CONDOMINIUM SITE DEVELOPMENT PLANS

PARKER HILL DEFINITIVE SUBDIVISION

- TAX MAP 34 LOT 8-A -

2 PARKER STREET

NEWBURYPORT, MASSACHUSETTS 01950

AUGUST 14, 2017

LAST REVISED: NOVEMBER 7, 2017

ABUTTER INFORMATION

MAP 34 LOT 8—A PARKER 2 REALTY TRUST JOSEPH G. HILL, TRUSTEE 160 BRIDGE ROAD SALISBURY, MA 01952 BK.34796 PG.59 3/25/16

BROADWAY PLAZA TRUST II NEIL A. TAGERMAN, TRUSTEE NEWTON, MA 02464 BK.13656 PG.56 7/11/96 (151-155 STATE ST,)

MAP 34 LOT 8-A-1 PARKER 2 REALTY TRUST JOSEPH G. HILL, TRUSTEE 160 BRIDGE ROAD SALISBURY, MA 01952 BK.34796 PG.59 3/25/16

PARKER 2 REALTY TRUST JOSEPH G. HILL, TRUSTEE 160 BRIDGE ROAD SALISBURY, MA 01952 BK.34796 PG.59 3/25/16

MAP 34 LOT 8 OAK HILL CEMETERY BOARD OF TRUSTEES NEWBURYPORT, MA 01950 BK.1835 PG.175 8/18/1906

3 PARKER STREET NOMINEE TRUST KENNETH R. LABRECQUE, TRUSTEE P.O. BOX 162 NEWBURYPORT, MA 01950 BK.16930 PG.542 3/1/01

C&D REALTY TRUST CAROLYN SHEPARD, TRUSTEES 14 PINE STREET NEWBURYPORT, MA 01950 BK.25756 PG.340 6/8/06 (PARKER ST.)

MAP 34 LOT 9-A C&D REALTY TRUST CAROLYN SHEPARD, TRUSTEES NEWBURYPORT, MA 01950 BK.7596 PG.179 12/4/84 (4 PARKER ST.)

MAP 34 LOT 11 HARDWARE NOMINEE TRUST PETER G. & LISA L. KELLY, TRUSTEES BK.14612 PG.374 2/25/98 (163 STATE ST.)

MAP 34 LOT 12 GRANT NOMINEE TRUST PETER G. & KATHERINE G. KELLY, TRUSTEES 161 STATE STREET NEWBURYPORT, MA 01950 BK.14612 PG.405 2/25/98 (161 STATE ST.)

MAP 34 LOT 14 BEBOSAM, LLC 149 STATE STREET NEWBURYPORT, MA 01950 BK.29830 PG.19 10/1/10 (149 STATE ST.)

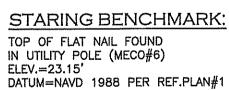
MAP 34 LOT 15 PATRICIA GALLACHER 147 STATE STREET NEWBURYPORT, MA 01950 BK.12244 PG.390 11/16/93 (147 STATE ST.)

JOHNATHAN G. YOUNG 145 STATE STREET NEWBURYPORT, MA 01950 BK.31804 PG.116 10/10/12

143 STATE STREET TRUST ROBERT A. HOFFMAN, TRUSTEE 143 STATE STREET NEWBURYPORT, MA 01950 BK.8046 PG.252 1/21/88 (SUITES 1-9)

- "PLAN OF LAND SHOWING DIVISION OF 34-8-A PARKER STREET NEWBURYPORT, MASSACHUSETTS - PREPARED FOR: - PARKER 2 REALTY TRUST - 1 MASON LANE -SALISBURY, MA 01952", SCALE 1"=40', DATED MARCH 8, 2016, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 452 PLAN #081
- 2. "PLAN OF DIVISION OF LAND OF ROBERT W.E. WALTERS STATE & PARKER STS. -NEWBURYPORT, MASS.", SCALE 1"=40', DATED APRIL 30, 1969, BY HAROLD F. MAC WILLIAMS. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 114 PLAN #009 DATED MAY 9, 1969.
- 3. "PLAN OF DIVISION OF LAND OF DONALD C. GRAVELLE PARKER ST. NEWBURYPORT. MASS.", SCALE 1"=40', DATED JUNE 1970, BY HAROLD F. MAC WILLIAMS. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS AS PLAN #297 OF 1970 DATED AUGUST 20, 1970.
- 4. "SITE PLAN PARKER HILL CONDOMINIUM PHASE 1 OF 2 PARKER STREET NEWBURYPORT, MASSACHUSETTS PREPARED FOR: PARKER 2 REALTY TRUST 1 MASON LANE - SALISBURY, MA 01952", SCALE 1"=40', 2 SHEETS, DATED NOVEMBER 5, 2016, BY BRIAN KNOWLES. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 457 PLAN #022 DATED DECEMBER 16, 2016.
- 5. "PLAN AND PROFILE OF PROPOSED STATE HIGHWAY IN NEWBURYPORT", 3 SHEETS -PLAN NO.0220-1 THRU 0220-3, SCALE 1"=40', DATED JUNE 9, 1917, BY THE OFFICE OF MASSACHUSETTS HIGHWAY COMMISSION. COUNTY OF ESSEX ENGINEER'S OFFICE RECORD #2211. COUNTY COMMISSIONERS DECREE #1128 DATED AUGUST 3, 1917. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 2372 PLAN #475.
- 6. "PLAN OF LAND IN NEWBURYPORT, MA J.J.F. REALTY TRUST 149 STATE STREET -NEWBURYPORT, MA - MAP 34 LOT 14", SCALE 1"=10', DATED APRIL 7, 2008, BY GRIFFIN ENGINEERING GROUP, LLC. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 413 PLAN #045 DATED APRIL 11, 2008.
- 7. "PLAN OF LAND -- IN -- NEWBURYPORT MASSACHUSETTS -- OWNER -- LABADINI REALTY CO., INC.", SCALE 1"=20', DATED JUNE 20, 1972, BY PORT ENGINEERING ASSOCIATES, RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 123 PLAN #074
- 8. "PLAN OF THE HASKELL FIELD CORNER OF STATE AND PARKER STREETS -NEWBURYPORT, MASS (AS PER DESCRIPTION OF 1846)", SCALE 1"=60', DATED JUNE 4, 1906, BY J.P. TITCOMB, C.E. RECORDED IN THE ESSEX SOUTH REGISTRY OF DEEDS IN PLAN BOOK 1835 PLAN #1 DATED AUGUST 13, 1906.

STARING BENCHMARK: TOP OF FLAT NAIL FOUND IN UTILITY POLE (MECO#6)

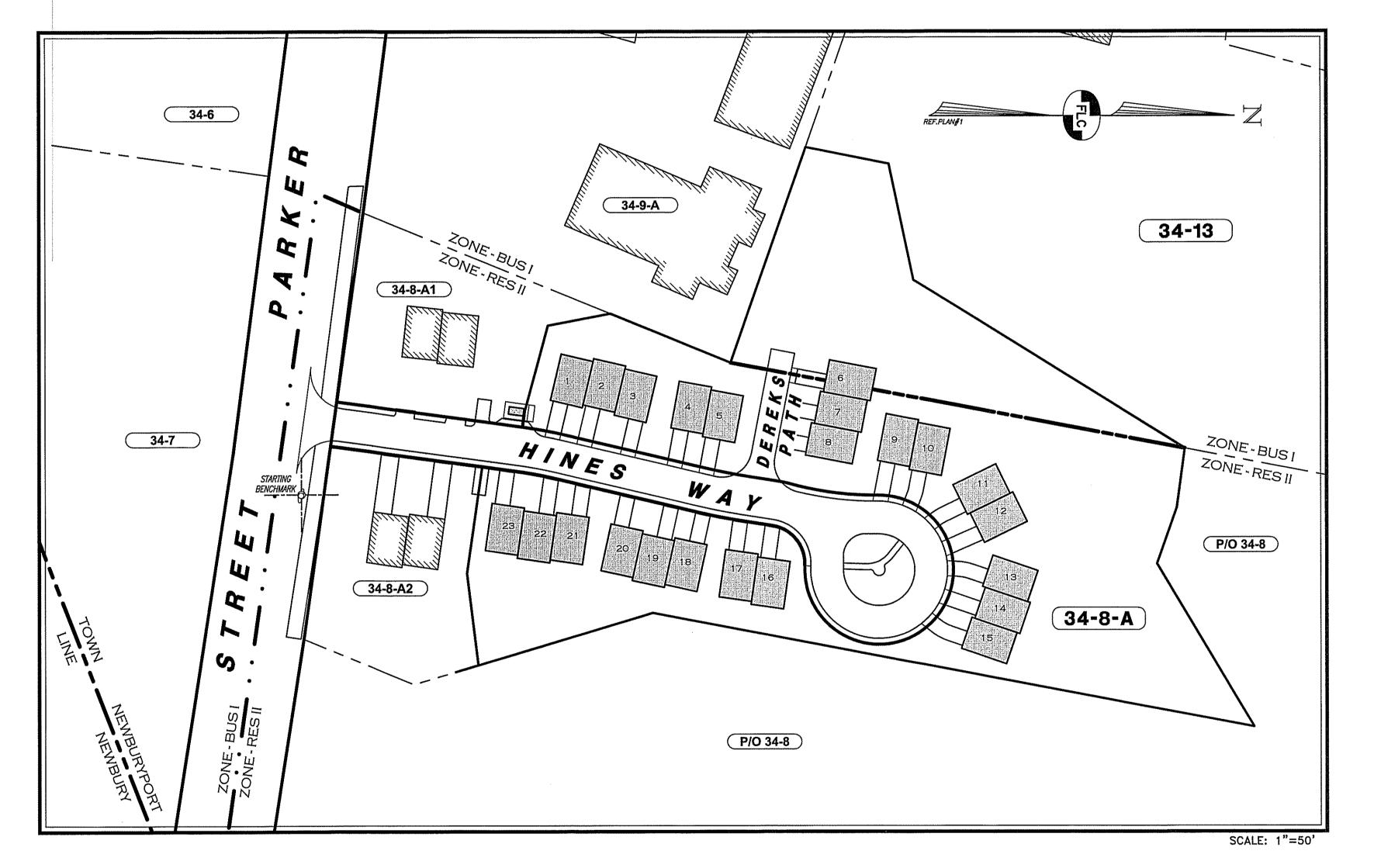


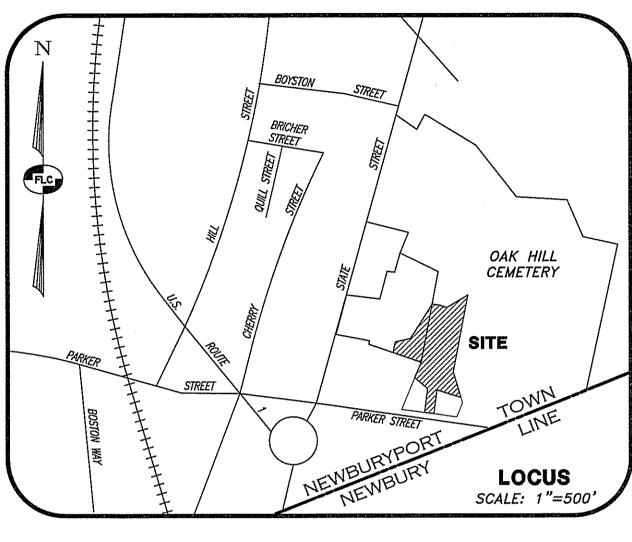


1. THE LOCATION OF THE UTILITIES SHOWN ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PRESERVE ALL UTILITY SERVICES. 2. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL JURISDICTIONAL AGENCIES AND UTILITY COMPANIES PRIOR TO AND DURING CONSTRUCTION.

> CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION DIGSAFE.COM OR DIAL 81 CALL BEFORE YOU DIG

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND PROPOSED WORK PRIOR TO CONSTRUCTION.





SHEET INDEX PAGE SHEET TITLE COVER SHEET EXISTING CONDITIONS PLAN LOT LINE ADJUSTMENT PLAN (ANR) SITE PLAN GRADING PLAN UTILITY PLAN PLAN AND PROFILE PP-1MISCELLANEOUS PLAN & PROFILES PP-2LIGHTING PLAN LT-1 LANDSCAPING PLAN LS-1 CONSTRUCTION DETAILS DT-1 DT-2DRAINAGE DETAILS DT-3 DRAINAGE & LANDSCAPING DETAILS DT-4 EROSION CONTROL DETAILS DT-5WATER DETAILS DT-6 WATER DETAILS DT-7SEWER DETAILS DT-8 STORMTECH DETAILS

PREPARED FOR AND LAND OF:

PARKER 2 REALTY TRUST

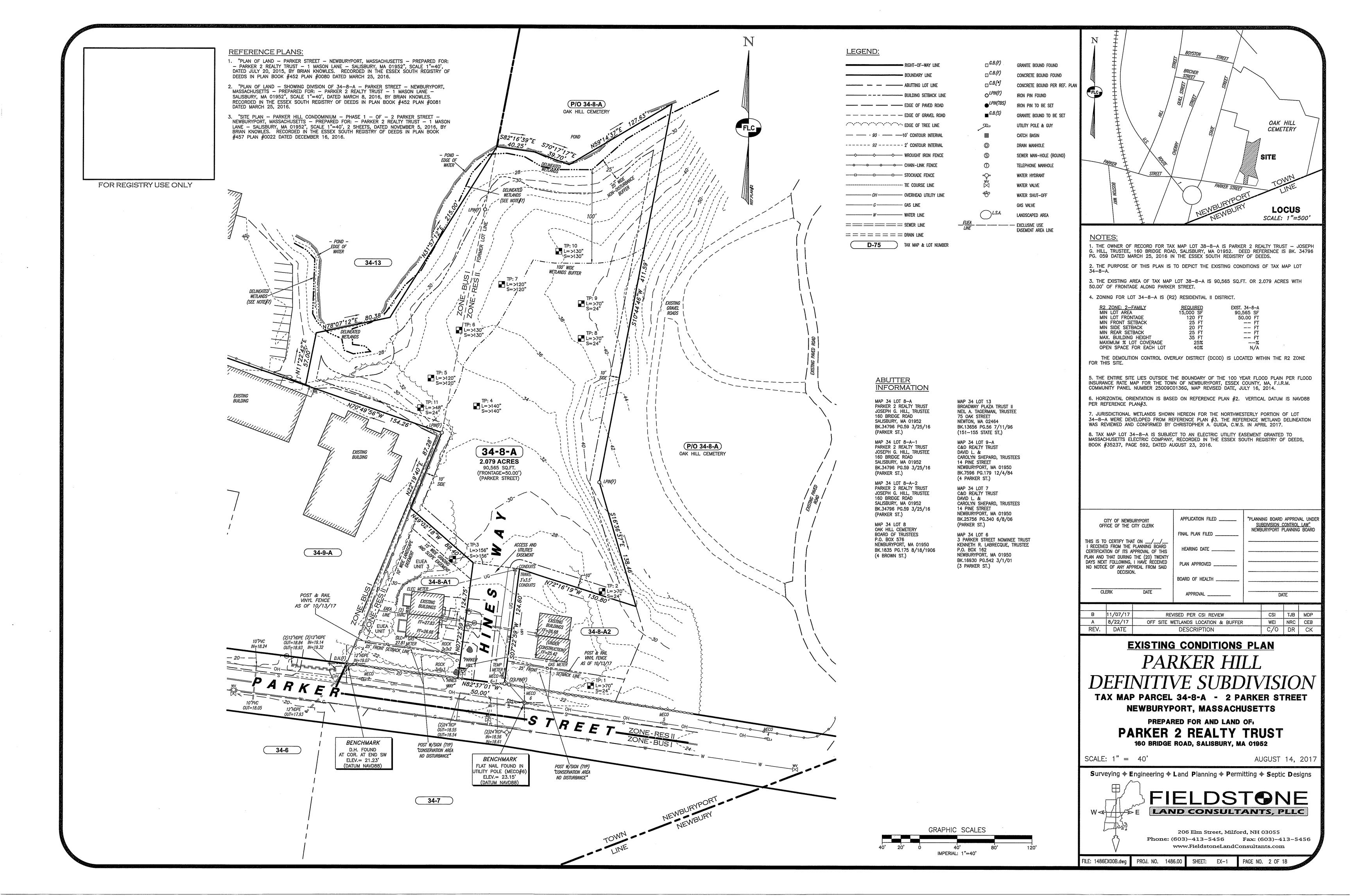
160 BRIDGE ROAD SALISBURY, MASSACHUSETTS 01952

