

LOCUS MAP
(NOT TO SCALE)

SITE DEVELOPMENT PLANS FOR APPLE HILL ESTATES 31 HUNTING LANE SHERBORN, MA 01770

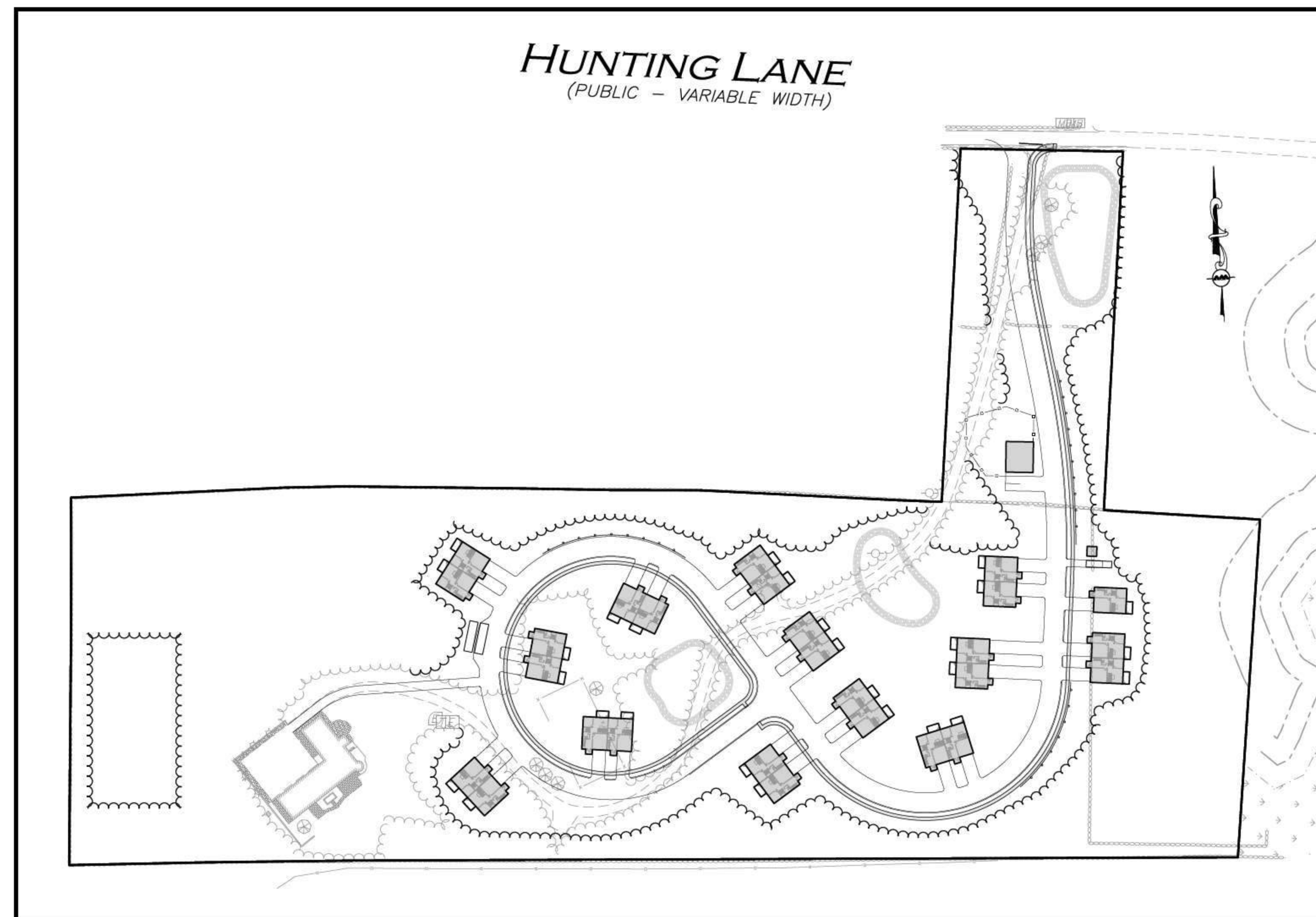
OWNER/APPLICANT:
BARKS ESTATE REALTY TRUST
23 HUNTING LANE
SHERBORN, MA 01770

SITE ENGINEER & LAND SURVEYOR:
ALLEN & MAJOR ASSOCIATES, INC.
100 COMMERCE WAY
WOBBURN, MA 01801

40B CONSULTANT
LDS CONSULTING GROUP, LLC
233 NEEDHAM STREET
NEWTON, MA 02464

TRAFFIC ENGINEER:
VANASSE & ASSOCIATES INC
35 NEW ENGLAND BUSINESS CENTER DR
SUITE 140
ANDOVER, MA 01810

WASTEWATER & DRINKING WATER ENGINEER:
ONSITE ENGINEERING, INC.
279 EAST CENTRAL STREET, PMB 241
FRANKLIN, MA 02038



LIST OF DRAWINGS

DRAWING TITLE	SHEET NO.	ISSUED	REVISED
EXISTING CONDITIONS	V-101	09-01-20	-
BY-RIGHT SUBDIVISION PLAN - OPTION 2	C-101	10-01-20	-
LAYOUT & MATERIALS PLAN	C-102	10-01-20	-
GRADING & DRAINAGE PLAN	C-103	10-01-20	-
UTILITIES PLAN	C-104	10-01-20	-
EASEMENT PLAN	C-105	10-01-20	-
DETAILS	C-501	10-01-20	-
DETAILS	C-502	10-01-20	-
DETAILS	C-503	10-01-20	-
DETAILS	C-504	10-01-20	-



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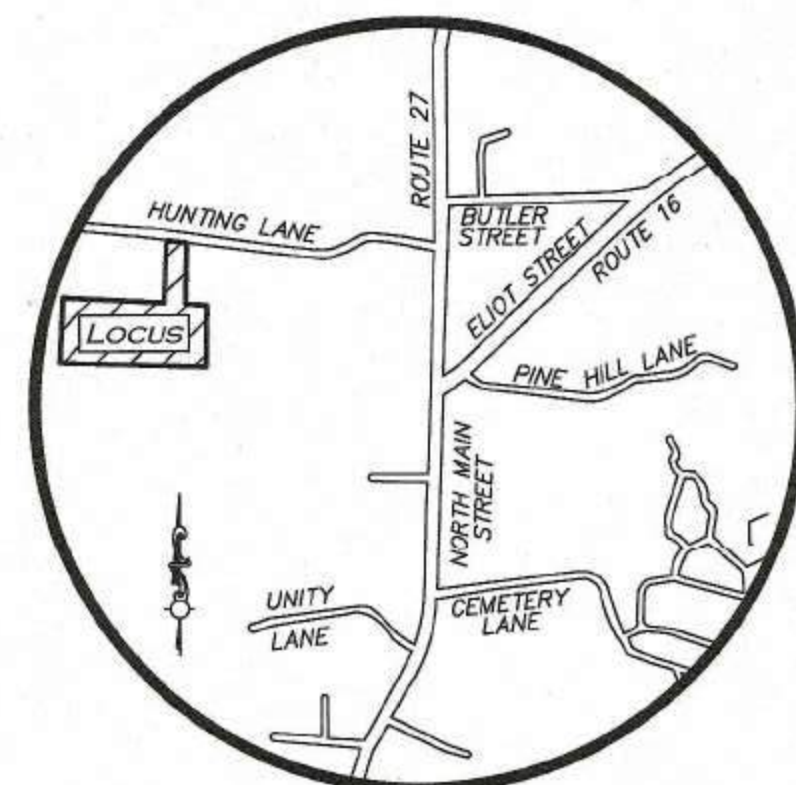


**ALLEN & MAJOR
ASSOCIATES, INC.**
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environmental consulting • landscape architecture
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ISSUED FOR ZBA APPLICATION: OCTOBER 1, 2020

R:\PROJECTS\2513-02\CIVIL\DRAWINGS\CURRENT\C-2513-02_COVER SHEET.DWG



LOCUS MAP
(NOT TO SCALE)

LEGEND

DRILL HOLE (DH)	●
SEWER MANHOLE (SMH)	⊗
TELEPHONE BOX	⊠
ELECTRIC BOX	⊡
ELECTRIC METER	⊢
IRRIGATION CONTROL VALVE	⊣
TREE	⊤
AREA DRAIN	⊥
UTILITY POLE	⊦
UTILITY POLE W/ RISER	⊧
CATCH BASIN (CB)	⊨
MAILBOX	⊩
2' CONTOUR	---268---
10' CONTOUR	---270---
PROPERTY LINE	---
STONE WALL	—●—
ABUTTERS LINE	—○—
TREE LINE	—x—
EDGE OF PAVEMENT	—+—
CHAIN LINK FENCE	—x—
WOOD FENCE	—□—
OVERHEAD WIRES	—OHW—
FINISHED FLOOR ELEVATION	FFE
NOW OR FORMERLY	N/F
BOOK	BK.
PAGE	PG.

LOCUS REFERENCES

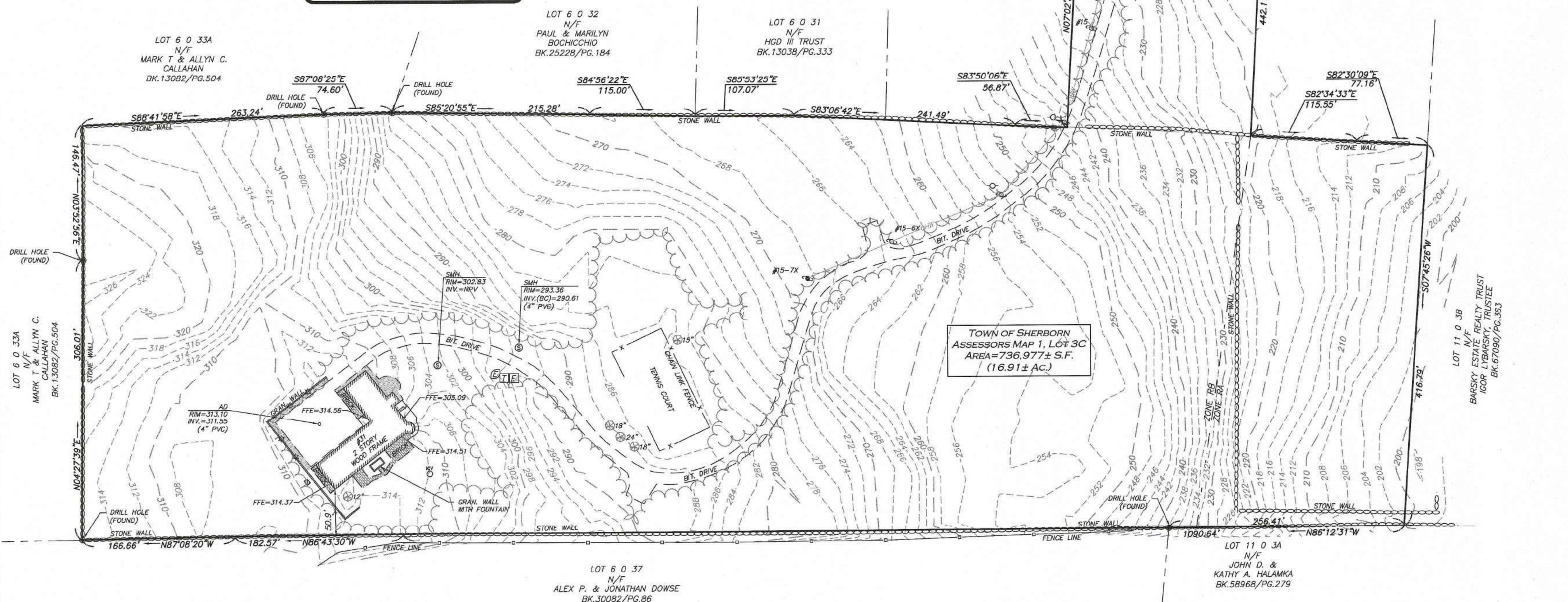
- TOWN OF SHERBORN ASSESSORS MAP 11, LOT 03C
- RECORD OWNER: BARKSKY ESTATE REALTY TRUST
- DEED BOOK 67090, PAGE 363
- PLAN 194 OF 1994

PLAN REFERENCES

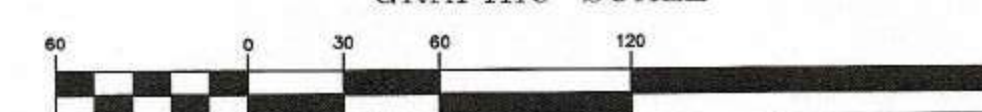
- PLAN 853 OF 1963
- PLAN 1206 OF 1976
- PLAN 401 OF 1994

NOTES

- NORTH ARROW IS BASED ON MASSACHUSETTS GRID COORDINATE SYSTEM (MAINLAND ZONE) (NAD 83).
- BOOK/PAGE AND PLAN REFERENCES ARE TAKEN FROM MIDDLESEX (SOUTH) REGISTRY OF DEEDS IN CAMBRIDGE, MA.
- VERTICAL DATUM IS NAVD 88 ESTABLISHED USING RTK GPS OBSERVATION.
- CONTOUR INTERVAL IS ONE FOOT (2').



GRAPHIC SCALE



N:\PROJECTS\2513-02\SURVEY\DRAWINGS\CURRENT\5-2513-02-EC.DWG

WE HEREBY CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED ON OR BETWEEN JULY 15, 2020 AND JULY 22, 2020.

PROFESSIONAL LAND SURVEYOR FOR
ALLEN & MAJOR ASSOCIATES, INC.



REV	DATE	DESCRIPTION
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APPLICANT/OWNER:

BARKSKY ESTATE REALTY TRUST
23 HUNTING LANE
SHERBORN, MA 01770

PROJECT:

31 HUNTING LANE
SHERBORN, MA

PROJECT NO. 2513-02 DATE: 09/01/20

SCALE: 1" = 60' DWG. NAME: 5-2513-02-EC

DRAFTED BY: AJR CHECKED BY: NIL

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
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environmental consulting • landscape architecture
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WOBBURN MA 01801-8501
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DRAWING TITLE:

EXISTING CONDITIONS

SHEET No.

V-101

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ITEM	REQUIRED		PROPOSED
	RA DISTRICT	RB DISTRICT	
MINIMUM LOT AREA	1 ACRE	2 ACRES	>2 ACRES
MINIMUM FRONTAGE	150 FEET	200 FEET	200 FEET
MINIMUM LOT WIDTH	150 FEET	200 FEET	>200 FEET
MINIMUM LOT DEPTH	N/A	N/A	N/A
MINIMUM FRONT SETBACK	60 FEET	60 FEET	>60 FEET
MINIMUM SIDE SETBACK	30 FEET	40 FEET	>40 FEET
MINIMUM REAR SETBACK	30 FEET	30 FEET	>30 FEET
MAXIMUM HEIGHT (STORIES)	2.5	2.5	<2.5
MAXIMUM HEIGHT (FEET)	35 FEET	35 FEET	<35 FEET
MAXIMUM LOT COVERAGE	N/A	N/A	N/A

PROP. PROPERTY LINE _____
SETBACK LINE _____

1. MINIMUM LOT WIDTH SHALL BE MEASURED AT FRONT SETBACK LINE AND AT BUILDING LINE. AT NO POINT BETWEEN THE REQUIRED FRONTAGE AND THE BUILDING LINE SHALL LOT WIDTH BE REDUCED TO LESS THAN 50 FEET, WITHOUT EXCEPTION FROM THE PLANNING BOARD.

1. THE PROPERTY BOUNDARY SHOWN HEREON WAS TAKEN FROM PLAN TITLED "PLAN OF LAND, SHERBORN, MA" PREPARED FOR WILMA I. & ORVILLE J. BROWN, PREPARED BY METROWEST ENGINEERING, INC., DATED OCTOBER 1, 1993, LAST REVISED NOVEMBER 4, 1993. THE PROPERTY LINE HAS NOT BEEN VERIFIED BY A FIELD SURVEY BY ALLEN & MAJOR ASSOCIATES, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AERIAL IMAGERY AND MASS GIS DATA. THE EXISTING CONDITIONS AND TOPOGRAPHY HAVE NOT BEEN VERIFIED BY A FIELD SURVEY BY ALLEN & MAJOR ASSOCIATES, INC.
3. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

APPLICANT\OWNER:

PROJECT:

PROJECT NO.	2513-02	DATE:	11-14-19
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SCALE:	1" = 60'	DWG. NAME:	C2513-02
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DESIGNED BY:	SM	CHECKED BY:	MAM
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PREPARED BY:



civil engineering ♦ land surveying
environmental consulting ♦ landscape architecture
www.allenmaier.com

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DRAWING TITLE:	SHEET No.
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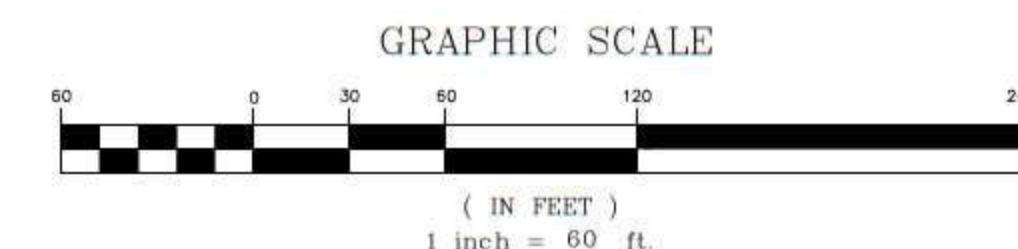
BY-RIGHT SUBDIVISION
PLAN - OPTION 2

SHEET No.

