

# PLANNED RESIDENTIAL DEVELOPMENT

616 SPRINGS ROAD  
BEDFORD, MASSACHUSETTS

JULY 13, 2016

REVISED: AUGUST 26, 2016

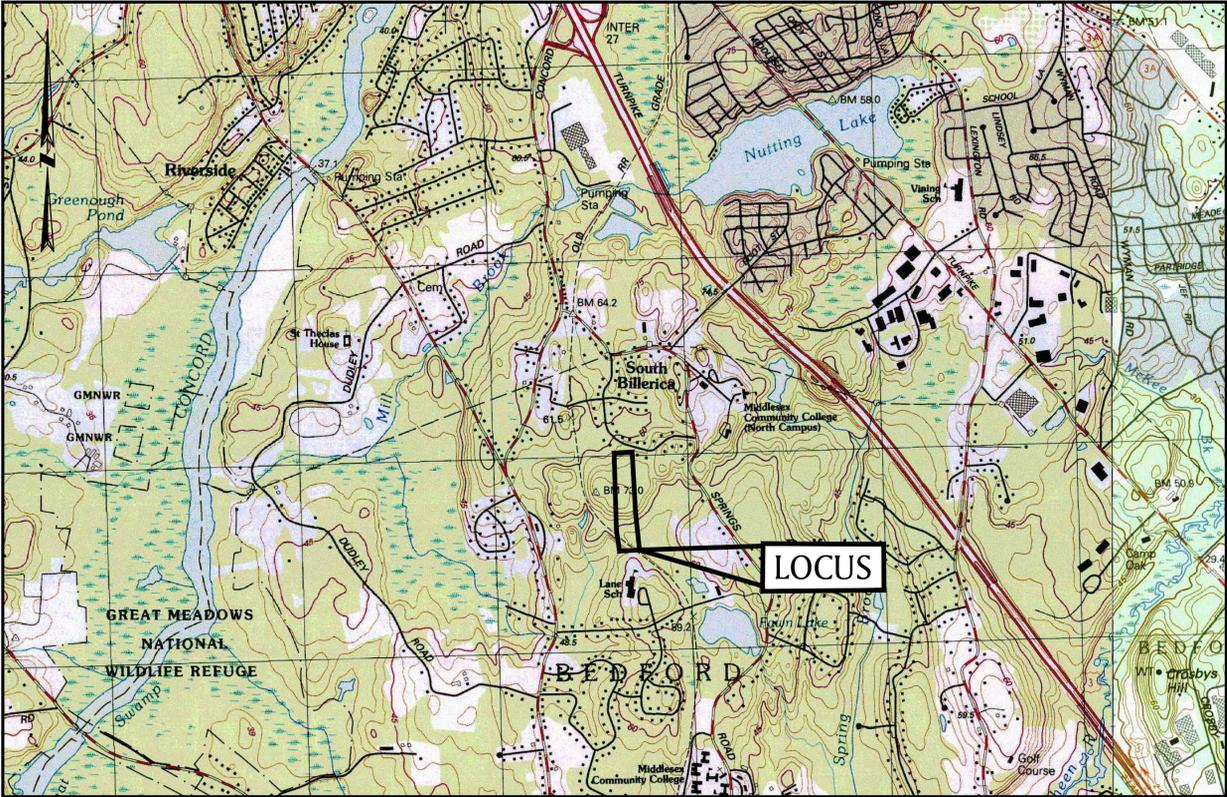
REVISED: OCTOBER 31, 2016

PREPARED FOR:

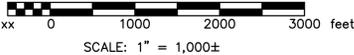
BERNSTEIN DEVELOPMENT LLC  
DAVID BERNSTEIN, MANAGER  
c/o  
MR. BRIAN DEVELLIS  
DEVELLIS CONSULTING GROUP  
41 NORTH ROAD – SUITE 100A  
BEDFORD, MA 01730

PREPARED BY:

**BSC GROUP**  
803 Summer Street  
Boston, Massachusetts  
02127  
617 896 4300



LOCUS MAP



ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION

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PREPARED BY:

**BSC GROUP**  
803 Summer Street  
Boston, Massachusetts  
02127  
617 896 4300

# LEGEND

EXISTING	PROPOSED	
CONC.	CONC.	CEMENT CONCRETE
VGC	VGC	VERTICAL GRANITE CURBING
CGB	CGB	CAPE COD BERM
BIT CONC.	BIT CONC.	WOOD GUARDRAIL
		ASPHALT (BITUMINOUS CONCRETE)
		DECORATIVE CEMENT CONCRETE SIGN
		TEST PIT
		PERCOLATION TEST
		CHAIN LINK FENCE
		STOCKADE FENCE
		TREE LINE
		LIGHT POLE
		UTILITY POLE
		CATCH BASIN
		DRAIN MANHOLE
		ELECTRIC MANHOLE
		ELECTRIC HAND HOLE
		VERIZON MANHOLE
		TELEPHONE MANHOLE
		FIRE PROTECTION MANHOLE
		SEWER MANHOLE
	PIV	POST INDICATOR VALVE
		WATER MANHOLE
		WATER GATE
		THRUST BLOCK
		HYDRANT
		TRANSFORMER
w	w	UNDERGROUND WATER LINE
d	d	UNDERGROUND DRAIN LINE
s	s	UNDERGROUND SEWER LINE
g	g	UNDERGROUND GAS LINE
t	t	UNDERGROUND TELEPHONE LINE
UGE	UGE	OVERHEAD WIRE
CTV	CTV	UNDERGROUND CABLE CONDUIT
INV.=146.1	I = XXX	INVERT
--- 115 ---	--- 123 ---	CONTOUR
		SPOT GRADE
		TOP (TC) & BOTTOM (BC) OF CURB
		TOP (TW) & BOTTOM (BW) OF WALL
		SILT FENCE W/ HAYBALES

## EROSION CONTROL NOTES:

- THE SITE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SUITABLE EROSION AND SEDIMENTATION CONTROL DEVICES ON SITE DURING CONSTRUCTION AS REQUIRED TO PREVENT SILT FROM LEAVING THE SITE INCLUDING CONSTRUCTING ENTRANCES AND PERIMETER SEDIMENT CONTROLS. SILT WILL NOT BE ALLOWED BEYOND CONSTRUCTION LIMITS.
- EROSION CONTROL SHALL, AT MINIMUM, BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL ADDITIONAL EROSION CONTROLS AS NECESSARY.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR ALL GRADING AND OTHER LAND DISTURBING ACTIVITIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANUP AND REMOVAL OF ANY BUILDUP OF SEDIMENT WHICH ESCAPES FROM THE SITE.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING SILT AND DEBRIS OUT OF ALL STORM DRAINAGE STRUCTURES UPON THE COMPLETION OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION CONTROL MEASURES AFTER CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY FINES LEVIED AGAINST THE SITE FOR VIOLATIONS OF EROSION CONTROL REGULATIONS.
- CONTRACTOR SHALL PROVIDE TEMPORARY GROUND COVER FOR ALL AREAS WITH EXPOSED SOIL WHICH WILL NOT BE DISTURBED BY GRADING OPERATIONS FOR A PERIOD OF 14 DAYS OR MORE.
- IF WORK ON THIS PROJECT IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROL FACILITIES IN GOOD CONDITION DURING THE SUSPENSION OF WORK.
- SPRINKLE OR APPLY DUST SUPPRESSERS TO KEEP DUST WITHIN TOLERABLE LIMITS AT THE CONSTRUCTION SITE.
- SILT SACS SHALL BE INSTALLED IN ALL CATCH BASINS, WITH PERIODIC CLEANING AND/OR REPLACING OF THE FILTER FABRIC, WHEN NECESSARY, THROUGHOUT THE DURATION OF THE CONSTRUCTION.
- CONSTRUCTION ENTRANCES SHOULD BE INSPECTED WEEKLY AND AFTER HEAVY RAINS OR HEAVY USE. THE CONSTRUCTION ENTRANCE SHOULD BE TOP DRESSED WITH NEW STONE ONCE THE ENTRANCE BECOMES COMPLETELY CLOGGED WITH MUD AND SOIL PARTICLES.
- SEDIMENT BEHIND PERIMETER SEDIMENT CONTROLS MUST BE REMOVED ONCE SEDIMENT REACHES A LEVEL OF DEPOSITION EQUAL TO HALF THE HEIGHT OF THE BARRIER.

## OPERATION AND MAINTENANCE PLAN:

THE PROJECT INCLUDES AN OPERATION AND MAINTENANCE PLAN REGARDING THE PROPOSED DEVELOPMENT TO MINIMIZE IMPACTS TO ENVIRONMENTAL RESOURCES DURING AND FOLLOWING CONSTRUCTION. THE PLAN INCORPORATES THE USE OF SILT FENCE/HAYBALES WHERE NECESSARY AND STORM DRAIN INLET PROTECTION DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR, UNDER THE SWPPP, TO INSTALL SILT FENCE/HAYBALES WHEN NECESSARY. MORE SPECIFICALLY, THE FOLLOWING ACTIVITIES SHOULD TAKE PLACE BOTH DURING AND FOLLOWING CONSTRUCTION. DURING CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE PROJECTS DRAINAGE SYSTEM.

## DURING CONSTRUCTION

- THE CONTRACTOR SHALL INSPECT THE SITE A MINIMUM OF ONCE A WEEK AND WITHIN 24 HOURS OF A 1/2 INCH OR GREATER STORM EVENT TO INSURE THAT EROSION OF SLOPES, STOCKPILES, ETC, IS NOT OCCURRING. IN INSTANCES WHERE EROSION IS OBSERVED, SILT FENCE/HAYBALES SHOULD BE INSTALLED DOWN GRADIENT OF ERODING AREAS. APPROPRIATE REPAIRS TO THE SEDIMENT CONTROLS WILL BE MADE AS NECESSARY.
- INSTALL SILT SACS UNDER ALL CATCH BASIN RIMS. SILT SACS SHOULD BE INSPECTED ONCE A WEEK AND WITHIN 24 HOURS OF A 1/2 INCH OR GREATER RAIN STORM EVENT TO INSURE THAT DAMAGE TO THE SILT SACS HAS NOT OCCURRED. APPROPRIATE REPAIRS TO THE FILTER FABRIC WILL BE MADE AS NECESSARY.
- CONSTRUCTION ENTRANCES SHOULD BE INSPECTED WEEKLY AND AFTER HEAVY RAINS OR HEAVY USE. THE CONSTRUCTION ENTRANCE SHOULD BE TOP DRESSED WITH NEW STONE ONCE THE ENTRANCE BECOMES COMPLETELY CLOGGED WITH MUD AND SOIL PARTICLES.
- SEDIMENT BEHIND PERIMETER SEDIMENT CONTROLS MUST BE REMOVED ONCE SEDIMENT REACHES A LEVEL OF DEPOSITION EQUAL TO HALF THE HEIGHT OF THE BARRIER.

## FOLLOWING CONSTRUCTION

- CATCH BASINS SHOULD BE INSPECTED FOUR TIMES A YEAR AND CLEANED TWICE PER YEAR (AT A MINIMUM). ONE CLEANING SHOULD OCCUR IN THE EARLY SPRING FOLLOWING SNOWMELT.
- CLEANING OF CATCH BASINS SHOULD BE PERFORMED BY A VACUUM TRUCK AND MATERIALS REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- SUBSURFACE DETENTION AND INFILTRATION SYSTEM SHOULD BE INSPECTED AFTER EVERY MAJOR STORM FOR THE FIRST THREE MONTHS FOLLOWING CONSTRUCTION. SUBSEQUENTLY, THESE SYSTEMS SHOULD BE INSPECTED ANNUALLY.

## SITE PREPARATION AND DEMOLITION:

- AREAS OUTSIDE THE LIMIT OF WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER. ALL AREAS DISTURBED DURING CONSTRUCTION NOT COVERED WITH BUILDINGS, STRUCTURES, OR PAVEMENTS SHALL RECEIVE SIX INCHES OF LOAM AND SEED, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO EARTHWORK OPERATIONS AND MAINTAIN ALL EROSION CONTROL MEASURES AND SEEDED EMBANKMENTS DURING CONSTRUCTION. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH EPA'S NPDES PERMITTING FOR CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. ALL CONSTRUCTION ACTIVITY SHALL BE IN ACCORDANCE WITH OSHA REGULATIONS AND LOCAL & STATE REQUIREMENTS.
- ALL MATERIALS ARE TO BE DISPOSED OF PER APPLICABLE LAWS AND REGULATIONS.
- WHERE EXISTING PAVEMENT TO BE REMOVED MEETS EXISTING PAVEMENTS TO REMAIN, CONTRACTOR IS TO SAWCUT A STRAIGHT LINE UNLESS INDICATED OTHERWISE. ADDITIONALLY, EXISTING PAVEMENT IS TO BE SAWCUT, AS NECESSARY, FOR ALL PROPOSED UTILITY CONNECTIONS WITHIN THE RIGHT-OF-WAY.
- ALL EXISTING REMAINING UTILITIES SHALL BE PROTECTED, UNLESS NOTED OTHERWISE.
- UTILITY PIPES TO BE ABANDONED THAT ARE NOT LOCATED UNDER ANY BUILDINGS OR CONCRETE SLABS MAY BE LEFT IN PLACE, UNLESS NOTED OTHERWISE.

