## SITE PLAN SET **FOR TOLLGATE HILL FARM**



ASSESSOR'S MAP 247, LOT 20 **ZONING DISTRICT O** OFFICE DISTRICT **271 TOLL GATE ROAD** WARWICK, RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMEN OFFICE OF WATER RESOURCES FRESHWATER WETLANDS PROGRAM APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL APPROVED PLANS MUST BE AT CONSTRUCTION SI

### **DEVELOPER**

SENIOR HOUSING DEVELOPMENT LLC



**30 JERICHO EXECUTIVE PLAZA SUITE 400E JERICHO, NEW YORK** 

# INDEX OF DRAWINGS

C7.1

C7.2

C8.1

C8.2

E1.1

E1.2

L-1.0

L-2.0

L-2.1

L-2.2

L-2.3

L-3.0

L-4.0

L-4.1

DATE

04/20/15

LOCATION MAP NOT TO SCALE

**GENERAL NOTES and LEGEND AERIAL PHOTOGRAPH EXISTING CONDITIONS PLAN** 200" RADIUS MAP PROPOSED SUBDIVISION PLAN OVERALL SITE LAYOUT PLAN SITE LAYOUT PLAN No. 1 SITE LAYOUT PLAN No. 2 GRADING and DRAINAGE PLAN No. 1 GRADING and DRAINAGE PLAN No. 2 **UTILITY PLAN No. 1** UTILITY PLAN No. 2 **ROADWAY PROFILE PLAN** SOIL EROSION and SEDIMENT CONTROL PLAN No. 1 SOIL EROSION and SEDIMENT CONTROL PLAN No. 2 **MISCELLANEOUS DETAIL PLAN No. 1** MISCELLANEOUS DETAIL PLAN No. 2 MISCELLANEOUS DETAIL PLAN No. 3 MISCELLANEOUS DETAIL PLAN No. 4 MISCELLANEOUS DETAIL PLAN No. 5 MISCELLANEOUS DETAIL PLAN No. 6 MISCELLANEOUS DETAIL PLAN No. 7 SITE LIGHTING PLAN No. 1 SITE LIGHTING PLAN No. 2 LANDSCAPE KEY PLAN and MASTER PLANT LIST LANDSCAPE-PLAN-AREA-A-LANDSCAPE-PLAN AREA B LANDSCAPE PLAN AREA C LANDSCAPE PEANTAREA D -PLANTING DETAILS AMENITIES 2 FLOOR PLANS BUILDING-ELEVATIONS

**REVISIONS** 

DESCRIPTION

WATER, SEWER and DRAINAGE

LANDSCAPE ARCHITECT AS 2015



**6 BLACKSTONE VALLEY PLACE SUITE 101** LINCOLN, RI 02865

## **OWNER/APPLICANT**

**MUTUAL PROPERTIES 275 TOLLGATE, LLC** ONE JAMES P. MURPHY HIGHWAY **SUITE 200** WEST WARWICK, RHODE ISLAND 02893

### **ENGINEER**



Civil

 Transportation Environmental Site Planning Surveying Permitting

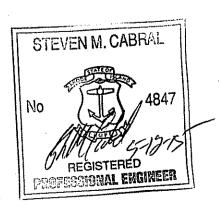
## **CROSSMAN ENGINEERING**

Rhode Island 151 Centerville Road Warwick, RI 02886 Phone: (401) 738-5660

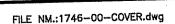
Massachusetts North Attleboro, MA 02763 Phone: (508) 695-1700

Landscape Architecture

Email: cei@crossmaneng.com



**MARCH 2015** SHEET 1 of 35



Sheet 1 of 26

#### **PLAN REFERENCES**

- 1. "EXISTING CONDITIONS PLAN TOLL GATE OFFICE PARK TOLL GATE ROAD AP. 247 LOT 20 WARWICK RHODE ISLAND PREPARED FOR TOP PARTNERS, LLC. FEB 07 1"=60" BY THALMANN ENGINEERING CO., INC."
- 2. "CITY OF WARWICK WARWICK SEWER AUTHORITY SYSTEM OF SEWERS EASEMENT PLAN NO. 123 LAND BELONGING TO PHILIPPE LAFLAMME BY CHARLES A. MAGUIRE & ASSOCIATES JUNE 1970 SCALE 1"=100"
- 3. "PLAN OF LAND IN WARWICK, R.I. ASSESSORS PLAT 247 LOT 12 PREPARED FOR EDWARD H. ALLEN SCALE 1"=80", DATE: JULY, 2007 PREPARED BY ENGELHARDT SURVEYING, LLC"
- 4. THE FOLLOWING STATE OF RHODE ISLAND DEPARTMENT OF TRANSPORATION HIGHWAY PLATS ——PLAT NO. 2162, PLAT NO. 1857, PLAT NO. 1372A, ——PLAT NO. 1372B, AND PLAT NO. 1857.
- 5. "APPONAUG HEIGHTS, WARWICK, R.I. BELONGING TO THE WOODARD LAND CO. BY FRANK E. WATERMAN, JULY 1914 SCALE 1"=80'."
- 6. "NEW ENGLAND POWER SERVICE COMPANY BOSTON, MASS. PLAN SHOWING EASEMENT ACROSS LAND IN WARWICK, R.I. CONVEYED TO THE NARRAGANSETT ELECTRIC COMPANY BY CHARLOTTE A. GARDNER ET ALI BY DEED DATED JUNE 22, 1945 AND RECORDED IN BOOK 182 PAGE 630 SCALE 1"=200" DATE FEB. 27, 1945."
- 7. "CONDOMINIUM DOCUMENTS SITE PLAN PREPARED FOR GATE MEDICAL CENTER SCALE 1"=30" DATE REVISION 2 1-2-00, BY DAUGH/SALISBURY INCORPROATED ARCHITECTS."
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- 9. "BOUNDARY SURVEY ASSESSOR'S MAP 247 LOT 20 #271 TOLL GATE ROAD WARWICK, RHODE ISLAND" PREPARED FOR ATTORNEY DAVID G. LUSSIER 1226 MAIN STREET, SUITE 4 WEST WARWICK, RI 02893 DATE: APRIL 25, 2011

#### NOTES

- 1. FIELD SURVEY FOR BOUNDARY LINE LOCATIONS HAS BEEN PERFORMED BY CROSSMAN ENGINEERING IN FEBRUARY AND MARCH OF 2011. THE EXISTING TOPOGRAPHY AND SITE FEATURES SHOWN IN THIS PLAN SET HAVE BEEN PERFORMED BY CROSSMAN ENGINEERING BETWEEN DECEMBER OF 2014 AND JANUARY OF 2015.
- 2. OWNERS AND ABUTTERS INFORMATION TAKEN FROM THE CITY OF WARWICK IN OCTOBER 2014.
- 3. PLAN REFERENCE #2 AND DEED BOOK 410 PAGE 179 SHOW THE DISTANCE AS 23' MORE OR LESS. PLAN REFERENCE #7 AND DEED BOOK 1240 PAGE 264 SHOW THE DISTANCE AS 33.45'. HELD DISTANCE SHOWN ON PLAN REFERENCE #1.
- 4. THE PROPERTY LINE ON THE NORTHERLY AND EASTERLY SIDE OF THE PROPERTY IS INTENDED TO FOLLOW THE STONE WALL OR STONE WALL REMAINS WHERE THEY EXIST.
- 6. ALSO SEE DEED BOOK 86 PAGE 173 (UNABLE TO LOCATE EASEMENT) AND DEED BOOK 185 PAGE 218 (APPEARS TO BE SAME EASEMENT AS PLAN REFERNCES #6).
- 7. THE UTILITIES SHOWN HEREON ARE PLOTTED FROM FIELD LOCATION OF VISIBLE ABOVE GROUND STRUCTURES AND LIMITED RESEARCH HAS BEEN PERFORMED. ALL UNDERGROUND UTILITY INFORMATION SHOWN HEREON MUST BE VERIFIED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ON THIS SITE. THE CONTRACTOR OR USERS OF THIS PLAN SHOULD CONTACT DIGSAFE PRIOR TO ANY WORK.
- 8. THE VERTICAL DATUM IS NAVD 88 UTILIZING GPS RTK NETWORK CONTROL
- 9. BOUNDARY INFORMATION TAKEN FROM PLAN REFERENCE #1.
- 10. THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS FOR ENGINEERING DESIGN BY CROSSMAN ENGINEERING.

#### LAYOUT NOTE

THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN, AND PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL LAND SURVEYOR (PLS) REGISTERED IN THE STATE TO SET AND VERIFY ALL LINES AND GRADES. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEM FOUND WHICH DOES NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.

#### **CONSTRUCTION NOTES**

- 1. THE CONTRACTOR IS REQUIRED TO OBTAIN AND REVIEW ALL ENGINEERING DOCUMENTS COMPLETED FOR FINAL DESIGN.
- 2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO INSTALLATION OF UTILITIES ON SITE. THE COORDINATION IS NECESSARY FOR THE ENGINEER TO SCHEDULE SITE INSPECTIONS. INSTALLATIONS PERFORMED WITHOUT INSPECTIONS BY THE ENGINEER MAY WARRANT COMPLETE REMOVAL AND REINSTALLATION AT THE CONTRACTOR'S SOLE EXPENSE.
- 3. THE CONTRACTOR IS REQUIRED TO MAINTAIN DETAILED AS—BUILT INFORMATION FOR ALL UTILITY INSTALLATIONS. AS—BUILT INFORMATION MUST INCLUDE MATERIAL LIST, PIPE DEPTH AND SWING TIE LOCATIONS (2 MINIMUM) FROM NEW PIPE TO BUILDING CORNERS. ALL PIPE BEND/ELBOW LOCATIONS SHALL BE DIMENSIONED. FINAL PAYMENT WILL NOT BE MADE UNTIL SUITABLE AS—BUILT DATA IS PROVIDED.
- 4. ALL AS—BUILT INFORMATION SHALL BE PROVIDED IN A REPRODUCIBLE ACAD AND PDF PLAN AND CERTIFIED BY A LICENSED RHODE ISLAND SURVEYOR OR ENGINEER. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THIS PLAN UNDER THE BASE CONTRACT BID PRICE.

#### **GENERAL NOTES**

- 1. ALL EXISTING UTILITIES HAVE BEEN PLOTTED BASED UPON BEST AVAILABLE INFORMATION AND REPRESENT APPROXIMATE LOCATIONS, THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE & UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE PROGRAM LAW" ENACTED BY THE R.I. LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY CITY, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- 2. SPECIFICATIONS TO GOVERN THIS PROJECT ARE R.I.D.O.T. STANDARD SPECIFICATIONS. FOR ALL EXCAVATION, PLACEMENT OF FILL, PIPE INSTALLATION, BITUMINOUS PAVEMENT, CUTTING INTO CATCHBASIN/MANHOLES, CONCRETE AND SAW CUTTING, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2010 EDITION, WITH LATEST REVISIONS UNLESS OTHERWISE SHOWN ON PLANS. THE "METHOD OF MEASUREMENT" AND "BASIS OF PAYMENT" ARE NOT APPLICABLE. THESE SPECIFICATIONS CAN BE OBTAINED ON—LINE AT:

#### HTTP://WWW.DOT.STATE.RI.US/ENGINEERING/STANDARDS/INDEX.ASP

- FOR ALL EXCAVATION AND PLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE R.I. STANDARD SPECIFICATION SECTION 202.
- 4. RHODE ISLAND STANDARDS REFERENCED ARE ACCORDING TO THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS "RHODE ISLAND STANDARD DETAILS" DATED OCTOBER 12, 2012, WITH ALL REVISIONS AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION.
- 5. THE CONTRACTOR MUST VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS OF ANY SUBCONTRACTORS, AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ASPECTS OF ON—SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.
- 6. WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE, AND THE BID PRICE SHALL INCLUDE ALL SERVICES AND MATERIALS NECESSARY TO COMPLETE THE PROJECT. ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND MUST BE ACCEPTABLE TO THE ENGINEER.
- 7. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK.
- 8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT PRIOR TO THE INITIATION OF WORK. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS, RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.
- 9. ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN.
- 10. ALL PROPOSED RAMPS SHOWN ON THESE PLANS SHALL HAVE A DETECTABE WARNING SYSTEM INSTALLED AT THE CURB (RI STD 48.1.0).

#### **MAINTENANCE AND PROTECTION OF TRAFFIC NOTES**

- 1. TEMPORARY CONSTRUCTION FENCING WILL BE REQUIRED AROUND THE PERIMETER OF THE CONSTRUCTION WORK
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION. ALL TEMPORARY CONSTRUCTION SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
- 3. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC.
- 4. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS WILL NOT BE PARKED IN THE ROADWAY RIGHT-OF-WAY.
- 5. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION.
- 6. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE STATE D.O.T. SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.

#### **FLOOD ZONE NOTE**

THE SITE IS LOCATED IN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD, AS SHOWN ON THE FLOOD INSURANCE RATE MAP, KENT COUNTY, RHODE ISLAND (ALL JURISDICTIONS), PANEL 128 OF 251, MAP NUMBER 44003C0128G, EFFECTIVE DATE DECEMBER 3, 2010.

#### PROPOSED PAVEMENT STRUCTURE

- 1-1/2" BITUMINOUS CONCRETE SURFACE COURSE 3" BITUMINOUS CONCRETE BASE COURSE
- 8" GRAVEL BORROW SUBBASE (PARKING LOT)
  12" GRAVEL BORROW SUBBASE (ROAD)

#### **EXISTING PROPOSED** PROPERTY LINE EASEMENT LINE CONCRETE/GRANITE CURE EDGE OF PAVEMENT -O- NO. UTILITY POLE → NO. LIGHT POLE II LP — — — — (Size) D- — — — ·(SIZE) D-DRAIN LINE ————(Size) S———— SANITARY SEWER -(Size) s-SANITARY FORCE MAIN -(SIZE) SFM-GAS LINE — — — — (Size) G — — — — -(Size) G--(Size) W*-*-----DOMESTIC WATER LINE FIRE SERVICE LINE -(size) Fs— \_\_ \_ \_ \_ Elec.\_\_ \_ \_ \_ ELECTRIC/CABLE/TELEPHONE DMH ① DMH DRAINAGE MANHOLE CB ⊞ CB CATCH BASIN (S) SMH SMH SEWER MANHOLE (E) EMH EMH ELECTRIC MANHOLE (T) TMH TELEPHONE MANHOLE ₩HYD. "O" Hyd. HYDRANT WATER GATE O WG **●**GG O GG GAS GATE \_CO 0 CO CLEAN-OUT TO GRADE SAWCUT PAVEMENT \_\_\_\_\_XXX\_\_\_\_\_\_ CONTOURS ELEV. 00x0 X ELEV. SPOT GRADES CHAIN LINK FENCE STOCKADE FENCE RETAINING WALL $-\infty$ STONE WALL GUARDRAIL GRADE TO DRAIN TREE LINE TREE = 23 5% (Size) 7777 BUILDING/STRUCTURE BOLLARDS BOLLARD LIMIT OF DISTURBANCE FILTER SOXX TEST PIT (CEI) TEST PIT/BORING (BRIGGS)

**LEGEND** 

#### SITE NOTES

- 1. REVIEW OF THE GIS MAPS AVAILABLE ON THE R.I.D.E.M. WEB PAGE HAS INDICATED THAT THIS PROPERTY IS NOT WITHIN A NATURAL HERITAGE AREA.
- 2. REVIEW OF THE ZONING MAPS IN THE CITY OF WARWICK BUILDING OFFICE HAS INDICATED THAT THIS PROPERTY IS NOT WITHIN A ZONING OVERLAY DISTRICT.
- 3. THE PROPOSED USE OF THIS SITE IS FOR AN ASSISTED LIVING FACILITY, MEDICAL OFFICE AND GENERAL OFFICE. DEVELOPMENT ON THIS SITE WILL NOT GENERATE AN INCREASE IN SCHOOL-AGED CHILDREN.
- 4. THIS SITE IS NOT WITHIN THE HISTORICAL ZONING DISTRICT OR NATIONAL REGISTER DISTRICT. THERE IS NO EVIDENCE OF HISTORIC CEMETERIES ON SITE.
- REVIEW OF THE GIS MAPS AVAILABLE ON THE R.I.D.E.M. WEB PAGE HAS INDICATED THAT THE SOILS ON SITE ARE SUITABLE FOR DEVELOPMENT AND IDENTIFIED AS; CeC: CANTON AND CHARLTON FINE SANDY LOAMS, VERY ROCKY, 3%-15% SLOPES. AND; HKC: HINKLEY GRAVELLY SANDY LOAM, ROLLING.
- 6. NO FRESHWATER OR COASTAL WETLANDS HAVE BEEN OBSERVED ON THE SITE.
- 7. UPON REVIEW OF VARIOUS AGENCY RECORDS, THIS DEVELOPMENT IS NOT WITHIN THE FOLLOWING RESOURCE PROTECTION AREAS:

NATURAL HERITAGE AREA (RIDEM)
NARROW RIVER SPECIAL MANAGEMENT AREA (CRMC)
SALT POND SPECIAL MANAGEMENT PLAN (CRMC)
GROUNDWATER PROTECTION OVERLAY DISTRICT (CITY)

10. THE PROPOSED SITE IS NOT INTENDED FOR AGRICULTURAL USE.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAY 2 0 2015 FILE # \_/5 -005 8
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL



Transportation
 Environmenta
 Site Planning

Permitting
 Landscape Architectu

#### CROSSMAN ENGINEERING

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KEY PLAN

PROJECT TITLE:

#### TOLLGATE HILL FARM

ASSESSOR'S MAP 247, LOT 20 ZONING DISTRICT O OFFICE DISTRICT 271 TOLL GATE ROAD WARWICK, RHODE ISLAND

PREPARED FO

SENIOR HOUSING DEVELOPMENT LLC



30 JERICHO EXECUTIVE PLAZA SUITE 400E JERICHO, NEW YORK 11753

DRAWING TITLE:

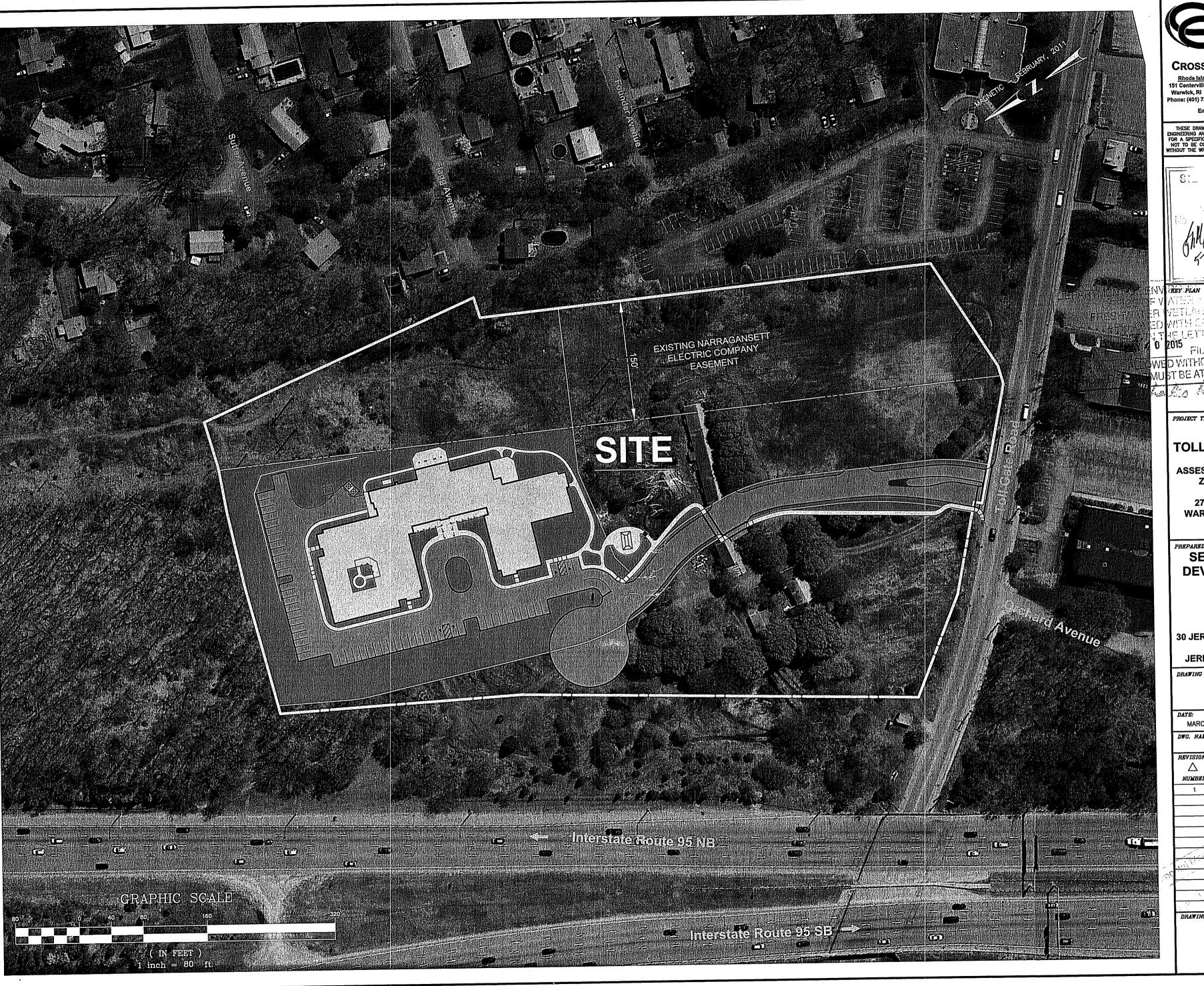
GENERAL NOTES and LEGEND

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SHEET: 2 OF: 256

PPHOVED PLANS WOST BE AT CONCUST





#### CROSSMAN ENGINEERING

Rhode Island 151 Centerville Road Warwick, RI 02886 Phone: (401) 738-5660

<u>Massachusetts</u> 103 Commonwealth Avenue North Attleboro, MA 02763 Phone: (508) 695-1700



