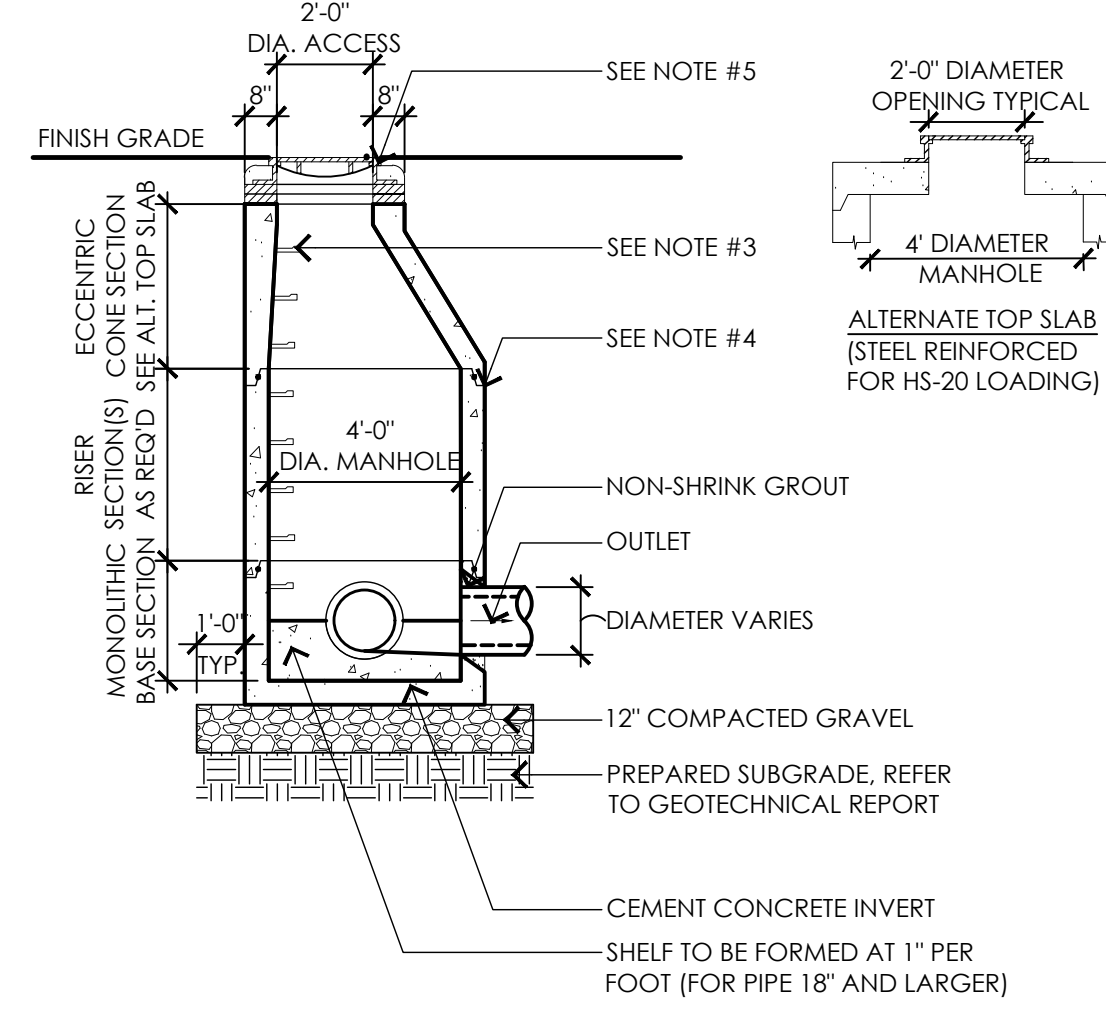
