

LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
RIGHT-OF-WAY LINE		
ABUTTERS LOT LINE		
EASEMENT LINE		
BUILDING SETBACK		
LIMITS OF WORK		
BUILDING		
EDGE OF PAVEMENT		
DIRT ROAD		
EDGE OF CURB		
SIDEWALK		
PAVEMENT SAWCUT LINE		
INTERMEDIATE CONTOURS		
INDEX CONTOURS		
SPOT GRADE		
GRAVITY SANITARY SEWER		
STORM DRAIN		
WATER SERVICE		
UNDERGROUND ELECTRIC LINE		
TEL-DATA SERVICE		
COMMUNICATION SERVICE		
CABLE TV SERVICE		
GAS SERVICE		
SANITARY SEWER MANHOLE		
STORM DRAIN STRUCTURES		
WATER SERVICE STRUCTURES		
ELECTRICAL SERVICE STRUCTURES		
COMMUNICATION STRUCTURES		
GAS SERVICE STRUCTURES		
STONE WALL		
TREELINE		
EROSION CONTROL (SILT FENCE)		
TEST PIT		

GENERAL NOTES:

- NO CONSTRUCTION SHALL BEGIN UNTIL ANY AND ALL PERMITS ARE OBTAINED FROM THE TOWN OF RANDOLPH.
- THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY, COORDINATION WITH THE OWNER AND ALL SUBCONTRACTORS, AND THE MEANS AND METHODS OF CONSTRUCTING THE PROPOSED WORK.
- COMPLY WITH THE LATEST OSHA STANDARDS FOR EXCAVATING WORK. FOLLOW ALL REQUIREMENTS OF OSHA EXCAVATION STANDARDS INCLUDING, BUT NOT LIMITED TO, THE PROVISION FOR A COMPETENT PERSON ON SITE AND ANY REQUIRED DOCUMENTATION REQUIRING CERTIFICATION BY A PROFESSIONAL ENGINEER.
- PER MASSACHUSETTS LAW, CALL 1-888-DIG-SAFE (1-888-344-7233), THE MUNICIPALITY, AND OTHER UTILITY OWNERS IN THE AREA NOT ON THE DIGSAFE LIST AT LEAST 72 HOURS PRIOR TO ANY UNDERGROUND EXCAVATION ON SITE. SUBMIT DIGSAFE VERIFICATION NUMBER TO THE APPROPRIATE MUNICIPALITY PRIOR TO ANY DIGGING, TRENCHING, ROCK REMOVAL, DEMOLITION, BORING, BACKFILLING, GRADING, LANDSCAPING, OR ANY OTHER EARTH MOVING OPERATIONS.
- LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IN ADDITION, SOME UTILITIES MAY NOT BE SHOWN. DETERMINE THE EXACT LOCATION OF UTILITIES BY TEST PIT OR OTHER METHODS, AS NECESSARY TO PREVENT DAMAGE TO UTILITIES AND/OR INTERRUPTIONS IN UTILITY SERVICE. PERFORM TEST PIT EXCAVATIONS AND OTHER INVESTIGATIONS TO LOCATE UTILITIES, AND PROVIDE THIS INFORMATION TO THE ENGINEER, PRIOR TO CONSTRUCTING THE PROPOSED IMPROVEMENTS. THE ENGINEER WILL USE THE TEST PIT INFORMATION AND OTHER INFORMATION COLLECTED BY THE CONTRACTOR ON THE LOCATION OF EXISTING UTILITIES TO DIRECT THE CONTRACTOR IN THE EVENT THAT THERE IS A CONFLICT BETWEEN AN EXISTING UTILITY AND THE PROPOSED WORK.
- TEST PITS TO LOCATE EXISTING UTILITIES MAY BE ORDERED BY THE ENGINEER.
- NOTIFY THE ENGINEER OF ANY UTILITIES IDENTIFIED DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE DRAWINGS OR THAT DIFFER IN SIZE OR MATERIAL.
- FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS ARE OBSERVED THAT VARY SIGNIFICANTLY FROM THOSE SHOWN ON THESE PLANS, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION OF THE CONFLICTING INFORMATION.
- THE CONTRACTOR IS RESPONSIBLE TO INSTALL UTILITIES ACCORDINGLY WITH THE TOWN OF BROOKLINE STANDARDS AND TO REQUEST AND SCHEDULE INSPECTIONS.
- PROPOSED AND EXISTING UTILITY ELEVATIONS MUST BE CONFIRMED PRIOR TO INSTALLATION AND BACKFILLING AND APPROVED BY THE ENGINEER OF RECORD.
- WATERPROOFING AND OTHER STRUCTURAL DETAILS MUST BE PERFORMED AND DEPICTED BY A REGISTERED STRUCTURAL ENGINEER.
- AS OF JANUARY 1, 2019, 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, BOTH ON PUBLIC AND/OR PRIVATE PROPERTY.
- AFTER ALL ENGINEERING PERMITS ARE OBTAINED, THE CONTRACTOR NEEDS TO NOTIFY THE ENGINEERING DIVISION A MINIMUM OF 48-HOURS IN ADVANCE AND SCHEDULE AN APPOINTMENT TO HAVE SITE UTILITIES AND STORMWATER COMPONENTS INSPECTED. THE SYSTEM & UTILITIES MUST BE FULLY EXPOSED FOR THE INSPECTOR. ONCE THE INSPECTOR IS SATISFIED, THE SYSTEM & UTILITIES MAY BE BACKFILLED.
- THE NEW SERVICE(S) AND/OR STRUCTURE(S) SHALL BE PRESSURE TESTED OR VIDEOTAPED AFTER FINAL INSTALLATION IS COMPLETE. METHOD OF FINAL INSPECTION SHALL BE DETERMINED SOLELY BY THE CONSTRUCTION INSPECTOR FROM THE TOWN ENGINEERING DIVISION. THE SEWER SERVICE WILL NOT BE ACCEPTED UNTIL ONE OF THE TWO METHODS STATED ABOVE IS COMPLETED. A CERTIFICATE OF OCCUPANCY WILL NOT BE RECOMMENDED UNTIL ALL PIPING AND STRUCTURES ARE TESTED AND PASS.
- PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT, AN AS-BUILT PLAN MUST BE SUBMITTED TO THE ENGINEERING DIVISION IN BOTH DIGITAL FORMAT AND IN HARD COPY. THE PLAN MUST SHOW ALL UTILITIES AND DRAINAGE COMPONENTS (UTILIZING SWING TIES), ANY EASEMENTS AND FINAL GRADING. THE AS-BUILT PLAN MUST BE STAMPED, SIGNED, AND DATED BY A PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR.
- ALL WORK MUST BE DONE IN ACCORDANCE WITH "TOWN OF RANDOLPH ZONING BY-LAWS". ALL WORK SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE TOWN OF RANDOLPH ENGINEERING DEPARTMENT.
- ALL GAS AND ELECTRIC SERVICE LINES ARE SHOWN AS CONCEPT. THE UTILITY PROVIDER AND OR ELECTRIC/MECHANICAL ENGINEER MUST PROVIDE CONSTRUCTION AND DESIGN DETAILS INCLUDING BUT NOT LIMITED TO THE SIZE, LOCATION, TRENCH DETAIL, AND SETBACKS.

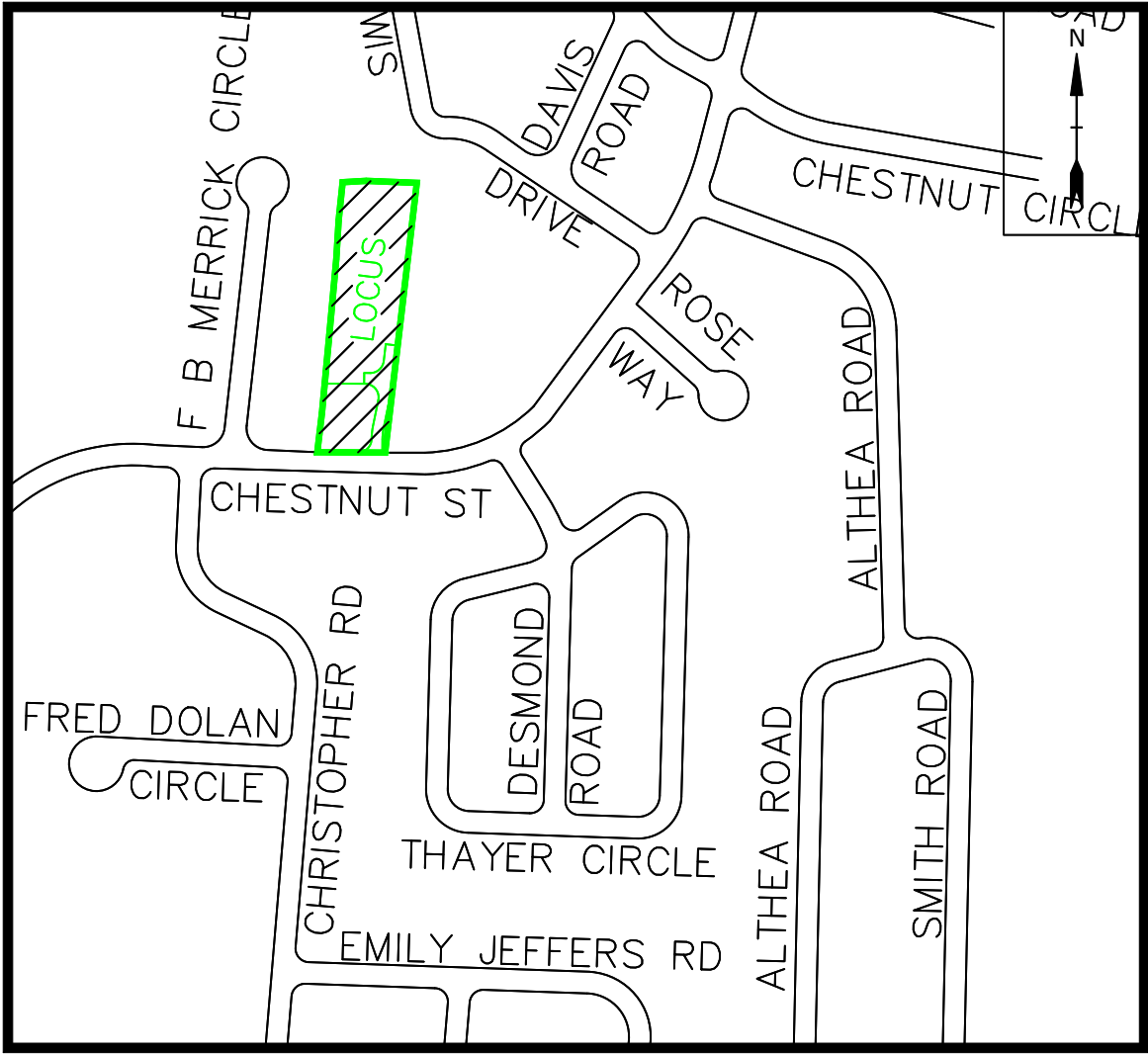
EROSION AND SEDIMENT CONTROL NOTES:

- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO COMMENCEMENT OF LAND DISTURBANCE ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE TOWN OF HOLBROOK CONSERVATION COMMISSION ONE (1) WEEK PRIOR TO THE START OF CONSTRUCTION FOR INSPECTION OF THE EROSION CONTROL MEASURES.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION.
- ALL DISTURBANCES TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
- THE CONTRACTOR SHALL MAINTAIN A SURPLUS SUPPLY OF NECESSARY EROSION CONTROL DEVICES ON-SITE FOR EMERGENCY USE (STRAW BALES, WATTLES, FILTER BERM, SILT FENCE, STAKES, CRUSHED STONE).

CONSTRUCTION SEQUENCE NOTES:

ITEMS MUST OCCUR IN THE ORDER LISTED; ITEMS CANNOT OCCUR CONCURRENTLY UNLESS SPECIFICALLY NOTED.

- NO CONSTRUCTION CAN BEGIN UNTIL ANY AND ALL PERMITS ARE OBTAINED FROM THE TOWN OF RANDOLPH.
- STAKE LIMITS OF CLEARING.
- INSTALL EROSION CONTROL BARRIERS AT LIMIT OF WORK AS DEPICTED.
- SCHEDULE INSPECTION BY CONTACTING THE TOWN OF RANDOLPH.
- PERFORM DEMOLITION OF THE EXISTING SITE APPURTENANCES.
- PERFORM CLEARING AND CURB CUT NECESSARY TO INSTALL STONE CONSTRUCTION ENTRANCES.
- INSTALL CONSTRUCTION ENTRANCES.
- INSTALL REMAINING EROSION CONTROL SYSTEMS.
- SCHEDULE INSPECTION BY CONTACTING THE CITY OF FRAMINGHAM.
- PERFORM CLEARING AND GRUBBING AS NECESSARY.
- STRIP AND STOCKPILE LOAM.
- PERFORM EARTHWORK CUT AND FILLS FOR ROUGH GRADE.
- INSTALL CONCRETE FOUNDATION FOR THE PROPOSED STRUCTURES.
- CONSTRUCT UPPER STRUCTURE INCLUDING ROOFS AND SIDING.
- INSTALLATION OF UTILITIES.
- REMOVE TEMPORARY CONTROLS EXCEPT PERIMETER CONTROLS AND STONE CONSTRUCTION ENTRANCE.
- PERFORM FINE GRADING AND PREPARE SUBGRADE FOR PAVING.
- PERMANENT/FINAL STABILIZATION.
- REMOVE STONE CONSTRUCTION ENTRANCE AND PERIMETER EROSION CONTROLS.
- PERFORM AS-BUILT SURVEYS AND SUBMIT TO TOWN OF RANDOLPH FOR ACCEPTANCE.



