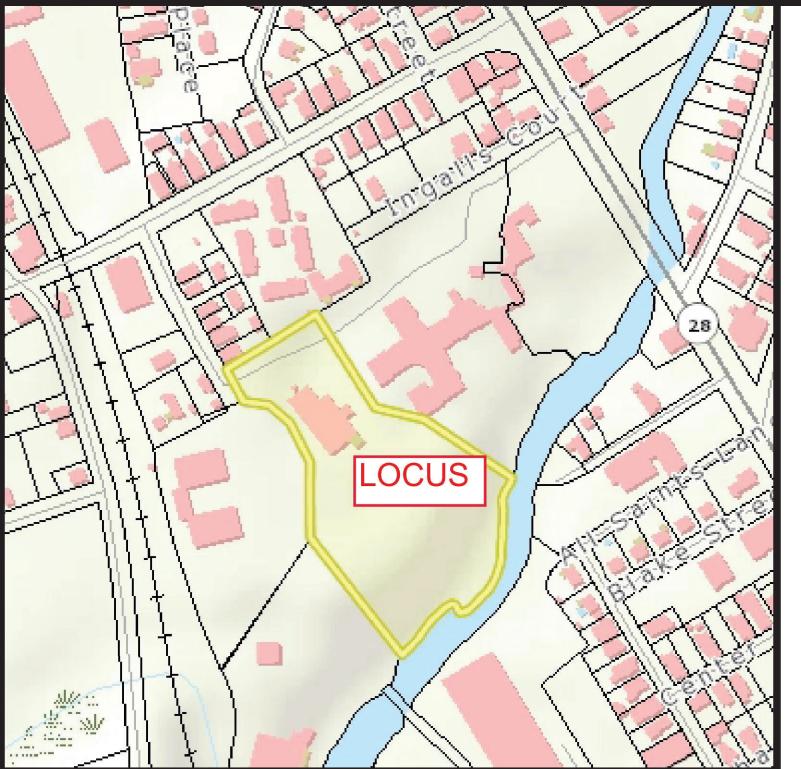


# SITE PLAN FOR Y.W.C.A. RESIDENCES AT INGALLS COURT IN METHUEN, MA

JULY 2021



LOCUS MAP  
N.T.S.

METHUEN BOARD OF APPEALS APPROVAL

DATE

**PROJECT LOCATION**

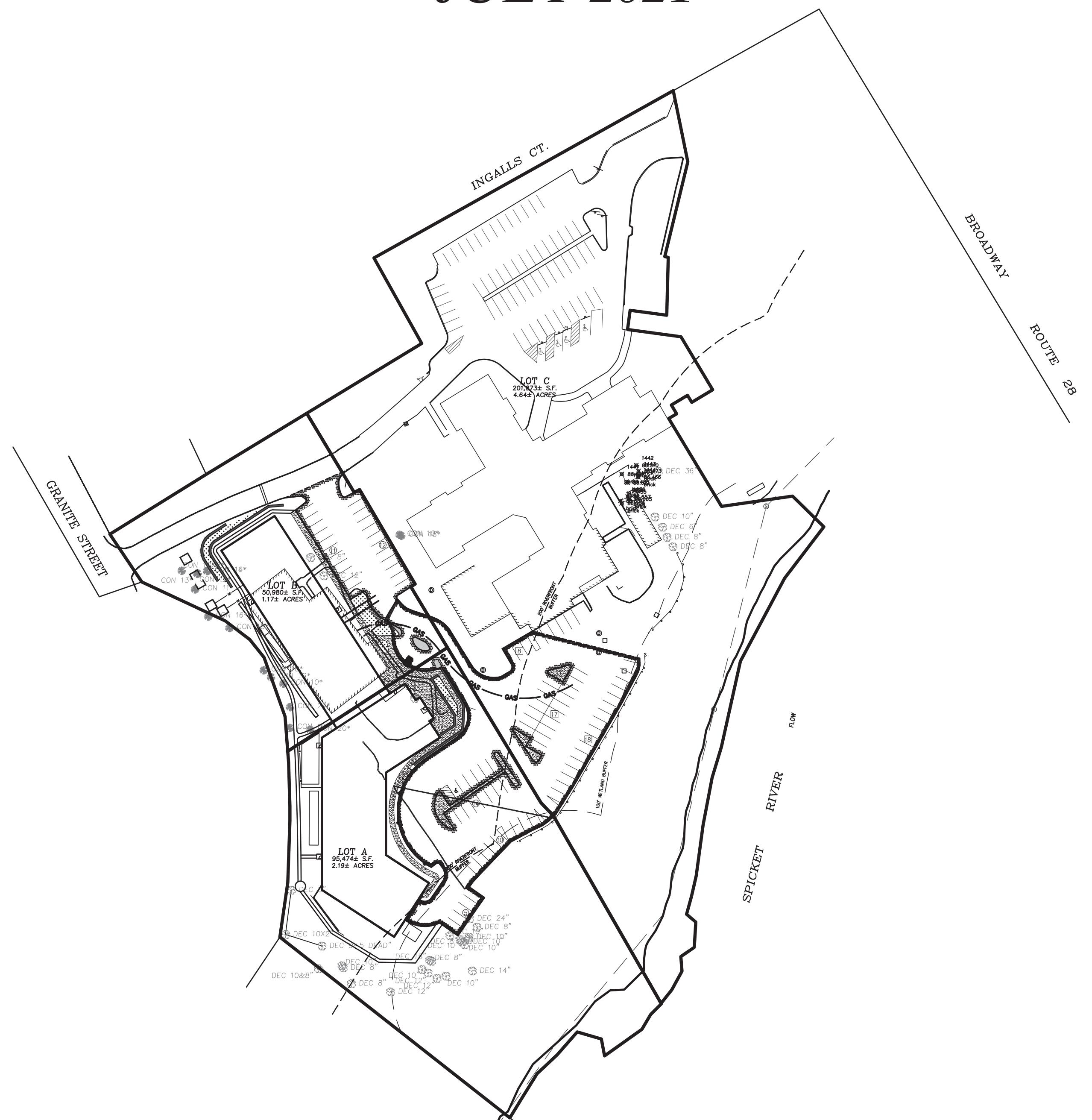
INGALLS COURT – METHUEN  
MAP 716, BLOCK 115, LOT 2A

**OWNER OF RECORD**

HENRY C. NEVINS HOME INC.  
10 INGALLS COURT  
METHUEN, MA 01844  
BK. 1386 PG. 191

**PLAN INDEX**

SHEET NO.	TITLE
1	COVER SHEET
2	EXISTING CONDITIONS
3	ANR PLAN
4	SITE PLAN (PHASE 1)
5	SITE PLAN (PHASE 2)
6	GRADING PLAN
7	UTILITIES PLAN
8	DEMOLITION PLAN (PHASE 1)
9	DEMOLITION PLAN (PHASE 2)
10	EROSION CONTROL PLAN
11	FIRE TRUCK TURNING ANALYSIS PLAN
12-14	CONSTRUCTION DETAILS
L-1	LANDSCAPE PLAN



ZONING TABLE: LOT A (PHASE 1)

INGALLS COURT ZONING DISTRICT: MB			
	REQUIRED	EXISTING	PROPOSED
LOT AREA:	43,560 S.F.	289,082 S.F.	95,474 S.F.
LOT FRONTAGE:	150 FT.	334.52	0 FT.
LOT WIDTH:	150 FT.	>150 FT	>150 FT.
FRONT SETBACK:	30 FT.	60.7 FT	N/A
SIDE A:	25 FT.	N/A	31.5 FT.
SIDE B:	25 FT.	N/A	0 FT.
SIDE C:	25 FT.	N/A	51.4 FT.
SIDE D:	25 FT.	N/A	192.6 FT.
REAR SETBACK:	30 FT.	123.2 FT	N/A
MAX. COVERAGE:	40% MAX.	41.3%	43.5%
BUILDING HEIGHT:	40 FT.	N/A	66.84 FT.
LANDSCAPED OPEN SPACE:	30% MIN.	58.1%	56.5%
MAX. STORIES:	3	N/A	5

ZONING TABLE: LOT B (PHASE 2)

INGALLS COURT ZONING DISTRICT: MB			
	REQUIRED	EXISTING	PROPOSED
LOT AREA:	43,560 S.F.	59,245 S.F.	50,980 S.F.±
LOT FRONTAGE:	150 FT.	56.1± FT	56.1± FT
LOT WIDTH:	150 FT.	>150 FT	>150 FT
FRONT SETBACK:	30 FT.	101.1 FT	83.3 FT
SIDE SETBACK:	25 FT.	19.1 FT	0 FT.
REAR SETBACK:	30 FT.	64.2 FT	58.2 FT.
MAX. COVERAGE:	40% MAX.	39.5%	58%
BUILDING HEIGHT:	40 FT.	<40 FT.	62.0 FT.
LANDSCAPED OPEN SPACE:	30% MIN.	60.5%	42%
MAX. STORIES:	3	1	4

ZONING TABLE: LOT C

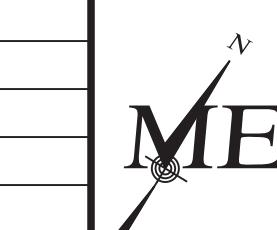
INGALLS COURT ZONING DISTRICT: MB			
	REQUIRED	EXISTING	PROPOSED
LOT AREA:	43,560 S.F.	289,082 S.F.	201,873 S.F.±
LOT FRONTAGE:	150 FT.	334.52	334.52
LOT WIDTH:	150 FT.	>150 FT	>150 FT
FRONT SETBACK:	30 FT.	60.7 FT	60.7 FT
SIDE SETBACK:	25 FT.	0 FT	0 FT.
REAR SETBACK:	30 FT.	123.2 FT	123.2 FT.
MAX. COVERAGE:	40% MAX.	41.3%	49.7%
BUILDING HEIGHT:	40 FT.	N/A	N/A
LANDSCAPED OPEN SPACE:	30% MIN.	58.1%	50.3%
MAX. STORIES:	3	2	N/A

PROGRESS  
PRINT

GRAPHIC SCALE  
80 0 40 80 160 320  
( IN FEET )  
1 INCH = 80'

PREPARED FOR  
L.D. RUSSO, INC.  
198 AYER ROAD  
HARVARD, MA

2 11/9/21 RESPONSE TO PEER REVIEW J.T.M.  
1 10/12/21 REVISIONS FROM PEER REVIEW S.R.C.  
NO. DATE DESCRIPTION BY

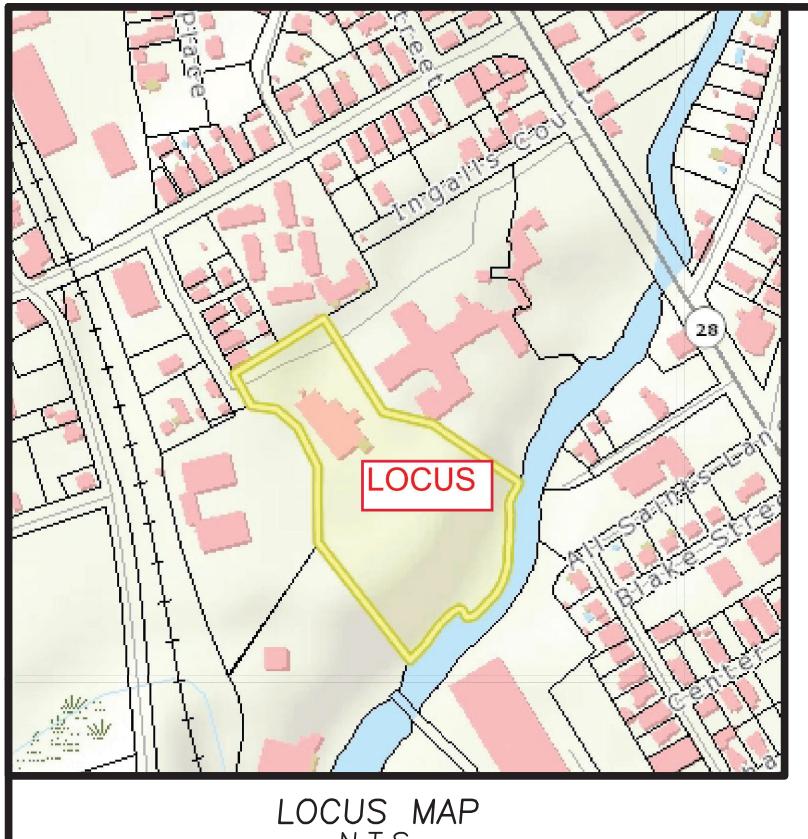


MILLENNIUM ENGINEERING, INC.  
ENGINEERING AND LAND SURVEYING  
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980  
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

