

OSRD SITE PLAN & DEFINITIVE SUBDIVISION PLAN for GREENING WAY

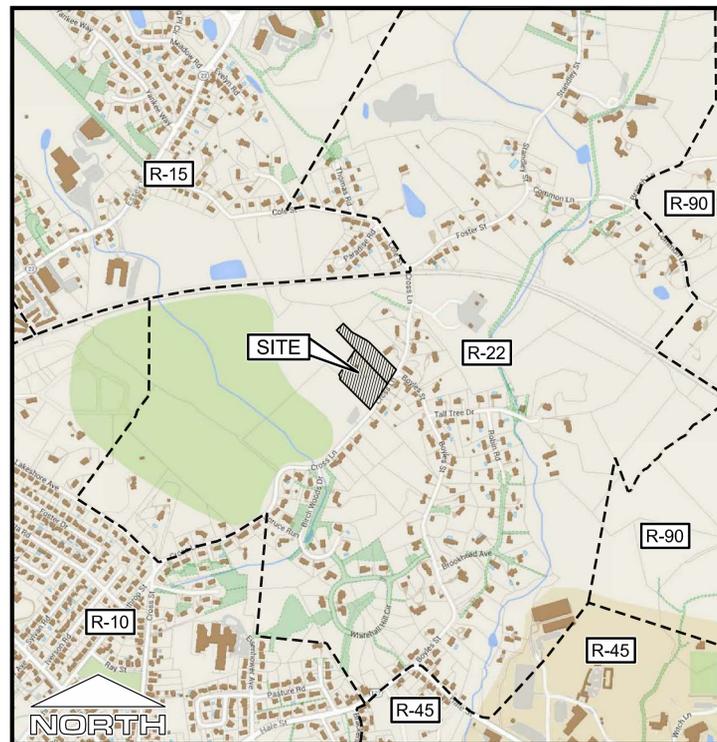
(F.K.A. 122 CROSS LANE)

MAP 33 LOT 6A & 7
BEVERLY, MA
JUNE 2016

OWNER &
APPLICANT: BENCO LLC
2 LEATHER LANE
BEVERLY, MA 01915

ENGINEER: GRIFFIN ENGINEERING GROUP, LLC
495 CABOT STREET, 2ND FLOOR
BEVERLY, MA 01915

SURVEYOR: AMERICAN LAND SURVEY ASSOCIATES, INC.
42 CHERRY STREET
GLOUCESTER, MA 01930



LOCUS MAP
1" = 800'

REVISIONS		
NO.	DATE	DESCRIPTION
1	9/12/16	REVISE PER PARKING & TRAFFIC COMM., PLANNING BOARD, AND ENGR. DEPT. COMMENTS

SHEET INDEX:

- COVER
- PREVIOUSLY SUBMITTED
- C-1: SITE CONTEXT MAP
 - C-2: EXISTING CONDITIONS
 - C-3: YIELD PLAN
 - C-4a: CONCEPT PLAN A (PREFERRED PLAN)
 - C-4b: CONCEPT PLAN B
 - C-4c: CONCEPT PLAN C
 - C-5: OSRD SITE PLAN
 - C-6: LOTTING PLAN
 - C-7: UTILITIES PLAN
 - C-8: PROFILE
 - C-9: DETAILS I

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE _____

I, _____, CLERK OF THE CITY OF BEVERLY, MA, CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE BEVERLY PLANNING BOARD HAS BEEN RECEIVED AND RECORDED IN THIS OFFICE AND THAT NO APPEAL WAS RECEIVED DURING THE TWENTY (20) DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SUCH NOTICE.

BEVERLY CITY CLERK _____

DATE _____

WAIVERS REQUESTED:

SUBDIVISION RULES & REGULATIONS:

§III.C.2.d - MAPPING TREES >6" DBH
 §III.C.2 - 1"=30' vs. 1"=40'
 §IV.A.2.b - MINIMUM CENTERLINE RADIUS
 §IV.A.4.b - MAXIMUM CENTERLINE GRADE
 §IV.A.4.c - LEVELING AREA
 §IV.B.5.b - PAVEMENT WIDTH
 §IV.B.5.c - TURN-AROUND
 §V.H - FIRE HYDRANTS
 §V.J - STREET LIGHTS
 §V.K - FIRE ALARM PULL BOX

OSRD SITE PLAN ORDINANCE:

300.54.F(3)(b)(2) - 25' TRACT BUFFER & 100' WETLAND BUFFER
 300.54.F.3.b.viii - MAPPING TREES >10" DBH
 300.54.G(5) - MINIMUM ROADWAY WIDTH & MAXIMUM ROADWAY GRADE
 300.54.G(6) - SIDEWALK CONSTRUCTION
 300.54.H(1)e - OPEN SPACE MGT. PLAN PREPARATION

⚠ ZONING RELIEF REQUESTED:

ZONING DISTRICT: R-22
 LOT 2 - LOT FRONTAGE (150' REQUIRED; 47.12' PROVIDED)
 LOT 3 - LOT AREA (22,000 SF REQUIRED; 19,925 SF PROVIDED)

CITY OF BEVERLY
PLANNING BOARD

DATE: _____

OSRD DIMENSIONAL REQUIREMENTS
 MINIMUM LOT AREA: 6,000 SF
 MINIMUM FRONTAGE: NA
 SETBACKS:
 FRONT: 20'
 SIDE: 10'
 REAR: 25'

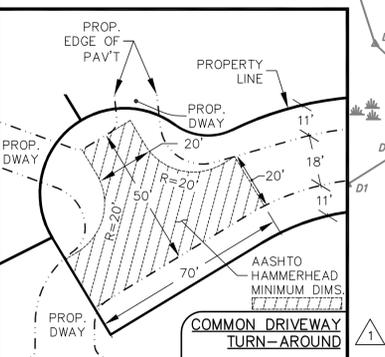
MAP 45 LOT 2
 90 BOYLES STREET
 N/F
 PARADISE BEVERLY
 REALTY TRUST

MAP 33 LOT 7A
 82 BOYLES STREET
 N/F
 EDELSTEIN

BOYLES STREET
 (PUBLIC - VARIABLE WIDTH)

MAP 33 LOT 6
 CROSS LANE
 N/F
 CITY OF BEVERLY

MAP 33 LOT 5
 CROSS LANE
 N/F
 CITY OF BEVERLY



- LEGEND**
- EXIST. PROPERTY LINE
 - 68- EXIST. CONTOUR
 - ▨ EXIST. BUILDING
 - EXIST. EDGE OF PAVEMENT
 - W-W EXIST. WATER
 - S-S EXIST. SEWER
 - G-G EXIST. GAS
 - D-D EXIST. DRAIN
 - B2- EXIST. WETLAND LINE
 - ▨ EXIST. LEDGE OUTCROP
 - PROP. LOT LINE
 - PROP. SETBACK
 - 68- PROP. CONTOUR
 - ▨ PROP. BUILDING
 - PROP. EDGE OF PAVEMENT
 - PROP. CLEARING LIMIT

NOTE: THE PURPOSE OF THIS DETAIL IS TO SHOW THAT THE PROPOSED TURN-AROUND MEETS THE MINIMUM DIMENSIONS REQ'D TO CONFORM TO THE AASHTO HAMMERHEAD SHOWN.