LOCUS MAP
N.T.S.

BASE PLAN NOTES:

- THE EXISTING CONDITIONS INFORMATION SHOWN ON THE DRAWINGS IS BASED ON THE FOLLOWING:
 - EXISTING CONDITIONS TAKEN FROM A CAD FILE TITLED "P2252.DWG" PROVIDED TO THE ENGINEERING CONSULTANT BY BORDERLAND ENGINEERING, INC VIA EMAIL IN DWG FORMAT IN AUGUST 2021.
 - AS-BUILT PLAN OF LAND PROVIDED BY NORFOLK RAM GROUP TITLED "LOT 8-A CHESTNUT ST., LOT 8-B PROPOSED ROADWAY OFF CHESTNUT ST." AND DATED MAY 2008.
 - THE DRAWING IS BASED ON N.A.V.D. 88 DATUM.
 - SUB-SURFACE EXPLORATIONS WERE OBSERVED BY GREGORY BUNAVICZ (S.E. #2712). THE SUBSURFACE EXPLORATION LOGS AND LOCATIONS ARE SHOWN ON THE PLANS.
 - THE PROPERTY IS LOCATED WITHIN A SURFACE WATER PROTECTION AREA (ZONE C).
 - THE PROJECT AREA IS NOT LOCATED WITHIN NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM (NHESP) LIMITS OF ESTIMATED PRIORITY HABITAT.
 - THE PROJECT AREA IS NOT LOCATED WITHIN THE LIMITS OF BORDERING LAND SUBJECT TO FLOODING (BLSF) AND THE 100-YEAR FLOOD ZONE (PANEL #250250, EFFECTIVE DATE 07/17/2021).
- BOLD TEXT AND LINES INDICATE PROPOSED WORK. LIGHT TEXT AND LINES INDICATE APPROX. EXIST. CONDITIONS.

SHEET KEY

SHEET NO.	SHEET TITLE
1	LEGEND & GENERAL NOTES
2	RE-DIVISION OF DEFINITIVE PLAN OF LAND
3	EXISTING CONDITIONS & DEMOLITION PLAN
4	PROPOSED CONDITIONS PLAN
5	DETAILS-1
6	DETAILS-2

TP-1

DEPTH	EL.
0"	199.10'
12"	198.10'
30"	196.60'
84"	192.10'

NOTES:
NO MOTTLES OBSERVED
NO GROUNDWATER OBSERVED
TERMINATED DUE TO BOULDER

TP-2

DEPTH	EL.
0"	198.0'
16"	196.67'
33"	195.25'
77"	191.58'
92"	190.33'

NOTES:
NO MOTTLES OBSERVED
NO GROUNDWATER OBSERVED
NO LEDGE OBSERVED

SUBSURFACE EXPLORATION NOTES:

- TEST PITS WERE PERFORMED BY GREGORY BUNAVICZ (S.E. #2712).
- THE LOGS SHOWN ABOVE REPRESENT THE SOIL DATA PROVIDED BY BORDERLAND ENGINEERING, INC. AND RECIEVED BY MUNDEN ENGINEERING VIA EMAIL ON 08/13/2021.
- THE LOCATION OF THE TEST PITS WERE DETERMINED BASED ON FIELD MEASUREMENTS PERFORMED BY GREGORY BUNAVICZ.
- ELEVATIONS AT THE TEST PIT LOCATIONS WERE DETERMINED BASED ON THE GROUND SURFACE LOCATIONS SHOWN ON THE EXISTING LAND SURVEY PLAN PROVIDED BY DON ROSA, PLS.
- STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARIES BETWEEN SOIL AND BEDROCK LAYERS. ACTUAL LAYERING MAY BE GRADUAL. FLUCTUATIONS OF GROUNDWATER MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIMES IT WAS MEASURED.

SUBSURFACE EXPLORATION LOGS
NOT TO SCALE

Prepared By:



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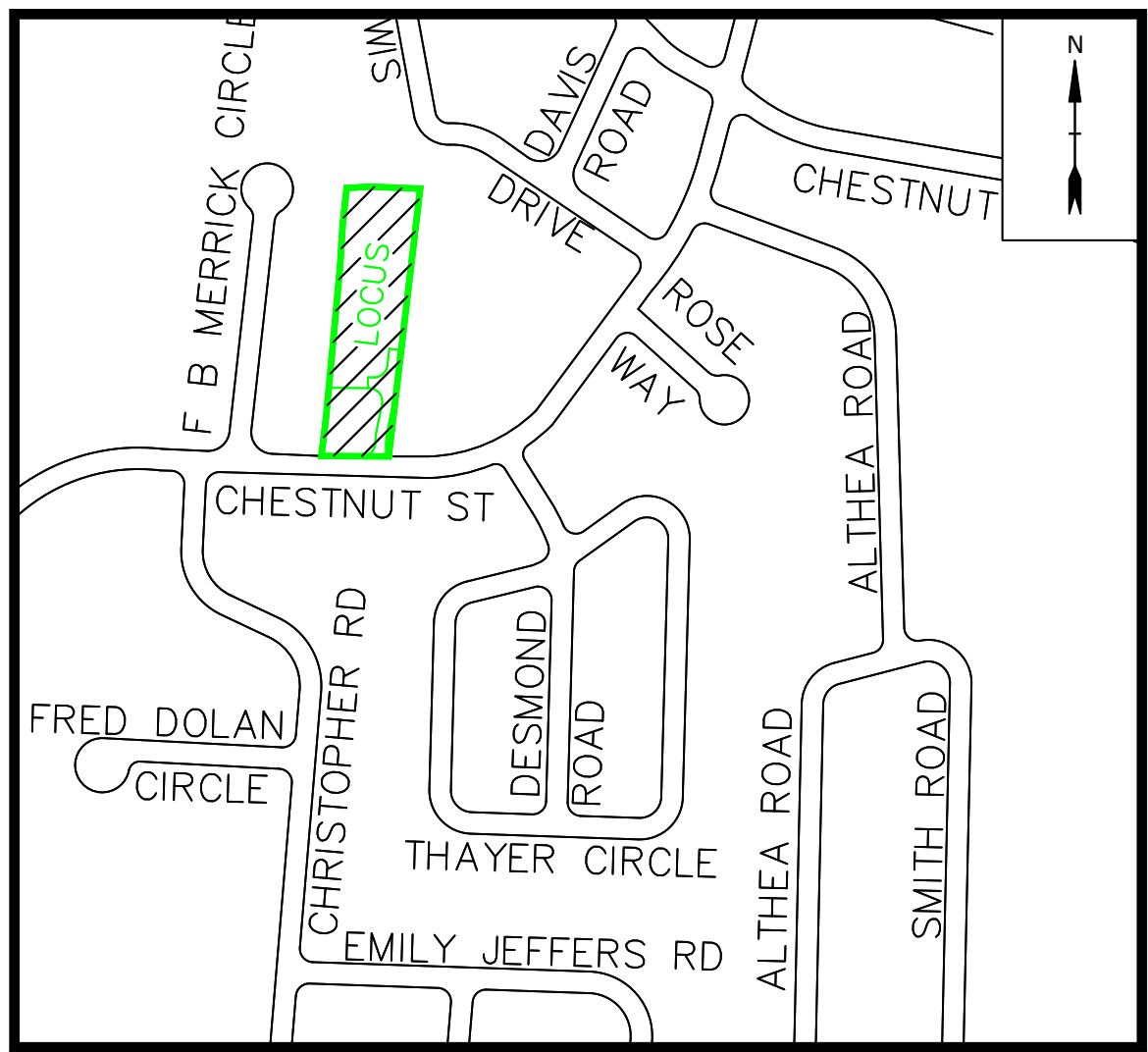
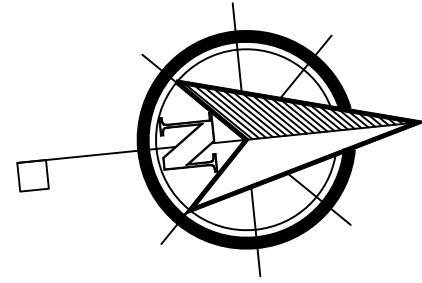
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STORMWATER MANAGEMENT NOTES:

- ALL STORMWATER MANAGEMENT AND EROSION CONTROL SYSTEMS PROPOSED IN THIS PLAN REFER TO THE STORMWATER REPORT ACCOMPANYING THIS PLAN PREPARED BY THE SAME OFFICE.

EXISTING UTILITY NOTES:

- EXISTING UTILITIES ARE AS SOWN IN MOST RECENT SURVEY AND/OR AS SHOWN ON THE AS BUILT PLAN ENTITLED "AS-BUILT PLAN OF LAND" PREPARED BY NORFOLK RAM GROUP AND DATED MAY 2005.
- SEWER MANHOLE RIM ELEVATIONS ARE AS DETERMINED BY THE LATEST SURVEY. SMH #1 INVERT ELEVATION AS PROVIDED BY RE CET SURVEY. SMH #2 INVERT ELEVATION CALCULATED BY SUBTRACTING THE RIM-INVERT DIFFERENCE OF THE AS-BUILT PLAN FROM THE RIM ELEVATION DETERMINED BY RECENT SURVEY.
- INVERT AT THE NEW SERWER SERVICE CONNECTION MUST BE DETERMINED ON-SITE BY THE CONTRACTOR AND MUST BE CONFIRMED BY THE ENGINEER OF THE RECORD PRIOR TO CORING, CONNECTION AND BACKFILL, BY THE ENGINEER OF THE RECORD.



LOCUS MAP
N.T.S.

Prepared By:



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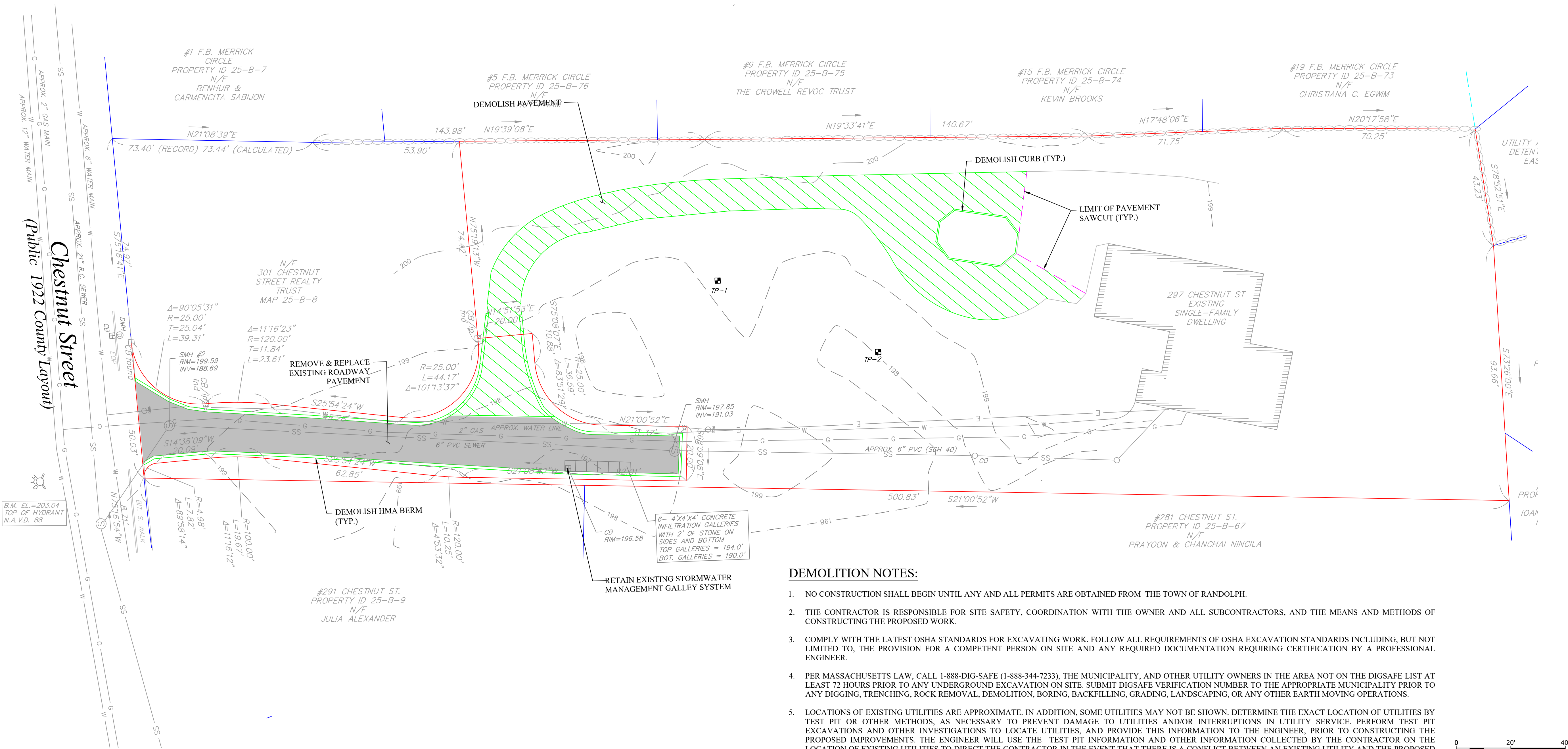
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DEMOLITION NOTES:

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4. PER MASSACHUSETTS LAW, CALL 1-888-DIG-SAFE (1-888-344-7233), THE MUNICIPALITY, AND OTHER UTILITY OWNERS IN THE AREA NOT ON THE DIGSAFE LIST AT LEAST 72 HOURS PRIOR TO ANY UNDERGROUND EXCAVATION ON SITE. SUBMIT DIGSAFE VERIFICATION NUMBER TO THE APPROPRIATE MUNICIPALITY PRIOR TO ANY DIGGING, TRENCHING, ROCK REMOVAL, DEMOLITION, BORING, BACKFILLING, GRADING, LANDSCAPING, OR ANY OTHER EARTH MOVING OPERATIONS.
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6. TEST PITS TO LOCATE EXISTING UTILITIES MAY BE ORDERED BY THE ENGINEER.
7. NOTIFY THE ENGINEER OF ANY UTILITIES IDENTIFIED DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE DRAWINGS OR THAT DIFFER IN SIZE OR MATERIAL.
8. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS ARE OBSERVED THAT VARY SIGNIFICANTLY FROM THOSE SHOWN ON THESE PLANS, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION OF THE CONFLICTING INFORMATION.
9. REFER TO LOCAL UTILITY COMPANIES FOR LOCATION, CONSTRUCTION DETAILS, AND SPECIFICATIONS.

