



September 8, 2021

Juliet Walker, Planning Director City of Portsmouth 1 Junkins Avenue Portsmouth, NH 03801

via email: jwalker@cityofportsmouth.com

RE: Response to Comments Submittal

83 Peverly Hill Road - Green & Company - Tax Map 242 Lot 4

Project #47388.11

#### Dear Juliet Walker:

On behalf of our client, Green and Company, TF Moran, Inc. (TFM) respectfully submits the following letter in response to your comments received via email on September 1, 2021. The following materials are included in this revised submission:

- Drainage letter detailing how the project complies with Section 7 of the Portsmouth Site Plan Regulations, dated September 7, 2021. (1 copy);
- Grate Inlet Calculations, dated September 8, 2021 (1 copy);
- Pipe Sizing Calculations, dated September 8, 2021 (1 copy); and
- Site Development Plans entitled "Site Development Plans, Tax Map 242 Lot 4, Parson Woods Condominium, LLC, 83 Peverly Hill Road, Portsmouth, NH Owned by Stokely SB & NA Trust, Philip J 25% Int, Prepared for Green & Company Real Estate, with revision 6 Dated 08/25/2021. (1 copy at 22"x34, 1 copy at 11"x17").

To facilitate your review, we have provided your comments along with our responses, which are shown in **bold blue italics**.

#### **REVIEW COMMENTS:**

#### **General Comments**

**Email from Juliet Walker Dated: 9/1/21** 

To be addressed by applicant prior to Planning Board review

1) Engineer indicated that Section 7.6.2 – Enhanced Stormwater Standards for New and Redevelopment Disturbing More than 15,000 square feet of Area is Not Applicable to this submission. The City does not agree/ Engineer to address.

The drainage letter has been updated to address Section 7.6.2.





#### Response to Comments & Rev 1 Submission 83 Peverly Hill Road – Green and Company – Tax Map # 242 Lot # 4 Project #47388.11

September 8, 2021

- 2) Drainage pipes alignment and manhole locations interfere with water main pipes and water services in multiple areas. Engineer to address. Water lines have been revised on the plan and profile sheets to avoid interference with drainage structures and pipes.
- 3) Engineer to submit calculations for drainage pipe sizing to verify sizes shown.

  Pipe size calculations are included in the HydroCad calculations. A separate documents is included breaking out the pipe sizes.
- 4) It appears that spacing of CB's will not have sufficient inlet capacity to accommodate stormwater flow for the larger storms which might not correlate to the drainage analysis/report and pipe sizing calculations. Possible additional CB's may be considered. Engineer to address. We've added double grates and two (2) additional catch basins (# 7&11B) to provide additional inlet capacity. We've also included a memo addressing inlet capacity calculations which show sufficient inlet capacity.
- 5) The naming of a public roadway is the purview of the City Council with recommendations from the Planning Board. If you have a specific roadway name in mind that you would like to request, that should be part of your presentation package to the Planning Board. It is helpful to include an explanation for the road name you are requesting.

The developers have chosen the name of Bayberry Path for consideration by City Council.

We trust that the above responses satisfy the concerns expressed in the City of Portsmouth's comments. Should you wish to further discuss any of the above please contact us so that we may meet and resolve any outstanding concerns.

Respectfully,

TFMoran, Inc.

Jack McTigue, PE/CPESC

Project Manager

JJM/sdr

cc: Rick Green, Michael Green and Jenna Green





September 8, 2021

TFMoran Project: 47388.11

Juliet Walker, Planning Director Portsmouth Planning Board 1 Junkins Avenue Portsmouth, NH 03801

Re: Open Space Planned Unit Development, 83 Peverly Hill Road - Section 7 of the Site Plan Regulations

Dear Juliet:

The outline below addresses how we complied with Section 7 of the Portsmouth Site Plan Review Regulations dealing with Stormwater Management. Below are the areas listed in the regulations and how the project conforms to those.

Section 7.1 – Low Impact Development (LIP)

- This project uses a combination of two bioretention areas with internal storage reservoirs, a subsurface gravel wetland and an infiltration basin as best management practices (BMP's) to treat and attenuate post development flows. These BMP's help maintain pre-development hydrology. The roadway was narrowed to 26' from the beginning of the roadway to the first intersection. It was narrowed down to 22' for the loop area of the roadway. This helped decrease the amount of new impervious area being constructed on this site. In addition to this, the project uses the City's PUD ordinance to limit the impact on the lot, further decreasing the footprint and leaving the majority of the lot undisturbed.

Section 7.2 – General Water Quality and Stormwater Manage Provisions

- This stormwater system was designed to treat the Water Quality Volume (WQV) for the impervious area proposed on this site.
- The project was designed to limit the impact to the abutting wetland. Special effort was made, including the installation of retaining walls along the roadway, to limit impact. There is no impact to wetlands or wetland buffers from this project. Handling of Hazardous Material is included in the Erosion Control Notes. City, state, and federal regulations concerning stormwater management have been incorporated into this project and there will be no adverse impacts on abutting properties.
- There are no 20,000 gallon per day on-site water systems proposed or existing. The BMP's used on this project, bioretention areas with internal storage reservoirs and the subsurface gravel wetlands, have some of the highest nitrogen removal efficiencies according to the NH Stormwater Manual, Appendix B.
- This project does not propose conveying stormwater into the City's infrastructure.



#### Section 7.3 Wellhead Protection Areas

- The site is located in a wellhead protection zone. Only one infiltration practice is proposed which treats a large area of lawn and some roof run-off. No roadway runoff is directed to this BMP.

#### Section 7.4 Stormwater Management and Erosion Control Plan (SMECP)

- A Stormwater Management and Erosion Control Plan is included with the plans. The drainage analysis, Existing Conditions, Erosion Control Plans, Erosion Control Notes and the Grading and Drainage Plans include the items listed in section 7.4. Note, though no impairments showed on the NHDES One Stop Data Mapper, Sagamore Creek is near the project. It has a 5-P rating, which included nitrogen impairments. Three of the four BMP's used have the highest nitrogen removal efficiencies.

#### Section 7.5 Construction Erosion Control Design Standards

- The selection, sizing, installation and maintenance of all erosion and sediment control measures is consistent with design guidance set forth in the NH Stormwater Manual.
- Natural vegetation is retained within the 100' wetland buffer and on 2/3 of the property to be preserved via a conservation easement. The vegetated area to remain will be marked with signage along the 100' wetland buffer to notify homeowners and the public that this area is protected.
- There is no soil disturbance proposed within the 100' wetland buffer.
- This disturbed area has been minimized utilizing the provisions of Planned Unit Developments contained in Article 7 of the Portsmouth zoning ordinance. This type of development allows the clustering of residential units which preserves natural features and creates a significant amount of open space for the homeowners and general public.
- The construction will not be phased, however, careful consideration has been made and described on sheet C-44, Erosion Control notes, to ensure that disturbed areas prevent erosion and sediment transportation.

#### Section 7.6.1 - Post-Construction Stormwater Management Standards

 A Drainage Analysis and set of Erosion Control Plans were included with the submittal to the Planning Board that describes the post-construction stormwater management practices contained in this section.

## Section 7.6.2 - Enhanced Stormwater Treatment Standards for New and Redevelopment Disturbing More than 15,000 square feet of Area

- Storm water from the developed site is retained and treated. There are no increased post-construction flows for the 2-year, 10-year, 25-year, and 50-year 24-hour storm events analyzed in the drainage analysis.
- This project uses a combination of two bioretention areas with internal storage reservoirs, a subsurface gravel wetland and an infiltration basin as best management practices (BMP's) to treat and attenuate post development flows.
- The efficiencies of the three types of BMP's used are based on the NH Stormwater Manual, Appendix
  - The bioretention area and filtration practices are listed as having a 90% efficiency for removing Total Suspended Solids (TSS) and 65% efficiencies in removing Total Nitrogen (TN) and Total Phosphorous (TP). Based on UNHSC data, the (Hybrid) bioretention systems with internal storage systems offer further denitrification of the stormwater, showing approximately a 30% increase in removal of TP and an additional 20% removal for TN.
  - o Gravel Wetlands have a 95% efficiency for removing Total Suspended Solids (TSS), 85% efficiencies in removing Total Nitrogen (TN) and 64% efficiency for removing total Phosphorous (TP).

September 7, 2021

- Infiltration Basins have a 90% efficiency for removing Total Suspended Solids (TSS), 60% efficiencies in removing Total Nitrogen (TN) and 65% efficiency for removing total Phosphorous (TP).
- All three of these treatments exceed the Enhanced Stormwater Treatment standards by removing 80% of the average annual TSS, and 50% of the average TN.

The BMP Worksheets in the Drainage Analysis include the sizes of the treatments and the calculations showing that they fully treat the Water Quality Volume (WQV).

This development is not discharging into impaired water.

According to Env-WQ 1700:

- Water quality will be adequate to fully protect existing uses-
  - This project does not impair the current uses of the wetland it discharges into. The large track of land being offered as a conservation easement help to minimize future impacts to this water body.
  - The identified uses of this water body are:
    - Wildlife and plant life
      - We have reached out to the New Hampshire Heritage Bureau. They did not feel our project would have detrimental impact to any endangered wildlife or plant life in the area.
    - Stormwater treatment from public roadways
      - Post-development flows have been kept the same or less than predevelopment flows.
    - BMP's are being proposed to treat and attenuate stormwater flows.
- The highest statutory and regulatory requirements will be achieved for all new and existing point sources;
  - This project meets all City, State and Federal requirements in the treatment of the stormwater.
- All cost effective and reasonable best management practices for nonpoint source control will be implemented;
  - The BMP's proposed are more than adequate to treat the stormwater from the development that flows off this property.

A winter maintenance plan has been set forth in the Condominium Documents. The plan discusses the limitations of the use of salt in deicing applications.

Section 7.6.2 (2) - Not applicable to this submission.

Section 7.6.3 - Additional Pollutant Tracking and Accounting Program (PTAP) Submittal Requirements

- This is to be submitted subsequent to the Planning Board Approval.

Section 7.6.4 Responsibility for Installation and Construction

- The responsibility is noted and the developer plans to meet the requirements as set forth. The developers name and contact information is listed on the Cover Sheet and in the operation and maintenance manual.

Section 7.6.5 Inspection and Maintenance Plans

An Operation and Maintenance Plan is included in the drainage analysis. This includes the Owner's /
Operator's responsibilities and steps required in the annual maintenance. A developers agreement shall
be agreed upon between the developer and the City prior to the commencement of work on the property.

In summary, we maintain this project meets the requirements as set out in Section 7 of the Site Plan Review Regulations and will pose no adverse impact to the abutting properties and wetlands.

Sincerely, **TFMoran, Inc.** 

Jack McTigue, PE, CPESC

Project Manager

cc: Rick Green, Michael Green and Jenna Green

## **MEMO**

#### TFMoran, Inc.

To: Juliet Walker

From: Jack McTigue

CC: Rick Green, Michael Green and Jenna Green

Date: 9/8/21

Re: Inlet Capacity

In response to comment #4 of your items to address prior to Planning Board review, we off the following:

The addition of double grates and two catchbasins were added to address the concerns of sufficient capacity.

The inlet capacity was modelled using the grate capacity and specification of a NEENAH R-5730 Type A grate. Attached is a chart provided by the supplier.

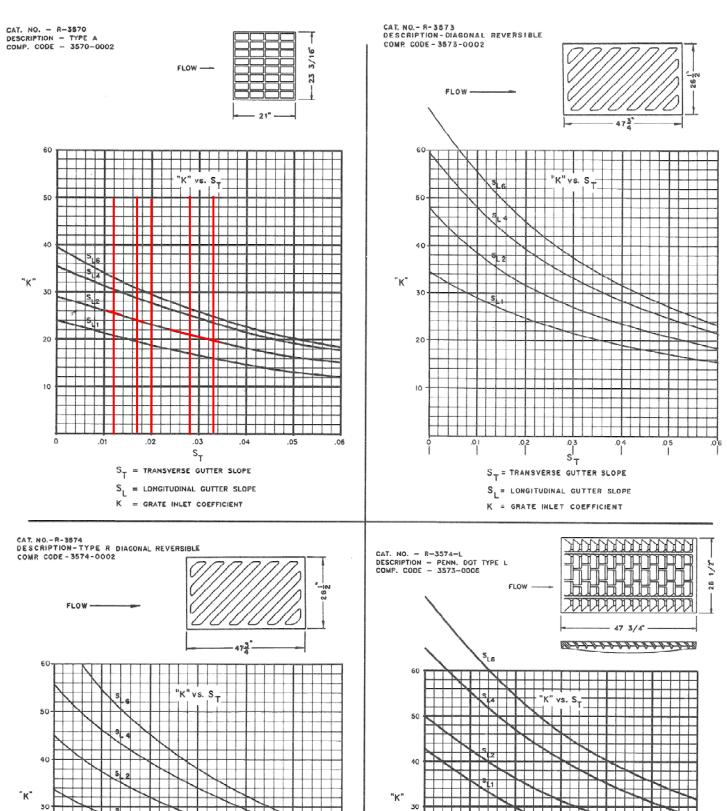
For catchbasins on grade, the Transverse Gutter Slope (slope along the road) was used in combination with the Longitudinal Gutter Stope (cross slope of the road) to determine the K-Value of the gutter. This was then used to calculate the capacity of each gutter on grade.

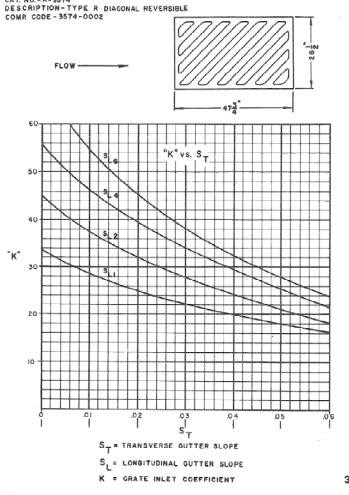
For the catchbasins in the vertical sags of the road, the orifice flow and the weir flow were both calculated; then the more conservative of these two numbers was used to determine the capacity of the grate.

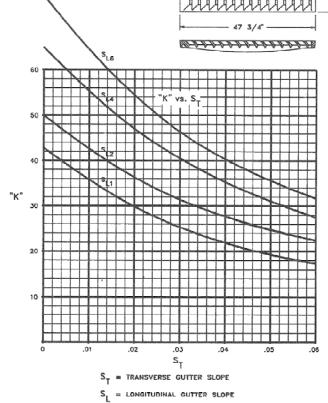
Several of the catchbasins were designated to utilize double grates. These will increase the flows and allow less ponding in the roadway during heavier storm events.

In section 7.2(A) of the Portsmouth Subdivision Rules and Regulations, the design storm frequency for storm sewers is the 10-year 24-hour storm event. For a more conservative approach, the catchbasins are configured to handle the 25-year storm event. A spreadsheet is provided showing the design flows versus the stormwater inflow to each basin.









= GRATE INLET COEFFICIENT

Project Name: Parson Woods Condominiu

Project Number: 47388.10

11' Roadway

Spread = 8 Ft Spread = 10

Depth at 0.24 Ft 0.28

Curb (D) = D=0.02\*Spread+1"

Grate - Neennea R-3570 - Type A

K= Based on Neen	Double Grate	
Open Area (A) =	2.4 SF	4.8
Peritmeter (P) =	7.4' FT'	10.9

Date: 9/8/2021

Ft

Ft

For Sag Curves - Use Weir Calculation -  $Q = 3.3* P * D^5/3$ For Non Sag Curves, Use the lesser of the Orifice (Q=0.6\*(A)\*(2\*32.12\*H)^(1/2)) or Weir (Q = K \* D(depth)^(5/3)) calculation.

Q<sub>calc</sub> - Calculate Maximum Inlet Flow Based on Grate

A - Open Area - Based on Manufacture's Specifications

P - Perimeter of Grate - Based on Manufacture's Specifications

D - Depth of Flow at Gutter

S<sub>T</sub> - Slope from Center Line to Curb (Tangental)

S<sub>L</sub> - Slope along roadway (Longitudinal)

	Double Grate	Q <sub>10</sub>	Q <sub>25</sub>	D	Contributing Subcatchment	Slope (S <sub>L</sub> ) or Sag *	K**	$Q_{calc}$
CB-01		0.6	1.1	0.28	PS-10	Sag	NA	3.6
CB-02		0.3	0.5	0.28	PS-11	Sag	NA	3.6
CB-05	Χ	2.1	3.1	0.28	PS-13	Sag	NA	5.3
CB-06		0.6	0.8	0.28	PS-15	Sag	NA	3.6
CB-07	Χ	1.7	2.4	0.28	PS-14B	2.8	21	5.0
CB-08	Χ	1.5	2.3	0.28	PS-14B	1.2	25	6.0
CB-09		1.2	1.6	0.28	PS-17	2.8	21	2.5
CB-10		1.1	1.5	0.24	PS-22	3.32	20	1.9
CB-11A		0.6	0.9	0.24	PS-16	3.32	20	1.9
CB-11B		1.4	1.4	0.24	PS-24A	2.0	23	2.2
CB-12		2.1	2.8	0.24	PS-23	Sag	NA	2.9
CB-13	Χ	3.1	4.3	0.24	PS-24B	Sag	NA	4.3
CB-14	Χ	2.9	4.2	0.24	PS-30	Sag	NA	4.3
CB-15	Χ	2.6	3.6	0.24	PS-29	Sag	NA	4.3
CB-16		1.1	1.5	0.24	PS-28	1.75	24	2.3
CB-17		1.1	1.4	0.24	PS-27	1.75	24	2.3
CB-18		1.2	1.5	0.24	PS-19	Sag	NA	2.9
CB-19		1.6	2.3	0.24	PS-18	Sag	NA	2.9
		E <sub>10</sub>	E <sub>25</sub>	E <sub>50</sub>				

			Behive Grates, Pond Situation -
37.2	37.7	39.4	Rim = 40.75
			Top of Ponding Area = 42.90
			Behive Grates, Pond Situation -
46.4	46.9	47.6	Rim = 48.50
			Top of Ponding Area = 49.50
	07.2		

 $<sup>^{*}</sup>$  Enter "Sag" if the CB is located at the Vertical Sag  $^{**}$  K - Based on Neenah Chart using  $L_{L}$  and  $L_{T}$ 

#### Post-Development Storm Inelt Calculations Type III 24-hr 10-Year Rainfall=5.62" Printed 9/8/2021

09-02-21\_47388-11\_Pre-Post-Drainage Prepared by {enter your company name here}
HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 1

CB-01	Subcatchment PS10: PS-10 Road Entrance	Runoff Area=18,388 sf 32.87% Impervious Runoff Depth>1.52" Flow Length=164' Tc=8.7 min CN=58 Runoff=0.6 cfs 2,332 cf
CB-02	Subcatchment PS11: PS-11 Road Entrance	Runoff Area=3,232 sf 78.99% Impervious Runoff Depth>4.05" Flow Length=131' Tc=5.0 min CN=86 Runoff=0.3 cfs 1,090 cf
CB-05	Subcatchment PS13: PS-13 Road	Runoff Area=31,258 sf 59.25% Impervious Runoff Depth>2.86" Flow Length=242' Tc=9.0 min CN=74 Runoff=2.1 cfs 7,459 cf
CB-08	Subcatchment PS14A: PS-14 Road	Runoff Area=24,151 sf 53.38% Impervious Runoff Depth>2.68" Flow Length=197' Tc=8.8 min CN=72 Runoff=1.5 cfs 5,396 cf
CB-07	Subcatchment PS14B: PS-14 Road	Runoff Area=22,525 sf 47.35% Impervious Runoff Depth>3.24" Flow Length=283' Tc=9.4 min CN=78 Runoff=1.7 cfs 6,082 cf
CB-06	Subcatchment PS15: PS-15 Road	Runoff Area=5,529 sf 78.57% Impervious Runoff Depth>3.94" Flow Length=207' Tc=5.0 min CN=85 Runoff=0.6 cfs 1,817 cf
CB-11A	Subcatchment PS16: PS-16 Road	Runoff Area=6,627 sf 55.82% Impervious Runoff Depth>3.64" Flow Length=177' Tc=5.0 min CN=82 Runoff=0.6 cfs 2,008 cf
CB-09	Subcatchment PS17: PS-17 Road	Runoff Area=12,439 sf 58.98% Impervious Runoff Depth>3.54" Flow Length=362' Tc=5.7 min CN=81 Runoff=1.2 cfs 3,666 cf
CB-19	Subcatchment PS18: PS-18 Road	Runoff Area=21,966 sf 41.08% Impervious Runoff Depth>3.14" Flow Length=290' Tc=10.5 min CN=77 Runoff=1.6 cfs 5,755 cf
CB-18	Subcatchment PS19: PS-19 Road	Runoff Area=10,861 sf 67.42% Impervious Runoff Depth>4.05" Flow Length=239' Tc=5.3 min CN=86 Runoff=1.2 cfs 3,663 cf
CB-10	Subcatchment PS22: PS-22 Road	Runoff Area=12,972 sf 53.89% Impervious Runoff Depth>3.53" Flow Length=215' Tc=9.5 min CN=81 Runoff=1.1 cfs 3,820 cf
CB-12	Subcatchment PS23: PS-23 Road Flow Length=333	Runoff Area=21,891 sf 55.57% Impervious Runoff Depth>3.64" ' Slope=0.0200 '/' Tc=6.1 min CN=82 Runoff=2.1 cfs 6,633 cf
CB-11B	Subcatchment PS24A: PS-24A Road	Runoff Area=16,638 sf 51.33% Impervious Runoff Depth>3.44" Flow Length=236' Tc=8.7 min CN=80 Runoff=1.4 cfs 4,763 cf
CB-13	Subcatchment PS24B: PS-24 Road	Runoff Area=39,059 sf 48.48% Impervious Runoff Depth>3.43" Flow Length=197' Tc=9.8 min CN=80 Runoff=3.1 cfs 11,180 cf
CB-17	Subcatchment PS27: PS-27 Road	Runoff Area=12,543 sf 56.40% Impervious Runoff Depth>3.63" Flow Length=378' Tc=10.1 min CN=82 Runoff=1.1 cfs 3,798 cf
CB-16	Subcatchment PS28: PS-28 Road	Runoff Area=13,299 sf 49.44% Impervious Runoff Depth>3.34" Flow Length=364' Tc=7.9 min CN=79 Runoff=1.1 cfs 3,700 cf

**09-02-21\_47388-11\_Pre-Post-Drainage**Prepared by {enter your company name here}

Post-Development Storm Inelt Calculations

Type III 24-hr 10-Year Rainfall=5.62"

Printed 9/8/2021

HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 2

CB-15 Subcatchment PS29: PS-29 Road Runoff Area=31,769 sf 53.29% Impervious Runoff Depth>3.53"

Flow Length=355' Tc=9.6 min CN=81 Runoff=2.6 cfs 9,355 cf

48.97% Pervious = 170,925 sf 51.03% Impervious = 178,121 sf

CB-14 **Subcatchment PS30: PS-30 Road**Runoff Area=43,899 sf 42.17% Impervious Runoff Depth>3.14"
Flow Length=446' Tc=13.0 min CN=77 Runoff=2.9 cfs 11,495 cf

Total Runoff Area = 349,046 sf Runoff Volume = 94,011 cf Average Runoff Depth = 3.23"

# Post-Development Storm Inelt Calculations Type III 24-hr 25-Year Rainfall=7.13" Printed 9/8/2021

09-02-21\_47388-11\_Pre-Post-Drainage

Prepared by {enter your company name here}
HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 3

CB-01	Subcatchment PS10: PS-10 Road Entrance	Runoff Area=18,388 sf 32.87% Impervious Runoff Depth>2.49" Flow Length=164' Tc=8.7 min CN=58 Runoff=1.1 cfs 3,821 cf
CB-02	Subcatchment PS11: PS-11 Road Entrance	Runoff Area=3,232 sf 78.99% Impervious Runoff Depth>5.49" Flow Length=131' Tc=5.0 min CN=86 Runoff=0.5 cfs 1,478 cf
CB-05	Subcatchment PS13: PS-13 Road	Runoff Area=31,258 sf 59.25% Impervious Runoff Depth>4.15" Flow Length=242' Tc=9.0 min CN=74 Runoff=3.1 cfs 10,809 cf
CB-08	Subcatchment PS14A: PS-14 Road	Runoff Area=24,151 sf 53.38% Impervious Runoff Depth>3.93" Flow Length=197' Tc=8.8 min CN=72 Runoff=2.3 cfs 7,918 cf
CB-07	Subcatchment PS14B: PS-14 Road	Runoff Area=22,525 sf 47.35% Impervious Runoff Depth>4.59" Flow Length=283' Tc=9.4 min CN=78 Runoff=2.4 cfs 8,609 cf
CB-06	Subcatchment PS15: PS-15 Road	Runoff Area=5,529 sf 78.57% Impervious Runoff Depth>5.37" Flow Length=207' Tc=5.0 min CN=85 Runoff=0.8 cfs 2,476 cf
CB-11A	Subcatchment PS16: PS-16 Road	Runoff Area=6,627 sf 55.82% Impervious Runoff Depth>5.04" Flow Length=177' Tc=5.0 min CN=82 Runoff=0.9 cfs 2,781 cf
CB-09	Subcatchment PS17: PS-17 Road	Runoff Area=12,439 sf 58.98% Impervious Runoff Depth>4.92" Flow Length=362' Tc=5.7 min CN=81 Runoff=1.6 cfs 5,103 cf
CB-19	Subcatchment PS18: PS-18 Road	Runoff Area=21,966 sf 41.08% Impervious Runoff Depth>4.48" Flow Length=290' Tc=10.5 min CN=77 Runoff=2.3 cfs 8,192 cf
CB-18	Subcatchment PS19: PS-19 Road	Runoff Area=10,861 sf 67.42% Impervious Runoff Depth>5.49" Flow Length=239' Tc=5.3 min CN=86 Runoff=1.5 cfs 4,967 cf
CB-10	Subcatchment PS22: PS-22 Road	Runoff Area=12,972 sf 53.89% Impervious Runoff Depth>4.92" Flow Length=215' Tc=9.5 min CN=81 Runoff=1.5 cfs 5,318 cf
CB-12	Subcatchment PS23: PS-23 Road Flow Length=333	Runoff Area=21,891 sf 55.57% Impervious Runoff Depth>5.03" 3' Slope=0.0200 '/' Tc=6.1 min CN=82 Runoff=2.8 cfs 9,184 cf
CB-11E	Subcatchment PS24A: PS-24A Road	Runoff Area=16,638 sf 51.33% Impervious Runoff Depth>4.81" Flow Length=236' Tc=8.7 min CN=80 Runoff=1.9 cfs 6,667 cf
CB-13	Subcatchment PS24B: PS-24 Road	Runoff Area=39,059 sf 48.48% Impervious Runoff Depth>4.81" Flow Length=197' Tc=9.8 min CN=80 Runoff=4.3 cfs 15,648 cf
CB-17	Subcatchment PS27: PS-27 Road	Runoff Area=12,543 sf 56.40% Impervious Runoff Depth>5.03" Flow Length=378' Tc=10.1 min CN=82 Runoff=1.4 cfs 5,258 cf
CB-16	Subcatchment PS28: PS-28 Road	Runoff Area=13,299 sf 49.44% Impervious Runoff Depth>4.70" Flow Length=364' Tc=7.9 min CN=79 Runoff=1.5 cfs 5,207 cf

Post-Development Storm Inelt Calculations

Type III 24-hr 25-Year Rainfall=7.13"

Printed 0/8/2021

Prepared by {enter your company name here}

Printed 9/8/2021

HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 4

CB-15 Subcatchment PS29: PS-29 Road Runoff Area=31,769 sf 53.2

Runoff Area=31,769 sf 53.29% Impervious Runoff Depth>4.92"

Flow Length=355' Tc=9.6 min CN=81 Runoff=3.6 cfs 13,023 cf

CB-14 Subcatchment PS30: PS-30 Road

Runoff Area=43,899 sf 42.17% Impervious Runoff Depth>4.47"
Flow Length=446' Tc=13.0 min CN=77 Runoff=4.2 cfs 16,364 cf

Total Runoff Area = 349,046 sf Runoff Volume = 132,819 cf Average Runoff Depth = 4.57" 48.97% Pervious = 170,925 sf 51.03% Impervious = 178,121 sf

#### Post-Development Storm Inelt Calculations Type III 24-hr 50-Year Rainfall=8.54" Printed 9/8/2021

09-02-21\_47388-11\_Pre-Post-Drainage Prepared by {enter your company name here}
HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 5

CB-01	Subcatchment PS10: PS-10 Road Entrance	Runoff Area=18,388 sf 32.87% Impervious Runoff Depth>3.50" Flow Length=164' Tc=8.7 min CN=58 Runoff=1.5 cfs 5,368 cf
CB-02	Subcatchment PS11: PS-11 Road Entrance	Runoff Area=3,232 sf 78.99% Impervious Runoff Depth>6.85" Flow Length=131' Tc=5.0 min CN=86 Runoff=0.6 cfs 1,845 cf
CB-05	Subcatchment PS13: PS-13 Road	Runoff Area=31,258 sf 59.25% Impervious Runoff Depth>5.40" Flow Length=242' Tc=9.0 min CN=74 Runoff=4.0 cfs 14,076 cf
CB-08	Subcatchment PS14A: PS-14 Road	Runoff Area=24,151 sf 53.38% Impervious Runoff Depth>5.16" Flow Length=197' Tc=8.8 min CN=72 Runoff=3.0 cfs 10,393 cf
CB-07	Subcatchment PS14B: PS-14 Road	Runoff Area=22,525 sf 47.35% Impervious Runoff Depth>5.88" Flow Length=283' Tc=9.4 min CN=78 Runoff=3.1 cfs 11,045 cf
CB-06	Subcatchment PS15: PS-15 Road	Runoff Area=5,529 sf 78.57% Impervious Runoff Depth>6.73" Flow Length=207' Tc=5.0 min CN=85 Runoff=1.0 cfs 3,102 cf
CB-11A	Subcatchment PS16: PS-16 Road	Runoff Area=6,627 sf 55.82% Impervious Runoff Depth>6.37" Flow Length=177' Tc=5.0 min CN=82 Runoff=1.1 cfs 3,518 cf
CB-09	Subcatchment PS17: PS-17 Road	Runoff Area=12,439 sf 58.98% Impervious Runoff Depth>6.25" Flow Length=362' Tc=5.7 min CN=81 Runoff=2.0 cfs 6,478 cf
CB-19	Subcatchment PS18: PS-18 Road	Runoff Area=21,966 sf 41.08% Impervious Runoff Depth>5.76" Flow Length=290' Tc=10.5 min CN=77 Runoff=2.9 cfs 10,548 cf
CB-18	Subcatchment PS19: PS-19 Road	Runoff Area=10,861 sf 67.42% Impervious Runoff Depth>6.85" Flow Length=239' Tc=5.3 min CN=86 Runoff=1.9 cfs 6,201 cf
CB-10	Subcatchment PS22: PS-22 Road	Runoff Area=12,972 sf 53.89% Impervious Runoff Depth>6.24" Flow Length=215' Tc=9.5 min CN=81 Runoff=1.9 cfs 6,751 cf
CB-12	Subcatchment PS23: PS-23 Road Flow Length=333'	Runoff Area=21,891 sf 55.57% Impervious Runoff Depth>6.37" Slope=0.0200 '/' Tc=6.1 min CN=82 Runoff=3.6 cfs 11,619 cf
CB-11B	Subcatchment PS24A: PS-24A Road	Runoff Area=16,638 sf 51.33% Impervious Runoff Depth>6.13" Flow Length=236' Tc=8.7 min CN=80 Runoff=2.4 cfs 8,493 cf
CB-13	Subcatchment PS24B: PS-24 Road	Runoff Area=39,059 sf 48.48% Impervious Runoff Depth>6.12" Flow Length=197' Tc=9.8 min CN=80 Runoff=5.5 cfs 19,934 cf
CB-17	Subcatchment PS27: PS-27 Road	Runoff Area=12,543 sf 56.40% Impervious Runoff Depth>6.36" Flow Length=378' Tc=10.1 min CN=82 Runoff=1.8 cfs 6,653 cf
CB-16	Subcatchment PS28: PS-28 Road	Runoff Area=13,299 sf 49.44% Impervious Runoff Depth>6.01" Flow Length=364' Tc=7.9 min CN=79 Runoff=2.0 cfs 6,656 cf

Post-Development Storm Inelt Calculations

Type III 24-hr 50-Year Rainfall=8.54"

Printed 9/8/2021

Prepared by {enter your company name here}
HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 6

CB-15 **Subcatchment PS29: PS-29 Road**Runoff Area=31,769 sf 53.29% Impervious Runoff Depth>6.24"
Flow Length=355' Tc=9.6 min CN=81 Runoff=4.6 cfs 16,533 cf

CB-14 Subcatchment PS30: PS-30 Road Runoff Area=43,899 sf 42.17% Impervious Runoff Depth>5.76"

Flow Length=446' Tc=13.0 min CN=77 Runoff=5.3 cfs 21,071 cf

Total Runoff Area = 349,046 sf Runoff Volume = 170,283 cf Average Runoff Depth = 5.85" 48.97% Pervious = 170,925 sf 51.03% Impervious = 178,121 sf

## **MEMO**

#### TFMoran, Inc.

To: Juliet Walker

From: Jack McTigue

CC: Rick Green, Michael Green and Jenna Green

Date: 9/8/21

Re: Pipe Sizing

In response to comment #3 of your items to address prior to Planning Board review, we off the following:

The pipes in this project were modeled as culvert outlets from ponds. This allows for a more complete analysis of flow conditions, including inlet loss, headwater, and tailwater effects. For clarifications, we have provided the manning calculations for each of the pipes flowing full (see the attached work sheet). These results were compared to the HydroCAD analysis of the peak flows coming from each of the pipes.

Items to note: the inflow coming to the BMP will be higher than the outflows which shows that the Best Management Practices (BMP's) are working correctly, attenuating the stormwater flows. In section 7.2(A) of the Portsmouth Subdivision Rules and Regulations, the design storm frequency for storm sewers is the 10-year 24-hour storm event. All the pipes clearly show that this criterion was met in the following spreadsheet.

The 25-year and 50-year 24-hour storm events were also analyzed. With a few exceptions, the calculations (even when the flows were greater than the calculated Manning flow) show the outflow of the pipes stay the same as the inflow. The drop inlets also showed some decrease in outflow; however, the water levels never exceeded the rim of the structures, even in the 50-year storm event (rim elevations for these structures are noted on the HydroCAD calculations for grate capacities).



Project Name: Parson Woods Condominium Date: 9/8/2021

Project Number: 47388.10

2/3)SQRT(S	S)A	(Manning	g Equation	n)					
D(in)	S(ft/ft)	n	Α	Р	R	$Q_{full}$	Q <sub>10</sub>	Q <sub>25</sub>	Q <sub>50</sub>
18	0.0077	0.013	1.77	4.71	0.38	9.2	1.4	7.2	13.9
18	0.0463	0.013	1.77	4.71	0.38	22.7	0.2	0.5	0.9
12	0.0075	0.013	0.79	3.14	0.25	3.1	0.6	1.1	1.5
12	0.0050	0.013	0.79	3.14	0.25	2.5	0.9	1.5	2.0
12	0.0075	0.013	0.79	3.14	0.25	3.1	2.1	3.1	4.0
18	0.0050	0.013	1.77	4.71	0.38	7.4	2.6	3.8	4.9
15	0.0091	0.013	1.23	3.93	0.31	6.2	3.3	4.7	6.9
12	0.0139	0.013	0.79	3.14	0.25	4.2	1.7	2.4	3.1
24	0.0063	0.013	3.14	6.28	0.50	18.0	7.0	10.0	12.9
15	0.0063	0.013	1.23	3.93	0.31	5.1	1.1	1.5	1.9
15	0.0069	0.013	1.23	3.93	0.31	5.4	1.7	2.3	2.9
12	0.0182	0.013	0.79	3.14	0.25	4.8	1.4	1.9	2.4
24	0.0058	0.013	3.14	6.28	0.50	17.3	8.1	11.2	14.1
18	0.0156	0.013	1.77	4.71	0.38	13.2	3.1	4.3	5.5
18	0.0094	0.013	1.77	4.71	0.38	10.2	2.9	4.2	5.3
18	0.0057	0.013	1.77	4.71	0.38	8.0	5.5	7.7	9.8
15	0.0125	0.013	1.23	3.93	0.31	7.2	1.1	1.5	2.0
18	0.0840	0.013	1.77	4.71	0.38	30.5	2.1	3.0	3.7
15	0.0062	0.013	1.23	3.93	0.31	5.1	1.2	1.5	1.9
24	0.0053	0.013	3.14	6.28	0.50	16.5	1.2	6.5	8.2
15	0.0052	0.013	1.23	3.93	0.31	4.7	4.7	8.7	14.2
24	0.0055	0.013	3.14	6.28	0.50	16.8	3.7	7.2	12.2
18	0.0172	0.013	1.77	4.71	0.38	13.8	2.9	7.9	9.1
15	0.0190	0.013	1.23	3.93	0.31	8.9	4.4	7.6	9.1
18	0.0058	0.013	1.77	4.71	0.38	8.0	2.6	3.8	4.9
18	0.0057	0.013	1.77	4.71	0.38	8.0	2.6	3.8	4.9
24	0.0059	0.013	3.14	6.28	0.50	17.4	5.9	8.5	11.0
18	0.0056	0.013	1.77	4.71	0.38	7.9	1.7	2.3	2.9
18	0.0052	0.013	1.77	4.71	0.38	7.6	3.0	4.2	5.3
24	0.0061	0.013	3.14	6.28	0.50	17.7	8.1	11.2	14.1
24	0.0068	0.013	3.14	6.28	0.50	18.7	8.1	11.2	14.1
24	0.0058	0.013	3.14	6.28	0.50	17.3	8.1	11.2	14.1
30	0.0054	0.013	4.91	7.85	0.63	30.2	13.3	18.5	23.3
30	0.0068	0.013	4.91	7.85	0.63	33.9	13.3	18.5	23.3
24	0.0052	0.013	3.14	6.28	0.50	16.4	5.5	7.7	9.8
24	0.0052	0.013	3.14	6.28	0.50	16.4	1.5	7.6	14.6
24	0.0076	0.013	3.14	6.28	0.50	19.8	2.9	7.2	12.2
24	0.0051	0.013	3.14	6.28	0.50	16.2	4.7	6.5	8.2
24	0.0257	0.013	3.14	6.28	0.50	36.4	2.3	7.6	8.9
	D(in)  18  18  12  12  12  18  15  12  24  15  15  12  24  18  18  15  18  15  24  18  15  24  18  15  24  24  24  30  30  24  24  24  24  24	18       0.0077         18       0.0463         12       0.0075         12       0.0050         12       0.0075         18       0.0050         15       0.0091         12       0.0139         24       0.0063         15       0.0069         12       0.0182         24       0.0058         18       0.0156         18       0.0054         18       0.0057         15       0.0125         18       0.0840         15       0.0062         24       0.0053         15       0.0052         24       0.0055         18       0.0072         18       0.0058         18       0.0058         18       0.0059         18       0.0058         18       0.0059         18       0.0056         18       0.0052         24       0.0068         24       0.0058         30       0.0068         24       0.0052         24       0.0052         24	D(in) S(ft/ft) n  18 0.0077 0.013  18 0.0463 0.013  12 0.0075 0.013  12 0.0050 0.013  12 0.0075 0.013  18 0.0050 0.013  15 0.0091 0.013  15 0.0063 0.013  15 0.0069 0.013  15 0.0069 0.013  15 0.0069 0.013  16 0.0182 0.013  17 0.0182 0.013  18 0.0156 0.013  18 0.0057 0.013  18 0.0057 0.013  18 0.0057 0.013  18 0.0057 0.013  18 0.0057 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  18 0.0050 0.013  24 0.0050 0.013	D(in) S(ft/ft) n A  18 0.0077 0.013 1.77  18 0.0463 0.013 1.77  12 0.0075 0.013 0.79  12 0.0075 0.013 0.79  12 0.0075 0.013 0.79  18 0.0050 0.013 1.77  15 0.0091 0.013 1.23  12 0.0139 0.013 0.79  24 0.0063 0.013 1.23  15 0.0069 0.013 1.23  12 0.0182 0.013 0.79  24 0.0058 0.013 1.77  18 0.0057 0.013 1.77  18 0.0057 0.013 1.77  18 0.0057 0.013 1.77  18 0.0057 0.013 1.77  18 0.0057 0.013 1.77  15 0.0125 0.013 1.23  18 0.0840 0.013 1.77  15 0.0062 0.013 1.23  24 0.0053 0.013 1.23  24 0.0055 0.013 1.23  24 0.0055 0.013 1.77  15 0.0062 0.013 1.77  15 0.0052 0.013 1.23  24 0.0055 0.013 1.77  15 0.0190 0.013 1.77  15 0.0190 0.013 1.77  18 0.0057 0.013 1.77  18 0.0059 0.013 1.77  18 0.0050 0.013 1.77  18 0.0050 0.013 1.77  18 0.0050 0.013 1.77  18 0.0050 0.013 1.77  24 0.0051 0.013 3.14  24 0.0058 0.013 1.77  24 0.0059 0.013 3.14  24 0.0059 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0050 0.013 3.14  24 0.0051 0.013 3.14	D(in) S(ft/ft) n A P  18 0.0077 0.013 1.77 4.71  18 0.0463 0.013 1.77 4.71  12 0.0075 0.013 0.79 3.14  12 0.0050 0.013 0.79 3.14  12 0.0075 0.013 0.79 3.14  18 0.0050 0.013 1.77 4.71  15 0.0091 0.013 1.23 3.93  12 0.0139 0.013 0.79 3.14  24 0.0063 0.013 1.23 3.93  15 0.0069 0.013 1.23 3.93  12 0.0182 0.013 0.79 3.14  24 0.0058 0.013 1.23 3.93  15 0.0069 0.013 1.23 3.93  16 0.0058 0.013 1.77 4.71  18 0.0056 0.013 1.77 4.71  18 0.0057 0.013 1.77 4.71  18 0.0057 0.013 1.77 4.71  18 0.0062 0.013 1.77 4.71  15 0.0125 0.013 1.77 4.71  15 0.0062 0.013 1.23 3.93  18 0.0840 0.013 1.77 4.71  15 0.0062 0.013 1.23 3.93  24 0.0053 0.013 3.14 6.28  15 0.0055 0.013 1.23 3.93  24 0.0055 0.013 1.23 3.93  24 0.0055 0.013 1.23 3.93  24 0.0055 0.013 1.23 3.93  24 0.0055 0.013 1.23 3.93  24 0.0055 0.013 1.77 4.71  15 0.0190 0.013 1.77 4.71  18 0.0057 0.013 1.77 4.71  18 0.0058 0.013 1.77 4.71  18 0.0059 0.013 1.23 3.93  18 0.0050 0.013 1.77 4.71	D(in)         S(ft/ft)         n         A         P         R           18         0.0077         0.013         1.77         4.71         0.38           18         0.0463         0.013         1.77         4.71         0.38           12         0.0075         0.013         0.79         3.14         0.25           12         0.0050         0.013         0.79         3.14         0.25           12         0.0075         0.013         0.79         3.14         0.25           18         0.0050         0.013         1.77         4.71         0.38           15         0.0091         0.013         1.23         3.93         0.31           12         0.0139         0.013         0.79         3.14         0.25           24         0.0063         0.013         3.14         6.28         0.50           15         0.0063         0.013         1.23         3.93         0.31           15         0.0063         0.013         1.23         3.93         0.31           15         0.0069         0.013         1.23         3.93         0.31           16         0.0182         0.013	D(in)         S(ft/ft)         n         A         P         R         Q <sub>full</sub> 18         0.0077         0.013         1.77         4.71         0.38         9.2           18         0.0463         0.013         1.77         4.71         0.38         22.7           12         0.0075         0.013         0.79         3.14         0.25         3.1           12         0.0075         0.013         0.79         3.14         0.25         2.5           12         0.0075         0.013         1.77         4.71         0.38         7.4           18         0.0050         0.013         1.77         4.71         0.38         7.4           15         0.0091         0.013         1.23         3.93         0.31         6.2           24         0.0139         0.013         0.79         3.14         0.25         4.2           24         0.0063         0.013         1.23         3.93         0.31         5.1           15         0.0063         0.013         1.23         3.93         0.31         5.1           15         0.0069         0.013         1.23         3.93         0.31	D(in) S(ft/ft) n A P R Q <sub>full</sub> Q <sub>10</sub> 18 0.0077 0.013 1.77 4.71 0.38 9.2 1.4  18 0.0463 0.013 1.77 4.71 0.38 22.7 0.2  12 0.0075 0.013 0.79 3.14 0.25 3.1 0.6  12 0.0050 0.013 0.79 3.14 0.25 3.1 2.1  18 0.0050 0.013 1.77 4.71 0.38 7.4 2.6  15 0.0091 0.013 1.23 3.93 0.31 6.2 3.3  12 0.0139 0.013 0.79 3.14 0.25 4.2 1.7  24 0.0063 0.013 1.23 3.93 0.31 5.1 1.1  15 0.0069 0.013 1.23 3.93 0.31 5.1 1.1  15 0.0069 0.013 1.23 3.93 0.31 5.4 1.7  12 0.0182 0.013 0.79 3.14 0.25 4.2 1.7  18 0.0058 0.013 1.77 4.71 0.38 7.4  24 0.0058 0.013 1.77 4.71 0.38 13.2 3.1  15 0.0069 0.013 1.23 3.93 0.31 5.1 1.1  15 0.0069 0.013 1.23 3.93 0.31 5.4 1.7  12 0.0182 0.013 0.79 3.14 0.25 4.8 1.4  24 0.0058 0.013 1.77 4.71 0.38 13.2 3.1  18 0.0056 0.013 1.77 4.71 0.38 13.2 3.1  18 0.0094 0.013 1.77 4.71 0.38 10.2 2.9  18 0.0057 0.013 1.77 4.71 0.38 13.2 3.1  18 0.00840 0.013 1.77 4.71 0.38 10.2 2.9  18 0.0840 0.013 1.77 4.71 0.38 30.5 2.1  15 0.0062 0.013 1.23 3.93 0.31 7.2 1.1  18 0.0840 0.013 1.77 4.71 0.38 30.5 2.1  15 0.0052 0.013 1.23 3.93 0.31 7.2 1.1  18 0.0840 0.013 1.77 4.71 0.38 30.5 2.1  15 0.0052 0.013 1.23 3.93 0.31 7.2 1.1  18 0.0850 0.013 1.77 4.71 0.38 30.5 2.1  15 0.0052 0.013 1.23 3.93 0.31 5.1 1.2  24 0.0055 0.013 1.77 4.71 0.38 30.5 2.1  15 0.0052 0.013 1.77 4.71 0.38 30.5 2.1  15 0.0052 0.013 1.77 4.71 0.38 30.5 2.1  15 0.0052 0.013 1.77 4.71 0.38 30.5 2.1  15 0.0052 0.013 1.77 4.71 0.38 30.5 2.1  15 0.0052 0.013 1.77 4.71 0.38 30.5 2.1  15 0.0058 0.013 3.14 6.28 0.50 16.5 1.2  24 0.0055 0.013 3.14 6.28 0.50 17.4 5.9  18 0.0057 0.013 1.77 4.71 0.38 8.0 2.6  24 0.0058 0.013 1.77 4.71 0.38 8.0 2.6  24 0.0058 0.013 3.14 6.28 0.50 17.4 5.9  18 0.0052 0.013 1.77 4.71 0.38 8.0 2.6  24 0.0058 0.013 3.14 6.28 0.50 16.5 1.2  24 0.0058 0.013 3.14 6.28 0.50 17.4 5.9  18 0.0057 0.013 1.77 4.71 0.38 8.0 2.6  24 0.0058 0.013 3.14 6.28 0.50 17.3 8.1  30 0.0054 0.013 3.14 6.28 0.50 17.3 8.1  30 0.0056 0.013 3.14 6.28 0.50 17.3 8.1  30 0.0056 0.013 3.14 6.28 0.50 17.3 8.1  30 0.0056 0.013 3.14 6.28 0.50 16.4 5.5  24 0.0056 0.013 3.14 6.2	D(in)   S(ft/ft)   n

**09-02-21\_47388-11\_Pre-Post-Drainage**Prepared by {enter your company name here}
HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Printed 9/8/2021 Page 1

#### **Pipe Listing (selected nodes)**

Line#	Node	In-Invert	Out-Invert	Length	Slope	n	Width	Diam/Height	Inside-Fill
	Number	(feet)	(feet)	(feet)	(ft/ft)		(inches)	(inches)	(inches)
1	BIO1	32.65	32.35	39.0	0.0077	0.013	0.0	18.0	0.0
2	BIO2	37.00	34.50	54.0	0.0463	0.013	0.0	18.0	0.0
3	CB01	36.65	36.50	20.0	0.0075	0.013	0.0	12.0	0.0
4	CB02	36.40	36.10	60.0	0.0050	0.013	0.0	12.0	0.0
5	CB05	38.05	37.90	20.0	0.0075	0.013	0.0	12.0	0.0
6	CB06	37.50	36.60	180.0	0.0050	0.013	0.0	18.0	0.0
7	CB07	38.30	38.10	22.0	0.0091	0.013	0.0	15.0	0.0
8	CB08	40.15	38.40	126.0	0.0139	0.013	0.0	12.0	0.0
9	CB09	35.00	33.95	167.0	0.0063	0.013	0.0	24.0	0.0
10	CB10	45.10	45.00	16.0	0.0063	0.013	0.0	15.0	0.0
11	CB11A	44.90	43.45	209.0	0.0069	0.013	0.0	15.0	0.0
12	CB11B	44.40	44.20	11.0	0.0182	0.013	0.0	12.0	0.0
13	CB12	41.60	41.00	104.0	0.0058	0.013	0.0	24.0	0.0
14	CB13	42.85	42.60	16.0	0.0156	0.013	0.0	18.0	0.0
15	CB14	40.70	40.55	16.0	0.0094	0.013	0.0	18.0	0.0
16	CB15	40.45	40.05	70.0	0.0057	0.013	0.0	18.0	0.0
17	CB16	36.80	36.60	16.0	0.0125	0.013	0.0	15.0	0.0
18	CB17	36.40	34.50	225.0	0.0084	0.013	0.0	18.0	0.0
19	CB18	34.80	34.70	16.0	0.0062	0.013	0.0	15.0	0.0
20	CB19	34.10	33.70	76.0	0.0053	0.013	0.0	24.0	0.0
21	DI01	36.40	35.70	139.0	0.0050	0.013	0.0	15.0	0.0
22	DI02	45.21	44.31	165.0	0.0055	0.013	0.0	24.0	0.0
23	GW01	34.40	33.97	25.0	0.0172	0.013	0.0	18.0	0.0
24	INF1	41.00	37.40	189.0	0.0190	0.013	0.0	15.0	0.0
25	MH01a	36.50	36.20	52.0	0.0058	0.013	0.0	18.0	0.0
26	MH01b	36.10	35.80	53.0	0.0057	0.013	0.0	18.0	0.0
27	MH01C	35.40	35.10	51.0	0.0059	0.013	0.0	24.0	0.0
28	MH02	43.20	42.65	99.0	0.0056	0.013	0.0	18.0	0.0
29	MH03	42.55	42.00	106.0	0.0052	0.013	0.0	18.0	0.0
30	MH04	40.90	40.40	82.0	0.0061	0.013	0.0	24.0	0.0
31	MH05	40.30	39.75		0.0068		0.0	24.0	0.0
32	MH06	39.65	38.90	129.0	0.0058	0.013	0.0	24.0	0.0
33	MH07	38.50	36.95	285.0	0.0054	0.013	0.0	30.0	0.0
34	MH08	36.85	35.65	176.0	0.0068	0.013	0.0	30.0	0.0
35	MH09	39.65	38.90	143.0	0.0052	0.013	0.0	24.0	0.0
36	MH10	32.15	31.00	220.0	0.0052	0.013	0.0	24.0	0.0
37	MH11	45.10	43.75	178.0	0.0076	0.013	0.0	24.0	0.0
38	MH12	33.60	33.37	45.0	0.0051	0.013	0.0	24.0	0.0
39	MH13	37.30	33.50	148.0	0.0257	0.013	0.0	24.0	0.0

Prepared by {enter your company name here}
HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 2

Pond BIO1: Bioretention Area #	Peak Elev=37.75' Storage=35,119 cf Inflow=16.4 cfs 56,532 cf Primary=1.4 cfs 22,848 cf Secondary=0.0 cfs 0 cf Outflow=1.4 cfs 22,848 cf
Pond BIO2: Bioretention Area #	
Pond BiO2: Bioretention Area #	Primary=0.2 cfs 4,906 cf Secondary=0.0 cfs 0 cf Outflow=0.2 cfs 4,906 cf
Pond CB01: Catch Basin 01	Peak Elev=37.15' Inflow=0.6 cfs 2,332 cf Primary=0.6 cfs 2,332 cf Secondary=0.0 cfs 0 cf Outflow=0.6 cfs 2,332 cf
Pond CB02: Catch Basin 02	Peak Elev=36.98' Inflow=0.9 cfs 3,422 cf Primary=0.9 cfs 3,422 cf Secondary=0.0 cfs 0 cf Outflow=0.9 cfs 3,422 cf
Pond CB05: Catch Basin 05	Peak Elev=39.00' Inflow=2.1 cfs 7,459 cf 12.0" Round Culvert n=0.013 L=20.0' S=0.0075 '/' Outflow=2.1 cfs 7,459 cf
Pond CB06: Catch Basin 04	Peak Elev=38.40' Inflow=2.6 cfs 9,276 cf Primary=2.6 cfs 9,276 cf Secondary=0.0 cfs 0 cf Outflow=2.6 cfs 9,276 cf
Pond CB07: Catch Basin 07	Peak Elev=39.37' Inflow=3.3 cfs 11,478 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0091 '/' Outflow=3.3 cfs 11,478 cf
Pond CB08: Catch Basin 08	Peak Elev=40.86' (nflow=1.7 cfs) 6,082 cf 12.0" Round Culvert n=0.013 L=126.0' S=0.0139 '/' Outflow=1.7 cfs 6,082 cf
Pond CB09: Catch Basin 09	Peak Elev=37.75' Inflow=7.0 cfs 24,420 cf 4.0" Round Culvert n=0.013 L=167.0' S=0.0063 '/' Outflow=7.0 cfs 24,419 cf
Pond CB10: Catch Basin 10	Peak Elev=45.74' Inflow=1.1 cfs 3,820 cf 15.0" Round Culvert n=0.013 L=16.0' S=0.0063 '/' Outflow=1.1 cfs 3,820 cf
Pond CB11A: Catch Basin 11A	Peak Elev=45.56' Inflow=1.7 cfs 5,829 cf 15.0" Round Culvert n=0.013 L=209.0' S=0.0069 '/' Outflow=1.7 cfs 5,829 cf
Pond CB11B: Catch Basin 11B	Peak Elev=45.06' Inflow=1.4 cfs 4,763 cf 12.0" Round Culvert n=0.013 L=11.0' S=0.0182'/' Outflow=1.4 cfs 4,763 cf
Pond CB12: Catch Basin 12	Peak Elev=43.18' Inflow=8.1 cfs 28,405 cf 4.0" Round Culvert n=0.013 L=104.0' S=0.0058'/' Outflow=8.1 cfs 28,405 cf
Pond CB13: Catch Basin 13	Peak Elev=43.74' Inflow=3.1 cfs 11,180 cf 18.0" Round Culvert n=0.013 L=16.0' S=0.0156'/' Outflow=3.1 cfs 11,180 cf
Pond CB14: Catch Basin 14	Peak Elev=41.97' Inflow=2.9 cfs 11,495 cf 18.0" Round Culvert n=0.013 L=16.0' S=0.0094 '/' Outflow=2.9 cfs 11,495 cf
Pond CB15: Catch Basin 15	Peak Elev=41.80' Inflow=5.5 cfs 20,850 cf 18.0" Round Culvert n=0.013 L=70.0' S=0.0057 '/' Outflow=5.5 cfs 20,850 cf

09-02-21\_47388-11\_Pre-Post-DrainageType III 24-hr 10Prepared by {enter your company name here}HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 3

Printed 9/8/2021

Pond CB16: Catch Basin 16	Peak Elev=37.75' Inflow=1.1 cfs 3,700 cf Primary=1.1 cfs 3,699 cf Secondary=0.0 cfs 0 cf Outflow=1.1 cfs 3,699 cf
Pond CB17: Catch Basin 17	Peak Elev=37.75' Inflow=2.1 cfs 7,497 cf 18.0" Round Culvert n=0.013 L=225.0' S=0.0084 '/' Outflow=2.1 cfs 7,497 cf
Pond CB18: Catch Basin 18	Peak Elev=37.75' Inflow=1.2 cfs 3,663 cf 15.0" Round Culvert n=0.013 L=16.0' S=0.0062 '/' Outflow=1.2 cfs 3,659 cf
Pond CB19: Catch Basin 19	Peak Elev=37.75' Inflow=4.7 cfs 16,911 cf 24.0" Round Culvert n=0.013 L=76.0' S=0.0053 '/' Outflow=4.7 cfs 16,911 cf
Pond DI01: DI-01 DROP INLET	RIM =40.74 Peak Elev=37.16' Storage=3 cf Inflow=3.7 cfs 20,895 cf Primary=3.7 cfs 20,895 cf Secondary=0.0 cfs 0 cf Outflow=3.7 cfs 20,895 cf
Pond DI02: Drop Inlet #2	RIM =48.77 Peak Elev=46.40' Storage=0 cf Inflow=2.9 cfs 23,224 cf Primary=2.9 cfs 23,224 cf Secondary=0.0 cfs 0 cf Outflow=2.9 cfs 23,224 cf
Pond GW01: Gravel Wetland #	Peak Elev=37.18' Storage=26,716 cf Inflow=14.1 cfs 57,348 cf Primary=4.4 cfs 35,533 cf Secondary=0.0 cfs 0 cf Outflow=4.4 cfs 35,533 cf
Pond INF1: Bioretention Area Discarded=1.1 cfs 28,383 c	#2 Peak Elev=44.23' Storage=5,139 cf Inflow=4.0 cfs 34,337 cf Primary=2.3 cfs 5,692 cf Secondary=0.0 cfs 0 cf Outflow=3.4 cfs 34,075 cf
Pond MH01a: Manhole 01a	Peak Elev=37.76' Inflow=2.6 cfs 9,276 cf 18.0" Round Culvert n=0.013 L=52.0' S=0.0058 '/' Outflow=2.6 cfs 9,276 cf
Pond MH01b: Manhole 01b	Peak Elev=37.76' Inflow=2.6 cfs 9,276 cf 18.0" Round Culvert n=0.013 L=53.0' S=0.0057 '/' Outflow=2.6 cfs 9,276 cf
Pond MH01C: Manhole 01c	Peak Elev=37.76' Inflow=5.9 cfs 20,754 cf 24.0" Round Culvert n=0.013 L=51.0' S=0.0059 '/' Outflow=5.9 cfs 20,754 cf
Pond MH02: Manhole 02	Peak Elev=43.99' Inflow=1.7 cfs 5,829 cf 18.0" Round Culvert n=0.013 L=99.0' S=0.0056 '/' Outflow=1.7 cfs 5,829 cf
Pond MH03: Manhole 03	Peak Elev=43.64' Inflow=3.0 cfs 10,592 cf 18.0" Round Culvert n=0.013 L=106.0' S=0.0052'/' Outflow=3.0 cfs 10,592 cf
Pond MH04: Manhole 04	Peak Elev=42.47' Inflow=8.1 cfs 28,405 cf 24.0" Round Culvert n=0.013 L=82.0' S=0.0061 '/' Outflow=8.1 cfs 28,405 cf
Pond MH05: Manhole 05	Peak Elev=41.83' Inflow=8.1 cfs 28,405 cf 24.0" Round Culvert n=0.013 L=81.0' S=0.0068 '/' Outflow=8.1 cfs 28,405 cf
Pond MH06: Manhole 06	Peak Elev=41.14' Inflow=8.1 cfs 28,405 cf 24.0" Round Culvert n=0.013 L=129.0' S=0.0058 '/' Outflow=8.1 cfs 28,405 cf
Pond MH07: Manhole 07	Peak Elev=40.21' Inflow=13.3 cfs 49,255 cf 0.0" Round Culvert n=0.013 L=285.0' S=0.0054'/ Outflow=13.3 cfs 49,255 cf

Post-Development Storm Pipe Sizing

09-02-21\_47388-11\_Pre-Post-Drainage

Type III 24-hr 10-Year Rainfall=5.62"

Prepared by {enter your company name here}

Printed 9/8/2021

HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 4

Pond MH08: Manhole 08 Peak Elev=38.45' Inflow=13.3 cfs 49,255 cf

30.0" Round Culvert n=0.013 L=176.0' S=0.0068 '/' Outflow=13.3 cfs 49,255 cf

Pond MH09: Manhole 09 Peak Elev=40.92' Inflow=5.5 cfs 20,850 cf

24.0" Round Culvert n=0.013 L=143.0' S=0.0052 '/' Outflow=5.5 cfs 20,850 cf

Pond MH10: Manhole 10 Peak Elev=32.54' Inflow=1.5 cfs 27,753 cf

24.0" Round Culvert x 2.00 n=0.013 L=220.0' S=0.0052 '/' Outflow=1.5 cfs 27,753 cf

Pond MH11: Manhole 11 Peak Elev=45.83' Inflow=2.9 cfs 23,224 cf

24.0" Round Culvert n=0.013 L=178.0' S=0.0076 '/' Outflow=2.9 cfs 23,224 cf

Pond MH12: Manhole 12 Peak Elev=37.75' Inflow=4.7 cfs 16,911 cf

24.0" Round Culvert x 2.00 n=0.013 L=45.0' S=0.0051 '/' Outflow=4.7 cfs 16,898 cf

Pond MH13: Manhole 13 Peak Elev=37.94' Inflow=2.3 cfs 5,692 cf

24.0" Round Culvert n=0.013 L=148.0' S=0.0257 '/' Outflow=2.3 cfs 5,692 cf

Prepared by {enter your company name here}
HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 5

<b>3</b> , .	3 , ,
Pond BIO1: Bioretention Area #	Primary=7.2 cfs 47,021 cf Secondary=0.0 cfs 0 cf Outflow=7.2 cfs 47,021 cf
Pond BIO2: Bioretention Area #	<b>2</b> Peak Elev=40.02' Storage=10,674 cf Inflow=6.0 cfs 18,946 cf Primary=0.5 cfs 10,693 cf Secondary=0.0 cfs 0 cf Outflow=0.5 cfs 10,693 cf
Pond CB01: Catch Basin 01	Peak Elev=37.36' Inflow=1.1 cfs 3,821 cf Primary=1.1 cfs 3,821 cf Secondary=0.0 cfs 0 cf Outflow=1.1 cfs 3,821 cf
Pond CB02: Catch Basin 02	Peak Elev=37.16' Inflow=1.5 cfs 5,299 cf Primary=1.5 cfs 5,299 cf Secondary=0.0 cfs 0 cf Outflow=1.5 cfs 5,299 cf
Pond CB05: Catch Basin 05	Peak Elev=39.41' Inflow=3.1 cfs 10,809 cf 12.0" Round Culvert n=0.013 L=20.0' S=0.0075 '/' Outflow=3.1 cfs 10,809 cf
Pond CB06: Catch Basin 04	Peak Elev=38.71' Inflow=3.8 cfs 13,285 cf Primary=3.8 cfs 13,285 cf Secondary=0.0 cfs 0 cf Outflow=3.8 cfs 13,285 cf
Pond CB07: Catch Basin 07	Peak Elev=39.69' (Inflow=4.7 cfs) 16,527 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0091 '/' Outflow=4.7 cfs 16,527 cf
Pond CB08: Catch Basin 08	Peak Elev=41.06' (Inflow=2.4 cfs) 8,609 cf 12.0" Round Culvert n=0.013 L=126.0' S=0.0139'/' Outflow=2.4 cfs) 8,609 cf
Pond CB09: Catch Basin 09	Peak Elev=38.16' (Inflow=10.0 cfs) 34,914 cf 0" Round Culvert n=0.013 L=167.0' S=0.0063 '/' Outflow=10.0 cfs 34,914 cf
Pond CB10: Catch Basin 10	Peak Elev=45.90' Inflow=1.5 cfs 5,318 cf 15.0" Round Culvert n=0.013 L=16.0' S=0.0063 '/' Outflow=1.5 cfs 5,318 cf
Pond CB11A: Catch Basin 11A	Peak Elev=45.71' (Inflow=2.3 cfs) 8,098 cf 15.0" Round Culvert n=0.013 L=209.0' S=0.0069 '/' Outflow=2.3 cfs) 8,098 cf
Pond CB11B: Catch Basin 11B	Peak Elev=45.22' (Inflow=1.9 cfs) 6,667 cf 12.0" Round Culvert n=0.013 L=11.0' S=0.0182 '/' Outflow=1.9 cfs 6,667 cf
Pond CB12: Catch Basin 12	Peak Elev=43.62' (Inflow=11.2 cfs) 39,596 cf 0" Round Culvert n=0.013 L=104.0' S=0.0058 '/' Outflow=11.2 cfs) 39,596 cf
Pond CB13: Catch Basin 13	Peak Elev=44.03' Inflow=4.3 cfs 15,648 cf 18.0" Round Culvert n=0.013 L=16.0' S=0.0156'/' Outflow=4.3 cfs 15,648 cf
	D   E  40.45    15
Pond CB14: Catch Basin 14	Peak Elev=42.45'

**09-02-21\_47388-11\_Pre-Post-Drainage**Prepared by {enter your company name here}

HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 6

Printed 9/8/2021

Pond CB16: Catch Basin 16	Peak Elev=38.14' Inflow=1.5 cfs 5,207 cf Primary=1.5 cfs 5,207 cf Secondary=0.0 cfs 0 cf Outflow=1.5 cfs 5,207 cf
Pond CB17: Catch Basin 17	Peak Elev=38.13' Inflow=3.0 cfs 10,465 cf 18.0" Round Culvert n=0.013 L=225.0' S=0.0084 '/' Outflow=3.0 cfs 10,465 cf
Pond CB18: Catch Basin 18	Peak Elev=38.11' (Inflow=1.5 cfs) 4,967 cf 15.0" Round Culvert n=0.013 L=16.0' S=0.0062'/' Outflow=1.5 cfs) 4,964 cf
Pond CB19: Catch Basin 19	Peak Elev=38.12' Inflow=6.5 cfs 23,621 cf 24.0" Round Culvert n=0.013 L=76.0' S=0.0053 '/' Outflow=6.5 cfs 23,620 cf
Pond DI01: DI-01 DROP INL	RIM =40.74 Peak Elev=37.74' Storage=5 cf Inflow=8.7 cfs 39,060 cf Primary=8.7 cfs 39,059 cf Secondary=0.0 cfs 0 cf Outflow=8.7 cfs 39,059 cf
Pond DI02: Drop Inlet #2	RIM =48.77 Peak Elev=46.90' Storage=2 cf Inflow=7.2 cfs 45,144 cf Primary=7.2 cfs 45,144 cf Secondary=0.0 cfs 0 cf Outflow=7.2 cfs 45,144 cf
Pond GW01: Gravel Wetland	Peak Elev=37.58' Storage=33,539 cf Inflow=20.1 cfs 82,386 cf Primary=7.9 cfs 59,882 cf Secondary=0.7 cfs 504 cf Outflow=8.6 cfs 60,385 cf
	Peak Elev=44.52' Storage=6,527 cf Inflow=9.1 cfs 61,894 cf cf Primary=7.6 cfs 24,775 cf Secondary=0.0 cfs 0 cf Outflow=8.7 cfs 61,485 cf
Pond MH01a: Manhole 01a	Peak Elev=38.25' Inflow=3.8 cfs 13,285 cf 18.0" Round Culvert n=0.013 L=52.0' S=0.0058 '/' Outflow=3.8 cfs 13,285 cf
Pond MH01b: Manhole 01b	Peak Elev=38.20' Inflow=3.8 cfs 13,285 cf 18.0" Round Culvert n=0.013 L=53.0' S=0.0057 '/' Outflow=3.8 cfs 13,285 cf
Pond MH01C: Manhole 01c	Peak Elev=38.21' Inflow=8.5 cfs 29,812 cf 24.0" Round Culvert n=0.013 L=51.0' S=0.0059'/' Outflow=8.5 cfs 29,812 cf
Pond MH02: Manhole 02	Peak Elev=44.26' Inflow=2.3 cfs 8,098 cf 18.0" Round Culvert n=0.013 L=99.0' S=0.0056'/' Outflow=2.3 cfs 8,098 cf
Pond MH03: Manhole 03	Peak Elev=44.02' Inflow=4.2 cfs 14,765 cf 18.0" Round Culvert n=0.013 L=106.0' S=0.0052'/' Outflow=4.2 cfs 14,765 cf
Pond MH04: Manhole 04	Peak Elev=42.91' Inflow=11.2 cfs 39,596 cf 24.0" Round Culvert n=0.013 L=82.0' S=0.0061 '/' Outflow=11.2 cfs 39,596 cf
Pond MH05: Manhole 05	Peak Elev=42.26' Inflow=11.2 cfs 39,596 cf 24.0" Round Culvert n=0.013 L=81.0' S=0.0068 '/' Outflow=11.2 cfs 39,596 cf
Pond MH06: Manhole 06	Peak Elev=41.56' Inflow=11.2 cfs 39,596 cf 24.0" Round Culvert n=0.013 L=129.0' S=0.0058 '/' Outflow=11.2 cfs 39,596 cf
Pond MH07: Manhole 07	Peak Elev=40.62' Inflow=18.5 cfs 68,983 cf 30.0" Round Culvert n=0.013 L=285.0' S=0.0054 '/' Outflow=18.5 cfs 68,983 cf

Post-Development Storm Pipe Sizing

09-02-21\_47388-11\_Pre-Post-Drainage

Type III 24-hr 25-Year Rainfall=7.13"

Prepared by {enter your company name here}

Printed 9/8/2021

HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 7

Pond MH08: Manhole 08 Peak Elev=38.81' Inflow=18.5 cfs 68,983 cf

30.0" Round Culvert n=0.013 L=176.0' S=0.0068 '/' Outflow=18.5 cfs 68,983 cf

Pond MH09: Manhole 09 Peak Elev=41.29' Inflow=7.7 cfs 29,386 cf

24.0" Round Culvert n=0.013 L=143.0' S=0.0052 '/' Outflow=7.7 cfs 29,386 cf

Pond MH10: Manhole 10 Peak Elev=33.06' Inflow=7.6 cfs 57,714 cf

24.0" Round Culvert x 2.00 n=0.013 L=220.0' S=0.0052 '/' Outflow=7.6 cfs 57,714 cf

Pond MH11: Manhole 11 Peak Elev=46.31' Inflow=7.2 cfs 45,144 cf

24.0" Round Culvert n=0.013 L=178.0' S=0.0076 '/' Outflow=7.2 cfs 45,144 cf

Pond MH12: Manhole 12 Peak Elev=38.10' Inflow=6.5 cfs 23,620 cf

24.0" Round Culvert x 2.00 n=0.013 L=45.0' S=0.0051 '/' Outflow=6.5 cfs 23,618 cf

Pond MH13: Manhole 13 Peak Elev=38.53' Inflow=7.6 cfs 24,775 cf

24.0" Round Culvert n=0.013 L=148.0' S=0.0257 '/' Outflow=7.6 cfs 24,775 cf

Prepared by {enter your company name here}
HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 8

	n otor ma mothed in one routing by by notor ma mothed
Pond BIO1: Bioretention Area #	Peak Elev=38.43' Storage=43,505 cf Inflow=30.1 cfs 104,448 cf nary=13.9 cfs 70,489 cf Secondary=0.0 cfs 0 cf Outflow=13.9 cfs 70,489 cf
Pond BIO2: Bioretention Area #2	Peak Elev=40.73' Storage=15,912 cf Inflow=7.8 cfs 27,356 cf Primary=0.9 cfs 18,956 cf Secondary=0.0 cfs 0 cf Outflow=0.9 cfs 18,956 cf
Pond CB01: Catch Basin 01	Peak Elev=37.57' Inflow=1.5 cfs 5,368 cf Primary=1.5 cfs 5,368 cf Secondary=0.0 cfs 0 cf Outflow=1.5 cfs 5,368 cf
Pond CB02: Catch Basin 02	Peak Elev=37.35' Inflow=2.0 cfs 7,213 cf Primary=2.0 cfs 7,213 cf Secondary=0.0 cfs 0 cf Outflow=2.0 cfs 7,213 cf
Pond CB05: Catch Basin 05	Peak Elev=40.85' Inflow=4.0 cfs 14,076 cf 2.0" Round Culvert n=0.013 L=20.0' S=0.0075 '/' Outflow=4.0 cfs 14,076 cf
Pond CB06: Catch Basin 04	Peak Elev=40.24' Inflow=4.9 cfs 17,178 cf  Primary=4.9 cfs 17,178 cf Secondary=0.0 cfs 0 cf Outflow=4.9 cfs 17,178 cf
Pond CB07: Catch Basin 07	Peak Elev=40.13' Inflow=6.1 cfs 21,438 cf 5.0" Round Culvert n=0.013 L=22.0' S=0.0091 '/' Outflow=6.1 cfs 21,438 cf
Pond CB08: Catch Basin 08	Peak Elev=41.34' Inflow=3.1 cfs 11,045 cf .0" Round Culvert n=0.013 L=126.0' S=0.0139 '/' Outflow=3.1 cfs 11,045 cf
Pond CB09: Catch Basin 09	Peak Elev=38.89' Inflow=12.9 cfs 45,093 cf Outflow=12.9 cfs 45,093 cf Outflow=12.9 cfs 45,093 cf
Pond CB10: Catch Basin 10	Peak Elev=46.05' (Inflow=1.9 cfs) 6,751 cf 15.0" Round Culvert n=0.013 L=16.0' S=0.0063 '/' Outflow=1.9 cfs 6,751 cf
Pond CB11A: Catch Basin 11A	Peak Elev=45.89' Inflow=2.9 cfs 10,269 cf .0" Round Culvert n=0.013 L=209.0' S=0.0069 '/' Outflow=2.9 cfs 10,269 cf
Pond CB11B: Catch Basin 11B	Peak Elev=45.36' Inflow=2.4 cfs 8,493 cf 12.0" Round Culvert n=0.013 L=11.0' S=0.0182 '/' Outflow=2.4 cfs 8,493 cf
Pond CB12: Catch Basin 12	Peak Elev=44.34' Inflow=14.1 cfs 50,314 cf "Round Culvert n=0.013 L=104.0' S=0.0058'/' Outflow=14.1 cfs 50,314 cf
Pond CB13: Catch Basin 13	Peak Elev=44.73' Inflow=5.5 cfs 19,934 cf 8.0" Round Culvert n=0.013 L=16.0' S=0.0156 '/' Outflow=5.5 cfs 19,934 cf
Pond CB14: Catch Basin 14	Peak Elev=43.37' Inflow=5.3 cfs 21,071 cf 8.0" Round Culvert n=0.013 L=16.0' S=0.0094 '/' Outflow=5.3 cfs 21,071 cf
Pond CB15: Catch Basin 15	Peak Elev=42.98' Inflow=9.8 cfs 37,604 cf 8.0" Round Culvert n=0.013 L=70.0' S=0.0057 '/' Outflow=9.8 cfs 37,604 cf