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BEVERLY CITY CLERK _____ DATE _____

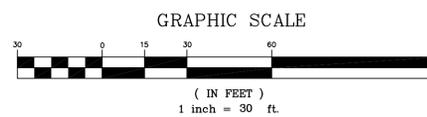
OSRD CALCULATIONS:
 TOTAL TRACT AREA = 181,519 SQ. FT (4.17 ACRES)
 PRIMARY CONSERVATION AREA (WETLANDS) = 8,017 SF (0.18 ACRES)
 ADDITIONAL CONSERVATION AREA = 0 (0.00 ACRES)
 25' NO-DISTURB ZONE = 31,294 SF (0.72 ACRES)
 AREAS >20% SLOPE (OUTSIDE 25' NDZ) = 53,720 SF (1.23 ACRES)

BUILDABLE AREA (BY DEFINITION IS TOTAL AREA LESS WETLANDS, 25' NO-DISTURB ZONE & AREAS HAVING MORE THAN 20% SLOPE)
 = 181,519 - 8,017 - 31,294 - 53,720 = 88,488 SF (2.03 ACRES)

MIN. OPEN SPACE (50% OF BUILDABLE AREA)
 REQUIRED = 50% x 88,488 = 44,244 SF (1.02 ACRES)
 PROVIDED = 60,379 (1.39 ACRES) = 60.0%

MIN. NO DISTURB AREA (50% OF TOTAL TRACT)
 REQUIRED = 50% x 181,519 = 90,760 SF (2.08 ACRES)
 PROVIDED = 60,379 + 30,480 = 90,859 (2.08 ACRES) = 50.0%

MAX. NUMBER OF LOTS PER YIELD PLAN = 4
 NUMBER OF BUILDING LOTS PROVIDED = 3



ELEVATION BENCHMARKS		
DATUM: N.A.V.D. 1988		
NO.	DESCRIPTION	ELEV.
1.	IRON ROD @ SE LOT CNR	51.64'
2.	NAIL IN PAVT @ DWAY	52.00'
3.	NAIL IN PAVT @ SW LOT CNR	50.68'

No.	Date	Description
1	9/12/16	REMOVE INFIL. BASIN FROM 25'-FT NDZ ADD SEDIMENT FOREBAY; ADD STONE INFIL. TRENCHES; MINOR GRADING CHANGES; ADD TURN-AROUND DETAIL; ADD BOYLES ST. CL. O/S DIM; ADD NOTE TO MAINTAIN SIGHT LINES ALONG CROSS LANE; REVISE RM DESCRIPTIONS; ADD APPROX. PROPERTY LINES ACROSS CROSS LANE.

Revisions

CITY OF BEVERLY
 PLANNING BOARD

DATE: _____

BENCO, LLC
 122 CROSS LANE
 BEVERLY, MA 01915
 MAP 33 LOT 6A & 7

GREENING WAY

OSRD
 SITE PLAN

Scale: 1"=30'

Job No.: 1580

File Name: p/p/b/ca

Date: 6/13/16

C-5



495 Cabot Street, 2nd Floor
 Beverly, MA 01915

Tel: 978-927-5111
 Fax: 978-927-5103

REFERENCES:
 STREET ADDRESS: 122 CROSS LANE
 ASSESSOR'S INFO: MAP 33 LOTS 6A & 7
 RECORD OWNER: BENCO LLC
 LOCUS DEED: BK. 34573 PG. 541
 LOCUS PLAN: BK. 24 PL. 39
 L.C. PLAN 18383-A

PLAN PURPOSE:
 THE PURPOSE OF THIS PLAN IS TO CREATE THE 40-FT RIGHT-OF-WAY AND SUBDIVIDE THE PROPERTIES AT 122 CROSS LANE INTO 5 LOTS (3 NEW BUILDING LOTS). THE NEW BUILDING LOTS ARE NOS. 1, 2, & 3. LOT 4 IS THE 40' WIDE PRIVATE WAY. LOT 5 IS THE OPEN SPACE PARCEL TO BE CONVEYED TO THE CITY OF BEVERLY.

