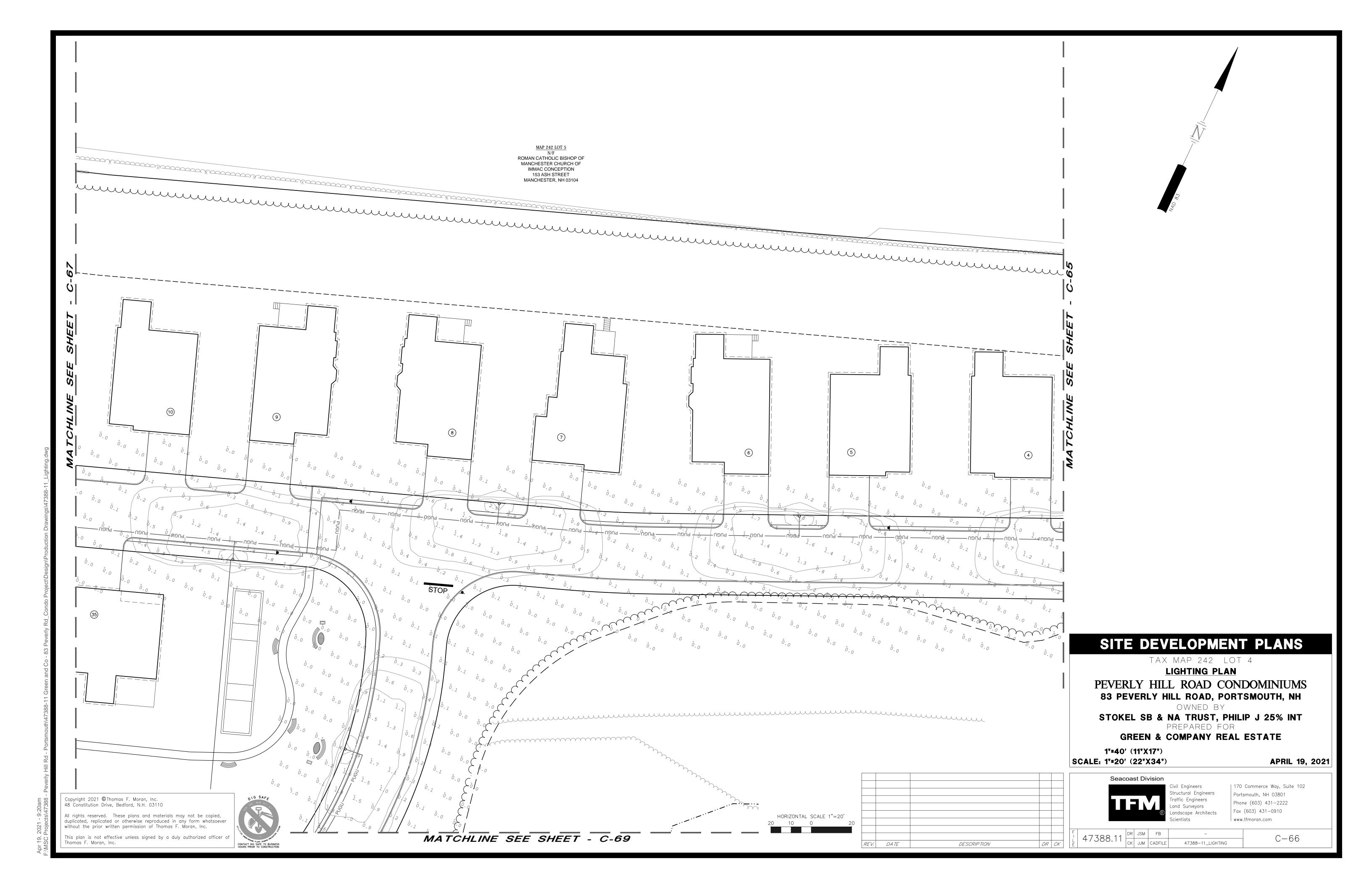


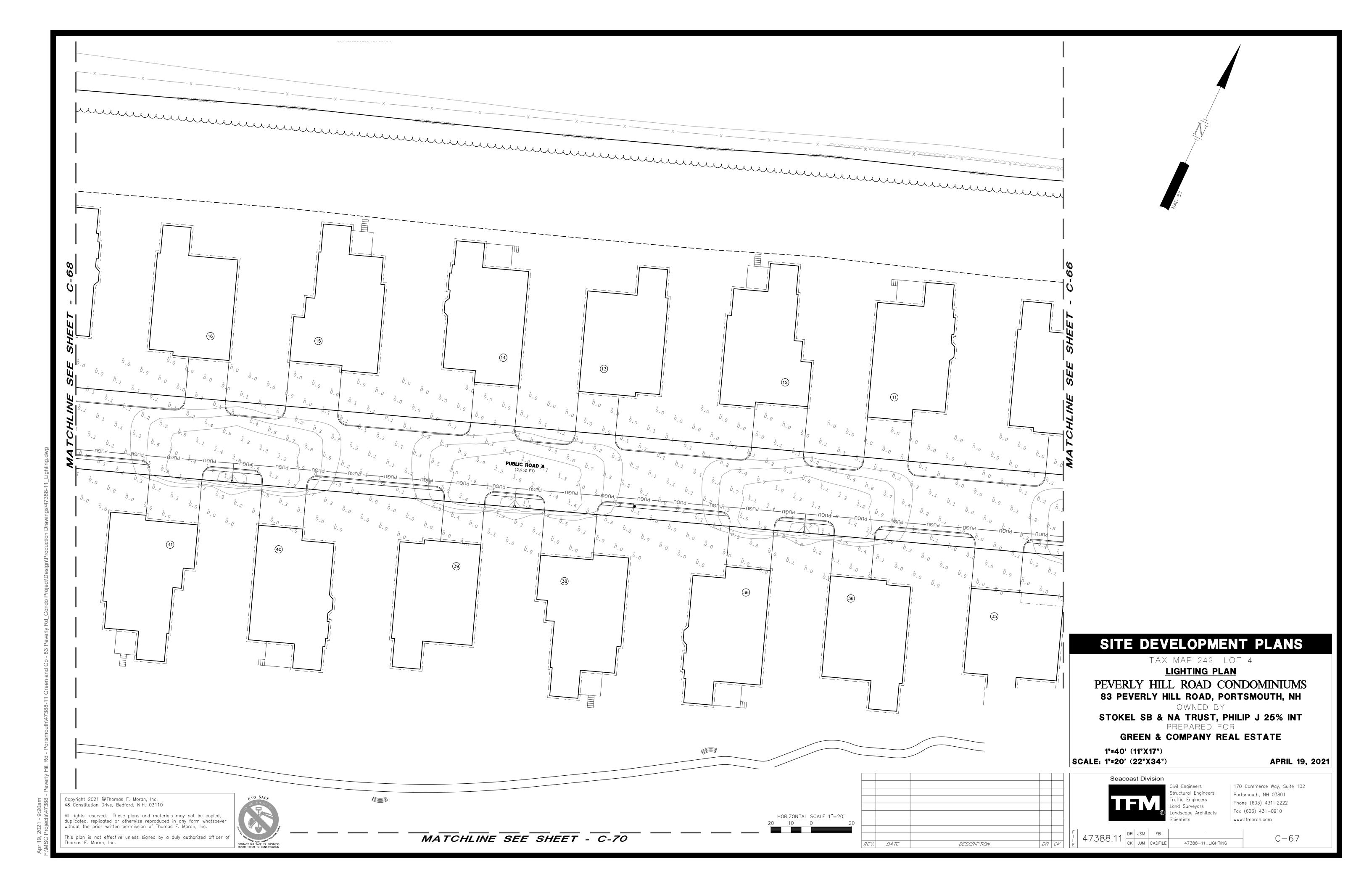


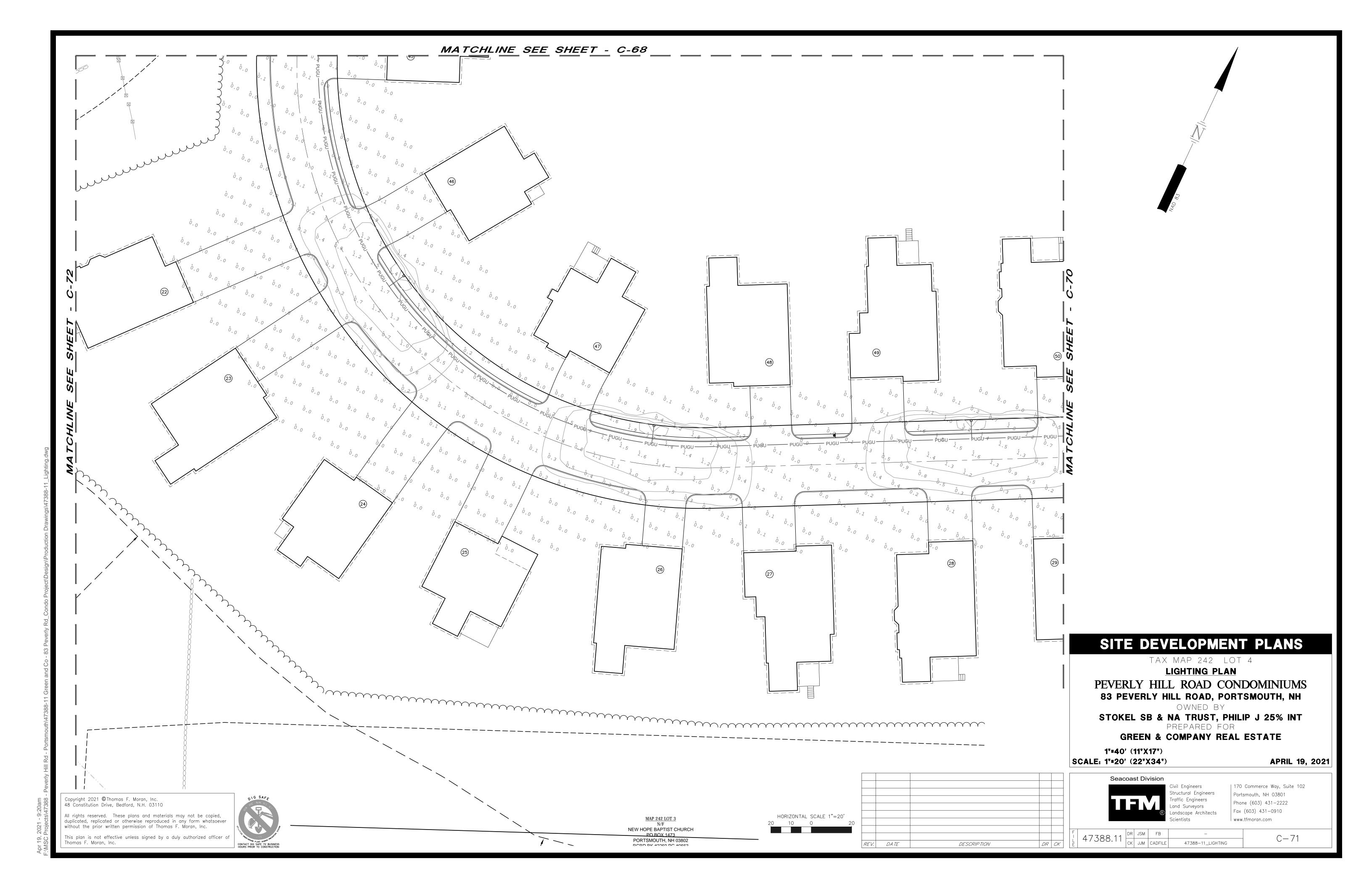


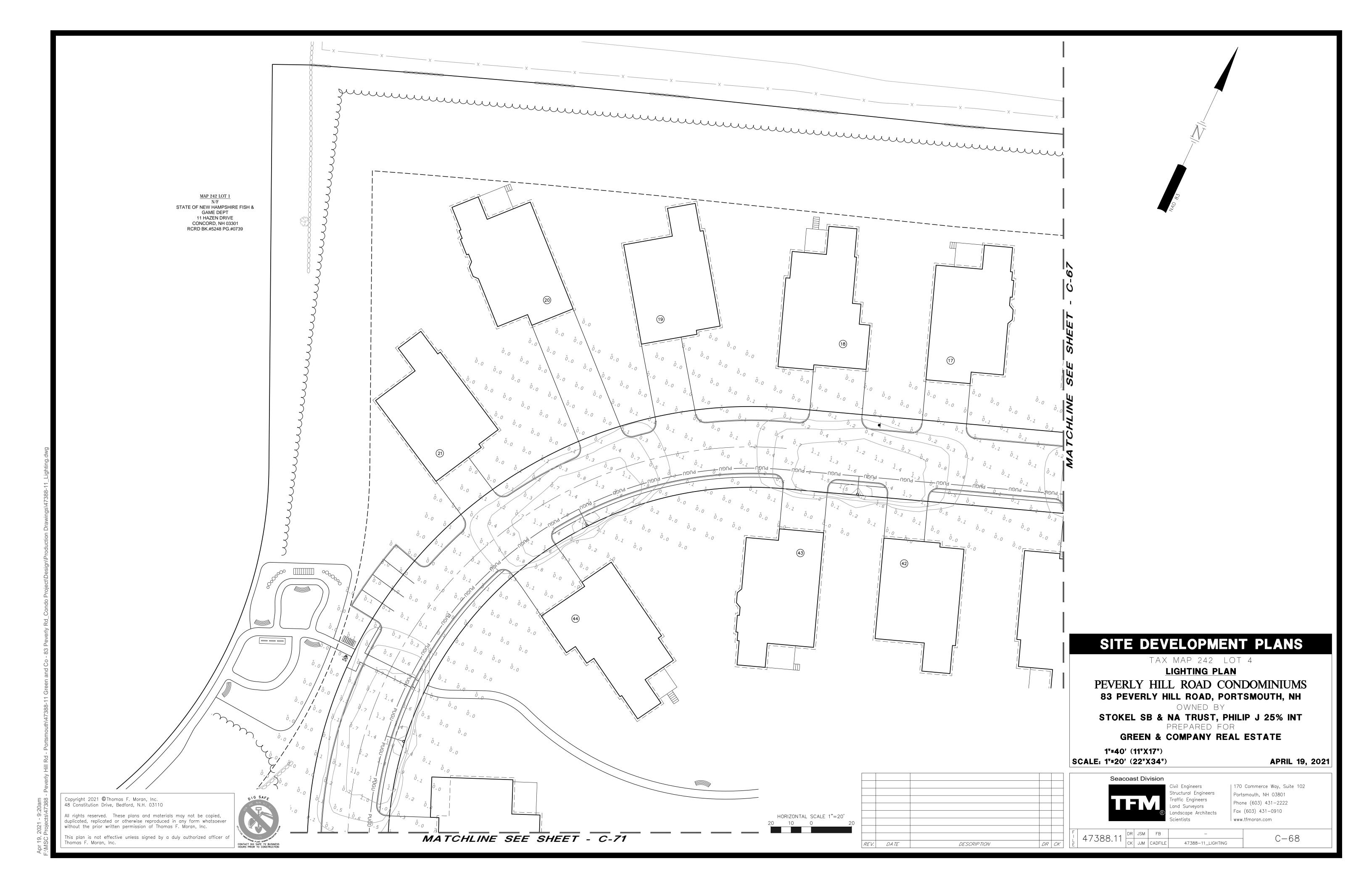


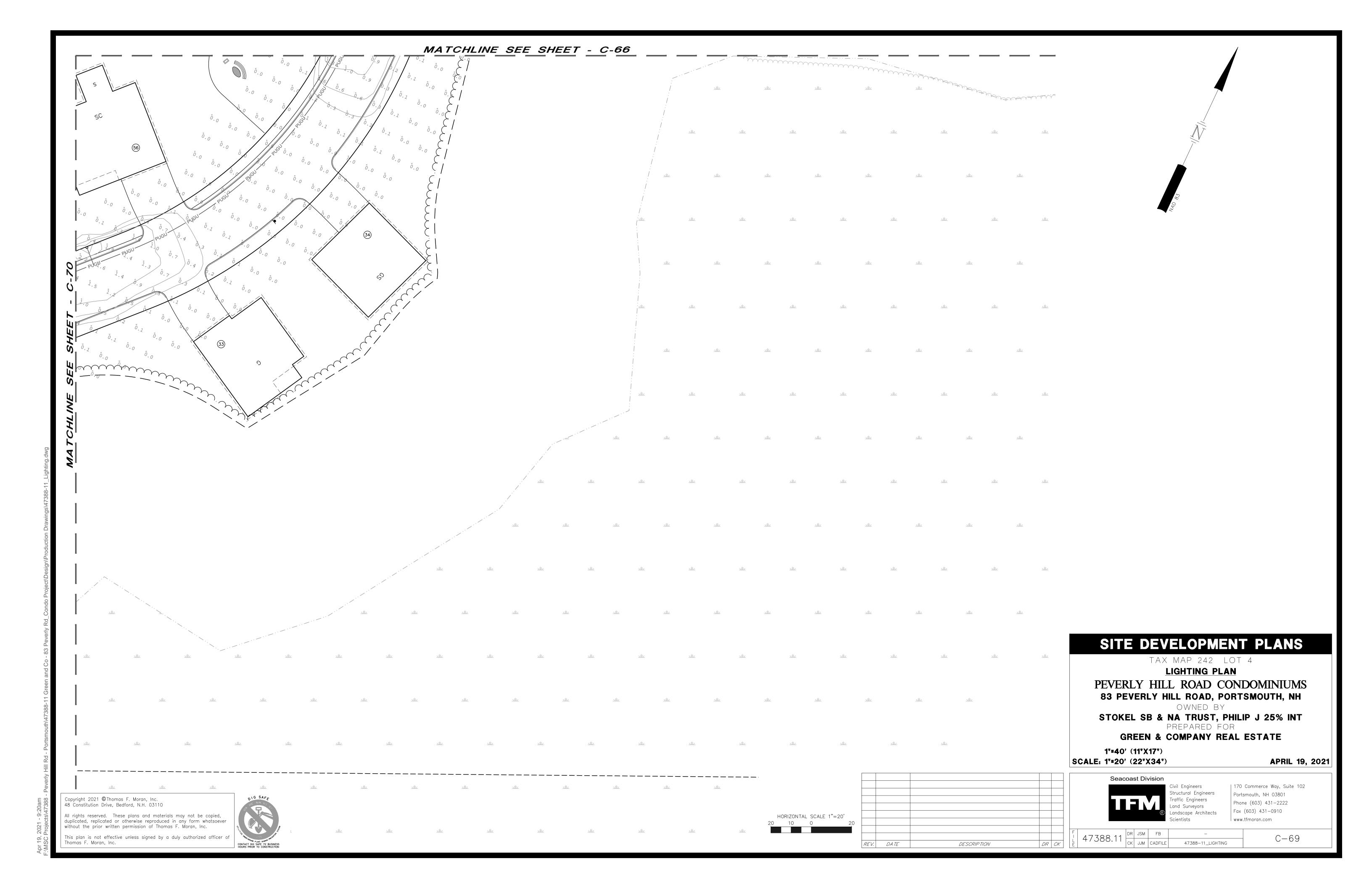


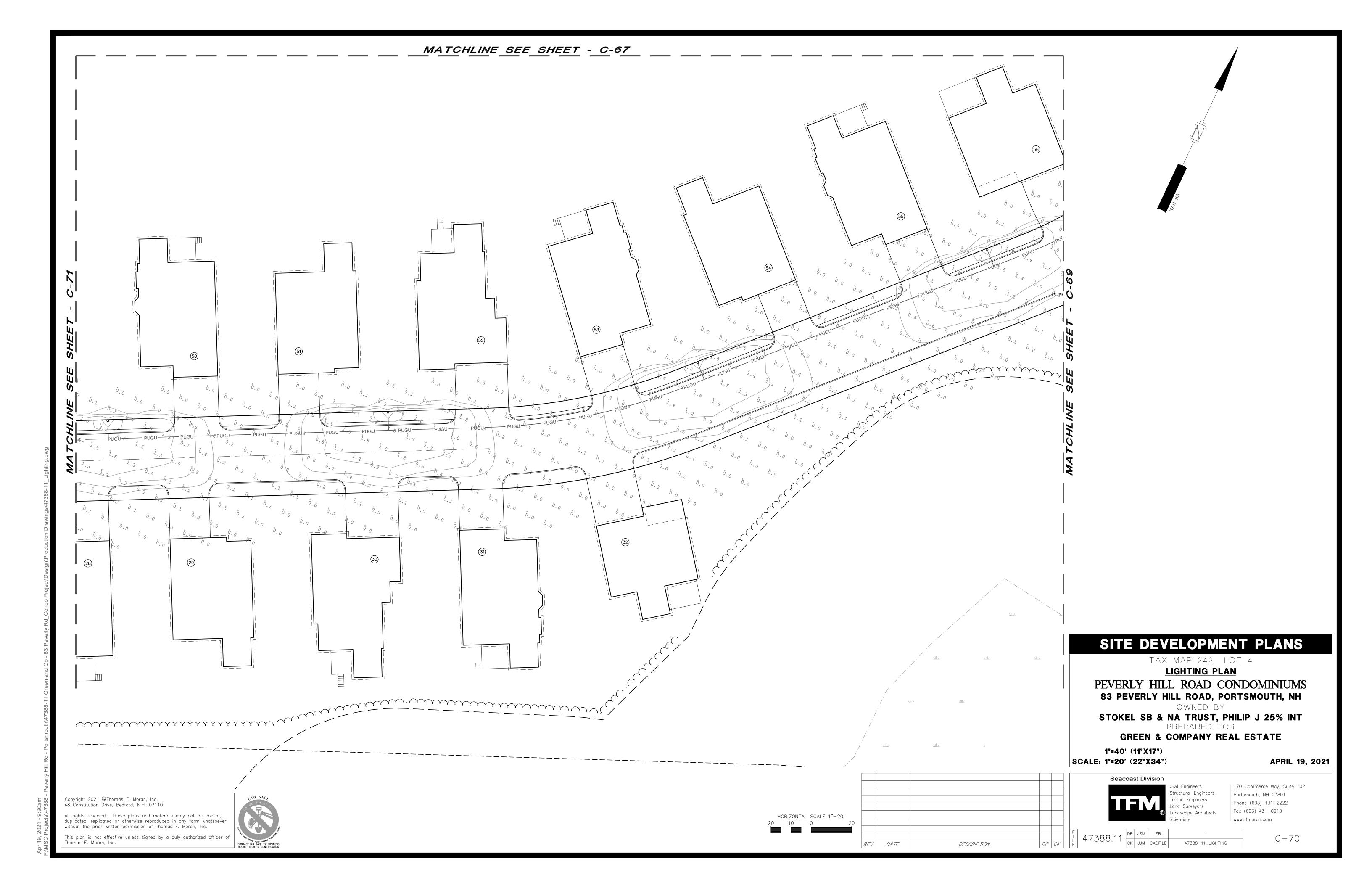


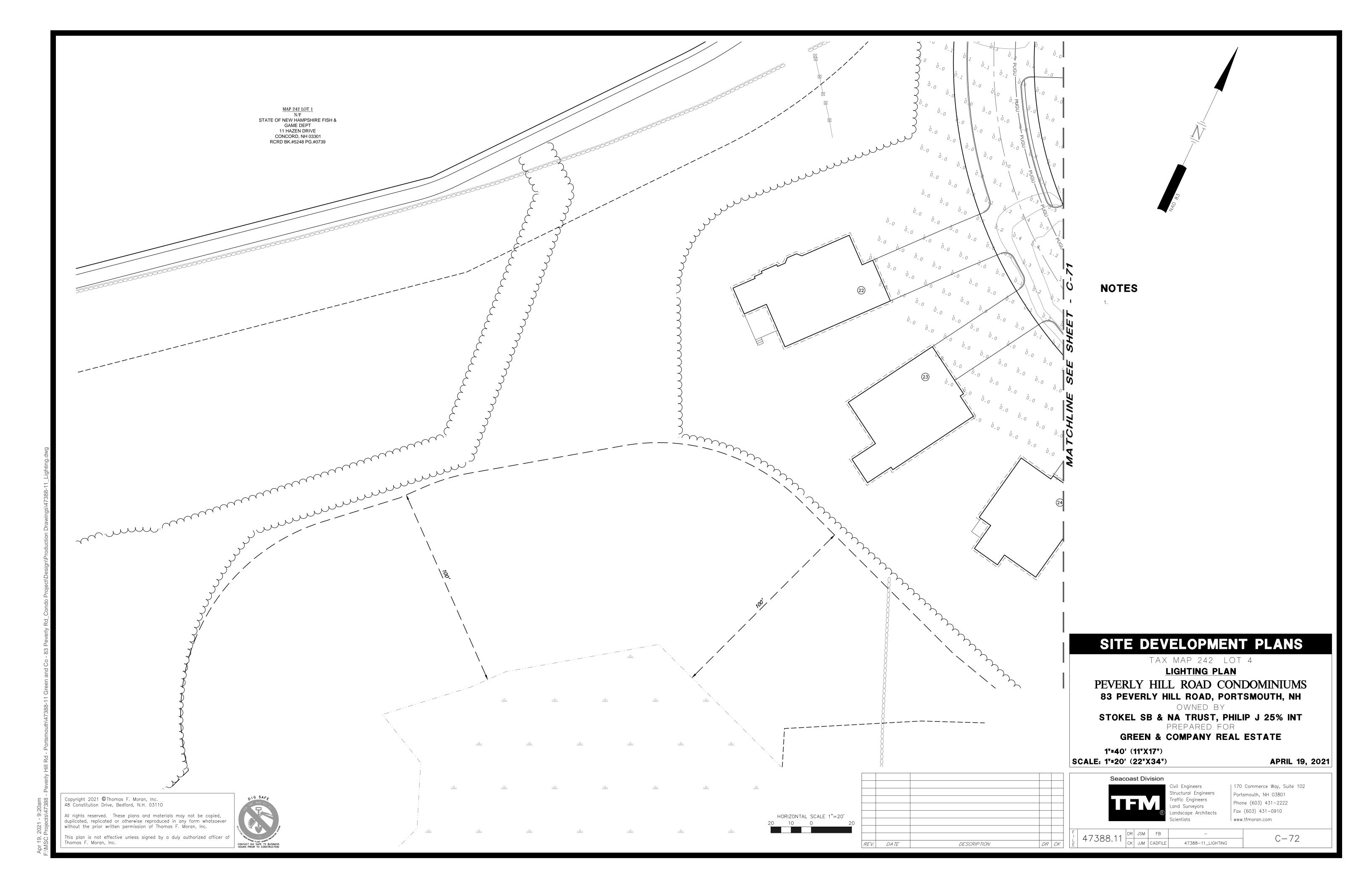


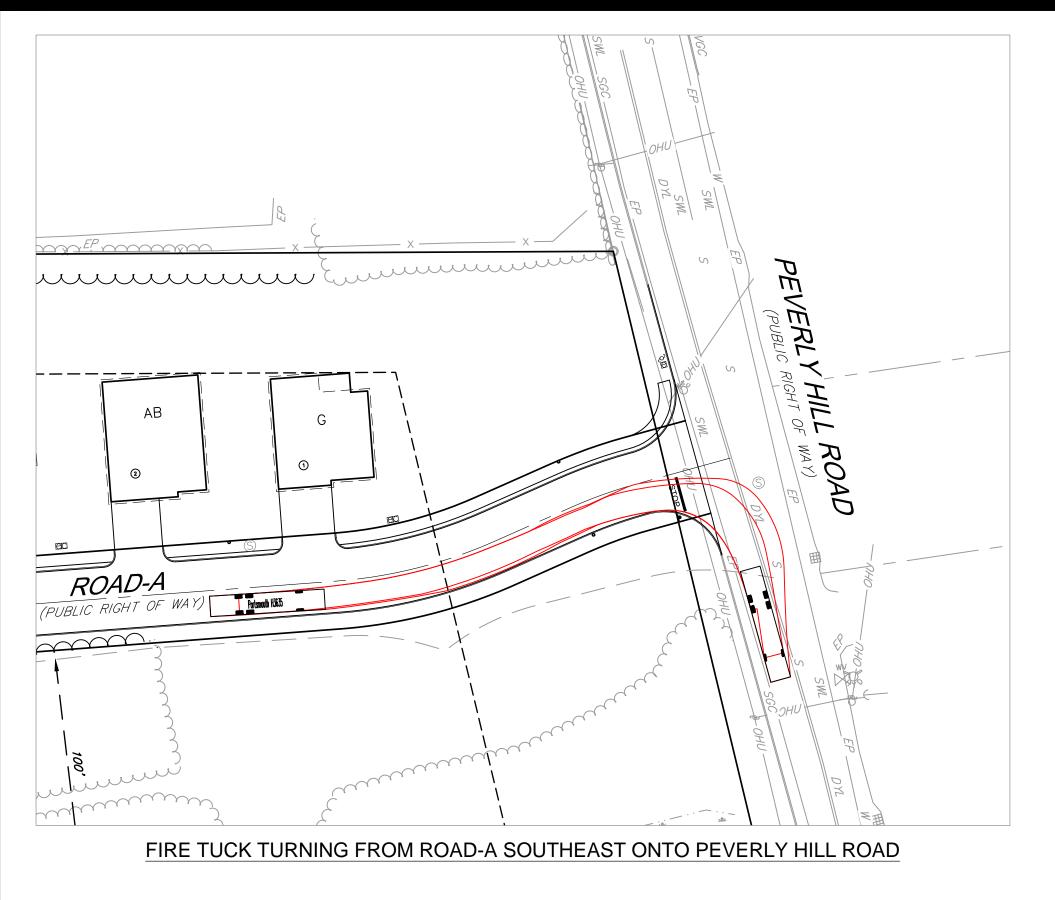






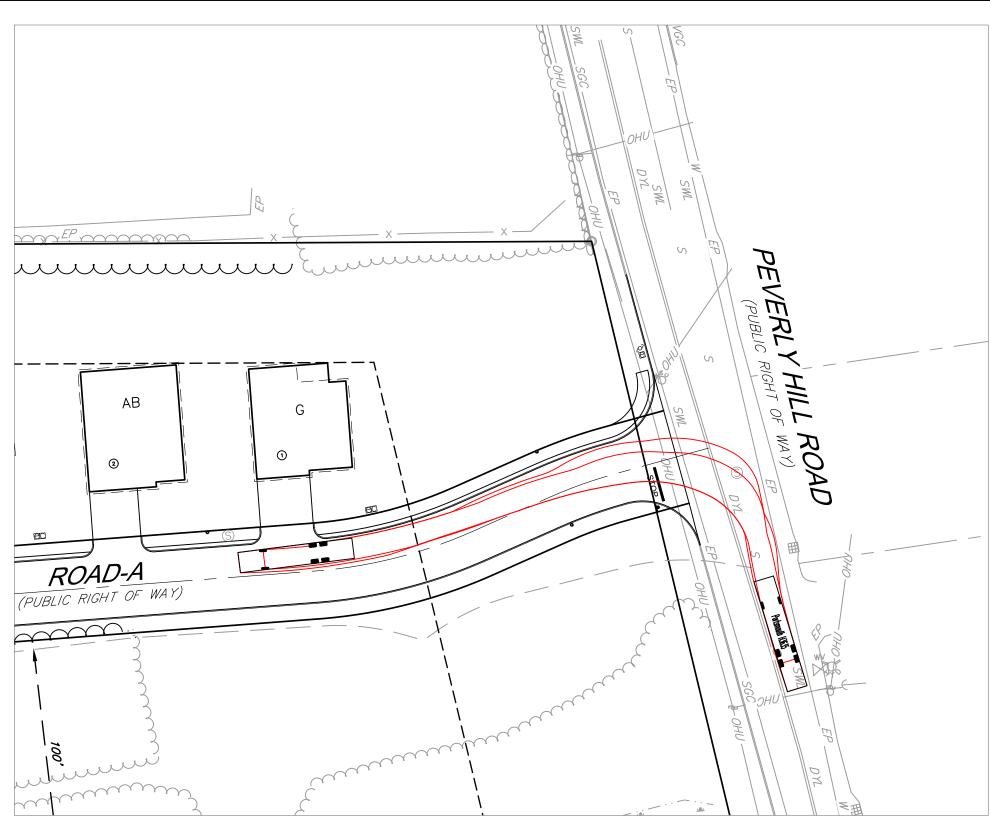




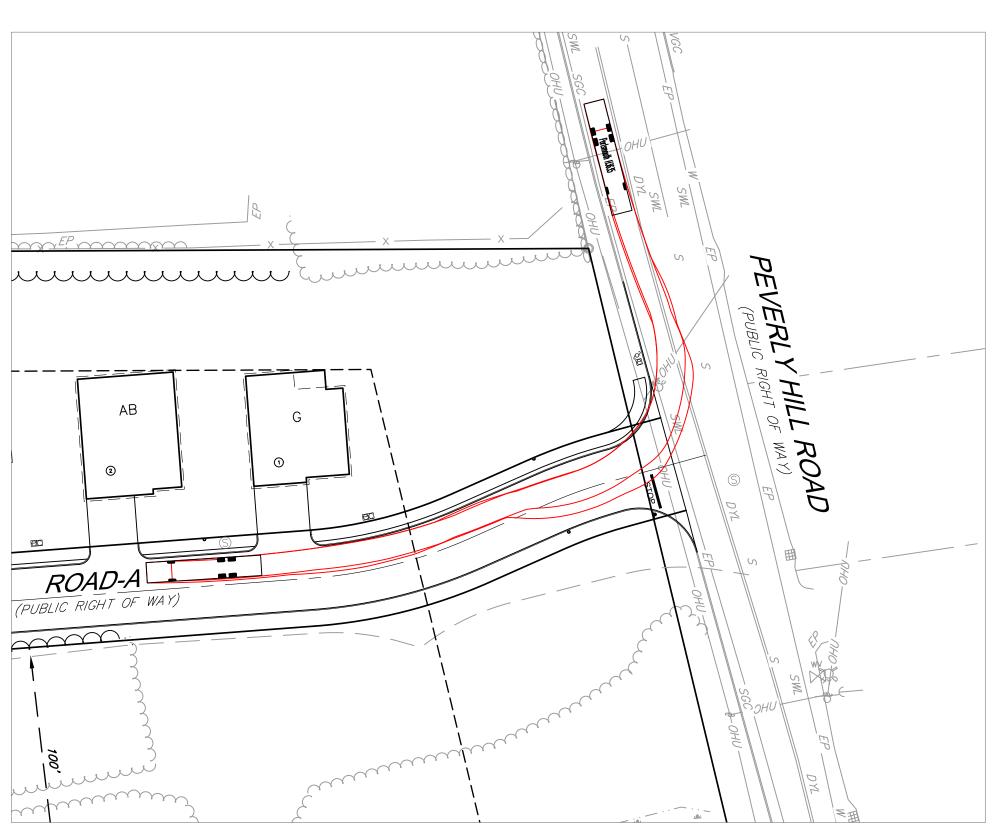




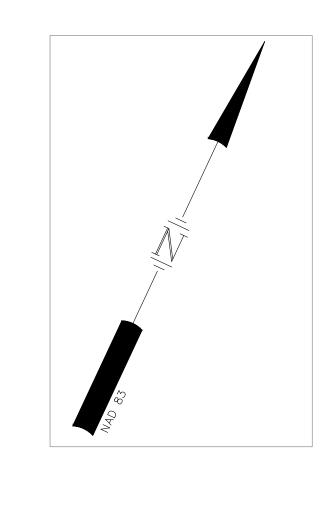
FIRE TUCK TURNING FROM ROAD-A NORTHEAST ONTO PEVERLY HILL ROAD



FIRE TUCK TURNING FROM PEVERLY HILL ROAD NORTHWEST ONTO ROAD-A