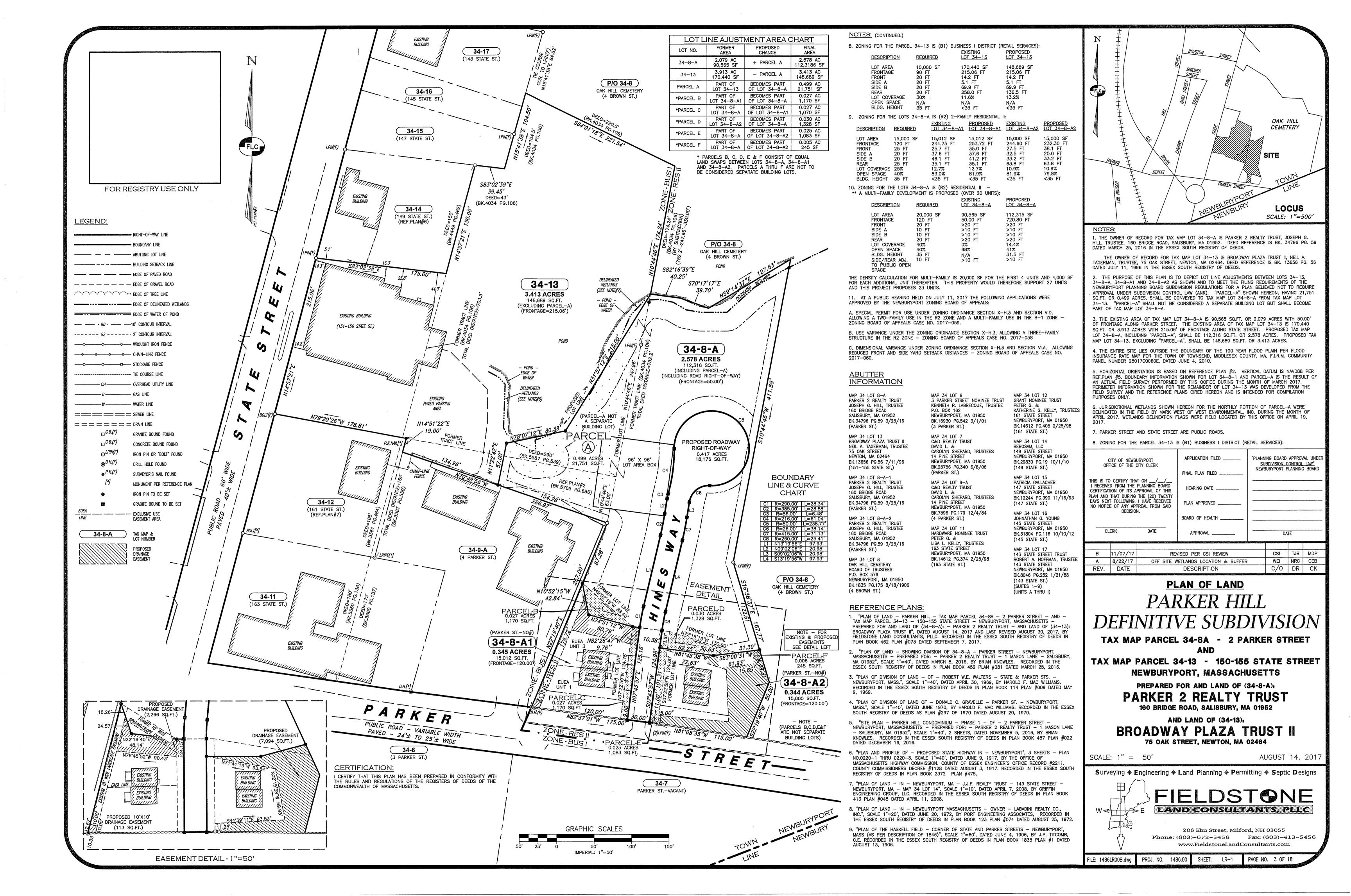


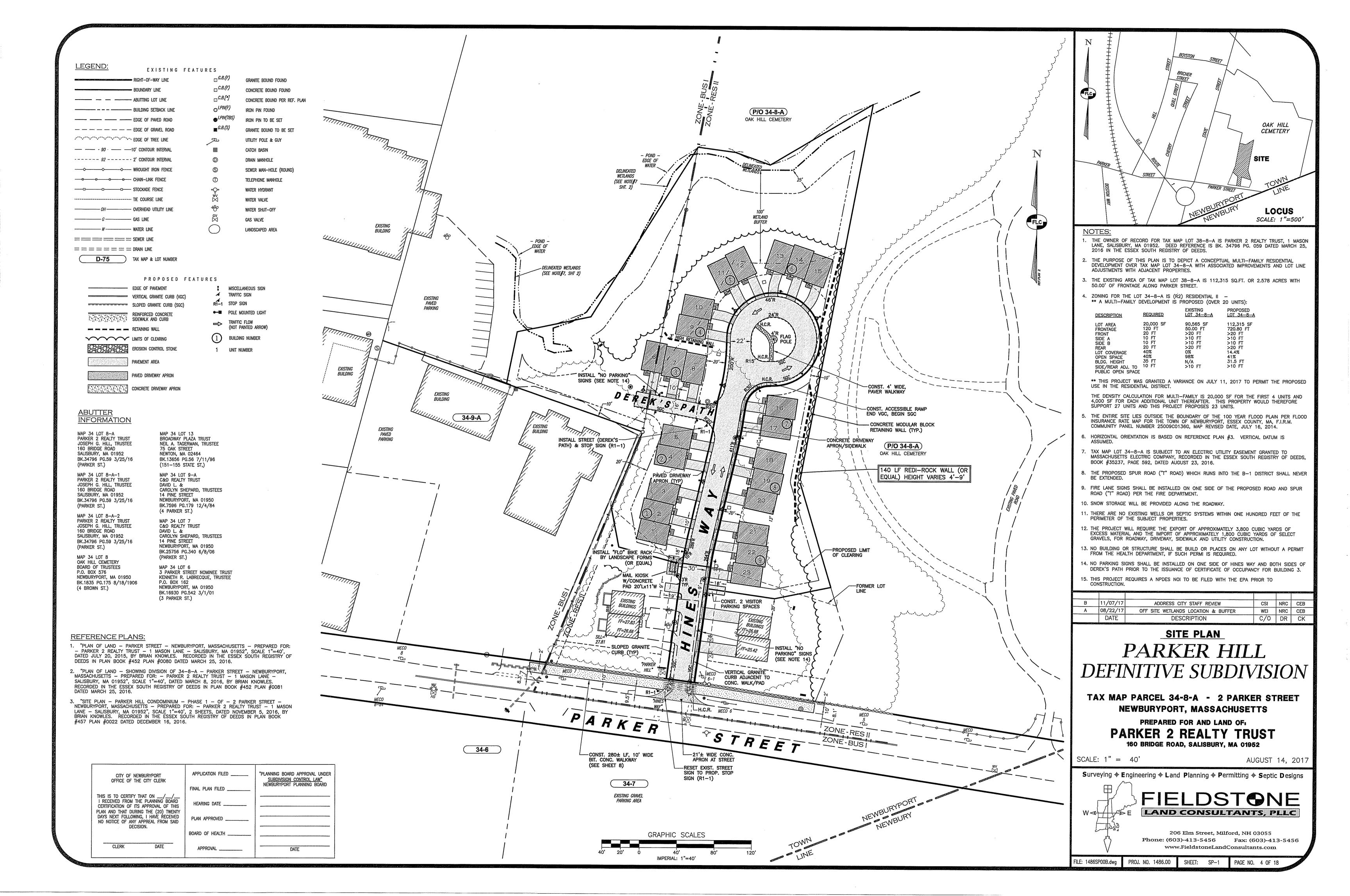


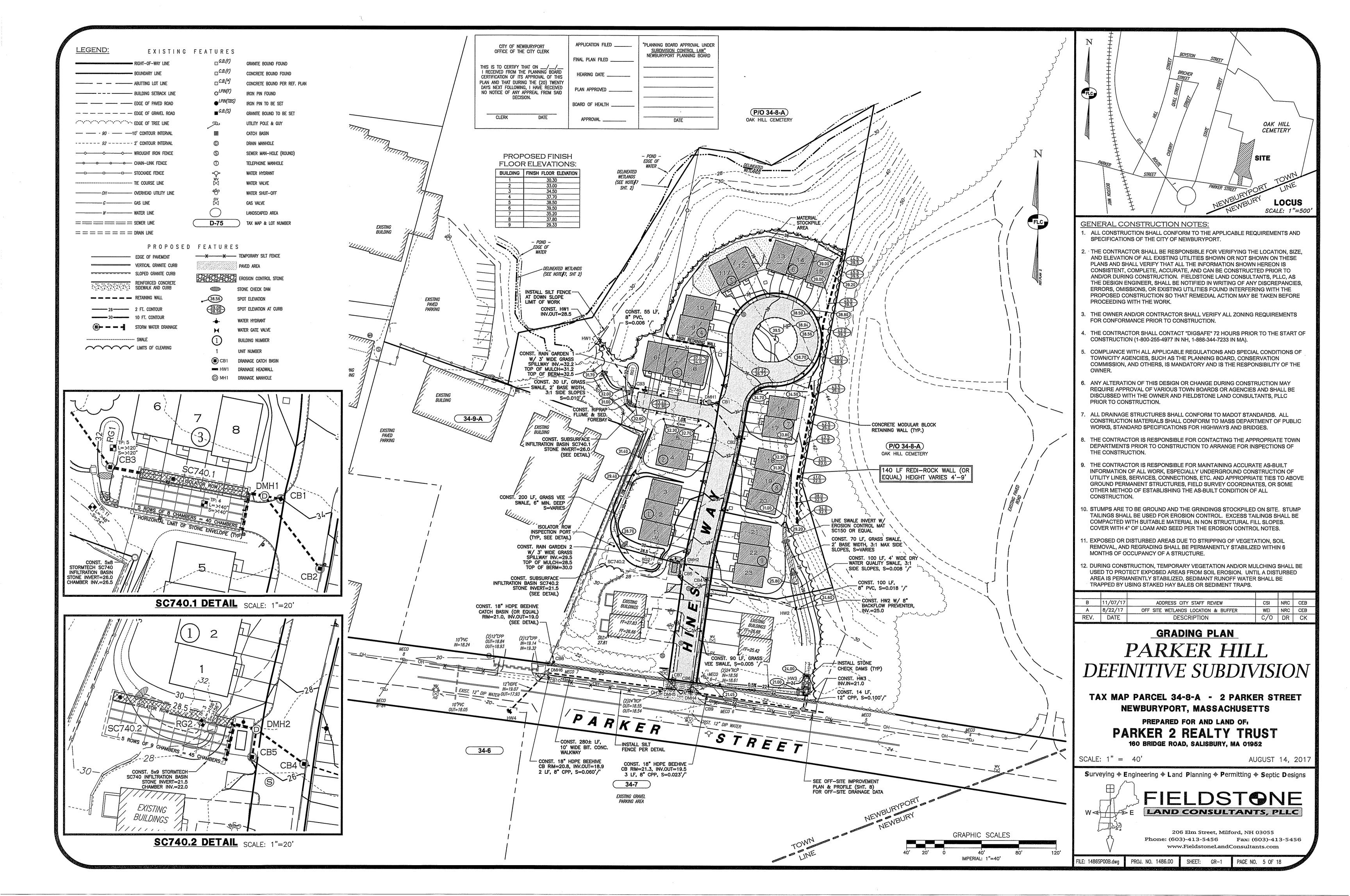
CITY OF NEW! OFFICE OF THE		APPLICATION FILED	"PLANNING BOARD APPROVAL UNDER SUBDIVISION CONTROL LAW"
		FINAL PLAN FILED	NEWBURYPORT PLANNING BOARD
THIS IS TO CERTIFY TH I RECEIVED FROM THE CERTIFICATION OF ITS	PLANNING BOARD APPROVAL OF THIS	HEARING DATE	
DAYS NEXT FOLLOWING NO NOTICE OF ANY AF DECISION	APPREAL FROM SAID	PLAN APPROVED	
DEOLGIN	,,,,	BOARD OF HEALTH	4-0 4-0 4-0 100 100 100 100 100 100 100 100 100 1
CLERK	DATE	APPROVAL	DATE

	- C	PRODUCT FOR A MINUS	the organization and the second	alis is in the State of the second of the se	to the state of the second	and a substance for the	and the Committee of th	Theodorn (c. v. co.	was well and a second	
						:				
В	11/07/17		REVISED	PER CSI R	EVIEW		CSI	TJB	MDP	_
Α	8/22/17	OFF SITE WETLANDS LOCATION & BUFFER			WEI	NRC	CEB			
REV.	DATE			SCRIPTIO	• •		c/o	DR	CK	
FILE: 148	6CV00B.dwg			SHEET:	CV-1		. 1 OF	18		r









UTILITY NOTES:

- I. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS AND SPECIFICATIONS OF CITY OF NEWBURYPORT AND THE MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACT "DIGSAFE" AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION (811).
- 4. ALL POWER WORK SHALL CONFORM TO EVERSOURCE STANDARDS.
- 5. ALL TELEPHONE WORK SHALL CONFORM TO FAIRPOINT COMMUNICATIONS SPECIFICATIONS.
- 6. STREET RESTORATION, IF ANY, SHALL BE IN ACCORDANCE WITH CITY OF NEWBURYPORT SPECIFICATIONS.
- 7. ALL DRAINAGE PIPE SHALL BE FURNISHED AND INSTALLED WITH FLEXIBLE GASKETS. JOINTS SHALL BE MADE WITH OIL RESISTANT COMPRESSION RINGS OF AN ELASTOMERIC MATERIAL CONFORMING TO ASTM C-443. MANUFACTURERS INSTALLATION INSTRUCTIONS
- 8. ALL DRAINAGE PIPES SHALL BE SMOOTH INTERIOR (HDPE) UNLESS OTHERWISE NOTED. CATCH BASINS SHALL HAVE 3 FOOT SUMPS UNLESS OTHERWISE NOTED.
- 9. SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS OF THE CITY OF NEWBURYPORT.
- 10. ALL WATER LINE, HYDRANT, VALVES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL SPECIFICATIONS.
- 11. SEWER SHALL BE SOLID WALL SDR-35 PVC UNLESS OTHERWISE REQUIRED BY THESE SPECIFICATIONS. SEWER SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY AND 18 INCHES VERTICALLY FROM WATER LINES WHENEVER SEWER MUST CROSS WATER MAINS. ALL SEWER SERVICES SHALL BE EQUIPPED WITH BACKFLOW PREVENTERS OUTSIDE THE
- 12. GAS LINES SHOWN SHALL BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATIONS OF THE PROPOSED GAS LINES WITH THE OWNER AND UTILITY COMPANY PRIOR TO CONSTRUCTION.
- 13. THE CONTRACTOR SHALL COORDINATE THE SIZE, LOCATION AND ELEVATION OF ALL ROOF DRAINS AND SEWER SERVICE CONNECTIONS WITH THE OWNER AND ARCHITECT PRIOR TO CONSTRUCTION.
- 14. THE CONTRACTOR SHALL COORDINATE THE FINAL LOCATION OF THE UNDERGROUND TELEPHONE AND ELECTRICAL SERVICES WITH THE OWNER PRIOR TO CONSTRUCTION.
- 15. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN/CITY BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
- 16. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE CITY DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR NECESSARY INSPECTIONS.
- 17. BLASTING, IF REQUIRED, SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF NEWBURYPORT FIRE DEPARTMENT REGULATIONS.
- 18. ROOF DRAINAGE LAYOUT & DESIGN SHALL BE FINALIZED WITH THE OWNER AND ARCHITECT OF EACH BUILDING.
- 19. UNDERGROUND ELECTRICAL CONDUIT SHALL BE SCHEDULE 80 IN PAVED AREAS.
- 20. A MINIMUM OF EIGHTEEN (18) INCHES OF VERTICAL SEPARATION SHALL MAINTAINED BETWEEN PROPOSED SEWER AND WATER MAINS AND UNDERGROUND ELECTRICAL CONDUITS. A MINIMUM OF SIX (6) INCHES OF VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN PROPOSED SEWER, WATER, GAS, UNDERGROUND UTILITES AND PROPOSED DRAINAGE PIPES.

APPLICATION FILED _____

FINAL PLAN FILED _____

PLAN APPROVED _____

APPROVAL _____

HEARING DATE _____

BOARD OF HEALTH ___

CITY OF NEWBURYPORT

OFFICE OF THE CITY CLERK

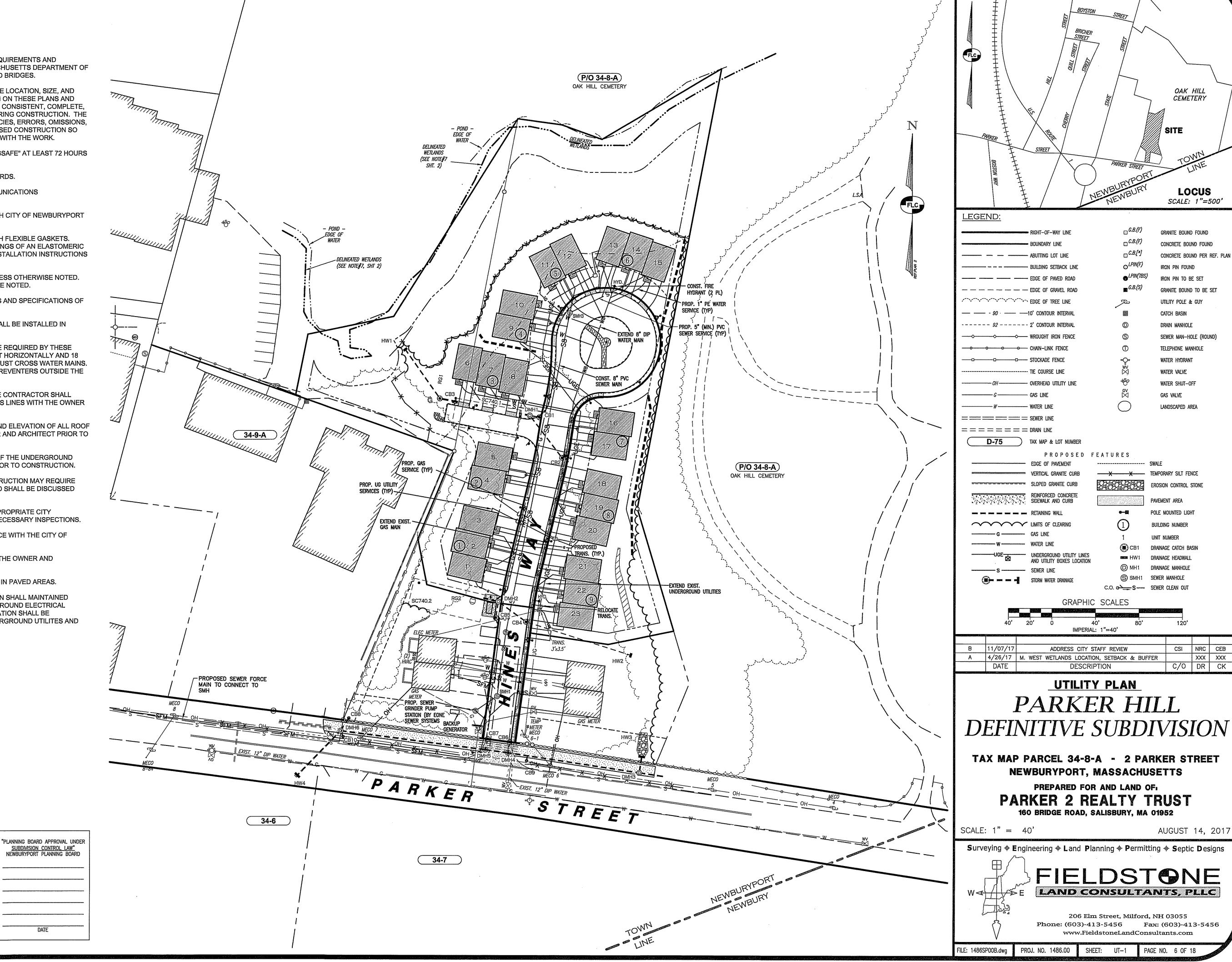
THIS IS TO CERTIFY THAT ON ___/__/__I RECEIVED FROM THE PLANNING BOARD

CERTIFICATION OF ITS APPROVAL OF THIS PLAN AND THAT DURING THE (20) TWENTY

DAYS NEXT FOLLOWING, I HAVE RECEIVED

NO NOTICE OF ANY APPREAL FROM SAID

DATE



CEMETERY

LOCUS

SCALE: 1"=500'

