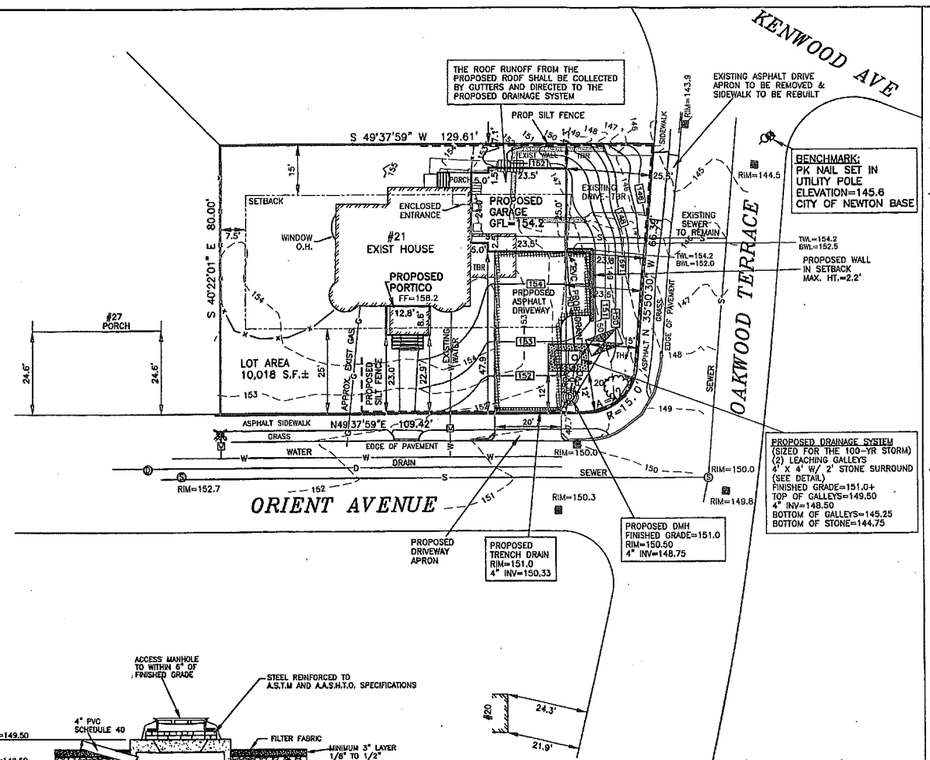
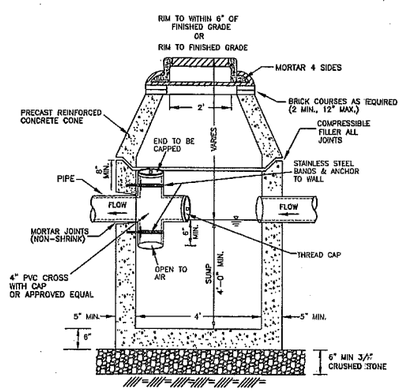
GENERAL NOTES