FIRE TUCK TURNING FROM ROAD-A SOUTHWEST ONTO PEVERLY HILL ROAD





PORTSMOUTH FIRE TRUCK NTS



# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

FIRE TRUCK MOVEMENT PLAN
PEVERLY HILL ROAD CONDOMINIUMS
83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

GREEN & COMPANY REAL ESTATE

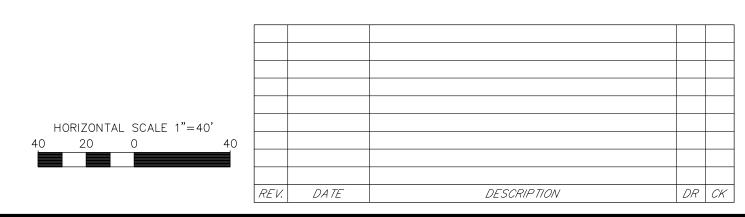
1"=80' (11"X17") SCALE: 1"=40' (22"X34")

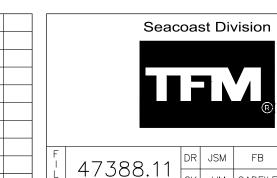
**APRIL 19, 2021** 

Copyright 2021 © Thomas F. Moran, Inc.
48 Constitution Drive, Bedford, N.H. 03110

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.