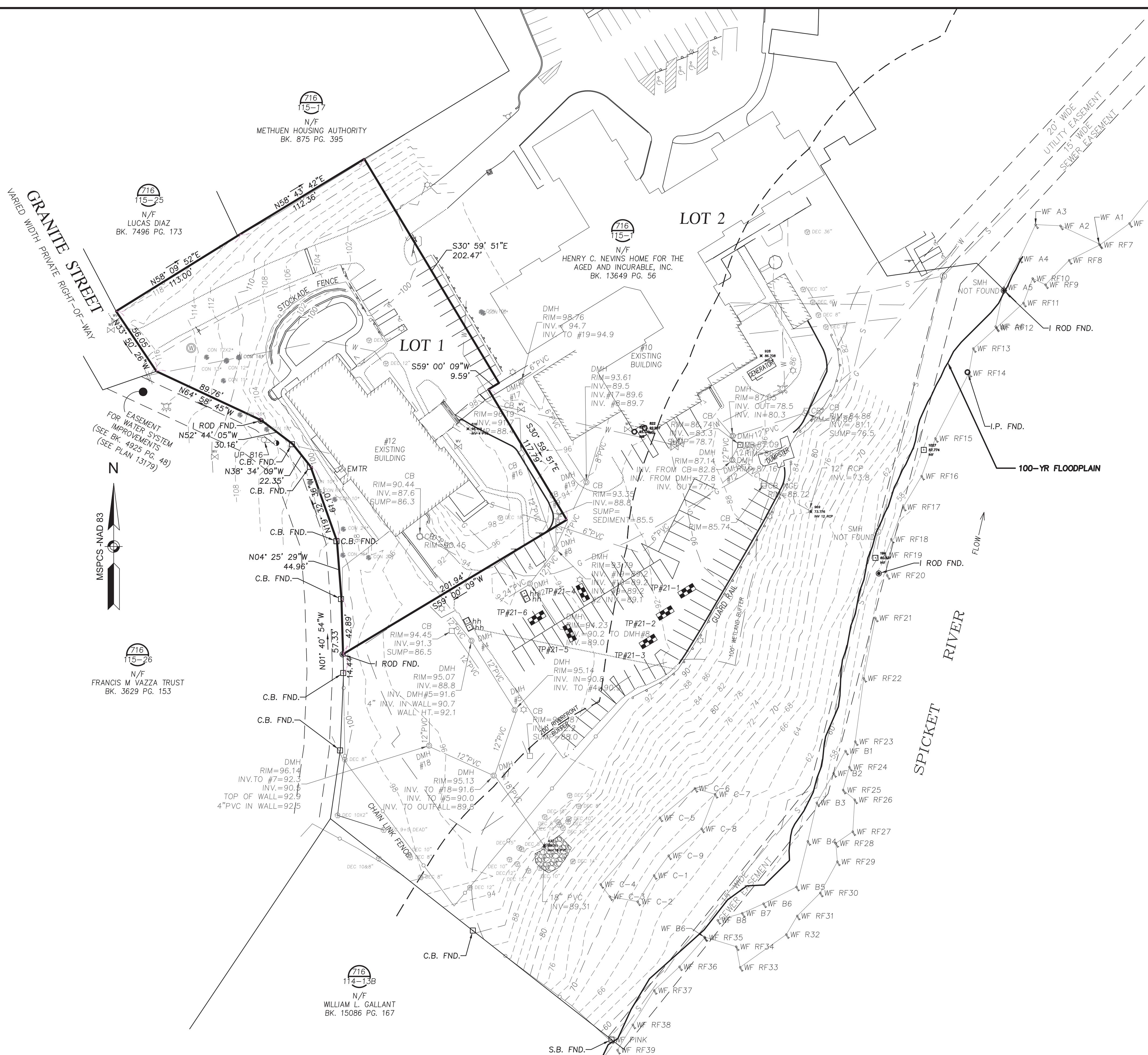
SCALE: 1"=40' DESG. BY: J.T.M.  
DATE: JUNE 30, 2021 CHKD. BY: E.W.B. PROJECT: M213895

SITE PLAN  
IN  
METHUEN, MA  
AT  
12 INGALLS COURT  
(MAP 716, BLOCK 115, LOT 2A)

COVER  
SHEET  
SHEET: 1 OF 14



LOCUS MAP  
N.T.S.



**BASIS OF BEARINGS**  
MASS. STATE PLANE COORD. SYSTEM  
NAD 83

**OWNER OF RECORD**  
HENRY C NEVINS HOME INC.  
10 INGALLS COURT  
METHUEN, MA 01844  
BK. 13649 PG. 56  
WITH EXCEPTION AT  
BK. 15594 PG. 192

**PLAN REFERENCES**  
PLAN NO. 17827  
PLAN NO. 12503  
PLAN NO. 11951  
PLAN NO. 8121

WETLAND DELINEATED BY:  
SEEKAMP ENVIRONMENTAL  
CONSULTING, INC.  
129 ROUTE 125  
KINGSTON, NH. 03848  
(603) 642-8300  
(DELINEATED ON: MARCH 2021)

**NOTES:**  
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.

RECORD UTILITY INFORMATION HAS BEEN OBTAINED  
FOR LOCUS. VISIBLE SURFACE STRUCTURES HAVE  
BEEN LOCATED AND ARE SHOWN HEREON HOWEVER.

THE CERTIFICATIONS SHOWN HEREON ARE NOT  
INTENDED AS CERTIFICATION TO TITLE OR OWNERSHIP  
OF PROPERTY SHOWN. OWNERS OF ADJOINING  
PROPERTIES ARE ACCORDING TO CURRENT TOWN/CITY  
ASSESSORS RECORDS.

I CERTIFY:  
THAT THIS ACTUAL SURVEY WAS MADE ON  
THE GROUND BETWEEN MARCH 24, 2021,  
AND APRIL 12, 2021, AND THAT THE  
STRUCTURES AND PHYSICAL FEATURES  
ARE LOCATED AS SHOWN TO THE BEST OF  
MY ABILITY AND BELIEF.

I CERTIFY:  
THAT THE PROPERTY LINES SHOWN ARE THE  
LINES OF EXISTING OWNERSHIP AND THE LINES  
OF STREETS AND WAYS SHOWN ARE THE  
LINES OF STREETS AND WAYS ALREADY  
EXISTING AND THAT NO NEW LINES FOR THE  
DIVISION OF EXISTING OWNERSHIP OR FOR NEW  
STREETS OR WAYS ARE SHOWN.

THAT THIS PLAN CONFORMS TO THE  
RULES AND REGULATIONS OF THE  
REGISTRY OF DEEDS.

**PROGRESS  
PRINT**

PROFESSIONAL LAND SURVEYOR DATE

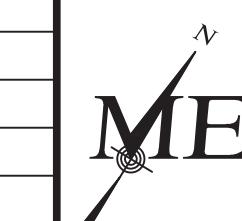
**LEGEND**

- C.B. CONCRETE BOUND
- S.B. STONE BOUND
- I.P. IRON PIPE
- I. ROD IRON ROD
- FND. FOUND
- N/F NOW OR FORMERLY
- H.H. ELECTRIC HANDLINE
- LP LIGHTPOLE
- UPOLE UTILITY POLE
- D DRAINAGE
- W WATER
- S SEWER
- G GAS
- OHW OVERHEAD WIRE
- CB CATCH BASIN
- DMH DRAIN MANHOLE
- SMH SEWER MANHOLE
- W HYDRANT
- WSH WATER SHUT OFF
- WATER VALVE
- ASSESSORS MAP# BLOCK# PARCEL#

GRAPHIC SCALE  
40 0 20 40 80 160  
( IN FEET )  
1 INCH = 40'

PREPARED FOR  
L.D. RUSSO, INC.  
198 AYER ROAD  
HARVARD, MA 01451

2 11/9/21 RESPONSE TO PEER REVIEW J.T.M.  
1 10/12/21 RESPONSE TO PEER REVIEW J.T.M.  
NO. DATE DESCRIPTION BY



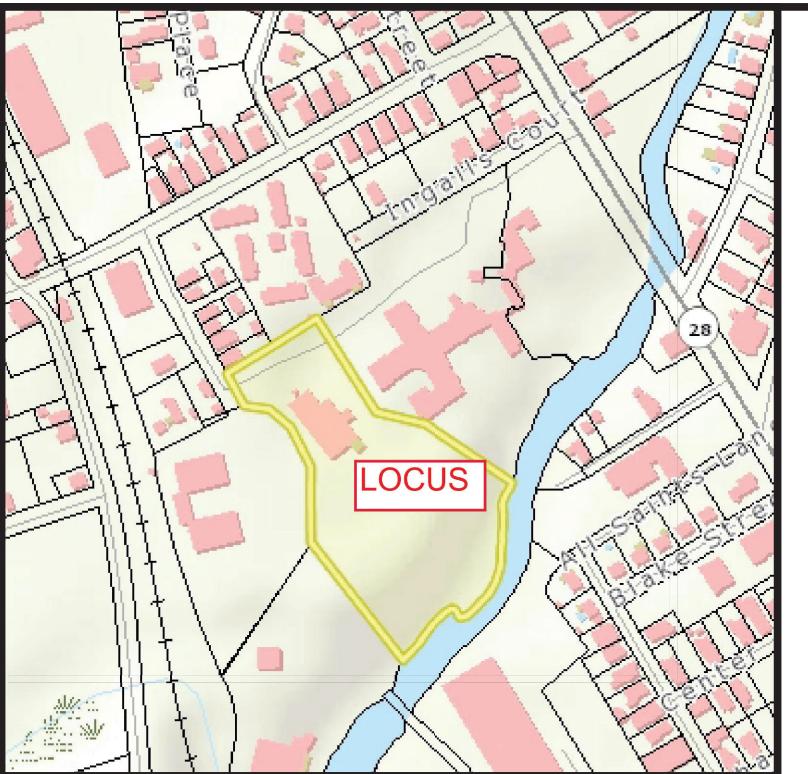
MILLENNIUM ENGINEERING, INC.  
ENGINEERING AND LAND SURVEYING  
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980  
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

SCALE: 1"=40' CALC. BY: P.D.B.  
DATE: JUNE 15, 2021 CHKD. BY: J.S.H. PROJECT: M213895

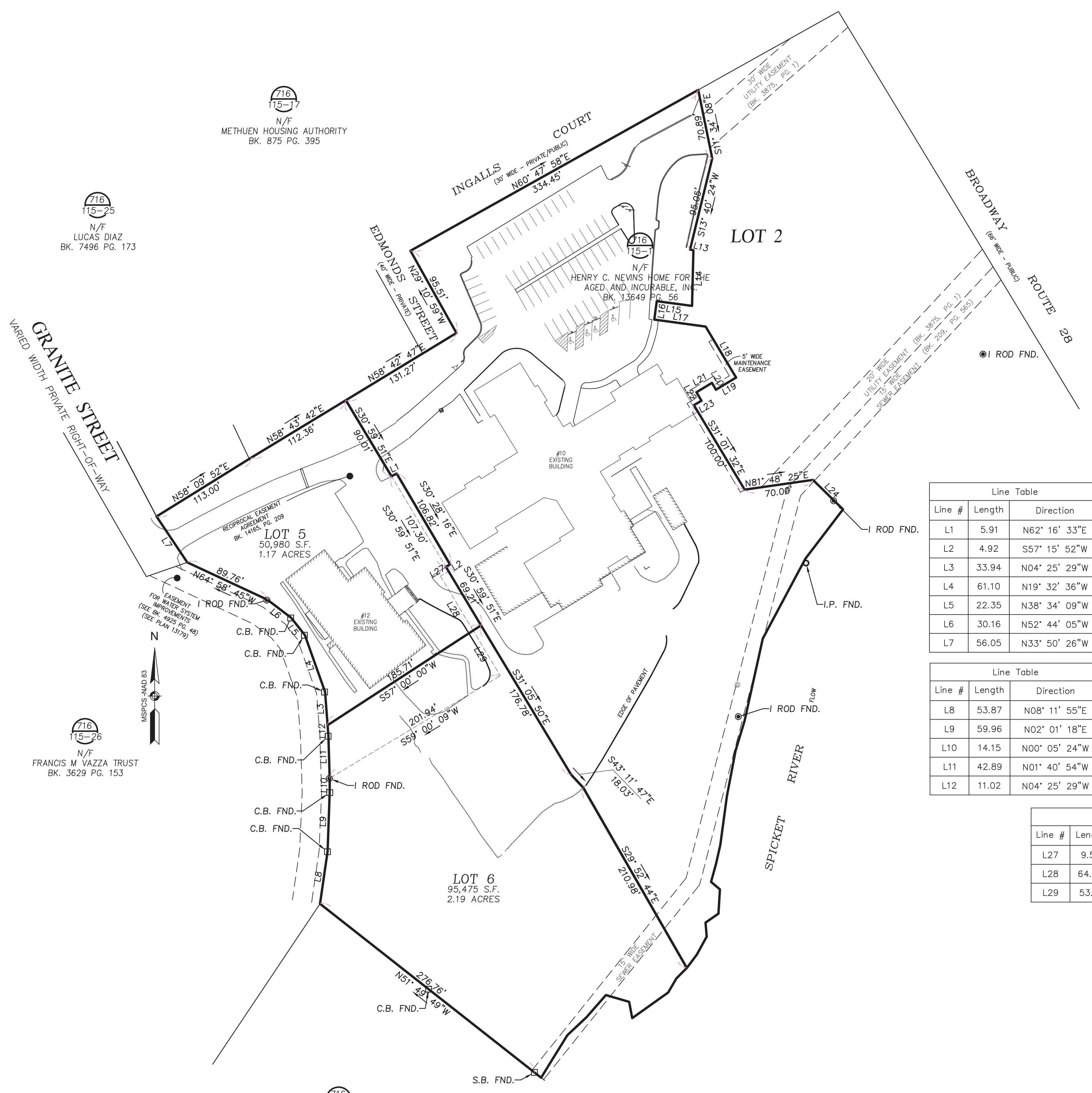
**SITE PLAN  
IN  
METHUEN, MA**

**AT  
12 INGALLS COURT**  
(MAP 716, BLOCK 115, LOT 2A)

**EXISTING  
CONDITIONS**  
SHEET: 2 OF 14



LOCUS MAP  
N.T.S.



FOR REGISTRY USE

**BASIS OF BEARINGS**  
MASS. STATE PLANE COORD. SYSTEM  
NAD 83

**OWNER OF RECORD**  
HENRY C NEVINS HOME INC.  
10 INGALLS COURT  
METHUEN, MA 01844  
BK. 13649 PG. 56  
WITH EXCEPTION AT  
BK. 15594 PG. 192

**PLAN REFERENCES**  
PLAN NO. 17827  
PLAN NO. 12503  
PLAN NO. 11951  
PLAN NO. 8121

**WETLAND DELINEATED BY:**  
SEEKAMP ENVIRONMENTAL  
CONSULTING, INC.  
129 ROUTE 125  
KINGSTON, NH. 03848  
(603) 642-8300  
(DELINEATED ON: MARCH 2021)

**NOTES:**  
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**THE CERTIFICATIONS SHOWN HEREON ARE NOT INTENDED AS CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT CITY OF METHUEN ASSESSORS RECORDS.**

**I CERTIFY:**  
THAT THIS ACTUAL SURVEY WAS MADE ON THE GROUND BETWEEN MARCH 24, 2021, AND APRIL 12, 2021, AND THAT THE STRUCTURES AND PHYSICAL FEATURES ARE LOCATED AS SHOWN TO THE BEST OF MY ABILITY AND BELIEF.

**THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTRY OF DEEDS.**

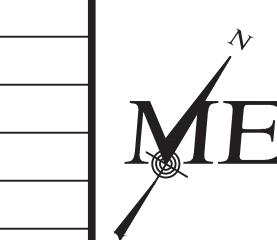
**PROGRESS  
PRINT**

PROFESSIONAL LAND SURVEYOR DATE

**GRAPHIC SCALE**  
60 0 30 60 120 240  
( IN FEET )  
1 INCH = 60'

**PREPARED FOR**  
L.D. RUSSO, INC.  
198 AYER ROAD  
HARVARD, MA 01451

NO.	DATE	DESCRIPTION	BY
2	11/9/21	RESPONSE TO PEER REVIEW	J.T.M.
1	10/12/21	REVISIONS FROM PEER REVIEW	S.R.C.



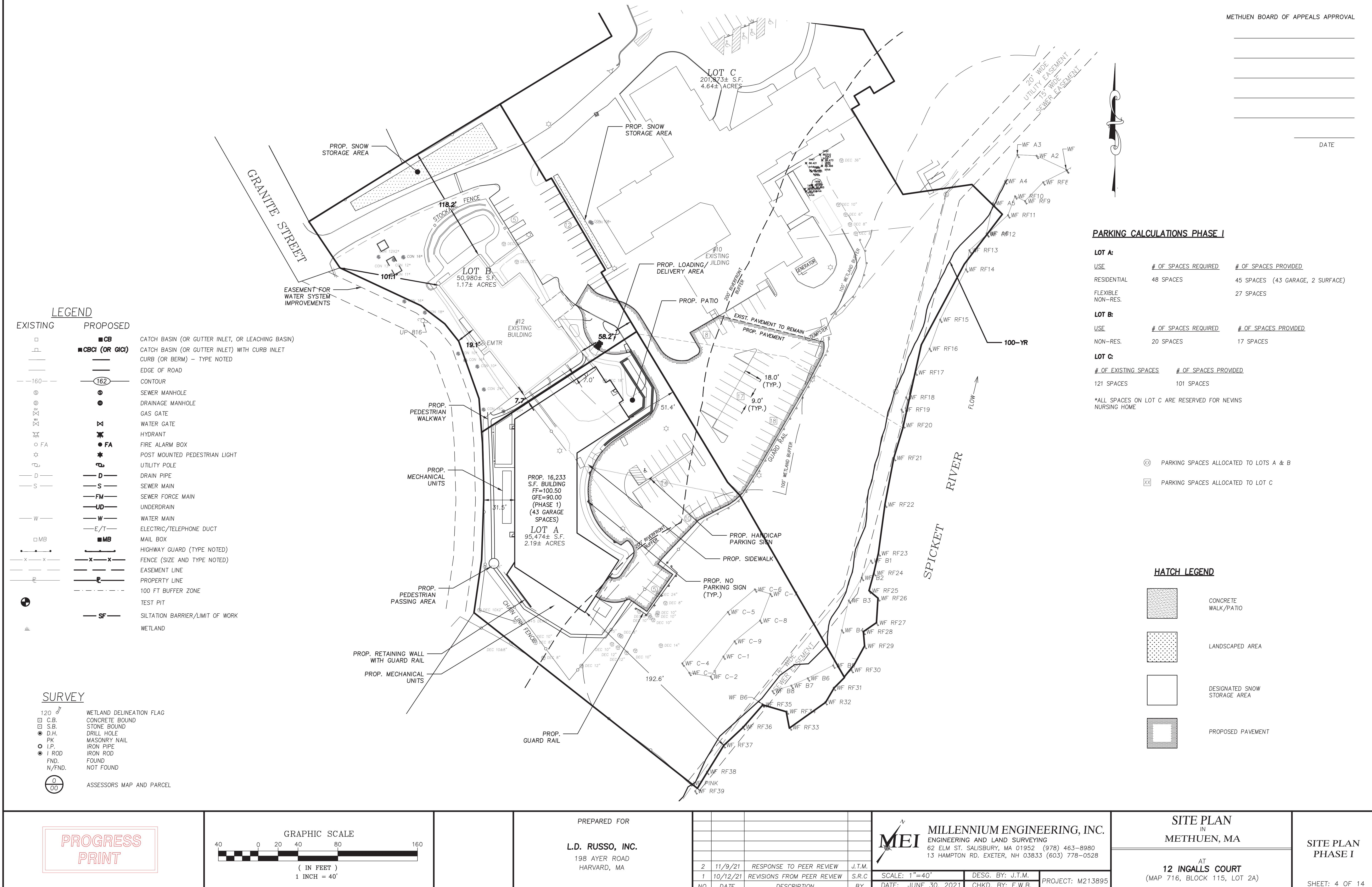
**MILLENNIUM ENGINEERING, INC.**  
ENGINEERING AND LAND SURVEYING  
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980  
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

SCALE: 1"=60'	CALC. BY: P.D.B.	PROJECT: M213895
DATE: JUNE 30, 2021	CHKD. BY: J.S.H.	

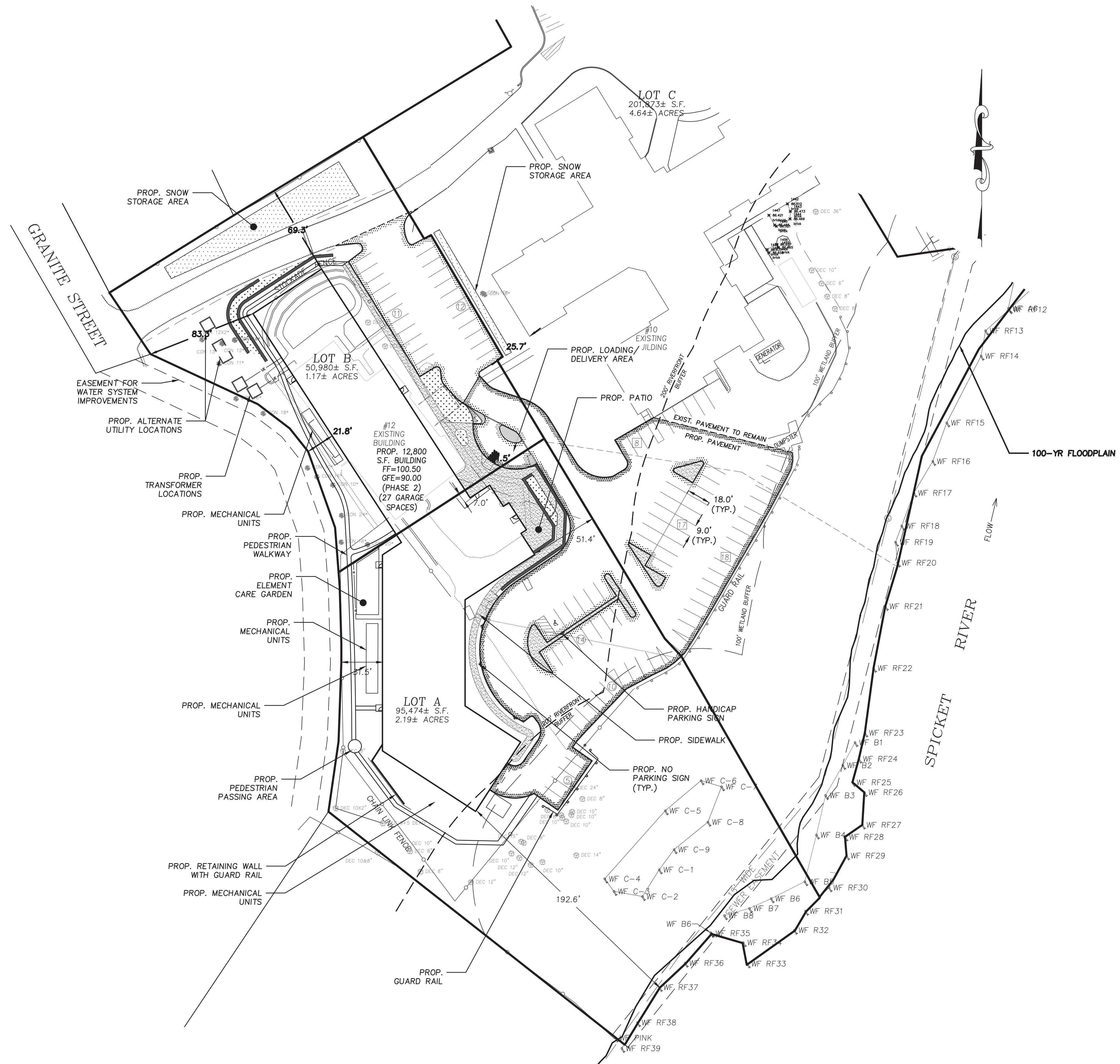
**SITE PLAN**  
IN  
METHUEN, MA  
AT  
12 INGALLS COURT  
(MAP 716, BLOCK 115, LOT 2A)

**LOT  
LINE  
ADJUSTMENT**  
SHEET: 3 OF 14

DA<sup>+</sup>



DA



## PARKING CALCULATIONS PHASE II

## LOT A:

USE      # OF SPACES REQUIRED      # OF SPACES PROVIDED

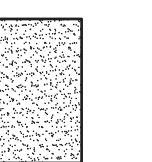
RESIDENTIAL 48 SPACES 45 SPACES (43 GARAGE, 2 SURFACE)  
FLEXIBLE 27 SPACES

**LOT B:**

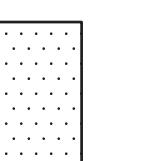
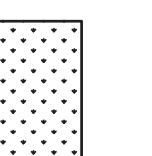
<u>USE</u>	<u># OF SPACES REQUIRED</u>	<u># OF SPACES PROVIDED</u>
RESIDENTIAL	48 SPACES	29 SPACES (27 GARAGE, 2 SURFACE)

\*ALL SPACES ON LOT C ARE RESERVED FOR NEVINS  
NURSING HOME

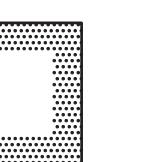
## **WATCH LEGEND**



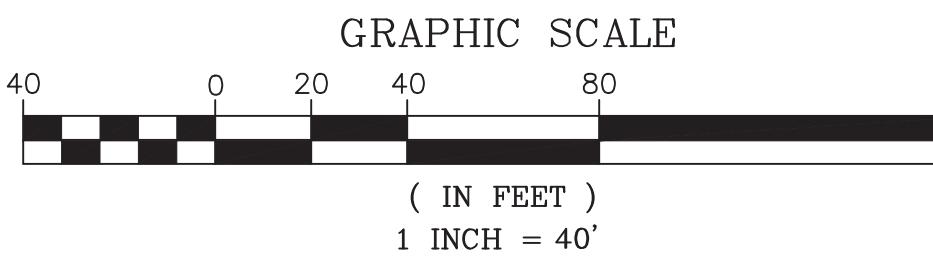
## CONCRETE WALK/PATIO



DESIGNATED SNOW



# PROGRESS PRINT



PREPARED FOR  
**L.D. RUSSO, INC.**  
198 AYER ROAD  
HARVARD, MA

**L.D. RUSSO, INC.**  
198 AYER ROAD  
HARVARD, MA

MI

**EI MILLENNIUM ENGINEERING, INC.**  
ENGINEERING AND LAND SURVEYING  
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980  
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

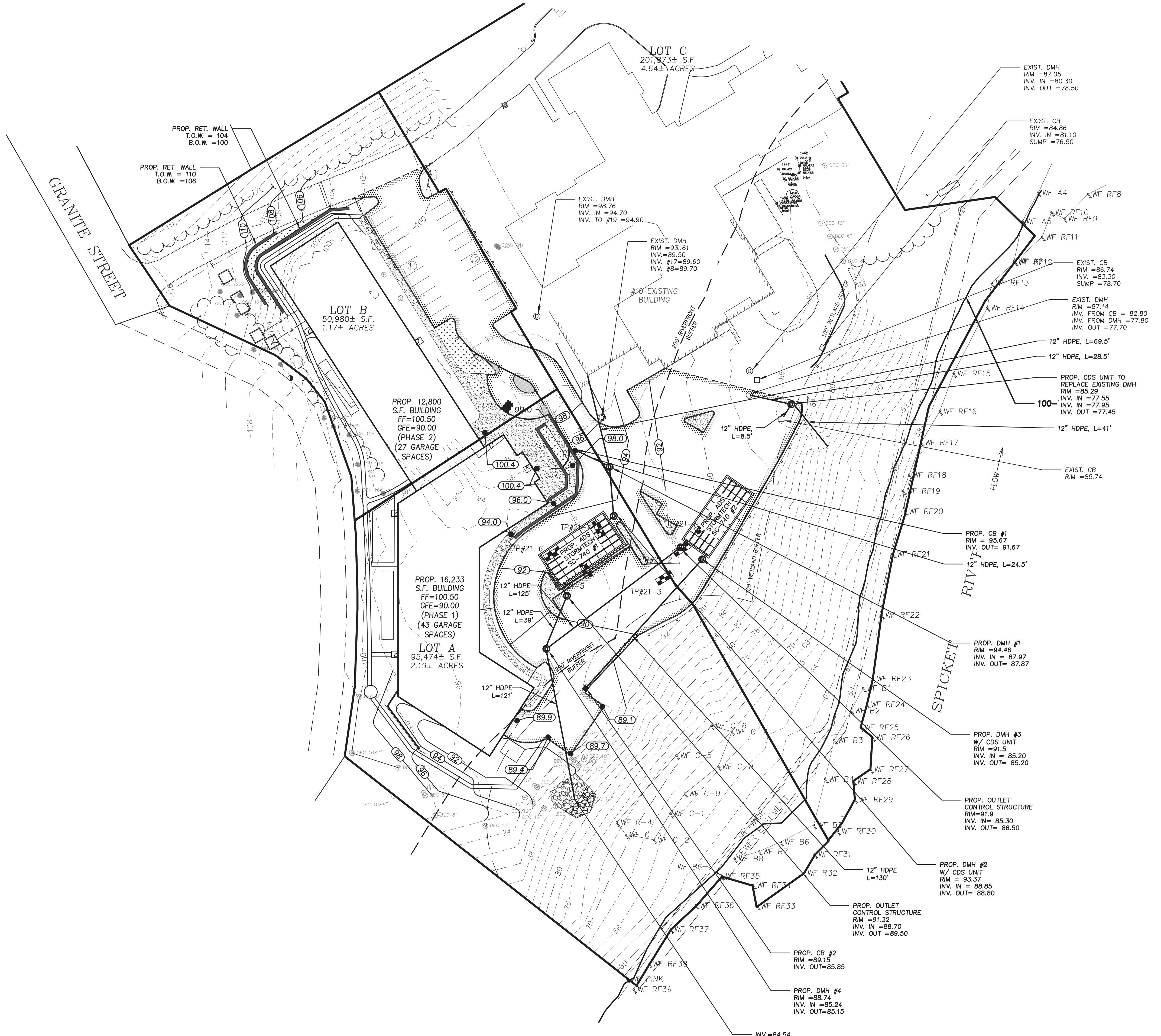
1"=40'	DESG. BY: J.T.M.	PROJECT: M213895
JUNE 30, 2021	CHKD. BY: E.W.B.	

