

August 30, 2022

North Yarmouth Planning Board  
10 Village Square Road  
North Yarmouth, Maine



Re: Updates to Proposed Deacon Hayes Commons, Parsonage/Walnut Hill Roads

Dear Board Members,

At the August Planning Board meeting, a public hearing was completed with questions and answers about the project provided to the Board. The Board then determined the final application materials complete. The Board had no significant concerns during the final review of the project as each item in the NorthStar Planners memo was discussed. The Board then reviewed and agreed with the Site Plan - Conclusions of Law, and the Subdivision - Conclusions of Law as written by NorthStar Planning August 9 memo to the Board. A motion was made and seconded for approval of the project with minor conditions, but failed to gain a majority vote. The board wanted more information from the YWD in regard to ground water flow which would ultimately determine nitrate levels. The applicant has decided to have a new engineered disposal system that will meet setback requirements and the Towns 5 mg/l requirement at the property line. We contacted the Town and asked to be rescheduled for the next scheduled meeting of Sept 13 so revisions to the plan to reflect the new sewer system design could be completed.

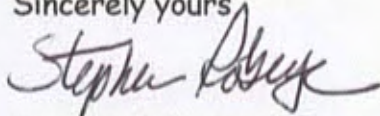
We have attached the updated plans and provided additional information as requested by the Planning Board during the August meeting. Changes with this submission include:

1. Design of a new engineered disposal system.
2. A revised groundwater nitrate study specific to the engineered disposal area meeting the Towns 5 mg/l nitrate level at the property line.
3. Relocated previously proposed landscaping planting away from the disposal system.
4. Updated the sidewalk along Walnut Street (location of proposed sidewalk was relocated further away from Walnut St. for safety and construction reasons).
5. Updates to the subdivision and site plan suitable for Planning Board signatures and recording in the registry.
6. Units 4, 8, and 11 are designated to be "Affordable Housing".

Deacon Hayes Commons  
North Yarmouth, Maine

We hope you will find this additional information satisfactory for a final approval by the Planning Board. Please contact me if you have any questions.

Sincerely yours

A handwritten signature in black ink that reads "Stephen Roberge". The signature is written in a cursive style with a large, stylized initial "S".

Stephen Roberge, PE  
for SJR Engineering Inc.

Attachments: Updated plan sheets (SUB, Sheets 1 and 2), Cenci nitrate study for the engineered system.



## Hydrogeologic Assessment of an Engineered System Deacon Hayes Commons Walnut Hill Road, North Yarmouth

**Date:** August 26, 2022

### **Summary:**

A nitrate plume was modelled from an Engineered wastewater disposal system, serving all units of a proposed development. The system uses nitrogen removing aeration technology. The analysis assumed the groundwater flow direction used by the Yarmouth Water District. The 5 mg/liter NO<sub>3</sub>-N concentration is predicted to meet the ordinance of the Town of North Yarmouth regarding the project property line.

### **Background information:**

The *Hydrogeologic Assessment, Deacon Hayes Commons, Walnut Hill Road, North Yarmouth*, dated May 24, 2022, by Mark Cenci Geologic, Inc., assumed a local groundwater flow direction toward a pond and stream drainage from four wastewater disposal areas located 100 feet apart. The wastewater disposal systems were modelled to use aerating pre-treatment technology to somewhat reduce the concentration of NO<sub>3</sub>-N entering the aquifer. Under this assumption, the local groundwater protection ordinance was satisfied.

A review by Matt Reynolds, PE, LG, of Drumlin Environmental, Inc., reasonably questioned the groundwater flow direction assumption, as their contracted work with the Yarmouth Water District suggests a flow direction not influenced by the pond and stream. In a telephone conversation with Matt Reynolds, the possibility of a perched water table beneath the pond and stream was discussed, as the water table elevation in a monitoring well at the corner of Parsonage Road reveals a measured water table well below the pond elevation.

While it may be possible that a perched water table extends to the areas proposed for the four wastewater disposal systems, it is preferable to avoid further subsurface soil explorations and

revise the wastewater disposal plan, particularly because the Yarmouth Water District prefers nitrogen removing aeration technology to be used on this site.

Therefore, a single, combined wastewater disposal area to be used by all residential units is proposed. This system will be more centrally located on the property and will use nitrogen removing aeration treatment technology. Because the design flow of this single system exceeds 2,000 gallons per day, the system is regulated as an Engineered System by the Division of Environmental Health of the State of Maine.

**Geologic and hydrogeologic assumptions:**

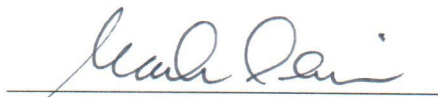
The same permeability, porosity and hydraulic gradient assumptions were used to analyze the groundwater effects of one large system. The concentration of NO<sub>3</sub>-N entering the groundwater beneath the disposal area is assumed to be 10 mg/liter. This is based on controlled National Sanitary Foundation testing of the FujiClean products, which had results ranging from 7 mg/liter to 12 mg/liter after treatment.

The groundwater flow direction assumption was changed to the regional assumption used by Drumlin Environmental, which is perpendicular to the topographic trend of Walnut Hill. On this property that direction is approximately True North, 98 degrees. A depiction of modelling results is attached.

**Results and conclusions:**

Using the same modelling program used in the *Assessment*, with a reduced initial concentration of NO<sub>3</sub>-N based on nitrogen removal technology, the 5 mg/liter NO<sub>3</sub>-N plume is estimated to be 40 feet in length.

The disposal area will be approximately 45 feet from the nearest project property line, which will satisfy the North Yarmouth groundwater ordinance.

  
Mark Cenci, LG # 467

APPROXIMATE FLOW DIRECTIONS

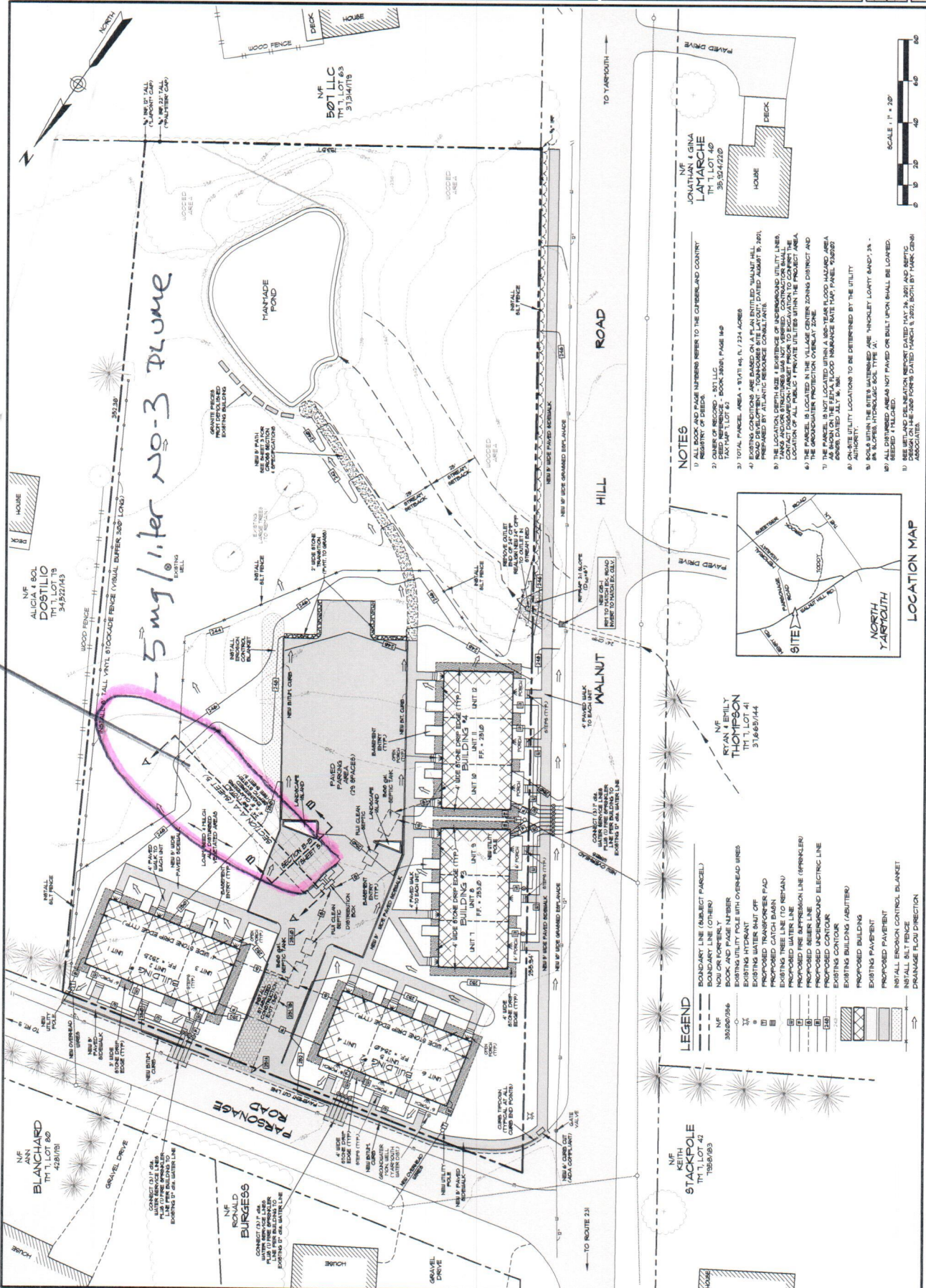
5 mg/liter no-3 Prume

		<b>SJR ENGINEERING, INC.</b> 16 THURSTON DRIVE MONMOUTH, MAINE 04259 616.878.7199	
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SJR ENGINEERING, INC.			
NO.	DATE	BY	REVISIONS
1	8-22-2022	SR	RELLOCATE WALNUT HILL RD. SIDEWALK NEW BEITIC
2	8-22-2022	SR	RELOCATE WALNUT HILL RD. SIDEWALK NEW BEITIC
3	8-22-2022	SR	RELOCATE WALNUT HILL RD. SIDEWALK NEW BEITIC
4	8-22-2022	SR	RELOCATE WALNUT HILL RD. SIDEWALK NEW BEITIC
5	8-22-2022	SR	RELOCATE WALNUT HILL RD. SIDEWALK NEW BEITIC
6	8-22-2022	SR	RELOCATE WALNUT HILL RD. SIDEWALK NEW BEITIC
7	8-22-2022	SR	RELOCATE WALNUT HILL RD. SIDEWALK NEW BEITIC
8	8-22-2022	SR	RELOCATE WALNUT HILL RD. SIDEWALK NEW BEITIC
9	8-22-2022	SR	RELOCATE WALNUT HILL RD. SIDEWALK NEW BEITIC
10	8-22-2022	SR	RELOCATE WALNUT HILL RD. SIDEWALK NEW BEITIC

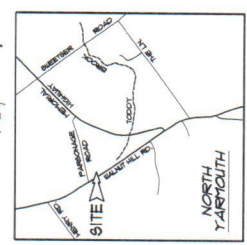
**GRADING & EROSION CONTROL PLAN**  
 DEACON HAYES COMMONS  
 821 WALNUT HILL ROAD - NORTH YARMOUTH, MAINE  
 527 LLC  
 PREPARED FOR  
 865 OAK HILL ROAD - NORTH YARMOUTH, ME

DATE	PROJECT
FEB. 2022	2022-0
DRAWN BY	SCALE
SR	1" = 20'

SHEET 2



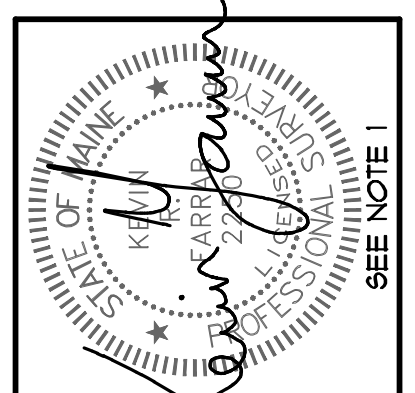
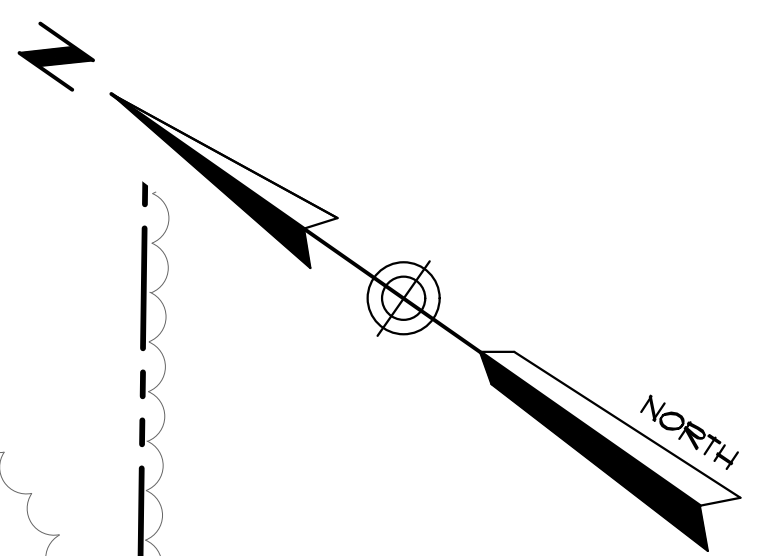
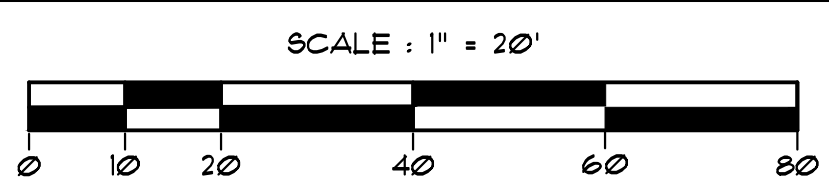
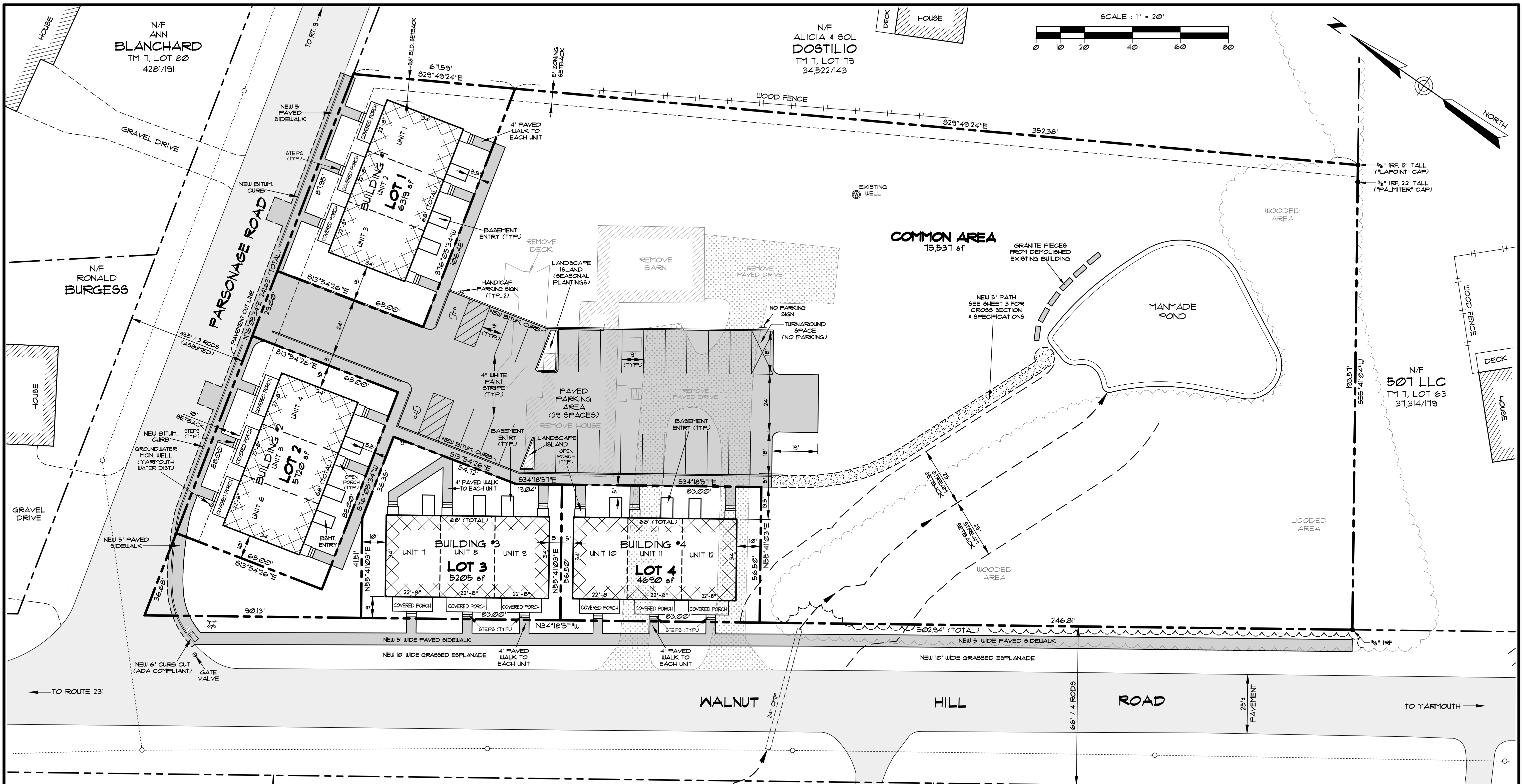
- NOTES**
- SEE SHEET NO. 1 FOR THE CONSERVATION AND COUNTRY
  - SEE SHEET NO. 2 FOR THE CONSERVATION AND COUNTRY
  - TOTAL PARCEL AREA - 93,741 SQ. FT. (2.14 ACRES)
  - THIS PLAN IS A PRELIMINARY DESIGN AND IS SUBJECT TO THE FINAL ENGINEERING DESIGN AND PERMITS FROM THE LOCAL AUTHORITIES.
  - THE PARCEL IS NOT LOCATED WITHIN A 100-YEAR FLOOD HAZARD AREA AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP PANEL 19089D DATED JULY 11, 2011.
  - ON-SITE UTILITY LOCATIONS TO BE DETERMINED BY THE UTILITY AUTHORITY.
  - SEE SHEET NO. 3 FOR THE CONSERVATION AND COUNTRY
  - SEE SHEET NO. 4 FOR THE CONSERVATION AND COUNTRY
  - SEE SHEET NO. 5 FOR THE CONSERVATION AND COUNTRY
  - SEE SHEET NO. 6 FOR THE CONSERVATION AND COUNTRY
  - SEE SHEET NO. 7 FOR THE CONSERVATION AND COUNTRY
  - SEE SHEET NO. 8 FOR THE CONSERVATION AND COUNTRY
  - SEE SHEET NO. 9 FOR THE CONSERVATION AND COUNTRY
  - SEE SHEET NO. 10 FOR THE CONSERVATION AND COUNTRY



- LEGEND**
- BOUNDARY LINE (SUBJECT PARCEL)
  - BOUNDARY LINE (OTHER)
  - EXISTING UTILITY POLE WITH OVERHEAD WIRES
  - EXISTING HYDRANT
  - EXISTING WATER SHUT OFF
  - PROPOSED TRANSFORMER PAD
  - EXISTING TREE (TO RETAIN)
  - PROPOSED WATER LINE
  - PROPOSED FIRE SUPPRESSION LINE (SPRINKLER)
  - PROPOSED SEWER LINE
  - PROPOSED WATER AND ELECTRIC LINE
  - PROPOSED CONTOUR
  - EXISTING BUILDING (ADJUTER)
  - PROPOSED BUILDING
  - EXISTING PAVEMENT
  - PROPOSED PAVEMENT
  - INSTALL EROSION CONTROL BLANKET
  - INSTALL SILT FENCE
  - DRAINAGE FLOW DIRECTION



1.2 = 80  
1" = 60.7



DATE	PROJECT
8-27-2022	RELOCATE WALNUT HILL ROAD SIDEWALK
1-16-2022	ADD STOCKADE FENCE
DATE:	CHANGES:
REV.:	BY:
2	SJR
1	SJR

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SJR ENGINEERING, INC.