C-101

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REQUIRED RELIEF:

1. RULES AND REGULATIONS
1.1. § 4.1.4 MAXIMUM OF ONE SINGLE FAMILY RESIDENTIAL DWELLING PER LOT
1.2. § 4.3.7.b. MAXIMUM LENGTH OF DEAD-END STREET. 600 FEET ALLOWED, 1,150 FEET PROPOSED

GENERAL NOTES:

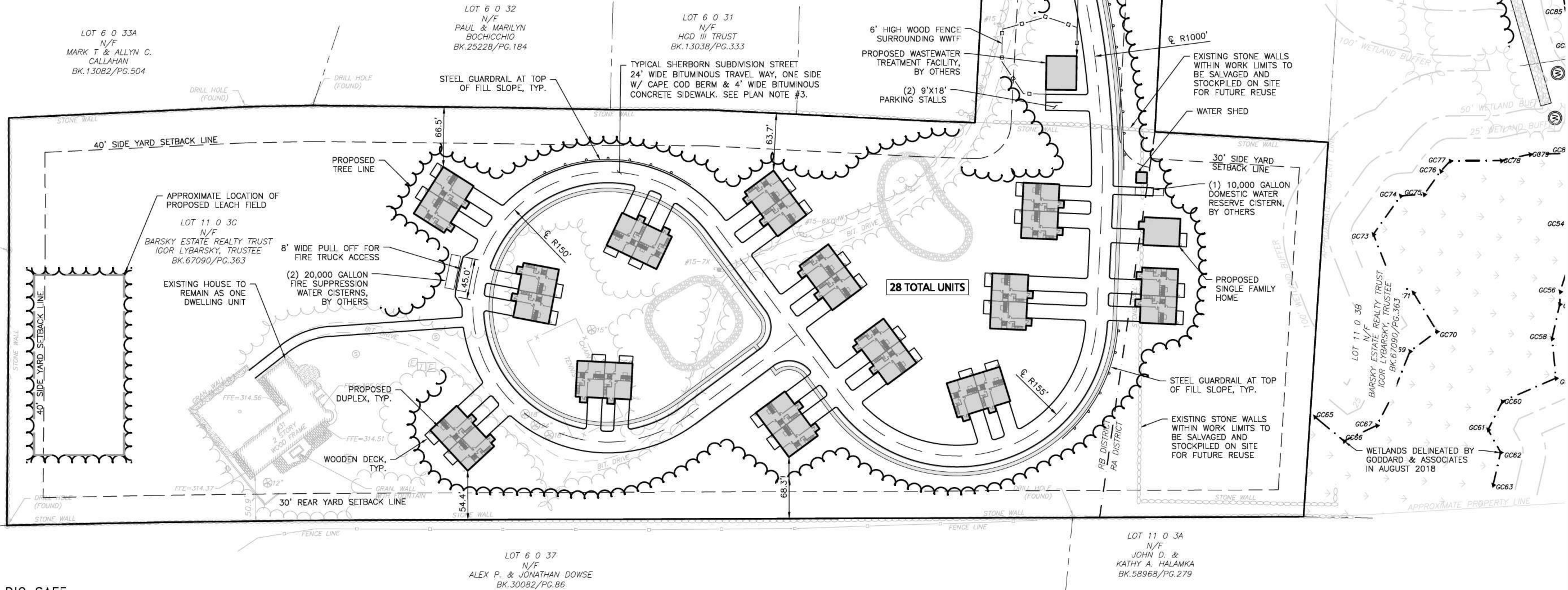
1. THIS PROJECT WILL BE SERVED BY PUBLIC TELEPHONE, CABLE AND ELECTRIC. ALL UTILITY LINES WILL BE INSTALLED UNDERGROUND. SANITARY SEWER WILL BE PROVIDED BY ON-SITE SUBSURFACE DISPOSAL SYSTEM. WATER WILL BE PROVIDED BY PRIVATE WELL.
2. ANY DAMAGE TO PRIVATE OR PUBLIC PROPERTIES DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
3. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. ALL PROPERTY MARKERS AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED AND RESTORED BY A SURVEYOR REGISTERED IN THE STATE OF MASSACHUSETTS AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION MEETING WITH THE TOWN, THE APPROPRIATE UTILITY COMPANIES, THE OWNER AND OWNER'S REPRESENTATIVE. THE MEETING SHALL TAKE PLACE PRIOR TO THE START OF CONSTRUCTION AND THE CONTRACTOR MUST PROVIDE 48 HOURS NOTICE TO ALL ATTENDEES PRIOR TO THE START OF THE MEETING.
6. APPROPRIATE WARNING SIGNS, MARKERS, BARRICADES AND/OR FLAGMEN SHALL BE PROVIDED TO REGULATE TRAFFIC. CONSTRUCTION TRAFFIC CONTROL SHALL BE IMPLEMENTED PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE LOCAL AUTHORITY.
7. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ADDITIONAL BENCHMARK INFORMATION IF REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING BENCHMARKS. IF IT IS NECESSARY TO RELOCATE A BENCHMARK, IT SHALL BE RELOCATED BY A MASSACHUSETTS PROFESSIONAL LAND SURVEYOR AND DONE SO AT THE CONTRACTOR'S EXPENSE.
8. ALL PERMITS AND APPROVALS NECESSARY FROM AGENCIES GOVERNING THE WORK SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORK.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY SITE WORK OR EARTH-WORK OPERATIONS, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITE WORK IS COMPLETE AND GROUND COVER IS ESTABLISHED. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY BY ON SITE INSPECTIONS BY THE OWNER, THEIR REPRESENTATIVES, OR REGULATORY AGENCIES HAVING JURISDICTION AT NO ADDITIONAL COST TO THE OWNER.
10. CONSTRUCTION DURING WET WEATHER OR WINTER CONDITIONS IS TO BE ANTICIPATED AND PROVISIONS TO ADEQUATELY ADDRESS THESE CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE TOWN, MADOT, MADEP, MUTCD, AND AASHTO.
12. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK, OR THE OWNER'S EMPLOYEES, CUSTOMERS, OR THE GENERAL PUBLIC. THE SEAL OF THE ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), STATE, AND LOCAL REGULATIONS.
13. GRANITE CURBING REMOVED FROM PUBLIC ROADS SHALL BE STOCKPILED AND RETURNED TO THE RESPECTIVE TOWN DPW.
14. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COSTS SHALL BE INCLUDED IN BASE BID.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWN'S GOVERNING AUTHORITY'S SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COSTS SHALL BE INCLUDED IN BASE BID.
16. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK. THE CONTRACTOR SHALL ALSO CONTACT THE CITY DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF LOCAL UTILITIES.

PLAN NOTES:

1. EXISTING CONDITIONS WERE COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES AS WELL AS AVAILABLE RECORD PLANS OBTAINED FROM THE TOWN ENGINEERING DEPARTMENT AND OTHER SOURCES.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
3. SLOPED GRANITE CURBING SHALL BE INSTALLED AT ALL STREET INTERSECTIONS ON THE CURVE AND EXTENDING AT LEAST EIGHT FEET BEYOND THE TANGENT POINT. SLOPED GRANITE CURBING SEGMENTS AT LEAST EIGHT FEET IN LENGTH SHALL ALSO BE INSTALLED AT ALL CATCH BASINS SO AS TO EXTEND NOT LESS THAN FOUR FEET IN EITHER DIRECTION FROM THE CATCH BASIN CENTER LINE.
4. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
5. WRITTEN DIMENSIONS ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS OR CONDITIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR. ALL SITE ITEMS SHALL BE LAID OUT AND AS BUILT BY A LICENSED LAND SURVEYOR.
6. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.

ZONING SUMMARY TABLE RESIDENTIAL A & RESIDENTIAL B (RA & RB) DISTRICT			
ITEM	REQUIRED RA DISTRICT	REQUIRED RB DISTRICT	PROPOSED MAP 11 LOT 30
MINIMUM LOT AREA	1 ACRE	2 ACRES	16.91 ACRES
MINIMUM FRONTAGE	150 FEET	200 FEET	200 FEET
MINIMUM LOT WIDTH	150 FEET	200 FEET	200 FEET
MINIMUM LOT DEPTH	N/A	N/A	N/A
MINIMUM FRONT SETBACK	60 FEET	60 FEET	359.5 FEET
MINIMUM SIDE SETBACK	30 FEET	40 FEET	63.7 FEET
MINIMUM REAR SETBACK	30 FEET	30 FEET	54.4 FEET
MAXIMUM HEIGHT (STORIES)	2.5	2.5	2 STORIES
MAXIMUM HEIGHT (FEET)	35 FEET	35 FEET	<35 FEET
MAXIMUM LOT COVERAGE	N/A	N/A	N/A

ZONING SUMMARY TABLE NOTES:
1. MINIMUM LOT WIDTH SHALL BE MEASURED AT FRONT SETBACK LINE AND AT BUILDING LINE. AT NO POINT BETWEEN THE REQUIRED FRONTAGE AND THE BUILDING LINE SHALL LOT WIDTH BE REDUCED TO LESS THAN 50 FEET, WITHOUT EXCEPTION FROM THE PLANNING BOARD.



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PROFESSIONAL ENGINEER FOR:
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
3	10-01-2020	ISSUED FOR ZBA APPLICATION
2	05-19-2020	MISC. REV. PER MASS-HOUSING & ABUTTER WALK
1	01-21-2020	MISCELLANEOUS REVISIONS

APPLICANT/OWNER:

BARSKY ESTATE REALTY TRUST
23 HUNTING LANE
SHERBORN, MA 01770

PROJECT:

APPLE HILL ESTATES
31 HUNTING LANE
SHERBORN, MA 01770

PROJECT NO. 2513-02 DATE: 11-14-19

SCALE: 1" = 60' DWG. NAME: C2513-02

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil engineering • land surveying
environmental consulting • landscape architecture
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DRAWING TITLE: SHEET No.

LAYOUT & MATERIALS
PLAN
C-102

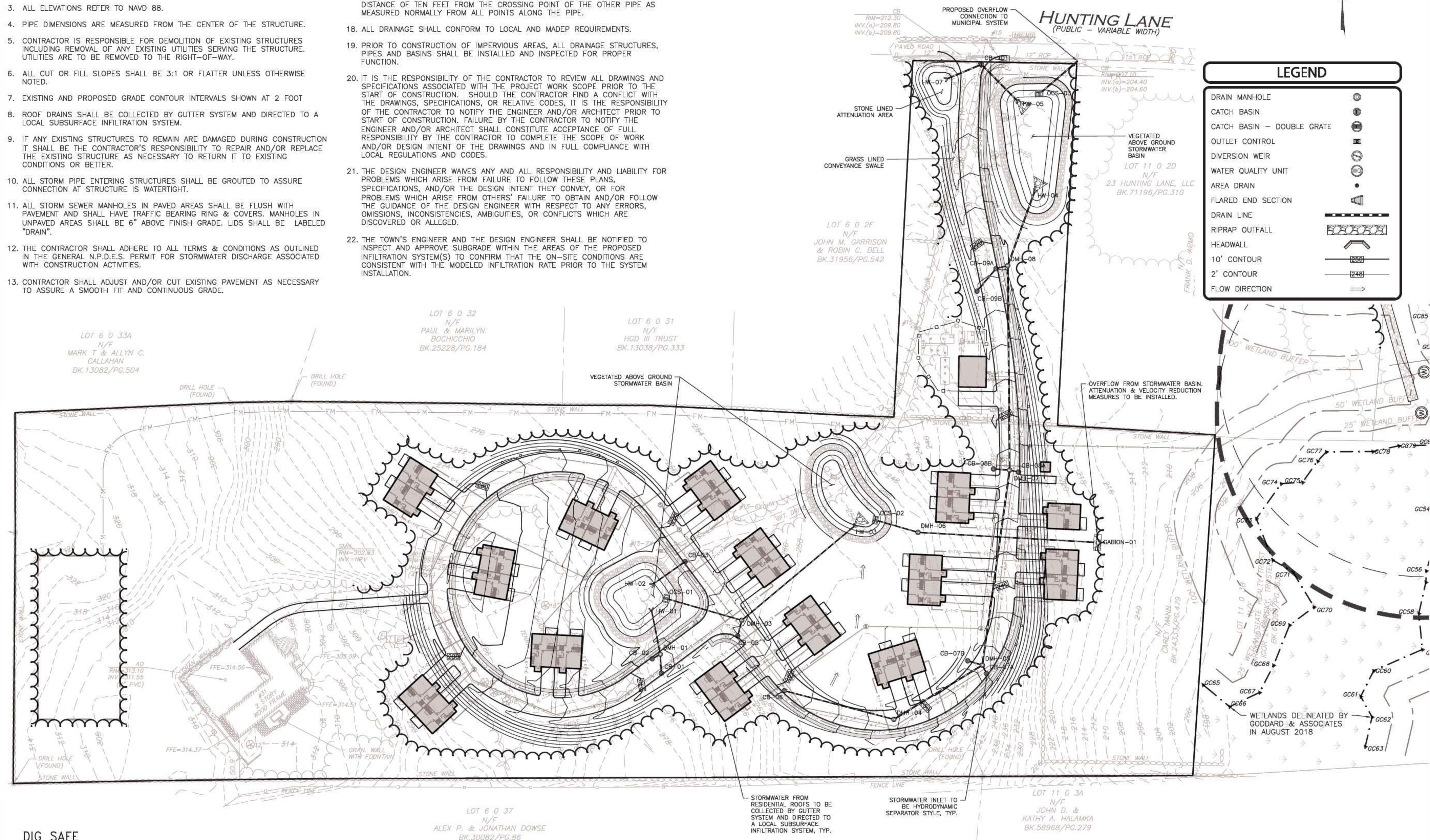
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1. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING LOCAL, MDOT, MADEP, MUTCD, AND ASHTO.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK, OR THE OWNER'S EMPLOYEES, CUSTOMERS, OR THE GENERAL PUBLIC. THE SEAL OF THE ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE
3. ALL ELEVATIONS REFER TO NAVD 88.
4. PIPE DIMENSIONS ARE MEASURED FROM THE CENTER OF THE STRUCTURE.
5. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
6. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
7. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 2 FOOT
8. ROOF DRAINS SHALL BE COLLECTED BY GUTTER SYSTEM AND DIRECTED TO A LOCAL SUBSURFACE INFILTRATION SYSTEM.
9. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
10. ALL STORM PIPE EXISTING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
11. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "DRAIN".
12. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
13. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

14. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
15. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH COUNTY SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
16. ALL CATCH BASINS ON-SITE SHALL BE EQUIPPED WITH HOODS AND 4 FOOT SUMPS AND SHALL CONFORM TO LOCAL DRAINAGE REQUIREMENTS.
17. A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER SERVICES CROSS STORM DRAIN LINES. WATER SERVICES SHALL BE ENCASED IN CONCRETE REGARDLESS OF CLEARANCE WHEN PASSING BELOW STORM DRAIN LINES. ENCASEMENT SHALL EXTEND ALONG WATER SERVICE A MINIMUM DISTANCE OF TEN FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
18. ALL DRAINAGE SHALL CONFORM TO LOCAL AND MADEP REQUIREMENTS.
19. PRIOR TO CONSTRUCTION OF IMPERVIOUS AREAS, ALL DRAINAGE STRUCTURES, PIPES AND BASINS SHALL BE INSTALLED AND INSPECTED FOR PROPER FUNCTION.
20. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
21. THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.
22. THE TOWN'S ENGINEER AND THE DESIGN ENGINEER SHALL BE NOTIFIED TO INSPECT AND APPROVE SUBGRADE WITHIN THE AREAS OF THE PROPOSED INFILTRATION SYSTEM(S) TO CONFIRM THAT THE ON-SITE CONDITIONS ARE CONSISTENT WITH THE MODELED INFILTRATION RATE PRIOR TO THE SYSTEM INSTALLATION.