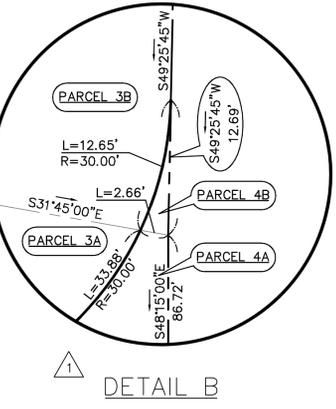
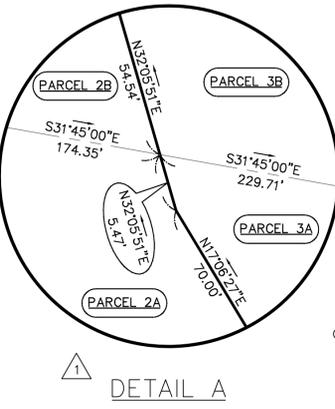
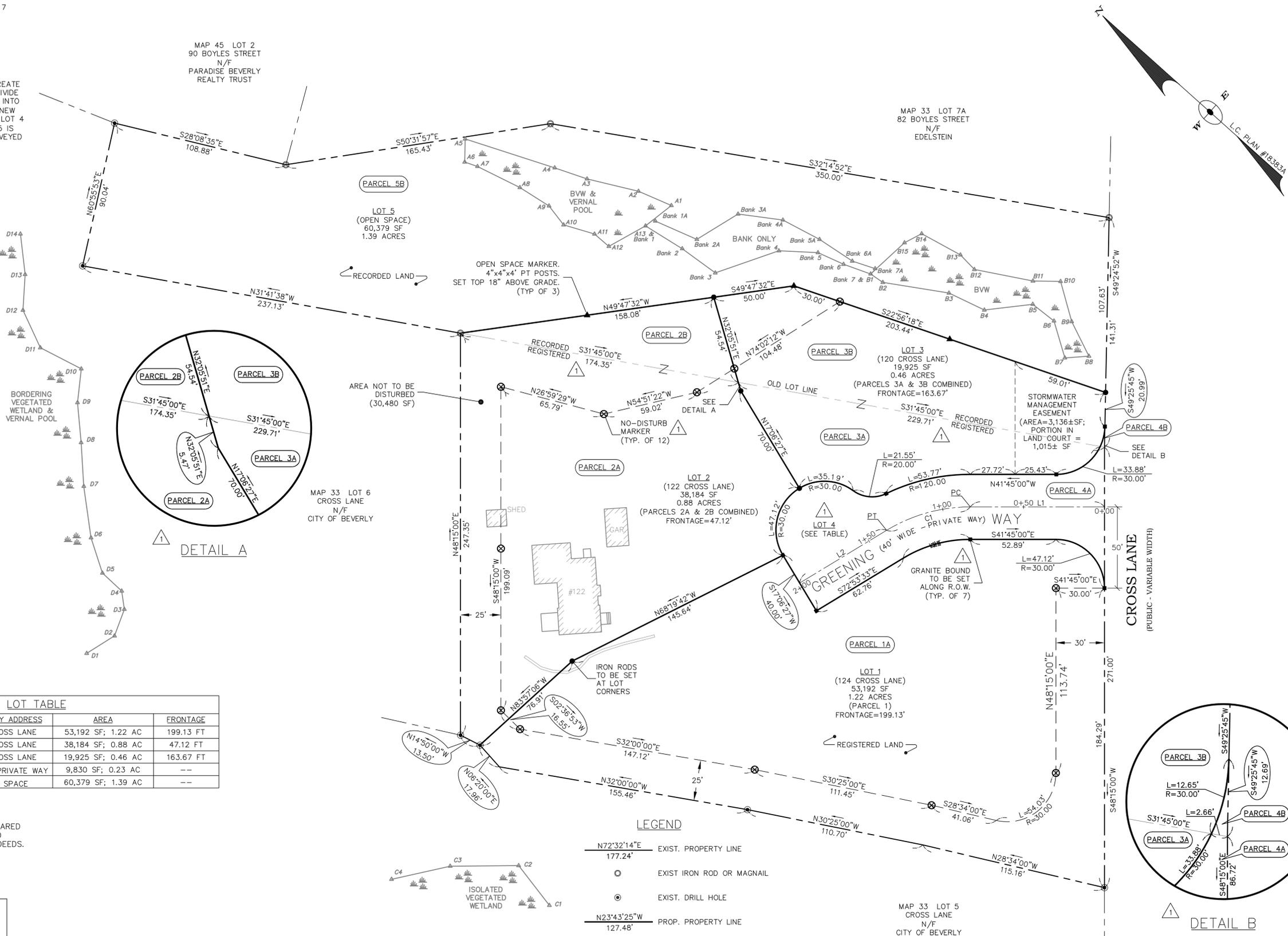
OSRD DIMENSIONAL REQUIREMENTS
 MINIMUM LOT AREA: 6,000 SF
 MINIMUM FRONTAGE: NA
 SETBACKS:
 FRONT: 20'
 SIDE: 10'
 REAR: 25'

REGISTERED LAND	
PARCEL 1A:	AREA = 53,192 SF (1.22 AC)
PARCEL 2A:	AREA = 33,925 SF (0.78 AC)
PARCEL 3A:	AREA = 7,919 SF (0.18 AC)
PARCEL 4A:	AREA = 9,819 SF (0.23 AC)
RECORDED LAND	
PARCEL 2B:	AREA = 4,268 SF (0.10 AC)
PARCEL 3B:	AREA = 12,006 SF (0.28 AC)
PARCEL 4B:	AREA = 11 SF (0.00 AC)
PARCEL 5B:	AREA = 60,379 SF (1.39 AC)

LOT TABLE				
LOT NUMBER	PARCELS	PROPERTY ADDRESS	AREA	FRONTAGE
LOT 1	1A	124 CROSS LANE	53,192 SF; 1.22 AC	199.13 FT
LOT 2	2A & 2B	122 CROSS LANE	38,184 SF; 0.88 AC	47.12 FT
LOT 3	3A & 3B	120 CROSS LANE	19,925 SF; 0.46 AC	163.67 FT
LOT 4	4A & 4B	40' WIDE PRIVATE WAY	9,830 SF; 0.23 AC	--
LOT 5	5A & 5B	OPEN SPACE	60,379 SF; 1.39 AC	--

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DATE _____
 FOR REGISTRY USE ONLY



- LEGEND**
- N72°32'14"E 177.24' EXIST. PROPERTY LINE
 - EXIST. IRON ROD OR MAGNAIL
 - EXIST. DRILL HOLE
 - N23°43'25"W 127.48' PROP. PROPERTY LINE
 - PROP. GRANITE BOUND TO BE SET
 - ⊗ PROP. NO-DISTURB MARKER TO BE SET
 - PROP. IRON ROD TO BE SET
 - ▲ PROP. OPEN SPACE MARKERS TO BE SET
 - ▲ A12 WETLAND BOUNDARY (REF: DEP #005-1169)

40-FT RIGHT-OF-WAY CENTERLINE DIMENSIONS TABLE

LINE, L OR CURVE, C	BEARING OR RADIUS	LENGTH
L1	N41°45'00"W	82.89'
C1	100'	54.35'
L2	N72°53'33"W	62.76'

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BEVERLY CITY CLERK _____ DATE _____

CITY OF BEVERLY PLANNING BOARD

DATE: _____

No.	Date	Description
1	9/12/16	ADD DETAILS A & B; ADD R.O.W. CL. DIM. TABLE; BREAKOUT RECORDED VS. REGISTERED LAND & ADD TABLE; ADD STONE BOUNDS ALONG PROPOSED R.O.W.; REVISE LEGEND; REVISE LOT NUMBERS; ADD LOT TABLE; INC. SWM EASEMENT AREA.



