

**"PLANNED RESIDENTIAL DEVELOPMENT (PRD)"**

**149 VAN NORDEN ROAD  
SITE PLAN OF LAND**

LOCATED IN  
**READING, MASSACHUSETTS**  
(MIDDLESEX COUNTY)

PREPARED FOR  
**JESSE & SARAH WILSON**

17 GORDON ROAD  
NORTH READING, MA 01864  
(978) 815-7359

OWNER  
**BARBARA J. HITCHCOCK**

149 VAN NORDEN ROAD  
READING, MA 01867  
(781) 944-2753

PREPARED BY  
**SULLIVAN ENGINEERING GROUP, LLC**

P.O. BOX 2004  
WOBURN, MA 01888  
(781) 854-8644

DATE: FEBRUARY 25, 2016

REVISED: JULY 11, 2016

REVISED: AUGUST 2, 2016

WAIVERS GRANTED BY CPDC:

- 1) A NEW SCHEMATIC PLAN THAT MEETS THE REQUIREMENTS OF A PRELIMINARY SUBDIVISION PLAN.
- 2) A PLAN PROVIDING SHADOW LINES.
- 3) A GRADING PLAN FOR THE OPEN SPACE AREA.
- 4) THE EXISTING HOUSE BEING GREATER THAN 30 FEET FROM THE OPEN SPACE AREA.
- 5) A LANDSCAPING PLAN.
- 6) UNDERGROUNDING OF EXISTING UTILITIES TO EXISTING HOUSE.
- 7) A LOCUS INSERT PLAN SHOWING ALL PROPERTIES WITHIN 1,000 FEET AND ASSOCIATED ADDITIONAL INFO.
- 8) SHOWING EXISTING TOPOGRAPHY FOR ALL LAND WITHIN 100 FEET OF SITE.
- 9) LOCATING AND IDENTIFYING TREES OF 6-INCH CALIPER OR LARGER, EXCEPT THOSE PROPOSED TO BE REMOVED WITHIN THE LIMITS OF WORK ON LOT 2.
- 10) REPLACING WATER SERVICE TO EXISTING HOUSE.
- 11) ALLOWING EXISTING WATER AND SEWER SERVICE TO EXISTING HOUSE TO BE LOCATED WITHIN 10 FEET OF EACH OTHER.

READING COMMUNITY PLANNING  
& DEVELOPMENT COMMISSION

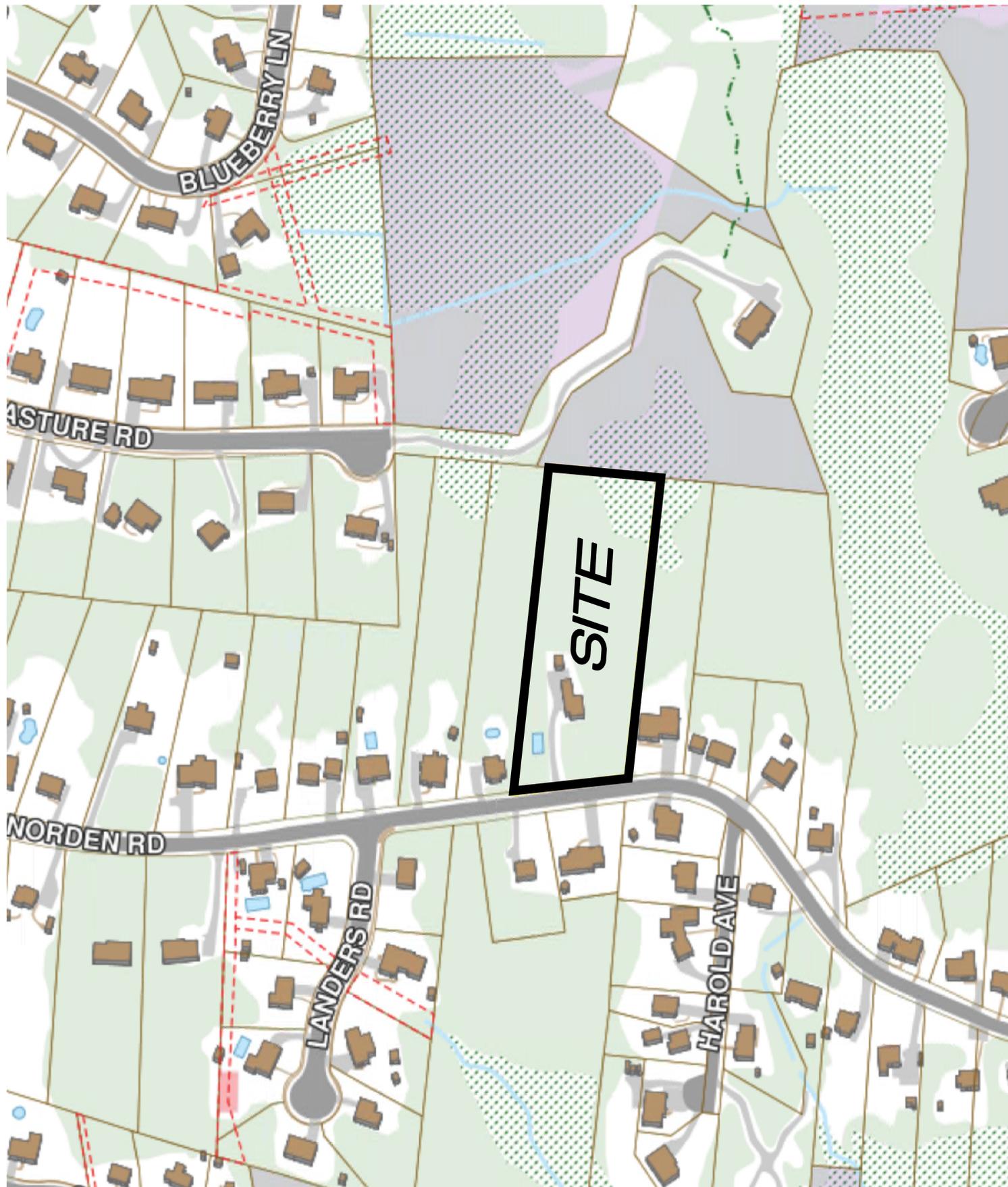
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APPROVED \_\_\_\_\_, 20

