



A TRADITION OF STRENGTH

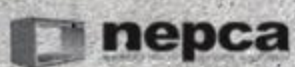
PRODUCT CATALOG 2018



- Steps & Bulkheads
- Distribution Boxes
- Manholes & Catch Basins
- Transportation
- Modular Buildings
- Stormwater
- Retaining Walls

- Septic Tanks
- Leaching Chambers
- Pump Chambers
- Drywells
- Commercial Tanks
- Utilities

Utility Precast Products Included
In Separate Catalog



800.696.7432

www.SheaConcrete.com



Shea Concrete Products, Inc. is a family owned and operated company. Mr. Ernest Shea started the business in 1949 as a concrete block distributor and 10 years later he began manufacturing Septic Tanks.

What began as a vision and a small company with one truck and several employees, in 70 years has progressed into the largest precaster in the area with four locations, fleet of delivery trucks and 100 employees.

Despite the tremendous growth the business has experienced, it has remained a very close knit operation with the same values that Mr. Shea instilled when he started. That being quality products, competitive prices, and unparalleled service.

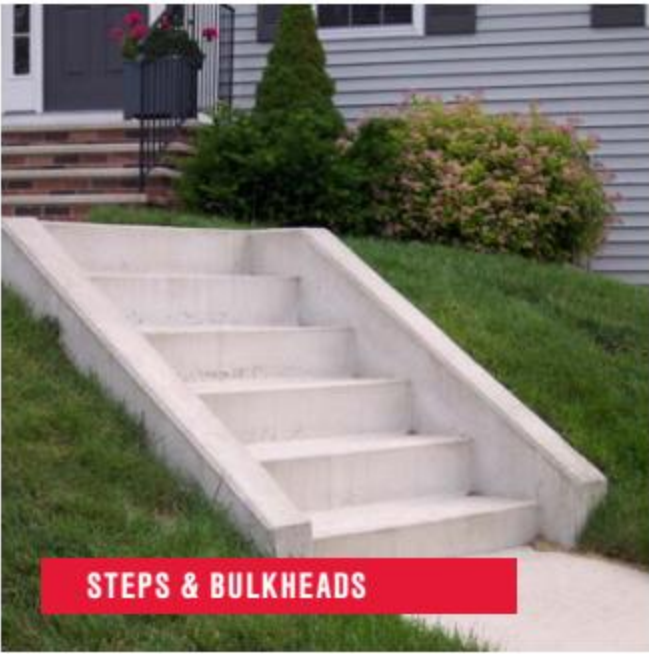
Our state certified manufacturing facilities are state of the art with a fully computerized batch plant enabling us to maintain strict quality control. Along with our large inventory and expanded product line we are able to service the needs of our customers whether large or small.

We hope that our updated catalog will be helpful and informative to all our customers. If you have any questions or require technical support our engineering staff is available to assist you.

Best Wishes,

The Shea Family





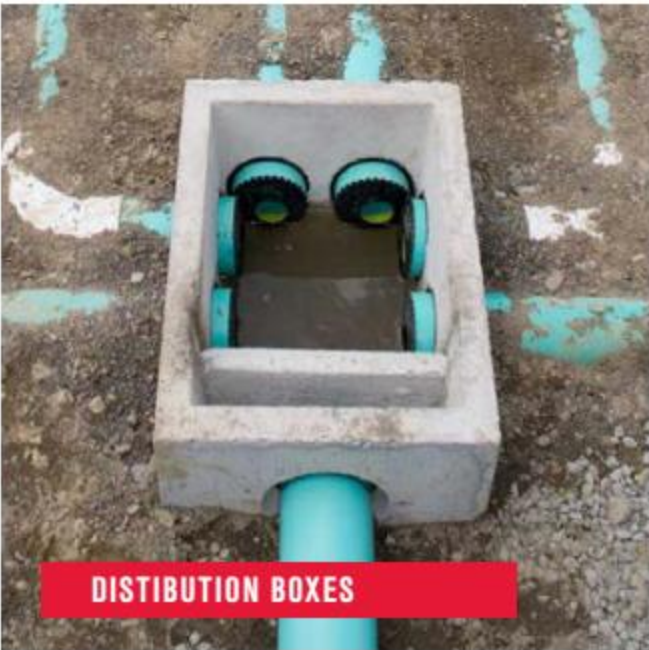
STEPS & BULKHEADS



SEPTIC TANKS



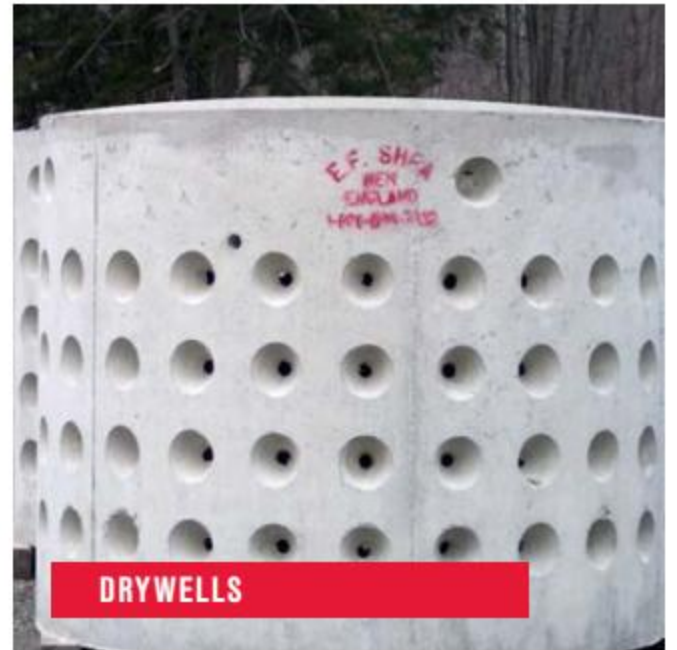
PUMP CHAMBERS



DISTRIBUTION BOXES



LEACHING CHAMBERS



DRYWELLS



MANHOLES & CATCH BASINS



STORMWATER



TRANSPORTATION



RETAINING WALLS



MODULAR BUILDINGS



BOX CULVERT

COMPANY HISTORY

A leader in the precast concrete industry

What began as a vision over 60 years ago has grown to become one of New England's largest and most reputable precast concrete manufacturers, specializing in everything from watertight septic tanks, to manholes and drainage structures, to bulkheads, curbing, residential steps, box culvert, precast buildings and retaining wall systems.

Shea Concrete Products is certified by the National Precast Concrete Association (NPCA), which means our state-of-the-art manufacturing plants operate at the highest standards of production and quality control. Our extensive inventory and expanded product line ensures that we can meet all of your concrete needs large and small — **in a timely and cost-effective manner.** And, our knowledgeable and highly capable staff enables us to deliver the solutions your business requires with industry-leading unmatched service.

Family-owned and operated since 1949

What do you get with the right mix of old-fashioned family values, unmatched customer service and first-rate products? Shea Concrete Products, an innovative, forward-thinking company with a reputation for providing premium quality precast concrete products to the New England market. Founded in 1949 by Ernie Shea, our company's auspicious beginnings began when building foundations were still made with concrete blocks. With his wife Mary and son Ed by his side, Ernie quickly became known for being an honest, easy-going businessman who was good to his customers and employees, and fair with his competition.

Today, Shea Concrete Products remains a family business in every sense of the word: Ed, his wife Judi, their four daughters, three sons-in-law, and grandchildren, plus over 100 dedicated and knowledgeable employees all help to run the company.

With locations in Wilmington, Massachusetts (headquarters), Amesbury, Massachusetts, Rochester Massachusetts, and Nottingham, New Hampshire,

we are able to service the diverse needs of our customers, and deliver quality products at a fair price. And our continued focus on quality, service, and customer-centered values has made us a leader in the precast concrete industry.

NPCA Certification.

The hallmark of quality.



Shea Concrete Products is proud to be certified by the prestigious National Precast Concrete Association (NPCA), an international trade group dedicated to expanding the use of quality precast concrete. Currently, the association represents more than 900 companies and also provides technical and production information through 13 product committees, which consist of members who concentrate on specific product lines within the precast industry.

What It Means To You:

- We're committed to producing the highest-quality precast concrete products.
- Our plant facilities, production, processes, and quality control operations consistently demonstrate a uniformly high degree of excellence.
- Our products are manufactured to exacting requirements for uncompromising strength, durability, and finish.
- Our products are manufactured to your exact specifications and arrive on the job site ready for installation — saving you time and money.

SHEA PRODUCTS

Shea Concrete is one of New England's largest and most trusted suppliers of precast concrete products to quality-conscious Contractors, Engineers, and Homeowners. As a NPCA certified company, we produce thousands of environmentally friendly concrete products, including Sewage and Drainage Systems, Barriers and Curbs, Utility Structures and Shea Block Retaining Walls. We also produce precast concrete bulkhead, side entry, and standard steps, as well as brick steps. Whatever your project — you can count on us for precast products that are easy to install, durable and affordable.

Features And Benefits Of Precast Concrete:

- Superior strength and durability
- Ease of installation
- High degree of quality control
- Frost and weather resistant
- Corrosion resistant
- Environmentally friendly

STEPS

Shea's full line of precast steps can meet any functional and aesthetic need. Our precast steps meet the strictest specifications in the concrete industry, and offer superior strength, longevity, and ease of installation.

We offer Plain Concrete, Brick, and Granite steps in a wide range of configurations — **built to withstand the toughest environments. Durable and easy to install.**

Where Form & Function Meet



SEWERAGE

When it comes to strength, there's no better choice than precast concrete. Stronger than tanks made of steel, plastic, fiberglass, or high-density polyethylene (HDPE), precast concrete septic tanks are known for their superior strength, their durability and ease of installation. They are also environmentally friendly.

Shea offers residential and commercial grade tanks in many sizes, all manufactured in accordance with NPCA and ASTM C 1227 Standards.

Why a Precast Concrete Septic Tank?



DRAINAGE

Shea Concrete offers a full range of precast drainage structures designed to efficiently and economically collect surface stormwater runoff and deliver it to its ultimate disposal point. Whatever your project — catch basin, drywell, manhole or headwall — count on us to keep things flowing smoothly, from start to finish. You'll find your Shea product meets or exceeds all specifications and is always up to the challenge, no matter what the conditions.

Where Do You Want The Water To Go?



WALLS

Quality, durability and value, you get it all with a Shea high performance retaining wall. From elaborate designs to unique textures, our library will give you all the options your project needs.

Engineers can access our database of block specifications in PDF, Google sketchup and dwg files. Visit www.sheaconcrete.com to download or view any product and its specifications. Learn to build Shea Walls with our free workshops, or check out our gallery of past work at www.sheaconcrete.com

Not All Retaining Walls Are Created Equal



TRANSPORTATION

Shea Concrete is a custom manufacturer of heavy duty precast concrete products that are designed to meet or exceed the most stringent industry standards. Our precast products are suitable for industrial, municipal, environmental, and private construction markets.

Barriers for traffic management, highway and road construction, crowd control, safety and security, as well as multipurpose usage, meet the Department of Transportation Standards specifications.

Our Products Meet All D.O.T. Standards



UTILITIES

Need an electric manhole or light pole base? Working with National Grid, NSTAR or PSNH? Whatever your utility product needs may be, Shea Concrete has a solution for you. We can help you safely house your utilities within a secure precast concrete environment that meets your exact specifications.



MODULAR BUILDINGS

Easi-Set buildings are available in many sizes. Fabricated Patented post-tensioning system in the roof and floor panels, a turn-down roof that caps the walls, and a stepdown floor to eliminate the possibility of water migration into the building along the bottom of the wall panels.

Easi-Set Models are virtually maintenance-free and available with a wide variety of finishes and color options.

The building components can be cast with openings necessary for pipes, HVAC units, louvers, windows, etc.

Easi-Set Models are typically pre-assembled at the factory and delivered and off-loaded in one piece. They can also be field assembled, with a precast concrete floor or onto a poured-in-place slab. The buildings can be plant-outfitted to meet customer needs. We also offer Easi-span buildings that are field assembled up to 40' x 200' clear.



STORMWATER

Concrete Stormwater Drains & Filtering Systems

Our storm water line offers a selection of the finest products available to deal with high volumes of runoff water. We offer two new filtering systems from Enviroment21. Our full product lineup includes box culverts, oil and grease separators, rain and trench drains, sediment and oil separators along with two state-of-the-art filtration systems the Unistorm and the V2B1.



LUNCH & LEARNS

Have an interest in learning more about Precast Concrete? Lunch & Learns with Shea Concrete are a great venue to focus at a particular engineering application where precast concrete plays a critical role. We will come to you or host a meeting at our Amesbury location followed by a plant tour. Topics of discussion may include: ReCon Retaining Wall System, Easi-Set Precast Concrete Building System, Septic Tanks and Alternative Technologies, Stormwater Products, J-J Hooks Precast Concrete Barrier Connection System, or an overview of all our precast concrete products. You can learn about our products while earning Professional Development Hours (PDH).

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AMESBURY MA

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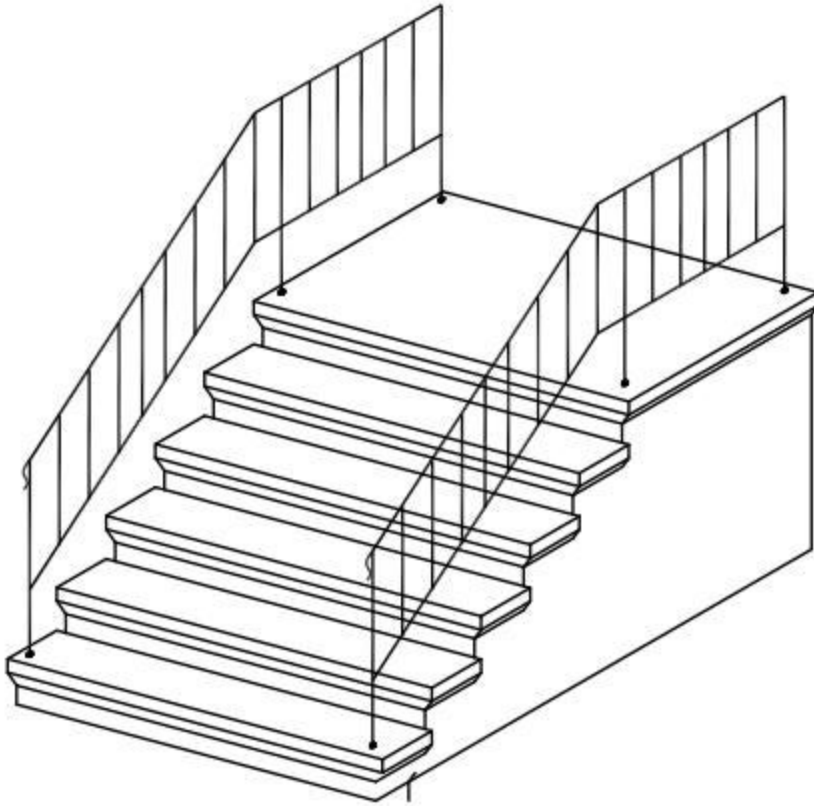
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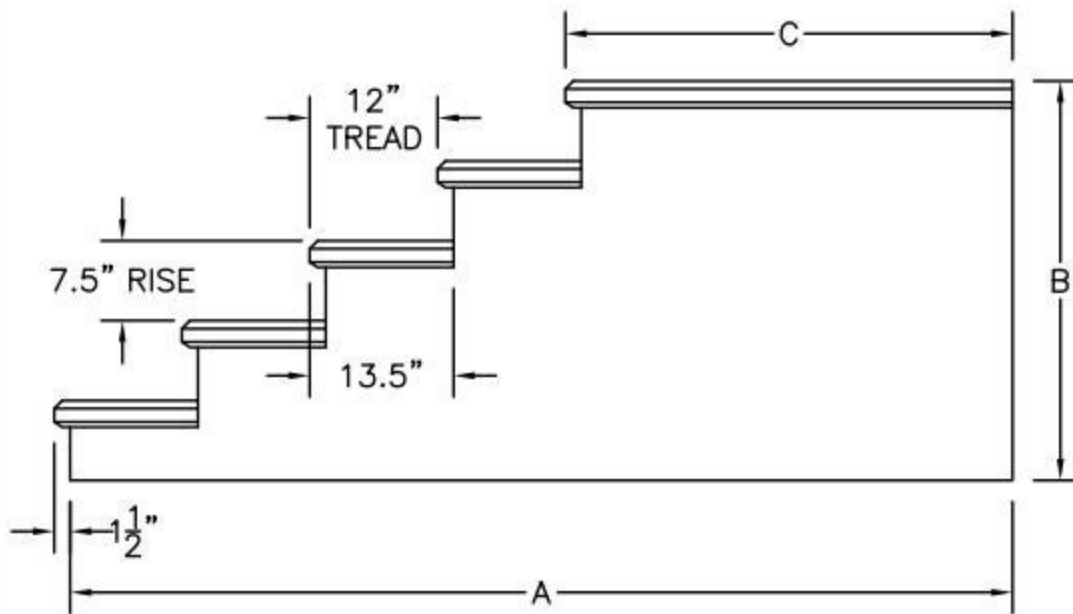
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GREASE TRAP VARIOUS SIZES	K4	GREASE TRAP.DWG	06/11/2018
SECTION L – SHEA/RECON RETAINING WALL			
WALL CROSS SECTION	L1	RECON_WALLSECTION.DWG	03/01/2018
FULL AND HALF BLOCK.....	L2	RECON_FH.DWG	06/01/2018
TOP & GUARD BLOCK.....	L3	RECON_TG.DWG	06/01/2018
CAP BLOCK.....	L4	RECON_C.DWG	06/01/2018
DOUBLE SIDED BLOCK.....	L5	RECON_DS.DWG	06/01/2018
SECTION M - MISCELLANEOUS			
WELL TILE	M1	WELLTILE.DWG	03/01/2018
WELL TILE H-20	M2	WELLTH20.DWG	03/01/2018
TANK EXTENSIONS.....	M3	TANKEXTS.DWG	06/01/2018
COVERS	M4	COVERS.DWG	03/01/2018
BOUNDARY MARKER.....	M5	BOUNDMRK.DWG	06/01/2018
PRECAST BALLARDS.....	M6.1	BOLLARDS.DWG	06/01/2018
4" DIAMETER BOLLARD W/BASE	M6.2	4INBOLLARDWBASE.DWG	06/01/2018
6"DIAMETER BOLLARD W/BASE	M6.3	6INBOLLARDWBASE.DWG	06/01/2018
6"DIAMETER SIGN BOLLARD W/BASE.....	M6.4	6INSIGNBOLLARDWBASE.DWG	06/01/2018
8"DIAMETER BOLLARD W/BASE	M6.5	8INBOLLARDWBASE.DWG	06/01/2018
FROST POST/FOOTING 8" SQUARE.....	M7.1	FROSTPOST8SQ.DWG	03/01/2018
FROST POST/FOOTING 16" SQUARE.....	M7.2	FROSTPOST16SQ.DWG	03/01/2018
BUNKER BLOCK	M8	BUNKERBLOCK.DWG	03/01/2018
COLUMN WRAP 6" BEAM	M9	COLWRAP.DWG	06/01/2018
PARK BENCH END	M10	BENCHEND.DWG	03/01/2018
FIRE CISTERN	M11	FIRECISTERN.DWG	06/01/2018
BOAT RAMP PANEL	M12.1	BOAT RAMP PANEL.DWG	03/01/2018
NH F&G PRECAST PLANK BOAT RAMP.....	M12.2	BOATRAMPNHFG.DWG	06/01/2018
EASI-SET PRECAST CONCRETE BUILDINGS	M13	EASISSET BUILDING.DWG	06/01/2018
PROPANE AND GENERATOR PADS	M14	PROPANE PADS.DWG	06/06/2018
THRUST BLOCKS	M15	THRUST BLOCKS.DWG	06/11/2018

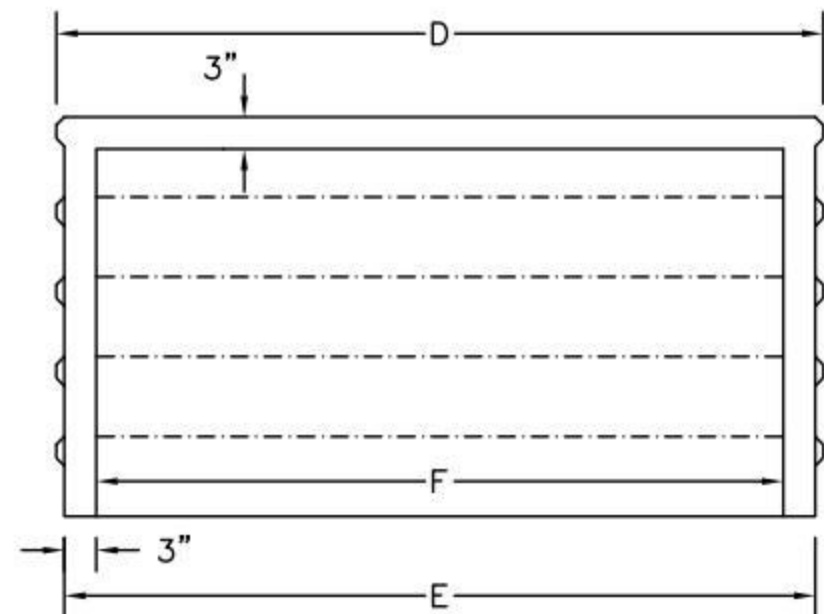
APPENDIX A – TERMS & CONDITIONS, WARRANTIES, INSTALLATION PROCEDURES



WEIGHT	RISERS						
	1	2	3	4	5	6	7
4'	670#	1,090#	1,555#	2,065#	2,625#	3,230#	
5'	815#	1,285#	1,800#	2,360#	2,965#	3,620#	4,320#
6'	960#	1,480#	2,040#	2,650#	3,310#	4,010#	4,760#
7'	1,100#	1,670#	2,280#	2,940#	3,650#	4,400#	5,200#
8'	1,245#	1,860#	2,525#	3,235#	3,990#	4,790#	
10'	1,530#	2,250#	3,010#	3,820#	4,670#	5,575#	



SIDE VIEW



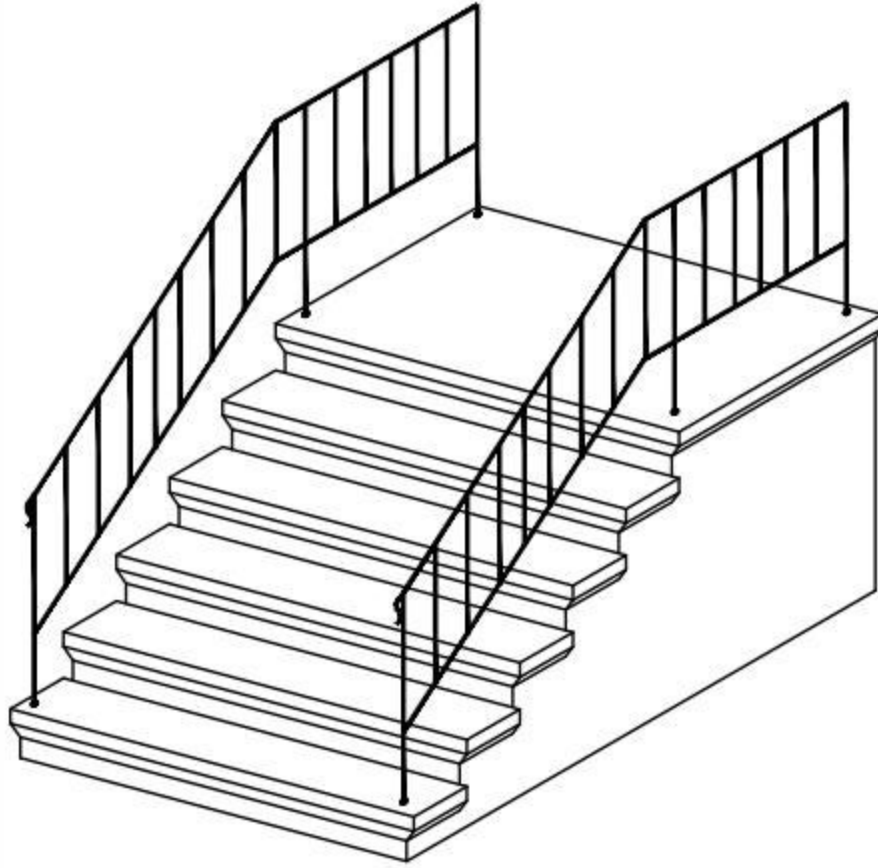
END VIEW

RISER	A NO PLAT	A 42\" PLAT	B HEIGHT
1	12"	41 ¼"	7"
2	24"	53 ¼"	14"
3	36"	65 ¼"	21"
4	48"	77 ¼"	28"
5	60"	89 ¼"	35"
6	72"	101 ¼"	42"
7*	84"	113 ¼"	49"

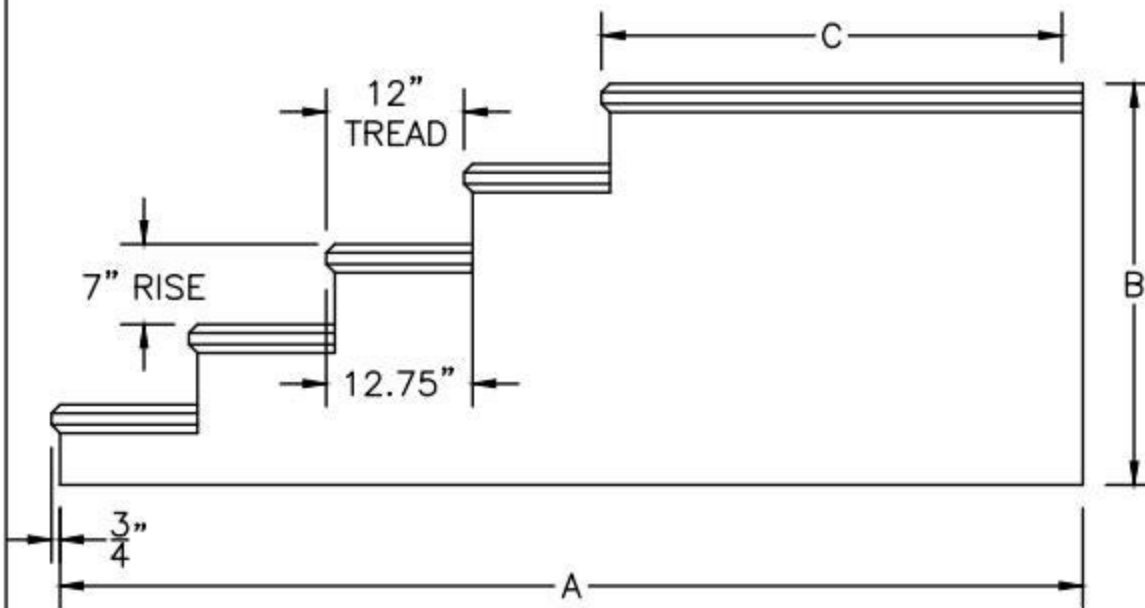
D WIDTH	E OUTSIDE CORE WIDTH	F INSIDE CORE WIDTH	C PLATFORM LENGTH
4'	45 ½"	39 ½"	42"
5'	57 ½"	51 ½"	42"
6'	70"	63 ½"	42"
7'-2"	83"	77"	42"
8'	93"	86"	42"
10'	116"	110 ½"	42"

NOTES:

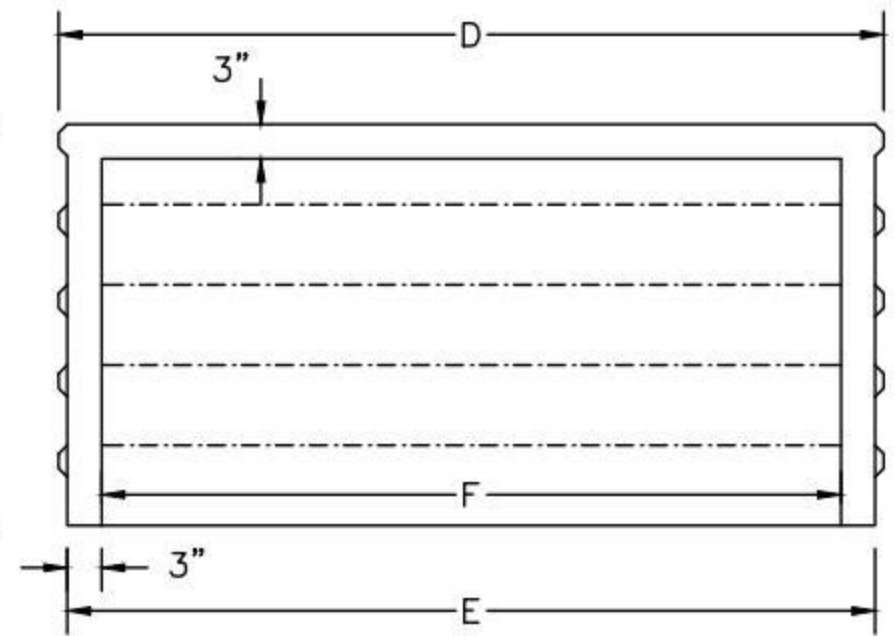
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. WROUGHT IRON RAILS OPTIONAL.
3. TREADS AND PLATFORM BROOM FINISHED.
- *4. 7 RISER AVAILABLE IN 5', 6' AND 7' WIDE ONLY.
5. BRICK OR BRICK & GRANITE OPTIONAL.
6. WIDTH (E) INCREASES BY 1" FOR BRICK STEPS.



WEIGHT	RISERS						
	1	2	3	4	5	6	7
4'	655#	1,050#	1,490#	1,975#	2,500#	3,070#	
5'	795#	1,240#	1,730#	2,260#	2,835#	3,450#	4,110#
6'	940#	1,430#	1,965#	2,545#	3,170#	3,830#	4,540#
7'	1,055#	1,600#	2,190#	2,820#	3,500#	4,220#	4,990#



SIDE VIEW



END VIEW

RISER	A NO PLAT	A 42" PLAT	B HEIGHT
1	12"	41 1/4"	7"
2	24"	53 1/4"	14"
3	36"	65 1/4"	21"
4	48"	77 1/4"	28"
5	60"	89 1/4"	35"
6	72"	101 1/4"	42"
7*	84"	113 1/4"	49"

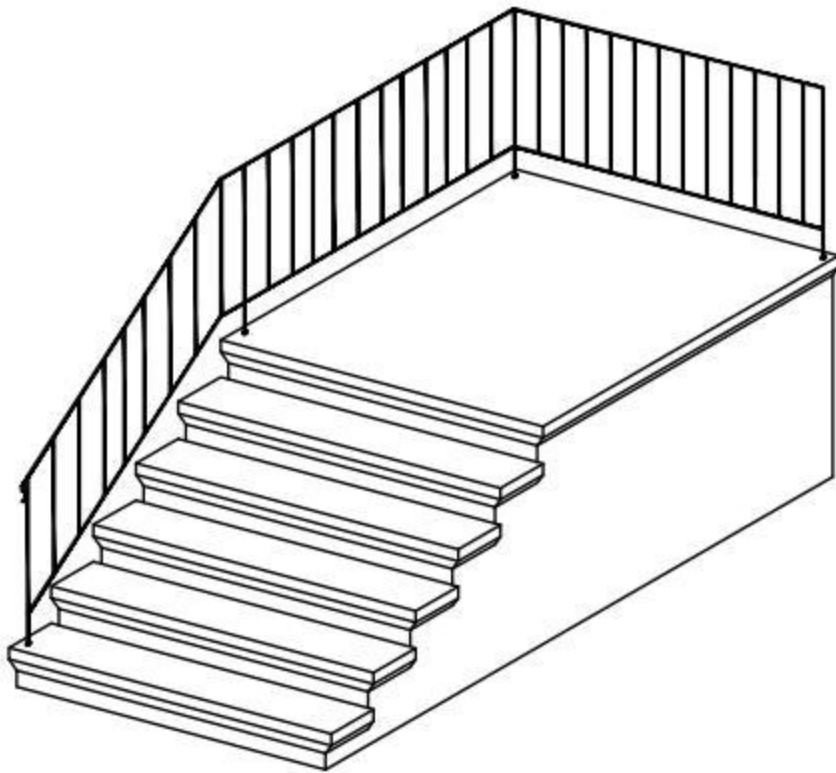
*7 RISERS NOT AVAILABLE IN 4' WIDE

NOTES:

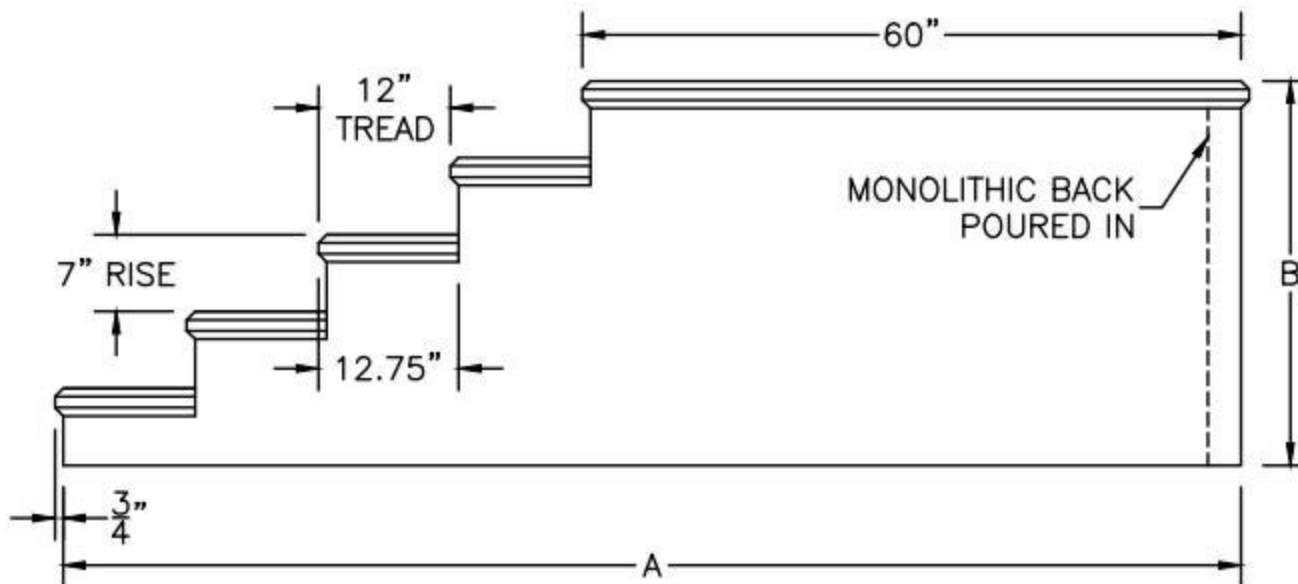
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. LOAD RATING: 300psf
3. REINFORCEMENT #3 GRADE 60.
4. WROUGHT IRON RAILS OPTIONAL.
5. TREADS AND PLATFORM BROOM FINISHED.

D WIDTH	E OUTSIDE CORE WIDTH	F INSIDE CORE WIDTH	C PLATFORM LENGTH
4'	47"	42"	42"
5'	59"	53 1/2"	42"
6'	71"	65 1/2"	42"
7'	82"	78"	42"

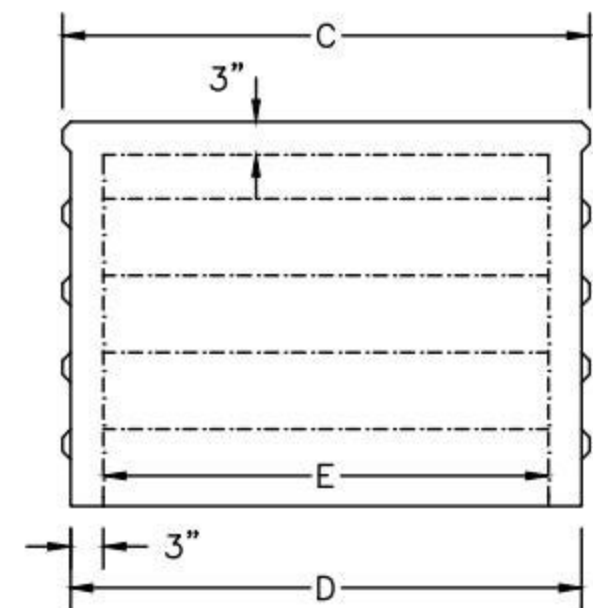
STEPS SIDE ENTRANCE 7" RISE – 60" PLATFORM



WEIGHT	RISERS						
WIDTH	1	2	3	4	5	6	7
4'	995#	1,550#	2,145#	2,785#	3,465#	4,190#	
5'	1,215#	1,835#	2,500#	3,205#	3,955#	4,750#	5,585#



SIDE VIEW



END VIEW

RISER	A LENGTH	B HEIGHT
1	60"	7"
2	72"	14"
3	84"	21"
4	96"	28"
5	108"	35"
6	120"	42"
7	132"	49"

SEE NOTE 4 →

C WIDTH	D OUTSIDE WIDTH	E INSIDE CORE WIDTH
48"	47"	42"
60"	59"	54"

NOTES:

- 1) CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
- 2) WROUGHT IRON RAILS OPTIONAL.
- 3) TREADS AND PLATFORM BROOM FINISHED.
- 4) 7 RISER SIDE ENTRY AVAILABLE IN 5' WIDE ONLY.
- 5) CONCRETE SLAB RECOMMENDED.

SHEA PRODUCT ID:

PREPARED FOR:

FILE NAME:

stepsSideEntry.dwg

WEIGHT (LBS): SEE TABLE

DRAWN BY: ARO

DATE: 06/01/18

PAGE: A1.3

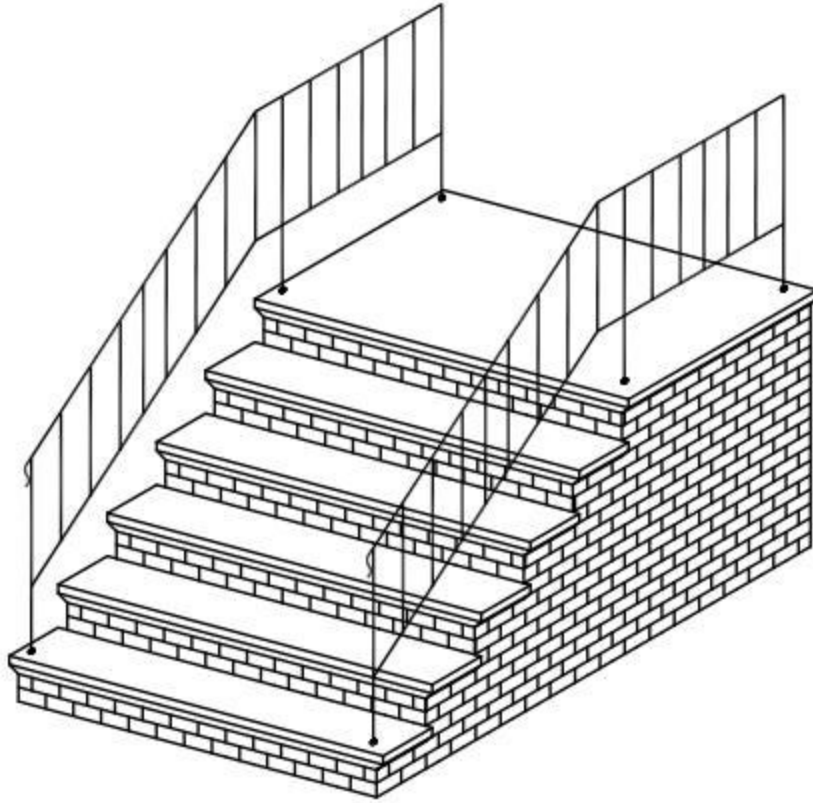


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

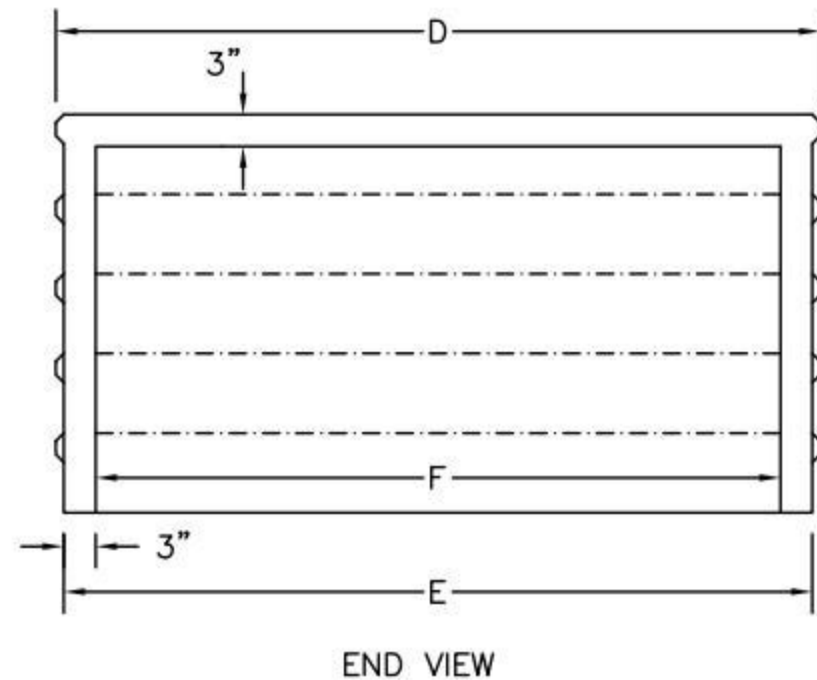
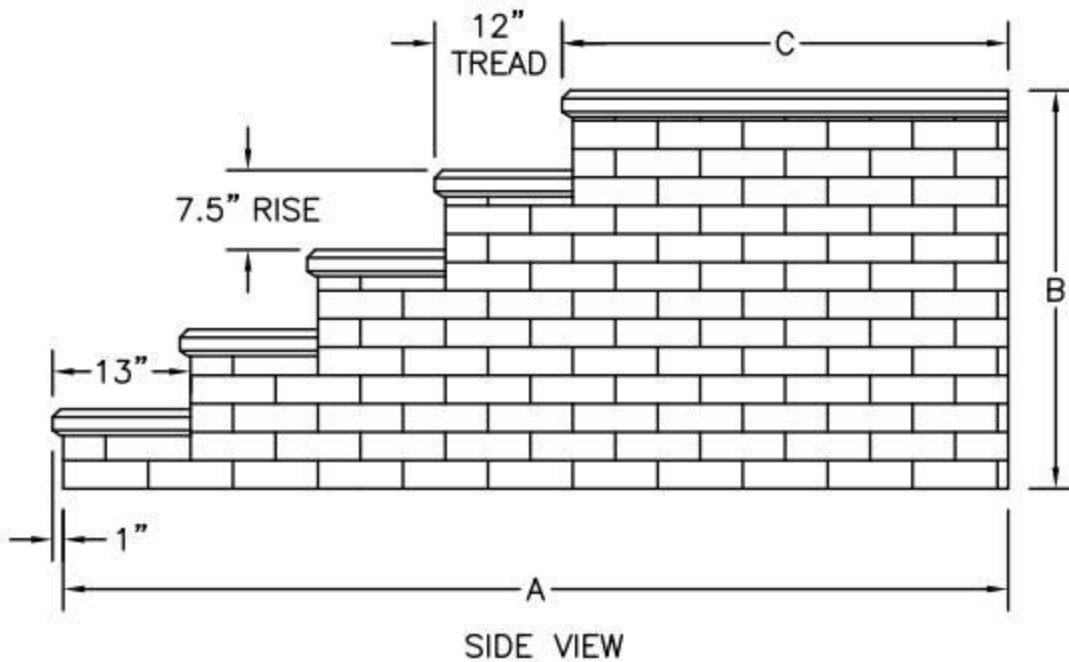
Specifications subject to change without notice

BRICK STEPS

WIDTH: 5', 6', 7'



WEIGHT	RISERS						
	1	2	3	4	5	6	7
4'	710#	1,135#	1,605#	2,420#	2,685#	3,295#	
5'	860#	1,355#	1,855#	2,615#	3,030#	3,685#	4,370#
6'	1,010#	1,535#	2,100#	2,715#	3,380#	4,085#	4,840#
7'	1,160#	1,735#	2,350#	3,015#	3,730#	4,485#	5,290#
8'	1,310#	1,930#	2,600#	3,315#	4,075#	4,880#	
10'	1,600#	2,325#	3,090#	3,905#	4,760#	5,670#	



RISER	A NO PLAT	A 42\" PLAT	B HEIGHT
1	12"	41"	7 1/2"
2	24"	53"	15"
3	36"	65"	22 1/2"
4	48"	77"	30"
5	60"	89"	37 1/2"
6	72"	101"	45"
7*	84"	113"	52 1/2"

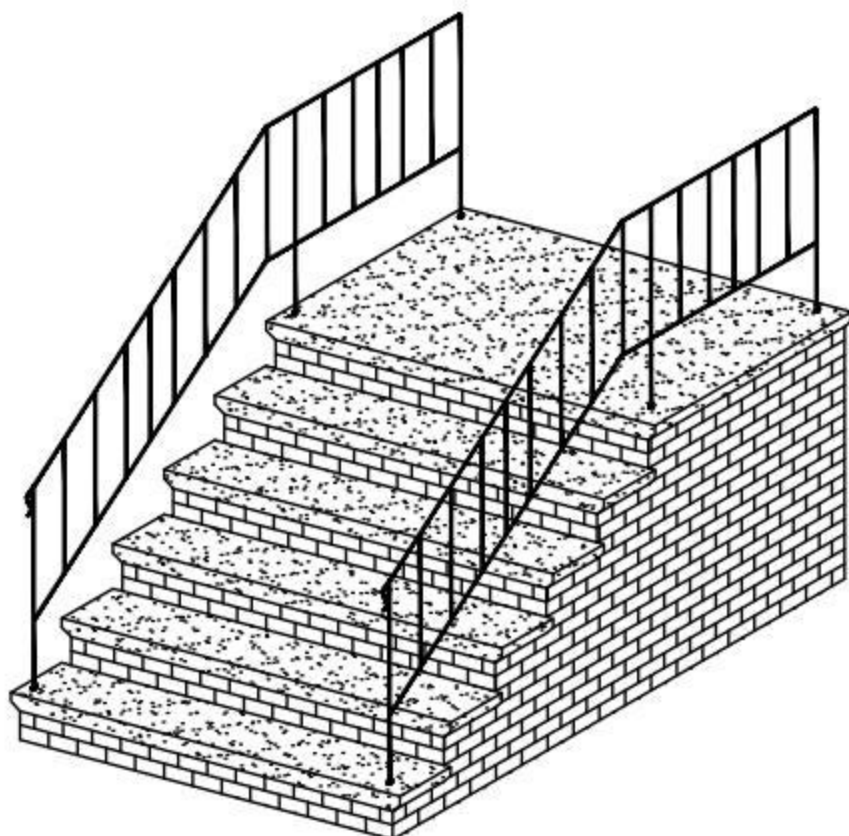
D WIDTH	E OUTSIDE WIDTH	F INSIDE CORE WIDTH	C PLATFORM LENGTH
4'	46 1/2"	39 1/2"	42"
5'	58 1/2"	51 1/2"	42"
6'	71"	63 1/2"	42"
7'-2	83"	77"	42"
8'	95"	86"	42"
10'	119 1/2"	110 1/2"	42"

NOTES:

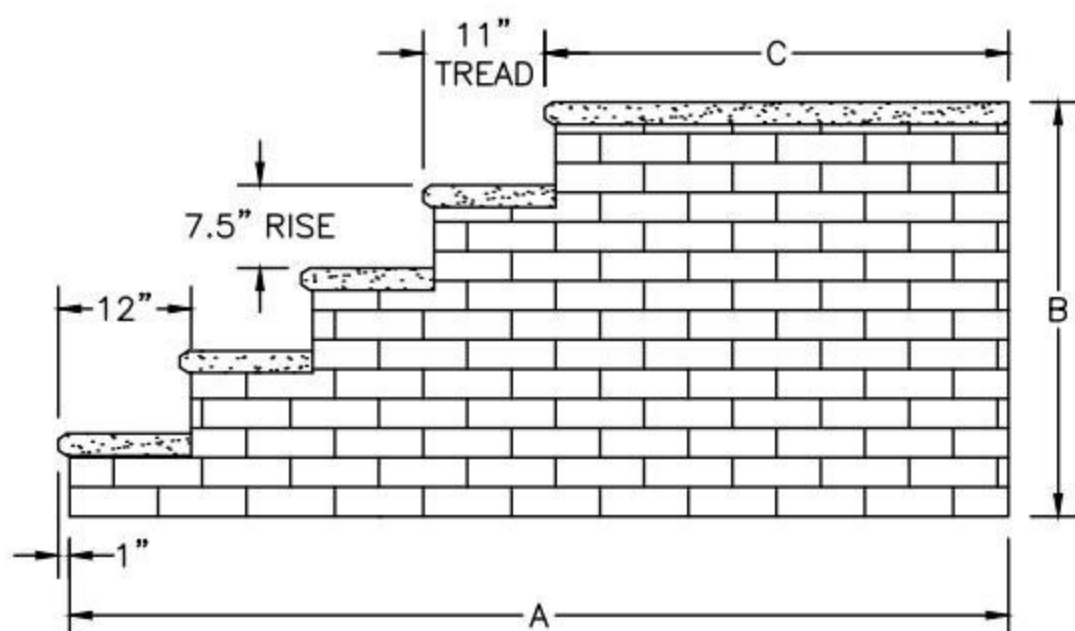
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. WROUGHT IRON RAILS OPTIONAL.
3. TREADS AND PLATFORM BROOM FINISHED, GRANITE OPTIONAL.
- *4. 7 RISER AVAILABLE IN 5', 6' AND 7' WIDE ONLY.

BRICK STEPS WITH GRANITE

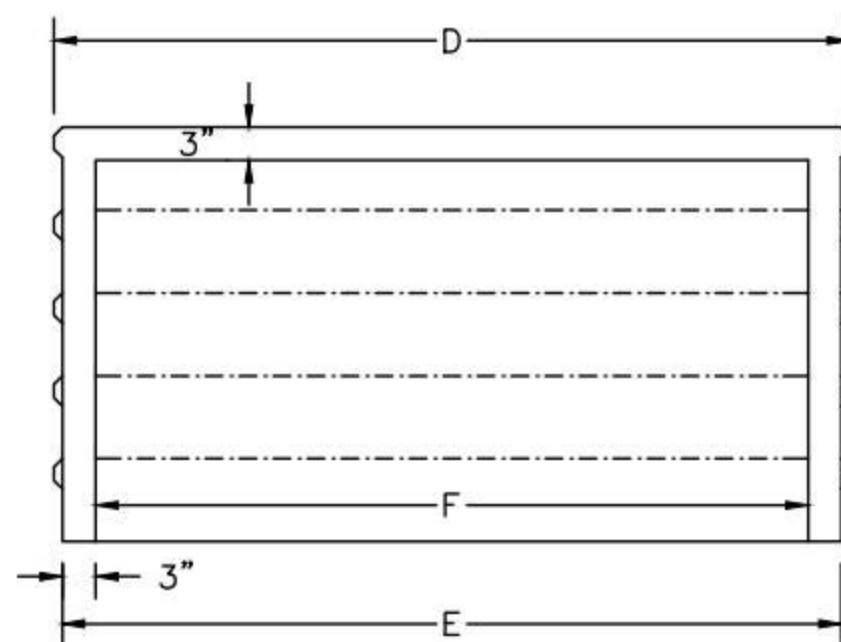
WIDTH: 5', 6', 7'



WEIGHT	RISERS					
WIDTH	1	2	3	4	5	6
5'	1,000#	1,635#	2,270#	2,975#	3,725#	4,520#
6'	1,175#	1,870#	2,600#	3,380#	4,215#	5,085#
8'	1,535#	2,375#	3,265#	4,200#	5,185#	6,215#



SIDE VIEW



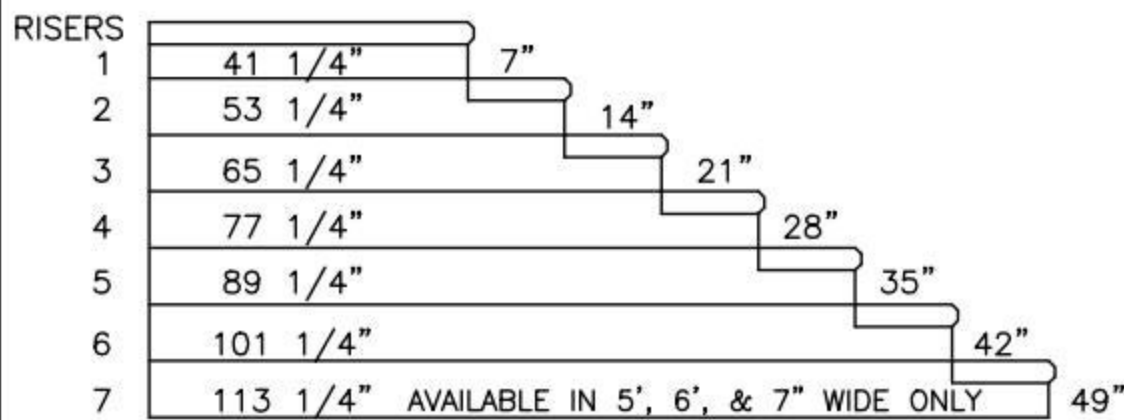
END VIEW

RISER	A NO PLAT	A 42" PLAT	B HEIGHT
1	11 1/4"	41"	7 1/2"
2	22 1/2"	52"	15"
3	33 3/4"	63"	22 1/2"
4	45"	74"	30"
5	56 1/4"	85"	37 1/2"
6	67 1/2"	96"	45"

D WIDTH	E OUTSIDE WIDTH	F INSIDE CORE WIDTH	C PLATFORM LENGTH
5'	58 1/2"	51 1/2"	42"
6'	71"	63 1/2"	42"
8'	95"	86"	42"

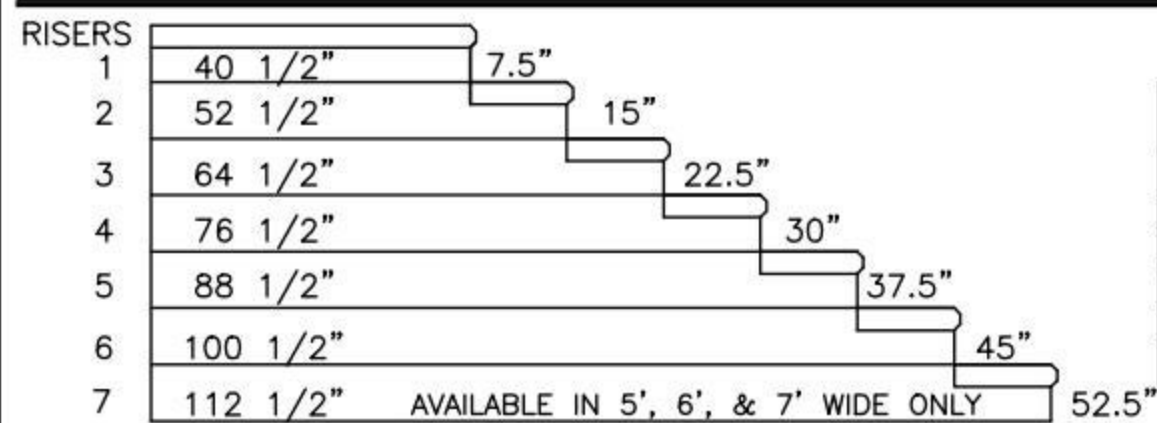
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. WROUGHT IRON RAILS OPTIONAL.
3. TREADS AND PLATFORM GRANITE.



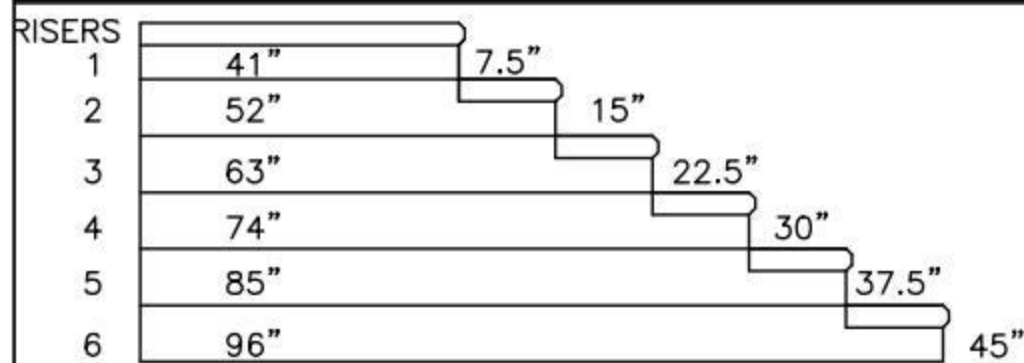
7" RISER				SONAR TUBES			
STEP WIDTH	A	B	C	D	WIDTH	DEPTH	HEIGHT
					E	F	STEP RISE
4'	48"	47"	42"	44.5"	33"	14"	1
5'	60"	59"	53.5"	56"	47"	21"	2
6'	72"	71"	65.5"	68"	57"	28"	3
7'	84"	83"	77.5"	80"	63"	35"	4
					75"	42"	5
					87"	49"	6
					99"	56"	7

7" RISER PLAIN CONCRETE



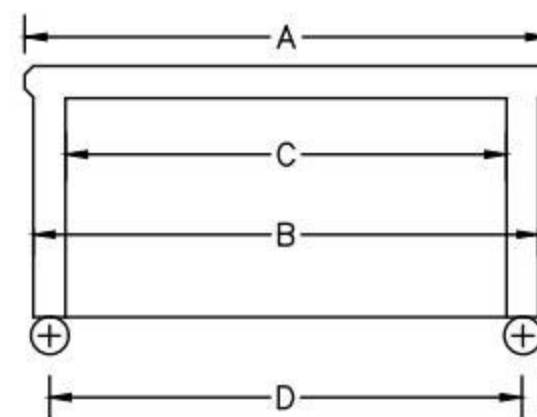
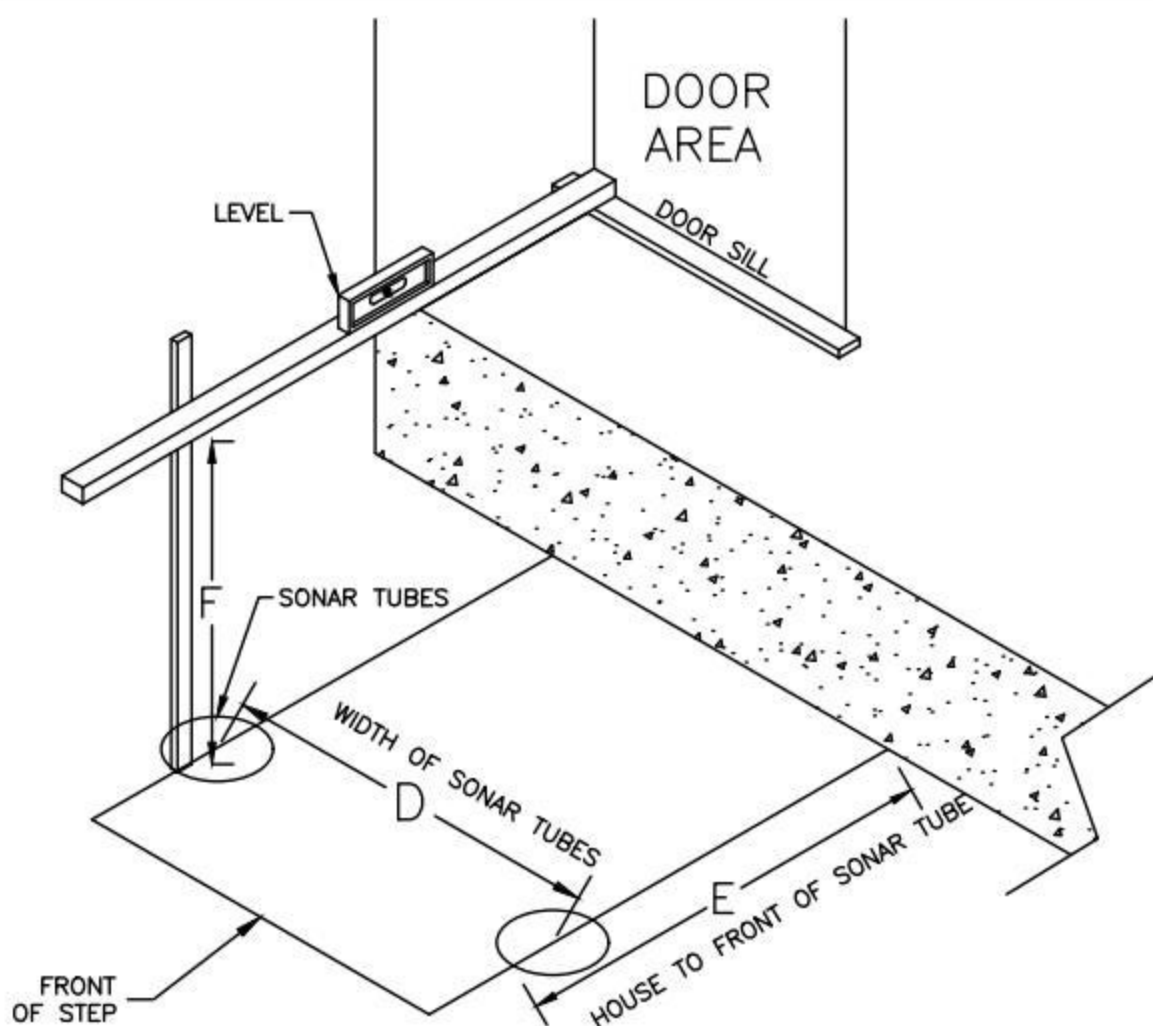
7 1/2" RISER				SONAR TUBES			
STEP WIDTH	A	B	C	D	WIDTH	DEPTH	HEIGHT
					E	F	STEP RISE
4'	48"	45.5"	39.5"	42.5"	32"	15"	1
5'	60"	57.5"	51.5"	54.5"	46"	22.5"	2
6'	72"	70"	63.5"	66.5"	56"	30"	3
7'	84"	81"	74.5"	77.5"	62"	37.5"	4
8'	96"	94"	86"	90"	74"	45"	5
10'	120"	116.5"	110.5"	113.5"	86"	52.5"	6
					98"	60"	7

7 1/2" RISER PLAIN CONCRETE & BRICK FACED



7 1/2" RISER				SONAR TUBES			
STEP WIDTH	A	B	C	D	WIDTH	DEPTH	HEIGHT
					E	F	STEP RISE
5'	60"	58.5"	51.5"	54.5"	32"	15"	1
6'	72"	71"	63.5"	66.5"	46"	22.5"	2
8'	96"	95"	86"	90"	55"	30"	3
					61"	37.5"	4
					72"	45"	5
					83"	52.5"	6

BRICK & GRANITE



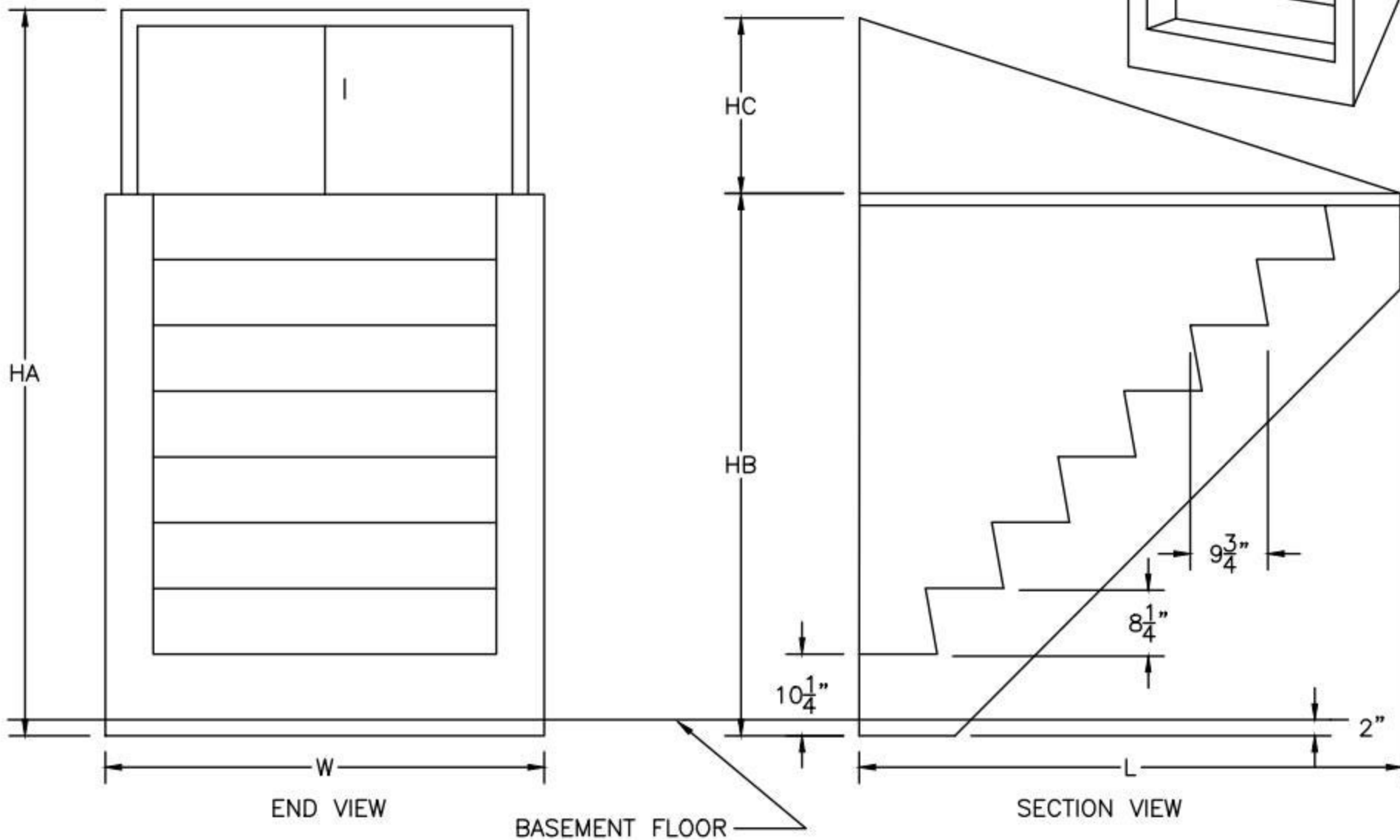
BACK VIEW

NOTES:

1. PLACE FOOTING 1/2" BELOW DIMENSION "F" TO ALLOW FOR ADJUSTMENT WHEN INSTALLING.

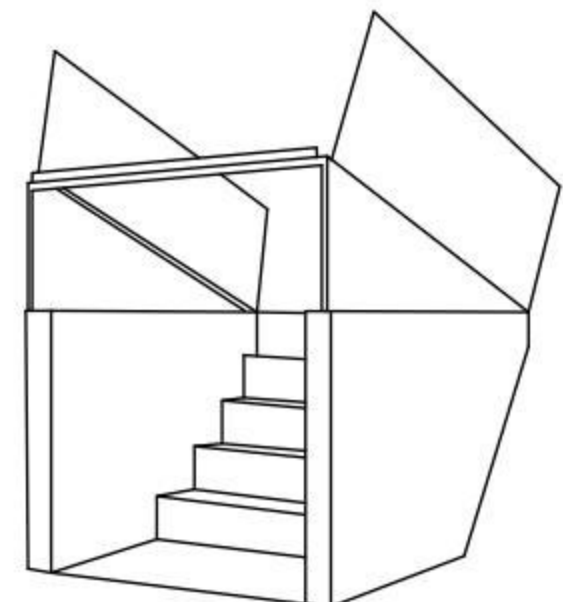
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. HEAVY DOUBLE LEAF STEEL DOORS WITH RED PRIMER.
3. OPTIONAL DOOR LOCK AVAILABLE.

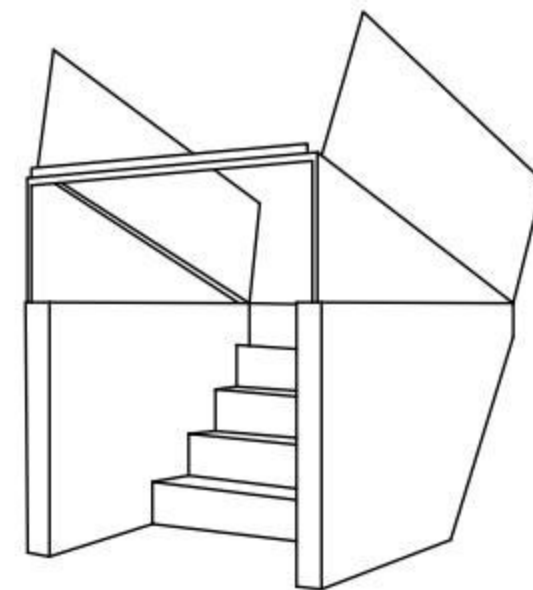
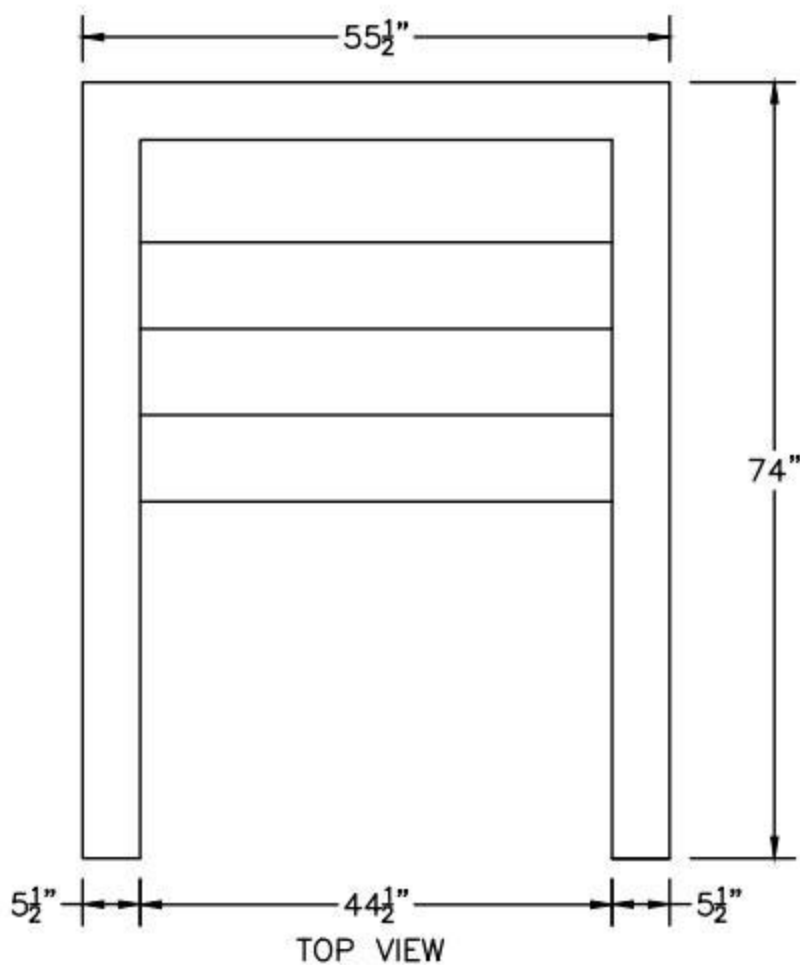
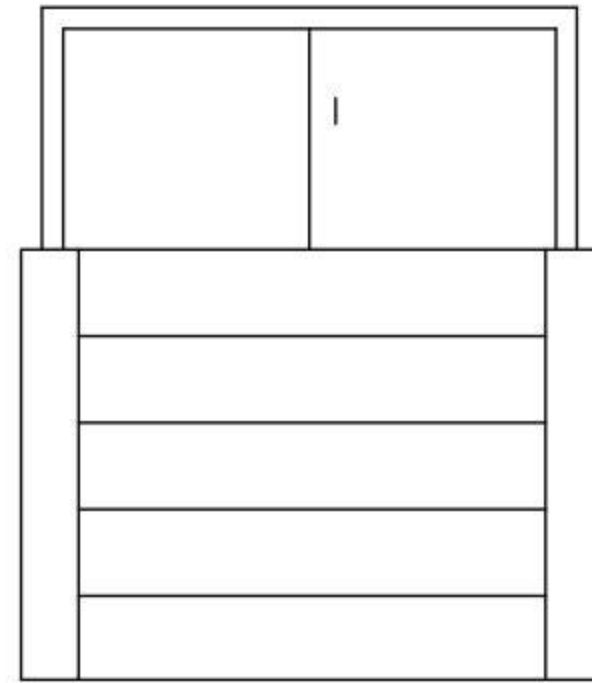
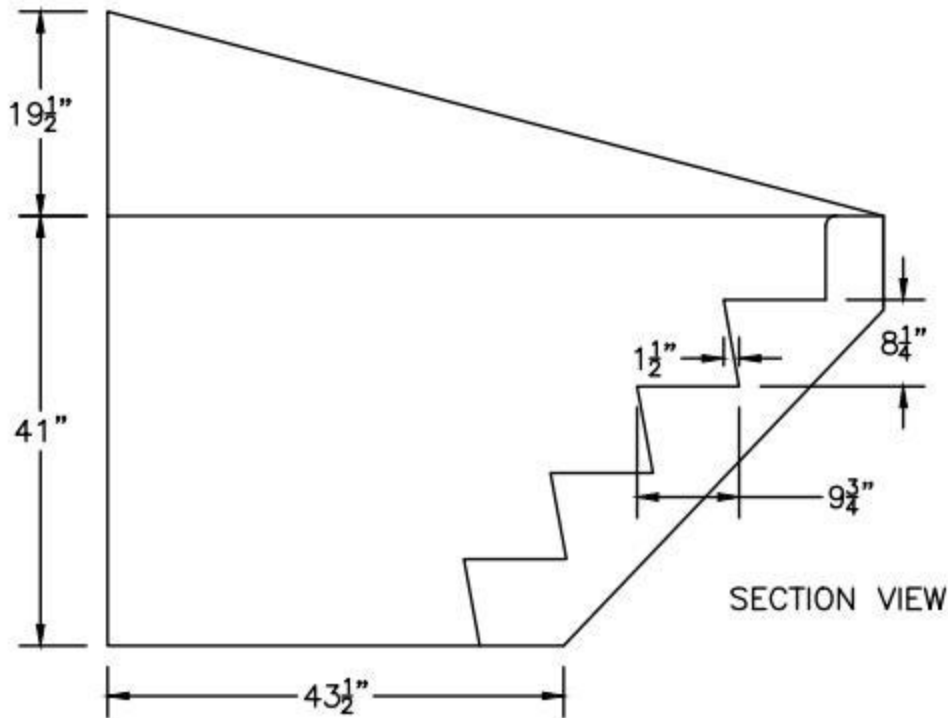



TYPE	W (WIDTH)	L (LENGTH)	HEIGHT			WEIGHT (LBS)	ITEM NO.
			HA (TOTAL)	HB (PRECAST)	HC (DOOR)		
S	51 1/2"	45"	95"	43"	52"	2,400	BH-S
A	51 1/2"	60"	90"	60"	30"	3,600	BH-A
B	55 1/2"	66"	90"	68"	22"	4,800	BH-B
C	55 1/2"	74"	95 1/2"	76"	19 1/2"	5,500	BH-C
D	55 1/2"	86"	106"	84"	22"	6,200	BH-D
E	58"	95 1/2"	115"	93"	22"	7,800	BH-E
F	58"	104"	123"	101"	22"	9,000	BH-F

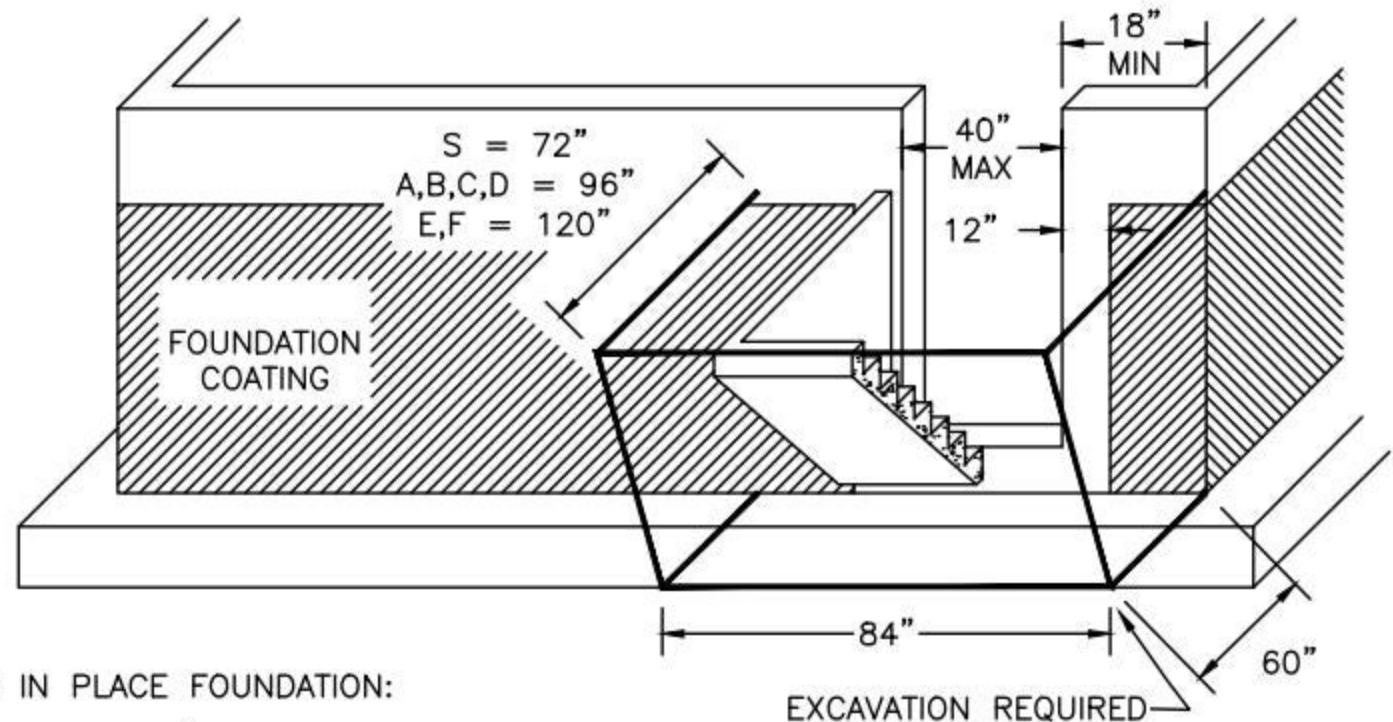
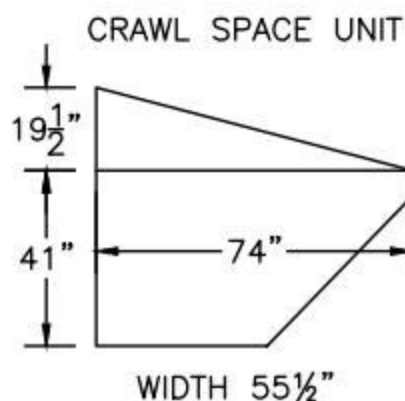
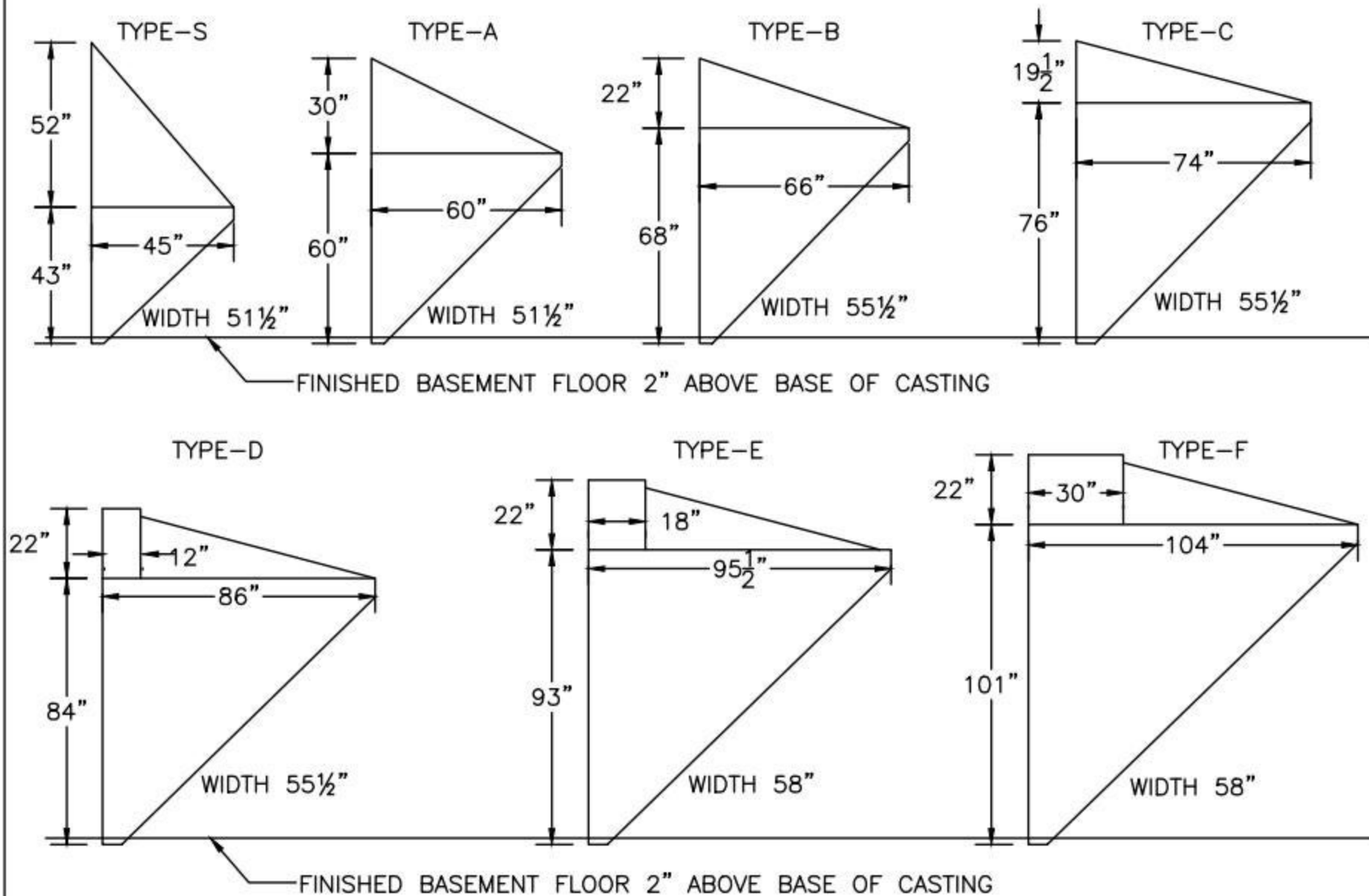
*CRAWL SPACE UNIT HAS OPEN BOTTOM, SEE CRAWLSPACE DRAWING



CRAWL SPACE



SHEA PRODUCT ID: CRAWL		PREPARED FOR:		FILE NAME: bulkhead.dwg			
WEIGHT (LBS): 5,100#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: A4.2
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

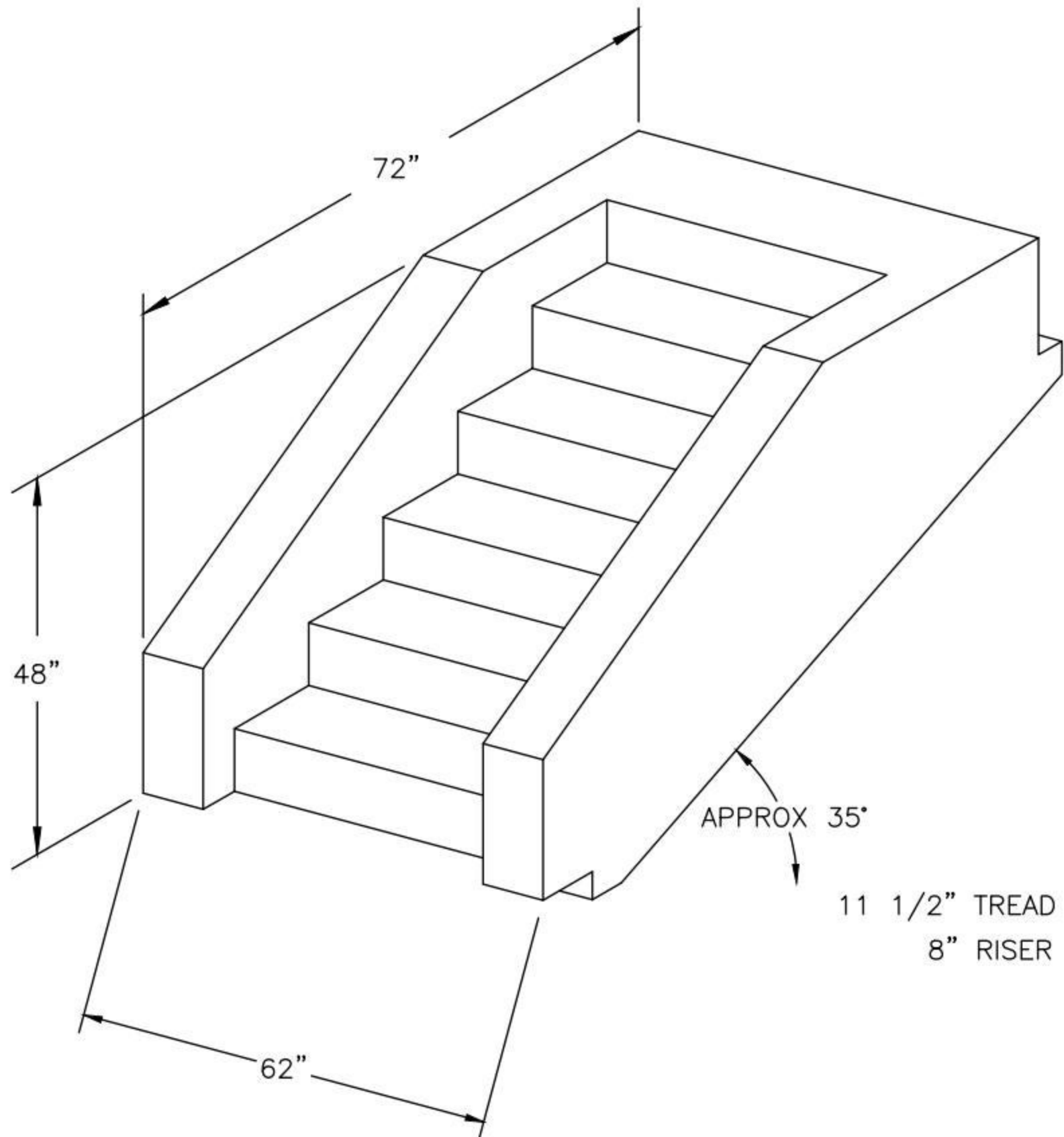


WARRANTY REQUIREMENTS FOR POURED IN PLACE FOUNDATION:

1. KEEP FOUNDATION SEALER A MINIMUM OF 12" FROM OPENING.
2. POUR A MINIMUM OF A 11 1/2" STEP IN BULKHEAD OPENING AS SHOWN.
3. KEEP FOUNDATION OPENING A MINIMUM OF 18" FROM FOUNDATION CORNER.
4. ROOF DRAINAGE MUST BE DIVERTED AWAY FROM BULKHEAD OPENING.
5. PROPERLY INSTALLED PERIMETER DRAINAGE TO DAYLIGHT REQUIRED.
6. BACK FILL MUST BE CLEAN GRAVEL WELL COMPACTED.
7. TOP OF CONCRETE CASTING MUST BE A MINIMUM OF 2" ABOVE GRADE. GRADE AROUND BULKHEAD MUST SLOPE AWAY FROM FOUNDATION.
8. INSTALLATION ON BLOCK OR STONE FOUNDATIONS AVAILABLE, PLEASE CALL.

HOW TO ORDER:
DETERMINE DIMENSION FROM TOP OF FOOTING TO PROPOSED FINISHED GRADE. REFER TO TYPES AVAILABLE AND SELECT SIZE TO ASSURE TOP OF STAIRWELL WILL BE 2" TO 6" ABOVE FINISHED GRADE.

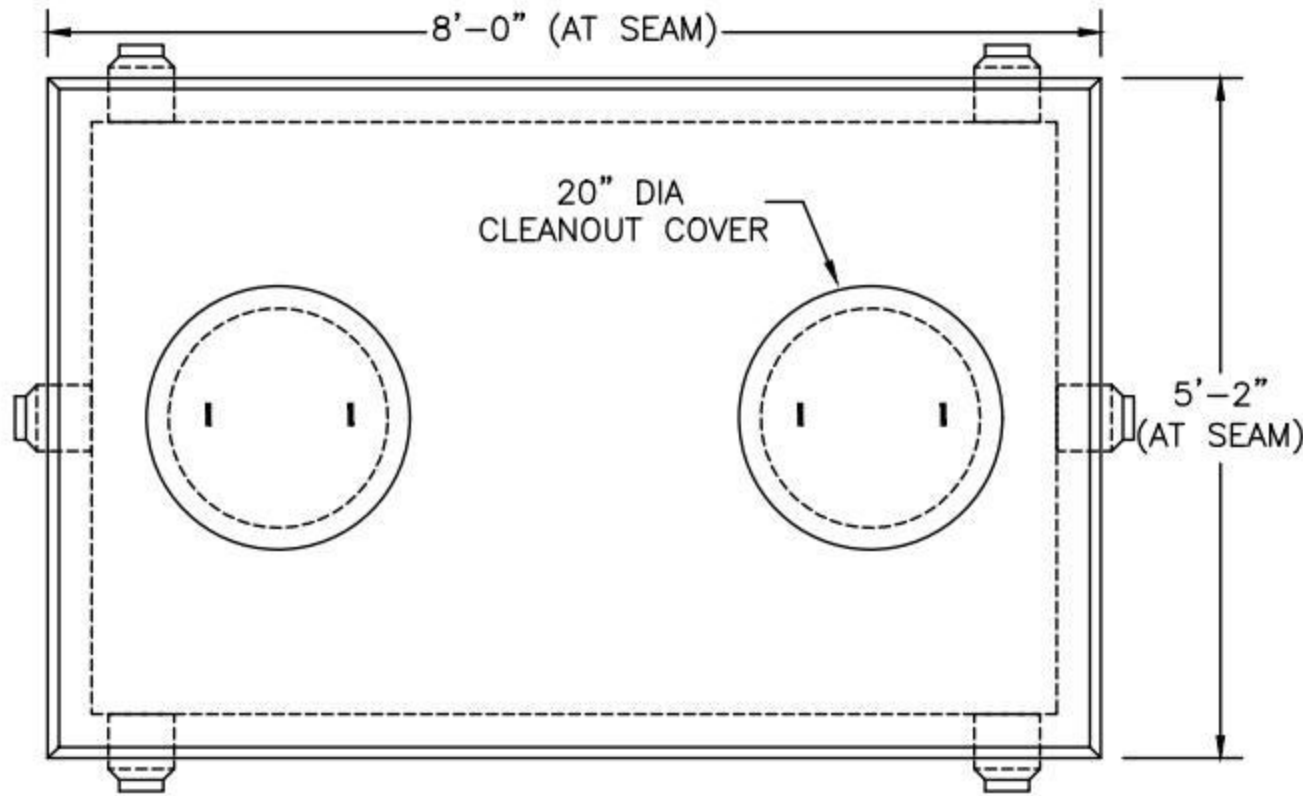
SHEA PRODUCT ID:	PREPARED FOR:	FILE NAME:	bhinstal.dwg
WEIGHT (LBS):	DRAWN BY: ARO	DATE: 03/01/2018	PAGE: A4.3
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH			



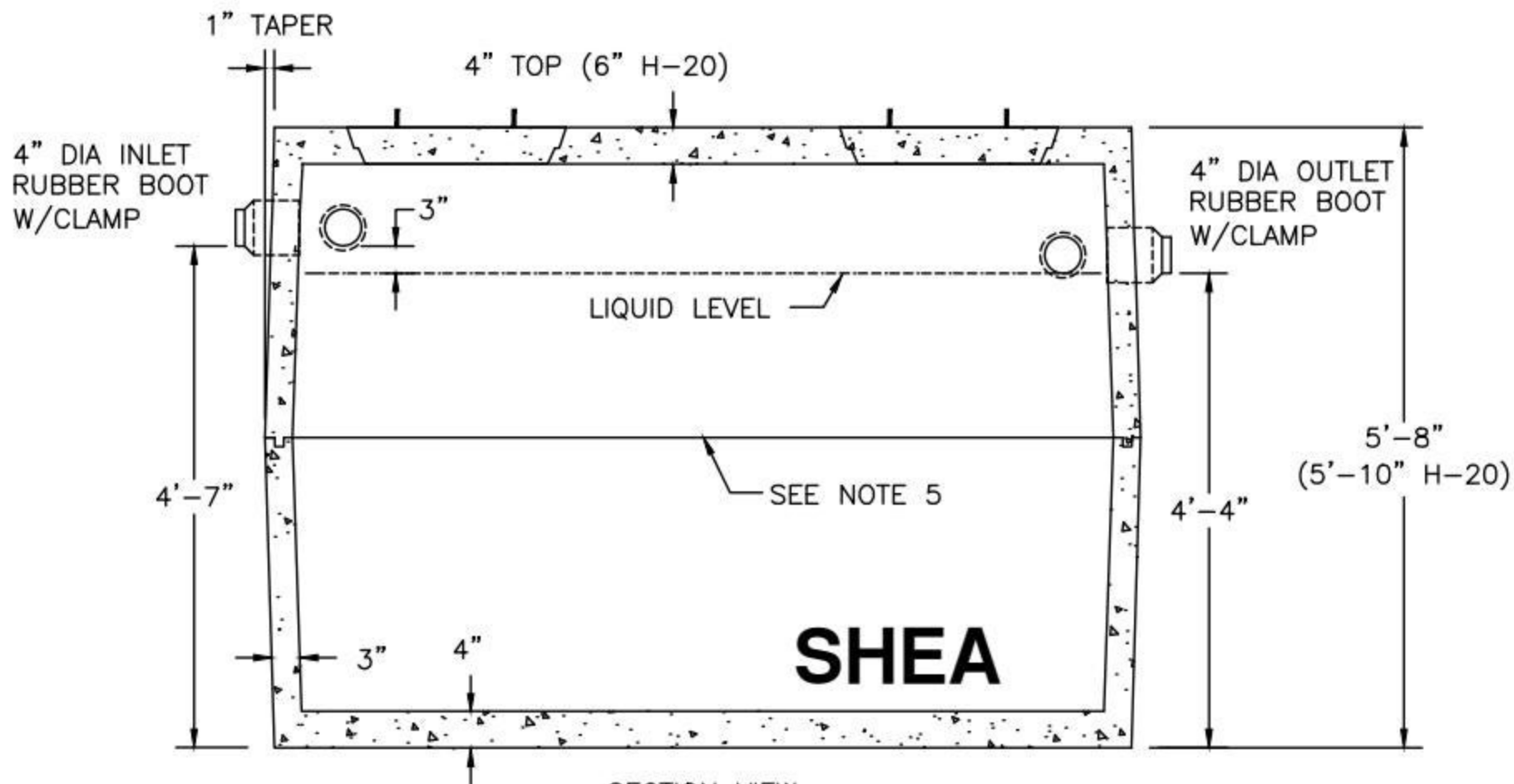
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCEMENT: #3 REBAR

SHEA PRODUCT ID:	BANK	PREPARED FOR:	FILE NAME:	bankstep.dwg
WEIGHT (LBS):	4500#	DRAWN BY:	ARO	DATE: 03/01/2018
			PAGE:	A5
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH				



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH DEP TITLE 5 REGS, 310 CMR, SECTION 15.226.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID:
1000/1000H

PREPARED FOR:

FILE NAME:

tk1000.dwg

WEIGHT (LBS):
8,765#/9,785#

DRAWN BY: ARO

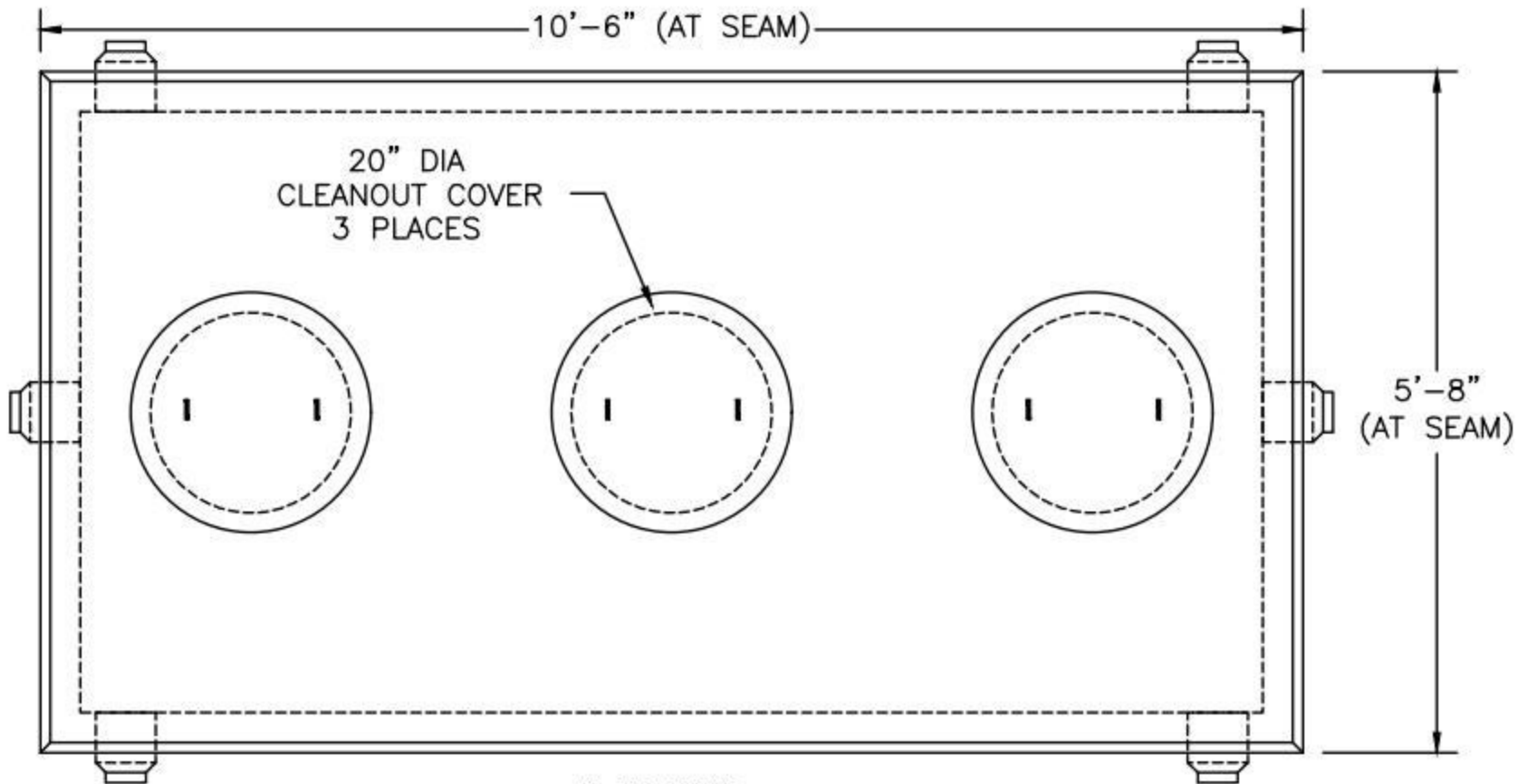
DATE: 06/01/18

PAGE: B1.1

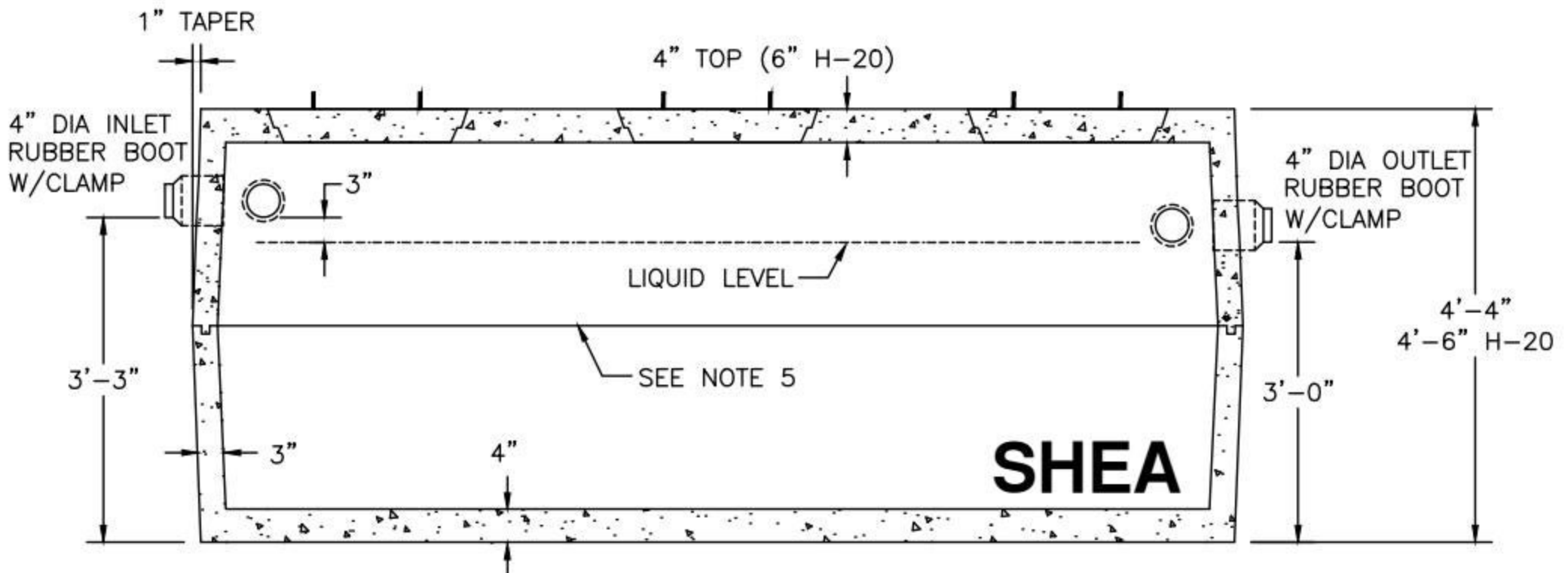


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS, FOR REPLACEMENT SYSTEMS WHERE A LIQUID LEVEL OF 4' IS NOT FEASIBLE.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID:
1000L/1000LH

PREPARED FOR:

FILE NAME:

tk1000lg.dwg

WEIGHT (LBS):
10,120#/11,590#

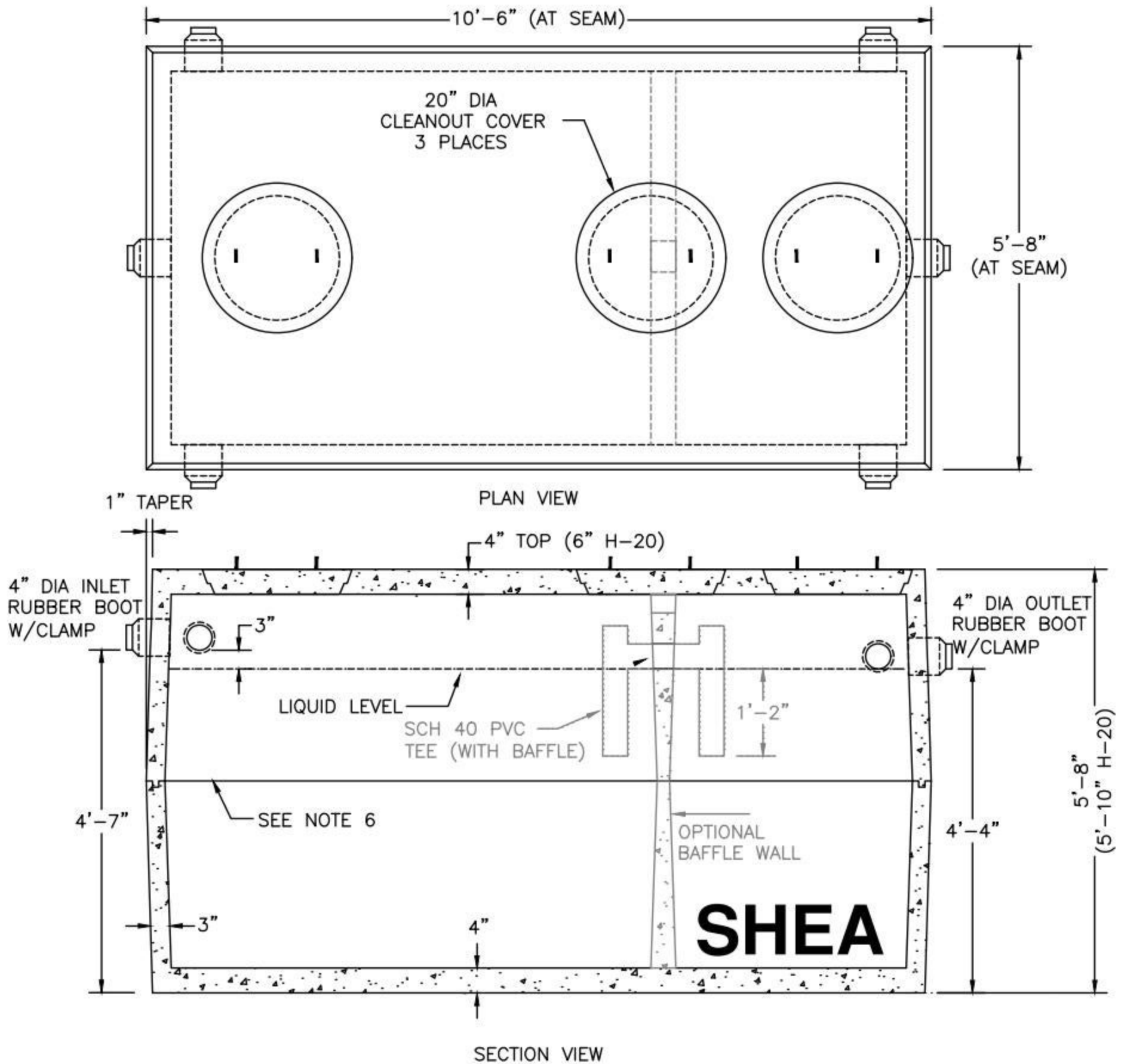
DRAWN BY: ARO

DATE: 06/01/18

PAGE: B1.2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. BAFFLE WALL OPTIONAL FOR TWO COMPARTMENT TANKS.
5. TEES AND GAS BAFFLE SOLD SEPARATELY.
6. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
7. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

			WEIGHT
ITEM NO.	1500	STANDARD	11,670#
	1500H	H-20	13,135#
	15002C	STANDARD	12,930#
	15002CH	H-20	14,395#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

tk1500.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

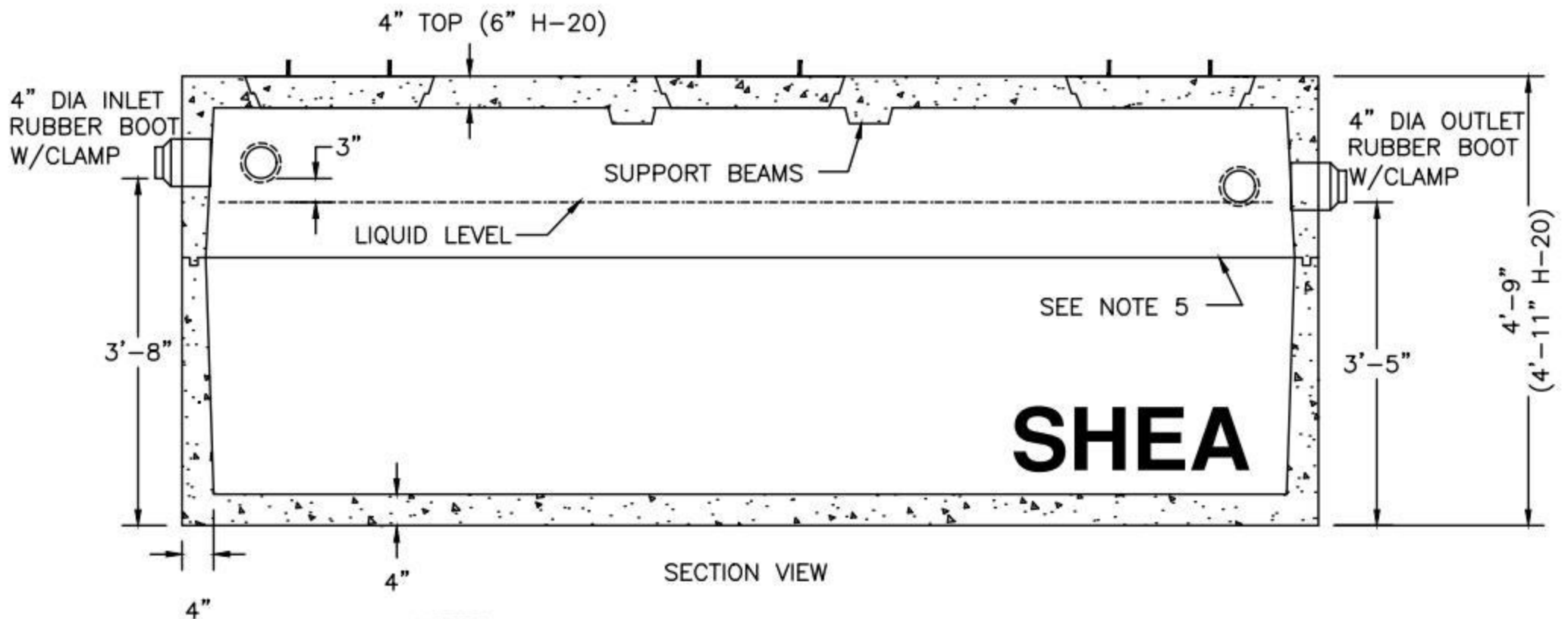
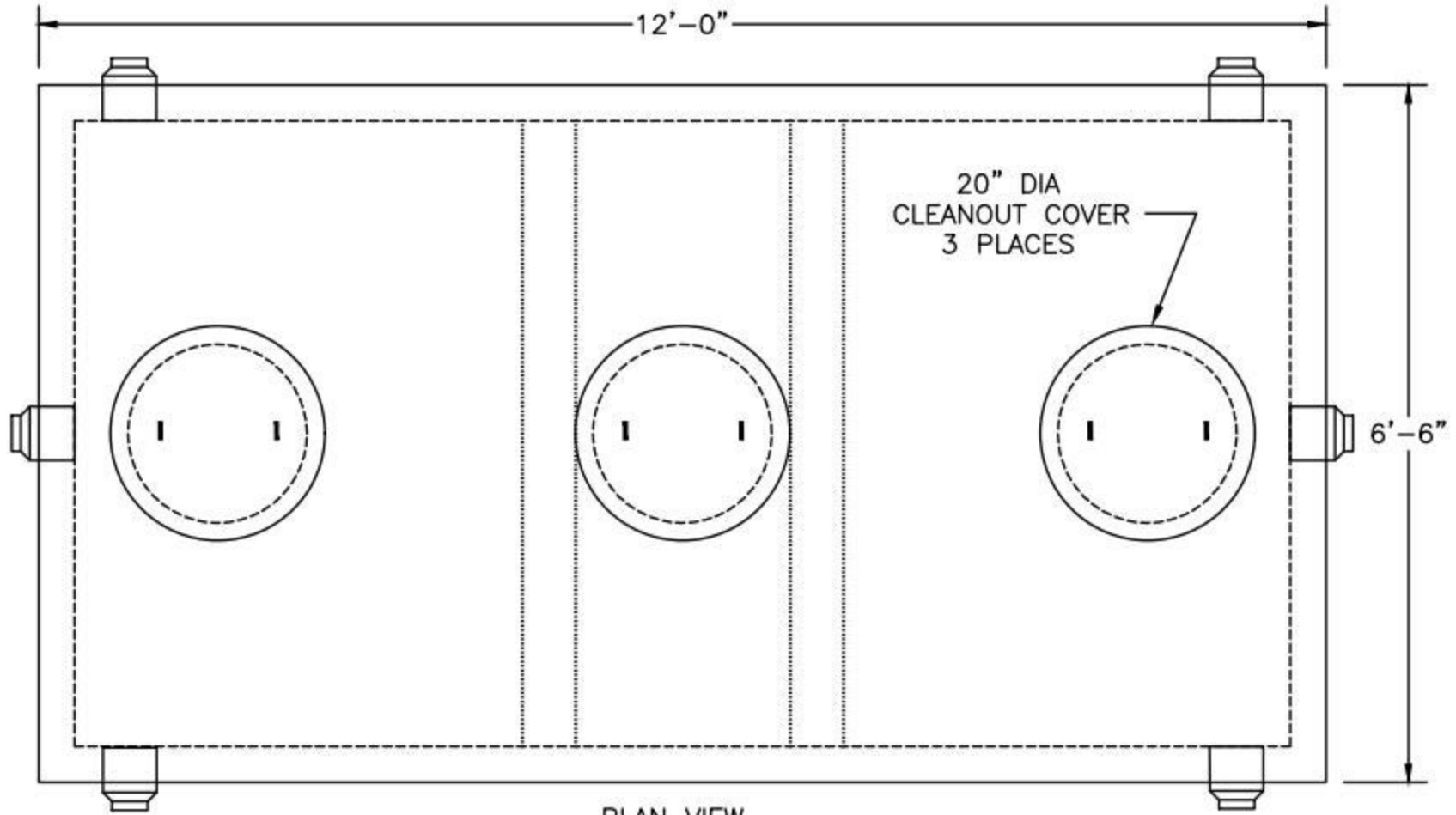
DATE: 06/01/18

PAGE: B1.3



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS, FOR REPLACEMENT SYSTEMS WHERE A LIQUID LEVEL OF 4' IS NOT FEASIBLE.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID:
1500LB/1500LBH

PREPARED FOR:

FILE NAME:

tk1500lg.dwg

WEIGHT (LBS):
13,025#/14,950#

DRAWN BY: ARO

DATE: 06/01/18

PAGE: B1.4

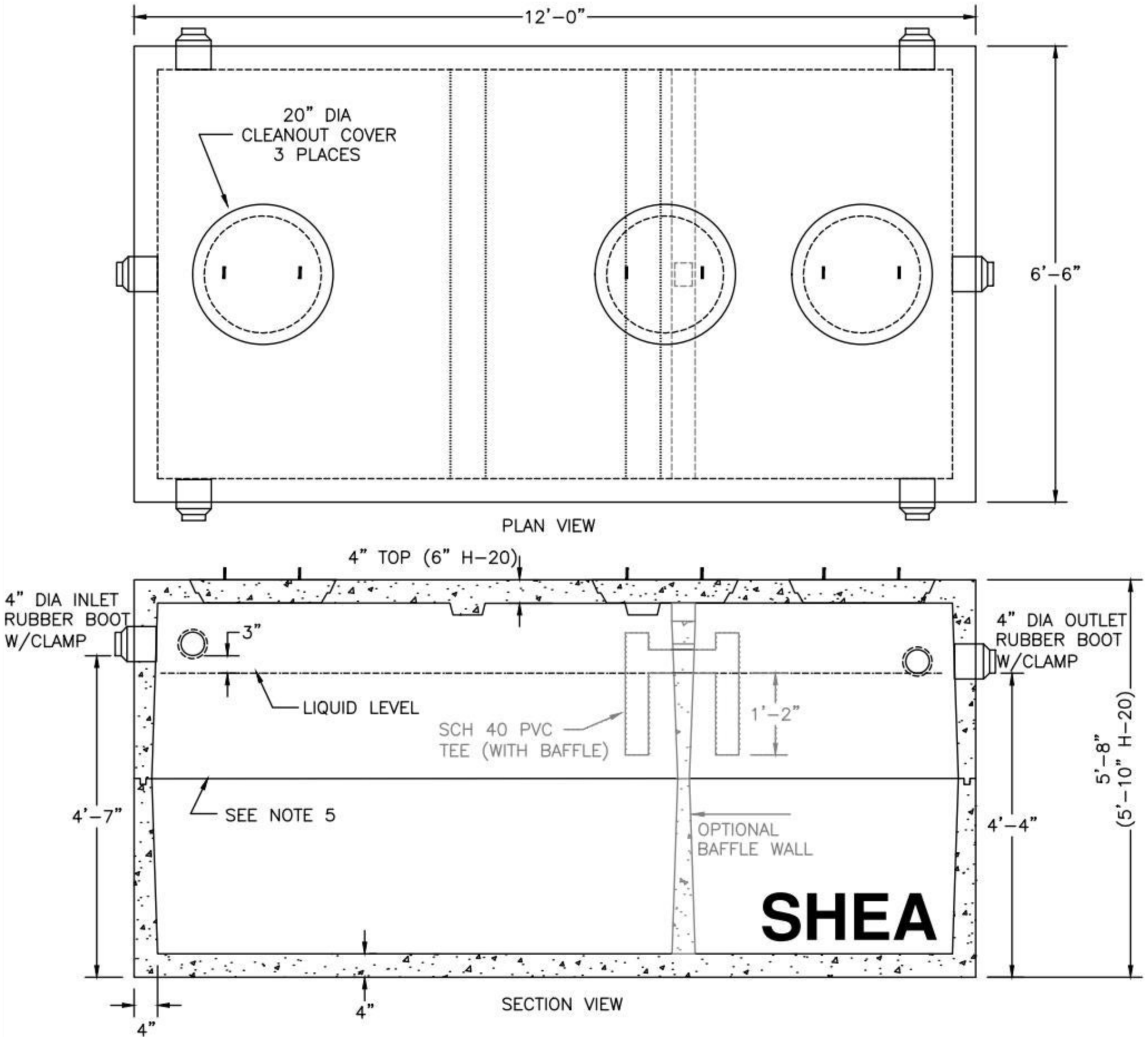


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

SEPTIC TANK

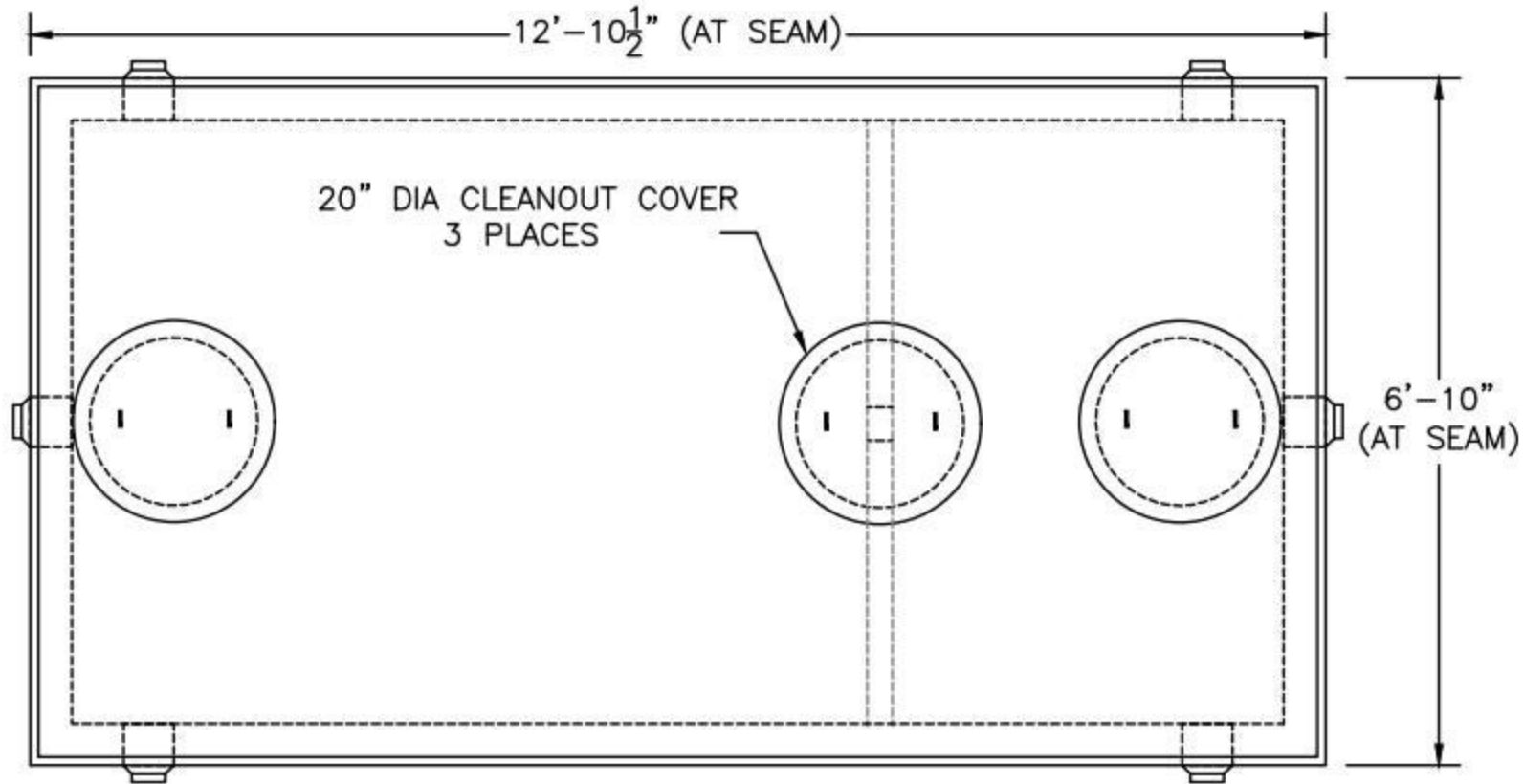
2000 GALLON



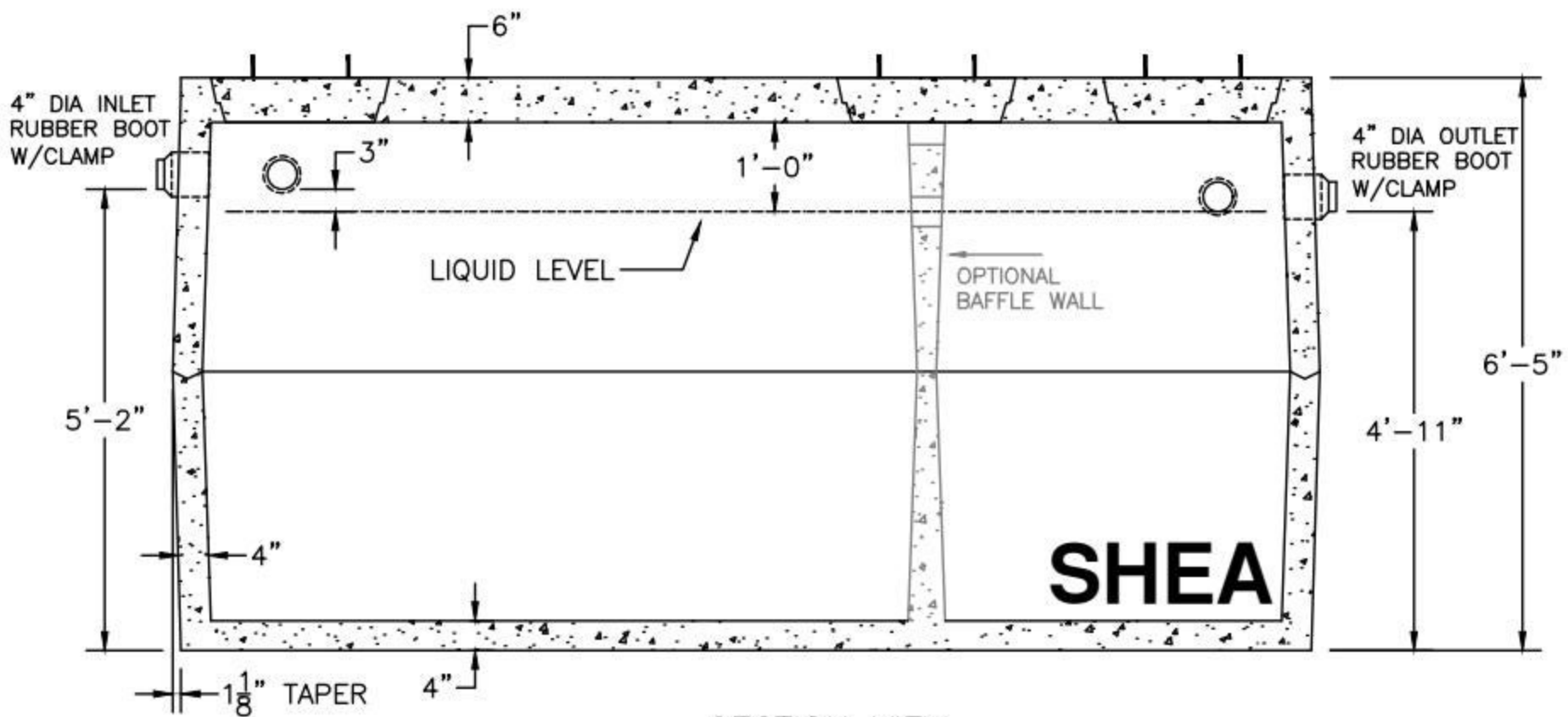
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. BAFFLE WALL OPTIONAL FOR TWO COMPARTMENT TANKS.
5. TEES AND GAS BAFFLE SOLD SEPARATELY.
6. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
7. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

			WEIGHT
ITEM NO.	2000	STANDARD	14,245#
	2000H	H-20	16,170#
	20002C	STANDARD	15,685#
	20002CH	H-20	17,610#



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

		WEIGHT
ITEM NO. 2500	STANDARD	21,750#
2500H	H20	21,750#
25002CH	H20	22,650#
25002CH	H20	22,650#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

tk2500.dwg

WEIGHT (LBS):
SEE TABLE

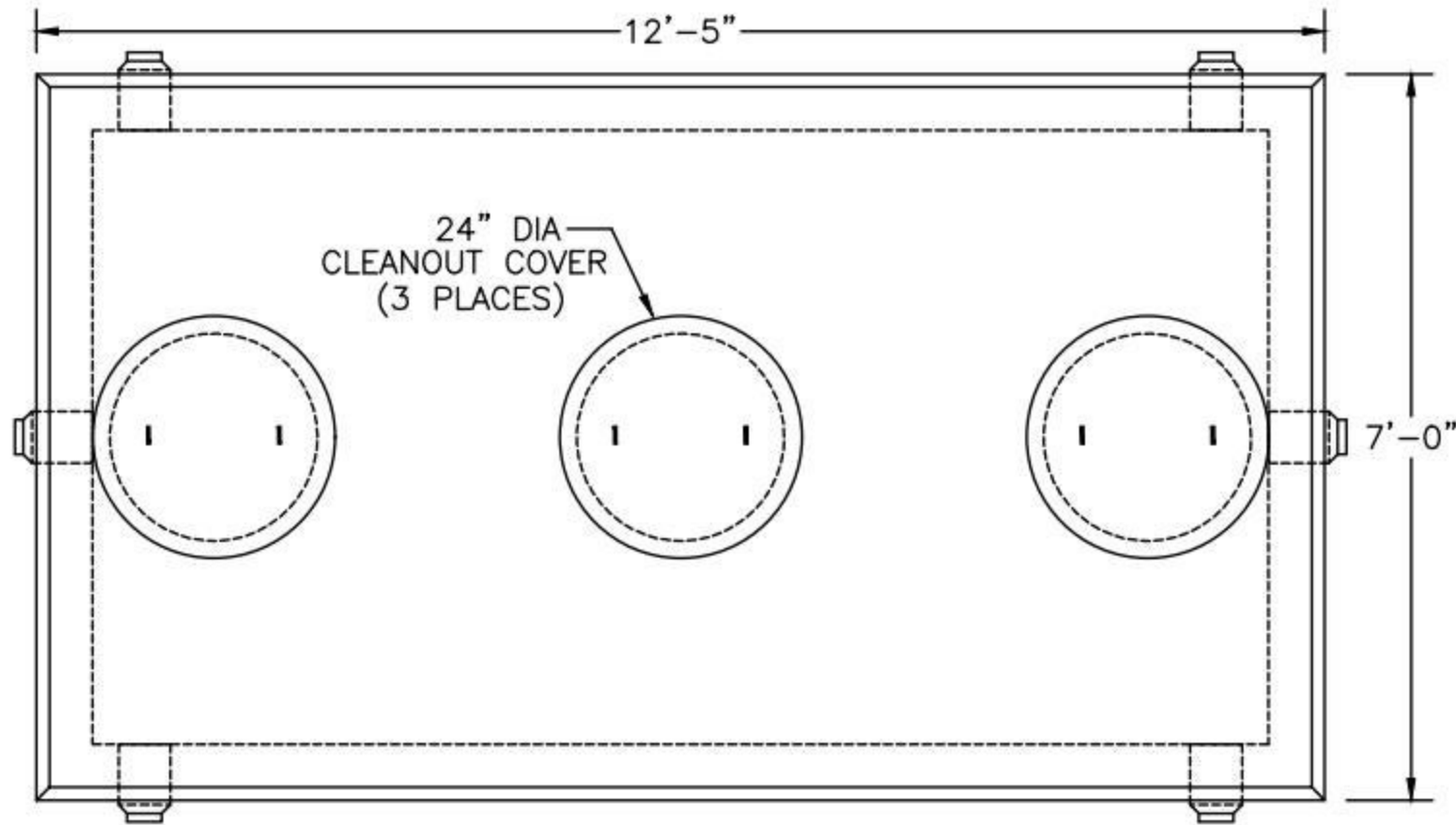
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DATE: 06/01/18

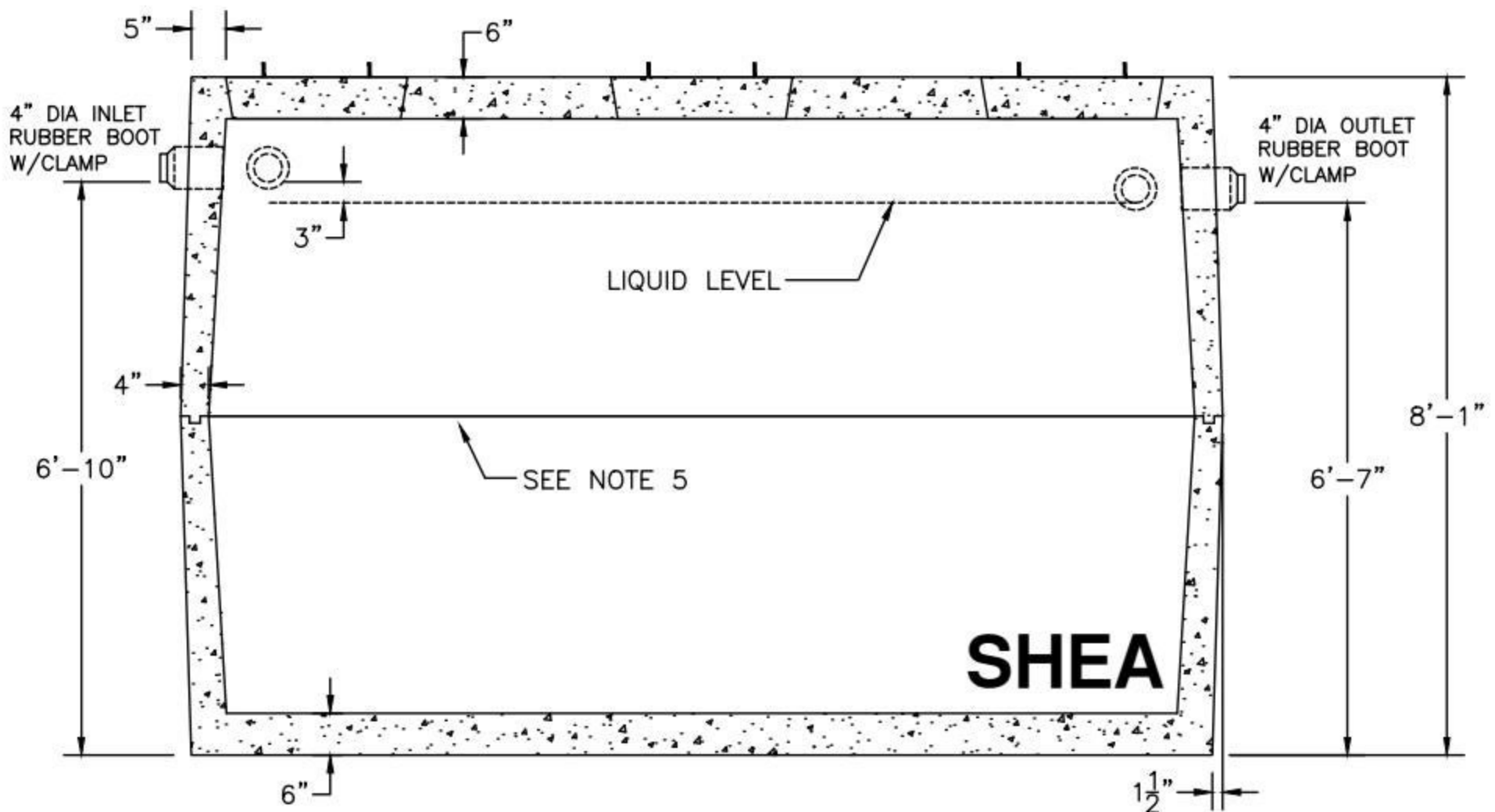
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773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH




PLAN VIEW

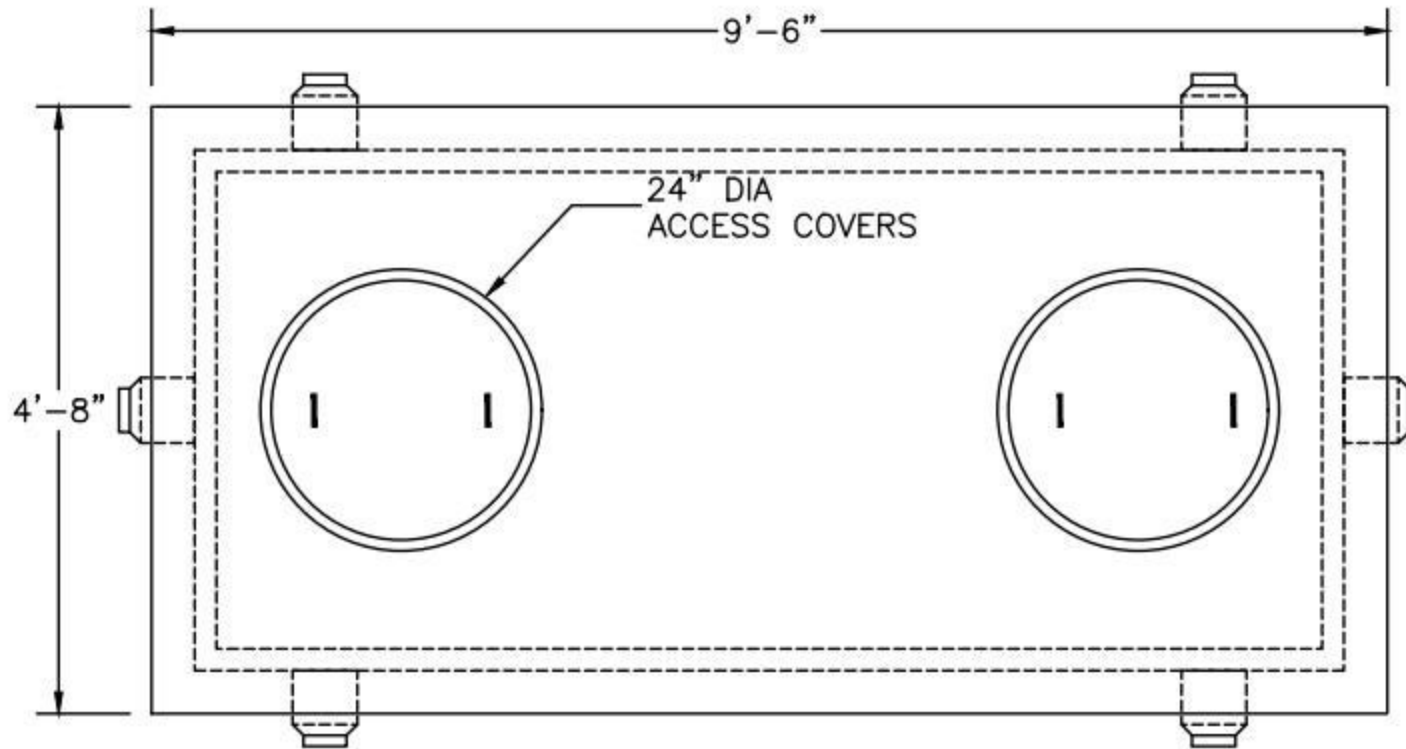


SECTION VIEW

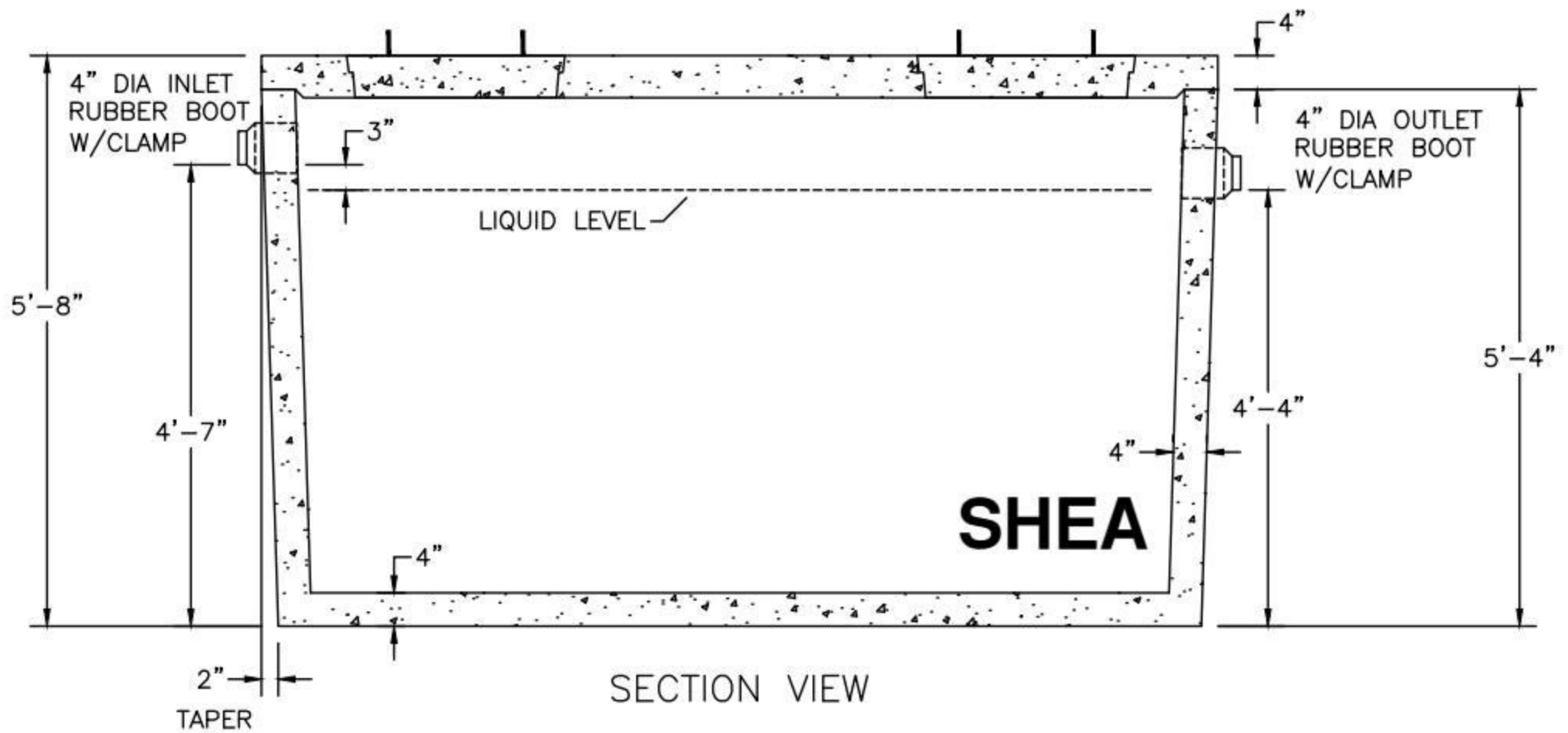
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS FOR SEPTIC TANKS
4. ALL REINFORCEMENT PER ASTM C1227. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. DESIGNED FOR 1 TO 5 FEET COVER. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID: 3000H		PREPARED FOR:		FILE NAME: tk3000A			
WEIGHT (LBS): 25,900#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: B1.7
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							




TOP VIEW

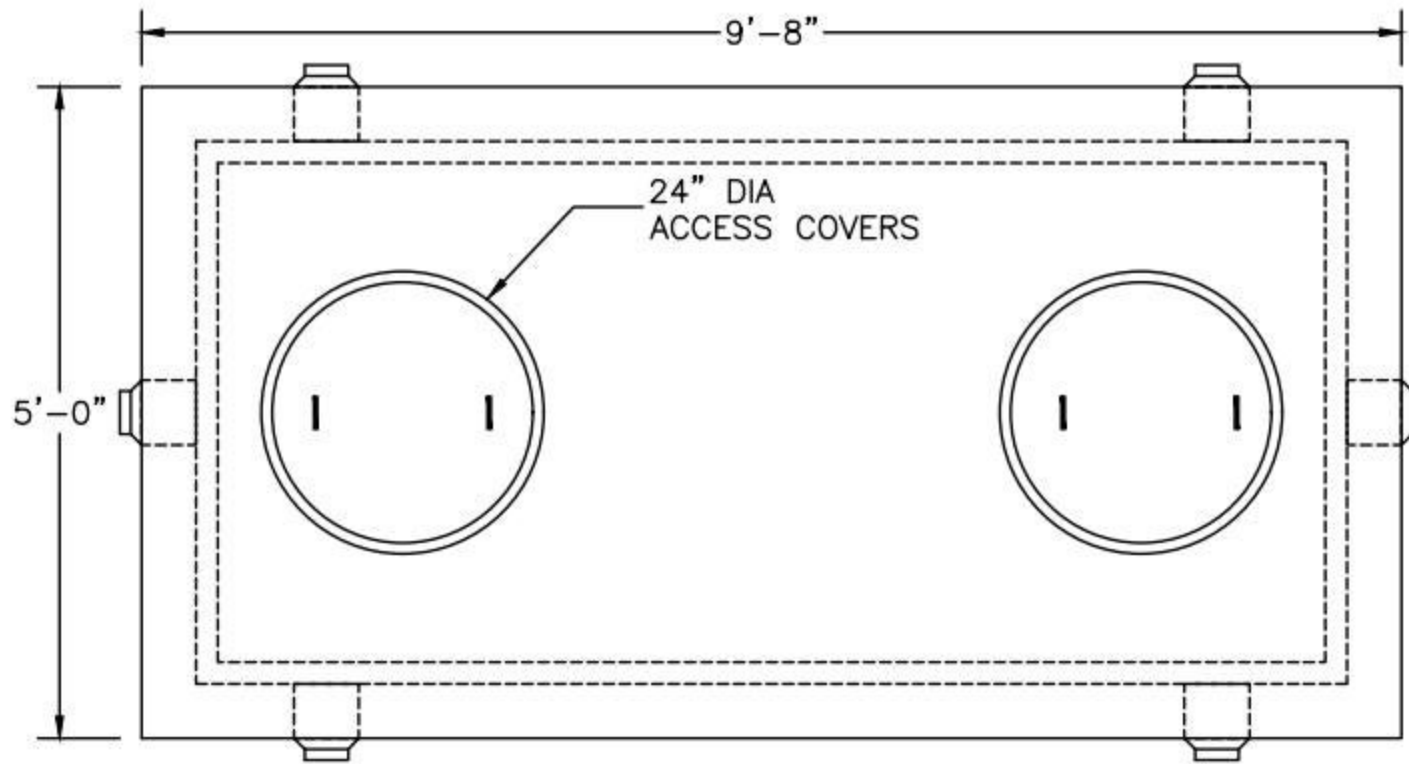


SECTION VIEW

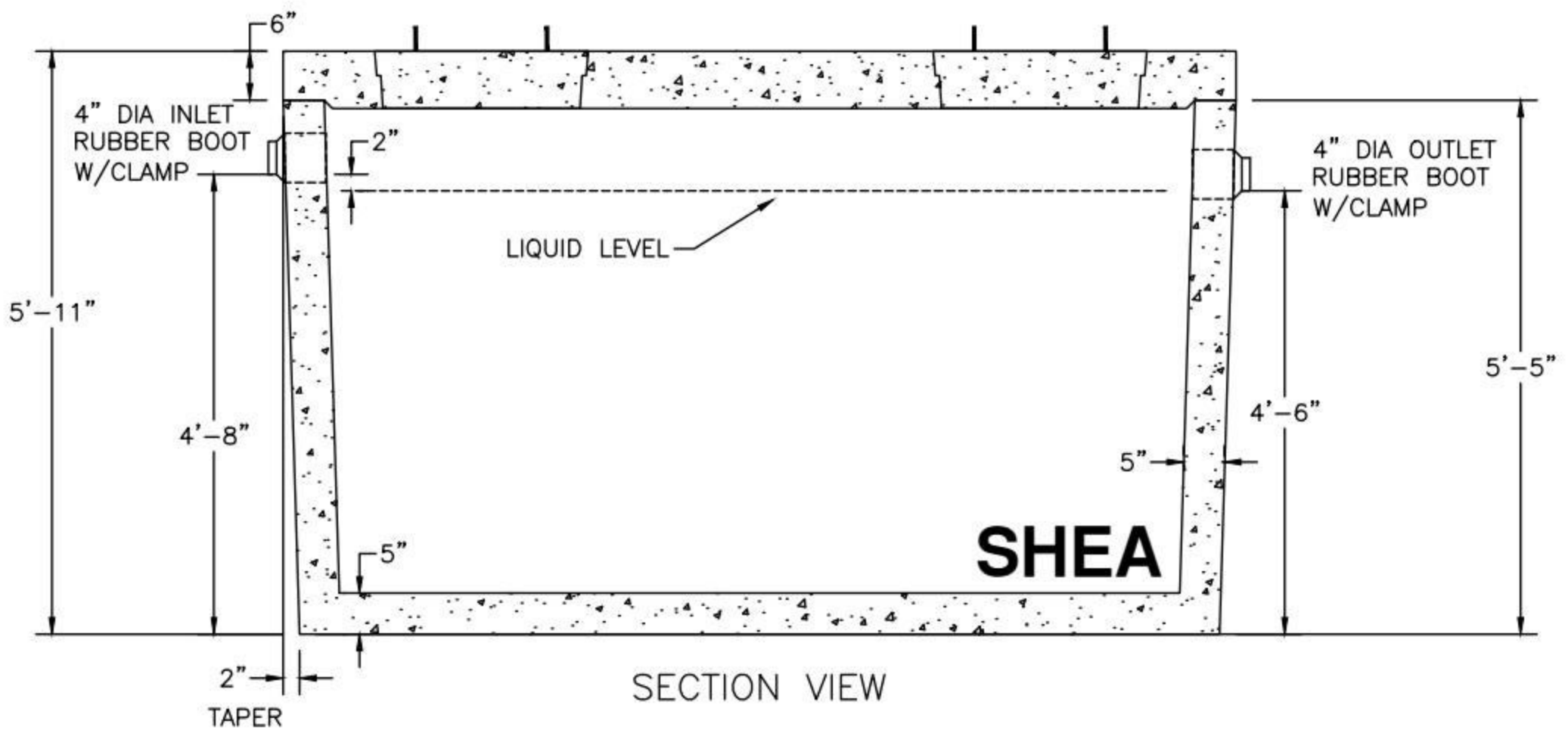
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID: M1000		PREPARED FOR:		FILE NAME: tkm1000-4.dwg			
WEIGHT (LBS): 10,800		DRAWN BY: ARO		DATE: 06/01/18			PAGE: B2.1
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH							



TOP VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER.