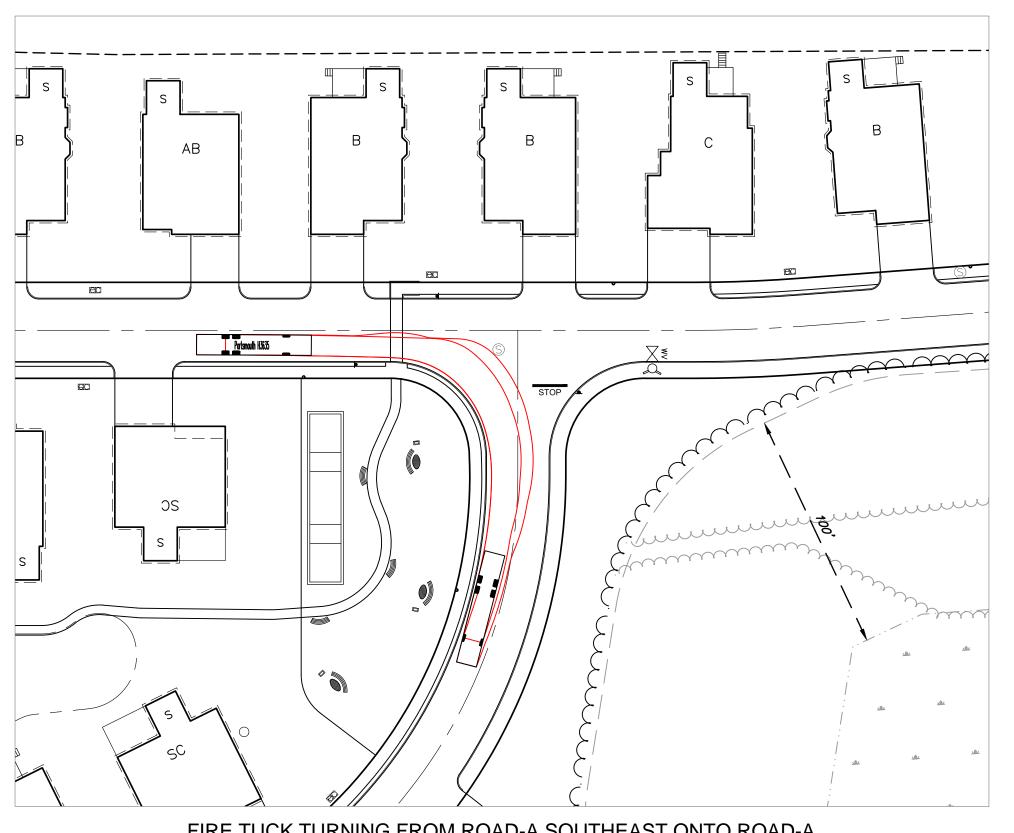


Civil Engineers 170 Commerce Way, Suite 102
Structural Engineers Portsmouth, NH 03801
Traffic Engineers Phone (603) 431-2222
Land Surveyors Fax (603) 431-0910
Scientists www.tfmoran.com

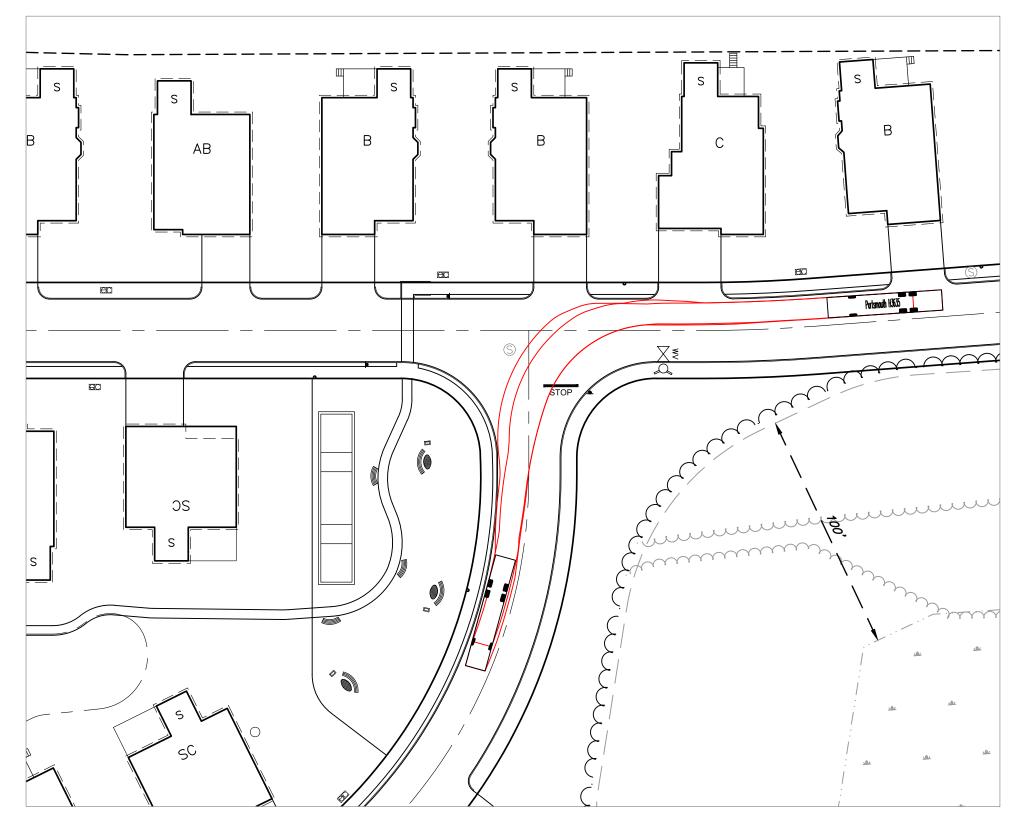
47388.11 DR JSM FB - CK JJM CADFILE 47388-11\_TRUCKMOVEMENT

C - 73

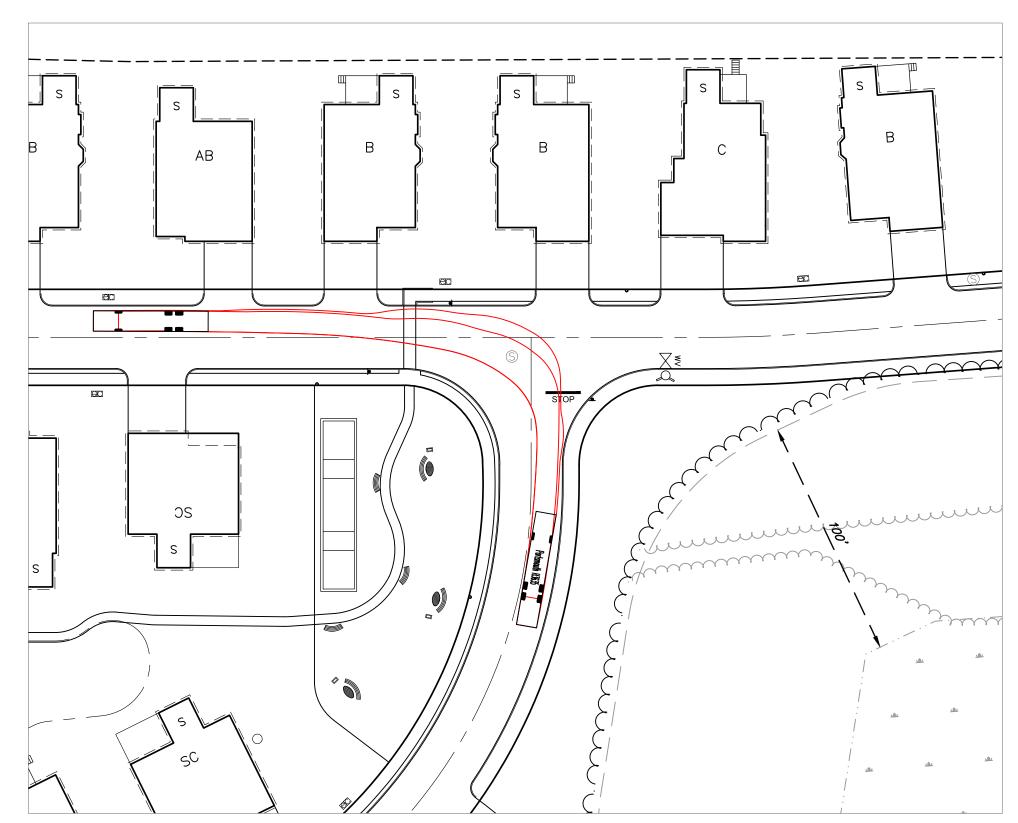
Apr 19, 2021 - 9:20am



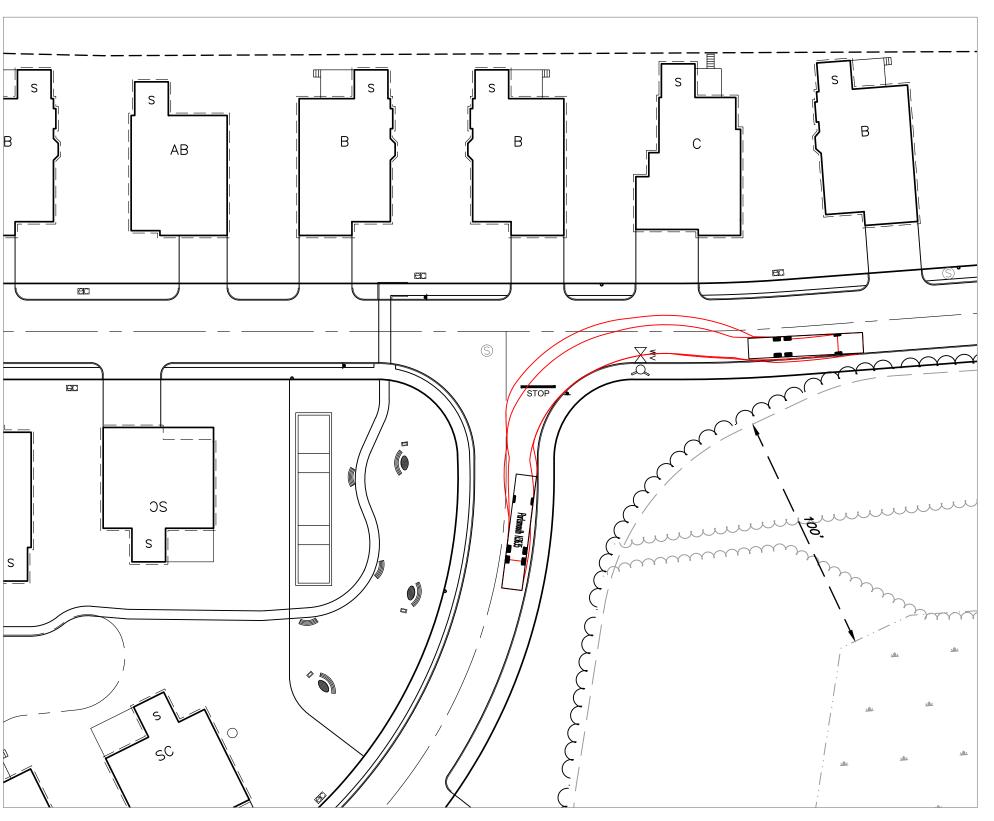
FIRE TUCK TURNING FROM ROAD-A SOUTHEAST ONTO ROAD-A



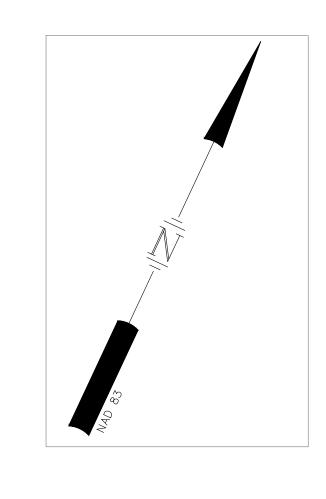
FIRE TUCK TURNING FROM ROAD-A SOUTHWEST ONTO ROAD-A



FIRE TUCK TURNING FROM ROAD-A NORTHWEST ONTO ROAD-A



FIRE TUCK TURNING FROM ROAD-A NORTHEAST ONTO ROAD-A





PORTSMOUTH FIRE TRUCK NTS



# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

FIRE TRUCK MOVEMENT PLAN PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

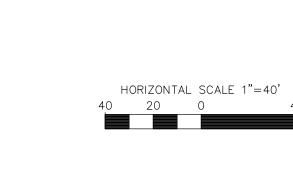
STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

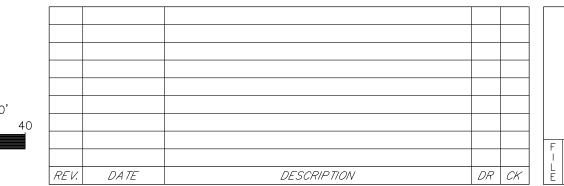
GREEN & COMPANY REAL ESTATE

1"=80' (11"X17") SCALE: 1"=40' (22"X34")

**APRIL 19, 2021** 

Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110 All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc. This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.







Structural Engineers Land Surveyors Landscape Architects

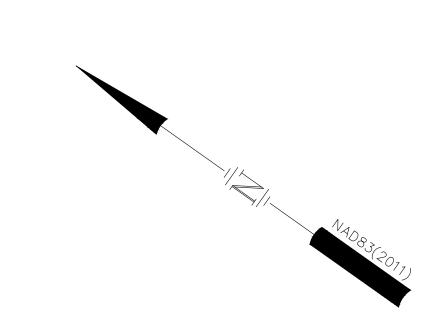
| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