Prepared by {enter your company name here}

HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 9

Printed 9/8/2021

Pond CB16: Catch Basin 16	Peak Elev=38.6	5' Inflow=2.0 cfs	6,656 cf
	Primary=2.0 cfs 6,656 cf Secondary=0.0 cfs 0 cf	Outflow=2.0 cfs	6,656 cf
Pond CB17: Catch Basin 17	Peak Elev=38.60'	Inflow=3.7 cfs	13,309 cf
	18.0" Round Culvert n=0.013 L=225.0' S=0.0084 '/'	Outflow=3.7 cfs	13,309 cf

Pond CB18: Catch Basin 18 Peak Elev=38.52' Inflow=1.9 cfs 6,201 cf

15.0" Round Culvert n=0.013 L=16.0' S=0.0062 '/' Outflow=1.9 cfs 6,198 cf

Pond CB19: Catch Basin 19

Peak Elev=38.54' Inflow=8.2 cfs 30,055 cf
24.0" Round Culvert n=0.013 L=76.0' S=0.0053'/ Outflow=8.2 cfs 30,054 cf

Pond DI01: DI-01 DROP INLET RIM =40.74 Peak Elev=39.42' Storage=12 cf Inflow=14.2 cfs 59,145 cf

Primary=14.2 cfs 59,145 cf Secondary=0.0 cfs 0 cf Outflow=14.2 cfs 59,145 cf

Pond DI02: Drop Inlet #2 RIM =48.77 Peak Elev=47.64' Storage=5 cf Inflow=12.2 cfs 69,797 cf Primary=12.2 cfs 69,797 cf Secondary=0.0 cfs 0 cf Outflow=12.2 cfs 69,797 cf

Pond GW01: Gravel Wetland #1 Peak Elev=37.85' Storage=38,416 cf Inflow=25.8 cfs 106,868 cf

Primary=9.1 cfs 76,095 cf Secondary=6.2 cfs 8,619 cf Outflow=15.3 cfs 84,714 cf

Pond INF1: Bioretention Area #2 Peak Elev=45.24' Storage=10,467 cf Inflow=14.8 cfs 92,157 cf Discarded=1.3 cfs 43,089 cf Primary=8.9 cfs 45,927 cf Secondary=3.0 cfs 2,587 cf Outflow=13.1 cfs 91,603 cf

Pond MH01a: Manhole 01a Peak Elev=39.71' Inflow=4.9 cfs 17,178 cf 18.0" Round Culvert n=0.013 L=52.0' S=0.0058'/' Outflow=4.9 cfs 17,178 cf

Pond MH01b: Manhole 01b Peak Elev=39.27' Inflow=4.9 cfs 17,178 cf 18.0" Round Culvert n=0.013 L=53.0' S=0.0057'/ Outflow=4.9 cfs 17,178 cf

Pond MH01C: Manhole 01c Peak Elev=39.35' Inflow=11.0 cfs 24.0" Round Culvert n=0.013 L=51.0' S=0.0059'/ Outflow=11.0 cfs 38,616 cf

Pond MH02: Manhole 02 Peak Elev=44.81' Inflow=2.9 cfs 10,269 cf 18.0" Round Culvert n=0.013 L=99.0' S=0.0056'/' Outflow=2.9 cfs 10,269 cf

Pond MH03: Manhole 03

Peak Elev=44.74' Inflow=5.3 cfs 18,762 cf

18.0" Round Culvert n=0.013 L=106.0' S=0.0052'/' Outflow=5.3 cfs 18,762 cf

Pond MH04: Manhole 04 Peak Elev=43.54' Inflow=14.1 cfs 50,314 cf 24.0" Round Culvert n=0.013 L=82.0' S=0.0061'/ Outflow=14.1 cfs 50,314 cf

Pond MH05: Manhole 05 Peak Elev=42.80' Inflow=14.1 cfs 50,314 cf

Pond MH06: Manhole 06 Peak Elev=42.01' Inflow=14.1 cfs 50,314 cf

24.0" Round Culvert n=0.013 L=129.0' S=0.0058 '/' Outflow=14.1 cfs 50,314 cf

24.0" Round Culvert n=0.013 L=81.0' S=0.0068 '/' Outflow=14.1 cfs 50,314 cf

Pond MH07: Manhole 07 Peak Elev=41.04' Inflow=23.3 cfs 87,918 cf 30.0" Round Culvert n=0.013 L=285.0' S=0.0054 '/' Outflow=23.3 cfs 87,918 cf

Post-Development Storm Pipe Sizing

09-02-21\_47388-11\_Pre-Post-Drainage

Type III 24-hr 50-Year Rainfall=8.54"

Prepared by {enter your company name here}

Printed 9/8/2021

HydroCAD® 10.10-6a s/n 00866 © 2020 HydroCAD Software Solutions LLC

Page 10

Pond MH08: Manhole 08 Peak Elev=39.20' Inflow=23.3 cfs 87,918 cf

30.0" Round Culvert n=0.013 L=176.0' S=0.0068'/' Outflow=23.3 cfs 87,918 cf

Pond MH09: Manhole 09 Peak Elev=41.67' Inflow=9.8 cfs 37,604 cf

24.0" Round Culvert n=0.013 L=143.0' S=0.0052 '/' Outflow=9.8 cfs 37,604 cf

Pond MH10: Manhole 10 Peak Elev=33.46' Inflow=14.6 cfs 89,445 cf

24.0" Round Culvert x 2.00 n=0.013 L=220.0' S=0.0052 '/' Outflow=14.6 cfs 89,445 cf

Pond MH11: Manhole 11 Peak Elev=46.83' Inflow=12.2 cfs 69,797 cf

24.0" Round Culvert n=0.013 L=178.0' S=0.0076 '/' Outflow=12.2 cfs 69,797 cf

Pond MH12: Manhole 12 Peak Elev=38.45' Inflow=8.2 cfs 30,054 cf

24.0" Round Culvert x 2.00 n=0.013 L=45.0' S=0.0051 '/' Outflow=8.2 cfs 30,053 cf

Pond MH13: Manhole 13 Peak Elev=38.64' Inflow=8.9 cfs 45,927 cf

24.0" Round Culvert n=0.013 L=148.0' S=0.0257 '/' Outflow=8.9 cfs 45,927 cf

## 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

#### BUILDING DEPARTMENT

603-610-7216

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

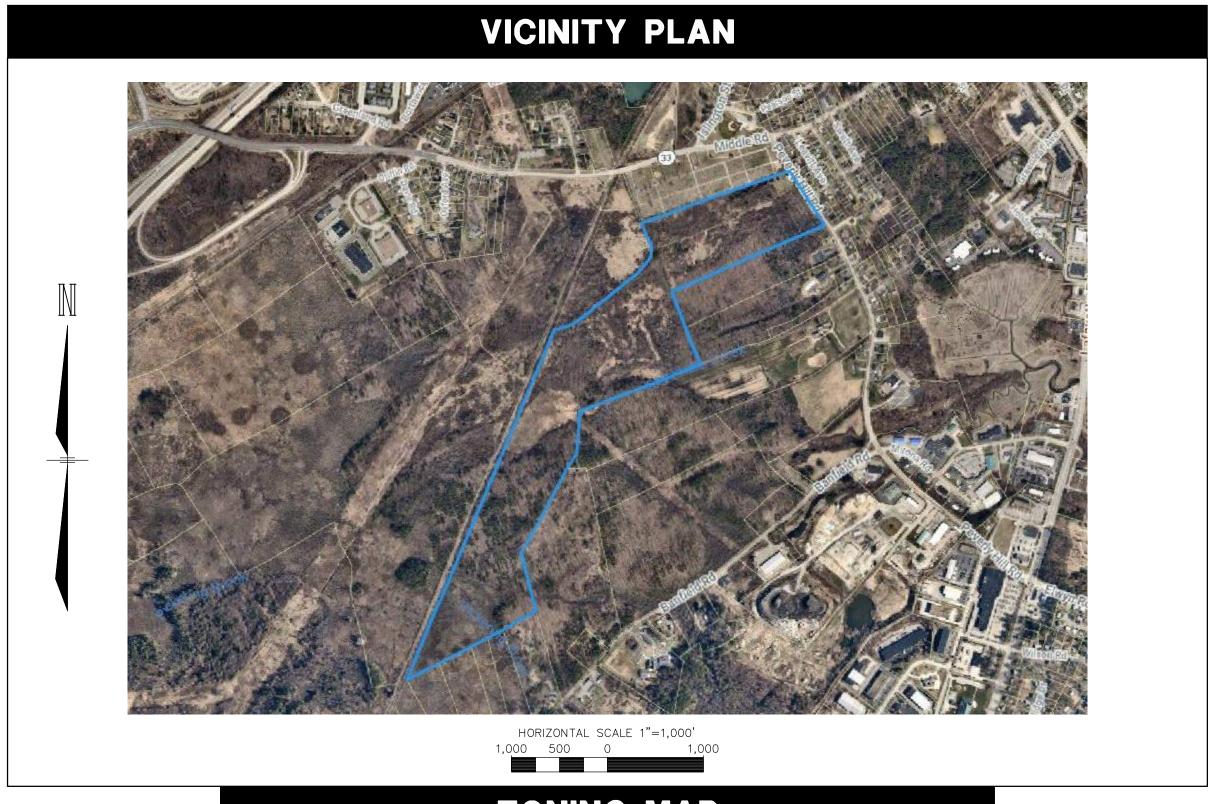
SOIL SCIENTIST GOVE ENVIRONMENTAL SERVICES 8 CONTINENTAL DRIVE BUILDING 2 - UNIT H EXETER, NH 03833 JIM GOVE, CERTIFIED SOIL SCIENTIST

TRAFFIC ENGINEER STEPHEN G. PERNAW & COMPANY, INC. PO BOX 1721 CONCORD, NH 03302 603-731-8500

STEPHEN G. PERNAW, PE, PTOE

# PARSON WOODS CONDOMNUM

83 PEVERLY HILL ROAD PORTSMOUTH, NEW HAMPSHIRE **APRIL 19, 2021** LAST REVISED SEPTEMBER 8, 2021



## **ZONING MAP**



#### 9/8/2021 REVISE PER TAC COMMENTD 8/25/2021 REVISE PER TAC COMMENTS. JSM JJM JSM JJM 8/11/2021 REVISE PER TAC COMMENTS 4 | 7/21/2021 REVISE PER TAC COMMENTS. JSM JCC 3 7/2/2021 REVISED SEWER LOCATION. 2 6/23/2021 REVISED FOR PLANNING BOARD SUBMITTAL JSM JJM 1 6/21/2021 REVISED PER TAC COMMENTS. REV. DATE DR CK

#### INDEX OF SHEETS SHEET SHEET TITLE **REVISION DATE** C - 00COVER C - 01NOTES AND LEGEND S-01 OVERALL EXISTING CONDITIONS PLAN S-02 - S-04EXISTING CONDITIONS PLAN TEST PIT LOGS S-05 S-06 CONDOMINIUM SITE PLAN (TO BE RECORDED) S-07 OVERALL EASEMENT PLAN (TO BE RECORDED) S-08 EASEMENT PLAN (TO BE RECORDED) C - 02SITE PREPARATION & DEMOLITION PLAN OVERALL SITE LAYOUT PLAN (TO BE RECORDED) C - 03C-04 - C-11SITE LAYOUT PLANS C-12 - C-15ROAD-A PLAN & PROFILE C-16 OVERALL GRADING & DRAINAGE PLAN C-17 - C-25GRADING & DRAINAGE PLANS C - 26OVERALL UTILITY PLAN C-27 - C-33UTILITY PLANS C - 34OVERALL EROSION CONTROL PLAN EROSION CONTROL PLANS C - 35 - C - 44C - 45OVERALL LANDSCAPE PLAN C-46 - C-54LANDSCAPE PLANS C - 55OVERALL LIGHTING PLAN C-56 - C-63LIGHTING PLANS C-64 - C-65FIRE TRUCK MOVEMENT PLAN C-66 SITE DISTANCE PLAN & PROFILE C - 67PEDESTRIAN & BIKE PATH PLAN PLAN C-68 PEVERLY HILL ROAD OFFSITE IMPROVEMENT PLAN

## **WAIVERS**

THE FOLLOWING WAIVERS FROM THE CITY OF PORTSMOUTH SITE REVIEW REGULATIONS ARE BEING REVIEWED BY THE PLANNING BOARD:

1. PORTSMOUTH SUBDIVISION RULES AND REGULATIONS, RESIDENTIAL STREET MINIMUM STANDARDS (PG. 36), REQUIRING 32' OF PAVEMENT WIDTH.

2. PORTSMOUTH SUBDIVISION RULES AND REGULATIONS SECTION VI(3)(B), MINIMUM RIGHT-OF-WAY FOR MAIN THOROUGHFARES SHALL NOT BE LESS THAN 50 FEET. 3. PORTSMOUTH SITE PLAN REVIEW REGULATIONS SECTION 2.5.4.3(c), TRUCK TURNING MINIMUM

## PERMITS/APPROVALS

	NUMBER	APPROVED	<b>EXPIRES</b>
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

**COVER** 

PARSON WOODS CONDOMINIUM LLC 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

**GREEN & COMPANY REAL ESTATE** 

SCALE: NTS

C-69 - C-76

DETAILS

VEHICLE ALLOWED BEING A WB-50.

**APRIL 19, 2021** 



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 C - 00CK JJM CADFILE 47388-11\_COVER

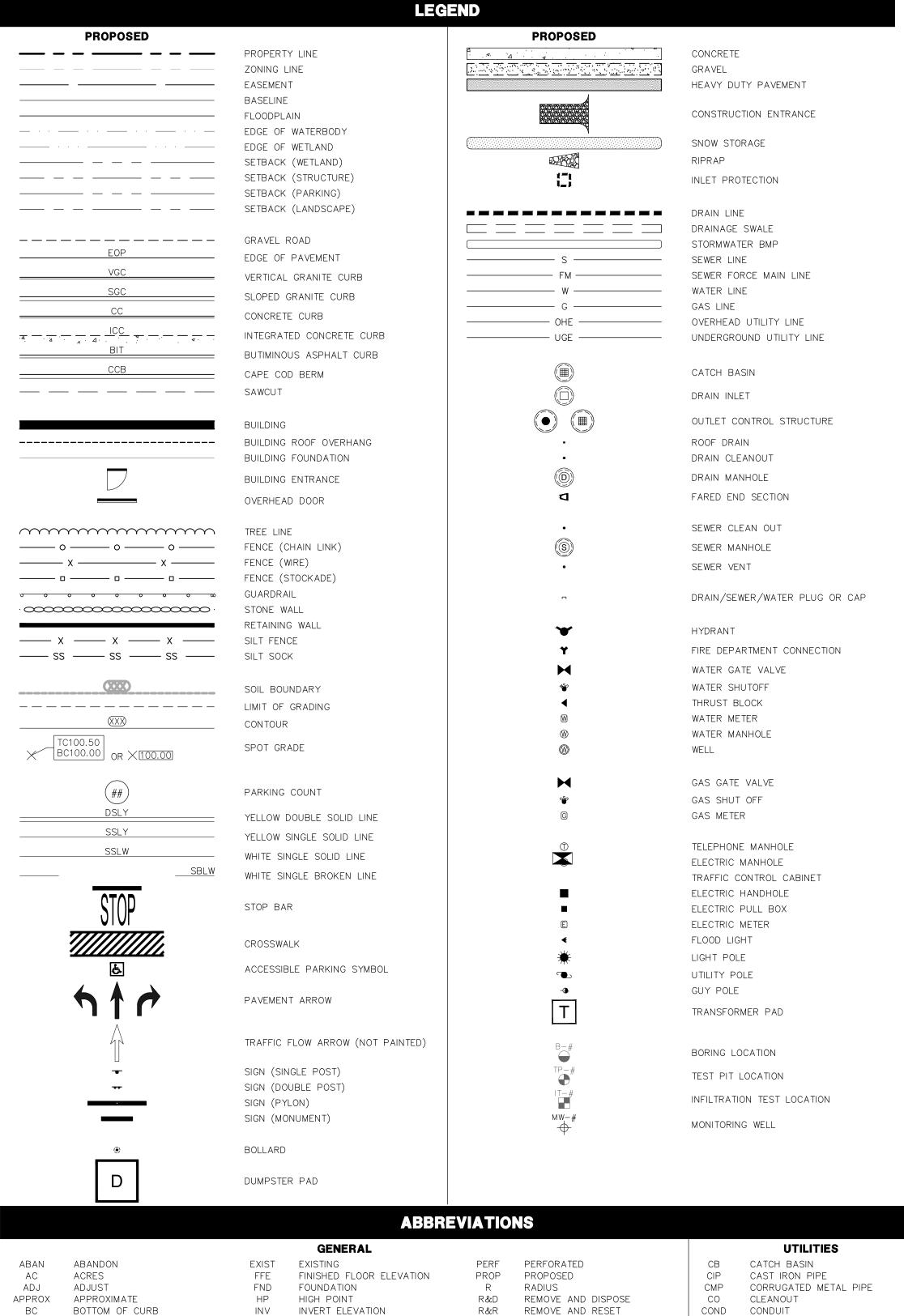
All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.



Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

homas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of



#### **GENERAL NOTES**

- THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR
- 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 ENGINEER OF RECORD.
- 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. ALL INFRASTRUCTURE, INCLUDING CASTINGS, MANHOLES AND PIPES, AND METHODS OF INSTALLATION SHALL MEET CITY STANDARDS.
- 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 THIS PLAN SET.
- 12. TEMORAN, 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. ALL CATCH BASINS TO HAVE POLYETHYLENE LINERS.
- 19. UTILITIES, DRAINAGE FEATURES, AND ROAD CONSTRUCTION/INSTALLATION SHALL BE OVERSEEN BY A THIRD PARTY INSPECTOR.
- 20. CONTRACTOR'S GENERAL RESPONSIBILITIES:
- 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 SITE ELEMENTS AND BUILDINGS. SIGNAGE DEMARCATING WETLAND BUFFER TO BE INSTALLED PRIOR TO COMMENCEMENT OF FARTHWORK
- 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 COST TO THE OWNER.
- 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.
- VERIFY LAYOUT OF PROPOSED BUILDING FOUNDATIONS WITH ARCHITECT AND THAT PROPOSED FOUNDATION MEETS PROPERTY LINE SETBACKS PRIOR TO COMMENCING ANY FOUNDATION
- 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. THIS PROJECT IS SUBJECT TO THE AOT PERMIT LISTED ON THE COVER SHEET. THE CONTRACTOR SHALL CONFORM TO ALL CONDITIONS OF THE PERMIT AND PROVIDE THE FOLLOWING DOCUMENTATION TO 1. ADVANCE WRITTEN NOTICE AT LEAST ONE WEEK PRIOR TO COMMENCING ANY WORK UNDER
- THE PERMIT.
- 2. IF ANY UNDERGROUND DETENTION SYSTEMS, INFILTRATION SYSTEMS, OR FILTERING SYSTEMS WERE INSTALLED, FOR EACH SUCH SYSTEM: A. REPRESENTATIVE PHOTOGRAPHS OF THE SYSTEM, AFTER COMPLETION BUT
- PRIOR TO BACKFILLING; AND B. A LETTER SIGNED BY A QUALIFIED ENGINEER WHO OBSERVED THE SYSTEM
- PRIOR TO BACKFILLING, THAT THE SYSTEM CONFORMS TO THE APPROVED PLANS AND SPECIFICATIONS
- 3. UPON COMPLETION OF CONSTRUCTION, WRITTEN CERTIFICATION THAT: A. ALL WORK UNDER THE PERMIT HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE

SHALL BE PROVIDED.

APPROVED PLANS AND SPECIFICATIONS B. IF ANY DEVIATIONS FROM THE APPROVED PLANS WERE MADE, WRITTEN DESCRIPTIONS AND AS-BUILT DRAWINGS OF ALL SUCH DEVIATIONS, STAMPED BY A QUALIFIED ENGINEER,

### **GRADING NOTES**

- 1. THE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH 1. LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED 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

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.

CONSIDERED FOR PAYMENT AFTER EARTHWORK HAS COMMENCED.

- 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 AREAS
- 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 NOTED.
- 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
- 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
- 22. THE DESIGN OF THE BLOCK RETAINING WALL SYSTEM TO BE USED FROM ROUGHLY STATION 1+25 TO 3+10 SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION. THE WALL IS TO BE PERMITTED BY THE BUILDING INSPECTOR'S OFFICE AND NEEDS TO BE INSPECTED BY THE CITY DURING CONSTRUCTION. THE P.E. OF RECORD WILL ALSO NEED TO SIGN OFF THAT THE WALL IS CONSTRUCTED PROPERLY BEFORE THE CITY WILL ACCEPT THE FINAL PRODUCT.

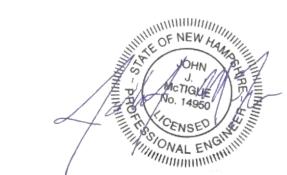
#### **UTILITY NOTES**

- 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 UTILITY COMPANY.
- 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 OPERATIONAL
- . 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. WATER MAIN SHALL BE CLASS 52 DUCTILE IRON PIPE WRAPPED IN POLYETHYLENE WITH CONTINUITY WEDGES AS PER CITY STANDARDS.
- 12. INSTALLATION OF ALL WATER AND SEWER TO BE WITNESSED BY A THIRD-PARTY INSPECTORS.
- 13. EACH CONDO WILL HAVE A SEPARATE IRRIGATION METER AND IRRIGATION SYSTEM.
- IRRIGATIONS SYSTEMS FOR HOUSES WILL USE SMART CONTROLS. 14. THRUST BLOCKS SHALL BE PROVIDED AT ALL LOCATIONS WHERE WATER LINE CHANGES DIRECTIONS OR CONNECTS TO ANOTHER WATER LINE.
- 15. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONDUIT AND WIRING TO ALL SIGNS AND LIGHTS. CONDUIT TO BE A MINIMUM OF 24" BELOW FINISH GRADE.
- 16. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES.
- 17. THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL INSPECTIONS, TESTING AND RELATED SERVICES AND SUBMIT COPIES OF ACCEPTANCE TO THE OWNER, UNLESS OTHERWISE
- 18. 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. 19. 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.
- 20. THE PROPERTY WILL BE SERVICED BY THE FOLLOWING: DRAINAGE MUNICIPAL

SEWER MUNICIPAL WATER MUNICIPAL **EVERSOURCE** 

**TELEPHONE** CABLE

CONSOLIDATED COMMUNICATIONS FKA FAIRPOINT COMMUNICATIONS COMCAST



7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJ
6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJ
5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJ
4	8/25/2021	REVISE BERLITYAONOOTONSMENTSS. 13.	jSM	JC
3	7/2/2021	REVISED SEWER LOCATION.	JSM	JC
2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJI
1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJ
REV.	DATE	DESCRIPTION	DR	CF

## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

**NOTES AND LEGEND** PARSON WOODS CONDOMINIUM LLC

83 PEVERLY HILL ROAD, PORTSMOUTH, NH OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

**GREEN & COMPANY REAL ESTATE** 

SCALE: NTS

**APRIL 19, 2021** 

| 170 Commerce Way, Suite 102

Portsmouth, NH 03801

Phone (603) 431-2222



ivil Engineers Structural Engineers affic Engineers and Surveyors andscape Architects cientists

Fax (603) 431-0910 www.tfmoran.com

DR JSM FB C - 01CK 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, luplicated, replicated or otherwise reproduced in any form whatsoever

BITUMINOUS

BUII DING

CONCRETE

DIAMETER

ELEVATION

COORDINATE

BLDG

BS

BW

CONC

COORD

DIA

ELEV

homas F. Moran, Inc.

BOOK & PAGE

BOTTOM OF SLOPE

EDGE OF PAVEMENT

BOTTOM OF WALL

without the prior written permission of Thomas F. Moran, Inc. This plan is not effective unless signed by a duly authorized officer of

LSA

MAX

MIN

NTS

PAVE

NOW OR FORMERLY NOT TO SCALE ON CENTER PAVFMFNT

INFILTRATION TEST

LANDSCAPE AREA

LENGTH

MAXIMUM

MINIMUM

LINEAR FEFT

R&R REMOVE AND RESET REM REMOVE RET RETAIN RIM RIM ELEVATION RIGHT OF WAY ROW SLOPE SQUARE FEET SW SIDEWALK TBM TEMPORARY BENCHMARK

TOP OF CURB

TOP OF WALL

UNDERGROUND

ACCESSIBLE WHEELCHAIR RAMP

TEST PIT

TYPICAL

WITH

TYP

UG

WCR

COND DCB DIP DMH F&C F&G FES GT HDPE НН HW

CONDUIT DOUBLE CATCH BASIN DUCTILE IRON PIPE DRAIN MANHOLF FRAME AND COVER FRAME AND GRATE FLARED END SECTION GREASE TRAP HANDHOLE HEADWALL HYDRANT

LITHITY POLE

HIGH DENSITY POLYETHYLENE PIPE HYD LIGHT POLE OCS OUTLET CONTROL STRUCTURE PVC POLYVINYL CHLORIDE PIPE RCP REINFORCED CONCRETE PIPE RD ROOF DRAIN

SMH SEWER MANHOLE SOS SEDIMENT OIL SEPARATOR

TAPPING SLEEVE, VALVE, AND BOX

NATURAL RESOURCE PROTECTION ZONE NOW OR FORMERLY RADIUS

RURAL ZONE ROCKINGHAM COUNTY REGISTRY OF DEEDS RCRD CENTRAL ANGLE SQUARE FEET

SINGLE RESIDENCE A ZONE

LINE TABLE

LINE # | BEARING | DISTANCE

88.49'

85.94'

56.81'

81.81'

87.58'

247.91'

20.09'

96.94'

71.99'

60.89'

64.75'

73.30'

55.33'

72.38'

108.68'

113.60'

62.04'

68.75'

62.95'

90.88'

84.72'

63.04'

74.83'

94.54'

86.86'

79.24'

206.01'

56.79'

55.67'

35.23'

66.01'

94.64'

93.63'

210.79'

125.36'

1100.89'

3930.00'

L43 S69°37'42"W

L44 S69°05'04"W

L45 S68°46'51"W

L46 S67°27'31"W

L47 S67°26'04"W

L48 S68°24'11"W

L49 S70°35'06"W

L50 S02°20'46"W

L51 S04°10'09"W

L52 S02°55'30"W

L53 S04°46'48"W

L54 S04°06'17"W

L55 S02°44'38"W

L56 S30°51'45"W

L57 S29°37'18"W

L58 S30°17'36"W

L59 S29°36'04"W

L60 S29°36'07"W

L61 S30°55'15"W

L62 S27°41'10"W

L63 S30°19'04"W

L64 S28°10'44"W

L65 S27°46'33"W

L66 S28°09'12"W

L67 S29°23'48"W

L68 S29°32'16"W

L70 S28°38'51"W

L71 S15°03'54"E

L72 S15°34'48"E

L73 S16°34'18"E

L74 S14°35'44"E

L75 S15°16'42"E

L76 S16°55'11"E

L77 S15°41'57"E

L78 N62°33'20"E

L79 N60°22'36"E

L81 N61°36'13"E

L82 S22°55'14"W

N60°02'43"E

S29°00'39"W

SRB SINGLE RESIDENCE B ZONE TRANSPORTATION CORRIDOR ZONE - BOUNDARY LINE STONE WALL

----- X ------ WIRE FENCE --- WETLAND BUFFER WELL WETLANDS

LINE TABLE

LINE # | BEARING | DISTANCE

N78°08'44"E

N50°33'19"E

N38°55'51"E

N24°30'55"W

N69°17'23"E

N69°46'08"E

N70°28'21"E

N70°58'09"E

N69°38'29"E

N70°09'53"E

N71°22'53"E

N69°46'51"E

N33°28'11"W

N30°43'03"W

N32°30'33"W

N31°38'38"W

N33°17'28"W

N33°32'47"W

N32°28'55"W

S69°39'32"W

S66°43'10"W

S61°50'59"W

S21°45'52"E

S20°39'30"E

S24°19'08"E

S22°34'53"E

S23°02'43"E

S22°45'01"E

S67°19'43"W

S69°52'05"W

L39 | S69°35'00"W |

L40 S71°11'01"W

L42 S68°05'19"W

Thomas F. Moran, Inc.

L28 | S65°32'22"W |

L20 N34°50'10"W

L21 N32°23'37"W

L22 N32°36'14"W

N68°45'39"E 56.30'

L13 N70°36'35"E

248.37'

136.50'

199.99'

56.05'

65.15'

146.93'

122.30'

73.15'

90.32

792.39'

253.49'

36.28'

33.10'

58.19

961.06'

699.69'

21.03'

10.17'

392.22

111.50'

171.93'

152.24'

41.19'

74.38'

38.26'

360.76

SRA

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. 6. "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.

## 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).
- 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. 100' WIDE POWER LINE EASEMENT TO THE NEW HAMPSHIRE GAS & ELECTRIC COMPANY. (SEE RCRD BK.#1052 PG.#321).

ABUTTERS ACROSS PEVERLY HILL ROAD

	\	IMMAC CONCEPTION 153 ASH STREET	V		ROAD
	1/SR	MANCHESTER, NH 031	104	L18-119	(PUBLIC RIGHT OF V
	Y	L14-\	*17	-L21	
	\ 	1- 113-			
	\	L16	(S-02)	_L25	
/	17-129-	_L15		_L26	
CENTERLINE OF DRIVEWAY	110	$\sum_{L12}$		L23-/	
(SEE E&R #1)	1.8	\\	\ \	227	
		=231.25' R=211.20' \( =62°44'12	2" 190		
Y /	CI CI	HB=N07°12'06"E, CHL=219.87			
MAD 242 LOT 1	S-03	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	J	8.	
<u>MAP 242 LOT 1</u> N/F		MAP 242 LOT 4			
CENTERLINE OF DRIVEWAY STATE OF NEW HAMPSI	HIRE	$\checkmark$			
(SEE E&R #1) 11 HAZEN DRIVE		25' BURIAL GROUND			
4' DIAMETER CONCORD, NH 0330  STONE WELL — RCRD BK.#5248 PG.#0		BUFFER 30	1.29		
(SEE E&R #2)		(SEE NOTE 14)	SE SE		
	3	+ 10/	<b>'\</b>		

ROMAN CATHOLIC BISHOP OF

MANCHESTER CHURCH OF

L=184.76' R=400.00' △ =26°27'54" SOIL LEGEND NEW HOPE BAPTIST CHURCH CHB=N64°52'18"E, CHL=183.12 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

CONTACT DIG SAFE 72 BUSINESS

HOURS PRIOR TO CONSTRUCTION

2021-09-08

DATE

MAP 255 LOT 5 N/F

THOMAS E. & MARYBETH B. REIS AND

JAMES B. & MEEGAN C. REIS

305 PEVERLY HILL ROAD

PORTSMOUTH, NH 0380

RCRD BK #5560 PG #2148

I 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

I FURTHER CERTIFY THAT THIS SURVEY IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, AND THE FIELD TRAVERSE SURVEY EXCEEDS A

RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS.

PRECISION OF 1:15,000.

COREY

LICENSED LAND SURVEYOR

MAP 256 LOT 1 N/F

SWIFT WATER GIRL SCOUT COUNCIL

ONE COMMERCE DRIVE

BEDFORD, NH 03110

MAP 242 LOT 3

	SOIL LEGEND (PER USDA NRCS WEB SOIL SURVEY)	
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

#### **BOSTON & MAINE CORPORATION** IRON HORSE PARK HIGH STREET NORTH BILLERICA, MA 01862

MAP 265 LOT 2

MARK H. ODIORNE

520 BANFIELD ROAD

PORTSMOUTH, NH 03801

RCRD BK #3353 PG #2213

MAP 165 LOT 14

POWER LINE EASEMENT

(SEE E&R #3)

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

MAP 265 LOT 2C

APOSTOLIC CHURCH OF J CHRIST

500 BANFIELD ROAD

PORTSMOUTH, NH 03801

RCRD BK.#2739 PG.#0043

MAP 232 LOT 92 DYANNA L. INNES 78 PEVERLY HILL ROAD PORTSMOUTH, NH 03801 RCRD BK #3754 PG #0099 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

PO BOX 628 PORTSMOUTH, NH 03802 RCRD BK.#2247 PG.#0239 MAP 243 LOT 50 ASRT, LLC

266 MIDDLE STREET

MAP 243 LOT 52

CITY OF PORTSMOUTH DPW

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

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

without the prior written permission of Thomas F. Moran, Inc.

(1	(PER SITE SPECIFIC SOIL SURVEY)			
SYMBOL	SYMBOL DESCRIPTION			
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		

WALPOLE SANDY LOAM

PEVERLY HILL

WAY)

## **SOIL NOTE:**

D SLOPE = 15 - 25%

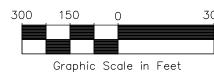
THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT. INTENDED FOR INFILTRATION REQUIREMENTS BY THE NH DES ALTERATION OF TERRAIN BUREAU. IT WAS PRODUCED BY A PROFESSIONAL SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES 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.

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 NEW HAMPSHIRE SOILS", SEPTEMBER, 2009. SOIL SYMBOL HYDROLOGIC GROUP SOIL MAP UNIT **BOXFORD SILT LOAM** SCITICO SILT LOAM CANTON SANDY LOAM DEERFIELD LOAMY SAND NEWFIELDS SANDY LOAM 510 HOOSIC GRAVELLY LOAMY SAND 546 WALPOLE SANDY LOAM B SLOPE = 0-8%C SLOPE = 8-15%



		<u>'</u>			
4	9/8/2021	NO REVISIONS THIS SHEET	ВМК	JCC	
3	8/25/2021	NO REVISIONS THIS SHEET	вмк	JCC	
2	7/21/2021	UPDATED NOTES	ВМК	JCC	
1	6/21/2021	NO REVISIONS THIS SHEET	IID	ВМК	-
REV.	DA TE	DESCRIPTION	DR	CK	

## NOTES:

1. THE PARCEL IS LOCATED IN THE SINGLE RESIDENCE A (SRA) & SINGLE RESIDENCE B (SRB) ZONING DISTRICTS.

LOCATION PLAN

- 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

DIMENSIONAL REQUIREMENTS:	REQUIRED:	
	<u>SRA</u>	SRB
MINIMUM LOT AREA:	1 ACRE	15,000 SF
LOT AREA PER DWELLING UNIT:	1 ACRE	15,000 SF
CONTINUOUS STREET FRONTAGE:	150'	100'
LOT DEPTH:	200'	100'
MINIMUM YARD DIMENSIONS:		
FRONT:	30'	30'
SIDE:	20'	10'
REAR:	40'	30'
MAXIMUM STRUCTURE DIMENSIONS:		
STRUCTURE HEIGHT:		
SLOPED ROOF	35'	35'
FLAT ROOF	30'	30'
BUILDING COVERAGE:	10%	20%
MINIMUM OPEN SPACE	50%	40%

- PER THE CITY OF PORTSMOUTH ZONING ORDINANCE SECTION 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
- 9. FIELD SURVEY COMPLETED BY TCE, MVP & PJT IN APRIL-MAY 2020 USING A TOPCON
- TOPCON HIPER—SR, TOPCON HIPER—V AND A CARLSON RT4 DATA COLLECTO 10. HORIZONTAL DATUM IS NAD83 (2011) PER STATIC GPS OBSERVATIONS. THE VERTICAL DATUM IS NAVD88 (GEOID12B) PER STATIC GPS OBSERVATIONS. THE CONTOUR INTERVAL
- 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 TFMORAN, INC. 14. THE NEGLECTED BURIAL GROUND SHOWN ON SHEET S-03 IS BELIEVED TO BE THE FORMER HAYES FAMILY BURIAL GROUND. CURRENT OWNERS OF THE PROPERTY ACKNOWLEDGE THAT ALL BODIES HAVE BEEN EXHUMED FROM THIS LOCATION. NO GRAVESTONES EXIST AT THIS BURIAL GROUND. THE 25' BUFFER TO THE BURIAL GROUND
- IS SHOWN AS AN ABUNDANCE OF CAUTION. 15. SEE SHEETS S-02 THRU S-04 FOR DETAILS.

#### TAX MAP 242 LOT 4

OVERALL EXISTING CONDITIONS PLAN PEVERLY HILL ROAD 83 PEVERLY HILL ROAD PORTSMOUTH, NEW HAMPSHIRE **COUNTY OF ROCKINGHAM** 

OWNED BY STELLA B. STOKEL 1993 TRUST, NANCY A. STOKEL 1993 TRUST & PHILIP J. STOKEL

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

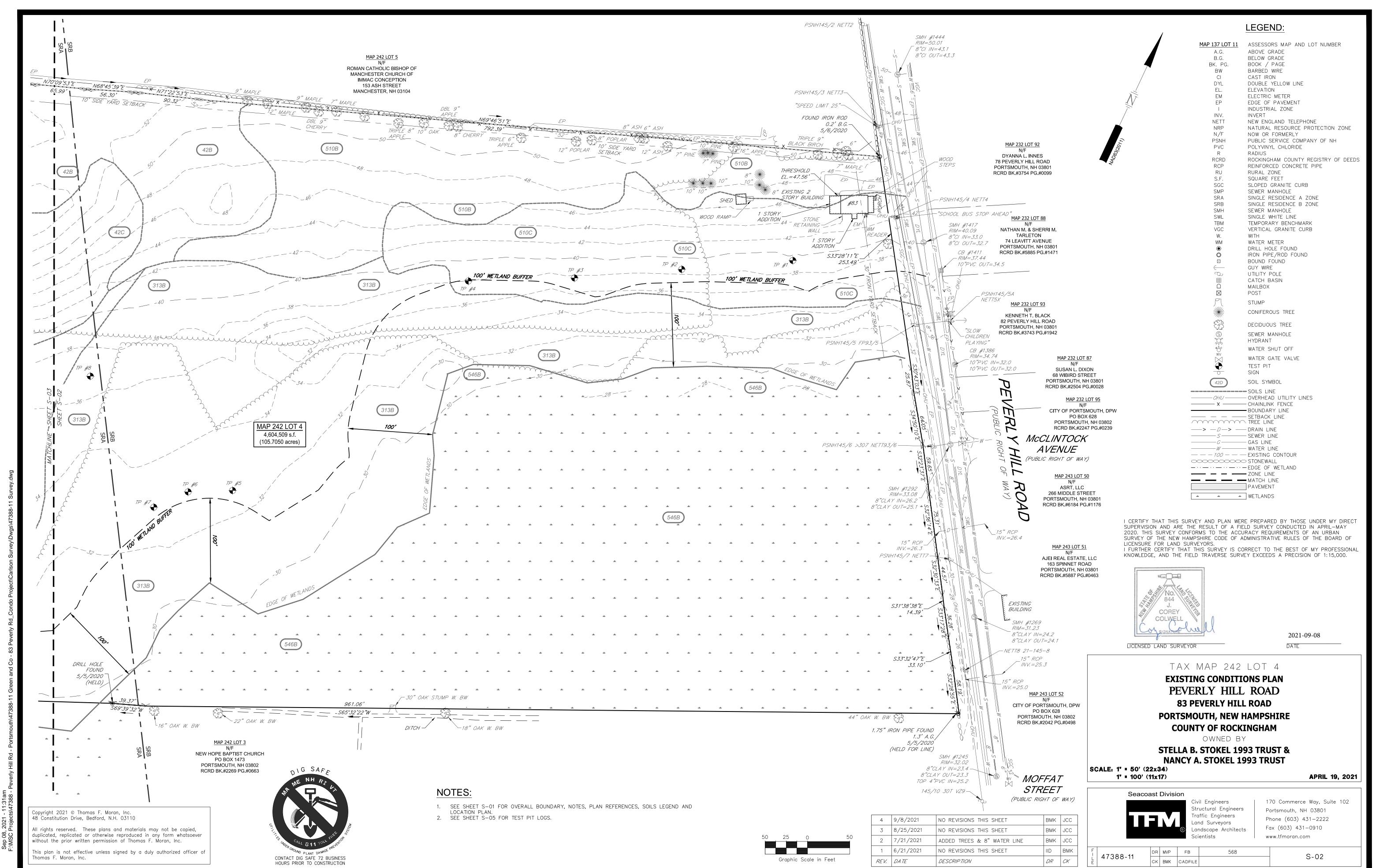
S-01 CK BMK CADFILE

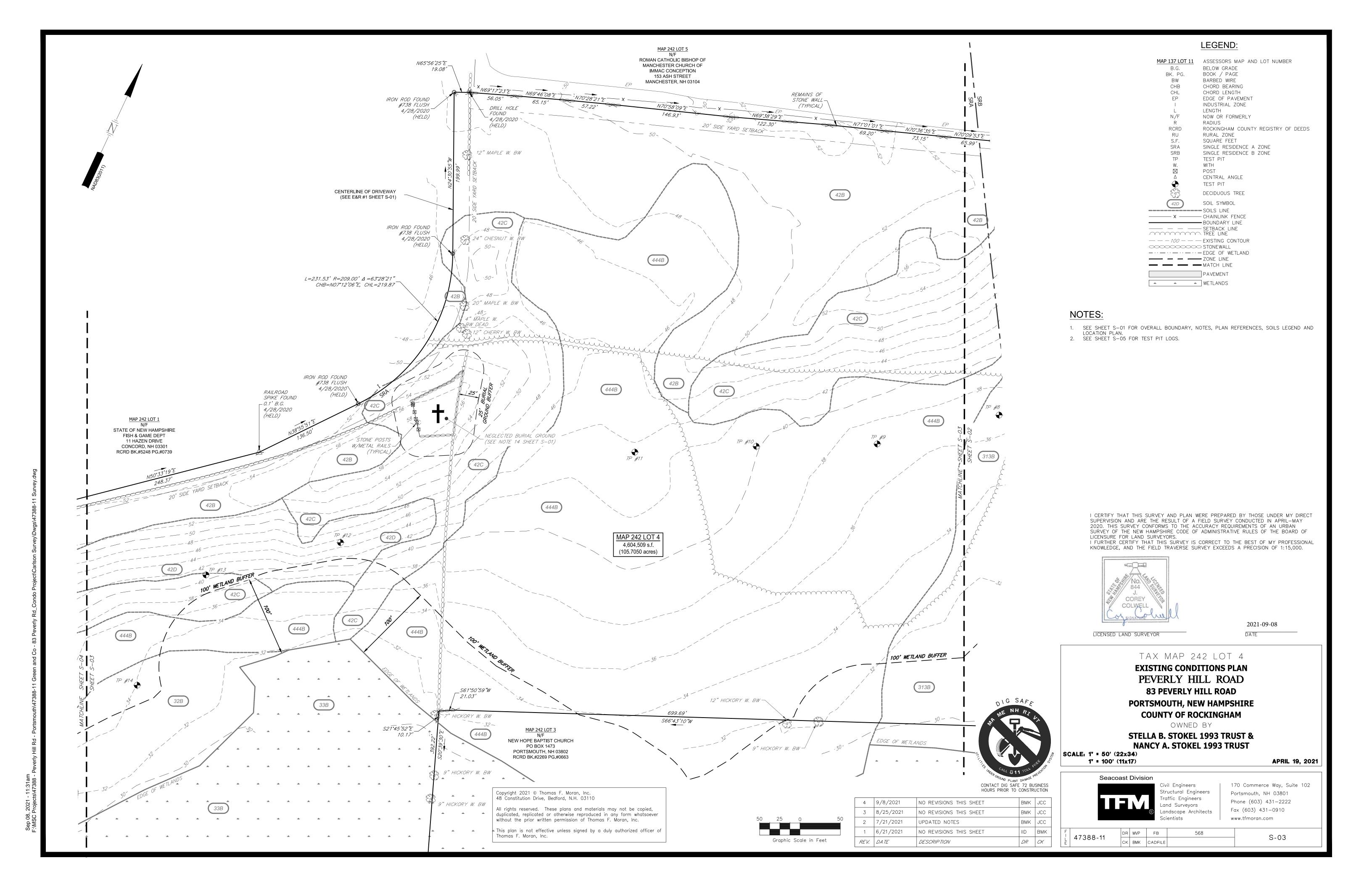


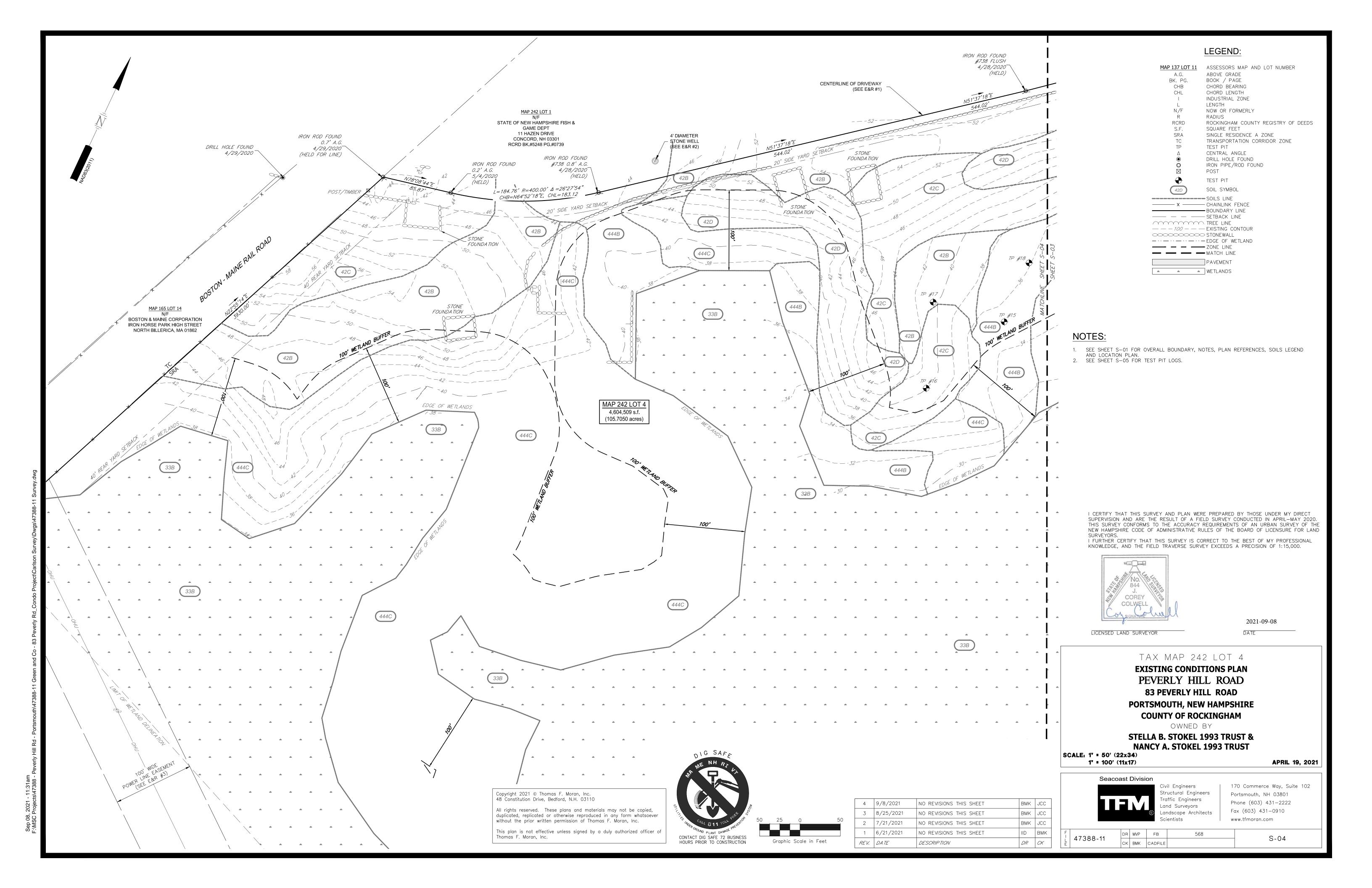
All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever

This plan is not effective unless signed by a duly authorized officer of

#### Copyright 2021 © Thomas F. Moran, Inc 8 Constitution Drive, Bedford, N.H. 03110







# TEST PIT LOGS:

	•		601							
ESHWT:			49"							
Termination	@		95"	)5"						
Refusal:			No							
Obs. Water:			None							
Obs. Water.	Depth	Со		Texture	Structure	Consistenc	REDO	X; Quantity/Contrast		
	0-7"	10Y	R3/3	GRLS	GR	FR		NONE		
	7-49"	10Y		GRLS	GR	FR		NONE		
	7-49	101	K4/0	GRLS	GK	FK	10VD2/1	NONE		
	49-95"	10YR4/4		GRS	OM	FR	10YR2/1, C/P			
Test Pit No.			602							
ESHWT:	-		44"							
Termination	. @		96"							
Refusal:			No							
Obs. Water:			None				1			
	Depth	Co	lor	Texture	Structure	Consistenc	REDO:	X; Quantity/Contrast		
	0.00	1017	D 2 /2	CDI G	- CP	e		NONE		
	0-9"	10Y		GRLS	GR	FR		NONE		
	9-44"	10Y	R4/6	GRLS	GR	FR		NONE		
	44-96"	10YR4/4		GRS	OM	FR	7.5YR5/8, C/P			
Test Pit No.	<u> </u>		603							
ESHWT:			36"							
Termination	. @		109"							
Refusal:			No							
Obs. Water:			None				T			
	Depth	Co	lor	Texture	Structure	Consistenc	REDO:	X; Quantity/Contrast		
						e				
	0-12"	10Y		GRSL	GR	FR		NONE		
	12-36"	10Y	R4/6	GRSL	GR	FR		NONE		
	36-109"	2.5Y5/4		GRLS	PL	FI	7.5YR5/8, C/P			
Test Pit No.			604							
ESHWT:			55"							
Termination	. @		95"							
					+					
Refusal:			No							
Obs. Water:			None	<u> </u>			I			
	Depth	Co	lor	Texture	Structure	Consistenc	REDO:	X; Quantity/Contrast		
						e				
	0-14"	10Y		GRSL	GR	FR		NONE		
	14-55"	10Y	R4/6	GRSL	GR	FR		NONE		
	55-95"	2.5Y5/4		GRLS	PL	FI	7.5YR5/8, C/P			
Test Pit No.	•		605							
ESHWT:			37"							
Termination	@		102"							
Refusal:			No							
			None							
Obs. Water					Structure	Consistenc	REDO:	X; Quantity/Contrast		
Obs. Water:	Depth	Co	lor	Texture			I			
Obs. Water:	Depth				CD	<del>-  </del>		NONE		
Obs. Water:	Depth 0-7"	10Y	R3/3	LS	GR	FR		NONE		
Obs. Water:	Depth		R3/3		GR GR	<del>-  </del>	7 510 5 /2	NONE NONE		
Obs. Water:	Depth 0-7"	10Y	R3/3	LS		FR	7.5YR5/8, C/P			
	Depth 0-7" 7-37" 37-102"	10Y	R3/3 R5/6	LS LS	GR	FR FR	7.5YR5/8, C/P			
Test Pit No.	Depth 0-7" 7-37" 37-102"	10Y	R3/3 R5/6	LS LS	GR	FR FR	7.5YR5/8, C/P			
Test Pit No. ESHWT:	Depth 0-7" 7-37" 37-102"	10Y	R3/3 R5/6 <b>606</b> 30"	LS LS	GR	FR FR	7.5YR5/8, C/P			
Test Pit No.	Depth 0-7" 7-37" 37-102"	10Y	R3/3 R5/6	LS LS	GR	FR FR	7.5YR5/8, C/P			
Test Pit No. ESHWT:	Depth 0-7" 7-37" 37-102"	10Y	R3/3 R5/6 <b>606</b> 30"	LS LS	GR	FR FR	7.5YR5/8, C/P			
Test Pit No. ESHWT: Termination	Depth 0-7" 7-37" 37-102"	10Y	R3/3 R5/6 <b>606</b> 30" 97"	LS LS	GR	FR FR	7.5YR5/8, C/P			
Test Pit No. ESHWT: Termination Refusal:	Depth 0-7" 7-37" 37-102"	10Y	R3/3 R5/6 606 30" 97" No None	LS LS	GR	FR FR FR Consistenc	C/P			
Test Pit No. ESHWT: Termination Refusal:	Depth 0-7" 7-37" 37-102"	10Y 10Y 2.5Y5/3	R3/3 R5/6 606 30" 97" No None	LS LS S	GR OM	FR FR Consistenc	C/P	NONE  X; Quantity/Contrast		
Test Pit No. ESHWT: Termination Refusal:	Depth 0-7" 7-37" 37-102"  Depth 0-10"	10Y 10Y 2.5Y5/3 Co	R3/3 R5/6  606 30" 97" No None	LS LS S	GR OM Structure GR	FR FR FR FR FR FR FR FR	C/P	NONE  X; Quantity/Contrast  NONE		
Test Pit No. ESHWT: Termination Refusal:	Depth 0-7" 7-37" 37-102"  Depth 0-10" 10-30"	10Y 10Y 2.5Y5/3 Co 10Y 10Y	R3/3 R5/6  606 30" 97" No None	LS LS S Texture LS LS LS	GR OM Structure GR GR	FR FR Consistenc	C/P  REDO	NONE  X; Quantity/Contrast		
Test Pit No. ESHWT: Termination Refusal:	Depth 0-7" 7-37" 37-102"  Depth 0-10"	10Y 10Y 2.5Y5/3 Co	R3/3 R5/6  606 30" 97" No None	LS LS S	GR OM Structure GR	FR FR FR FR FR FR FR FR	C/P	NONE  X; Quantity/Contrast  NONE		

			1								
Test Pit No.			607								
ESHWT:			30"								
Termination	@		96"								
Refusal:			No								
Obs. Water:			None								
	Depth	Co	olor	Texture	Struc	cture	Consistenc e	REDO	X; Quantity/C	Contrast	
	0-9"	10Y	R3/3	LS	G	R	FR		NONE		
	9-30"		R5/6	LS	G		FR		NONE		
			K3/0			K		2.5Y6/6,	NONE		
	30-96"	2.5Y3/3		S	OM		FR	C/D			
Test Pit No.			608								
ESHWT:			23"	"							
Termination	@		97"								
Refusal:			No								
Obs. Water:	1		None								
	Depth	Co	olor	Texture	Struc	cture	Consistenc e	REDO	X; Quantity/C	Contrast	
	0-8"	10Y	R3/3	LS	G	R	FR		NONE		
	8-23"		R4/6	LS	G		FR		NONE		
			K-4, 0			IX.		7.5YR5/8,	TONE		
	23-97"	2.5Y5/3		S	OM		FR	C/P			
Test Pit No.			609								
ESHWT:			35"								
Termination	@		111"								
Refusal:			No								
Obs. Water:			None								
	Depth	Co	olor	Texture	Struc	cture	Consistenc	REDO:	X; Quantity/C	Contrast	
	0-12"	10V	R3/3	GRSL	G	R	e FR		NONE		
	12-35"		R4/6	GRSL	G		FR		NONE		
			K4/0			IX .		7.5YR5/8,	NONE		
	35-111"	2.5Y5/3		VFS	OM		FR	C/P			
Test Pit No.			610								
ESHWT:			30"								
Termination	@		107"								
Refusal:			No								
Obs. Water:			None								
	Depth	Co	olor	Texture	Struc	cture	Consistenc	REDO:	X; Quantity/C	Contrast	
	0-12"	10V	R3/3	GRSL	G	D	e FR		NONE		
	12-30"		R5/6	GRSL	G		FR		NONE		
			K3/0			K		7.5YR5/8,	NONE		
	30-107"	2.5Y5/4		VFS	OM		FR	C/P			
Test Pit No.			611								
ESHWT:			29"								
Termination	@		105"								
Refusal:			No								
Obs. Water:			None								
	Depth	Co	lor	Texture	Struc	cture	Consistenc	REDO:	X; Quantity/C	Contrast	
							e				
	0-12"		R3/2	GRFSL	G		FR		NONE		
	12-29"	10Y	R4/6	GRLS	G	R	FR	7.53/0.5/0	NONE	<u> </u>	
	29-105"	2.5Y5/4		VFS	OM		FR	7.5YR5/8, C/P			
Test Pit No.			612								
ESHWT:			38"								
Termination	@		92"								
Refusal:			No								
Obs. Water:			None								
	Depth	6	l	Touter	Q4	cture	Consistenc	ĎEDO.	lX; Quantity/C	Ontract	
			olor	Texture			e	KEDU.		onuast	
	0-12"		R3/2	GRSL	G		FR		NONE		
	12-38"	10Y	R5/6	GRSL	G	R	FR		NONE		
	38-92"	2.5Y5/4		GRS	PL		FI	7.5YR5/8, C/P			
								U/ 1			
! !											

Test Pit No.			613					
ESHWT:			33"					
Termination @	<u> </u>		110"					
Refusal:			No					
Obs. Water:			None					
	Depth	Co	olor	Texture	Structure	Consistenc	REDO	X; Quantity/Contrast
	0-12"	10Y	R3/2	GRSL	GR	FR		NONE
	12-33"		R4/6	GRSL	GR	FR		NONE
			K4/0				7.5YR5/6,	NONE
	33-110"	2.5Y5/3		GRFSL	PL	FI	C/P	
Test Pit No.	1.		614	-		•		
ESHWT:			12"					
Termination @	<u> </u>		105"					
Refusal:			No					
Obs. Water:			None					
Jos. Water.						Consistenc	DED.O	V 0 11 10 1
	Depth	Co	olor	Texture	Structure	e	REDO	X; Quantity/Contrast
	0-12"	10Y	R3/2	FSL	GR	FR		NONE
	12-40"	2.5	y5/2	SIL	PL	FI	,	7.5YR5/8, C/P
							7.5YR5/8,	
	40-73"	10YR5/6		FS	OM	FR	C/P	
T	73-105"	2.5Y4/2		GRFSL	PL	FI	2.5Y6/6,	
							C/D	
Test Pit No.			615					
ESHWT:			17"					
Termination @	<u> </u>		108"					
Refusal:			108"					
Obs. Water:			None					
	Depth	C	olor	Texture	Structure	Consistenc	RED⊖	X; Quantity/Contrast
						e	KEDO	
	0-8"	10Y	R3/2	FSL	GR	FR		NONE
	8-17"	10Y	R4/6	FSL	GR	FR		NONE
	17-44"	2.5	Y5/2	SIL	PL	FI		7.5YR5/8, C/P
	44-66"	10Y	R4/4	FS	OM	FR		7.5YR5/8, C/P
	66-108"		Y3/3	GRFSL	PL	FI		2.5Y6/6,C/D
108" - BED	·							
ROCK								
Test Pit No.			616					
ESHWT:			26"					
Termination @	<del></del>		80"					
Refusal:			No					
Obs. Water:			None			G : .		
	Depth	Co	olor	Texture	Structure	Consistenc	REDO	X; Quantity/Contrast
	0-9"	10Y	R3/2	FSL	GR	FR		NONE
	9-26"		R4/6	FSL	GR	FR		NONE
							7.5YR5/8,	1101112
	26-80"	2.5Y5/4		GRFSL	PL	FI	C/P	
Test Pit No.			617	i		1	I	
ESHWT:			35"					
Termination @	<del></del>		80"					
Refusal:	-		80"					
Obs. Water:	1		None					
	Depth	Co	olor	Texture	Structure	Consistenc	REDO	X; Quantity/Contrast
	0-9"	10V	R3/3	GRFSL	GR	FR		NONE
	9-35"		R4/6	GRFSL	GR	FR		NONE
							7.5YR5/8,	1,01,12
	35-80"	2.5Y5/4		GRFSL	PL	FI	C/P	
80" = BED								
ROCK								
Test Pit No.			618					
ESHWT:			22"					
Termination @	<u> </u>		57"					
Refusal:			57"					
			None					
Obs. Water						Consistenc		<u> </u>
Obs. Water:		Co	olor	Texture	Structure	e	REDO	X; Quantity/Contrast
Obs. Water:	Depth							
Obs. Water:			R3/2	GRFSL	GR	FR		NONE
Obs. Water:	0-12"	10Y				FR		
Obs. Water:	0-12" 12-22"	10Y 10Y	R3/2 R4/6	GRFSL	GR	FR FR	7 5VR5/0	NONE NONE
Obs. Water:	0-12"	10Y				FR	7.5YR5/8, C/P	
Obs. Water:  57" = BED ROCK	0-12" 12-22"	10Y 10Y		GRFSL	GR	FR FR		

3 9/8/2021

2 8/25/2021

1 7/21/2021

REV. DATE

NO REVISIONS THIS SHEET

NO REVISIONS THIS SHEET

ADDED THIS SHEET

DESCRIPTION

### NOTES:

- TEST PITS DATA WAS PROVIDED BY JP GOVE, CSS #004 OF GOVE ENVIRONMENTAL SERVICES, INC. AND DATED 11-19-2020.
- 2. SEE SHEETS S-02 THRU S-04 FOR TEST PIT LOCATIONS.

TAX MAP 242 LOT 4

**TEST PIT LOGS** PEVERLY HILL ROAD 83 PEVERLY HILL ROAD PORTSMOUTH, NEW HAMPSHIRE

**COUNTY OF ROCKINGHAM** OWNED BY

STELLA B. STOKEL 1993 TRUST & **NANCY A. STOKEL 1993 TRUST** 

SCALE: 1" = 50' (22x34) 1" = 100' (11x17)

**APRIL 19, 2021** 



Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors

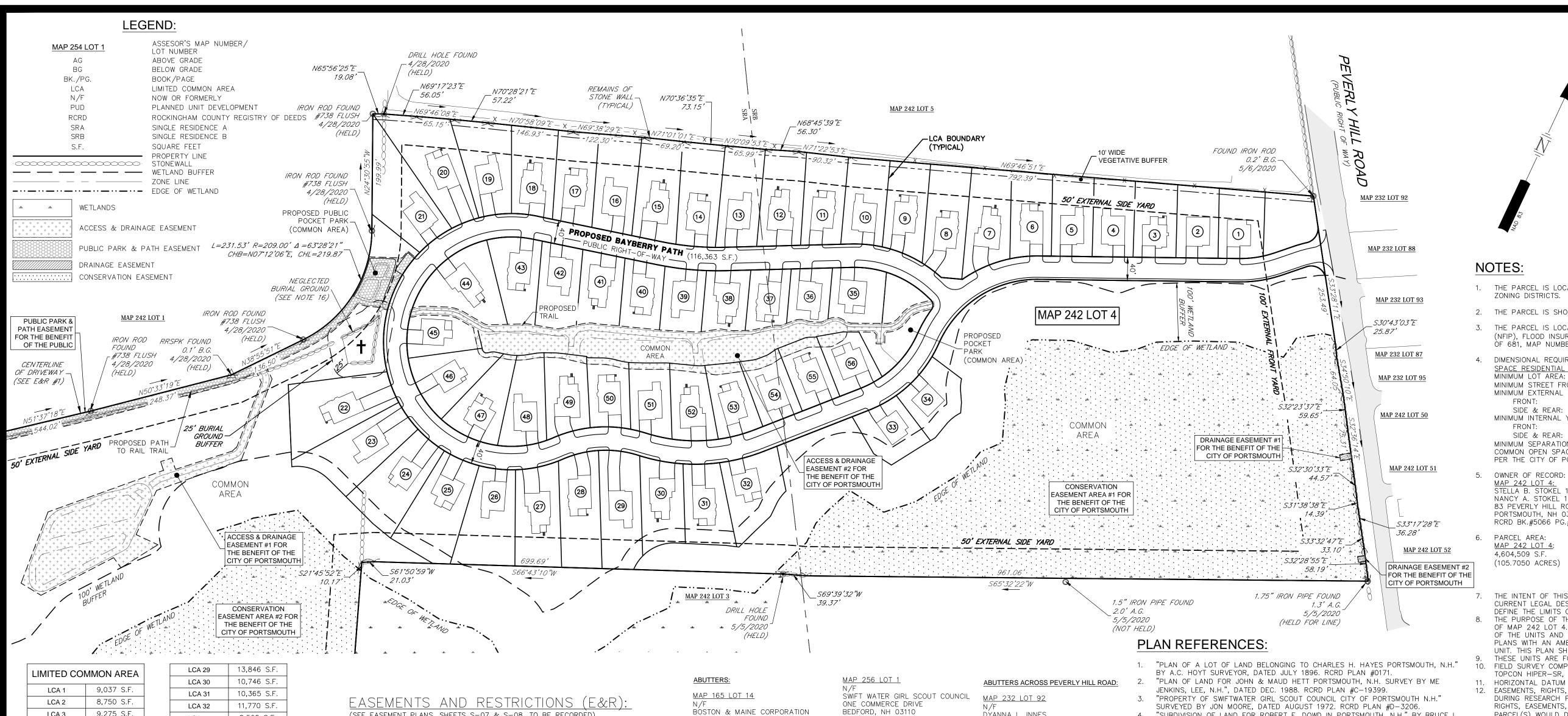
170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

47388-11

Landscape Architects DR MVP FB
CK BMK CADFILE S-05

opyright 2021 © Inomas F. Moran, Inc. 3 Constitution Drive, Bedford, N.H. 03110
I rights reserved. These plans and materials may not be copied, uplicated, replicated or otherwise reproduced in any form whatsoevithout the prior written permission of Thomas F. Moran, Inc.
nis plan is not effective unless signed by a duly authorized office

Copyright 2021 © Thomas F. Moran. Inc.



#### 11,770 S.F. LCA 32 9,275 S.F. LCA 3 8,568 S.F. LCA 33 9,301 S.F. LCA 4 9,085 S.F. LCA 34 9,680 S.F. LCA 5 8,447 S.F. LCA 35 10,136 S.F LCA 6 6,312 S.F. LCA 36 12,415 S.F. LCA 7 LCA 37 6,852 S.F. LCA8 13,065 S.F. LCA 38 7,697 S.F. 10,953 S.F. LCA 9 7,614 S.F. LCA 39 10,486 S.F. LCA 10 LCA 40 7,806 S.F. 10,848 S.F. LCA 11 LCA 41 8,841 S.F. 11,829 S.F. LCA 12 9,888 S.F LCA 42 11,864 S.F. LCA 13 10,497 S.F. LCA 43 12,399 S.F. LCA 14 13,137 S.F. LCA 44 12,651 S.F. LCA 15 7,333 S.F. LCA 45 11,751 S.F. 10,341 S.F. LCA 46 LCA 17 10,773 S.F. 10,138 S.F. LCA 47 LCA 18 11,325 S.F. 10,065 S.F. LCA 48 12,780 S.F. LCA 19 9,944 S.F. LCA 49 16,654 S.F. 8,226 S.F. LCA 50 LCA 21 15,081 S.F. LCA 51 8,568 S.F. 16,670 S.F. LCA 22 8,993 S.F. LCA 52 14,535 S.F. LCA 23 LCA 53 8,568 S.F. 13,868 S.F. LCA 24 LCA 54 8,034 S.F. 15,778 S.F. LCA 25 LCA 55 7,875 S.F. 14,407 S.F. LCA 26 LCA 56 7,539 S.F. 13,124 S.F.

(SEE EASEMENT PLANS, SHEETS S-07 & S-08, TO BE RECORDED

- 1. THE RIGHT TO USE THE GRAVEL DRIVEWAY IN COMMON WITH PETER STOKEL AND HIS HEIRS FROM GREENLAND ROAD, BY THE BURIAL GROUND, AND ALONG THE BOUNDARY BETWEEN THE LANDS OF PETER AND STELLA TO THE RAILROAD, AND SUBJECT TO 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 THE WELL, 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. 100' WIDE POWER LINE EASEMENT TO THE NEW HAMPSHIRE GAS & ELECTRIC COMPANY. (SEE RCRD BK.#1052 PG.#321).
- 4. PROPOSED 40' WIDE RIGHT OF WAY TO BE CONVEYED TO CITY OF PORTSMOUTH.
- 5. PROPOSED PUBLIC POCKET PARK AND PATH EASEMENT FOR THE BENEFIT OF PUBLIC.
- 6. PROPOSED ACCESS AND DRAINAGE EASEMENT #1 FOR THE BENEFIT OF THE CITY OF PORTSMOUTH.
- 7. PROPOSED ACCESS AND DRAINAGE EASEMENT #2 FOR THE BENEFIT OF THE CITY OF PORTSMOUTH.
- 8. PROPOSED CONSERVATION EASEMENT FOR THE BENEFIT OF THE CITY OF PORTSMOUTH.
- 9. PROPOSED DRAINAGE EASEMENTS #1 & #2 FOR THE BENEFIT OF THE CITY OF PORTSMOUTH.
- 10. PROPOSED 3' WIDE RIGHT OF WAY MAINTENANCE AND UTILITY EASEMENT FOR ROADWAY MAINTENANCE AND FUTURE UTILITIES.

BOSTON & MAINE CORPORATION IRON HORSE PARK HIGH STREET NORTH BILLERICA, MA 01862

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

MAP 255 LOT 8 MERRIMAC VALLEY HOMES, INC. 1794 BRIDGE STREET, UNIT 6 DRACUT, MA 01826 RCRD BK.#5881 PG.#0981

RCRD BK.#5560 PG.#2148

DYANNA L. INNES 78 PEVERLY HILL ROAD PORTSMOUTH, NH 03801 RCRD BK.#3754 PG.#0099

MAP 232 LOT 88 NATHAN M. & SHERRI M. TARLETON 74 LEAVITT AVENUE PORTSMOUTH, NH 03801 RCRD BK.#5885 PG.#1471

MAP 232 LOT 93 KÉNNETH T. BLACK 82 PEVERLY HILL ROAD PORTSMOUTH, NH 03801

PO BOX 628

ASRT, LLC

MAP 243 LOT 50

266 MIDDLE STREET

MAP 243 LOT 51

PORTSMOUTH, NH 03801

AJEI REAL ESTATE LLC

RCRD BK.#5887 PG.#0463

PORTSMOUTH, NH 03802

RCRD BK.#2042 PG.#0498

163 SPINNEY ROAD PORTSMOUTH, NH 03801

MAP 243 LOT 52

PO BOX 628

RCRD BK.#6184 PG.#1176

PORTSMOUTH, NH 03802

RCRD BK.#2247 PG.#0239

RCRD BK.#3743 PG.#1942 LÉE ANN & RICHARD M. RILEY 470 BANFIELD ROAD MAP 232 LOT 87 PORTSMOUTH, NH 03801 RCRD BK.#3491 PG.#2344 SUSAN L. DIXON 68 WIBIRD STREET

MAP 265 LOT 2C PORTSMOUTH, NH 03801 RCRD BK.#2504 PG.#0028 APOSTOLIC CHURCH OF J CHRIST 500 BANFIELD ROAD MAP 232 LOT 95 PORTSMOUTH, NH 03801 RCRD BK.#2739 PG.#0043 CITY OF PORTSMOUTH DPW

MAP 265 LOT 2D CÍTY OF PORTSMOUTH DPW PO BOX 628 PORTSMOUTH, NH 03802 RCRD BK.#2413 PG.#0222

MAP 265 LOT 2

MARK H. ODIORNE

MAP 265 LOT 2A

DÁVID W. ECKER

MAP 265 LOT 2B

875 BANFIELD ROAD

PORTSMOUTH, NH 03801

RCRD BK.#6091 PG.#0374

520 BANFIELD ROAD

PORTSMOUTH, NH 03801

RCRD BK.#3353 PG.#2213

MAP 265 LOT 2E CÍTY OF PORTSMOUTH 1 JUNKINS AVENUE PORTSMOUTH, NH 03801 RCRD BK.#5077 PG.#1943

#### "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.

RCRD PLAN #D-8312

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.