Rev. No.	Rev. Date	Description
Date: 12/20/2021		
Drawn by: JLV		
Approved by: GM		
EXISTING CONDITIONS AND DEMOLITION PLAN		
SCALE: AS NOTED		
SHEET 3 OF 6		

1. DRAIN PIPES TO BE LAID AT A MINIMUM 1.0% SLOPE.
2. UNDERGROUND UTILITIES (I.E. ELECTRIC, GAS, TEL, CATV) SERVICE LOCATIONS TO BE COORDINATED WITH LOCAL UTILITY COMPANIES.
3. SUFFICIENT COVER SHALL BE MAINTAINED OVER EXISTING UTILITIES AND COORDINATED WITH LOCAL UTILITY COMPANIES.
4. THE PROPOSED SUBSURFACE INFILTRATION SYSTEM FOR THE COLLECTION OF THE STREET DRAINAGE SHALL BE OPERATED AND MAINTAINED THROUGH A HOMEOWNER'S ASSOCIATION (HOA) ESTABLISHED BETWEEN LOTS 8-B1 AND 8-B2.
4. THE APPLICANT OR PROPERTY OWNER SHALL GRANT AN EASEMENT TO THE TOWN OF RANDOLPH ALLOWING ENTRY ON THE PROPERTY AS NECESSARY TO INSPECT, REPAIR OR MAINTAIN THE STORMWATER STRUCTURE OR SYSTEM(S).

EXISTING IMPERVIOUS AREA:

ROOF	2,970 SF
DRIVEWAY	7,764 SF
ROADWAY	3,286 SF

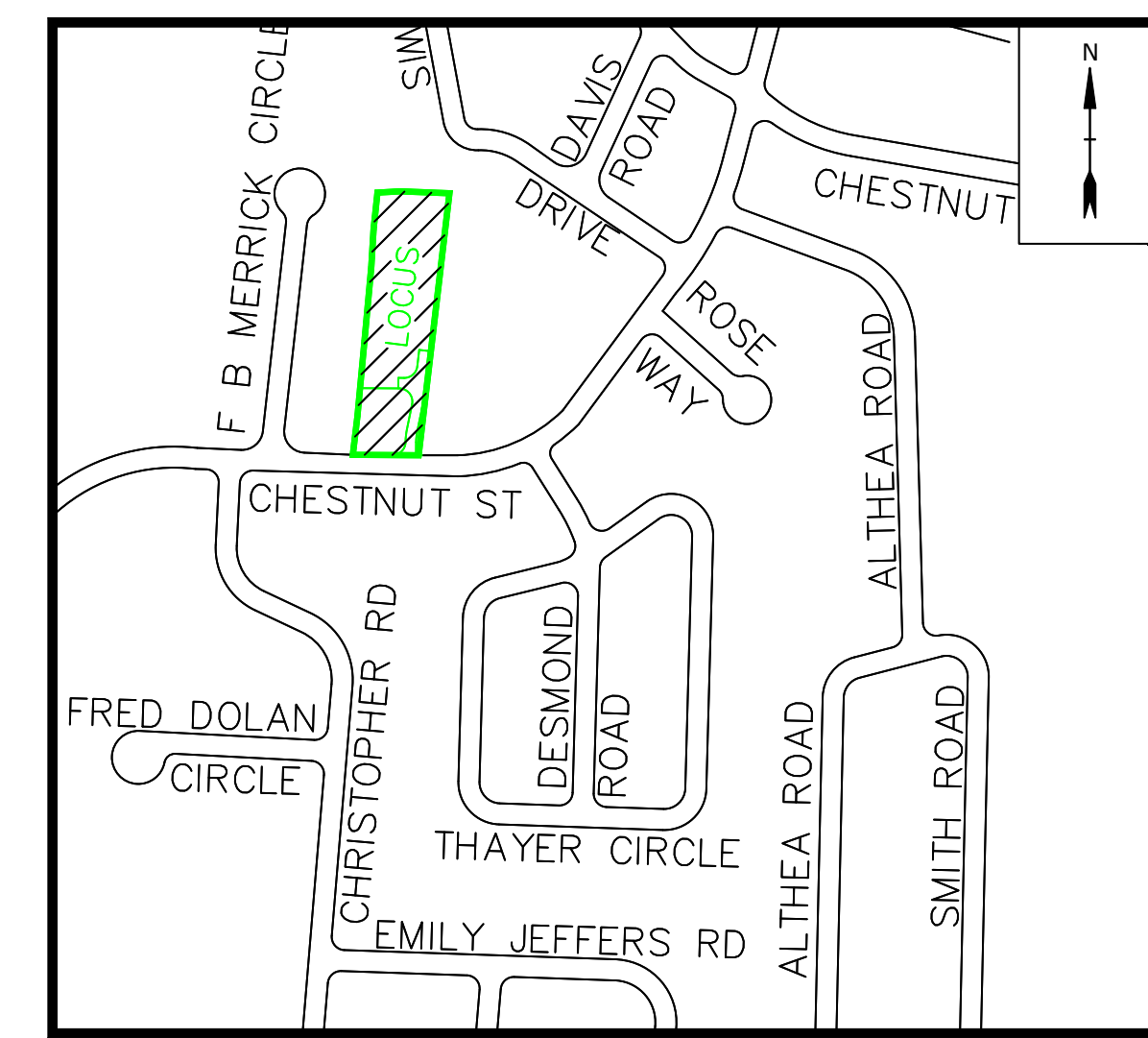
EXISTING TOTAL: 14,020 SF

PROPOSED IMPERVIOUS AREA:	
ROOF	4,362 SF
DRIVEWAY	4,123 SF
ROADWAY	11,026 SF

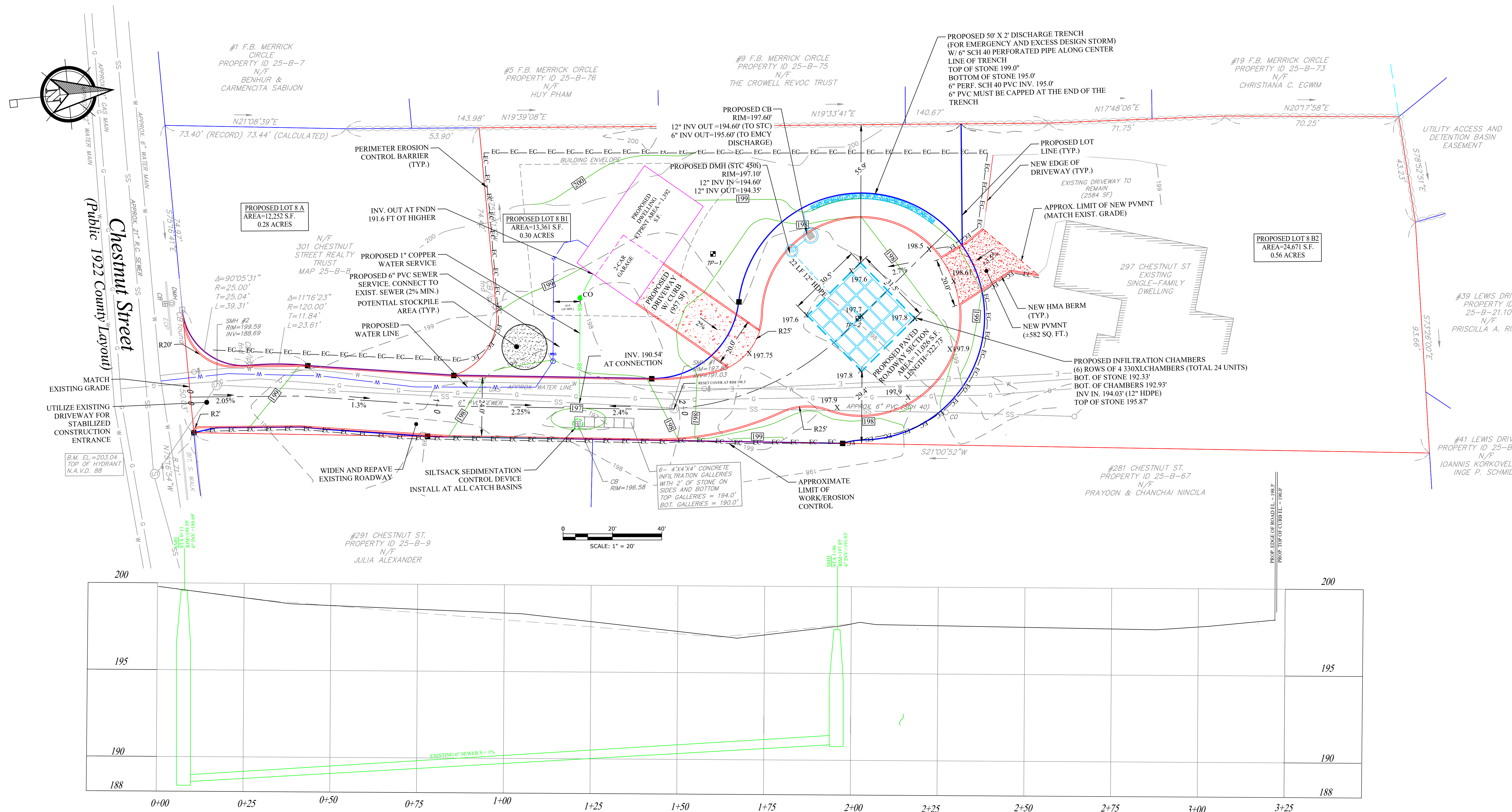
PROPOSED TOTAL: 19,511 SF

INCREASE IN IMPERVIOUS AREAS: 5,491 SF

1. MINIMUM RADIUS FOR CORNER INTERSECTION LESS THAN 25-FT (SUB-SECTION VIII.B4c.).
2. RIGHT-OF-WAY WIDTH LESS THAN 40-FT EXCEPT AT CUL-DE-SAC ((SUB-SECTION VIII.B5).
3. ROADWAY GRADE LESS THAN 1% BETWEEN STATIONS 2+00 AND 2+50 (SUB-SECTION VIII.B6).
4. THE 2-YR, 10-YR AND 25-YR STORM EVENTS WERE USED FOR DESIGN COMPUTATIONS FOR STREET DRAINAGE (SUB-SECTION VIII.D3/D4).
5. TECHNICAL RELEASE (TR) 20 AND TR-55 METHODOLOGIES WERE APPLIED TO GENERATE A REPRESENTATIVE MODEL OF THE EXISTING AND PROPOSED STORMWATER CONDITIONS (SUB-SECTION VIII.D4.). NO FUTURE LAND DEVELOPMENT WILL BE ALLOWED FOR THE PROPOSED 2-LOT SUBDIVISION. (SUB-SECTION VIII.D3/D4).
6. PROPOSED 12-INCH STORM DRAIN TO BE HDPE WITH ADEQUATE STRENGTH (H-20 LOADING) IN LIEU OF REINFORCED CONCRETE (SUB-SECTION VIII.D6.).
7. SUBSURFACE INFILTRATION SYSTEM FOR STREET DRAINAGE PROPOSED WITHIN RIGHT-OF-WAY (SUB-SECTION VIII.D19.).
8. NO WATERMAINS OR FIRE HYDRANTS PROPOSED. WATER SERVICE SHALL BE PROVIDED FROM EXISTING WATERMAIN ON CHESTNUT STREET (SUB-SECTION VIII.E3a/E4a).
9. NO PAVED SIDEWALKS PROPOSED (SUB-SECTION VIII.H1-9.).
10. HMA BERM PROPOSED IN LIEU OF VERTICAL GRANITE CURBING (SUB-SECTION VIII.I2.).
11. NO STREET TREES PROPOSED (SUB-SECTION VIII.M.).