 DR
 JSM
 FB
 —

 CK
 JJM
 CADFILE
 47388—11\_TRUCKMOVEMENT

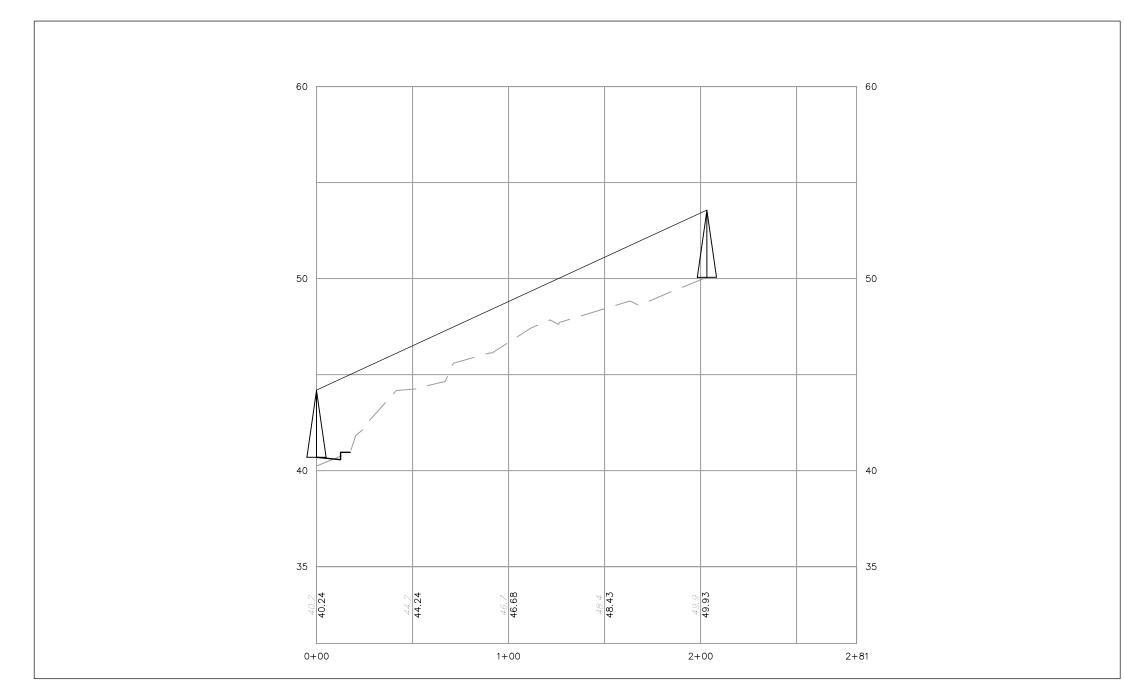
C - 74



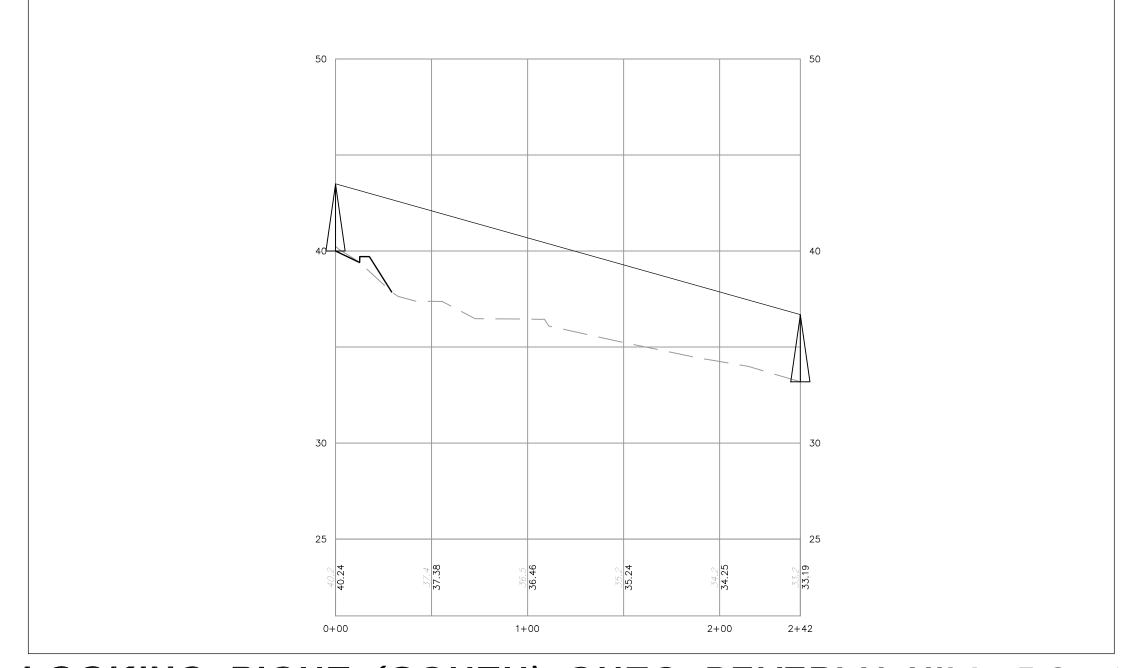


HORIZONTAL SCALE 1"=40'

SITE DISTANCE



LOOKING LEFT (NORTH) ONTO PEVERLY HILL ROAD



LOOKING RIGHT (SOUTH) ONTO PEVERLY HILL ROAD

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

SITE DISTANCE PLAN & PROFILE PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

**GREEN & COMPANY REAL ESTATE** 

(11"X17")

SCALE: AS SHOWN 34")

**APRIL 19, 2021** 

Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110 All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of

HORIZONTAL SCALE 1"=50'

50 25 0 50



DR CK REV. DATE DESCRIPTION



| 170 Commerce Way, Suite 102 Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 Land Surveyors Fax (603) 431-0910 Landscape Architects www.tfmoran.com

C - 75

#### EASEMENTS AND RESTRICTIONS (E&R)

1. THE RIGHT TO USE SAID DRIVEWAY IN COMMON WITH PETER STOKEL AND HIS HEIRS FROM SAID GREENLAND ROAD, ALONG BY SAID CEMETERY, AND ALONG THE BOUNDARY BETWEEN THE LANDS OF SAID PETER AND STELLA TO SAID RAILROAD, AND SUBJECT TO SAID PETER'S RIGHT TO USE THE SAME IN COMMON. (SEE RCRD BK.#5066 PG.#1603).

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

PEVERLY HILL ROAD CONDOMINIUMS
83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT
PREPARED FOR

GREEN & COMPANY REAL ESTATE

1"=100'(11"X17")

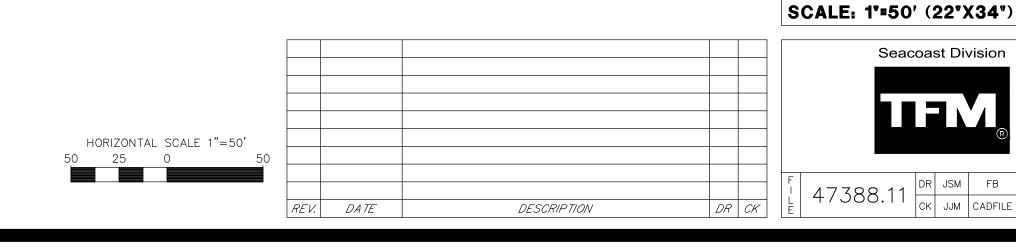
**APRIL 19, 2021** 

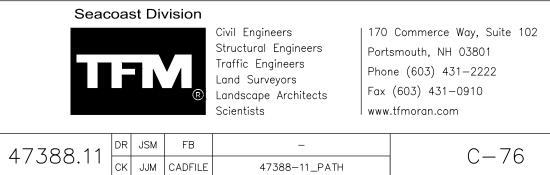
Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

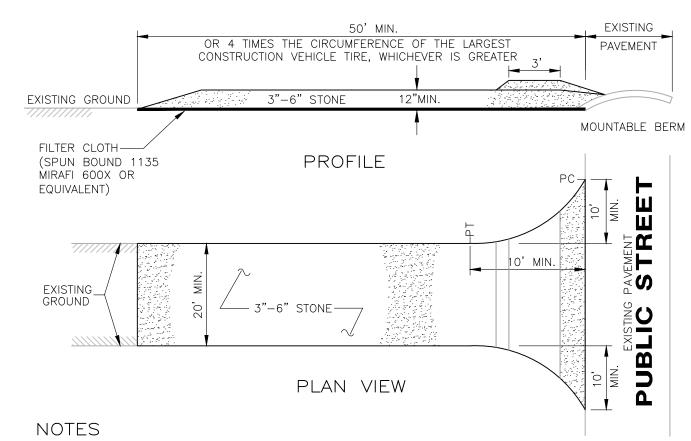
All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.









- 1. FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE SURFACE.
- 2. WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL
- 3. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 4. WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 5. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN STORM EVENT.

# STABILIZED CONSTRUCTION **ENTRANCE**

NOT TO SCALE

LENGTH OF F.E.S.

GEOTEXTILE FABRIC TO BE PLACED

BETWEEN RIP RAP AND SOIL

% OF WEIGHT SMALLER FOR d50=3"

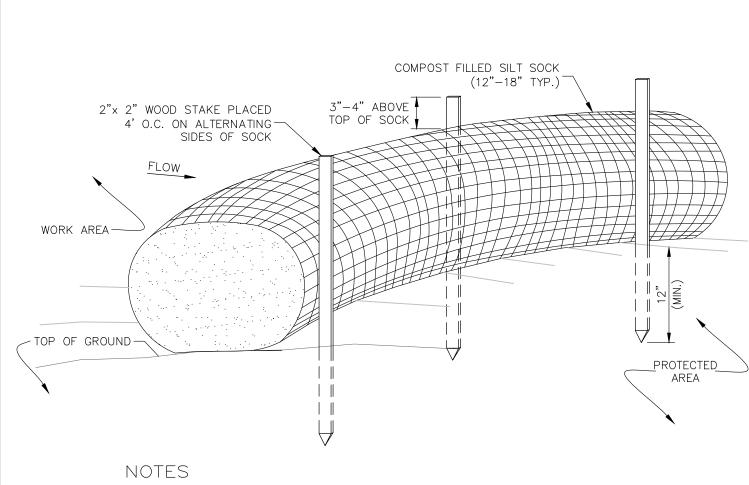
THAN THE GIVEN SIZE SIZE OF STONE

SECTION A-A

4.50 TO 6.00

3.90 TO 5.40 3.00 TO 4.50

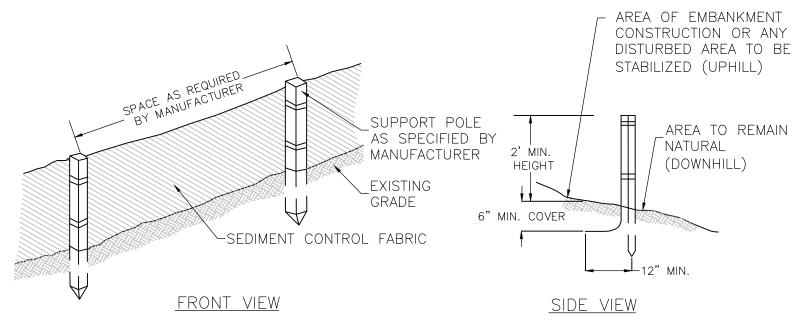
0.90 TO 1.50



- 1. SILT SOCK SHALL BE FILTREXXTM SILTSOXXTM OR APPROVED EQUIVALENT.
- SEE SPECIFICATIONS FOR SOCK SIZE AND COMPOST FILL REQUIREMENTS.
- SILT SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED AS NEEDED.
- COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.

# SILT FENCE

NOT TO SCALE



#### NOTES

- 1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR BEST MANAGEMENT PRACTICE FOR SILT FENCES, OF THE NEW HAMPSHIRE STORMWATER MANUAL, DECEMBER 2008.
- 2. THE HEIGHT OF THE BARRIER SHALL NOT EXCEED 36 INCHES. 3. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED. SEE MANUFACTURER'S RECOMMENDATIONS. 4. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY

INTO THE GROUND (MINIMUM OF 16 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE

- SUPPORT FENCE, POST SPACING SHALL BE AS MANUFACTURER RECOMMENDS. 5. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER IN ACCORDANCE WITH RECOMMENDATIONS.
- 6. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE, AND WILL EXTEND TO A MINIMUM OF 8 INCHES INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED INTO
- 7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC. 8. FILTER BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE
- THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- 9. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL, ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 10. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- 11. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE
- 12. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER

REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

SILT FENCE NOT TO SCALE

#### 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 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. RÉPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION

#### CONSTRUCTION SPECIFICATIONS:

- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC. AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- THE ROCK OR GRAVEL USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. 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
- 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.
- ADD ANIMAL SCREEN TO FLARED END SECTION

#### RIPRAP DIMENSIONS

LOCATION	FES01	FES02	FES03	FES04	FES05	FES06	FES07	FES08
d50 STONE SIZE (IN)								
L- LENGTH OF APRON (FT)								
W-WIDTH OF APRON (FT)								
T-DEPTH OF APRON (IN)								

# RIP RAP AND FLARED END SECTION WITH OUTLET PROTECTION

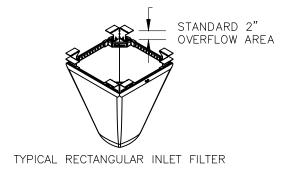
NOT TO SCALE

Copyright 2021 © Thomas F. Moran, Inc.

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of





#### NOTES: INSTALL PER MANUFACTURER'S SPECIFICATIONS.

- INSPECTION SHOULD OCCUR FOLLOWING ANY RAIN EVENT  $> \frac{1}{2}$ ". EMPTY THE SEDIMENT BAG PER MANUFACTURER'S SPECIFICATIONS. 4. REMOVED CAKED ON SILT FROM SEDIMENT BAG AND FLUSH WITH MEDIUM
- SPRAY WITH OPTIMAL FILTRATION. 5. REPLACE BAG IF TORN OR PUNCTURED TO  $> \frac{1}{2}$ " DIAMETER ON LOWER

# FLEXSTORM CATCH-IT FILTERS

ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC. A DIVISION OF ADS, INC. WWW.INLETFILTERS.COM (866) 287-8655

INFO@INLETFILTERS.COM

#### **INLET PROTECTION** NOT TO SCALE

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

#### **DETAILS**

PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

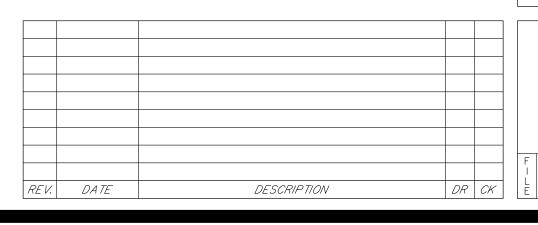
OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

**GREEN & COMPANY REAL ESTATE** 

SCALE: AS SHOWN

**APRIL 19, 2021** 





| 170 Commerce Way, Suite 102 Civil Engineers Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 Land Surveyors Fax (603) 431-0910 Landscape Architects www.tfmoran.com cientists

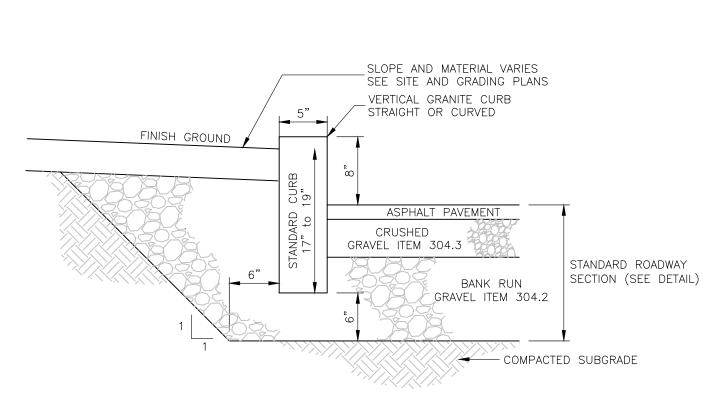
DR JSM FB CK JJM CADFILE

C - 7847388-11\_DETAILS

48 Constitution Drive, Bedford, N.H. 03110

Thomas F. Moran, Inc.

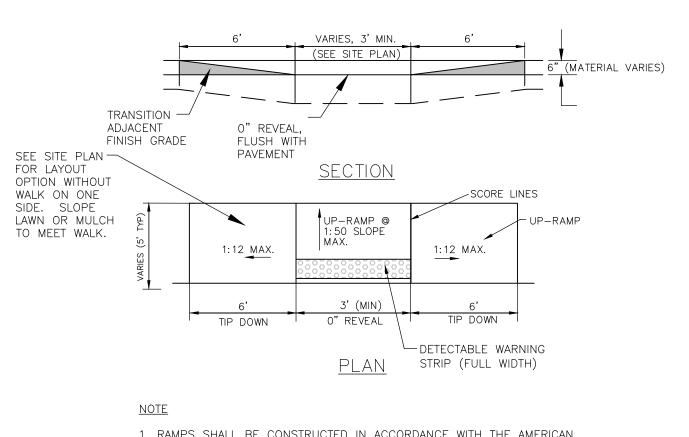




MORTAR JOINTS AND OTHER INSTALLATION TO BE AS SPECIFIED IN NHDOT SECTION 609. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH. 3. PROVIDE TRANSITIONS & RAMPS PER A.D.A.

#### **VERTICAL GRANITE CURB**

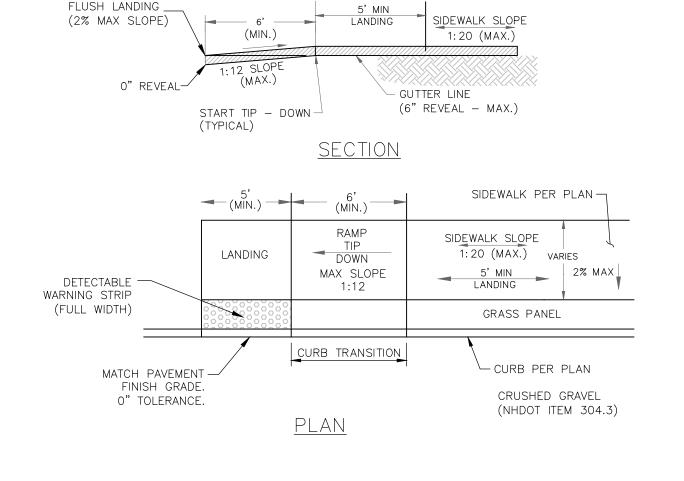
NOT TO SCALE



1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICAN WITH DISABILITIES ACT, LATEST EDITION.

# SIDEWALK TIP DOWN RAMP (TYPE D)

NOT TO SCALE



# SIDEWALK TIP DOWN RAMP (TYPE E)

SECTION B-B

1. FRAME AVAILABLE IN 8" OR 4" HEIGHTS.

4. USE NEENAH FOUNDRY R-3570-A GRATE &

3. USE 3-FLANGE FRAME IF INSTALLED ADJACENT TO GRANITE CURB.

FRAME OR APPROVED EQUAL.

FRAME & GRATE (TYPE B)

NOT TO SCALE

REV. DATE

UNPAVED AREAS

2. FREE OPEN AREA = 2.55 S.F.

NOTES

FOR DOUBLE GRATE,

ONE SIDE ON EACH

PAVING COURSES

GRADE

6" DIA. SLOTTED HDPE UNDERDRAIN (AASHTO M294)

**DESCRIPTION** 

DR CK

EXISTING OR FINISHED

PLAN VIEW

DOUBLE GRATE

(IF APPLICABLE)

OMIT FLANGE ON

FRAME-

NOT TO SCALE

 $\square$ 

 $\square$ 

PLAN VIEW

SINGLE GRATE

23-11/16"

23-3/16"

25"

SECTION A-A

31-3/16"

FREE DRAINING AGGREGATE -(ASTM D448 SIZE NO. 57)

**UNDERDRAIN TRENCH** 

**DETAIL** 

NOT TO SCALE

<u>LENGTH:</u> AS REQUIRED WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN)

1/3 POST HEIGH

(SEE NOTE 1)

HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070 - 1080)

FINISH: SHALL BE PAINTED WITH 2 COATS OF AN APPROVED MEDIUM GREEN BAKED-ON OR AIR-DRIED PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.