"SUBDIVISION OF LAND FOR ROBERT E. DOWD IN PORTSMOUTH, N.H." BY BRUCE L

5. "SUBDIVISION PLAN OF LAND FOR THEODORE C. BURTT BANFIELD ROAD COUNTY OF

POHOPEK LAND SURVEYORS DOVER, N.H., DATED MAY 31, 1978, REVISED OCT 5, 78.

ROCKINGHAM PORTSMOUTH, N.H." BY RICHARD P. MILLETTE AND ASSOCIATES, DATED

"STANDARD BOUNDARY SURVEY MAP 242 - LOT 1 MAP 258 - LOT 54 MAP 263 -

DECEMBER 1981, WITH REVISION 2 DATED JANUARY, 1982. RCRD PLAN #D-10795.

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.

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.



2021-09-08

LICENSED LAND SURVEYOR

	4	9/8/2021	ADDED PROPOSED ROAD NAME	вмк	JCC
	3	8/25/2021	REVISED ACCESS/DRAINAGE EASEM'T 2	вмк	JJM
	2	7/21/2021	REVISE PER REGULATORY COMMENTS	IID	вмк
	1	6/21/2021	REVISE PER REGULATORY COMMENTS	IID	вмк
Ī	REV.	DA TE	DESCRIPTION DESCRIPTION	DR	CK



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 REQUIREMENT OF OPEN SPACE RESIDENTIAL PUD (OS-PUD) MINIMUM STREET FRONTAGE 665' MINIMUM EXTERNAL YARDS: SIDE & REAR: MINIMUM INTERNAL YARDS: 20.9 FRONT: SIDE & REAR: MINIMUM SEPARATION BETWEEN STRUCTURES: COMMON OPEN SPACE:

PER THE CITY OF PORTSMOUTH ZONING ORDINANCE SECTION 10.725

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: SUBMITTED AREA: COMMON AREA:

LIMITED COMMON AREA MAP 242 LOT 4: 4,604,509 S.F. 4,488,146 S.F. 4,488,146 S.F. (SEE CHART) (103.0337 ACRES) (103.0337 ACRES) (105.7050 ACRES) (EXCLUDING PUBLIC (EXCLUDING PUBLIC RIGHT OF WAY) RIGHT OF WAY)

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 OF DEFINE THE LIMITS OF TITLE

THE PURPOSE OF THIS PLAN IS TO DEPICT THE COMMON AREAS AND LIMITED COMMON AREAS OF MAP 242 LOT 4. CONSTRUCTION OF UNITS NOT YET BEGUN. THE FINAL METES AND BOUNDS OF THE UNITS AND THEIR ASSIGNED LIMITED COMMON AREAS SHALL BE DETERMINED BY AS-BUIL' PLANS WITH AN AMENDED CONDOMINIUM SITE PLAN TO BE RECORDED UPON COMPLETION OF EACH UNIT. THIS PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. 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.

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 SAFE

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 TFMORAN, INC

THE UNITS SHOWN HERE TO BE SERVICED BY MUNICIPAL SEWER AND WATER. THE NEGLECTED BURIAL GROUND SHOWN ON SHEET S-03 IS BELIEVED TO BE THE FORMER HAYES FAMILY BURIAL GROUND. CURRENT OWNERS OF THE PROPERTY ACKNOWLEDGE THAT ALL BODIES HAVE BEEN EXHUMED FROM THIS LOCATION. NO GRAVESTONES EXIST AT THIS BURIAL GROUND. THE 25' BUFFER TO THE BURIAL GROUND IS SHOWN AS AN ABUNDANCE OF CAUTION.

17. SEE SHEETS S-08 & S-09 FOR EASEMENT PLANS. 18. 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 CHANGED SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.

EMPLOY A LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES AND LAYOUT OF SITE ELEMENTS AND BUILDINGS. SIGNAGE DEMARCATING WETLAND BUFFER TO BE INSTALLED PRIOR TO COMMENCEMENT OF EARTHWORK

TAX MAP 242 LOT 4

**CONDOMINIUM SITE PLAN** PARSON WOODS CONDOMINIUM 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

ivil Engineers Structural 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 S-06 CK BMK | CADFILE |

All rights reserved. These plans and materials may not be copied, uplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

13,408 S.F.

LCA 27

LCA 28

his plan is not effective unless signed by a duly authorized officer of homas F. Moran, Inc.

Copyright 2021 © Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

CITY OF PORTSMOUTH PLANNING BOARD

**CHAIRPERSON** DATE



Graphic Scale in Feet



CITY OF PORTSMOUTH DPW

DATE

RADIUS RURAL ZONE ROCKINGHAM COUNTY REGISTRY OF DEEDS

BOUNDARY LINE

RCRD CENTRAL ANGLE S.F. SQUARE FEET SRA SINGLE RESIDENCE A ZONE

SINGLE RESIDENCE B ZONE TRANSPORTATION CORRIDOR ZONE

----- X ------ WIRE FENCE 

--- WETLAND BUFFER WELL

wetlands

PARK & PATH EASEMENT CONSERVATION EASEMENT

LINE TABLE LINE TABLE LINE # | BEARING | DISTANCE LINE # | BEARING | DISTANCE N78°08'44"E L43 S69°37'42"W 88.49' L44 S69°05'04"W 85.94' N51°37'18"E 544.02 N50°33'19"E 248.37' L45 S68°46'51"W 56.81' 81.81' N38°55'51"E 136.50 L46 | S67°27'31"W 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 N70°28'21"E 57.22' L50 S02°20'46"W 96.94' 71.99' N70°58'09"E 146.93 L51 | S04°10'09"W N69°38'29"E 122.30 L52 S02°55'30"W 60.89' L53 S04°46'48"W 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' N71°22'53"E 90.32 L57 S29°37'18"W 72.38' N69°46'51"E 792.39' L58 S30°17'36"W 108.68' S33°28'11"E 253.49 113.60' L59 | S29°36'04"W S30°43'03"E 25.87' L60 S29°36'07"W 64.0 S32°23'37"E 59.65' L62 S27°41'10"W 68.75' S32°36'14"E 75.31 62.95' L63 S30°19'04"W S32°30'33"E 44.57 L64 S28°10'44"W 90.88' S31°38'38"E 14.39' L65 S27°46'33"W 84.72' S33°17'28"E 36.28' L66 S28°09'12"W 63.04' S33°32'47"E 33.10' S29°23'48"W 74.83' S32°28'55"E 58 19' L68 | S29°32'16"W 94.54' S65°32'22"W 961.06 86.86' L69 | S29°00'39"W S69°39'32"W L70 S28°38'51"W 79,24' 699.69' S66°43'10"W 206.01' L71 S15°03'54"E S61°50'59"W L72 S15°34'48"E 56.79' 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 65.84 66.01' L75 | S15°16'42"E S22°34'53"E 52.86' 94.64' L76 S16°55'11"E 111.50' S23°02'43"E L77 S15°41'57"E 93.63' S22°45'01"E 171.93' L78 S62°33'20"W 210.79' S67°19'43"W 152.24 L79 S60°22'36"W 85.15' S69°35'00"W 360.76 L80 S60°02'43"W 125.36' S71°11'01"W 41.19' L81 S61°36'13"W 1100.89' S69°52'05"W L82 N22°55'14"E 3930.00'

Copyright 2021 © Thomas F. Moran, Inc 48 Constitution Drive, Bedford, N.H. 03110

S68°05'19"W

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.

N65°56'25"E

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.

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.

"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

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.

"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

EASEMENTS AND RESTRICTIONS (E&R)

(SEE EASEMENT PLANS, SHEETS S-07 & S-08, TO BE RECORDED) THE RIGHT TO USE DRIVEWAY IN COMMON WITH PETER STOKEL

AND HIS HEIRS FROM GREENLAND ROAD, BY THE BURIAL GROUND, AND ALONG THE BOUNDARY BETWEEN THE LANDS OF PETER AND STELLA TO THE RAILROAD, AND SUBJECT TO 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 THE WELL, 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. 100' WIDE POWER LINE EASEMENT TO THE NEW HAMPSHIRE GAS & ELECTRIC COMPANY. (SEE RCRD BK.#1052 PG.#321).

#### PROPOSED:

4. PROPOSED 40' WIDE RIGHT OF WAY TO BE CONVEYED TO CITY OF PORTSMOUTH.

5. PROPOSED PUBLIC POCKET PARK AND PATH EASEMENT FOR THE BENEFIT OF PUBLIC.

PROPOSED ACCESS AND DRAINAGE EASEMENT #1 FOR THE BENEFIT OF THE CITY OF PORTSMOUTH.

PROPOSED ACCESS AND DRAINAGE EASEMENT #2 FOR THE BENEFIT OF THE CITY OF PORTSMOUTH.

B. PROPOSED CONSERVATION EASEMENT FOR THE BENEFIT OF THE CITY OF PORTSMOUTH.

. PROPOSED DRAINAGE EASEMENTS #1 & #2 FOR THE BENEFIT OF THE CITY OF PORTSMOUTH.

POWER LINE EASEMENT

(SEE E&R #3)

∷*L59* <del>:::::</del>

~L77

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

MAP 265 LOT 2C

APOSTOLIC CHURCH OF J CHRIST

500 BANFIELD ROAD

PORTSMOUTH, NH 03801

RCRD BK #2739 PG #0043

CONSERVATION

AREA 2 =

3,094,349 S.F

(71.0365 AC)

L80 ::::

MAP 265 LOT 2

MARK H. ODIORNE

520 BANFIELD ROAD

PORTSMOUTH, NH 03801

RCRD BK #3353 PG #2213

10. PROPOSED 3' WIDE RIGHT OF WAY MAINTENANCE AND UTILITY EASEMENT FOR ROADWAY MAINTENANCE AND FUTURE UTILITIES (SEE SHEET S-08).

MAP 265 LOT 2D N/F

CITY OF PORTSMOUTH DPW

PO BOX 628

PORTSMOUTH, NH 03802

RCRD BK #2413 PG #0222

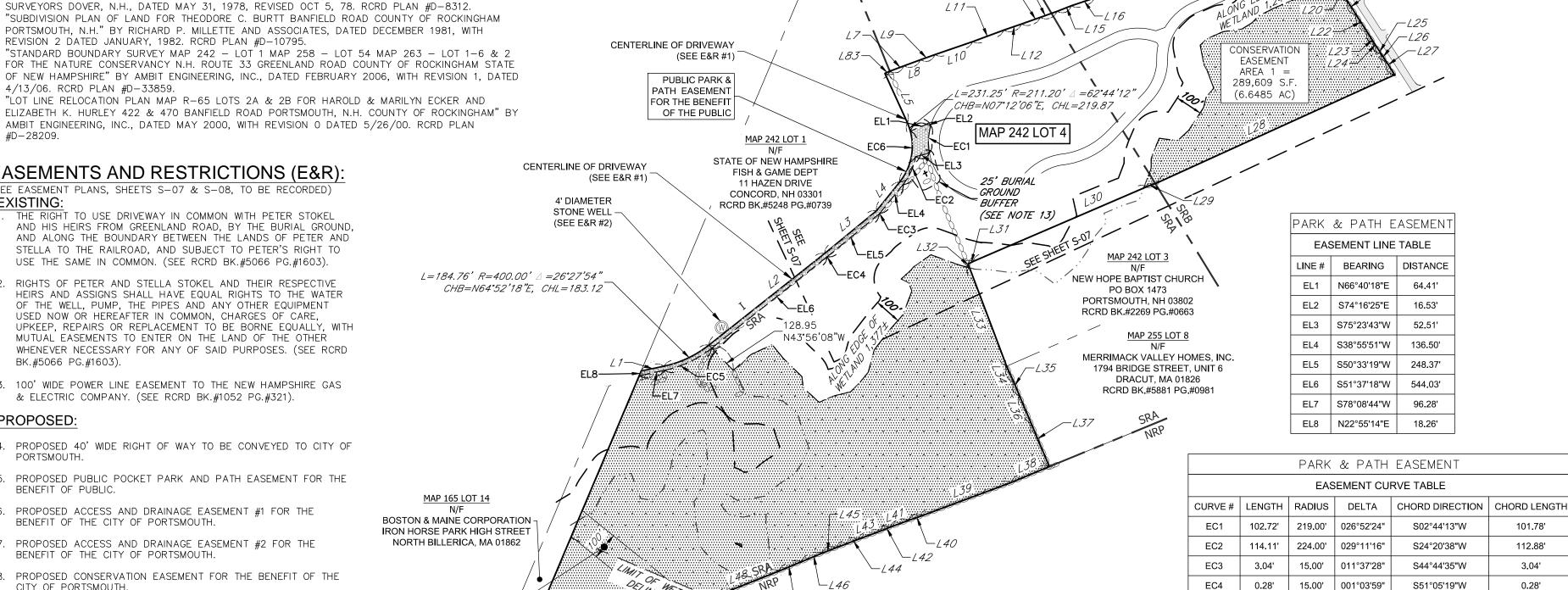
MAP 265 LOT 2E

CITY OF PORTSMOUTH

1 JUNKINS AVENUE

PORTSMOUTH, NH 03801

RCRD BK #5077 PG #1943



MAP 255 LOT 5 N/F

THOMAS E. & MARYBETH B. REIS AND

JAMES B. & MEEGAN C. REIS

305 PEVERLY HILL ROAD

PORTSMOUTH, NH 0380

RCRD BK #5560 PG #2148

MAP 256 LOT 1 N/F

SWIFT WATER GIRL SCOUT COUNCIL

ONE COMMERCE DRIVE

BEDFORD, NH 03110

ABUTTERS:

ROMAN CATHOLIC BISHOP OF

MANCHESTER CHURCH OF

IMMAC CONCEPTION

153 ASH STREET

MANCHESTER, NH 03104

MAP 165 LOT 14

BOSTON & MAINE CORPORATION IRON HORSE PARK HIGH STREET NORTH BILLERICA, MA 01862

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

RÓMAN CATHOLIC BISHOP OF MANCHESTER CHURCH OF IMMAC CONCEPTION 153 ASH STREET MANCHESTER, NH 03104 MAP 255 LOT 5

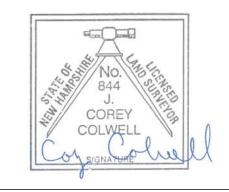
THOMAS E. & MARYBETH B. REIS AND JAMES B. & MEEGAN C. REIS 305 PEVERLY HILL ROAD PORTSMOUTH, NH 03801 RCRD BK.#5560 PG.#2148

MAP 255 LOT 8 MERRIMAC VALLEY HOMES, INC. 1794 BRIDGE STREET, UNIT 6 DRACUT. MA 01826 RCRD BK.#5881 PG.#0981

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.

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ARE ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

A COPY OF THIS PLAN HAS BEEN FILED WITH THE LOCAL PLANNING BOARD.



LICENSED LAND SURVEYOR

2021-09-08 DATE

MAP 256 LOT 1

EC5 | 191.70' | 415.02' | 026°27'54" |

SWIFT WATER GIRL SCOUT COUNCIL ONE COMMERCE DRIVE BEDFORD, NH 03110

209.00' 054°27'47"

MAP 265 LOT 2 MARK H. ODIORNE 520 BANFIELD ROAD PORTSMOUTH, NH 03801 RCRD BK.#3353 PG.#2213

DAVID W. ECKER 875 BANFIELD ROAD PORTSMOUTH, NH 03801 RCRD BK.#6091 PG.#0374

500 BANFIELD ROAD

PORTSMOUTH, NH 03802

RCRD BK.#2413 PG.#0222

MAP 265 LOT 2B IFE ANN & RICHARD M. RILEY 470 BANFIELD ROAD

PORTSMOUTH, NH 03801 RCRD BK.#3491 PG.#2344 MAP 265 LOT 2C RCRD BK.#2504 PG.#0028 APOSTOLIC CHURCH OF J CHRIST

PORTSMOUTH, NH 03801 RCRD BK.#2739 PG.#0043 MAP 265 LOT 2D CÍTY OF PORTSMOUTH DPW PO BOX 628 MAP 243 LOT 50

MAP 265 LOT 2E CITY OF PORTSMOUTH 1 JUNKINS AVENUE PORTSMOUTH, NH 03801 RCRD BK.#5077 PG.#1943 ABUTTERS ACROSS PEVERLY HILL ROAD:

3.04'

0.28'

190.00'

191.27'

PEVERLY HILL

ROAD

(PUBLIC RIGHT OF WAY)

MAP 232 LOT 92 DYANNA L. INNES 78 PEVERLY HILL ROAD PORTSMOUTH, NH 03801 RCRD BK.#3754 PG.#0099

S64°52'21"W

MAP 232 LOT 88 NATHAN M. & SHERRI M. TARLETON 74 LEAVITT AVENUE PORTSMOUTH, NH 0380

RCRD BK.#5885 PG.#1471 MAP 232 LOT 93 KÉNNETH T. BLACK 82 PEVERLY HILL ROAD

RCRD BK.#3743 PG.#1942 MAP 232 LOT 87 SÚSAN L. DIXON 68 WIBIRD STREET PORTSMOUTH, NH 03801

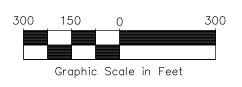
PORTSMOUTH, NH 03801

MAP 232 LOT 95 CITY OF PORTSMOUTH DPW PO BOX 628 PORTSMOUTH, NH 03802 RCRD BK.#2247 PG.#0239

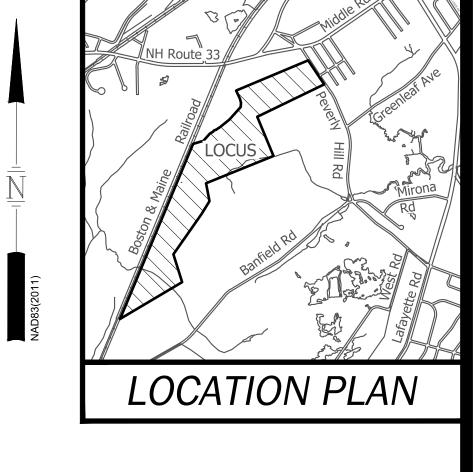
ASRT, LLC 266 MIDDLE STREET PORTSMOUTH, NH 03801 RCRD BK.#6184 PG.#1176

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



2	9/8/2021	NO REVISIONS THIS SHEET	ВМК	JCC
1	8/25/2021	NO REVISIONS THIS SHEET	ВМК	JJM
REV.	DATE	DESCRIPTION	DR	CK



#### 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

4. DIMENSIONAL REQUIREMENT OF OPEN SPACE RESIDENTIAL PUD (OS-PUD) PROPOSED: 105.705 ACRES MINIMUM STREET FRONTAGE: 100' 665' MINIMUM EXTERNAL YARDS SIDE & REAR: MINIMUM INTERNAL YARDS: 20.9 FRONT: SIDE & REAR: 30.0' MINIMUM SEPARATION BETWEEN STRUCTURES: 30.0 COMMON OPEN SPACE

PER THE CITY OF PORTSMOUTH ZONING ORDINANCE SECTION 10.725

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 0.380 RCRD BK.#5066 PG.#1603

6. PARCEL AREA: 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.

8. THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED EASEMENTS ON MAP 242 LOT 4. THIS PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.

9. 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.

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. 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 TFMORAN, INC.

13. THE NEGLECTED BURIAL GROUND SHOWN HEREON IS BELIEVED TO BE THE FORMER HAYES FAMILY BURIAL GROUND. CURRENT OWNERS OF THE PROPERTY ACKNOWLEDGE THAT ALL BODIES HAVE BEEN EXHUMED FROM THIS LOCATION. NO GRAVESTONES EXIST AT THIS SITE. THE 25' BUFFER TO THE BURIAL GROUND IS SHOWN AS AN ABUNDANCE

14. SEE SHEET S-08 FOR ADDITIONAL EASEMENTS. 15. 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 CHANGED SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.

TAX MAP 242 LOT 4

**OVERALL EASEMENT PLAN** PARSON WOODS CONDOMINIUM 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)

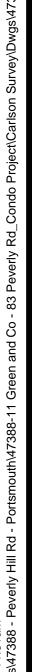
JULY 21, 2021

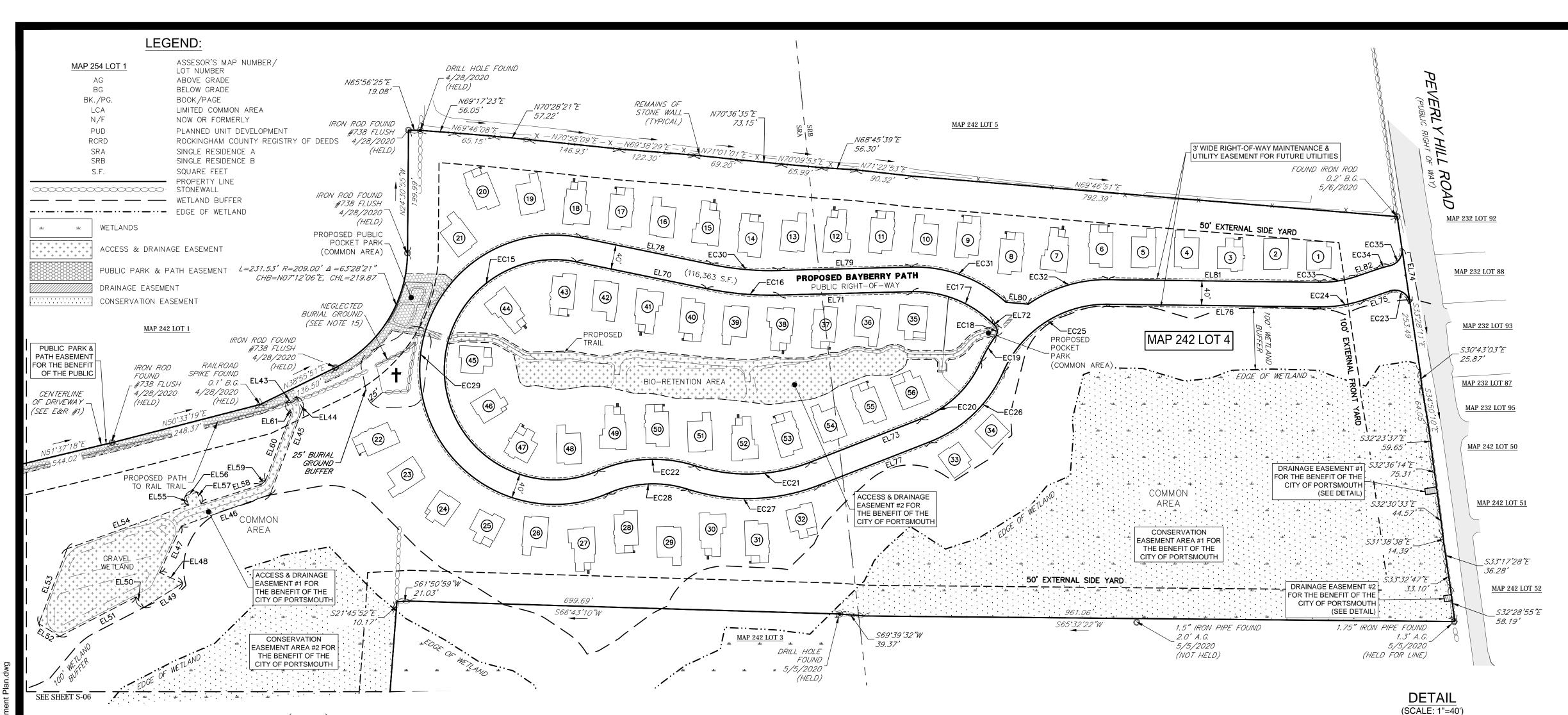


Civil Engineers Structural Engineers Traffic Engineers Land Surveyors Landscape Architects Scientists

170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

S-07 47388-11 CK BMK CADFILE





THE RIGHT TO USE THE GRAVEL DRIVEWAY IN COMMON WITH PETER STOKEL AND HIS HEIRS FROM GREENLAND ROAD, BY THE BURIAL GROUND, AND ALONG THE BOUNDARY BETWEEN THE LANDS OF PETER AND STELLA TO THE RAILROAD, AND SUBJECT TO

PETER'S RIGHT TO USE THE SAME IN COMMON. (SEE RCRD BK.#5066 PG.#1603).

RIGHTS OF PETER AND STELLA STOKEL AND THEIR RESPECTIVE HEIRS AND ASSIGNS SHALL HAVE EQUAL RIGHTS TO THE WATER OF THE WELL, 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. 100' WIDE POWER LINE EASEMENT TO THE NEW HAMPSHIRE GAS & ELECTRIC COMPANY. (SEE RCRD BK.#1052 PG.#321).

4. PROPOSED 40' WIDE RIGHT OF WAY TO BE CONVEYED TO CITY OF PORTSMOUTH.

5. PROPOSED PUBLIC POCKET PARK AND PATH EASEMENT FOR THE BENEFIT OF PUBLIC.

PROPOSED ACCESS AND DRAINAGE EASEMENT #1 FOR THE BENEFIT OF THE CITY OF

PROPOSED ACCESS AND DRAINAGE EASEMENT #2 FOR THE BENEFIT OF THE CITY OF

8. PROPOSED CONSERVATION EASEMENT FOR THE BENEFIT OF THE CITY OF PORTSMOUTH.

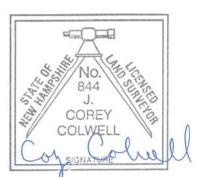
9. PROPOSED DRAINAGE EASEMENTS #1 & #2 FOR THE BENEFIT OF THE CITY OF

10. PROPOSED 3' WIDE RIGHT OF WAY MAINTENANCE AND UTILITY EASEMENT FOR ROADWAY MAINTENANCE AND FUTURE UTILITIES.

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,

CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ARE ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

A COPY OF THIS PLAN HAS BEEN FILED WITH THE LOCAL PLANNING BOARD.



WITH A PRECISION GREATER THAN 1:15,000.

2021-09-08 DATE LICENSED LAND SURVEYOR

### ACCESS & DRAINAGE EASEMENT #2 EASEMENT LINE TABLE LINE # | BEARING | DISTANCE EL43 N38°55'51"E 18.90' EL44 S50°44'01"E 21.92' EL45 | S04°11'12"E | 148.61' EL46 | S45°22'39"W | 153.44' EL47 | S00°04'19"E | 83.35' EL48 N89°55'41"E 41.09' EL49 S33°01'55"W 74.35' EL50 N60°52'53"W 21.29' EL51 | S37°37'57"W | 140.01' EL52 | N83°29'19"W | 39.79' EL53 | NO4°17'01"W | 130.12' EL54 N45°12'17"E 209.76 EL55 N42°53'23"W 15.79' EL56 | N47°06'37"E | 20.00' EL57 | S42°53'23"E | 20.50'

EL58 | N47°06'37"E | 102.16'

EL59 | N21°27'42"E | 10.82'

EL60 | N04°11'12"W | 117.74'

EL61 | N50°44'01"W | 19.06'

Copyright 2021 © Thomas F. Moran, Inc.

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.

duplicated, replicated or otherwise reproduced in any form whatsoever

This plan is not effective unless signed by a duly authorized officer of

EL71	N63°29'53'	'E 215.9	94'									
EL72	S70°15'41"	E 5.5	0'									
EL73	S43°38'45"	W 194.0	02'									
ROAD RIGHT-OF-WAY EASEMENT (INNER LOOP)												
EASEMENT CURVE TABLE												
CURVE ;	# LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTI							
EC15	672.20'	179.00'	215°09'43"	N30°58'02"W	341.28'							
EC16	119.26	521.00'	013°06'56"	N70°03'21"E	119.00'							
EC17	144.46	179.00'	046°14'26"	N86°37'06"E	140.57							
EC18	17.78	12.50'	081°28'29"	S29°31'26"E	16.31'							
EC19	48.29'	223.50'	012°22'46"	S05°01'26"W	48.20'							
EC20	138.04	176.50'	044°48'42"	S21°14'24"W	134.55'							
EC21	190.56	279.00'	039°07'58"	S63°12'44"W	186.87							

ROAD RIGHT-OF-WAY EASEMENT

(INNER LOOP)

EASEMENT LINE TABLE

LINE # | BEARING | DISTANCE

EL70 | N76°36'49"E | 215.94

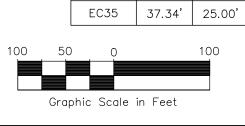
EC22 | 161.21' | 223.50' | 041°19'37" |

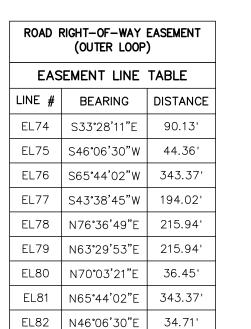
	ROAD RIGHT-OF-WAY EASEMENT (OUTER LOOP)  EASEMENT CURVE TABLE									
CURVE #	LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTH					
EC23	43.82'	25.00'	100°25'19"	N83°40'50"W	38.42'					
EC24	74.16'	216.50'	019°37'32"	S55°55'16"W	73.80'					
EC25	214.26	183.50'	066°53'59"	S32°17'03"W	202.29'					
EC26	169.33'	216.50'	044°48'42"	S21°14'24"W	165.04					
EC27	217.88	319.00'	039°07'58"	S63°12'44"W	213.67					
EC28	132.36	183.50'	041°19'37"	S62°06'55"W	129.51'					
EC29	822.41	219.00'	215°09'43"	N30°58'02"W	417.54					
EC30	110.11	481.00'	013°06'56"	N70°03'21"E	109.87					
EC31	167.80'	219.00'	043°54'00"	N85°26'53"E	163.72'					
EC32	138.58	223.50'	035°31'38"	N47°58'13"E	136.38'					
EC33	60.46	176.50'	019°37'32"	N55°55'16"E	60.16'					
EC34	23.39'	223.50'	005°59'43"	N49°06'22"E	23.38'					

DIG SAFE
THE NH RY LY
SILITES CHOCK GROUND PLANT DAMAGE PREJENTION OF THE PROPERTY O
CONTACT DIG SAFE 72 BUSINESS
HOURS PRIOR TO CONSTRUCTION

S62°06'55"W

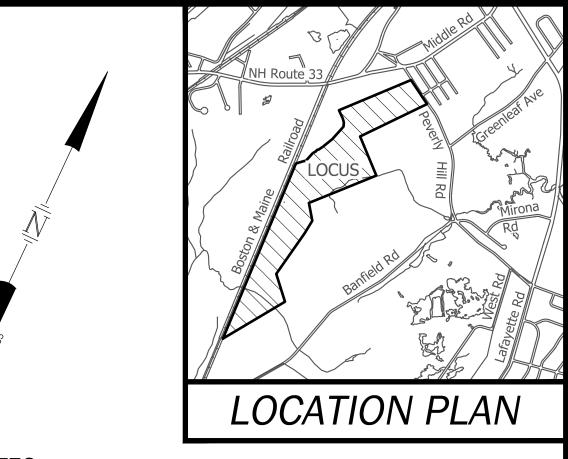
157.74





(OUTER LOOP)									
EASEMENT CURVE TABLE									
CURVE #	LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD LENGTH				
EC23	43.82'	25.00'	100°25'19"	N83°40'50"W	38.42'				
EC24	74.16'	216.50'	019°37'32"	S55°55'16"W	73.80'				
EC25	214.26	183.50'	066°53'59"	S32°17'03"W	202.29'				
EC26	169.33	216.50'	044°48'42"	S21°14'24"W	165.04				
EC27	217.88	319.00'	039°07'58"	S63°12'44"W	213.67'				
EC28	132.36	183.50'	041°19'37"	S62°06'55"W	129.51'				
EC29	822.41	219.00'	215°09'43"	N30°58'02"W	417.54				
EC30	110.11	481.00'	013°06'56"	N70°03'21"E	109.87				
EC31	167.80'	219.00'	043°54'00"	N85°26'53"E	163.72'				
EC32	138.58	223.50'	035°31'38"	N47°58'13"E	136.38'				
EC33	60.46	176.50'	019°37'32"	N55°55'16"E	60.16'				
EC34	23.39'	223.50'	005°59'43"	N49°06'22"E	23.38'				
EC35	37.34'	25.00'	085°34'25"	N09°19'01"E	33.96'				

2 9/8/2021 ADDED PROPOSED ROAD NAME 1 8/25/2021 REVISED ACCESS/DRAINAGE EASEM'T 2 BMK JJM REV. DATE **DESCRIPTION** DR CK



### NOTES:

29, 2021.

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

4.	DIMENSIONAL REQUIREMENT OF OPEN		
	SPACE RESIDENTIAL PUD (OS-PUD)	REQUIRED:	PROPOSED:
	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 ORDINAL	NCE SECTION 10.725	

OWNER OF RECORD: 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: 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 DEPICT THE PROPOSED EASEMENTS ON MAP 242 LOT 4. THIS PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF

FIFID SURVEY COMPLETED BY TCF. 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

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 TFMORAN, INC.

14. SEE SHEET S-07 FOR OVERALL EASEMENT PLAN. 15. THE NEGLECTED BURIAL GROUND SHOWN ON SHEET S-03 IS BELIEVED TO BE THE FORMER HAYES FAMILY BURIAL GROUND. CURRENT OWNERS OF THE PROPERTY ACKNOWLEDGE THAT ALL BODIES HAVE BEEN EXHUMED FROM THIS LOCATION. NO

GRAVESTONES EXIST AT THIS BURIAL GROUND. THE 25' BUFFER TO THE BURIAL GROUND IS SHOWN AS AN ABUNDANCE OF CAUTION. 16. 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 CHANGED SHALL BE MADE TO THIS SITE PLAN

WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.

TAX MAP 242 LOT 4

### **EASEMENT PLAN** PARSON WOODS CONDOMINIUM 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

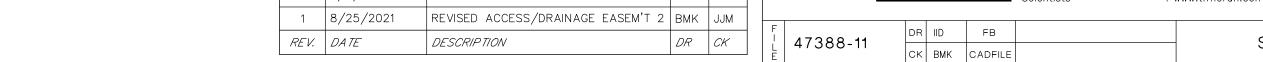
**SCALE: 1' = 100' (22x34)** 1" = 200' (11x17)

JULY 21, 2021



Structural Engineers and Surveyors andscape Architects. | 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

S-08 CK BMK CADFILE



N32°28'55"W

1.75" IRON PIPE

FOUND 1.3' A.G.

(HELD FOR LINE)

*58.19* '

5/5/2020

\_*N32°36'14"W* 

DRAINAGE EASEMENT #7

FOR THE BENEFIT OF THE

CITY OF PORTSMOUTH

S34°43'46"E\_

MAP 242 LOT

10.00

S55°16'14"W

19.42'

N55°16'14"E

19.05

S31°38′38″E

DRAINAGE EASEMENT #2

CITY OF PORTSMOUTH

FOR THE BENEFIT OF THE

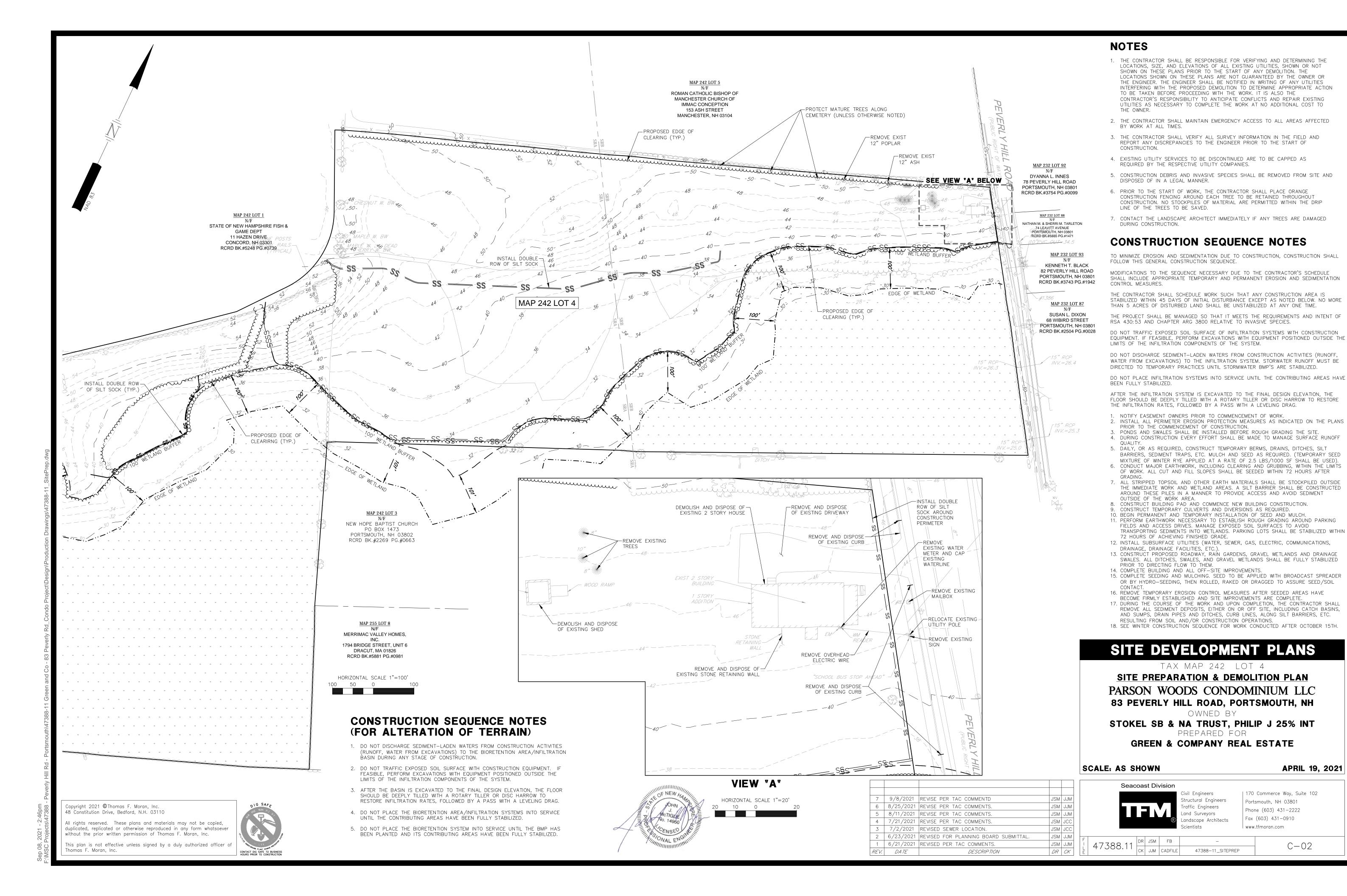
14.39'

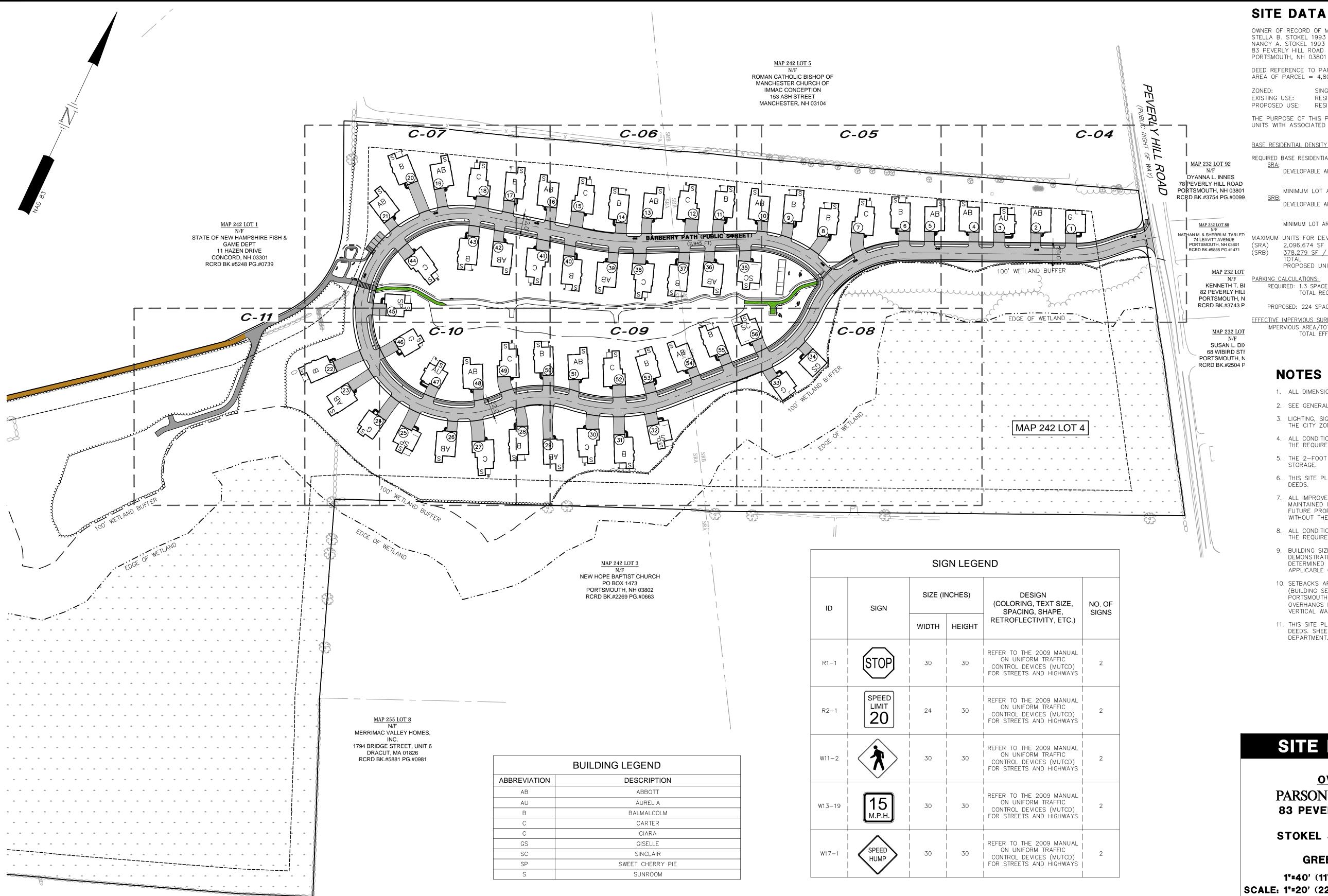
S56°41'58"W

S33°18'02"E

12.50'

N56°41'58"E\_





OWNER OF RECORD OF MAP 242 LOT 4: STELLA B. STOKEL 1993 TRUST NANCY A. STOKEL 1993 TRUST & PHILIP J. STOKEL 83 PEVERLY HILL ROAD PORTSMOUTH, NH 03801

DEED REFERENCE TO PARCEL IS BK 5066 PG 1603 AREA OF PARCEL =  $4,801,500\pm$  SF OR  $110\pm$  ACRES

SINGLE RESIDENCE A (SRA) & SINGLE RESIDENCE B (SRB)

EXISTING USE: RESIDENTIAL (SINGLE FAMILY DWELLING) PROPOSED USE: RESIDENTIAL (OPEN SPACE PLANNED UNIT CONDOMINIUM DEVELOPMENT)

THE PURPOSE OF THIS PLAN IS TO DEPICT A DEVELOPMENT OF 56 SINGLE FAMILY CONDOMINIUM

UNITS WITH ASSOCIATED ROADWAY, UTILITIES, AND SITE IMPROVEMENTS..

BASE RESIDENTIAL DENSITY CALCULATIONS:

REQUIRED BASE RESIDENTIAL DENSITY:

DEVELOPABLE AREA = TOTAL AREA - WETLANDS - 15% SLOPES = 3,938,561 SF - 1,684,960 SF - 156,927 SF

= 2,096,674 SF MINIMUM LOT AREA PER DWELLING = 1 AC = 43,560 SF

= TOTAL AREA - WETLANDS - 15% SLOPE DEVELOPABLE AREA = 665,948 SF - 286,452 SF - 1,217 SF

= 378,279 SF MINIMUM LOT AREA PER DWELLING = 15,000 SF

NATHAN M. & SHERI M. TARLET MAXIMUM UNITS FOR DEVELOPMENT = DEVELOPABLE AREA / MINIMUM LOT AREA PER DWELLING 2,096,674 SF / 43,560 SF = 48.1 UNITS

<u>378,279 SF / 15,000 SF</u> = 25.2 UNITS = 74 UNITS PROPOSED UNITS FOR OS-PUD = 56 UNITS

REQUIRED: 1.3 SPACES/UNIT PLUS ONE (1) VISITOR SPACE FOR EVERY 5 DWELLING UNITS. TOTAL REQUIRED = 84 SPACES

PROPOSED: 224 SPACES (2 GARAGE SPACES PER UNIT, PLUS 2 PRIVATE DRIVEWAY SPACES PER UNIT) EFFECTIVE IMPERVIOUS SURFACE CALCULATIONS:

IMPERVIOUS AREA/TOTAL LOT AREA = 509,454 SF/45,832,250 SF = 0.011TOTAL EFFECTIVE IMPERVIOUS SURFACE = 1.10%

### **NOTES**

- 1. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.
- 2. SEE GENERAL NOTES ON NOTES & LEGEND SHEET (C-01).
- 3. LIGHTING, SIGNAGE, LANDSCAPING, AND SCREENING SHALL MEET THE REQUIREMENTS OF THE CITY ZONING ORDINANCE AND SITE PLAN REGULATIONS.
- 4. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
- 5. THE 2-FOOT PANEL ALONG THE EDGE OF THE ROADWAY TO BE USED FOR SNOW
- 6. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF
- 7. 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 CHANGED SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.
- 8. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
- 9. BUILDING SIZE, STYLE, AND LOCATION SHOWN ARE APPROXIMATE AND FOR DEMONSTRATIVE PURPOSED ONLY. FINAL BUILDING LOCATION, SIZE, AND STYLES TO BE DETERMINED PRIOR TO ISSUANCE OF A BUILDING PERMIT, AND SHALL MEET ALL APPLICABLE CITY AND STATE REGULATIONS.
- 10. SETBACKS ARE BASED ON THE BUILDING WALLS NOT OVERHANGS. SEPARATION (BUILDING SEPARATION) IS BASED ON THE DEFINITION OF BUILDING COVERAGE IN THE PORTSMOUTH ZONING REGULATIONS, ARTICLE 15, DEFINITIONS. THIS EXEMPTS OVERHANGS LESS THAN 30" FROM THE VERTICAL WALL, TYING THE SETBACK TO THE VERTICAL WALL.
- 11. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. SHEETS C-00 - C-76 AND S-01 - S-08 ARE ON FILE WITH THE PLANNING

### SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

**OVERALL SITE LAYOUT PLAN** PARSON WOODS CONDOMINIUM LLC 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")

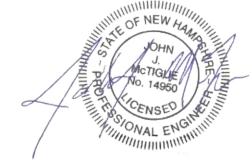
**APRIL 19, 2021** 

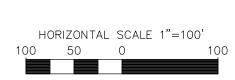
Copyright 2021 © Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

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.







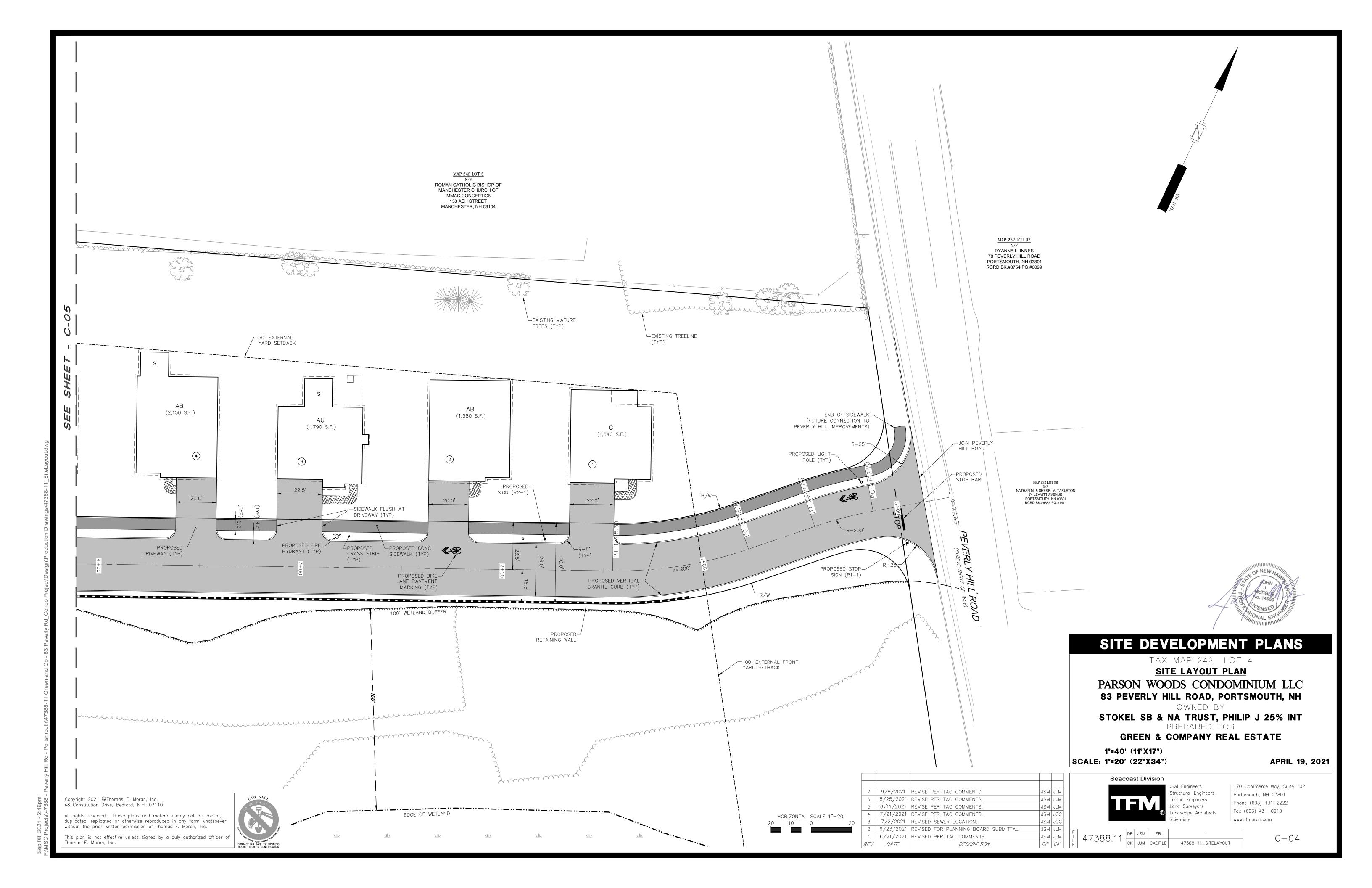
7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM		
6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJM		
5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJM		
4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC		
3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC		
2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM	F	Т
1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJM	ļ.	
REV.	DA TE	DESCRIPTION DESCRIPTION	DR	CK	E	

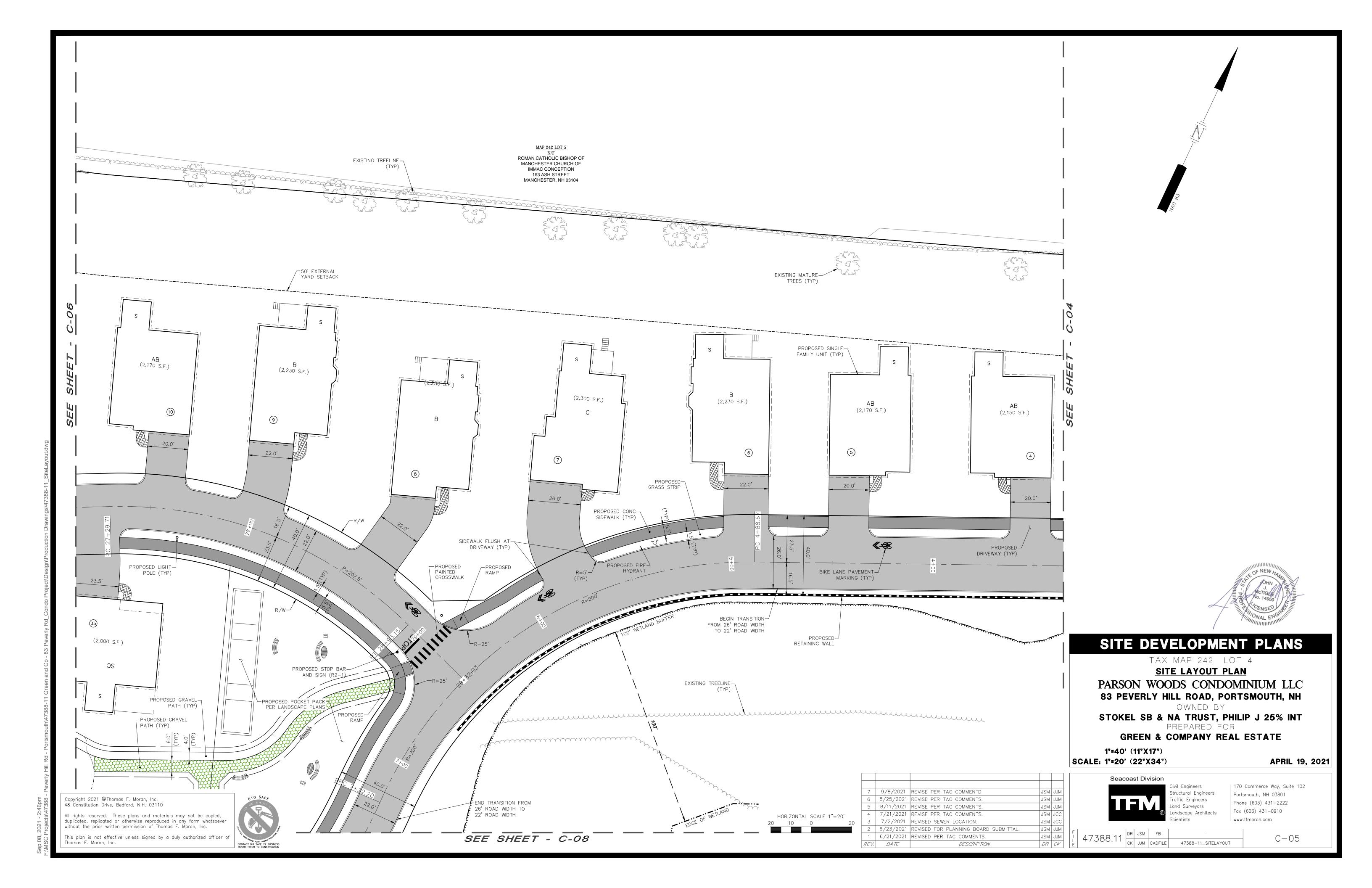
Seacoast Division

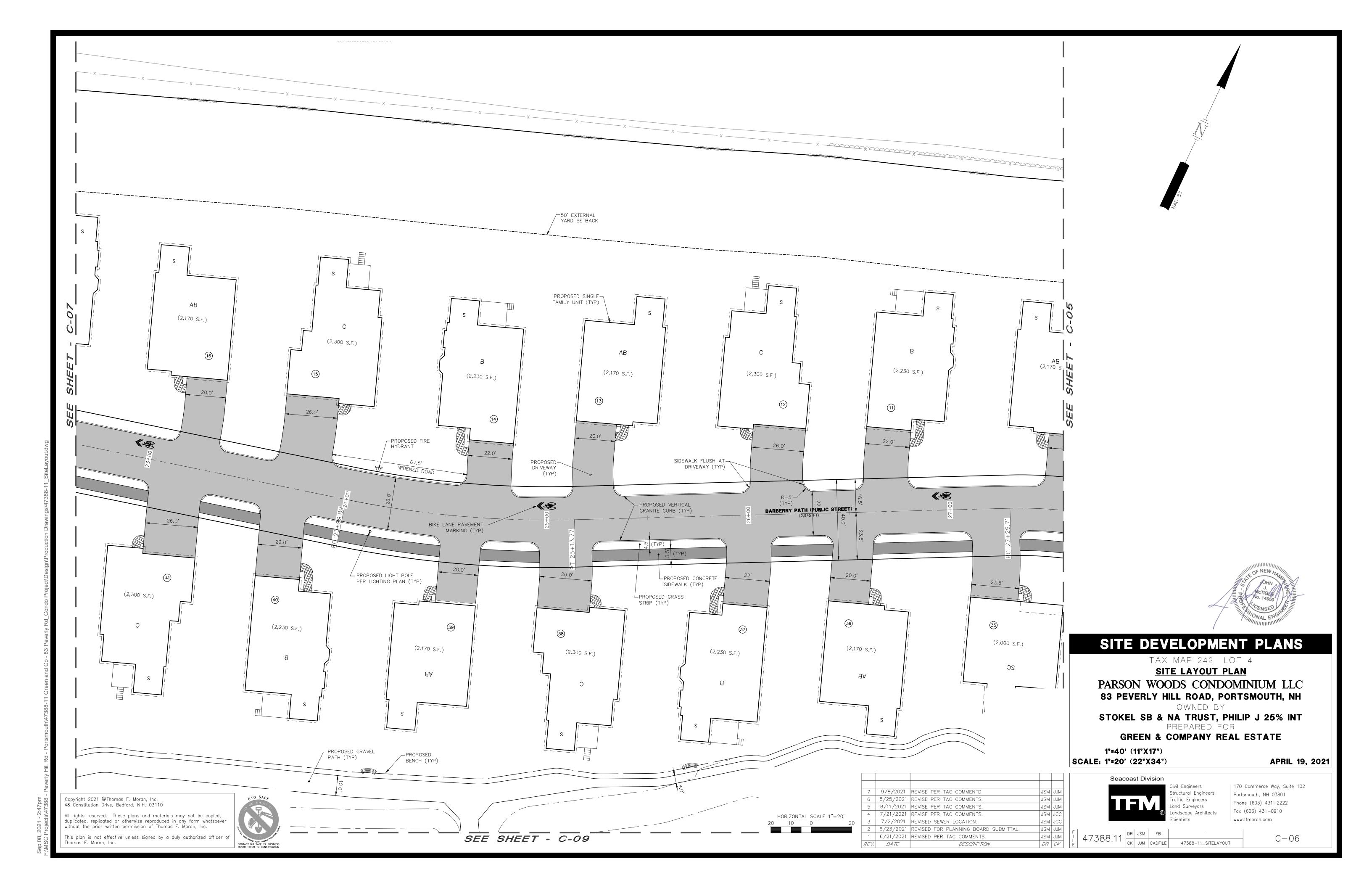
Civil Engineers Structural Engineers Traffic Engineers and Surveyors \_andscape Architects

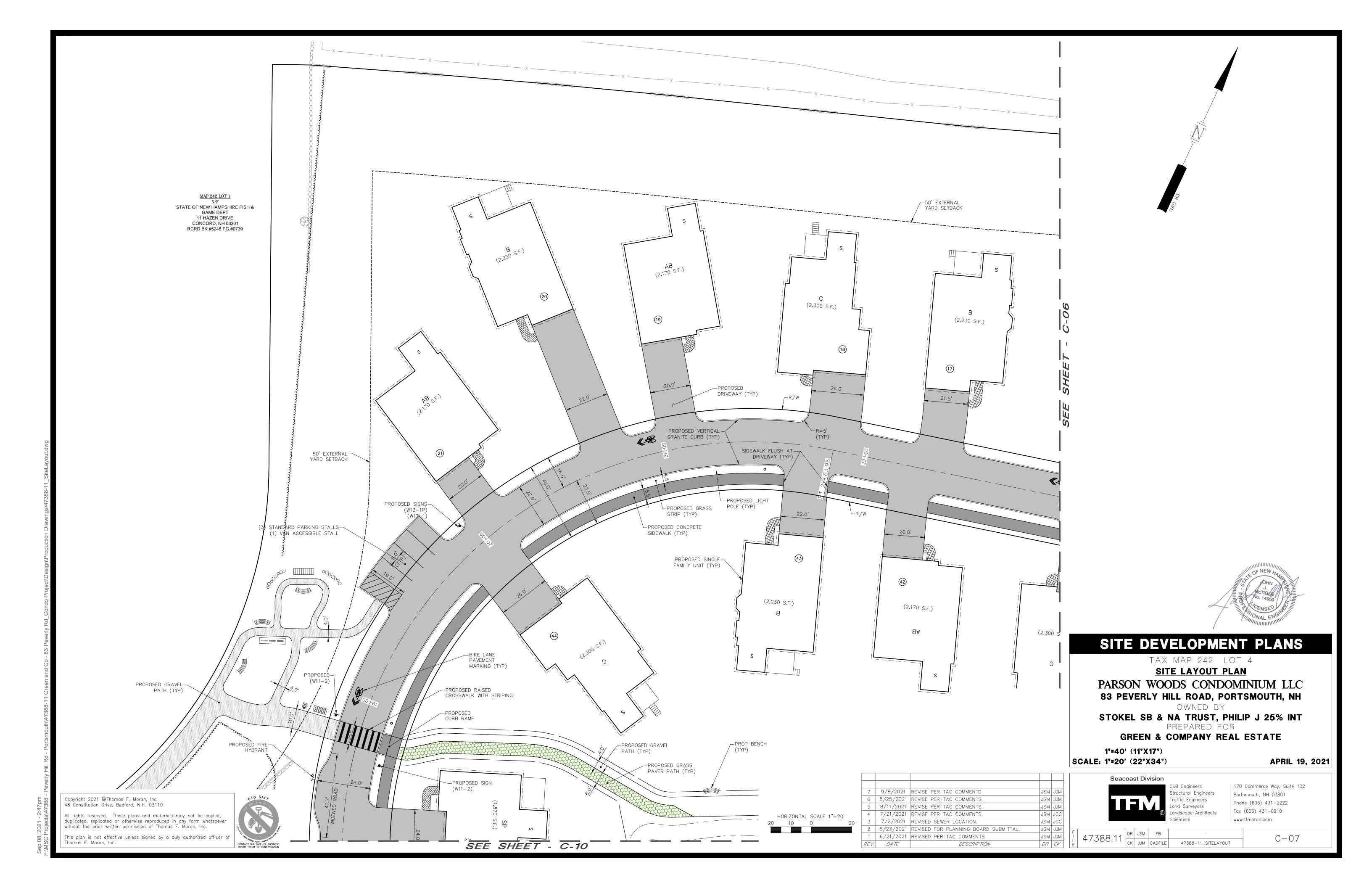
| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

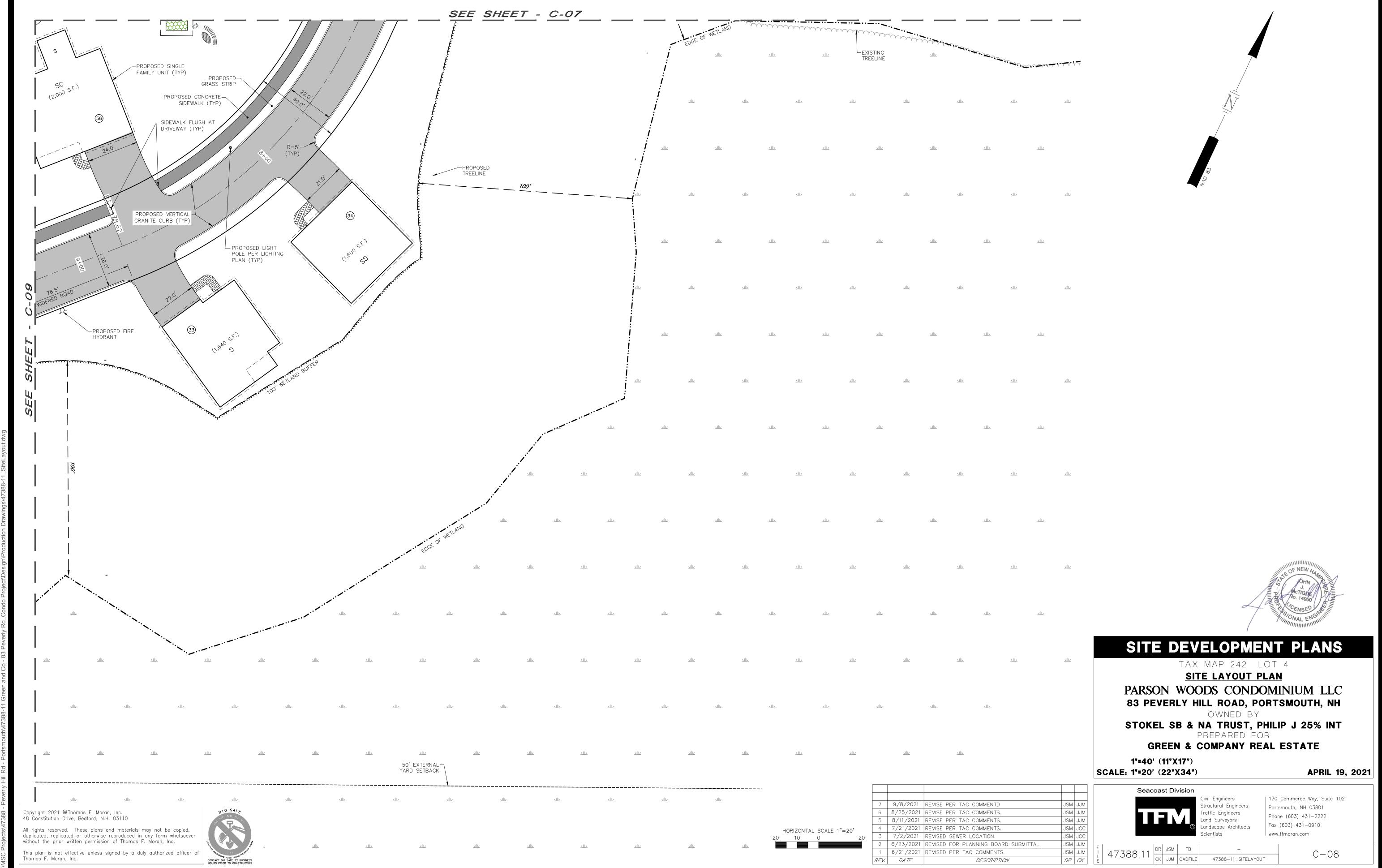
C - 03CK JJM CADFILE 47388-11\_SITELAYOUT