**SJR ENGINEERING, INC.**  
 16 THURSTON DRIVE  
 MONMOUTH, MAINE 04259  
 (207) 242-6248 tel  
 steve@sjreng.com

**SUBDIVISION PLAN**  
**DEACON HAYES COMMONS**  
 521 WALNUT HILL ROAD - NORTH YARMOUTH MAINE  
 OWNER OF RECORD  
**527 LLC**  
 265 OAK HILL ROAD - NORTH YARMOUTH, ME

**LOT AREAS**  
 LOT 1 TOTAL = 6319 sf, IMPERVIOUS AREA = 3174 sf (50.2%)  
 LOT 2 TOTAL = 5120 sf, IMPERVIOUS AREA = 3201 sf (62.5%)  
 LOT 3 TOTAL = 5205 sf, IMPERVIOUS AREA = 3058 sf (58.8%)  
 LOT 4 TOTAL = 4690 sf, IMPERVIOUS AREA = 2943 sf (62.8%)  
 COMMON AREA = 15,531 sf, IMPERVIOUS AREA = 13,036 sf (84.0%)

**SITE TABULATIONS**  
 DEVELOPED PARCEL AREA = 91,471 sq. ft. / 2.24 ACRES  
**EXISTING**  
 BUILDING = 3,530 sf  
 PAVEMENT/PORCHES = 5,340 sf  
 IMPERVIOUS AREA = 9,410 sf (9.1%)  
 GREEN SPACE = 88,001 sf (90.3%)  
**PROPOSED**  
 BUILDINGS/PORCHES/STEPS/BULKHEADS = 11,340 sf  
 PAVEMENT/SIDEWALKS = 14,070 sf  
 IMPERVIOUS AREA = 25,410 sf (26.1%)  
 GREEN SPACE = 72,053 sf (73.9%)  
 29 PARKING SPACES (INCLUDES 2 HANDICAP)

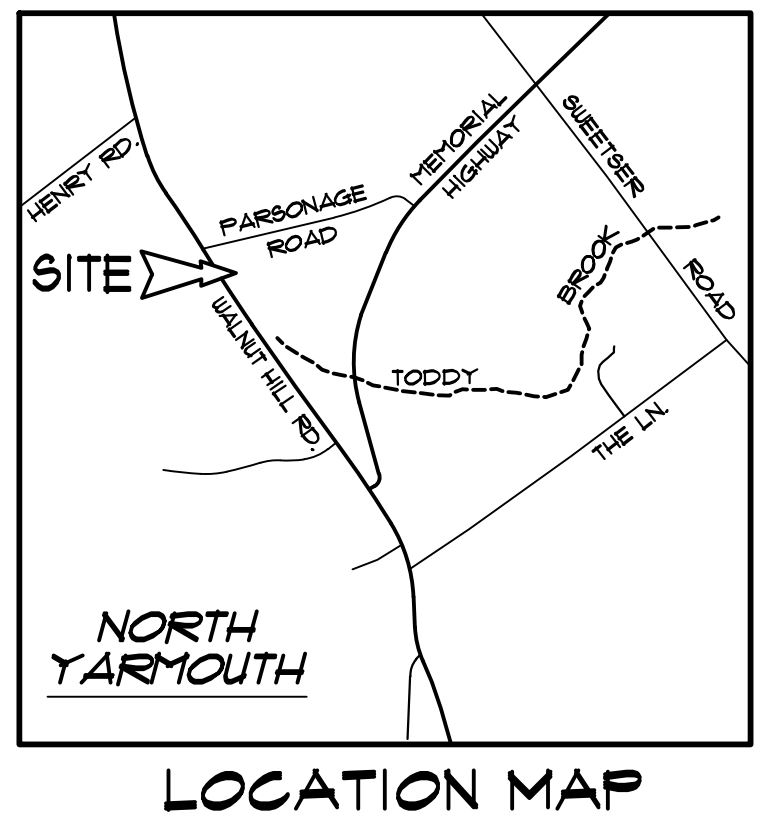
**ZONING REQUIREMENTS**  
 VILLAGE CENTER ZONING DISTRICT  
 MINIMUM LOT SIZE = 1 ACRE (REDUCED TO UNDER 20,000 sf PER SECTION 1, TABLE 12, SUBSCRIPT 4B OF THE NORTH YARMOUTH LAND USE ORDINANCE)  
 STREET FRONTAGE = 10' - 100'  
 STRUCTURE SETBACKS -  
 FRONT = 0' - 20' max.  
 SIDE = 25' max.  
 REAR = 5' min.  
 MAXIMUM STRUCTURE HEIGHT = 3 STORY, 50' max.

**RECORDING DATA**  
 CUMBERLAND COUNTY  
 REGISTRY OF DEEDS

RECEIVED \_\_\_\_\_  
 AT \_\_\_\_\_ h. \_\_\_\_\_ m. \_\_\_\_\_ M.  
 RECORDED IN \_\_\_\_\_  
 PLAN BOOK \_\_\_\_\_ PAGE \_\_\_\_\_  
 ATTEST \_\_\_\_\_  
 REGISTRAR

**LEGEND**

- BOUNDARY LINE (SUBJECT PARCELS)
- BOUNDARY LINE (OTHER)
- N/F NOW OR FORMERLY
- 35200/0356 BOOK AND PAGE NUMBER
- ⊕ EXISTING HYDRANT
- ⊖ EXISTING WATER SHUT OFF
- EXISTING UTILITY POLE WITH OVERHEAD WIRES
- EXISTING TREE LINE
- EXISTING BUILDING (TO BE REMOVED)
- EXISTING BUILDING (ABUTTER)
- PROPOSED BUILDING
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING PAVEMENT TO BE REMOVED



- NOTES**
- THIS CERTIFICATION IS LIMITED TO THE CREATION OF LOTS 1-4 AND THE COMMON AREA LOCATED WITHIN THE BOUNDARY LINES AS SHOWN ON A PLAN ENTITLED "BOUNDARY AND EXISTING CONDITIONS SURVEY MADE FOR ATLANTIC RESOURCE CONSULTANTS OF PROPERTY OF MAINE CAPITAL MORTGAGE, LLC", DATED MAY 6, 2021, PREPARED BY HORIZONS ENGINEERING. THESE LOTS AND COMMON AREA MEET THE MINIMUM LOT SIZE REQUIREMENTS OF SECTION 1, TABLE 12, SUBSCRIPT 4B OF THE NORTH YARMOUTH LAND USE ORDINANCE. FULL INDEPENDENT DEED RESEARCH WAS NOT PERFORMED AND PROPERTY CORNER MARKERS WERE NOT SET, THEREFORE THIS PLAN DOES NOT FULLY CONFORM TO THE STANDARDS OF PRACTICE OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.
  - ALL BOOK AND PAGE NUMBERS REFER TO THE CUMBERLAND COUNTRY REGISTRY OF DEEDS.
  - OWNER OF RECORD - 527 LLC  
 DEED REFERENCE - BOOK 38201, PAGE 160  
 TAX MAP T, LOT 62
  - THE LOCATION, DEPTH, SIZE & EXISTENCE OF UNDERGROUND UTILITY LINES, TANKS AND/OR STRUCTURES WAS NOT VERIFIED. CONTRACTOR SHALL CONTACT DIGSAFE/ON-TARGET PRIOR TO EXCAVATION TO CONFIRM THE LOCATION OF ALL PUBLIC & PRIVATE UTILITIES WITHIN THE PROJECT AREA.
  - THE PARCEL IS LOCATED IN THE VILLAGE CENTER ZONING DISTRICT AND THE GROUNDWATER PROTECTION OVERLAY ZONE.
  - THE PARCEL IS NOT LOCATED WITHIN A 100-YEAR FLOOD HAZARD AREA AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP, PANEL 230202 0010B, DATED JULY 16, 1991.
  - ON-SITE UTILITY LOCATIONS TO BE DETERMINED BY THE UTILITY AUTHORITY.
  - SEE WETLAND DELINEATION REPORT DATED MAY 26, 2021 AND SEPTIC DESIGN ON HIE-200 FORM 18 DATED MARCH 9, 2022, BOTH BY MARK CENSI ASSOCIATES.

N/F JONATHAN & GINA  
**LAMARCHE**  
 TM 1, LOT 40  
 35,924/220

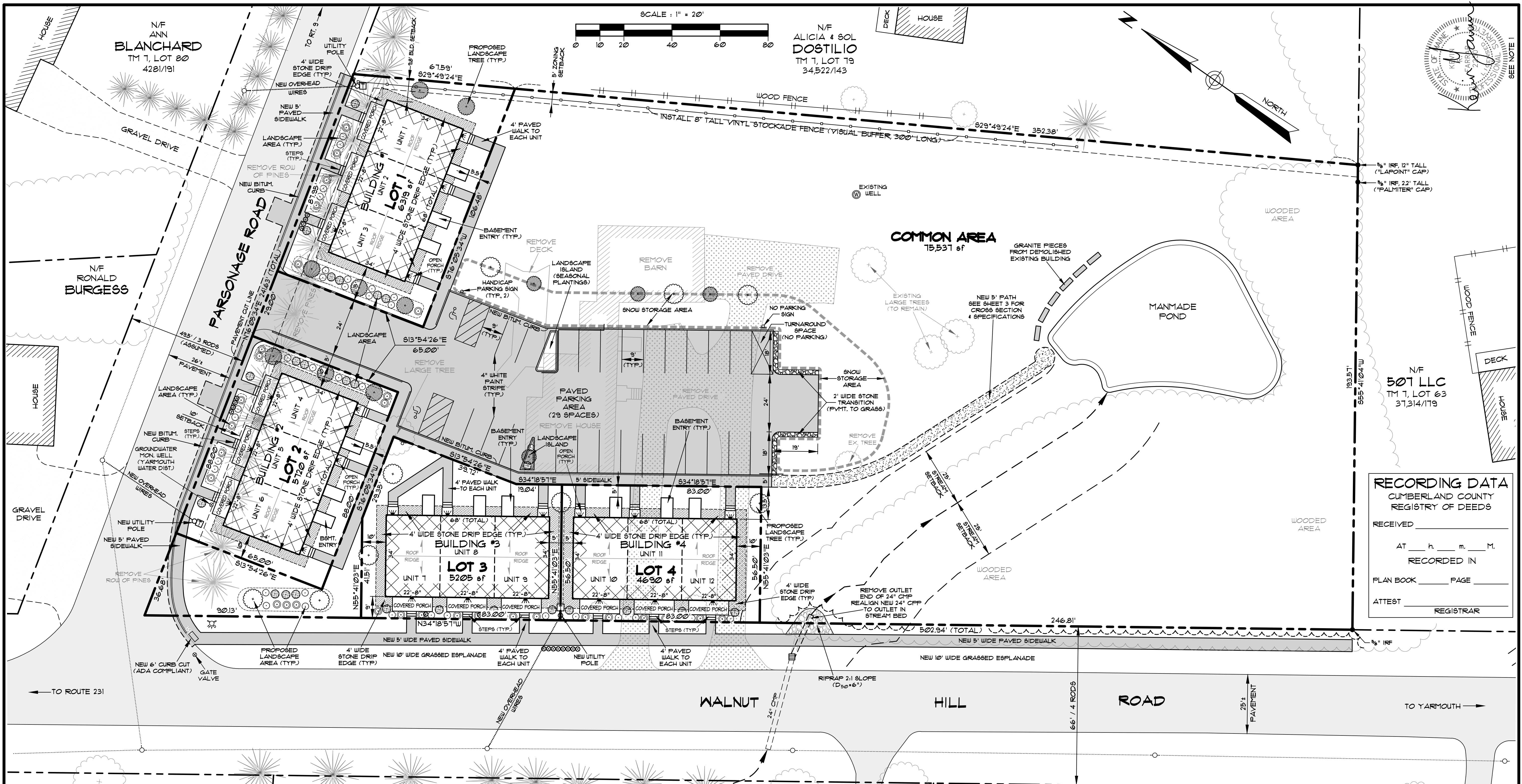
**APPROVAL**  
 APPROVED BY THE TOWN OF NORTH YARMOUTH PLANNING BOARD

\_\_\_\_\_  
 CHAIRMAN

DATE \_\_\_\_\_

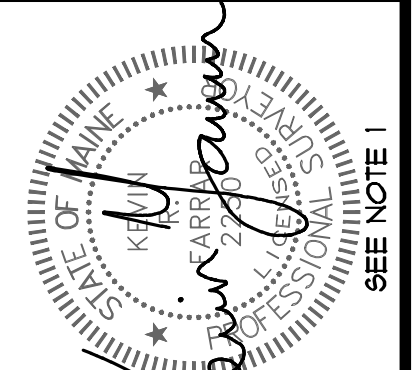
DATE	PROJECT
6-28-2022	2022-12
DRAWN BY	SCALE
SJR	1" = 20'

**SHEET SUB-1**



SCALE: 1" = 20'

N/F ALICIA & SOL DOSTILIO  
TM 1, LOT 19  
34,522/143



FOR APPROVALS ONLY

**RECORDING DATA**  
CUMBERLAND COUNTY  
REGISTRY OF DEEDS

RECEIVED \_\_\_\_\_  
AT \_\_\_\_\_ h \_\_\_\_\_ m \_\_\_\_\_ s  
RECORDED IN \_\_\_\_\_  
PLAN BOOK \_\_\_\_\_ PAGE \_\_\_\_\_  
ATTEST \_\_\_\_\_ REGISTRAR

REV.	BY:	DATE:	CHANGES:
1	SJR	8-27-2022	RELOCATE WALNUT HILL ROAD SIDEWALK
2	SJR	1-22-2022	REMOVE PROPANE ADD BEARING DISTANCES RECORDING BLOCK
3	SJR	1-16-2022	RELOCATE LANDSCAPE AREA ADD STOCKADE FENCE
4	SJR	6-28-2022	RELOCATE TREES ADD SNOW STORAGE 4 UNIT NUMBERS
5	SJR	6-24-2022	ADD LOTS, ADD LOT AREA TABLE, EXTEND SIDEWALK
6	SJR	6-18-2022	ADD PARCEL TO BE CONVERTED TO 507 LLC
7	SJR	5-27-2022	REDO BUILDING 9 ZONES, ADD FENCE, LANDSCAPE CHANGES

**SJR ENGINEERING, INC.**  
16 THURSTON DRIVE  
MONMOUTH MAINE 04259  
(207) 242-6248 tel  
steve@sjeing.com

**LOT AREAS**

LOT 1 TOTAL = 6319 sf, IMPERVIOUS AREA = 3174 sf (50.2%)
LOT 2 TOTAL = 5120 sf, IMPERVIOUS AREA = 3201 sf (62.5%)
LOT 3 TOTAL = 5205 sf, IMPERVIOUS AREA = 3058 sf (58.9%)
LOT 4 TOTAL = 4690 sf, IMPERVIOUS AREA = 2943 sf (62.8%)
COMMON AREA = 15,531 sf, IMPERVIOUS AREA = 13,036 sf (84.0%)

**SITE TABULATIONS**

DEVELOPED PARCEL AREA = 91,471 sq. ft. / 2.24 ACRES

**EXISTING**

BUILDING = 3,530 sf
PAVEMENT/PORCHES = 5,940 sf
IMPERVIOUS AREA = 9,470 sf (9.1%)
GREEN SPACE = 88,001 sf (90.3%)

