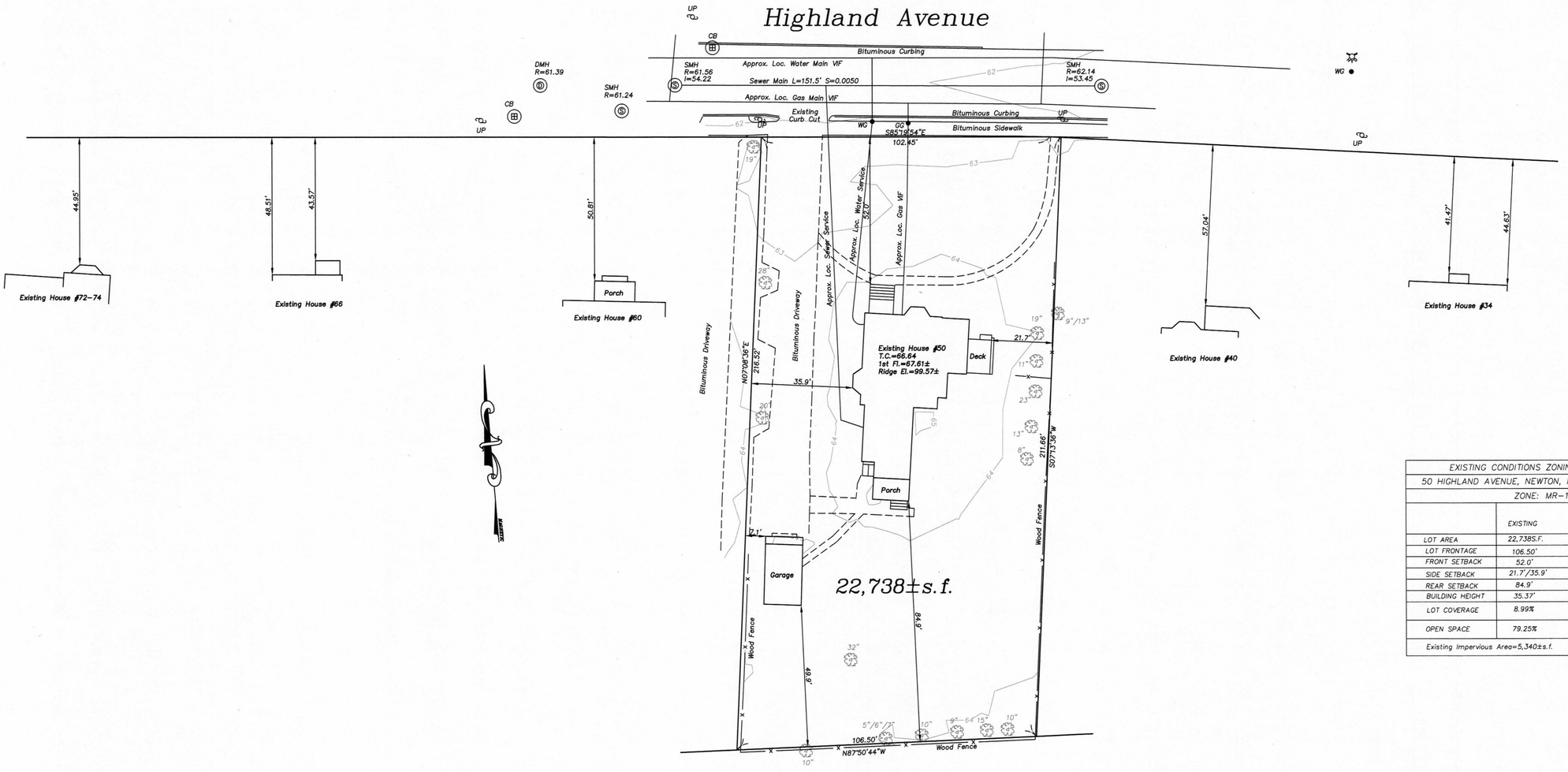
Dig Safe
•Excavators
Before you dig contact the Dig Safe Center. To prevent damage to telephone, gas or electric underground facilities of member utilities, call toll free
Massachusetts state law requires notification at least three business days before you start digging operations. In an emergency, call immediately.



EXISTING CONDITIONS ZONING CHART	
50 HIGHLAND AVENUE, NEWTON, MASSACHUSETTS	
ZONE: MR-1 OLD	
	EXISTING
LOT AREA	22,738S.F.
LOT FRONTAGE	106.50'
FRONT SETBACK	52.0'
SIDE SETBACK	21.7'/35.9'
REAR SETBACK	84.9'
BUILDING HEIGHT	35.37'
LOT COVERAGE	8.99%
OPEN SPACE	79.25%
Existing Impervious Area=5,340±s.f.	

NOTES

UTILITIES SHOWN WERE TAKEN FROM ACTUAL FIELD LOCATIONS, TOWN PLANS, DIG SAFE MARKINGS AND CONTRACTORS NOTES, MAY OR MAY NOT BE COMPLETE OR CORRECT, FIELD VERIFY ALL LOCATIONS AND DEPTHS PRIOR TO ANY EXCAVATION.