DIGSAFE: 1-800-344-7233
SHERBORN DEPARTMENT OF PUBLIC WORKS: 508-651-7878

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R:\PROJECTS\2513-02\CIVIL\DRAWINGS\CURRENT\C-2513-02_GRADING & DRAINAGE.DWG

PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

3	10-01-2020	ISSUED FOR ZBA APPLICATION
2	05-19-2020	MISC. REV. PER MASSHOUSING & ABUTTER WALK
1	01-21-2020	MISCELLANEOUS REVISIONS
REV	DATE	DESCRIPTION

APPLICANT\OWNER:

BARSKY ESTATE REALTY TRUST
23 HUNTING LANE
SHERBORN, MA 01770

PROJECT:

APPLE HILL ESTATES
31 HUNTING LANE
SHERBORN, MA 01770

PROJECT NO.	2513-02	DATE:	11-14-19
SCALE:	1" = 60'	DWG. NAME:	C2513-02
DESIGNED BY:	SM	CHECKED BY:	MAM

PREPARED BY:



ALLEN & MAJOR
ASSOCIATES, INC.
civil engineering ♦ land surveying
environmental consulting ♦ landscape architecture
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DRAWING TITLE:

GRADING & DRAINAGE PLAN

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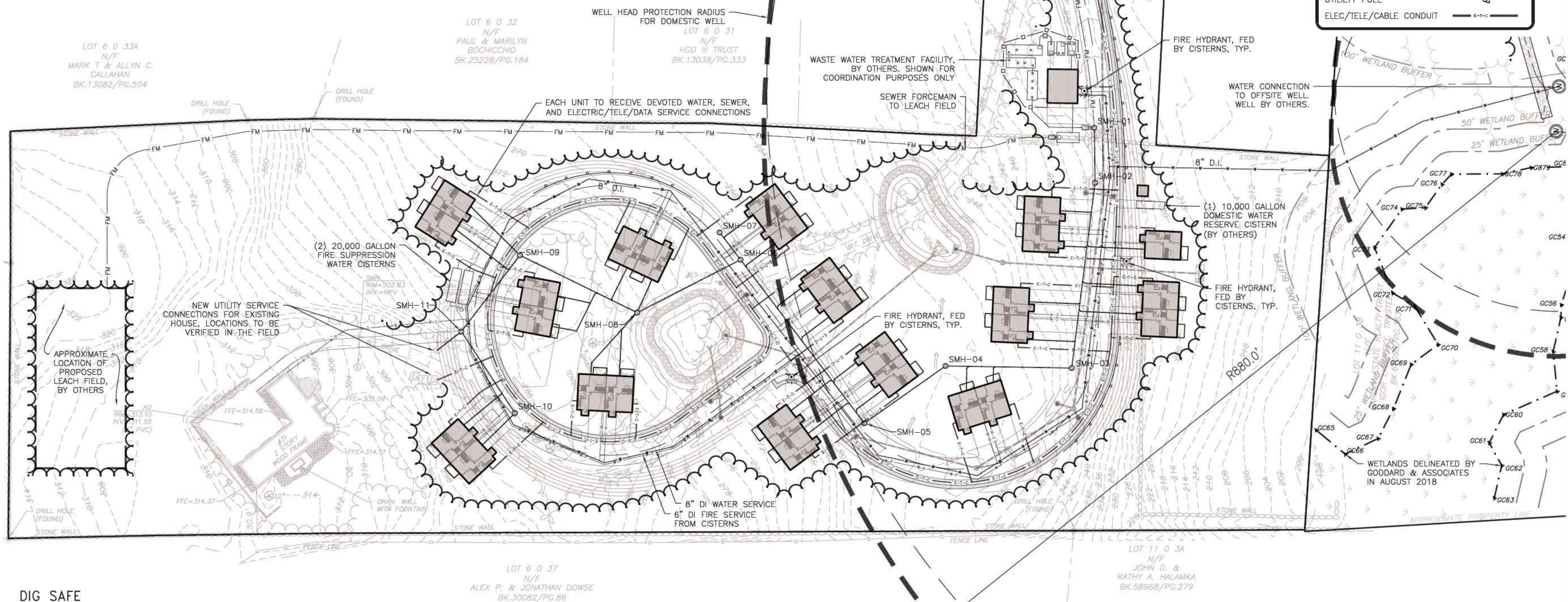
SHEET No.

C-103

UTILITY NOTES:

1. A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY SEWER MAINS AND/OR STORM DRAINS. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN, THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE DIFFERENCE IN ELEVATION BETWEEN THE WATER MAIN AND THE SEWER MAIN SHALL BE AT LEAST 18 INCHES.
2. IN THE CASE THAT WATER MAINS CROSS SANITARY SEWER MAINS AND ARE SEPARATED BY LESS THAN 18" OF VERTICAL CLEARANCE, THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR THE ENTIRE WIDTH OF THE TRENCH AND FOR A DISTANCE OF 8 LINEAR FEET CENTERED ON THE CROSSING.
3. THE CONTRACTOR SHALL REFER TO ARCHITECTS PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL ROOF DRAIN LATERALS AND UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRIC, TELEPHONE, AND OIL/GAS SERVICE. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND COORDINATE WITH THE PROPER AGENCY THE LOCATION AND SCHEDULING OF CONNECTIONS WITH THEIR FACILITIES.
4. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION. THE ENGINEER WILL THEN PROVIDE RESOLUTION TO UTILITY CONFLICTS WITHOUT DELAY.
5. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING LOCAL, MADOT, MADEP, MUTCD, AND AASHTO.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS OF THE SITE. THESE PLANS PREPARED BY ALLEN & MAJOR ASSOCIATES, INC., DO NOT EXTEND TO, NOR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THE EMPLOYEES, AGENTS OF REPRESENTATIVES IN PERFORMANCE OF THE WORK. THE SEAL OF THE ARCHITECT OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OF OBTAIN THE APPROPRIATE SAFETY SYSTEMS THAT MAY BE REQUIRED BY THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
7. ALL ELEVATIONS REFER TO NAVD 88.

8. PIPE DIMENSIONS ARE MEASURED FROM THE INSIDE FACE OF THE STRUCTURE.
9. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
10. LOCATION OF PROPOSED ELECTRICAL/COMMUNICATION SERVICE IS SCHEMATIC IN NATURE AND FOR COORDINATION PURPOSES ONLY. SPECIFIC ALIGNMENTS ARE TO BE DESIGNED BY OTHERS AND REVIEWED BY THE UTILITY PROVIDING SERVICE. PROPOSED ELECTRICAL SERVICE TO BE BURIED IN ACCORDANCE WITH LOCAL REGULATIONS AND ELECTRIC COMPANY.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
12. THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.
13. THE CONTRACTOR SHALL CONTACT "DIGSAFE" AND THE TOWN OF SHERBORN, DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE LOCATION OF THE EXISTING UTILITIES.
DIGSAFE: 1-800-344-7233
SHERBORN DEPARTMENT OF PUBLIC WORKS: 508-651-7878
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PROJECT:

APPLE HILL ESTATES
31 HUNTING LANE
SHERBORN, MA 01770

PROJECT NO. 2513-02 DATE: 11-14-19

SCALE: 1" = 60' DWG. NAME: C2513-02

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

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civil engineering • landscape architecture
environmental consulting • landscape architecture
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DRAWING TITLE: UTILITIES PLAN SHEET NO. C-104

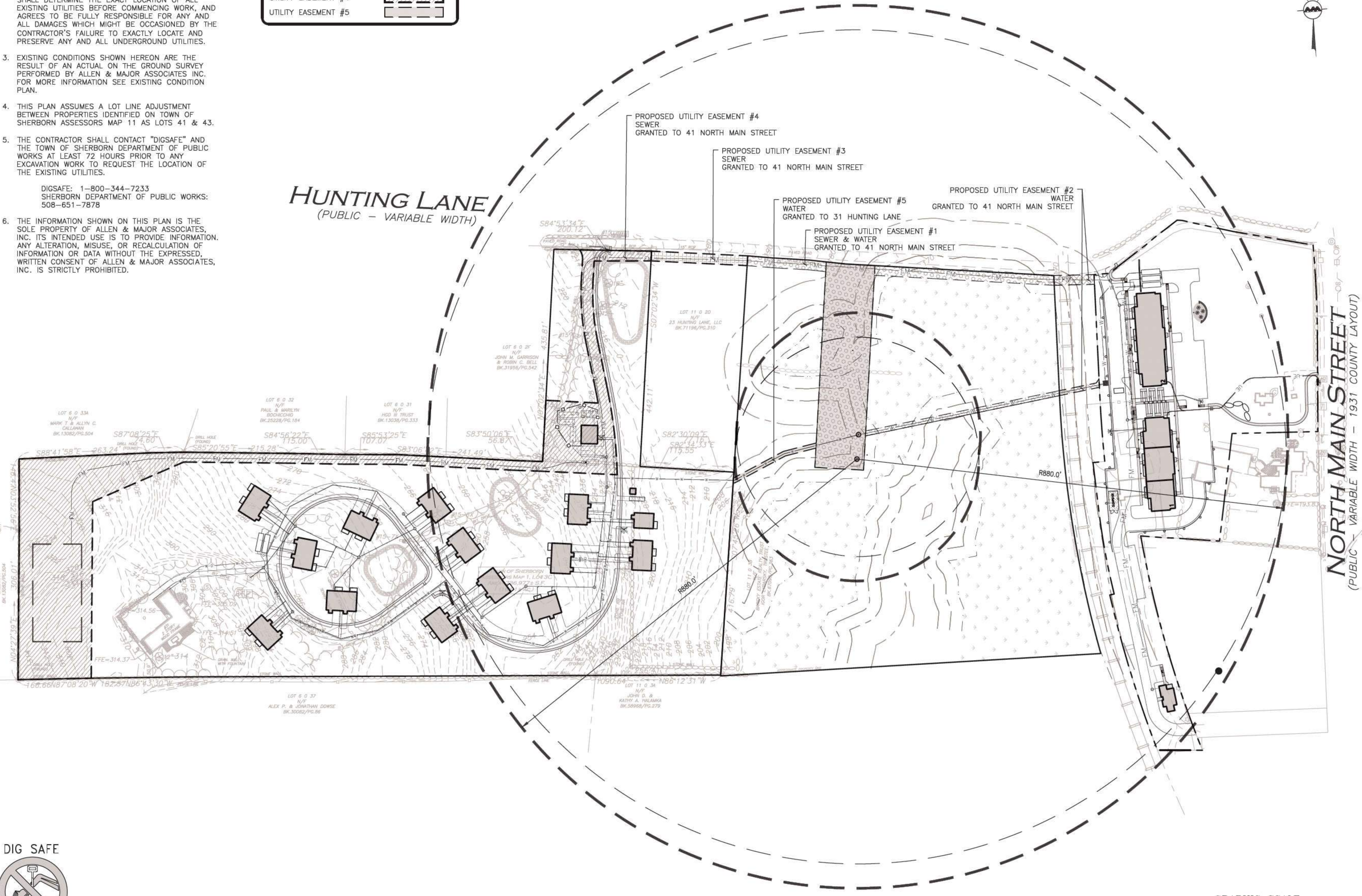
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NOTES:

1. THIS EASEMENT PLAN IS CONCEPTUAL IN NATURE AND IS NOT INTENDED FOR CONSTRUCTION. IT IS UNDERSTOOD THE DESIGN MAY BE REVISED AS THE PROJECT PROGRESSES.
2. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
3. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES INC. FOR MORE INFORMATION SEE EXISTING CONDITION PLAN.
4. THIS PLAN ASSUMES A LOT LINE ADJUSTMENT BETWEEN PROPERTIES IDENTIFIED ON TOWN OF SHERBORN ASSESSORS MAP 11 AS LOTS 41 & 43.
5. THE CONTRACTOR SHALL CONTACT "DIGSAFE" AND THE TOWN OF SHERBORN DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE LOCATION OF THE EXISTING UTILITIES.

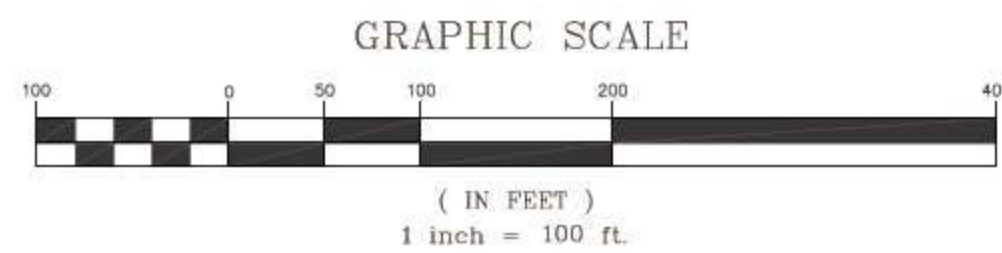
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LEGEND	
UTILITY EASEMENT #1	
UTILITY EASEMENT #2	
UTILITY EASEMENT #3	
UTILITY EASEMENT #4	
UTILITY EASEMENT #5	



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SHERBORN, MA 01770

PROJECT NO.	2513-02	DATE:	11-14-19
SCALE:	1" = 100'	DWG. NAME:	C2513-02
DESIGNED BY:	SM	CHECKED BY:	MAM

PREPARED BY:

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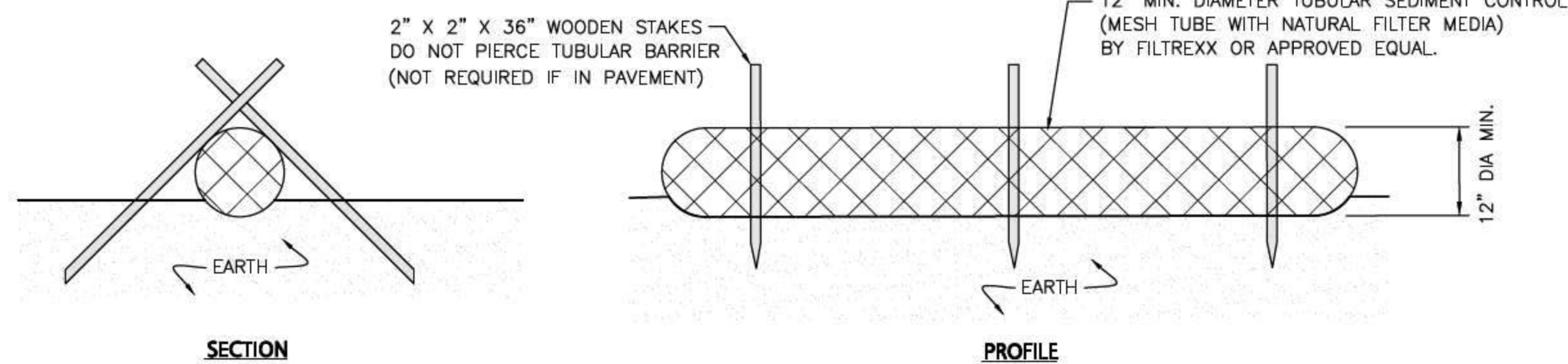
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DRAWING TITLE:	SHEET NO.
PROPOSED EASEMENT PLAN	C-105