SHEET INDEX:

- 1 COVER SHEET
- 2 EXISTING CONDITIONS
- 3 PROOF PLAN
- 4 SITE PLAN
- 5 PRD AREAS
- 6 CONSTRUCTION DETAILS

THIS PLAN IS APPROVED AS PART OF THE PRD SPECIAL PERMIT  
ISSUED BY THE CPDC ON MAY 12, 2016, AND RECORDED AT  
THE MIDDLESEX SOUTH REGISTRY OF DEEDS IN BOOK: 67367 PAGE: 1.



SCALE: 1"=100'±

TAX MAP 45 LOT 52  
0 PASTURE ROAD  
N/F TOWN OF READING

RESERVED FOR REGISTRY USE ONLY

I DECLARE, TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

JOHN D. SULLIVAN III, P.E. DATE

**LEGEND:**

- 248--- TWO FOOT CONTOUR
- 92X00 SPOT GRADE
- DECIDUOUS TREE (> 6" DIA.)
- ⊕ UTILITY POLE
- ⊙ SEWER MANHOLE
- S— SEWER MAIN
- SS— COMPILED SEWER SERVICE
- W— COMPILED WATER MAIN
- WS— COMPILED WATER SERVICE
- ⊙ DRAIN MANHOLE
- CB □ CATCHBASIN
- D— DRAIN LINE
- BIT. BITUMINOUS
- CONC. CONCRETE
- E.O.P. EDGE OF PAVEMENT
- I INVERT
- ⊕ TEST PIT
- 1B WETLAND FLAG
- WETLAND RESOURCE AREA
- OHV— OVERHEAD WIRE
- ☼ CONIFER TREE (> 6" DIA.)

**TEMPORARY BENCHMARK CHART:**

TBM #	DESCRIPTION	ELEV.
△	SEWER MANHOLE RIM	122.02'

**READING COMMUNITY PLANNING & DEVELOPMENT COMMISSION**

APPROVED \_\_\_\_\_, 20

THIS PLAN IS APPROVED AS PART OF THE PRD SPECIAL PERMIT ISSUED BY THE CPDC ON MAY 12, 2016 AND RECORDED AT THE MIDDLESEX SOUTH REGISTRY OF DEEDS IN BOOK: 67367 PAGE: 1.

**SOILS INFORMATION:**

TEST PIT WAS PERFORMED BY JOHN D. SULLIVAN III, P.E. ON MAY 5, 2015

TEST PIT: DTH-1  
ELEV.=121.8'±  
G.W. STANDING @ NONE

0"-9" HORIZON A: LOAMY SAND  
9"-35" HORIZON Bw: LOAMY LOAM  
35"-78" HORIZON Cdr: SANDY LOAM

DISTINCT MOTTLES @ 55"  
E.S.H.G.W. @ ELEV. = 117.2'

**SOILS INFORMATION:**

TEST PIT WAS PERFORMED BY JOHN D. SULLIVAN III, P.E. ON MAY 5, 2015

TEST PIT: DTH-2  
ELEV.=119.4'±  
G.W. WEeping @ 45"

0"-6" HORIZON A: SANDY LOAM  
6"-32" HORIZON Bw: SANDY LOAM  
32"-72" HORIZON Cdr: SANDY LOAM

DISTINCT MOTTLES @ 30"  
E.S.H.G.W. @ ELEV. = 116.9'

**RECORD OWNER:**

ASSESSOR'S MAP 39 LOT 212  
BARBARA J. HITCHCOCK  
149 VAN NORDEN ROAD  
READING, MA 01867  
- DEED BOOK 55453, PAGE No. 309

**ZONING INFORMATION:**

ZONING DISTRICT: S-20  
MIN. LOT SIZE: 20,000 S.F.  
MIN. LOT FRONTAGE: 120 FEET

**149 VAN NORDEN ROAD**

**EXISTING CONDITIONS PLAN**  
LOCATED IN  
**READING, MASSACHUSETTS**  
(MIDDLESEX COUNTY)

PREPARED FOR  
JESSE + SARAH WILSON

SCALE: 1" = 20' DATE: FEB. 25, 2016

PREPARED BY OWNER: APPLICANT:

SULLIVAN ENGINEERING GROUP, LLC  
P.O. BOX 2004  
WOBURN, MA 01888  
(781) 854-8644

BARBARA J. HITCHCOCK  
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17 GORDON ROAD  
NORTH READING, MA 01864  
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SHEET No. 2 OF 6

GRAPHIC SCALE  
SCALE: 1"=20'

FEET 20 0 10 20 40 60 80

**REVISIONS**

NO.	DATE	DESCRIPTION	BY	CHK'D
2	8/2/16	NO CHANGES THIS SHEET	JDS	JDS
1	7/11/16	PER CPDC DECISION	JDS	JDS

THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE BASED UPON A PARTIAL FIELD SURVEY AND COMPILATION OF PLANS OF RECORD. THE DESIGN ENGINEER DOES NOT WARRANT NOR GUARANTEE THE LOCATION OF ALL UTILITIES DEPICTED OR NOT DEPICTED. THE CONTRACTOR, PRIOR TO COMMENCEMENT OF CONSTRUCTION, SHALL VERIFY THE LOCATION OF ALL UTILITIES AND CONTACT DIG SAFE AT 1-888-344-7233.