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#### **TOLLGATE HILL FARM**

ASSESSOR'S MAP 247, LOT 20 ZONING DISTRICT O OFFICE DISTRICT 271 TOLL GATE ROAD WARWICK, RHODE ISLAND

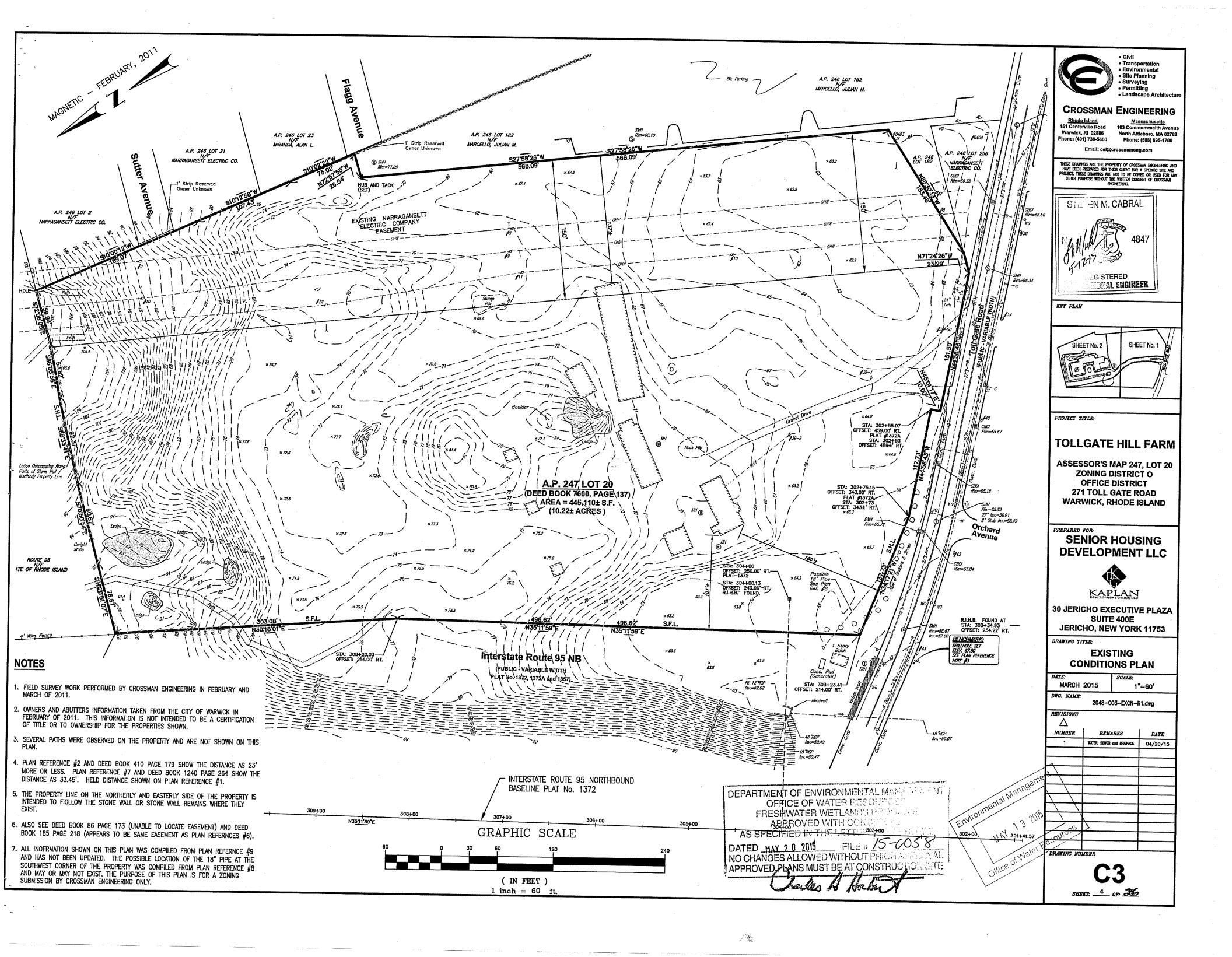
**SENIOR HOUSING DEVELOPMENT LLC** 

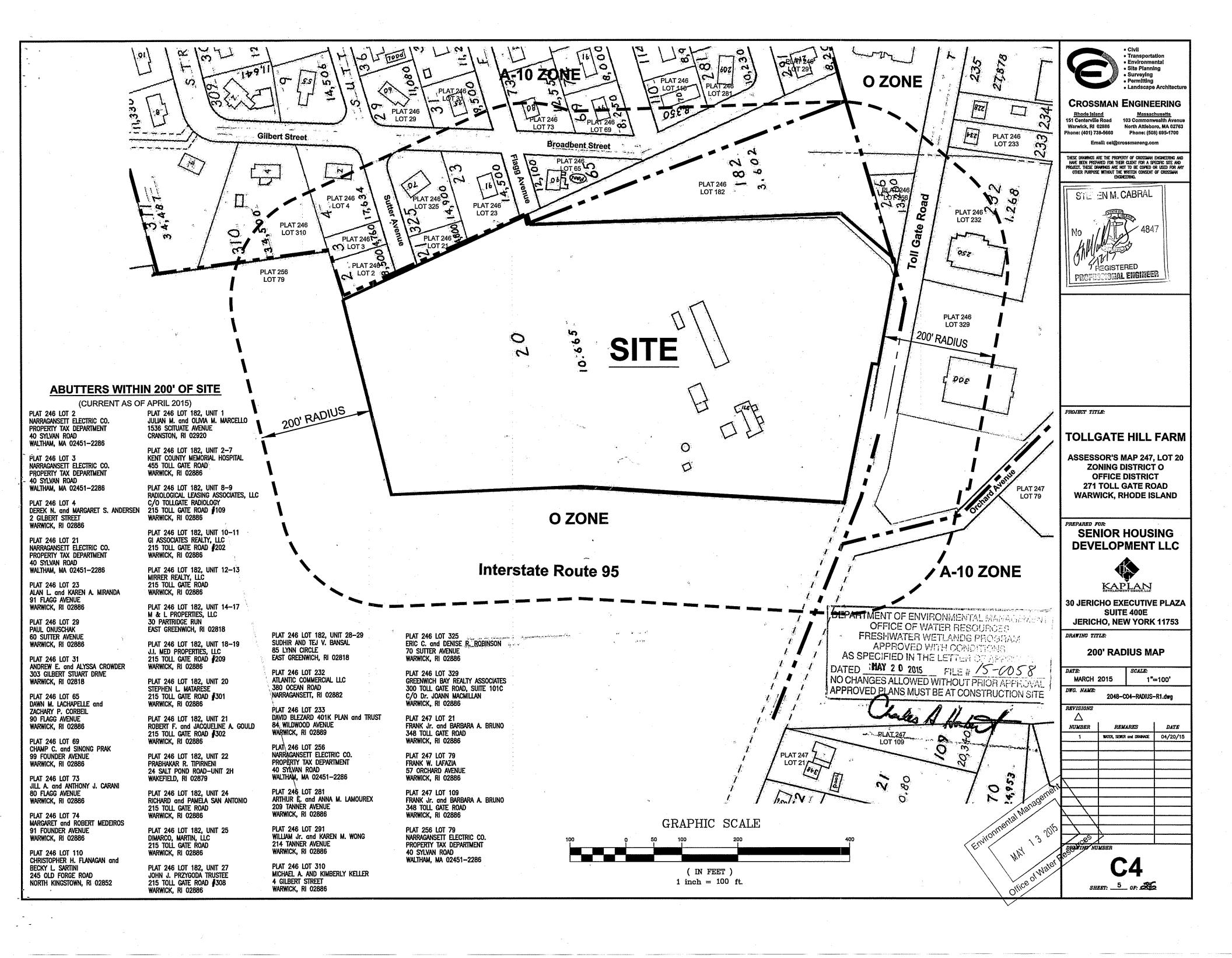


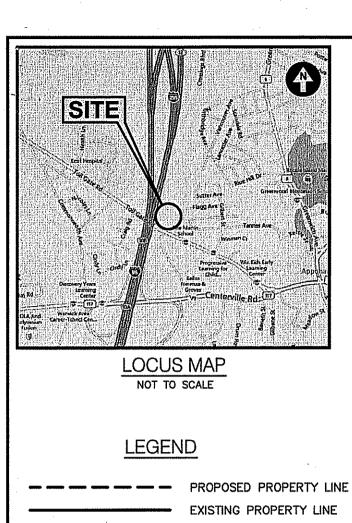
30 JERICHO EXECUTIVE PLAZA SUITE 400E **JERICHO, NEW YORK 11753** 

**AERIAL MAP** 

MARCH 2015 1"=80'			
DWG. NAME:	2048-	CO2-AER	AL-R1.dwg
REVISIONS		***	
AUMBER	REM	ARKS	DATE
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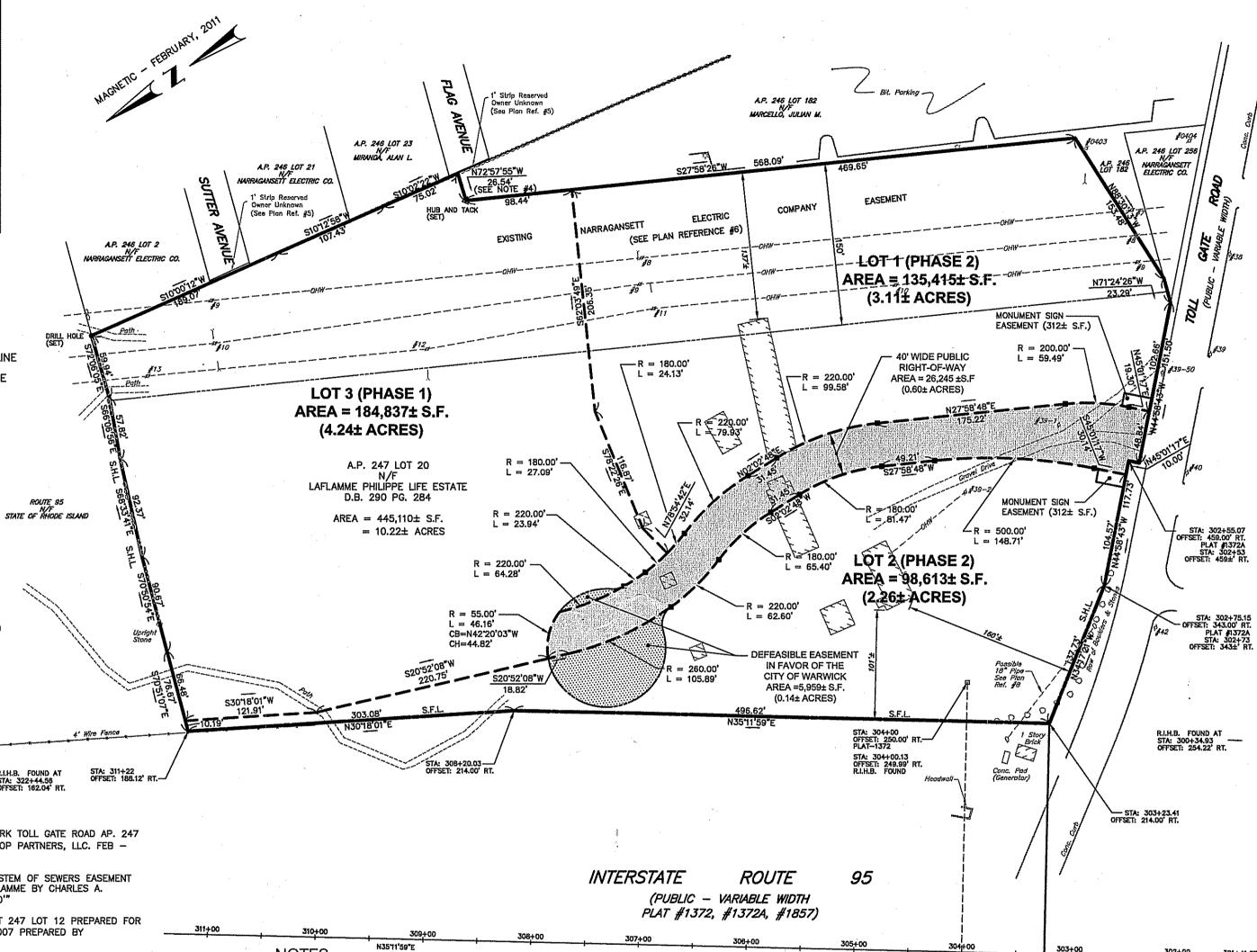
**GRAPHIC SCALE** 

( IN FEET )

1 inch = 80 ft.

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- "PLAN OF LAND IN WARWICK, R.I. ASSESSORS PLAT 247 LOT 12 PREPARED FOR EDWARD H. ALLEN SCALE 1"=80', DATE: JULY, 2007 PREPARED BY ENGELHARDT SURVEYING, LLC"
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1. FIELD SURVEY WORK PERFORMED BY CROSSMAN ENGINEERING IN FEBRUARY AND MARCH OF 2011.

**NOTES** 

- OWNERS AND ABUTTERS INFORMATION TAKEN FROM THE CITY OF WARWICK IN FEBRUARY OF 2011. THIS INFORMATION IS NOT INTENDED TO BE A CERTIFICATION OF TITLE OR TO OWNERSHIP FOR THE PROPERTIES SHOWN.
- 3. SEVERAL PATHS WERE OBSERVED ON THE PROPERTY AND ARE NOT SHOWN ON THIS
- 4. PLAN REFERENCE #2 AND DEED BOOK 410 PAGE 179 SHOW THE DISTANCE AS 23' MORE OR LESS. PLAN REFERENCE #7 AND DEED BOOK 1240 PAGE 264 SHOW THE DISTANCE AS 33.45'. HELD DISTANCE SHOWN ON PLAN REFERENCE #1.
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- 6. ALSO SEE DEED BOOK 86 PAGE 173 (UNABLE TO LOCATE EASEMENT) AND DEED BOOK 185 PAGE 218 (APPEARS TO BE SAME EASEMENT AS PLAN REFERNCES #6).
- 7. ALL INOFRMATION SHOWN ON THIS PLAN WAS COMPILED FROM PLAN REFERNCE #9 AND HAS NOT BEEN UPDATED. THE POSSIBLE LOCATION OF THE 18" PIPE AT THE SOUTHWEST CORNER OF THE PROPERTY WAS COMPILED FROM PLAN REFERENCE #8 AND MAY OR MAY NOT EXIST. THE PURPOSE OF THIS PLAN IS FOR A ZONING SUBMISSION BY CROSSMAN ENGINEERING ONLY.

and the second section of the second second section of the second s DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER RESCURCES FRESHWATER WETLANDS PROGRAM APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL FILE # 15-0058 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL APPROVED PLANS MUST BE AT CONSTRUCTION SITE

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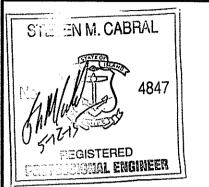


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CROSSMAN ENGINEERING



KEY PLAN

PROJECT TITLE:

**TOLLGATE HILL FARM** ASSESSOR'S MAP 247, LOT 20 ZONING DISTRICT O OFFICE DISTRICT **271 TOLL GATE ROAD** WARWICK, RHODE ISLAND

