

**SITE DATA:**  
(BASED ON TOWN OF DURHAM ZONING ORDINANCE, DATE VARIES/VESTED)  
ZONING DISTRICT: CENTRAL BUSINESS DISTRICT (CB)  
PERMITTED USES: PARKING, RESTAURANT, RETAIL, OFFICES, MIXED USE/RESIDENTIAL, BANK WITH DRIVE-THROUGH

**DIMENSIONAL REQUIREMENTS:**

	REQUIRED	PROPOSED
MINIMUM LOT SIZE:	5,000 SF	449,341 SF
MINIMUM LOT AREA PER UNIT:	1,200 SF	1,742 SF (258 UNITS)
MAXIMUM OCCUPANTS:	N/A	258
MINIMUM STREET FRONTAGE:	50 FT	475 FT
MINIMUM FRONT YARD SETBACK:	N/A	N/A
SIDE SETBACK:	N/A	N/A
REAR SETBACK:	N/A	N/A
MAXIMUM IMPERVIOUS SURFACE RATIO:	100%	<100%
MAXIMUM BUILDING HEIGHT:	30 FT	<41 FT
	(50 FT W/ PB APPROVAL)	
MAXIMUM BUILDING HEIGHT (MIXED USE):	4 STORIES	4 STORIES
MINIMUM BUFFER STRIP TO PROPERTY LINE:	5 FT	10 FT
MINIMUM BUFFER STRIP TO ROW:	0 FT	>10 FT

**AREA CALCULATIONS:**

	EXISTING	PROPOSED
IMPERVIOUS (ACRES)	6.33	6.73
EFFECTIVE IMPERVIOUS COVER (ACRES)	6.33	0.19

**PARKING REQUIREMENTS:**

	REQUIRED	PROPOSED
STANDARD STALL DIMENSIONS:	9 FT X 18 FT	9 FT X 18 FT
COMPACT STALL DIMENSIONS:	8 FT X 16 FT	8 FT X 16-18 FT
MINIMUM AISLE WIDTH:	22 FT	24 FT
MINIMUM DRIVEWAY WIDTH:	22 FT	24 FT
NUMBER OF ACCESSIBLE SPACES:	12 SPACES	15 SPACES
	2% OF TOTAL FOR 501 TO 1000 SPACES	

**NON-RESIDENTIAL PARKING REQUIREMENTS**

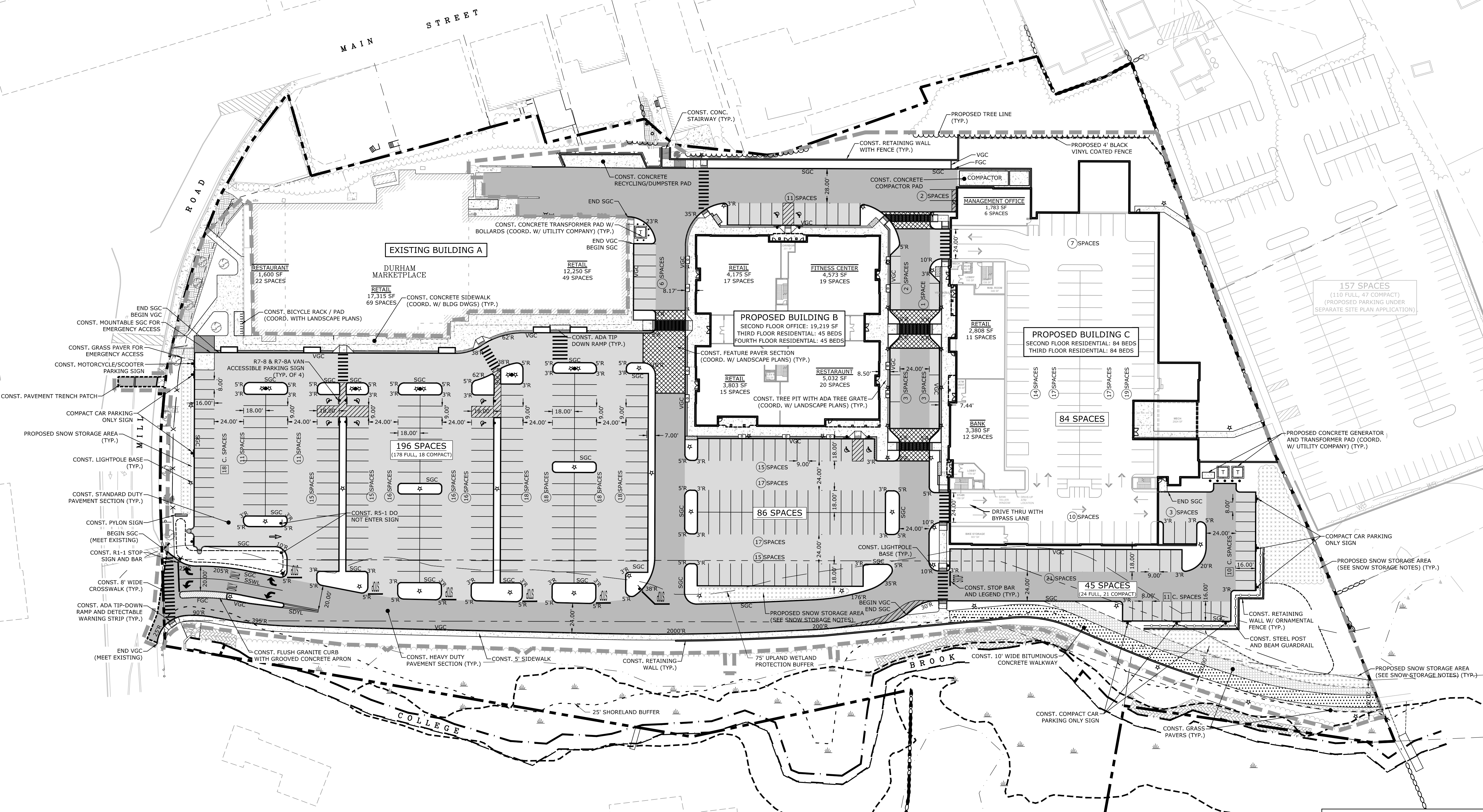
	REQUIRED	PROPOSED
BANK: 1 PER 250 SF (3,505 SF)	14 SPACES	14 SPACES
RESTAURANT <4,000 SF: 1 PER 100 SF + 1 PER EMPLOYEE (1,600 SF)	16 + 6 SPACES	16 + 6 SPACES
RESTAURANT >4,000 SF: 40 + 1 PER 200 SF OVER 4,000 SF (5,032 SF)	64 SPACES	64 SPACES
PROFESSIONAL OFFICE: 1 PER 350 SF (22,226 SF)	64 SPACES	64 SPACES
RETAIL/COMMERCIAL: 1 PER 250 SF (47,887 SF)	192 SPACES	192 SPACES
<b>NON-RESIDENTIAL TOTAL: (80,250 SF)</b>	<b>338 SPACES</b>	<b>411 SPACES</b>

**RESIDENTIAL PARKING REQUIREMENTS**

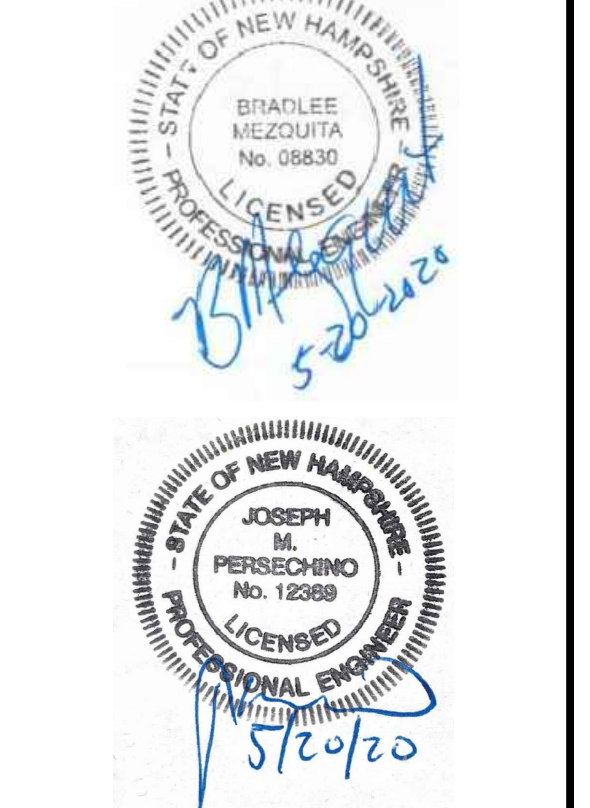
	REQUIRED	PROPOSED
DWELLING UNITS: 1 PER RESIDENT (258 BEDS)	258 SPACES	157 SPACES
<b>RESIDENTIAL TOTAL: (258 BEDS)</b>	<b>258 SPACES</b>	<b>157 SPACES</b>
<b>TOTAL PARKING REQUIREMENTS</b>	<b>596 SPACES</b>	<b>568 SPACES (1)</b>

**PARKING NOTES:**  
(1) EXISTING SITE CONTAINS 345 PARKING SPACES. THE PROPOSED 568 SPACES CONSIST OF 484 SURFACE PARKING (86 COMPACT, 398 STANDARD) PLUS 84 GARAGE SPACES. 157 OF THE SURFACE PARKING SPACES ARE PROPOSED TO BE LEASED FROM THE ADJACENT PARCELS (TAX MAP 5, LOTS 1-15 AND 1-16) UNDER A SEPARATE SITE PLAN APPLICATION.  
(2) PER AGREEMENT WITH TOWN OF DURHAM, DATED DECEMBER 14, 2015, PARKING ON SITE SHALL BE INCREASED BEYOND THE 345 SPACES THAT CURRENTLY EXIST.  
(3) SECTION 175-112.A., OF THE DURHAM ZONING ORDINANCE ALLOWS AN EXEMPTION FROM THE PARKING REQUIREMENTS IN THE CENTRAL BUSINESS DISTRICT. THIS PLAN REQUIRES AN EXEMPTION OF 15 PARKING SPACES.

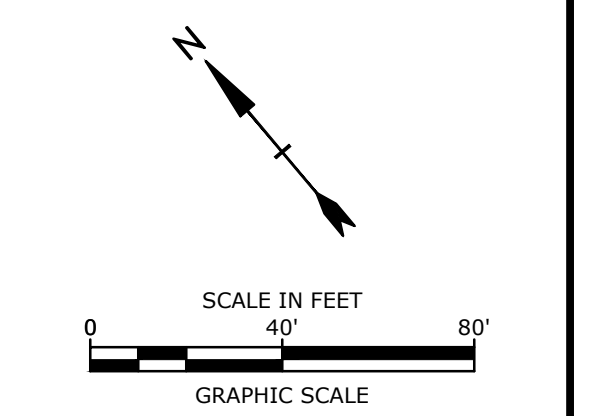
**SNOW STORAGE NOTES:**  
(1) SNOW SHALL NOT BE STORED ALONG COLLEGE BROOK OR IN THE PROPOSED STORMWATER TREATMENT AREAS, INCLUDING THE GRAVEL WETLAND AND RAIN GARDEN.  
(2) SNOW THAT CANNOT BE STORED ON SITE SHALL BE REMOVED FROM THE SITE.  
(3) SNOW STORAGE AND REMOVAL OPERATIONS SHALL AVOID DAMAGING LANDSCAPING TO THE EXTENT FEASIBLE. LANDSCAPING THAT HAS BEEN DAMAGED SHALL BE REPLACED.



Harriman Project No. 16117



**PERMIT DRAWINGS  
NOT FOR CONSTRUCTION**



**Mill Plaza  
Redevelopment**

Colonial Durham  
Associates, LP

7 Mill Road, Unit L  
Durham,  
New Hampshire 03824

MARK	DATE	DESCRIPTION
2	5/20/2020	RESPONSE TO COMMENTS
1	1/2/2020	GENERAL REVISIONS

PROJECT NO: M1529-002  
DATE: 5/23/2018  
FILE: M1529-002\_C-SITE.dwg  
DRAWN BY: EGD  
CHECKED: JMP  
APPROVED: BLM

SITE PLAN  
SCALE: AS SHOWN  
C-102

SEE SHEET G-101 FOR  
LEGEND AND NOTES

Plot Date: 5/20/2020  
Printed On: May 20, 2020 5:09pm By: EDonemus  
Tighe & Bond: \\tigheandbond.com\data\projects\m1529\m1529\m1529-002\_c-site.dwg









Harriman Project No. 16117



**PERMIT DRAWINGS**  
NOT FOR CONSTRUCTION

**Mill Plaza**  
Redevelopment

Colonial Durham  
Associates, LP

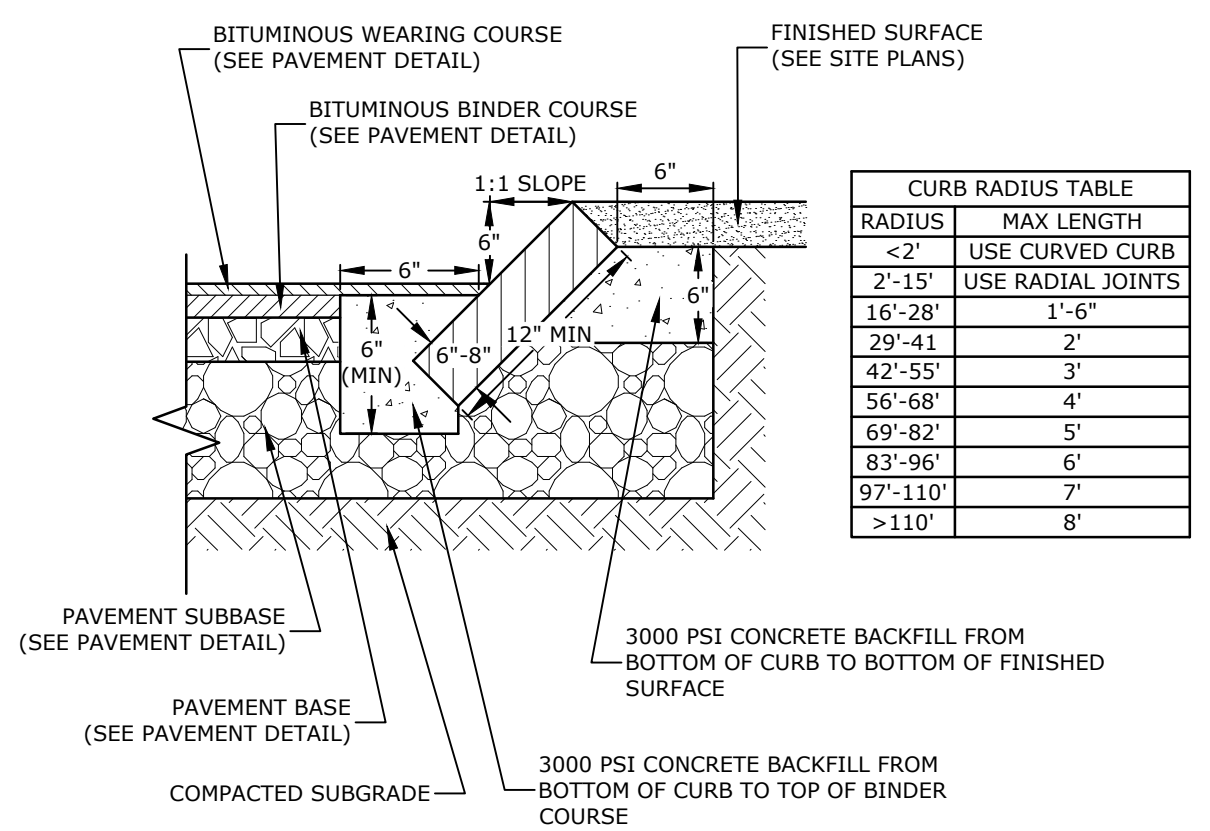
7 Mill Road, Unit L  
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2	5/20/2020	RESPONSE TO COMMENTS
1	1/2/2020	GENERAL REVISIONS
MARK	DATE	DESCRIPTION
PROJECT NO:	M1529-002	
DATE:	5/23/2018	
FILE:	M1529-002_C-DTLS.dwg	
DRAWN BY:	EGD	
CHECKED:	JMP	
APPROVED:	BLM	