WEIGHT:

 BOTTOM = 11,250#
 10" TOP = 5,960#
 6" TOP = 3,575#

ITEM NO.	M1000H	H-20 (6" TOP)
	M1000HT10	H-20 (10" TOP)

 SHEA PRODUCT ID:
 SEE TABLE

PREPARED FOR:

FILE NAME:

tkm1000-5.dwg

 WEIGHT (LBS):
 SEE TABLE

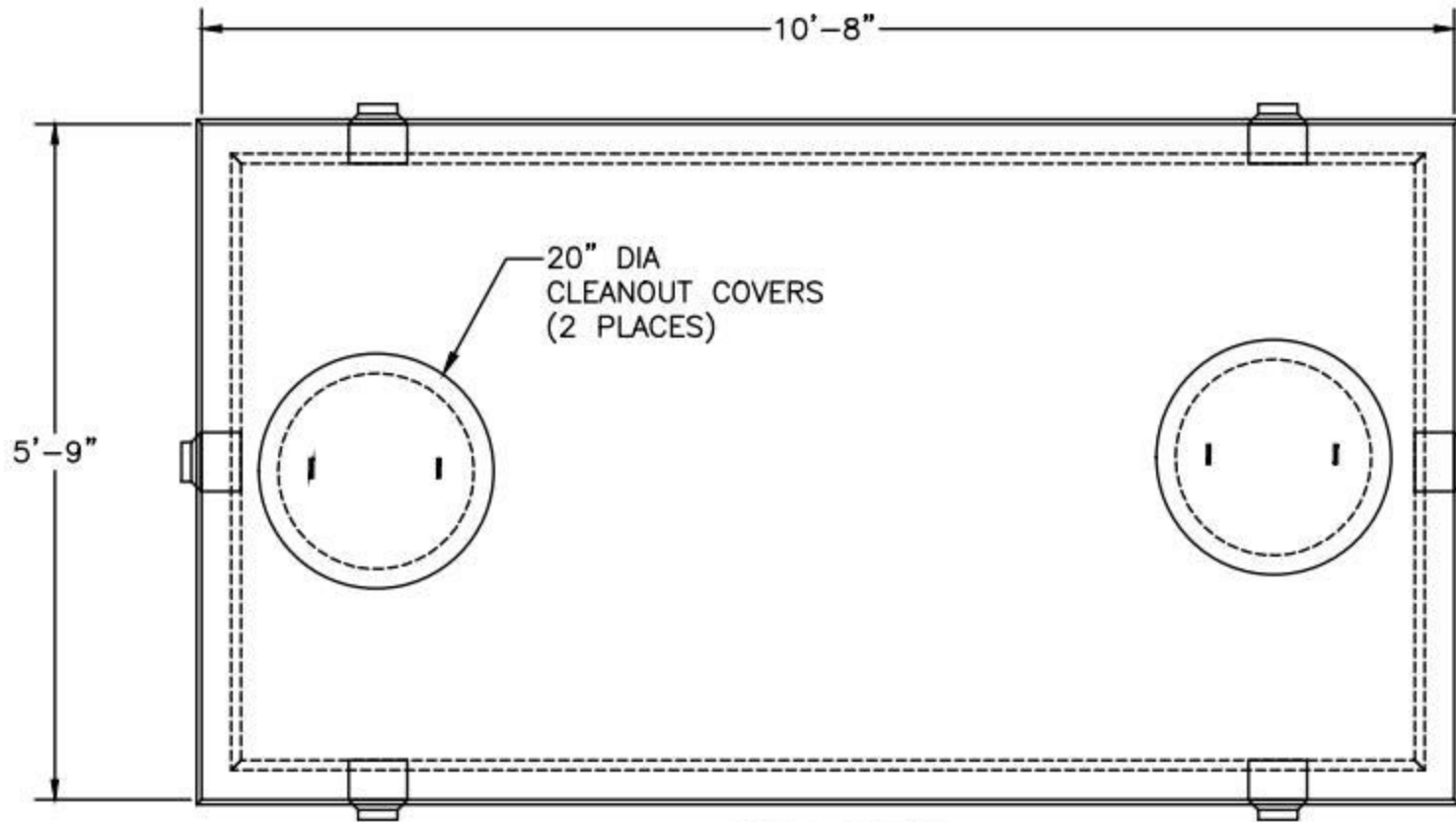
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DATE: 06/01/18

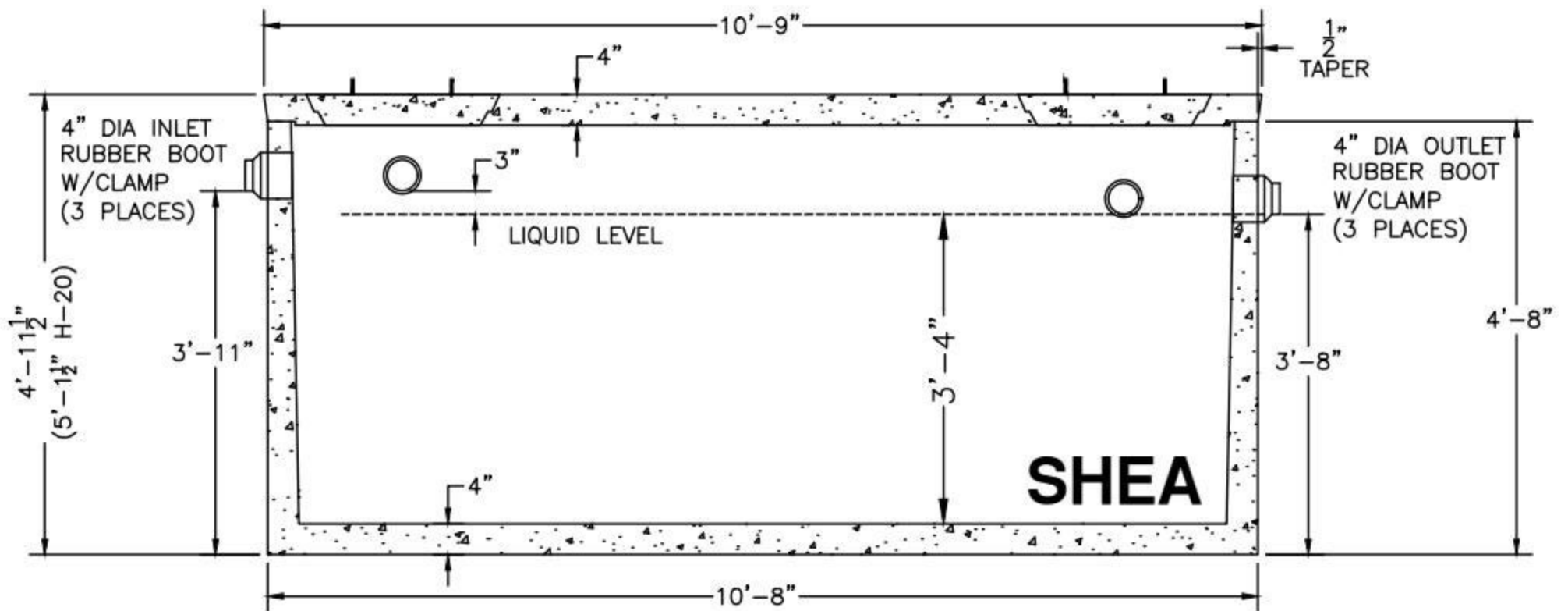
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773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH




TOP VIEW



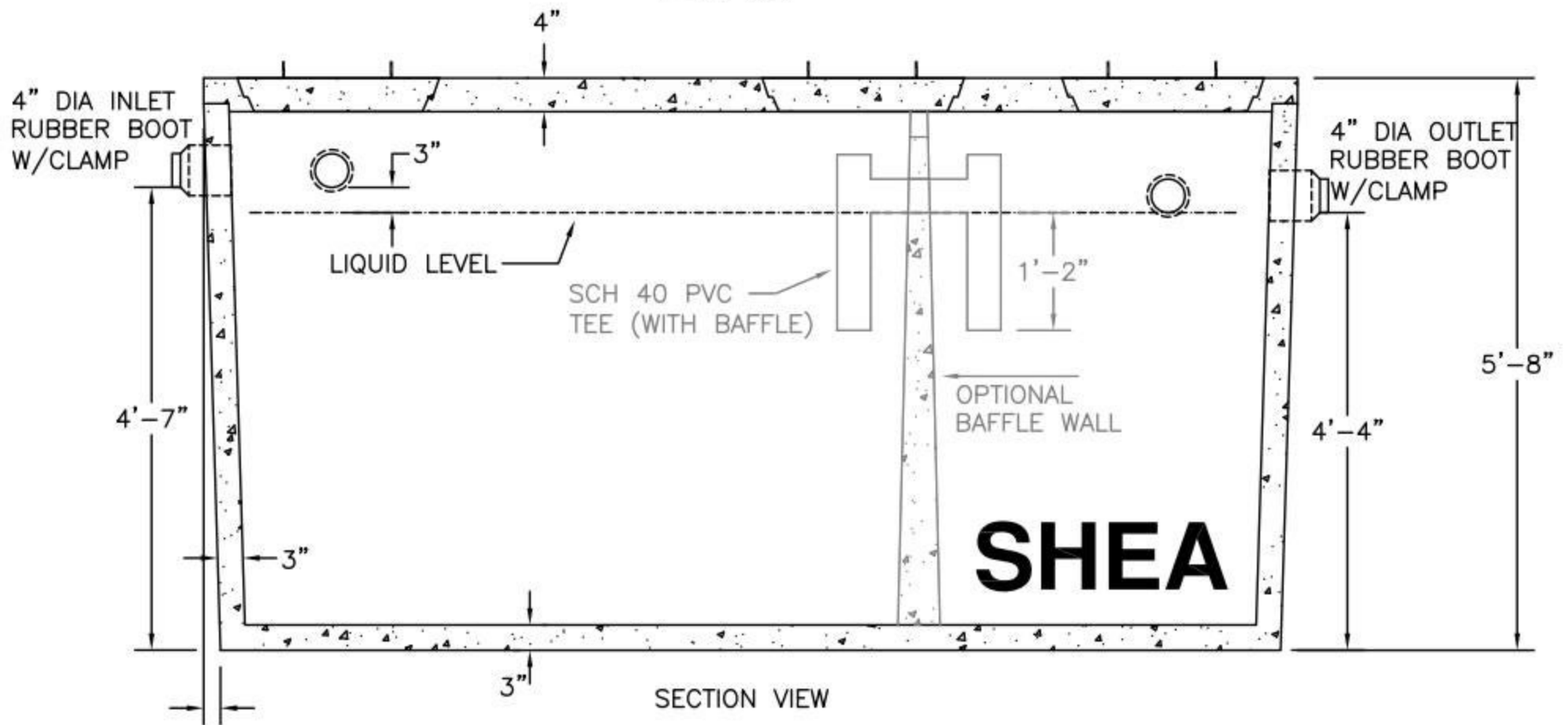
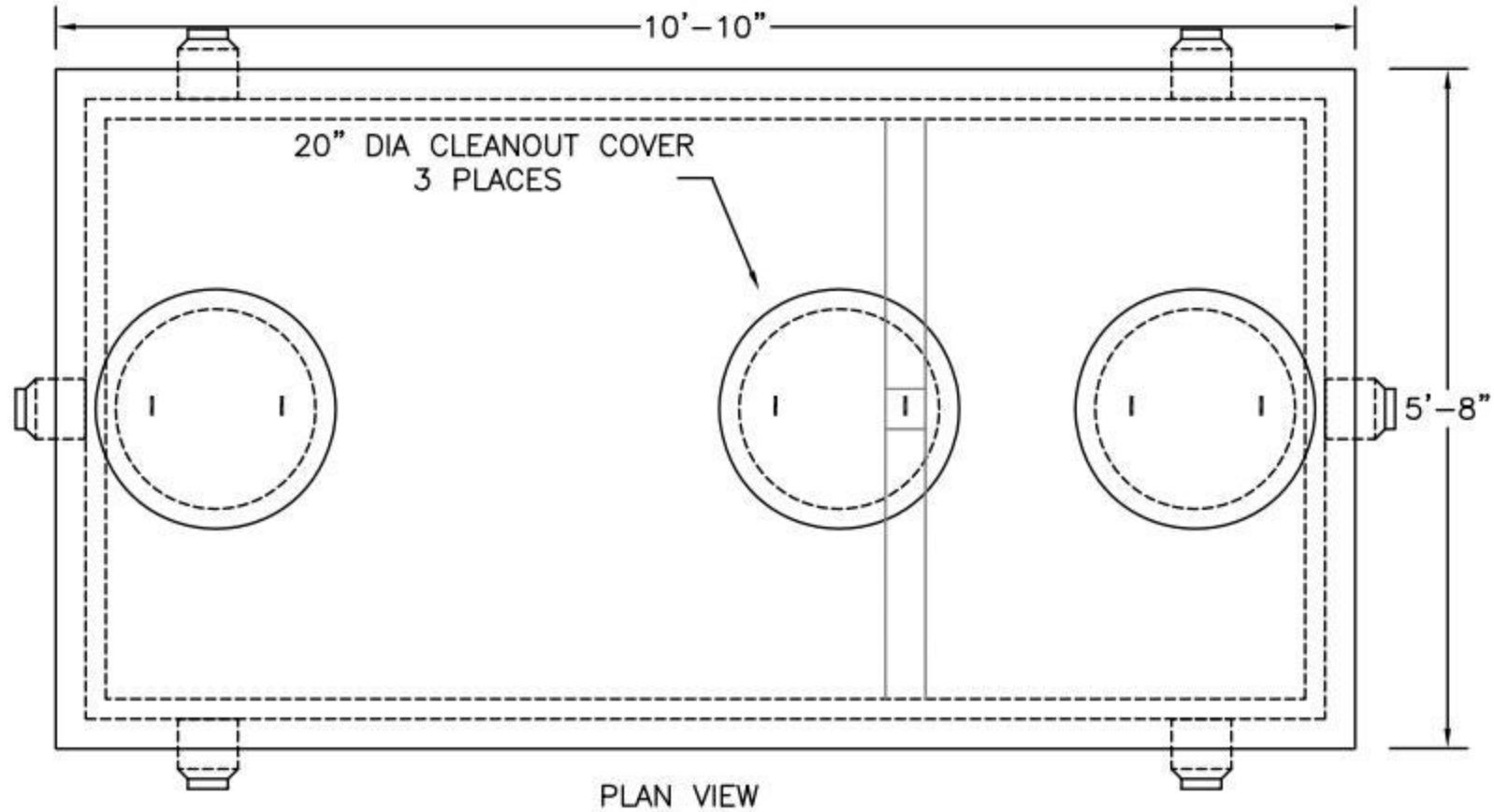
SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH NHDES ENV-WQ1000.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK IS REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID: M1250		PREPARED FOR:		FILE NAME: tkm1250.dwg			
WEIGHT (LBS): 12,055#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: B2.3
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

1500 GALLON SEPTIC TANK MONOLITHIC 3" WALL



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
 3. ALL REINFORCEMENT PER ASTM C1227.
 4. BAFFLE WALL OPTIONAL FOR TWO COMPARTMENT TANKS.
 5. TEES AND GAS BAFFLE SOLD SEPARATELY.
 6. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
 7. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
- ALSO AVAILABLE IN AASHTO HS-20 LOADING.

 SHEA PRODUCT ID:
 M1500/M15002C

PREPARED FOR:

FILE NAME:

tkm1500-3.dwg

 WEIGHT (LBS):
 11,035#/11,841#

DRAWN BY:

ARO

DATE:

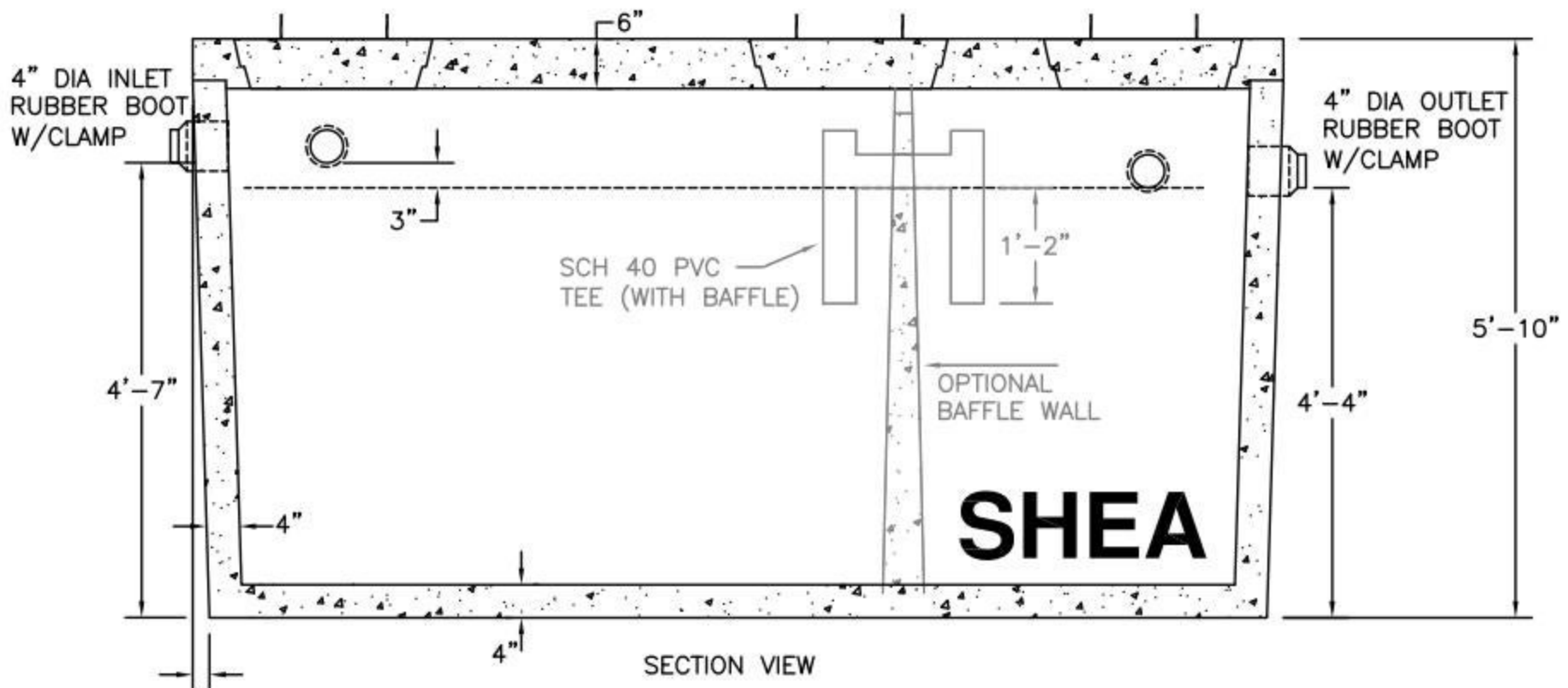
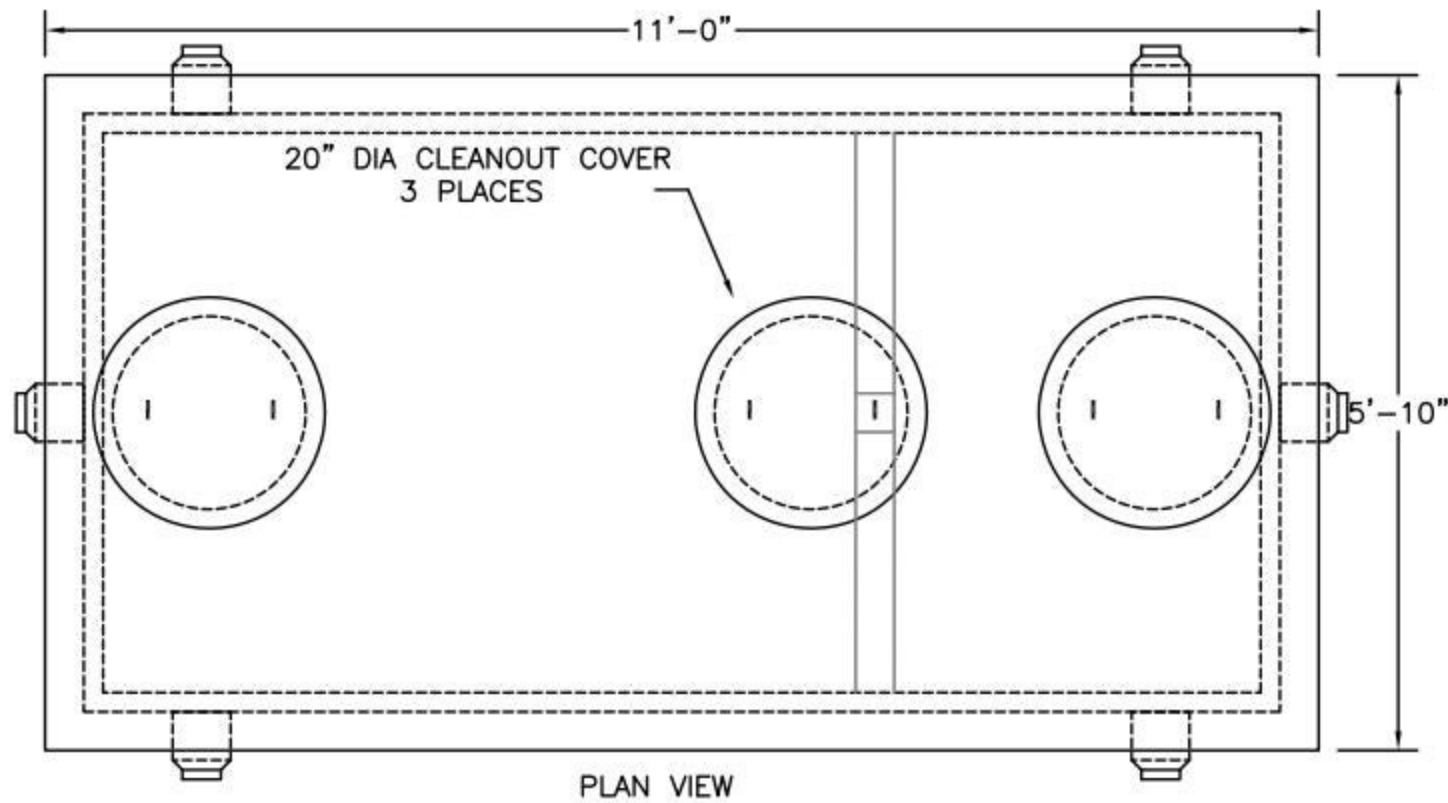
06/01/18

PAGE:

B2.4



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



2" TAPER

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR, SECTION 15.00 DEP
TITLE 5 REGS FOR SEPTIC TANKS
3. ALL REINFORCEMENT PER ASTM C1227.
4. BAFFLE WALL OPTIONAL FOR TWO COMPARTMENT TANKS.
5. TEES AND GAS BAFFLE SOLD SEPARATELY.
6. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
7. HEAVY DUTY TANK DESIGNED FOR 1 TO 5 FEET OF
COVER. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID:
M1500H/M15002CH

PREPARED FOR:

FILE NAME:

tkM1500-4.dwg

WEIGHT (LBS):
12,715#/13,320#

DRAWN BY:

ARO

DATE:

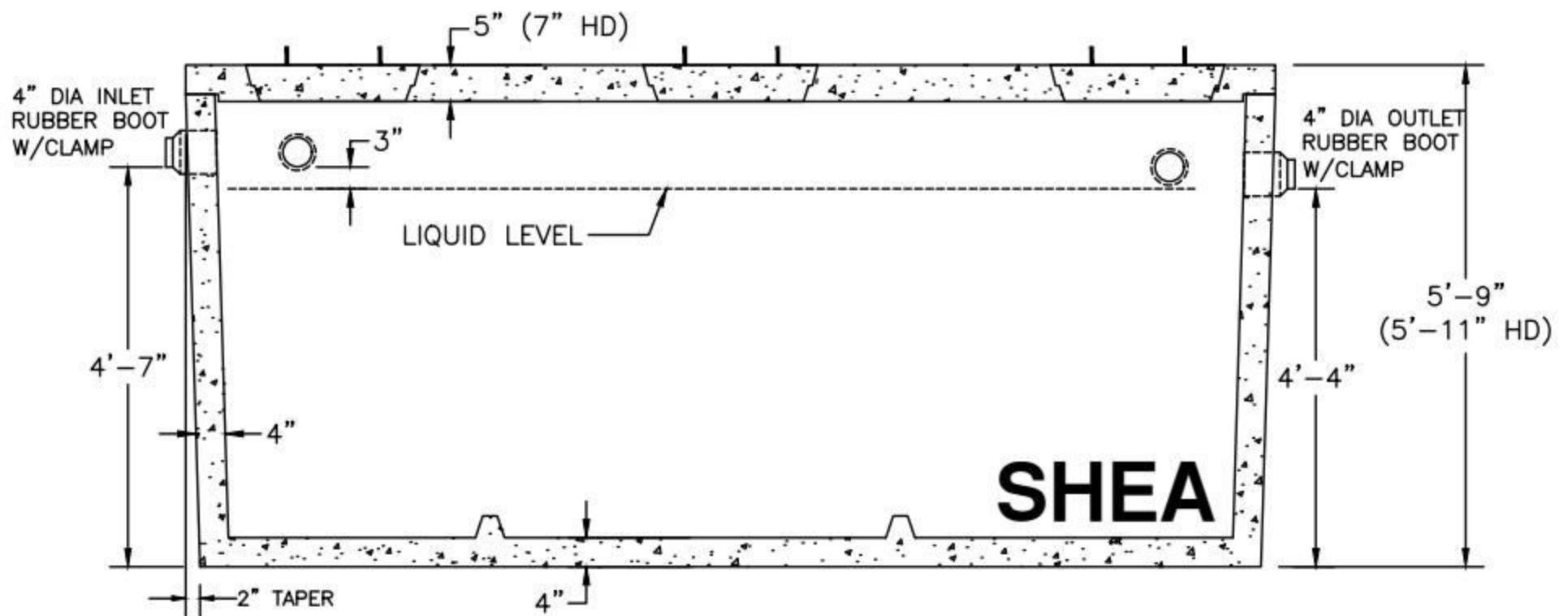
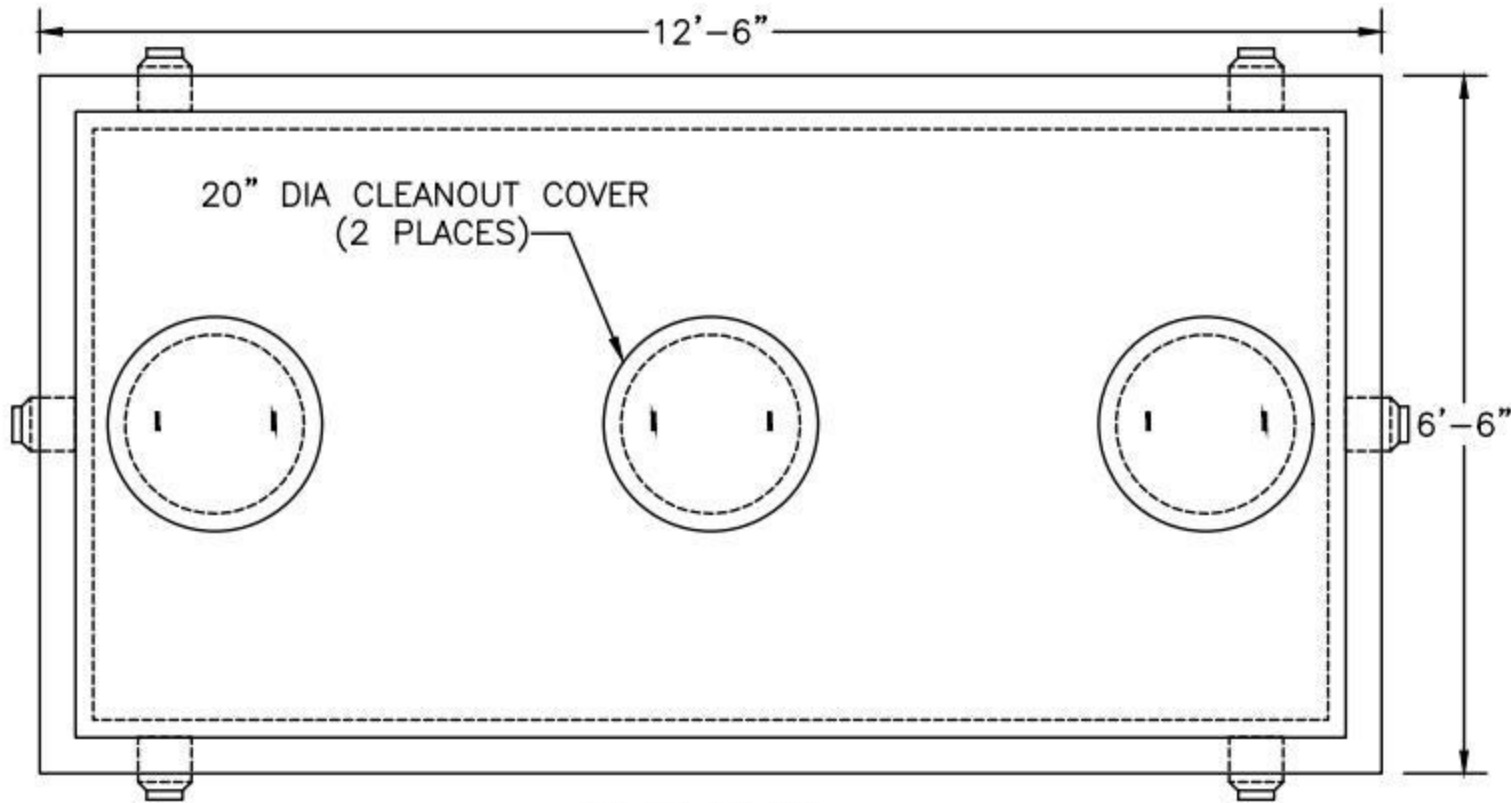
06/01/18

PAGE:

B2.5




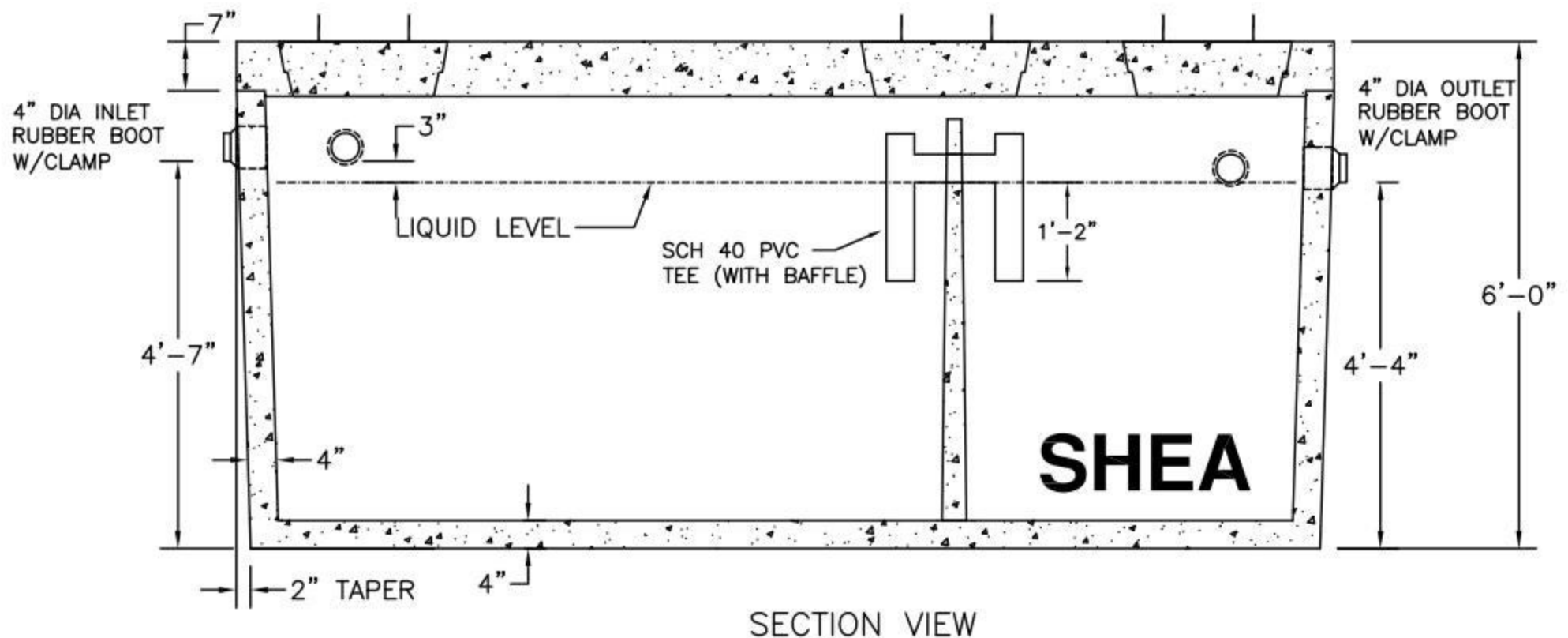
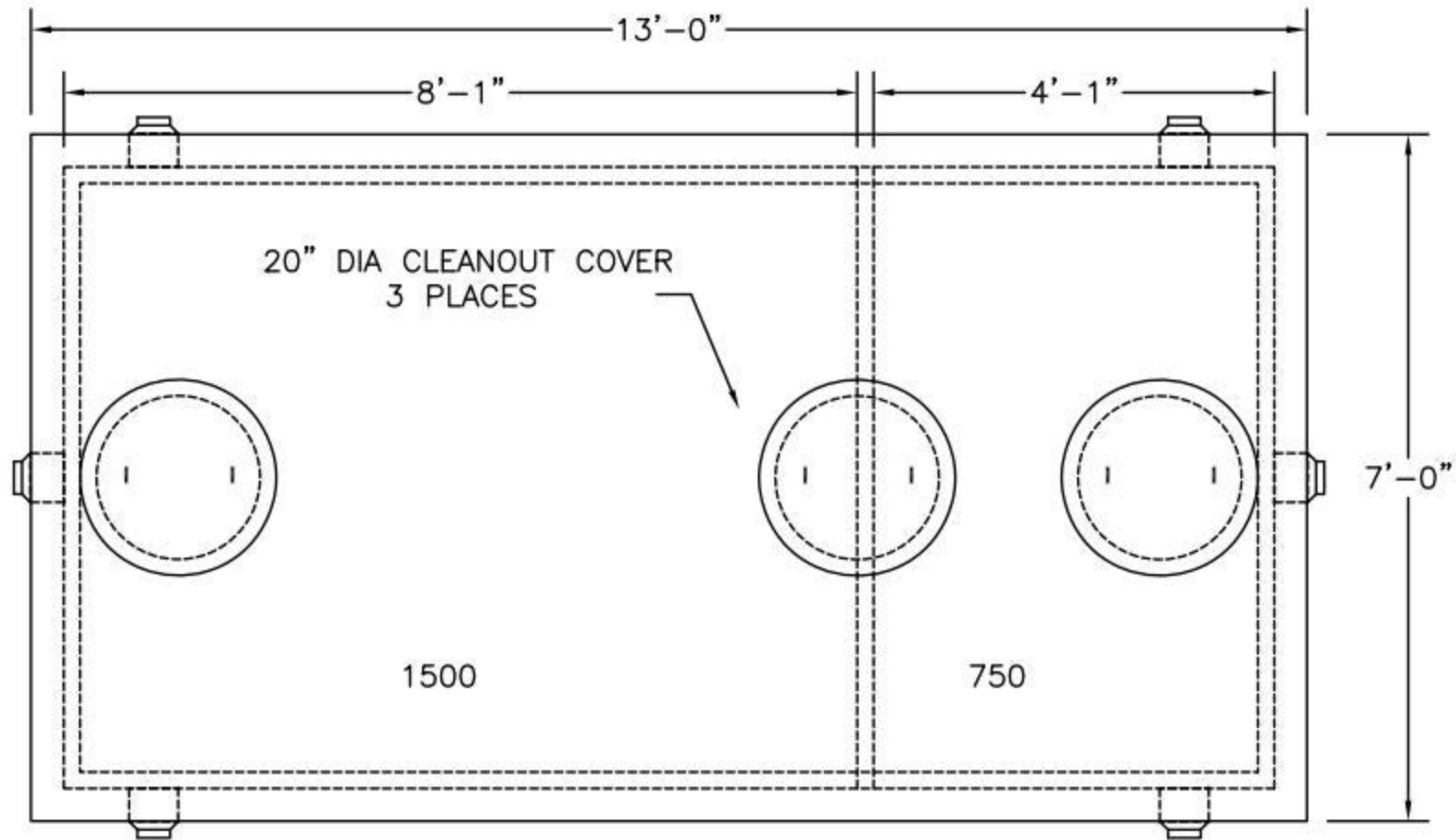
773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS FOR SEPTIC TANKS
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID: M2000/M2000H		PREPARED FOR:		FILE NAME: tkM2000.dwg			
WEIGHT (LBS): 19,150#/21,150#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: B2.6
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 2. DESIGN CONFORMS WITH 310 CMR, SECTION 15.00 DEP
TITLE 5 REGS FOR SEPTIC TANKS
 3. ALL REINFORCEMENT PER ASTM C1227.
 4. TEES AND GAS BAFFLE SOLD SEPARATELY.
 5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
 6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
- ALSO AVAILABLE IN AASHTO HS-20 LOADING.

		WEIGHT
ITEM NO.	M20002C	19,150#
	M20002CH	21,150#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

tkM20002C.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY:

ARO

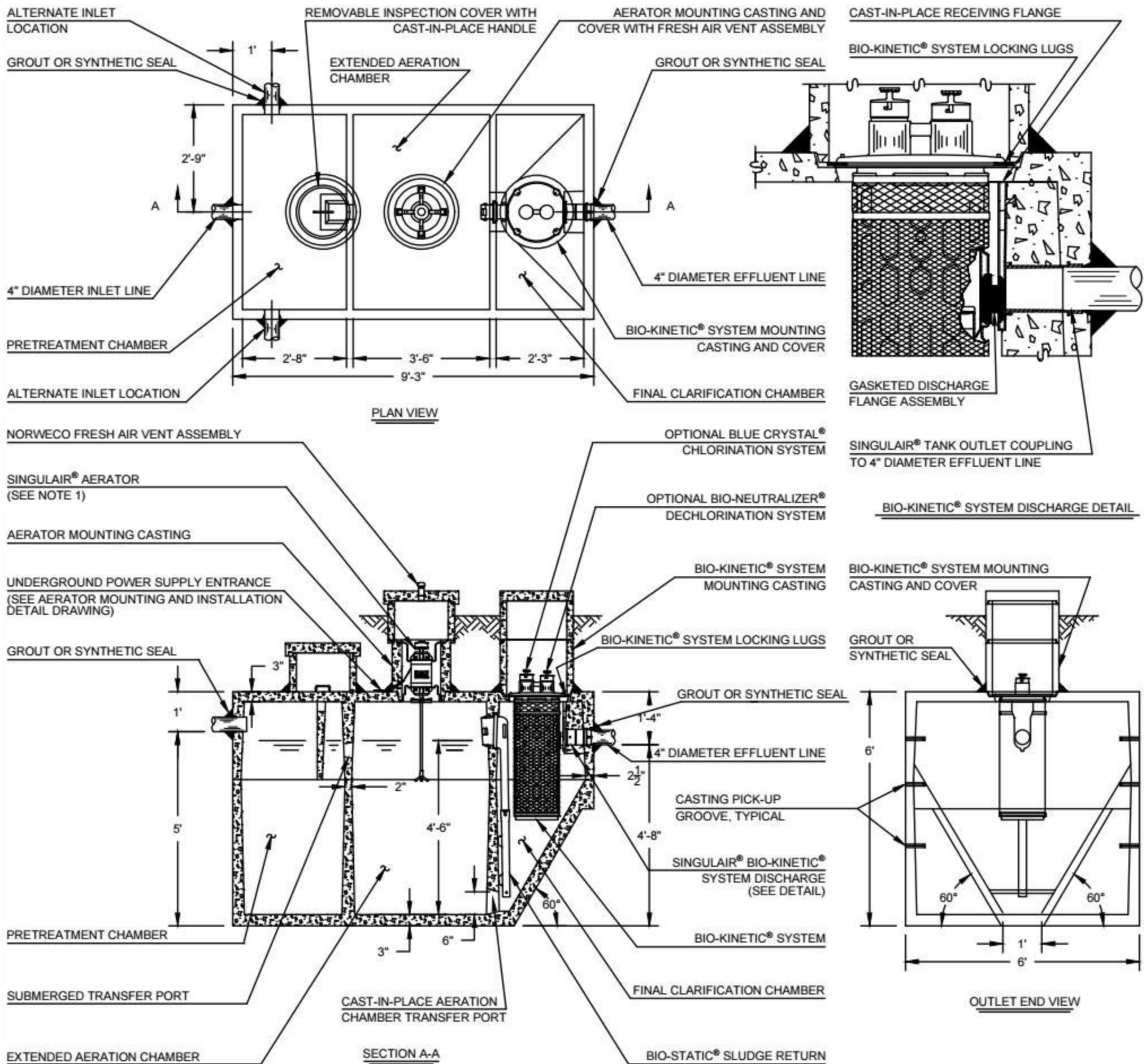
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06/01/18

PAGE:

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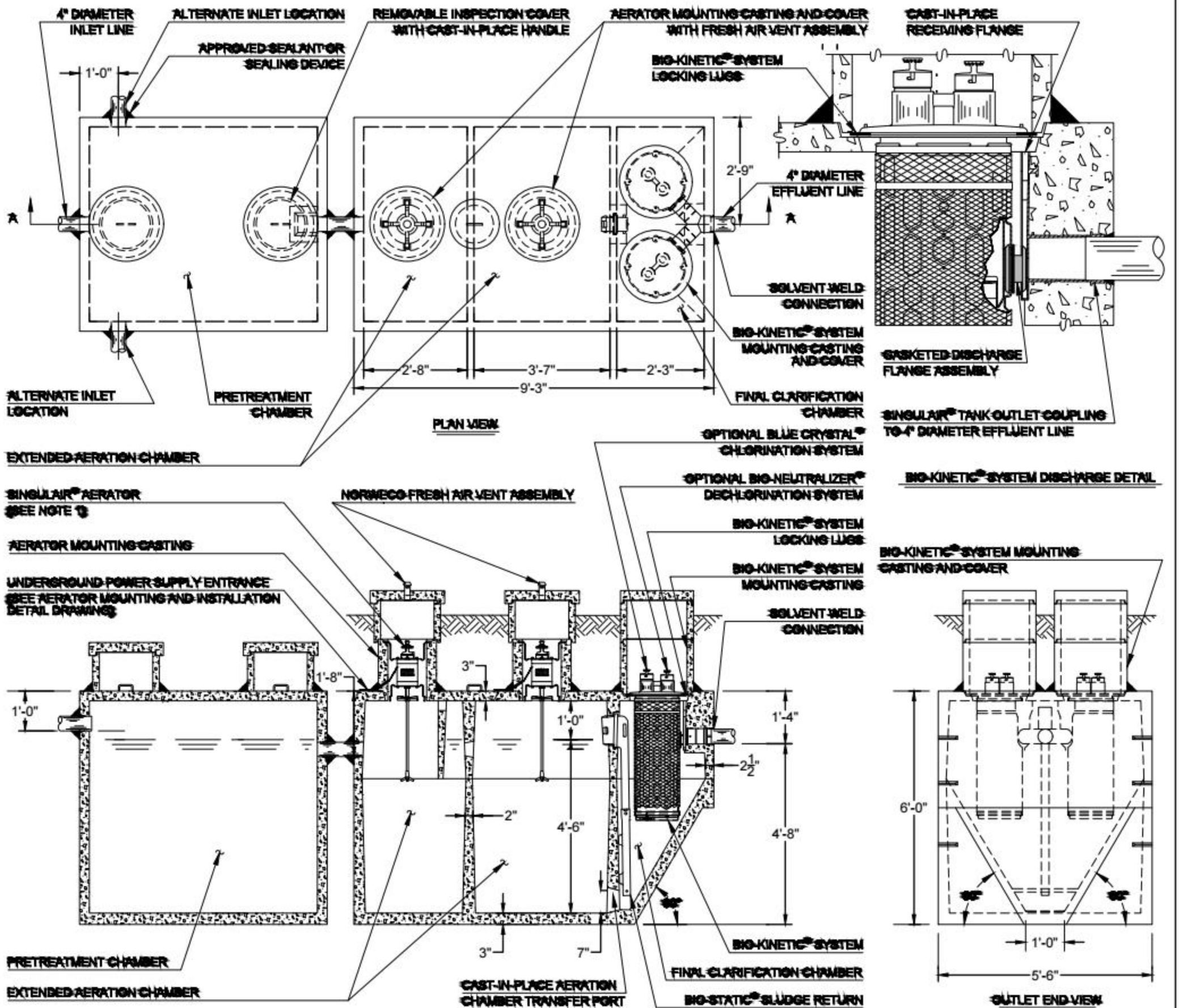


NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR ALTERNATE SEPTIC SYSTEMS
3. ALL REINFORCEMENT PER ASTM C1227-93.
4. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.

TOTAL SYSTEM CAPACITY: 1,300 GALLONS
RATED CAPACITY: 500-600 GALLONS PER DAY

SHEA PRODUCT ID: S960XX		PREPARED FOR:		FILE NAME: Singulair.dwg			
WEIGHT (LBS): 10,500#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: B3.1
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



NOTE: PRETREATMENT CHAMBER MINIMUM REQUIREMENTS SHALL BE: 1,000 GALLONS CAPACITY, 15 GALLONS PER INCH OF LIQUID LEVEL AND 12 INCHES OF FREEBOARD.

SECTION A-A


NOTE: SOME CRITICAL DIMENSIONS ARE INTENTIONALLY LEFT BLANK TO BE FILLED IN PER INDIVIDUAL JOB-SITE SPECIFICATIONS.

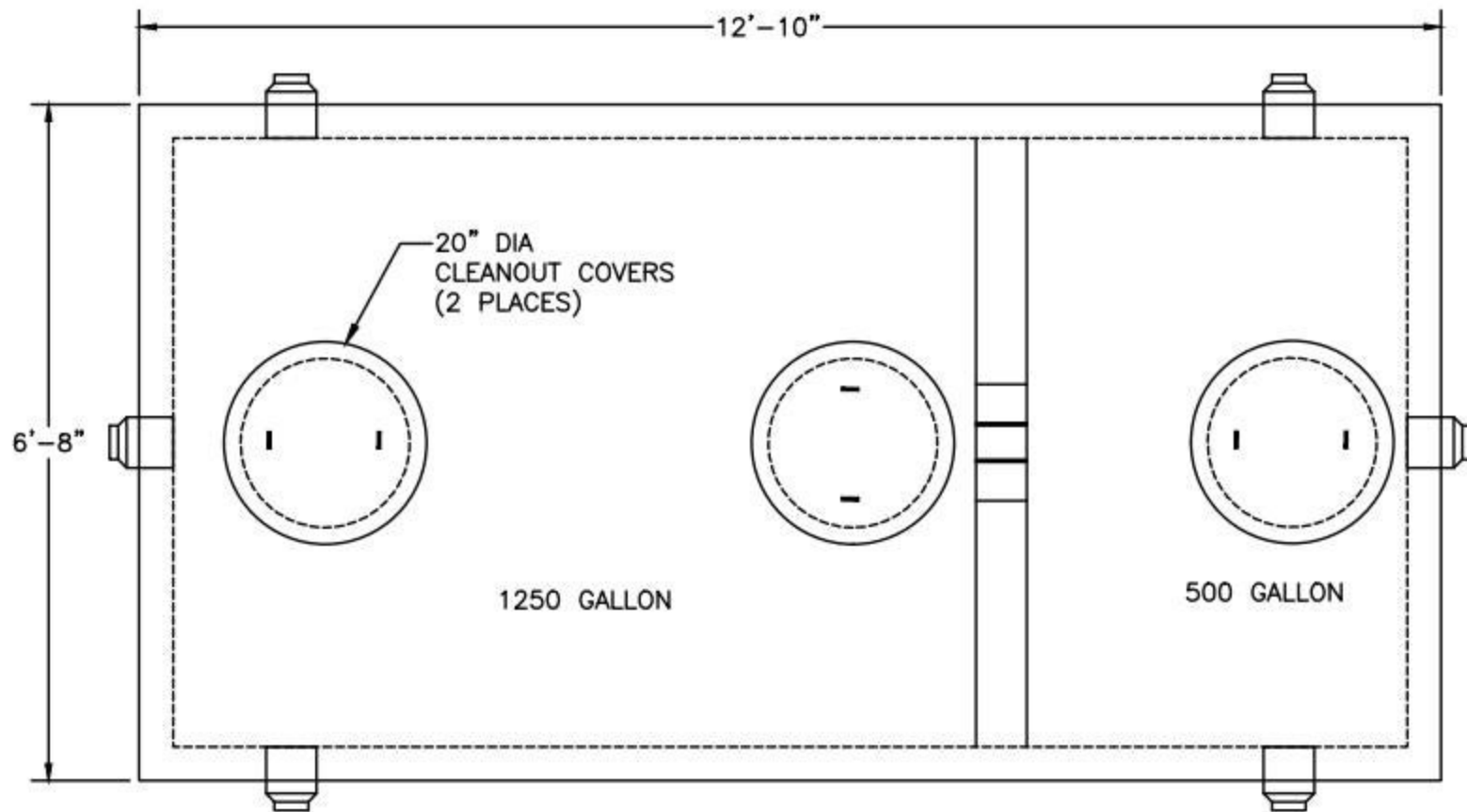
NOTE: TOTAL SYSTEM CAPACITY: 2,300 GALLONS
RATED CAPACITY: 1,000 GALLONS PER DAY

NOTES:

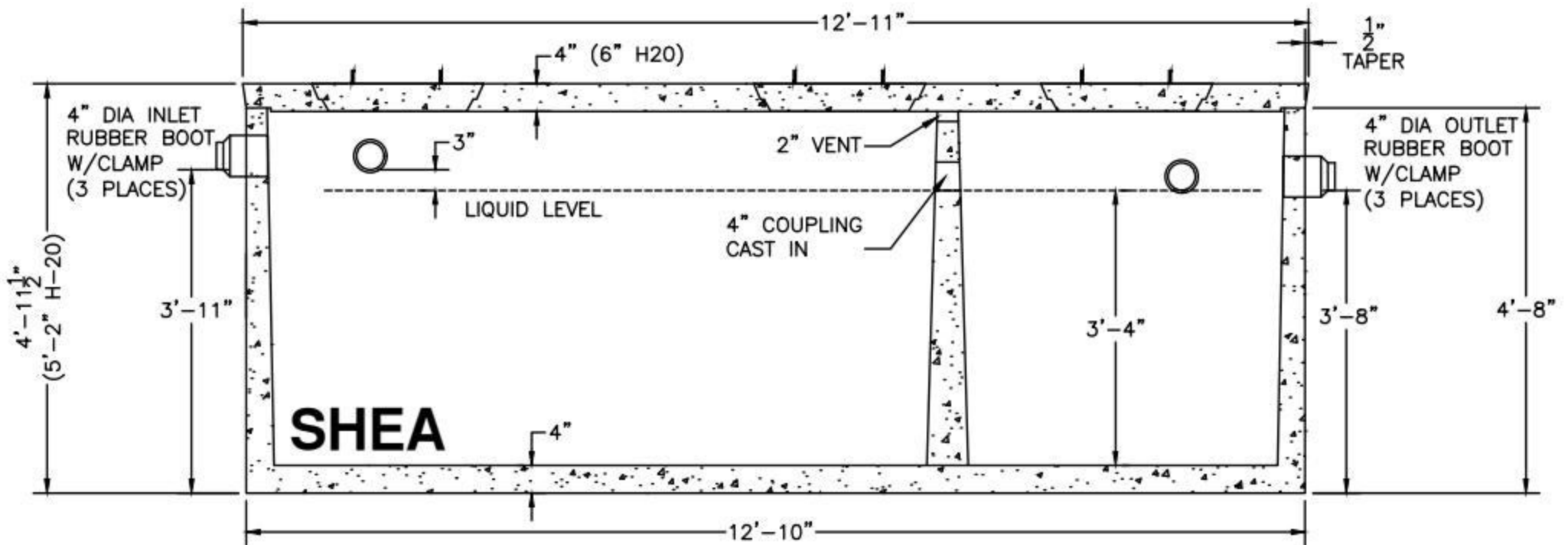
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR ALTERNATE SEPTIC SYSTEMS
3. ALL REINFORCEMENT PER ASTM C1227-93.
4. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.

**TOTAL SYSTEM CAPACITY: 2,300 GALLONS
RATED CAPACITY: 1,000 GALLONS PER DAY**

SHEA PRODUCT ID: S1000XX		PREPARED FOR:		FILE NAME: Singulair1000GPD.dwg		
WEIGHT (LBS): 10,500#		DRAWN BY: ARO		DATE: 03/01/2018		
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH						



TOP VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 2. DESIGN CONFORMS WITH NHDES ENV-WQ1000.
 3. ALL REINFORCEMENT PER ASTM C1227.
 4. TEES AND GAS BAFFLE SOLD SEPARATELY.
 5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
 6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
- ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID:
M17502C/M17502CH

PREPARED FOR:

FILE NAME:

tkM1750combo.dwg

WEIGHT (LBS):
17,825#/18,580#

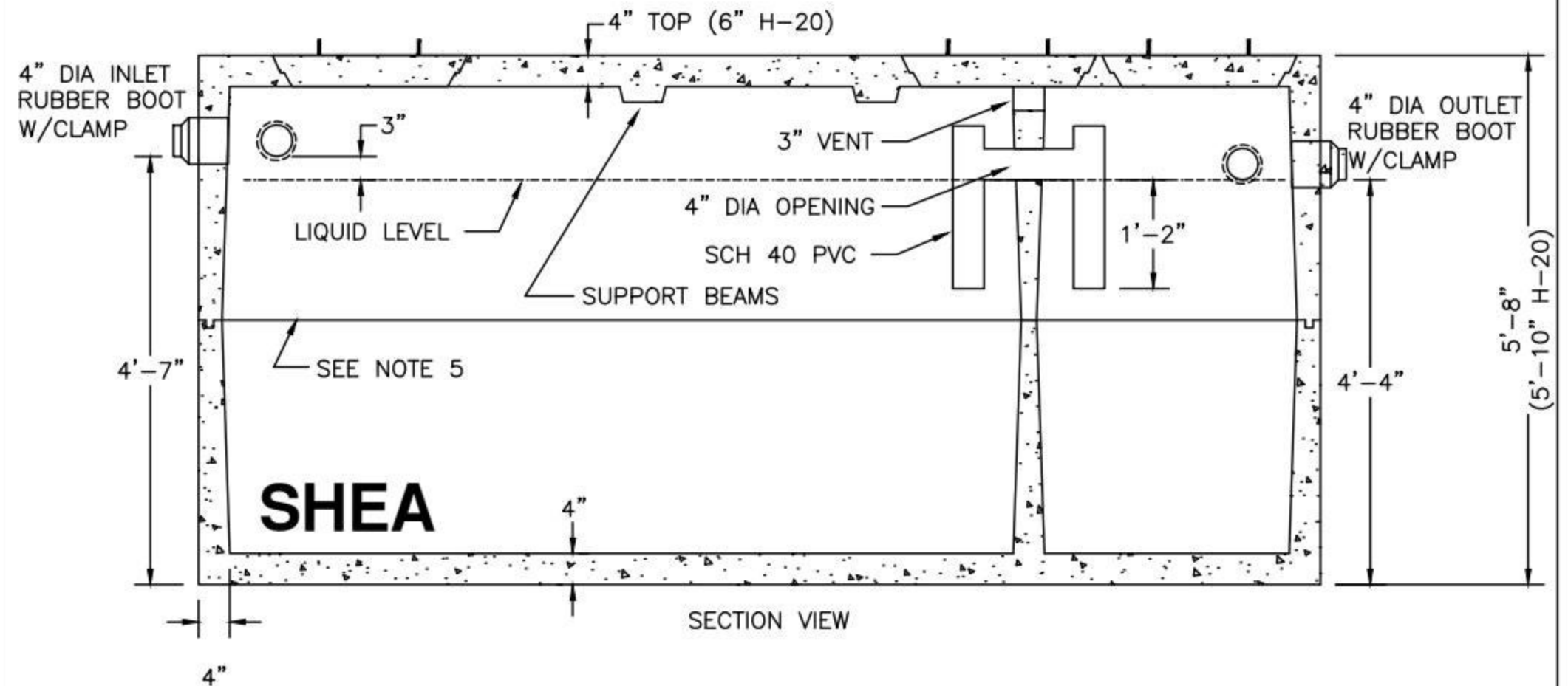
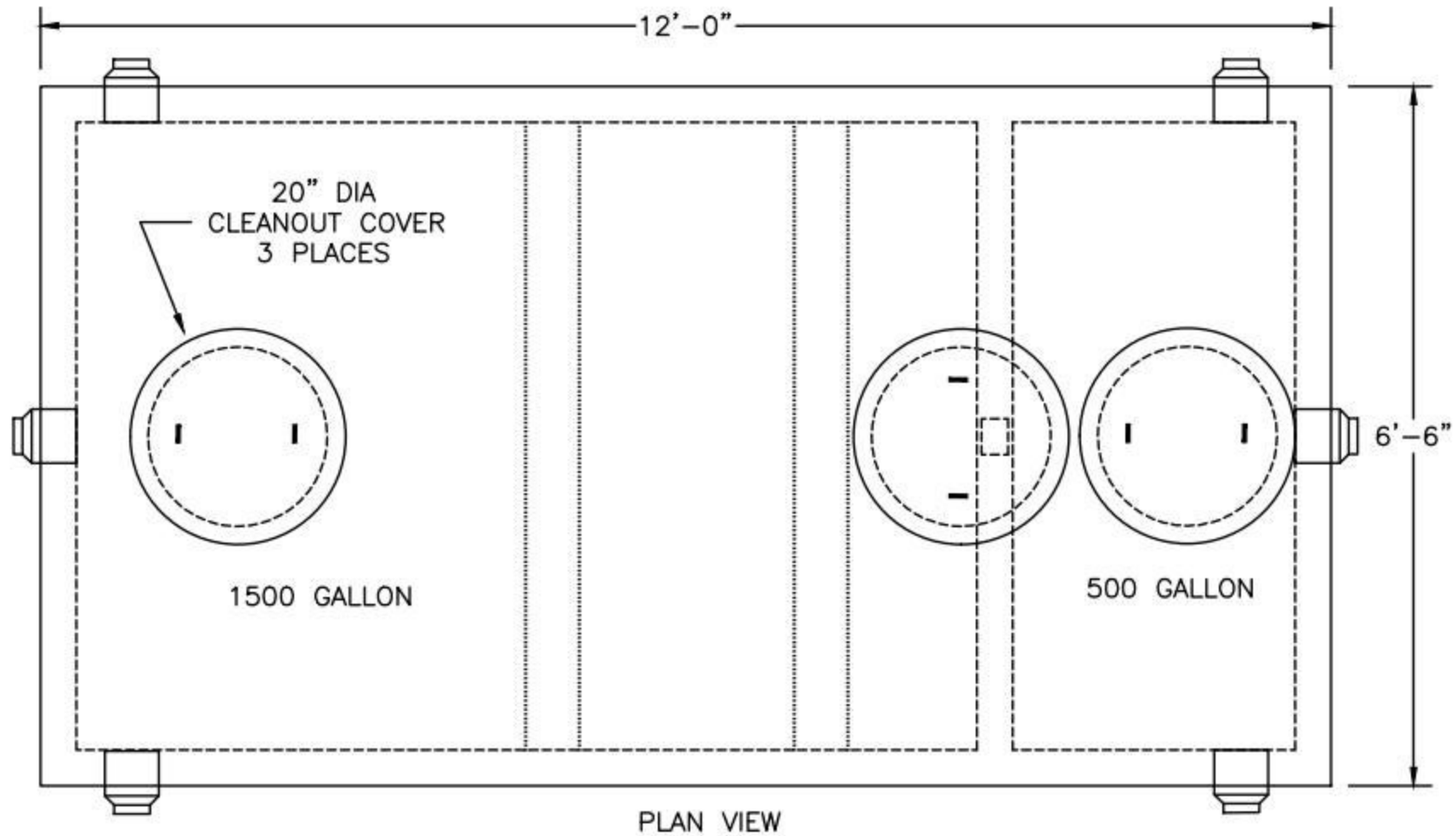
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DATE: 06/01/18

PAGE: B4.1



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID:
2000COMBO/2000COMBOH

PREPARED FOR:

FILE NAME:

tk2000combo.dwg

WEIGHT (LBS):
15,685#/17,610#

DRAWN BY: ARO

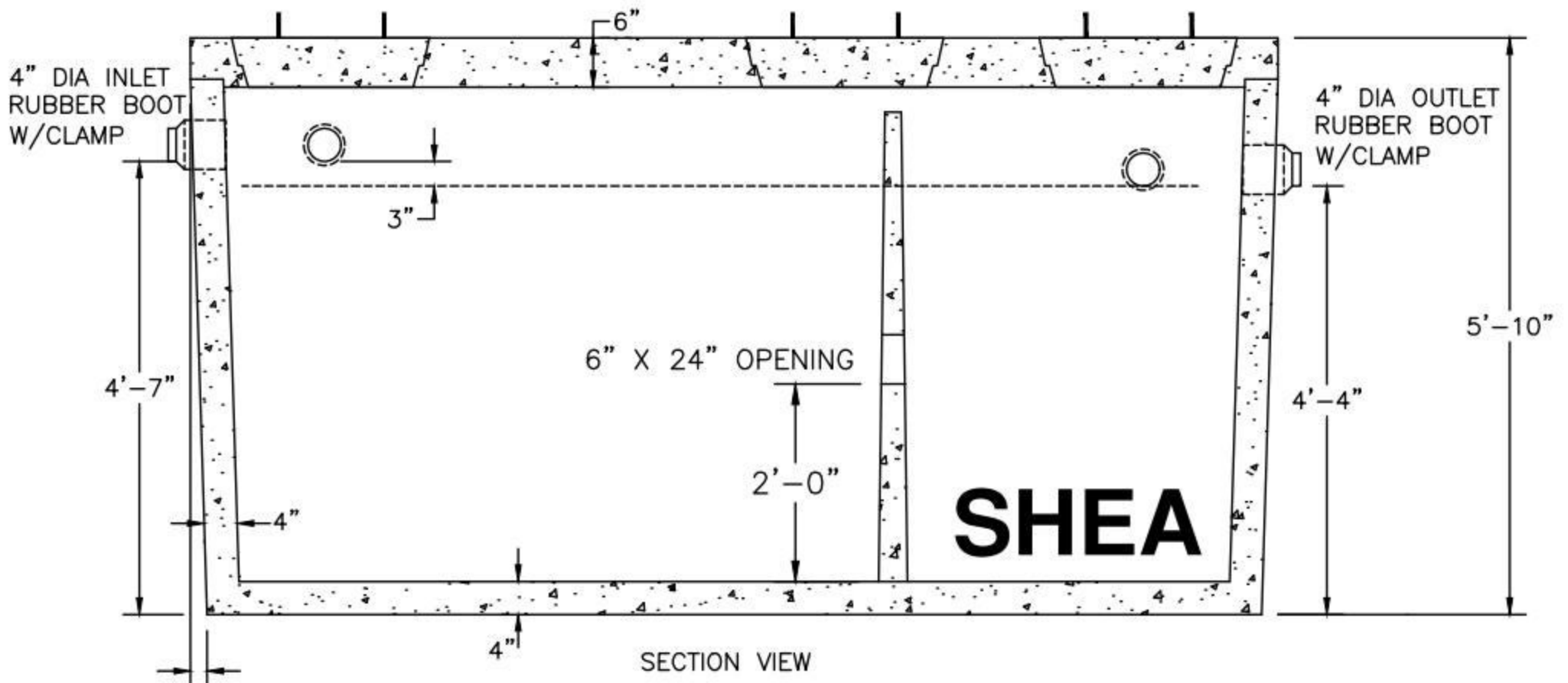
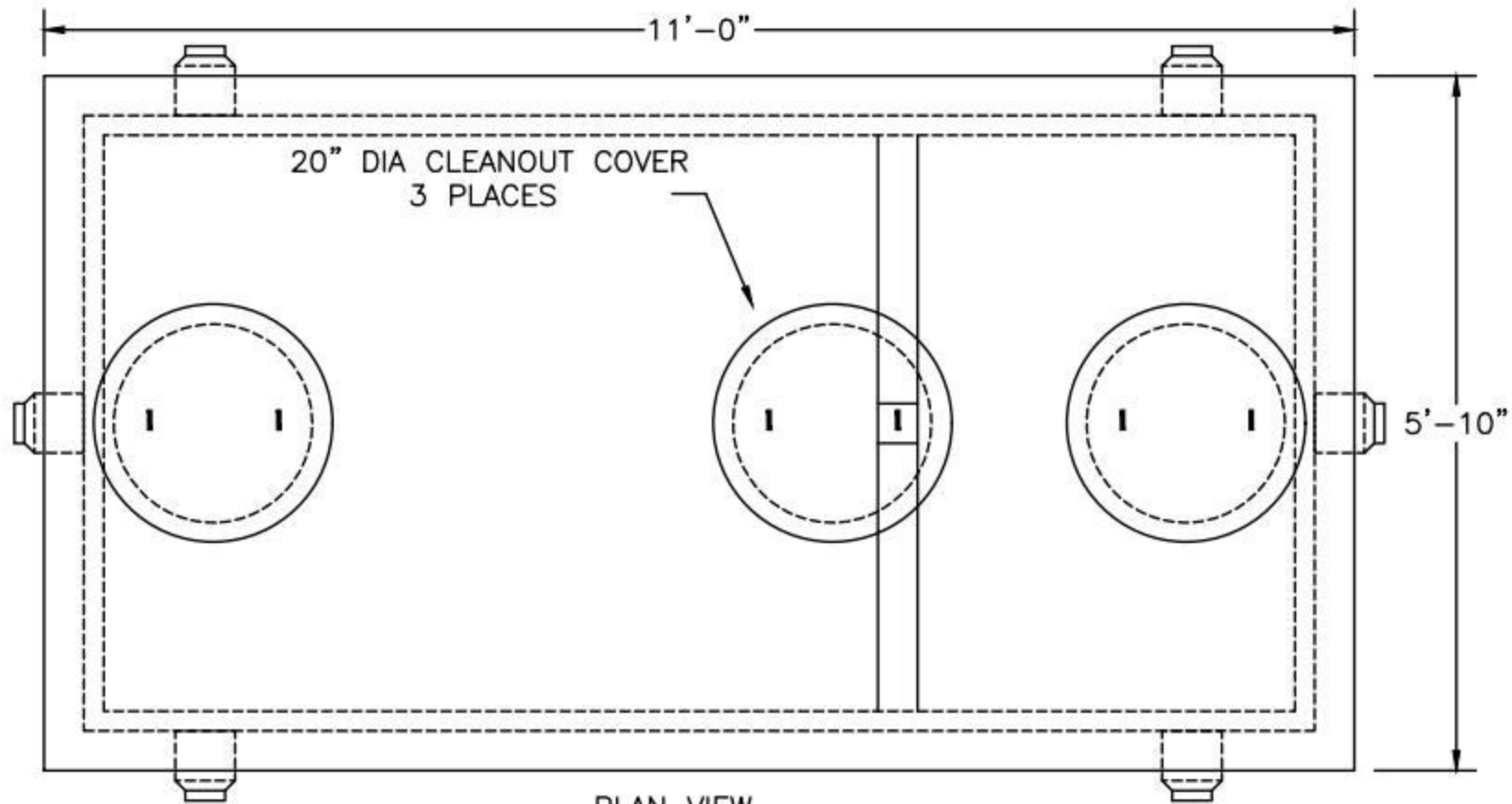
DATE: 06/01/18

PAGE: B4.2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 2. DESIGN CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS FOR SEPTIC TANKS
 3. ALL REINFORCEMENT PER ASTM C1227.
 4. BAFFLE WALL OPTIONAL FOR TWO COMPARTMENT TANKS.
 5. OPTIONAL SLOT OPENING IN BAFFLE WALL.
 6. TEES AND GAS BAFFLE SOLD SEPARATELY.
 7. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
 8. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
- AVAILABLE IN AASHTO HS-20 LOADING.

 SHEA PRODUCT ID:
 M15002CWS/M15002CWSH

PREPARED FOR:

FILE NAME:

tkM1500CWS.dwg

 WEIGHT (LBS):
 11,641#/13,155#

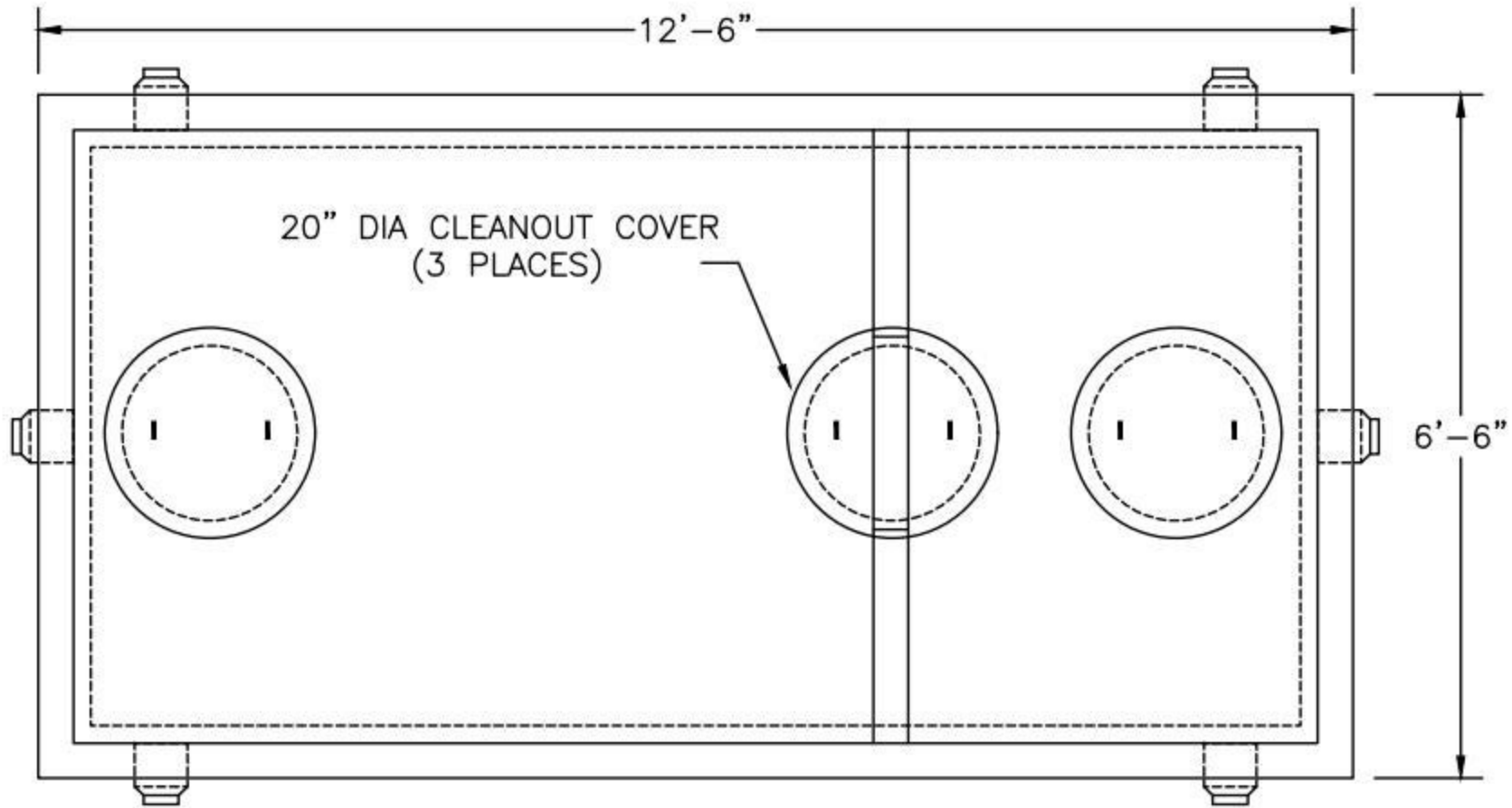
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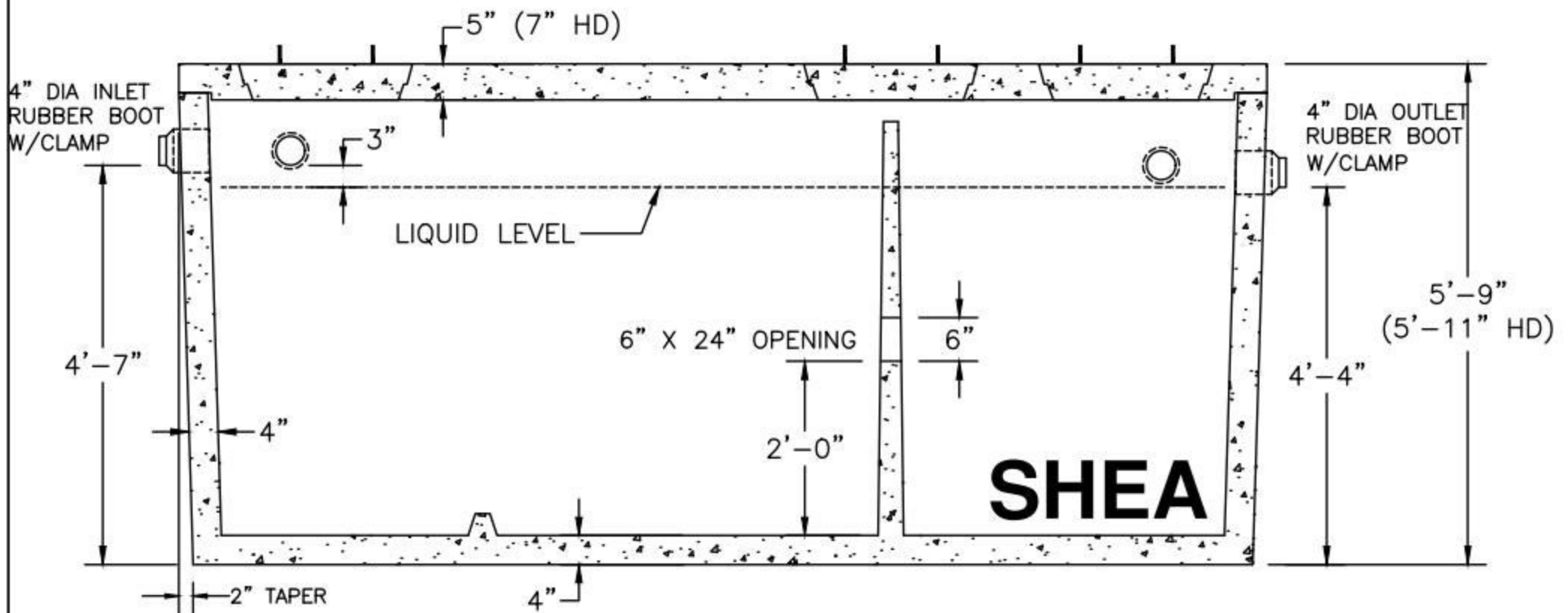
PAGE: B4.3



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5
REGS FOR SEPTIC TANKS
3. ALL REINFORCEMENT PER ASTM C1227.
4. BAFFLE WALL OPTIONAL FOR TWO COMPARTMENT TANKS.
5. TEES AND GAS BAFFLE SOLD SEPARATELY.
6. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
7. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO
AVAILABLE IN AASHTO HS-20 LOADING.

 SHEA PRODUCT ID:
 MC20002CWS/M20002CWSH

PREPARED FOR:

FILE NAME:

tkM20002CWS.dwg

 WEIGHT (LBS):
 19,150#/21,150#

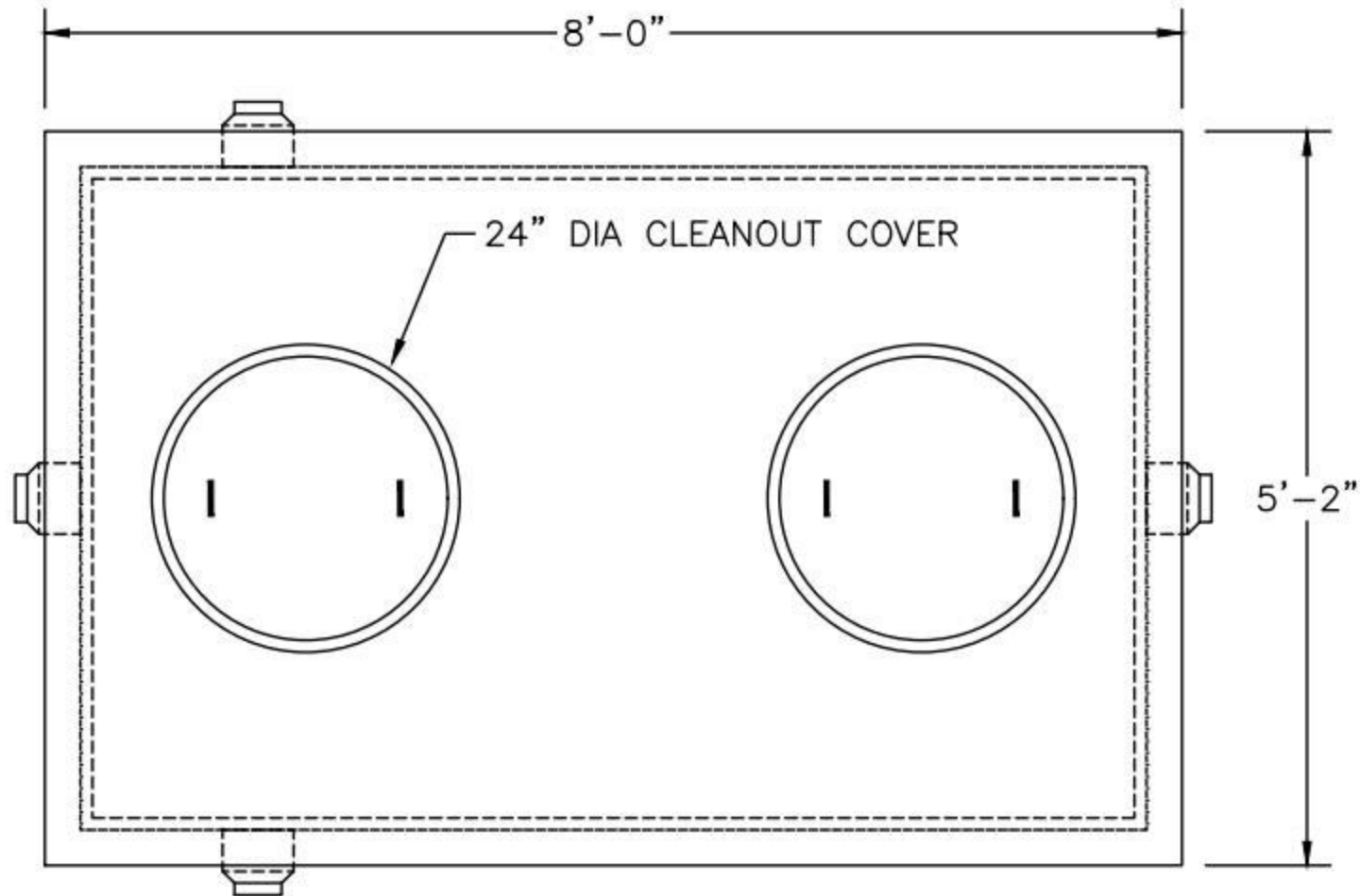
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DATE: 06/01/18

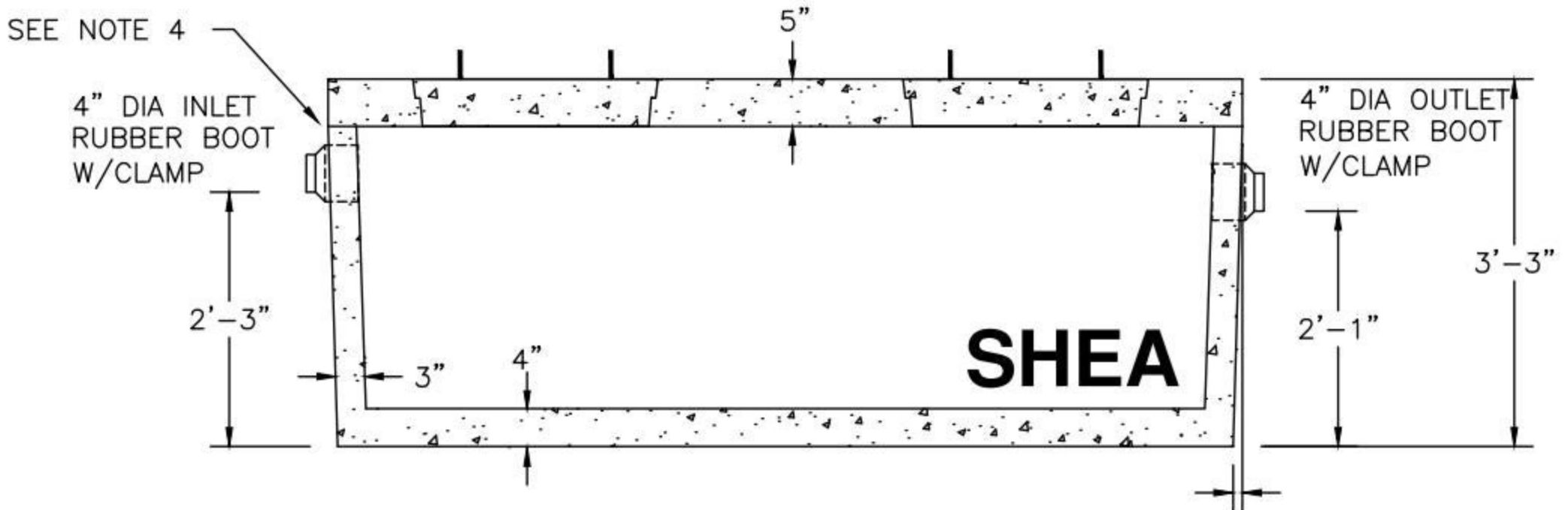
PAGE: B4.4



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



PLAN VIEW



SECTION VIEW

1" TAPER

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR PUMP CHAMBERS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.
6. PUMPS AND ACCESSORIES OPTIONAL.

SHEA PRODUCT ID:
5X8PC/5X8PCH

PREPARED FOR:

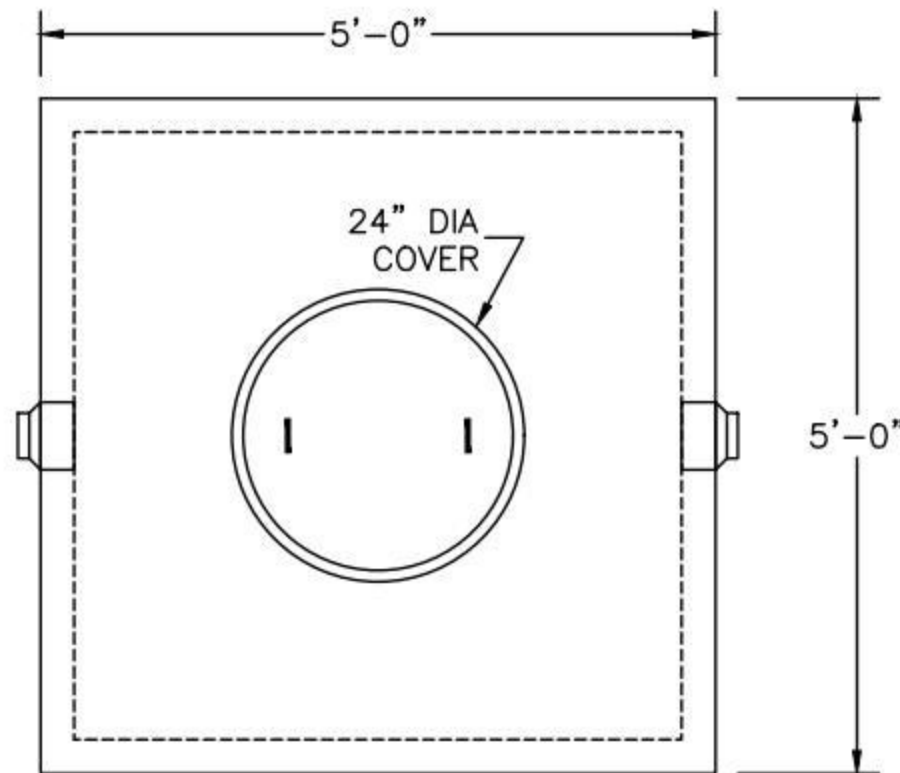
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pc500lp.dwg

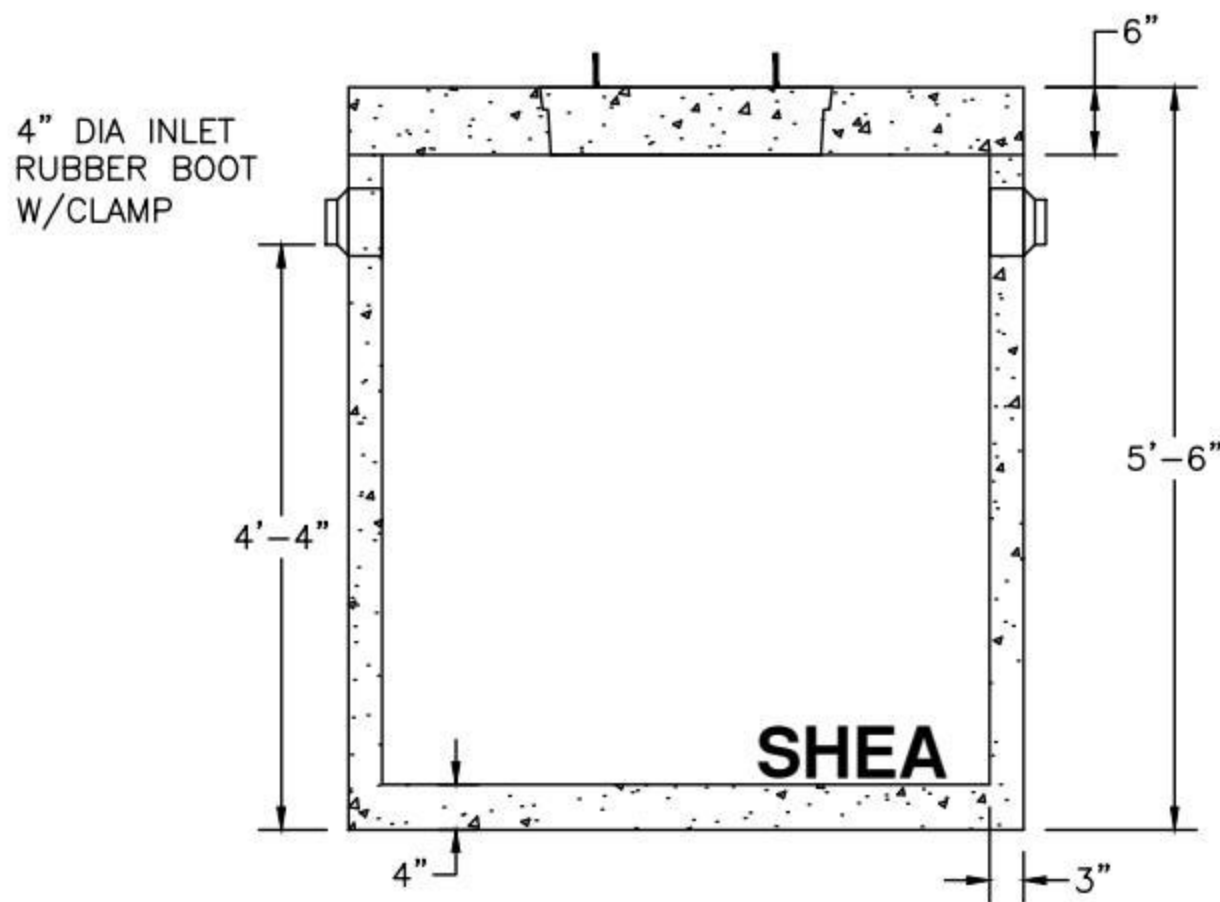
WEIGHT (LBS):
6,928#DRAWN BY:
ARODATE:
06/01/18PAGE:
C1.1

773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR PUMP CHAMBERS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
ALSO AVAILABLE IN AASHTO HS-20 LOADING.
6. PUMPS AND ACCESSORIES OPTIONAL.

SHEA PRODUCT ID:
5X5PC/5X5PCH

PREPARED FOR:

FILE NAME:

pc500.dwg

WEIGHT (LBS):
6,000#/6,600#

DRAWN BY: ARO

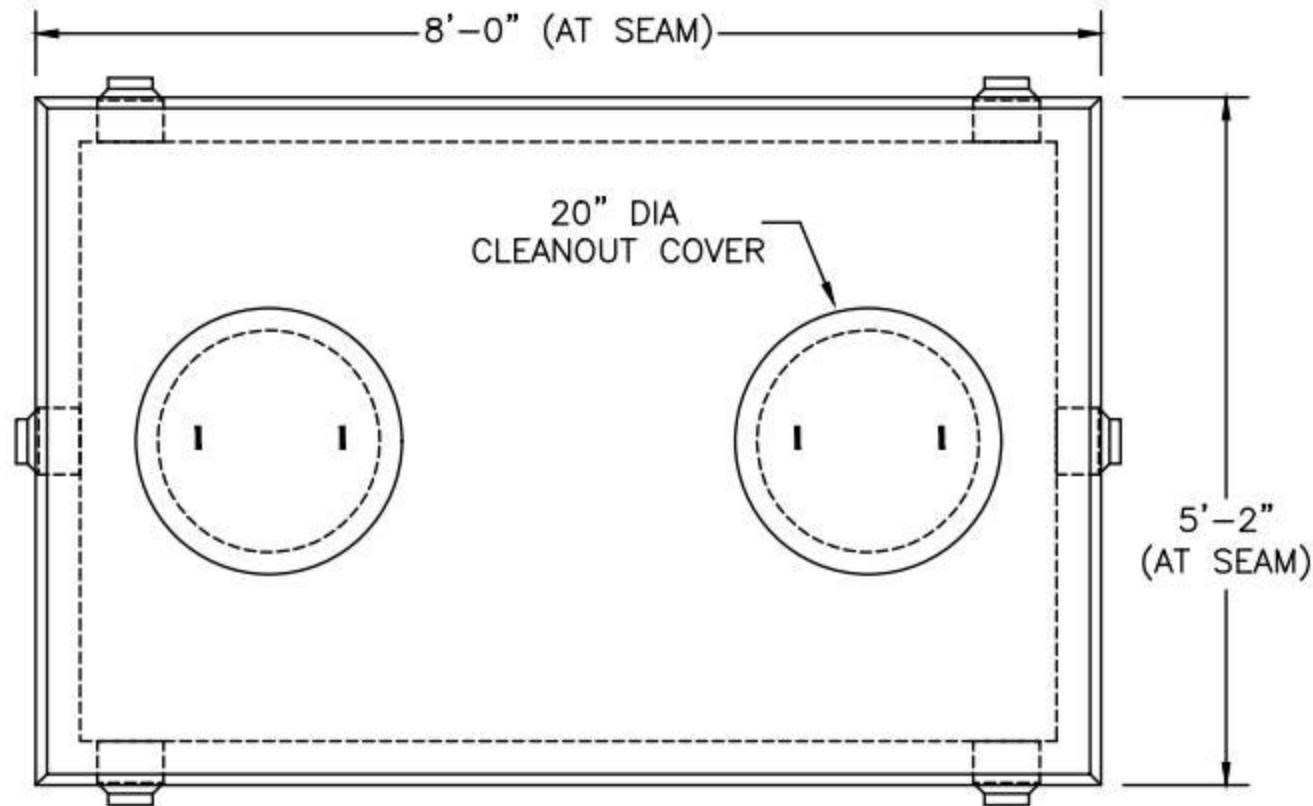
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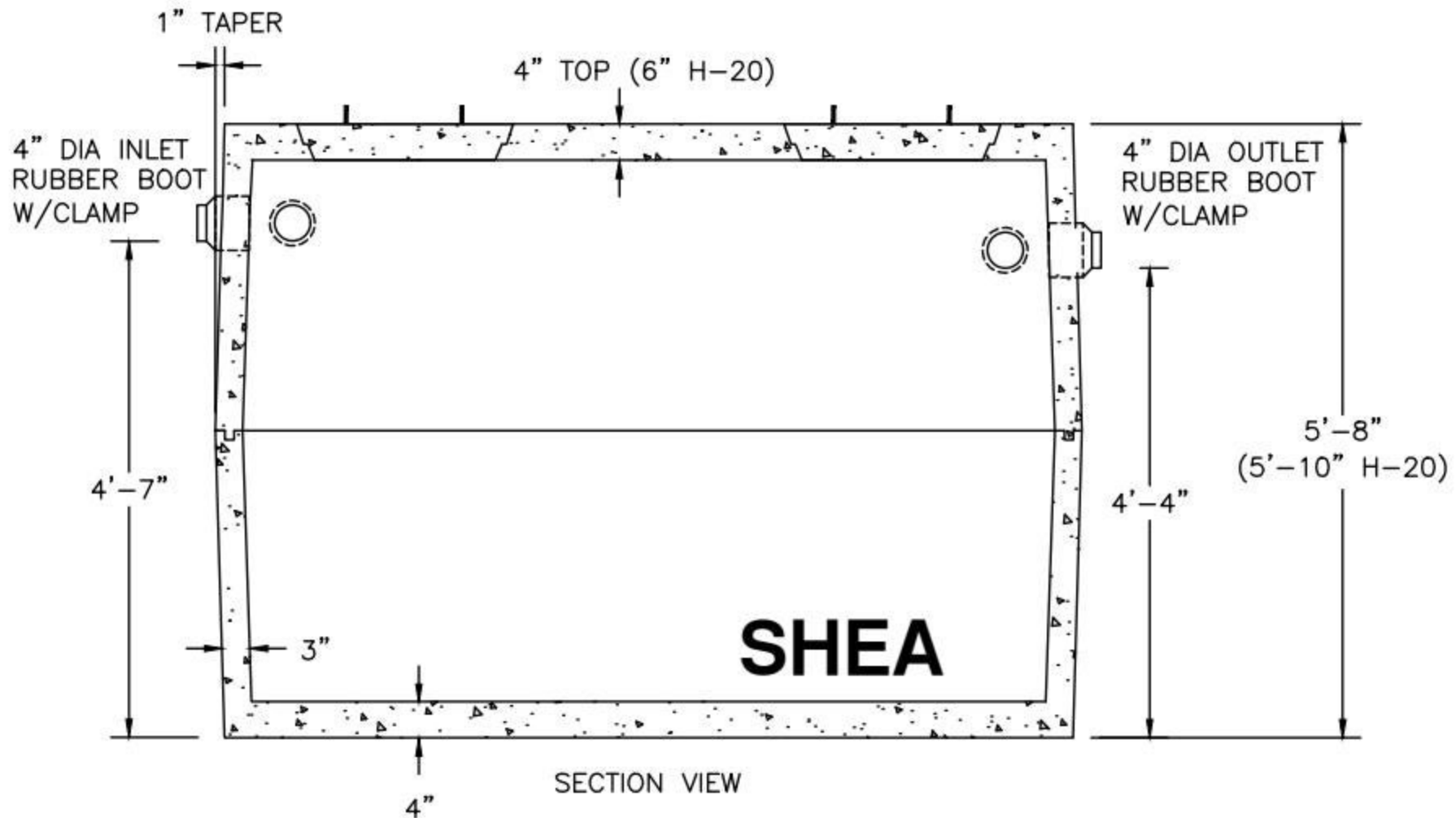


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR PUMP CHAMBERS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.
6. PUMPS AND ACCESSORIES OPTIONAL.

 SHEA PRODUCT ID:
 1000PC/1000PCH

PREPARED FOR:

FILE NAME:

pc1000.dwg

 WEIGHT (LBS):
 8,765#/9,785#

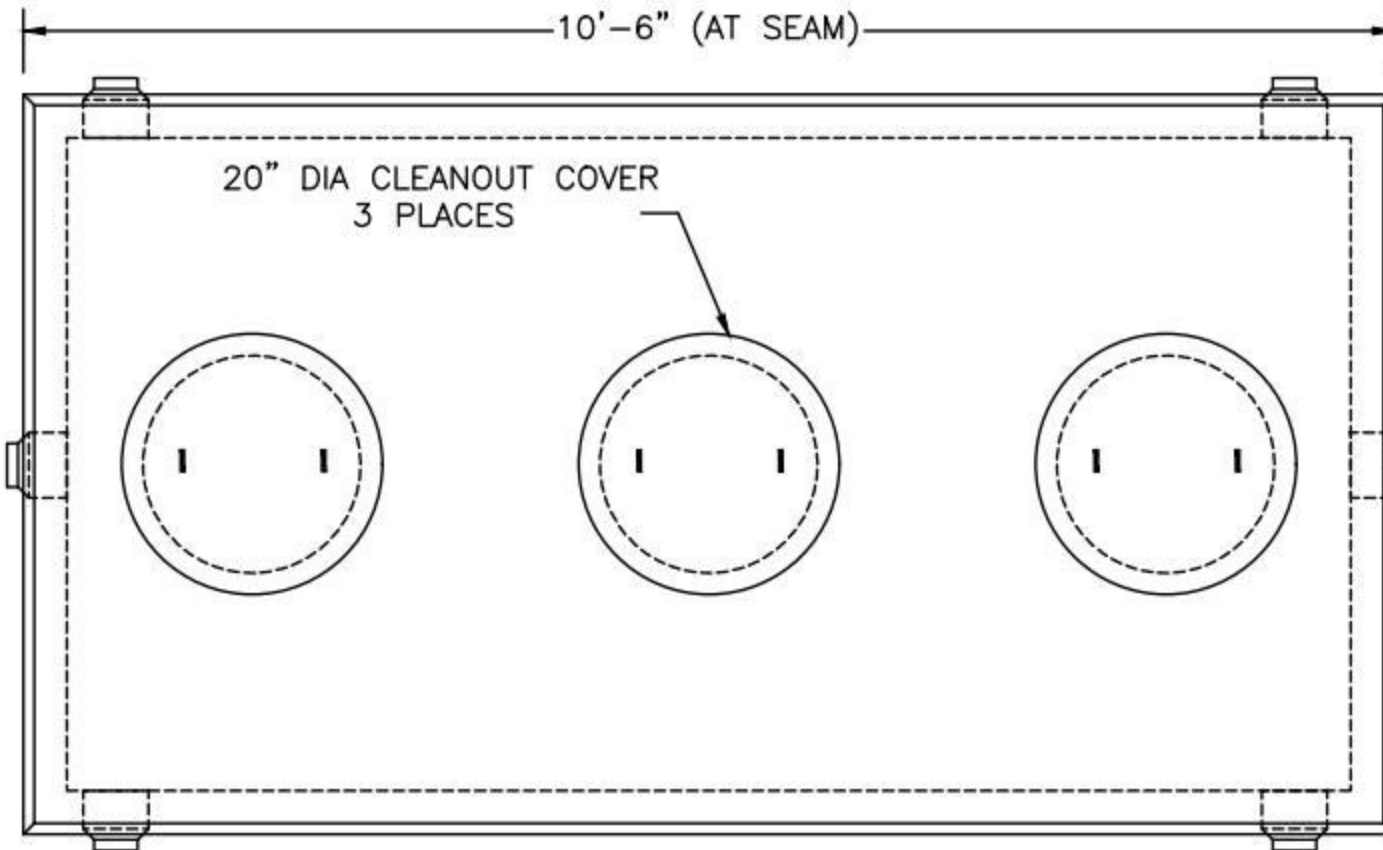
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DATE: 06/01/18

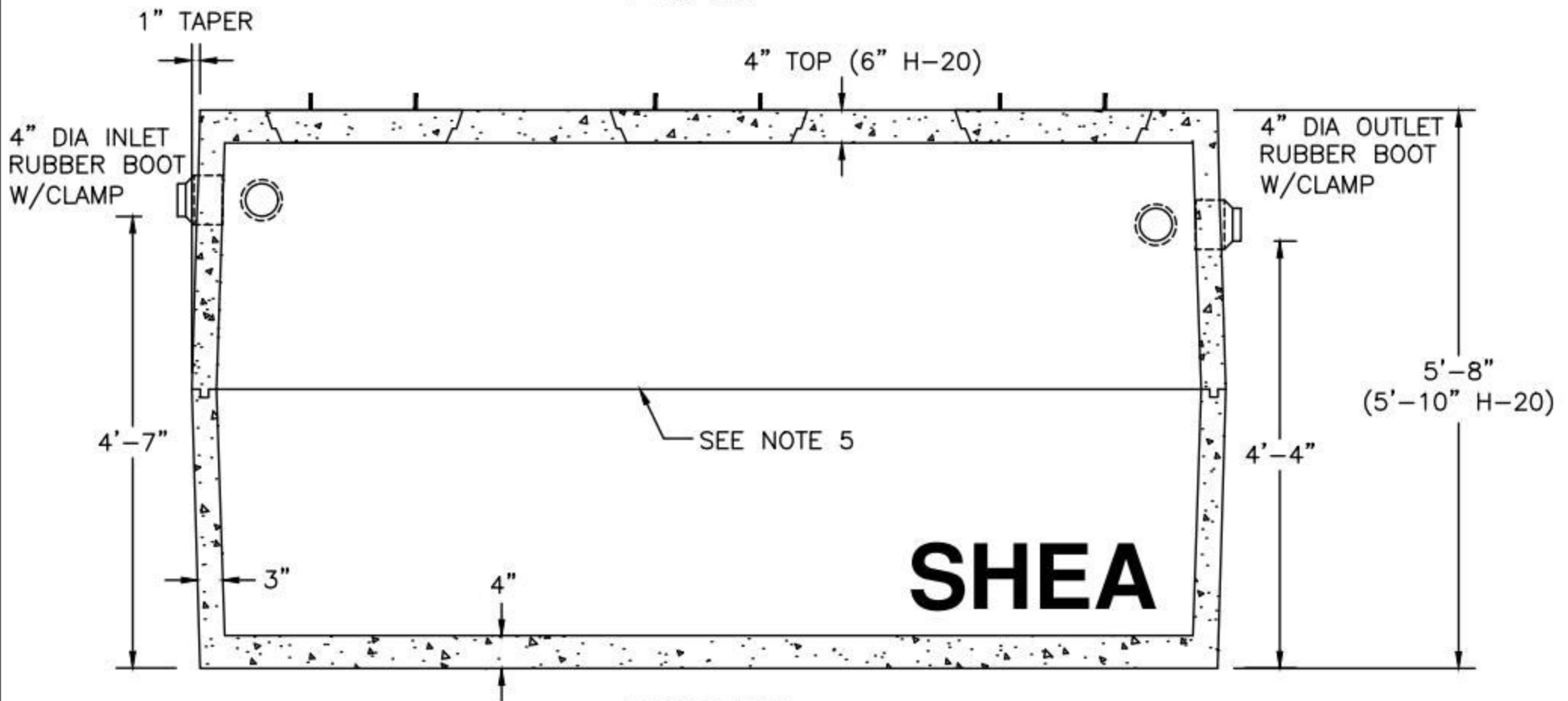
PAGE: C2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR PUMP CHAMBERS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
ALSO AVAILABLE IN AASHTO HS-20 LOADING.
6. PUMPS AND ACCESSORIES OPTIONAL.

SHEA PRODUCT ID:
1500PC/1500PCH

PREPARED FOR:

FILE NAME:

pc1500.dwg

WEIGHT (LBS):
11,870#/13,135#

DRAWN BY: ARO

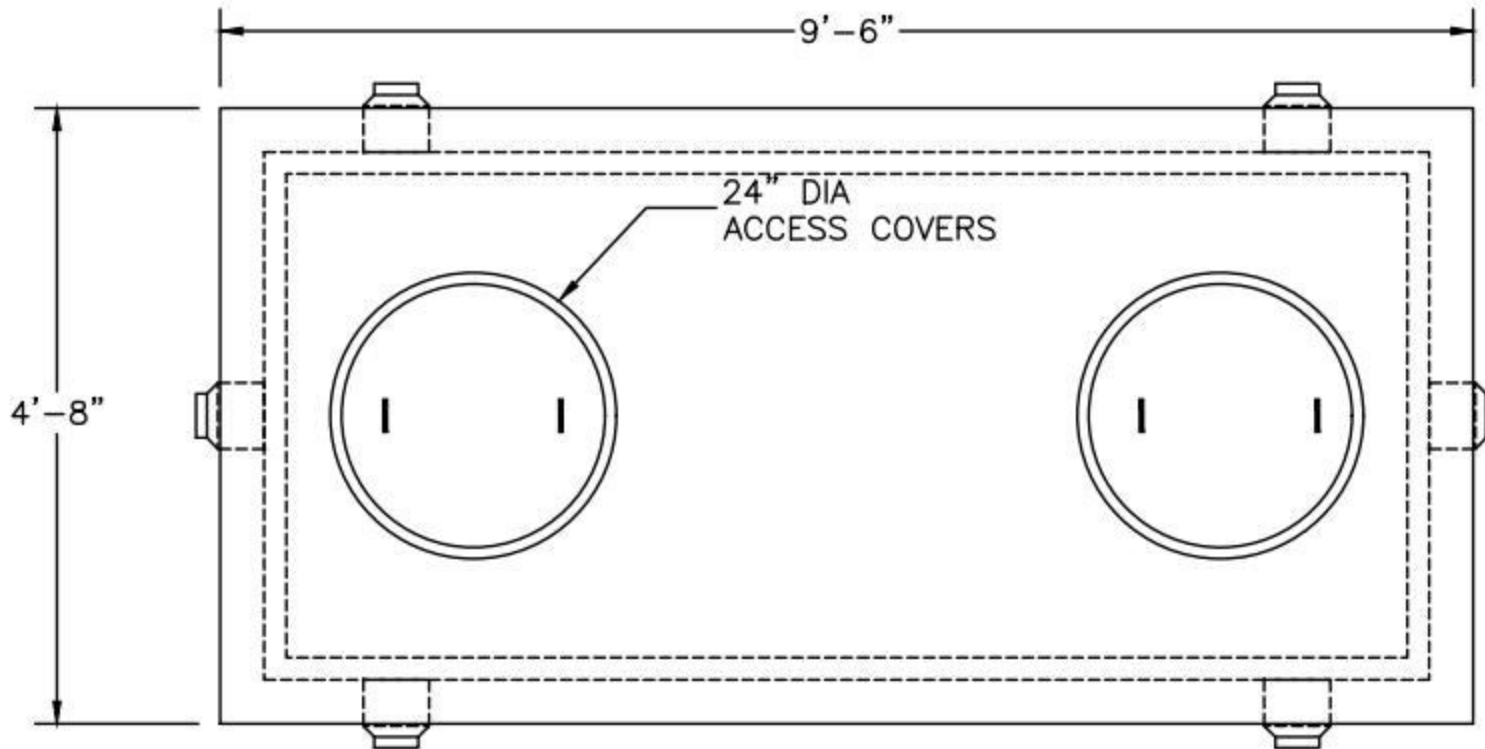
DATE: 06/01/18

PAGE: C3

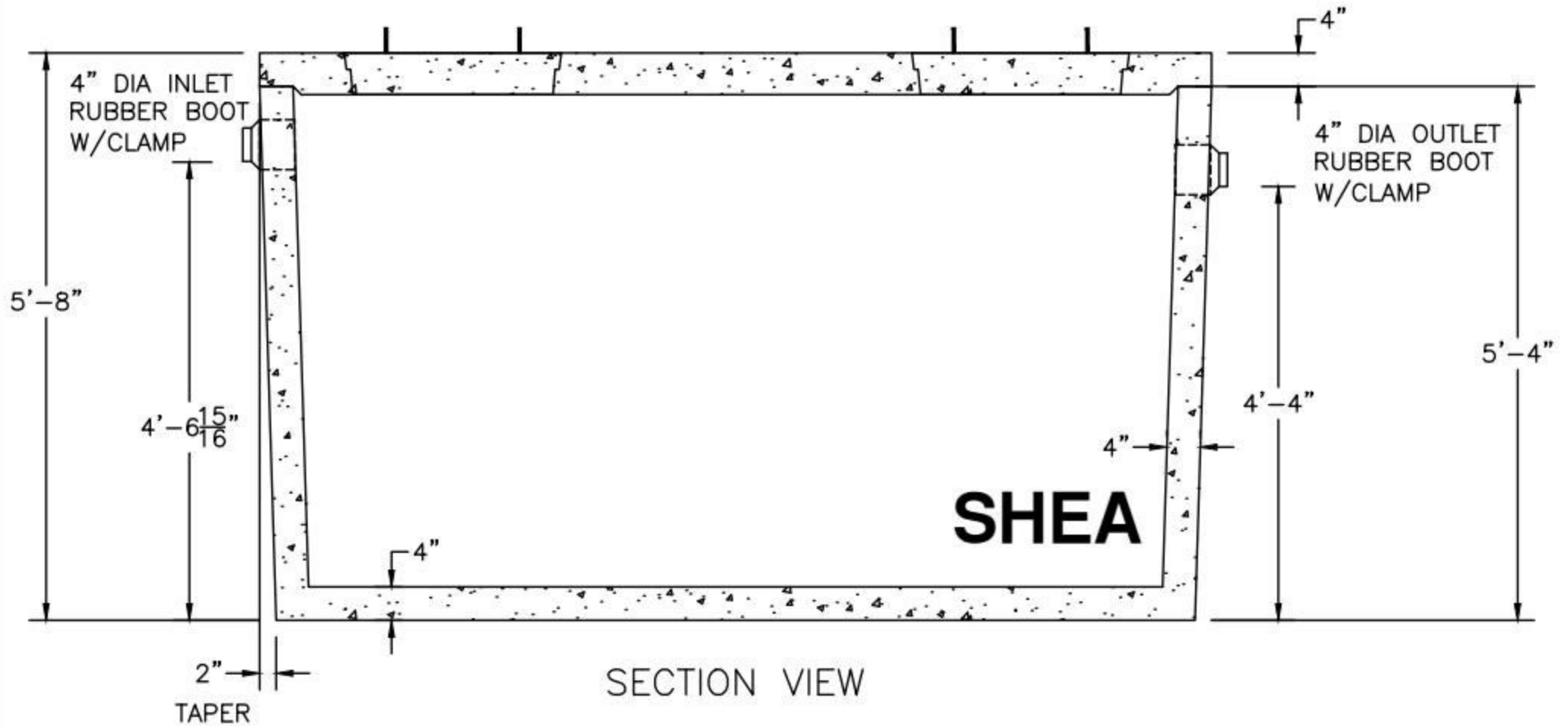


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



TOP VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR PUMP CHAMBERS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
ALSO AVAILABLE IN AASHTO HS-20 LOADING.
6. PUMPS AND ACCESSORIES OPTIONAL.

SHEA PRODUCT ID:
M1000

PREPARED FOR:

FILE NAME:

PCM1000-4.dwg

WEIGHT (LBS):
10,800#

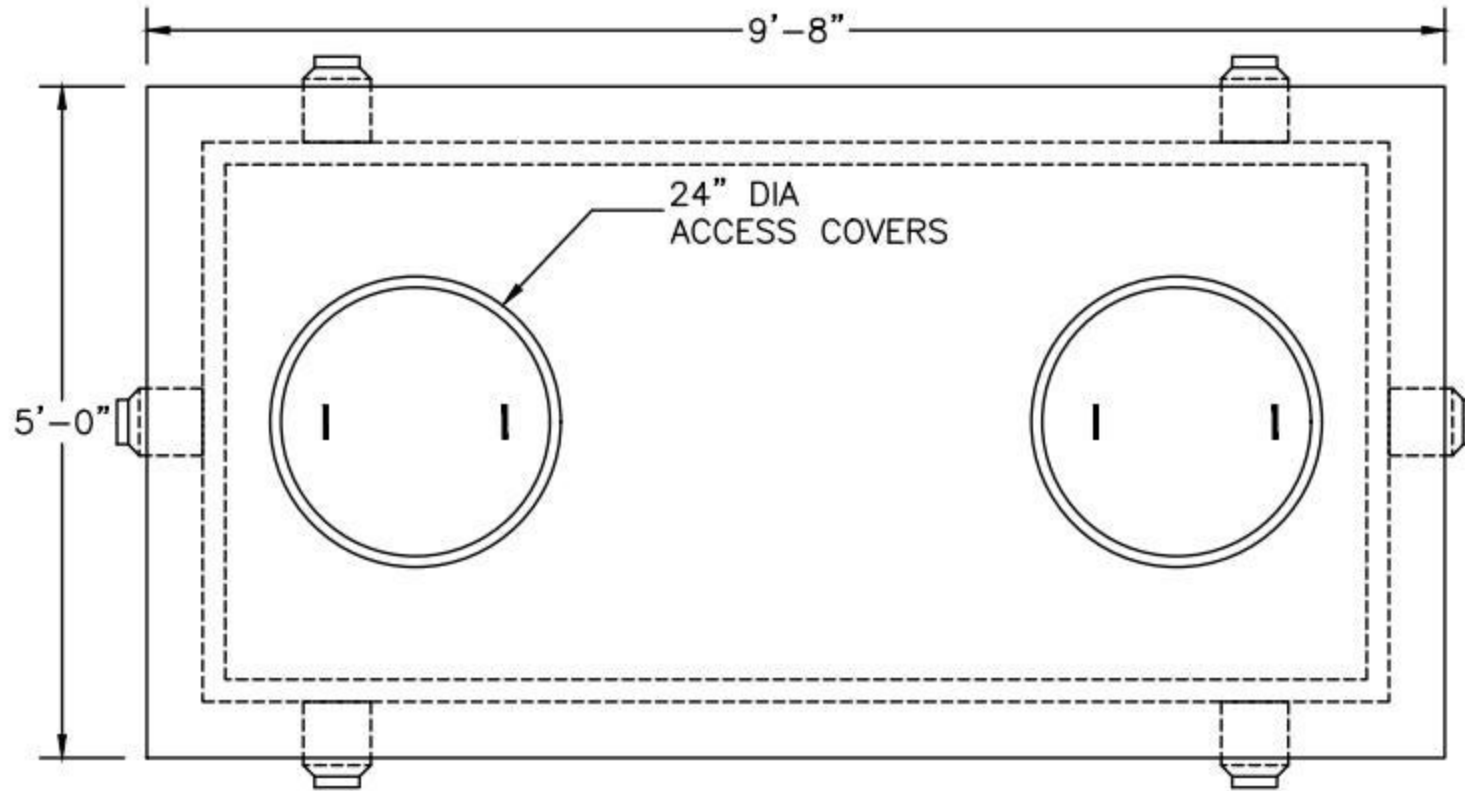
DRAWN BY:
ARO

DATE:
06/01/18

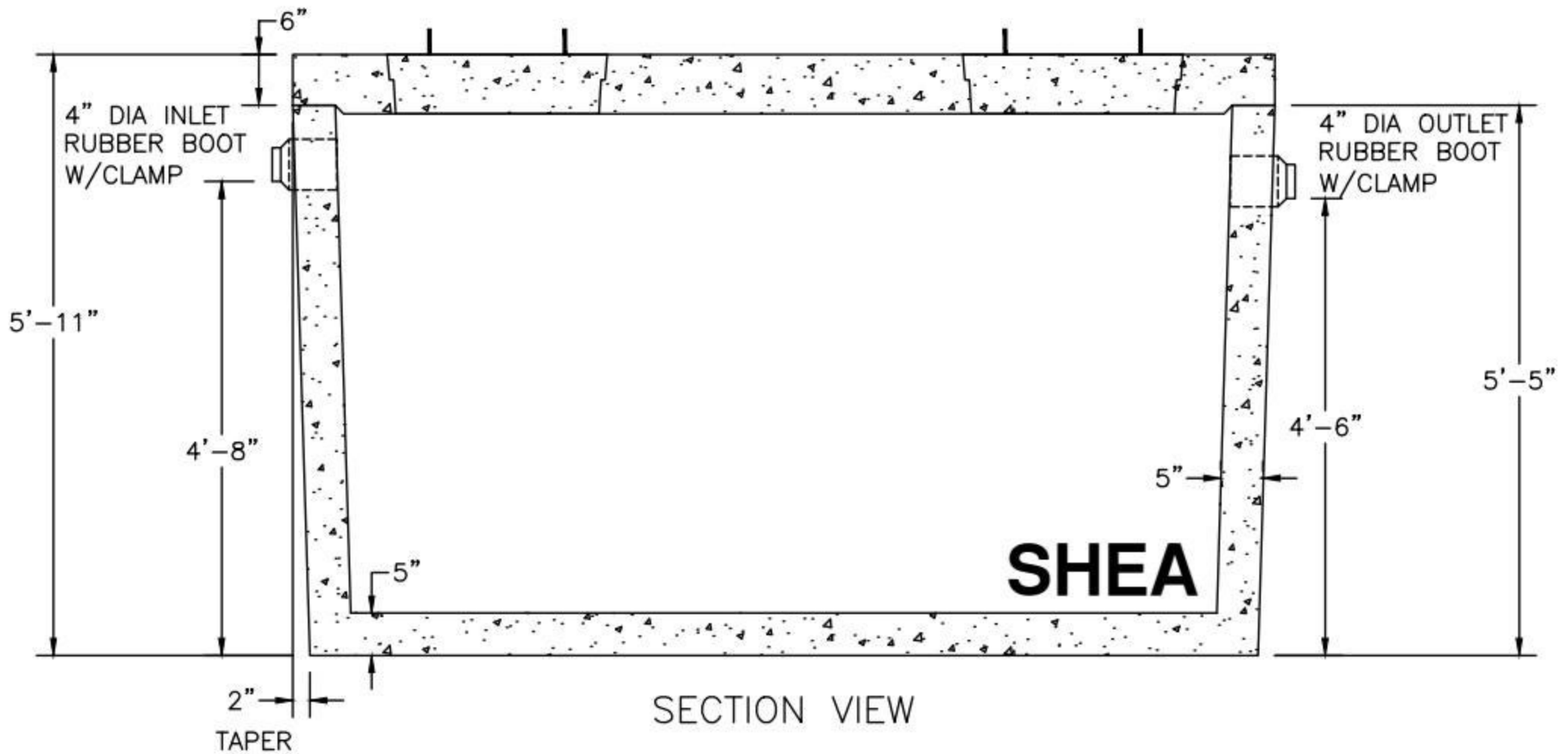
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C4.1



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



TOP VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR PUMP CHAMBERS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET. OPTIONAL 10" TOP AVAILABLE FOR BUOYANCY.
6. PUMPS AND ACCESSORIES OPTIONAL.

WEIGHT:

BOTTOM = 11,250#
10" TOP = 5,960#
6" TOP = 3,575#

ITEM NO.	M1000H	H-20 (6" TOP)
	M1000HT10	H-20 (10" TOP)

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

PCM1000-5.dwg

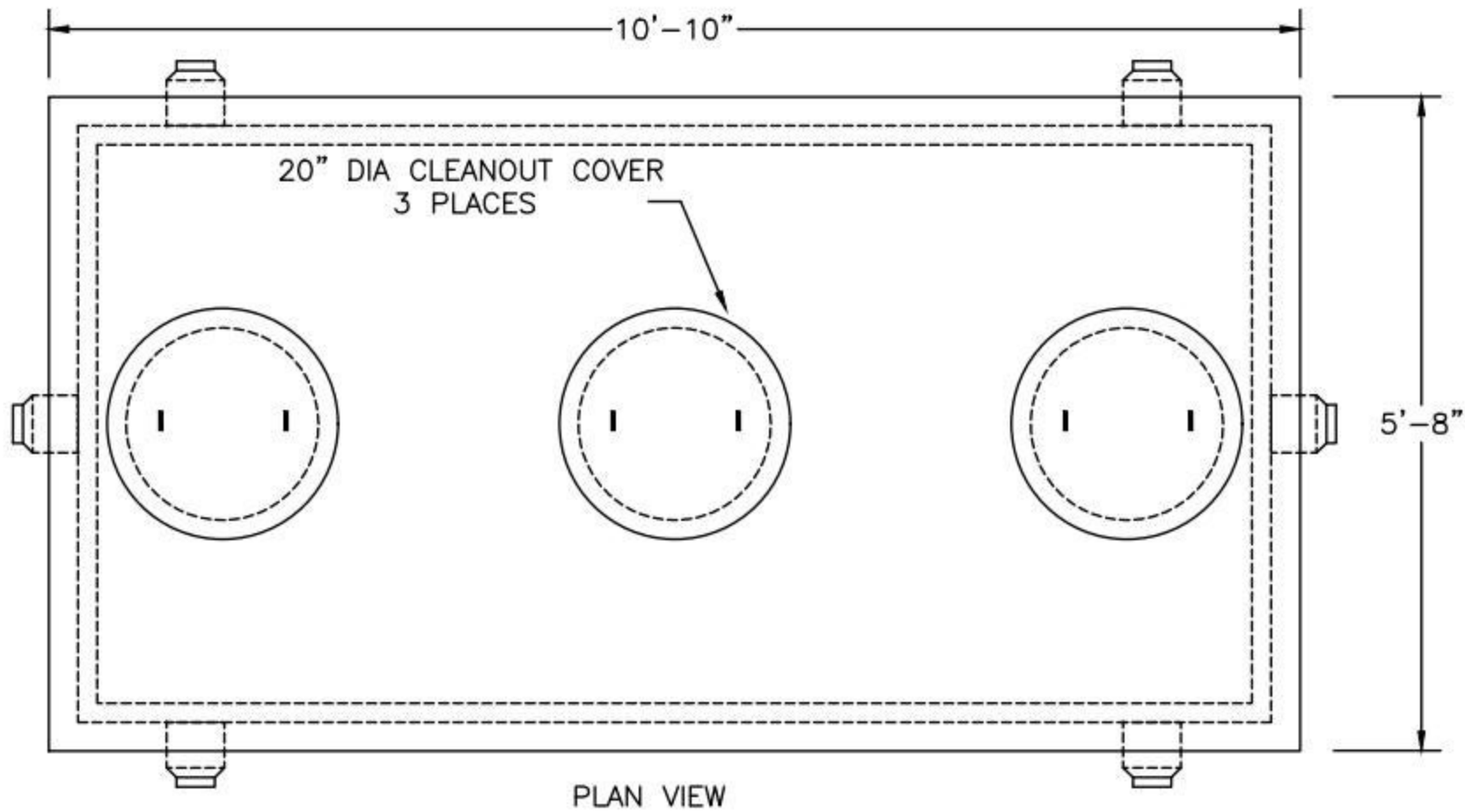
WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

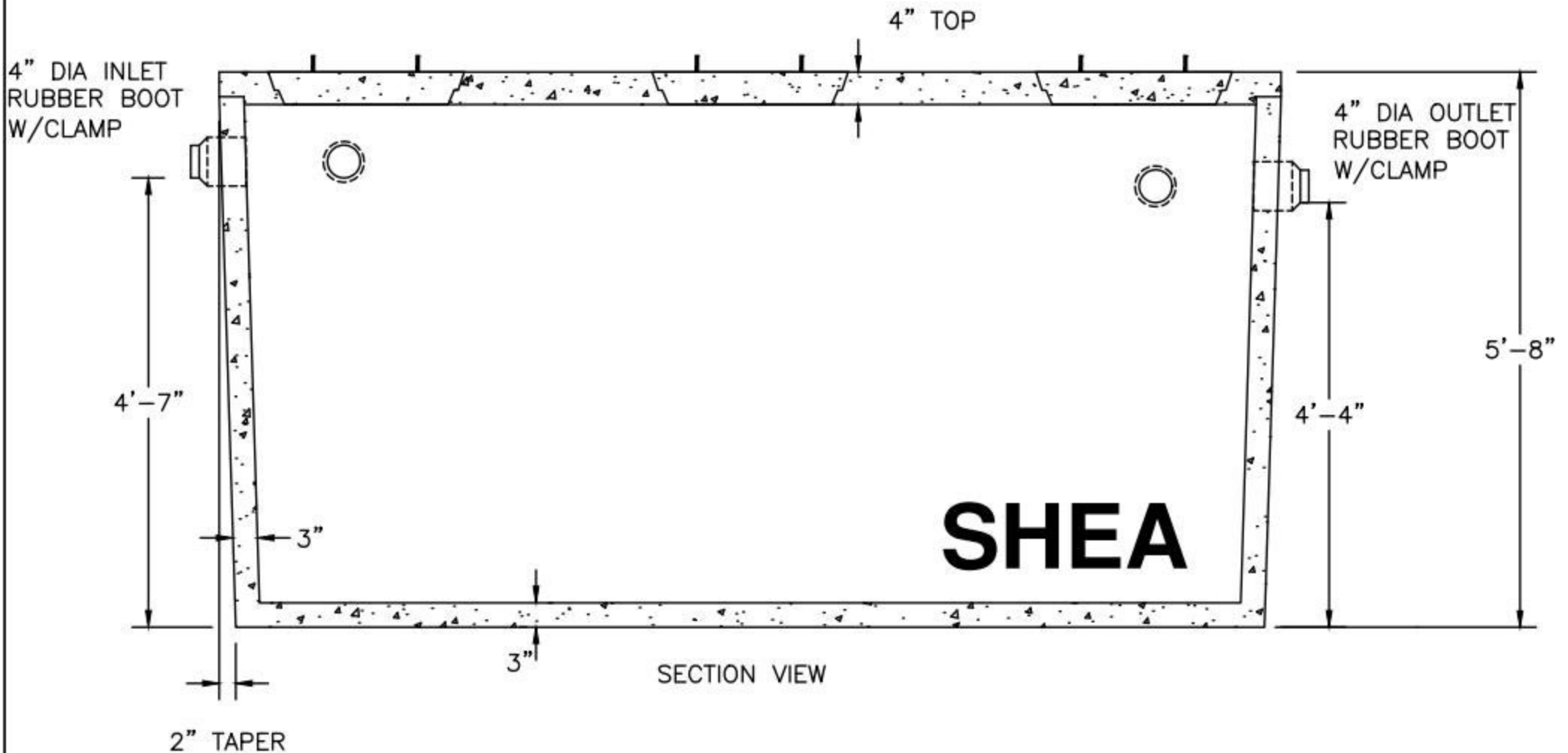
DATE: 06/01/18

PAGE: C4.2





PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR PUMP CHAMBERS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
ALSO AVAILABLE IN AASHTO HS-20 LOADING.
6. PUMPS AND ACCESSORIES OPTIONAL.