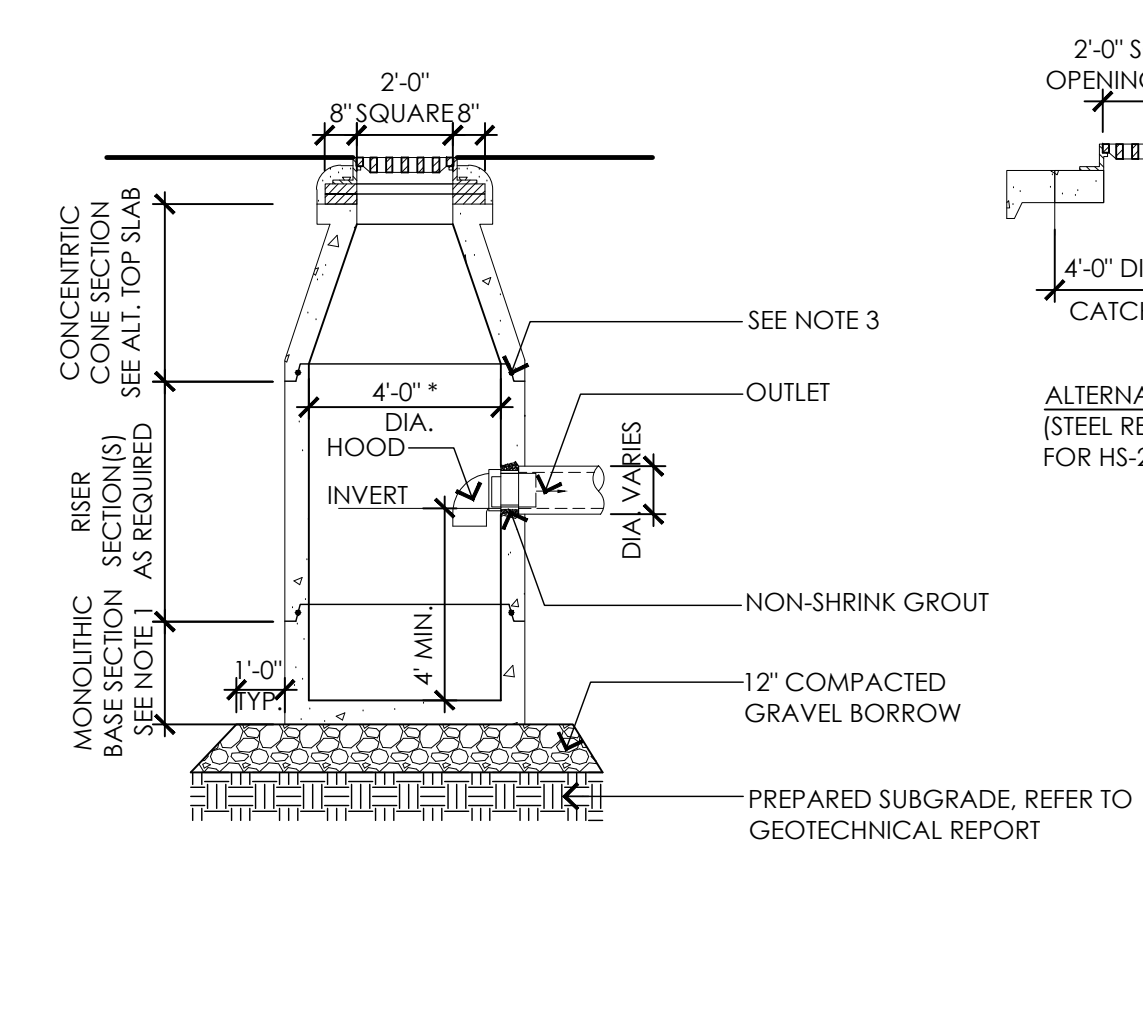