REVISIONS	
DATE	DESCRIPTION

COMMONWEALTH OF MASSACHUSETTS
VERNE T. PORTER JR.
LAND SURVEYOR
37736
REGISTERED PROFESSIONAL LAND SURVEYOR

~Existing Conditions Site Plan~

50 Highland Avenue

Newton, Massachusetts

Scale: 1"=20' September 9, 2021

VERNE T. PORTER Jr, PLS

Land Surveyors – Civil Engineers

354 Elliot Street, Newton, Ma. 02464

0 20 40 60 80

Sheet 1 of 5

Design By:GNB

Checked By:VTP

Drawn By:GNB

Notes:
1. Prior to an occupancy permit being issued, the water and sewer services must be in place and accepted by the Engineering Division.

2. The contractor needs to notify the Engineering Department 48 hours in advance and schedule an appointment to have the drainage system, water and sewer services inspected. The system and utilities must be fully exposed for the inspector. Once the inspector is satisfied, the system and utilities may be back filled.

3. The applicant must apply for a Street Opening and Utilities Connection Permit as well as a sidewalk crossing permit with DPW.

4. The utilities shown were compiled from field locations and available plans of utility companies and may or may not be correct. Contractor is to contact Dig Safe and all local utility companies as required prior to any excavation.

5. All work shall be done in accordance with "City of Newton Standard Specifications" and "City of Newton Construction Details", copies of which may be obtained at the Engineering Office. All work shall be subject to inspection and approval by the City of Newton Engineering Department.

6. The contractor shall provide Police Details for the direction and control of traffic, as required by the city engineer. All roads effected by construction shall remain open to emergency vehicles at all times. Contractor is to coordinate with Police and Fire Department to ensure public safety.

7. An erosion control barrier shall be in place prior to any construction and all materials must be contained on site.

8. The existing water service shall be completely removed from the dwelling to the corporation at the main. The corporation shall be capped, and a new tap shall be made for the new service. Each phase of this process must be inspected by a representative of the Engineering Division, failure to having this inspection performed, may result in the delay or denial of the water service permit.

9. The existing sewer service shall be completely removed from the existing dwelling and to the existing connection at the main. The abandonment, along with the new connection must be witnessed by a representative of the Engineering Division. Failure to having these inspections may result in the denial or delay of issuing a sewer permit.

10. The contractor shall be responsible for all proposed grading as shown on plan. Any variations to proposed grading shown and/or any changes to proposed structure may result in non compliance with zoning regulations.

12. All utilities trenches with the exception of gas, within the City of Newton right-of-way will be backfield with type IE (excavatable) controlled density fill, as specified by the City of Newton Engineering Specifications

13. The new sewer service and/or structures shall be pressure tested or videotaped after final installation is complete. Method of final inspection shall be determined solely by the Engineering inspector from the City of Newton. All sewer manholes shall be vacuum tested in accordance with City of Newton Specifications. The sewer service will not be accepted until one of the two methods stated above is completed. All testing must be witnessed by a representative of the Engineering Division.

14. All roof drains are to be connected to proposed drywells. Roof drains with less than 4' cover to be Sch 80 PVC or ductile iron.

15. Contractor to relocate existing drive opening and curb cut, match existing sidewalk, existing loam/seed grass berm area as necessary.

16. 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

17. No excavation is allowed within any City right of way between November 15th and April 15th. If an emergency exists or there are extenuating circumstances, Applicant ma seek permission for such work from the City DPW Commissioner via City Engineer. If permission is granted, special construction standards will be applied. Applicant or Applicant's representative must contact the City Engineering Department prior to start of work for clarification.

18. As of January 1, 2009, all trench excavation contractors shall comply with M.G.L. 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.

19. Any tree removed from site must comply with City of Newton Tree Ordinance.

20. Proposed drainage design and calculations meet the minimum standards as required by the City of Newton Engineering Division for this development as shown.

21. Contractor to close existing curb cut, match all existing materials and loam and seed as necessary. All work done within the City of Newton right-of-way must be fully ADA compliant.

22. Per City of Newton Ordinance #B-42, Council Item #251-19, Building Sewer, Water Service Pipe and Sidewalk/Curb Replacment Ordinance. The applicant is required to install/replace sidewalk and curb along the entire frontage. This shall include appropriate transition to adjoining curbing and walkways, including accessible curb cuts and other access as required. The Engineering Construction Inspector makes a determination, based on the material and manner of construction of the existing sidewalk and curb, that the existing sidewalk and curb has the ability to be re-set or reused without replacement.

23. If at the time of construction the roadway is under a 5 year moratorium, the roadway must be milled and paved gutter to gutter for a distance of 25' in each direction from the outermost trenches.

24. Prior to the Engineering Division recommending that a Certificate of Occupancy be issued, an As-Built plan must be submitted. The As-Built plan must show the dimensional ties from fixed points(foundation corners) to all subsurface components as well as final grading. The As-Built plan must be stamped, signed and dated by this office.

25. This office is responsible for on-site inspections(s) of the locations and elevations of all subsurface structures. This includes but is not limited to drainage, water & sewer services, roof leader collection system, trench drains, manholes, catch basins, etc. A representative from this office must also conduct a "bottom hole inspection" prior to any subsurface drainage system(s) being installed and also after system is installed prior to back filling. Contractor shall notify this office no less than 48 hours prior to the installations or necessary above inpsections. Any of the above not inspected as required will have to be excavated and exposed for the necessary inspections.