ALL UNDERGROUND UTILITY DATA REPRESENTS RECORD INFORMATION RECOVERED THROUGH RESEARCH WITHOUT SURFACE DEMARCATION NOR SUBSURFACE VERIFICATION.

TAX MAP 45 LOT 52  
 0 PASTURE ROAD  
 N/F TOWN OF READING

RESERVED FOR REGISTRY USE ONLY  
 I DECLARE, TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

JOHN D. SULLIVAN III, P.E. DATE

**LEGEND:**

- 245--- TWO FOOT CONTOUR
- 18 WETLAND FLAG
- WETLAND RESOURCE AREA

**RECORD OWNER:**

ASSESSOR'S MAP 39 LOT 212  
 BARBARA J. HITCHCOCK  
 149 VAN NORDEN ROAD  
 READING, MA 01867  
 - DEED BOOK 55453, PAGE No. 309

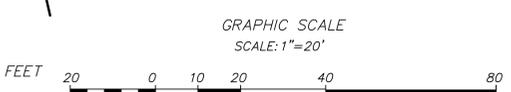
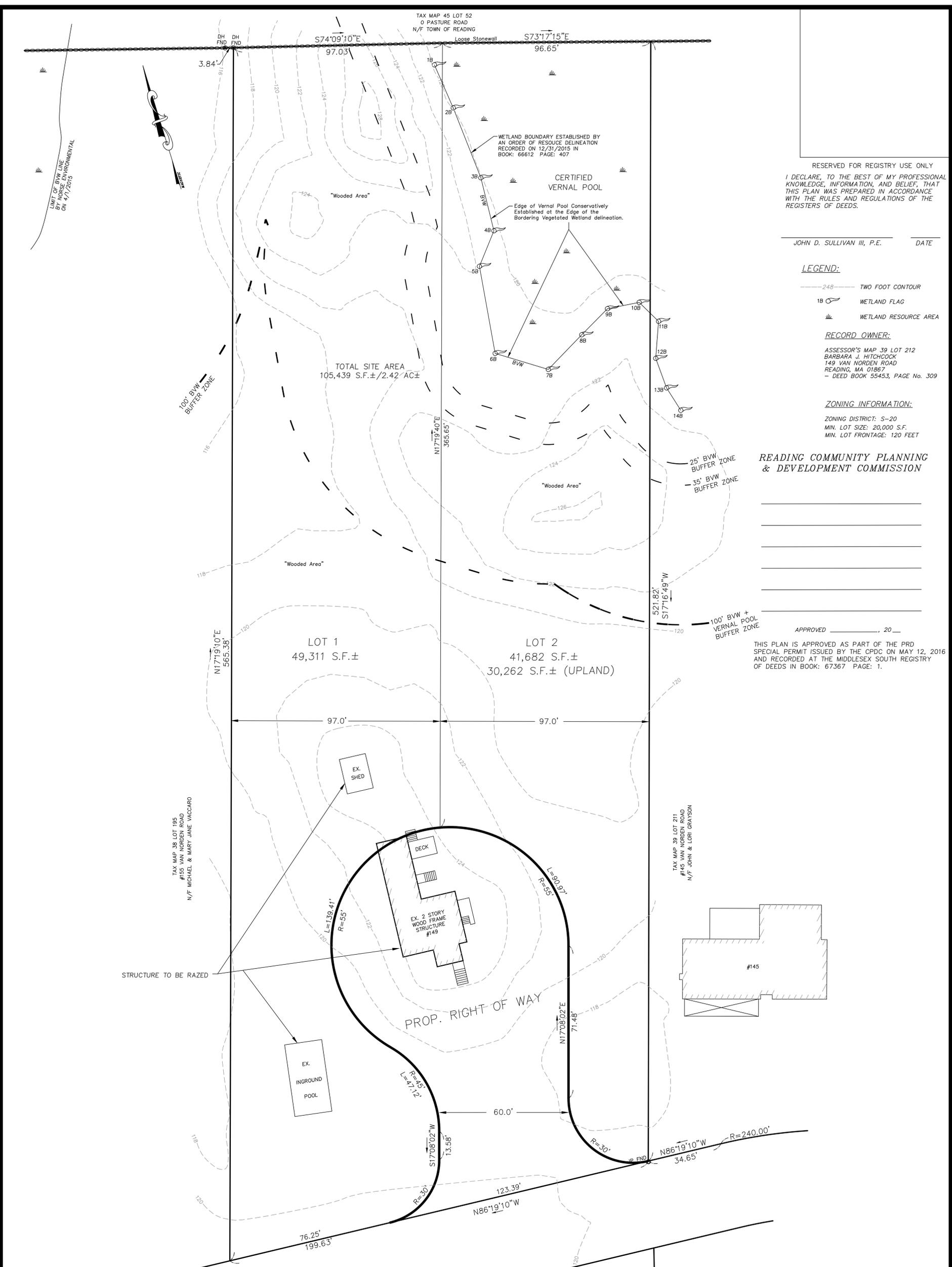
**ZONING INFORMATION:**

ZONING DISTRICT: S-20  
 MIN. LOT SIZE: 20,000 S.F.  
 MIN. LOT FRONTAGE: 120 FEET

READING COMMUNITY PLANNING & DEVELOPMENT COMMISSION

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

THIS PLAN IS APPROVED AS PART OF THE PRD SPECIAL PERMIT ISSUED BY THE CPDC ON MAY 12, 2016 AND RECORDED AT THE MIDDLESEX SOUTH REGISTRY OF DEEDS IN BOOK: 67367 PAGE: 1.



REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK'D
2	8/2/16	NO CHANGES THIS SHEET	JDS	JDS
1	7/11/16	PER CPDC DECISION	JDS	JDS

**149 VAN NORDEN ROAD**

**PROOF PLAN**  
 LOCATED IN  
**READING, MASSACHUSETTS**  
 (MIDDLESEX COUNTY)

PREPARED FOR  
 JESSE + SARAH WILSON

SCALE: 1" = 20' DATE: FEB. 25, 2016

PREPARED BY: SULLIVAN ENGINEERING GROUP, LLC  
 WOBURN, MA 01888  
 (781) 854-8644

OWNER: BARBARA J. HITCHCOCK  
 149 VAN NORDEN ROAD  
 READING, MA 01867  
 (781) 944-2753

APPLICANT: JESSE & SARAH WILSON  
 17 GORDON ROAD  
 NORTH READING, MA 01864  
 (978) 815-7359

SHEET No. 3 OF 6

TAX MAP 45 LOT 52  
0 PASTURE ROAD  
N/F TOWN OF READING

**LEGEND:**

- 248— EX. TWO FOOT CONTOUR
- 92X00 EX. SPOT GRADE
- DECIDUOUS TREE (> 6" DIA.)
- UTILITY POLE
- SEWER MANHOLE
- S— SEWER MAIN
- SS— COMPILED SEWER SERVICE
- W— COMPILED WATER MAIN
- WS— COMPILED WATER SERVICE
- DRAIN MANHOLE
- CB □ CATCHBASIN
- D— DRAIN LINE
- BIT. BITUMINOUS
- CONC. CONCRETE
- EOP EDGE OF PAVEMENT
- I INVERT
- 1B WETLAND FLAG
- WETLAND RESOURCE AREA
- BVW BORDERING VEGETATED WETLAND
- FW— PROP. WATER SERVICE (1" TYPE K COPPER)
- PS— PROP. SEWER SERVICE (4" SCH. 40 PVC S=2% MIN)
- (120x0) PROP. SPOT GRADE
- (120) PROP. CONTOUR
- PRD PROP. ROOF DRAIN (4" SCH. 40 PVC S=1% MIN.)
- PTEC PROP. TELEPHONE, ELECTRIC, & CABLE (UNDERGROUND)
- OHW— OVERHEAD WIRE
- ☼ CONIFER TREE (> 6" DIA.)
- ☒ TREE TO BE REMOVED

FOR REGISTRY OF DEEDS USE ONLY  
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JOHN D. SULLIVAN III, P.E. DATE

**PLAN NOTES:**

- 1) NO FURTHER SUBDIVISION BEYOND THE TWO (2) SINGLE FAMILY LOTS SHOWN AND APPROVED IS ALLOWED.
- 2) THERE HAVE BEEN NO VARIANCES OR SPECIAL PERMITS GRANTED BY THE READING ZONING BOARD OF APPEALS FOR THE SUBJECT PROPERTY.

**RECORD OWNER:**

ASSESSOR'S MAP 39 LOT 212  
BARBARA J. HITCHCOCK  
149 VAN NORDEN ROAD  
READING, MA 01867  
- DEED BOOK 55453, PAGE No. 309