90° CUT OPTION

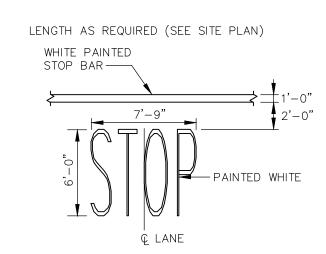
GALVANIZED

STEEL POST

# NOTE: 1. Where ledge application exists, drill & grout to a

- MINIMUM OF 2'. 2. ALL SIGNAGE SHALL FOLLOW THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES STANDARDS AND NHDOT
- 3. SIGN, HARDWARE, AND INSTALLATION SHALL CONFORM TO THE LATEST NHDOT STANDARD SPECIFICATIONS.

#### SIGN POST NOT TO SCALE



- 1. TRAFFIC PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER AND SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F". APPLY TWO COATS.
- 2. SYMBOLS AND PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT,

#### STOP BAR & LEGEND NOT TO SCALE

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

#### **DETAILS**

PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR **GREEN & COMPANY REAL ESTATE** 

SCALE: AS SHOWN

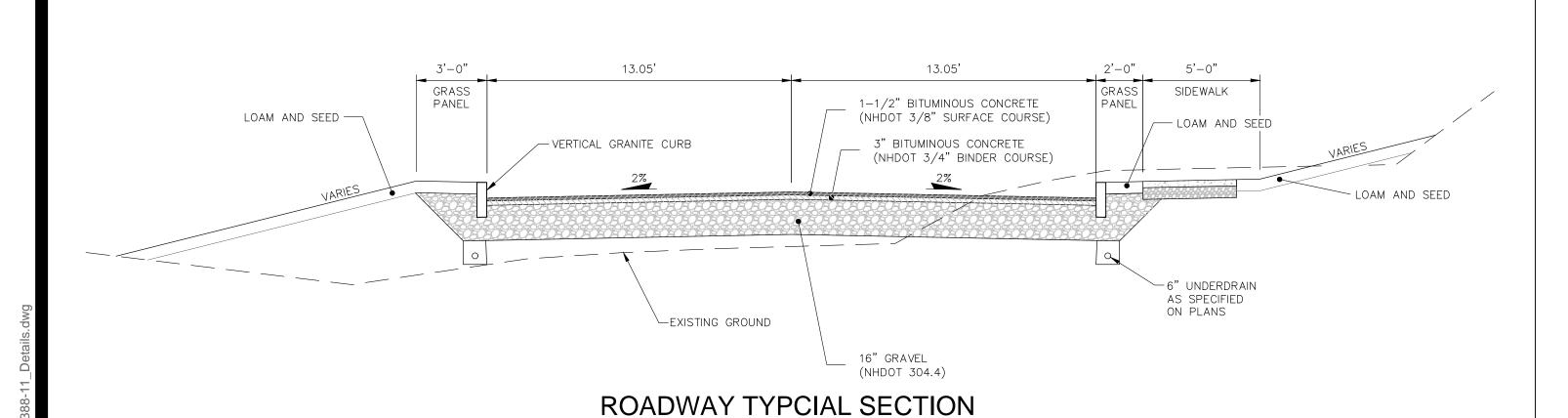
**APRIL 19, 2021** 



Civil Engineers Structural Engineers Traffic Engineers and Surveyors Landscape Architects cientists

| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

DR JSM FB C - 79CK JJM CADFILE 47388-11\_DETAILS

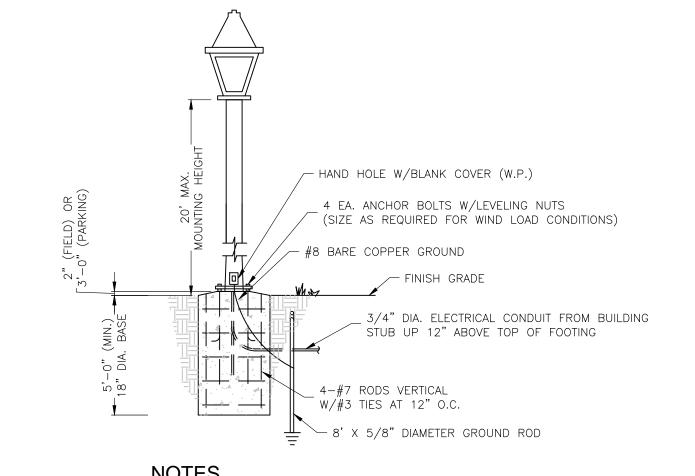


### NOTES:

- 1. SEE GRADING & DRAINAGE PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
- 2. PROVIDE CLEAN BUTT TO EXISTING PAVEMENT- USE TACK COAT. SPECIFICALLY, A TACK COAT SHALL BE PLACED ATOP THE BINDER COURSE PAVEMENT PRIOR TO PLACING THE
- 3. REMOVE ALL LOAM AND/OR YIELDING MATERIAL BELOW PAVEMENT.

IN THE TOWN OF PORTSMOUTH, NH SUBDIVISION REGULATIONS.

- 4. ALL ROADWAY TO CONFORM TO THE STREET DESIGN AND CONSTRUCTION REQUIREMENTS
- 5. BITUMINOUS CONCRETE SHALL BE COMPACTED TO AT LEAST 92.5% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D2041 OR AASHTO T209. PLACEMENT TEMPERATURES OF BITUMINOUS CONCRETE MIXES, IN GENERAL, RANGE BETWEEN 270 AND 310 DEGREES FAHRENHEIT.
- 6. PAVEMENT BASE COURSE AGGREGATE SHALL CONFORM TO NHDOT SPECIFICATION SECTION 304, ITEM 304.4 AND COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.
- 7. PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROOF ROLLED AND COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY.
- 8. THE EXPOSED SOIL SUBGRADE SHOULD BE PROOF ROLLED PRIOR TO THE PLACEMENT OF SUBBASE GRAVEL, AND SOFT AREAS SHOULD BE REPAIRED AND REPLACED.



- POLE MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH ELECTRICAL CONTRACTOR. REVEAL OF BASE IS REQUIRED WITH REVEAL TO BE PAINTED SAFETY YELLOW. WHERE BASE IS TO BE PLACED 2" ABOVE FINISHED GRADE.
- 3. BASE CONCRETE TO BE 4,000 PSI, SMOOTH FINISH. 4. POLES SHALL BE FACTORY CUT TO PROVIDE REQUIRED MOUNTING HEIGHTS.

# LIGHT POLE BASE

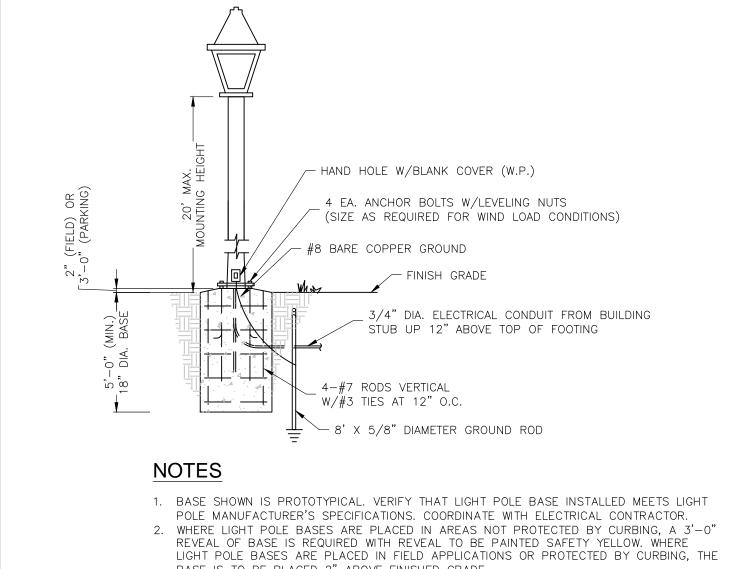
NOT TO SCALE

#### Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

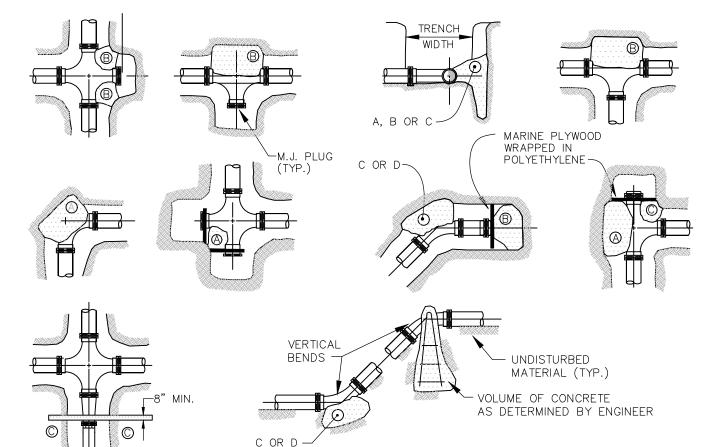
All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of homas F. Moran, Inc.





# 5. PROPOSED ROADWAY LIGHTING SHALL BE DARK SKY FRIENDLY.



VARIFS

<u>NOTES</u>

- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL WHERE TRENCH WALL HAS BEEN DISTURBED. EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO PIPE JOINTS SHALL BE COVERED WITH CONCRETE.
- 2. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
- 3. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
- 4. WHERE MECHANICAL JOINT PIPE IS USED, MECHANICAL JOINT PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED
- 5. INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CITY/TOWN ESTABLISHED RULES AND PROCEDURES.

ELIMINATOR" HOOD

Y GROUND WATER

RESCUE, INC. OR

EQUIVALENT

ALL COMPONENTS SHALL BE DESIGNED FOR HS-20 LOADING.

NUMBER, ANGLE OR SIZE OF PIPES AT THE STRUCTURE.

5. ALL CASTINGS SHALL BE MADE IN THE USA.

ALL SECTIONS SHALL BE PRECAST CONCRETE NHDOT CLASS AA, 4,000 PSI.

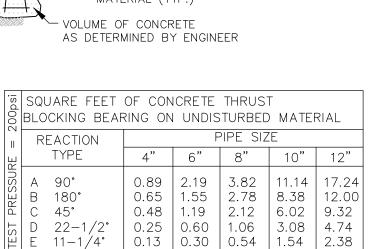
ALL COMPONENTS OF CATCH BASINS SHALL MEET NHDOT SPECIFICATIONS.

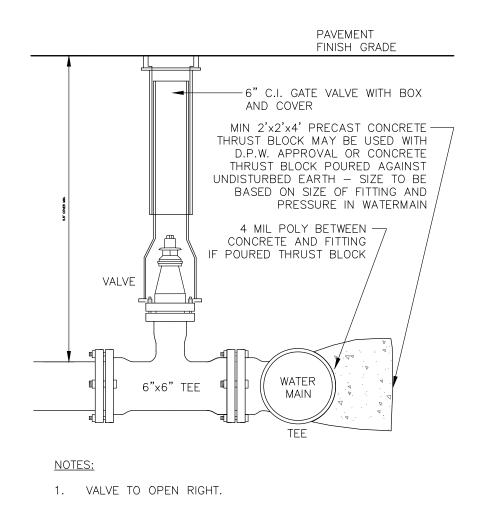
4. LARGER DIAMETER STRUCTURES SHALL BE USED AS REQUIRED DUE TO

**ECCENTRIC CATCH BASIN** 

WITH HOODED OUTLET

NOT TO SCALE





**BURIED GATE VALVE** 

NOT TO SCALE

2-1/2" VALVE OPENING (2) 4-1/2" PUMPER OPENING (1) THREE-WAY HYDRANT KENNEDY K-81A GUARDIAN ELMIRA. N.Y. **SPECIFICATIONS** 1. 150 PSI WORKING PRESSURE 2. 300 PSI TEST PRESSURE 3. HYDRANT DRAIN SHALL BE PLUGGED 4. DRY TOP DESIGN VALVE SHALL OPEN WHEN OPERATING NUT IS TURNED CLOCKWISE AND BE SO INDICATED ON HYDRANT 5. OPERATING NUT SHALL BE STANDARD AWWA PENTAGON OPERATING NUT WITH 1 1/2" POINT TO FLAT DIMENSION 6. THREADS SHALL BE NATIONAL STANDARD HOSE THREAD NOZZLES 7. HYDRANT TO OPEN RIGHT.

# PORTSMOUTH FIRE HYDRANT

NOT TO SCALE

#### THRUST BLOCKS NOT TO SCALE

- 5" MIN.

OUTSIDE OF PIPE

2" CLEARANCE

**PRECAST** 

BASE

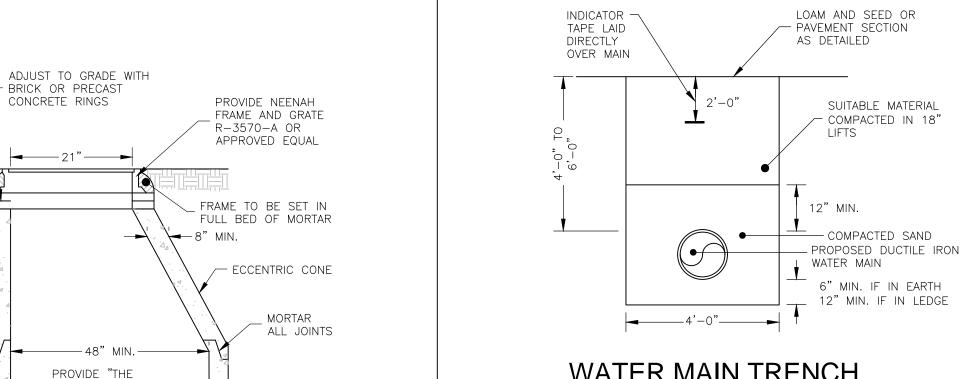
5" MIN.

NON-SHRINKING MORTAR GROUT

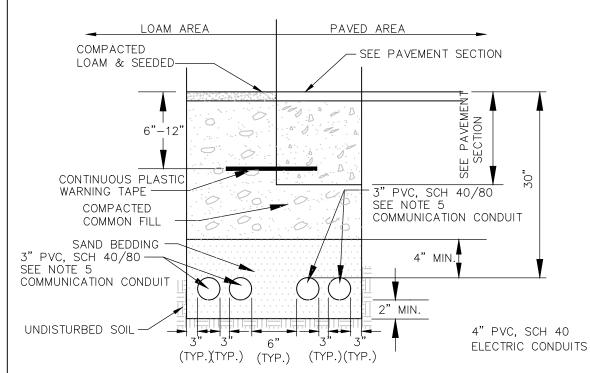
STEEL REINFORCEMENT IN

VARIABLE RISER SECTIONS

- 6" 3/8" CRUSHED STONE



### WATER MAIN TRENCH NOT TO SCALE

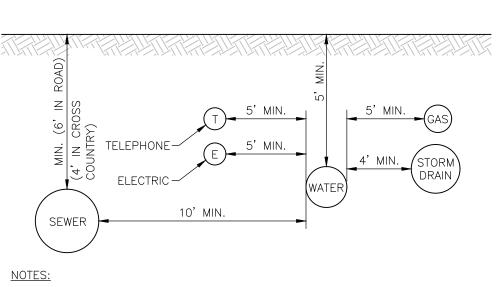


#### NOTES

- 1. ELECTRIC SERVICE INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH FEDERAL, STATE AND
- 2. COMMUNICATION SERVICE INSTALLATION SHALL MEET ALL
- 3. ACTUAL NUMBER OF CONDUITS TO BE DETERMINED BY RESPECTIVE
- 4. VERIFY INSTALLATION REQUIREMENTS WITH RESPECTIVE COMPANIES.
- (PRIMARY AND SECONDARY LINES).
- 6. ALL 90 DEGREE SWEEPS MUST BE STEEL AND THE FIRST 10' STICK OUT OF THE 90 MUST BE STEEL ON ALL PRIMARY CONDUIT RUNS

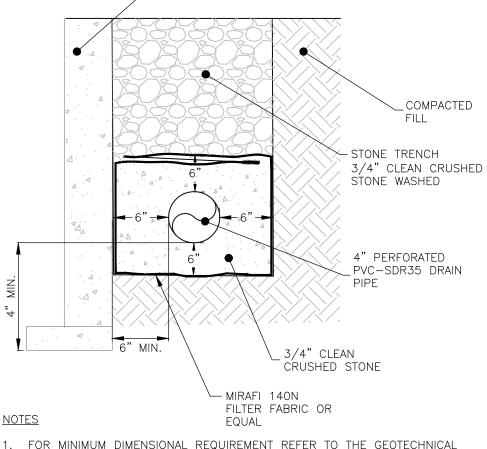
# **ELECTRIC/COMMUNICATIONS CONDUIT**

NOT TO SCALE



- 1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO EXETER DPW TECHNICAL SPECIFICATIONS.
- 2. ALL WATER MAIN SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
- 3. GAS MAIN SHALL HAVE A TYPICAL DEPTH OF 3' FROM THE TOP OF PIPE TO
- DETAIL REPRESENTS LATERAL SEPARATION ONLY UNLESS OTHERWISE NOTED. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANY FOR DEPTHS FOR GAS, TELEPHONE, AND ELECTRIC.

