

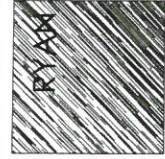
PLANTATION II
PLANT LIST

Quantity	Botanical Name	Common Name	Size	Condition
TREES				
23	<i>Acer rubrum</i> 'October Glory'	October Glory Red Maple	4' cal.	b&b
13	<i>Picea glauca</i>	White Spruce	10-12' ht.	b&b
24	<i>Pinus strobus</i>	White Pine	10-12' ht.	b&b
5	<i>Prunus x yedoensis</i>	Yoshino Cherry	2.5' cal.	b&b
15	<i>Quercus palustris</i>	Pin Oak	10-12' ht.	b&b
SHRUBS				
10	<i>Hydrangea macrophylla</i>	Endless Summer Hydrangea	3'	cont.
2	<i>Ilex crenata</i> 'Steads'	Stead Japanese Holly	5'	b&b
8	<i>Rhododendron</i> 'Chionoides'	Chionoides Rhodie	3'	b&b
4	<i>Rhododendron</i> 'Cunningham's Blush'	Cunningham's Blush Rhodie	4'	b&b
2	<i>Rosa</i> 'Radyod'	Bushing Knock Out Rose	#2	cont.
19	<i>Spirea japonica</i> 'Little Princess'	Little Princess Spirea	2'	b&b
17	<i>Syringa patula</i> 'Miss Kim'	Miss Kim lilac	3'	b&b
2	<i>Syringa vulgaris</i>	Common lilac	5'	b&b
3	<i>Thuja occidentalis</i> 'Techny'	Arborvitae	7-8'	b&b
33	<i>Viburnum dentatum</i>	Arrowwood Viburnum	3-4'	b&b
13	<i>Weigela florida</i>	Old fashion weigela	3'	b&b
PERENNIAL				
27	<i>Echinacea</i>	Purple Coneflower	#1	cont.
290	<i>Hemerocallis</i> 'Happy Returns'	Happy Returns Daylily	#1	cont.
26	<i>Nepeta</i>	Catmint	#1	cont.
27	<i>Salvia</i>	Meadow Sage	#1	cont.

NOTES:

1. CONDITION AND LOCATION OF EXISTING VEGETATION TO BE FIELD VERIFIED
2. LOCATION OF NEW PLANTINGS WITHIN EXISTING VEGETATION TO BE FIELD VERIFIED BY LANDSCAPE ARCHITECT
3. SPECIFICATIONS FOR LOAM AND TOPSOIL TO BE TESTED AND ADJUSTED TO MEET THE REQUIREMENTS OF 330 CMR - PLANT NUTRIENT REQUIREMENTS
4. PLANTS SHOULD BE NURSERY-GROWN, GUARANTEED FOR MINIMUM 1 YEAR BY THE NURSERYMAN, AND SHOULD MEET THE AMERICAN NURSERYMAN'S ASSOCIATION STANDARDS FOR QUALITY, SIZE AND HEALTH
5. PLANTING INVASIVE PLANT SPECIES IS PROHIBITED
6. ALL DISTURBED AREAS TO BE RE-SEED
7. REFER TO SHEET L-3.0 FOR TREE PLANTING DETAIL PROVIDED BY THE RULES AND REGULATIONS GOVERNING SUBDIVISION OF LAND

ASSOCIATES
LANDSCAPE ARCHITECTURE AND PLANNING
144 Moseley Street, Building 4
Waltham, MA 02453-3532
ph: 781-314-0401
www.ryan-associates.com



PLANTATION II
APARTMENTS II
22 JOHNSTON WAY
STOW, MA

LANDSCAPE PLAN
SCALE: 1" = 20'-0"

ISSUED	Revision	Revision	Revision	Revision	Revision
1	07-07-17	2	07-18-17	3	08-08-17
4	09-07-17	5	10-05-18	6	10-26-18

RECEIVED
OCT 31 2018

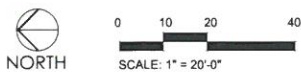
L-1.0



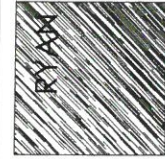
LEGEND

- 1
L-2.1 A - POLE LIGHT WITH HOUSE SIDE SHIELD
- 2
L-2.1 B - POLE LIGHT NO HOUSE SIDE SHIELD
- 3
L-2.1 C - DOWNLIGHT
- 4
L-2.1 D - SCONCE

- NOTES:
1. ALL FIXTURES TO BE FULL-CUT OFF
 2. ALL FIXTURES ALONG NORTH SIDE OF PARKING TO HAVE HOUSE-SIDE-SHIELD
 3. SEE SHEET L-2.1 FOR LIGHT FIXTURE CUT SHEETS



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 Framingham, MA 02463-3332
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 www.ryan-assoc.com



PLANTATION APARTMENTS II
 22 JOHNSTON WAY
 STOW, MA

LIGHTING PLAN
 SCALE: 1" = 20'-0"

ISSUED	Revision
1	07-07-17
2	07-18-17
3	08-08-17
4	09-07-17
5	10-05-18
6	10-26-18

L-2.0

APPROX. 100'

CONTROL

CATALOG PART NUMBERS

LUMINAIRE: *DAN DI NL SHW5K U 4 SMS H N XX*

LUMINAIRE: DANVILLE SERIES
 GLOBELENS: NO SECONDARY LENS
 DISTRIBUTION: TYPE IV
 LIGHT SOURCE: LED 50 WATN, 5K CCT
 VOLTAGE: 120-277V
 FINISH: POLYESTER POWDERCOAT COLOR TBD
 OPTIONS: HOUSE SIDE SHIELD INSIDE SHADE

POLE: *412-A125-F355-SBC-XX*

STYLE: A BASE STRAIGHT SMOOTH POLE
 MATERIAL: ALUMINUM
 SIZE: 4" DIA., 12" TALL, 120" WALL THICKNESS
 FINISH: POLYESTER POWDERCOAT COLOR TBD
 OPTIONS: HANDHOLE 18" FROM THE BOTTOM

ARM: *PSC-16-PF11-XX*

STYLE: SHEPHERD CROOK
 MATERIAL: ALUMINUM
 SIZE: 36" CENTER TO CENTER
 FINISH: POLYESTER POWDERCOAT COLOR TBD
 OPTIONS: PF11 CAP

7.5" BOLT CIRCLE

PEMCO LIGHTING PRODUCTS, INC.
 150 PEMCO WAY - WILMINGTON, DE 19804-3515
 P: (302) 892-9003 F: (302) 892-9005
 WWW.PEMCOLIGHTING.COM

JOB NAME: **12212 PLANTATION APARTMENTS**
 DRAWN BY: SBT CS1019 TYPE: TYPE A REVISION: 0
 DATE: 10/26/18 REP: HURRY PAGE: 1 OF 2

CATALOG PART NUMBERS

LUMINAIRE: *DAN DI NL SHW5K U 4 SMS N XX*

LUMINAIRE: DANVILLE SERIES
 GLOBELENS: NO SECONDARY LENS
 DISTRIBUTION: TYPE IV
 LIGHT SOURCE: LED 50 WATN, 5K CCT
 VOLTAGE: 120-277V
 FINISH: POLYESTER POWDERCOAT COLOR TBD
 OPTIONS:

POLE: *412-A125-F355-SBC-XX*

STYLE: A BASE STRAIGHT SMOOTH POLE
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 SIZE: 4" DIA., 12" TALL, 120" WALL THICKNESS
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 OPTIONS: HANDHOLE 18" FROM THE BOTTOM

ARM: *PSC-16-PF11-XX*

STYLE: SHEPHERD CROOK
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 SIZE: 36" CENTER TO CENTER
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 OPTIONS: PF11 CAP

7.5" BOLT CIRCLE

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 150 PEMCO WAY - WILMINGTON, DE 19804-3515
 P: (302) 892-9003 F: (302) 892-9005
 WWW.PEMCOLIGHTING.COM

JOB NAME: **12212 PLANTATION APARTMENTS**
 DRAWN BY: SBT CS1019 TYPE: TYPE B REVISION: 0
 DATE: 10/26/18 REP: HURRY PAGE: 2 OF 2

1 TYPE "A" - POLE LIGHT WITH HOUSE SIDE SHIELD
 L-2.1 SCALE: NTS CUT SHEET

2 TYPE "B" - POLE LIGHT NO HOUSE SIDE SHIELD
 L-2.1 SCALE: NTS CUT SHEET

EL ELCO Lighting

Project name: Recessed Elco Incon E414C0830W / E4LC081CA
 Fixture type: _____
 Date: _____

4" LED Light Engine with Baffle Trim

The perfect lighting solution for high-end residential and light commercial projects.

Features

- High efficacy LED module
- Triac/LED 12V dimming
- Must be used with ELCO 4" Cedar™ System housings
- Frosted acrylic module sets for even lumen distribution
- Life span of 50,000 hours L70
- USA designed and assembled
- Limited 5 year warranty

Specifications

Wattage: 8.70W 18W
 Lumens: 850 lm 1800 lm
 Color Temp: 2700K 3000K
 Lamp Type: LED
 Beam Angle: 60°
 CRI: 93+
 Dimm Location: Local

Options

Black with/white ring All Bronze All White

Dimensions

4" diameter, 1.5" depth

Technical Details

Optics: Frosted polycarbonate module lens diffuses light evenly throughout while reducing glare with LED technology.

Trim Construction: Reflector is two piece trim for maximum color versatility. Design allows for minimal glare and a strong glare cut-off. Trim is constructed of metal for lasting durability.

Installations: Must be installed on a Cedar™ System housing with compatible lumen rating. Frames are available for New Construction and Remodel as IC or non-IC.

LED Technology:

- Extremely accurate Color Rendering Index of 93+
- Efficiency of 81 lumens per watt
- Lumen Maintenance of 50,000 hours L70 Life based on LM80 standardized test results
- Superior Thermal Management by utilizing ELCO Red heat sink
- Instant On to Full Brightness technology
- No LED preheating

Listings:

- UL Listed for Wet Location
- RoHS Compliant
- ENERGY STAR® Certified

Product Number Builder Example: E414C0827W, E414C0827BZ, E414C0827B

ELCO Part	Lumens	Color Temp.	Finish
E414C	850 lumens	2700K	W - All White
	1200 lumens	3000K	BZ - All Bronze
	1800 lumens	3000K	B - Black with/white Ring
			SB - Smooth

2642 E. Wacker Ave., Vernon, CA 94054 • Tel: (425) 233-2800 Fax: (425) 233-3200 • elcolighting.com
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3 TYPE "C" - DOWNLIGHT
 L-2.1 SCALE: NTS CUT SHEET

On-the-Wall Outdoor Sconces

390 SERIES Sconces Incon 3901S12LED30K

39013 | BRUSHED RUST †
 39015 | BLACK
 39017 | ULTRA CHROME †

STANDARD SPECIFICATIONS

Housing: Corrosion Resistant Aluminum (Specify Finish)
 Lens: White Smooth Acrylic
 Certification: Damp Location Listed
 Mounting: Wall Mount
 Feature: Closed Top & Open Bottom Design

REPLACEMENT PARTS

LENS-3901 | White Smooth Acrylic Lens

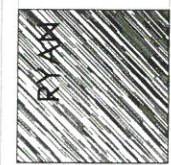
Mounting	Lens Fin	Finish	Module	Fixture & Dimmer
390	1	1 - White †	4LED	120-277V, 3000K Electronic, Non-Dimmable 13 W/hrs, 850 Lumens, 40°C Rise Options: 27K, 30K, 40K, PF, P12
		3 - Brushed Rust †	10LEDGU	120V, 40W Electronic, 180° Dimmable to 10% 8 W/hrs, 300 Lumens, 40°C Rise Options: 27K, 30K, 40K, PF, P12
		3B - Bronze †	12LED	120-277V, 3000K Electronic, 5-10 Dimmable 14 W/hrs, 1100 Lumens, 40°C Rise Options: 27K, 30K, 40K, PF, P12
		4 - Brushed Verde †	12LEDGU	120V, 40W Electronic, 180° Dimmable to 10% 10 W/hrs, 1100 Lumens, 40°C Rise Options: 27K, 30K, 40K, PF, P12
		5 - Black †	14LED	120-277V, 3000K Electronic, Non-Dimmable 13 W/hrs, 1100 Lumens, 40°C Rise Options: 27K, 30K, 40K, PF, P12
		7 - Ultra Chrome †	17LEDGU	120V, 40W Electronic, 180° Dimmable to 10% 15 W/hrs, 1400 Lumens, 40°C Rise Options: 27K, 30K, 40K, PF, P12
		8 - Gold Pewter †	2X10LEDGU	120V, 40W Electronic, 180° Dimmable to 10% 8 W/hrs, 1400 Lumens, 40°C Rise Options: 27K, 30K, 40K, PF, P12
		9 - Aged Brass †	2X12LEDGU	120V, 40W Electronic, 180° Dimmable to 10% 12 W/hrs, 2000 Lumens, 40°C Rise Options: 27K, 30K, 40K, PF, P12
		C - Custom †	2X17LEDGU	120V, 40W Electronic, 180° Dimmable to 10% 32 W/hrs, 3000 Lumens, 40°C Rise Options: 27K, 30K, 40K, PF, P12

† May not be available in all regions. In consultation, please call factory.
 ‡ Available only from high volume.