GRANITE BOUND FOUND

CONCRETE BOUND FOUND

IRON PIN TO BE SET

UTILITY POLE & GUY

TELEPHONE MANHOLE

WATER VALVE WATER SHUT-OFF

GAS VALVE

LANDSCAPED AREA

CSI NRC CEB

C/O DR CK

AUGUST 14, 2017

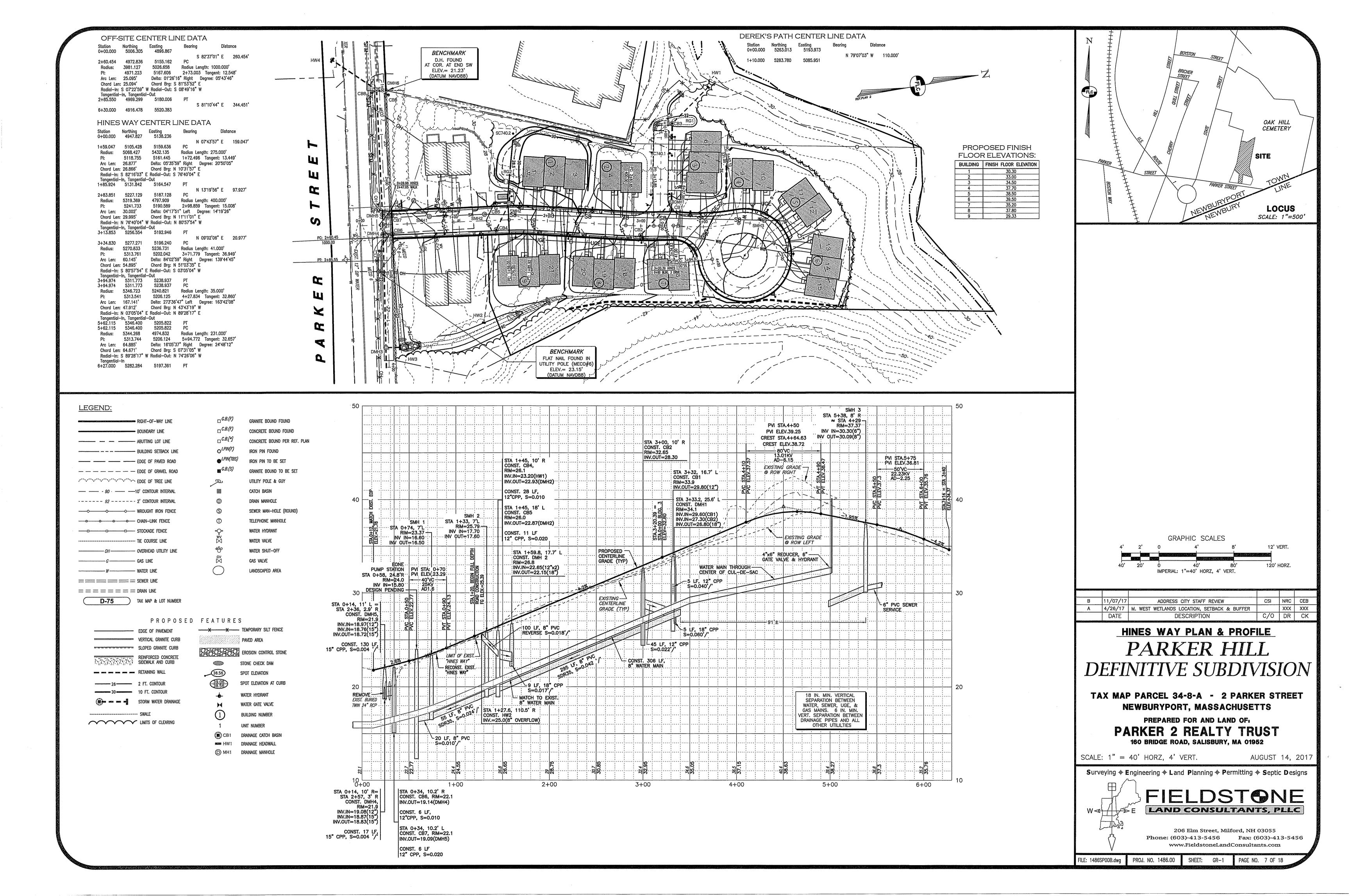
XXX XXX

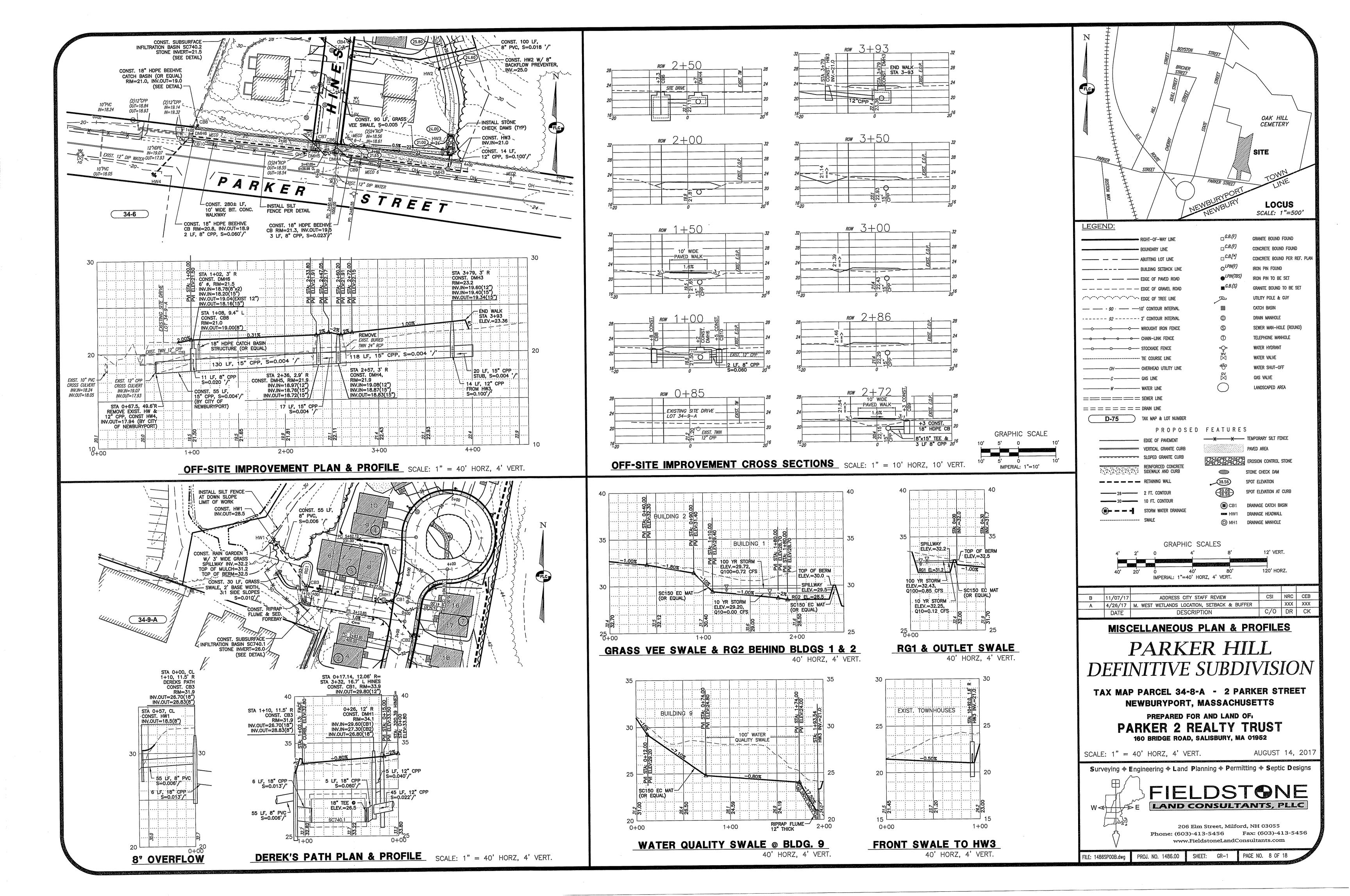
CATCH BASIN

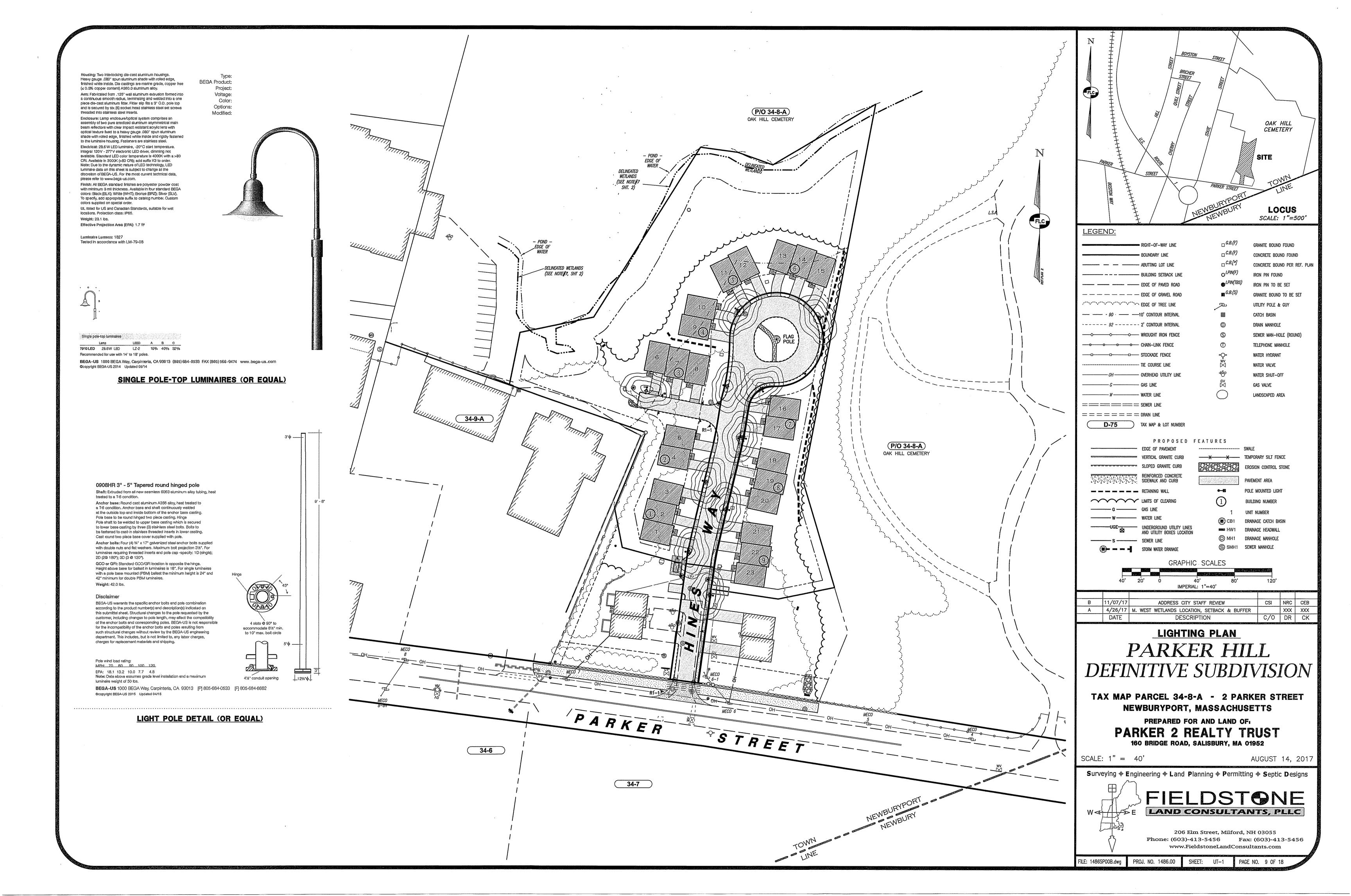
GRANITE BOUND TO BE SET

SEWER MAN-HOLE (ROUND)

CONCRETE BOUND PER REF. PLAN







PLANT SYMBOLS PLANTING LIST:

SYM. SCIENTIFIC NAME (COMMON NAME)
TREES QUANTITY SIZE ACER × FREEMANII 'ARMSTRONG' ARMSTONG MAPLE) 17)2.5-3"CAL. BETULA NIGRA (HERITAGE RIVER BIRCH) 12)12-14'CLUMP MAGNOLIA × SOULANGEANA (SAUCER MAGNOLIA) PICEA PUNGENS 'HOOPSII' (HOOPS SPRUCE) ABIES CONCOLOR(WHITE FIR) 10)8-10' CLETHRA ALNIFOLIA (DWARF SUMMER SWEET) O CA 187)3 GAL JUNIPERUS CHINENSIS (GREY OWL JUNIPER) 34)3 GAL SYRINGA PATULA (MISS KIM LILAC) HYDRANGEA PANICULATA (ENDLESS SUMMER HYDRANGEA) 107)3 GAL 43)3'-4' JUNIPERUS CHINENSIS (BLUE POINT JUNIPER) PIERIS JAPONICA 'MOUNTAIN FIRE' (COMPACT ANDROMEDA) 81)3 GAL ILEX GLABRA COMPACTA (DWARF INKBERRY) 78)3 GAL HELICTOTRICHON SEMPERVIRENS (BLUE OAT GRASS) 74)3 GAL MISCANTHUS SINENSIS 'YAKUSHIMA' (DWARF MAIDEN GRASS) MISCANTHUS SINENSIS 'LITTLE ZEBRA'(DWARF ZEBRA GRASS) 987)1 GAL

MISCELLANEOUS:

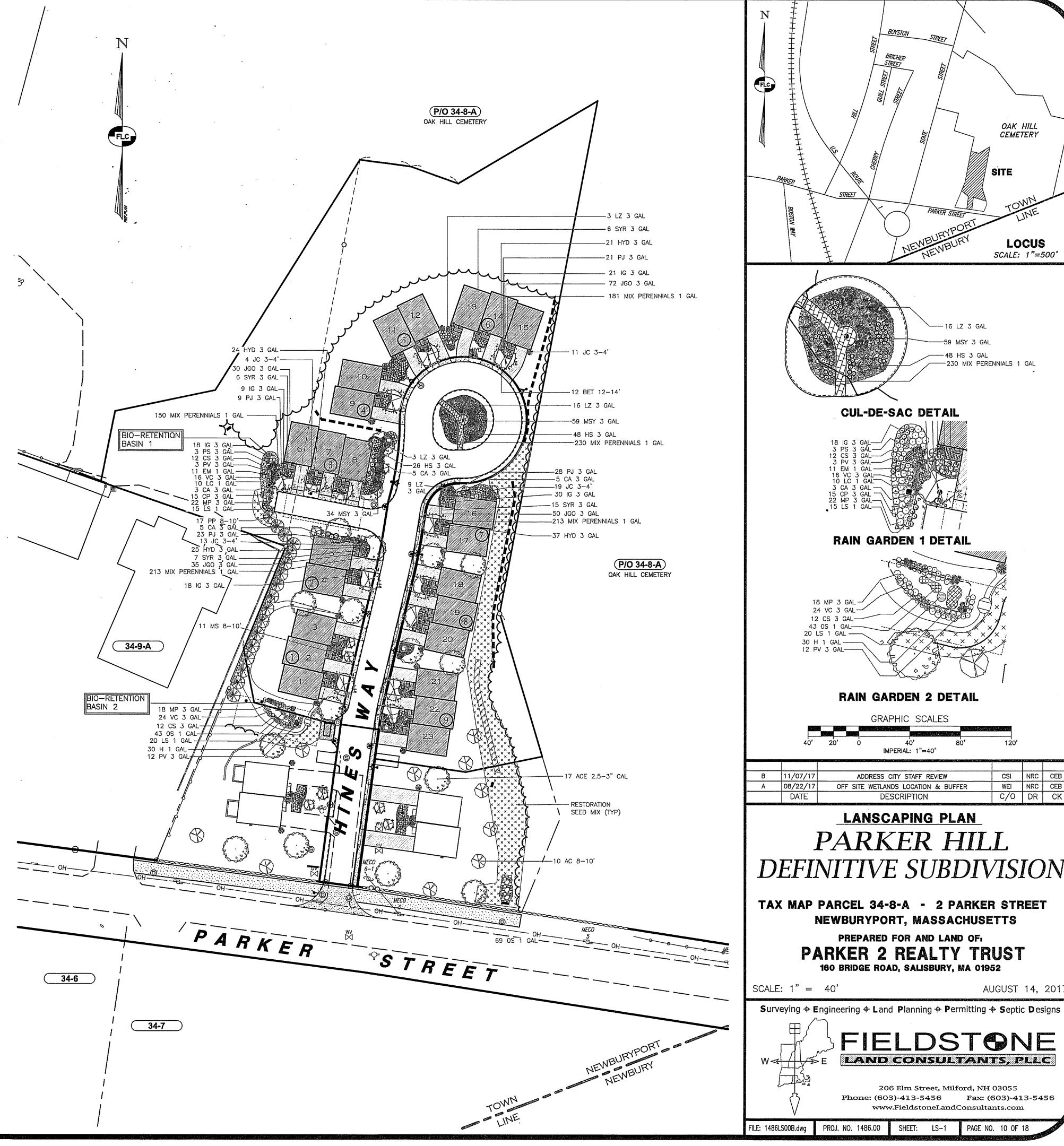
GENERAL LAWN SEED (BLUE SEAL LAWN MIX 11-A) OR EQUAL

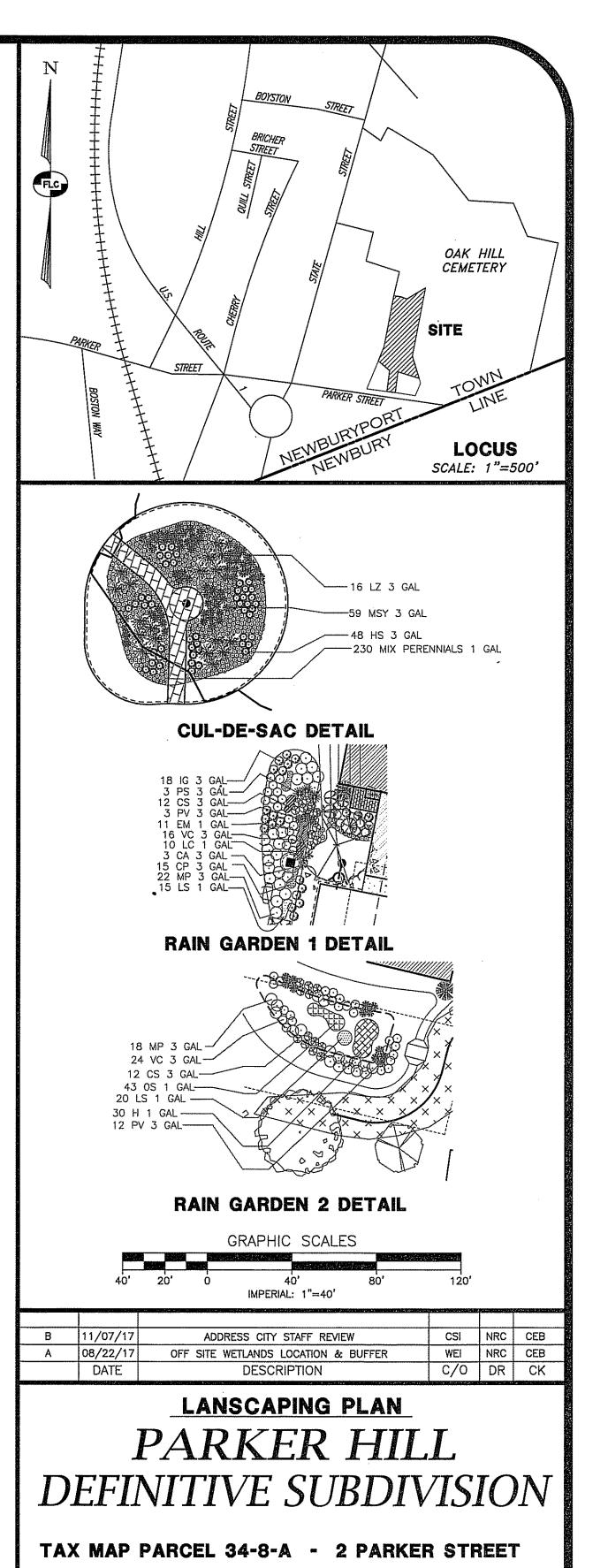
** RESTORATION SEED MIX: ERNMX-181: NATIVE STEEP SLOPE MIX W/ ANNUAL RYEGRASS (OR EQUAL), ERNST SEEDS, 8884 Mercer Pike, Meadville PA 16335 (800) 873-3321

DETENTION SEED MIXTURE: ERNMX-126: RETENTION FLOOR MIX (OR EQUAL), ERNST SEEDS, 8884 Mercer Pike, Meadville PA 16335 (800) 873-3321

PREMIUM BLEND PINE/HEMLOCK BARK MULCH

		NT BOLS PLANTING LIST: BIORETENTION AF	REAS	
	SHR	UBS		
8	CS	CONNUS SERICEA (SILVER DOGWOOD)	24)3 GA	L
\odot	VC	VACCINIUM CORYMBOSUM (HIGH BUSH BLUEBERRY)	40)3 GA	L
(+;	IG	ILEX GLABRA COMPACTA (DWARF INKBERRY)	18)3 GAI	L
\odot	MP	MYRICA PENSYLVANICA (BAYBERRY)	40)3 GA	L
	FLO\	NERS/GRASSES		
	LC	LOBEILA CARDINALIS (CARDNIAL FLOWER)	10)1 GAI	L.
	СР	CALTHA PALUSTRIS (MARSH MARIGOLD)	15)3 GAI	L
業	PS	PSCHIZACHYRIUM SCOPARIUM (LITTLE BLUE STEM)	3)3 GA	\L
*	PV	PANICUM VIRGATUM (DWARF SWITCH GRASS)	15)3 GAI	L
	LS	LOBELIA SILPHILITICA (GREAT BLUE LOBELIA)	35)1 GA	.L
	os	ONOCLEA SENSIBILIS (SENSITIVE FERN)	43)1 GA	L
	Н	HEMERACALLIS SP. (DAYLILY)	30)1 GA	L
*	CA	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' (FEATHER REED GRASS)	3)3 GA	L
	EM	EUPATORIUM MACULATUM SPOTTED JOE PYE WEED	11)1 GAI	L





NEWBURYPORT, MASSACHUSETTS PREPARED FOR AND LAND OF

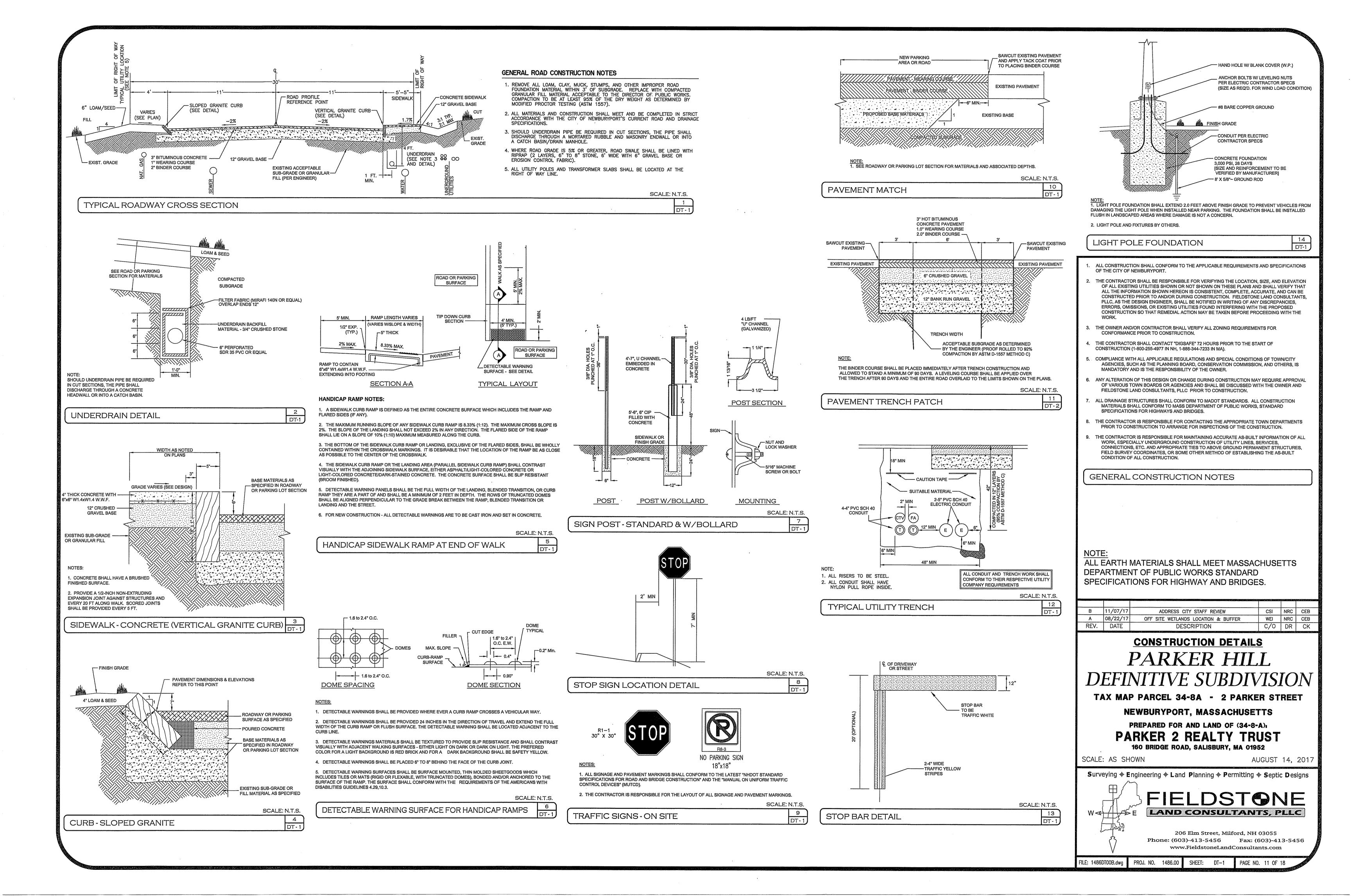
PARKER 2 REALTY TRUST 160 BRIDGE ROAD, SALISBURY, MA 01952