WEIGHT

ITEM NO.	TK-M1500	STANDARD	WEIGHT
			11,035#
		TOP SECTION (4")	3,035#
		BOTTOM SECTION (65")	8,000#

SHEA PRODUCT ID:

M1500

PREPARED FOR:

FILE NAME:

pcM1500-3.dwg

WEIGHT (LBS):

11,035#

DRAWN BY:

ARO

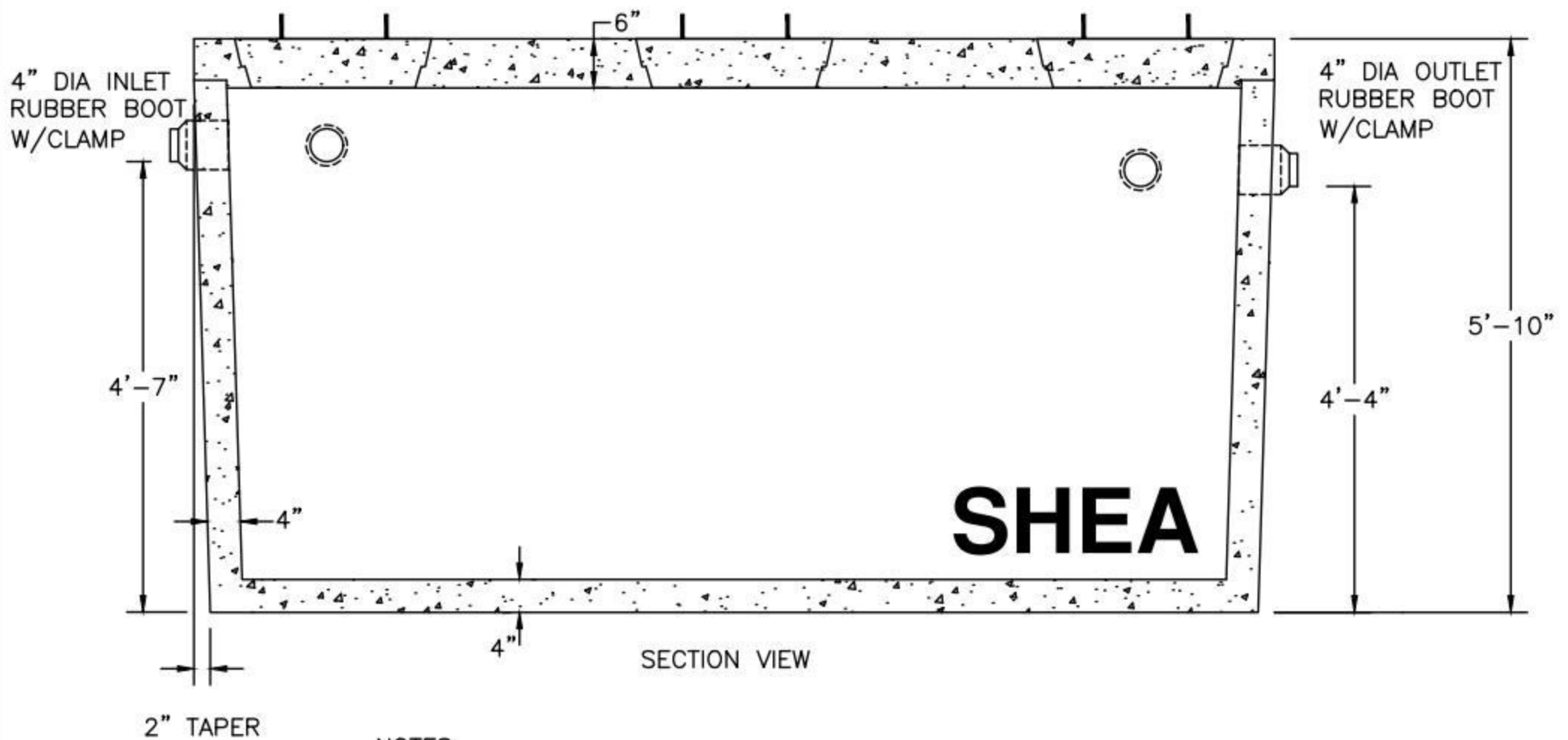
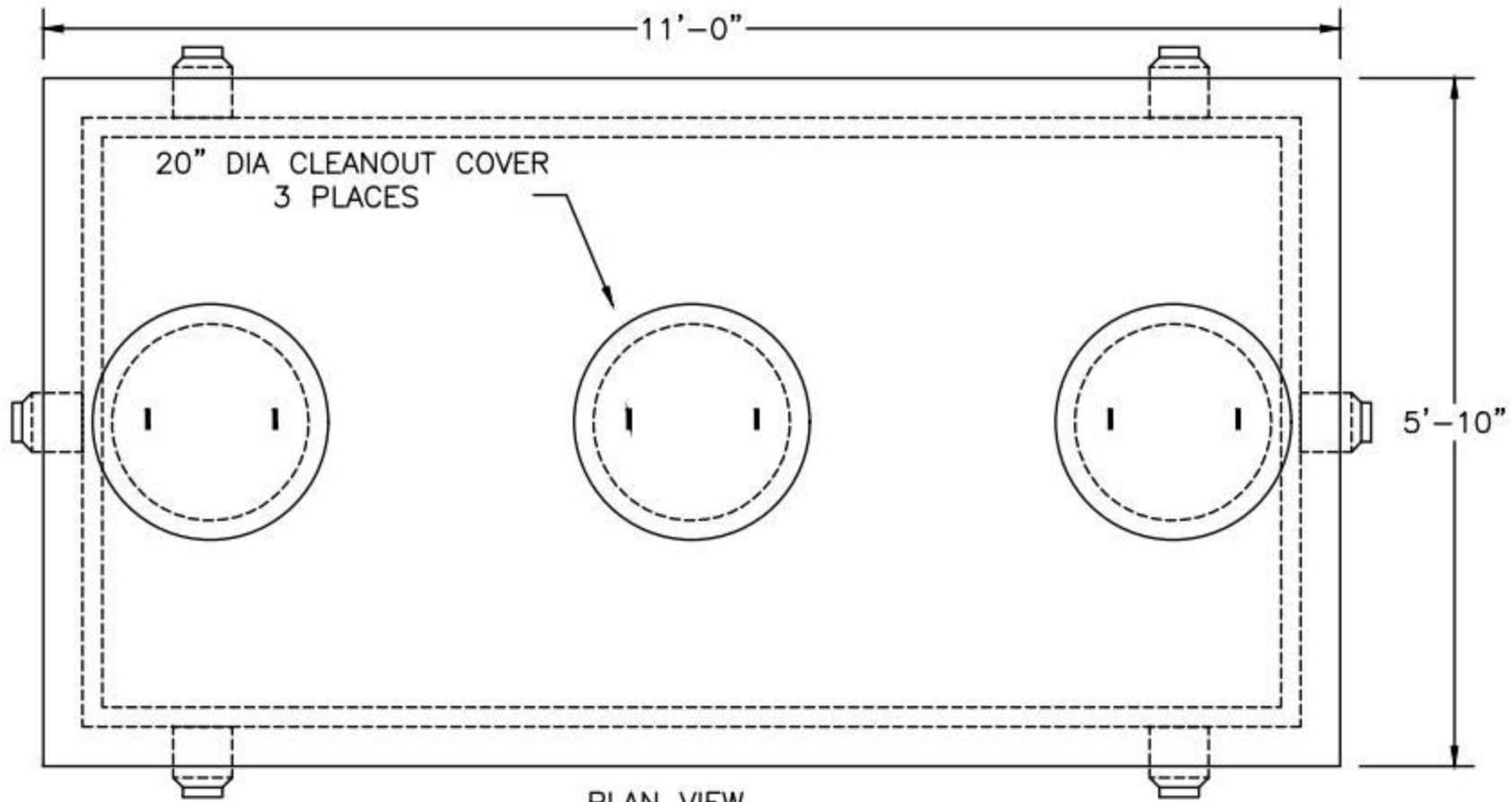
DATE:

06/01/18

PAGE:

C5.1





NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR PUMP CHAMBERS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. PUMPS AND ACCESSORIES OPTIONAL.
6. HEAVY DUTY TANK DESIGNED FOR 1 TO 5 FEET COVER.
ALSO AVAILABLE IN AASHTO HS-20 LOADING.

SHEA PRODUCT ID:
M1500H

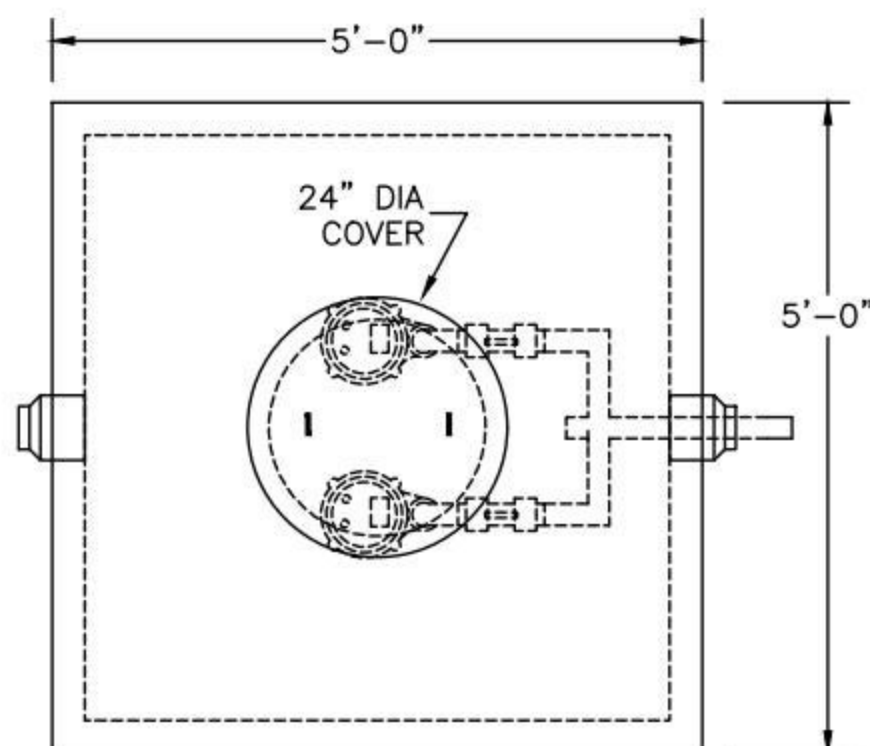
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FILE NAME:

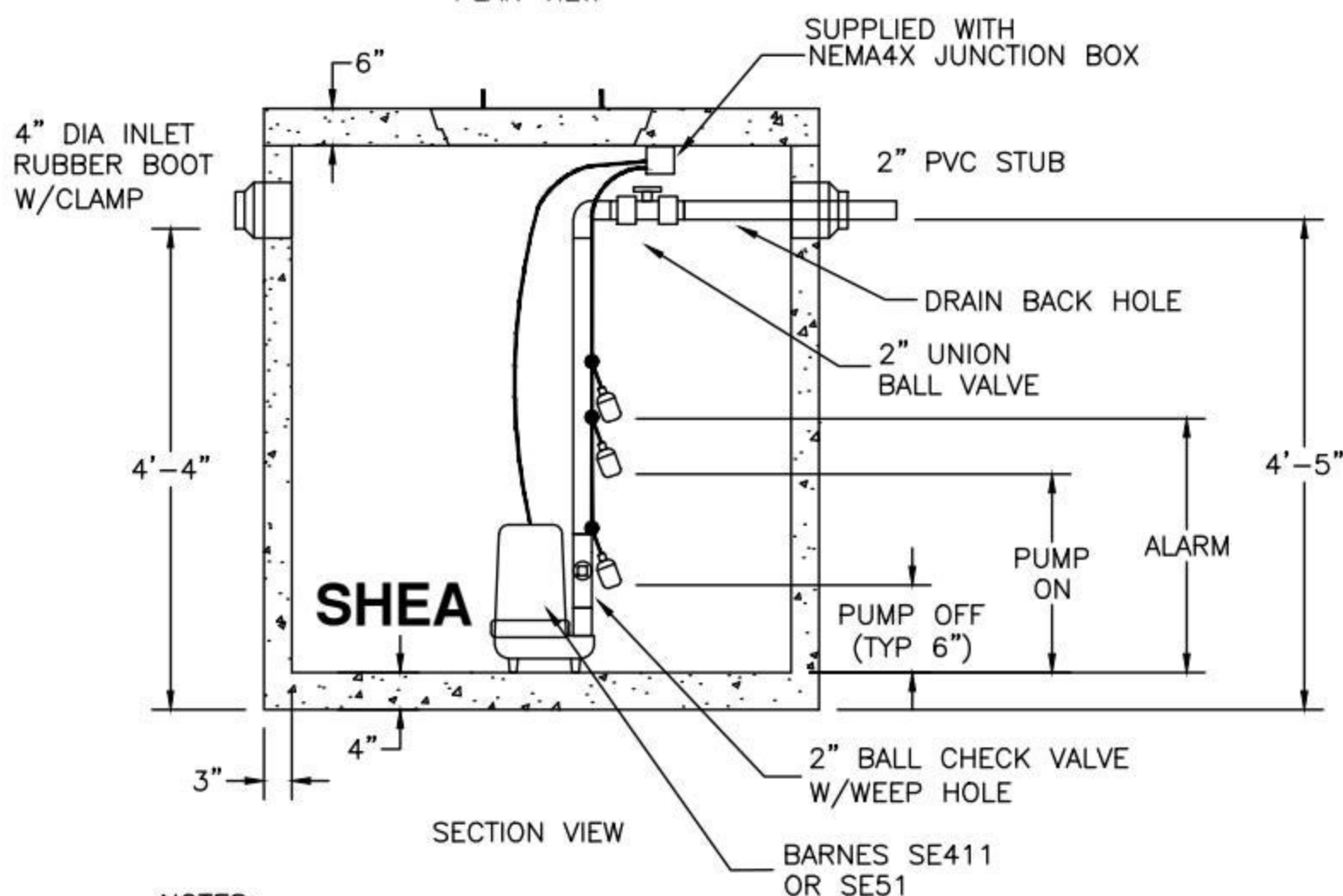
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WEIGHT (LBS):
12,715#DRAWN BY:
ARODATE:
06/01/18PAGE:
C5.2

773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH




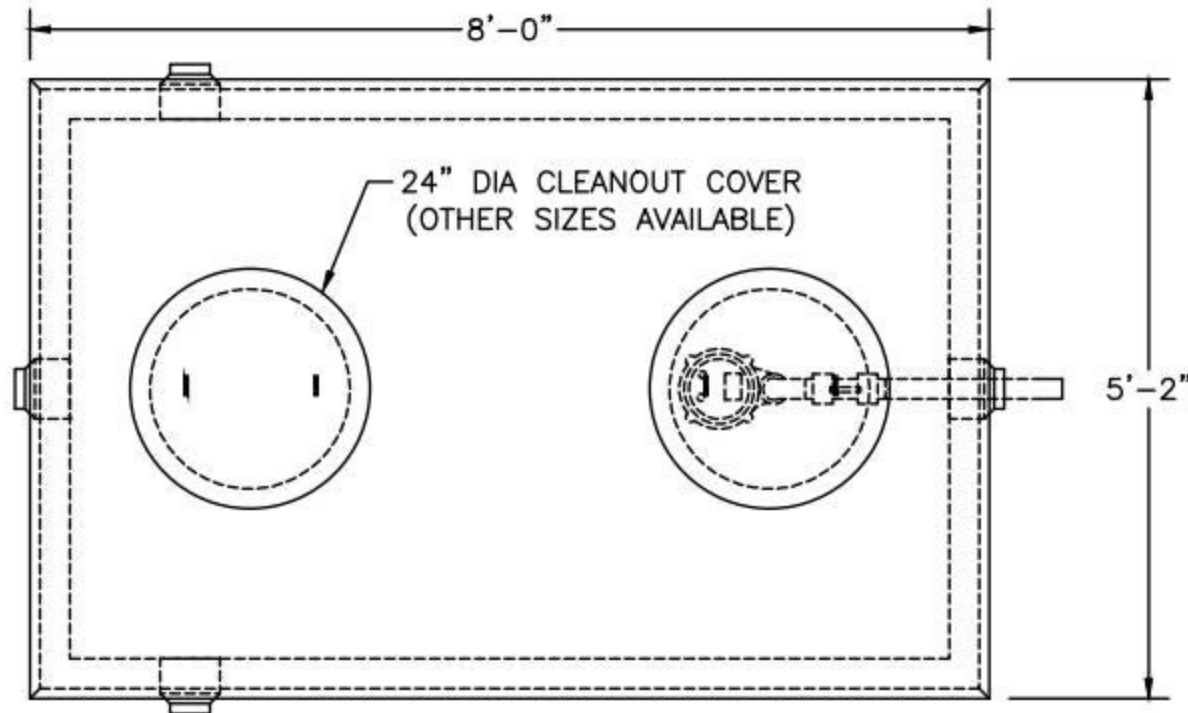
PLAN VIEW



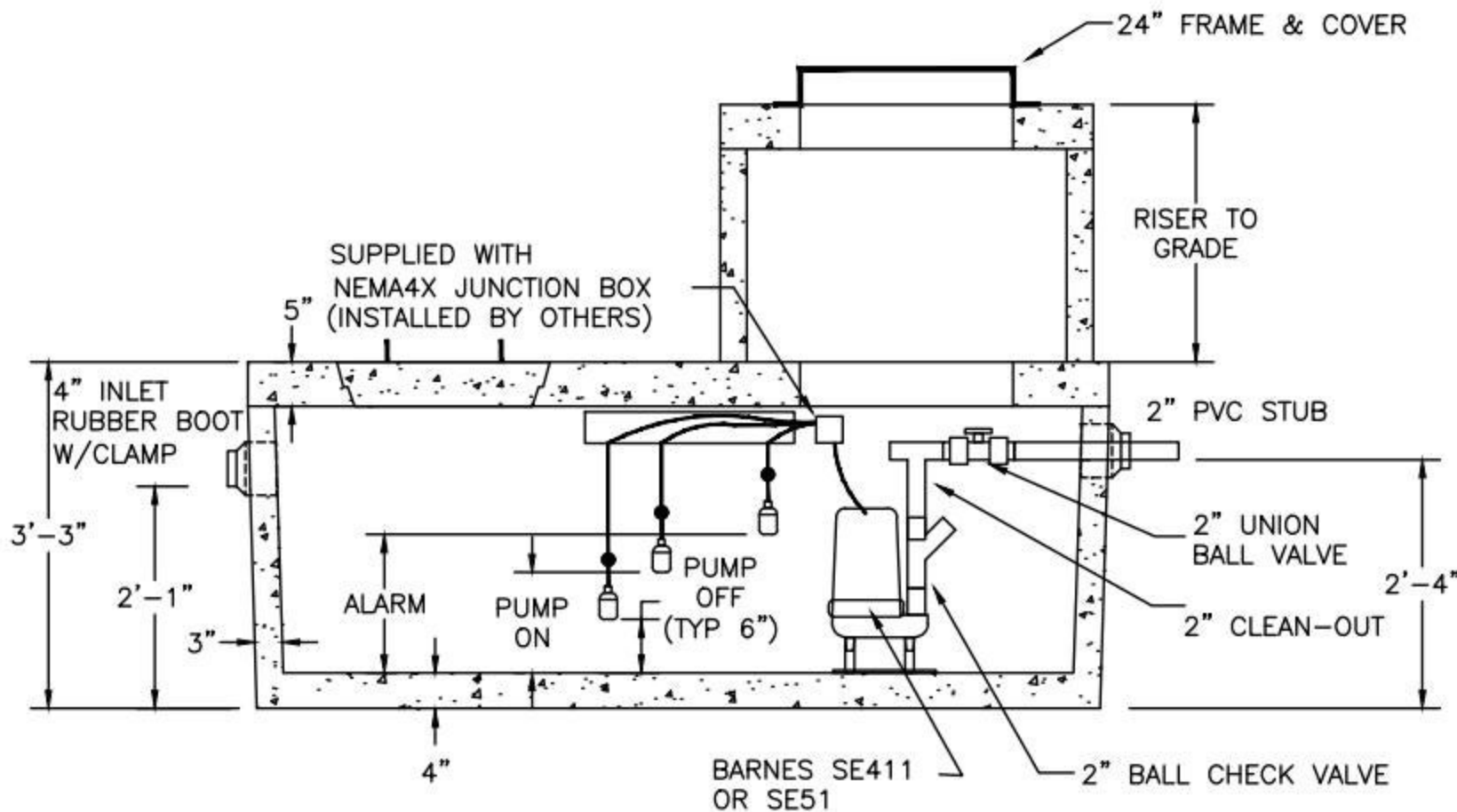
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR PUMP CHAMBERS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED.
ALSO AVAILABLE IN AASHTO HS-20 LOADING.
6. PUMPS AND ACCESSORIES OPTIONAL.
7. SUPPLIED NEMA1 PUMP CONTROL PANEL W/ALARM.

SHEA PRODUCT ID:		PREPARED FOR:		FILE NAME: pc4x4DP.dwg		
WEIGHT (LBS):		DRAWN BY: ARO		DATE: 06/01/18		
773 Salem Street—Wilmington, MA		153 Cranberry Hwy—Rochester, MA		87 Haverhill Road—Amesbury, MA		160 Old Turnpike Rd—Nottingham, NH



PLAN VIEW

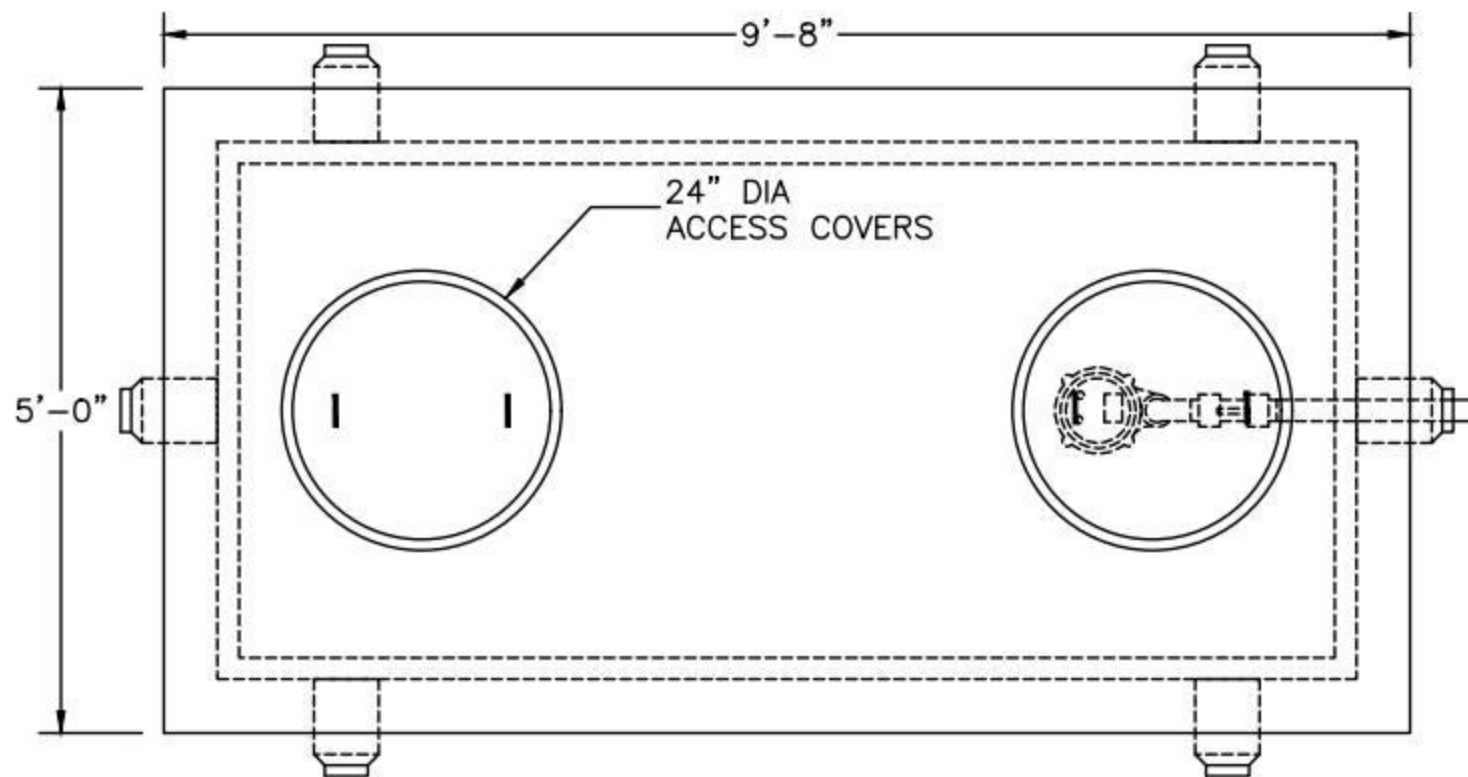


SECTION VIEW

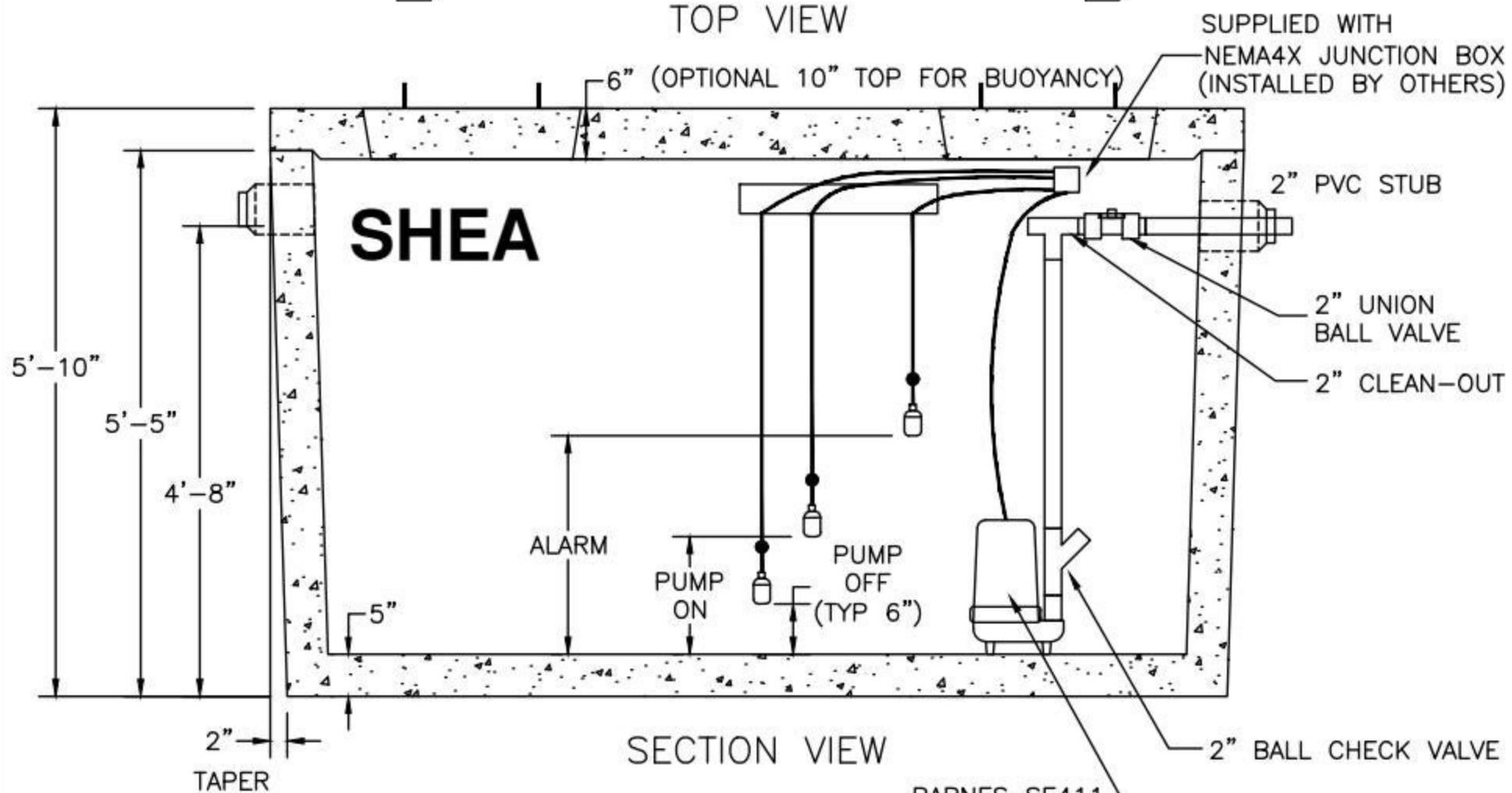
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.226, DEP TITLE 5 REGS, FOR PUMP CHAMBERS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED ALSO AVAILABLE IN AASHTO HS-20 LOADING.
6. PUMPS, FLOATS, AND PIPE INSTALLED IN CHAMBER. FLOAT ELEVATIONS SET UPON REQUEST.
7. SUPPLIED WITH PUMP CONTROL PANEL W/ALARM.
8. ADDITIONAL PUMPS & DUPLEX CONFIGURATION AVAILABLE.

SHEA PRODUCT ID:	PREPARED FOR:	FILE NAME:	pc500lpsp
WEIGHT (LBS):	DRAWN BY: ARO	DATE: 03/01/18	PAGE: C6.2
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH			



TOP VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF PUMP CHAMBER CONFORMS WITH DEP TITLE 5 REGS, 310 CMR, SECTION 15.226.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET.
6. PUMPS, FLOATS AND PIPE INSTALLED IN CHAMBER. FLOAT ELEVATIONS SET UPON REQUEST.
7. SUPPLIED WITH PUMP CONTROL PANEL W/ALARM.
8. ADDITIONAL PUMPS & DUPLEX CONFIGURATION AVAILABLE.

SHEA PRODUCT ID:
PC1000P4S/PC1000P5S

PREPARED FOR:

FILE NAME:

pcM1000PS.dwg

WEIGHT (LBS):
14,825#

DRAWN BY: ARO

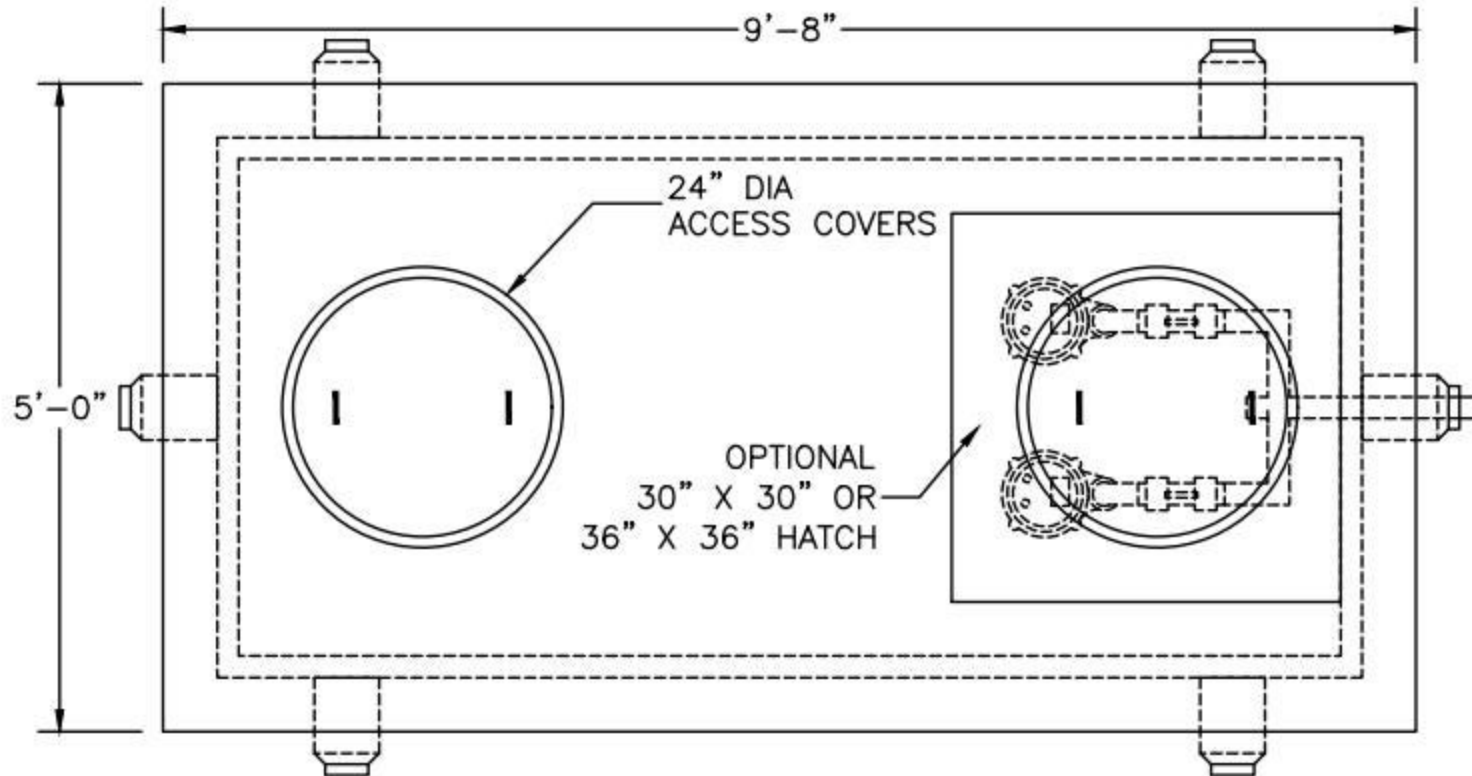
DATE: 06/01/18

PAGE: C6.3

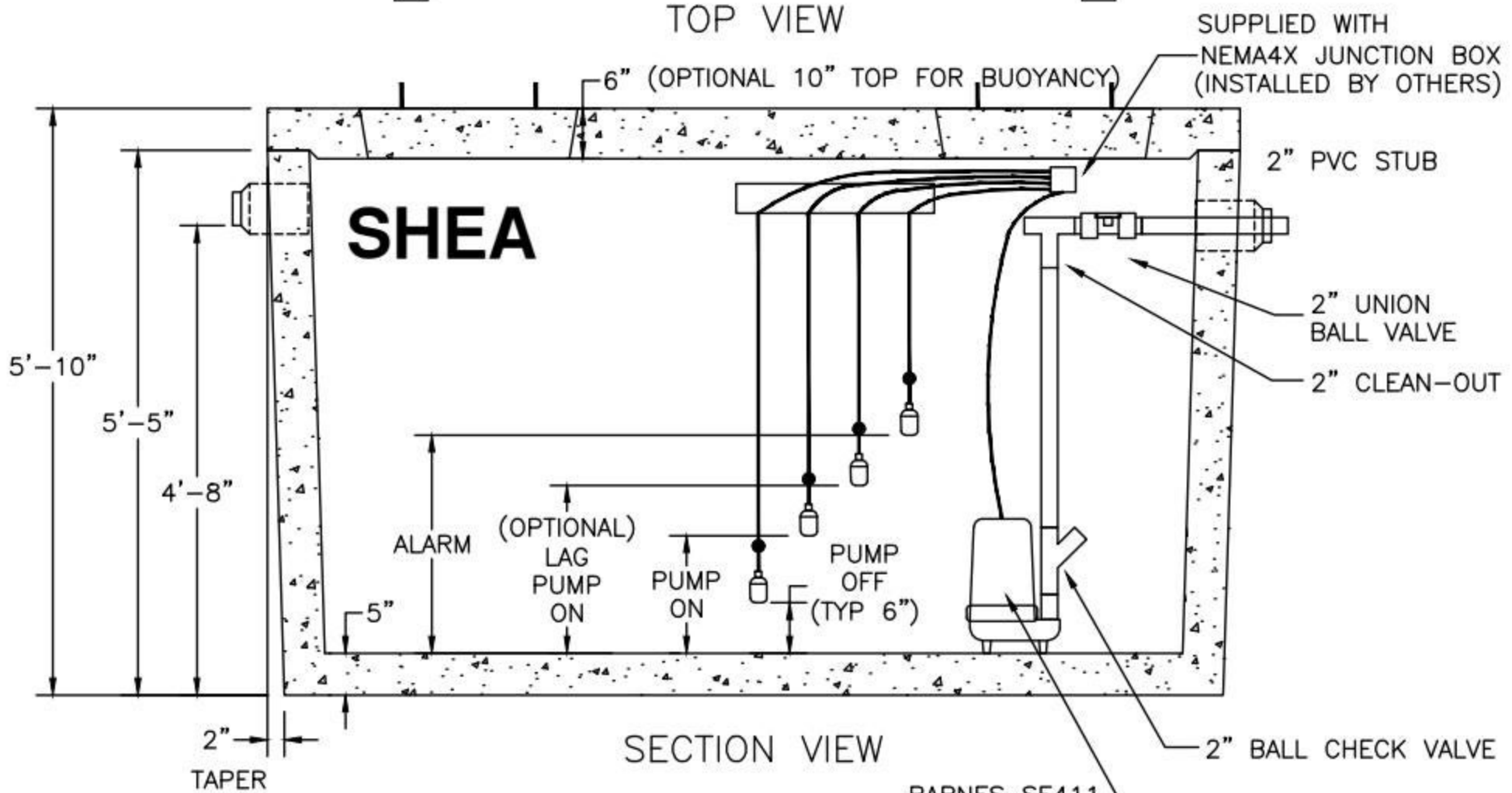


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



TOP VIEW



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF PUMP CHAMBER CONFORMS WITH DEP TITLE 5 REGS, 310 CMR, SECTION 15.226.
3. ALL REINFORCEMENT PER ASTM C1227.
4. JOINT SEALED WITH BUTYL RESIN.
5. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET.
6. PUMPS, FLOATS AND PIPE INSTALLED IN CHAMBER. FLOAT ELEVATIONS SET UPON REQUEST.
7. SUPPLIED WITH PUMP CONTROL PANEL W/ALARM.
8. LAG & ALARM FLOATS CAN BE SWAPPED OR COMBINED INTO ONE FLOAT.

SHEA PRODUCT ID:
PC1000P4D/PC1000P5D

PREPARED FOR:

FILE NAME:

pcM1000PD

WEIGHT (LBS):
17,210#

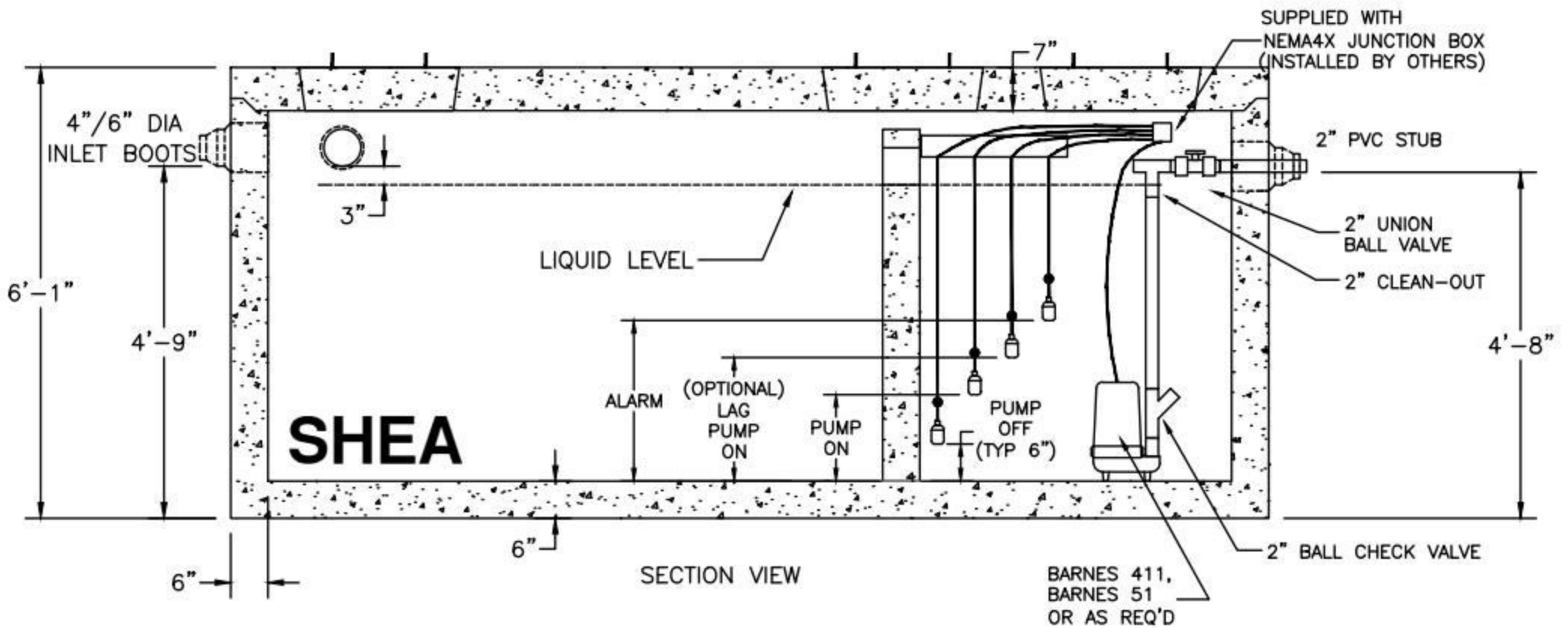
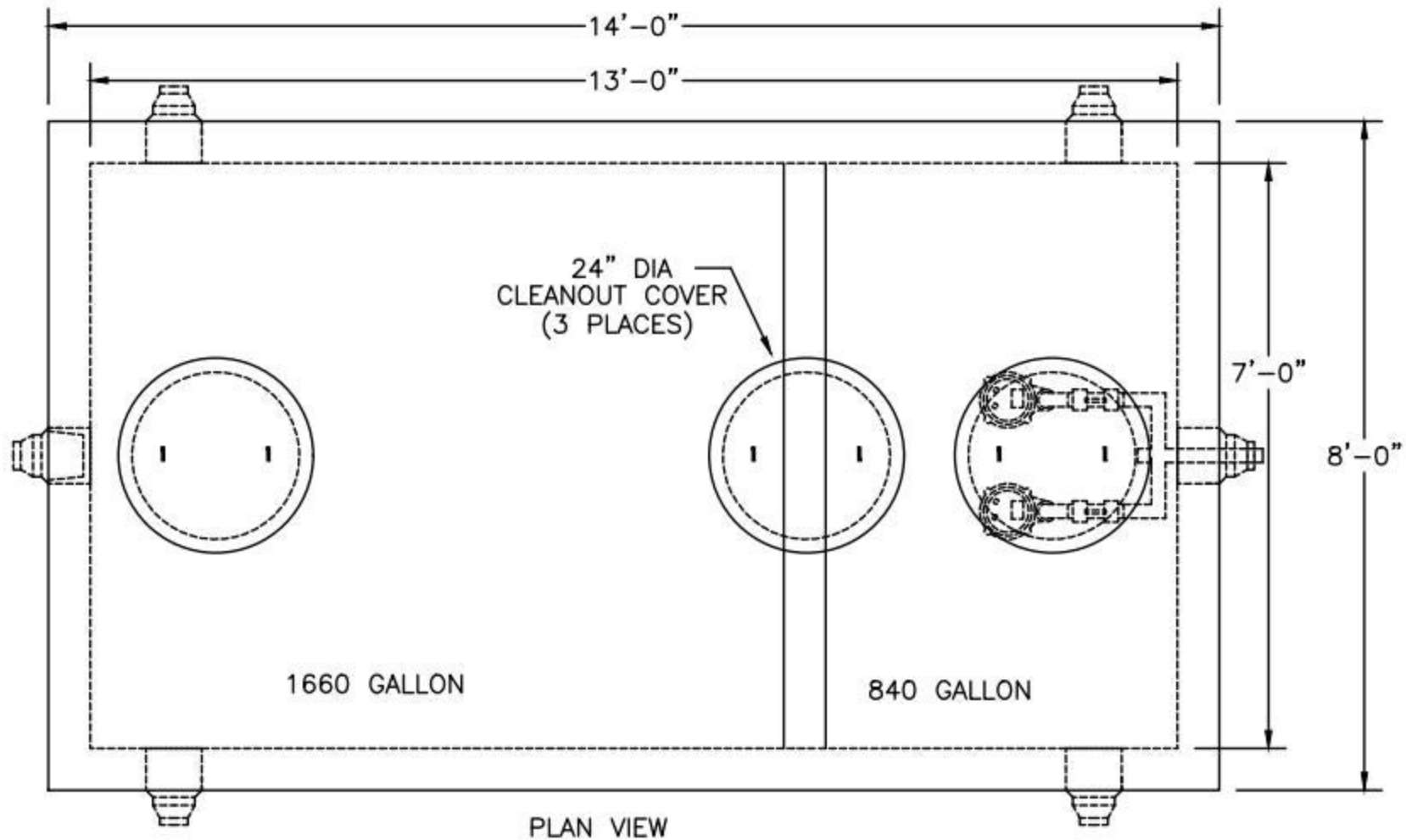
DRAWN BY: ARO

DATE: 06/01/18

PAGE: C6.4



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS.
3. Baffle wall optional for two compartment tanks.
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. TEES AND BAFFLES SOLD SEPARATELY.

SHEA PRODUCT ID:

PREPARED FOR:

FILE NAME:

ctkM2500dp.dwg

WEIGHT (LBS):

37,470#

DRAWN BY:

ARO

DATE:

06/01/18

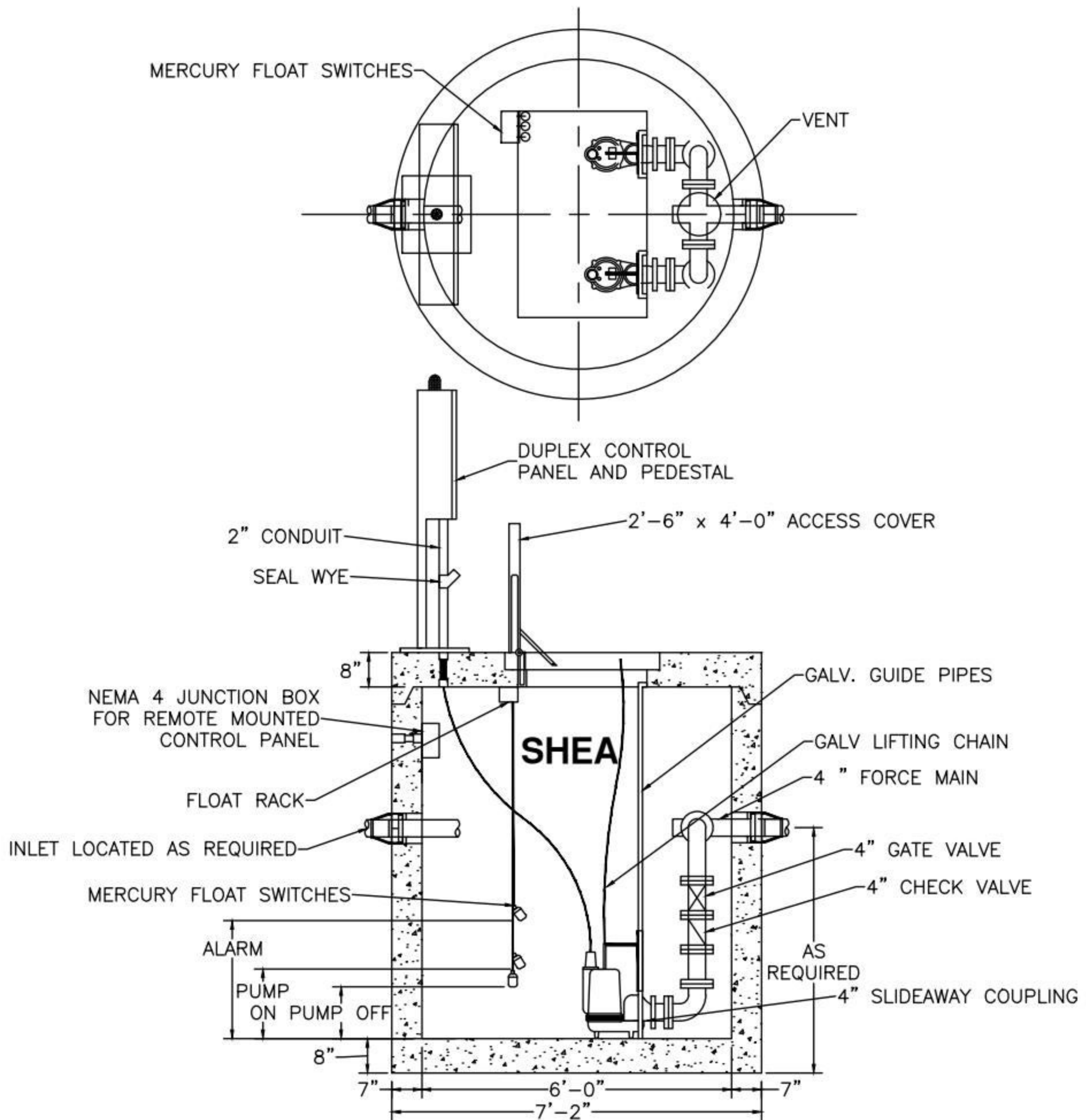
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773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

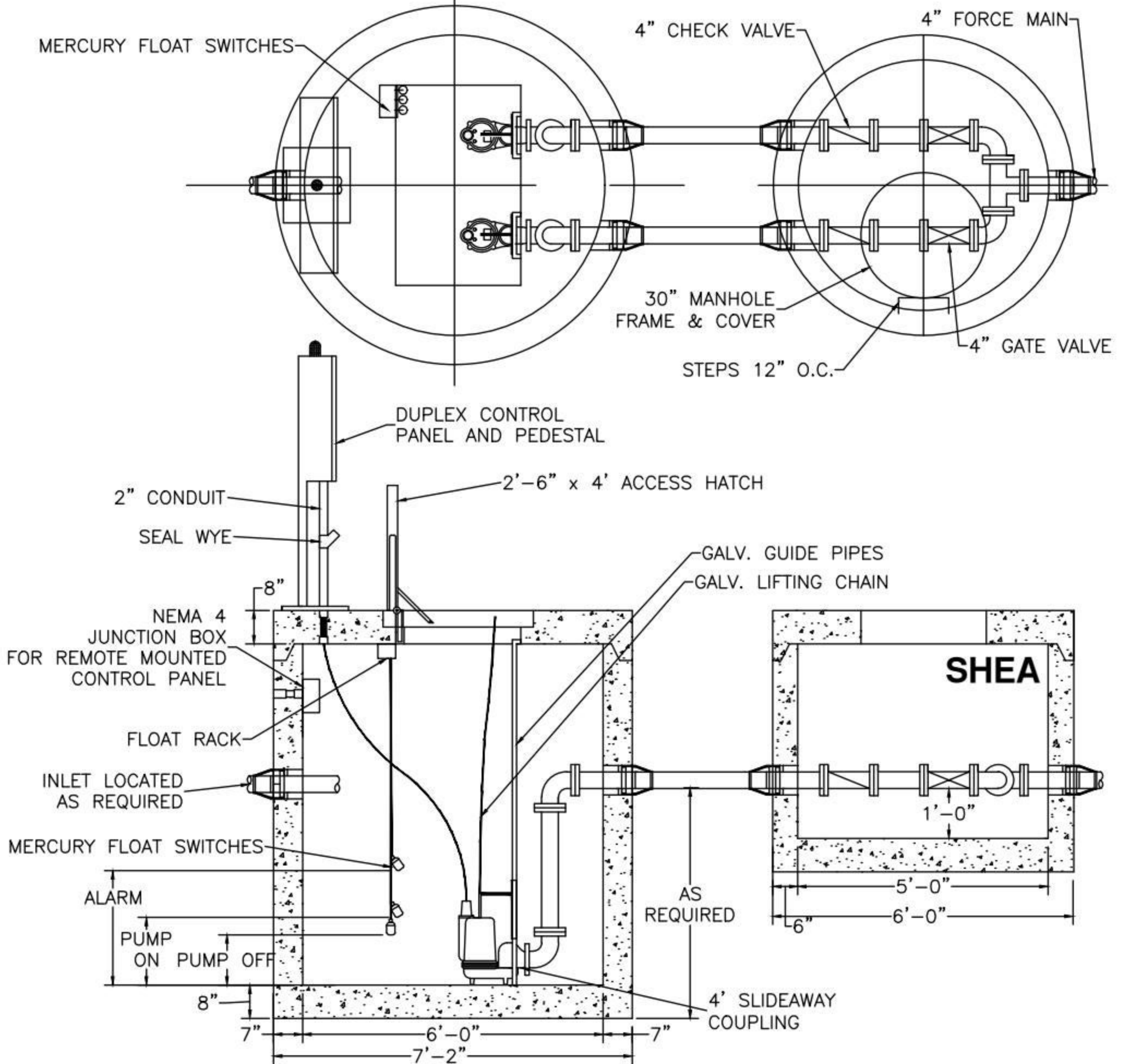
Specifications subject to change without notice



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO LATEST ASTM A185
3. BUTYL RESIN SECTION JOINT CONFORMS TO LATEST ASTM C990 SPECIFICATION.

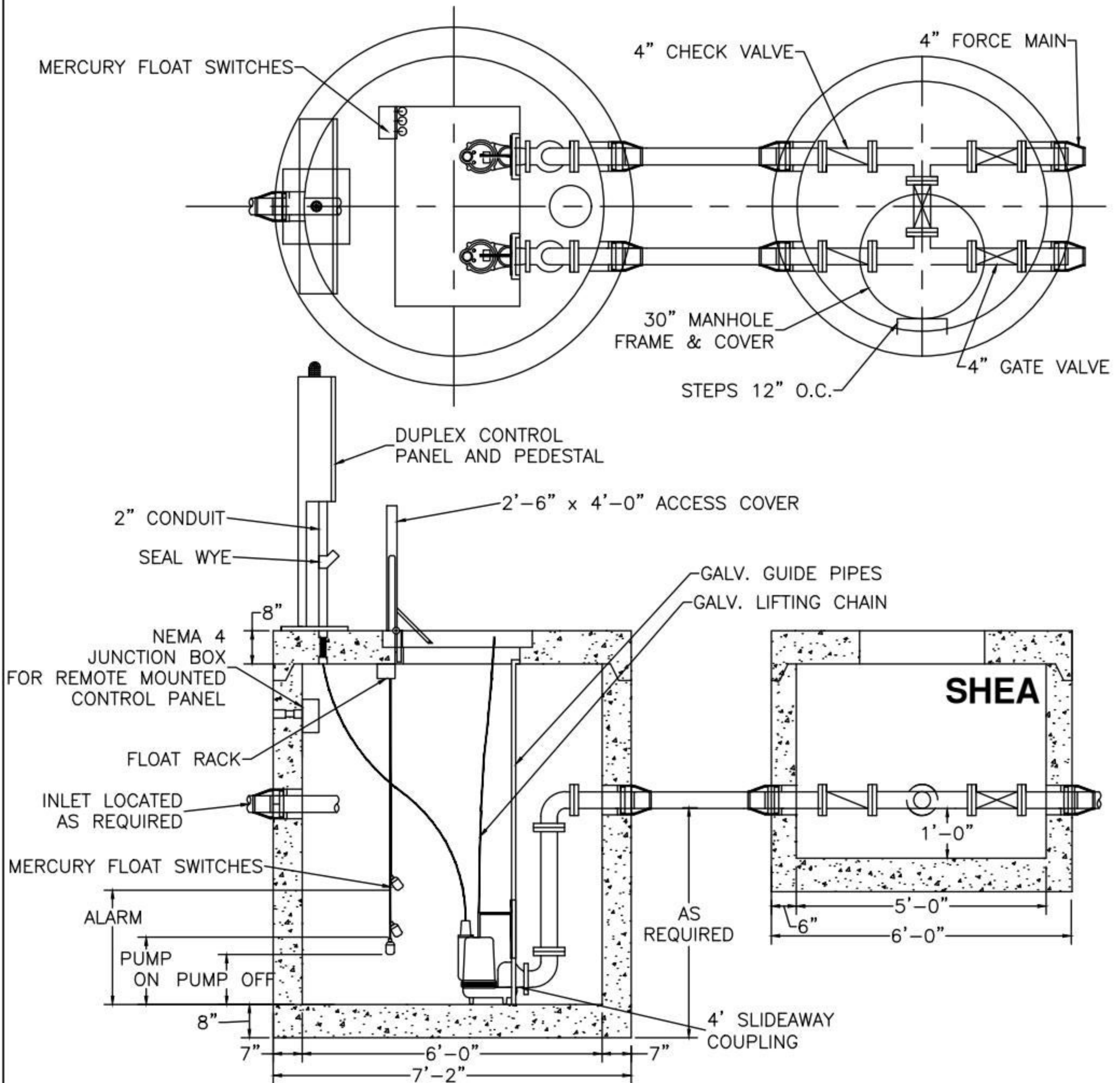
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WEIGHT (LBS):	DRAWN BY: ARO	DATE: 03/01/2018	PAGE: C7.1
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH			



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO LATEST ASTM A185
3. BUTYL RESIN SECTION JOINT CONFORMS TO LATEST ASTM C990 SPEC

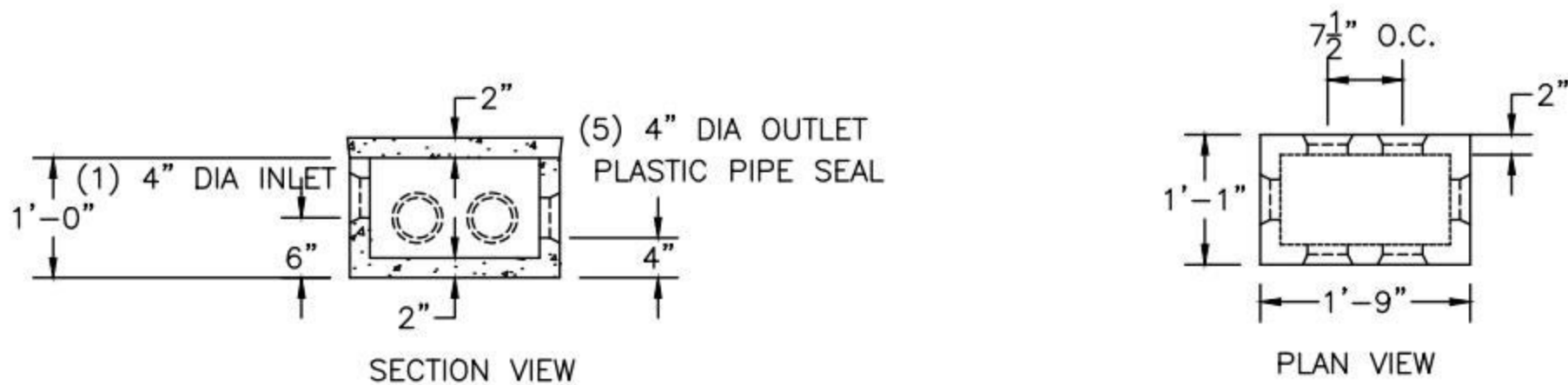
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WEIGHT (LBS):	DRAWN BY: ARO	DATE:	03/01/2018
		PAGE:	C7.2



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO LATEST ASTM A185
3. BUTYL RESIN SECTION JOINT CONFORMS TO LATEST ASTM C990 SPEC

SHEA PRODUCT ID:	PREPARED FOR:	FILE NAME:	PSwVPH.dwg
WEIGHT (LBS):	DRAWN BY: ARO	DATE: 03/01/2018	PAGE: C7.3
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH			

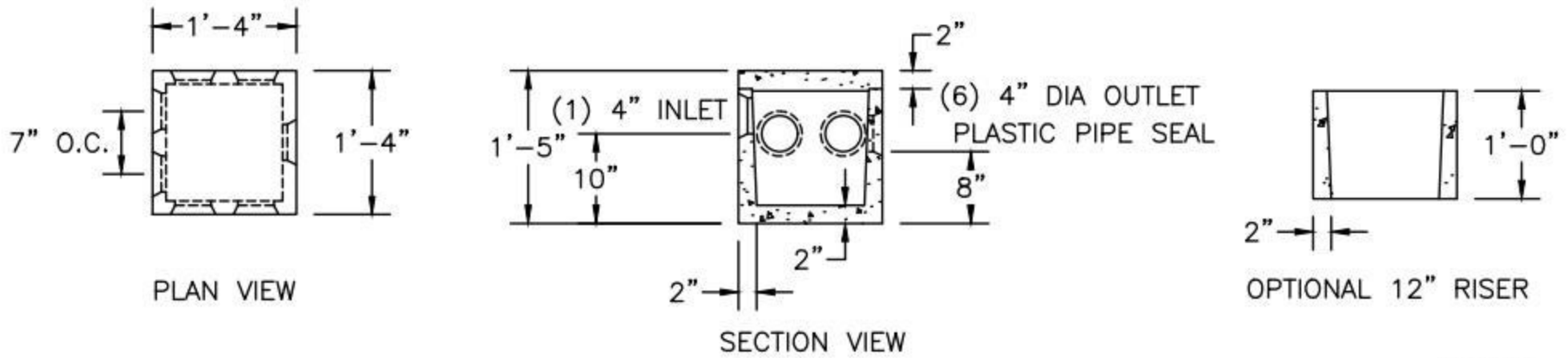


5 OUTLET STANDARD

NOTES:

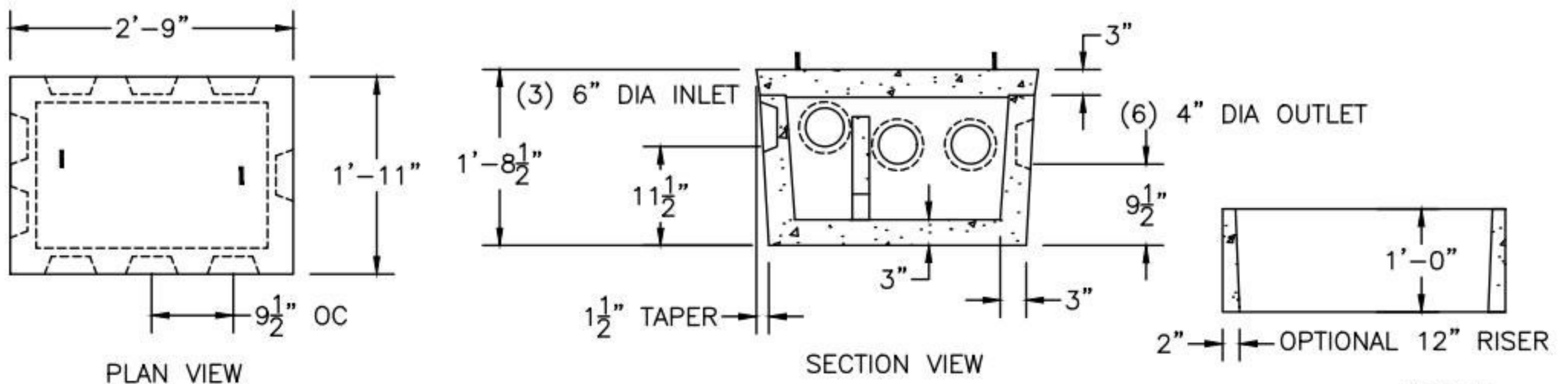
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. COVER WEIGHT: 48#

DISTRIBUTION BOX 6 OUTLET



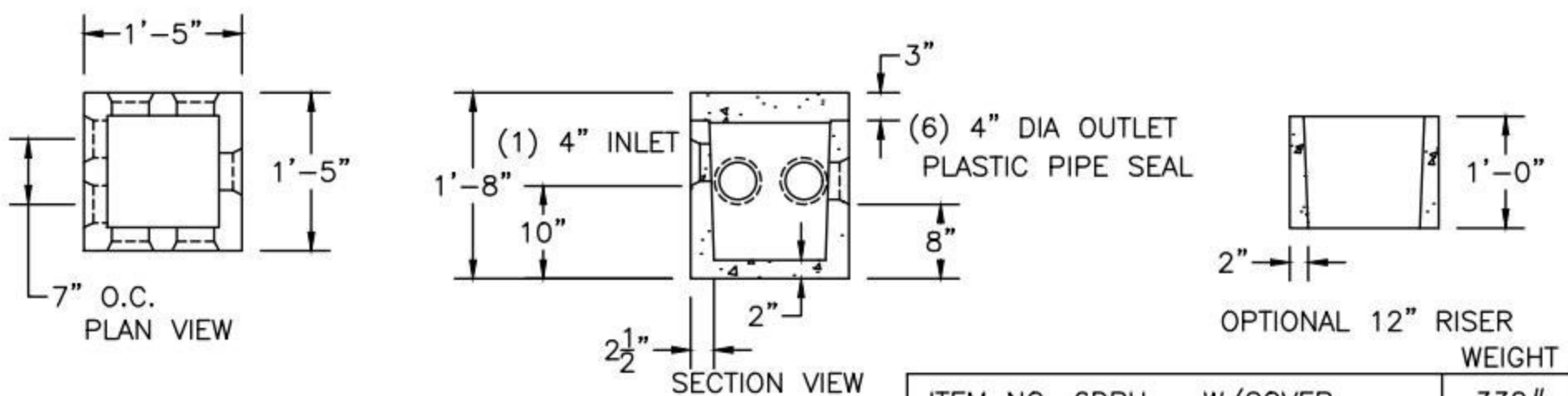
6 OUTLET STANDARD

WEIGHT		
ITEM NO. 6DB	W/COVER	226#
6DBC	COVER ONLY	45#
6DBR	RISER SECTION	117#



6 OUTLET BAFFLE BOX

WEIGHT		
ITEM NO. 6BB	W/COVER	734#
6BBC	COVER ONLY	184#
	RISER SECTION	300#




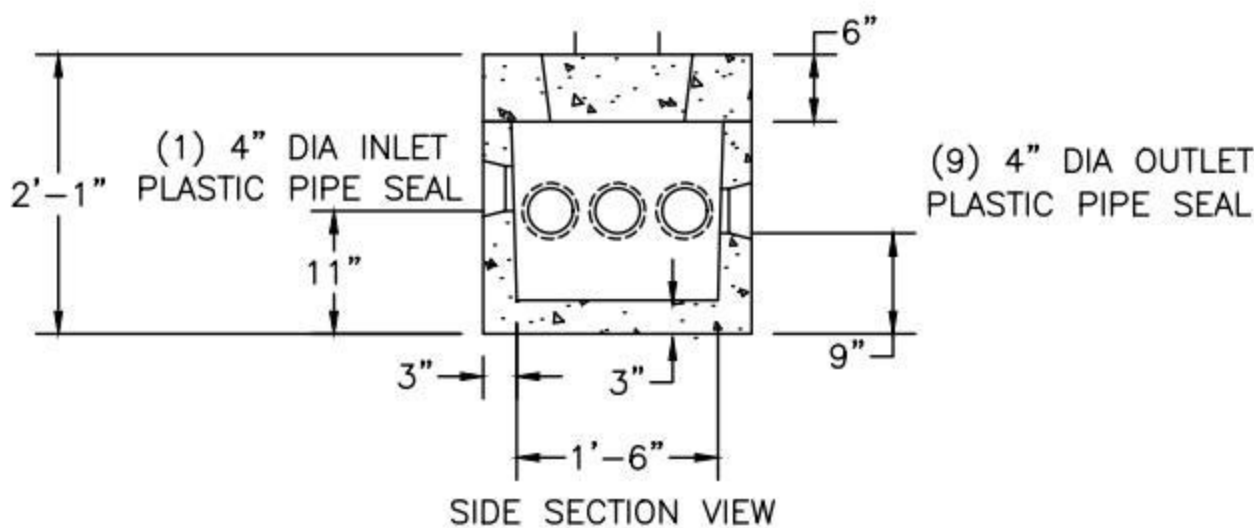
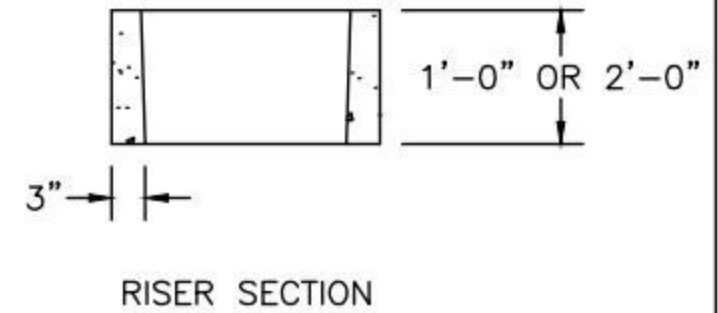
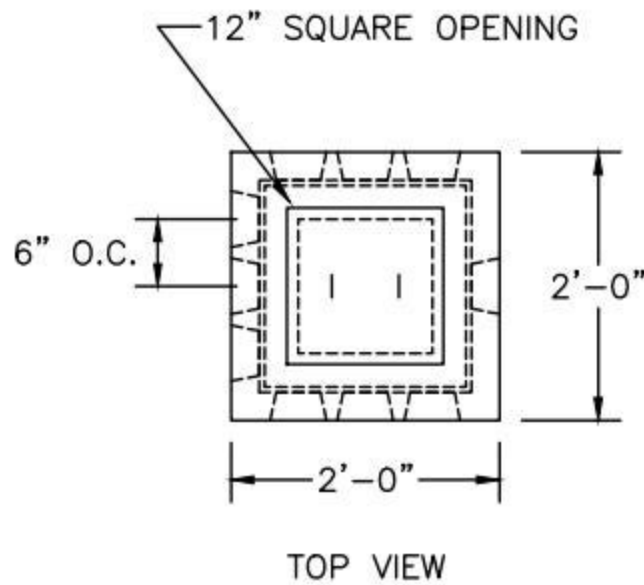
6 OUTLET H-20

WEIGHT		
ITEM NO. 6DBH	W/COVER	332#
6DBCH	COVER ONLY	151#
	RISER SECTION	145#

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR DISTRIBUTION BOXES.

SHEA PRODUCT ID: SEE TABLES		PREPARED FOR:		FILE NAME: db6out.dwg			
WEIGHT (LBS): SEE TABLES		DRAWN BY: ARO		DATE: 06/01/18			PAGE: D2
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



			WEIGHT
ITEM NO.	9DBH	W/COVER	687#
	9DBHC	COVER ONLY	296#
	9DBR12	RISER SECTION 12"	221#
	9DBR24	RISER SECTION 24"	442#

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR DISTRIBUTION BOXES.
3. 9 OUTLET D-BOX DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET.
4. 9 OUTLET D-BOX OPTIONAL 18" ROUND OR SQUARE CAST IRON COVER AVAILABLE IN PLACE OF CONCRETE COVER.

SHEA PRODUCT ID:
SEE TABLES

PREPARED FOR:

FILE NAME:

db9out.dwg

WEIGHT (LBS):
SEE TABLES

DRAWN BY:
ARO

DATE:
06/01/18

PAGE:
D3

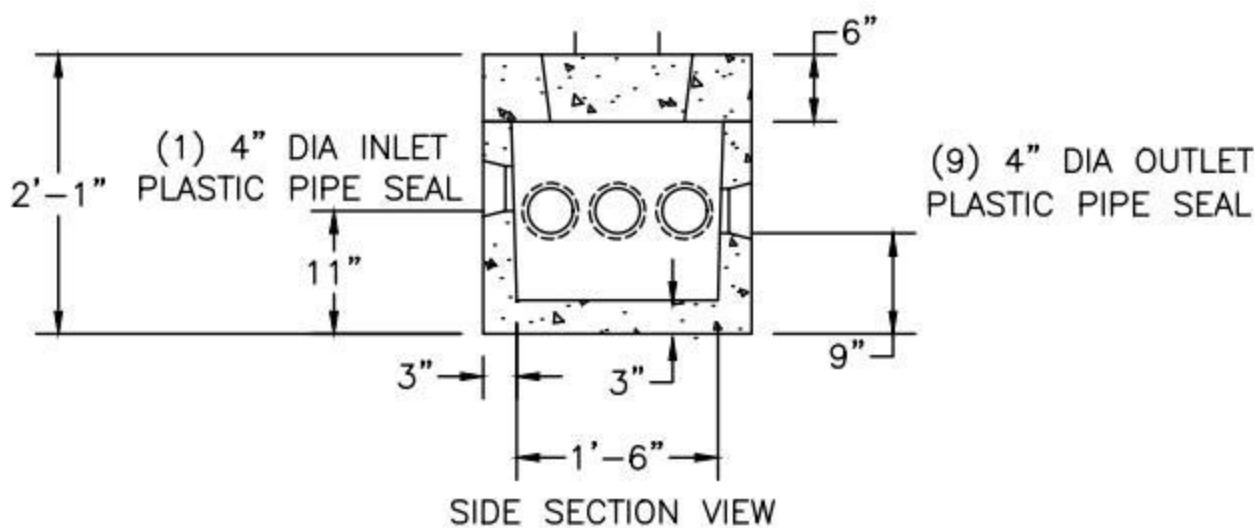
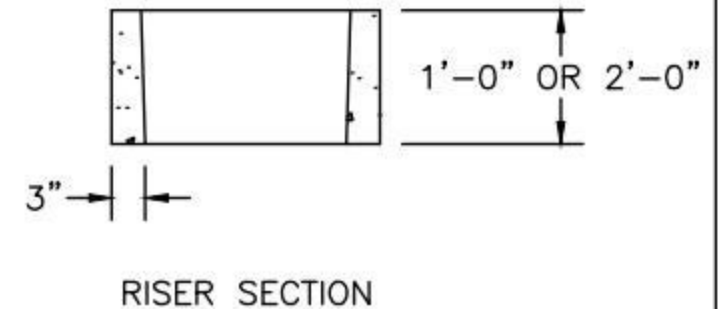
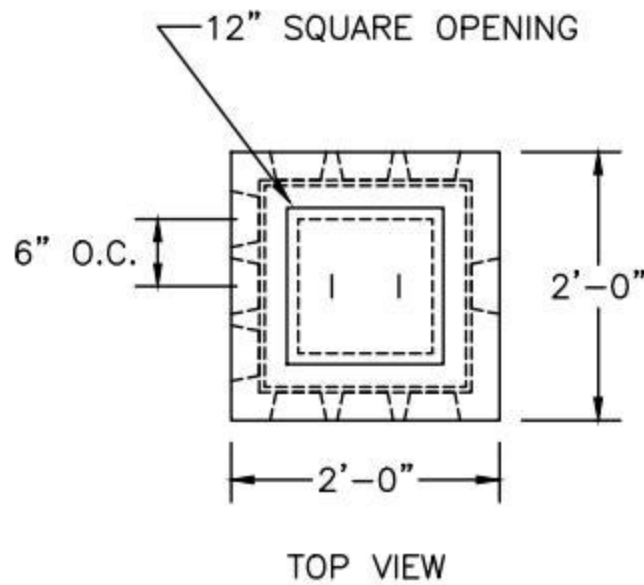


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

DISTRIBUTION BOX

9 OUTLET



			WEIGHT
ITEM NO.	9DBH	W/COVER	687#
	9DBHC	COVER ONLY	296#
	9DBR12	RISER SECTION 12"	221#
	9DBR24	RISER SECTION 24"	442#

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR DISTRIBUTION BOXES.
3. 9 OUTLET D-BOX DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET.
4. 9 OUTLET D-BOX OPTIONAL 18" ROUND OR SQUARE CAST IRON COVER AVAILABLE IN PLACE OF CONCRETE COVER.

SHEA PRODUCT ID:
SEE TABLES

PREPARED FOR:

FILE NAME:

db9-10out.dwg

WEIGHT (LBS):
SEE TABLES

DRAWN BY:
ARO

DATE:
06/01/18

PAGE:
D3

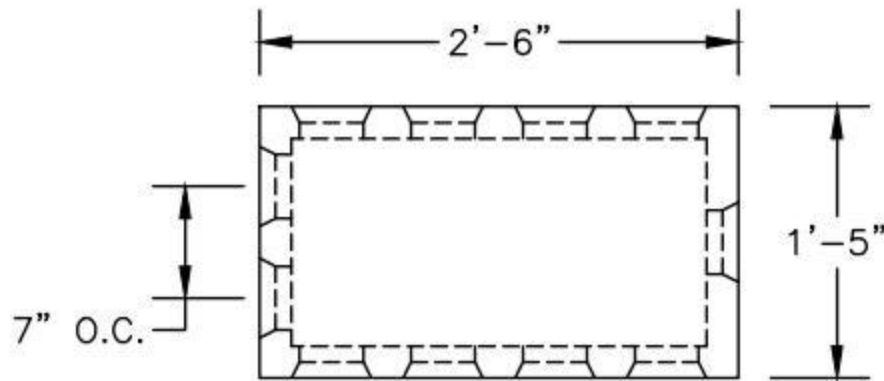


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

DISTRIBUTION BOX

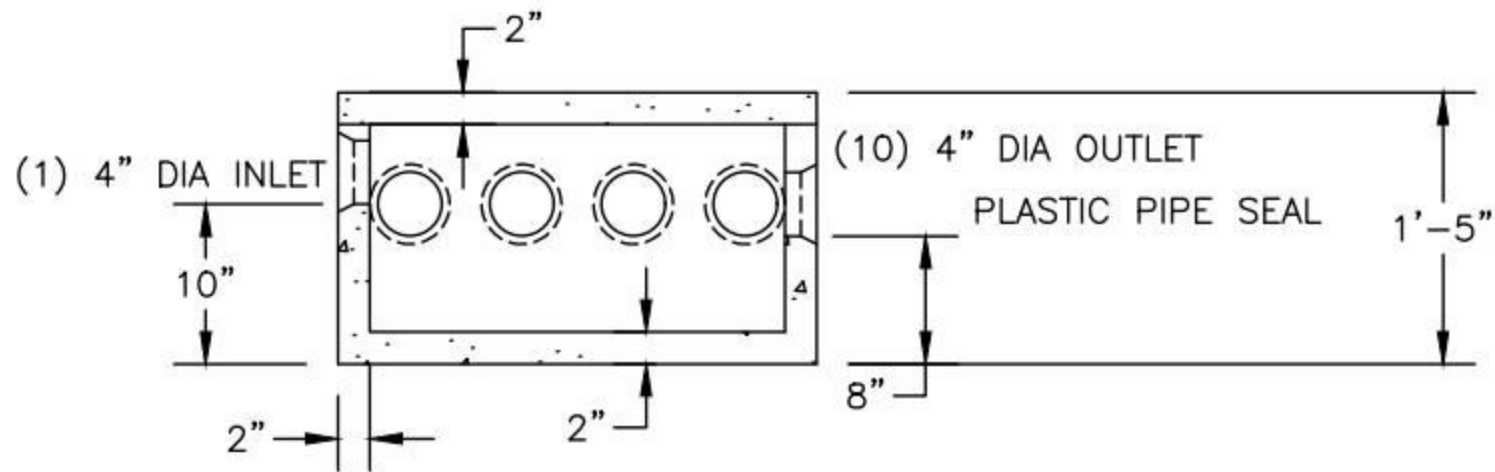
10 OUTLET



PLAN VIEW



OPTIONAL 12" RISER



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR DISTRIBUTION BOXES.

WEIGHT

ITEM NO.	10DB	275#
	10DBC	90#
	10DBR	175#

SHEA PRODUCT ID:
SEE TABLES

PREPARED FOR:

FILE NAME:

db10out.dwg

WEIGHT (LBS):
SEE TABLES

DRAWN BY: ARO

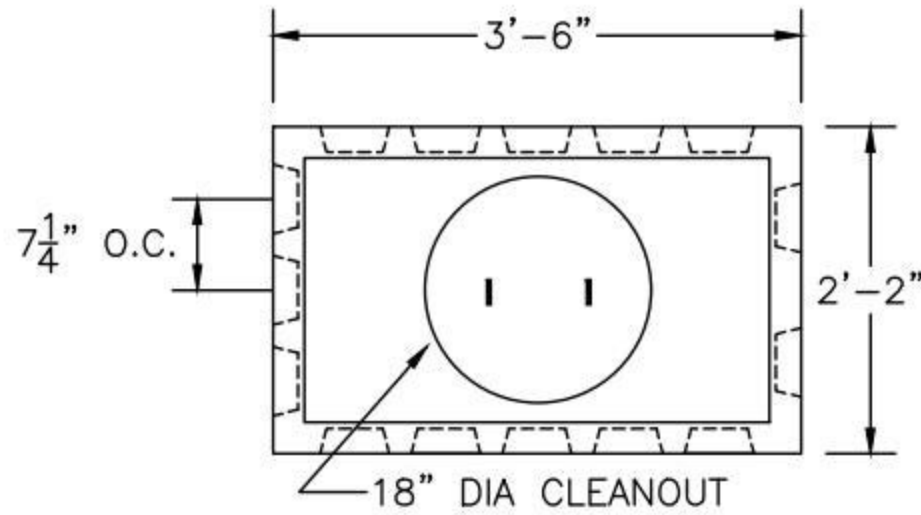
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PAGE: D4

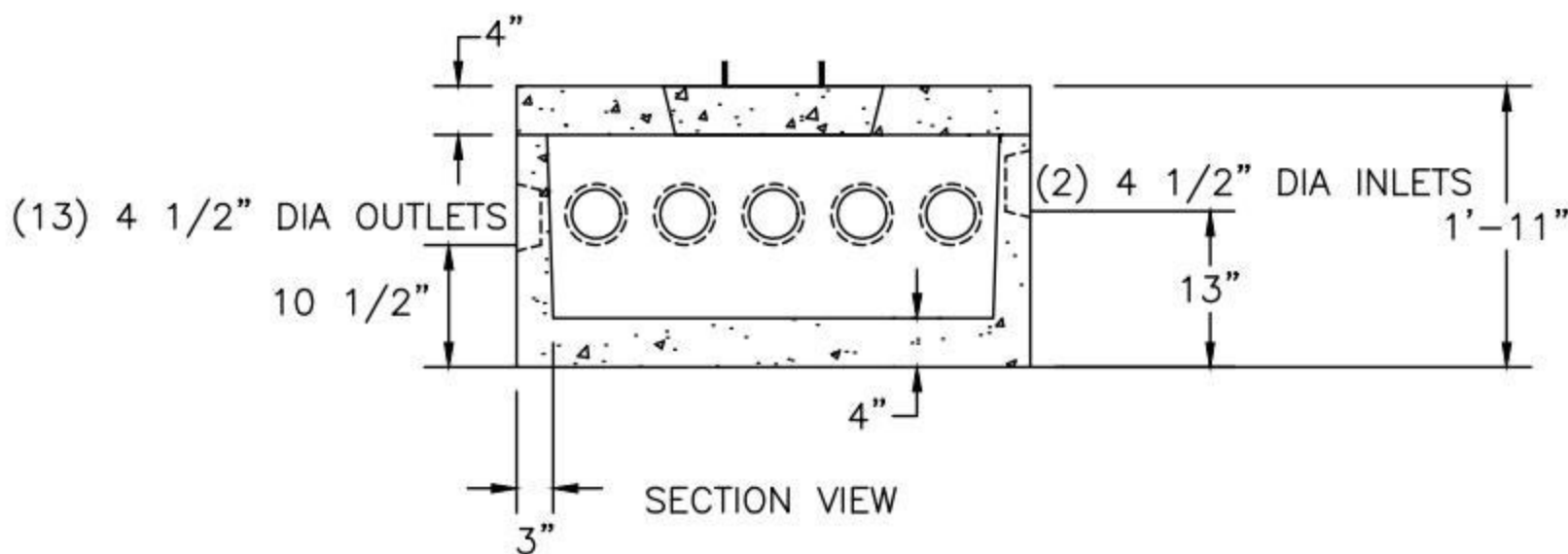


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR DISTRIBUTION BOXES.
3. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET.
4. COVER WEIGHT 463#

SHEA PRODUCT ID:

13DBH

PREPARED FOR:

FILE NAME:

Db13out-2.dwg

WEIGHT (LBS):

1,400#

DRAWN BY:

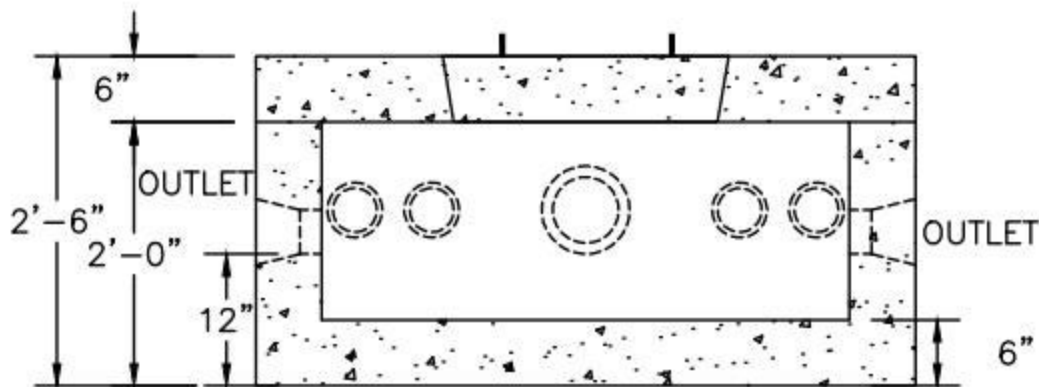
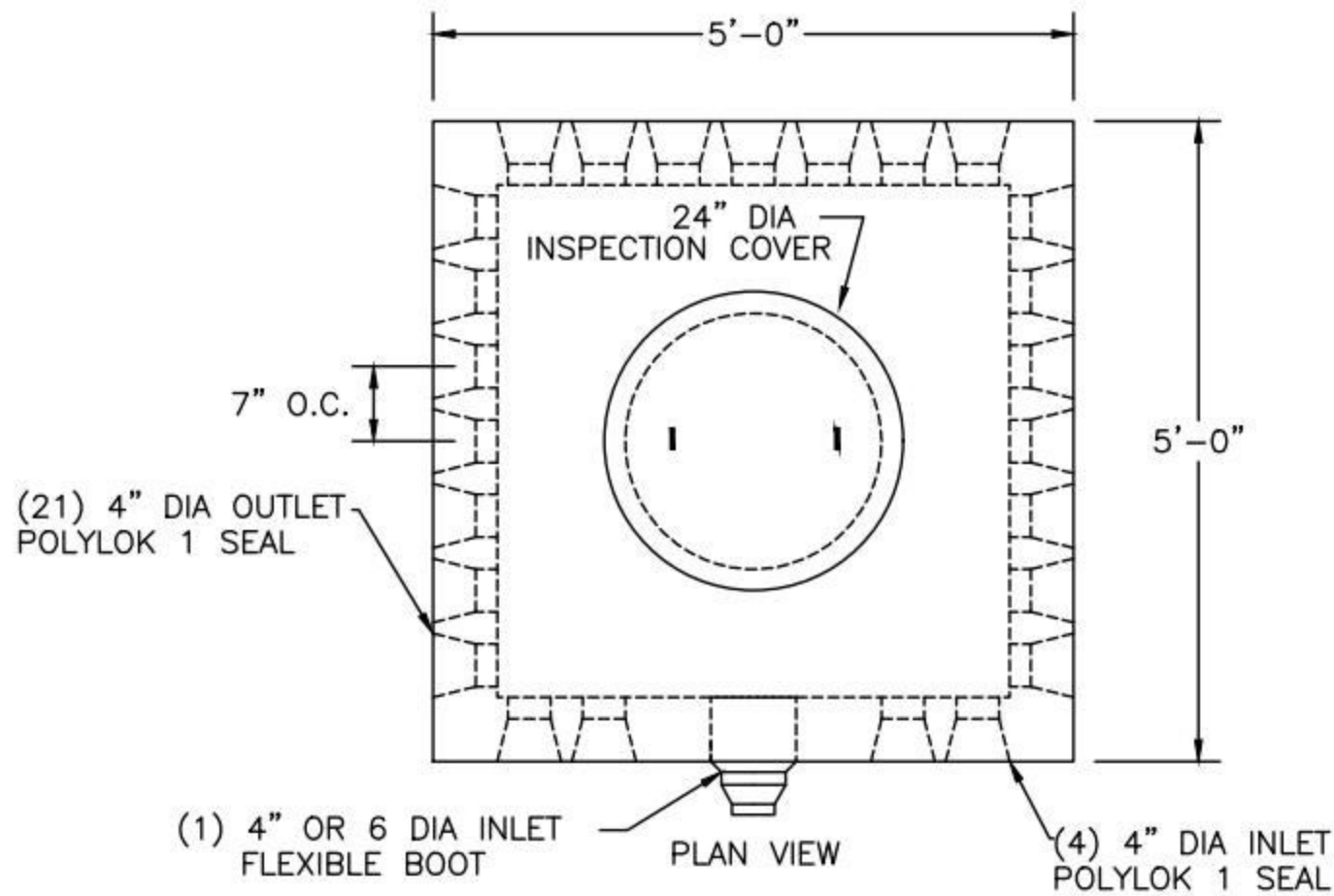
ARO

DATE:

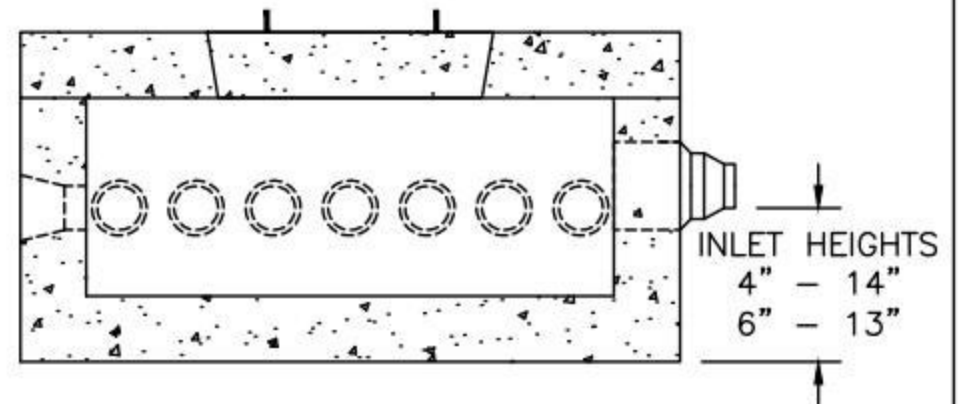
06/01/18

PAGE:

D5



INLET VIEW



SIDE VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.000, DEP TITLE 5 REGS, FOR DISTRIBUTION BOXES.
3. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET.
4. COVER WEIGHT 1,850#

SHEA PRODUCT ID:
21DBH

PREPARED FOR:

FILE NAME:

Db21out.dwg

WEIGHT (LBS):
5,562#

DRAWN BY:
ARO

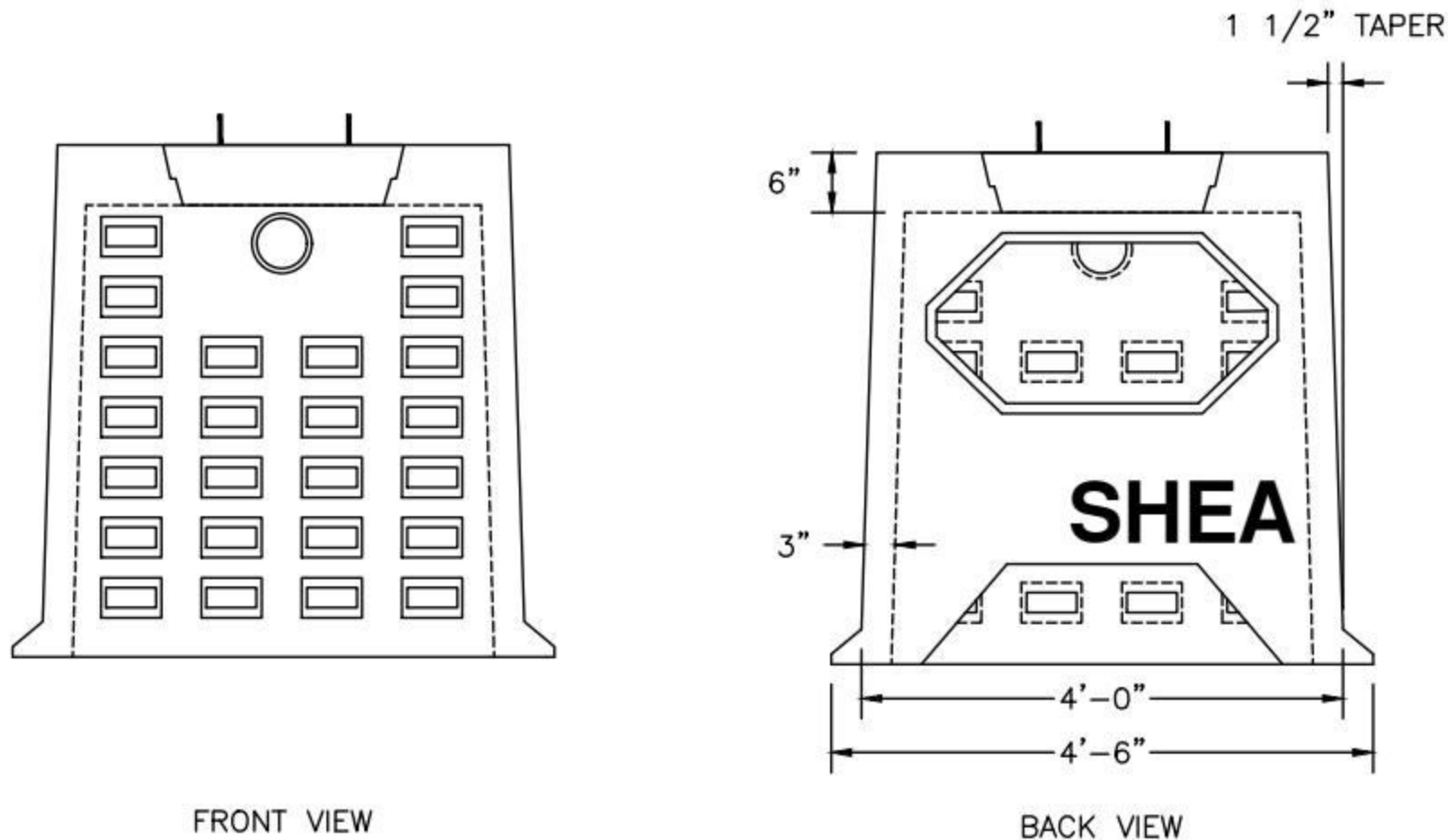
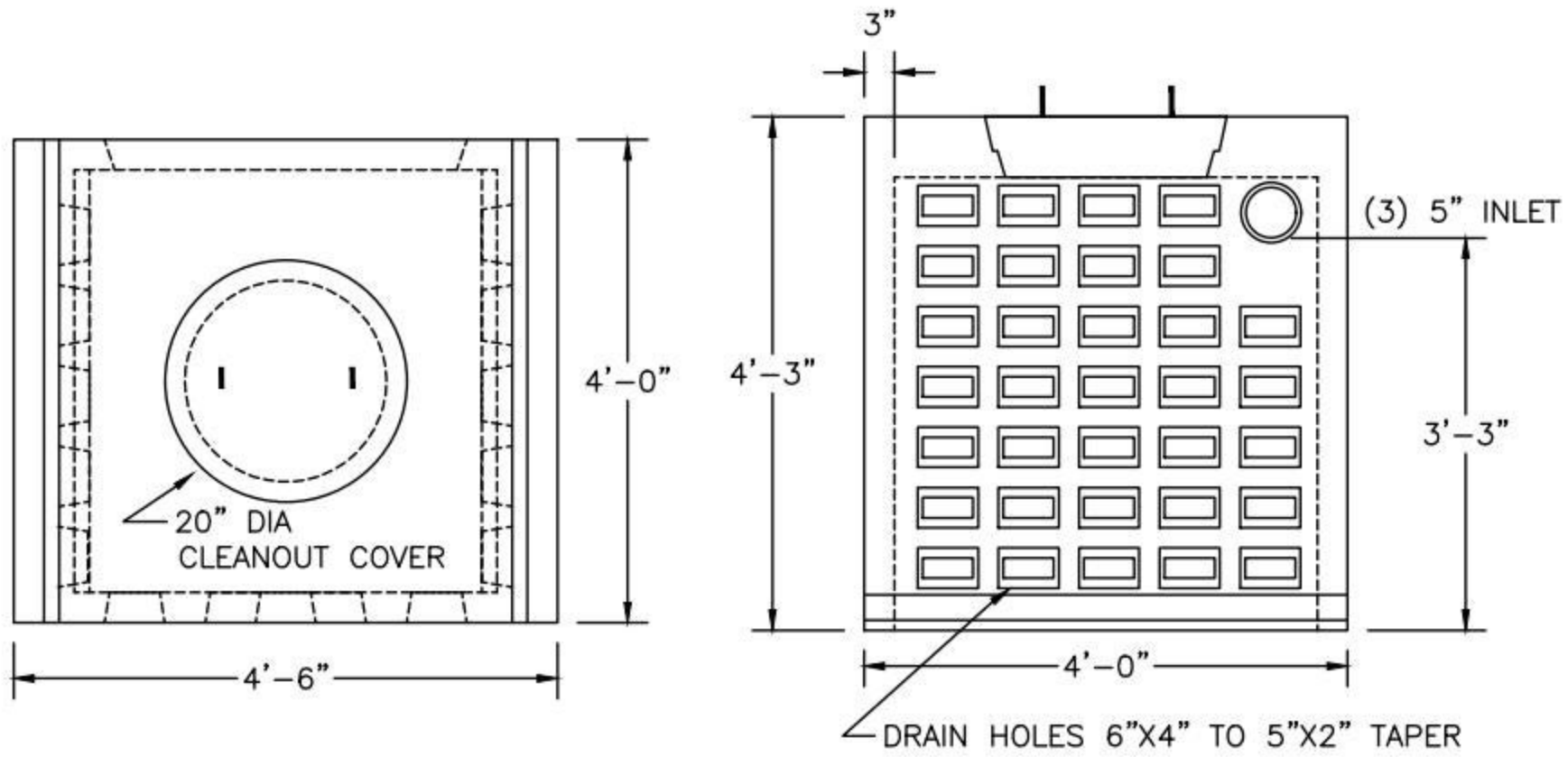
DATE:
06/01/18

PAGE:
D6



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 3 FEET COVER.
3. GALLEY AVAILABLE IN BOTH END AND CENTER SECTIONS.
CENTER SECTIONS HAVE LARGE OPENING IN BOTH THE BACK AND FRONT SIDES.

SHEA PRODUCT ID:
EGH/CGH

PREPARED FOR:

FILE NAME:

Galley4X4.dwg

WEIGHT (LBS):
2,430#/2,300#

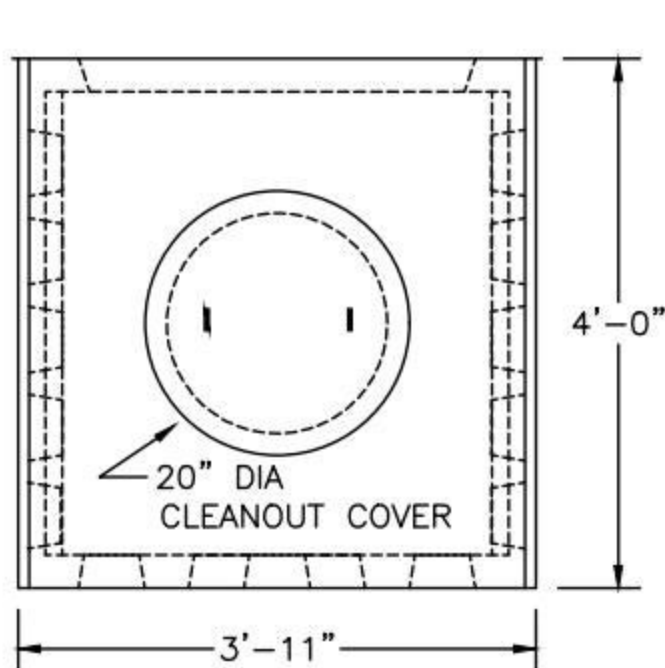
DRAWN BY: ARO

DATE: 03/01/2018

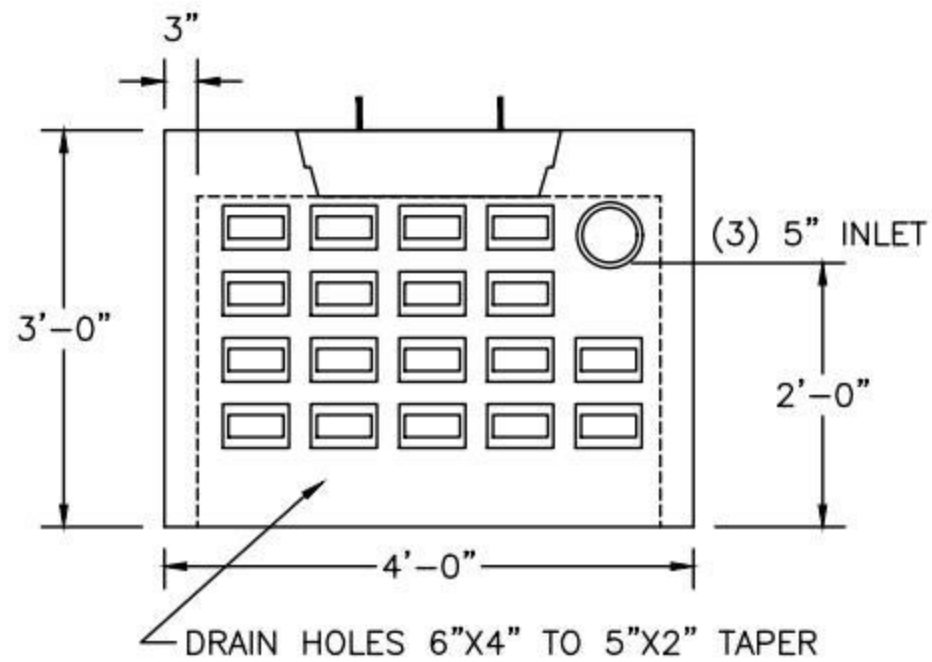
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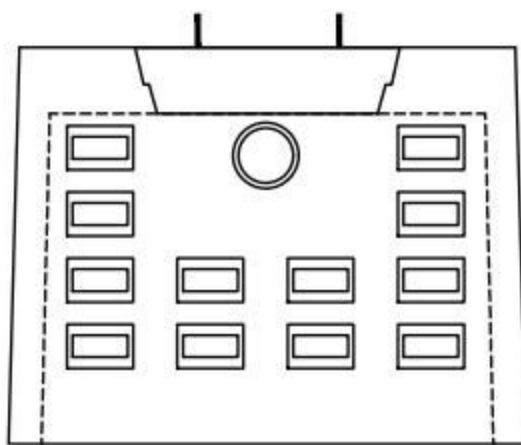
773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



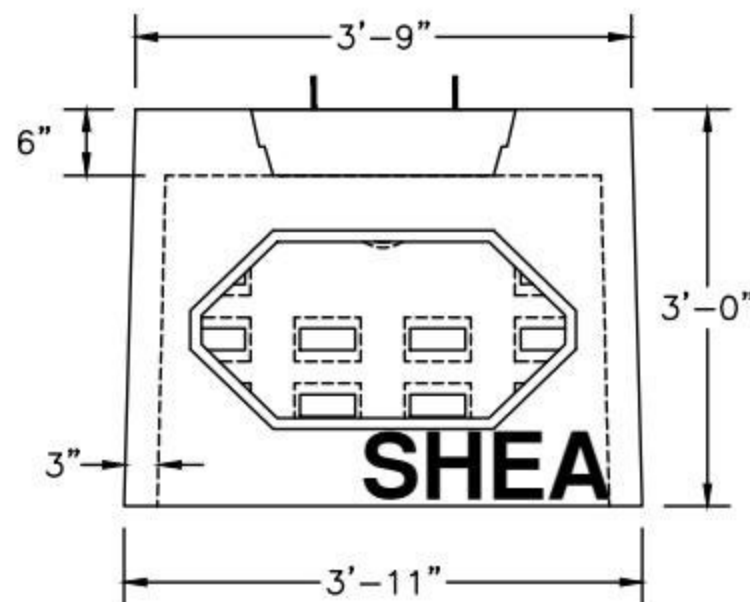
PLAN VIEW



SIDE VIEW



FRONT VIEW



BACK VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 3 FEET COVER.
3. GALLEY AVAILABLE IN BOTH END AND CENTER SECTIONS.
CENTER SECTIONS HAVE LARGE OPENING IN
BOTH THE BACK AND FRONT SIDES.

SHEA PRODUCT ID:
EGLPH/CGLPH

PREPARED FOR:

FILE NAME:

Galley4X4lp

WEIGHT (LBS):
1,875#/1,743#

DRAWN BY: ARO

DATE: 03/01/2018

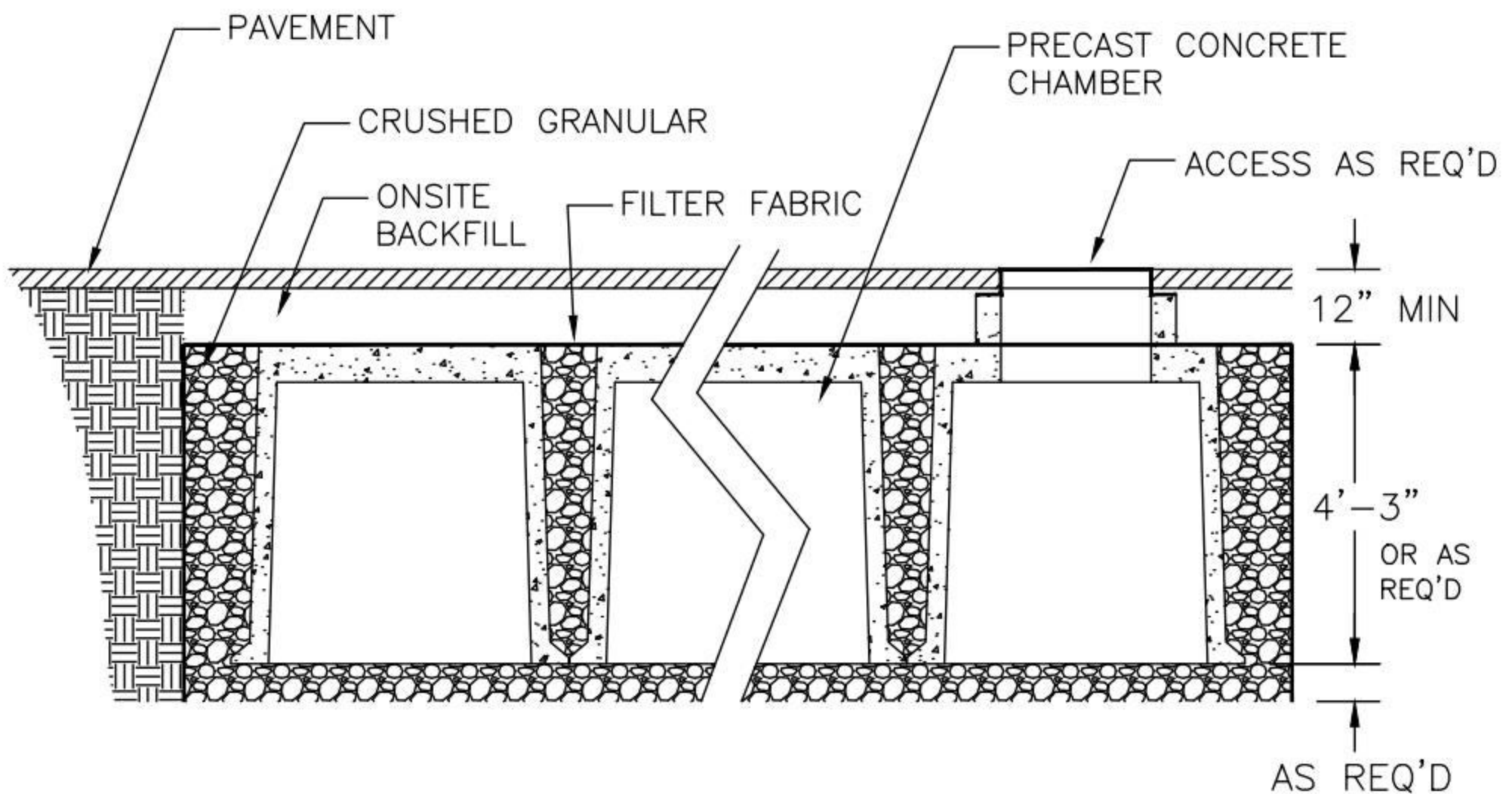
PAGE: E1.2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

Typical Cross Section Detail Precast Concrete Galley Chamber (not to scale)



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 3 FEET COVER.
3. GALLEY AVAILABLE IN BOTH END AND CENTER SECTIONS.
CENTER SECTIONS HAVE LARGE OPENING IN
BOTH THE BACK AND FRONT SIDES.

SHEA PRODUCT ID:

PREPARED FOR:

FILE NAME:

GalleySectDetail.dwg

WEIGHT (LBS):

DRAWN BY:

ARO

DATE:

06/01/18

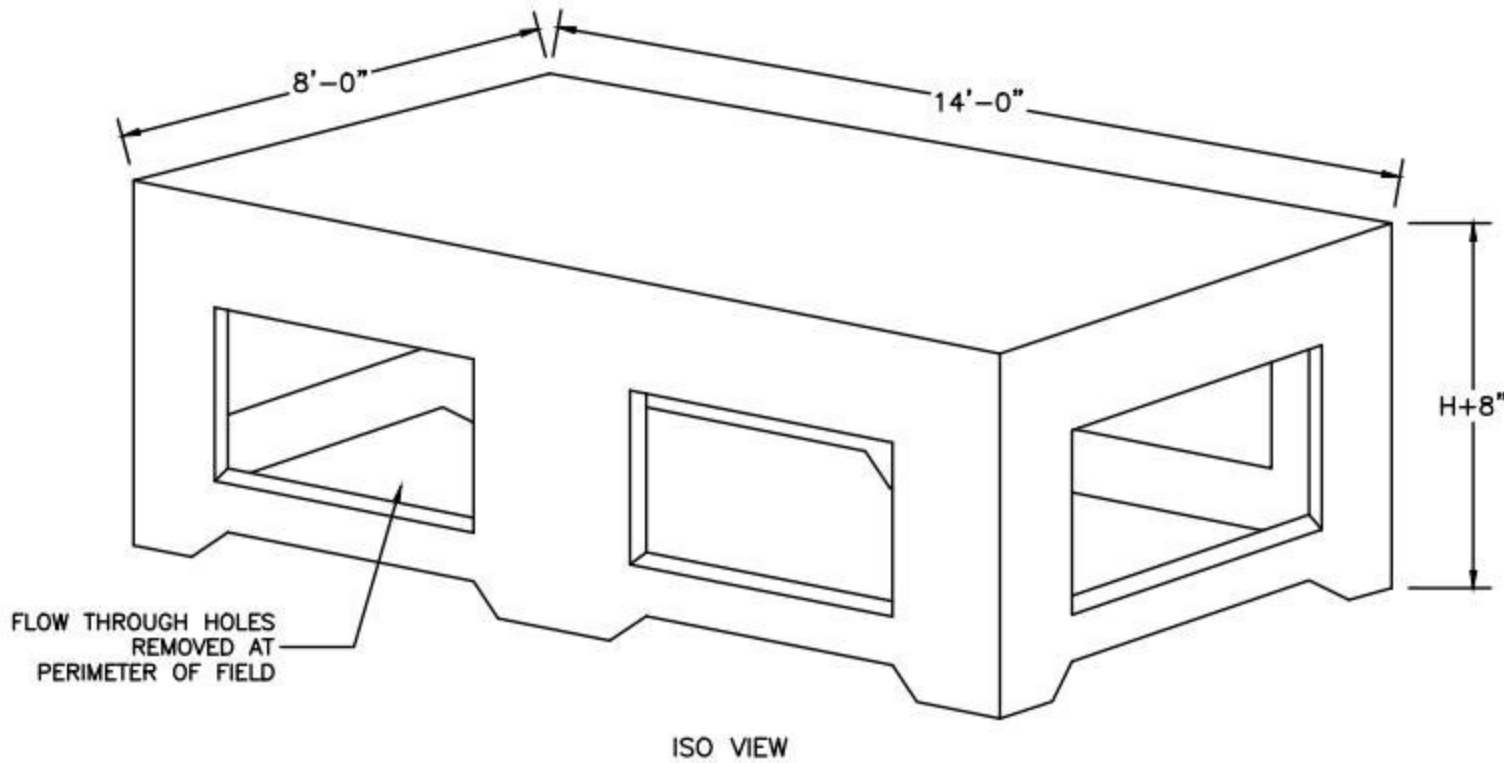
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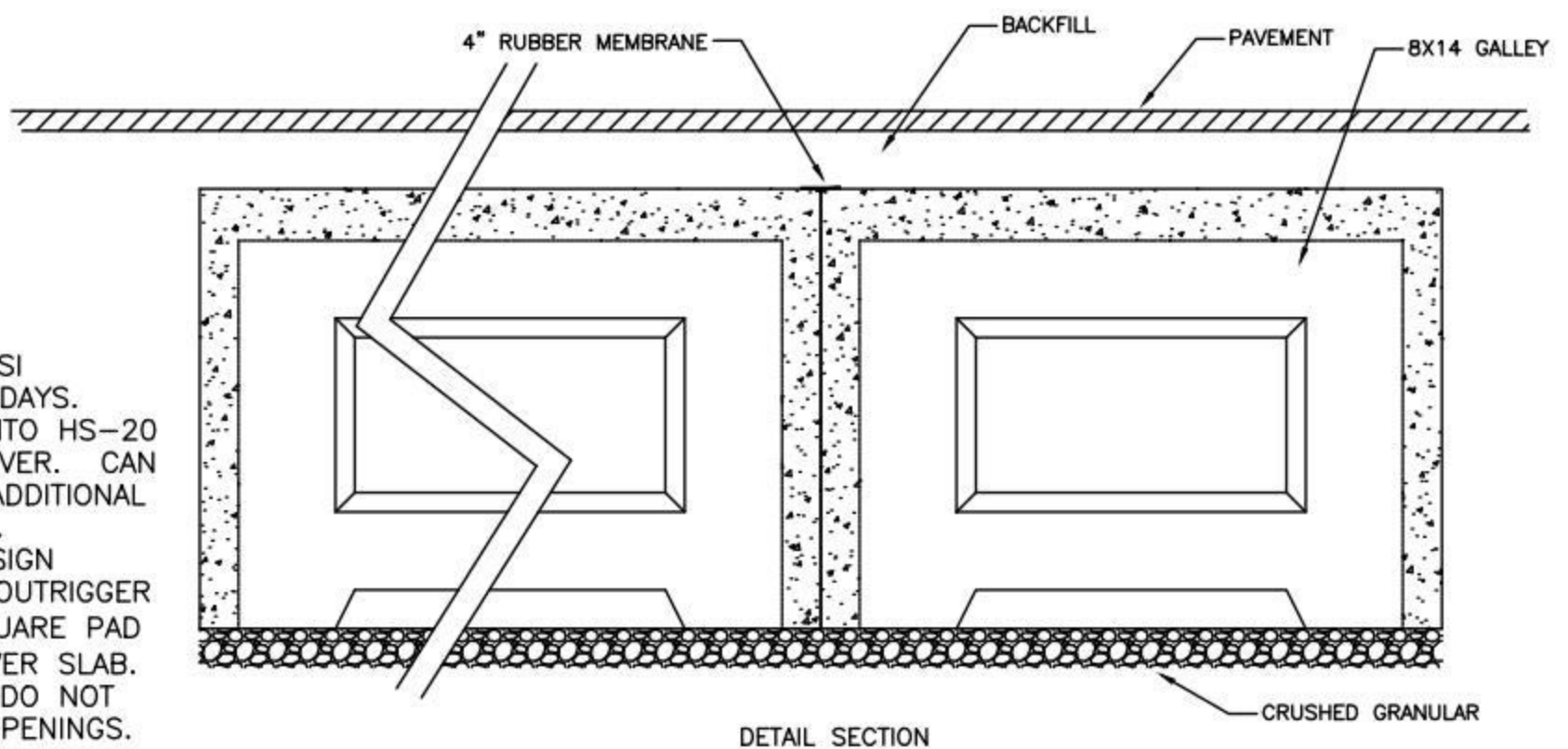
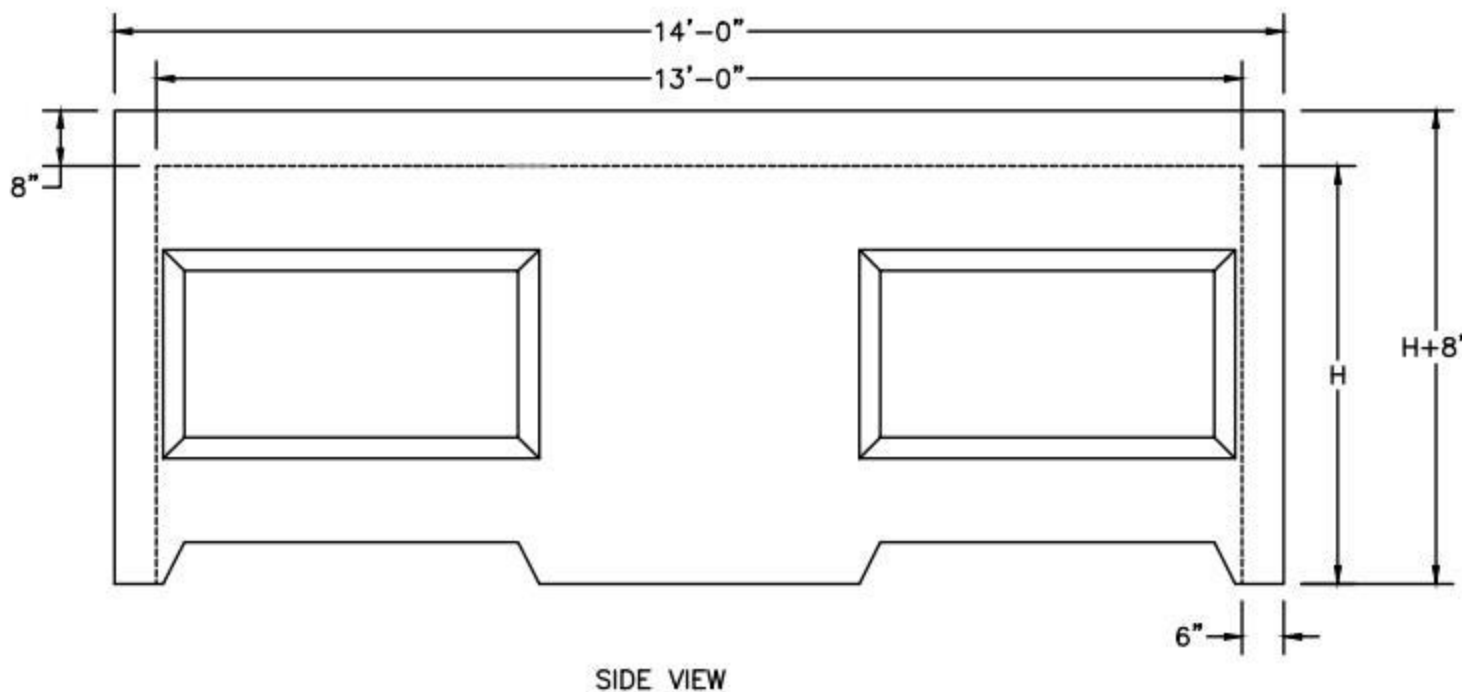


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



HEIGHT(H)	VOLUME(EA)	WEIGHT
2'-0"	200CF	14,900#
3'-0"	300CF	16,600#
4'-0"	400CF	18,300#
5'-0"	500CF	20,000#



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOAD, 0 TO 5FT COVER. CAN BE DESIGNED FOR ADDITIONAL COVER IF REQUIRED.
3. STANDARD SLAB DESIGN WITHSTANDS 40KIP OUTRIGGER LOAD ON A 24" SQUARE PAD WITH 24" COVER OVER SLAB.
4. END & SIDE UNITS DO NOT HAVE FLOW-THRU OPENINGS.

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

Galley8X14.dwg

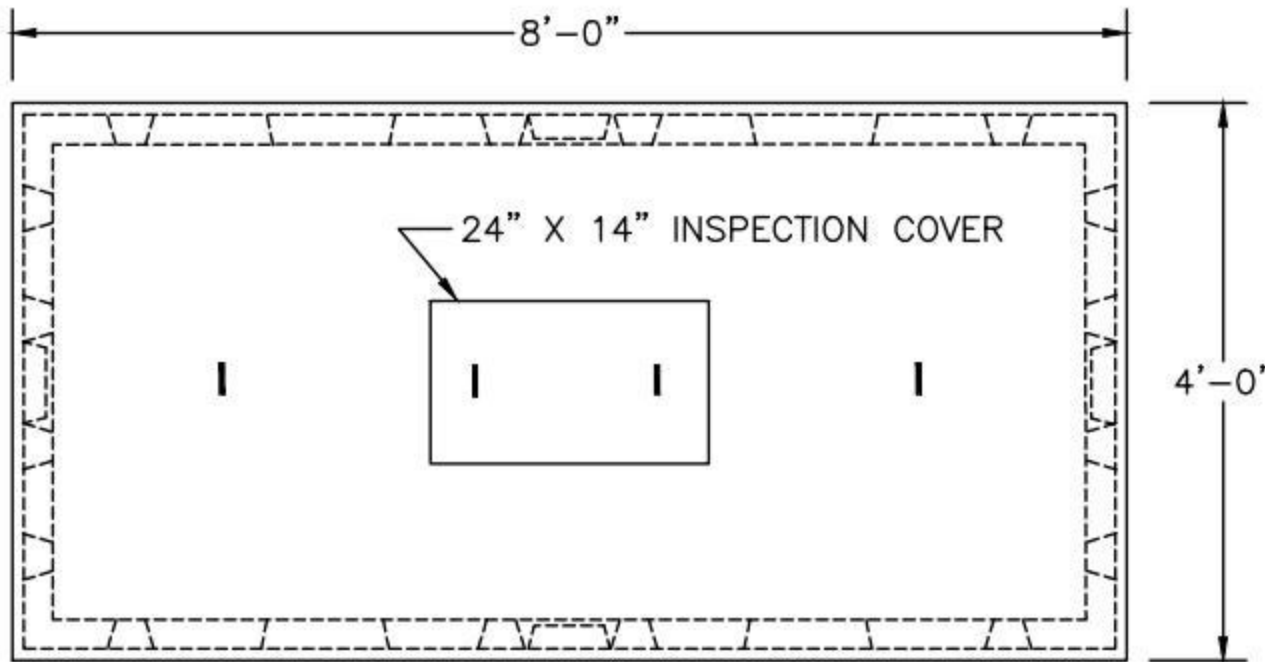
WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

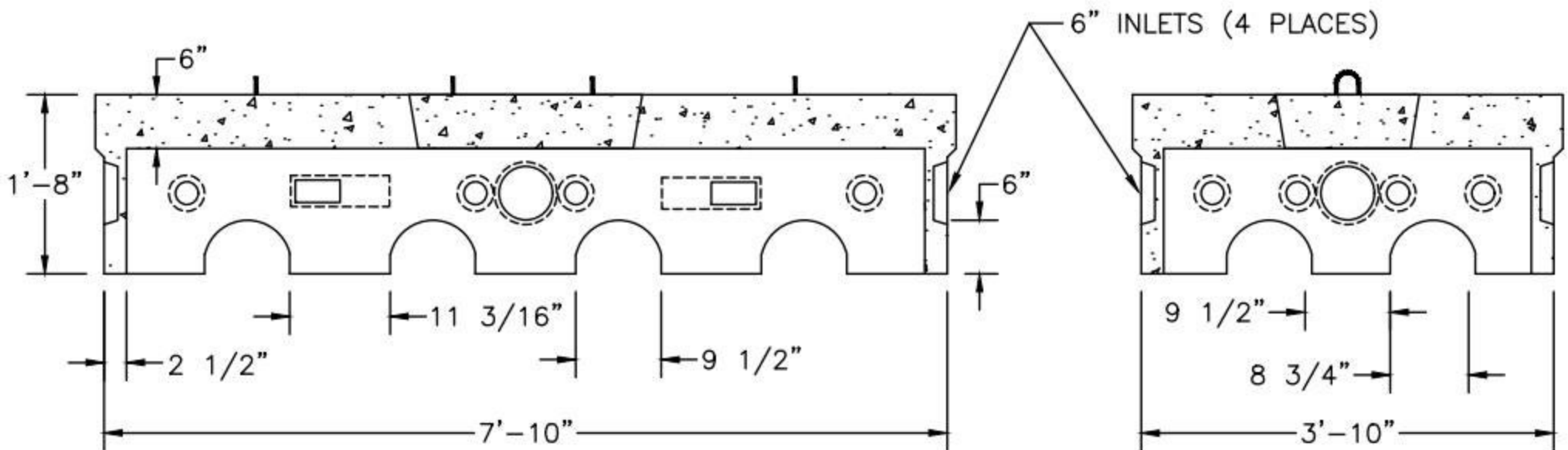
DATE: 03/01/2018

PAGE: E1.4





PLAN VIEW



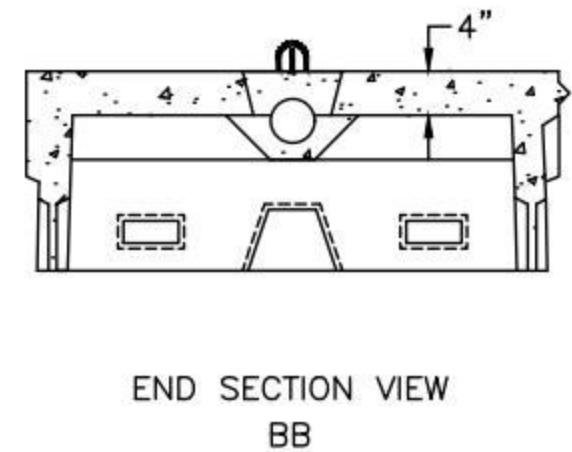
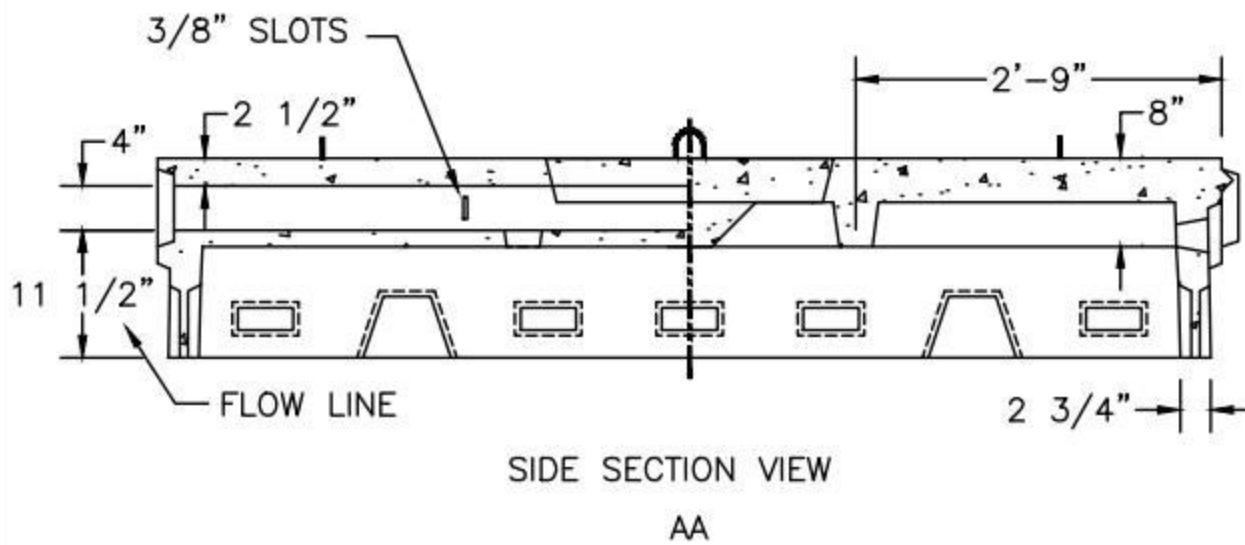
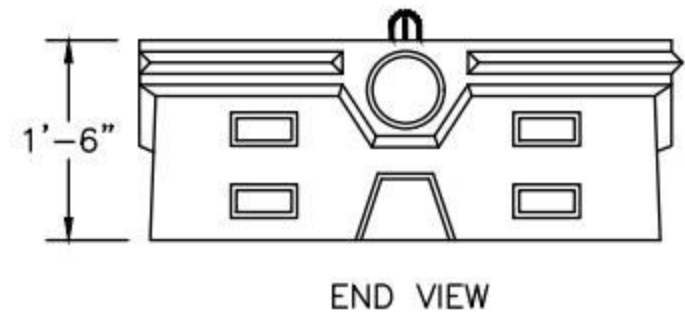
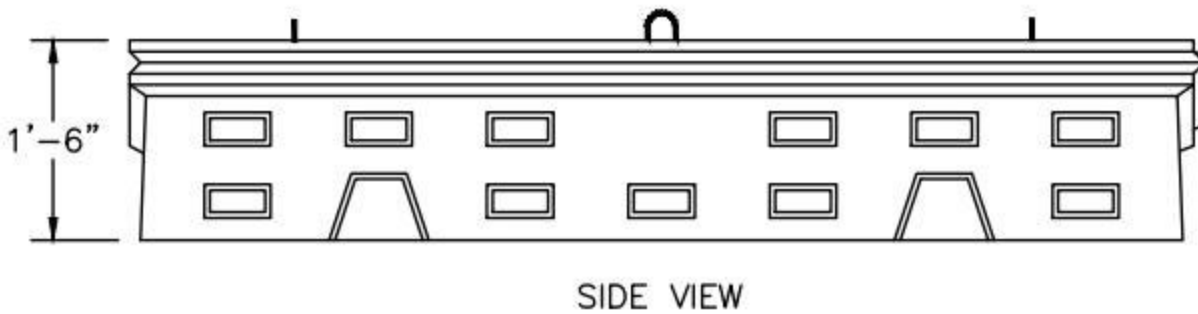
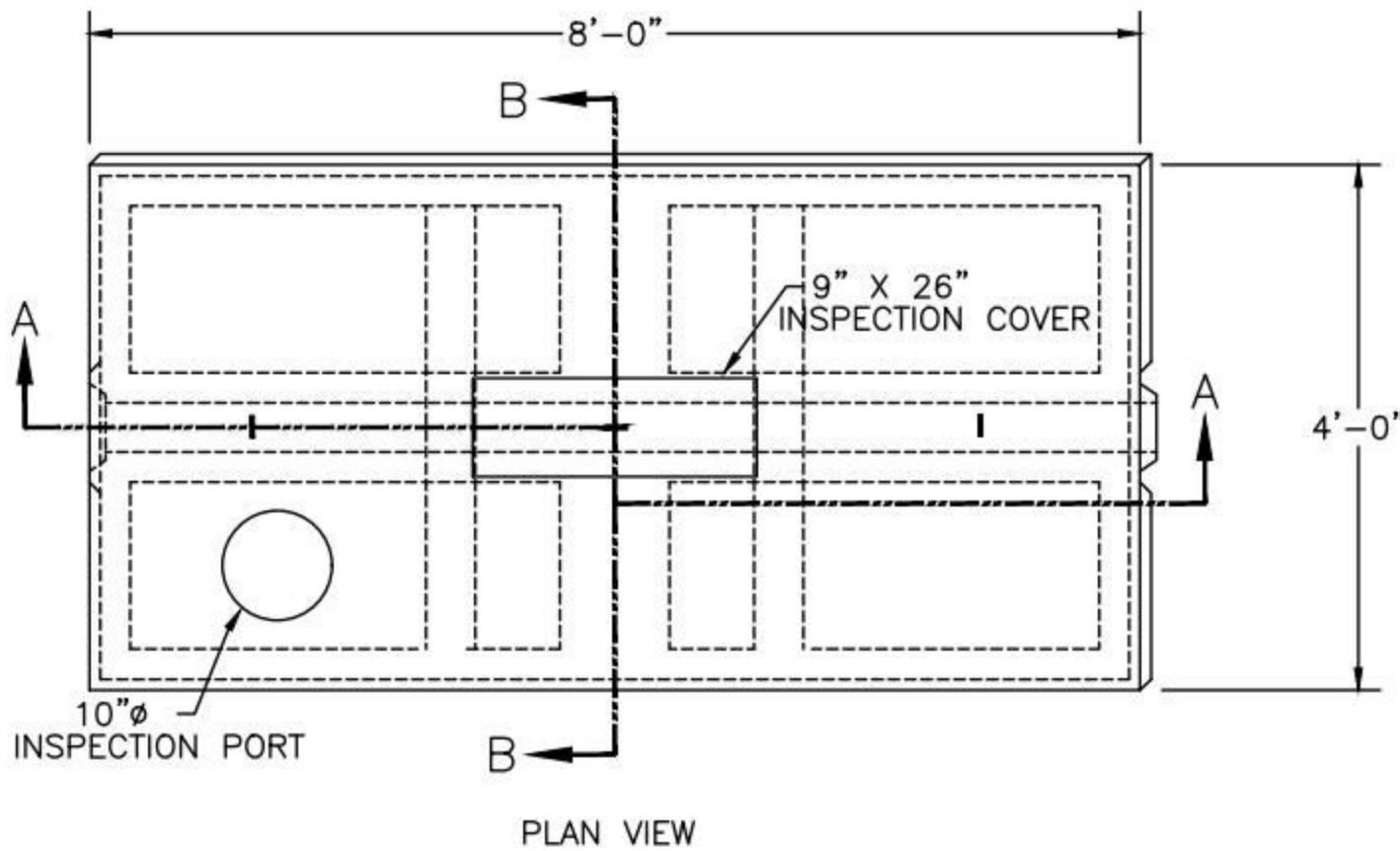
SIDE SECTION VIEW

END SECTION VIEW

NOTES:


1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER.