## LAYOUT AND MATERIAL NOTES:

- ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO STANDARD SPECIFICATIONS DETAILS OF THE TOWN OF BEDFORD AND "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES" OF THE MASSACHUSETTS HIGHWAY DEPARTMENT, LATEST EDITION, AND THESE CONTRACT DOCUMENTS.
- ALL UNDERGROUND STRUCTURES AND UTILITIES ARE TO BE CAPABLE OF WITHSTANDING H20 WHEEL LOADS.
- UNLESS OTHERWISE INDICATED, CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS.
- CONTRACTOR TO CONSTRUCT ALL PEDESTRIAN WAYS IN ACCORDANCE WITH ADA/AAB STANDARDS.
- ALL EXISTING CURBING AND PAVEMENT IN THE VICINITY OF THE PROPOSED WORK IS TO BE RESTORED, IF DAMAGED, AT NO ADDITIONAL COST TO THE OWNER.
- ALL SITE TRAFFIC SIGNAGE AND PAVEMENT MARKINGS TO COMPLY WITH MUTCD STANDARDS.
- ALL CONSTRUCTION SHALL CONFORM TO THE TOWN OF BEDFORD DEPARTMENT OF PUBLIC WORK STANDARDS.

## UTILITY NOTES:

- LOCATIONS OF UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE COORDINATION WITH UTILITY COMPANIES AND PUBLIC AGENCIES AND FOR OBTAINING ALL REQUIRED PERMITS AND PAYING ALL REQUIRED FEES. IN ACCORDANCE WITH M.G.L., CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS; CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING PRIOR TO SUCH EXCAVATION. CONTRACTOR SHALL ALSO CALL "DIG SAFE" AT 1(888)344-7233 NO LESS THAN 72 HOURS (EXCLUSIVE OF SATURDAYS, SUNDAYS AND HOLIDAYS TO SUCH EXCAVATION. DOCUMENTATION OF REQUESTS SHALL BE PROVIDED TO PROJECT REPRESENTATIVE PRIOR TO EXCAVATION WORK.
- FINAL DESIGN OF PRIVATE UTILITIES INCLUDING GAS, ELECTRIC, CABLE TV AND TELEPHONE SHALL BE PROVIDED BY THE APPROPRIATE UTILITY COMPANY. THE DRY UTILITIES SHOWN HERE ARE SHOWN FOR GENERAL COORDINATION PURPOSES ONLY.
- CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND SHALL BE RESPONSIBLE FOR PAYING ANY FEES FOR THE ALTERATION OR ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, ETC. BY THE UTILITY COMPANY.
- MEP IS RESPONSIBLE FOR ALL CONNECTIONS WITHIN 10-FT OF THE PROPOSED BUILDING.
- THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, SIZE, INVERTS AND TYPES OF EXISTING PIPES AT ALL PROPOSED POINTS OF CONNECTION PRIOR TO ORDERING MATERIALS. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATIONS AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT.
- CONTRACTOR TO VERIFY UTILITY CONNECTIONS TO BUILDING WITH ARCHITECTURAL AND MEP DRAWINGS.
- INSTALL THRUST BLOCKS AT ALL TEES AND BENDS IN ALL WATERLINES AND SEWER FORCEMAIN.
- CONTRACTOR TO REFER TO THE LIGHTING PLANS FOR LIGHTING SCHEDULE AND LAYOUT. LIGHT FIXTURES SHOWN ON CIVIL ENGINEERING PLANS ARE FOR INFORMATION ONLY.

## GRADING NOTES:

- RIM ELEVATIONS OF PROPOSED MANHOLES AND ASSOCIATED STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH AND CONSISTENT WITH THE PROPOSED FINISHED GRADES.
- CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO EARTHWORK OPERATION AND MAINTAIN ALL EROSION CONTROL MEASURES AND SEEDED EMBANKMENTS DURING CONSTRUCTION. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH EPA'S NPDES PERMITTING FOR CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. ALL CONSTRUCTION ACTIVITY SHALL BE IN ACCORDANCE WITH OSHA REGULATIONS AND LOCAL & STATE REQUIREMENTS.
- ALL FILL MATERIAL UNDER THE PROPOSED BUILDING TO BE STRUCTURAL FILL SPECIFIED BY A GEOTECHNICAL ENGINEER.
- REFER TO LANDSCAPE PLAN FOR LOAM AND SEED AREAS AND PLANTING REQUIREMENTS.
- THE CONTRACTOR SHALL GIVE TWENTY-FOUR (24) HOUR NOTICE TO PERTINENT TOWN DEPARTMENTS BEFORE COMMENCING WORK IN THE FIELD.



ENG. NAME DATE  
PROFESSIONAL ENGINEER

## PLANNED RESIDENTIAL DEVELOPMENT (PRD)

IN  
BEDFORD  
MASSACHUSETTS  
(MIDDLESEX COUNTY)

## LEGEND & GENERAL NOTES

AUGUST 26, 2016

## REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

## PREPARED FOR:

BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730



803 Summer Street  
Boston, Massachusetts  
02127

617 896 4300

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SCALE: NONE

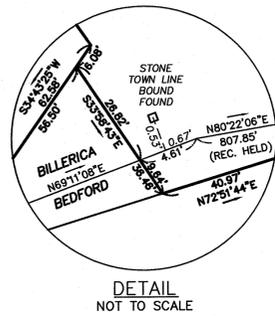
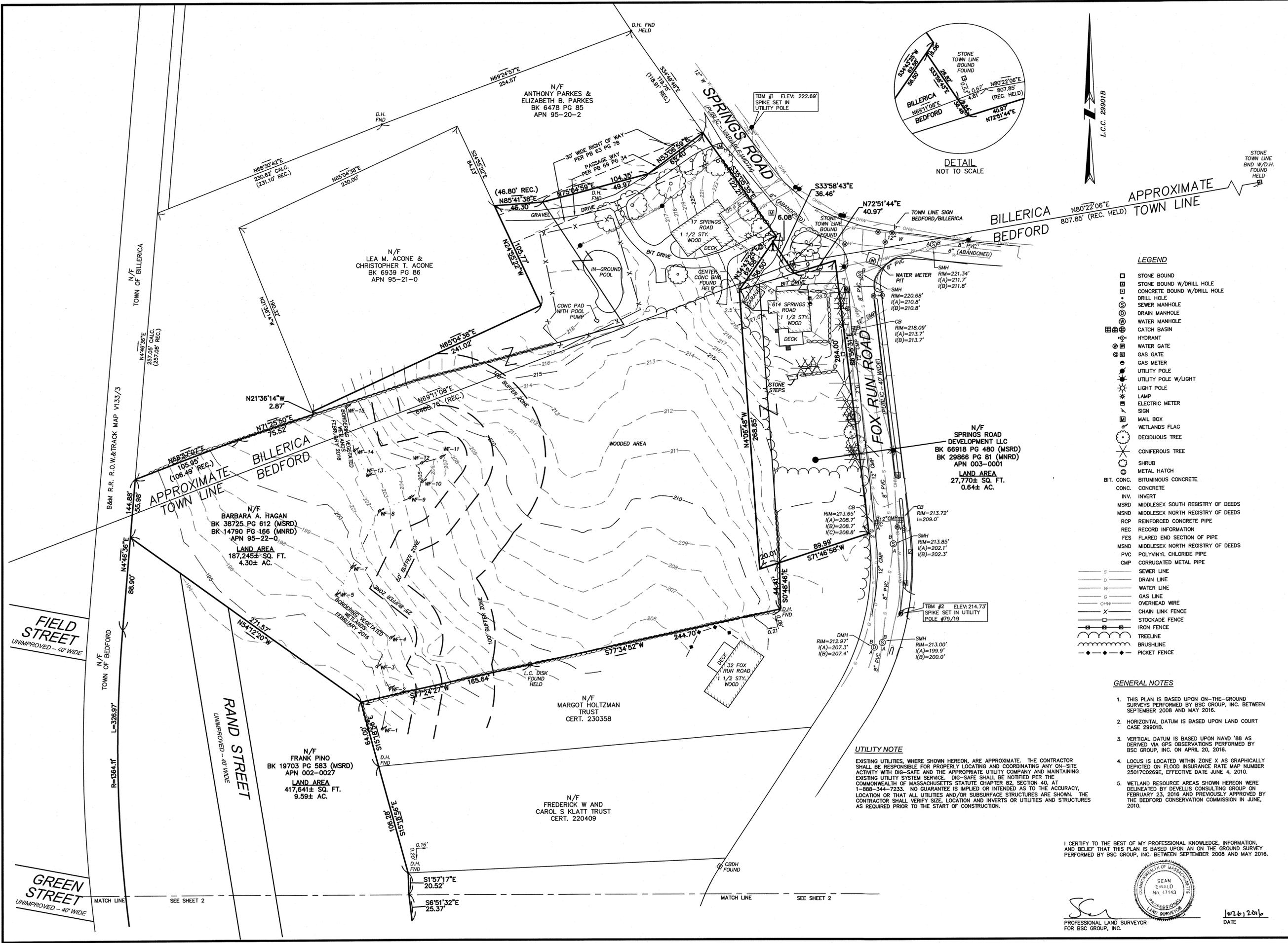
FILE: 2327100\Civil\Drawings

DWG. NO:

JOB. NO: 23271.00

SHEET G-101

ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION



- LEGEND**
- STONE BOUND
  - ▣ STONE BOUND W/DRILL HOLE
  - ▤ CONCRETE BOUND W/DRILL HOLE
  - DRILL HOLE
  - ⊙ SEWER MANHOLE
  - ⊕ DRAIN MANHOLE
  - ⊖ WATER MANHOLE
  - ⊗ CATCH BASIN
  - ⊘ HYDRANT
  - ⊙ WATER GATE
  - ⊙ GAS GATE
  - ⊙ GAS METER
  - ⊙ UTILITY POLE
  - ⊙ UTILITY POLE W/LIGHT
  - ⊙ LIGHT POLE
  - ⊙ LAMP
  - ⊙ ELECTRIC METER
  - ⊙ SIGN
  - ⊙ MAIL BOX
  - ⊙ WETLANDS FLAG
  - ⊙ DECIDUOUS TREE
  - ⊙ CONIFEROUS TREE
  - ⊙ SHRUB
  - ⊙ METAL HATCH
  - BIT. CONC. BITUMINOUS CONCRETE
  - CONC. CONCRETE
  - INV. INVERT
  - MSRD MIDDLESEX SOUTH REGISTRY OF DEEDS
  - MSND MIDDLESEX NORTH REGISTRY OF DEEDS
  - RCP REINFORCED CONCRETE PIPE
  - REC RECORD INFORMATION
  - FES FLARED END SECTION OF PIPE
  - MSND MIDDLESEX NORTH REGISTRY OF DEEDS
  - PVC POLYVINYL CHLORIDE PIPE
  - CMP CORRUGATED METAL PIPE
  - S SEWER LINE
  - D DRAIN LINE
  - W WATER LINE
  - G GAS LINE
  - OHW OVERHEAD WIRE
  - X CHAIN LINK FENCE
  - STOCKADE FENCE
  - IRON FENCE
  - TREELINE
  - BRUSHLINE
  - PICKET FENCE

- GENERAL NOTES**
- THIS PLAN IS BASED UPON ON-THE-GROUND SURVEYS PERFORMED BY BSC GROUP, INC. BETWEEN SEPTEMBER 2008 AND MAY 2016.
  - HORIZONTAL DATUM IS BASED UPON LAND COURT CASE 29901B.
  - VERTICAL DATUM IS BASED UPON NAVD '88 AS DERIVED VIA GPS OBSERVATIONS PERFORMED BY BSC GROUP, INC. ON APRIL 20, 2016.
  - LOCUS IS LOCATED WITHIN ZONE X AS GRAPHICALLY DEPICTED ON FLOOD INSURANCE RATE MAP NUMBER 250102086E, EFFECTIVE DATE JUNE 4, 2010.
  - WETLAND RESOURCE AREAS SHOWN HEREON WERE DELINEATED BY DEVELLIS CONSULTING GROUP ON FEBRUARY 23, 2016 AND PREVIOUSLY APPROVED BY THE BEDFORD CONSERVATION COMMISSION IN JUNE, 2010.

**UTILITY NOTE**

EXISTING UTILITIES, WHERE SHOWN HEREON, ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY LOCATING AND COORDINATING ANY ON-SITE ACTIVITY WITH DIG-SAFE AND THE APPROPRIATE UTILITY COMPANY AND MAINTAINING EXISTING UTILITY SYSTEM SERVICE. DIG-SAFE SHALL BE NOTIFIED PER THE COMMONWEALTH OF MASSACHUSETTS STATUTE CHAPTER 82, SECTION 40, AT 1-888-344-7233. NO GUARANTEE IS IMPLIED OR INTENDED AS TO THE ACCURACY, LOCATION OR THAT ALL UTILITIES AND/OR SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION AND INVERTS OR UTILITIES AND STRUCTURES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.

I CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF THAT THIS PLAN IS BASED UPON AN ON THE GROUND SURVEY PERFORMED BY BSC GROUP, INC. BETWEEN SEPTEMBER 2008 AND MAY 2016.