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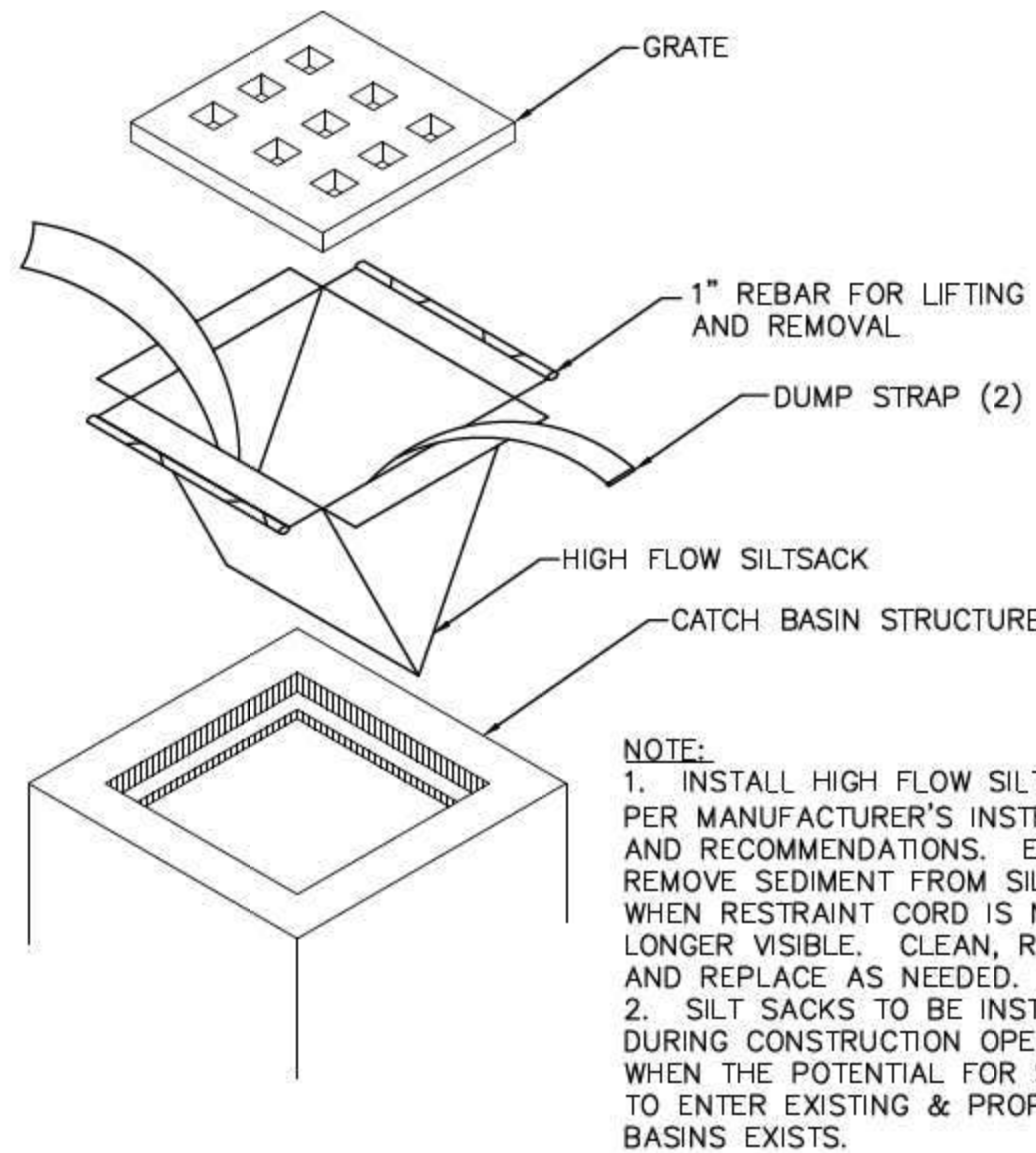
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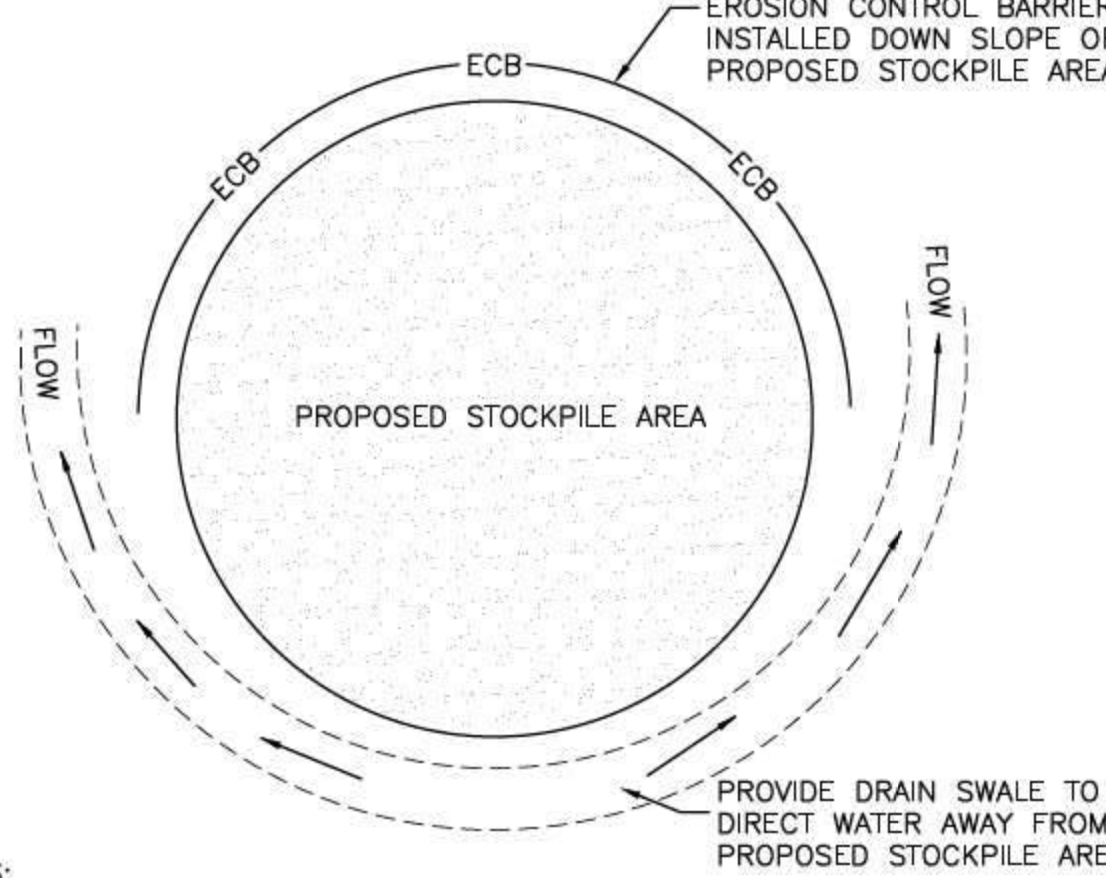
NOTES:

1. ALL MATERIALS TO MEET MANUFACTURERS SPECIFICATIONS.
2. INSTALL WOODEN STAKES IN A CRISS-CROSS PATTERN EVERY 8' ON CENTER.
3. OVERLAP TUBULAR BARRIER SEGMENTS A MINIMUM OF 12".
4. THE CONTRACTOR SHALL MAINTAIN THE TUBULAR BARRIERS IN A FUNCTIONAL CONDITION AT ALL TIMES. THE CONTROLS SHALL BE ROUTINELY INSPECTED BY THE CONTRACTOR.
5. WHERE THE TUBULAR BARRIERS REQUIRE REPAIR OR SEDIMENT REMOVAL, IT WILL BE COMPLETED BY THE CONTRACTOR AT NO ADDITIONAL COST.
6. AT A MINIMUM, THE CONTRACTOR SHALL REMOVE SEDIMENTS COLLECTED AT THE BASE WHEN THEY REACH 1/3 THE EXPOSED HEIGHT OF THE BARRIER.

TUBULAR SEDIMENT BARRIER
NOT TO SCALE



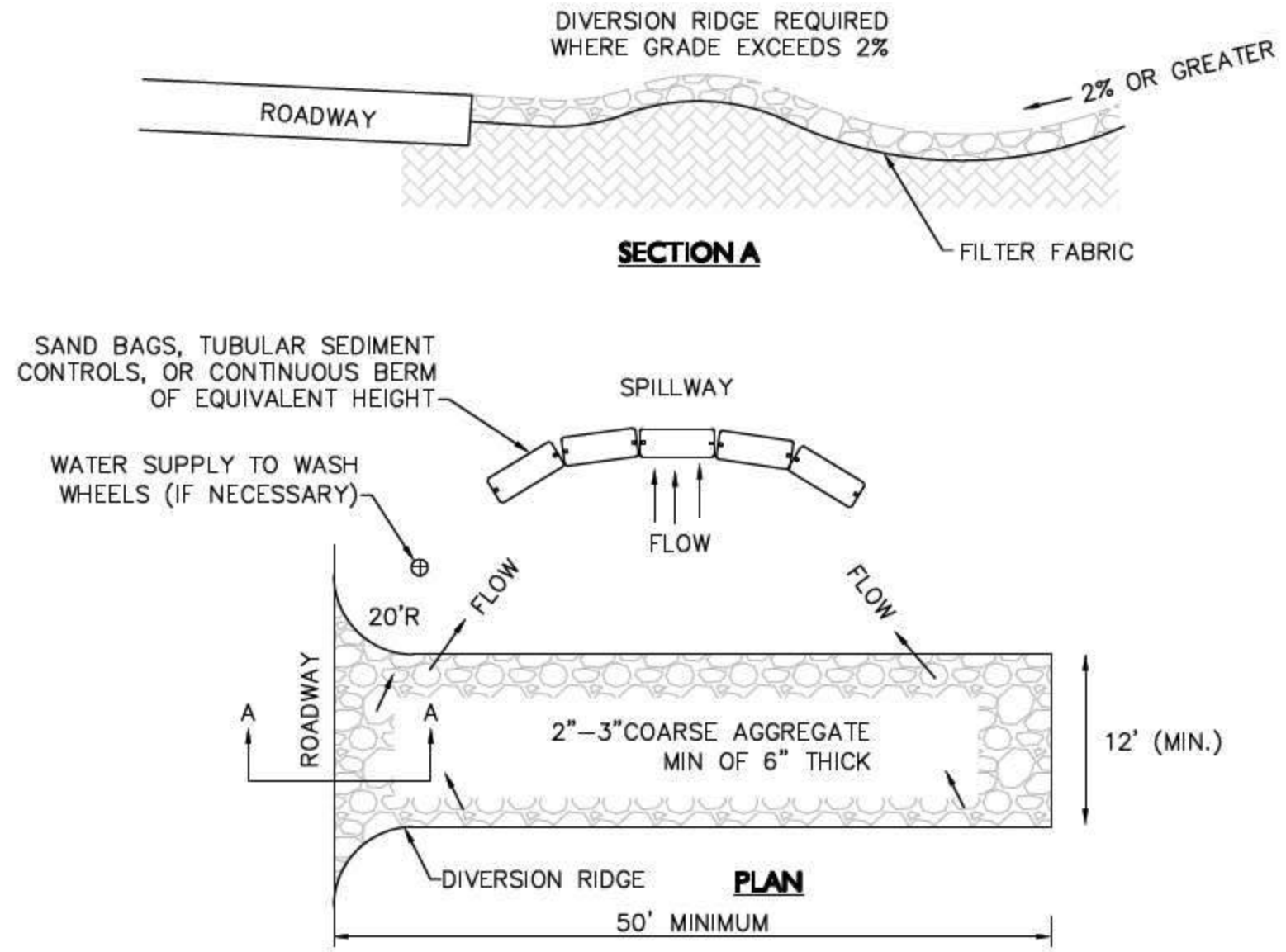
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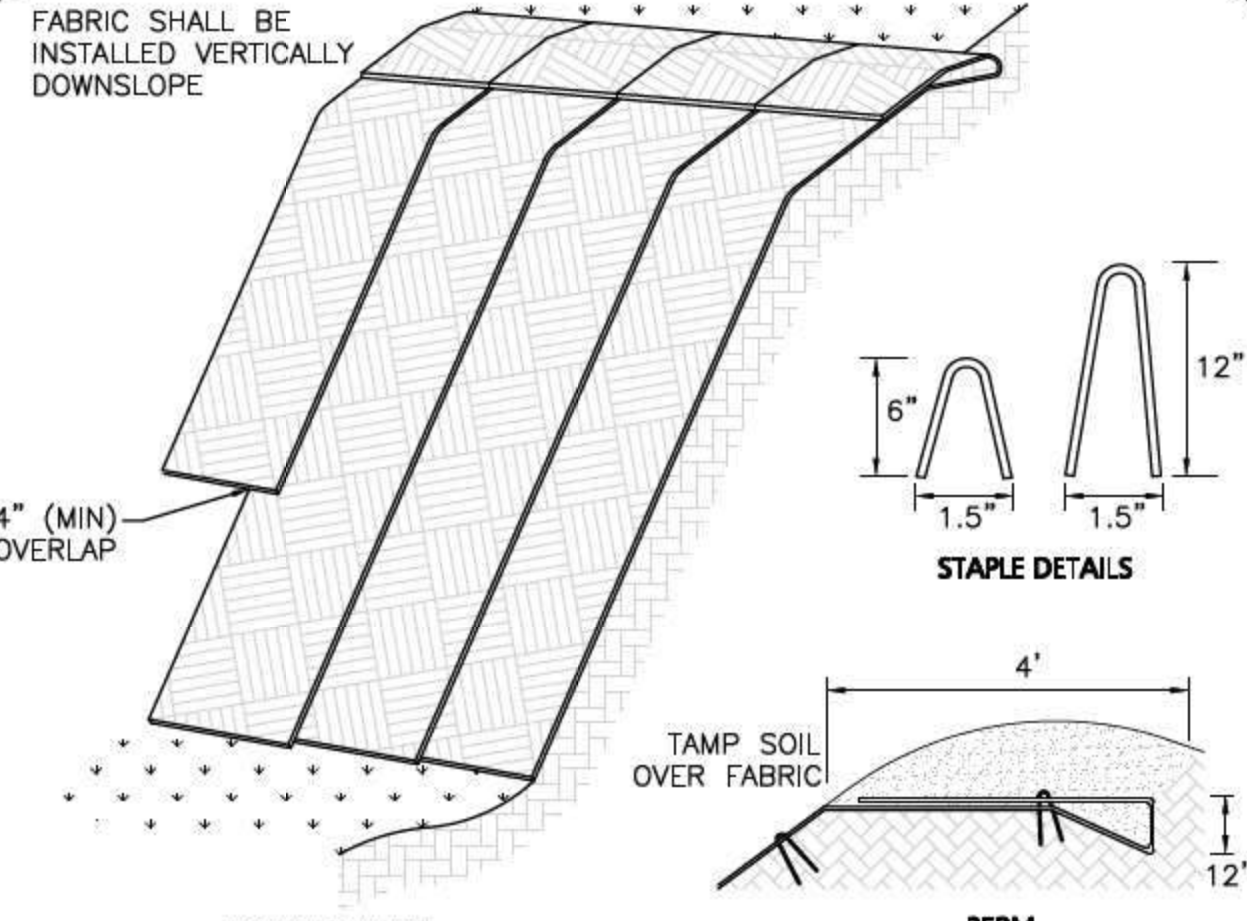
- NOTES:
1. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH STRAW AND MULCH (AT 100LBS/1,000 SF), OR WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
 2. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR 90 DAYS OR MORE SHALL BE SEEDED WITH WINTER RYE (FOR FALL SEEDING AT 1LB/1,000 SF) OR OATS (FOR SUMMER SEEDING AT 2LB/1,000 SF) AND THEN COVERED WITH STRAW MULCH (AT 100LB/1,000 SF) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.

STOCKPILE PROTECTION DETAIL
NOT TO SCALE

- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTERING THE PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
 4. USE SANDBAGS, TUBULAR SEDIMENT CONTROLS, OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

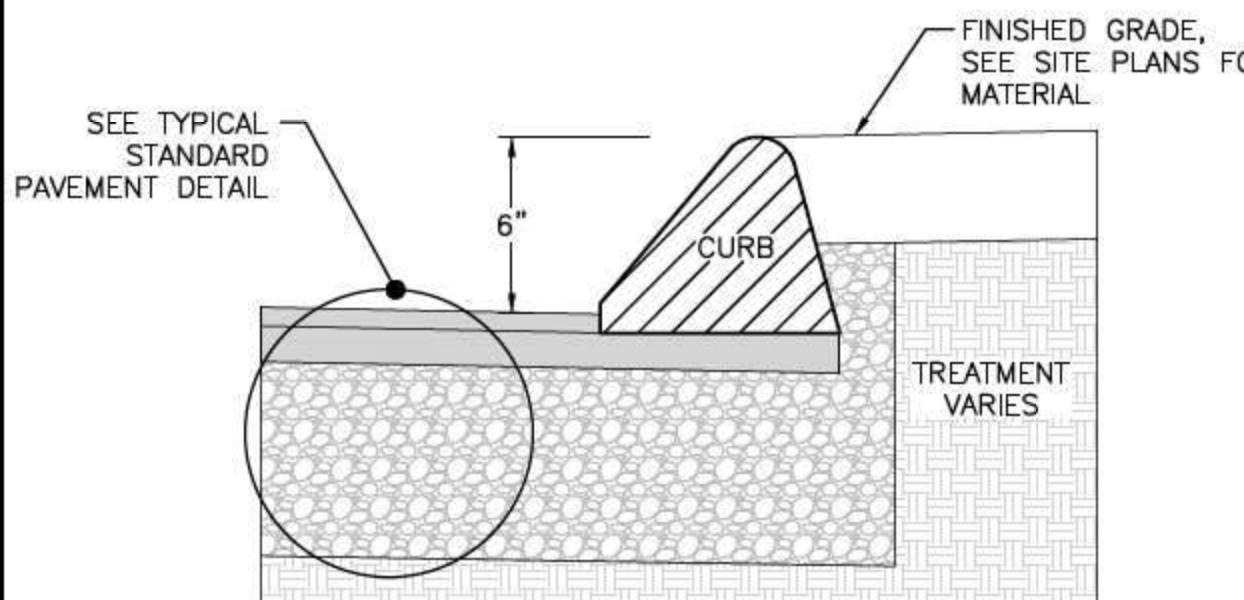
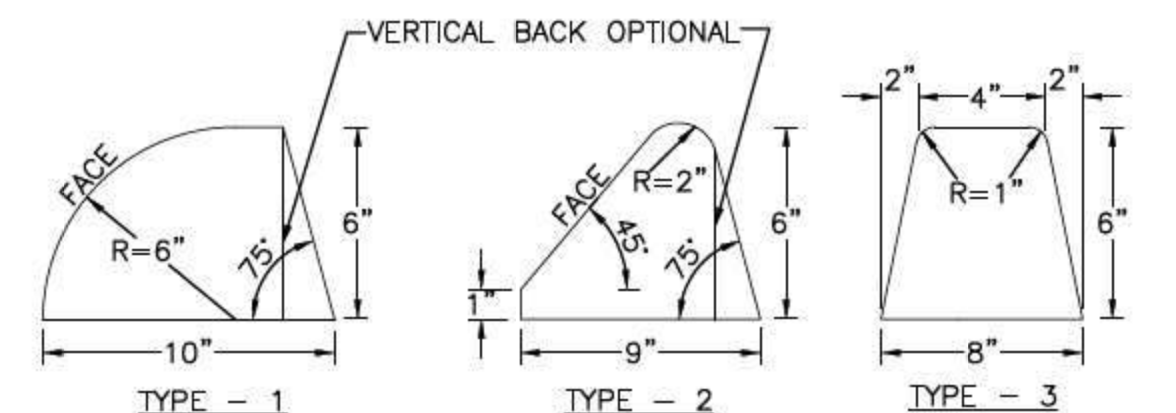