- NOTES:**
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 1" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 3. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
 4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 5. DRAIN MANHOLE FRAME SHALL BE SET IN FULL MORTAR BED, ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES MINIMUM 5 BRICK COURSES MAXIMUM).



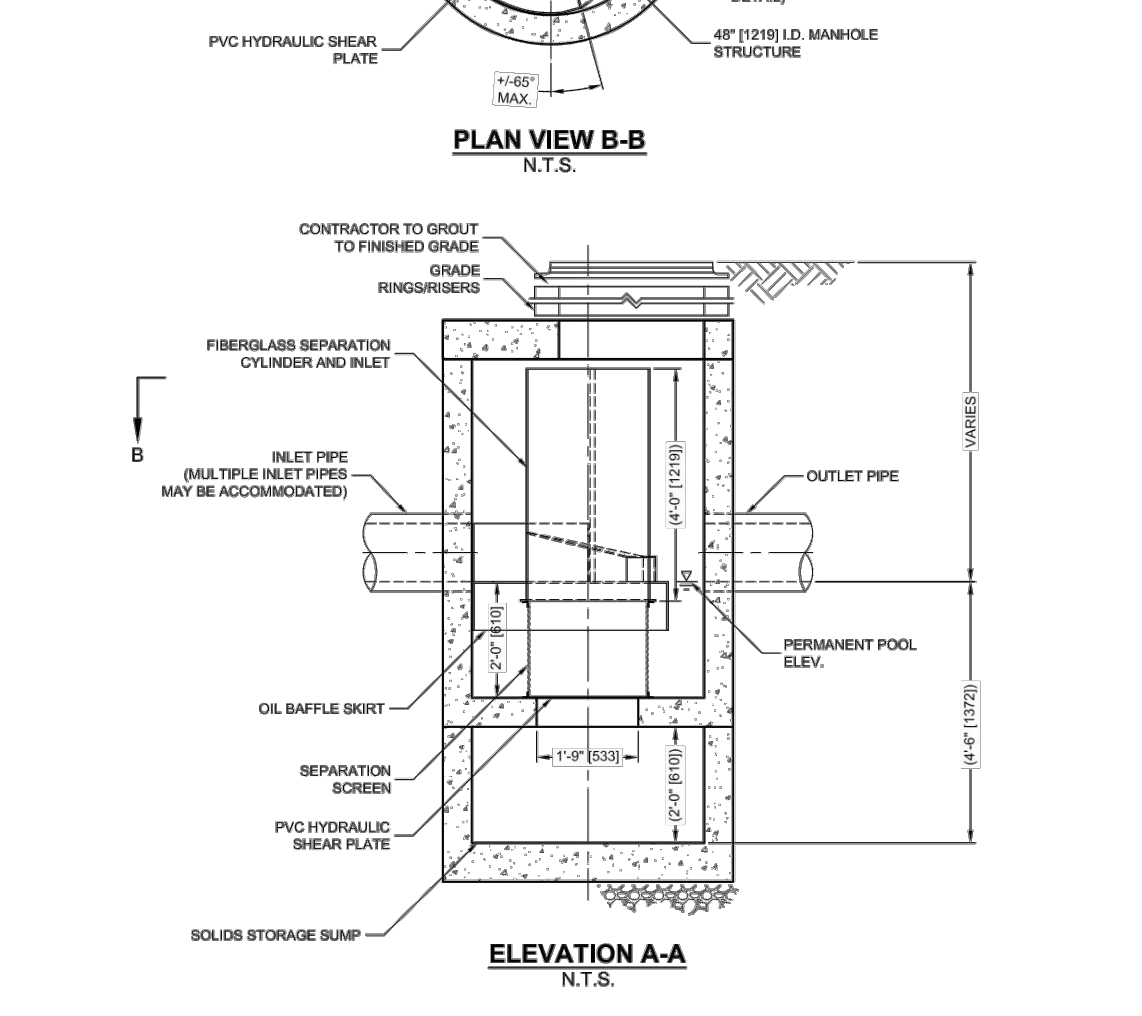
1 DRAINAGE MANHOLE
NOT TO SCALE

- NOTES:**
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 1" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 4. CATCH BASIN FRAME SHALL BE SET IN FULL MORTAR BED ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES MINIMUM 5 BRICK COURSES MAXIMUM)