DATE: 07/16/2016

**PLANNED RESIDENTIAL DEVELOPMENT (PRD)**

IN  
**BEDFORD MASSACHUSETTS**  
(MIDDLESEX COUNTY)

EXISTING CONDITIONS

JULY 1, 2016

REVISIONS:

NO.	DATE	DESC.
1	10/26/16	REVISED LOTTING

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

**BSC GROUP**  
803 Summer Street  
Boston, Massachusetts  
02127  
617 896 4300

© 2016 The BSC Group, Inc.  
SCALE: 1" = 40'  
0 20 40 80 FEET

FILE: 2327100\Survey\Baseplan  
DWG. NO: 2327100EC  
JOB. NO: 23271.00 SHEET V-100





TOWN OF BEDFORD PLANNING BOARD APPROVAL

BEDFORD CLERK'S OFFICE  
TOWN OF BEDFORD, MASSACHUSETTS  
I, CLERK OF THE TOWN OF BEDFORD, HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD HAS BEEN RECEIVED AND RECORDED AT THIS OFFICE AND NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SAID NOTICE.

CLERK

DATE

DATE

**FOX RUN ROAD**  
(PUBLIC - 40' WIDE)

L.C.C. 29901B

N/F  
BARBARA ANN KOVALL  
CERT. 155952

N/F  
JOSEPH A. ANDREWS AND  
LOUISE S. ANDREWS  
BK 26758 PG 147

N/F  
CLAYTON W. MICKEL AND  
BEVERLY JOAN MICKEL  
CERT. 136914

N/F  
RAYOMAND UNWALLA AND  
ABAN UNWALLA  
CERT. 202891

N/F  
THOMAS S. HIRSCH AND  
MARY JO W. HIRSCH  
CERT. 136085

N/F  
JOHN M. DONOHUE AND  
SUSAN L. GRIEB  
CERT. 200267

N/F  
ROBERT E. MCWALTER, JR.  
CERT. 211267

**GLEN ORA DRIVE**  
UNIMPROVED - 40' WIDE

**BUEHLER ROAD**  
PUBLIC - 40' WIDE

N/F  
JOHN F. CARBONE AND  
CAROLYN C. CARBONE  
BK 27650 PG 148

**LOT 8 AREA**  
49,182± S.F.  
1.13± AC.

**PARCEL C AREA**  
320,705± S.F.  
7.36± AC.

**LOT 9 AREA**  
47,753± S.F.  
1.10± AC.

BOSTON EDISON CO. POLE  
LINE EASEMENT  
PLAN 641 OF 1976

40' PERMANENT EASEMENT  
PLAN 641 OF 1976

10' TEMP. CONSTRUCTION EASEMENT  
PLAN 1803 OF 1985

20' SEWER EASEMENT

ACCESS AND UTILITY  
EASEMENT  
3,830± S.F.

CONSERVATION  
RESTRICTION  
EASEMENT  
PLAN 271  
OF 1991

APPROXIMATE 20' UTILITY EASEMENT  
NO LEGAL REFERENCE FOUND  
291.35'

FOR REGISTRY USE ONLY

**PLANNED  
RESIDENTIAL  
DEVELOPMENT (PRD)**

IN  
**BEDFORD  
MASSACHUSETTS**  
(MIDDLESEX COUNTY)

**SUBDIVISION PLAN**

JULY 1, 2016

REVISIONS:

NO.	DATE	DESC.
1	10/26/16	REVISED LOTTING

PREPARED FOR:

BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

**BSC GROUP**

803 Summer Street  
Boston, Massachusetts  
02127

617 896 4300

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SCALE: 1" = 40'



FILE: 2327100\Civil\Drawings

DWG. NO: SHEET **V-103**  
JOB. NO: 23271.00

**OWNERS OF RECORD**

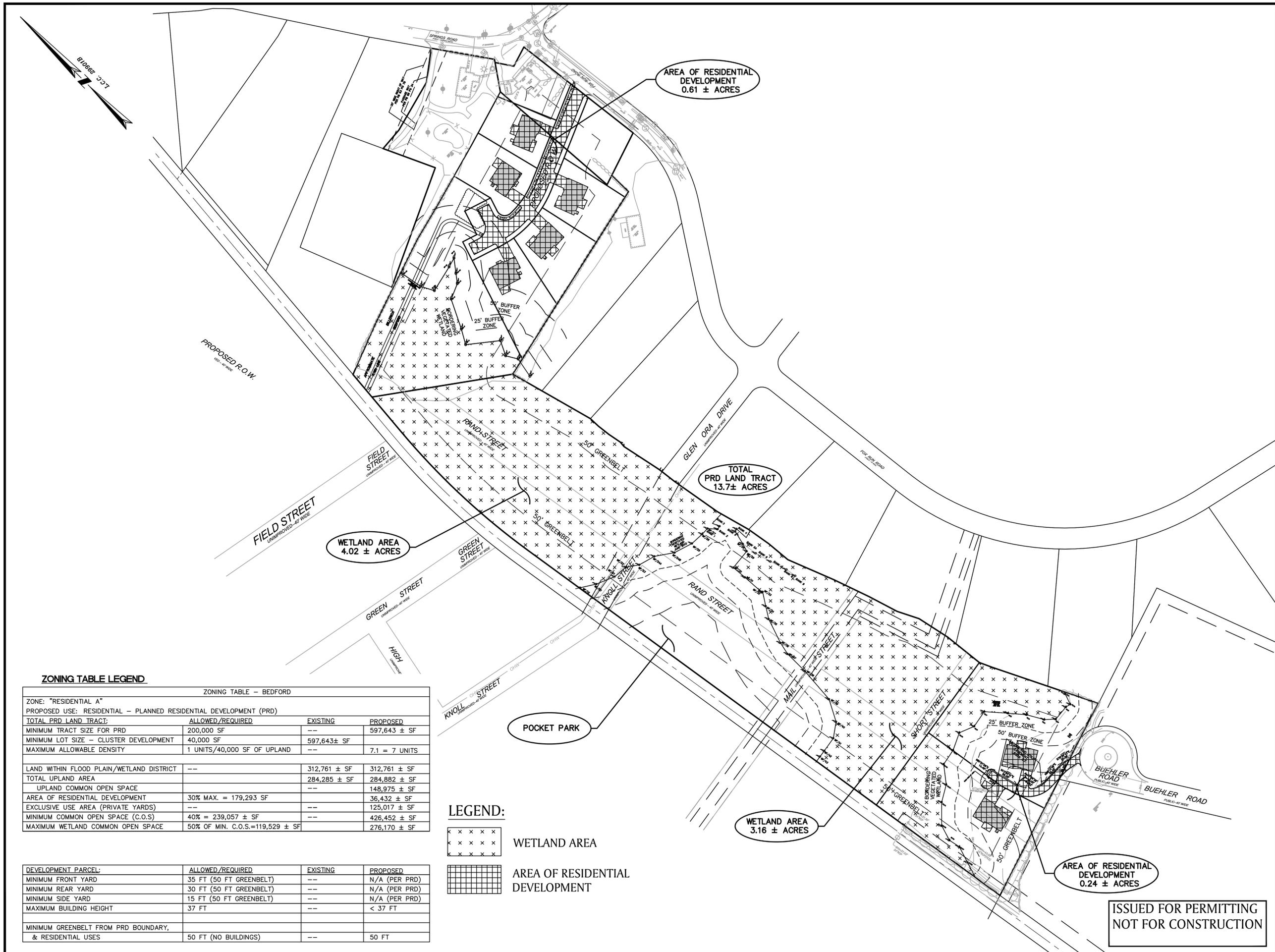
SPRINGS ROAD DEVELOPMENT LLC  
BK 66918 PG 480 (MSRD)  
BK 29866 PG 81 (MNRD)  
APN 003-0001  
BARBARA A. HAGAN  
BK 38725 PG 612 (MSRD)  
BK 14790 PG 166 (MNRD)  
APN 95-22-0  
FRANK PINO  
BK 18703 PG 583 (MSRD)  
APN 002-0027

**GENERAL NOTES**

1. THIS PLAN IS BASED UPON ON-THE-GROUND SURVEYS PERFORMED BY BSC GROUP, INC. BETWEEN SEPTEMBER 2008 AND MAY 2016.
2. HORIZONTAL DATUM IS BASED UPON LAND COURT CASE 29901B.
3. LOCUS IS LOCATED WITHIN ZONE X AS GRAPHICALLY DEPICTED ON FLOOD INSURANCE RATE MAP NUMBER 25017C0289E, EFFECTIVE DATE JUNE 4, 2010.

I CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

SEAN EWALD  
No. 47143  
PROFESSIONAL LAND SURVEYOR  
DATE: 10/26/16  
PROFESSIONAL LAND SURVEYOR FOR BSC GROUP, INC.



AREA OF RESIDENTIAL DEVELOPMENT  
0.61 ± ACRES

TOTAL PRD LAND TRACT  
13.7± ACRES

WETLAND AREA  
4.02 ± ACRES

POCKET PARK

WETLAND AREA  
3.16 ± ACRES

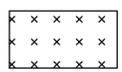
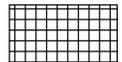
AREA OF RESIDENTIAL DEVELOPMENT  
0.24 ± ACRES

**ZONING TABLE LEGEND**

ZONING TABLE -- BEDFORD			
ZONE: "RESIDENTIAL A"			
PROPOSED USE: RESIDENTIAL -- PLANNED RESIDENTIAL DEVELOPMENT (PRD)			
TOTAL PRD LAND TRACT:	ALLOWED/REQUIRED	EXISTING	PROPOSED
MINIMUM TRACT SIZE FOR PRD	200,000 SF	--	597,643 ± SF
MINIMUM LOT SIZE -- CLUSTER DEVELOPMENT	40,000 SF	597,643± SF	
MAXIMUM ALLOWABLE DENSITY	1 UNITS/40,000 SF OF UPLAND	--	7.1 = 7 UNITS
LAND WITHIN FLOOD PLAIN/WETLAND DISTRICT	--	312,761 ± SF	312,761 ± SF
TOTAL UPLAND AREA		284,285 ± SF	284,882 ± SF
UPLAND COMMON OPEN SPACE		--	148,975 ± SF
AREA OF RESIDENTIAL DEVELOPMENT	30% MAX. = 179,293 SF	--	36,432 ± SF
EXCLUSIVE USE AREA (PRIVATE YARDS)	--	--	125,017 ± SF
MINIMUM COMMON OPEN SPACE (C.O.S)	40% = 239,057 ± SF	--	426,452 ± SF
MAXIMUM WETLAND COMMON OPEN SPACE	50% OF MIN. C.O.S.=119,529 ± SF	--	276,170 ± SF

DEVELOPMENT PARCEL:	ALLOWED/REQUIRED	EXISTING	PROPOSED
MINIMUM FRONT YARD	35 FT (50 FT GREENBELT)	--	N/A (PER PRD)
MINIMUM REAR YARD	30 FT (50 FT GREENBELT)	--	N/A (PER PRD)
MINIMUM SIDE YARD	15 FT (50 FT GREENBELT)	--	N/A (PER PRD)
MAXIMUM BUILDING HEIGHT	37 FT	--	< 37 FT
MINIMUM GREENBELT FROM PRD BOUNDARY, & RESIDENTIAL USES	50 FT (NO BUILDINGS)	--	50 FT

**LEGEND:**

-  WETLAND AREA
-  AREA OF RESIDENTIAL DEVELOPMENT



ENG. NAME: FRANCIS D. DIPIETRO  
PROFESSIONAL ENGINEER  
DATE: 10-31-16

**PLANNED RESIDENTIAL DEVELOPMENT (PRD)**

IN  
BEDFORD  
MASSACHUSETTS  
(MIDDLESEX COUNTY)

**KEY PLAN**

AUGUST 26, 2016

REVISIONS:

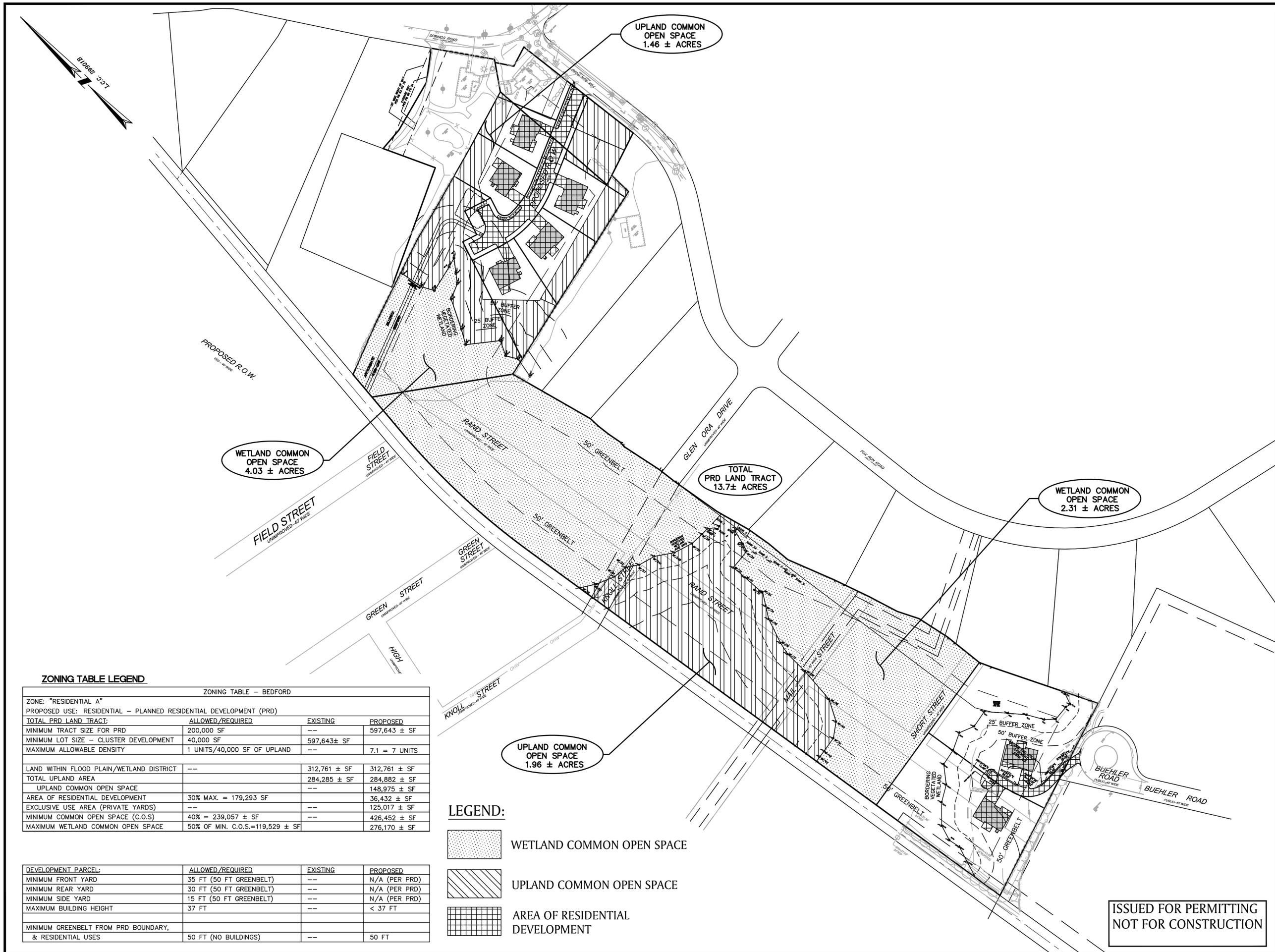
NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