# SITE PLAN IN METHUEN, MA

**INGALLS COURT**  
16, BLOCK 115, LOT 2A)

# SITE PLAN PHASE II

DAT



# PROGRESS PRINT

PREPARED FOR  
**L.D. RUSSO, INC.**  
198 AYER ROAD  
HARVARD, MA

The logo for the journal 'ME' (Management Education) is located in the top right corner. It consists of a large, bold, italicized 'M' and 'E' stacked vertically. A diagonal line extends from the top of the 'M' to the top of the 'E'. A small gear-like circle is positioned at the bottom of the 'M', and a short vertical line extends from the top of the 'E' towards the top of the page.

**EI** MILLENNIUM ENGINEERING, INC.  
ENGINEERING AND LAND SURVEYING  
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980  
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

**SITE PLAN  
IN  
METHUEN, MA**

---

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# GRADING AND DRAINAGE PLAN

## GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE NEWBURY PLANNING BOARD RULES AND REGULATIONS GOVERNING THE SUBDIVISION OF LAND, THE WETLANDS PROTECTION ACT (310 CMR 10.00), THE ORDER OF CONDITIONS ISSUED BY THE NEWBURY CONSERVATION COMMISSION, AND THESE PLANS.
- THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS. ANY PROPOSED REVISIONS TO THE WORK SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND REGULATING MUNICIPAL AND/OR STATE AGENCIES.
- THE LOCATION OF ALL UTILITIES, AS SHOWN ON THESE PLANS, ARE BASED UPON PLANS AND RECORD INFORMATION PROVIDED BY MUNICIPAL AND PRIVATE UTILITY COMPANIES AND ARE CONSIDERED APPROXIMATE BOTH AS TO SIZE AND LOCATION. NO WARRANTY IS MADE TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UTILITIES ARE SHOWN. THE CONTRACTOR SHALL NOT RELY ON THESE PLANS FOR SUCH INFORMATION AND SHALL MAKE EXAMINATIONS IN THE FIELD BY VARIOUS AVAILABLE RECORDS, UTILITY COMPANIES AND INDIVIDUALS, AS TO THE LOCATION OF ALL SUBSURFACE STRUCTURES.
- THE CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH THE NEW WORK. HE/SHE SHALL EXCAVATE TO VERIFY PERTINENT DRAINAGE INVERTS AND POTENTIAL UTILITY CONFLICTS. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER IMMEDIATELY.
- THE CONTRACTOR IS RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF THE PUBLIC, EMPLOYEES, AND ALL OTHER PERSONS ASSOCIATED WITH THE PROJECT. HE/SHE SHALL COORDINATE AND BE RESPONSIBLE FOR ALL SAFETY SIGNING, BARRIERS AND TEMPORARY PAVEMENT MARKINGS NECESSARY TO PROVIDE A SMOOTH AND PROPER TRANSITION FOR TRAFFIC FLOW.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES BY CONTACTING "DIG-SAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION. DIG-SAFE TELEPHONE NUMBER: 1-888-344-7233.
- 14 DAYS PRIOR TO COMMENCING CONSTRUCTION, THE OWNER/DEVELOPER SHALL PRESENT A CONSTRUCTION SCHEDULE TO THE PLANNING DEPARTMENT.
- TWO HARD COPIES OF AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE PLANNING DEPARTMENT UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL INCLUDE ALL LANDBASE AND UTILITIES INFORMATION.
- ON SITE BURIAL OF STUMPS OR ANY OTHER DEBRIS IS PROHIBITED.
- THE PROPERTY DOES NOT LIE WITHIN THE 100-YEAR FLOOD PLAIN ACCORDING TO F.I.R.M. COMMUNITY PANEL NUMBER 25009C0117C.
- ELEVATIONS ARE BASED UPON AN 1988 NAV DATUM.
- SIZE AND LOCATION OF THE FIRE SERVICE TO BE DESIGNED BY A FIRE PROTECTION DESIGNER. PIPE SHALL BE DR18 IN 40' LENGTHS WITH FUSED JOINTS.
- WATER AND SEWER MAINS SHOWN ARE APPROXIMATE. FURTHER INFORMATION IS REQUIRED FROM NEWBURYPORT DPS PRIOR TO CONSTRUCTION TO VERIFY SIZE AND LOCATION OF THESE UTILITIES.

METHUEN BOARD OF APPEALS APPROVAL

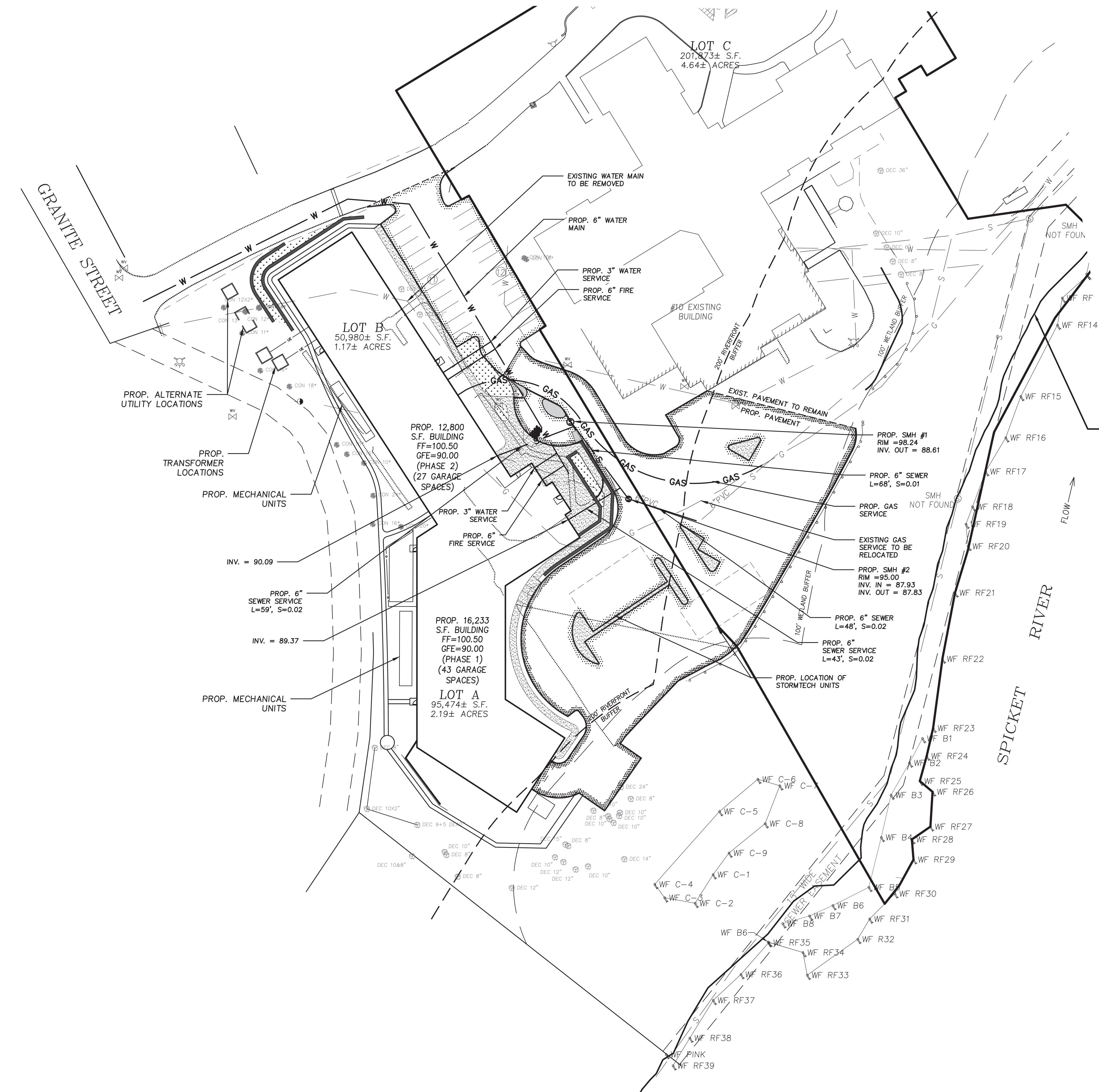
DATE

## WATER INSTALLATION NOTES

- THE SIZE OF THE FIRE SERVICE SHALL BE SIZED AND DESIGNED BY A FIRE PROTECTION PROFESSIONAL. THE PROPOSED SIZE IS APPROXIMATE.
- THE SIZE OF THE DOMESTIC SERVICE SHALL BE DESIGNED ONCE ADDITIONAL MEP INFORMATION FOR THE BUILDING IS PROVIDED.
- THE SIZE AND LOCATION OF EXISTING WATER MAINS AND SERVICES ARE BASED ON WATER INFORMATION FROM THE CITY OF METHUEN AND FIELD VERIFICATION.

## GAS INSTALLATION NOTES

- THE SIZE AND LOCATION OF THE EXISTING GAS SERVICE IS APPROXIMATE.
- FINAL DESIGN OF PROPOSED GAS SERVICE TO BE PROVIDED BY GAS COMPANY.



PROGRESS  
PRINT

GRAPHIC SCALE  
40 0 20 40 80 160  
( IN FEET )  
1 INCH = 40'

PREPARED FOR  
L.D. RUSSO, INC.  
198 AYER ROAD  
HARVARD, MA

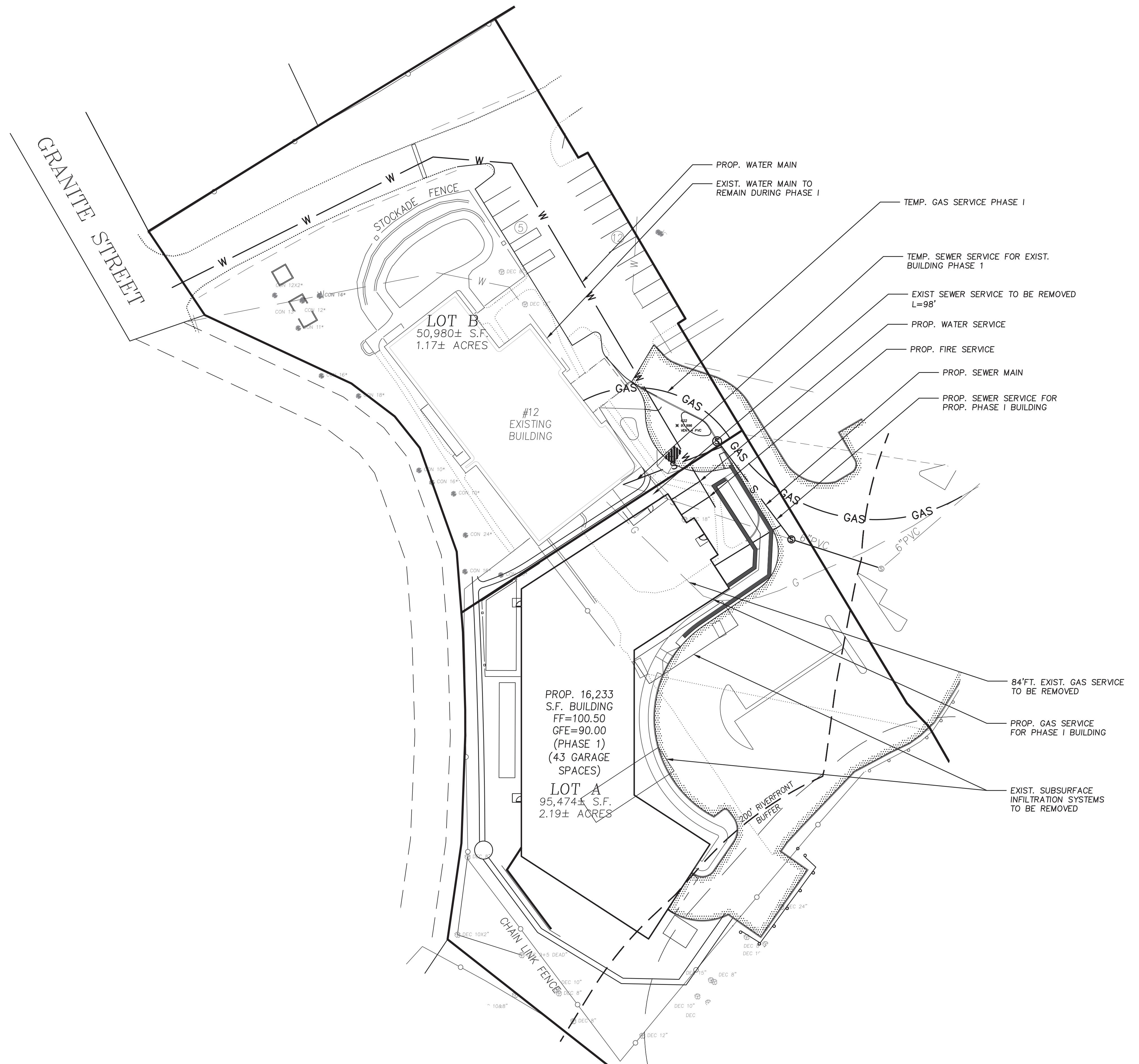
2	11/9/21	RESPONSE TO PEER REVIEW	J.T.M.
1	10/12/21	REVISIONS FROM PEER REVIEW	S.R.C.
NO.	DATE	DESCRIPTION	BY