PREPARED FOR SENIOR HOUSING **DEVELOPMENT LLC** 



**30 JERICHO EXECUTIVE PLAZA** SUITE 400E **JERICHO, NEW YORK 11753** 

13 2015

MAY

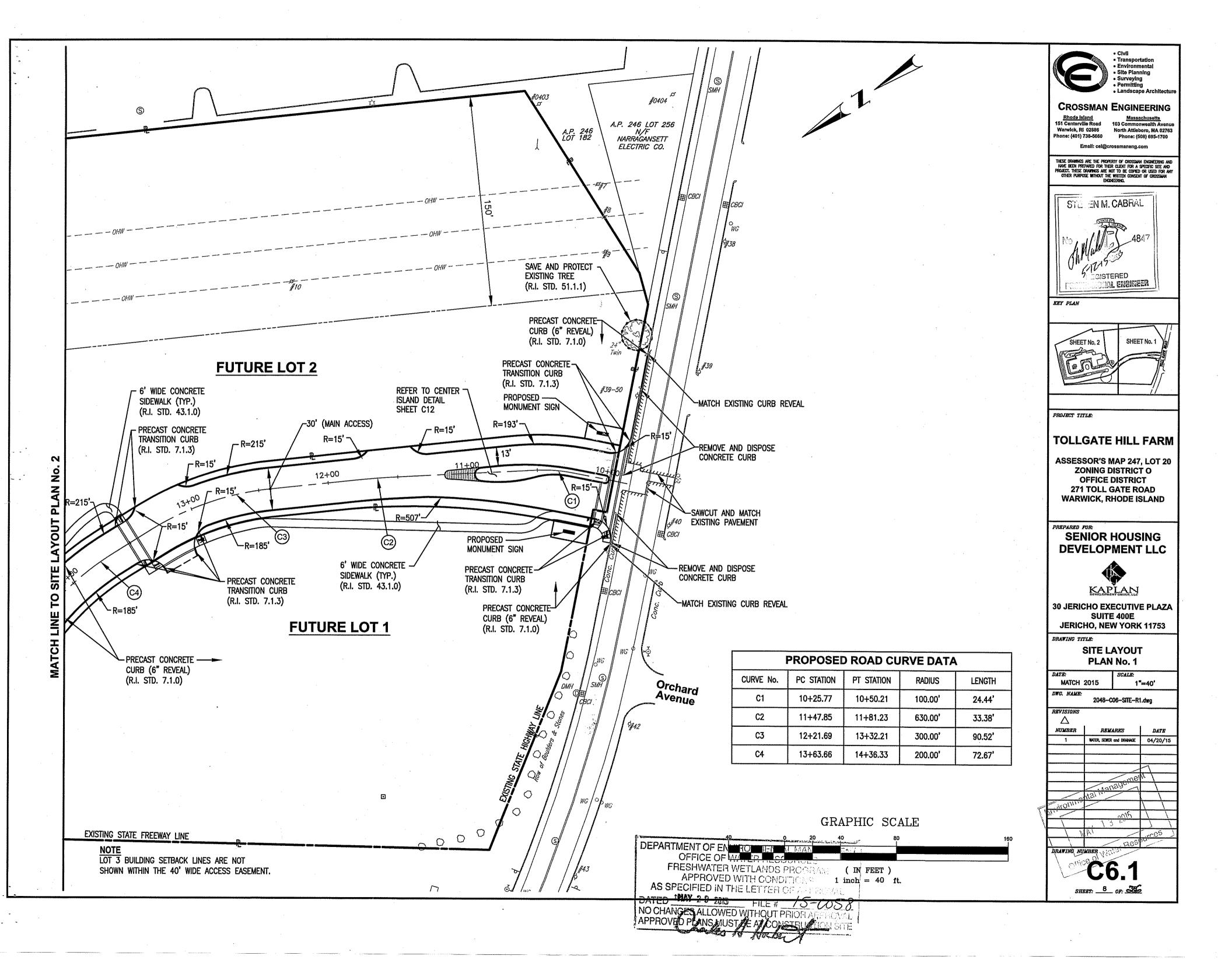
PROPOSED **SUBDIVISION PLAN** 

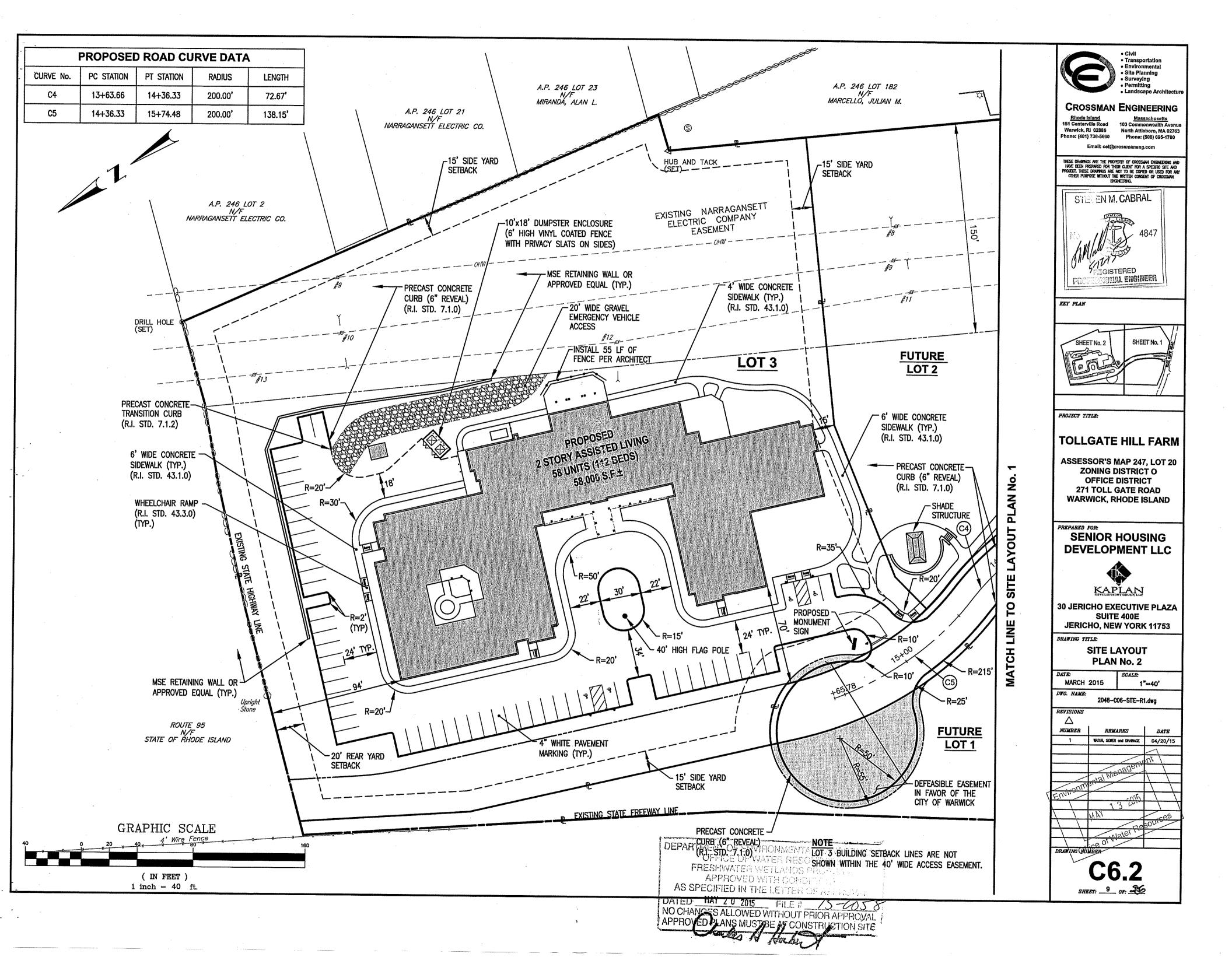
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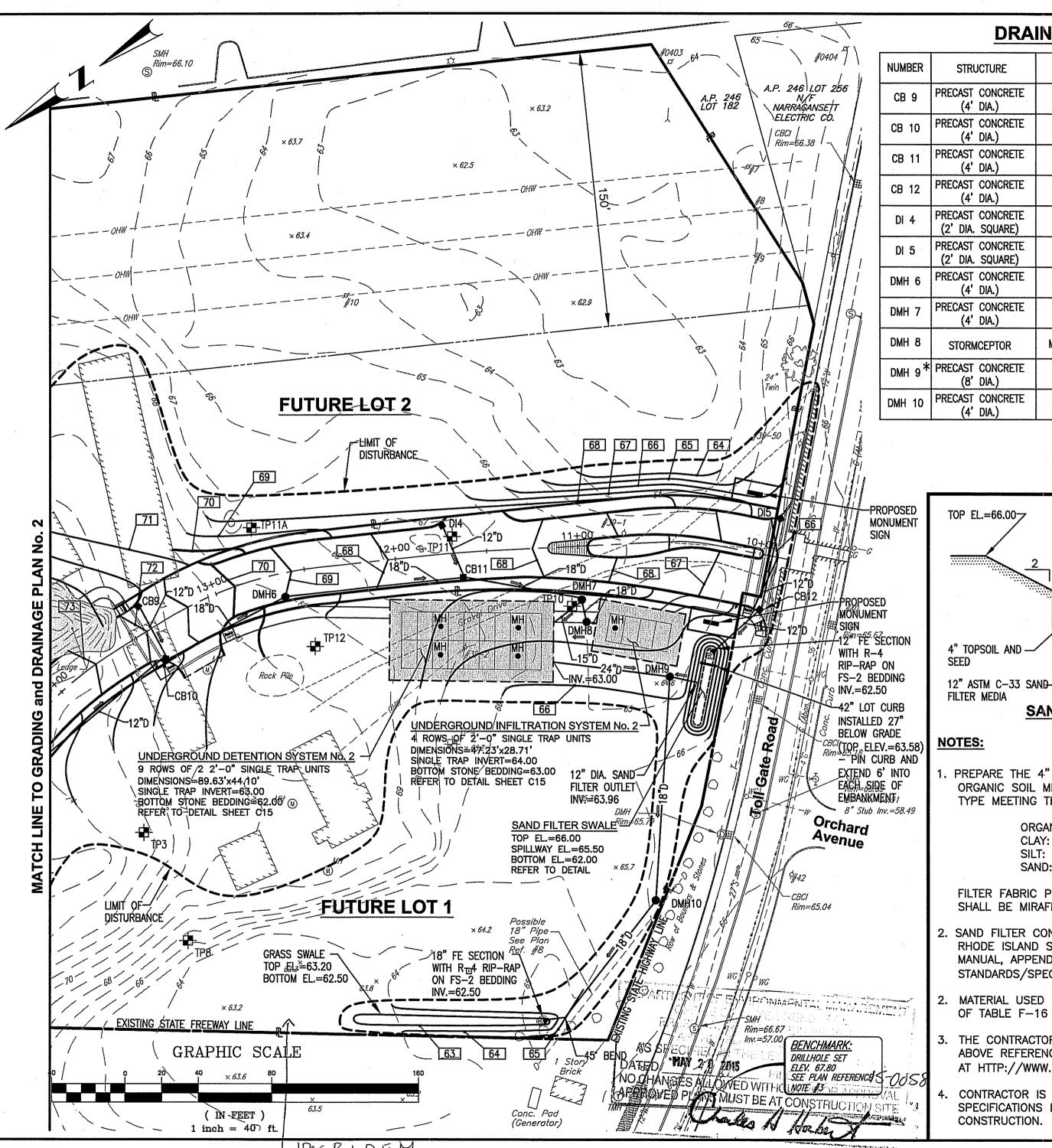
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DWG. NAME: 20	48C05	SUBDIVIS
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NUMBER	REM	ARKS
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	1	

DATE 04/20/15

DIME	NSIONAL RE	QUIREMENT	rs .		OFF-STREET PARKING A	AND LOADING REQ	UIREMENTS		Civil     Transportation     Environmental
ZONING DISTRICT: O - OFFICE [	ISTRICT (B)				PARKING REQUIREMENTS				Environmental     Site Planning     Surveying     Permitting
PERMITTED BY SPECIAL USE: EXTE		ONVALESCENT,	REST OR NURS	ING HOME	NURSING HOME: 1 SPACE PER 2 BEDS				Permitting     Landscape Arc
MINIMUM LOT REQUIREMENTS		LOT 1 (PHASE 2)	LOT 2 (PHASE 2)		LOT USE	REQUIRED	PROVIDED		CROSSMAN ENGINEER
MINIMUM LOT AREA	6,000 S.F.	135,415 S.F.	98,652S.F.	184,802 S.F.	LOT 3: 112 BED NURSING HOME	56 SPACES	56 SPACES		Rhode Island Massachuse 151 Centerville Road 103 Commonwealti
MINIMUM LOT FRONTAGE	60'	114'	218'	74'	MINIMUM PARKING SPACE DIMENSION	9' x 18'	9' x 18'	. 2011	Warwick, RI 02886 North Attleboro, M Phone: (401) 738-5660 Phone: (508) 695
MINIMUM LOT WIDTH	60'	102'	213'	60'	MINIMUM AISLE WIDTH	24'	24'	NRY, 20	Email: cel@crossmaneng.com
MINIMUM FRONT AND CORNER SIDE YARD	25'	25'	25'	70'				FEBRUARY, L	THESE DRAWINGS ARE THE PROPERTY OF CROSSMAN ENGIN HAVE BEEN PREPARED FOR THEIR CLIENT FOR A SPECIFIC
MAXIMUM FRONT YARD	****	manife Armet							THESE DRAWNES ARE THE PROPERTY OF CROSSIAN ENGIN HAVE BEEN PREPARED FOR THEIR CLIENT FOR A SPECIFIC PROJECT. THESE DRAWNES ARE NOT TO BE COPIED OR US OTHER PURPOSE WITHOUT THE WINTER CONSENT OF CO
AINIMUM SIDE YARD	15'	15'	15'	15'				MAGNETIC	STE EN M. CABRAL
MINIMUM REAR YARD	20'	20'	20'	94'		•		MAG	GIAZON
MAXIMUM STRUCTURE HEIGHT	35'	35'	35'	<35'					1947 A947
MINIMUM LANDSCAPE OPEN SPACE	10%	10%	10%	>10%					No Mo
OTES:									A Marie
PARCEL BOUNDARIES MAY VARY.	OCEN		\	n \				A.P. 246 LOT 182 N/F MARCELLO, JULIAN M.	AS SESISTERED
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		\ A	A.P. 246 LOT 23 N/F HIRANDA ALAN L		A.P. 246 LOT 182				
	AP. 246 LC	OT 21	IIRANDX ALAN L	1' St Owne	rlp Reserved MARCELLO, JULIAN M. r Unknown			A.P. 246 LOT 256 LOT 182 NARRAGANSETT ELECTRIC CO.	SHEET No. 2 SHEET N
Sutter	A.P. 246 LC N/F NARRAGANSETT EL	ECTRIC CO.		(S)				ELECTRIC CO.	1 Property
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									SUITE 400E
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4' Wire Fence GRAPHI	120		EXISTING SIA		Interstate Route 95 NB	FRESHWATER APPROVED AS SPECIFIED IN THE	VALER RESOURCES VETLANDS PROGRAM WITH CONDITIONS TELETTER OF APPRO	A Conc. Pad (Generator)	C6.0
GRAPHI  GRAPHI  GIN	120 FEET )		EXISTING SIA		Interstate Route 95 NB	FRESHWATER APPROVED AS SPECIFIED IN THE	VALER RESOURCES VETLANDS PROGRAM WITH CONDITIONS TELETTER OF APPRO	A Conc. Pad (Generator)	C6.0
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#### **DRAINAGE STRUCTURE TABLE**

NUMBER	STRUCTURE	FRAME AND GRATE/COVER	RIM	INVERT (IN)	INVERT (OUT)
CB 9	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.3.0	71.80		68.00 (12")
CB 10	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.3.0	71.90	67.50 (12")(E) 67.40 (18")(N)	67.30 (18")(S)
CB 11	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.3.0	67.50	64.50 (12")(SE) 64.30 (18")(NE)	
CB 12	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.3.0	65.90	62.90 (12")	62.80 (12")
DI 4	PRECAST CONCRETE (2' DIA. SQUARE)	R.I. STD. 6.3.0	67.50	diam diad	65.50 (12")
DI 5	PRECAST CONCRETE (2' DIA. SQUARE)	R.I. STD. 6.3.0	65.90	****	63.50 (12")
DMH 6	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.2.1	69.00	65.70 (18 <b>"</b> )	65.60 (18")
DMH 7	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.2.1	67.90	64.10 (18")(NW)	65.44 (15")(N) 64.10 (18")(E)
DMH 8	STORMCEPTOR	MODEL STC 900	67.50	64.08 (12")	64.00 (18")
DMH 9*	PRECAST CONCRETE (8' DIA.)	R.I. STD. 6.2.1	68.30	63.00 (12")(NE) 63.00 (12")(SW)	63.00 (12")(NW)
DMH 10	PRECAST CONCRETE (4' DIA.)	R.I. STD. 6.2.1	66.10	62.71 (18")	62.71 (18")

\*WEIR WALL REQUIRED. REFER TO DETAIL.

EQUAL)

FILTER FABRIC (MIRAFI

**--** 62.33

61.00

(DESIGN GWT)

180-N OR APPROVED



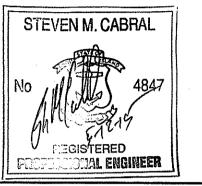
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Environmentat
Site Planning
Surveying
Permitting

#### CROSSMAN ENGINEERING

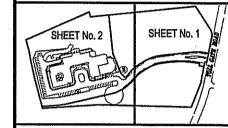
Rhode Island 51 Centerville Road Warwick, RI 02886 hone: (401) 738-5660

<u>Massachusetts</u> 103 Commonwealth Avenue North Attleboro, MA 02763 Phone: (508) 695-1700

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KEY PLA



PROJECT TITLE:

#### **TOLLGATE HILL FARM**

ASSESSOR'S MAP 247, LOT 20 ZONING DISTRICT O OFFICE DISTRICT 271 TOLL GATE ROAD WARWICK, RHODE ISLAND

EPARED FOR:

## SENIOR HOUSING DEVELOPMENT LLC



Karlan

30 JERICHO EXECUTIVE PLAZA SUITE 400E JERICHO, NEW YORK 11753

DRAWING TITLE:

REVISIONS

GRADING and DRAINAGE PLAN No. 1

MARCH 2015 SCALE:

1"=40'

2048-C07-GRADE-R1.dwg

NUMBER REMARKS DATE

1 WATER, SEMER and DRAINAGE 04/20/15

C7.1

SHEET: 10 OF: 25

1. PREPARE THE 4" TOPSOIL WITH THE FOLLOWING SAND, LOAM AND ORGANIC SOIL MIX: USDA LOAMY SAND OR SANDY LOAM SOIL TYPE MEETING THE FOLLOWING SPECIFICATION:

SAND FILTER SWALE DETAIL

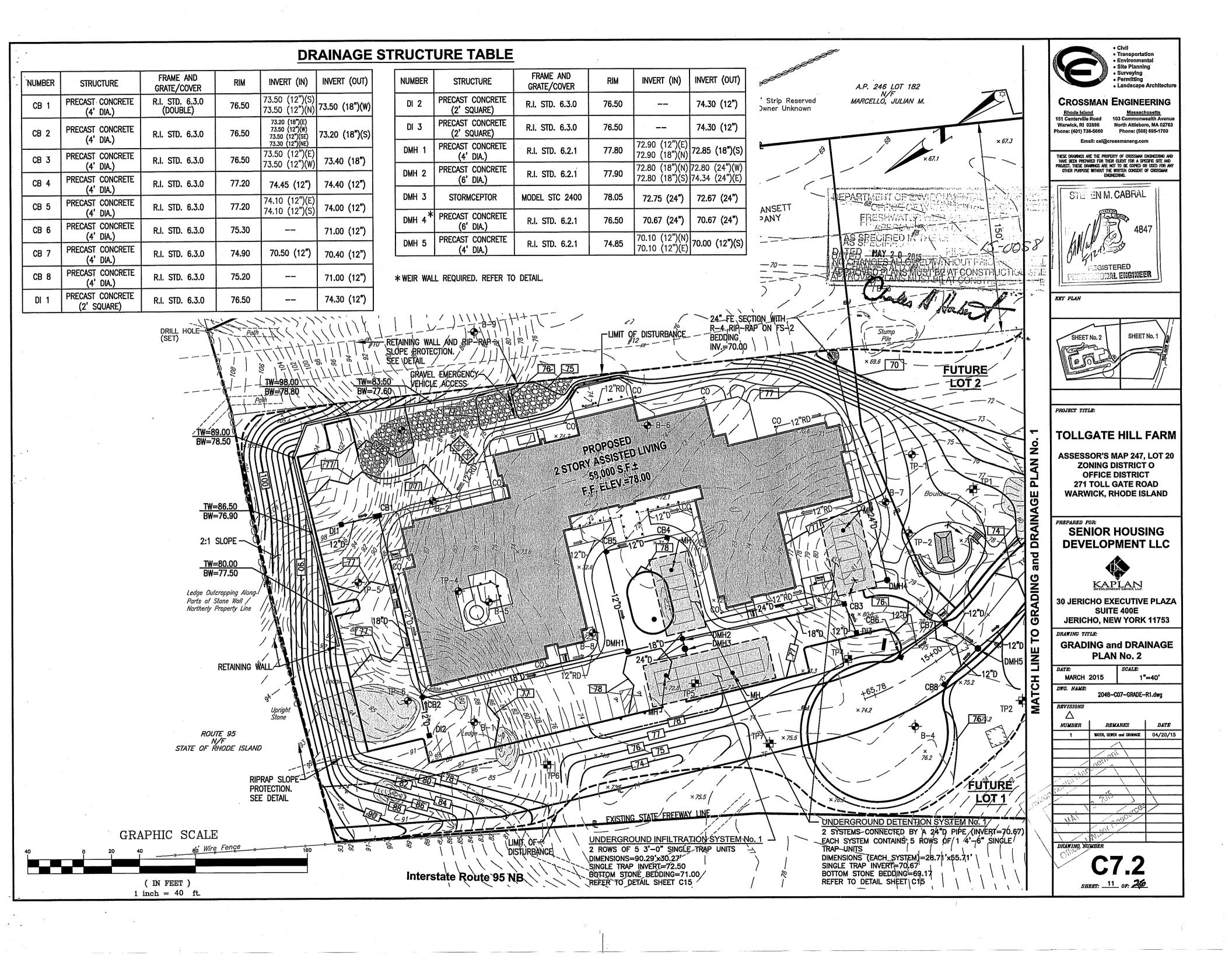
NOT TO SCALE

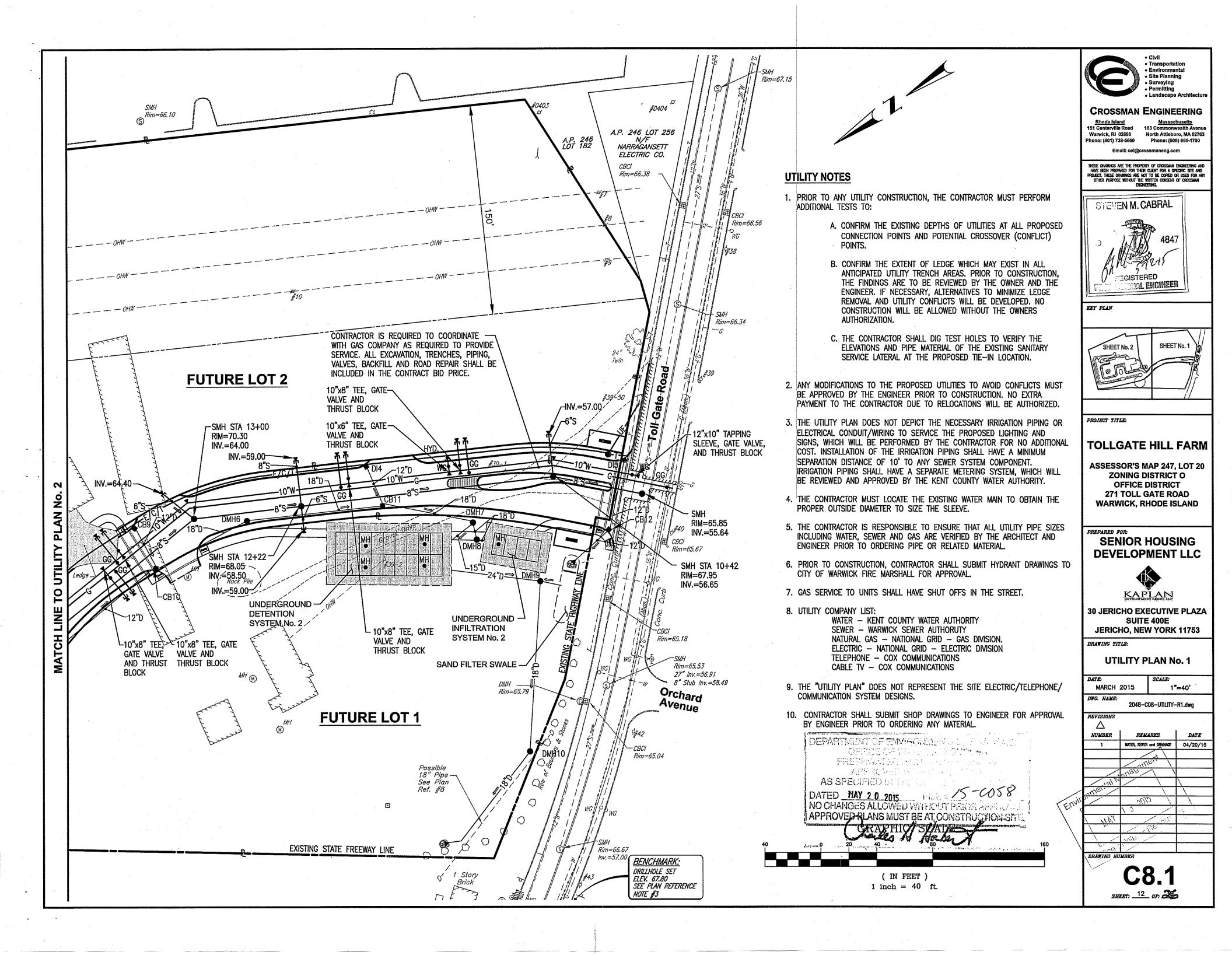
ORGANIC MATTER: 2-5% CLAY: 0-2% SILT: 0-12%