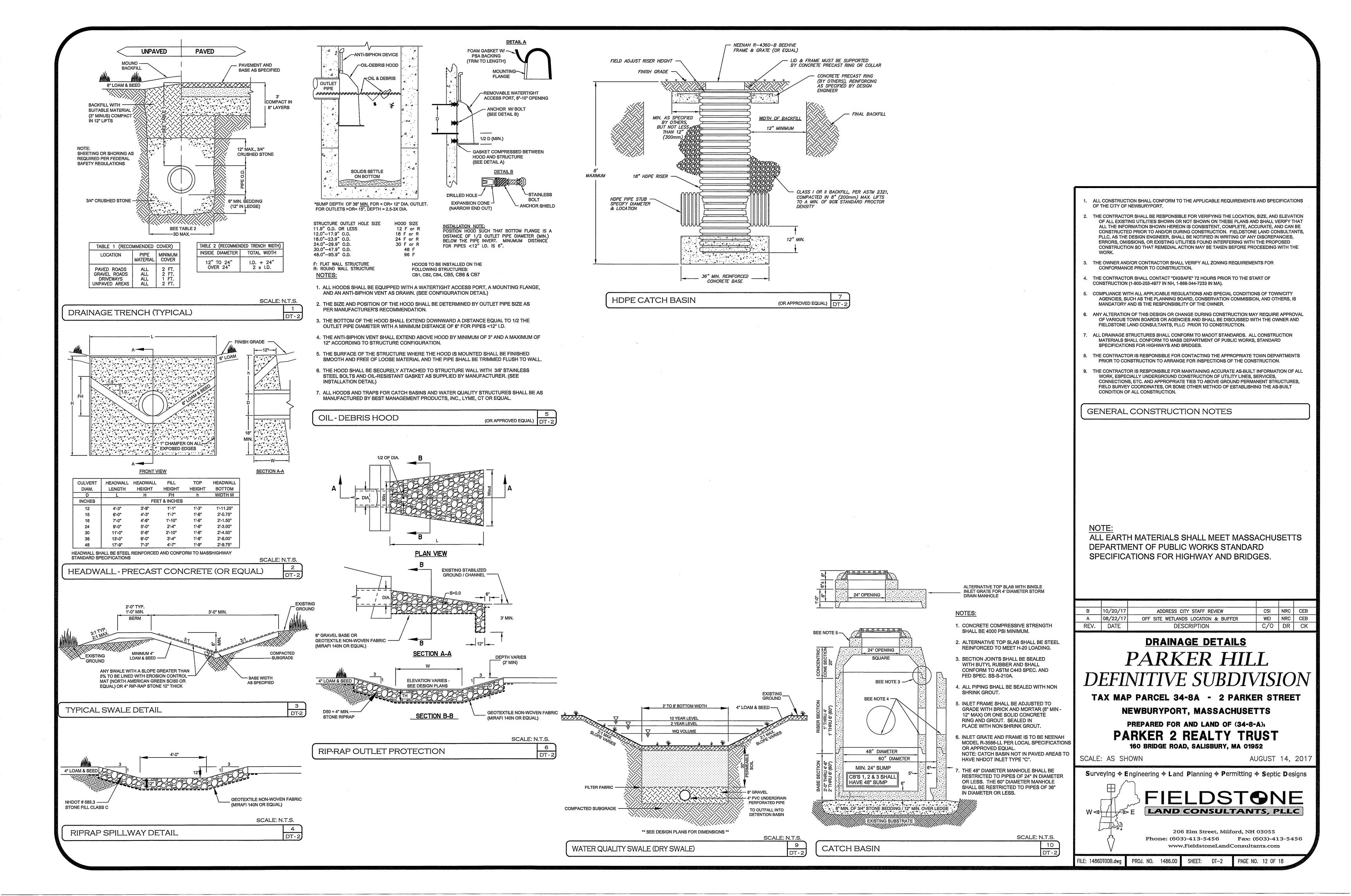
AUGUST 14, 2017

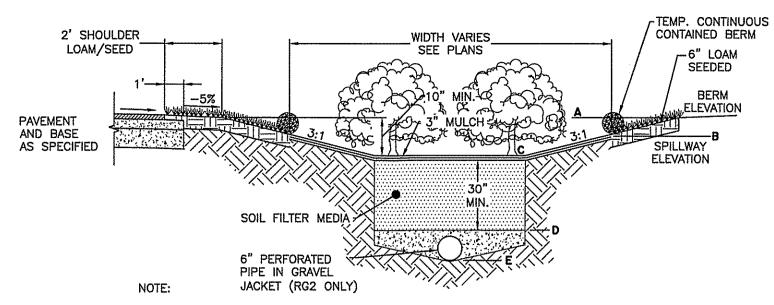
FIELDSTONE LAND CONSULTANTS, PLIC

> 206 Elm Street, Milford, NH 03055 Phone: (603)-413-5456 Fax: (603)-413-5456 www.FieldstoneLandConsultants.com

FILE: 1486LS00B.dwg PROJ. NO. 1486.00 SHEET: LS-1 PAGE NO. 10 OF 18







- 1. DO NOT PLACE RAIN GARDEN SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING DRAINAGE AREA(S) HAVE BEEN FULLY STABILIZED.
- 2. TO PREVENT DEGRADATION OF INFILTRATION FUNCTION:
- A. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
- B. DO NOT COMPACT THE EXCAVATION.
- C. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE RAIN GARDEN AREA DURING ANY STAGE OF CONSTRUCTION.

RAIN	GARDI	EN FILTER	MEDIA		
GRADATION OF MATERIAL					
COMPONENT MATERIAL		MIXTURE VOLUME	SIEVE NO.	% BY WEIGHT PASSING STANDARD SIEVE	
ASTM C-33 CONCRETE SAND	50	TO 55			
LOAMY SAND TOPSOIL, WITH FINES AS INDICATED	20	то зо	200	15 TO 25	
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED	20	то зо	200	< 5	

	F	RAIN GARDEN II	NVERT INFORMAT	ION	;
GARDEN #			ELEVATION		
GARDEN #	Α	B	С	D	E
1	32.5	32.2	31.2	27.2	NA
2	30.0	29.5	28.5	25.0	NA

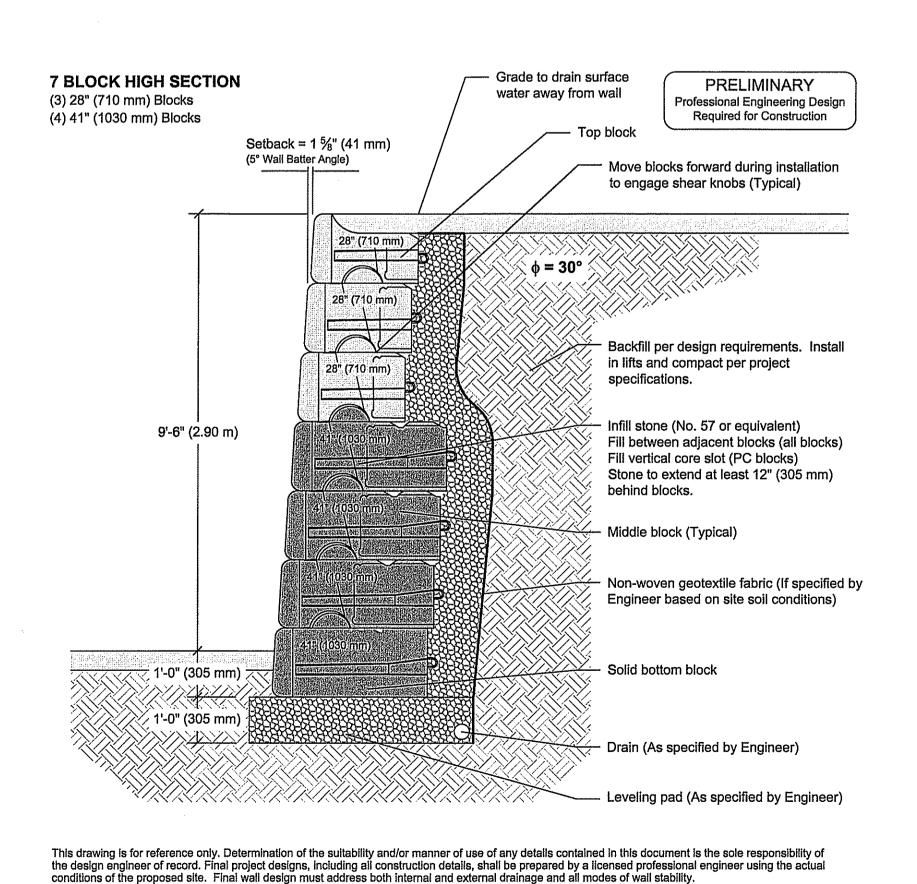
** SEE LANDSCAPE PLAN FOR PLANTINGS

**DESIGN BY OTHERS*

RAIN GARDEN TYPICAL SECTION

SCALE: N.T.S.

9
DT-1



TYPICAL SECTION SEGMENTAL RETAINING WALL

SCALE: N.T.S.

GENERAL SPECIFICATIONS:

1. THE CONTRACTOR SHALL AT HIS EXPENSE FURNISH ALL THE MATERIALS, SUPPLIES, MACHINERY, EQUIPMENT, TOOL, SUPERINTENDENT, LABOR, INSURANCE, & OTHER ACCESSORIES AND SERVICES NECESSARY TO COMPLETE THE SAID PROJECT WITHIN THE UNIT COSTS STATED WITHIN THE BID PRICE.

2. THE WORK TO BE DONE UNDER THIS CONTRACT IS AS SHOWN AND DESCRIBED ON THE DRAWINGS. EACH BIDDER SHALL MAKE A CAREFUL EXAMINATION OF THE PLANS AND SPECIFICATIONS (THE PLAN SHALL DICTATE QUANTITIES) AND ACQUAINT THEMSELVES WITH ALL CONDITIONS BEFORE MAKING THEIR PROPOSAL. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ERRORS IN THEIR PROPOSAL RESULTING FROM HIS FAILURE TO MAKE SUCH AN EXAMINATION. ALL BIDDERS SHALL VISIT THE SITE AND INFORM THEMSELVES OF ALL CONDITIONS.

3. THE BIDS SHALL BE BASED ON MATERIALS AND EQUIPMENT COMPLYING WITH THE DRAWINGS AND THE SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT PRICE FOR FURNISHING AND INSTALLING MATERIALS CONFIRMING TO THE BID ITEMS. UNDER NO CIRCUMSTANCES MAY A SPECIES 'HYBRID' BE SUBSTITUTED OR SIZE CHANGED WITHOUT WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF SUCH EXISTING UTILITIES AS WATER MAINS, SEWER SYSTEMS, GAS MAINS, ELECTRICAL CONDUITS, TELEPHONE LINES AND ANY OTHER UTILITIES AND IF ANY DAMAGE OR DESTRUCTION MAY OCCUR TO THESE UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT AT HIS EXPENSE.

5. THE CONTRACTOR SHALL MAKE PAYMENT FOR ALL DAMAGES TO BUILDINGS, STRUCTURES, TREES, SHRUBS AND/OR ANY OTHER PROPERTY OUTSIDE THE CONSTRUCTION AREA OR LOCATED WITHIN THOSE LIMITS BUT NOT DESIGNATED FOR REMOVAL OR RECONSTRUCTED PROVIDING SUCH DAMAGE SHALL RESULT FROM ACCIDENT CAUSED BY NEGLIGENCE FOR WHICH THE CONTRACTOR SHALL BE LEGALLY LIABLE.

6. IF ADDITIONAL LABOR AND/OR MATERIALS IS REQUESTED OR REQUIRED, THE CONTRACTOR SHALL SUBMIT A PRICE TO THE OWNER. IF THE OWNER APPROVES THE PRICE THE CONTRACTOR SHALL PREPARE A CHANGE ORDER FOR APPROVAL AND SIGNATURE. THE CONTRACTOR SHALL NOT PROCEED WITHOUT A WRITTEN AUTHORIZATION FROM THE OWNER FOR THE ADDITIONAL WORK. IF THE CONTRACTOR PROCEEDS WITH THE ADDITIONAL WORK WITHOUT AUTHORIZATION THEY SHALL FORFEIT ANY CLAIM FOR ADDITIONAL COMPENSATION.

7. THE LANDSCAPE ARCHITECT (L.A.) SHALL RESERVE THE RIGHT TO INSPECT THE PROJECT WORK AT ANY TIME DEEMED NECESSARY TO INSURE THAT THE SPECIFICATIONS AND PLANS AND ANY OTHER CONTRACT DOCUMENTS ARE BEING FOLLOWED.

8. THE L.A. SHALL HAVE THE RIGHT TO REJECT ANY PLANT ON-SITE BASED UPON CONDITION, SIZE, OR INCORRECT SPECIES OR HYBRID. THE L.A. MUST BE CONTACTED PRIOR TO INSTALL, TO INSPECT MATERIALS DELIVERED TO THE SITE AND TO INSURE THAT SOIL AMENDMENTS, BARK MULCH, ROOF BALLUST, ETC. ARE TO THE WRITTEN SPECIFICATIONS.

9. ALL SEEDED AREAS SHALL RECEIVE A MINIMUM 6" TOPSOIL BLANKET (BY SITE CONTRACTOR) W/SITE PREPARATION, RAKING AND GENERAL CLEAN UP PRIOR TO APPLICATION. OPERATIONS SHALL INCLUDE A PRE- EMERGENCE TYPE HERBICIDE, 12-25-12 GRANULAR FERTILIZER @ 10 LBS/1000 SF, AND PELLETIZED LIMESTONE @25 LBS./1000 SF POWER RAKED INTO THE TOP 2" OF SOIL PRIOR TO HYDRO-SEEDING. RATIOS & APPLICATION RATES MAY CHANGE BASED UPON THE REQUIRED SOIL ANALYSIS.

10. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING A THICK, WEED FREE LAWN. SEED SHALL BE SPREAD @4 LBS /1000 SF. LAWN GERMINATION SHALL BE 95% FREE OF NOXIOUS WEEDS FOR ACCEPTANCE. DEFINE DIFFERENCES IN SEED MIXES (IF APPLICABLE) WITH IRRIGATION FLAGGING UNTIL 2ND MOWING. SITE REVIEW BY L.A. IS REQUIRED.

11. REVIEW OF THE INSTALLED IRRIGATION SYSTEM BY THE DESIGNER IS REQUIRED PRIOR TO RELEASE OF FINAL

PAYMENT.

12. HYDROSEEDING OPERATIONS SHALL BE A ONE PART PROCESS WITH A PAPER FIBER MULCH; A TACKIFIER SHALL BE

APPLIED ON ALL SLOPES GREATER THAN 3:1, EXCELSOR DRAINAGE MAT SHALL BE APPLIED TO ALL 2:1 SLOPES AND DRAINAGE SWALES PER PLAN.

13. THE CONTRACTOR SHALL MAINTAIN, FROM ACCEPTANCE DATE, THE LAWN AREAS THROUGH THE FIRST MOWING. THE

14. ALL PLANT MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH A.L.C.C. SPECIFICATIONS AND PER PLAN DETAILS. PER DETAILS DECIDUOUS TREES SHALL BE GUYED IN A TRIPOD FASHION USING PLASTIC CINCH TIES & 2" X 2" X 8' HARDWOOD STAKES; TREES AND SHRUBS SHALL HAVE APPROPRIATE SOIL MIXTURES, FERTILIZER AND SOIL RETENTION

CONTRACTOR IS NOT RESPONSIBLE FOR THE FIRST MOWING.

GENERAL PLANTING NOTES

PLASTIC CINCH TIE
TREE STRAPPING
W/ TRIPOD CONFIGURATION

HARDWOOD STAKES

-USE 3 STAKES ON 3" CAL.
OR LARGER TREES

4" BARK MULCH BED-

* CLAY SOILS -USE A SAND MIXTURE

GRANULES

ADD AGRIFORM -

FERTILIZER TABLETS

* NORTH SIDE & CUL-DE

** SOUTH SIDE OF STREET

IRRIGATION SLEEVE

NOTE: ALL PYRAMIDAL EVERGREENS & DECIDUOUS TREES SHALL BE PLANTED W/ ROOTS HORMONE ENHANCER.

DECIDUOUS TREE PLANTING DETAIL

15. IF THE SOIL CONDITIONS ARE EXTREMELY SANDY, ALL TREES SHALL HAVE A 6" LAYER OF COMPACTED TOPSOIL (VERIFY WITH LANDSCAPE ARCHITECT) PLACED AT THE BASE OF THE PLANT PIT AS A MOISTURE RETENTION LAYER. THE PLANT PIT SIDEWALLS SHALL BE OVER EXCAVATED BY AN ADDITIONAL 12" BEYOND THE NORMAL OUTSIDE RADIUS OF THE HOLE. A TOPSOIL PLANTING MIXTURE SHALL BE USED TO BACKFILL AS PER SPEC # 22.

16. THE LANDSCAPE ARCHITECT SHALL HAVE THE RIGHT TO REJECT AND HAVE GROUND REMOVED ANY PLANT MATERIAL NOT OF PROPER SIZE OR OF WEAK QUALITY, i.e. THIN, NO LOWER BRANCHING, ETC. CONTRACTOR MUST SUBMIT SHIPPING LISTS (BILLING INVOICES) FOR VERIFICATION, PRIOR TO INSTALLATION.

DO NOT INSTALL BEEHIVE MULCH BEDS AROUND

- DO NOT FILL SOIL OVER TOP OF ROOT BALL

IN SANDY SOILS USE 50% PEAT MOSS

INSTALL DeepRoot UB 24-2 ROOT BARRIER

SCALE: N.T.S.

4

AT EACH STREET TREE (ACE) IN R.O.W.

- WELL DRAINED SOILS PLACE 12" OF COMPACTED LOAM AT WELL BASE

IRRIGATION SLEEVE

SCALE: N.T.S.

DT-3

CUT WIRE BASKET & REMOVE BURLAP

ANY OF THE PLANT MATERIAL.

FROM TOP 1/3 OF BALL.

6' MIN. DIA. PLANT SAUCER

'V' GROOVE ALL MULCHED EDGES
TO DEFINE AND HOLD THE BARK MULCH

AS SHOWN ON PLAN

17. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF INSTALLATION. ANY MATERIAL WHICH DIES OR DOES NOT SHOW A HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTORS EXPENSE; WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL. WARRANTY DOES NOT COVER LOSS DUE MECHANICAL DAMAGE, I.e. SNOW STORAGE. CONTRACTOR SHOULD PROTECT SUSCEPTABLE SPECIES FROM INSECT INFESTATION. USE A LIQUID SYSTEMIC APPLICATION ON BIRCH, ETC.

