2:1 SLOPE

					2:1 SL0	JPE						
DIAMETER	QUANTITIES F						DIMENS	SIONS				
D INCHES	M.R.M. CU. YD.	EXC. FOR 1' DEPTH CU. YD.	А	В	С	E	F	G	Н	ı	J	К
24	2.45	1.89	2'-6"	5'-4"	2'-3"	2'-11"	1'-11"	0'-6"	5'-0"	4'-6"	3'-10"	1'-6"
30	3.19	2.28	3'-1"	5'-11"	2'-5"	3'-6"	2'-0"	0'-5"	5'-6"	5'-0"	4'-1"	1'-6"
36	4.03	2.57	3'-8"	6'-6"	2'-6"	4'-1"	2'-1"	0'-4"	6'-0"	5'-6"	4'-4"	1'-6"
42	5.50	3.09	4'-3"	7'-1"	2'-8"	5'-0"	2'-2"	0'-3"	6'-9"	6'-3"	4'-10"	1'-9"
48	6.68	3.53	4'-10"	7'-8"	2'-10"	5'-8"	2'-3"	0'-2"	7'-3"	6'-9"	5'-1"	1'-9"
54	7.92	3.95	5'-5"	8'-3"	2'-11"	6'-3"	2'-4"	0'-1"	7'-9"	7'-3"	5'-4"	1'-9"
60	9.39	4.40	6'-0"	8'-10"	3'-1"	6'-10"	2'-5"	0'-1"	8'-3"	7'-9"	5'-8"	1'-9"
66	10.90	4.81	6'-7"	9'-5"	3'-2"	7'-5"	2'-6"	0'-0"	8'-9"	8'-3"	5'-11"	1'-9"
72	12.66	5.22	7'-2"	10'-0"	3'-4"	8'-1"	2'-7"	0'-1"	9'-3"	8'-9"	6'-3"	1'-9"
					3:1 SL0	DPE						
24	2.81	2.09	2'-6"	5'-4"	2'-3"	3'-6"	2'-0"	0'-6"	5'-0"	4'-8"	4'-1"	1'-6"
30	3.73	2.51	3'-1"	5'-11"	2'-5"	4'-3"	2'-1"	0'-6"	5'-6"	5'-2"	4'-5"	1'-6"
36	4.69	2.90	3'-8"	6'-6"	2'-6"	4'-11"	2'-2"	0'-4"	6'-0"	5'-8"	4'-9"	1'-6"
42	6.47	3.46	4'-3"	7'-1"	2'-8"	6'-0"	2'-4"	0'-3"	6'-9"	6'-5"	5'-3"	1'-9"
48	7.85	3.93	4'-10"	7'-8"	2'-10"	6'-8"	2'-5"	0'-3"	7'-3"	6'-11"	5'-7"	1'-9"
54	9.37	4.37	5'-5"	8'-3"	2'-11"	7'-5"	2'-6"	0'-2"	7'-9"	7'-5"	5'-11"	1'-9"
60	11.10	4.85	6'-0"	8'-10"	3'-1"	8'-1"	2'-7"	0'-1"	8'-3"	7'-11"	6'-3"	1'-9"
66	12.95	5.36	6'-7"	9'-5"	3'-2"	8'-10"	2'-8"	0'-0"	8'-9"	8'-5"	6'-7"	1'-9"
72	15.03	5.86	7'-2"	10'-0"	3'-4"	9'-6"	2'-9"	0'-0"	9'-3"	8'-11"	6'-11"	1'-9"
					4:1 SL0	DPE						
24	3.05	2.21	2'-6"	5'-4"	2'-3"	3'-10"	2'-1"	0'-6"	5'-0"	4'-9"	4'-3"	1'-6"
30	4.02	2.62	3'-1"	5'-11"	2'-5"	4'-7"	2'-2"	0'-6"	5'-6"	5'-3"	4'-7"	1'-6"
36	5.10	3.03	3'-8"	6'-6"	2'-6"	5'-4"	2'-3"	0'-4"	6'-0"	5'-9"	5'-0"	1'-6"
42	7.03	3.65	4'-3"	7'-1"	2'-8"	6'-6"	2'-5"	0'-3"	6'-9"	6'-6"	5'-6"	1'-9"
48	8.60	4.14	4'-10"	7'-8"	2'-10"	7'-3"	2'-6"	0'-3"	7'-3"	7'-0"	5'-11"	1'-9"
54	10.28	4.62	5'-5"	8'-3"	2'-11"	8'-1"	2'-7"	0'-2"	7'-9"	7'-6"	6'-3"	1'-9"
60	12.18	5.16	6'-0"	8'-10"	3'-1"	8'-10"	2'-8"	0'-1"	8'-3"	8'-0"	6'-7"	1'-9"
66	14.24	5.67	6'-7"	9'-5"	3'-2"	9'-7"	2'-9"	0'-1"	8'-9"	8'-6"	7'-0"	1'-9"
72	16.54	6.21	7'-2"	10'-0"	3'-4"	10'-5"	2'-10"	0'-0"	9'-3"	9'-0"	7'-4"	1'-9"

MORTAR RUBBLE MASONRY HEADWALLS WITH 45° WINGS FOR R.C. PIPE P.C.-8

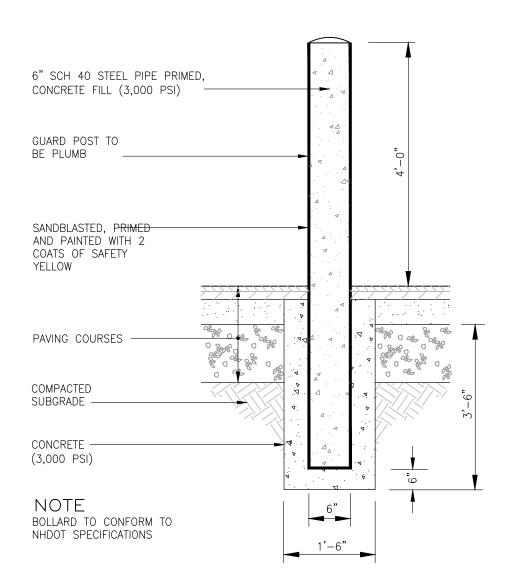
A" WEEPER IN OUTLETT HEADWALL (SUBSID.)

END ELEVATION

ROUND SLOPE (SEE

ROUND SLOP

HEADWALL NOT TO SCALE



BOLLARD

NOT TO SCALE

PLANNING BOARD FILE #17-27

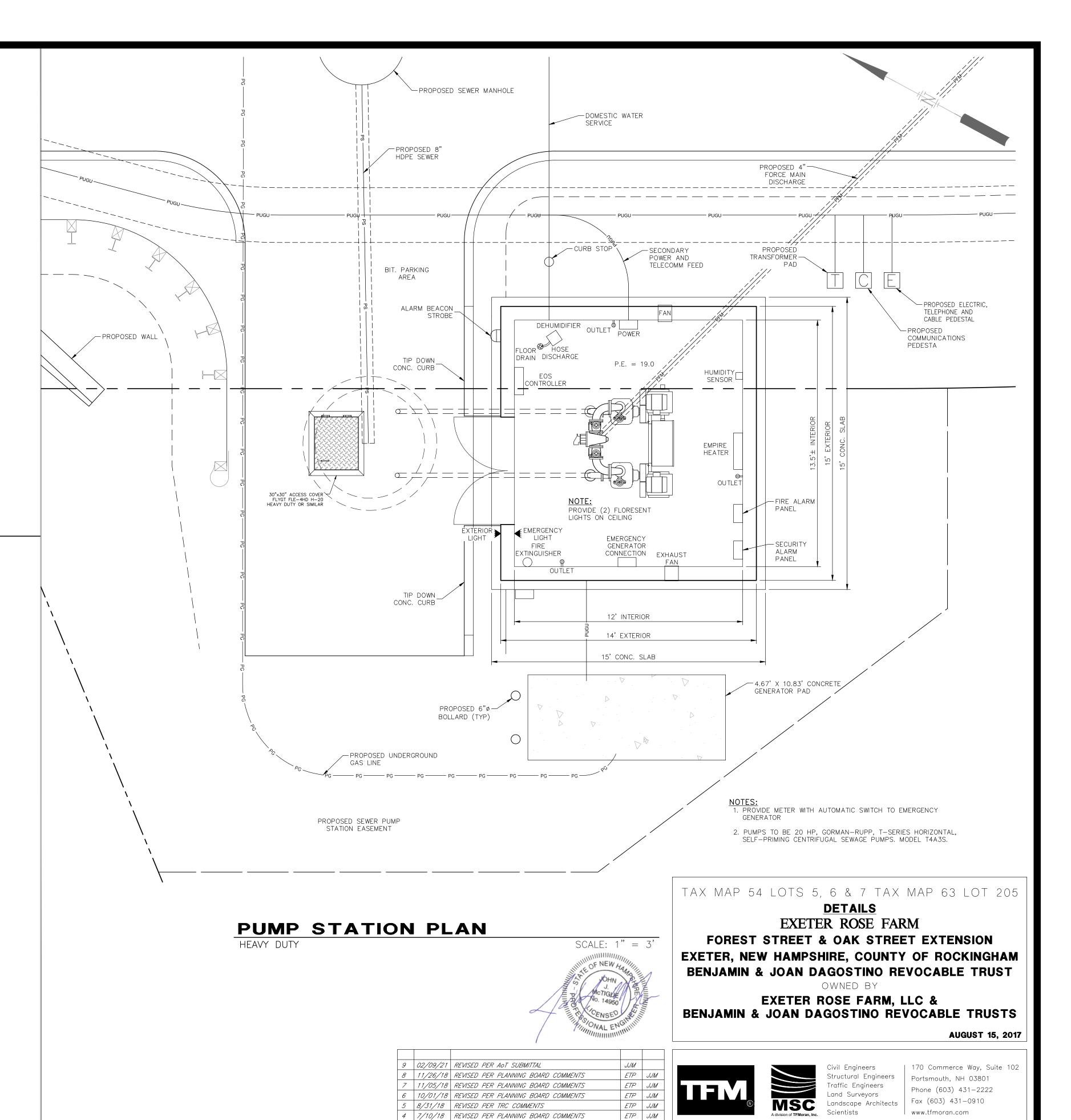
ON AND	APPROVED BY THE EXETER PLANN	IING BOARD
SECRETARY:	CHAIRMAN:	AND

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3 2/20/18 REVISED PER REVIEW COMMENTS

REV. DATE

2 10/31/17 REVISED PER DESIGN REVIEW COMMENTS

DESCRIPTION

ETP JJM

ETP JJM

DR CK

47175.00

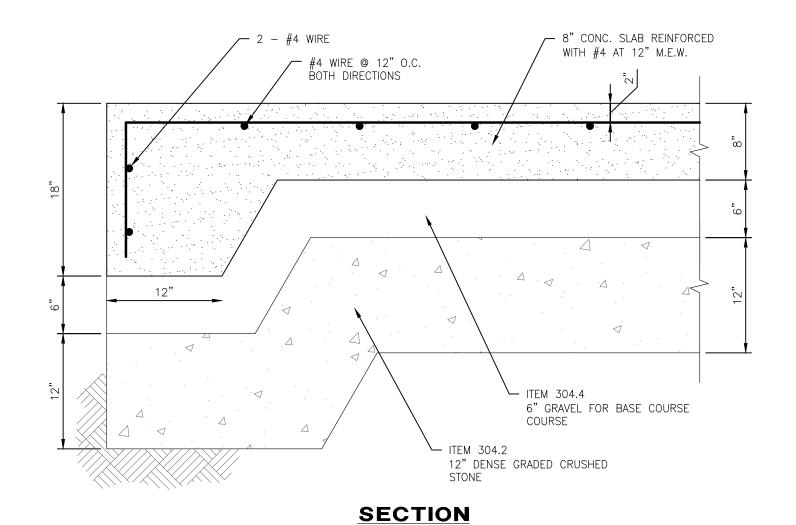
DR JRW FB

CK JJM CADFILE

Details.dwg

C-62

Sep 10, 2021 - 4:59pm F-\MSC Projects\47175 - Oak Street Extension - Exeter\47175 00 - Baker Properties\47175 00 C3



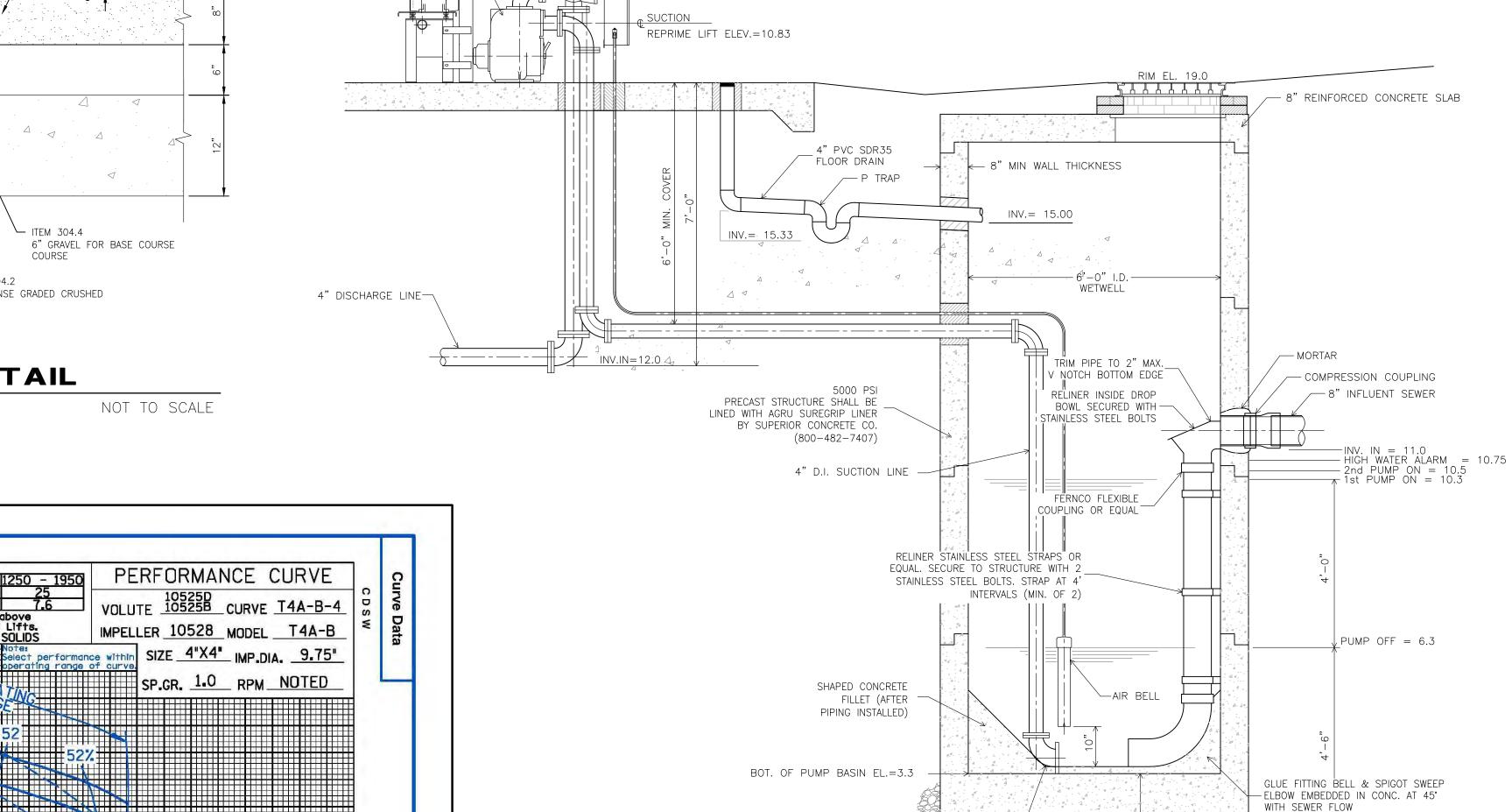
CONCRETE PAD DETAIL

EMERGENCY GENERATOR NOT TO SCALE

REPRIMING LIFTS

RPM | 650 | 750 | 850 | 950 | 1050 | 1150 | 1250 - 1950 |
FEET | 5 | 8 | 16 | 19 | 22 | 24 | 25 |
METERS | 1.5 | 2.4 | 4.9 | 5.8 | 6.7 | 7.3 | 7.6

igure NPSH required prior to using above table. DO NOT use as available Suction Lifts.



12" MINIMUM COMPACTED CRUSHED STONE ABOVE

SOIL OR LEDGE

INSTALL PLASTIC (6"X12") ENGRAVED LABEL INSIDE	
CAUTION	
THIS IS A CONFINED SPACE.	

	ITEM	DESCRIPTION	MAT'L & SIZE
)	1	PUMP	CAST IRON T4BA-B2
	2	MOTOR	CAST IRON 15 HP O.D.P.
	3	CHECK VALVE	CAST IRON 4"
	4	PLUG VALVE	CAST IRON 4"
	5	MOTOR CONTROL PANEL	STAINLESS STEEL
	6	BELT GUARD	STAINLESS STEEL

L18" BASE THICKNESS (MIN)

INCREASING ELBOW

4"x6"

ELEVATION VIEW

FOLLOWING OSHA CONFINED

SPACE ACCESS REGULATIONS.

SCALE: 1" = 2'

PUMP CURVE

PLANNING BOARD FILE #17-27

PER MINUTE X 1

APPROVED BY THE EXETER PLANI	IING BOARD
ON	AND

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SEWER PUMP DESIGN NOTES

Env-Wq 705.10 INSTRUCTION AND EQUIPMENT:

OPERATING TOTAL DYNAMIC HEAD OR AT LEAST 100 PSI.

- 1. THE CONTRACTOR/ENGINEER SHALL OBTAIN AND PROVIDE A COMPLETE SET OF OPERTIONAL INSTRUCTIONS, INCLUDING RECOMMENDATION FOR SPARES AND MAINTENANCE, AT EACH SEWAGE PUMPING STATION SO AS TO BE AVAILABLE TO ALL
- 2. ENV-WQ 704.08 FORCE MAIN AND PRESSURE SEWER CONSTRUCTION MATERIALS.
- (A) FORCE MAINS AND PRESSURE SEWERS SHALL BE CONSTRUCTED OF DUCTILE IRON (DI), HIGH DENSITY POLYETHYLENE (HDPE), OR PVC MATERIAL. (B) FORCE MAINS AND PRESSURE SEWERS SHALL BE TREATED AS GRAVITY SEWERS FOR PURPOSES OF FOUNDATION BEDDING AND
- BACKFILL REQUIREMENTS. (C) PVC PIPE USED FOR FORCE MAINS AND PRESSURE SEWERS SHALL BE CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM D2241 OR ASTM D1785 STANDARDS IN EFFECT WHEN THE PIPE IS MANUFACTURED.
- (D) HDPE PIPE USED FOR FORCE MAINS AND PRESSURE SEWERS SHALL BE CERTIFIED BY ITS MANUFACTURER AS CONFORMING
- TO THE ASTM D3035 STANDARD IN EFFECT WHEN THE PIPE IS MANUFACTURED. (E) IF DI PIPE IS USED IN AN ENVIRONMENT THAT COULD CAUSE CORROSION OR OTHER DETERIORATION OF OR DAMAGE TO AN IRON PIPE, OR OTHERWISE REDUCE THE TYPICAL LIFE EXPECTANCY OF THE PIPE, SUCH AS MAY OCCUR WITH CERTAIN SOIL TYPES, LOW PH LEVELS, OR WATER CONDITIONS, THE PIPE SHALL BE PROTECTED AGAINST CORROSION, SUCH AS WITH CATHODIC PROTECTION.
- 3. ENV-WQ 704.09 FORCE MAIN AND PRESSURE SEWER TESTING FORCE MAINS AND PRESSURE SEWERS SHALL BE TESTED IN ACCORDANCE WITH SECTION 5 OF THE AWWA C600, "INSTALLATION OF CAST IRON WATER MAINS AND THEIR APPURTENANCES" STANDARD IN EFFECT WHEN THE TEST IS CONDUCTED, AVAILABLE AS NOTED IN APPENDIX D, AT A PRESSURE EQUAL TO THE GREATER OF 150 PERCENT OF THE DESIGN
- 9 | 02/09/21 | REVISED PER AOT SUBMITTAL JJM 8 | 11/26/18 | REVISED PER PLANNING BOARD COMMENTS ETP JJM 7 11/05/18 REVISED PER PLANNING BOARD COMMENTS ETP JJM 6 | 10/01/18 | REVISED PER PLANNING BOARD COMMENTS ETP JJM 5 8/31/18 REVISED PER TRC COMMENTS ETP JJM 4 7/10/18 REVISED PER PLANNING BOARD COMMENTS ETP JJM 3 2/20/18 REVISED PER REVIEW COMMENTS ETP JJM 2 10/31/17 REVISED PER DESIGN REVIEW COMMENTS ETP JJM REV. DATE **DESCRIPTION** DR CK