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BENCO, LLC
 122 CROSS LANE
 BEVERLY, MA 01915
 MAP 33 LOT 6A & 7

GREENING WAY
 LOTTING PLAN

Scale: 1"=30'
 Job No.: 1580
 File Name: p/p/b/ca
 Date: 6/13/16
 C-6

DATE:

No.	Date	Description
Revisions		



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MAP 33 LOT 6A & 7

GREENING WAY
UTILITIES PLAN

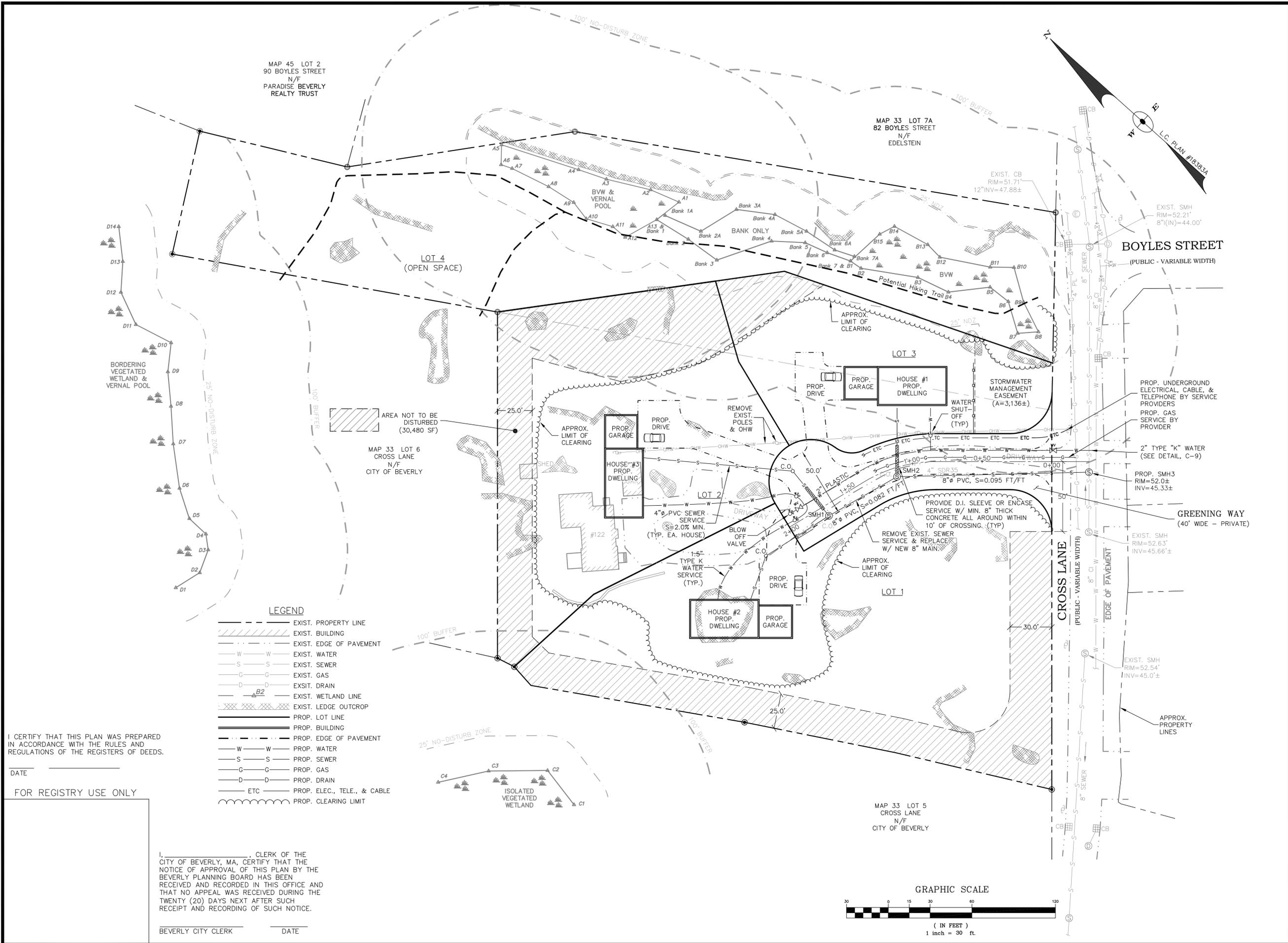
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C-7



MAP 45 LOT 2
90 BOYLES STREET
N/F
PARADISE BEVERLY
REALTY TRUST

MAP 33 LOT 7A
82 BOYLES STREET
N/F
EDELSTEIN

BOYLES STREET
(PUBLIC - VARIABLE WIDTH)

MAP 33 LOT 6
CROSS LANE
N/F
CITY OF BEVERLY

MAP 33 LOT 5
CROSS LANE
N/F
CITY OF BEVERLY

LEGEND

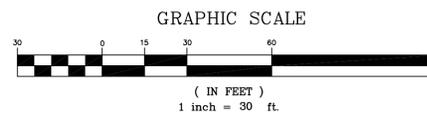
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- ETC PROP. ELEC., TELE., & CABLE
- PROP. CLEARING LIMIT

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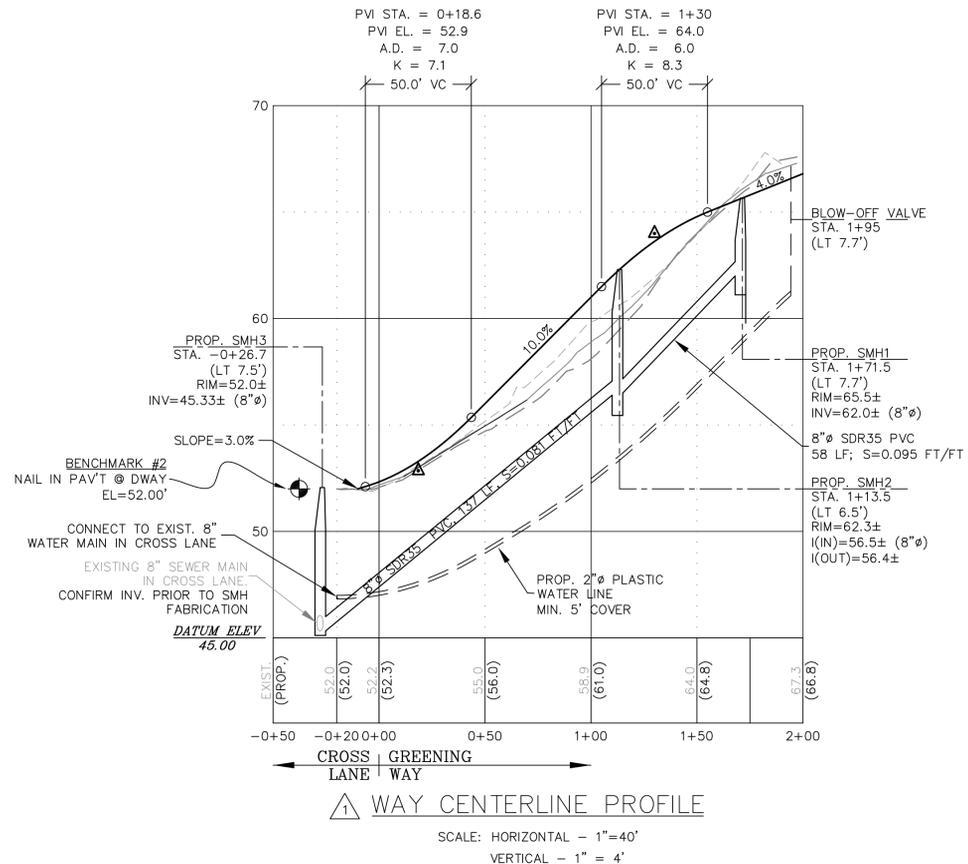
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BEVERLY CITY CLERK _____ DATE _____