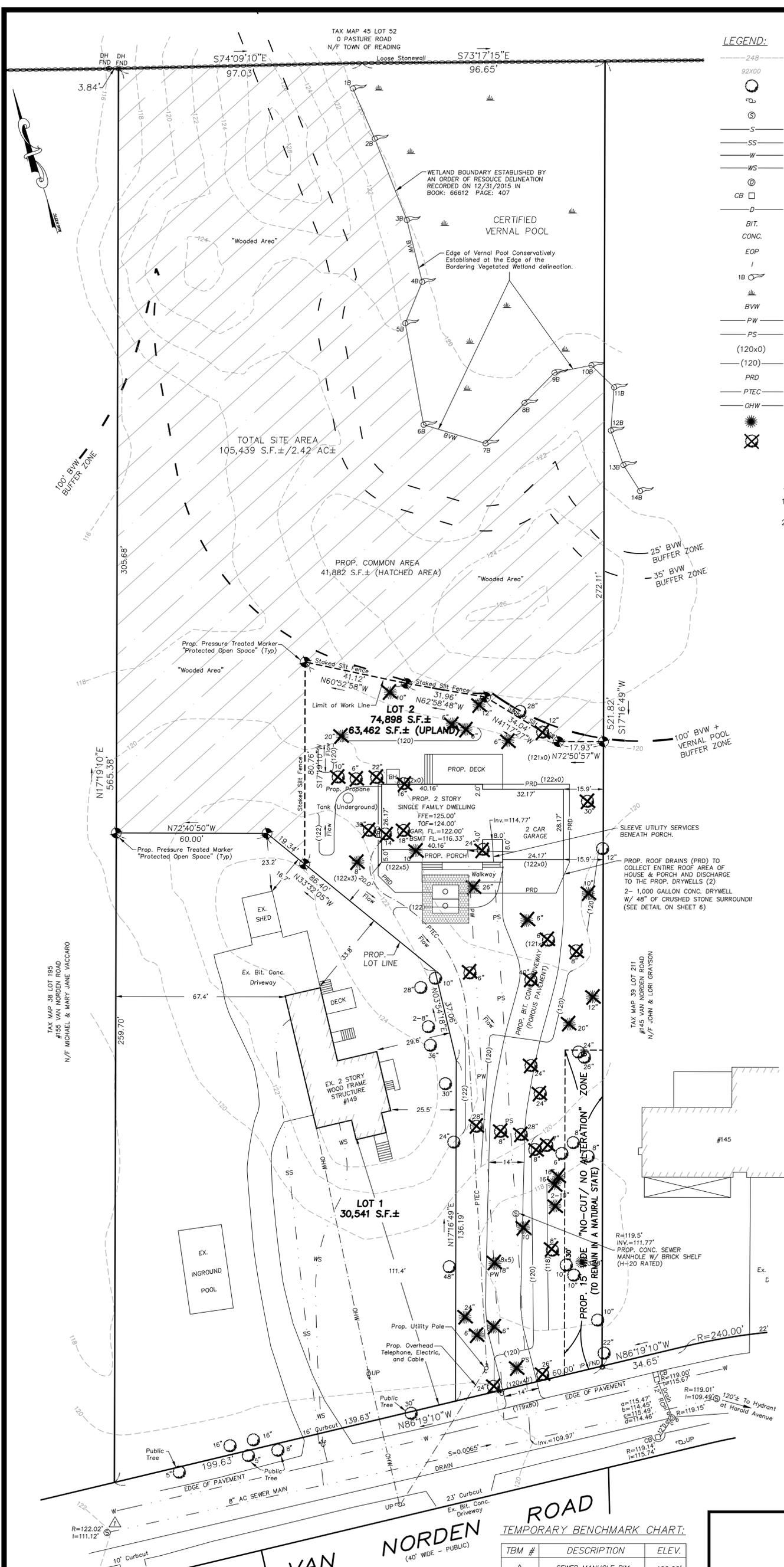
**ZONING INFORMATION:**

ZONING DISTRICT: S-20 (PRD OVERLAY)  
MIN. LOT SIZE: 20,000 S.F.  
MIN. LOT FRONTAGE: 120 FEET

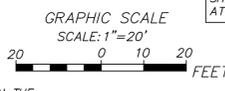
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APPROVED \_\_\_\_\_, 20\_\_

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- NOTES:**
1. THE TOPOGRAPHY, SITE DETAIL & SURFACE IMPROVEMENTS DEPICTED HEREON WERE OBTAINED FROM A PARTIAL FIELD SURVEY CONDUCTED ON MAY 2013 AND APRIL 5, 2015 BY SULLIVAN ENGINEERING GROUP, LLC.
  2. THE LOCUS PROPERTY DEPICTED IS LOCATED IN ZONING DISTRICT S-20.
  3. THE LOCUS PROPERTY IS DEPICTED AS LOT 212 ON THE TOWN OF READING ASSESSOR'S MAP 39.
  4. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT, VISIBLE USES OF THE LAND; HOWEVER, THIS DOES NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.
  5. THE ELEVATIONS DEPICTED HEREON WERE BASED UPON 1929 NGVD DATUM.
  6. THE LOCUS PROPERTY IS NOT LOCATED WITHIN A FLOOD ZONE AS DEPICTED ON THE LATEST FLOOD INSURANCE RATE MAP.



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**TEMPORARY BENCHMARK CHART:**

TBM #	DESCRIPTION	ELEV.
1	SEWER MANHOLE RIM	122.02'

**REVISIONS**

NO.	DATE	DESCRIPTION	BY	CHK'D
2	8/2/16	CLARIFY NO CUT ZONE & DRAINAGE FLOW	JDS	JDS
1	7/11/16	PER CPDC DECISION	JDS	JDS

**149 VAN NORDEN ROAD**  
**SITE PLAN OF LAND (PRD)**  
LOCATED IN  
**READING, MASSACHUSETTS**  
(MIDDLESEX COUNTY)

PREPARED FOR  
JESSE + SARAH WILSON  
SCALE: 1"=20' DATE: FEB. 25, 2016

PREPARED BY	OWNER:	APPLICANT:
SULLIVAN ENGINEERING GROUP, LLC P.O. BOX 2004 WOBURN, MA 01888 (781) 854-8644	BARBARA J. HITCHCOCK 149 VAN NORDEN ROAD READING, MA 01867 (781) 944-2753	JESSE & SARAH WILSON 17 GORDON ROAD NORTH READING, MA 01864 (978) 815-7359

SHEET No. 4 OF 6

TAX MAP 45 LOT 52  
O PASTURE ROAD  
N/F TOWN OF READING

**LEGEND:**

- BIT. BITUMINOUS
- CONC. CONCRETE
- EOP EDGE OF PAVEMENT
- I INVERT
- 1B WETLAND FLAG
- WETLAND RESOURCE AREA
- BVW BORDERING VEGETATED WETLAND

FOR REGISTRY OF DEEDS USE ONLY

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JOHN D. SULLIVAN III, P.E. DATE