Lot Area=22,738±sf

Zoning District: MR1
Old Lot Status

Allowed/Required
Lot Coverage=30% Max.
Open Space=50% Min.

Existing
Lot Coverage=8.99%
Open Space=79.25%

Proposed
Lot Coverage=22.22%
Open Space=59.88%

Existing Impervious Surface=5430±sf
Proposed Impervious Surface=9981±sf
Increase of Impervious Surface=4551±sf

NOTE
ENTIRE WORK AREA/LOT TO BE ENCOMPASSED BY A MINIMUM OF 6' TALL TEMPORARY CONSTRUCTION FENCING THROUGHOUT ENTIRE PROJECT. THIS FENCING CAN BE CONNECTED TO ANY EXISTING FENCING THAT WILL REMAIN. FIELD LOCATE ALL PROPOSED AND EXISTING FENCING ON LOCUS AS NECESSARY. A 20' WIDE GATE TO PROVIDED AT THE PROPOSED DRIVEWAY ENTRANCE.

ELEVATIONS SHOWN ON THE CITY OF NEWTON SEWER BASE

ANY AND ALL UNSUITABLE MATERIAL FOUND BENEATH ALL STRUCTURES, UTILITIES, IMPROVEMENTS ETC. TO BE REMOVED TO SUITABLE MATERIAL AND REPLACED WITH APROPRIATE BACKFILL USING PROPER ENGINEERING TECHNICS AND SPECIFICATIONS

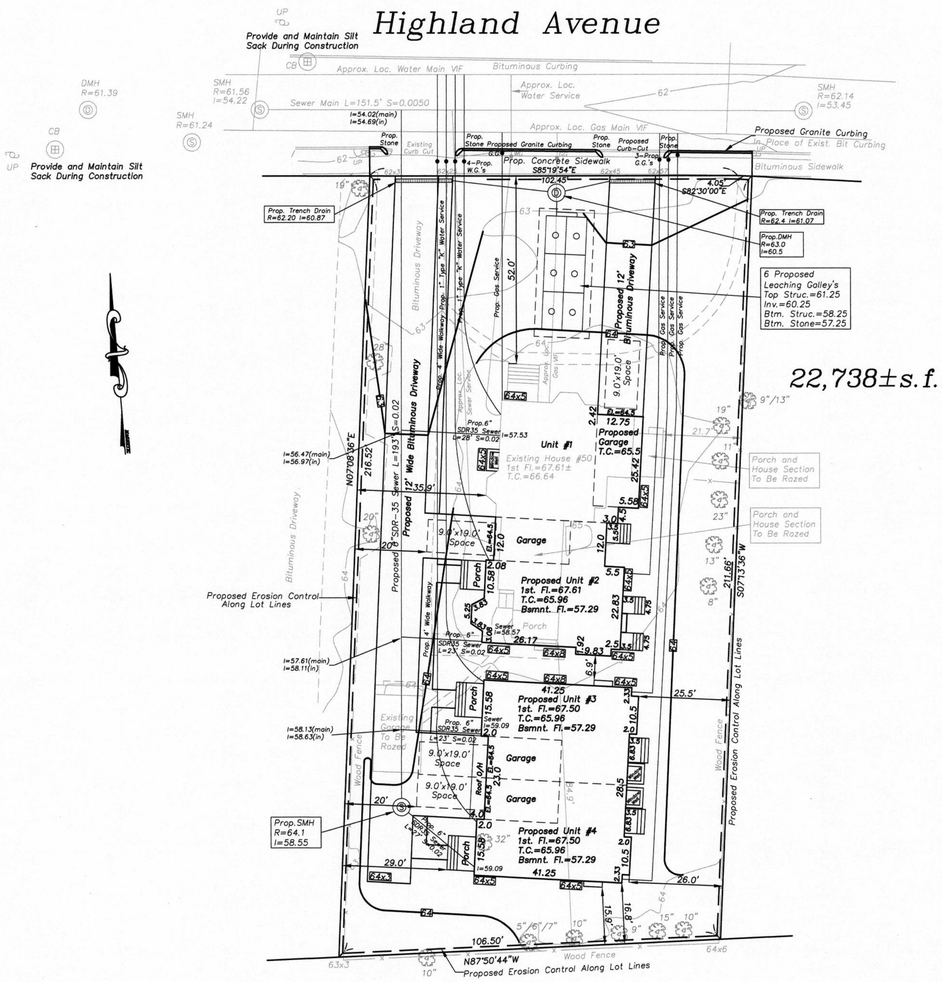
UTILITIES SHOWN WERE COMPILED FROM ACTUAL FIELD LOCATIONS, BEST AVAILABLE INFORMATION AND MAY OR MAY NOT BE COMPLETE OR ACCURATE. FIELD VERIFY PRIOR TO ANY EXCAVATION.