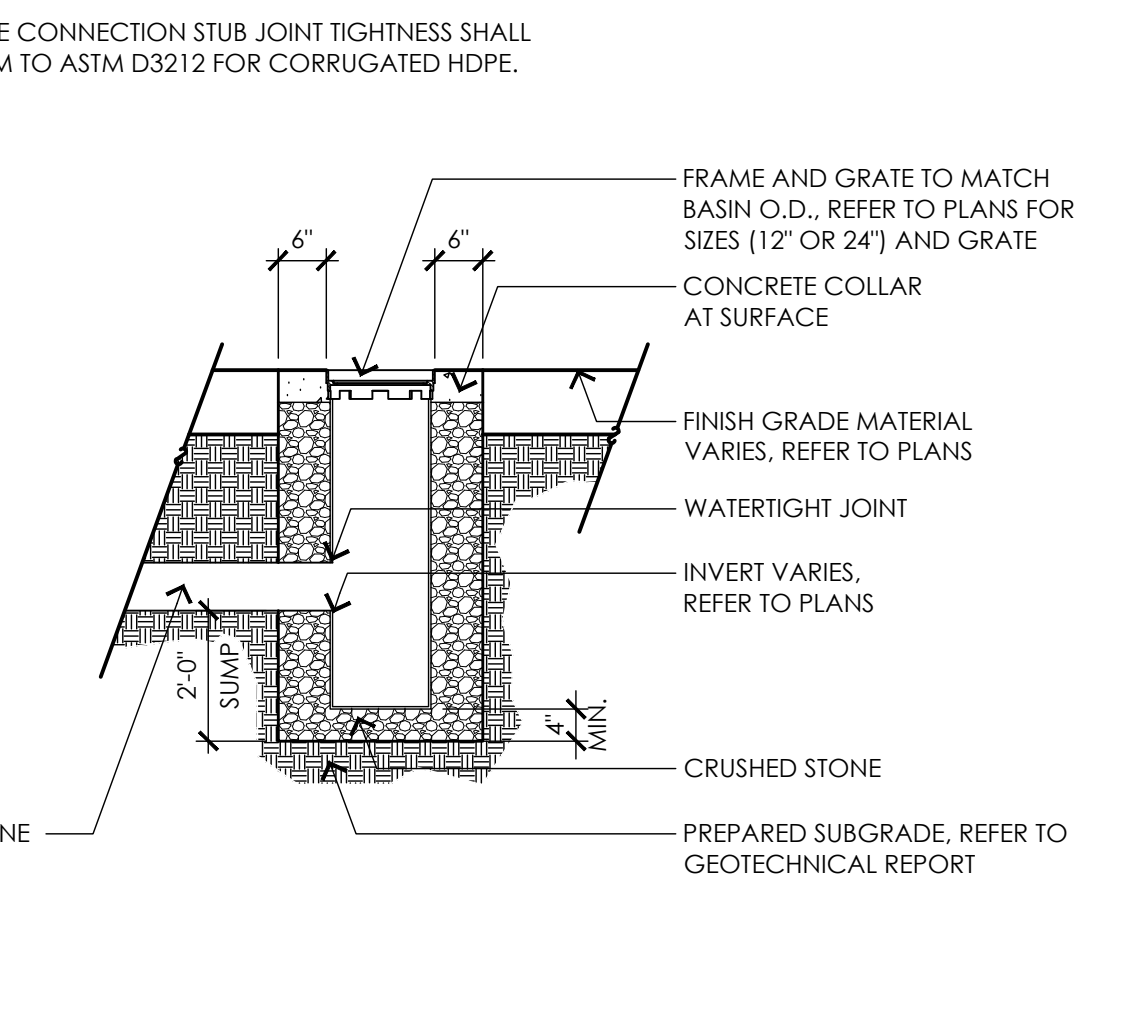
2 CATCH BASIN
NOT TO SCALE

- NOTES:**
1. GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
 2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
 3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE.