9-15-2016 INCONLIGHTING.COM

4 TYPE "D" - SCONCE
 L-2.1 SCALE: NTS CUT SHEET

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 LANDSCAPE ARCHITECTURE AND PLANNING
 144 Moody Street, Building 4
 Waltham, MA 02453-3332
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 www.flynn-assoc.com



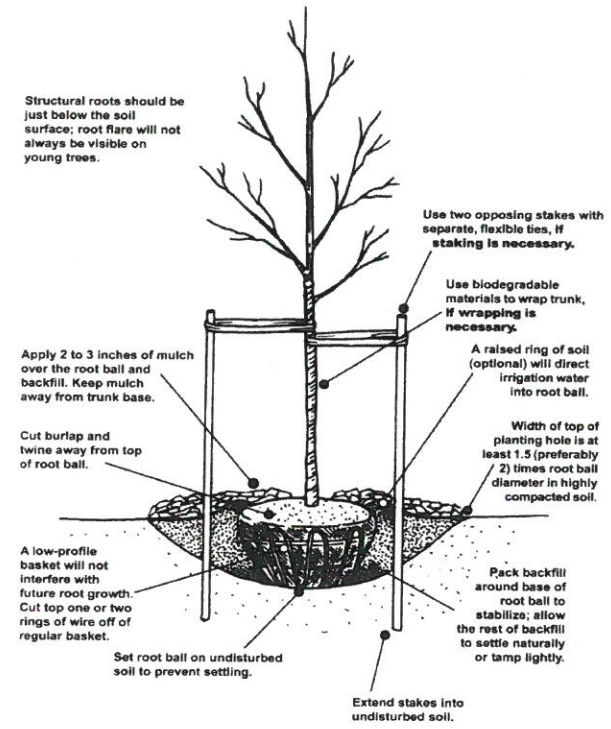
PLANTATION APARTMENTS II
 22 JOHNSON WAY
 STOW, MA

LIGHTING CUT SHEETS
 SCALE: NTS

ISSUED	Revision	Revision	Revision	Revision	Revision
1	07-07-17	2	07-18-17	3	08-08-17
4	09-07-17	5	10-05-18	6	10-26-18

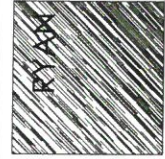
L-2.1

Tree Planting Diagram



1 TREE PLANTING DETAIL
 L-3.0 SCALE: NTS SECTION

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PLANTATION
 APARTMENTS II
 22 JOHNSTON WAY
 STOW, MA

LANDSCAPE DETAILS
 SCALE: VARIES

ISSUED	REVISION
1	07-07-17
2	07-18-17
3	08-08-17
4	09-07-17
5	10-05-18
6	10-26-18

L-3.0

SITE CONSTRUCTION PLAN

PLANTATION APARTMENTS II

TITLE SHEET

GENERAL NOTES:

- TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ON-THE-GROUND SURVEY PERFORMED BY FORESITE ENGINEERING AND SUPPLEMENTED BY DUCHARME & DILLIS CIVIL DESIGN GROUP, INC IN APRIL 2017. ELEVATIONS REFER TO AN ASSUMED DATUM.
- PROPERTY LINE AND LOCATION OF EXISTING SITE FEATURES ARE THE RESULT OF A COMPILED PLANS AND A PLAN OF LAND DATED 2013 BY FORESITE ENGINEERING.
- PROPERTY LINES SHALL BE DETERMINED PRIOR TO CONSTRUCTION OR INSTALLATION OF ANY OF THE PROPOSED IMPROVEMENTS HEREON.
- ANY DEVIATIONS FROM THE DESIGN PLAN MUST BE APPROVED IN WRITING BY DUCHARME & DILLIS CIVIL DESIGN GROUP, INC.
- CONSTRUCTION WITHIN 100 FEET OF A WETLAND RESOURCE AREA AS DEFINED IN THE MASSACHUSETTS WETLAND PROTECTION ACT AND REGULATIONS (310 CMR 10.00) SHALL NOT BE PERFORMED UNTIL AN ORDER OF CONDITIONS OR NEGATIVE DETERMINATION OF APPLICABILITY HAS BEEN OBTAINED FROM THE LOCAL CONSERVATION COMMISSION.
- FEMA 100-YR FLOOD ZONE WAS DETERMINED FROM FLOOD INSURANCE RATE MAP NO. 25017C0361E EFFECTIVE JUNE 4, 2010.
- EXISTING UTILITIES SHOWN ON THIS PLAN WERE COMPILED FROM FIELD MEASUREMENT AND RECORD PLANS. THE UTILITIES SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY AND SHOULD NOT BE ASSUMED TO BE CORRECT NOR SHOULD IT BE ASSUMED THAT THE UTILITIES SHOWN ARE THE ONLY UTILITIES LOCATED ON OR NEAR THE SITE. THE CONTRACTOR SHALL CALL DIG SAFE 1-888-DIG-SAFE PRIOR TO CONSTRUCTION IN ACCORDANCE WITH STATE LAWS.
- THIS PLAN HAS BEEN PREPARED FOR CONCEPTUAL PLANNING PURPOSES ONLY. IT SHOULD NOT BE USED FOR ANY OTHER REASON.

LEGEND

EXIST. FEATURE	DESCRIPTION	EXIST. SYM.	DESCRIPTION
	STREAMS/RIVERS		LIGHT POLE
	WETLANDS		TELEPHONE POLE
	LIMIT OF BUFFER ZONE		GUY WIRE
	LEDGE		HYDRANT
	WELL RADIUS		SEWER MANHOLE
	WIRE FENCE		STORM WATER MANHOLE
	WOOD FENCE		WELL
	GUARD RAIL		MISCELLANEOUS MANHOLE
	CHAIN LINK FENCE		WETLAND FLAG
	STONE RETAINING WALL		CATCH BASIN
	STONE WALL		WATER GATE VALVE
	WATER LINE		ELECTRICAL METER
	ELECTRICAL LINE		TRAFFIC SIGNAL SWITCH
	STORM DRAIN		SIGN
	EXISTING OVER-HEAD WIRES		ELECTRICAL TRANSFORMER
	EXISTING CONTOUR (INDEX)		FLAG POLE
	EXISTING CONTOUR (INTERMEDIATE)		SHRUB
	EXISTING BUILDING/HOUSE		
	TREE LINE		

ABBREVIATIONS

ABB.	DESCRIPTION
ATM	ATMOSPHERIC TANK
UD	UNDERDRAIN
FD	FOUNDATION DRAIN
F.S.	FIRE SERVICE
DOW	DOMESTIC WATER SERVICE
B.O.	WATER BLOW OFF
DMH	DRAIN MANHOLE
SMH	SEWER MANHOLE
ST	SEPTIC TANK
PC	PUMP CHAMBER
DP1	DRAIN PIPE (D)
SPT	SEWER PIPE (D)
DB	DISTRIBUTION BOX
SC	STORMCEPTOR CATCH BASIN
GAL	GALLON
TOP	TOP OF FOUNDATION
EL	ELEVATION
INV	INVERT
WSD	WATER SHUTOFF
BCCB	BITUMINOUS CAPE COD BERM
RET	RETAINING WALL
C.O.	CLEAN OUT
INSP.T.	INSPECTION PORT

PROP. FEATURE	DESCRIPTION	PROP. SYM.	DESCRIPTION
	REPLICATED WETLANDS		PROPOSED LIGHT POLE
	PROPERTY LINE		PROPOSED TELEPHONE POLE
	EASEMENT LINE		PROPOSED HYDRANT
	HAYBALES		PROPOSED SANITARY MANHOLE
	WIRE FENCE		PROPOSED STORM WATER MANHOLE
	WOOD FENCE		PROPOSED TELEPHONE MANHOLE
	CHAIN LINK FENCE		PROPOSED ELECTRICAL MANHOLE
	POURED CONCRETE RETAINING WALL		PROPOSED CATCH BASIN
	CONC. BLOCK RETAINING WALL		PROPOSED DOUBLE CATCH BASIN
	STONE RETAINING WALL		PROPOSED WATER GATE VALVE
	PROPOSED WATER LINE		PROPOSED ELECTRICAL TRANSFORMER
	PROPOSED ELECTRICAL LINE		PROPOSED ELECTRICAL JUNCTION BOX
	PROPOSED SANITARY SEWER		PROPOSED TRAFFIC SIGNAL SWITCH
	PROPOSED STORM DRAIN		PROPOSED SIGN
	PROPOSED ROOF DRAIN		BORING
	PROPOSED UNDER DRAIN		HANDICAPPED SPACE
	PROPOSED BACK CAPE COD BERM		PROPOSED FLARED END SECTION
	PROPOSED EDGE OF PAVEMENT		PROPOSED RIPRAP
	PROPOSED UNPAVED ROAD		STANDARD TREE
	PROPOSED CONTOUR (INDEX)		PINE TREE
	PROPOSED CONTOUR (INTERMEDIATE)		SHRUB
	PROPOSED SPOT ELEVATION		
	PROPOSED BUILDING/HOUSE		
	TREE LINE		



LOCUS MAP
SCALE: 1" = 500'

SHEET INDEX

SHEET NUMBER	SHEET TITLE	LATEST REVISION
C1.0	TITLE SHEET	9/26/18
C1.1	EXISTING CONDITIONS PLAN	9/26/18
C1.2	RECORD PLAN	9/26/18
C2.0	LAYOUT PLAN	9/26/18
C3.0	GRADING & DRAINAGE PLAN	9/26/18
C3.1	GRADING DETAILS	9/26/18
C4.0	UTILITIES PLAN	9/26/18
C5.0	EROSION CONTROL PLAN	9/26/18
C6.0	WATER SYSTEM PLAN	9/26/18
C7.0	PRELIMINARY WASTEWATER PLAN	9/26/18

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

PREPARED BY:

DUCHARME & DILLIS
 Civil Design Group, Inc.
 CIVIL ENGINEERS • LAND SURVEYORS • WETLAND CONSULTANTS
 1092 MAIN STREET, P.O. BOX 428 BOLTON, MASSACHUSETTS 01740
 PHONE: (978) 779-6091 FAX: (978) 779-0260
 www.DucharmeandDillis.com

OWNER:
 PLANTATION APARTMENTS II LLC
 22 JOHNSTON WAY
 STOW, MASSACHUSETTS 01775

APPLICANT:
 STOW ELDERLY HOUSING CORP.
 22 JOHNSTON WAY
 STOW, MASSACHUSETTS 01775

SCALE:

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DATE: 10/26/18

DESIGN BY: JPL

DRAWN BY: JPL

CHECKED BY: GSR

TITLE SHEET
 GREAT ROAD
 STOW, MASSACHUSETTS

NO.	DATE	DESCRIPTION	BY
01.	5/22/17	EDITS PER COMMENTS	JPL
02.	8/8/17	FIRE CISTERN AND PATH WIDTH EDITS	JPL
03.	4/27/18	UPDATED SITE LAYOUT	JPL
03.	9/26/18	UPDATED SITE LAYOUT	RWP