- PUMP STATION NOTES:
- 1. OUTSIDE OF PUMP BASIN SHALL BE SEALED WITH A FACTORY APPLIED BITUMINOUS WATERPROOFING COATING TO ENSURE WATER TIGHTNESS. INSIDE SHALL BE PRECAST WITH AGRU SUREGRIP LINER. A DOUBLE RING OF MASTIC SEALANT SHALL BE USED TO SEAL THE JOINTS BETWEEN PRE-CAST MANHOLE SECTIONS.
- 2. ALL JOINTS SHALL BE SEALED WITH A BUTYL JOINT SEALANT.
- 3. CONTROL PANEL TO BE WIRED TO ALTERNATE OPERATION OF PUMPS.
- 4. SEPARATE ELECTRICAL CIRCUITS SHALL BE PROVIDED FOR THE PUMPS AND ALARM SYSTEMS.
- 5. THE PUMPS SHALL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS TO PREVENT FAILURE OF BOTH PUMPS AT ANY GIVEN TIME.
- 6. SYSTEM TO HAVE 3\,\phi\,277/480 ELECTRICAL POWER SUPPLIED.
- 7. PUMPS TO BE 20 HP, GORMAN-RUPP, T-SERIES HORIZONTAL, SELF-PRIMING CENTRIFUGAL SEWAGE PUMPS. MODEL T4A3S.
- 8. PUMPS: PUMPS SHALL BE GORMAN-RUPP T-SERIES PUMPS. ADDITIONAL PARTS FOR THE PUMPS SHALL BE PROVIDED, INCLUDING BUT NOT LIMITED TO: IMPELLERS, IMPELLER WASHERS, IMPELLER CAPSCREWS, SEAL ASSEMBLY, SEAL GASKET, WEAR PLATE, BEARING HOUSING O-RING, BACK COVER PLATE O-RING, SET OF DRIVE BELTS, "SPARE FLOAT" FORM.
- 9. SEPARATE ELECTRICAL CIRCUITS SHALL BE PROVIDED FOR THE PUMPS AND ALARM SYSTEMS.
- 10. ALL PIPE AND FITTINGS TO BE PRODUCED BY A SINGLE MANUFACTURER AND TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL CODE REQUIREMENTS. BURIED PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM F 1668. SOLVENT CEMENTS SHALL CONFORM TO ASTM D 2564. PRIMER SHALL CONFORM TO ASTM F 656.
- 11. THE CONTRACTOR SHALL PROVIDE COMPLETE PUMP STATION ELECTRICAL, PLUMBING, MECHANICAL, AND BUILDING SYSTEMS DRAWINGS ON A DESIGN/BUILD BASIS. STAMPED DRAWINGS, CONFORMING TO ALL LOCAL AND STATE BUILDING CODES, SHALL BE PROVIDED TO THE TOWN OF EXETER FOR APPROVAL PRIOR TO CONSTRUCTION. THE PUMP STATION SHALL BE OWNED AND OPERATED BY THE TOWN OF EXETER DEPARTMENT OF PUBLIC WORKS.
- 12. CONTROLS AND TELEMETRY
- A. THE PUMP STATION CONTROLS SHALL BE INTEGRATED WITH THE TOWN OF EXETER SCADA SYSTEM
- B. A RADIO FREQUENCY PATH STUDY IS REQUIRED FOR THE RADIO COMMUNICATIONS FOR TRANSMITTING
- C. SECURITY AND FIRE ALARMS SHALL BE REQUIRED AND SHOULD BE COORDINATED WITH THE EXETER POLICE AND FIRE DEPARTMENTS.
- D. AN EMERGENCY NOTIFICATION LIGHT SHALL BE INSTALLED OUTSIDE THE BUILDING IN THE EVENT THAT THE SCADA SYSTEM IS NOT FUNCTIONING PROPERLY.
- E. PROVIDE REMOTE CONTROL START AND STOP CAPABILITIES FOR BOTH PUMPS.
- F. THE PUMP CONTROLS SHALL SEND THE FOLLOWING SIGNALS TO THE SCADA SYSTEM:
- I. PUMP 1 RUNNING
- II. PUMP 2 RUNNING
- III. LEVEL INDICATOR
- IV. PUMP POWER FAILURE ALARM V. HIGH-LEVEL WET WELL ALARM
- VI. LOW-LEVEL WET WELL ALARM
- VII. PUMP 1 HIGH-TEMPERATURE SHUTDOWN ALARM
- VIII. PUMP 2 HIGH-TEMPERATURE SHUTDOWN ALARM IX. PUMP 1 MOTOR OVERLOAD ALARM
- X. PUMP 2 MOTOR OVERLOAD ALARM
- XI. NO SIGNAL FROM LEVEL TRANSDUCER XII. REDUNDANT HIGH-LEVEL ALARM (FROM INDEPENDENT FLOAT SWITCH)
- XIII. PUMP 1 IN REMOTE
- XIV. PUMP 2 IN REMOTE
- XV. SPEED CONTROL (VFD)
- G. LIQUID LEVEL CONTROL: THE WET WELL LIQUID LEVEL SHALL BE CONTINUOUSLY MONITORED BY AN ELECTRONIC PRESSURE SWITCH. THE SWITCH SHALL CONTROL START AND STOP OF THE PUMP MOTORS AS DEFINED BY THE ESTABLISHED LEVEL PARAMETERS.
- H. ELECTRICAL CONTROLS SHALL CONSIST OF:
- I. ALLAN BRADLEY PLC II. IFM PRESSURE SENSORS
 - III. KPSI PRESSURE TRANSDUCER WET-WELL LEVEL
- I. ADDITIONAL PARTS SHALL BE PROVIDED AND INCLUDE, BUT ARE NOT LIMITED TO, RELAYS (2 OF EACH STYLE), FUSES (MINIMUM OF 10% OF TOTAL USED, MINIMUM OF 2 PER SIZE INSTALLED), AND POWER
- 13. FINAL ACCEPTANCE
- A. PRIOR TO FINAL ACCEPTANCE OF THE PUMP STATION BY THE TOWN, THE FOLLOWING MAINTENANCE IS
- REQUIRED: I. CHANGE ALL BEARING AND SEAL OILS.
- II. INSTALL NEW BELTS ON ALL UNITS.
- III. CHECK VALVES SHALL BE CLEANED. IV. PUMP CLEARANCES SHALL BE REESTABLISHED.
- V. A FINAL INSPECTION BY DPW IS REQUIRED PRIOR TO FINAL ACCEPTANCE OF THE PUMP STATION. THIS MAY RESULT INADDITIONAL MAINTENANCE REQUIREMENTS.

TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

DETAILS

EXETER ROSE FARM

FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM **BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST** OWNED BY

EXETER ROSE FARM, LLC & BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS

AUGUST 15, 2017

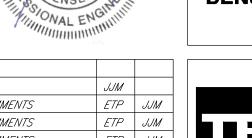




Structural Engineers Traffic Engineers Land Surveyors Landscape Architects

| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

47175 00	DR	JRW	FB		C 62
47175.00	СК	JJM	CADFILE	Details.dwg	C-63



				CENTED OF CDAVITY					
GENSET		D	RY	WITH LU	BE OIL	WITH OIL &	WATER	CENTER OF GRAVITY	
		KGS	LBS	KGS	LBS	KGS	LBS	DIM. X	DIM. Y
	WSG1068/LL2014H	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
	WSG1068/LL2014J	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
	WSG1068/LL3014B	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
	WSG1068/LL3014F	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA

FUEL TYPE	BULKHEAD FITTING
LPG LIQUID	A - 3/4" NPT FEMALE
NATURAL GAS	B - 1 1/4" NPT FEMALE
LPG VAPOUR	C - 1 1/4" NPT FEMALE

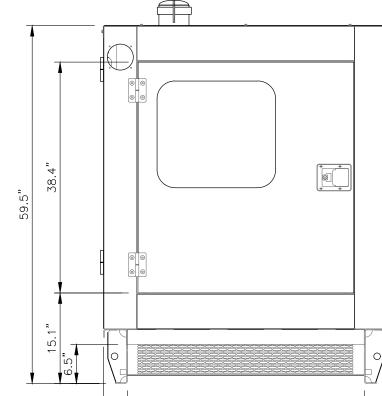
ITEM	QTY.	DESCRIPTION	PART NUMBE
1	1	ENGINE / ALTERNATOR COMBINATIONS	MGS4161
2	1	SA BASEFRAME GROUP	MGS5209
3	1	RADIATOR COOLING SYSTEM GROUP	MGS3747
4	1	SINGLE FUEL GAS GROUP (NATURAL GAS)	MGS3903
5	1	BATTERY GROUP	MGS4033
6	1	FAN & PULLEY GUARD GROUP	MGS3759
7	1	MANIFOLD HEAT SHIELD GUARD GROUP	MGS3912
8	1	STARTER MOTOR HEAT SHIELD GUARD GROUP	MGS3907
9	1	COUPLING GROUP	MGS3915
10	1	PANEL STAND GROUP	MGS5217
11	1	AIR FILTER GROUP	MGS4079
12	1	OIL PRESSURE SENSOR GROUP	MGS3927
13	1	HIGH WATER TEMPERATURE SENSOR GROUP	MGS4064
14	1	MAGNETIC PICK-UP SENSOR GROUP	MGS3928
15	1	IGNITION CONTROL MODULE GROUP	MGS4035
16	1	EXHAUST MANIFOLD PIPEWORK GROUP	MGS3860
17	1	LV1 - LUBE OIL DRAIN TO BASEFRAME	MGS3931
18	1	WV1 - COOLANT DRAIN TO BASEFRAME	MGS3930
19	1	EIM UPFIT GROUP	MGS4110
20	1	DECALS — UNIVERSAL LABELS (CANOPIED)	MGS2583
21	1	OIL COOLER GROUP	MGS4047
22	1	SOUND ATTENUATED CANOPY GROUP	MGS5214

76.8"

122.1" O/A

GROUND FIXINGS Ø12

REAR VIEW WITHOUT CANOPY



39.4"

REAR VIEW

TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

DETAILS EXETER ROSE FARM

FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM **BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST**

NTS

OWNED BY **EXETER ROSE FARM, LLC &** BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS

AUGUST 15, 2017

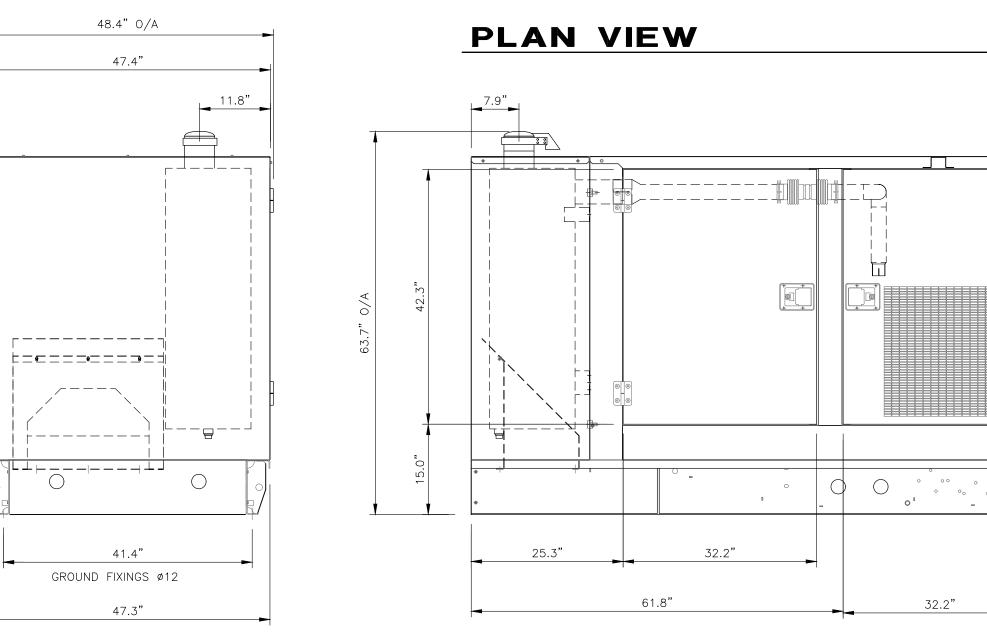
JJM	
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0	MSC A division of TFMoran, In

Civil Engineers Structural Engineers Traffic Engineers Land Surveyors Landscape Architects Inc. Scientists

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DR JRW FB 47175.00 C-64 CK JJM CADFILE Details.dwg



SIDE VIEW **SECTION Y-Y** NTS

PLANNING BOARD FILE #17-27

FRONT VIEW

APPROVED BY THE EXETER PLANNING E	BOARD
ON CHAIRMAN: SECRETARY:	<i>AND</i>

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NTS

SEWER PUMP STATION GENERATOR

9	02/09/21	REVISED PER AOT SUBMITTAL	JJM	
8	11/26/18	REVISED PER PLANNING BOARD COMMENTS	ETP	JJM
7	11/05/18	REVISED PER PLANNING BOARD COMMENTS	ETP	JJM
6	10/01/18	REVISED PER PLANNING BOARD COMMENTS	ETP	JJM
5	8/31/18	REVISED PER TRC COMMENTS	ETP	JJM
4	7/10/18	REVISED PER PLANNING BOARD COMMENTS	ETP	JJM
3	2/20/18	REVISED PER REVIEW COMMENTS	ETP	JJM
2	10/31/17	REVISED PER DESIGN REVIEW COMMENTS	ETP	JJM
REV.	DATE	DESCRIPTION	DR	CK

(10)

60.99"

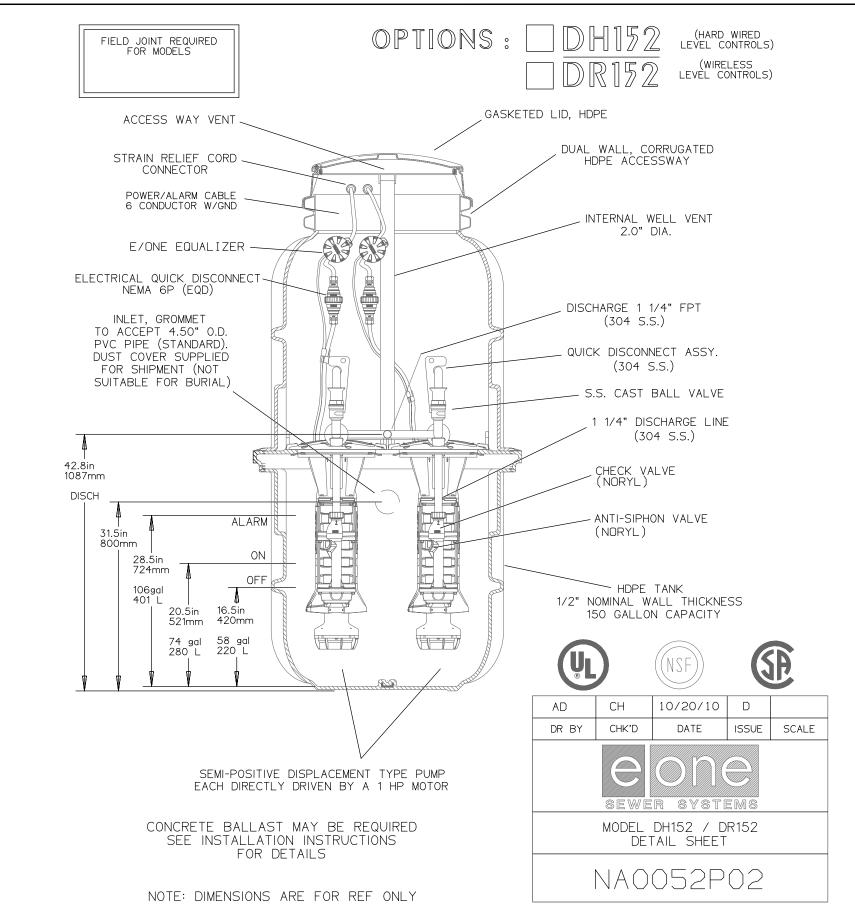
27.6"

(12) (21) (4)

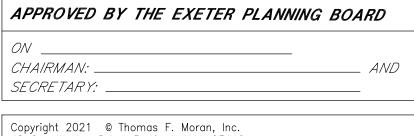
FOR INFORMATION ONLY

REV. DATE

E-ONE CLEANOUT AND AIR/VACUUM DETAIL NOT TO SCALE



PLANNING BOARD FILE #17-27



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TYPE PUMP. EACH DIRECTLY

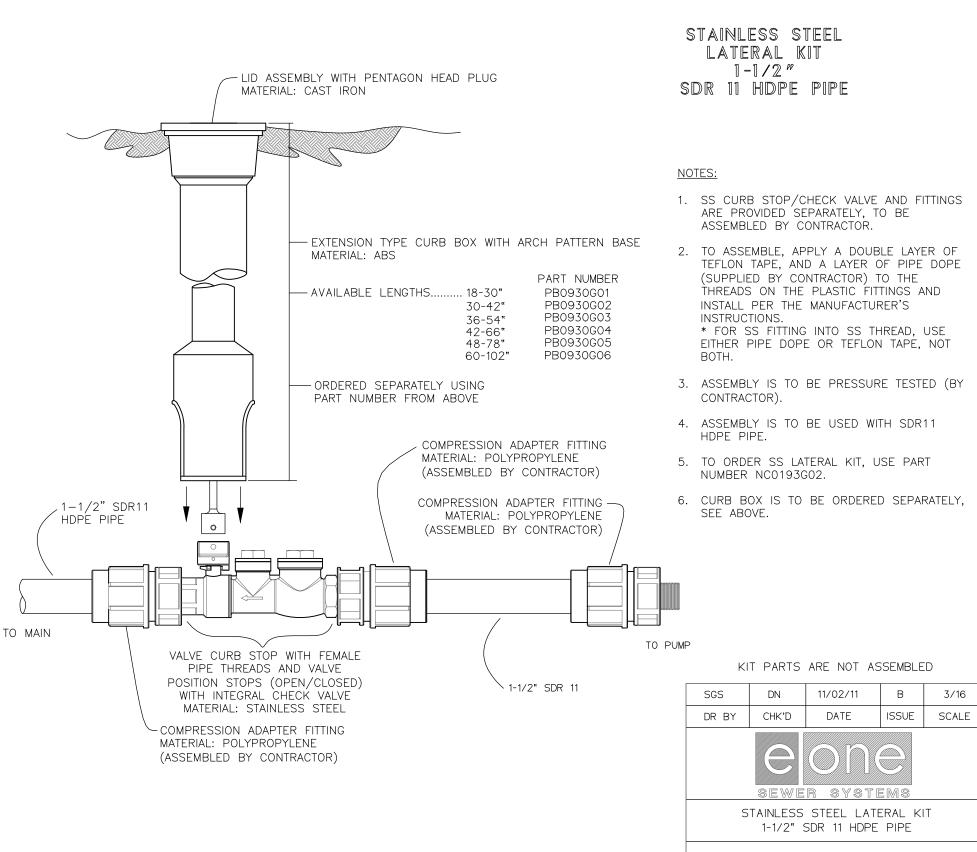
DRIVEN BY A 1 HP MOTOR

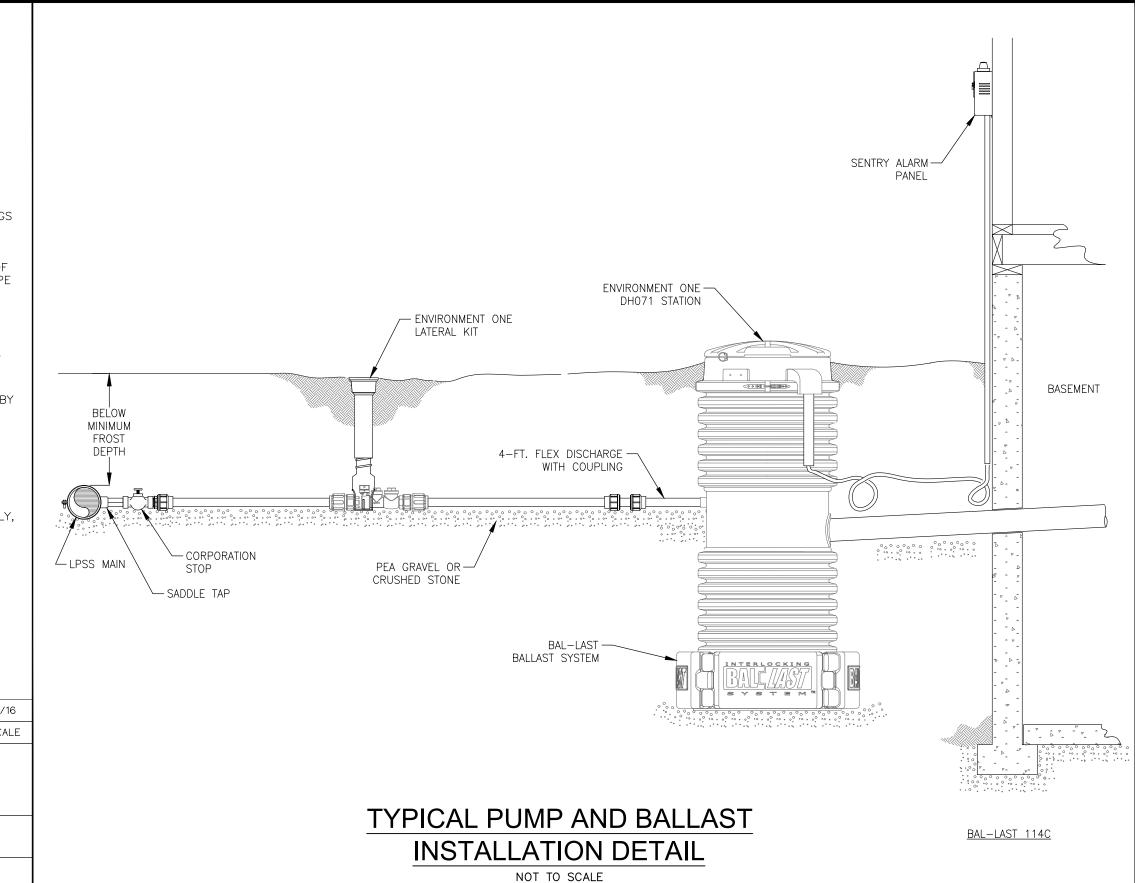
CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTION

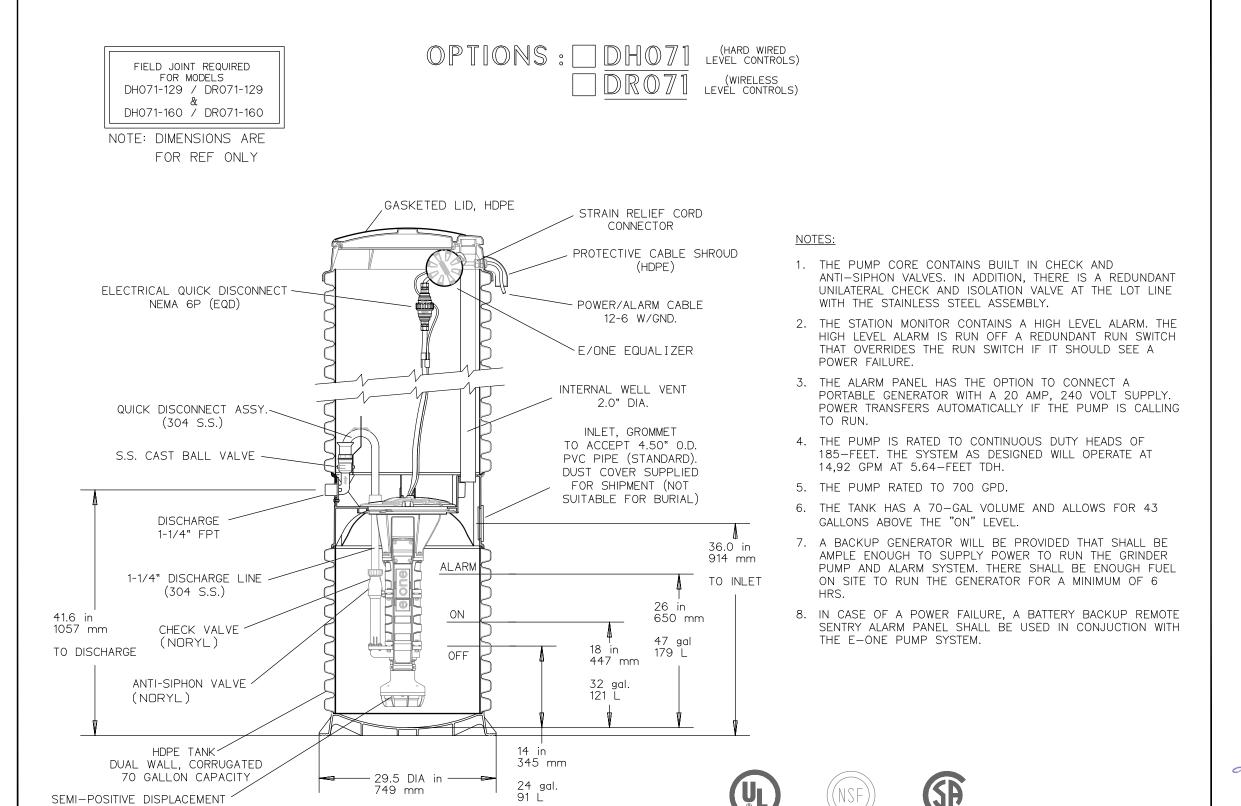
FOR DETAILS

E-ONE GRINDER PUMP

NOT TO SCALE







AD

CH 10/20/10 D

DR BY CHK'D DATE ISSUE SCALE

SEWER SYSTEMS

MODEL DH071 / DR071

NA0050P02

DETAIL SHEET

9 | 02/09/21 | REVISED PER AOT SUBMITTAL

5 | 8/31/18 | REVISED PER TRC COMMENTS

3 2/20/18 REVISED PER REVIEW COMMENTS

REV. DATE

8 | 11/26/18 | REVISED PER PLANNING BOARD COMMENTS

7 11/05/18 REVISED PER PLANNING BOARD COMMENTS

6 | 10/01/18 | REVISED PER PLANNING BOARD COMMENTS

4 | 7/10/18 | REVISED PER PLANNING BOARD COMMENTS

DESCRIPTION

2 10/31/17 REVISED PER DESIGN REVIEW COMMENTS

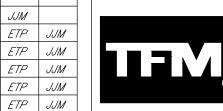
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FOREST STREET & OAK STREET EXTENSION

EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM **BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST**

EXETER ROSE FARM, LLC &

AUGUST 15, 2017



JJM

ETP JJM

ETP JJM

ETP JJM

DR CK

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DR JRW FB C-65 47175.00 CK JJM CADFILE Details.dwg

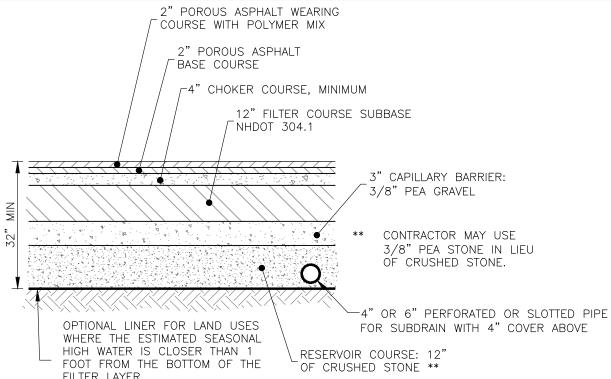
TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

DETAILS

EXETER ROSE FARM

OWNED BY

BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS



FILTER LAYER

		PER CE	NT PASSING %	
SIEVE SIZE	CHOKER COURSE (AASHTO NO. 57)	FILTER COURSE (MODIFIED NHDOT 304.1)	RESERVOIR COURSE (AASHTO NO. 3)	RESERVOIR COURSE ALTERNATE** (AASHTO NO. 5)
6"	-	100	-	
2 <u>1</u> "	1		100	_
2"	_		90-100	_
1 <u>1</u> "	100		35-70	100
1"	95-100		0-15	90-100
3" 4			1	20-55
<u>1</u> "	25-60		0-5	0-10
3" 8	1		I	0-5
#4	0-10	70-100	ı	
#8	0-5	0-6***	I	
% COMPACTION ASTM D698 / AASHTO T99	95	95	95	95

GRADATION TABLE OF CHOKER FILTER, AND RESERVOIR COURSE MATERIAL

** ALTERNATE GRADATION (e.g. AASHTO NO. 5) MAY BE ACCEPTED UPON ENGINEER'S APPROVAL

*** PREFERABLY LESS THAN 4% FINES

POROUS ASPHALT MIX DESIGN CRITERIA

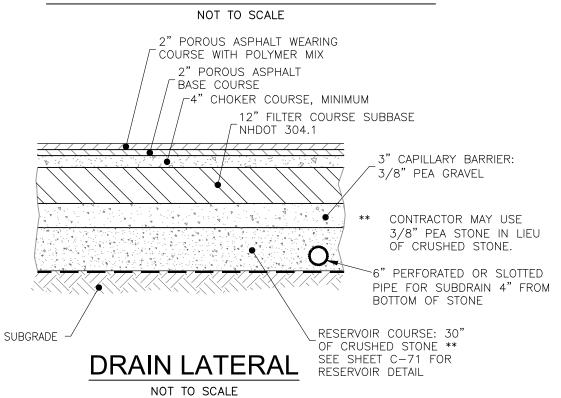
TOROUS ASITIALI MILA DESIGN CINTENIA	
SIEVE SIZE	% PASSING
0.75"	100
0.50"	85-100
0.375"	55-75
NO. 4	10-25
NO. 8	5-12
NO. 200	2-4
BINDER CONTENT (AASHTO T164)	5.8-6.5
AIR VOID CONTENT (ASTM D6752)	16-22
DRAINDOWN (ASTM D6390)*	≤0.3
RETAINED TENSILE STRENGTH (AASHTO 283)**	≥80
CANTABRO ABRASION TEST ON UNAGED SAMPLES	<u><</u> 20
CANTABRO ABRASION TEST ON 7 DAY AGED SAMPLES	<u><3</u> 0

* CELLULOSE, MINERAL, OR POLYESTER FIBERS MAY BE USED TO REDUCE DRAINDOWN.

** IF THE TSR (RETAINED TENSILE STRENGTH) VALUES FALL BELOW 80% WHEN TESTED PER NAPA IS 131 (WITH A SINGLE FREEZE THAW CYCLE RATHER THAN 5), THEN IN STEP 4, THE CONTRACTOR SHALL EMPLOY AN ANTISTRIP ADDITIVE, SUCH AS HYDRATED LIME (ASTM C977) OR A FATTY AMINE, TO RAISE THE TSR VALUE ABOVE 80%.

1. FOR A COMPLETE REFERENCE SEE UNHSC DESIGN SPECIFICATIONS FOR POROUS ASPHALT PAVEMENT AND INFILTRATION BEDS DATED FEBRUARY 2014.

POROUS PAVEMENT SYSTEM



PLANNING BOARD FILE #17-27

APPROVED BY THE EXETER PLANNING	BOARD
ON CHAIRMAN: SECRETARY:	AND
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POROUS PAVEMENT NOTES:

MATERIALS

A. POROUS ASPHALT PERFORMANCE SPECIFICATION - ALTERNATIVES CAN BE SUBSTITUTED IF THE MIX DESIGN MEETS THE MINIMUM QC PERFORMANCE CRITERIA FOR GRADATION, AC CONTENT, % VOID SPACE, % DRAIN DOWN, TSR, AND CANTABRO WEAR TEST AND ACCEPTED IN WRITING BY THE SUPERVISORY ENGINEER. THERE IS A SINGLE MIX PRODUCED AND INSTALLED AS A WEARING COURSE AND BINDER

B. POLYMER MODIFIED PGAB AND MIX DESIGNS WEARING COURSE: PG76-22 MODIFIED WITH A STYRENE BUTADIENE STYRENE. GRADATION, AC CONTENT, % VOID SPACE, % DRAIN DOWN, TSR, CANTABRO AS INDICATED IN THE GRADATION TABLE. ACCEPTABLE ALTERNATIVES MAY BE APPROVED IN WRITING BY THE SUPERVISING ENGINEER IF QC PERFORMANCE REQUIREMENTS CAN BE MET AS LISTED IN POROUS ASPHALT MIX DESIGN CRITERIA TABLE. 2. MATERIALS SHALL MEET THE REQUIREMENTS NOTED OTHERWISE BELOW OR APPROVED BY THE SUPERVISING ENGINEER. THE ASPHALT BINDER SHALL BE A POLYMER AND/OR FIBER MODIFIED PERFORMANCE GRADED ASPHALT BINDER (PGAB) USED IN THE PRODUCTION OF SUPERPAVE HOT MIX ASPHALT MIXTURES. FOR MAXIMUM DURABILITY, THE PGAB SHALL BE TWO GRADES STIFFER THAN THAT REQUIRED FOR DENSE MIX ASPHALT (DMA) PARKING LOT INSTALLATIONS. WHICH IS ACHIEVED BY ADDING A POLYMER, MIX DESIGNS WILL MEET OR EXCEED CRITERIA LISTED IN THE POROUS ASPHALT MIX DESIGN CRITERIA TABLE. THE PGAB POLYMER MODIFIERS IS TO BE PRE-BLENDED STYRENE BUTADIENE STYRENE (SBS).

GRADE CONTROL

ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS. THE ENGINEER SHALL BE NOTIFIED FOR REVIEW AND APPROVAL OF FINAL STAKE LINES FOR THE WORK BEFORE CONSTRUCTION WORK IS TO BEGIN. FINISHED SURFACES SHALL BE TRUE TO GRADE AND EVEN. FREE OF ROLLER MARKS, AND FREE OF PUDDLE-FORMING LOW SPOTS, ALL AREAS MUST DRAIN FREELY, EXCAVATION ELEVATIONS SHOULD BE WITHIN +/- 0.1 FT (+/- 3 CM).

IF, IN THE OPINION OF THE ENGINEER, BASED UPON REPORTS OF THE TESTING SERVICE AND INSPECTION, THE QUALITY OF THE WORK IS BELOW THE STANDARDS WHICH HAVE BEEN SPECIFIED, ADDITIONAL WORK AND TESTING WILL BE REQUIRED UNTIL SATISFACTORY RESULTS ARE OBTAINED.

GENERAL CRITERIA FOR WATERSHED AREA TO TREATMENT AREA RATIOS FOR PERMEABLE PAVEMENTS ARE DEFINED BY THE STATE. HYBRID DESIGNS (DENSE-MIX DRIVE-LANES WITH PERMEABLE PAVEMENT PARKING STALLS) HAVE BEEN USED TO ADDRESS DIMINISHED STRENGTH OF PERMEABLE ASPHALT MATERIALS IN HIGH TRAFFIC VOLUME/LOAD LOCATIONS. A 1:1 WATERSHED AREA TO PERMEABLE PAVEMENT AREA IS PREFERRED (IMPLYING NO RUNON). IMPROVEMENTS TO MATERIALS AND DESIGNS HAVE ADDRESSED MANY OF THE STRENGTH DEFICIENCIES ASSOCIATED WITH OLDER DESIGNS AND MATERIALS

NOTIFICATION

THE ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS TO ALL POROUS MEDIA BED AND POROUS PAVEMENT WORK.

SUBGRADE PREPARATION

THE EXISTING NATIVE SUBGRADE MATERIAL UNDER ALL BED AREAS SHALL NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO STONE BED PLACEMENT. COMPACTION IS ACCEPTABLE IF AN IMPERMEABLE LINER IS USED AT THE BASE OF THE POROUS ASPHALT SYSTEM AND INFILTRATION IS NOT DESIRED.

WHERE EROSION OF THE NATIVE MATERIAL SUBGRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING AT THE BASE OF THE EXCAVATION, THIS MATERIAL SHALL BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES (15 CM) WITH A YORK RAKE OR EQUIVALENT AND LIGHT TRACTOR.

BRING SUBGRADE OF STONE POROUS MEDIA BED TO LINE GRADE AND FLEVATIONS INDICATED. FILL AND LIGHTLY REGRADE ANY AREAS DAMAGED BY EROSION, PONDING, OR TRAFFIC COMPACTION BEFORE THE PLACING OF THE STONE. FOR PARKING LOTS ALL BED BOTTOMS ARE LEVEL GRADE TO PROMOTE UNIFORM INFILTRATION. FOR ROAD APPLICATIONS, TYPICALLY THE SLOPE OF THE BOTTOM OF EXCAVATION PARALLELS THAT OF THE ROAD

INTERIOR BERMS IN THE STONE LAYER ARE THEN NECESSARY TO PREVENT INFILTRATED WATER FROM FLOWING IN THE RESERVOIR STONE PARALLEL TO THE ROAD. INTERIOR BERMS SHOULD BE ALMOST AS TALL AS THE RESERVOIR COURSE THICKNESS AND MADE OF RELATIVELY IMPERMEABLE MATERIAL (THIS MAY BE ACCOMPLISHED WITH GEOFABRIC OR GEOTEXTILE). ON THE UPSTREAM SIDE OF THE BERM, WATER MAY INFILTRATE. IF SOIL INFILTRATION CAPACITY IS LOW, THEN A DRAINAGE PIPE SHOULD BE LOCATED ON THE UPSTREAM SIDE OF THE BERM TO REMOVE WATER FROM THE RESERVOIR COURSE AND DRAIN (DAYLIGHT) TO NATURAL RECEIVING WATERS, WETLANDS, OR PLUMBED INTO EXISTING STORMWATER DRAINAGE INFRASTRUCTURE (SWALES, CATCH BASINS, STORM SEWERS).

POROUS MEDIA BED INSTALLATION

UPON COMPLETION OF SUBGRADE WORK, THE ENGINEER SHALL BE NOTIFIED AND SHALL INSPECT AT HIS/HER DISCRETION BEFORE PROCEEDING WITH THE POROUS MEDIA BED INSTALLATION.

SIDE SLOPE GEOTEXTILE (WHEN USED) AND POROUS MEDIA BED AGGREGATE SHALL BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION. ANY ACCUMULATION OF DEBRIS OR SEDIMENT WHICH HAS TAKEN PLACE AFTER APPROVAL OF SUBGRADE SHALL BE REMOVED PRIOR TO INSTALLATION OF GEOTEXTILE OR POROUS MEDIA AT NO EXTRA COST TO THE OWNER.

PLACE SIDE SLOPE GEOTEXTILE IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF GEOTEXTILE SHALL OVERLAP A MINIMUM OF SIXTEEN INCHES (16" OR 41 CM). SECURE GEOTEXTILE AT LEAST FOUR FEET (1.2 M) OUTSIDE OF THE BED EXCAVATION AND TAKE ANY STEPS NECESSARY TO PREVENT ANY RUNOFF OR SEDIMENT FROM ENTERING THE STORAGE BED

INSTALL COARSE AGGREGATE IN LIFTS NO GREATER THAN 8-INCHES (20 CM). LIGHTLY COMPACT EACH LIFT WITH EQUIPMENT, KEEPING EQUIPMENT MOVEMENT OVER STORAGE BED SUBGRADES TO A MINIMUM. INSTALL AGGREGATE TO GRADES INDICATED ON THE DRAWINGS.

INSTALL CHOKER BASE COURSE (SEE MATERIALS SECTION) AGGREGATE EVENLY OVER SURFACE OF FILTER COURSE BED. SUFFICIENT TO ALLOW PLACEMENT OF PAVEMENT, AND NOTIFY ENGINEER FOR APPROVAL. CHOKER BASE COURSE THICKNESS SHALL BE SUFFICIENT TO ALLOW FOR EVEN PLACEMENT OF THE POROUS ASPHALT BUT NO LESS THAN 4-INCHES (10 CM) IN DEPTH.

THE INFILTRATION RATE OF THE COMPACTED FILTER COURSE SHALL BE DETERMINED BY ASTM D3385 OR AN APPROVED ALTERNATE AT THE DISCRETION OF THE SUPERVISING ENGINEER. THE INFILTRATION RATE SHALL BE NO LESS 5-30 FT/DAY OR 50% OF THE HYDRAULIC CONDUCTIVITY (D2434) AT 95% STANDARD PROCTOR COMPACTION (REFER TO SECTION 2.1.5).

FOLLOWING PLACEMENT OF BED AGGREGATE, THE SIDE SLOPE GEOTEXTILE SHALL BE FOLDED BACK ALONG ALL BED EDGES TO PROTECT FROM SEDIMENT WASHOUT ALONG BED EDGES. AT LEAST A FOUR-FOOT (1.2 M) EDGE STRIP SHALL BE USED TO PROTECT BEDS FROM ADJACENT BARE SOIL. THIS EDGE STRIP SHALL REMAIN IN PLACE UNTIL ALL BARE SOILS CONTIGUOUS TO BEDS ARE STABILIZED AND VEGETATED. IN ADDITION, TAKE ANY OTHER NECESSARY STEPS TO PREVENT SEDIMENT FROM WASHING INTO BEDS DURING SITE CONSTRUCTION. WHEN THE SITE IS FULLY STABILIZED, TEMPORARY SEDIMENT

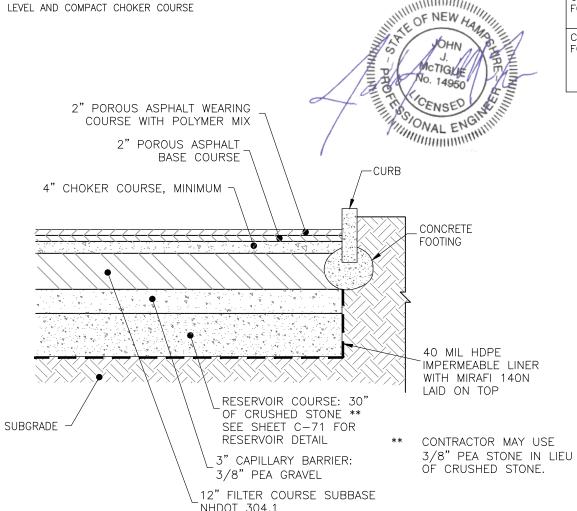
QC/QA REQUIREMENTS FOR POROUS MEDIA BED CONSTRUCTION - ACTIVITIES ARE SUMMARIZED IN TABLE 8

RESURFACING

IN CASES WHERE A POROUS ASPHALT SYSTEM WAS CONSTRUCTED AND THE ASPHALT NEEDS TO BE REPLACED. IT IS RECOMMENDED TO MILL THE OLDER ASPHALT AND TO RESURFACE ON THE CHOKER COURSE RATHER THAN TO USE A TACKIFIER AND PAVE OVER THE OLDER ASPHALT. WHILE THERE IS LITTLE DOCUMENTED EXPERIENCE WITH PARTIAL MILLING AND RESURFACING IT HAS BEEN DONE WITH SUCCESS FOR POROUS ASPHALT PAVEMENTS. ATTENTION TO CLEANING MILLED SURFACE IS CRITICAL.

MILL OLDER ASPHALT DOWN TO SPECIFIED DEPTH OR TO CHOKER COURSE.

RESTORE THE INFILTRATION CAPACITY WITH LOW ANGLE PRESSURE WASHING OR AIR TO A VACUUM (FOR EXAMPLE THE 15" VACUUM ATTACHMENT HOSE OF A TYMCO REGENERATIVE AIR VAC)



POROUS ASPHALT PAVEMENT AT EDGE WITH CURB AND GEOTEXTILE NOT TO SCALE

TABLE 8: QC/QA REQUIREMENTS FOR POROUS MEDIA BED CONSTRUCTION. TABLE 9: QC/QA REQUIREMENTS DURING PAVING. 24 HOURS IN ADVANCE OF START OF FOR APPROVAL

CONTRACTOR TO EMPLOY SOIL INSPECTOR	N/A	INSPECT TRUCK BEDS FOR POOLING
CONTRACTOR TO EMPLOY STAKING AND LAYOUT CONTROL INSPECTOR	N/A	TAKE TEMP OF ASPHALT IN TRUCK
CONTRACTOR TO EMPLOY SITE GRADING INSPECTOR	N/A	TAKE TEMP OF PA MIX IN THE PAVER
CONTRACTOR TO EMPLOY PAVEMENT WORK INSPECTOR	N/A	CONSULT WITH ENGINEER TO DETERMINE LOCATIONS OF BUT
CONTRACTOR TO NOTIFY ENGINEER FOR APPROVAL	AFTER SUBGRADE PREPARATION, BEFORE CONSTRUCTION OF POROUS MEDIA BED	JOINTS TEST SURFACE SMOOTHNESS AND POSITIVE DRAINAGE WITH A
CONTRACTOR TO NOTIFY ENGINEER FOR APPROVAL	AFTER FILTER COURSE PLACEMENT, BEFORE PLACEMENT OF CHOKER COURSE AND PAVEMENT TO VERIFY PROPER COMPACTION OF FILTER COURSE BY ASTM D3385	10' STRAIGHTEDGE CONSULT WITH ENGINEER TO MARK CORE LOCATIONS HOUSE TEST WITH AT LEAST 5

2" POROUS ASPHALT WEARING

COURSE WITH POLYMER MIX 2" POROUS ASPHALT 1'−6" MIN. → BASE COURSE STONE TRENCH WIDTH VARIES outlined in "unhsc design specifications 4" CHOKER COURSE, MINIMUM -INFITRATION BEDS" DATED FEBRUARY 2014 BY THE UNIVERSITY OF NEW HAMPSHIRE - PLACE 2-4" MINUS STONE (WASHED) RESERVOIR COURSE: 30" 40 MIL HDPE IMPERMEABLE LINER OF CRUSHED STONE ** WITH MIRAFI 140N LAID ON TOP SUBGRADE -SEE SHEET C-71 FOR RESERVOIR DETAIL 3" CAPILLARY BARRIER: 3/8" PEA GRAVEL ** CONTRACTOR MAY USE 3/8" PEA STONE IN LIEU 12" FILTER COURSE SUBBASE OF CRUSHED STONE.

POROUS ASPHALT PAVEMENT INSTALLATION

THE USE OF SURGE BINS SHALL NOT BE PERMITTED.

COMPETENT PERSONNEL.

WETTING THE ROLLS

SECTIONS OF THE STATE DOT'S SPECIFICATION FOR ASPHALT MIXES.

THE DRIVE ROLL. ALL ROLLS SHALL BE AT LEAST 1.1 M (42 INCHES) IN DIAMETER.

MIXTURE SHALL BE SPREAD AND RAKED BY HAND TOOLS.

ARE PAVED TO THE SAME LIMITS.

QC/QA FOR PAVING OPERATIONS

A RUBBER TIRED ROLLER IS NOT REQUIRED ON THE OPEN GRADED ASPHALT FRICTION COURSE SURFACE.

DAYLIGHT HOURS. UNLESS NIGHT PAVING HAS BEEN APPROVED AND ESTABLISHED FOR THE PROJECT

PUDDLE FORMATION OR SURFACE RUNOFF, AND SHALL BE OBSERVED BY THE ENGINEER.

AND REPLACE UNACCEPTABLE WORK AS DIRECTED BY THE ENGINEER.

VEHICLES BE ALLOWED TO DEPOSIT SOIL ON PAVED POROUS SURFACES.

QC/QA REQUIREMENTS DURING PAVING ARE SUMMARIZED IN TABLE 9.