SHEA PRODUCT ID:	AC	PREPARED FOR:	FILE NAME:	Amrchmbr.dwg
WEIGHT (LBS):	3,111#	DRAWN BY:	DATE:	03/01/2018
		ARO	PAGE:	E2
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH				

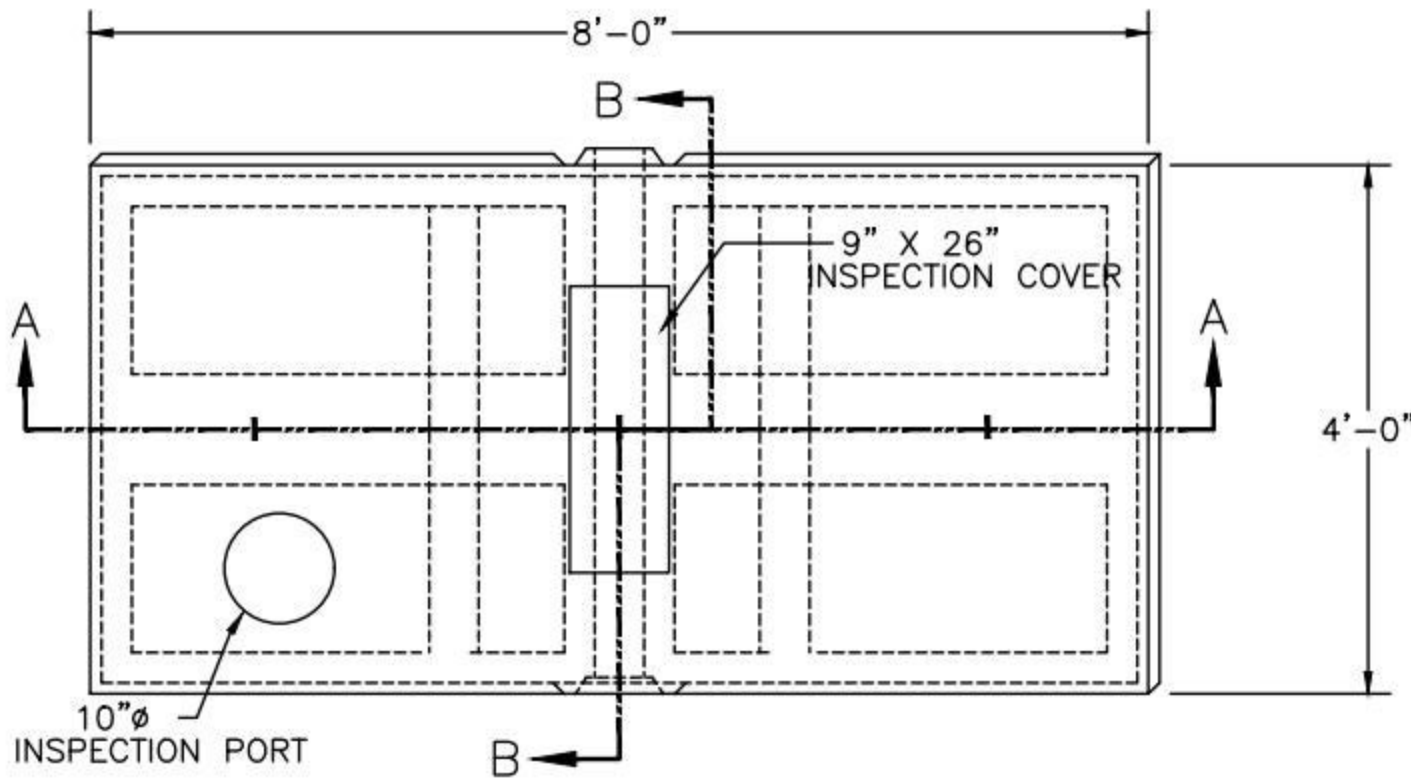


NOTES:

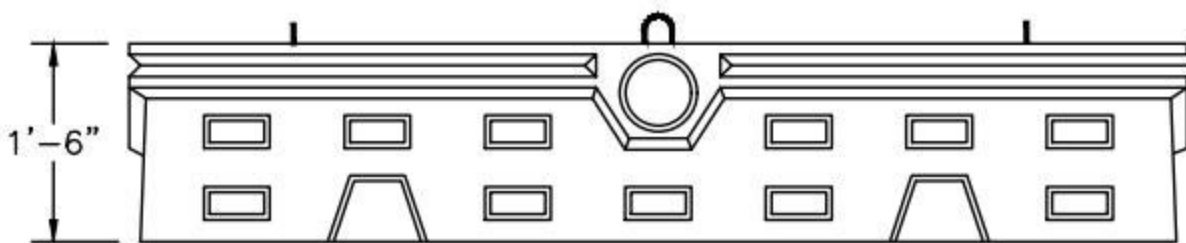
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO LATEST ASTM SPEC.
3. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FEET COVER.

SHEA PRODUCT ID: FDL		PREPARED FOR:		FILE NAME: Flwdif_L.dwg			
WEIGHT (LBS): 3,111#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: E3.1
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

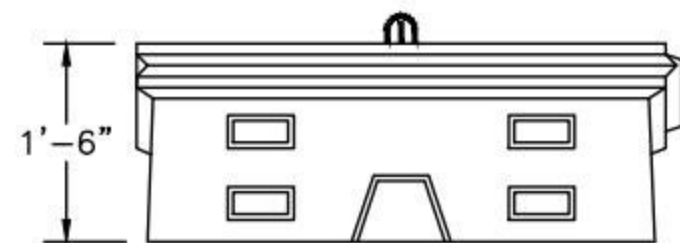
LEACHING CHAMBER "S" FLOW DIFFUSOR



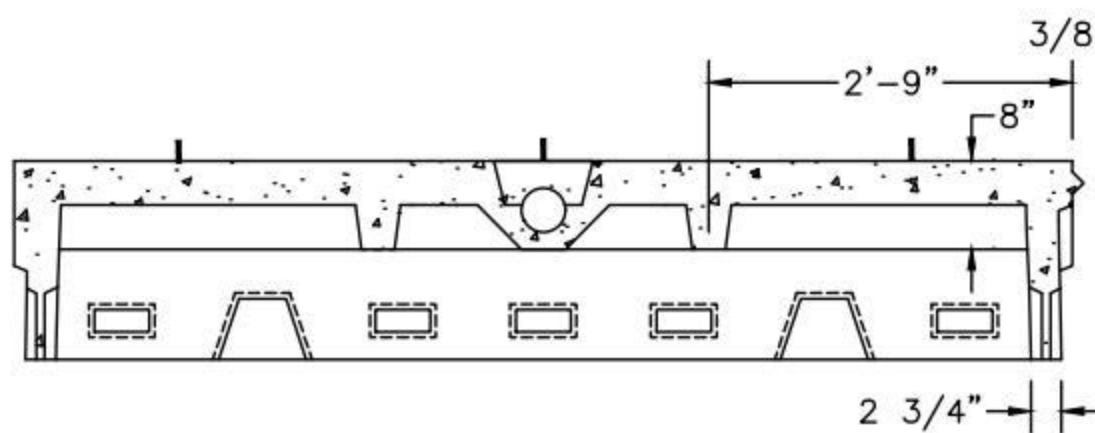
PLAN VIEW



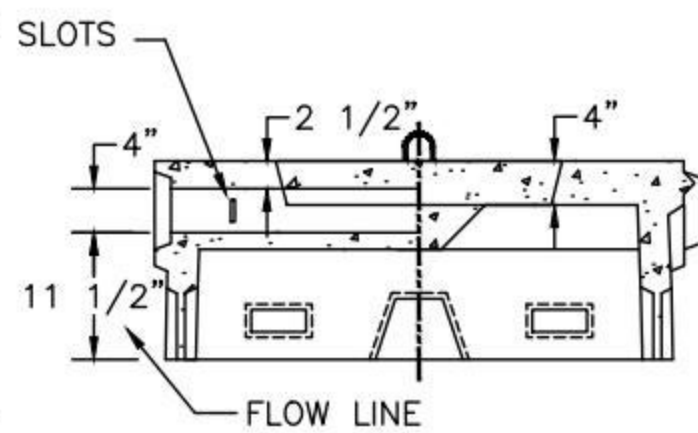
SIDE VIEW



END VIEW




SIDE SECTION VIEW
AA



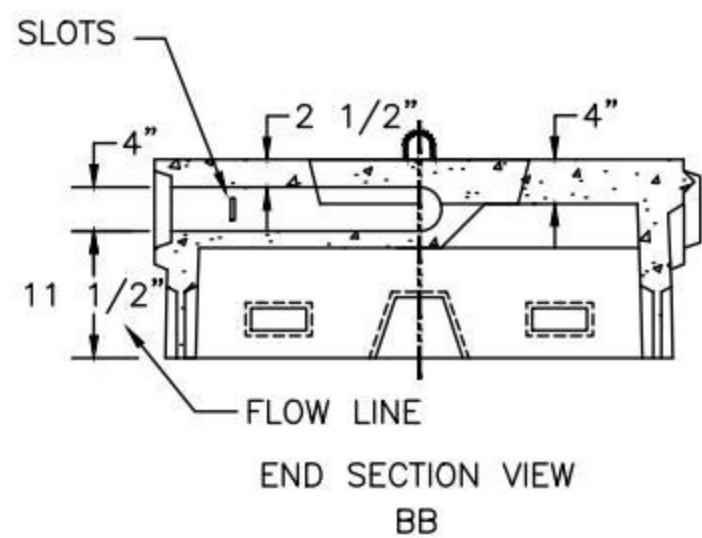
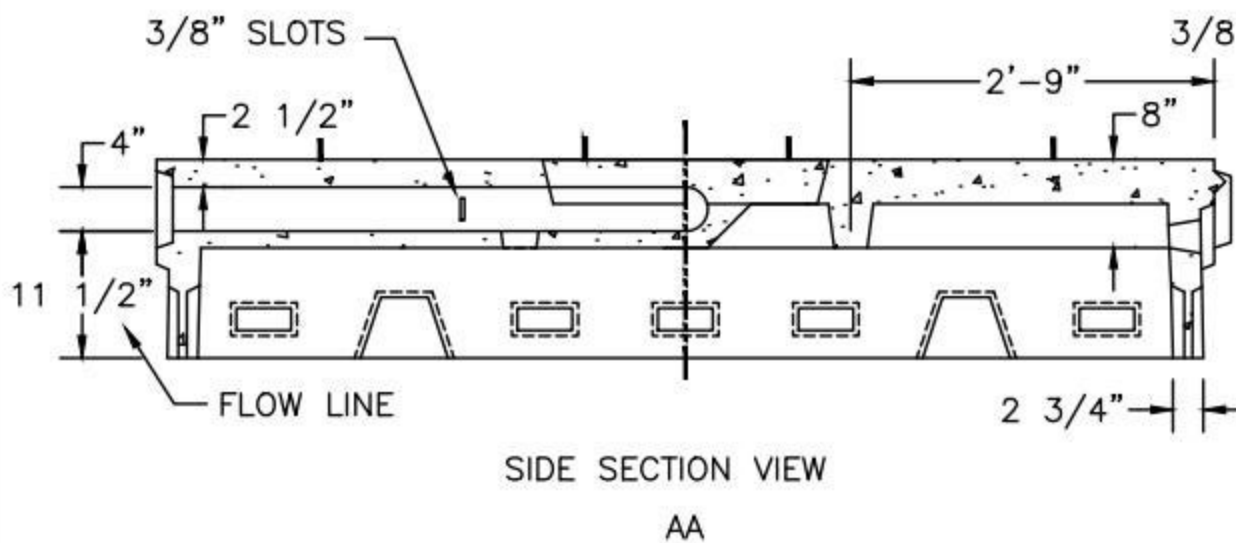
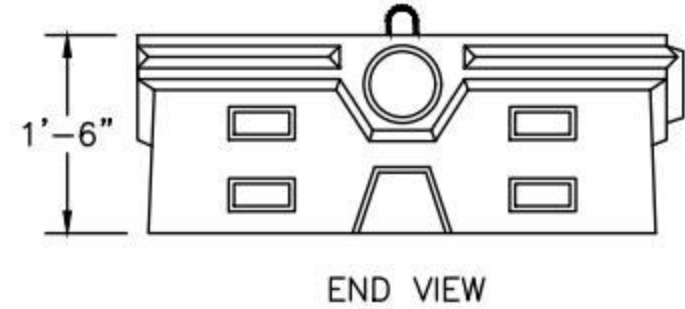
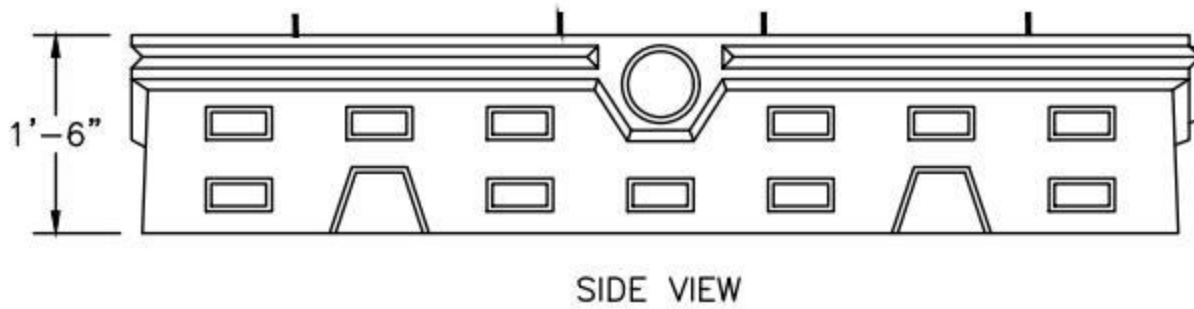
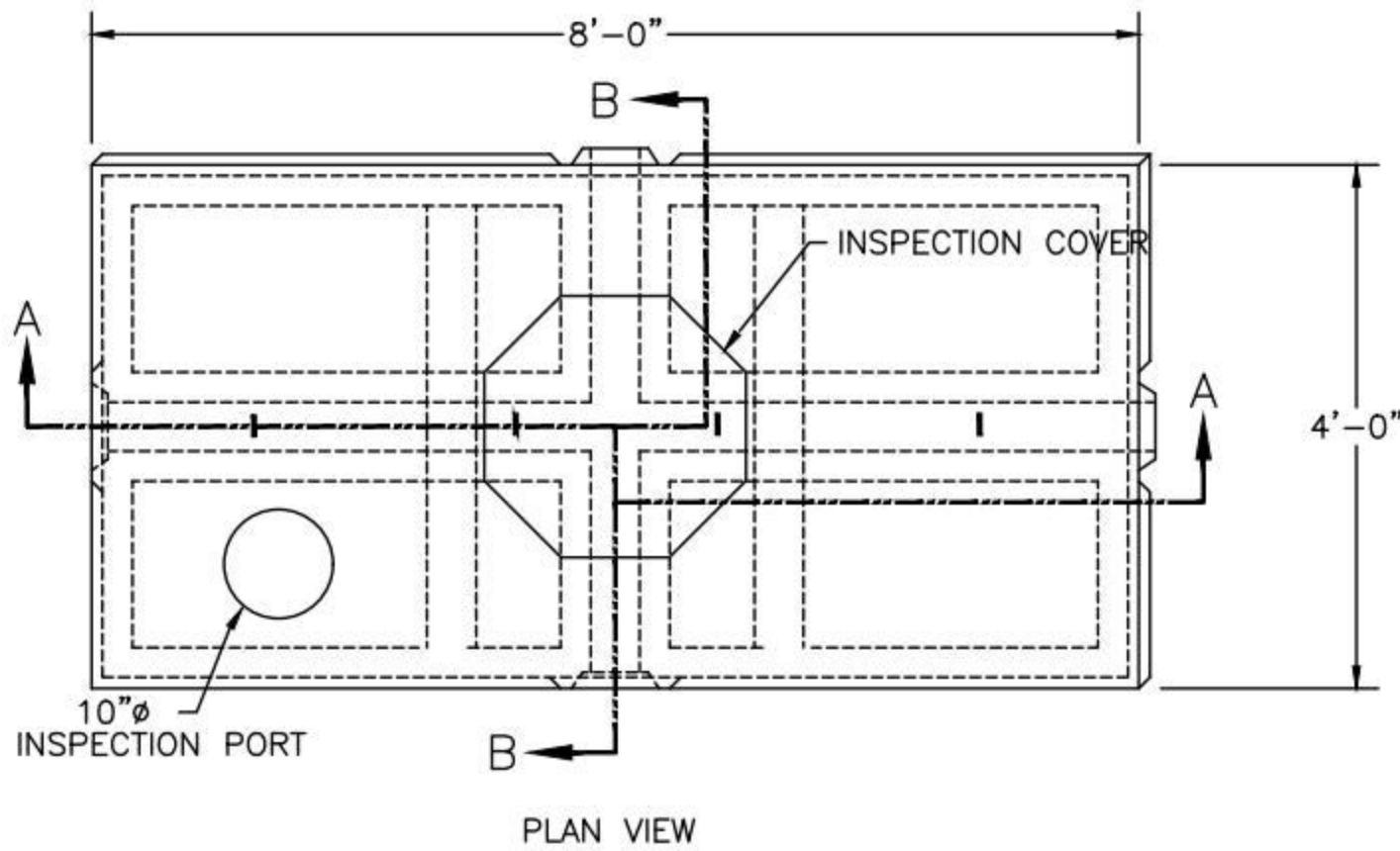
END SECTION VIEW
BB

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO LATEST ASTM SPEC.
3. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FEET COVER.


SHEA PRODUCT ID: FDS		PREPARED FOR:		FILE NAME: Flwdif_s.dwg			
WEIGHT (LBS): 3,111#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: E3.2
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

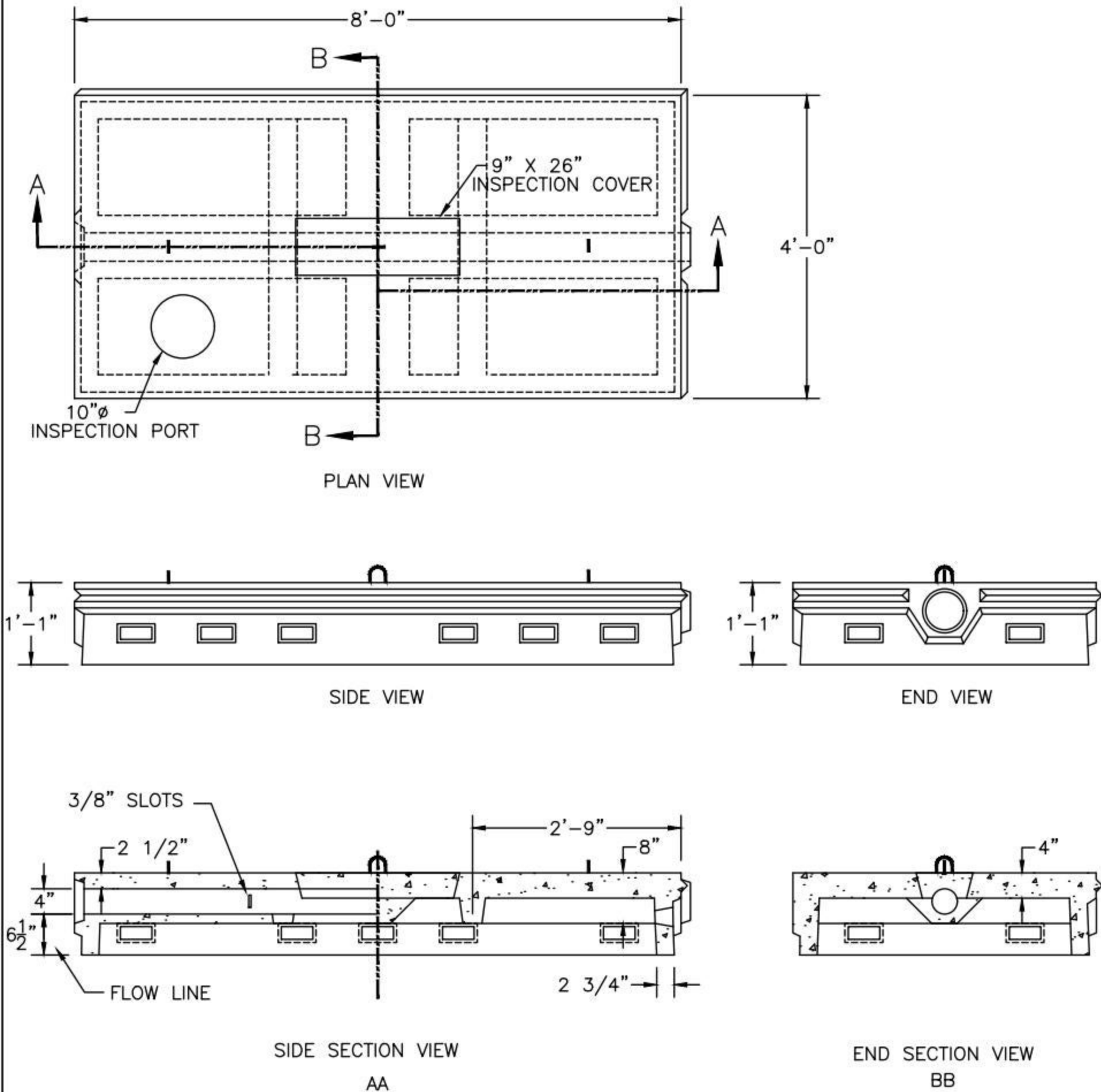
LEACHING CHAMBER "D" FLOW DIFFUSOR



NOTES:


1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO LATEST ASTM SPEC.
3. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FEET COVER.

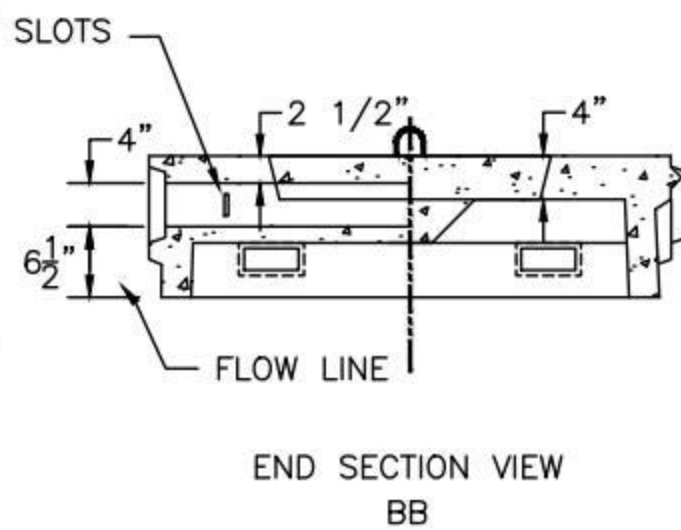
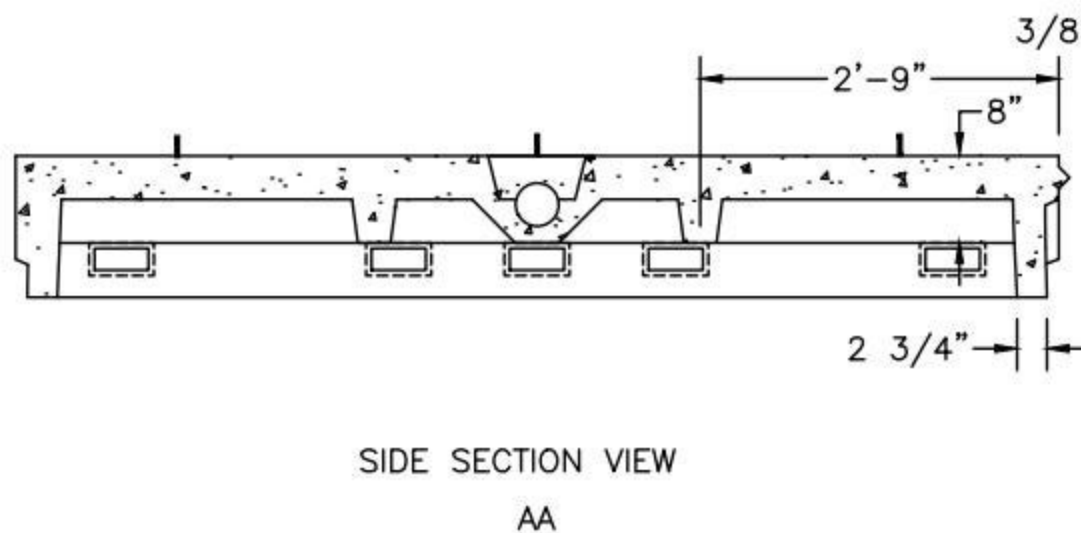
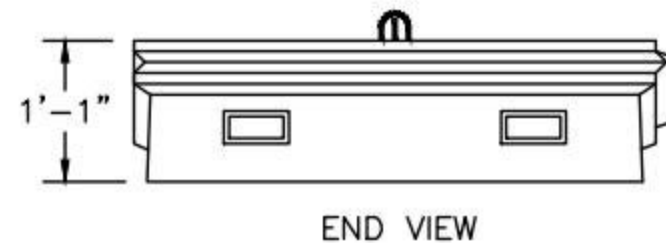
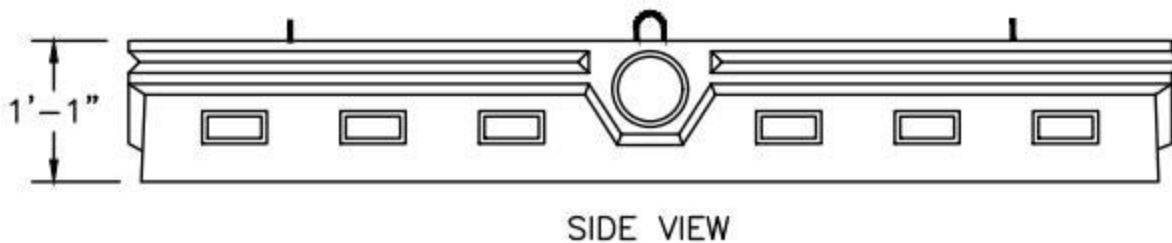
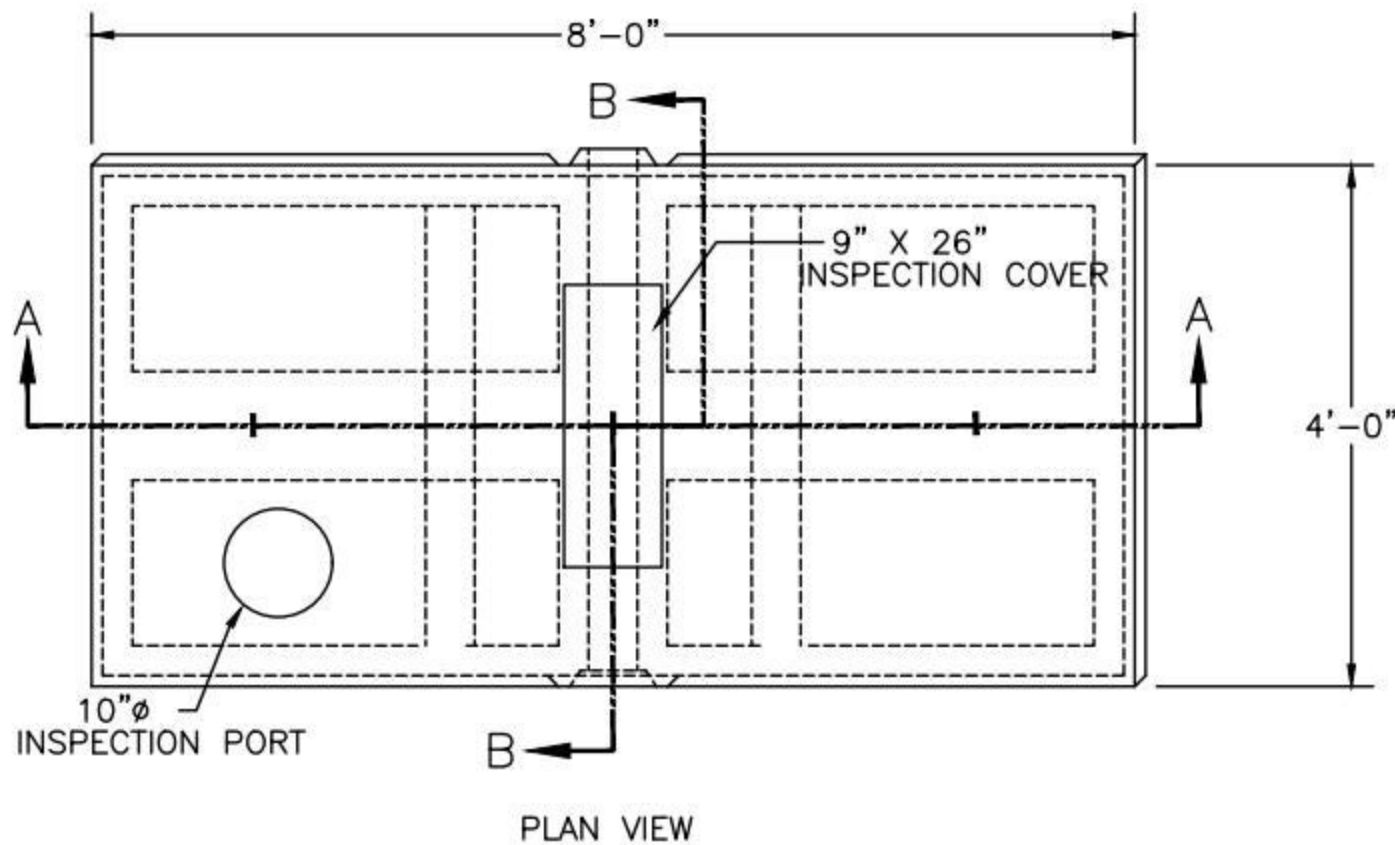
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WEIGHT (LBS): 3,111#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: E3.3
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



NOTES:


1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO LATEST ASTM SPEC.
3. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FEET COVER.

SHEA PRODUCT ID: FDLLP		PREPARED FOR:		FILE NAME: Fdlp_L.dwg			
WEIGHT (LBS): 2,615#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: E3.4
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



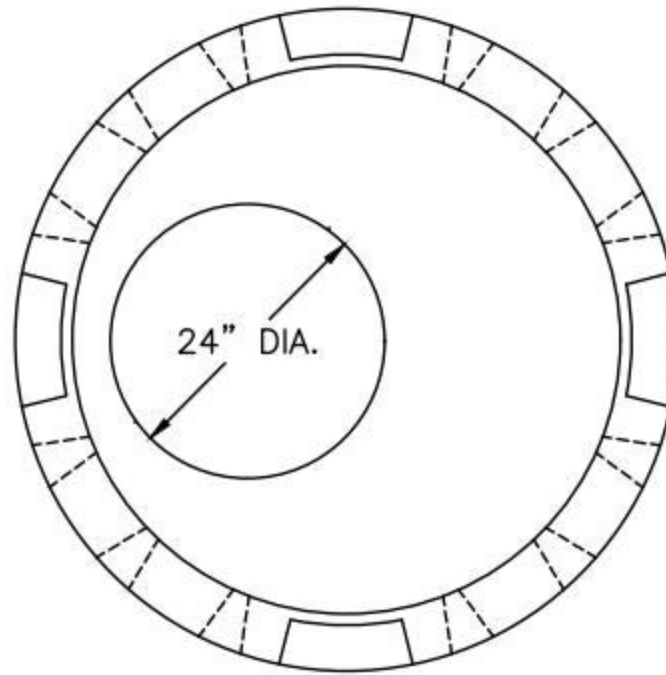
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO LATEST ASTM SPEC.
3. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FEET COVER.

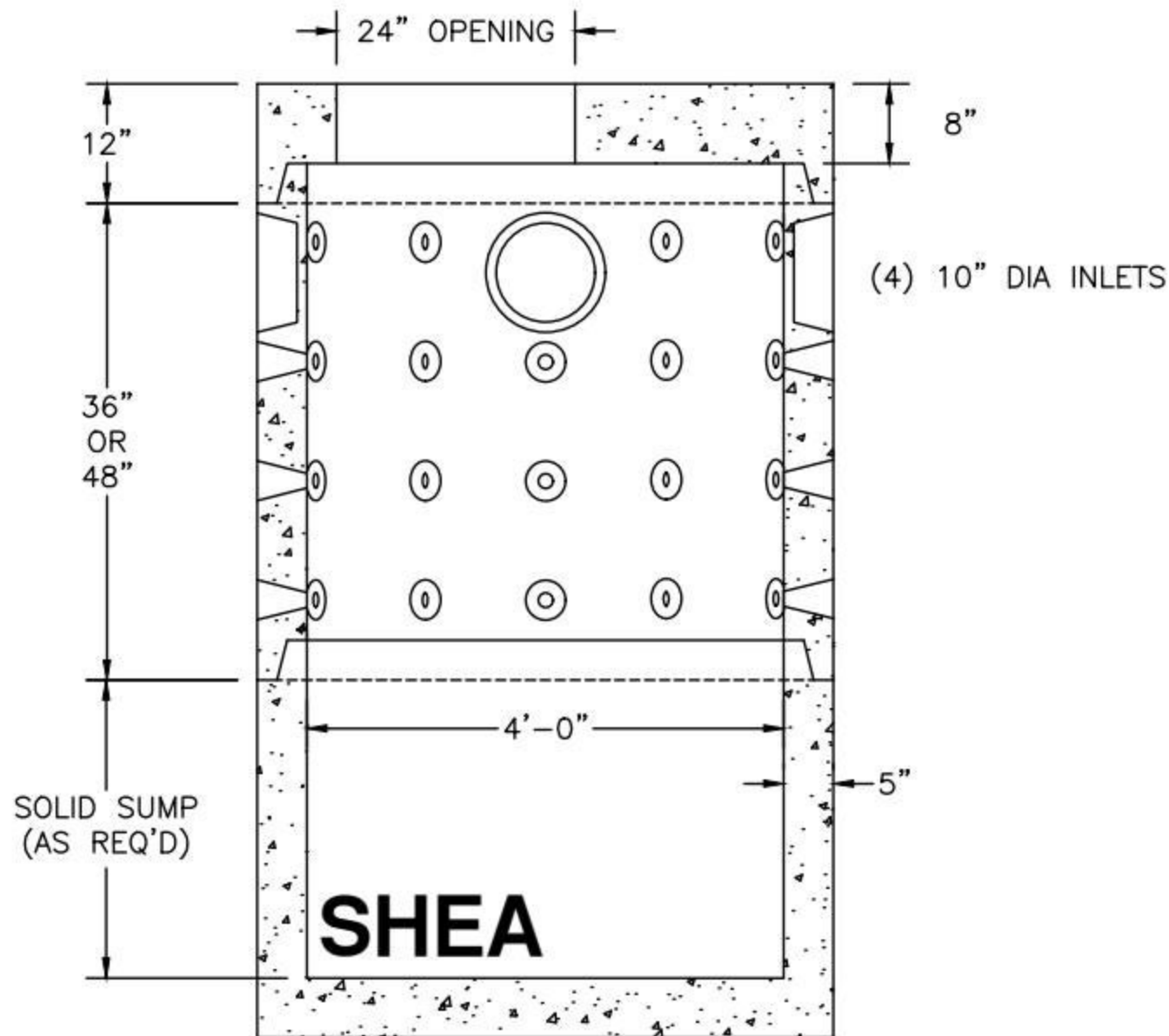
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WEIGHT (LBS): 2,615#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: E3.5
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

LEACHING CATCH BASIN

48" DIA – 5" WALL



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FEET COVER.
3. OPTIONAL ECCENTRIC CONES AVAILABLE.
4. VOLUME: 94 GALLONS/VF.
5. ADDITIONAL SECTIONS CAN BE ADDED TO INCREASE HEIGHT.

SHEA PRODUCT ID:
36LCS4ID/48LCS4ID

PREPARED FOR:

FILE NAME:

cb48lch5w.dwg

WEIGHT (LBS):
2,055#/2,740#

DRAWN BY: ARO

DATE: 03/01/2018

PAGE: E4.1

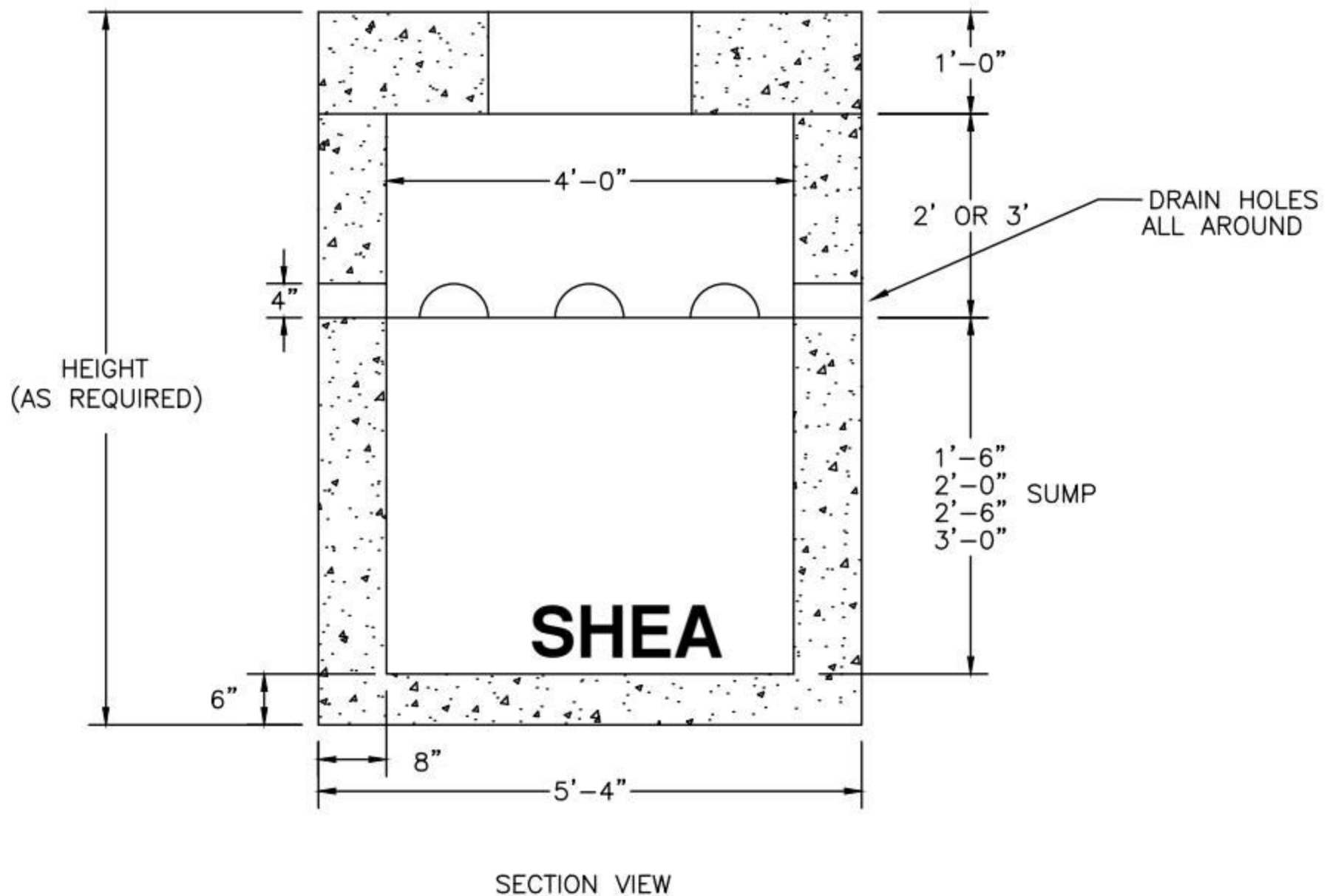
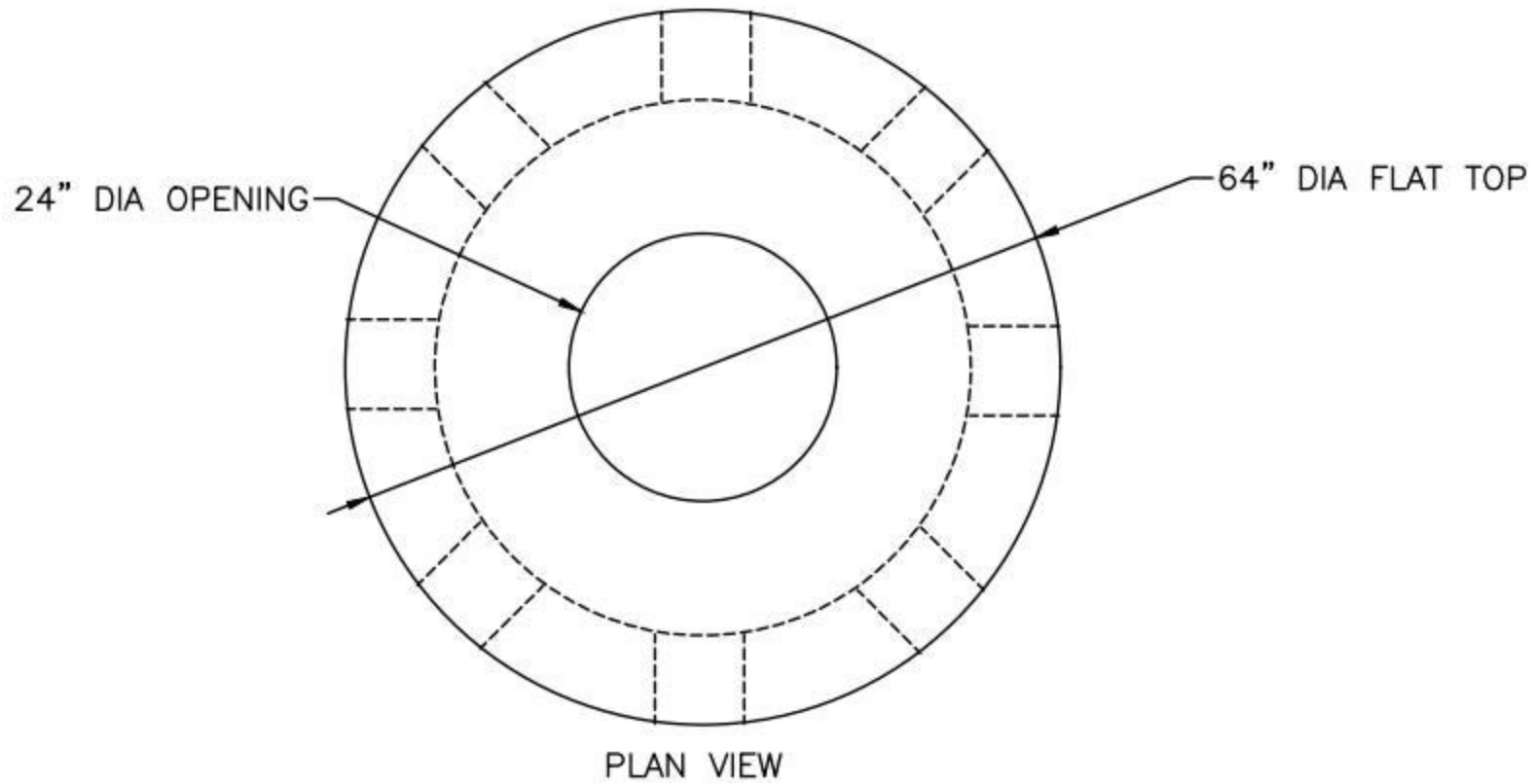


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice


LEACHING CATCH BASIN

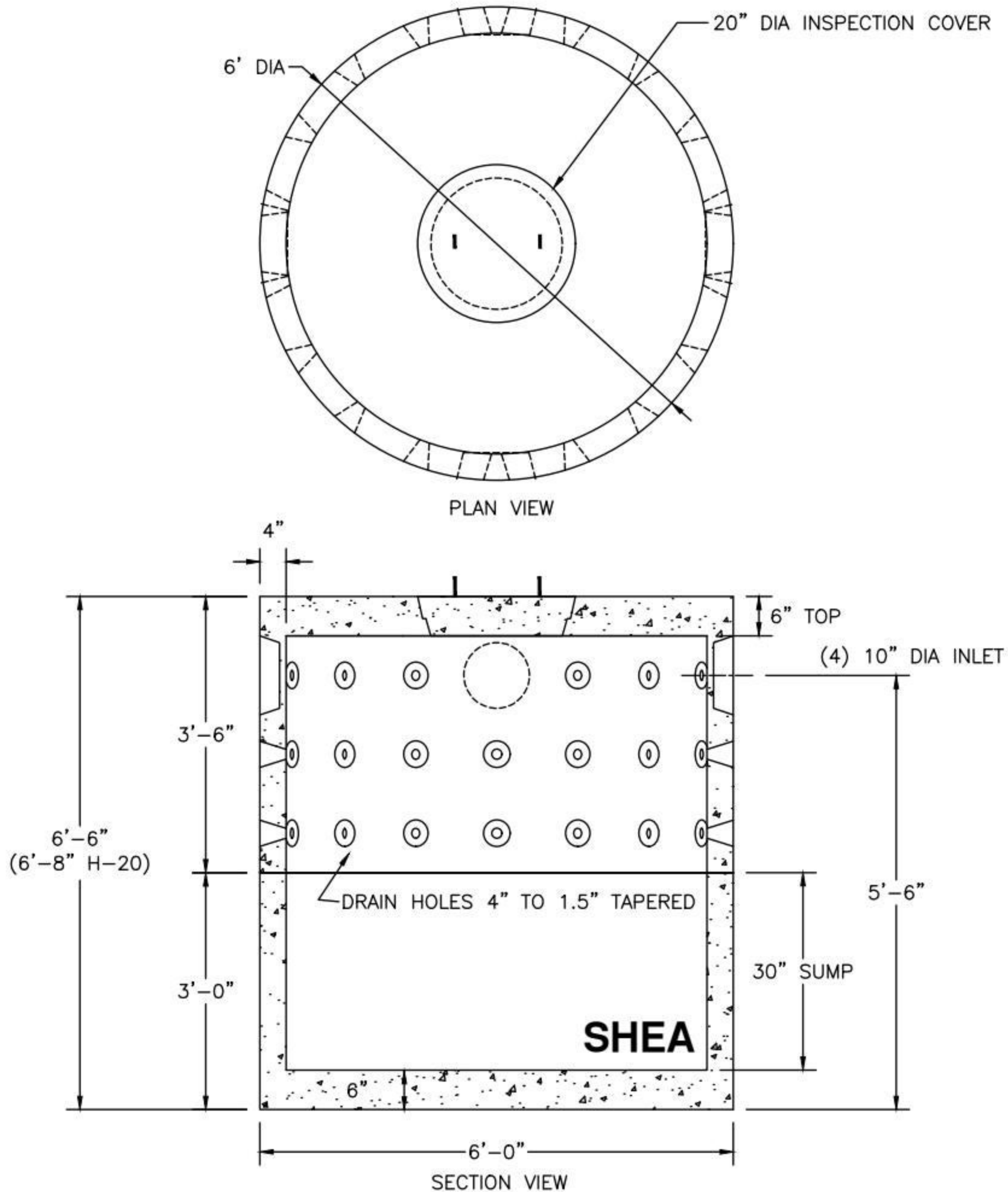
48" DIA – 8" WALL



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FEET COVER.
3. OPTIONAL 18" AND 24" CONCENTRIC CONE OR 18" ECCENTRIC CONE AVAILABLE.


SHEA PRODUCT ID: 24LCS/36LCS		PREPARED FOR:		FILE NAME: Cb48lch8w.dwg			
WEIGHT (LBS): 2,690#/4,135#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: E4.2
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



NOTES:

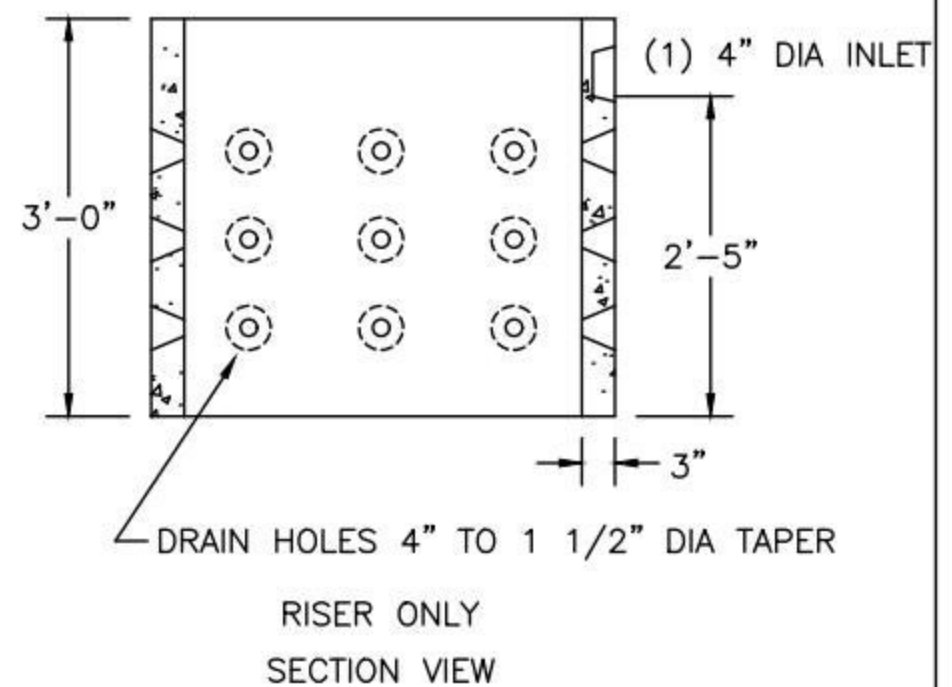
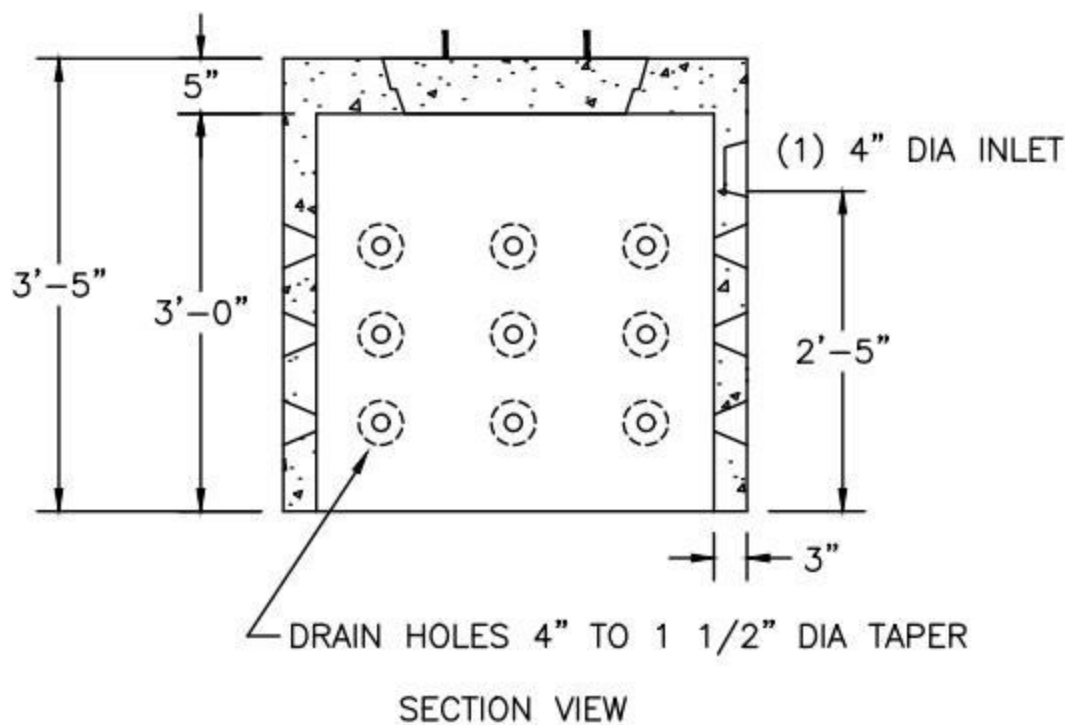
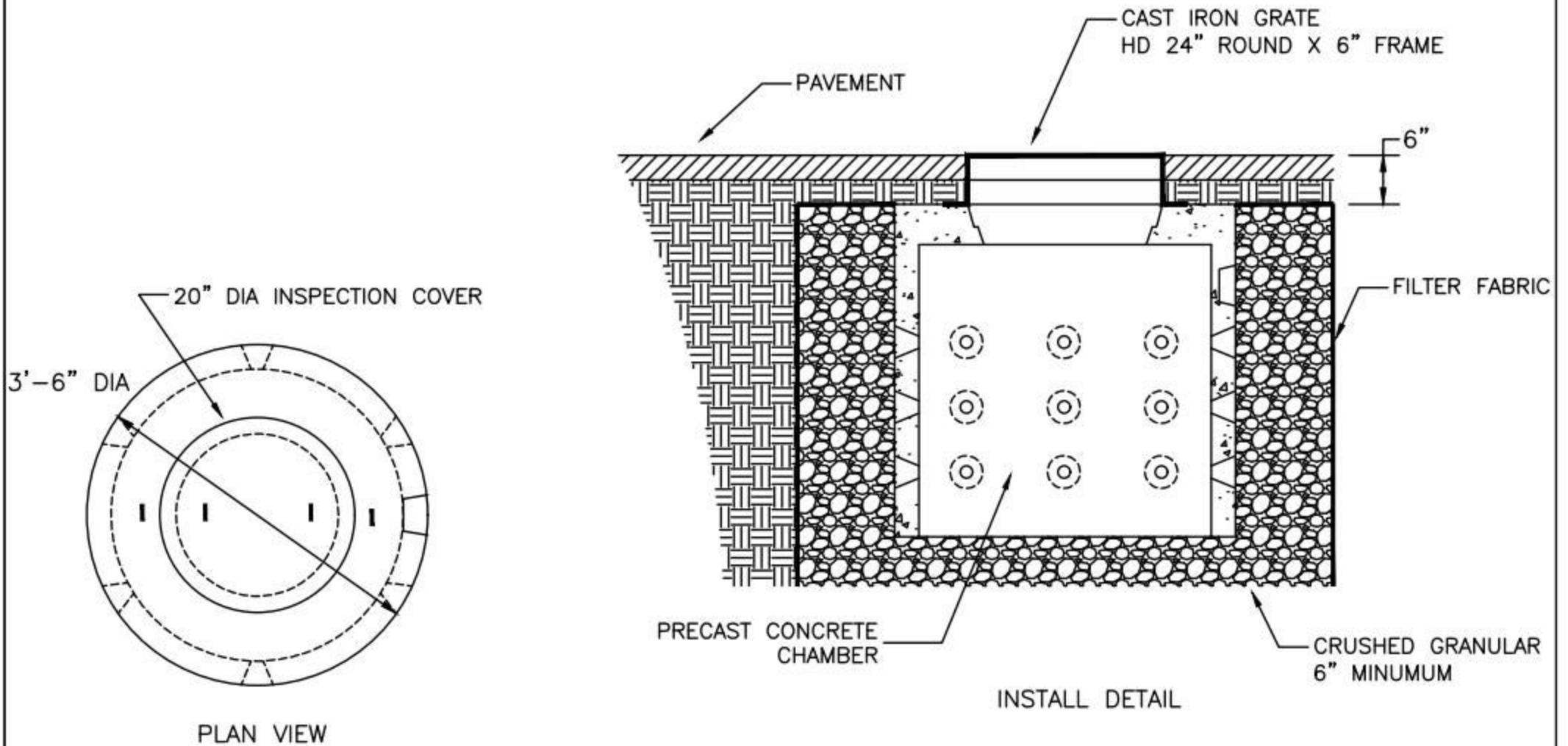
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ALSO AVAILABLE IN AASHTO HS-20 LOADING.
3. CAPACITY INCREASES IN INCREMENTS OF 500 GALLONS FOR EACH 3' SECTION ADDED.

			WEIGHT
ITEM NO.	SSS	30" SUMP	6,409#
	3SS	3' STACKABLE (NO COVER)	2,008#

SHEA PRODUCT ID: SEE TABLE		PREPARED FOR:		FILE NAME: Dwcleach.dwg				
WEIGHT (LBS): SEE TABLE		DRAWN BY: ARO		DATE: 06/01/18			PAGE: E5	
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH								

MINI-DRY WELL


160 GALLONS



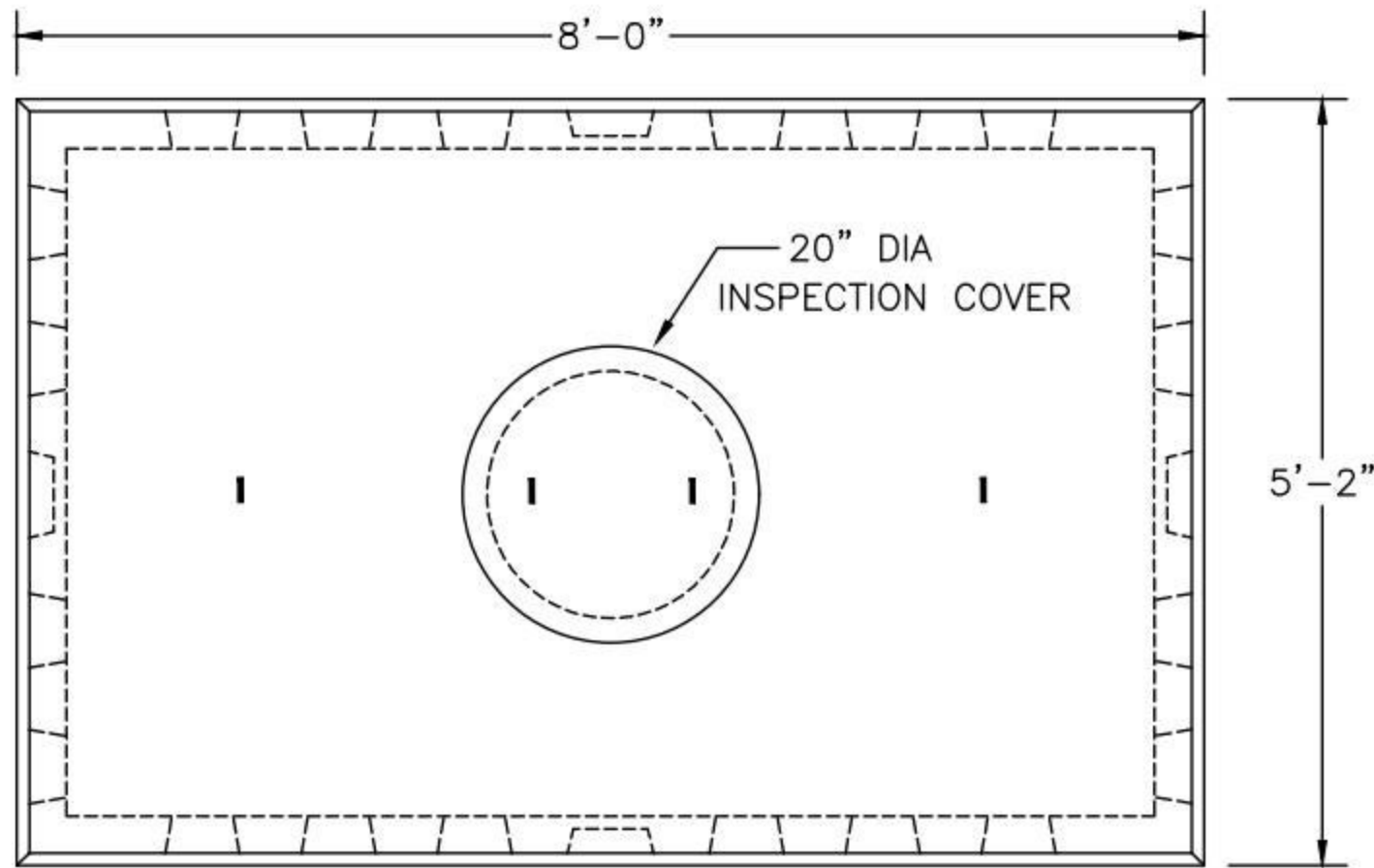
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER.
3. CAPACITY INCREASES IN INCREMENTS OF 160 GALLONS FOR EVERY 3' SECTION ADDED.
4. BOTTOM PLATES AVAILABLE.

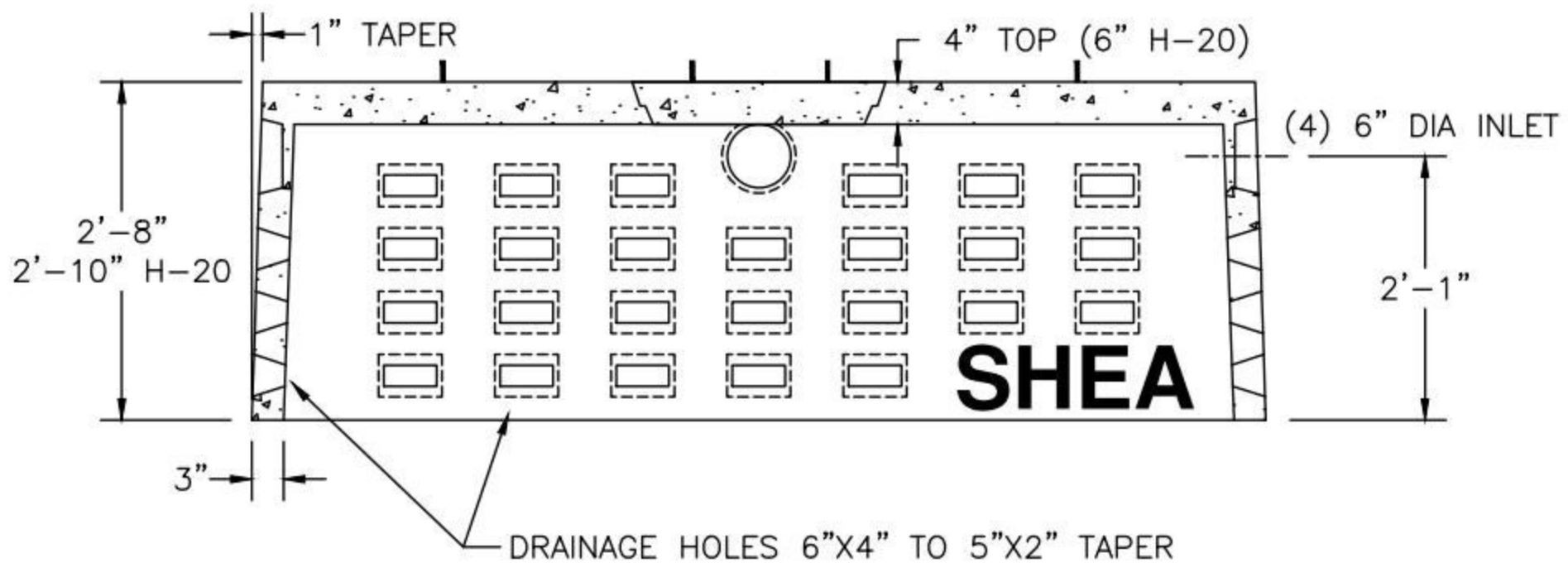
				WEIGHT
ITEM NO.	MDWH	3' SECTION W/COVER (ONE PIECE)		1,404#
	MDWHNC	3' SECTION NO COVER		1,048#

SHEA PRODUCT ID: SEE TABLE		PREPARED FOR:		FILE NAME: dwcmini.dwg			
WEIGHT (LBS): SEE TABLE		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: F1
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							





PLAN VIEW



SECTION VIEW

NOTES:

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

SHEA PRODUCT ID:
SDW/SDWH

PREPARED FOR:

FILE NAME:

dwr500.dwg

WEIGHT (LBS):
5,142#/6,065#

DRAWN BY: ARO

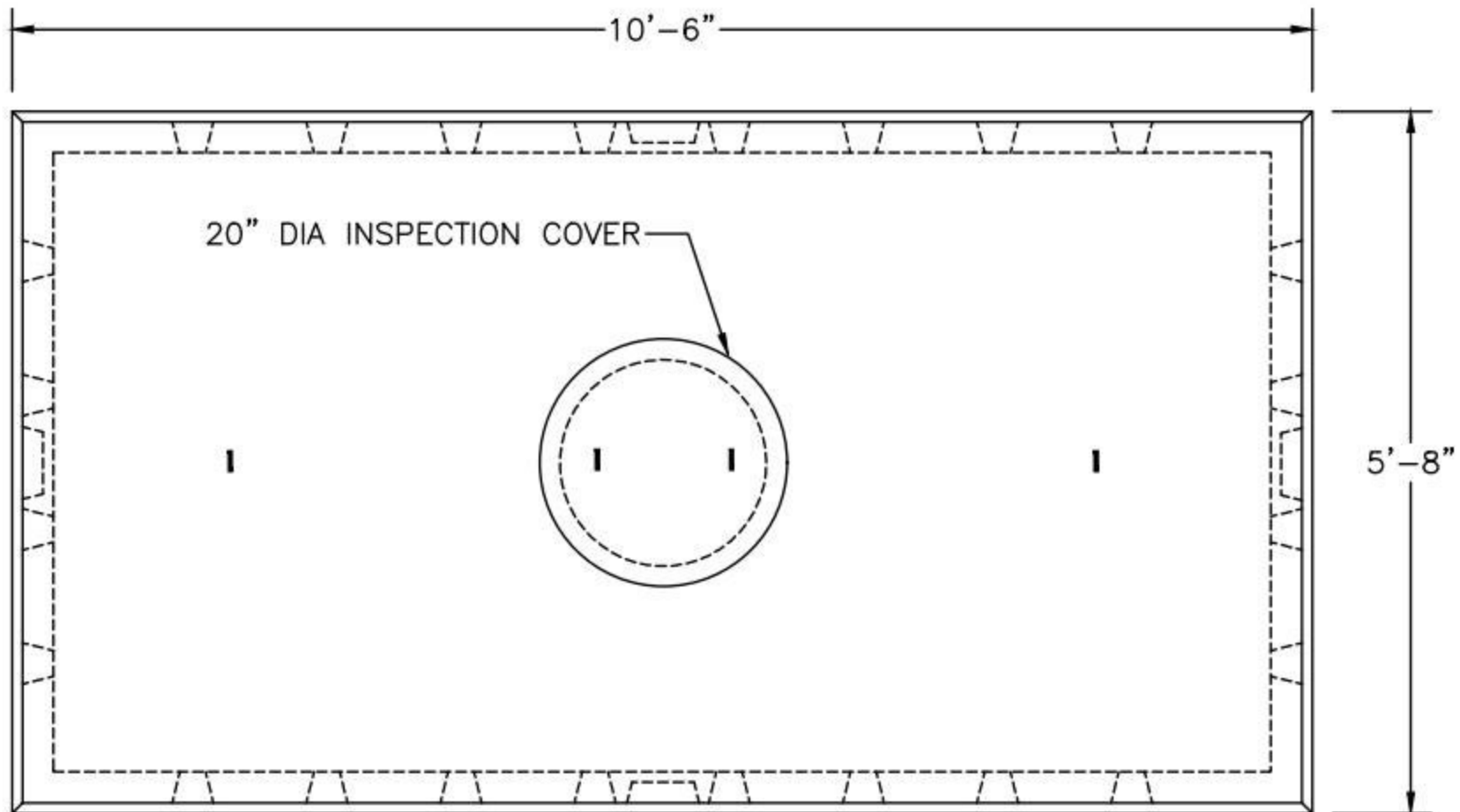
DATE: 06/01/18

PAGE: F2

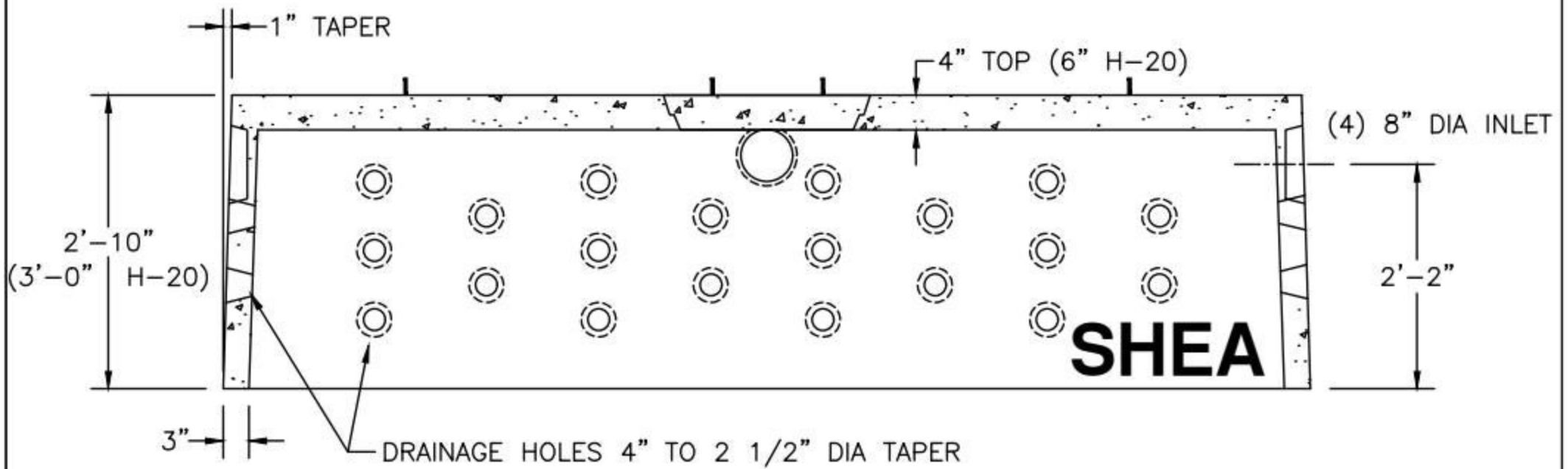


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice




PLAN VIEW

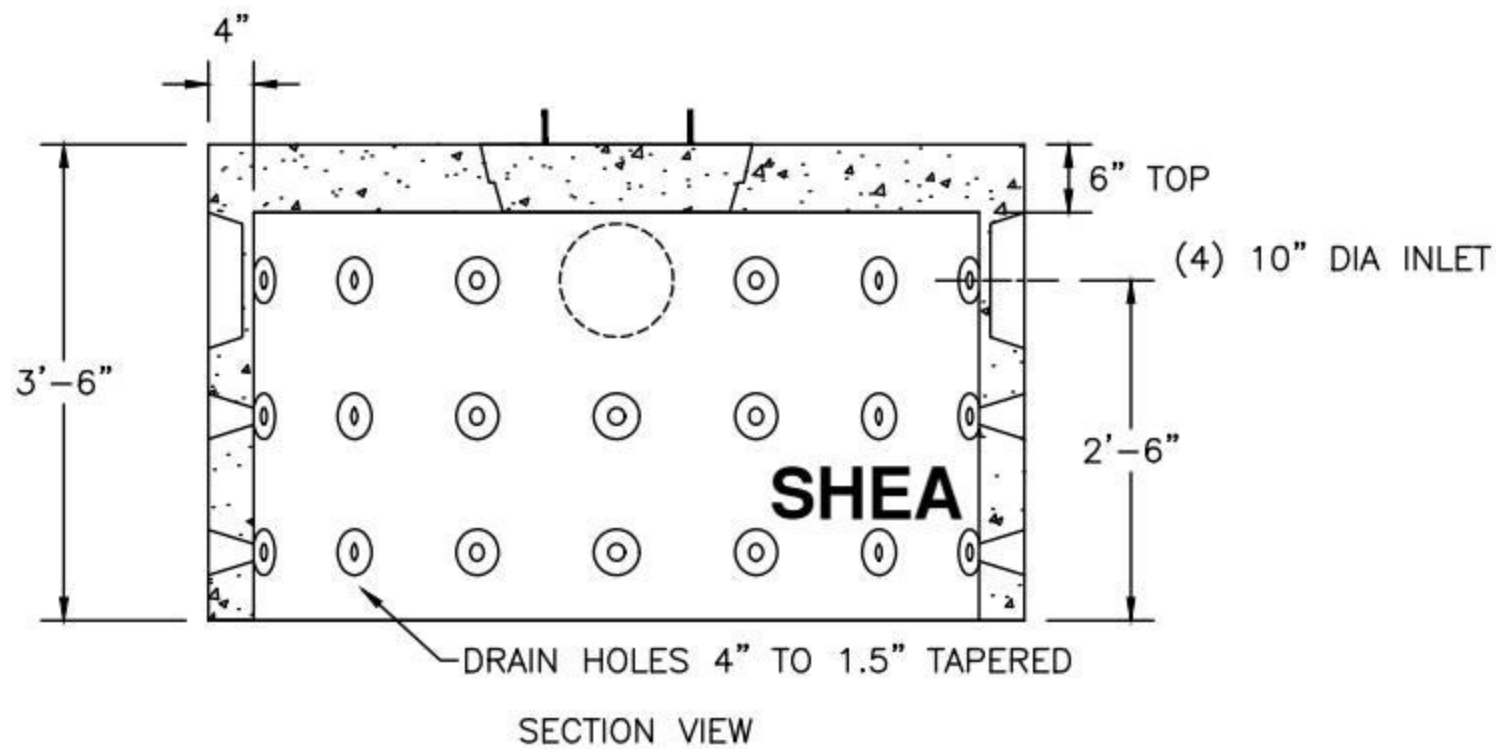
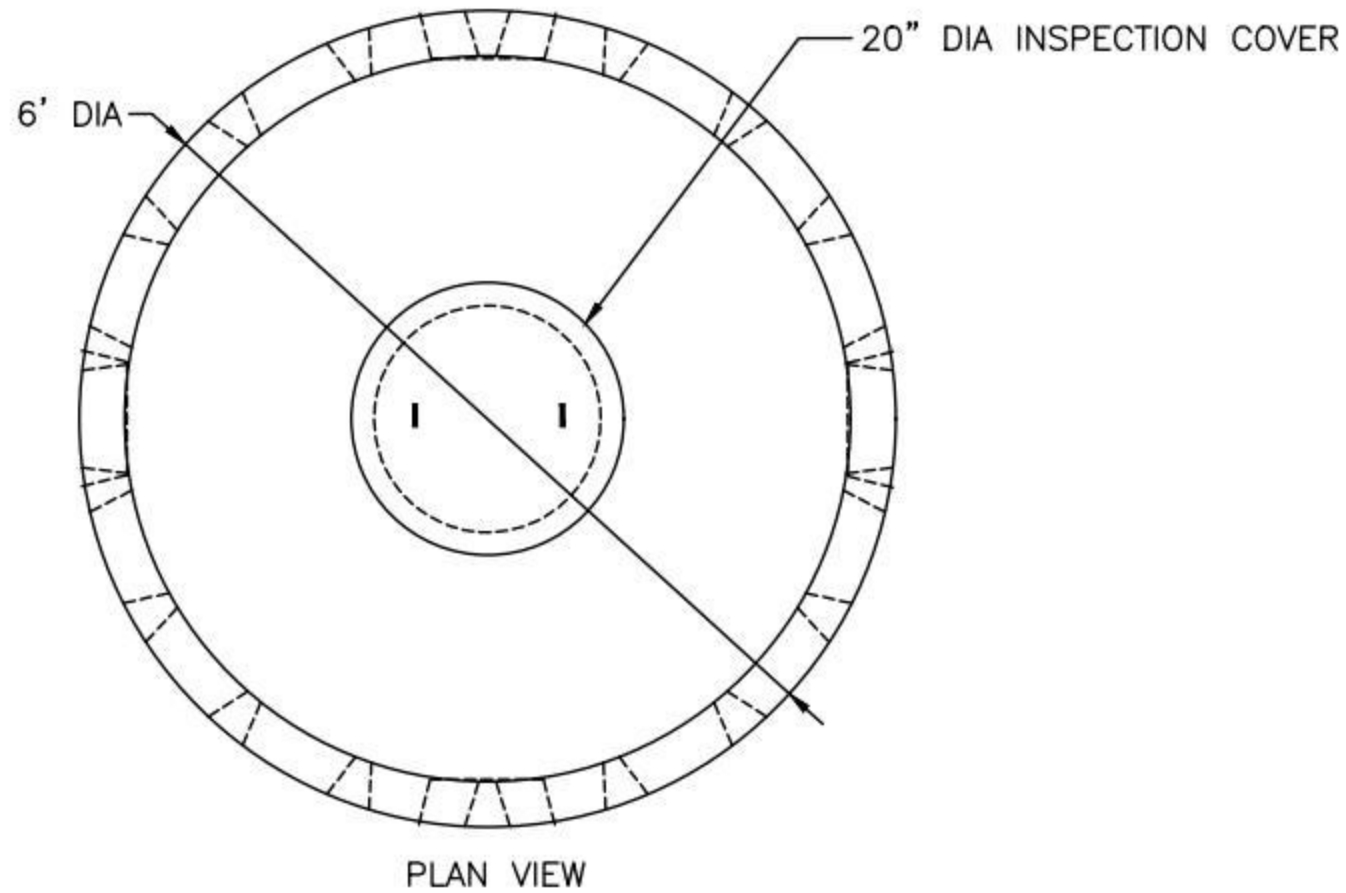


SECTION VIEW

NOTES:

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


SHEA PRODUCT ID: JDW/JDWH		PREPARED FOR:		FILE NAME: dwr1000.dwg			
WEIGHT (LBS): 5,650#/7,100#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: F3
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



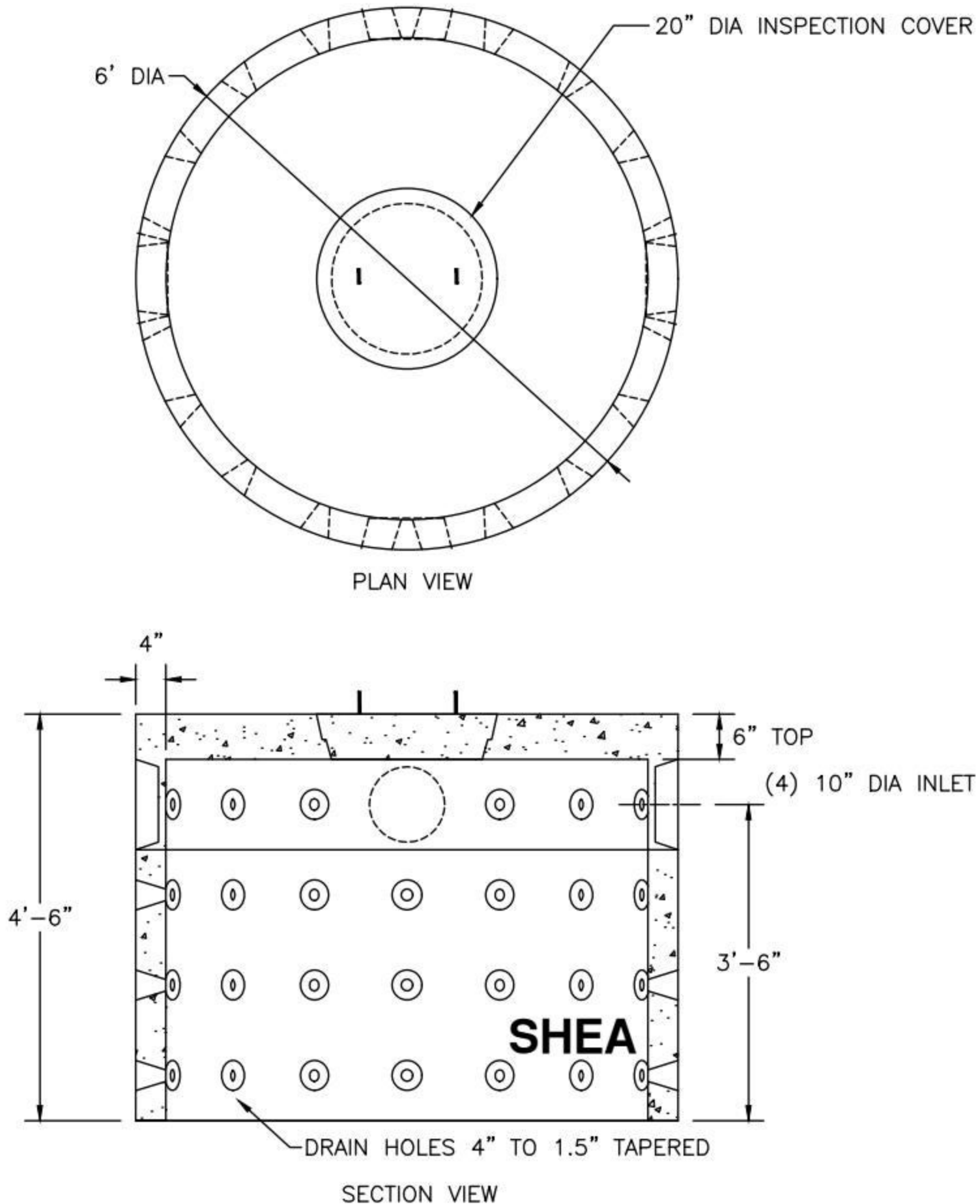
ITEM NO.			WEIGHT
500 GALLON	500SDW	STANDARD	4,770#
	500SDWH	H-20	4,770#
3' STACKABLE	3SS		2,008#

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ALSO AVAILABLE IN AASHTO HS-20 LOADING.
3. CAPACITY INCREASES IN INCREMENTS OF 500 GALLONS FOR EACH 3' SECTION ADDED.

SHEA PRODUCT ID: SEE TABLE		PREPARED FOR:		FILE NAME: dwc500.dwg			
WEIGHT (LBS): SEE TABLE		DRAWN BY: ARO		DATE: 06/01/18			PAGE: F4.1
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							






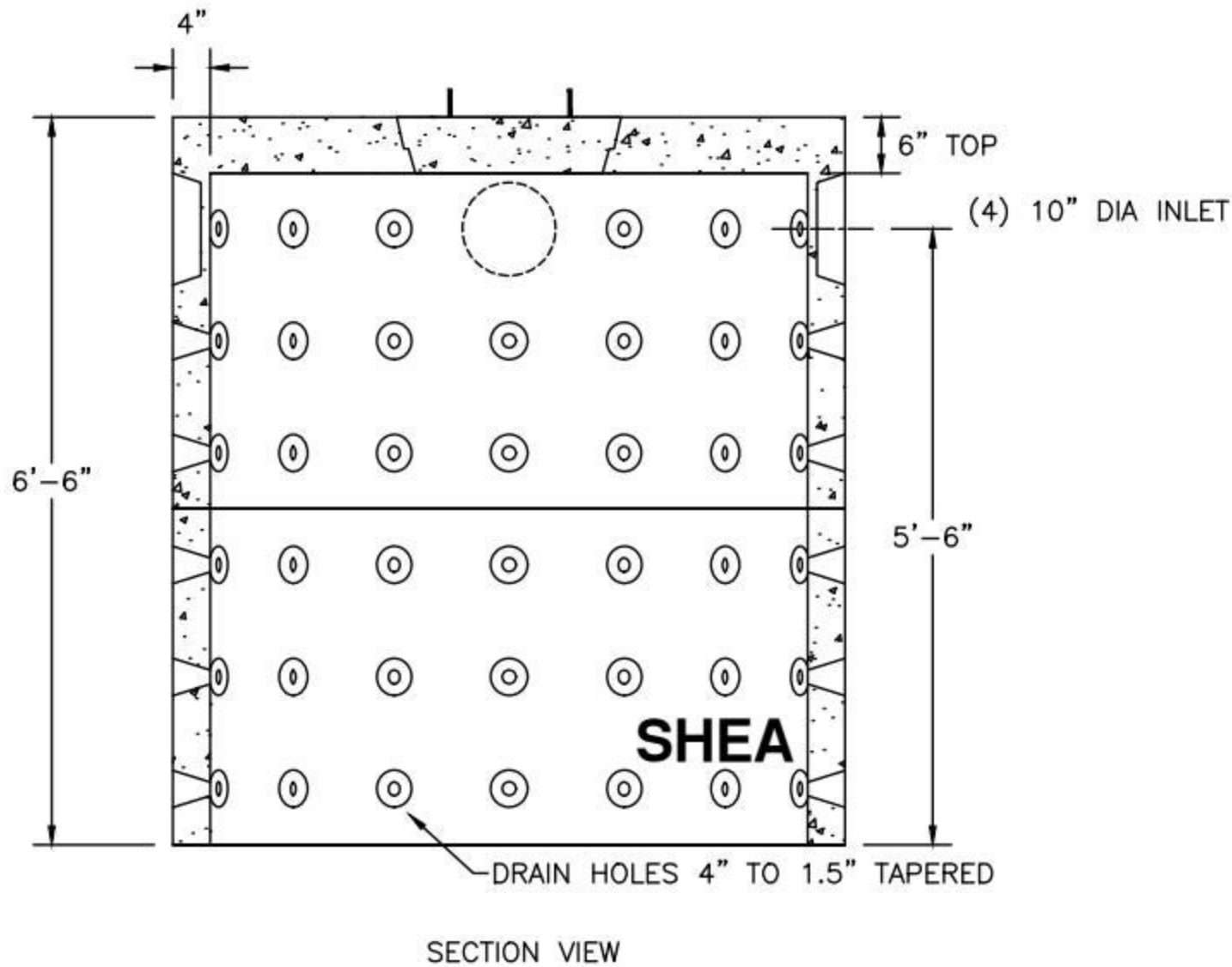
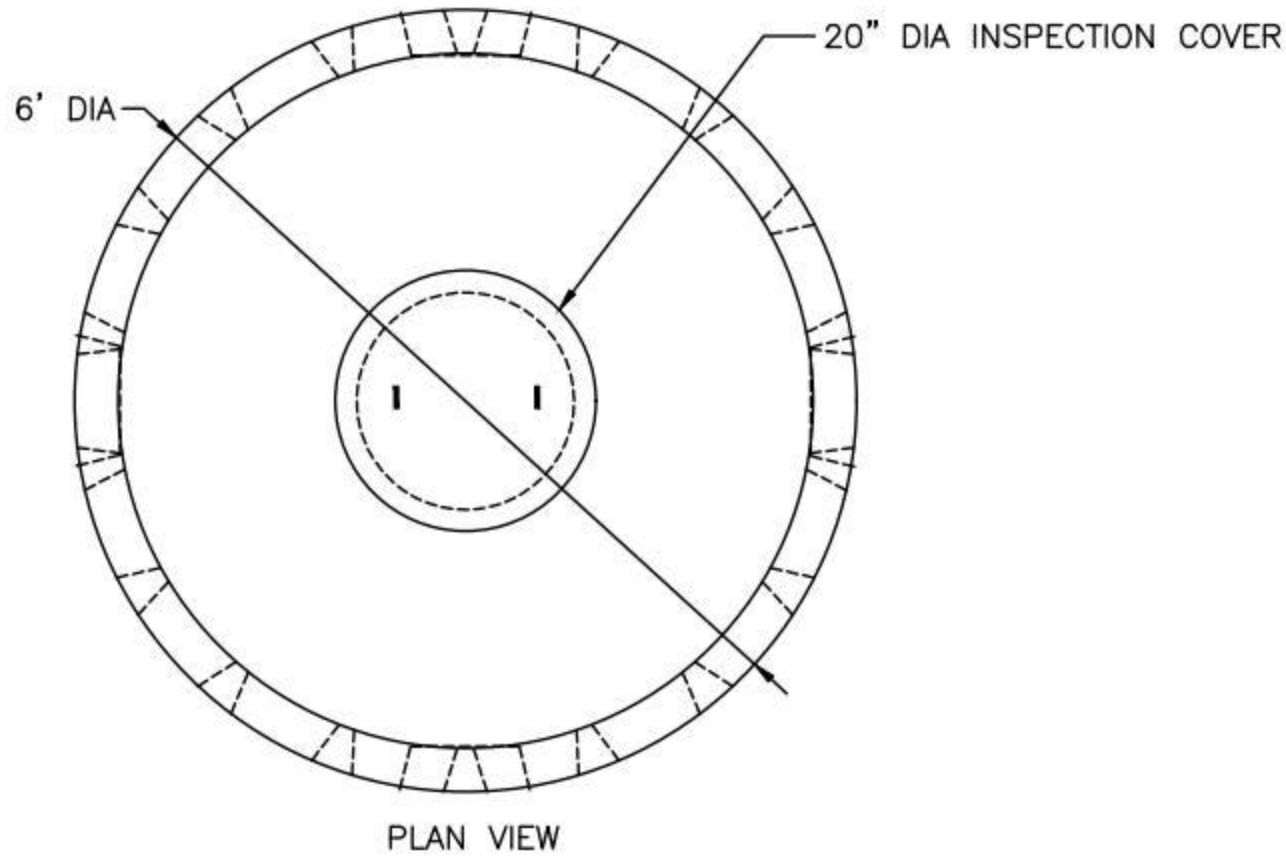
ITEM NO.			WEIGHT
700 GALLON	700DW	STANDARD	5,400#
	700DWH	H-20	5,400#
3' STACKABLE	3SS		2,008#

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ALSO AVAILABLE IN AASHTO HS-20 LOADING.
3. CAPACITY INCREASES IN INCREMENTS OF 500 GALLONS FOR EACH 3' SECTION ADDED.

SHEA PRODUCT ID: SEE TABLE		PREPARED FOR:		FILE NAME: dwc700.dwg			
WEIGHT (LBS): SEE TABLE		DRAWN BY: ARO		DATE: 06/01/18			PAGE: F4.2
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							





NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ALSO AVAILABLE IN AASHTO HS-20 LOADING.
3. CAPACITY INCREASES IN INCREMENTS OF 500 GALLONS FOR EACH 3' SECTION ADDED.

	ITEM NO.	WEIGHT
1000 GALLON	1000SDW STANDARD	6,778#
	1000SDWH H-20	6,778#
3' STACKABLE	3SS	2,008#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

dwc1000.dwg

WEIGHT (LBS):
SEE TABLE

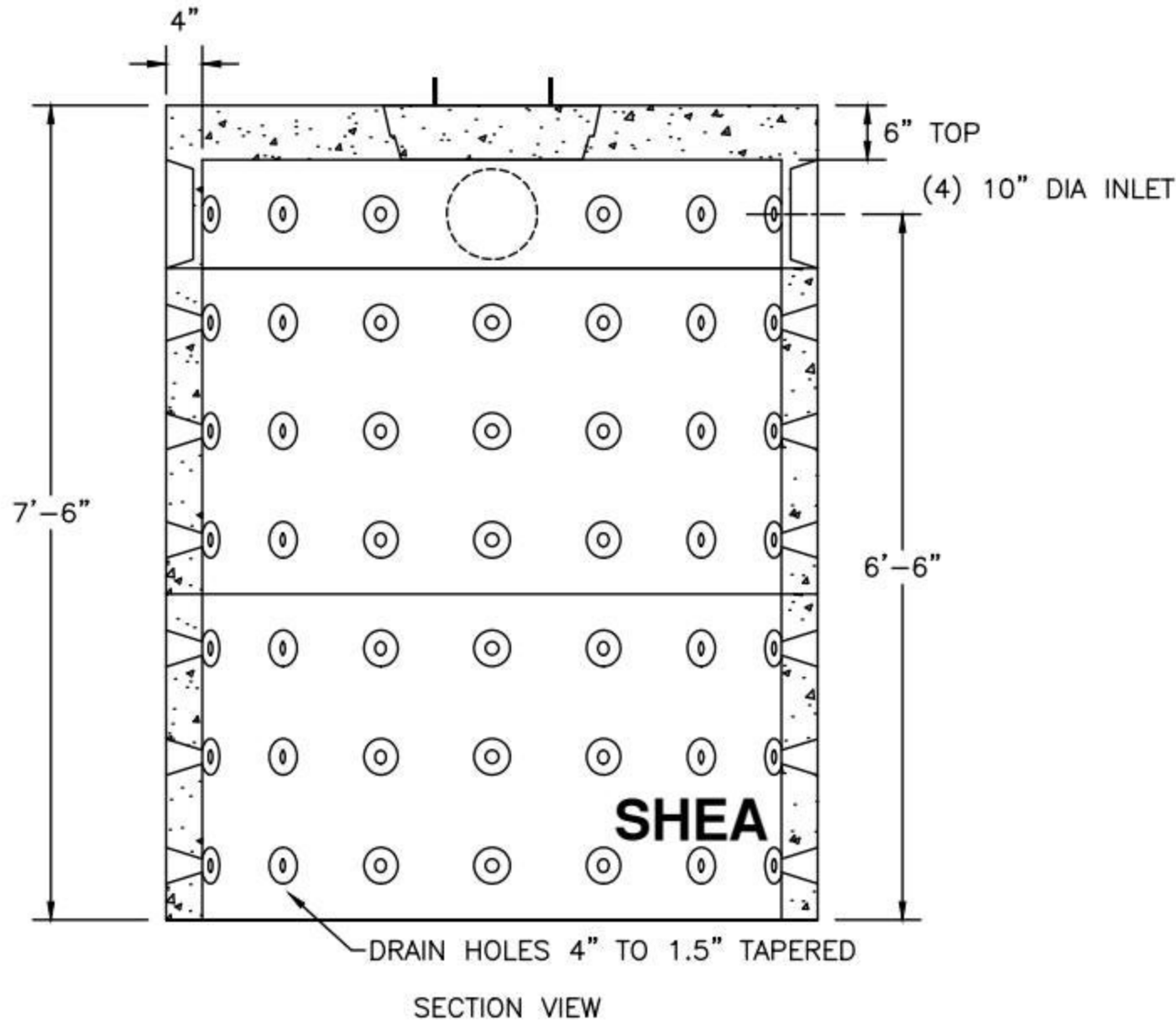
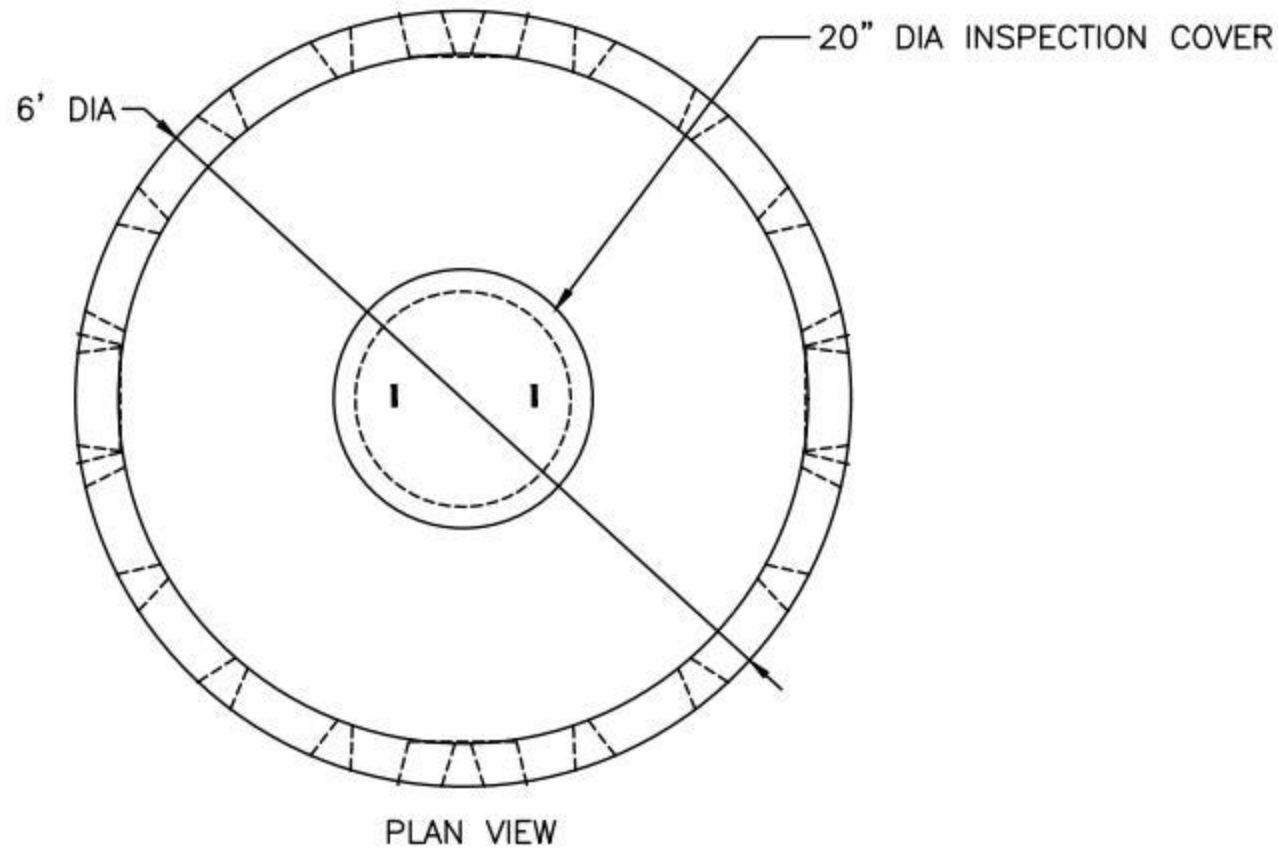
DRAWN BY: ARO

DATE: 06/01/18

PAGE: F4.3



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ALSO AVAILABLE IN AASHTO HS-20 LOADING.
3. CAPACITY INCREASES IN INCREMENTS OF 500 GALLONS FOR EACH 3' SECTION ADDED.

	ITEM NO.	WEIGHT
1200 GALLON	1200SDW STANDARD	7,400#
	1200SDWH H-20	7,400#
3' STACKABLE	3SS	2,008#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

dwc1200.dwg

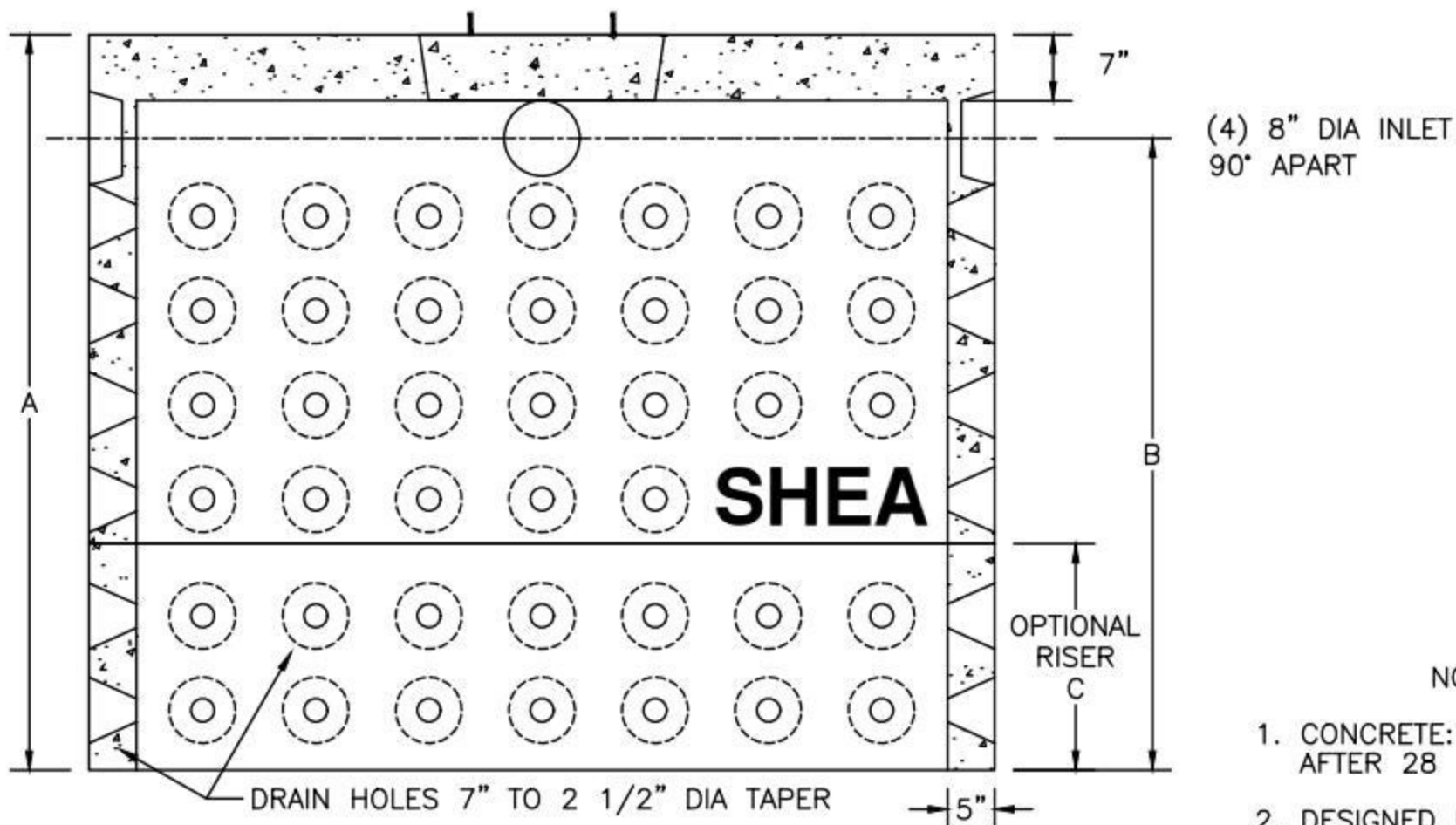
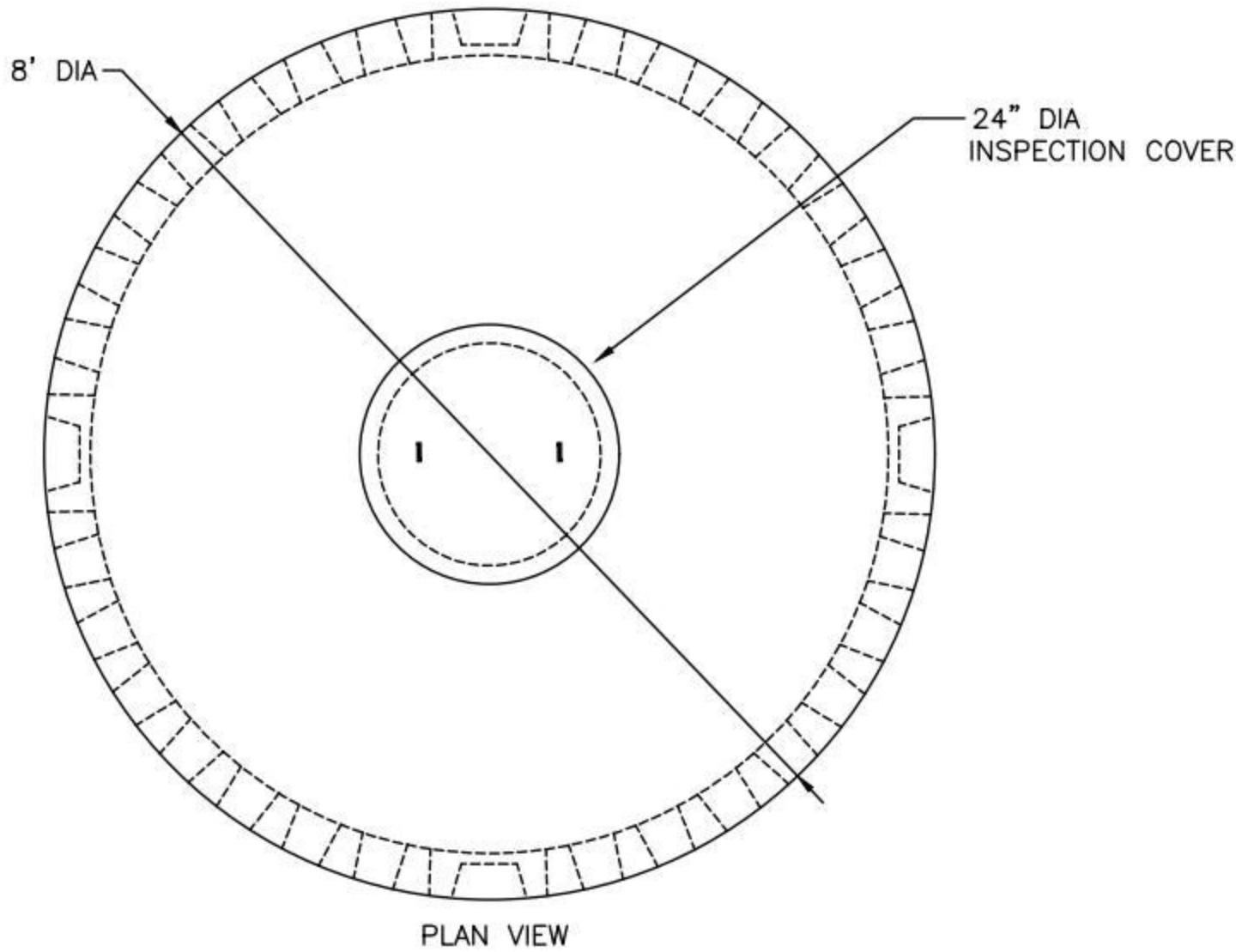
WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

DATE: 06/01/18

PAGE: F4.4



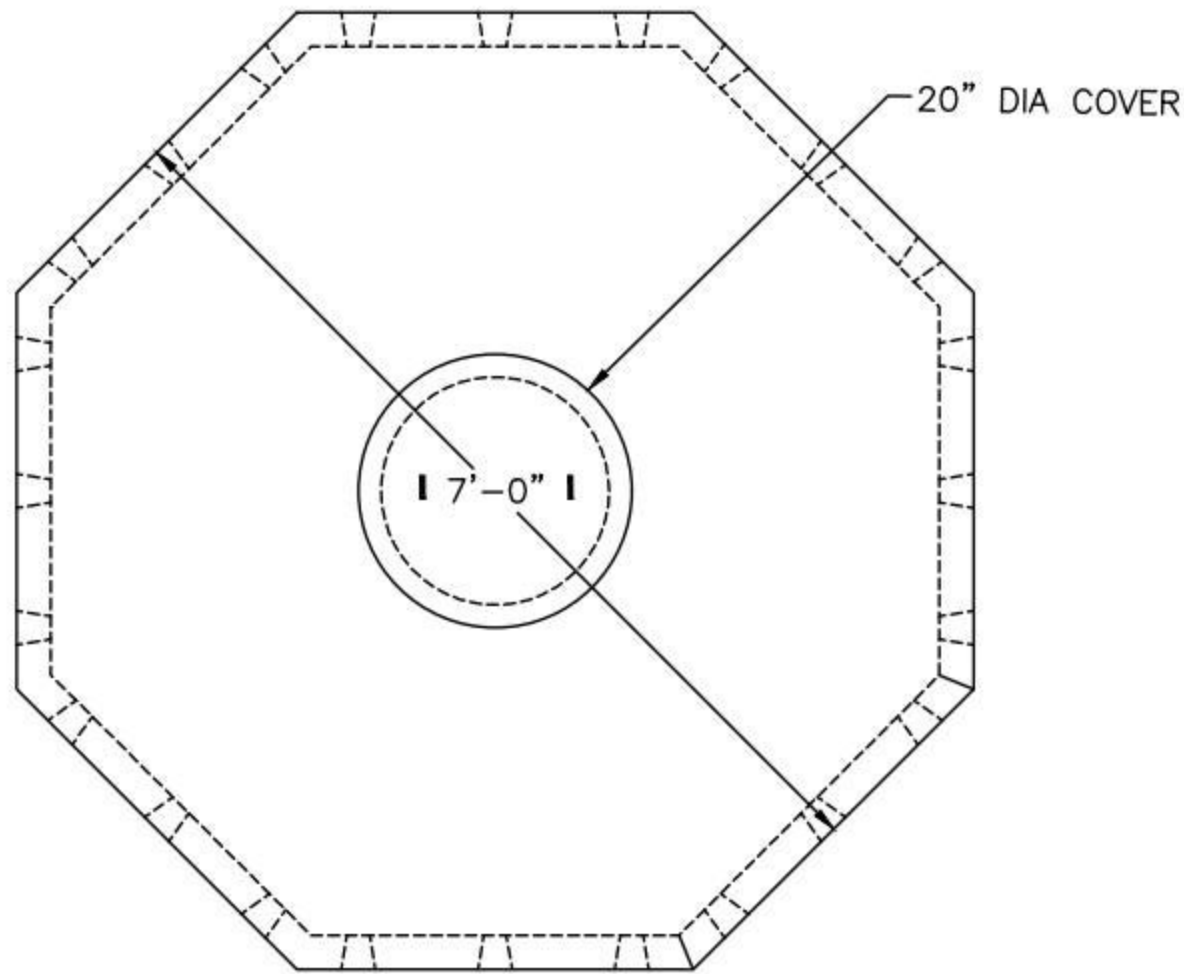


NOTES:

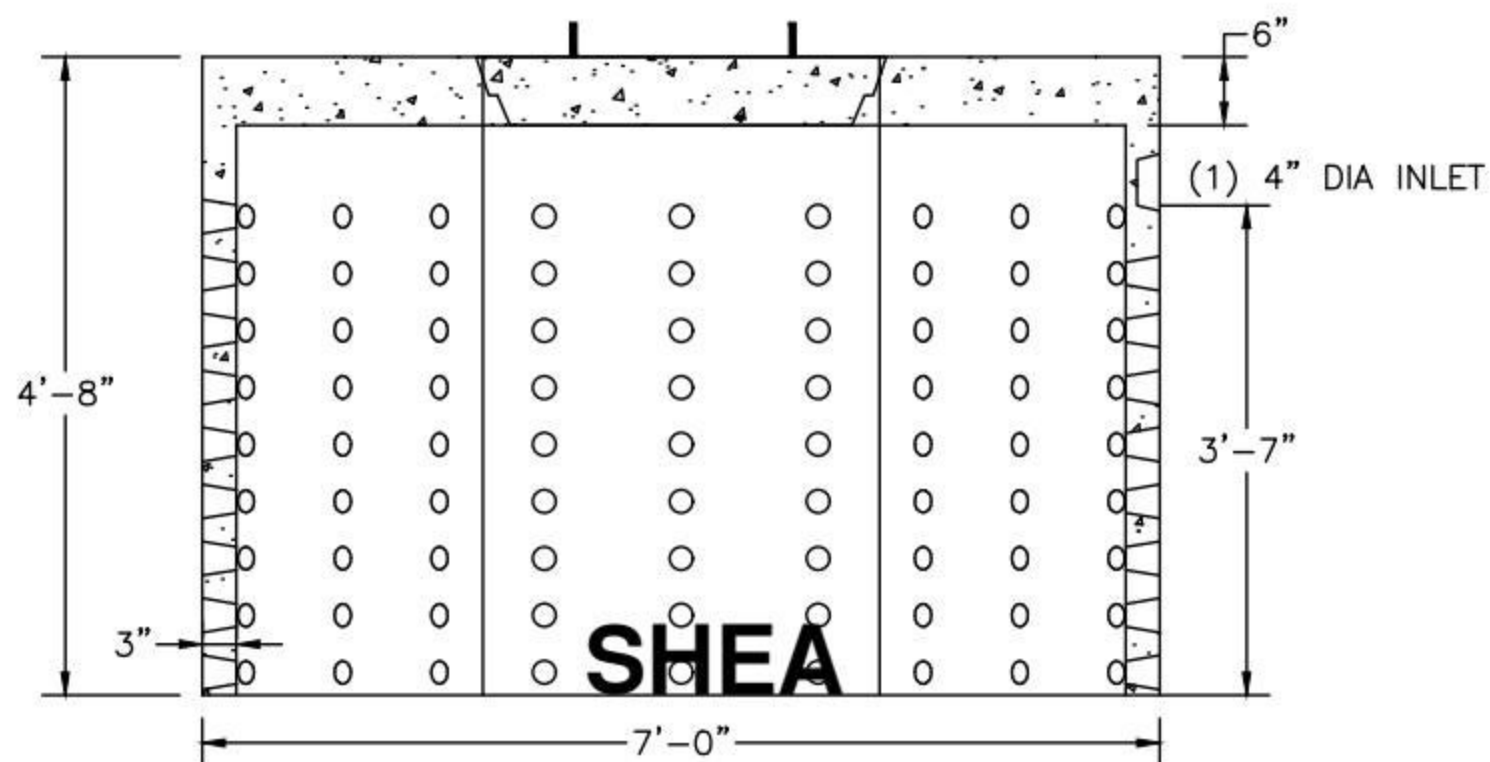
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FEET OF COVER.

GALLONS	A (HGT)	B (CL)	ITEM NO.	WEIGHT
1000	4'-6"	3'-8"	1000CDW	10,270#
1500	6'-2"	5'-4"	1500CDW	12,503#
2200	9'-0"	8'-2"	1000 + 4'RISER	15,506#
2800	10'-8"	9'-10"	1000 + 6'RISER	18,230#

C	ITEM NO.	GALLONS	WEIGHT
4'-6"	4RSCDW	1200	5,236#
6'-2"	6RSCDW	1800	7,960#



PLAN VIEW



SECTION VIEW

NOTES:

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

SHEA PRODUCT ID:
1000B/1000BH

PREPARED FOR:

FILE NAME:

dw1000B.dwg

WEIGHT (LBS):
5,725#/6,475#

DRAWN BY: ARO

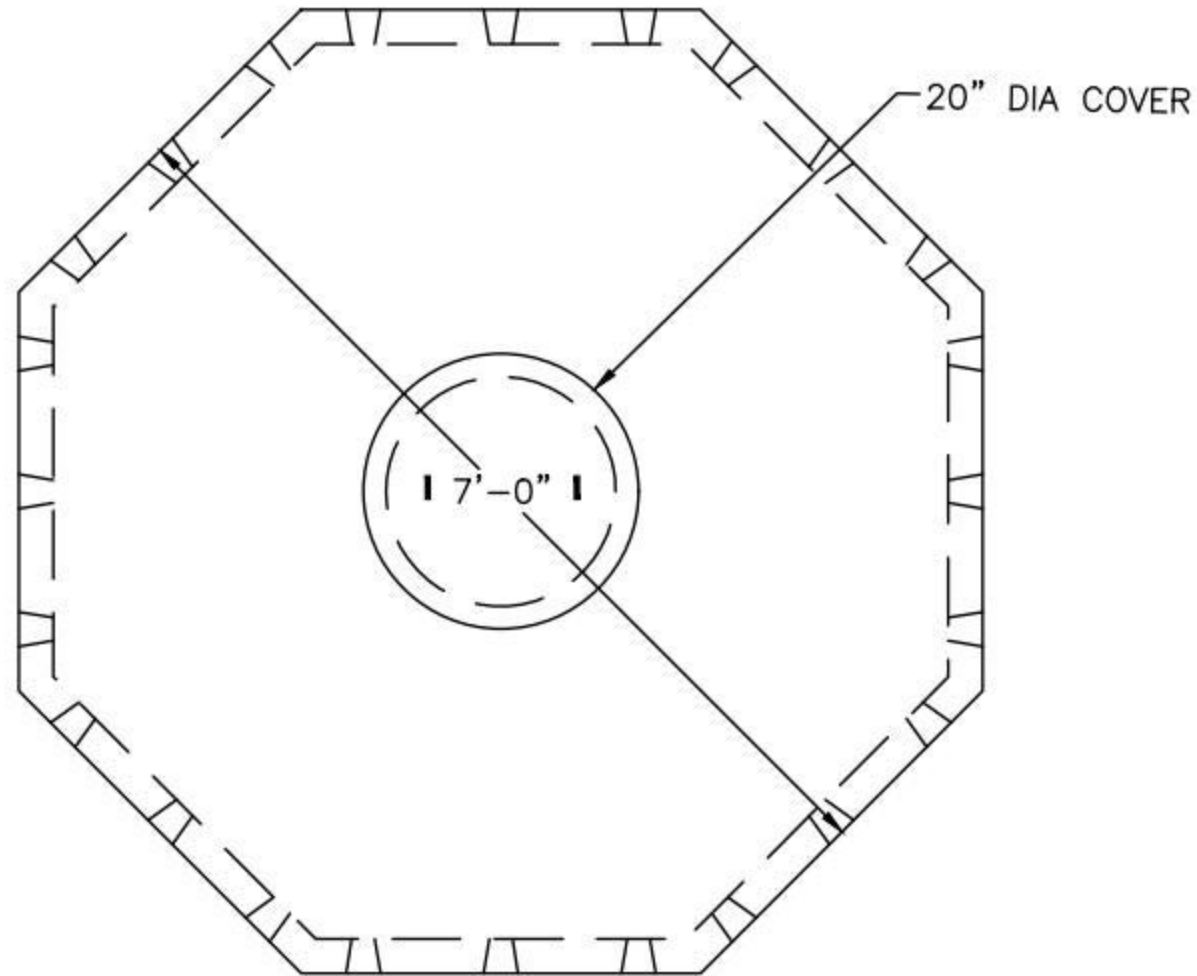
DATE: 06/01/18

PAGE: F6.1

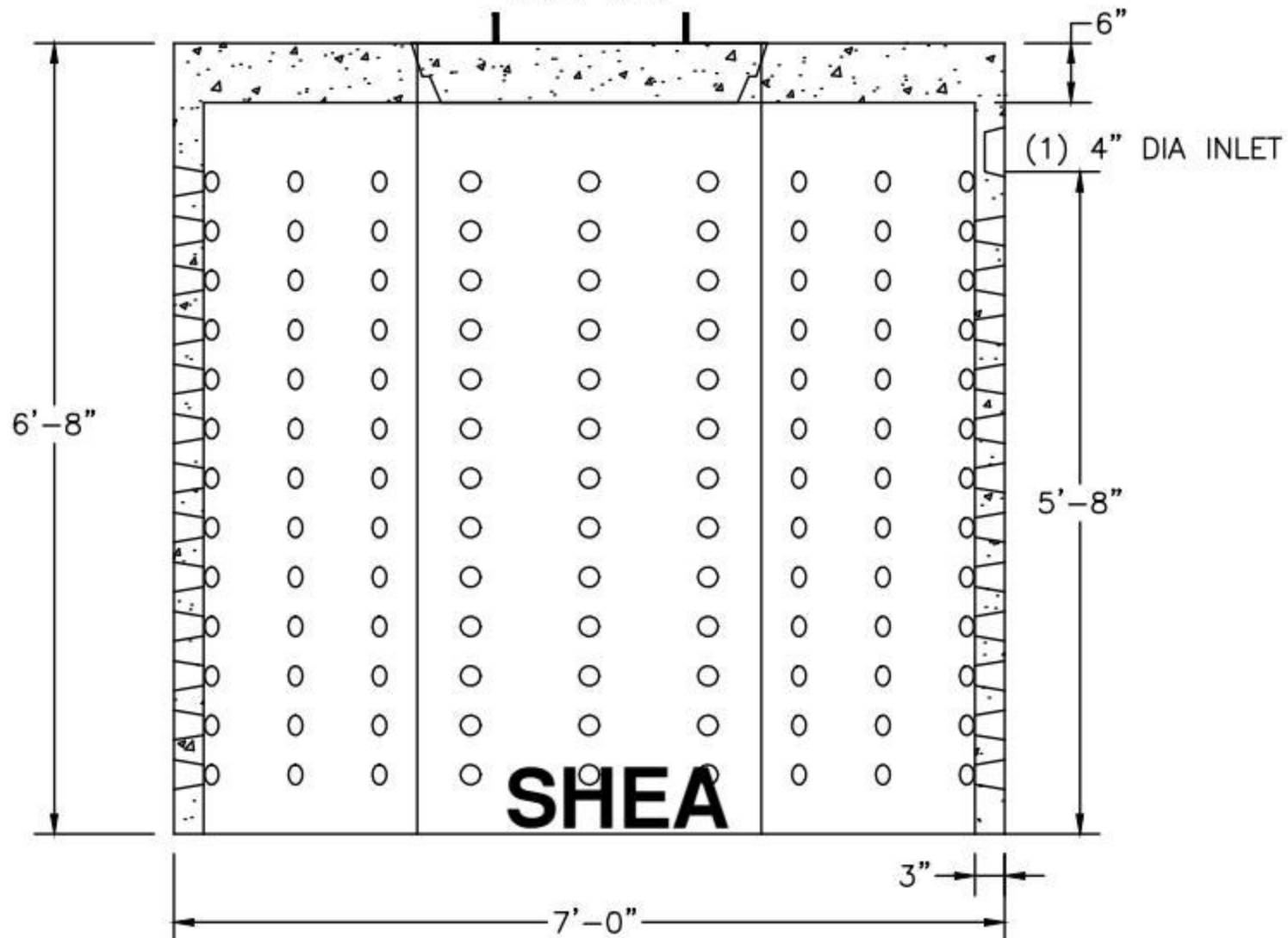


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



PLAN VIEW



SECTION VIEW

NOTES:

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

SHEA PRODUCT ID:
1500B/1500BH

PREPARED FOR:

FILE NAME:

dw1500B.dwg

WEIGHT (LBS):
7,100#/7,500#

DRAWN BY: ARO

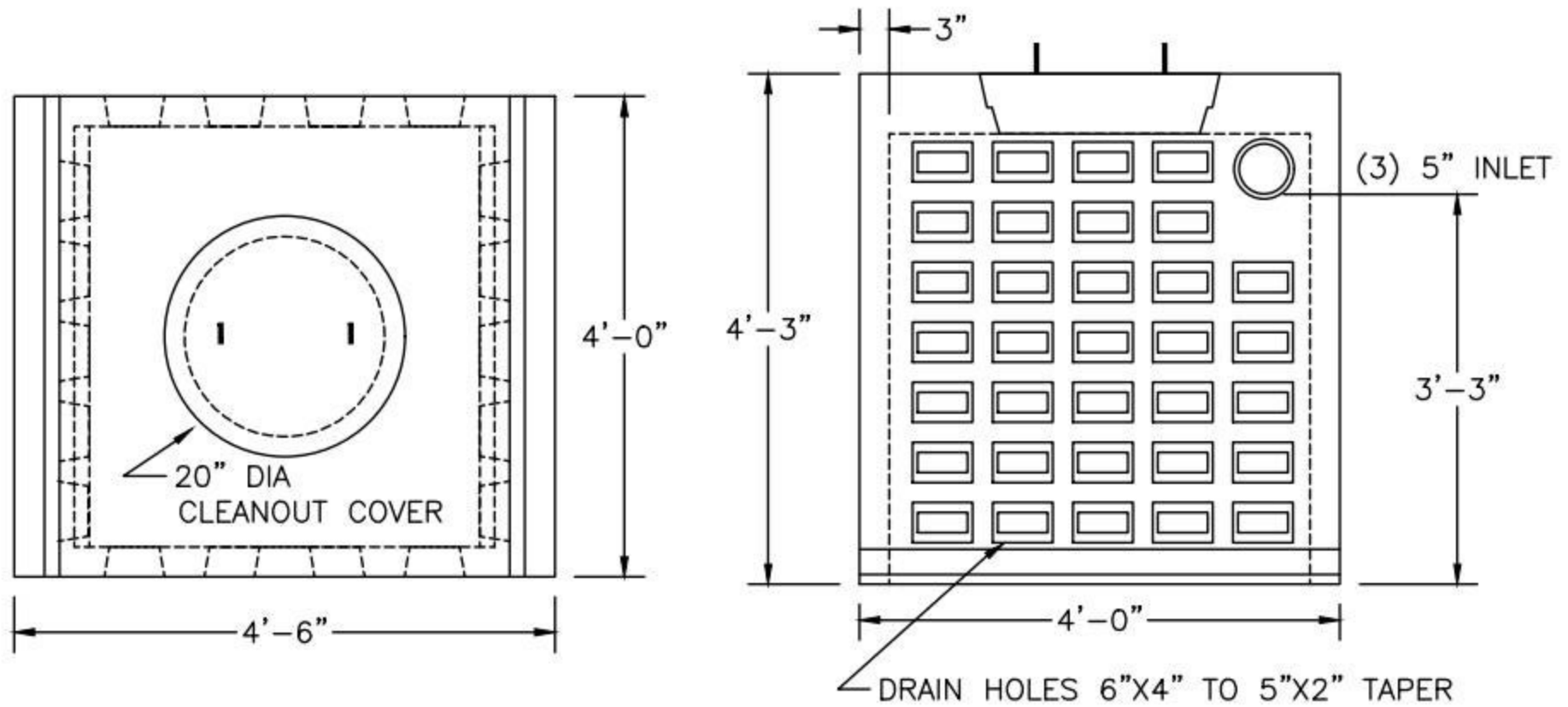
DATE: 06/01/18

PAGE: F6.2



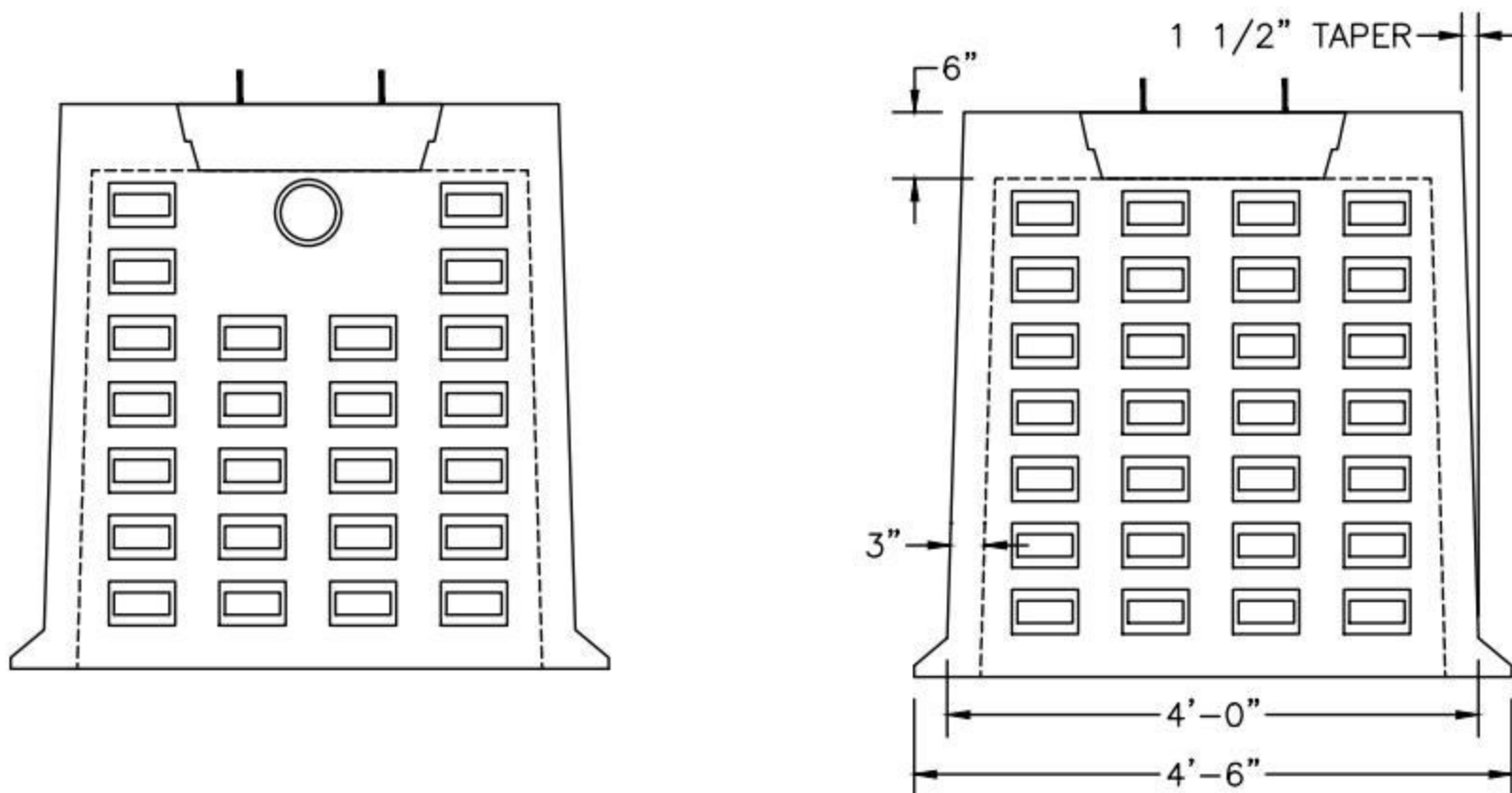
773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

DRY WELL 300 GALLON



PLAN VIEW

SIDE VIEW




FRONT VIEW

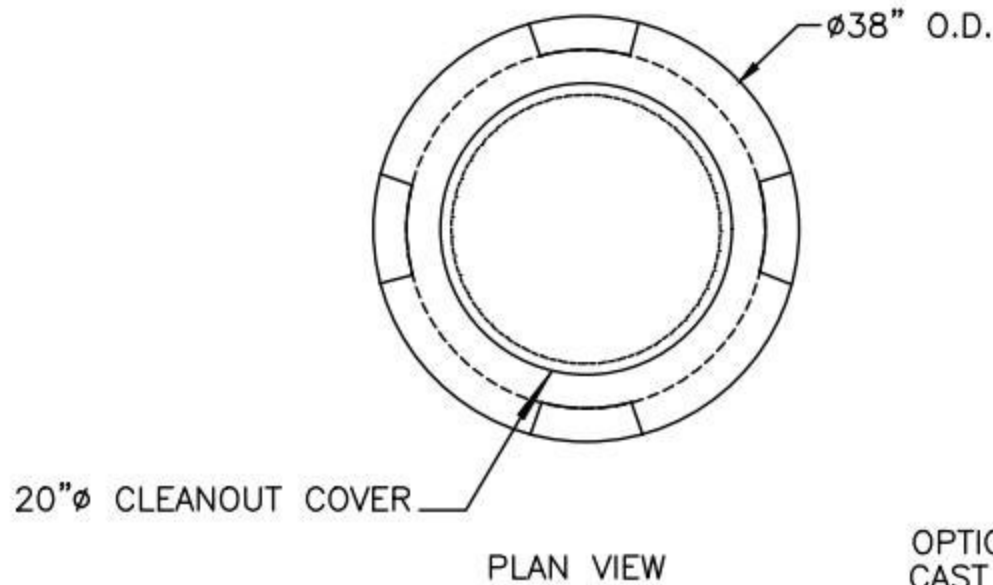
BACK VIEW

NOTES:

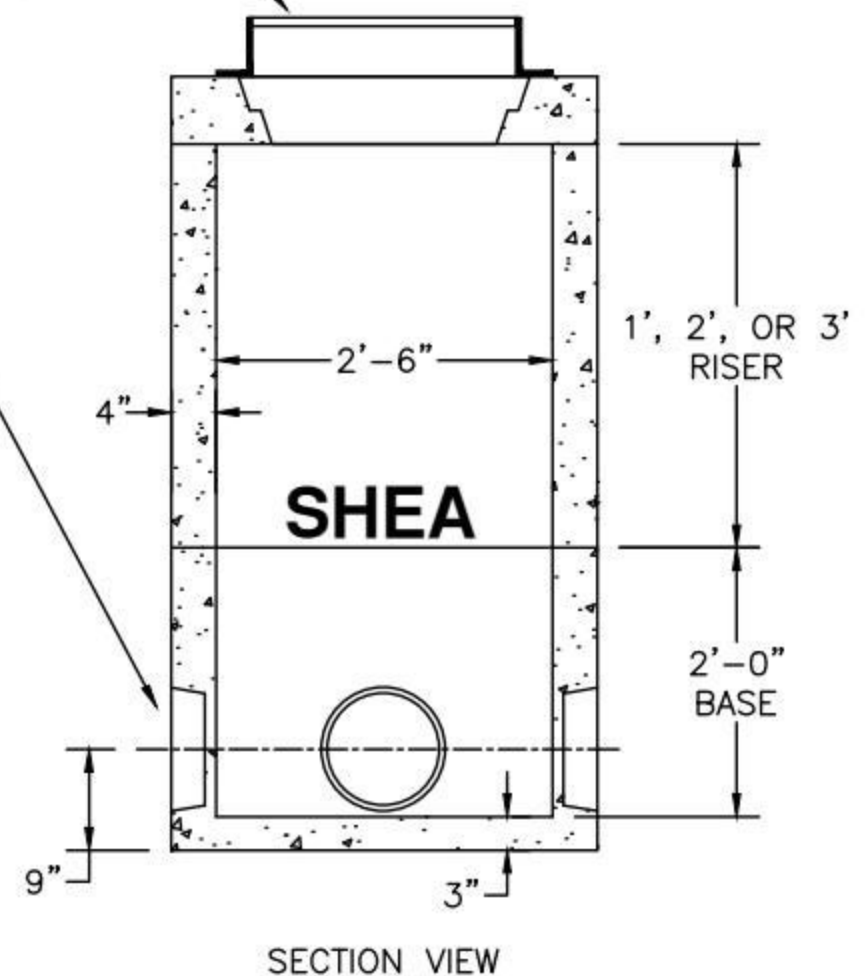
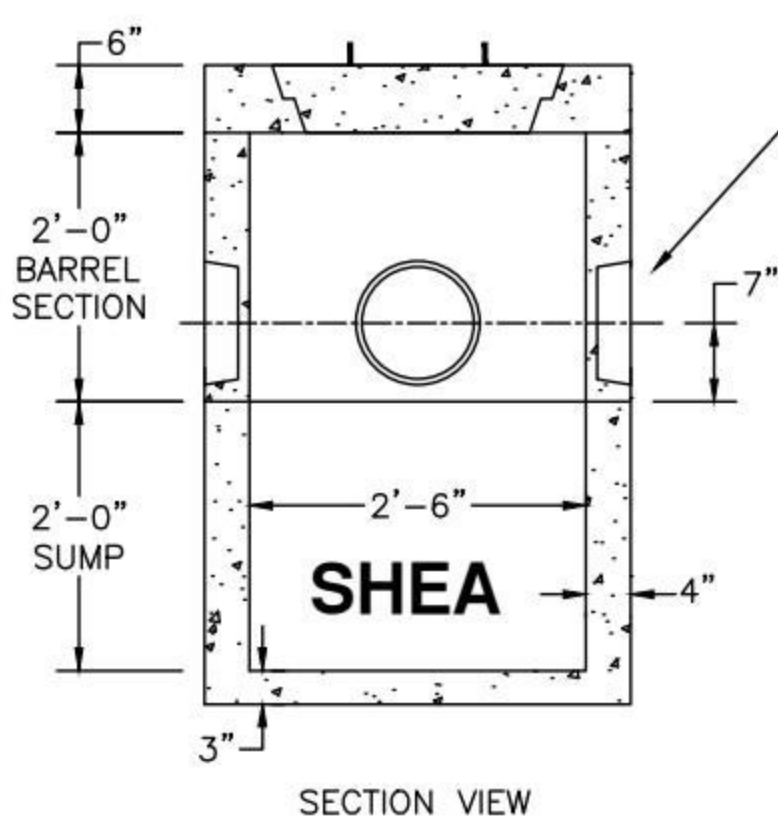
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 3 FT COVER.