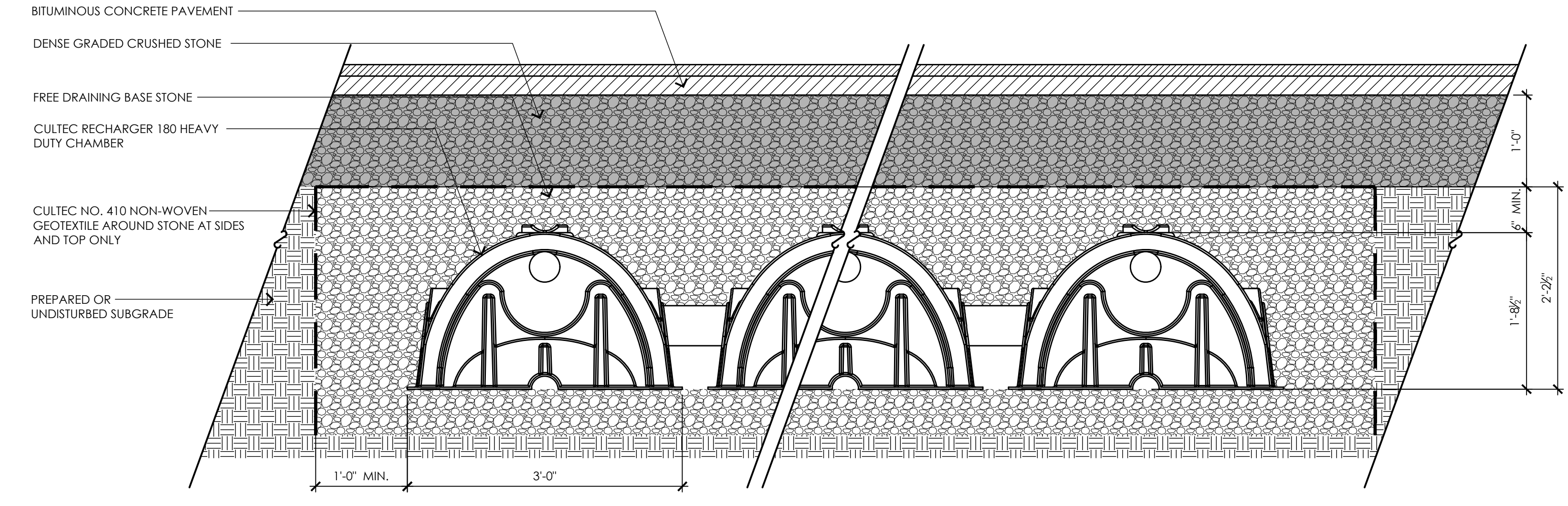
3 WATER QUALITY UNIT
NOT TO SCALE

- NOTES:**
1. GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
 2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
 3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE.



4 AREA DRAIN
NOT TO SCALE

- NOTES:**
1. DESIGN BASED ON CULTEC 180HD SYSTEM.
 2. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR CHAMBER SYSTEM TO INCLUDE ALL HEADER PIPES AND CONNECTIONS TO THE SYSTEM.
 3. CONTRACTOR MAY PROPOSE ALTERNATE SYSTEM, BUT IS RESPONSIBLE FOR ALL CALCULATIONS TO SHOW COMPLIANCE WITH SYSTEM REQUIREMENTS.



5 INFILTRATION/DETENTION SYSTEM
NOT TO SCALE

SYSTEM #1 CALCULATIONS

OVERALL FOOTPRINT	88.29' X 75'
TOTAL STORAGE VOLUME	6,680 CF
STONE VOID RATIO	30%
ESTIMATED # OF UNITS	198
UNIT TYPE	180HD

SYSTEM #1 ELEVATIONS

SYSTEM COMPONENT	ELEVATION
FINISH GRADE*	VARIES, REFER TO PLANS
TOP OF STONE	213.71
TOP OF CULTECs	213.21
BOTTOM OF CULTECs	211.50
BOTTOM OF STONE	211.00