**BSC GROUP**  
803 Summer Street  
Boston, Massachusetts  
02127  
617 896 4300

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SCALE: 1" = 80'  
0 40 80 160 FEET  
FILE: 2327100\Civil\Drawings  
DWG. NO:  
JOB. NO: 23271.00  
SHEET C-100

**ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION**



ENG. NAME: FRANCIS D. DIPIETRO  
PROFESSIONAL ENGINEER  
DATE: 10-31-16

**PLANNED RESIDENTIAL DEVELOPMENT (PRD)**

IN  
BEDFORD  
MASSACHUSETTS  
(MIDDLESEX COUNTY)

**KEY PLAN**

AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

**BSC GROUP**  
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Boston, Massachusetts  
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DWG. NO:  
JOB. NO: 23271.00 SHEET C-101

**ZONING TABLE LEGEND**

ZONING TABLE -- BEDFORD

ZONE: "RESIDENTIAL A"  
PROPOSED USE: RESIDENTIAL -- PLANNED RESIDENTIAL DEVELOPMENT (PRD)

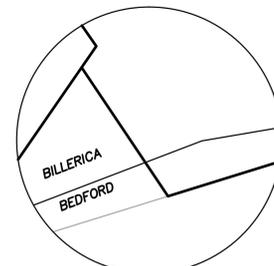
TOTAL PRD LAND TRACT:	ALLOWED/REQUIRED	EXISTING	PROPOSED
MINIMUM TRACT SIZE FOR PRD	200,000 SF	--	597,643 ± SF
MINIMUM LOT SIZE -- CLUSTER DEVELOPMENT	40,000 SF	597,643± SF	
MAXIMUM ALLOWABLE DENSITY	1 UNITS/40,000 SF OF UPLAND	--	7.1 = 7 UNITS
LAND WITHIN FLOOD PLAIN/WETLAND DISTRICT	--	312,761 ± SF	312,761 ± SF
TOTAL UPLAND AREA		284,285 ± SF	284,882 ± SF
UPLAND COMMON OPEN SPACE		--	148,975 ± SF
AREA OF RESIDENTIAL DEVELOPMENT	30% MAX. = 179,293 SF		36,432 ± SF
EXCLUSIVE USE AREA (PRIVATE YARDS)	--	--	125,017 ± SF
MINIMUM COMMON OPEN SPACE (C.O.S)	40% = 239,057 ± SF	--	426,452 ± SF
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DEVELOPMENT PARCEL:	ALLOWED/REQUIRED	EXISTING	PROPOSED
MINIMUM FRONT YARD	35 FT (50 FT GREENBELT)	--	N/A (PER PRD)
MINIMUM REAR YARD	30 FT (50 FT GREENBELT)	--	N/A (PER PRD)
MINIMUM SIDE YARD	15 FT (50 FT GREENBELT)	--	N/A (PER PRD)
MAXIMUM BUILDING HEIGHT	37 FT	--	< 37 FT
MINIMUM GREENBELT FROM PRD BOUNDARY, & RESIDENTIAL USES	50 FT (NO BUILDINGS)	--	50 FT

**LEGEND:**

- WETLAND COMMON OPEN SPACE
- UPLAND COMMON OPEN SPACE
- AREA OF RESIDENTIAL DEVELOPMENT

**ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION**



DETAIL  
NOT TO SCALE

APPROXIMATE  
TOWN LINE

BILLERICA  
BEDFORD



10-31-16

ENG. NAME DATE  
PROFESSIONAL ENGINEER

### PLANNED RESIDENTIAL DEVELOPMENT (PRD)

IN  
BEDFORD  
MASSACHUSETTS  
(MIDDLESEX COUNTY)

### EROSION & SEDIMENTATION CONTROL PLAN AUGUST 26, 2016

REVISIONS:

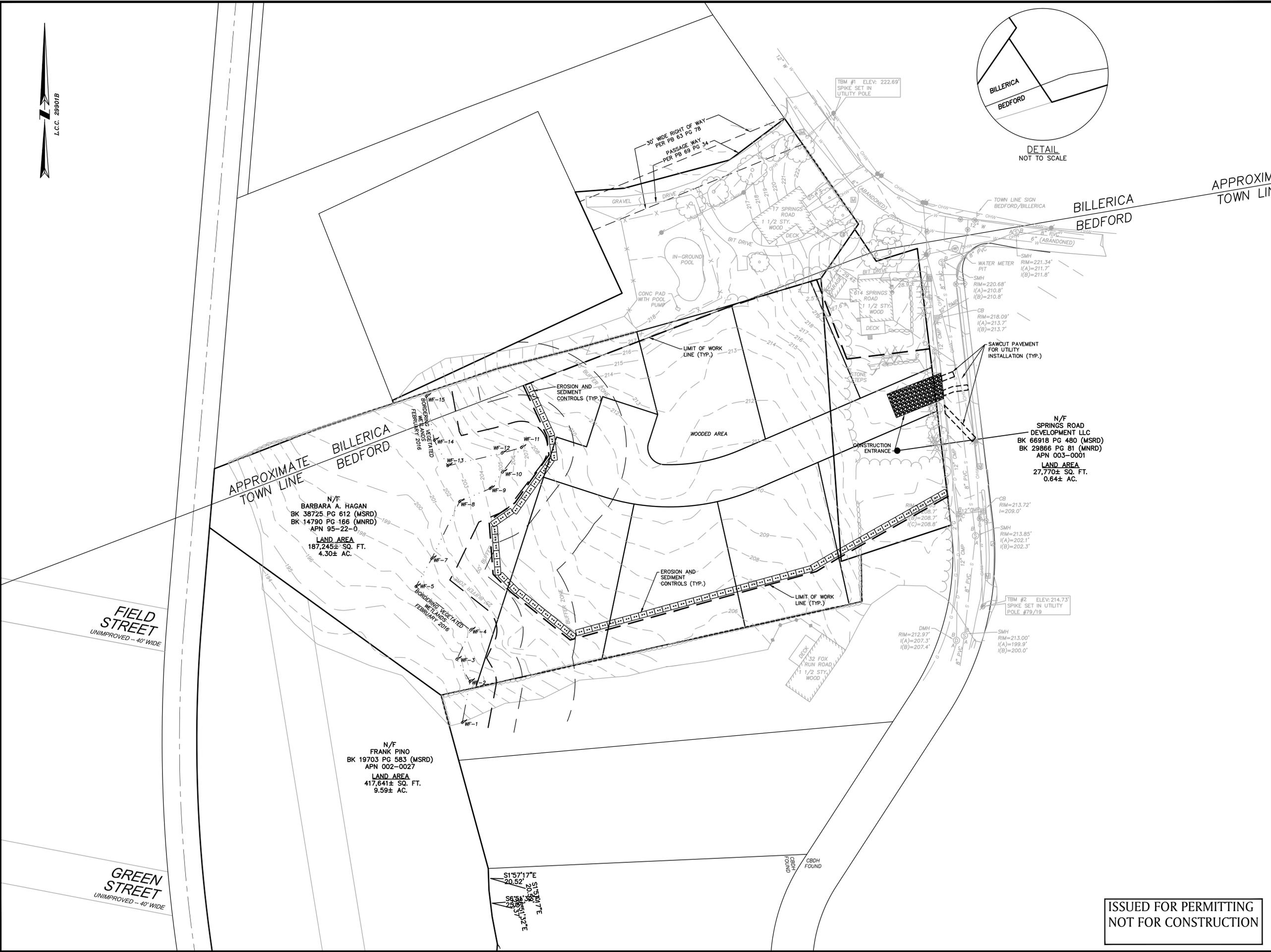
NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

**BSC GROUP**  
803 Summer Street  
Boston, Massachusetts  
02127  
617 896 4300

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DWG. NO: SHEET C-102  
JOB. NO: 23271.00

ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION



APPROXIMATE  
TOWN LINE  
BILLERICA  
BEDFORD

N/F  
BARBARA A. HAGAN  
BK 38725 PG 612 (MSRD)  
BK 14790 PG 166 (MNRD)  
APN 95-22-0  
LAND AREA  
187,245± SQ. FT.  
4.30± AC.

N/F  
FRANK PINO  
BK 19703 PG 583 (MSRD)  
APN 002-0027  
LAND AREA  
417,641± SQ. FT.  
9.59± AC.

FIELD  
STREET  
UNIMPROVED - 40' WIDE

GREEN  
STREET  
UNIMPROVED - 40' WIDE

S157°17'E  
20.52'  
S88°51'32"E  
23.51'

N/F  
SPRINGS ROAD  
DEVELOPMENT LLC  
BK 66918 PG 480 (MSRD)  
BK 29866 PG 81 (MNRD)  
APN 003-0001  
LAND AREA  
27,770± SQ. FT.  
0.64± AC.

EROSION AND  
SEDIMENT  
CONTROLS (TYP.)

WOODED AREA

EROSION AND  
SEDIMENT  
CONTROLS (TYP.)

DECK  
32 FOX  
RUN ROAD  
1 1/2 STY.  
WOOD

GRAVEL  
DRIVE

IN-GROUND  
POOL

17 SPRINGS  
ROAD  
1 1/2 STY.  
WOOD  
DECK

6" (ABANDONED)  
PVC

SAWCUT PAVEMENT  
FOR UTILITY  
INSTALLATION (TYP.)

CONSTRUCTION  
ENTRANCE

CB  
RIM=213.72'  
I=209.0'

SMH  
RIM=213.85'  
I(A)=202.1'  
I(B)=202.3'

TBM #2 ELEV: 214.73'  
SPIKE SET IN UTILITY  
POLE #79/19

SMH  
RIM=213.00'  
I(A)=199.9'  
I(B)=200.0'

DMH  
RIM=212.97'  
I(A)=207.3'  
I(B)=207.4'

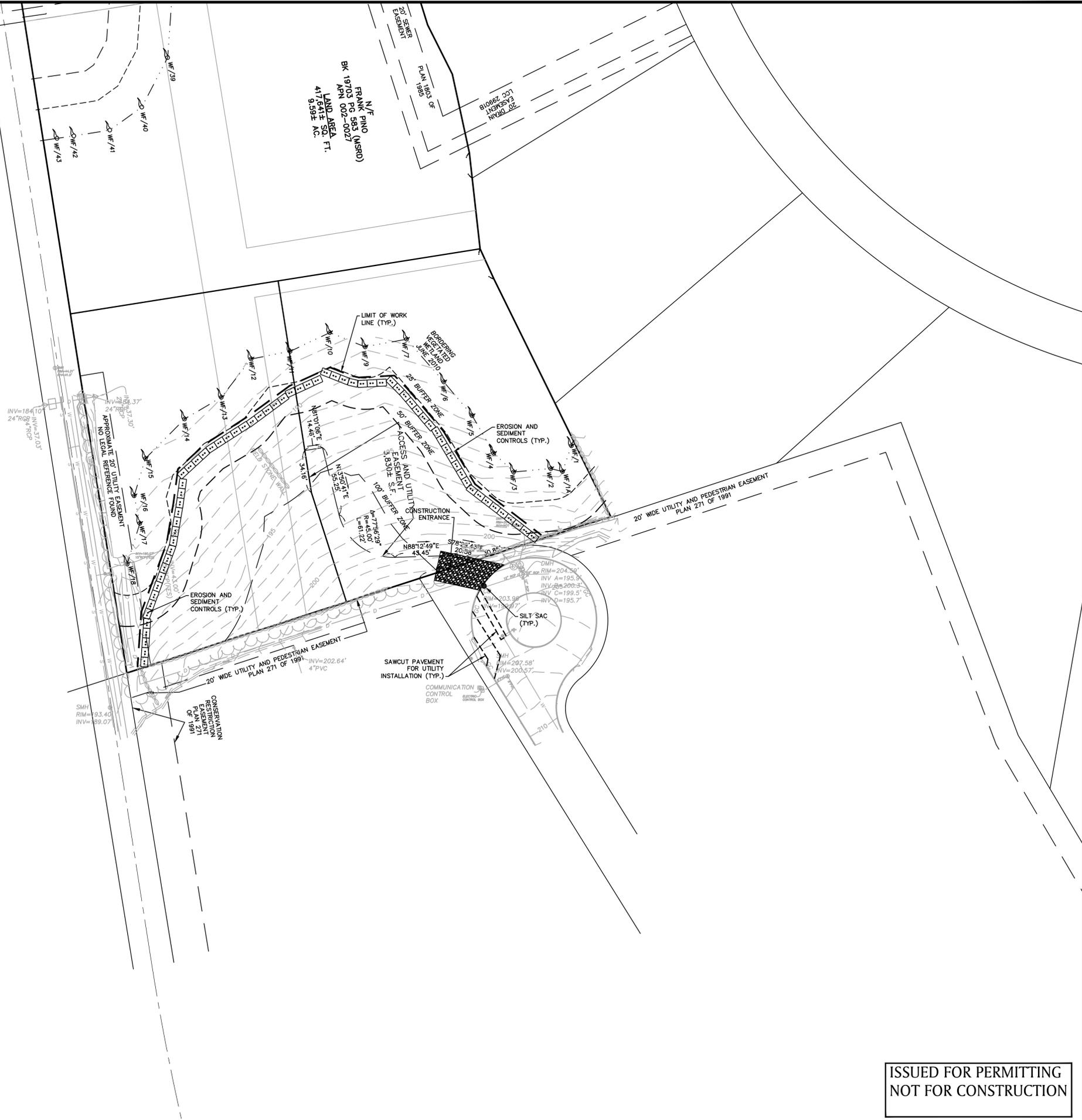
TBM #1 ELEV: 222.69'  
SPIKE SET IN  
UTILITY POLE