LOCUS MAP
N.T.S.



GRADE PROFILE

NTS

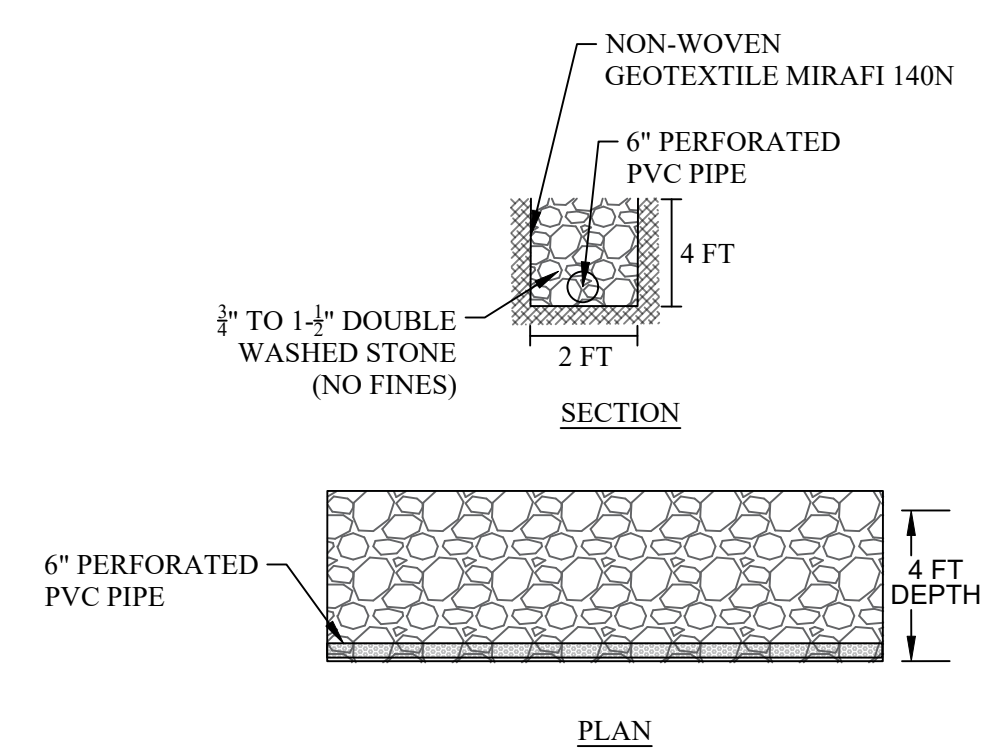


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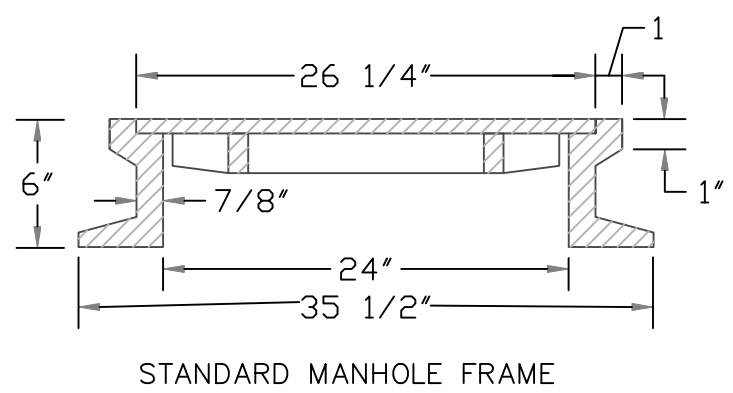


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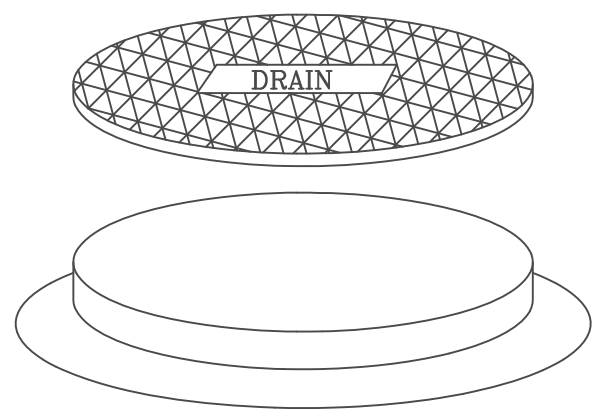
Rev. No.	Rev. Date	Description
Date: 12/20/2021		
Drawn by: JLV		
Approved by: GM		
<p align="center">PROPOSED CONDITIONS GRADING&DRAINAGE& EROSION CONTROL PLAN</p>		
SCALE:		AS NOTED
<p align="center">SHEET 4 OF 6</p>		



DISCHARGE TRENCH DETAIL
NOT TO SCALE



STANDARD MANHOLE FRAME

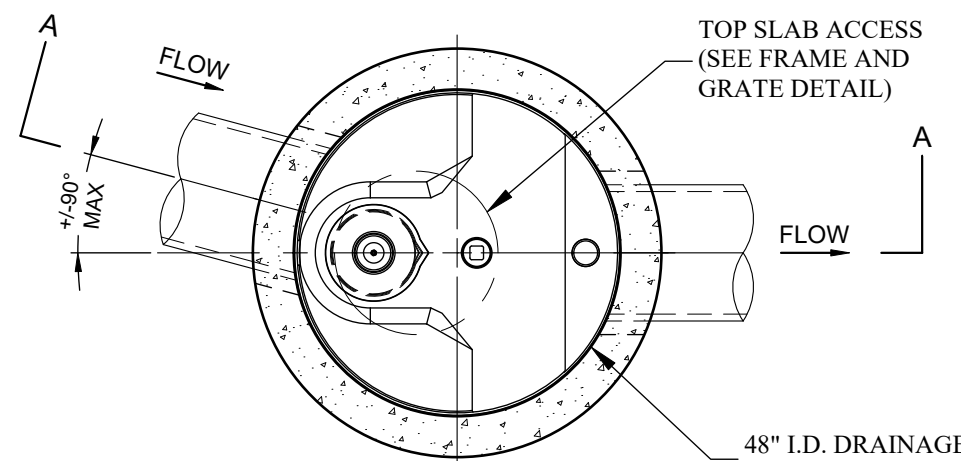


STANDARD MANHOLE COVER

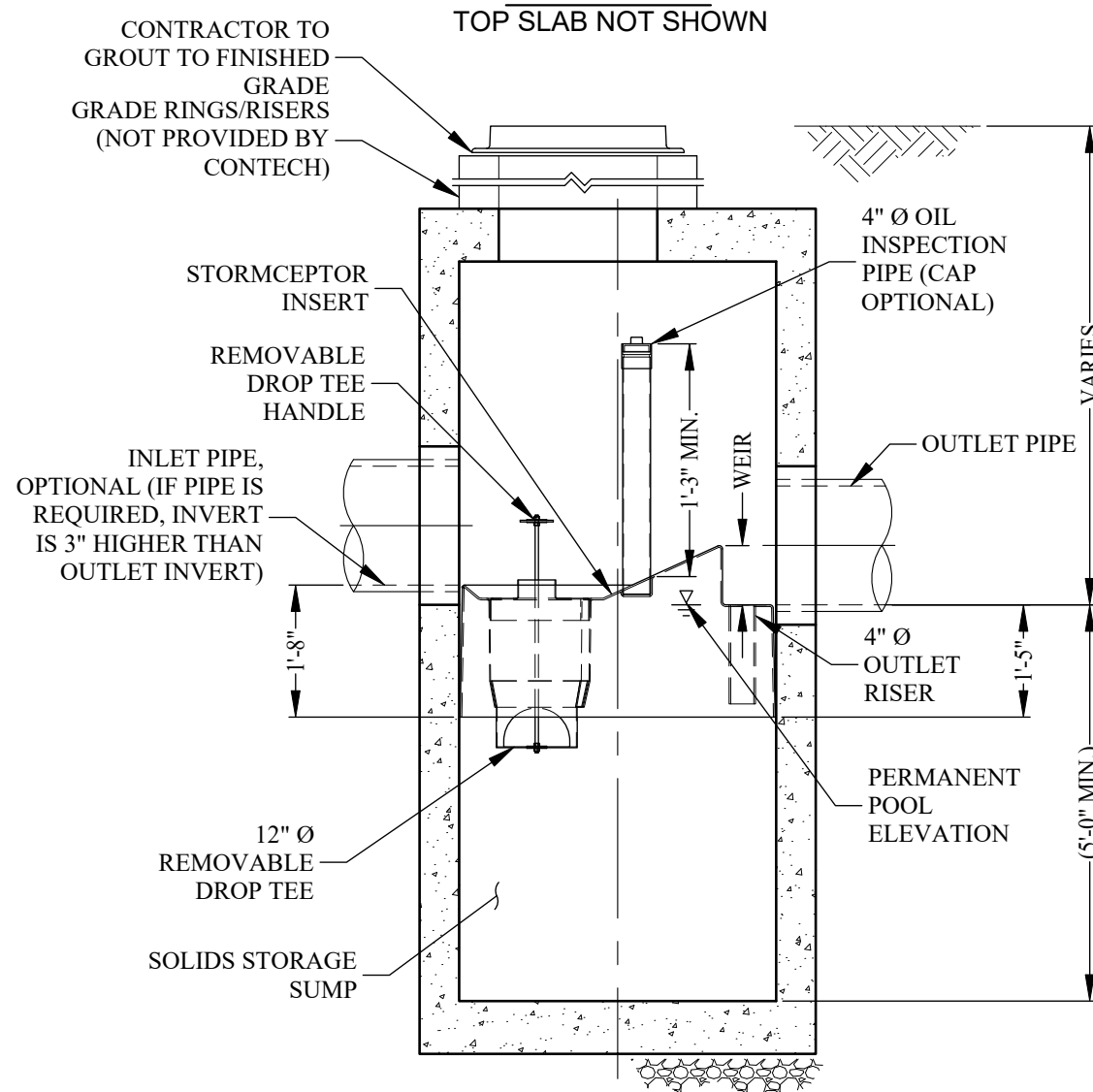
NOTES:

1. FRAME AND COVER TO BE EJUSA OMA226000002(FRAME) AND EJUSA OMA211000005 (COVER) OR APPROVED EQUAL.
2. LETTERING SHALL BE CAST INTO COVERS AS SPECIFIED.

MANHOLE FRAME & COVER
NOT TO SCALE



PLAN VIEW
TOP SLAB NOT SHOWN

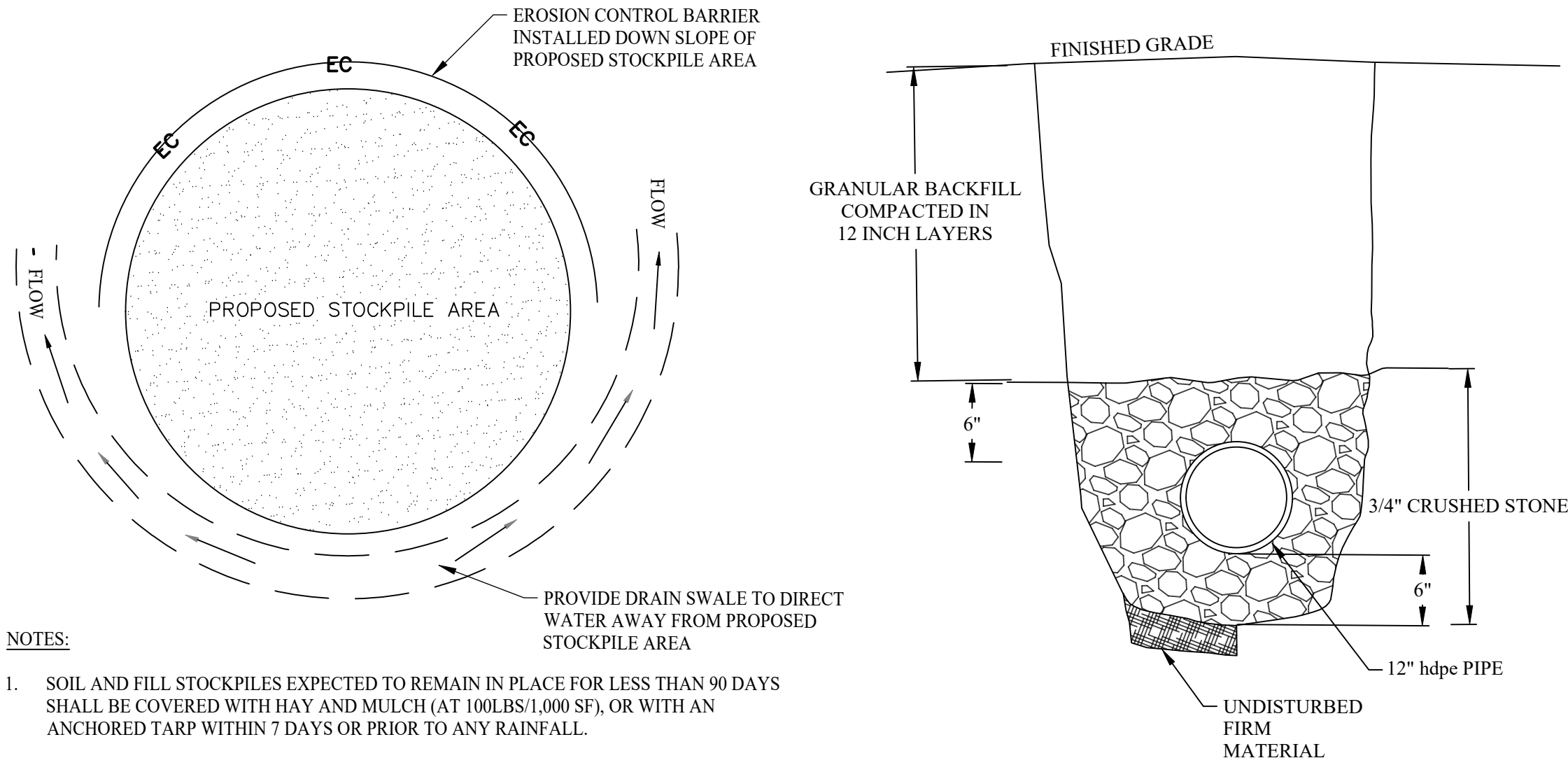


SECTION VIEW

NOTES:

1. THE USE OF FLEXIBLE CONNECTION IS RECOMMENDED AT THE OUTLET WHERE APPLICABLE.
2. THE COVER CONFIGURATION SHALL BE A GRATED INLET WITH CURBING.
3. SWTU SHALL BE STC 450i, PRECAST CONCRETE STORMCEPTOR, OR EQUAL.