WALLS, FENCES AND TREE LOCATIONS SHOWN ALONG AND NEAR LOT LINES ARE APPROXIMATE, ACTUAL OWNERSHIP TO BE DETERMINED UPON LOT LINES BEING STAKED

ALL PROPOSED RETAINING WALLS TO BE LESS THAN 4' TALL IN A SETBACK. ALL WALLS DESIGNED BY OTHERS.

CONTRACTOR TO NOTIFY DESIGN ENGINEER A MIN. OF 72 HOURS PRIOR TO THE EXCAVATION AND INSTALLATION OF ANY PROPOSED DRAINAGE, UTILITIES, SERVICES, ROOF LEADER SYSTEM PIPING, ETC. THE CITY OF NEWTON ENGINEERING DIVISION REQUIRES THE DESIGN ENGINEER TO AS BUILT ALL PROPOSED UTILITIES LOCATIONS AND ELEVATIONS, CONTRACTORS NOTES ARE NOT ACCEPTABLE. ANY INSTALLED UTILITY WITHOUT DESIGN ENGINEER OBTAINING NECESSARY LOCATIONS AND ELEVATIONS WILL HAVE TO BE RE-EXCAVATED TO ALLOW FOR THIS INFORMATION TO BE OBTAINED.

ALL TOP, SUB AND UNSUITABLE MATERIAL BELOW DRAINAGE FIELDS IS TO BE REMOVED AND REPLACED WITH APPROPRIATE BANK RUN GRAVEL BROUGHT UP TO THE BOTTOM OF STONE ELEVATION



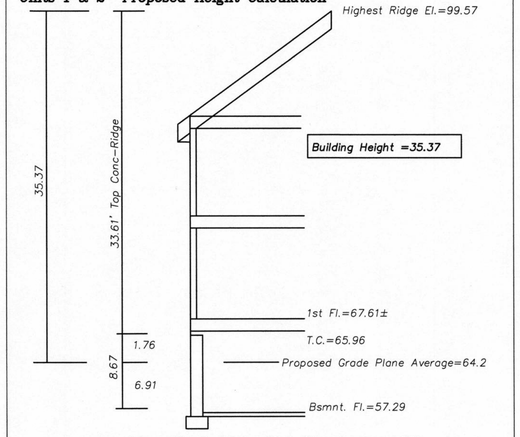
Legend

- =Erosion Control
- =Trench Drain
- =Catch Basin
- =Drain ManHole
- =Sewer Manhole
- =Hydrant
- =Gas Gate
- =Water Gate
- =Gas Gate
- =Water Gate
- =Utility Pole
- =Light Pole
- =Test Pit
- =Tree
- R=100.00 =Rim Elevation
- I=90.00 =Invert Elevation
- T.C.=103.00 =Top of Concrete Elevation
- 64x6 =Proposed Spot Elevation
- 64 =Proposed Contour Line
- 64 =Existing Contour Line
- 63x3 =Existing Spot Elevation
- x =Existing Fence
- =Proposed D-Stone
- S85°19'54"E 102.45' =Property Line W/Bearing & Distance

ZONING CHART			
50 HIGHLAND AVENUE, NEWTON, MASSACHUSETTS			
ZONE: MR-1 OLD			
REGULATION	REQUIRED	REQUIRED WITH SPECIAL PERMIT	PROPOSED 4 UNITS
LOT AREA	7,000S.F.	15,000S.F.	22,738S.F.
LOT AREA/UNIT	–	4,000S.F.	5,684.5S.F.
LOT FRONTAGE	70.0'	80.0'	106.50'
FRONT SETBACK	25.0'	25.0'	52.0'
SIDE SETBACK	7.5'	25.0'	25.5'/29.0'
REAR SETBACK	15.0'	25.0'	15.9'*
BUILDING HEIGHT UNIT 1 & 2	36.0'	36.0'	35.37'
AVERAGE GRADE UNIT 1 & 2	–	–	64.2
BUILDING HEIGHT UNIT 3 & 4	36.0'	36.0'	34.22'
AVERAGE GRADE UNIT 3 & 4	–	–	64.2
LOT COVERAGE	30%	25%	22.22%
OPEN SPACE	50%	50%	59.88%

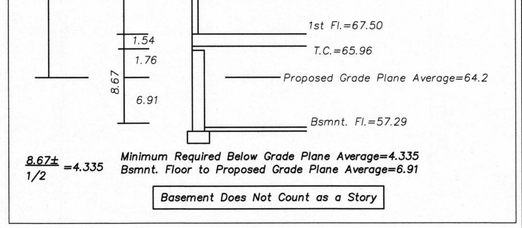
* DOES NOT MEET THE REQUIREMENT

Units 1 & 2 Proposed Height Calculation



8.67± / 1/2 =4.335
Minimum Required Below Grade Plane Average=4.335
Bsmnt. Floor to Proposed Grade Plane Average=6.91
Basement Does Not Count as a Story

Unit 2 & 3 Proposed Height Calculation



8.67± / 1/2 =4.335
Minimum Required Below Grade Plane Average=4.335
Bsmnt. Floor to Proposed Grade Plane Average=6.91
Basement Does Not Count as a Story

Dig Safe
•Excavators
Before you dig contact the Dig Safe Center. To prevent damage to telephone, gas or electric underground facilities of member utilities, call toll free Massachusetts state law requires notification at least three business days before you start digging operations. In an emergency, call immediately.