30' WIDE RIGHT OF WAY  
PER PB 63 PG 78  
PASSAGE WAY  
PER PB 69 PG 34

LIMIT OF WORK  
LINE (TYP.)

LIMIT OF WORK  
LINE (TYP.)

CBDB  
FOUND



10-31-16

ENG. NAME DATE  
PROFESSIONAL ENGINEER

**PLANNED RESIDENTIAL DEVELOPMENT (PRD)**

IN  
**BEDFORD MASSACHUSETTS**  
(MIDDLESEX COUNTY)

**EROSION & SEDIMENTATION CONTROL PLAN**  
AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

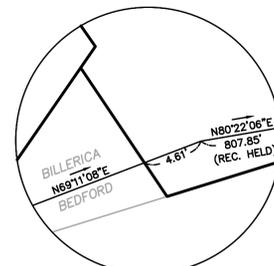
PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

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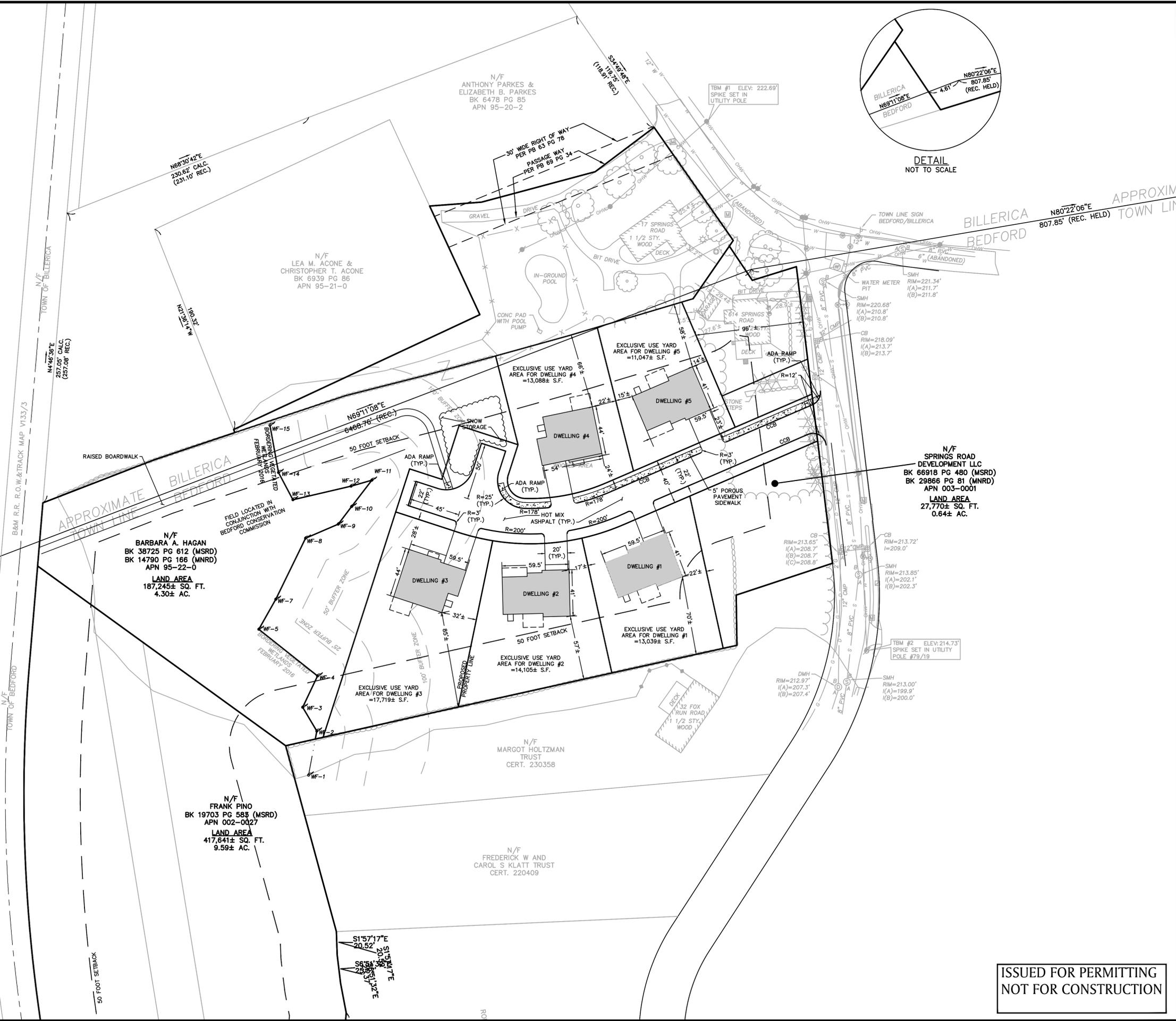
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SCALE: 1" = 40'  
0 20 40 80 FEET

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NOT FOR CONSTRUCTION**

FILE: 2327100\Civil\Drawings  
DWG. NO:  
JOB. NO: 23271.00 SHEET **C-103**



DETAIL  
NOT TO SCALE



N/F  
SPRINGS ROAD  
DEVELOPMENTS LLC  
BK 66918 PG 480 (MSRD)  
BK 29866 PG 81 (MNRD)  
APN 003-0001  
LAND AREA  
27,770± SQ. FT.  
0.64± AC.

N/F  
BARBARA A. HAGAN  
BK 38725 PG 612 (MSRD)  
BK 14790 PG 166 (MNRD)  
APN 95-22-0  
LAND AREA  
187,245± SQ. FT.  
4.30± AC.

N/F  
FRANK PINO  
BK 19703 PG 585 (MSRD)  
APN 002-0027  
LAND AREA  
417,641± SQ. FT.  
9.59± AC.

N/F  
FREDERICK W AND  
CAROL S KLATT TRUST  
CERT. 220409

N/F  
ANTHONY PARKES &  
ELIZABETH B. PARKES  
BK 6478 PG 85  
APN 95-20-2

N/F  
LEA M. ACONE &  
CHRISTOPHER T. ACONE  
BK 6939 PG 86  
APN 95-21-0

N/F  
MARGOT HOLTZMAN  
TRUST  
CERT. 230358



ENG. NAME  
PROFESSIONAL ENGINEER

DATE

### PLANNED RESIDENTIAL DEVELOPMENT (PRD)

IN  
BEDFORD  
MASSACHUSETTS  
(MIDDLESEX COUNTY)

### LAYOUT & MATERIALS PLAN

AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

803 Summer Street  
Boston, Massachusetts  
02127  
617 896 4300

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0 20 40 80 FEET  
FILE: 2327100\Civil\Drawings  
DWG. NO:  
JOB. NO: 23271.00

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ENG. NAME DATE  
 PROFESSIONAL ENGINEER

**PLANNED  
 RESIDENTIAL  
 DEVELOPMENT (PRD)**

IN  
 BEDFORD  
 MASSACHUSETTS  
 (MIDDLESEX COUNTY)

**LAYOUT &  
 MATERIALS PLAN**

AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

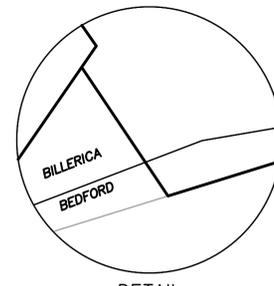
PREPARED FOR:  
 BERNSTEIN DEVELOPMENT LLC  
 C/O DEVELLIS CONSULTING GROUP  
 41 NORTH ROAD-SUITE 203  
 BEDFORD, MA 01730

**BSC GROUP**  
 803 Summer Street  
 Boston, Massachusetts  
 02127  
 617 896 4300

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FILE: 2327100\Civil\Drawings  
 DWG. NO:  
 JOB. NO: 23271.00 SHEET **C-105**

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 NOT FOR CONSTRUCTION**



DETAIL  
NOT TO SCALE

APPROXIMATE  
TOWN LINE

BILLERICA  
BEDFORD



10-31-16

ENG. NAME DATE  
PROFESSIONAL ENGINEER

### PLANNED RESIDENTIAL DEVELOPMENT (PRD)

IN  
BEDFORD  
MASSACHUSETTS  
(MIDDLESEX COUNTY)

### GRADING & DRAINAGE PLAN

AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

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Boston, Massachusetts  
02127  
617 896 4300

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SCALE: 1" = 40'  
0 20 40 80 FEET

FILE: 2327100\Civil\Drawings  
DWG. NO:  
JOB. NO: 23271.00 SHEET C-106

ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION



DMH-3  
RIM=209.10'  
INV(1)=205.91'  
INV(2)=205.91'  
INV(3)=205.81'

N/F  
BARBARA A. HAGAN  
BK 38725 PG 612 (MSRD)  
BK 14790 PG 166 (MNRD)  
APN 95-22-0  
LAND AREA  
187,245± SQ. FT.  
4.30± AC.

N/F  
FRANK PINO  
BK 19703 PG 585 (MSRD)  
APN 002-0027  
LAND AREA  
417,641± SQ. FT.  
9.59± AC.

N/F  
SPRINGS ROAD  
DEVELOPMENT LLC  
BK 66918 PG 480 (MSRD)  
BK 29866 PG 81 (MNRD)  
APN 003-0001  
LAND AREA  
27,770± SQ. FT.  
0.64± AC.

S1°57'17"E  
20.52'  
S6°51'32"E  
25.37'

FIELD  
STREET  
UNIMPROVED - 40' WIDE

GREEN  
STREET  
UNIMPROVED - 40' WIDE

50 FOOT SETBACK

30' WIDE RIGHT OF WAY  
PER PB 63 PG 78  
PASSAGE WAY  
PER PB 69 PG 34

50 FOOT SETBACK

50 FOOT SETBACK



ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION



10-31-16

ENG. NAME DATE  
PROFESSIONAL ENGINEER

PLANNED  
RESIDENTIAL  
DEVELOPMENT (PRD)

IN  
BEDFORD  
MASSACHUSETTS  
(MIDDLESEX COUNTY)

GRADING &  
DRAINAGE PLAN

AUGUST 26, 2016

REVISIONS:

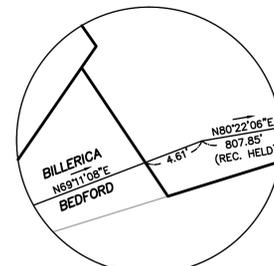
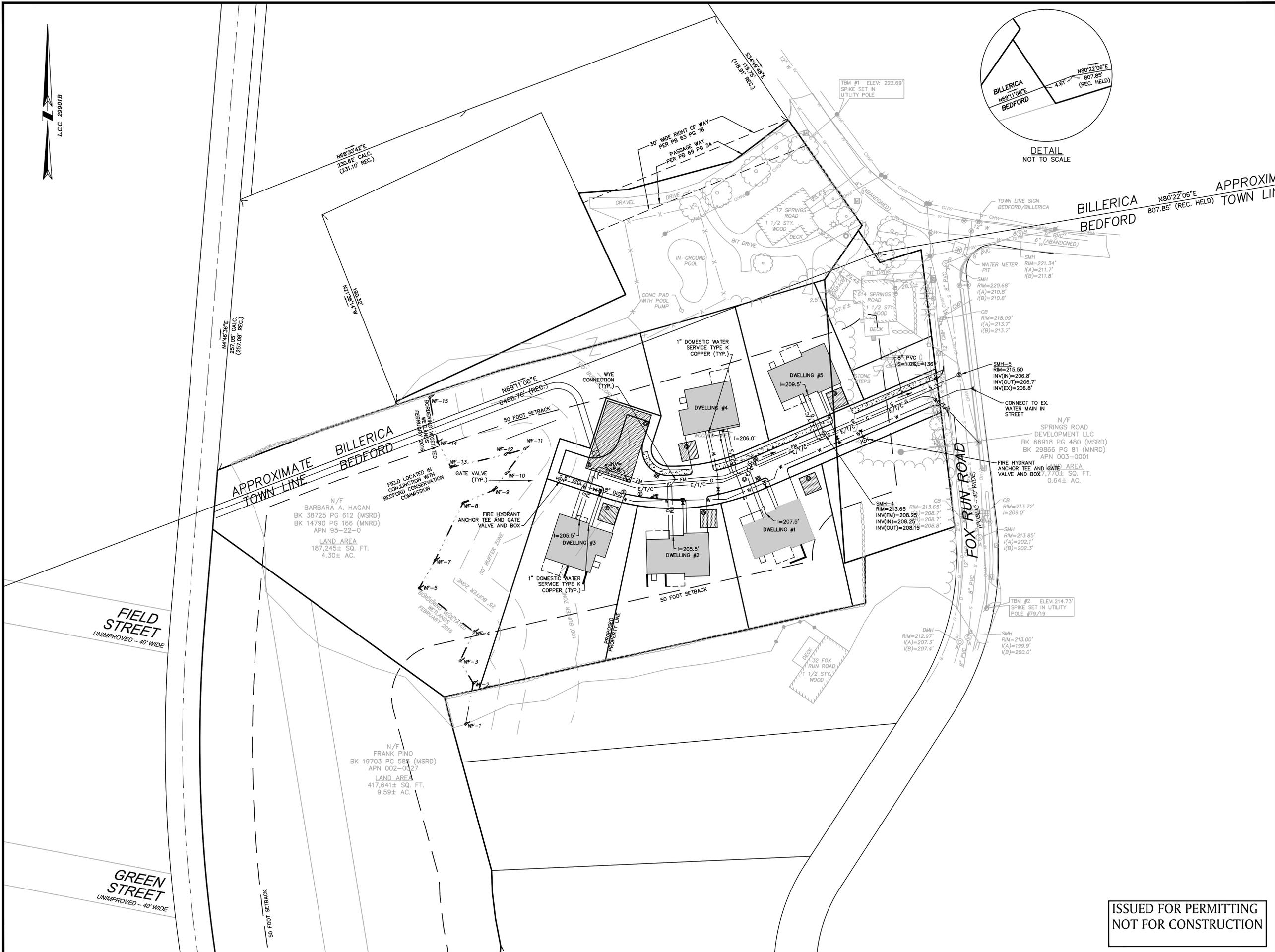
NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

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SCALE: 1" = 40'  
0 20 40 80 FEET

FILE: 2327100\Civil\Drawings  
DWG. NO:  
JOB. NO: 23271.00 SHEET C-107



ENG. NAME DATE  
 PROFESSIONAL ENGINEER

**PLANNED RESIDENTIAL DEVELOPMENT (PRD)**

IN  
**BEDFORD MASSACHUSETTS**  
 (MIDDLESEX COUNTY)

**UTILITY PLAN**

AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
 BERNSTEIN DEVELOPMENT LLC  
 C/O DEVELLIS CONSULTING GROUP  
 41 NORTH ROAD-SUITE 203  
 BEDFORD, MA 01730

**BSC GROUP**  
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 SCALE: 1" = 40'

FILE: 2327100\Civil\Drawings  
 DWG. NO: SHEET **C-108**  
 JOB. NO: 23271.00

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ENG. NAME DATE  
 PROFESSIONAL ENGINEER

**PLANNED  
 RESIDENTIAL  
 DEVELOPMENT (PRD)**

IN  
 BEDFORD  
 MASSACHUSETTS  
 (MIDDLESEX COUNTY)

**UTILITY PLAN**

AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

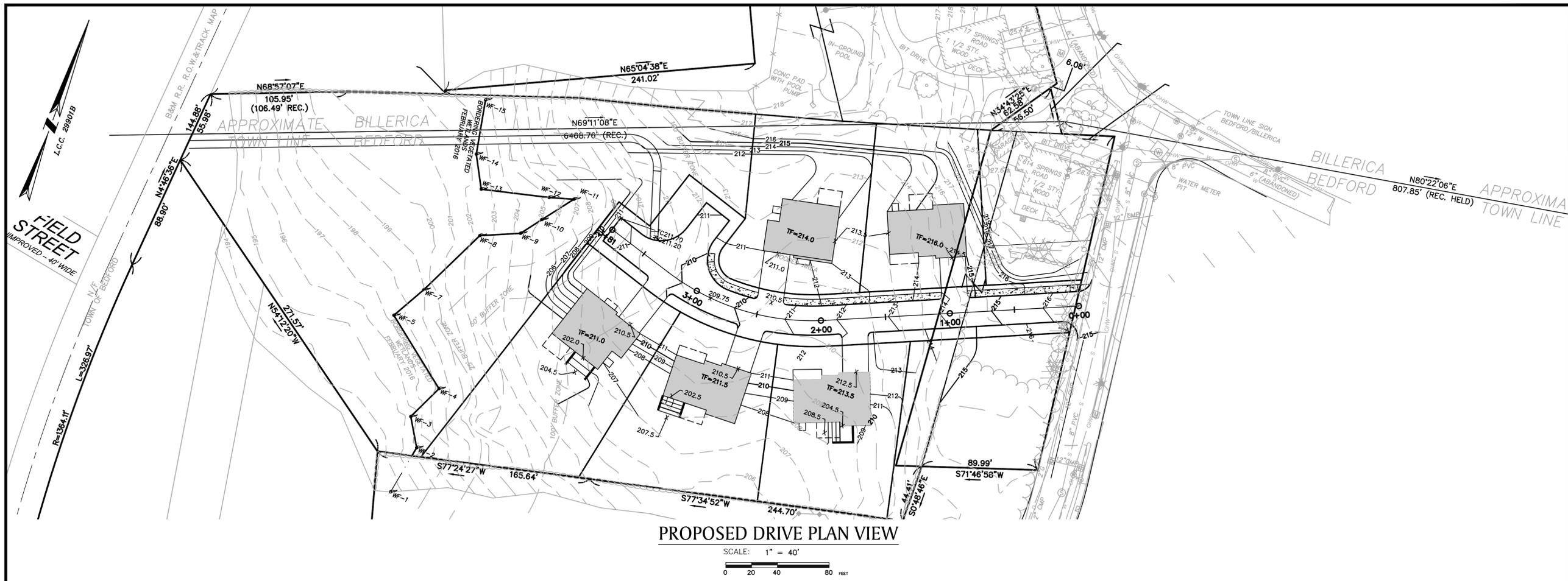
PREPARED FOR:  
 BERNSTEIN DEVELOPMENT LLC  
 C/O DEVELLIS CONSULTING GROUP  
 41 NORTH ROAD-SUITE 203  
 BEDFORD, MA 01730

**BSC GROUP**  
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 Boston, Massachusetts  
 02127  
 617 896 4300

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 SCALE: 1" = 40'

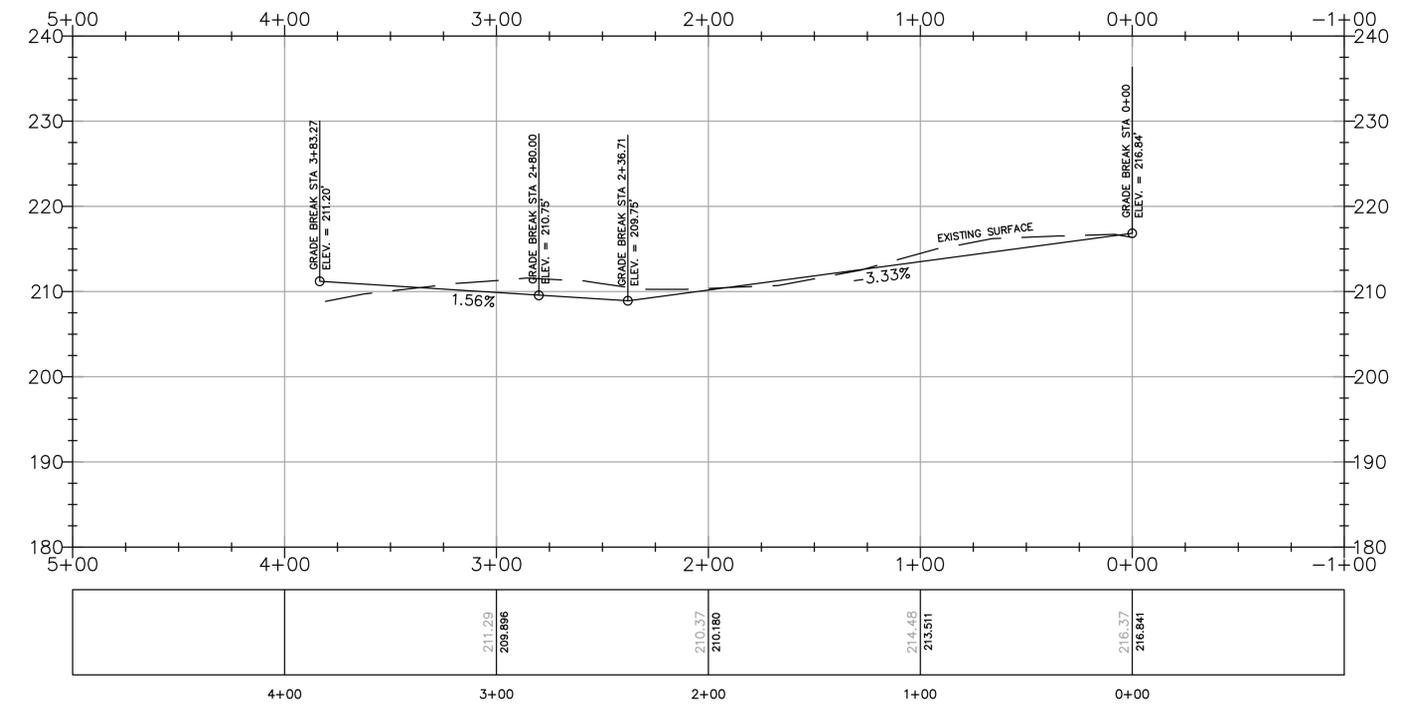
FILE: 2327100\Civil\Drawings  
 DWG. NO:  
 JOB. NO: 23271.00 SHEET **C-109**

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 NOT FOR CONSTRUCTION**



**PROPOSED DRIVE PLAN VIEW**

SCALE: 1" = 40'  
0 20 40 80 FEET



**PROPOSED DRIVE PROFILE VIEW**

SCALE: 1" = 40' HORIZONTAL  
1" = 4' VERTICAL  
0 20 40 80 FEET  
0 2 4 8 FEET

**ISSUED FOR PERMITTING  
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ENG. NAME: FRANCIS D. DIPIETRO  
DATE: 10-31-16  
PROFESSIONAL ENGINEER

**PLANNED  
RESIDENTIAL  
DEVELOPMENT (PRD)**

IN  
BEDFORD  
MASSACHUSETTS  
(MIDDLESEX COUNTY)

**ROADWAY PLAN  
& PROFILE**

AUGUST 26, 2016

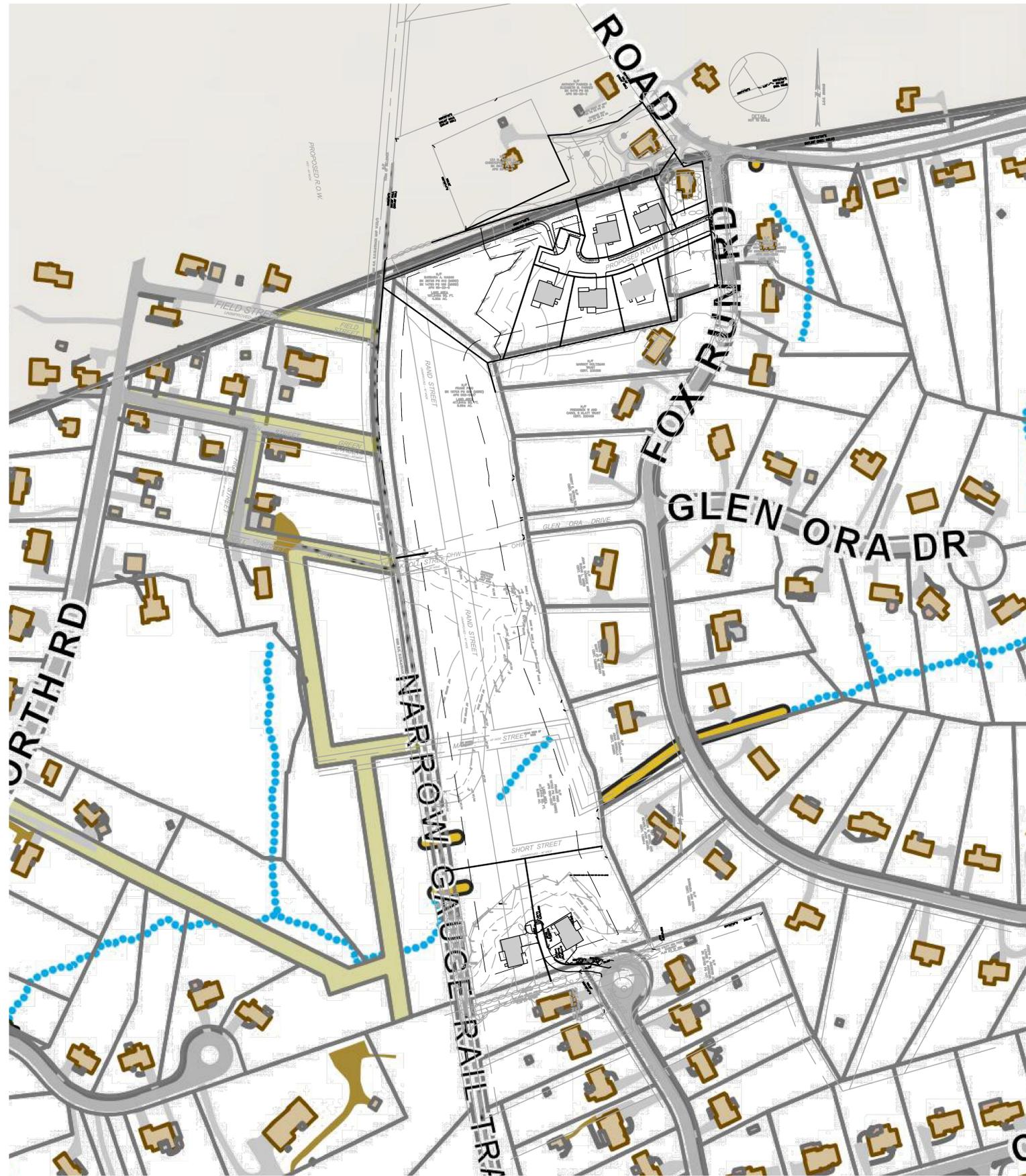
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41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730