SHEA PRODUCT ID: DW4X4H		PREPARED FOR:		FILE NAME: DW4X4H.dwg			
WEIGHT (LBS): 2,560#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: F7
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

MANHOLE 30" DIA H-20 MINI CATCH BASIN



OPTIONAL 24" DIA
CAST IRON FRAME
AND COVER/GRATE



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1-5 FEET COVER.

SECTIONS	ITEM NO	WEIGHT
1'-0" RISER	MC-MCB12RH	440#
2'-0" RISER	MC-MCB24RH	880#
3'-0" RISER	MC-MCB36RH	1320#
2'-0" BASE	MC-MCB24SH	1175#
2'-0" BARREL	MC-MCB24BSH	880#
38" COVER	MC-MCB38CH	585#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

manh30inH20.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

DATE: 06/01/18

PAGE: G1

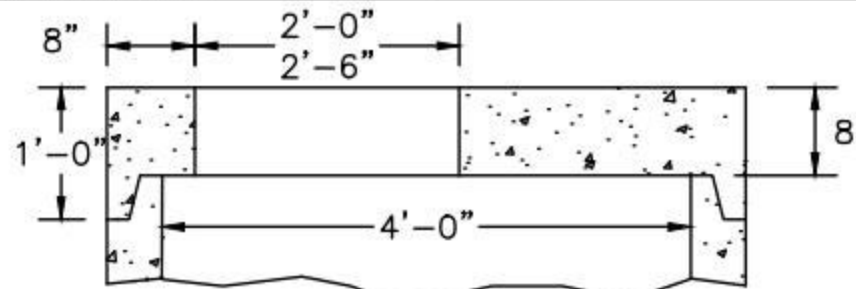


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

FLAT TOP

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



OPTIONAL TOP SLAB

ECCENTRIC CONE

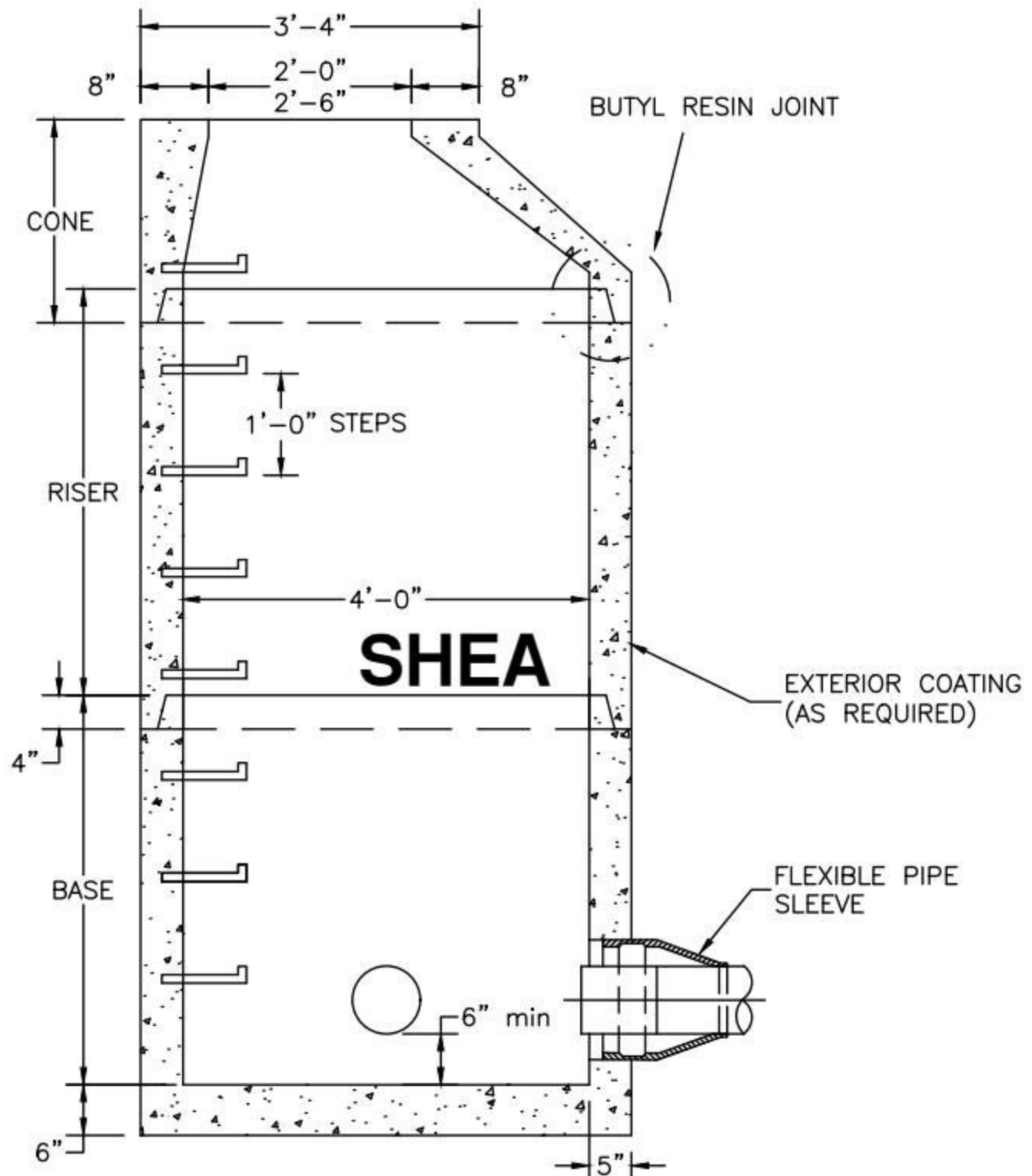
HEIGHT	ITEM NO	WEIGHT
1'-6"	MH4-18C4ID	1,335#
2'-0"	MH4-24C4ID	1,783#
2'-6"	MH4-30C4ID	2,231#
3'-0"	MH4-36C4ID	2,677#
4'-0"	MH4-48C4ID	3,425#

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#



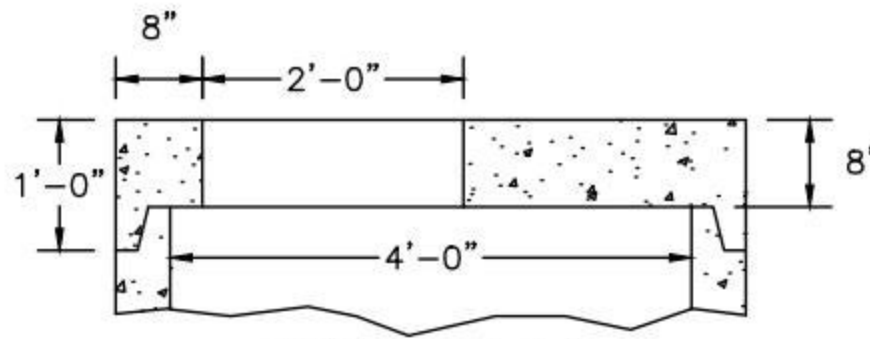
SECTION VIEW

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. DESIGN LOADING PER AASHTO HS-20, 1 TO 5 FEET COVER.
4. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
5. BUTYL RESIN JOINT CONFORMS TO ASTM C990 SPECIFICATION.
6. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO ASTM C478 SPEC.

FLAT TOP

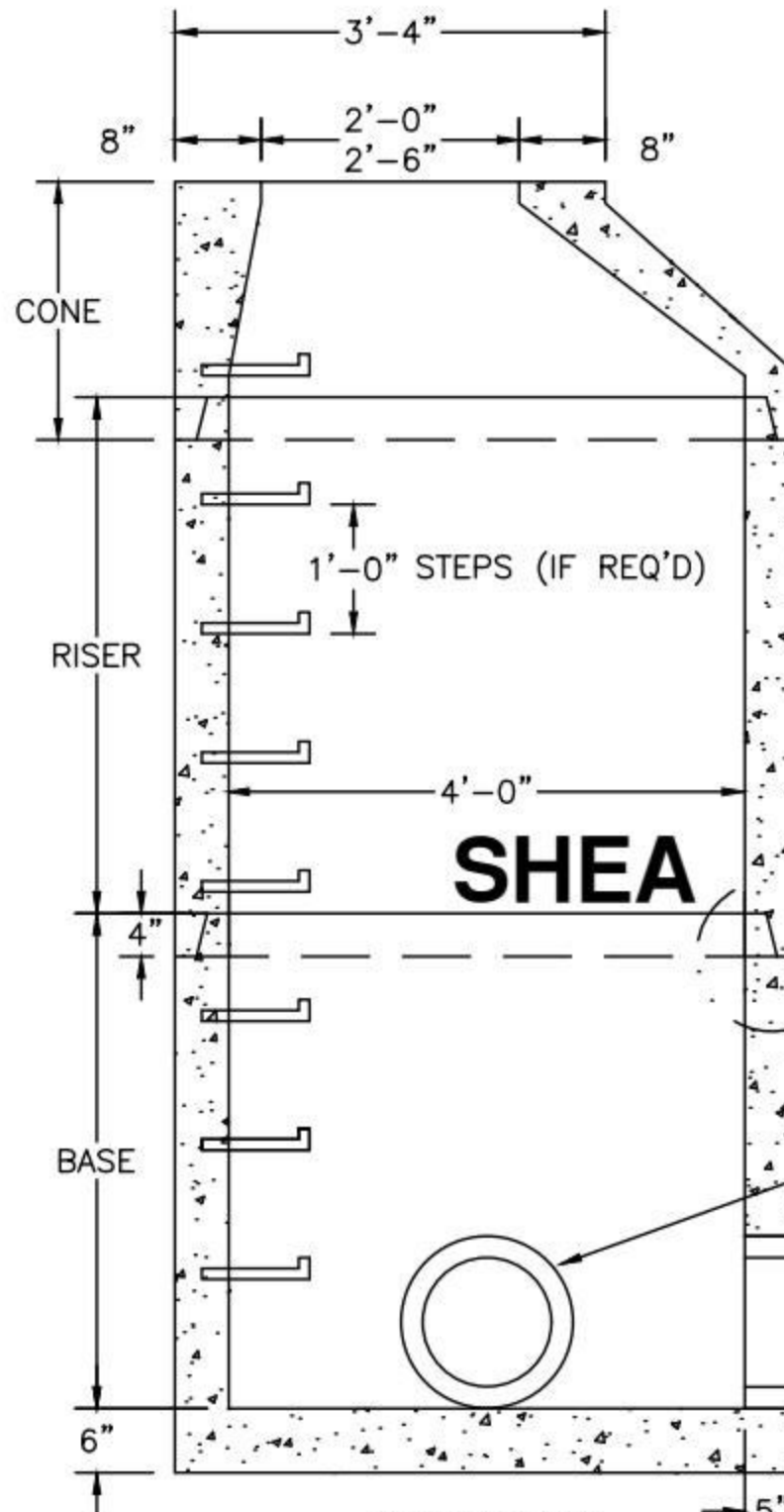
	ITEM NO	WEIGHT
1 HOLE	MH4-FT4ID	1,620#
2 HOLE	MH4-FT4ID2H	930#



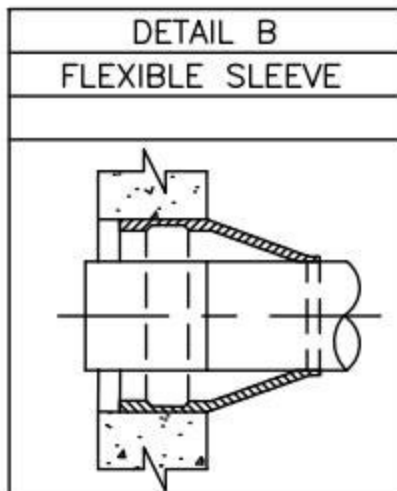
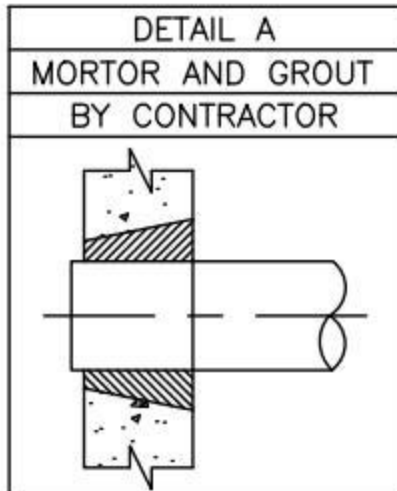
OPTIONAL TOP SLAB

ECCENTRIC CONE

HEIGHT	ITEM NO	WEIGHT
1'-6"	MH4-18C4ID	1,335#
2'-0"	MH4-24C4ID	1,783#
2'-6"	MH4-30C4ID	2,231#
3'-0"	MH4-36C4ID	2,677#
4'-0"	MH4-48C4ID	3,425#



SECTION VIEW



BUTYL RESIN OR MORTAR JOINT

PIPE CONNECTIONS
SEE DETAILS A & B

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:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. DESIGN LOADING PER AASHTO HS-20, 1 TO 5 FEET COVER.
4. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
5. BUTYL RESIN SECTION JOINT CONFORMS TO ASTM C990 SPECIFICATION.
6. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO ASTM C478 SPEC.

SHEA PRODUCT ID: SEE TABLE		PREPARED FOR:		FILE NAME: dmh48in.dwg		
WEIGHT (LBS): SEE TABLE		DRAWN BY: ARO		DATE: 06/01/18		
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH						

CATCH BASIN 48" DIAM

FLAT TOP

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

ECCENTRIC CONE

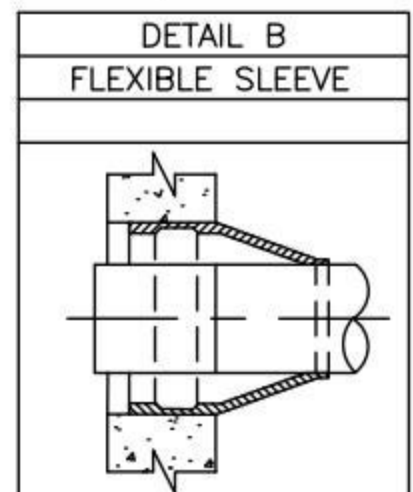
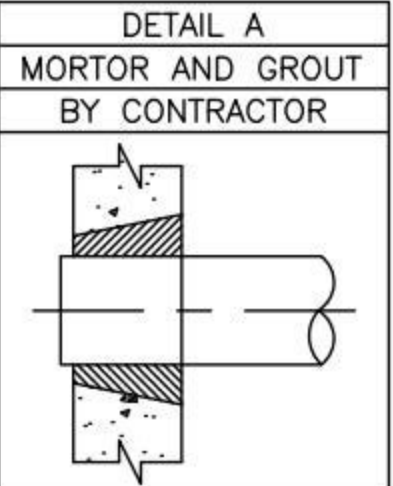
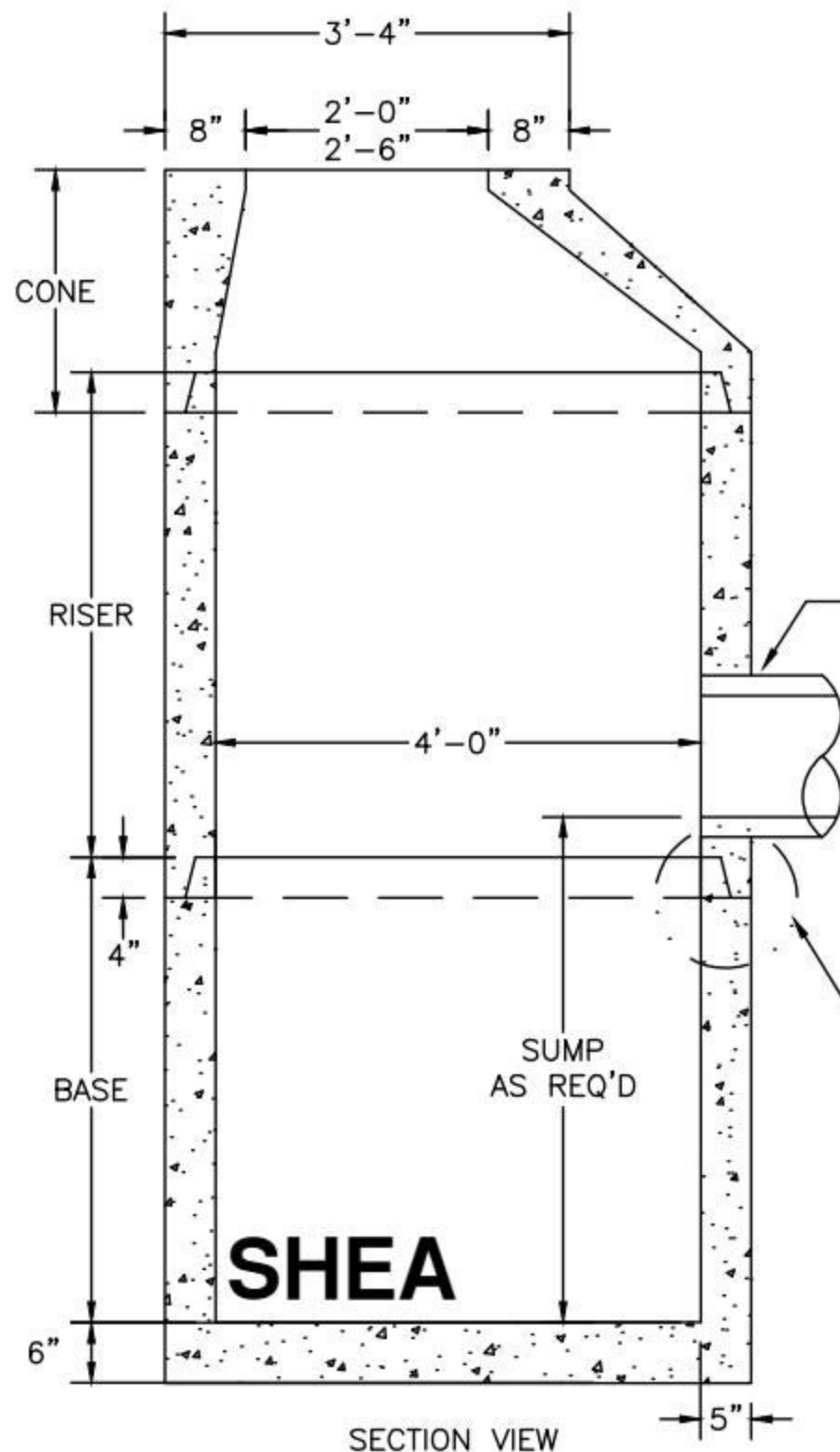
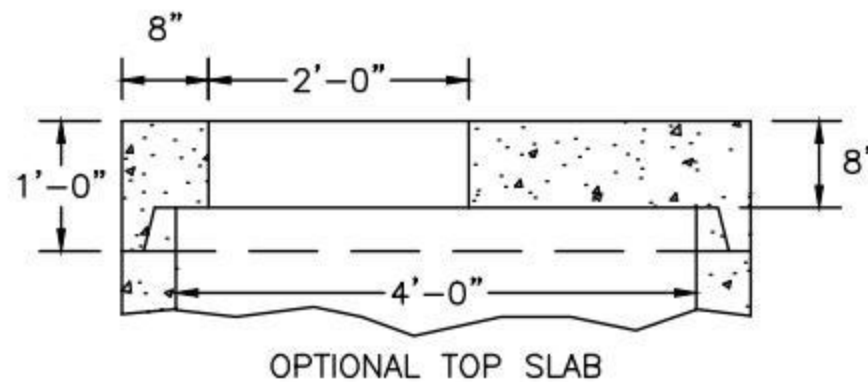
HEIGHT	ITEM NO	WEIGHT
1'-6"	MH4-18C4ID	1,335#
2'-0"	MH4-24C4ID	1,783#
2'-6"	MH4-30C4ID	2,231#
3'-0"	MH4-36C4ID	2,677#
4'-0"	MH4-48C4ID	3,425#

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#

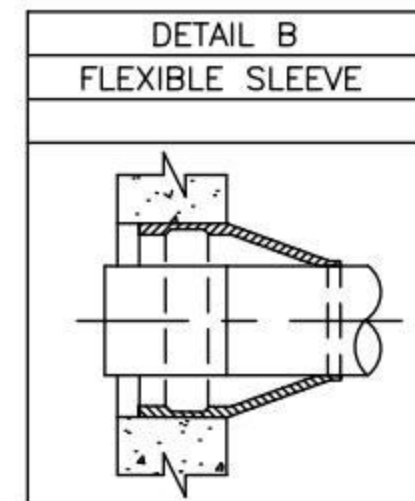
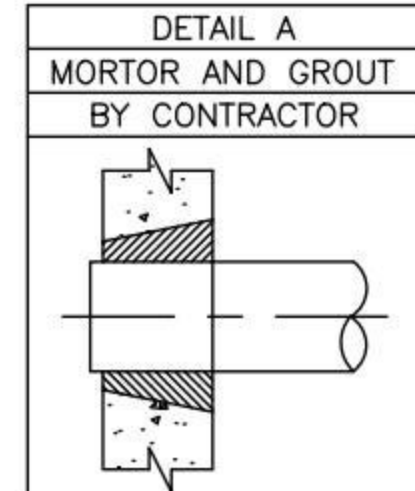
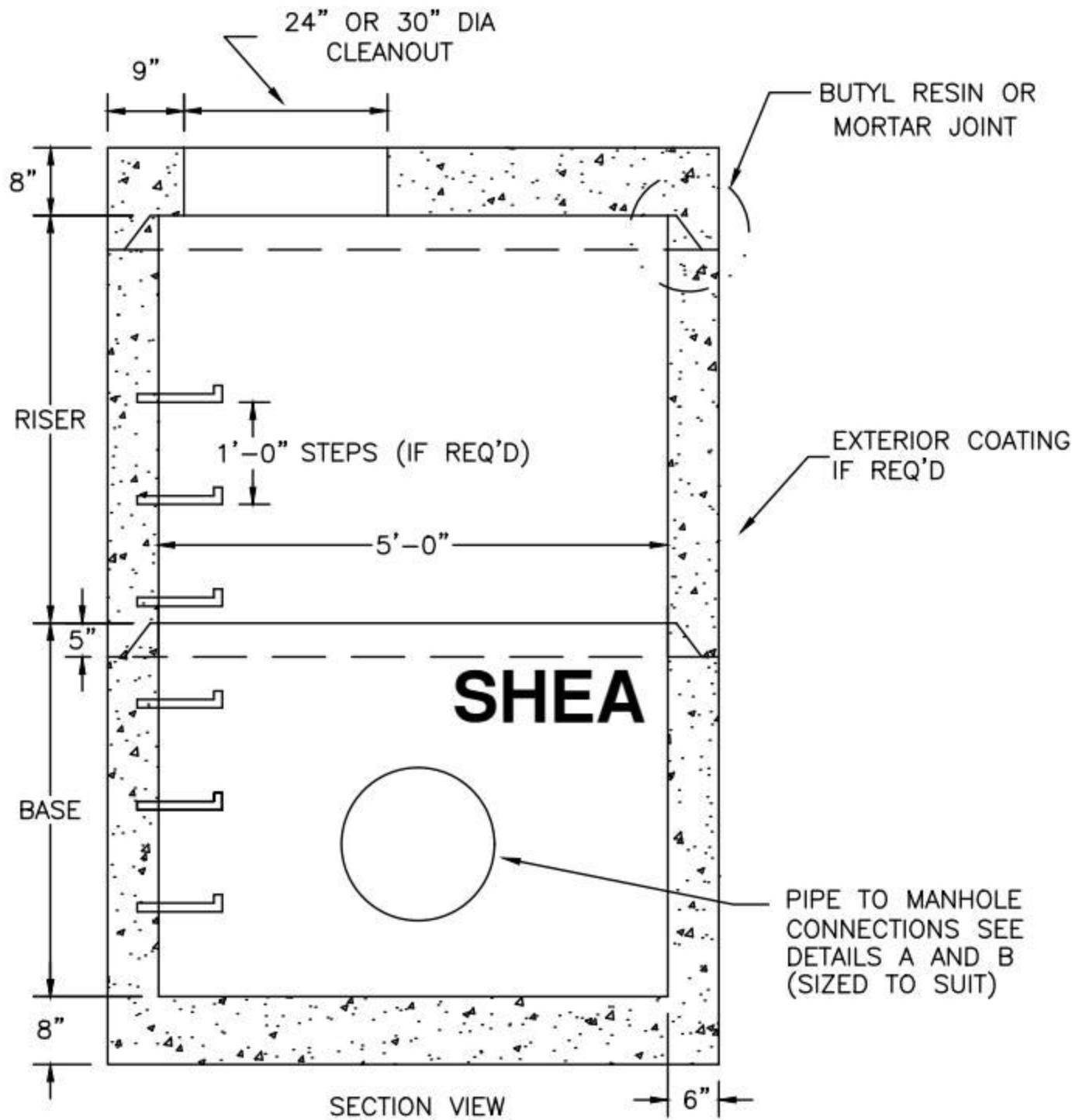


PIPE CONNECTIONS
SEE DETAILS A AND B

BUTYL RESIN OR
MORTAR JOINT

NOTES:

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



RISER SECTION

HEIGHT	ITEM NO	WEIGHT
1'-0"	MH-12CS5ID	1,278#
2'-0"	MH-24CS5ID	2,555#
3'-0"	MH-36CS5ID	3,834#
4'-0"	MH-48CS5ID	5,112#
5'-0"	MH-60CS5ID	6,390#

BASE SECTION

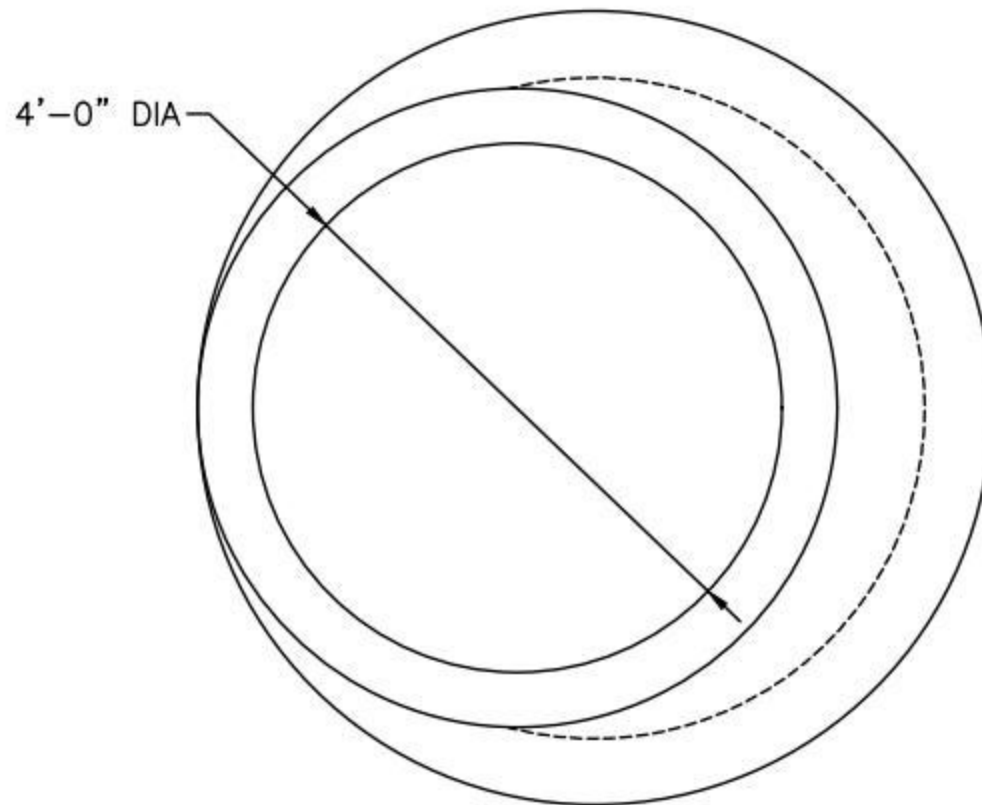
HEIGHT	ITEM NO	WEIGHT
2'-6"	MH-30S5ID	5,132#
3'-6"	MH-42S5ID	6,409#
4'-6"	MH-54S5ID	7,687#
5'-6"	MH-66S5ID	8,965#

FLAT TOP

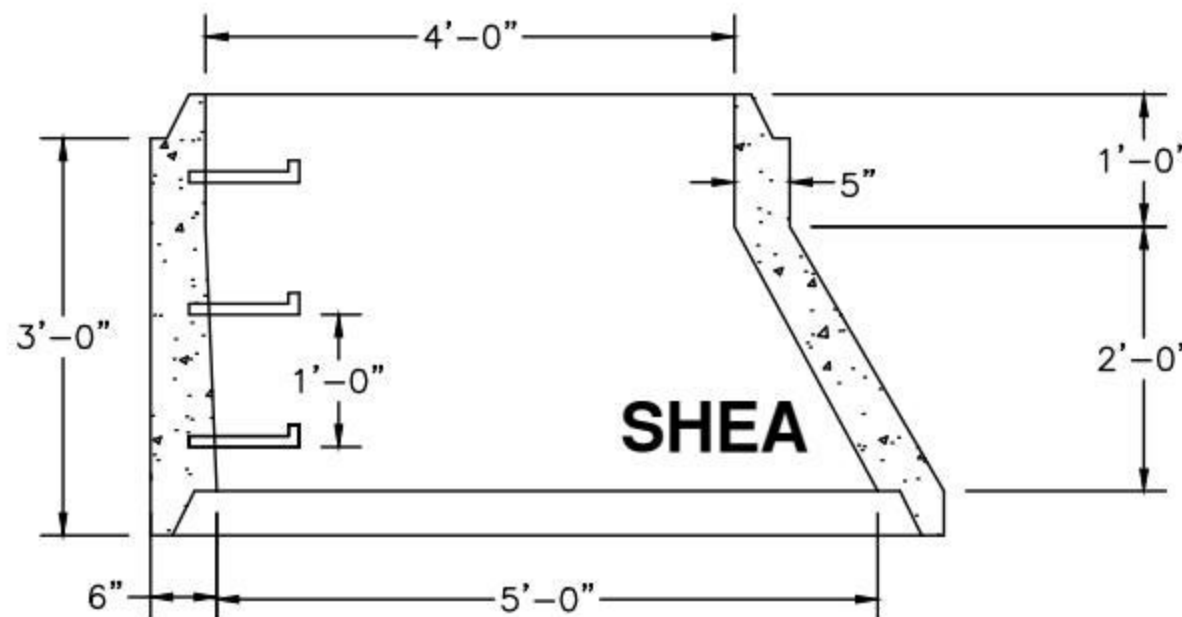
HEIGHT	ITEM NO	WEIGHT
1'-0"	MH-FT5ID	3,098#

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC. 0.15 SQ. IN./LINEAL FT. AND 0.15 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. DESIGN LOADING PER AASHTO HS-20, 1 TO 5 FEET COVER.
4. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
5. BUTYL RESIN SECTION JOINT CONFORMS TO ASTM C990 SPECIFICATION.
6. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO ASTM C478 SPEC.



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC. 0.15 SQ. IN./LINEAL FT. AND 0.15 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. DESIGN LOADING PER AASHTO HS-20, COVER 1 TO 5 FEET.
4. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
5. BUTYL RESIN SECTION JOINT CONFORMS TO ASTM C990 SPECIFICATION.
6. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO ASTM C478 SPEC.

SHEA PRODUCT ID:
TRANSCONE

PREPARED FOR:

FILE NAME:

tran6048.dwg

WEIGHT (LBS):
6,150#

DRAWN BY:
ARO

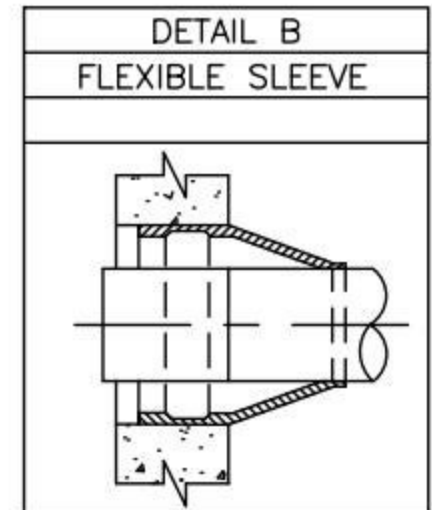
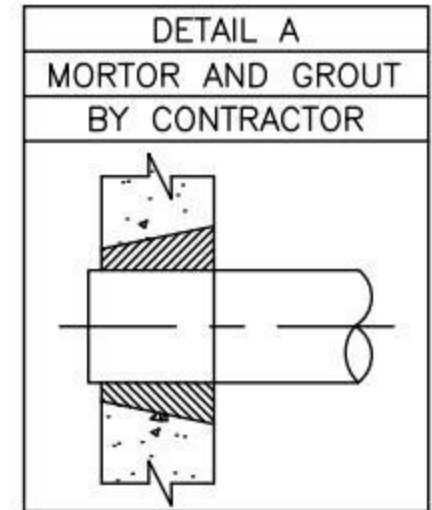
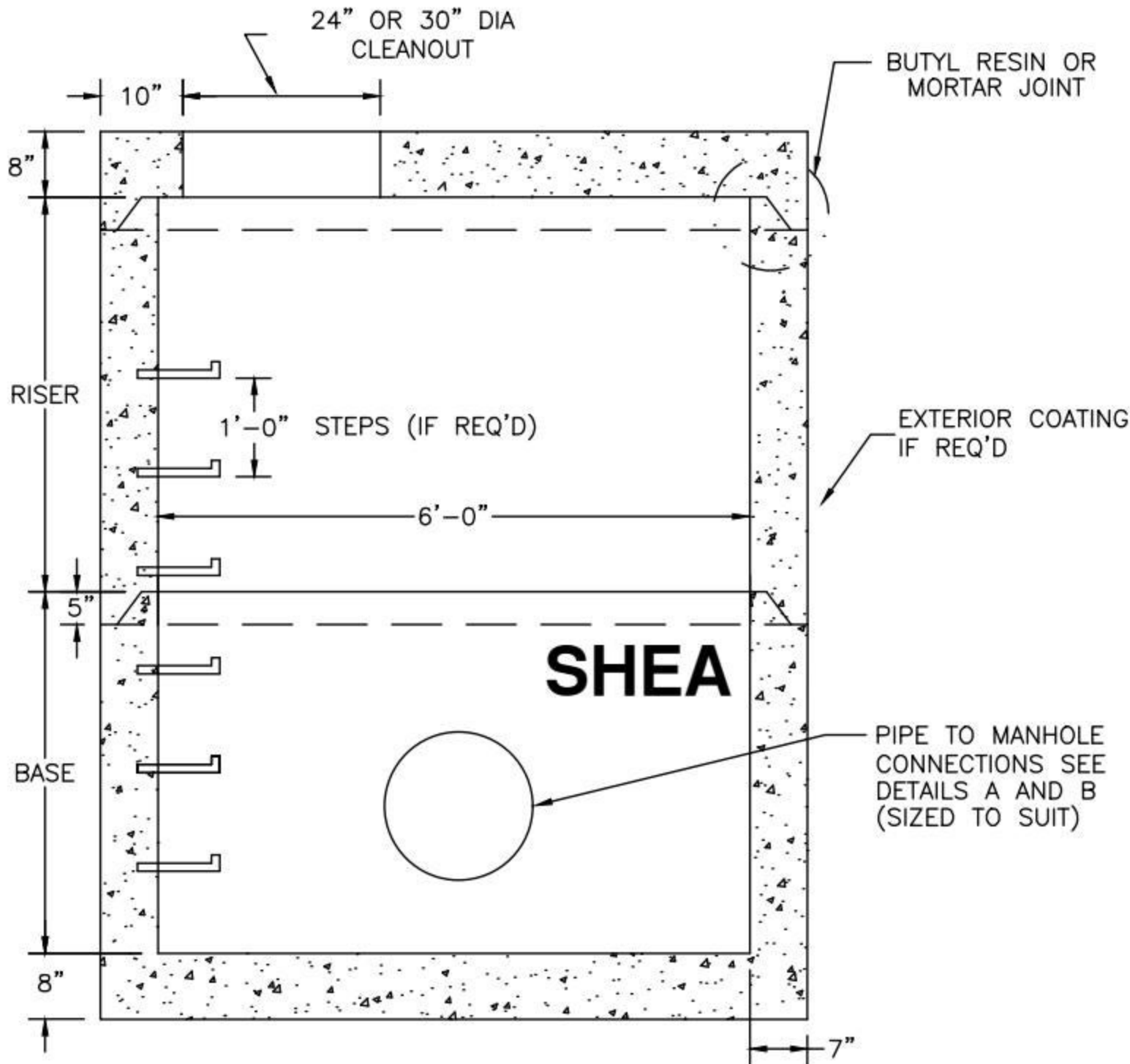
DATE:
06/01/18

PAGE:
G3.2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



SECTION VIEW

RISER SECTION

HEIGHT	ITEM NO	WEIGHT
2'-0"	MH-24CS6ID	3,570#
3'-0"	MH-36CS6ID	5,354#
4'-0"	MH-48CS6ID	7,139#
5'-0"	MH-60CS6ID	8,923#
6'-0"	MH-72CS6ID	10,708#

FLAT TOP

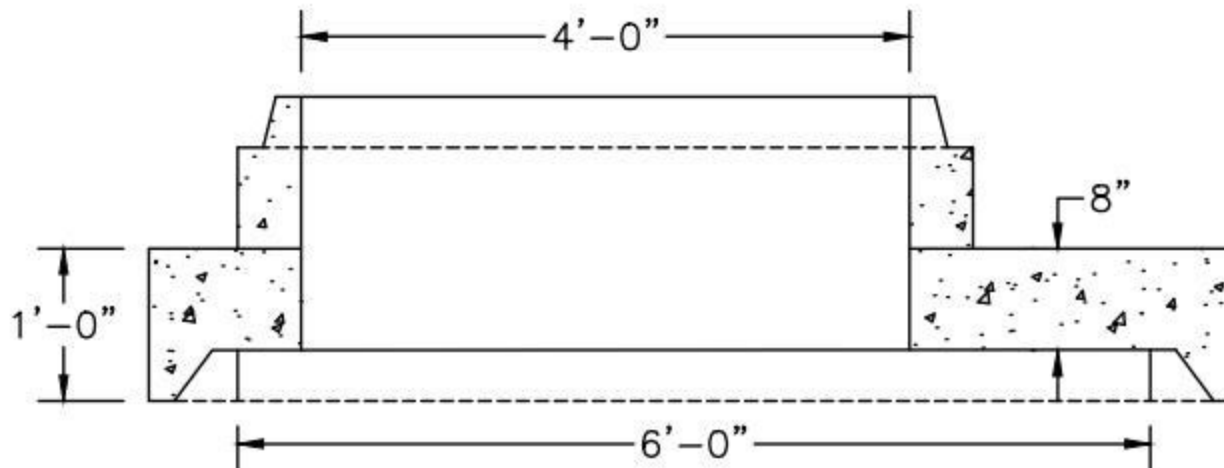
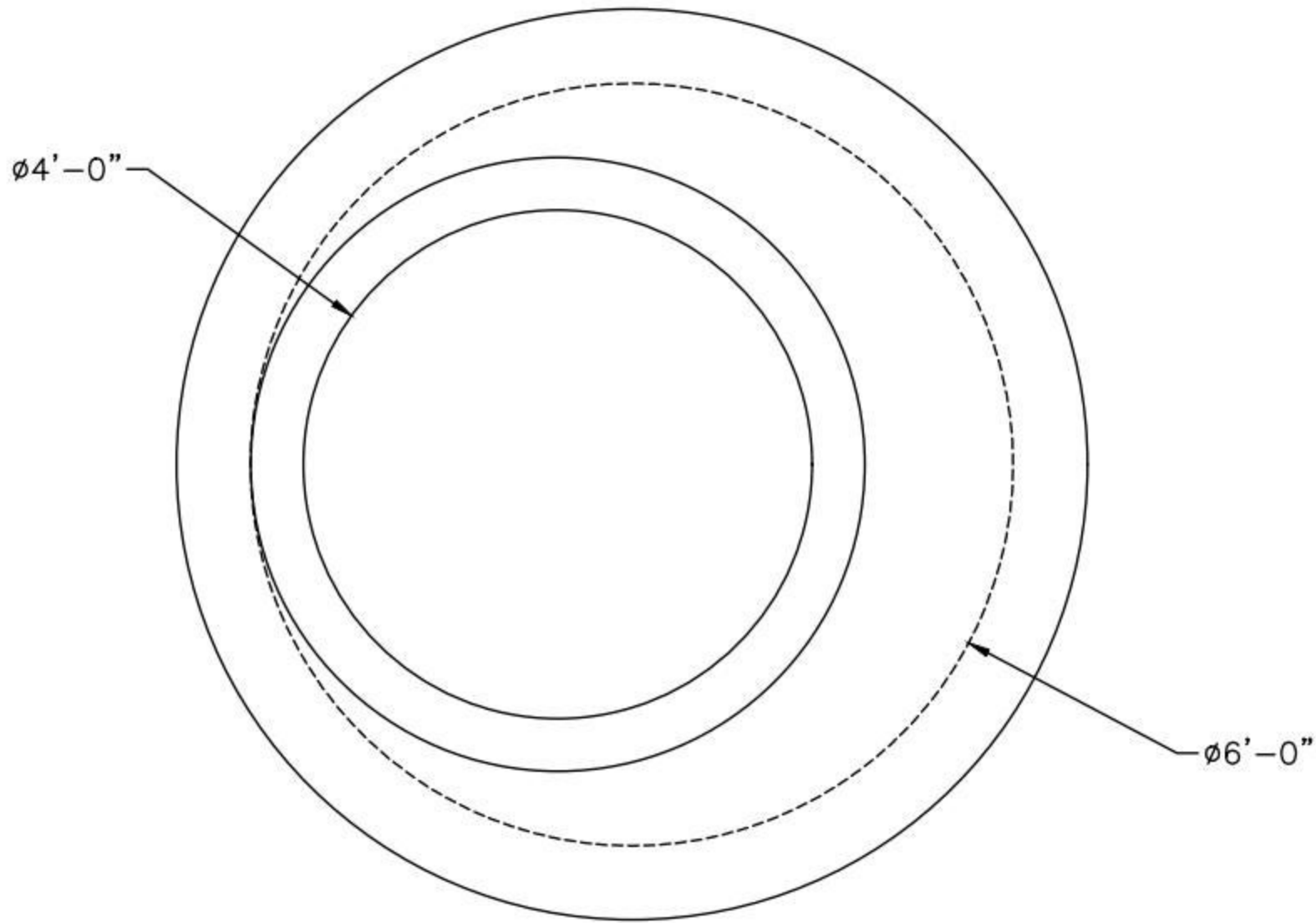
HEIGHT	ITEM NO	WEIGHT
1'-0"	MH-FT6ID	3,940#

BASE SECTION

HEIGHT	ITEM NO	WEIGHT
2'-0"	MH-24S6ID	6,357#
3'-0"	MH-36S6ID	8,142#
4'-0"	MH-48S6ID	9,926#
5'-0"	MH-60S6ID	11,711#
6'-0"	MH-72S6ID	13,496#


NOTES:

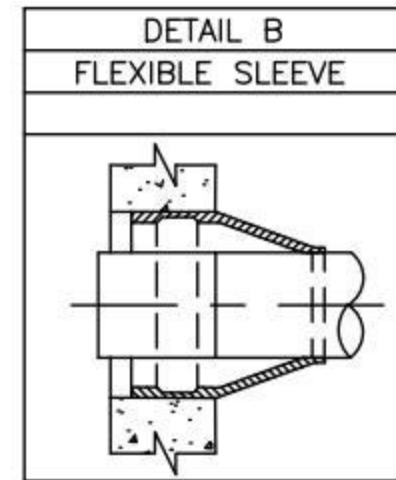
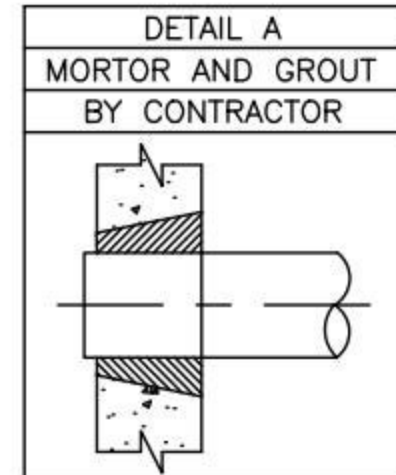
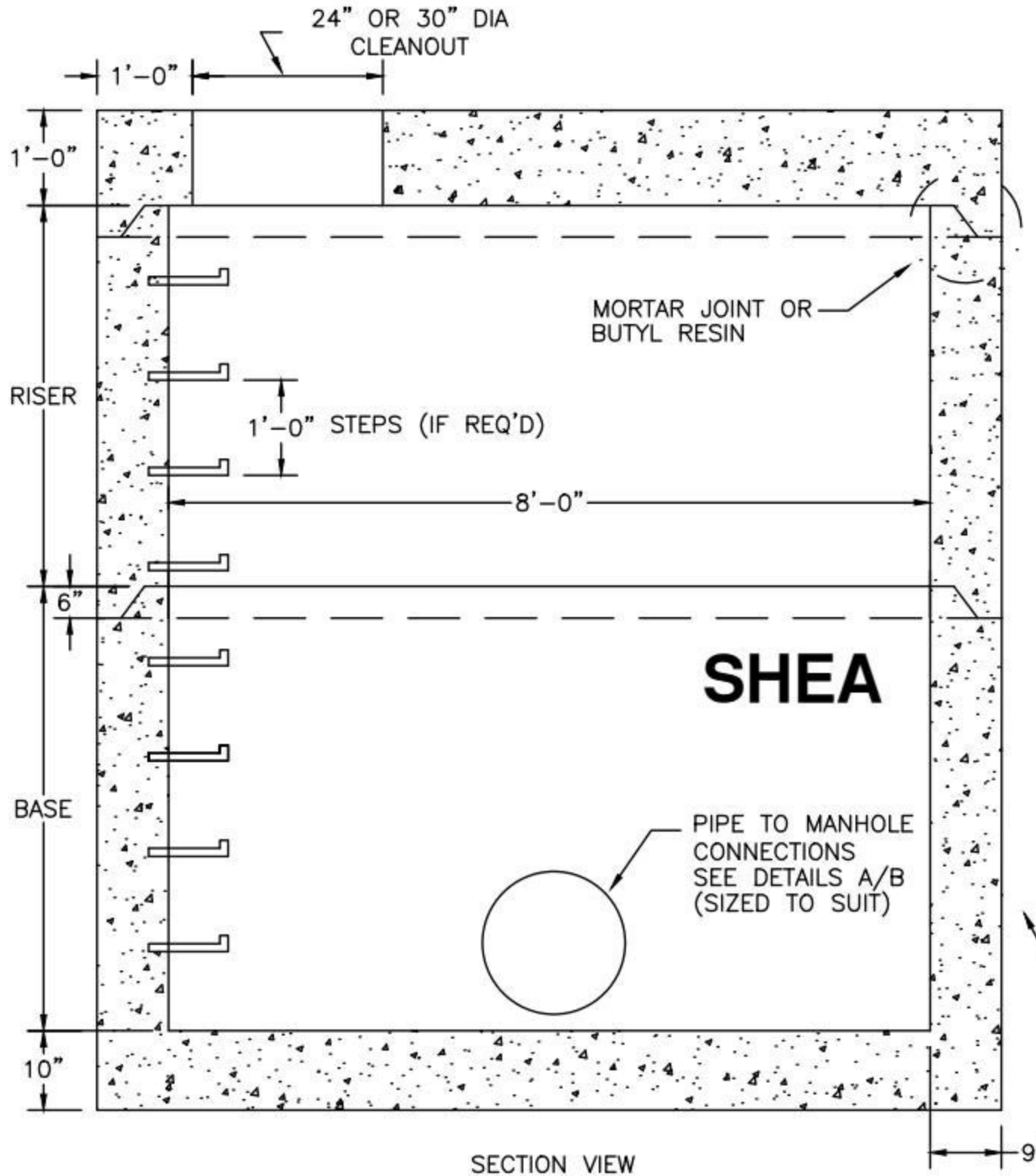
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC. 0.18 SQ. IN./LINEAL FT. AND 0.18 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. DESIGN LOADING PER AASHTO HS-20, 1 TO 5 FEET COVER.
4. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
5. BUTYL RESIN SECTION JOINT CONFORMS TO ASTM C990 SPECIFICATION.
6. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO ASTM C478 SPEC.



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC.
3. DESIGN LOADING PER AASHTO HS-20, COVER 1 TO 5 FEET.
4. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
5. BUTYL RESIN SECTION JOINT CONFORMS TO ASTM C990 SPECIFICATION.

SHEA PRODUCT ID: TRAN7248		PREPARED FOR:		FILE NAME: tran7248.dwg		
WEIGHT (LBS): 6,850#		DRAWN BY: ARO		DATE: 06/01/18		
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH						



EXTERIOR COATING
IF REQ'D

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC. 0.18 SQ. IN./LINEAL FT. AND 0.18 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. DESIGN LOADING PER AASHTO HS-20, 1 TO 5 FEET COVER.
4. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
5. BUTYL RESIN SECTION JOINT CONFORMS TO ASTM C990 SPECIFICATION.
6. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO ASTM C478 SPEC.

FLAT TOP

HEIGHT	ITEM NO	WEIGHT
1'-0"	MH8-FT8ID	11,225#

RISER SECTION

HEIGHT	ITEM NO	WEIGHT
2'-0"	MH8-24CS8ID	6,102#
3'-0"	MH8-36CS8ID	9,153#
4'-0"	MH8-48CS8ID	12,204#
5'-0"	MH8-60CS8ID	15,255#
6'-0"	MH8-72CS8ID	18,306#

BASE SECTION

HEIGHT	ITEM NO	WEIGHT
3'-6"	MH8-42S8ID	18,690#
4'-6"	MH8-54S8ID	21,740#
5'-6"	MH8-66S8ID	24,790#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

manh96in.dwg

WEIGHT (LBS):
SEE TABLE

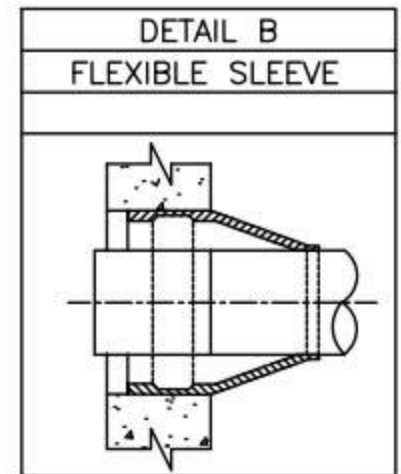
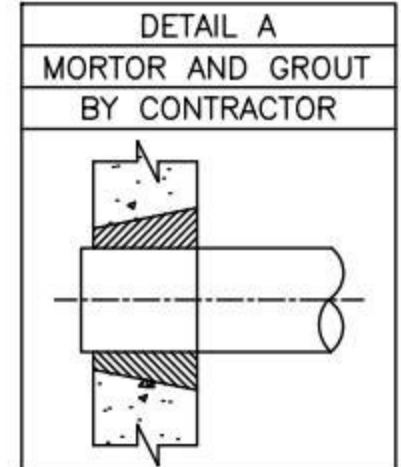
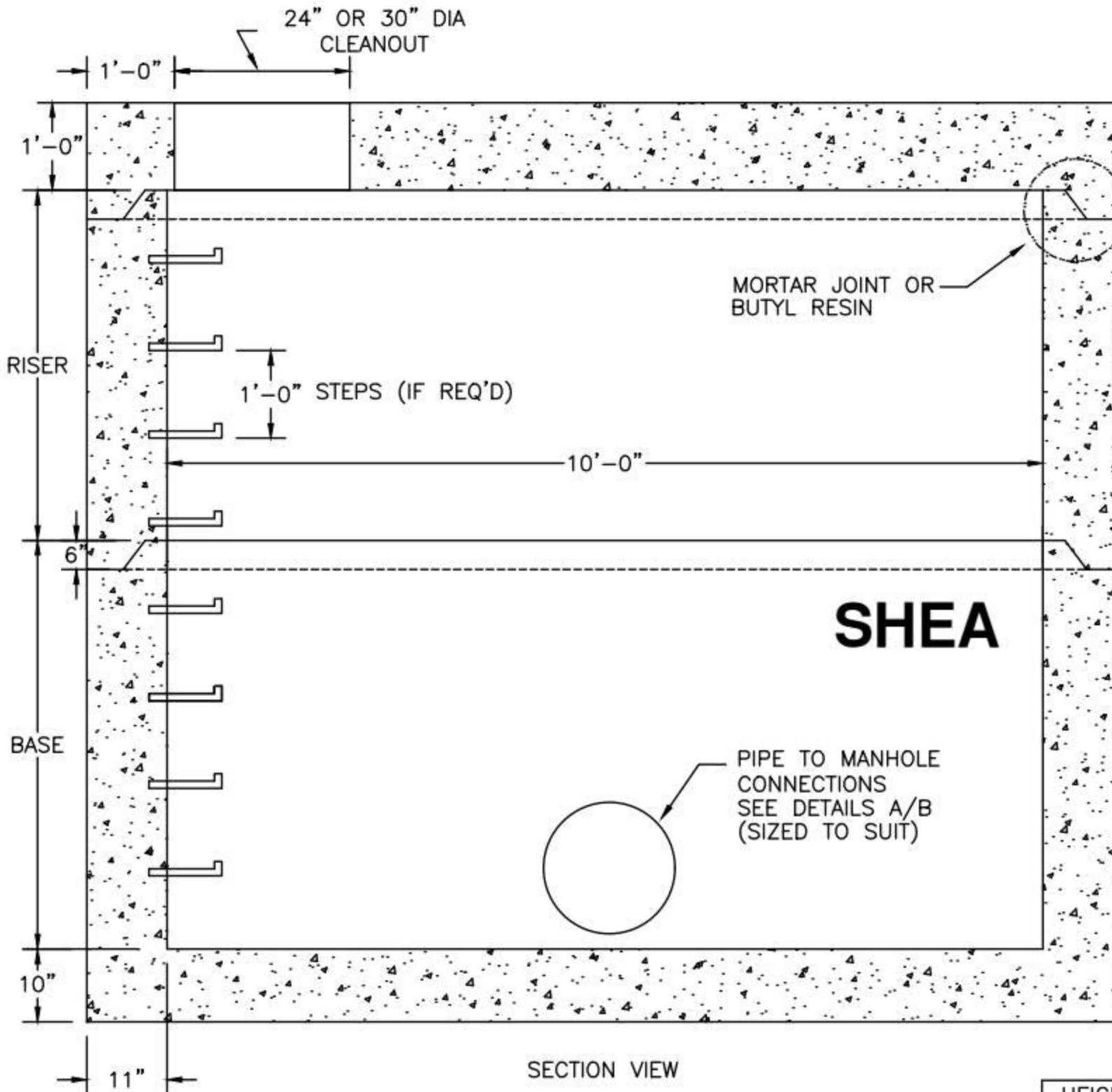
DRAWN BY: ARO

DATE: 03/01/2018

PAGE: G5



MANHOLE 120" DIA



EXTERIOR COATING
IF REQ'D

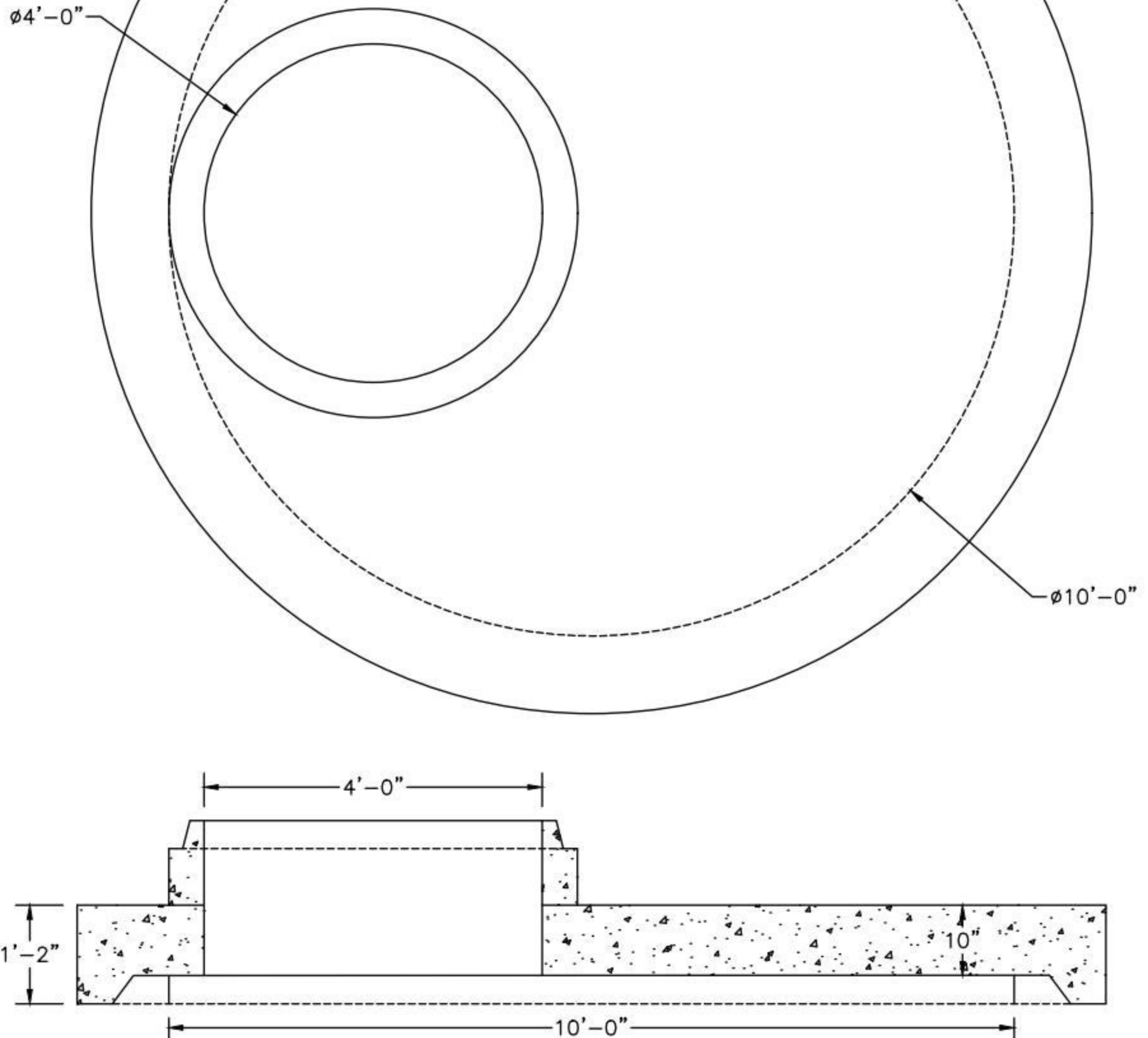
FLAT TOP		
HEIGHT	ITEM NO	WEIGHT
1'-0"	MH10-FT10ID	16,014#

RISER SECTION		
HEIGHT	ITEM NO	WEIGHT
2'-0"	MH10-24CS10ID	9,310#
3'-0"	MH10-36CS10ID	13,965#
4'-0"	MH10-48CS10ID	18,620#
5'-0"	MH10-60CS10ID	23,275#
6'-0"	MH10-72CS10ID	27,930#

BASE SECTION		
HEIGHT	ITEM NO	WEIGHT
3'-6"	MH10-42S10ID	29,863#
4'-6"	MH10-54S10ID	34,518#
5'-6"	MH10-66S10ID	39,173#

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC. 0.30 SQ. IN./LINEAL FT. AND 0.30 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. DESIGN LOADING PER AASHTO HS-20, 1 TO 5 FEET COVER.
4. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
5. BUTYL RESIN JOINT SECTION CONFORMS TO ASTM C990 SPECIFICATION.
6. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO ASTM C478 SPEC.

MANHOLE TRANSITION
120" ID TO 48" ID

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO ASTM A185 SPEC.
3. DESIGN LOADING PER AASHTO HS-20, COVER 1 TO 5 FEET.
4. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
5. BUTYL RESIN SECTION JOINT CONFORMS TO ASTM C990 SPECIFICATION.

SHEA PRODUCT ID:
TRAN12048

PREPARED FOR:

FILE NAME:

tran12048.dwg

WEIGHT (LBS):
25,750#

DRAWN BY: ARO

DATE: 06/01/18

PAGE: G6.2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

FLAT TOP

HEIGHT	ITEM NO	WEIGHT
8"	64X8	2,200#

CONE

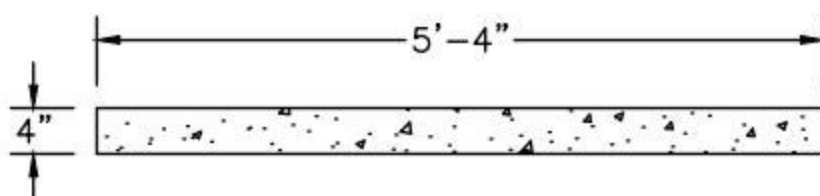
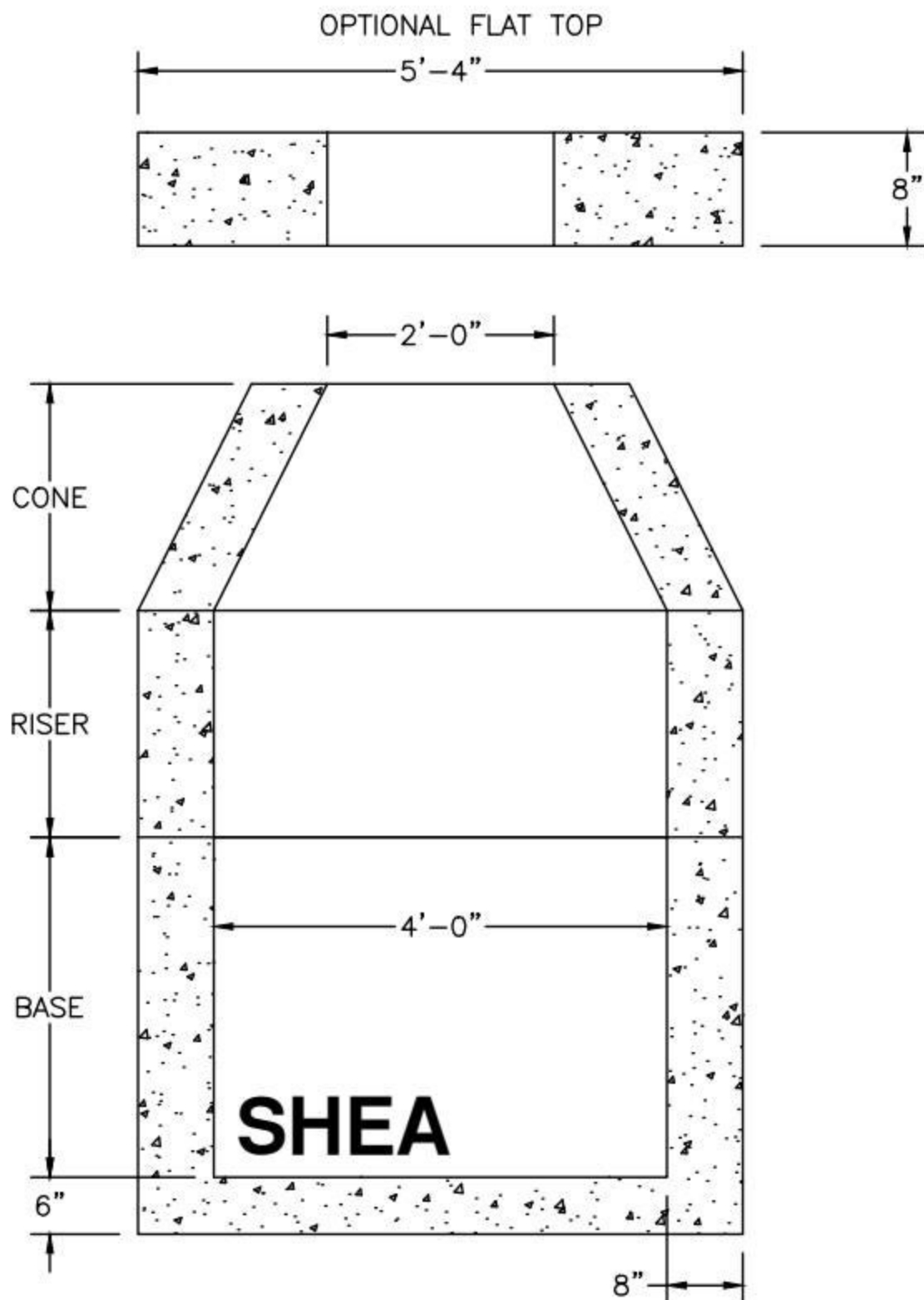
HEIGHT	ITEM NO	WEIGHT
1'-6"	18CONE	1,705#
2'-0"	24CONE	2,274#

RISER

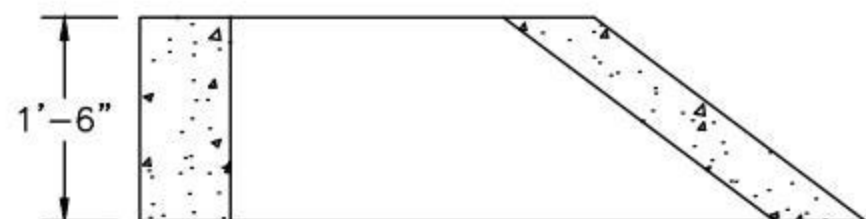
HEIGHT	ITEM NO	WEIGHT
1'-0"	12CS	1,445#
2'-0"	24CS	2,890#
3'-0"	36CS	4,335#

BASE

HEIGHT	ITEM NO	WEIGHT
1'-6"	18S	3,821#
2'-0"	24S	4,543#
2'-6"	30S	5,266#
3'-0"	36S	5,990#




OPTIONAL BASE PLATE

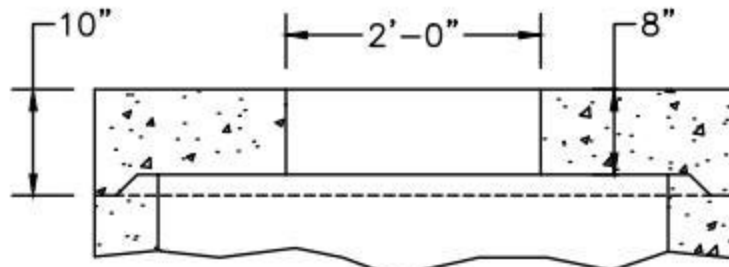


OPTIONAL ECCENTRIC CONE

NOTES:

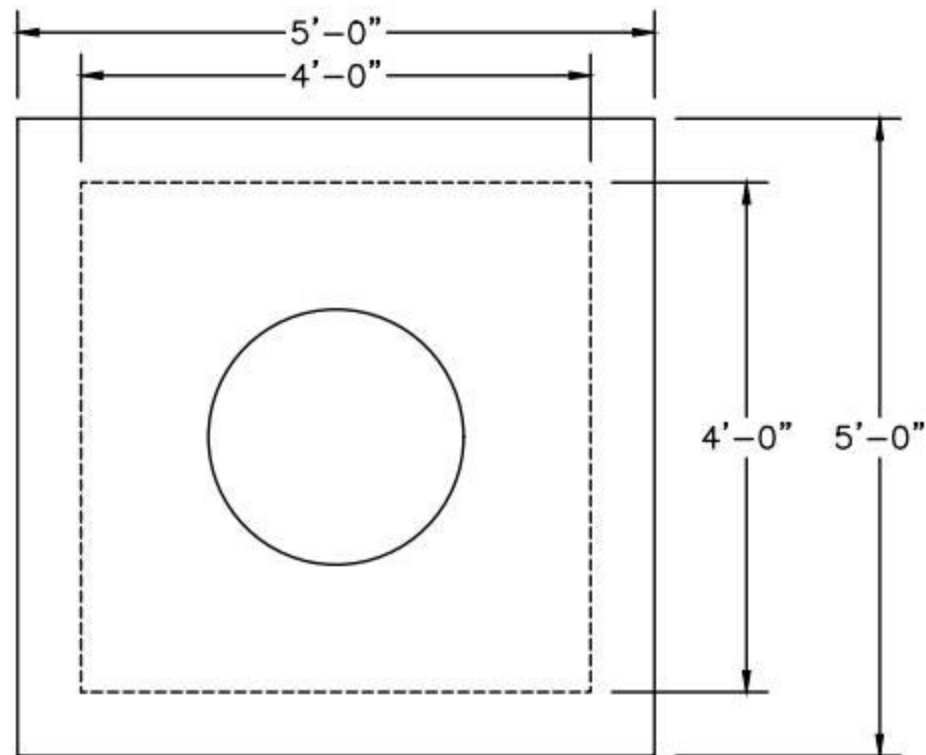
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ECCENTRIC CONE 18" HIGH ALSO AVAILABLE.
3. FLAT TOP AVAILABLE WITH CENTER, OFFSET OR DOUBLE HOLE.
4. BARREL BLOCK ALSO AVAILABLE FOR ANY SECTION.
5. MANHOLE DESIGN CONFORMS TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLES".

SHEA PRODUCT ID: SEE TABLE		PREPARED FOR:		FILE NAME: cb8inwall.dwg			
WEIGHT (LBS): SEE TABLE		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: G7
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



OPTIONAL TOP SLAB

HEIGHT	ITEM NO	WEIGHT
0'-8"	MH4S-FT4SQ	1,850#



PLAN VIEW

TOP SECTION

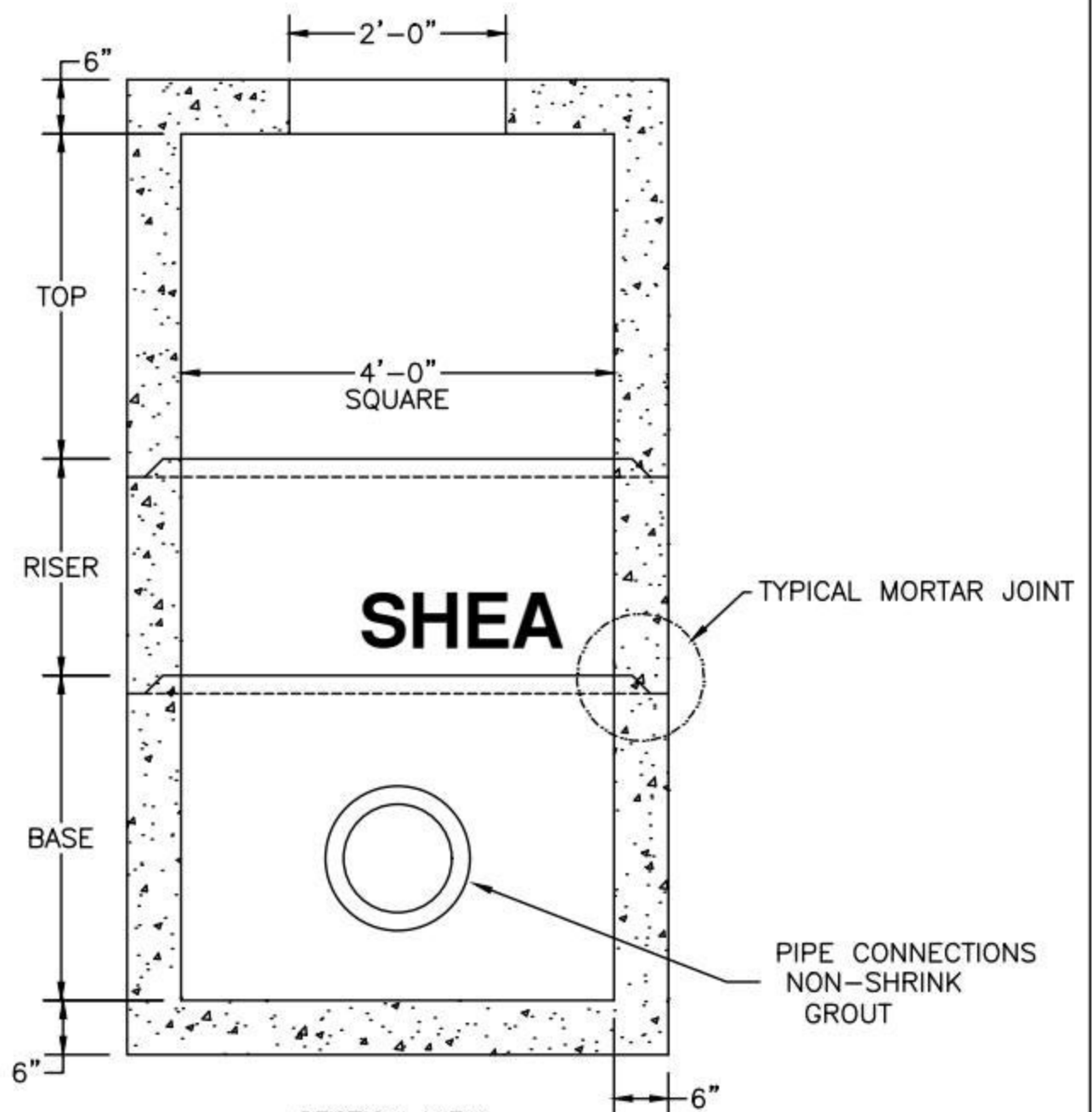
HEIGHT	ITEM NO	WEIGHT
1'-0"	MH4S-12T4SQ	3,182#
2'-0"	MH4S-24T4SQ	4,514#
3'-0"	MH4S-36T4SQ	5,846#
4'-0"	MH4S-48T4SQ	7,178#

RISER SECTION

HEIGHT	ITEM NO	WEIGHT
1'-0"	MH4S-12CS4SQ	1,332#
2'-0"	MH4S-24CS4SQ	2,664#
3'-0"	MH4S-36CS4SQ	3,996#
4'-0"	MH4S-48CS4SQ	5,328#

BASE SECTION

HEIGHT	ITEM NO	WEIGHT
2'-0"	MH4S-24S4SQ	4,514#
3'-0"	MH4S-36S4SQ	5,846#
4'-0"	MH4S-48S4SQ	7,178#
5'-0"	MH4S-60S4SQ	8,510#



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN LOADING PER AASHTO HS-20, 1 TO 5 FEET COVER.
3. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

mh4x4.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

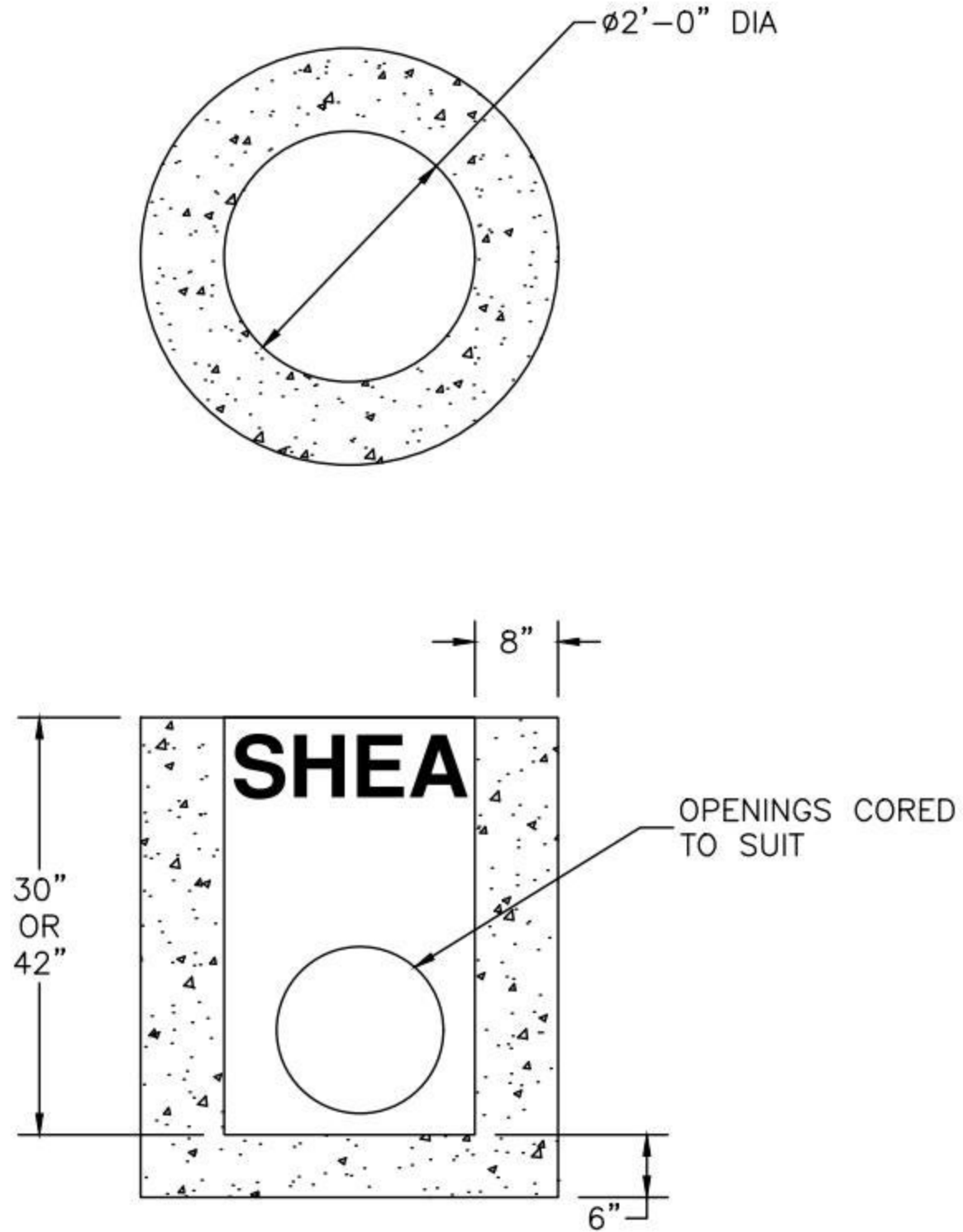
DATE: 06/01/18

PAGE: G8




773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

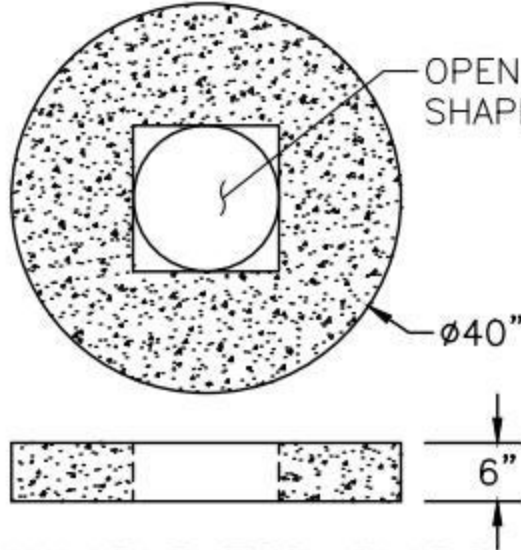
Specifications subject to change without notice



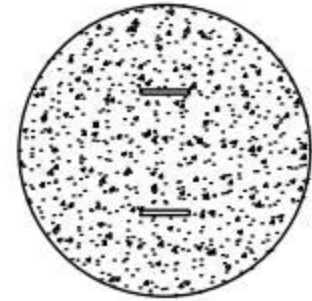
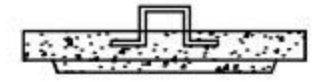
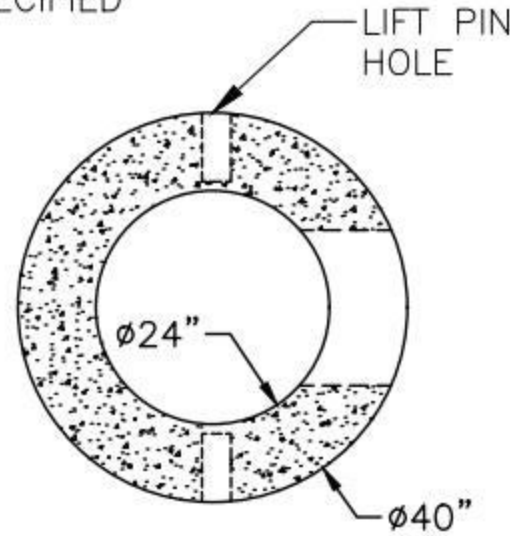
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FEET COVER.

SHEA PRODUCT ID: 30SGI/42SGI		PREPARED FOR:		FILE NAME: DropInletB.dwg			
WEIGHT (LBS): 2,660#/3,341#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: G9.1
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

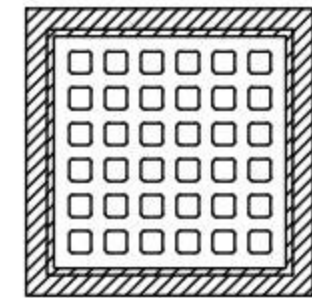
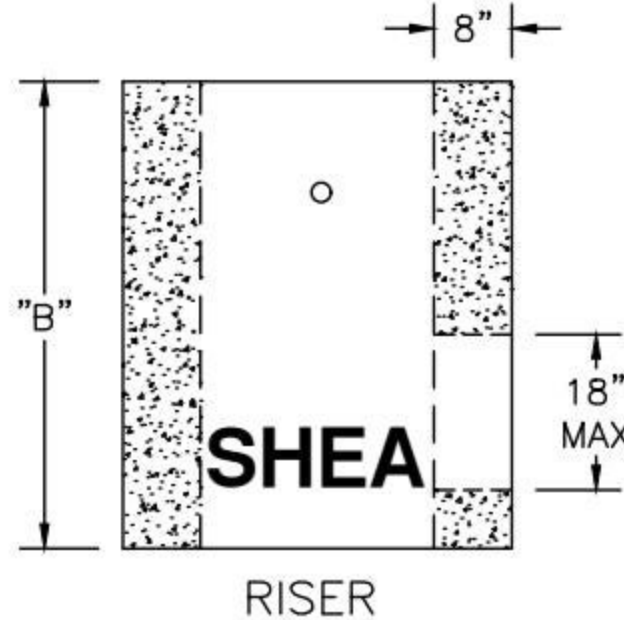


AVAILABLE TOP SLABS
 EST WEIGHT: 640 LBS



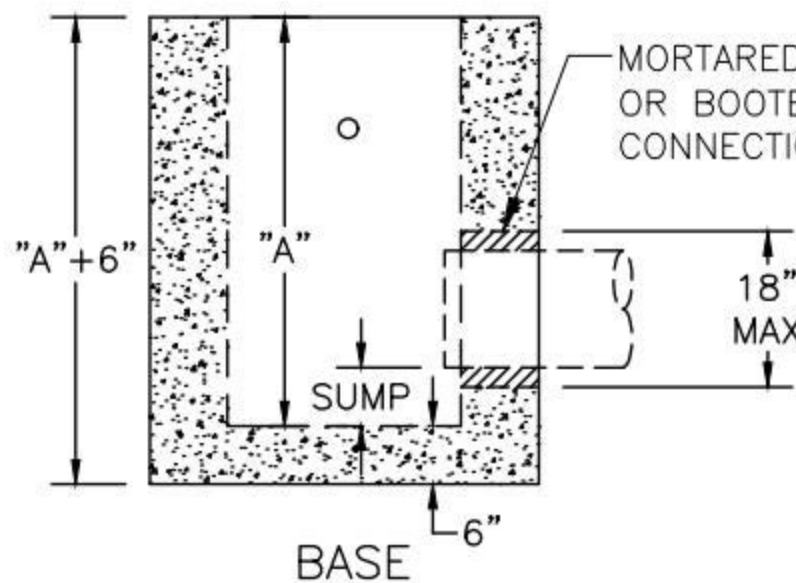
OPTIONAL
 CONCRETE PLUG

RISER WEIGHTS		
ITEM CODE	DIM "B"	EST. WEIGHT
40X12-24	12"	825#
DIR-24X18	18"	1,235#
DIR-24X24	24"	1,645#
DIR-24X30	30"	2,055#
DIR-24X36	36"	2,470#
DIR-24X42	42"	2,880#
DIR-24X48	48"	3,290#
DIR-24X54	54"	3,700#
DIR-24X60	60"	4,115#

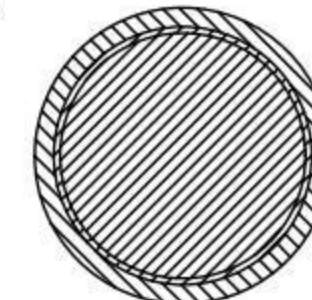


OPTIONAL CAST IRON
 FRAME AND GRATE

SUMP WEIGHTS		
ITEM CODE	DIM "A"	EST. WEIGHT
18SGI	18"	1,880#
24SGI	24"	2,290#
30SGI	30"	2,700#
36SGI	36"	3,110#
42SGI	42"	3,520#
48SGI	48"	3,930#
54SGI	54"	4,343#



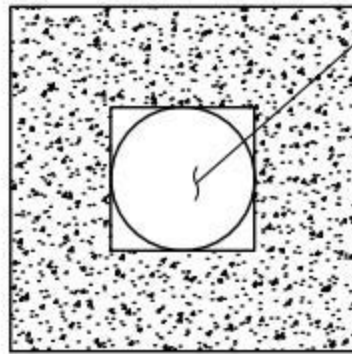
MORTARED (18" MAX)
 OR BOOTED (16" MAX)
 CONNECTION



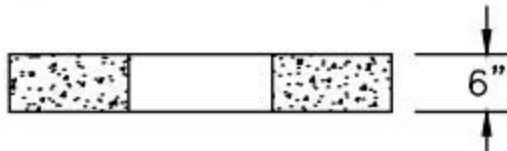
OPTIONAL CAST IRON
 FRAME AND COVER

NOTES:

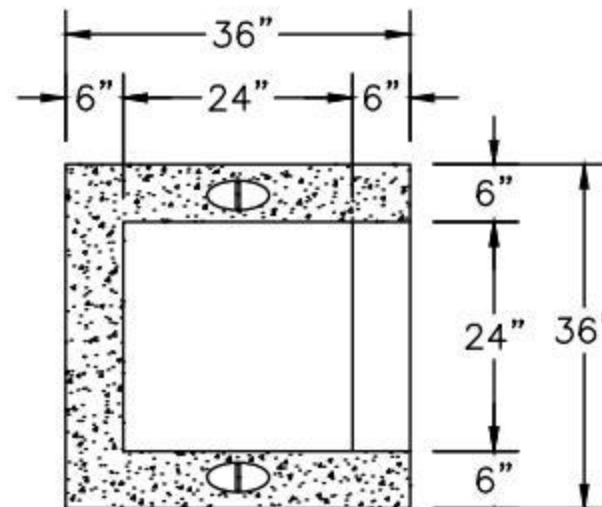
1. CONCRETE: 4,000 PSI MIN. AFTER 28 DAYS
2. DESIGNED FOR AASHTO HS-20 LOADING
3. SUMP AS REQUIRED



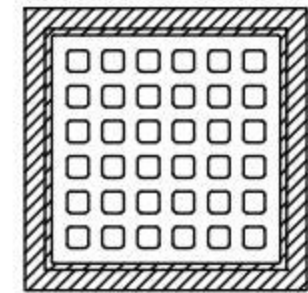
OPENING SIZE AND
SHAPE AS SPECIFIED



AVAILABLE TOP SLAB
EST WEIGHT: 660 LBS



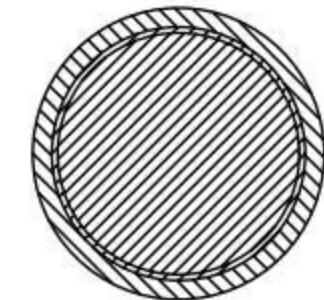
PLAN



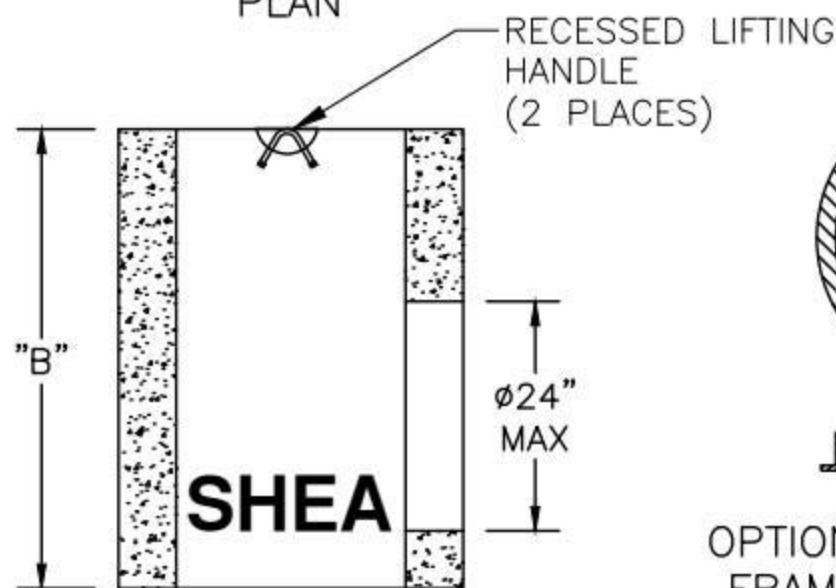
OPTIONAL CAST IRON
FRAME AND GRATE



OPTIONAL CAST IRON
FRAME AND COVER

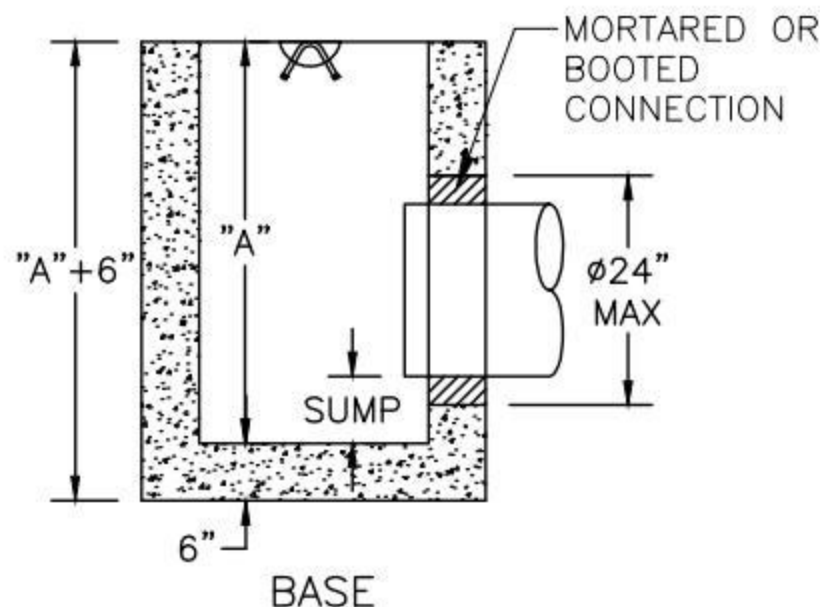


RISER WEIGHTS		
ITEM CODE	DIM "B"	EST. WEIGHT
	12"	750#
	18"	1,120#
DIRS-24X24	24"	1,500#
	30"	1,850#
DIRS-24X36	36"	2,250#
	42"	2,625#
DIRS-24X48	48"	3,000#
	54"	3,375#
DIRS-24X60	60"	3,750#
	66"	4,125#
	72"	4,500#



RISER

SUMP WEIGHTS		
ITEM CODE	DIM "A"	EST. WEIGHT
18SSGI	18"	1,780#
24SSGI	24"	2,150#
30SSGI	30"	2,520#
36SSGI	36"	2,910#
42SSGI	42"	3,260#
48SSGI	48"	3,660#
54SSGI	54"	4,000#
60SSGI	60"	4,410#
66SSGI	66"	4,800#
72SSGI	72"	5,170#



BASE

NOTES:

1. CONCRETE: 4,000 PSI MIN. AFTER 28 DAYS
2. DESIGNED FOR AASHTO HS-20 LOADING
3. SUMP AS REQUIRED

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

2SQAD.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

DATE: 06/01/18

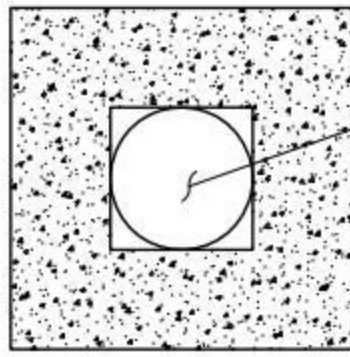
PAGE: G9.3



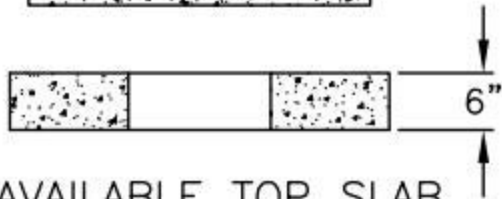
773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

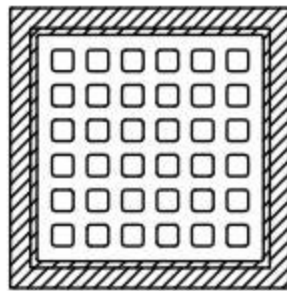
2' SQUARE AREA DRAIN WITH KNOCKOUTS



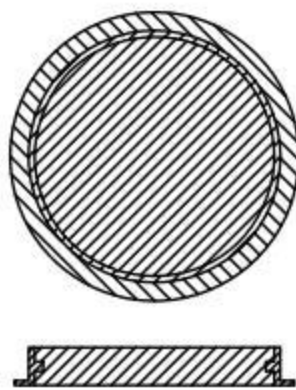
OPENING SIZE AND
SHAPE AS SPECIFIED



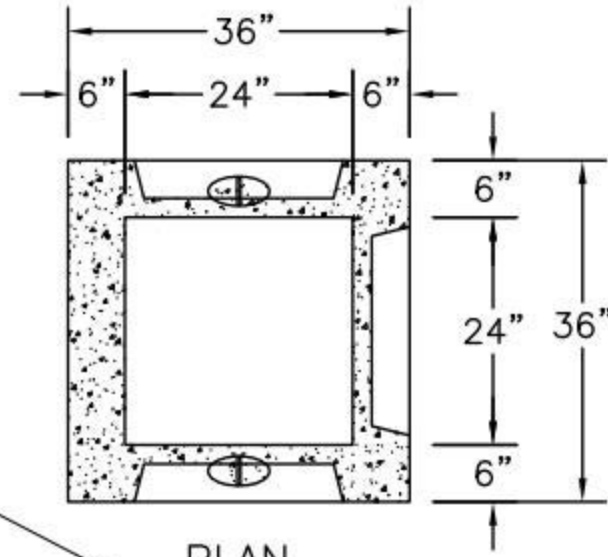
AVAILABLE TOP SLAB
EST WEIGHT: 660 LBS



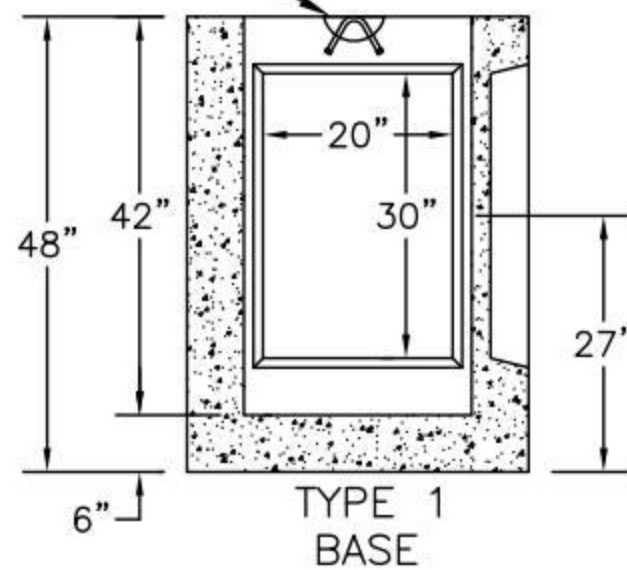
OPTIONAL CAST IRON
FRAME AND GRATE



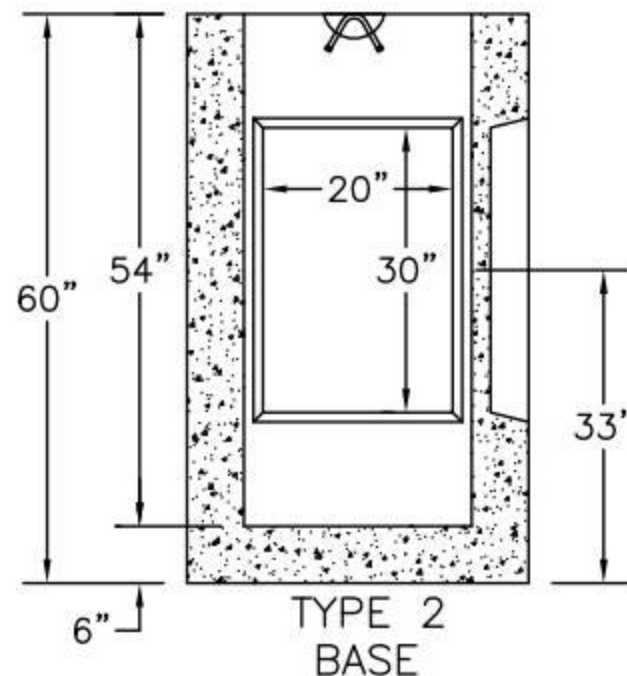
OPTIONAL CAST IRON
FRAME AND COVER



PLAN



TYPE 1
BASE



TYPE 2
BASE

NOTES:

1. CONCRETE: 4,000 PSI MIN. AFTER 28 DAYS
2. DESIGNED FOR AASHTO HS-20 LOADING

SIZE

EST. WEIGHT

48"(42" INSIDE)	3,260 LBS
60"(54" INSIDE)	4,000 LBS

SHEA PRODUCT ID:

PREPARED FOR:

FILE NAME:

2SQADWK.dwg

WEIGHT (LBS):

3,260#/4,000#

DRAWN BY:

ARO

DATE:

06/01/18

PAGE:

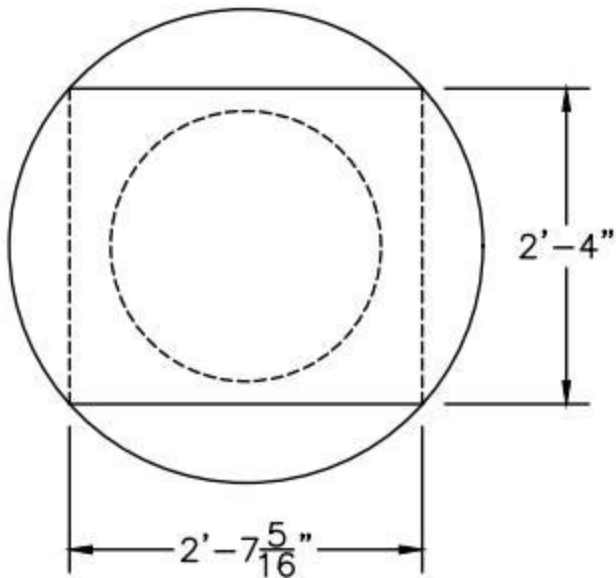
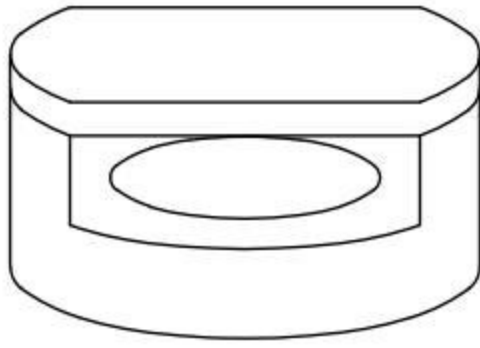
G9.4



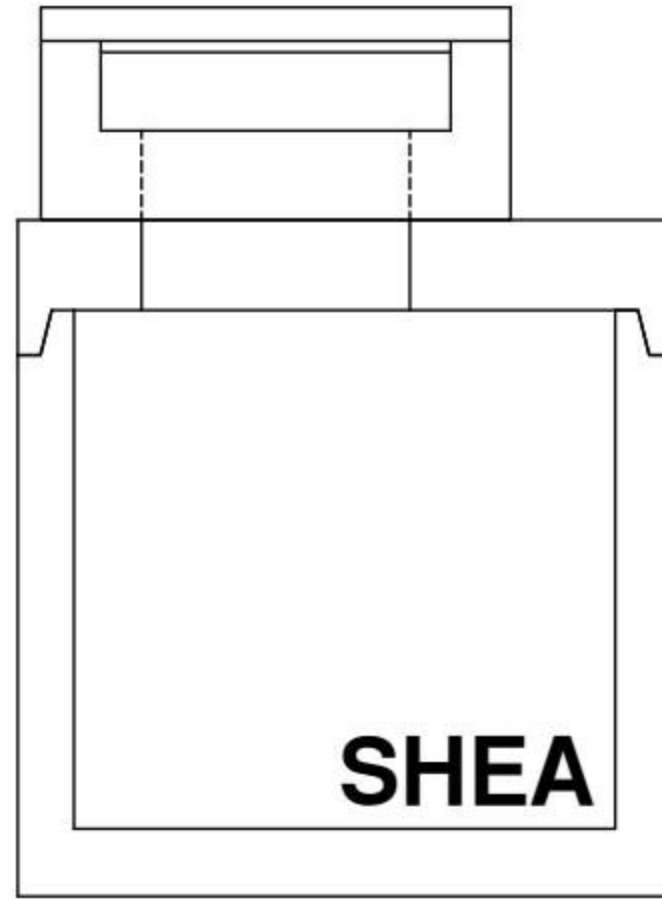
773 Salem Street—Wilmington, MA | 153 Cranberry Hwy—Rochester, MA | 87 Haverhill Road—Amesbury, MA | 160 Old Turnpike Rd—Nottingham, NH

Specifications subject to change without notice

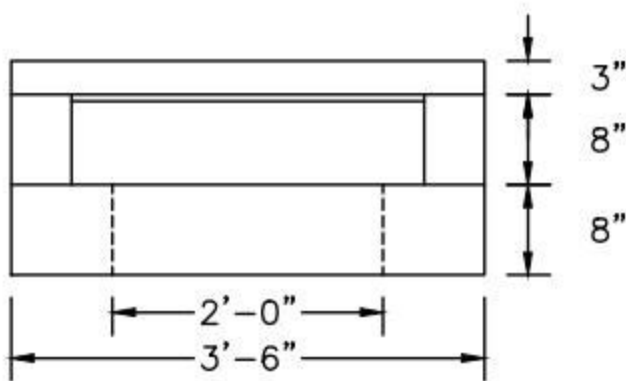
GUTTER INLET DROP INLET TYPE C



PLAN VIEW




SECTION VIEW



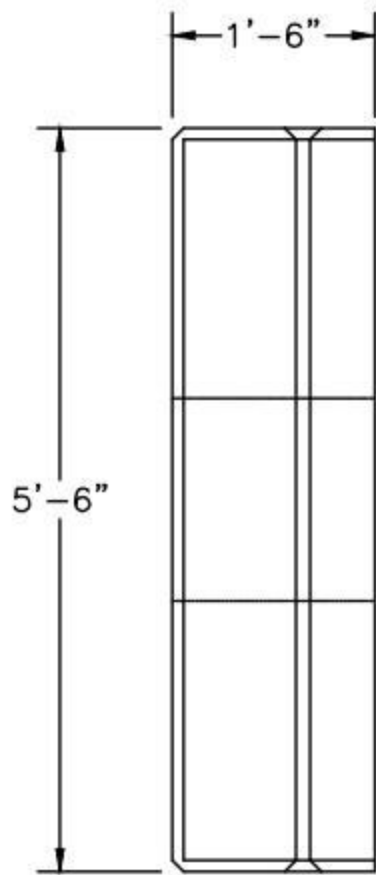
SIDE VIEW

NOTES:

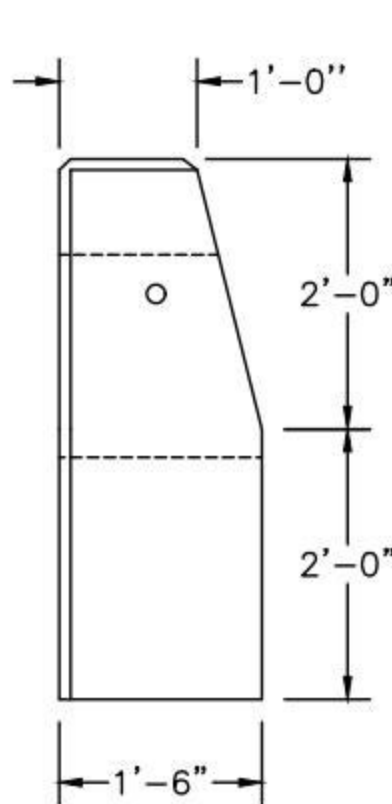
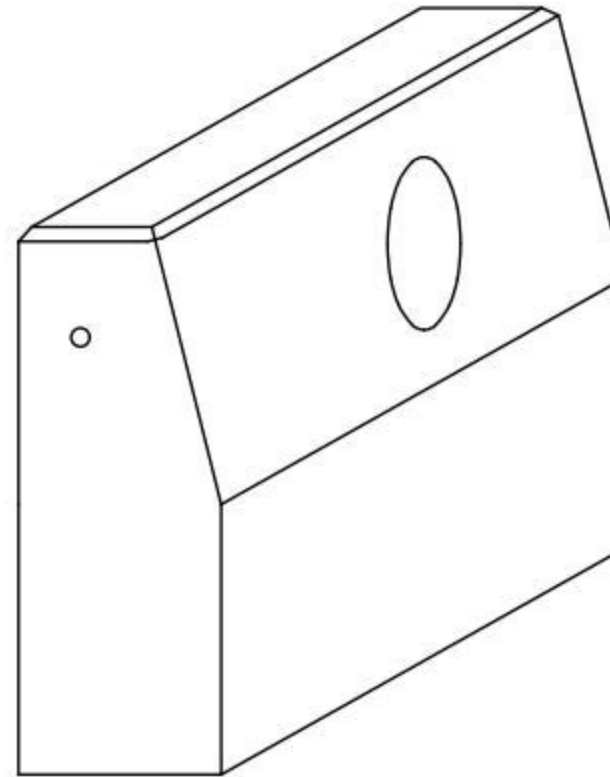
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.

SHEA PRODUCT ID: DITC		PREPARED FOR:		FILE NAME: DropInletC.dwg			
WEIGHT (LBS): 2,318#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: G10
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

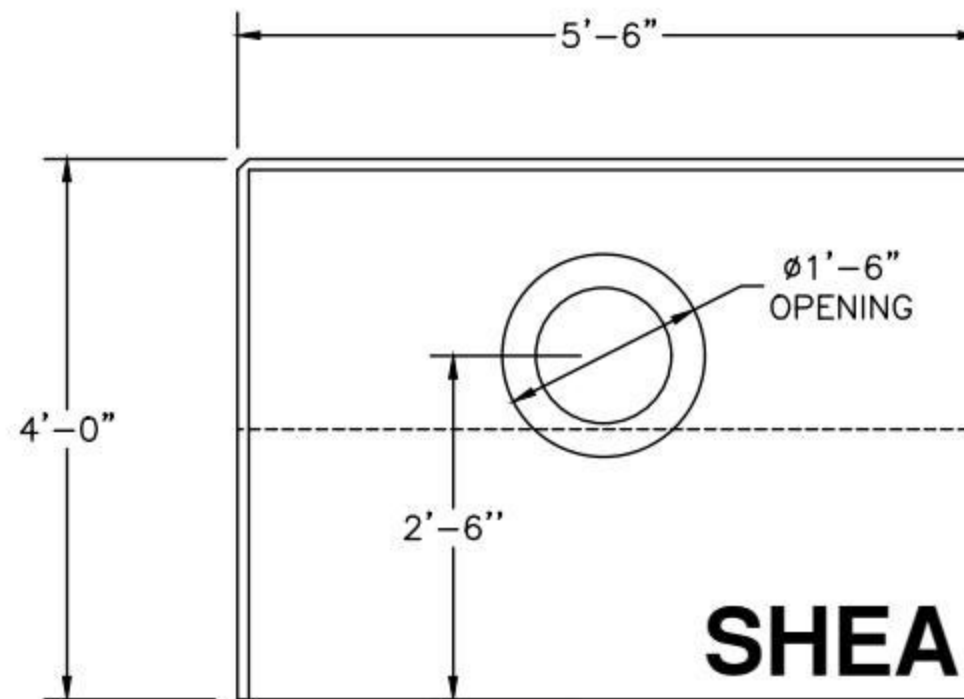
Specifications subject to change without notice



TOP VIEW



SIDE VIEW



FRONT VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.

SHEA PRODUCT ID:
HW48X66-18

PREPARED FOR:

FILE NAME:

HW12pipe.dwg

WEIGHT (LBS):
3,400#

DRAWN BY:
ARO

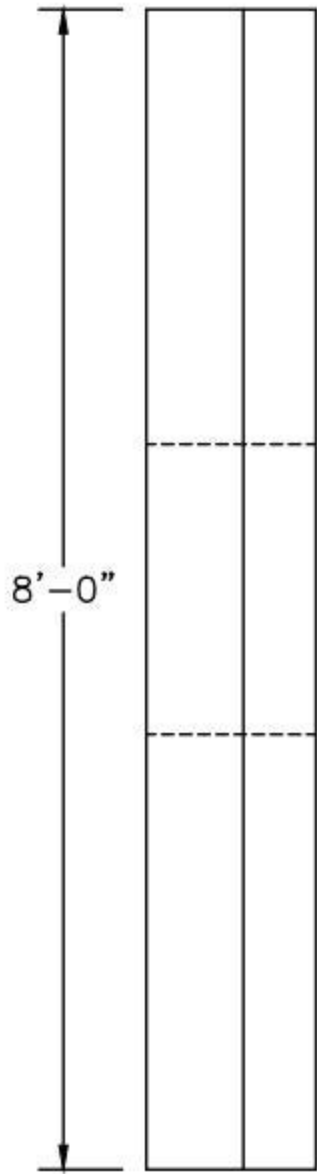
DATE:
03/01/2018

PAGE:
G11.1

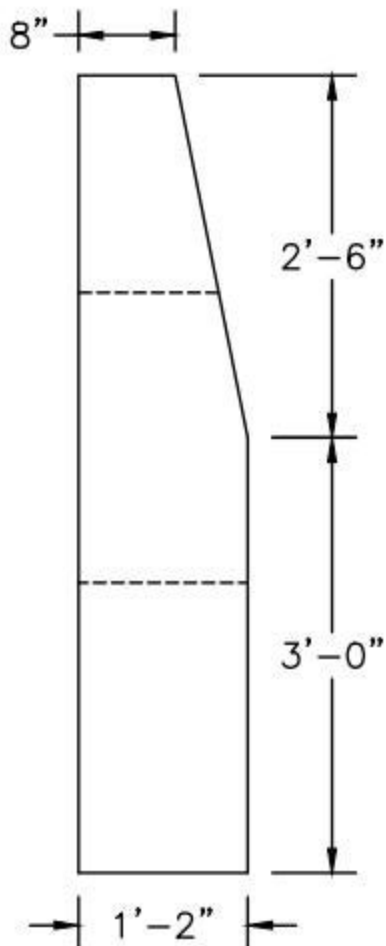
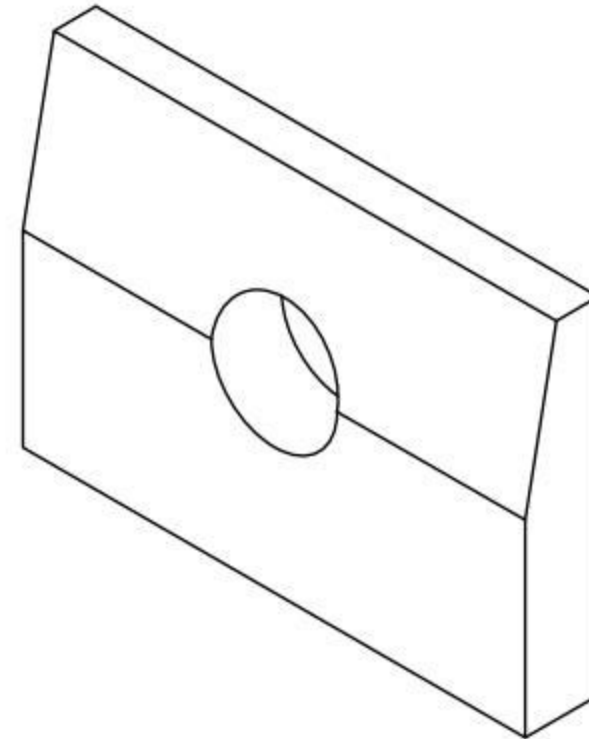


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

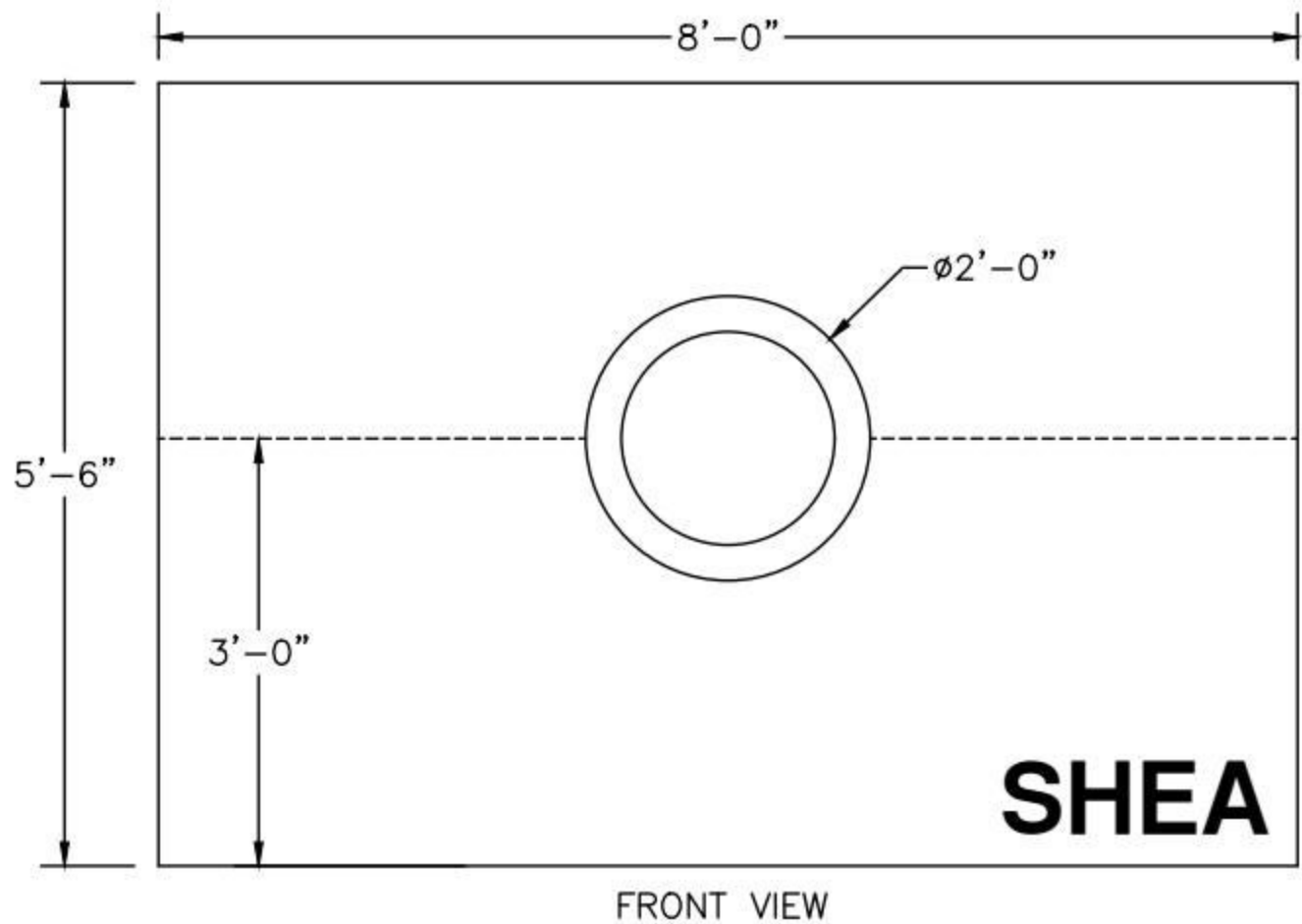
Specifications subject to change without notice



TOP VIEW




SIDE VIEW

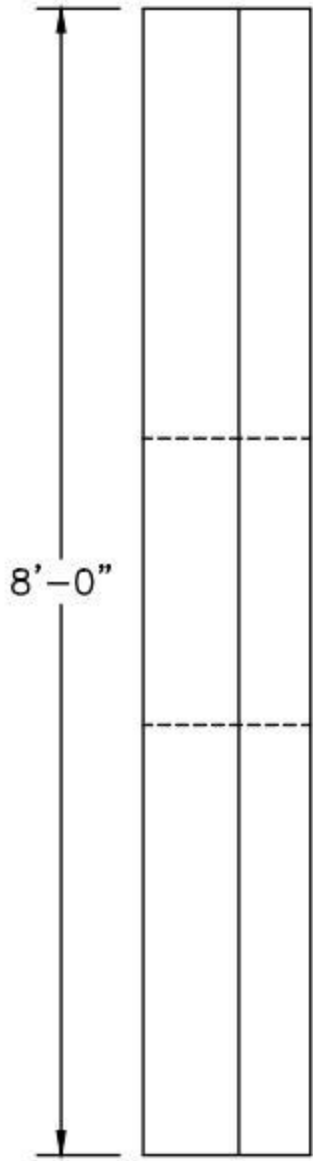


FRONT VIEW

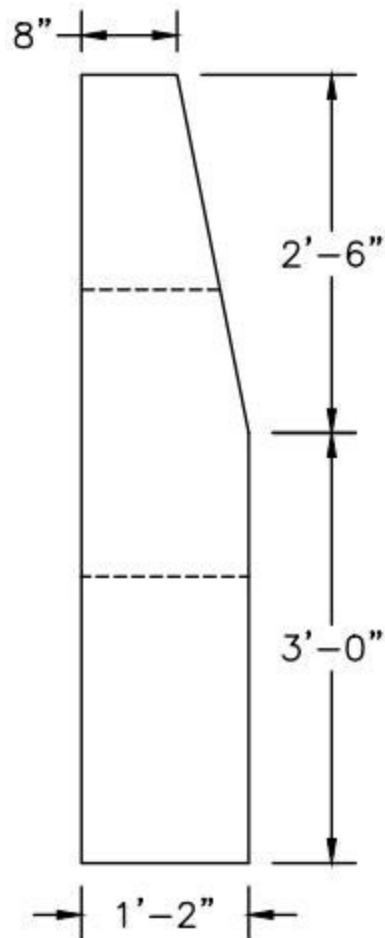
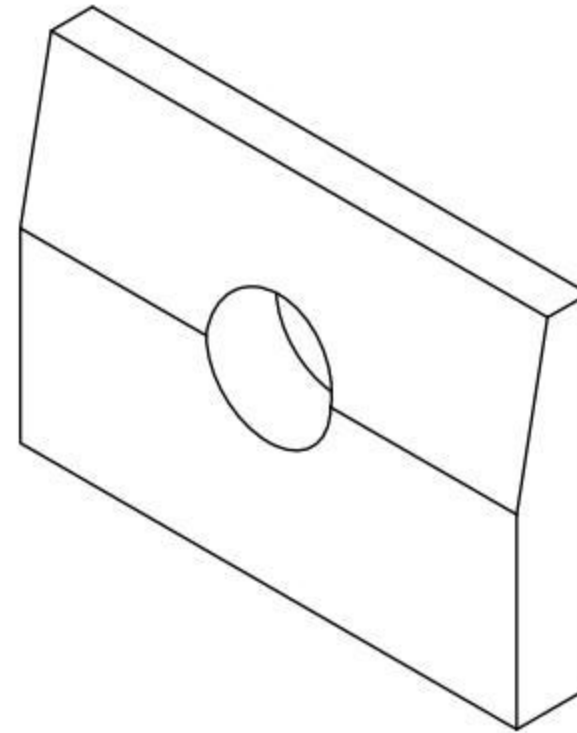
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.

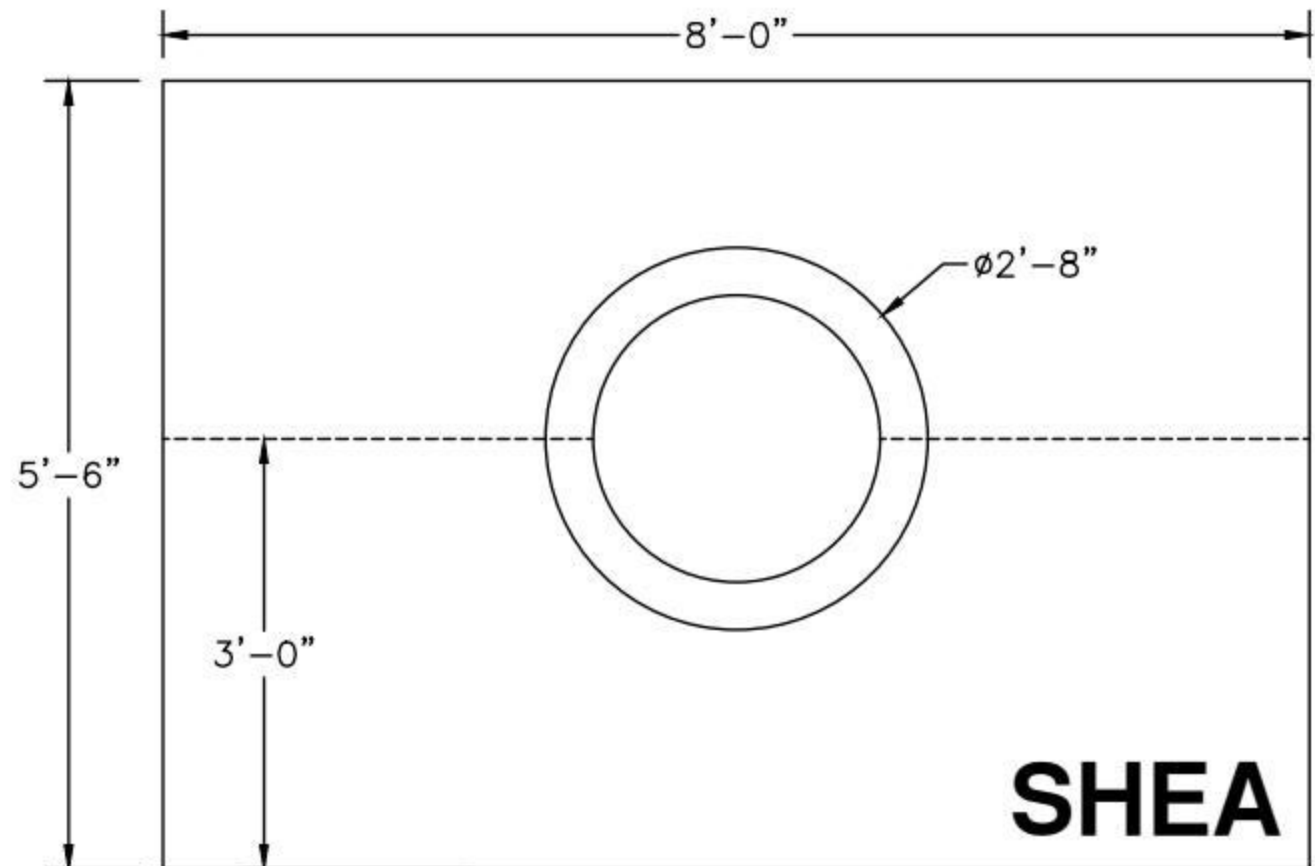
SHEA PRODUCT ID: HW66X96-24		PREPARED FOR:		FILE NAME: HW18Pipe.dwg			
WEIGHT (LBS): 6,335#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: G11.2-1
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH							



TOP VIEW



SIDE VIEW




FRONT VIEW

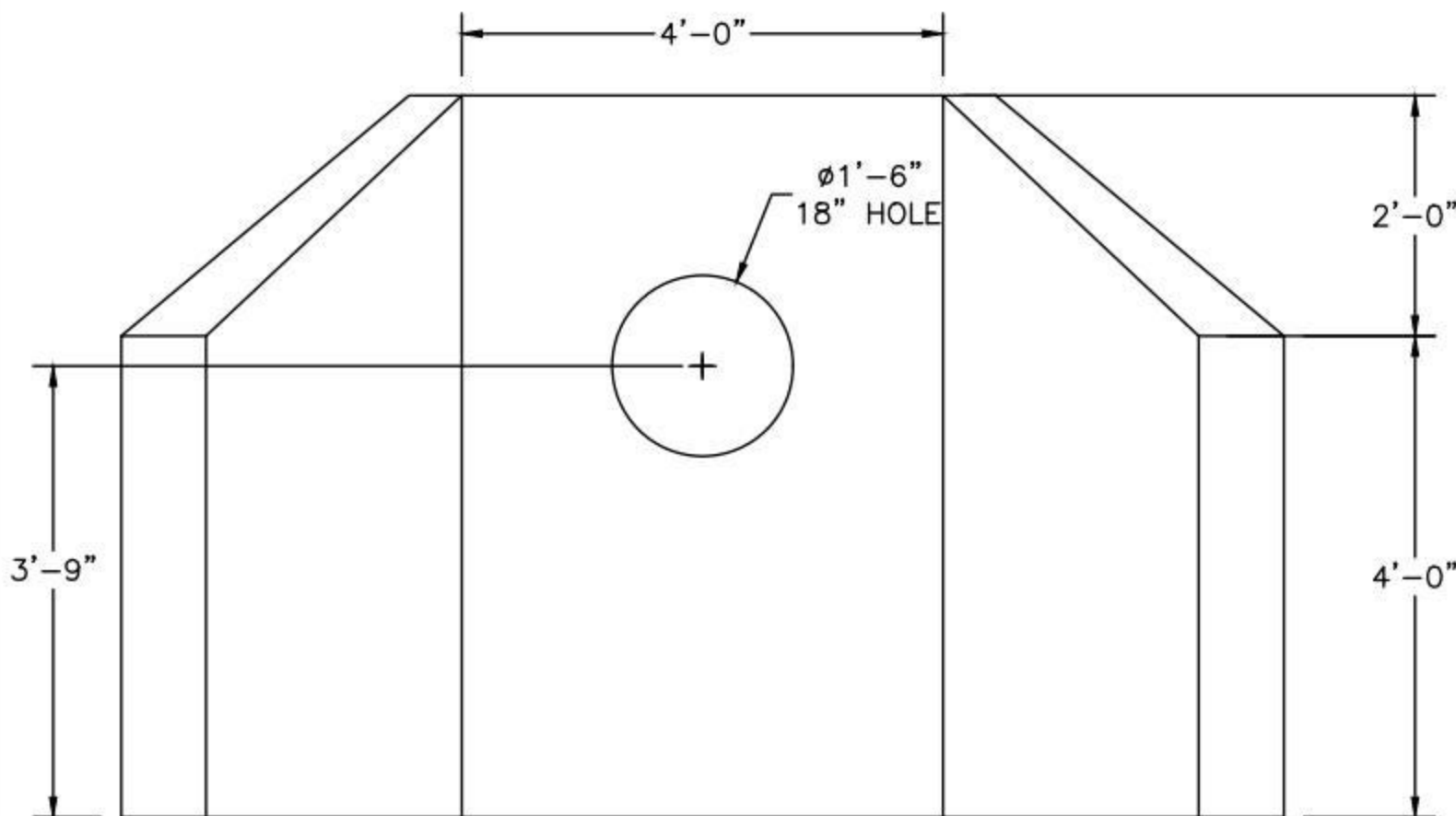
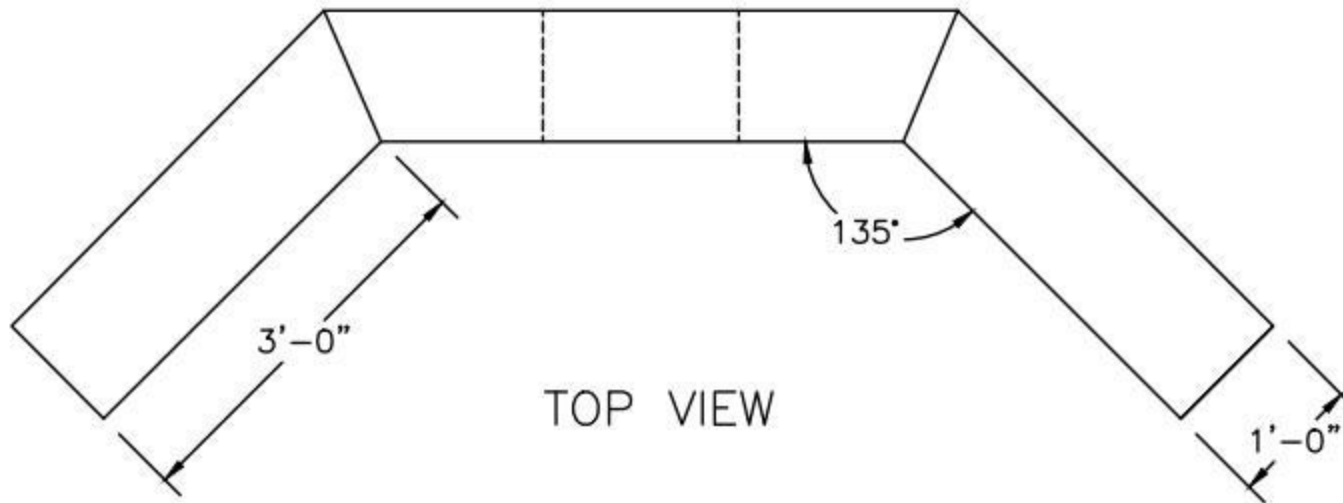
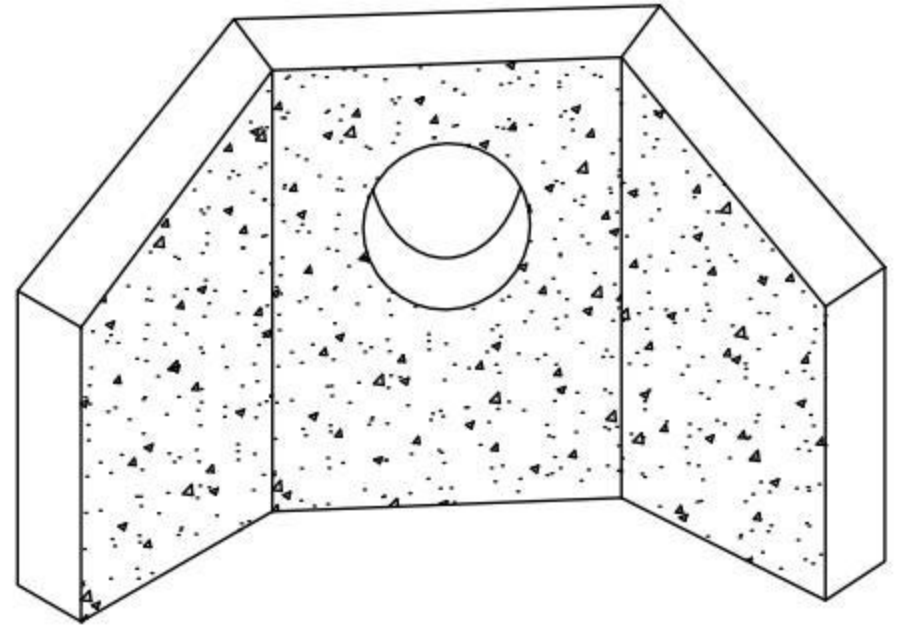
SHEA

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.

SHEA PRODUCT ID: HW66X96-32		PREPARED FOR:		FILE NAME: HW24Pipe.dwg			
WEIGHT (LBS): 6,335#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: G11.2-2
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH							


WING HEADWALL 18" HOLE



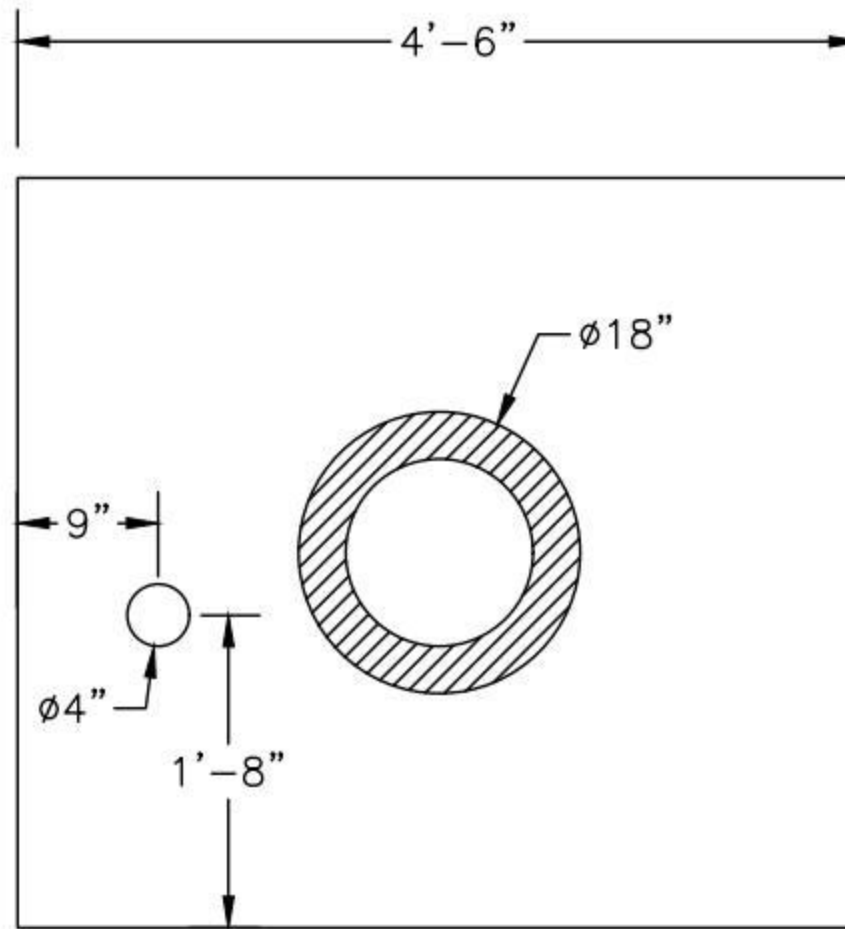
FRONT VIEW

NOTES:

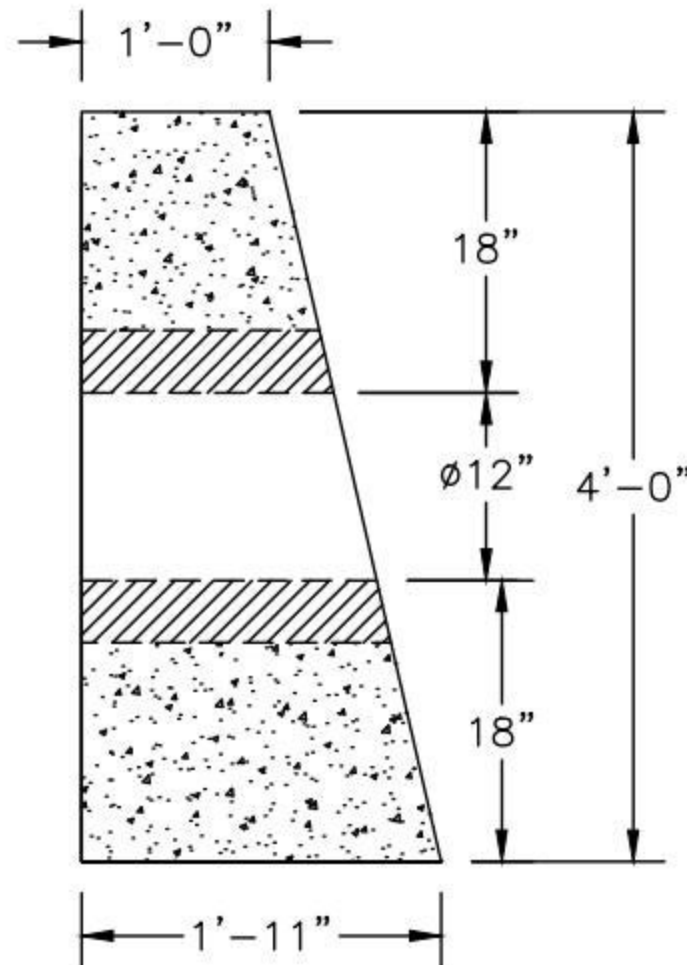
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.