THE MIXING PLANT, HAULING AND PLACING EQUIPMENT, AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH NAPA IS 131 AND APPLICABLE

HAULING EQUIPMENT THE OPEN GRADED MIX SHALL BE TRANSPORTED IN CLEAN VEHICLES WITH TIGHT, SMOOTH DUMP BEDS THAT HAVE BEEN SPRAYED

WITH A NON—PETROLEUM RELEASE AGENT OR SOAP SOLUTION TO PREVENT THE MIXTURE FROM ADHERING TO THE DUMP BODIES. MINERAL FILLER, FINE

SUITABLE MATERIAL OF SUCH SIZE SUFFICIENT TO PROTECT THE MIX FROM THE WEATHER AND ALSO MINIMIZE MIX COOLING AND THE PREVENTION OF

AGGREGATE, SLAG DUST, ETC. SHALL NOT BE USED TO DUST TRUCK BEDS. THE OPEN GRADED MIX SHALL BE COVERED DURING TRANSPORTATION WITH A

LUMPS. WHEN NECESSARY, TO ENSURE THE DELIVERY OF MATERIAL AT THE SPECIFIED TEMPERATURE, TRUCK BODIES SHALL BE INSULATED, AND COVERS

PLACING EQUIPMENT THE PAVER SHALL BE A SELF-PROPELLED UNIT WITH AN ACTIVATED SCREED OR STRIKE-OFF ASSEMBLY, CAPABLE OF BEING HEATED

GENERAL, TRACK PAVERS HAVE PROVED SUPERIOR FOR POROUS ASPHALT PLACEMENT. THE SCREED SHALL BE ADJUSTABLE TO PROVIDE THE DESIRED

SHOVING, OR PULLING OF THE MIXTURE. THE MACHINE SHALL, AT ALL TIMES, BE IN GOOD MECHANICAL CONDITION AND SHALL BE OPERATED BY

PAVERS SHALL BE EQUIPPED WITH THE NECESSARY ATTACHMENTS, DESIGNED TO OPERATE ELECTRONICALLY, FOR CONTROLLING THE GRADE OF THE

THE ADJUSTMENTS AND ATTACHMENTS OF THE PAVER WILL BE CHECKED AND APPROVED BY THE ENGINEER BEFORE PLACEMENT OF ASPHALT MATERIAL.

ROLLERS SHALL BE IN GOOD MECHANICAL CONDITION, OPERATED BY COMPETENT PERSONNEL, CAPABLE OF REVERSING WITHOUT BACKLASH. AND OPERATED

AT SPEEDS SLOW ENOUGH TO AVOID DISPLACEMENT OF THE ASPHALT MIXTURE. THE MASS (WEIGHT) OF THE ROLLERS SHALL BE SUFFICIENT TO COMPACT

THE MIXTURE TO THE REQUIRED DENSITY WITHOUT CRUSHING OF THE AGGREGATE. ROLLERS SHALL BE EQUIPPED WITH TANKS AND SPRINKLING BARS FOR

ROLLERS SHALL BE TWO-AXLE TANDEM ROLLERS WITH A GROSS MASS (WEIGHT) OF NOT LESS THAN 7 METRIC TONS (8 TONS) AND NOT MORE THAN 10

METRIC TONS (12 TONS) AND SHALL BE CAPABLE OF PROVIDING A MINIMUM COMPACTIVE EFFORT OF 44 KN/M (250 POUNDS PER INCH) OF WIDTH OF

CONDITIONING OF EXISTING SURFACE CONTACT SURFACES SUCH AS CURBING, GUTTERS, AND MANHOLES SHALL BE PAINTED WITH A THIN, UNIFORM COAT

TEMPERATURE REQUIREMENTS THE TEMPERATURE OF THE ASPHALT MIXTURE, AT THE TIME OF DISCHARGE FROM THE HAUL VEHICLE AND AT THE PAVER,

SPREADING AND FINISHING THE POROUS ASPHALT SHOULD BE PLACED IN TWO LIFTS AT 1.5 TO 2 INCHES (4 - 6 CM). ONE LIFT IS NOT RECOMMENDED

ECAUSE UNIFORM COMPACTION IS DIFFICULT TO ACHIEVE. GREAT CARE MUST BE TAKEN TO INSURE THAT THE POROUS ASPHALT LAYERS JOIN COMPLETELY. THIS MEANS: KEEPING THE TIME BETWEEN LAYER PLACEMENTS MINIMAL; KEEPING THE FIRST LAYER CLEAR FROM DUST AND MOISTURE, AND

MINIMIZING TRAFFIC ON THE FIRST LAYER. HOWEVER CARE SHOULD BE TAKEN TO ALLOW SUFFICIENT TIME FOR THE ASPHALT PLACEMENT TO SET,

GENERALLY THE FOLLOWING DAY OR WHEN THE SURFACE TEMPERATURE OF THE FIRST LIFT COOLS TO 38°C (100 °F). TWO LIFTS AFFORDS BETTER

THE CONTRACTOR SHALL PROTECT ALL EXPOSED SURFACES THAT ARE NOT TO BE TREATED FROM DAMAGE DURING ALL PHASES OF THE PAVEMENT

COMPACTION OF THE ENTIRE LIFT, ESPECIALLY IN COLDER WEATHER AND FOR LARGE SITES. IT ALSO PROVIDES ACCESS TO THE SITE FOR FINISH WORK

SUCH AS CURBING. CARE MUST BE TAKEN TO NOT DAMAGE OR IMPAIR PERMEABILITY OF THE BASE COURSE IF A MULTIPLE LIFT SCENARIO IS CHOSEN. IF

SIGNIFICANT SITE WORK WILL TAKE PLACE BETWEEN PLACEMENT OF BASE AND WEARING COURSES HIGHER DURABILITY MIXES SHOULD BE USED FOR BOTH

THE ASPHALT MIXTURE SHALL BE SPREAD AND FINISHED WITH THE SPECIFIED EQUIPMENT. THE MIXTURE SHALL BE STRUCK OFF IN A UNIFORM LAYER TO

THE FULL WIDTH REQUIRED AND OF SUCH DEPTH THAT EACH COURSE, WHEN COMPACTED, HAS THE REQUIRED THICKNESS AND CONFORMS TO THE GRADE

AND ELEVATION SPECIFIED. PAVERS SHALL BE USED TO DISTRIBUTE THE MIXTURE OVER THE ENTIRE WIDTH OR OVER SUCH PARTIAL WIDTH AS PRACTICAL.

ON AREAS WHERE IRREGULARITIES OR UNAVOIDABLE OBSTACLES MAKE THE USE OF MECHANICAL SPREADING AND FINISHING EQUIPMENT IMPRACTICAL, THE

NO MATERIAL SHALL BE PRODUCED SO LATE IN THE DAY AS TO PROHIBIT THE COMPLETION OF SPREADING AND COMPACTION OF THE MIXTURE DURING

BELOW 38 °C (100 °F). THE USE OF WATER TO COOL THE PAVEMENT IS NOT PERMITTED. THE ENGINEER RESERVES THE RIGHT TO REQUIRE THAT ALL WORK ADJACENT TO THE PAVEMENT, SUCH AS GUARDRAIL, CLEANUP, AND TURF ESTABLISHMENT, IS COMPLETED PRIOR TO PLACING THE WEARING COURSE

WHEN THIS WORK COULD CAUSE DAMAGE TO THE PAVEMENT. ON PROJECTS WHERE TRAFFIC IS TO BE MAINTAINED, THE CONTRACTOR SHALL SCHEDULE

DAILY PAVEMENT OPERATIONS SO THAT AT THE END OF EACH WORKING DAY ALL TRAVEL LANES OF THE ROADWAY ON WHICH WORK IS BEING PERFORMED

THE FULL PERMEABILITY OF THE PAVEMENT SURFACE SHALL BE TESTED BY APPLICATION OF CLEAN WATER AT THE RATE OF AT LEAST 5 GPM (23 LPM)

OVER THE SURFACE, USING A HOSE OR OTHER DISTRIBUTION DEVISE. WATER USED FOR THE TEST SHALL BE CLEAN, FREE OF SUSPENDED SOLIDS AND

BE REVIEWED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO STARTING CONSTRUCTION. ALL TEST REPORTS MUST BE SIGNED BY A LICENSED

TEST IN-PLACE BASE AND SURFACE COURSE FOR COMPLIANCE WITH REQUIREMENTS FOR THICKNESS AND SURFACE SMOOTHNESS. REPAIR OR REMOVE

SCHEDULE/FREQUENCY

EVERY TRUCK

EVERY TRUCK

EACH PULL

AS NEEDED

AFTER COMPACTION

AFTER COMPACTION

AFTER COMPACTION

TOLERANCE

> 135°C (275°F)

WITHIN 6°C (10°F) OF

THE RECOMMENDED

COMPACTION TEMP

N/A

9.5 MM ($\frac{3}{8}$ ")

N/A

IMMEDIATE INFILTRATION

NO PUDDLING

AT A MINIMUM DESIGN SPECIFICATION

FOR POROUS ASPHALT PAVEMENT AND

STORMWATER CENTER ARE REQUIRED.

SURFACE SMOOTHNESS TEST FINISHED SURFACE FOR SMOOTHNESS USING A 3 M (10 FOOT) STRAIGHTEDGE APPLIED PARALLEL WITH AND AT RIGHT

ANGLES TO THE CENTERLINE OF THE PAVED AREA. SURFACE WILL NOT BE ACCEPTED IF GAPS OR RIDGES EXCEED 9.5MM (3/8 INCH).

ACTIVITY

GPM WATER

DELETERIOUS LIQUIDS AND WILL BE PROVIDED AT NO EXTRA COST TO THE OWNER. ALL APPLIED WATER SHALL INFILTRATE DIRECTLY WITHOUT LARGE

TESTING AND INSPECTION EMPLOY AT CONTRACTOR'S EXPENSE AN INSPECTION FIRM ACCEPTABLE TO THE ENGINEER TO PERFORM SOIL INSPECTION

NO TRAFFIC WILL BE PERMITTED ON MATERIAL PLACED UNTIL THE MATERIAL HAS BEEN THOROUGHLY COMPACTED AND HAS BEEN PERMITTED TO COOL TO

YPE RS—1. OR FOLIVALENT EMULSIFIED ASPHALT IMMEDIATELY REFORE THE ASPHALT MIXTURE IS PLACED AGAINST THEM

SHALL BE BETWEEN 135-163°C (275 TO 325°F), WITHIN 6°C (10°F) OF THE COMPACTION TEMPERATURE FOR THE APPROVED MIX DESIGN.

CROSS-SECTIONAL SHAPE. THE FINISHED SURFACE SHALL BE OF UNIFORM TEXTURE AND EVENNESS AND SHALL NOT SHOW ANY INDICATION OF TEARING.

Y AND CAPABLE OF SPREADING AND FINISHING THE MIXTURE WITHOUT SEGREGATION FOR THE WIDTHS AND THICKNESSES REQUIRED. IN

SHALL BE SECURELY FASTENED. LONG HAULS, PARTICULARLY THOSE IN EXCESS OF 25 MILES (40 KM), MAY RESULT IN SEPARATION OF THE MIX AND ITS

NHDOT 304.1 POROUS ASPHALT PAVEMENT AT STONE TRENCH WITH SWALE

NOT TO SCALE

COMPACTION IMMEDIATELY AFTER THE ASPHALT MIXTURE HAS BEEN SPREAD, STRUCK OFF, AND SURFACE IRREGULARITIES ADJUSTED. IT SHALL BE HOROUGHLY AND UNIFORMLY COMPACTED BY ROLLING. THE COMPACTION OBJECTIVE IS 16% — 19% IN PLACE VOID CONTENT (CORELOCK).

BREAKDOWN ROLLING SHALL OCCUR WHEN THE MIX TEMPERATURE IS BETWEEN 135-163°C (275 TO 325°F). THIS IS TYPICALLY ACHIEVED WITH 1-2 PASSES WITH A 7.5 - 10 TON VIBRATORY ROLLER.

FINISH ROLLING SHALL OCCUR WHEN THE MIX TEMPERATURE IS BETWEEN 66-93°C (150 TO 200°F). THIS IS TYPICALLY ACHIEVED WITH A 1-TON ROLLER

WITH NO VIBRATORY COMPACTION. FINISH ROLLING IS LARGELY AESTHETIC AND DONE FOR A SMOOTH FINISHED SURFACE. CARE SHOULD BE TAKEN SO AS TO NOT CONTINUALLY ROLL THE SAME LOCATION FOR INSTANCE BACK AND FORTH TO A WATER SOURCE.

THE CESSATION TEMPERATURE OCCURS AT APPROXIMATELY 79°C (175°F), AT WHICH POINT THE MIX BECOMES RESISTANT TO COMPACTION. IF COMPACTION HAS NOT BEEN PERFORMED AT TEMPERATURES GREATER THAN THE CESSATION TEMPERATURE, THE PAVEMENT WILL NOT ACHIEVE ADEQUATE DURABILITY. THE TEMPERATURES REFERENCED HERE ARE GUIDELINES AND HAVE BEEN USED IN THE FIELD TO OVERSEE SUCCESSFUL POROUS ASPHALT INSTALLATIONS. HE SURFACE SHALL BE ROLLED WHEN THE MIXTURE IS IN THE PROPER CONDITION AND WHEN THE ROLLING DOES NOT CAUSE UNDUE DISPLACEMENT,

ROLLERS OR OSCILLATING VIBRATORY ROLLERS, RANGING FROM 7.5 - 10 TONS, SHALL BE USED FOR BREAKDOWN COMPACTION. THE NUMBER, MASS (WEIGHT), AND TYPE OF ROLLERS FURNISHED SHALL BE SUFFICIENT TO OBTAIN THE REQUIRED COMPACTION WHILE THE MIXTURE IS IN A WORKABLE CONDITION. GENERALLY, ONE BREAKDOWN ROLLER WILL BE NEEDED FOR EACH PAVER USED IN THE SPREADING OPERATION.

TO PREVENT ADHESION OF THE MIXTURE TO THE ROLLERS, ROLLERS SHALL BE KEPT MOIST WITH WATER OR WATER MIXED WITH VERY SMALL QUANTITIES OF DETERGENT OR OTHER APPROVED MATERIAL. EXCESS LIQUID WILL NOT BE PERMITTED.

ALONG FORMS, CURBS, HEADERS, WALLS, AND OTHER PLACES NOT ACCESSIBLE TO THE ROLLERS, THE MIXTURE SHALL BE THOROUGHLY COMPACTED WITH HOT OR LIGHTLY OILED HAND TAMPERS, SMOOTHING IRONS OR WITH MECHANICAL TAMPERS. ON DEPRESSED AREAS, EITHER A TRENCH ROLLER OR CLEATED COMPRESSION STRIPS MAY BE USED UNDER THE ROLLER TO TRANSMIT COMPRESSION TO THE DEPRESSED AREA.

OTHER COMBINATIONS OF ROLLERS AND/OR METHODS OF COMPACTING MAY BE USED IF APPROVED IN WRITING BY THE ENGINEER, PROVIDED THE

HE SPEED OF THE ROLLER SHALL BE SLOW AND UNIFORM TO AVOID DISPLACEMENT OF THE MIXTURE, AND THE ROLLER SHOULD BE KEPT IN AS CONTINUOUS OPERATION AS PRACTICAL. FINISH ROLLING SHALL CONTINUE BELOW THE THRESHOLD TEMPERATURE UNTIL ALL ROLLER MARKS AND RIDGES HAVE

ROLLERS WILL NOT BE STOPPED OR PARKED ON THE FRESHLY PLACED POROUS ASPHALT.

CRACKING, OR SHOVING.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT WHATEVER PROCESS CONTROL THE CONTRACTOR DEEMS NECESSARY. ACCEPTANCE TESTING WILL BE CONDUCTED BY THE ENGINEER USING CORES PROVIDED BY THE CONTRACTOR.

ANY MIXTURE THAT BECOMES LOOSE AND BROKEN, MIXED WITH DIRT, OR IS IN ANY WAY DEFECTIVE SHALL BE REMOVED AND REPLACED WITH FRESH HOT MIXTURE. THE MIXTURE SHALL BE COMPACTED TO CONFORM TO THE SURROUNDING AREA. ANY AREA SHOWING AN EXCESS OR DEFICIENCY OF BINDER SHALL BE REMOVED AND REPLACED. THESE REPLACEMENTS SHALL BE AT THE CONTRACTOR'S EXPENSE.

IF THE ENGINEER DETERMINES THAT UNSATISFACTORY COMPACTION OR SURFACE DISTORTION IS BEING OBTAINED OR DAMAGE TO HIGHWAY COMPONENTS AND/OR ADJACENT PROPERTY IS OCCURRING USING VIBRATORY COMPACTION EQUIPMENT, THE CONTRACTOR SHALL IMMEDIATELY CEASE USING THIS EQUIPMENT AND PROCEED WITH THE WORK IN ACCORDANCE WITH THE SIXTH PARAGRAPH OF THIS SUBSECTION.

JOINTS BETWEEN OLD AND NEW PAVEMENTS OR BETWEEN SUCCESSIVE DAY'S WORK SHALL BE MADE TO ENSURE A THOROUGH AND CONTINUOUS BOND BETWEEN THE OLD AND NEW MIXTURES. WHENEVER THE SPREADING PROCESS IS INTERRUPTED LONG ENOUGH FOR THE MIXTURE TO ATTAIN ITS INITIAL

STABILITY, THE PAVER SHALL BE REMOVED FROM THE MAT AND A JOINT CONSTRUCTED.

BUTT JOINTS SHALL BE FORMED BY CUTTING THE PAVEMENT IN A VERTICAL PLANE AT RIGHT ANGLES TO THE CENTERLINE, AT LOCATIONS APPROVED BY THE ENGINEER. THE ENGINEER WILL DETERMINE LOCATIONS BY USING A STRAIGHTEDGE AT LEAST 3 M (10 FEET) LONG. THE BUTT JOINT SHALL BE THOROUGHLY COATED WITH TYPE RS-1 OR EQUIVALENT EMULSIFIED ASPHALT JUST PRIOR TO DEPOSITING THE PAVEMENT MIXTURE WHEN PAVEMENT RESUMES. LONGITUDINAL JOINTS THAT HAVE BECOME COLD SHALL BE COATED WITH TYPE RS-1 OR EQUIVALENT EMULSIFIED ASPHALT BEFORE THE ADJACENT MAT IS PLACED. IF DIRECTED BY THE ENGINEER, JOINTS SHALL BE CUT BACK TO A CLEAN VERTICAL EDGE PRIOR TO APPLYING THE EMULSION.

SURFACE TOLERANCES THE SURFACE WILL BE TESTED BY THE ENGINEER USING A STRAIGHTEDGE AT LEAST 3 M (10 FEET) IN LENGTH AT SELECTED LOCATIONS PARALLEL WITH THE CENTERLINE. ANY VARIATIONS EXCEEDING 9.5 MM (3/8 INCH) BETWEEN ANY TWO CONTACT POINTS SHALL BE SATISFACTORILY ELIMINATED. A STRAIGHTEDGE AT LEAST 3 M (10 FEET) IN LENGTH MAY BE USED ON A VERTICAL CURVE. THE STRAIGHTEDGES SHALL BE PROVIDED BY THE

WORK SHALL BE DONE EXPERTLY THROUGHOUT, WITHOUT STAINING OR INJURY TO OTHER WORK. TRANSITION TO ADJACENT IMPERVIOUS ASPHALT PAVEMENT SHALL BE MERGED NEATLY WITH FLUSH, CLEAN LINE. FINISHED PAVEMENT SHALL BE EVEN, WITHOUT POCKETS, AND GRADED TO ELEVATIONS SHOWN ON

REPAIR OF DAMAGED PAVEMENT ANY EXISTING PAVEMENT ON OR ADJACENT TO THE SITE THAT HAS BEEN DAMAGED AS A RESULT OF CONSTRUCTION WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER WITHOUT ADDITIONAL COST TO THE OWNER. STRIPING PAINT

VACUUM AND CLEAN SURFACE TO ELIMINATE LOOSE MATERIAL AND DUST

- PAINT 4-INCH WIDE (10 CM) PARKING STRIPING AND TRAFFIC LANE STRIPING IN ACCORDANCE WITH PLAN LAYOUTS. APPLY PAINT WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES. APPLY IN TWO COATS AT MANUFACTURER'S RECOMMENDED RATES. PROVIDE CLEAR, SHARP LINES USING WHITE TRAFFIC PAINT. PAINT SHOULD CONFORM WITH FEDERAL SPECIFICATION TT-P-85.

- COLOR FOR HANDICAPPED MARKINGS: BLUE 2" POROUS ASPHALT WEARING SERVICES, STAKING AND LAYOUT CONTROL, AND TESTING AND INSPECTION OF SITE GRADING AND PAVEMENT WORK. INSPECTION AND LIST OF TESTS SHALL COURSE WITH POLYMER MIX 2" CONVENTIONAL DENSE MIX 2" POROUS ASPHALT ASPHALT TOP COURSE BASE COURSE 2" CONVENTIONAL DENSE MIX 4" CHOKER VARIES ASPHALT BASE COURSE COURSE, MINIMUM **→**DRIVE LANE— 5'-POROUS PAVEMENT BEDS SHALL NOT BE USED FOR EQUIPMENT OR MATERIALS STORAGE DURING CONSTRUCTION, AND UNDER NO CIRCUMSTANCES SHALL SUBGRADE 12" FILTER COURSE 40 MIL HDPE IMPERMEABLE LINER SUBBASE NHDOT 304.1 WITH MIRAFI 140N LAID ON TOP CONVENTIONAL ROAD BASE 3" CAPILLARY BARRIER: 3/8" PEA GRAVEL ** CONTRACTOR MAY USE RESERVOIR COURSE: 30" 3/8" PEA STONE IN LIEU OF CRUSHED STONE ** OF CRUSHED STONE. SEE SHEET C-71 FOR RESERVOIR DETAIL

TYPICAL SECTION FOR TRANSITION WITH DRIVE LANE NOT TO SCALE

TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

DETAILS EXETER ROSE FARM

FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM **BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST** OWNED BY

EXETER ROSE FARM, LLC & BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS

AUGUST 15, 2017





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5 | 8/31/18 | REVISED PER TRC COMMENTS 4 7/10/18 REVISED PER PLANNING BOARD COMMENTS 3 | 2/20/18 | REVISED PER REVIEW COMMENTS 2 10/31/17 REVISED PER DESIGN REVIEW COMMENTS REV. DATE DESCRIPTION

10 08/31/21 REVISED PER AOT COMMENTS 9 02/09/21 REVISED PER AOT SUBMITTAL JJM 8 | 11/26/18 | REVISED PER PLANNING BOARD COMMENTS 11/05/18 REVISED PER PLANNING BOARD COMMENTS 10/01/18 REVISED PER PLANNING BOARD COMMENTS

ETP JJM

<u>TABLE 704-02</u> STANDARDS MATERIAI APPROVED 8" THROUGH 15" (SDR 35) D3034 PVC (SOLID WALL) F679 18" THROUGH 60" (T-1 & T-2) PVC (SOLID WALL)

F794 PVC (DUAL WALLED, CORREGATED) 4" THROUGH 48" D1760 PVC (RECYCLED, NON-PRESSURED) ALL DIAMETERS

*PVC: POLY VINYL CHLORIDE

2. JOINTS SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO NHDES WQ-ENV 704.05(e)

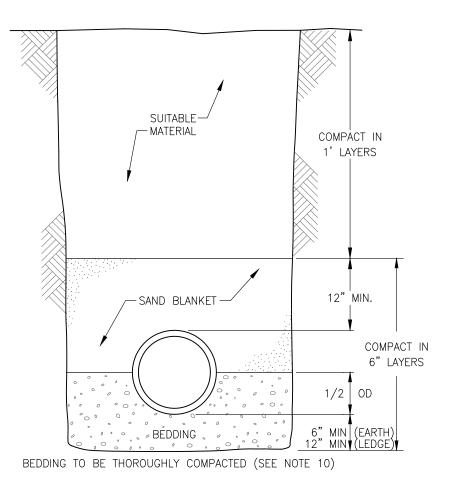
B. DUCTILE-IRON PIPE, FITTINGS AND JOINTS SHALL CONFORM TO NHDES WQ-ENV 704.05(a).