18. PLANT BEDS AND SAUCERS VARY IN DIA. (REFER TO DWG). TREES AND SHRUBS SHALL RECEIVE A 4" COVERING OF PINE/HEMLOCK BARK MULCH; SAUCER DIAMETERS PER DRAWING & DETAILS. DECIDUOUS TREES SHALL HAVE A 6' DIA. SAUCER (TYP.), EVERGREEN TREES SHALL HAVE A SAUCER 2' MIN. BEYOND IT'S OUTER BRANCHES. ALL EDGES SHALL HAVE A 'V' GROOVE.

20. ALL B&B MATERIAL WHICH ARE ENCASED IN WIRE BASKETS SHALL HAVE THE WIRES CUT LOOSE AND THE TOP THIRD REMOVED PRIOR TO BACKFILL OPERATION.

21. IF ROAD BASE IS ENCOUNTERED IN ANY PLANT BED AREAS, i.e. PARKING ISLANDS, IT SHALL BE REMOVED AND SUITABLE AMENDED SOIL INSTALLED PER DRAWINGS AND SPECIFICATIONS.

22. SOIL PLANTING MIXTURE SHALL BE A 6%-TO 10% ORGANIC TOPSOIL, AMENDED WITH 10% WOOD ASH, 10% MANURE, & 30% PEATMOSS (OR INCORPORATE ALL-GRO OR A SIMILAR DEHYDRATED COMPOST MATERIAL). IF PLANTING IN SAND, GRAVEL OR OTHER WELL DRAINED SOILS, A 50% PEATMOSS TO EXCAVATED SOIL. OTHER SOIL AMENDMENTS SHALL INCLUDE; AGRIFORM TABLETS, HYDRO-GEL OR EQUAL, AND ROOTS GROWTH ENHANCER TO ALL TREES AND SHRUBS LISTED, PER MANUFACTURERS SPECIFICATIONS. ALL PLANT MATERIAL PITS WILL RECEIVE A MIN. 20% IN VOLUME MIX OF ALL-GRO SOIL AMENDMENT. SUBMITTAL REQUIRED. 'ROOTS' STEP 1 CAN BE SUBSTITUTED FOR THE INDIVIDUAL SUPPLEMENTS. INSTALL PER MANUFACTURER'S SPECS.

23. THE LANDSCAPE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR TOPSOIL SPREADING BUT SHALL COORDINATE WITH THE SITE CONTRACTOR ADHERENCE TO THE MOUND GRADES, PLANT BED SOIL DEPTHS AND SOIL TYPE PER DWGS & SPEC. LANDSCAPE CONTRACTOR SHALL POWER RAKE-OUT FOR SEED.

24. THE LANDSCAPE CONTRACTOR SHALL PROVIDE A SOIL ANALYSIS OF THE TOPSOIL PLANTING MIXTURE. ANALYSIS TO SHOW SOIL CLASSIFICATION (MIN. SANDY LOAM) AND NUTRIENTS.

25. THE CONTRACTOR SHALL PROTECT ALL B&B MATERIALS LEFT ABOVE GRADE PRIOR TO INSTALLATION FROM DRYING OUT. ALL PLANTS SHALL BE STORED, COVERED IN MULCH, AND IRRIGATED UNTIL PLANTED. ANY PLANT LEFT ON THE GROUND AND WHOSE OUTTER BALL SURFACE DRYS OUT, SHALL BE REJECTED BY THE LANDSCAPE ARCHITECT. PLANTS SHOULD BE STORED IN SHADE AND OFF PAVEMENT.

26. THE CONTRACTOR SHALL ALERT LANDSCAPE ARCHITECT IF ANY DESCREPENCIES EXIST BETWEEN THE PLAN, THE MATERIAL LIST, AND AS-BUILT SITE CONDITIONS.

27. INSTALLER SHALL NOTIFY LANDSCAPE ARCHITECT PRIOR TO PLANTING, TO REVIEW PLANT LOCATIONS AND BEDLINE CONFIGURATIONS. IF CONTRACTOR INSTALLS WITHOUT THE PLACEMENT APPROVAL OF THE L.A., SAID ARCHITECT SHALL HAVE THE RIGHT TO RELOCATE ANY INSTALLED PLANTS AT THE CONTRACTOR'S EXPENSE.

28. THE INSTALLER SHALL NOTIFY LANDSCAPE ARCHITECT PRIOR TO PLANT INSTALLATION TO REVIEW ALL MATERIALS. ANY PLANTS OF POOR CONDITION, IMPROPER SIZE, OR SPECIES WILL BE REJECTED.

29. UPON ONE YEAR REVIEW, CONTRACTOR SHALL REMOVE ALL GUYS & STAKES AND/OR STRAIGHTEN ANY TREES THAT HAVE SHIFTED. ANY WEAK OR BARE SPOTS IN LAWN SHALL BE RESEEDED.

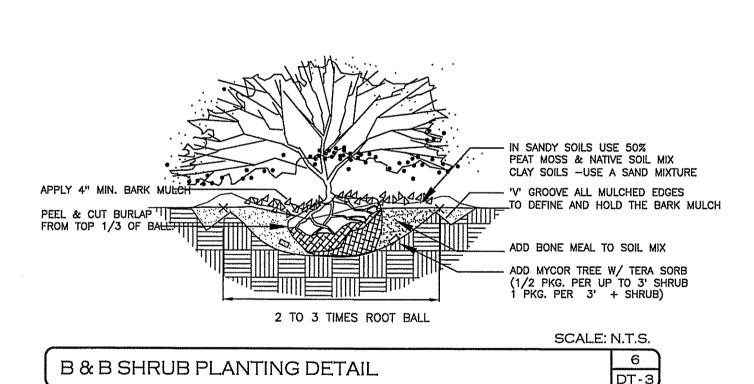
31. ALL BEDLINES SHALL HAVE A DEEP 'V' GROOVE TO DEFINE LAWN TO MULCH EDGE. NO 'BEEHIVE" MOUNDING OF MULCH IS ALLOWED, ALSO KEEP MULCH AWAY FROM BASE OF PERENNIALS.

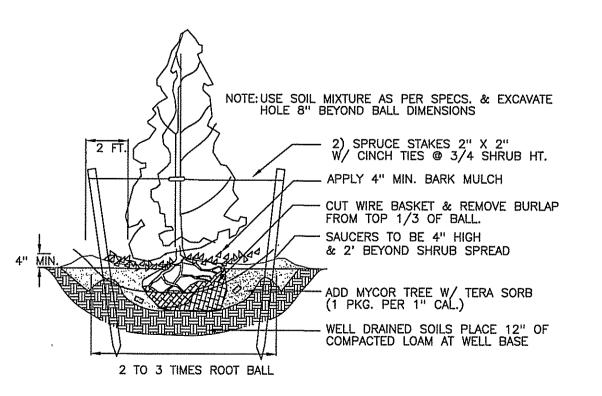
32. DO NOT PLANT MATERIALS TOO CLOSE TO THE EDGE OF BEDLINES. REFER TO DRAWINGS FOR CENTER OF PLANT TO BEDLINE. AT A MINIMUM NO OUTER BRANCHING OF A SHRUB OR PERENNIAL SHALL BE CLOSER THAN TWO FEET FROM THE BEDLINES. IF THE AS-BUILT DOES NOT COMPLY CONTRACTOR SHALL ADJUST THE PLANT LOCATION OR BEDLINE AT HIS EXPENSE.

33. ANY ITEMS NOT COMPLETED TO THE SPECIFICATIONS WILL BE REQUIRED AT CONTRACTORS EXPENSE PRIOR TO FINAL APPROVALS AND PAYMENT. THE CONTRACTOR IS TO BID THE WORK ACCORDING TO THE SPECIFICATIONS AND NOT TO WHAT THEY MAY DO UNDER THEIR STANDARD PRACTICES. SPECIAL ATTENTION WILL BE PAYED TO SOILS, AMENDMENTS, GUY STAKES, BEDLINE & SAUCER CONFIGURATIONS, SEED MIXTURES, ETC.

SCALE: N.T.S.

3
DT-3





NOTE: ALL PYRAMIDAL EVERGREENS & DECIDUOUS TREES SHALL BE PLANTED W/ MYCOR TREE TRANSPLANT.

EVERGREEN TREE PLANTING DETAIL

5CALE: N.T.S.

7
DT-3

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS AND SPECIFICATIONS OF THE CITY OF NEWBURYPORT.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. FIELDSTONE LAND CONSULTANTS, PLLC, AS THE DESIGN ENGINEER, SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE
- 3. THE OWNER AND/OR CONTRACTOR SHALL VERIFY ALL ZONING REQUIREMENTS FOR CONFORMANCE PRIOR TO CONSTRUCTION.
- 4. THE CONTRACTOR SHALL CONTACT "DIGSAFE" 72 HOURS PRIOR TO THE START OF CONSTRUCTION (1-800-255-4977 IN NH. 1-888-344-7233 IN MA).
- 5. COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND SPECIAL CONDITIONS OF TOWN/CITY AGENCIES, SUCH AS THE PLANNING BOARD, CONSERVATION COMMISSION, AND OTHERS, IS MANDATORY AND IS THE RESPONSIBILITY OF THE OWNER.
- 6. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND FIELDSTONE LAND CONSULTANTS, PLLC PRIOR TO CONSTRUCTION.
- ALL DRAINAGE STRUCTURES SHALL CONFORM TO MADOT STANDARDS. ALL CONSTRUCTION MATERIALS SHALL CONFORM TO MASS DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE TOWN DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR INSPECTIONS OF THE CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCURATE AS-BUILT INFORMATION OF ALL WORK, ESPECIALLY UNDERGROUND CONSTRUCTION OF UTILITY LINES, SERVICES, CONNECTIONS, ETC. AND APPROPRIATE TIES TO ABOVE GROUND PERMANENT STRUCTURES, FIELD SURVEY COORDINATES, OR SOME OTHER METHOD OF ESTABLISHING THE AS-BUILT CONDITION OF ALL CONSTRUCTION.

GENERAL CONSTRUCTION NOTES

NOTE:
ALL EARTH MATERIALS SHALL MEET MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS STANDARD
SPECIFICATIONS FOR HIGHWAY AND BRIDGES.

B 10/20/17 ADDRESS CITY STAFF REVIEW CSI NRC CEB	
B 10/20/17 ADDRESS CITY STAFF REVIEW CSI NRC CEB	
A 08/22/17 OFF SITE WETLANDS LOCATION & BUFFER WEI NRC CEB	
REV. DATE DESCRIPTION C/O DR CK	

PARKER HILL DEFINITIVE SUBDIVISION

TAX MAP PARCEL 34-8A - 2 PARKER STREET

PREPARED FOR AND LAND OF (34-8-A).

PARKER 2 REALTY TRUST

160 BRIDGE ROAD, SALISBURY, MA 01952

SCALE: AS SHOWN

/N AUGUST 14, 2017

Surveying & Engineering & Land Planning & Permitting & Septic Designs

FIELDSTONE

LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055

Phone: (603)-413-5456

Fax: (603)-413-5456

Www.FieldstoneLandConsultants.com

FILE: 1486DT00B.dwg PROJ. NO. 1486.00 SHEET: DT-3 PAGE NO. 13 0F 18

EROSION CONTROL (GENERAL CONSTRUCTION)

- PRIOR TO STARTING ANY WORK ON THE SITE THE CONTRACTOR SHALL NOTIFY APPROPRIATE
- 2. EROSION CONTROL MEASURES SHALL BE INSTALLED PER PLANS AND DETAILS. PERIMETER CONTROLS SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF EARTH DISTURBING ACTIVITIES.
- 3. EXISTING VEGETATION IS TO REMAIN UNDISTURBED WHEN POSSIBLE.
- 4. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE KEPT CLEAN DURING CONSTRUCTION. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK AND AFTER EVERY 0.25-INCH OR GREATER RAINFALL. SEDIMENTS SHALL BE DISPOSED OF IN AN UPLAND AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND BE PERMANENTLY
- 5. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION. AT NO TIME SHALL THE TOTAL UNSTABILIZED DISTURBED AREA, INCLUDING LOT DISTURBANCES, BE GREATER THAN FIVE
- 6. THE LAND AREA EXPOSED SHALL BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME. ALL NON-ACTIVE DISTURBED AREAS SHALL BE STABILIZED WITHIN 30 DAYS OF THE DISTURBANCE. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF FINAL GRADING.
- DITCHES, SWALES AND DRAINAGE BASINS SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF
- 8. AN AREA SHALL BE CONSIDERED STABILIZED IF ONE OF THE FOLLOWING HAS OCCURED:
 - A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED; B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP, HAS BEEN INSTALLED: OR
 - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

CONSTRUCTION AND STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

- EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES THAT ARE STEEPER THAN 3:1 (HORIZONTAL / VERTICAL). UNLESS OTHERWISE SPECIFIED THE CONTRACTOR SHALL USE NORTH AMERICAN GREEN SC150, OR APPROVED EQUAL.
- 10. ALL AREAS RECIEVING EROSION CONTROL STONE OR RIPRAP SHALL HAVE A GEOTEXTILE MATERIAL INSTALLED BELOW THE STONE (SEE APPROPRIATE DETAILS).
- 11. ALL DISTURBED AREAS TO TURF FINSHED SHALL BE COVERED WITH A MINIMUM THICKNESS OF 4 INCHES OF COMPACTED LOAM. LOAM SHALL BE COVERED WITH THE APPROPRIATE SEED MIXTURE AS

POUNDS / 1,000 SQUARE FEET PERMANENT SEED (LAWN AREAS)

CREEPING RED FESCUE PERENNIAL RYEGRASS

1.15 LBS 0.58 LBS 0.12 LBS

KENTUCKY BLUEGRASS **APPLICATION RATE TOTALS 2.8 LBS PER 1,000 SF**

12. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE (CRITICAL TIME FRAMES OR VARIABLE SITES) THEN APPLY FERTILIZER AT A RATE OF 11 POUNDS PER 1,000 SF AND LIMESTONE AT A RATE OF 90 POUNDS PER 1,000 SF. FERTILIZER SHALL BE LOW PHOSPHATE (LESS THAN 2% PHOSPHORUS).

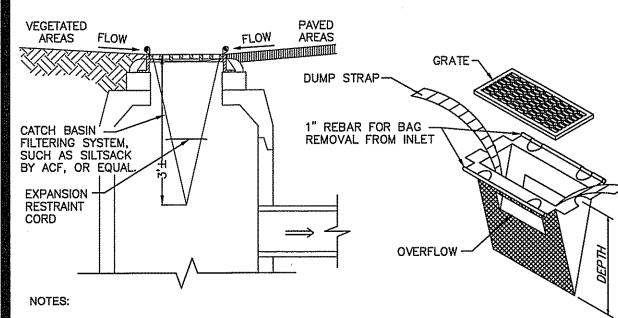
CAUTION SHOULD BE TAKE WHEN THE PROPERTY IS LOCATED WITHIN 250 FEET OF A WATER BODY. IN THIS CASE ALL FERTILIZERS SHALL BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER. SLOW RELEASE FERTILIZERS MUST BE AT LEAST 50% SLOW RELEASE NITROGEN COMPONENT. NO FERTILIZER EXCEPT LIMESTONE SHALL BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER. THESE ARE REGULATED LIMITATIONS.

- 13. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS (SEE WINTER CONSTRUCTION NOTES). NO DISTURBED AREAS SHALL BE LEFT EXPOSED DURING THE
- 14. A VIGOROUS DUST CONTROL PROGRAM SHALL BE APPLIED BY THE SITE CONTRACTOR. DUST SHALL BE MANAGED THROUGH THE USE OF WATER AND/OR CALCIUM CHLORIDE.
- 15. IN NO WAY ARE THE MEASURES INDICATED ON THE PLANS OR IN THESE NOTES TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT TO INSTALL ADDITIONAL EROSION CONTROL MEASURES AS SITE CONDITIONS, WEATHER OR CONSTRUCTION METHODS WARRANT.
- 16. FOLLOWING PERMANENT STABILIZATION, TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND ACCUMULATED SEDIMENTATION IS TO BE DISPOSED OF IN AN APPROVED LOCATION, OUTSIDE OF JURISDICTIONAL WETLANDS.

EROSION CONTROL (WINTER CONSTRUCTION)

- ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED. STABILIZATION METHODS SHALL INCLUDE SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE, THE INSTALLATION OF EROSION MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL OR PROPERLY INSTALLED EROSION CONTROL BLANKETS COVERED WITH HAY. OTHER STABILIZATION OPTIONS ARE TO BE APPROVED BY THE APPROPRIATE AGENCIES AND THE DESIGN ENGINEER. IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER MONTHS THEN THE ROAD SHOULD BE CLEARED OF ACCUMULATED SNOW AFTER EACH STORM EVENT.

EROSION CONTROL NOTES



INSTALL AND MAINTAIN SACKS IN ALL CATCH BASINS.

TO INSTALL SACK, REMOVE CATCH BASIN GRATE AND PLACE SACK IN OPENING. HOLD OUT APPROXIMATELY SIX INCHES OF THE SACK OUTSIDE THE FRAME FOR THE LIFTING STRAPS. REPLACE THE GRATE TO HOLD THE

3. THE SACK SHOULD BE INSPECTED AFTER EVERY STORM, OR ONCE EVERY TWO WEEKS, WHICH EVER OCCURS FIRST.

4. THE RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF THE CORD IS COVERED WITH SEDIMENT, THE SACK SHOULD BE EMPTIED. EMPTY THE SACK AWAY FROM THE CATCH BASIN TO PREVENT SEDIMENT FROM RE-ENTERING THE CATCH BASIN. EMPTY THE SACK PER THE MANUFACTURES RECOMMENDATIONS.

5. REPLACE THE SACK IN THE CATCH BASIN AFTER THE SACK HAS BEEN EMPTIED. ONCE CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED BY PAVING OR A HEALTHY VEGETATIVE COVER, REMOVE THE SACK FROM THE CATCH BASINS.

SILT SACK SEDIMENT FILTER

THE FOLLOWING PROVIDES AN ITEMIZATION OF SPECIFIC SITE MAINTENANCE PRACTICES THAT WILL BE EMPLOYED ON THE SITE TO MINIMIZE POLLUTANT GENERATION AND TRANSPORT FROM THE SITE. THE SITE MAINTENANCE PROGRAM INCLUDES ROUTINE INSPECTIONS, PREVENTATIVE MAINTENANCE AND "GOOD HOUSEKEEPING" PRACTICES.

1. THE CONTRACTOR SHALL INSPECT ALL CONTROL MEASURES AT LEAST ONCE A WEEK AND WITHIN TWELVE (12) HOURS OF THE END OF A STORM WITH RAINFALL AMOUNT GREATER THAN 0.5 INCHES. THE INSPECTIONS WILL VERIFY THAT THE STRUCTURAL BMP'S DESCRIBED IN THE PLANS ARE IN GOOD CONDITION AND ARE MINIMIZING EROSION. A MAINTENANCE INSPECTION REPORT WILL BE MADE WITH EACH INSPECTION. COMPLETED INSPECTION FORMS SHALL BE KEPT ON-SITE FOR THE DURATION OF THE PROJECT. FOLLOWING CONSTRUCTION, THE COMPLETED FORMS SHALL BE RETAINED AT THE CONTRACTOR'S OFFICE FOR A MINIMUM OF ONE YEAR.

PREVENTATIVE MAINTENANCE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL TEMPORARY AND PERMANENT CONTROLS THROUGHOUT THE DURATION OF THIS CONTRACT. MAINTENANCE PRACTICES SHALL INCLUDE BUT ARE NOT LIMITED TO:

1. CLEANING OF CATCH BASINS TWICE A YEAR OR MORE FREQUENTLY AS DICTATED BY QUARTERLY

2. CLEANING OF SEDIMENT AND DEBRIS FROM STORMWATER MANAGEMENT AREA FOREBAY TWICE A

YEAR OR MORE FREQUENTLY AS DICTATED BY MONTHLY INSPECTIONS. 3. IMPLEMENTATION OF OTHER MAINTENANCE OR REPAIR ACTIVITIES AS DEEMED NECESSARY BASED ON

- 4. REMOVAL OF BUILT UP SEDIMENT ALONG SILT FENCES, WATTLES AND / OR HAY BALE BARRIERS.
- 5. REMOVAL OF BUILT UP SEDIMENT IN BOTH TEMPORARY AND PERMANENT CONTROLS SUCH AS GRASS SWALES, SEDIMENT FOREBAYS AND RECHARGE / DETENTION BASINS.
- RECONSTRUCTING THE STABILIZED CONSTRUCTION ENTRANCE IF NOT WORKING PROPERLY.
- 7. TREATMENT OF NON-STORM WATER DISCHARGES SUCH AS WATER FROM WATER LINE FLUSHINGS OR GROUNDWATER FROM DEWATERING EXCAVATIONS. SUCH FLOWS SHOULD BE DIRECTED TO A TEMPORARY SEDIMENTATION BASIN OR STORM WATER MANAGEMENT AREA.