**PLAN NOTES:**

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**ZONING INFORMATION:**

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MIN. LOT SIZE: 20,000 S.F.  
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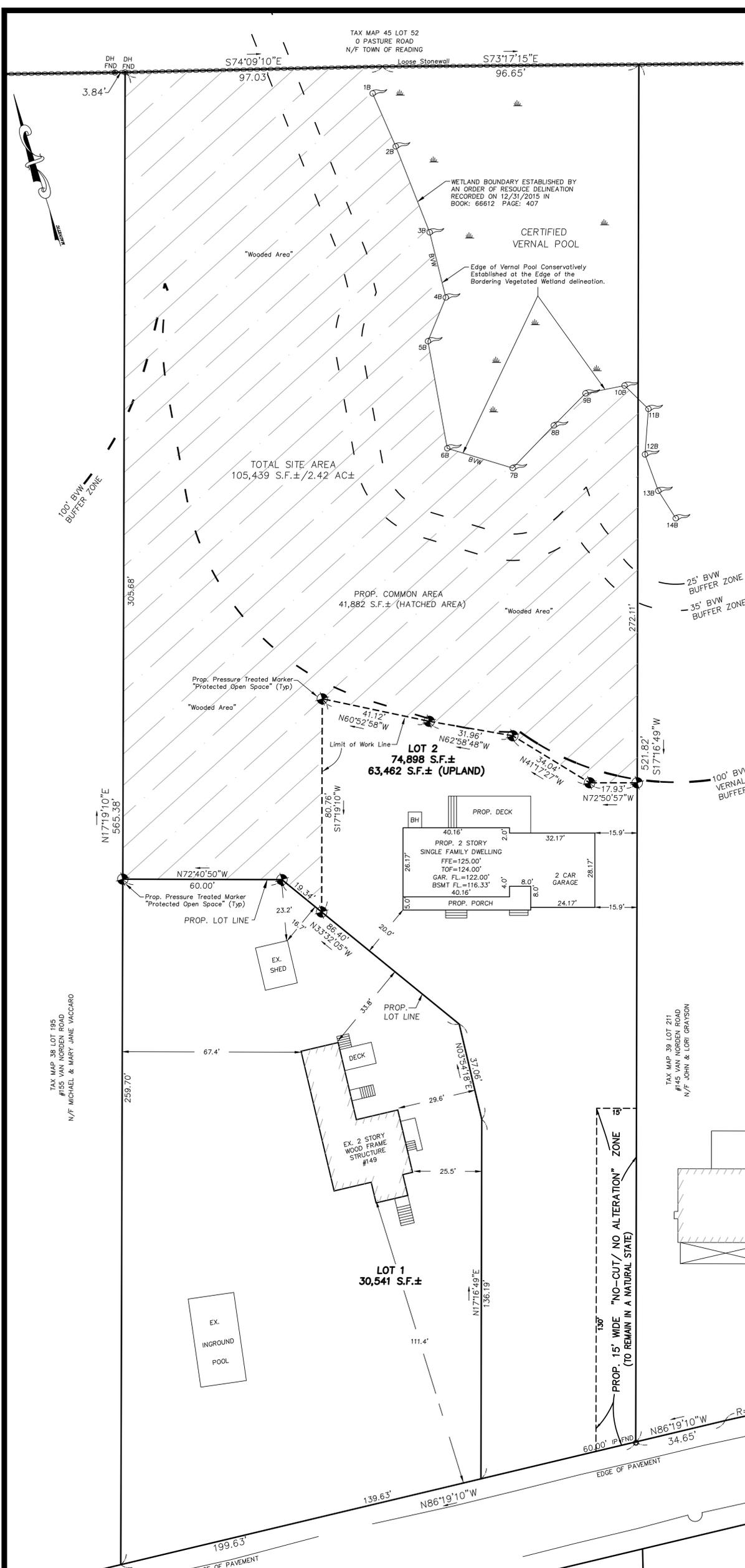
**GENERAL PLANNED RESIDENTIAL DEVELOPMENT STATISTICS (PRD-G)**

	PROVIDED:	REQUIRED/ALLOWED:
TOTAL AREA OF PRD DEVELOPMENT PARCEL:	105,439 S.F.	60,000 S.F. (MIN)
AREA OF WETLANDS:	11,436 S.F.	-----
AREA OF 25 FOOT WETLANDS BUFFER:	6,919 S.F.	-----
PARCEL FRONTAGE:	139.63' & 60.0'	50.00 FT (MIN)
FLOOR AREA RATIO (FAR)	0.04	0.40 (MAX)
GROSS FLOOR AREA		
EX. HOUSE: 2,166 S.F.		
PROP. HOUSE: 2,420 S.F.		
TOTAL GFA=4,586 S.F.		
TOTAL DEV. PARCEL AREA: 104,547 S.F.		
(SITE AREA - WETLAND AREA + 10% WETLANDS)		
TOTAL SITE AREA: 105,439 S.F.		
WETLAND AREA: 11,436 S.F.		
WETLANDS ALLOWANCE (10% OF SITE AREA): 10,544 S.F.		
FAR = 4,586 S.F./104,547 = 0.04		
BUILDING COVERAGE:	4.0%	25% (MAX)
EX. HOUSE: 1,268 S.F.		
EX. SHED: 204 S.F.		
EX. POOL: 586		
PROP. HOUSE: 1,893 S.F.		
PROP. PORCH: 272 S.F.		
TOTAL: 4,223 S.F.		
OPEN SPACE:	49.7%	40% (MIN)
COMMON AREA (INCLUDES 25 FT WETLANDS BUFFER):	41,882 S.F.	
25' X (40% OF 105,439 S.F.)= WETLANDS ALLOWANCE:	10,544 S.F.	
TOTAL:	52,426 S.F.	

**READING COMMUNITY PLANNING & DEVELOPMENT COMMISSION**

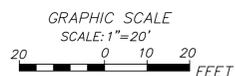
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TAX MAP 38 LOT 195  
#155 VAN NORDEN ROAD  
N/F MICHAEL & MARY JANE VACCARO

TAX MAP 39 LOT 211  
#145 VAN NORDEN ROAD  
N/F JOHN & LORI GRAYSON



**RECORD OWNER:**

ASSESSOR'S MAP 39 LOT 212  
BARBARA J. HITCHCOCK  
149 VAN NORDEN ROAD  
READING, MA 01867  
- DEED MAP 55453, PAGE No. 309