**PROPOSED**

BUILDINGS/PORCHES/STEPS/BULKHEADS = 11,340 sf
PAVEMENT/SIDEWALKS = 14,078 sf
IMPERVIOUS AREA = 25,418 sf (26.1%)
GREEN SPACE = 12,053 sf (13.9%)

**LANDSCAPE LEGEND**

- NEW MAPLE
- NEW BIRCH
- LANDSCAPING AREA - MIX OF FOUNTAIN GRASS, HOSTA, DIANTHUS, COSMOS & CORAL HONEYSUCKLE

**ZONING REQUIREMENTS**  
VILLAGE CENTER ZONING DISTRICT

MINIMUM LOT SIZE = 1 ACRE (REDUCED TO UNDER 20,000 sf PER SECTION 1, TABLE 12, SUBSCRIPT 4B OF THE NORTH YARMOUTH LAND USE ORDINANCE)

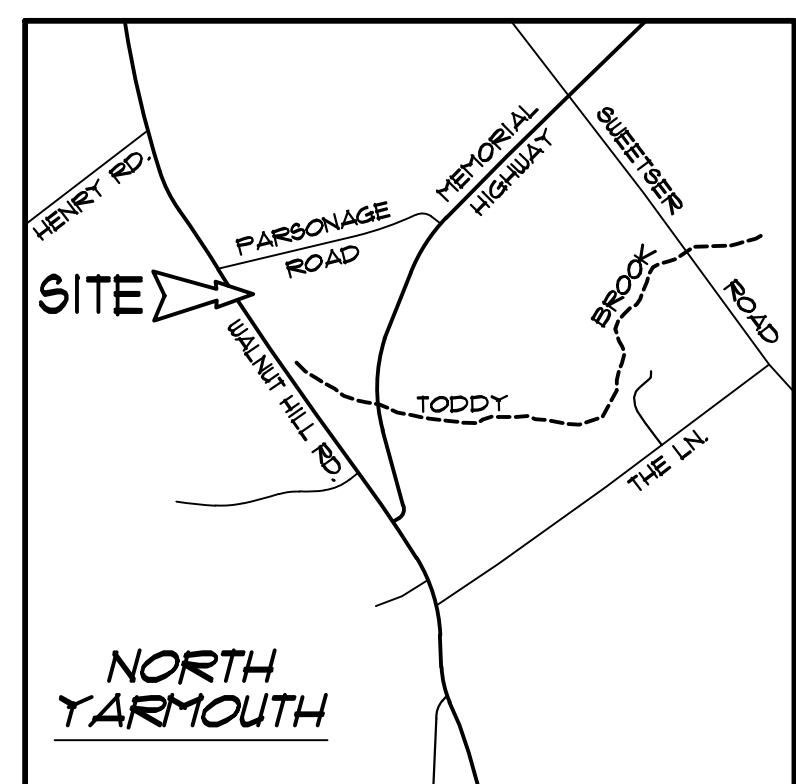
STREET FRONTAGE = 18' - 100'

STRUCTURE SETBACKS -  
FRONT = 20'-20' max.  
SIDE = 25' max.  
REAR = 5' min.

MAXIMUM STRUCTURE HEIGHT = 3 STORY, 50' max.

**LEGEND**

N/F 35200/356	BOUNDARY LINE (SUBJECT PARCEL)
---	BOUNDARY LINE (OTHER)
---	NOW OR FORMERLY
---	BOOK AND PAGE NUMBER
---	EXISTING HYDRANT
---	EXISTING WATER SHUT OFF
---	EXISTING UTILITY POLE WITH OVERHEAD WIRES
---	PROPOSED CATCH BASIN
---	PROPOSED TRANSFORMER PAD
---	NEW WALL MOUNTED EXTERIOR LIGHT
---	EXISTING TREE LINE (TO REMAIN)
---	EXISTING BUILDING (TO BE REMOVED)
---	EXISTING BUILDING (ABUTTER)
---	PROPOSED BUILDING
---	EXISTING PAVEMENT
---	PROPOSED PAVEMENT
---	EXISTING PAVEMENT TO BE REMOVED



- NOTES**
- THIS CERTIFICATION IS LIMITED TO THE CREATION OF LOTS 1-4 AND THE COMMON AREA LOCATED WITHIN THE BOUNDARY LINES AS SHOWN ON A PLAN ENTITLED "BOUNDARY AND EXISTING CONDITIONS SURVEY MADE FOR ATLANTIC RESOURCE CONSULTANTS OF PROPERTY OF MAINE CAPITAL MORTGAGE, LLC", DATED MAY 6, 2021, PREPARED BY HORIZONS ENGINEERING. THESE LOTS AND COMMON AREA MEET THE MINIMUM LOT SIZE REQUIREMENTS OF SECTION 1, TABLE 12, SUBSCRIPT 4B OF THE NORTH YARMOUTH LAND USE ORDINANCE. FULL INDEPENDENT DEED RESEARCH WAS NOT PERFORMED AND PROPERTY CORNER MARKERS WERE NOT SET, THEREFORE THIS PLAN DOES NOT FULLY CONFORM TO THE STANDARDS OF PRACTICE OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS. ALL BOOK AND PAGE NUMBERS REFER TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
  - OWNER OF RECORD - 527 LLC  
DEED REFERENCE - BOOK 38201, PAGE 160  
TAX MAP 1, LOT 62
  - EXISTING CONDITIONS ARE BASED ON A PLAN ENTITLED "WALNUT HILL ROAD DEVELOPMENT - TOWNHOUSES SITE LAYOUT", DATED AUGUST 15, 2021, PREPARED BY ATLANTIC RESOURCE CONSULTANTS.
  - THE LOCATION, DEPTH SIZE & EXISTENCE OF UNDERGROUND UTILITY LINES, TANKS AND/OR STRUCTURES WAS NOT VERIFIED. CONTRACTOR SHALL CONTACT DIGSAFE/ON-TARGET PRIOR TO EXCAVATION TO CONFIRM THE LOCATION OF ALL PUBLIC & PRIVATE UTILITIES WITHIN THE PROJECT AREA.
  - THE PARCEL IS LOCATED IN THE VILLAGE CENTER ZONING DISTRICT AND THE GROUNDWATER PROTECTION OVERLAY ZONE.
  - THE PARCEL IS NOT LOCATED WITHIN A 100-YEAR FLOOD HAZARD AREA AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP, PANEL 1230202 0010B, DATED JULY 16, 1981.
  - ON-SITE UTILITY LOCATIONS TO BE DETERMINED BY THE UTILITY AUTHORITY.
  - SEE WETLAND DELINEATION REPORT DATED MAY 26, 2021 AND SEPTIC DESIGN ON HIE-200 FOR 19 DATED MARCH 9, 2022, BOTH BY MARK GENI ASSOCIATES.

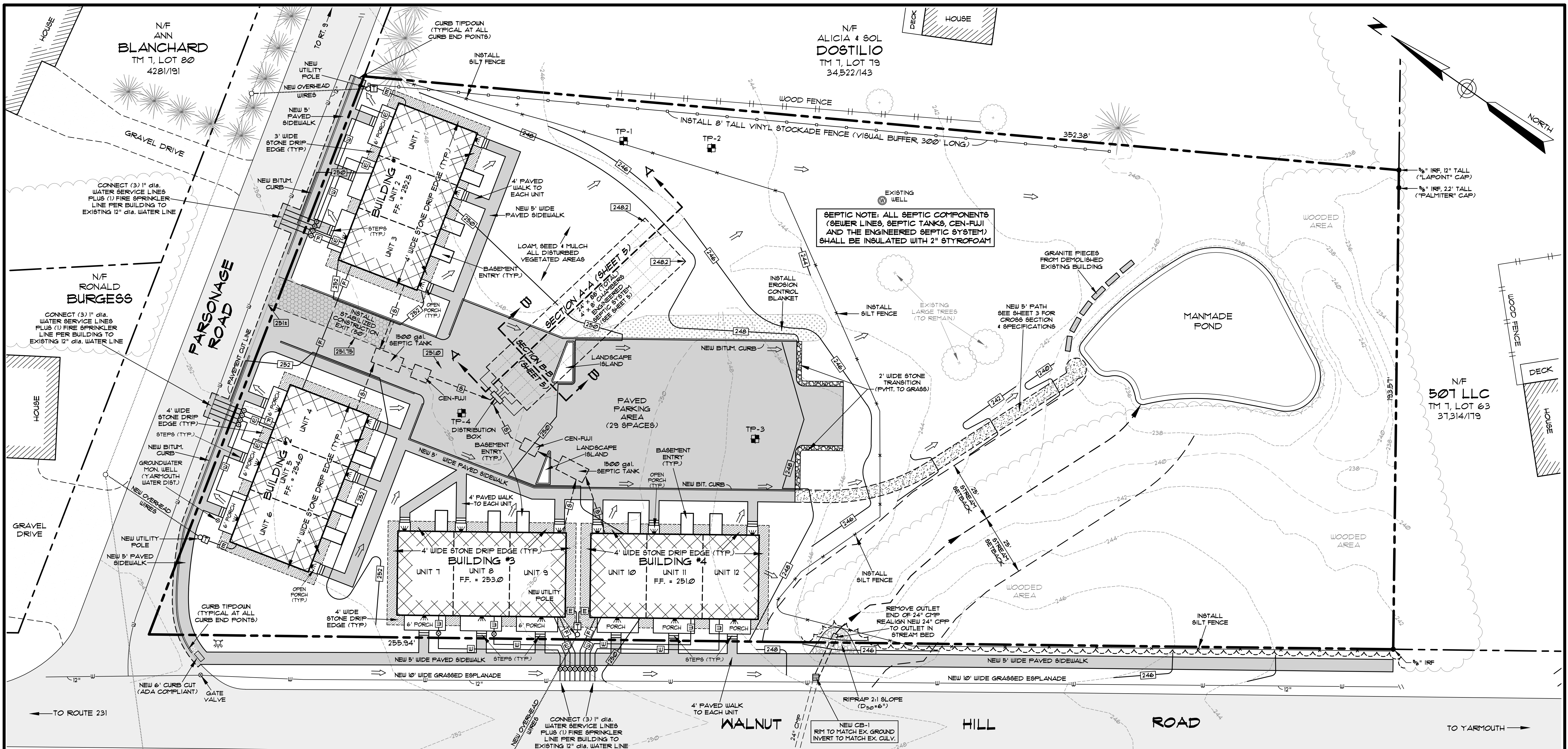
N/F JONATHAN & GINA LAMARCHE  
TM 1, LOT 40  
35,924/220

**APPROVAL**

APPROVED BY THE TOWN OF NORTH YARMOUTH PLANNING BOARD

DATE	PROJECT
FEB. 2022	2022-12
DRAWN BY	SCALE
SJR	1" = 20'
DATE	CHAIRMAN

**SITE & DEMOLITION PLAN**  
DEACON HAYES COMMONS  
527 WALNUT HILL ROAD - NORTH YARMOUTH MAINE  
OWNER OF RECORD  
527 LLC  
865 OAK HILL ROAD - NORTH YARMOUTH, ME

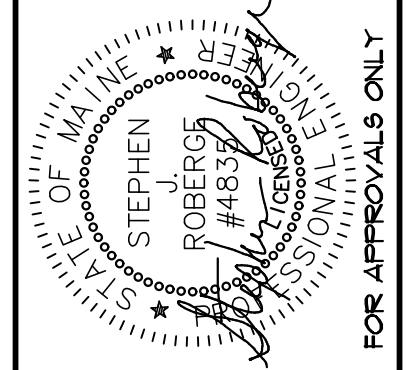
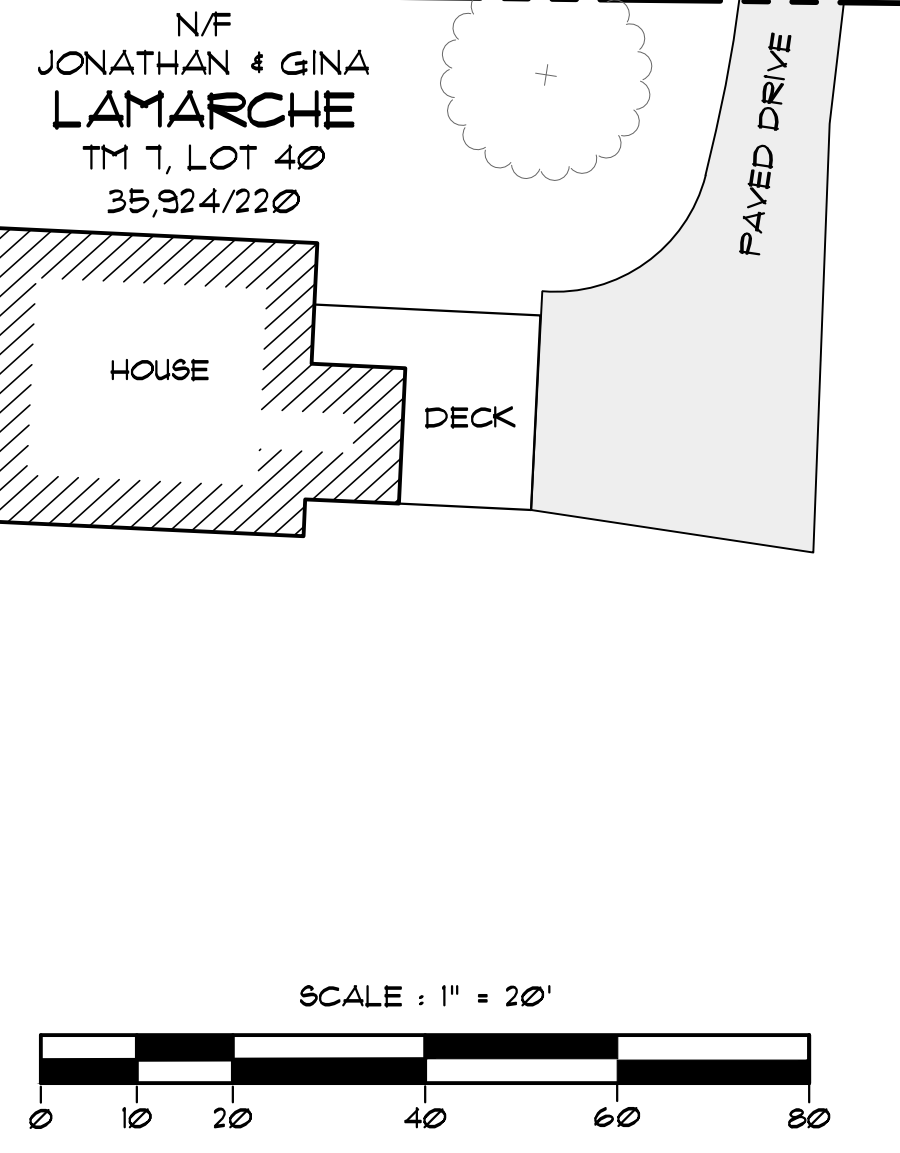
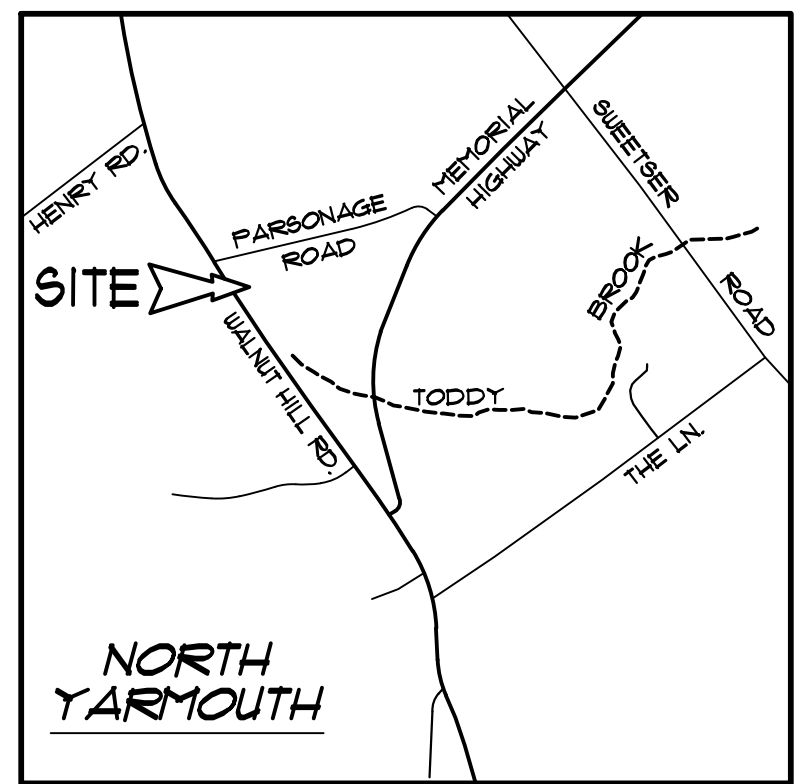


**SEPTIC NOTE:** ALL SEPTIC COMPONENTS (SEWER LINES, SEPTIC TANKS, CEN-FLUI AND THE ENGINEERED SEPTIC SYSTEM) SHALL BE INSULATED WITH 2" STYROFOAM

**LEGEND**

---	BOUNDARY LINE (SUBJECT PARCEL)
---	BOUNDARY LINE (OTHER)
N/F	NOW OR FORMERLY
35200/356	BOOK AND PAGE NUMBER
○	EXISTING UTILITY POLE WITH OVERHEAD WIRES
⊕	EXISTING HYDRANT
⊗	EXISTING WATER SHUT OFF
⊠	PROPOSED TRANSFORMER PAD
⊡	PROPOSED CATCH BASIN
⊞	EXISTING TREE LINE (TO REMAIN)
— —	PROPOSED WATER LINE
— —	PROPOSED FIRE SUPPRESSION LINE (SPRINKLER)
— —	PROPOSED SEWER LINE
— —	PROPOSED UNDERGROUND ELECTRIC LINE
— —	PROPOSED CONTOUR
248	EXISTING CONTOUR
▨	EXISTING BUILDING (ABUTTER)
▩	PROPOSED BUILDING
▧	EXISTING PAVEMENT
▦	PROPOSED PAVEMENT
▤	INSTALL EROSION CONTROL BLANKET
— —	INSTALL SILT FENCE
→	DRAINAGE FLOW DIRECTION

- NOTES**
- 1) ALL BOOK AND PAGE NUMBERS REFER TO THE CUMBERLAND COUNTRY REGISTRY OF DEEDS.
  - 2) OWNER OF RECORD - 527 LLC DEED REFERENCE - BOOK 38201, PAGE 160 TAX MAP 7, LOT 62
  - 3) TOTAL PARCEL AREA = 91,471 sq. ft. / 2.24 ACRES
  - 4) EXISTING CONDITIONS ARE BASED ON A PLAN ENTITLED "WALNUT HILL ROAD DEVELOPMENT - TOWNHOUSES SITE LAYOUT", DATED AUGUST 15, 2021, PREPARED BY ATLANTIC RESOURCE CONSULTANTS.
  - 5) THE LOCATION, DEPTH SIZE & EXISTENCE OF UNDERGROUND UTILITY LINES, TANKS AND/OR STRUCTURES WAS NOT VERIFIED. CONTRACTOR SHALL CONTACT DIGSAFE/ON-TARGET PRIOR TO EXCAVATION TO CONFIRM THE LOCATION OF ALL PUBLIC & PRIVATE UTILITIES WITHIN THE PROJECT AREA.
  - 6) THE PARCEL IS LOCATED IN THE VILLAGE CENTER ZONING DISTRICT AND THE GROUNDWATER PROTECTION OVERLAY ZONE.
  - 7) THE PARCEL IS NOT LOCATED WITHIN A 100-YEAR FLOOD HAZARD AREA AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP, PANEL 230202 0010B, DATED JULY 16, 1981.
  - 8) ON-SITE UTILITY LOCATIONS TO BE DETERMINED BY THE UTILITY AUTHORITY.
  - 9) SOILS WITHIN THE SITE'S WATERSHED ARE "HINCKLEY LOAMY SAND", 3% - 8% SLOPES, HYDROLOGIC SOIL TYPE 'A'.
  - 10) ALL DISTURBED AREAS NOT PAVED OR BUILT UPON SHALL BE LOAMED, SEEDED & MULCHED.
  - 11) SEE WETLAND DELINEATION REPORT DATED MAY 26, 2021 AND SEPTIC DESIGN ON HHE-200 FORMS DATED MARCH 9, 2022, BOTH BY MARK CENSI ASSOCIATES.