STC 450i PRECAST CONCRETE STORMCEPTOR®
STORMWATER TREATMENT UNIT (SWTU)
NOT TO SCALE



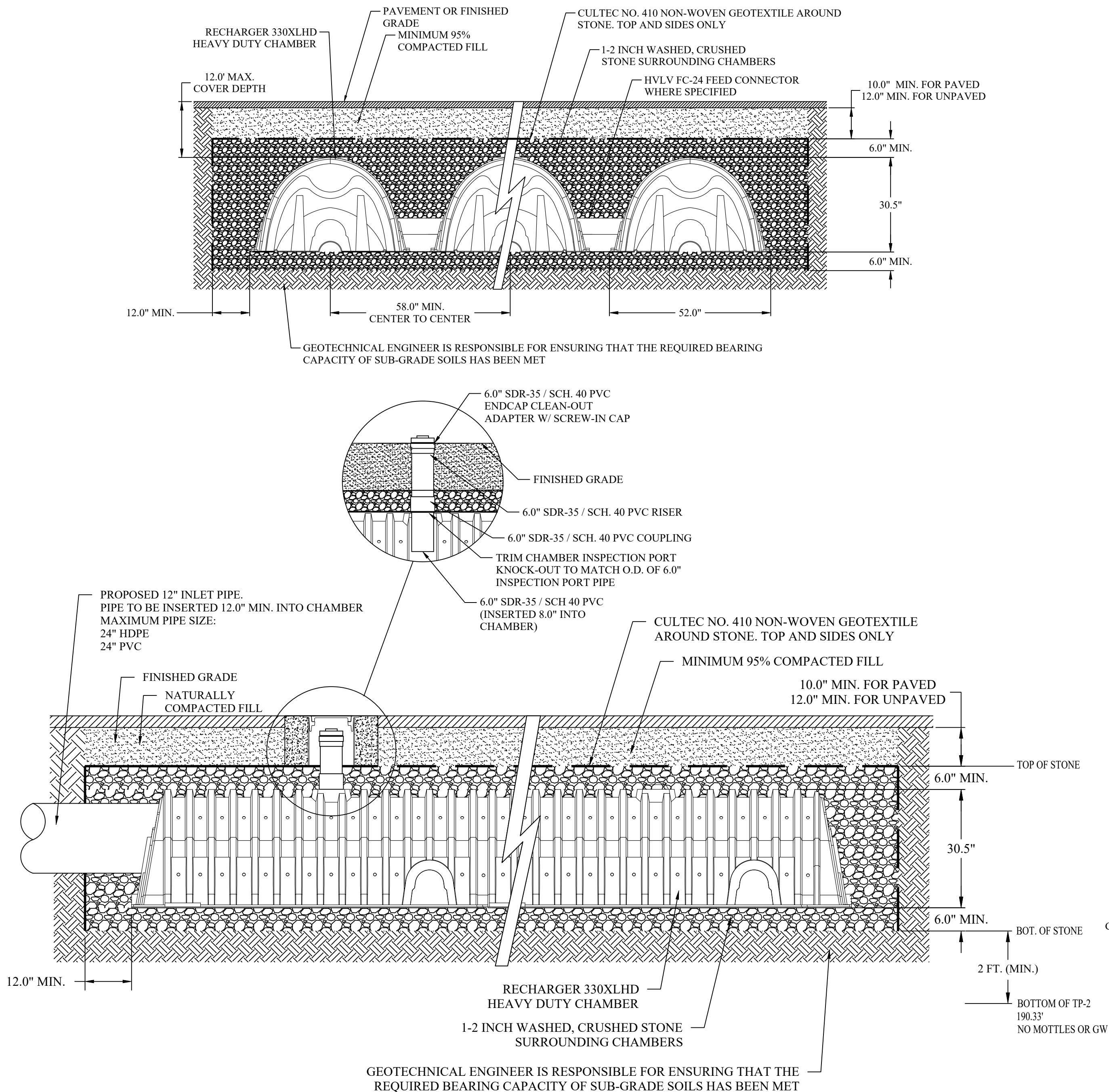
NOTES:

1. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH HAY 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) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.

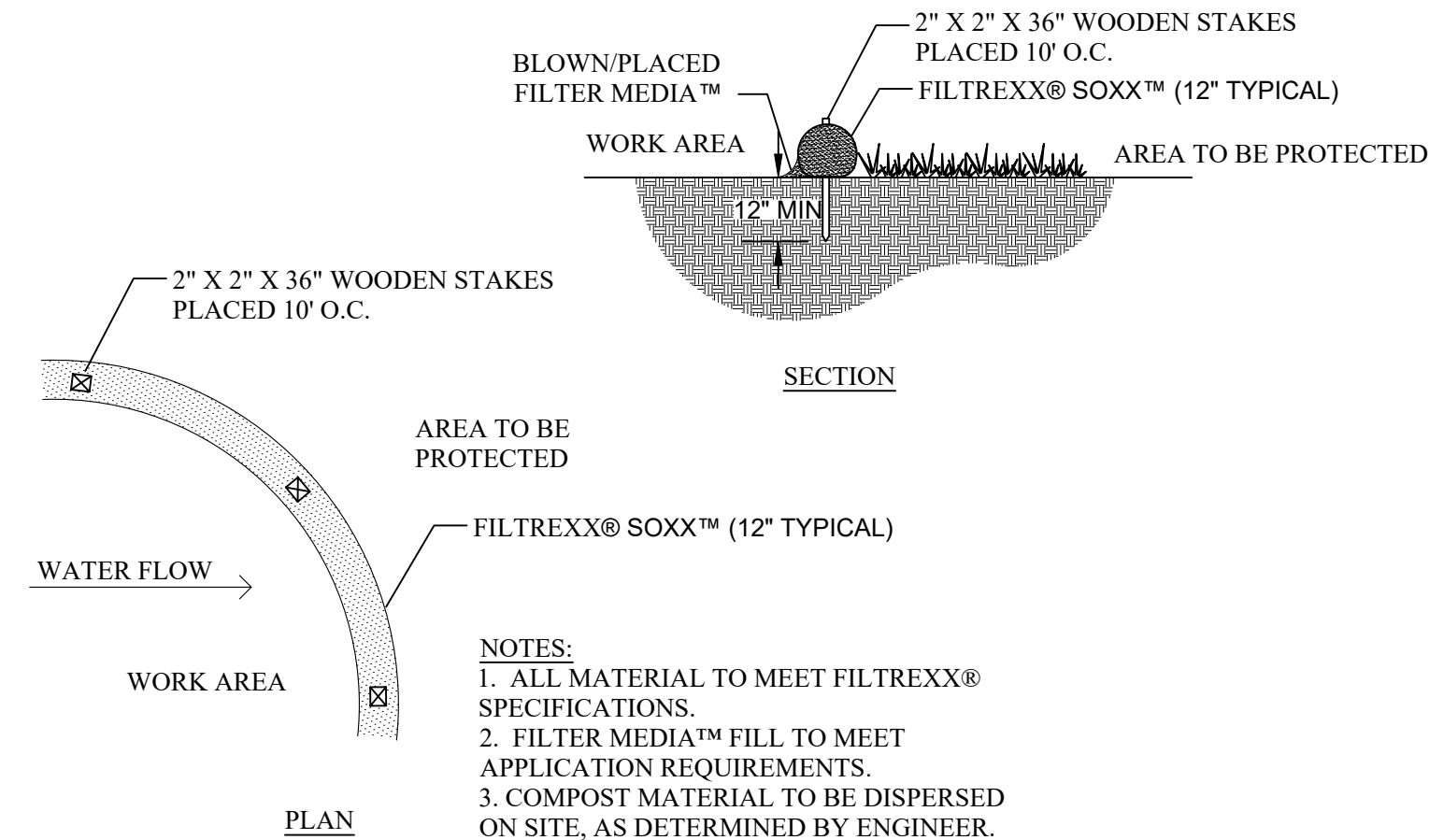
STOCKPILE PROTECTION DETAIL
NOT TO SCALE

- NOTES:
1. MATERIAL USED FOR BACKFILLING MUST NOT CONTAIN STONES LARGER THAN 3 INCHES IN GREATEST DIMENSION.
 2. ANY EXCAVATION BELOW 6" BELOW THE PIPE INVERT ELEVATION DUE TO UNSUITABLE SOILS MUST BE REPLACED WITH 3/4" CRUSHED STONE.

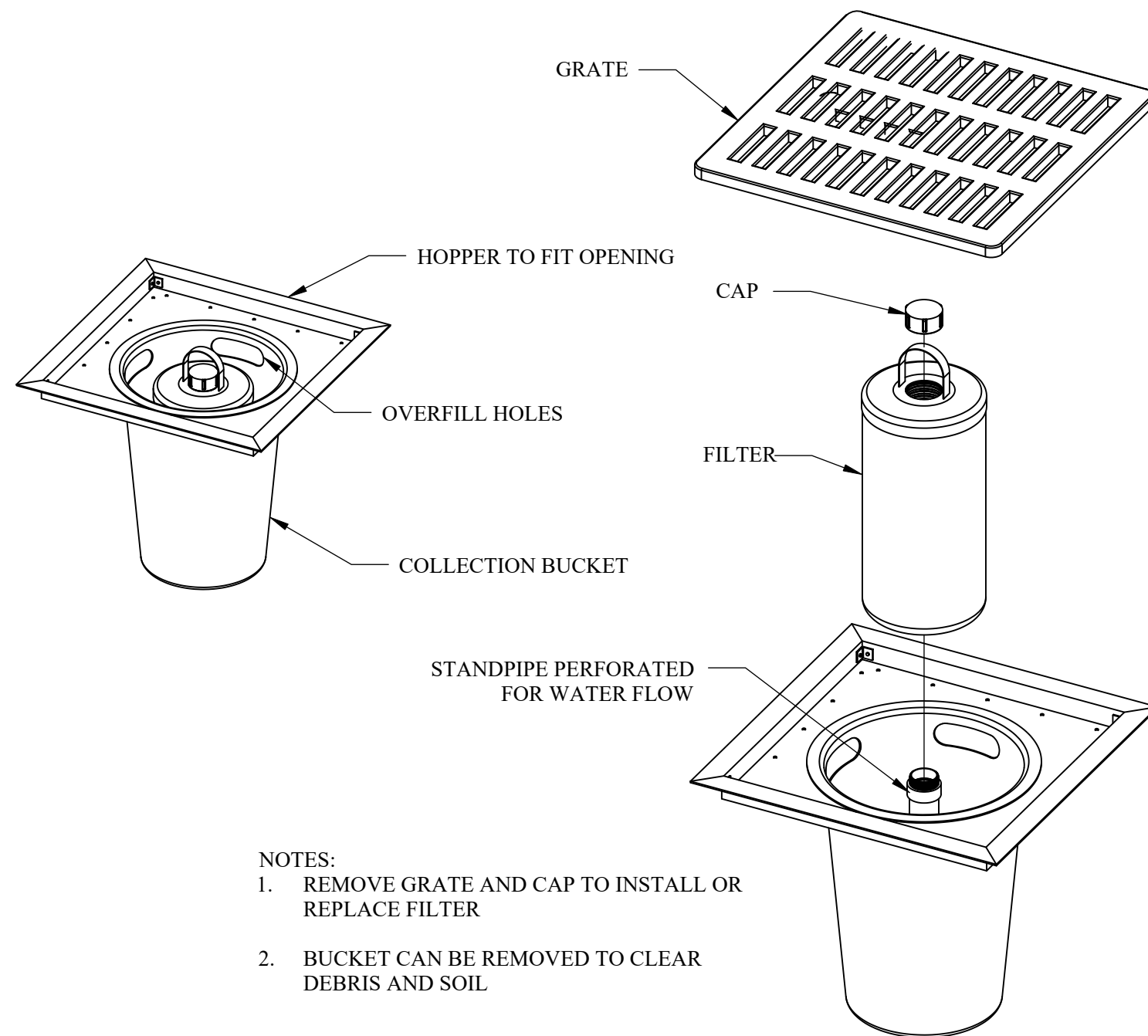
12" STORM DRAIN PIPE TRENCH DETAIL
NOT TO SCALE