**MEI** MILLENNIUM ENGINEERING, INC.  
ENGINEERING AND LAND SURVEYING  
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980  
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528  
SCALE: 1"=40' DESG. BY: J.T.M.  
DATE: JUNE 30, 2021 CHKD. BY: E.W.B. PROJECT: M213895

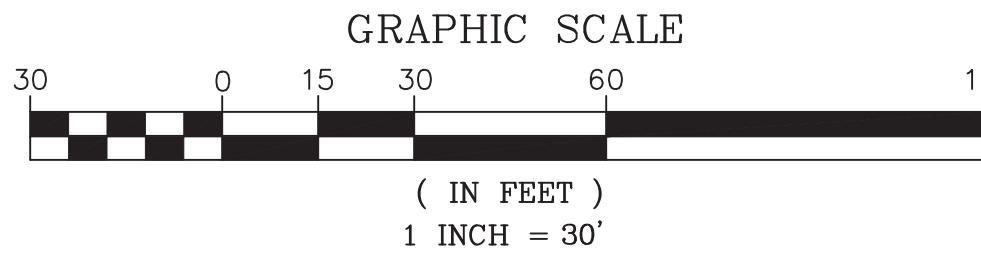
SITE PLAN  
IN  
METHUEN, MA  
AT  
12 INGALLS COURT  
(MAP 716, BLOCK 115, LOT 2A)

UTILITIES  
PLAN  
SHEET: 7 OF 14

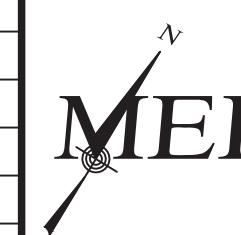
DATE



# PROGRESS PRINT



PREPARED FOR  
**L.D. RUSSO, INC.**  
198 AYER ROAD  
HARVARD, MA



**MILLENNIUM ENGINEERING, INC.**  
ENGINEERING AND LAND SURVEYING  
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980  
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

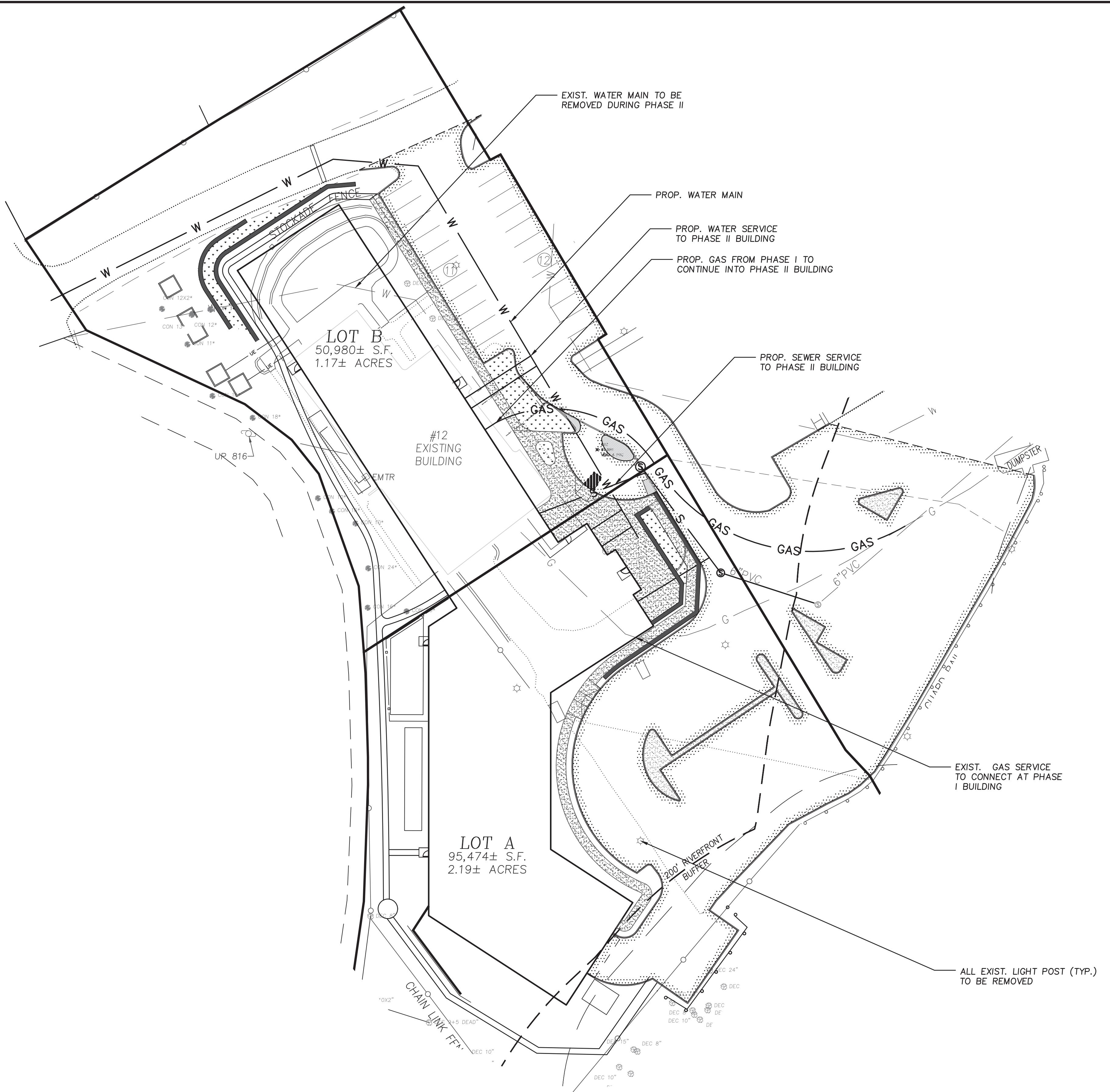
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DATE: OCT. 19, 2021	CHKD. BY: J.T.M.	

# SITE PLAN IN METHUEN, MA

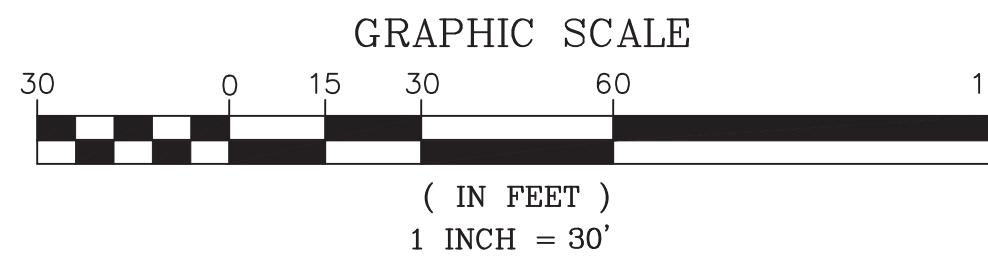
AT  
**12 INGALLS COURT**  
(MAP 716, BLOCK 115, LOT 2A)

# DEMOLITION PLAN PHASE I

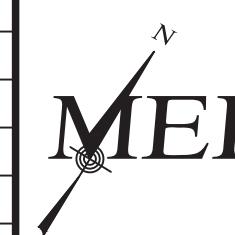
DATE



# PROGRESS PRINT



PREPARED FOR  
**L.D. RUSSO, INC.**  
198 AYER ROAD  
HARVARD, MA



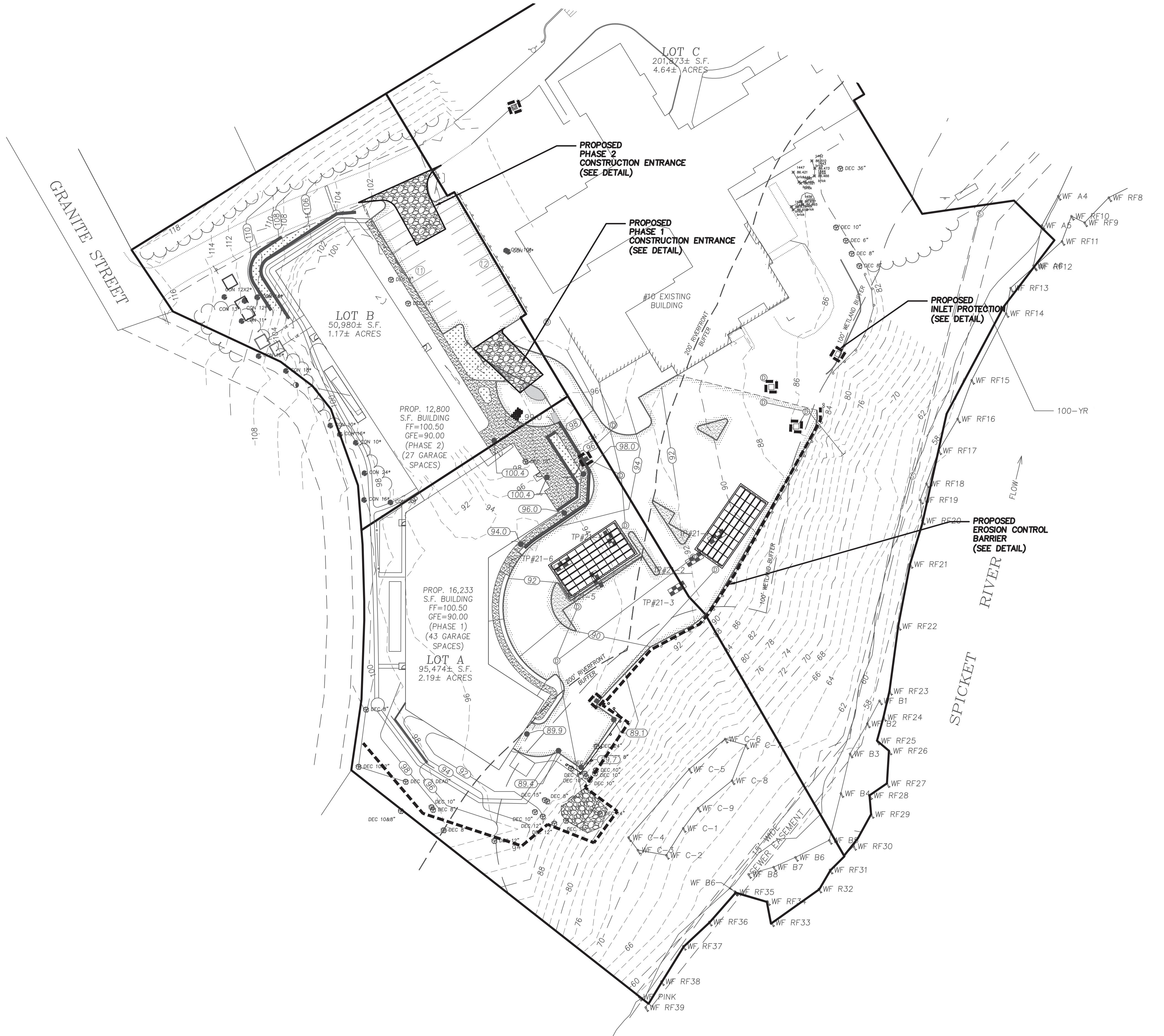
**MILLENNIUM ENGINEERING, INC.**  
ENGINEERING AND LAND SURVEYING  
62 ELM ST. SALISBURY, MA 01952 (978) 463-8980  
13 HAMPTON RD. EXETER, NH 03833 (603) 778-0528

# SITE PLAN IN METHIEN MA

AT  
**12 INGALLS COURT**  
(MAP 716, BLOCK 115, LOT 2A)