GOOD HOUSEKEEPING PRACTICES

THE CONTRACTOR SHALL EMPLOY MEASURES AND PRACTICES TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS TO STORM AND WATER RUNOFF. THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO THE HANDLING, USE AND DISPOSAL OF MATERIALS SUCH AS PETROLEUM PRODUCTS, FERTILIZERS AND PAINTS TO ENSURE THAT THE RISK ASSOCIATED WITH THESE PRODUCTS IS MINIMIZED. THE FOLLOWING "GOOD HOUSEKEEPING" PRACTICES SHALL BE FOLLOWED DURING THE CONSTRUCTION OF THE PROJECT:

A. AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT TO DO THE JOB.

3. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS, AND IS POSSIBLE UNDER A ROOF OR ENCLOSURE.

- C. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THEIR MANUFACTURER'S LABELS.
- D. WHENEVER POSSIBLE, ALL OF A PRODUCT SHALL BE USED BEFORE DISPOSING OF THE CONTAINER.
- E. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
- F. THE CONTRACTOR SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.

SPILL PREVENTION AND PRACTICES

A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND

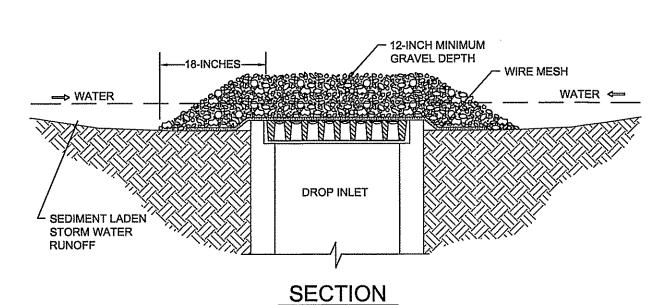
B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. MATERIALS AND EQUIPMENT WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS. MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

D. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

- E. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
- F. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

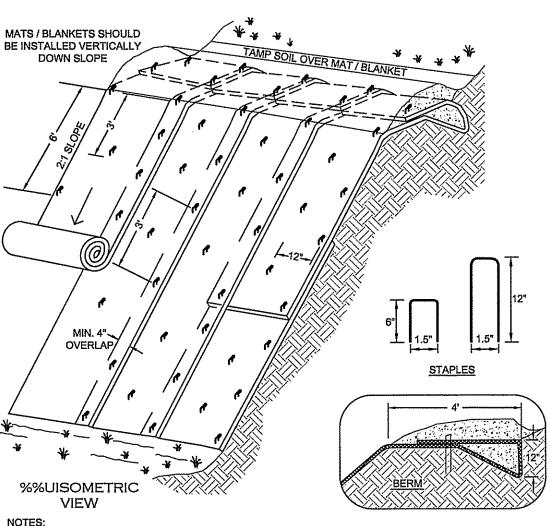
SITE MAINTENANCE AND INSPECTION PROGRAM



- 1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS (LESS THAN 5%).
- 2. THIS TYPE OF BARRIER HAS NO OVERFLOW PROVISION, WILL RESULT IN PONDING IF THE SEDIMENT IS NOT REMOVED REGULARLY AND SHOULD THEREFORE NOT BE USED WHEN OVERFLOW MAY ENDANGER DOWN SLOPE
- 3. THE WIRE MESH SHOULD BE PLACED OVER THE DROP INLET SO THAT THE ENTIRE OPENING AND A MINIMUM OF 12-INCHES AROUND THE OPENING ARE COVERED BY THE MESH.
- 4. THE WIRE MESH SHOULD BE HARDWARE CLOTH OR WIRE WITH OPENINGS UP TO ONE HALF INCH.
- 5. THE GRAVEL FILTER SHOULD BE CLEAN COARSE AGGREGATE.
- 6. THE GRAVEL SHOULD EXTEND AT LEAST 18-INCHES ON ALL SIDES OF THE DRAIN OPENING AND SHALL BE AT LEAST 12-INCHES IN DEPTH.
- 7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE

PULLED AWAY FROM THE STRUCTURE, CLEANED AND REPLACED.

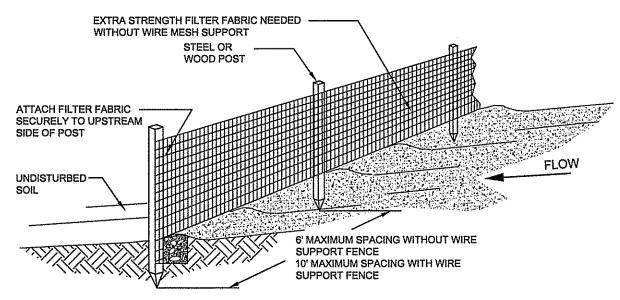


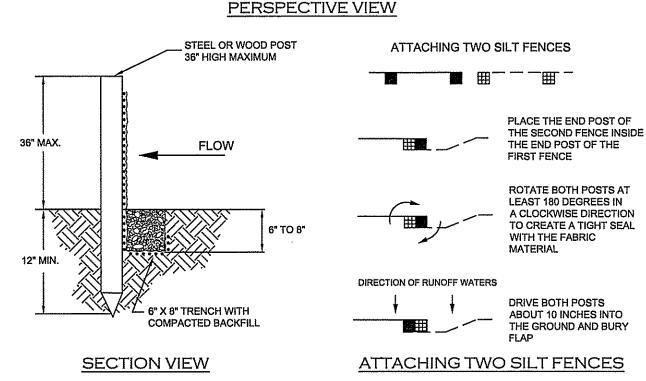


REMULCHED AS DIRECTED.

- 1. DIMENSIONS GIVEN IN THIS DETAIL ARE EXAMPLES: DEVICE SHOULD BE INSTALLED PER MANUFACTURER'S
- 2. INSTALL STRAW/COCONUT FIBER EROSION CONTROL MAT SUCH AS NORTH AMERICAN GREEN SC150 OR EQUAL ON ALL SLOPES EXCEEDING 3' HORZ: 1' VERT.
- 3. THE EROSION CONTROL MATERIAL(S) SHALL BE ANCHORED WITH "U" SHAPED 11 GAUGE WIRE STAPLES OR WOODEN STAKES WITH A MINIMUM TOP WIDTH OF 1 INCH AND LENGTH OF 6 INCH.
- 4. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS / BLANKETS SHALL HAVE
- 5. APPLY LIME, FERTILIZER AND PERMANENT SEEDING BEFORE PLACING BLANKETS.
- 6. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET AS SHOWN. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES OR STAKES IN APPROPRIATE LOCATIONS. REFER TO MANUFACTURERS STAPLE GUIDE FOR CORRECT STAPLE
- 7. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT
- 8. IN LOOSE SOIL CONDITIONS THE USE OF STAPLES OR STAKE LENGTHS GREATER THAN 6 INCHES MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
- 9. THE CONTRACTOR SHALL MAINTAIN THE BLANKET UNTIL ALL WORK ON THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MAINTENANCE SHALL CONSIST OF THE REPAIR OF AREAS WHERE DAMAGED BY ANY CAUSE. ALL DAMAGED AREAS SHALL BE REPAIRED TO REESTABLISH THE CONDITIONS AND GRADE OF THE SOIL PRIOR TO APPLICATION OF THE COVERING AND SHALL BE REFERTILIZED, RESEEDED AND

EROSION BLANKETS - SLOPE INSTALLATION





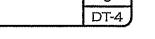
1. SILT FENCES SHOULD NOT BE USED ACROSS STREAMS, CHANNELS, SWALES, DITCHES OR OTHER

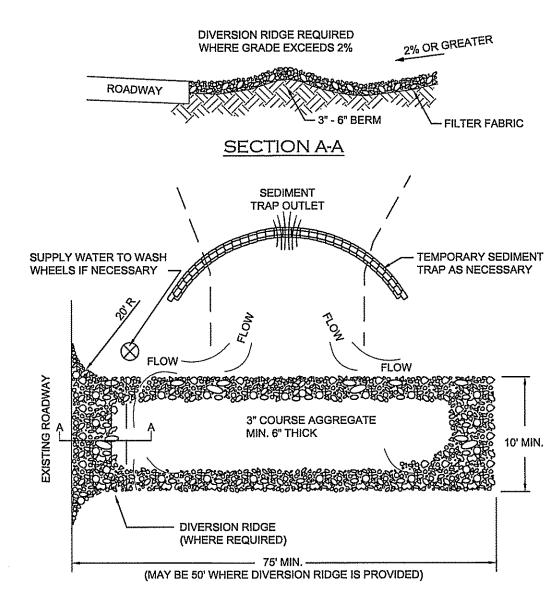
- DRAINAGE WAYS. SILT FENCE SHOULD BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS
- POSSIBLE AND THE ENDS OF THE SILT FENCE SHOULD BE FLARED UPSLOPE. 3. IF THE SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE OR THE PRESENCE OF HEAVY ROOTS THE
- BASE OF THE FABRIC SHOULD BE EMBEDDED WITH A MINIMUM THICKNESS OF 8 INCHES OF 3/4-INCH
- TO ALLOW SPACE FOR SHALLOW PONDING AND ACCESS FOR MAINTENANCE. THE MAXIMUM SLOPE ABOVE THE FENCE SHOULD BE 2:1 AND THE MAXIMUM LENGTH OF SLOPE ABOVE

4. SILT FENCES PLACED AT THE TOE OF SLOPES SHOULD BE INSTALLED AT LEAST 6 FEET FROM THE TOE

- THE FENCE SHOULD BE 100 FEET. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
- 7. SILT FENCES SHOULD BE REMOVED WHEN THE UPSLOPE AREAS HAVE BEEN PERMANENTLY

SILT FENCE





PLAN VIEW

LEND POINTS 'A' MUST BE HIGHER.

IAN THE FLOW LINE POINT 'E

VIEW LOOKING UPSTREAM

SECTION C - C

PROFILE - CHECK DAM SPACING

THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE CHECK DAM SHOULD BE LESS THAN ONE ACRE.

4. STONE CHECK DAMS SHOULD BE CONSTRUCTED OF WELL-GRADED ANGULAR 2 TO 3 INCH STONE. THE

WHEN INSTALLING STONE CHECK DAMS THE CONTRACTOR SHALL KEY THE STONE INTO THE CHANNEL

BANKS AND EXTEND THE STONE BEYOND THE ABUTMENTS A MINIMUM OF 18-INCHES TO PREVENT

INSTALLATION OF 3/4-INCH STONE ON THE UPGRADIENT FACE IS RECOMMENDED FOR BETTER

STONE CHECK DAMS SHOULD BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED

STONE CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR

3. STONE CHECK DAMS SHOULD NOT BE USED IN A FLOWING STREAM

UNLESS OTHERWISE SPECIFIED.

STONE CHECK DAM

'L' = THE DISTANCE SUCH THAT POINTS 'A' AND 'B'

ARE OF EQUAL ELEVATION

DEPTH (6" MIN.)

- 2" - 3" STONE

ROCK SET IN 4"

- 1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- 2. THE MINIMUM STONE USED SHOULD BE 3-INCH CRUSHED STONE.
 - 3. THE MINIMUM LENGTH OF THE PAD SHOULD BE 75 FEET, EXCEPT THAT THE MINIMUM LENTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH HIGH BERM IS INSTALLED AND THE ENTRANCE OF THE PROJCT SITE.
- 4. THE PAD SHOULD EXTEND THE FULL WIDTH OF THE CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
- 5. THE PAD SHOULD SLOPE AWAY FROM THE EXISTING ROADWAY
- 6. THE PAD SHOULD BE AT LEAST 6-INCHES THICK.
- 7. THE GEOTEXTILE FILTER FABRIC SHOULD BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD.
- 8. THE PAD SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
- 9. NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHOULD BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET
- 10. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC
- 11. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT
- 4. ROCK BAGS OR SANDBAGS SHALL BE PLACED SUCH THAT NO GAPS ARE EVIDENT. SEE NOTES ERO-03.

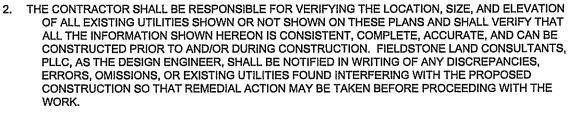
GRAVEL CONSTRUCTION EXIT

MINIMUM DEPTH OF ROCK -

24" MAXIMUM

PLACED IN CHANNEL FLOW





THE OWNER AND/OR CONTRACTOR SHALL VERIFY ALL ZONING REQUIREMENTS FOR CONFORMANCE PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL CONTACT "DIGSAFE" 72 HOURS PRIOR TO THE START OF CONSTRUCTION (1-800-255-4977 IN NH, 1-888-344-7233 IN MA).

COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND SPECIAL CONDITIONS OF TOWN/CITY AGENCIES, SUCH AS THE PLANNING BOARD, CONSERVATION COMMISSION, AND OTHERS, IS MANDATORY AND IS THE RESPONSIBILITY OF THE OWNER.

ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS TOWN BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND FIELDSTONE LAND CONSULTANTS, PLLC PRIOR TO CONSTRUCTION.

ALL DRAINAGE STRUCTURES SHALL CONFORM TO MADOT STANDARDS, ALL CONSTRUCTION MATERIALS SHALL CONFORM TO MASS DEPARTMENT OF PUBLIC WORKS, STANDARI SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE TOWN DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR INSPECTIONS OF THE CONSTRUCTION.

9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCURATE AS-BUILT INFORMATION OF ALL WORK, ESPECIALLY UNDERGROUND CONSTRUCTION OF UTILITY LINES. SERVICES. CONNECTIONS, ETC. AND APPROPRIATE TIES TO ABOVE GROUND PERMANENT STRUCTURES. FIELD SURVEY COORDINATES, OR SOME OTHER METHOD OF ESTABLISHING THE AS-BUILT CONDITION OF ALL CONSTRUCTION.

GENERAL CONSTRUCTION NOTES

NOTE:

ALL EARTH MATERIALS SHALL MEET MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES

В	10/20/17	ADDRESS CITY STAFF REVIEW	CSI	NRC	CEB
Α	08/22/17	OFF SITE WETLANDS LOCATION & BUFFER	WEI	NRC	CEB
REV.	DATE	DESCRIPTION	C/0	DR	CK

EROSION CONTROL DETAILS PARKER HILL DEFINITIVE SUBDIVISION

TAX MAP PARCEL 34-8A - 2 PARKER STREET

NEWBURYPORT, MASSACHUSETTS PREPARED FOR AND LAND OF (34-8-A): PARKER 2 REALTY TRUST

160 BRIDGE ROAD, SALISBURY, MA 01952 SCALE: AS SHOWN

DT-4

AUGUST 14, 2017

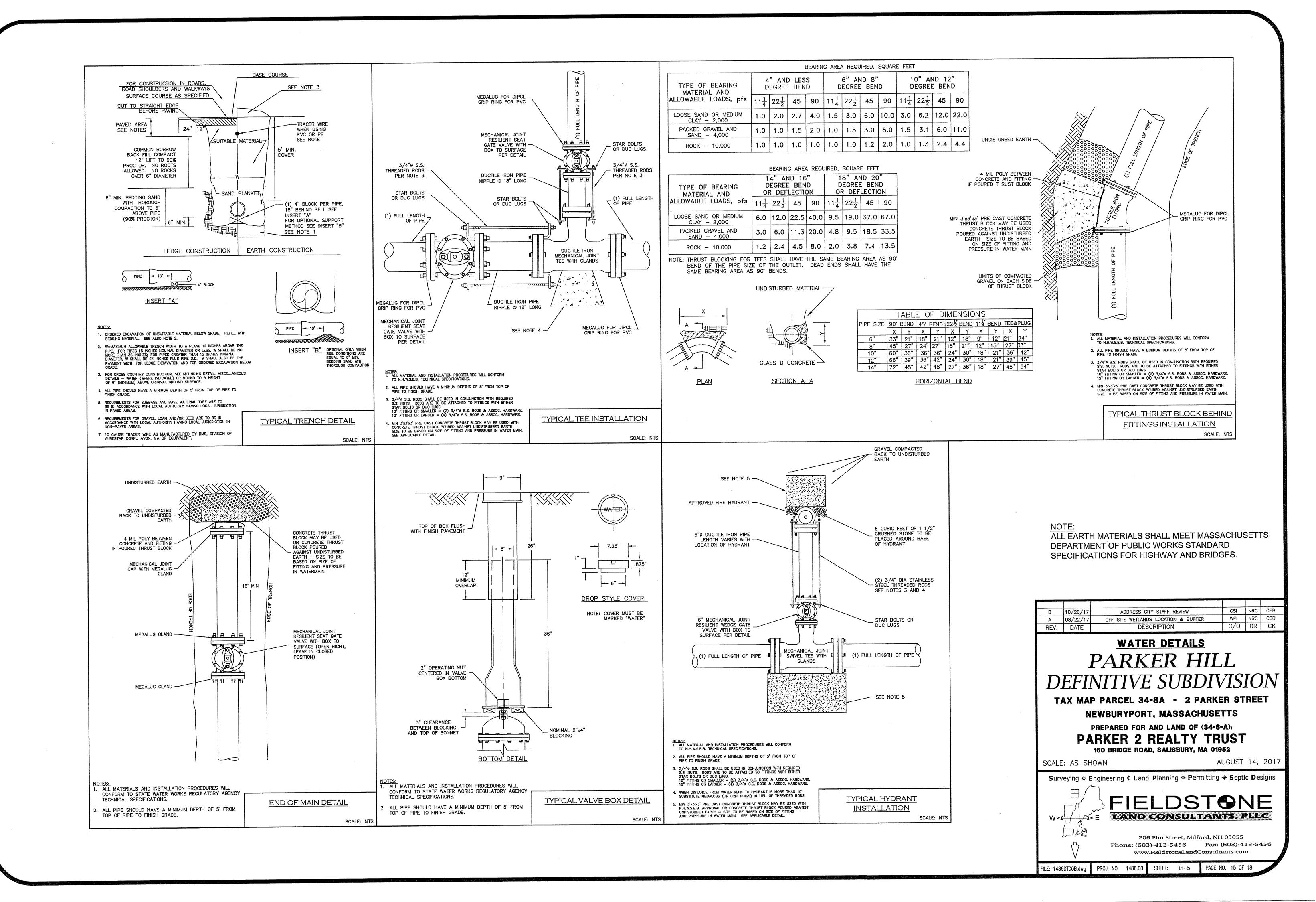


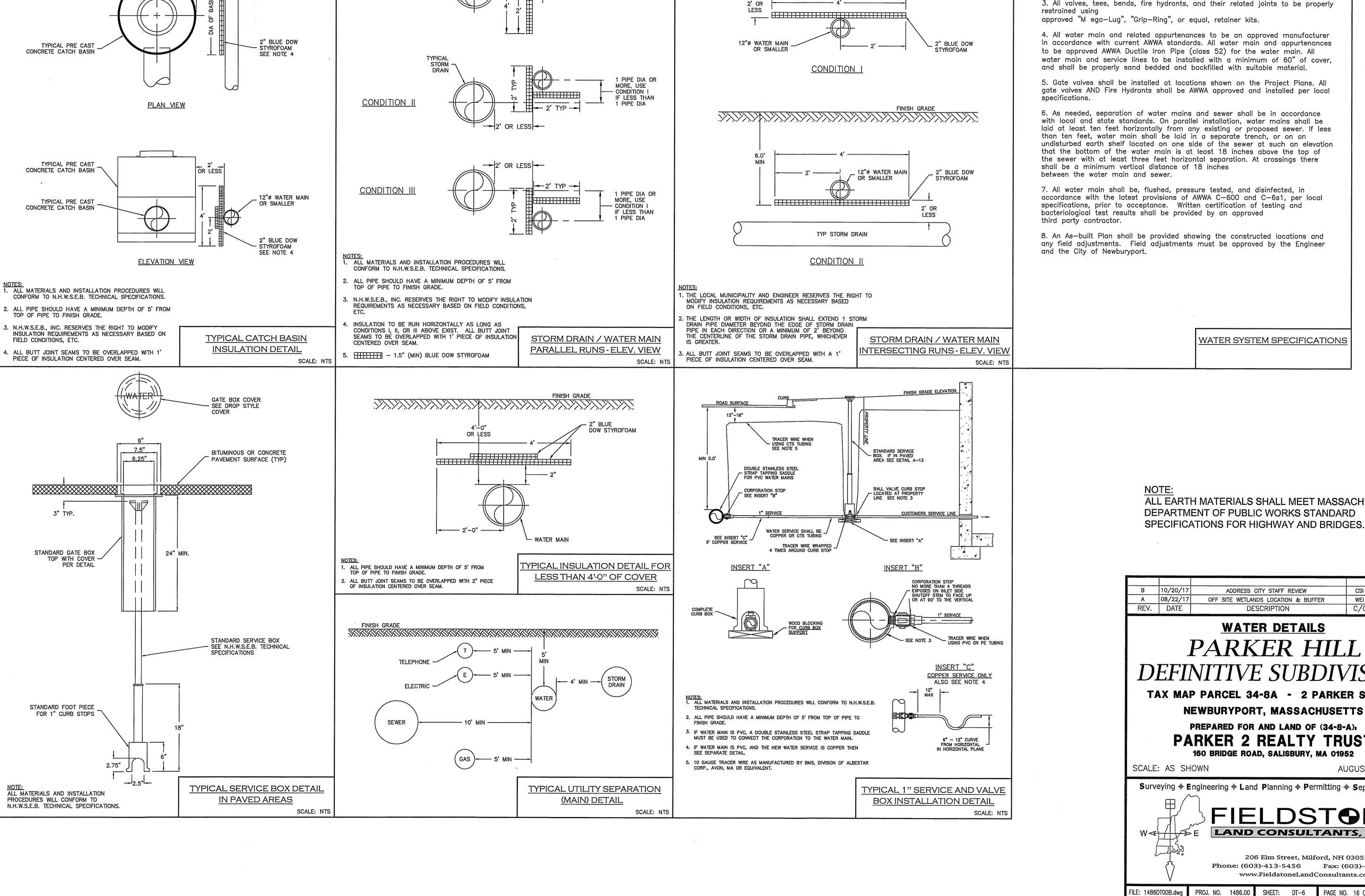
FIELDSTONE LAND CONSULTANTS PLLC

206 Elm Street, Milford, NH 03055 Phone: (603)-413-5456 Fax: (603)-413-5456 www.FieldstoneLandConsultants.com

SHEET: DT-4

PAGE NO. 14 OF 18





- 12"Ø WATER MAIN OR SMALLER

-- 2' OR LESS

12"Ø WATER MAIN

CONDITION |

OR SMALLER

OR LESS

TYPICAL STORM DRAIN -

TYP STORM DRAIN

1. All distribution material including; mains, fittings, and valves to meet applicable state and local specifications and American Water Works Association (AWWA) standards, as applicable.