- 4. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
- 5. JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.
- 6. TEES AND WYES: WHERE A TEE OR WYE IS NOT AVAILABLE IN THE EXISTING STREET SEWER, AN APPROPRIATE CONNECTION SHALL BE MADE, FOLLOWING MANUFACTURERS' INSTRUCTIONS USING A BOLTED, CLAMPED OR EPOXY-CEMENTED SADDLE TAPPED INTO A SMOOTHLY DRILLED OR SAWN OPENING IN THE SEWER. THE PRACTICE OF BREAKING AN OPENING WITH A SLEDGE HAMMER. STUFFING CLOTH OR OTHER SUCH MATERIAL AROUND THE JOINT, OR 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 CONCRETE ENCASED AS SHOWN IN THE DETAIL UP TO AND INCLUDING 15" DIAMETER.
- SEWER SERVICE INSTALLATION: THE PIPE SHALL BE HANDLED. PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 6 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL AS SPECIFIED IN NOTE 10. BEDDING AND RE-FILL FOR DEPTH OF 12 INCHES ABOVÉ THE TOP OF 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 FROM THE STREET SEWER CONNECTION TO THE FOUNDATION AT A GRADE OF NOT LESS THAN 1/4" INCH PER FOOT. PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.
- TESTING: THE COMPLETED SEWER SERVICE SHALL BE SUBJECTED TO A THIRD PARTY LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)
 - A. AN OBSERVATION TEE SHALL BE INSTALLED AS SHOWN AND WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE. AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE PLUG TO A HEIGHT OF 5 FEET ABOVE THE LEVEL OF THE PLUG.
 - B. THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER, TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS OR, IF 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 WITH A FLASHLIGHT.
 - C. DRY FLUORESCENE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER, OR IF THE TRENCH IS WET. GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. OBSERVATION FOR LEAKS SHALL BE MADE IN THE FIRST DOWN-STREAM MANHOLE.
 - LEAKAGE OBSERVED IN ANY ONE OF THE ABOVE ALTERNATE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG-UP IF NECESSARY AND RE-LAID SO AS TO ASSURE WATER TIGHTNESS.
- ILLEGAL CONNECTIONS: NOTHING BUT SANITARY WASTE FLOW FROM TOILETS, SINKS, LAUNDRY ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS, SUMP PUMPS OR OTHER SIMILAR CONNECTIONS CARRYING RAIN WATER, DRAINAGE OR GROUND WATER SHALL NOT BE PERMITTED.
- 10. WATER SERVICE SHALL NOT BE LAID IN SAME TRENCH AS SEWER SERVICE.
- I. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL AND MEETING ASTM C33-67.

100% PASSING 1 INCH SCREEN 90%-100% PASSING 3/4 INCH SCREEN 20%-55% PASSING 3/8 INCH SCREEN 0%-10% PASSING #4 SIEVE 0%-5% PASSING #8 SIEVE

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED.

- 12. LOCATION: THE LOCATION OF THE TEE OR WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A FERROUS METAL ROD OR PIPE SHALL BE PLACED OVER THE TEE OR WYE AS DESCRIBED IN THE TYPICAL "CHIMNEY" DETAIL, TO AID IN LOCATING THE BURIED PIPE WITH A DIP NEEDLE OR PIPEFINDER.
- 13. CHIMNEYS: IF VERTICAL DROP INTO SEWER IS GREATER THAN 4 FEET, A CHIMNEY SHALL BE CONSTRUCTED FOR THE SEWER CONNECTION. CHIMNEY INSTALLATION AS RECOMMENDED BY THE PIPE MANUFACTURER MAY BE USED IF APPROVED BY THE ENGINEER.

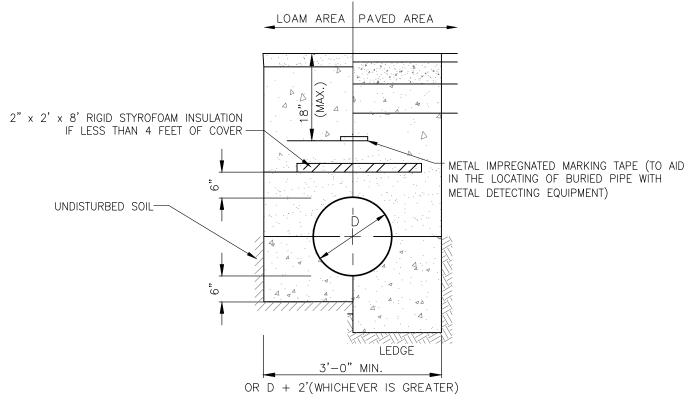


- FERROUS METAL ROD OR PIPE PLUG -(SEE NOTE 11) 6" MIN ALL AROUND -SONOTUBE 6" MIN. TEE OR WYE 1/2 OD 1/4 ID-6"MIN

BACKFILLING TO BE BROUGHT UP EVENLY ON ALL SIDES.

TRENCH CROSS-SECTION

CHIMNEY (SEE NOTE 12)

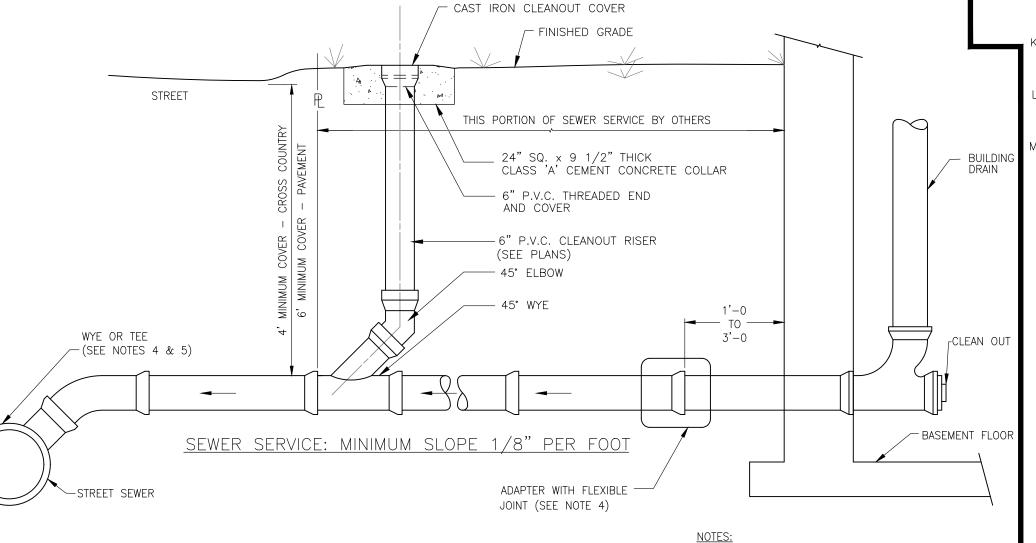


<u>NOTES</u>

SEWER SERVICE

GAPS BETWEEN SECTIONS OF INSULATION TO BE COVERED WITH 2" x 2' x 2' PIECE OF INSULATION CENTERED OVER GAP.

SEWER TRENCH WITH INSULATION



PLANNING BOARD FILE #17-27

APPROVED BY THE EXETER PLANNII	VG BOARD
ON	
CHAIRMAN:	AND
SECRETARY:	

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SEWER SERVICE DETAILS

1. SEWER SERVICE MAY ALSO BE LOCATED BELOW

2. WATER AND SEWER SERVICE TIE-CARDS TO BE

PROVIDED FOR EACH LOT IN ADDITION TO AS-BUILT

NOT TO SCALE

BASEMENT FLOOR WHEN REQUIRED.

GRAVITY SEWER NOTES

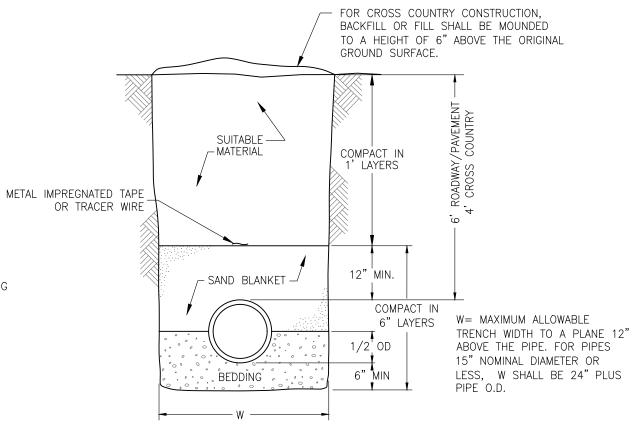
- 1. MINIMUM SIZE PIPE FOR GRAVITY SEWER SHALL BE 8-INCHES.
- 2. PIPE AND JOINT MATERIALS:
- A. PLASTIC SEWER PIPE 1. PIPE AND FITTINGS SHALL CONFORM TO THE NHDES WQ-ENV 704.05(b)(c)(d) STANDARDS:

ASTM STANDARDS	TABLE 704-02 GENERIC PIPE MATERIAL	SIZES APPROVED
D3034 F679 F794 D1760	PVC (SOLID WALL) PVC (SOLID WALL) PVC (DUAL WALLED,CORREGATED) PVC (RECYCLED, NON-PRESSURED)	8" THROUGH 15" (SDR 35) 18" THROUGH 60" (T-1 & T-2) 4" THROUGH 48" ALL DIAMETERS

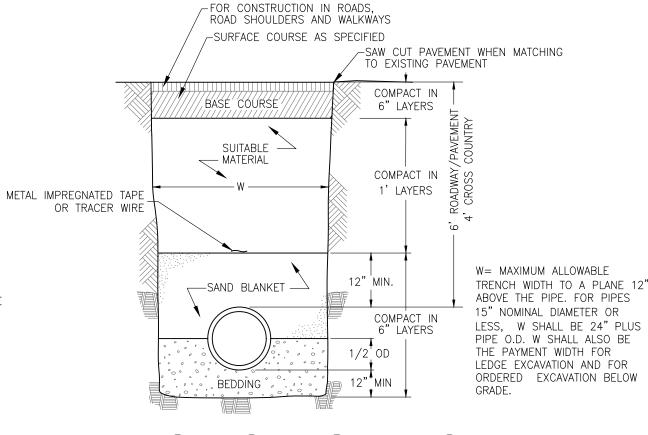
- 2. JOINTS SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO NHDES WQ-ENV 704.05(e)
- B. DUCTILE-IRON PIPE, FITTINGS AND JOINTS SHALL CONFORM TO NHDES WQ-ENV 704.05(a).
- 3. MOLDS FOR WATER OR OTHER LIQUIDS.
- 4. JOINTS SHALL BE OF THE MECHANICAL OR PUSH-ON TYPE. JOINTS AND GASKETS SHALL CONFORM TO AWWA C151/A21.11 RUBBER GASKETS JOINTS FOR CAST IRON PRESSURE PIPE & FITTINGS.
- 5. CONCRETE PIPE SHALL CONFORM TO SHALL CONFORM TO NHDES WQ-ENV 704.05(f).
- A. PRESTRESSED CONCRETE CYLINDER PIPE AND FITTINGS SHALL CONFORM TO NHDES WQ-ENV 704.05(g).
- B. JOINTS SEALS FOR CONCRETE CYLINDER PIPE SHALL SHALL CONFORM TO NHDES WQ-ENV 704.05(h).
- 6. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
- 7. GRAVITY SEWER PIPE TESTING CONFORM HDES WQ-ENV 704.06:

*PVC: POLY VINYL CHLORIDE

- A. ALL NEW GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY THE USE OF LOW-PRESSURE AIR
- B. LOW PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH NHDES WQ-ENV 700, APPENDIX D:
- C. ALL NEW GRAVITY SEWERS SHALL BE CLEANED AND VISUALLY INSPECTED AND SHALL BE TRUE TO LINE AND GRADE FOLLOWING INSTALLATION AND PRIOR TO USE AND VISUALLY INSPECT USING LAMP TEST.
- D. ALL PLASTIC SEWER PIPE SHALL BE DEFLECTION TESTED NOT LESS THAN 30 DAYS AND NO MORE THAN 90 DAYS FOLLOWING INSTALLATION
- E. THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5 PERCENT OF THE AVERAGE INSIDE
- 8. TRENCH CONSTUCTION SHALL CONFORM TO THE FOLLOWING:
- A. SEWERS SHALL BE BURIED TO A MINIMUM DEPTH OF 6' BELOW GRADE IN ALL ROADWAY LOCATIONS AND TO A MINIMUM DEPTH OF 4 FEET BELOW GRADE IN ALL CROSS COUNTRY LOCATIONS.
- WHERE SEWER LINES CROSS WATER PIPES, A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL BE OBSERVED. AT SEWER/WATER INTERSECTIONS, A MINIMUM OF 6 FEET SHALL BE PROVIDED FROM THE WATER LINE TO THE SEWER PIPE JOINT. 12" SEPARATION BETWEEN THE TWO OUTSIDE PIPE WALLS SHALL BE REQUIRED BETWEEN SEWER LINES AND ALL OTHER PIPES.
- C. TRENCH DIMENSIONS FOR SEWER PIPE LESS THAN 15 INCHES IN DIAMETER, THE ALLOWABLE TRENCH WIDTH AT A PLANE 12 INCHES ABOVE THE PIPE SHALL BE NO MORE THAN 36 INCHES AND FOR PIPE 15 INCHES AND LARGER, THE ALLOWABLE WIDTH SHALL BE EQUAL TO THE PIPES OUTSIDE DIAMETER PLUS 24 INCHES.
- D. PIPE TRENCH BEDDING MATERIAL AND FILL MATERIIAL FOR EXCAVATION BELOW GRADE SHALL BE SCREENED GRAVEL OR CRUSHED STONE TO ASTM C33-03 STONE SIZE NO. 67. THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND FREE FROM ANY ORGANIC MATERIALS. GRADED SUCH THAT 100 PERCENT PASSED THE 1/2-INCH SIEVE AND A MAXIMUM OF 15 PERCENT PASSES A #200 SIEVE. IN LIEU OF A SAND BLANKET, A STONE ENVELOPE 6 INCHES THICK COMPLETELY AROUND THE PIPE USING 3/4-INCH STONE MAY BE USED.
- E. PIPE BEDDING MATERIAL SHALL EXTEND FROM A HORIZONTAL PLANE THROUGH THE PIPE AXIS TO 6-INCHES BELOW THE BOTTOM OF THE OUTSIDE SURFACE OF THE PIPE.
- F. PIPE SAND BLANKET MATERIAL SHALL COVER THE PIPE A MINIMUM OF 12 INCHES ABOVE THE CROWN OF THE
- G. COMPACTION SHALL BE IN 12-INCH LAYERS FOR BEDDING AND BLANKET MATERIALS.
- H. BACKFILL MATERIAL SHALL BE IN 3-FOOT LAYERS TO THE GROUND SURFACE EXCEPT FOR ROAD CONSTRUCTION. WHERE THE FINAL 3-FEET SHALL BE COMPACTED IN 12-INCH LAYERS TO THE ROAD BASE SURFACE
- I. TRENCH BACKFILL MATERIAL IN ROADWAY LOCATIONS SHALL BE NATURAL MATERIALS EXCAVATED FROM THE TRENCH DURING CONSTRUCTION, EXCLUDING DEBRIS, PAVEMENT PIECES, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT, CLAY, EXCAVATED LEDGE, ROCKS OVER 6 INCHES IN THE LARGEST DIMENSION, OR ANY OTHER UNSUITABLE MATERIAL NOT APPROVED BY THE ENGINEER.
- J. TRENCH BACKFILL AT CROSS-COUNTRY LOCATIONS 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 POSSIBLE RECONSTRUCTION, WHEN NECESSARY WILL BE PRESERVED. BACKFILL SHALL BE MOUNDED 6-INCHES ABOVE ORIGINAL
- BASE COURSE MATERIALS FOR TRENCH REPAIRS SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF NEW HAMPSHIRE DEPARTMENT OF
- WHERE SHEETING IS PLACED ALONG SIDE OF THE PIPE AND EXTENDS BELOW MID-DIAMETER, THE SHEETING SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE AND AT LEAST 3 FEET BELOW FINISH GRADE.
- TRENCHES FOR SEWER PIPES WITH SLOPES OVER 0.08 FEET PER FOOT AND TRENCHES FOR SEWER PIPES BELOW THE SEASONAL HIGH GROUND WATER LEVEL SHALL HAVE IMPERVIOUS TRENCH DAMS CONSTRUCTED EVERY 300 FEET TO PREVENT POTENTIAL DISTURBANCE TO PIPE BEDDING AND BLANKET MATERIALS.

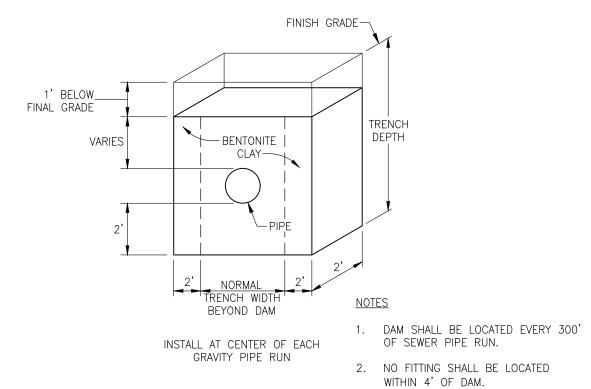


EARTH CONSTRUCTION



LEDGE CONSTRUCTION

NOT TO SCALE



SEWER TRENCH DAM NOT TO SCALE

TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

SEWER DETAILS EXETER ROSE FARM

FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM **BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST** OWNED BY

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AUGUST 15, 2017





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8	11/26/18	REVISED PER PLANNING BOARD COMMENTS	ETP	JJM
7	11/05/18	REVISED PER PLANNING BOARD COMMENTS	ETP	JJM
6	10/01/18	REVISED PER PLANNING BOARD COMMENTS	ETP	JJM
5	8/31/18	REVISED PER TRC COMMENTS	ETP	JJM
4	7/10/18	REVISED PER PLANNING BOARD COMMENTS	ETP	JJM
3	2/20/18	REVISED PER REVIEW COMMENTS	ETP	JJM
2	10/31/17	REVISED PER DESIGN REVIEW COMMENTS	ETP	JJM
1	9/26/17	REVISED PER TRC COMMENTS	ETP	JJM
REV.	DATE	DESCRIPTION	DR	CK

Scientists

BARRELS, CONE SECTIONS AND CONCRETE GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE AND SHALL CONFORM ENV-WQ 704.12 & 704.13.

PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478-06.

4. BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 6 INCHES ABOVE THE CROWN OF THE INCOMING PIPE.

MANHOLE CONE SECTIONS SHALL BE ECCENTRIC IN SHAPE.

OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.

ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDELIBLY MARKED ON THE INSIDE WALL.

ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.

SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.

HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT. APPROVED ELASTOMERIC SEALANTS ARE:

SIKAFLEX-12-SL

SONNEBORN BUILING PRODUCTS-SONOLASTIC SL-1

THE MINIMUM INTERNAL DIAMETER OF MANHOLES SHALL BE 48 INCHES. FOR SEWERS LARGER THAN 24-INCH DIAMETER. MANHOLE DIAMETERS SHALL BE INCREASED SO AS TO PROVIDE AT LEAST 12-INCHES OF SHELF ON EACH SIDE OF THE SEWER.

LEAKAGE TEST SHALL BE PERFORMED IN ACCORDANCE TO ENV-WQ 704.17.

(a) ALL MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST IN ACCORDANCE WITH THE ASTM C1244 STARNDARD IN EFFECT WHEN THE TESTING IS PERFORMED.

(b) THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:

1. THE INITIAL VACUUM GUAGE TEST PRESSURE SHALL BE 10 INCHES Hg.

2. THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR 1-INCH Hg PRESSURE DROP TO 9 INCHES SHALL BE:

A. NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP.

B. NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP.

C. NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP.

(c) THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (b) ABOVE.

(d) INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETE.

(e) FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN OR ANIMALS, UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENT TO GRADE.

BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL COMPLY WITH ASTM C32-05, CLAY OR SHALE, FOR GRADE SS HARD BRICK.

MORTAR SHALL BE COMPOSED OF PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION. PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE: (a) 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR

(b) 4.5 PARTS SAND, 1 PART CEMENT AND 0.5 PART HYDRATED LIME

CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150-05. HYDRATED LIME SHALL BE TYPE S CONFORMING TO ASTM C207-06 "STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES". SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO ASTM C33-03 "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES'

INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED OR PRECAST CONCRETE SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOW. AT CHANGES IN DIRECTIONS, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.

FRAMES AND COVERS: MANHOLES FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN, CLASS 30, CONFORMING TO ASTM A48/48M AND PROVIDE A 30-INCH CLEAR OPENING. 3-INCH WORD (MINIMUM HEIGHT) LETTERS "SEWER" SHALL BE PLAINLY CAST INTO THE TOP SURFACE. THE CASTING SHALL BE OF EVEN GRAINED CAST IRON, SMOOTH, AND FREE FROM SCALE, LUMPS, BLISTERS, SAND HOLES AND DEFECTS. CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION.

BEDDING: PRECAST BASES SHALL BE PLACED ON A 6-INCH LAYER OF COMPACTED BEDDING MATERIAL THAT CONFORMS TO ASTM C33-03 NO. 67 STONE AND FREE FROM CLAY, LOAM AND ORGANNIC MATTER. THE EXCAVATION SHALL BE PROPERLY DEWATERED WHILE PLACING BEDDING MATERIAL AND SETTING OF THE BASE OR POURING CONCRETE. WATER-STOPS SHALL BE USED AT THE HORIZONTAL JOINT OF THE CAST-IN-PLACE MANHOLES.

> 100% PASSING 1" SCREEN 90-100% PASSING 3/4" SCREEN 20-55% PASSING 3/8" SCREEN 0-10% PASSING #4 SIEVE 0-5% PASSING #8 SIEVE

FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WIGHIN THE FOLLOWING DISTANCES FROM ANY MANHOLE CONNECTION: (a) WITHIN 48 INCHES FOR REINFORCED CONCRETE PIPE (RCP). (b) WITHIN 60 INCHES FOR PVC PIPE LARGER THAN 15" DIAMETER.