DETAIL SHEET

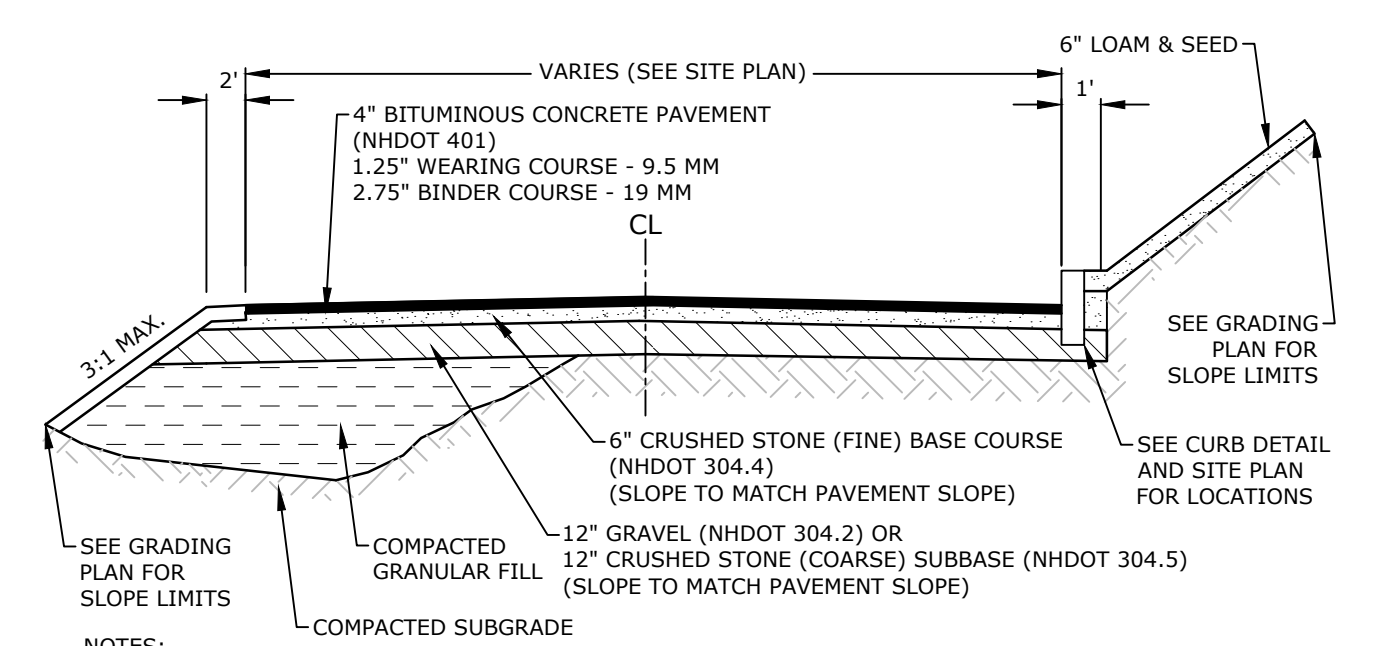
SCALE: AS SHOWN

C-502



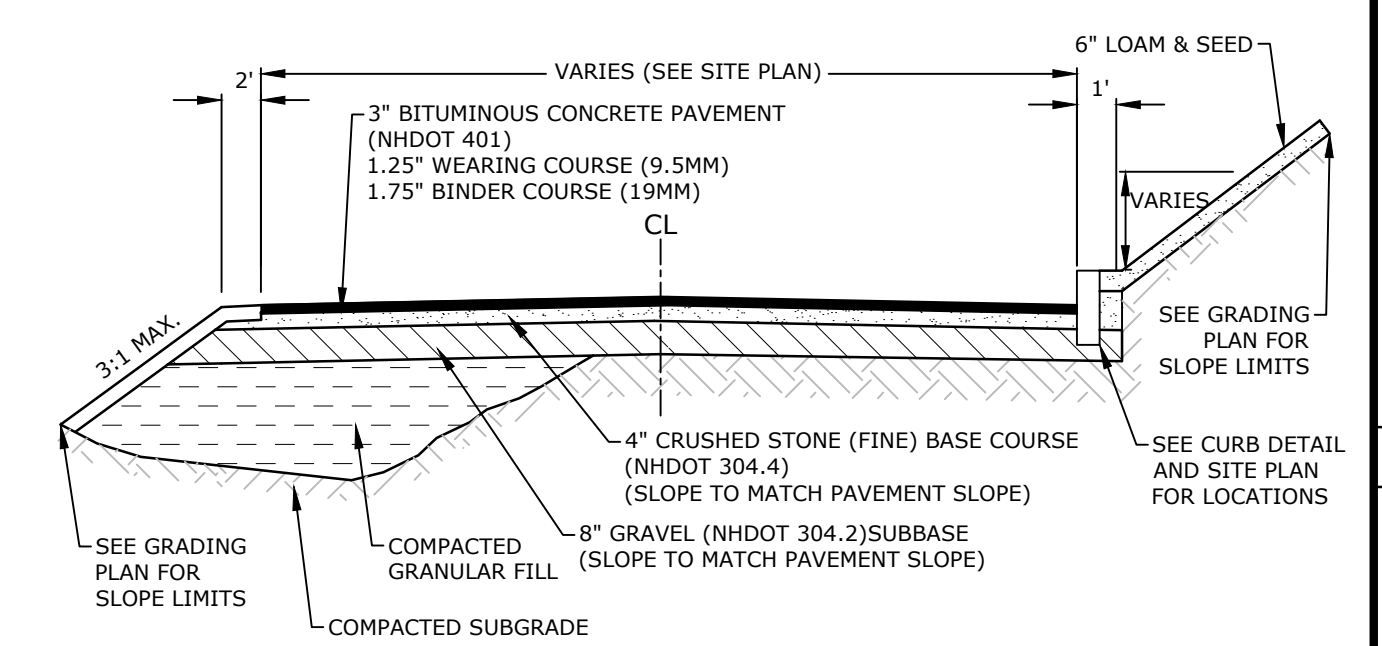
- NOTES:
- SEE SITE PLAN(S) FOR LIMITS OF VERTICAL GRANITE CURB (VGC).
  - ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
  - MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
  - MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
  - MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
  - JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.

**SLOPED GRANITE CURB**  
NO SCALE



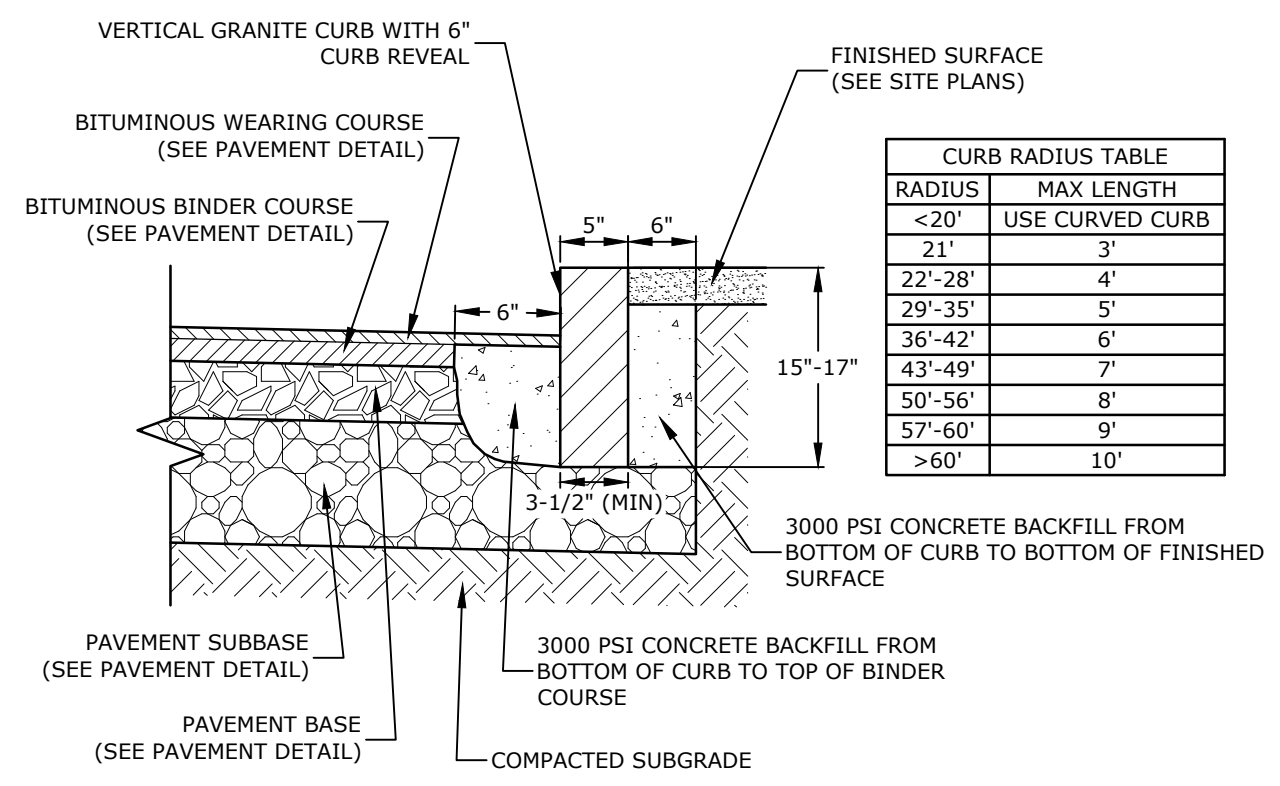
- NOTES:
- SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
  - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PAVEMENT SLOPES AND CROSS-SLOPES.
  - A TACK COAT SHALL BE PLACED ON TOP OF THE BINDER COURSE PRIOR TO PLACING THE WEARING COURSE.
  - CONTRACTOR SHALL HAVE THE OPTION OF RECLAIMING THE EXISTING PAVEMENT AND REMOVING THE MATERIAL, THEN REUSING THE RECLAIMED MATERIAL AS A PAVEMENT SUBBASE.

**HEAVY DUTY PAVEMENT SECTION**  
NO SCALE



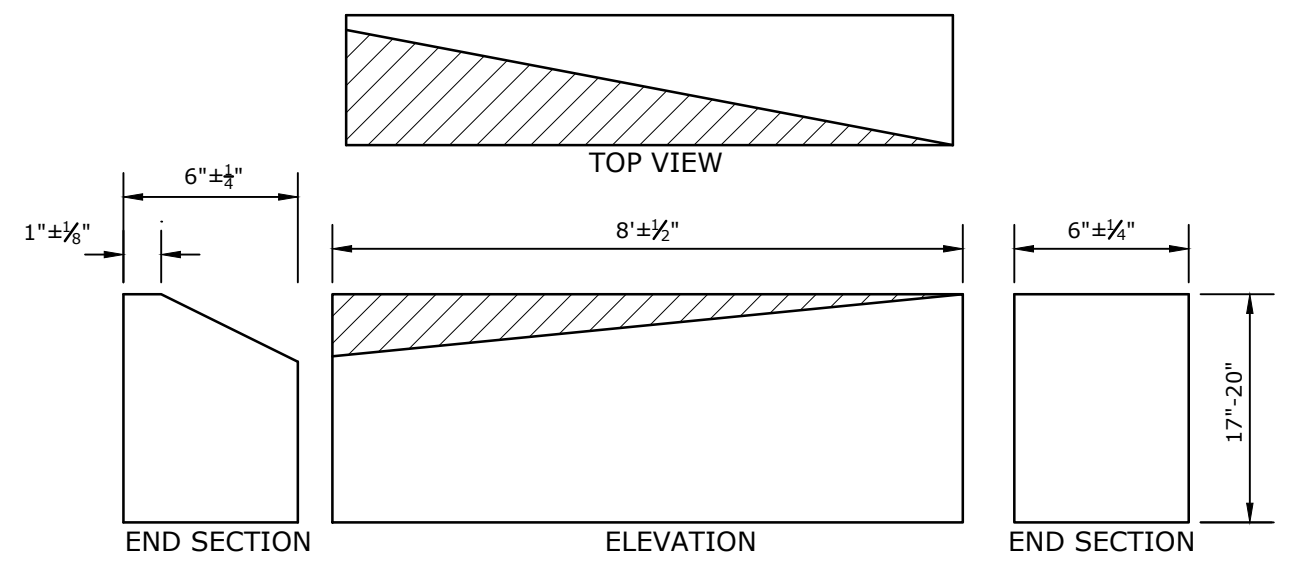
- NOTES:
- SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
  - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PAVEMENT SLOPES AND CROSS-SLOPES.
  - A TACK COAT SHALL BE PLACED ON TOP OF THE BINDER COURSE PRIOR TO PLACING THE WEARING COURSE.
  - CONTRACTOR SHALL HAVE THE OPTION OF RECLAIMING THE EXISTING PAVEMENT AND REMOVING THE MATERIAL, THEN REUSING THE RECLAIMED MATERIAL AS A PAVEMENT SUBBASE.