REV.	DATE	BY	DESCRIPTION
1	8-27-2022	SJR	RELOCATE WALNUT HILL RD. SIDEWALK, NEW SEPTIC
2	1-22-2022	SJR	RELOCATE PROpane TANKS, ADD STOCKADE FENCE
3	1-16-2022	SJR	RELOCATE PROpane TANKS, ADD STOCKADE FENCE
4	6-28-2022	SJR	LABEL UNITS, WATERLINE SERVICE REVISIONS
5	6-24-2022	SJR	EXTEND SIDEWALK, RELOCATE WATER LINES
6	6-18-2022	SJR	ADD PARCEL TO BE CONVERTED TO 507 LLC
7	5-27-2022	SJR	RECONFIGURE BUILDING SIZES

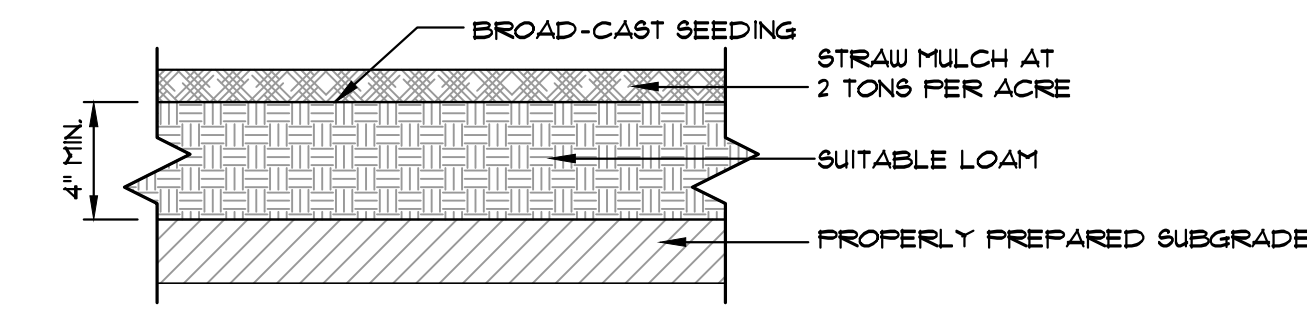
**SJR ENGINEERING, INC.**  
 16 THURSTON DRIVE  
 MONMOUTH, MAINE 04259  
 (207) 242-6248  
 sjr@sjr-engineering.com

**GRADING & EROSION CONTROL PLAN**  
**DEACON HAYES COMMONS**  
 527 WALNUT HILL ROAD - NORTH YARMOUTH MAINE  
 PREPARED FOR  
**527 LLC**  
 865 OAK HILL ROAD - NORTH YARMOUTH, ME

DATE	PROJECT
FEB. 2022	2022-12
DRAWN BY	SCALE
SJR	1" = 20'

**SHEET 2**

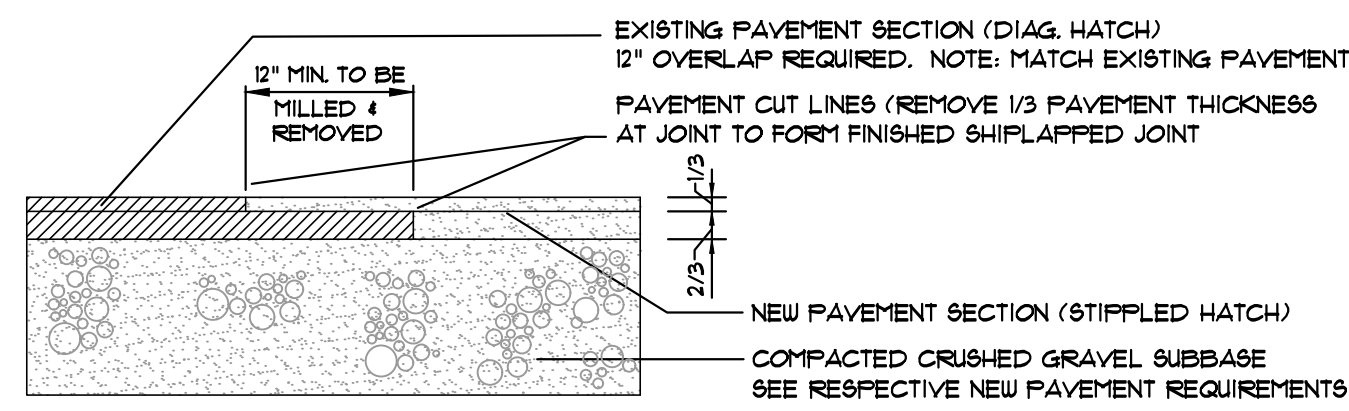




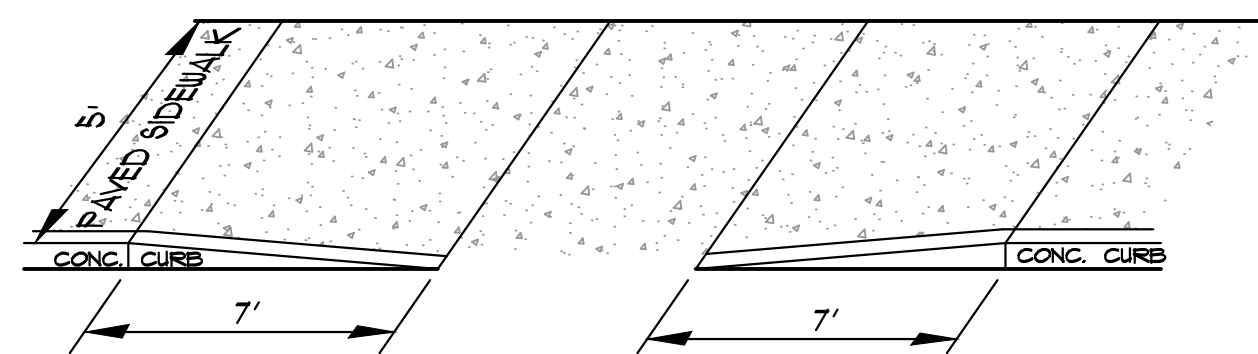
PERMANENT SEED MIX	APPLICATION RATE
KENTUCKY BLUEGRASS	46
CREeping RED FESCUE	46
PERENNIAL RYEGRASS	11
TOTAL SEED RATE	103

PLACE LOAM & SEED ON ALL DISTURBED AREAS NOT TO BE RIP RAPPED OR GRAVELED

**LOAM & SEED DETAIL**  
NOT TO SCALE

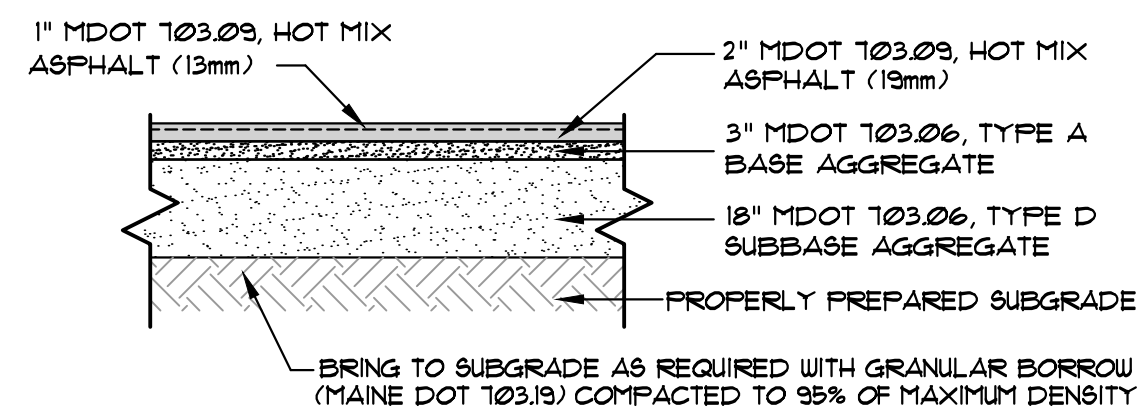


**PAVEMENT SAWCUT JOINT DETAIL**  
NOT TO SCALE



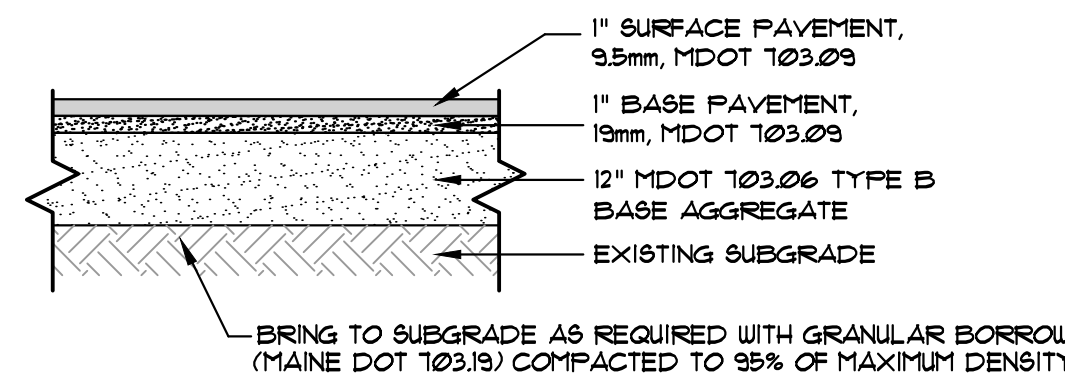
- NOTES:**
- 1) THE DIMENSIONS SHOWN AT ROADWAY EDGE ARE FIXED DISTANCES.
  - 2) RAMP CROSS SECTION TO BE SAME AS ADJACENT SIDEWALK (DEPTH OF SURFACE AND FOUNDATION)
  - 3) IN NO CASE ARE THE RAMPS TO BE PLACED BEHIND THE STOP LINE.

**SIDEWALK TIPDOWN DETAIL**  
NOT TO SCALE

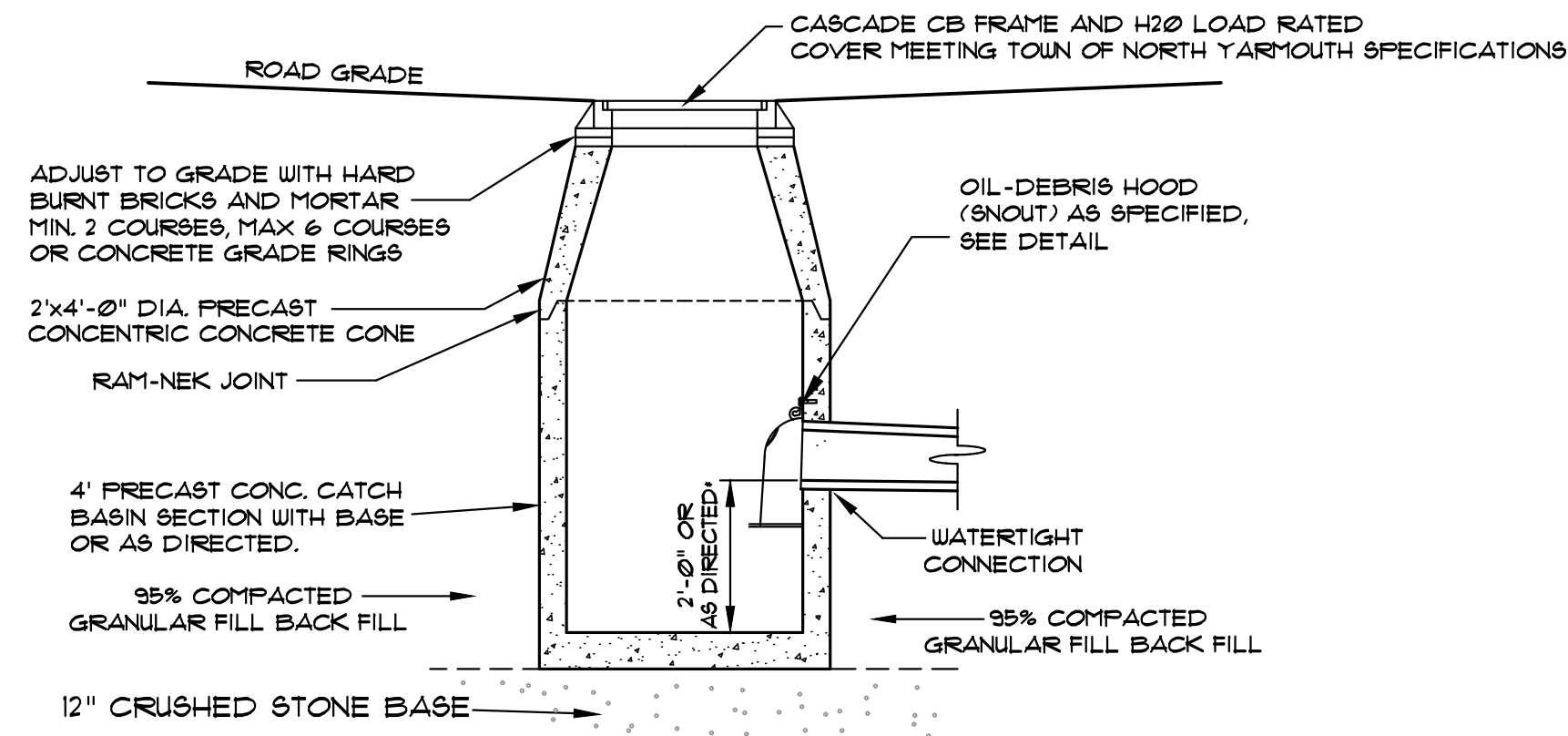


- NOTES:**
- 1) COMPACT GRAVEL SUBBASE BASE COURSE TO 95% OF THEIR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557.
  - 2) HOT MIX ASPHALT PAVEMENT MUST BE COMPACTED TO 92%-93% OF ITS THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D-2041.
  - 3) A TACK COAT MUST BE USED BETWEEN SUCCESSIVE LIFTS OF BITUMINOUS PAVEMENT.
  - 4) PROVIDE NON-FROST SUSCEPTIBLE COMPACTED FILL GRANULAR BORROW (MDOT 103.19) BELOW PAVEMENT IN FILL AREAS.
  - 5) CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

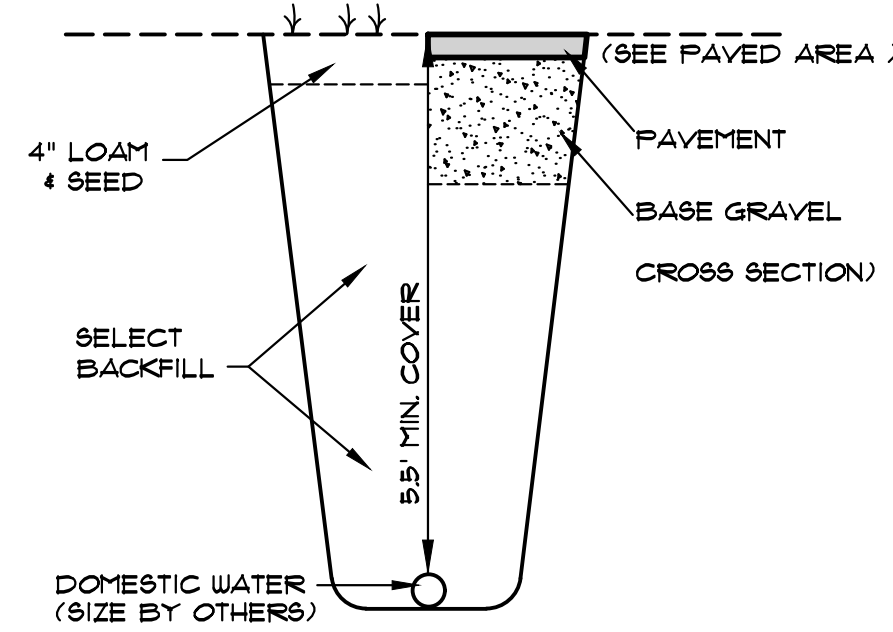
**PAVED AREA CROSS SECTION**  
NOT TO SCALE