**REVISIONS**

NO.	DATE	DESCRIPTION	BY	CHK'D
2	8/2/16	CLARIFY "NO CUT" ZONE	JDS	JDS
1	7/11/16	PER CPDC DECISION	JDS	JDS

**149 VAN NORDEN ROAD**

**PRD AREAS**  
LOCATED IN  
**READING, MASSACHUSETTS**  
(MIDDLESEX COUNTY)

PREPARED FOR  
JESSE + SARAH WILSON

SCALE: 1"=20' DATE: FEB. 25, 2016

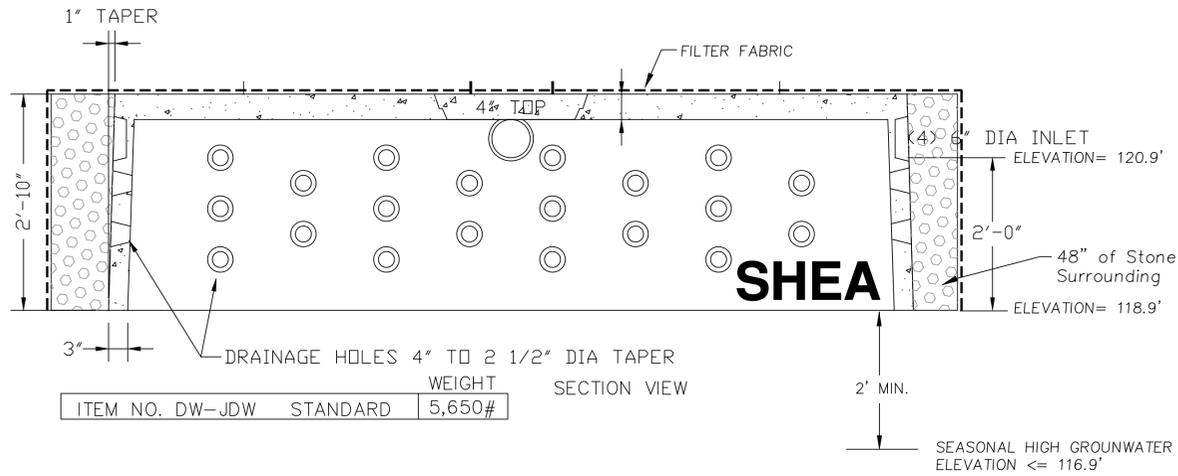
PREPARED BY OWNER: APPLICANT:

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17 GORDON ROAD  
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SHEET No. 5 OF 6



FOR REGISTRY OF DEEDS USE ONLY  
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JOHN D. SULLIVAN III, P.E. DATE

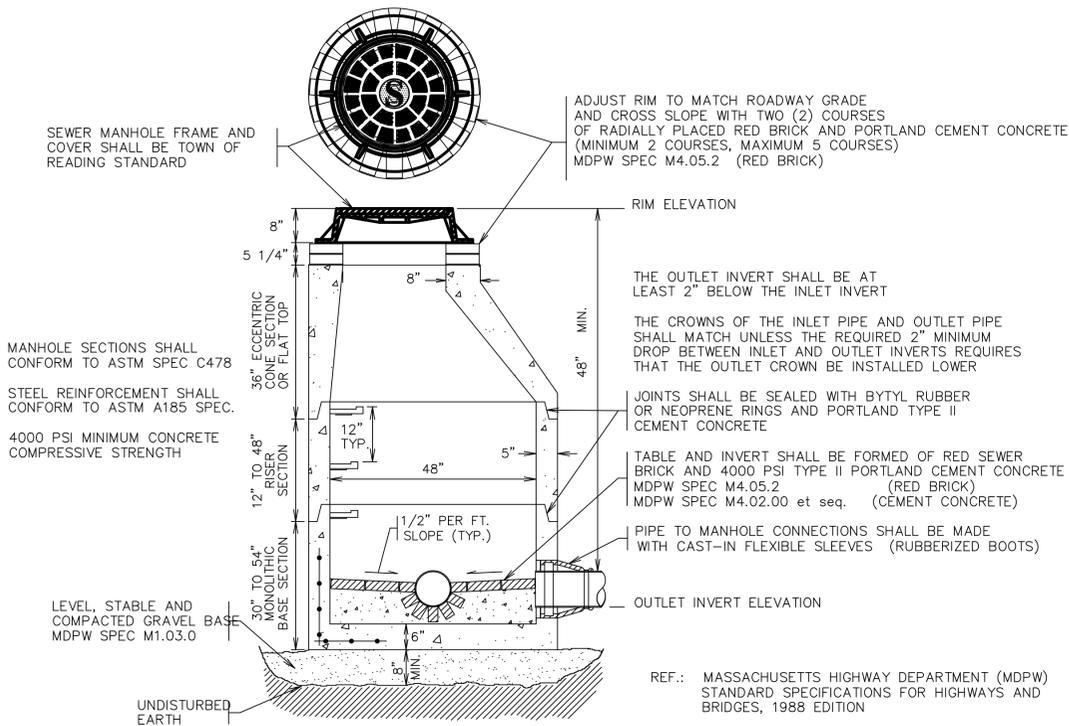
**DRAINAGE NOTES:**

- 1) 1 1/2" CRUSHED STONE TO BE PLACED ON ALL SIDES OF DRYWELL.
- 2) FILTER FABRIC TO WRAP THE SIDEWALLS AND TOP OF TANK.
- 3) MINIMUM 2 FOOT VERTICAL SEPARATION BETWEEN BOTTOM OF DRYWELL AND GROUNDWATER TABLE (IF ENCOUNTERED)
- 4) TOPSOIL & SUBSOIL TO BE REMOVED AND REPLACED WITH CLEAN SEPTIC SAND AS NEEDED THROUGHOUT DRAINAGE FACILITY AREA LIMITS.
- 5) ACCESS MANHOLE SHALL BE PLACED WITHIN 12" OF FINISH GRADE.

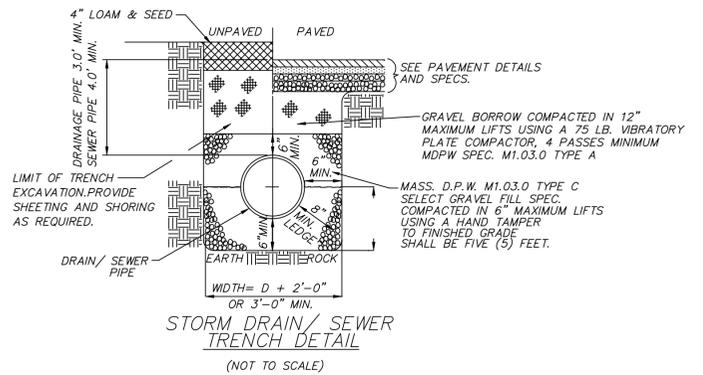
1000 GALLON  
 DRY WELL  
 JUMBO (H-10)  
 N.T.S.