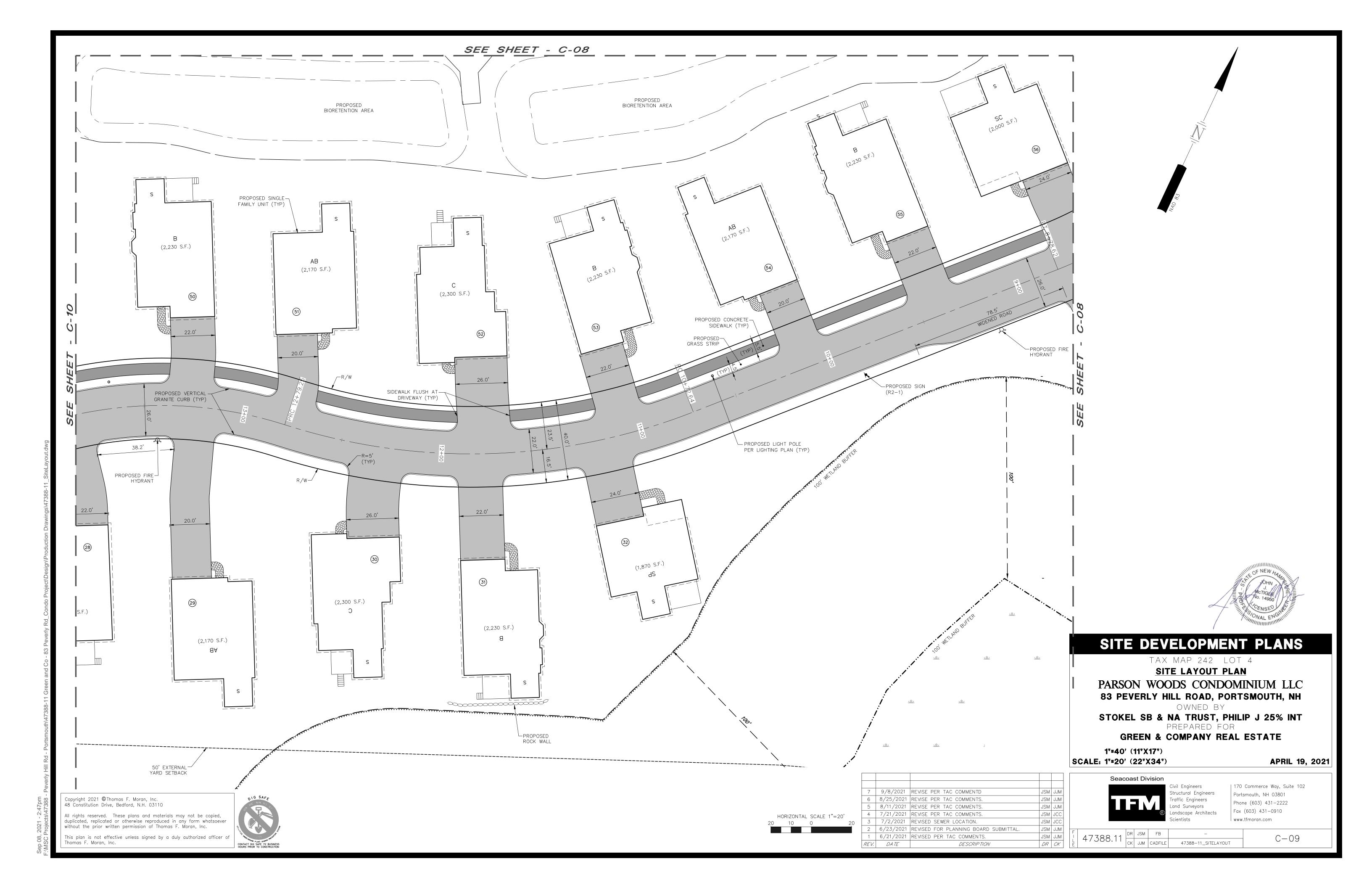


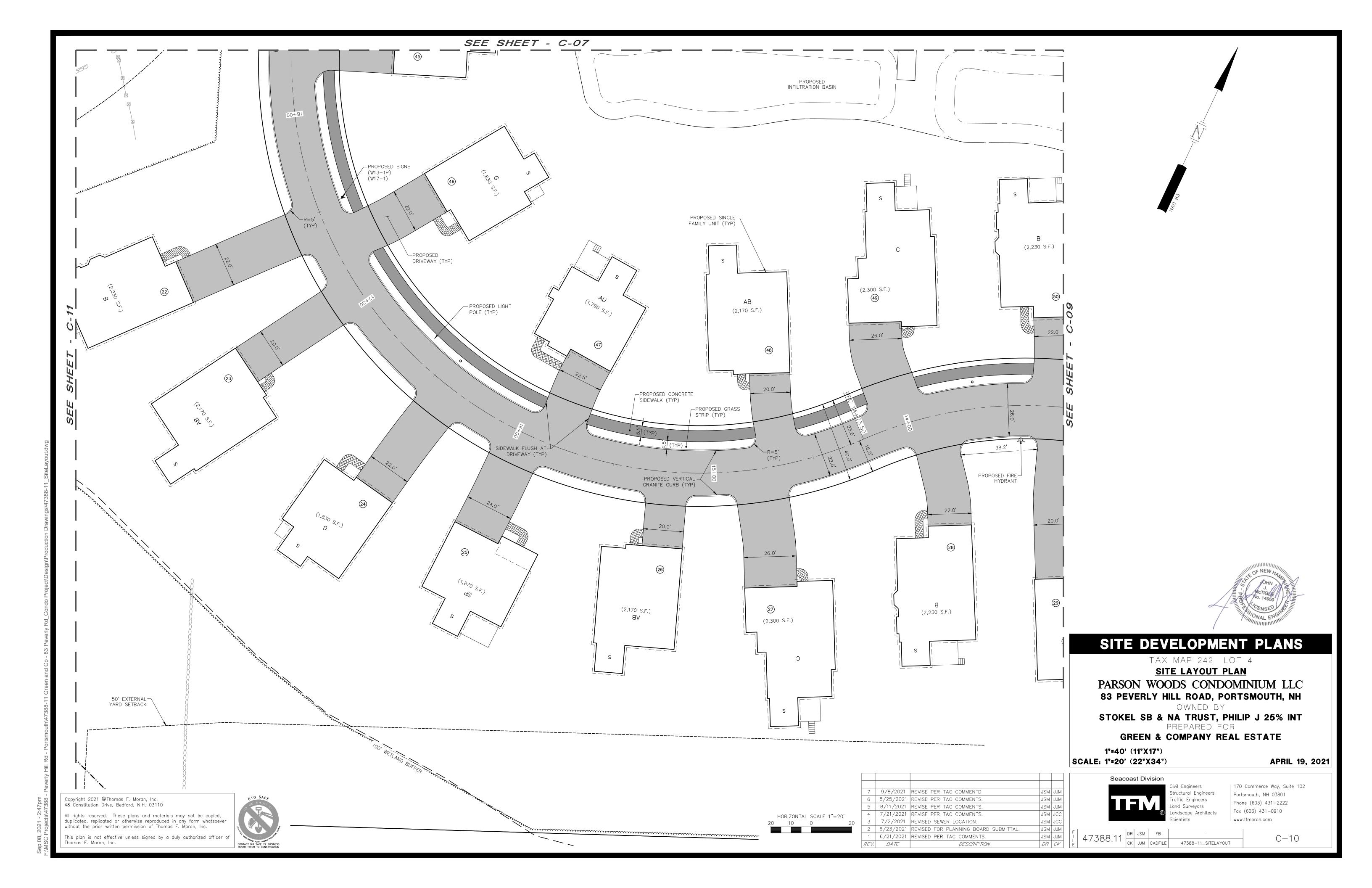


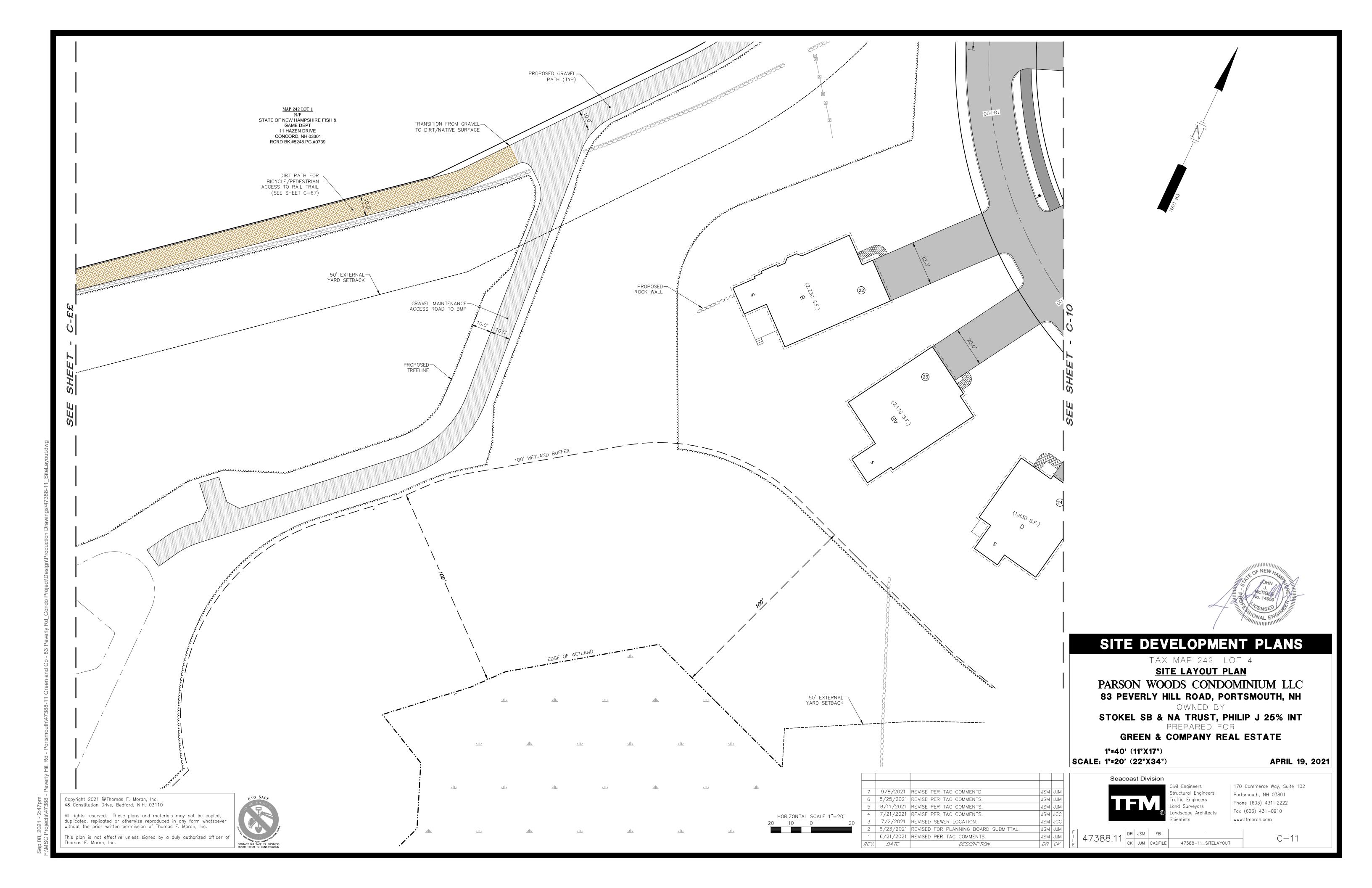


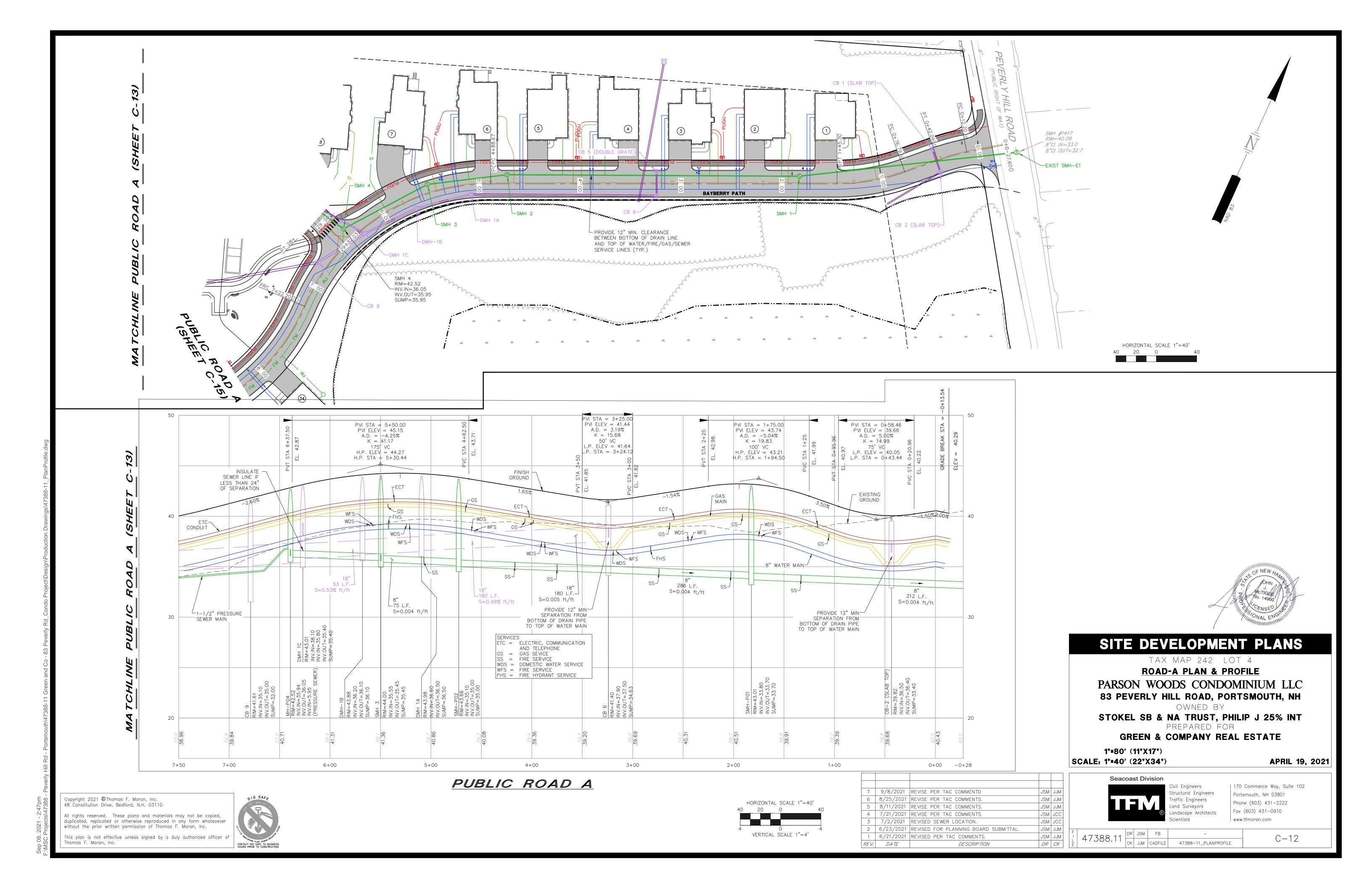


Sep 08, 2021 - 2:47pm

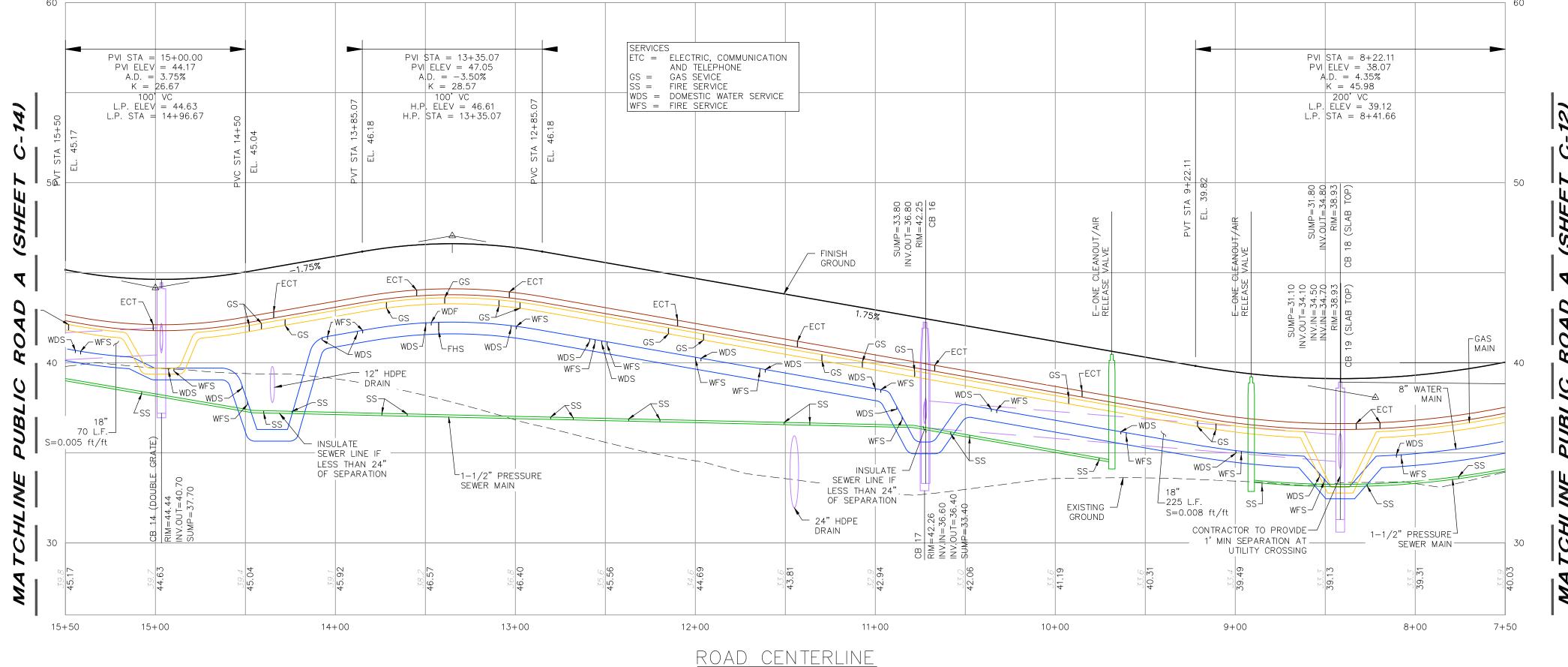












OF NEW HAMPING TO THE TOP OF THE TOP

## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

PARSON WOODS CONDOMINIUM LLC
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** 

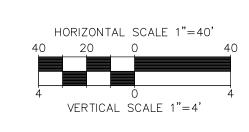
PUBLIC ROAD A

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.





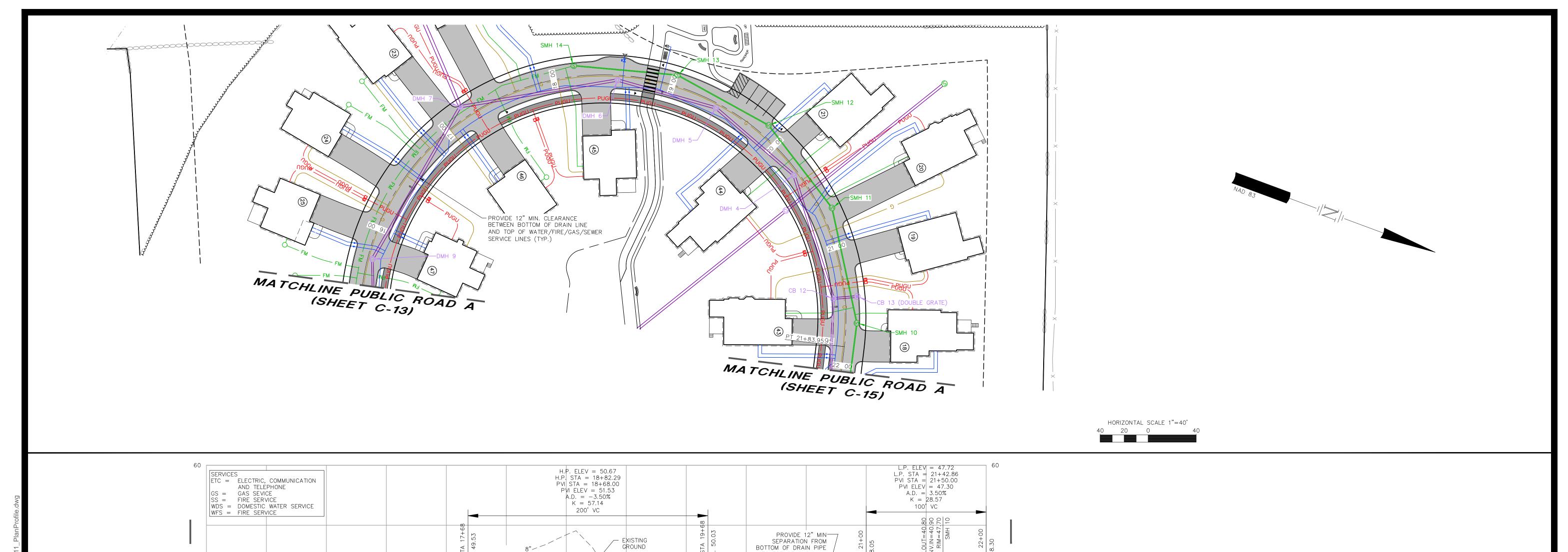
7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM
6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJM
5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJN
4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC
3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC
2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM
1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJN
REV.	DA TE	DESCRIPTION DESCRIPTION	DR	CK

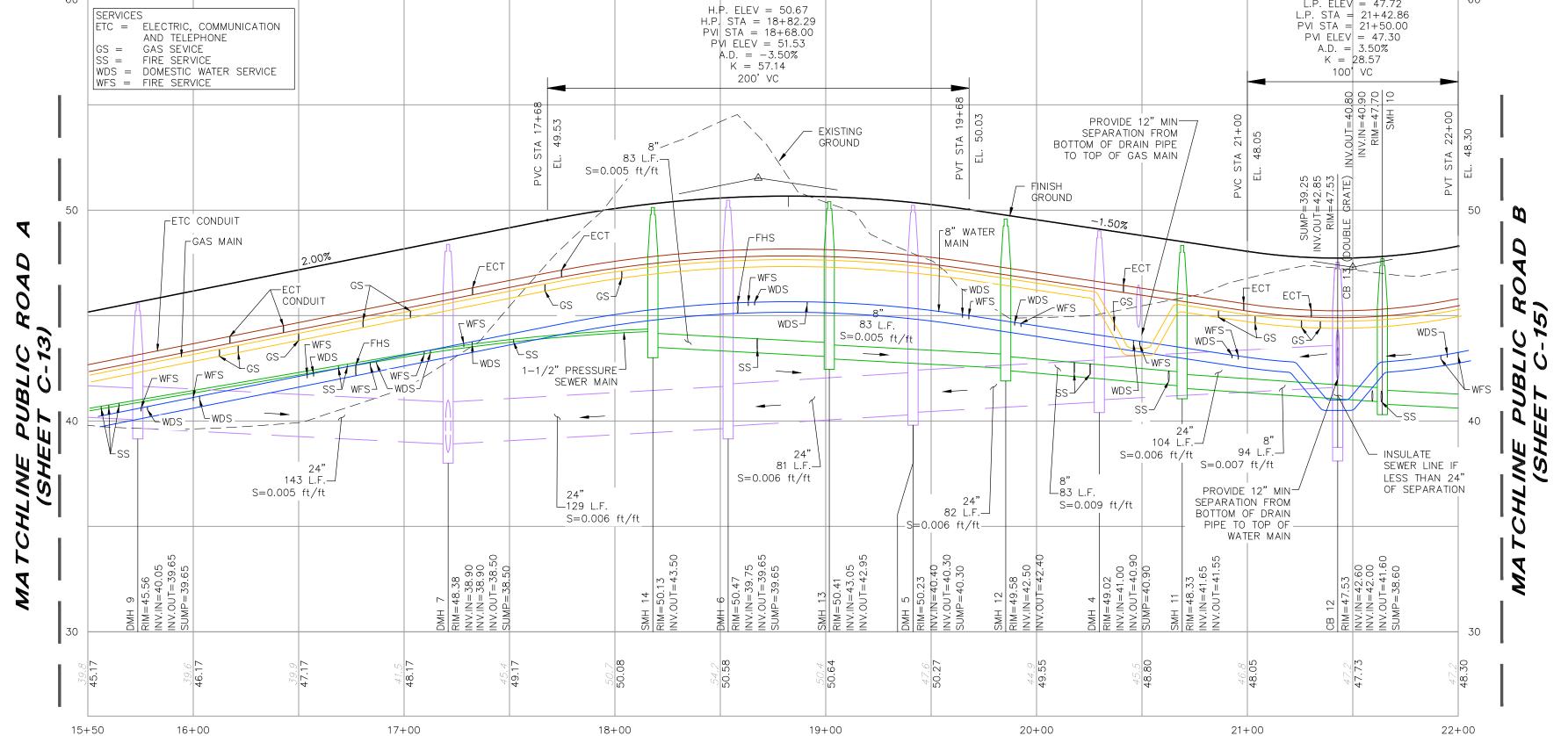


Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

3.11 DR JSM FB - C-13





PUBLIC ROAD A

McTIGUE NO. 14950

MCTIGUE NO. 1

## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

PARSON WOODS CONDOMINIUM LLC
83 PEVERLY HILL ROAD, PORTSMOUTH, NH

STOKEL SB & NA TRUST, PHILIP J 25% INT
PREPARED FOR

**GREEN & COMPANY REAL ESTATE** 

1"=80' (11"X17") SCALE: 1"=40' (22"X34")

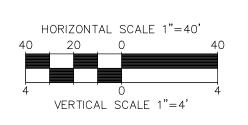
APRIL 19, 2021

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.



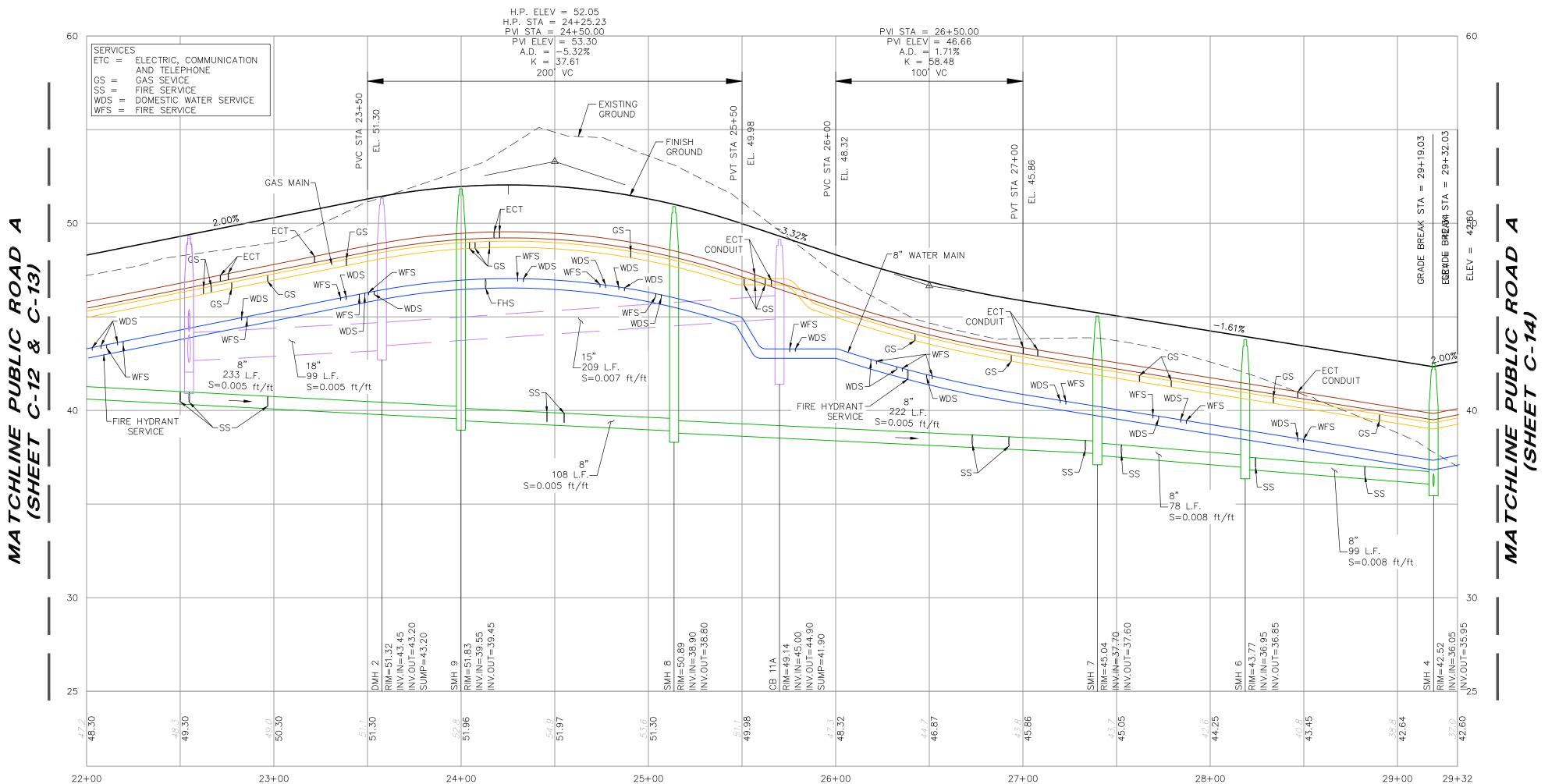


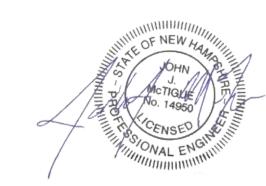
7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM
6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJM
5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJM
4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC
3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC
2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM
1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJM
RE V.	DA TE	DESCRIPTION DESCRIPTION	DR	CK



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

38.11 DR JSM FB - C-14





## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

PARSON WOODS CONDOMINIUM LLC
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")

APRIL 19, 2021

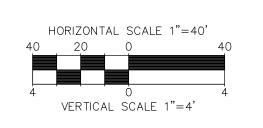
PUBLIC ROAD A

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.





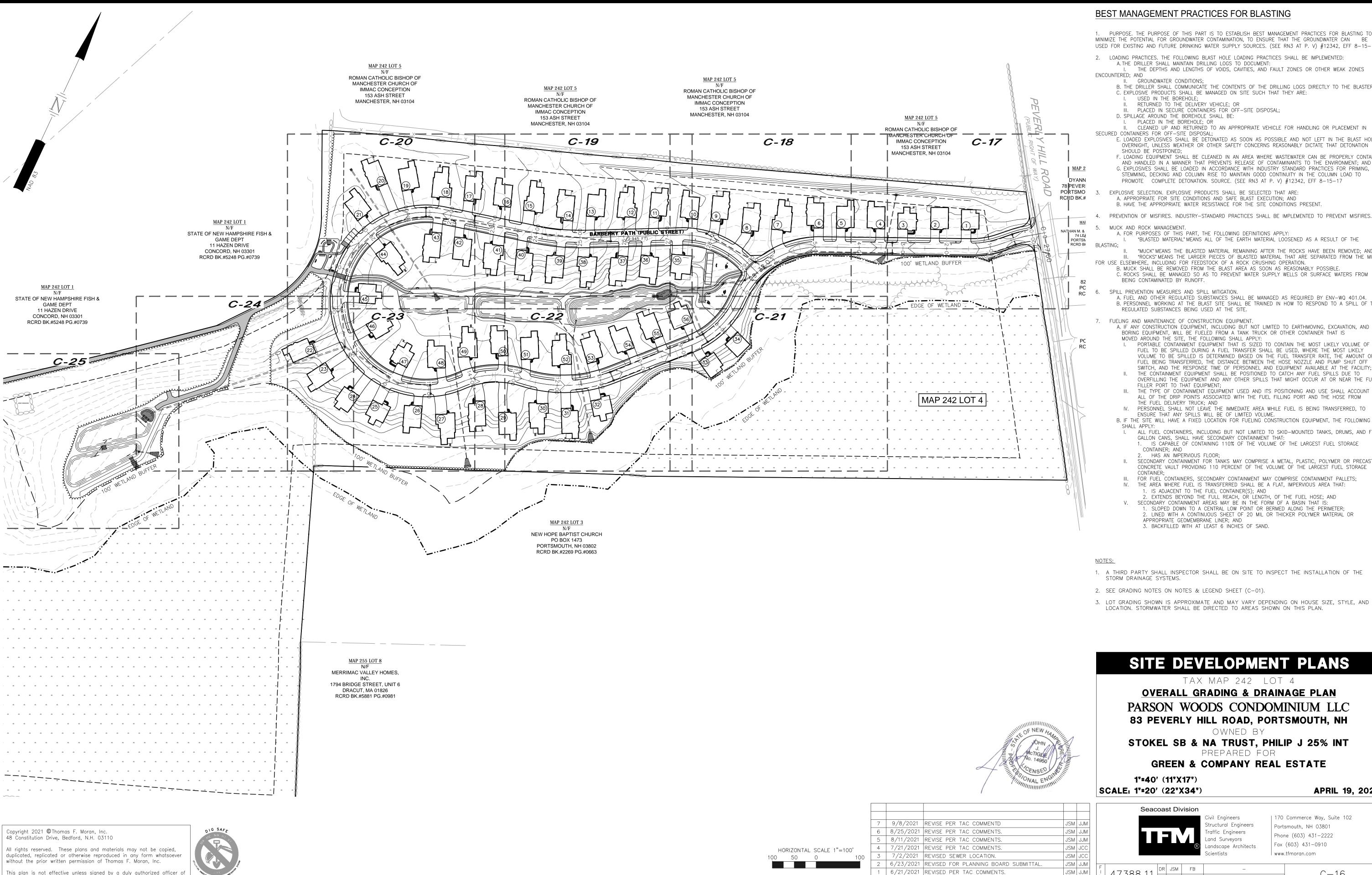
7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM
6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJM
5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJM
4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC
3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC
2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM
1	6 <i>JZ81Z</i> Ø21	REVISION PERRIACANNIMIENTO COMMENTS	JOSARA	JOHN
REV.	DA TE	DESCRIPTION DESCRIPTION	DR	CK



SCALE: 1"=40' (22"X34")

Civil Engineers 170 Commerce Way, Suite 102
Structural Engineers Portsmouth, NH 03801
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

S88.11 DR JSM FB - C-15



This plan is not effective unless signed by a duly authorized officer of

homas F. Moran, Inc.

#### BEST MANAGEMENT PRACTICES FOR BLASTING

1. PURPOSE. THE PURPOSE OF THIS PART IS TO ESTABLISH BEST MANAGEMENT PRACTICES FOR BLASTING TO MINIMIZE THE POTENTIAL FOR GROUNDWATER CONTAMINATION, TO ENSURE THAT THE GROUNDWATER CAN BE USED FOR EXISTING AND FUTURE DRINKING WATER SUPPLY SOURCES. (SEE RN3 AT P. V) #12342, EFF 8-15-17

2. LOADING PRACTICES. THE FOLLOWING BLAST HOLE LOADING PRACTICES SHALL BE IMPLEMENTED:

A. THE DRILLER SHALL MAINTAIN DRILLING LOGS TO DOCUMENT: THE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES

II. GROUNDWATER CONDITIONS

B. THE DRILLER SHALL COMMUNICATE THE CONTENTS OF THE DRILLING LOGS DIRECTLY TO THE BLASTER; C. EXPLOSIVE PRODUCTS SHALL BE MANAGED ON SITE SUCH THAT THEY ARE:

USED IN THE BOREHOLE; RETURNED TO THE DELIVERY VEHICLE; OR

. PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL;

D. SPILLAGE AROUND THE BOREHOLE SHALL BE:

PLACED IN THE BOREHOLE: OR II. CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN

SECURED CONTAINERS FOR OFF-SITE DISPOSAL; E. LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND NOT LEFT IN THE BLAST HOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED;

F. LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT; AND G. EXPLOSIVES SHALL BE LOADED IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. SOURCE. (SEE RN3 AT P. V) #12342, EFF 8-15-17

EXPLOSIVE SELECTION. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE: A. APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION; AND

B. HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT.

MUCK AND ROCK MANAGEMENT.

A. FOR PURPOSES OF THIS PART, THE FOLLOWING DEFINITIONS APPLY: "BLASTED MATERIAL" MEANS ALL OF THE EARTH MATERIAL LOOSENED AS A RESULT OF THE

"MUCK" MEANS THE BLASTED MATERIAL REMAINING AFTER THE ROCKS HAVE BEEN REMOVED; AND

"ROCKS" MEANS THE LARGER PIECES OF BLASTED MATERIAL THAT ARE SEPARATED FROM THE MUCK FOR USE ELSEWHERE, INCLUDING FOR FEEDSTOCK OF A ROCK CRUSHING OPERATION. B. MUCK SHALL BE REMOVED FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.

C. ROCKS SHALL BE MANAGED SO AS TO PREVENT WATER SUPPLY WELLS OR SURFACE WATERS FROM BEING CONTAMINATED BY RUNOFF.

SPILL PREVENTION MEASURES AND SPILL MITIGATION. A. FUEL AND OTHER REGULATED SUBSTANCES SHALL BE MANAGED AS REQUIRED BY ENV-WQ 401.04.

B. PERSONNEL WORKING AT THE BLAST SITE SHALL BE TRAINED IN HOW TO RESPOND TO A SPILL OF THE REGULATED SUBSTANCES BEING USED AT THE SITE.

7. FUELING AND MAINTENANCE OF CONSTRUCTION EQUIPMENT.

A. IF ANY CONSTRUCTION EQUIPMENT, INCLUDING BUT NOT LIMITED TO EARTHMOVING, EXCAVATION, AND BORING EQUIPMENT, WILL BE FUELED FROM A TANK TRUCK OR OTHER CONTAINER THAT IS

MOVED AROUND THE SITE, THE FOLLOWING SHALL APPLY: PORTABLE CONTAINMENT EQUIPMENT THAT IS SIZED TO CONTAIN THE MOST LIKELY VOLUME OF FUEL TO BE SPILLED DURING A FUEL TRANSFER SHALL BE USED, WHERE THE MOST LIKELY VOLUME TO BE SPILLED IS DETERMINED BASED ON THE FUEL TRANSFER RATE, THE AMOUNT OF FUEL BEING TRANSFERRED, THE DISTANCE BETWEEN THE HOSE NOZZLE AND PUMP SHUT OFF

SWITCH, AND THE RESPONSE TIME OF PERSONNEL AND EQUIPMENT AVAILABLE AT THE FACILITY; II. THE CONTAINMENT EQUIPMENT SHALL BE POSITIONED TO CATCH ANY FUEL SPILLS DUE TO OVERFILLING THE EQUIPMENT AND ANY OTHER SPILLS THAT MIGHT OCCUR AT OR NEAR THE FUEL FILLER PORT TO THAT EQUIPMENT III. THE TYPE OF CONTAINMENT EQUIPMENT USED AND ITS POSITIONING AND USE SHALL ACCOUNT FOR

ALL OF THE DRIP POINTS ASSOCIATED WITH THE FUEL FILLING PORT AND THE HOSE FROM THE FUEL DELIVERY TRUCK; AND

IV. PERSONNEL SHALL NOT LEAVE THE IMMEDIATE AREA WHILE FUEL IS BEING TRANSFERRED, TO ENSURE THAT ANY SPILLS WILL BE OF LIMITED VOLUME.

B. IF THE SITE WILL HAVE A FIXED LOCATION FOR FUELING CONSTRUCTION EQUIPMENT, THE FOLLOWING I. ALL FUEL CONTAINERS, INCLUDING BUT NOT LIMITED TO SKID-MOUNTED TANKS, DRUMS, AND FIVE

GALLON CANS, SHALL HAVE SECONDARY CONTAINMENT THAT: 1. IS CAPABLE OF CONTAINING 110% OF THE VOLUME OF THE LARGEST FUEL STORAGE CONTAINER; AND

HAS AN IMPERVIOUS FLOOR; SECONDARY CONTAINMENT FOR TANKS MAY COMPRISE A METAL, PLASTIC, POLYMER OR PRECAST CONCRETE VAULT PROVIDING 110 PERCENT OF THE VOLUME OF THE LARGEST FUEL STORAGE

FOR FUEL CONTAINERS, SECONDARY CONTAINMENT MAY COMPRISE CONTAINMENT PALLETS; IV. THE AREA WHERE FUEL IS TRANSFERRED SHALL BE A FLAT, IMPERVIOUS AREA THAT:

1. IS ADJACENT TO THE FUEL CONTAINER(S); AND 2. EXTENDS BEYOND THE FULL REACH, OR LENGTH, OF THE FUEL HOSE; AND

SECONDARY CONTAINMENT AREAS MAY BE IN THE FORM OF A BASIN THAT IS: I. SLOPED DOWN TO A CENTRAL LOW POINT OR BERMED ALONG THE PERIMETER; 2. LINED WITH A CONTINUOUS SHEET OF 20 MIL OR THICKER POLYMER MATERIAL OR

APPROPRIATE GEOMEMBRANE LINER; AND 3. BACKFILLED WITH AT LEAST 6 INCHES OF SAND.

1. A THIRD PARTY SHALL INSPECTOR SHALL BE ON SITE TO INSPECT THE INSTALLATION OF THE STORM DRAINAGE SYSTEMS.

2. SEE GRADING NOTES ON NOTES & LEGEND SHEET (C-01).

3. LOT GRADING SHOWN IS APPROXIMATE AND MAY VARY DEPENDING ON HOUSE SIZE, STYLE, AND

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

**OVERALL GRADING & DRAINAGE PLAN** PARSON WOODS CONDOMINIUM LLC 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

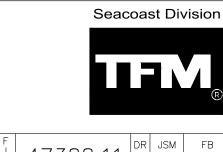
OWNED BY

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** 



DR CK

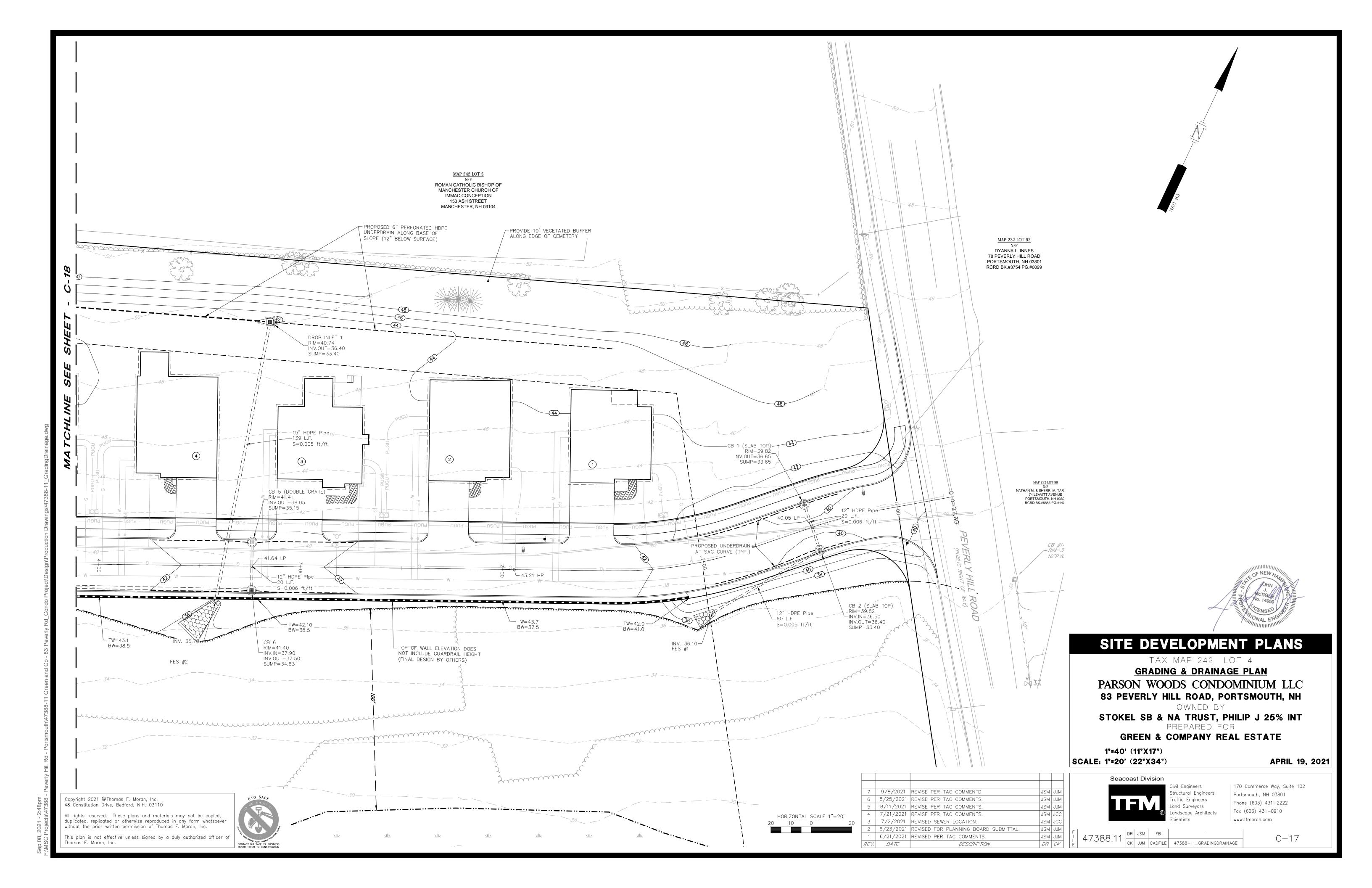
**DESCRIPTION** 

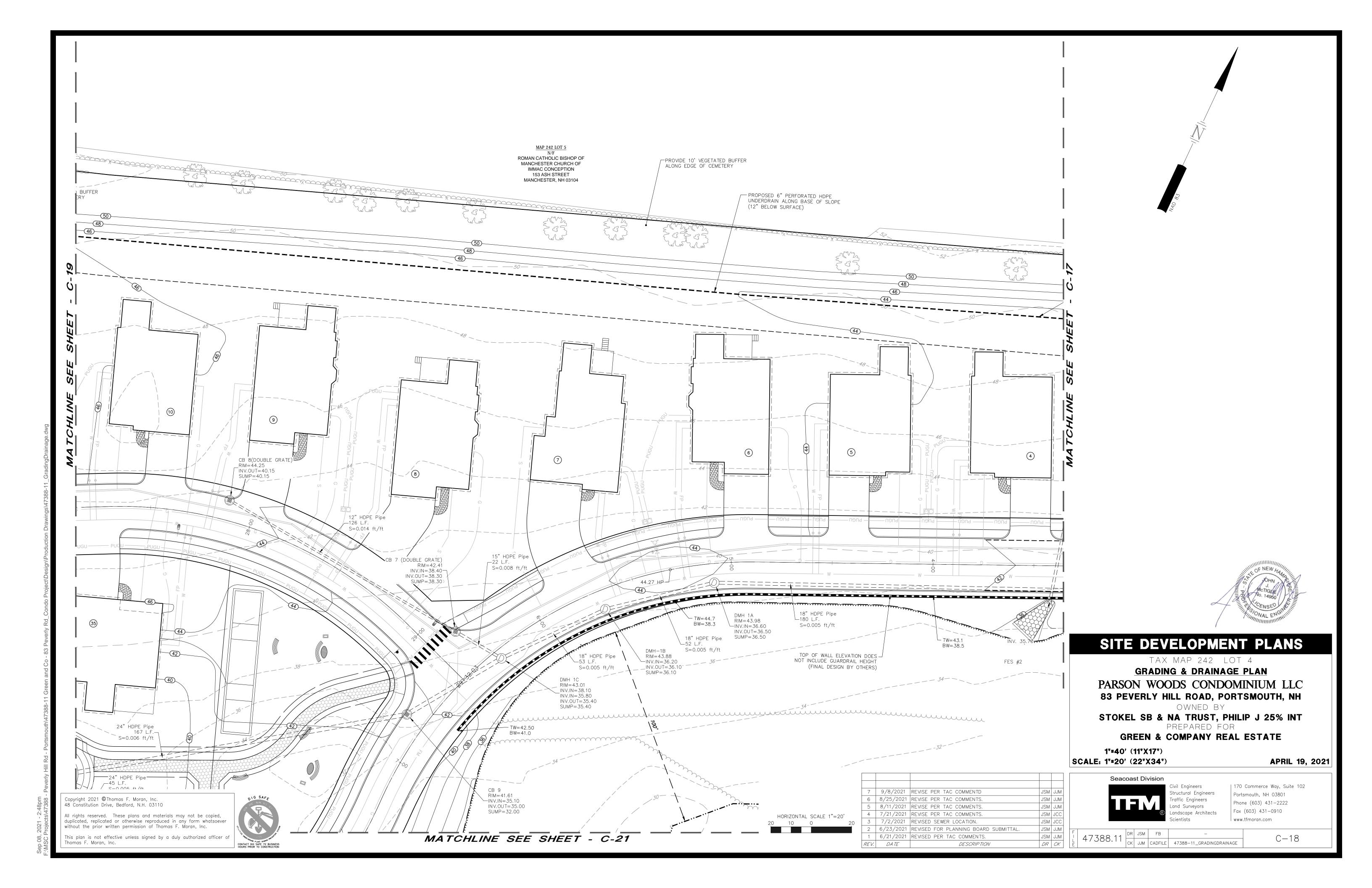
REV. DATE

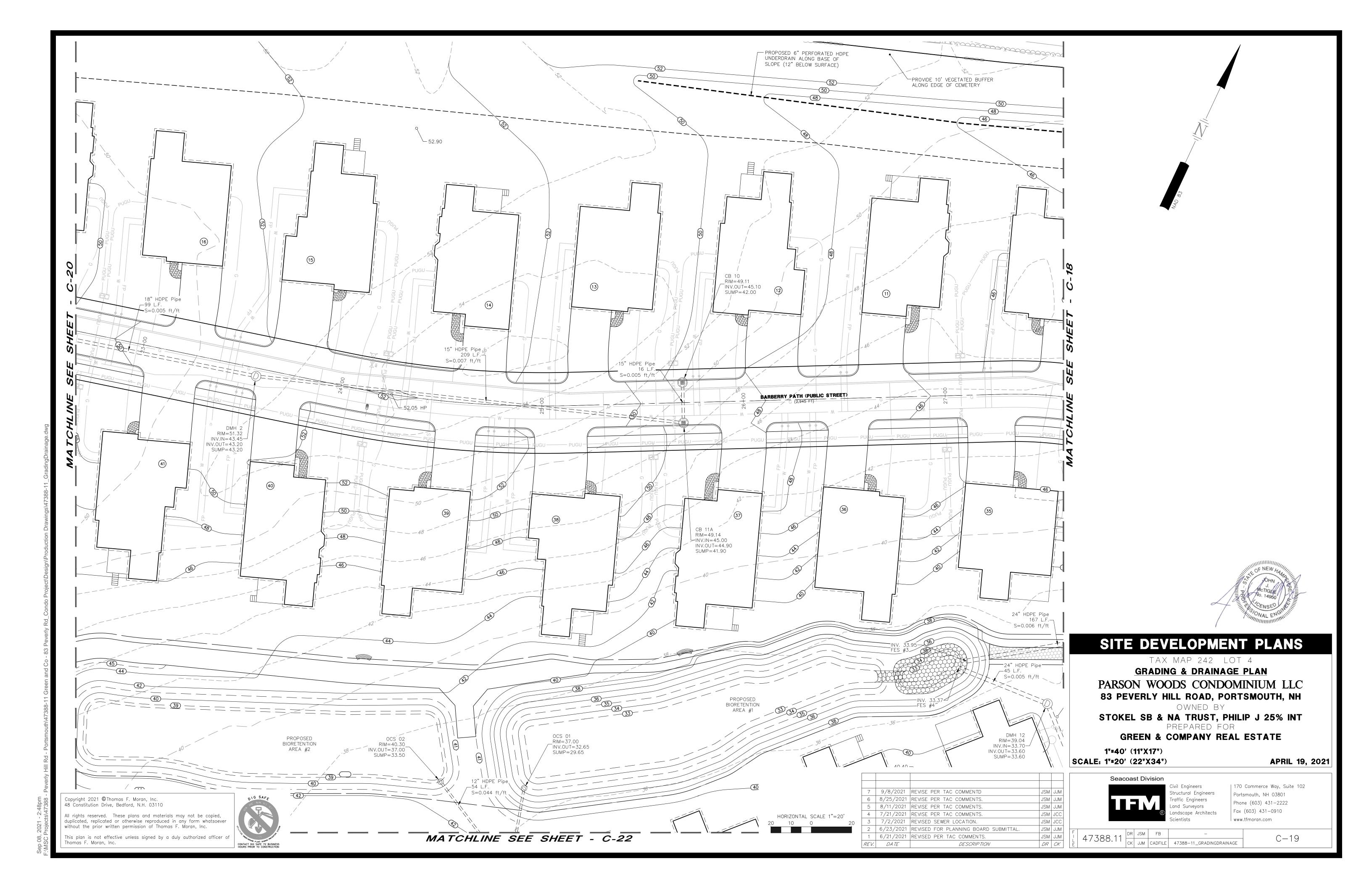
ivil Engineers Structural Engineers Traffic Engineers and Surveyors andscape Architects | 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

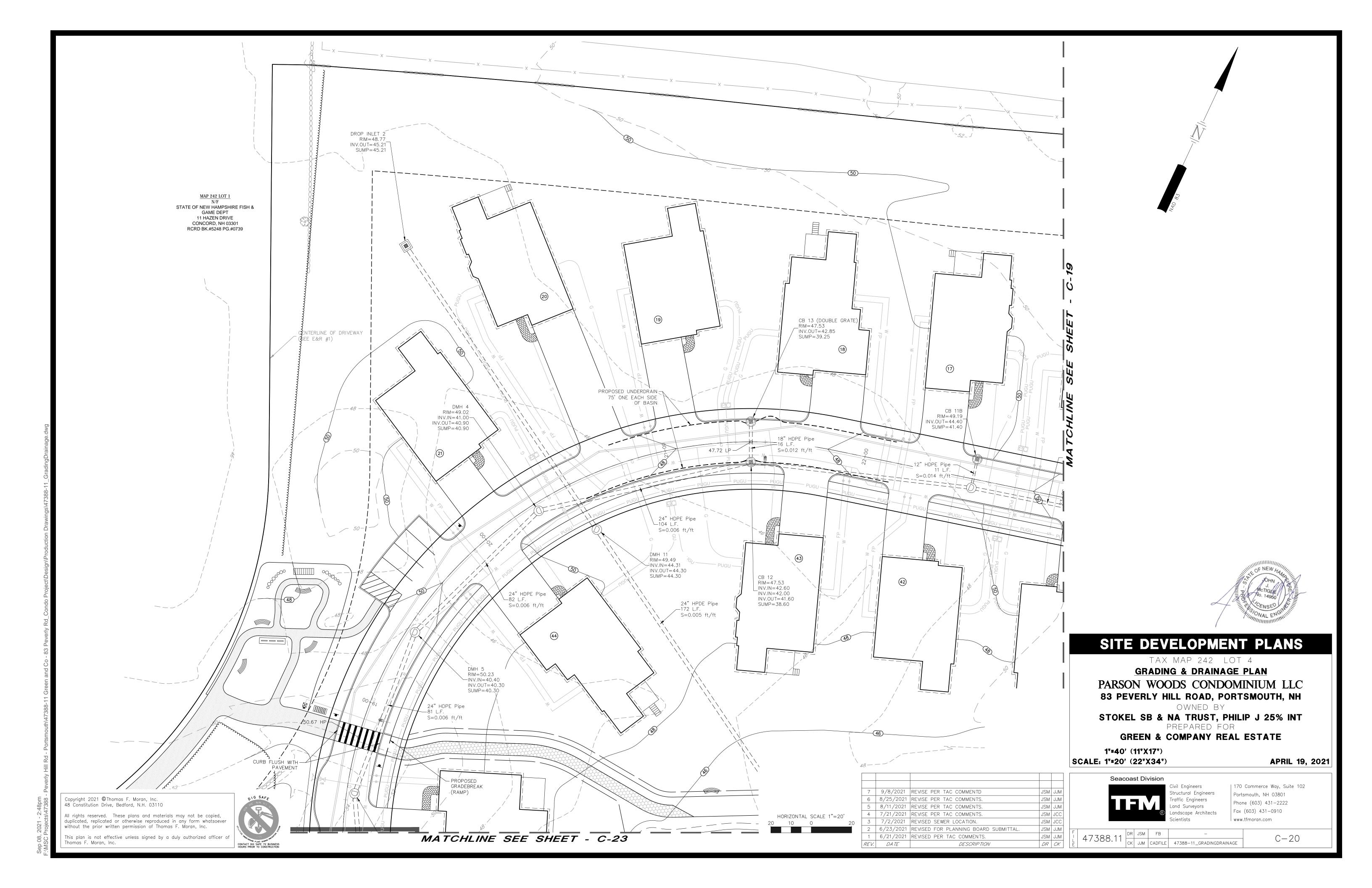
DR JSM FB CK JJM CADFILE 47388-11\_GRADINGDRAINAGE