TEMPORARY CONSTRUCTION ENTRANCE/EXIT
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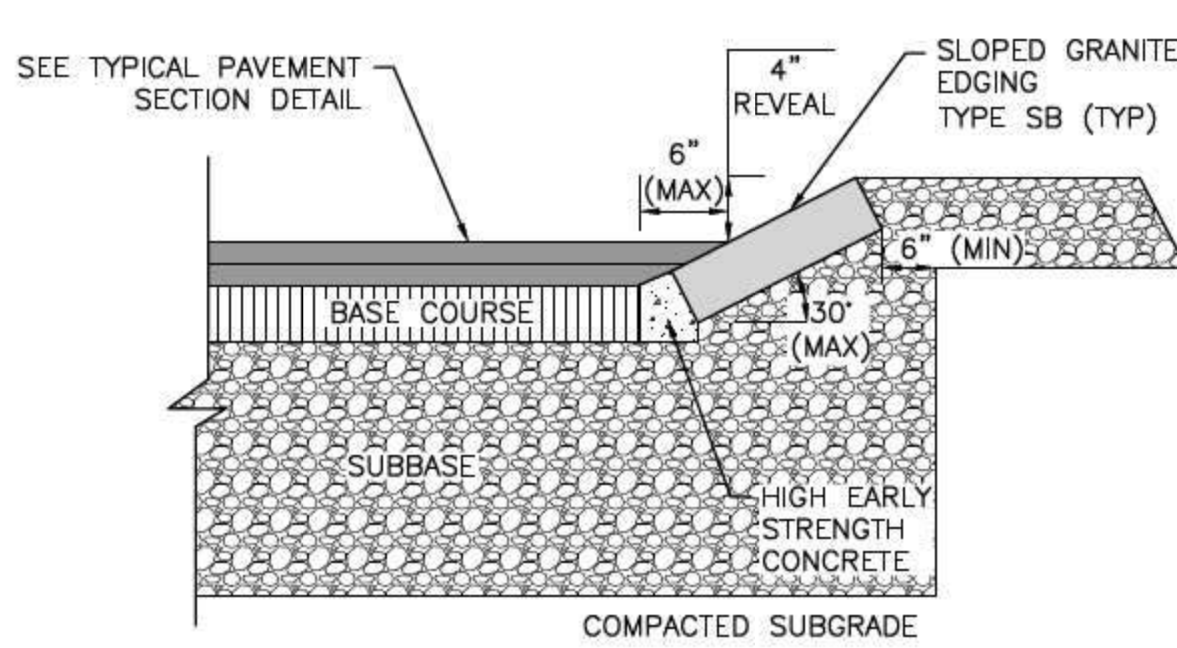


- NOTE:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. FABRIC SHALL HAVE GOOD SOIL CONTACT.
 2. APPLY PERMANENT SEEDING BEFORE PLACING FABRIC.
 3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
 4. CHOOSE MATERIAL BASED ON SLOPE, SOILS, AND APPLICATION.

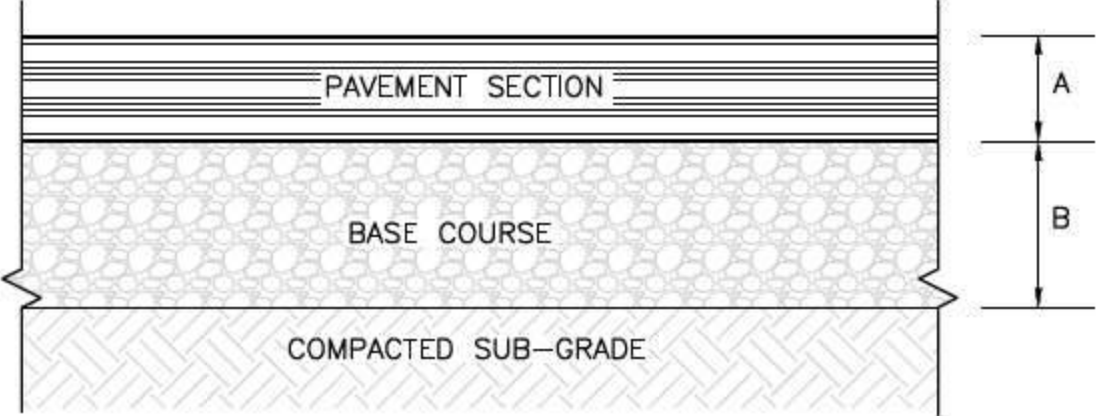
EROSION CONTROL FABRIC
NOT TO SCALE



BITUMINOUS CONCRETE CURB
NOT TO SCALE



SLOPED GRANITE CURB
NOT TO SCALE



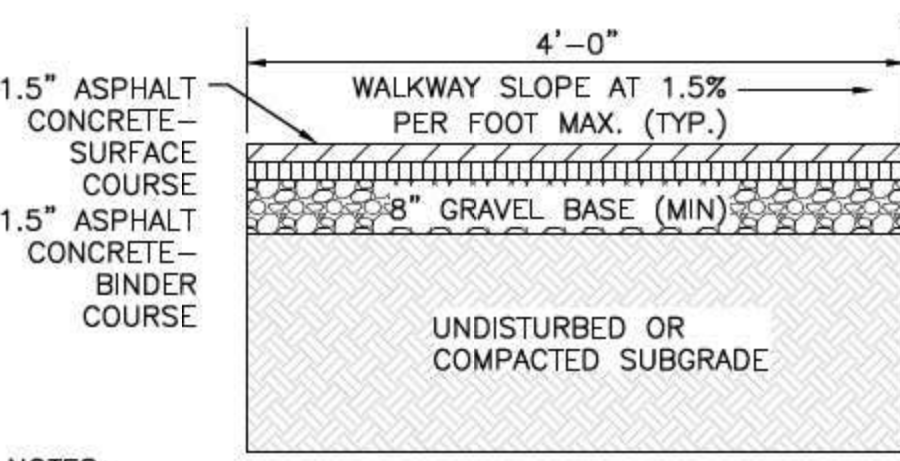
- NOTES:
1. PAVEMENT SECTION, BASE COURSE, AND SUBGRADE SHALL BE PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IN THE ABSENCE OF A GEOTECHNICAL ENGINEER'S RECOMMENDATION, THE MATERIALS AND THICKNESS SHALL BE AS SHOWN HEREON.
 2. SUBGRADE SHALL BE COMPACTED TO 95% OF PROCTOR
 3. EXISTING SUBSURFACE SOILS SHALL BE PROOF-ROLLED.

MATERIALS AND THICKNESSES:

A = 1.5" ASPHALT CONCRETE - SURFACE COURSE (M3.11.0, TABLE A, TOP COURSE)
3.0" ASPHALT CONCRETE - BINDER COURSE (M3.11.0, TABLE A, BINDER COURSE)

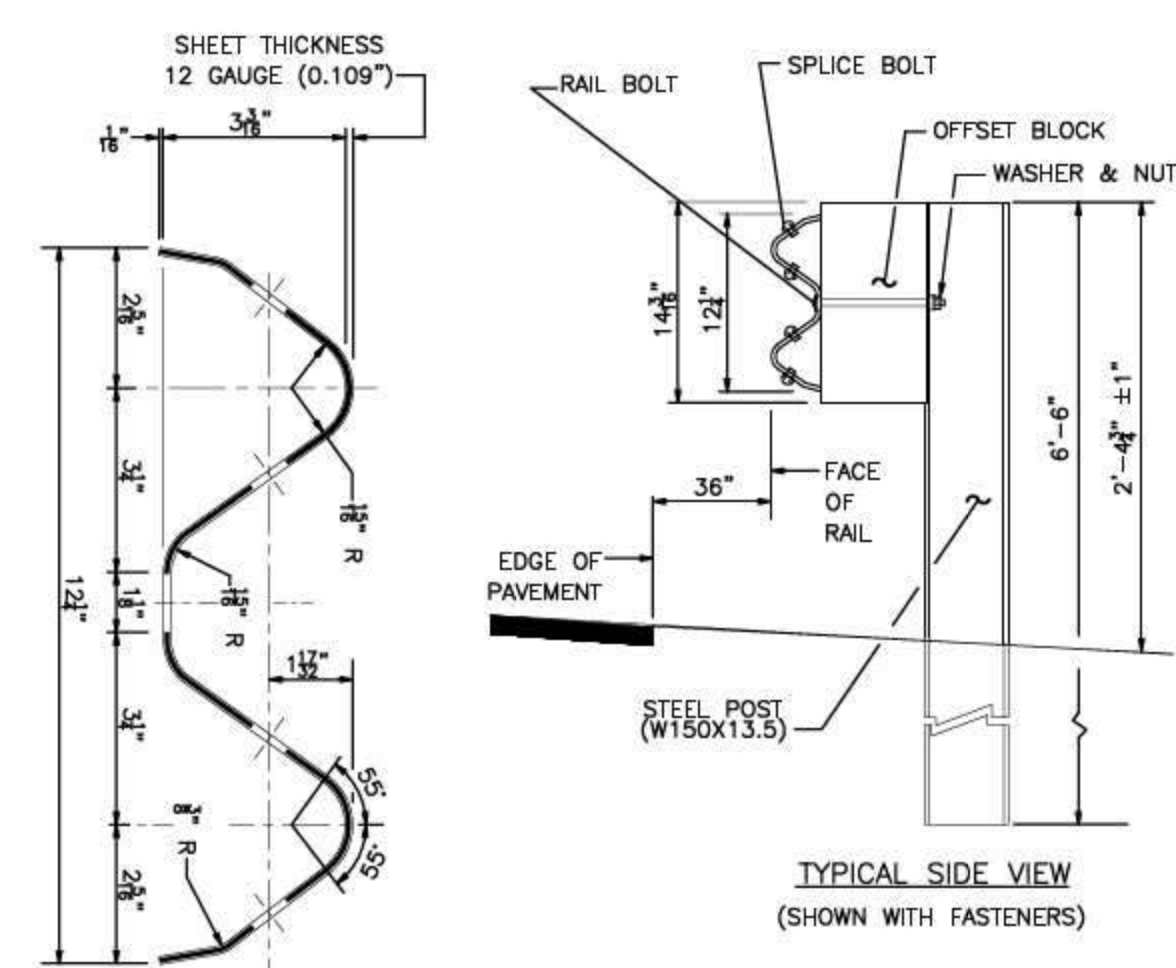
B = 1.5" PROCESSED GRAVEL BASE (MHD M2.01.7)

ASPHALT PAVEMENT SECTION
NOT TO SCALE



- NOTES:
1. REFERENCE PLANS FOR ELEVATIONS.
 2. COMPACT SOIL SUBGRADE UNIFORMLY TO AT LEAST 95% OF ASTM D 1557 LABORATORY DENSITY.
 3. PROOF-ROLL PREPARED SUBGRADE TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. EXCAVATE SOFT SPOTS, UNSATISFACTORY SOILS, AND AREAS OF EXCESSIVE PUMPING OR RUTTING, AS DETERMINED BY GEOTECHNICAL ENGINEER AND REPLACE WITH COMPACTED BACKFILL OR FILL AS DIRECTED.
 4. CONTRACTOR SHALL COORDINATE SURFACE, BINDER, AND BASE COURSES WITH GEOTECHNICAL OR SOILS REPORT. REFER TO REPORT FOR RECOMMENDATIONS FOR LOCAL SOILS OR DRAINAGE CONDITIONS AND/OR METHODS.
 5. BASE COURSE SHALL EXTEND 6 INCHES BEYOND WALKWAY EDGE WHERE WALKWAY DOES NOT ABUT DEEP CURB, WALL, STEPS, OR FIXED OBJECT.
 6. WALKWAY EDGES SHALL BE TAMPED WHERE WALKWAY DOES NOT ABUT DEEP CURB, WALL, STEPS, OR FIXED OBJECT.

BITUMINOUS CONCRETE SIDEWALK
NOT TO SCALE



NOTE:
SEE MASSDOT DRAWING NUMBERS
E401.1.1, E401.7.0, E401.8.0,
E401.20.0 FOR ADDITIONAL INFORMATION.

STEEL GUARDRAIL DETAIL
NOT TO SCALE



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DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