#### TYPICAL UTILITY LATERAL SEPARATION NOT TO SCALE



-BUILDING FOOTINGS

(SEE ARCHITECTURAL PLANS)

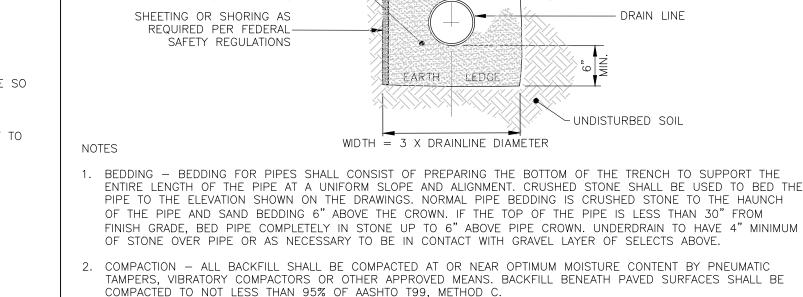
FOR MINIMUM DIMENSIONAL REQUIREMENT REFER TO THE GEOTECHNICAL REPORT PREPARED BY JOHN TURNER COUNSULTING, INC. ON JULY 3, 2013.

NOT TO SCALE

# FOUNDATION DRAIN LINES

#### -SET TO FINISH GROUND PAVEMENT INDICATOR TAPE LAID DIRECTLY OVER CTS WATER SERVICE THE END OF THE INSTALLED WATER SERVICE TO BE MARKED BY A 2x4 CTS TUBING -COMPRESSION FITTING -BUFFALO BOX — CURB STOP CORPORATION -STOP /-3/4" CTS SERVICE PIPE WATERMAIN-OPEN LEFT -DOUBLE STRAP STAINLESS STEEL SADDLE (TAPPED WITH C.C. THREADS)

#### WATER SERVICE CONNECTION NOT TO SCALE



UNPAVED AREAS

TEMPORARY

MOUND BACKFILL

IN 24" LAYERS (MAX)

(SEE NOTES 2 & 3)

BEDDING MATERIAL

(SEE NOTE 1)

COMPACTED

SUITABLE BACKFILL MATERIAL

BACKFILL OR SPOIL

EXISTING GRADE-

PAVED AREAS

PAVING COURSES

12" ABOVE PIPE

IN 6" LAYERS (MAX)

(SEE NOTES 2 & 3)

COMPACTED

GRADE

(SEE PAVING DETAILS)

- EXISTING OR FINISHED

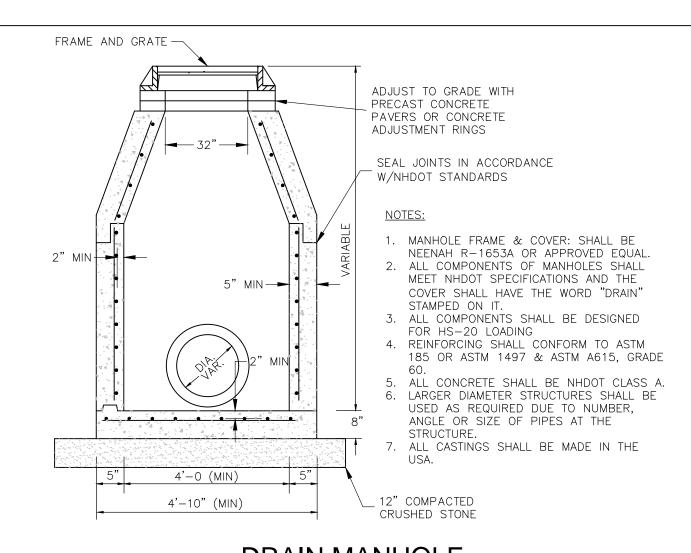
DETECTABLE LOCATER TAPE

SUITABLE BACKFILL MATERIAL

- 3. SUITABLE MATERIAL IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS: PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; ALL WET OR SOFT MUCK, PEAT, OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ROCKS OVER 6" IN LARGEST DIMENSION; FROZEN EARTH AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.
- 4. BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENT OF THE NHDOT LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DIVISION 300 AND 400 RESPECTIVELY.

### TRENCH FOR DRAIN LINE

NOT TO SCALE



DRAIN MANHOLE NOT TO SCALE

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

#### **DETAILS**

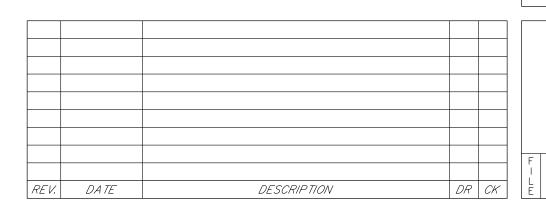
PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR **GREEN & COMPANY REAL ESTATE** 

SCALE: AS SHOWN

**APRIL 19, 2021** 



Seacoast Division

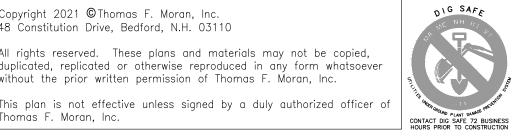
| 170 Commerce Way, Suite 102 Civil Engineers Structural Engineers Portsmouth, NH 03801 raffic Engineers Phone (603) 431-2222 and Surveyors Fax (603) 431-0910 andscape Architects l www.tfmoran.com

cientists DR JSM FB

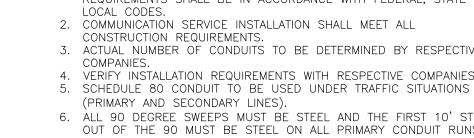
C - 80CK JJM CADFILE 47388-11\_DETAILS

Copyright 2021 © Thomas F. Moran, Inc 48 Constitution Drive, Bedford, N.H. 03110 All rights reserved. These plans and materials may not be copied,

without the prior written permission of Thomas F. Moran, Inc. This plan is not effective unless signed by a duly authorized officer of homas F. Moran, Inc.







PIPE AND JOINT MATERIALS:

ASTM

A. PLASTIC SEWER PIPE 1. PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

> STANDARDS MATERIAL **APPROVED** D3034 \*PVC (SOLID WALL) 8" THROUGH 15" (SDR 35) F679 PVC (SOLID WALL) 18" THROUGH 27" (T-1 & T-2) 4" THROUGH 18" (T-1 TO T-3) F789 PVC (SOLID WALL) 8" THROUGH 36" PVC (RIBBED WALL) D2680 8" THROUGH 15" \*ABS (COMPOSITES WALL)

\*PVC: POLY VINYL CHLORIDE \*ABS: ACRYLONITRILE-BUTADIENE-STYRENE

GENERIC PIPE

2. JOINTS SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212 AND SHALL BE PUSH-ON,

ABS TRUSS PIPE AND FITTINGS SHALL CONFORM TO ASTM D-2680, POLYMER COMPOUNDING SHALL BE TO ASTM D-1788 (CLASS 322).

JOINTS FOR ABS TRUSS PIPE SHALL BE CHEMICAL WELDED COUPLINGS TYPE SC IN ACCORDANCE WITH ASTM D-2680, FORMING A CHEMICAL WELDED JOINT.

B. DUCTILE-IRON PIPE, FITTINGS AND JOINTS.

1. DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE: A21.50 THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A-536 DUCTILE IRON CASTINGS.

A21.51 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS FOR WATER OR OTHER LIQUIDS. 2. JOINTS SHALL BE OF THE MECHANICAL OR PUSH-ON TYPE. JOINTS AND GASKETS

A21.11 RUBBER GASKETS JOINTS FOR CAST IRON PRESSURE PIPE & FITTINGS

DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.

4. JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.

TEES AND WYES: WHERE A TEE OR WYE IS NOT AVAILABLE IN THE EXISTING STREET SEWER, AN APPROPRIATE CONNECTION SHALL BE MADE, FOLLOWING MANUFACTURERS' INSTRUCTIONS USING A BOLTED, CLAMPED OR EPOXY-CEMENTED SADDLE TAPPED INTO A SMOOTHLY DRILLED OR SAWN OPENING IN THE SEWER. THE PRACTICE OF BREAKING AN OPENING WITH A SLEDGE HAMMER, STUFFING CLOTH OR OTHER SUCH MATERIAL AROUND THE JOINT, OR APPLYING MORTAR TO HOLD THE CONNECTION, AND ANY OTHER SIMILAR CRUDE PRACTICES OR INEPT OR HASTY IMPROVISATIONS WILL NOT BE PERMITTED. THE CONNECTION SHALL BE CONCRETE ENCASED AS SHOWN IN THE DETAIL UP TO AND INCLUDING 15" DIAMETER.

SEWER SERVICE INSTALLATION: THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 6 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL AS SPECIFIED IN NOTE 10. BEDDING AND RE-FILL FOR DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH APPROPRIATE MECHANICAL DEVICES.

THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE FOUNDATION AT A GRADE OF NOT LESS THAN 1/4" INCH PER FOOT, PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.

TESTING: THE COMPLETED SEWER SERVICE SHALL BE SUBJECTED TO A THIRD PARTY LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)

A. AN OBSERVATION TEE SHALL BE INSTALLED AS SHOWN AND WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE. AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE PLUG TO A HEIGHT OF 5 FEET ABOVE THE LEVEL OF THE PLUG.

B. THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER, TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS OR, IF TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTIONS FOR LEAKS SHALL BE MADE THROUGH THE CLEANOUT WITH A FLASHLIGHT.

C. DRY FLUORESCENE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER, OR IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. OBSERVATION FOR LEAKS SHALL BE MADE IN THE FIRST DOWN-STREAM MANHOLE.

LEAKAGE OBSERVED IN ANY ONE OF THE ABOVE ALTERNATE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG-UP IF NECESSARY AND RE-LAID SO AS TO ASSURE

ILLEGAL CONNECTIONS: NOTHING BUT SANITARY WASTE FLOW FROM TOILETS, SINKS, LAUNDRY ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS, SUMP PUMPS OR OTHER SIMILAR CONNECTIONS CARRYING RAIN WATER, DRAINAGE OR GROUND WATER SHALL NOT BE PERMITTED.

WATER SERVICE SHALL NOT BE LAID IN SAME TRENCH AS SEWER SERVICE.

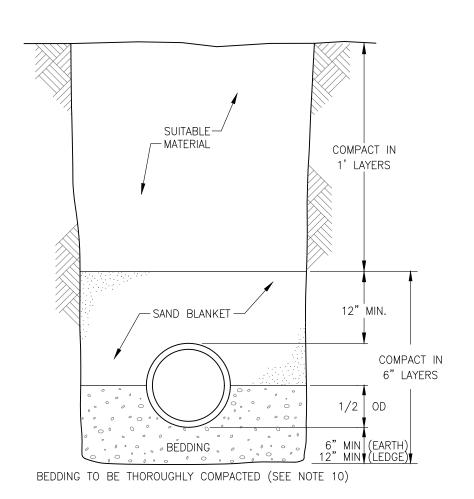
10. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL AND MEETING ASTM C33-67.

> 100% PASSING 1 INCH SCREEN 0%-10% PASSING #4 SIEVE

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED.

. LOCATION: THE LOCATION OF THE TEE OR WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A FERROUS METAL ROD OR PIPE SHALL BE PLACED OVER THE TEE OR WYE AS DESCRIBED IN THE TYPICAL "CHIMNEY" DETAIL, TO AID IN LOCATING THE BURIED PIPE WITH A DIP

2. CHIMNEYS: IF VERTICAL DROP INTO SEWER IS GREATER THAN 4 FEET, A CHIMNEY SHALL BE CONSTRUCTED FOR THE SEWER CONNECTION. CHIMNEY INSTALLATION AS RECOMMENDED BY THE PIPE

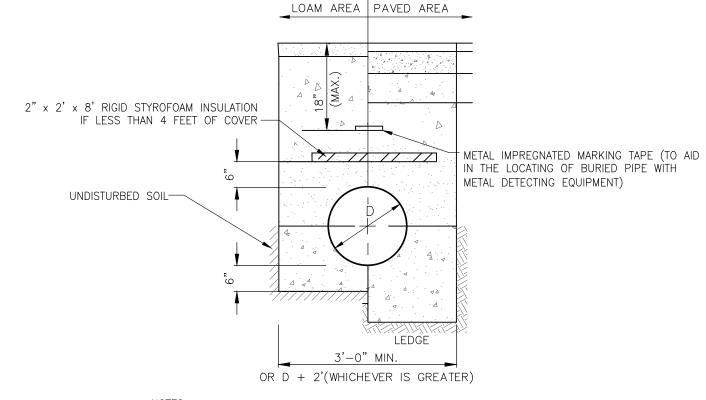


- FERROUS METAL ROD OR PIPE PLUG -(SEE NOTE 11) 6" MIN ALL AROUND -SONOTUBE 6" MIN. TEE OR WYE 1/2 OD BEDDING 1/4 ID-6"MIN

BACKFILLING TO BE BROUGHT UP EVENLY ON ALL SIDES.

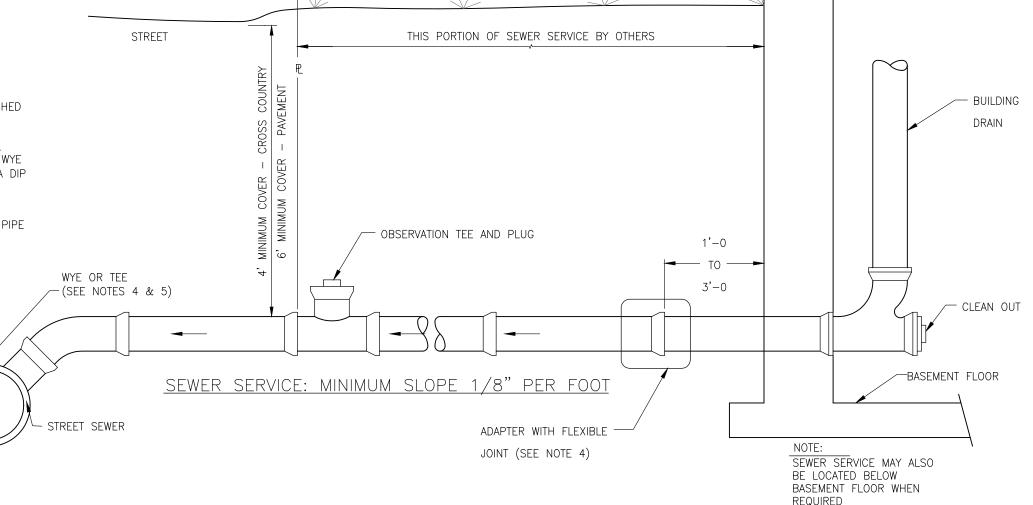
TRENCH CROSS-SECTION

CHIMNEY (SEE NOTE 12)



1. GAPS BETWEEN SECTIONS OF INSULATION TO BE COVERED WITH 2" x 2' x 2' PIECE OF INSULATION CENTERED OVER GAP.

# SEWER TRENCH WITH INSULATION



Copyright 2021 © Thomas F. Moran, Inc.

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.



# SEWER SERVICE DETAILS

#### **GRAVITY SEWER NOTES**

1. MINIMUM SIZE PIPE FOR GRAVITY SEWER SHALL BE 8-INCHES.

\*PVC: POLY VINYL CHLORIDE

2. PIPE AND JOINT MATERIALS FOR PLASTIC SEWER PIPE SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

GENERIC PIPE STANDARDS MATERIAL APPROVED D3034-04a 8" THROUGH 15" (SDR 35) \* PVC (SOLID WALL) F679-03 PVC (SOLID WALL) 18" THROUGH 27" (T-1 & T-2) PVC (RIBBED WALL) 8" THROUGH 36' F1760-01(2005)e1 PVC, RECYCLED ALL DIAMETERS

3. PLASTIC SEWER PIPE SHALL HAVE A PIPE STIFFNESS RATING OF AT LEAST 46 POUNDS PER SQUARE INCH AT 5 PERCENT PIPE DIAMETER DEFLECTION, AS MEASURED IN ACCORDANCE WITH ASTM D2412-02 DURING MANUFACTURE.

4. JOINTS SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212-96(a)(2003)e1 AND SHALL BE PUSH-ON, BELL AND SPIGOT TYPE.

5. DUCTILE-IRON PIPE, FITTINGS AND JOINTS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA).

AWWA C151/A21.51-02 THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A-536-84 (2004) DUCTILE IRON CASTINGS.

AWWA C151/A21.51-02 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS FOR WATER OR OTHER LIQUIDS.

JOINTS SHALL BE OF THE MECHANICAL OR PUSH-ON TYPE. JOINTS AND GASKETS SHALL CONFORM TO AWWA C151/A21.11 RUBBER GASKETS JOINTS FOR CAST IRON PRESSURE PIPE & FITTINGS.

6. CONCRETE PIPE SHALL CONFORM TO AWWA C302-04.

7. PRESTRESSED CONCRETE CYLINDER PIPE AND FITTINGS SHALL CONFORM TO AWWA C301-99.

JOINTS SEALS FOR CONCRETE CYLINDER PIPE SHALL BE OIL RESISTANT ELASTOMERIC MATERIAL CONFORMING TO ASWWA C301-99 SPECIFICATIONS.

8. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.

9. GRAVITY SEWER PIPE TESTING SHALL BE AS FOLLOWS:

SEWER LINES USING LOW PRESSURE AIR".

ALL NEW GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY THE USE OF LOW-PRESSURE AIR

LOW PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH: ASTM F1417-92(2005) "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY

UNI-BELL PVC PIPE ASSOCIATION UNI-B-6, "LOW PRESSURE AIR TESTING OF INSTALLED SEWER PIPE".

10. ALL NEW GRAVITY SEWERS SHALL BE CLEANED AND VISUALLY INSPECTED AND SHALL BE TRUE TO LINE AND GRADE FOLLOWING INSTALLATION AND PRIOR TO USE AND VISUALLY INSPECT USING LAMP TEST.