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SCALE: AS SHOWN



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*Francis D. DiPietro*  
10-31-16

ENG. NAME DATE  
PROFESSIONAL ENGINEER

### PLANNED RESIDENTIAL DEVELOPMENT (PRD)

IN  
BEDFORD  
MASSACHUSETTS  
(MIDDLESEX COUNTY)

LOCUS PLAN

AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

**BSC GROUP**  
803 Summer Street  
Boston, Massachusetts  
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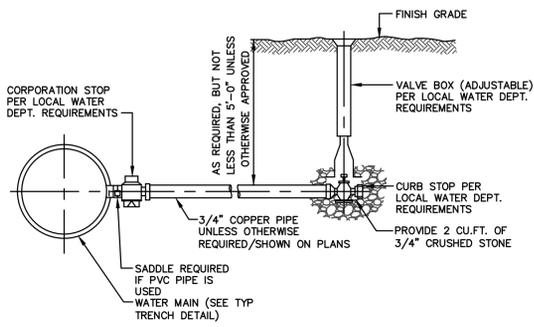
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SCALE: 1" = 40'

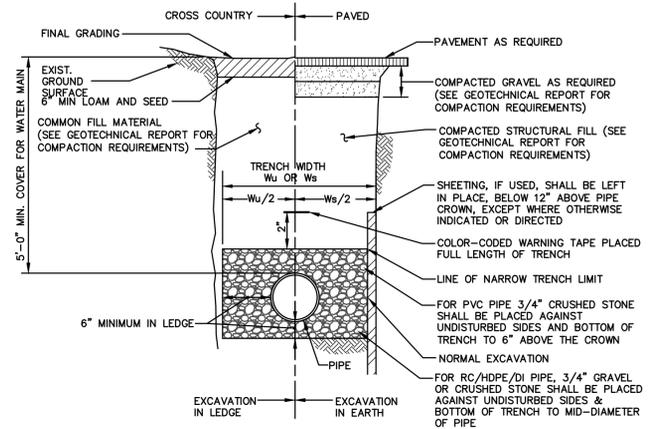


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JOB. NO: 23271.00 SHEET C-111



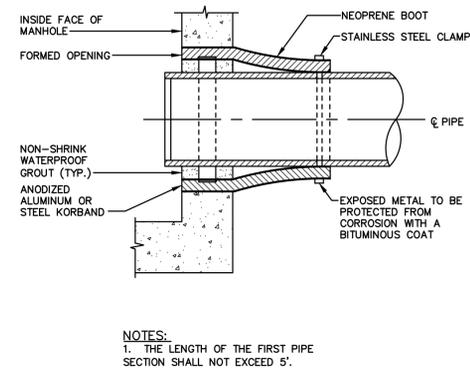


**WATER SERVICE CONNECTION**  
SCALE: NONE

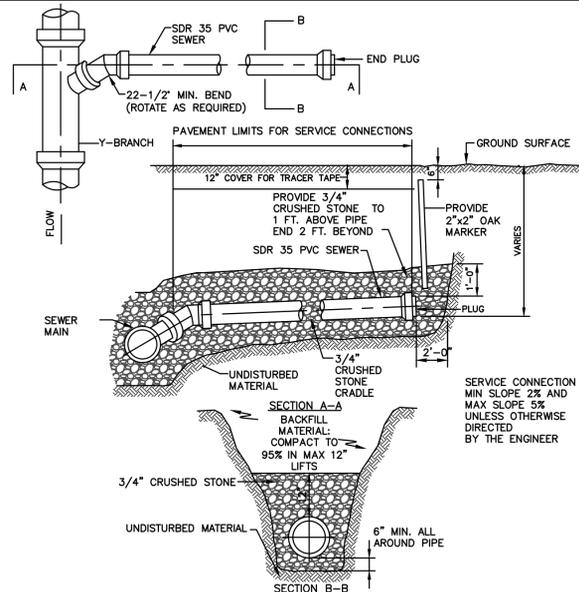
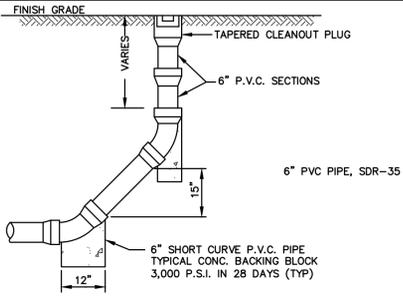


TRENCH WIDTH, Ws OR Wu		
DIAMETER OF PIPE	UNSHEETED	WS SHEETED
12" AND SMALLER	3'-0"	4'-2"
15"	3'-2"	4'-4"
18"	3'-6"	4'-8"
21"	3'-10"	5'-0"
24"	4'-2"	5'-4"
27"	4'-6"	5'-8"
30"	4'-10"	6'-0"
36"	5'-6"	6'-8"
42"	6'-2"	7'-4"
48"	6'-10"	8'-0"

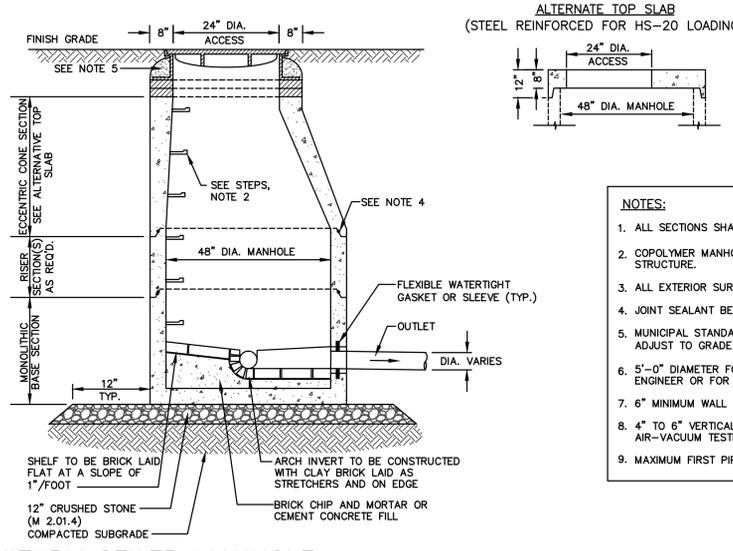
TRENCH WIDTH DATA



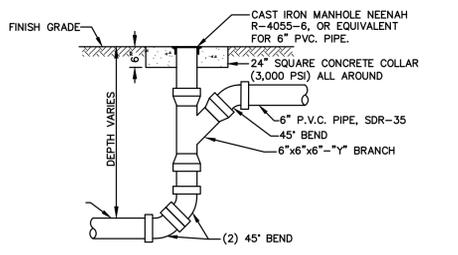
**FLEXIBLE PIPE TO MANHOLE CONNECTION (NEOPRENE BOOT)**  
SCALE: NONE



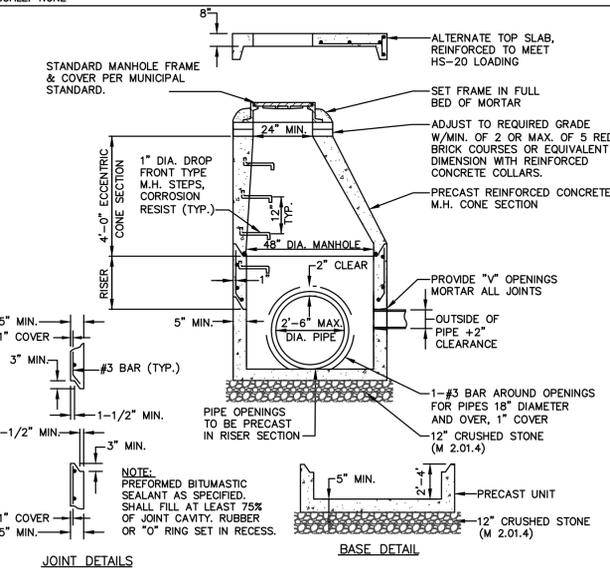
**BUILDING SEWER SERVICE CONNECTION**  
SCALE: NONE



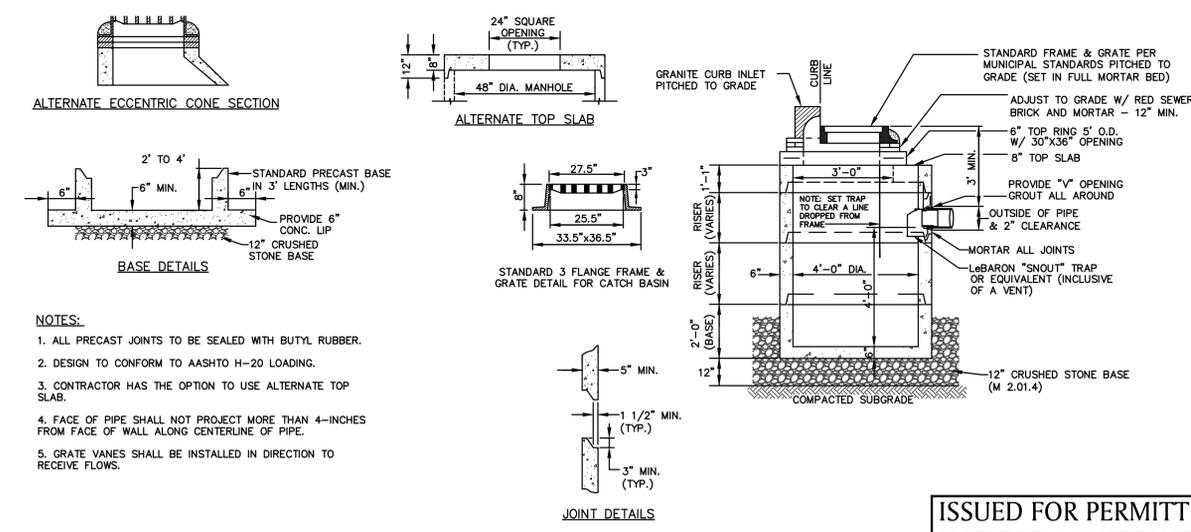
**SANITARY SEWER MANHOLE**  
SCALE: NONE



**SEWER LINE CLEANOUT**  
SCALE: NONE



**PRECAST CONCRETE DRAIN MANHOLE**  
SCALE: NONE



**CATCH BASIN WITH CURB INLET**  
SCALE: NONE

**ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION**



ENG. NAME DATE  
PROFESSIONAL ENGINEER

**PLANNED RESIDENTIAL DEVELOPMENT (PRD)**

IN BEDFORD MASSACHUSETTS (MIDDLESEX COUNTY)

**CIVIL DETAILS II**

AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

**BSC GROUP**

803 Summer Street  
Boston, Massachusetts  
02127

617 896 4300

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SCALE: AS SHOWN

FILE: 2327100\Civil\Drawings  
DWG. NO:  
JOB. NO: 23271.00

SHEET **C-201**



10-31-16

ENG. NAME DATE  
PROFESSIONAL ENGINEER

PLANNED  
RESIDENTIAL  
DEVELOPMENT (PRD)

IN  
BEDFORD  
MASSACHUSETTS  
(MIDDLESEX COUNTY)

CIVIL DETAILS III

AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:

BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730



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SCALE: AS SHOWN

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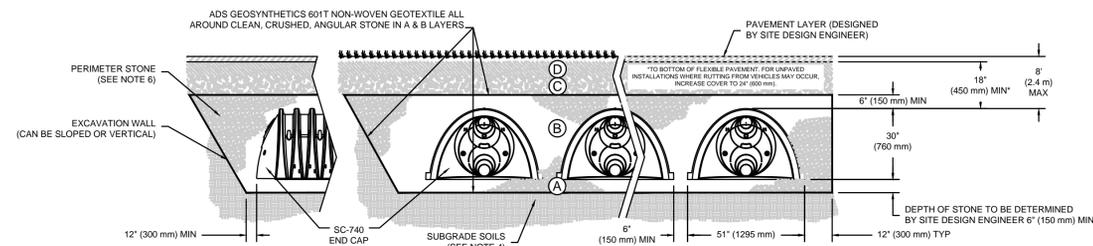
SHEET C-202

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYERS) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2-4, A-3 OR AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SURGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>1, 2</sup>

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:

- SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

STORMTECH SC-740 SUBSURFACE  
INFILTRATION CHAMBER DETAIL

SCALE: NONE

ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION



FIELD STREET  
UNIMPROVED - 40' WIDE

GREEN STREET  
UNIMPROVED - 40' WIDE

FOX RUN ROAD  
UNIMPROVED - 40' WIDE

**PLANTING NOTES**

ALL PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.