CULTEC® 330 XL INFILTRATION CHAMBERS
NOT TO SCALE



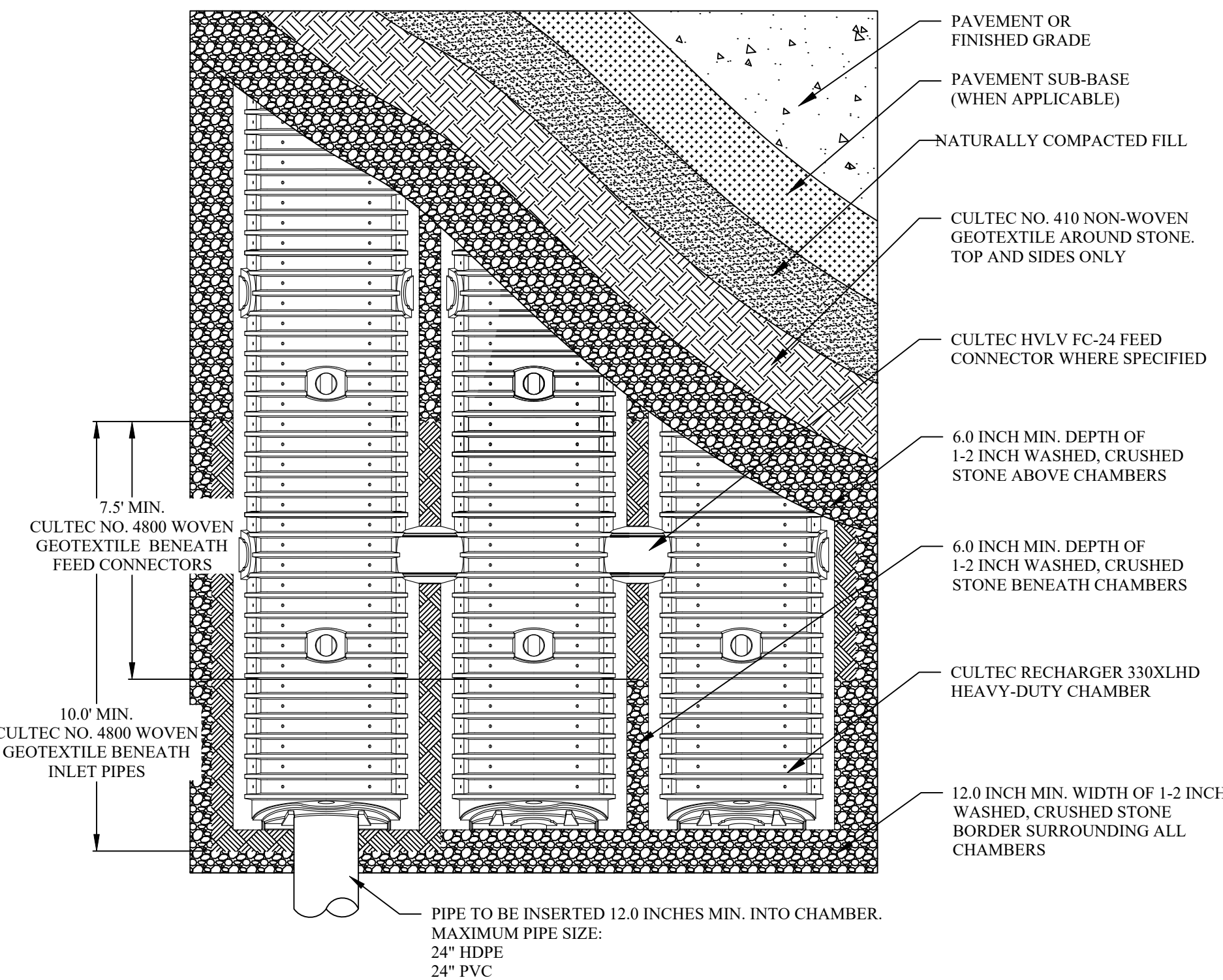
FILTREXX® SEDIMENT CONTROL
NOT TO SCALE



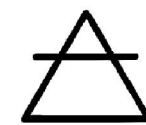
NOTES:

1. REMOVE GRATE AND CAP TO INSTALL OR REPLACE FILTER
2. BUCKET CAN BE REMOVED TO CLEAR DEBRIS AND SOIL

FILTREXX® CATCH BASIN INLET PROTECTION
NOT TO SCALE



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Rev. No.	Rev. Date	Description
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Date: 12/20/2021

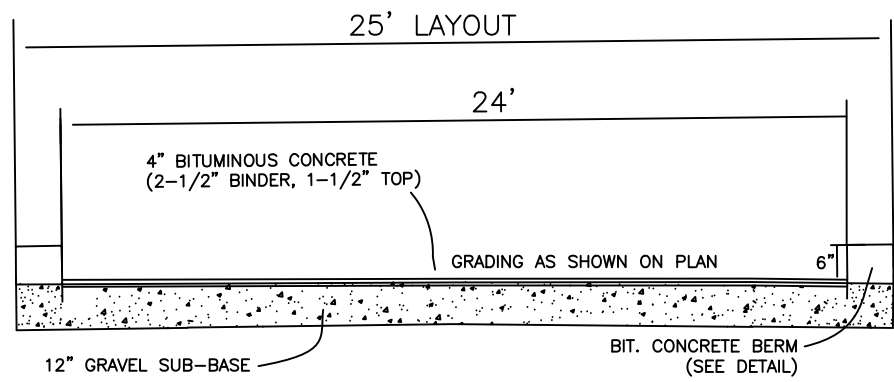
Drawn by: JLV

Approved by: GM

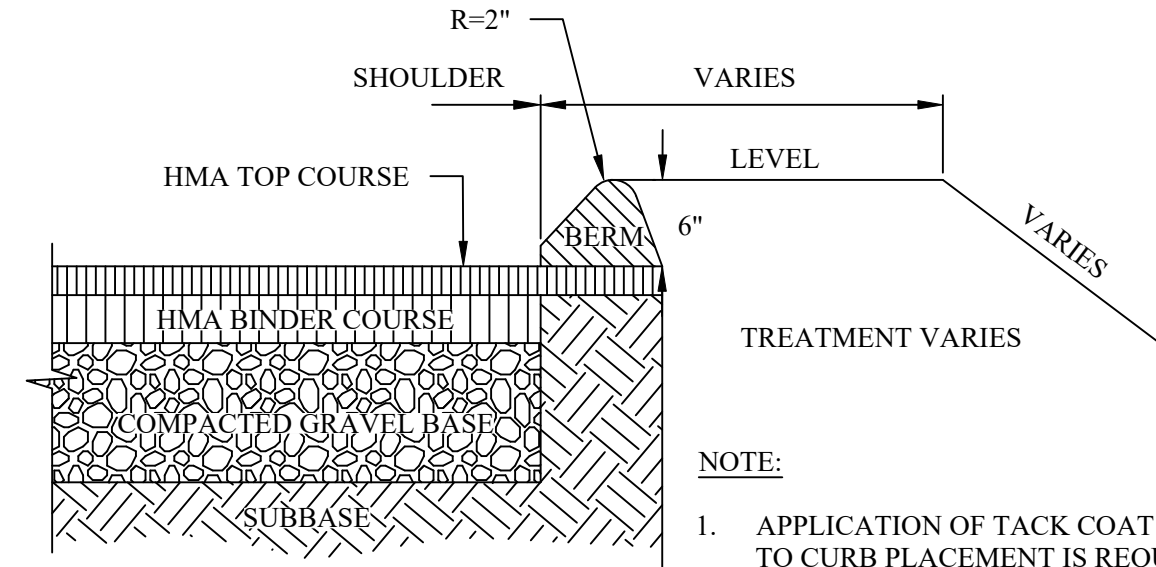
STORMWATER
MANAGEMENT DETAILS

SCALE: AS NOTED

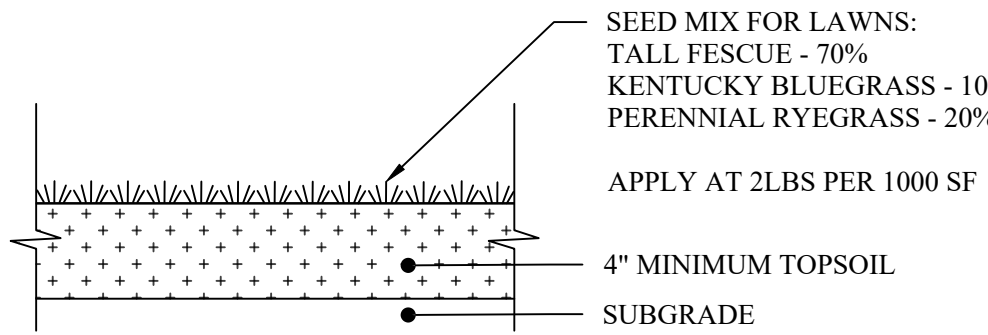
SHEET 5 OF 6



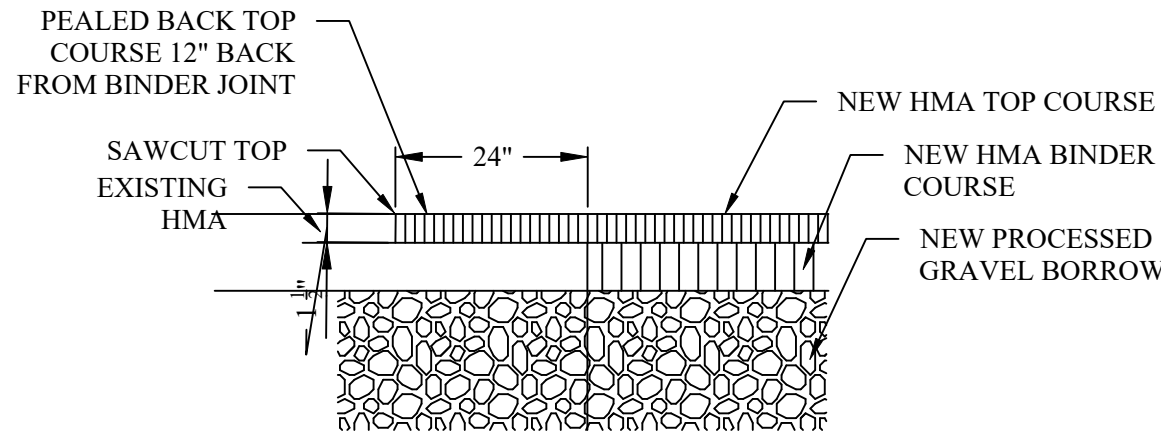
25 FT RIGHT OF WAY LAYOUT
NOT TO SCALE



HMA BERM DETAIL
NOT TO SCALE



LAWN AREAS
NOT TO SCALE



TYPICAL BUTT JOINT
TO EXISTING PAVEMENT
NOT TO SCALE

FLAT TOP		
ITEM NO	ITEM	WEIGHT
1	HOLE MH4-FT4ID	1,620#
2	HOLE MH4-FT4ID2H	930#

ECCENTRIC CONE		
HEIGHT	ITEM NO	WEIGHT
1'-6"	MH4-18CS4ID	1,335#
2'-0"	MH4-24CS4ID	1,783#
2'-6"	MH4-30CS4ID	2,140#
3'-0"	MH4-36CS4ID	2,677#
4'-0"	MH4-48CS4ID	3,425#