* SYSTEM UNDER PARKING

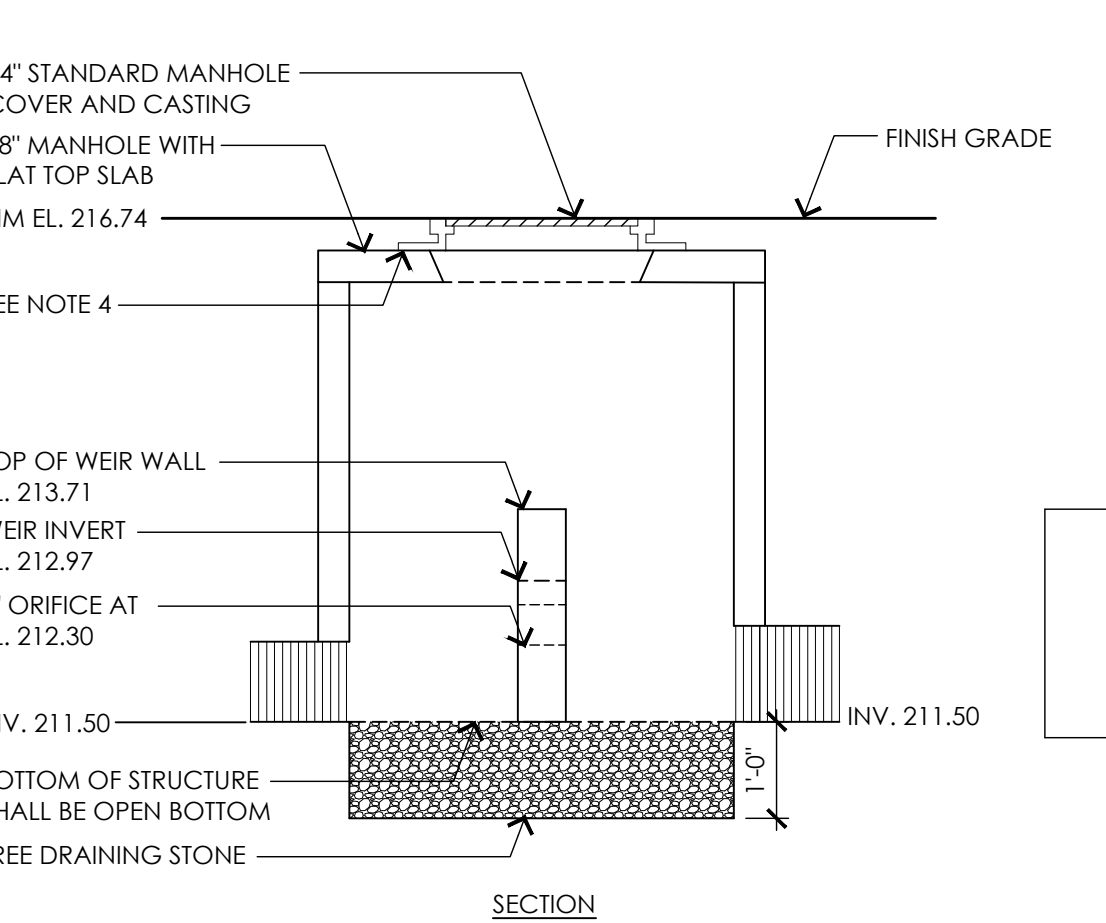
SYSTEM #2 CALCULATIONS

OVERALL FOOTPRINT	75.63' X 26.25'
TOTAL STORAGE VOLUME	1,970 CF
STONE VOID RATIO	30%
ESTIMATED # OF UNITS	56
UNIT TYPE	180HD