Dig Safe

REVISIONS	
DATE	DESCRIPTION

COMMONWEALTH OF MASSACHUSETTS — VERNE T. PORTER JR. — LAND SURVEYOR — 37759 — REGISTERED PROFESSIONAL LAND SURVEYOR

COMMONWEALTH OF MASSACHUSETTS — PAUL J. TYRRELL — CIVIL — No. 46510 — REGISTERED PROFESSIONAL ENGINEER

~Proposed Conditions Site Plan~

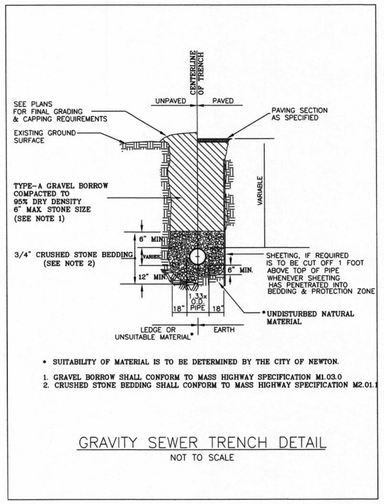
50 Highland Avenue
Newton, Massachusetts
Scale: 1"=20' September 9, 2021

VERNE T. PORTER Jr, PLS
Land Surveyors – Civil Engineers
354 Elliot Street, Newton, Ma. 02464

0 20 40 60 80

Sheet 2 of 5

Design By:GNB
Checked By:VTP
Drawn By:GNB

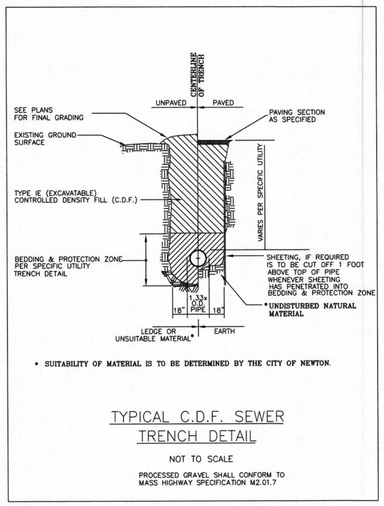


* SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF NEWTON.

1. GRAVEL BORROW SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M1.03.0
2. CRUSHED STONE BEDDING SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.1

GRAVITY SEWER TRENCH DETAIL

NOT TO SCALE

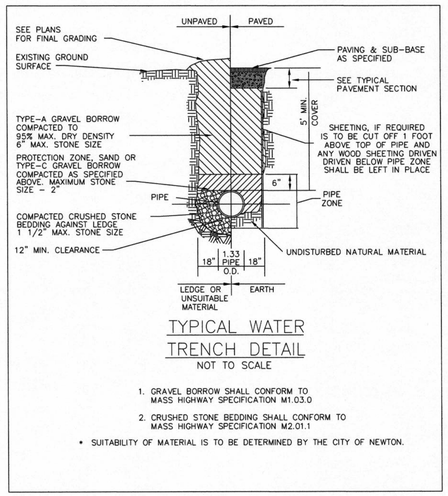


* SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF NEWTON.

TYPICAL C.D.F. SEWER TRENCH DETAIL

NOT TO SCALE

PROCESSED GRAVEL SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.7

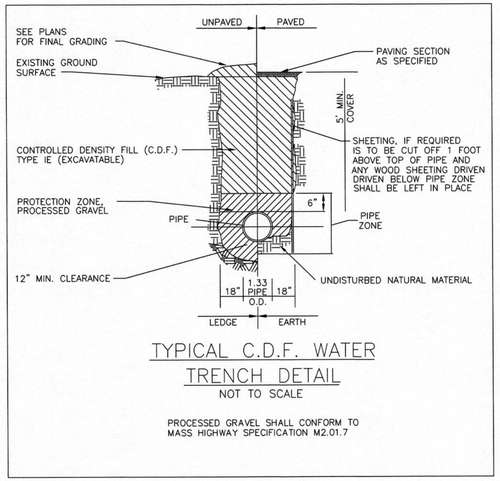


TYPICAL WATER TRENCH DETAIL

NOT TO SCALE

1. GRAVEL BORROW SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M1.03.0
2. CRUSHED STONE BEDDING SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.1

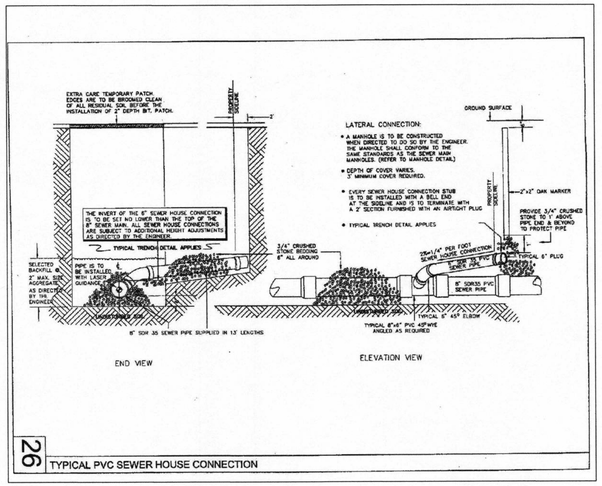
* SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF NEWTON.