SHEA PRODUCT ID: HWWING18		PREPARED FOR:		FILE NAME: Wingwall18.dwg			
WEIGHT (LBS): 9,154#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: G11.3
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

Specifications subject to change without notice



FRONT VIEW



SIDE VIEW

NOTES

1. CONCRETE: FC = 4,000 PSI @ 28 DAYS MIN
2. REINFORCING STEEL: ASTM A615 GRADE #60

SHEA PRODUCT ID:
HWSNHDOT-12

PREPARED FOR:

FILE NAME:
12in PIPE NHDOT.dwg

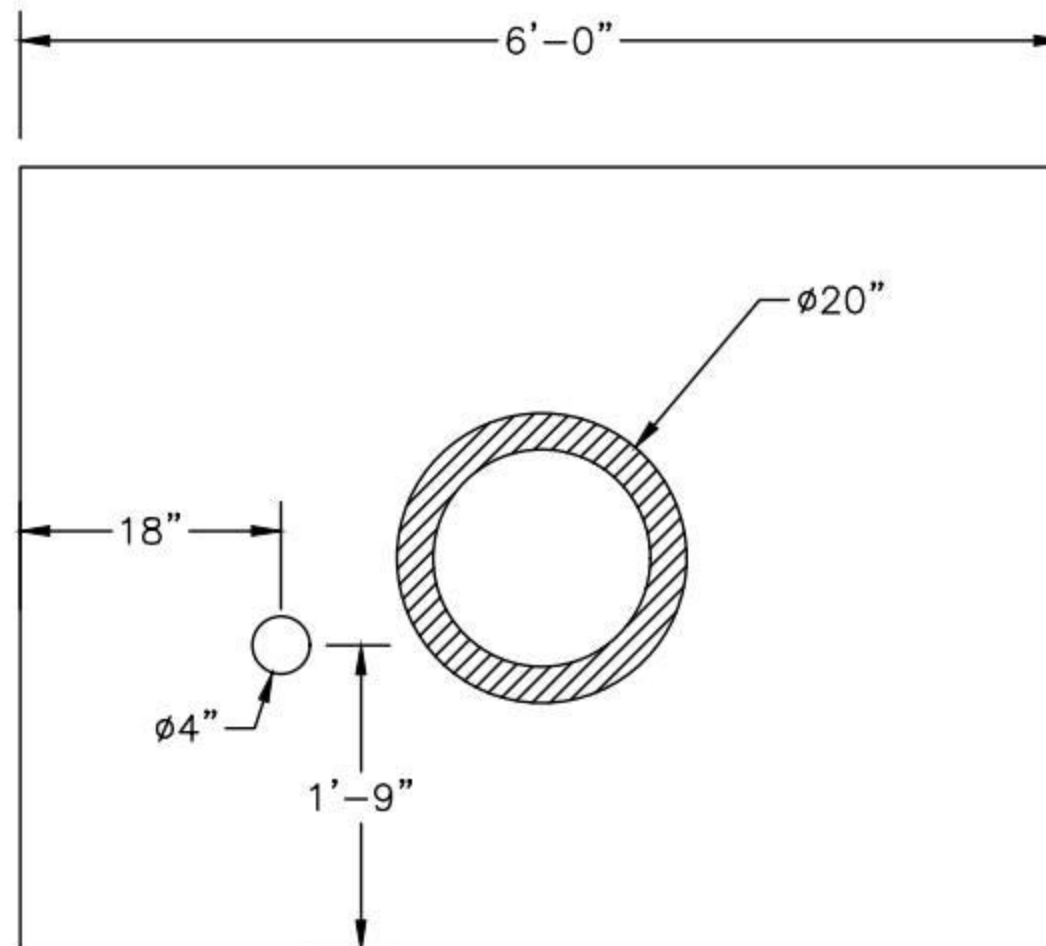
WEIGHT (LBS):
3,880#

DRAWN BY:
ARO

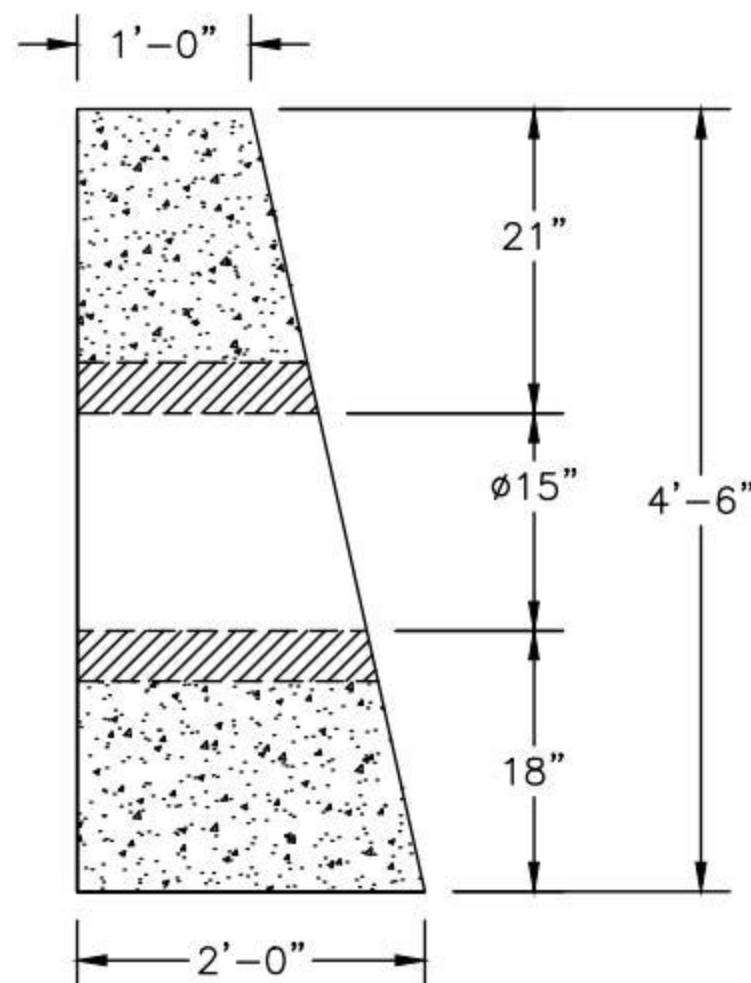
DATE:
06/01/18

PAGE:
G11.4-1





FRONT VIEW



SIDE VIEW

NOTES

1. CONCRETE: FC = 4,000 PSI @ 28 DAYS MIN
2. REINFORCING STEEL: ASTM A615 GRADE #60

SHEA PRODUCT ID:
HWSNHDOT-15

PREPARED FOR:

FILE NAME:
15in PIPE NHDOT.dwg

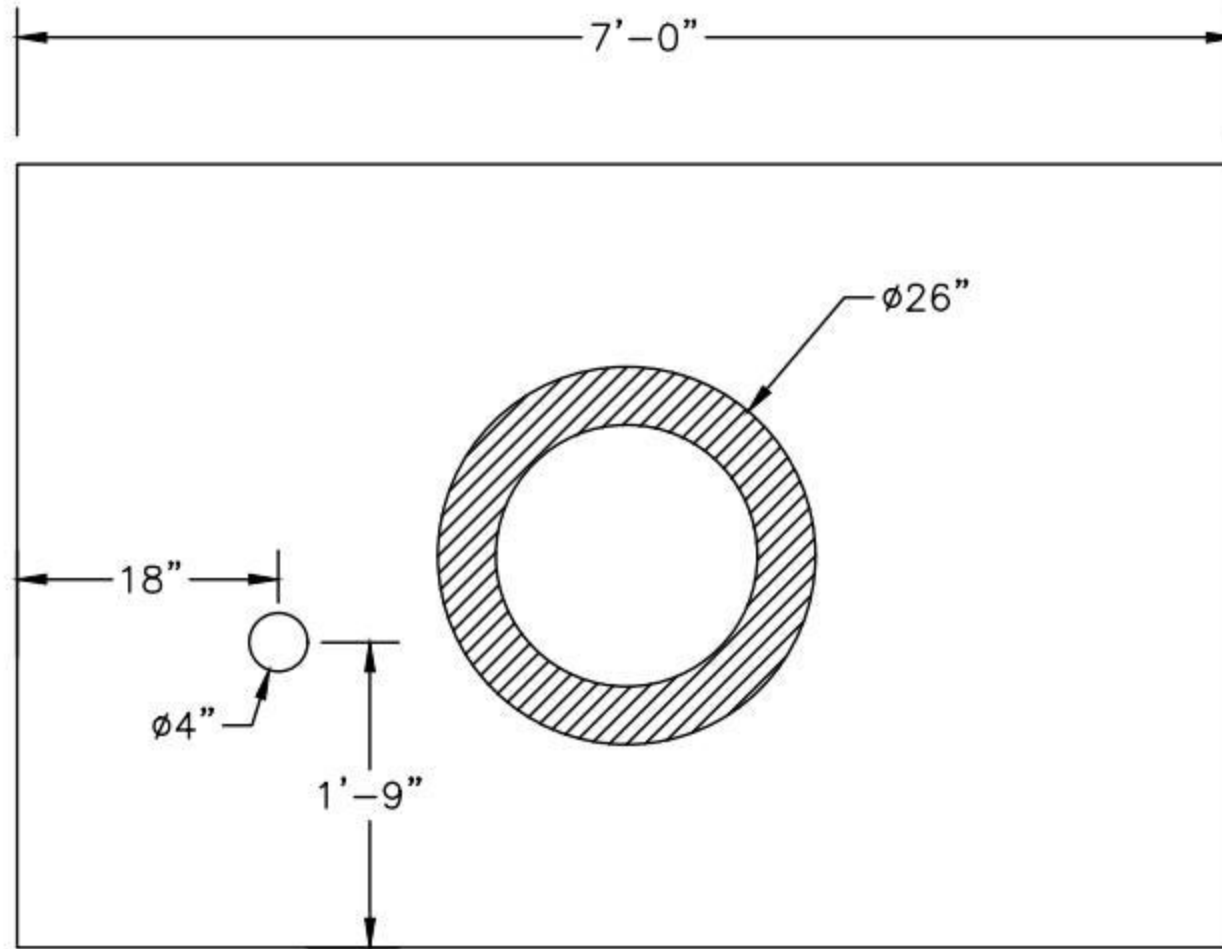
WEIGHT (LBS):
6,000#

DRAWN BY:
ARO

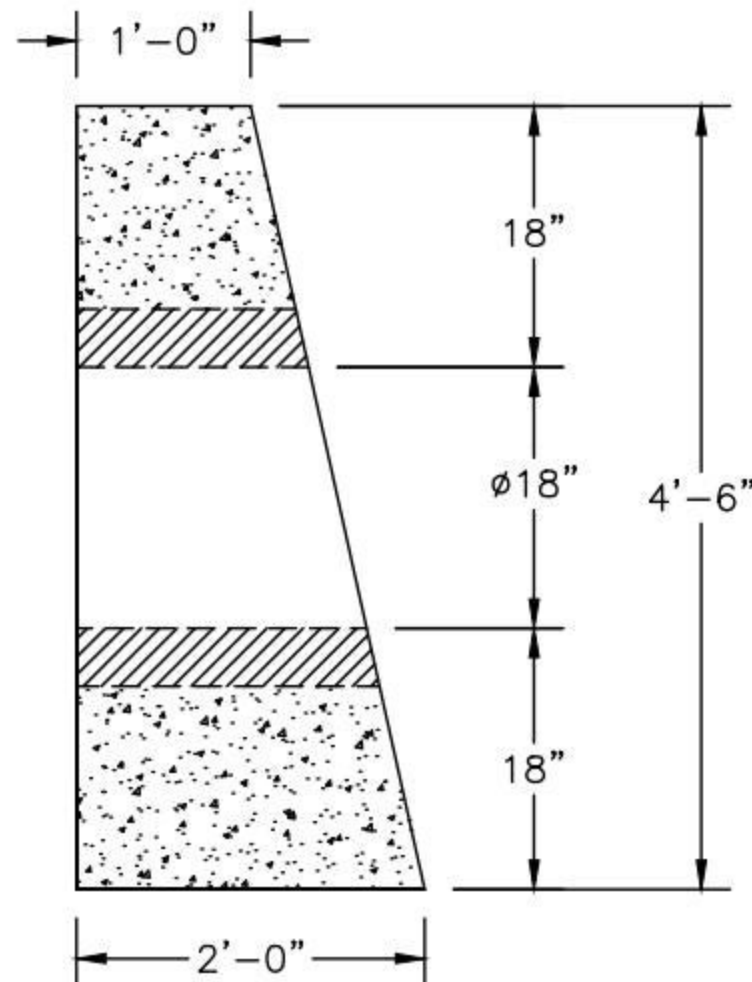
DATE:
06/01/18

PAGE:
G11.4-2





FRONT VIEW



SIDE VIEW

NOTES

1. CONCRETE: FC = 4,000 PSI @ 28 DAYS MIN
2. REINFORCING STEEL: ASTM A615 GRADE #60

SHEA PRODUCT ID:
HWSNHDOT-18

PREPARED FOR:

FILE NAME:
18in PIPE NHDOT.dwg

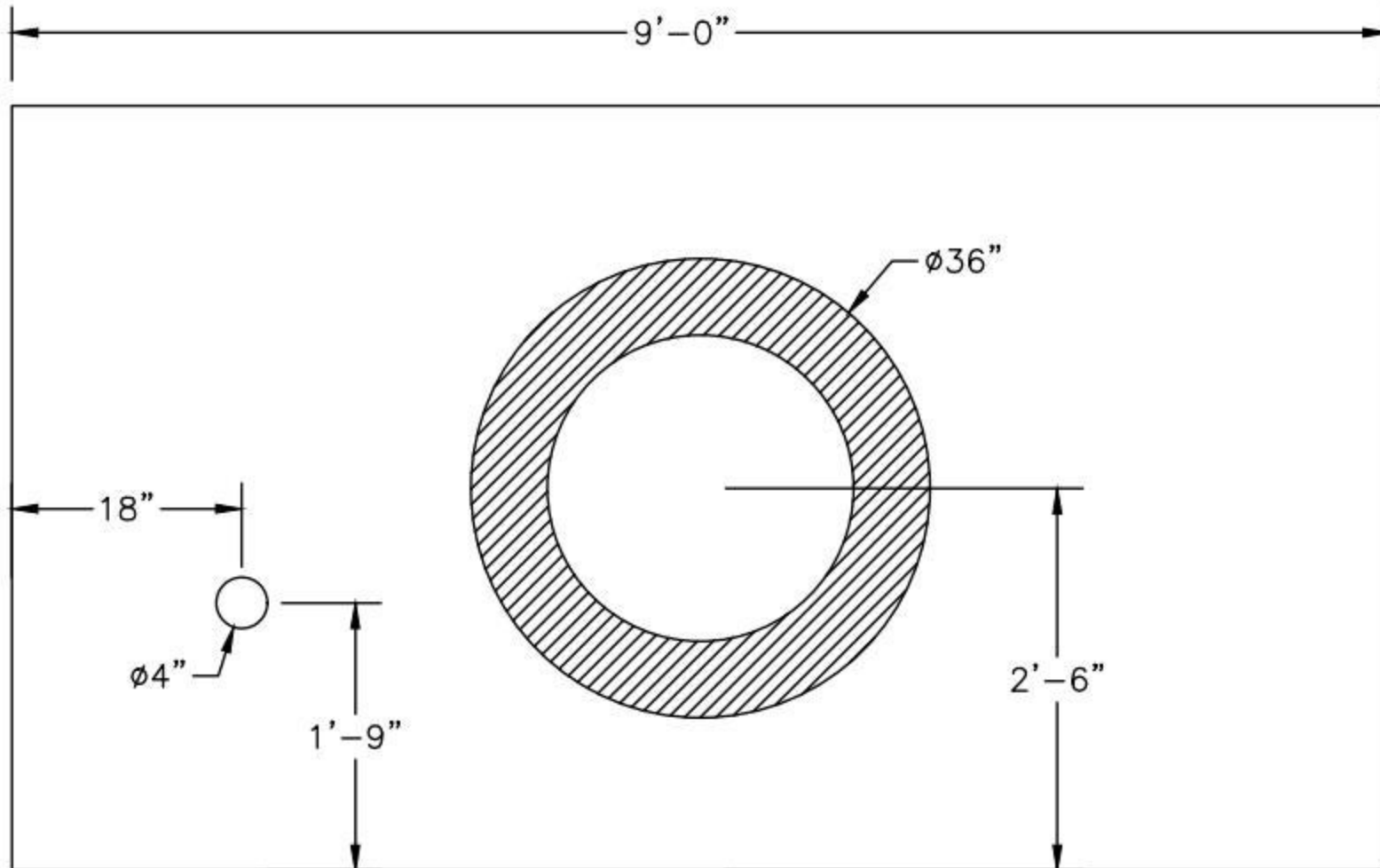
WEIGHT (LBS):
7,000#

DRAWN BY:
ARO

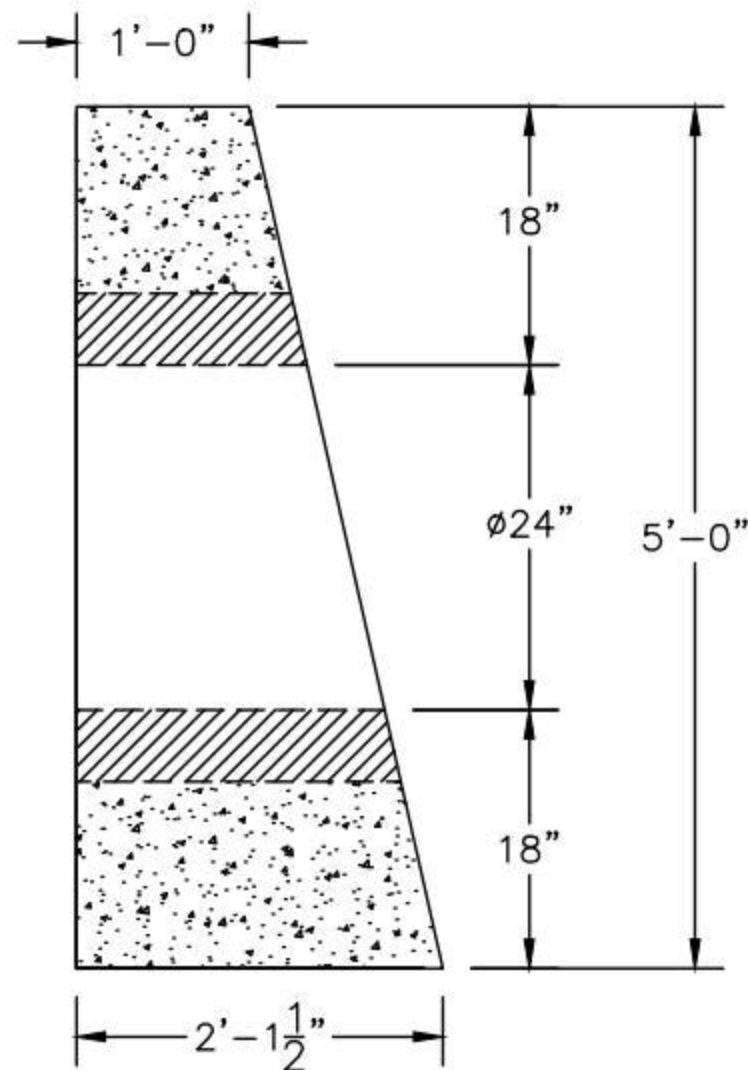
DATE:
06/01/18

PAGE:
G11.4-3





FRONT VIEW



SIDE VIEW

NOTES

1. CONCRETE: FC = 4,000 PSI @ 28 DAYS MIN
2. REINFORCING STEEL: ASTM A615 GRADE #60

SHEA PRODUCT ID:
HWSNHDOT-24

PREPARED FOR:

FILE NAME:

24in PIPE NHDOT.dwg

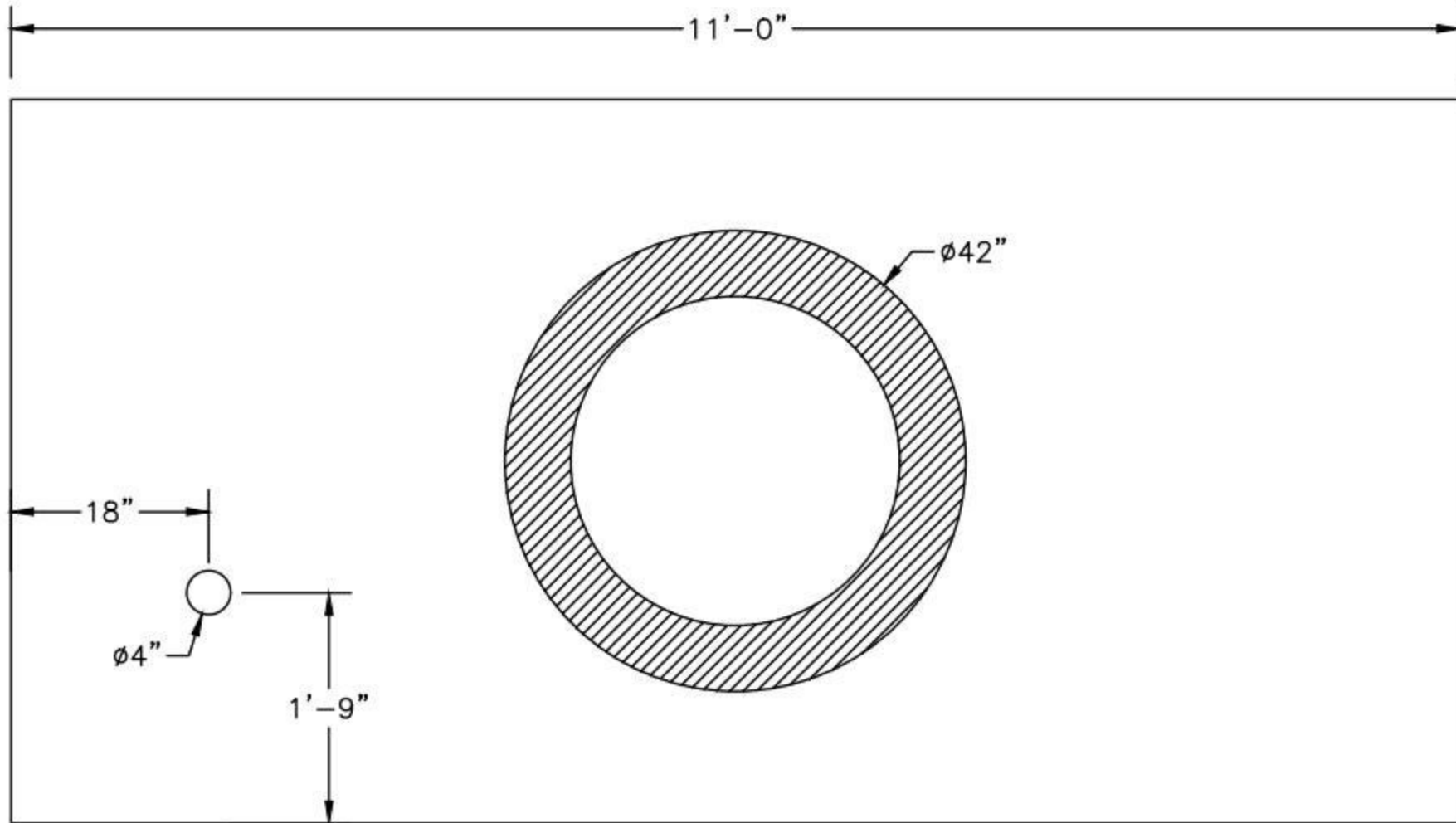
WEIGHT (LBS):
10,000#

DRAWN BY:
ARO

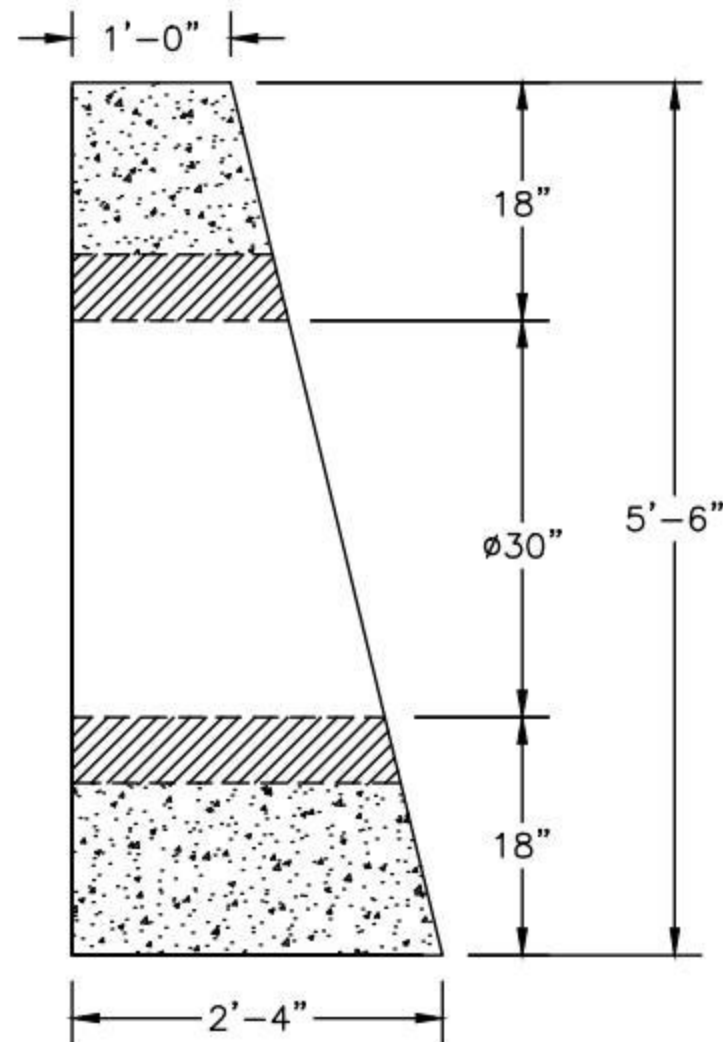
DATE:
06/01/18

PAGE:
G11.4-4






FRONT VIEW

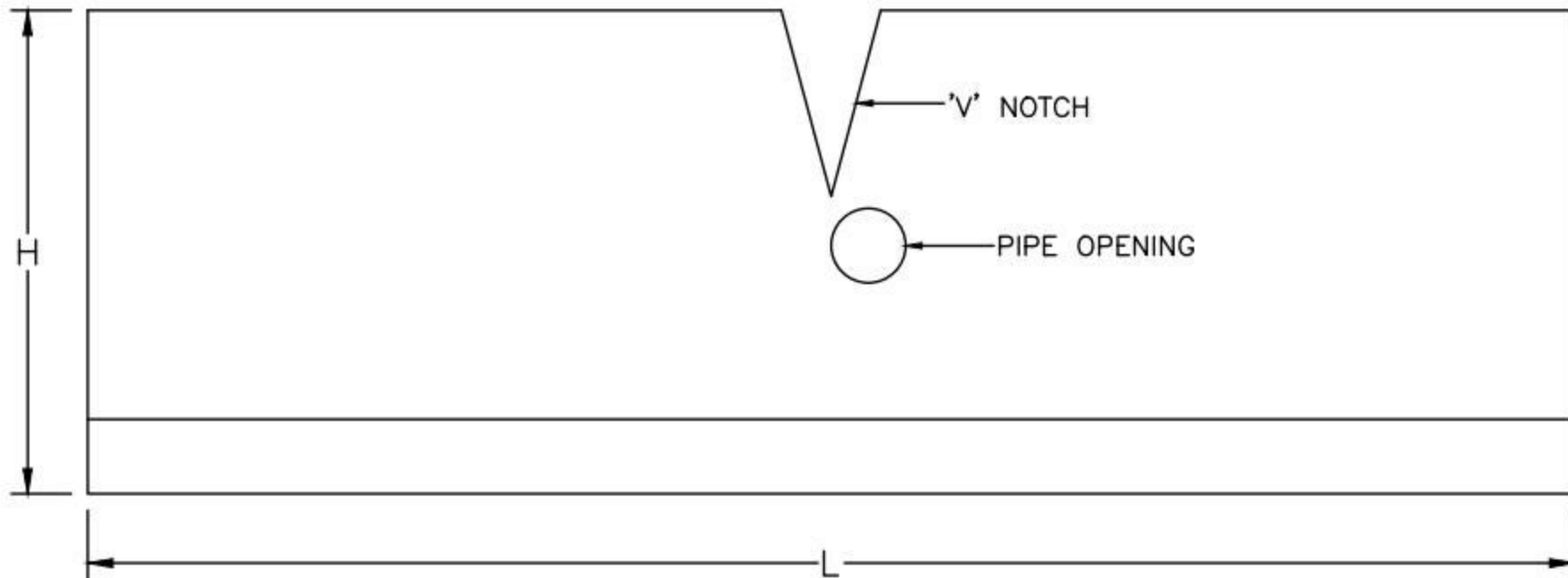


SIDE VIEW

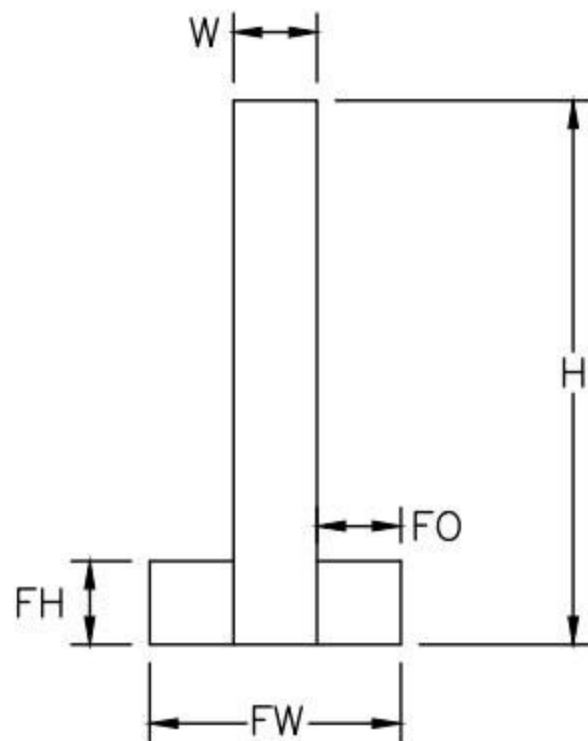
NOTES

1. CONCRETE: FC = 4,000 PSI @ 28 DAYS MIN
2. REINFORCING STEEL: ASTM A615 GRADE #60

SHEA PRODUCT ID: HWSNHDOT-30		PREPARED FOR:		FILE NAME: 30in PIPE NHDOT.dwg			
WEIGHT (LBS): 15,000#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: G11.4-5
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH							



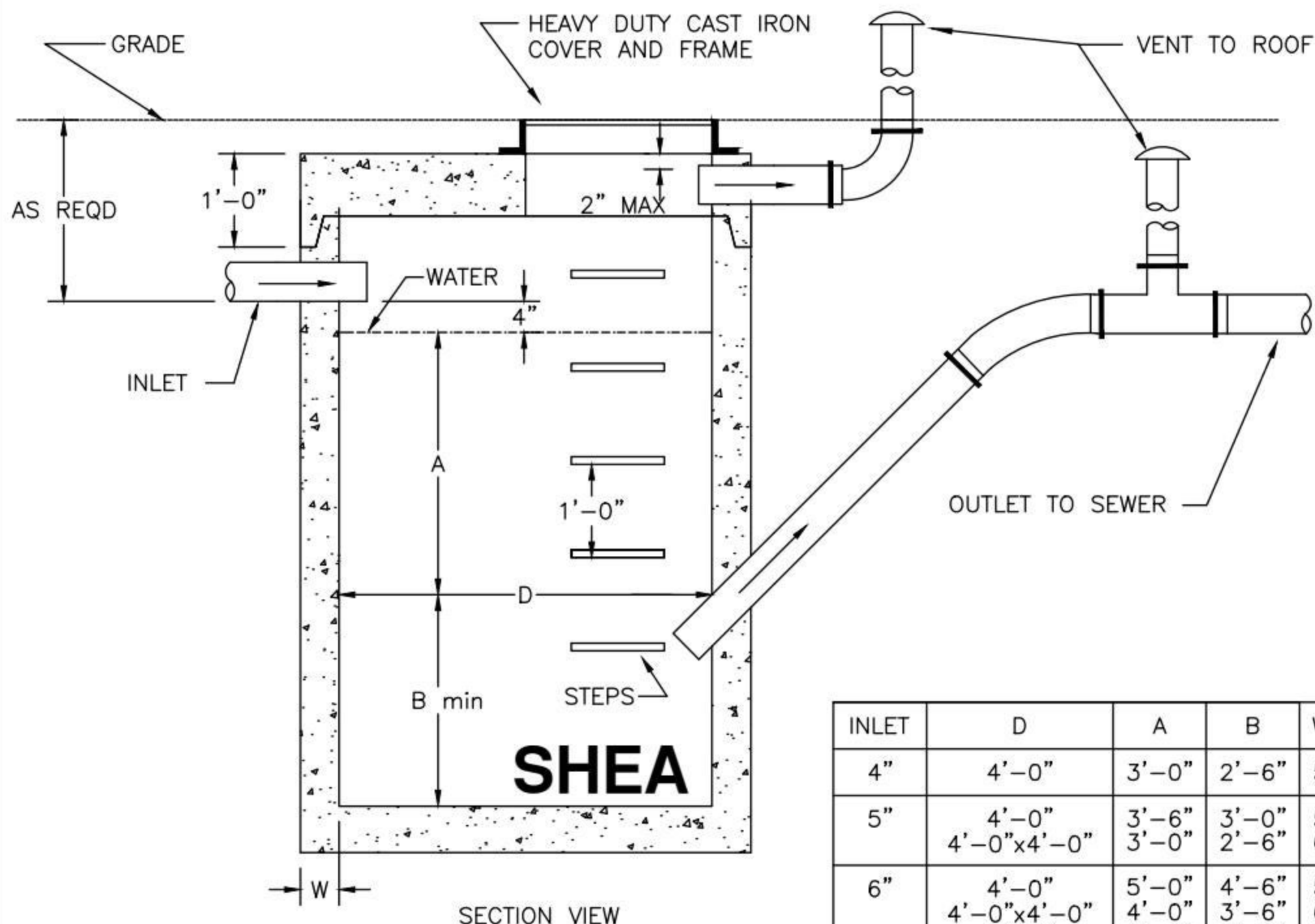
FRONT VIEW



SIDE VIEW

NOTES:

1. HEADWALLS MANUFACTURED TO CONTRACT REQUIREMENTS.

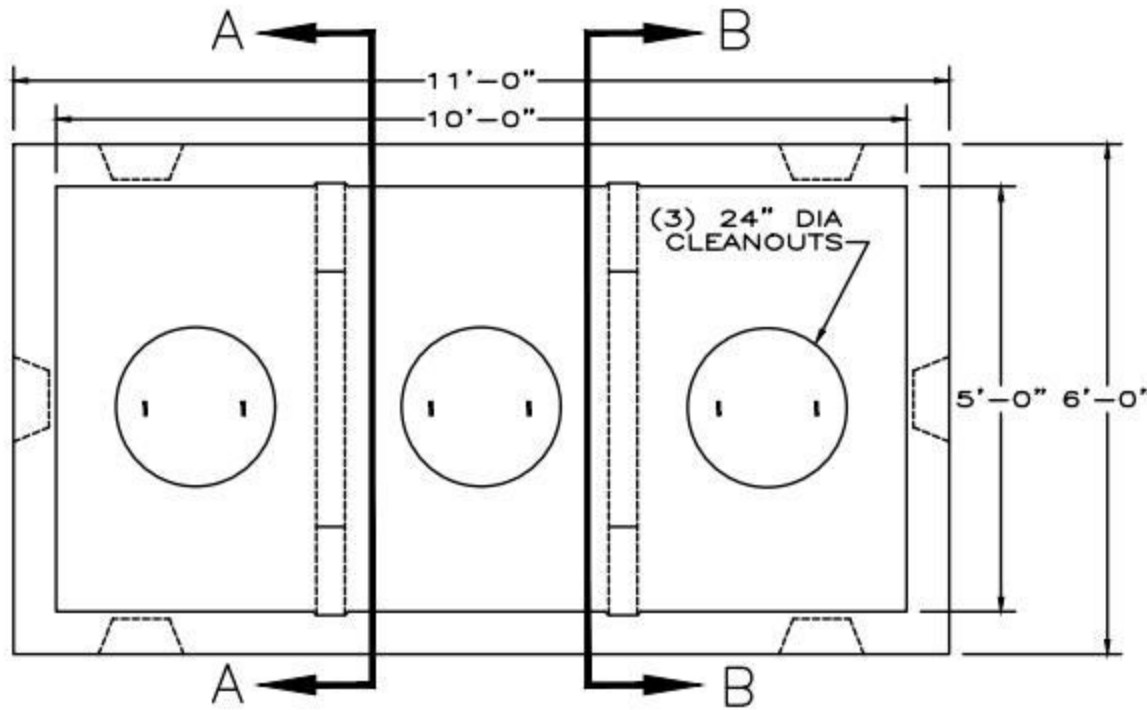


INLET	D	A	B	W
4"	4'-0"	3'-0"	2'-6"	5"
5"	4'-0" 4'-0"x4'-0"	3'-6" 3'-0"	3'-0" 2'-6"	5" 6"
6"	4'-0" 4'-0"x4'-0" 5'-0"	5'-0" 4'-0" 3'-6"	4'-6" 3'-6" 3'-0"	5" 6" 6"
8"	5'-0" 6'-0" 8'-0"	6'-0" 4'-0" 3'-0"	5'-0" 3'-6" 2'-6"	6" 7" 9"
10"	6'-0" 8'-0"	6'-6" 5'-0"	5'-6" 4'-0"	7" 9"

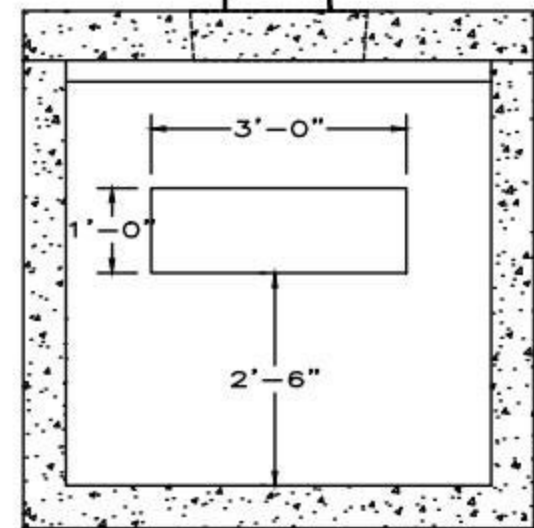
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. MANHOLE DESIGN SPECIFICATIONS CONFORM TO LATEST ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
3. BUTYL RESIN SECTION JOINT CONFORMS TO LATEST ASTM C443 SPEC.
4. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO LATEST ASTM C478 SPEC.
5. PIPE NOT SUPPLIED.
6. CONE SECTION AVAILABLE IN 4'-0" I.D. ONLY.
7. FOR INLETS LARGER THAN 10" THE DESIGN AND DIMENSION WILL BE DETERMINED FOR EACH PARTICULAR CASE.

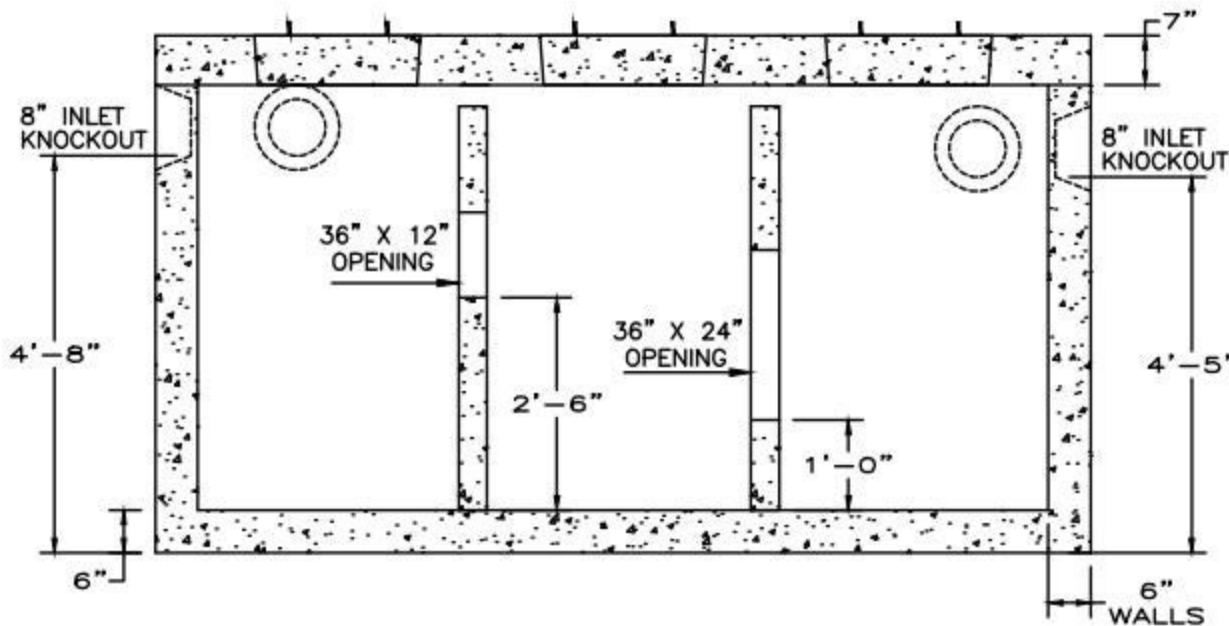
SEDIMENT&OIL SEPARATOR 1500 GALLON TANK (TYP)



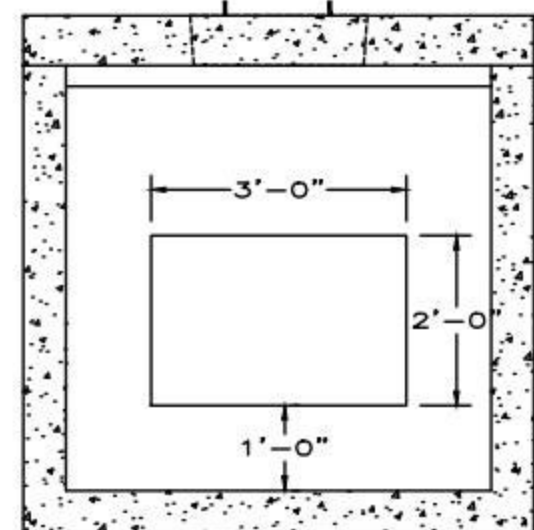
PLAN VIEW



SECTION A-A VIEW

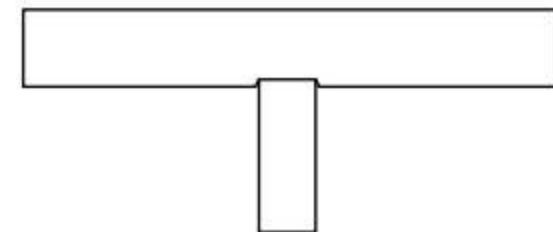


SECTION SIDE VIEW



SECTION B-B VIEW

BAFFLE WALL DETAIL



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER
ALSO AVAILABLE IN H-10 LOADING WITH 3" WALL.
3. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.

SHEA PRODUCT ID:
M1500CSEP

PREPARED FOR:

FILE NAME:

1500Separator.dwg

WEIGHT (LBS):
24,400#

DRAWN BY:
ARO

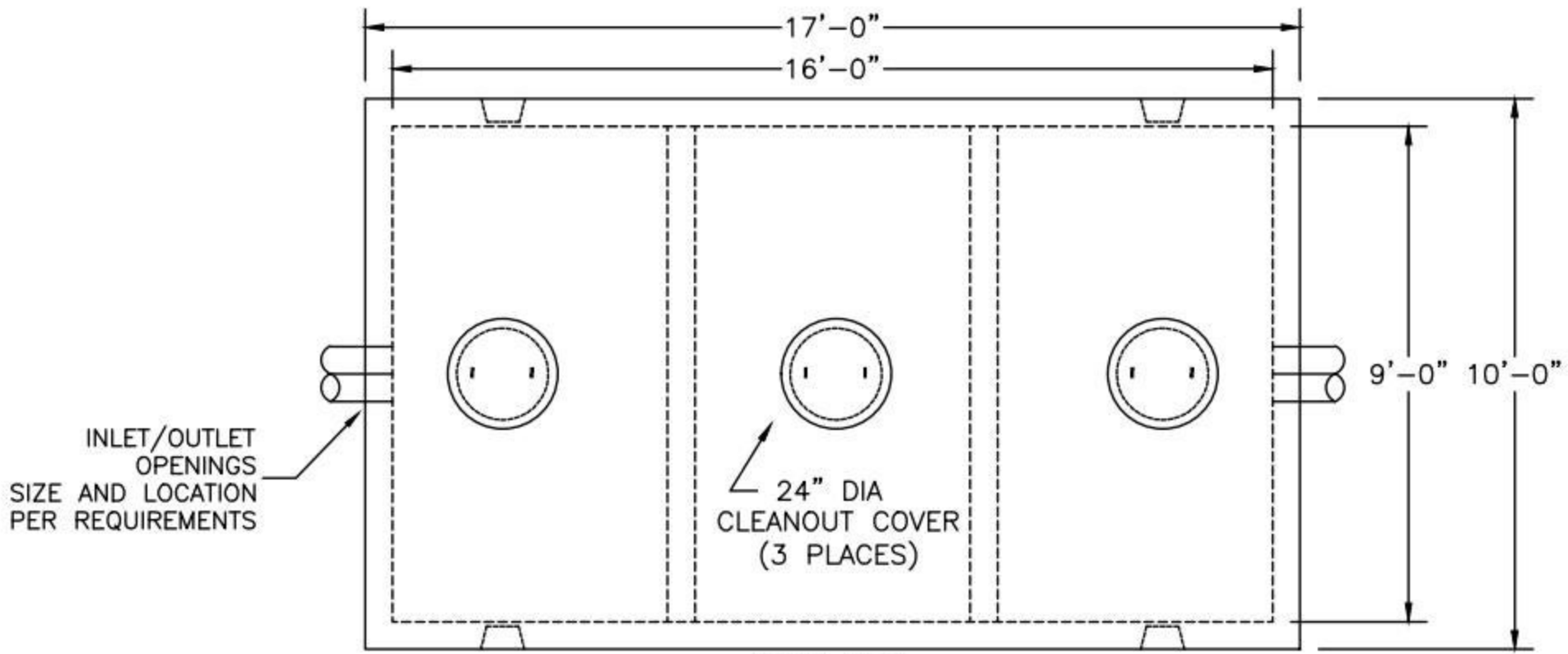
DATE:
06/01/18

PAGE:
H2

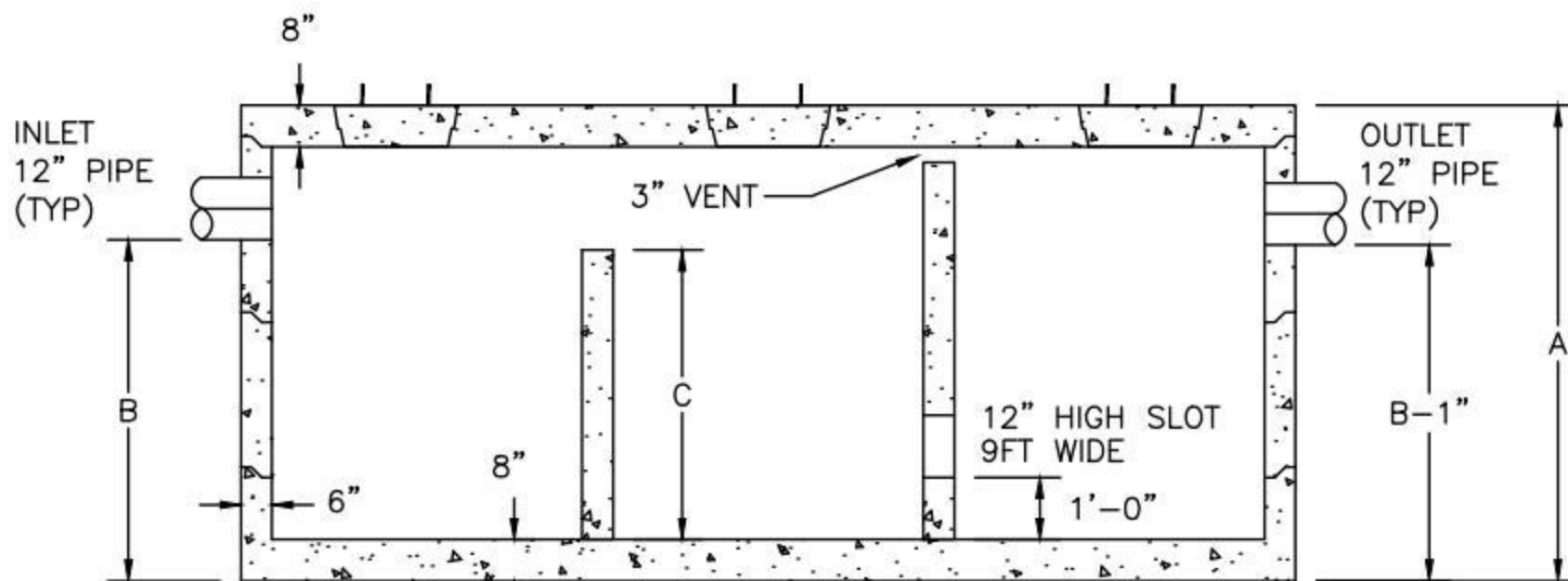


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET.
3. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN. INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.

GALLONS	A (HEIGHT)	B (INLET)	C (BAFFLE)	WEIGHT (LBS)
5,000	92"	66"	56"	58,180
7,500	118"	92"	82"	66,510
10,000	146"	120"	110"	75,500

*OTHER SIZES AVAILABLE

SHEA PRODUCT ID:

PREPARED FOR:

FILE NAME:

WQI9x16.dwg

WEIGHT (LBS): SEE TABLE

DRAWN BY: ARO

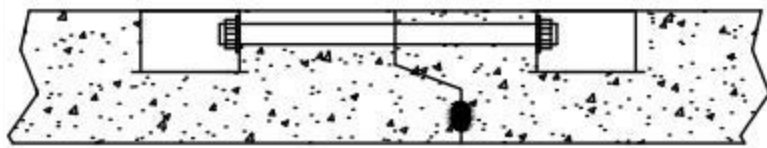
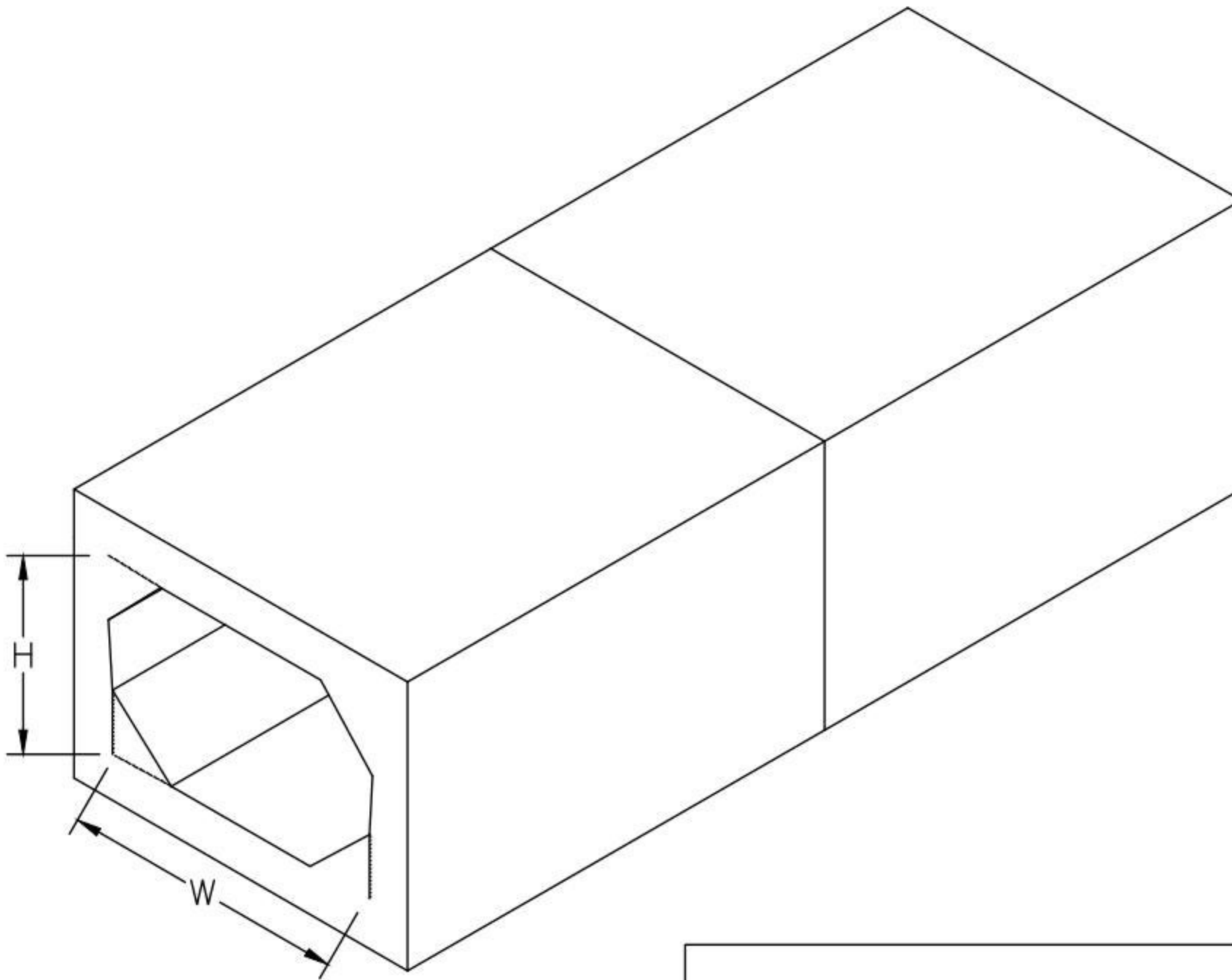
DATE: 06/01/18

PAGE: H3

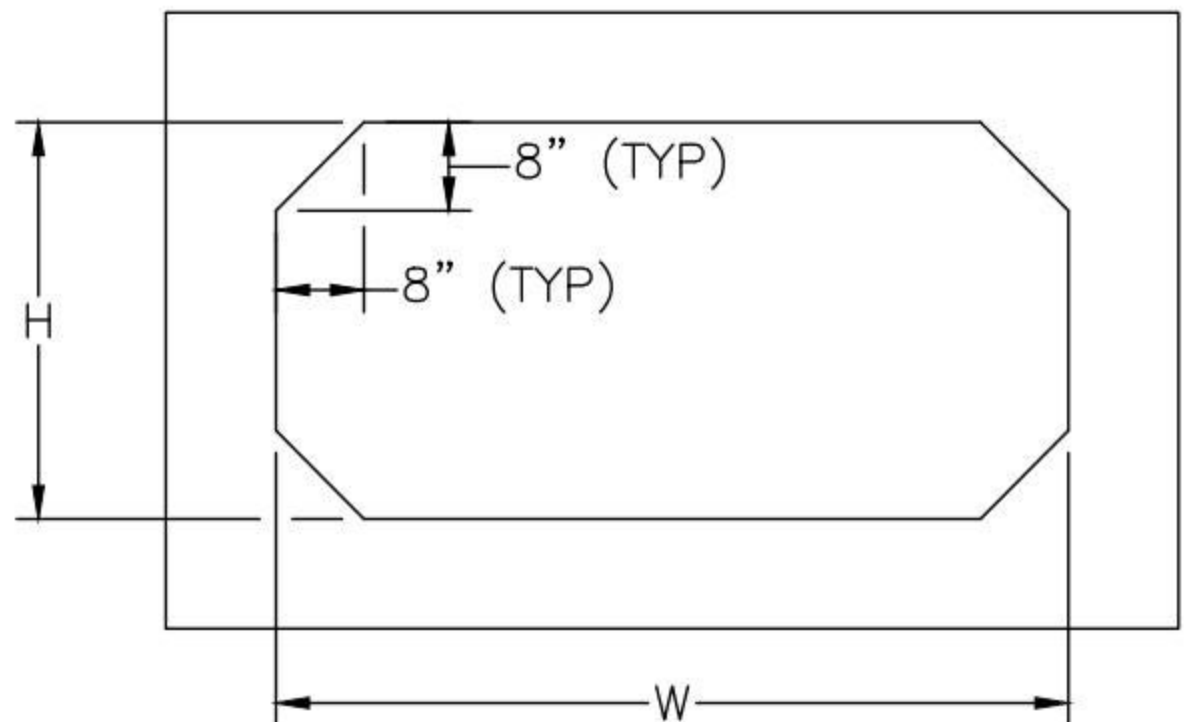


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



TYP JOINT DETAIL




END VIEW

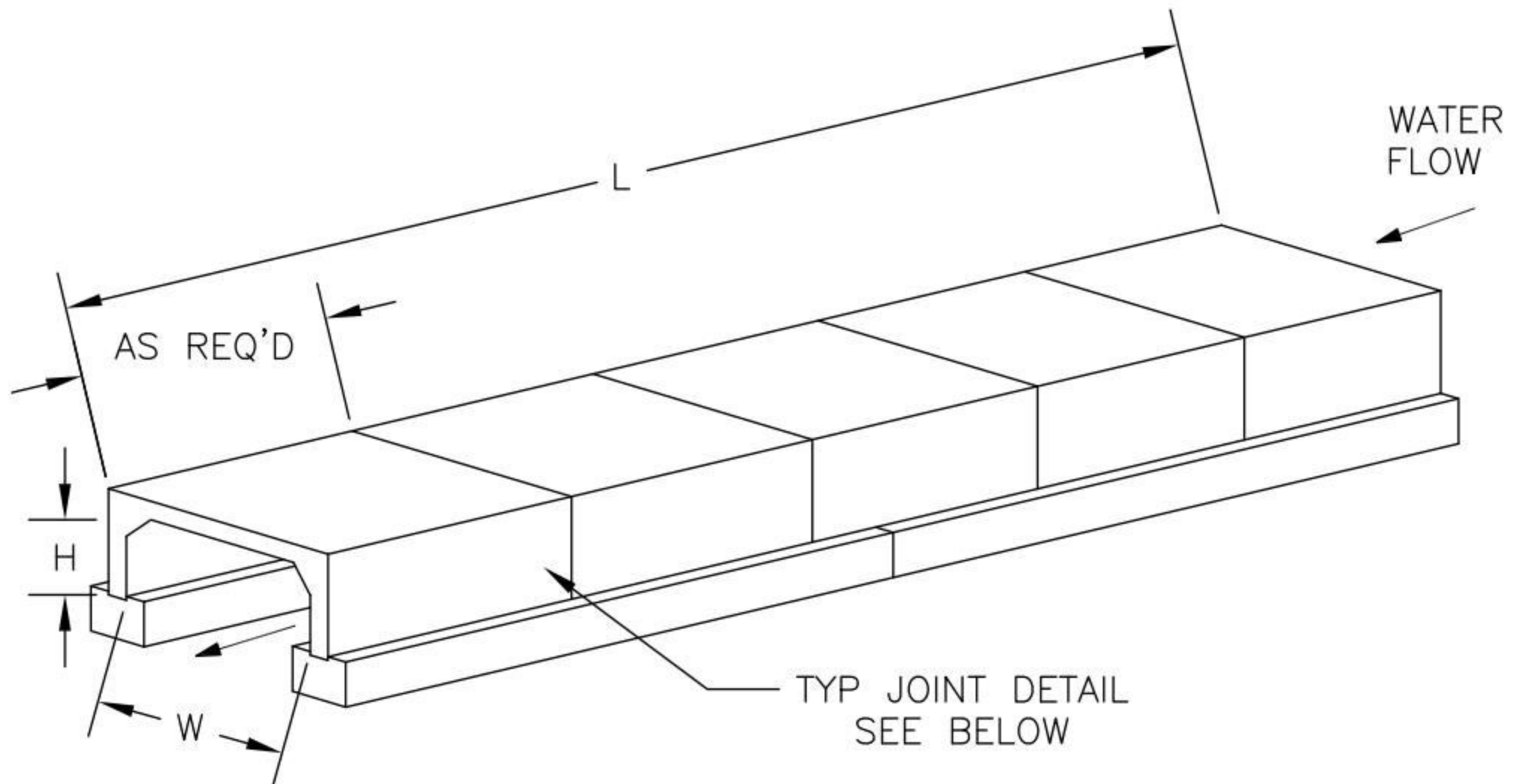
DESIGNED FOR LOADS/SIZES
AS NEEDED

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS
2. DESIGN PER ASTM C1433 BOX CULVERT
3. ALL REINFORCEMENT PER ASTM A615
4. DESIGNED FOR AASHTO HS-20 LOADING

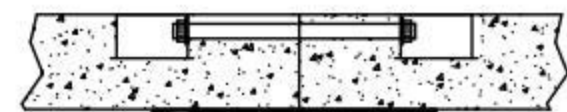
SHEA PRODUCT ID: BCXXXXX		PREPARED FOR:		FILE NAME: BOXCULVERT.dwg			
WEIGHT (LBS):		DRAWN BY: ARO		DATE: 06/01/18			PAGE: H4.1
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

RIGID FRAME 3-SIDED CULVERT

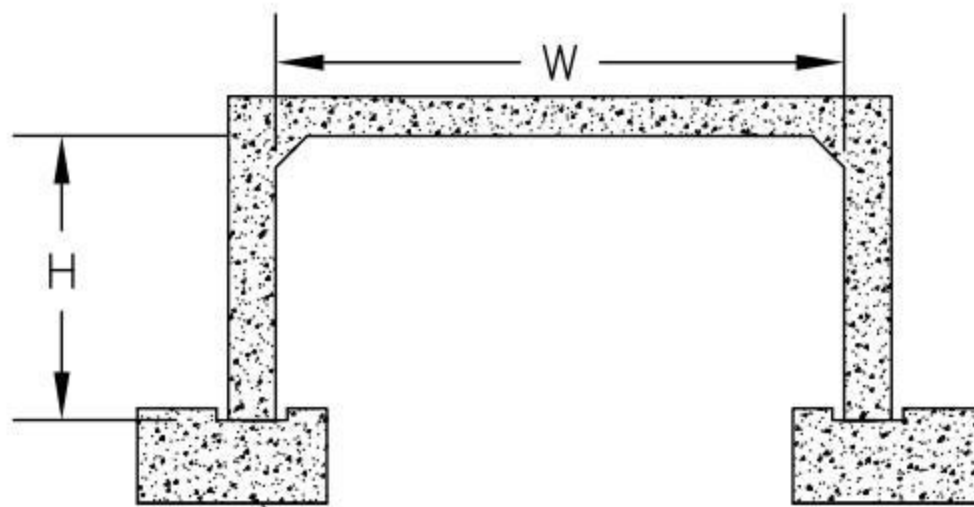


END VIEW

TYP JOINT DETAILS
(SEE NOTE 5)



BOLTED POCKET
+ BUTYL WRAP



PRECAST FOOTINGS (OFFSET)

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN PER ASTM C1504 SPECIFICATION FOR 3-SIDED CULVERT.
3. ALL REINFORCEMENT PER ASTM A615.
4. DESIGNED AASHTO HS-20 LOADING OR AS REQUIRED.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL WRAP.
6. PRECAST FOOTINGS OPTIONAL

SHEA PRODUCT ID:

PREPARED FOR:

FILE NAME:

Culvert 3-Sided.dwg

WEIGHT (LBS):

VARIES

DRAWN BY:

ARO

DATE:

08/03/2018

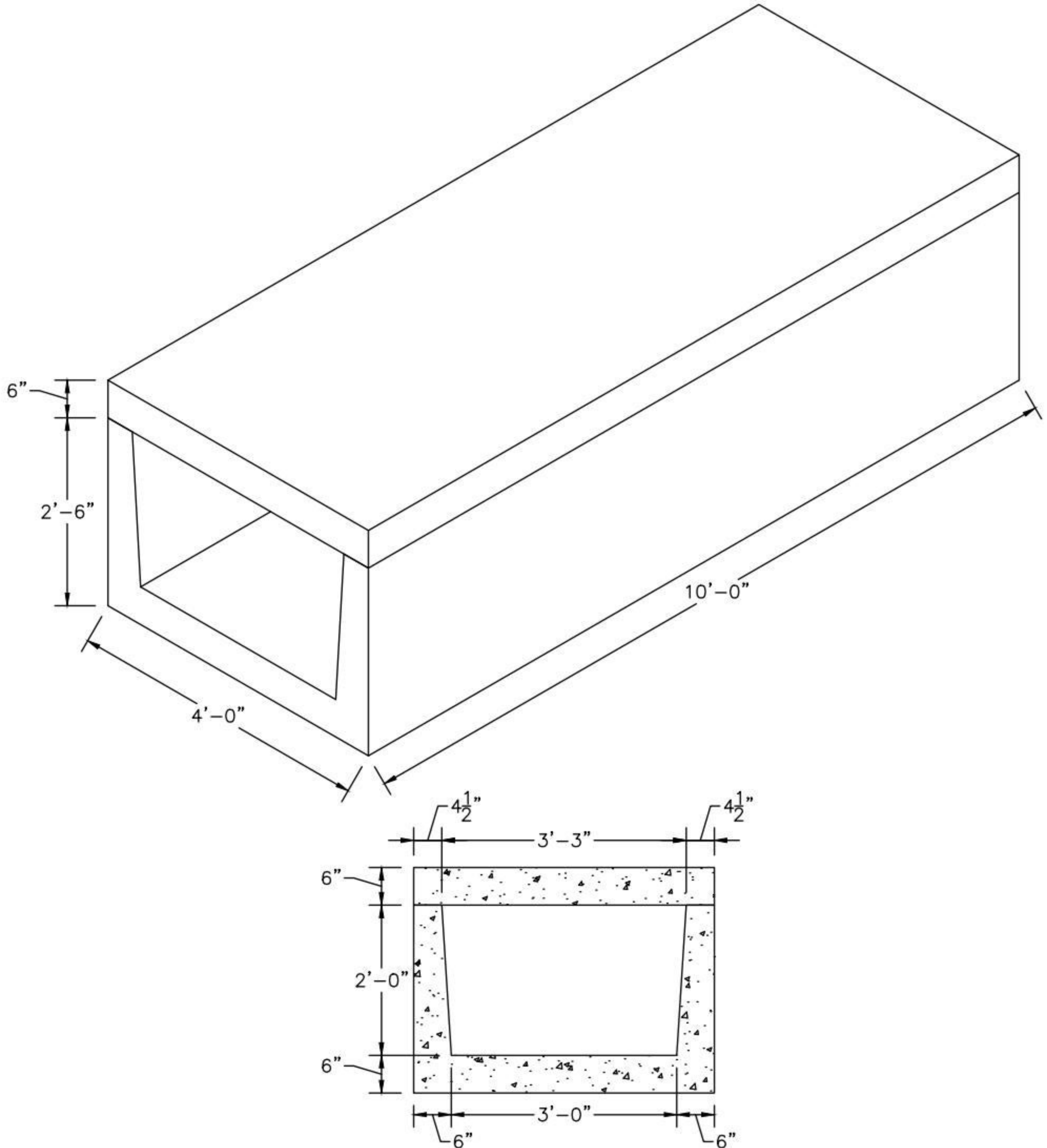
PAGE:

H4.2




773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

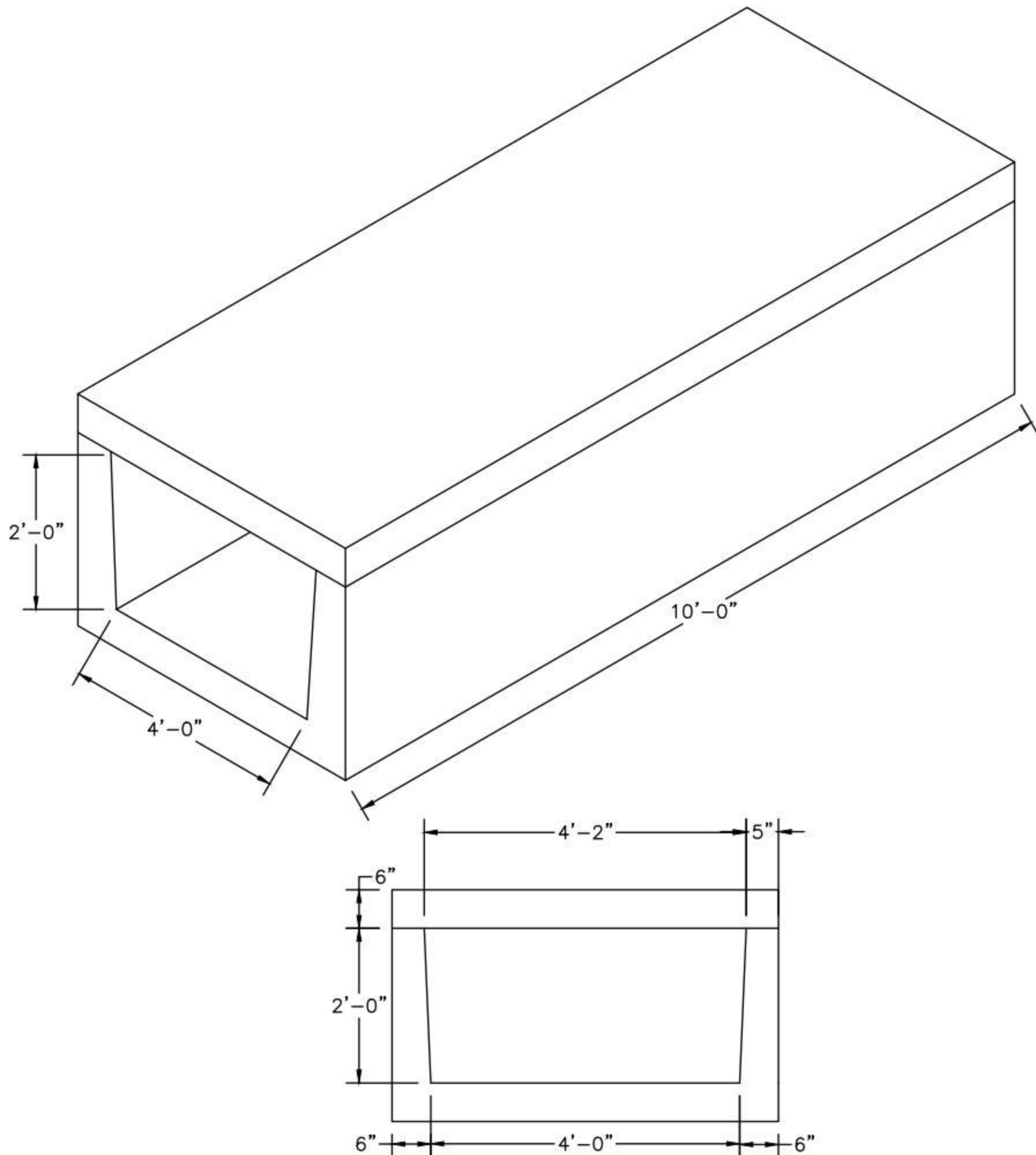
Specifications subject to change without notice



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN FOR AASHTO HS-20 LOADING, 1 TO 5 FEET COVER.

SHEA PRODUCT ID: BC2X3		PREPARED FOR:		FILE NAME: 2x3culvert.dwg			
WEIGHT (LBS): 840#/LF		DRAWN BY: ARO		DATE: 03/22/18			PAGE: H4.3
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN PER ASTM C1433 BOX CULVERT
3. ALL REINFORCEMENT PER ASTM A615
4. DESIGNED FOR AASHTO HS-20 LOADING, 2 TO 5 FEET COVER.

SHEA PRODUCT ID:
BC2X4-6T

PREPARED FOR:

FILE NAME:

2x4culvert.dwg

WEIGHT (LBS):
1,000#/LF

DRAWN BY:
ARO

DATE:
06/01/18

PAGE:
H4.4



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

UNISTORM SIZING TABLE						
UNISTORM MODEL #	D (ft.)	MAX. S (ft.)	IMPERVIOUS AREA (acres)	INLET PIPE (in.)	TREATMENT FLOW (cfs)	PEAK FLOW (cfs)
5R	5	5.0±	0 - 3	12-15	0 - 2	6
6R	6	5.3±	3 - 4	18	2 - 3	7
7R	7	5.6±	4 - 6	21	3 - 5	9
8R	8	6.0±	6 - 10	24	5 - 7	16
10R	10	6.6±	10 - 12	30	7 - 10	25
12R	12	7.3±	12 - 15	36	10 - 13	35

GENERAL NOTES:

MANHOLE DESIGN SPECIFICATIONS CONFORM TO LATEST
ASTM C478 SPEC. FOR PRECAST REINFORCED CONCRETE
MANHOLE SECTIONS.

DESIGN LOADING: AASHTO HS-20

NOTES:

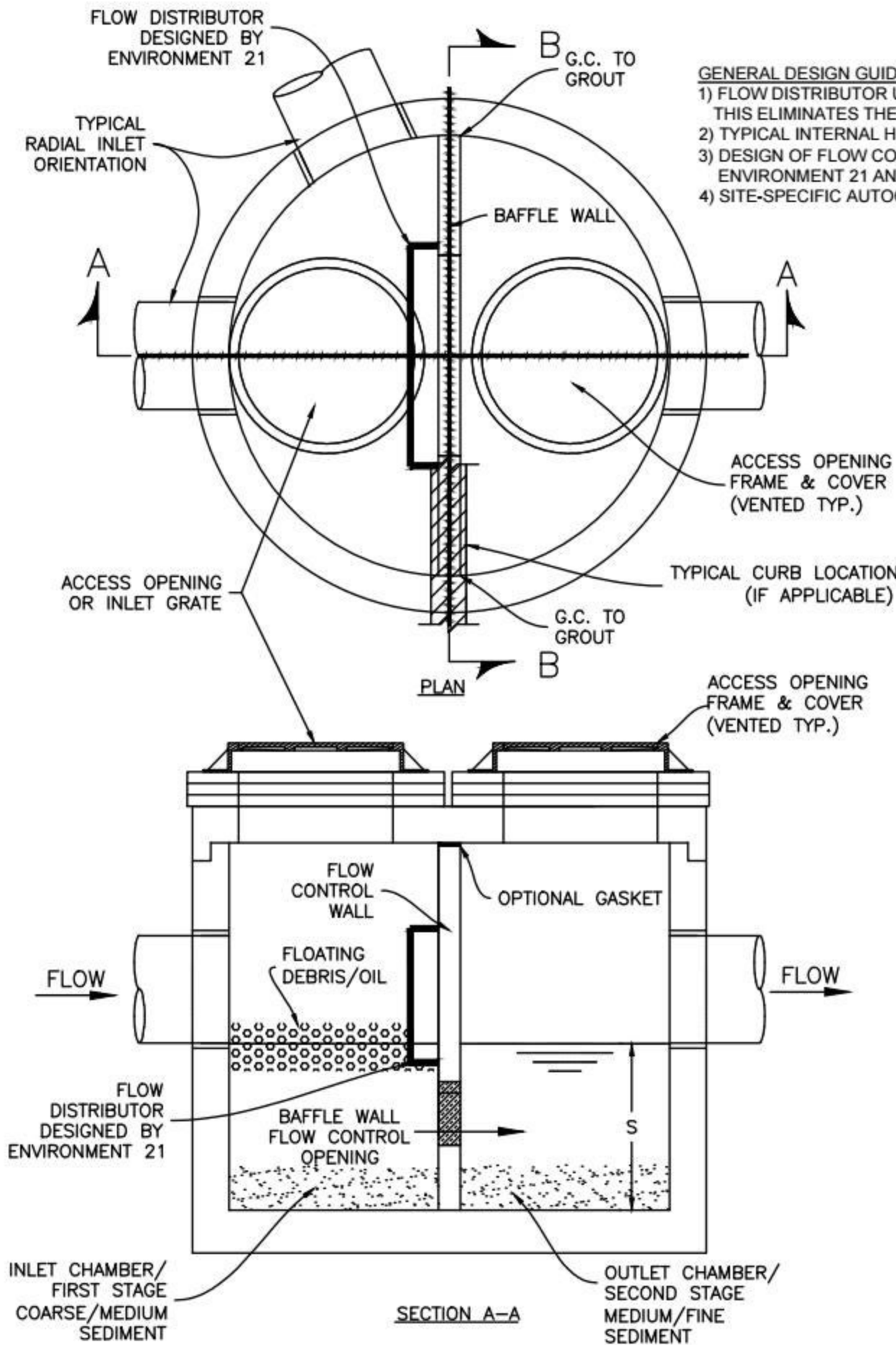
1) RAINFALL INTENSITY USED FOR
TREATMENT FLOW = 0.80-1.0 IN/HR

MANUFACTURING NOTES:

- 1) DESIGN OF INTERNAL BAFFLE WALL
PROVIDED TO LICENSED MANUFACTURER
BY ENVIRONMENT 21, LLC.
- 2) LOCATION AND SIZE OF MANHOLE
OPENINGS MAY BE ADJUSTED BY
LICENSED MANUFACTURER.
- 3) G.C. TO GROUT INLET AND OUTLET PIPES.

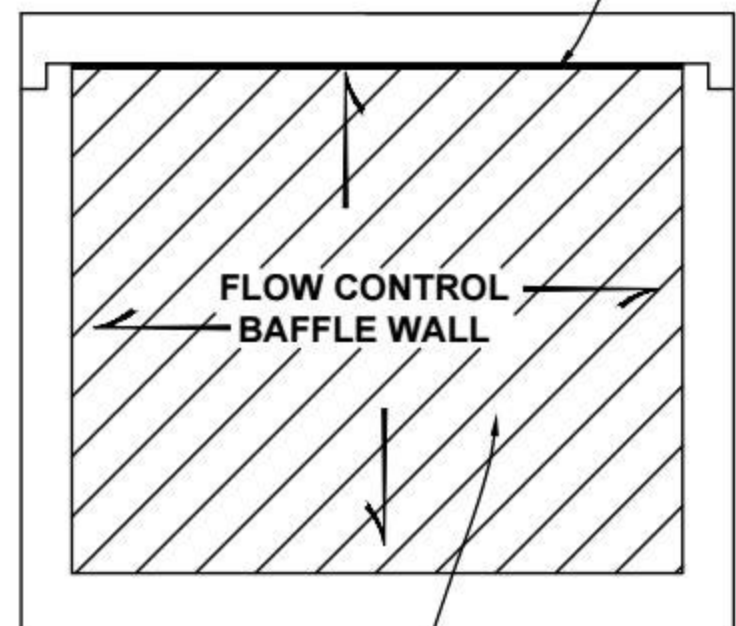
GENERAL DESIGN GUIDELINES FOR UNISTORM TREATMENT CHAMBER

- 1) FLOW DISTRIBUTOR USED TO DISSIPATE INLET FLOW STIRRING POWER.
THIS ELIMINATES THE NEED TO BYPASS HIGH FLOW EVENTS.
- 2) TYPICAL INTERNAL HEAD LOSS FOR DESIGN STORM IS 0.20 FT.
- 3) DESIGN OF FLOW CONTROL BAFFLE WALL AND FLOW DISTRIBUTOR BASED ON
ENVIRONMENT 21 ANALYSIS OF SITE-SPECIFIC STORM SEWER HYDRAULICS.
- 4) SITE-SPECIFIC AUTOCAD DRAWING DETAIL PREPARED BY ENVIRONMENT 21 AVAILABLE




GASKET NOTE:

GASKET PROVIDED IF TOP OF FLOW CONTROL
WALL MUST EXTEND TO CEILING



SIZE, SHAPE, AND
LOCATION OF FLOW
CONTROL OPENINGS BY
ENVIRONMENT 21, LLC

PROPRIETARY INFORMATION: PATENTS PENDING - ALL RIGHTS TO ENVIRONMENT 21, LLC.

SHEA PRODUCT ID: UNISTORM		PREPARED FOR:		FILE NAME: ENV21Unistorm.dwg			
WEIGHT (LBS):		DRAWN BY: ARO		DATE: 06/01/18			PAGE: H5.1
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

V2B1 SIZING TABLE

V2B1 MODEL #	D1 (ft.)	D2 (ft.)	S (ft.)	IMPERVIOUS AREA (acres)	INLET PIPE (in.)	TREATMENT FLOW (cfs)	PEAK FLOW (cfs)
3	4	5	4.1±	0.3-1.3	12	0-1	4
4	5	5	4.4±	1.3-2.0	15	1-2	6
6	6	5	4.7±	2.0-3.0	18	2-3	7
9	7	5	4.9±	3.0-4.0	21	3-5	9
11	8	6	5.1±	4.0-5.3	24	5-7	16
17	10	8	5.5±	5.3-8.3	30	7-10	25
25	12	8	5.9±	8.3-11.7	36	10-13	35

GENERAL NOTES:

MANHOLE DESIGN SPECIFICATIONS CONFORM TO LATEST
ASTM C478 SPEC. FOR PRECAST REINFORCED CONCRETE
MANHOLE SECTIONS.

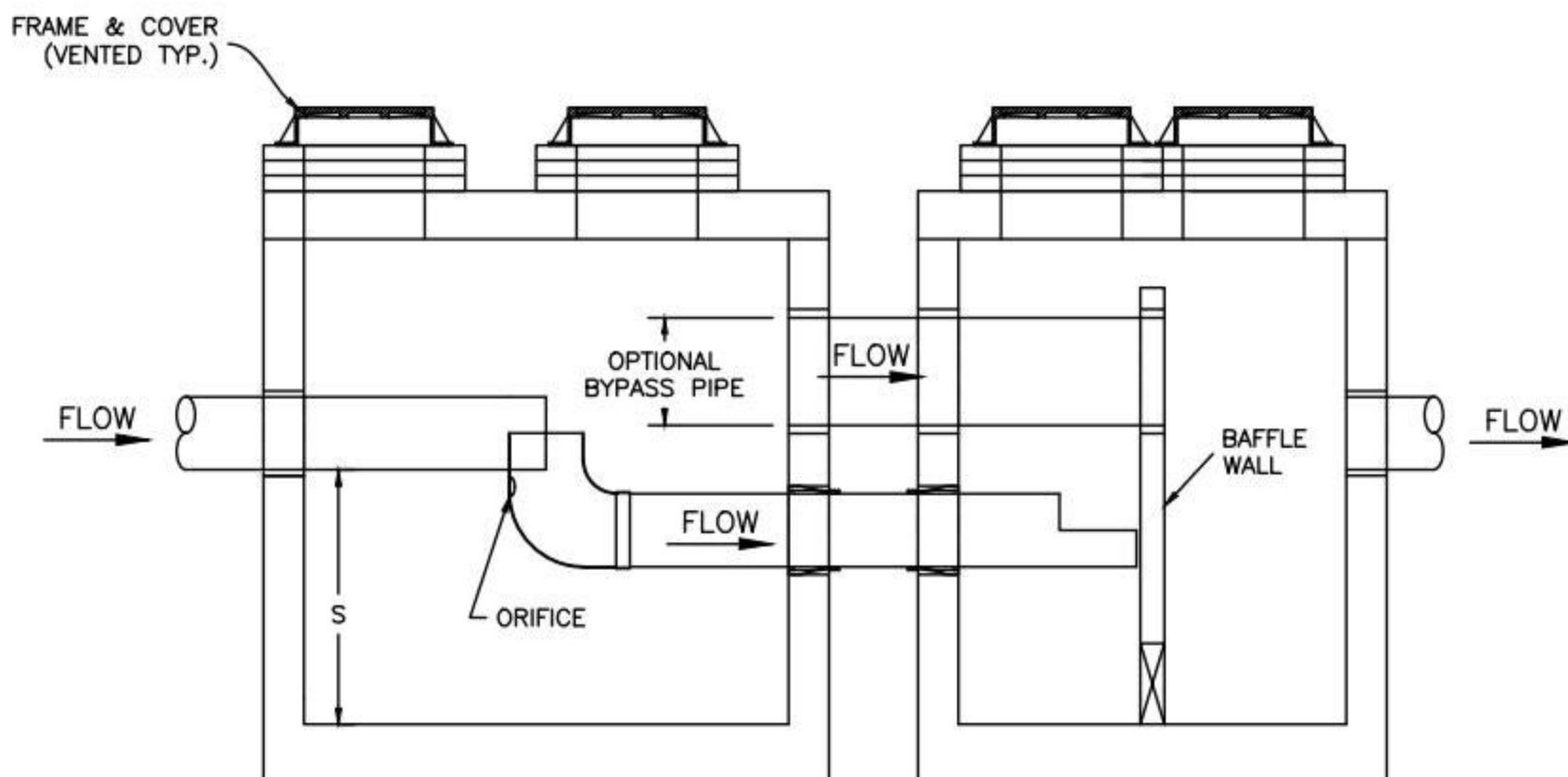
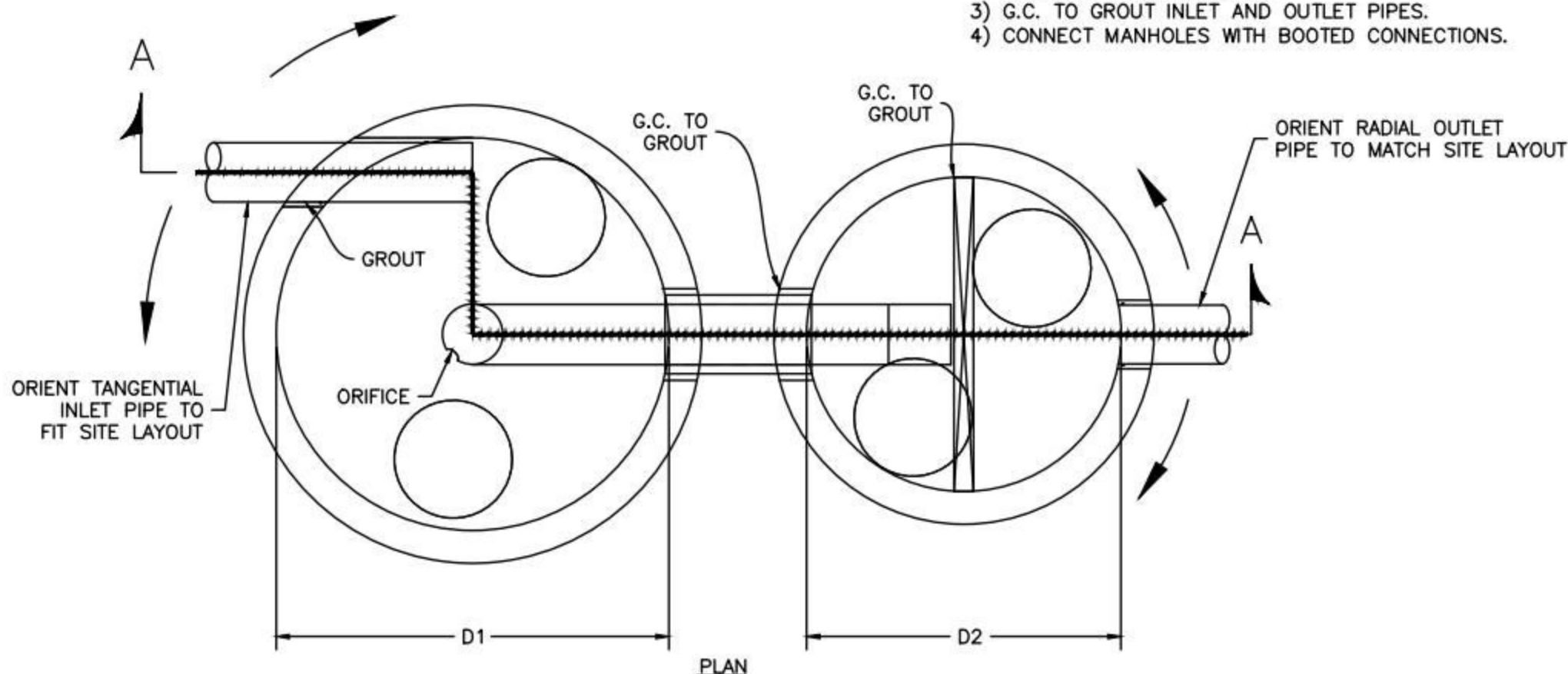
DESIGN LOADING: AASHTO HS-20

NOTES:

- 1) RAINFALL INTENSITY USED FOR
TREATMENT FLOW = 0.80-1.0 IN/HR
- 2) MAXIMUM OPERATING LOSS APPROXIMATELY 0.5 FT

MANUFACTURING NOTES:

- 1) DESIGN OF INTERNAL PVC PIPING
PROVIDED TO LICENSED MANUFACTURER
BY ENVIRONMENT 21, LLC.
- 2) LOCATION AND SIZE OF MANHOLE
OPENINGS MAY BE ADJUSTED BY
LICENSED MANUFACTURER.
- 3) G.C. TO GROUT INLET AND OUTLET PIPES.
- 4) CONNECT MANHOLES WITH BOOTED CONNECTIONS.



PROPRIETARY INFORMATION: PATENTS PENDING - ALL RIGHTS TO ENVIRONMENT 21, LLC.

SECTION A-A

SHEA PRODUCT ID:
V2B1XXXX

PREPARED FOR:

FILE NAME:

ENV21V2B1.dwg

WEIGHT (LBS):

DRAWN BY:

ARO

DATE:

06/01/18

PAGE:

H5.2



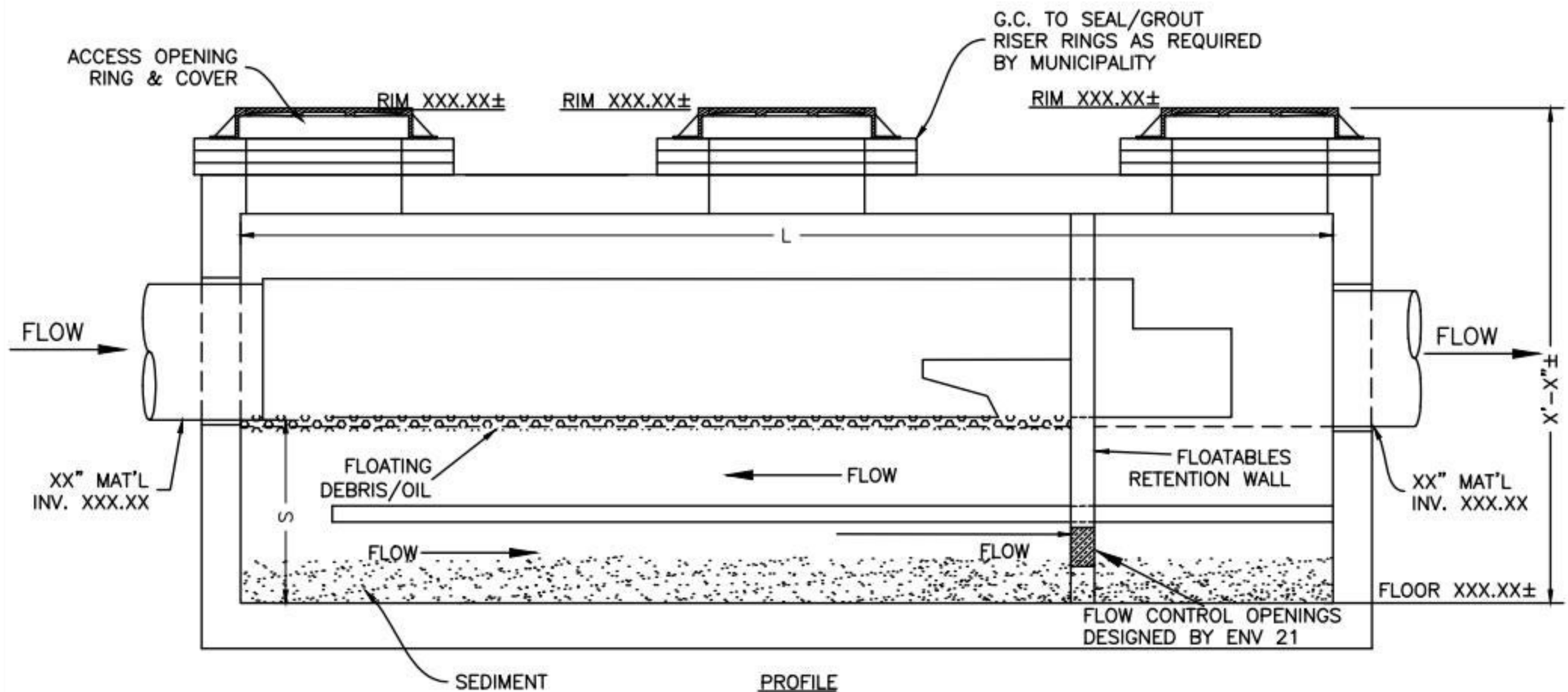
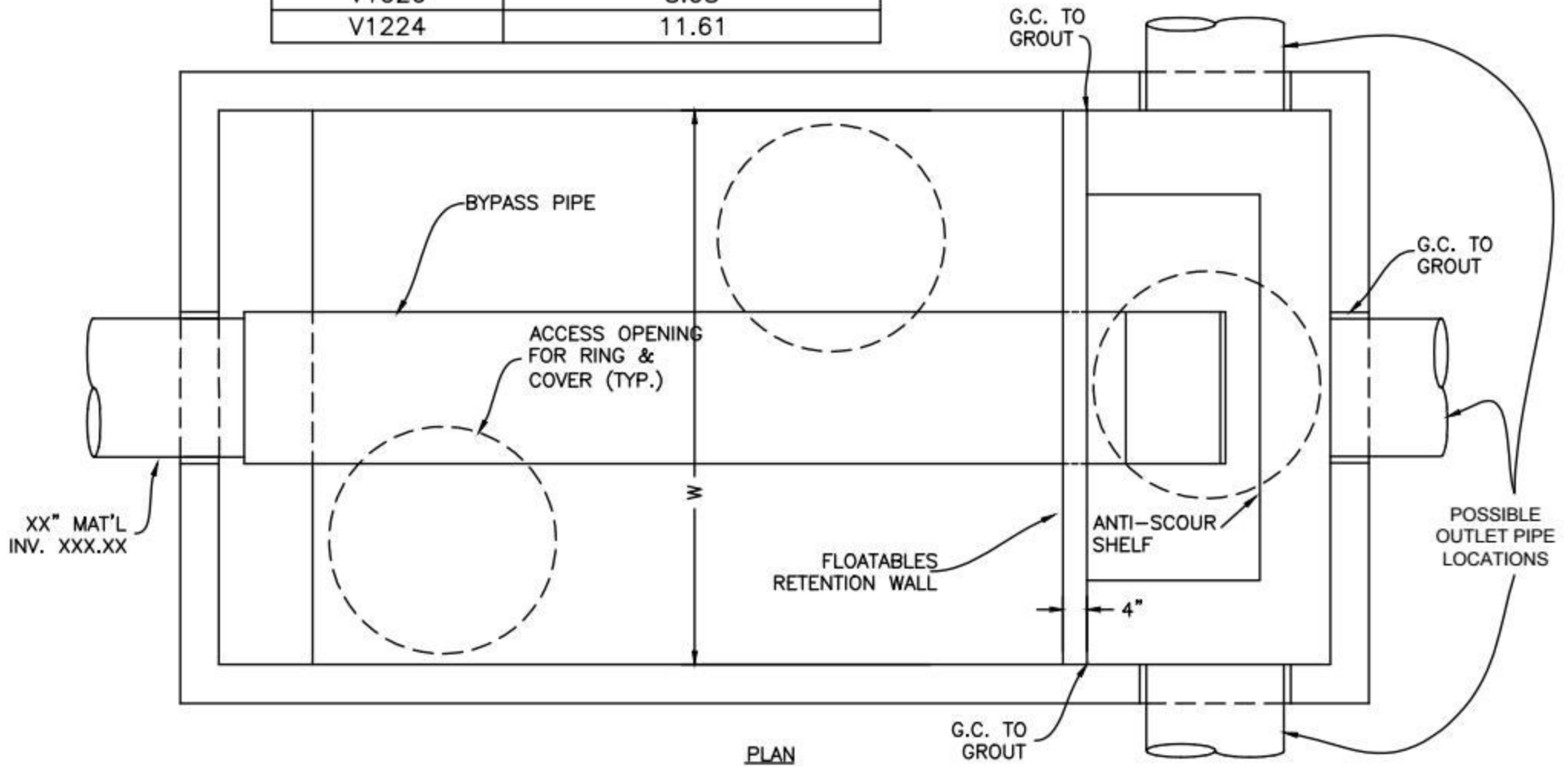
773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice


STORMPRO SIZING TABLE	
STORMPRO MODEL	NJDEP MTR (CFS)
V48	1.29
V510	2.02
V612	2.91
V714	3.96
V816	5.17
V1020	8.08
V1224	11.61

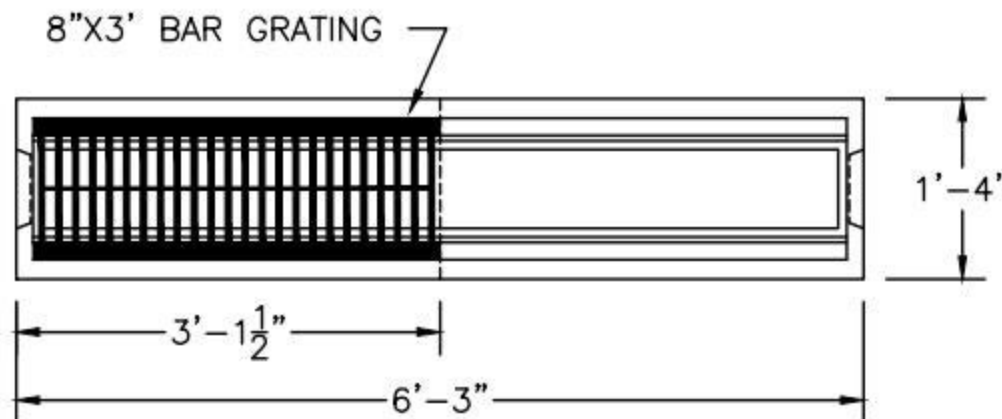
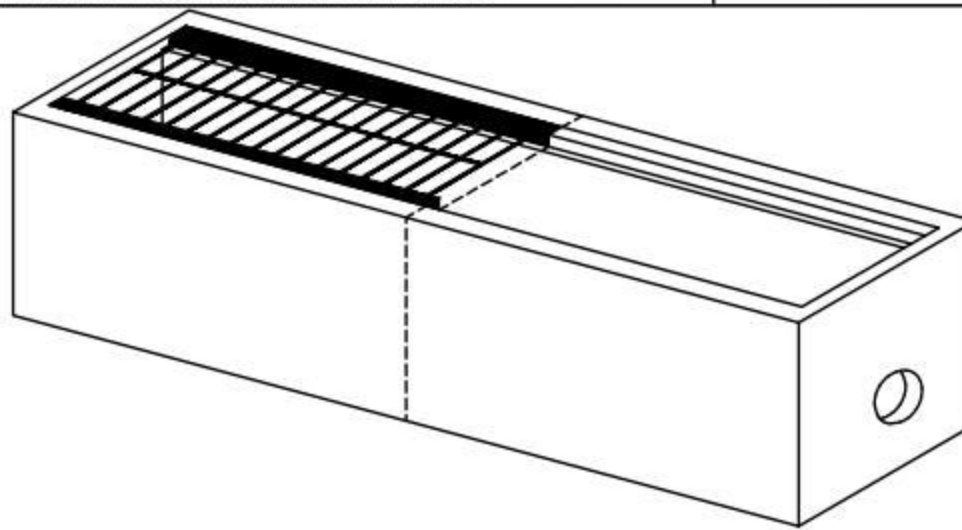
NOTES:

1. MAXIMUM OPERATING LOSS APPROXIMATELY 0.5 FT.
2. DESIGN SPECIFICATIONS CONFORM TO LATEST A.S.T.M. C478
3. DESIGN LOADING: AASHTO HS20-44 SPEC. FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.
4. DESIGN OF FLOATABLES RETENTION WALL BASED ON ENVIRONMENT 21 ANALYSIS OF SITE-SPECIFIC STORM SEWER HYDRAULICS.

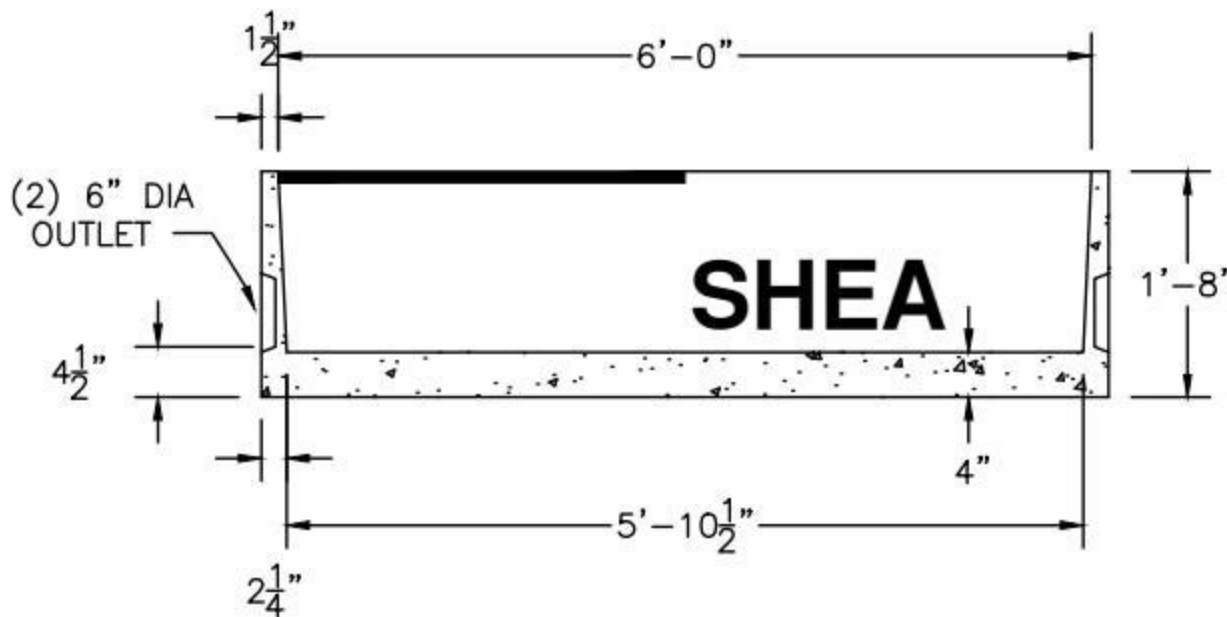


PROPRIETARY INFORMATION: PATENTS PENDING - ALL RIGHTS TO ENVIRONMENT 21, LLC.

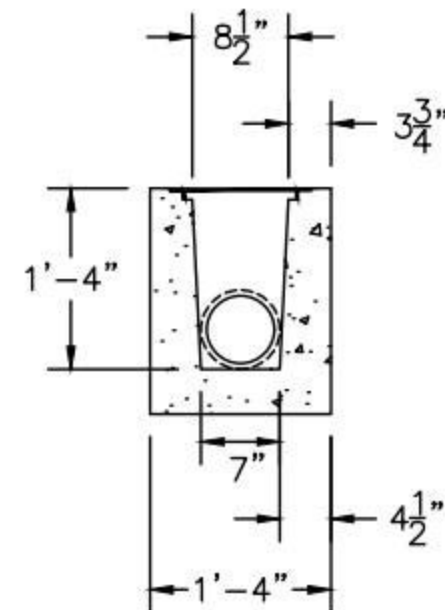
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WEIGHT (LBS): VARIES		DRAWN BY: ARO		DATE: 06/01/18			PAGE: H5.3
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



PLAN VIEW



SIDE SECTION VIEW

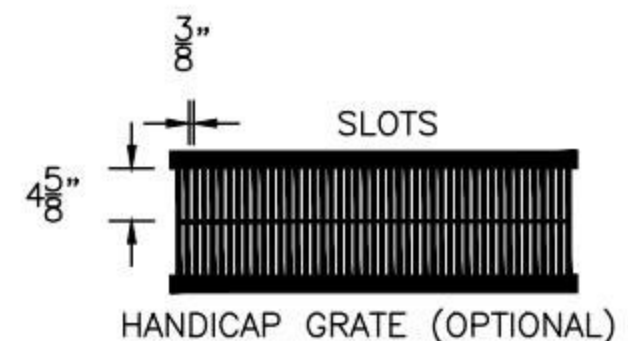


END SECTION VIEW

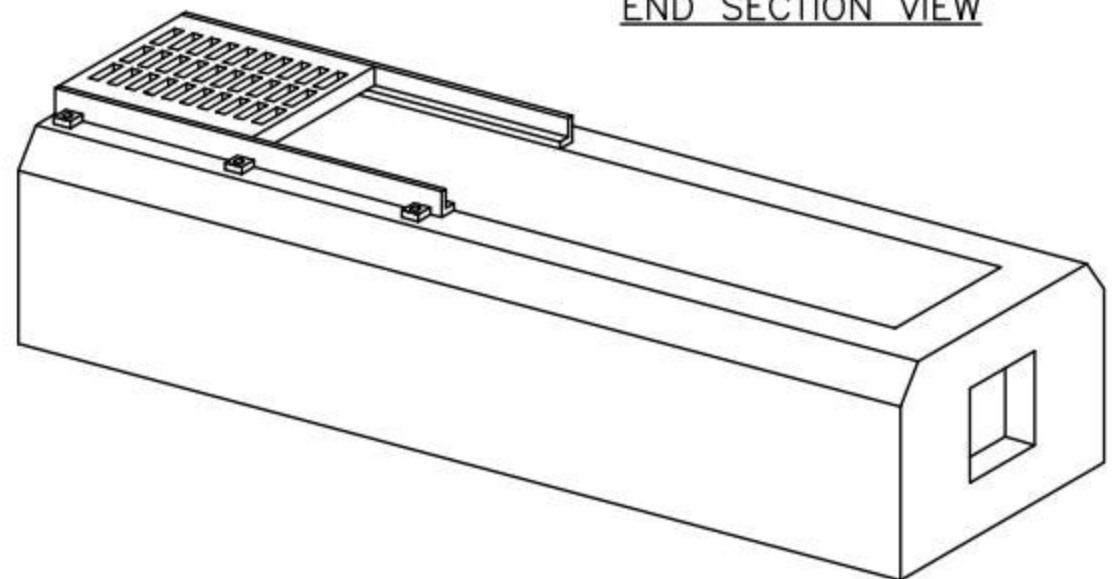
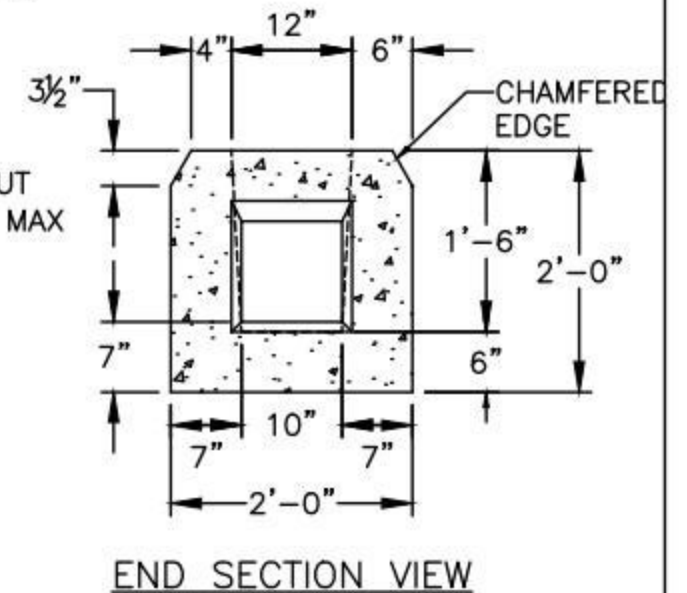
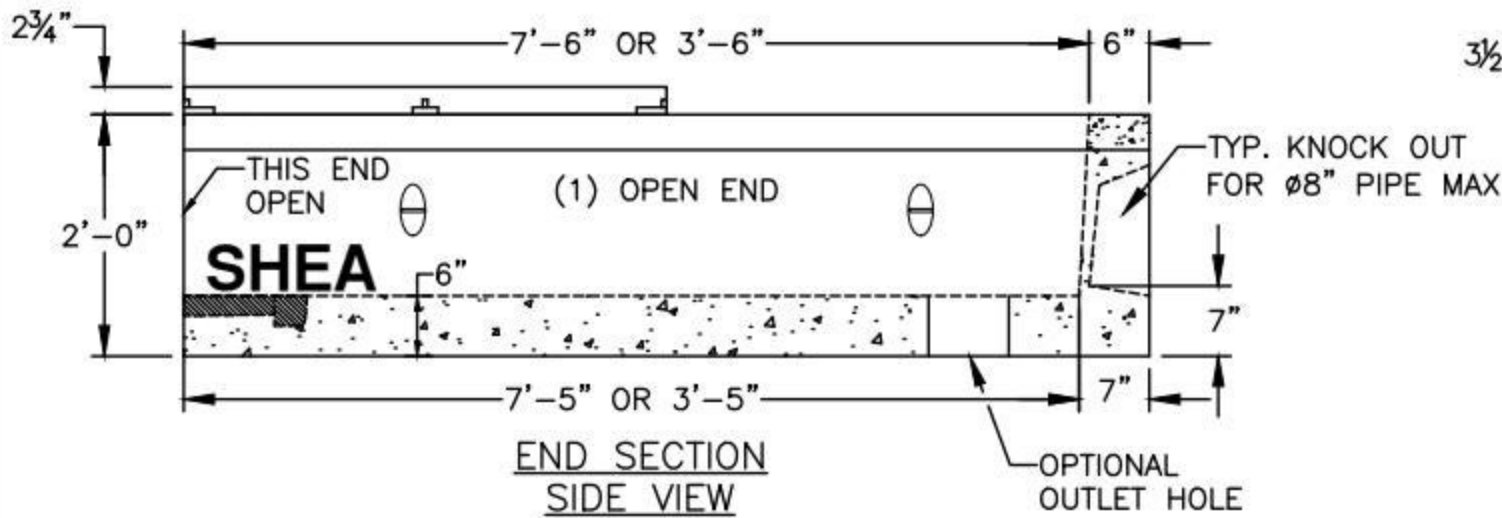
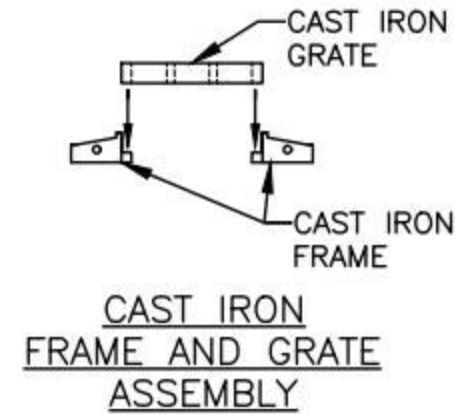
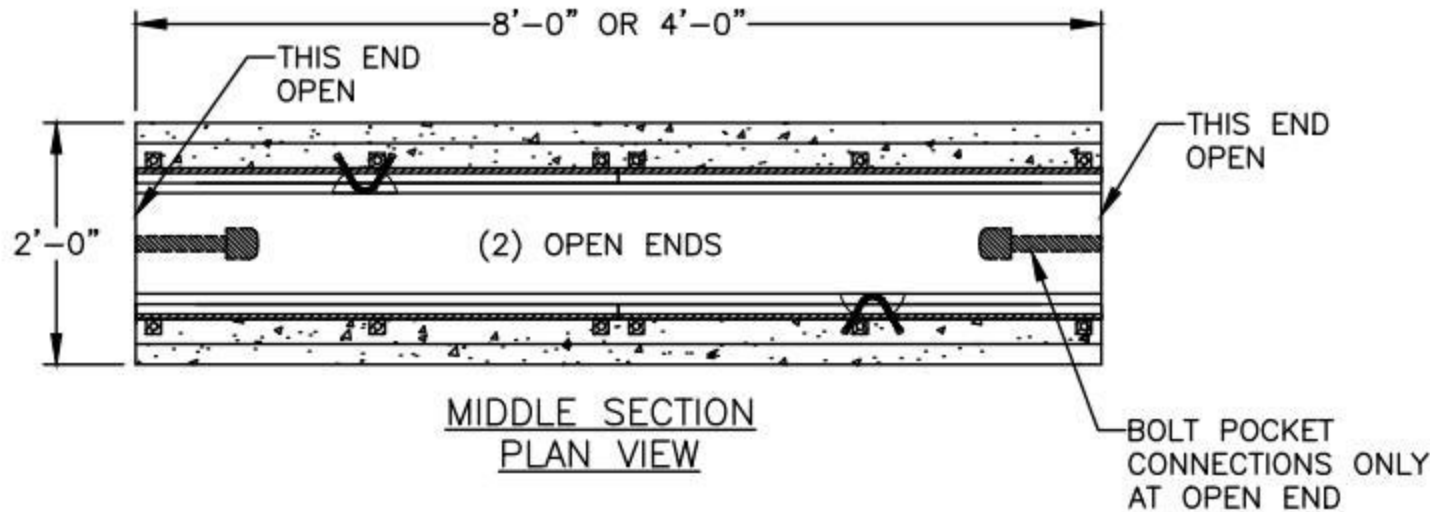
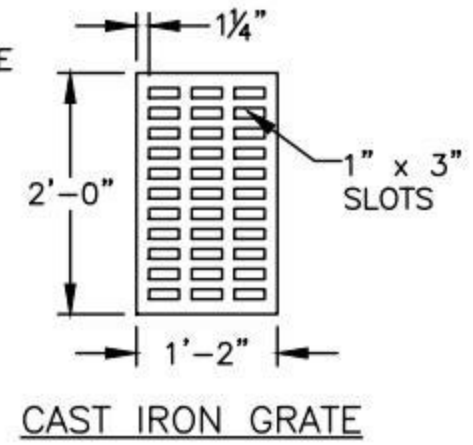
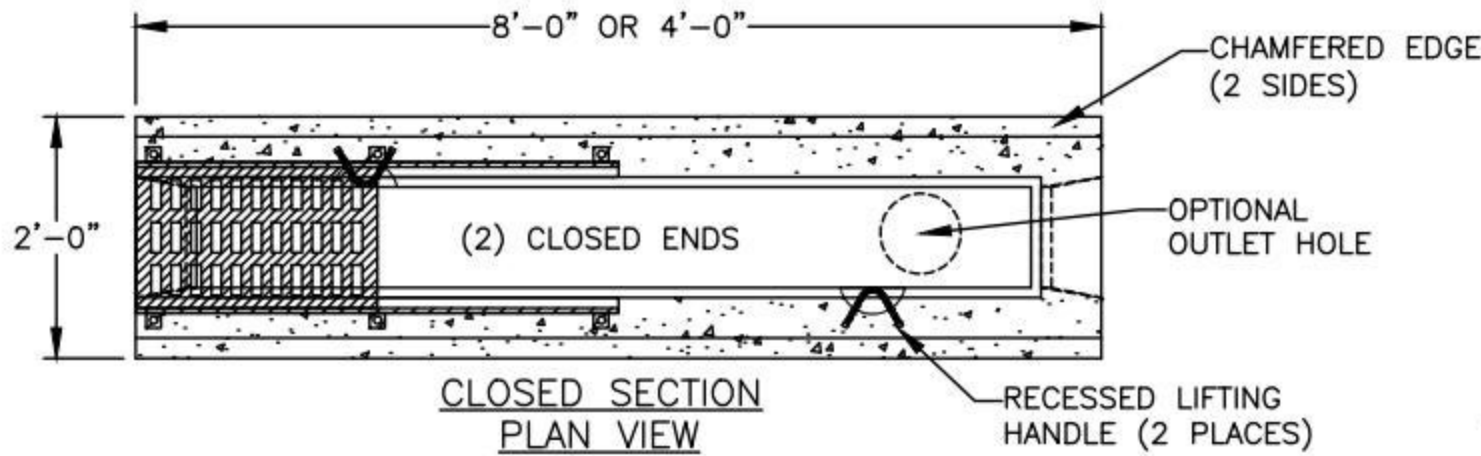
			WEIGHT
ITEM NO.	TD6	6' SECTION	1,315#
	TD3	3' SECTION	711#

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. AVAILABLE IN 3' AND 6' SECTIONS.
3. AVAILABLE IN END, MIDDLE, OR CLOSED SECTIONS.
4. DESIGNED FOR AASHTO HS-20 LOADING.



12" X 18" TRENCH DRAIN



NOTES:

1. MINIMUM CONCRETE COMPRESSIVE STRENGTH: 4,000 PSI AFTER 28 DAYS.
2. REINFORCING STEEL: A615 GRAD 60 BLACK DEFORMED BARS
3. AVAILABLE IN 4' AND 8' SECTIONS.
4. AVAILABLE IN CENTER, END OR MIDDLE SECTIONS.
5. DESIGNED FOR AASHTO HS-20 LOADING.
6. GRATING TO BE ATTACHED BY CONTRACTOR.
7. END KNOCK OUTS SIZED FOR MAXIMUM Ø8" PIPE.
8. SLOPED FLOOR IF REQUIRED TO BE INSTALLED BY OTHERS AFTER INSTALLATION.

ISOMETERIC VIEW

12" x 18" TRENCH DRAIN		
ITEM CODE	SECTION TYPE	WEIGHT
TD-8	CLOSED	3,075#
TD-8	MIDDLE	3,000#
TD-8	END	3,030#
TD-4	CLOSED	1,575#
TD-4	MIDDLE	1,500#
TD-4	END	1,540#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

trenchdrain12x18

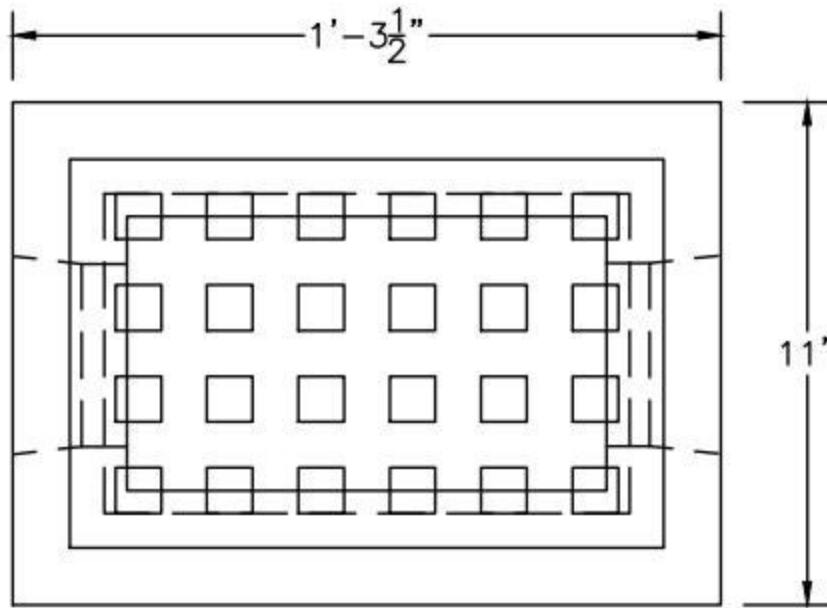
WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

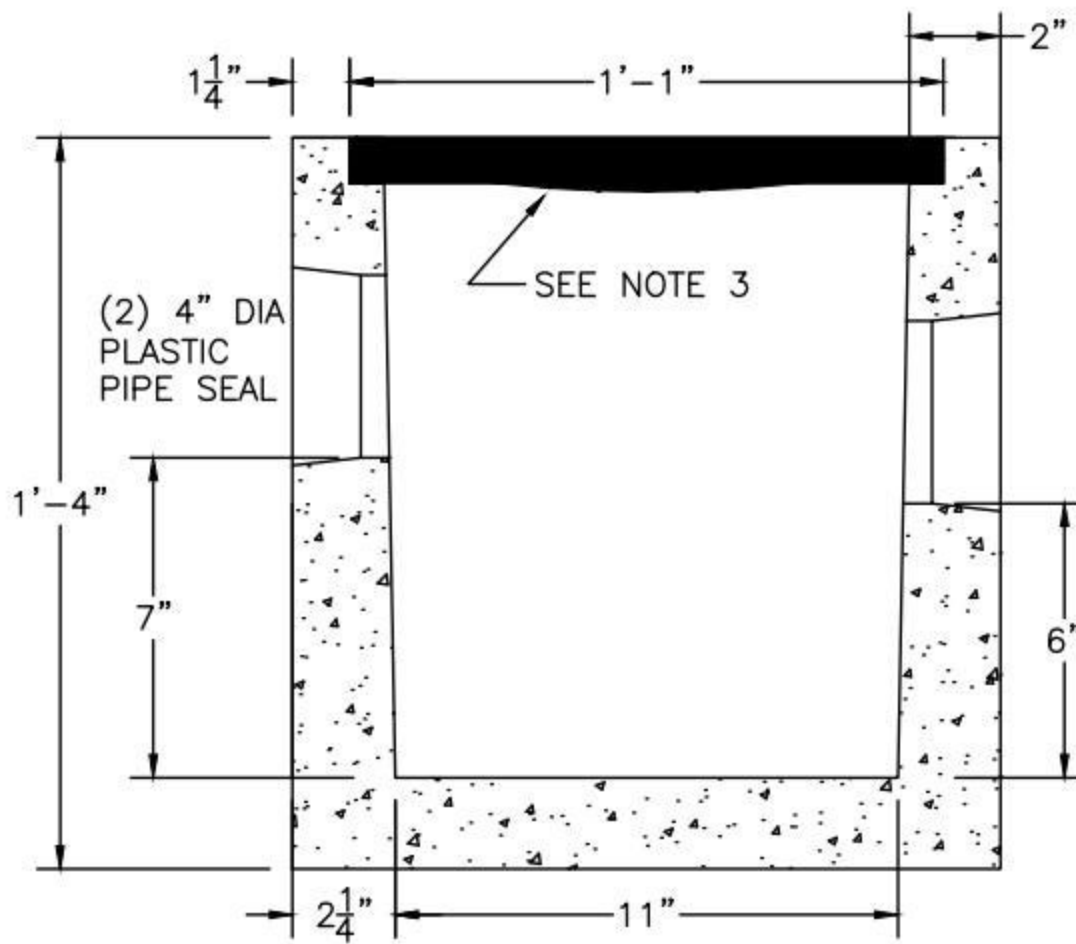
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PAGE: H6.2

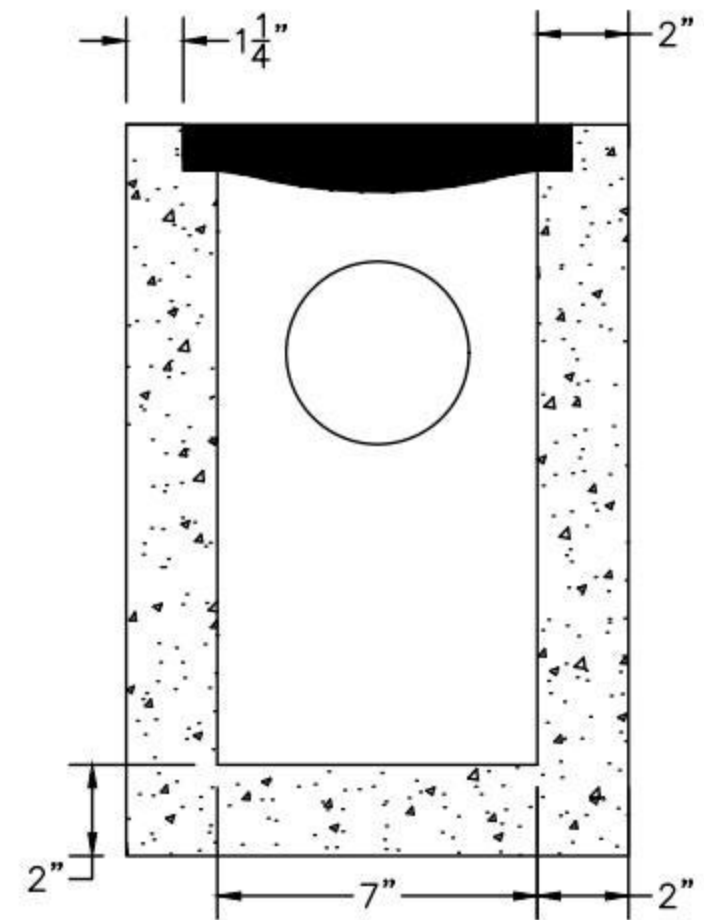




PLAN VIEW



SIDE SECTION VIEW



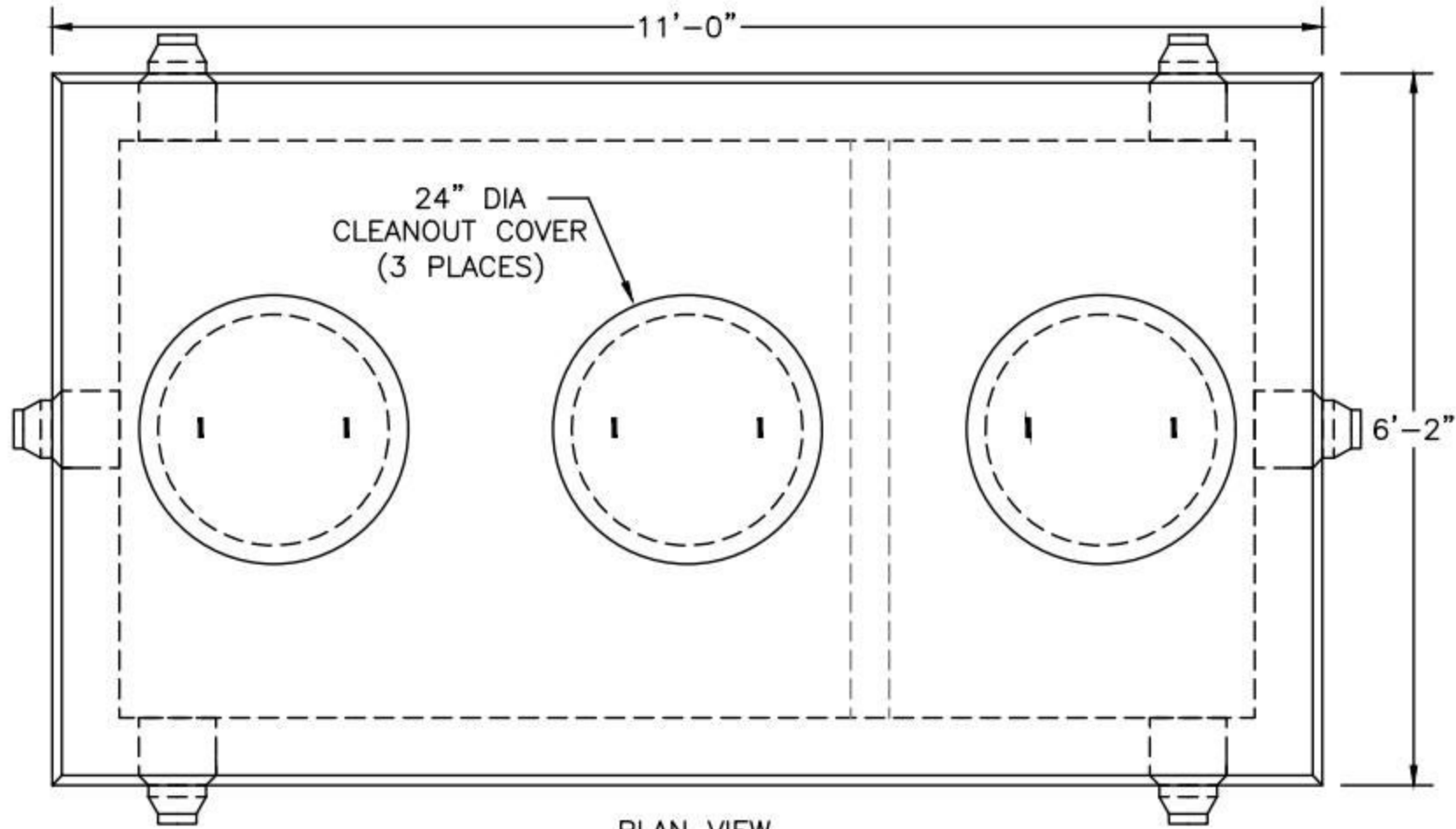
END SECTION VIEW

NOTES:

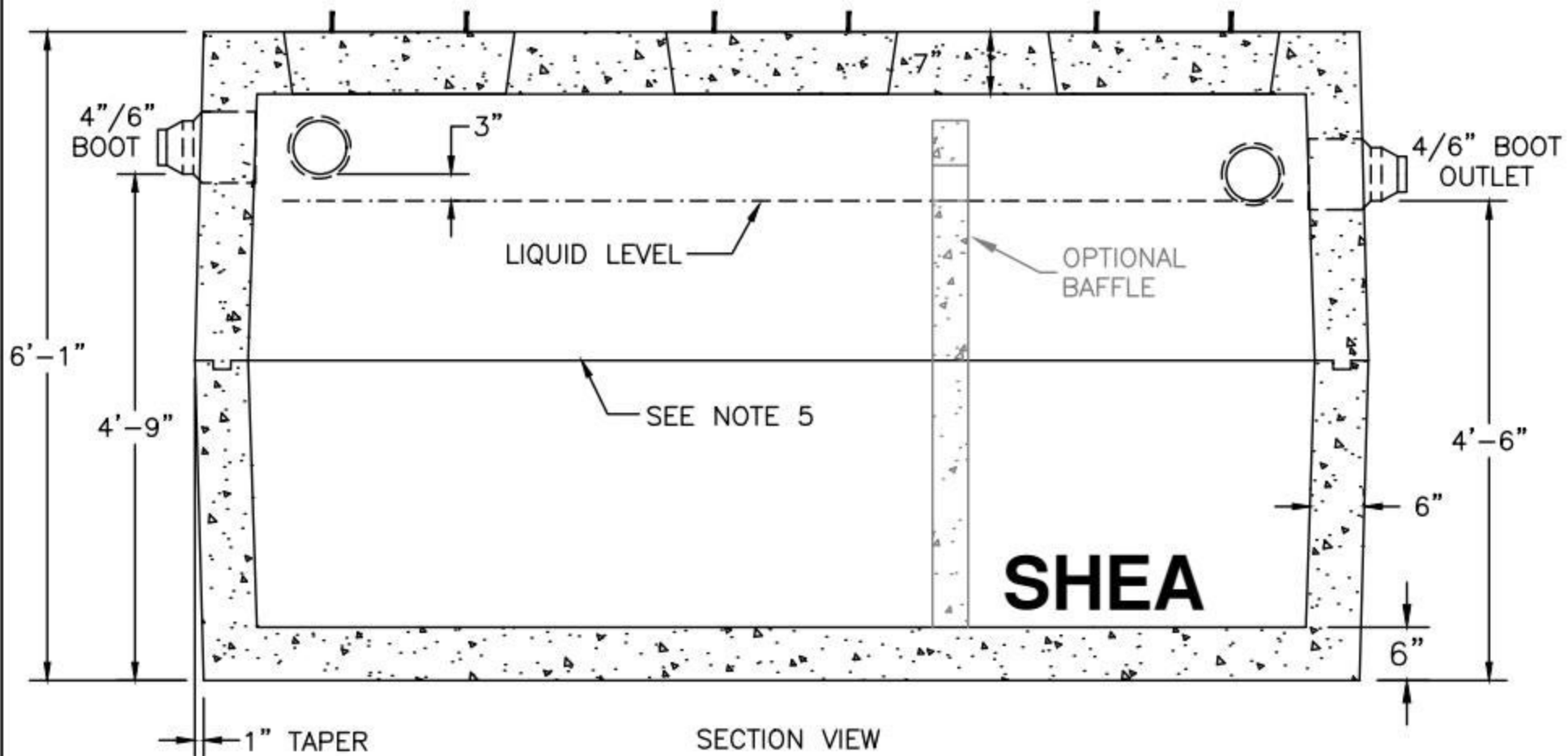
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ACCEPTS ALL 3" AND 4" PIPE WITHOUT GROUTING.
3. COVER GRATE CONSTRUCTED OF CO-POLYMER POLYPROPYLENE.

SHEA PRODUCT ID:	RD	PREPARED FOR:	FILE NAME:	raindrn.dwg
WEIGHT (LBS):	91#	DRAWN BY:	ARO	DATE: 06/01/18
				PAGE: H7
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH				





PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FT
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. TEES AND BAFFLES SOLD SEPARATELY.