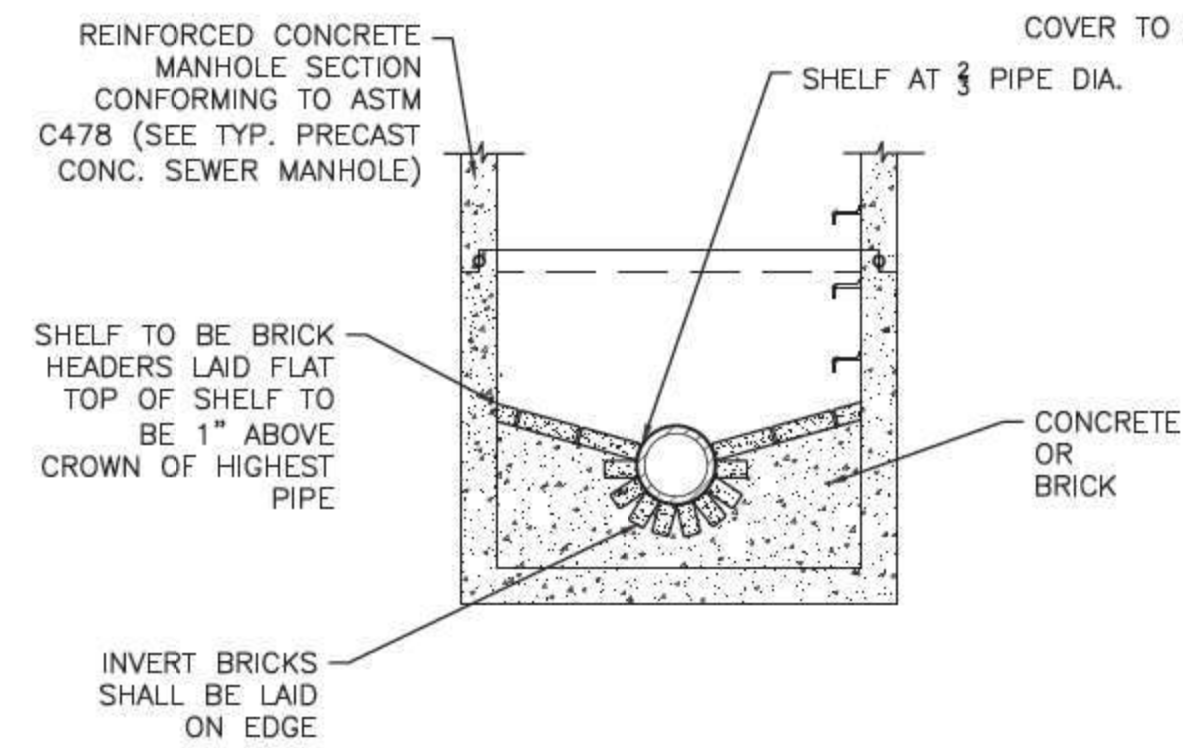
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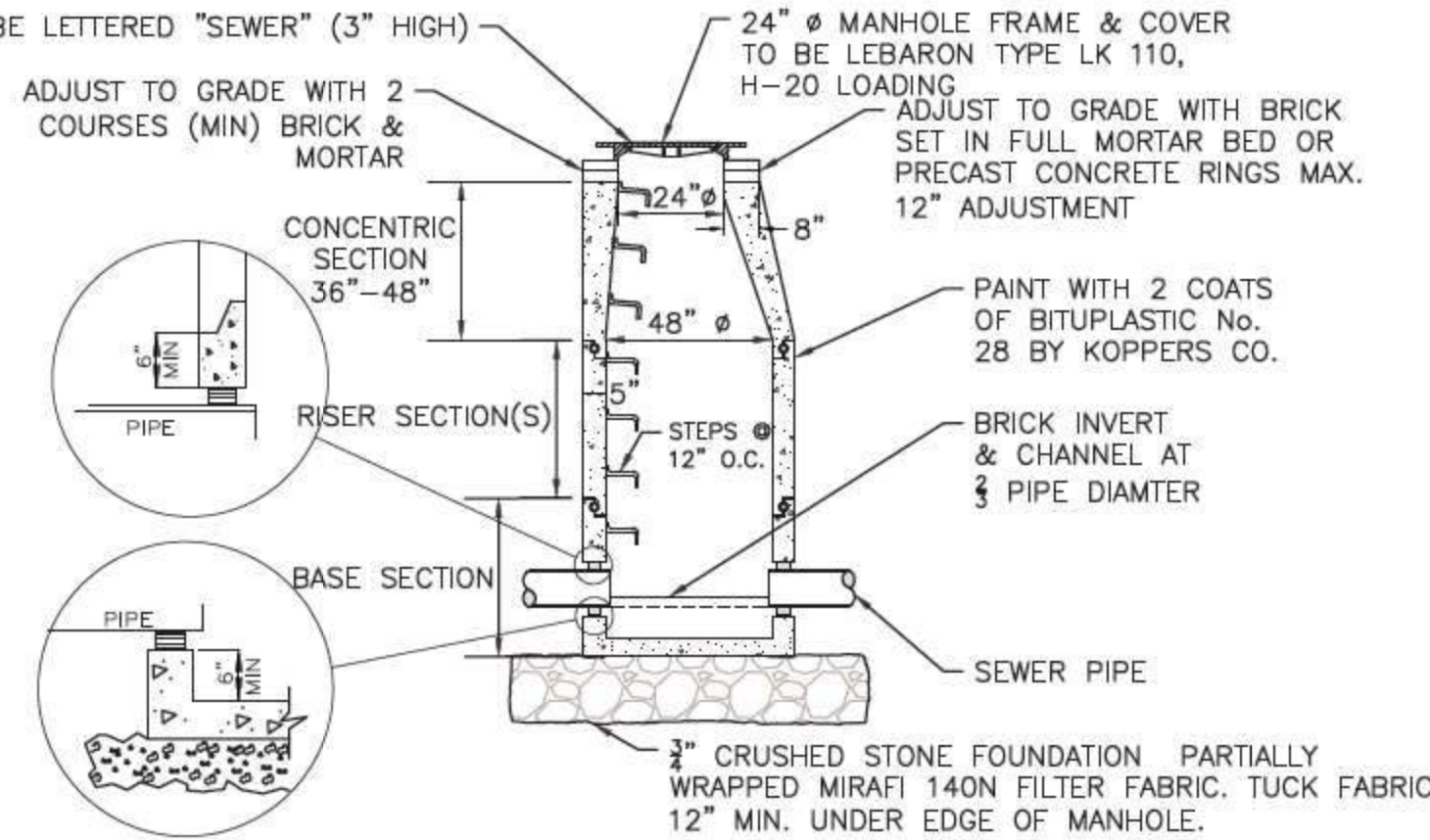
DRAWING TITLE: DETAILS SHEET NO. C-501

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NOTES:

1. INVERT AND SHELF TO BE PLACED AFTER LEAKAGE TEST.
2. MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF CEMENT CONCRETE OR BRICK IN MORTAR.



NOTE:

THE MANHOLE, INCLUDING ALL COMPONENT PARTS, SHALL HAVE ADEQUATE SPACE, STRENGTH AND LEAK PROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE SPACE REQUIREMENT AND CONFIGURATIONS SHALL BE AS SHOWN ON THE DRAWING. MANHOLES MAY BE AN ASSEMBLY OR PRECAST SECTIONS, WITH OR WITHOUT STEEL REINFORCEMENT, WITH ADEQUATE JOINTING OR CONCRETE CAST MONOLITHICALLY IN PLACE WITH OR WITHOUT REINFORCEMENT. IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE.

PRECAST CONCRETE SEWER MANHOLE

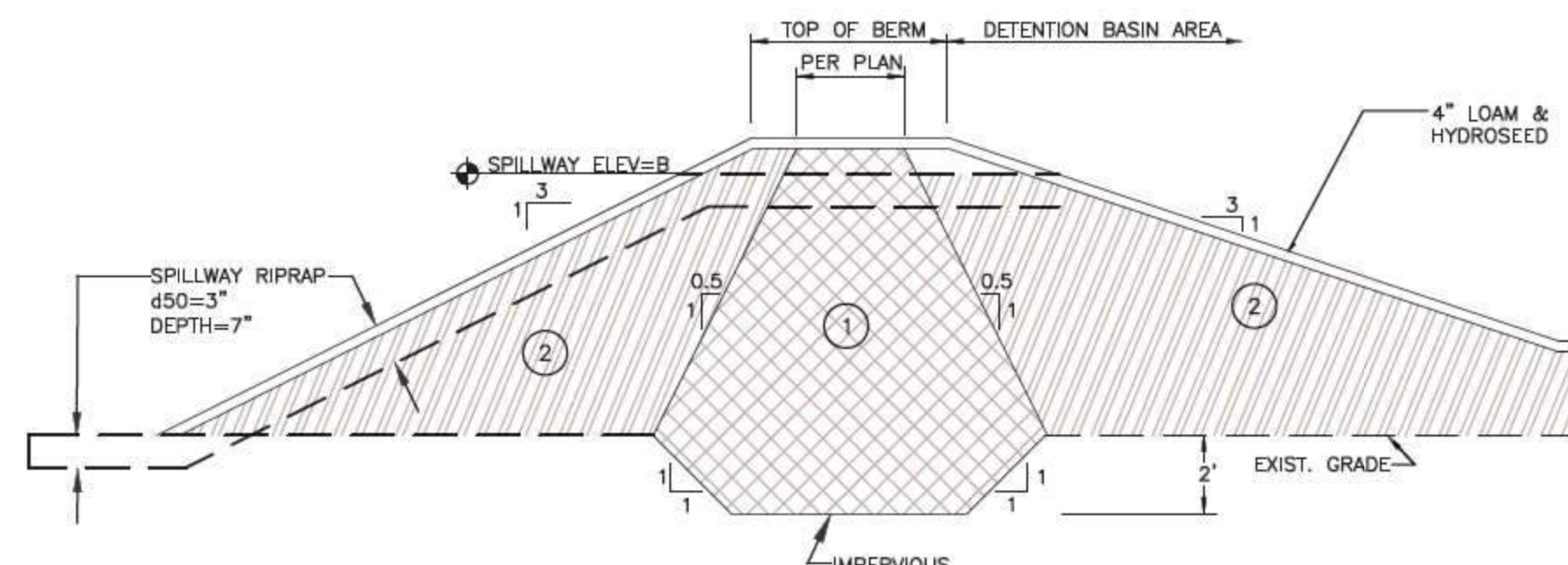
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BERM MATERIALS

1. IMPERVIOUS CORE (CLAY, SILT, & SAND) SHALL CONFORM TO AASHTO M27 AND ROLLED TO 6" LAYERS (95% COMPACTION) CORE MATERIAL TO HAVE A PERMEABILITY OF 1×10^{-10} CM/SEC AND THE FOLLOWING GRADATION:

PERCENT FINER	SEIVE SIZE
100	#4
30 TO 85	#40
20 TO 50	#200

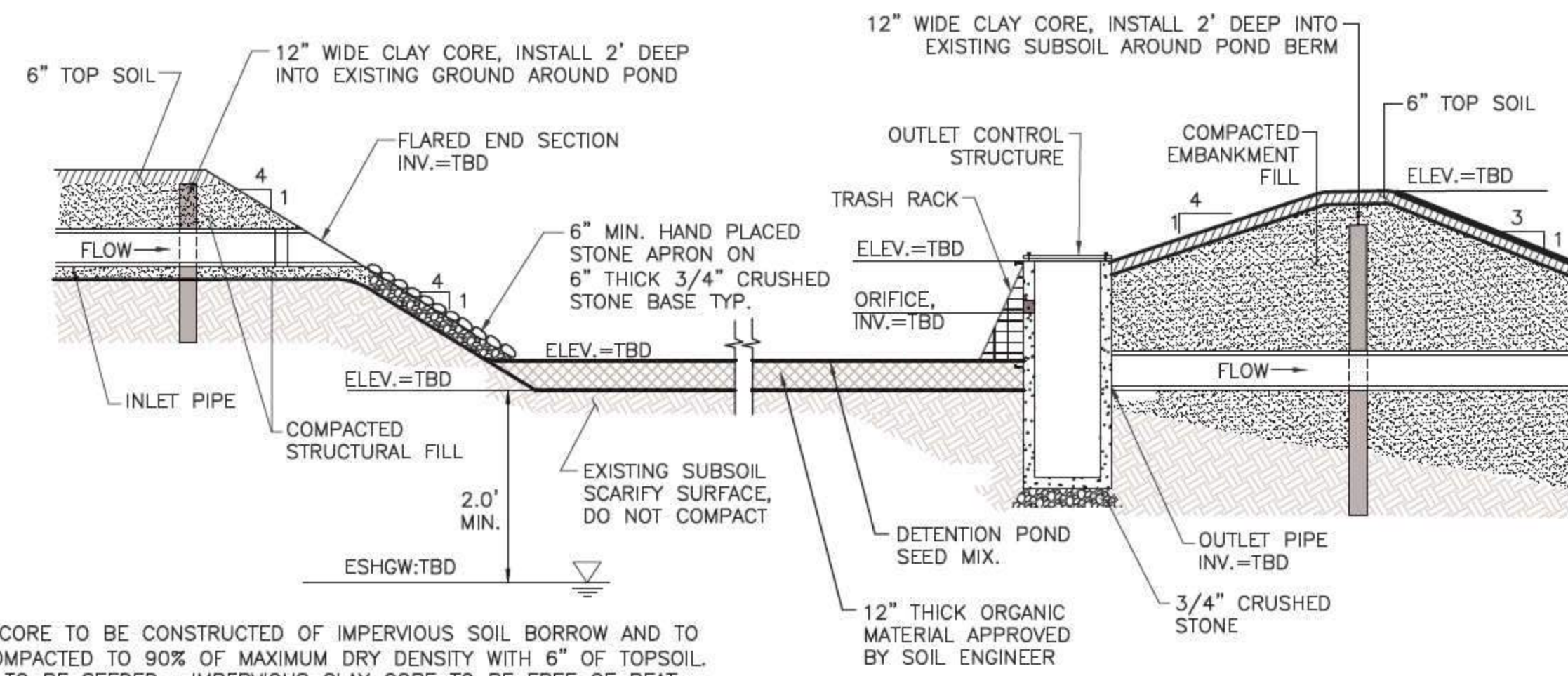
2. SILT LAYER #2 EMBANKMENT MATERIAL SHALL CONFORM TO AASHTO M57 AND MEET THE FOLLOWING GRADATION:

PERCENT FINER	SEIVE SIZE
100	3 IN.
95-100	2 IN.
55-85	1 IN.
27-52	NO. 4
50 MAX.	NO. 40
25 MAX.	NO. 200

TYPICAL BASIN EMBANKMENT CROSS SECTION

NOT TO SCALE

3



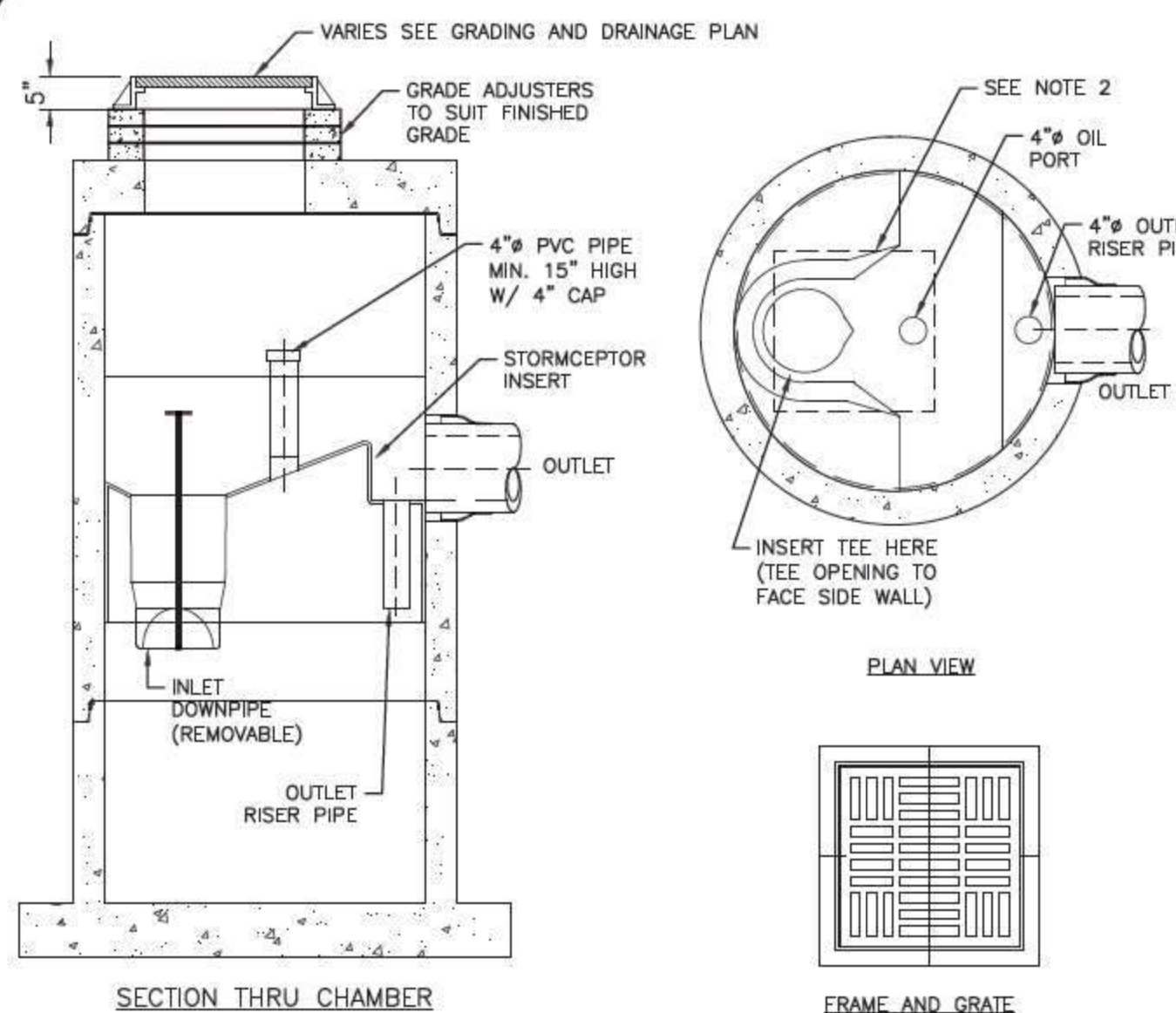
NOTES:

1. CLAY CORE TO BE CONSTRUCTED OF IMPERVIOUS SOIL BORROW AND TO BE COMPACTED TO 90% OF MAXIMUM DRY DENSITY WITH 6" OF TOPSOIL. BERM TO BE SEED. IMPERVIOUS CLAY CORE TO BE FREE OF PEAT STUMPS, BRUSH, ORGANIC SOILS AND OTHER DELETERIOUS MATERIALS. CORE MATERIAL TO HAVE MAXIMUM PERMEABILITY OF 1×10^{-10} CM/SEC.
2. INFILTRATION BASIN SIDE SLOPES TO BE SEED WITH NEW ENGLAND EROSION CONTROL.
3. PROJECT CIVIL ENGINEER SHALL PERFORM AN INSPECTION PRIOR TO THE PLACEMENT OF THE SEED MIX.