GENERAL NOTES

- THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF ANY UTILITIES SHOWN OR ENCOUNTERED DURING CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER.
- THE CONTRACTOR SHALL CALL DIG-SAFE 72 HOURS PRIOR TO CONSTRUCTION TO INFORM UTILITY COMPANIES OF ANY EXCAVATION ADJACENT TO EXISTING UTILITIES.
- THE CONTRACTOR SHALL NOTIFY THE OWNER, UTILITY COMPANIES, POLICE, FIRE AND DPW PRIOR TO ANY BLASTING.
- WHENEVER EXISTING STRUCTURES ARE ENCOUNTERED, THE CONTRACTOR SHALL REPAIR ANY DAMAGED STRUCTURES OR REPLACE ANY REMOVED STRUCTURES, AND MAKE ANY IMPROVEMENTS ABOVE OR BELOW GRADE TO A CONDITION BETTER THAN OR EQUAL TO EXISTING CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL WASTE MATERIAL AT AN APPROVED SITE. BURIAL OF WASTE MATERIAL ON-SITE IS NOT PERMITTED.
- THE CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES FROM ON-SITE CONSTRUCTION ACTIVITIES AND REMOVE ANY SEDIMENT OR DEBRIS DEPOSITED THEREON IMMEDIATELY.
- DRAINAGE GENERATED AS A RESULT OF DEWATERING SHALL BE DISCHARGED TO EXISTING DRAINAGE COURSES WITH PROPER FILTRATION AND EROSION CONTROL MEASURES. DISCHARGE ONTO PAVEMENT OR PRIVATE PROPERTY SHALL NOT BE ALLOWED.
- IF ANY PART OF THIS DESIGN IS TO BE ALTERED IN ANY WAY, THE ENGINEER AS WELL AS THE APPROVING AUTHORITIES SHALL BE NOTIFIED IN WRITING BEFORE CONSTRUCTION.
- ONLY THOSE PLANS APPROVED BY THE CITY OF BEVERLY ARE TO BE USED FOR CONSTRUCTION.
- GRANULAR FILL SHALL BE NON-PLASTIC, WITH LESS THAN 10% PASSING #200 SIEVE.
- UNLESS OTHERWISE NOTED, COMPACT ALL LAYERS TO 95% MODIFIED PROCTOR.
- ALL WATER, SEWER, AND DRAINAGE WORK SHALL COMPLY WITH THE CITY OF BEVERLY REQUIREMENTS. ALL WORK WITHIN 10' OF THE PROPOSED RESIDENCE TO CONFORM TO MASSACHUSETTS BUILDING CODE, AND ANY LOCAL BOARD OF HEALTH SUPPLEMENTARY REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HORIZONTAL AND VERTICAL CONTROL OF ALL SYSTEM COMPONENTS.
- SAFETY MEASURES, DAY-TO-DAY CONTROL OF WORK AND CONSTRUCTION METHODS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- PLACE 4" LOAM AND SUNNY LAWN SEED MIXTURE (200 LB/ACRE), STARTER FERTILIZER, LIME AS REQUIRED OVER ALL DISTURBED AREAS. PROVIDE EROSION CONTROL SEED MIX AND BLANKETS ON 2:1 (H:V) EMBANKMENTS SLOPES. SEED MIX TO BE NEW ENGLAND EROSION CONTROL/RESTORATION FOR MOIST SITES BY NEW ENGLAND WETLANDS PLANT, INC. OR APPROVED EQUAL.
- IN CASES WHERE LEDGE OR BOULDERS ARE PRESENT, THE ENGINEER WILL NOT BE RESPONSIBLE FOR ASSURING THE AMOUNT OF ROCK TO BE ENCOUNTERED.
- CONTRACTOR TO PROVIDE INDIVIDUAL WATER, SEWER, GAS, ELECTRICAL, TELEPHONE, AND CABLE BUILDING SERVICES TO LOT LINE DURING THE CONSTRUCTION OF THE ROADWAY.
- PROPOSED RESIDENCE FOOTPRINT, ON-LOT UTILITIES AND GRADING ARE SHOWN FOR CONCEPTUAL PURPOSES ONLY.
- PRIOR TO SITE WORK START-UP/DEMOLITION AND DURING SITE CONSTRUCTION, THE CONTRACTOR SHALL EMPLOY A LICENSED PEST CONTROL FIRM FOR SITE EVALUATION AND SERVICES. A COPY OF THE SERVICE PROGRAM IS TO BE SENT TO THE CITY OF BEVERLY HEALTH DEPARTMENT.
- THE THREE PROPOSED RESIDENCES SHALL BE EQUIPPED WITH CODE-COMPLIANT FIRE SUPPRESSION SPRINKLER SYSTEMS.
- SHOULD THE RODENT POPULATION BE DISPLACED (LEAVE ITS NATURAL HABITAT) BECAUSE OF LAND DEVELOPMENT, THEN THE DEVELOPER MUST BEAR THE RESPONSIBILITY TO ABATE THE RODENT MIGRATION PROBLEM. THIS SERVICE MUST ADEQUATELY SOLVE THE PROBLEM AND MUST BE COMPLETED AT THE EXPENSE OF THE DEVELOPER.