# DEMOLITION PLAN PHASE II

DATE



# PROGRESS PRINT

PREPARED FOR  
**L.D. RUSSO, INC.**  
198 AYER ROAD  
HARVARD, MA

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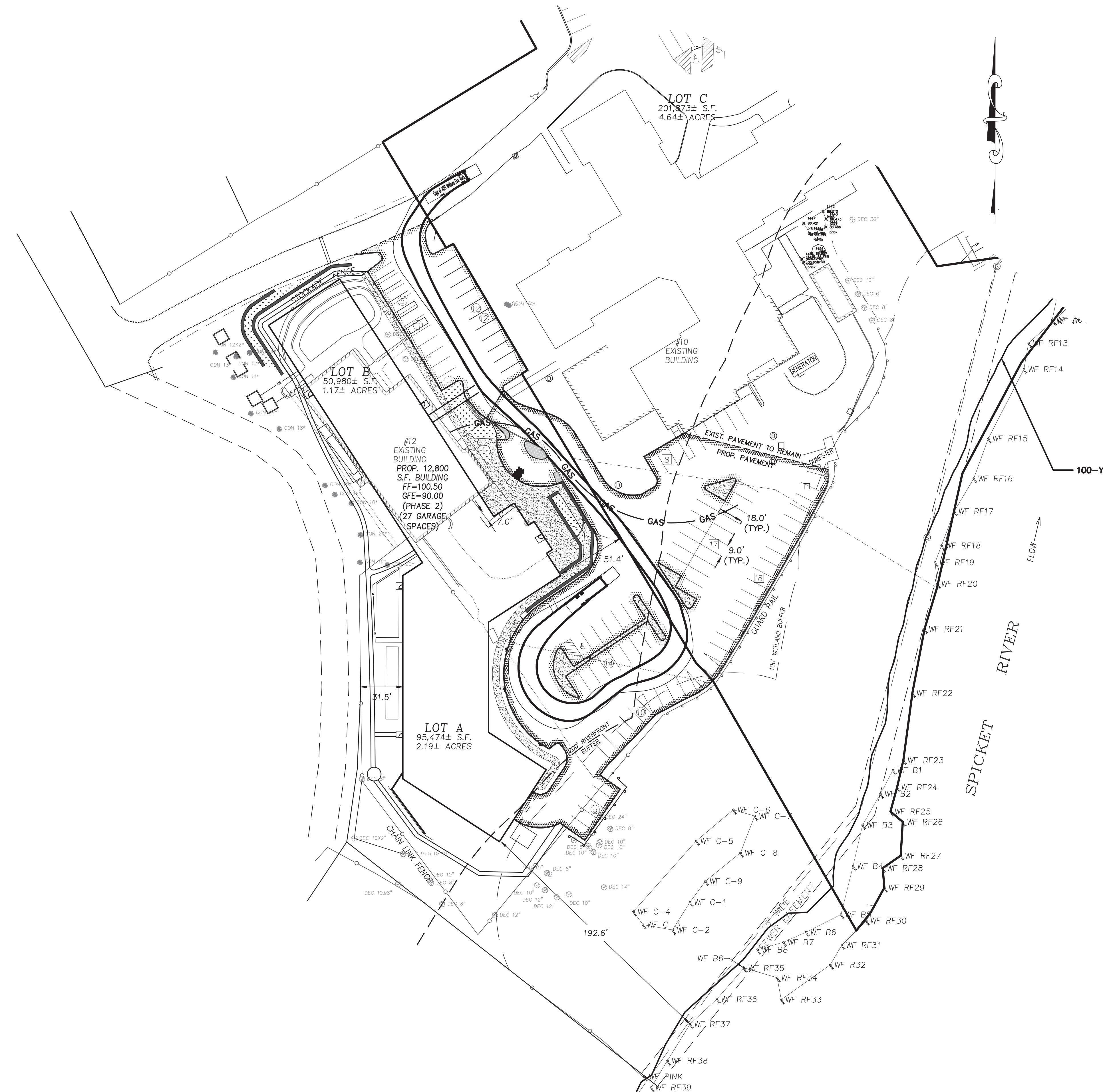
**SITE PLAN  
IN  
METHUEN, MA**

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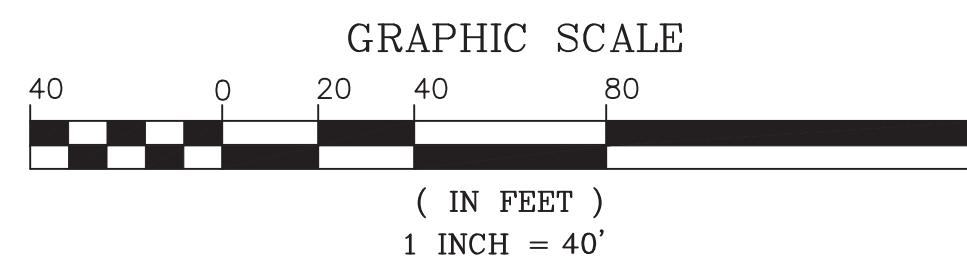
AT  
**12 INGALLS COURT**  
(MAP 716, BLOCK 115, LOT 2A)

**EROSION  
&  
SEDIMENTATION  
CONTROL PLAN**

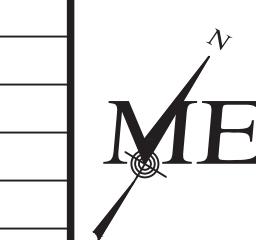
DAT



# PROGRESS PRINT



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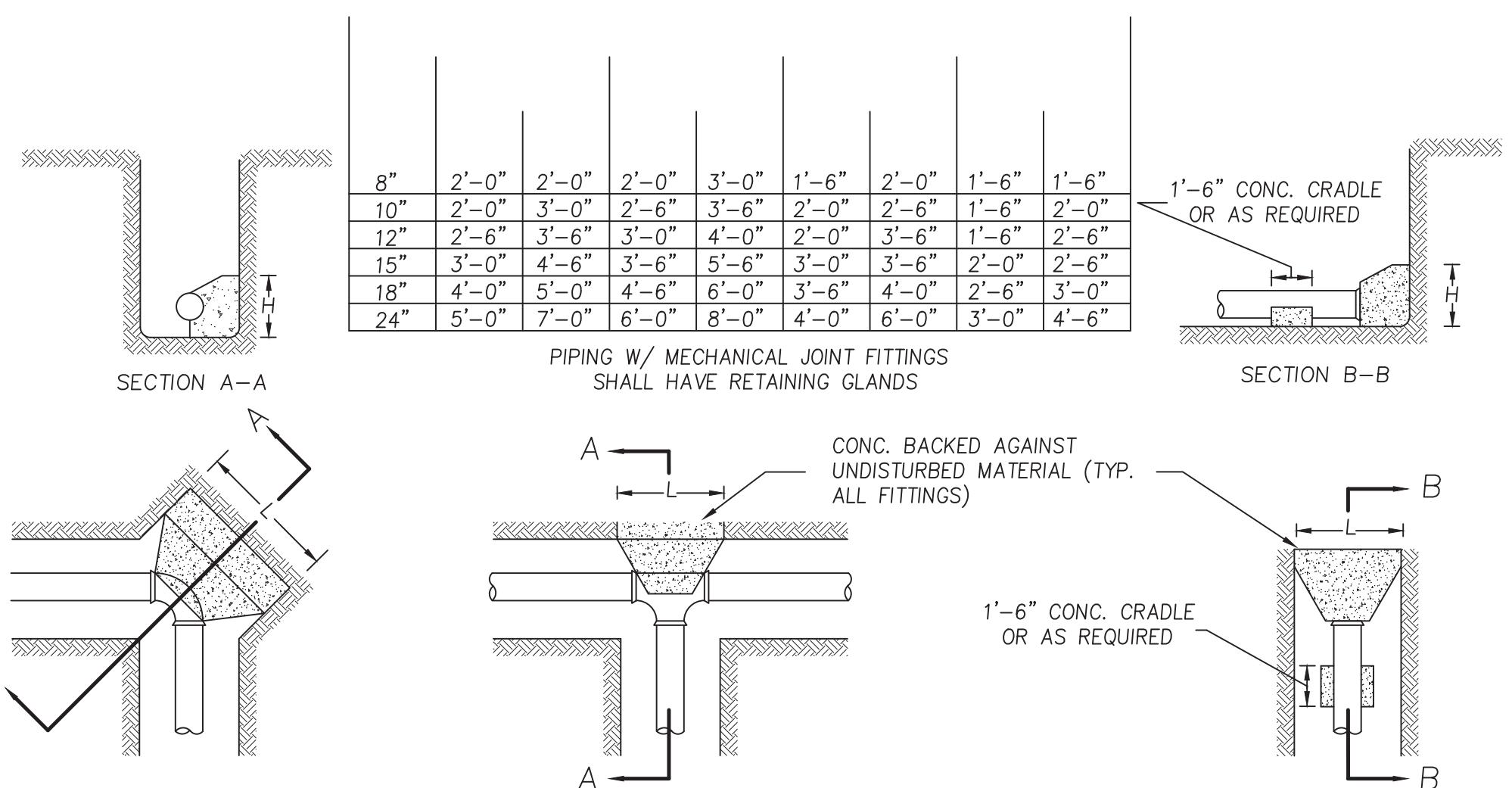
**SITE PLAN  
IN  
METHUEN, MA**

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**AT  
12 INGALLS COURT  
716, BLOCK 115, LOT**

# FIRE TRUCK TURNING ANALYSIS PLAN





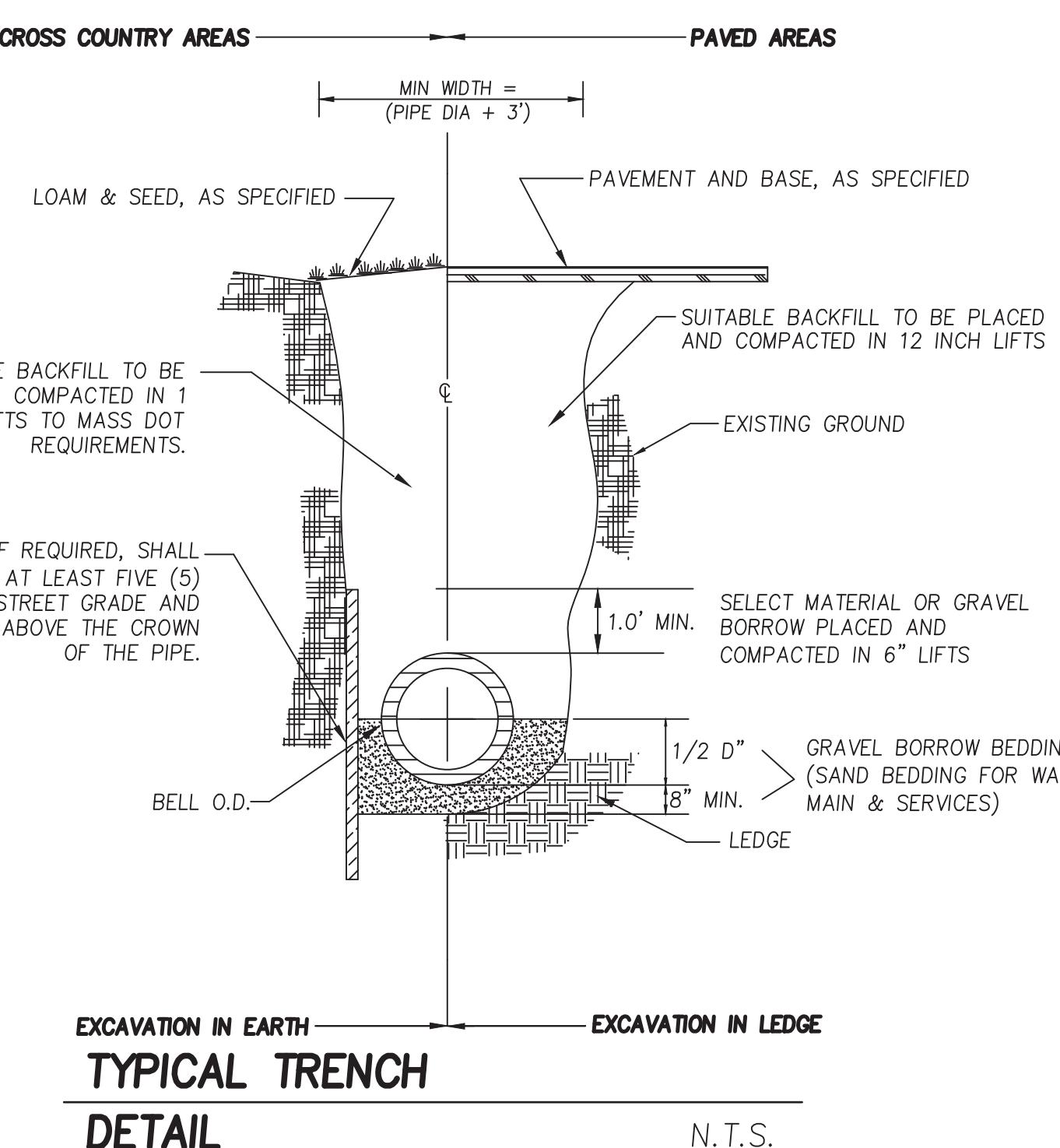
## NOTES

- VALUES SHOWN ARE FOR TEST PRESSURE OF 150 PSI WITH A 100 PSI SURGE ALLOWANCE.
- THRUST BLOCKS SHALL NOT BE PLACED AGAINST THE FOLLOWING SOILS: PEAT, ORGANIC SILT AND ORGANIC SOILS, SOFT CLAY, RUBBISH FILL AND OTHER UNSUITABLE ARTIFICIAL FILL, SHATTERED SHALE, INORGANIC SILT AND VERY FINE SANDS.
- POURED CONCRETE THRUST BLOCKS SHALL NOT COVER ANY JOINTS, CLAMPS, NUTS, BOLTS, ETC.