JOB NO. 4644-2

DRAWING NO. 46442-TITLE

SHEET NO. **C1.0**



SOIL TEST DATA			
NAME OF SOIL EVALUATOR: FORESITE ENGINEERING JOHN BOARDMAN, P.E.			NAME OF APPROVING AUTHORITY: STOW BOARD OF HEALTH JACK WALLACE
TEST HOLE NO. 1109-1	DEPTH OF GROUNDWATER: N/A	TEST HOLE NO. 1109-2	DEPTH OF GROUNDWATER: N/A
DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >144"	DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"
SURFACE ELEV.: 223.2	ELEVATION OF ESHGW: N/A	SURFACE ELEV.: 224.9	ELEVATION OF ESHGW: N/A
DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL
(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:
0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL
12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL
18-144" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL
PERC. TEST A: DEPTH OF 48"	PERC. TEST B: DEPTH OF 48"	PERC. TEST C: DEPTH OF 48"	PERC. TEST D: DEPTH OF 48"
25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI
TEST HOLE NO. 1109-3	DEPTH OF GROUNDWATER: N/A	TEST HOLE NO. 1109-4	DEPTH OF GROUNDWATER: N/A
DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"	DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"
SURFACE ELEV.: 226.0	ELEVATION OF ESHGW: N/A	SURFACE ELEV.: 223.6	ELEVATION OF ESHGW: N/A
DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL
(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:
0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL
12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL
18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL
PERC. TEST E: DEPTH OF 48"	PERC. TEST F: DEPTH OF 48"	PERC. TEST G: DEPTH OF 48"	PERC. TEST H: DEPTH OF 48"
25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI
TEST HOLE NO. 1109-5	DEPTH OF GROUNDWATER: N/A	TEST HOLE NO. 1109-6	DEPTH OF GROUNDWATER: N/A
DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"	DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"
SURFACE ELEV.: 222.8	ELEVATION OF ESHGW: N/A	SURFACE ELEV.: 224.2	ELEVATION OF ESHGW: N/A
DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL
(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:
0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL
12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL
18-48" C1 10YR 5/2 - VERY FINE SAND	18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL
48-120" C2 10YR 5/4 - SAND/GRAVEL	PERC. TEST I: DEPTH OF 48"	PERC. TEST J: DEPTH OF 48"	PERC. TEST K: DEPTH OF 48"
PERC. TEST I: DEPTH OF 48"	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI
TEST HOLE NO. 1109-7	DEPTH OF GROUNDWATER: N/A	TEST HOLE NO. 1109-8	DEPTH OF GROUNDWATER: N/A
DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"	DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"
SURFACE ELEV.: 225.1	ELEVATION OF ESHGW: N/A	SURFACE ELEV.: 225.0	ELEVATION OF ESHGW: N/A
DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL
(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:
0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL
12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL
18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL
PERC. TEST G: DEPTH OF 48"	PERC. TEST H: DEPTH OF 48"	PERC. TEST I: DEPTH OF 48"	PERC. TEST J: DEPTH OF 48"
25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI
TEST HOLE NO. 1109-9	DEPTH OF GROUNDWATER: N/A	TEST HOLE NO. 1109-10	DEPTH OF GROUNDWATER: N/A
DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"	DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"
SURFACE ELEV.: 225.7	ELEVATION OF ESHGW: N/A	SURFACE ELEV.: 225.3	ELEVATION OF ESHGW: N/A
DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL
(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:
0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL
12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL
18-120" C1 10YR 5/4 - SAND	18-120" C1 10YR 5/4 - SAND	18-120" C1 10YR 5/4 - SAND	18-120" C1 10YR 5/4 - SAND
72-120" C2 10YR 5/4 - SAND	PERC. TEST L: DEPTH OF 48"	PERC. TEST M: DEPTH OF 48"	PERC. TEST N: DEPTH OF 48"
PERC. TEST I: DEPTH OF 48"	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI
TEST HOLE NO. 1109-11	DEPTH OF GROUNDWATER: N/A	TEST HOLE NO. 1109-12	DEPTH OF GROUNDWATER: N/A
DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"	DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >120"
SURFACE ELEV.: 224.5	ELEVATION OF ESHGW: N/A	SURFACE ELEV.: 225.2	ELEVATION OF ESHGW: N/A
DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL
(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:
0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL
12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL
18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL	18-120" C1 10YR 5/4 - SAND/GRAVEL
PERC. TEST K: DEPTH OF 48"	PERC. TEST L: DEPTH OF 48"	PERC. TEST M: DEPTH OF 48"	PERC. TEST N: DEPTH OF 48"
25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI
TEST HOLE NO. 1109-13	DEPTH OF GROUNDWATER: N/A		
DATE OF TEST: 11/18/09	DEPTH OF ESHGW: >144"		
SURFACE ELEV.: 224.9	ELEVATION OF ESHGW: N/A		
DEPTH: SOIL MATRIX REDOX FEATURES: SOIL	DEPTH: SOIL MATRIX REDOX FEATURES: SOIL		
(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:	(IN.) HOR. COLOR: DEPTH/COLOR/% TEXTURE:		
0-12" Ap 10YR 3/1 - SL	0-12" Ap 10YR 3/1 - SL		
12-18" Bw 10YR 6/6 - SL	12-18" Bw 10YR 6/6 - SL		
18-144" C1 10YR 5/4 - SAND/GRAVEL	18-144" C1 10YR 5/4 - SAND/GRAVEL		
PERC. TEST M: DEPTH OF 48"	PERC. TEST N: DEPTH OF 48"		
25 GAL. APPLIED/2 MPI	25 GAL. APPLIED/2 MPI		

EXISTING CONDITIONS NOTES:

- TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ON-THE-GROUND SURVEY PERFORMED BY FORESITE ENGINEERING AND SUPPLEMENTED BY DUCHARME & DILLIS CIVIL DESIGN GROUP, INC IN APRIL 2017. ELEVATIONS REFER TO AN ASSUMED DATUM.
- PROPERTY LINE AND LOCATION OF EXISTING SITE FEATURES ARE THE RESULT OF A COMPILED PLANS AND A PLAN OF LAND DATED 2013 BY FORESITE ENGINEERING.
- PROPERTY LINES SHALL BE DETERMINED PRIOR TO CONSTRUCTION OR INSTALLATION OF ANY OF THE PROPOSED IMPROVEMENTS HEREON.
- THE SITE IS WITHIN ZONE C OF THE FLOOD INSURANCE RATE MAP FOR STOW MASSACHUSETTS (AREAS OF MINIMAL FLOODING). FEMA 100-YR FLOOD ZONE WAS DETERMINED FROM FLOOD INSURANCE RATE MAP NO. 25017C0361E EFFECTIVE JUNE 4, 2010. THE SITE IS NOT WITHIN AN ESTIMATED HABITAT OF RARE OR ENDANGERED SPECIES AS DEFINED BY THE NATIONAL HERITAGE AND ENDANGERED SPECIES PROGRAM 2008 MAP. THE SITE IS NOT WITHIN A MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION DEFINED "ZONE II" OR INTERIM WELLSHEAD PROTECTION AREA (IWPA) OF A PUBLIC WATER SUPPLY (REF. MASSGIS 5/11/09).
- THE SITE IS WITHIN THE TOWN OF STOW RESIDENTIAL ZONING DISTRICT.
- A PORTION OF THE SITE IS WITHIN THE TOWN OF STOW WATER RESOURCE PROTECTION OVERLAY DISTRICT.
- LOCATIONS OF ADJUTING BUILDINGS, WELLS AND SEPTIC SYSTEMS WERE COMPILED FROM AVAILABLE TOWN RECORDS AND NO CERTIFICATION AS TO THE ACCURACY OF THESE LOCATIONS IS MADE OR IMPLIED. THIS DATA IS SHOWN FOR GENERAL REFERENCE ONLY.
- EXISTING UTILITIES SHOWN ON THIS PLAN WERE COMPILED FROM FIELD MEASUREMENT AND RECORD PLANS. THE UTILITIES SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY AND SHOULD NOT BE ASSUMED TO BE CORRECT NOR SHOULD IT BE ASSUMED THAT THE UTILITIES SHOWN ARE THE ONLY UTILITIES LOCATED ON OR NEAR THE SITE. THE CONTRACTOR SHALL CALL DIG SAFE 1-888-DIG-SAFE PRIOR TO CONSTRUCTION IN ACCORDANCE WITH STATE LAWS.
- THE EXISTING PLANTATION I APARTMENTS PRODUCE APPROXIMATE 5,832 GALLONS OF WASTEWATER PER DAY (BASED ON 52 BEDROOMS AND 1,472 SF OFFICE). THE EXISTING SYSTEM IS APPROXIMATELY 34 YEARS OLD.

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

PREPARED BY:
DUCHARME & DILLIS
 Civil Design Group, Inc.
 CIVIL ENGINEERS • LAND SURVEYORS • WETLAND CONSULTANTS
 1092 MAIN STREET, P.O. BOX 428 BOLTON, MASSACHUSETTS 01740
 PHONE: (978) 779-6091 FAX: (978) 779-0260
 www.DucharmeandDillis.com

OWNER:
 PLANTATION APARTMENTS II LLC
 22 JOHNSTON WAY
 STOW, MASSACHUSETTS 01775

APPLICANT:
 STOW ELDERLY HOUSING CORP.
 22 JOHNSTON WAY
 STOW, MASSACHUSETTS 01775

SCALE:

 1 in. = 40 ft.
 COPYRIGHT DUCHARME & DILLIS CIVIL DESIGN GROUP, INC 2018

DATE: 10/26/18

DESIGN BY: JPL

DRAWN BY: JPL

CHECKED BY: GSR

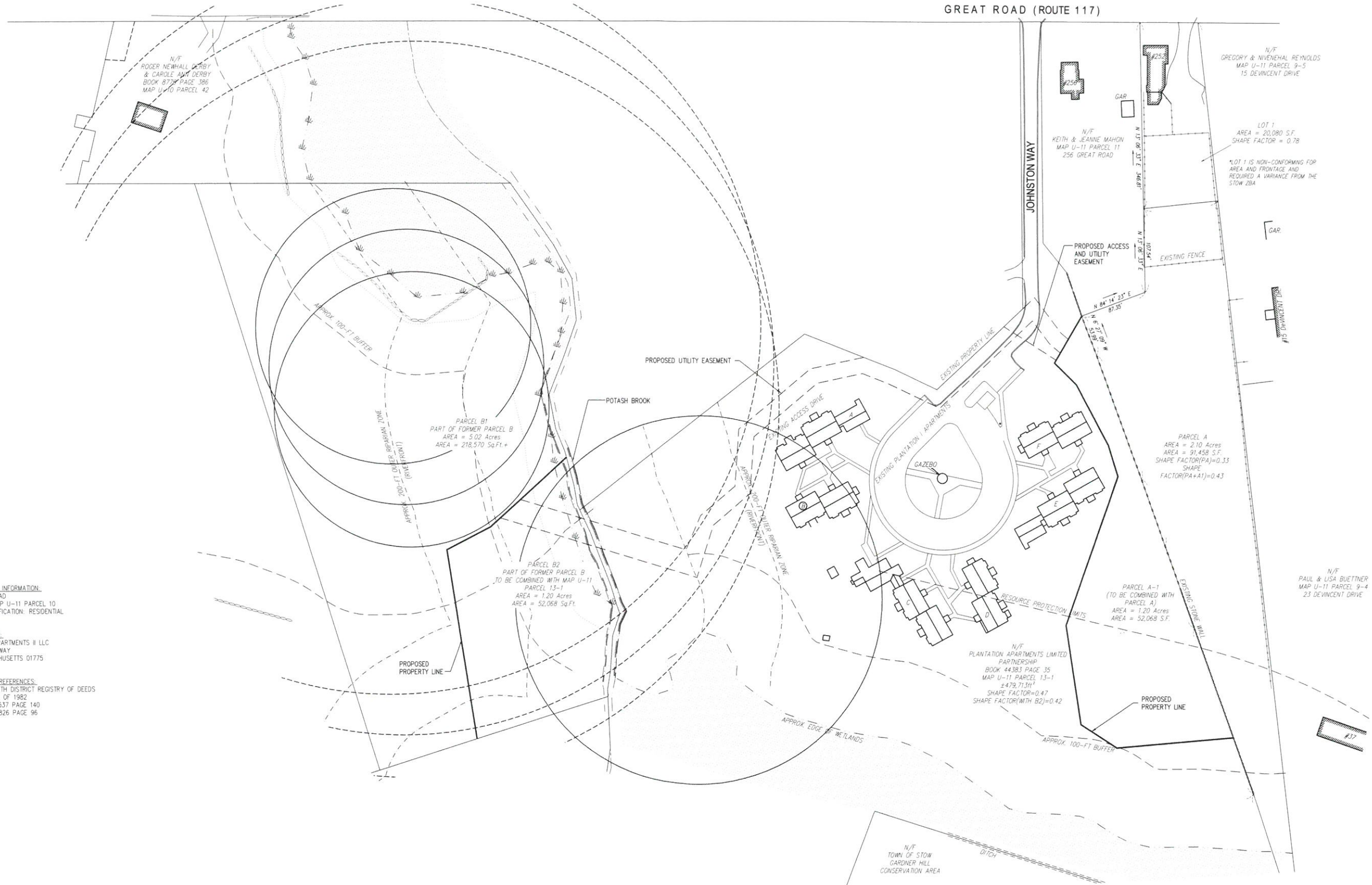
EXISTING CONDITIONS PLAN GREAT ROAD STOW, MASSACHUSETTS			
NO.	DATE	DESCRIPTION	BY
01.	5/22/17	EDITS PER COMMENTS	JPL
02.	8/8/17	FIRE CISTERN AND PATH WIDTH EDITS	JPL
03.	4/27/18	UPDATED SITE LAYOUT	JPL
04.	9/26/18	UPDATED SITE LAYOUT	RWP

JOB NO. 4644-2

DRAWING NO. 46442-EXIST

SHEET NO. **C1.1**

GREAT ROAD (ROUTE 117)



LOCUS PARCEL INFORMATION:
252 GREAT ROAD
ASSESSORS MAP U-11 PARCEL 10
ZONING CLASSIFICATION: RESIDENTIAL

RECORD OWNER:
PLANTATION APARTMENTS II LLC
22 JOHNSTON WAY
STOW, MASSACHUSETTS 01775

DEED & PLAN REFERENCES:
MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS
PLAN NO. 1306 OF 1982
DEED BOOK 19537 PAGE 140
DEED BOOK 65826 PAGE 96

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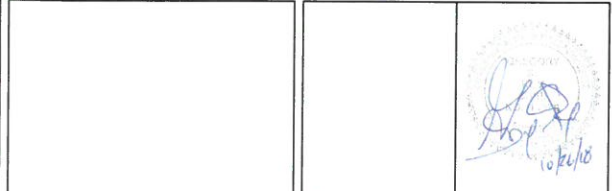
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22 JOHNSTON WAY
STOW, MASSACHUSETTS 01775

SCALE:

 1 in. = 60 ft.
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DATE:
10/26/18