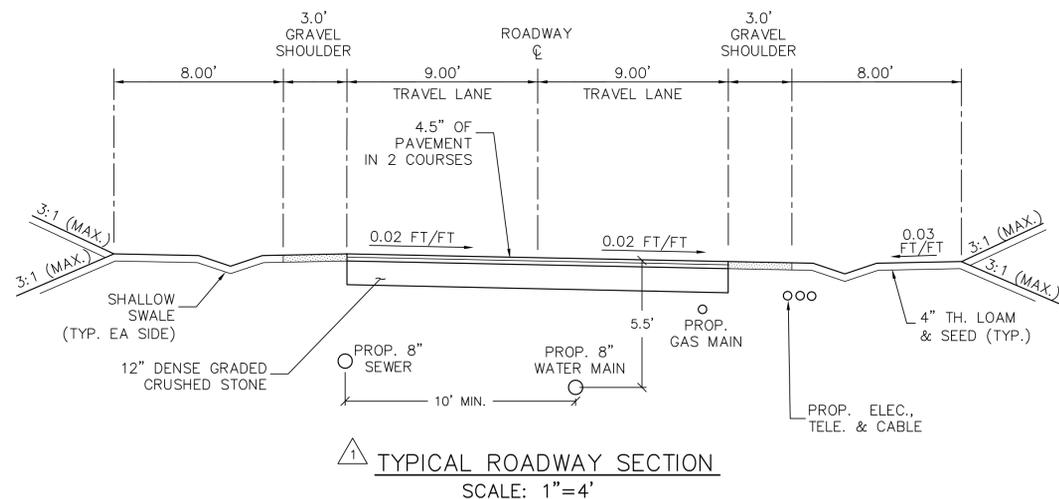


PROFILE NOTES:

- ALL SEWER MANHOLES TO BE PRECAST CONCRETE WITH FLAT TOPS.
- CONTRACTOR TO ABANDON EXISTING WATER, SEWER AND GAS SERVICE CONNECTIONS FOR #122 CROSS LANE (HOUSE TO BE RAZED) AT THE MAINS PER UTILITY PROVIDER SPECIFICATIONS.
- REFER TO UTILITIES SITE PLAN FOR INDIVIDUAL LOT WATER & SEWER SERVICE CONNECTION LOCATIONS. WATER & SEWER SERVICE CONNECTIONS TO HAVE MINIMUM 10' HORIZONTAL SEPERATION.
- PROPOSED GAS, ELECTRIC, TELEPHONE, & CABLE SERVICE NOT SHOWN ON PROFILE. SAID UTILITIES SIZE AND LOCATION PER SERVICE PROVIDER.

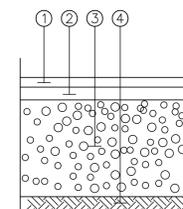
LEGEND

- EXISTING GRADE
- EXISTING GRADE 10' LEFT
- EXISTING GRADE 10' RIGHT
- PROPOSED CENTERLINE
- PROP. WATER LINE
- PROP. SEWER LINE



KEY:

- 1 1/2" CLASS 1 BIT. CONCRETE TOP COURSE TYPE I-1 (M3.11.0 - TABLE A).
- 3" CLASS 1 BIT. CONCRETE BINDER COURSE (M3.11.0 - TABLE A).
- 12" DENSE GRADED CRUSHED STONE FOR SUB-BASE (M2.01.7)
- PREPARED SUBGRADE.



FULL DEPTH PAVEMENT
N.T.S.

NOTES:

- REMOVE ALL LOAM, ROOTS, SUBSOIL AND DELETERIOUS MATERIALS.
- COMPACT ALL LAYERS, AND SUBGRADE, TO 95% MOD. PROCTOR.
- MATERIAL REFERENCES ARE TO 1995 EDITION OF MASS. HIGHWAY STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- 4" LOAM, SEED AND MULCH ALL DISTURBED AREAS.
LOAM = M 1.05.0
SEED = M 6.03.0 SLOPE MIX
MULCH = M 6.04.0 ANY TYPE
- IN LEDGE, REMOVE LEDGE TO MIN. DEPTH OF 24" BELOW FINISH GRADE; BACKFILL WITH COMPACTED GRAVEL.

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BEVERLY CITY CLERK _____ DATE _____

CITY OF BEVERLY
PLANNING BOARD

DATE: _____

No.	Date	Description
1	9/12/16	REVISE CENTERLINE GRADES; REDUCE PAVED ROADWAY WIDTH TO 18'-0"; ADD GENERAL NOTE 20 & 21.

Revisions



495 Cabot Street, 2nd Floor
Beverly, MA 01915

Tel: 978-927-5111
Fax: 978-927-5103

BENCO, LLC
122 CROSS LANE
BEVERLY, MA 01915
MAP 33 LOT 6A & 7

GREENING WAY

**GENERAL NOTES
PROFILE & SECTION**

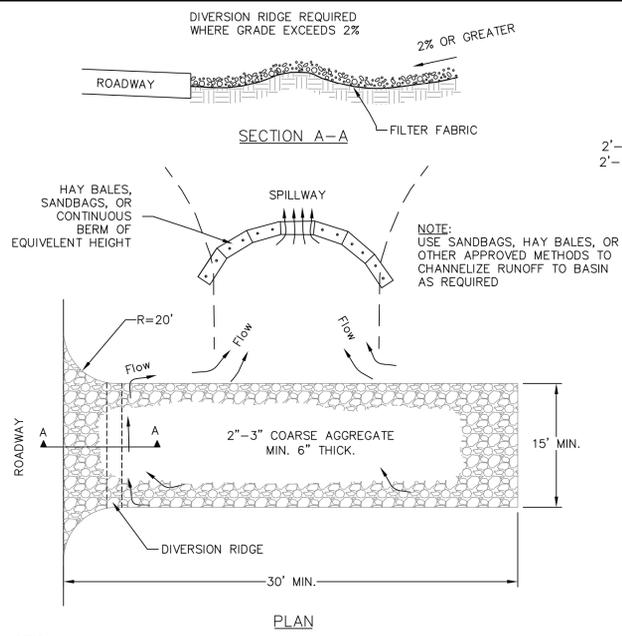
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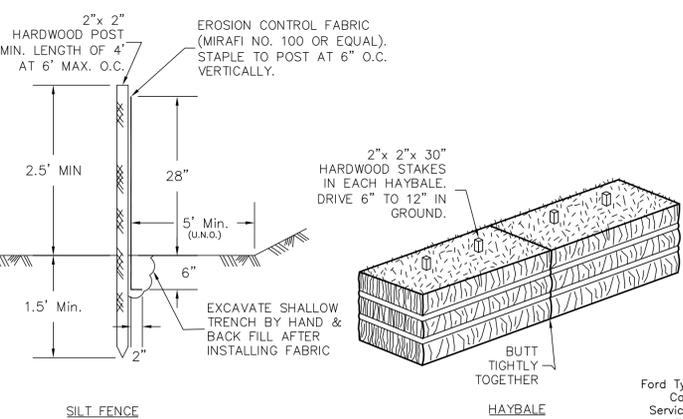
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C-8

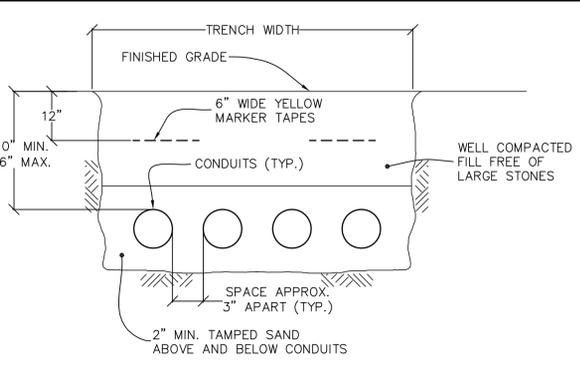


NOTES:
 1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR, AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

CONSTRUCTION ENTRANCE
N.T.S.