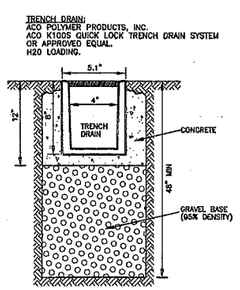
1. ELEVATIONS REFER TO CITY OF NEWTON BASE. BENCHMARK: PK NAIL SET IN UTILITY POLE NEART THE INTERSECTION OF OAKWOOD TERRACE AND KENWOOD AVENUE, ELEVATION = 145.6.
2. THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE THE LOCATIONS OF ANY CROSSINGS OF PROPOSED AND EXISTING UTILITIES.
3. MASSACHUSETTS STATE LAW REQUIRES UTILITY NOTIFICATION AT LEAST THREE BUSINESS DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CALL DIG-SAFE AT 1-888-344-7233 IN ORDER TO COMPLY WITH STATE LAW.
4. ALL UTILITY CONSTRUCTION SHALL CONFORM TO THE CITY OF NEWTON GENERAL COISTRUCTION DETAILS, LATEST EDITION, PREPARED AND ISSUED BY THE NEWTON ENGINEERING DEPARTMENT COPIES MAY BE OBTAINED AT THE OFFICE OF THE CITY ENGINEER.
5. NO WORK WITHIN ANY CITY OF NEWTON RIGHT-OF-WAY IS ALLOWED BETWEEN NOVEIBER 15TH AND APRIL 15TH. IF AN EMERGENCY EXISTS OR THERE ARE EXTENUATING CIRCUMSTANIES, THE APPLICANT MAY REQUEST PERMISSION FROM THE CITY ENGINEER, OR DESIGNEE FOR SUCH WORK.
6. ALL CONSTRUCTION ACTIVITIES WITHIN THE CITY OF NEWTON RIGHT-OF-WAY MUST FULLY COMPLY WITH ALL CITY OF NEWTON CONSTRUCTION SPECIFICATIONS AS WELL AS 521 CMR 21.00 AND 22.00.
7. THIS PLAN IS THE RESULT OF AN INSTRUMENT SURVEY DONE ON THE GROUND FEBIUARY 2016.
8. ALL WORK SHALL BE SUBJECT TO THE INSPECTION BY AND APPROVAL OF THE CITY ENGINEER.
9. NO EXCAVATION SHALL BE MADE BY THE CONTRACTOR IN ANY PUBLIC WAY OR UTILTY EASEMENT UNLESS AT LEAST FORTY-EIGHT (48) HOURS, EXCLUSIVE OF SATURDAYS, SUNDAYS, AND HILIDAYS, BEFORE THE PROPOSED EXCAVATION IS TO BE MADE, HE HAS SUBMITTED, BY REGISTERED MAIL, WRITTEN NOTICE OF THE PROPOSED EXCAVATION TO THE FOLLOWING:
   a. SUCH PUBLIC UTILITY COMPANIES AS SUPPLY GAS, ELECTRICITY, AND TELEPHNE SERVICE IN THE CITY.
   b. SUCH PRIVATE COMPANIES AS PROVIDE CABLE TELEVISION SERVICE IN THE CIY.
   c. CITY OF NEWTON WATER & SEWER DEPARTMENT.