DESIGN BY:
JPL

DRAWN BY:
JPL

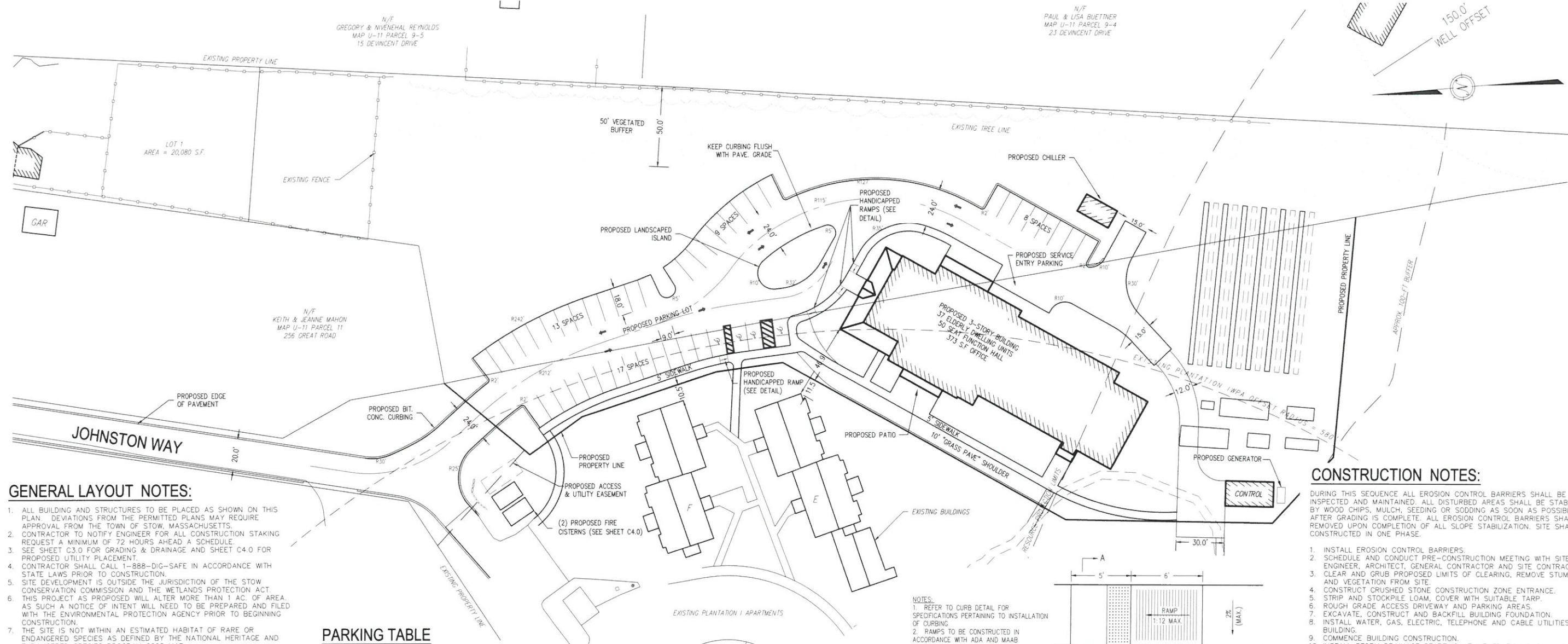
CHECKED BY:
GSR

RECORD PLAN			
GREAT ROAD			
STOW, MASSACHUSETTS			
NO.	DATE	DESCRIPTION	BY
01.	5/22/17	EDITS PER COMMENTS	JPL
02.	8/8/17	FIRE CISTERN AND PATH WIDTH EDITS	JPL
03.	4/27/18	UPDATED SITE LAYOUT	JPL
04.	9/26/18	UPDATED SITE LAYOUT	RWP

JOB NO. 4644-2

DRAWING NO. 46442-RECORD

SHEET NO. **C1.2**



GENERAL LAYOUT NOTES:

1. ALL BUILDING AND STRUCTURES TO BE PLACED AS SHOWN ON THIS PLAN. DEVIATIONS FROM THE PERMITTED PLANS MAY REQUIRE APPROVAL FROM THE TOWN OF STOW, MASSACHUSETTS.
2. CONTRACTOR TO NOTIFY ENGINEER FOR ALL CONSTRUCTION STAKING REQUEST A MINIMUM OF 72 HOURS AHEAD A SCHEDULE.
3. SEE SHEET C3.0 FOR GRADING & DRAINAGE AND SHEET C4.0 FOR PROPOSED UTILITY PLACEMENT.
4. CONTRACTOR SHALL CALL 1-888-DIG-SAFE IN ACCORDANCE WITH STATE LAWS PRIOR TO CONSTRUCTION.
5. SITE DEVELOPMENT IS OUTSIDE THE JURISDICTION OF THE STOW CONSERVATION COMMISSION AND THE WETLANDS PROTECTION ACT.
6. THIS PROJECT AS PROPOSED WILL ALTER MORE THAN 1 AC. OF AREA. AS SUCH A NOTICE OF INTENT WILL NEED TO BE PREPARED AND FILED WITH THE ENVIRONMENTAL PROTECTION AGENCY PRIOR TO BEGINNING CONSTRUCTION.
7. THE SITE IS NOT WITHIN AN ESTIMATED HABITAT OF RARE OR ENDANGERED SPECIES AS DEFINED BY THE NATIONAL HERITAGE AND ENDANGERED SPECIES PROGRAM 2008 MAP.
8. CONTRACTOR SHALL PLACE ALL EROSION CONTROL BARRIERS PRIOR TO CONSTRUCTION.
9. NOTIFY THE TOWN OF STOW IN WRITING OF INTENT TO BEGIN CONSTRUCTION ACTIVITIES AT LEAST 5 BUSINESS DAYS BEFORE COMMENCING CONSTRUCTION ACTIVITY ON SITE AND RETAIN PROOF OF RECEIPT OF SUCH NOTICE FROM THE TOWN CLERK.
10. ALL PAVEMENT DIMENSION AND RADII REFER TO EDGE OF BIT (BACK OF BERM).

CONSTRUCTION NOTES:

DURING THIS SEQUENCE ALL EROSION CONTROL BARRIERS SHALL BE INSPECTED AND MAINTAINED. ALL DISTURBED AREAS SHALL BE STABILIZED BY WOOD CHIPS, MULCH, SEEDING OR SODDING AS SOON AS POSSIBLE AFTER GRADING IS COMPLETE. ALL EROSION CONTROL BARRIERS SHALL BE REMOVED UPON COMPLETION OF ALL SLOPE STABILIZATION. SITE SHALL BE CONSTRUCTED IN ONE PHASE.

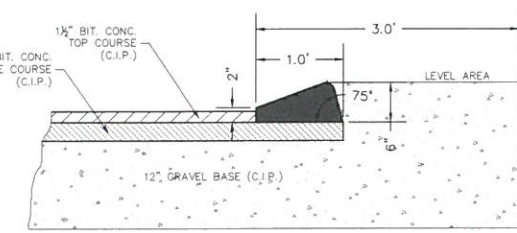
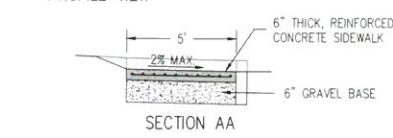
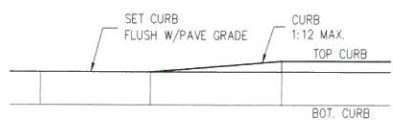
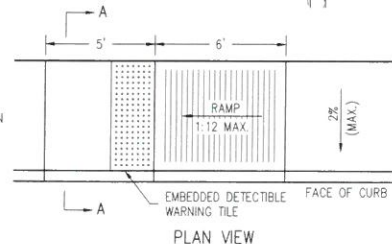
1. INSTALL EROSION CONTROL BARRIERS.
2. SCHEDULE AND CONDUCT PRE-CONSTRUCTION MEETING WITH SITE ENGINEER, ARCHITECT, GENERAL CONTRACTOR AND SITE CONTRACTOR.
3. CLEAR AND GRUB PROPOSED LIMITS OF CLEARING. REMOVE STUMPS AND VEGETATION FROM SITE.
4. CONSTRUCT CRUSHED STONE CONSTRUCTION ZONE ENTRANCE.
5. STRIP AND STOCKPILE LOAM, COVER WITH SUITABLE TARP.
6. ROUGH GRADE ACCESS DRIVEWAY AND PARKING AREAS.
7. EXCAVATE, CONSTRUCT AND BACKFILL BUILDING FOUNDATION.
8. INSTALL WATER, GAS, ELECTRIC, TELEPHONE AND CABLE UTILITIES TO BUILDING.
9. COMMENCE BUILDING CONSTRUCTION.
10. INSTALL STORM DRAINAGE STARTING AT INFILTRATION BASIN AND WORKING UPGRADIENT TO CATCH BASIN. INSTALL TEMPORARY CONSTRUCTION FENCE AROUND INFILTRATION BASIN TO KEEP HEAVY TRUCKS AND EQUIPMENT OFF DURING CONSTRUCTION.
11. RAISE CATCH BASIN GRADE TO BINDER GRADE AND INSTALL SILT SACKS IN BASIN AND SURROUND CATCH BASIN WITH HAYBALES.
12. INSTALL WASTEWATER SYSTEM LEACHING BED, LATERALS AND MANIFOLDS.
13. BACKFILL AND COMPACT WASTEWATER SYSTEM LEACHING AREA IN ACCORDANCE WITH THE COMPACTION REQUIREMENTS OF THE SYSTEM DESIGN.
14. INSTALL SEPTIC TANK, DOSING CHAMBER, PUMPS, ETC. CONTACT DESIGN ENGINEER TO CONDUCT REQUIRED TESTS ON THE SYSTEM.
15. COMPLETE GRADING AND COMPACTION OF AREAS TO BE PAVED.
16. INSTALL BINDER COURSE OF PAVEMENT, AND INSTALL CAPE COD BERMS.
17. COMPLETE BUILDING CONSTRUCTION.
18. LOAM AND SEED ALL DISTURBED AREAS. COMPLETE SITE LANDSCAPING.
19. CLEAN CATCH BASIN SUMP OF SEDIMENT AND DEBRIS AND THOROUGHLY SWEEP BINDER COURSE OF PAVEMENT.
20. FOLLOWING COMPLETION OF ALL CONSTRUCTION ACTIVITIES, INSTALL FINISH COURSE OF PAVEMENT.
21. PLACE THERMOPLASTIC PAVEMENT MARKINGS FOR PARKING SPACES AND HANDICAP ACCESSIBLE PARKING SPACES.
22. UPON COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ADEQUATE STABILIZATION OF DISTURBED AREAS OF THE SITE WITH VEGETATION OR OTHER SUITABLE GROUND COVER, REMOVE AND DISPOSE OF OFF SITE ALL EROSION CONTROL BARRIER MATERIALS.

PARKING TABLE

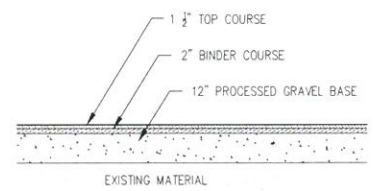
ALL PARKING SPACES ARE REQUIRED BE AT LEAST 9' WIDE x 18' DEEP PER THE STOW STANDARD PARKING DIMENSIONAL REGULATIONS.

USE CATEGORY	PROPOSED SPACES
HANDICAPPED	4 SPACES (2 VAN)
TOTAL	47 SPACES

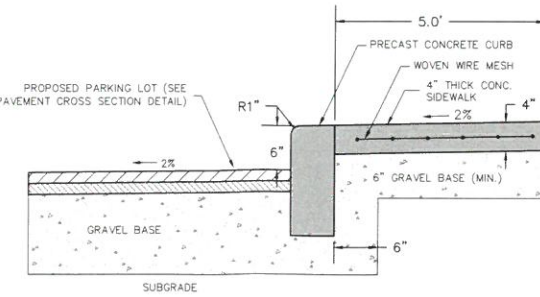
- NOTES:**
1. REFER TO CURB DETAIL FOR SPECIFICATIONS PERTAINING TO INSTALLATION OF CURBING.
 2. RAMP TO BE CONSTRUCTED IN ACCORDANCE WITH ADA AND MAAB STANDARDS.
 3. DETECTIBLE WARNING TILES TO BE AS MANUFACTURED BY ADA SOLUTIONS, INC.