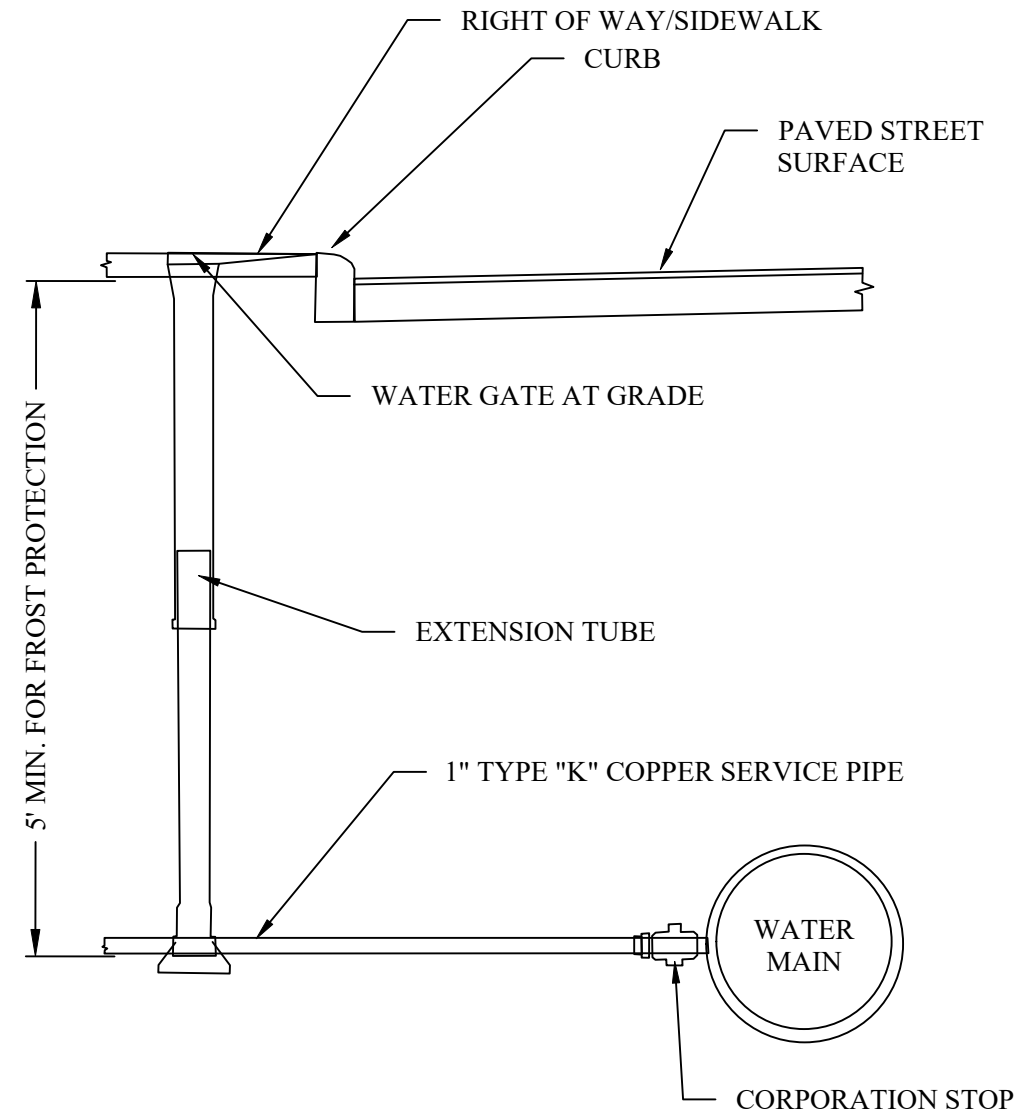
RISER SECTION		
HEIGHT	ITEM NO	WEIGHT
1'-0"	MH4-12CS4ID	856#
2'-0"	MH4-24CS4ID	1,712#
2'-6"	MH4-30CS4ID	2,140#
3'-0"	MH4-36CS4ID	2,568#
4'-0"	MH4-48CS4ID	3,424#
5'-0"	MH4-60CS4ID	4,280#

BASE SECTION		
HEIGHT	ITEM NO	WEIGHT
2'-0"	MH4-24S4ID	2,640#
2'-6"	MH4-30S4ID	3,067#
3'-0"	MH4-36S4ID	3,495#
3'-6"	MH4-42S4ID	3,922#
4'-0"	MH4-48S4ID	4,350#
4'-6"	MH4-54S4ID	4,777#
5'-0"	MH4-60S4ID	5,205#
5'-6"	MH4-66S4ID	5,633#
6'-0"	MH4-72S4ID	6,060#

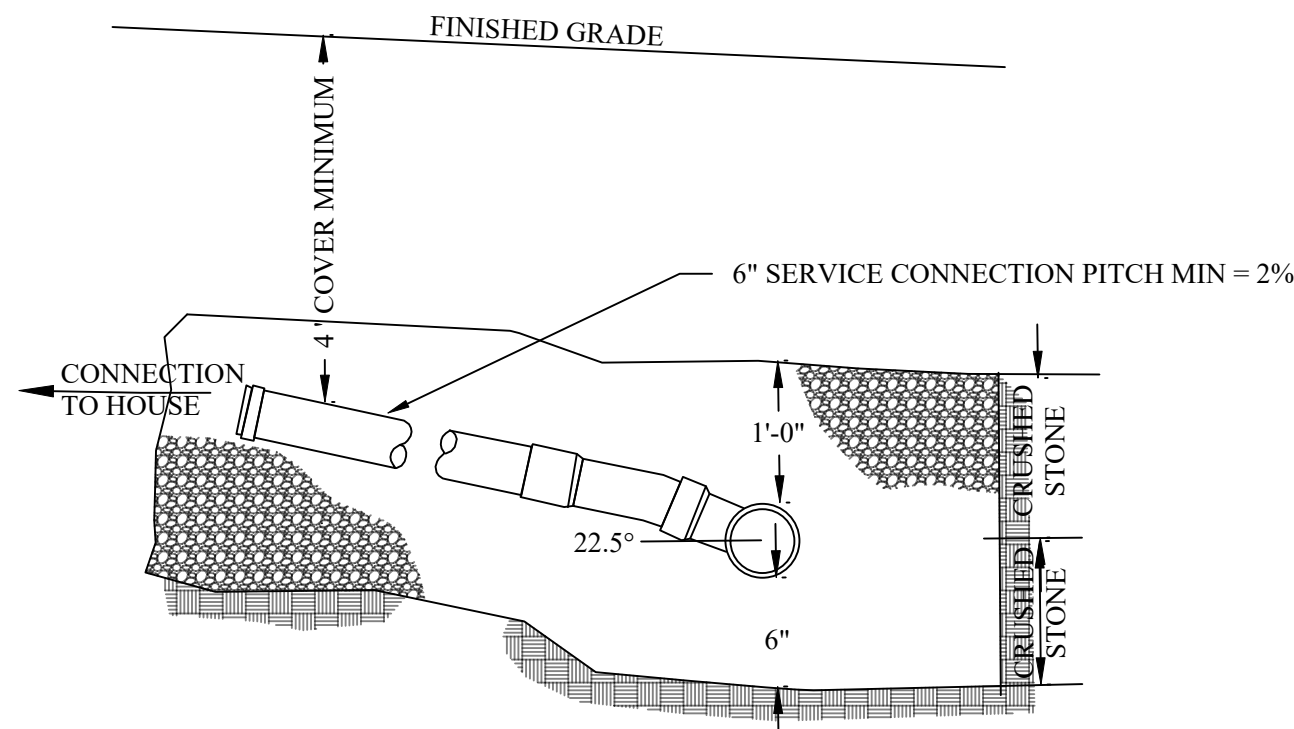
NOTES:

- CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
- REINFORCED STEEL CONFORMS TO ASTM A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) BASE BOTTOM.
- DESIGN LOADING PER AASHTO HS-20, 1 TO 5 FEET COVER.
- MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."

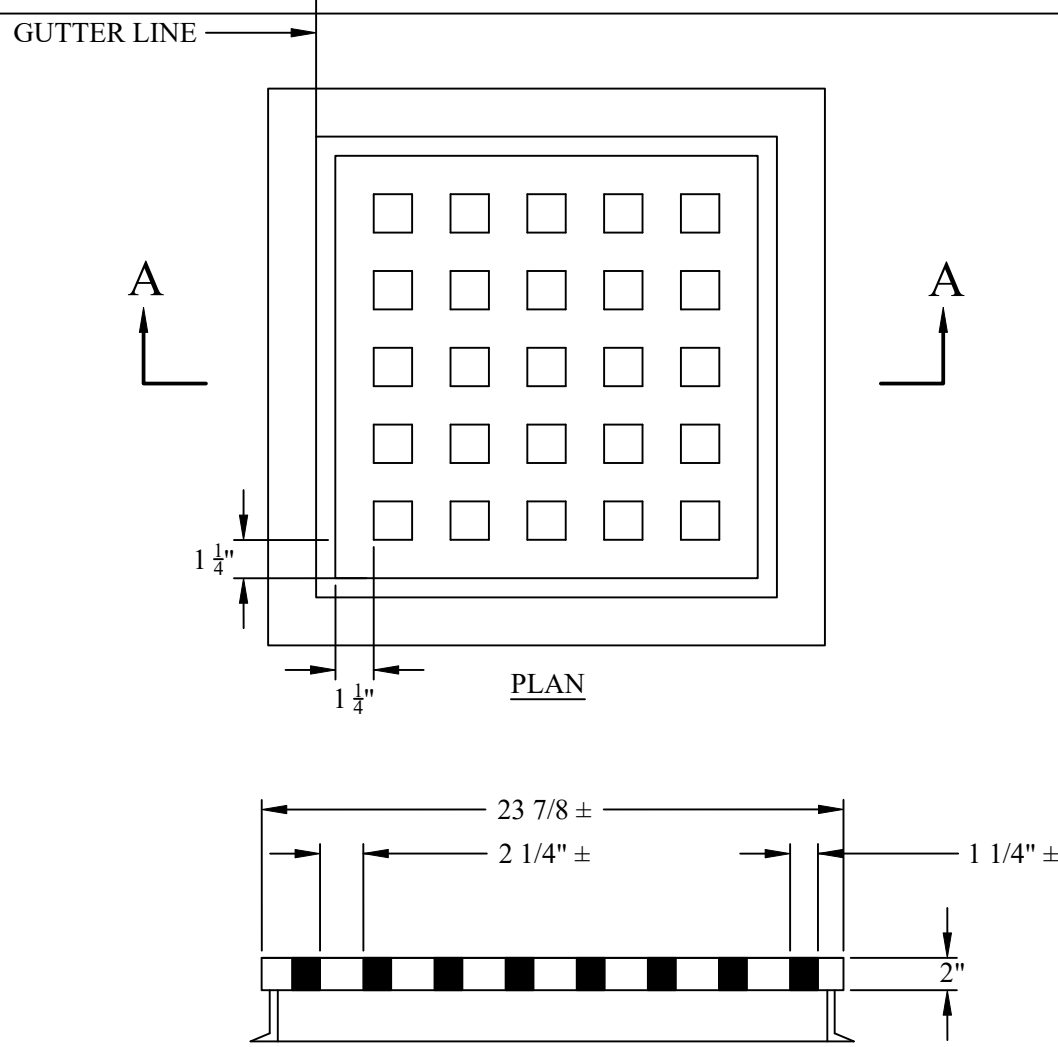
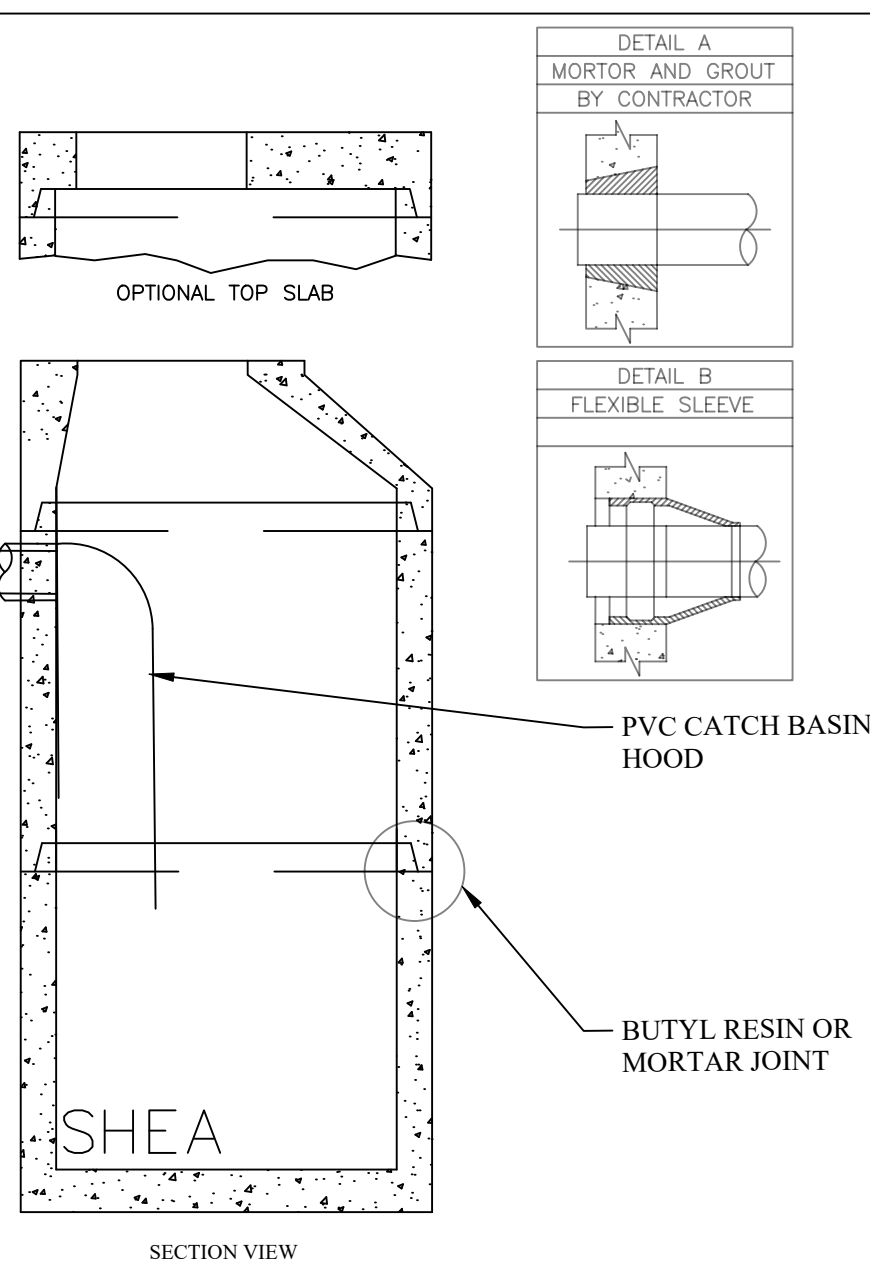
PRECAST CONCRETE CATCH BASIN
NOT TO SCALE