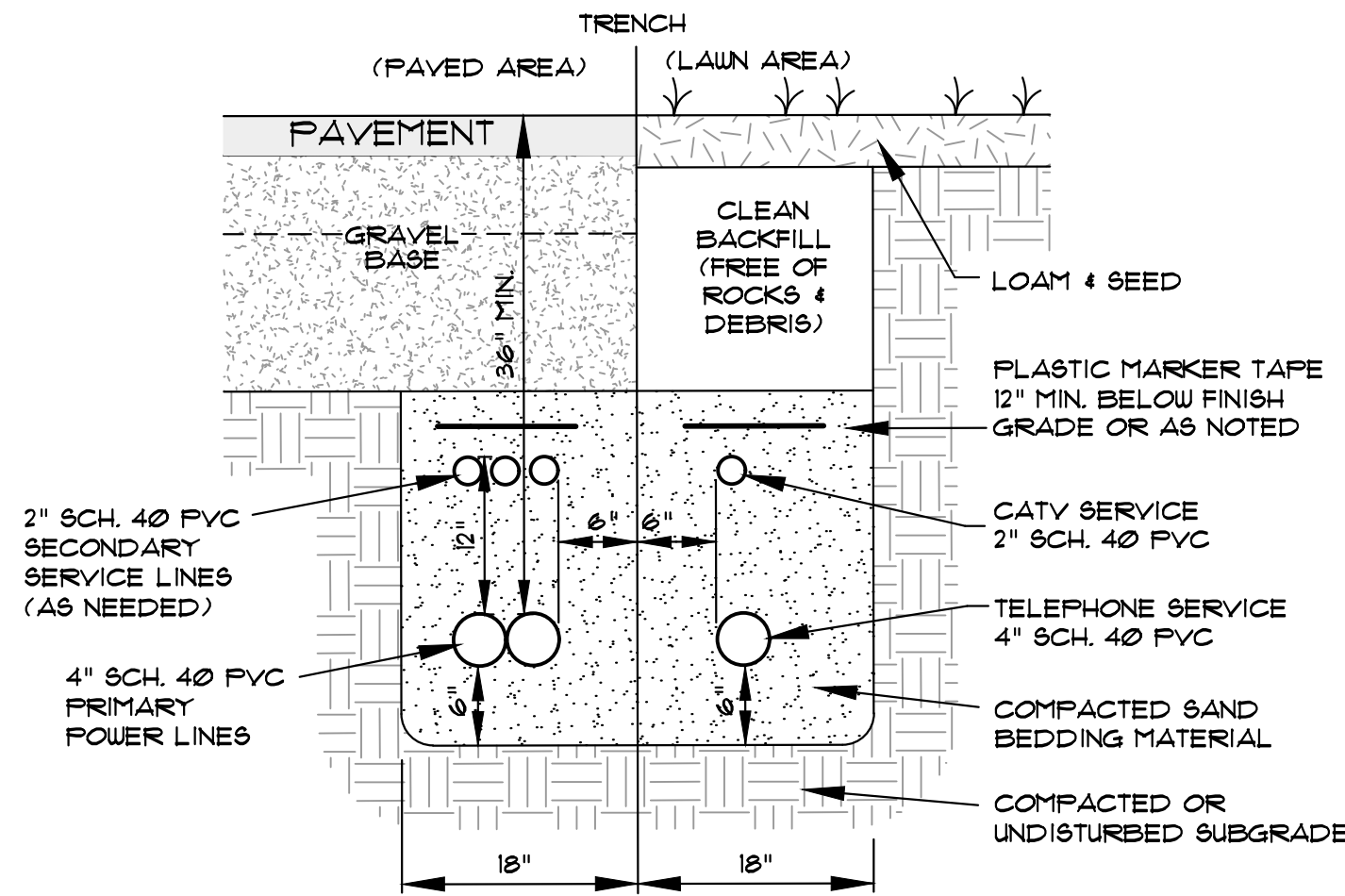
**SIDEWALK CROSS SECTION**  
NOT TO SCALE



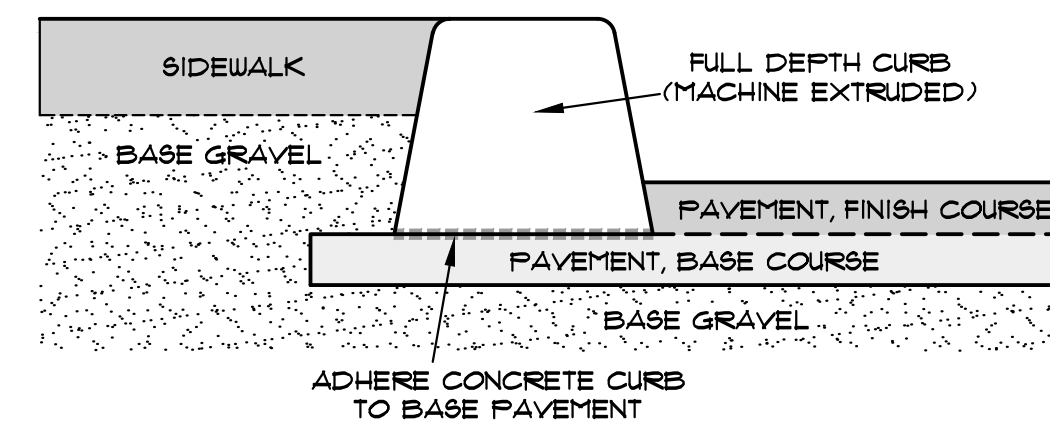
**4'-0" DIA. CATCH BASIN**  
NOT TO SCALE



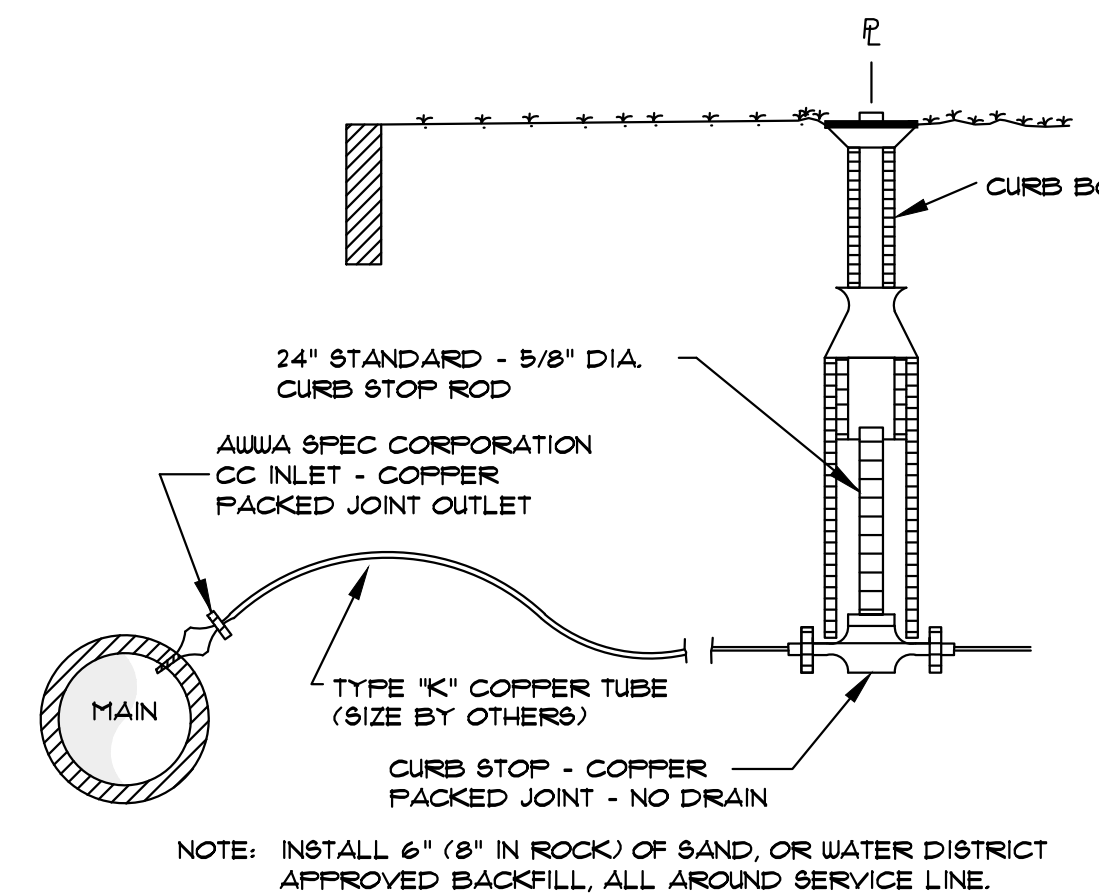
**WATER SERVICE TRENCH DETAIL**  
NOT TO SCALE



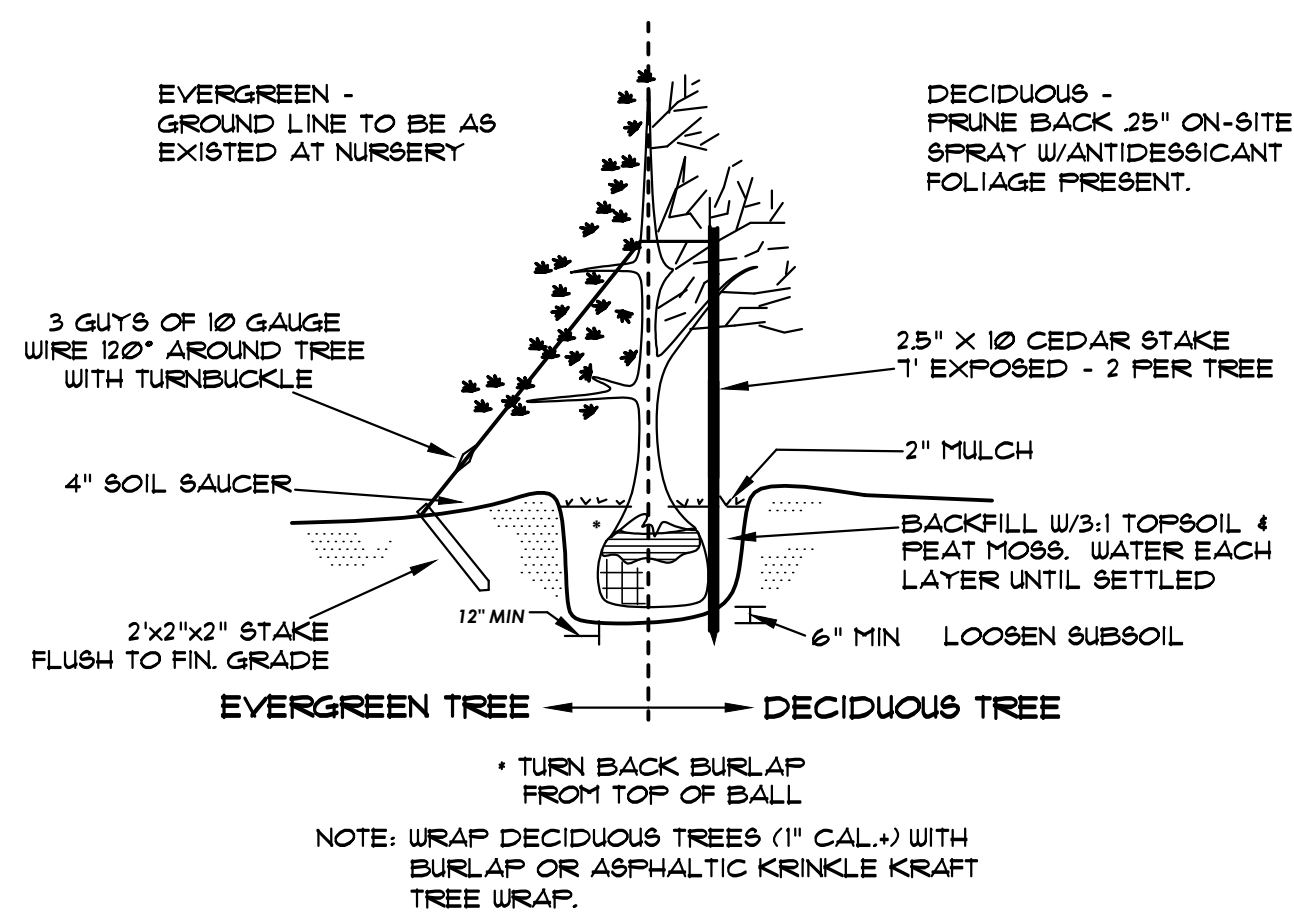
**UNDERGROUND UTILITY TRENCH DETAIL**  
NOT TO SCALE



**CONCRETE CURB CROSS SECTION**  
NOT TO SCALE



**TYPICAL DOMESTIC WATER SERVICE**  
NOT TO SCALE



**TREE PLANTING DETAIL**  
NOT TO SCALE

**GENERAL NOTES**

- 1) SEE SHEET 1 FOR SITE SPECIFIC NOTES.
- 2) THE CONTRACT WORK TO BE PERFORMED ON THIS PROJECT CONSISTS OF FURNISHING ALL REQUIRED LABOR, MATERIALS, EQUIPMENT, IMPLEMENTS, PARTS AND SUPPLIES NECESSARY FOR OR APPURTENANT TO, THE INSTALLATION OF CONSTRUCTION IMPROVEMENTS IN ACCORDANCE WITH THESE DRAWINGS AND AS FURTHER ELABORATED IN ANY ACCOMPANYING SPECIFICATIONS.
- 3) THE WORK SHALL BE PERFORMED IN A THOROUGH WORKMANLIKE MANNER. ALL CONTRACTORS TO CONFORM TO ALL APPLICABLE OSHA STANDARDS. ANY REFERENCE TO A SPECIFICATION OR DESIGNATION OF THE AMERICAN SOCIETY FOR TESTING MATERIALS, FEDERAL SPECIFICATIONS, OR OTHER STANDARDS, CODES OR ORDERS, REFERS TO THE MOST RECENT OR LATEST SPECIFICATION OR DESIGNATION.
- 4) ALL CONSTRUCTION WITHIN THE TOWN OF NORTH YARMOUTH RIGHT OF WAY SHALL COMPLY WITH CITY PUBLIC WORKS STANDARDS. ALL UTILITY CONSTRUCTION SHALL CONFORM TO RESPECTIVE UTILITY STANDARDS.
- 5) THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED BY THE TOWN OF NORTH YARMOUTH PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE CITY OF AUGUSTA AND/OR MDOT, REQUIRED TO PERFORM ALL THE WORK (STREET OPENINGS, BUILDING PERMIT, ETC.). THE CONTRACTOR SHALL POST ALL BONDS AS REQUIRED, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
- 6) PRIOR TO CONSTRUCTION, THE SITE CONTRACTOR IS TO INFORM ALL AREA UTILITY COMPANIES AND GOVERNMENTAL AGENCIES OF PLANNED CONSTRUCTION. THE SITE CONTRACTOR IS REQUIRED TO CONTACT DIG-SAFE (811) AT LEAST 3 BUSINESS DAYS PRIOR TO ANY EXCAVATION TO VERIFY ALL UNDERGROUND AND OVERHEAD UTILITY LOCATIONS.
- 7) THE PROJECT DRAWINGS ARE GENERALLY SCHEMATIC AND INDICATE THE POSSIBLE LOCATION OF EXISTING UNDERGROUND UTILITIES. INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY MAPS, MUNICIPAL RECORD MAPS, AND FIELD SURVEY. IT IS NOT GUARANTEED TO BE CORRECT OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES, INCLUDING SERVICES, WHEN THOSE SERVICES ARE TO BE LEFT IN PLACE. THE CONTRACTOR IS TO PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING THE EXCAVATING AND BACKFILLING OPERATIONS. SHOULD ANY UNCHARTERED OR INCORRECTLY CHARTERED UTILITIES BE FOUND, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH THE WORK IN THIS AREA.
- 8) OSHA REGULATIONS MAKE IT UNLAWFUL TO OPERATE CRANES, BOOMS, HOISTS, ETC. WITHIN TEN FEET (10') OF ANY ELECTRIC LINE. IF THE CONTRACTOR MUST OPERATE CLOSER THAN 10', THE CONTRACTOR MUST CONTACT THE POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS BEFORE ENCRUCHING ON THIS REQUIREMENT.
- 9) IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLANS, APPROVALS, AND DETAILS FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL THE SITE CONDITIONS IN THE FIELD AND CONTACT THE DESIGN ENGINEER IF THERE ARE ANY DISCREPANCIES REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT AN APPROPRIATE REVISION CAN BE MADE PRIOR TO BIDDING.
- 10) ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED IN WRITING BY THE OWNER, DESIGN ENGINEER, AND APPROPRIATE GOVERNMENTAL AGENCY PRIOR TO INSTALLATION.
- 11) THE CONTRACTOR SHALL RESTORE ALL UTILITY STRUCTURES, PIPE, UTILITIES, PAVEMENT, CURBS, SIDEWALKS, AND LANDSCAPED AREAS DISTURBED BY CONSTRUCTION TO AS GOOD AS BEFORE BEING DISTURBED AS DETERMINED BY THE CITY OF AUGUSTA CEO. ANY DAMAGES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 12) TRAFFIC CONTROL MEASURES SHALL BE UTILIZED IN ACCORDANCE WITH MAINE DOT STANDARDS. THE CONTRACTOR SHALL PROVIDE, MAINTAIN AND PROTECT TRAFFIC CONTROL DEVICES TO THE EXTENT REQUIRED BY LAW FOR THE PROTECTION OF THE PUBLIC CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES, AND UNIFORMED TRAFFIC CONTROL PERSONNEL AS REQUIRED OR ORDERED BY THE DESIGN ENGINEER OR CODE ENFORCEMENT PERSONNEL. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE TOWN. PAVEMENT MARKINGS SHALL BE FAST DRYING TYPE IN ACCORDANCE WITH MDOT SPECIFICATIONS. TWELVE INCH (12") WIDE STOP BAR AND FOUR INCH (4") WIDE STRIFES SHALL BE LOCATED AS SHOWN ON THE PLANS.
- 13) THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL PRODUCT, MATERIALS AND PLANT SPECIFICATIONS TO THE OWNER AND DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW.
- 14) THE CONTRACTOR SHALL RETAIN AN INDEPENDENT TESTING LABORATORY FOR SOIL AND PAVEMENT MATERIALS AND COMPACTION TESTING AT NO COST TO THE OWNER. RESULTS OF THE TESTING ARE TO BE SUPPLIED TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS ASSOCIATED WITH ANY RECONSTRUCTION AND RE-TESTING OF UNSATISFACTORY SOILS.
- 15) ALL EXCAVATION SHALL BE BACKFILLED TO EXISTING GRADE BEFORE THE END OF THE DAY OR ADEQUATELY PROTECTED FROM DANGER TO HUMANS AND ANIMALS.
- 16) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL FIELD LAYOUT. THE OWNER WILL PROVIDE A BENCH MARK AT THE CONSTRUCTION SITE FROM WHICH TO BEGIN LAYOUT.
- 17) THE CONTRACTOR SHALL FURNISH ELECTRICAL POWER, WATER, AND SANITARY FACILITIES FOR HIS EXCLUSIVE USE AT THE CONSTRUCTION SITE SHOULD THE CONTRACTOR DEEM THIS ESSENTIAL FOR THE PROPER PERFORMANCE OF THE CONTRACT.
- 18) WORK MAY PROGRESS MONDAY THROUGH SATURDAY 7:00 AM TO 7:00 PM. WORK AT OTHER TIMES MAY PROCEED UPON WRITTEN APPROVAL BY THE OWNER AND THE TOWN OF NORTH YARMOUTH. THE CONTRACTOR SHALL BE REQUIRED TO CONFORM WITH ALL RULES AND REGULATIONS SET FORTH IN THE CITY LAND USE ORDINANCE REGULATIONS.
- 19) THE CONTRACTOR SHALL GUARANTEE THE FAITHFUL REMEDY OF ANY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP AND GUARANTEE PAYMENT FOR ANY RESULTING DAMAGE WHICH SHALL APPEAR WITHIN A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT.
- 20) THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF CONSTRUCTION.
- 21) A PRE-CONSTRUCTION CONFERENCE WITH THE OWNER, DESIGNERS, TOWN OFFICIALS AND CONTRACTOR SHALL BE REQUIRED BEFORE ANY CONSTRUCTION OCCURS ON THE PROJECT. DURING CONSTRUCTION, THERE SHALL BE WEEKLY PROGRESS MEETINGS WITH THE OWNER (ON SITE OR TELECONFERENCE) UNTIL PROJECT COMPLETION.
- 22) PROPER IMPLEMENTATION AND MAINTENANCE OF EROSION CONTROL MEASURES ARE OF PARAMOUNT IMPORTANCE FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER, THEIR REPRESENTATIVES, OR STATE/LOCAL/FEDERAL INSPECTORS AT NO ADDITIONAL COST TO THE OWNER.
- 23) ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULES BASED UPON PLAN REVIEW. SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING THE WORK. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO MDOT STANDARD SPECIFICATIONS, LATEST REVISION.