BITUMINOUS CONCRETE CURB DETAIL
NOT TO SCALE



TYPICAL PAVEMENT CROSS SECTION
SCALE: 1"=3'



CONCRETE SIDEWALK DETAIL
NOT TO SCALE

HANDICAPPED RAMP

SCALE: 1"=4'

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION

PREPARED BY:
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 CIVIL ENGINEERS • LAND SURVEYORS • WETLAND CONSULTANTS
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SCALE:

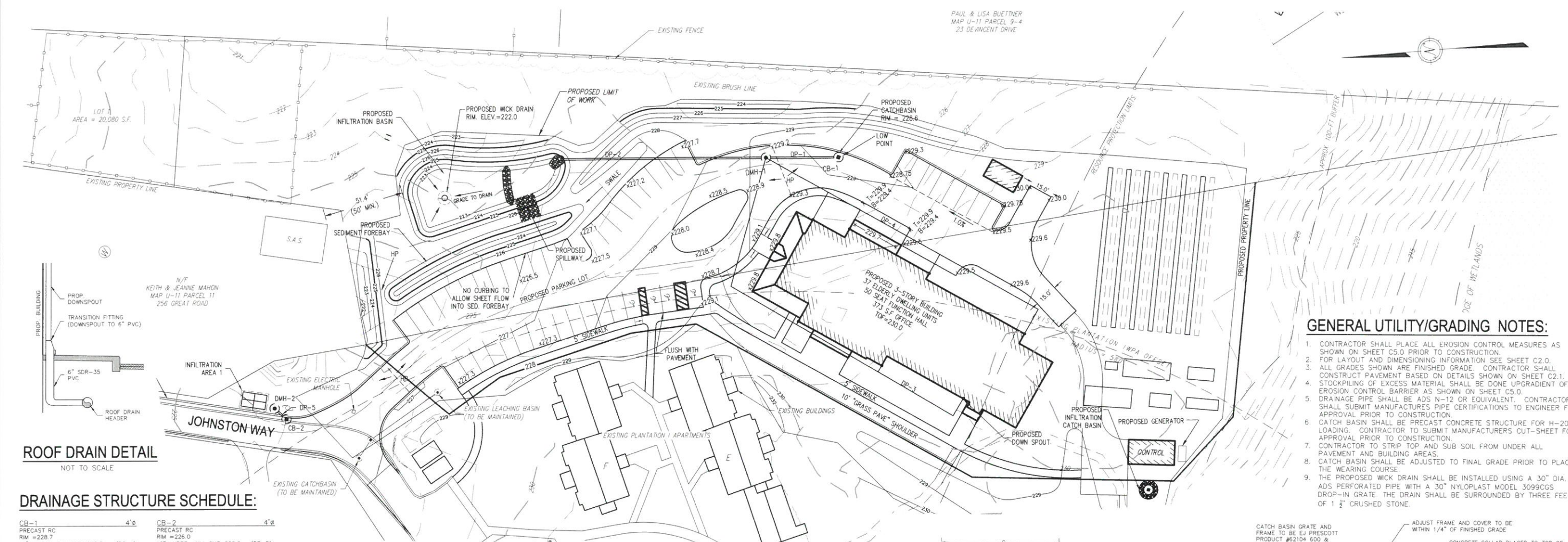
 1 in. = 30 ft.
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DATE: 10/26/18
 DESIGN BY: JPL
 DRAWN BY: JPL
 CHECKED BY: GSR

LAYOUT PLAN GREAT ROAD STOW, MASSACHUSETTS			
NO.	DATE	DESCRIPTION	BY
01.	5/22/17	EDITS PER COMMENTS	JPL
02.	8/8/17	FIRE CISTERN AND PATH WIDTH EDITS	JPL
03.	4/27/18	UPDATED SITE LAYOUT	JPL
04.	9/26/18	GENERAL SITE PLAN REVISIONS	RWP

JOB NO. 4644-2
 DRAWING NO. 46442-LAYOUT
 SHEET NO. **C2.0**

PAUL & LISA BUETTNER
MAP U-11 PARCEL 9-4
23 DEVINCENT DRIVE



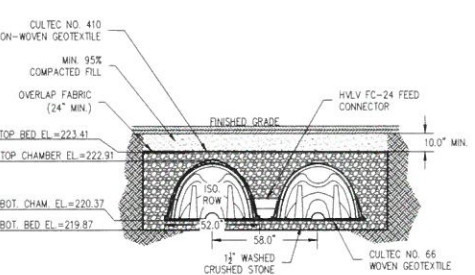
GENERAL UTILITY/GRADING NOTES:

1. CONTRACTOR SHALL PLACE ALL EROSION CONTROL MEASURES AS SHOWN ON SHEET C5.0 PRIOR TO CONSTRUCTION.
2. FOR LAYOUT AND DIMENSIONING INFORMATION SEE SHEET C2.0.
3. ALL GRADES SHOWN ARE FINISHED GRADE. CONTRACTOR SHALL CONSTRUCT PAVEMENT BASED ON DETAILS SHOWN ON SHEET C2.1.
4. STOCKPILING OF EXCESS MATERIAL SHALL BE DONE UPGRADIENT OF EROSION CONTROL BARRIER AS SHOWN ON SHEET C5.0.
5. DRAINAGE PIPE SHALL BE ADS N-12 OR EQUIVALENT. CONTRACTOR SHALL SUBMIT MANUFACTURERS PIPE CERTIFICATIONS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
6. CATCH BASIN SHALL BE PRECAST CONCRETE STRUCTURE FOR H-20 LOADING. CONTRACTOR TO SUBMIT MANUFACTURERS CUT-SHEET FOR APPROVAL PRIOR TO CONSTRUCTION.
7. CONTRACTOR TO STRIP TOP AND SUB SOIL FROM UNDER ALL PAVEMENT AND BUILDING AREAS.
8. CATCH BASIN SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACING THE WEARING COURSE.
9. THE PROPOSED WICK DRAIN SHALL BE INSTALLED USING A 30" DIA. ADS PERFORATED PIPE WITH A 30" NYLOPLAST MODEL 3099CGS DROP-IN GRATE. THE DRAIN SHALL BE SURROUNDED BY THREE FEET OF 1 1/2" CRUSHED STONE.

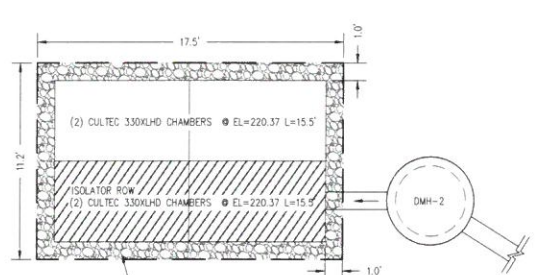
ROOF DRAIN DETAIL
NOT TO SCALE

DRAINAGE STRUCTURE SCHEDULE:

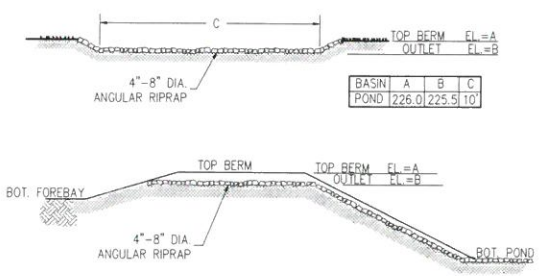
CB-1 PRECAST RC RIM = 228.7 12" HDPE INV. OUT=225.7 (DP-1)	4'±	CB-2 PRECAST RC RIM = 226.0 12" HDPE INV. OUT=222.0 (DP-5)	4'±
DMH-1 PRECAST RC RIM = 229.1 12" HDPE INV. IN=225.5 (DP-1) 8" HDPE INV. IN=225.5 (DP-3) 8" HDPE INV. IN=225.5 (DP-4) 12" HDPE INV. OUT=225.4 (DP-2)	4'±	DMH-2 PRECAST RC RIM = 226.1 12" HDPE INV. IN=221.84 (DP-5) 12" HDPE INV. IN=221.74 (INFIL AREA 1)	4'±
DP-1 ADS N-12 SLOPE = 0.5% LENGTH = 44'± INLET INV.=225.7 (CB-1) OUTLET INV.=225.5 (DMH-1)	12"±	DP-2 ADS N-12 SLOPE = 0.7% LENGTH = 131'± INLET INV.=225.4 (DMH-1) OUTLET INV.=224.5 (INFIL BASIN)	12"±
DP-3 ADS N-12 SLOPE = 0.6% LENGTH = 250'± INLET INV.=227.0 (ROOF) OUTLET INV.=225.5 (DMH-1)	8"±	DP-4 ADS N-12 SLOPE = 0.8% LENGTH = 200'± INLET INV.=227.0 (ROOF) OUTLET INV.=225.5 (DMH-1)	8"±
DP-5 ADS N-12 SLOPE = 2.0% LENGTH = 8'± INLET INV.=222.00 (CB-2) OUTLET INV.=221.84 (DMH-2)	12"±		



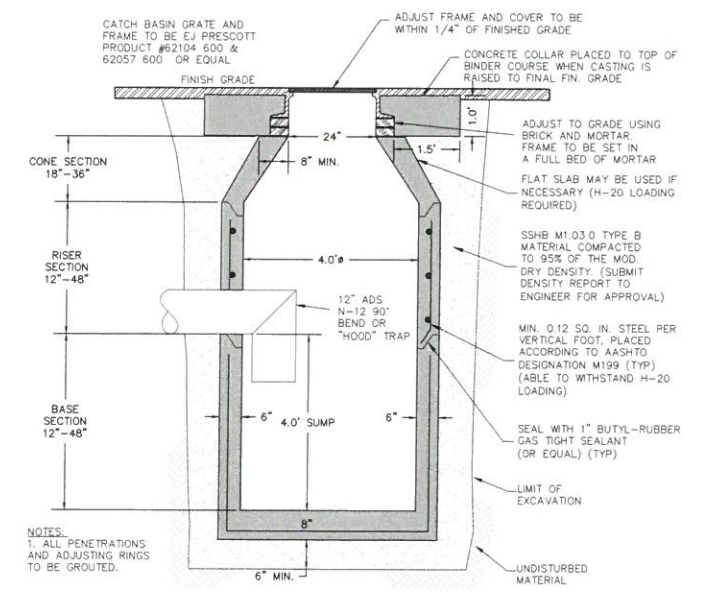
INFILTRATION AREA 1 X-SECTION
SCALE: 1"=4'



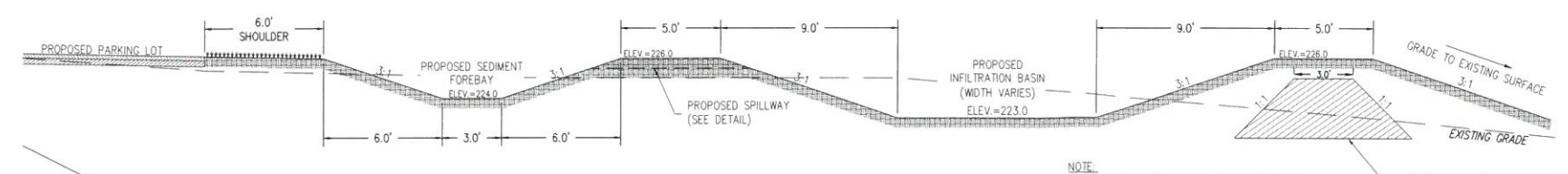
INFILTRATION AREA 1
SCALE: 1"=5'



SED. FOREBAY SPILLWAY DETAIL
NOT TO SCALE



DEEP SUMP CONCRETE CATCH BASIN
NOT TO SCALE



INFILTRATION BASIN CROSS SECTION
SCALE: 1"=4'

NOTE:
IMPERMEABLE BARRIER IS TO BE COMPOSED OF M108.0 IMPERVIOUS SOIL BORROW UNDER THE MASSACHUSETTS HIGHWAY DEPARTMENT 1995 STANDARD SPECS FOR HIGHWAYS AND BRIDGES.
PROPOSED IMPERMEABLE BARRIER (SIZE VARIES). KEY INTO C-HORIZON OF EXISTING MATERIAL

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PREPARED BY:
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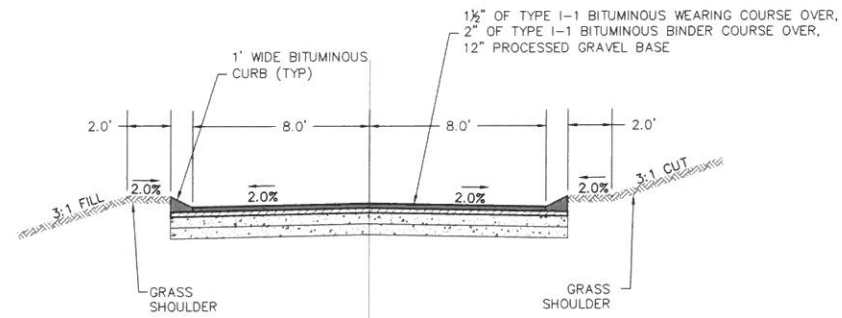
OWNER:
PLANTATION APARTMENTS II LLC
22 JOHNSTON WAY
STOW, MASSACHUSETTS 01775
APPLICANT:
STOW ELDERLY HOUSING CORP.
22 JOHNSTON WAY
STOW, MASSACHUSETTS 01775

SCALE:
30 0 15 30 60 120
1 in. = 30 ft.
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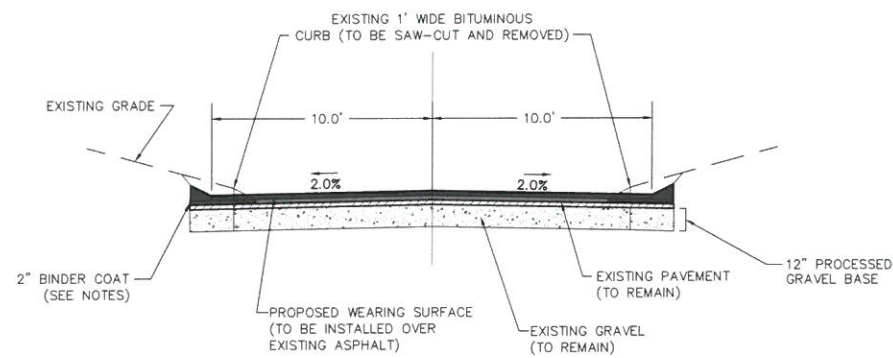
DATE: 10/26/18
DESIGN BY: JPL
DRAWN BY: JPL
CHECKED BY: GSR

GRADING & DRAINAGE PLAN GREAT ROAD STOW, MASSACHUSETTS			
NO.	DATE	DESCRIPTION	BY
01.	5/22/17	EDITS PER COMMENTS	JPL
02.	8/8/17	FIRE CISTERN AND PATH WIDTH EDITS	JPL
03.	4/27/18	UPDATED SITE LAYOUT	JPL
04.	9/26/18	UPDATED SITE LAYOUT	RWP