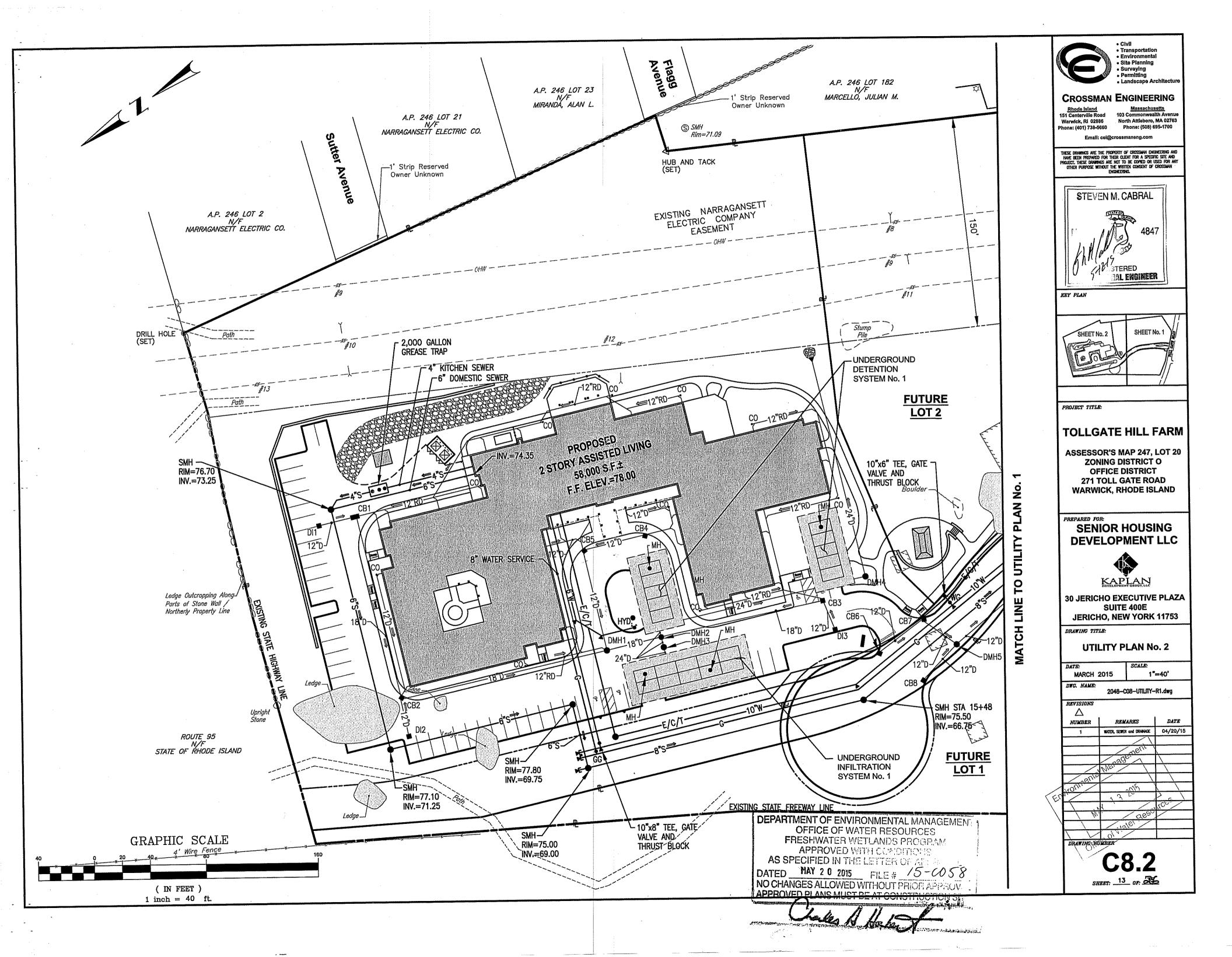
SAND: 85-88%

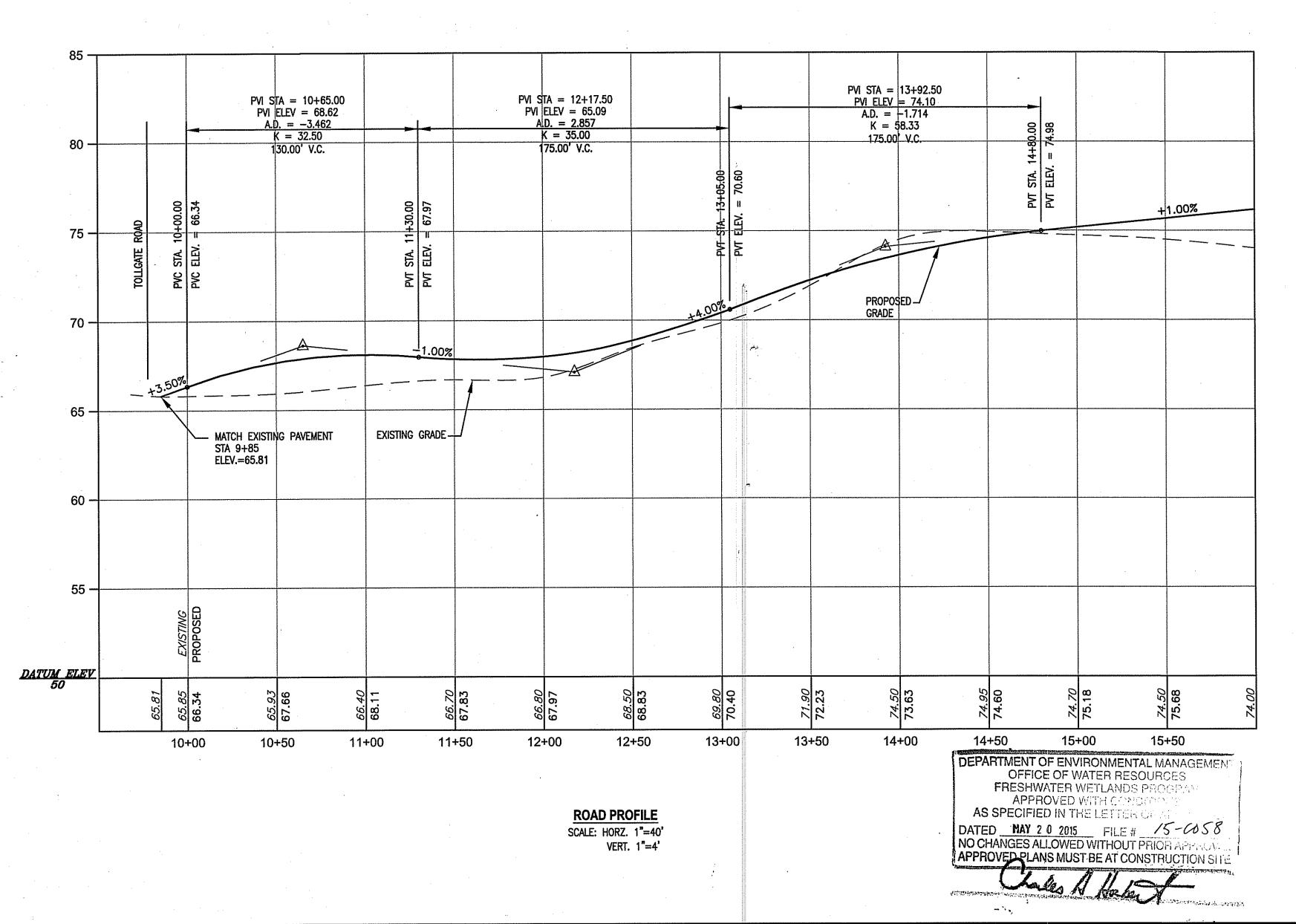
FILTER FABRIC PLACED BETWEEN SAND AND TOPSOIL LAYERS SHALL BE MIRAFI 180-N OR APPROVED EQUAL.

- 2. SAND FILTER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, APPENDIX F.5, CONSTRUCTION STANDARDS/SPECIFICATIONS FOR FILTER BMP'S.
- 2. MATERIAL USED FOR SAND FILTER SHALL MEET THE REQUIREMENTS OF TABLE F-16 IN APPENDIX F.5.
- 3. THE CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE ABOVE REFERENCED MANUAL. THE MANUAL CAN BE FOUND FOUND AT HTTP://WWW.DEM.RI.GOV/PUBS/REGS/WATER/SWMANUAL.PDF.
- CONTRACTOR IS RESPONSIBLE TO SUBMIT SHOP DRAWINGS AND SPECIFICATIONS FOR SAND FILTER MATERIAL PRIOR TO START OF CONSTRUCTION.











#### **CROSSMAN ENGINEERING**

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone: (401) 738-5660

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Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone: (508) 695-1700

Email: cel@crossmaneng.com



KEY PLAN

PROJECT TITLE:

#### **TOLLGATE HILL FARM**

ASSESSOR'S MAP 247, LOT 20 **ZONING DISTRICT O** OFFICE DISTRICT 271 TOLL GATE ROAD WARWICK, RHODE ISLAND

#### **SENIOR HOUSING DEVELOPMENT LLC**



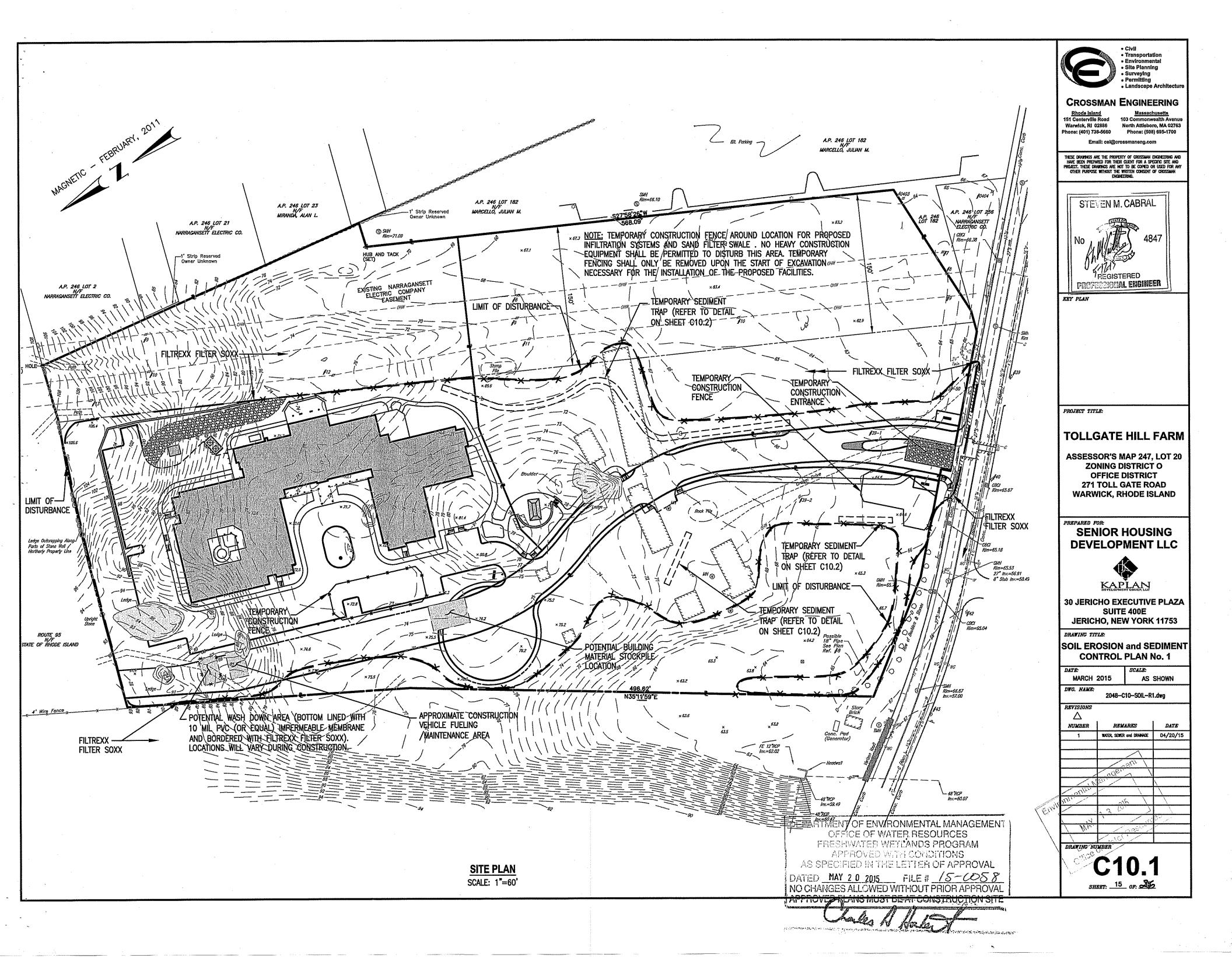
**30 JERICHO EXECUTIVE PLAZA** SUITE 400E **JERICHO, NEW YORK 11753** 

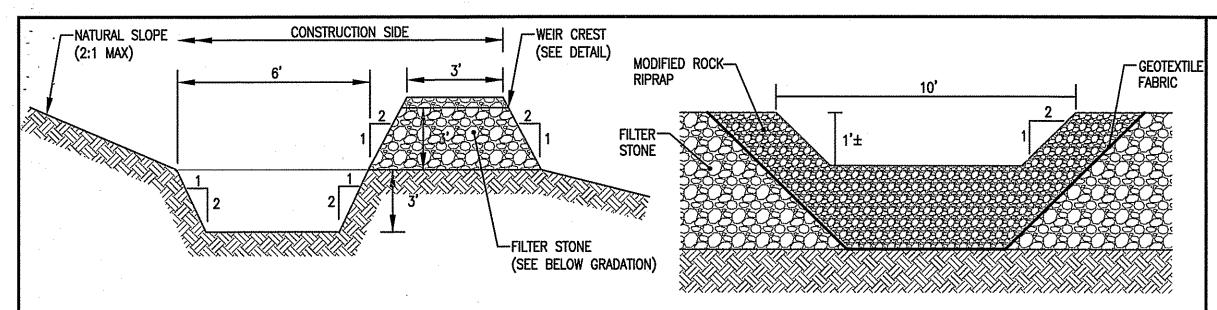
DRAWING TITLE:

#### **PROFILE PLAN**

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**C9** SHEET: 14 OF: 35





#### TEMPORARY SEDIMENT TRAP DETAIL

NOT TO SCALE

1. FILTER STONE SHALL MEET THE REQUIREMENTS OF R.I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.09 TABLE 1, COLUMN V FILTER STONE.

us Standard Sieve Size (inches)	FILTER STONE
1	100
3/4	70-85
1/2	10-40
3/8	0-20
#4	0-5

#### **GRADATION OF FILTER STONE MATERIAL**

#### TEMPORARY SEDIMENT TRAP OUTLET DETAIL

NOT TO SCALE

- 1. THE TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO UNDISTURBED. STABILIZED GROUND.
- 2. CONTRACTOR SHALL INSTALL 1 OUTLET PER 100' LENGTH OF TEMPORARY SEDIMENT TRAP (1 OUTLET MIN. PER TEMPORARY SEDIMENT TRAP).
- 3. THE MODIFIED ROCK RIPRAP SHALL MEET: THE REQUIREMENTS OF THE R.I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.0.3.2.
- 4. CONTRACTOR MUST REFER TO THE INSTALLATION, INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS PROVIDED IN THE R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. AS AMENDED.

#### **EROSION CONTROL AND SOIL STABILIZATION PROGRAM**

- 1. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM, ADJACENT PROPERTY, COASTAL AREAS AND ROADWAYS.
- 2. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH PROTECTIVE COVERS, SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE OWNER.
- 3. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
- 4. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED HAY BALES OR SILT FENCING.
- 5. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
- 6. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
- 7. ADDITIONAL HAY BALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER, MUNICIPAL REPRESENTATIVES OR LOCAL
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL COST TO THE OWNER.
- 9. THE CATCH BASINS ADJACENT TO THE CONSTRUCTION AREA SHALL BE PROTECTED BY HAY BALES OR SILT SACKS,
- 10. ALL PROPOSED CATCH BASINS SHALL BE PROTECTED BY STAKED HAY BALES, SILT FENCING OR SILT SACKS.
- 11. THE FILTREXX FILTER SOXX MAY BE INSTALLED ON THE EXISTING PAVEMENT/IMPERVIOUS AREAS WITH OUT STAKES. CONTRACTOR SHALL INSPECT DAILY, IF SOIL EROSION OR SEDIMENT IS OBSERVED IN THESE AREAS, THE CONTRACTOR SHALL RELOCATE OR INSTALL ADDITIONAL FILTREXX FILTER SOXX IN LOCATIONS THAT CAN BE STAKED. THIS WORK IS INCLUDED IN THE PROJECT SCOPE.

#### **DUST CONTROL NOTES**

ON AN AS-NEEDED BASIS OR AS DIRECTED BY R.I.D.E.M. OR OWNER, THE CONTRACTOR SHALL UTILIZE ONE OF THE FOLLOWING METHODS (AS RECOMMENDED BY THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK") TO CONTROL DUST:

A. THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

B. CALCIUM CHLORIDE SHOULD BE EITHER LOOSE DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH A SPREADER AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE.

THE METHODS SHOULD BE REPEATED AS NEEDED, AND SPECIAL ATTENTION MUST BE GIVEN TO THE ACCESS DRIVES.

#### **INSPECTION/MAINTENANCE NOTES**

- 1. PRIOR TO COMMENCING GRUBBING OPERATIONS AND EARTHWORK, FILTERSOXX SHALL BE PLACED INSIDE SAWCUT EDGE TO PREVENT SEDIMENT FROM ENTERING EXISTING ROADWAY DRAINAGE SYSTEM, COASTAL AREAS AND ABUTTING PROPERTIES.
- 2. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM.
- 3. ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSIVE TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION - SUCH AS RIP-RAP.
- 4. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL.
- 5. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT / REPLACE DAILY DURING CONSTRUCTION. FOLLOWING RAINFALL AND WEEKLY DURING NON CONSTRUCTION PERIODS.
- 6. ADDITIONAL FILTERSOXX OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- 7. THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1989, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION, INCLUDING TEMPORARY SHUT-DOWN PERIODS. MUST MONITOR AND REPAIR. AS NEEDED, ALL SLOPES TO ENSURE A STABLE PRODUCT.

#### **GENERAL PROJECT WIDE NOTES**

- 1. FILTERSOXX SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTY AND WETLANDS.
- 2. THE CONTRACTOR MUST REPLACE AND/OR RESEED ANY VEGETATION THAT DOES NOT DEVELOP/SURVIVE WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO QUONSET DEVELOPMENT CORPORATION OR THE OWNER.
- 3. ALL FILTERSOXX OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
- 4. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHENEVER FEASIBLE: THE AREA BEYOND THE DROPLINE SHALL BE FENCED OR ROPED OFF TO PROTECT TREES FROM CONSTRUCTION EQUIPMENT.
- 5. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODDED, RESEEDED, OR OTHERWISE RESTORED AT THE CONTRACTOR'S EXPENSE.
- 6. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED FILTERSOXX.
- 7. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW, FIBER MATTING OR APPROVED EQUAL.
- 8. SILT FENCE OR STAKED HAYBALES MAY BE USED IN LIEU OF THE FILTREXX FILTER SOXX.