**GRADING AND DRAINAGE NOTES**

- 1) UNLESS OTHERWISE NOTED, STORM DRAIN PIPE SHALL BE IN ACCORDANCE WITH MDOT SPECIFICATIONS SECTION 603 PIPE CULVERTS AND STORM DRAINS. LATEST REVISION WITH THE EXCEPTION THAT THE ONLY ACCEPTABLE TYPES OF PIPE ARE AS FOLLOWS: REINFORCED CONCRETE PIPE, HDPE/SMOOTH INTERIOR CORRUGATED PLASTIC PIPE.
- 2) HDPE/SMOOTH INTERIOR CORRUGATED PLASTIC PIPE (SICP) MAY ONLY BE USED FOR PIPE SIZES 48" DIAMETER AND SMALLER.
- 3) TOPSOIL STRIPPED IN AREAS OF CONSTRUCTION THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED ON SITE. AT A LOCATION TO BE DETERMINED BY THE CONTRACTOR, UNSUITABLE SOIL SHALL BE SEPARATED, REMOVED, AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION OFF-SITE.
- 4) ALL EXISTING STRUCTURES, FENCING, TREES, ETC. WITHIN THE CONSTRUCTION AREA, UNLESS OTHERWISE NOTED TO REMAIN, SHALL BE REMOVED AND DISPOSED OF OFF-SITE. ANY BURNING ON-SITE SHALL BE SUBJECT TO LOCAL ORDINANCES AND PROJECT SPECIFICATIONS.
- 5) THE SITE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND PIPING ON-SITE OR IN THE RIGHT OF WAY PRIOR TO EXCAVATION. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING/EXCAVATION START.
- 6) SITE EXCAVATION AND FILL-IN-PLACE TO ESTABLISH THE DESIRED SUB-GRADE SHALL BE SCHEDULED SUCH THAT EROSION CONTROL PRACTICES ARE IN PLACE AND FUNCTIONING DOWN-GRADE OF THE EARTHWORK PRIOR TO THE START OF EARTHMOVING ACTIVITIES.
- 7) BASED ON FEMA MAPPING, NO AREA WITHIN THE SITE BOUNDARIES IS IN THE 100 YEAR FLOOD PLAIN.

**LAYOUT NOTES**

- 1) ALL SIGNS INDICATED ON THE PLANS ARE TO MEET ALL REQUIREMENTS AND STANDARDS OF THE MDOT AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 2) PROPERTY LINE AND RIGHT OF WAY MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS AT THE CONTRACTOR'S EXPENSE BY A MAINE PROFESSIONAL LAND SURVEYOR.



NO.	DATE	PROJECT NAME	PROJECT NAME IN TITLE BLOCK
2	4-16-2022	CONSTRUCTION NOTES & DETAILS	DEACON HAYES COMMONS
1	3-15-2022	UPDATE CLIENT INFO IN TITLE BLOCK	

REV. BY: DATE: CHANGES:

**SJR ENGINEERING, INC.**  
16 THURSTON DRIVE  
MONMOUTH, MAINE 04259  
(207) 602-1676 tel & fax  
steve@sjeeng.com

**SJR ENGINEERING**

**CONSTRUCTION NOTES & DETAILS**  
DEACON HAYES COMMONS  
521 WALNUT HILL ROAD - NORTH YARMOUTH MAINE  
PREPARED FOR  
**527 LLC**  
865 OAK HILL ROAD - NORTH YARMOUTH, ME

DATE	PROJECT
FEB. 2022	2022-12
DRAWN BY	SCALE
SJR	N.T.S.

**Superhumus**  
Jay, Maine

**PRODUCT INFORMATION:**

Unique to the landscape industry, Superhumus is processed from a blend of fine bark, forest organic matter, and a small amount of sand and fine stone. These natural ingredients are washed off of logs in a wood yard water flume in Jay, Maine. Superhumus is weed seed free, screened (<2/8"), approved for Organic Landscaping, and has been used extensively as a container mix, landscape and trail mulch, and in the construction of wetlands, and rain gardens/bioretention soils.

**USE RECOMMENDATIONS:**

- Soil amendment:** Mix 10-30% uniformly by volume. Add additional fertilizer as needed.
- Container growing:** Use aged Superhumus for container growing of many ornamentals and in custom blended potting mixes.
- Ornamental Mulch:** Apply an even layer 2-4" deep to achieve weed suppression & natural appearance.
- Trail Mulch:** Provides root protection & soft footing on walking/biking trails.
- Wetland Use:** Weed free and rich in organic matter, Superhumus closely simulates the characteristics of wetland soil. Use 100% or in a soil/Superhumus blend.
- Bioretention Soil:** Apply Superhumus to meet organic matter specifications of soil filter/rain garden media. Typical applications utilize 20%-30% Superhumus by volume.
- Slope stabilizer:** Apply 3-6" to soil surfaces to effectively stabilize slopes.

**ADDITIONAL INFORMATION:**

- Feed Stocks:** Forest soil, bark, organic matter, sand & fine stone.
- Classifications:** Available for use in ME, NH, MA, VT, & CT. Approved for Organic growing (MOFGA).
- Services/Support:** Additional analyses and specifications available.

**PRODUCT ANALYSES:**

pH	6.0
Total Kjeldahl Nitrogen	2.7%
Organic N	2.6%
Total Phosphorus	1.1%
Total Potassium	0.2%
C/N ratio	16:1
Organic Matter	85.0%
Density	+/- 800lbs/cy
Conductivity	4.2 mmhos/cm
Particle size	screened <3/8"

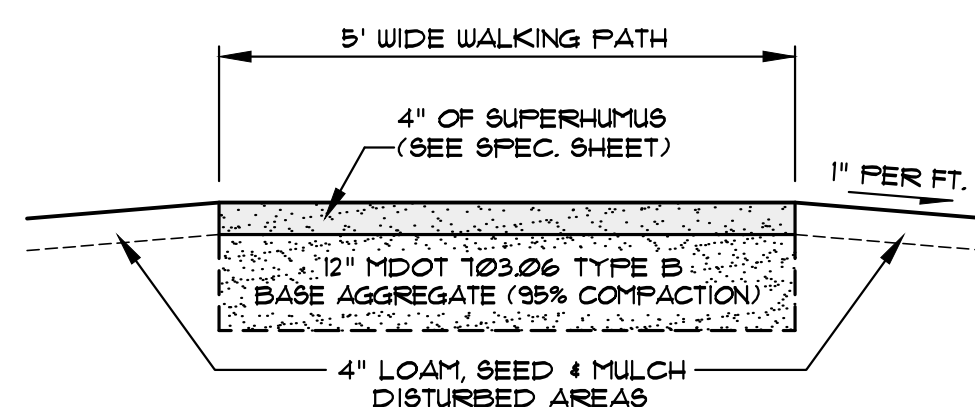
Data based on average or representative analysis. This product is not a commercial fertilizer, and any nutrient data are not a guaranteed analysis.

**NATIONAL RECOGNITION:**

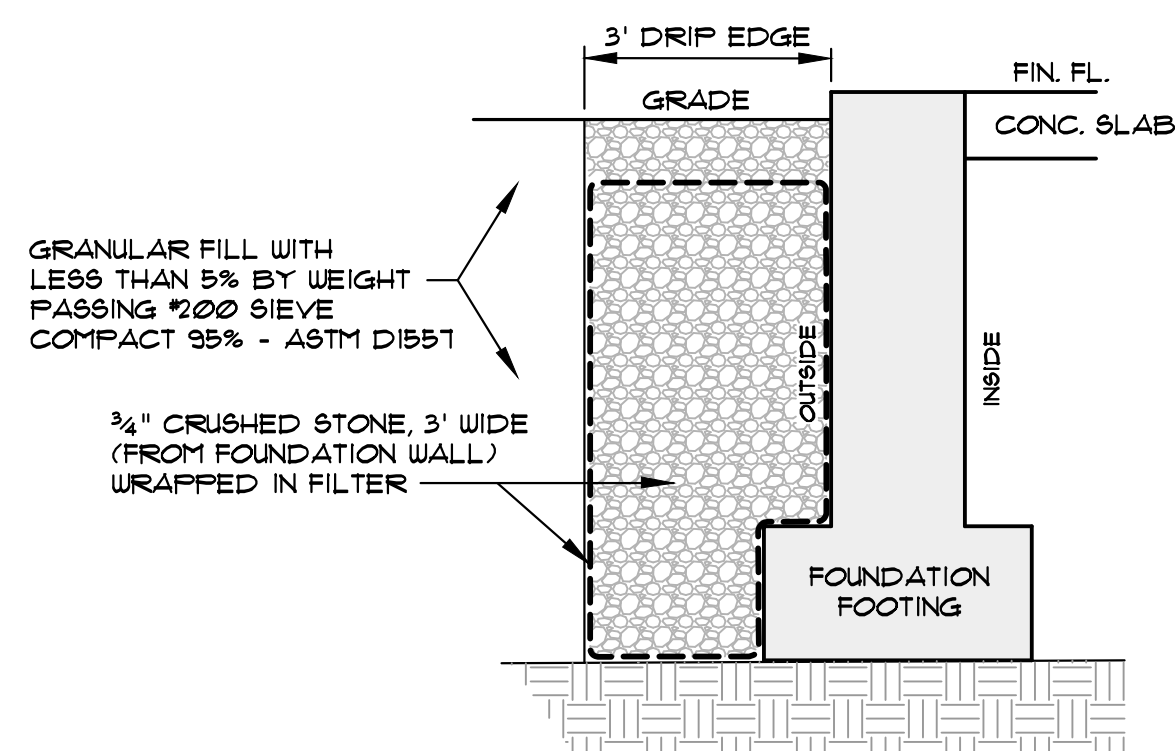
- 2017 Clean Water Award
- 2019 Environmental Management System Certification
- 2024 U.S. Composter of Year
- 2021 EPA National Biosolids Exemplary Management Award
- 2000 Maine Governor's Award for Environmental Excellence

Casella Organics, 110 Main Street, Suite 1308, Saco, ME 04072 800-933-6474  
 Hermon, ME 800-287-9947 Unity, ME 800-491-3071 Concord, NH 603-228-6482 Clifton Park, NY 518-383-0137 Chateaugay, NY 518-497-6486  
 Revised: 3/31/18 casellorganics.com/products

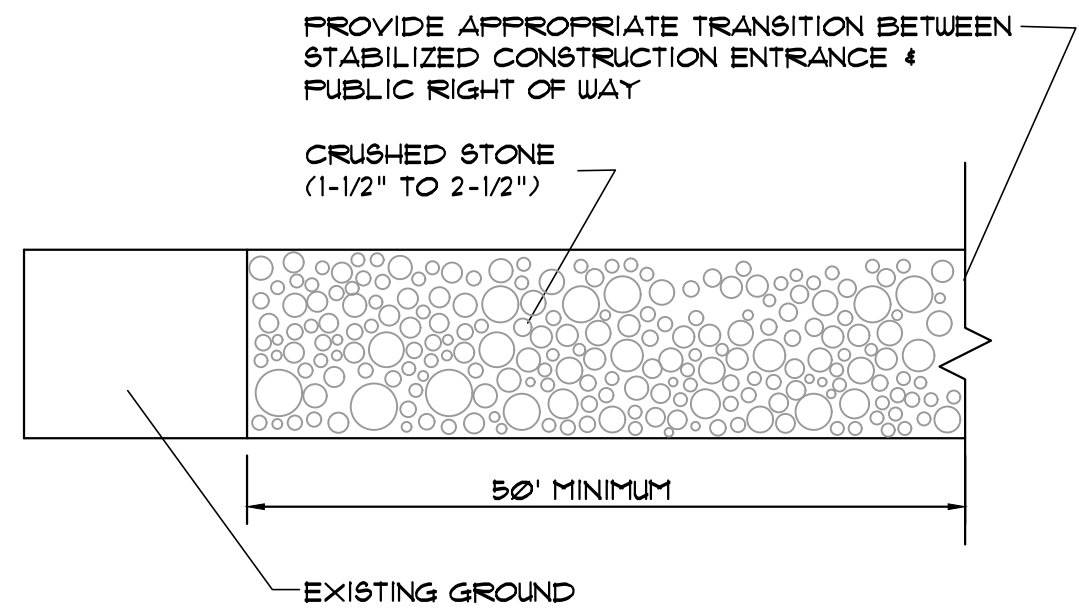
**SUPERHUMUS SPECIFICATION SHEET**



**FOOTPATH AND SIDE SLOPE CROSS SECTION**  
NOT TO SCALE



**FOUNDATION UNDERDRAIN DETAIL**  
**STONE DRIP EDGE**  
NOT TO SCALE



- STONE SIZE - AASHTO DESIGNATION M 43, SIZE #2 (2 1/2" - 1 1/2") USE CRUSHED STONE
- LENGTH - AS EFFECTIVE BUT NOT LESS THAN 50'
- THICKNESS - NOT LESS THAN 8"
- WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS
- WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY, WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS, OR OTHER APPROVED METHODS.
- MAINTENANCE - THE STABILIZED CONSTRUCTION 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 MEASURED USES TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT OF WAYS MUST BE REMOVED IMMEDIATELY.