NO FLEXIBLE JOINT SHALL BE REQUIRED FOR DUCTILE IRON PIPE OR PVC PIPE UP THROUGH 15-INCH

19. INTERNAL STEPS ARE PROHIBITED PER EXETER DPW STANDARDS

20. REFERENCE NHDES ENV-WQ 700 IN PLACE OF ASTM STANDARDS.

PLANNING BOARD FILE #17-27

APPROVED BY THE EXETER PLANNING BOARD CHAIRMAN. SECRETARY:

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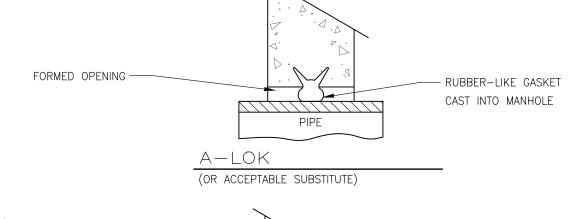
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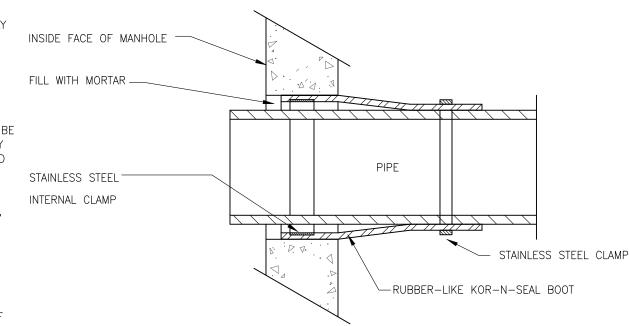
This plan is not effective unless signed by a duly authorized officer of

DIG SAFF CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

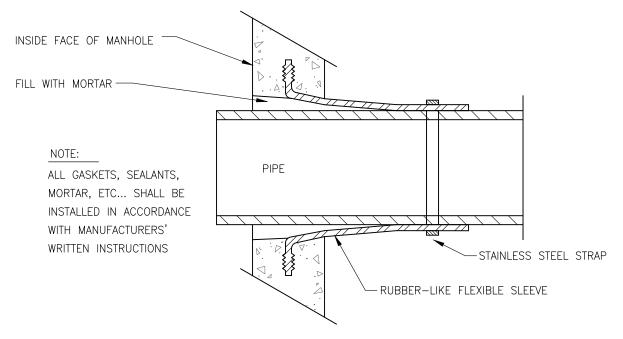
INSIDE FACE OF MANHOLE -- CAST IRON FOLLOWER FORMED OPENING FILL WITH MORTAR -PIPE - RUBBER-LIKE O-RING RES-SEAL (OR ACCEPTABLE SUBSTITUTE) INSIDE FACE OF MANHOLE -- FORMED OPENING FILL WITH MORTAR -- RUBBER-LIKE RECEIVER AND WEDGE PIPE PRESS-WEDGE (OR ACCEPTABLE SUBSTITUTE)

- POURING SPRUE IF REQUIRED TEMPORARY FORMS IF REQUIRED INSIDE FACE OF MANHOLE -3" MAXIMUM SPACE POURED OR HALLEMITE. WATERPLUG, EMBECO OR APPROVED EQUAL INTO FORMED OPENING PIPE MORTARED JOINT (OR ACCEPTABLE SUBSTITUTE)





KOR-N-SEAL JOINT SLEEVE (OR ACCEPTABLE SUBSTITUTE)



LOCK-JOINT FLEXIBLE MANHOLE SLEEVE (OR ACCEPTABLE SUBSTITUTE)

DETAIL "A" - PIPE TO MANHOLE JOINTS

PIPE TO MANHOLE JOINTS SHALL BE ONLY AS FOLLOWS:

A. ELASTOMERIC, RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES.

B. CAST INTO WALL OR SECUREED WITH STAINLESS STEEL CLAMPS

C. ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH THE SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING.

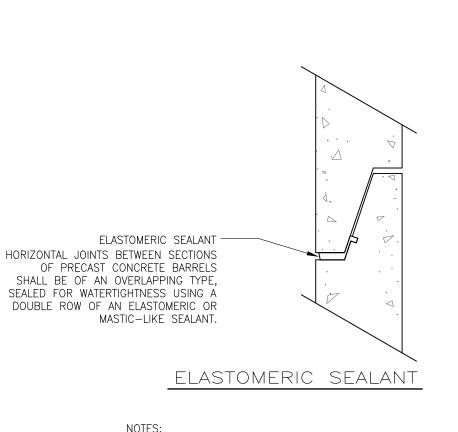
D. NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED. 20. THE INVERT OF THE INCOMING PIPE SHALL BE NO MORE THAN 6 INCHES ABOVE THE OUTGOING PIPE UNLESS A DROP ENTRY IS USED. STANDARD MANHOLE

FRAME TO BE SET IN BED OF MORTAR CLEAR OPENING INCLUDING FRAME AND COVER 30" GRADE — MORTAR SHALL BE -FINISHED SMOOTH. ADJUST TO GRADE WITH BRICK OR PRECAST CONCRETE RINGS - ECCENTRIC CONE MAXIMUM 12" ADJUSTMENT. BRICK OR CONCRETE RINGS SHALL BE INSTALLED WITH NO OVERHANG. SEE DETAIL "B" FOR APPROVED JOINTING METHODS 5" REINFORCED CONCRETE SEE DETAIL "A" FOR APPROVED -JOINTING METHODS 6" BEDDING (SEE NOTE) — PRECAST BASES SHALL BE PLACED ON A 6-INCH LAYER OF COMPACTED BEDDING MATERIAL THAT CONFORMS TO ASTM C33-03 NO. 67 STONE AND FREE FROM CLAY LOAM 00,000,000 AND ORGANNIC MATTER. THE EXCAVATION SHALL B PROPERLY DEWATERED WHILE PLACING BEDDING MATERIAL

___12" MIN. ____

EACH SIDE

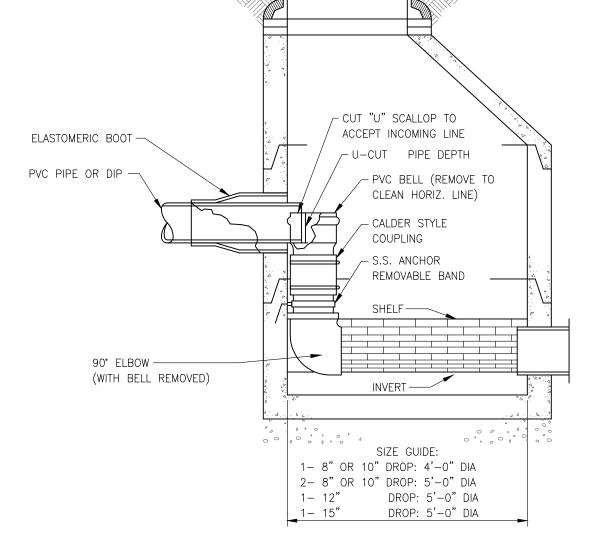
TYPICAL SECTION



ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

STATE OF NEW HAMPSHIRE APPROVED PRODUCTS A) SIKAFLEX-12-SL B) SONNEBORN BUILDING PRODUCTS SONOLASTIC SL-1

DETAIL "B" — HORIZONTAL JOINTS



INSIDE DROP MANHOLE

AND SETTING OF THE BASE OR

POURING CONCRETE.

1. INVERT AND SHELF TO BE PLACED AFTER LEAKAGE TEST.

2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT. INVERT BRICKS SHALL BE LAID ON

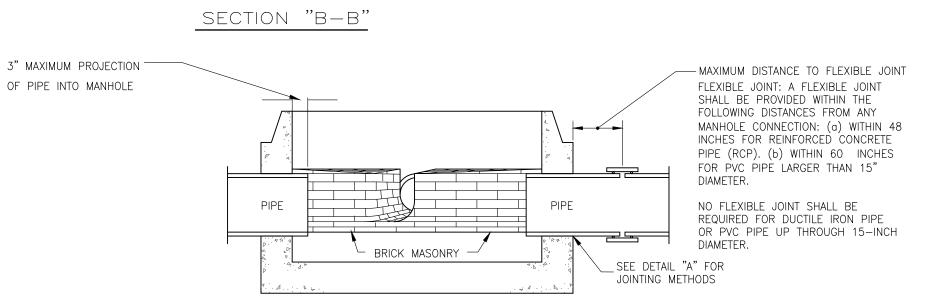
3. BASE SECTION TO BE FULL WALL THICKNESS AND MONOLITHIC TO A POINT 6" ABOVE THE PIPE CROWN.

4. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.

5. NO STEPS ARE ALLOWED PER EXETER DPW STANDARDS.

OF PIPE INTO MANHOLE

6. BITUMINOUS COATING.



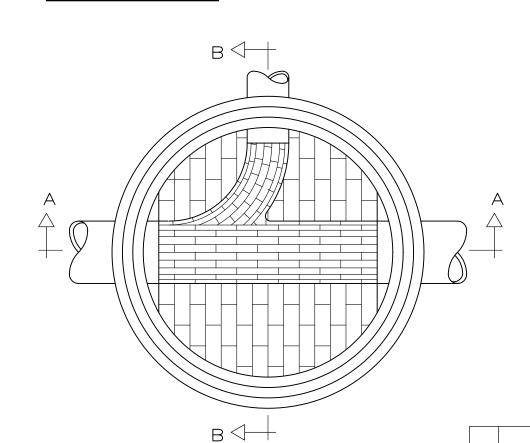
TOP OF SHELF SHALL BE 1"

ABOVE CROWN OF HIGHEST PIPE

SEE DETAIL "A" FOR

JOINTING METHODS

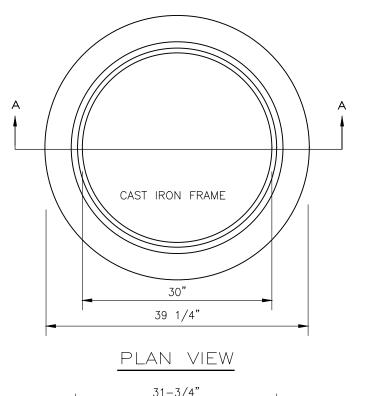


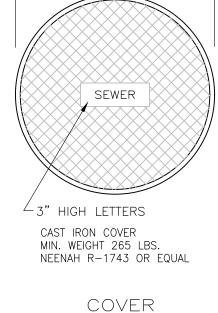


8 | 11/26/18 | REVISED PER PLANNING BOARD COMMENTS ETP JJM 7 | 11/05/18 | REVISED PER PLANNING BOARD COMMENTS 6 | 10/01/18 | REVISED PER PLANNING BOARD COMMENTS ETP JJM ETP JJM 5 |8/31/18 | REVISED PER TRC COMMENTS TYPICAL MANHOLE - PLAN VIEW ETP JJM 7/10/18 | REVISED PER PLANNING BOARD COMMENTS 3 2/20/18 REVISED PER REVIEW COMMENTS ETP JJM P | 10/31/17 | REVISED PER DESIGN REVIEW COMMENTS ETP JJM 1 9/26/17 REVISED PER TRC COMMENTS ETP JJM

REV. DATE

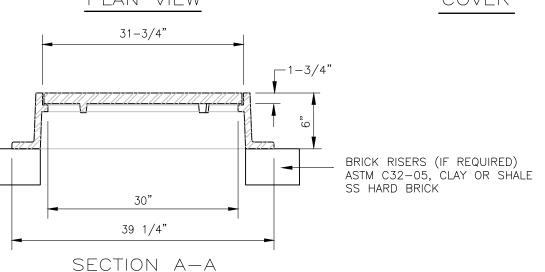
DESCRIPTION





31 3/4"

COVER



MANHOLE FRAME & COVER HEAVY DUTY

TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

SEWER DETAILS EXETER ROSE FARM

FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM **BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST**

OWNED BY **EXETER ROSE FARM, LLC & BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS**

AUGUST 15, 2017



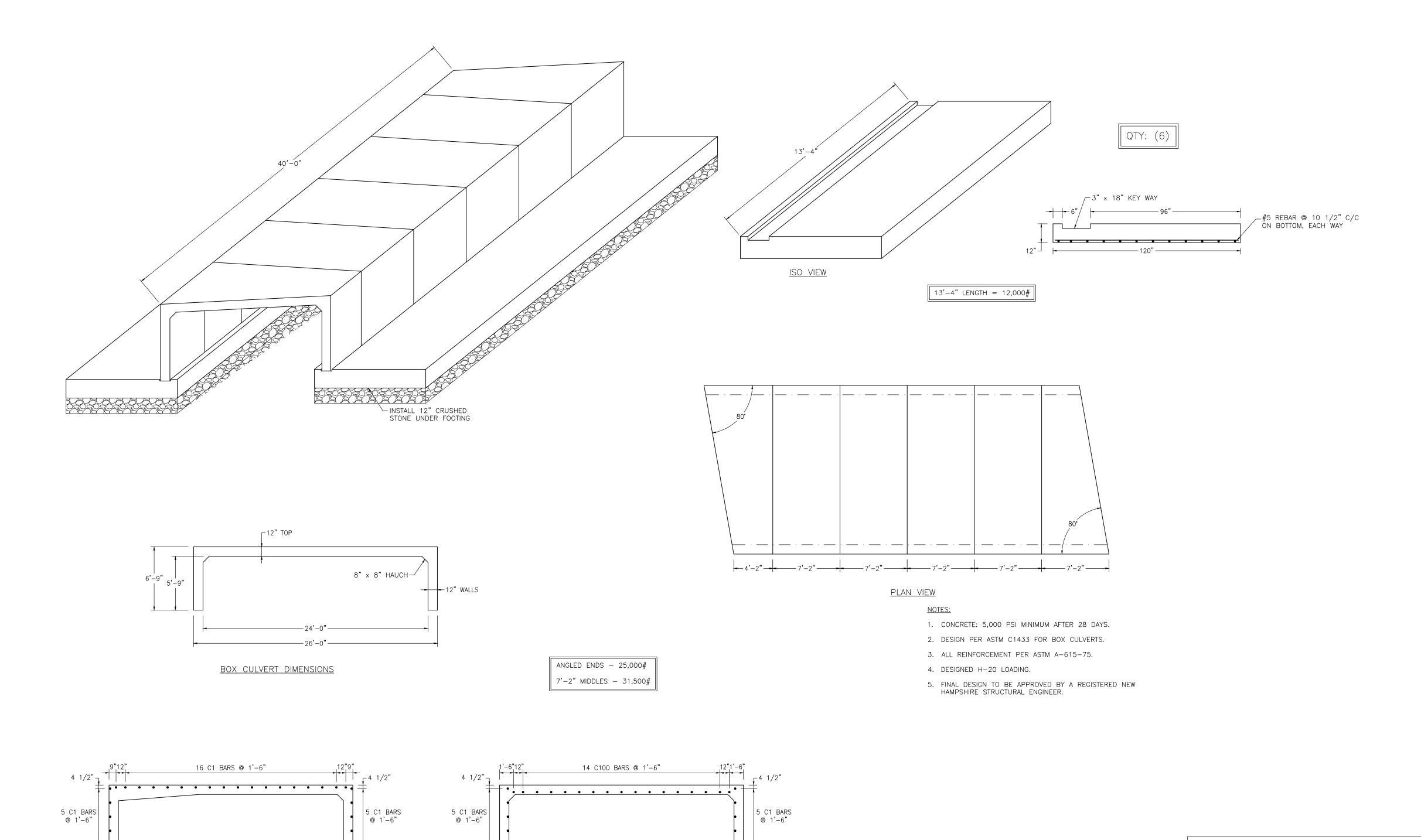
DR CK



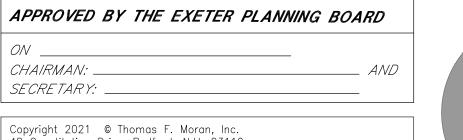
Structural Engineers Traffic Engineers Land Surveyors Landscape Architects Scientists

170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

C-68 47175.00 |CK| JJM |CADFILE | NHDES Sewer Details.dwg



PLANNING BOARD FILE #17-27



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SECTION EXT. LONGITUDINAL REINFORCING

WETLAND CULVERT CROSSING 16' x 5'-9" x 40' NOT TO SCALE

SECTION INT. LONGITUDINAL REINFORCING

4 1/2"

¹-4 1/2"

	07/21/21	UPDATE CULVERT SIZE	JJM	RH
4	, ,	REVISED PER PLANNING BOARD COMMENTS	ETP	JU
3	11/05/18	REVISED PER PLANNING BOARD COMMENTS	ETP	Ju
2	10/01/18	REVISED PER PLANNING BOARD COMMENTS	ETP	W
1	8/31/18	NEW SHEET	ETP	W
REV.	DATE	DESCRIPTION	DR	0

TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

OPEN BOX CULVERT DETAIL EXETER ROSE FARM

FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM **BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST** OWNED BY

EXETER ROSE FARM, LLC & BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS SCALE: NTS **AUGUST 15, 2017** NTS





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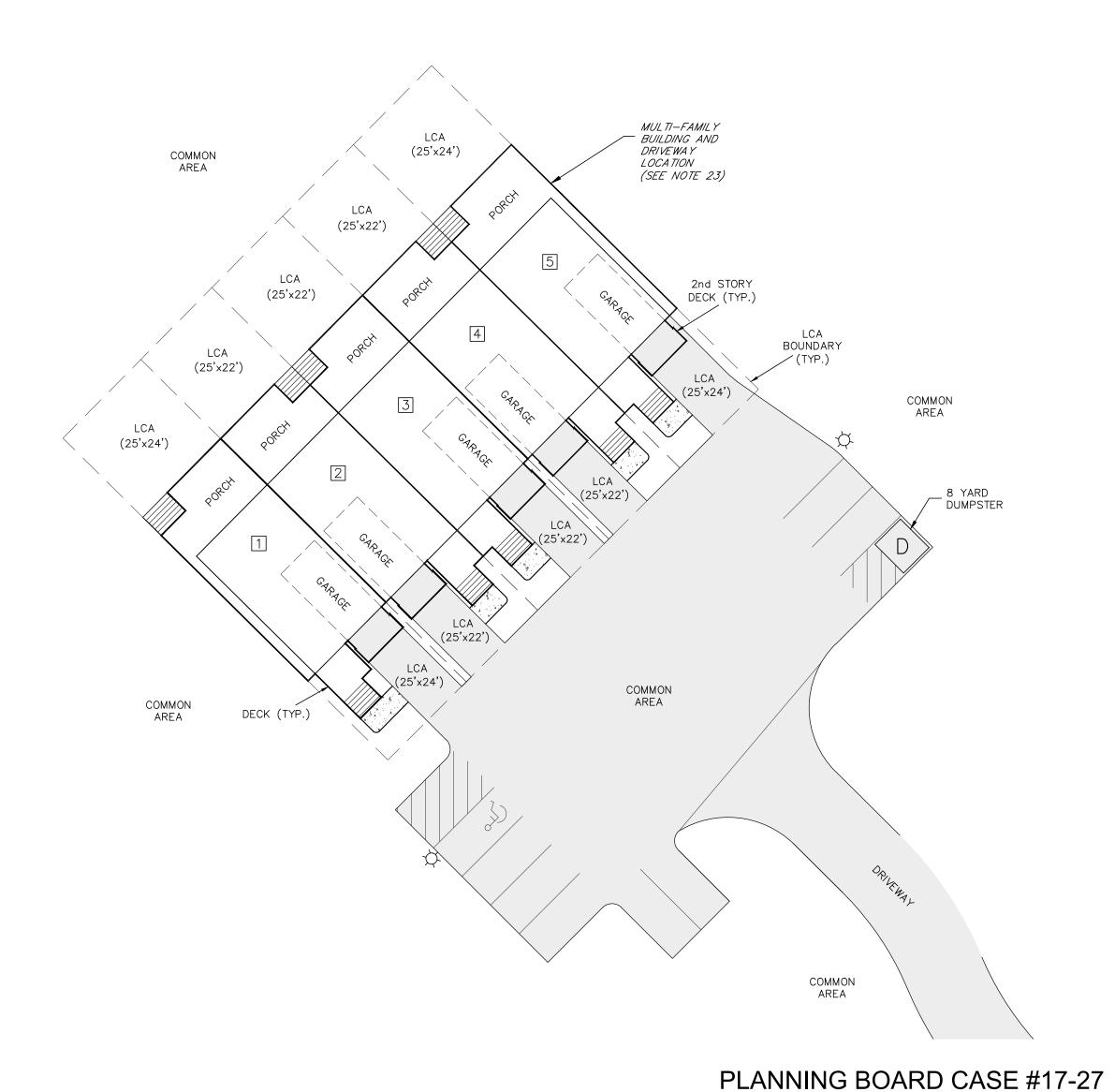
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F –	47475 00	DR	ETP	FB		C 60
LE	47175.00	СК	JJM	CADFILE	47175-00_BoxCulvert.dwg	C-69

INSET

LIMITED COMMON AREAS (LCA)

(SCALE: 1" = 20')



I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY THOSE UNDER MY DIRECT SUPERVISION AND ARE THE RESULT OF A FIELD SURVEY CONDUCTED BETWEEN JANUARY 2016 AND JULY 2017. THIS SURVEY CONFORMS TO THE ACCURACY REQUIREMENTS OF AN URBAN SURVEY OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I FURTHER CERTIFY THAT THIS SURVEY IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, AND THE FIELD TRAVERSE SURVEY EXCEEDS A PRECISION OF 1:15,000.