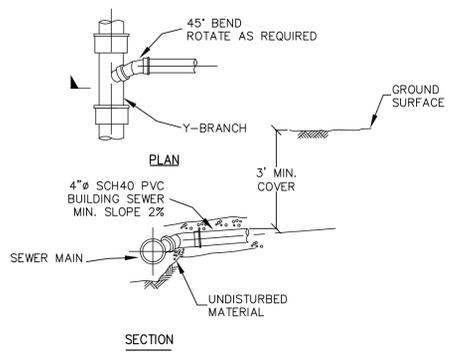


EROSION CONTROL
N.T.S.

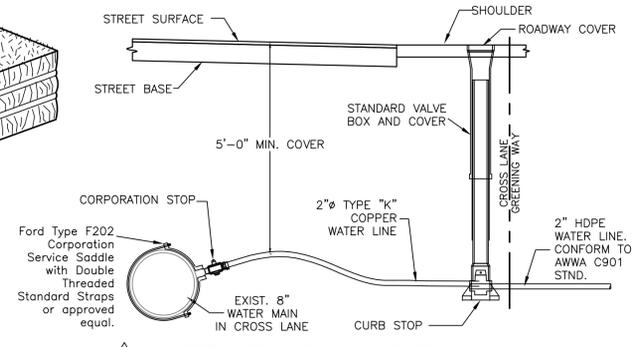


UNDERGROUND CONDUIT TRENCH FOR MULTIPLE CONDUITS
N.T.S.

NOTE: SUBJECT TO APPROVAL BY UTILITY PROVIDER

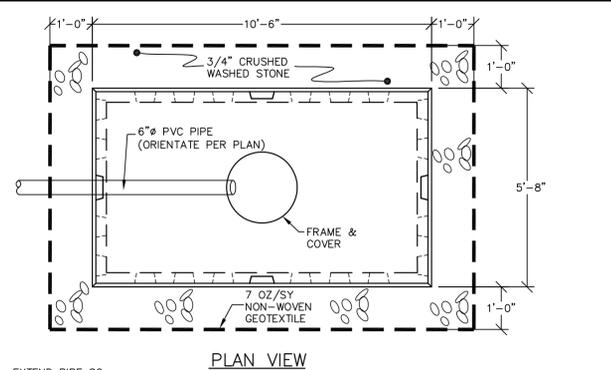


BUILDING CONNECTION
N.T.S.

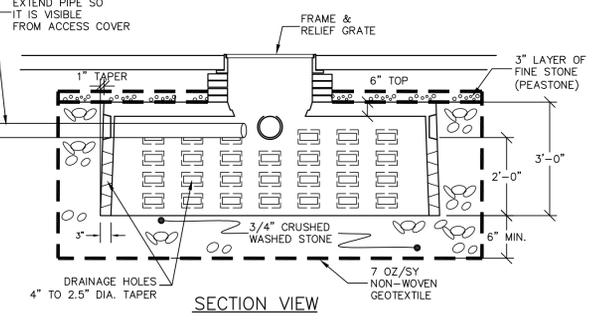


WATER SERVICE CONNECTION
N.T.S.

NOTES:
 ALL CONNECTIONS PER CITY OF BEVERLY REQUIREMENTS.

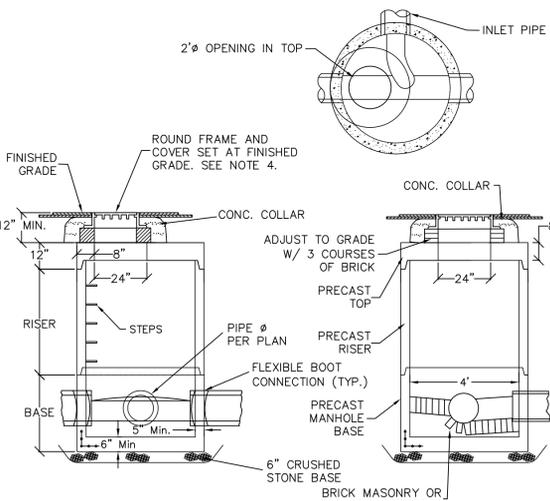


SHALLOW DRYWELL DETAIL
N.T.S.



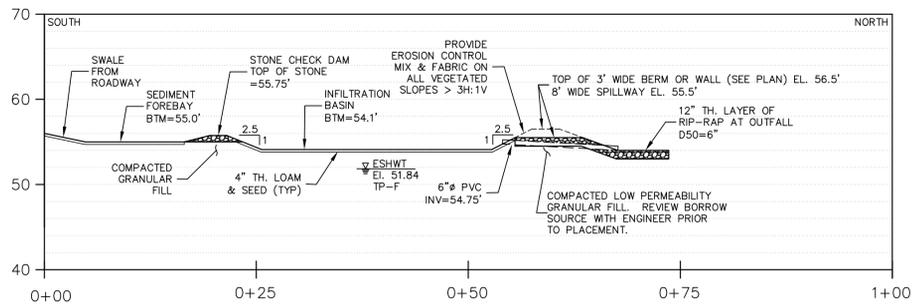
SHALLOW DRYWELL DETAIL
N.T.S.

NOTES:
 1) 1,000 GALLON DRYWELL SHALLOW: SHEA DW-DJWH OR APPROVED ALTERNATE.
 2) DRYWELLS TO BE H-20 RATED.