11. ALL PLASTIC SEWER PIPE SHALL BE DEFLECTION TESTED NOT LESS THAN 30 DAYS AND NO MORE THAN 90 DAYS

FOLLOWING INSTALLATION. 12. THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5 PERCENT OF THE AVERAGE INSIDE DIAMETER.

13. TRENCH CONSTUCTION SHALL CONFORM TO THE FOLLOWING:

SEWERS SHALL BE BURIED TO A MINIMUM DEPTH OF 6' BELOW GRADE IN ALL ROADWAY LOCATIONS AND TO A MINIMUM DEPTH OF 4 FEET BELOW GRADE IN ALL CROSS COUNTRY LOCATIONS.

WHERE SEWER LINES CROSS WATER PIPES, A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL BE OBSERVED. AT SEWER/WATER INTERSECTIONS, A MINIMUM OF 6 FEET SHALL BE PROVIDED FROM THE WATER LINE TO THE SEWER PIPE JOINT. 12" SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL BE REQUIRED BETWEEN SEWER LINES AND ALL OTHER PIPES.

TRENCH DIMENSIONS FOR SEWER PIPE LESS THAN 15 INCHES IN DIAMETER, THE ALLOWABLE TRENCH WIDTH AT A PLANE 12 INCHES ABOVE THE PIPE SHALL BE NO MORE THAN 36 INCHES AND FOR PIPE 15 INCHES AND LARGER, THE ALLOWABLE WIDTH SHALL BE EQUAL TO THE PIPES OUTSIDE DIAMETER PLUS 24 INCHES.

PIPE TRENCH BEDDING MATERIAL AND FILL MATERIAL FOR EXCAVATION BELOW GRADE SHALL BE SCREENED GRAVEL OR CRUSHED STONE TO ASTM C33-03 STONE SIZE NO. 67. THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND FREE FROM ANY ORGANIC MATERIALS, GRADED SUCH THAT 100 PERCENT PASSED THE 1/2-INCH SIEVE AND A MAXIMUM OF 15 PERCENT PASSES A #200 SIEVE. IN LIEU OF A SAND BLANKET, A STONE ENVELOPE 6 INCHES THICK COMPLETELY AROUND THE PIPE USING 3/4-INCH STONE MAY BE USED.

PIPE BEDDING MATERIAL SHALL EXTEND FROM A HORIZONTAL PLANE THROUGH THE PIPE AXIS TO 6-INCHES BELOW THE BOTTOM OF THE OUTSIDE SURFACE OF THE PIPE.

PIPE SAND BLANKET MATERIAL SHALL COVER THE PIPE A MINIMUM OF 12 INCHES ABOVE THE CROWN OF THE OUTSIDE SURFACE.

COMPACTION SHALL BE IN 12-INCH LAYERS FOR BEDDING AND BLANKET MATERIALS.

BACKFILL MATERIAL SHALL BE IN 3-FOOT LAYERS TO THE GROUND SURFACE EXCEPT FOR ROAD CONSTRUCTION WHERE THE FINAL 3-FEET SHALL BE COMPACTED IN 12-INCH LAYERS TO THE ROAD BASE SURFACE.

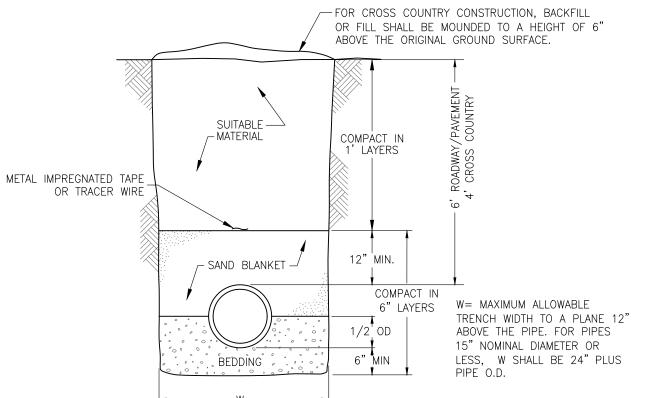
TRENCH BACKFILL MATERIAL IN ROADWAY LOCATIONS SHALL BE NATURAL MATERIALS EXCAVATED FROM THE TRENCH DURING CONSTRUCTION, EXCLUDING DEBRIS, PAVEMENT PIECES, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT, CLAY, EXCAVATED LEDGE, ROCKS OVER 6 INCHES IN THE LARGEST DIMENSION, OR ANY OTHER UNSUITABLE MATERIAL NOT APPROVED BY THE ENGINEER.

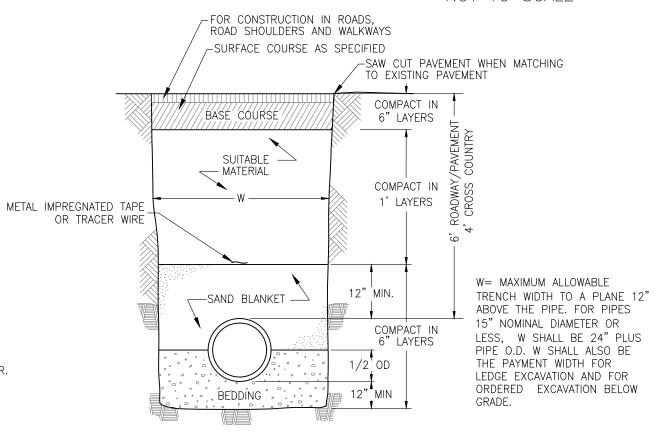
TRENCH BACKFILL AT CROSS-COUNTRY LOCATIONS SHALL BE AS DESCRIBED ABOVE EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE AND POSSIBLE RECONSTRUCTION, WHEN NECESSARY WILL BE PRESERVED. BACKFILL SHALL BE MOUNDED 6-INCHES ABOVE ORIGINAL

BASE COURSE MATERIALS FOR TRENCH REPAIRS SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.

WHERE SHEETING IS PLACED ALONG SIDE OF THE PIPE AND EXTENDS BELOW MID-DIAMETER, THE SHEETING SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE AND AT LEAST 3 FEET BELOW FINISH GRADE.

TRENCHES FOR SEWER PIPES WITH SLOPES OVER 0.08 FEET PER FOOT AND TRENCHES FOR SEWER PIPES BELOW THE SEASONAL HIGH GROUND WATER LEVEL SHALL HAVE IMPERVIOUS TRENCH DAMS CONSTRUCTED EVERY 300 FEET TO PREVENT POTENTIAL DISTURBANCE TO PIPE BEDDING AND BLANKET MATERIALS.





# LEDGE CONSTRUCTION

FINISH GRADE-1' BELOW\_ FINAL GRADE TRENCH DEPTH BENTONITE | **VARIFS** 

> BEYOND DAM 1. DAM SHALL BE LOCATED EVERY 300' OF SEWER PIPE RUN. INSTALL AT CENTER OF EACH GRAVITY PIPE RUN 2. NO FITTING SHALL BE LOCATED

SEWER TRENCH DAM NOT TO SCALE

# SITE DEVELOPMENT PLANS

**DETAILS** 

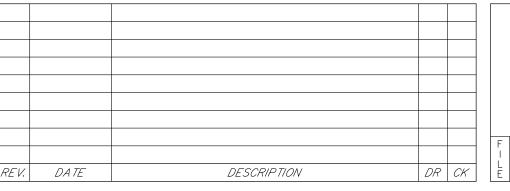
PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

STOKEL SB & NA TRUST, PHILIP J 25% INT

PREPARED FOR **GREEN & COMPANY REAL ESTATE** 

1"=40' (11"X17") | SCALE: 1"=20' (22"X34")

**APRIL 19, 2021** 



Seacoast Division

| 170 Commerce Way, Suite 102 Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 and Surveyors Fax (603) 431-0910 Landscape Architects l www.tfmoran.com

DR JSM FB C - 80CK JJM CADFILE Sewer Details.dwg

20%-55% PASSING 3/8 INCH SCREEN 0%-5% PASSING #8 SIEVE

90%-100% PASSING 3/4 INCH SCREEN

MANUFACTURER MAY BE USED IF APPROVED BY THE ENGINEER.

48 Constitution Drive, Bedford, N.H. 03110

without the prior written permission of Thomas F. Moran, Inc.



F794-03

**EARTH CONSTRUCTION** 

WITHIN 4' OF DAM.

TAX MAP 242 LOT 4

OWNED BY

cientists

### GENERAL NOTES

IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE, SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT, WITH ADEQUATE JOINTING, OR CONCRETE CAST MONOLITHICALLY IN PLACE WITH REINFORCEMENT. IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE, CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.

BARRELS, CONE SECTIONS AND CONCRETE GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AND SHALL CONFORM ENV-WQ 704.12 & 704.13.

PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478-06.

BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 6 INCHES ABOVE THE CROWN OF THE INCOMING PIPE.

MANHOLE CONE SECTIONS SHALL BE ECCENTRIC IN SHAPE.

ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDELIBLY MARKED ON THE INSIDE WALL.

ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.

SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.

HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT. APPROVED ELASTOMERIC SEALANTS ARE:

SIKAFLEX-12-SL

SONNEBORN BUILING PRODUCTS-SONOLASTIC SL-1

THE MINIMUM INTERNAL DIAMETER OF MANHOLES SHALL BE 48 INCHES. FOR SEWERS LARGER THAN 24-INCH DIAMETER. MANHOLE DIAMETERS SHALL BE INCREASED SO AS TO PROVIDE AT LEAST 12-INCHES OF SHELF ON EACH SIDE OF THE SEWER.

LEAKAGE TEST SHALL BE PERFORMED IN ACCORDANCE TO ENV-WQ 704.17.

- (a) ALL MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST IN ACCORDANCE WITH THE ASTM C1244 STARNDARD IN EFFECT WHEN THE TESTING IS PERFORMED.
- (b) THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
- 1. THE INITIAL VACUUM GUAGE TEST PRESSURE SHALL BE 10 INCHES Hg.
- 2. THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR 1-INCH Hg PRESSURE DROP TO 9 INCHES SHALL BE:
- A. NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP.
- B. NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP.
- C. NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP.
- (c) THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (b) ABOVE.
- (d) INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETE.
- (e) FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN OR ANIMALS, UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENT TO GRADE.
- BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL COMPLY WITH ASTM C32-05, CLAY OR SHALE, FOR GRADE SS HARD BRICK.

MORTAR SHALL BE COMPOSED OF PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION. PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE:

(a) 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR (b) 4.5 PARTS SAND, 1 PART CEMENT AND 0.5 PART HYDRATED LIME

CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150-05. HYDRATED LIME SHALL BE TYPE S CONFORMING TO ASTM C207-06 "STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES". SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO ASTM C33-03 "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES'

INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED OR PRECAST CONCRETE SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOW. AT CHANGES IN DIRECTIONS, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.

FRAMES AND COVERS: MANHOLES FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN, CLASS 30, CONFORMING TO ASTM A48/48M AND PROVIDE A 30-INCH CLEAR OPENING. 3-INCH WORD (MINIMUM HEIGHT) LETTERS "SEWER" SHALL BE PLAINLY CAST INTO THE TOP SURFACE. THE CASTING SHALL BE OF EVEN GRAINED CAST IRON, SMOOTH, AND FREE FROM SCALE, LUMPS, BLISTERS, SAND HOLES AND DEFECTS. CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION.

BEDDING: PRECAST BASES SHALL BE PLACED ON A 6-INCH LAYER OF COMPACTED BEDDING MATERIAL THAT CONFORMS TO ASTM C33-03 NO. 67 STONE AND FREE FROM CLAY, LOAM AND ORGANNIC MATTER. THE EXCAVATION SHALL BE PROPERLY DEWATERED WHILE PLACING BEDDING MATERIAL AND SETTING OF THE BASE OR POURING CONCRETE. WATER-STOPS SHALL BE USED AT THE HORIZONTAL JOINT OF THE CAST-IN-PLACE MANHOLES.

> 100% PASSING 1" SCREEN 90-100% PASSING 3/4" SCREEN 20-55% PASSING 3/8" SCREEN 0-10% PASSING #4 SIEVE

0-5% PASSING #8 SIEVE FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WIGHIN THE FOLLOWING DISTANCES FROM ANY MANHOLE CONNECTION: (a) WITHIN 48 INCHES FOR REINFORCED CONCRETE PIPE (RCP). (b) WITHIN 60 INCHES FOR PVC PIPE LARGER THAN 15" DIAMETER.

NO FLEXIBLE JOINT SHALL BE REQUIRED FOR DUCTILE IRON PIPE OR PVC PIPE UP THROUGH 15-INCH

INTERNAL STEPS ARE PROHIBITED PER EXETER DPW STANDARDS.

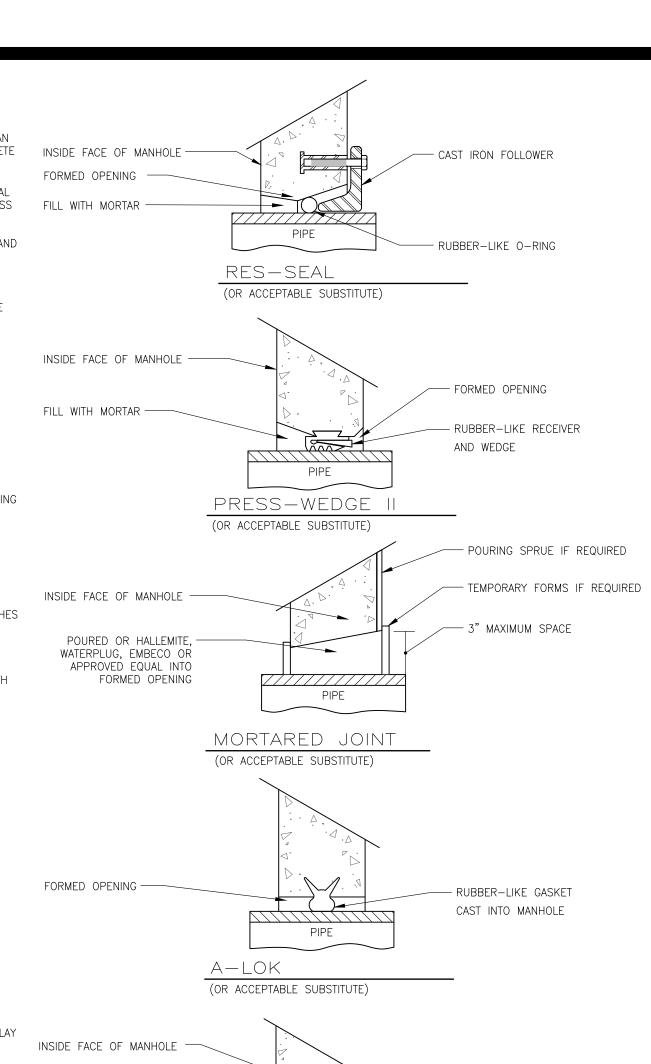
REFERENCE NHDES ENV-WQ 700 IN PLACE OF ASTM STANDARDS

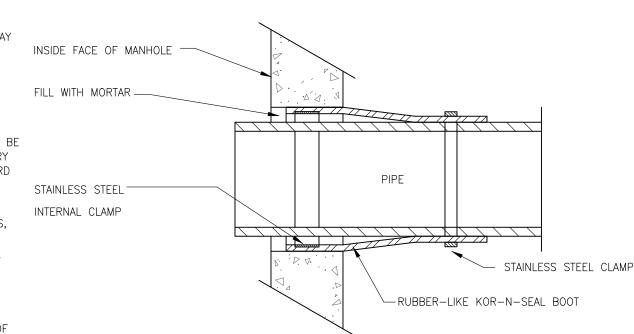
Copyright 2021 © Thomas F. Moran, Inc 48 Constitution Drive, Bedford, N.H. 03110

All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

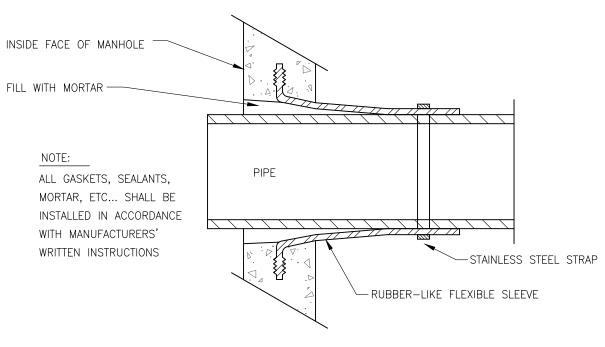
This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.











LOCK-JOINT FLEXIBLE MANHOLE SLEEVE (OR ACCEPTABLE SUBSTITUTE)

DETAIL "A" - PIPE TO MANHOLE JOINTS

19. PIPE TO MANHOLE JOINTS SHALL BE ONLY AS FOLLOWS:

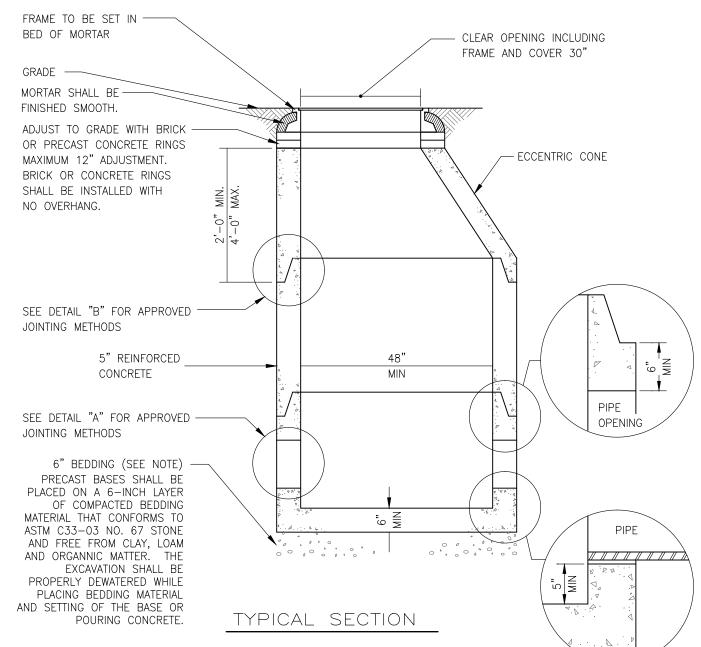
A. ELASTOMERIC, RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES.