11/26/2018 LICENSED LAND SURVEYOR DATE

TAX MAP 54 LOTS 5, 6 & 7 & TAX MAP 63 LOT 205

TOWN OF EXETER PLANNING BOARD

MULTI-FAMILY SITE PLAN EXETER ROSE FARM

FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM

EXETER ROSE FARM, LLC & THE

OWNED BY

BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS

PREPARED FOR **EXETER ROSE FARM, LLC**

SCALE: AS NOTED

AUGUST 15, 2017

 8	11/26/18	REVISED PER PLANNING BOARD COMMENTS	BMK	JCC
7	11/5/18	ADDED THIS SHEET	BMK	JCC
6	10/1/18	REVISED PER PLANNING BOARD COMMENTS	BMK	JCC
5	8/31/18	REVISED PER TRC COMMENTS	BMK	JCC
4	7/10/18	REVISED PER PLANNING BOARD COMMENTS	BMK	JCC
3	2/20/18	REVISED PER PLANNING BOARD COMMENTS	BMK	JCC
2	10/31/17	REVISED PER DESIGN REVIEW COMMENTS	BMK	JCC
1	9/26/17	REVISED PER TRC COMMENTS	NJM	BMK
REV.	DATE	DESCRIPTION	DR	CK

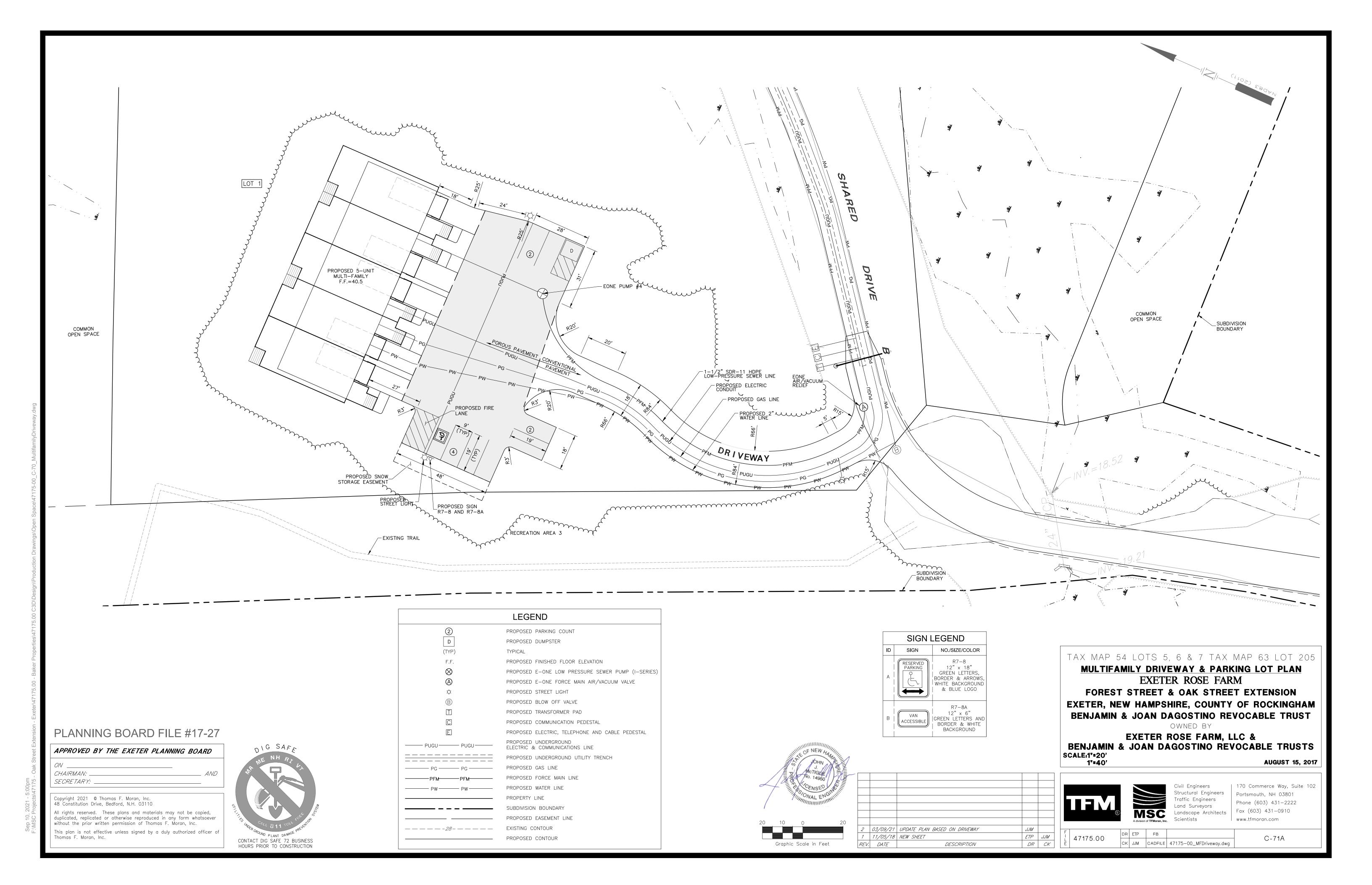


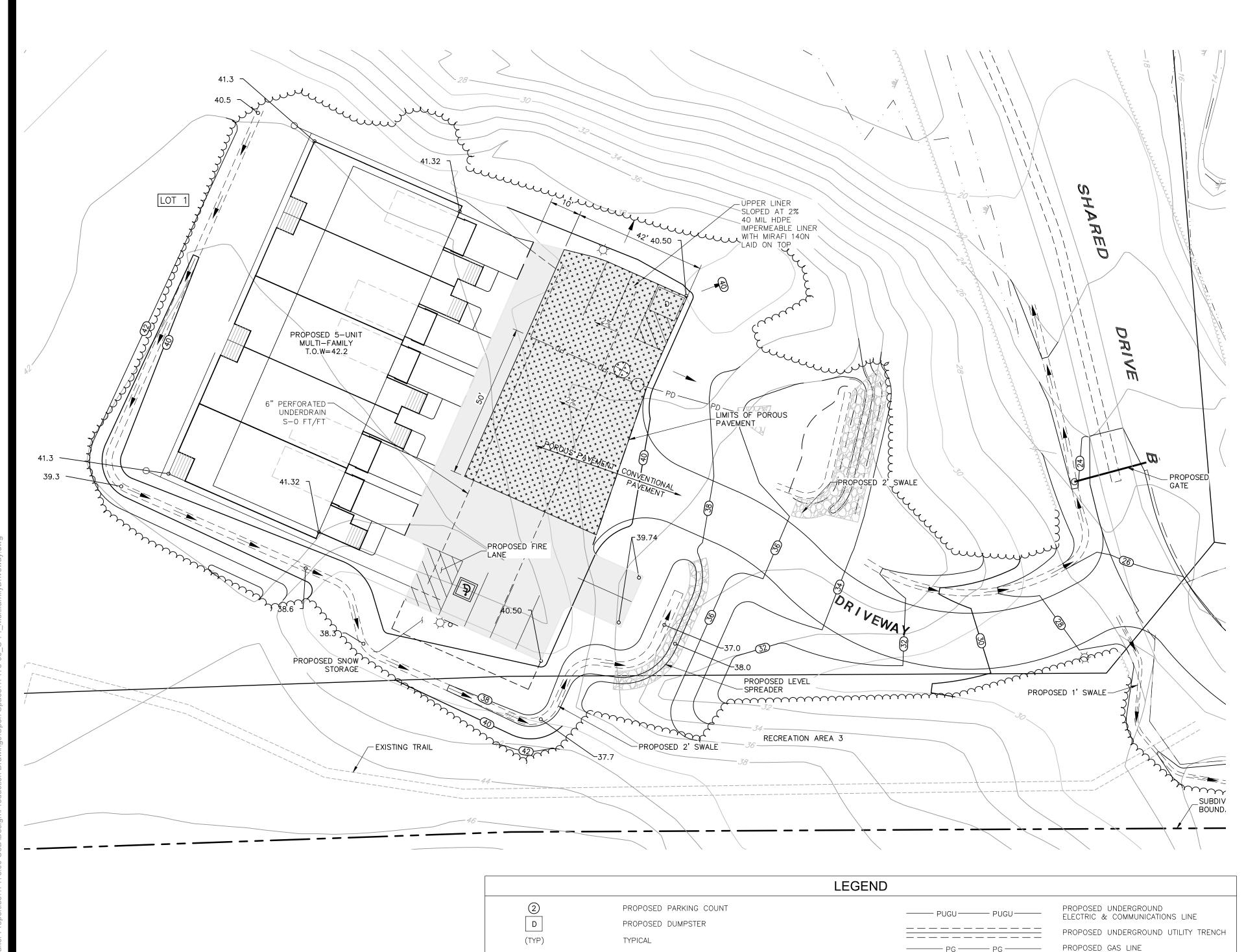
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Civil Engineers Structural Engineers Traffic Engineers and Surveyors andscape Architects Scientists

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531 & 539 C-70 CK JCC CADFILE 47175.00_MFSP





PLANNING BOARD FILE #17-27

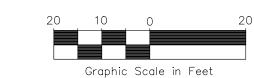
APPROVED BY THE EXETER PLANNII	NG BOARD	DIGS
ON	ANO	INA ME
CHAIRMAN: SECRETARY:	AND	
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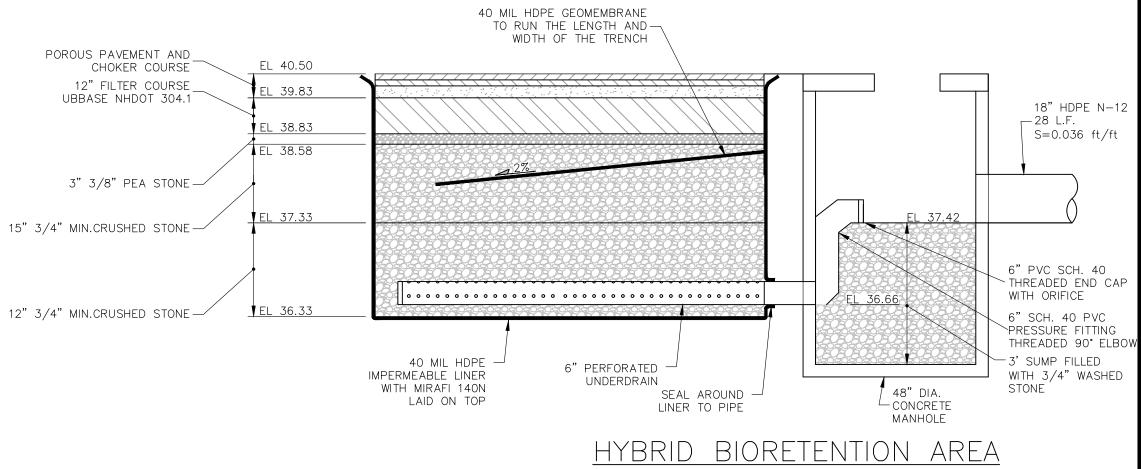
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PROPOSED PARKING COUNT PROPOSED DUMPSTER (TYP) TYPICAL F.F. PROPOSED FINISHED FLOOR ELEVATION PROPOSED E—ONE LOW PRESSURE SEWER PUMP (I—SERIES) PROPOSED E—ONE FORCE MAIN AIR/VACUUM VALVE PROPOSED STREET LIGHT	
TYPICAL F.F. PROPOSED FINISHED FLOOR ELEVATION PROPOSED E—ONE LOW PRESSURE SEWER PUMP (I—SERIES) PROPOSED E—ONE FORCE MAIN AIR/VACUUM VALVE	—— PUG
F.F. PROPOSED FINISHED FLOOR ELEVATION PROPOSED E—ONE LOW PRESSURE SEWER PUMP (I—SERIES) PROPOSED E—ONE FORCE MAIN AIR/VACUUM VALVE	
PROPOSED E-ONE LOW PRESSURE SEWER PUMP (I-SERIES) PROPOSED E-ONE FORCE MAIN AIR/VACUUM VALVE	
A PROPOSED E—ONE FORCE MAIN AIR/VACUUM VALVE	——— P(
	———PF
PROPOSED STREET LIGHT	——— PI
_	
PROPOSED SIGN	
B PROPOSED BLOW OFF VALVE	
PROPOSED TRANSFORMER PAD	
PROPOSED COMMUNICATION PEDESTAL	
E PROPOSED ELECTRIC, TELEPHONE AND CABLE PEDESTAL	
PROPOSED HANDICAP PARKING SPACE	

PUGU	PUGU	PROPOSED UNDERGROUND ELECTRIC & COMMUNICATIONS LINE
		PROPOSED UNDERGROUND UTILITY TRENCH
PG	—— PG ———	- PROPOSED GAS LINE
PFM—	PFM-	- PROPOSED FORCE MAIN LINE
	PW	- PROPOSED WATER LINE
		- PROPERTY LINE
		SUBDIVISION BOUNDARY
		- PROPOSED EASEMENT LINE
	8	- EXISTING CONTOUR
	4)————	- PROPOSED CONTOUR
		PROPOSED POROUS PAVEMENT
		PROPOSED RIP RAP





6" SCH. 40 — THREADED END CAP

1.00" ORIFICE

CAP W/ CONTROL

ORIFICE NOT TO SCALE

SIGN LEGEND SIGN NO./SIZE/COLOR 12" x 18" GREEN LETTERS, BORDER & ARROWS, WHITE BACKGROUND

& BLUE LOGO R7-8A 12" x 6" |GREEN LETTERS AND | BORDER & WHITE | BACKGROUND VAN ACCESSIBLE

TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205 **MULTIFAMILY DRIVEWAY & PARKING LOT PLAN**

EXETER ROSE FARM FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM **BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST**

OWNED BY

EXETER ROSE FARM, LLC & BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS SCALE:1"=20' **AUGUST 15, 2017** 1"=40'

4	08/31/21	REVISED PER AOT COMMENTS	JJM	
3	02/09/21	REVISED PER AOT SUBMITTAL	JJM	
2	11/26/18	REVISED PER PLANNING BOARD COMMENTS	ETP	JJM
1	11/05/18	NEW SHEET	ETP	JJM
REV.	DATE	DESCRIPTION	DR	CK



	MSC

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Portsmouth, NH 03801 Phone (603) 431-2222

DR ETP FB

CK JJM CADFILE 47175-00_MFDriveway.dwg C-71B

L-1 LEGEND

★ 1 BIRD HOUSE **★**2 BAT BOX

3 FOUND STONE SEATING EXISTING EDGE OF WOODS ---- EDGE OF POND

NOTES:

- 1. SEE L-2, L-3 & L-4 FOR ADDITIONAL INFORMATION AND DETAILS.
- 2. THIS PLAN IS NOT A CONSTRUCTION DOCUMENT. AS SUCH THE LOCATION OF ELEMENTS SUCH AS WALKWAYS, STRUCTURES AND PLANTINGS MAY MOVE.

PLANT LIST

DECIDUOUS TREES:

KEY	QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
СО	4	CARYA OVATA SHAGBARK HICKORY	3" CAL.	B&B EDIBLE NUTS, NATIVE
MR	9	MALUS 'RED JEWEL' RED JEWEL CRABAPPLE	3" CAL.	B&B MASSES OF BRIGHT RED FRUIT
SA	1	SALIX ALBA 'TRISTIS' GOLDEN WEEPING WILLOW	3" CAL.	B&B, PICTURESQUE, CLASSIC POND TREE

EVERGREEN TREES:

KEY	QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
PO	6	PICEA OMORIKA 'PENDULA' WEEPING SERBIAN SPRUCE	6' HT	B&B MAGNIFICENT SPECIMEN
PR	5	PINUS RESINOSA RED PINE	6' HT	B&B SEEDS EATEN BY SQUIRRELS AND BIRDS, NATIVE

DECIDUOUS SHRUBS:

KE	Y QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
IV	7	ILEX VERTICILLATA 'MARYLAND BEAUTY' MARYLAND BEAUTY WINTERBERRY	3' HT	B&B DARK RED BERRIES, HEAVY FRUIT SET, IMPROVED NATIVE
VE	11	VIBURNUM DENTATUM ARROWWOOD VIBURNUM	4' HT	B&B BLUE FRUIT IMPROVED NATIVE

PLANNING BOARD FILE #17-27

APPROVED BY THE EXETER PLANNING BOARD CHAIRMAN:

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TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

LANDSCAPE PLANTING PLAN #1 EXETER ROSE FARM

FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM **BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST** OWNED BY

EXETER ROSE FARM, LLC & BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS SCALE:1"=20' (22X34)

11/26/18 REVISED PER PLANNING BOARD COMMENTS BMK JCC 11/05/18 NO REVISIONS THIS SHEET BMK JCC DESCRIPTION DR CK REV. DATE



1'=40' (11X17)



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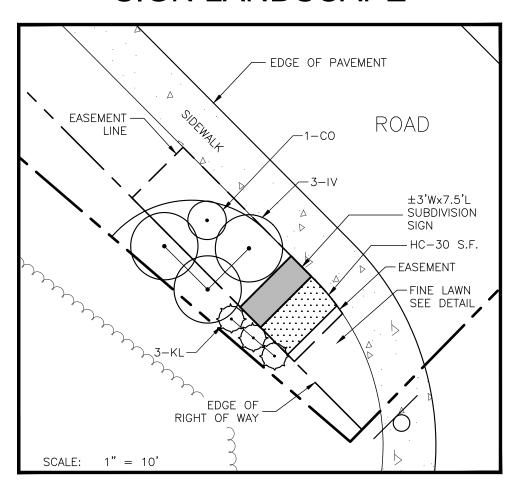
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OCTOBER 1, 2018

47175.00 L-1 CK JCC CADFILE

RECREATION AREA 2

SITE ENTRY SIGN LANDSCAPE



★1 BIRD HOUSE FOUND STONE SEATING EXISTING EDGE OF WOODS

L-2 LEGEND

. PROPOSED EDGE OF WOODS

PLANT LIST

DECIDUOUS TREES:

NOTES:

KEY	QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
BN	3	BETULA NIGRA HERITAGE HERITAGE RIVER BIRCH	3" CAL.	B&B FULL, BUSHY & SYMMETRICAL SINGLE STRAIGHT TRUNK, NATIVE

1. SEE L-1, L-3 & L-4 FOR ADDITIONAL INFORMATION AND DETAILS.

EVERGREEN SHRUBS:

KEY	QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
СО	1	CHAMAECYPARIS OBTUSA 'GOLDEN WORL' GOLDEN WORL HINOKI FALSECYPRESS	24" HT.	B&B FOCAL POINT PLANT
JV	6	JUNIPERUS VIRGIANA MANHATTAN BLUE' MANHATTAN BLUE EASTERN RED CEDAR	6' HT.	B&B WOODLAND PLANT, IMPROVED NATIVE
KL	3	KALMIA LATIFOLIA 'OLYMPIC FIRE' OLYMPIC FIRE MOUNTAIN LAUREL	24" HT.	B&B WOODLAND PLANT, IMPROVED NATIVE

DECIDUOUS PLANTS:

KE,	QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
IV	3	ILEX VERTICILLATA 'WINTER RED' WINTER RED WINTERBERRY	3' HT.	B&B EXCELLENT FOR BIRDS, IMPROVED NATIVE (INCLUDE ONE MALE)

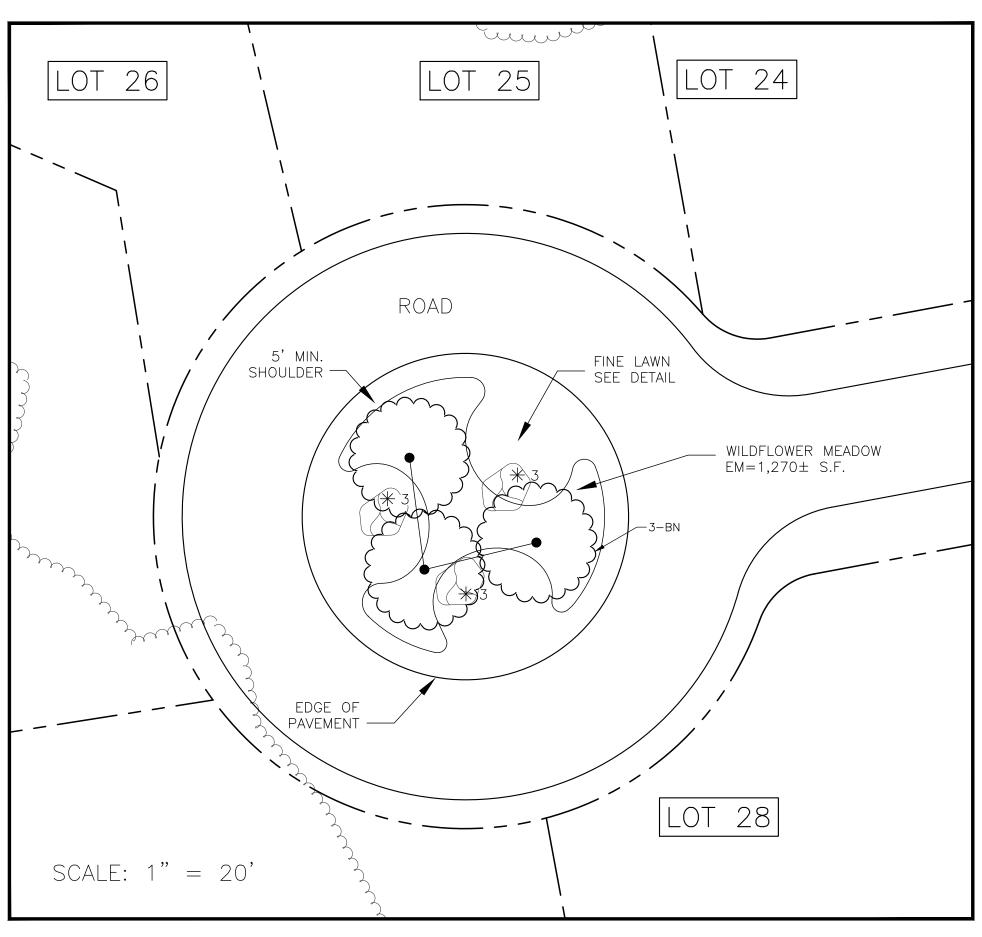
ORNAMENTAL GRASSES & GROUND COVER:

KEY	QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
EM	1,930± SF	ERNMIX-153 NATIVE WILDFLOWER AND GRASS MIX PER ERNSTSEED COMPANY	3' HT.	POLLINATOR MEADOW FOR BEES, HUMMING BIRDS AND BUTTERFLIES

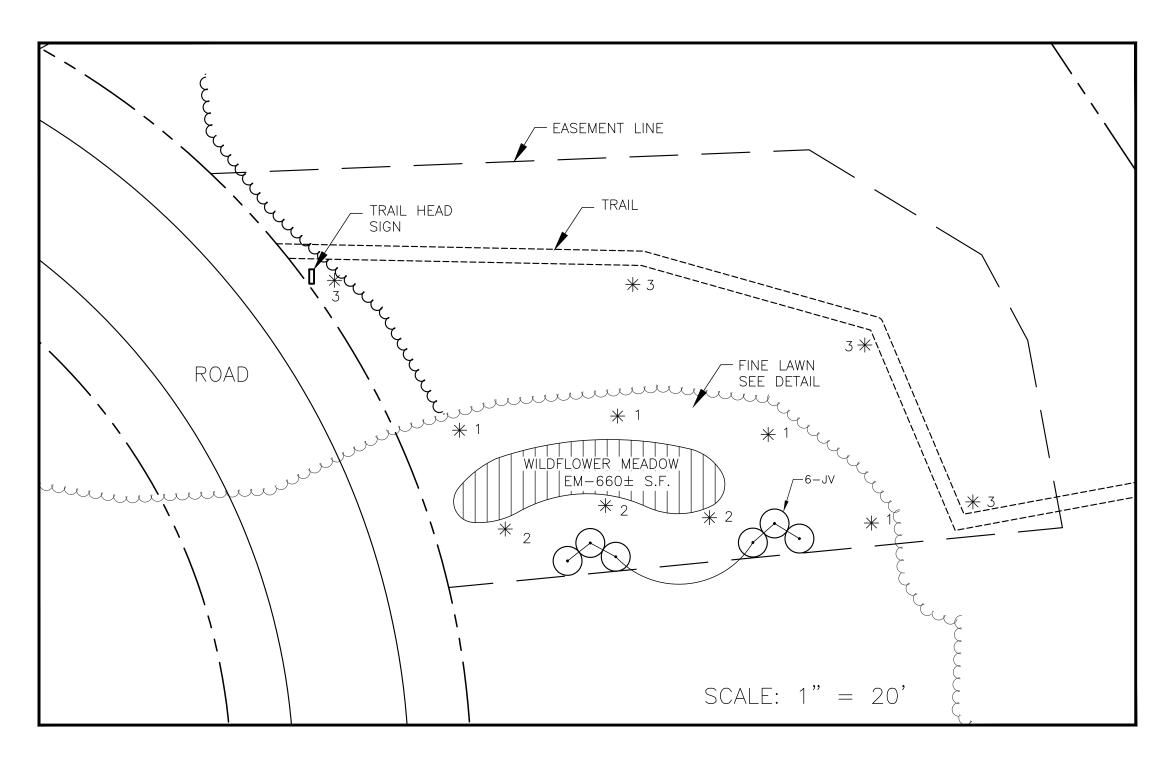
PERENNIAL PLANTS:

KEY	QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
HC	40 SF	HEMEROCALLIS 'STELLA D'ORO' STELLA D'ORO DAYLILY	9" HT.	FULL & BUSHY PLANT 18" ON CENTER, STAGGERED ROWS

CUL-DE-SAC LANDSCAPE



RECREATION AREA 4 LANDSCAPE



PLANNING BOARD FILE #17-27

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DIG SAFE

TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

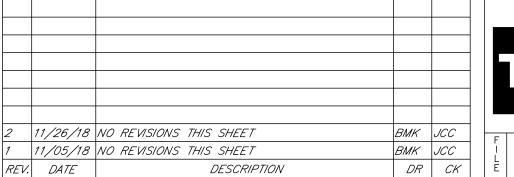
LANDSCAPE PLANTING PLAN #2 EXETER ROSE FARM

FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST

OWNED BY

EXETER ROSE FARM, LLC & BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS SCALE: AS NOTED

OCTOBER 1, 2018



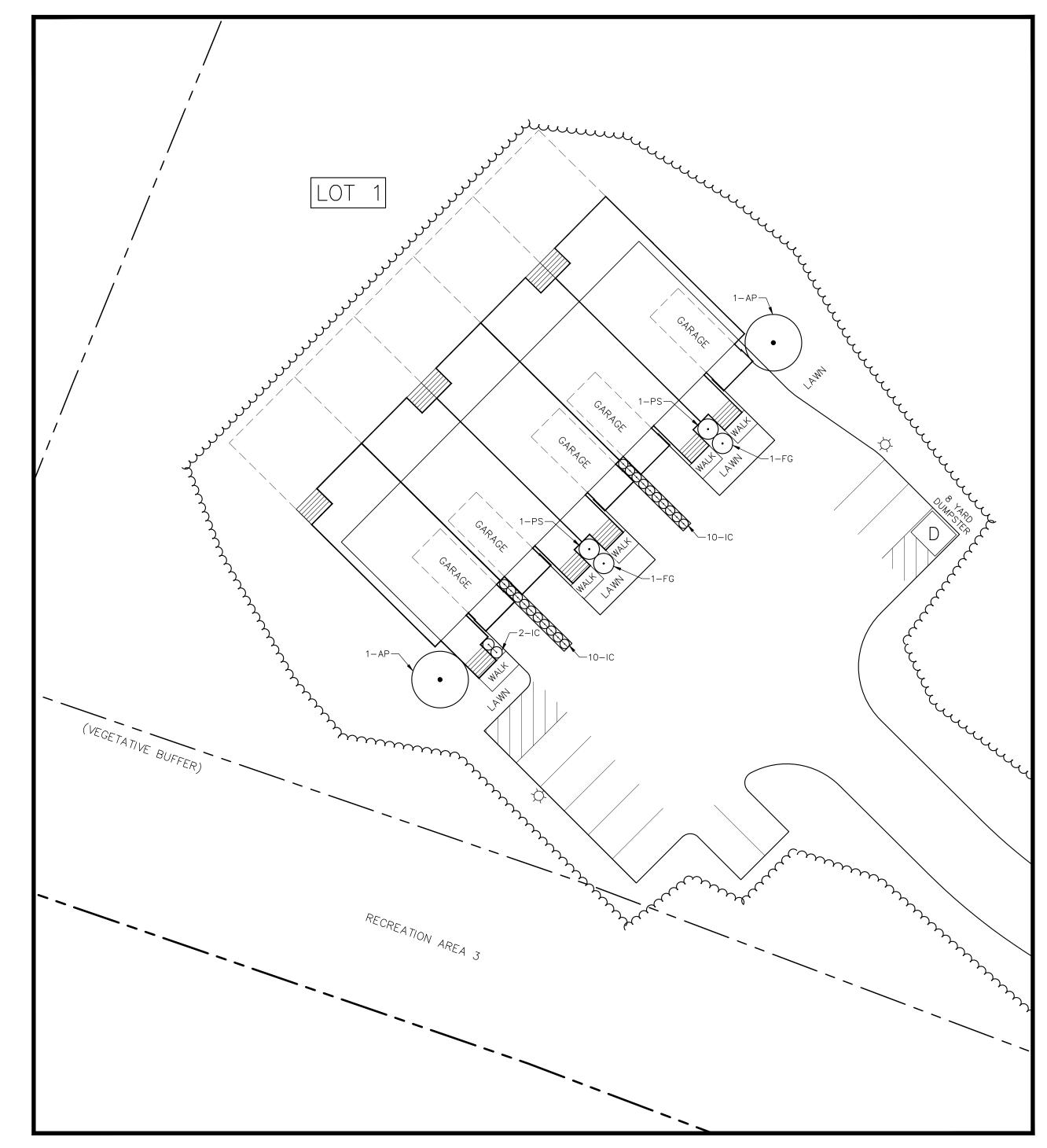




170 Commerce Way, Suite 102 Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 Land Surveyors Landscape Architects

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CK JCC CADFILE 47175.00 L-2



LOT 1 - MULTI-FAMILY DWELLING

L-3 LEGEND

PROPOSED EDGE OF WOODS PROPERTY LINE

LIGHT POLE

NOTES:

- 1. SEE L-1, L-2 & L-4 FOR ADDITIONAL INFORMATION AND DETAILS.
- 2. THIS PLAN IS NOT A CONSTRUCTION DOCUMENT. AS SUCH THE LOCATION OF ELEMENTS SUCH AS WALKWAYS, STRUCTURES AND PLANTINGS MAY MOVE.

PLANT LIST

DECIDUOUS TREES:

AP 2 ACER PALMATUM 'BLOODGOOD' 8' HT. B&B FULL & BUSHY, SYMMETE CROWN	KEY	QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
	AP	2		8' HT.	FULL & BUSHY, SYMMETRIC

DECIDUOUS SHRUBS:

KEY	QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
FG	2	FOTHERGILLA GARDENII DWARF FOTHERGILLA	24" HT	B&B FULL & BUSHY

EVERGREEN SHRUBS:

KEY	QTY/S.F.	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
IC	22	ILEX CRENATA 'HETZII' HETZII JAPANESE HOLLY	18" HT	B&B FULL & BUSHY CONTAINER
PS	2	PINUS SYLVESTRIS 'BONNA' BONNA SCOTCH PINE	5' HT	B&B FULL & BUSHY

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APPROVED BY THE EXETER PLANNING BOARD

CHAIRMAN: _ SECRETARY:



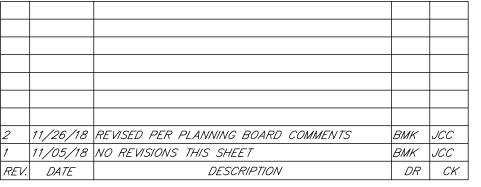
TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

LANDSCAPE PLANTING PLAN #3 EXETER ROSE FARM

FOREST STREET & OAK STREET EXTENSION EXETER, NEW HAMPSHIRE, COUNTY OF ROCKINGHAM BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUST OWNED BY

EXETER ROSE FARM, LLC &

BENJAMIN & JOAN DAGOSTINO REVOCABLE TRUSTS SCALE:1"=20' (22X34) 1"=40' (11X17) **OCTOBER 1, 2018**



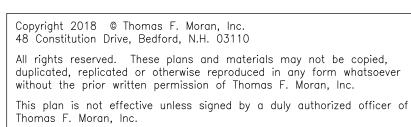


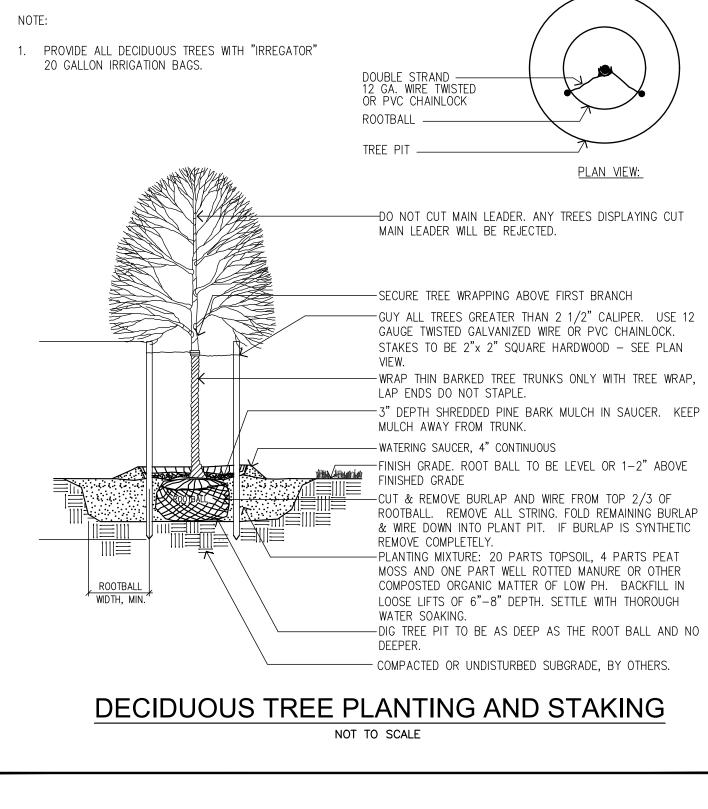


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DOUBLE STRAND —— 12 GA. WIRE TWISTED OR PVC CHAINLOCK ROOTBALL -TREE PIT -<u>PLAN VIEW:</u> -DO NOT CUT MAIN LEADER. ANY TREES DISPLAYING CUT MAIN LEADER WILL BE REJECTED. -SECURE TREE WRAPPING ABOVE FIRST BRANCH -GUY ALL TREES GREATER THAN 2 1/2" CALIPER. USE 12 GAUGE TWISTED GALVANIZED WIRE OR PVC CHAINLOCK. STAKES TO BE 2"x 2" SQUARE HARDWOOD - SEE PLAN -WRAP THIN BARKED TREE TRUNKS ONLY WITH TREE WRAP, LAP ENDS DO NOT STAPLE. -3" DEPTH SHREDDED PINE BARK MULCH IN SAUCER. KEEP MULCH AWAY FROM TRUNK. -WATERING SAUCER, 4" CONTINUOUS — FINISH GRADE. ROOT BALL TO BE LEVEL OR 1-2" ABOVE FINISHED GRADE CUT & REMOVE BURLAP AND WIRE FROM TOP 2/3 OF ROOTBALL. REMOVE ALL STRING. FOLD REMAINING BURLAP & WIRE DOWN INTO PLANT PIT. IF BURLAP IS SYNTHETIC

MAIN LEADER WILL BE REJECTED. - ENCASE WIRE AROUND TREE IN REINFORCED HOSE, SECURE WIRE ENDS WITH MALLEABLE CABLE CLAMPS - INSTALL THREE GUYS PER TREE; EQUALLY SPACED AROUND BALL, SET ANGLE OF GUYS TO ENTER GROUND AT LIMIT OF BRANCH SPREAD, ATTACH GUYS AT 2/3 HEIGHT OF TREE. USE DOUBLE STRAND GALVANIZED STEEL WIRE. PROVIDE GALVANIZED TURNBUCKLES, ONE PER WIRE. 3" DEPTH SHREDDED PINE BARK MULCH IN SAUCER. KEEP MULCH AWAY FROM TRUNK. WATERING SAUCER, 4" CONTINUOUS PLANTING SOIL MIX. NO SAUCER WHERE TREES OCCUR IN PLANTING BEDS. WARNING FLAG 18" ABOVE FINISH GRADE. - FINISH GRADE- TOP OF ROOT BALL TO BE LEVEL WITH OR UP TO 1" ABOVE FINISH GRADE. — METAL GROUND ANCHORS CUT AND REMOVE WIRE & BURLAP FROM TOP 2/3 OF - ROOTBALL. REMOVE ALL STRING. FOLD REMAINING BURLAP AND WIRE DOWN INTO PIT. IF BURLAP IS SYNTHETIC REMOVE COMPLETELY. ROOTBALL -WIDTH, MIN. PLANTING MIXTURE- 20 PARTS TOPSOIL, 4 PARTS PEAT MOSS AND ONE PART WELL ROTTED MANURE OR OTHER COMPOSTED ORGANIC MATTER OF LOW PH. BACKFILL IN LOOSE LIFTS OF 6"-8" DEPTH. SETTLE WITH THOROUGH WATER SOAKING - DIG TREE PIT TO BE AS DEEP AS ROOT BALL AND NO - COMPACTED OR UNDISTURBED SUBGRADE, BY OTHERS. **EVERGREEN TREE PLANTING** NOT TO SCALE

-DO NOT CUT MAIN LEADER. ANY TREES DISPLAYING CUT

1. WOOD WILL BE RED OR WHITE CEDAR SPLIT. 8'-0" O.C. (MAX.) SEE PLAN CEDAR POST — 2 @ 4 x 4 — CEDAR RAILS, DOWELED TO POSTS — FINISH GRADE — ELEVATION - DIRECT BURY POSTS TO A DEPTH OF 30" MIN.

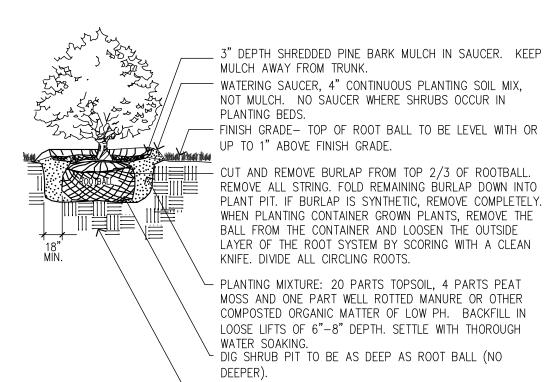
NOTE:

SPLIT CEDAR POST AND RAIL FENCE

NOT TO SCALE

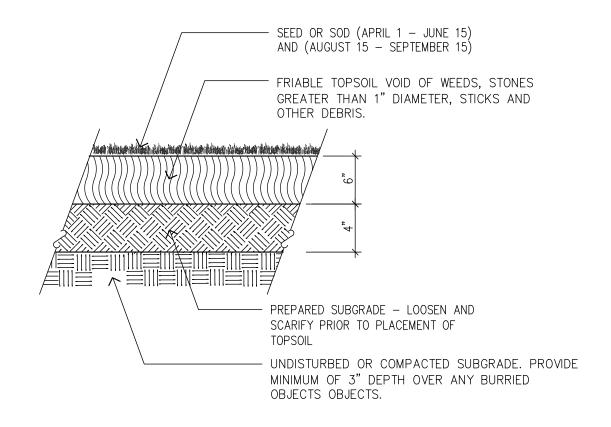
1. FENCE TO BE NORTHERN WHITE CEDAR. CONTRACTOR SHALL APPLY 2 COATS EXTERIOR

DECIDUOUS TREE PLANTING AND STAKING

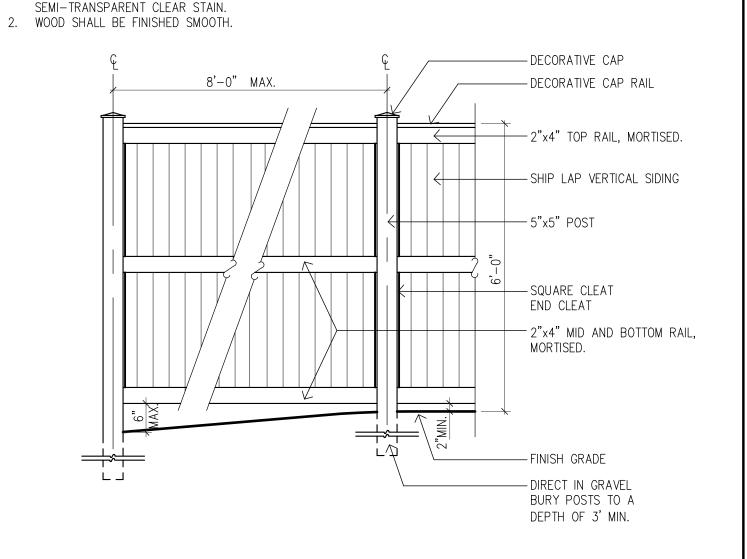


SHRUB PLANTING NOT TO SCALE

- COMPACTED OR UNDISTURBED SUBGRADE, BY OTHERS.

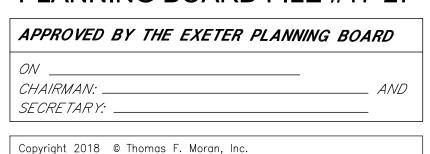


LOAM AND SEED NOT TO SCALE



SOLID SCREEN FENCE NOT TO SCALE

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PLANTING NOTES

- 1. CONTRACTOR SHALL SUPPLY PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE PLANTINGS SHOWN ON THESE DRAWINGS OR PLANT LIST - WHICH EVER IS GREATER. CLARIFY DISCREPANCIES WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 2. ALL PLANT MATERIALS SHALL CONFORM AT A MINIMUM TO GUIDELINES ESTABLISHED BY LATEST EDITION OF AMERICAN ASSOCIATION OF NURSERYMEN'S "AMERICAN STANDARD OF NURSERY STOCK".
- 3. DECIDUOUS PLANT MATERIAL INSTALLED AFTER SEPTEMBER 30 AND BEFORE APRIL 1 WILL NOT BE REVIEWED FOR ACCEPTANCE DUE TO STAGE OF LEAF PHYSIOLOGY. THIS PLANT MATERIAL WILL NOT BE REVIEWED UNTIL FOLLOWING GROWING SEASON. GUARANTEE PERIOD WILL BEGIN ONLY AFTER ACCEPTANCE BY LANDSCAPE ARCHITECT. EVERGREEN PLANT MATERIAL SHALL BE PLANTED APRIL 1 THROUGH JUNE 1 OR AUGUST 15 THROUGH OCTOBER 30. THERE WILL BE NO EXCEPTIONS TO THIS REQUIREMENT.
- 4. REPRESENTATIVE PLANT MATERIALS OF SPECIES SHALL BE LEGIBLY TAGGED WITH PROPER COMMON AND BOTANICAL NAMES. TAGS SHALL REMAIN ON THE PLANTS UNTIL ACCEPTANCE. DUE TO DIFFICULTIES IDENTIFYING THE VARIOUS CULTIVARS, PLANTS NOT TAGGED ARE SUBJECT TO REJECTION BY THE LANDSCAPE ARCHITECT AT HIS OR HER SOLE DISCRETION. THERE SHALL BE NO EXCEPTIONS TO THIS REQUIREMENT.
- 5. PLANT MATERIAL IS SUBJECT TO APPROVAL/REJECTION OF LANDSCAPE ARCHITECT AT THE NURSERY AND AT PROJECT SITE.
- 6. MULCH FOR PLANTED AREAS SHALL BE AGED PINE BARK, PARTIALLY DECOMPOSED, DARK BROWN IN COLOR AND FREE OF WOOD CHIPS THICKER THAN 1/4 INCH UNLESS OTHERWISE SHOWN ON DRAWINGS.
- 7. ALL SHRUB GROUPINGS SHALL BE INCORPORATED INTO PLANTING BEDS. WHERE MULCHED PLANT BED ABUTS LAWN CONTRACTOR SHALL PROVIDE A TURF CUT EDGE.
- 8. ALL PLANT BED EDGES SHALL INTERSECT WITH PAVEMENTS AT 90 DEGREE ANGLES UNLESS OTHERWISE SHOWN ON DRAWINGS.
- 9. ALL PLANT BED EDGES SHALL BE SMOOTH AND CONSISTENT IN LAYOUT. IRREGULAR, "WAVEY" EDGES WILL NOT BE ACCEPTED.
- 10. AREAS INSIDE AND OUTSIDE LIMIT OF WORK LINE WHICH HAVE BEEN DISTURBED AND NOT DEVELOPED SHALL BE LOAMED AND SEEDED WITH 6" DEPTH OF TOPSOIL AND MAINTAINED UNTIL ACCEPTED BY LANDSCAPE ARCHITECT.
- 11. CONTRACTOR SHALL REMOVE ALL TREE STAKING ONE YEAR AFTER INSTALLATION IF PLANT MATERIAL HAS BEEN ACCEPTED.
- 12. ALL TREES OVERHANGING SIDEWALKS, DRIVEWAYS OR PARKING SHALL BEGIN BRANCHING AT 6' HEIGHT MINIMUM.
- 13. PLANT MATERIAL SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE PRIOR TO DIGGING.
- 14. NO PLANTS SHALL BE PLANTED BEFORE CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- 15. IF CONTRACTOR ENCOUNTERS POORLY DRAINING SOILS (BATH TUB EFFECT) OR LEDGE WITHIN ANY PLANTING BED, CONTRACTOR SHALL NOTIFY LANDSCAPÉ ARCHITECT IMMEDIATELY FOR DIRECTION PRIOR TO ANY PLANT INSTALLATION.
- 16. THE AREA WITHIN THIS SUBDIVISION IS RESTRICTED FROM THE USE OF FERTILIZERS AS DEFINED IN THE TOWN OF EXETER ZONING ORDINANCE SECTION 2.2.30 - "FERTILIZER: ANY SUBSTANCE CONTAINING ONE OR MORE RECOGNIZED PLANT NUTRIENTS WHICH IS DESIGNED FOR USE IN PROMOTING PLANT GROWTH, SUCH AS NITROGEN, PHOSPORUS AND POTASSIUM. FERTILIZER AS DEFINED SHALL NOT INCLUDE VEGETABLE COMPOST, LIME, LIMESTONE, WOOD ASHES OR ANY NITROGEN-FREE HORTICULTURE MEDIUM (E.G. VERMICULITE)."

PLANTING GUARANTEE NOTES

1. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR ONE (1) FULL YEAR FROM DATE OF ACCEPTANCE.

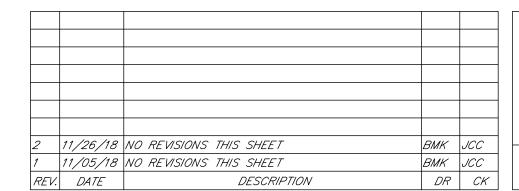
TAX MAP 54 LOTS 5, 6 & 7 TAX MAP 63 LOT 205

LANDSCAPE NOTES AND DETAILS EXETER ROSE FARM

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Scientists

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