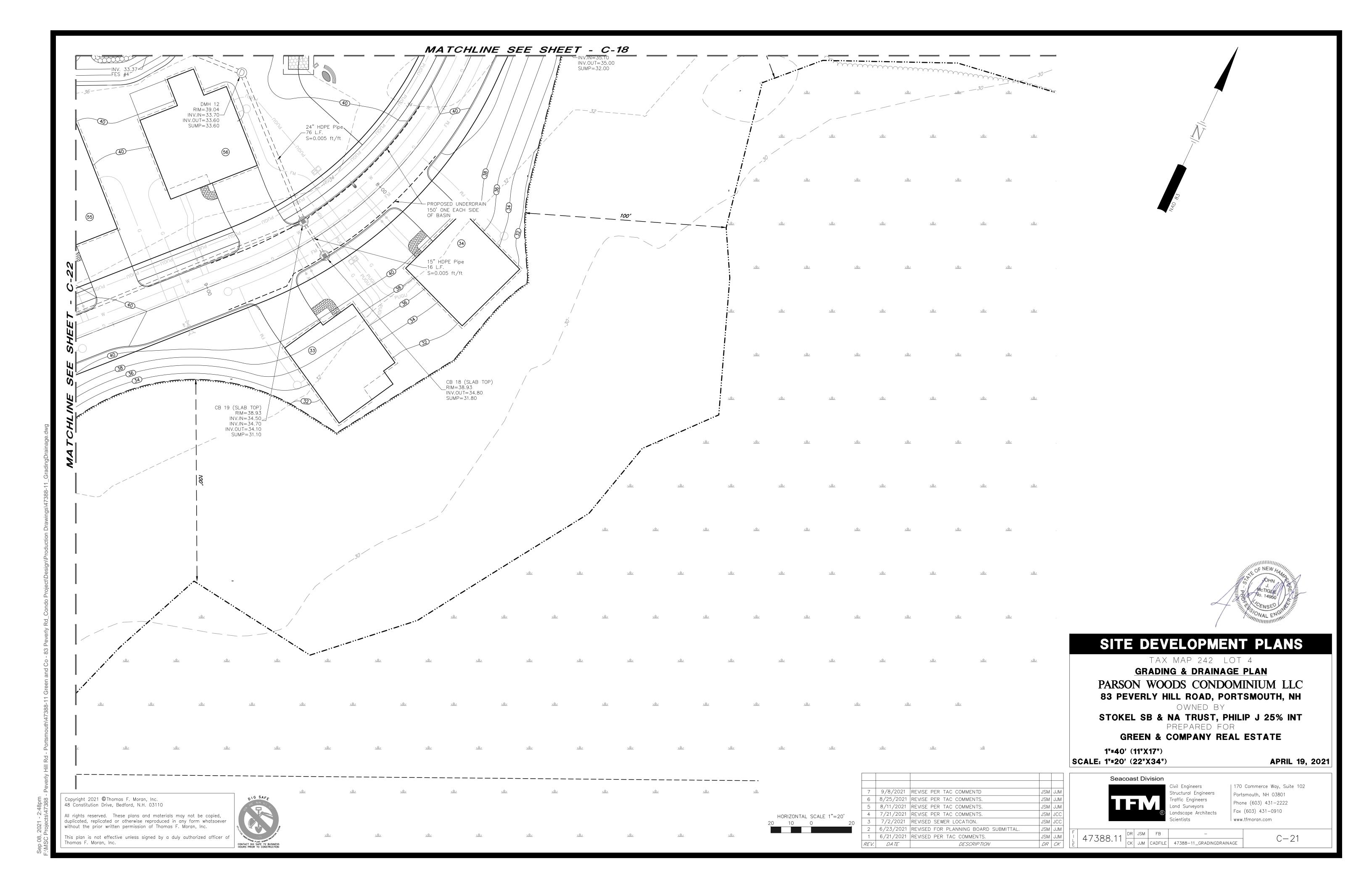
C - 16

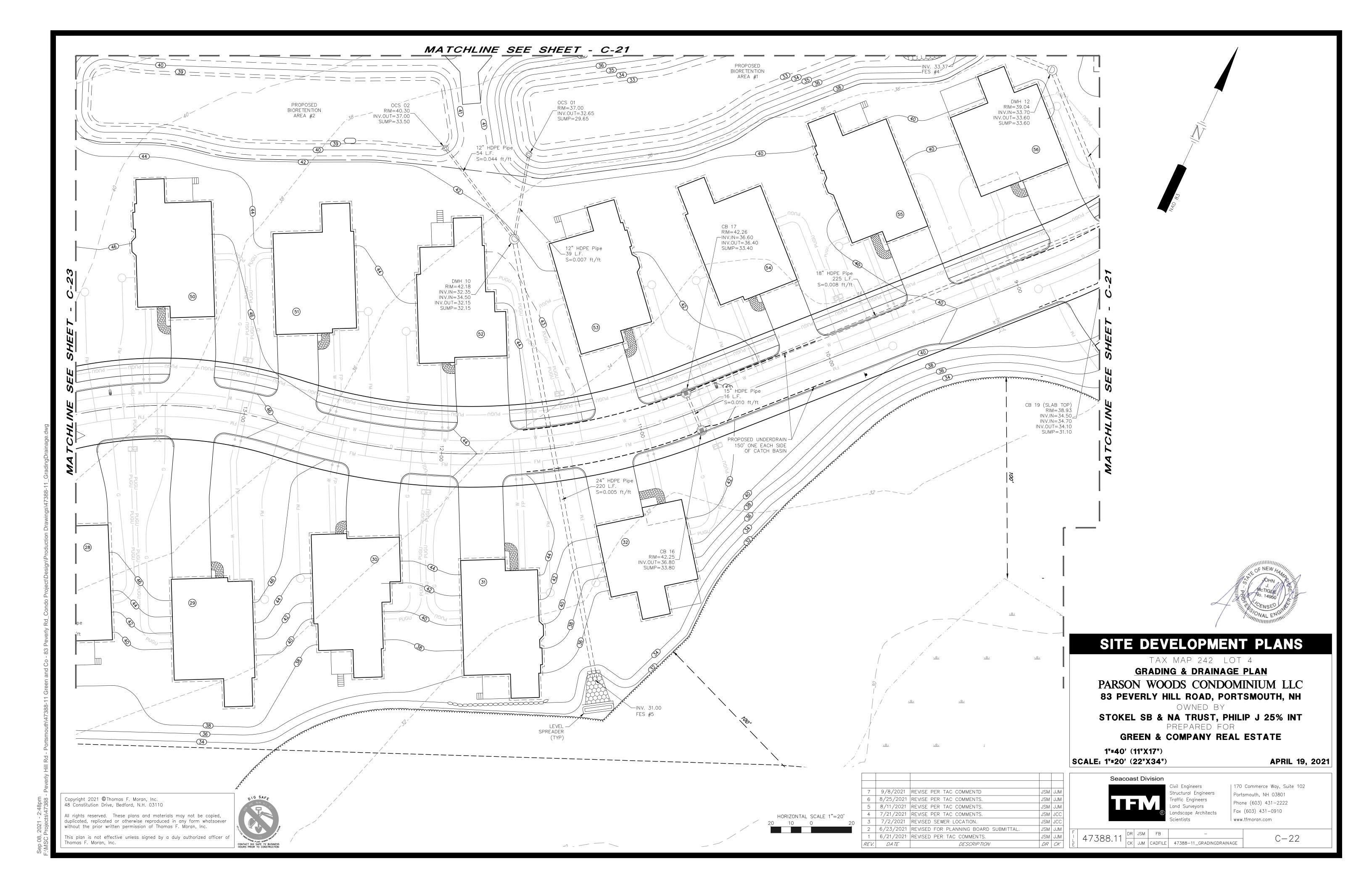


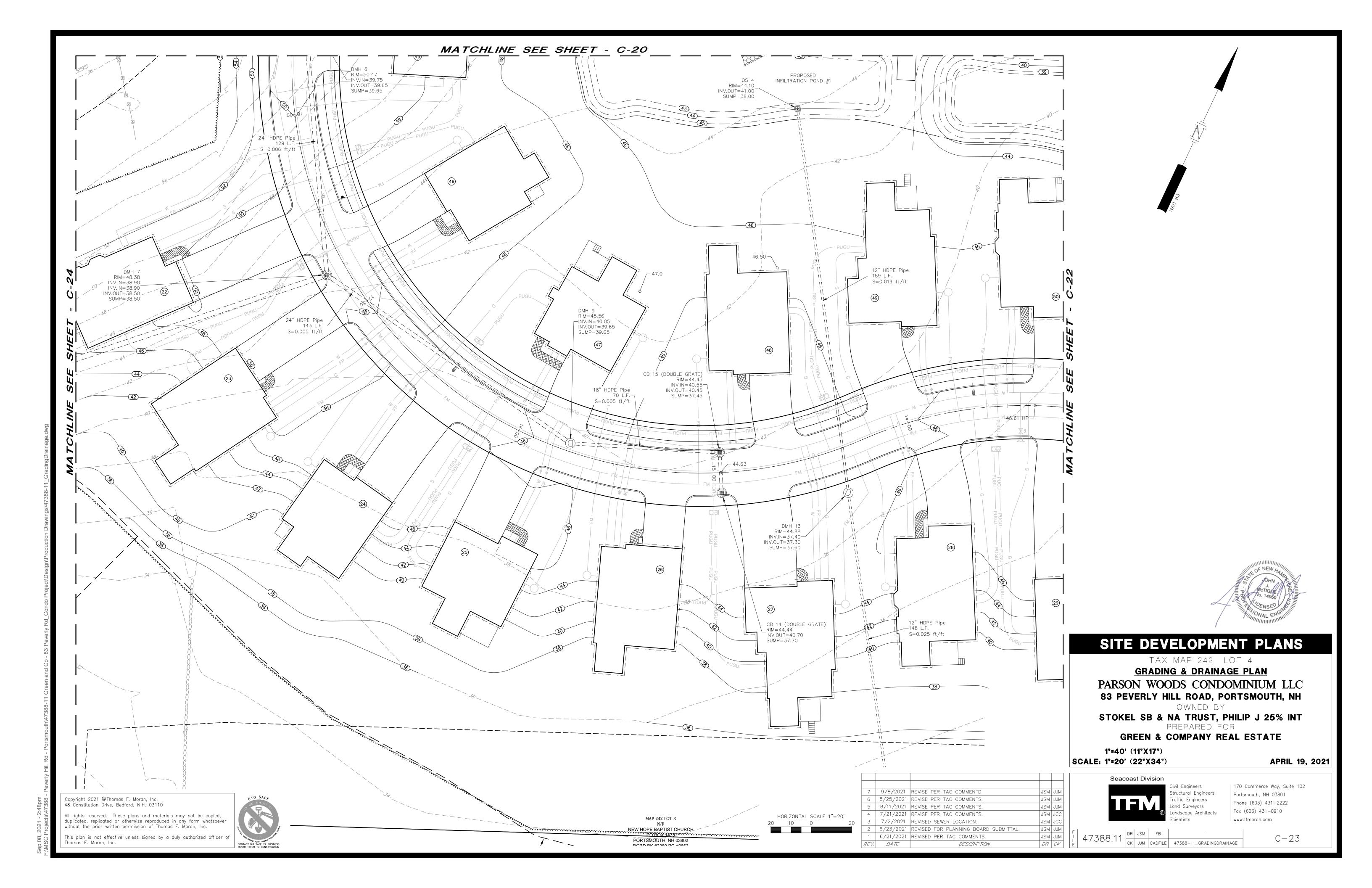


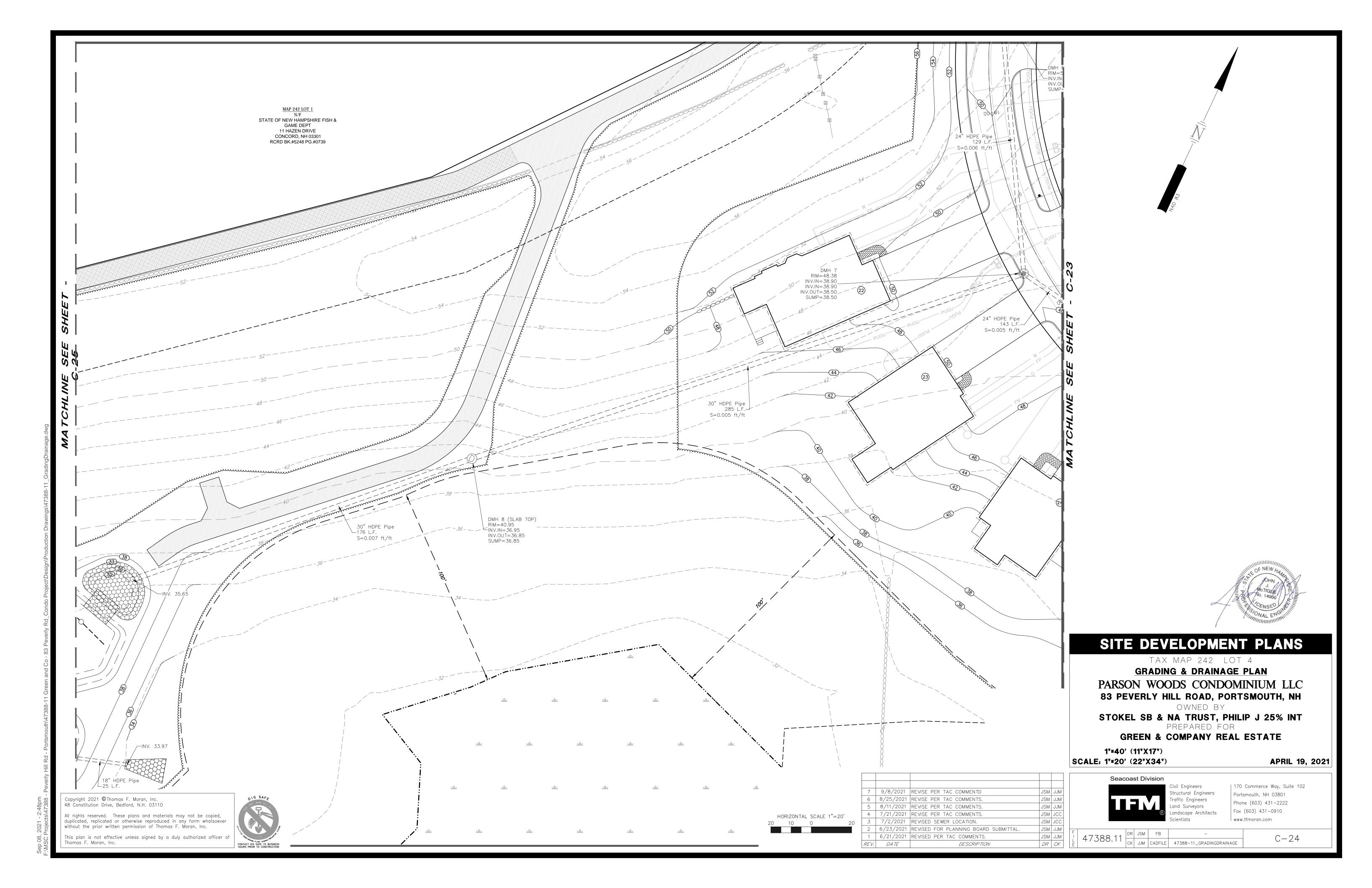


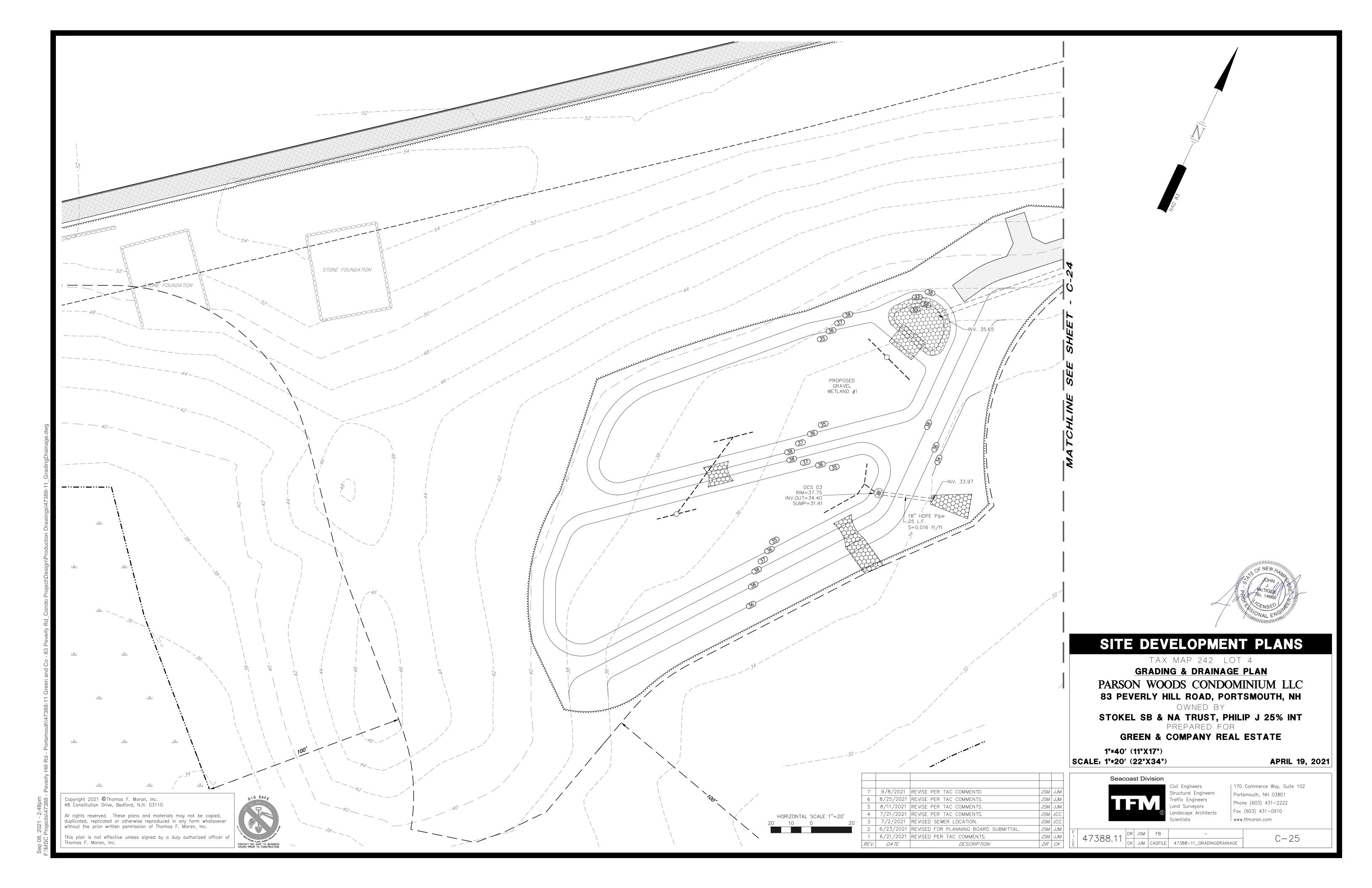


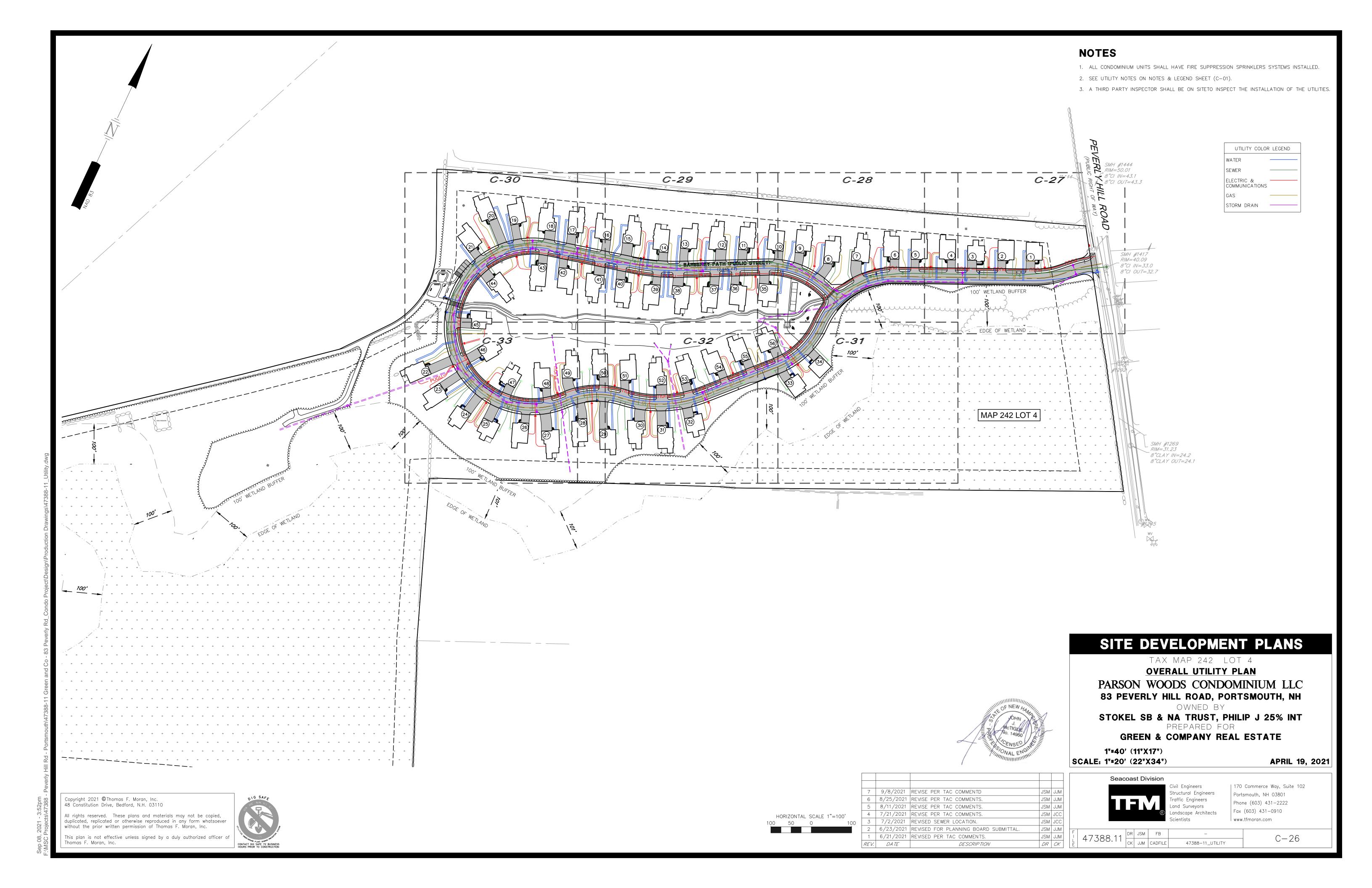


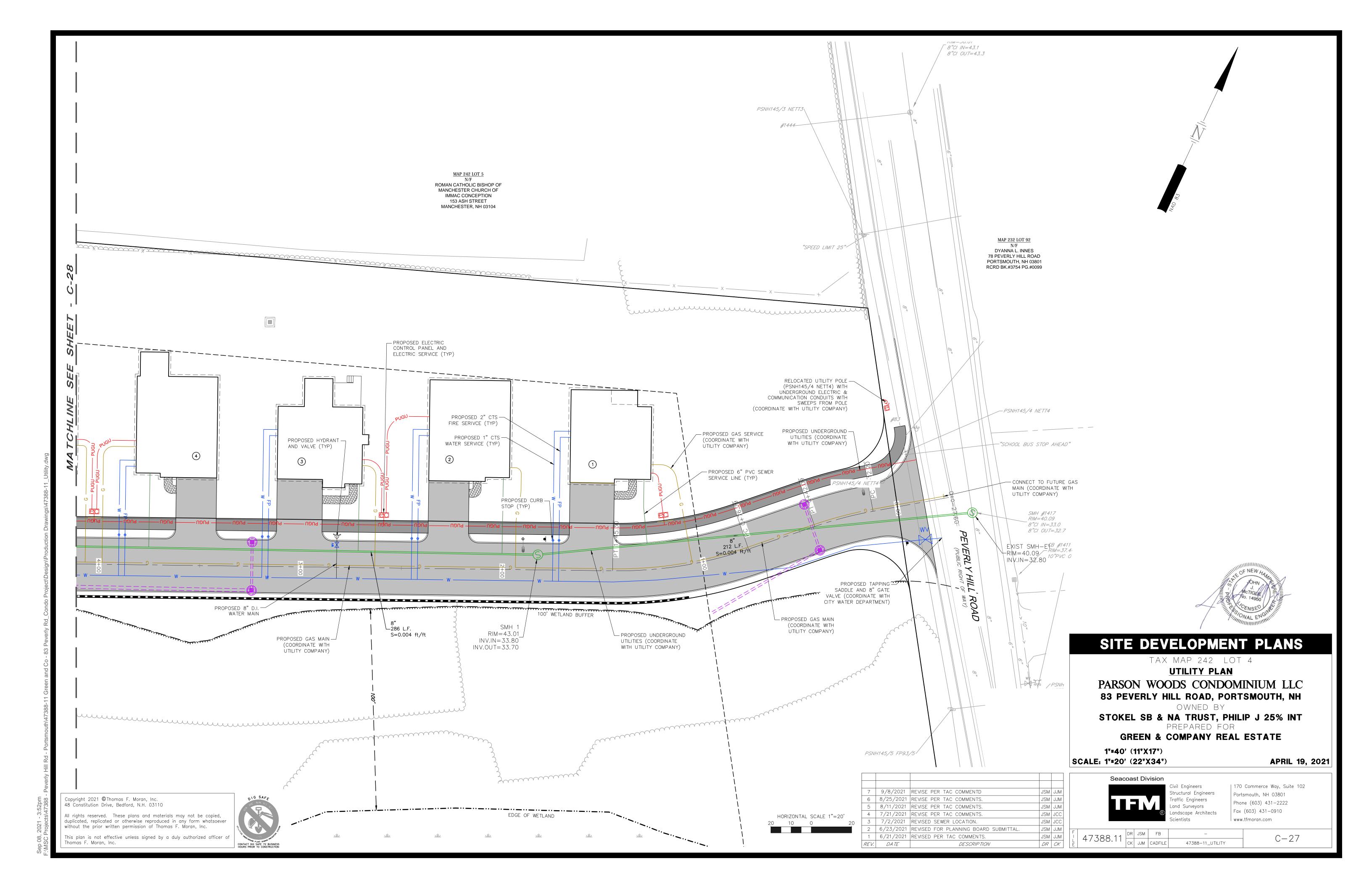


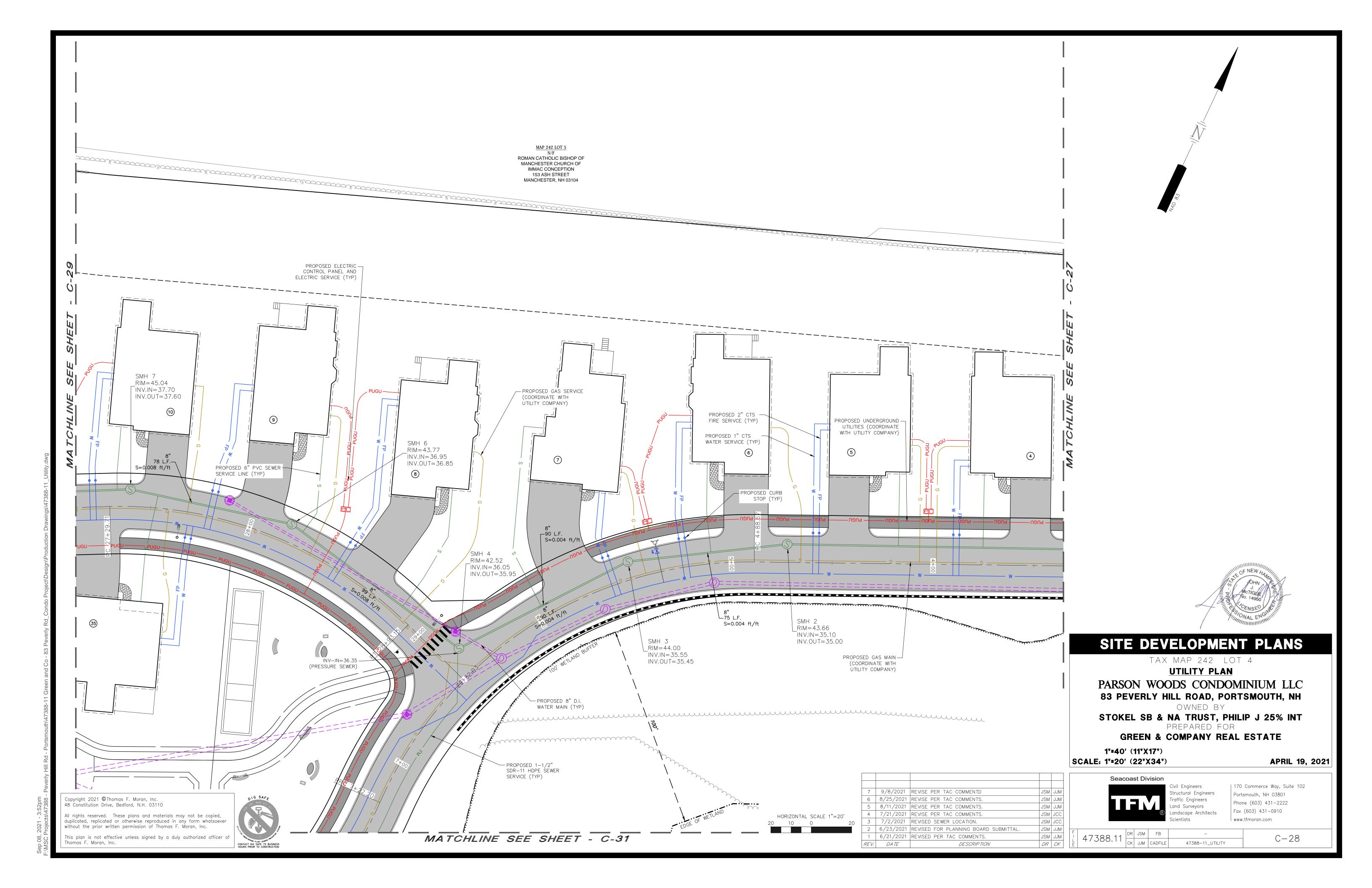




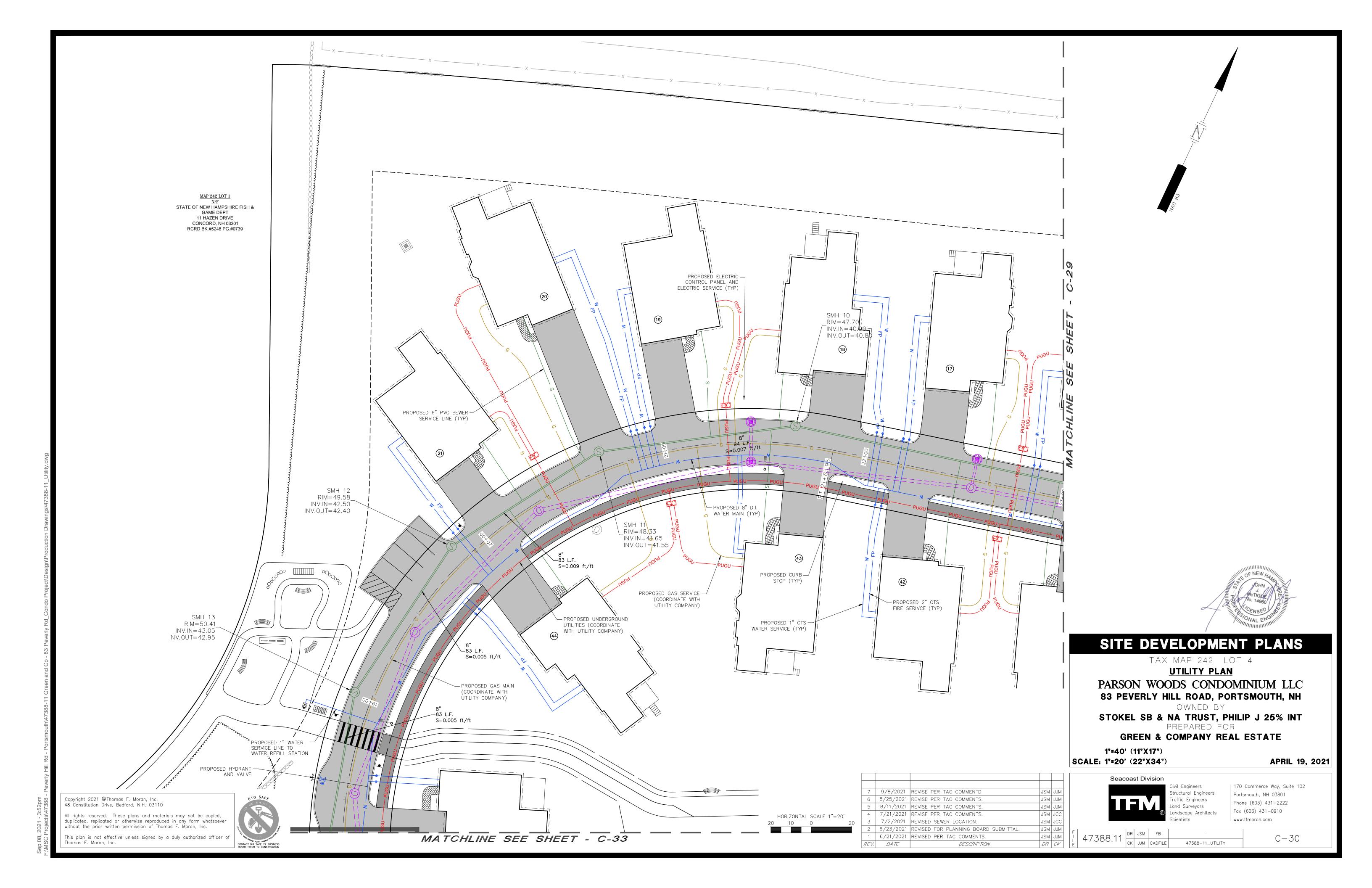


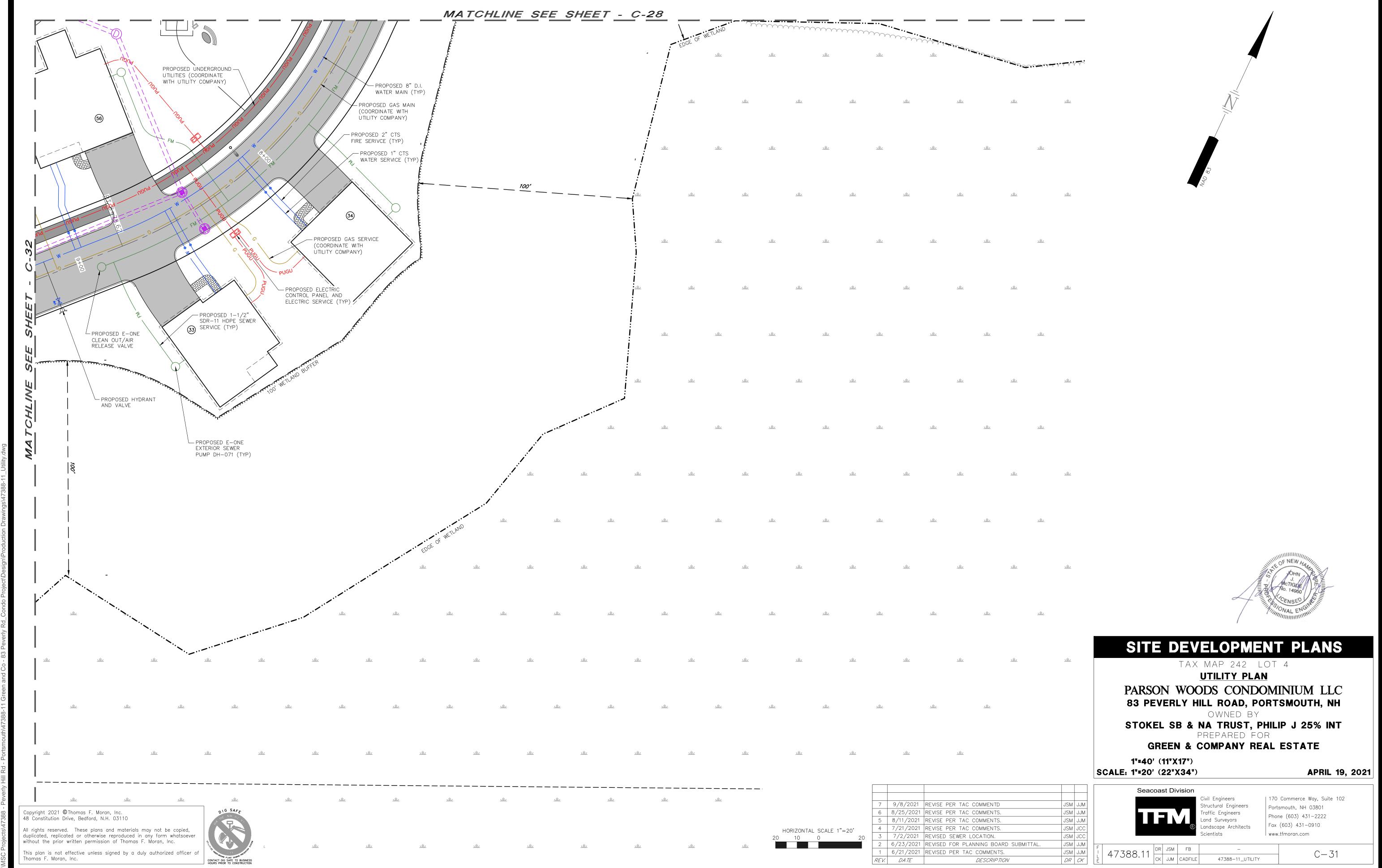




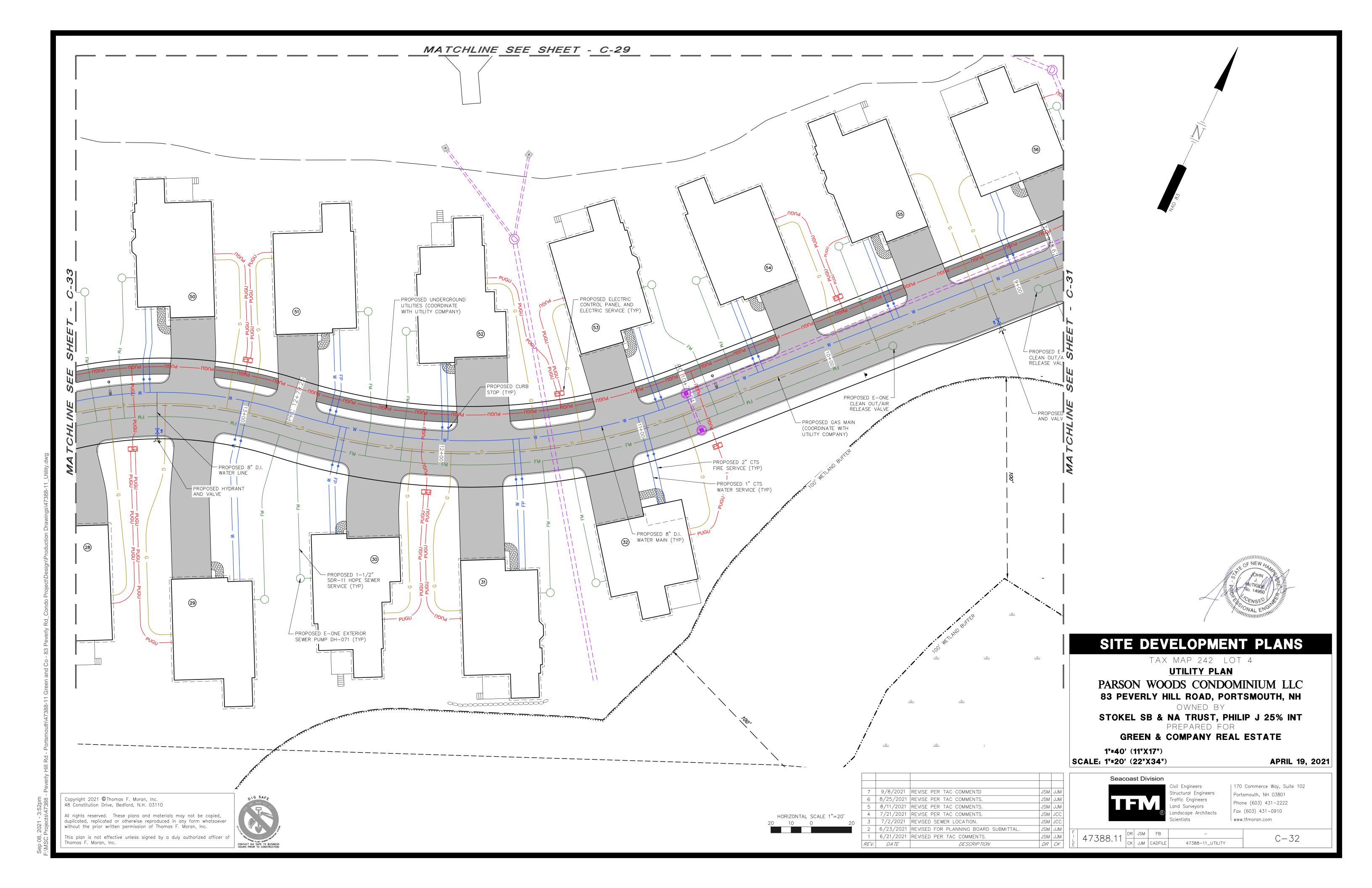


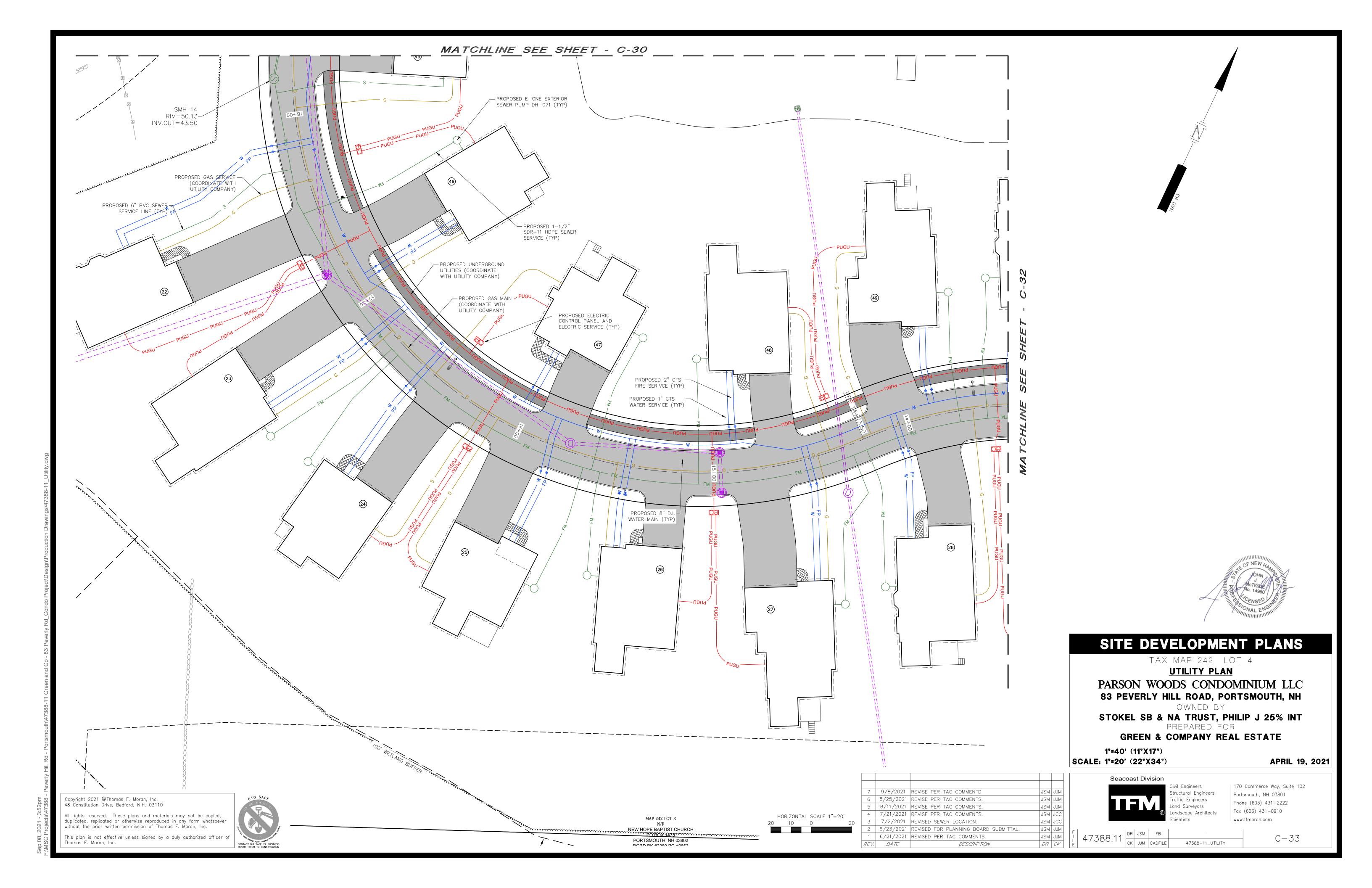


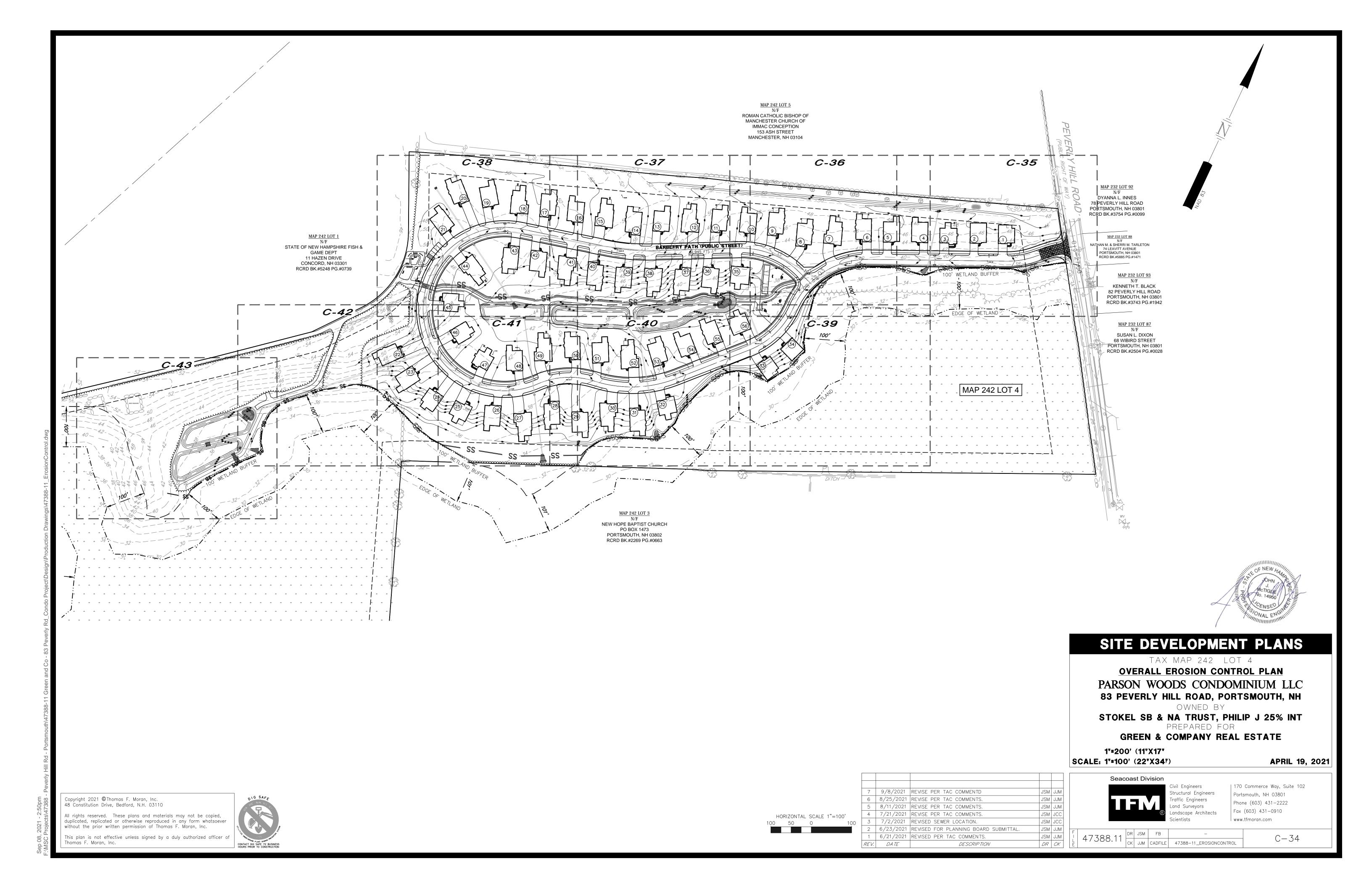


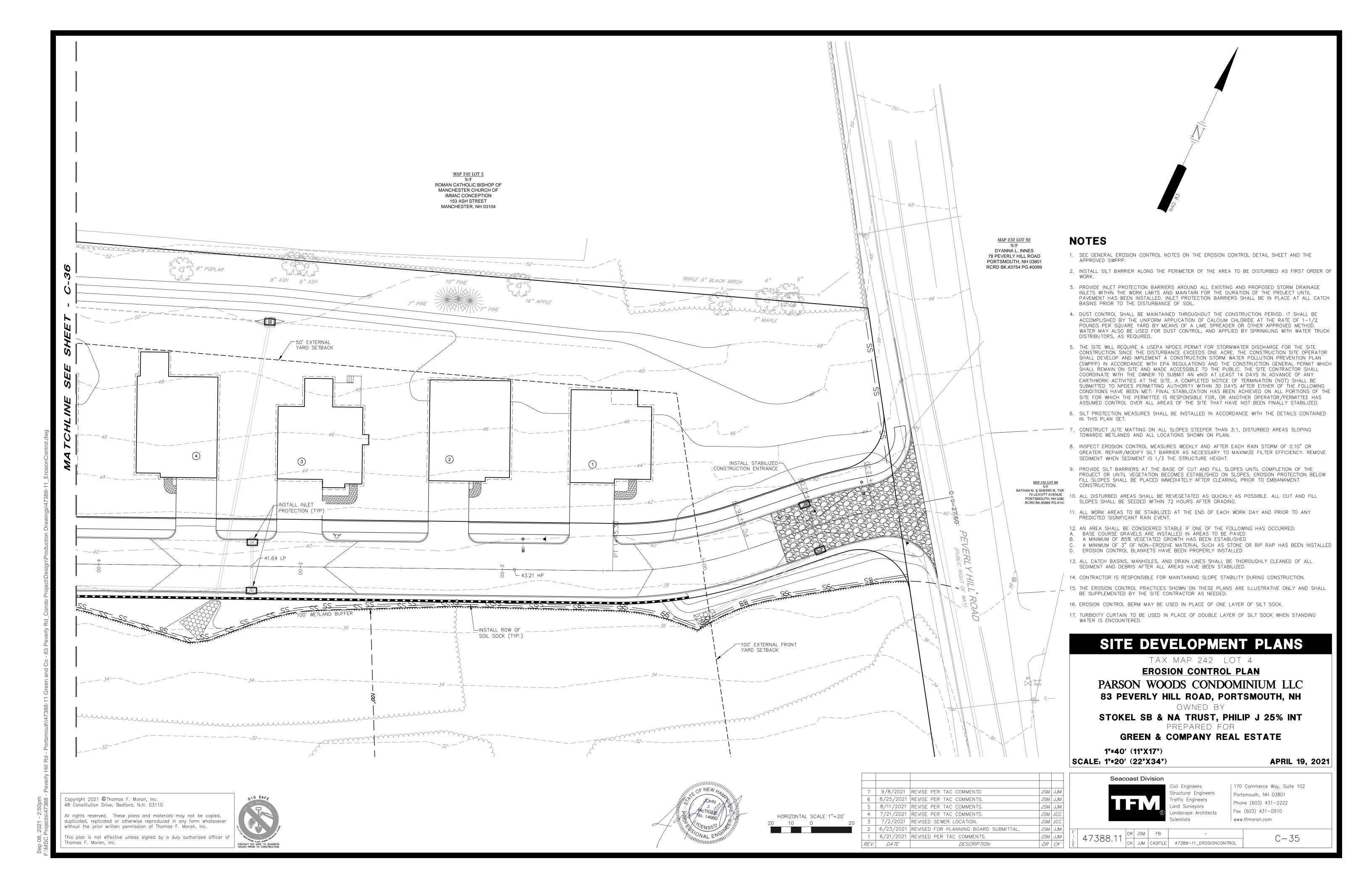


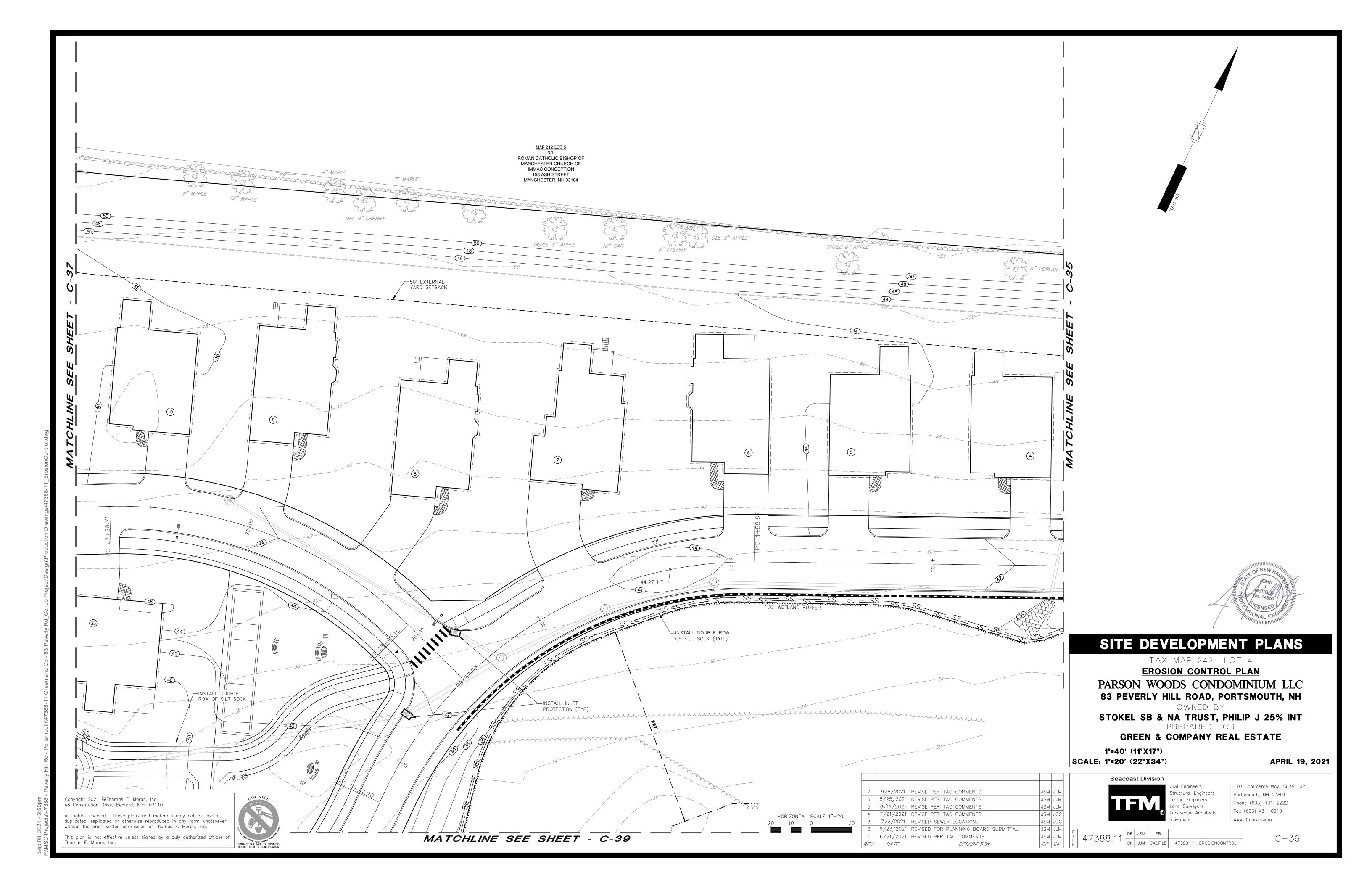
Sep 08, 2021 - 3:52pm

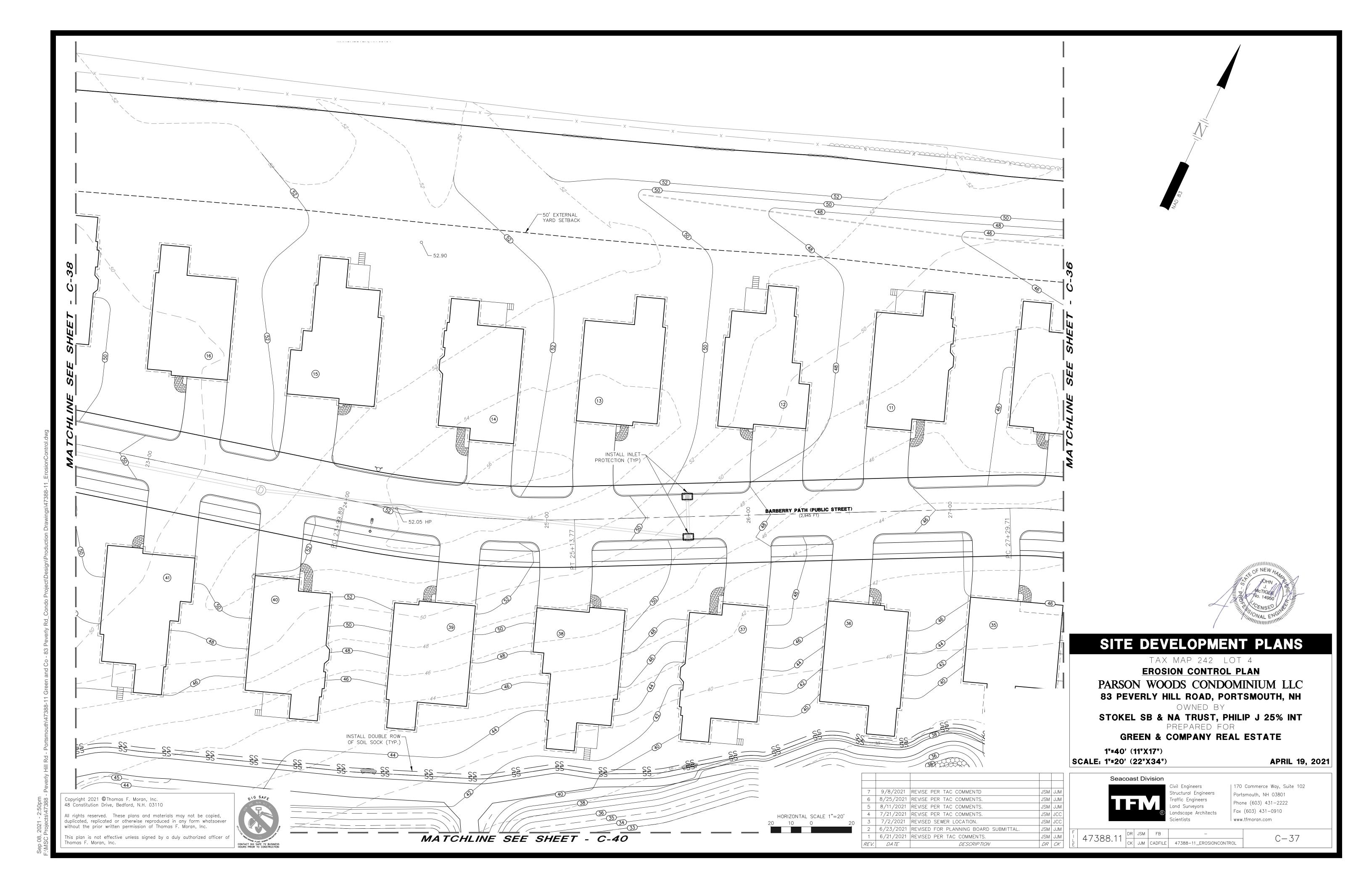


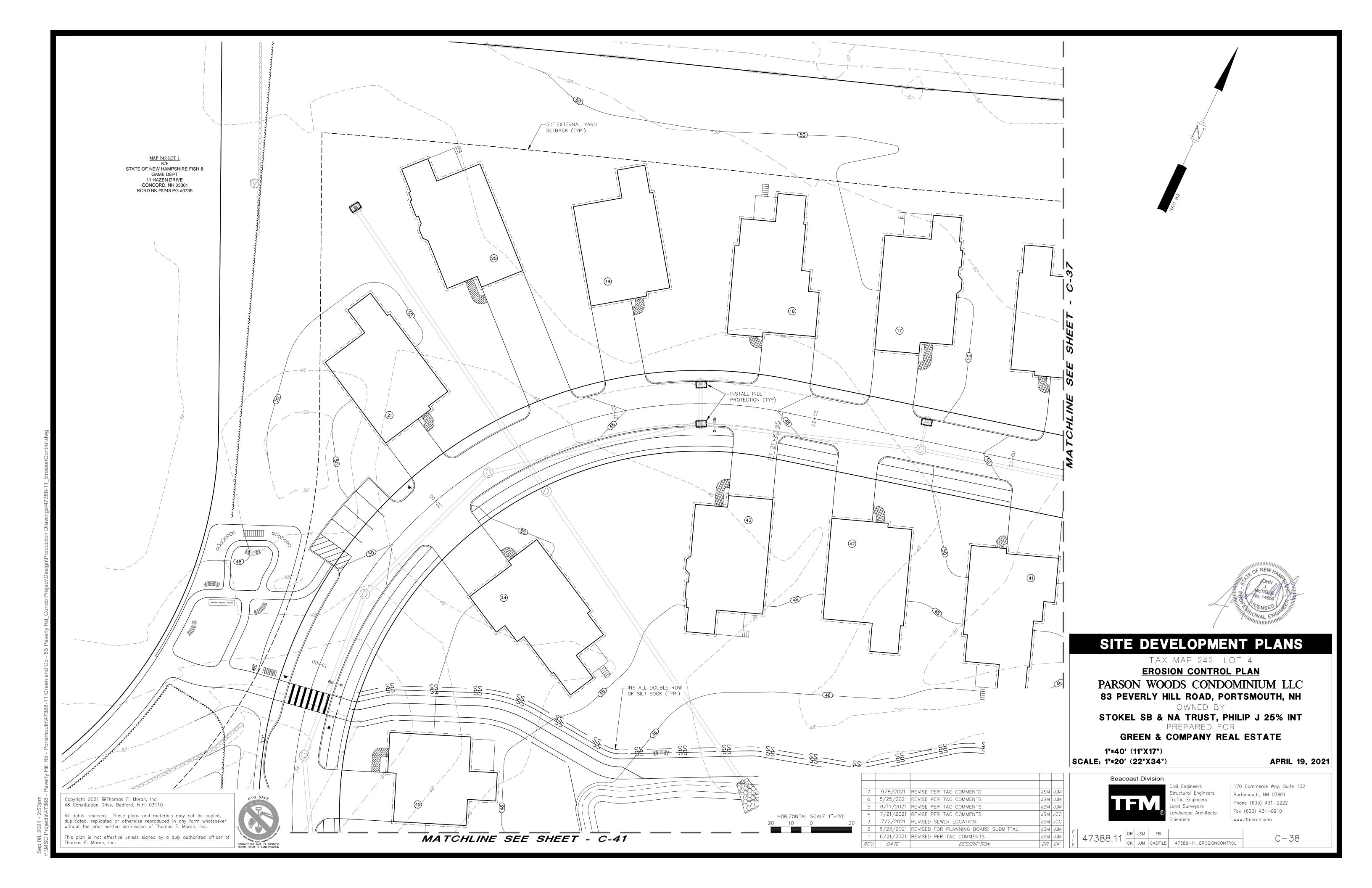


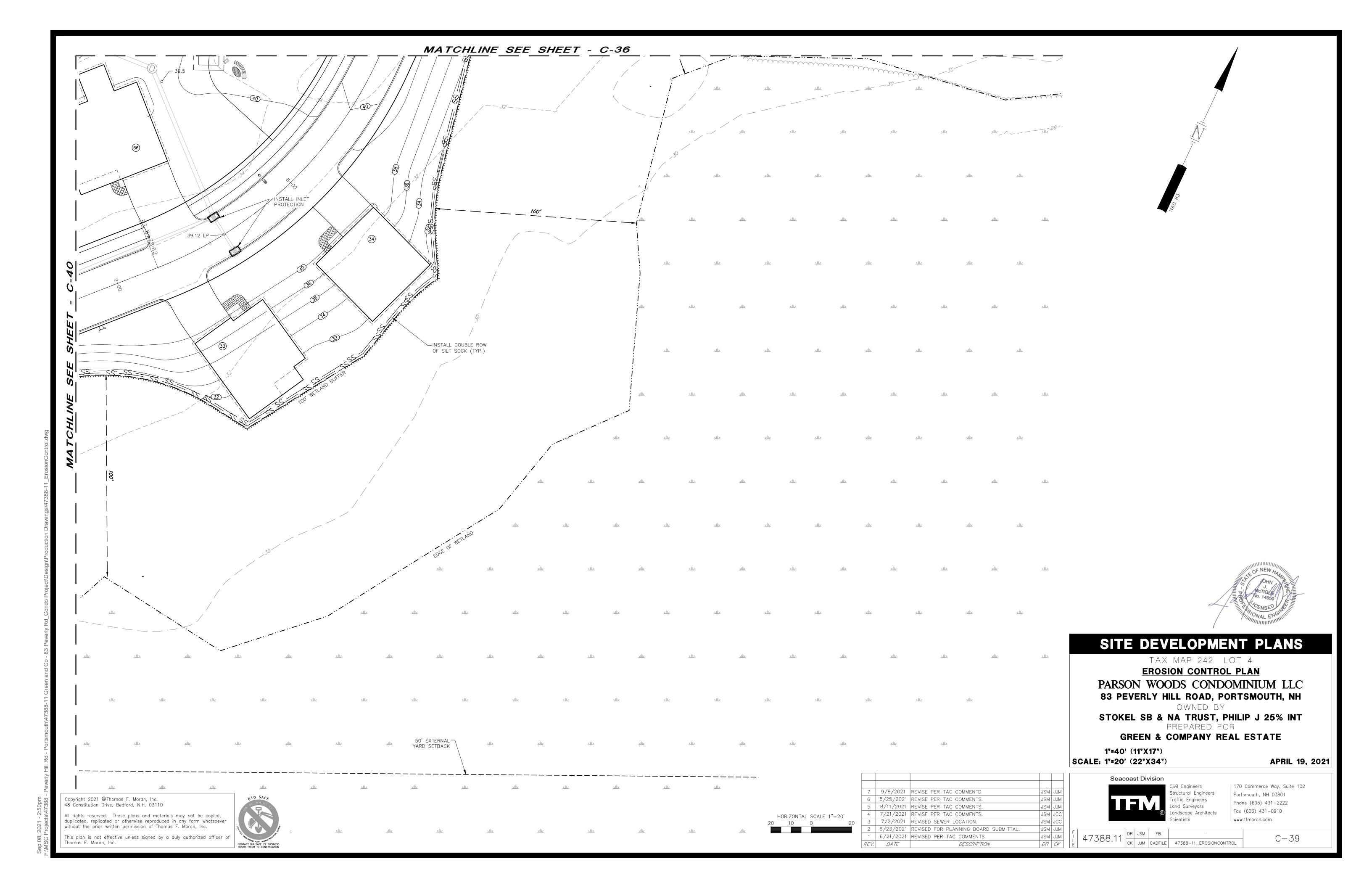


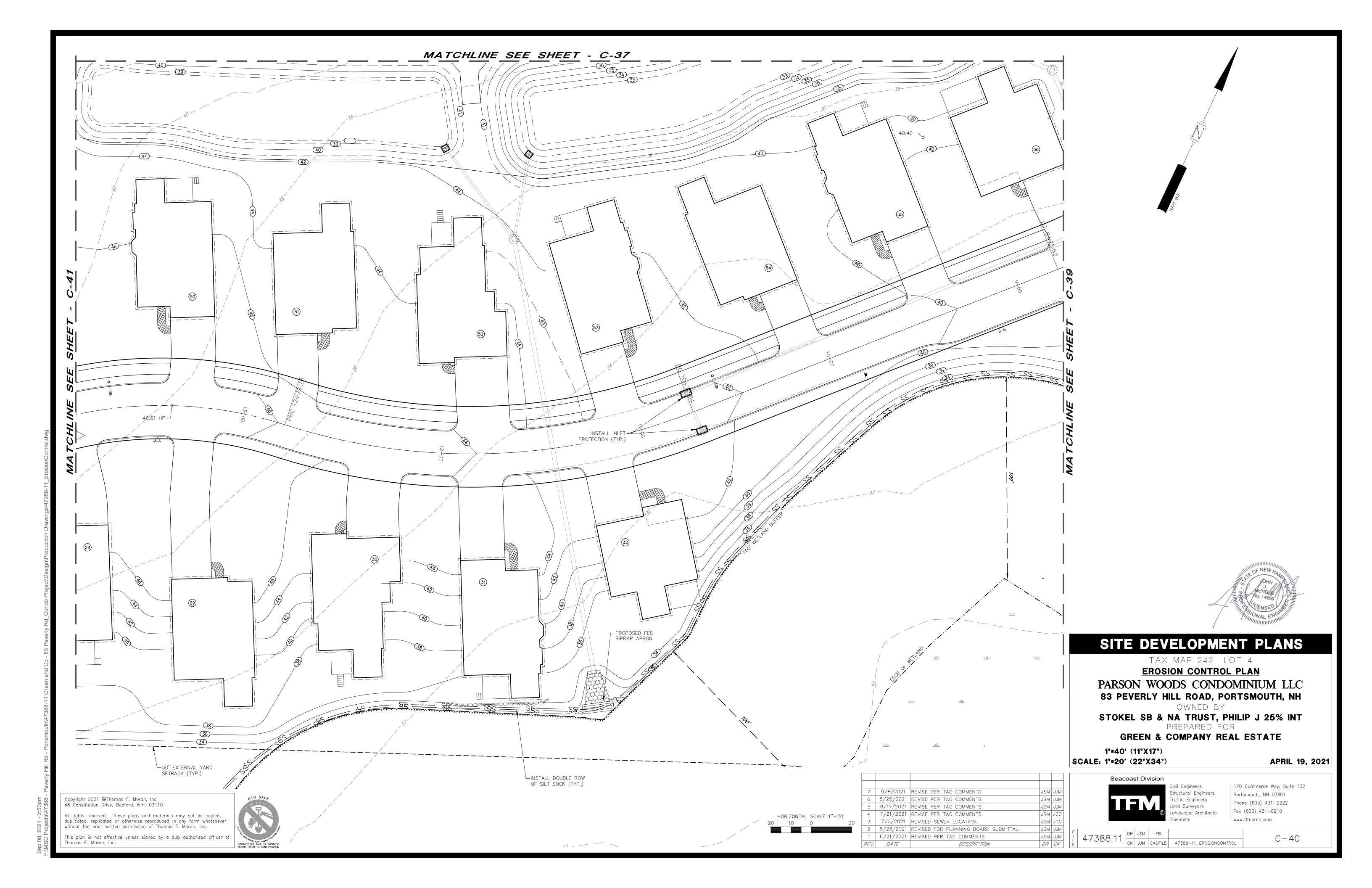


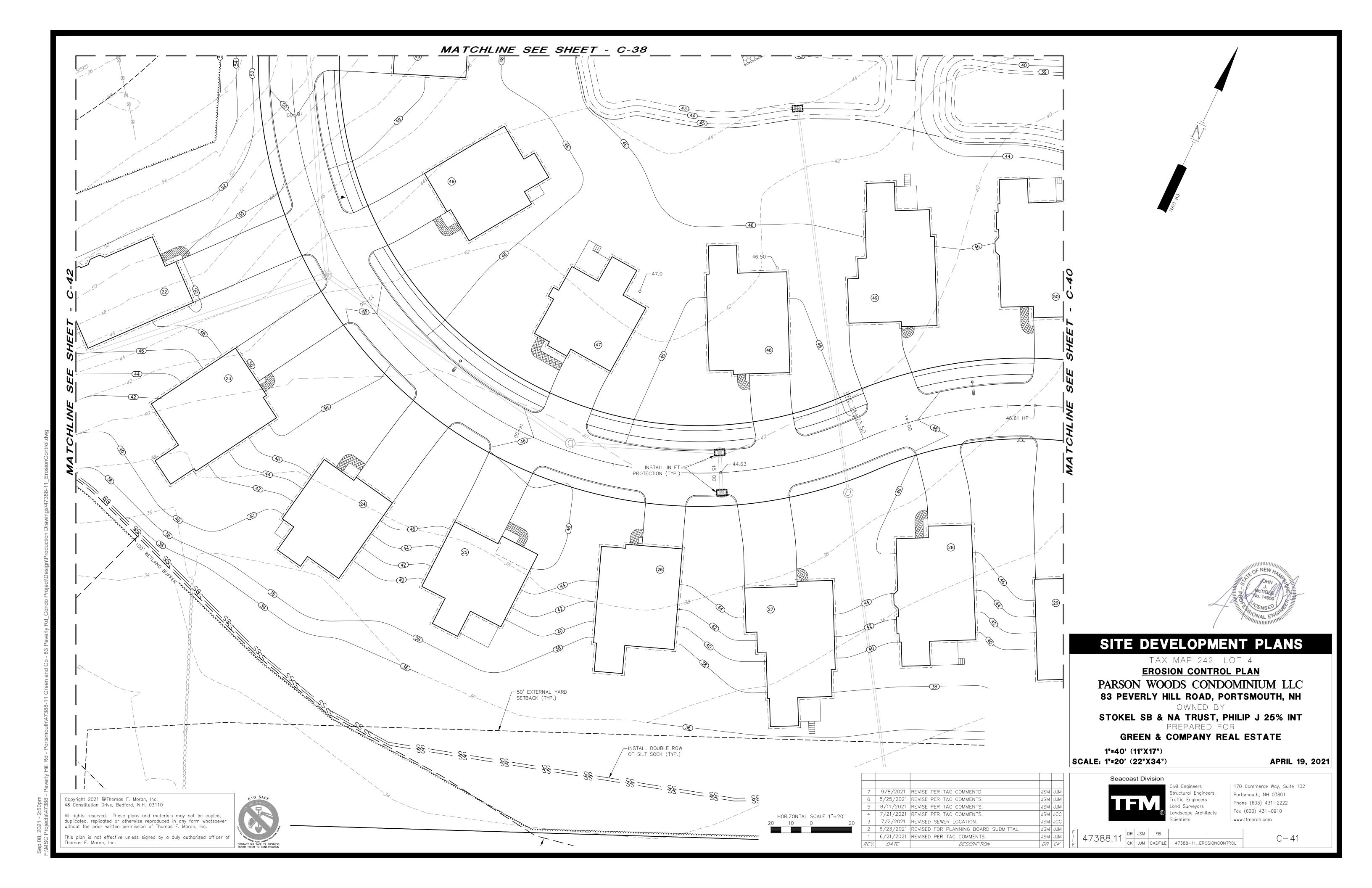


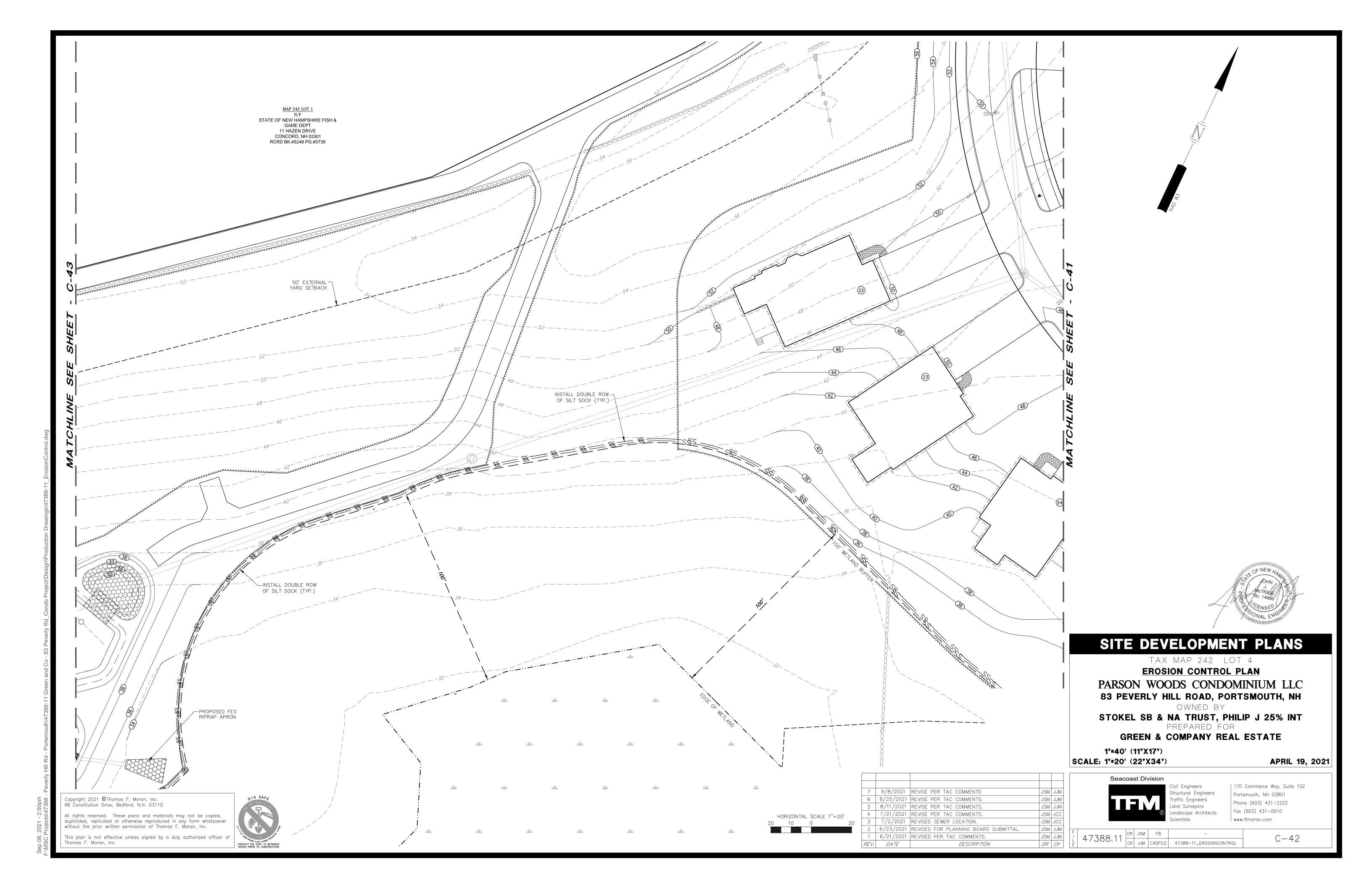


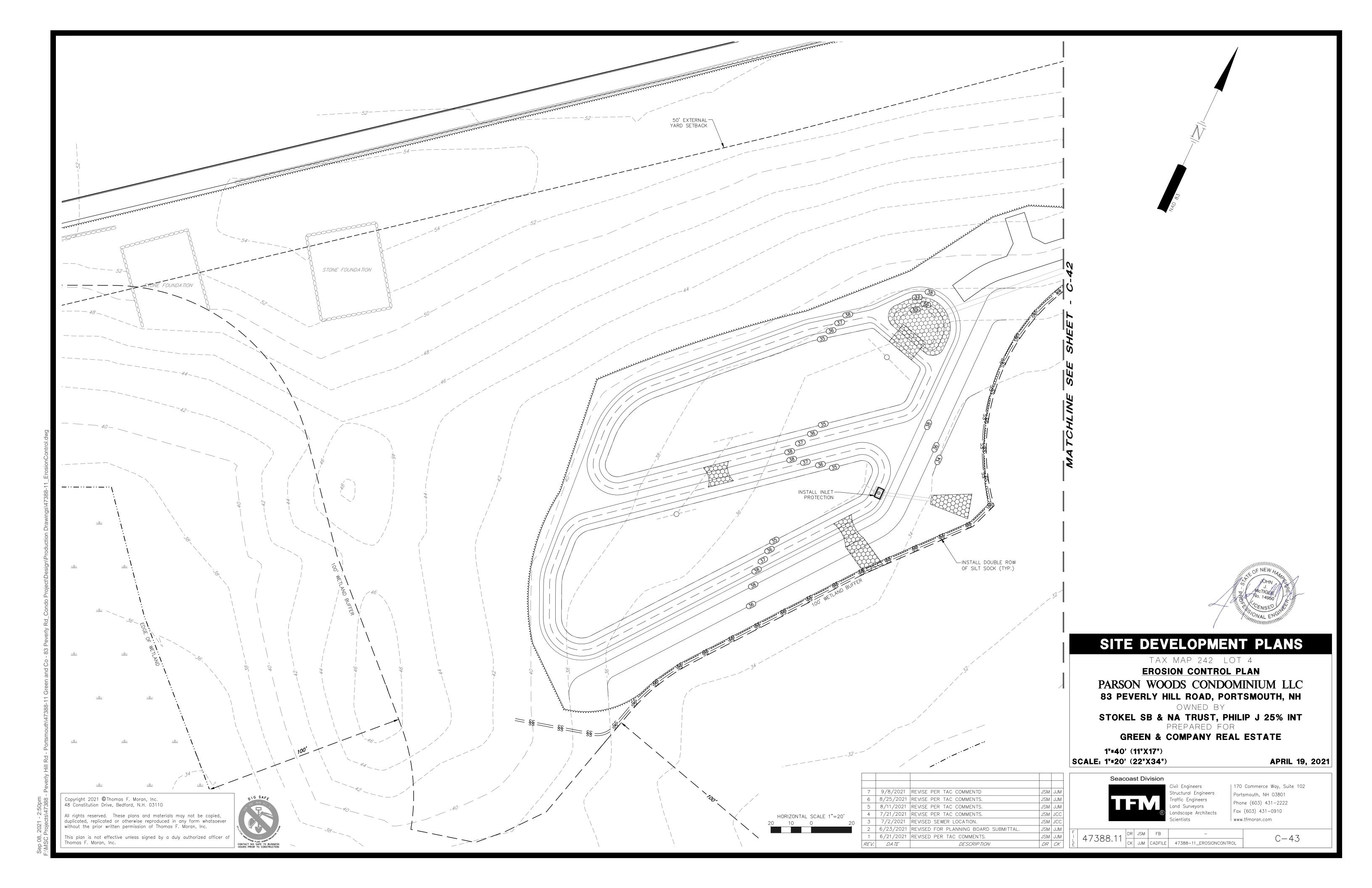












THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 775,000 SQUARE FEET (17.80 ACRES).

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.
- 6. ALL DIVERSION DIKES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
- 7. TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY 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 TEST REQUIREMENTS
TMECC 04.11—A 5.0 TO 8.0

PARTICLE SIZE TMECC 02.02-B 2" SIEVE AND MIN. 60% GREATER

THAN THE 3" SIEVE

UPSLOPE AREAS HAS BEEN PERMANENTLY STABILIZED.

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 THE EXPOSED HEIGHT OF THE SILT SOCK.
- C. SILT BARRIER SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE E. CATCH BASIN INLET PROTECTION
- 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

- 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.

CUTTING, AS SPECIFIED HEREIN AFTER UNDER MAINTENANCE AND PROTECTION.

B. FERTILIZER SHALL BE SPREAD AND WORKED INTO THE SURFACE AT A RATE OF 500 POUNDS PER ACRE.

MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES: WINTER RYE (FALL SEEDING)

MINIMUM PERMEABILITY OF 120 GPM.

OATS (SPRING SEEDING) MULCH

2.5 LBS/1,000 SF 2.0 LBS/1,000 SF 1.5 TONS/ACRE

- 1. INLET BASKET STRUCTURE
- 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:

D. THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND A

- GRAB STRENGTH: 45 LB. MINIMUM IN ANY PRINCIPAL DIRECTION (ASTM D1682) MULLEN BURST STRENGTH: MIN. 60PSI (ASTM D774)
- 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
- PRODUCT SPECIFICATION PRACTICES THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:

WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

### <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

MANUFACTURER'S RECOMMENDATIONS. 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

CONTAINED AREA DESIGNATED ON SITE.

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

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:

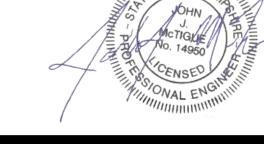
- A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. 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

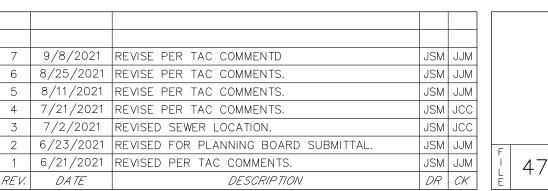
TAX MAP 242 LOT 4

**EROSION CONTROL NOTES** PARSON WOODS CONDOMINIUM LLC 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR **GREEN & COMPANY REAL ESTATE** 

SCALE: NTS

**APRIL 19, 2021** 



Seacoast Division

| 170 Commerce Way, Suite 102 ivil Engineers Structural Engineers Portsmouth, NH 03801 raffic Engineers Phone (603) 431-2222 and Survevors Fax (603) 431-0910 andscape Architects cientists www.tfmoran.com

DR JSM FB C - 44

CK JJM CADFILE 47388-11\_NOTES



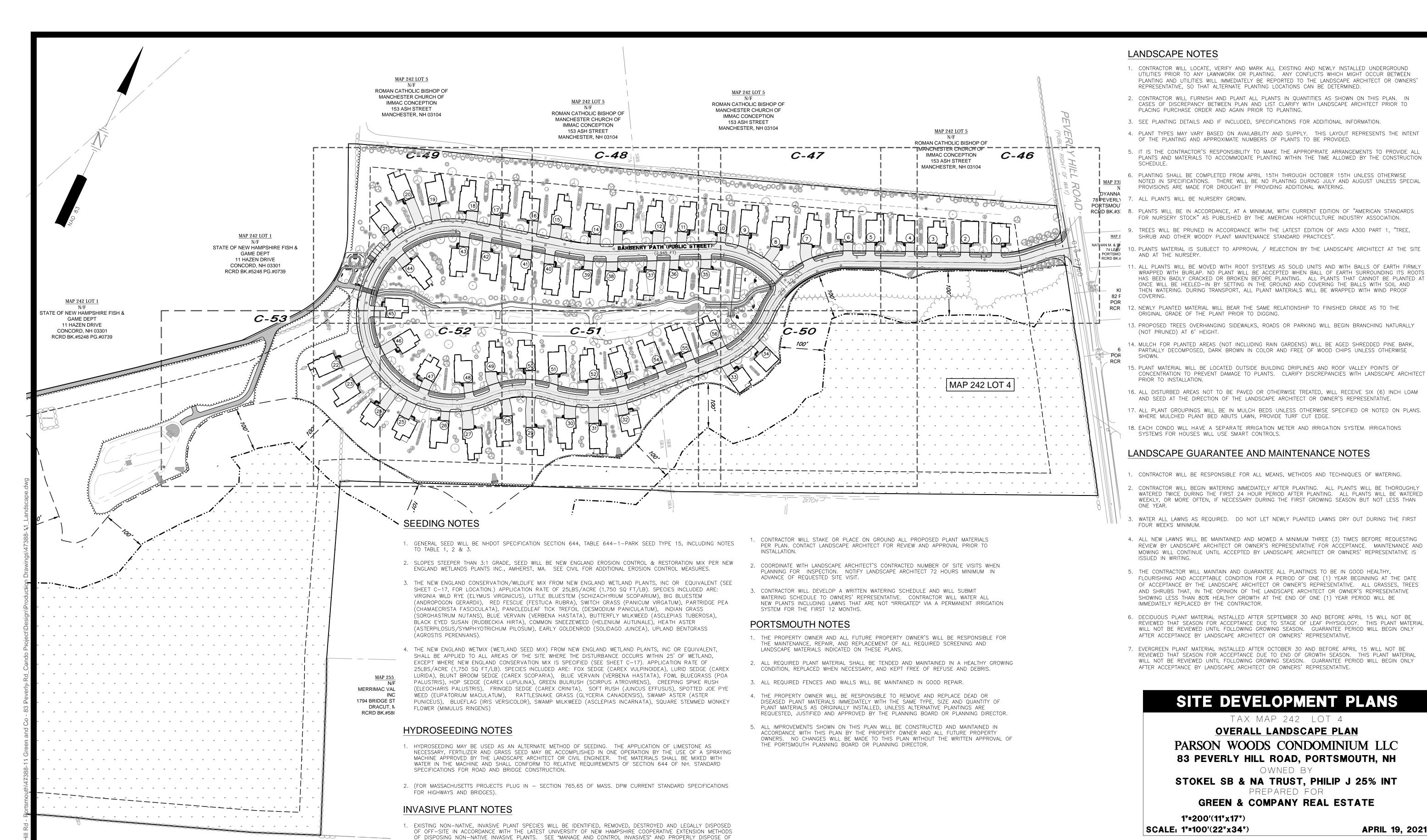
homas F. Moran, Inc.

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







PRICING & CONSTRUCTION DOCUMENT NOTES

PRICING AND AGAIN PRIOR TO PERFORMING ANY WORK.

1. CONTRACTOR WILL PRICE PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE PLANTINGS GRAPHICALLY SHOWN

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.

IF CONTRACTOR ENCOUNTERS VERY POORLY DRAINING SOILS (BATH TUB EFFECT) OR LEDGE THAT IMPACTS

ON THESE DRAWINGS OR IN PLANT LIST, WHICHEVER IS GREATER. IN CASES OF DISCREPANCY BETWEEN PLAN AND

PROPOSED PLANTING PLAN, NOTIFY LANDSCAPE ARCHITECT OR OWNERS' REPRESENTATIVE FOR DIRECTION PRIOR TO

Copyright 2021 ©Thomas F. Moran, Inc.

homas 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.

duplicated, replicated or otherwise reproduced in any form whatsoever

This plan is not effective unless signed by a duly authorized officer o

9/8/2021 REVISE PER TAC COMMENTD 6 8/25/2021 REVISE PER TAC COMMENTS. 5 | 8/11/2021 | REVISE PER TAC COMMENTS. 4 7/21/2021 REVISE PER TAC COMMENTS. HORIZONTAL SCALE 1"=100' 7/2/2021 REVISED SEWER LOCATION. 50 6/23/2021 REVISED FOR PLANNING BOARD SUBMITTAL. 6/21/2021 REVISED PER TAC COMMENTS.

REV. DATE

Seacoast Division

DR CK

| 170 Commerce Way, Suite 102 il Engineers Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222

Fax (603) 431-0910

www.tfmoran.com

**APRIL 19, 2021** 

C - 45

TAX MAP 242 LOT 4

OVERALL LANDSCAPE PLAN

OWNED BY

PREPARED FOR

GREEN & COMPANY REAL ESTATE

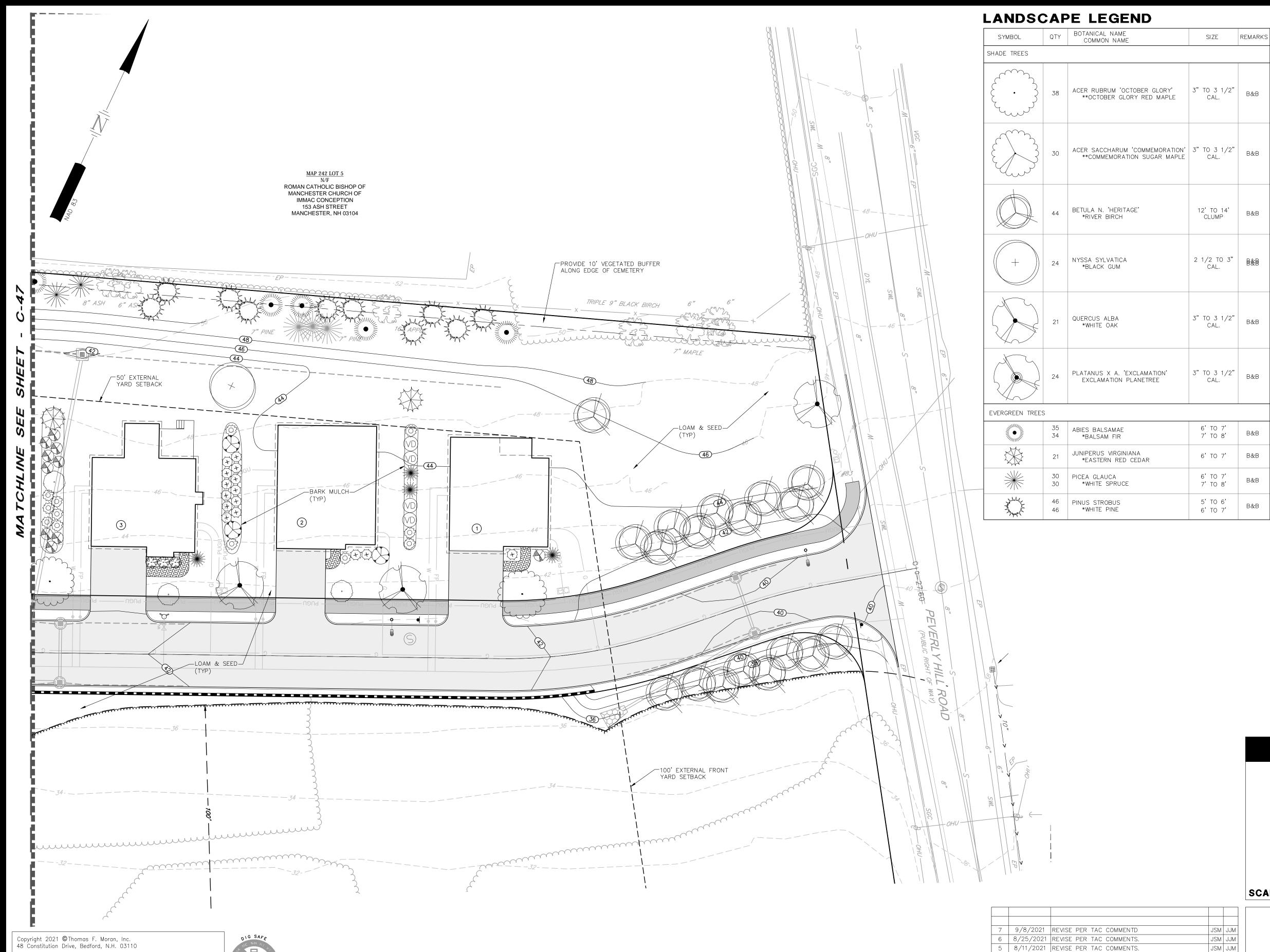
CK JJM CADFILE 47388-11\_LANDSCAPE

Land Surveyors

Landscape Architects

IJSM IJJN JSM JJM JSM JCC JSM JCC JSM JJM JSM JJM

DESCRIPTION



SMALL/FL	OWERING	TREES		
•	45	CRATAEGUS CRUSGALLI INERMIS **THORNLESS COCKSPUR HAWTHORN	2" TO 2 1/2" CAL.	E
(	23	PRUNUS VIRGINIANA 'SCHUBERT' *CANADA RED CHERRY	2" TO 2 1/2" CAL.	Е
DECIDUOU	S SHRUE	3	1	
	53	AMELANCHEIR CANADENSIS *SHADBLOW SERVICEBERRY	5' TO 6' CLUMP	E
	86	CLETHRA ALNIFOLIA 'COMPACTA' **COMPACT SUMMERSWEET	7 GAL.	C
E.D	50	CORNUS SERICEA 'ALLEMAN'S COMPACTA' **ALLEMAN'S COMPACT RED-OSIER DOGWOOD	3' TO 4'	C
(VD)	42	VIBURNUM DENTATUM *ARROWWOOD VIBURNUM	4' TO 5'	Е
VT	18	VIBURNUM TRILOBUM *AMERICAN CRANBERRY VIBURNUM	4' TO 5'	Е
EVERGREE	N SHRU	В		
(x)	145	ILEX GLABRA 'COMPACTA' **COMPACT INKBERRY	3 GAL.	C
₹ <u>`</u>	160	JUNIPERUS C. 'PFITZERIANA COMPACTA' COMPACT PFITZER JUNIPER	3 GAL.	C
*	155	THUJA O. NIGRA *DARK AMERICAN ARBORVITAE	5' TO 6'	E

\*NATIVE \*\* IMPROVED NATIVE

- 1. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF
- 2. 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.
- 3. PLANT TYPES MAY VARY BASED ON AVAILABILITY AND SUPPLY. THIS LAYOUT IS FOR ILLUSTRATIVE PURPOSES ONLY AND REPRESENTS THE INTENT, BUT PLANT SIZES, SPECIES, AND AMOUNTS MAY VARY.

## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

LANDSCAPE PLAN

PARSON WOODS CONDOMINIUM LLC 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

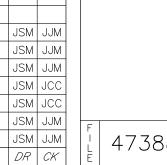
STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

GREEN & COMPANY REAL ESTATE

1"=40' SCALE: 1"=20'

**Seacoast Division** 

**APRIL 19, 2021** 



4 7/21/2021 REVISE PER TAC COMMENTS.

3 7/2/2021 REVISED SEWER LOCATION.

REV. DATE

1 6/21/2021 REVISED PER TAC COMMENTS.

2 6/23/2021 REVISED FOR PLANNING BOARD SUBMITTAL.

DESCRIPTION

HORIZONTAL SCALE 1"=20'

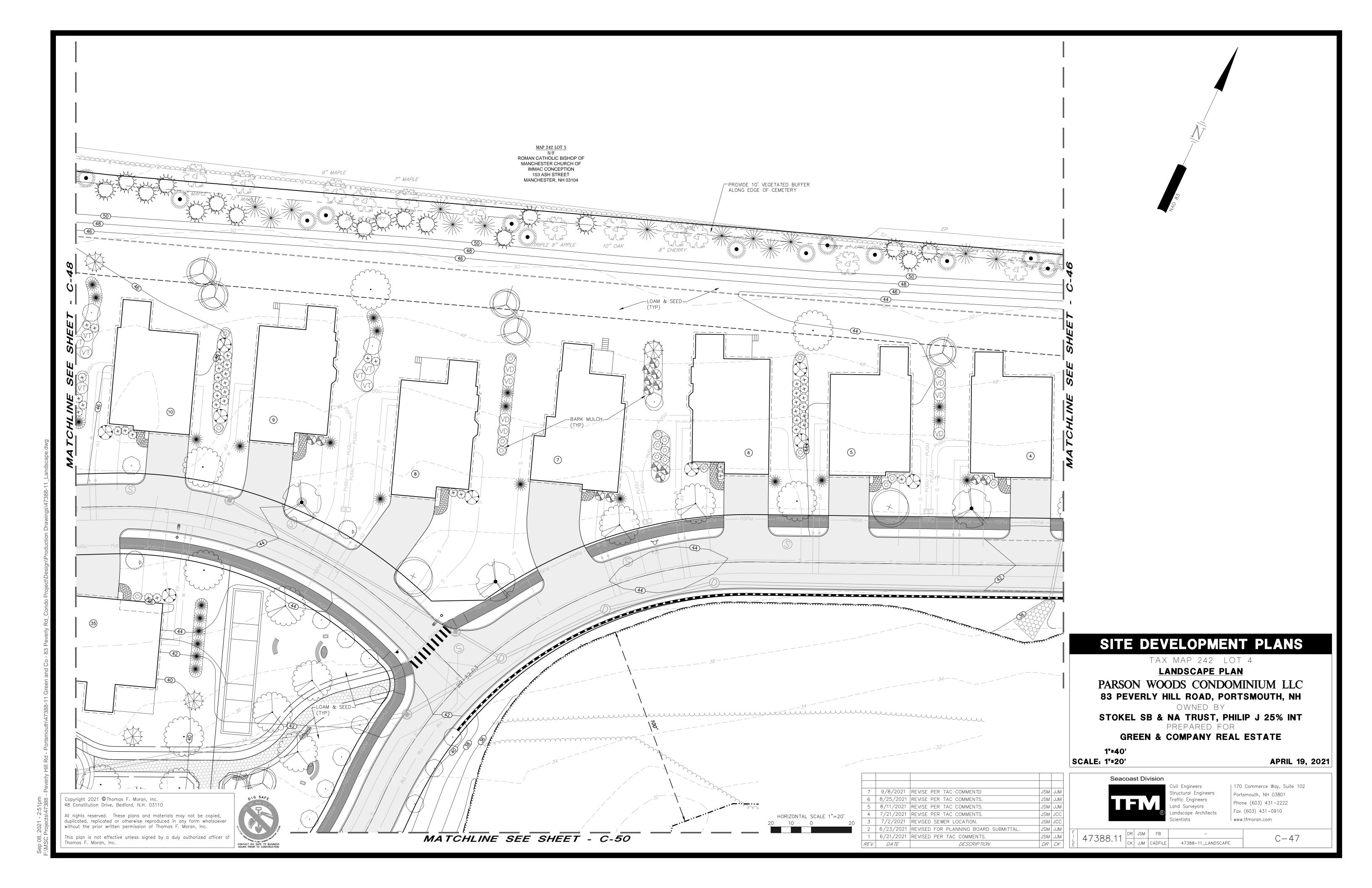
Structural Engineers Land Surveyors Landscape Architects | 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

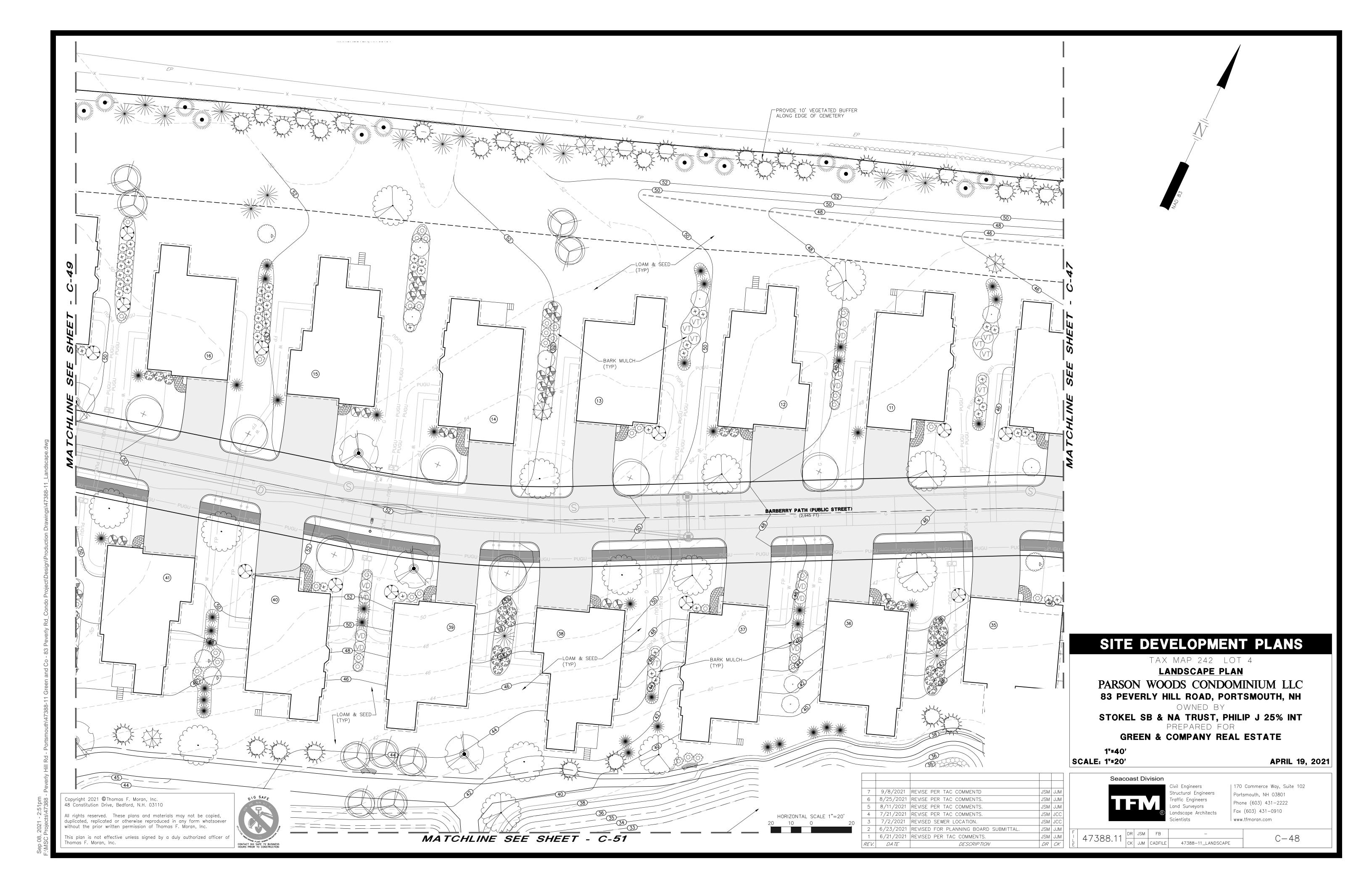
DR JSM FB 
CK JJM CADFILE 47388-11\_LANDSCAPE C - 46

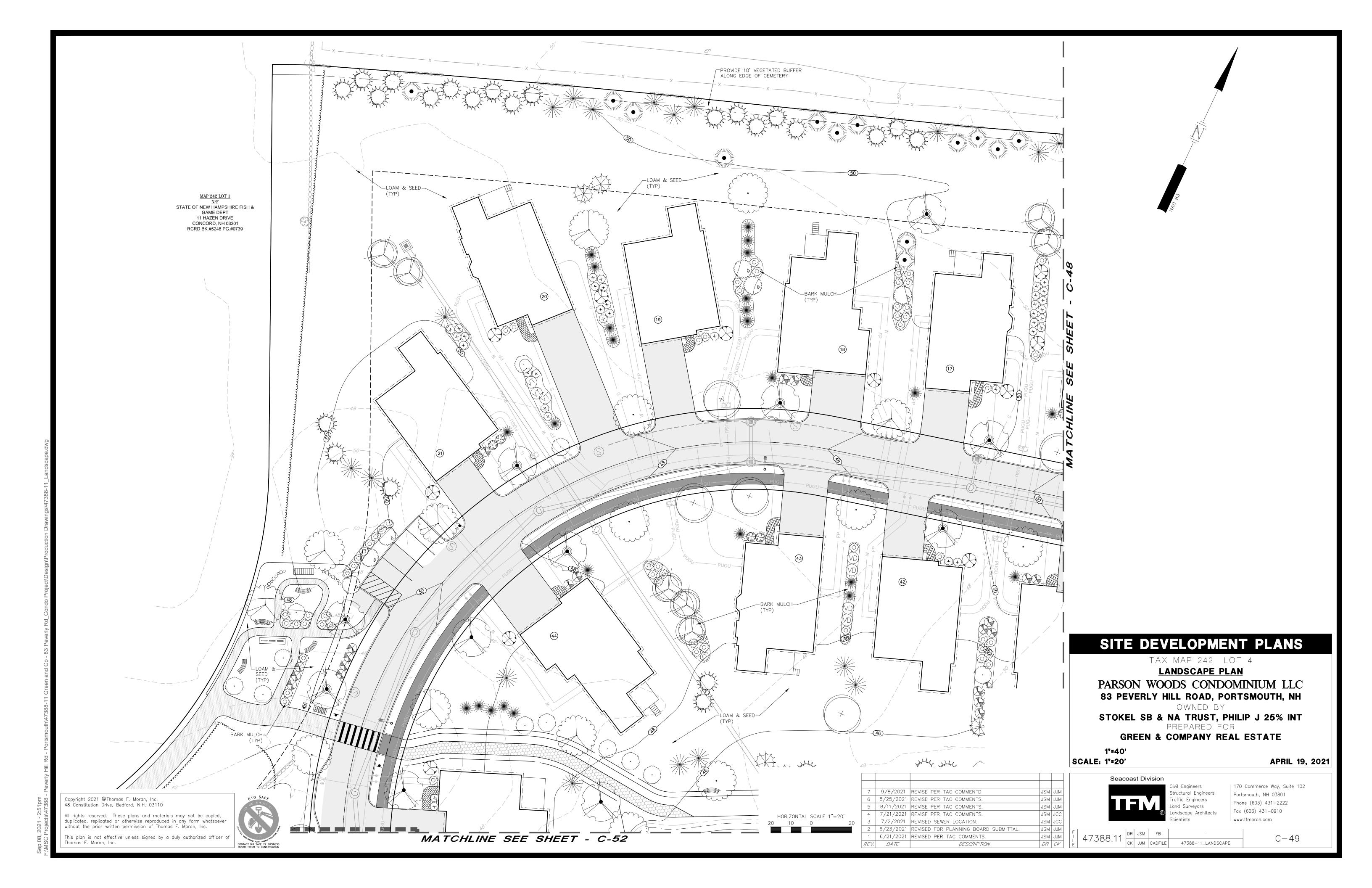
Thomas F. Moran, Inc.

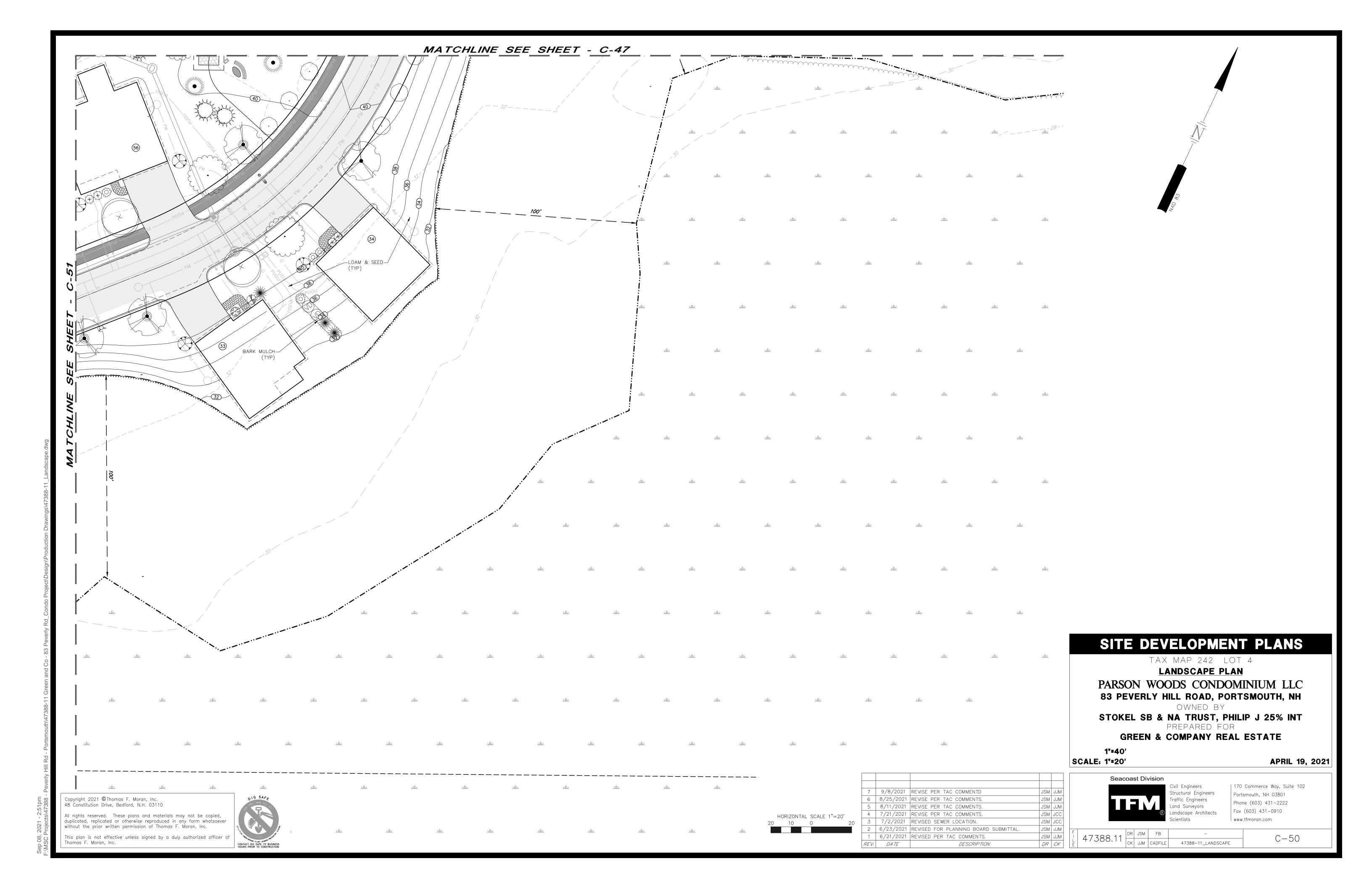
All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

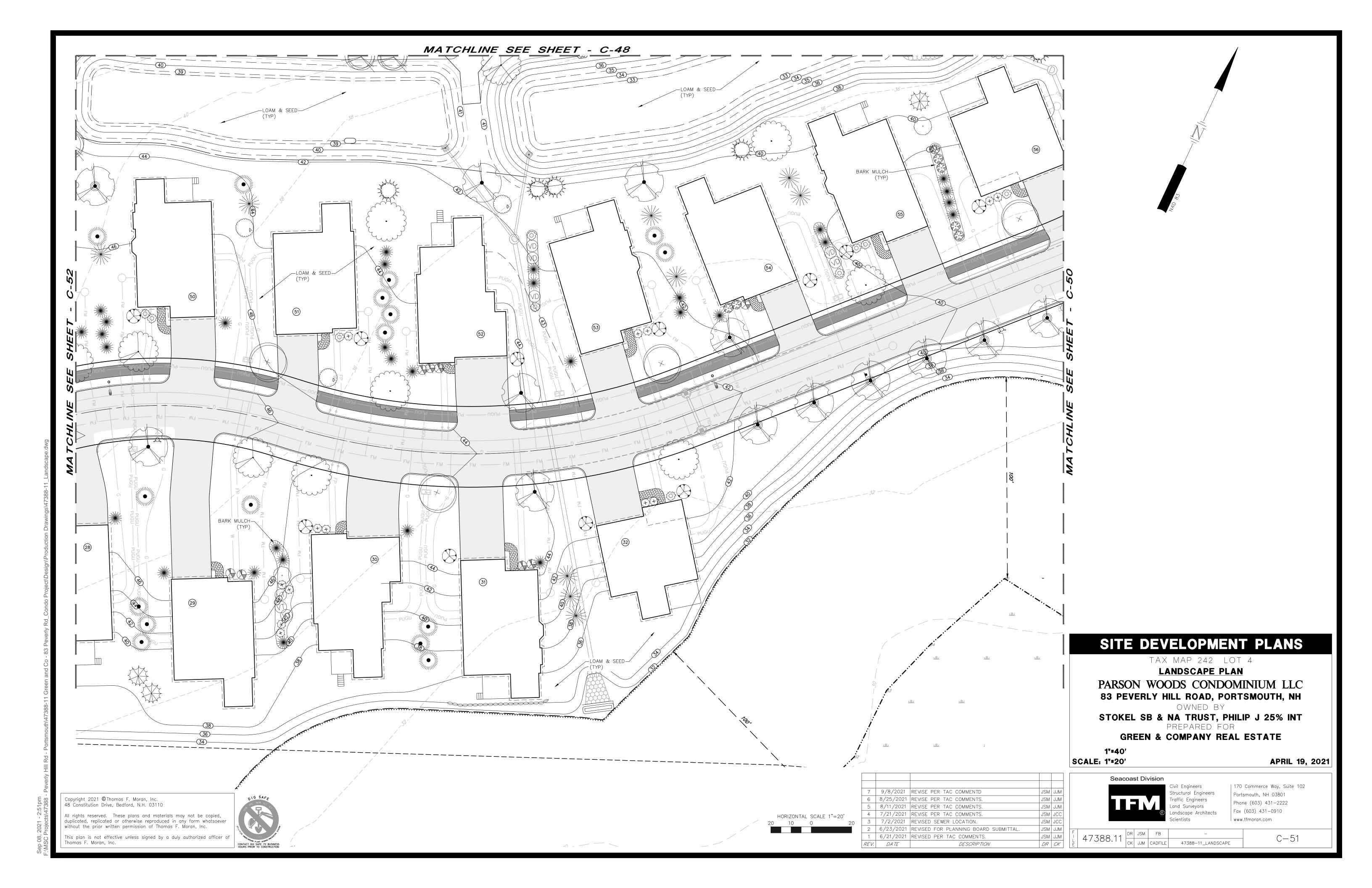
This plan is not effective unless signed by a duly authorized officer of

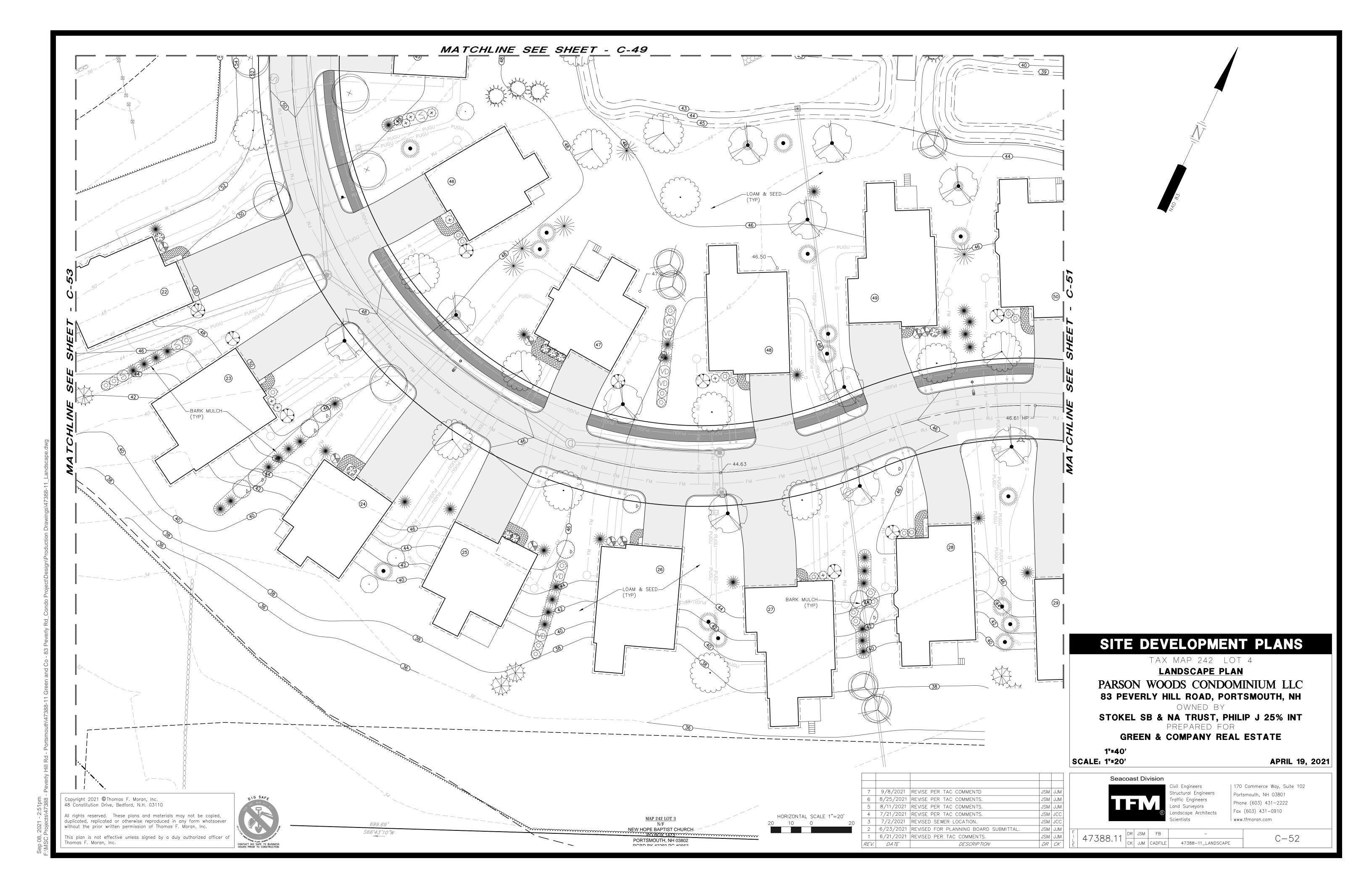


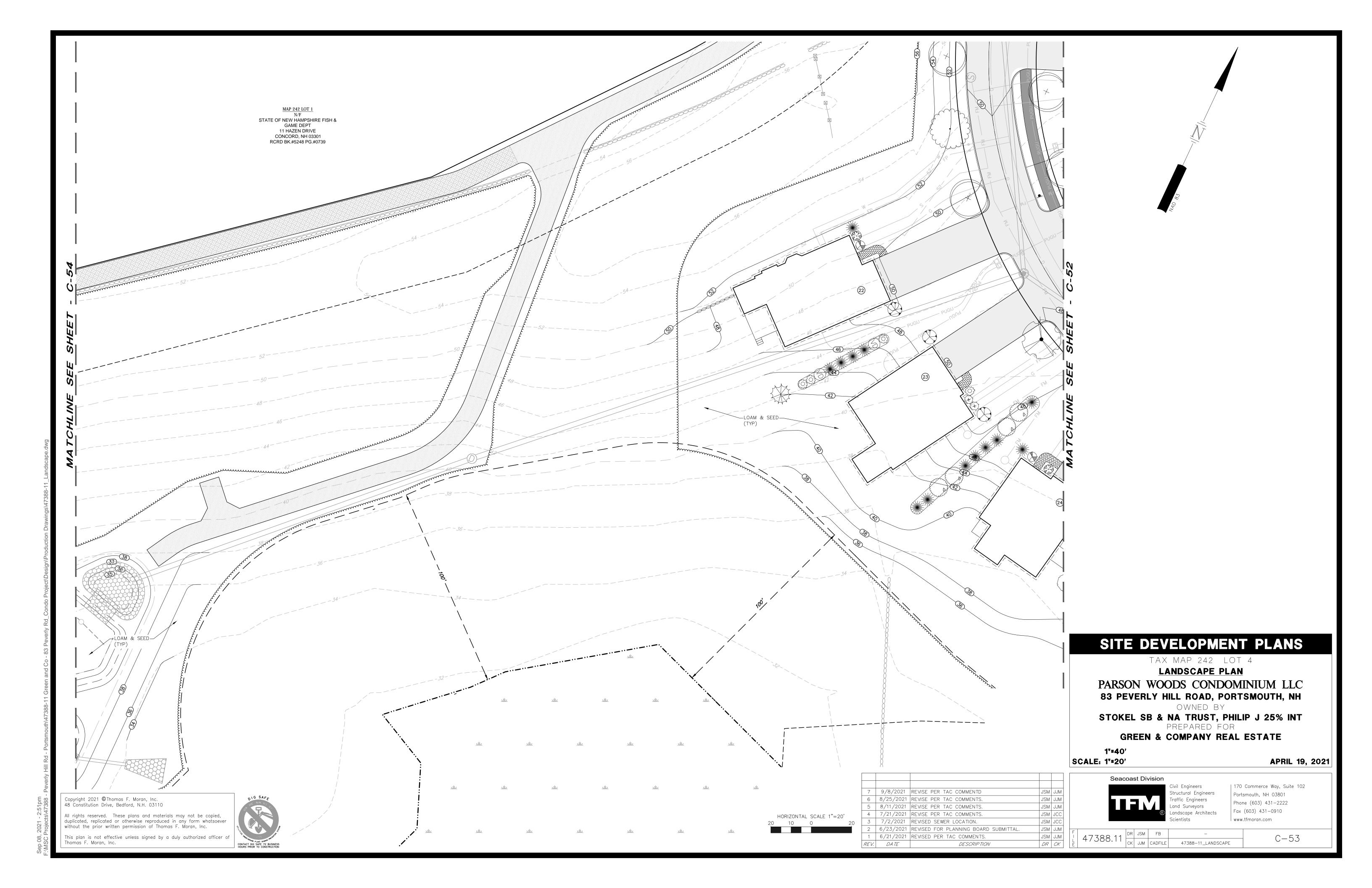


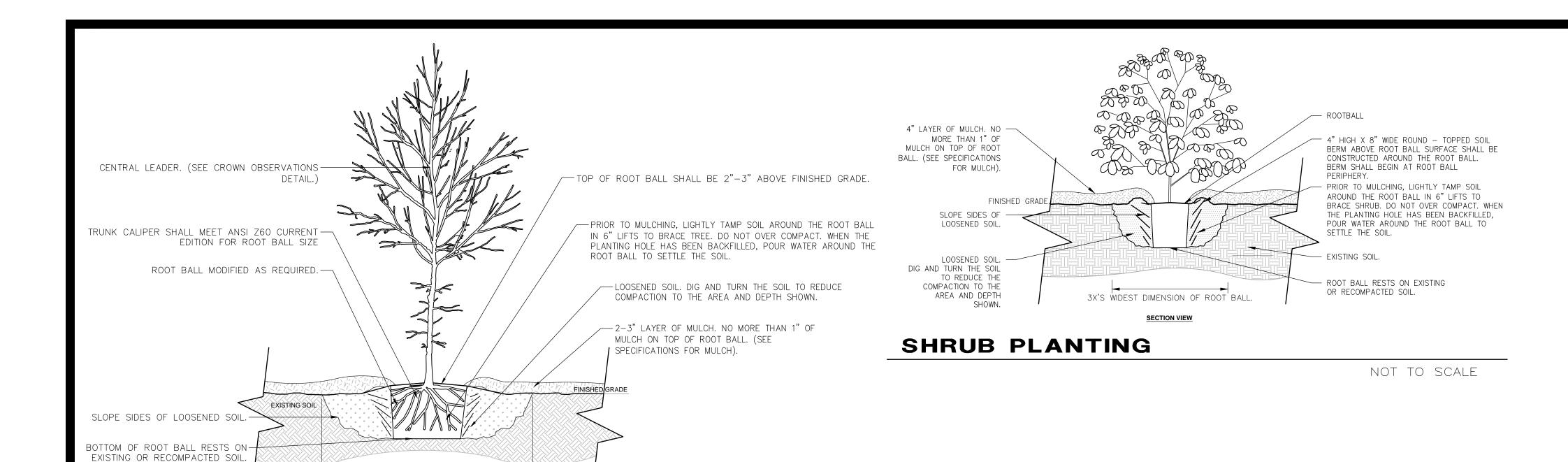








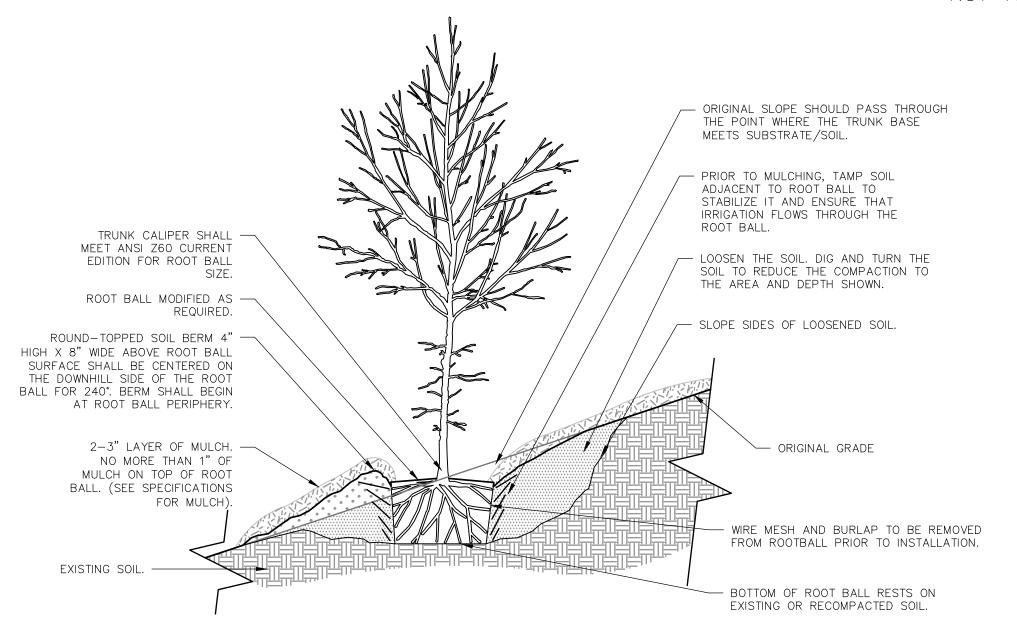




## TREE WITH BERM

NOT TO SCALE

SEE SPECIFICATIONS FOR SOIL REQUIREMENTS RELATED TO THIS DETAIL.



3X WIDEST DIMENSION OF ROOT BALL

**SECTION VIEW** 

## TREE ON SLOPE 5% (20:1) TO 50% (2:1)

NOT TO SCALE

## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

LANDSCAPE PLAN

PARSON WOODS CONDOMINIUM LLC 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

GREEN & COMPANY REAL ESTATE

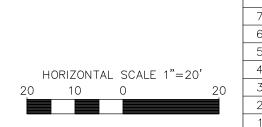
1"=40' SCALE: 1"=20'

**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.



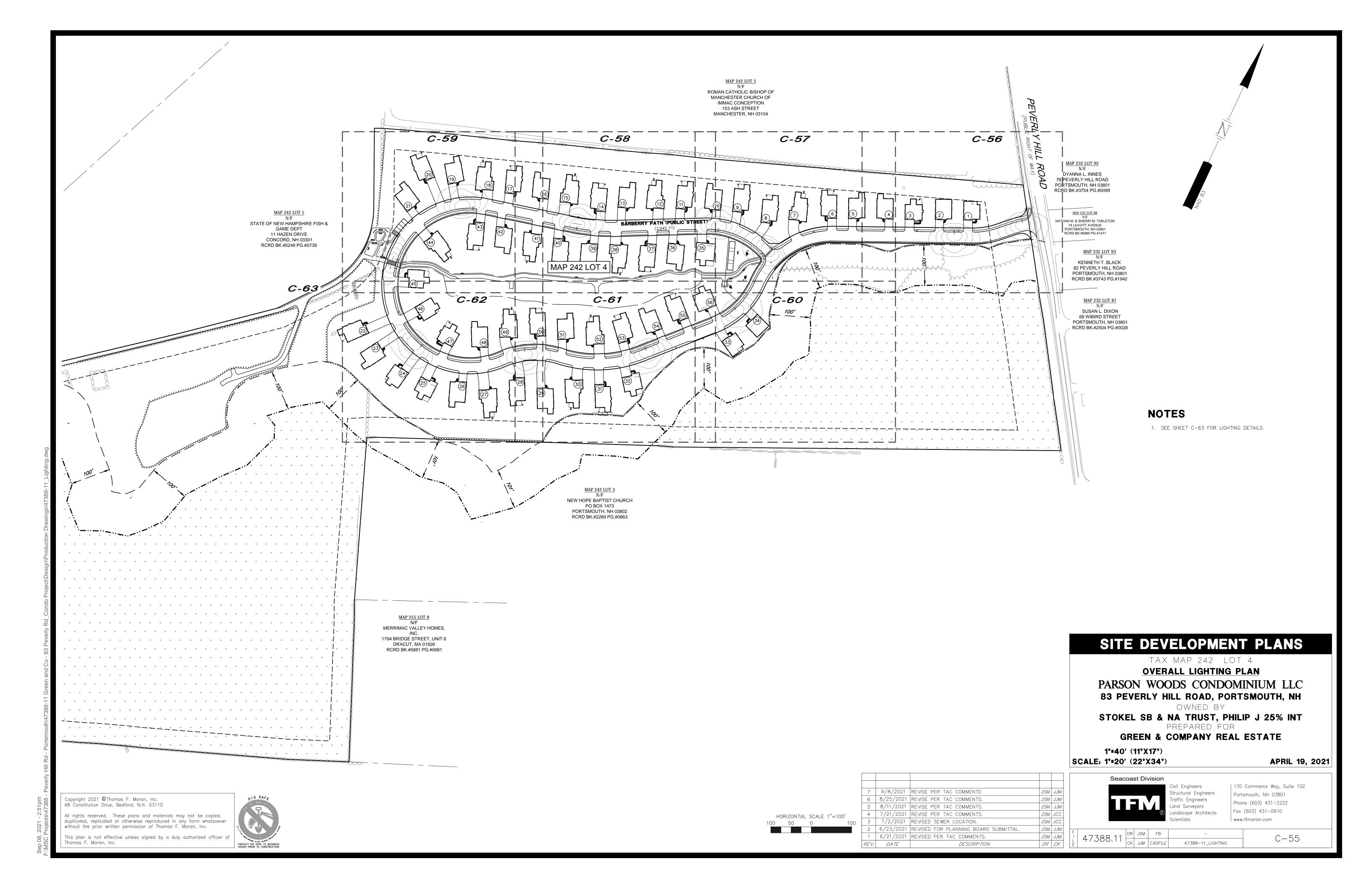
			T			1	
	7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM		
	6	8/25/2021		JSM			
	5	8/11/2021	REVISE PER TAC COMMENTS.	JSM			
	4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC		
0	3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC		
	2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM		F
	1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJM		L) I
	RE V.	DA TE	DESCRIPTION	DR	CK		Ē

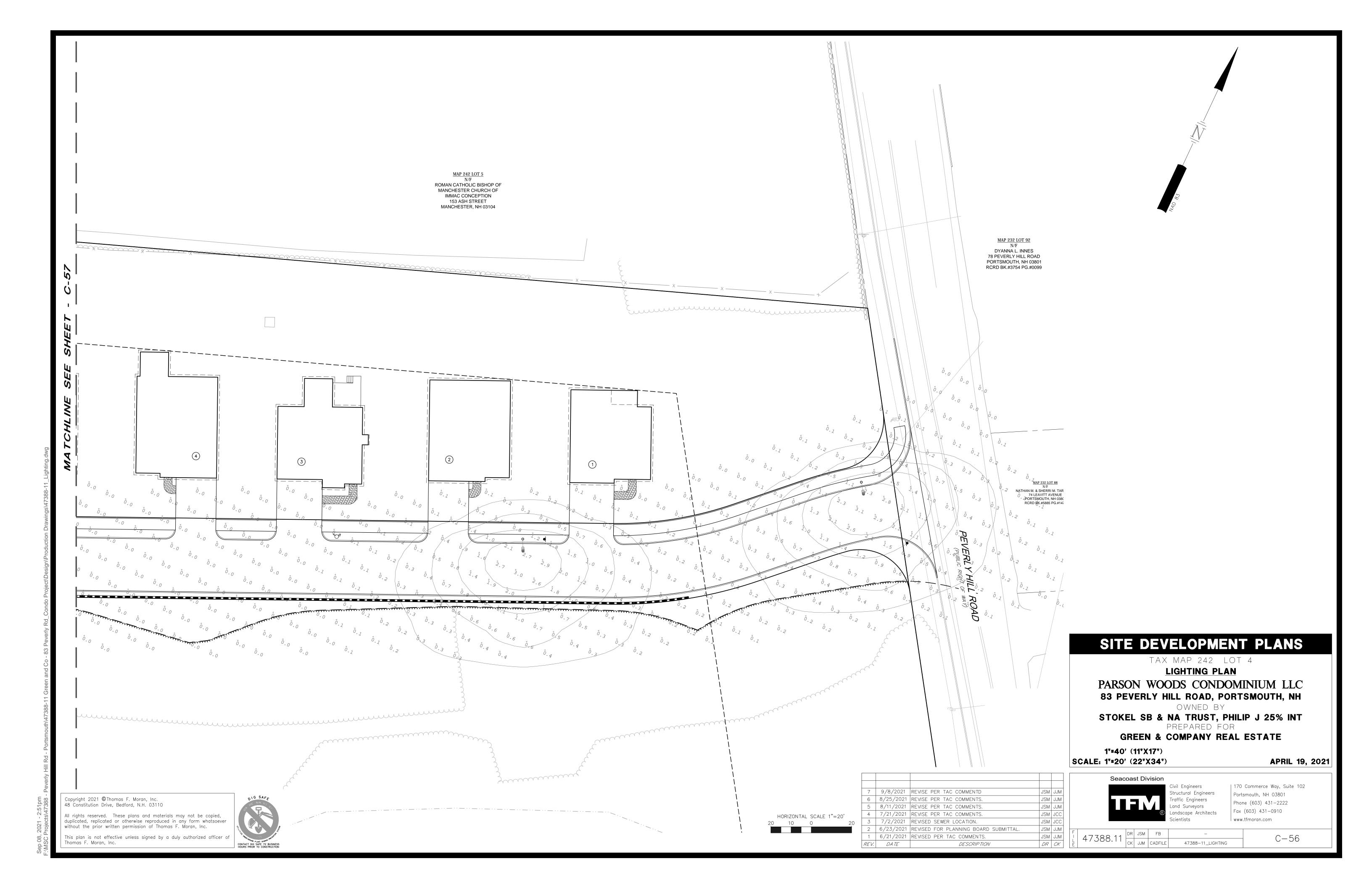


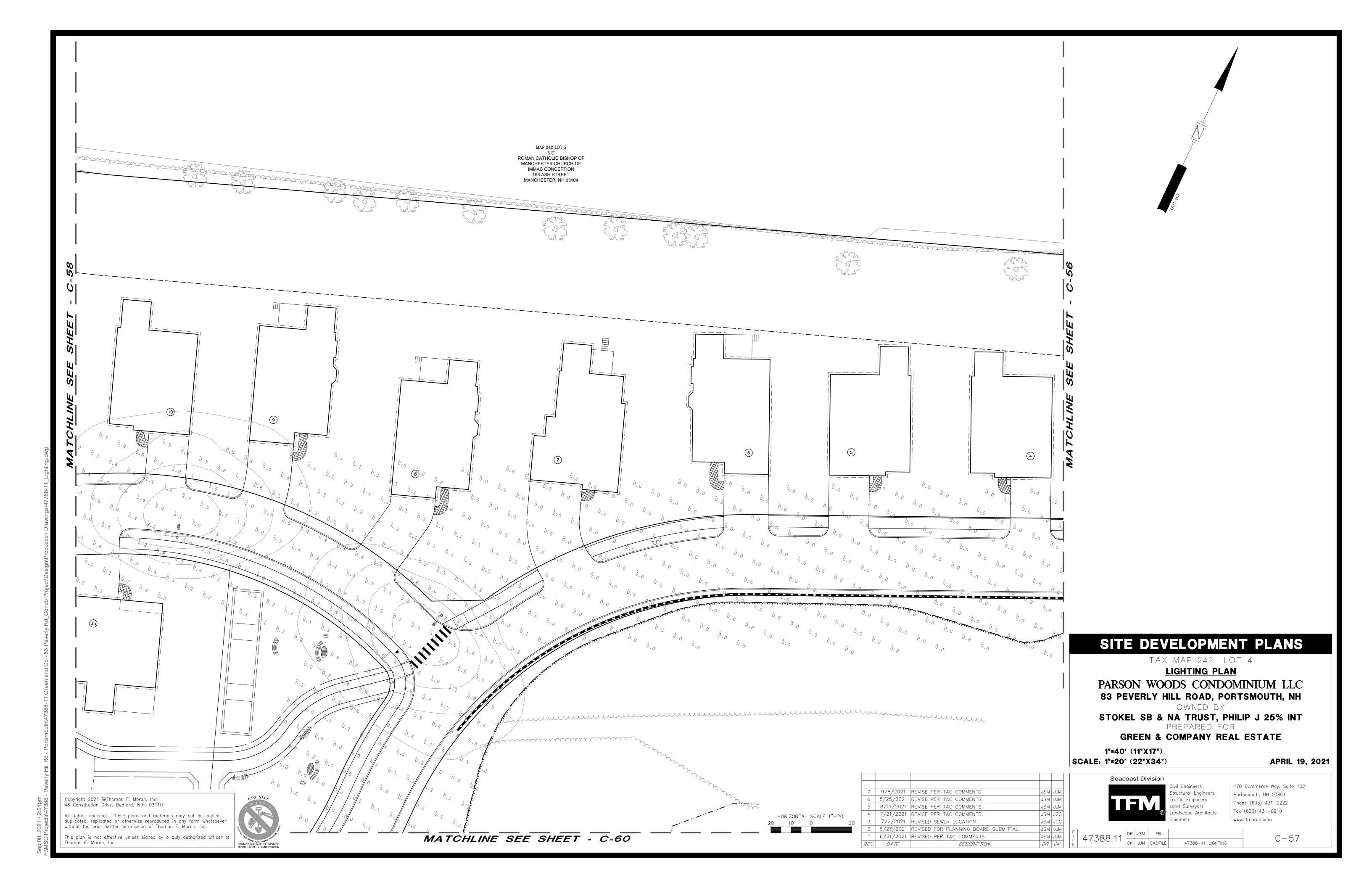
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

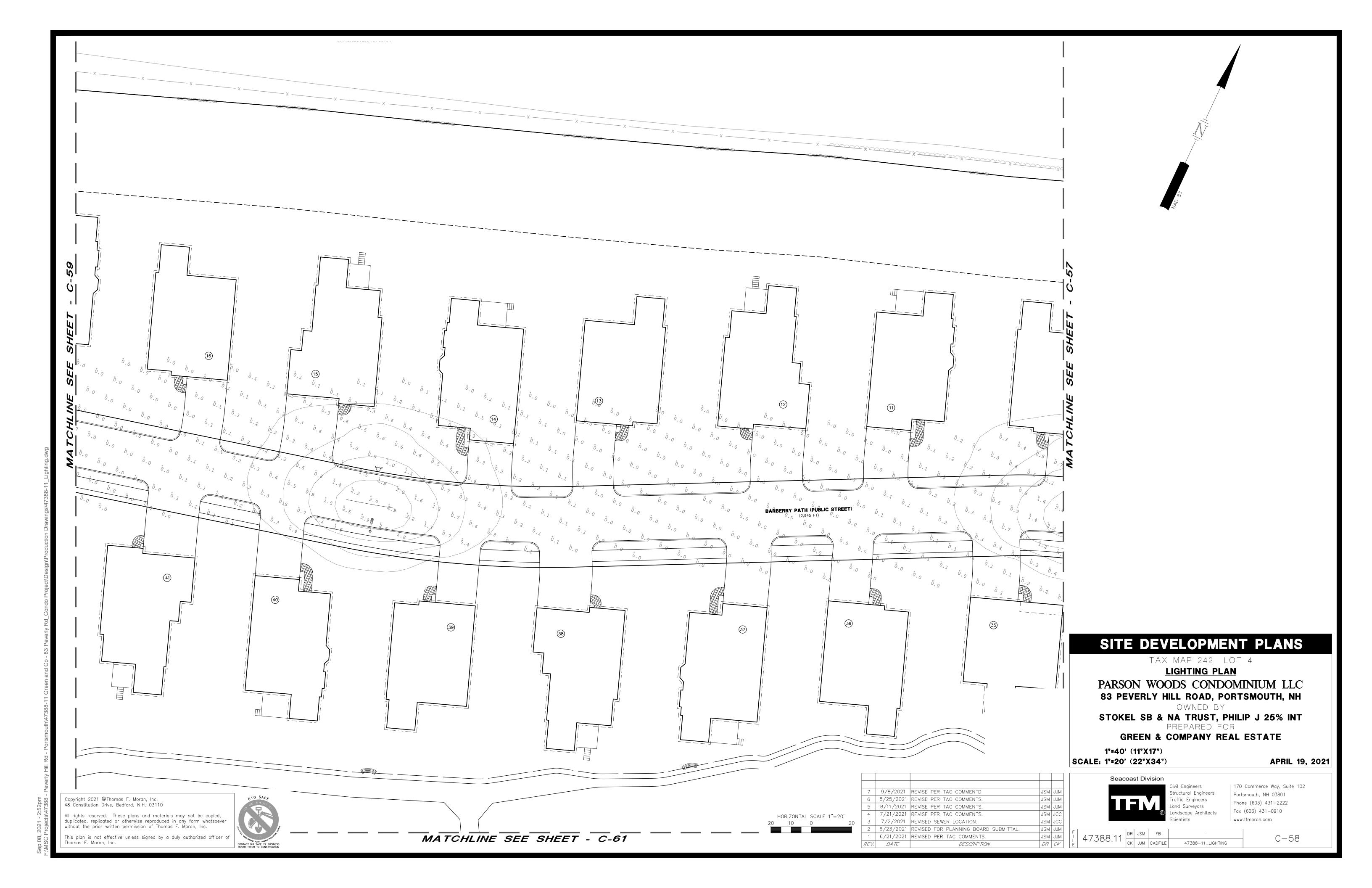
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

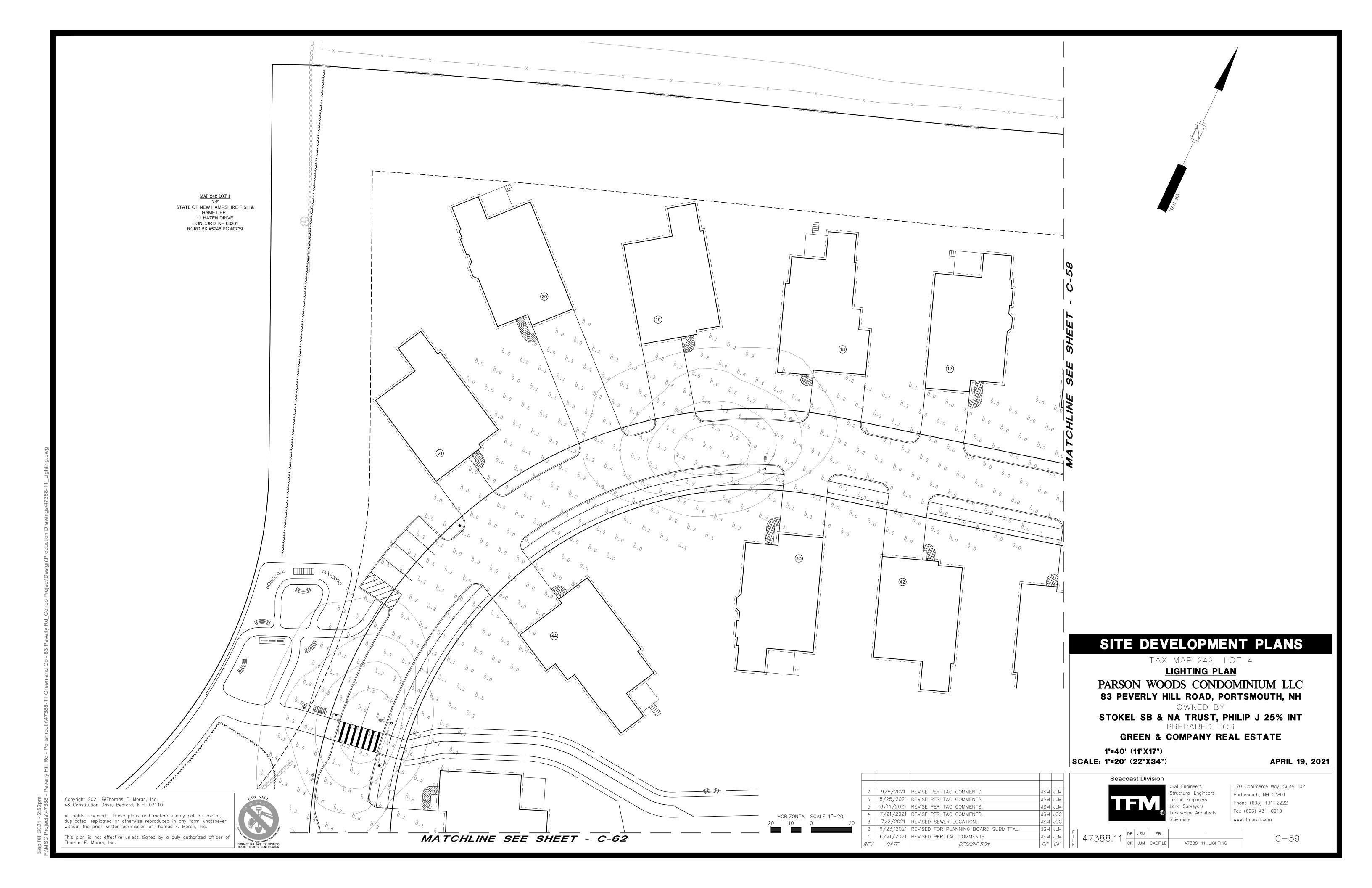
47388.11 DR JSM FB - C-54

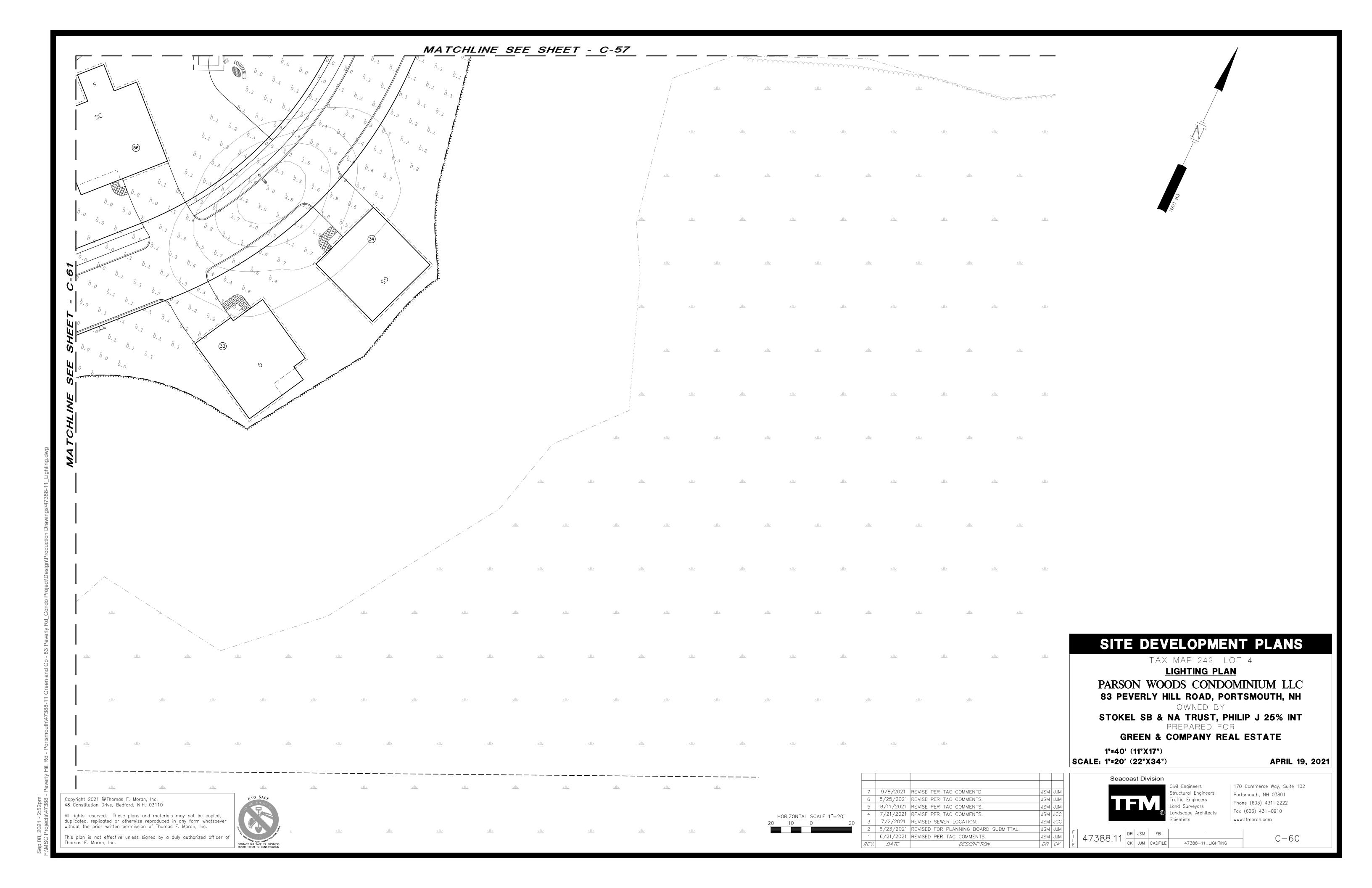


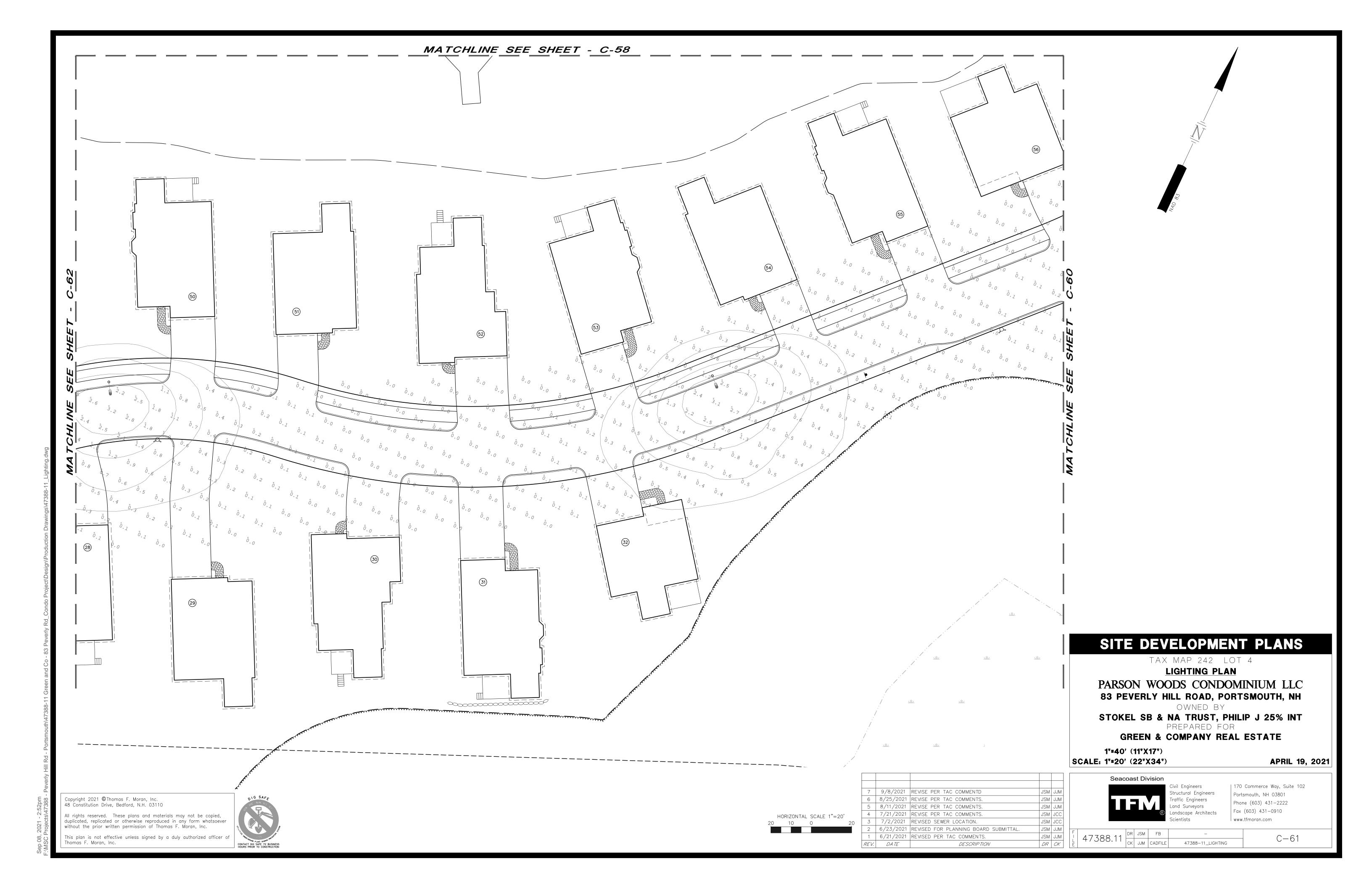


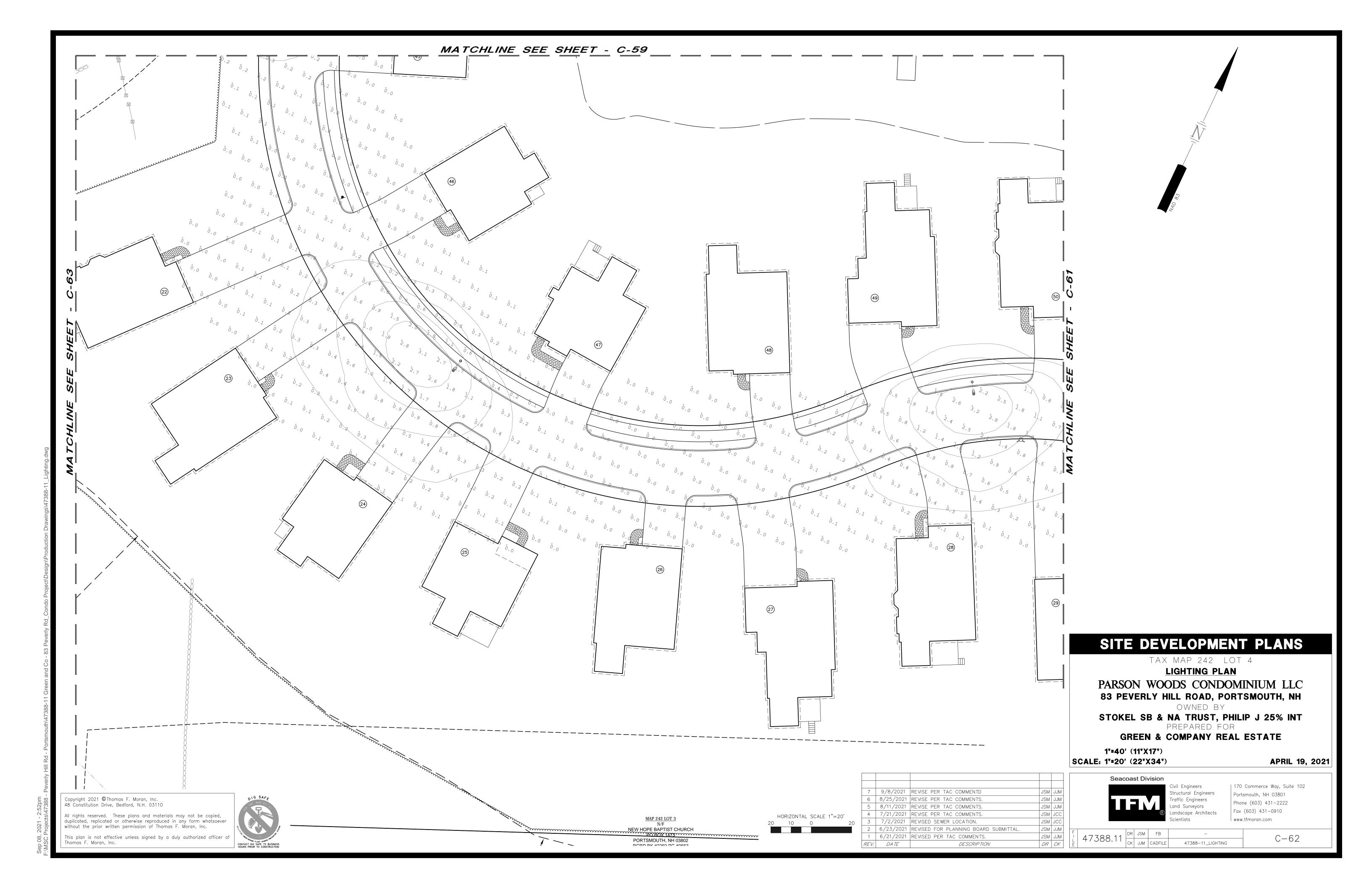






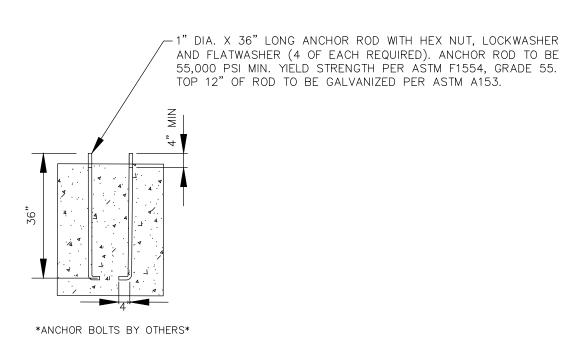






(J) ARM LENGTH

— 2" NPS SPLITFITTER (OPTIONS AVAILABLE — SEE ACCESSORY SPECIFICATIONS)



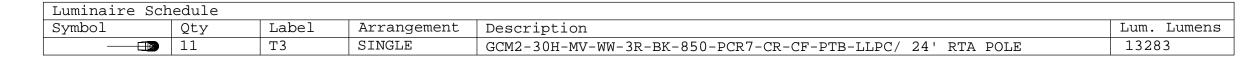
A MTG. HGT.	B WALL THICKNESS	C BUTT DIA.	J ARM LENGTH	MAXIMUM EPA				OLD CAT. NUMBER	CAT. NUMBER	
24'	0.156"	7"	6'	90	100	110	120	130	23–365	RTA25C7BFM16-**
24	24' 0.156"		0	8.6	6.8	6.2	5.2	4.4	25-303	NTAZSO/BI WITO— · ·

Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

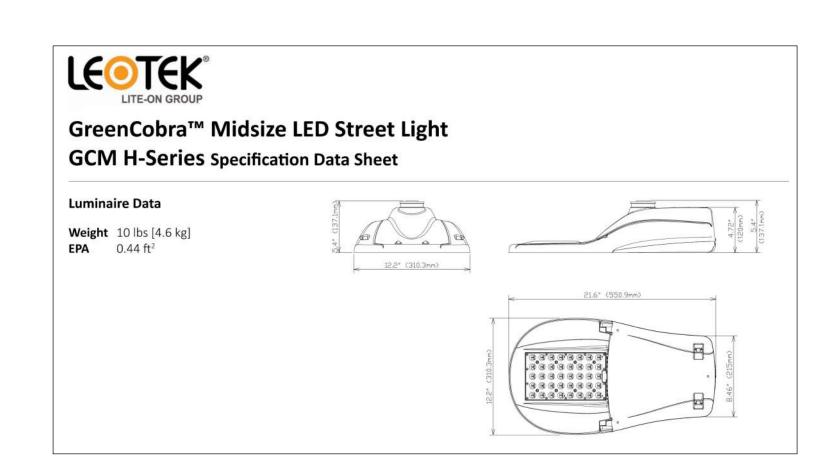
All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.





StatArea\_1
ROADWAY
Illuminance (Fc)
Average = 0.61
Maximum = 3.2
Minimum = 0.0
Avg/Min Ratio = N.A.
Max/Min Ratio = N.A.



## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

**LIGHTING PLAN** 

PARSON WOODS CONDOMINIUM LLC 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR

GREEN & COMPANY REAL ESTATE

SCALE: NTS

**APRIL 19, 2021** 

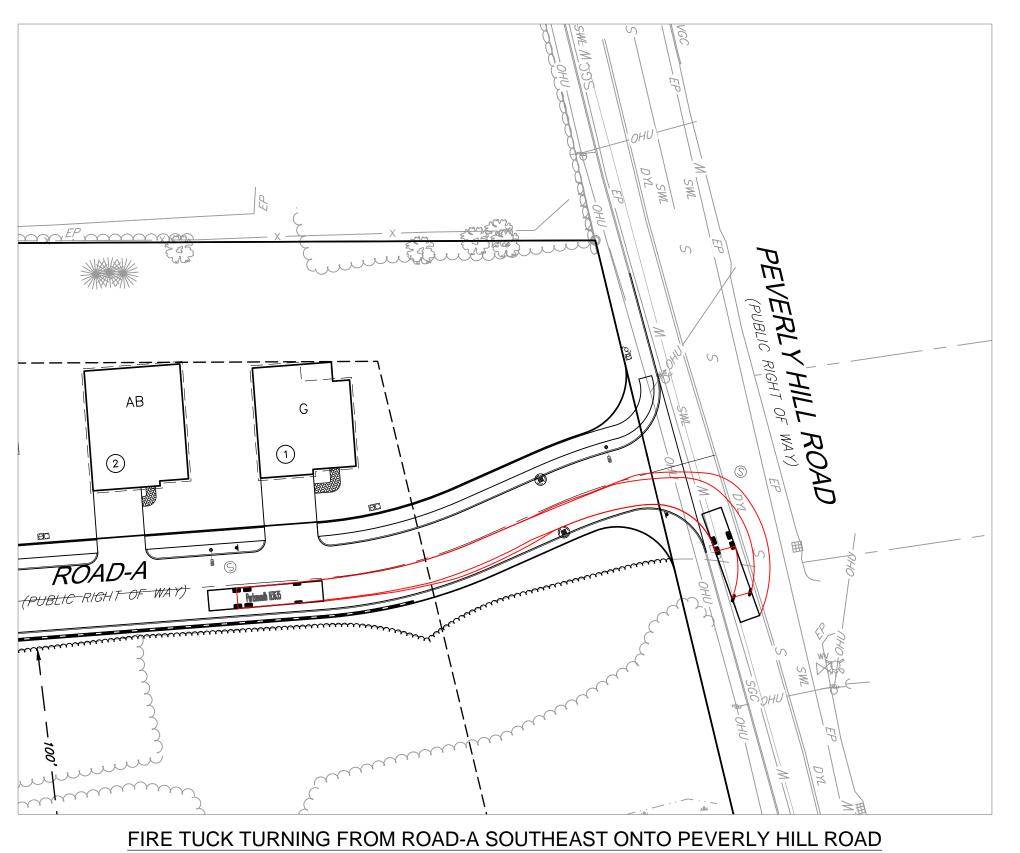
7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM	
6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJM	
5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJM	
4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC	
3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC	
2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM	F
1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJM	
REV.	DA TE	DESCRIPTION DESCRIPTION	DR	CK	Ē
	•		•		

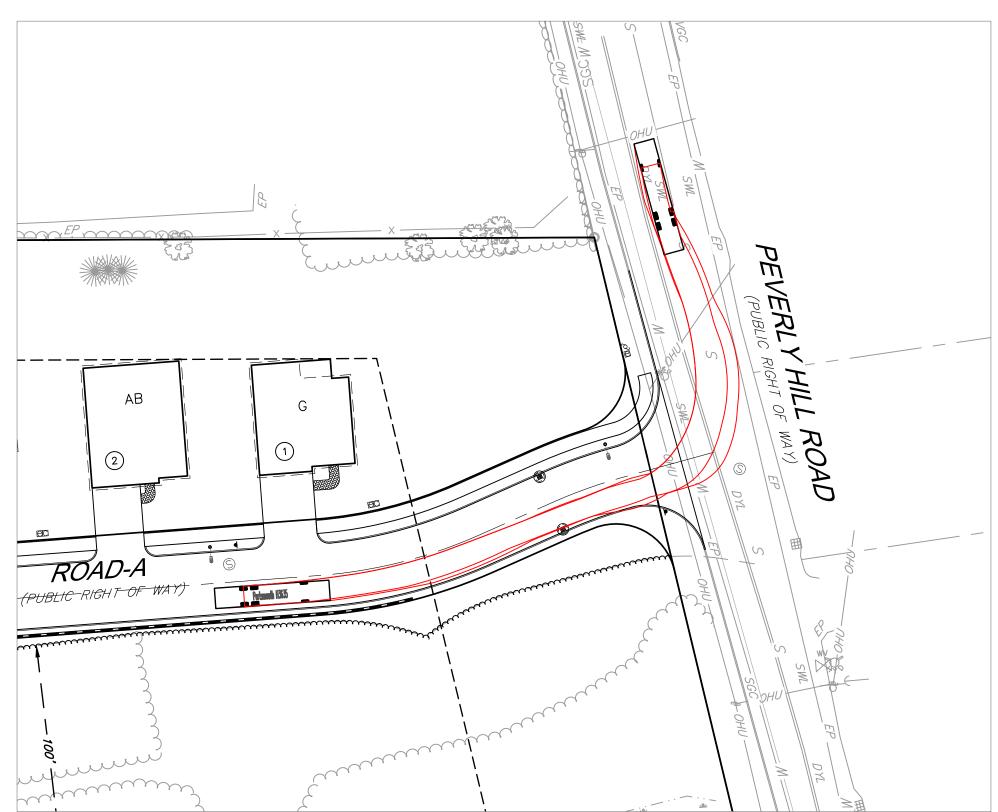


Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

Landscape Architects
Scientists
Fax (603) 431-0910
www.tfmoran.com

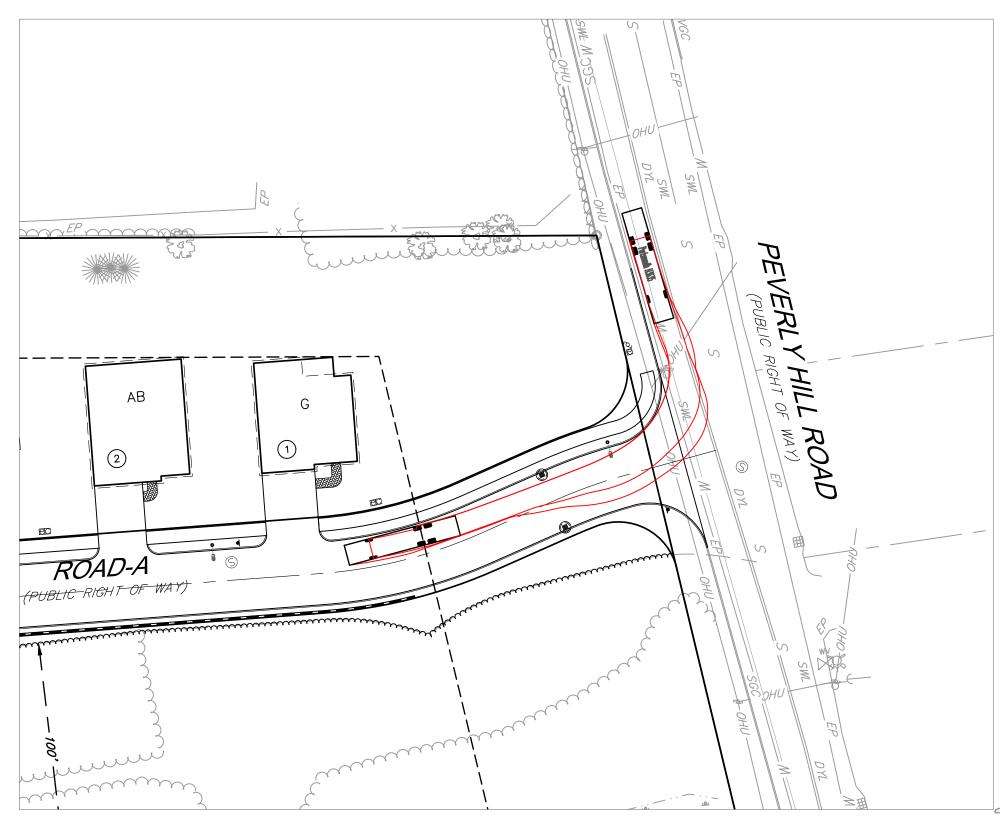




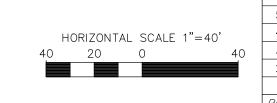
FIRE TUCK TURNING FROM ROAD-A NORTHEAST ONTO PEVERLY HILL ROAD



FIRE TUCK TURNING FROM PEVERLY HILL ROAD NORTHWEST ONTO ROAD-A



FIRE TUCK TURNING FROM ROAD-A SOUTHWEST ONTO PEVERLY HILL ROAD



	7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM
	6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJM
	5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJM
	4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC
)	3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC
	2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM
	1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJM
	REV.	DA TE	DESCRIPTION DESCRIPTION	DR	CK



PORTSMOUTH FIRE TRUCK NTS

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

FIRE TRUCK MOVEMENT PLAN PARSON WOODS CONDOMINIUM LLC 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")

**APRIL 19, 2021** 



SCALE: 1"=40' (22"X34")

Structural Engineers Land Surveyors Landscape Architects

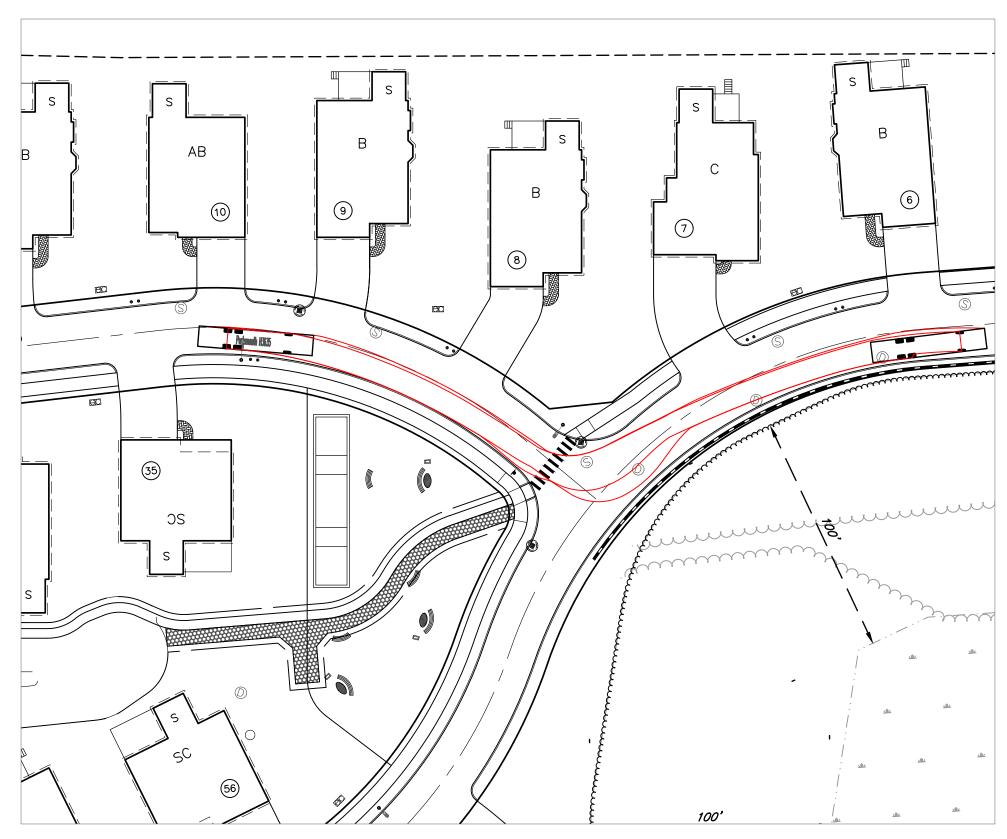
| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

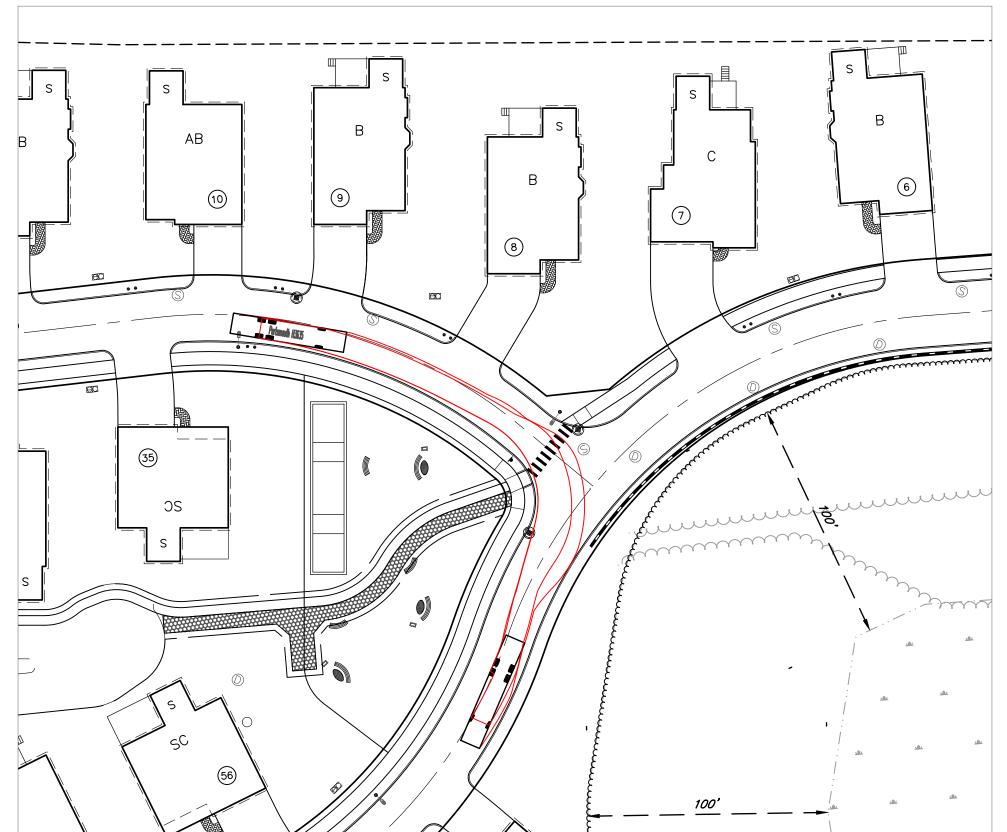
All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc. This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.



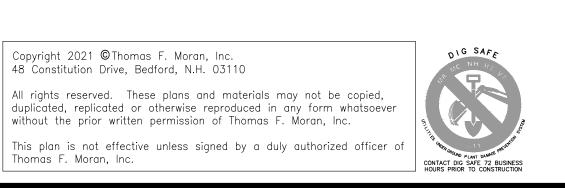
C - 64



FIRE TUCK TURNING FROM ROAD-A (LOOP) NORTH ONTO ROAD-A

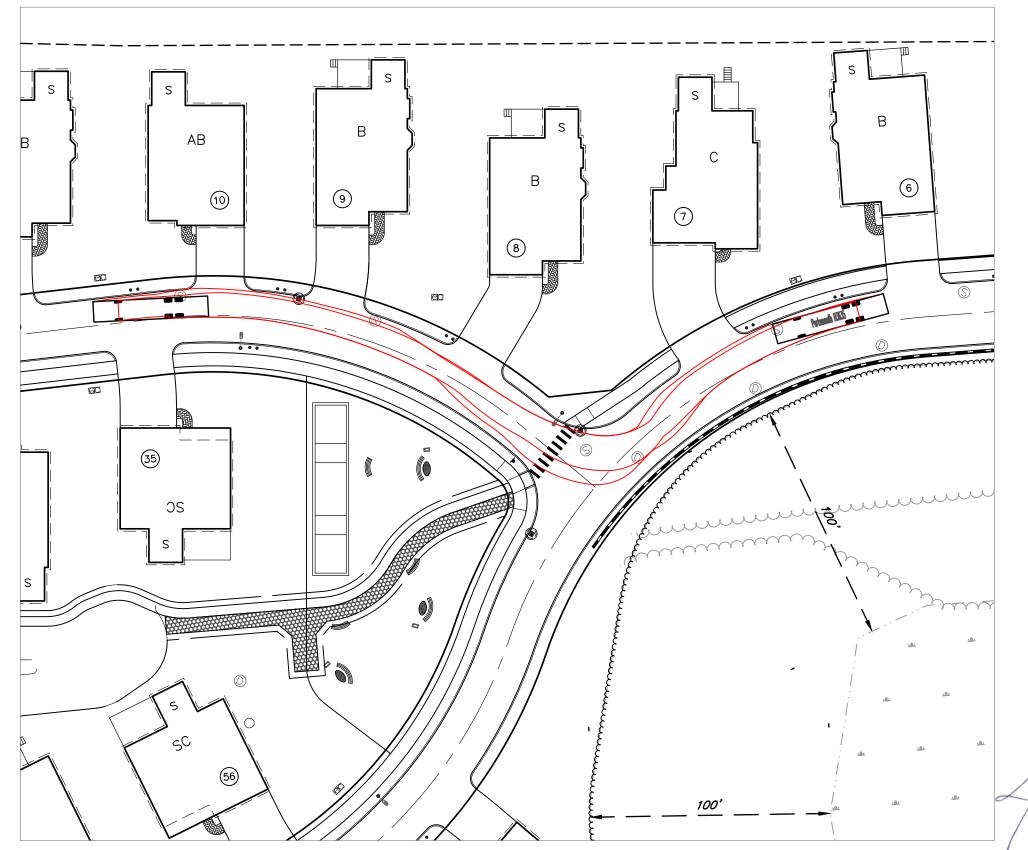


FIRE TUCK TURNING FROM ROAD-A (LOOP) SOUTH ONTO ROAD-A

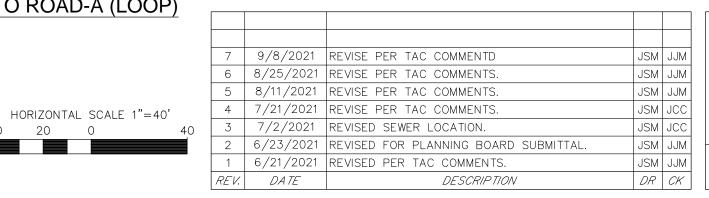


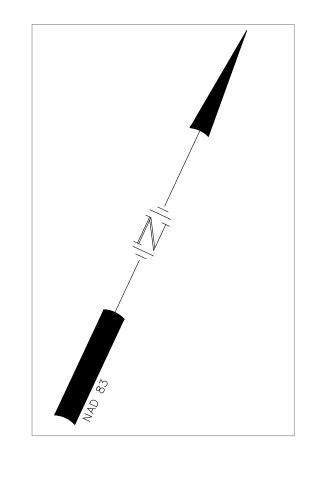


FIRE TUCK TURNING FROM ROAD-A WEST ONTO ROAD-A (LOOP)



FIRE TUCK TURNING FROM ROAD-A WEST ONTO ROAD-A (LOOP)







PORTSMOUTH FIRE TRUCK NTS

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

FIRE TRUCK MOVEMENT PLAN PARSON WOODS CONDOMINIUM LLC 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** 



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

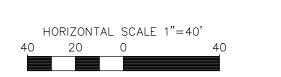
C - 65

Copyright 2021 ©Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

Thomas F. Moran, Inc.

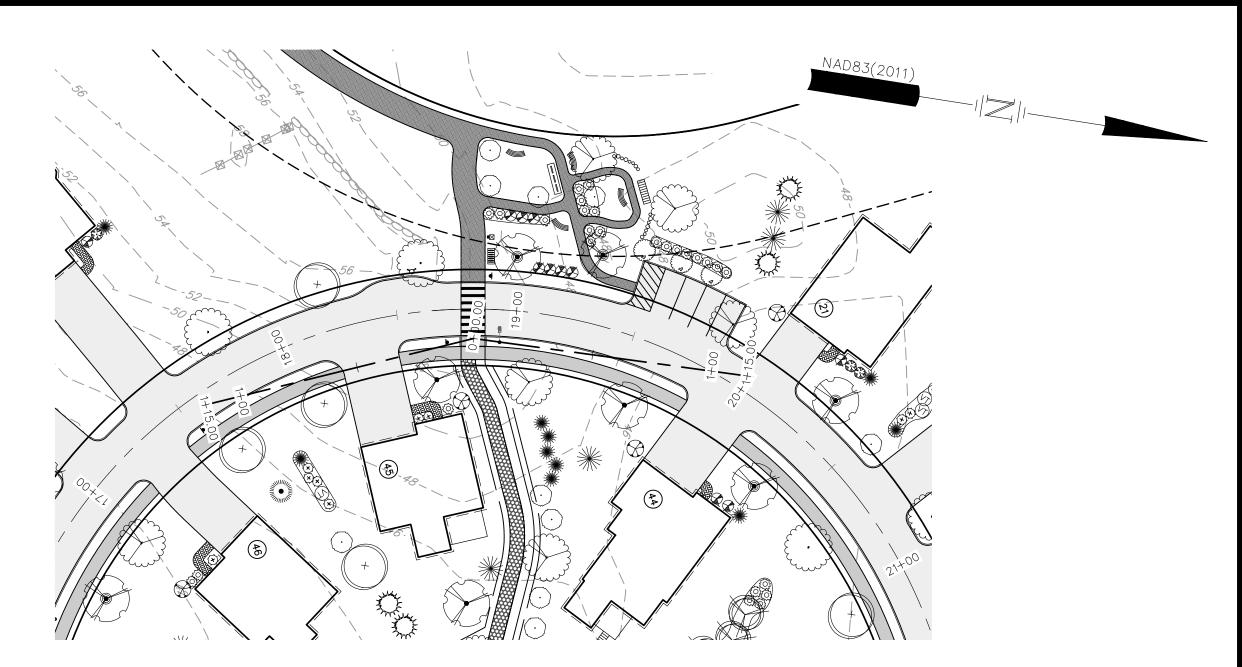
CK JJM CADFILE 47388-11\_TRUCKMOVEMENT

PEVERLY HILL ROAD INTERSECTION
SITE DISTANCE

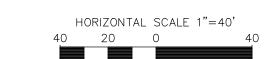


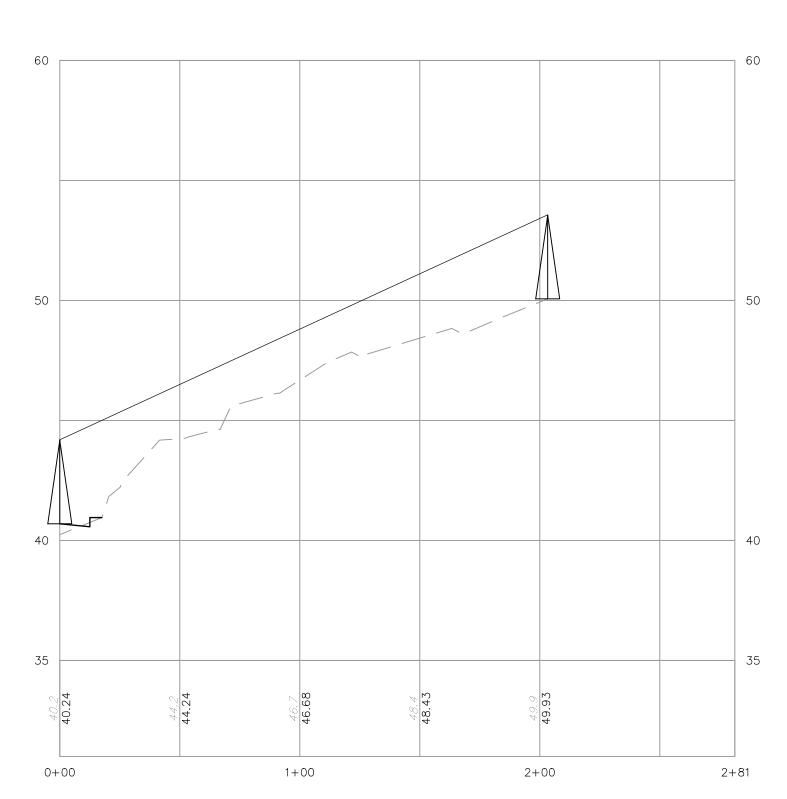
HORIZONTAL SCALE 1"=40'

VERTICAL SCALE 1"=4'

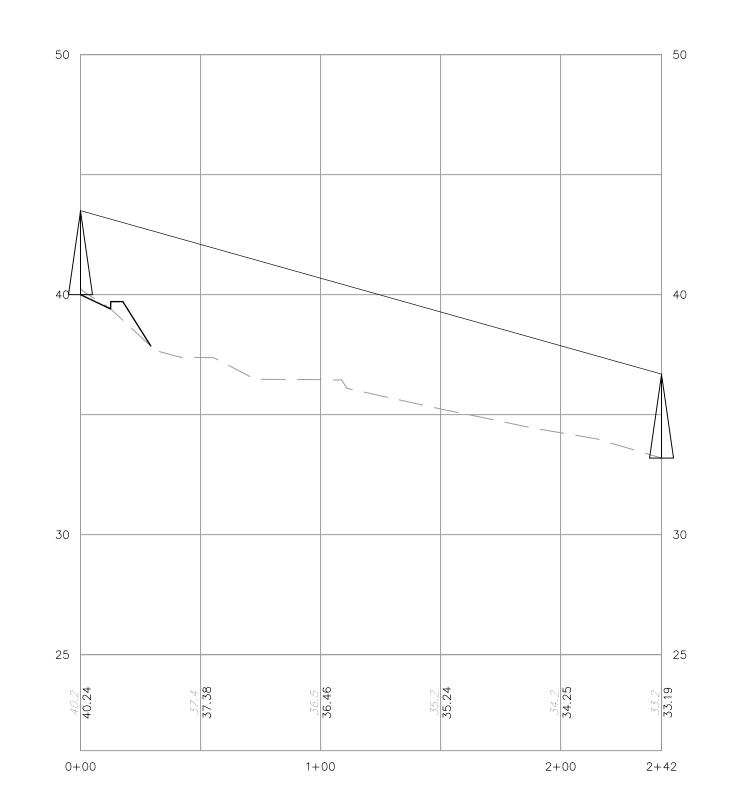


PEVERLY HILL ROAD INTERSECTION
SITE DISTANCE

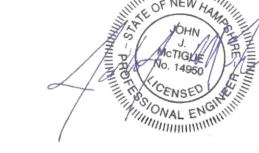




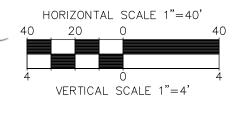
LOOKING LEFT (NORTH)
ONTO PEVERLY HILL ROAD



LOOKING RIGHT (SOUTH)
ONTO PEVERLY HILL ROAD



1+15 1+00

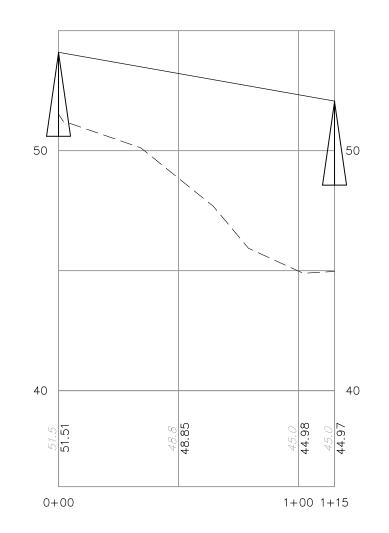


0+00

7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJN
6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJN
5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJN
4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC
3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC
2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJN
1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJN
REV.	DA TE	DESCRIPTION DESCRIPTION	DR	СК

FROM CROSSWALK,

LOOKING LEFT



FROM CROSSWALK, LOOKING RIGHT

## SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

SITE DISTANCE PLAN & PROFILE
PARSON WOODS CONDOMINIUM LLC
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 SHC29/1X34") APRIL 19, 2021



Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

C - 66

Sep 08, 2021 - 2:53pm F:\MSC Projects\47388 - Peverly Hill Rd - Portsmouth\47388-11 Green and Co - 83

Copyright 2021 © Thomas F. Moran, Inc. 48 Constitution Drive, Bedford, N.H. 03110

Thomas F. Moran, Inc.

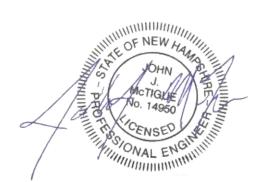
All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.

This plan is not effective unless signed by a duly authorized officer of



## 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

PEDESTRIAN & BIKE PATH PLAN
PARSON WOODS CONDOMINIUM LLC
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") SCALE: 1"=50' (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.



		l
HORIZONTAL SCALE 1"=50'		
50 25 0	50	
		$R_{L}$

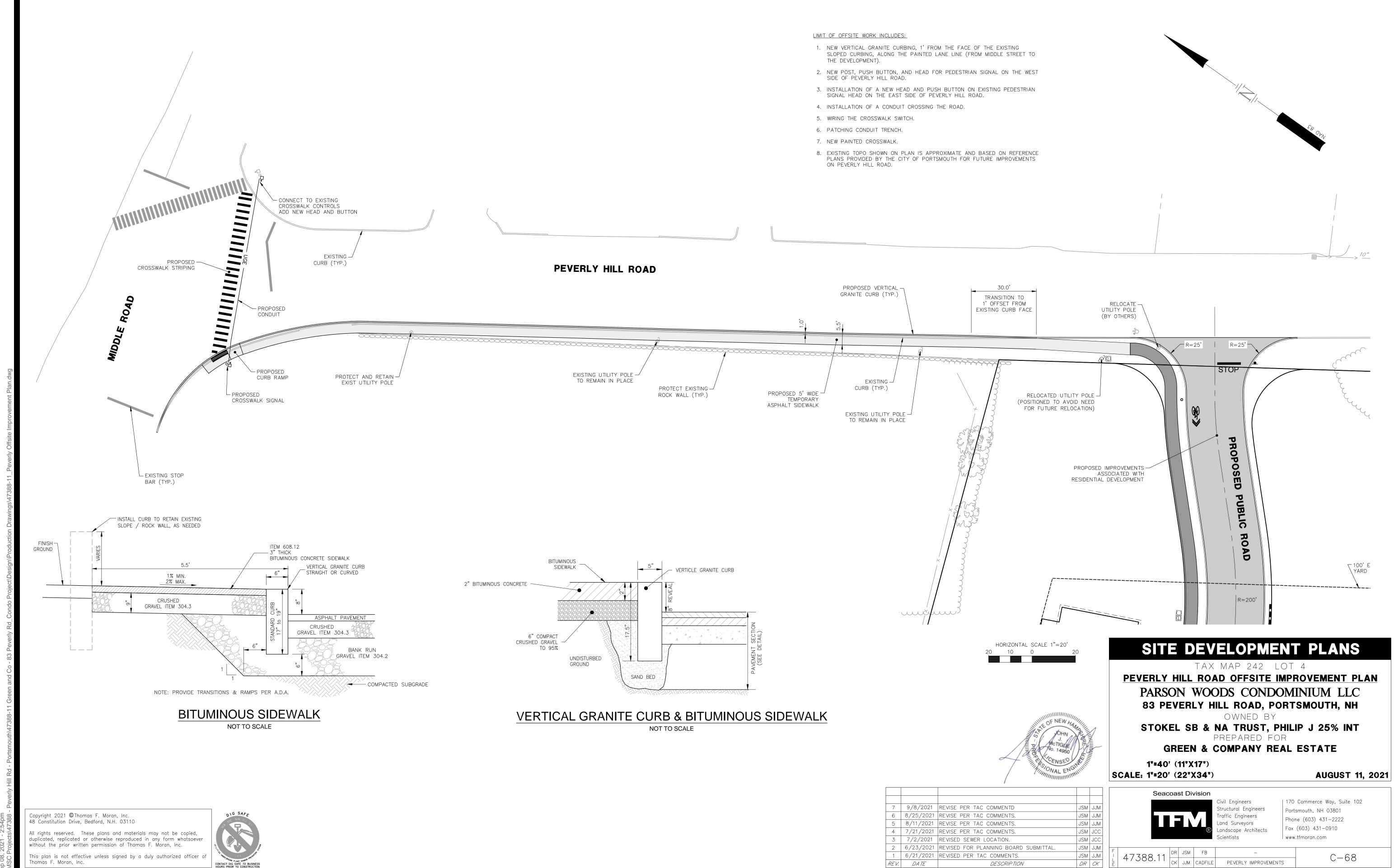
			· ·					
	7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM			
	6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJM			
	5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJM			
	4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC			
0	3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC			
	2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM	F	_	-
	1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJM	- [ ]	4	L
	RE V.	DATE	DESCRIPTION	DR	CK	Ę	'	
					,		·	

	Seac	oa	st Div	vision	
				R	Ci St Tr Lo So
1		חח	ICM		

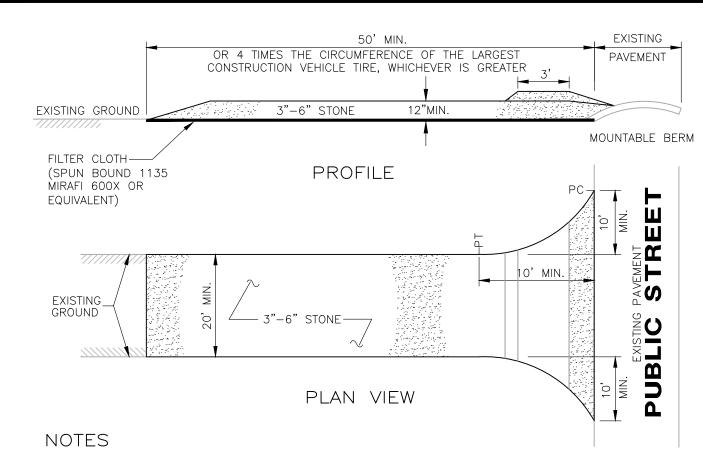
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431–2222
Fax (603) 431–0910
www.tfmoran.com

47388.11 DR JSM FB - C-67



2000 00 x20



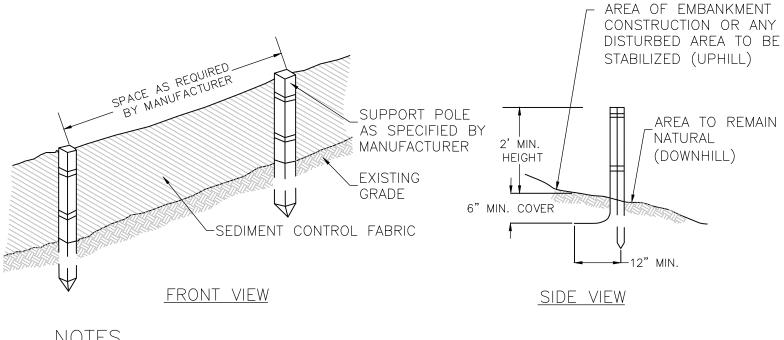
- 1. FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE SURFACE.
- 2. WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL
- 3. MAINTENANCE THE ENTRANCE SHALL 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**

SIDES OF SOCK WORK AREA-TOP OF GROUND 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.

2"x 2" WOOD STAKE PLACED

4' O.C. ON ALTERNATING

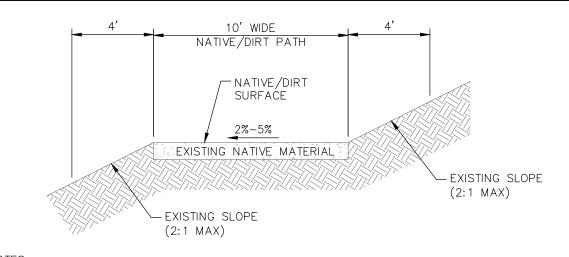


### NOTES

- 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

SILT FENCE NOT TO SCALE

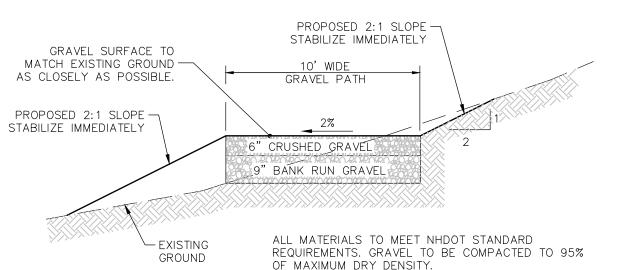
REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.



- 1. PATH SHALL HAVE A MIN CROSS SLOPE OF 1.5%. 2. PATH SHALL BE GRADED SMOOTHLY TO ELIMINATE POT HOLES, HUMPS, AND
- EXPOSED BOULDERS. 3. FILL REQUIRED TO MEET MIN CROSS SLOPE AND MAINTAIN SMOOTH GRADE SHALL MATCH EXISTING PATH SURFACE MATERIAL.
- 4. EXISTING SLOPE 4' BEYOND EDGE OF PATH SHALL HAVE A MAX SLOPE OF 2:1. 5. VEGETATION OVERHANGING PATH SHALL BE TRIMMED SUCH THAT THE PATH OF TRAVEL IS NOT OBSTRUCTED UP TO 8' IN HEIGHT.

# PEDESTRIAN & BICYCLE DIRT PATH

NOT TO SCALE



**GRAVEL PATH CROSS-SECTION** (FOR DRAINAGE MAINTENANCE ACCESS)

# NOT TO SCALE

### MAINTENANCE:

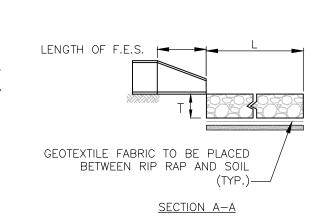
THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS 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
- 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

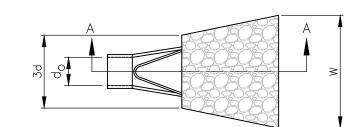
LOCATION

d50 STONE SIZE (IN)



% OF WEIGHT SMALLER FOR d50=6" <u> Than the given size</u> <u>size of stone</u>

7.80 TO 10.80 6.00 TO 9.00 1.80 TO 30



# STANDARD 2" OVERFLOW AREA TYPICAL RECTANGULAR INLET FILTER 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

PROTECTED

AREA

COMPOST FILLED SILT SOCK

3"-4" ABOVE ▮

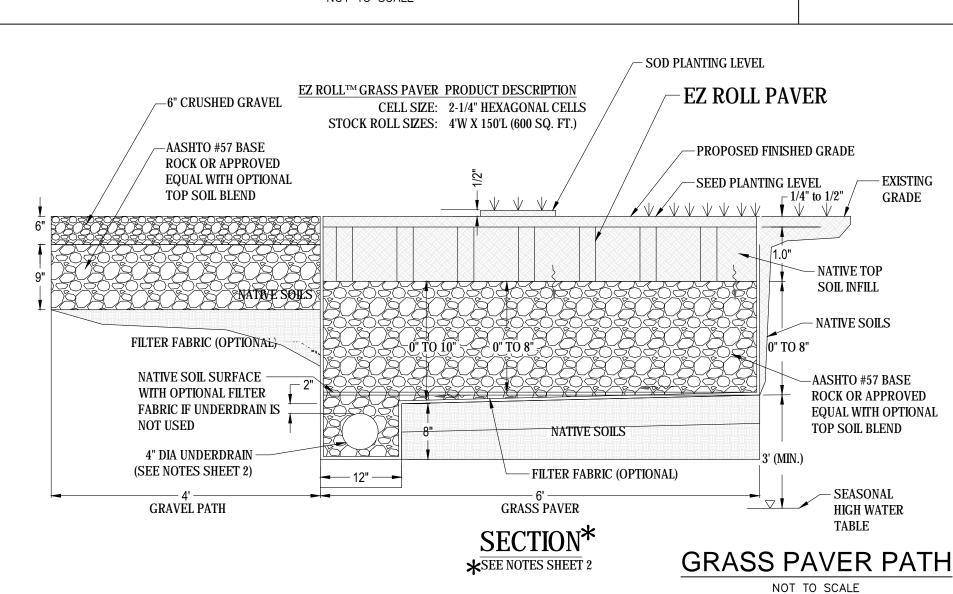
TOP OF SOCK

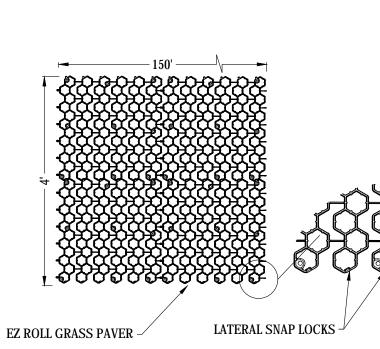
 $(12"-18" \text{ TYP.})^{-}$ 

ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC. A DIVISION OF ADS, INC. WWW.INLETFILTERS.COM (866) 287-8655 INFO@INLETFILTERS.COM

SILT FENCE

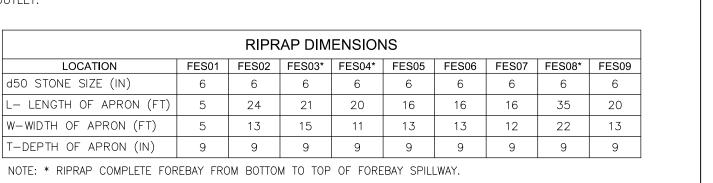
NOT TO SCALE





PLAN VIEW

### **INLET PROTECTION** NOT TO SCALE



# RIP RAP AND FLARED END SECTION WITH OUTLET PROTECTION

RIPRAP DIMENSIONS

NOT TO SCALE

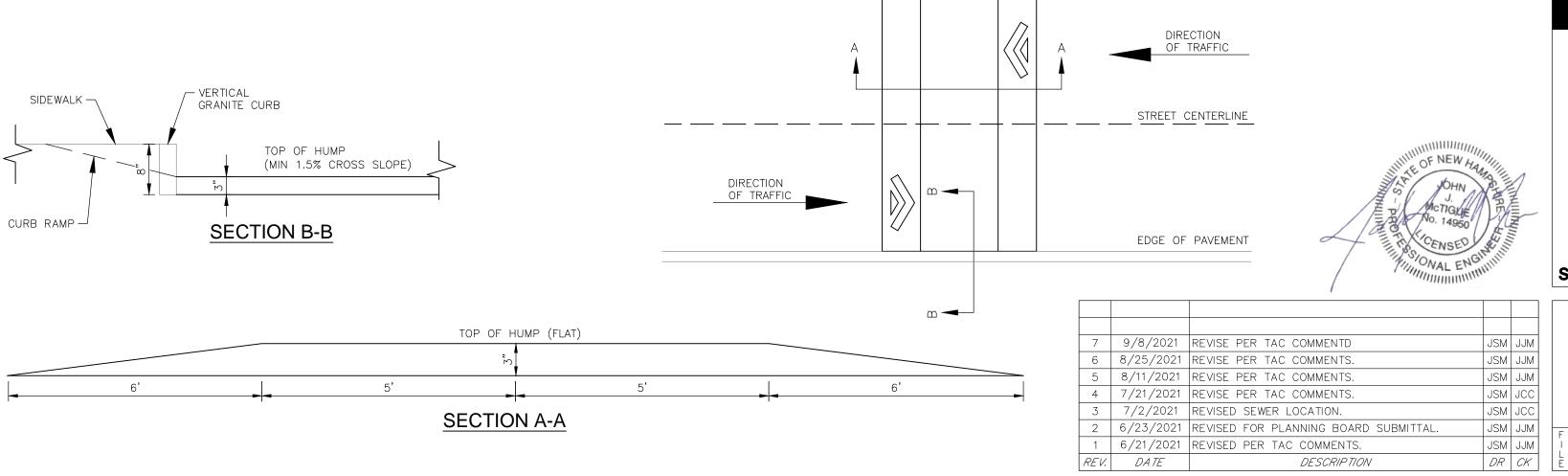
NOTE: \* RIPRAP COMPLETE FOREBAY FROM BOTTOM TO TOP OF FOREBAY SPILLWAY.

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 nomas F. Moran, Inc.





# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

**DETAILS** 

PARSON WOODS CONDOMINIUM LLC 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

| 170 Commerce Way, Suite 102 Civil Engineers Portsmouth, NH 03801

**APRIL 19, 2021** 

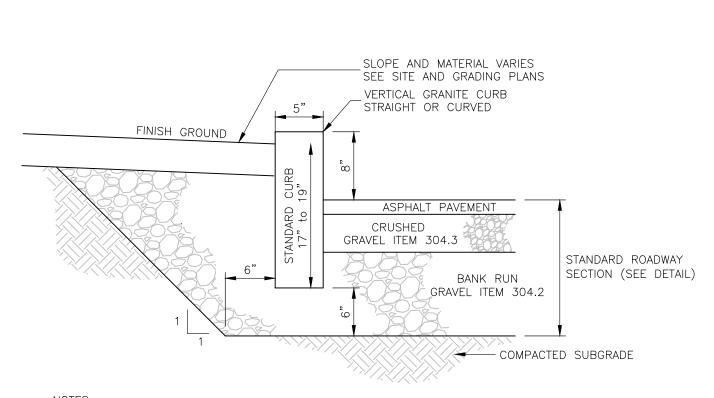


Seacoast Division

Structural Engineers Traffic Engineers Phone (603) 431-2222 and Surveyors

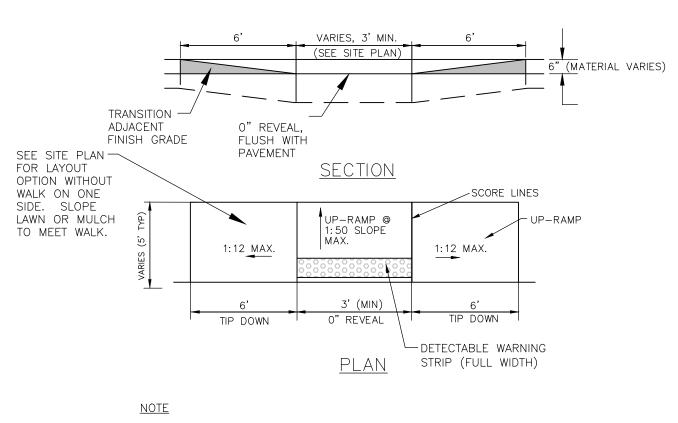
Fax (603) 431-0910 Landscape Architects www.tfmoran.com cientists DR JSM FB

C - 69CK JJM CADFILE 47388-11\_DETAILS



- 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**

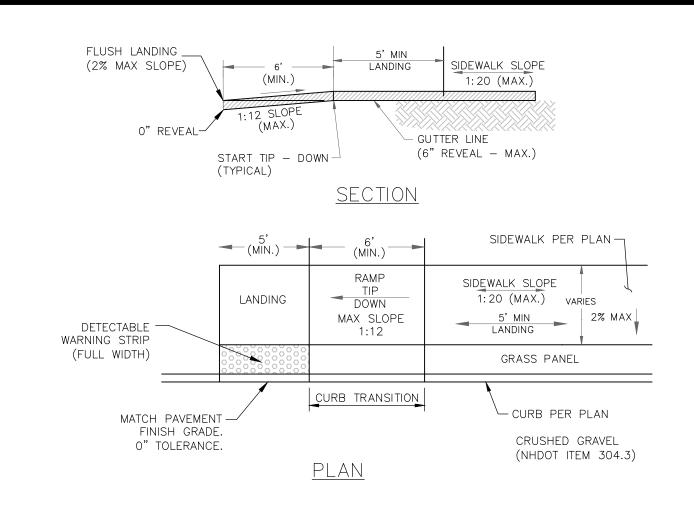
NOT TO SCALE



### 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.

2. FREE OPEN AREA = 2.55 S.F.

FRAME OR APPROVED EQUAL.

FRAME & GRATE (TYPE B)

NOT TO SCALE

UNPAVED AREAS

NOTES

FOR DOUBLE GRATE,

ONE SIDE ON EACH

PLAN VIEW

DOUBLE GRATE

(IF APPLICABLE)

OMIT FLANGE ON

FRAMF—

NOT TO SCALE

 $\square$ 

 $\square$ 

PLAN VIEW

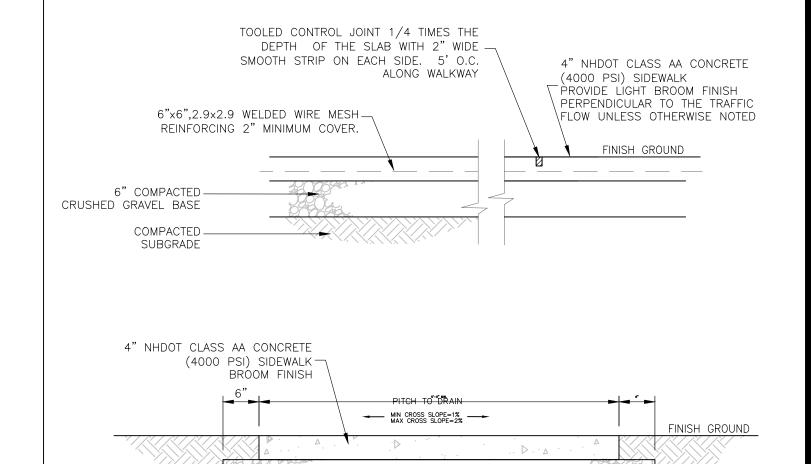
SINGLE GRATE

23-11/16"

23-3/16"

31-3/16"

SECTION A-A



# CONCRETE SIDEWALK (WITHOUT CURB)

- FILLED WITH SEALANT

1/8"x1" DEEP HAND

TOOLED JOINT — WITH 1/4" RADII

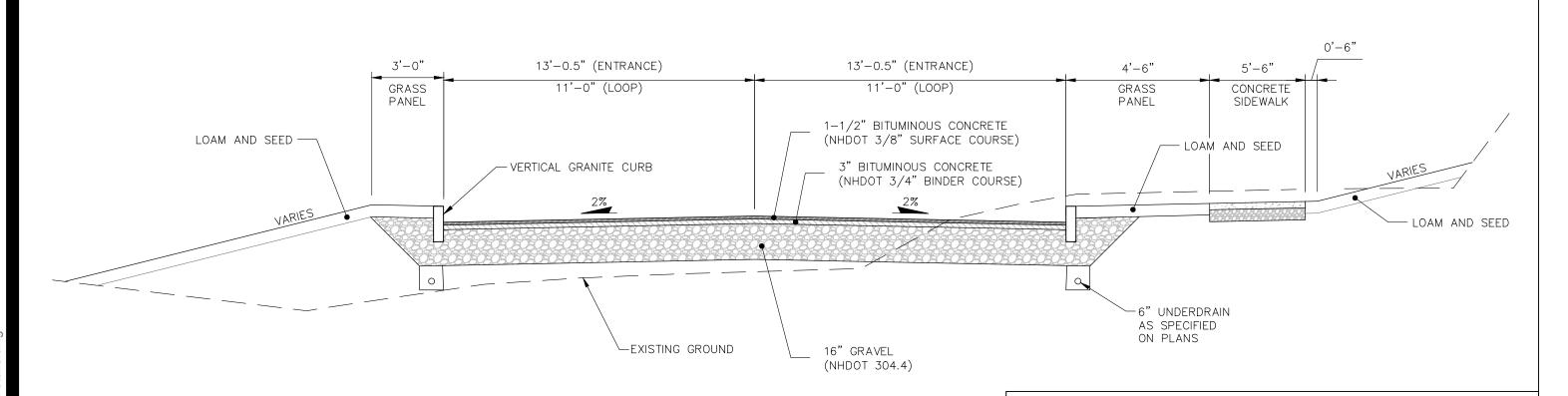
FILLED WITH SEALANT

PREMOLDED FILLER

\_\_ 1/4" RADII

6" COMPACTED CRUSHED GRAVEL BASE

SECTION



### **ROADWAY TYPCIAL SECTION**

- 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 WEARING COURSE.
- 3. REMOVE ALL LOAM AND/OR YIELDING MATERIAL BELOW PAVEMENT.
- 4. ALL ROADWAY TO CONFORM TO THE STREET DESIGN AND CONSTRUCTION REQUIREMENTS IN THE TOWN OF PORTSMOUTH, NH SUBDIVISION REGULATIONS.
- 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.

# 7' MIN. 1/3 POST HEIGHT (SEE NOTE 1) GALVANIZED STEEL POST

ASTM A-576 (GRADE 1070 - 1080) MEDIUM GREEN BAKED-ON OR AIR-DRIED PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL

1. WHERE LEDGE APPLICATION EXISTS, DRILL & GROUT TO A

2. ALL SIGNAGE SHALL FOLLOW THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES STANDARDS AND NHDOT

BE COMPLETE BEFORE PAINTING.

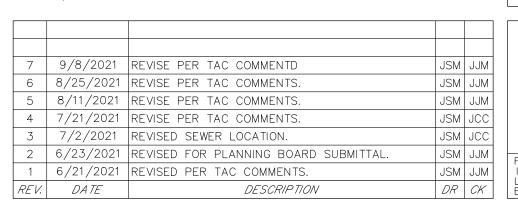
3. SIGN, HARDWARE, AND INSTALLATION SHALL CONFORM TO THE LATEST NHDOT STANDARD SPECIFICATIONS.

SIGN POST

**UNDERDRAIN TRENCH** NOT TO SCALE

FREE DRAINING AGGREGATE

(ASTM D448 SIZE NO. 57)



6" DIA. SLOTTED HDPE UNDERDRAIN (AASHTO M294)

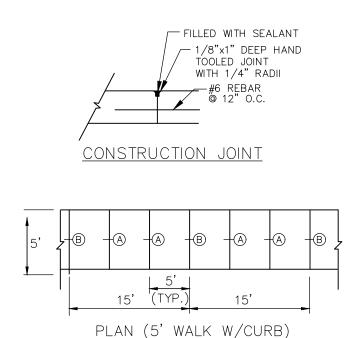
PAVING COURSES

GRADE

EXISTING OR FINISHED

ROADWAY GRAVEL

# CONTROL JOINT A 3/4" SMOOTH DOWEL ---W/ SLEEVE @ 12" O.C. COAT WITH BOND BREAKING COMPOUND BEFORE ADJACENT SLAB IS POURED. 1/4" TO 1/2" EXPANSION JOINT B



# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

### **DETAILS**

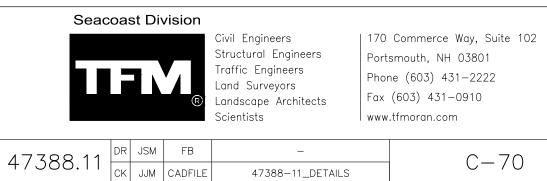
PARSON WOODS CONDOMINIUM LLC 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR **GREEN & COMPANY REAL ESTATE** 

SCALE: AS SHOWN

**APRIL 19, 2021** 



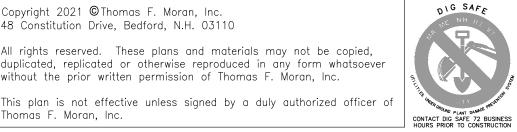
### <u>NOTES</u>

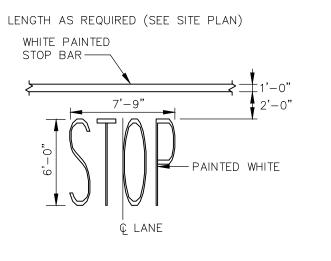
- 1. TRAFFIC PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURER AND SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F". APPLY TWO COATS.
- 2. SYMBOLS AND PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT,

Copyright 2021 © Thomas F. Moran, Inc 48 Constitution Drive, Bedford, N.H. 03110

nomas F. Moran, Inc.

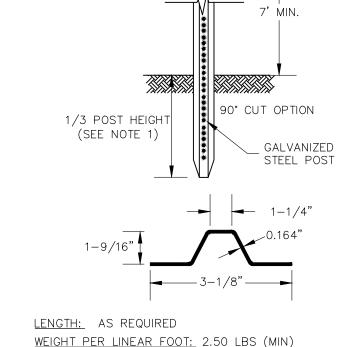
All rights reserved. These plans and materials may not be copied, duplicated, replicated or otherwise reproduced in any form whatsoever without the prior written permission of Thomas F. Moran, Inc.



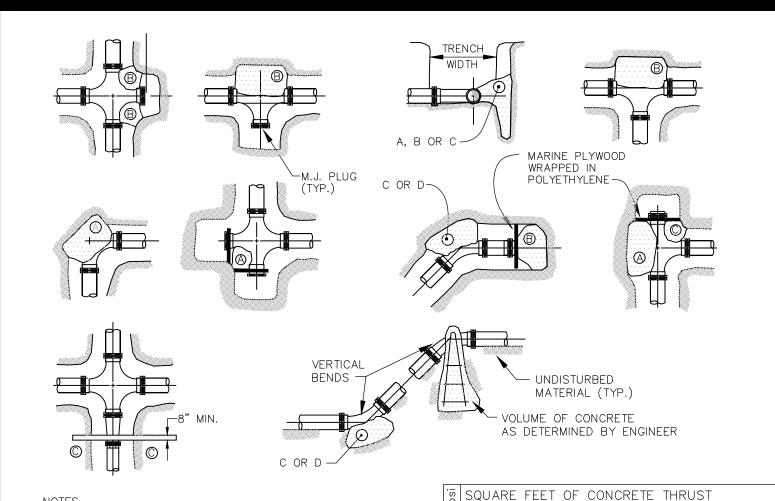


STOP BAR & LEGEND NOT TO SCALE

# <u>LENGTH:</u> AS REQUIRED WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN) HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR FINISH: SHALL BE PAINTED WITH 2 COATS OF AN APPROVED



MINIMUM OF 2'.



- 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.

# THRUST BLOCKS

NOT TO SCALE

REACTION

TYPE

A 90°

B 180°

45°

| D 22-1/2°

BLOCKING BEARING ON UNDISTURBED MATERIAL

Ё E 11-1/4° | 0.13 | 0.30 | 0.54 | 1.54 | 2.38

PIPE SIZE

4" | 6" | 8" | 10" | 12'

0.89 | 2.19 | 3.82 | 11.14 | 17.24 |

0.65 | 1.55 | 2.78 | 8.38 | 12.00 |

0.48 | 1.19 | 2.12 | 6.02 | 9.32

0.25 | 0.60 | 1.06 | 3.08 | 4.74

INDICATOR -

TAPE LAID DIRECTLY

OVER MAIN

LOAM AREA

COMPACTED

LOAM & SEEDED-

CONTINUOUS PLASTIC

COMPACTED

COMMON FILL

SAND BEDDING -

3" PVC, SCH 40/80 — SEE NOTE 5

UNDISTURBED SOIL -

COMMUNICATION CONDUIT

NOTES

LOCAL CODES.

COMPANIES.

CONSTRUCTION REQUIREMENTS.

(PRIMARY AND SECONDARY LINES).

WARNING TAPE -

2'-0"

\_\_\_\_4'-0"<u>\_\_\_</u>

WATER MAIN TRENCH

NOT TO SCALE

1. WATER MAIN SHALL BE CLASS 52 DUCTILE IRON PIPE WRAPPED IN

POLYETHYLENE WITH CONTINUITY WEDGES AS PER CITY STANDARDS.

PAVED AREA

-SEE PAVEMENT SECTION

PVC, SCH 40/80

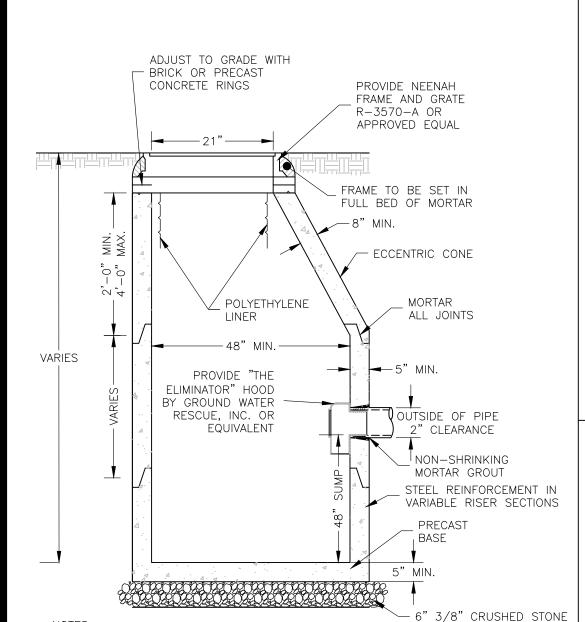
COMMUNICATION CONDUIT

4" PVC, SCH 40

ELECTRIC CONDUITS

SEE NOTE 5

2" MIN.



### <u>NOTES</u>

- ALL SECTIONS SHALL BE PRECAST CONCRETE NHDOT CLASS AA, 4,000 PSI.
- ALL COMPONENTS OF CATCH BASINS SHALL MEET NHDOT SPECIFICATIONS. ALL COMPONENTS SHALL BE DESIGNED FOR HS-20 LOADING. 4. LARGER DIAMETER STRUCTURES SHALL BE USED AS REQUIRED DUE TO
- NUMBER, ANGLE OR SIZE OF PIPES AT THE STRUCTURE. ALL CASTINGS SHALL BE MADE IN THE USA.

SHOWN WHEN USED WITH 3-FLANGE FRAME AND CURB).

POLYETHYLENE LINER SHALL BE FABRICATED AT THE SHOP. DOWNSPOUT SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET. 7. TRIM POLYETHYLENE SHEET A MAXIMUM OF 4" OUTSIDE THE FLANGE ON THE FRAME FOR THE CATCH BASIN BEFORE PLACING CONCRETE (EXCEPT AS

### **ECCENTRIC CATCH BASIN** WITH HOODED OUTLET

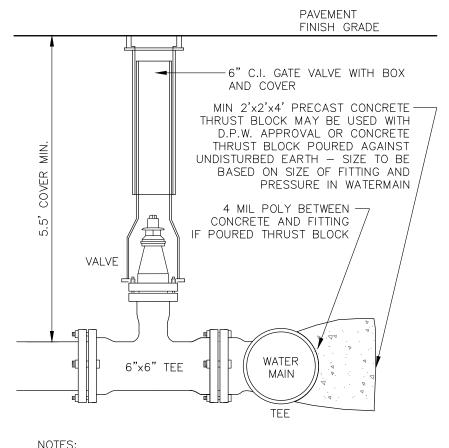
NOT TO SCALE

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 nomas F. Moran, Inc.





NOTES: 1. VALVE TO OPEN RIGHT.

LOAM AND SEED OR

SUITABLE MATERIAL ∠ COMPACTED IN 18"

COMPACTED SAND

6" MIN. IF IN EARTH 12" MIN. IF IN LEDGE

WATER MAIN

PROPOSED DUCTILE IRON

PAVEMENT SECTION AS DETAILED

**BURIED GATE VALVE** NOT TO SCALE

# 2-1/2" VALVE OPENING (2) 4-1/2" PUMPER OPENING (1) **SPECIFICATIONS** 4. DRY TOP DESIGN VALVE SHALL OPEN WHEN 5. OPERATING NUT SHALL BE STANDARD AWWA 6. THREADS SHALL BE NATIONAL STANDARD HOSE THREAD NOZZLES 7. HYDRANT TO OPEN RIGHT.

THREE-WAY HYDRANT KENNEDY K-81A GUARDIAN ELMIRA. N.Y.

- 1. 150 PSI WORKING PRESSURE
- 2. 300 PSI TEST PRESSURE
- 3. HYDRANT DRAIN SHALL BE PLUGGED
- OPERATING NUT IS TURNED CLOCKWISE AND BE SO INDICATED ON HYDRANT
- PENTAGON OPERATING NUT WITH 1 1/2" POINT TO FLAT DIMENSION

-BUILDING FOOTINGS

(SEE ARCHITECTURAL PLANS)

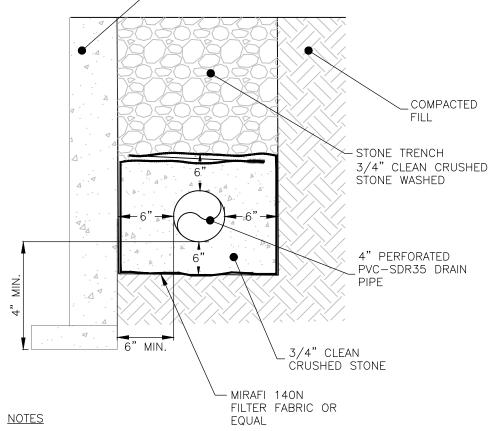
NOT TO SCALE

# PORTSMOUTH FIRE HYDRANT

TELEPHONE-10' MIN. SEWER

- 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
- 4. 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



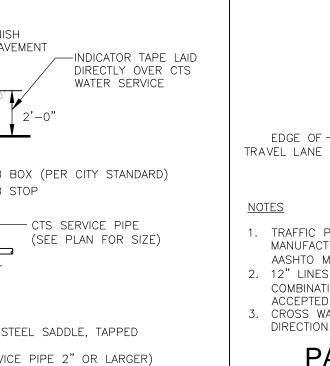
FOR MINIMUM DIMENSIONAL REQUIREMENT REFER TO THE GEOTECHNICAL REPORT PREPARED BY JOHN TURNER COUNSULTING, INC. ON JULY 3, 2013.

# FOUNDATION DRAIN LINES

NOT TO SCALE

EDGE OF —

-SET TO FINISH GROUND PAVEMENT THE END OF THE INSTALLED WATER SERVICE TO BE MARKED BY A 2x4 COPPER TUBING -COMPRESSION FITTING - CURB BOX (PER CITY STANDARD) CURB STOP CORPORATION -STOP WATERMAIN-OPEN LEFT



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. 12" LINES SHALL BE APPLIED IN ONE APPLICATION. NO

COMBINATION OF LINES (E.G., 2 - 6" LINES) WILL BE 3. CROSS WALK SIDESLOPE SHALL NOT EXCEED 1.5% IN ANY

### PAINTED CROSSWALK

NOT TO SCALE

7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJN
6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJI
5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJI
4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JC
3	7/2/2021	REVISED SEWER LOCATION.	JSM	JC
2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJN
1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJI
REV.	DA TE	DESCRIPTION DESCRIPTION	DR	CK

12" WIDE WHITE

STRIPE AT 3'

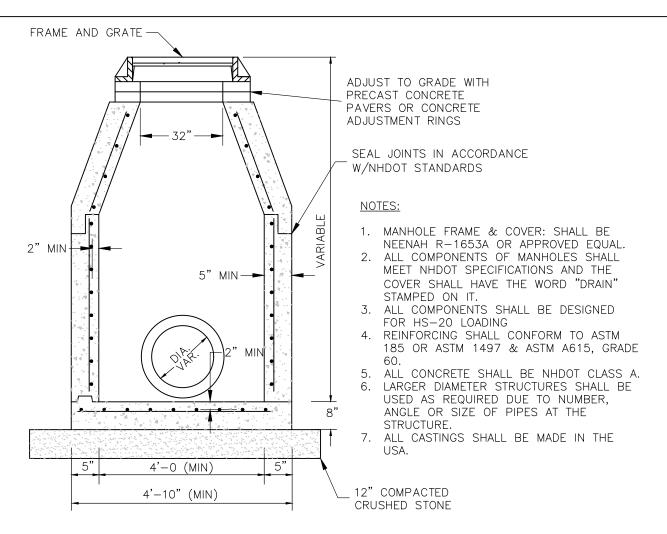
O.C. (TYP)

### UNPAVED AREAS PAVED AREAS PAVING COURSES (SEE PAVING DETAILS) TEMPORARY BACKFILL OR SPOIL - EXISTING OR FINISHED GRADE EXISTING GRADE-DETECTABLE LOCATER TAPE 12" ABOVE PIPE MOUND BACKFILL SUITABLE BACKFILL MATERIAL SUITABLE BACKFILL MATERIAL COMPACTED COMPACTED IN 24" LAYERS (MAX) IN 6" LAYERS (MAX) (SEE NOTES 2 & 3) (SEE NOTES 2 & 3) BEDDING MATERIAL (SEE NOTE 1) SHEETING OR SHORING AS - DRAIN LINE REQUIRED PER FEDERAL SAFETY REGULATIONS EARTH | LEDGI UNDISTURBED SOIL WIDTH $= 3 \times DRAINLINE DIAMETER$ NOTES

- BEDDING BEDDING FOR PIPES SHALL CONSIST OF PREPARING THE BOTTOM OF THE TRENCH TO SUPPORT THE ENTIRE LENGTH OF THE PIPE AT A UNIFORM SLOPE AND ALIGNMENT. CRUSHED STONE SHALL BE USED TO BED THE PIPE TO THE ELEVATION SHOWN ON THE DRAWINGS. NORMAL PIPE BEDDING IS CRUSHED STONE TO THE HAUNCH OF THE PIPE AND SAND BEDDING 6" ABOVE THE CROWN. IF THE TOP OF THE PIPE IS LESS THAN 30" FROM FINISH GRADE, BED PIPE COMPLETELY IN STONE UP TO 6" ABOVE PIPE CROWN. UNDERDRAIN TO HAVE 4" MINIMUM OF STONE OVER PIPE OR AS NECESSARY TO BE IN CONTACT WITH GRAVEL LAYER OF SELECTS ABOVE.
- 2. COMPACTION ALL BACKFILL SHALL BE COMPACTED AT OR NEAR OPTIMUM MOISTURE CONTENT BY PNEUMATIC TAMPERS. VIBRATORY COMPACTORS OR OTHER APPROVED MEANS. BACKFILL BENEATH PAVED SURFACES SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T99, METHOD C.
- 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**

PARSON WOODS CONDOMINIUM LLC 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 raffic Engineers

Phone (603) 431-2222 and Surveyors Fax (603) 431-0910 andscape Architects ientists l www.tfmoran.com

DR JSM FB C - 71CK JJM CADFILE 47388-11\_DETAILS

# **ELECTRIC/COMMUNICATIONS CONDUIT**

(TYP.)(TYP.) (TYP.) (TYP.)(TYP.)

1. ELECTRIC SERVICE INSTALLATION AND STANDARD DIMENSIONAL

2. COMMUNICATION SERVICE INSTALLATION SHALL MEET ALL

REQUIREMENTS SHALL BE IN ACCORDANCE WITH FEDERAL, STATE AND

3. ACTUAL NUMBER OF CONDUITS TO BE DETERMINED BY RESPECTIVE

4. VERIFY INSTALLATION REQUIREMENTS WITH RESPECTIVE COMPANIES.

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

5. SCHEDULE 80 CONDUIT TO BE USED UNDER TRAFFIC SITUATIONS

NOT TO SCALE

WATER SERVICE CONNECTION NOT TO SCALE 1. CURB STOPS TO OPEN TO THE RICHT.

-DOUBLE STRAP STAINLESS STEEL SADDLE, TAPPED WITH C.C. THREADS (ONLY REQUIRED FOR SERVICE PIPE 2" OR LARGER)

-6" SOLID ADS UNDERDRAIN PIPING.

— <u>WEIR WITH RIP-RAP</u>

<u>PROTECTION</u>

— 6" DIAMETER PERFORATED

(FULL LENGTH) ADS RISER

### ELEVATION TABLE SGW-01 INV. DESCRIPTION ELEV FOREBAY INVERT IN В FOREBAY BERM 38.00 FOREBAY SPILLWAY 37.00 BOTTOM OF BASIN 35.00 Ε TOP OF BERN 38.25 SPILLWAY BETWEEN BASINS 37.50 EMERGENCY SPILLWAY 37.50 BOTTOM OF STONE 31.00 ESTIMATED SEASONAL HIGH 34.16 OUTLET STRUCTURE GRATE 37.50 35.75/ UPPER ORIFICE Orifice = 2'34.40/ ORIFICE ON U.D. Orifice = 0.50Ν INV. OUT 34.40

INSPECTION AND MAINTENANCE,

6" PERF. ADS ——

UNDERDRAIN PIPING, /

ROCK RIP RAP

FOREBAYS: INSPECT FOREBAYS FOR SEDIMENT ACCUMULATION TWICE PER YEAR MINIMUM AND REMOVE WHEN LEVEL REACHES 4 INCHES OR MORE. INSPECT FOR AND REMOVE ACCUMULATED DEBRIS TWICE PER YEAR MINIMUM, MOW FOREBAY SIDES AND BOTTOM WEEKLY TO PREVENT WOODY GROWTH AND PROMOTE GRASS

WETLANDS: INSPECT WETLANDS FOR AREAS OF DEAD OR STRESSED WETLAND GRASSES, REEDS, HERBACEOUS PLANTS, OR SHRUBS A MINIMUM OF TWICE PER YEAR AND REPLANT AS NECESSARY. MOW GRASSED SIDESLOPES ON A REGULAR BASIS TO KEEP HEIGHT OF VEGETATION BELOW 4 INCHES. INSPECT FOR AND REMOVE ACCUMULATED DEBRIS TWICE PER YEAR MINIMUM.

DESIGN LIFE: FOLLOWING THE MINIMAL MAINTENANCE PROCEDURES ABOVE, STUDIES CONDUCTED AT UNH INDICATE THE SYSTEM WILL CONTINUE TO DEVELOP INTO A HEALTHY DIVERSE WETLAND WITH NO QUANTIFIABLE DESIGN LIFE EXTENT.

GRAVEL WETLAND TO BE SEEDED WITH NEW ENGLAND WETMIX. APPLICATION RATE: 18 LBS PER ACRE OR 1 LB PER 2,500 S.F.

### SUBSURFACE GRAVEL WETLAND MATERIAL LAYERS

THE SURFACE INFILTRATION RATES OF THE GRAVEL WETLAND SOIL SHOULD BE SIMILAR TO A LOW HYDRAULIC CONDUCTIVITY WETLAND SOIL (0.1-0.01  $|FT/DAY| = 3.5 \times 10-5 \text{ CM/SEC TO } 3.5 \times 10-6 \text{ CM/SEC}$ ). THIS SOIL MAY BE MANUFACTURED USING A COMBINATION OF LOAM, SAND, AND SOME FINE SOILS BLENDED TO A HIGH PERCENT ORGANIC MATTER CONTENT SOIL (>15% ORGANIC MATTER). FINAL WETLAND SOIL MIX WITH CLAY CONTENT NOT TO EXCEED 15% THAT MAY RESULT IN DRYING AND CRACKING AND POTENTIAL MIGRATION OF FINES INTO THE SUBSURFACE GRAVEL LAYER. DO NOT USE GEOTEXTILES BETWEEN THE HORIZONTAL LAYERS OF THIS SYSTEM AS THEY

-INLET FROM DMH

-RIP-RAP PROTECTION

SLOTTED

RISER

— TOLERANT GRASS

WFTI AND

—RIP RAP OUTLET

PROTECTION

FLOW FROM

DMH

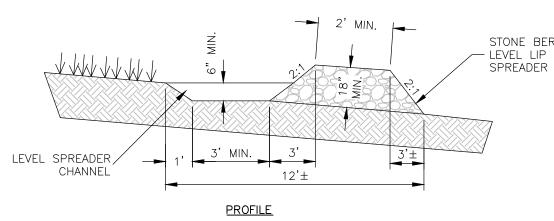
THE PROPOSED PARTICLE SIZE DISTRIBUTION (PSD) FOR WETLAND SOIL IS PROVIDED IN THE TABLE BELOW AND REFLECTS A POORLY DRAINED SOIL WITH A MEDIAN PARTICLE SIZE (D50) OF 0.15 MM AND IS A CLAY OR SILT LOAM IN THE USDA SOIL TEXTURAL TRIANGLE. THIS WETLAND SOIL MUST EXCLUDE ANY STICKS, ROOTS, STONES, ETC. THAT VIOLATE THE SUGGESTED PSD. ONSITE MATERIALS SHOULD BE EVALUATED BY THE CONSTRUCTION ENGINEER TO ENSURE APPLICABILITY.

PARTICLE SIZE DISTRIBUTION SIEVE SIZE % PASSING BY WEIGHT % PASSING TESTING TOLERANCE

WILL CLOG DUE TO FINES AND MAY RESTRICT ROOT GROWTH.

(<u>in/mm</u>) 0.5/12.5 100% ± 10.0% #10/2.00 90-75% ± 5.0% #100/0.15 40-50% ± 5.0% #200/0.15 25-50% ± 5.0%

SEE UNHSC SUBSURFACE GRAVEL WETLAND DESIGN SPECIFICATIONS, JUNE 2016 FOR MORE DETAIL.

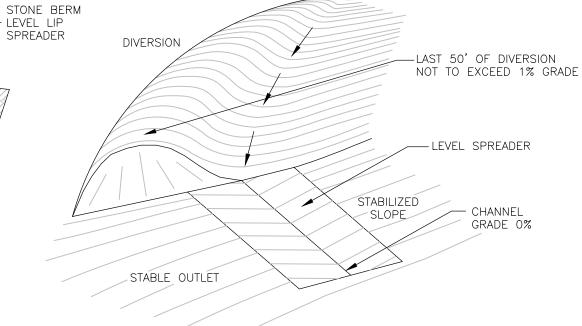


### CONSTRUCTION SPECIFICATIONS

PERFORMED.

SECTION A-A

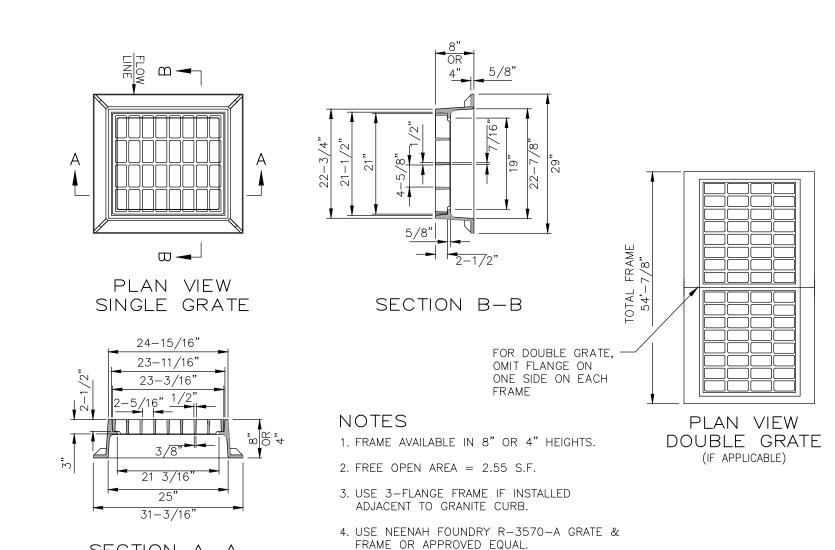
- 1. CONSTRUCT THE LEVEL SPREADER LIP ON A ZERO PERCENT GRADE TO INSURE UNIFORM SPREADING OF RUNOFF.
- 2. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL AND NOT ON FILL.
- 3. AN EROSION STOP SHALL BE PLACED VERTICALLY A MINIMUM OF SIX INCHES DEEP IN A SILT TRENCH ONE FOOT BACK OF THE LEVEL LIP AND PARALLEL TO THE LIP. EROSION STOP SHALL EXTEND THE ENTIRE LENGTH OF THE LEVEL LIP.
- 4. THE ENTIRE LEVEL LIP AREA SHALL BE PROTECTED BY PLACING TWO STRIPS OF JUTE OR EXCELSIOR MATTING ALONG THE LIP. EACH STRIP SHALL OVERLAP THE EROSION STOP AT LEAST SIX INCHES.
- 5. THE ENTRANCE CHANNEL TO THE LEVEL SPREADER SHALL NOT EXCEED ONE PERCENT GRADE FOR AT LEAST FIFTY FEET BEFORE ENTERING INTO THE SPREADER.
- 6. THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET ONTO STABILIZED AREAS. WATER SHOULD NOT RECONCENTRATE
- IMMEDIATELY BELOW THE SPREADER. 7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE



- 1. GRADE ALONG PROFILE OF BOTTOM OF SPREADER TO BE 0%.
- 2. SLOPES DOWN GRADIENT OF LEVEL SPREADER TO BE FULLY STABILIZED BEFORE DIRECTING STORM WATER FLOWS ONTO IT.
- 3. STONE TO BE 3/4" TO 3" IN DIAMETER. SIZE GRADIENT.

# LEVEL SPREADER

NOT TO SCALE



### FRAME & GRATE (TYPE B) NOT TO SCALE

REV. DATE

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

# **DETAILS**

PARSON WOODS CONDOMINIUM LLC 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

OWNED BY

STOKEL SB & NA TRUST, PHILIP J 25% INT PREPARED FOR **GREEN & COMPANY REAL ESTATE** 

**APRIL 19, 2021** 

		<u> </u>						
7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM				
6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJM				
5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJM				
4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC				
3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC				
2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM	ŀ	F		_
1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJM		11	473	ح (
REV.	DATE	DESCRIPTION DESCRIPTION	DR	CK		Ē	1 / 0	

Seacoast Division Civil Engineers and Surveyors cientists

SCALE: AS SHOWN

| 170 Commerce Way, Suite 102 Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 Fax (603) 431-0910 Landscape Architects www.tfmoran.com

DR JSM FB C - 72CK 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, 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.