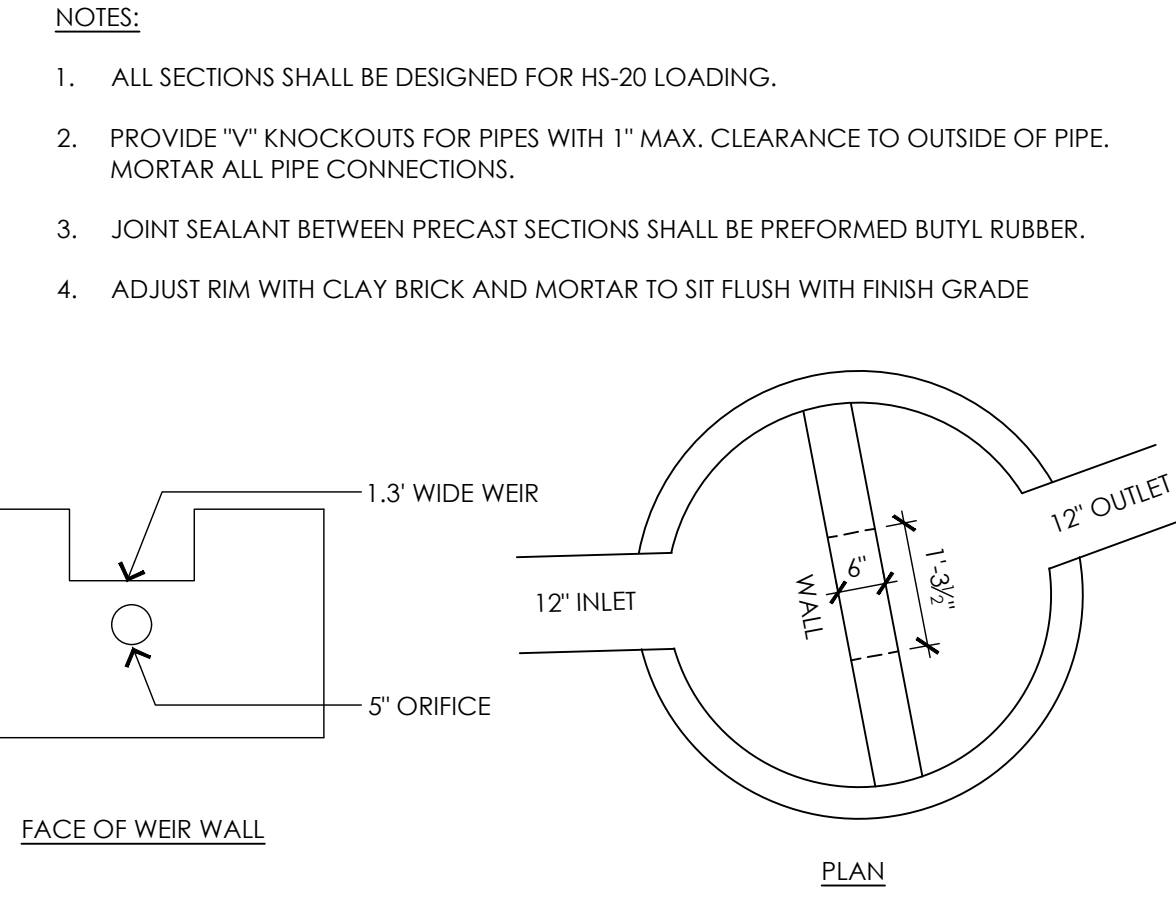
SYSTEM #2 ELEVATIONS

SYSTEM COMPONENT	ELEVATION
FINISH GRADE*	VARIES, REFER TO PLANS
TOP OF STONE	210.06
TOP OF CULTECs	209.56
BOTTOM OF CULTECs	207.85
BOTTOM OF STONE	207.35

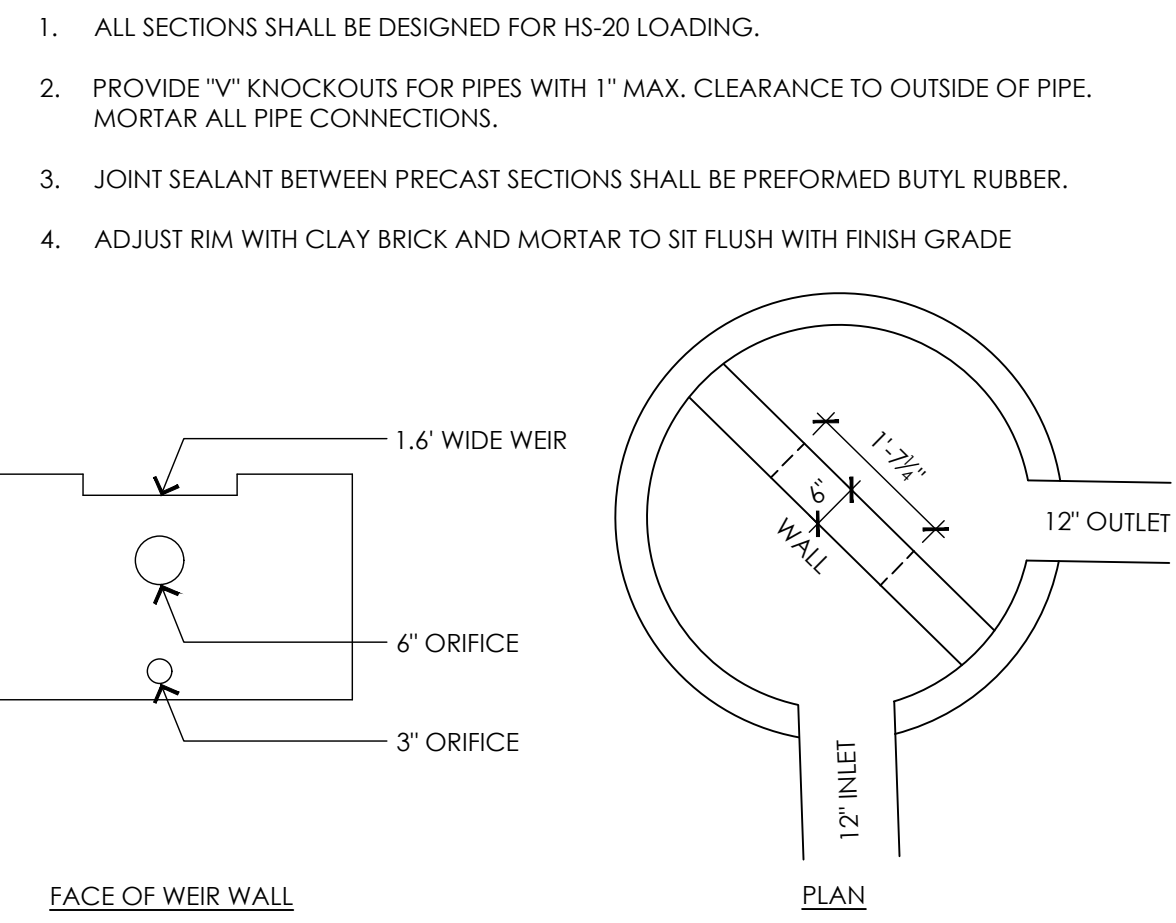
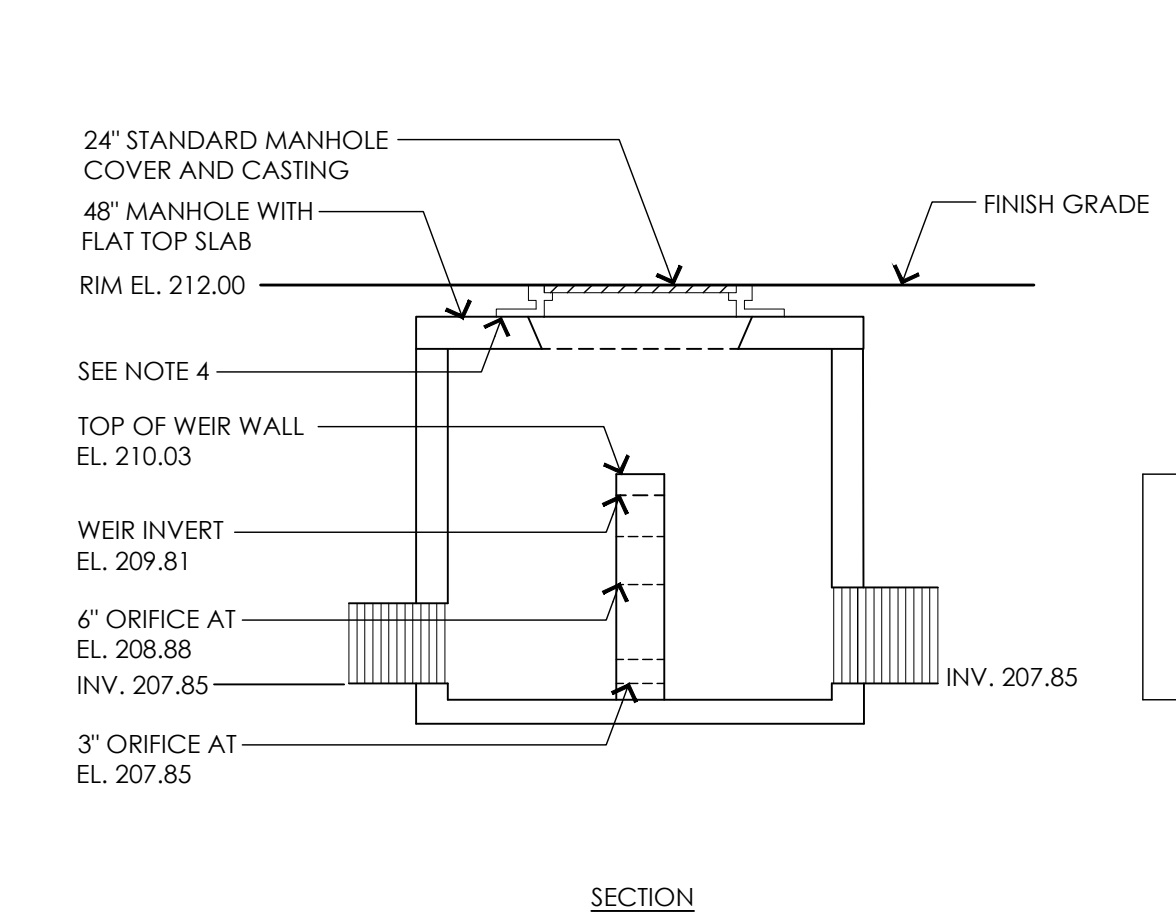
* SYSTEM UNDER OVERHANG



6 OUTLET CONTROL STRUCTURE #1
NOT TO SCALE



7 OUTLET CONTROL STRUCTURE #2
NOT TO SCALE



CONSULTANTS

ARCHITECT -
ARC

GEOTECHNICAL ENGINEER -
GEOTECHNICAL SERVICES, INC.

WETLAND DELINEATION-
EPSILON ASSOCIATES, INC.

SURVEY -
WELCH ASSOCIATES LAND SURVEYORS

THE COTTING SCHOOL
Lexington, MA
ATHLETIC ADDITION

Permitting Documents

NO.	DATE	DESCRIPTION
1	08.12.19	NOI SUBMISSION
2	08.21.19	SITE PLAN REVIEW SUBMISSION
3	09.24.19	REVISED DETAIL #5

SCALE: AS SHOWN
PROJECT NO.: 18005.00
FILE: 18005-C-2.2-UT_DET.dwg
DRAWN: AEB
CHECKED: EPM, MEB



SHEET TITLE:
UTILITY DETAIL SHEET I

SHEET NO:
C2.3