**STANDARD DUTY PAVEMENT SECTION**  
NO SCALE



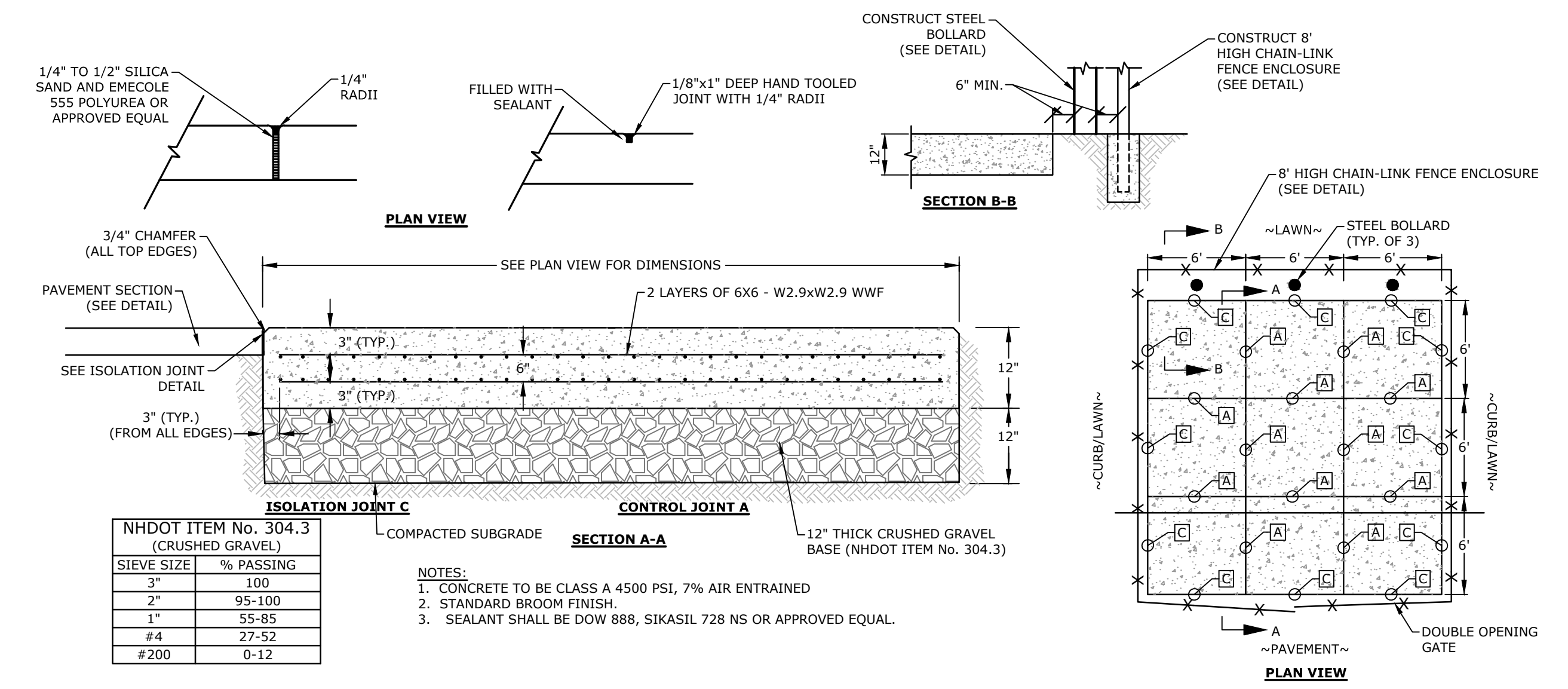
- NOTES:
- SEE SITE PLAN(S) FOR LIMITS OF VERTICAL GRANITE CURB (VGC).
  - ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
  - MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
  - MAXIMUM LENGTH OF STRAIGHT CURB STONES = 10'
  - MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
  - ALL RADII 20 FEET AND SMALLER SHALL BE CONSTRUCTED USING CURVED SECTIONS.
  - JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.

**VERTICAL GRANITE CURB**  
NO SCALE



- NOTES:
- THE INTENT OF THIS ITEM IS TO PROVIDE A SMOOTH TRANSITION BETWEEN STRAIGHT GRANITE CURB AND SLOPE CURB WITHOUT REQUIRING FIELD CHIPPING DURING INSTALLATION. THE SLOPE CURB MAY REQUIRE ADJUSTMENTS TO MEET THE TRANSITION PIECE HEIGHT. TRANSITION SLOPE CURB TO STANDARD REVEAL AS QUICKLY AS POSSIBLE TO PROVIDE FOR THIS SMOOTH TRANSITION.

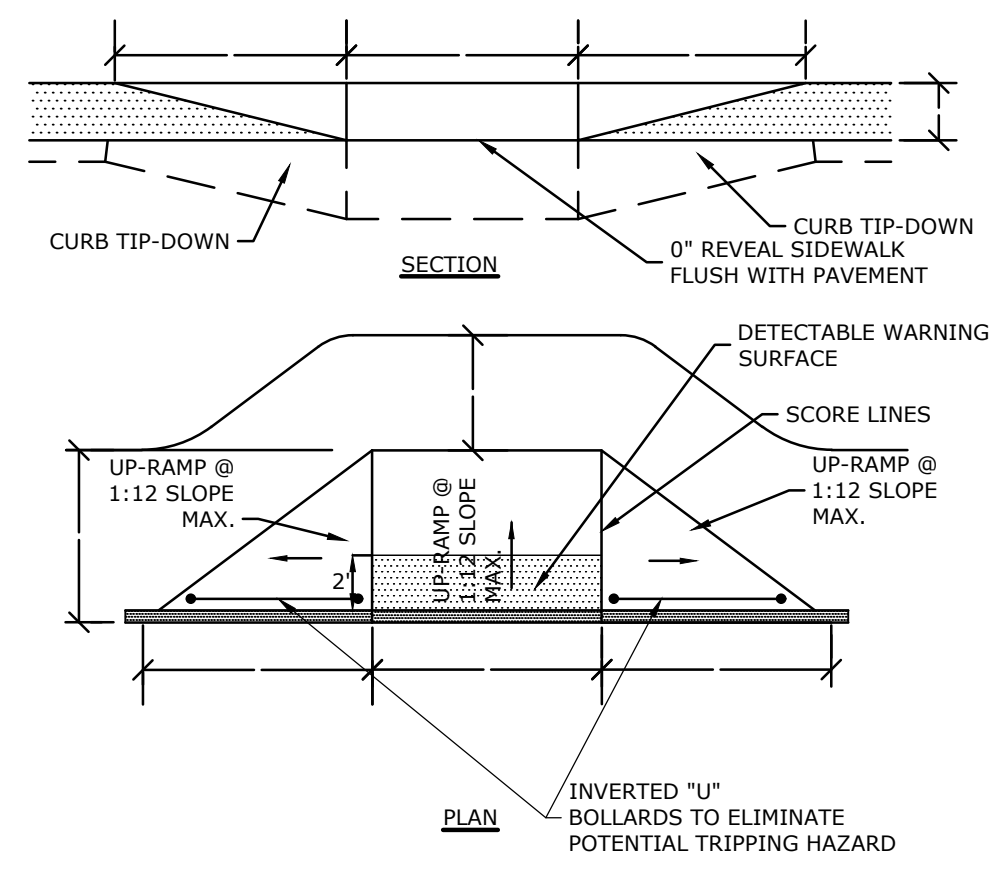
**CURB TRANSITION**  
NO SCALE



SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12

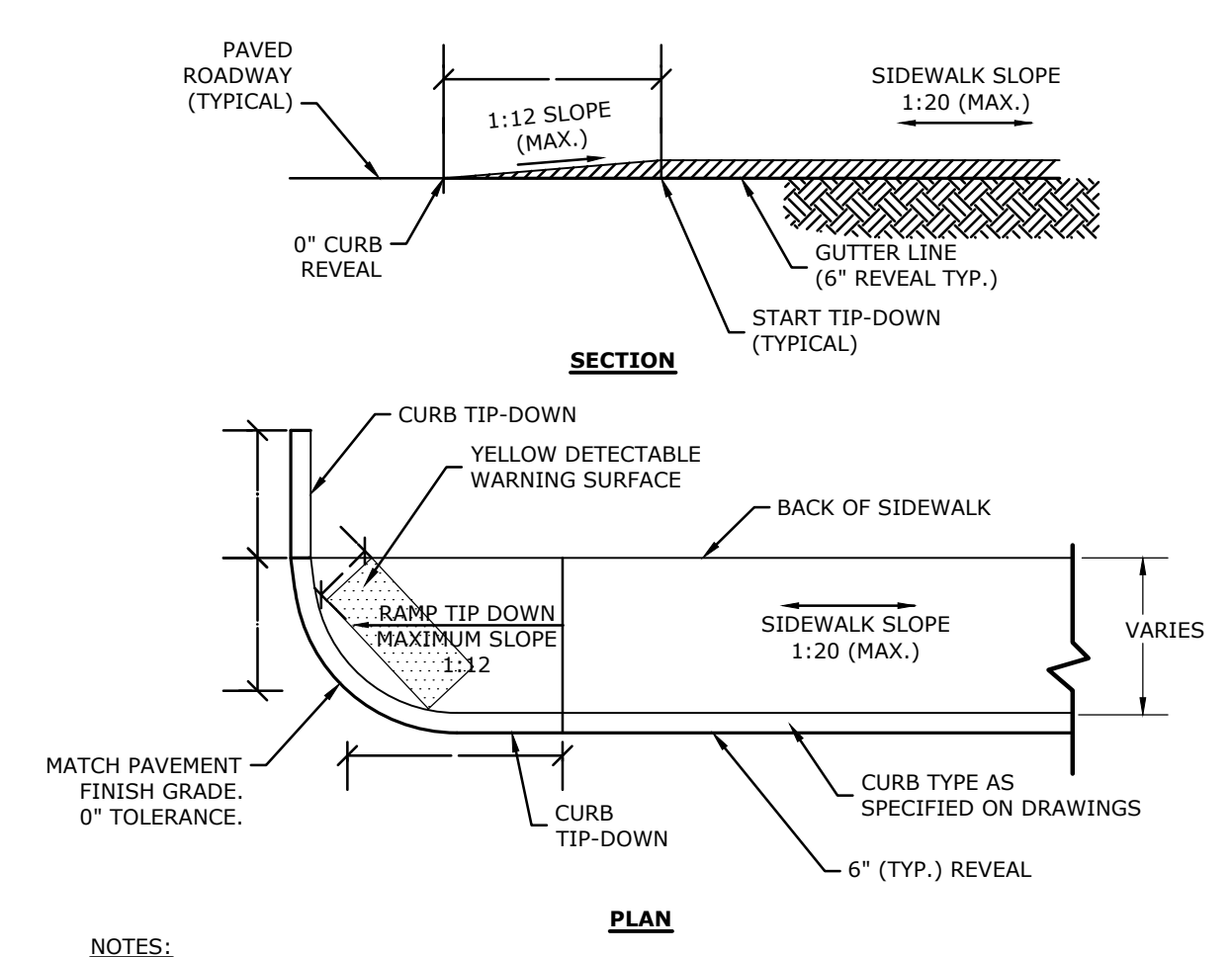
- NOTES:
- CONCRETE TO BE CLASS A 4500 PSI, 7% AIR ENTRAINED
  - STANDARD BROOM FINISH.
  - SEALANT SHALL BE DOW 888, SIKASIL 728 NS OR APPROVED EQUAL.

**DUMPSTER PAD**  
NO SCALE



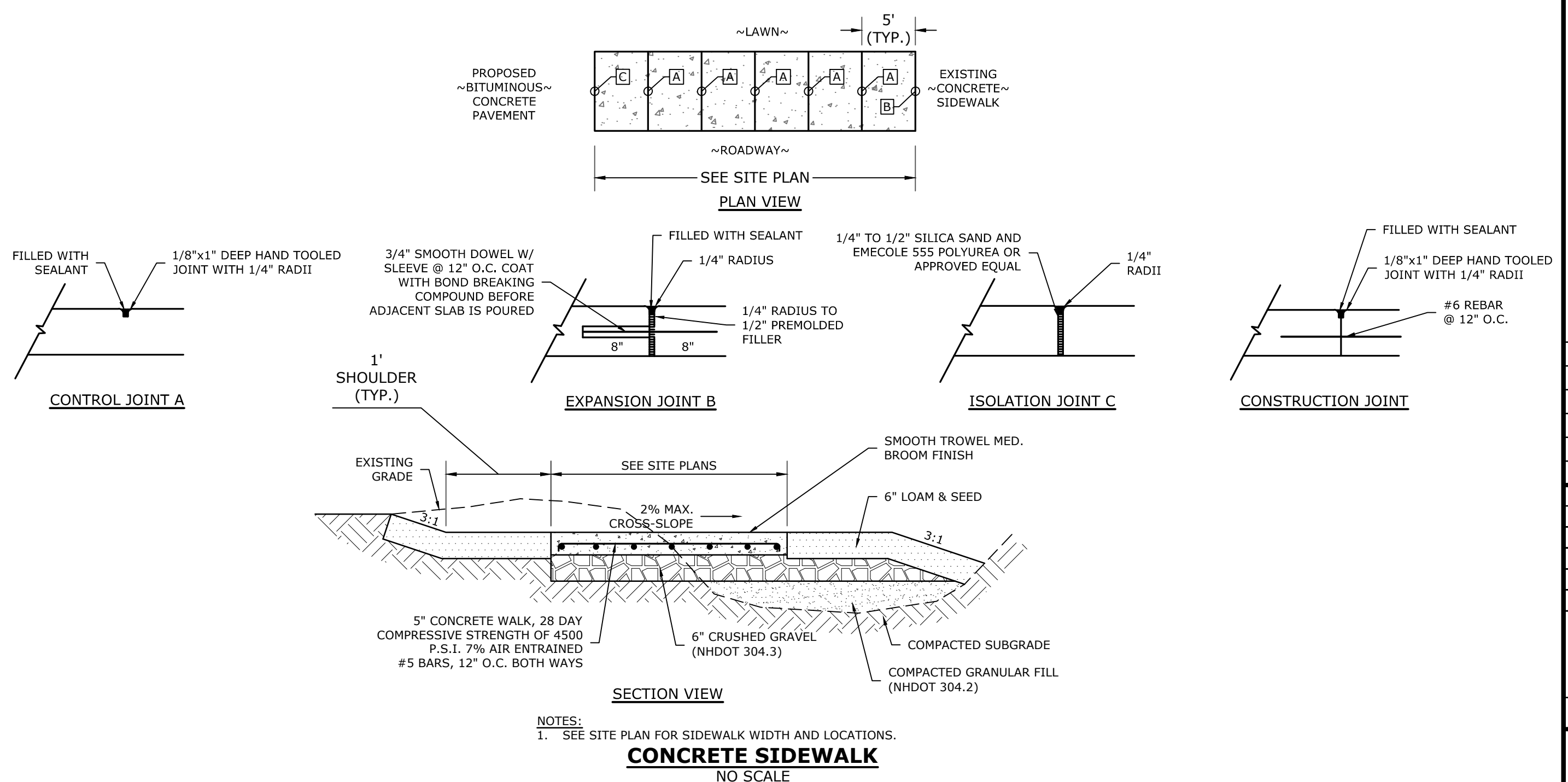
- NOTES:
- RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS
  - PROVIDE 6" COMPACTED CRUSHED GRAVEL BASE BENEATH RAMPS
  - DETECTABLE WARNING STRIP SHALL BE ADA SOLUTIONS, INC. CAST IN PLACE RAMP. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

**CONCRETE WHEEL CHAIR ACCESSIBLE**  
NO SCALE



- NOTES:
- RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS
  - PROVIDE 6" COMPACTED CRUSHED GRAVEL BASE BENEATH RAMPS
  - DETECTABLE WARNING STRIP SHALL BE ADA SOLUTIONS, INC. CAST IN PLACE RAMP. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

**CONCRETE SIDEWALK TIP DOWN RAMP**  
NO SCALE



**CONCRETE SIDEWALK**  
NO SCALE

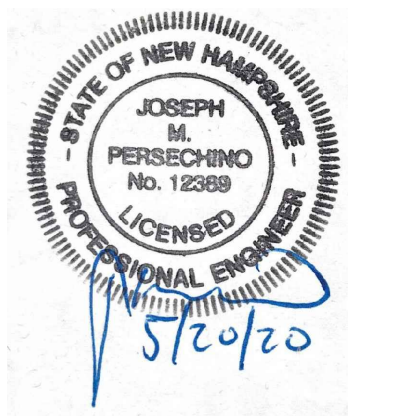
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 LCO:002-Mill Road Plaza Drawings