		WEIGHT	TOP	BOTTOM
ITEM NO.	TK-1500C	22,000#	11,500#	10,500#
	TK-1500C2C	23,200#	12,100#	11,100#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

ctk1500.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

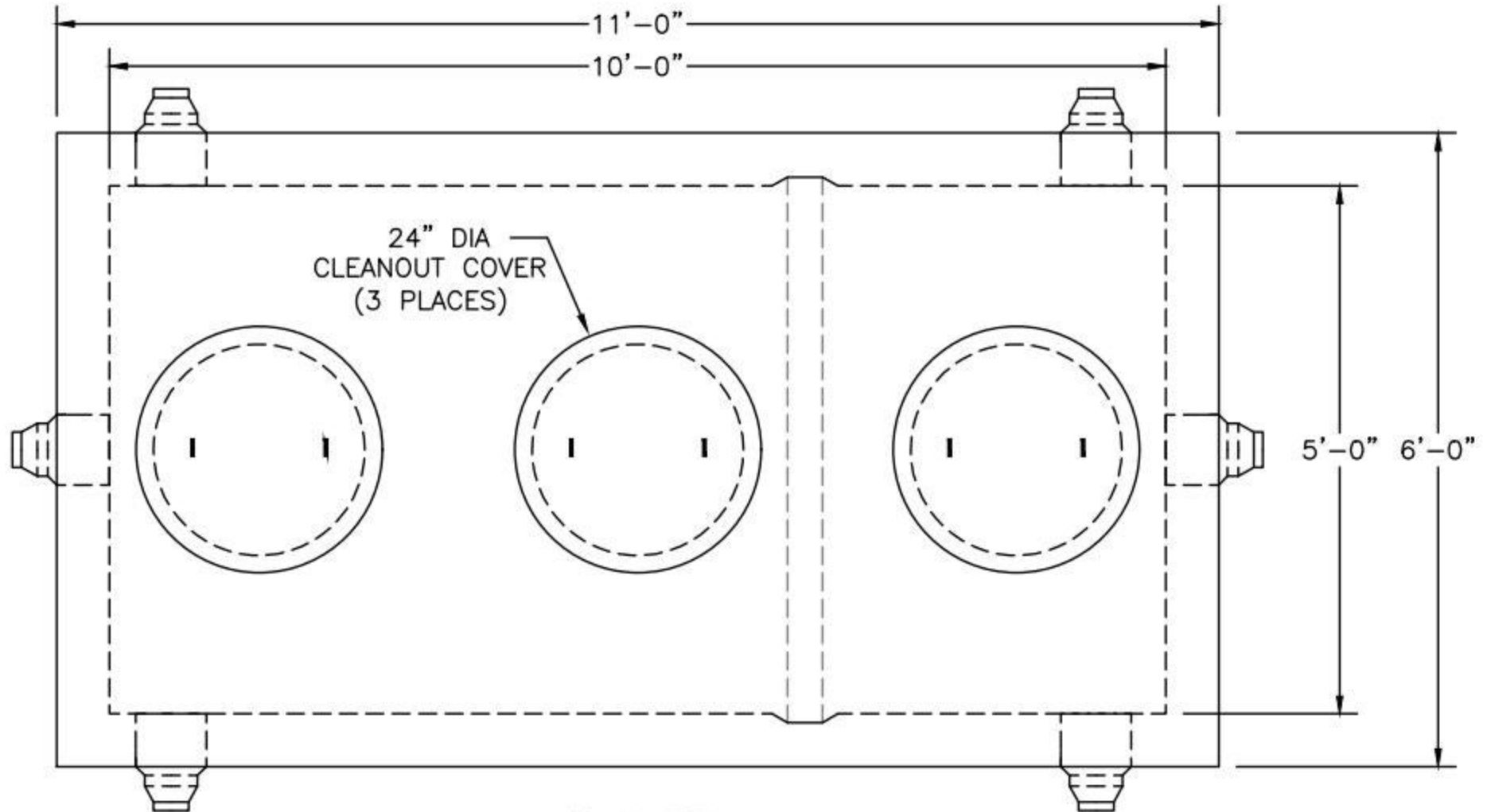
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PAGE: I 1

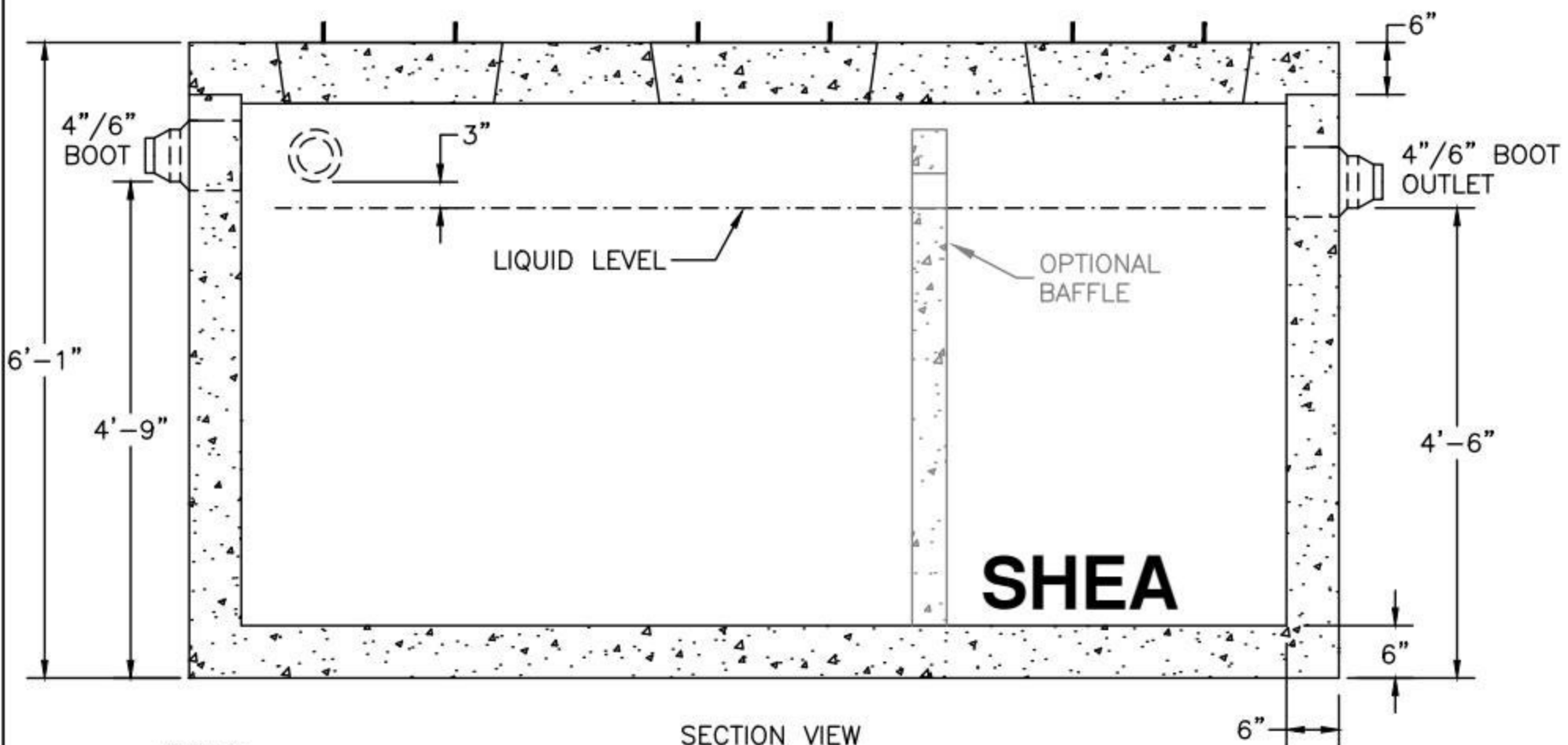


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN
6. TEES AND BAFFLES SOLD SEPARATELY
7. OPTIONAL BAFFLE WALL SEATED IN GROOVE

	WEIGHT	TOP	BOTTOM
ITEM NO. TK-M1500C	22,600#	5,400#	17,200#
TK-M1500C2C	24,400#	5,400#	19,000#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

ctkM1500.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

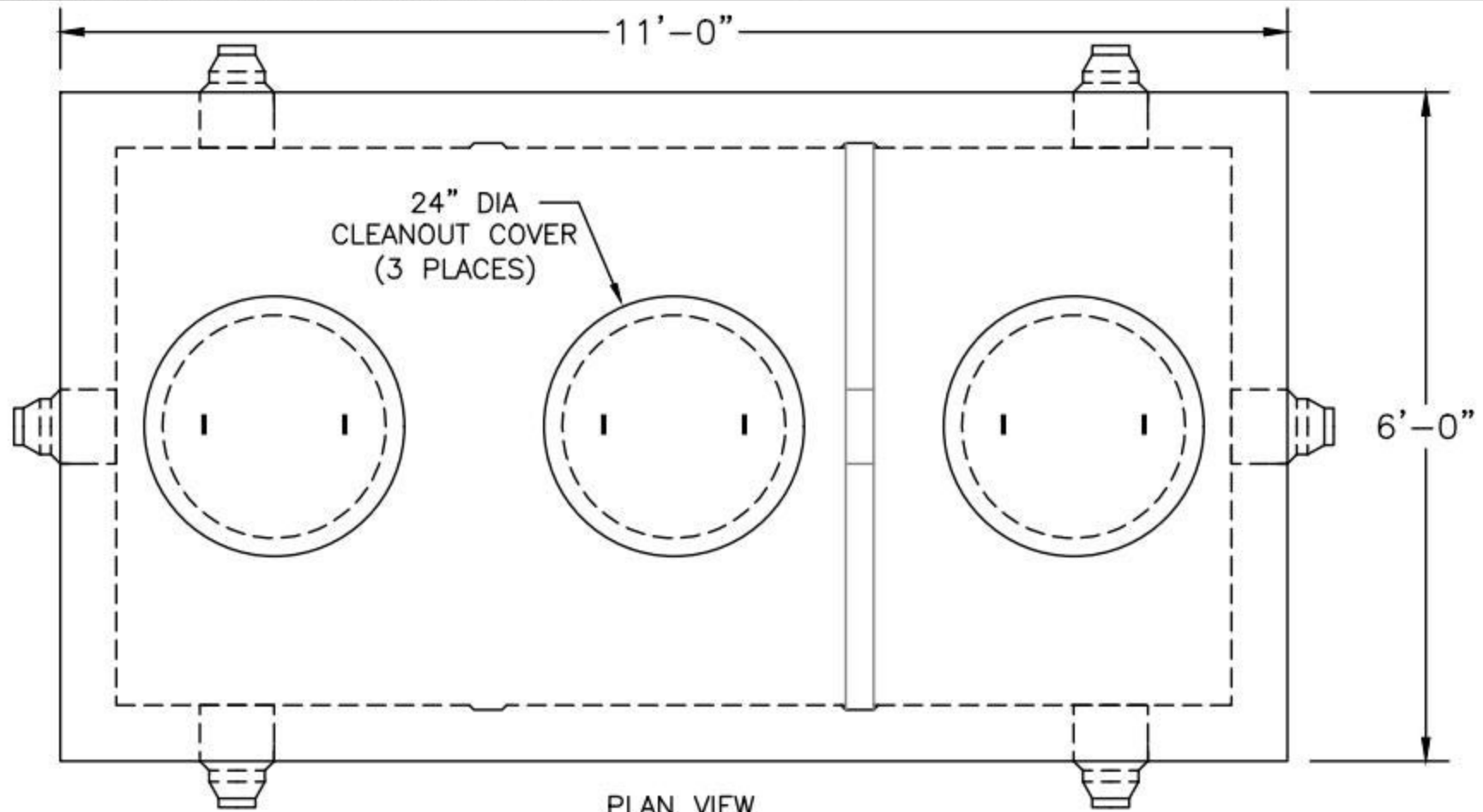
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PAGE: 12

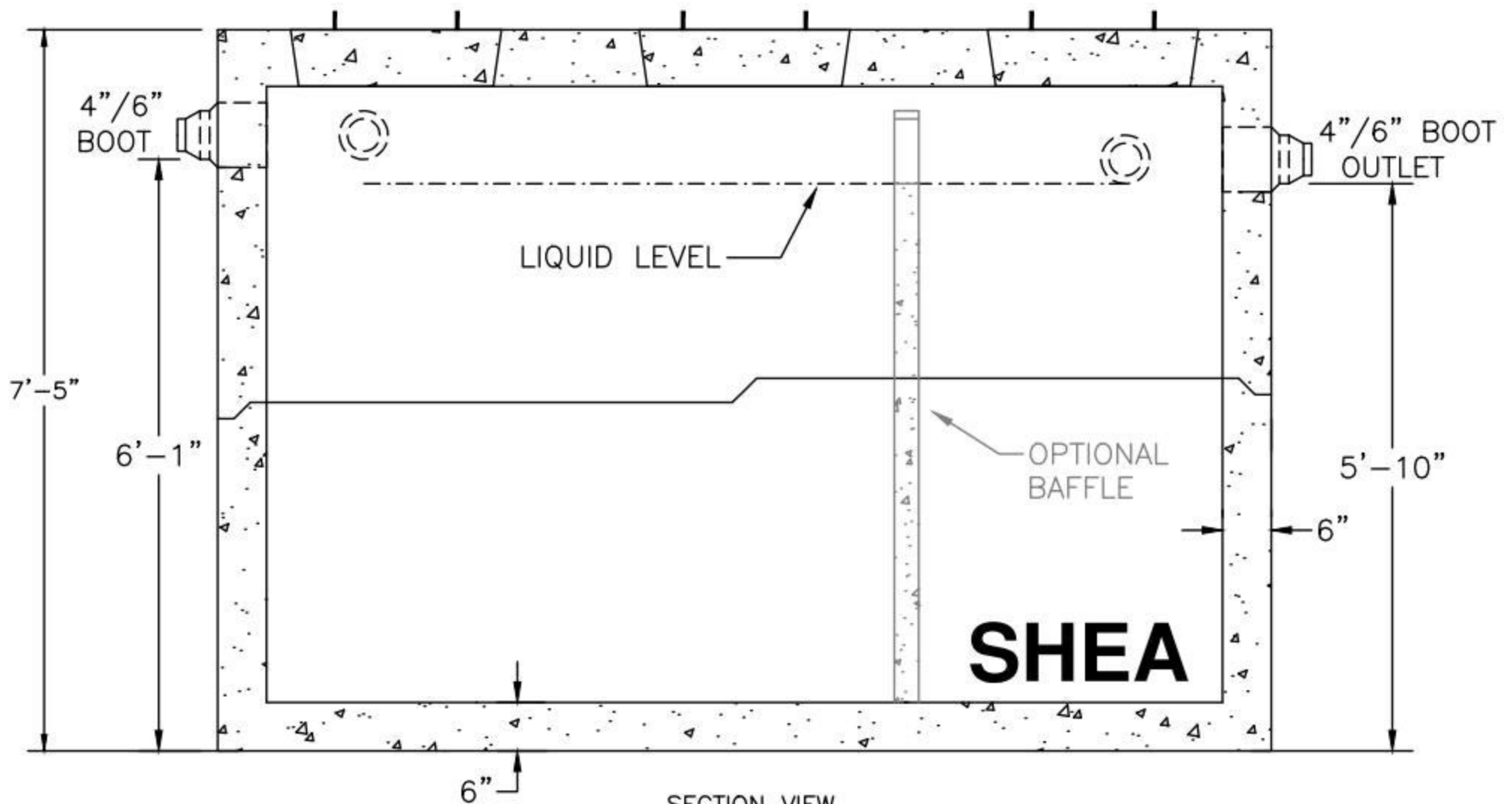


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FT
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. TEES AND BAFFLES SOLD SEPARATELY.

	WEIGHT	TOP	BOT
ITEM NO. TK-2000C	25,600#	13,655#	11,945#
TK-2000C2C	27,340#	14,515#	12,825#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

ctk2000.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

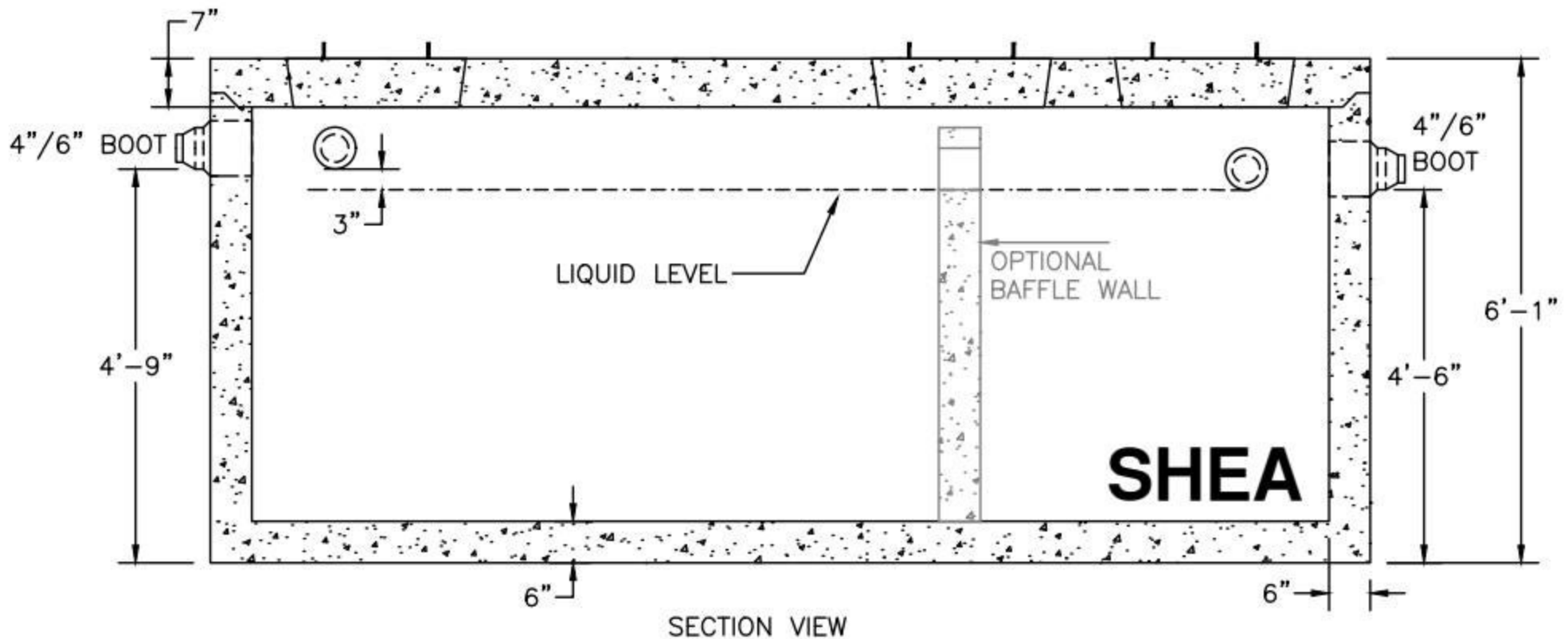
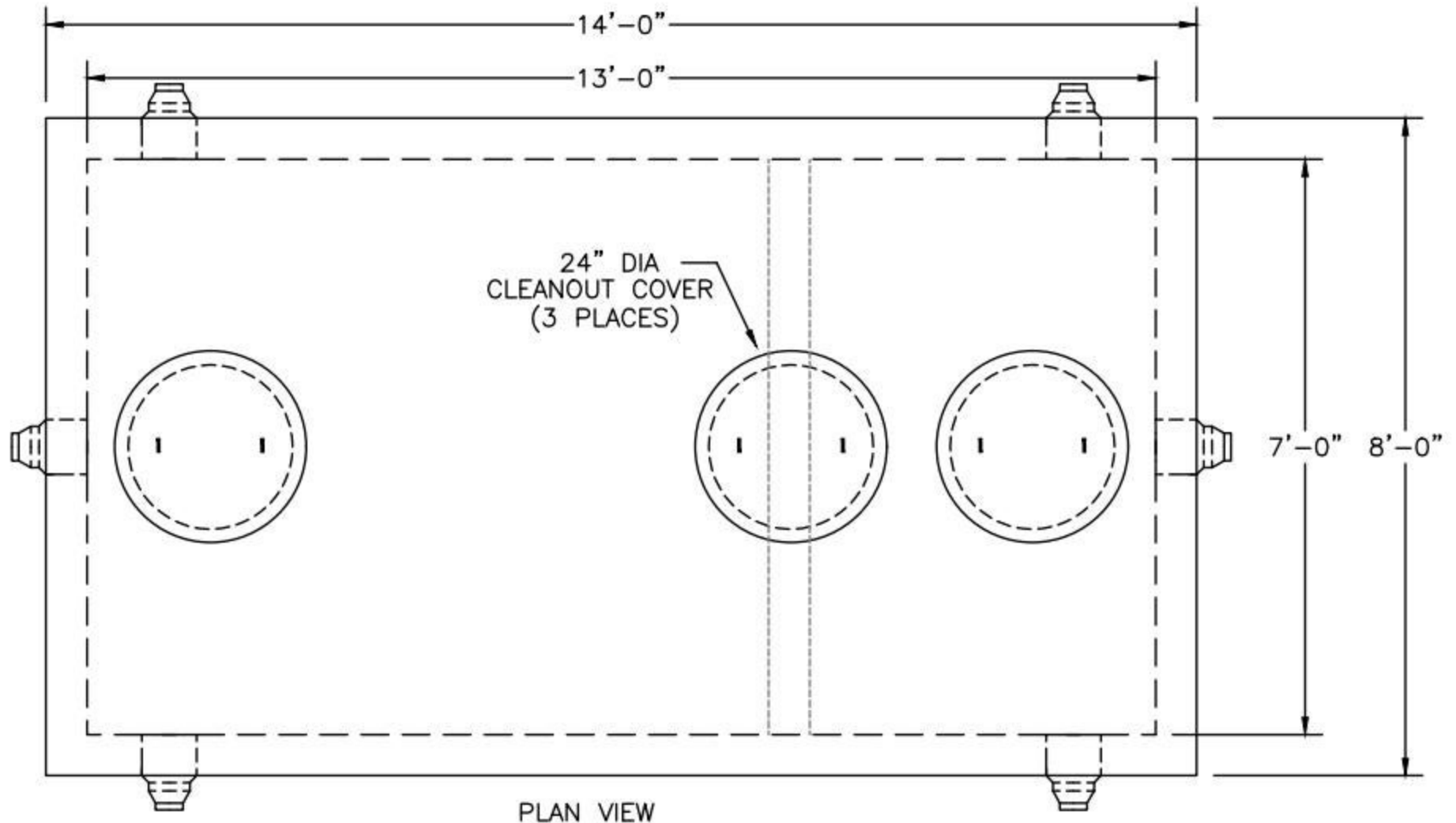
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PAGE: I3



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN
6. TEES AND BAFFLES SOLD SEPARATELY
7. BAFFLE WALL OPTIONAL FOR TWO COMPARTMENT TANKS.

		WEIGHT
ITEM NO.	CTK-M2500C	32,820#
	CTK-M2500C2C	35,358#

WEIGHT	ONE COMPART	TWO COMPART
TOP SECTION	9,475#	9,475#
BOTTOM SECTION	23,345#	25,883#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

ctkM2500.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

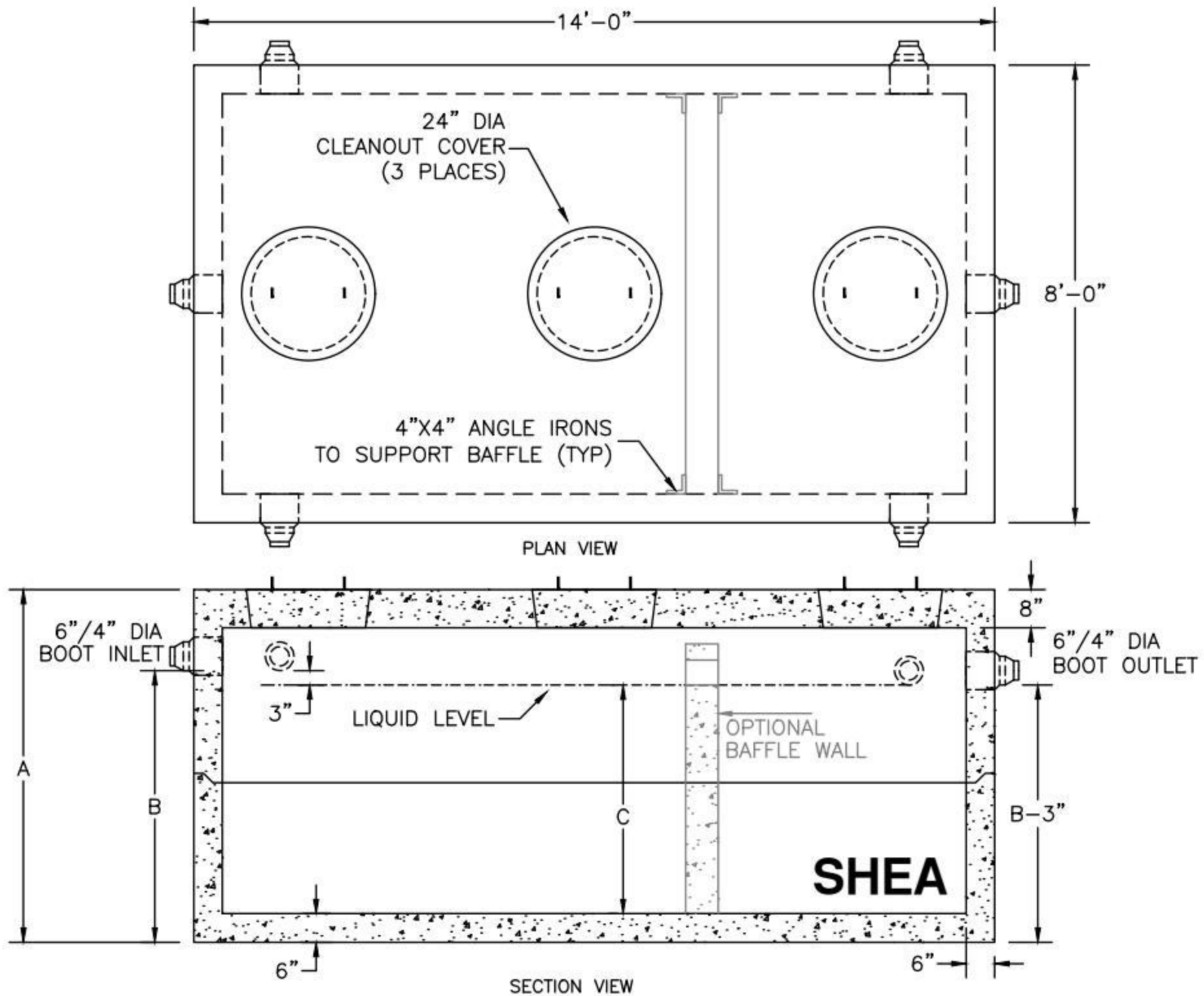
DATE: 06/01/18

PAGE: I 4



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN
6. TEES AND BAFFLES SOLD SEPARATELY
7. OPTIONAL BAFFLE WALL HELD IN PLACE WITH ANGLE BRACKETS

SINGLE COMPARTMENT TANK

GALLONS	A (HEIGHT)	B (INLET) 6" BOOT	B (INLET) 4" BOOT	C (LIQUID)	WEIGHT (LBS)	ITEM NO.	SIZE TOP	WEIGHT TOP	SIZE BOTTOM	WEIGHT BOTTOM
3,000	83"	66"	67"	57"	36,710	8X14-30	42"	19,455	41"	17,255
3,500	93"	77"	78"	68"	39,250	8X14-35	42"	19,455	51"	19,795
4,000	103"	86"	87"	77"	41,535	8X14-40	52"	21,740	51"	19,795

TWO COMPARTMENT TANK

GALLONS	A (HEIGHT)	B (INLET) 6" BOOT	B (INLET) 4" BOOT	C (LIQUID)	WEIGHT (LBS)	ITEM NO.	SIZE TOP	WEIGHT TOP	SIZE BOTTOM	WEIGHT BOTTOM
3,000	83"	66"	67"	57"	39,670	8X14-302C	42"	20,890	42"	18,780
3,500	93"	77"	78"	68"	42,630	8X14-352C	42"	20,890	42"	21,740
4,000	103"	86"	87"	77"	45,295	8X14-402C	52"	23,555	52"	21,740

SHEA PRODUCT ID:
SEE TABLES

PREPARED FOR:

FILE NAME:

ctk8x14.dwg

WEIGHT (LBS):
SEE TABLES

DRAWN BY:

ARO

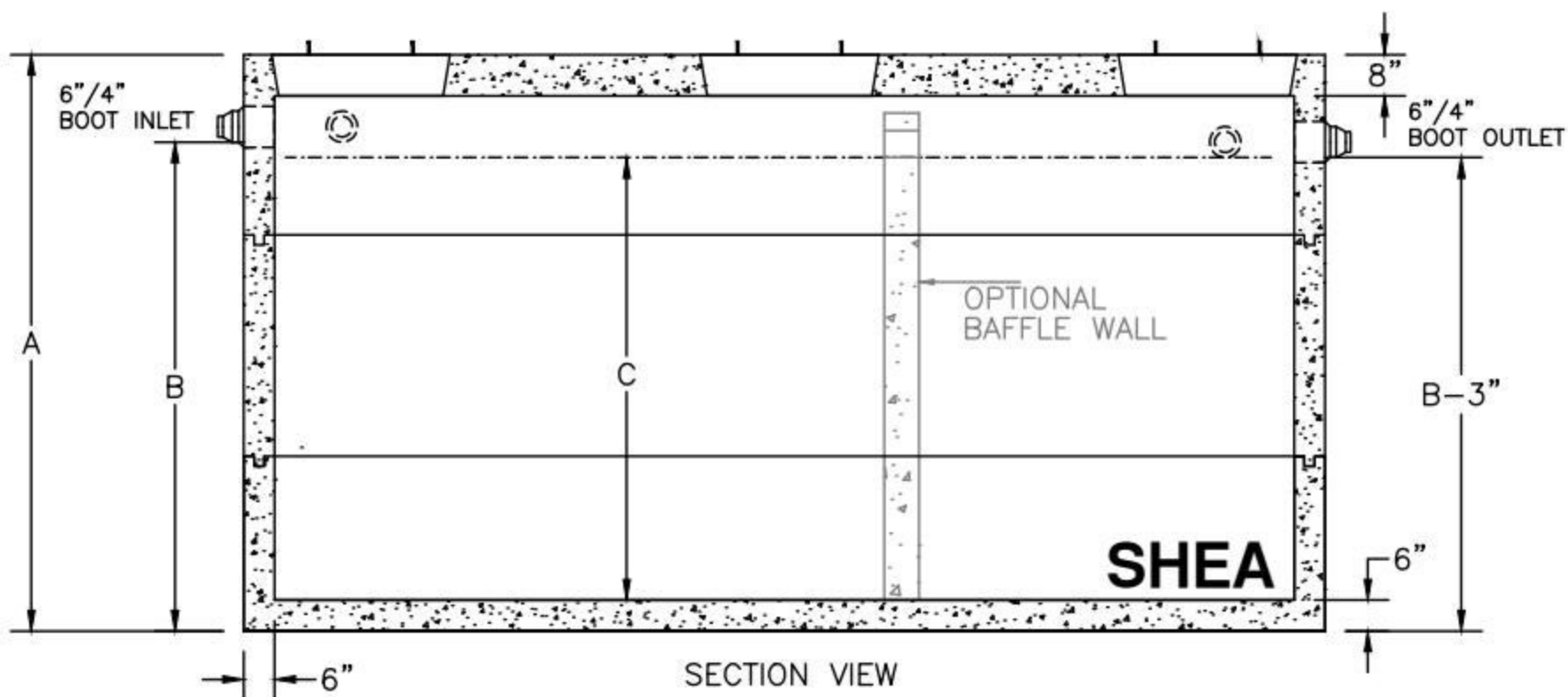
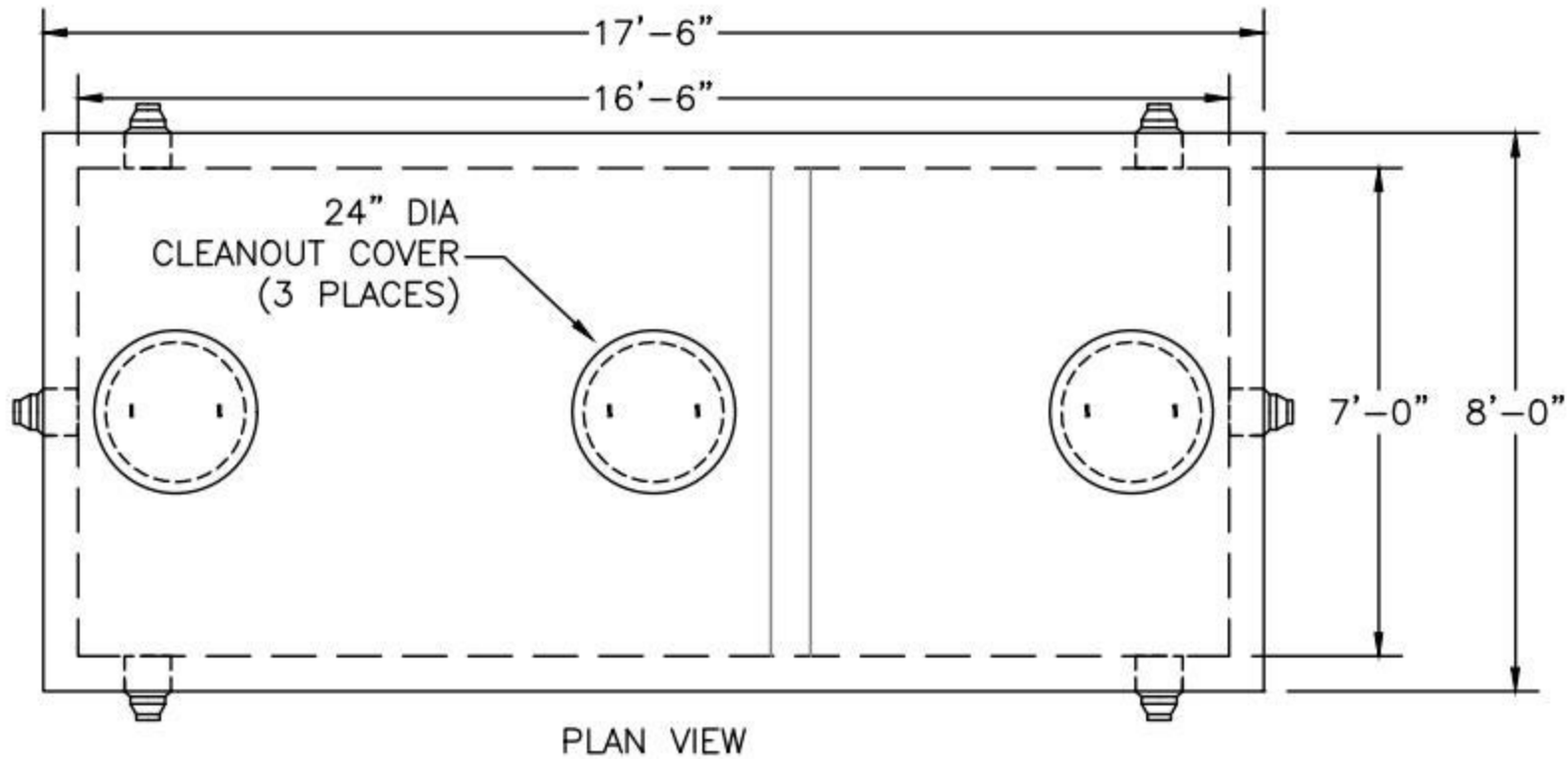
DATE:

06/01/18

PAGE:

I5





NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS FOR ALTERNATIVE SYSTEMS WHERE A LIQUID LEVEL OF FOUR FEET IS NOT FEASIBLE.
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FT.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN. INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.
6. TEES AND BAFFLES SOLD SEPARATELY.

SINGLE COMPARTMENT TANK

GALLONS	A (HEIGHT)	B (INLET) 6" BOOT	B (INLET) 4" BOOT	C (LIQUID)	WEIGHT (LBS)	ITEM NO.	SIZE TOP	WEIGHT TOP	SIZE BOTTOM	WEIGHT BOTTOM
2,500	62"	46"	47"	37"	40,749	8x17-25	28"	20,720"	34"	20,029
3,000	69"	53"	54"	44"	43,166	8x17-30	35"	23,137	34"	20,029

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

ctk8x17LG.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

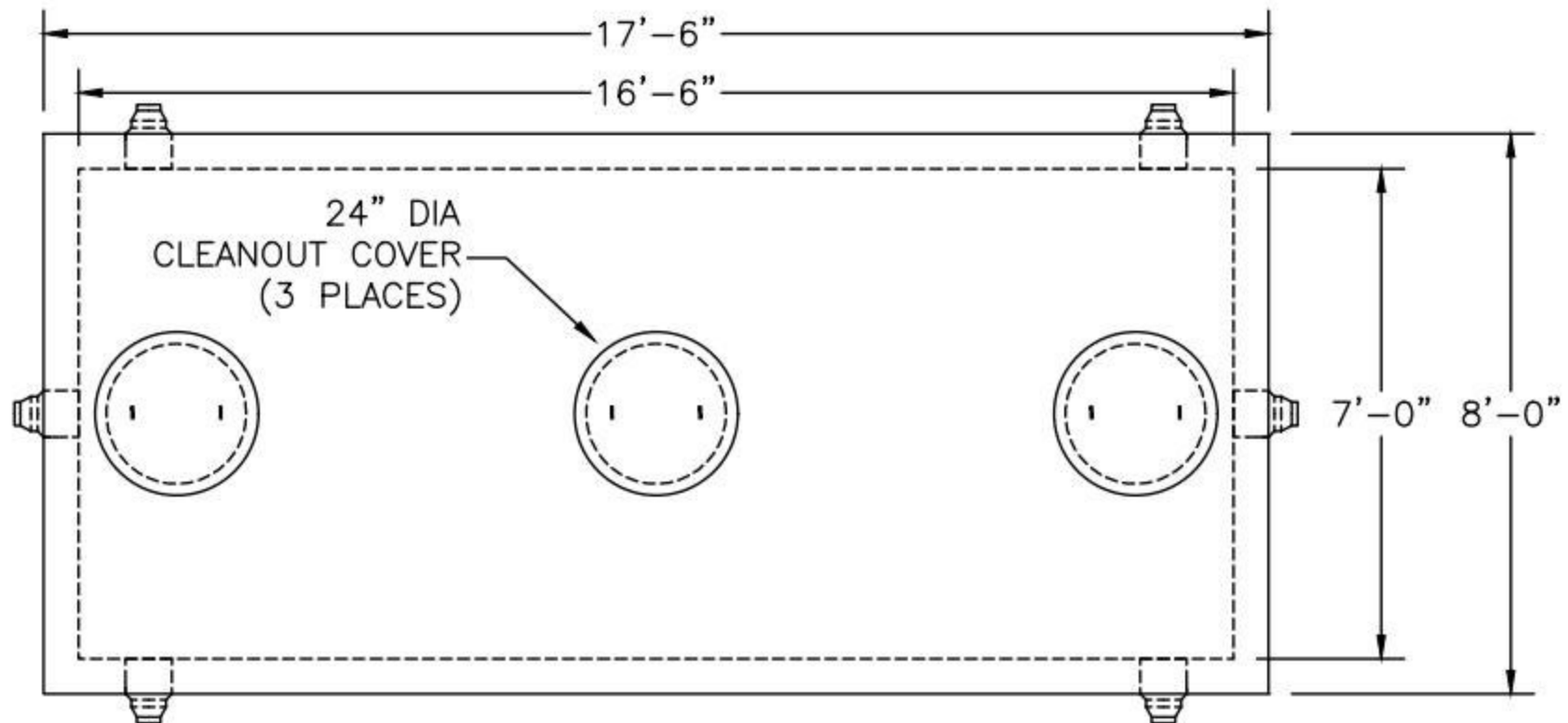
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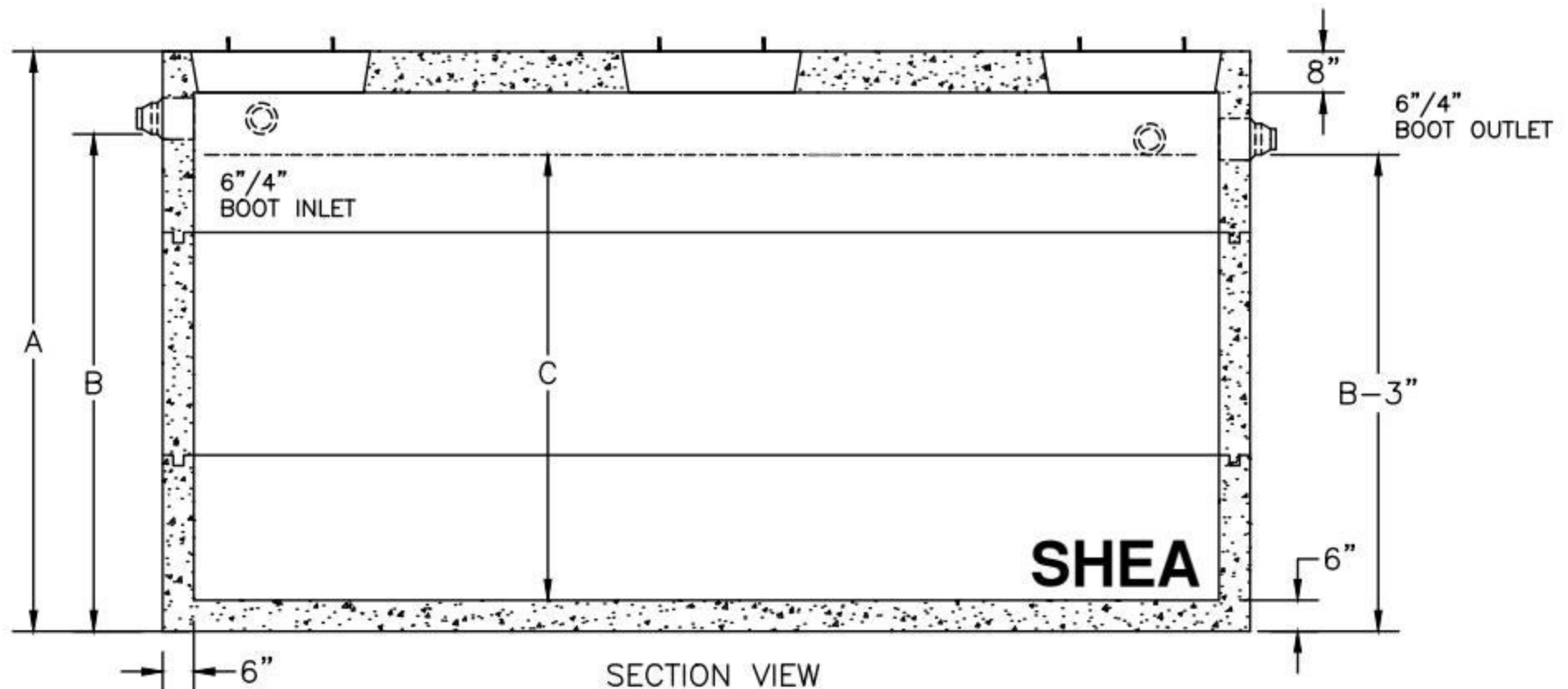


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



PLAN VIEW



SECTION VIEW

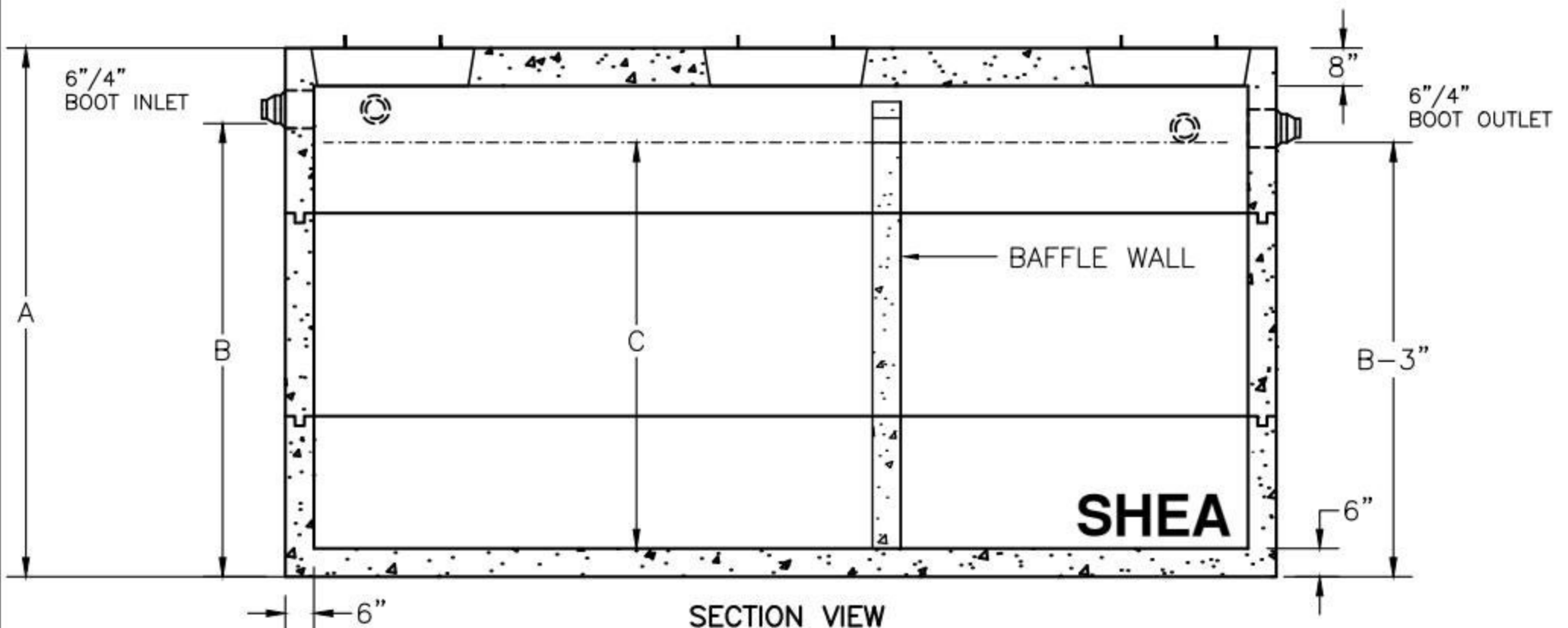
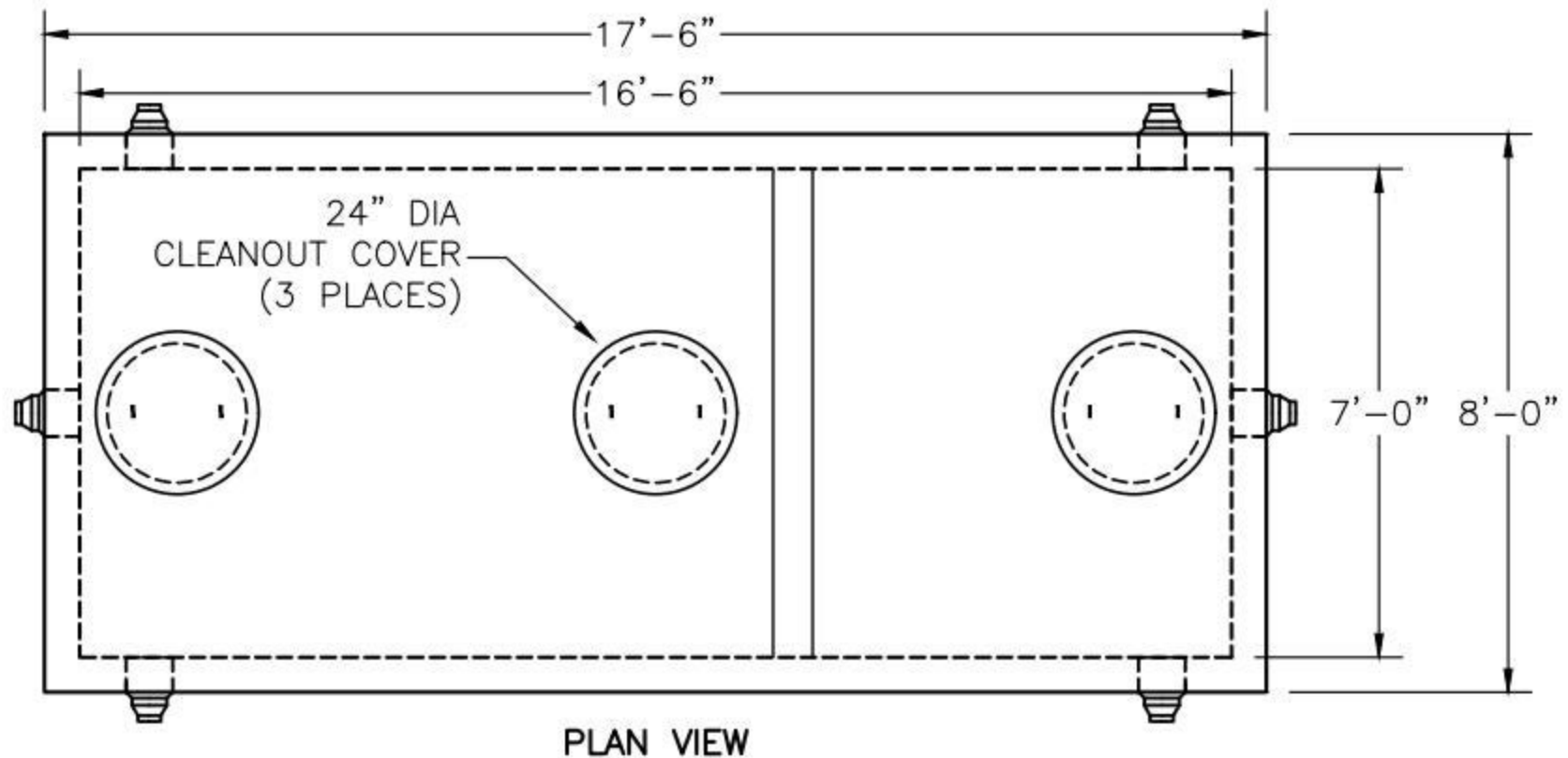
NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00 DEP TITLE 5 REGS FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FT.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN, INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.
6. TEES AND BAFFLES SOLD SEPARATELY.

SECTION	WEIGHT
28" TOP	20,720#
35" TOP	23,137#
34" BOT	20,029#
49" BOT	25,209#
30" RIS	10,014#
43" RIS	14,849#

GALLONS	ITEM NO.	A (HEIGHT)	B* (INLET) 6" BOOT	B* (INLET) 4" BOOT	C (LIQUID)	WEIGHT (LBS)	TOP (HEIGHT)	BOTTOM (HEIGHT)	RISER 1 (HEIGHT)	RISER 2 (HEIGHT)
3,500	8X17-35	77"	61"	62"	52"	45,929	28"	49"	0"	0"
4,000	8X17-40	84"	68"	69"	60"	48,346	35"	49"	0"	0"
4,500	8X17-45	91"	75"	76"	66"	50,763	28"	34"	30"	0"
5,000	8X17-50	98"	82"	83"	73"	53,180	35"	34"	30"	0"
5,500	8X17-55	105"	89"	90"	80"	55,598	28"	34"	43"	0"
6,000	8X17-60	112"	96"	97"	88"	58,015	35"	34"	43"	0"
6,500	8X17-65	120"	104"	105"	95"	60,778	28"	49"	43"	0"
7,000	8X17-70	127"	111"	112"	102"	63,195	35"	49"	43"	0"
7,500	8X17-75	134"	118"	119"	109"	65,612	28"	34"	43"	30"
8,000	8X17-80	141"	125"	126"	116"	68,029	35"	34"	43"	30"

*SEE NOTE 5



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00 DEP TITLE 5 REGS FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FT.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN, INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.
6. TEES AND BAFFLES SOLD SEPARATELY.

SECTION	WEIGHT
28" TOP	19,885#
35" TOP	24,300#
34" BOT	20,029#
49" BOT	27,065#
30" RIS	11,240#
43" RIS	16,705#

GALLONS	ITEM NO.	A (HEIGHT)	B* (INLET) 6" BOOT	B* (INLET) 4" BOOT	C (LIQUID)	WEIGHT (LBS)	TOP (HEIGHT)	BOTTOM (HEIGHT)	RISER 1 (HEIGHT)	RISER 2 (HEIGHT)
3,500	8X17-352C	77"	61"	62"	52"	49,505	28"	49"	0"	0"
4,000	8X17-402C	84"	68"	69"	60"	51,365	35"	49"	0"	0"
4,500	8X17-452C	92"	75"	76"	66"	53,709	28"	34"	30"	0"
5,000	8X17-502C	99"	82"	83"	73"	55,569	35"	34"	30"	0"
5,500	8X17-552C	105"	89"	90"	80"	59,174	28"	34"	43"	0"
6,000	8X17-602C	112"	96"	97"	88"	61,034	35"	34"	43"	0"
6,500	8X17-652C	120"	104"	105"	95"	66,210	28"	49"	43"	0"
7,000	8X17-702C	127"	111"	112"	102"	68,070	35"	49"	43"	0"
7,500	8X17-752C	135"	118"	119"	109"	70,414	28"	34"	43"	30"
8,000	8X17-802C	142"	125"	126"	116"	72,274	35"	34"	43"	30"

*SEE NOTE 5

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

ctk8x172C.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

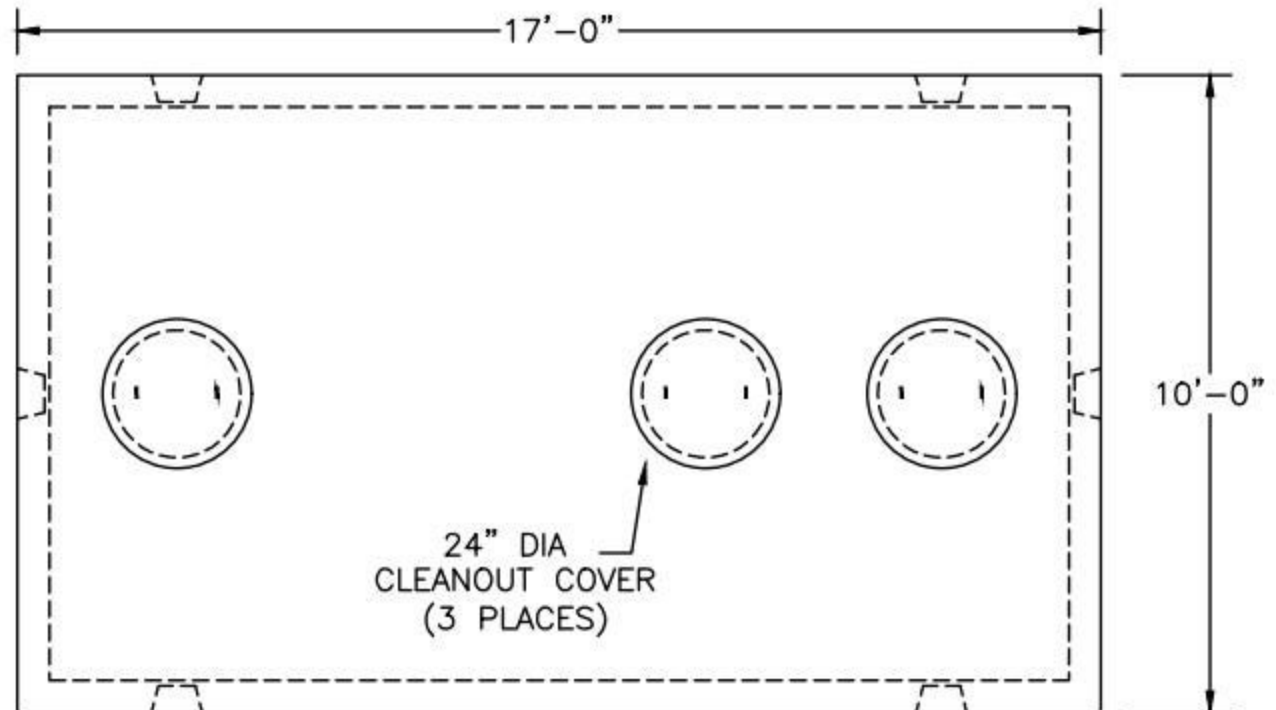
DATE: 06/01/18

PAGE: 17.2

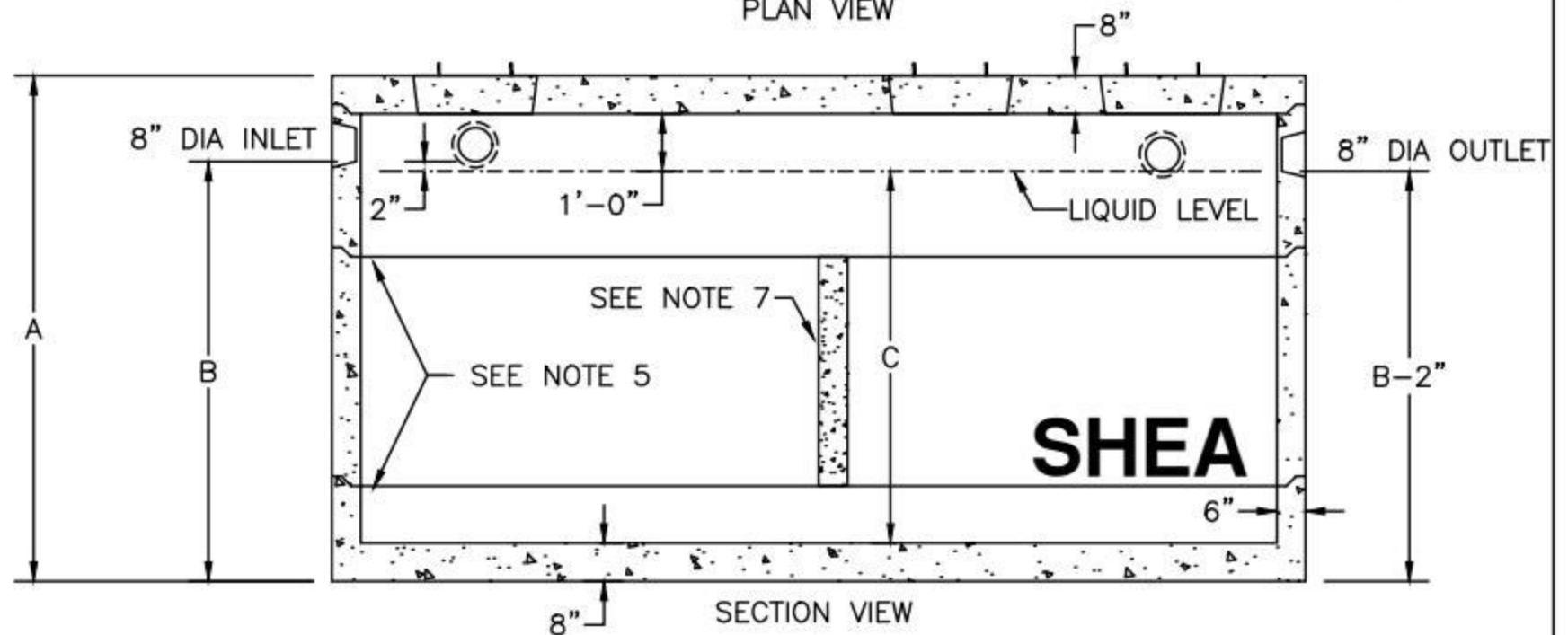


NOTES:

1. CONCRETE. 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FEET.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN. INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.
6. TEES AND BAFFLES SOLD SEPARATELY.
7. SPANNERS USED IN CENTER SECTIONS FOR TANKS GREATER THAN 7000 GALLONS.



PLAN VIEW



SECTION VIEW

GALLONS	A (HEIGHT)	B (INLET)	C (LIQUID)	TOTAL WEIGHT	RISER 1 SIZE	RISER 2 SIZE	RISER 3 SIZE	ITEM NO.
4,000	76"	58"	48"	51,909	48"	0	0	10X17-40
5,000	88"	70"	60"	55,679	30"	30"	0	10X17-50
5,500	92"	74"	64"	56,936	30"	34"	0	10X17-55
6,000	96"	78"	68"	58,193	34"	34"	0	10X17-60
6,500	100"	82"	72"	59,449	30"	42"	0	10X17-65
7,000	106"	88"	78"	61,334	30"	48"	0	10X17-70
7,500	112"	94"	84"	65,586	42"	42" W/SPAN	0	10X17-75
8,000	118"	100"	90"	67,810	42"	48" W/SPAN	0	10X17-80
8,500	124"	106"	96"	69,695	48"	48" W/SPAN	0	10X17-85
9,000	130"	112"	102"	72,932	30"	30" W/SPAN	42" W/SPAN	10X17-90
9,500	136"	118"	108"	75,156	30"	30" W/SPAN	48" W/SPAN	10X17-95
10,000	140"	122"	112"	76,640	30"	34" W/SPAN	48" W/SPAN	10X17-100
10,500	146"	128"	118"	78,635	34"	42" W/SPAN	42" W/SPAN	10X17-105
11,000	152"	134"	124"	80,859	34"	42" W/SPAN	48" W/SPAN	10X17-110
11,500	158"	140"	130"	83,083	34"	48" W/SPAN	48" W/SPAN	10X17-115
12,000	162"	144"	134"	84,341	38"	48" W/SPAN	48" W/SPAN	10X17-120

ITEM SIZE WEIGHT

8" TOP	16,312#
21" BOTTOM	20,517#
30" RISER	9,425#
30" RIS + SPAN	11,116#
34" RISER	10,682#
34" RIS + SPAN	12,600#
38" RISER	11,940#
38" RIS + SPAN	14,080#
42" RISER	13,195#
42" RIS + SPAN	15,562#
48" RISER	15,080#
48" RIS + SPAN	17,786#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

ctk10x17.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

DATE: 03/01/2018

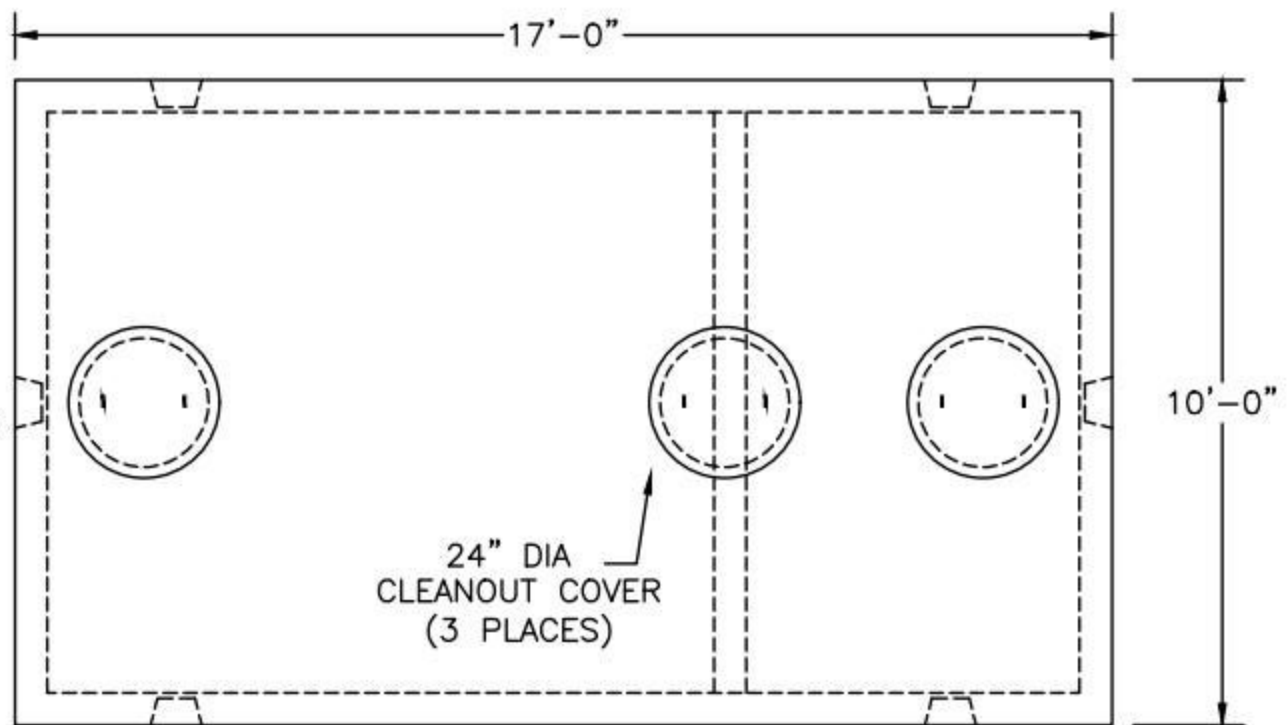
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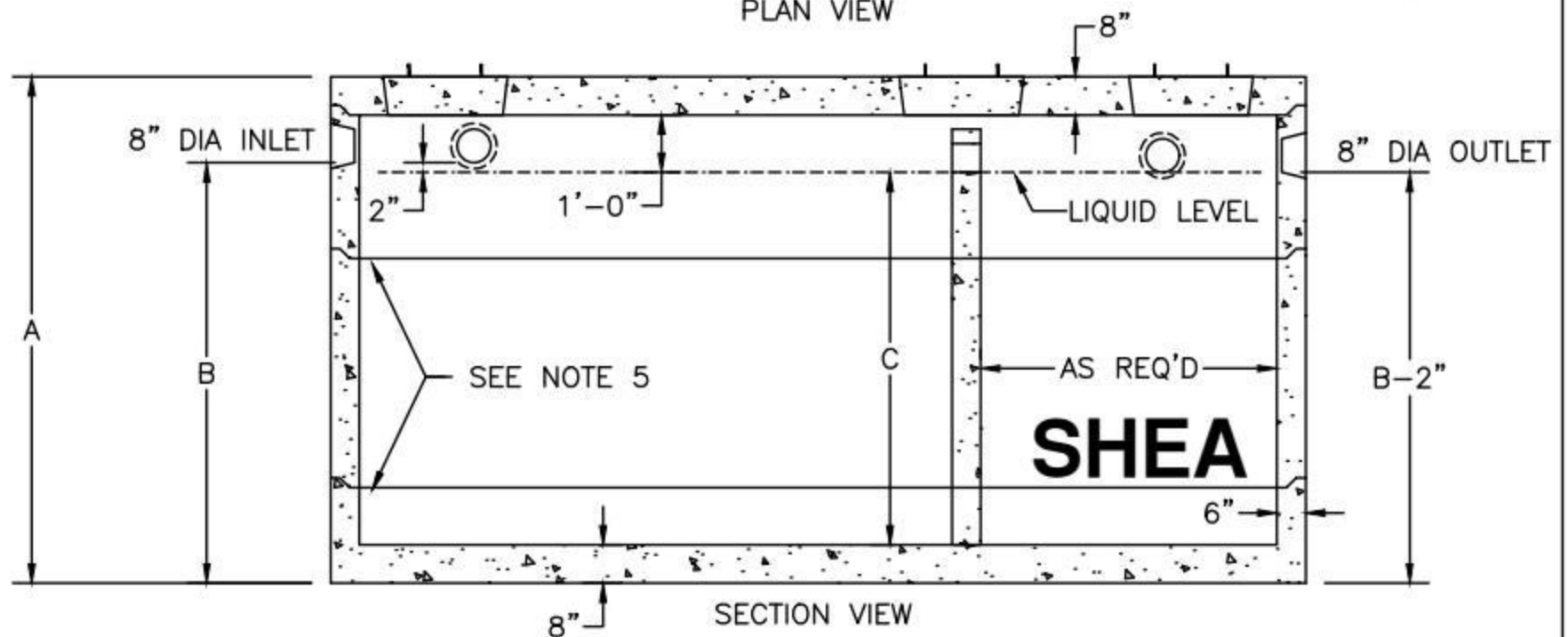
773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

NOTES:

1. CONCRETE. 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FEET.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN. INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.
6. TEES AND BAFFLES SOLD SEPARATELY.
7. SPANNERS USED IN CENTER SECTIONS FOR TANKS GREATER THAN 7000 GALLONS.



PLAN VIEW



SECTION VIEW

GALLONS	A (HEIGHT)	B (INLET)	C (LIQUID)	TOTAL WEIGHT	RISER 1 SIZE	RISER 2 SIZE	RISER 3 SIZE	ITEM NO.
4,000	76"	58"	48"	55,366	48"	0	0	10X17-402C
5,000	88"	70"	60"	59,812	30"	30"	0	10X17-502C
5,500	92"	74"	64"	61,296	30"	34"	0	10X17-552C
6,000	96"	78"	68"	62,780	34"	34"	0	10X17-602C
6,500	100"	82"	72"	64,258	30"	42"	0	10X17-652C
7,000	106"	88"	78"	66,482	30"	48"	0	10X17-702C
7,500	112"	94"	84"	68,704	42"	42"	0	10X17-752C
8,000	118"	100"	90"	70,928	42"	48"	0	10X17-802C
8,500	124"	106"	96"	73,152	48"	48"	0	10X17-852C
9,000	130"	112"	102"	75,374	30"	30"	42"	10X17-902C
9,500	136"	118"	108"	77,598	30"	30"	48"	10X17-952C
10,000	140"	122"	112"	79,082	30"	34"	48"	10X17-1002C
10,500	146"	128"	118"	81,304	34"	42"	42"	10X17-1052C
11,000	152"	134"	124"	83,528	34"	42"	48"	10X17-1102C
11,500	158"	140"	130"	85,752	34"	48"	48"	10X17-1152C
12,000	162"	144"	134"	87,232	38"	48"	48"	10X17-1202C

ITEM SIZE WEIGHT

8" TOP	16,312#
21" BOTTOM	20,517#
30" RISER	11,116#
34" RISER	12,600#
38" RISER	14,080#
42" RISER	15,562#
48" RISER	17,786#

ALL RISERS HAVE SPANS

 SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

ctk10x172C.dwg

 WEIGHT (LBS):
SEE TABLE

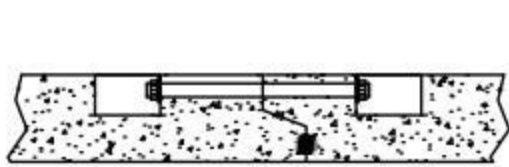
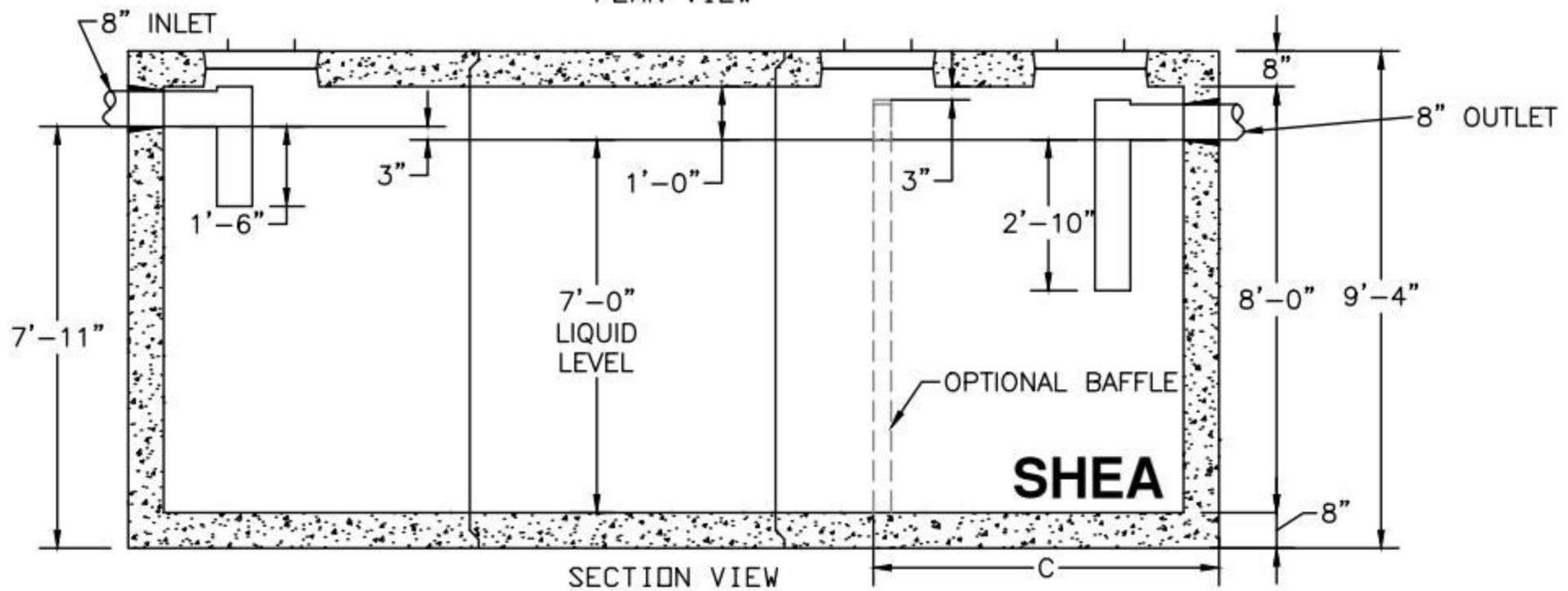
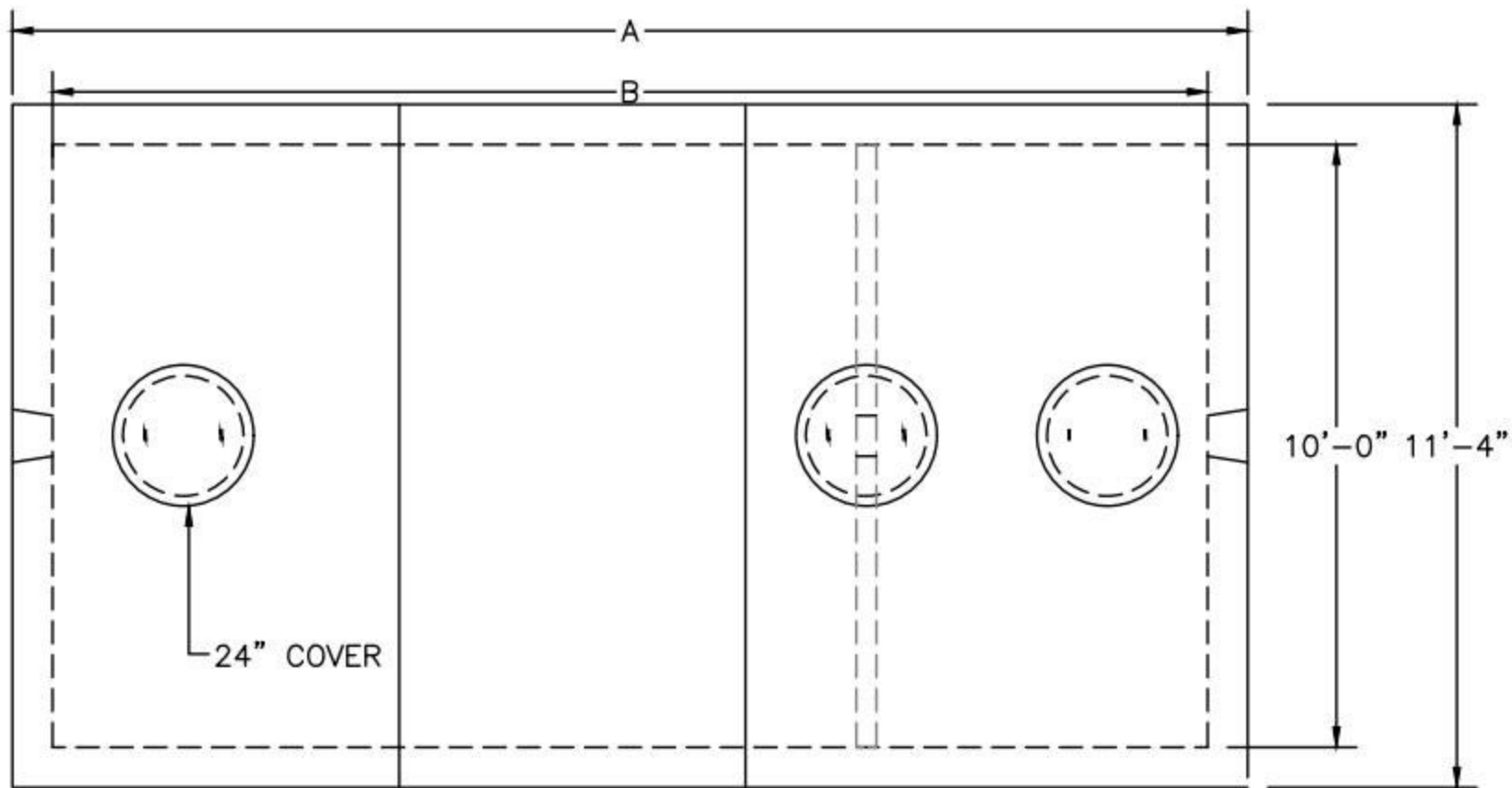
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DATE: 03/01/2018

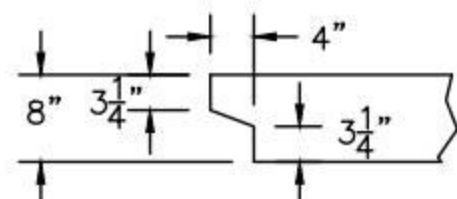
PAGE: 18. 2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



TYPICAL BOLT CONNECTION



TYPICAL JOINT DETAIL

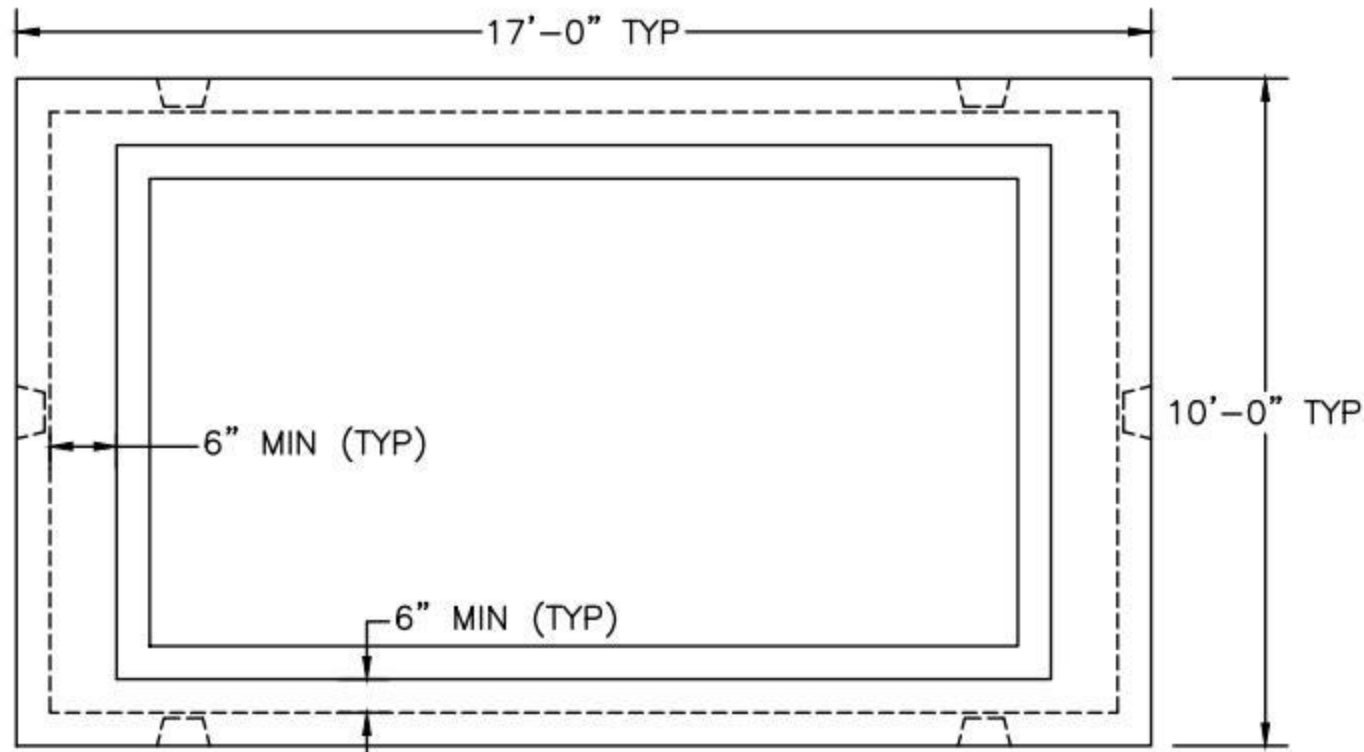
NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM A-615
4. DESIGNED FOR AASHTO HS-20 LOADING, 2 TO 5 FEET COVER.
5. TEES AND BAFFLES SOLD SEPARATELY.
6. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN AND BOLTED WITH 3/4" DIA BOLTS.

GALLONS	A (LENGTH)	B (LENGTH)	C (BAFFLE)	WEIGHT
13,000	26'-3"	24'-11"	9'-0"	116,598#

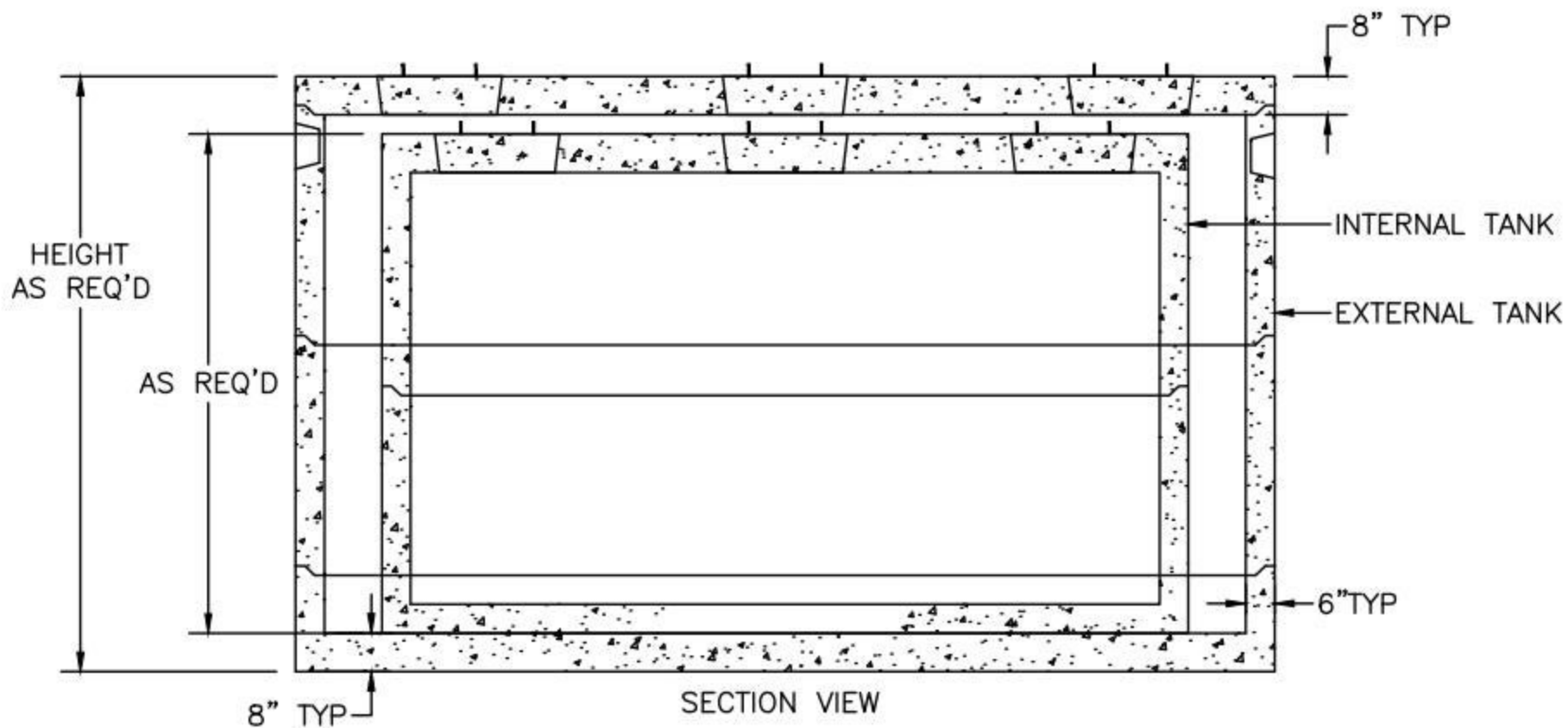
OTHER SIZES AVAILABLE:

545 GALLONS/LF
3867 LBS/LF



PLAN VIEW


—TOPS OF TANKS NOT SHOWN FOR CLARITY—



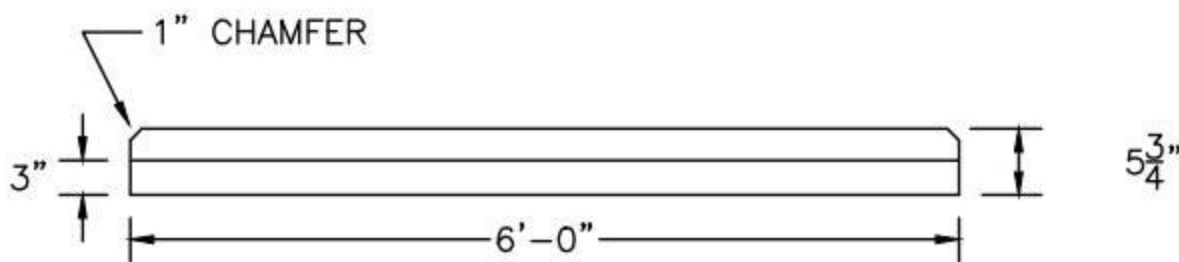
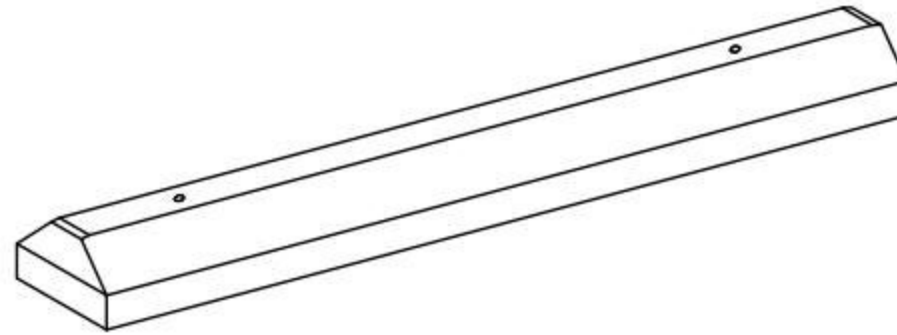
SECTION VIEW

NOTES:

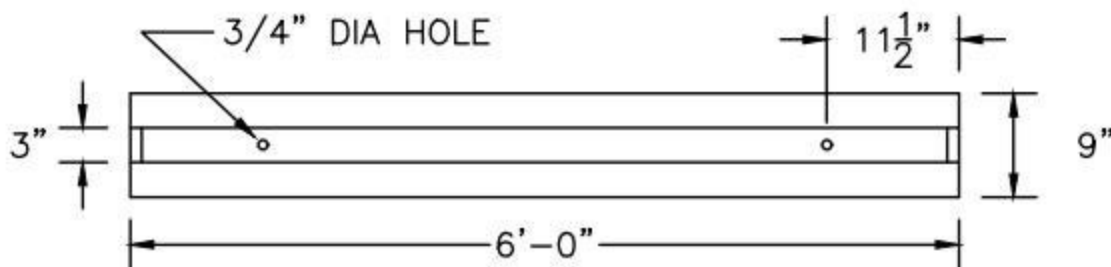
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2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FT.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN. INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.

SHEA PRODUCT ID: VARIES		PREPARED FOR:		FILE NAME: Double Cell Tank.dwg			
WEIGHT (LBS): VARIES		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: I 10
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

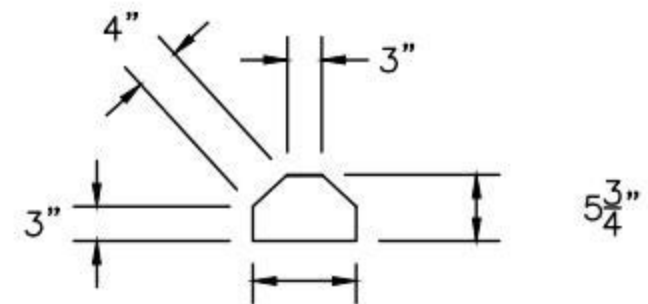
BUMPER CURBING DOUBLE FACE



SIDE VIEW




TOP VIEW



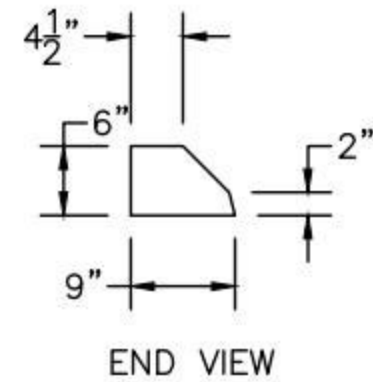
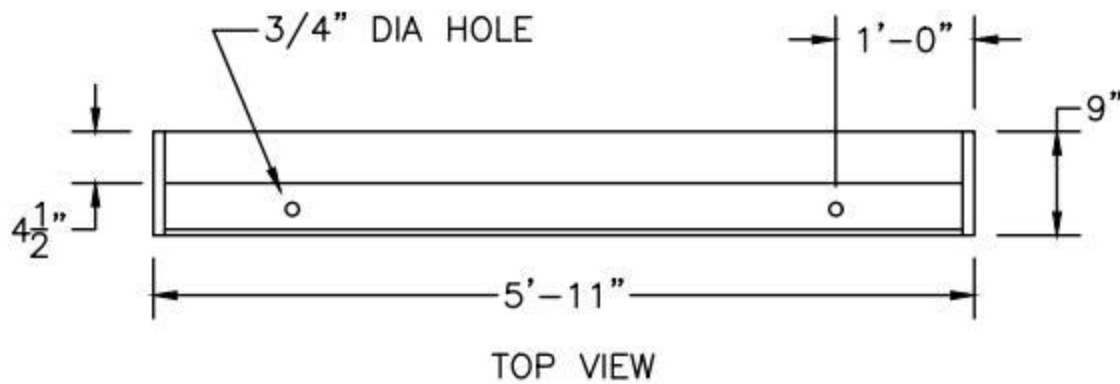
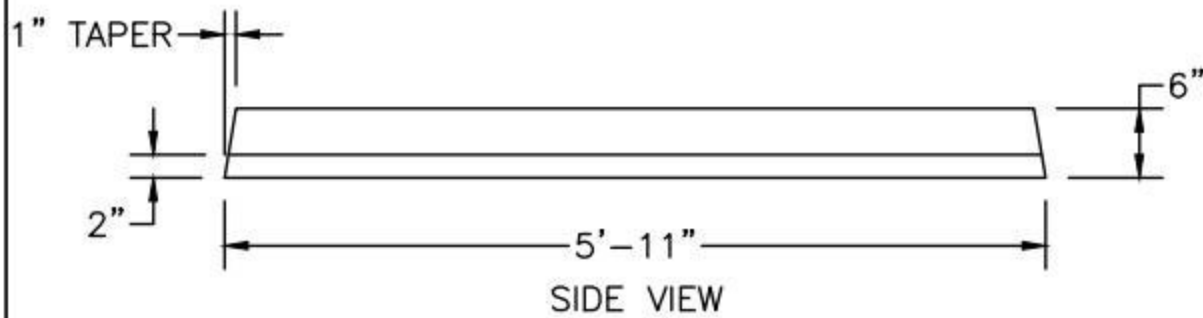
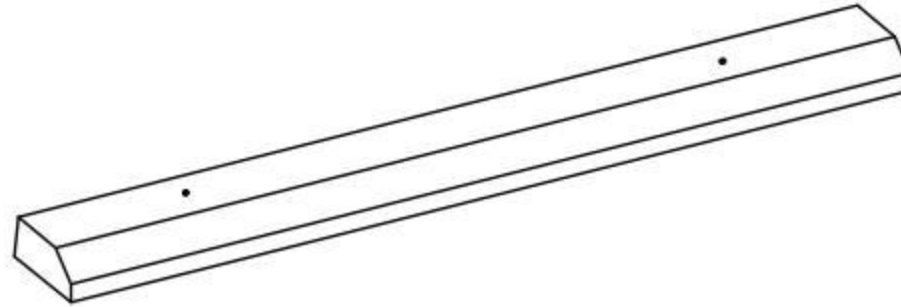
END VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS
2. PINS AVAILABLE.


SHEA PRODUCT ID: BBDF		PREPARED FOR:		FILE NAME: bmpcrbdf.dwg			
WEIGHT (LBS): 270#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: J1
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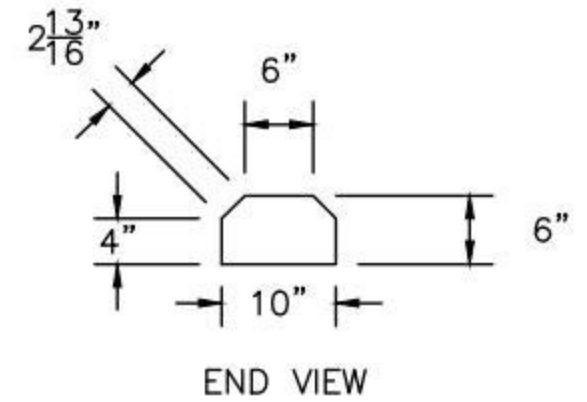
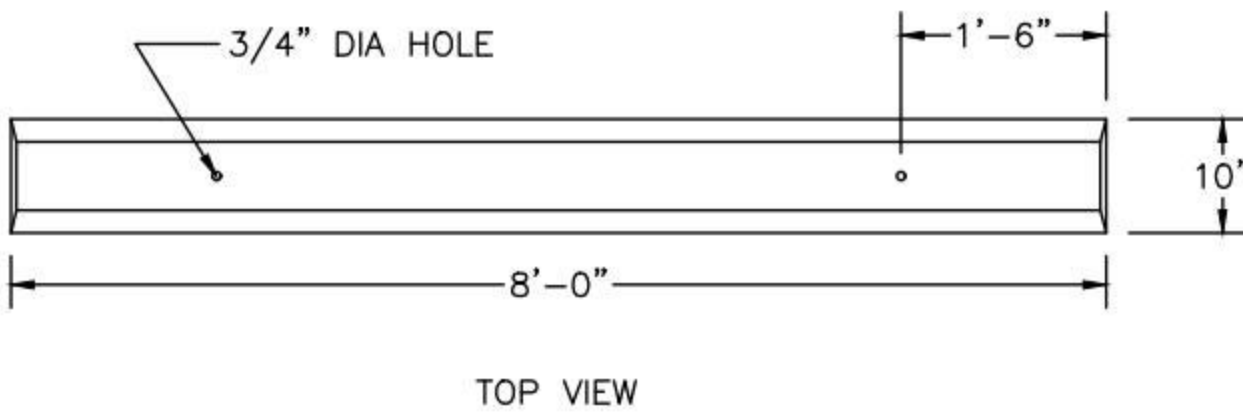
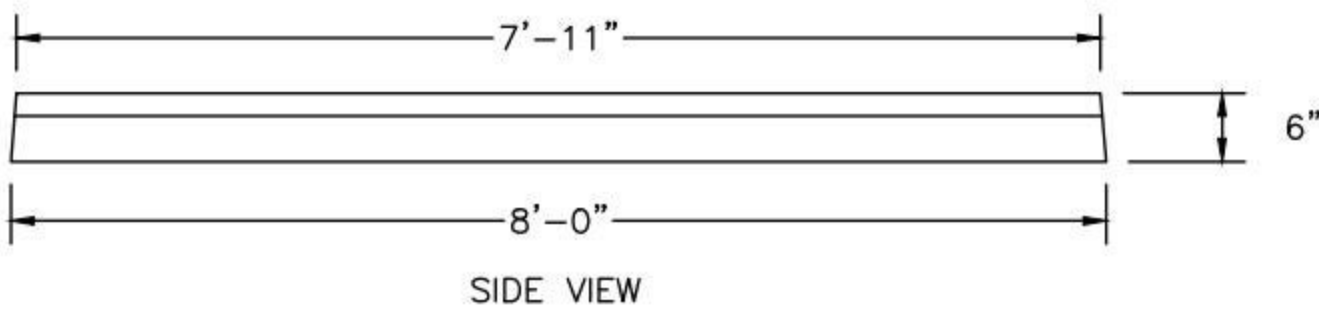
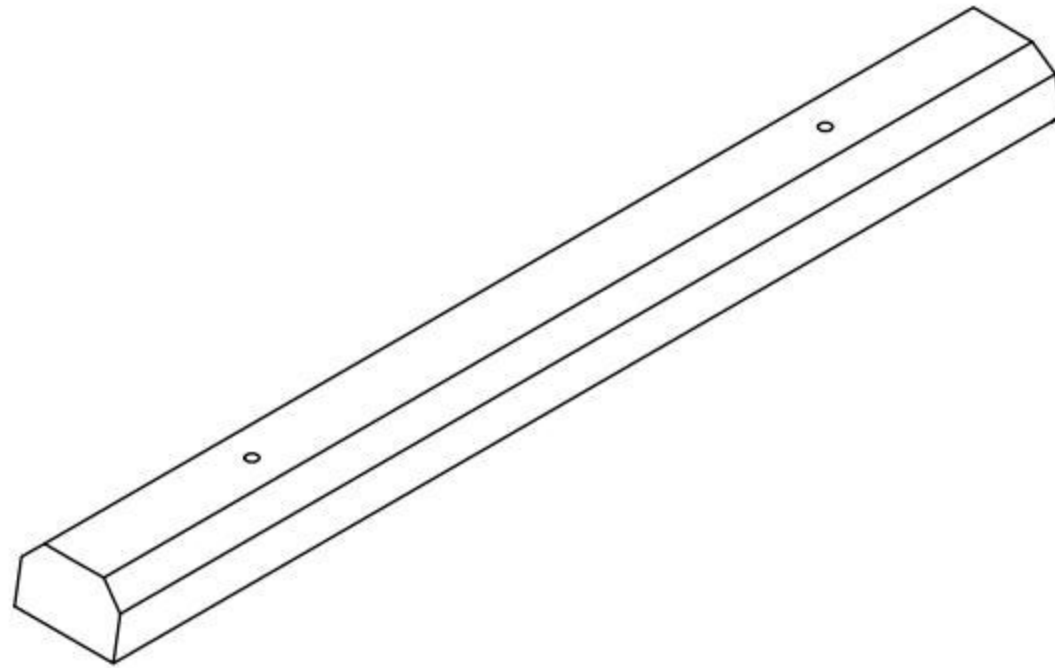
Specifications subject to change without notice



NOTES:


1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. PINS AVAILABLE.

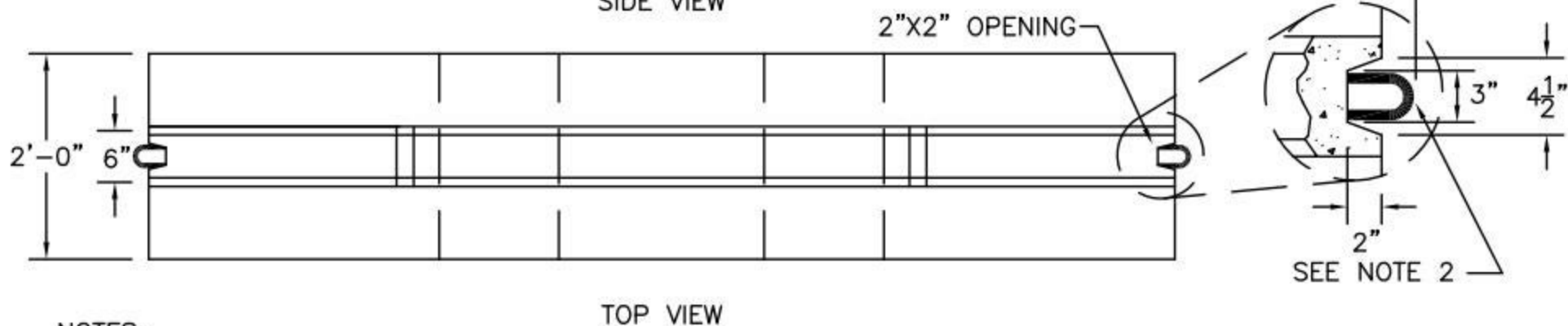
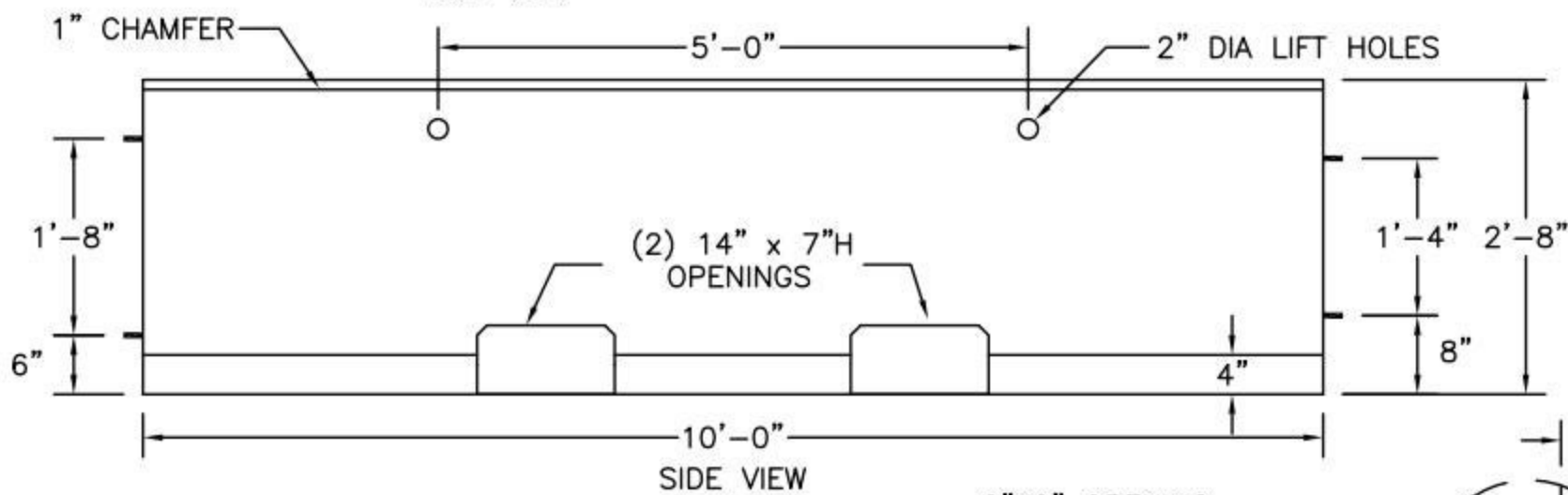
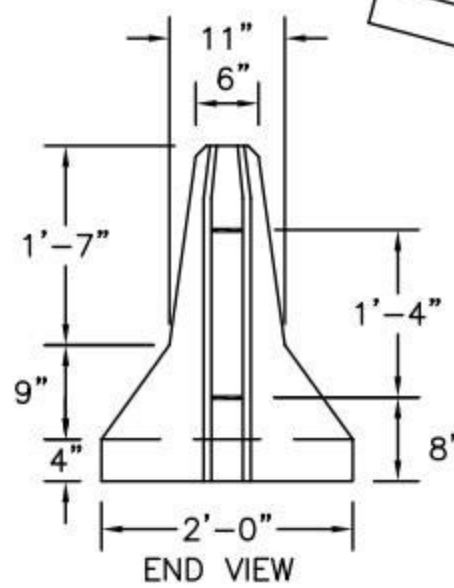
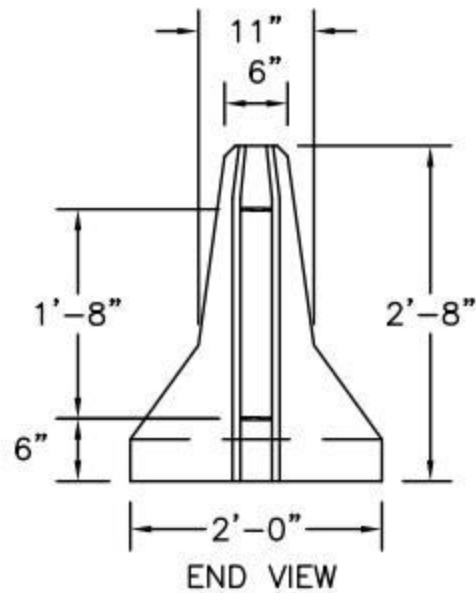
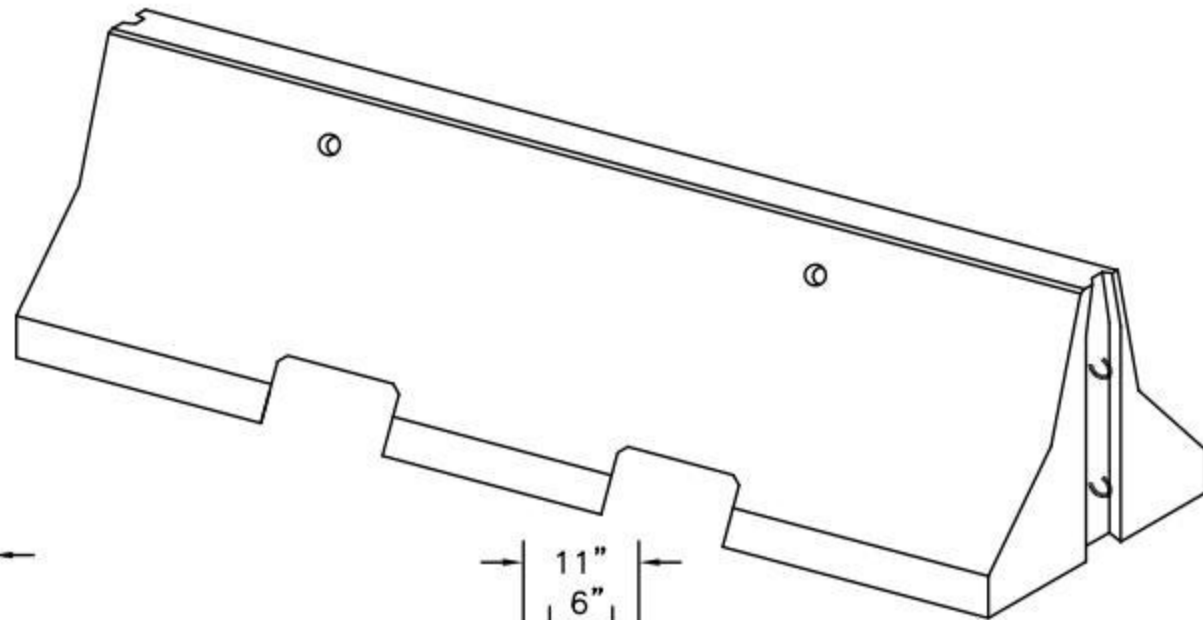
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WEIGHT (LBS): 270#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: J2
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS
2. PINS AVAILABLE.

SHEA PRODUCT ID: TBB		PREPARED FOR:		FILE NAME: bumperhd.dwg			
WEIGHT (LBS): 457#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: J3
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. #5 REBAR BENT TO RECEIVE 1" DIA CONNECTING ROD.
3. LIFTING HOLE ACCEPTS 1 3/4" DIA H.T. ROD.
4. BARRIER RENTAL AVAILABLE.

SHEA PRODUCT ID:
MBDF10

PREPARED FOR:

FILE NAME:

medbardf10.dwg

WEIGHT (LBS):
4,242#

DRAWN BY:

ARO

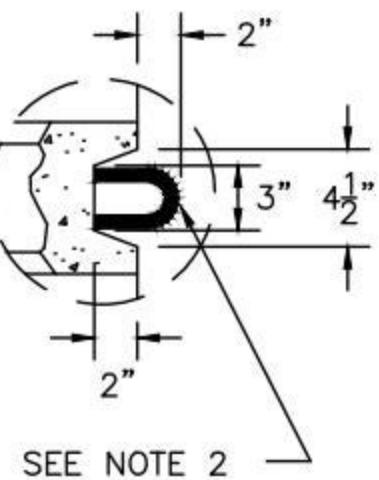
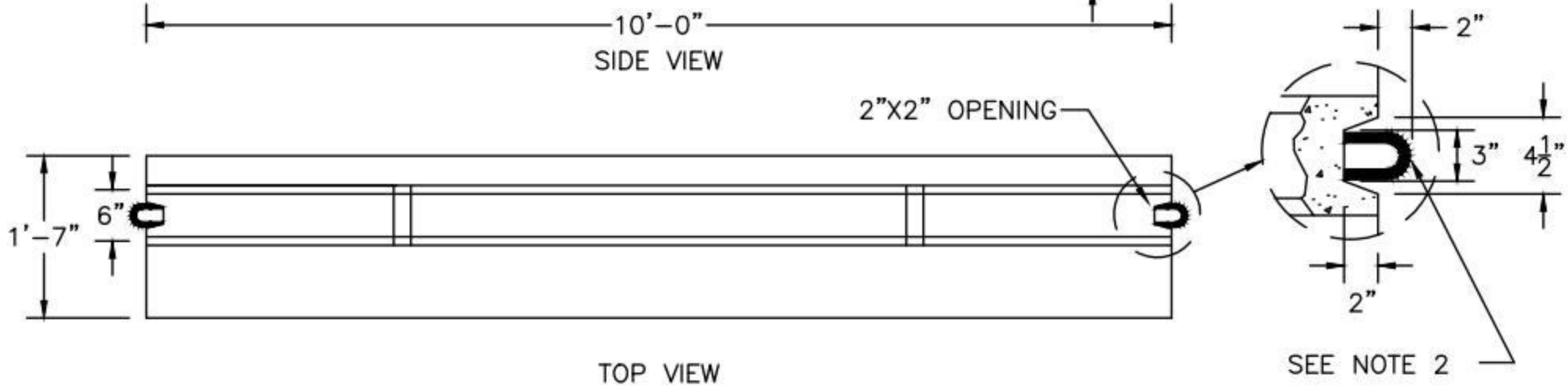
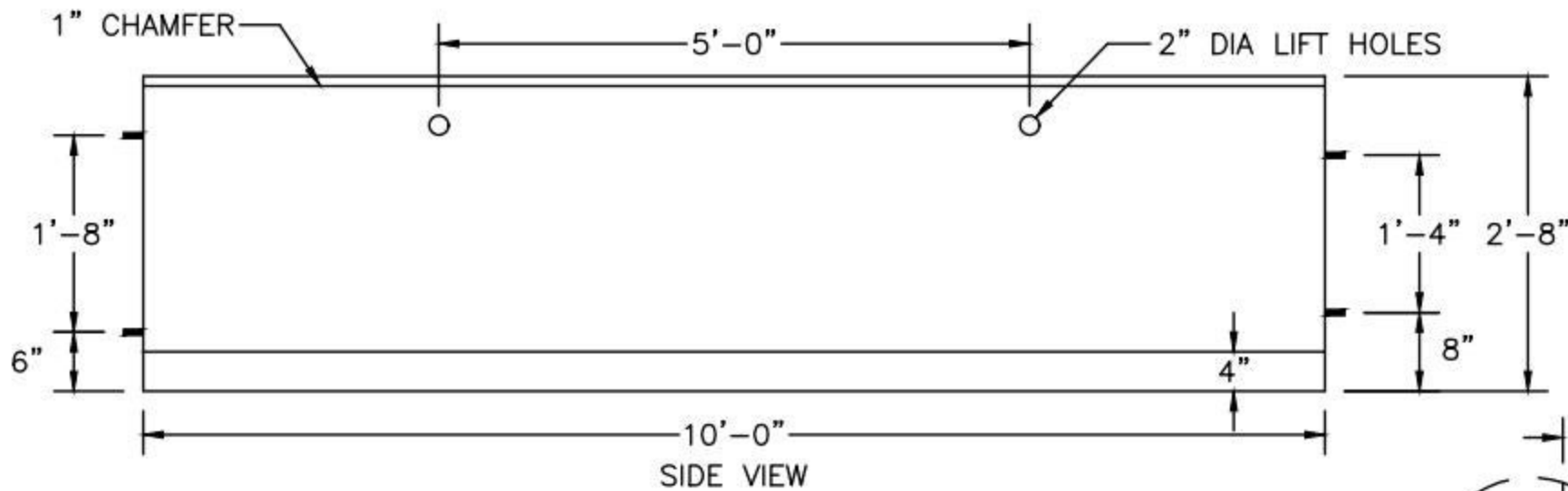
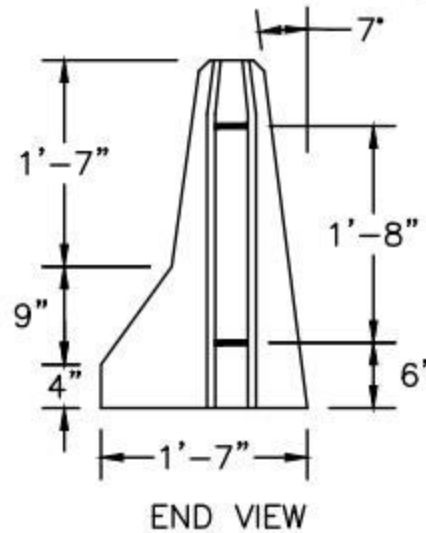
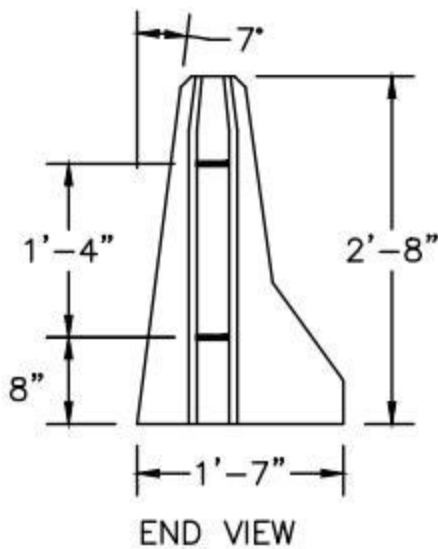
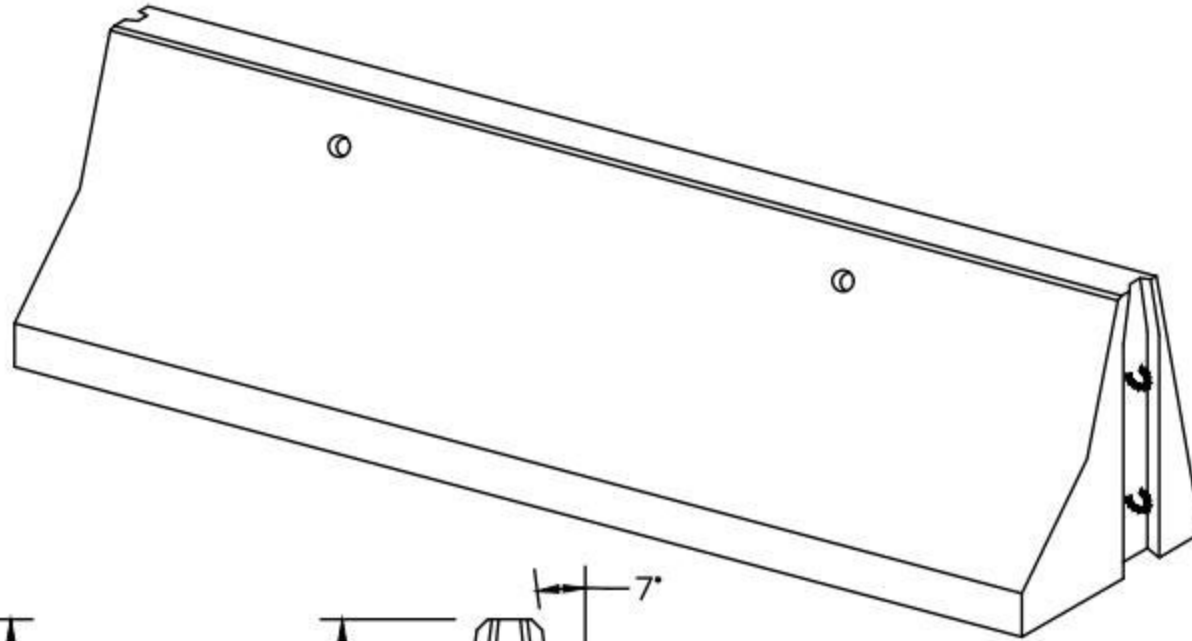
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06/05/2018

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J4.1

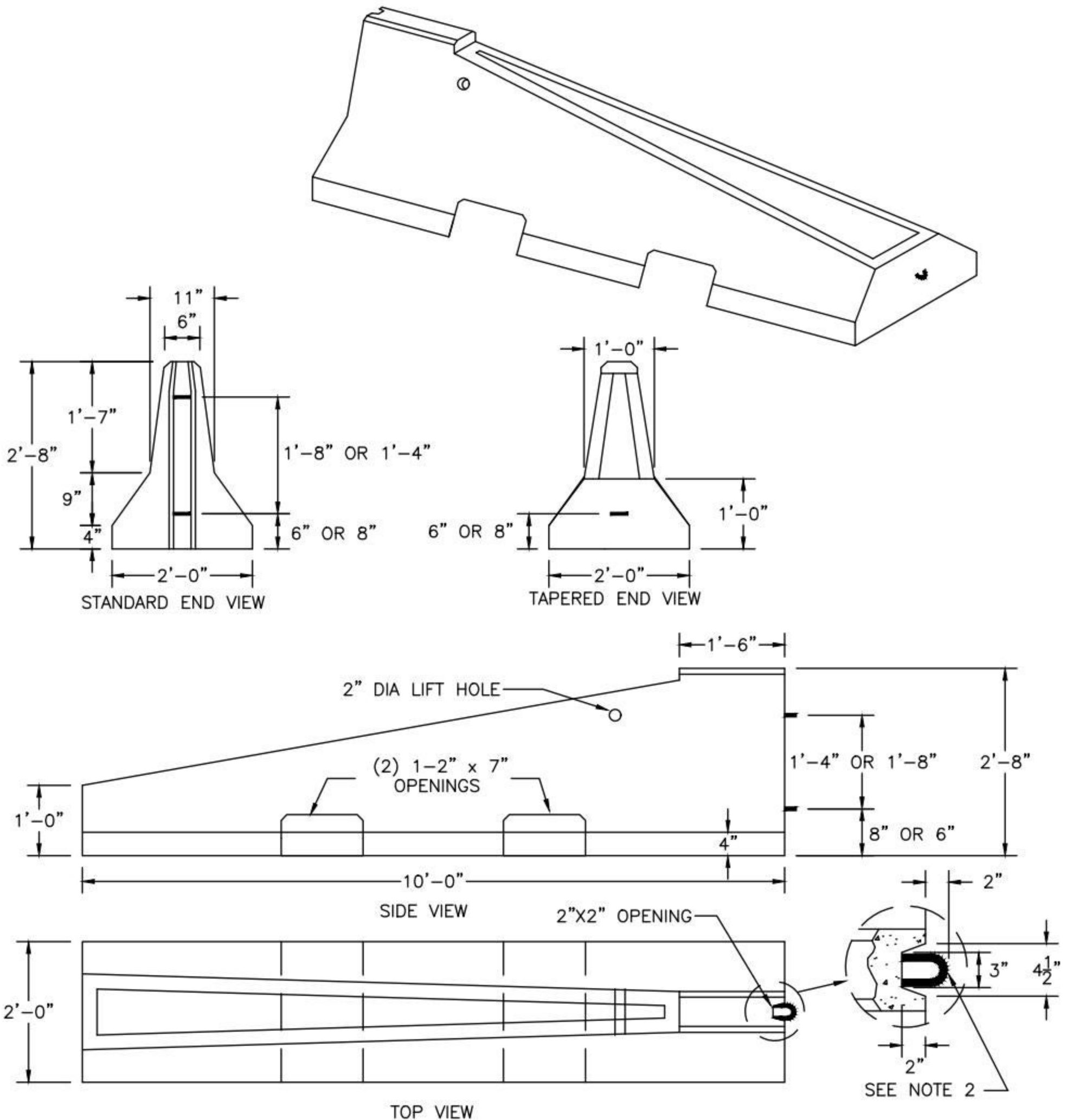




NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. #5 REBAR BENT TO RECEIVE 1" DIA CONNECTING ROD.
3. LIFTING HOLE ACCEPTS 1 3/4" DIA H.T. ROD.
4. BARRIER RENTAL AVAILABLE.

SHEA PRODUCT ID: MBSF10		PREPARED FOR:		FILE NAME: medbarsf10		
WEIGHT (LBS): 3,560#		DRAWN BY: ARO		DATE: 06/01/18		
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH						



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. 5/8" DIA RE-BAR BENT TO RECEIVE 1" DIA CONNECTING ROD.
3. LIFTING HOLE ACCEPTS 1 3/4" DIA H.T. ROD.
4. BARRIER RENTAL AVAILABLE.

SHEA PRODUCT ID:
MBE10

PREPARED FOR:

FILE NAME:

medbartp10.dwg

WEIGHT (LBS):
3,536#

DRAWN BY:
ARO

DATE:
06/01/18

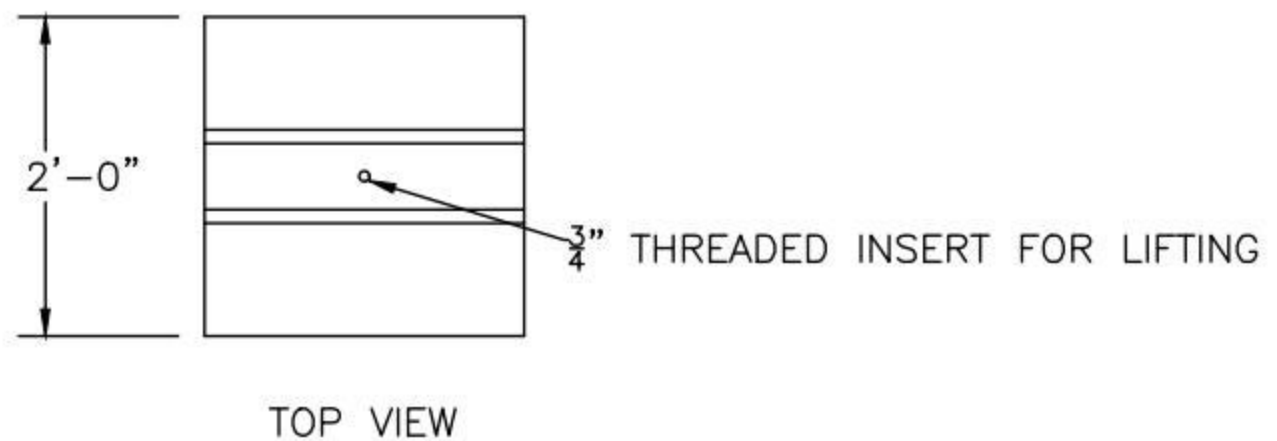
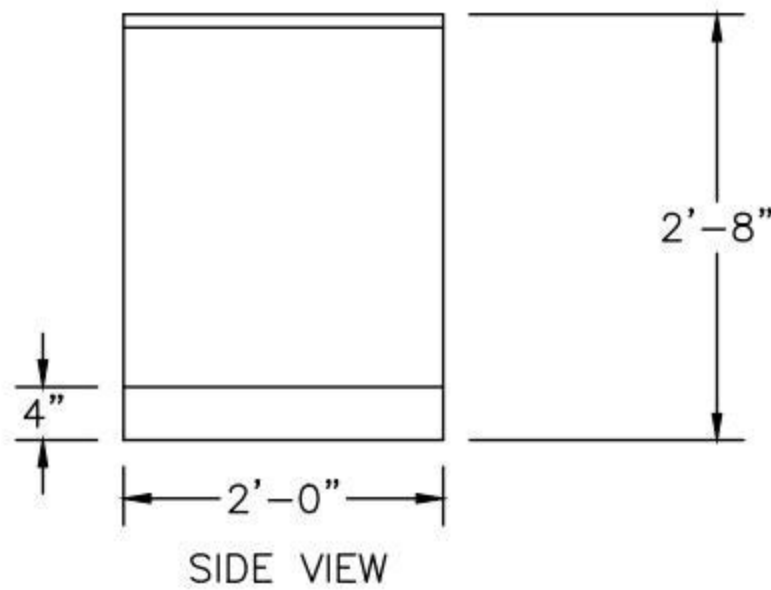
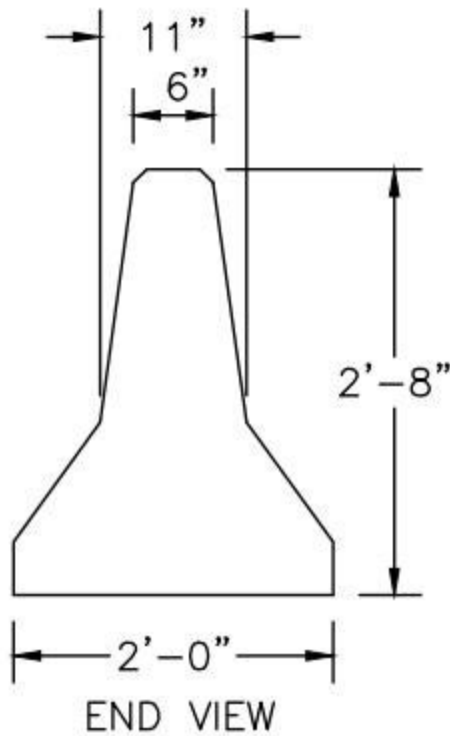
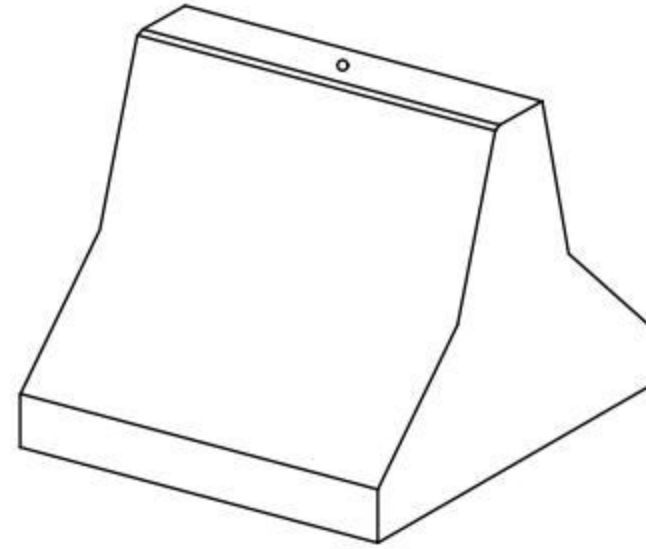
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773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH


Specifications subject to change without notice

MEDIAN BARRIER 2FT DOUBLE FACE



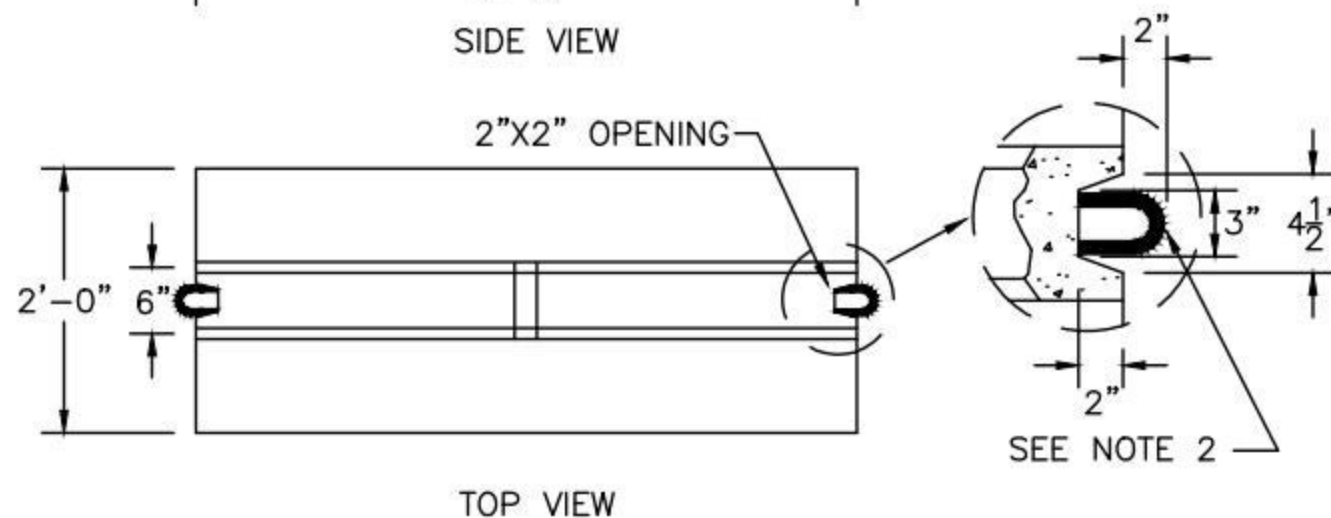
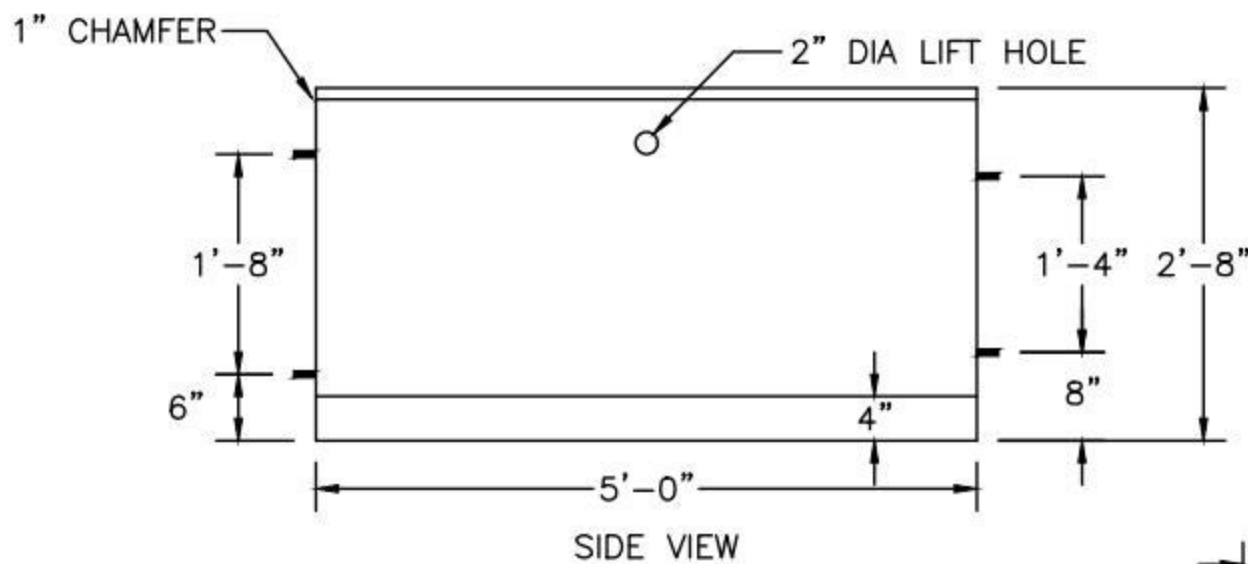
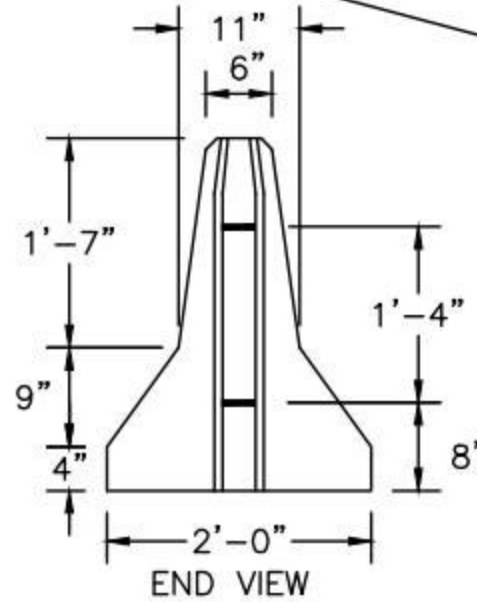
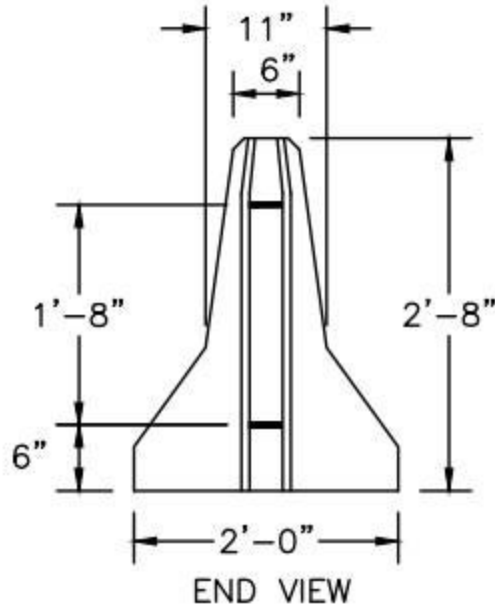
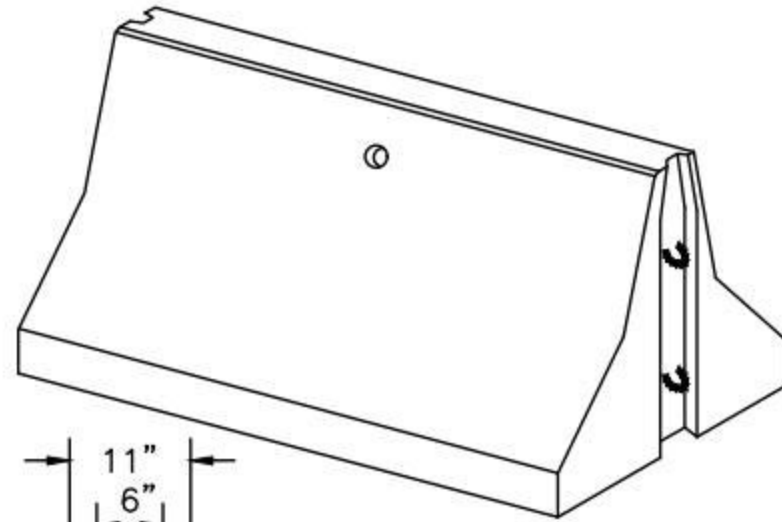
NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.