2. All installation of material to conform to applicable Local Specifications and AWWA standards for potable water systems.

3. All valves, tees, bends, fire hydrants, and their related joints to be properly

4. All water main and related appurtenances to be an approved manufacturer in accordance with current AWWA standards. All water main and appurtenances to be approved AWWA Ductile Iron Pipe (class 52) for the water main. All water main and service lines to be installed with a minimum of 60" of cover. and shall be properly sand bedded and backfilled with suitable material.

5. Gate valves shall be installed at locations shown on the Project Plans. All gate valves AND Fire Hydrants shall be AWWA approved and installed per local

6. As needed, separation of water mains and sewer shall be in accordance with local and state standards. On parallel installation, water mains shall be laid at least ten feet horizontally from any existing or proposed sewer. If less than ten feet, water main shall be laid in a separate trench, or on an undisturbed earth shelf located on one side of the sewer at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer with at least three feet horizontal separation. At crossings there shall be a minimum vertical distance of 18 inches

7. All water main shall be, flushed, pressure tested, and disinfected, in accordance with the latest provisions of AWWA C-600 and C-6s1, per local specifications, prior to acceptance. Written certification of testing and bacteriological test results shall be provided by an approved

8. An As—built Plan shall be provided showing the constructed locations and any field adjustments. Field adjustments must be approved by the Engineer

WATER SYSTEM SPECIFICATIONS

ALL EARTH MATERIALS SHALL MEET MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.

ADDRESS CITY STAFF REVIEW CSI NRC CEB OFF SITE WETLANDS LOCATION & BUFFER WEI NRC CEB C/O DR CK DESCRIPTION

WATER DETAILS PARKER HILL DEFINITIVE SUBDIVISION

TAX MAP PARCEL 34-8A - 2 PARKER STREET

PREPARED FOR AND LAND OF (34-8-A). PARKER 2 REALTY TRUST

AUGUST 14, 2017

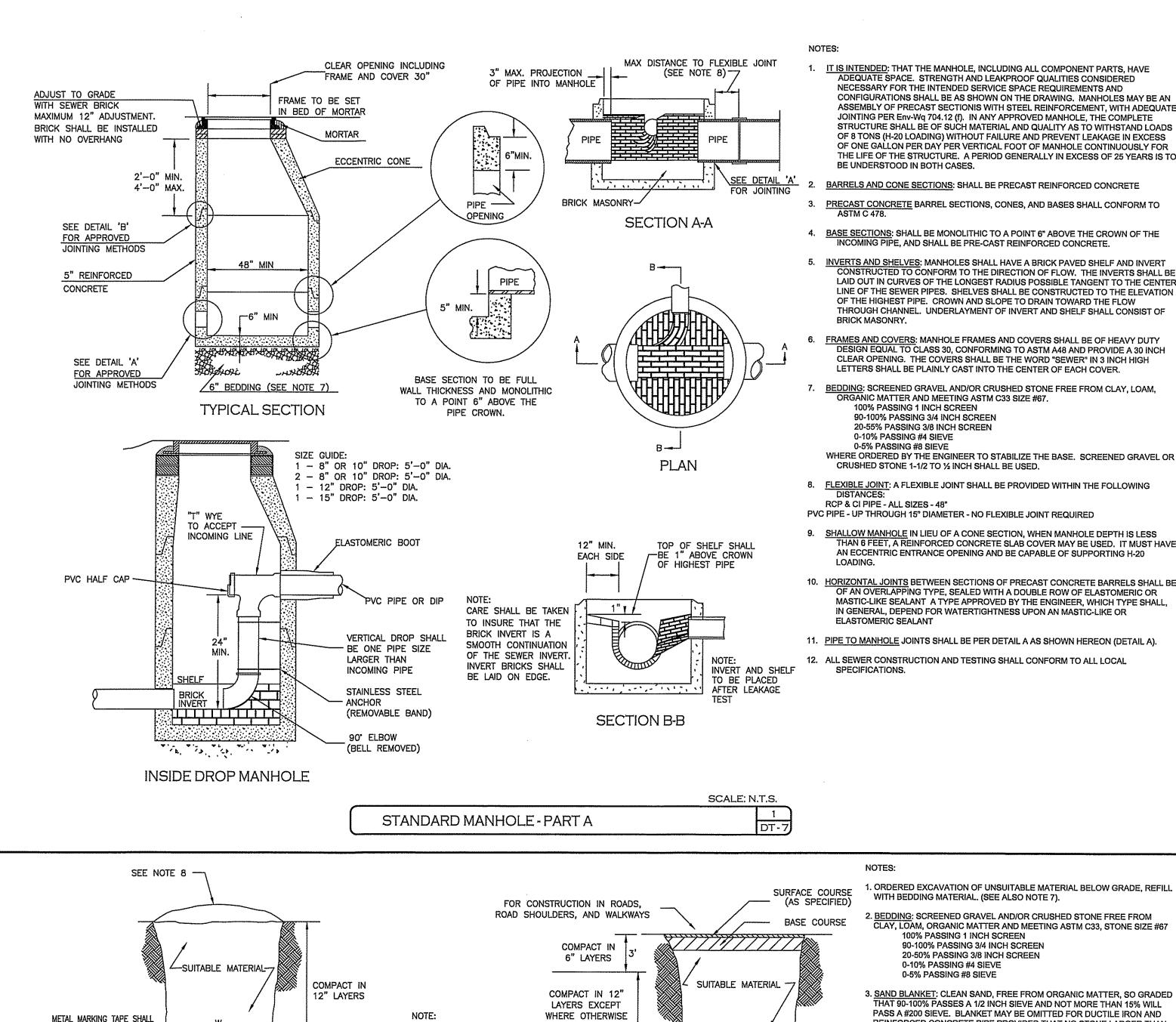
PAGE NO. 16 OF 18

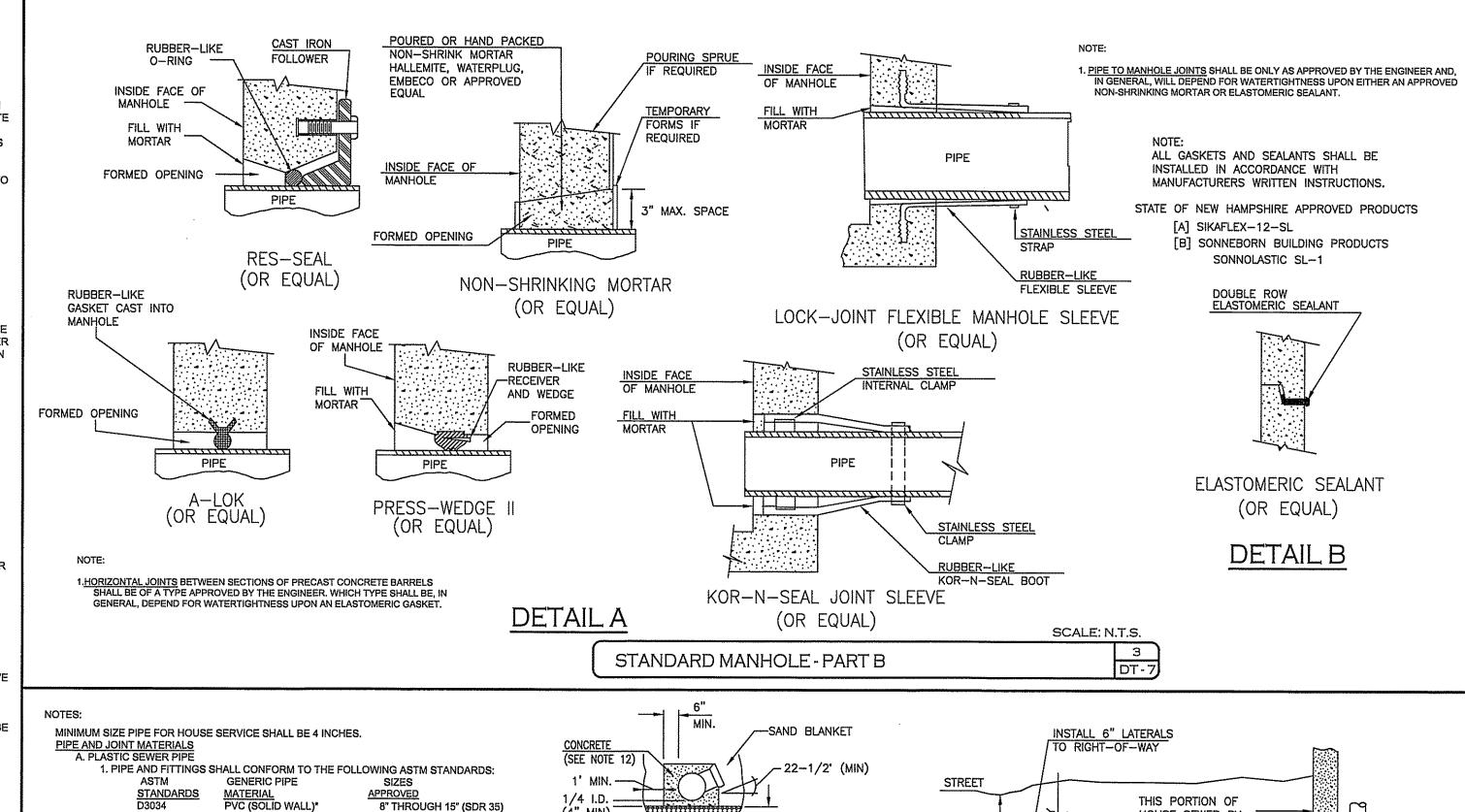
Surveying + Engineering + Land Planning + Permitting + Septic Designs



206 Elm Street, Milford, NH 03055 Phone: (603)-413-5456 Fax: (603)-413-5456

www.FieldstoneLandConsultants.com





PVC (SOLID WALL)

PVC (SOLID WALL)

*ABS: ACRYLONITRILE-BUTADIENE-STYRENE

COMPOUNDING SHALL BE TO ASTM D-1788 (CLASS 322).

OF THE UNITED STATES OF AMERICA STANDARDS INSTITURE:

OINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR

"T" AND "Y" WHERE A "T" OR "Y" IS NOT AVAILABLE IN THE EXISTING STREET SEWER. AN

*PVC: POLY VINYL CHLORIDE

DUCTILE IRON CASTINGS.

3. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.

OR AT THE FOUNDATION WALL, APPROPRIATE ADAPTERS SHALL BE USED.

B. DUCTILE-IRON PIPE, FITTINGS AND JOINTS.

SHALL CONFORM TO:

FITTINGS

PVC (ROBBED WALL)

ABS (COMPOSITES WALL)*

2. JOINTS SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF

ABS TRUSS PIPE AND FITTINGS SHALL CONFORM TO ASTM D-2680, POLYMER

ACCORDANCE WITH ASTM D-2680, FORMING A CHEMICAL WELDED JOINT.

SAND-LINED MOLDS FOR WATER OR OTHER LIQUIDS. 2. JOINTS SHALL BE OF THE MECHNICAL OR PUSH-ON TYPE. JOINTS AND GASKETS

NATERTIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS

USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER "Y"

PPROPRIATE CONNECTION SHALL BE MADE IN THE SEWER, FOLLOWING MANUFACTURERS

INSTRUCTIONS USING A BOLTED, CLAMPED, OR EPOXY CEMENTED SADDLE TAPPED INTO A

SMOOTHLY DRILLED OR SAWN OPENING. THE PRACTICE OF BREAKING AN OPENING WITH A

APPLYING MORTAR TO HOLD THE CONNECTION AND ANY OTHER SIMILAR CRUDE PRACTICES

OR INEPT OR HASTY IMPROVISATIONS WILL NOT BE PERMITTED. THE CONNECTION SHALL BE

ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL

SPECIFIED IN NOTE 10, BEDDING AND RE-FILL FOR A DEPTH OF 12 INCHES ABOVE THE TOP OF

FROM THE STREET SEWER CONNECTION TO THE HOUSE FOUNDATION AT A GRADE OF NOT LESS THAN 1/4 INCH PER FOOT. PIPE JOINTS MUSH BE MADE UNDER DRY CONDITIONS, IF

WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.

F THE FOLLOWING MANNERS (PRIOR TO BACKFILLING):

SHALL NOT BE PERMITTED.

MATERIAL AND MEETING ASTM C33-67.

90-100% PASSING 3/4 INCH SCREEN

20-55% PASSING 3/8 INCH SCREEN

CRUSHED STONE (1-1/2 TO 1/2 INCH) SHALL BE USED.

CEMENT: 6.0 BAGS/C.Y. WATER: 5.75 GALS/BAG CEMENT

100% PASSING 1 INCH SCREEN

0-10% PASSING #4 SIEVE

0-5% PASSING #8 SIEVE

DIP NEEDLE OR PIPEFINDER.

TESTING THE COMPLETED HOUSE SEWER SHALL BE SUBJECTED TO A LEAKAGE TEST IN ANY

A. AN OBSERVATION "T" SHALL BE INSTALLED AS SHOWN. WHEN READY TESTING, AN

INFLATABLE BLADDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE

OPENING IN THE "T". AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE

B. THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER TO

SYSTEM ABOVE THE PLUG TO A HEIGHT OF 5 FEET ABOVE THE LEVEL OF THE PLUG.

SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS. IF THE TRENCH IS

WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER

THE PIPE. INSPECTIONS FOR LEAKS SHALL BE MADE THROUGH THE CLEANOUT

C. DRY FLUORESCENT DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE.

IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER. IF THE

ALTERNATE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG UP, IF NECESSARY, AND RELAID SO AS TO ASSURE WATERTIGHTNESS.

TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH

OVER THE POPE. OBSERVATION FOR LEAKS SHALL BE MADE IN THE FIRST

MANHOLE DOWNSTREAM. LEAKAGE O OBSERVED IN ANY OF THE ABOVE,

SINKS, LAUNDRY, ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS. SUMP PUMPS

OR ANY OTHER SIMILAR CONNECTION CARRYING RAIN WATER, DRAINAGE OR GROUND WATER

. ILLEGAL CONNECTIONS NOTHING BUT SANITARY WASTE FLOW FROM THE HOUSE TOILETS

. HOUSE WATER SERVICE SHALL NOT BE LAID IN THE SAME TRENCH AS THE SEWER SERVICE.

BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, SCREENED GRAVEL OR

I. LOCATION THE LOCATION OF THE "T" OR "Y" SHALL BE RECORDED AND FILED IN THE MUNICIPAL

AS DESCRIBED IN THE TYPICAL "CHIMNEY" DETAIL, TO AID IN LOCATING THE BURIED PIPE WITH A

CONCRETE OF THE N.H. DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS AS FOLLOWS:

2. CONCRETE CONCRETE SHALL CONFORM TO THE REQUREMENTS FOR CLASS A (3000 PSI)

THE PIPE MANUFACTURER MAY BE USED IF APPROVED BY THE ENGINEER.

CORDS. IN ADDITION, A FERROUS METAL ROD OR PIPE SHALL BE PLACED OVER THE "T" OR "Y".

THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH APPROPRIATE MECHANICAL DEVICES.THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE

SLEDGE HAMMER, STUFFING CLOTH (OR OTHER SUCH MATERIAL) AROUND THE JOINT OR

CONCRETE ENCASED, AS SHOWN IN THE DETAIL, UP TO AND INCLUDING 15" DIAMETER.*

6. HOUSE SEWER INSTALLATION THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN

BE CAREFULLY BEDDED ON A 4 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL, AS

ELASTOMREIC MATERIAL CONFORMING TO ASTM D-3212 AND SHALL BE PUSH-ON,

JOINTS FOR ABS TRUSS PIPE SHALL BE CHEMICAL WELDED COUPLINGS TYPE SC IN

1. DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS

A21.50 THICKNESS DESIGN OF DICTILE IRON PIPE AND WITH ASTM A-536

A21.51 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR

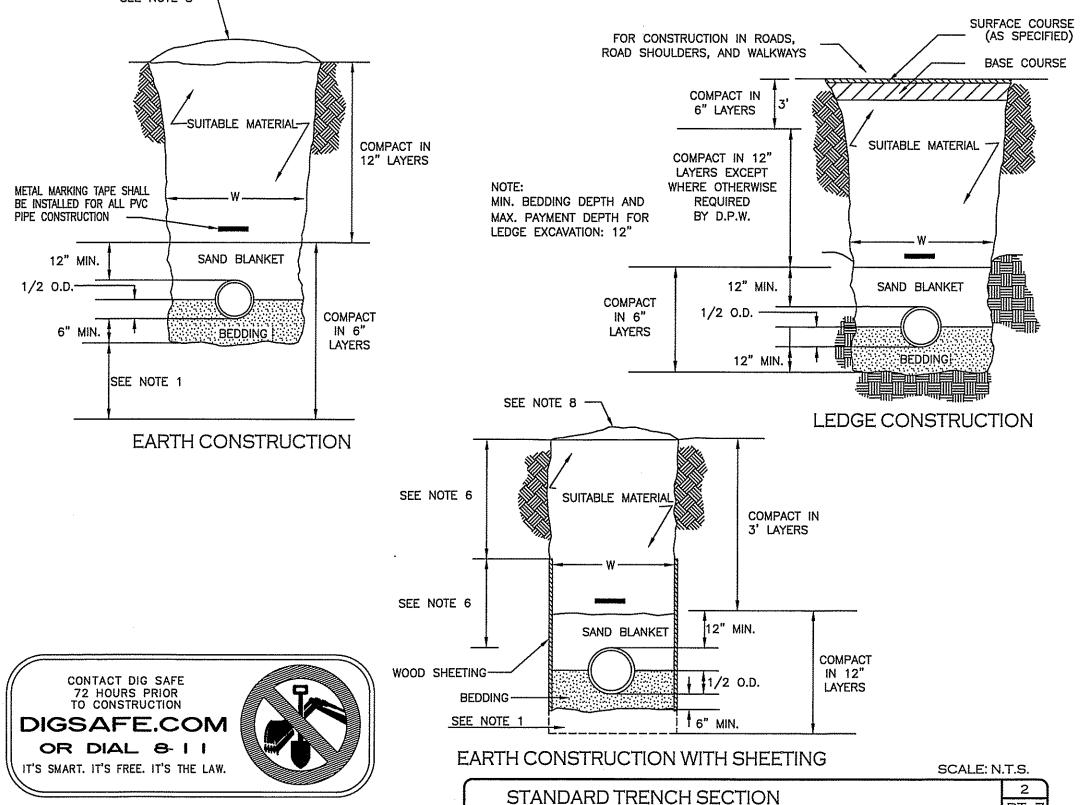
A21.11 RUBBER GASKETS JOINTS FOR CAST IRON PRESSURE PIPE AND

18" THROUGH 27" (T-1 & T-2)

4" THROUGH 18" (T-1 TO T-3)

8" THROUGH 36"

8" THROUGH 15"



1. ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE, REFILL WITH BEDDING MATERIAL. (SEE ALSO NOTE 7).

BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33, STONE SIZE #67 100% PASSING 1 INCH SCREEN 90-100% PASSING 3/4 INCH SCREEN 20-50% PASSING 3/8 INCH SCREEN 0-10% PASSING #4 SIEVE 0-5% PASSING #8 SIEVE

3. <u>SAND BLANKET</u>: CLEAN SAND, FREE FROM ORGANIC MATTER, SO GRADED THAT 90-100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR DUCTILE IRON AND REINFORCED CONCRETE PIPE PROVIDED THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE.

4. <u>SUITABLE MATERIAL</u>: IN ROADS, ROAD SHOULDERS, WALK WAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOPSOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES. IN LARGEST DIMENSION OR ANY MATERIAL WHICH AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT TO MAINTAIN THE COMPLETED CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP-SOIL, LOAM, MUCK OR PEAT. IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE (AND POSSIBLY RECONSTRUCTION, WHEN NECESSARY) WILL BE PRESERVED.

5. BASE COURSE: IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.

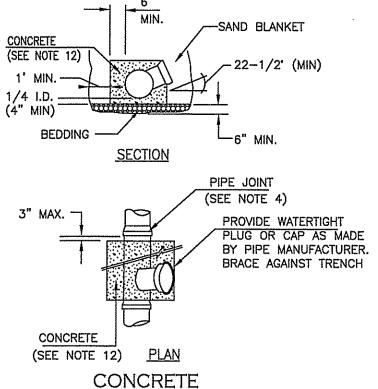
6. WOOD SHEETING: IF REQUIRED, IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER. IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE. WHERE THE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISH GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.

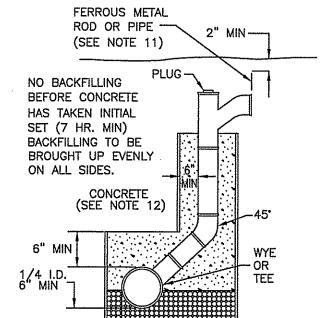
7. W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D., W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.

8. FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUNDED TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND

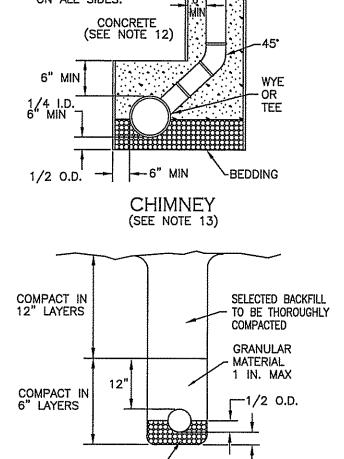
9. <u>CONCRETE</u>: FOR ENCASEMENT SHALL CONFORM TO THE REQUIREMENTS FOR CLASS A (3000#) CONCRETE OF THE N.H. DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS AS FOLLOWS: CEMENT: 6.0 BAGS PER CUBIC YARD WATER: 5.75 GALLONS PER BAG OF CEMENT

MAXIMUM AGGREGATE SIZE: 1 INCH NOTE: ANY SEWER PIPE TO BE ENCASED MUST BE MADE OF DUCTILE





FULL ENCASEMENT



BEDDING TO BI THOROUGHLY COMPACTED (SEE NOTE 10)

SCALE: N.T.S. HOUSE SEWER DETAILS

THIS PORTION OF HOUSE SEWER BY BUILDING DRAIN OTHERS COVER CLEAN OUT OBSERVATION WYE OR TEE (SEE NOTES 4 AND 5) BASEMENT FLOOR BUILDING SERVICE MIN. SLOPE = CONCRETE ARCH 1/4" PER FOOT ENCASEMENT MIN. PIPE SIZE = 4"

SERVICE CONNECTION

REV. DATE

SCALE: AS SHOWN

DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES. 10/20/17 ADDRESS CITY STAFF REVIEW CSI NRC CEB A 08/22/17 OFF SITE WETLANDS LOCATION & BUFFER WEI NRC CEB

DESCRIPTION

ALL EARTH MATERIALS SHALL MEET MASSACHUSETTS

SEWER DETAILS PARKER HILL DEFINITIVE SUBDIVISION

C/O DR CK

AUGUST 14, 2017

TAX MAP PARCEL 34-8A - 2 PARKER STREET **NEWBURYPORT, MASSACHUSETTS**

PREPARED FOR AND LAND OF (34-8-A) **PARKER 2 REALTY TRUST** 160 BRIDGE ROAD, SALISBURY, MA 01952

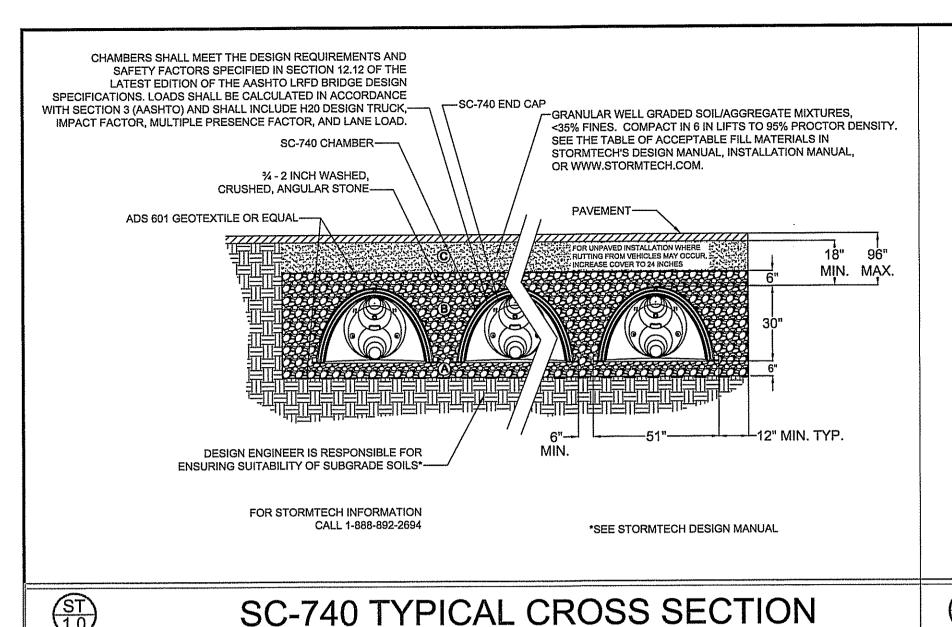
Surveying Φ Engineering Φ Land Planning Φ Permitting Φ Septic Designs FIELDSTONE LAND CONSULTANTS, PLLC

> 206 Elm Street, Milford, NH 03055 Phone: (603)-413-5456 Fax: (603)-413-5456 www.FieldstoneLandConsultants.com

PROJ. NO. 1486.00 SHEET: DT-7 PAGE NO. 17 OF 18

TRENCH CROSS-SECTION

3. CHIMNEYS IF VERTICAL DROP INTO THE SEWER IS GREATER THAN 4 FEET, A CHIMNEY SHALL BE ONSTRUCTED FOR THE HOUSE CONNECTION. CHIMNEY INSTALLATION AS RECOMMENDED BY



ACCEPTABLE FILL MATERIALS

STORMTECH SC-740 CHAMBER SYSTEMS

DESCRIPTION

<35% FINES.

18" HDPE TEE (WATER QUALITY FLOW)

STORMTECH -

PREFABRICATED

ACCESS MANHOLE -

MANHOLE

18"x8" ECCENTRIC

ANY SOIL/ROCK MATERIALS, NATIVE

WASHED ANGULAR STONE WITH THE

WASHED ANGULAR STONE WITH THE

MAJORITY OF PARTICLES BETWEEN

SOILS OR PER ENGINEER'S PLANS.

CHECK PLANS FOR PAVEMENT

SUBGRADE REQUIREMENTS.

SOIL/AGGREGATE MIXTURES,

GRANULAR WELL-GRADED

MATERIAL LOCATION

FILL MATERIAL FROM 18"

© FILL MATERIAL FOR 6" TO 18"

A FOUNDATION STONE BELOW

TO GRADE ABOVE CHAMBERS

ELEVATION ABOVE CHAMBERS

(24" FOR UNPAVED INSTALLATIONS)

(B) EMBEDMENT STONE SURROUNDING

AND TO A 6" ELEVATION ABOVE

AASHTO M43 | AASHTO M145 | COMPACTION/DENSITY

REQUIREMENT

PREPARE PER ENGINEER'S PLANS. PAVED

COMPACT IN 6" LIFTS TO A MINIMUM 95%

PLATE COMPACT OR ROLL TO ACHIEVE A

ISOLATOR ROW

FOR STORMTECH INFORMATION

FOR STORMTECH INFORMATION

- STORMTECH ENDCAP

- STORMTECH CHAMBERS

INSPECTION PORT BY DESIGN ENGINEER

STORMTECH ISOLATOR ROW MANIFOLD DETAIL

INSTALLATIONS MAY HAVE STRINGENT MATERIAL

STANDARD PROCTOR DENSITY, ROLLER GROSS

VEHICLE WEIGHT NOT TO EXCEED 12,000 LBS.

DYNAMIC FORCE NOT TO EXCEED 20,000 LBS.

DESIGNATION DESIGNATION

3, 357, 4, 467,

3, 357, 4, 467, 5, N/A

STORMTECH ACCEPTABLE FILL MATERIALS

3, 357, 4, 467,

5, 56, 57, 6,

67, 68, 7, 78,

8, 89, 9, 10

PLEASE NOTE: THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE WASHED

CRUSHED ANGULAR. FOR EXAMPLE, THE STONE MUST BE SPECIFIED AS WASHED. CRUSHED. ANGULAR NO. 4 STONE.

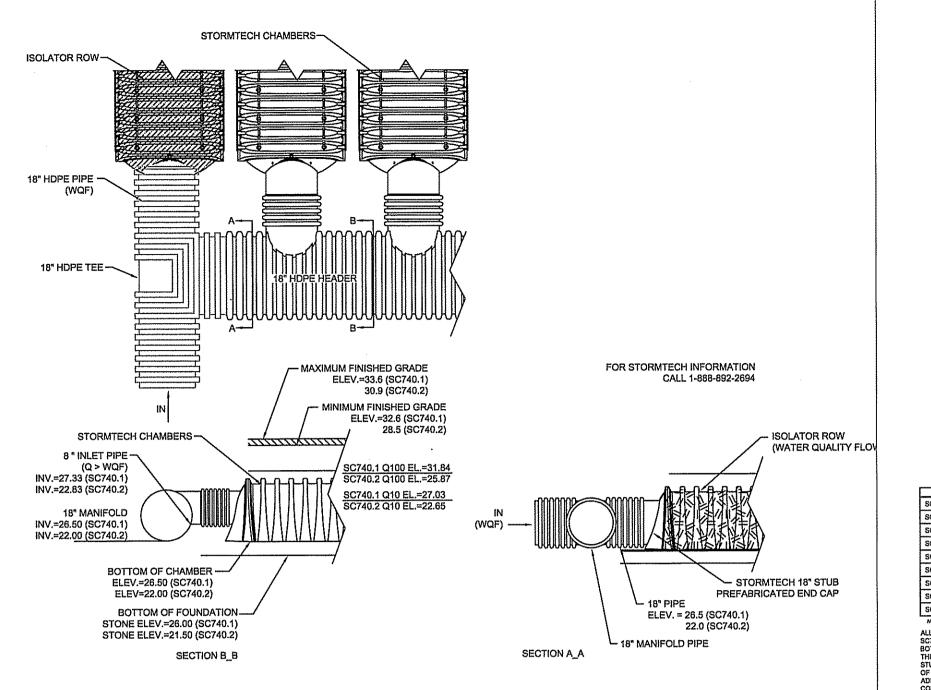
STORMTECH UNDERDRAIN DETAIL (NA)

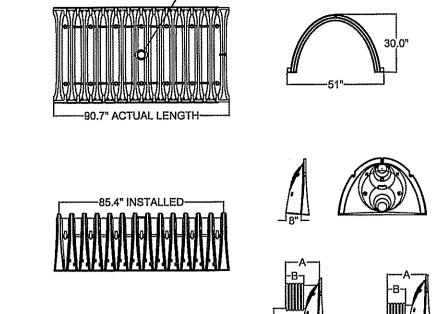
1. ALL DESIGN SPECIFICATIONS FOR STORMTECH CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH DESIGN MANUAL 2. THE INSTALLATION OF STORMTECH CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.

3. THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL 1-888-892-2694 OR VISIT

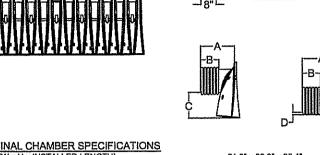
WWW.STORMTECH.COM TO RECEIVE A COPY OF THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.

4. CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND SAFETY FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.





ACCEPTS 4" SCH 40 PIPI



45.9 CUBIC FEET 74.9 CUBIC FEET

* FOR THE SC740FPF249 THE 24" STUB

SURF

LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75". BACKFILL MATERIAL

SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SETS LEVEL.

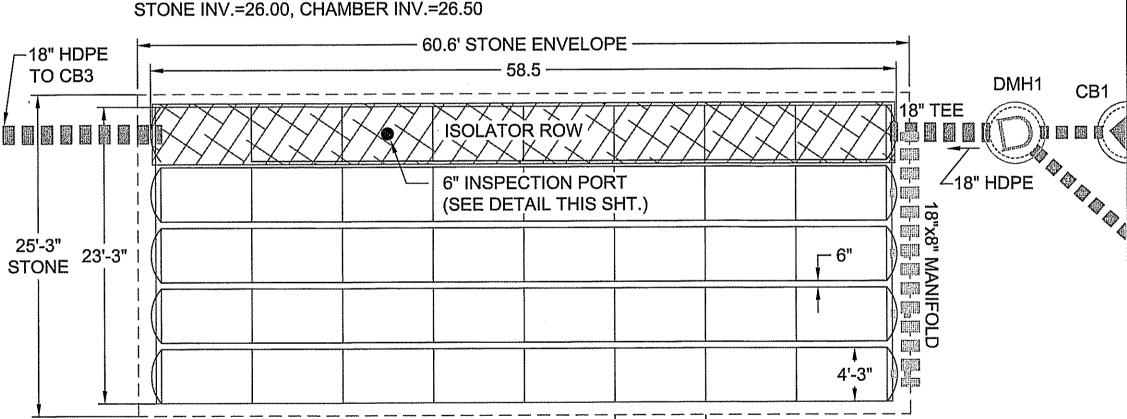
STORMTECH ELEVATIONS

TECHNICAL DETAILS

CONCRETE COLLAR NOT REQUIRED FOR UNPAVED APPLICATIONS 12" (300 mm) NYLOPLAST INLINE DRÁIN BODÝ WISOLID HINGED COVER OR GRATE PART# 2712AG6IP SOLID COVER: 1299CGC* GRATE: 1299CGS CONCRETE SLAB FLEXSTORM CATCH IT — PART# 6212NYFX VITH USE OF OPEN GRATE PART# 6P26FBSTIP* NSERTA TEE TO BE CENTERED THE PART# 2712AG6IPKIT CAN BE USED TO ORDER ALL NECESSAR' COMPONENTS FOR A SOLID LID

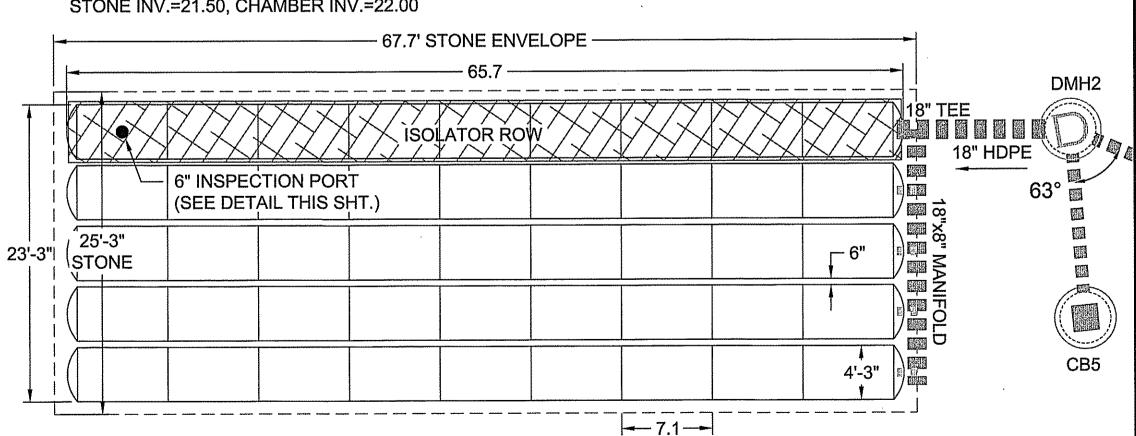
SC-740 6" INSPECTION PORT DETAIL

5 ROWS OF 8 CHAMBERS = 40 CHAMBERS



STONE 23'-3"

5 ROWS OF 9 CHAMBERS = 45 CHAMBERS STONE INV.=21.50, CHAMBER INV.=22.00



CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND SAFETY FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS LOADS SHALL BE CALCULATED IN ACCORDANCE WITH SECTION 3 AND SHALL INCLUDE H20 DESIGN TRUCK, IMPACT FACTOR, MULTIPLE PRESENCE, AND LANE LOAD.

conversion. It is the ultimate responsibility

applicable laws and regulations. It is the

o ensure that the StormTech products are

StormTech LLC does not approve plans

sizing, or system designs. The designing

design is in full compliance with all

design engineer's responsibility

designed in accordance with StormTech's minimum requirements

engineer is responsible for all

REVISIONS

design decisions.

of the design engineer to

WWW.STORMTECH.CO

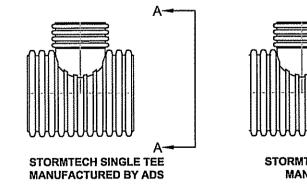
STORMTECH DETAILS

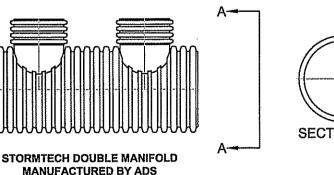
SUBSURFACE **INFILTRATION BASINS** SC740.1 & SC70.2

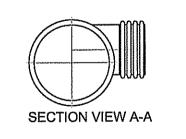
CHAMBER DETAIL SHEET

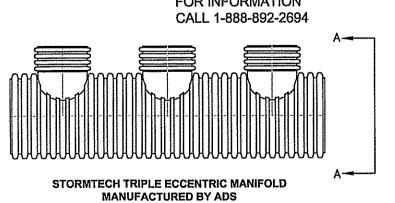
SHEET: DT-7 N.T.S. PROJECT NO. 1486.00 PAGE NO.: 18 OF 1

STORMTECH INSPECTION PORT DETAIL

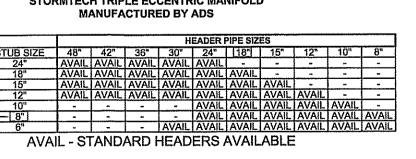








MANIFOLDS ARE DESIGNED TO BE COUPLED TO STORMTECH PREFABRICATED END CAPS. WHEN USING STANDARD END CAPS 24" INLET PIPES, A CORRUGATED TO SMOOTH



ADS MANIFOLD DETAILS

STORMTECH ISOLATOR ROW DETAIL

ADS 9530TK GEOTEXTILE OR EQUAL

SC-740--5'-6' WIDE STRIP

BETWEEN FOUNDATION STONE AND CHAMBERS

STORMTECH SC-740 CHAMBER LAYOUT