## THRUST BLOCK

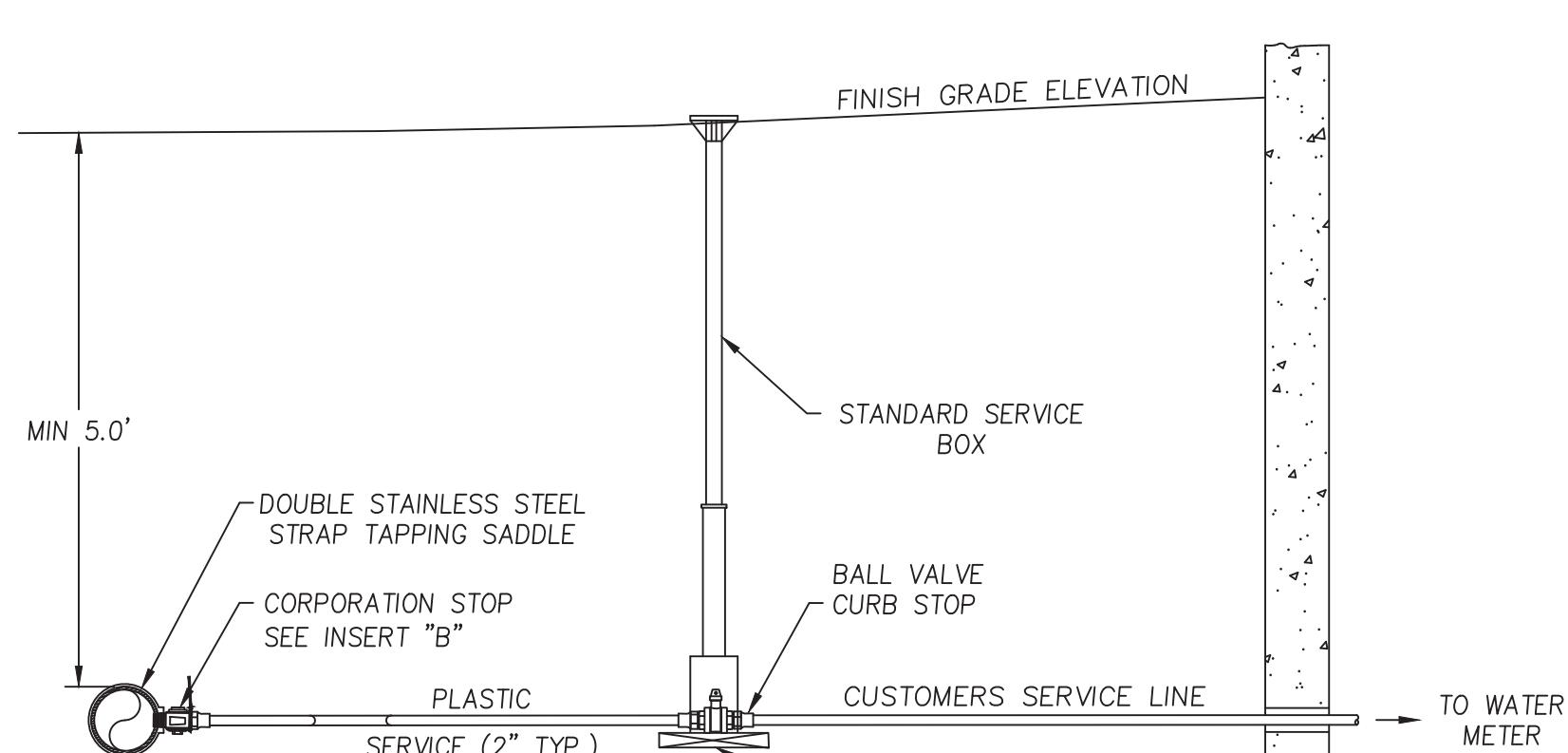
## DETAILS

N.T.S.

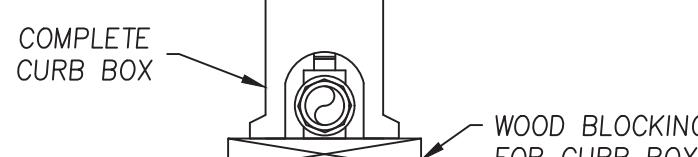


EXCAVATION IN EARTH — EXCAVATION IN LEDGE  
TYPICAL TRENCH  
DETAIL

N.T.S.



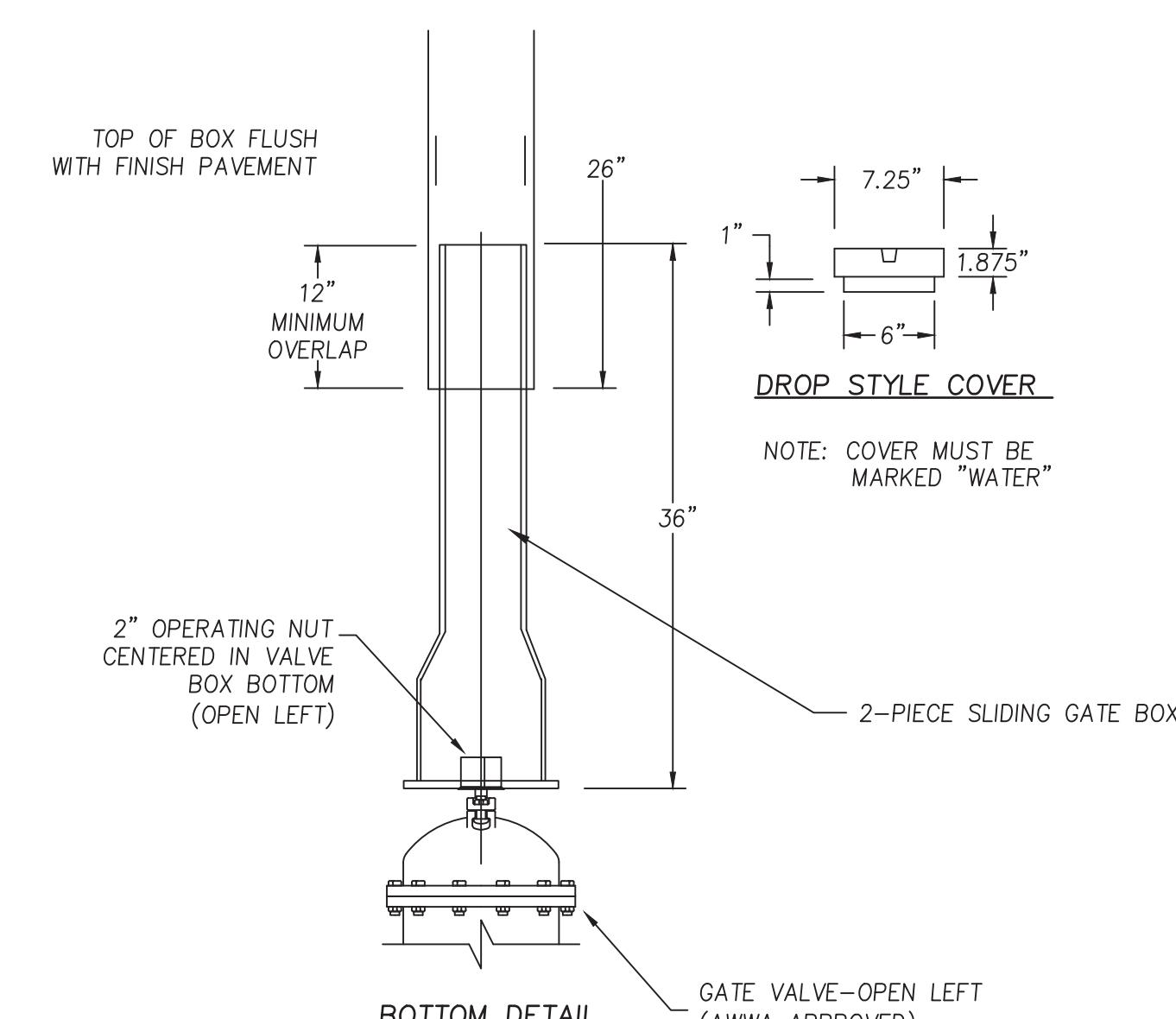
## INSERT "A"



## TYPICAL WATER

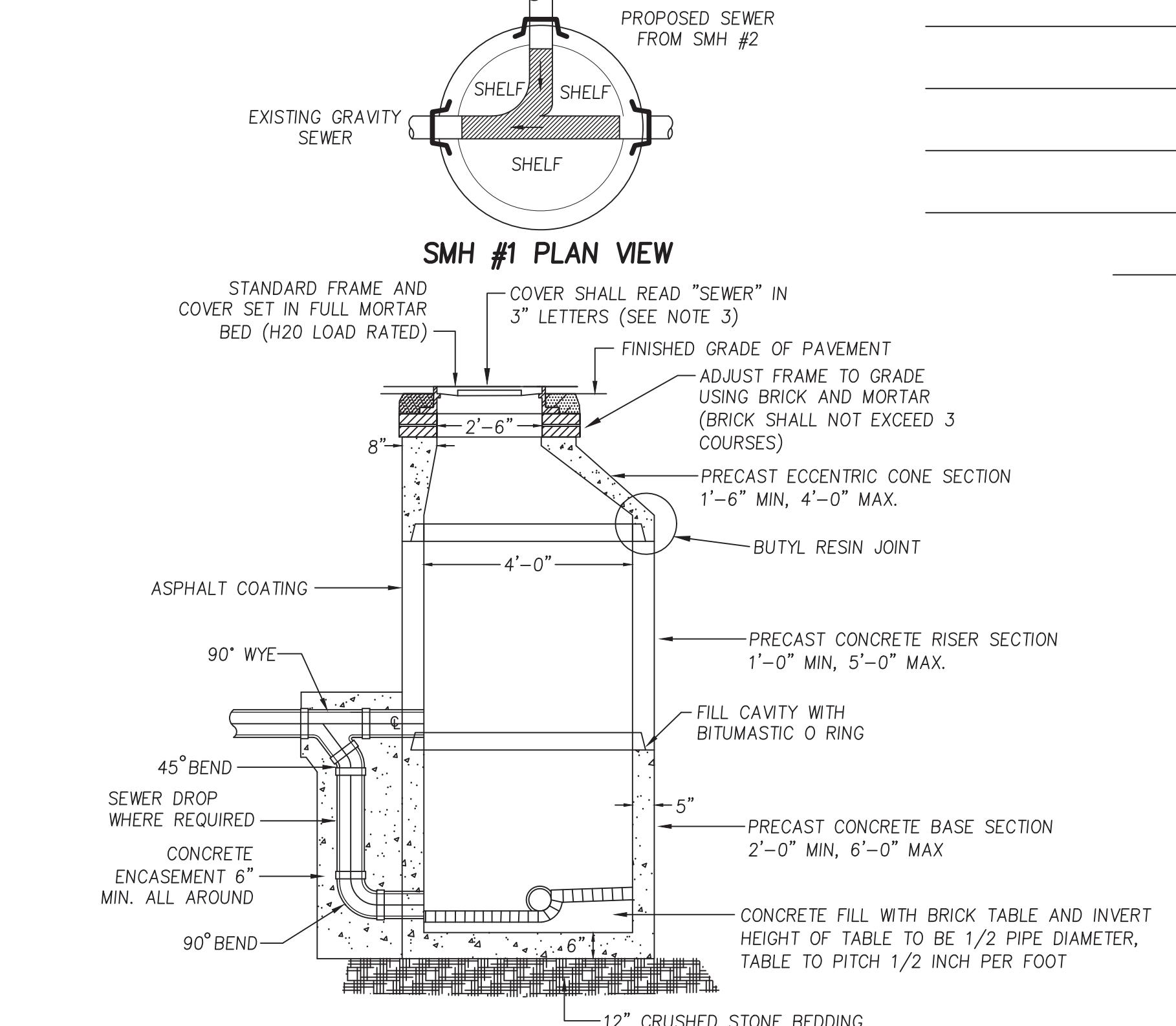
## SERVICE CONNECTION

N.T.S.



TYPICAL GATE VALVE  
BOX DETAIL

N.T.S.

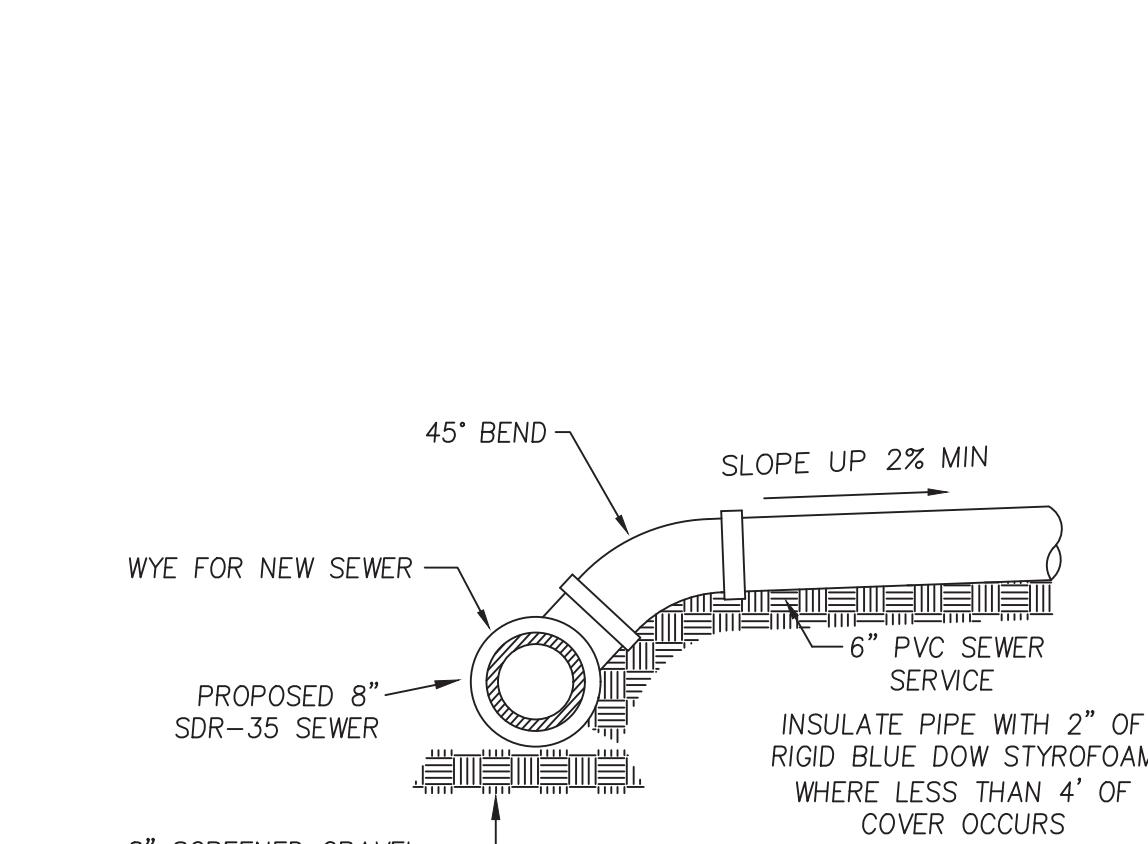


NOTES: 1) SEWER MANHOLES SHALL CONFORM TO ASTM C478 AND ASTM C185  
2) STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC  
3) STEPS SHALL CONFORM TO LATEST ASTM C478 SPEC.  
3) COVER SHALL BE LEBARON FOUNDRY (MODEL NO. LA246),  
4) ALL PENETRATIONS IN THE MANHOLE FOR INSERTION OF PIPING  
5) FLAT TOP STRUCTURES SHALL BE PRECAST SECTIONS AND HAVE A  
6) CONICAL SECTIONS MAY BE SUBSTITUTED FOR FLAT-TOP STRUCTURES  
FOR MORE THAN 4 FEET OF COVER IS PROVIDED  
FOR DRAIN PIPE.