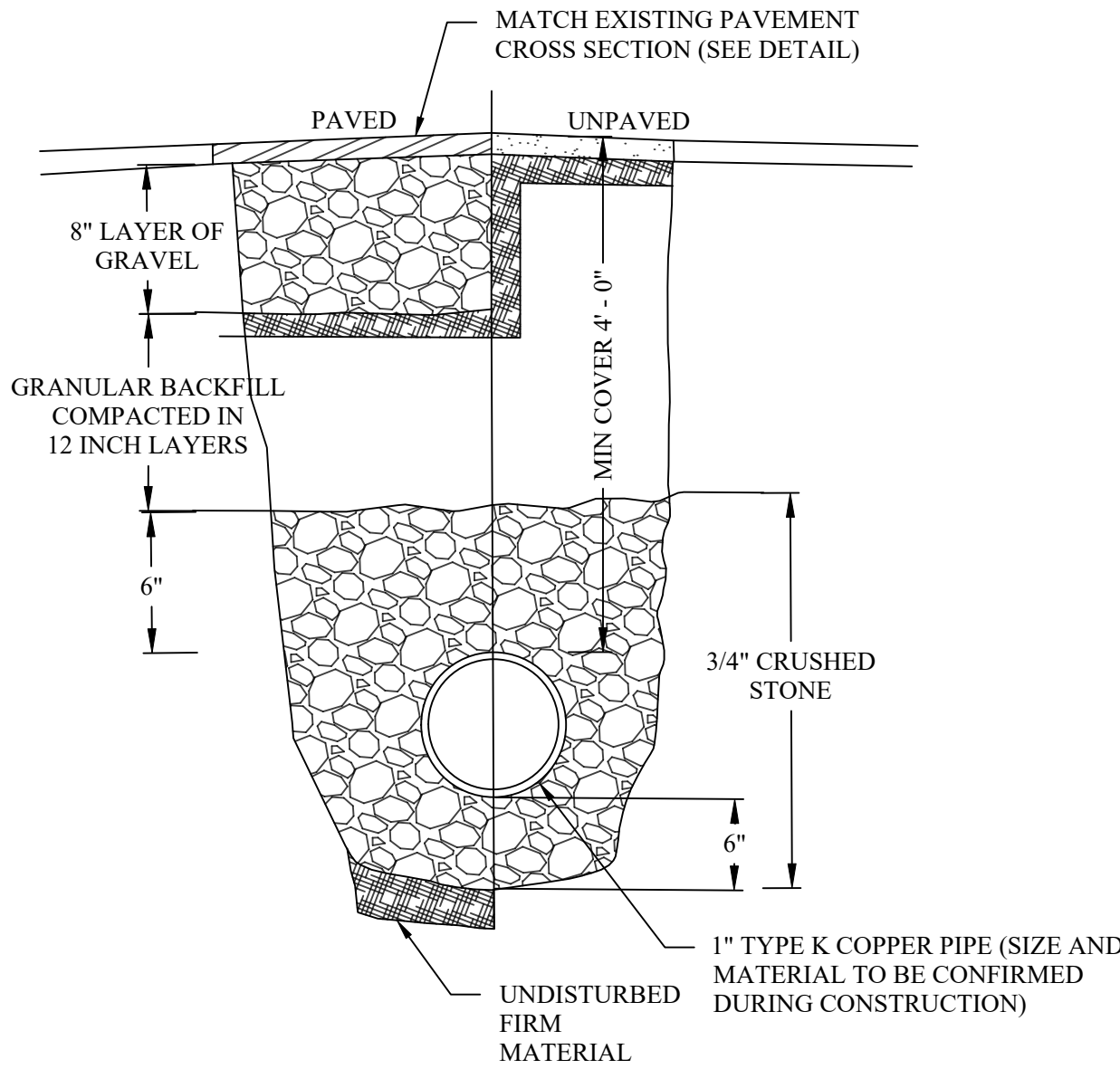
WATER SERVICE CONNECTION DETAIL
NOT TO SCALE



SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE



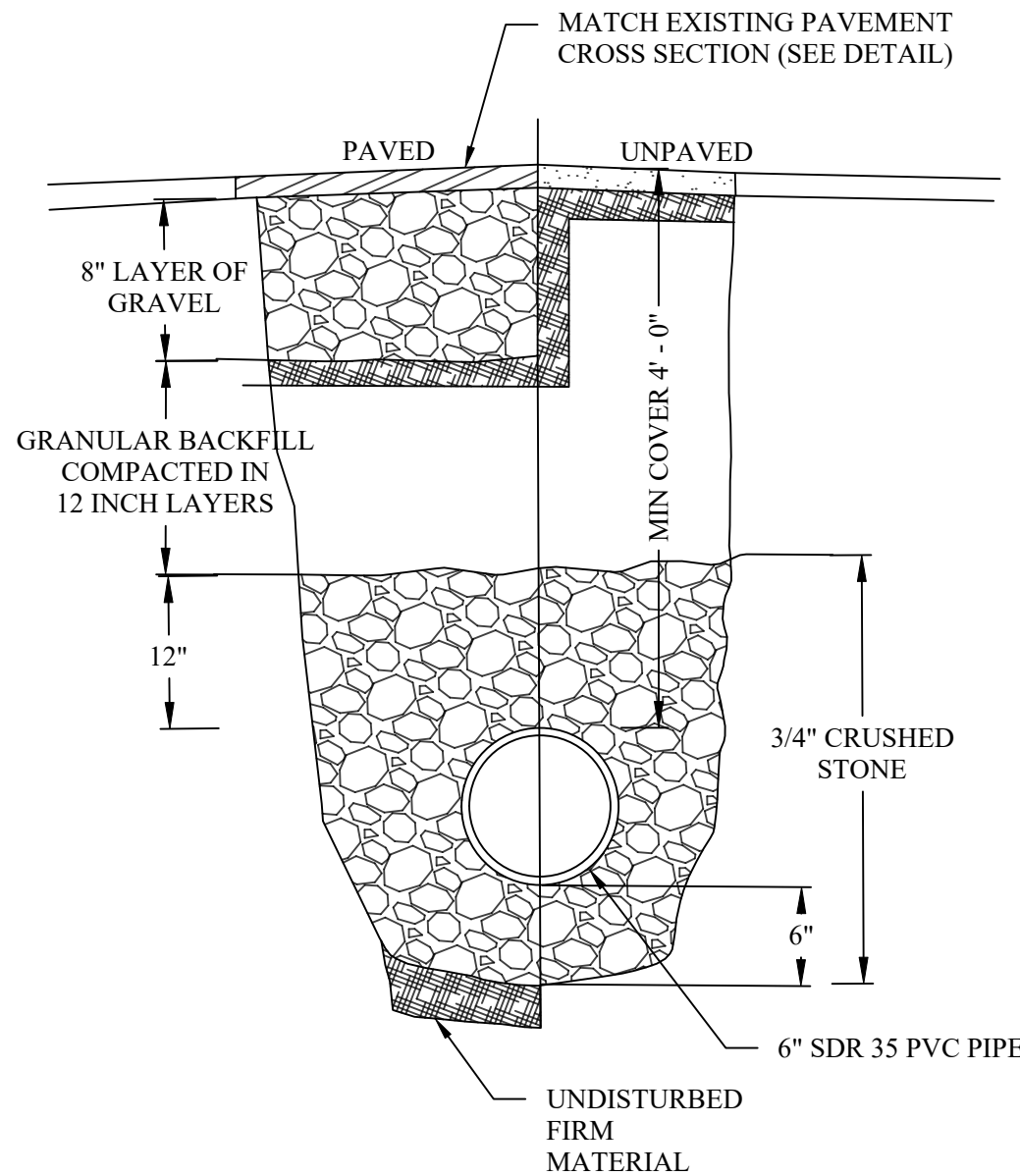
SECTION A-A
CATCH BASIN GRATE
NOT TO SCALE



NOTES:

- MATERIAL USED FOR BACKFILLING MUST NOT CONTAIN STONES LARGER THAN 3 INCHES IN GREATEST DIMENSION.
- ANY EXCAVATION BELOW 6" BELOW THE PIPE INVERT ELEVATION DUE TO UNSUITABLE SOILS MUST BE REPLACED WITH 3/4" CRUSHED STONE.

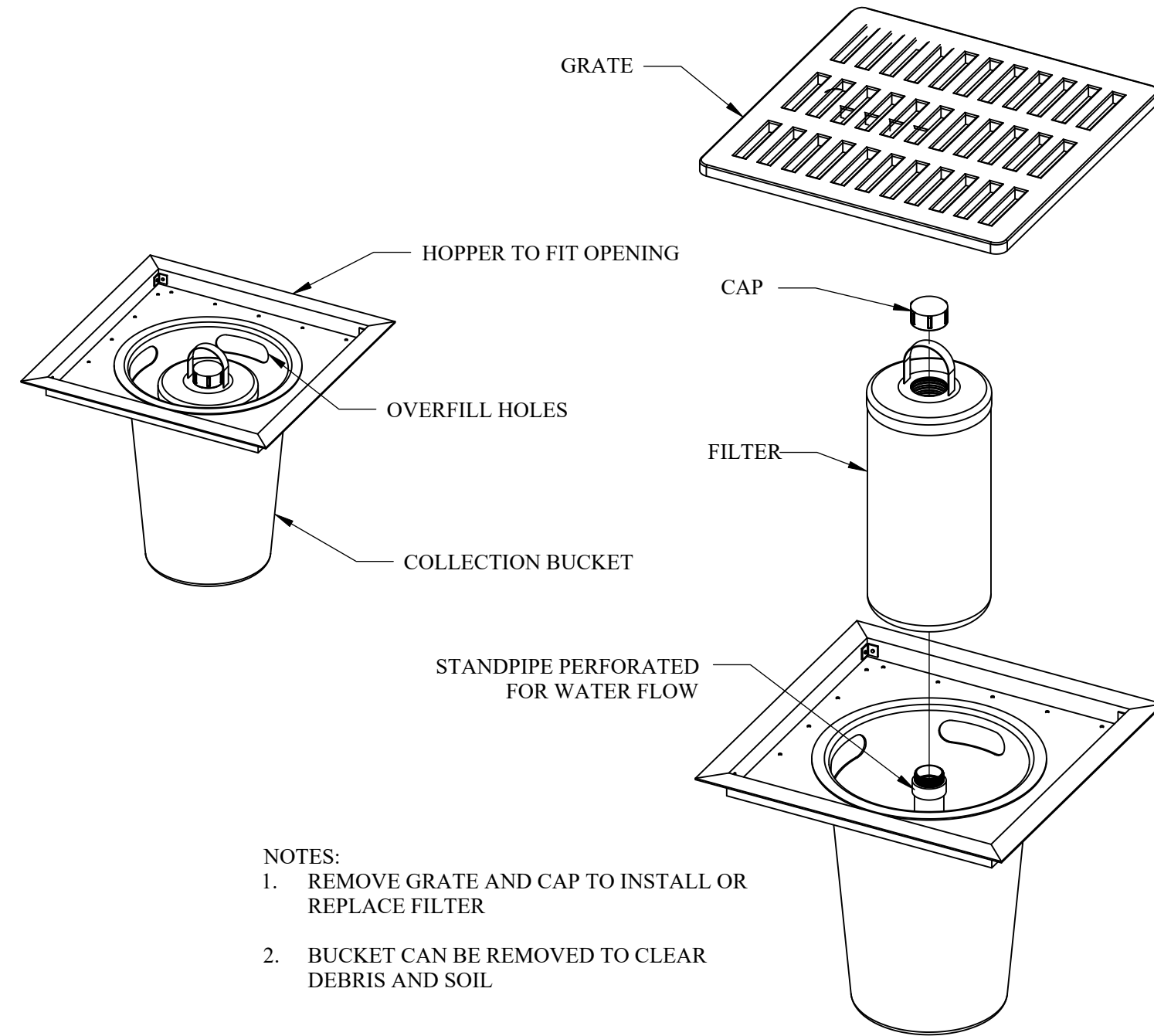
WATER SERVICE TRENCH DETAIL
NOT TO SCALE



NOTES:

- MATERIAL USED FOR BACKFILLING MUST NOT CONTAIN STONES LARGER THAN 3 INCHES IN GREATEST DIMENSION.
- ANY EXCAVATION BELOW 6" BELOW THE PIPE INVERT ELEVATION DUE TO UNSUITABLE SOILS MUST BE REPLACED WITH 3/4" CRUSHED STONE.

SEWER SERVICE TRENCH DETAIL
NOT TO SCALE



FILTREXX® CATCH BASIN INLET PROTECTION
NOT TO SCALE

NOTES:

- REMOVE GRATE AND CAP TO INSTALL OR REPLACE FILTER
- BUCKET CAN BE REMOVED TO CLEAR DEBRIS AND SOIL

Prepared By:



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G. Munden

Prepared For:

MICHAEL PERRY
297 CHESTNUT ST
RANDOLPH MA
02368

Rev. No.	Rev. Date	Description

Date: 12/20/2021

Drawn by: JLW

Approved by: GM

DETAILS-2

SCALE: AS NOTED

SHEET 6 OF 6