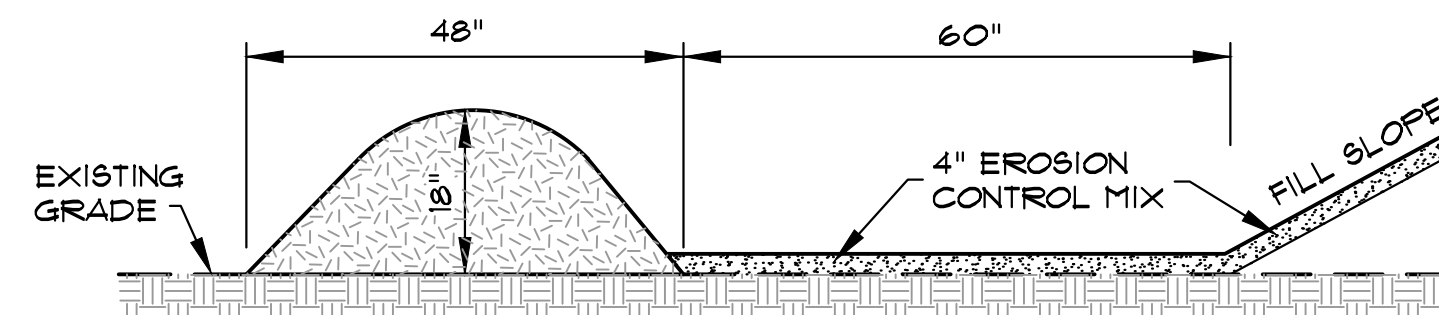
**STABILIZED CONSTRUCTION ENTRANCE DETAIL**  
NOT TO SCALE

THE FILTER BERM SHALL CONSIST OF A WOOD WASTE COMPOST/BARK MULCH MIX OR RECYCLED COMPOSTED BARK FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER FLUME LOG HANDLING SYSTEMS. COMPARABLE COMPOSTED MIXES CAN BE USED UPON WRITTEN APPROVAL OF THE ENGINEER.

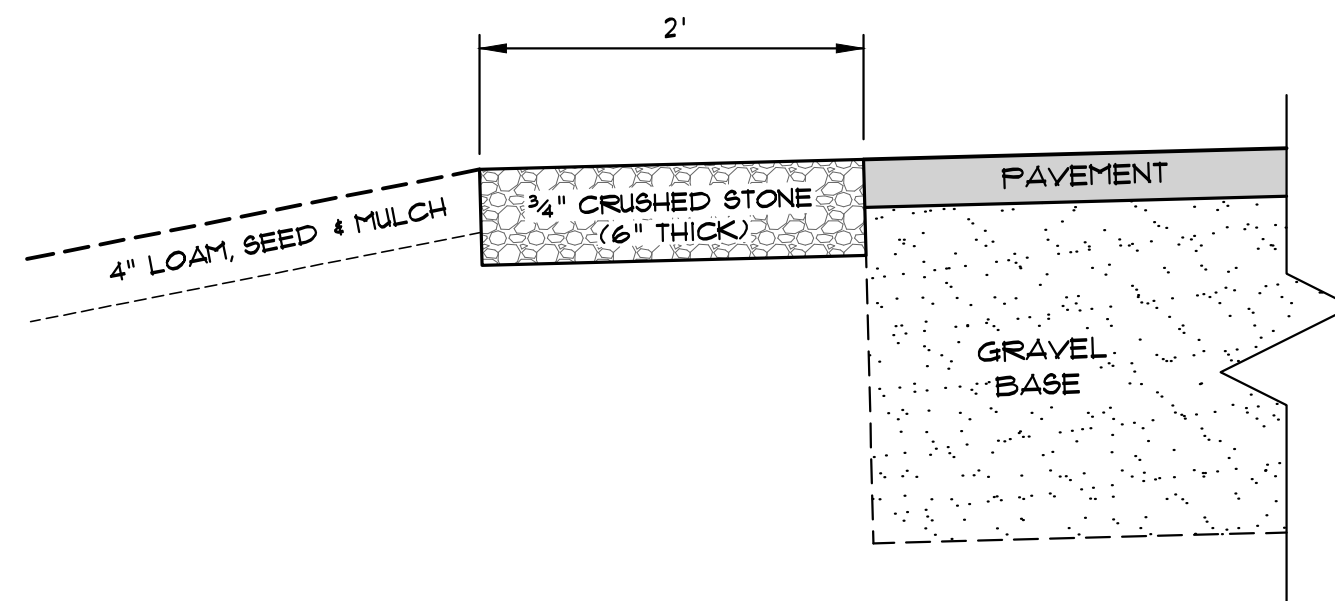
THE MIX SHALL CONFORM TO THE FOLLOWING: pH BETWEEN 5.0-8.0, PARTICLE SIZE - 100% PASSING THROUGH A 6" SCREEN AND 80% RETAINED ON A 3/4" SCREEN, SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 mmhos/cm.

THE COMPOSTED BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.

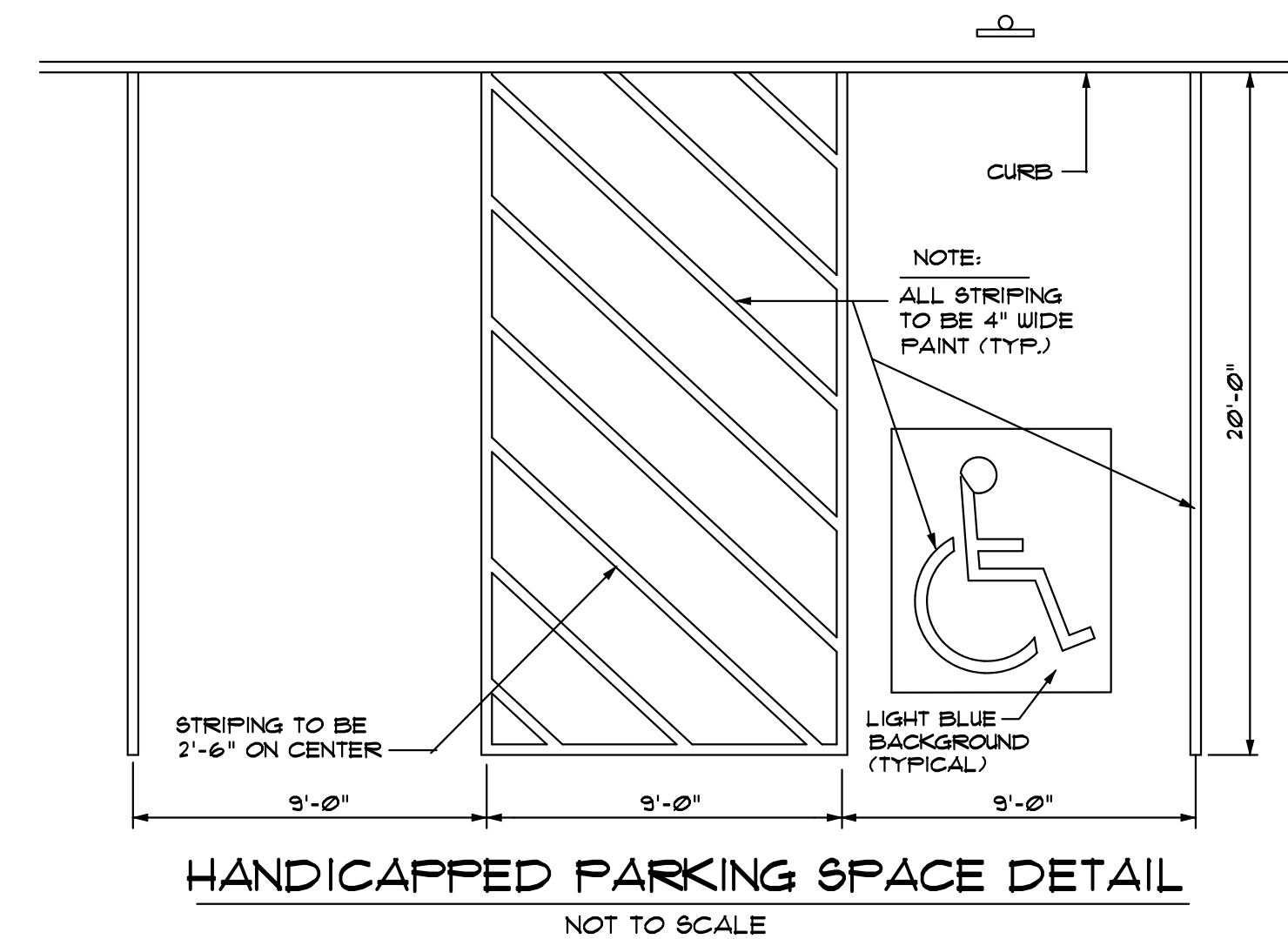
THE BERM MAY BE USED IN COMBINATION WITH SILT FENCE TO IMPROVE SEDIMENT REMOVAL AND PREVENT CLOGGING OF THE BERM BY LARGER SEDIMENT PARTICLES (SILT FENCE PLACED ON THE UPHILL SIDE OF BERM).



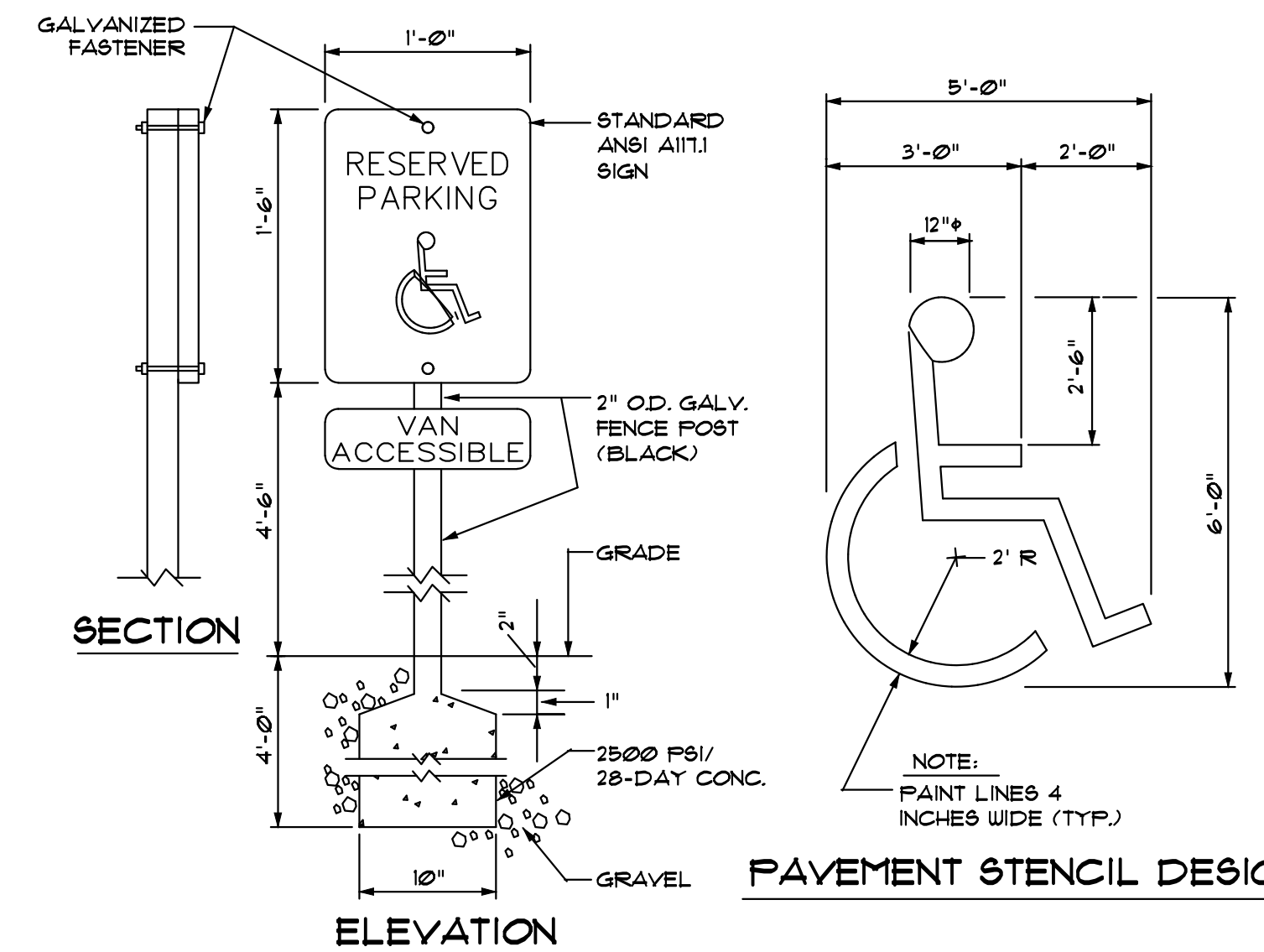
**EROSION CONTROL FILTER BERM**  
NOT TO SCALE



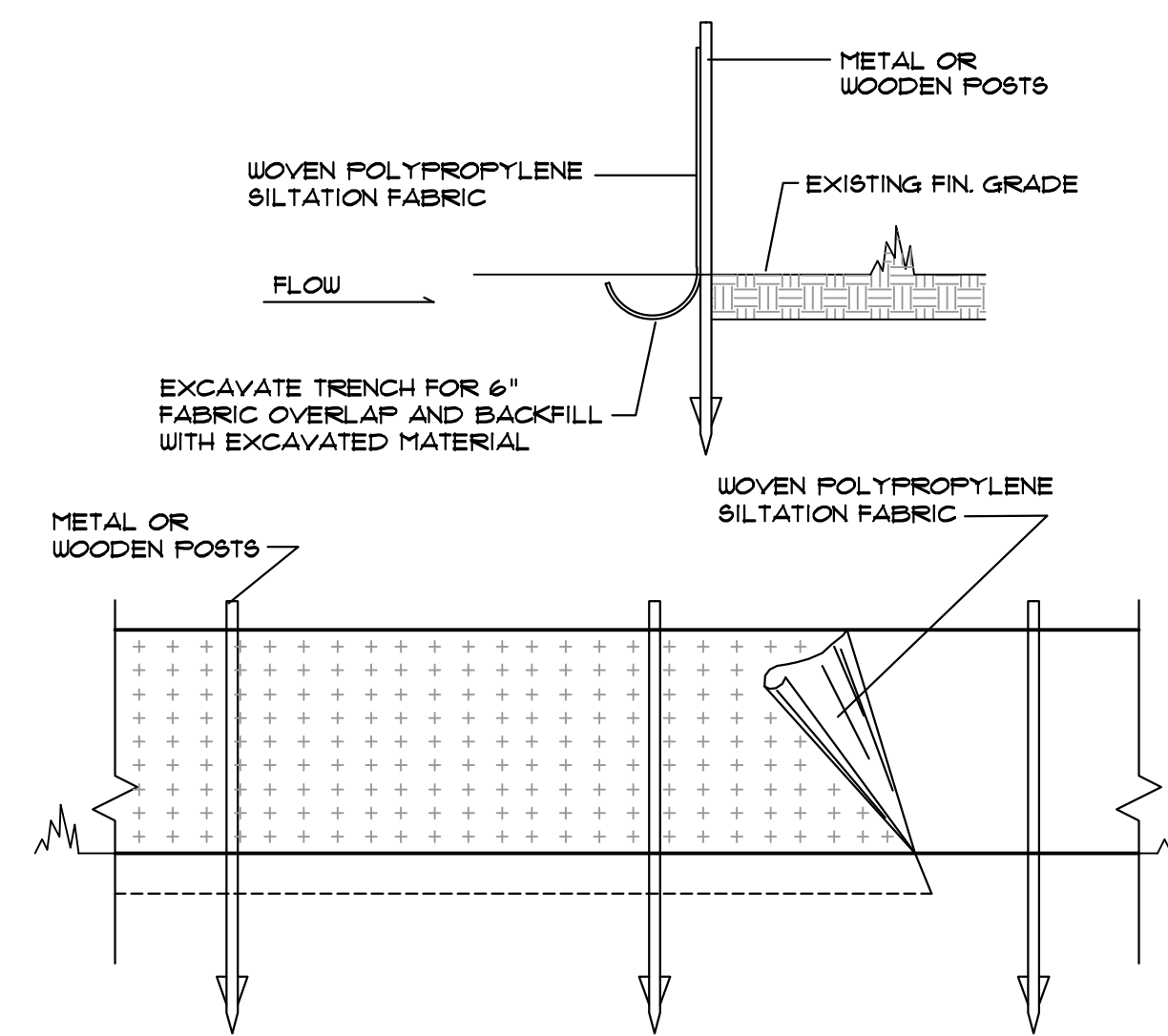
**STONE TRANSITION AREA**  
**PAVEMENT TO GRASS**  
NOT TO SCALE



**HANDICAPPED PARKING SPACE DETAIL**  
NOT TO SCALE

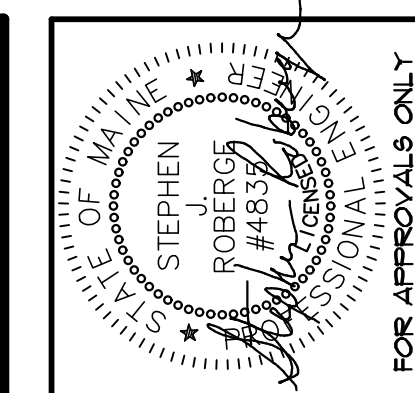


**HANDICAP SIGN DETAIL**  
NOT TO SCALE



**NOTES**  
 REFERENCE IS MADE TO THE BEST MANAGEMENT PRACTICE FOR EROSION AND SEDIMENT CONTROL: B-1 SEDIMENT BARRIERS.  
 SILTATION FABRIC WITH INTEGRAL MESH AND POSTS MAY BE USED.  
 EROSION CONTROL FILTER BERM IS AN ACCEPTABLE ALTERNATIVE TO SILT FENCING.