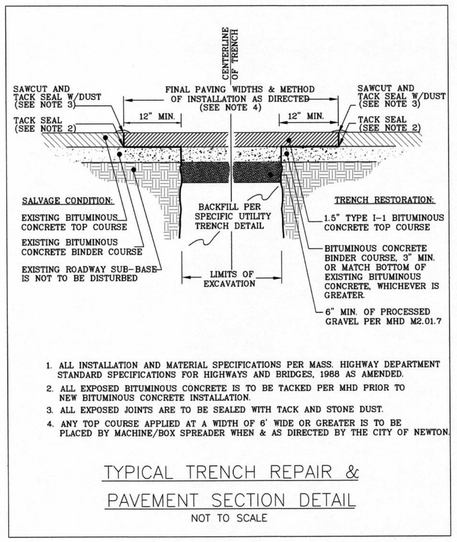
TYPICAL C.D.F. WATER TRENCH DETAIL

NOT TO SCALE

PROCESSED GRAVEL SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.7



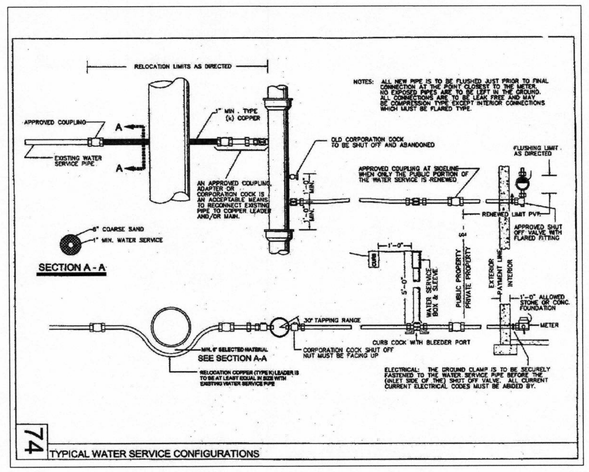
26 TYPICAL PVC SEWER HOUSE CONNECTION



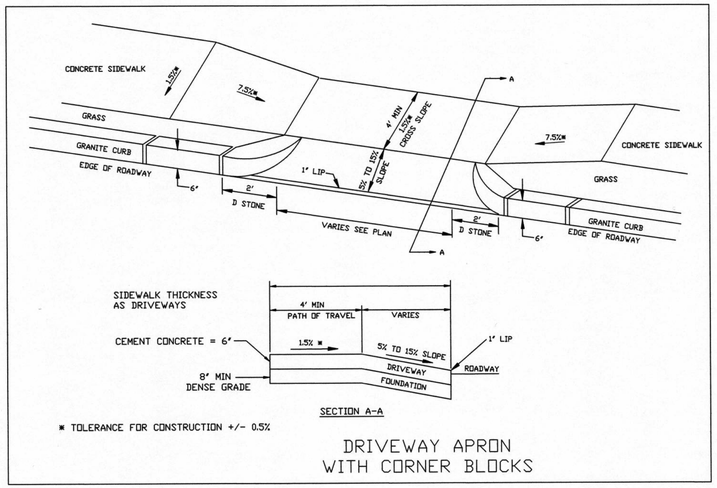
1. ALL INSTALLATION AND MATERIAL SPECIFICATIONS PER MASS. HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 1988 AS AMENDED.
2. ALL EXPOSED BITUMINOUS CONCRETE IS TO BE TACKED PER MHD PRIOR TO NEW BITUMINOUS CONCRETE INSTALLATION.
3. ALL EXPOSED JOINTS ARE TO BE SEALED WITH TACK AND STONE DUST.
4. ANY TOP COURSE APPLIED AT A WIDTH OF 6' WIDE OR GREATER IS TO BE PLACED BY MACHINE/BOX SPREADER WHEN & AS DIRECTED BY THE CITY OF NEWTON.