**NOTE: 2-1,000 GALLON CONC. DRYWELLS ARE REQUIRED TO COLLECT THE ENTIRE ROOF AREA OF THE HOUSE AND PORCH AS SHOWN ON SITE PLAN**

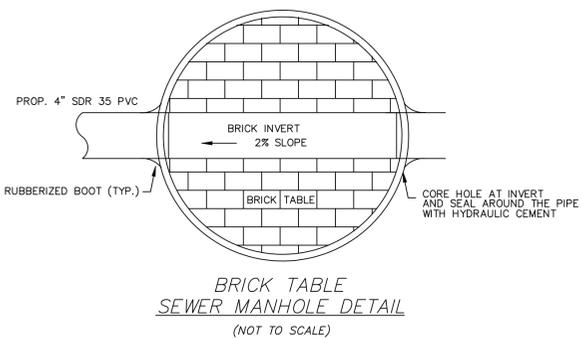
READING COMMUNITY PLANNING & DEVELOPMENT COMMISSION



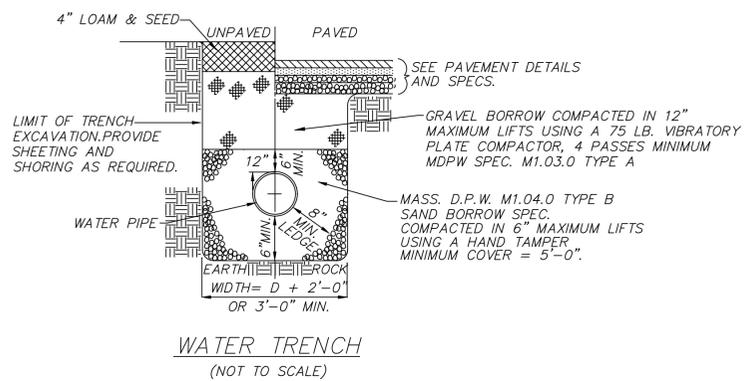
TYPICAL SEWER MANHOLE DETAIL  
 (NOT TO SCALE)



STORM DRAIN/SEWER TRENCH DETAIL  
 (NOT TO SCALE)



BRICK TABLE SEWER MANHOLE DETAIL  
 (NOT TO SCALE)



WATER TRENCH  
 (NOT TO SCALE)

UNDERGROUND TELEPHONE, ELECTRIC, AND CABLE TO MEET DETAILS AND SPECIFICATIONS OF THE RESPECTIVE UTILITY COMPANY.

- 4" OF POROUS ASPHALT (POLYMER MODIFIED PERFORMANCE GRADE ASPHALT BINDER (PCAB))
- 4" OF 3/4" CRUSHED STONE
- 12" OF BANK RUN GRAVEL
- 3" OF 3/8" PEA GRAVEL
- 4" OF 3/4" CRUSHED STONE
- EXISTING SUBGRADE MATERIAL

**POROUS PAVEMENT CONSTRUCTION - CROSS SECTION**  
 NOT TO SCALE

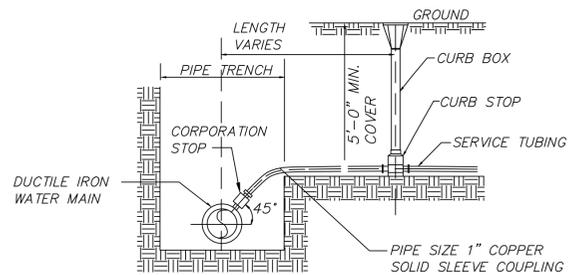
**NOTE ON SUBBASE CONSTRUCTION:**

THE SUBBASE SHALL BE INSTALLED WITH A TWO INCH OVERFILL AT THE OUTSET OF CONSTRUCTION. THE OVERFILL WILL THEN BE REMOVED PRIOR TO PAVING. THE SUBBASE SHALL BE INSPECTED BY THE DESIGN ENGINEER FOR COMPACTION AND INFILTRATIVE CAPACITY AND, IF NECESSARY, SCARIFIED TO THE DEPTH REQUIRED PRIOR TO PLACEMENT OF THE POROUS ASPHALT LAYER.

- 1) NO SAND OR SALT SHALL BE APPLIED TO THE POROUS PAVEMENT AREAS DURING THE WINTER MONTHS.
- 2) PAVEMENT SHALL BE INSPECTED AS REQUIRED TO INSURE STRUCTURAL INTEGRITY AND FUNCTIONALITY.
- 3) IF THE POROUS PAVEMENT BECOMES CLOGGED WITH SILT, SAND, OR OTHER MATERIALS THE PAVEMENT SHALL BE VACUUM CLEANED.
- 4) THE OWNER OF THE SITE SHALL EDUCATE THE CONTRACTOR RESPONSIBLE FOR SNOW/ICE REMOVAL WHERE THE POROUS PAVEMENT AREAS ARE ON-SITE AND THAT SAND/SALT SHALL NOT BE USED IN THESE AREAS.
- 5) THE DRIVEWAY SHALL UNDERGO VACUUMING AS REQUIRED TO PREVENT CLOGGING.
- 6) SEALCOATING THE DRIVEWAY SURFACE IS STRICTLY PROHIBITED.

**OPERATION & MAINTENANCE - POROUS PAVEMENT:**

REVISIONS				
NO.	DATE	DESCRIPTION	BY	CHK'D
2	8/2/16	NO CHANGES THIS SHEET	JDS	JDS
1	7/11/16	PER CPDC DECISION	JDS	JDS



TYPICAL WATER SERVICE  
 (NOT TO SCALE)

**149 VAN NORDEN ROAD**

**CONSTRUCTION DETAILS**

LOCATED IN  
 READING, MASSACHUSETTS  
 (MIDDLESEX COUNTY)

PREPARED FOR  
 JESSE + SARAH WILSON

NOT TO SCALE: DATE: FEB. 25, 2016

PREPARED BY OWNER: APPLICANT:

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