HARRIMAN  
AUBURN PORTLAND PORTSMOUTH BOSTON

Harriman Project No. 16117



**PERMIT DRAWINGS  
NOT FOR CONSTRUCTION**

**Mill Plaza  
Redevelopment**

Colonial Durham  
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7 Mill Road, Unit L  
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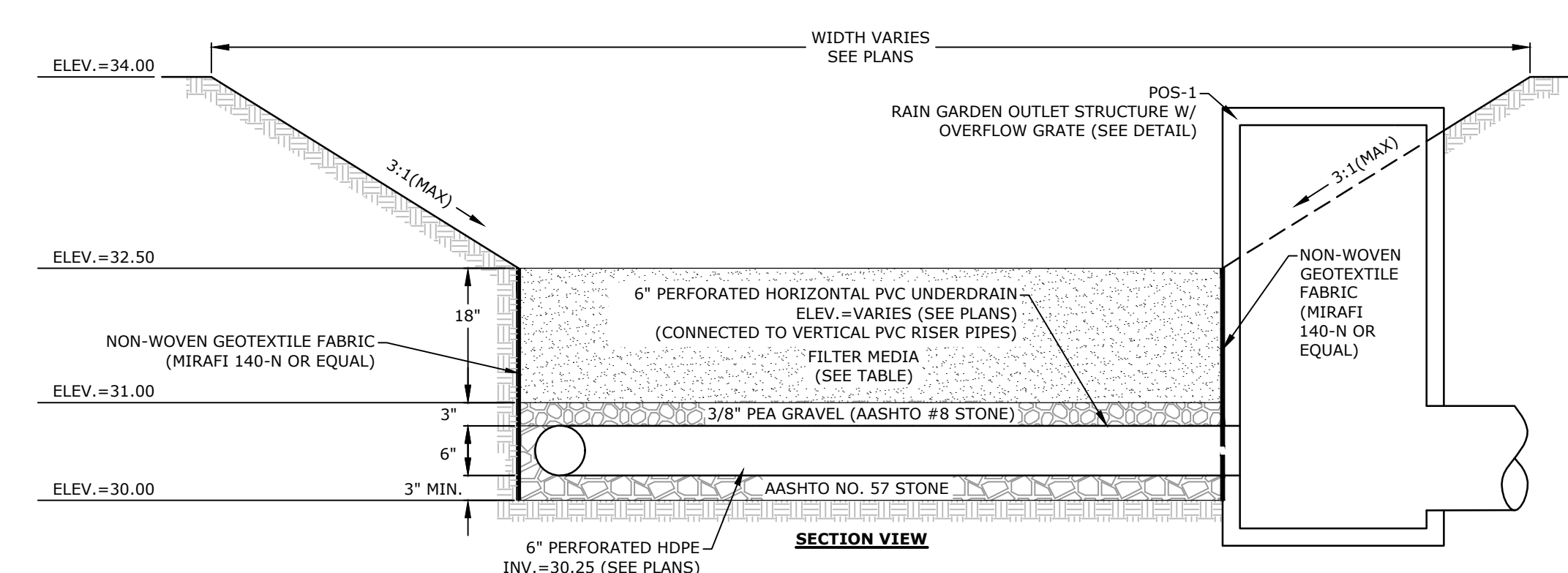
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DRAWN BY: EGD  
CHECKED: JMP  
APPROVED: BLM

DETAIL SHEET

SCALE: AS SHOWN

C-506



**FILTER MEDIA COMPOSITION:**

COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	GRADATION OF MATERIAL (SIEVE NO. / PERCENT PASSING)
ASTM C-33 CONCRETE SAND	50-55	SEE NOTE #5
LOAMY SAND TOPSOIL	20-30	15-25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH	20-30	5 MAX.

- NOTES:**
- BARK MULCH SHALL BE AGED A MINIMUM OF 12 MONTHS AND SHALL NOT FLOAT.
  - RAIN GARDENS SHALL NOT BE PLACED INTO SERVICE UNTIL THE PRACTICE HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
  - DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL KEEP ALL EXCAVATION EQUIPMENT OUTSIDE OF THE LIMIT OF THE RAIN GARDEN.
  - SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR LOCATIONS, LAYOUTS, AND ELEVATIONS.
  - THE SAND PORTION OF THE FILTER MEDIA SHALL MEET THE FOLLOWING GRADATION (ASTM C-33):

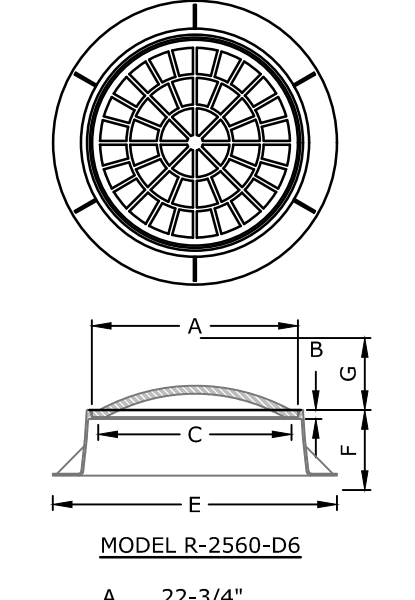
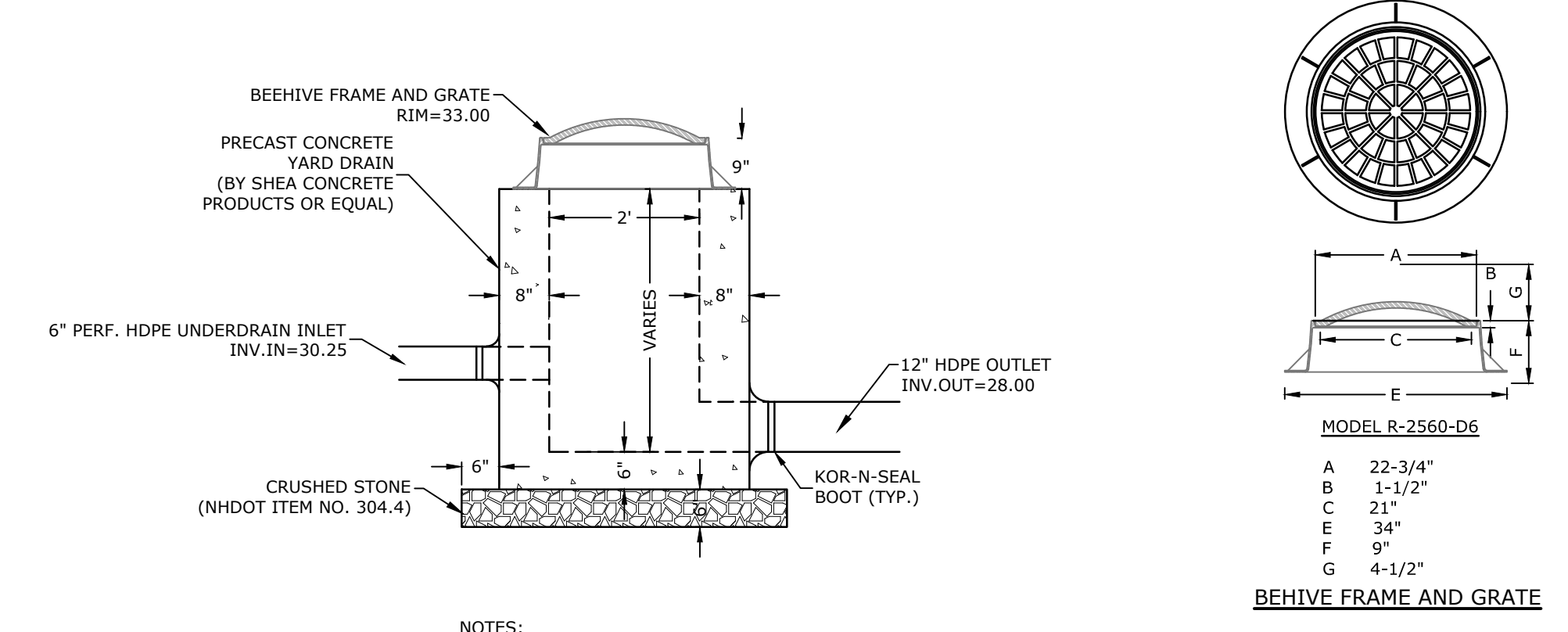
**AASHTO #8 STONE (#8 to 3/8")**

SIEVE SIZE	% PASSING
1/2"	100
3/8"	85-100
#4	10-30
#8	0-10
#16	0-5

**AASHTO #57 STONE (#4 to 1")**

SIEVE SIZE	% PASSING
1-1/2"	100
1"	95-100
1/2"	25-60
#4	0-10
#8	0-5

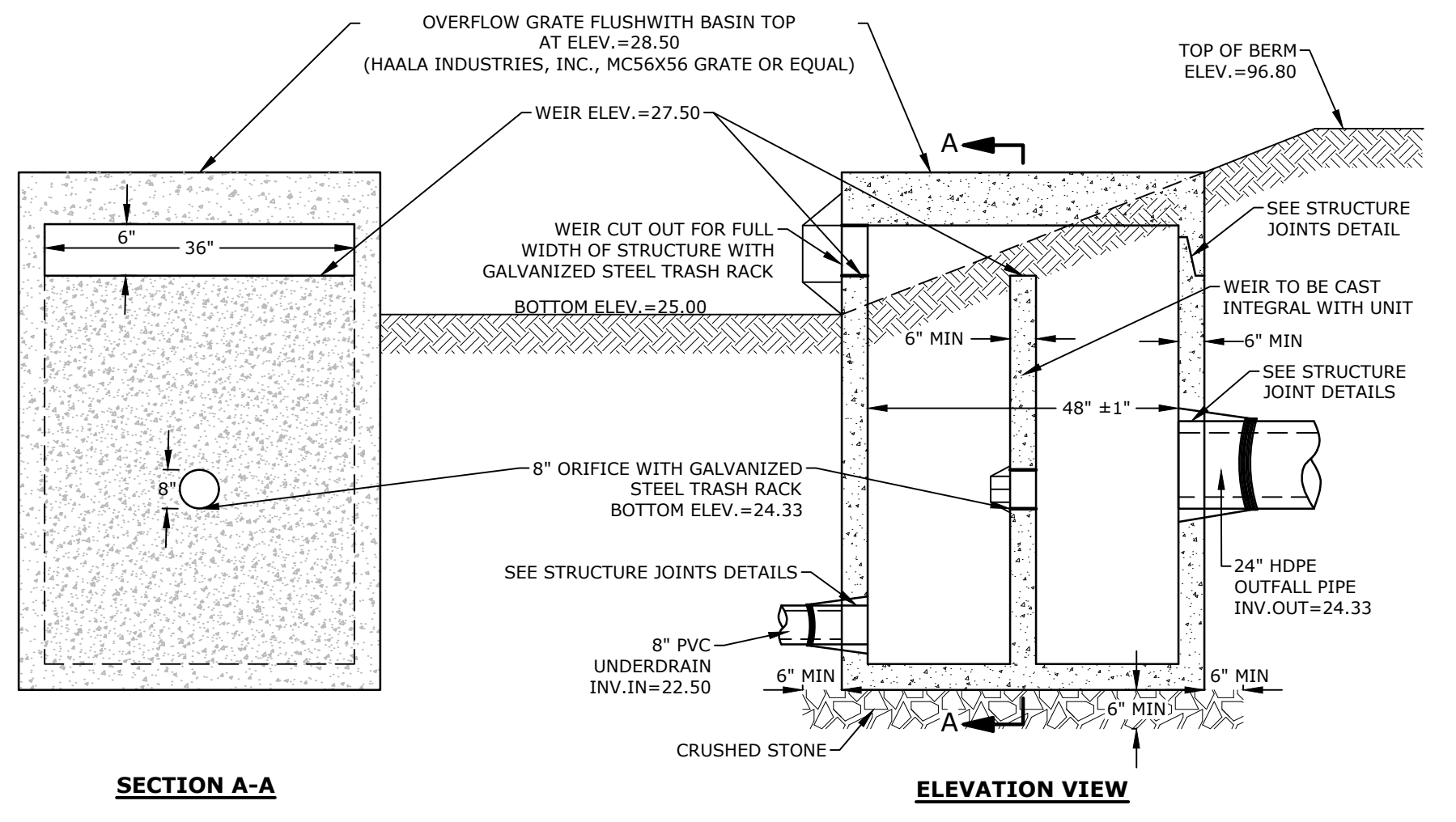
**RAIN GARDEN  
NO SCALE**



BEHIVE FRAME AND GRATE

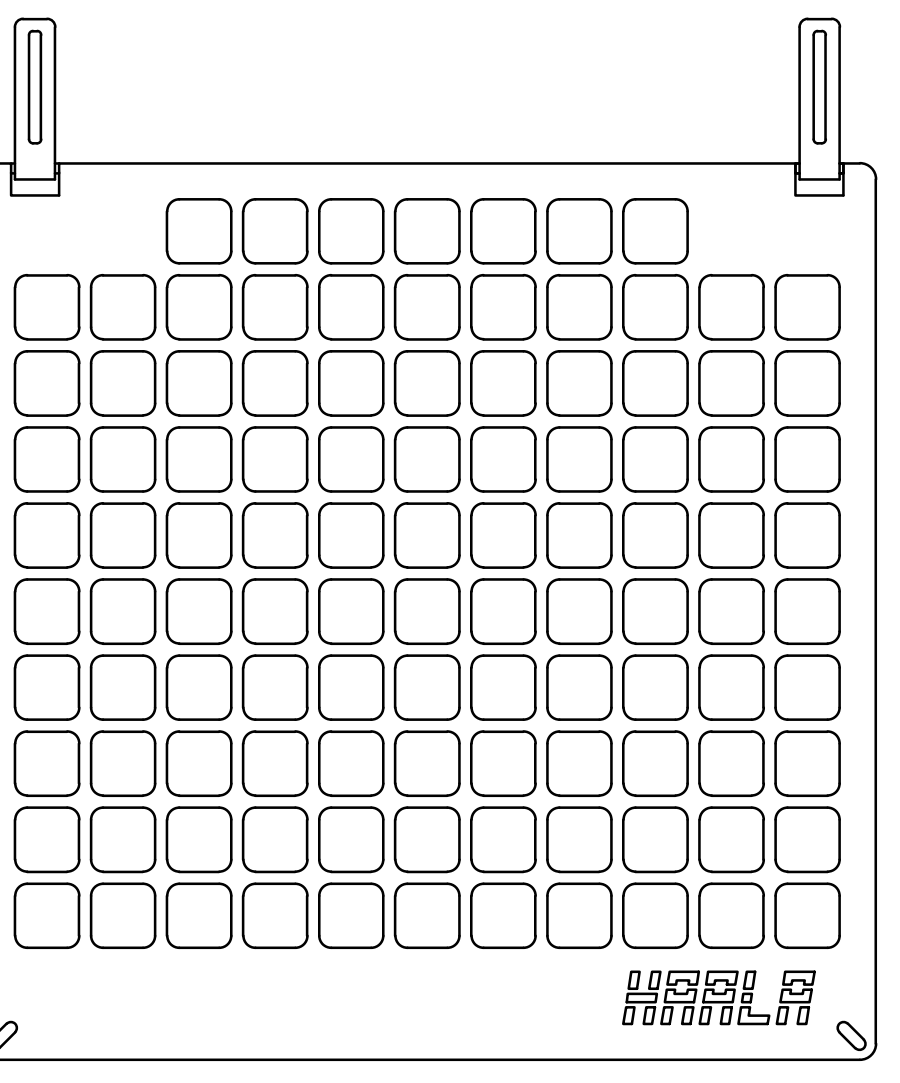
- NOTES:**
- CONCRETE SHALL BE 4,000 PSI (TYPE II CEMENT)
  - SEE SITE, GRADING, DRAINAGE, EROSION CONTROL & UTILITIES PLAN FOR LOCATIONS.
  - THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADINGS.
  - ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.
  - FRAME AND GRATE SHALL BE NEENAH FOUNDRIES MODEL R-2560-D8 OR EQUAL.