**SILT FENCE DETAIL**  
NOT TO SCALE



DATE	PROJECT
4-16-2022	UPDATE PROJECT NAME IN TITLE BLOCK
3-15-2022	UPDATE CLIENT INFO IN TITLE BLOCK
DATE	CHANGES:
BY:	
2	BY: SUR
1	BY: SUR

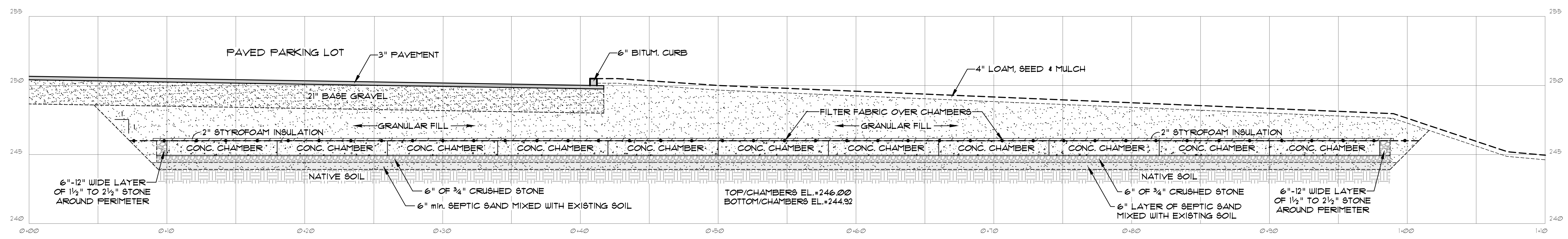
**SJR ENGINEERING, INC.**  
16 THURSTON DRIVE  
MONMOUTH, MAINE 04259  
(207) 622-1676 tel & fax  
steve@sujung.com

**CONSTRUCTION DETAILS**  
DEACON HAYES COMMONS  
521 WALNUT HILL ROAD - NORTH YARMOUTH MAINE  
PREPARED FOR  
**527 LLC**  
865 OAK HILL ROAD - NORTH YARMOUTH, ME

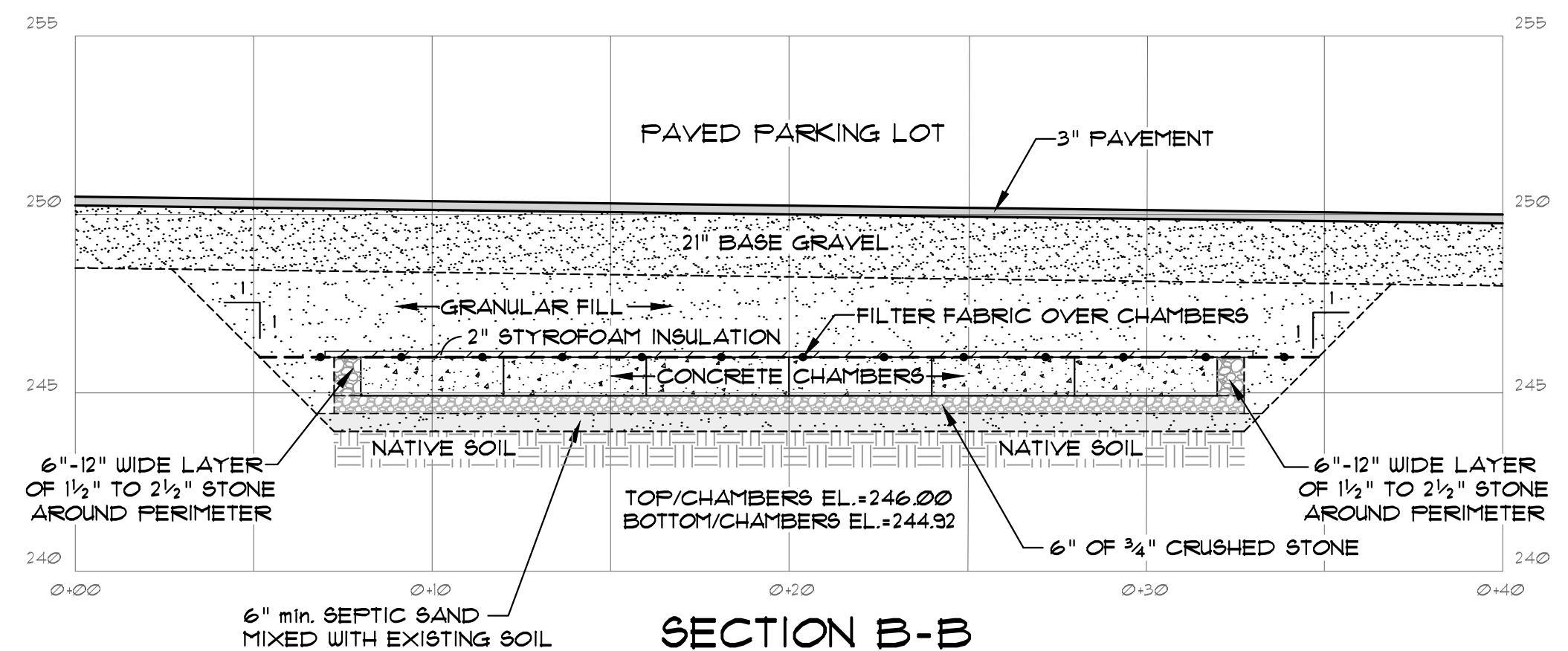
DATE	PROJECT
FEB. 2022	2022-12
DRAWN BY	SCALE
SJR	N.T.S.



FOR APPROVALS ONLY



**SECTION A-A**  
SCALE: 1" = 4'



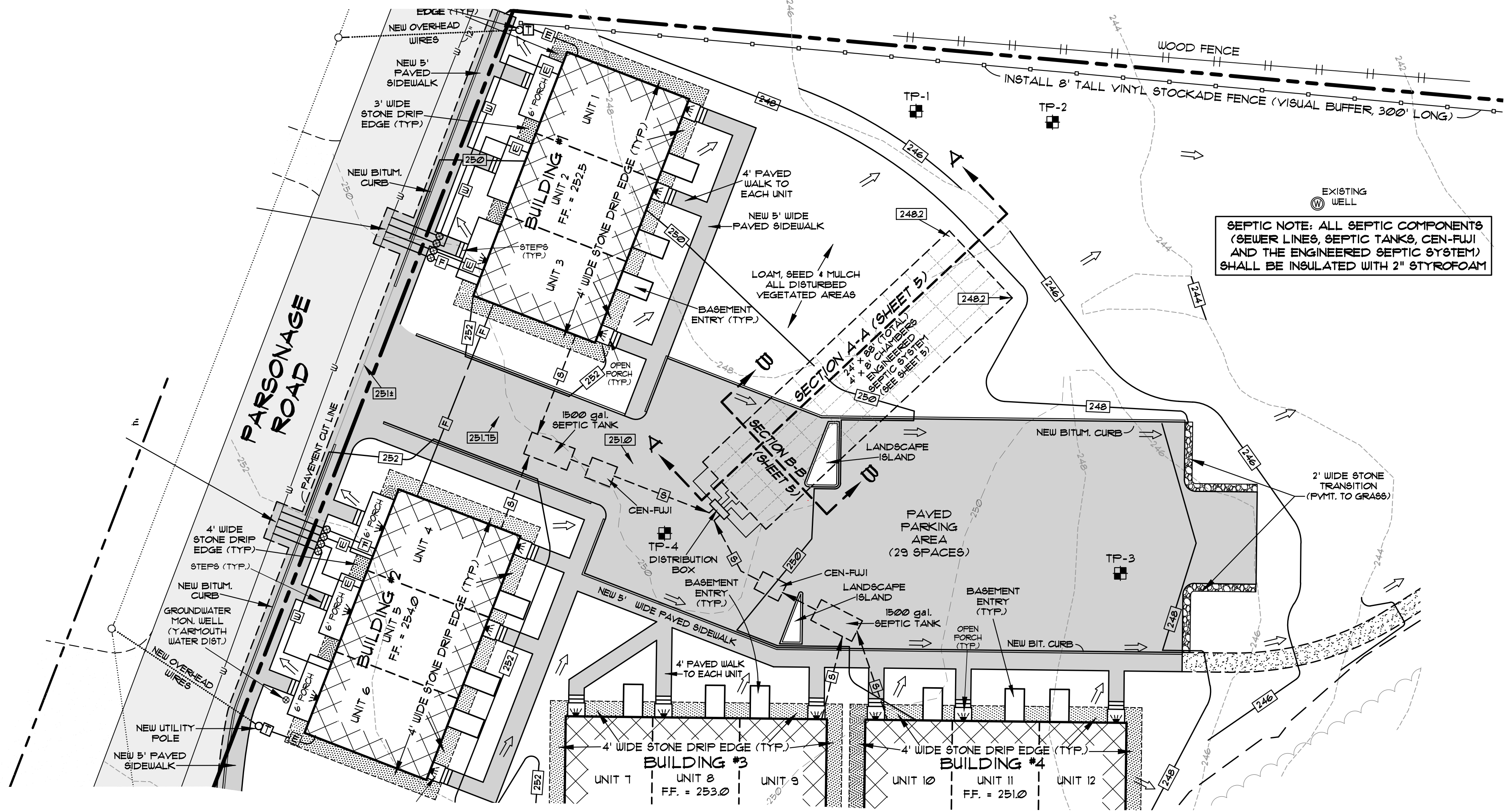
**SECTION B-B**  
SCALE: 1" = 4'

**HOME OWNERS ASSOCIATION REQUIREMENTS**

THERE ARE ADDITIONAL REQUIREMENTS IMPOSED ON THE SEWER SYSTEM WITHIN THE DECLARATION OF CONDOMINIUM DOCUMENTS AND HOME OWNERS ASSOCIATION RULES AND REGULATIONS.

**ENGINEERED SYSTEM NOTES**

- 1) THE SYSTEM HAS BEEN DESIGNED TO ACCEPT RESIDENTIAL WASTES TYPICAL FOR A 3 BEDROOM UNIT. THE DESIGN HAS BEEN REVIEWED BY THE TOWN OF NORTH YARMOUTH PLUMBING INSPECTOR AND HEALTH ENGINEERING DEPARTMENT OF DEP. BOTH REVIEW AGENCIES NEED TO APPROVE THE SYSTEM PRIOR TO CONSTRUCTION.
- 2) IT IS RECOMMENDED THAT LOW FLOW VOLUME TOILETS AND OTHER FLOW REDUCING FIXTURES TO MINIMIZE WATER VOLUME BE UTILIZED TO THE GREATEST EXTENT POSSIBLE. A REDUCTION IN WATER USE WILL USUALLY RESULT IN EXTENDED LIFE OF THE SEPTIC SYSTEM, ALL OTHER THINGS BEING EQUAL.
- 3) IT SHALL BE THE OWNERS RESPONSIBILITY TO LIMIT WATER USAGE AND WASTEWATER GENERATION SO THAT THE SEPTIC SYSTEM DESIGN CAPACITY (DESIGN FLOW STATED ON SEPTIC SYSTEM FORM) IS NOT EXCEEDED ON ANY DAY. ACTIVITIES THAT GENERATE LARGE VOLUMES OF WASTEWATER SHOULD BE SPREAD OUT OVER LONGER PERIODS OF TIME.
- 4) EXCESSIVE USE OF A SEPTIC SYSTEM ON ANY ONE DAY CAN CAUSE THE SYSTEM TO FAIL EVEN THOUGH THE USE, AVERAGED OUT OVER A WEEK OR MONTH IS BELOW DESIGN VOLUME. THE SYSTEM BECOMES STRESSED BECAUSE MORE WATER WILL BE GENERATED THAN THE SOIL CAN ABSORB. ALSO, MORE SOLID PARTICLES WILL LEAVE THE TANK THAN NORMAL. THE FASTER WATER MOVES THROUGH THE TANK, THE LARGER PARTICLES OF SOLID MATERIAL WILL BE CARRIED TO THE DISPOSAL FIELD. THESE PARTICLES ARE THE MAJOR CAUSE OF SYSTEM FAILURE AS THE PARTICLES PLUG UP THE ABILITY OF THE SOIL TO ABSORB WATER.
- 5) DO NOT CONNECT FLOOR OR ROOF DRAINS TO THE SYSTEM. DO NOT DISPOSE OF BACKWASH FROM WATER SOFTENERS OR WATER TREATMENT DEVICES INTO THE SEPTIC SYSTEM. DO NOT USE POWDERED SOAPS OR DETERGENTS AS THEY CONTAIN A SIGNIFICANT AMOUNT OF FILLERS AND EMULSIFIERS WHICH ARE DETRIMENTAL TO THE SEPTIC SYSTEM. FILLERS CAN CLOG UP SOIL PORES AND EMULSIFIERS WILL PREVENT GREASES AND FATS FROM COAGULATING AND RISING TO THE TOP OF THE TANK FOR REMOVAL.
- 6) DO NOT DISPOSE OF ANY HAZARDOUS OR TOXIC SUBSTANCES IN A SEPTIC SYSTEM SUCH AS PAINT THINNER, PAINTS, VARNISHES, PHOTOGRAPHIC SOLUTIONS, PESTICIDES, INSECTICIDES, ORGANIC SOLVENTS, DEGREASERS, OR DRAIN OPENERS. SEPTIC SYSTEMS DEPEND ON LIVING ORGANISMS TO FUNCTION PROPERLY. TOXIC OR HAZARDOUS SUBSTANCES CAN CAUSE THE SYSTEM TO MALFUNCTION AND ARE A THREAT TO POLLUTE SURFACE AND/OR GROUNDWATER SOURCES. THEY ARE ILLEGAL TO DISPOSE OF IN THIS MANNER.
- 7) DO NOT DISPOSE OF ANY INERT OR NON-BIODEGRADABLE MATERIALS IN THE SEPTIC SYSTEM SUCH AS DISPOSABLE DIAPERS, CAT BOX LITTER, COFFEE GROUNDS, CIGARETTE FILTERS, SANITARY NAPKINS, FACIAL TISSUES AND WET STRENGTH PAPER TOWELS. THEY WILL NOT DECOMPOSE AND WILL THEREFORE BUILDUP IN THE SEPTIC TANK QUICKLY. IT IS RECOMMENDED THAT USE OF A NATIONAL SANITATION FOUNDATION PAPER WHICH BREAKS DOWN QUICKLY IS RECOMMENDED.
- 8) DO NOT ADD ANY SEPTIC TANK ADDITIVE OR CLEANER TO THE SEPTIC SYSTEM TO IMPROVE ITS FUNCTION OR PROLONG ITS USEFUL OPERATING LIFE (THIS INCLUDES YEAST, HORSE MANURE, AND COMMERCIAL PRODUCTS SUCH AS RID-X) NO EFFECTIVE PRODUCT OR MATERIAL IS RECOGNIZED BY STATE OR NATIONAL AUTHORITIES. CHEMICAL ADDITIVES ARE PROHIBITED FOR USE IN MAINE.
- 9) MAINTAIN THE SEPTIC SYSTEM BY REGULARLY HAVING THE SEPTIC TANK PUMPED. SOME BIOLOGICAL BREAKDOWN OF SOLIDS OCCURS IN THE SEPTIC TANK BUT THE RATE OF ACCUMULATION ALMOST ALWAYS EXCEEDS THE RATE OF BREAKDOWN. IF YOUR TANK IS NOT PUMPED OFTEN ENOUGH, SOLIDS AND GREASES MAY BUILD UP TO THE POINT WHERE THERE IS INSUFFICIENT STORAGE AND RETENTION TIME FOR WASTEWATER IN THE TANK. THESE SOLIDS CAN THEN LEAVE THE TANK AND END UP IN THE DISPOSAL FIELD RESULTING IN PREMATURE FAILURE.
- 10) NOTE HOW OFTEN YOU HAVE YOUR TANK PUMPED AND WHEN IT WAS LAST PUMPED. THE PUMPER OR INSPECTOR CAN THEN ADVISE YOU HOW OFTEN YOU NEED TO HAVE THE TANK PUMPED BASED ON THE VOLUME OF SOLIDS HE FINDS IN THE TANK PRESENTLY. KEEP IN MIND THAT YOU WILL NEED TO ADJUST YOUR PUMPING FREQUENCY TO COINCIDE WITH CHANGES IN THE WAY THE SYSTEM IS USED. THE MORE THE SYSTEM IS USED, THE MORE FREQUENT THE PUMPING SHOULD OCCUR.
- 11) BE SURE THE PUMPER INSPECTS THE BAFFLES AND FILTERS TO THE SEPTIC TANK. THE BAFFLES ARE RESPONSIBLE FOR KEEPING GREASES AND FATS FROM MOVING TO THE DISPOSAL FIELD. THE SYSTEM HAS BEEN DESIGNED WITH OUTLET FILTERS WITHIN THE TANK. FILTERS TO BE CLEANED PERIODICALLY. THE FILTERS CAN HELP CONTROL THE PASSAGE OF SOLIDS FROM THE TANK TO THE DISPOSAL FIELD WHEN WASTEWATER SURGES OCCUR.
- 12) THE CONCRETE CHAMBER SYSTEM IS DESIGNED FOR H2O LOADING, ALLOWING NORMAL CAR/TRUCK TRAFFIC OVER THE SYSTEM.
- 13) DIVERT ALL SURFACE WATER AWAY FROM THE SEPTIC TANK AND DISPOSAL FIELD. IF THIS IS NOT DONE, ADDITIONAL WATER INFILTRATION TO THE SYSTEM MAY CAUSE YOUR DISPOSAL FIELD TO FAIL.
- 14) IF YOU HAVE ANY QUESTIONS ABOUT THE SYSTEM, PLEASE CALL SJR ENGINEERING (DESIGNER), MARK CENSI (SITE EVALUATOR), OR YOUR LOCAL PLUMBING INSPECTOR FOR ADVICE PERTAINING TO THE RULES AND REGULATIONS OF THE DISPOSAL OF WASTEWATER.



**SEPTIC SYSTEM PLAN VIEW**  
SCALE: 1" = 20'

**SJR ENGINEERING, INC.**  
16 THURSTON DRIVE  
MONMOUTH, MAINE 04259  
(207) 242-6248 tel  
sjevs@sjeengineering.com

**SEPTIC SYSTEM SECTIONS AND DETAILS**  
**DEACON HAYES COMMONS**  
521 WALNUT HILL ROAD - NORTH YARMOUTH MAINE  
PREPARED FOR  
**527 LLC**  
865 OAK HILL ROAD - NORTH YARMOUTH, ME

DATE	PROJECT
8-27-2022	2022-12
DRAWN BY	SCALE
SJR	1" = 20'