   SUCH NOTICE SHALL SET FORTH THE STREET NAME AND A REASONABLY ACCURATE DESCRIPTION OF THE LOCATION OF THE EXCAVATION.
10. THE CONTRACTOR SHALL PROVIDE CITY OF NEWTON POLICE OFFICERS FOR THE DIRECTION AND CONTROL OF TRAFFIC, AS REQUIRED BY THE CITY ENGINEER.
11. NO WORK SHALL BE PERFORMED UNTIL THE NECESSARY PERMITS ARE OBTAINED FIOM THE CITY OF NEWTON PUBLIC WORKS DEPARTMENT.
12. ALL TRENCHES IN PAVED STREETS SHALL BE TEMPORARILY PATCHED WITH 1.5 INCH DEPTH OF BITUMINOUS CONCRETE, LAID HOT AND MAINTAINED UNTIL THE PERMANENT PATCH IS INSTALLED.
13. WITH THE EXCEPTION OF GAS UTILITY SERVICES, ALL UTILITY TRENCHES WITHIN ANY CITY OF NEWTON RIGHT-OF-WAY WILL BE BACKFILLED WITH TYPE IE (EXCAVATABLE) CONTROLLED DENSITY FILL, AS SPECIFIED BY THE CITY OF NEWTON ENGINEERING SPECIFICATIONS.
14. WARNING SIGNS SHALL CONFORM TO PAGE 12 OF THE CITY OF NEWTON GENERAL CONSTRUCTION DETAILS.
15. ALL TOPSOIL, SUBSOIL OR IMPERVIOUS SOIL MUST BE EXCAVATED AND REMOVED BELOW THE LEACHING GALLEYS AND TO A DISTANCE 5' LATERALLY IN ALL DIRECTIONS BEYOND THE SIDIS OF THE GALLEYS. BACKFILL AS REQUIRED WITH A CLEAN GRANULAR SAND, FREE FROM ORGANIC MATER AND DELETERIOUS SUBSTANCES. THE SAND SHALL HAVE A PERCOLATION RATE OF 2 MINUTES PER IICH OR FASTER.
16. IN CASES WHERE LEDGE OR BOULDERS ARE ENCOUNTERED, EVERETT M. BROOKS CO. WILL NOT BE RESPONSIBLE FOR THE AMOUNT OF ROCK ENCOUNTERED.
17. IF ANY PART OF THIS DESIGN IS TO BE ALTERED IN ANY WAY, THE DESIGN ENGINEER, AS WELL AS THE APPROVING AUTHORITIES, SHALL BE NOTIFIED IN WRITING BEFORE CONSTRUCTION.
18. ALL OF THE ROOF RUNOFF FROM THE PROPOSED ROOF SURFACES SHALL BE COLLECTED BY GUTTERS AND DIRECTED TO THE PROPOSED LEACHING GALLEYS.
19. PRIOR TO AN OCCUPANCY PERMIT BEING ISSUED, AN AS-BUILT PLAN SHOULD BE SUBMITTED TO THE ENGINEERING DIVISION IN BOTH DIGITAL FORMAT AND HARD COPY. THE PLAN SHOULD SHOW ALL UTILITIES, AND DRAINAGE (INCLUDING SWING-TIES), EASEMENTS AND FINAL GRADING.
20. THE APPLICANT WILL HAVE TO APPLY FOR A STREET OPENING & UTILITIES CONNECTION PERMITS AS WELL AS A SIDEWALK CROSSING PERMIT WITH THE DPW.
21. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE DESIGN ENGINEER FOR INSPECTIONS OR AS-BUILT LOCATIONS. EVERETT M. BROOKS CO. WILL NOT PROVIDE AS-BUILT CERTIFICATION TO UNINSPECTED BACKFILLED UTILITIES. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED PRIOR TO INSPECTIONS.
22. THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION 48 HOURS IN ADVANCE AND SCHEDULE AN APPOINTMENT TO HAVE THE DRAINAGE SYSTEM INSPECTED. THE SYSTEM MUST BE FULLY EXPOSED FOR THE THE INSPECTOR. ONCE THE INSPECTOR IS SATISFIED, THE SYSTEM MAY THEN BE BACKFILLED.
23. IF A CERTIFICATE OF OCCUPANCY IS REQUESTED PRIOR TO ALL SITE WORK BEING COMPLETED, THE APPLICANT WILL BE REQUIRED TO POST A CERTIFIED BANK CHECK IN THE AMOUNT TO COVER THE REMAINING WORK. THE CITY ENGINEER SHALL DETERMINE THE VALUE OF THE UNCOMPLETED WORK.
24. ALL TRENCH EXCAVATION CONTRACTORS SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER 82A, TRENCH EXCAVATION SAFETY REQUIREMENTS, TO PROTECT THE GENERAL PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES. TRENCH EXCAVATION PERMIT REQUIRED. THIS APPLIES TO ALL TRENCHES ON PUBLIC AND PRIVATE PROPERTY.
25. APPROVAL OF THIS PLAN BY THE CITY OF NEWTON ENGINEERING DIVISION IMPLIES THAT THE PLAN MEETS THE MINIMAL DESIGN STANDARDS OF THE CITY OF NEWTON. HOWEVER, THE ENGINEERING DIVISION MAKES NO REPRESENTATIONS AND ASSUMES NO RESPONSIBILITY FOR THE DESIGN(S) IN TERMS OF SUITABILITY FOR THE PARTICULAR SITE CONDITIONS OR OF THE FUNCTIONALITY OR PERFORMANCE OF ANY ITEMS CONSTRUCTED IN ACCORDANCE WITH THE DESIGN(S).
   THE CITY OF NEWTON ASSUMES NO LIABILITIES FOR DESIGN ASSUMPTIONS, ERRORS OR OMISSIONS BY THE ENGINEER OF RECORD.
26. PROPOSED WALLS BY OTHERS.
27. THE EXISTING SEWER CONNECTION SHALL BE INSPECTED BY CLOSED CIRCUIT TELEVISION (CCTV) PRIOR TO ANY WORK TO DETERMINE THE SUITABILITY. THE APPLICANT/ CONTRACTOR SHALL RETAIN A QUALIFIED CONTRACTOR THAT SPECIALIZES IN CCTV INSPECTIONS OF EXISTING SEWER PIPES TO PREFORM THE INSPECTION. A REPRESENTATIVE FROM THE ENGINEERING DIVISION MUST BE PRESENT AT THE INSPECTION AND THE VIDEO TAPES/ CD'S SHALL BE GIVEN TO THAT REPRESENTATIVE AT THE END OF THE INSPECTION. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE PRIOR TO THE INSPECTION TO THE ENGINEERING DIVISION.