**PROPOSED OUTLET STRUCTURE (POS1)  
NO SCALE**



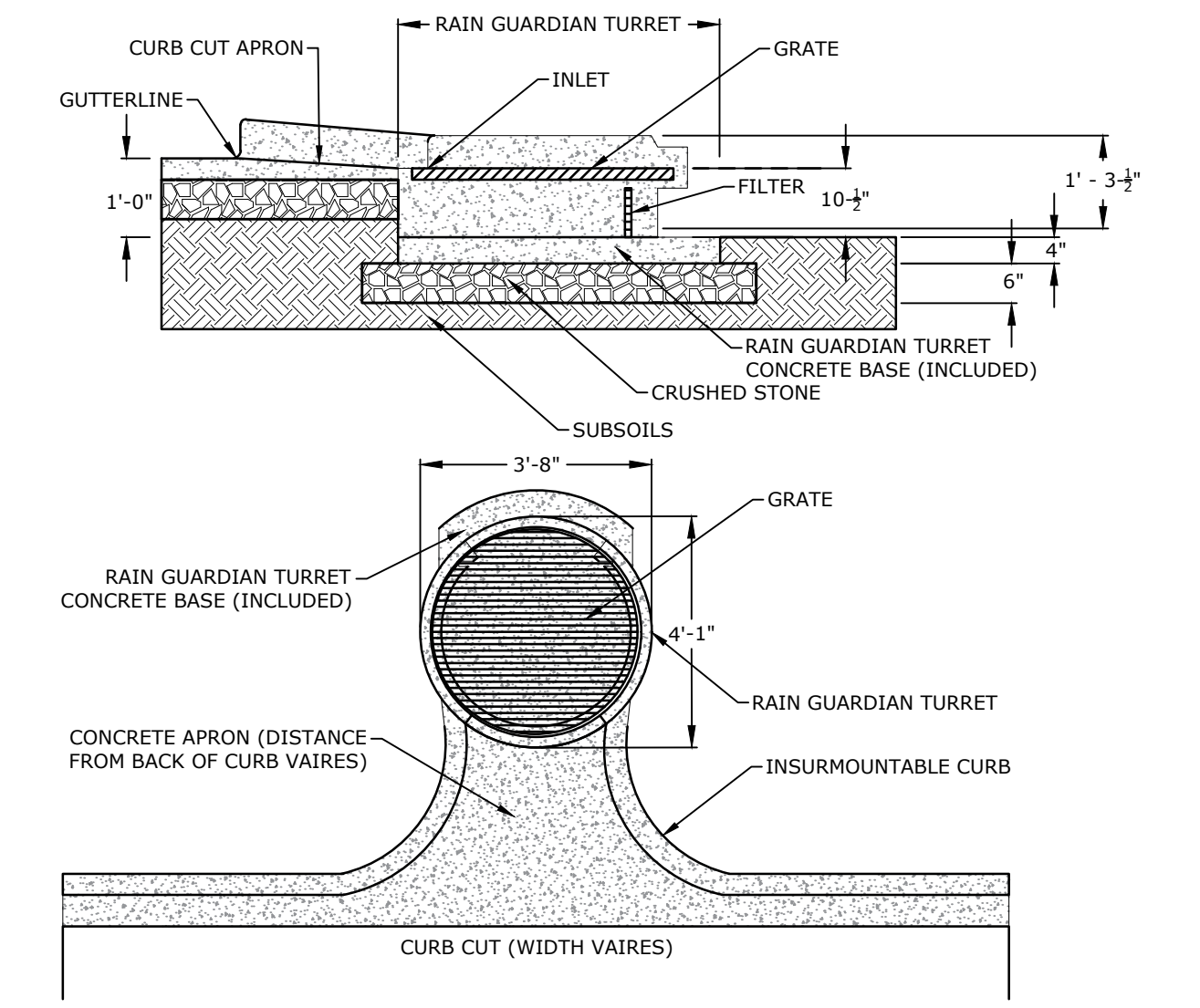
- NOTES:**
- ALL SECTIONS SHALL BE 4,000 PSI CONCRETE (TYPE II CEMENT).
  - CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE THIRD WALL.
  - THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
  - THE STRUCTURES SHALL BE DESIGNED FOR H2O LOADING.
  - ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

**PROPOSED OUTLET STRUCTURE (POS2)  
NO SCALE**



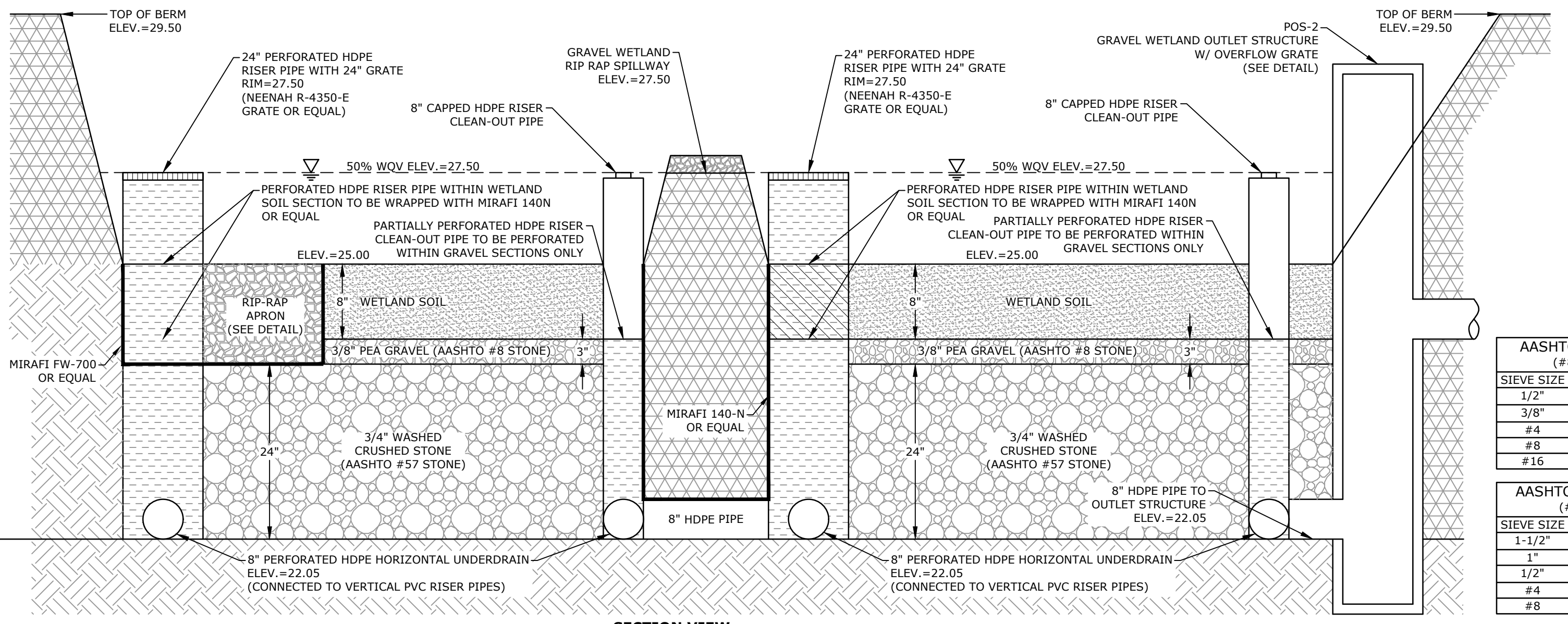
- NOTES:**
- GRATE TO BE CONSTRUCTED OF 3/8" THICK GALVANIZED PLATE.
  - GRATE TO BE SECURED TO CONCRETE STRUCTURE.

**HAALA MICHIE CORP. TOP GRATE (56X56)  
NO SCALE**



- NOTES:**
- RAIN GUARDIAN OR APPROVED EQUAL.
  - CURB INLET SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURE RECOMMENDATION.

**RAIN GUARDIAN TURRET  
NO SCALE**



**AASHTO #8 STONE (#8 to 3/8")**

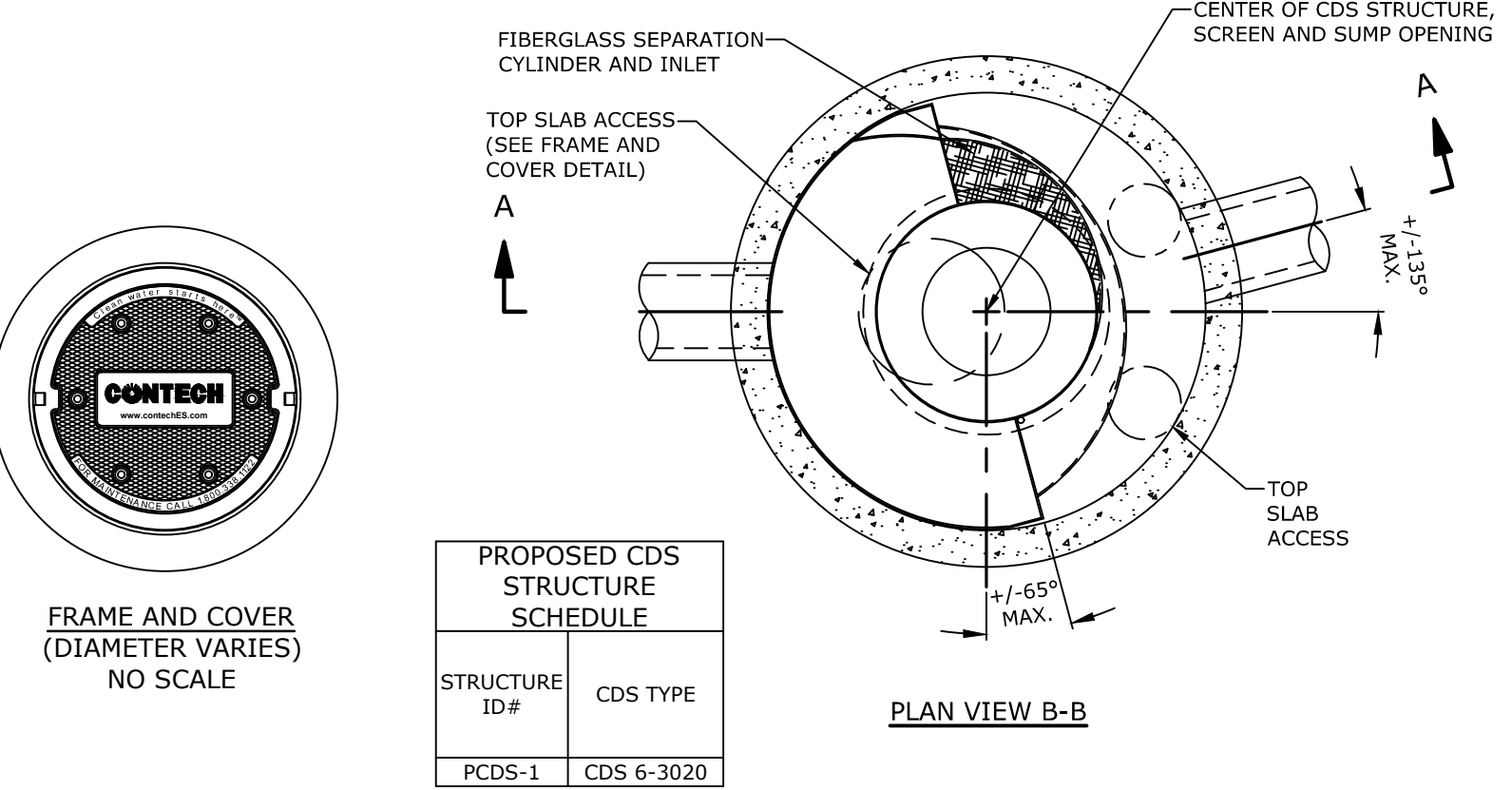
SIEVE SIZE	% PASSING
1/2"	100
3/8"	85-100
#4	10-30
#8	0-10
#16	0-5

**AASHTO #57 STONE (#4 to 1")**

SIEVE SIZE	% PASSING
1-1/2"	100
1"	95-100
1/2"	25-60
#4	0-10
#8	0-5

- NOTES:**
- WETLAND SOIL SHALL BE A SANDY CLAY LOAM WITH A HYDRAULIC CONDUCTIVITY OF 0.1-0.01 FT/DAY. ORGANIC CONTENT SHALL BE GREATER THAN 15% BY VOLUME. CLAY CONTENT SHALL BE LESS THAN 15% BY VOLUME.
  - PERFORATED HDPE RISERS SHALL HAVE VERTICAL SLOTS CUT INTO HDPE RISERS ABOVE GRADE MEASURING 3"x1/8".