TYPICAL TRENCH REPAIR & PAVEMENT SECTION DETAIL

NOT TO SCALE



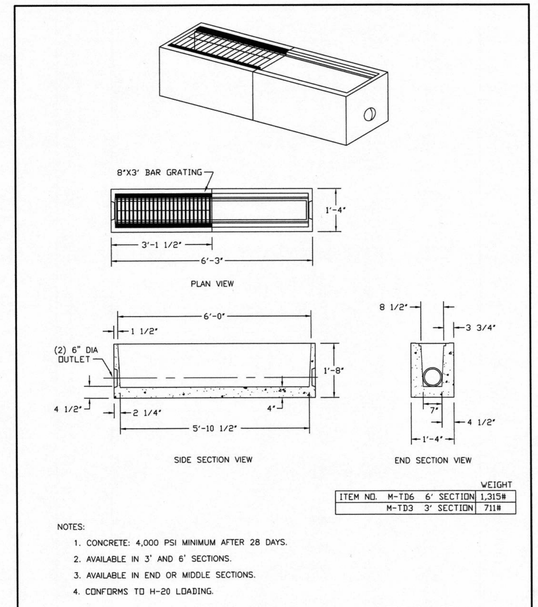
74 TYPICAL WATER SERVICE CONFIGURATIONS



SECTION A-A

* TOLERANCE FOR CONSTRUCTION +/- 0.5%

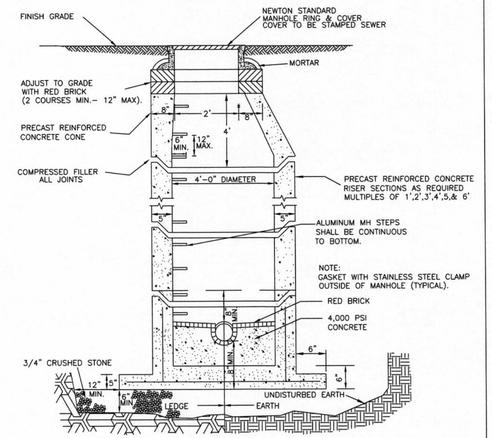
DRIVEWAY APRON WITH CORNER BLOCKS



WEIGHT		
ITEM NO.	M-TD6 6' SECTION	1,315#
	M-TD3 3' SECTION	711#

NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. AVAILABLE IN 3' AND 6' SECTIONS.
3. AVAILABLE IN END OR MIDDLE SECTIONS.
4. CONFORMS TO H-20 LOADING.

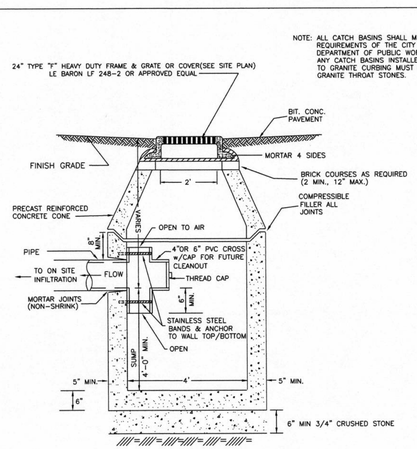
TRENCH DRAIN



TYPICAL PRECAST CONCRETE SEWER MANHOLE

(NOT TO SCALE)

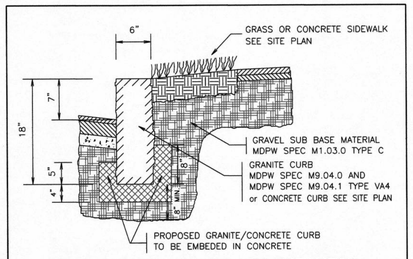
NSMH



TYPICAL PRECAST CONCRETE CATCH BASIN WITH GAS TRAP FOR RESIDENTIAL APPLICATION

(NOT TO SCALE)

NCBGT



TYPICAL GRANITE/CONCRETE CURB INSTALLATION

NOT TO SCALE

Dig Safe
eExcavators
Before you dig contact the Dig Safe Center. To prevent damage to telephone, gas or electric underground facilities of member utilities, call toll free
Massachusetts state law requires notification at least three business days before you start digging operations. In an emergency, call immediately.

DIG SAFE

Xref BORDER

REVISIONS	
DATE	DESCRIPTION

COMMONWEALTH OF MASSACHUSETTS — VERNE T. PORTER JR. — LAND SURVEYOR 37138 — REGISTERED PROFESSIONAL LAND SURVEYOR

COMMONWEALTH OF MASSACHUSETTS — PAUL J. TYRELL — CIVIL — No. 46849 — REGISTERED PROFESSIONAL ENGINEER

~Detail Sheet~

50 Highland Avenue

Newton, Massachusetts

Scale: As Noted September 9, 2021

VERNE T. PORTER Jr, PLS

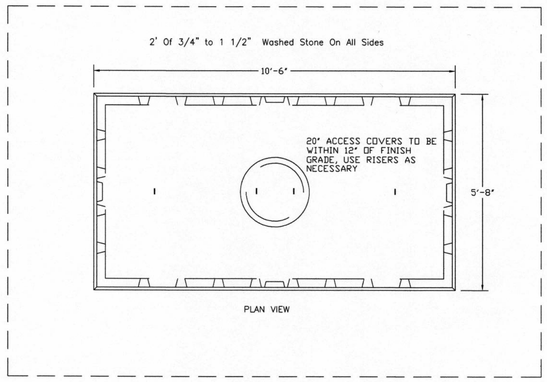
Land Surveyors – Civil Engineers

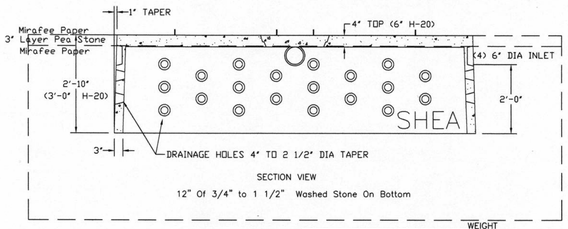
354 Elliot Street, Newton, Ma. 02464

0

Sheet 3 of 5

Design By:	
Checked By:	
Drawn By:	





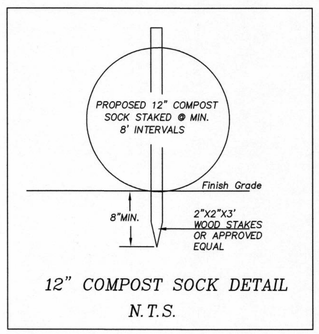
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ALSO AVAILABLE IN H-20 LOADING.