JOB NO. 4644-2
DRAWING NO. 46442-GRADING
SHEET NO. **C3.0**



EXISTING JOHNSTON WAY CROSS-SECTION



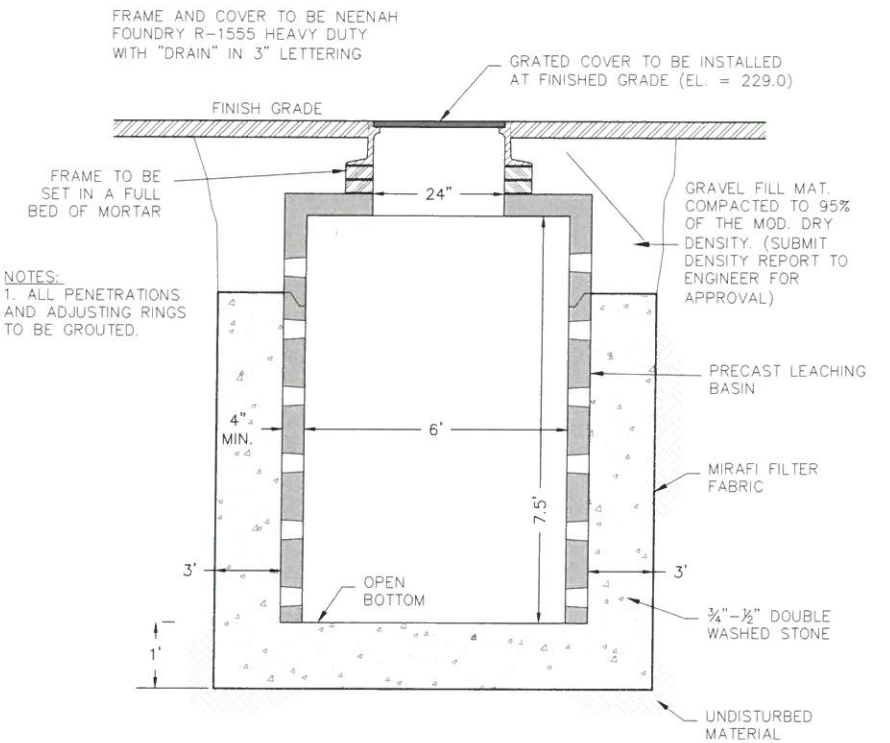
PROPOSED JOHNSTON WAY CROSS-SECTION

PAVING SPECIFICATIONS

1. A BINDER COURSE OF CLASS I, TYPE 1, BITUMINOUS CONCRETE PAVEMENT WITH A ROLLED DEPTH OF TWO INCHES (2"), APPLIED IN TWO COURSES, SHALL BE INSTALLED OVER THE GRAVEL BASE.
2. THE BINDER COURSE SHALL BE EXPOSED TO ONE WINTER SEASON PRIOR TO THE APPLICATION OF THE WEARING SURFACE.
3. PRIOR TO INSTALLATION OF THE WEARING SURFACE, THE BINDER SHALL BE SWEEPED CLEAN, DRIED IF NECESSARY, AND TREATED WITH AN ASPHALT EMULSION OR TACK COAT TO ENSURE A SATISFACTORY BOND BETWEEN PAVEMENT COURSES.
4. THE BINDER COURSE SHALL BE TREATED FOR THE FULL WIDTH OF THE ROADWAY WITH A WEARING SURFACE OF 1 1/2 INCHES OF CLASS I, TYPE 1, BITUMINOUS CONCRETE PAVEMENT APPLIED IN ONE COURSE.
5. IN ORDER TO MINIMIZE DAMAGE TO THE WEARING SURFACE, THE WEARING COURSE SHALL NOT BE APPLIED UNTIL ALL CONSTRUCTION ON LOTS SERVED BY THE SUBDIVISION STREETS IS IN THE OPINION OF THE BOARD COMPLETED OR SUBSTANTIALLY COMPLETED.
6. EXISTING CURB SHALL BE SAW-CUT AND REMOVED. PROPOSED PAVEMENT SHALL BE INSTALLED OVER THE EXISTING ASPHALT AND EXTENDED TO 20' WIDE. (SHOWN ON PROPOSED CROSS-SECTION DETAIL)

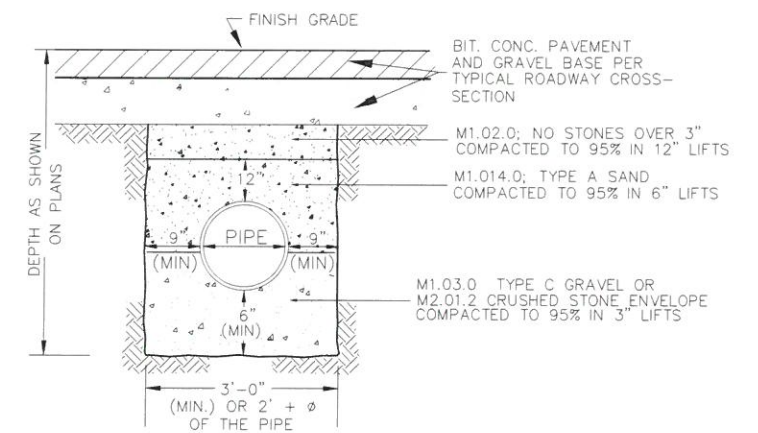
ROAD WIDENING DETAIL

1" = 4'



INFILTRATING CATCH BASIN

NOT TO SCALE



DRAIN PIPE TRENCH DETAIL

NOT TO SCALE

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SCALE:

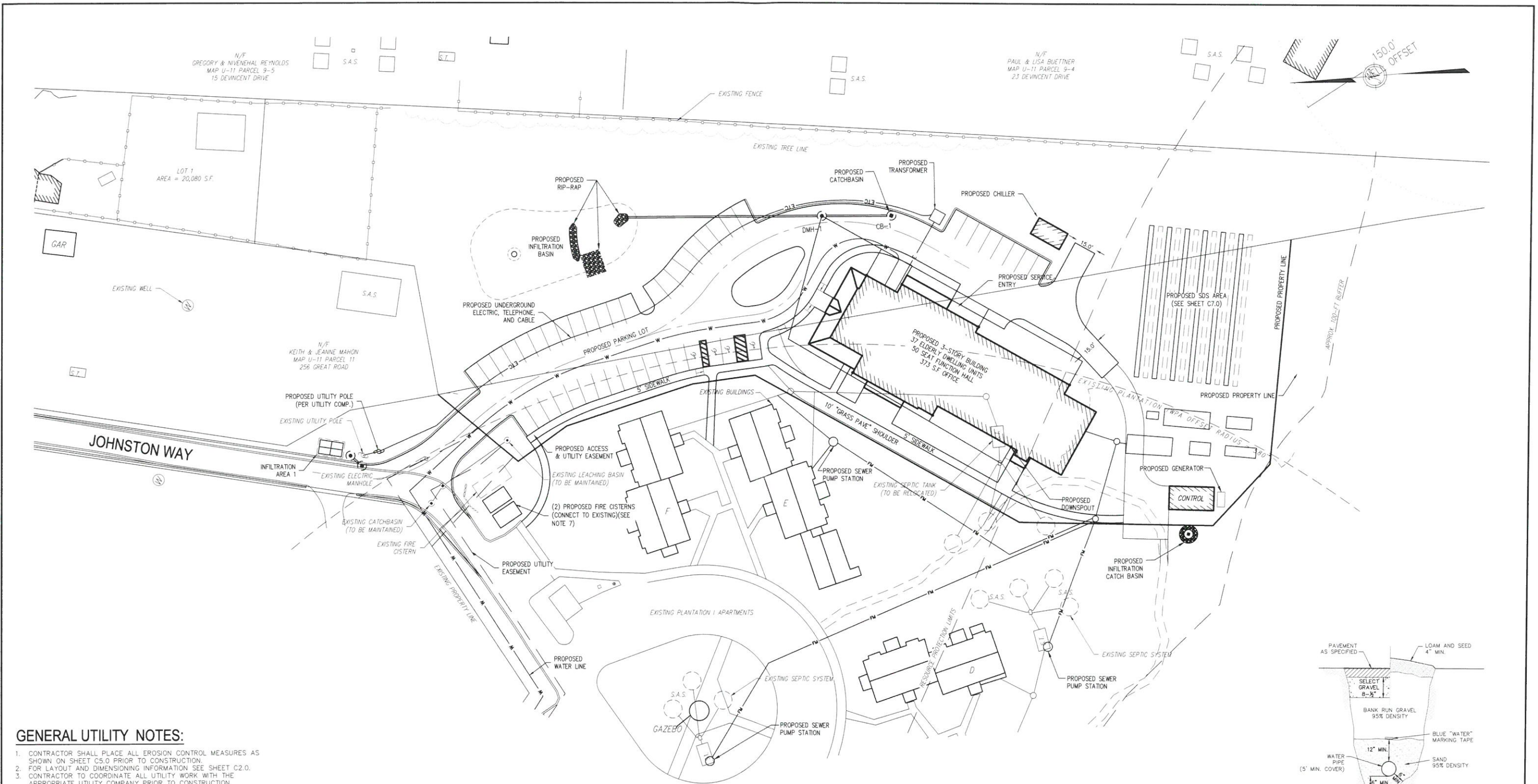
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GRADING DETAILS SHEET
 GREAT ROAD
 STOW, MASSACHUSETTS

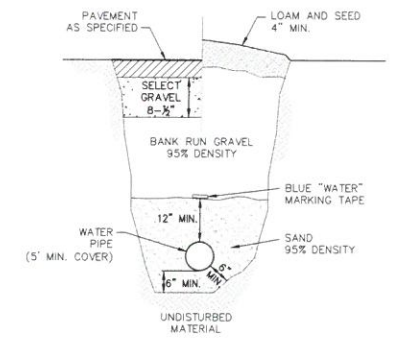
NO.	DATE	DESCRIPTION	BY

JOB NO.
4644-2
 DRAWING NO.
46442-GRADING
 SHEET NO.
C3.1



GENERAL UTILITY NOTES:

1. CONTRACTOR SHALL PLACE ALL EROSION CONTROL MEASURES AS SHOWN ON SHEET C5.0 PRIOR TO CONSTRUCTION.
2. FOR LAYOUT AND DIMENSIONING INFORMATION SEE SHEET C2.0.
3. CONTRACTOR TO COORDINATE ALL UTILITY WORK WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION.
4. FINAL LOCATION OF ELECTRICAL SERVICE TO BE DETERMINED BY POWER COMPANY.
5. PLACE (2) 10,000 GALLON FIRE CISTERNS INTERCONNECTED TO EACH OTHER AND TO THE EXISTING CISTERN FOR A TOTAL OF 30,000 GALLONS OF STORAGE. PROPOSED TANKS SHALL BE MANUFACTURED BY SHEA CONCRETE (OR APPROVED EQUAL) AND SHALL BE FITTED WITH AN ACCESS HATCH, VENT, FILL AND SUCTION PIPE AND A FLOAT GAUGE (PER THE STOW FIRE PROTECTION CISTERN REGULATIONS).
6. THE PROPOSED UTILITY AND ACCESS EASEMENTS SHALL REMAIN IN EFFECT FOR THE LIFETIME OF THE PROPOSED PLANTATION II BUILDING.
7. CONNECT PROPOSED FIRE CISTERNS TO EXISTING CISTERN. THE TOTAL VOLUME OF THE (3) THREE CISTERNS SHALL BE 30,000 GALLONS. CAPACITY OF EXISTING CISTERN TO BE DETERMINED PRIOR TO COMPLETION OF CONSTRUCTION PLANS.