**GRAVEL WETLAND  
NO SCALE**

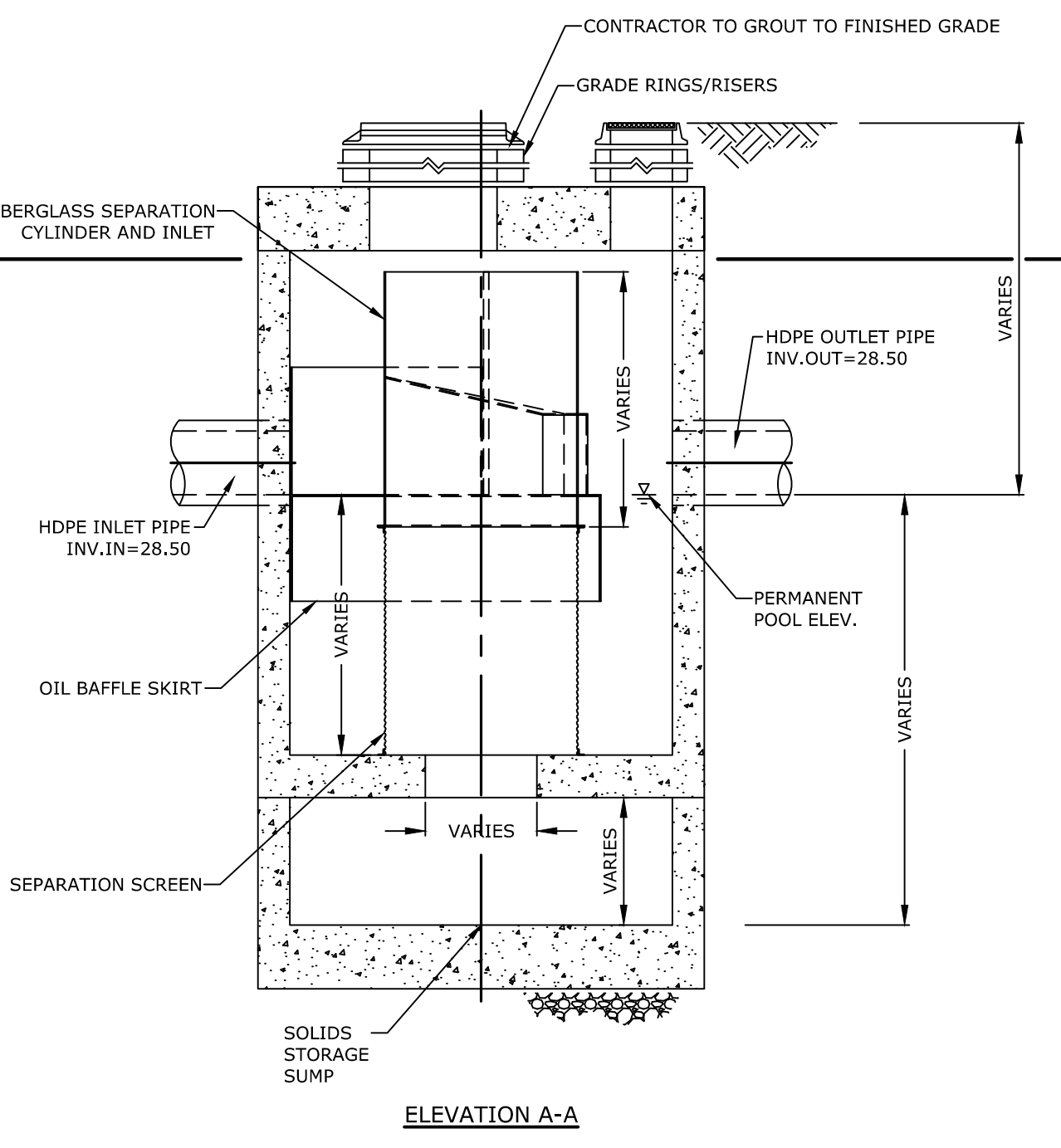


**PROPOSED CDS STRUCTURE SCHEDULE**

STRUCTURE ID#	CDS TYPE
PCDS-1	CDS 6-3020

- GENERAL NOTES:**
- CONTECH TO PROVIDE FINAL DIMENSIONS BASED ON APPROVED FLOWS AND ALL MATERIALS UNLESS NOTED OTHERWISE.
  - CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
  - STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
  - PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- INSTALLATION NOTES:**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
  - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
  - CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
  - CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN ON GRADING PLAN.
  - 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.

**PROPOSED CDS UNIT  
NO SCALE**

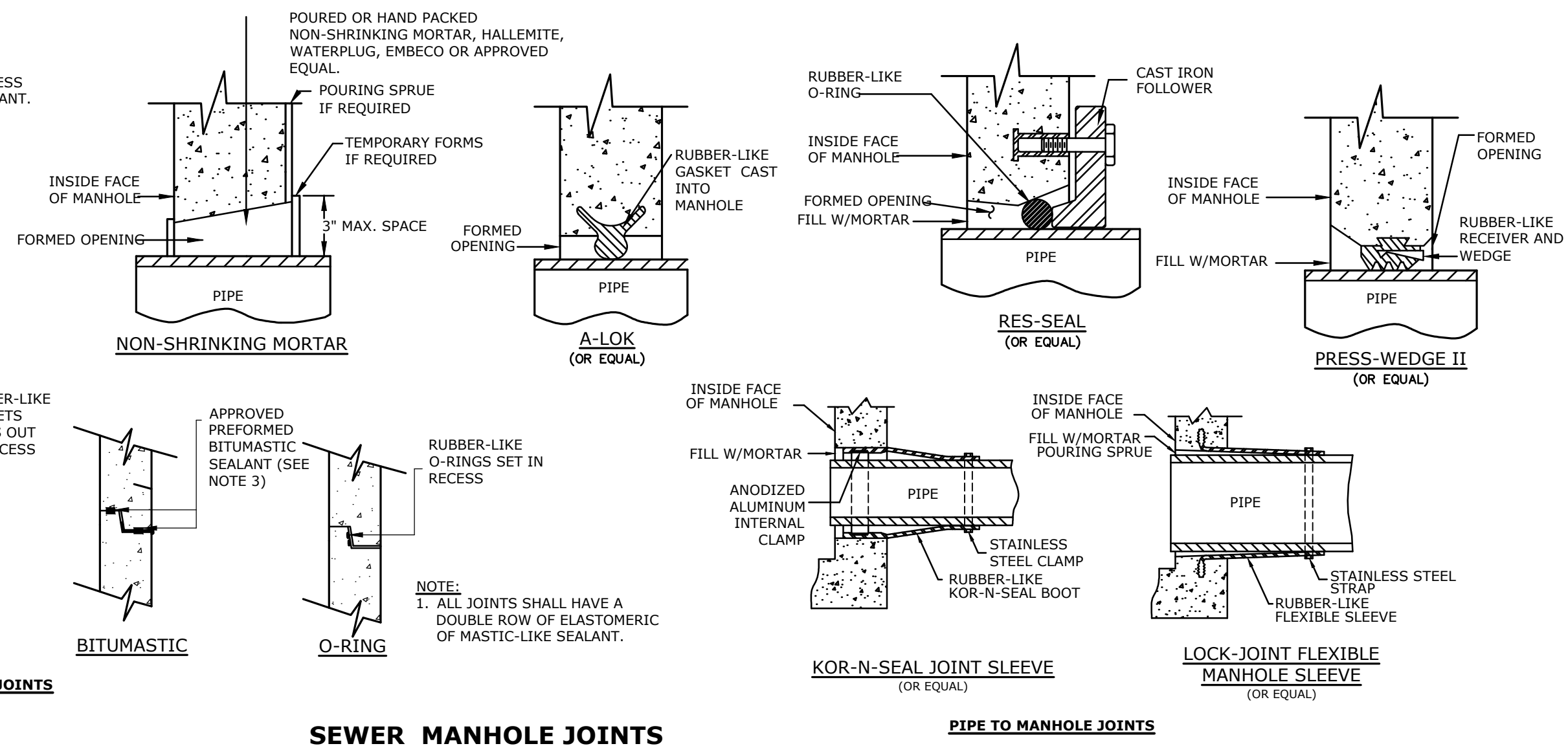


**ELEVATION A-A**

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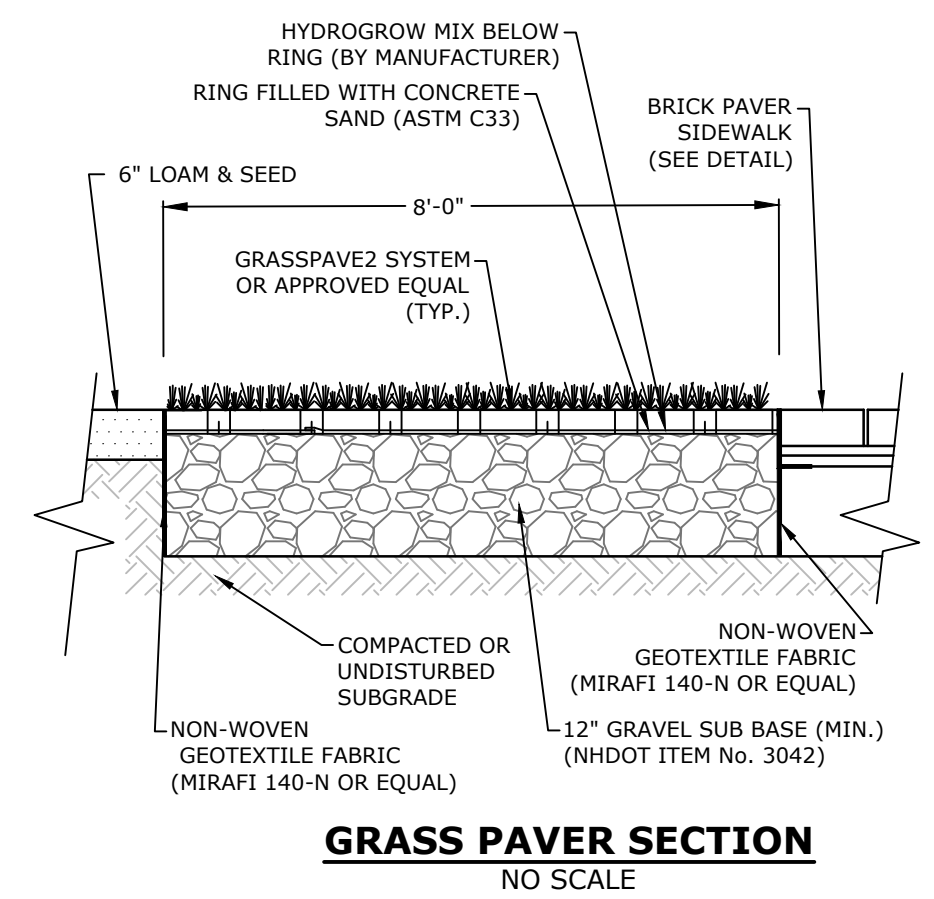


- NOTES:**
- HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF A TYPE APPROVED BY THE ENGINEER. IN GENERAL, WILL DEPEND FOR WATER TIGHTNESS UPON EITHER AN APPROVED NON-SHRINKING MORTAR OR ELASTOMERIC SEALANT.
  - PIPE TO MANHOLE JOINTS SHALL BE ONLY AS APPROVED BY THE ENGINEER. IN GENERAL, WILL DEPEND FOR WATER TIGHTNESS UPON EITHER AN APPROVED NON-SHRINKING MORTAR OR ELASTOMERIC SEALANT.
  - FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
  - ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