VEGETATED STORMWATER BASIN

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4



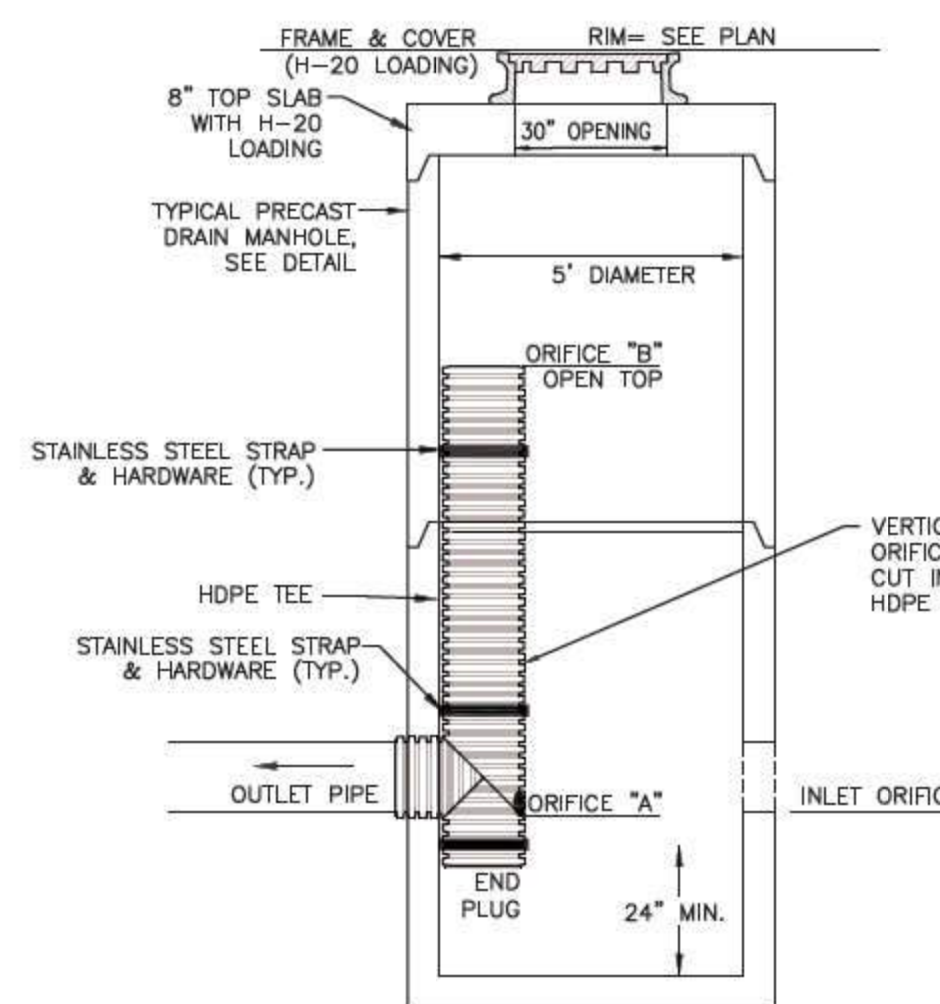
GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 2. WATER QUALITY STRUCTURES SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 3. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING.
 4. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- INSTALLATION NOTES
- A. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
 - B. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
 - C. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
 - D. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

TYPICAL STORMCEPTOR ST-450i WATER QUALITY STRUCTURE

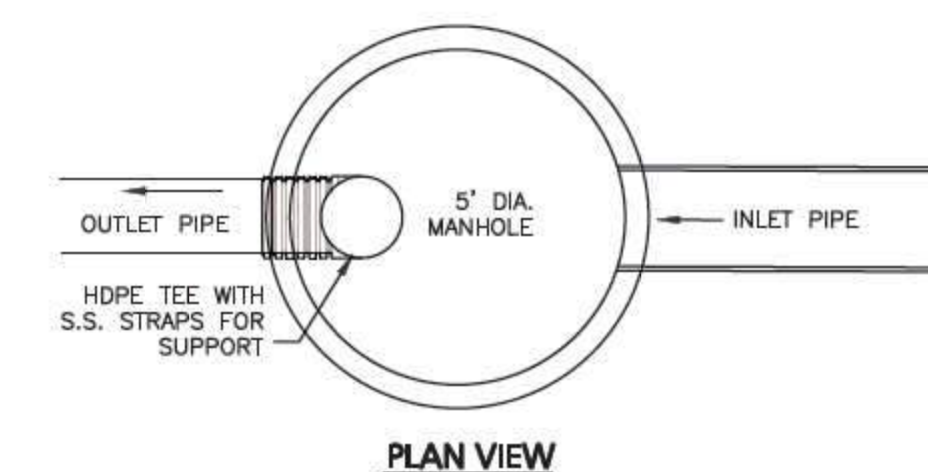
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SECTION VIEW

OUTLET CONTROL STRUCTURE TABLE								
STRUCTURE	IDENTIFIER	ORIFICE DIAMETER	ELEV.	DS-02 INLET DIAMETER	INVERT ELEV.	UNDERDRAIN INLET DIAMETER	INVERT ELEV.	OUTLET DIAMETER
OCS-01	A	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	B	TBD	TBD	TBD	TBD	TBD	TBD	TBD



OUTLET CONTROL STRUCTURE DETAIL

NOT TO SCALE

6



PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
3	10-01-2020	ISSUED FOR ZBA APPLICATION
2	05-19-2020	MISC. REV. PER MASS-HOUSING & ABUTTER WALK
1	01-21-2020	MISCELLANEOUS REVISIONS

APPLICANT/OWNER:

BARSKY ESTATE REALTY TRUST
23 HUNTING LANE
SHERBORN, MA 01770

PROJECT:

APPLE HILL ESTATES
31 HUNTING LANE
SHERBORN, MA 01770

PROJECT NO. 2513-02 DATE: 11-14-19

SCALE: AS SHOWN DWG. NAME: C2513-02

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

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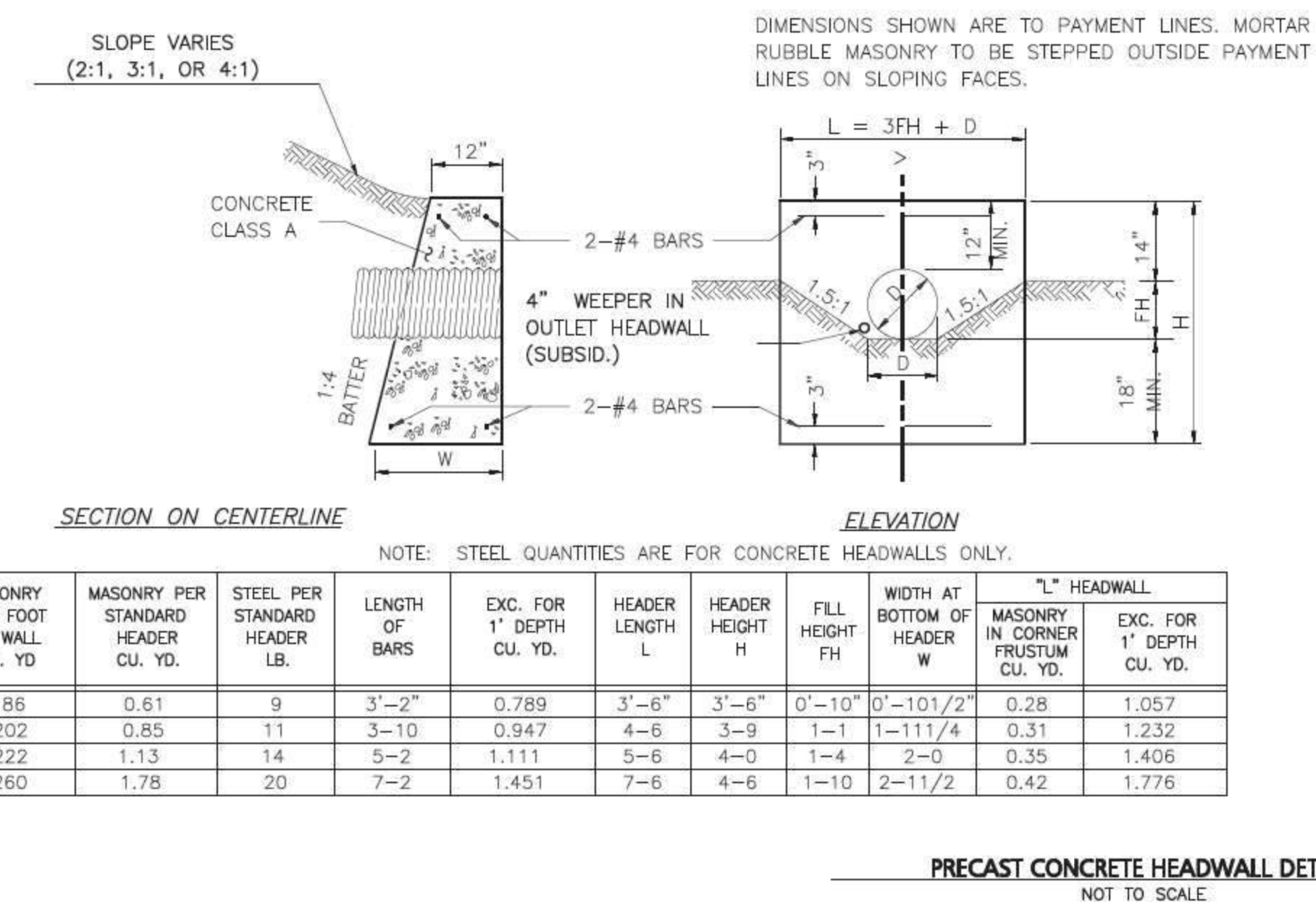
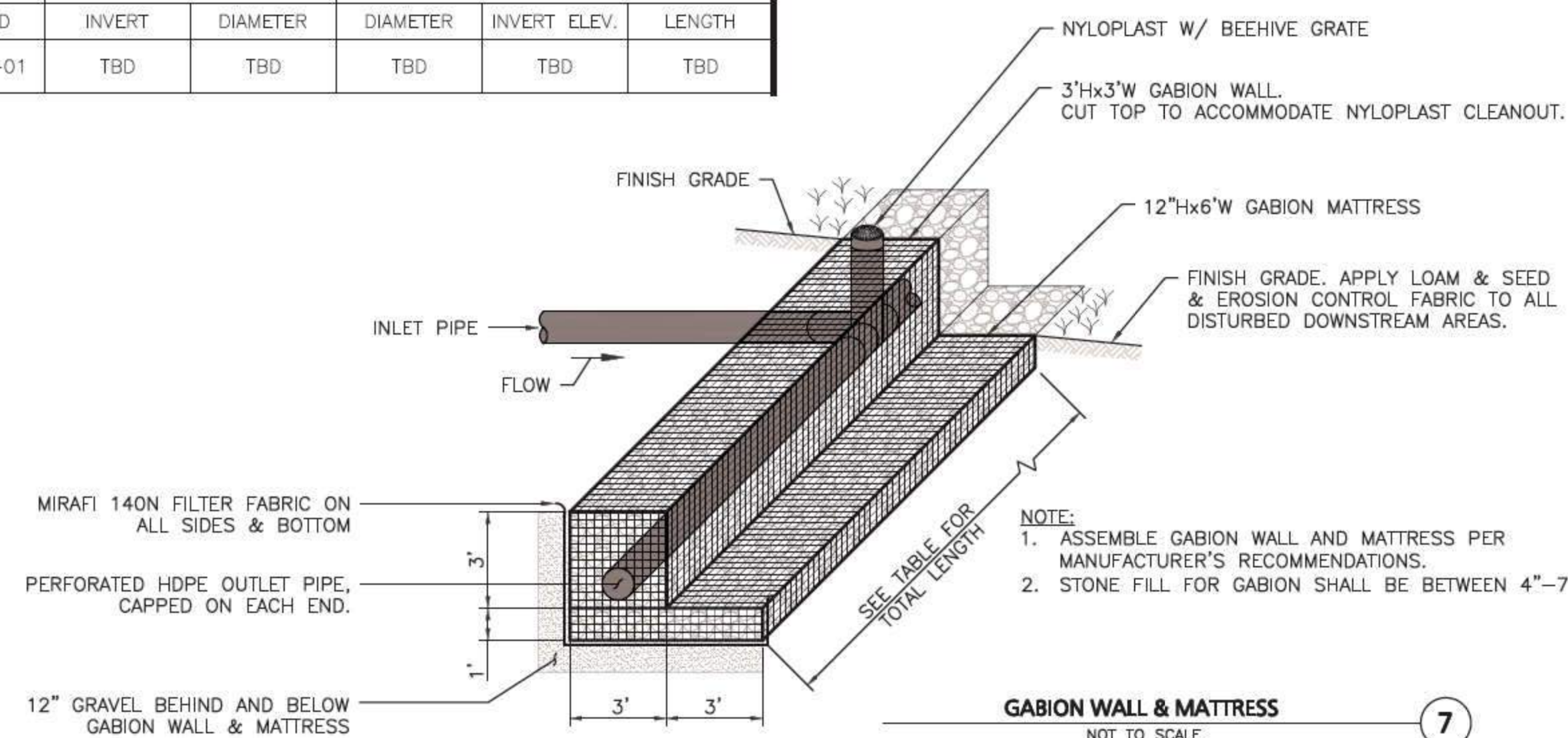
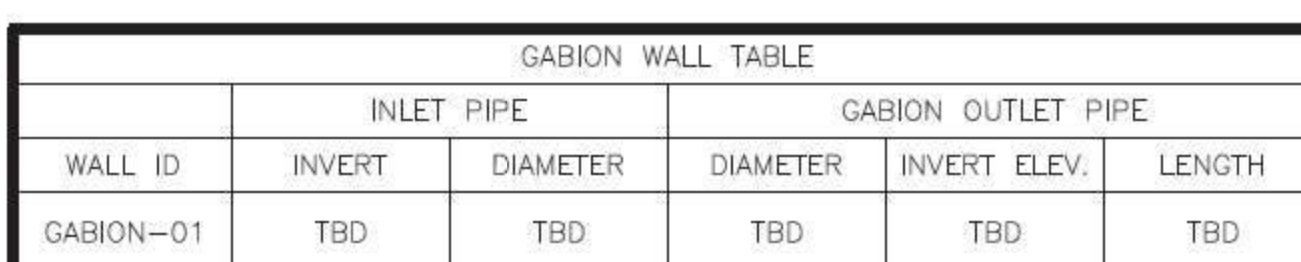
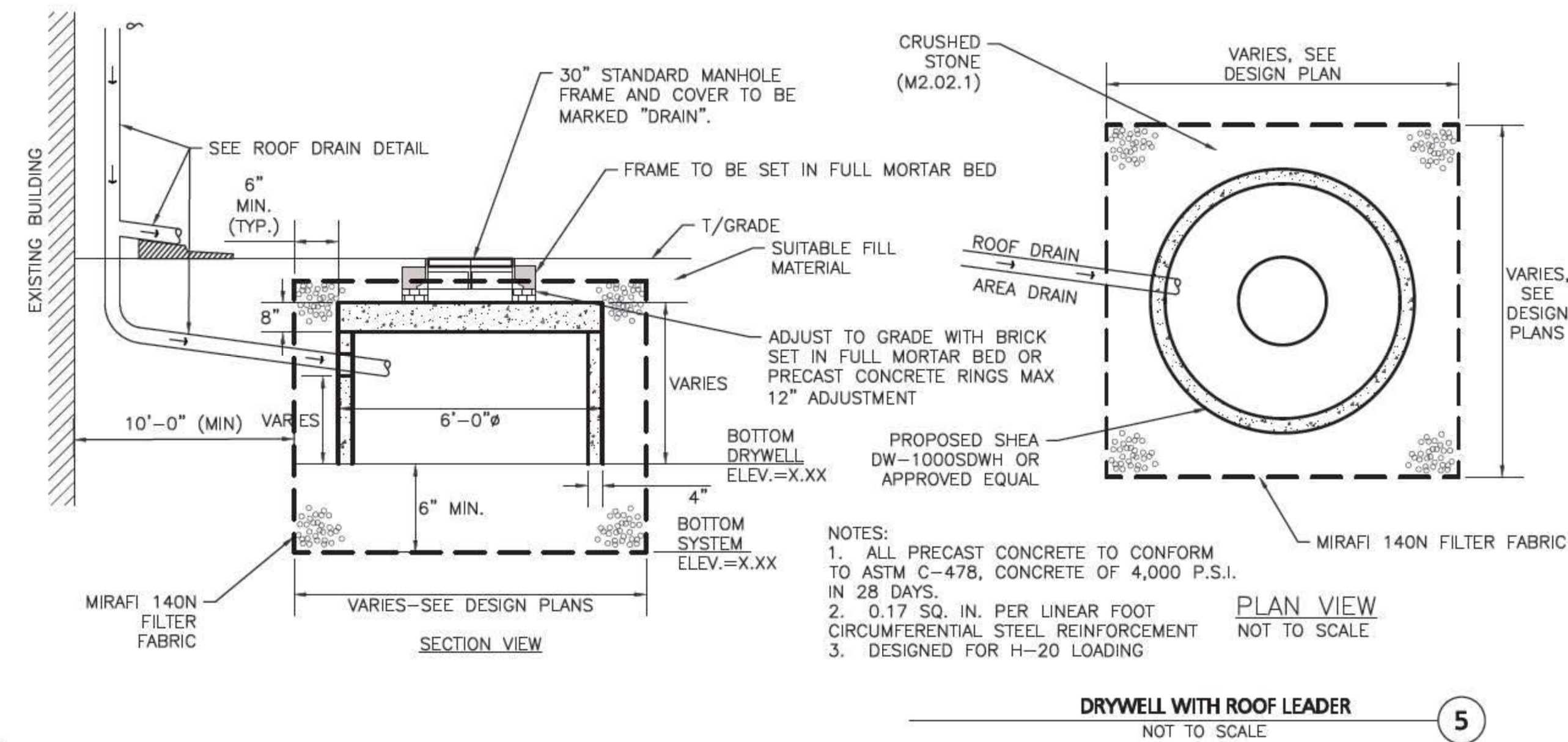
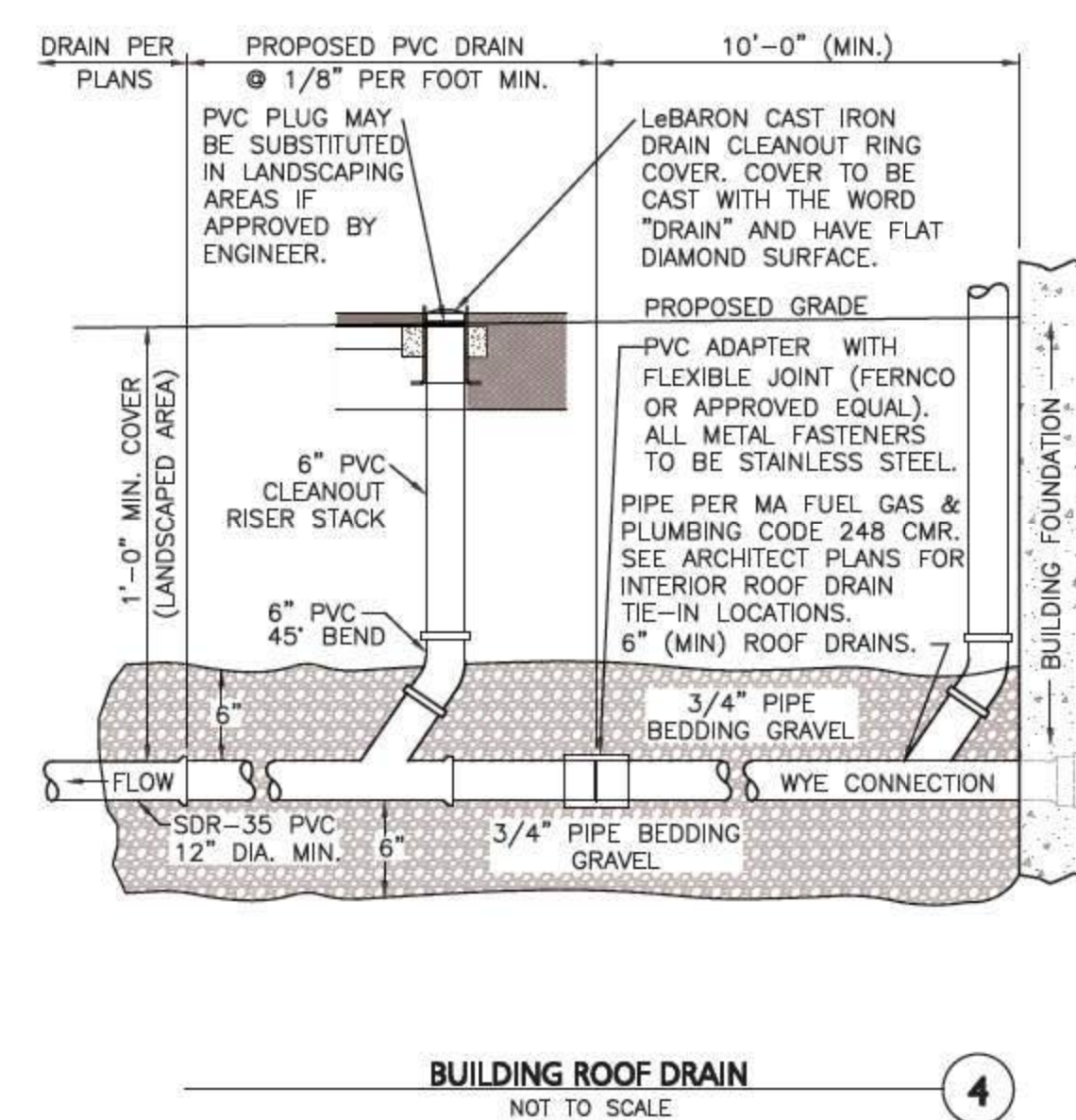
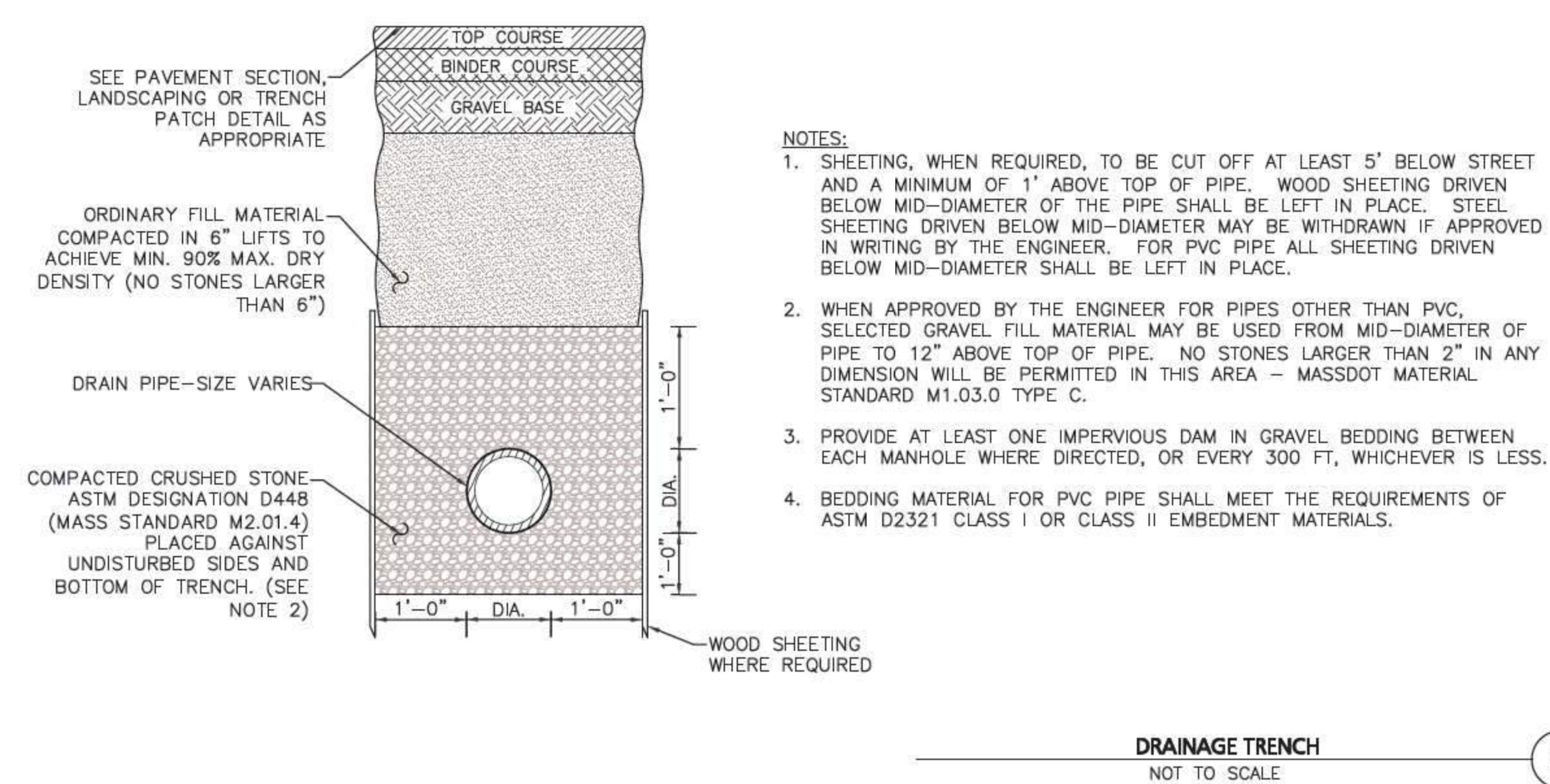
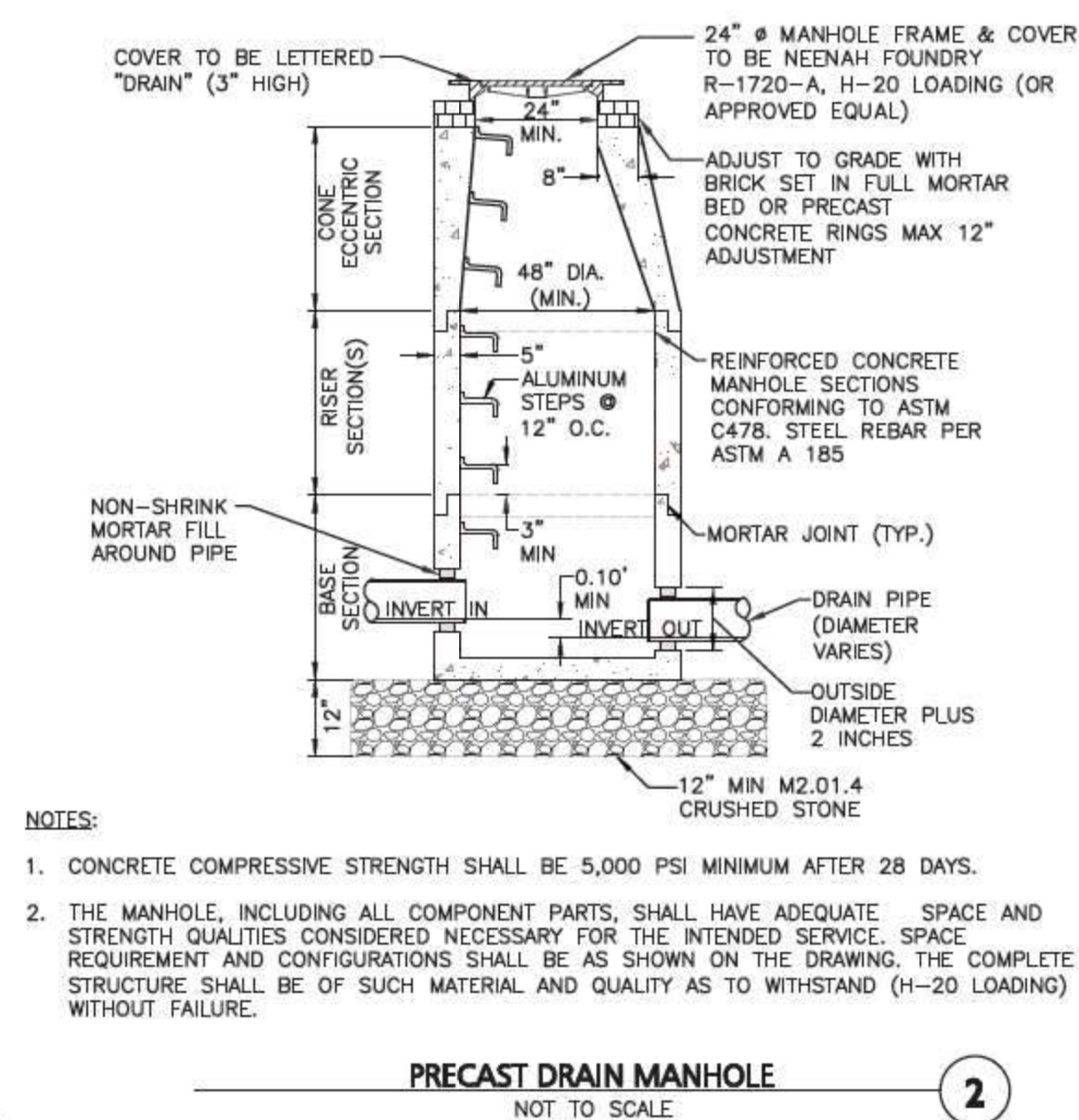
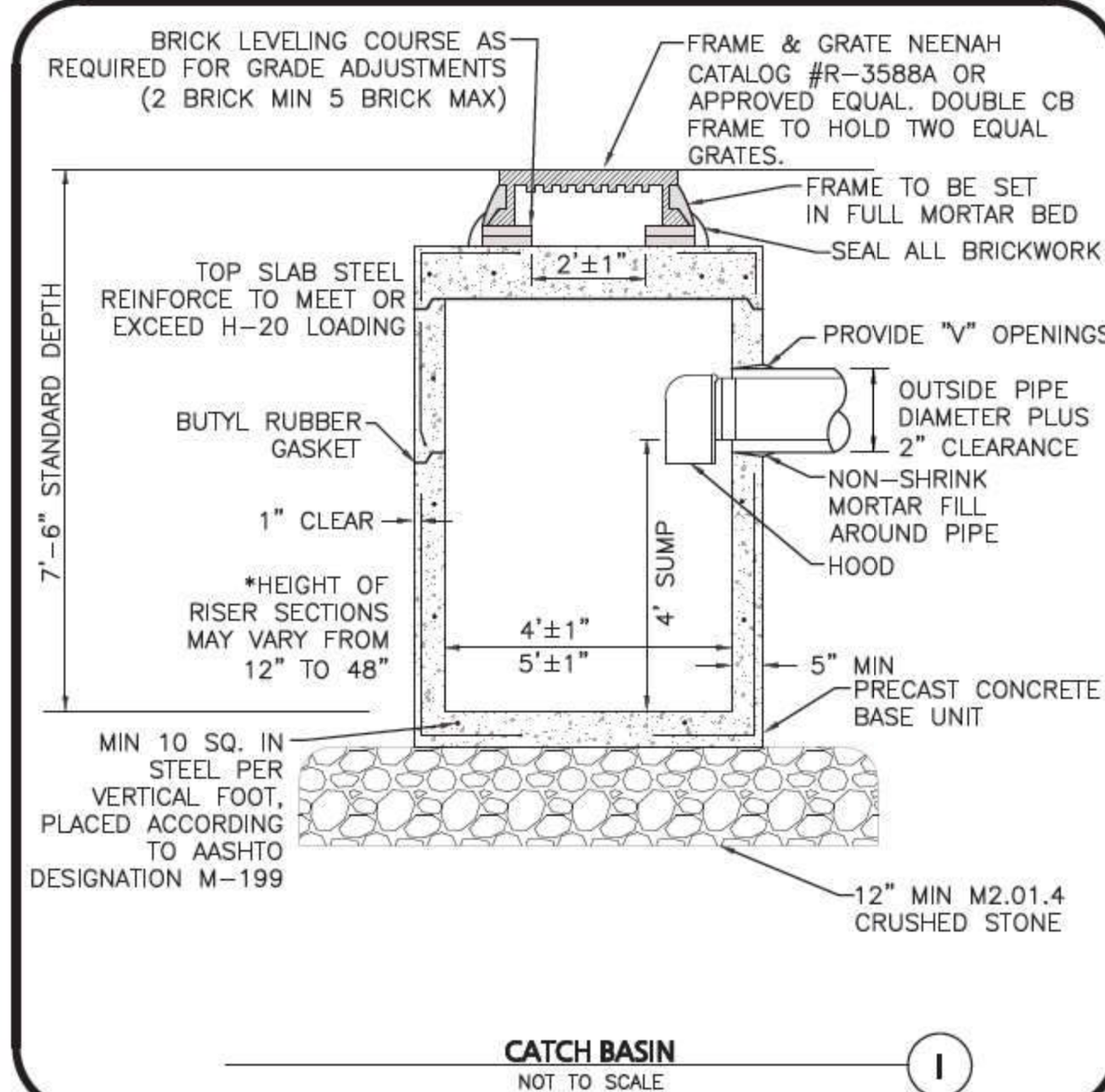
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DRAWING TITLE: SHEET NO.

DETAILS

C-503

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PROFESSIONAL ENGINEER FOR
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1	01-21-2020	MISCELLANEOUS REVISIONS
REV	DATE	DESCRIPTION

REV	DATE
APPLICANT\OWNER:	

BARSKY ESTATE REALTY TRUST
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SHERBORN, MA 01770

PROJECT:

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SCALE:	AS SHOWN	DWG. NAME:	C2513-02
DESIGNED BY:	SM	CHECKED BY:	MAM

DESIGNED BY:	SM	CHECKED BY:	MAM
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PREPARED BY:



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