#### **FILTREXX SOXX NOTE**

CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR-WITH-THE-FILTREXX-PRODUCTS-AND COORDINATE INSTALLATION SCHEDULES AND METHODS WITH THE ENGINEER PRIOR/170NT PLACEMENT. OFFICE OF WATER RESOURCES. SHEEP WETLANDS PROGRAM

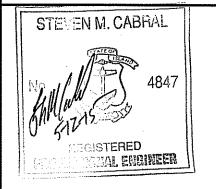
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#### **CROSSMAN ENGINEERING**

Rhode Island 103 Commonwealth Avenue North Attleboro, MA 02763 Warwick, RI 02886

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KRY PLAN

PROJECT TITLE:

#### **TOLLGATE HILL FARM**

**ASSESSOR'S MAP 247, LOT 20 ZONING DISTRICT O OFFICE DISTRICT 271 TOLL GATE ROAD WARWICK, RHODE ISLAND** 

PREPARED FOR

#### SENIOR HOUSING **DEVELOPMENT LLC**



**JERICHO, NEW YORK 11753** 

**30 JERICHO EXECUTIVE PLAZA** SUITE 400E

DRAWING TITLE:

SOIL EROSION and SEDIMENT **CONTROL PLAN No. 2** 

DATE: MARCH 2015 AS SHOWN DWG. NAME: 2048-C10-SOIL-R1.dwa

REVISIONS Δ NUMBER REMARKS DATE WATER, SERVER and DRAINAGE 04/20/15 , War 100°

DRANING NUMBER

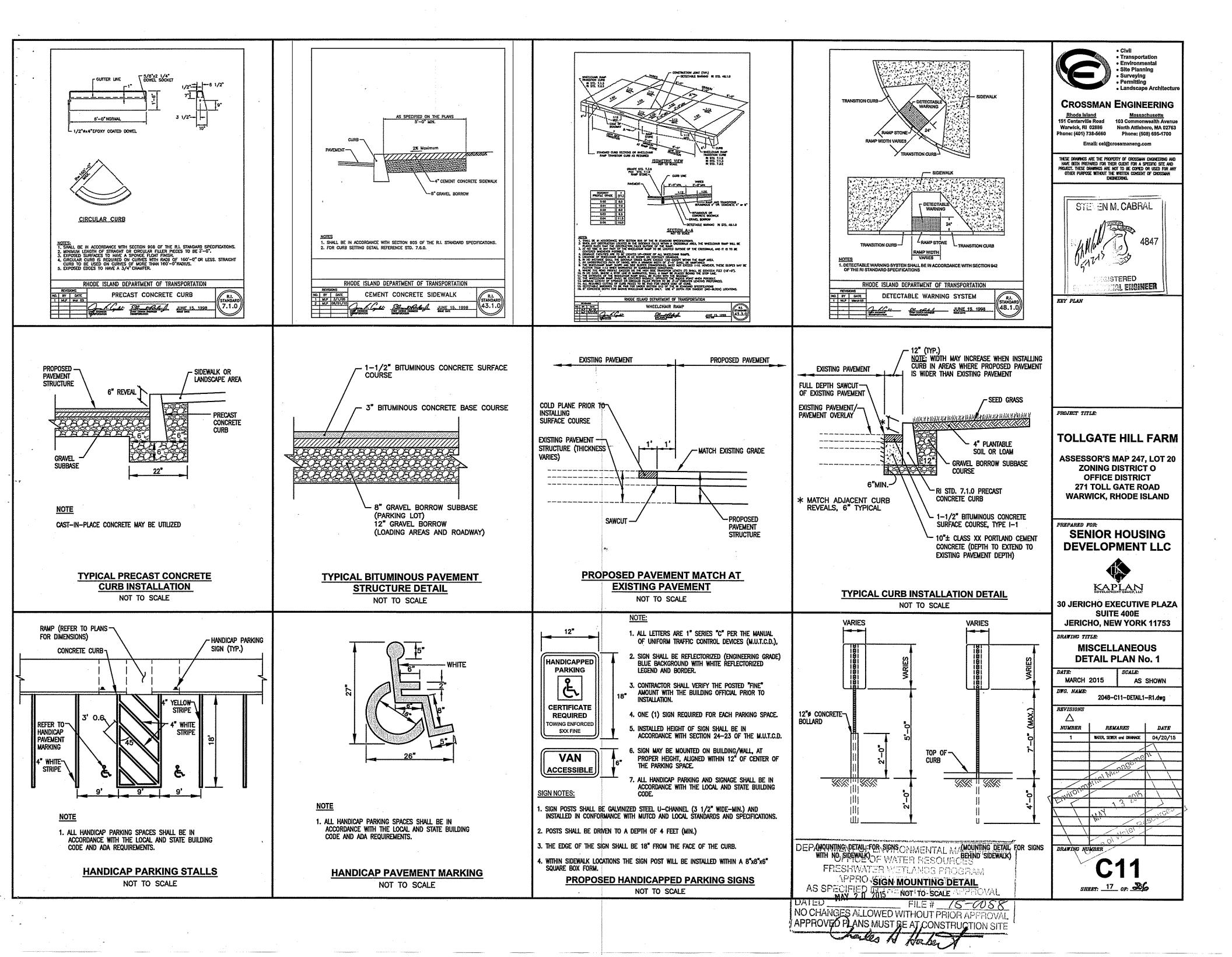
SHEET: 16 OF: 356

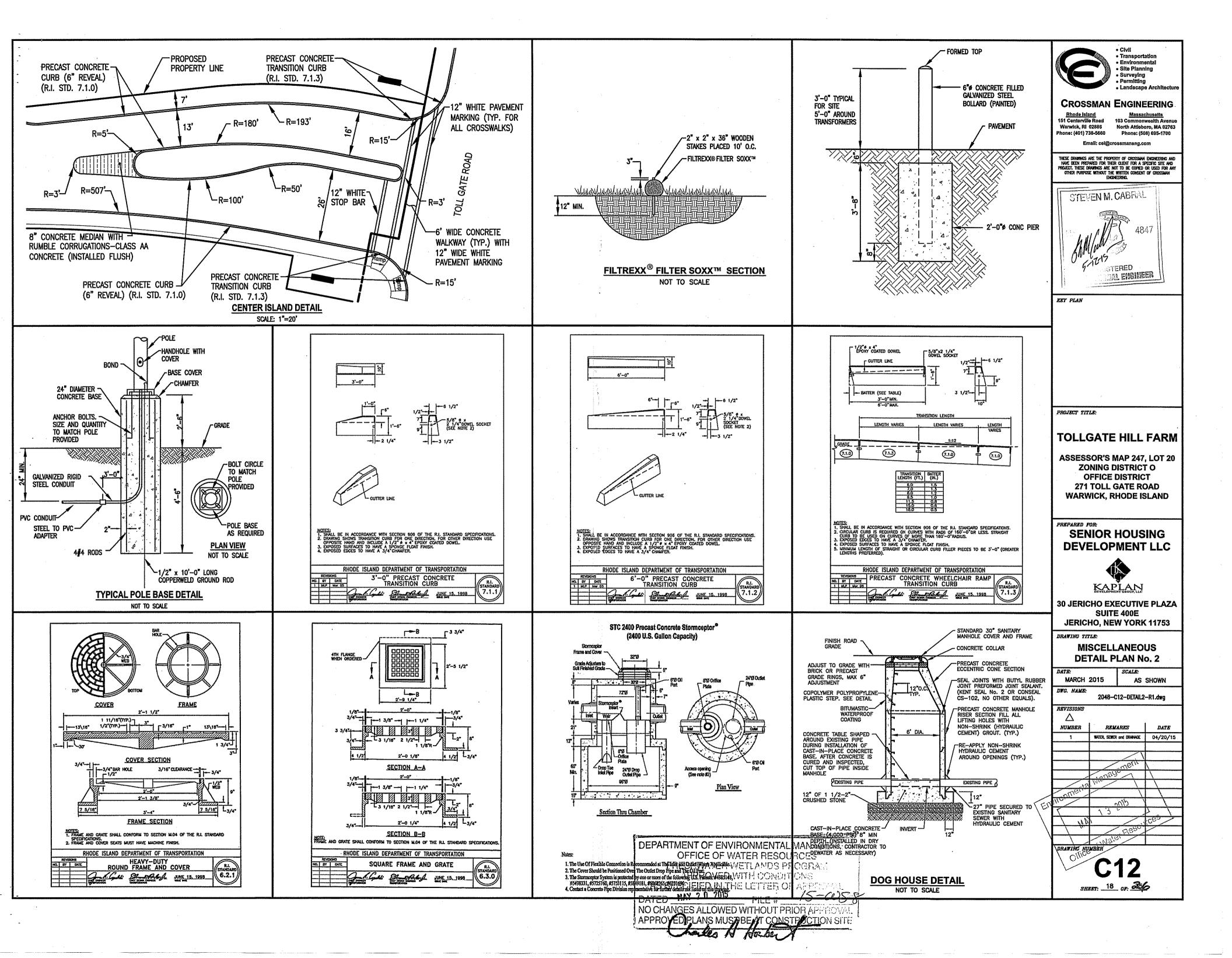
APPROVED WORLCONDITIONS MAY 2 0 2015 NO CHANGE ALLOWED WITHOUT PRIOR APPROVAL APPROVIDE PLANS MUST JE AT CONSTRUCTION SITE

5" MINIMUM R.I.D.O.T. 2" FILTER FABRIC-

CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

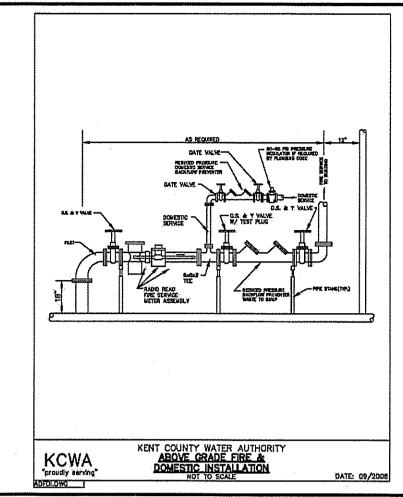


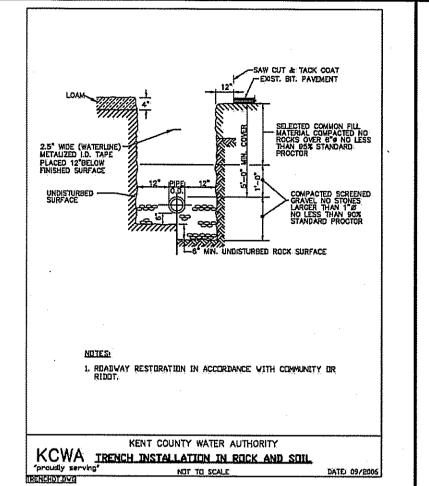


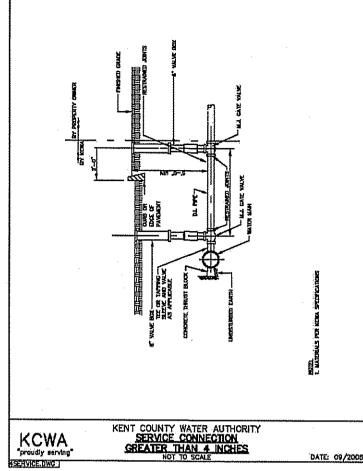
#### **WATER NOTES**

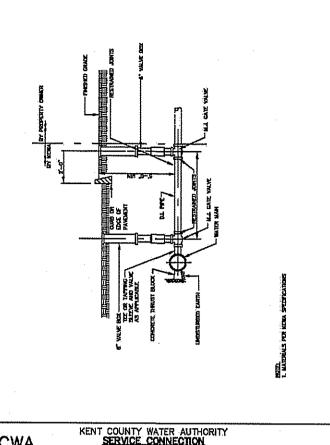
- ALL INSTALLATION, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL BE ACCORDING TO THE KENT COUNTY WATER AUTHORITY REQUIREMENTS, AWWA STANDARDS AND GOVERNMENTAL REQUIREMENTS.
- 2. ALL FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT CLASS 350 CEMENT MORTAR LINED COMPACT STYLE (BY AMERICAN MANUFACTURER ONLY). FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C153/A21.53. MECHANICAL JOINTS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C111/A21.11.
- 3. WATER PIPE SHALL BE DOUBLE CEMENT MORTAR LINED DUCTILE IRON PIPE CL52 AND SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C151/A21.51.
- CONSTRUCTION SHALL INCLUDE ALL PIPE, JOINTS, BENDS, TEES, FITTINGS, "MEGA-LUG" RESTRAINED MECHANICAL JOINTS, SERVICE CONNECTIONS AND ALL MISCELLANEOUS ITEMS REQUIRED TO CONSTRUCT THE PROPOSED SYSTEM.
- "MEGA-LUG" RESTRAINED MECHANICAL JOINTS SHALL BE INSTALLED IN LOCATIONS INDICATED AND AT ALL BENDS, FITTINGS, PLUGS, ETC.
- . Pressure and leakage tests and disinfecting pipes shall be performed by THE CONTRACTOR IN CONFORMANCE TO AMERICAN WATER WORKS ASSOCIATION (AWWA) RECOMMENDATIONS, KENT COUNTY WATER AUTHORITY REQUIREMENTS, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION.
- '. ALL FITTINGS, PIPE, JOINTS, ETC. SHALL BE DESIGNED FOR 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 150 PSI.
- B. Water Pipe shall typically be located at least ten (10) feet horizontally FROM SEWER PIPE, AND AT A MINIMUM DEPTH OF COVER EQUAL TO 5'. WHERE A NEW WATER MAIN IS LESS THAN 18 INCHES CLEAR DISTANCE ABOVE A SEWER OR WHERE A WATER MAIN PASSES BENEATH A SEWER OR STORM DRAIN, ENCASE THE SEWER OR WATER IN 6" OF CONCRETE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING WATER MAIN. THE USE OF DUCTILE IRON TIGHT JOINT SEWER PIPE IN LIEU OF CONCRETE ENCASEMENT WILL BE CONSIDERED UPON CONTRACTORS SUBMITTAL OF SPECIFICATIONS TO ENGINEER FOR APPROVAL.
- . ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS, SUCH AS PIPE, RESTRAINED MECHANICAL JOINTS, FITTINGS, CASTINGS, ETC. SHALL BE SUBMITTED TO THE KENT COUNTY WATER AUTHORITY AND ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
- 10. WATER LINE TRENCH TO BE AWWA TYPE 5. A METALIZED DETECTABLE IDENTIFICATION TAPE 2.5" IN WIDTH, BLUE IN COLOR AND PRINTED WITH "CAUTION WATERLINE BURIED BELOW" SHALL BE UTILIZED OVER ALL MAINS. TAPE SHALL BE SET AT APPROXIMATELY 1'-0" BELOW FINISHED GRADE.
- 1. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL COMPLETE AND SUBMIT THE "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE" FOR UNDERGROUND PIPING TO THE KENT COUNTY WATER AUTHORITY AND ENGINEER. IN ADDITION, THE CONTRACTOR IS REQUIRED TO SUBMIT THE FOLLOWING ITEMS TO THE ENGINEER FOR THEIR REVIEW AND APPROVAL:
  - TYPE AND MANUFACTURER OF SERVICE BOXES
  - TYPE AND MANUFACTURER OF CORPORATIONS AND CURB STOPS TYPE AND MANUFACTURER OF VALVE BOXES
  - TYPE AND MANUFACTURER OF D.I. MECHANICAL JOINTS AND FITTINGS
  - TYPE AND MANUFACTURER OF TAPPING SLEEVES \* TYPE AND MANUFACTURER OF DI PIPING
  - TYPE AND MANUFACTURER OF RESILIENT SEALED GATE VALVES
- 12. WHEN THIS PROJECT IS COMPLETE, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE KENT COUNTY WATER AUTHORITY AND ENGINEER TWO (2) SETS OF AS BUILT PLANS (ONE BLUE LINE, ONE REPRODUCIBLE COPY-MYLAR OR SEPIA) WHICH
  - a. ALL CURB STOPS WITH APPROPRIATE LOCATING MEASUREMENTS, SUCH AS WATER MAIN TO CURB STOP OFFSET.
  - b. LOCATIONS AND TOP ELEVATIONS ON ALL BENDS, FITTINGS AMD VALVES.
  - C. A SCHEDULE OF MATERIALS WHICH INDICATES:

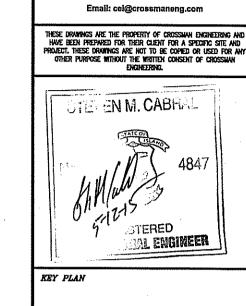
  - 2. MANUFACTURER 3. DESCRIPTION
    - a. Include Serial #'s as applicable b. MATERIAI
    - c. OPERATION CHARACTERISTICS
- 13. ALL GATE VALVES TO BE RESILIENT WEDGE GATE VALVES AND SHALL OPEN LEFT. ALL CURB STOP VALVES SHALL OPEN LEFT. BUTTERFLY VALVES SHALL BE USED FOR 16" DIA. PIPE.
- 14. ALL FITTINGS TO BE RESTRAINED WITH MECHANICAL JOINTS. RESTRAINTS TO BE MEGA-LUG OR EQUAL. ALL DESIGN AND/OR PLACEMENT SHALL BE REVIEWED AND APPROVED BY THE KENT COUNTY WATER AUTHORITY. PIPE RESTRAINT CALCULATIONS SHALL BE PROVIDED BY CONTRACTOR.
- 15. RESTRAIN ALL PUSH-ON BELL JOINTS WITHIN 20 FEET OF MECHANICAL JOINTS. RESTRAINTS TO BE SERIES 800 COVER-ALL BY EBAA IRON OR EQUAL.











Rhode Island

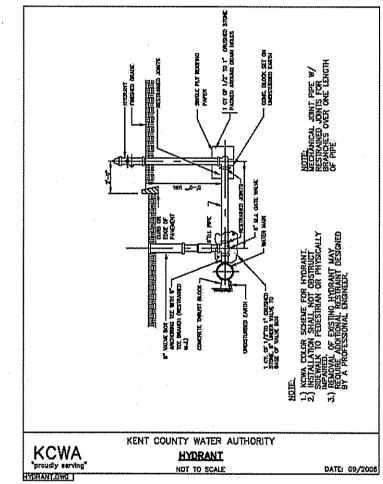
Warwick, RI 02886

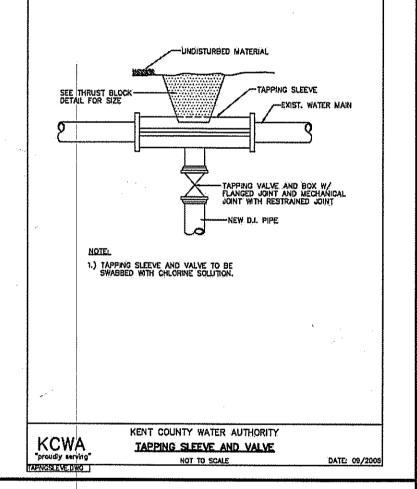
CROSSMAN ENGINEERING

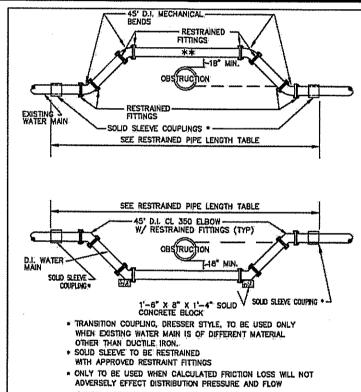
Massachusetts

North Attieboro, MA 02763

Phone: (508) 695-1700







•• MINIMUM DEPTH OF COVER SHALL BE 2'-0", THE WATER PIPE SHALL BE CLASS 54 AND INSULATED WITH 2" FOAMGLASS INSULATION W/ PITT WRAP OR EQUAL WHERE THE WATER PIPE

WATER MAIN HORIZONTAL OR VERTICAL RELOCATION KCWA proudly serving

KAPLAN **30 JERICHO EXECUTIVE PLAZA** 

**TOLLGATE HILL FARM** 

ASSESSOR'S MAP 247, LOT 20

ZONING DISTRICT O OFFICE DISTRICT

**271 TOLL GATE ROAD** 

WARWICK, RHODE ISLAND

SENIOR HOUSING

**DEVELOPMENT LLC** 

SUITE 400E **JERICHO, NEW YORK 11753** 

DRAWING TITLE:

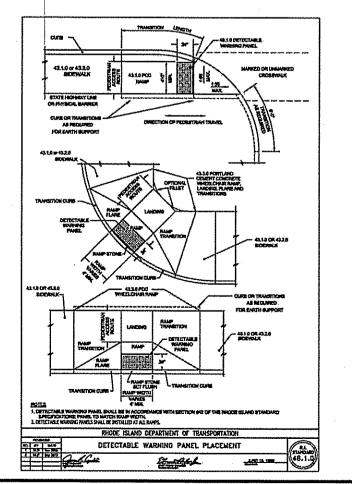
DATE: 09/2008

**MISCELLANEOUS DETAIL PLAN No. 3** 

MARCH 2015 AS SHOWN DWG. NAME: 2048-C13-DETAIL3-R1.dwg REVISIONS Δ NUMBER REMARKS DATE 04/20/15 DRAWING NUMBER

SHEET: 19 OF: 356

PLAN & ELEVATION PLUCS 1.) ALL CONCRETE SHALL BE 4000 P.S.I & 28 DAYS.
28 CONCRETE THRUST BLOCKS SHALL BEAR.
AGAINST UNDISTURBED EARTH.
3.) FORMS TO BE USED AS NECESSARY.
4.) ALL BOLTS AND NUTS TO BE PROJECTED FROM CONCRETE AND EASILY ACCESSBILE WHEN THRUST BLOCK INSTALLED.
5.) REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF RLL SHALL VERIFY ALL CALCULATIONS DURING DESIGN TO MEET CONDITIONS OF PROJECT AND KOWA REQUIREMENTS. PLAN TEES KENT COUNTY WATER AUTHORITY KCWA THRUST BLOCK proudly aurylog NOT TO SCALE DATE: 09/200