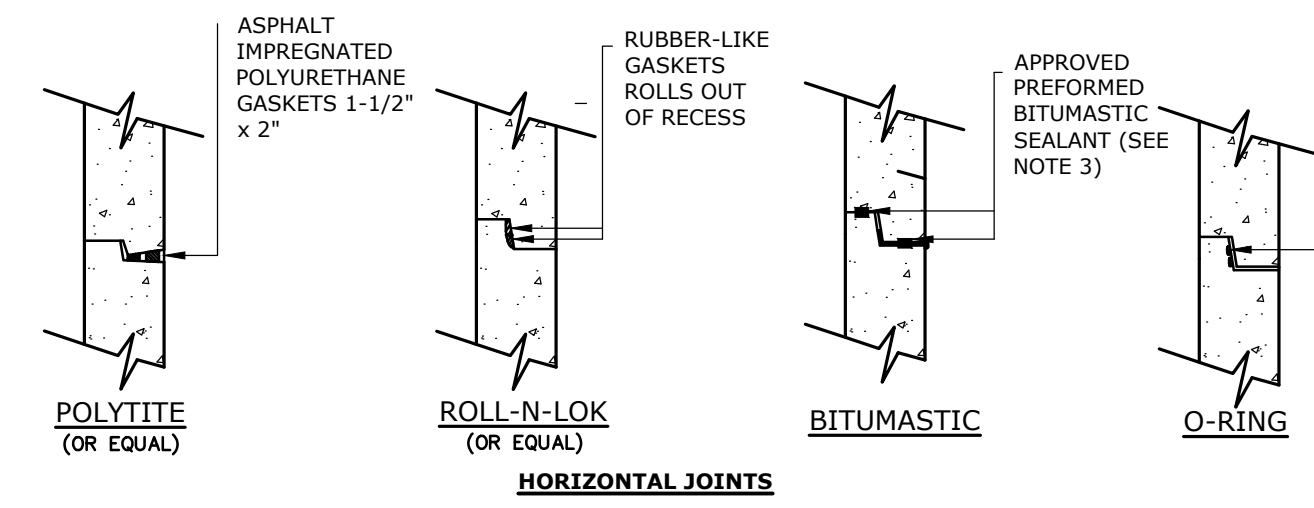


**SEWER MANHOLE JOINTS**  
NO SCALE

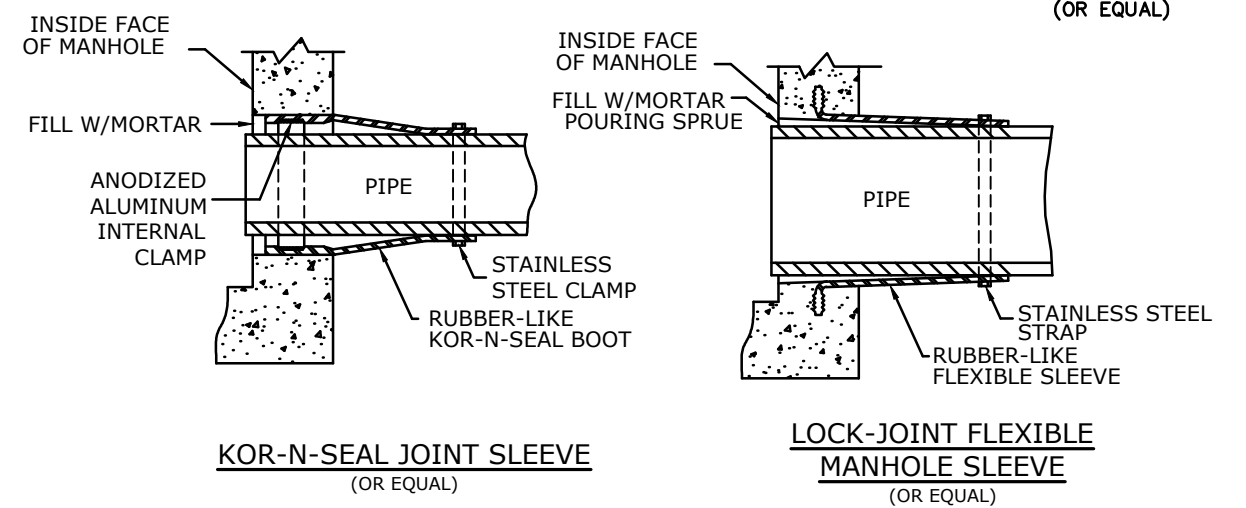
**PIPE TO MANHOLE JOINTS**  
NO SCALE



**GRASS PAVER SECTION**  
NO SCALE

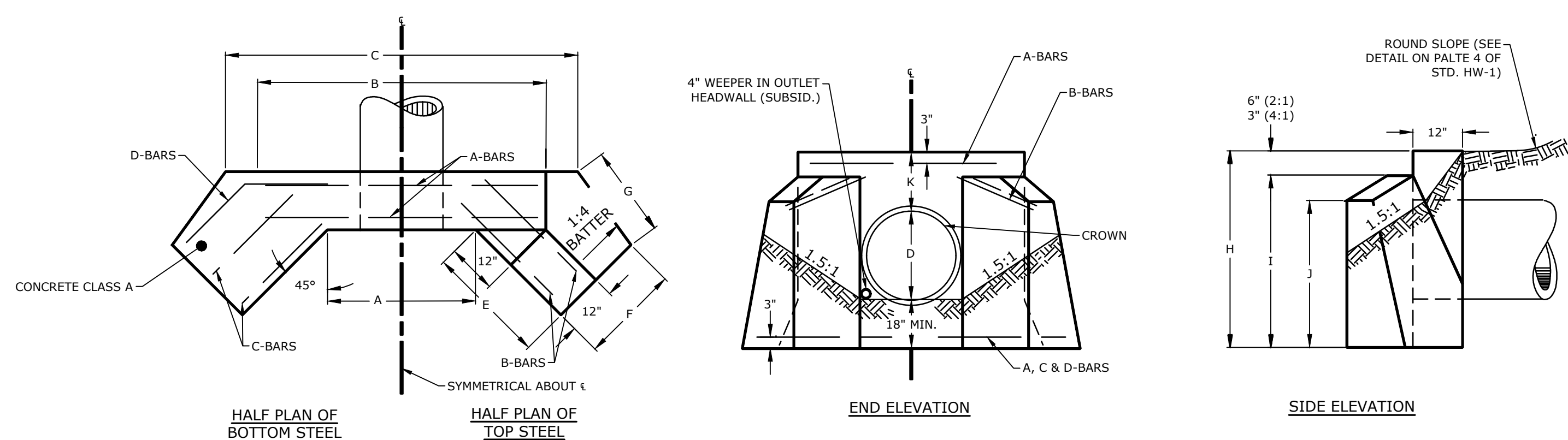


**HORIZONTAL JOINTS**



**KOR-N-SEAL JOINT SLEEVE**  
(OR EQUAL)

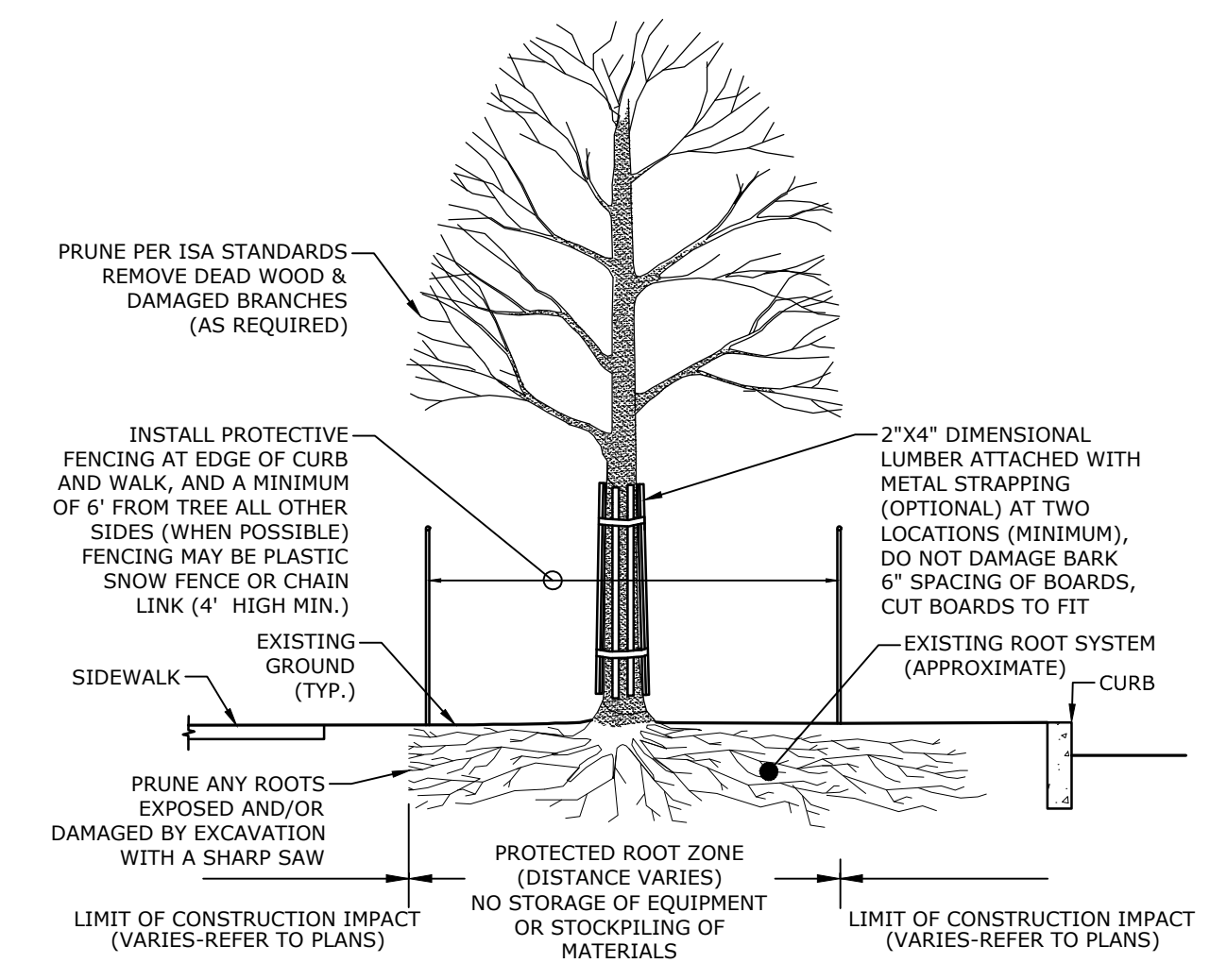
**LOCK-JOINT FLEXIBLE MANHOLE SLEEVE**  
(OR EQUAL)



DIAMETER (INCHES)	QUANTITIES PER HEADER			DIMENSIONS										REINFORCING STEEL						
	CONC (CU. YD.)	STEEL (LB)	EXC. FOR 1' DEPTH (CU. YD.)	A	B	C	E	F	G	H	I	J	K	SIZE	LENGTH				D BARS	
				a	b	c	d	a	b											
36	3.24	47	2.12	3'-8"	6'-6"	8'-5"	4'-2"	2'-1"	3'-3"	6'-0"	5'-6"	4'-4"	1'-6"	#4	6'-2"	4'-3"	4'-1"	5'-10"	2'-8"	3'-2"

NOTE: ALL LIKE BAR IN EACH HEADWALL ARE THE SAME SIZE. EACH STD. HEADER HAS 4 A, B & C-BARS, AND 2 D-BARS

**CONCRETE FLARED END SECTION**  
NO SCALE

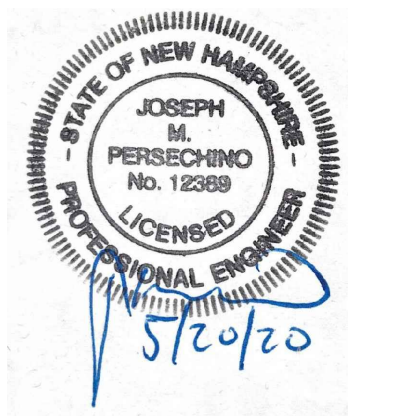


**TREE PROTECTION FOR EXISTING TREE**  
NO SCALE

NOTE: 1. CONTRACTOR SHALL WALK THE PERIMETER OF THE SITE WITH OWNER PRIOR TO CONSTRUCTION TO IDENTIFY TREES TO BE PROTECTED DURING CONSTRUCTION.



Harriman Project No. 16117



**PERMIT DRAWINGS**  
NOT FOR CONSTRUCTION

**Mill Plaza Redevelopment**

Colonial Durham Associates, LP

7 Mill Road, Unit L  
Durham, New Hampshire 03824

MARK	DATE	DESCRIPTION
2	5/20/2020	RESPONSE TO COMMENTS
1	1/2/2020	GENERAL REVISIONS

PROJECT NO: M1529-002  
DATE: 5/23/2018  
FILE: M1529-002\_C-DTLS.dwg  
DRAWN BY: EGD  
CHECKED BY: JMP  
APPROVED BY: BLM

DETAIL SHEET

SCALE: AS SHOWN

C-508



**GENERAL PROJECT INFORMATION**

PROJECT OWNER: COLONIAL DURHAM ASSOCIATES  
405 PARK, 12 FLOOR  
NEW YORK, NY 10022  
PROJECT NAME: MILL ROAD PLAZA  
PROJECT ADDRESS: MILL ROAD, DURHAM, NH 03804  
PROJECT MAP / LOT: MAP 5/ LOT 1-1  
PROJECT LATITUDE: 43°-07'-58"N  
PROJECT LONGITUDE: 70°-55'-30"W

**PROJECT DESCRIPTION**

THE PROJECT CONSISTS OF THE DEMOLITION OF A 24,000 SF RETAIL BUILDING AND EXISTING PARKING LOT AS WELL AS THE CONSTRUCTION OF NEW PARKING LOT AND TWO (2) NEW ASSOCIATED BUILDINGS INCLUDING RETAIL, HOUSING AND A PARKING GARAGE. THE WORK IS ANTICIPATED TO START IN 2019, AND BE COMPLETED BY 2020.

**DISTURBED AREA**

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 7.5 ACRES.

**SOIL CHARACTERISTICS**

BASED ON THE USCS SITE SPECIFIC SOIL SURVEY CONDUCTED BY LUKE HARLEY OF GOVE ENVIRONMENTAL SERVICES, ON MAY 4, 2018 THE SOILS ON SITE CONSIST OF UDORTHEMS, BUXTON, AND HOLLIS SOILS WHICH ARE POORLY DRAINED SOILS WITH HYDROLOGIC SOIL GROUP RATING(S) OF C AND D

**NAME OF RECEIVING WATERS**

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA OVERLAND FLOW TO A CLOSED DRAINAGE SYSTEM, TREATED VIA VARIOUS STORMWATER TREATMENT DEVICES PRIOR TO DISCHARGE TO COLLEGE BROOK.

**CONSTRUCTION SEQUENCE OF MAJOR ACTIVITIES:**

- CUT AND CLEAR TREES.
- CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
  - NEW CONSTRUCTION
  - DEVELOPMENT OF BORROW PIT AREAS
  - DISPOSAL OF SEDIMENT SOIL, SLUMP AND OTHER SOLID WASTE
  - FLOOD PLAIN EXCAVATION WORK
  - STREAM CHANNEL MODIFICATIONS
  - CONTROL OF DRAINAGE AND THE ASSOCIATED CHANNELS
  - CONSTRUCTION OF ACCESS AND HAUL ROAD
  - NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS
- CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
- ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPs PRIOR TO DIRECTING RUNOFF TO THEM.
- CLEAR AND DISPOSE OF DEBRIS.
- CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
- GRADE AND GRAVEL ROADWAYS AND PARKING AREAS - ALL ROADS AND PARKING AREA SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, PERIMETER EROSION CONTROL MEASURES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
- FINISH PAVING ALL ROADWAYS AND PARKING LOTS.
- INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

**SPECIAL CONSTRUCTION NOTES:**

- THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.
- THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE - THIS NOTE IS APPLICABLE TO SINGLE/DUPLEX FAMILY SUBDIVISIONS, WHEN LOT DEVELOPMENT IS NOT PART OF THE PERMIT.

NOTE: THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.

**EROSION CONTROL NOTES:**

- ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" PREPARED BY THE NHDES.
- PRIOR TO ANY WORK OR SOIL DISTURBANCE, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EROSION CONTROL MEASURES AS REQUIRED IN THE PROJECT MANUAL.
- CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL BARRIERS, INCLUDING HAY BALE, SILT FENCES, MULCH BERMS, SILT SACKS AND SILT SOCKS AS SHOWN IN THESE DRAWINGS AS THE FIRST ORDER OF WORK.
- SILT SACK INLET PROTECTION SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AND BE MAINTAINED FOR THE DURATION OF THE PROJECT.
- PERIMETER CONTROLS INCLUDING SILT FENCES, MULCH BERM, SILT SOCK, AND/OR HALE BALE BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL NON-PAVED AREAS HAVE BEEN STABILIZED.
- THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
- ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED AND FERTILIZER.
- INSPECT ALL INLET PROTECTION AND PERIMETER CONTROLS WEEKLY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
- CONSTRUCT EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 3:1.

**STABILIZATION:**

- AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:
  - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
  - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
  - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
  - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- WINTER STABILIZATION PRACTICES:
  - ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE, THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;
  - ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS;
  - AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER RHODD ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT;
- STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
  - TEMPORARY SEEDING;
  - MULCHING.
- WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT, ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN THESE AREAS, SILT FENCES, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
- DURING CONSTRUCTION OF THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT FENCES, MULCH BERMS, HAY BALE BARRIERS, OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY NOVEMBER 15.

**DUST CONTROL:**

- THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD.
- DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
- DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ADJACENT AREAS.

**STOCKPILES:**

- LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM COLLEGE BROOK, CATCH BASINS, SWALES, AND CULVERTS.
- ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.
- PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
- PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

**OFF SITE VEHICLE TRACKING:**

- THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY EXCAVATION ACTIVITIES.

**VEGETATION:**

- TEMPORARY GRASS COVER:
  - SEEDBED PREPARATION:
    - APPLY FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF THREE (3) TONS PER ACRE;
  - SEEDING:
    - UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE;
    - WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED;
    - APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER), HYDROSEEDINGS, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING;
  - MAINTENANCE:
    - TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.).
- VEGETATIVE PRACTICES:
  - FOR PERMANENT MEASURES AND PLANTINGS:
    - LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF THREE (3) TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5;

- FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 800 POUNDS PER ACRE OF 10-20-20 FERTILIZER;
- SOIL CONDITIONERS AND FERTILIZERS SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4,000 AND 6,000 POUNDS PER INCH OF WIDTH;
- SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED, ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. SEED SHALL BE LIGHTLY BAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH;
- HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AS INDICATED ABOVE;
- SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT COVERING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEDED, AND ALL NOXIOUS WEEDS REMOVED;
- THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED;
- A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE APPLIED AT THE INDICATED RATE:

SEED MIX	APPLICATION RATE
CREeping RED FESCUE	60 % WEIGHT
TALL FESCUE	30 % WEIGHT
REDOp	10% WEIGHT

IN NO CASE SHALL THE WEED CONTENT EXCEED ONE (1) PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. SEEDING SHALL BE DONE NO LATER THAN SEPTEMBER 15. IN NO CASE SHALL SEEDING TAKE PLACE OVER SNOW.

- DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL):
  - FOLLOW PERMANENT MEASURES SLOPE, LIME, FERTILIZER AND GRADING REQUIREMENTS. APPLY SEED MIXTURE AT TWICE THE INDICATED RATE. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.

**CONCRETE WASHOUT AREA:**

- CONCRETE SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM COLLEGE BROOK AND A MINIMUM OF 150 FEET AWAY FROM STORM DRAINS, SWALES, AND SURFACE WATERS OR DELINEATED WETLANDS;
- THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE:
  - THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY;
  - IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO CONTROL DUST;
  - INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

**ALLOWABLE NON-STORMWATER DISCHARGES:**

- FIRE-FIGHTING ACTIVITIES;
- FIRE HYDRANT FLUSHING;
- WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
- WATER USED TO CONTROL DUST;
- POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
- ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
- PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
- UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
- UNCONTAMINATED GROUND WATER OR SPRING WATER;
- FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
- UNCONTAMINATED EXCAVATION Dewatering;
- LANDSCAPE IRRIGATION.