WATER MAIN IN TRENCH DETAIL
NOT TO SCALE

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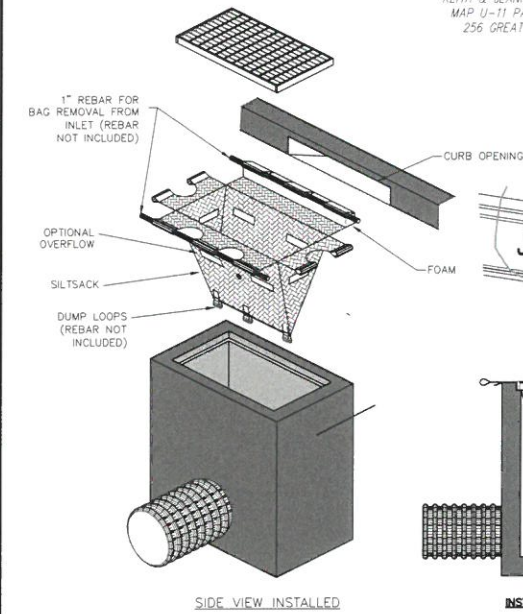
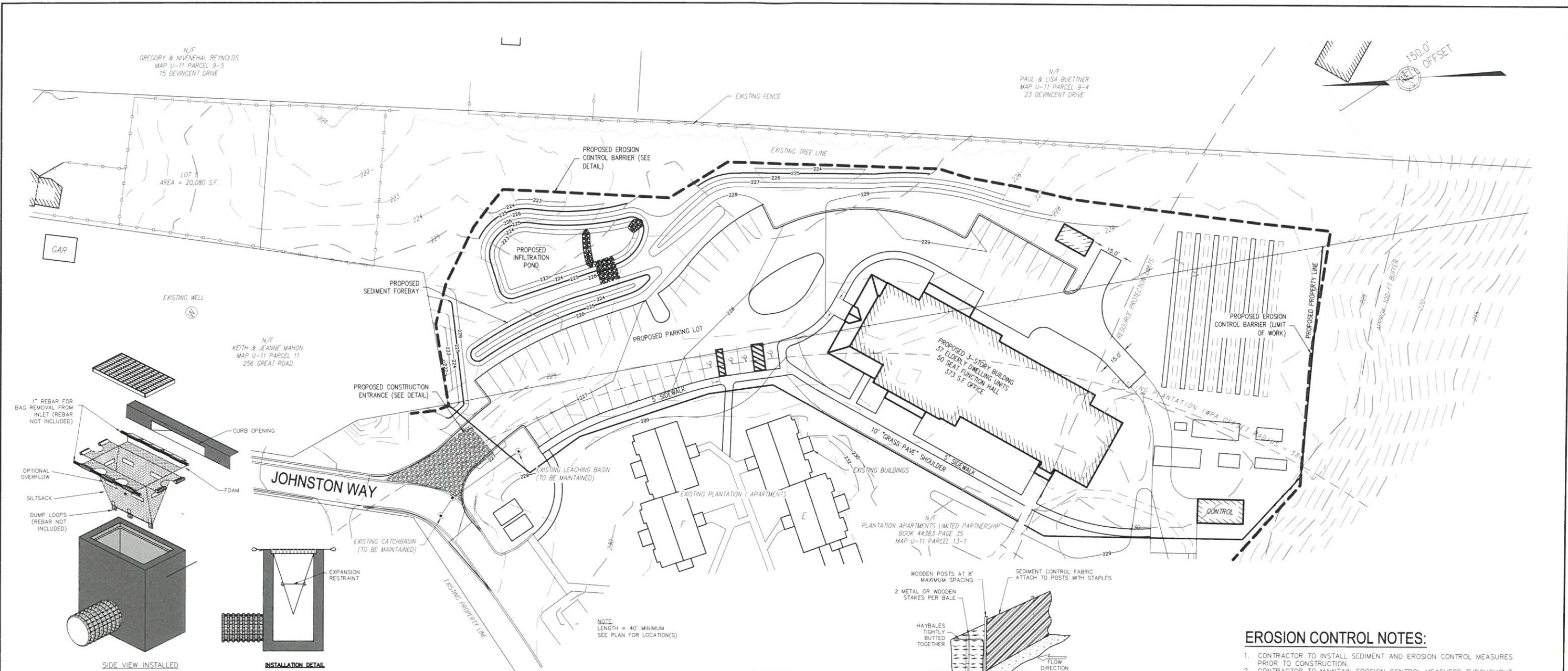
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UTILITIES PLAN GREAT ROAD STOW, MASSACHUSETTS			
NO.	DATE	DESCRIPTION	BY
01.	5/22/17	EDITS PER COMMENTS	JPL
02.	8/8/17	FIRE CISTERN AND PATH WIDTH EDITS	JPL
03.	4/27/18	UPDATED SITE LAYOUT	JPL
04.	9/26/18	UPDATED SITE LAYOUT	RWP

JOB NO. 4644-2
 DRAWING NO. 46442-UTILITIES
 SHEET NO. **C4.0**



SILT SACK
NOT TO SCALE

VELOCITY CHECKDAMS:
THE CONTRACTOR SHALL PROVIDE VELOCITY CHECKDAMS IN ALL UNPAVED ACCESS DRIVE AREAS AT THE INTERVAL INDICATED BELOW:

GRADE OF ACCESS DRIVE	INTERVALS BETWEEN CHECKDAMS
LESS THAN 4%	100 FT
4%-10%	50 FT
OVER 10%	25 FT

THE CONTRACTOR SHALL PROVIDE VELOCITY CHECKDAMS IN ALL UNVEGETATED OR UNPAVED CHANNELS AT INTERVALS INDICATED BELOW:

GRADE OF CHANNEL	INTERVALS BETWEEN CHECKDAMS
LESS THAN 3%	100 FT
3%-6%	50 FT
OVER 6%	25 FT

- CHECKDAMS SHALL BE OF HAYBALES (STAKED IF NECESSARY).
- CHECKDAMS SHALL BE INSTALLED AT THE END OF EACH WORKING DAY OF BEFORE STOPPAGE DUE TO RAIN.
- CHECKDAMS SHALL EXTEND COMPLETELY ACROSS THE GUTTER FLOW LINES AT RIGHT ANGLES TO THE CENTERLINE.

SEED MIXTURES:
MOWED AREAS (ALL FLATS AND SLOPES EQUAL TO OR LESS THAN 3:1)

MIXTURE	% BY WEIGHT	SEEDING DATES
RED RESCUE	75	APRIL 1-JUNE 15
KENTUCKY BLUEGRASS	15	AUG. 15-OCT. 15
COLONIAL BENTGRASS	5	SPRING OR FALL
PERENNIAL RYEGRASS	5	SPRING OR FALL

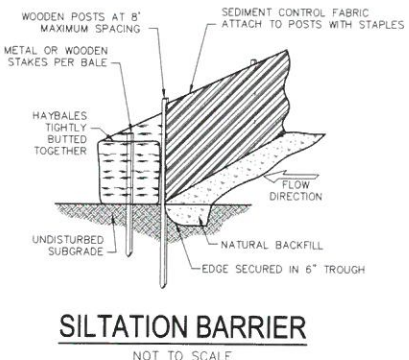
UNMOWED AREAS (FLAT SLOPES GREATER THAN 3:1)

MIXTURE	% BY WEIGHT	SEEDING DATES
RED RESCUE	75	APRIL 1-JUNE 15
KENTUCKY BLUEGRASS	15	AUG. 15-OCT. 15
COLONIAL BENTGRASS	5	SPRING OR FALL
PERENNIAL RYEGRASS	15	SPRING OR FALL

TEMP. CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

SLOPE STABILIZATION NOTES:

- DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME, SUCH AS THE INACTIVE WINTER SEASON. NO LATER THAN OCTOBER 31ST OF EACH CALENDAR YEAR, THE DEVELOPER SHALL STABILIZE ALL EXPOSED SOILS AND OTHER VULNERABLE OR SENSITIVE AREAS IN A MANNER ACCEPTABLE TO THE SITE ENGINEER. NO ADDITIONAL DISRUPTION MAY OCCUR EXCEPT IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLAN.
- TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS.
- THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY UTILIZED.



SILTATION BARRIER
NOT TO SCALE

SITE DISTURBANCE NOTES:

- TEMPORARY STABILIZATION OF DISTURBED AREAS SHALL BE ACCOMPLISHED WITH HYDROSEED OR WOODCHIPS.
- DISTURBED AREAS SHALL BE STABILIZED WITHIN 2 MONTHS AND INSPECTED AND RE-STABILIZED AS NECESSARY.
- STOCKPILES SHALL BE SURROUNDED BY HAYBALES AND COVERED WITH TARPS OR EROSION CONTROL BLANKETS AT THE END OF EACH WORK DAY WHILE IN USE.
- DEVELOPER IS REQUIRED TO CLEAN UP ANY SAND, DIRT OR DEBRIS WHICH ERODES FROM THE SITE INTO ANY PUBLIC STREET OR PRIVATE PROPERTY, AND TO REMOVE SILTS OR DEBRIS THAT ENTERS INTO EXISTING DRAINAGE INCLUDING CATCH BASIN SUMPS, PIPE LINES, MANHOLES OR DITCHES.

EROSION CONTROL NOTES:

- CONTRACTOR TO INSTALL SEDIMENT AND EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION.
- CONTRACTOR TO MAINTAIN EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PROCESS. EROSION CONTROL MEASURES SHOULD BE INSPECTED BY THE CONTRACTOR REGULARLY TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY.
- CONTRACTOR SHALL MAINTAIN, REPAIR, OR REPLACE EROSION CONTROL MEASURE AS NEEDED DURING CONSTRUCTION.
- NO WORK SHALL BE DONE WITHIN ANY RESOURCE AREA OR BUFFER ZONE WITHOUT FIRST OBTAINING AN ORDER OF CONDITIONS FROM THE STOW CONSERVATION COMMISSION. THE EROSION CONTROL BARRIER MARKS THE LIMIT OF PROPOSED WORK.
- A SUFFICIENT NUMBER OF HAYBALES SHALL BE STOCK PILED ON SITE FOR EMERGENCY EROSION CONTROL NEEDS, AND TO REPAIR AND REPLACE BALES IN THE DESIGNATED EROSION CONTROL BARRIER LOCATION. BALES SHALL BE COVERED WITH A TARP TO PROTECT FROM WEATHER.
- A CRUSHED STONE MOUND SHALL BE PLACED THE FULL WIDTH OF THE ENTRANCE WAY, 25 FEET INTO THE SITE AND ONE FOOT DEEP. THIS MOUND SHALL BE MAINTAINED AND REPLACED IF NECESSARY. (SEE DETAIL)
- EXISTING VEGETATION SHALL BE RETAINED WHERE FEASIBLE.
- CONTRACTOR TO REMOVE EROSION CONTROL MEASURES AFTER SITE HAS BEEN STABILIZED FOR A PERIOD OF NOT LESS THAN 2 WEEKS.
- CONTRACTOR TO RESTORE AREAS AS INDICATED ON THE PLAN WITHIN 1-WEEK OF COMPLETION OF FINAL GRADING. CONTRACTOR TO MAINTAIN RESTORED AREAS DURING CONSTRUCTION.
- CONTRACTOR SHALL ENSURE THE GROWTH OF ALL PLANTINGS SUCH AS GRASS AND OTHER RESTORATION ITEMS. CONTRACTOR SHALL PROVIDE WATER, FERTILIZER AND OTHER MEANS AS NEED TO ENSURE PROPER GROWTH OF ALL RESTORATION ITEMS.

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APPLICANT:
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SCALE:
30 0 15 30 60 120
1 in. = 30 ft.
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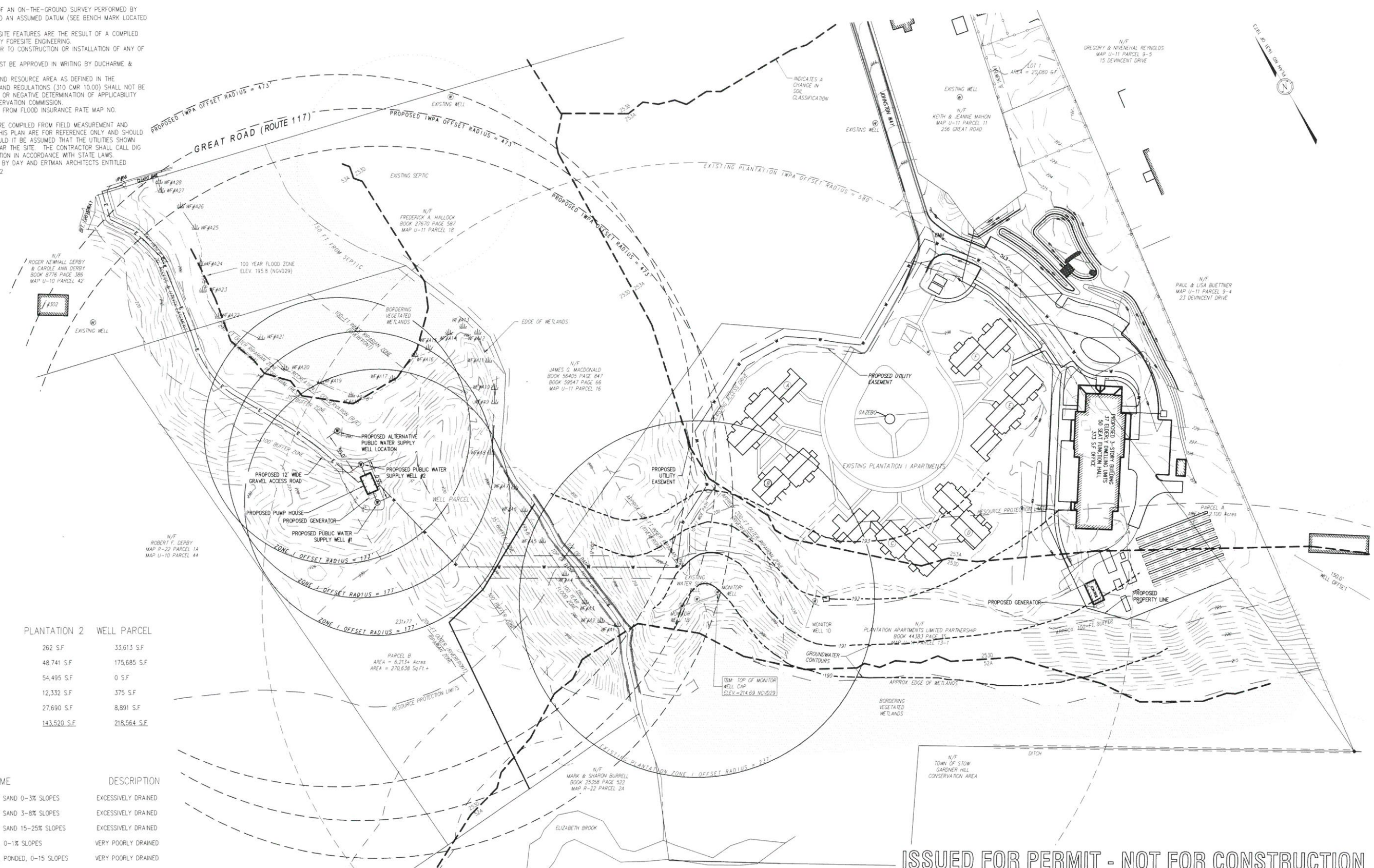
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EROSION CONTROL PLAN GREAT ROAD STOW, MASSACHUSETTS			
NO.	DATE	DESCRIPTION	BY
01.	5/22/17	EDITS PER COMMENTS	JPL
02.	8/8/17	FIRE CISTERN AND PATH WIDTH EDITS	JPL
03.	4/27/18	UPDATED SITE LAYOUT	JPL
04.	9/26/18	UPDATED SITE LAYOUT	RWP