TYPICAL GRAVEL WETLAND

3/8" WASHED	CRUSHED STONE*	3/4" WASHED	CRUSHED STONE*
<u>SIEVE_SIZE</u> 1/2" 3/8"	<u>% PASSING BY WIGHT</u> 100 95-100	<u>SIEVE_SIZE</u> 1" 3/4"	<pre>% PASSING BY WIGHT 100 90-100</pre>
,	22-55 0-10 O STANDARD WASHED N 702 OF NHDOT CIFICATIONS		15-55 0-5 TO STANDARD WASHED DN 702 OF NHDOT ECIFICATIONS

### HYBRID BIORETENTION AREA MIX:

BIO-MEDIA MUST CONSIST OF A COMBINATION OF WARM SEASON GRASS SEED FOR STABILIZATION AND CONTINUE GROWING IN THE SANDY WELL-DRAINED ENVIRONMENT. PLANTING SPECIFICATION WILL MEET REQUIREMENTS AS OUTLINED IN 'VEGETATION NEW HAMPSHIRE SAND AND GRAVEL PITS' MIX 1 (WARM SEASON (15 LBS/AC); THE NEW ENGLAND NATIVE WARM SEASON GRASS MIX (23 LBS/AC) BY NEW ENGLAND WETLAND PLANTS, INC.; RAIN GARDEN MIX 180 (15 LBS/AC & 15 LBS/AC OF RYE)/RAIN GARDEN GRASS MIX 180 (20 LBS/AC &

AND COLD SEASON GRASS SEED IN ORDER FOR THE GRASS TO START GROWING GRASSES) (15 LBS/AC) AND INCLUDE ANNUAL AND PERENNIAL RYE GRASS SEED 10 LBS/AC OF RYE) BY ERNST CONSERVATION SEEDS, OR APPROVED EQUAL.

### MAINTENANCE REQUIREMENTS

1. SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 25-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED SUCH INSPECTION.

2. PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND

1. WHEN CONTRACTOR EXCAVATES BIORETENTION AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR

2. SOIL BIORETENTION FILTER MEDIA SHALL BE AS SHOWN ABOVE. "BIO-MEDIA" MEANS BIORETENTION

3. DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED

4. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF WATER FROM EXCAVATION) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.

6. A PROFESSIONAL ENGINEER SHALL BE PRESENT DURING THE CONSTRUCTION OF THE RAIN

TO NHDES WHEN CONSTRUCTION OF THE BIORETENTION AREAS ARE COMPLETED.

5. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM

EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF INFILTRATION COMPONENTS OF

GARDENS TO ENSURE THAT ALL OF THE CRITERIA ARE MET AND THAT A REPORT BE SUBMITTED

AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

- CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY. 3. AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THAN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO
- FUNCTION. INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED OF SEDIMENTS OR RECONSTRUCTION OF FILTER MEDIA. THE GRASS THAT IS PLANTED WITHIN A BIO-FILTRATION SYSTEM WITHIN THE 4. VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY AND MAINTAINED IN HEALTHY CONDITION, INCLUDING PRUNING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

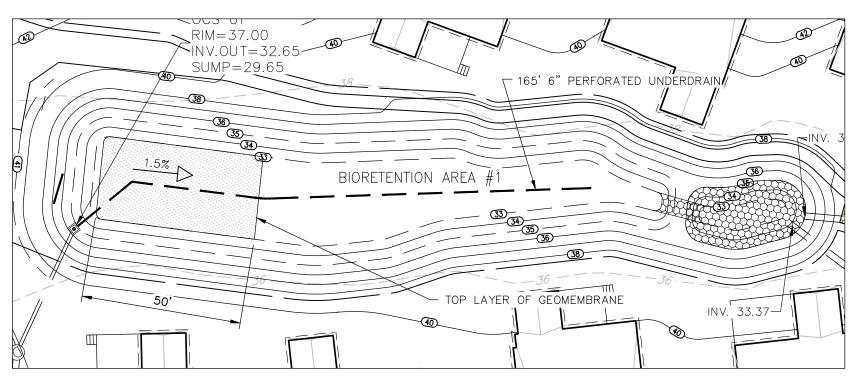
DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION

### DESIGN REFERENCES:

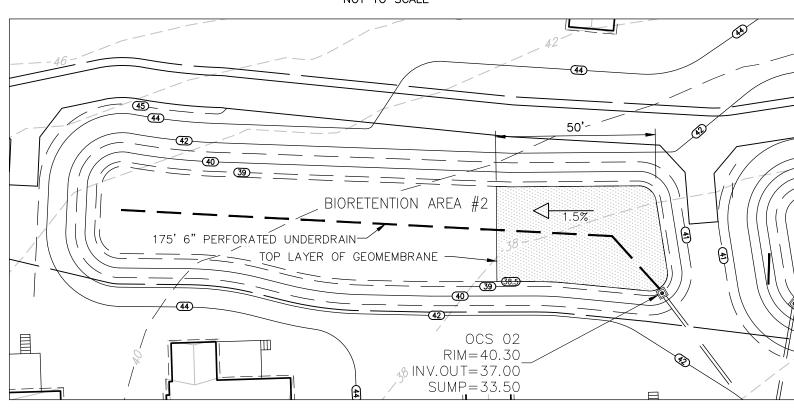
- NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS UHSC - WWW.UNH.EDU/UNHSC/NEWS/UNHSC-INNOVATIVE-BIORETENTION-TEMPLATE-POLLUTION-REDUCTIONS-GREATBAY-ESTUARY-WATERSHEDS

### ENHANCED BIO-FILTRATION WITH INTERNAL STORAGE RESERVOIR (ISR):

1. THE INTERNAL STORAGE RESERVOIR (ISR) WILL PROVIDE A RETENTION TIME OF AT LEAST 24 HOURS IN THE SYSTEM TO ALLOW FOR SUFFICIENT TIME FOR DENITRIFICATION AND NITROGEN REDUCTION TO OCCUR PRIOR TO DISCHARGE, THE FILTER MEDIA HAS BEEN AUGMENTED WITH MATERIALS DESIGNED AND/OR KNOW TO BE EFFECTIVE AT CAPTURING PHOSPHOROUS. THE TOP TWELVE INCHES OF THE BIO-MEDIA WILL BE AMENDED WITH EITHER 5% BY VOLUME ELEMENTAL IRON FILINGS; 5% BY COLUME CONTECH IMBRIUM SORPTIVE MEDIA. ABS MATERIALS BIOMAX MEDIA. OR APPROVED EQUAL. OR 5% BY WEIGHT WATER TREATMENT RESIDUALS (WTR). THE COLUME OF THE ISR WILL EXCEED 25% OF THE WATER QUALITY VOLUME (WQV).



PLAN VIEW - BIORETENTION AREA #1 (WITH ISR)



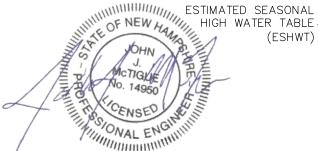
PLAN VIEW - BIORETENTION AREA #2 (WITH ISR) NOT TO SCALE

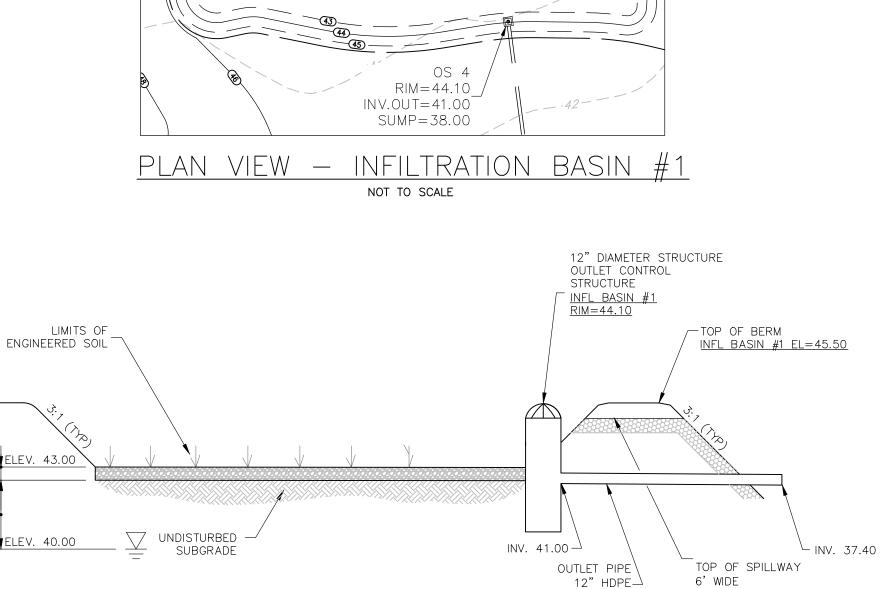
### INFILTRATION BASIN MAINTENANCE

### MAINTENANCE SCHEDULE TO BEGIN AFTER CONSTRUCTION IS FINISHED AND BASIN STABILIZATION IS COMPLETE.

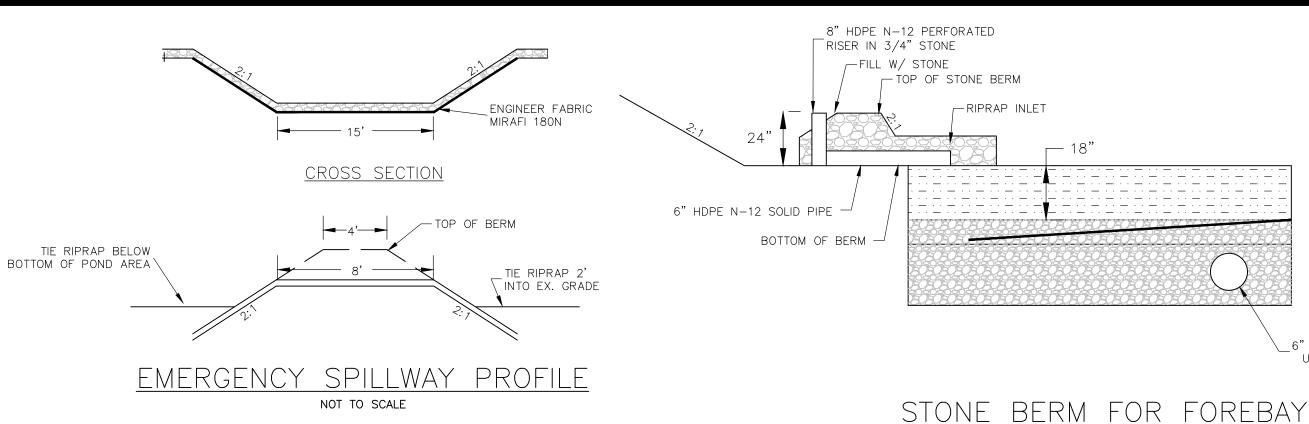
1. CONTRACTOR AND LAND OWNERS TO PERFORM SCHEDULED MAINTENANCE ON THE INFILTRATION BASINS IN ACCORDANCE WITH THE STORMWATER OPERATION AND MAINTENANCE MANUAL.



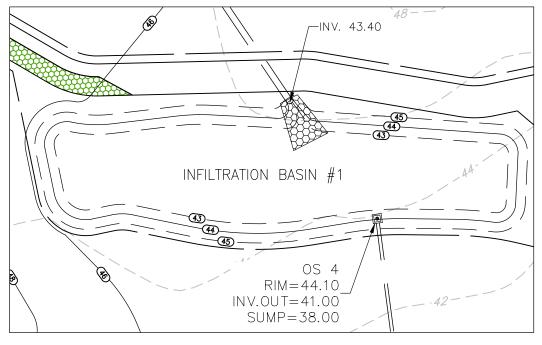


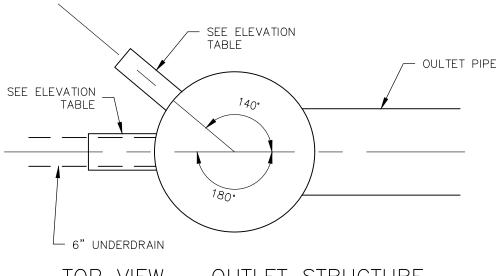


EL = 45.00



### ELEVATION TABLE BIO-01 INF-1 BIO-02 INV. DESCRIPTION ELEV ELEV ELEV BOT. BASIN 33.00 38.50 43.00 BOT. FLTER MEDIA 31.50 37.00 NΑ BOT. OF 9" CRUSHED STONE 30.50 36.00 NΑ BOT. OF 12" CRUSHED STONE 29.50 35.00 NΑ GRATE 37.60 40.75 44.00 36.25/ 39.50/ UPPER ORIFICE ΝΑ OR.=1.25" OR.=6" MIDDLE ORIFICE NΑ NΑ 32.65/ 37.50/ U.D. ORIFICE NΑ OR.=1.25" OR. = 0.5" 32.65 37.00 U.D. INVERT 41.00 TOP OF BERM 39.75 41.75 45.50 EMERGENCY SLILLWAY 39.50 41.50 45.00





TOP VIEW — OUTLET STRUCTURE FOR BIORETENTION AREAS (WITH ISR) NOT TO SCALE

4"STUB

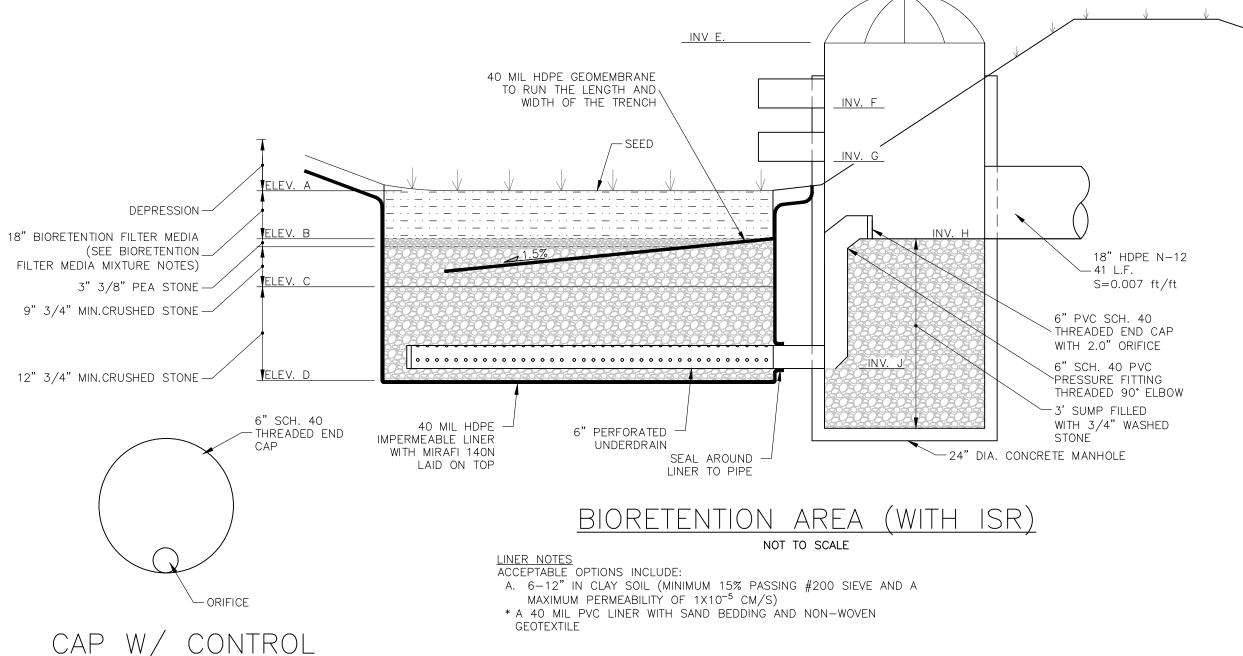
### RIPRAP SEDIMENT FOREBAY SPILLWAY PROFILE

NOT TO SCALE

BOTTOM OF FOREBAY

TOP OF BERM

BOTTOM OF POND



6" PERFORATED

UNDERDRAIN

### INFILTRATION BASIN CONSTRUCTION

ORIFICE NOT TO SCALE

- 1. CLEAR AND GRUB THE AREA WHERE THE INFILTRATION BASIN IS TO BE LOCATED. STOCKPILE LOAM FOR REUSE ON SLOPES.
- 2. GRADE INFILTRATION AREA ACCORDING TO PLAN AND DETAILS. SIDE SLOPES SHALL HAVE 6" LOAM AND SEED AND A SLOPE NOT TO EXCEED 2:1. BOTTOM OF INFILTRATION BASIN TO BE CONSTRUCTED WITH:
- A. A 6-INCH LAYER OF COARSE SAND OR 3/8 INCH PEA GRAVEL; B. GRASS TURF THAT CAN SURVIVE INUNDATION FOR UP TO 72 HOURS AND STILL PROVIDE A DENSE, VIGOROUS TURF LAYER; OR C. A LAYER OF COARSE ORGANIC MATERIAL, SUCH AS EROSION CONTROL MIX OR COMPOSTED MULCH, THAT IS TILLED INTO THE SOIL, SOAKED, AND
- 3. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT EQUIPMENT & VEHICLE TRAFFIC FROM DRIVING IN THE AREA OF THE PROPOSED RAIN GARDEN AREA DURING CONSTRUCTION.
- 4. BOTTOM OF BASIN IS TO BE ROTOTILLED PRIOR TO INSTALLING PEA GRAVEL OR COARSE SAND.

### 9/8/2021 REVISE PER TAC COMMENTD 6 8/25/2021 REVISE PER TAC COMMENTS. JSM JJM JSM JJM 8/11/2021 REVISE PER TAC COMMENTS. 7/21/2021 REVISE PER TAC COMMENTS. 7/2/2021 REVISED SEWER LOCATION. 2 6/23/2021 REVISED FOR PLANNING BOARD SUBMITTAL. JSM JJM 1 6/21/2021 REVISED PER TAC COMMENTS DR CK REV. DATE DESCRIPTION

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

## **DETAILS**

PARSON WOODS CONDOMINIUM LLC 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

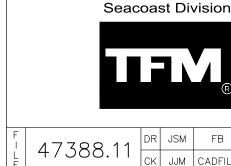
OWNED BY

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 - 73CK 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, 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 nomas F. Moran, Inc.

DEPRESSION

(SEE NOTE 2)-

(ESHWT)

3/8" PEA GRAVEL

NOT TO SCALE

L=189, S=0.019 ft/ft INFILTRATION BASIN DETAIL

NOTE: SEE PLANS FOR BED, BERM AND OVERFLOW ELEVATIONS

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 90%-100% PASSING 3/4 INCH SCREEN 20%-55% PASSING 3/8 INCH SCREEN 0%-10% PASSING #4 SIEVE 0%-5% PASSING #8 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 MANUFACTURER MAY BE USED IF APPROVED BY THE ENGINEER.

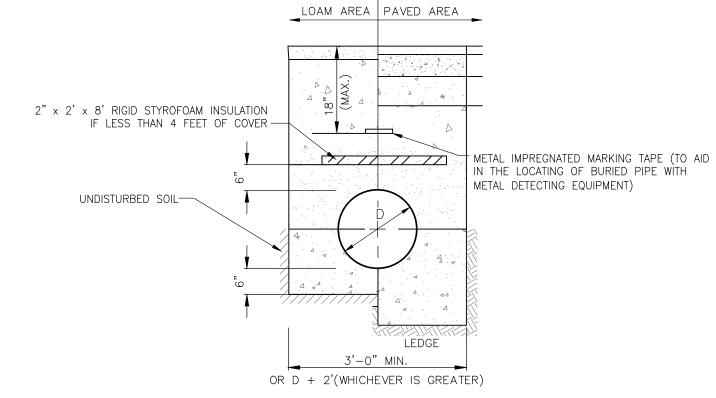
SUITABLE-— MATERIAL COMPACT IN 1'LAYERS 12" MIN. -SAND BLANKET COMPACT IN 6" LAYERS 1/2 OD BEDDING 2" MIN∜(L BEDDING TO BE THOROUGHLY COMPACTED (SEE NOTE 10)

- 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.

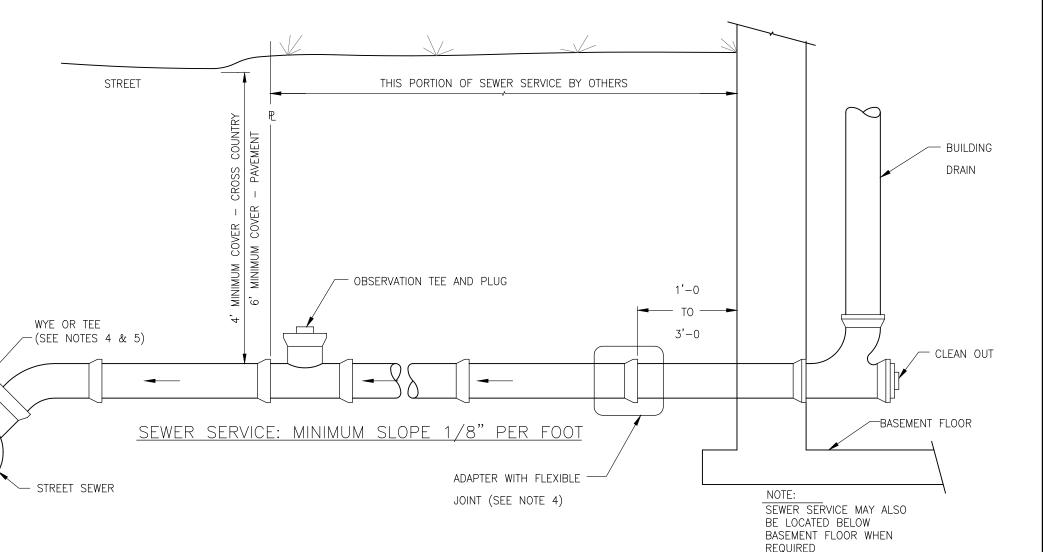
TRENCH CROSS-SECTION

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. 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.



# SEWER SERVICE DETAILS

**GRAVITY SEWER NOTES** 

2. PIPE AND JOINT MATERIALS FOR PLASTIC SEWER PIPE SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

1. MINIMUM SIZE PIPE FOR GRAVITY SEWER SHALL BE 8-INCHES.

\*PVC: POLY VINYL CHLORIDE

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) F794-03 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:

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.

ASTM F1417-92(2005) "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY

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.

9/8/2021 REVISE PER TAC COMMENTD

6 8/25/2021 REVISE PER TAC COMMENTS

5 | 8/11/2021 | REVISE PER TAC COMMENTS

7/21/2021 REVISE PER TAC COMMENTS.

1 6/21/2021 REVISED PER TAC COMMENTS

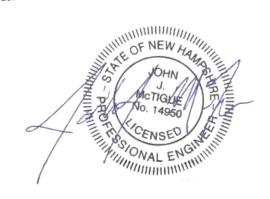
REV. DATE

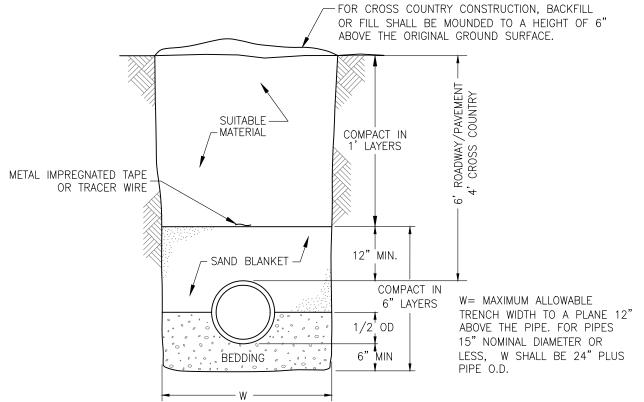
2 | 6/23/2021 | REVISED FOR PLANNING BOARD SUBMITTAL

DESCRIPTION

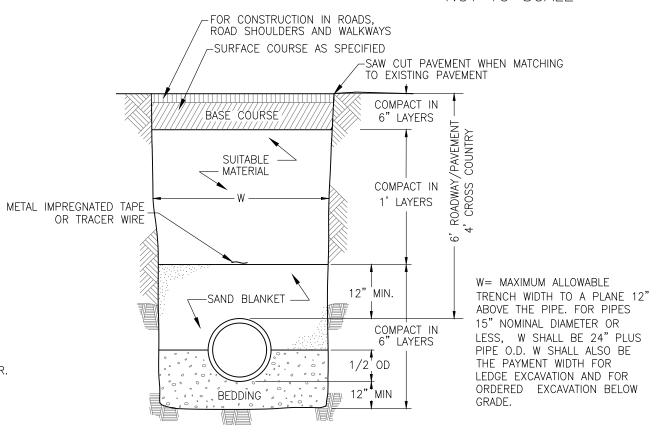
 $3 \mid 7/2/2021 \mid REVISED SEWER LOCATION.$ 

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.



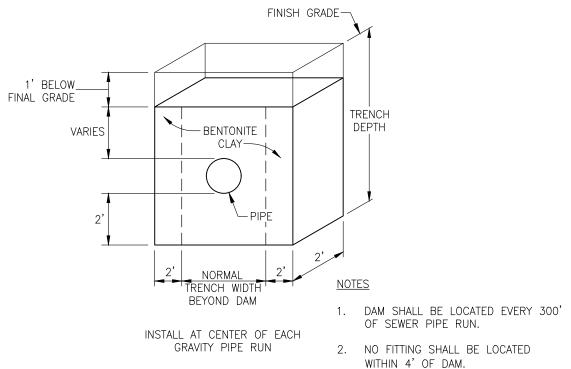


### **EARTH CONSTRUCTION**



# LEDGE CONSTRUCTION

FINISH GRADE-



# SEWER TRENCH DAM

NOT TO SCALE

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4 **DETAILS** 

PARSON WOODS CONDOMINIUM LLC 83 PEVERLY HILL ROAD, PORTSMOUTH, NH

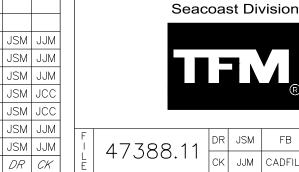
OWNED BY

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** 



JSM JJM

JSM JJM

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 l www.tfmoran.com

DR JSM FB C - 74CK JJM CADFILE Sewer Details.dwg

### **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:
- SIKAFI FX-12-SI SONNEBORN BUILING PRODUCTS-SONOLASTIC SL-1
- 10. 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.
- 11. 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
  - 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
- 2. 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".
- 4. 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.
- 5. 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.
- 16. 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

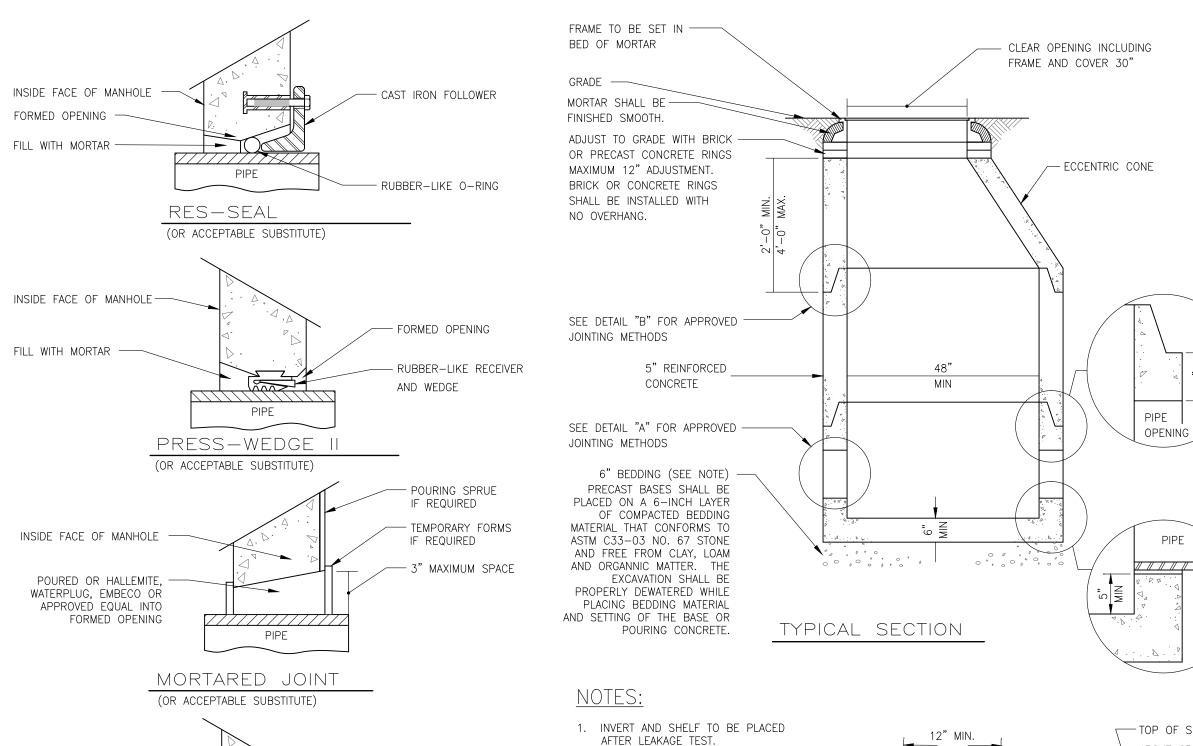
0-5% PASSING #8 SIEVE

- 17. FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WIBHIN 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.
- 18. NO FLEXIBLE JOINT SHALL BE REQUIRED FOR DUCTILE IRON PIPE OR PVC PIPE UP THROUGH 15-INCH
- 19. INTERNAL STEPS ARE PROHIBITED PER EXETER DPW STANDARDS.
- 20. REFERENCE NHDES ENV-WQ 700 IN PLACE OF ASTM STANDARDS.
- 21. 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
- 22. THE INVERT OF THE INCOMING PIPE SHALL BE NO MORE THAN 6 INCHES ABOVE THE OUTGOING PIPE UNLESS A DROP ENTRY IS USED.
- 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.





2. CARE SHALL BE TAKEN TO INSURE

3. BASE SECTION TO BE FULL WALL

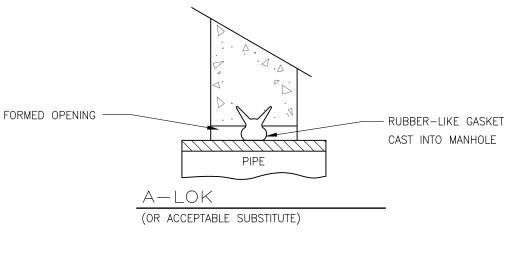
CONTINUATION OF THE SEWER INVERT.

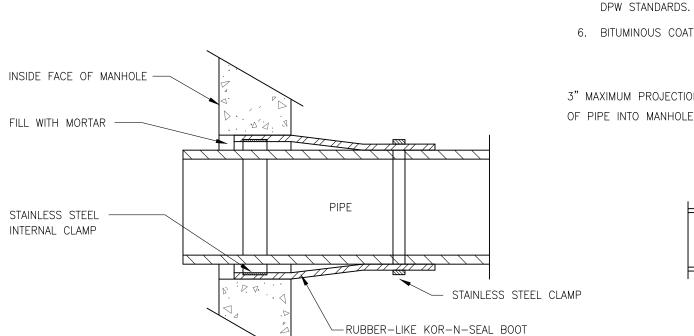
INVERT BRICKS SHALL BE LAID ON

THICKNESS AND MONOLITHIC TO A

POINT 6" ABOVE THE PIPE CROWN.

SHALL CONSIST OF BRICK MASONRY.







INSIDE FACE OF MANHOLE

FILL WITH MORTAR -

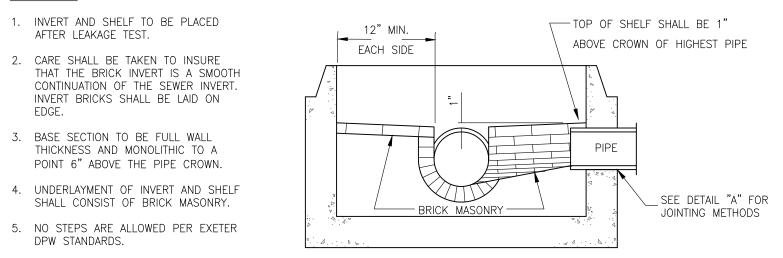
NOTE:

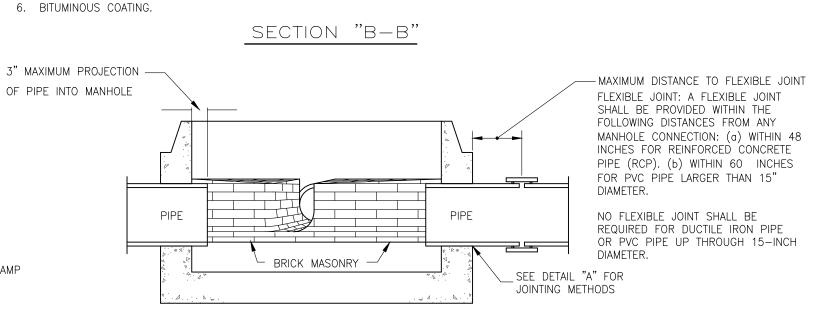
ALL GASKETS, SEALANTS, MORTAR, ETC... SHALL BE

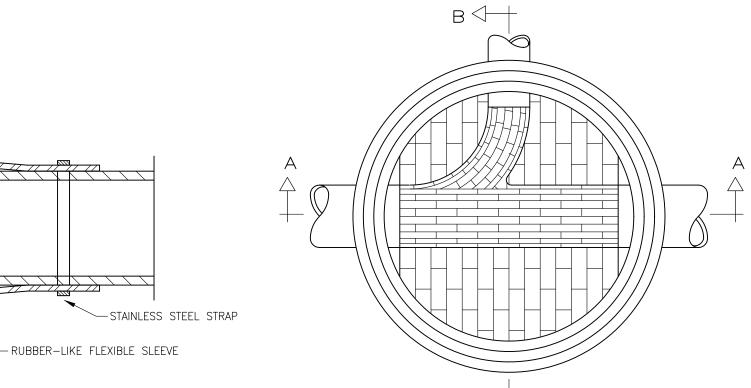
WITH MANUFACTURERS'

WRITTEN INSTRUCTIONS

INSTALLED IN ACCORDANCE



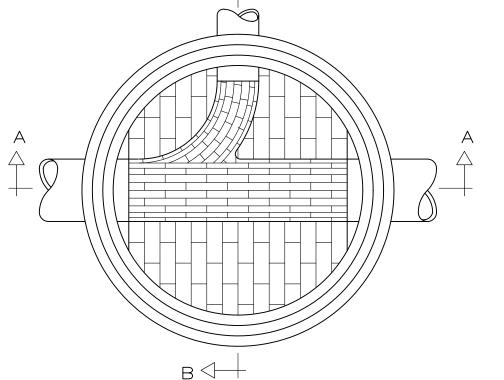




SECTION "A-A"

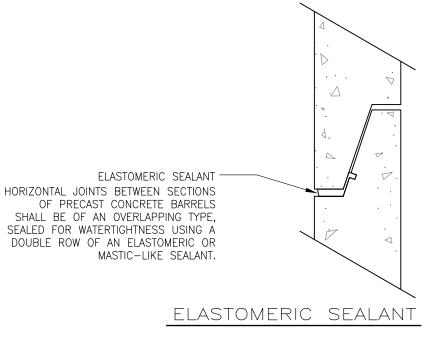
LOCK-JOINT FLEXIBLE MANHOLE SLEEVE (OR ACCEPTABLE SUBSTITUTE)

DETAIL "A" - PIPE TO MANHOLE JOINTS



TYPICAL MANHOLE — PLAN VIEW

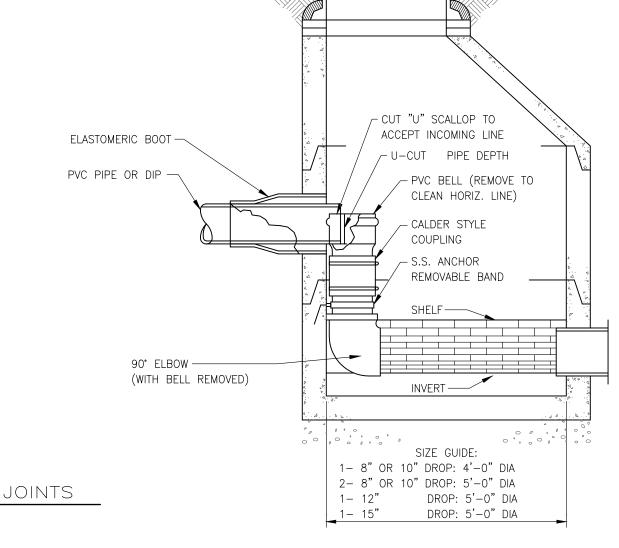
STANDARD MANHOLE



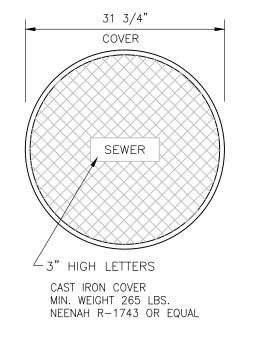
ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

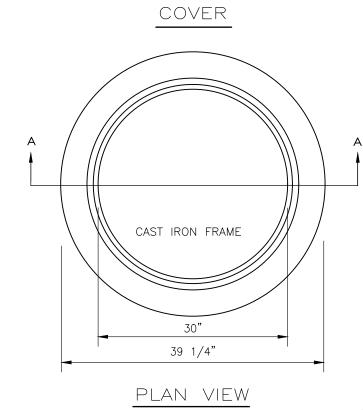
STATE OF NEW HAMPSHIRE APPROVED PRODUCTS A) SIKAFLEX-12-SL B) SONNEBORN BUILDING PRODUCTS SONOLASTIC SL-1

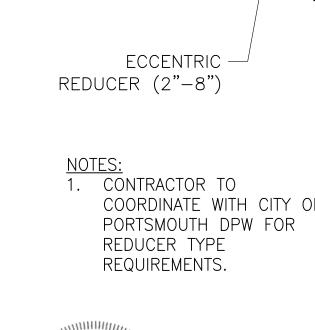
DETAIL "B" — HORIZONTAL JOINTS

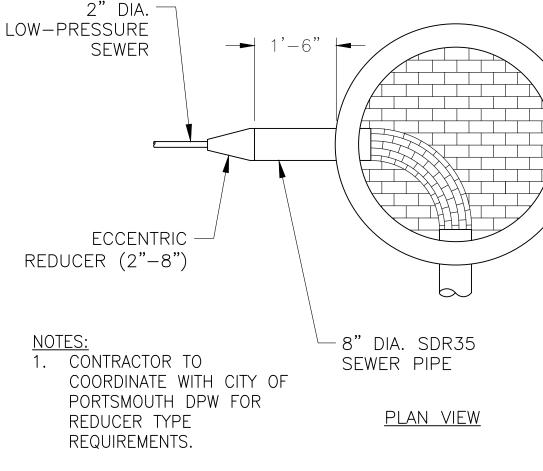


INSIDE DROP MANHOLE



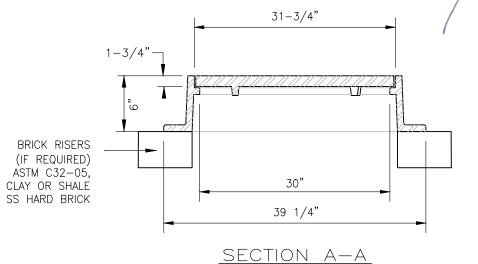








PRESSURE TO GRAVITY SEWER DETAIL SCALE: N.T.S



	M	ANI		LE	FR	AME	&	20\	/E	R			
											_	S	(
													_
E,	VISE	PER	TAC	COMI	MENTD					JSM	JJM		
E,	VISE	PER	TAC	COMI	MENTS	•				JSM	JJM		

	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM		
	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJM		
	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJM		
	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC		
	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC		
	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM	F	Γ
	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJM		l
<i>'</i> .	DATE	DESCRIPTION DESCRIPTION	DR	CK	Ē	l



TAX MAP 242 LOT 4

**DETAILS** 

BRICK RISERS (IF REQUIRED) ASTM C32 PARSON WOODS CONDOMINIUM LLC 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** 

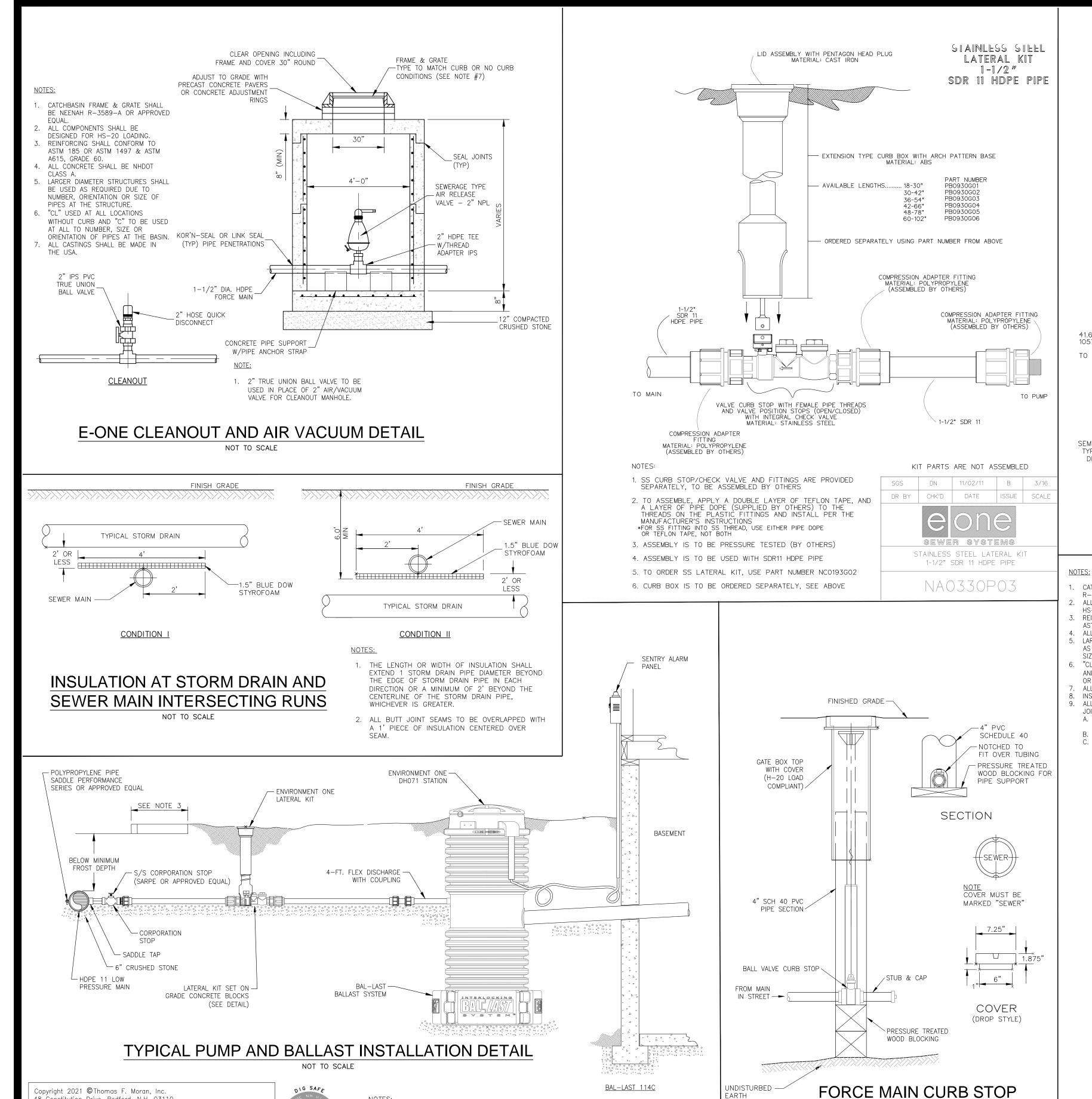


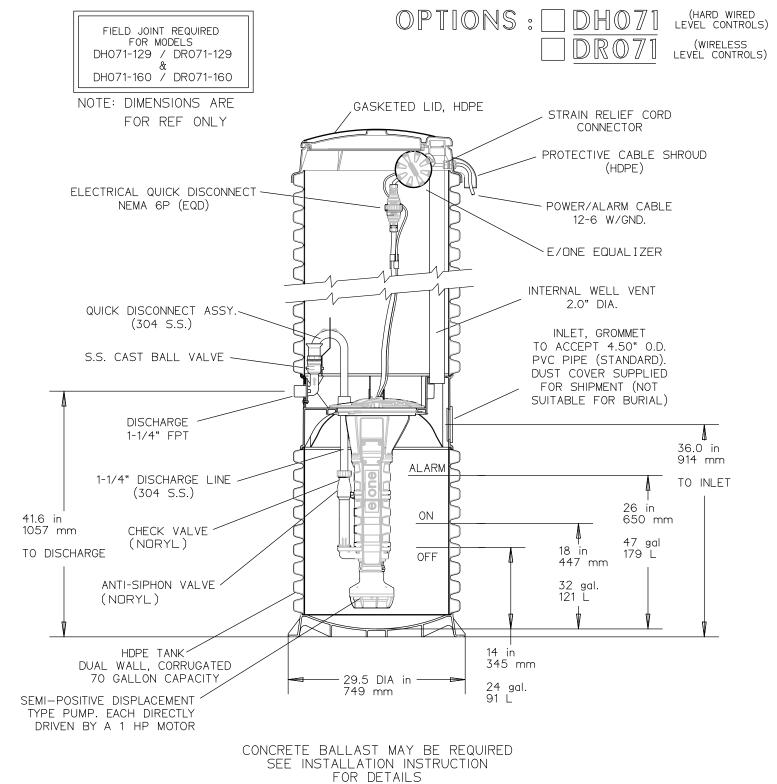
Civil Engineers Structural Engineers Traffic Engineers and Surveyors Landscape Architects cientists

| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 l www.tfmoran.com

DR JSM FB C - 75|CK| JJM |CADFILE | Sewer Details.dwg







### 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

E-ONE TERMINAL FLUSHING MANHOLE

NOT TO SCALE

R-3589-A OR APPROVED EQUAL.

ASTM 1497 & ASTM A615, GRADE 60.

SIZE OF PIPES AT THE STRUCTURE.

MECHANICAL JOINT.

RATED TO 200 PSI

NOT TO SCALE

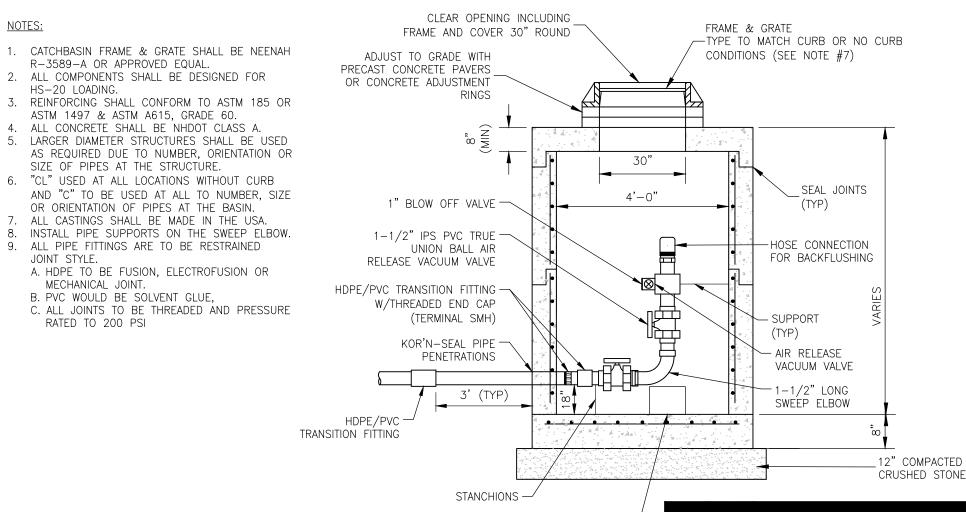
B. PVC WOULD BE SOLVENT GLUE,

OR ORIENTATION OF PIPES AT THE BASIN.

HS-20 LOADING.

## 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.



CONCRETE PIPE

# SITE DEVELOPMENT PLANS

TAX MAP 242 LOT 4

### **DETAILS**

PARSON WOODS CONDOMINIUM LLC 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** 

7	9/8/2021	REVISE PER TAC COMMENTD	JSM	JJM
6	8/25/2021	REVISE PER TAC COMMENTS.	JSM	JJM
5	8/11/2021	REVISE PER TAC COMMENTS.	JSM	JJM
4	7/21/2021	REVISE PER TAC COMMENTS.	JSM	JCC
3	7/2/2021	REVISED SEWER LOCATION.	JSM	JCC
2	6/23/2021	REVISED FOR PLANNING BOARD SUBMITTAL.	JSM	JJM
1	6/21/2021	REVISED PER TAC COMMENTS.	JSM	JJM
REV.	DATE	DESCRIPTION DESCRIPTION	DR	CK



| 170 Commerce Way, Suite 102 Civil Engineers Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 and Surveyors Fax (603) 431-0910 Landscape Architects

www.tfmoran.com cientists DR JSM FB C - 76CK JJM CADFILE Sewer Details.dwg

Thomas F. Moran, Inc.

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

NOTES:

ASSEMBLY PER MANUFACTURE'S RECOMMENDATIONS.

CURB STOP SHALL BE PLACED 2-3' (TYP) BEHIND CURB/EDGE OF ROADWAY, OR FROM BACKSIDE OF SIDÉWALK.

ASSEMBLY SHALL BE PRESSURE TESTED AND RATED TO 235 PSI.





Juliet T.H. Walker, AICP
Planning Director
City of Portsmouth Planning Department
City Hall, 3<sup>rd</sup> Floor
1 Junkins Avenue
Portsmouth, NH 03801

June 22, 2021

Ref. T1118

Re: Peverly Hill Road Residential Development

Transportation Peer Review

### Dear Ms. Walker:

On behalf of the City of Portsmouth, TEC, Inc. (TEC) has reviewed documents as part of the transportation engineering peer review of a proposed mixed used development located at 83 Peverly Hill Road in Portsmouth. The project consists of constructing 56 dwelling units. Access is provided by one site roadway intersection onto Peverly Hill Road. It is proposed that the site roadway be accepted as a public road by the City.

The following documents were received as part of our review:

- Traffic Evaluation Proposed Residential Development, prepared by Stephen G. Pernaw
   Company, Inc. October 6, 2020
- Proposed Residential Development Traffic Calming Memorandum, prepared by Stephen G. Pernaw & Company, Inc. April 5, 2021
- Peverly Hill Road Condominiums Site Development Plans, prepared by TFM April 19, 2021
- Peverly Hill Road Condominiums Conceptual plan, prepared by TFM, May 10, 2021

TEC completed a review of these documents for the City of Portsmouth, and the following provides a summary of the comments that were compiled during our review:

- 1. In order to be consistent with the Traffic Evaluation, Peverly Hill Road is designated as a north/south roadway within this letter.
- The Traffic Evaluation presents a study area including one intersection of the site roadway
  with Peverly Hill Road. TEC concurs with the scope of the study area and does not find
  that additional intersections are warranted based upon the documented trip generation
  levels.
- 3. Traffic counts utilized within the Traffic Evaluation were conducted along Peverly Hill Road in September 2020, when vehicular traffic volumes were impacted by the Covid-19

Peverly Hill Road Residential Development Transportation Peer Review June 22, 2021 Page 2 of 4



pandemic. The 2020 volumes were compared with June 2019 traffic volumes recorded by NHDOT in the same location. In order to project future traffic volumes along Peverly Hill Road for the design year of 2032, the September 2020 volumes were increased by a seasonal adjustment factor, a background growth rate, and a Covid-19 adjustment factor. TEC concurs with this methodology and the use of a 2032 horizon year.

The weekday morning and evening peak commuter hours were studied to determine the project's overall effect on the adjacent roadway system. TEC concurs that these time periods are generally appropriate to study the impact for a residential development.

4. The Traffic Evaluation uses data published in the industry standard Institute of Transportation Engineers (ITE) publication, *Trip Generation, 10th Edition* to estimate the traffic generated by the proposed development. The Traffic Evaluation uses a combination of data found under Land Use Code (LUC) 221 – Multi-Family Housing (Mid-Rise) and LUC 210 – Single Family Detached Housing to project future traffic volumes associated with the proposed residential units. The information provided in the TAC Submission, dated April 19, 2021, illustrates the units as three-bedroom detached dwellings averaging 2,400 square feet of living space. No age restriction is proposed for the development. The units appear to be intended to be sold as condominium units, however, the traffic generation characteristics may more closely resemble single family dwellings due to the size, separation, and number of bedrooms in each unit.

The Traffic Evaluation projects 29 vehicle trips during the weekday morning peak hour and 42 vehicle trips during the weekday evening peak hour using the combined methodology. TEC recommends the use of only LUC 210 - Single Family Detached Housing to reflect the trip generation characteristics of the proposed residential units more accurately. For the 56 proposed units as shown on the Site Plan, LUC 210 projects 41 vehicle trips during the weekday morning peak hour and 55 vehicle trips during the weekday evening peak hour. TEC understands that the increase likely will not change the impact of the site on the adjacent roadway system. However, the Applicant should discuss whether these additional trips can be accommodated safely and efficiently at the site roadway intersection onto Peverly Hill Road.

- 5. The vehicular traffic generated by the proposed project was distributed onto the adjacent roadway system based upon available Journey-to-Work data published by the US Census Bureau for persons residing in the City of Portsmouth. TEC notes that there are significant employment opportunities within the City of Portsmouth along the Route 1 corridor to the south of the site, which can be accessed directly via Peverly Hill Road. The Applicant should discuss if these employment opportunities were considered when preparing the vehicular traffic distribution, as only 22% of the site generated traffic is projected to travel to/from this direction. The Applicant should review the site distributions and revise the analyses at the intersection of the site roadway with Peverly Hill Road, as necessary.
- 6. TEC generally concurs with the use of the Highway Capacity Manual 2010 methodology as used within the Synchro version 10 software.
- 7. The Traffic Evaluation indicates that the site traffic is expected to increase the two-way traffic volume along Peverly Hill Road by 2% north of the site and 1% south of the site in the 2032 future conditions, which is unlikely to be noticeable. The intersection of the site

Peverly Hill Road Residential Development Transportation Peer Review June 22, 2021 Page 3 of 4



roadway with Peverly Hill Road is projected to operate with available capacity, minimal queues, and typical delays for intersecting side streets under stop control. No off-site mitigation is proposed to be implemented.

- 8. The comments as noted above may result in modifications to the results of the capacity and queue analysis and therefore TEC reserves the right to provide additional comments and improvement recommendations upon completion of the peer review comment responses.
- 9. The site roadway approach to its intersection with Peverly Hill Road is shown with one exiting lane to accommodate left turning and right turning vehicles. Provision of two lanes on this approach may not significantly improve the operation of this approach and maintaining a minimum crossing distance for pedestrians is preferred.
- 10. Peverly Hill Road provides one travel lane in each direction along most of its length. The northbound approach of Peverly Hill Road widens at its intersection with Middle Road, just to the north of the site, to provide an exclusive left turn lane and a shared left/right turn lane. The taper area for this widening occurs along the site frontage. No dedicated left turn lane is required or provided for northbound left turns into the site roadway. The Applicant should discuss whether any conflicts are anticipated between northbound left turns accessing the site roadway and northbound vehicles wishing to enter the exclusive left turn lane at Middle Road.
- 11. Provision of a multi-use path along the west side of Peverly Hill Road, extending between Middle Road and West Road is under design by the City of Portsmouth to increase safety for pedestrians and bicyclists and provide infrastructure to accommodate alternative modes of transportation between residential areas and commercial areas along Route 1. The multi-use path will directly benefit the residents of the proposed development by providing the opportunity for multi-modal travel along Peverly Hill Road as well as safe and uninterrupted access to the Portsmouth Plains Playground and recreational area at the intersection of Peverly Hill Road with Middle Road. The Applicant should provide any necessary easements identified by the City in order to facilitate the construction of this path. The site roadway approach at its intersection with Peverly Hill Road should be designed and constructed in anticipation of the multi-use path by including a crosswalk with ADA-compliant curb ramps across the site roadway approach. The City should consider requiring the Applicant to construct the multi-use path along the site frontage and extending north 500 feet toward Middle Road in accordance with the City's design plans to provide a direct connect between the residential development and the recreation area and pedestrian facilities along Middle Road.
- 12. Sidewalk is provided along one side of the site roadway throughout the site, creating a pedestrian network. Further, connection to the planned Seacoast Greenway Rail Trail is proposed, along with a pocket park and four parking spaces for visitor access. The Applicant should discuss the volume of vehicular traffic that may access the site daily and the anticipated volume of pedestrian and bicycle traffic that are anticipated to use the site roadway between the Rail Trail and the proposed multi-use path along Peverly Hill Road.
- 13. The site roadway has been designed in accordance with the City of Portsmouth Complete Streets Design Guidelines for a Neighborhood Slow Street. The roadway is 26 feet wide,

Peverly Hill Road Residential Development Transportation Peer Review June 22, 2021 Page 4 of 4



which allows for parking along one side of the roadway and two 9-foot travel lanes. Sidewalk along one side of the roadway creates a pedestrian network facility. Bicycles will be accommodated within the roadway. However, in order to experience the benefit of a Complete Streets design along the site roadway, residents should be encouraged to park along at least one side of the roadway.

Should residents not park on-street, the traffic calming nature of the roadway will be reduced, as the entire 26-foot width would be useable by vehicle traffic. While the circular curvature of the roadway will aid in reducing vehicle speeds, alternative forms of traffic calming, such as raising the proposed crosswalks or the addition of speed humps, can be considered along the straight portion of the roadway to keep both resident and visitor vehicular speeds low.

14. The Pernaw memorandum discussing traffic calming opportunities, dated April 5, 2021, recommends additional signage around the proposed crosswalk located at the internal T-intersection to alert vehicles to potential crossing pedestrians. TEC concurs with these recommendations. Similar additional signage is recommended for the proposed crosswalk across the site roadway at the pocket park/Rail Trail connection.

Please do not hesitate to contact me directly if you have any questions concerning this peer review at 978-794-1792. Thank you for your consideration.

Sincerely, TEC, Inc.

"The Engineering Corporation"

Elizabeth Oltman, PE

**Director of Transportation Planning** 

Elizabeth Oldman





Juliet T.H. Walker, AICP
Planning Director
City of Portsmouth Planning Department
City Hall, 3<sup>rd</sup> Floor
1 Junkins Avenue
Portsmouth, NH 03801

July 20, 2021

Ref. T1118

Re: Peverly Hill Road Residential Development

Transportation Peer Review #2 Response to Comments Review

Dear Ms. Walker:

On behalf of the City of Portsmouth, TEC, Inc. (TEC) has reviewed additional documents as part of the transportation engineering peer review of a proposed residential development located at 83 Peverly Hill Road in Portsmouth, NH.

The following additional documents were received as part of our review:

- Response to Comments Memorandum, prepared by Stephen G. Pernaw & Co., Inc, dated July 3, 2021
- Parson Woods Condominium Site Development Plans, prepared by TFM, revision dated June 23, 2021

Comments 1 thru 14 have been retained from the most recent TEC review letter dated June 22, 2021, originally issued as part of the project review. The Applicant's response to comments is shown as **bold**; TEC responses are shown as *italic*:

TEC completed a review of these documents for the City of Portsmouth, and the following provides a summary of the comments that were compiled during our review:

1. In order to be consistent with the Traffic Evaluation, Peverly Hill Road is designated as a north/south roadway within this letter.

SGP Response: Comment acknowledged.

TEC: No response required.

Peverly Hill Road Residential Development Transportation Peer Review #2 July 21, 2021 Page 2 of 6



The Traffic Evaluation presents a study area including one intersection of the site roadway with Peverly Hill Road. TEC concurs with the scope of the study area and does not find that additional intersections are warranted based upon the documented trip generation levels.

### SGP Response: Comment acknowledged.

TEC: No response required.

3. Traffic counts utilized within the Traffic Evaluation were conducted along Peverly Hill Road in September 2020, when vehicular traffic volumes were impacted by the Covid-19 pandemic. The 2020 volumes were compared with June 2019 traffic volumes recorded by NHDOT in the same location. In order to project future traffic volumes along Peverly Hill Road for the design year of 2032, the September 2020 volumes were increased by a seasonal adjustment factor, a background growth rate, and a Covid-19 adjustment factor. TEC concurs with this methodology and the use of a 2032 horizon year.

The weekday morning and evening peak commuter hours were studied to determine the project's overall effect on the adjacent roadway system. TEC concurs that these time periods are generally appropriate to study the impact for a residential development.

### SGP Response: Comment acknowledged.

TEC: No response required.

4. The Traffic Evaluation uses data published in the industry standard Institute of Transportation Engineers (ITE) publication, *Trip Generation*, *10th Edition* to estimate the traffic generated by the proposed development. The Traffic Evaluation uses a combination of data found under Land Use Code (LUC) 221 – Multi-Family Housing (Mid-Rise) and LUC 210 – Single Family Detached Housing to project future traffic volumes associated with the proposed residential units. The information provided in the TAC Submission, dated April 19, 2021, illustrates the units as three-bedroom detached dwellings averaging 2,400 square feet of living space. No age restriction is proposed for the development. The units appear to be intended to be sold as condominium units, however, the traffic generation characteristics may more closely resemble single family dwellings due to the size, separation, and number of bedrooms in each unit.

The Traffic Evaluation projects 29 vehicle trips during the weekday morning peak hour and 42 vehicle trips during the weekday evening peak hour using the combined methodology. TEC recommends the use of only LUC 210 - Single Family Detached Housing to reflect the trip generation characteristics of the proposed residential units more accurately. For the 56 proposed units as shown on the Site Plan, LUC 210 projects 41 vehicle trips during the weekday morning peak hour and 55 vehicle trips during the weekday evening peak hour. TEC understands that the increase likely will not change the impact of the site on the adjacent roadway system. However, the Applicant should discuss whether these additional trips can be accommodated safely and efficiently at the site roadway intersection onto Peverly Hill Road.

SGP Response: The trip generation estimates contained in the traffic evaluation are intended to reflect the type of housing that is proposed, and the fact that Green & Company's experience with similar development projects is

Peverly Hill Road Residential Development Transportation Peer Review #2 July 21, 2021 Page 3 of 6



that these types of units are occupied by approximately two persons per unit. We believe that using LUC 210 only, as recommended by TEC, would not accurately reflect the fact that these are condominium units with approximately two persons per unit. It should be noted that the ITE LUC 210 trip rates reflect approximately 3.5 persons per unit, well above the 2.0 persons per unit that Green & Company anticipates. Nevertheless, supplemental traffic projections utilizing LUC 210, as recommended by TEC, show that during the worst-case weekday PM peak hour the projected number of southbound right turn arrivals would increase from 22 to 29 vehicle over the course of the one-hour period. This particular traffic movement is not capacity-constrained as it is a Rank 1 Movement that does not encounter a conflicting traffic stream, nor does it have a Level of Service associated with it. The remaining traffic movements at this intersection would increase by 1-3 vehicles during the PM peak hour using LUC 210, which is an inconsequential amount in terms of traffic operations, capacity, and safety.

TEC: TEC concurs with this clarification. No further response necessary.

5. The vehicular traffic generated by the proposed project was distributed onto the adjacent roadway system based upon available Journey-to-Work data published by the US Census Bureau for persons residing in the City of Portsmouth. TEC notes that there are significant employment opportunities within the City of Portsmouth along the Route 1 corridor to the south of the site, which can be accessed directly via Peverly Hill Road. The Applicant should discuss if these employment opportunities were considered when preparing the vehicular traffic distribution, as only 22% of the site generated traffic is projected to travel to/from this direction. The Applicant should review the site distributions and revise the analyses at the intersection of the site roadway with Peverly Hill Road, as necessary.

SGP Response: While it was recognized that there are significant employment opportunities along US1 south of the site, it important to recognize that there are even more employment opportunities at Pease International Tradeport and in downtown Portsmouth. As a sensitivity analysis, doubling of the site traffic to/from the south would add only +6 left-turn arrivals and +3 right-turn departures to the subject intersection during the worst-case weekday PM peak hour period. Again, dealing with changes of this order of magnitude will not significantly alter the prevailing traffic operations and safety aspects at the subject intersection.

TEC: TEC concurs with the assessment of the site generated traffic distribution. No further response necessary.

6. TEC generally concurs with the use of the Highway Capacity Manual 2010 methodology as used within the Synchro version 10 software.

SGP Response: Comment acknowledged.

TEC: No response required.

Peverly Hill Road Residential Development Transportation Peer Review #2 July 21, 2021 Page 4 of 6



7. The Traffic Evaluation indicates that the site traffic is expected to increase the two-way traffic volume along Peverly Hill Road by 2% north of the site and 1% south of the site in the 2032 future conditions, which is unlikely to be noticeable. The intersection of the site roadway with Peverly Hill Road is projected to operate with available capacity, minimal queues, and typical delays for intersecting side streets under stop control. No off-site mitigation is proposed to be implemented.

SGP Response: We concur; a standard three-leg T-intersection with one general-purpose travel lane on each approach is appropriate for the size and type of development that is proposed at this location.

TEC: No response required.

8. The comments as noted above may result in modifications to the results of the capacity and queue analysis and therefore TEC reserves the right to provide additional comments and improvement recommendations upon completion of the peer review comment responses.

SGP Response: Our responses to Comments 4 & 5 noted above do not warrant re-analysis given the magnitudes involved.

TEC: TEC concurs. No response required.

9. The site roadway approach to its intersection with Peverly Hill Road is shown with one exiting lane to accommodate left turning and right turning vehicles. Provision of two lanes on this approach may not significantly improve the operation of this approach and maintaining a minimum crossing distance for pedestrians is preferred.

SGP Response: We concur.

TEC: No response required.

10. Peverly Hill Road provides one travel lane in each direction along most of its length. The northbound approach of Peverly Hill Road widens at its intersection with Middle Road, just to the north of the site, to provide an exclusive left turn lane and a shared left/right turn lane. The taper area for this widening occurs along the site frontage. No dedicated left turn lane is required or provided for northbound left turns into the site roadway. The Applicant should discuss whether any conflicts are anticipated between northbound left turns accessing the site roadway and northbound vehicles wishing to enter the exclusive left turn lane at Middle Road.

SGP Response: As is the case when approaching any intersection while traveling along a major street, there is always the potential need to temporarily slow or brake for another vehicle that is decelerating with its turn signal flashing. In this particular case, only six vehicles are expected to turn left into the site during the weekday PM peak hour (one vehicle every 10-minutes, on average), thus the potential conflict exists, but is totally manageable.

Peverly Hill Road Residential Development Transportation Peer Review #2 July 21, 2021 Page 5 of 6



# Decelerating northbound vehicles on this section of Peverly Hill Road is a frequent occurrence given the proximity of the nearby traffic signal at NH33.

TEC: TEC concurs with this clarification. No further response necessary.

11. Provision of a multi-use path along the west side of Peverly Hill Road, extending between Middle Road and West Road is under design by the City of Portsmouth to increase safety for pedestrians and bicyclists and provide infrastructure to accommodate alternative modes of transportation between residential areas and commercial areas along Route 1. The multi-use path will directly benefit the residents of the proposed development by providing the opportunity for multi-modal travel along Peverly Hill Road as well as safe and uninterrupted access to the Portsmouth Plains Playground and recreational area at the intersection of Peverly Hill Road with Middle Road. The Applicant should provide any necessary easements identified by the City in order to facilitate the construction of this path. The site roadway approach at its intersection with Peverly Hill Road should be designed and constructed in anticipation of the multi-use path by including a crosswalk with ADA-compliant curb ramps across the site roadway approach. The City should consider requiring the Applicant to construct the multi-use path along the site frontage and extending north 500 feet toward Middle Road in accordance with the City's design plans to provide a direct connect between the residential development and the recreation area and pedestrian facilities along Middle Road.

## SGP Response: This comment is best addressed by Green & Company and TFM, Inc.

TEC: Further discussion between the City and the Applicant on this recommendation is recommended.

12. Sidewalk is provided along one side of the site roadway throughout the site, creating a pedestrian network. Further, connection to the planned Seacoast Greenway Rail Trail is proposed, along with a pocket park and four parking spaces for visitor access. The Applicant should discuss the volume of vehicular traffic that may access the site daily and the anticipated volume of pedestrian and bicycle traffic that are anticipated to use the site roadway between the Rail Trail and the proposed multi-use path along Peverly Hill Road.

# SGP Response: We are not familiar the details of the Rail Trail or proposed multi-use path, and will defer to others.

TEC: The proposed multi-use path has been provided between Peverly Hill Road and the Seacoast Greenway Rail Trail access within the site. The proposed crossings of Public Road A as shown in the June 23, 2021 Site Plan have been designed to be safely navigated by pedestrians and bicyclists. No further response required.

13. The site roadway has been designed in accordance with the City of Portsmouth Complete Streets Design Guidelines for a Neighborhood Slow Street. The roadway is 26 feet wide, which allows for parking along one side of the roadway and two 9-foot travel lanes. Sidewalk along one side of the roadway creates a pedestrian network facility. Bicycles will be accommodated within the roadway. However, in order to experience the benefit of Peverly Hill Road Residential Development Transportation Peer Review #2 July 21, 2021 Page 6 of 6



a Complete Streets design along the site roadway, residents should be encouraged to park along at least one side of the roadway.

Should residents not park on-street, the traffic calming nature of the roadway will be reduced, as the entire 26-foot width would be useable by vehicle traffic. While the circular curvature of the roadway will aid in reducing vehicle speeds, alternative forms of traffic calming, such as raising the proposed crosswalks or the addition of speed humps, can be considered along the straight portion of the roadway to keep both resident and visitor vehicular speeds low.

SGP Response: This comment has been previously addressed by utilizing a combination of 22-foot and 26-foot pavement widths within the development, along with a curvilinear roadway alignment that includes several horizontal curves and reverse curves.

TEC: The June 23, 2021 Site Plan shows reduced roadway widths of 22 feet and additional curvature within the roadway alignment, which will aid in maintaining low vehicle speeds within the development. A raised crosswalk is proposed at the multi-use path crossing to the Seacoast Greenway Rail Trail and pocket park for the safety of residents and visitors. Comment addressed. No further response required.

14. The Pernaw memorandum discussing traffic calming opportunities, dated April 5, 2021, recommends additional signage around the proposed crosswalk located at the internal T-intersection to alert vehicles to potential crossing pedestrians. TEC concurs with these recommendations. Similar additional signage is recommended for the proposed crosswalk across the site roadway at the pocket park/Rail Trail connection.

SGP Response: Comment acknowledged; this comment is best addressed by TFM. Inc.

TEC: Additional signage has been added at the raised crosswalk for the multi-use path crossing to the Seacoast Greenway Rail Trail and pocket park. The eastern crosswalk for the multi-use path has been relocated to the internal T-intersection of Public Road A, which is a more visible and appropriate location for pedestrians to cross. Comment addressed. No further response required.

Please do not hesitate to contact me directly if you have any questions concerning this peer review at 978-794-1792. Thank you for your consideration.

Sincerely, TEC, Inc.

"The Engineering Corporation"

Elizabeth Oldman

Elizabeth Oltman, PE

**Director of Transportation Planning** 



# 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		
Ø	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 Info	ormation	
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 Info	ormation	
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
	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
<b>\</b>	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				
		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>V</b>	b.	Zoning boundaries;	S-01		
<b>V</b>	c.	Dimensional Regulations;	S-05		
<b>V</b>	d.	Wetland delineation, wetland function and value assessment;	S-01		
1	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>V</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)	•	
	4.	Parking and Loading: (2.5.4.3D)			
<b>✓</b>	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)			
<b>✓</b>	a.	Engineering data;	C-28 - C-35		
	b.	Location of wells and monitoring wells (include protective radii).	N/A		$\overline{1}$
	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)			
	a.	The size, type and location of all above & below ground utilities;	C-28 - C-35	Γ	
<b>V</b>	b.	Size type and location of generator pads, transformers and other fixtures.	C-28 - C-35		

		Site Plan Specifications – Required Exhibits	s and Data	
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)		
<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		
Ø	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			
	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 Info	rmation	
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	cant's Signature Date:	4/19/21	



# 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	
Phone Number: 603-964-7572	E-mail: mgreen@greenandcompany.com
Site Address 1: 83 Peverly Hill Road	
Site Address 2:	Map: Lot: <u>4</u>

	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 Preliminary/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>V</b>	Zoning classification and minimum yard dimensions required. (Section IV.4/V.4)	S-01 - S-05	☑ Preliminary Plat ☑ Final Plat	N/A
N	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 ☑ Preliminary 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>V</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		
Ø	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	ents <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	
<b>☑</b>	5. Driveways: (VI.5)	C-04 - C-12	
	6. Drainage Improvements: (VI.6)	C-18 - C-26	
<b>V</b>	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	

Ø	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	
4	16. Monuments: (VI.16)		S-01 - S-05	
1	17. Benchmarks: (VI.17)	60	S-01 - S-05	
1	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			
▼	1.	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				
<b>✓</b>	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

### 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