**WASTE DISPOSAL:**

- WASTE MATERIAL:
  - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
  - NO CONSTRUCTION RELATED WASTE MATERIALS SHALL BE BURIED ON SITE;
  - ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
- HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER;
  - ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER;
  - SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
- SANITARY WASTE:
  - ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

**SPILL PREVENTION:**

- CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW. THE FOLLOWING ARE THE BEST MANAGEMENT PRACTICES THAT SHALL BE USED TO PREVENT ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:
  - GOOD HOUSEKEEPING - THE FOLLOWING GOOD HOUSEKEEPING PRACTICE SHALL BE FOLLOWED ON SITE DURING CONSTRUCTION:
    - ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE;
    - ALL MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE;
    - MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED;
    - THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS;
    - SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER;
    - WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
  - HAZARDOUS WASTE CONTROL - THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
    - PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE;
    - ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION;
    - SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISPOSED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.
  - PRODUCT SPECIFIC PRACTICES - THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ON SITE:
    - PETROLEUM PRODUCTS:
      - ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE;
      - PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
    - FERTILIZERS:
      - FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS;
      - ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER;
      - STORAGE SHALL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALED PLASTIC BIN TO AVOID SPILLS.
    - PAINTS:
      - ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE;
      - EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM;
      - EXCESS PAINT SHALL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
    - SPILL CONTROL PRACTICES - IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
      - MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES;
      - MATERIALS AND EQUIPMENT FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA OR SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE;
      - ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY;
      - THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE;
      - SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED;
      - THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.
    - VEHICLE FUELING AND MAINTENANCE PRACTICE:
      - CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPMENT/VEHICLE FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY;
      - CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY;
      - IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED;
      - CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA;
      - CONTRACTOR SHALL REGULARLY INSPECT VEHICLES FOR LEAKS AND DAMAGE;
      - CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.

**EROSION CONTROL OBSERVATIONS AND MAINTENANCE PRACTICES**

THIS PROJECT EXCEEDS ONE (1) ACRE OF DISTURBANCE AND THUS REQUIRES A SWPPP. THE SWPPP SHALL BE PREPARED BY THE ENGINEER. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SWPPP AND KEEP AN UPDATED COPY OF THE SWPPP ON SITE AT ALL TIMES.

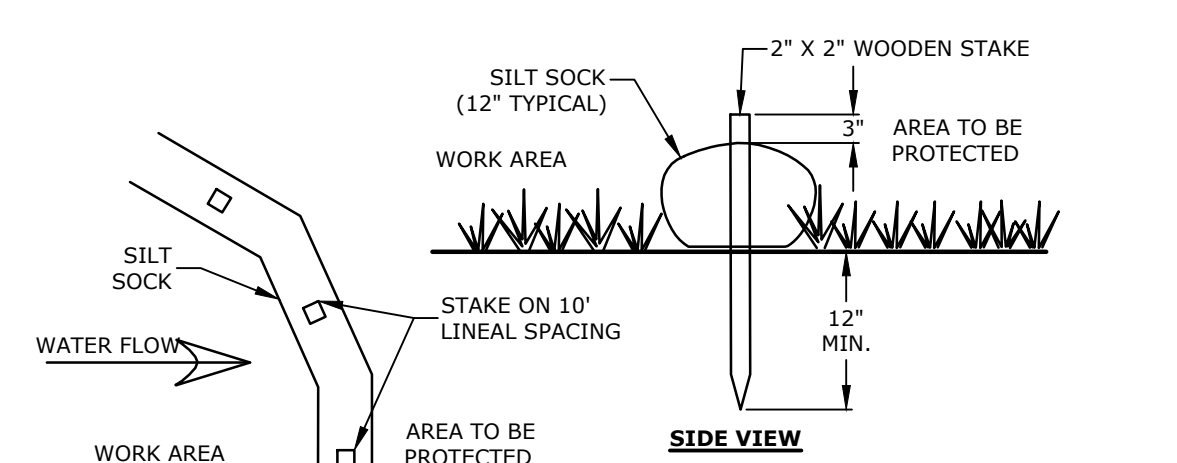
THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT:

- OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER;
- AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR;
- A REPRESENTATIVE OF THE SITE CONTRACTOR, SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES;
- IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

**BLASTING NOTES:**

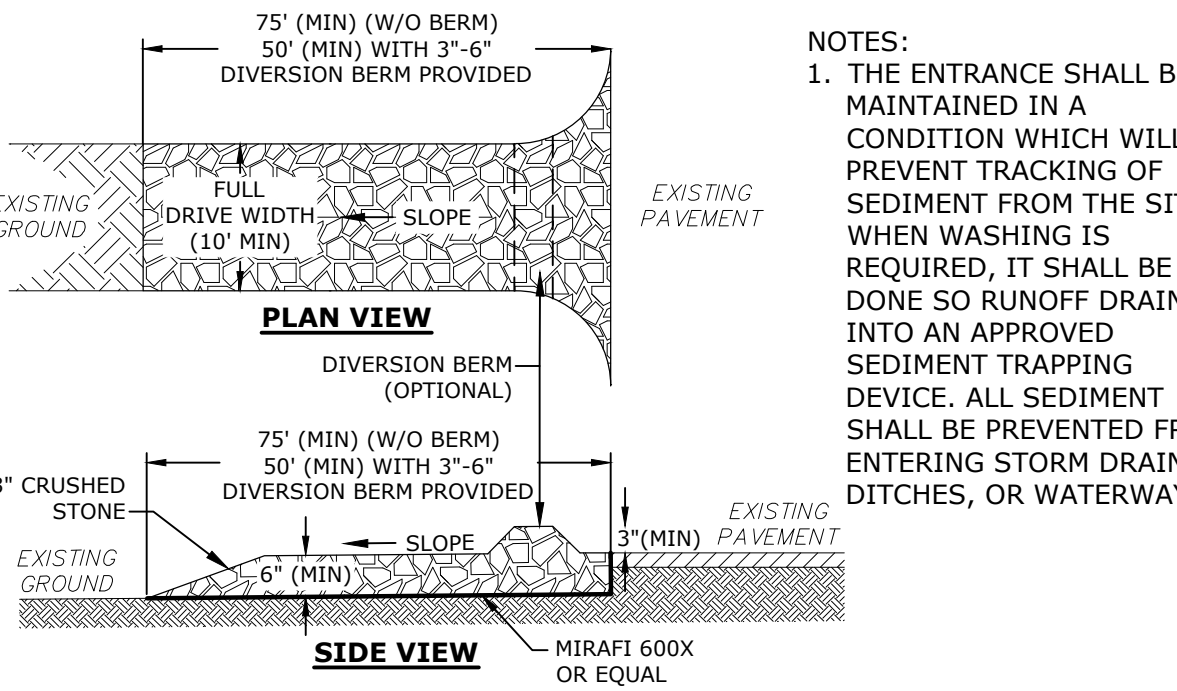
- IF MORE THAN 5000 CUBIC YARDS ARE TO BE BLASTED A BLASTING PLAN SHALL BE PROVIDED. THE BLASTING PLAN SHALL INCLUDE:
  - LOCATION AND IDENTIFICATION OF DRINKING WATER WELLS LOCATED WITHIN 2000 FEET OF THE PROPOSED BLASTING ACTIVITIES;
  - A GROUNDWATER QUALITY SAMPLING PROGRAM, APPROVED BY NHDES PRIOR TO INITIATING BLASTING, TO MONITOR FOR NITRATE AND NITRATES IN THE DRINKING WATER SUPPLY WELLS OR IN OTHER WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA.
    - THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY NHDES.
- THE FOLLOWING BEST MANAGEMENT PRACTICES FOR BLASTING SHALL BE COMPLIED WITH:
  - LOADING PRACTICES - THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
    - DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND Voids, CRACKS, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS;
    - EXPLOSIVE PRODUCTS SHALL BE MANAGED ON-SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLES OR SECURED CONTAINERS FOR OFF-SITE DISPOSAL, OR OFF-SITE DISPOSAL;
    - SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL;

- LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED;
- INSTALL SILT SOCK IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT;
- EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
- EXPLOSIVE SELECTION - THE FOLLOWING BMPs SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
  - EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION;
  - EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER
- PREVENTION OF MISFIRES, APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
- MUCK PILES MANAGEMENT - MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
  - REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE;
  - MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
- SPILL PREVENTION MEASURES AND SPILL MITIGATION - SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:
  - THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
    - STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE;
    - SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
    - LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY;
    - INSPECT STORAGE AREAS WEEKLY;
    - COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
    - WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS;
  - SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.



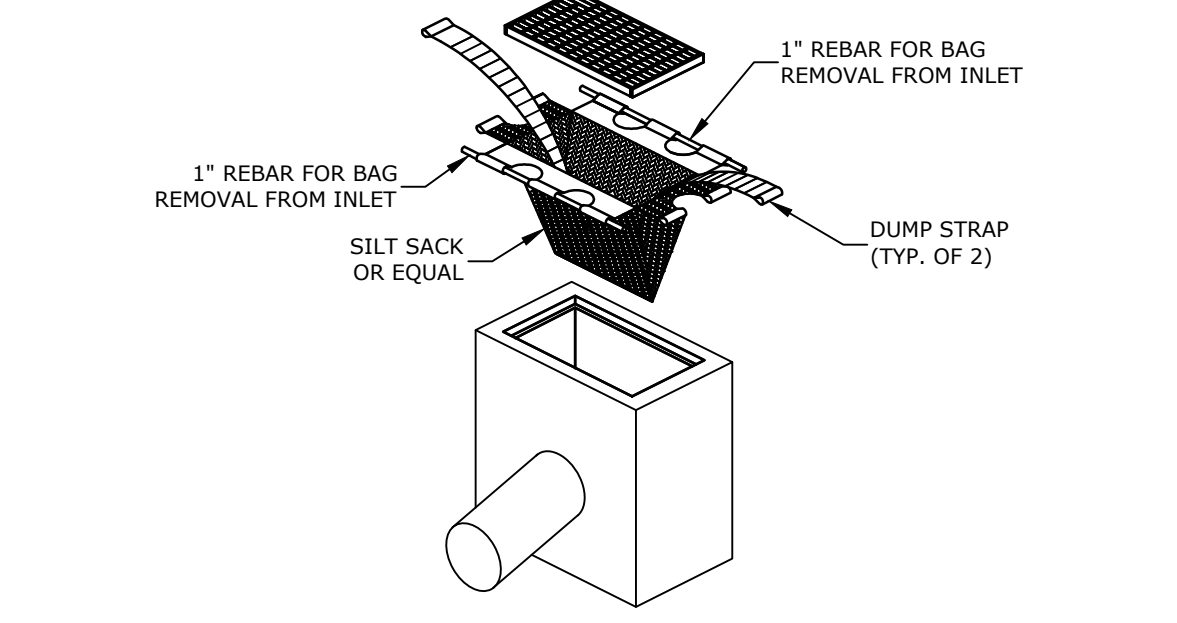
**SILT SOCK**  
NO SCALE

NOTES:  
1. SILT SOCK SHALL BE SILT SOCK BY FILTREXX OR EQUAL  
2. INSTALL SILT SOCK IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

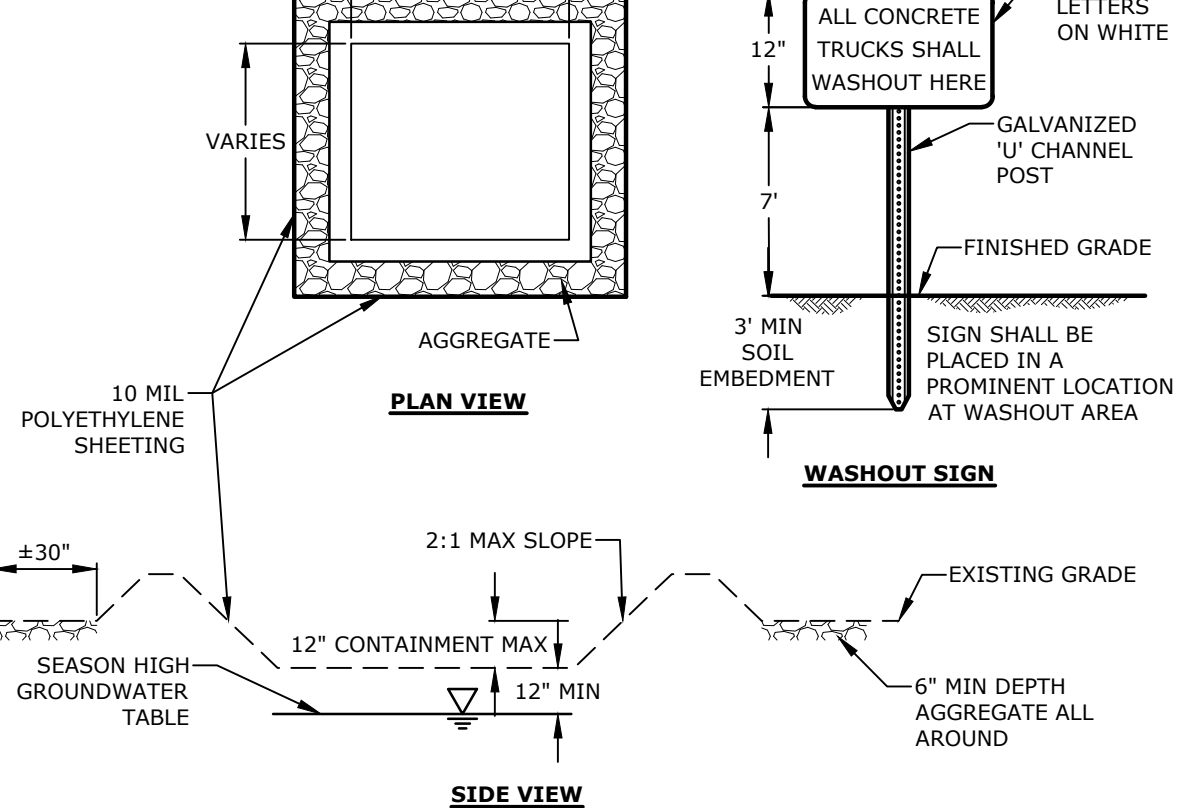


**STABILIZED CONSTRUCTION EXIT**  
NO SCALE

NOTES:  
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT FROM THE SITE. WHEN WASHING IS REQUIRED, IT SHALL BE DONE SO RUNOFF DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS



**SILT SACK**  
NO SCALE



**CONCRETE WASHOUT AREA**  
NO SCALE

NOTES:  
1. CONTAINMENT SHALL BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.  
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.  
3. WASHOUT SHALL BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.  
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS  
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.  
6. AT LEAST WEEKLY, REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.  
7. WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM COLLEGE BROOK.

**Tighe & Bond**  
Engineers | Environmental Specialists



Harriman Project No. 16117



**PERMIT DRAWINGS**  
NOT FOR CONSTRUCTION

**Mill Plaza**  
Redevelopment

**Colonial Durham**  
Associates, LP

7 Mill Road, Unit L  
Durham,  
New Hampshire 03824

MARK	DATE	DESCRIPTION
2	5/20/2020	RESPONSE TO COMMENTS
1	1/2/2020	GENERAL REVISIONS

PROJECT NO: M1529-002  
DATE: 5/23/2018  
FILE: M1529-002\_C-DTLS.dwg  
DRAWN BY: EGD  
CHECKED: JMP  
APPROVED: BLM

**EROSION CONTROL NOTES AND**  
DETAIL SHEET

SCALE: AS SHOWN

C-501

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