ANY PROPOSED SUBSTITUTIONS OF PLANT MATERIAL SHALL BE MADE WITH MATERIAL EQUIVALENT TO THE DESIRED MATERIAL IN OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE. PROPOSED SUBSTITUTIONS WILL ONLY BE CONSIDERED IF SUBMITTED WITH ENUMERATED REASONS WHY SUBSTITUTIONS ARE PROPOSED.

VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT ANY CONFLICTS TO THE OWNER OR HIS REPRESENTATIVE.

NO PLANT SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING.

ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.

THE CONTRACTOR SHALL CLEARLY MARK LIMITS OF CLEARING AND LIMITS OF SELECTIVE PRUNING AND THINNING, FOR REVIEW BY THE A/E PRIOR TO ANY CLEARING OPERATIONS.

ALL TREES NOTED FOR CLEARING AND SELECTIVE PRUNING AND THINNING SHALL BE EXECUTED BY A LICENSED ARBORIST.

THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT EXISTING VEGETATION THAT IS TAGGED BY THE A/E, "TO BE SAVED".

ALL TREES TO BE SAVED SHALL BE PROTECTED WITH A SNOW FENCE AND HAY BALES CIRCULING THE TREE AT A MINIMUM DISTANCE OF 1/2 THE CANOPY.

THE A/E RESERVES THE RIGHT TO ADJUST FINAL GRADES IN THE FIELD TO SAVE EXISTING VEGETATION.

PLANT QUANTITIES NOTED IN THE PLANT SCHEDULE ARE APPROXIMATE AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FURNISHING AND INSTALLATION OF ALL PLANT MATERIALS NOTED ON THE PLANTING PLAN.

LOAM AND SEED ALL DISTURBED AREAS UNLESS OTHERWISE INDICATED.

REGRADE STOCKPILE AREA AFTER REMOVAL OF SURPLUS MATERIALS (SEE SITE WORK SPECIFICATIONS). LOAM AND SEED THE DISTURBED AREA.

TOPSOIL STRIPPED FROM THE SITE AND PROPERLY STOCKPILED PRIOR TO APPLICATION MAY, UPON APPROVAL OF THE ENGINEER, BE USED FOR PREPARATION OF LAWNS AND PLANTING BEDS. IT SHOULD BE FREE OF LARGE (ONE (1) INCH OR GREATER) COBBLES, ROOTS, OLD SOO, TRASH, WOOD OR OTHER CONTAMINANTS AND BE OF A FRIABLE CONSISTENCY AND SUITABLE FOR PLANT GROWTH.

PROVIDE SOIL TEST REPORTS FOR ONSITE TOP SOIL TO BE REUSED AND FOR LOAM BORROW TO BE IMPORTED. SOIL TEST REPORT SHALL INCLUDE USDA TEXTURAL CLASSIFICATION TEXTURAL SIEVE ANALYSIS, AS WELL AS NUTRIENT ANALYSIS, AND MICRO-NUTRIENTS.

THE LANDSCAPE CONTRACTOR SHALL FURNISH LOAM BORROW/ TOPSOIL. LOAM SHALL BE FERTILE, FRIABLE, NATURAL AND PRODUCTIVE TOPSOIL OF GOOD CLAY-LOAM TO SANDY LOAM TYPE. LOAM SHALL BE WITHOUT ADMIXTURE OF SUBSOIL AND SHALL BE REASONABLY FREE OF STONES, LUMPS, ROOTS, STICKS INVASIVE SEED OR STOCK AND OTHER FOREIGN MATTER. LOAM SHALL NOT BE WORKED OR APPLIED IN A MUDDY OR WET CONDITION.

PROVIDE SOIL AMENDMENTS AS DIRECTED BY THE A/E BASED UPON THE FINDINGS OF SOIL TESTS PROVIDED FOR EXISTING TOP SOIL TO BE REUSED AND OR IMPORTED MATERIAL.

ALL PLANTING BEDS TO BE FILLED WITH SOIL AND CROWNED ABOVE ADJACENT LAWN OR IMPROVED AREAS. ALL PLANTING BEDS TO BE MULCHED WITH AGED PINE BARK MULCH TO A DEPTH OF THREE (3) INCHES.

CAUTION SHALL BE USED NOT TO EXTEND MULCH LAYER ABOVE SOIL LEVEL AT TRUNKS/STEMS OF INSTALLED PLANT MATERIAL.

PROVIDE FIVE (5) FOOT DIAMETER MULCH CIRCLE AROUND ALL INDIVIDUAL TREE PLANTINGS AND CONTINUOUS MULCH BED AROUND SHRUB PLANTINGS.

**PLANTING SCHEDULE**

TREES	QTY	BOTANICAL NAME / COMMON NAME	SIZE
ARO	3	ACER RUBRUM 'OCTOBER GLORY' TM / OCTOBER GLORY MAPLE	3-3.5" CAL.
AFJ	2	ACER X FREEMANII 'JEFFSRED' / AUTUMN BLAZE MAPLE	3-3.5" CAL.
PPG	45	PICEA PUNGENS GLAUCA / COLORADO BLUE SPRUCE	6-7' HT. / B&B
PSW	44	PINUS STRIBUS / WHITE PINE	6-7' HT. / B&B
QPP	2	QUERCUS PALUSTRIS / PIN OAK	3-3.5" CAL.
TON	51	THUJA OCCIDENTALIS 'DARK GREEN' / DARK AMERICAN ARBORVITAE	7-8' HT. / B&B
SHRUBS	QTY	BOTANICAL NAME / COMMON NAME	SIZE
BA	11	BAPTISIA AUSTRALIS / BLUE FALSE INDIGO	3-4' HT.
KL	36	CALAMAGROSTIS X ACUTIFLORE 'KARL FOESTER' / FEATHER REED GRASS	3-3.5" CAL.
KL	13	KALMIA LATIFOLIA / MOUNTAIN LAUREL / AUTUMN BLAZE MAPLE	3-4" CAL.
HH	150	HEMEROCALLIS X 'HAPPY RETURNS' / HAPPY RETURNS DWARF DAYLILY	BULBS
NF	114	NEPETA X FAASSENII / CATMINT	1-2' HT.
RO	21	RHOODENDRON 'P.J.M.' / P.J.M. RHOODENDRON	3-4' HT.
IM-1	8	ILLEX X MESERVEAE 'CHINA GIRL' / CHINA GIRL HOLLY	1-2' HT.
IM-2	2	ILLEX X MESERVEAE 'CHINE BOY' / CHINA BOY HOLLY	3-4' HT.

LANDSCAPE PLAN BY OTHERS

DATE

**PLANNED RESIDENTIAL DEVELOPMENT (PRD)**

IN  
BEDFORD MASSACHUSETTS (MIDDLESEX COUNTY)

**FOX RUN ROAD LANDSCAPE PLAN AND NOTES**

AUGUST 26, 2016

**REVISIONS:**

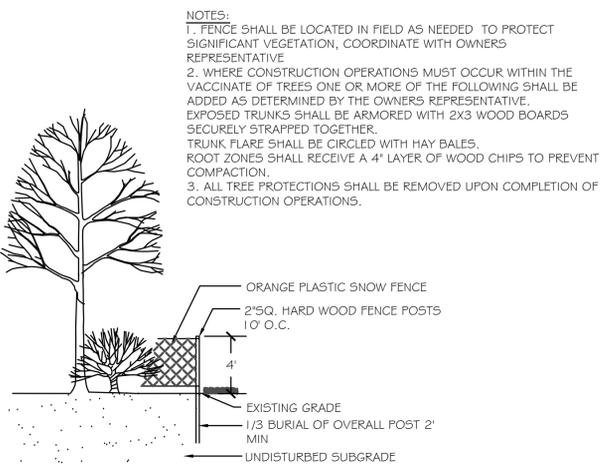
NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
41 NORTH ROAD-SUITE 203  
BEDFORD, MA 01730

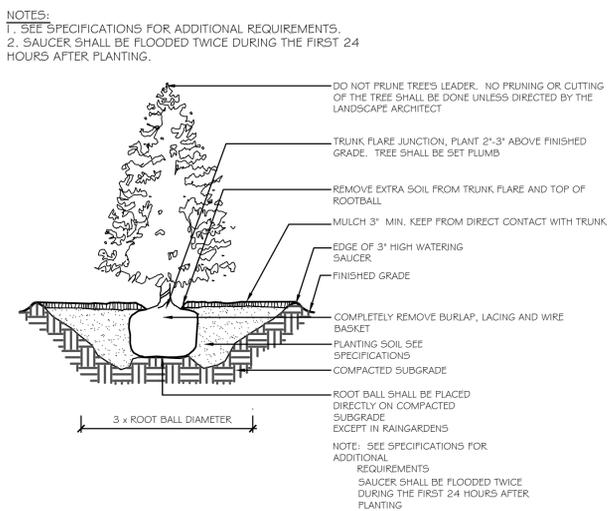
**BSC GROUP**  
803 Summer Street  
Boston, Massachusetts  
02127  
617 896 4300

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SCALE: 1" = 40'  
0 20 40 80 FEET

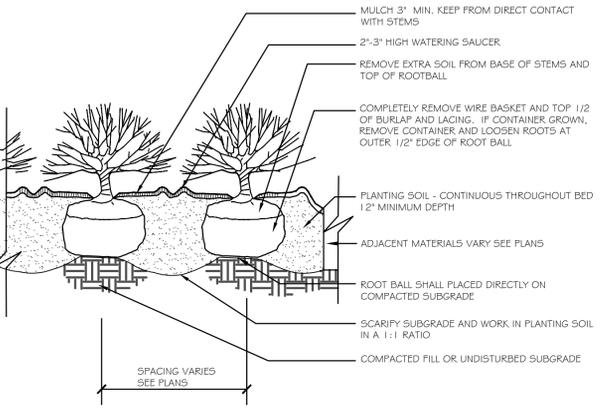
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DWG. NO:  
JOB. NO: 23271.00  
SHEET L-100



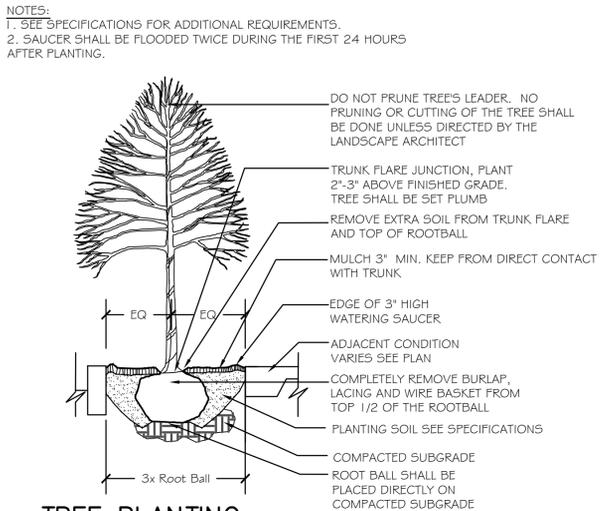
**TREE PROTECTION DETAIL**  
SCALE: NONE



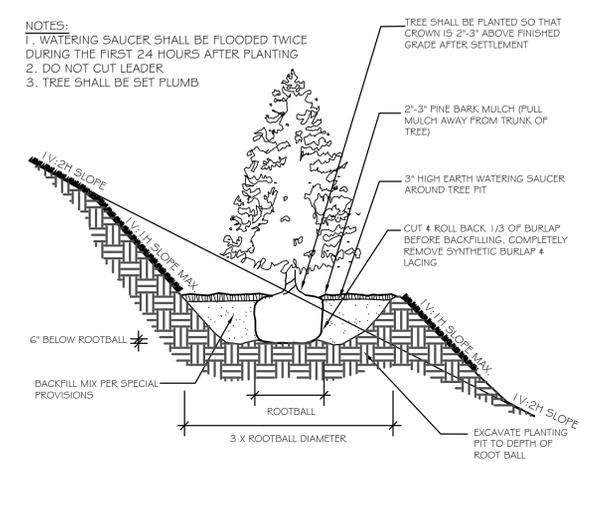
**EVERGREEN TREE PLANTING**  
N.T.S.



**SHRUB PLANTING**  
N.T.S.



**TREE PLANTING**  
SCALE: NONE



**TREE PLANTING (SLOPE)**  
N.T.S.

**PLANNED RESIDENTIAL DEVELOPMENT (PRD)**

IN  
**BEDFORD MASSACHUSETTS (MIDDLESEX COUNTY)**

**BUEHLER ROAD LANDSCAPE PLAN, DETAILS AND LIGHTING NOTES**  
AUGUST 26, 2016

REVISIONS:

NO.	DATE	DESC.
1.	10/31/16	

PREPARED FOR:  
BERNSTEIN DEVELOPMENT LLC  
C/O DEVELLIS CONSULTING GROUP  
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