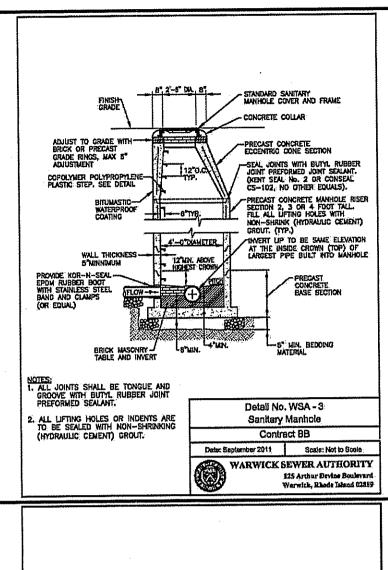
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER RESOURCES FRESHWATER WETLAMDS PROGRA APPROVED WITH COMBITTONS AS SPECIFIED IN THE LETTER OF AS DATED MAY 2 0 2015 FILE # 15-6058 NO CHANGES ALLOWED WITHOUT PRICE APPROVED PLANS MUST BE AT CONSTRUCTION SITE

#### **GENERAL SEWER NOTES**

- 1. INSTALLATION OF THE SEWERAGE FACILITIES SHALL BE IN ACCORDANCE WITH THE WARWICK SEWER AUTHORITY SPECIFICATIONS AND REQUIREMENTS.
- 2. PRIOR TO RECEIVING AUTHORIZATION TO CONSTRUCT, ALL MATERIALS SHALL MEET THE STANDARDS AND RECEIVE THE WRITTEN APPROVAL, BASED ON MANUFACTURER'S DRAWINGS AND OTHER DATA, OF THE WARWICK SEWER
- 3. ALL SEWERAGE FACILITIES SHALL MEET TESTING AND CLEANING REQUIREMENTS PRIOR TO ACCEPTANCE.
- 4. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE AS-BUILT LOCATIONS PRIOR TO PIPE BACKFILL AS-BUILT DRAWINGS SHALL BE FURNISHED AS A CONDITION FOR ACCEPTANCE OF THE NEW SEWERAGE FACILITIES. PLANS SHALL INCLUDE
- 5. NO FLOW WILL BE ACCEPTED UNTIL ALL ABOVE STEPS ARE COMPLETED AND COMPLETION CERTIFICATE IS ISSUED.
- 6. AFTER THE CONTRACTOR HAS "STAKED OUT" THE FACILITIES TO BE CONSTRUCTED AND HAS THE APPROVED MATERIALS ON THE JOB, THE WARWICK SEWER AUTHORITY SHALL BE NOTIFIED IN ADVANCE OF CONSTRUCTION IN ORDER FOR THEM TO ARRANGE FOR THEIR INSPECTOR. THE NOTIFICATION MUST MEET THE WARWICK SEWER AUTHORITY REQUIREMENTS.
- 7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND MATERIALS, STANDARDS AND SPECIAL DETAILS, AND STANDARD SPECIFICATIONS. ANY WORK NOT MEETING THE APPROVED STANDARDS SHALL BE IMMEDIATELY REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 8. THE CONTRACTOR SHALL CONFINE HIS OPERATIONS AND ACTIVITIES FOR CONSTRUCTION WITHIN THE LIMITS OF WORK AS SHOWN ON THE DRAWINGS.
- 9. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO EXTRA COST TO THE OWNER. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE LOAMED AND SEEDED.
- 10. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND NOTIFY THE APPROPRIATE UTILITY AUTHORITIES INCLUDING "DIG-SAFE" PRIOR TO STARTING WORK. ANY DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE COST OF REPAIRS SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 11. RELATION TO WATER LINES:
  - A. HORIZONTAL SEPARATION: WHENEVER POSSIBLE, SEWERS SHOULD BE LAID AT A MINIMUM OF 10 FEET (3.0 m), HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER LINE, SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET, A SEWER MAY BE LAID CLOSER THAN 10 FEET TO A WATER LINE IF:
    - 1. IT IS LAID IN A SEPARATE TRENCH, OR IF
    - 2. IT IS LAID IN THE SAME TRENCH WITH THE WATER LINE LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND IF
    - 3. IN EITHER CASE THE ELEVATION OF THE TOP (CROWN) OF THE SEWER IS AT LEAST 18 INCHES (46 cm) BELOW THE BOTTOM (INVERT) OF THE WATER LINE.
- B. VERTICAL SEPARATION: WHENEVER A SEWER MUST CROSS UNDER WATER LINES, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES (46 cm) BELOW THE BOTTOM OF THE WATER LINE. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER LINE SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR RECONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET (3.0 m) ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER LINE SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.
- C.WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL AND/OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER LINE AND SEWER SHALL BE CONSTRUCTED OF MECHANICAL-JOINT CEMENT LINED DUCTILE IRON PIPE OR OTHER EQUIVALENT BASED ON WATER TIGHTNESS AND STRUCTURAL SOUNDNESS. BOTH PIPES SHALL BE PRESSURE TESTED BY AN APPROVED METHOD TO ASSURE WATER TIGHTNESS.
- 12. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEWATERING REQUIRED IN THE SEWER INSTALLATION.
- 13. THE PROPOSED GRAVITY SANITARY SEWER PIPES SHALL BE DUCTILE IRON, UNLESS OTHERWISE SHOWN ON PLANS. PIPE SIZES TO MATCH UTILITY PLAN.
- 14. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ELEVATION OF EXISTING SEWER LINE PRIOR TO INSTALLATION.

#### **SEWER TRENCH NOTES**

- 1. MINIMUM WIDTH (W) OF TRENCH IS EQUAL TO THE INSIDE DIAMETER OF THE PIPE PLUS 12" EACH SIDE.
- 2. SOIL UNDER CRUSHED STONE FOUNDATION SHALL BE UNDISTURBED AND COMPACTED MATERIAL WITH SEVERAL PASSES OF A VIBRATORY PLATE COMPACTOR TO ATTAIN 95% MAX. DENSITY (MOD. METHOD).
- 3. CRUSHED STONE FOUNDATION 3/4" MAXIMUM SIZE, SHALL BE PLACED 6" UNDER THE PIPE AND UP TO THE PIPE LAID THEREON, CRUSHED STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
- 4. CRUSHED STONE HAUNCHING 3/4" MAXIMUM SIZE SHALL BE BROUGHT LEVEL TO THE TOP OF THE PIPE AND OUT TO THE TRENCH WALL AT THIS FI EVATION FOR ALL PIPE.



SECTIONAL SIDE VIEW

SECTION A-A

Detail No. WSA -7

Manhole Step

Contract BB

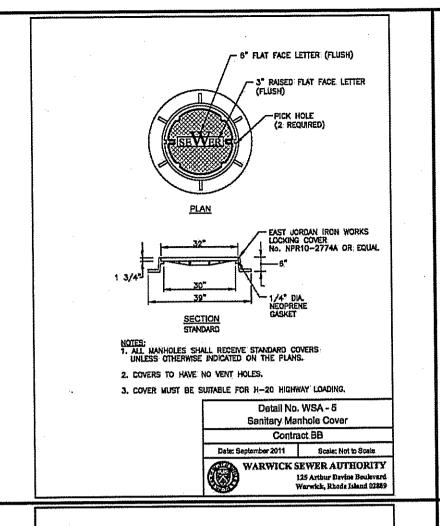
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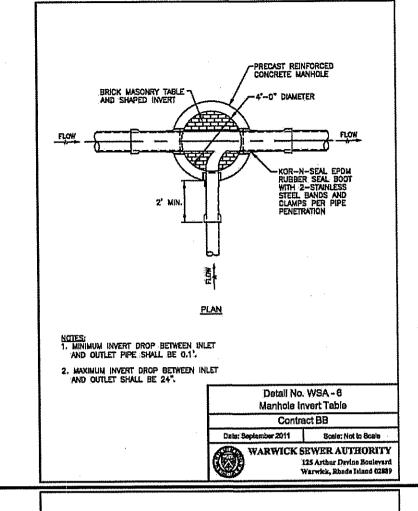
WARWICK SEWER AUTHORITY

125 Aribur Devine Boulevar Warwick, Rhode Island 0285

mber 2011 Scale: Not to Scale

ARWICK SEWER AUTHORITY







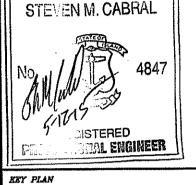
Site Planning

#### **CROSSMAN ENGINEERING**

Rhode Island North Attleboro, MA 02763 Warwick, RI 02886 Phone: (401) 738-5660 Email: cel@crossmaneng.com

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PROJECT TITLE:

#### **TOLLGATE HILL FARM**

ASSESSOR'S MAP 247, LOT 20 **ZONING DISTRICT O** OFFICE DISTRICT **271 TOLL GATE ROAD WARWICK, RHODE ISLAND** 

#### SENIOR HOUSING **DEVELOPMENT LLC**



30 JERICHO EXECUTIVE PLAZA **SUITE 400E JERICHO, NEW YORK 11753** 

DRAWING TITLE:

RIM=67.90

STRUCTURE)

(CENTER RIM OVER

4' DIAMETER PRECAST

CONCRETE STRUCTURE

18" DIA.

INV.=64.10

(TO INFILTRATION

SYSTEM No.2)

3.0'

**DIVERSION STRUCTURE (DMH 7)** 

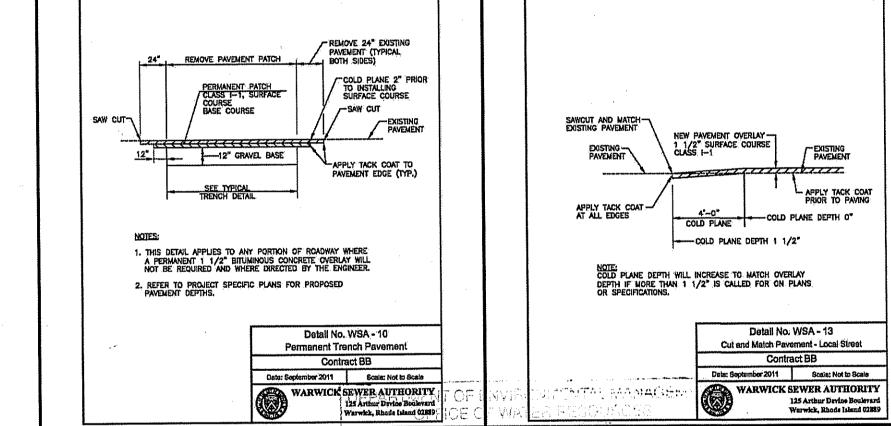
NOT TO SCALE

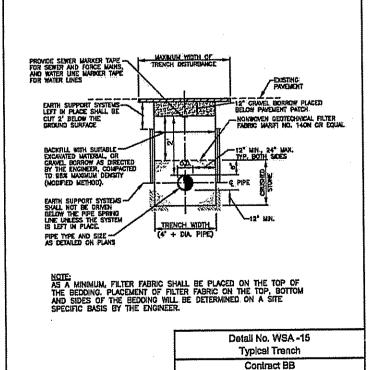
#### **MISCELLANEOUS DETAIL PLAN No. 4**

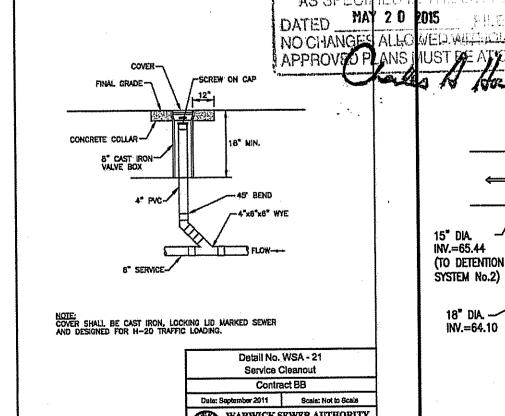
AS SHOWN MARCH 2015 2048-C14-DETAIL4-R1.dwg REVISIONS Δ DATE NUMBER REMARKS WATER, SEWER and DRAWAGE 04/20/15

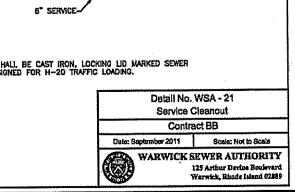
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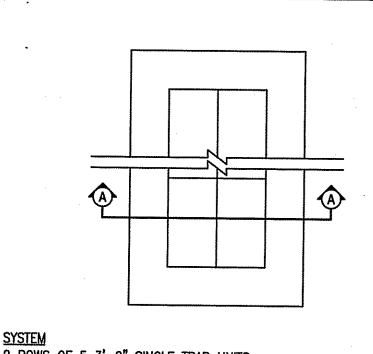
SHEET: 20 OF: 256









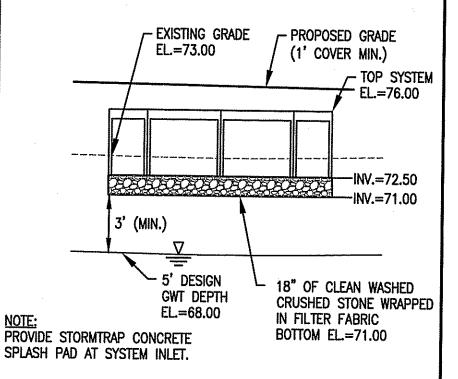


2 ROWS OF 5 3'-0" SINGLE TRAP UNITS 90.29'x30.27'

#### **UNDERGOUND INFILTRATION** SYSTEM No.1 DETAIL

NOT TO SCALE

**ⓒ** 



#### **UNDERGOUND INFILTRATION SYSTEM No.1 CROSS-SECTION A-A**

NOT TO SCALE

EXISTING GRADE

EL.=65.00

5' DESIGN

**GWT DEPTH** 

EL.=60.00

3' (MIN.)

PROVIDE STORMTRAP CONCRETE

SPLASH PAD AT SYSTEM INLET.

- PROPOSED GRADE

- TOP SYSTEM EL.=66.50

·INV.=64.00

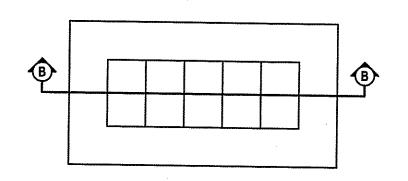
12" OF CLEAN WASHED

IN FILTER FABRIC

BOTTOM EL.=63.00

CRUSHED STONE WRAPPED

(1' COVER MIN.)



2 SYSTEMS (CONNECTED WITH 24"D PIPE) WITH 5 ROWS OF 1 4'-6" SINGLE TRAP UNITS **DIMENSIONS** 28.71'x55.71'

#### **UNDERGOUND DETENTION** SYSTEM No.1 DETAIL

NOT TO SCALE



#### **CROSSMAN ENGINEERING**

Rhode Island 151 Centerville Road Warwick, RI 02886

/- TOP SYSTEM

EL=75.67

INV.=70.67 -INV.=69.17

AS SPECIFIED :

·INV.=63.00

-INV.=62.00

RIM=66.50

STRUCTURE)

(1)—3" dia.

ELEV.=63.00

ORIFICE

-18" DIA.

INV.=63.00

(CENTER RIM OVER

8' DIAMETER PRECAST CONCRETE STRUCTURE

12" DIA. (FROM.

SAND FILTER)

INV.=63.00

PROPOSED GRADE NO CHARREST NGLLOW

12" OF 1-1/2" CRUSHED STONE

WRAPPED WITH FILTER FABRIC

AND 20 MIL PVC MEMBRANE.

BOTTOM EL=62.00

**UNDERGOUND DETENTION SYSTEM No. 2** 

**CROSS-SECTION D-D** 

NOT TO SCALE

OUTLET CONTROL STRUCTURE (DMH 9)

NOT TO SCALE

SYSTEM SHALL BE WATER-TIGHT.

103 Commonwealth Avenue North Attleboro, MA 02763 Phone: (508) 695-1700

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KEY PLAN

PAL ENGINEER

## **TOLLGATE HILL FARM**

15-0058

ASSESSOR'S MAP 247, LOT 20 ZONING DISTRICT O OFFICE DISTRICT **271 TOLL GATE ROAD WARWICK, RHODE ISLAND** 

PREPARED FOR **SENIOR HOUSING DEVELOPMENT LLC** 



**30 JERICHO EXECUTIVE PLAZA SUITE 400E JERICHO, NEW YORK 11753** 

DRAWING TITLE: **MISCELLANEOUS** 

**DETAIL PLAN No. 5** 

MARCH 2015 AS SHOWN DWG. NAME: 2048-C15-DETAIL5-R1.dwg

REVISIONS Δ

NUMBER REMARKS DATE WATER, SEWER and DRAWNGE 04/20/15

DRAWING NUMBER

**UNDERGOUND DETENTION SYSTEM No.1 CROSS-SECTION B-B** 

PROPOSED GRADE

18" OF 1-1/2" CRUSHED STONE WRAPPED WITH FILTER FABRIC AND

SYSTEM SHALL BE WATER-TIGHT.

20 MIL PVC MEMBRANE.

BOTTOM EL.=69.17

(1' COVER MIN.)

NOT TO SCALE

(1' COVER MIN.)

**EXISTING** 

**GRADE** 

PROVIDE STORMTRAP CONCRETE

SPLASH PAD AT SYSTEM INLET.

**①** 

9 ROWS OF 2 2'-0" SINGLE TRAP UNITS **DIMENSIONS** 89.63'x44.10'

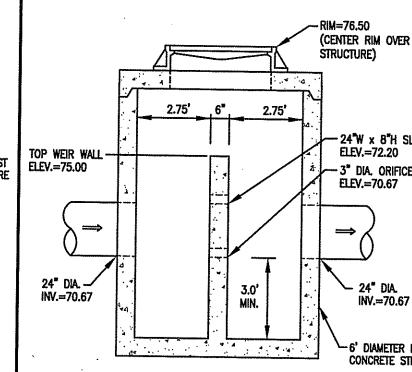
#### **UNDERGOUND DETENTION** SYSTEM No. 2 DETAIL

NOT TO SCALE

TOP WEIR WALL ELEV.=75.00 24" DIA. INV.=70.67

-RIM=77.90 (CENTER RIM OVER STRUCTURE) 3.0" MIN. INV.=72.80 (TO INFILTRATION INV.=72.80 SYSTEM No.1) INV.=72.80

**DIVERSION STRUCTURE (DMH 2)** 



**OUTLET CONTROL STRUCTURE (DMH 4)** NOT TO SCALE

# 24" DIA. INV.=74.34 (TO DETENTION SYSTEM No.1)

NOT TO SCALE

WEIR WALL -TOP ELEV.=65.20 18°D **TOP VIEW** NOT TO SCALE 3.75' 3.75 TOP WEIR WALL ELEV.=65.20 (1)-6" DIA.-ORIFICE ELEV.=64.20 **==>** (FROM DET. SYSTEM)

PROVIDE STORMTRAP CONCRETE

SPLASH PAD AT SYSTEM INLET.

-24"W x 8"H SLOT ELEV.=72.20 3" DIA. ORIFICE ELEV.=70.67  $\Rightarrow$ 24" DIA. INV.=70.67 DIAMETER PRECAST CONCRETE STRUCTURE

6' DIAMETER PRECAST CONCRETE STRUCTURE

**UNDERGOUND INFILTRATION SYSTEM** 

No. 2 CROSS-SECTION C-C

NOT TO SCALE

**INFILTRATION SYSTEM CONSTRUCTION NOTE** . WITHIN THE INFILTRATION SYSTEM, THE CONTRACTOR SHALL REMOVE ALL TOPSOIL AND SUBSOIL AREAS (A AND B HORIZONS) AND ANY EXISTING SOILS THAT YIELD A PERMEABILITY RATE <2.41 INCHES/HOUR. CONTRACTOR SHALL COORDINATE A BOTTOM BED INSPECTION WITH OWNER AND ENGINEER. IF NECESSARY THE AREA SHALL BE PREPARED WITH SAND FILL SOIL MEETING THE MEDIA REQUIREMENTS OF SAND FILTERS, AS DESCRIBED IN THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, DECEMBER 2010, SECTION 5.5 (ASTM C-33 SAND) THE DEPTH OF EVISTING SOIL REMOVAL SHALL BE VERIFIED BY THE

4 ROWS OF 2-0 SINGLE TRAP UNITS

**DIMENSIONS** 

28.71'x47.23'

SAND). THE DEPTH OF EXISTING SOIL REMOVAL SHALL BE VERIFIED BY THE ENGINEER. PLACEMENT OF THE SAND FILL (ASTM C-33 SAND), SHALL BE USED TO BRING THE BOTTOM OF BASIN TO THE DESIGN ELEVATIONS. 2. INFILTRATION SYSTEM CONSTRUCTION AND MATERIALS SHALL CONFORM TO RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL DECEMBER

**UNDERGOUND INFILTRATION** 

SYSTEM No. 2 DETAIL

NOT TO SCALE

2010, APPENDIX F.3 CONSTRUCTION STANDARDS/SPECIFICATIONS FOR INFILTRATION BMP'S. AFTER CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE FINAL INSPECTIONS WITH THE OWNER IN ACCORDANCE WITH TABLE F-5 IN APPENDIX F.3.