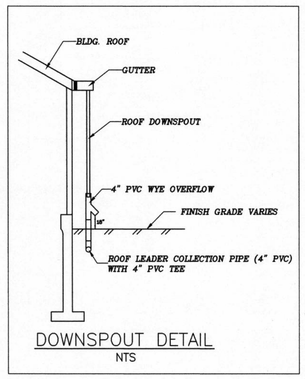
ITEM NO.	DW-JDW	STANDARD	WEIGHT 5,650#
	DW-JDWH	H-20	7,100#

1000 GALLON
DRY WELL
JUMBO

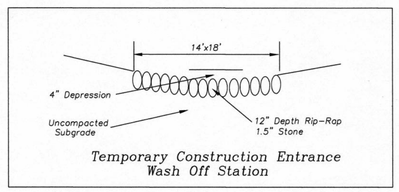
Dig Safe
•Excavators
Before you dig contact the Dig Safe Center. To prevent damage to telephone, gas or electric underground facilities of member utilities, call toll free
Massachusetts state law requires notification at least three business days before you start digging operations. In an emergency, call immediately.



12" COMPOST SOCK DETAIL
N.T.S.



DOWNSPOUT DETAIL
NTS



Temporary Construction Entrance
Wash Off Station

REVISIONS	
DATE	DESCRIPTION

~Detail Sheet~

50 Highland Avenue

Newton, Massachusetts

Scale: As Noted September 9, 2021

VERNE T. PORTER Jr, PLS
Land Surveyors – Civil Engineers
354 Elliot Street, Newton, Ma. 02464

0

Sheet 4 of 5

Design By:

Checked By:

Drawn By:

9
24007 0002
7819

15
24007 0003
11236

19
24007 0004
13724

95
24007 0005
11777

98
24012 0004A
22292

104
24012 0004
24801

269–271
24012 0007
15209

275–277
24012 0008
12804

281–283
24012 0009
9509

90
24012 0005
10269

24008 0001
27712

ELMWOOD PARK

LOWELL AVE

216
24009 0003
3926

218–222
24009 0002
10469

228
24009 0001A
8236

77
24008 0001
10273

76
24009 0005
6071

72
24009 0006
4826

66
24009 0007
11456

60
24009 0009
24160

24009 0010
12883

40
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13720

24009 0015
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11–15
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11700

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25–31
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13200

19
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31606

24009 0024
5651

309–321
24009 0019
8126

323–335
24009 0020
15855

HIGHLAND PARK

HIGHLAND TER

HIGHLAND AVE

63–65
24009 0041
16128

59–61
24009 0040
6008

69
24009 0042
16810

324
22006 0019
9000

330–334
22006 0020
11310

336–348
22006 0021
7460

22006 0022
10080

WASHINGTON PARK

50
24011 0034
22738

Driveway

Space

Garage

Unit #1

Space Garage

Unit #2

Space Garage

Unit #3

Space Garage

Unit #4

40
24011 0035
21400

34
24011 0036
9874

30
24011 0037
7052

47
24010 0002
9967

345
24010 0001
25909

WALNUT PL

WALNUT ST

37
24010 0003
11053

38
24011 0038
9773

25
24010 0004
6210

355
24011 0001
7481

84
22017 0020L
81458

80
24011 0030
6912

66–68
24011 0032
22239

72–78
24011 0031
22905

58–60
24011 0033
21865

256
24011 0029
4941

258
24011 0028
4275

264
24011 0024
6632

270
24011 0025
8543

23
24011 0023
9002

15
24011 0022
8173

11
24011 0020
6380

69
24011 0019
10130

85
24011 0027
9715

77
24011 0026
13127

63
24011 0018
18440

59
24011 0017
13230

51
24011 0016
30888

OTIS PL

OTIS ST

8
24011 0012
6695

7
24011 0011
7313

6
24011 0013
6060

4
24011 0014
6180

5
24011 0010
5893

3
24011 0009
5893

43
24011 0015
13184

35
24011 0008
8300

BRIAR LN

32
24011 0039
11776

28
24011 0040
4856

26
24011 0041
4298

27
24011 0007
17765

23
24011 0006
7486

17
24011 0005
7418

22
24011 0042
8809

363
24011 0002
10240

369
24011 0003
9000

377
24011 0004
24100

3–7
22017 0019
8494

378
22017 0012
10625

OTIS ST

REVISIONS	
DATE	DESCRIPTION

COMMONWEALTH OF MASSACHUSETTS
VERNE T. PORTER JR.
LAND SURVEYOR
37738
REGISTERED PROFESSIONAL ENGINEER

~Area Plan~

50 Highland Avenue

Newton, Massachusetts

Scale: 1"=40' September 9, 2021

VERNE T. PORTER Jr, PLS

Land Surveyors – Civil Engineers

354 Elliot Street, Newton, Ma. 02464

0 40 80 120 160

Sheet 5 of 5

Design By:GNB

Checked By:VTP

Drawn By:GNB