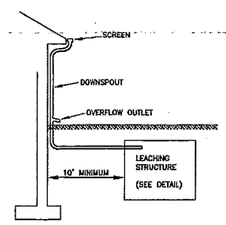




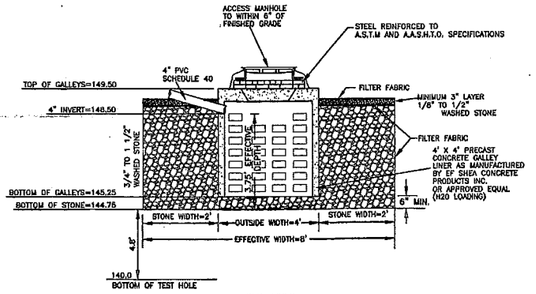
TYPICAL PRECAST CONCRETE MANHOLE WITH PVC GAS TRAP
N.T.S.



TRENCH DRAIN DETAIL
N.T.S.



TYPICAL DOWNSPOUT DETAIL
N.T.S.



END VIEW
LEACHING GALLEY DETAIL
N.T.S.

AVERAGE SETBACK:
(25.0 + 21.9) / 2 = 23.5'

SOIL LOG:

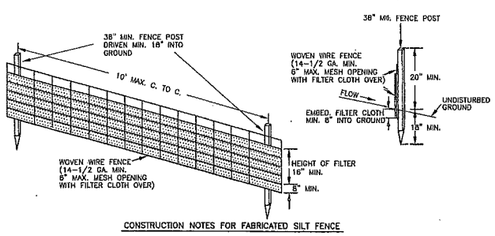
MAY 17, 2016

TEST HOLE #1 (TH#1)
ELEVATION = 150.0

0-14"	A	SANDY LOAM	10 YR 3/4
14"-54"	FILL		
54"-60"	A	SANDY LOAM	10 YR 3/2
60"-78"	B	SANDY LOAM	10 YR 5/8
78"-120"	C	SAND	2.5 Y 4/4

NO MOTTLES OBSERVED
NO GROUNDWATER OBSERVED
NO LEDGE OBSERVED

PERCOLATION TEST #1 (PT#1)
DEPTH: 78"-90"
DESIGN RATE: 5 MPI

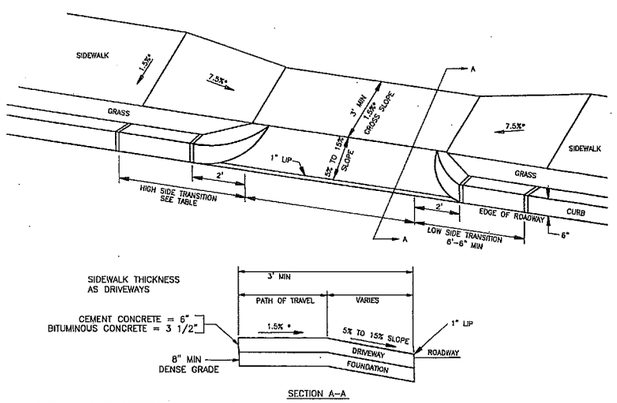


CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID-SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