3. THE CONTRACTOR IS REQUIRED TO SUBMIT A LIST OF MATERIALS, GRADATIONS AND THE NAME AND ADDRESS OF THE SUPPLIERS TO THE ENGINEER FOR APPROVAL PRIOR TO BRINGING MATERIAL ON SITE. MATERIAL CERTIFICATIONS SHALL ALSO BE REQUIRED FOR REVIEW AND APPROVAL.

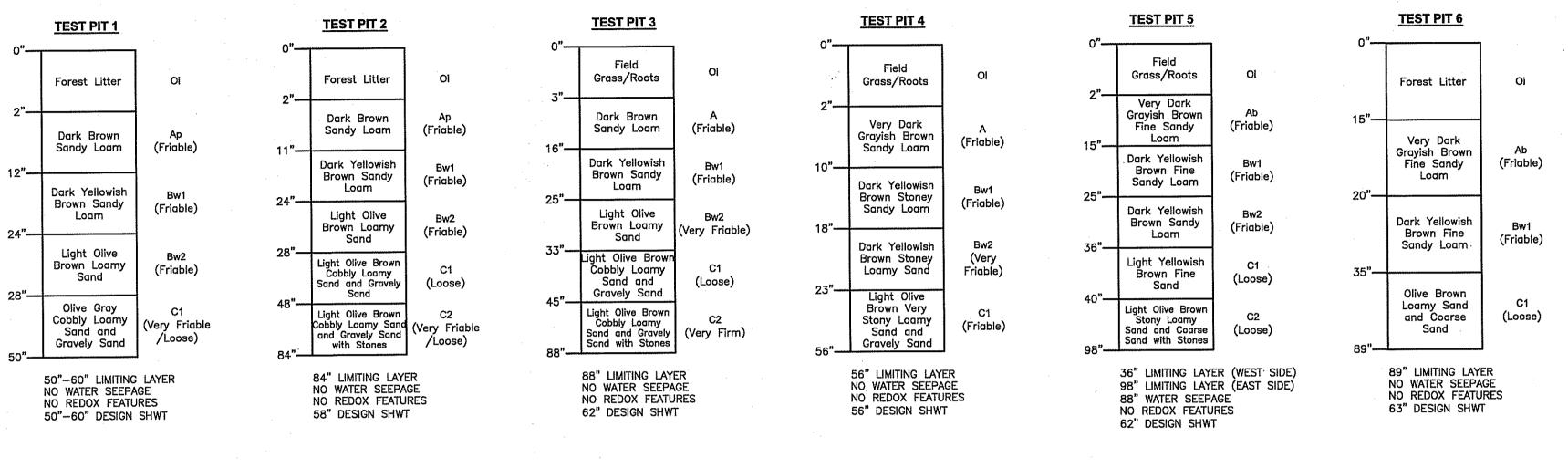
4. THE CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE ABOVE REFERENCED MANUAL THE MANUAL CAN BE FOUND AT: http://www.dem.ri.gov/pubs/regs/water/swmanual.pdf.

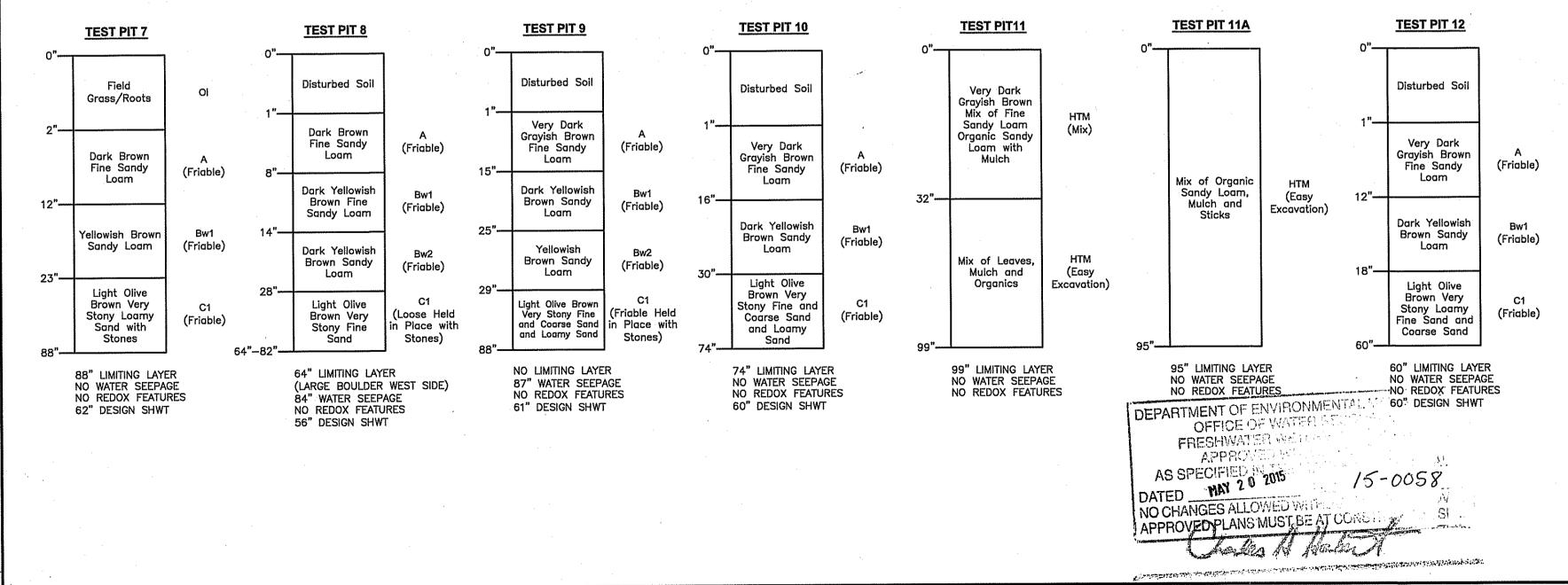
GREAT CARE MUST BE TAKEN TO PREVENT THE INFILTRATION AREA FROM COMPACTION; BY MARKING OFF THE INFILTRATION BASIN AND UNDERGROUND INFILTRATION LOCATION BEFORE THE START OF CONSTRUCTION, AND BY CONNECTING UPSTREAM DRAINAGE AREAS ONLY AFTER CONSTRUCTION IS COMPLETE AND THE CONTRIBUTING AREA IS STABILIZED.

6. IF LARGE ROCKS OR BOULDERS ARE FOUND WITHIN 36" BELOW THE INFILTRATION SYSTEMS, OR WITHIN A 10' PERIMETER AROUND SYSTEM, THE CONTRACTOR SHALL REMOVE THE ROCKS/BOULDERS AND REPLACE WILL GRAVEL BORROW. CONTRACTOR SHALL COORDINATE WITH ENGINEER.

#### SOIL EVALUATION DATA

SOIL EVALUATIONS WERE CONDUCTED BY CROSSMAN ENGINEERING ON JANUARY 23, 2015







Rhode Island Warwick, RJ 02886 Phone: (401) 738-5660

North Attleboro, MA 02763 Phone: (508) 695-1700 Email: cei@crossmaneng.com

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KEY PLAN

PROJECT TITLE:

#### **TOLLGATE HILL FARM**

ASSESSOR'S MAP 247, LOT 20 **ZONING DISTRICT O** OFFICE DISTRICT 271 TOLL GATE ROAD **WARWICK, RHODE ISLAND** 

#### SENIOR HOUSING **DEVELOPMENT LLC**



**30 JERICHO EXECUTIVE PLAZA** SUITE 400E **JERICHO, NEW YORK 11753** 

**MISCELLANEOUS DETAIL PLAN No. 6** 

	DATE:		SCALE:			
	MARCH	2015	NO	SCALE		
	DWG. NAME:	C16-DET	AIL6-R1.dw			
	REVISIONS					
	NUMBER	REM	ARKS	DATE		
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ატმ <sup>და</sup>უ DRAWING NUMBER

#### STORMTRAP INSTALLATION SPECIFICATION

1.STORMTRAP MODULES SHALL BE MANUFACTURED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/OUTLET PIPE OPENINGS.

- STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891-09, STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRE-CAST CONCRETE UTILITY STRUCTURES. THE FOLLOWING ADDITIONS AND/OR EXCEPTIONS SHALL APPLY:
- A. SPECIFICATIONS ON THE ENGINEER'S DRAWINGS SHALL TAKE PRECEDENCE.

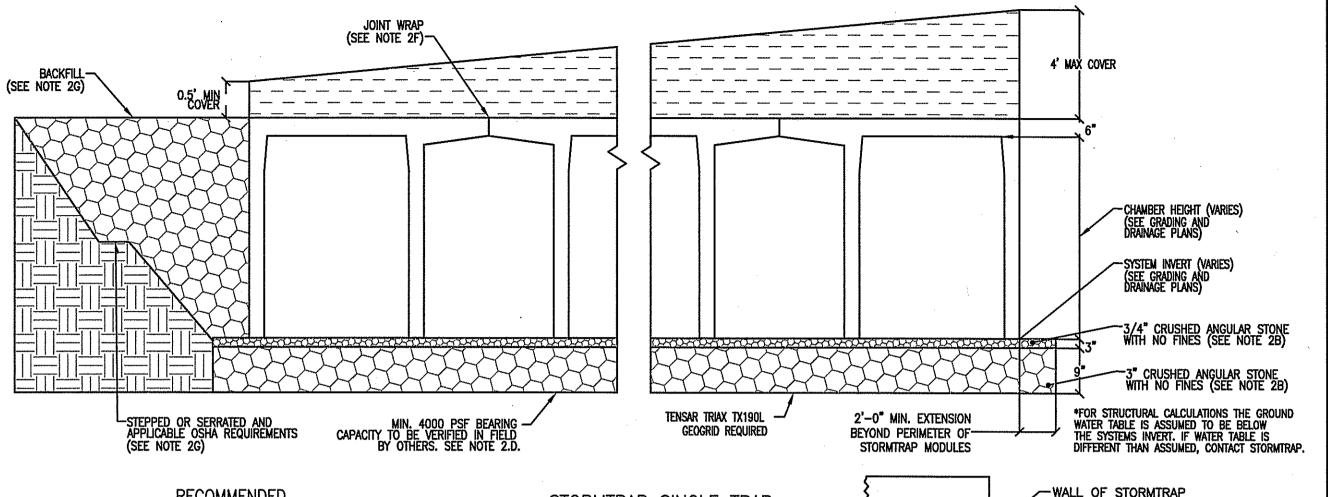
- A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO EVALUATE A SOURCE OF STONE AGGREGATES THAT WILL BE PLACED ON THE PROPERLY COMPACTED 3500 PSF ALLOWABLE CAPACITY SOILS. THE STONE BASE COURSE FOR WHICH THE STORMTRAP SYSTEM WILL BEAR DIRECTLY ON WILL NEED TO ATTAIN A MINIMUM 20,000 PSF ALLOWABLE BEARING CAPACITY. STORMTRAP HAS RECOMMENDED A MINIMUM BED OF 3/4" DIAMETER ANGULAR STONE WELL COMPACTED AND SEATED, WITH NO FINES AT A 3 INCH THICKNESS AND AN SEATED, WITH NO FINES AT A 15 INCH THICKNESS AND AN SEATED, WITH NO FINES AT A 15 INCH THICKNESS. PLEASE NOTE THAT THESE ARE ONLY MINIMUM RECOMMENDATIONS AND A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE USED TO DETERMINE THE EXACT REQUIREMENTS FOR THE LOCATIONS THAT THE STORMTRAP SYSTEM IS TO BE LOCATED.
- 3. THE CONTRACTOR SHALL REMOVE ANY AND ALL EXPANDABLE OR COLLAPSIBLE SOILS AT THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER.
- 4. THE STONE SHALL BE INSTALLED A MINIMUM OF  $2^{\prime}-0^{\circ}$  beyond the limits of the stormtrap modules perimeter.
- USE CRUSHED ANGULAR STONE AND COMPACT THE STONE USING A VIBRATING ROLLER WITH IT'S FULL DYNAMIC FORCE APPLIED TO ACHIEVE A FLAT SURFACE.
- DISK, DRY, AND COMPACT THE TOP 8" OF THE SUBGRADE SOILS TO 95 % OF THE STANDARD DRY DENSITY AND 110 % OPTIMUM MOISTURE CONTENT.
- C. ACCREGATE SHALL BE GRADED TO WITHIN +/- 1/4" OF THE GRADE SHOWN ON THE PLANS
- D. MINIMUM 3500 PSF SOIL BEARING CAPACITY. SOIL STRENGTHS TO BE VERIFIED IN FIELD BY OTHERS.
- THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED 3/4". IF THE SPACE EXCEEDS 3/4", THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.
- ALL EXTERIOR JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN BONDED TO A WOVEN HIGHLY PUNCTURE, RESISTANT POLYMER WRAP CONFORMING TO ASTM C891-09 AND SHALL BE 0'-8" WIDE WITH INTEGRATED PRIMER SEALANT AS APPROVED BY STORMTRAP. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:
- 2. A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE. REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.
- THE FILL PLACED AROUND THE STORMTRAP UNITS MUST BE DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL BE COMPACTED TO 95 % STANDARD PROCTOR DENSITY OR OTHERWISE SPECIFIED BY ENGINEER. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES BOUNDING OR WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR SERRATED TO PREVENT WEDGE ACTION. (REFERENCE ARTICLE 502.10 I.D.O.T. S.S.R.B.C.) CARE SHALL ALSO BE TAKEN AS NOT TO DISRUPT THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MATERIAL SHALL BE CLEAN, CRUSHED, ANGULAR NO.5 (AASHTO M43) AGGREGATE.
- DISTRIBUTE THE FILL OVER THE SYSTEM WITH A TRACKED CONSTRUCTION VEHICLE, DO NOT EXCEED THE MAXIMUM ALLOWABLE GROUND PRESSURE SHOWN IN TABLE 1.

FILL DEPTH	TRACK VIDTH	MAX GROUND PRESSURE
	12"	1690 psf
12*	18'	1219 psf
	24"	1111 psf
	30"	1000 psf
	26*	924 pef

MAXIMUM ALLOWABLE GROUND PRESSURE IS THE VEHICLE OPERATING WEIGHT DIVIDED BY THE TOTAL VEHICLE TRACK-GROUND CONTACT AREA, FOR BOTH TRACKS. USE A WALK-BEHIND OR VIBRATORY ROLLER, NOT TO EXCEED A MAXIMUM GROSS VEHICLE WEIGHT OF 12.000#, AND A MAXIMUM DYNAMIC FORCE OF 20,000#, WITH A MINIMUM OF 12" OF COMPACTED FILL OVER THE SYSTEM. FULL DUMP TRUCKS MUST NOT BE DRIVEN OR DUMP STONE OVER THE SYSTEM. RAISING THE BODY TO DUMP STONE SIGNIFICANTLY INCREASES THE REAR WHEEL LOADS.

#### STORMTRAP SPECIFICATION

- 1. TOTAL COVER: MIN. 0.5' MAX. 4' CONSULT STORMTRAP FOR ADDITIONAL COVER
- 2. CONCRETE CHAMBER DESIGNED FOR AASHTO HS-20 HIGHWAY LOADING, MIN. SOIL PRESSURE 3500 PSF.
- ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.
- FOR STRUCTURAL CALCULATIONS THE GROUND WATER TABLE IS ASSUMED TO BE BELOW THE SYSTEMS INVERT. IF WATER TABLE IS DIFFERENT THAN ASSUMED, CONTACT STORMTRAP.
- 5. FOR STRUCTURAL CALCULATIONS THE SOIL DENSITY IS ASSUMED TO BE 120 PCF.



## RECOMMENDED ACCESS OPENING SPECIFICATION

- PLASTIC COATED STEEL STEPS PRODUCED BY M.A. INDUSTRIES PART #PS3-PFC (SEE DETAIL TO THE RIGHT) ARE PROVIDED INSIDE ANY UNIT WHERE DEEMED NECESSARY. THE HIGHEST STEP IN THE UNIT IS TO BE PLACED A DISTANCE OF 1-0-P RIGHT A MAXIMUM OF THE STORMTRAP UNITS. ALL ENSUING STEPS SHALL BE PLACED WITH A MAXIMUM DISTANCE OF 1'-4" BETWEEN THEM. STEPS MAY BE MOVED OR ALTERED TO AVOID OPENINGS OR OTHER TRREGULARITIES IN THE UNIT.
- 3. STORMTRAP LIFTING INSERTS MAY BE RELOCATED TO COINCIDE WITH THE ACCESS OPENING OR THE CENTER OF GRAVITY OF THE UNIT AS NEEDED.
- 4. STORMTRAP ACCESS OPENINGS MAY BE RELOCATED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS SO PLACEMENT OF STEPS IS ATTAINABLE.
- 5. ACCESS OPENINGS SHOULD BE LOCATED IN ORDER MEET THE APPROPRIATE MUNICIPAL REQUIREMENTS. STORMTRAP RECOMMENDS AT LEAST ONE ACCESS OPENING PER SYSTEM FOR ACCESS AND INSPECTION.
- 6. USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTRAP RECOMMENDS FOR COVER OVER 2' TO USE PRECAST BARREL OR CONE SECTIONS. (BY OTHERS)

## RECOMMENDED PIPE OPENING SPECIFICATION

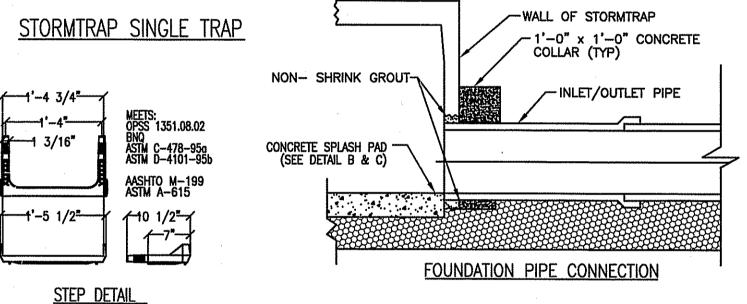
- 1. PIPE OPENINGS SHALL MAINTAIN A MINIMUM 1'-0" OF CLEARANCE FROM A VERTICAL EDGE OF THE STORMTRAP UNIT.
- 2. MAXIMUM OPENING SIZE TO BE DETERMINED BY UNIT HEIGHT. PREFERRED OPENING SIZE \$36" OR LESS. ANY OPENING NEEDED THAT DOES NOT FIT THIS CRITERIA SHALL BE BROUGHT TO THE ATTENTION OF STORMTRAP FOR REVIEW.
- 3. CONNECTING PIPES SHALL BE INSTALLED WITH A 1'-O" CONCRETE COLLAR, AND A AGGREGATE CRADLE FOR AT LEAST ONE PIPE LENGTH, AS SHOWN. A STRUCTURAL GRADE CONCRETE OR GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI SHALL BE USED.
- 4. THE ANNULAR SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH NON-SHRINK GROUT.

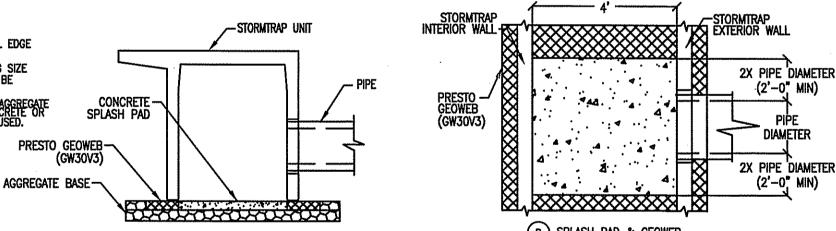
#### RECOMMENDED PIPE INSTALLATION INSTRUCTIONS

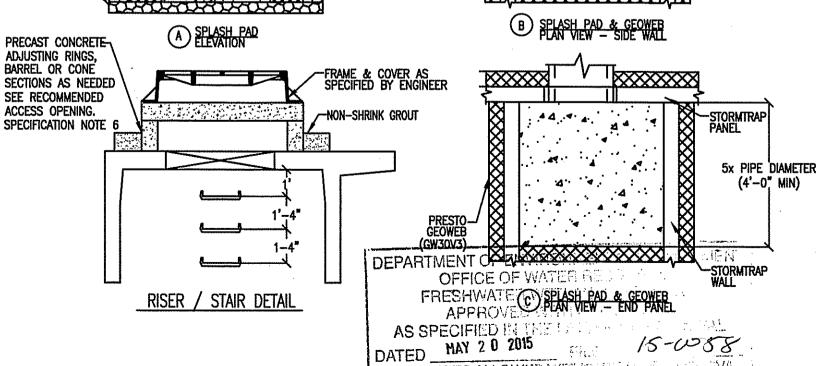
- 1. CLEAN AND LIGHTLY LUBRICATE ALL OF PIPE TO BE INSERTED INTO STORMTRAP.
- 3. ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

#### SPLASH PAD & GEOWEB SPECIFICATION

- 1. THE APPROVED GEOWEB SHALL BE PRESTO GEOWEB (GW30V3). THE GEOWEB NOMINAL DIMENSIONS SHALL BE 9-FT x 25-FT.
- 2. SPLASH PAD AND GEOWEB SHALL BE INSTALLED PRIOR TO INSTALLATION OF THE STORMTRAP UNITS
- 3. THE GEOWED INFILL MATERIAL SHALL BE AASHTO M43 #5 AGGREGATE(SEE DETAIL A).
- 4. THE CONCRETE SPLASH PAD SHALL BE INSTALLED WITHIN THE GEOWEB AND IS REQUIRED AT ALL PIPE ENTRY LOCATIONS. SEE DETAIL B & C.
- 5. THE GEOWEB EDGE SHALL BE INSTALLED 1-FT BEYOND THE OUTER PERIMETER OF THE STORMTRAP SYSTEM.
- 6. THE GEOWER LONGITUDAL DIMENSION (25-FT) SHALL BE INSTALLED PARALLEL TO THE STORMTRAP LEGS.
- 7. THE CONCRETE SPLASH PAD AND GEOWEB SHALL BE CENTERED AT THE PIPE PENETRATION.
- 8. SPLASH PAD DIMENSIONS COULD VARY IN UNITS THAT ARE LESS THAN 15'-4" IN LENGTH.