4\"/>

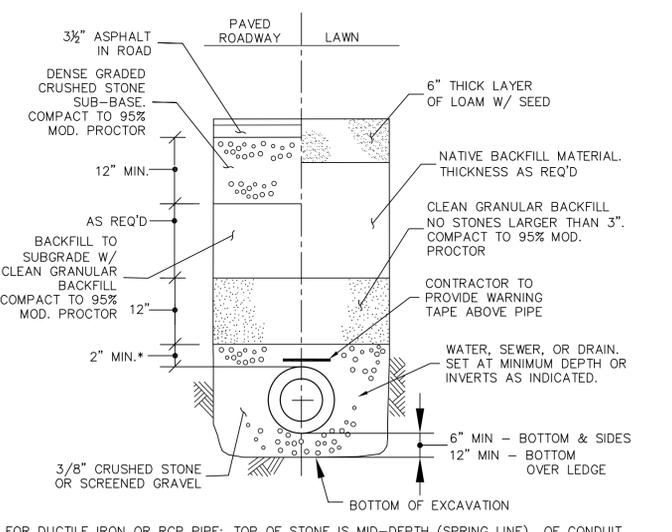
NOTES:
 1. CONCRETE 4,000 PSI MINIMUM AFTER 28 DAYS.
 2. REINFORCED STEEL SHALL CONFORM TO LATEST ASTM A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) BASE BOTTOM.
 3. H-20 DESIGN LOADING.
 4. LEBARON FRAME AND COVER CATALOG NO. LA246 OR APPROVED EQUIVALENT.
 5. SHEA PRECAST OR APPROVED EQUIVALENT.
 6. TONGUE & GROOVE JOINTS SEALED WITH BUTYL RESIN. BUTYL RESIN.
 7. COVER TO BE MARKED "SEWER"



INFILTRATION BASIN SECTION
N.T.S.

SOIL TEST PIT DATA (5/4/16)								
TP-A (El. 71.91±)								
Depth (in)	Soil Horizon	Texture (USDA)	Soil Matrix	Mottles	Soil Structure	Soil Consistence	Other	
-2-0	O	---	---	---	---	---	Leaf Litter - Pine Needles	
0-3	A	SL	10YR 2/2	---	Granular	Friable	Difficult digging - stones	
3-10	Bw	S/SL	10YR 2/2	---	Massive	Friable	---	
10-48	C	LS/S	10YR 2/2	---	Massive	Friable	Pockets of Sand	
- No Refusal - ESHWT >48", Elev. 67.91±								
- No Mottles - Roots to 40"								
TP-B (El. 67.07±)								
Depth (in)	Soil Horizon	Texture (USDA)	Soil Matrix	Mottles	Soil Structure	Soil Consistence	Other	
-4-0	O	---	---	---	---	---	Leaf Litter	
0-12	Ap	SL	10YR 2/2	---	Granular	V. Friable	---	
12-30	Bw	SL	10YR 2/2	---	Massive	Friable	---	
30-72	C	S/SL	10YR 2/2	---	Massive	Friable	Pockets of Sand	
- Seep @ 54" - ESHWT @ 54", Elev. 62.57'								
- No Refusal - Roots to 50"								
TP-C (El. 67.77±)								
Depth (in)	Soil Horizon	Texture (USDA)	Soil Matrix	Mottles	Soil Structure	Soil Consistence	Other	
0-4	A	SL	10YR 2/2	---	Granular	V. Friable	---	
4-15	Bw	SL	10YR 2/2	---	Massive	Friable	---	
15-72	C	LS	10YR 2/2	---	Massive	Friable	occ. Cobbles, Stones	
- Refusal @ 72" - ESHWT >72", Elev. 61.77'								
- Not Water, No Mottles - Roots to 54"								
TP-D (El. 63.44±)								
Depth (in)	Soil Horizon	Texture (USDA)	Soil Matrix	Mottles	Soil Structure	Soil Consistence	Other	
0-8	Ap	LS	10YR 2/2	---	Granular	Friable	---	
8-20	Bw	LS	10YR 2/2	---	Massive	Friable	---	
20-72	C	LS	10YR 2/2	---	Massive	Mod. Firm	Tr. Silt, Few Cobbles & Stones	
- V. Firm @ 72" - ESHWT >72", Elev. 57.44'								
- No Water, No Mottles - Roots to 40"								
TP-E (El. 56.49±)								
Depth (in)	Soil Horizon	Texture (USDA)	Soil Matrix	Mottles	Soil Structure	Soil Consistence	Other	
-2-0	O	---	---	---	---	---	Leaf Litter	
0-35	FILL	---	---	---	---	---	Stoney S, Gravel w/ Asphalt	
35-36	Ob	---	---	---	---	---	---	
36-44	Apb	SL	10YR 2/2	---	Granular	Friable	---	
44-56	B	LS	10YR 2/2	---	Massive	Friable	---	
56-92	C	SL/LS	10YR 2/2	---	Massive	Mod. Firm	Cobbles, occ. Stone	
- Productive Machine Limit @ 92" - ESHWT >92", Elev. 48.82'								
- No Water, No Mottles - Roots to 76"								
TP-F (El. 54.17±)								
Depth (in)	Soil Horizon	Texture (USDA)	Soil Matrix	Mottles	Soil Structure	Soil Consistence	Other	
-2-0	O	---	---	---	---	---	Leaf Litter	
0-4	Ap	SL	10YR 2/2	---	Granular	Friable	---	
4-20	Bw	SL	10YR 2/2	---	Massive	Friable	---	
20-76	C	SL	10YR 2/2	2.5Y 2/2	Massive	Friable	Gleyed Layer @ 24" - 10YR 2/2	
- No Refusal - ESHWT @ 28", Elev. 51.84'								
- Mottles @ 28" - Roots to 28"								

Notes:
 1) Soil test pits performed by Robert H. Griffin, P.E. (License #952) on May 4, 2016.



TYPICAL PIPE BEDDING SECTION
N.T.S.

* FOR DUCTILE IRON OR RCP PIPE: TOP OF STONE IS MID-DEPTH (SPRING LINE) OF CONDUIT.

I CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE _____
 FOR REGISTRY USE ONLY

I, _____, CLERK OF THE CITY OF BEVERLY, MA, CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE BEVERLY PLANNING BOARD HAS BEEN RECEIVED AND RECORDED IN THIS OFFICE AND THAT NO APPEAL WAS RECEIVED DURING THE TWENTY (20) DAYS NEXT AFTER SUCH RECEIPT AND RECORDING OF SUCH NOTICE.

BEVERLY CITY CLERK _____ DATE _____

CITY OF BEVERLY PLANNING BOARD

DATE: _____

No.	Date	Description
1	9/12/16	ADD WATER SERVICE DETAIL, INFIL BASIN SECTION, CONSTRUCTION ENTRANCE & EROSION CONTROL DETAILS.

Revisions



495 Cabot Street, 2nd Floor
 Beverly, MA 01915
 Tel: 978-927-5111
 Fax: 978-927-5103

BENCO, LLC
 122 CROSS LANE
 BEVERLY, MA 01915
 MAP 33 LOT 6A & 7

GREENING WAY

DETAILS I

Scale: AS SHOWN
 Job No.: 1580
 File Name: p/p/b/ca
 Date: 6/13/16

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