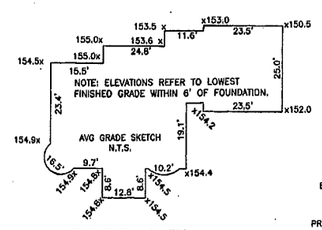
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
FENCE: WOVEN WIRE, 14-1/2 GA. 6" MAX. MESH OIENING.
FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE DETAIL
N.T.S.



* TOLERANCE FOR CONSTRUCTION +/- 0.5%

DRIVEWAY APRON WITH CORNER BLOCKS
N.T.S.



AVERAGE GRADE CALCULATION:
(ORD Z-90)

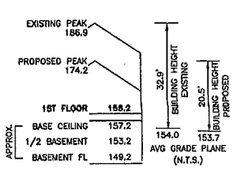
AVG = Σ[(L(E1+E2)/2] / P

EXISTING
AVG = 31215.8 / 202.7 = 154.0

PROPOSED
AVG = 35785.19 / 232.8 = 153.7

NOTE: NOT INTENDED FOR FAR CALCULATION.

AVERAGE GRADE PLANE DETAIL
N.T.S.



BUILDING HEIGHT DETAIL
N.T.S.

ZONING INFORMATION

ZONE: SR-2
PLAN DATED: DESCRIPTION BY DEED (OLD LOT)
DEED REFERENCE: BOOK 64144 PAGE 591

	EXISTING	PROPOSED	REQUIRED
BUILDINGS	1,693 S.F.	2,219 S.F.	
STRUCTURES	1,693 S.F.	2,219 S.F.	
DRIVE	769 S.F. ±	1,110 S.F. ±	
	2,462 S.F. ±	3,329 S.F. ±	
LOT COVERAGE	16.9%	22.2%	(30% MAX.)
OPEN SPACE	76% ±	67% ±	(50% MIN.)

ZONING COMPLIANCE DETERMINED BY MUNICIPALITY.
SEE ARCHITECTURAL DRAWINGS FOR F.A.R. CALCULATION

EMB
EVERETT M. BROOKS CO.
SURVEYORS & ENGINEERS
49 LEXINGTON STREET
WEST NEWTON, MA 02465

(617) 527-8750
info@everettbrooks.com

LEGEND

- UTILITY POLE
- WATER GATE
- HYDRANT
- GAS GATE
- SEWER MANHOLE
- DRAIN MANHOLE
- CATCH BASIN
- TREE
- LIGHT POLE
- SIGN
- TBR — TO BE REMOVED
- TBA — TO BE ABANDONED
- TH#1 — DEEP TEST HOLE
- PT#1 — PERCOLATION TEST
- 71.4 X — SPOT ELEVATION
- 71 — PROPOSED CONTOUR
- 71 — EXISTING CONTOUR
- D — DRAIN LINE
- RD — ROOF DRAIN
- FD — FOUNDATION DRAIN
- W — WATER LINE
- S — SEWER LINE
- G — GAS LINE
- OHW — OVERHEAD WIRES
- X — FENCE
- STONEWALL
- HEDGE
- TREE LINE

COMMONWEALTH OF MASSACHUSETTS — MICHAEL S. KOSIUO, CIVIL, No. 31480 — 6/1/16

COMMONWEALTH OF MASSACHUSETTS — BRUCE BRADFORD, No. 39976, PROFESSIONAL LAND SURVEYOR — 6/1/16

SITE PLAN OF LAND IN NEWTON, MA

21 ORIENT AVENUE

SCALE: 1 IN.= 20 FT.
DATE: JUNE 1, 2016
DRAWN: MF & ES
CHECK: MSK & BB

REVISIONS:

PROJECT NO. 24844

219-16