JOB NO. 4644-2
DRAWING NO. 46442-EROSION
SHEET NO. **C5.0**

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ON-THE-GROUND SURVEY PERFORMED BY FORESITE ENGINEERING. ELEVATIONS REFER TO AN ASSUMED DATUM (SEE BENCH MARK LOCATED ON PLOT PLAN).
2. PROPERTY LINE AND LOCATION OF EXISTING SITE FEATURES ARE THE RESULT OF A COMPILED PLANS AND A PLAN OF LAND DATED 2013 BY FORESITE ENGINEERING.
3. PROPERTY LINES SHALL BE DETERMINED PRIOR TO CONSTRUCTION OR INSTALLATION OF ANY OF THE PROPOSED IMPROVEMENTS HEREON.
4. ANY DEVIATIONS FROM THE DESIGN PLAN MUST BE APPROVED IN WRITING BY DUCHARME & DILLIS CIVIL DESIGN GROUP, INC.
5. CONSTRUCTION WITHIN 100 FEET OF A WETLAND RESOURCE AREA AS DEFINED IN THE MASSACHUSETTS WETLAND PROTECTION ACT AND REGULATIONS (310 CMR 10.00) SHALL NOT BE PERFORMED UNTIL AN ORDER OF CONDITIONS OR NEGATIVE DETERMINATION OF APPLICABILITY HAS BEEN OBTAINED FROM THE LOCAL CONSERVATION COMMISSION.
6. FEMA 100-YR FLOOD ZONE WAS DETERMINED FROM FLOOD INSURANCE RATE MAP NO. 25017C0351E EFFECTIVE JUNE 4, 2010.
7. EXISTING UTILITIES SHOWN ON THIS PLAN WERE COMPILED FROM FIELD MEASUREMENT AND RECORD PLANS. THE UTILITIES SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY AND SHOULD NOT BE ASSUMED TO BE CORRECT NOR SHOULD IT BE ASSUMED THAT THE UTILITIES SHOWN ARE THE ONLY UTILITIES LOCATED ON OR NEAR THE SITE. THE CONTRACTOR SHALL CALL DIG SAFE 1-888-DIG-SAFE PRIOR TO CONSTRUCTION IN ACCORDANCE WITH STATE LAWS.
8. GROUNDWATER CONTOURS REFER TO A PLAN BY DAY AND ERTMAN ARCHITECTS ENTITLED "WATER AND SEWER PLAN" DATED 8-31-1982.



AREA TABLE

	PLANTATION 1	PLANTATION 2	WELL PARCEL
WETLAND	138,618 S.F.	262 S.F.	33,613 S.F.
WOODS	209,654 S.F.	48,741 S.F.	175,685 S.F.
LAWN	97,051 S.F.	54,495 S.F.	0 S.F.
BUILDING ROOF	21,542 S.F.	12,332 S.F.	375 S.F.
PAVEMENT	42,200 S.F.	27,690 S.F.	8,891 S.F.
TOTAL	509,065 S.F.	143,520 S.F.	218,564 S.F.

SOIL MAP KEY

CLASSIFICATION	NAME	DESCRIPTION
253A	HINCKLEY LOAMY SAND 0-3% SLOPES	EXCESSIVELY DRAINED
253B	HINCKLEY LOAMY SAND 3-8% SLOPES	EXCESSIVELY DRAINED
253D	HINCKLEY LOAMY SAND 15-25% SLOPES	EXCESSIVELY DRAINED
52A	FREETOWN MUCK, 0-1% SLOPES	VERY POORLY DRAINED
53A	FREETOWN MUCK, PONDED, 0-15 SLOPES	VERY POORLY DRAINED

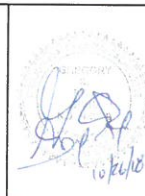
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SCALE:

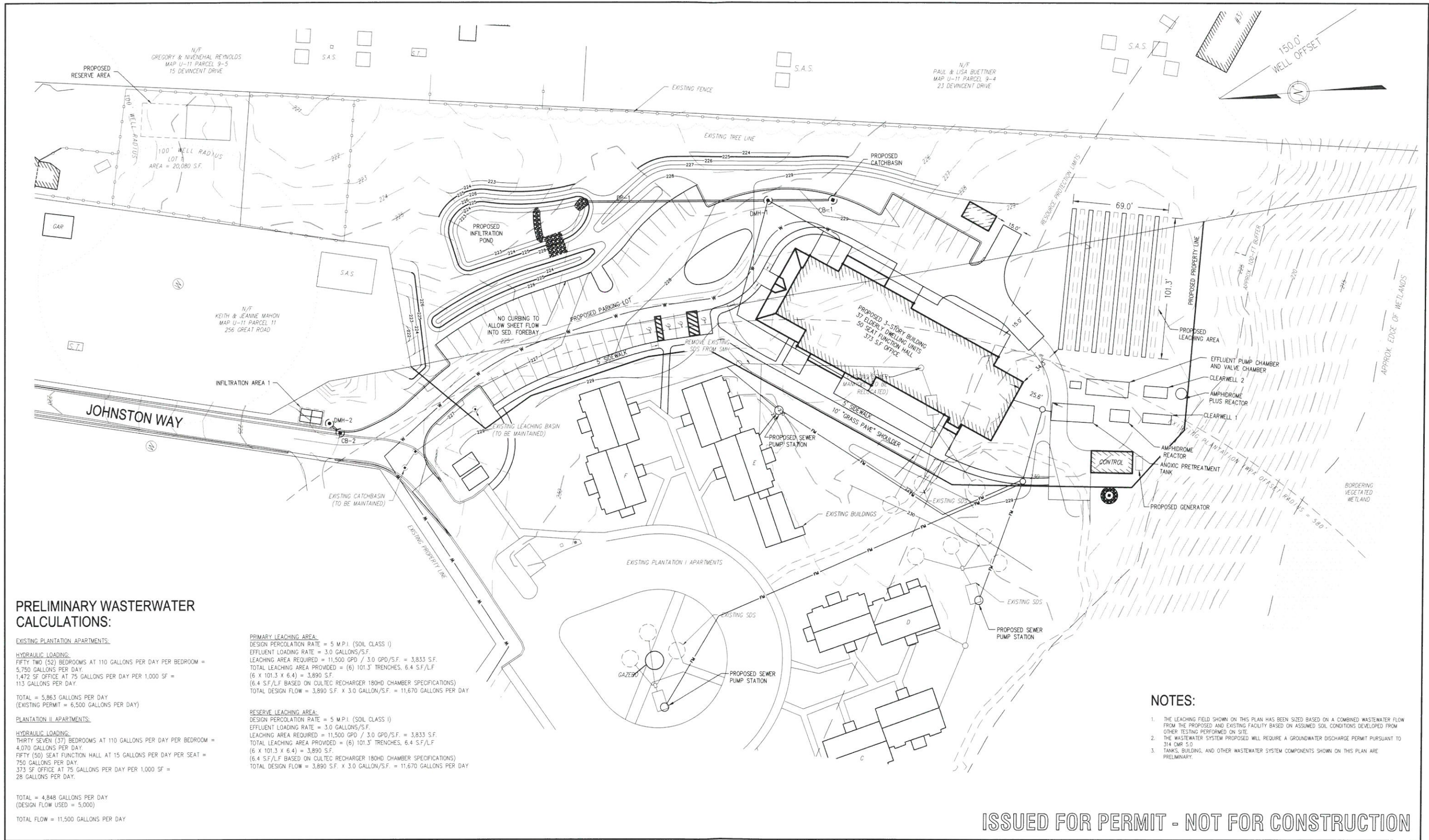
 1 in. = 60 ft.
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DATE: 10/26/18
 DESIGN BY: GSR
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 CHECKED BY: GSR

WATER SYSTEM PLAN GREAT ROAD STOW, MASSACHUSETTS			
NO.	DATE	DESCRIPTION	BY
01.	5/22/17	EDITS PER COMMENTS	JPL
02.	8/8/17	FIRE CISTERN AND PATH WIDTH EDITS	JPL
03.	4/27/18	UPDATED SITE LAYOUT	JPL
04.	9/26/18	UPDATED SITE LAYOUT	RWP

JOB NO. 4644-2
 DRAWING NO. 4644-2-PWS
 SHEET NO. **C6.0**



PRELIMINARY WASTEWATER CALCULATIONS:

EXISTING PLANTATION APARTMENTS:

HYDRAULIC LOADING:
 FIFTY TWO (52) BEDROOMS AT 110 GALLONS PER DAY PER BEDROOM = 5,750 GALLONS PER DAY
 1,472 SF OFFICE AT 75 GALLONS PER DAY PER 1,000 SF = 113 GALLONS PER DAY

TOTAL = 5,863 GALLONS PER DAY
 (EXISTING PERMIT = 6,500 GALLONS PER DAY)

PLANTATION II APARTMENTS:

HYDRAULIC LOADING:
 THIRTY SEVEN (37) BEDROOMS AT 110 GALLONS PER DAY PER BEDROOM = 4,070 GALLONS PER DAY
 FIFTY (50) SEAT FUNCTION HALL AT 15 GALLONS PER DAY PER SEAT = 750 GALLONS PER DAY
 373 SF OFFICE AT 75 GALLONS PER DAY PER 1,000 SF = 28 GALLONS PER DAY

TOTAL = 4,848 GALLONS PER DAY
 (DESIGN FLOW USED = 5,000)

TOTAL FLOW = 11,500 GALLONS PER DAY

PRIMARY LEACHING AREA:

DESIGN PERCOLATION RATE = 5 M.P.I. (SOIL CLASS I)
 EFFLUENT LOADING RATE = 3.0 GALLONS/S.F.
 LEACHING AREA REQUIRED = 11,500 GPD / 3.0 GPD/S.F. = 3,833 S.F.
 TOTAL LEACHING AREA PROVIDED = (6) 101.3' TRENCHES, 6.4 S.F./L.F.
 (6 X 101.3 X 6.4) = 3,890 S.F.
 (6.4 S.F./L.F. BASED ON CULTIC RECHARGER 180HD CHAMBER SPECIFICATIONS)
 TOTAL DESIGN FLOW = 3,890 S.F. X 3.0 GALLON/S.F. = 11,670 GALLONS PER DAY

RESERVE LEACHING AREA:

DESIGN PERCOLATION RATE = 5 M.P.I. (SOIL CLASS I)
 EFFLUENT LOADING RATE = 3.0 GALLONS/S.F.
 LEACHING AREA REQUIRED = 11,500 GPD / 3.0 GPD/S.F. = 3,833 S.F.
 TOTAL LEACHING AREA PROVIDED = (6) 101.3' TRENCHES, 6.4 S.F./L.F.
 (6 X 101.3 X 6.4) = 3,890 S.F.
 (6.4 S.F./L.F. BASED ON CULTIC RECHARGER 180HD CHAMBER SPECIFICATIONS)
 TOTAL DESIGN FLOW = 3,890 S.F. X 3.0 GALLON/S.F. = 11,670 GALLONS PER DAY

NOTES:

1. THE LEACHING FIELD SHOWN ON THIS PLAN HAS BEEN SIZED BASED ON A COMBINED WASTEWATER FLOW FROM THE PROPOSED AND EXISTING FACILITY BASED ON ASSUMED SOIL CONDITIONS DEVELOPED FROM OTHER TESTING PERFORMED ON SITE.
2. THE WASTEWATER SYSTEM PROPOSED WILL REQUIRE A GROUNDWATER DISCHARGE PERMIT PURSUANT TO 314 CMR 5.0 TANKS, BUILDING, AND OTHER WASTEWATER SYSTEM COMPONENTS SHOWN ON THIS PLAN ARE PRELIMINARY.
- 3.

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 STOW, MASSACHUSETTS 01775
 APPLICANT:
 STOW ELDERLY HOUSING CORP.
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SCALE:

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DATE: 10/26/18
 DESIGN BY: GSR
 DRAWN BY: RWP
 CHECKED BY: GSR

PRELIMINARY WASTEWATER PLAN GREAT ROAD STOW, MASSACHUSETTS			
NO.	DATE	DESCRIPTION	BY
01.	8/16/18	RESIZE LEACHING FIELD	RWP
02.	9/26/18	UPDATE SITE LAYOUT	RWP

JOB NO. 4644-2
 DRAWING NO. 46442-WASTEWATER
 SHEET NO. **C7.0**