## PRECAST SEWER

## MANHOLE DETAIL

N.T.S.

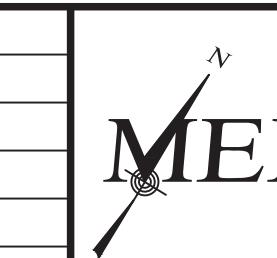


SEWER SERVICE  
DETAIL

N.T.S.

PREPARED FOR  
L.D. RUSSO, INC.  
198 AYER ROAD  
HARVARD, MA

2	11/9/21	RESPONSE TO PEER REVIEW	J.T.M.
1	10/12/21	REVISIONS FROM PEER REVIEW	S.R.C.
NO.	DATE	DESCRIPTION	BY



MILLENNIUM ENGINEERING, INC.  
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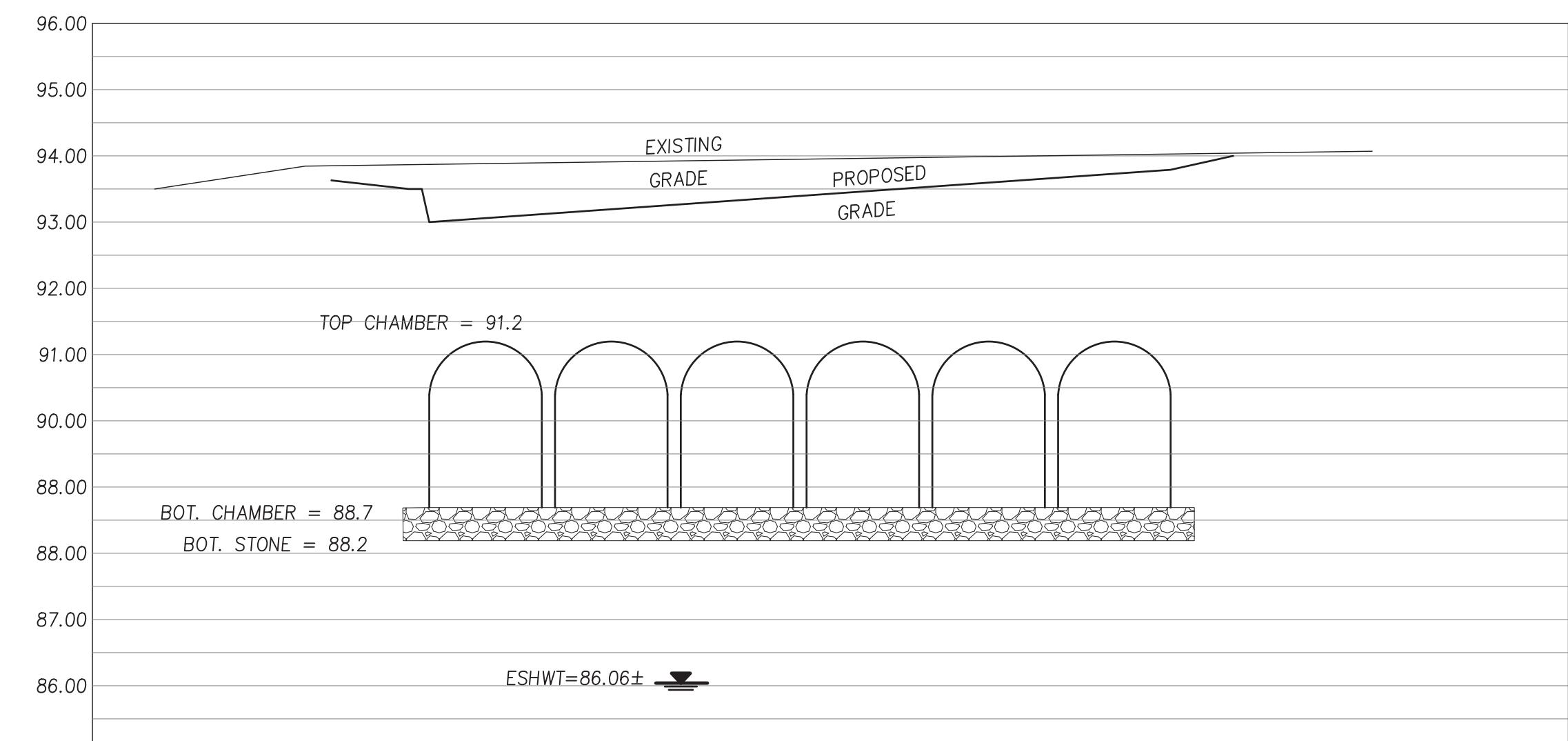
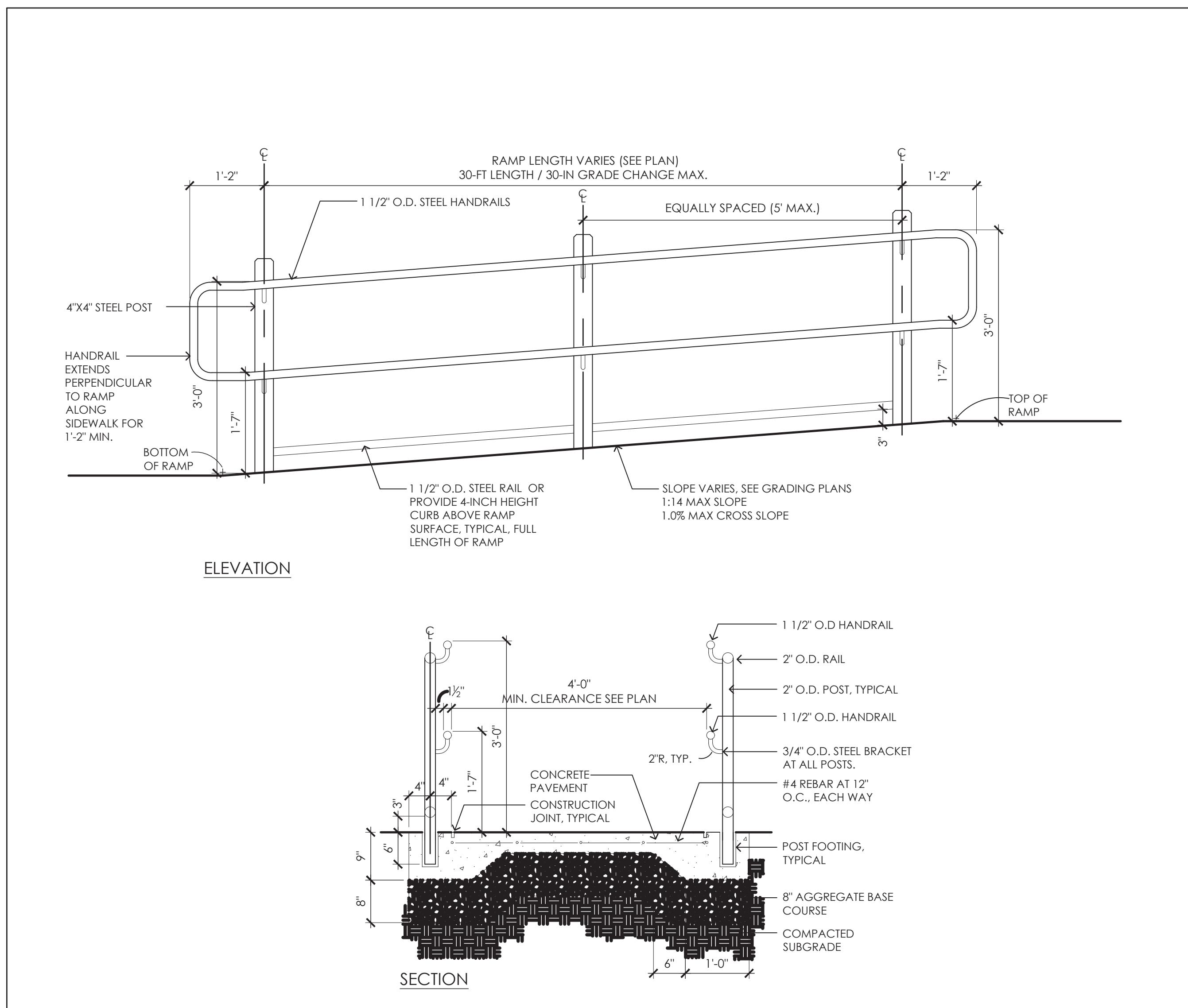
SCALE: AS SHOWN DESG. BY: J.T.M.  
DATE: JUNE 30, 2021 CHKD. BY: E.W.B. PROJECT: M213895

SITE PLAN  
IN  
METHUEN, MA

AT  
12 INGALLS COURT  
(MAP 716, BLOCK 115, LOT 2A)

CONSTRUCTION  
DETAILS  
SHEET: 13 OF 14

PROGRESS  
PRINT

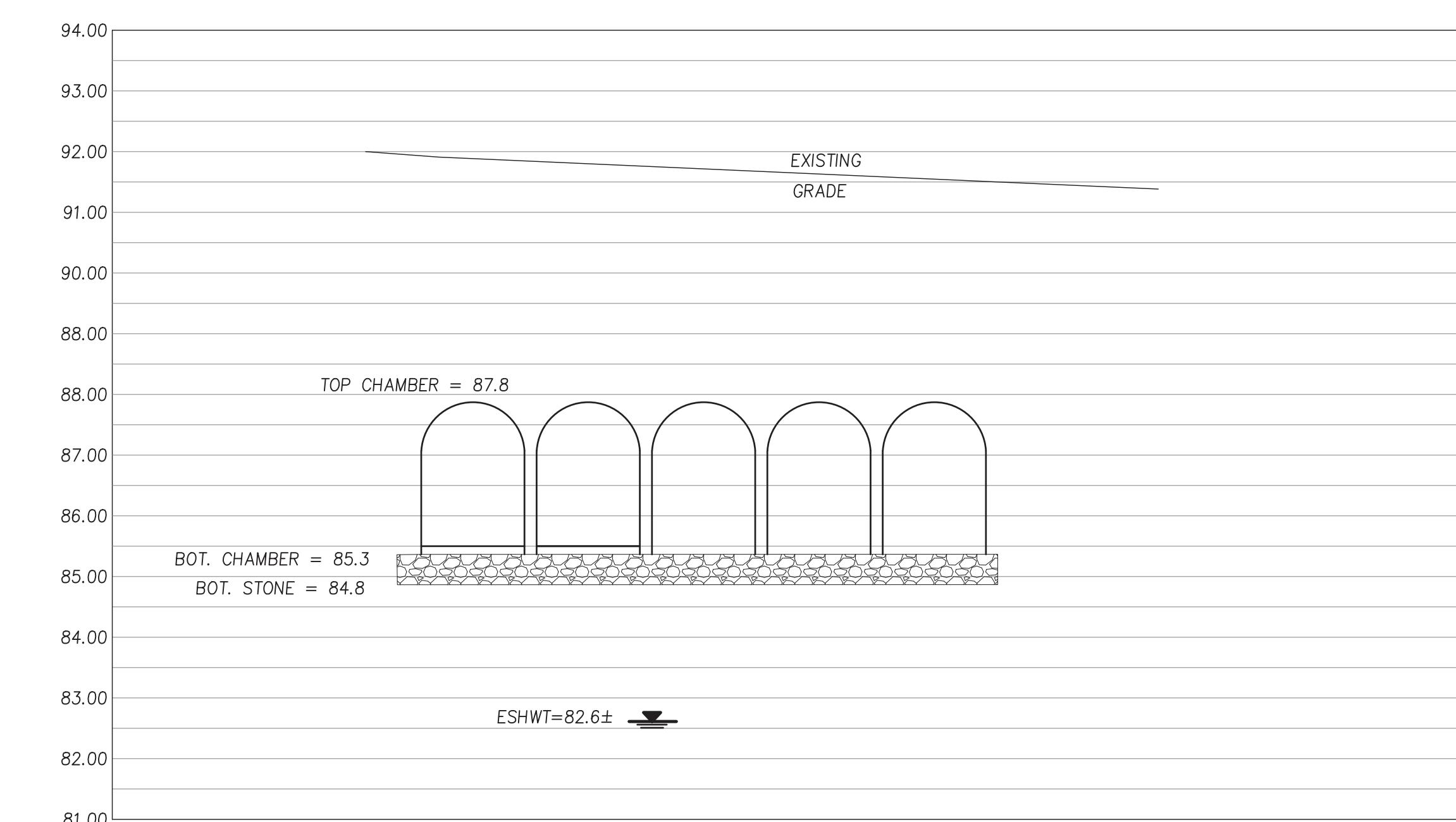


# SUBSURFACE INFILTRATION

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## AREA 1 CROSS-SECTION

ORIZ. SCALE: N.T.S.



# SUBSURFACE INFILTRATION

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## AREA 2 CROSS-SECTION

HORIZ. SCALE: N.T.S.