NO CHANGES ALLOWED WITHOUT

APPROVED PLANS MUST BE AT CORS AND A SERVICE OF THE SERVICE OF THE

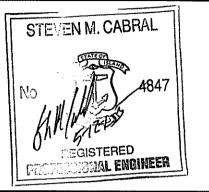


• Transportation Site Planning

#### **CROSSMAN ENGINEERING**

Warwick, RI 02886 North Attleboro, MA 02763

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KEY PLAN

PROJECT TITLE:

#### **TOLLGATE HILL FARM**

ASSESSOR'S MAP 247, LOT 20 **ZONING DISTRICT O** OFFICE DISTRICT **271 TOLL GATE ROAD WARWICK, RHODE ISLAND** 

**SENIOR HOUSING DEVELOPMENT LLC** 



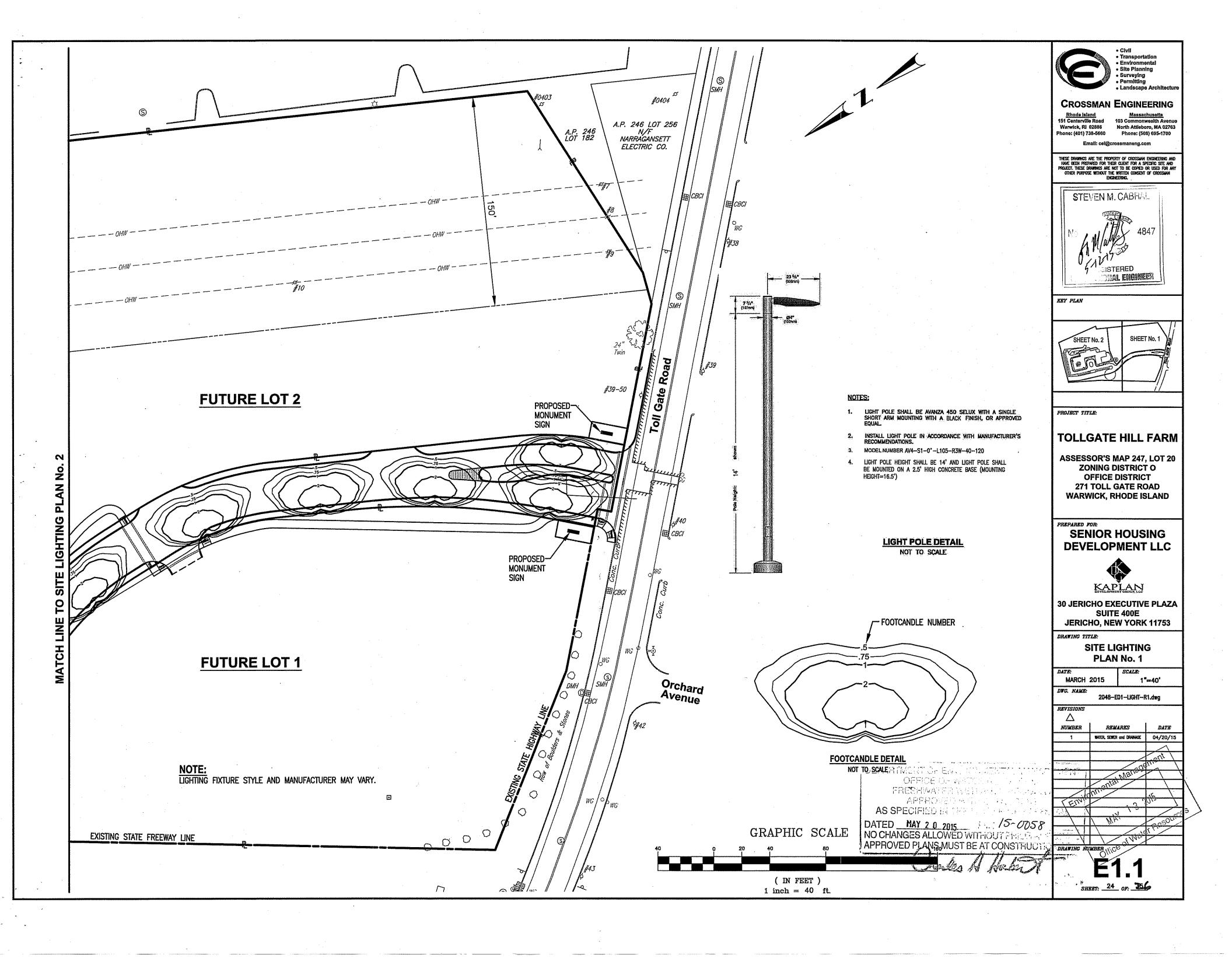
**30 JERICHO EXECUTIVE PLAZA SUITE 400E JERICHO, NEW YORK 11753** 

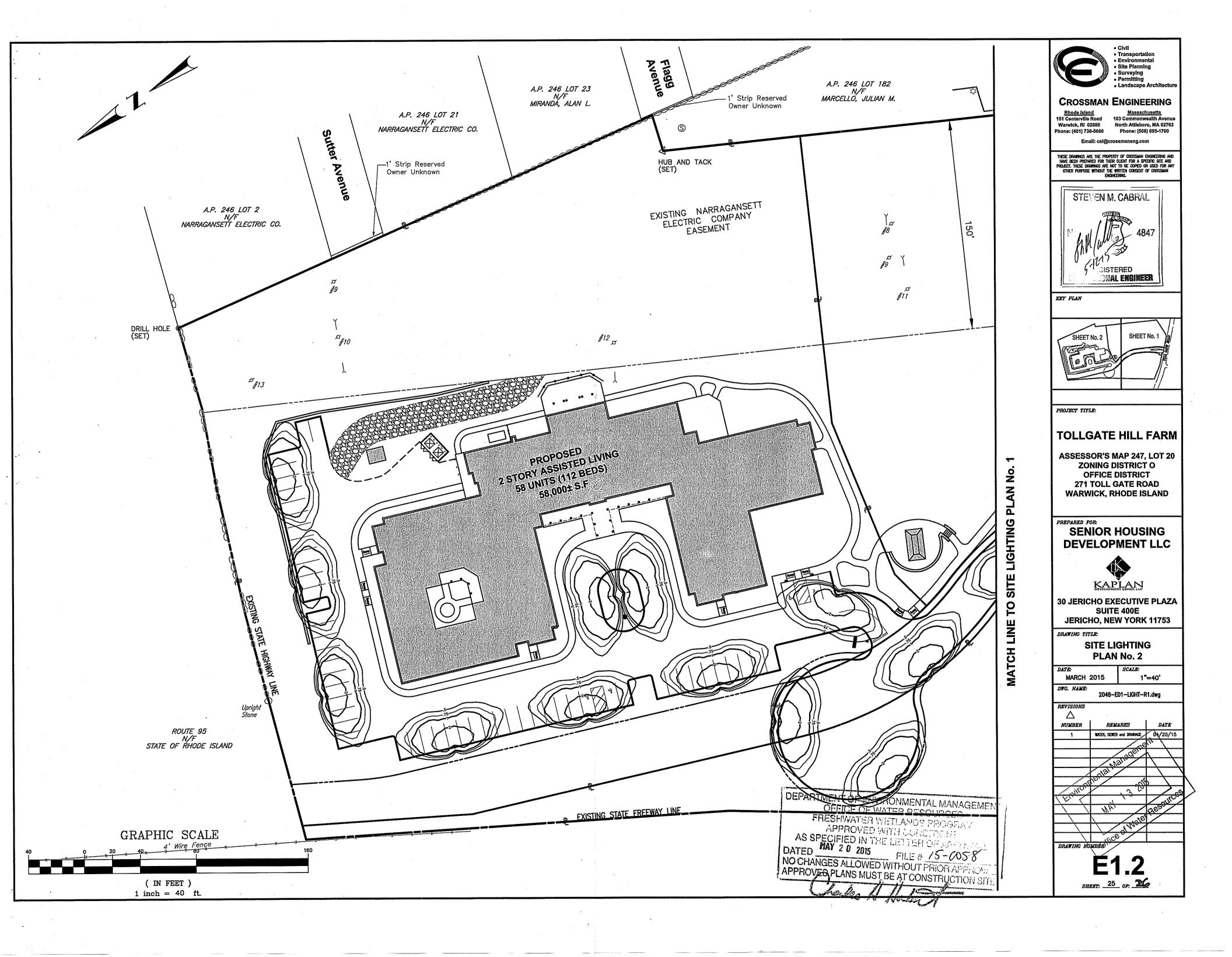
DRAWING TITLE:

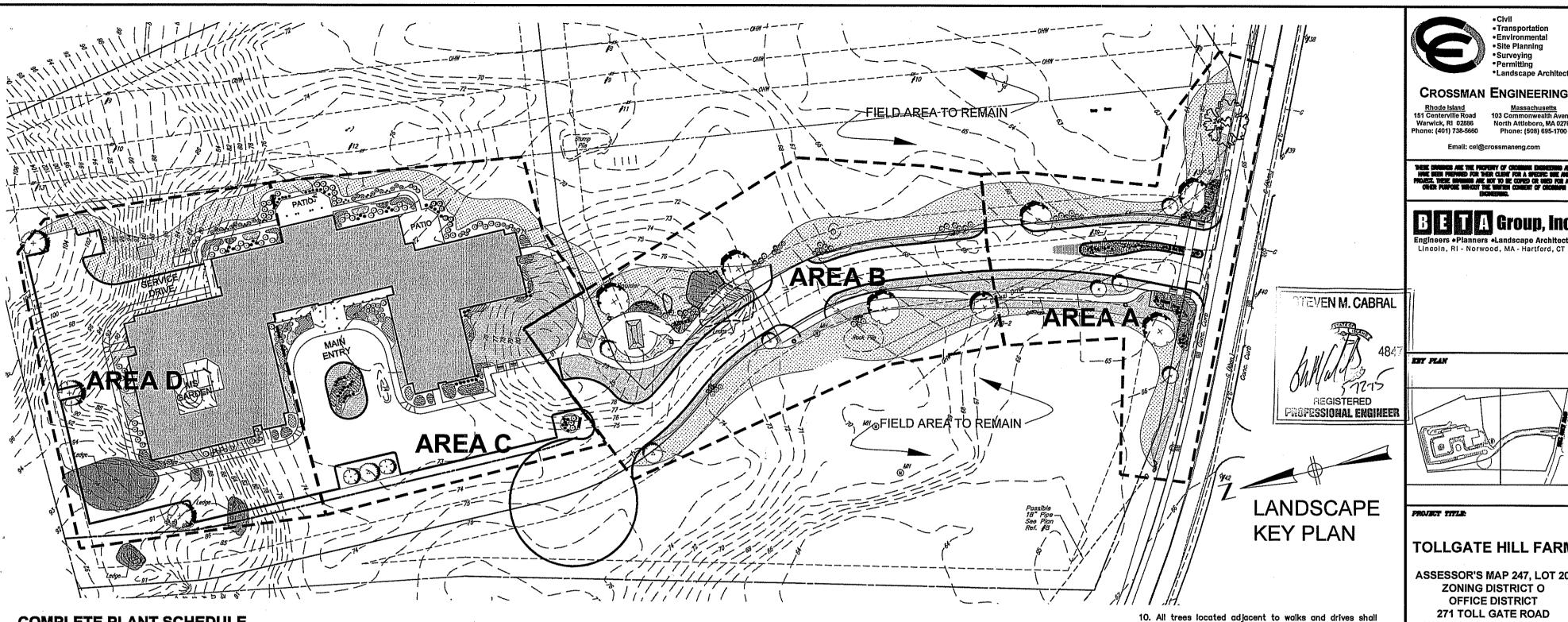
**MISCELLANEOUS DETAIL PLAN No. 5** 

DATE: MARCH 2015 AS SHOWN 2048-C17-DETAIL7-R1.dw REVISIONS Δ NUMBER REMARKS DATE WATER, SEWER and DRAMAGE 04/20/15 DRAWING NUMBER CO

SHEET: 23 OF: 356







COMPL	ETE	PLA	NT S	SCHE	DULE

TREES AAB	QTY 2	AREA A	AREA B	AREA C	AREA D	BOTANICAL NAME / COMMON NAME Amelanchier x grandiflora 'Autumn Brilliance' / 'Autumn Brilliance' Serviceberry	SIZE 5' - 6' Ht	REMARKS B&B
ACR	3				3	Acer rubrum / Red Maple	3"-3.6" Cel.	B&B
BNH	2		1	1		Betula nigra / River Birch	6-7" Ht.	B&B
MFP	8	4	2			Malus floribunda "Prairiefire" / Flowering Crabapple	2 - 2.5" Cal	B&B
QB	1		1			Quercus bicolor / Swamp White Oak	3"-3.5" Cal.	B&B
QR	6	3	3			Quercus rubra / Red Oak	3"-3.5" Cal.	B&B
SHRUBS AP	<u>QTY</u> 13	AREA A	AREA B	AREA C	AREA D	BOTANICAL NAME / COMMON NAME Assculus parviflora / Bottlebrush Buckeye	SIZE 5 gal	REMARKS Cont.
ARB	12		7	5		Aronia arbutfolia "Brilliantissima" / Brilliant Red Chokeberry	5 gal	Cont.
AT	18			9	9	Amsonia tabemaemontana / Eastern Bluestar	5 gal	
BA	3		3			Baptisia australis / Blue Wild Indigo	3 gai	Cant.
вм	10			10		Buxus microphylla insularis 'Green Mountain' / Green Mountain Boxwood	18" - 24"	B&B
CAIH	12			12		Comus alba 'Ivory Halo' / Variegated Redtwig Dogwood	24" - 30"	Cont.
CKF	32		6	21	8	Calamagrostis x acutiflora 'Kari Foerster' / Feather Road Grass	2 gal	Cont.
COM	19			9	10	Comptonia peregrina / Sweet Fern	3 gal	Cont.
HQA	23			6	17	Hydrangea quercifolia / Oakleaf Hydrangea	5 gal	Cont.
HYW	2		2			Hydrangea arborescens / Wild Hydrangea	3 gal	Cont.
IGL	3		3			llex glabra / Inkberry	24" - 30"	Cont
w	8			3	3	llex verticillata / Winterberry	3 gal	Cont.
JGO	8		2	6		Juniperus virginiana 'Grey Owl' / Shrubform Eastern Redcedar	24" - 30"	Cont.
MP	10			7	3	Myrica pensylvanica / Northern Bayberry	5 gal	Cont.
MUH	31	31				Muhlenbergia capillaris / Pink Muhly	2 gal	Cont.
PH	67	40		27		Panicum virgatum 'Heavy Metal' / Heavy Metal Switch Grass	#3	Cont.
PVH	23		9	14		Panicum virgatum 'Shenendoah' / Burgundy Switch Grass	2 gal	Cont.
RVI	11	3	8			Rosa virginiana / Virginia Rose	3 gal	Cont.
Si.	18			9	8	Schizachyrlum scoparium / Little Bluestem Grass	1 gal	Cont.
VH	18			9	8	Vaccinium corymbosum / Highbush Blueberry	24"-30"	Cont.
VILLE	7	4	4			Vihimum dontatum 'Rius Muffin' / Southern Armwood	3 5".A"	Cont

NOTE: Please see individual Area sheets for individual Area Plant Schedules. Suggested seeding keys are on each sheet: final seeding areas to be determined in conjunction with Owners.

#### General Planting Notes

- 1. Contractor shall begin maintenance immediately after planting and shall continue until final acceptance. Contractor shall be responsible for all means and methods of watering and maintenance.
- 2. The Landscape Contractor shall supply all plant materials in quantities sufficient to complete all plantings shown on these drawings. Clarify any discrepancies with the Landscape Architect prior to ordering plant material

GROUND COVERS OTY AREA AREA B AREA C AREA D BOTANICAL NAME / COMMON NAME 18" a.c. 24" o.c. 24" o.c. 18" o.c. Hemerocallis x 'Going Bananas' / Yellow Everblooming daytily Listris spicata / Spike Gayfeather Monarda fistulosa "Claire Grece" / Bee Balm

DATED MAY 2 0 92015

NO CHANGES ALLOWED WITHOUT P

3. All materials shall conform to the guidelines established by the 7. All plant materials are subject to the approval of the Landscape Architect at the nursery and at the site.

Salvia nemorosa 'May Night' / May Night Sage

Tiarella cordifolia / Foamflower

American Association of Nurserymen.

the original grades before digging.

4. NO SUBSTITUTIONS FOR INDICATED PLANT VARIETIES SHALL BE

ACCEPTED UNLESS AUTHORIZED BY THE LANDSCAPE ARCHITECT.

5. All plants shall bear the same relationship to finish grade as

6. The Landscape Contractor shall guarantee all plant materials

for (1) full year from date of substantial completion.

8. All areas of the site which have been disturbed and not otherwise developed shall be loamed with a minimum depth of 6" of topsoil and seeded as specified on Planting Details Sheet.

9. Landscape Contractor is encouraged to provide the Landscape Architect with concerns and/or suggestions with regard to proposed plant material selection prior to placing a purchase order.

have 6' of clear height to first branching.

- 11. Contractor shall verify all tree removals with Landscape Architect prior to start of construction.
- 12. Contractor shall obtain approval for proposed lawn seed mix prior to installation or consult Planting Detail Sheet
- 13. No plant shall be put into the ground before rough grading has been finished and approved by the Landscape
- 14. All plants shall be balled and wrapped or container grown as specified. No container grown stock will be accepted if it is root bound. All root wrapping material made of synthetics or plastics shall be removed at the time of planting.
- 15. With container grown stock, the container shall be removed and the container ball shall be cut through the surface in two vertical locations.
- 16. This plan shows tree, shrub and planting bed general layout. All plants to be placed in field and location DEPARTMENT OF ENVIRONMENTAL Mapprovaled with Landscape Designer prior to planting. The OFFICE OF WATER RESOURDING Contractor shall notify the Landscape Designer 48

  FRESHWATER WETLANDS PROJECT TO required site visit.
- APPROVED WITH 085000111017. All planting beds shall be mulched with 3" finely aged Payed Suss SPECIFIE 194 N THEODELE 124 CO un-dyed dark brown bark mulch. Submit sample.
  - 518. All plants shall be installed as per details.
- APPROVED PLANS MUSSOBE APPENST Stherwise specified.
  - 20. All plants shall be watered thoroughly if stockpiled before planting in order to maintain optimal health, and shall be watered thoroughly twice during the first 24-hour period after planting. All plants shall then be watered by the Contractor as necessary to insure health until final

21. The Landscape Contractor shall refer to the guidelines established by the American Association of Nurserymen for seasonal requirements and other restrictions related to the time of planting, and shall discuss any concerns with the Landscape Architect.



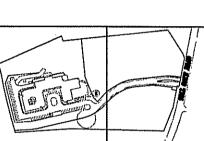
**CROSSMAN ENGINEERING** 

 Transportation Site Planning Surveying

North Attishoro, MA 02763

Warwick, RI 02886 Phone: (401) 738-5660





PROJECT TITLE:

#### **TOLLGATE HILL FARM**

ASSESSOR'S MAP 247, LOT 20 **ZONING DISTRICT O** OFFICE DISTRICT **271 TOLL GATE ROAD** WARWICK, RHODE ISLAND

PREPARED FOR:

#### **SENIOR HOUSING DEVELOPMENT LLC**



30 JERICHO EXECUTIVE PLAZA SUITE 400E **JERICHO, NEW YORK 11753** 

DRAWING TITLE:

L1.0 - KEY PLAN