B. CAST INTO WALL OR SECUREED WITH STAINLESS STEEL CLAMPS.

C. ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH THE SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING.

D. NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.

20. THE INVERT OF THE INCOMING PIPE SHALL BE NO MORE THAN 6 INCHES ABOVE THE OUTGOING PIPE UNLESS A DROP ENTRY IS USED.



\_\_\_12" MIN. \_\_\_\_

BRICK MASONRY

EACH SIDE

SECTION "B-B"

SECTION "A-A"

1. INVERT AND SHELF TO BE PLACED

2. CARE SHALL BE TAKEN TO INSURE

3. BASE SECTION TO BE FULL WALL

THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.

INVERT BRICKS SHALL BE LAID ON

THICKNESS AND MONOLITHIC TO A

POINT 6" ABOVE THE PIPE CROWN.

4. UNDERLAYMENT OF INVERT AND SHELF

5. NO STEPS ARE ALLOWED PER EXETER

3" MAXIMUM PROJECTION -

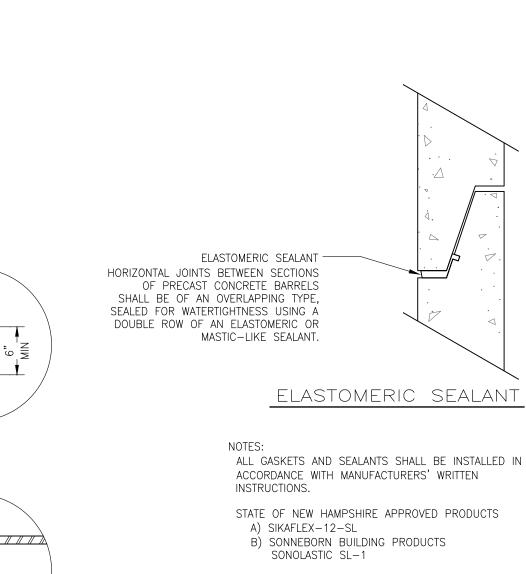
OF PIPE INTO MANHOLE

DPW STANDARDS.

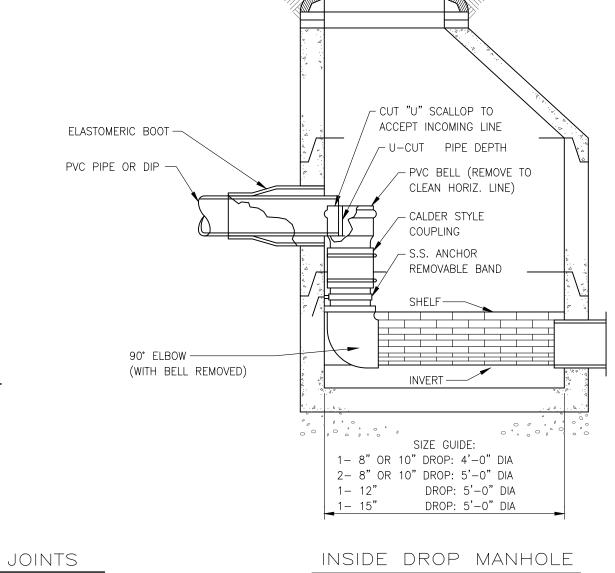
6. BITUMINOUS COATING.

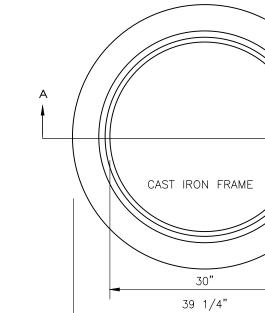
SHALL CONSIST OF BRICK MASONRY.

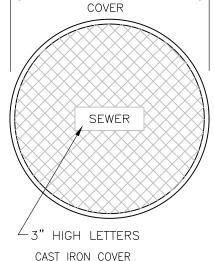
AFTER LEAKAGE TEST.



DETAIL "B" — HORIZONTAL JOINTS



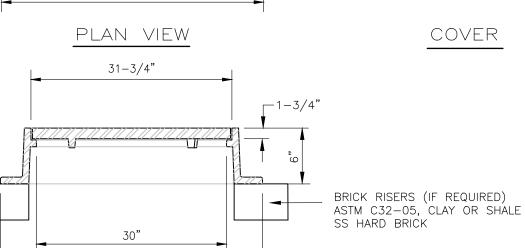




MIN. WEIGHT 265 LBS.

NEENAH R-1743 OR EQUAL

31 3/4"



MANHOLE FRAME & COVER

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

**DETAILS** 

PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY STOKEL SB & NA TRUST, PHILIP J 25% INT

PREPARED FOR **GREEN & COMPANY REAL ESTATE** 

1"=40' (11"X17") SCALE: 1"=20' (22"X34")

39 1/4"

SECTION A-A



Structural Engineers raffic Engineers and Surveyors Landscape Architects cientists

| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 l www.tfmoran.com

**APRIL 19, 2021** 

DR JSM FB C-81 |CK| JJM |CADFILE | Sewer Details.dwg

STANDARD MANHOLE DA TE **DESCRIPTION** 

TOP OF SHELF SHALL BE 1"

ABOVE CROWN OF HIGHEST PIPE

SEE DETAIL "A" FOR

JOINTING METHODS

SEE DETAIL "A" FOR

JOINTING METHODS

MAXIMUM DISTANCE TO FLEXIBLE JOINT

FLEXIBLE JOINT: A FLEXIBLE JOINT

INCHES FOR REINFORCED CONCRETI

FOR PVC PIPE LARGER THAN 15"

REQUIRED FOR DUCTILE IRON PIPE

OR PVC PIPE UP THROUGH 15-INCH

NO FLEXIBLE JOINT SHALL BE

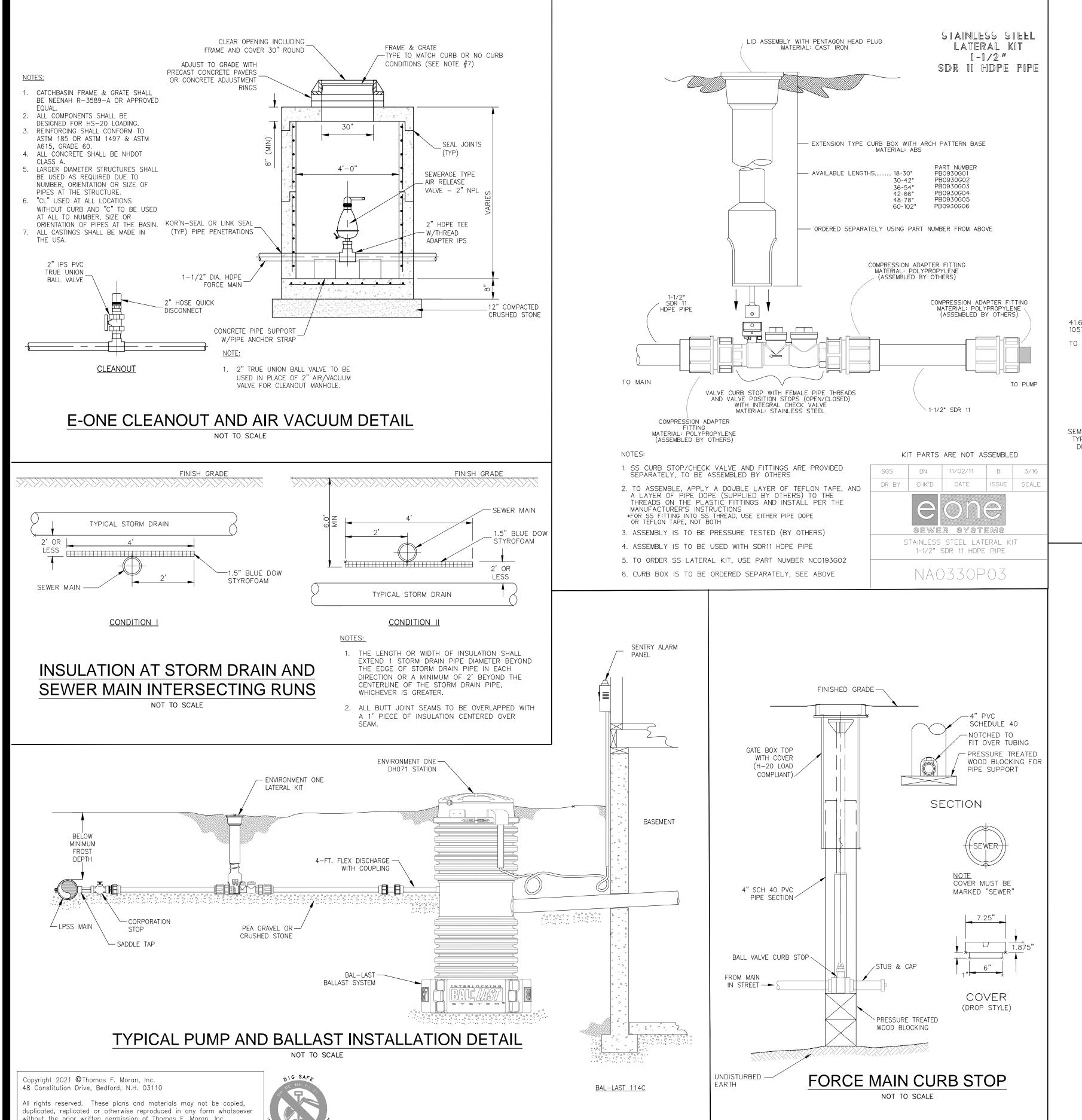
PIPE (RCP). (b) WITHIN 60 INCHES

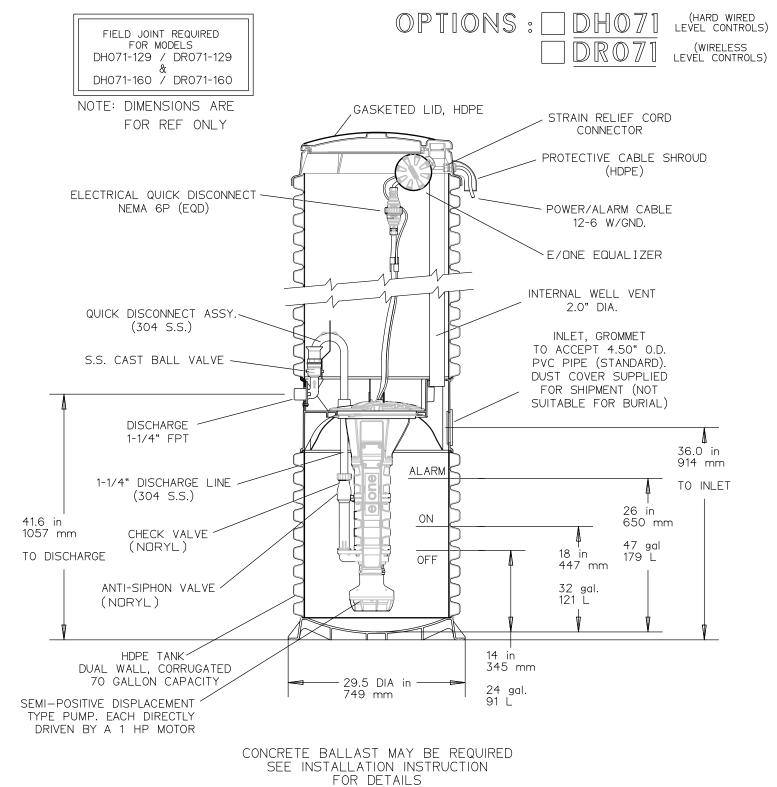
SHALL BE PROVIDED WITHIN THE

FOLLOWING DISTANCES FROM ANY MANHOLE CONNECTION: (a) WITHIN 48

DR CK

TYPICAL MANHOLE - PLAN VIEW





#### NOTES:

- 1. THE PUMP CORE CONTAINS BUILT IN CHECK AND ANTI-SIPHON VALVES. IN ADDITION, THERE IS A REDUNDANT UNILATERAL CHECK AND ISOLATION VALVE AT THE LOT LINE WITH THE STAINLESS STEEL ASSEMBLY.
- 2. THE STATION MONITOR CONTAINS A HIGH LEVEL ALARM. THE HIGH LEVEL ALARM IS RUN OFF A REDUNDANT RUN SWITCH THAT OVERRIDES THE RUN SWITCH IF IT SHOULD SEE A POWER FAILURE.
- 3. THE ALARM PANEL HAS THE OPTION TO CONNECT A PORTABLE GENERATOR WITH A 20 AMP, 240 VOLT SUPPLY. POWER TRANSFERS AUTOMATICALLY IF THE PUMP IS CALLING
- 4. THE PUMP IS RATED TO CONTINUOUS DUTY HEADS OF 185-FEET. THE SYSTEM AS DESIGNED WILL OPERATE AT 14,92 GPM AT 5.64-FEET TDH.
- 5. THE PUMP RATED TO 700 GPD.
- 6. THE TANK HAS A 70-GAL VOLUME AND ALLOWS FOR 43 GALLONS ABOVE THE "ON" LEVEL.
- 7. A BACKUP GENERATOR WILL BE PROVIDED THAT SHALL BE AMPLE ENOUGH TO SUPPLY POWER TO RUN THE GRINDER PUMP AND ALARM SYSTEM. THERE SHALL BE ENOUGH FUEL ON SITE TO RUN THE GENERATOR FOR A MINIMUM OF 6
- 8. IN CASE OF A POWER FAILURE, A BATTERY BACKUP REMOTE SENTRY ALARM PANEL SHALL BE USED IN CONJUCTION WITH THE E-ONE PUMP SYSTEM.



## E-ONE GRINDER PUMP

NOT TO SCALE

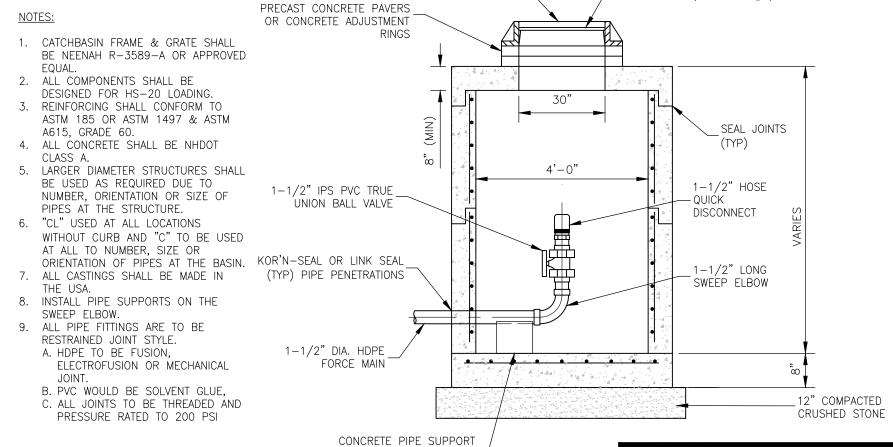
CLEAR OPENING INCLUDING

FRAME AND COVER 30" ROUND

ADJUST TO GRADE WITH

## PRESSURE SEWER **TESTING NOTES**

I. FORCE MAINS AND PRESSURE SEWERS SHALL BE TESTED IN ACCORDANCE WITH SECTION 5 OF THE AWWA C600, "INSTALLATION OF CAST IRON WATER MAINS AND THEIR APPURTENANCES" STANDARD IN EFFECT WHEN THE TEST IS CONDUCTED, AVAILABLE AS NOTED IN APPENDIX D, AT A PRESSURE EQUAL TO THE GREATER OF 150 PERCENT OF THE DESIGN OPERATING TOTAL DYNAMIC HEAD OR AT LEAST 100 PSI.



W/PIPE ANCHOR STRAP

# E-ONE TERMINAL FLUSHING MANHOLE

FRAME & GRATE

-TYPE TO MATCH CURB OR NO CURB

CONDITIONS (SEE NOTE #7)

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

### **DETAILS**

PEVERLY HILL ROAD CONDOMINIUMS 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

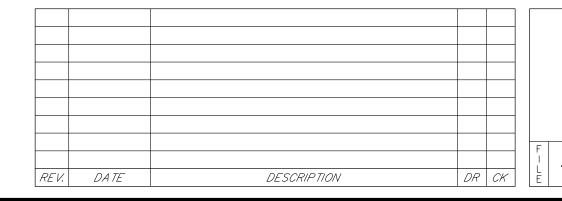
OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

**GREEN & COMPANY REAL ESTATE** 

1"=40' (11"X17") SCALE: 1"=20' (22"X34")

**APRIL 19, 2021** 



Seacoast Division

| 170 Commerce Way, Suite 102 Civil Engineers Structural Engineers Traffic Engineers and Surveyors Landscape Architects cientists

Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

DR JSM FB C-82 CK JJM CADFILE Sewer Details.dwg

without the prior written permission of Thomas F. Moran, Inc. This plan is not effective unless signed by a duly authorized officer of

Thomas F. Moran, Inc.