SHEA PRODUCT ID: MBDF2		PREPARED FOR:		FILE NAME: medbardf2.dwg			
WEIGHT (LBS): 1,050#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: J4.4
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

Specifications subject to change without notice


MEDIAN BARRIER 5FT DOUBLE FACE

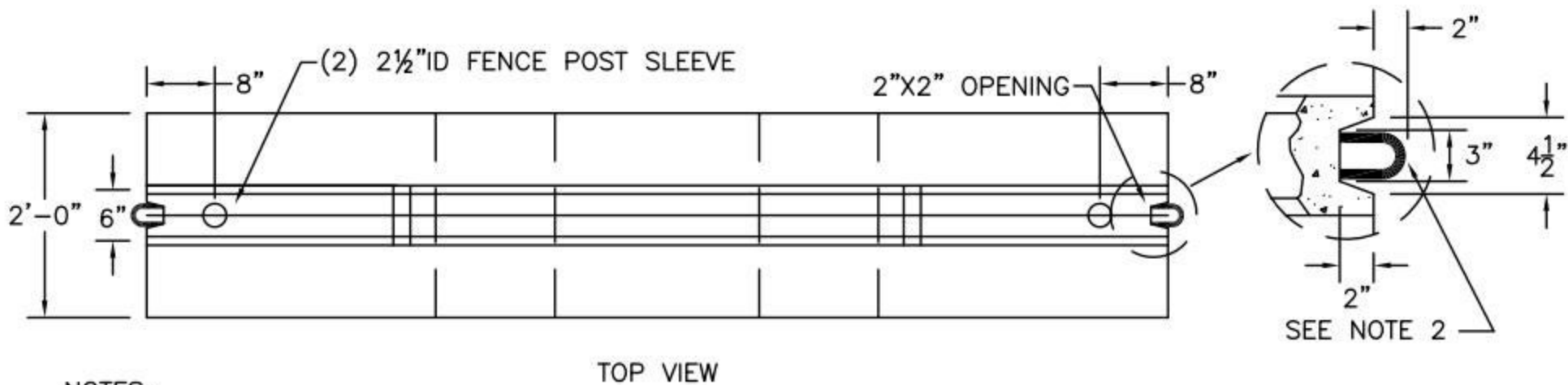
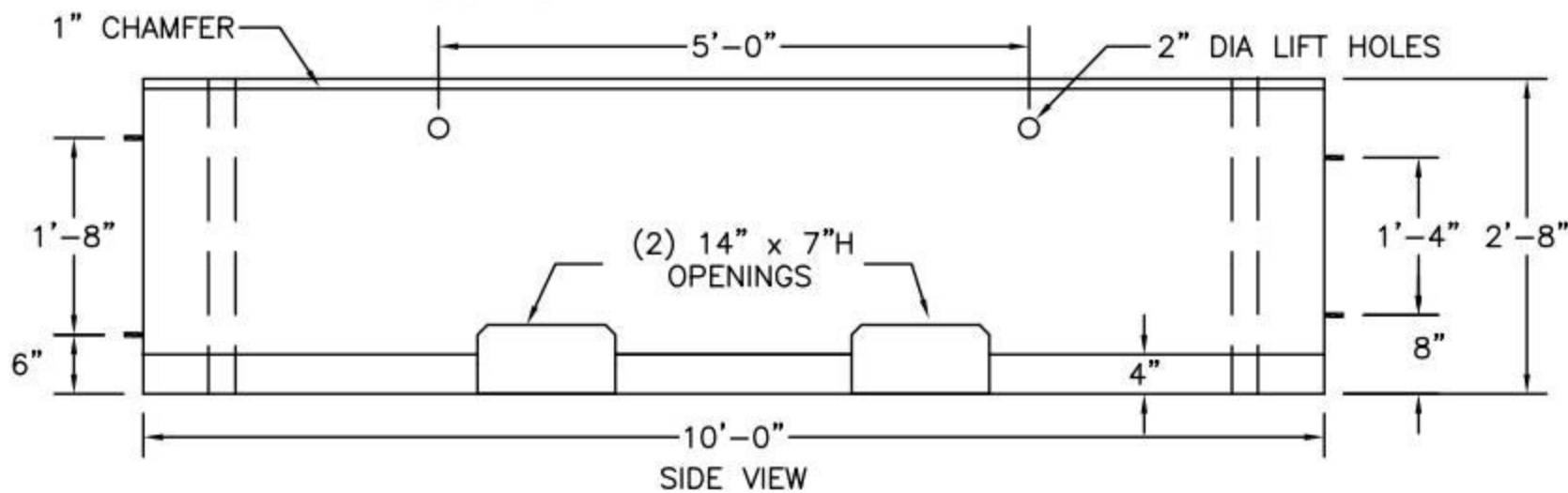
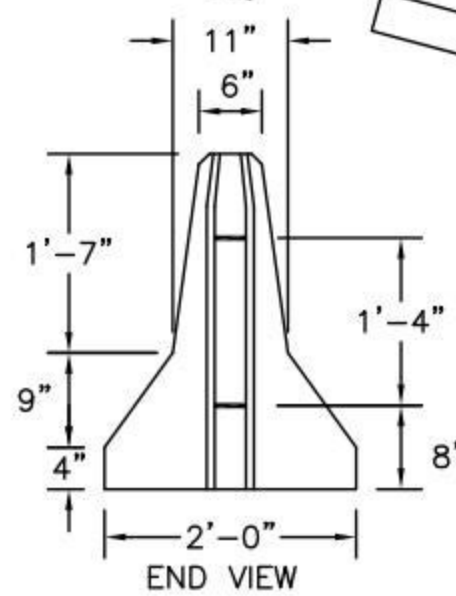
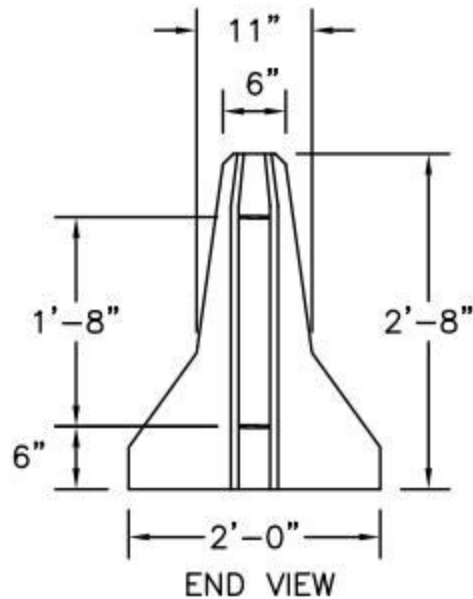
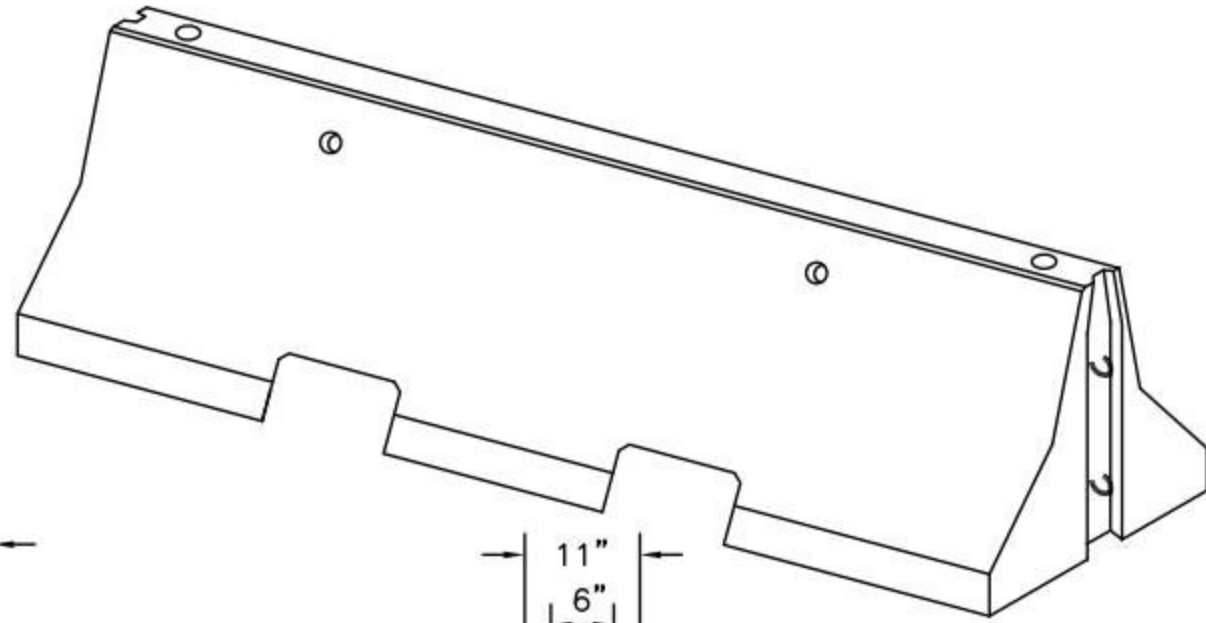


SEE NOTE 2

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. #5 REBAR BENT TO RECEIVE 1" DIA CONNECTING ROD.
3. LIFTING HOLE ACCEPTS 1 3/4" DIA H.T. ROD.
4. BARRIER RENTAL AVAILABLE.

SHEA PRODUCT ID: MBDF5		PREPARED FOR:		FILE NAME: medbardf5.dwg			
WEIGHT (LBS): 2,100#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: J4.5
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. #5 REBAR BENT TO RECEIVE 1" DIA CONNECTING ROD.
3. LIFTING HOLE ACCEPTS 1 3/4" DIA H.T. ROD.
4. BARRIER RENTAL AVAILABLE.

SHEA PRODUCT ID:
MBDF10FP

PREPARED FOR:

FILE NAME:

medbardf10FP.dwg

WEIGHT (LBS):
4,242#

DRAWN BY:

ARO

DATE:

06/05/2018

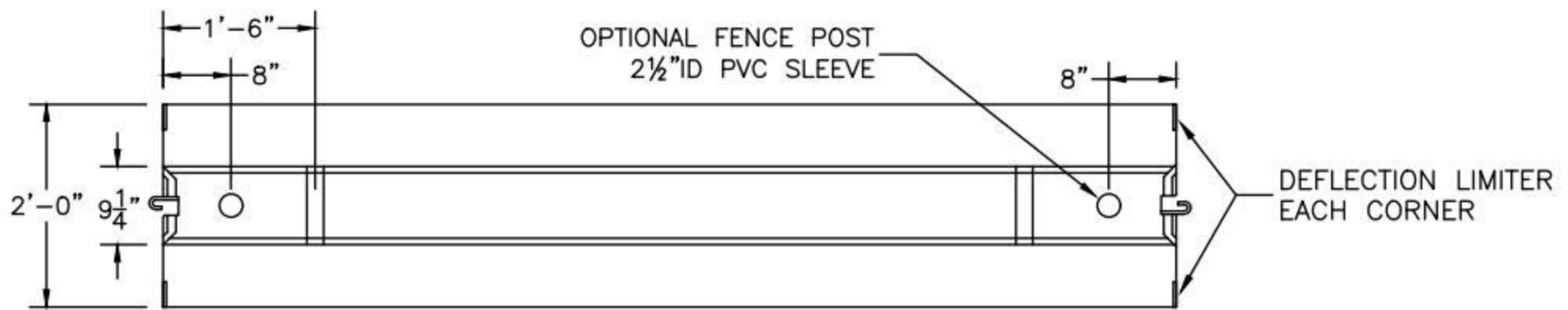
PAGE:

J4.6

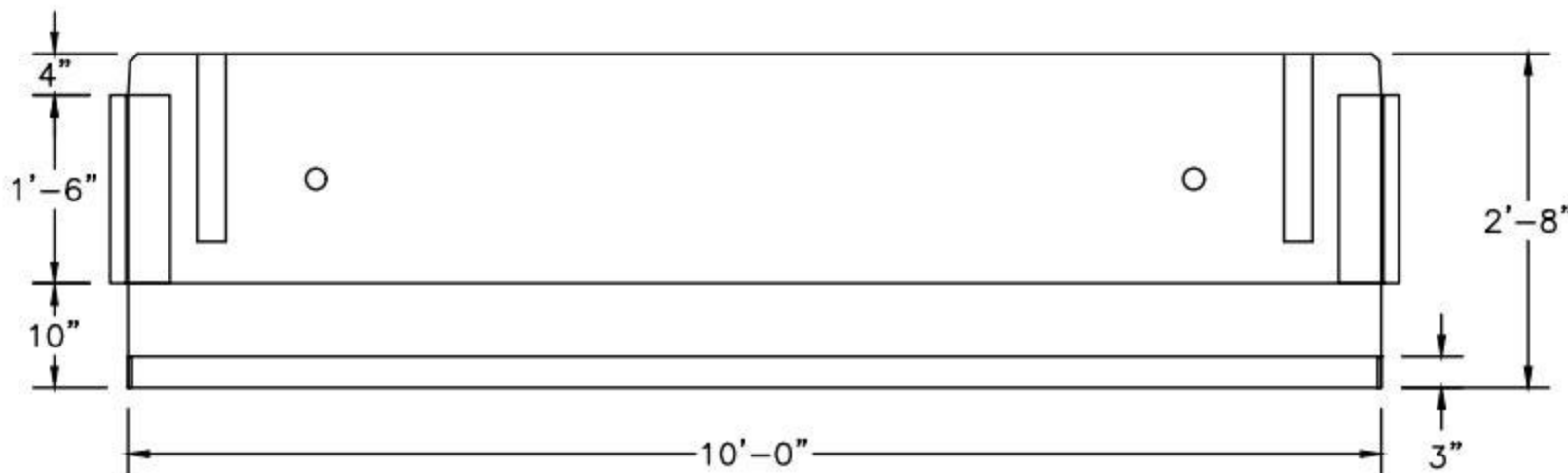


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

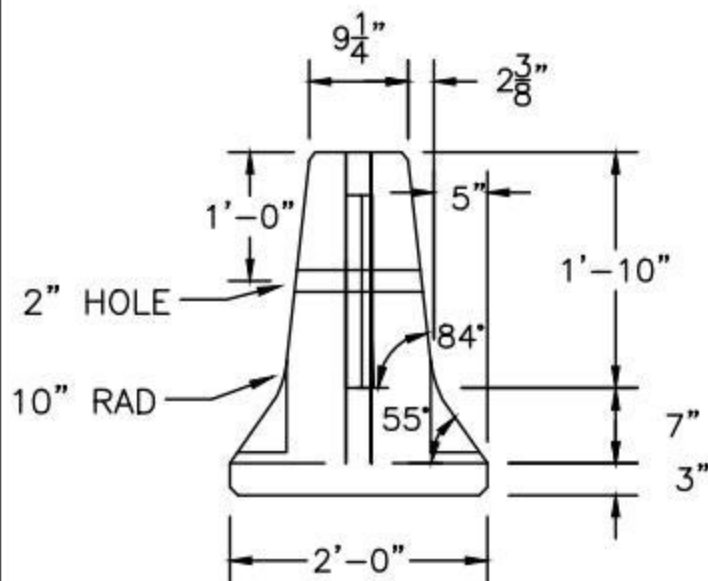
Specifications subject to change without notice



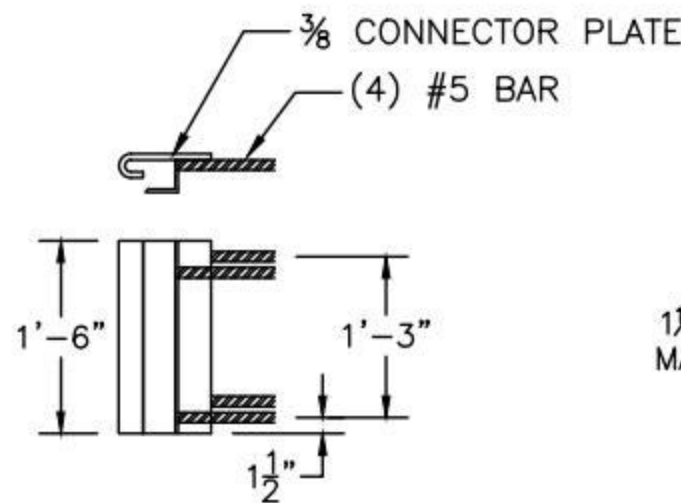
TOP VIEW



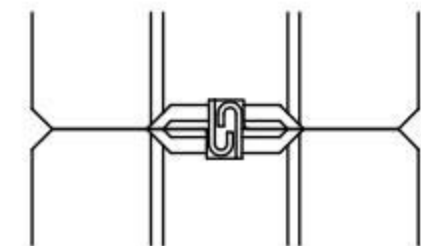
SIDE VIEW



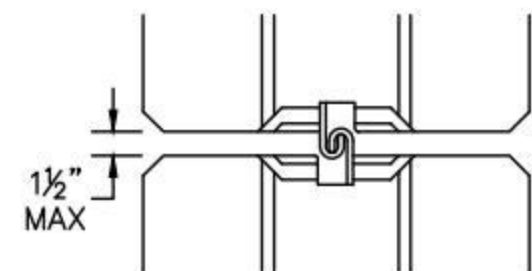
END VIEW



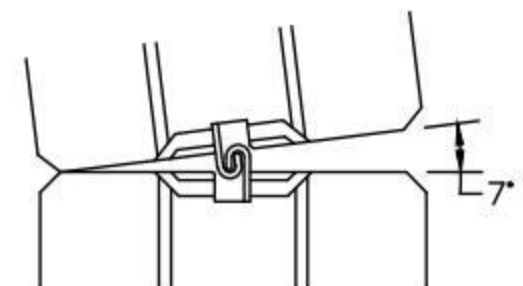
CONNECTOR PLATE DETAIL



CLOSED POSITION




MAXIMUM SEPARATION

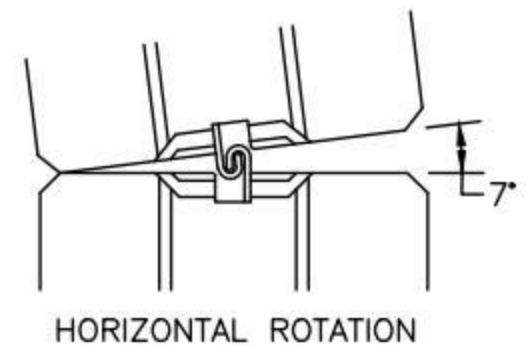
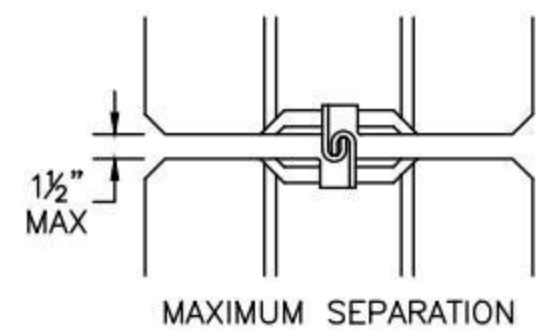
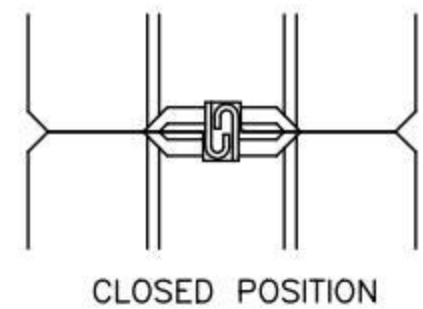
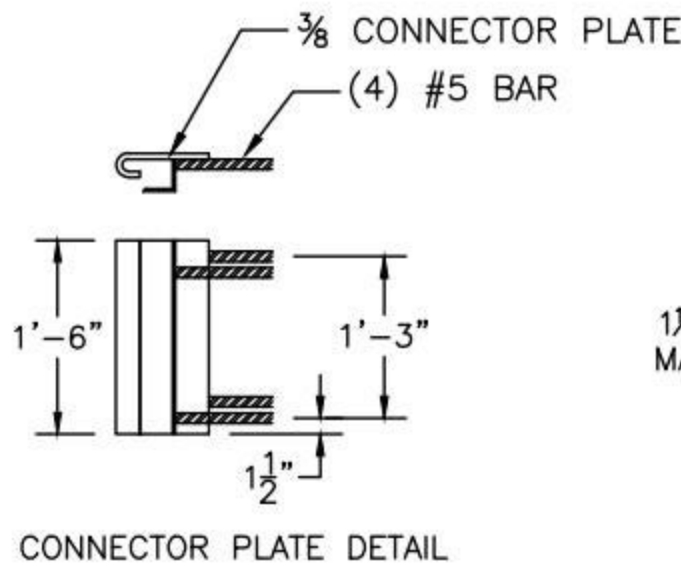
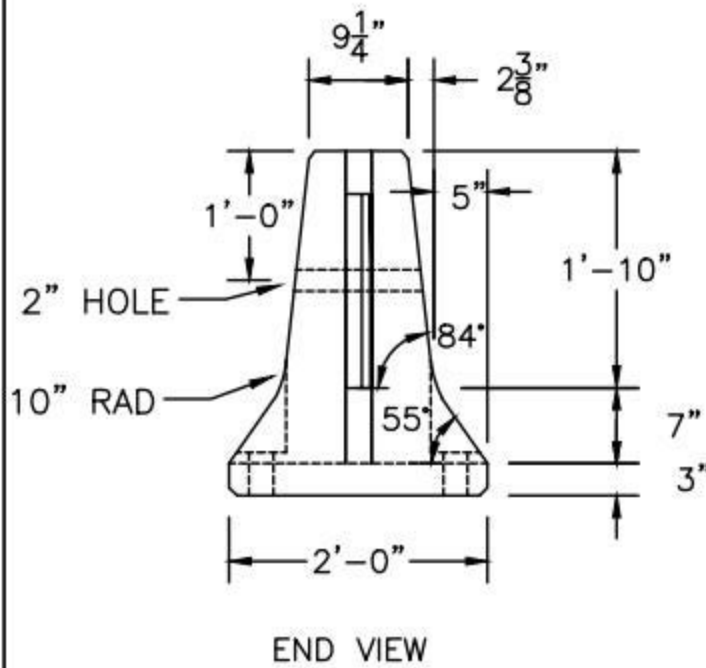
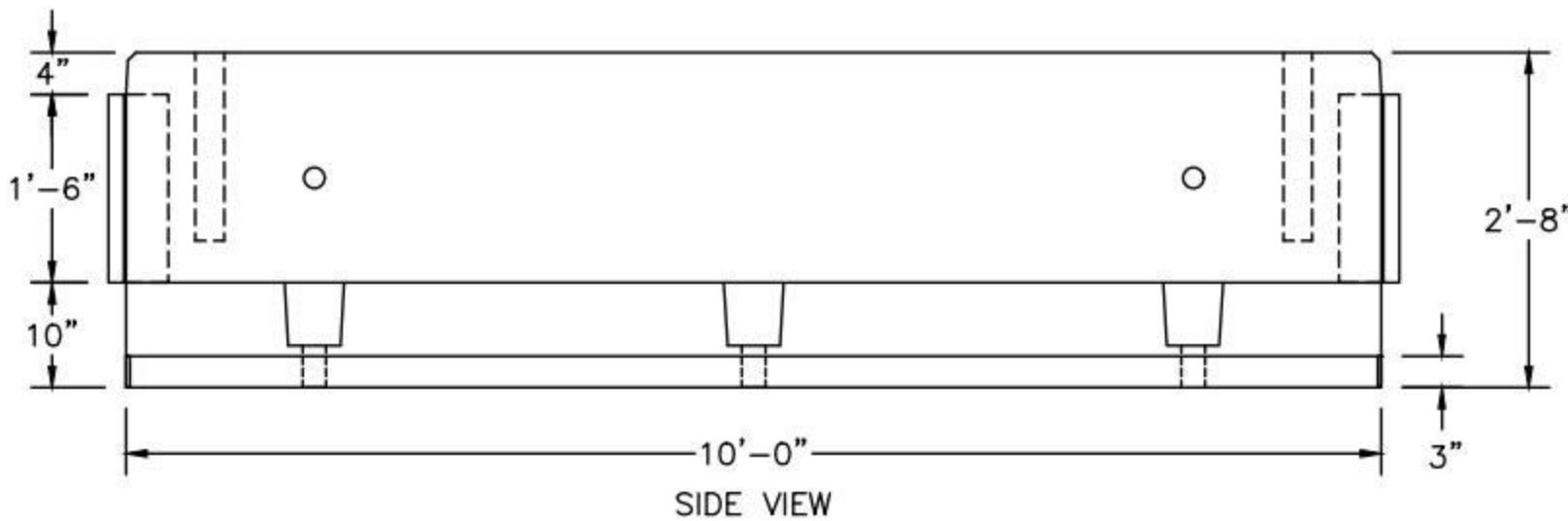
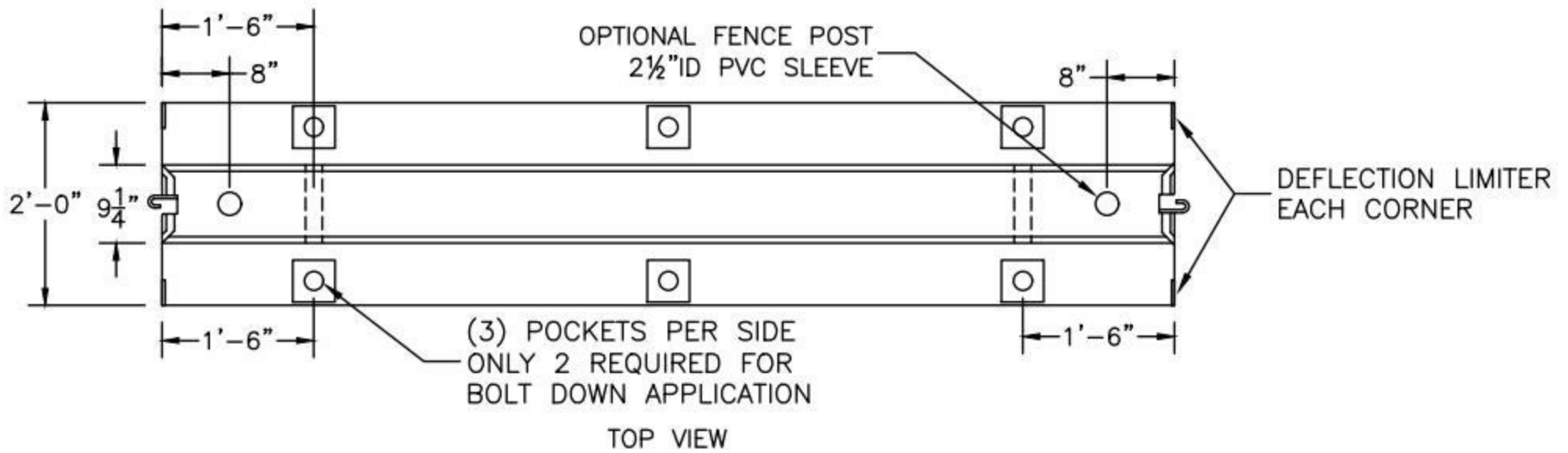


HORIZONTAL ROTATION

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCING REBAR MEETS ASTM A706 GRADE 60, WELDED TO STEEL CONNECTOR PLATES.
3. ALL REINFORCEMENT HOT-DIP GALVANIZED AS REQUIRED.
4. DESIGN: FHWA APPROVED POSITIVE CONNECTION. J-J HOOKS IS ACCEPTED BY FHWA AS A CRASH TESTED AND OPERATIONAL DESIGN FOR USE ON ALL FEDERAL AID HIGHWAY PROJECTS.
5. CERTIFIED MASH, TEST LEVEL 3, CRASH TESTED.
6. INSTALLATION: BARRIERS ARE SELF-ALIGNING WITH NO LOOSE HARDWARE.

SHEA PRODUCT ID: MBDOTDF		PREPARED FOR:		FILE NAME: medbar DOT JJ Temp.dwg		
WEIGHT (LBS): 4,550#		DRAWN BY: ARO		DATE: 03/01/2018		
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH						



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCING REBAR MEETS ASTM A706 GRADE 60, WELDED TO STEEL CONNECTOR PLATES.
3. ALL REINFORCEMENT HOT-DIP GALVANIZED AS REQUIRED.
4. DESIGN: FHWA APPROVED POSITIVE CONNECTION. J-J HOOKS IS ACCEPTED BY FHWA AS A CRASH TESTED AND OPERATIONAL DESIGN FOR USE ON ALL FEDERAL AID HIGHWAY PROJECTS.
5. CERTIFIED MASH, TEST LEVEL 3, CRASH TESTED.
6. FOR BOLT DOWN APPLICATION ONLY (2) BOLTS REQUIRED. INCLUDES (2) HILTI BOLT KITS TO BE INSTALLED ON THE TRAFFIC SIDE OF BARRIER.
7. INSTALLATION: BARRIERS ARE SELF-ALIGNING WITH NO LOOSE HARDWARE.

SHEA PRODUCT ID:
MBDOTDFBD

PREPARED FOR:

FILE NAME:
medbar DOT JJ Temp Bolt Down.dwg

WEIGHT (LBS):
4,550#

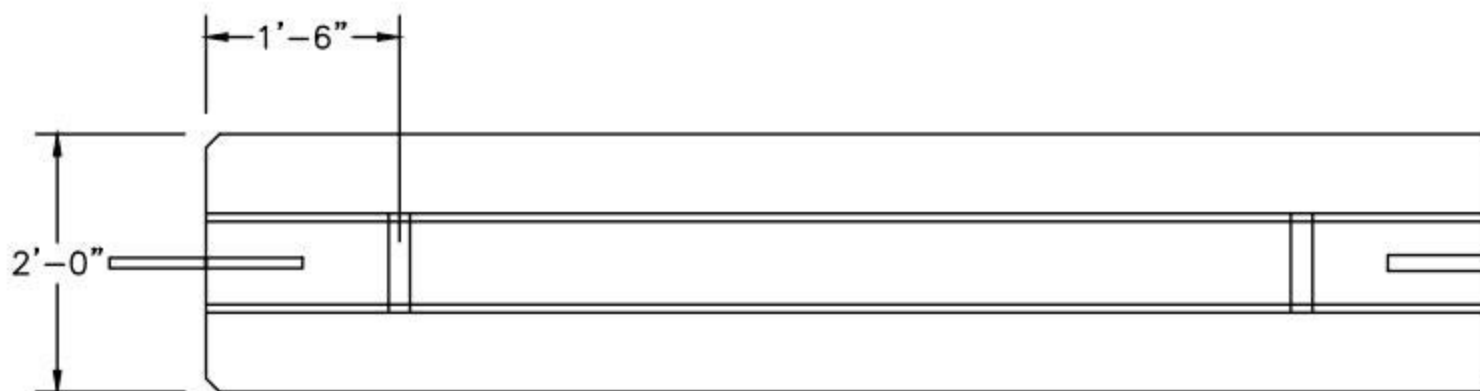
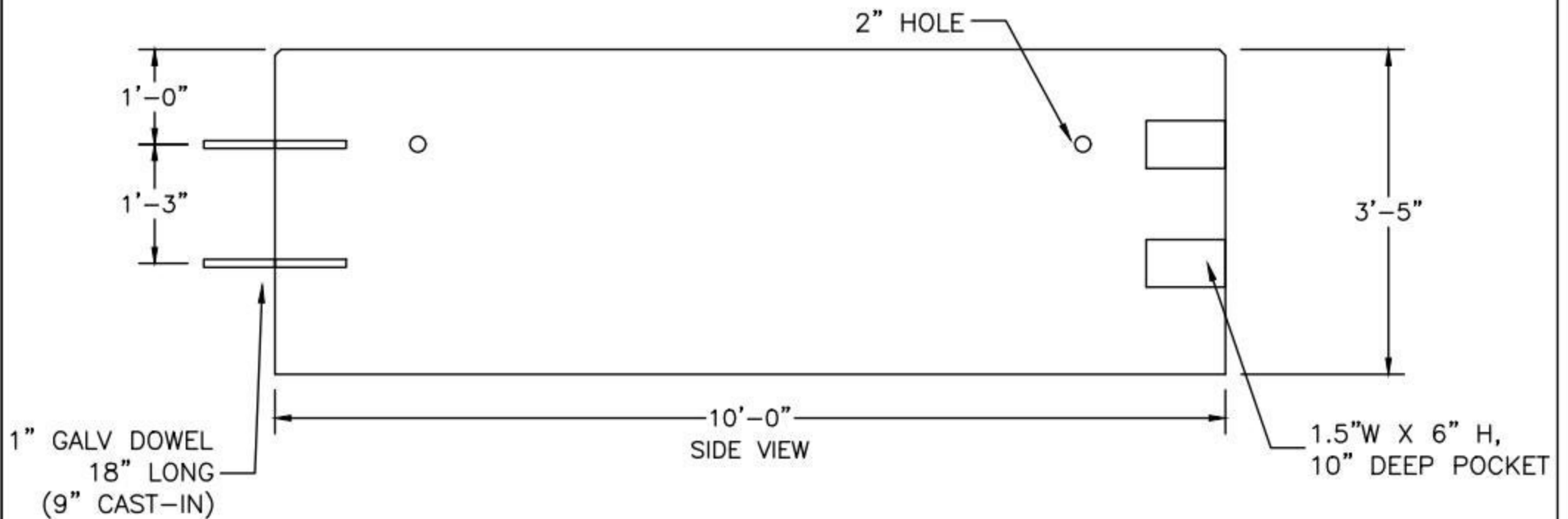
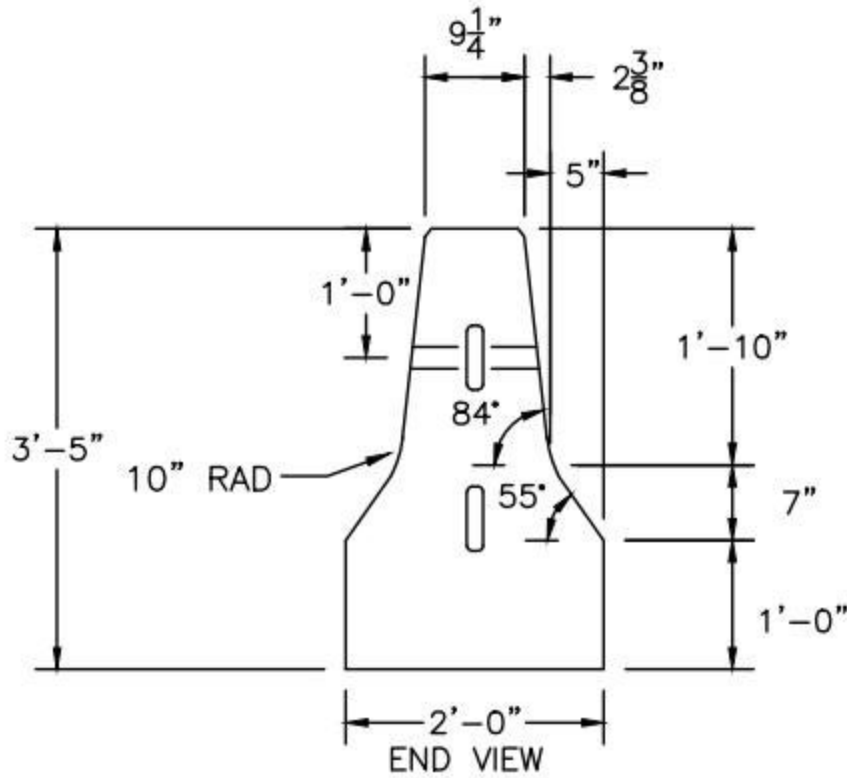
DRAWN BY:
ARO

DATE:
03/01/2018

PAGE:
J4.7-2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. FOR DOWEL CONNECTION REFER TO MADOT E 402.13.0
3. FOR REINFORCING SEE MADOT E 402.11.0 FOR SYMMETRICAL SHAPE.
4. REINFORCEMENT AVAILABLE AS EPOXY AND/OR HOT-DIP GALVANIZED.

SHEA PRODUCT ID:
MBTFDF10

PREPARED FOR:

FILE NAME:
medbar Symmetrical.dwg

WEIGHT (LBS):
6,725#

DRAWN BY:
ARO

DATE:
03/01/2018

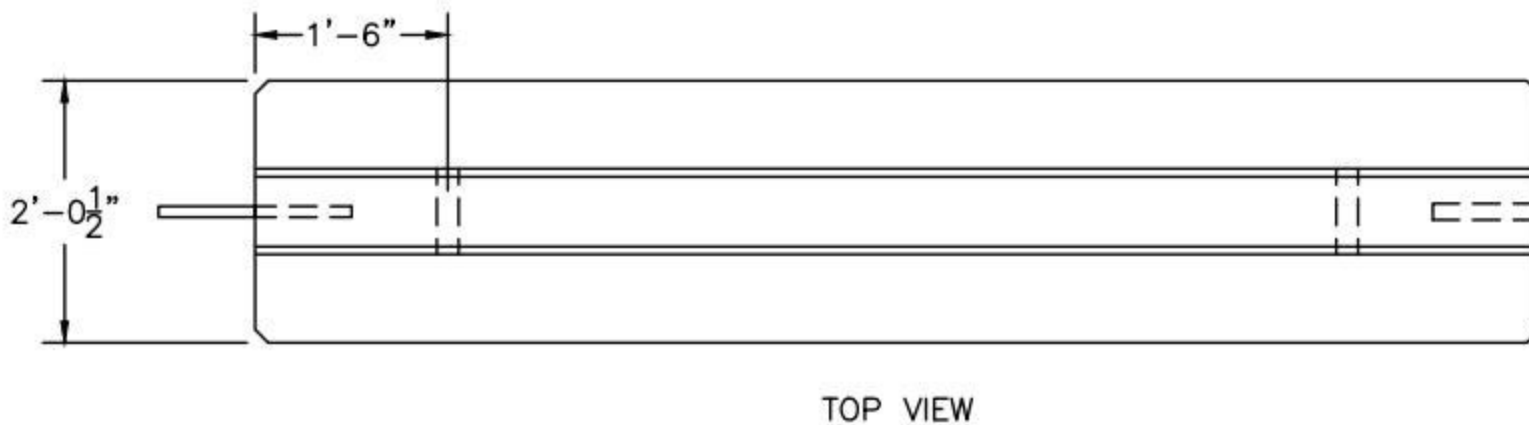
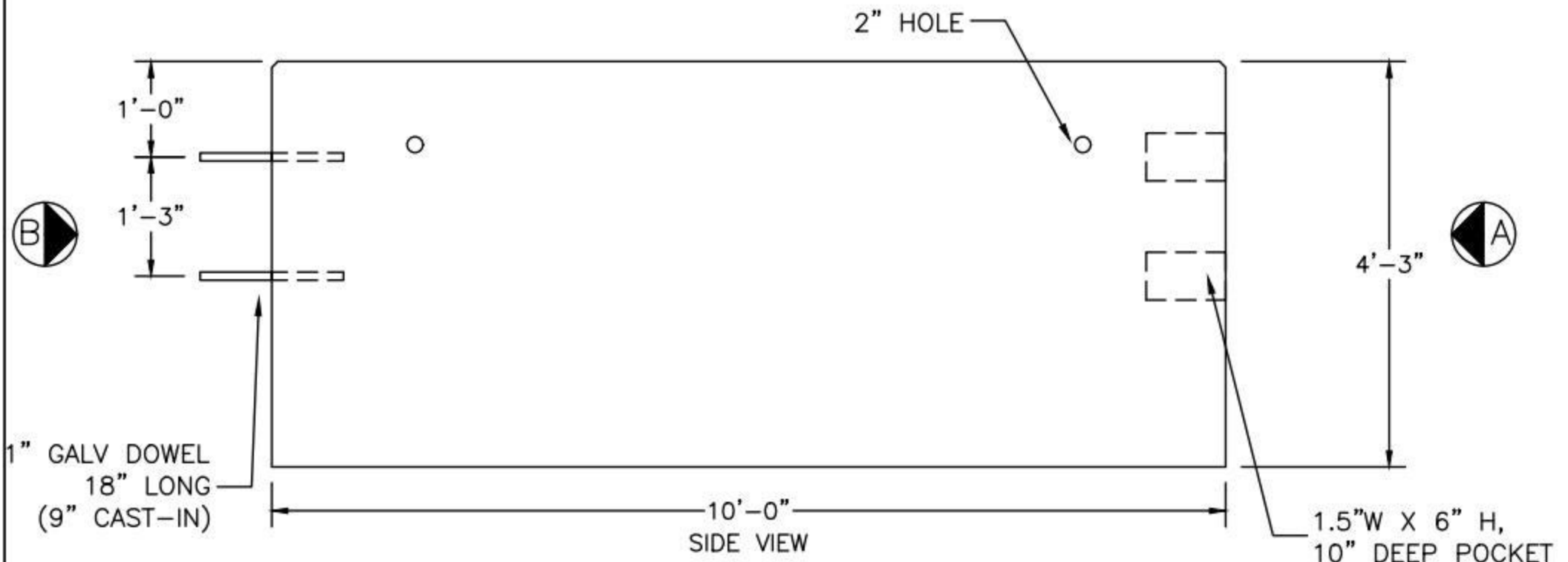
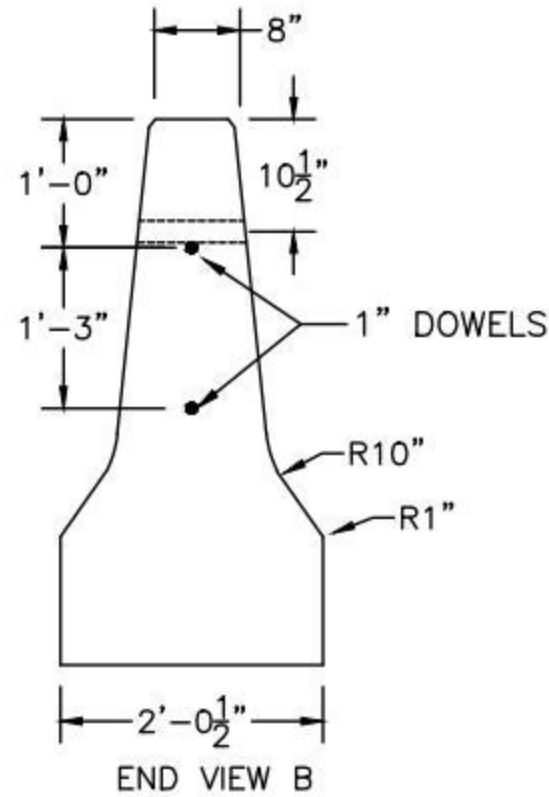
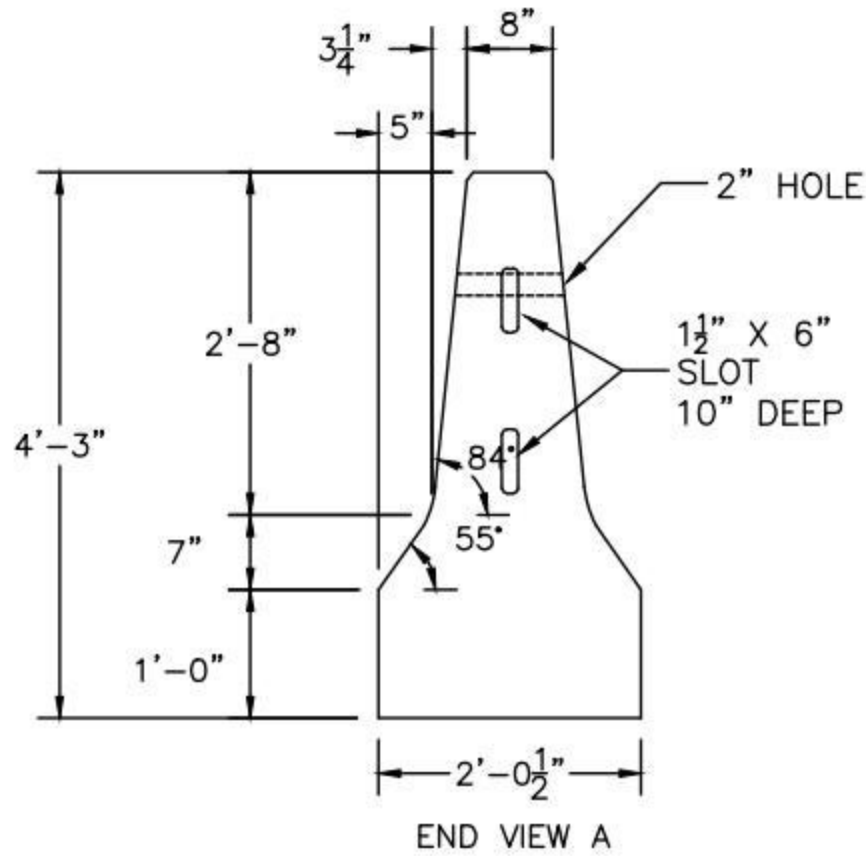
PAGE:
J4.8-1



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

MEDIAN BARRIER F SHAPE 51" TALL-SYMMETRICAL



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. FOR DOWEL CONNECTION REFER TO MADOT E 402.13.0
3. FOR REINFORCING SEE MADOT E 402.11.0 FOR SYMMETRICAL SHAPE.

SHEA PRODUCT ID:
MBTFDF10-51

PREPARED FOR:

FILE NAME:
medbar Symmetrical Tall.dwg

WEIGHT (LBS):
8,000#

DRAWN BY:
ARO

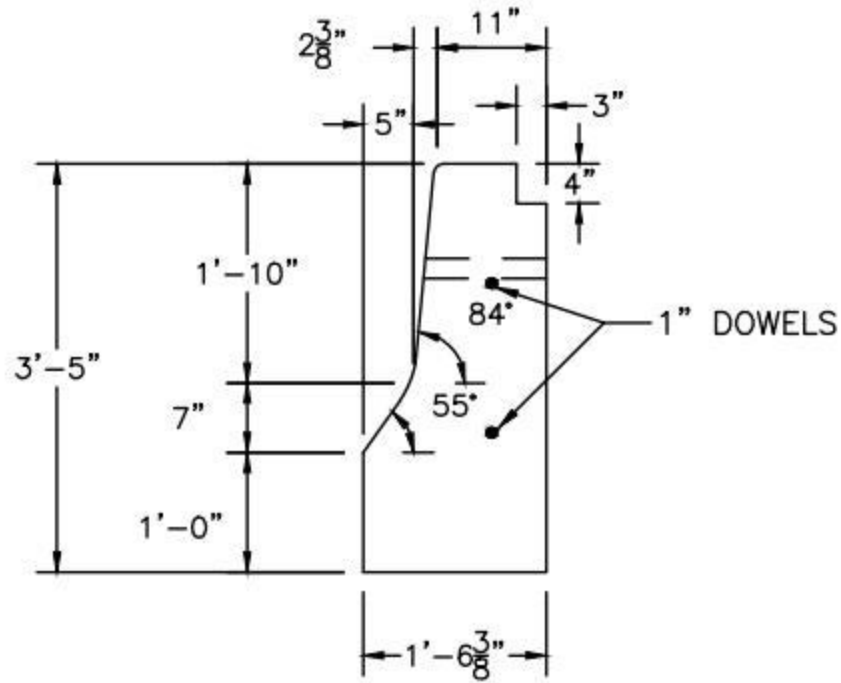
DATE:
03/01/2018

PAGE:
J4.8-2

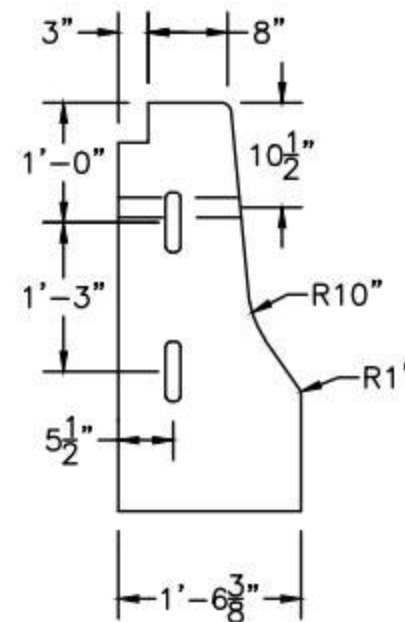


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

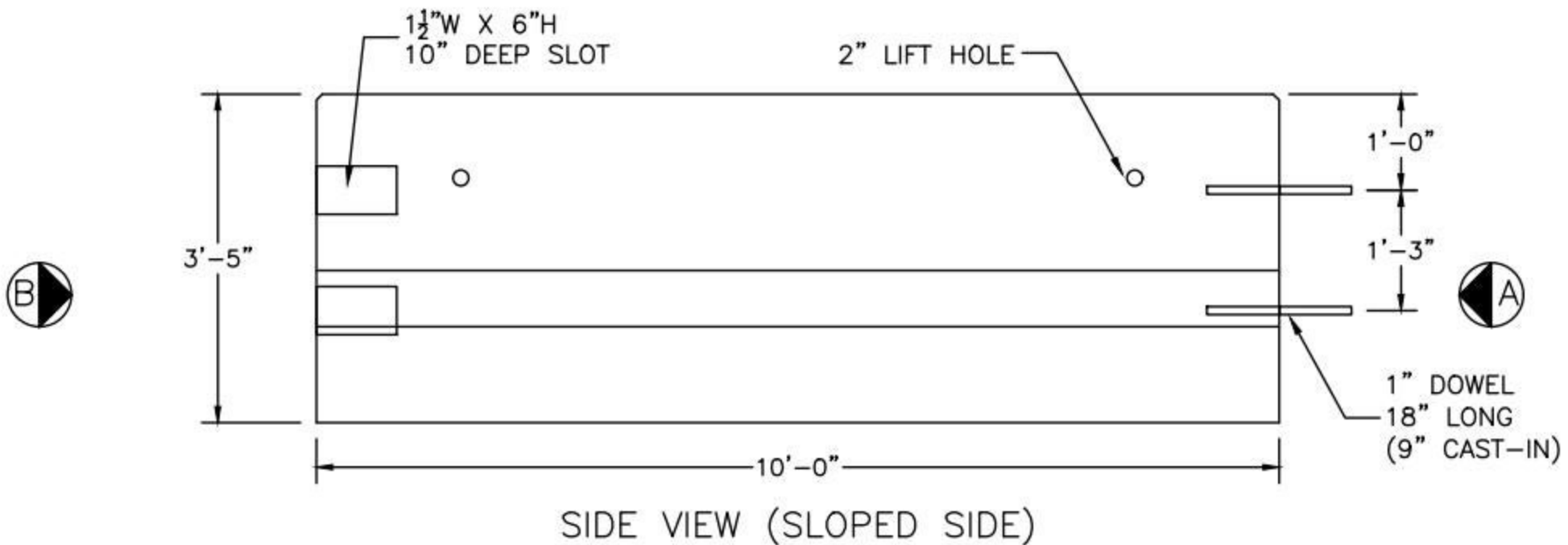
Specifications subject to change without notice



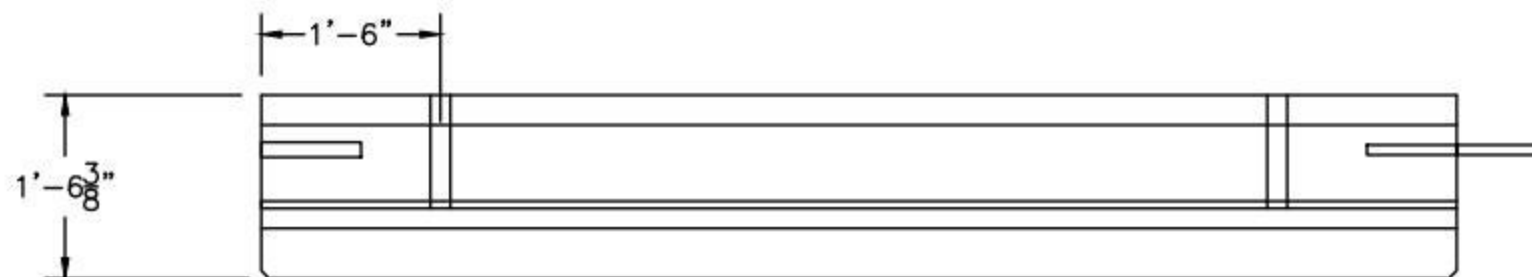
END VIEW A



END VIEW B



SIDE VIEW (SLOPED SIDE)



TOP VIEW

NOTES:

- 1) CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
- 2) DOWELS 1" DIA 18" LONG SMOOTH BAR GALVANIZED, AASHTO-M31, GRADE 60.
- 3) MINIMUM COVER OF 1 1/2" UNLESS OTHERWISE SPECIFIED.
- 4) REINFORCEMENT TO BE GALVANIZED OR EPOXY COATED, AASHTO-M31, GRADE 60.
- 5) BARRIERS CURED USING STARSEAL 1315 CURING COMPOUND/SEALER, MEETS REQUIREMENTS OF ASTM C1315 TYPE 1 CLASS A.
- 6) INSPECTION TO BE PERFORMED BY THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION OR DESIGNATED REPRESENTATIVE.
- 7) ITEM NO TP-MBFSSFNS. WEIGHT 5,900LBS.

SHEA PRODUCT ID:
MBTFSF10-41SLAB

PREPARED FOR:

FILE NAME:

medbarsf10nslab.dwg

WEIGHT (LBS):
5,900#

DRAWN BY:
ARO

DATE:
06/01/18

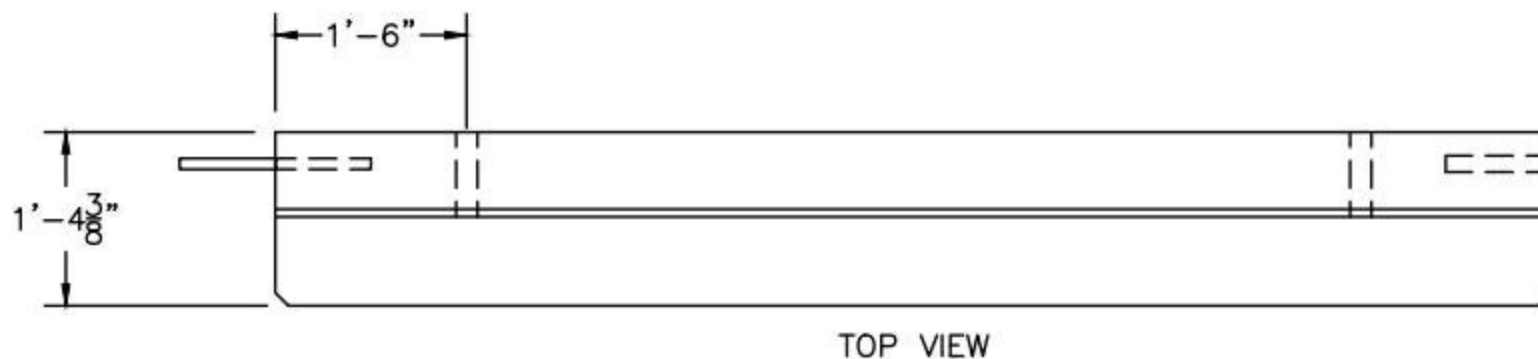
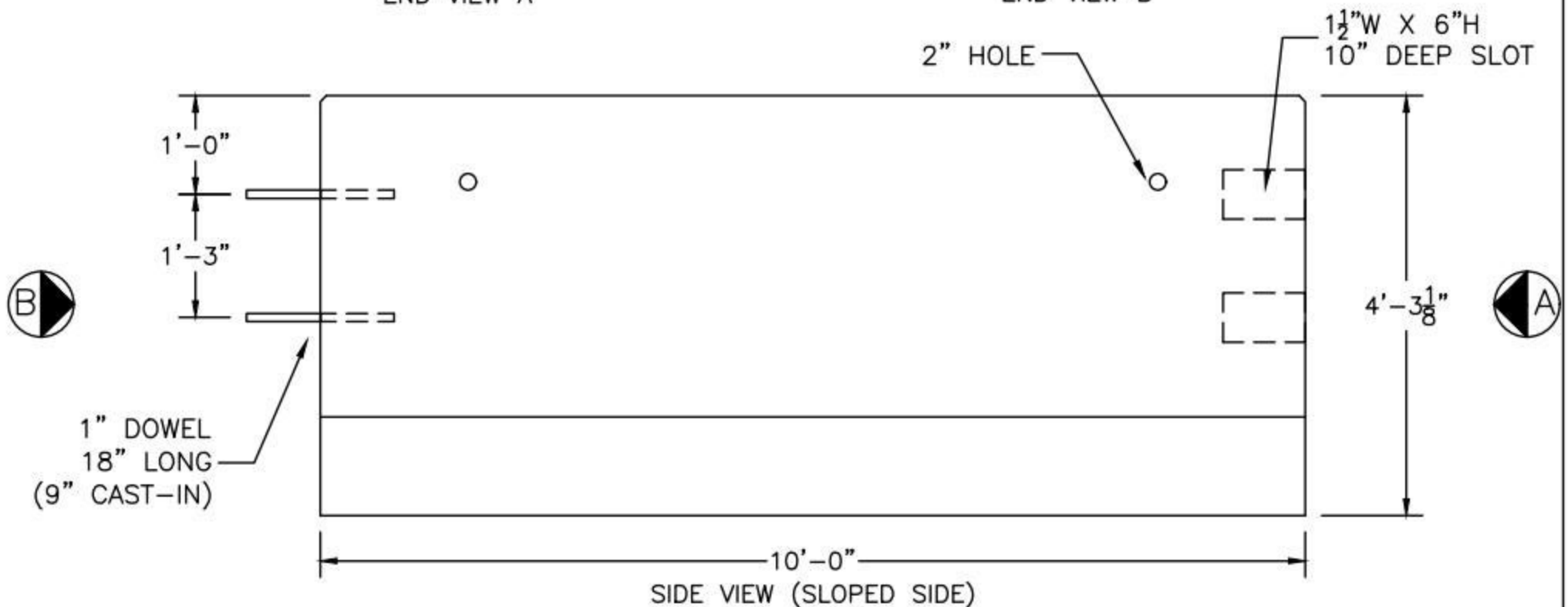
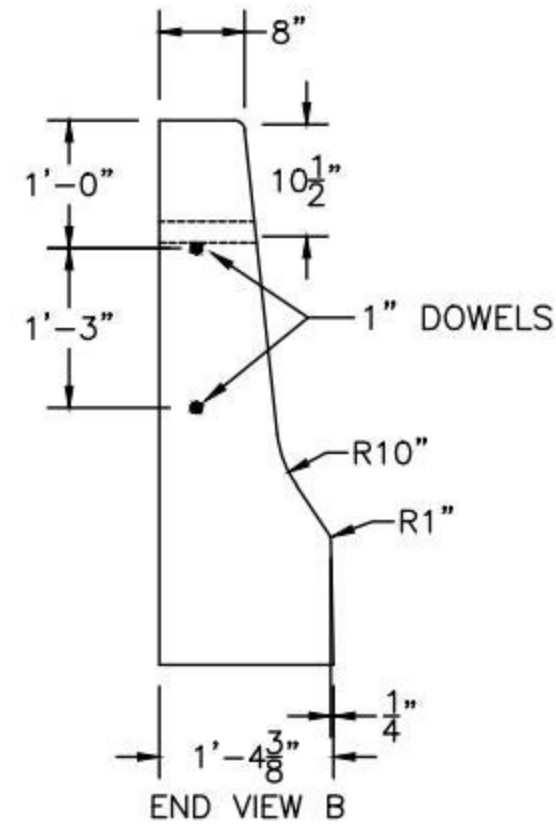
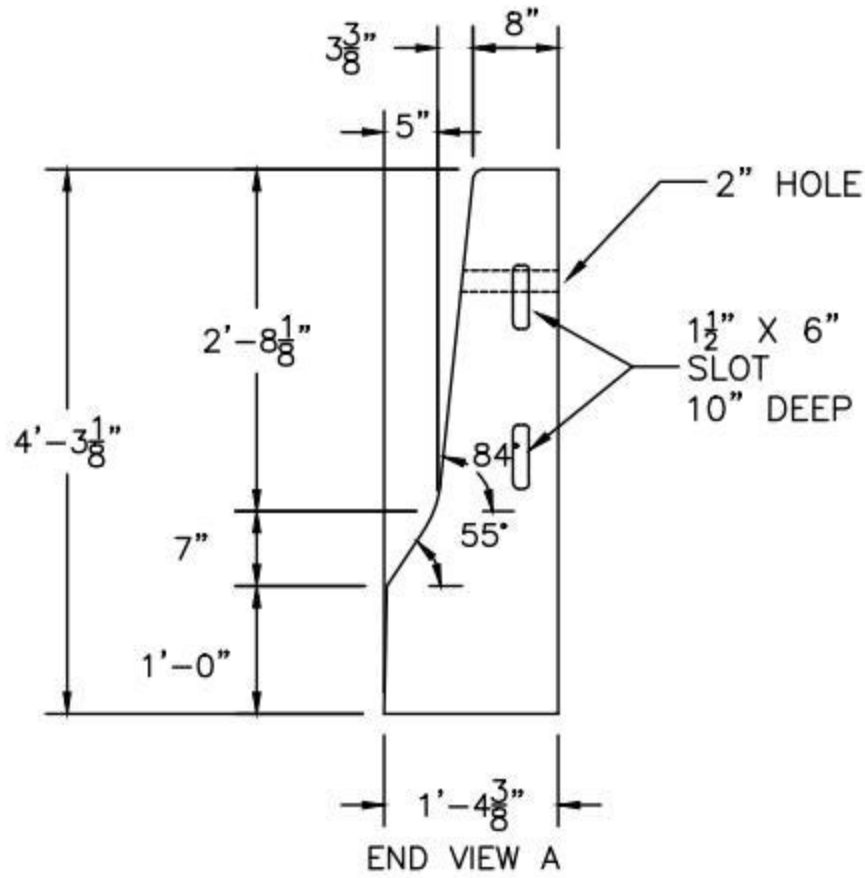
PAGE:
J4.9



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

BARRIER F-SHAPE SINGLE FACE TALL



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DOWELS 1" DIA 18" LONG SMOOTH BAR GALVANIZED GRADE 60

SHEA PRODUCT ID:
MBTFSF10-51

PREPARED FOR:

FILE NAME:

medbarsf10t

WEIGHT (LBS):
6,000#

DRAWN BY: ARO

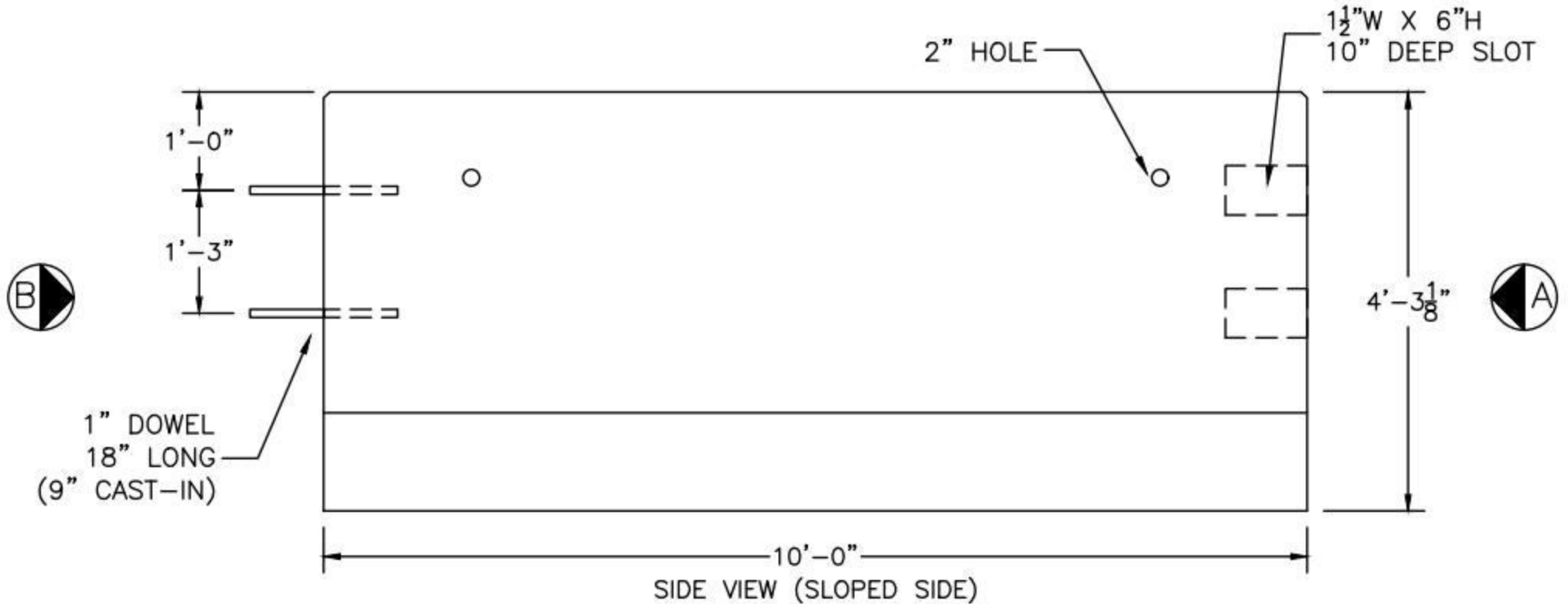
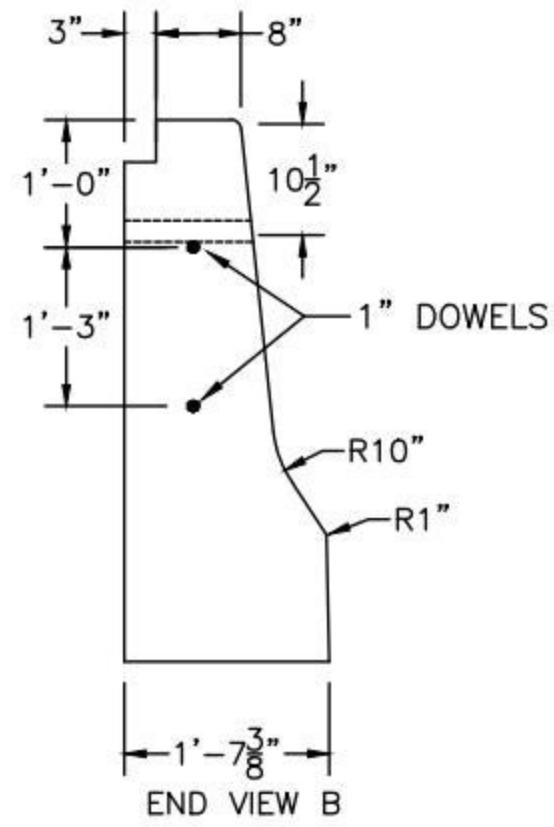
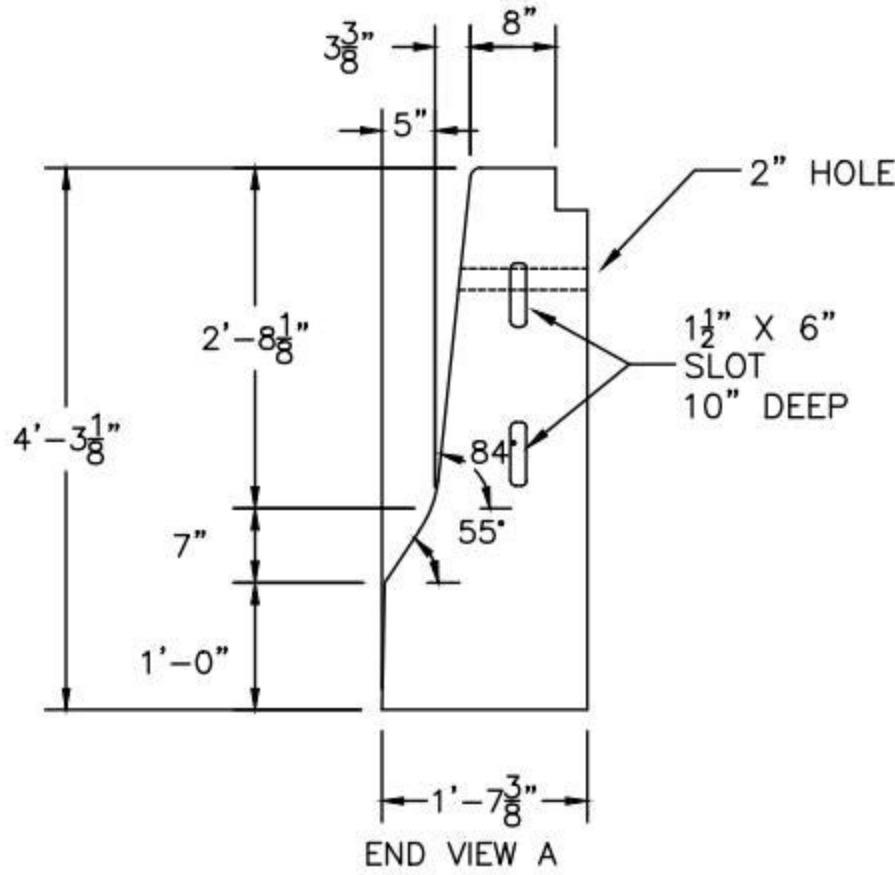
DATE: 03/01/2018

PAGE: J4.10-1




773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

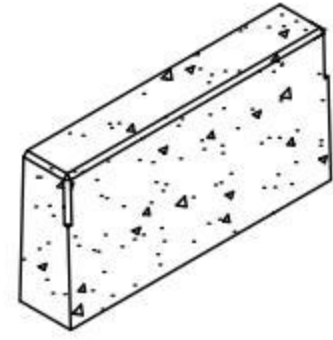
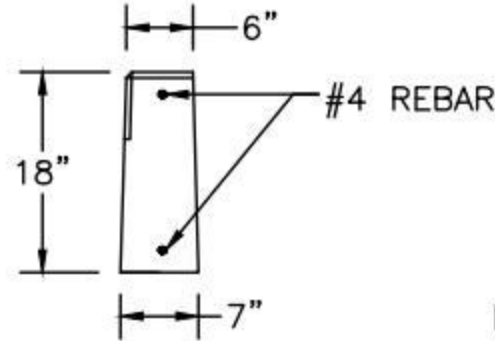
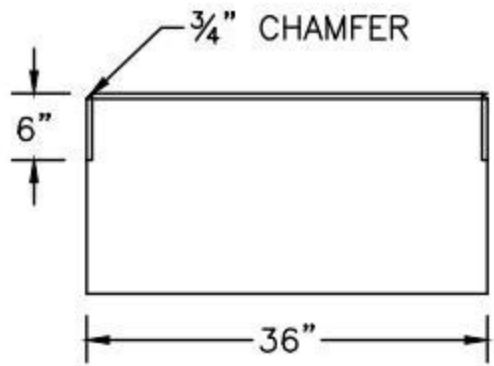
Specifications subject to change without notice



NOTES:

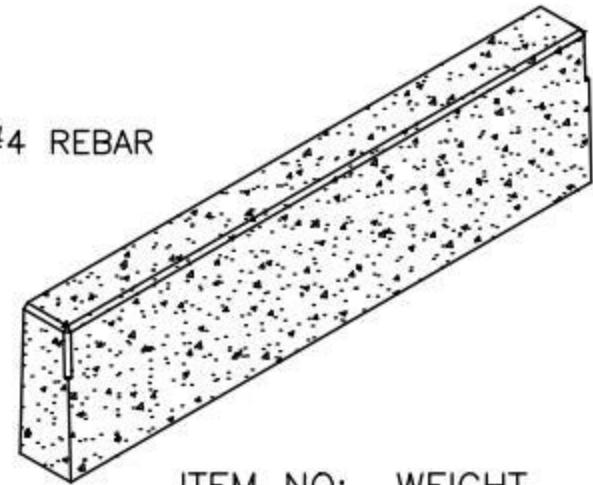
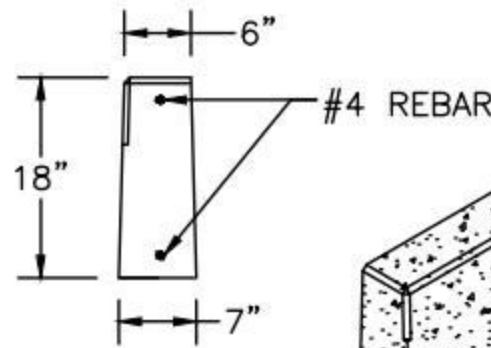
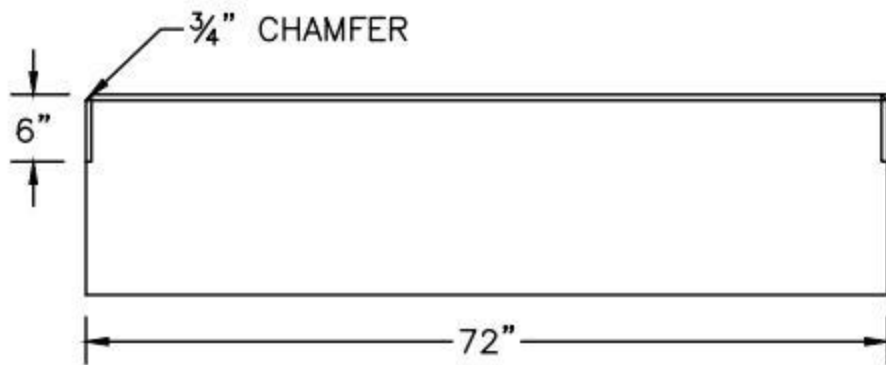
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DOWELS 1" DIA 18" LONG SMOOTH BAR GALVANIZED GRADE 60

SHEA PRODUCT ID: MBTFSF10-51SLAB		PREPARED FOR:		FILE NAME: medbarsf10tslab.dwg		
WEIGHT (LBS): 7,400#		DRAWN BY: ARO		DATE: 03/01/2018		
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH						



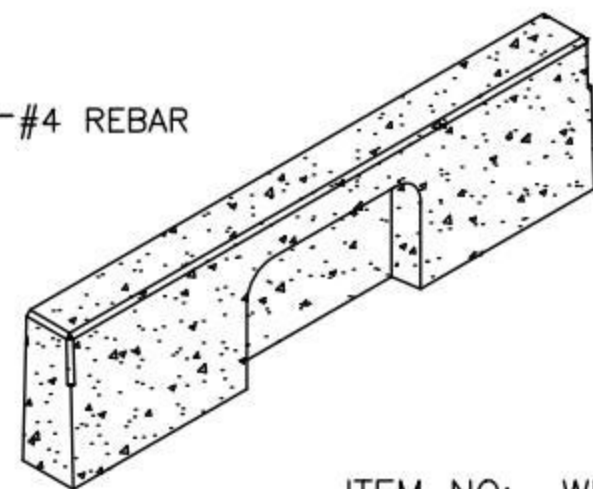
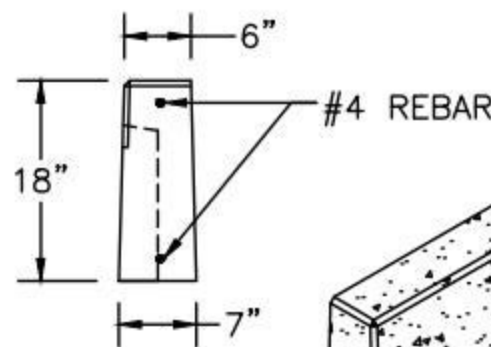
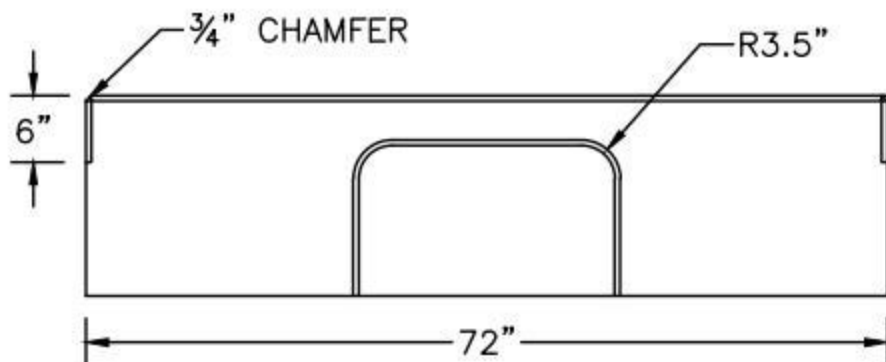
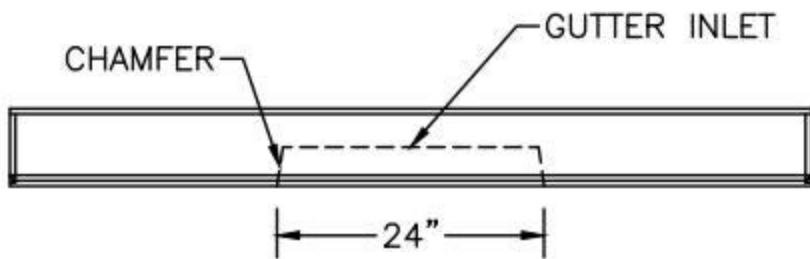
ITEM NO:	WEIGHT
C3S	389#

3' CURBING — STRAIGHT



ITEM NO:	WEIGHT
C6S	778#

6' CURBING — STRAIGHT




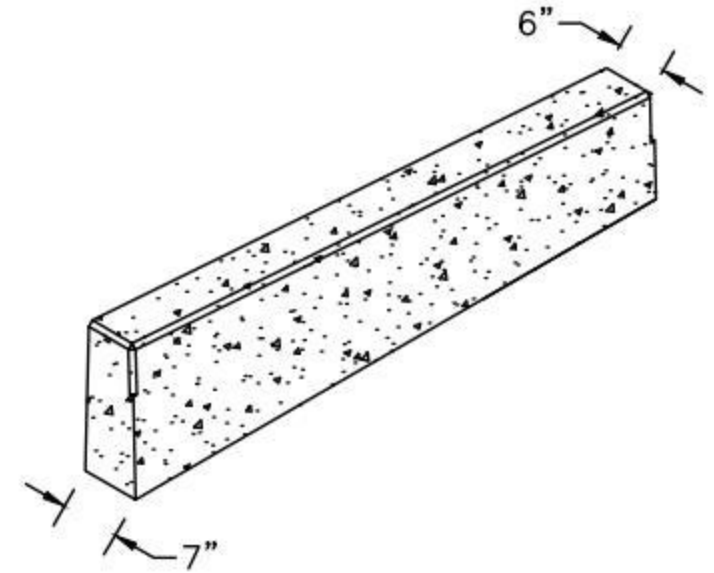
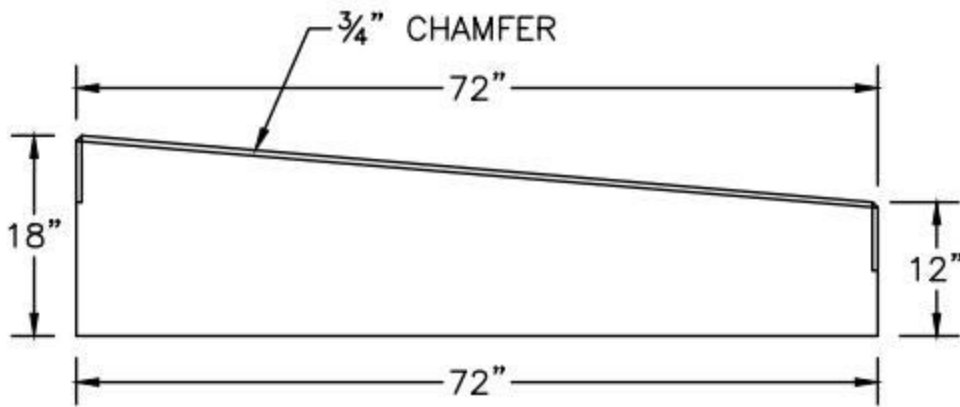
ITEM NO:	WEIGHT
C6SGI	677#

6' CURBING — GUTTER INLET

NOTES:

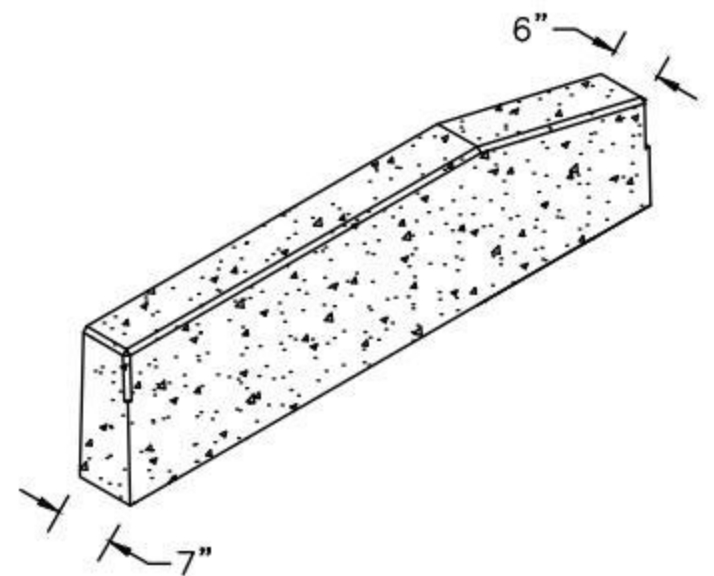
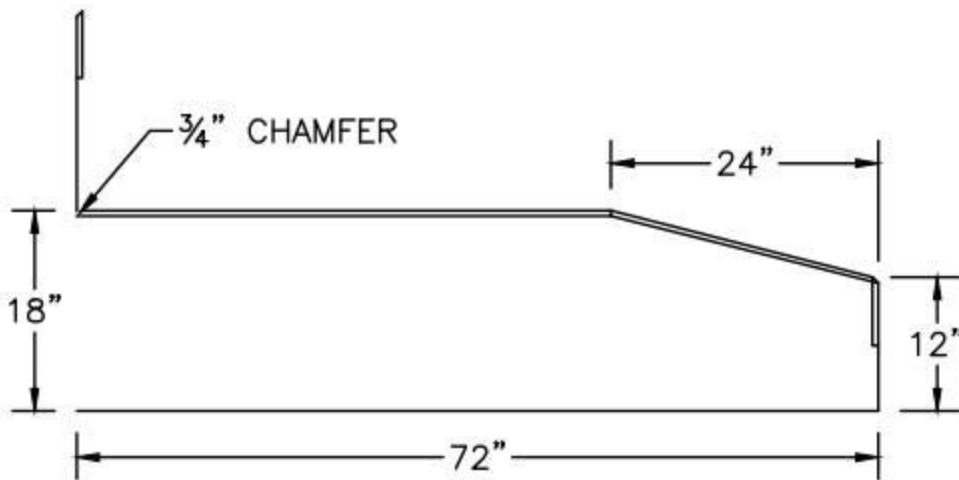
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS

SHEA PRODUCT ID: SEE TABLE		PREPARED FOR:		FILE NAME: 6ftCURB.dwg			
WEIGHT (LBS): SEE TABLE		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: J5.1
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



6' TRANSITION – 6FT TAPER

ITEM NO:	WEIGHT
C6E-6	685#




6' TRANSITION – 2FT TAPER

ITEM NO:	WEIGHT
C6E-2	678#

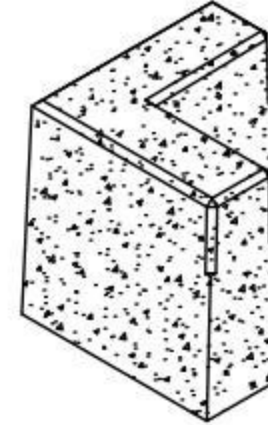
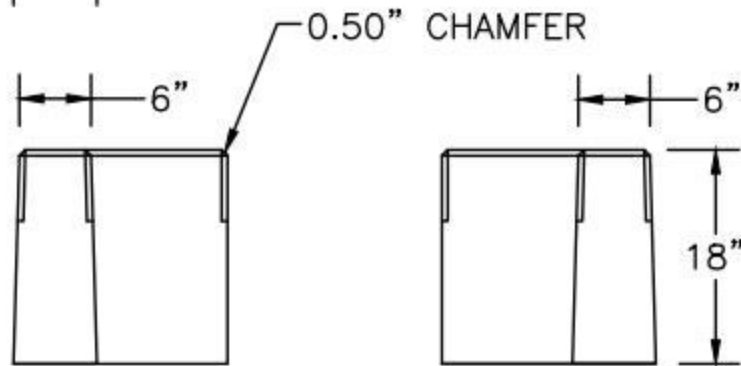
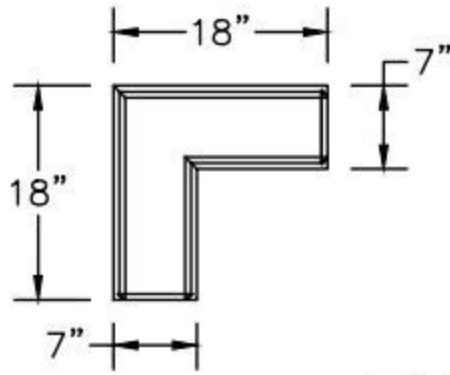
NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS

SHEA PRODUCT ID: SEE TABLE		PREPARED FOR:		FILE NAME: 6TAPER.dwg			
WEIGHT (LBS): SEE TABLE		DRAWN BY: ARO		DATE: 06/01/18			PAGE: J5.2
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							

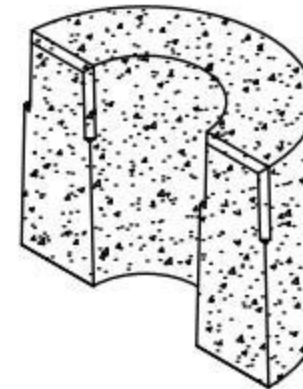
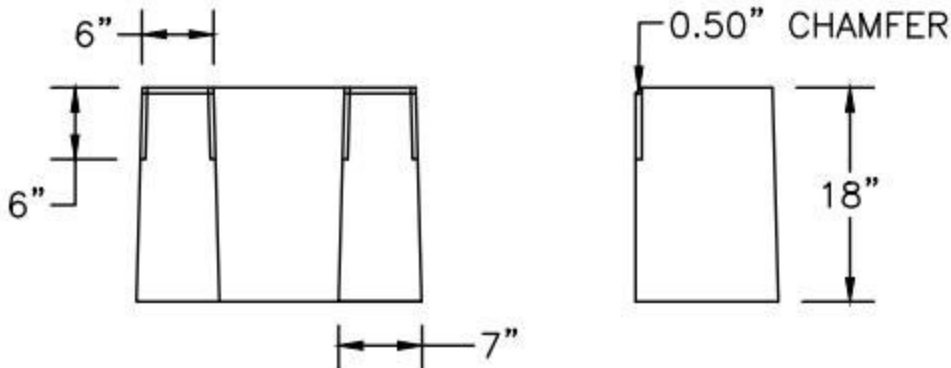
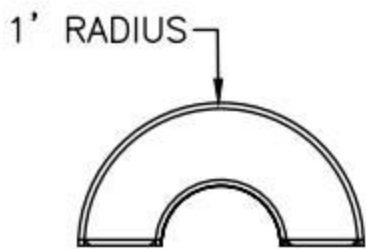
PRECAST CONCRETE CURB

90° & 180° SECTION



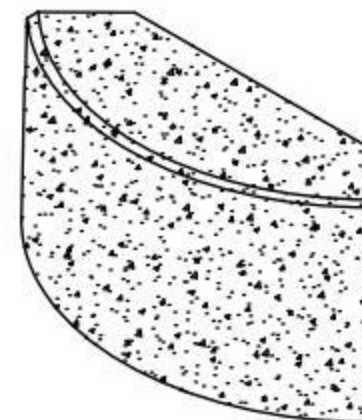
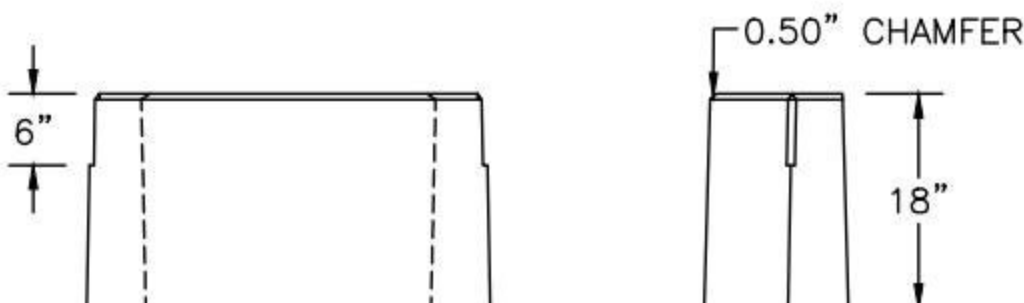
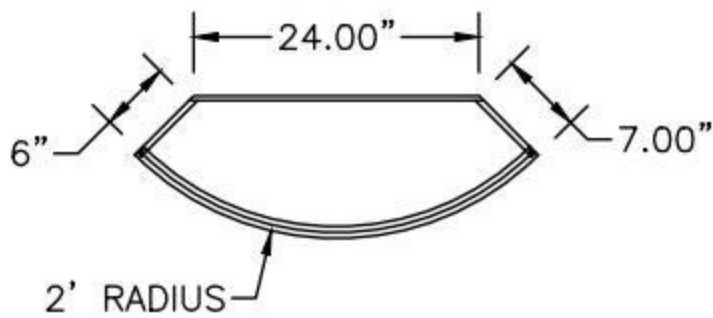
90° CORNER

ITEM NO:	WEIGHT
C90	313#



1' RADIUS

ITEM NO:	WEIGHT
C1R	288#



2' RADIUS

ITEM NO:	WEIGHT
C2R	475#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

90CURB.DWG

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

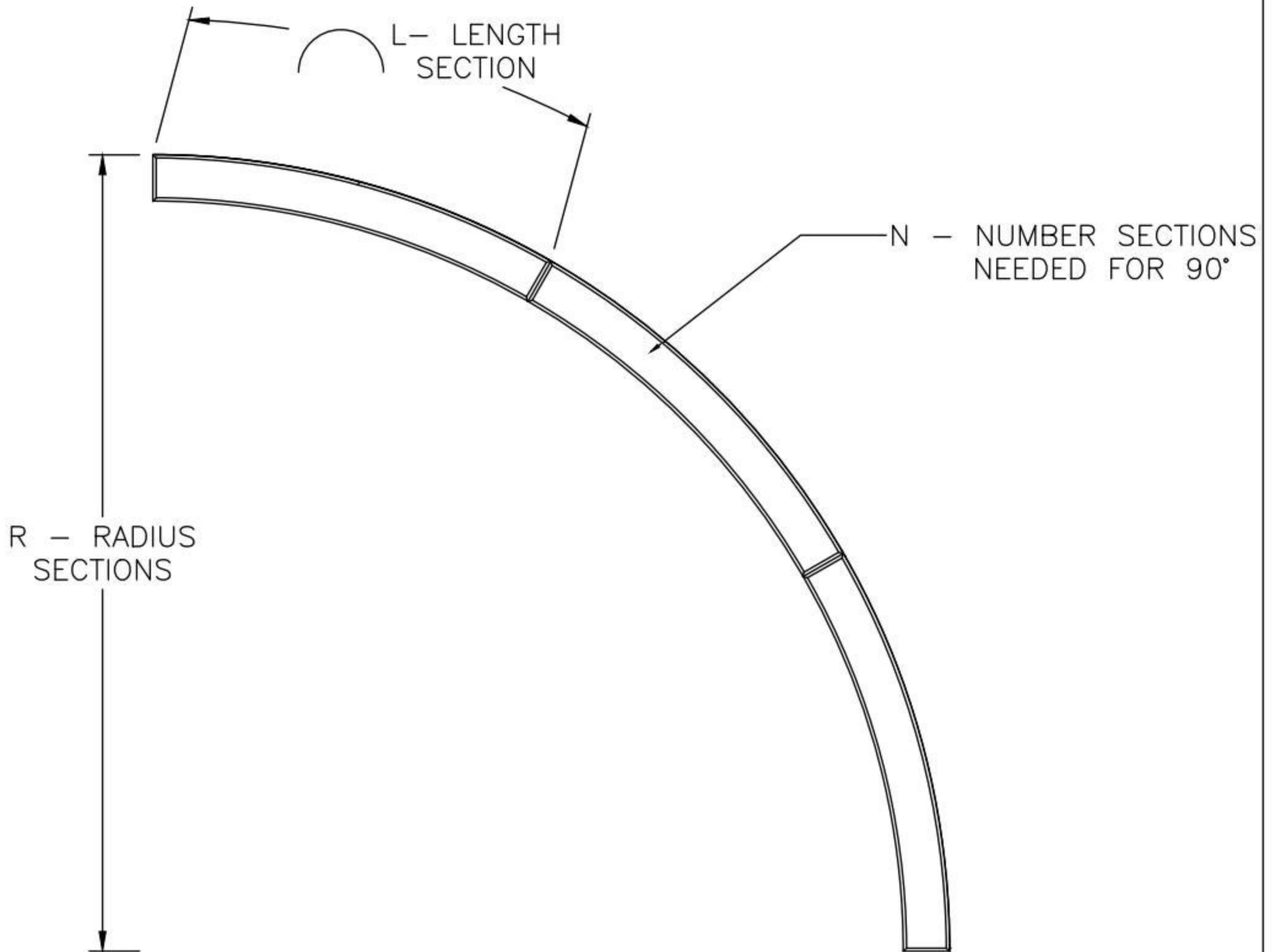
DATE: 06/01/18

PAGE: J5.3



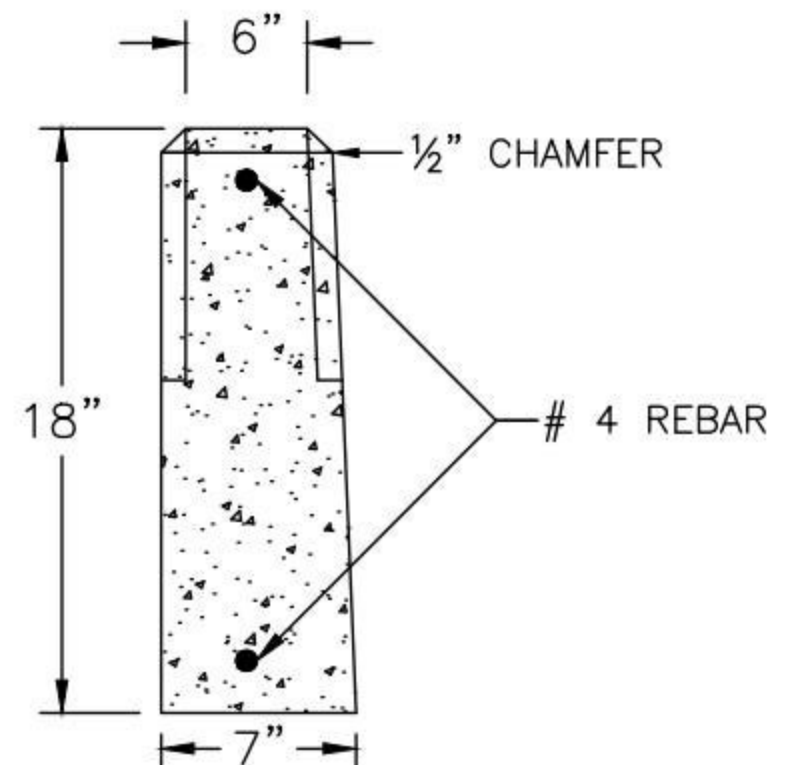
773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



RADIUS (R)	NUMBER (N)	LENGTH (L)	ITEM NO.
1'	0.5 *	3.14'	C1R
2'	1	3.14'	C2R
3'	1	4.71'	C3R
4'	1	6.32'	C4R
5'	2	3.93'	C5R
7'	2	5.50'	C7R
10'	3	5.23'	C10R
12'	3	6.28'	C12R
15'	4	5.89'	C15R
18'	4	7.07'	C18R
20'	5	6.28'	C20R
25'	4.5	8.75'	C25R
30'	6	7.85'	C30R
35'	9	6.16'	C35R
40'	7.5	8.38'	C40R
45'	9	7.85'	C45R

*Note: 1' Radius has 180° Angle Coverage



SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

CURBDET.dwg

WEIGHT (LBS):
VARIES

DRAWN BY: ARO

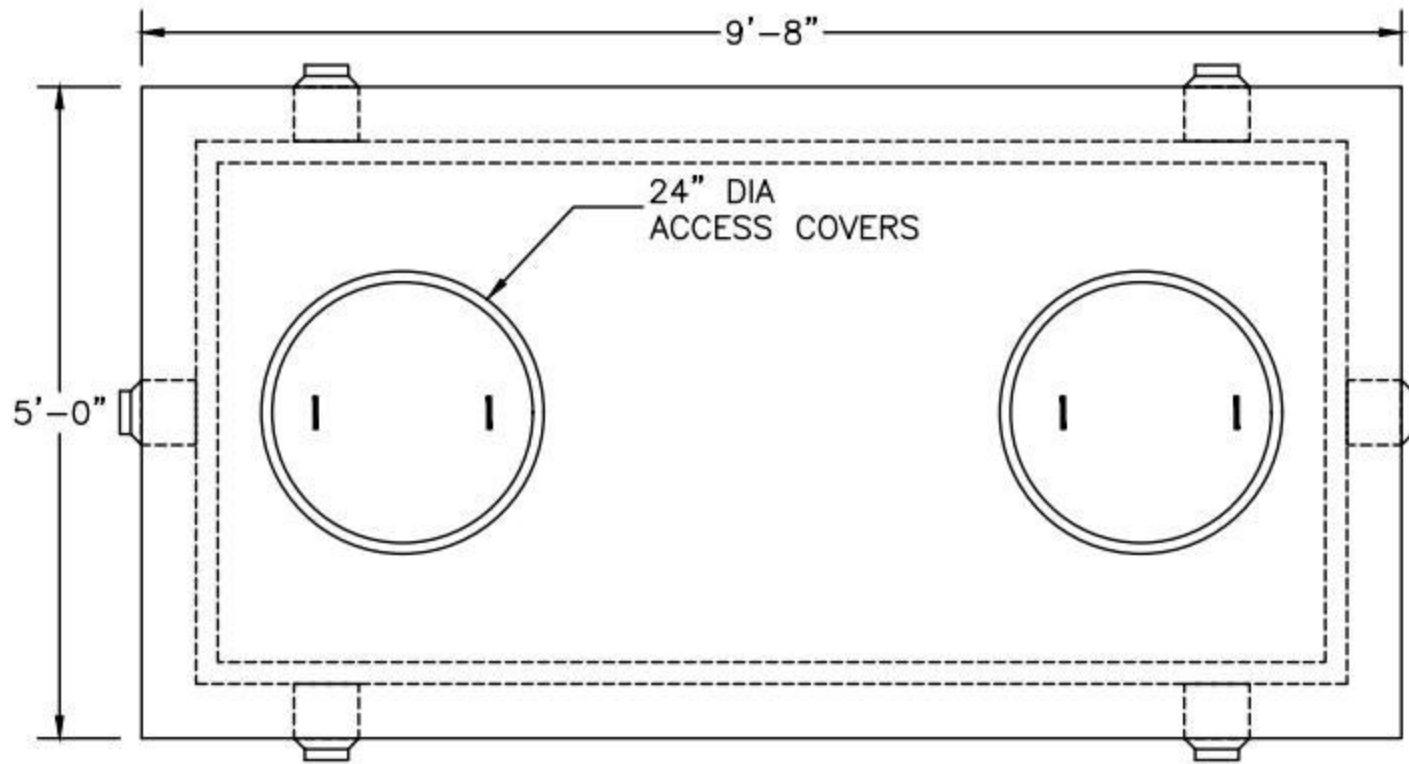
DATE: 03/01/2018

PAGE: J5.4

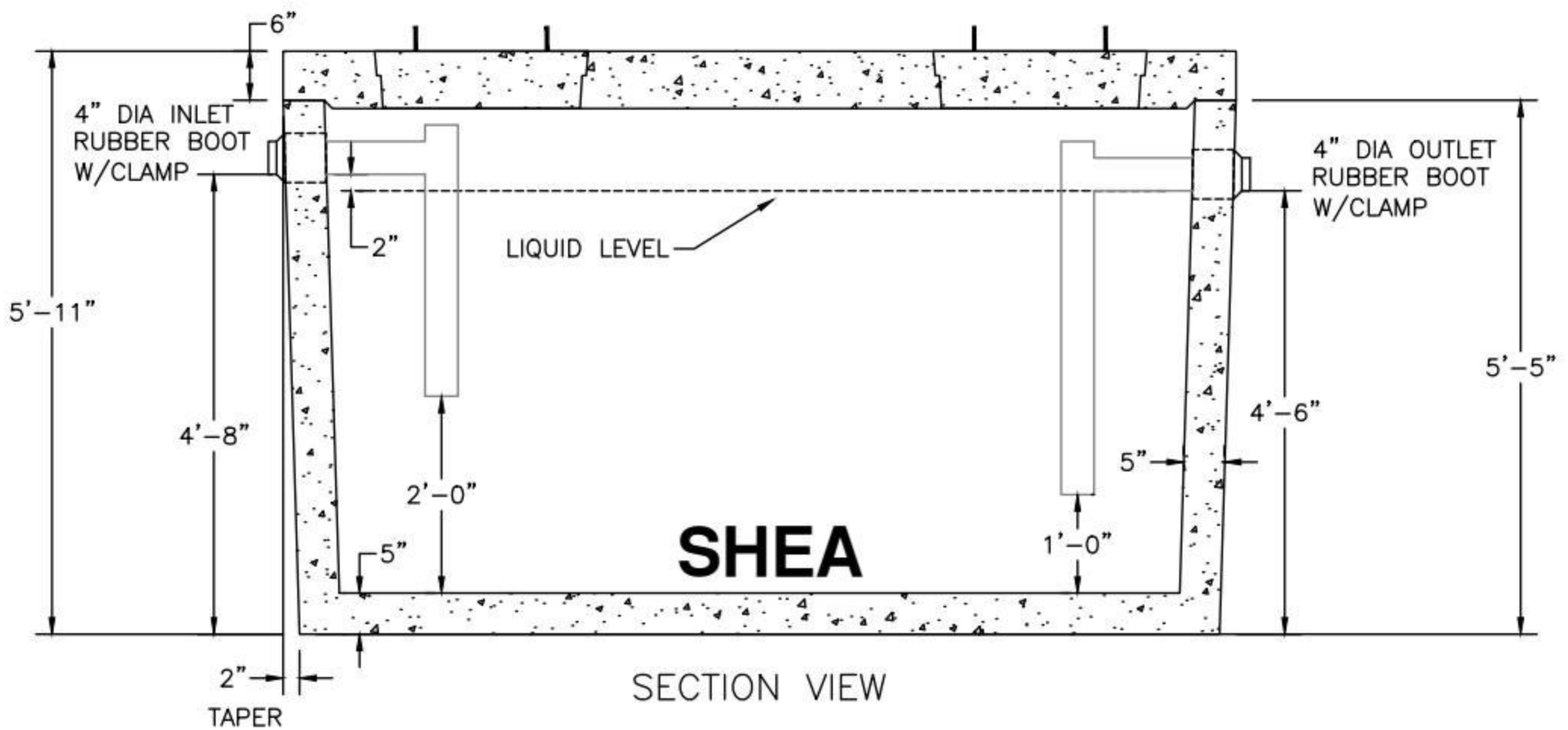


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



TOP VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF GREASE TRAPS CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND BAFFLES SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER.

WEIGHT:

BOTTOM = 11,250#
10" TOP = 5,960#
6" TOP = 3,575#

ITEM NO.	M1000H	H-20 (6" TOP)
	M1000HT10	H-20 (10" TOP)

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

GTM1000.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

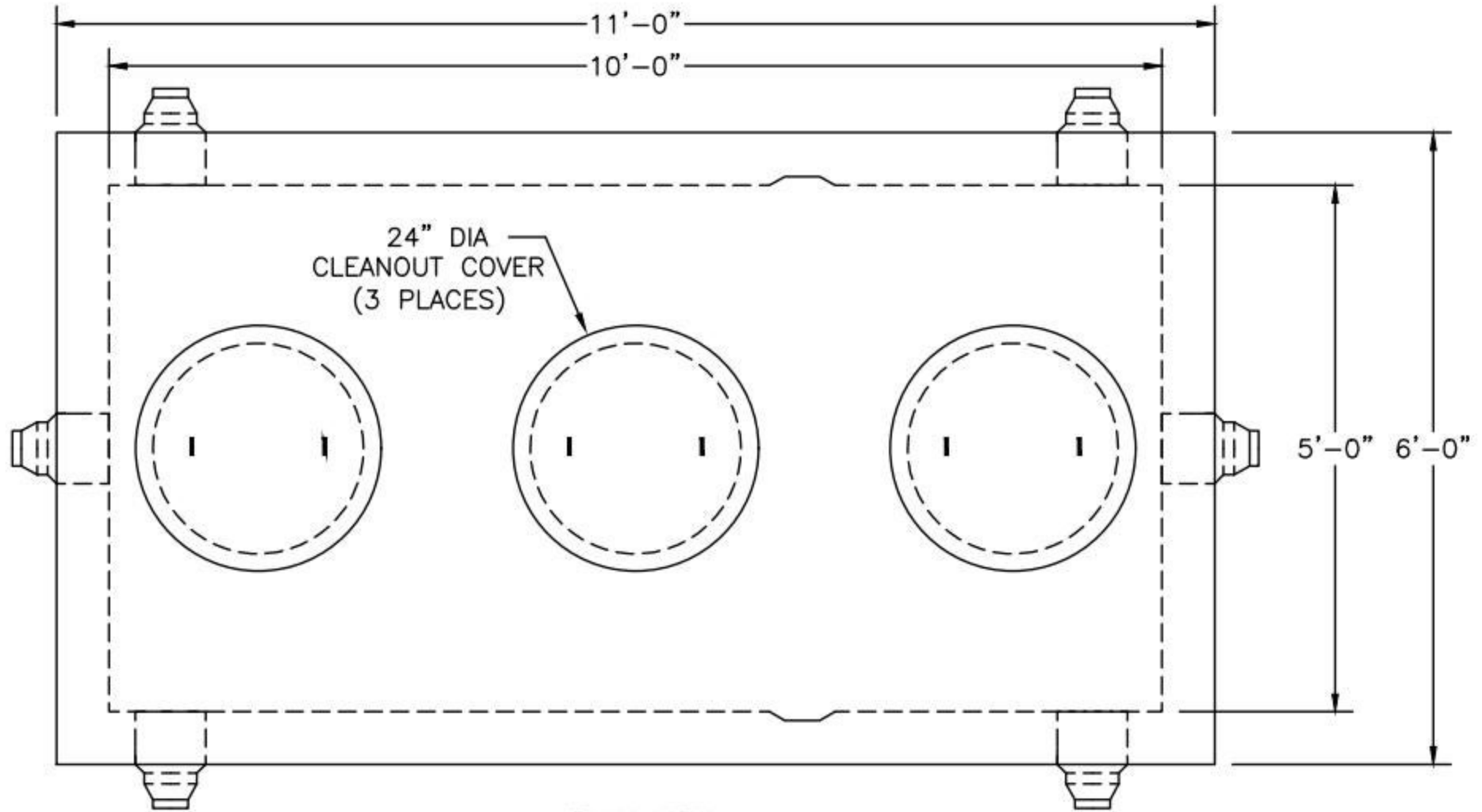
DATE: 06/11/18

PAGE: K1

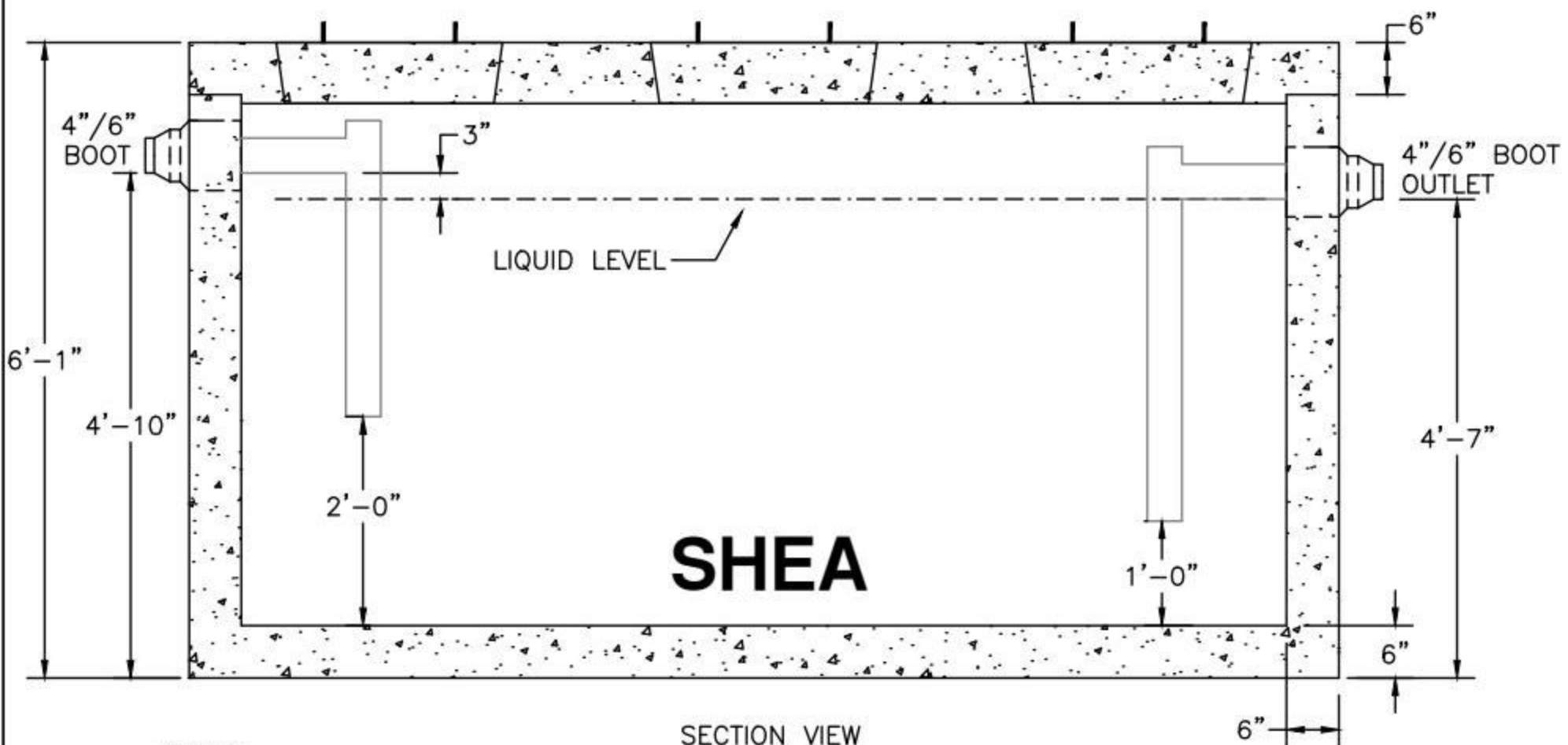


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



PLAN VIEW



SECTION VIEW

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR GREASE TRAPS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN
6. TEES AND BAFFLES SOLD SEPARATELY

	WEIGHT	TOP	BOTTOM
ITEM NO. TK-M1500C	22,600#	5,400#	17,200#
TK-M1500C2C	24,400#	5,400#	19,000#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

GTM1500.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

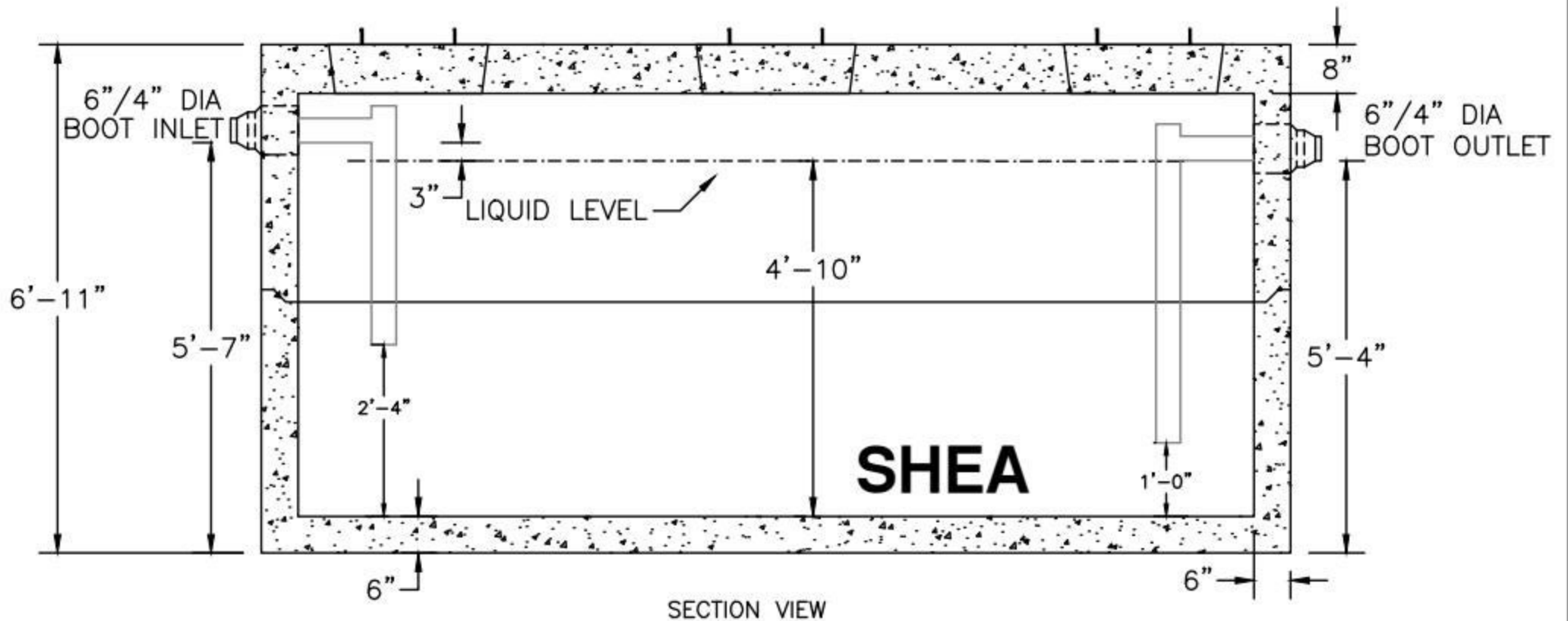
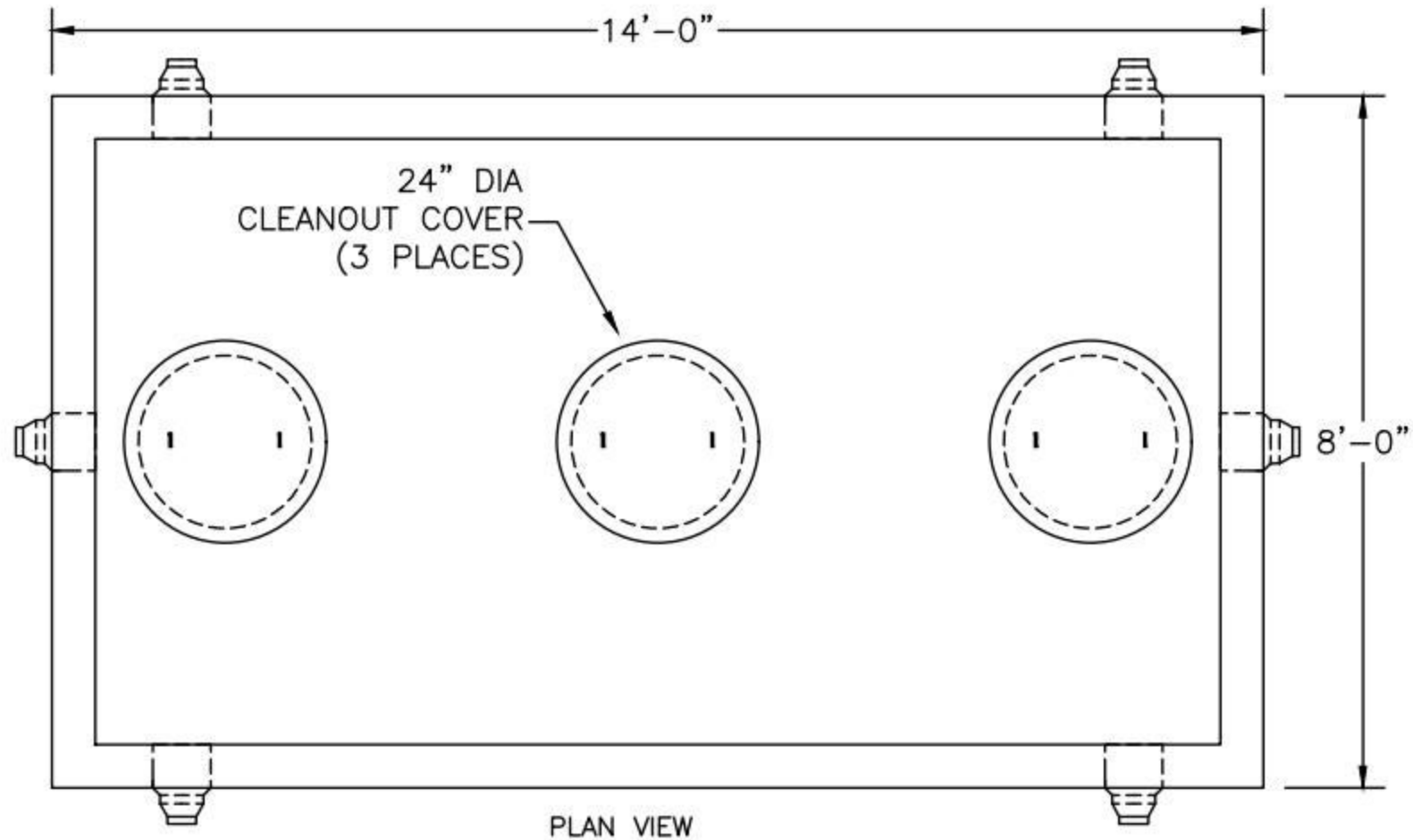
DATE: 06/11/2018

PAGE: K2




773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

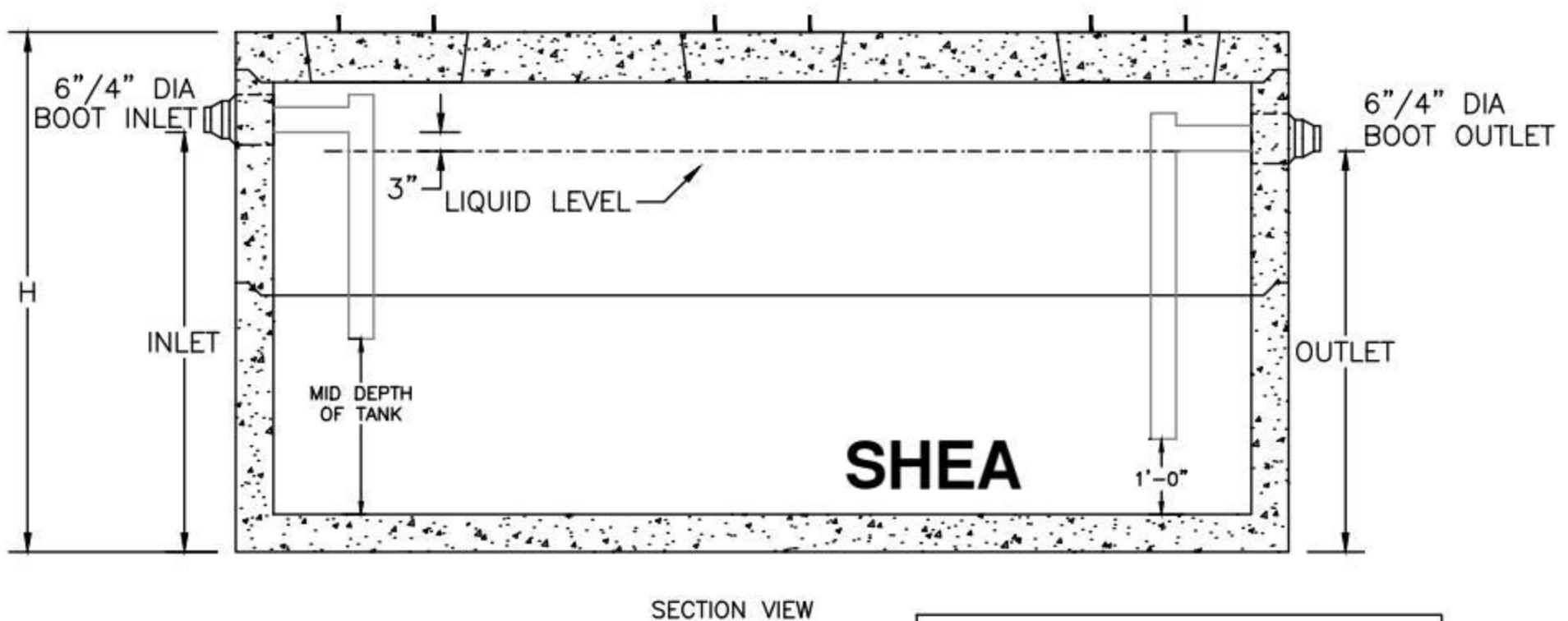
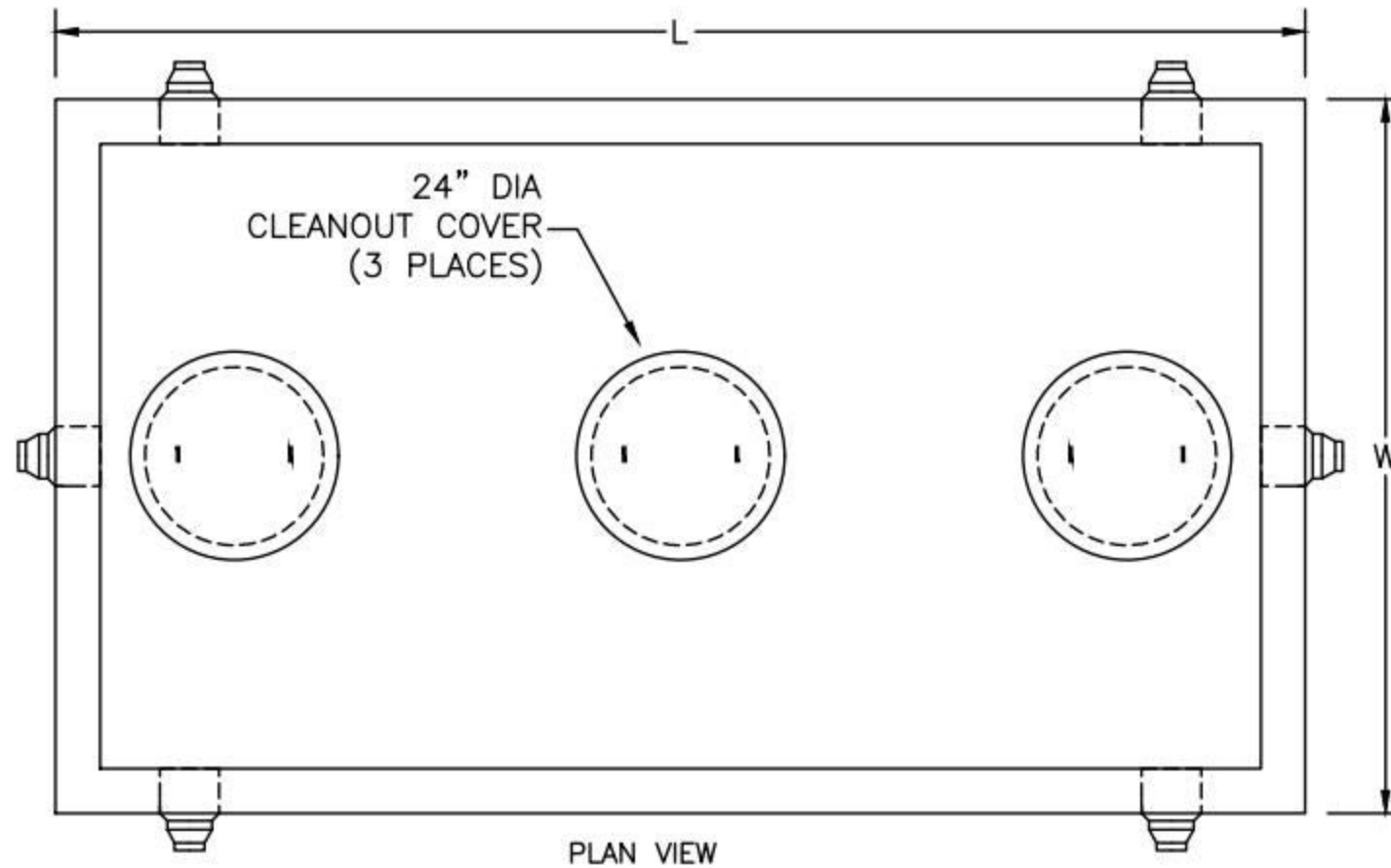
Specifications subject to change without notice



NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR GREASE TRAPS
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 5 FT COVER.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN
6. TEES AND BAFFLES SOLD SEPARATELY

SHEA PRODUCT ID: 8X14-30		PREPARED FOR:		FILE NAME: GT3000.dwg			
WEIGHT (LBS): 36,710#		DRAWN BY: ARO		DATE: 06/11/18			PAGE: K3
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH							

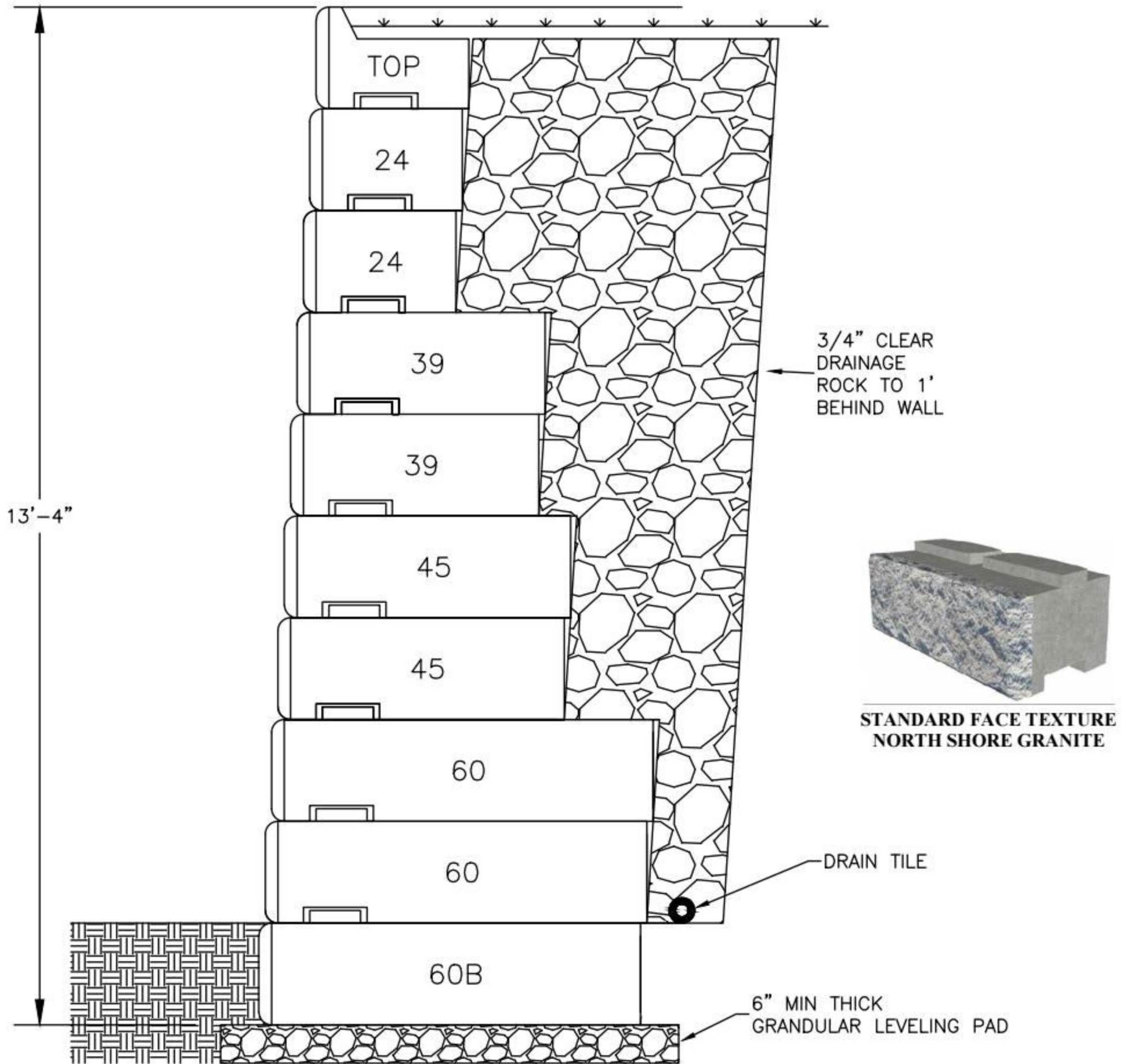


NOTES:

VARIOUS SIZES AVAILABLE, REFER
TO COMMERCIAL TANK SECTION


1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR GREASE TRAPS
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, 4 TO 5 FT COVER.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN
6. OPTIONAL BAFFLE WALL AVAILABLE.
7. GREASE TRAPS SHALL HAVE A MINIMUM DEPTH OF 4 FEET AND MINIMUM CAPACITY OF 1,000 GALLONS, AND SHALL HAVE SUFFICIENT CAPACITY TO PROVIDE AT LEAST A 24 HOUR DETENTION PERIOD FOR THE KITCHEN FLOW. KITCHEN FLOW SHALL BE CALCULATED IN ACCORDANCE WITH 310 CMR 15.203.
8. THE INLET TEE SHALL EXTEND TO THE MID DEPTH OF THE TANK. THE OUTLET TEE SHALL EXTEND TO WITHIN 12 INCHES OF THE BOTTOM OF THE TANK. TEES SHALL BE SCHEDULE 40 PVC AND PROPERLY SUPPORTED BY A HANGER, STRAP, OR OTHER DEVICE.
9. GREASE TRAPS SHALL BE PROVIDED WITH A MINIMUM 20 INCH DIAMETER MANHOLE FRAME AND COVER TO GRADE OVER THE INLET AND OUTLET TEES.

SHEA PRODUCT ID:	PREPARED FOR:	FILE NAME:	GREASETRAP.dwg
WEIGHT (LBS):	DRAWN BY: ARO	DATE: 06/11/18	PAGE: K4
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH			



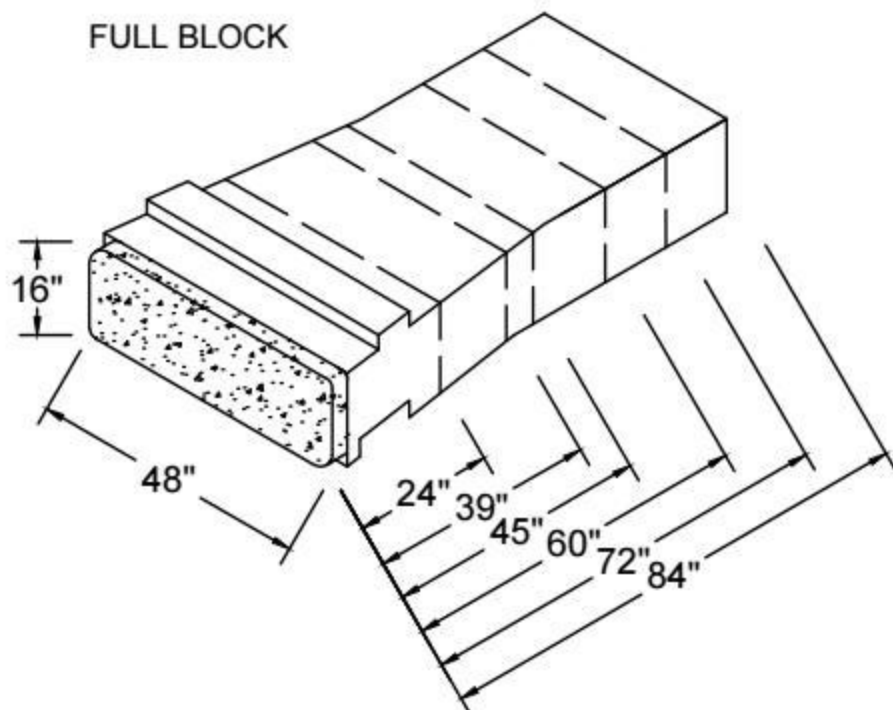
KEY ASSUMPTIONS AND NOTES:

1. MAXIMUM HEIGHT NON REINFORCED WALLS VARIES DEPENDING ON SOILS AND SITE CONDITIONS HIGHER WALLS BUILT USING GEO-GRID.
2. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
3. STANDARD FACE TEXTURE: NORTH SHORE GRANITE OR AVAILABLE BY SPECIAL ORDER: RUSTIC, OLD WORLD.
4. MINIMUM TURNING RADIUS 15 FEET.
5. 1" SETBACK PER ROW ON A STRAIGHT WALL (ANGLE OF BATTER 3.6°) CURVEDWALL 1-2.7" PER ROW.
6. THIS WALL CROSS SECTION IS FOR A SPECIFIC SET OF SITE CONDITIONS. EACH WALL SHOULD BE PROPERLY DESIGNED AND ENGINEERED FOR SITE CONDITIONS.

SHEA PRODUCT ID:	PREPARED FOR:	recon Retaining Wall Systems	FILE NAME: ReCon_WallSection.dwg	
WEIGHT (LBS):	DRAWN BY: ARO	DATE: 03/01/2018	PAGE: L1	

SHEA WALL SYSTEM FULL/HALF/CORNER

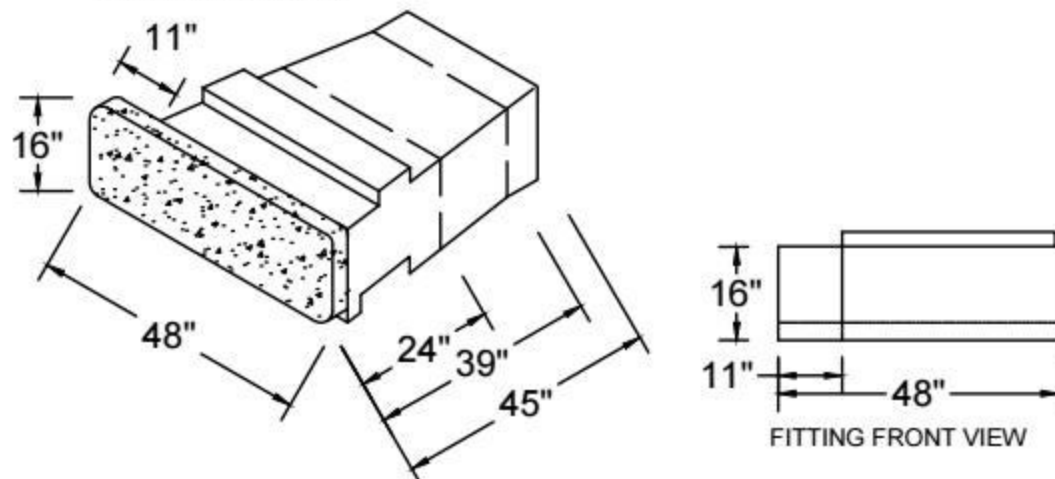
FULL BLOCK



FULL BLOCK		
BLOCK LENGTH	BLOCK CODE	BLOCK WEIGHT
24"	BWF24	1,400#
39"	BWF39	2,200#
45"	BWF45	2,500#
60"	BWF60	3,000#
72"	BWF72	3,500#
84"	BWF84	3,960#

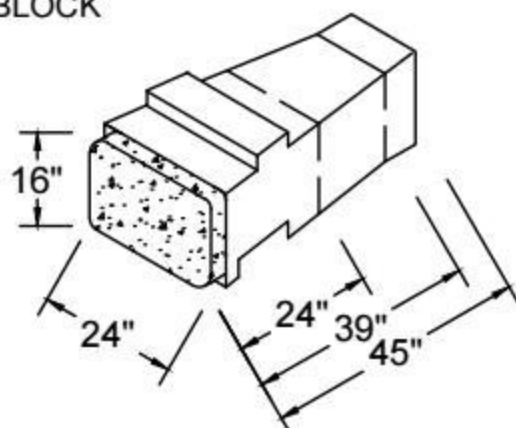
BASE BLOCK		
BLOCK LENGTH	BLOCK CODE	BLOCK WEIGHT
24"	24B	1,400#
39"	39B	2,200#
45"	45B	2,550#

FITTING BLOCK



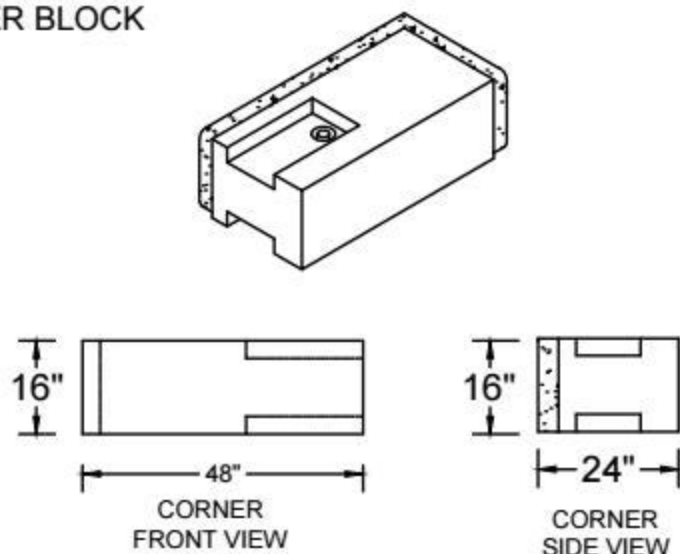
FITTING BLOCK		
BLOCK LENGTH	BLOCK CODE	BLOCK WEIGHT
24"	BWF24F	1,250#
39"	BWF39F	2,000#
45"	BWF45F	2,200#

HALF BLOCK



HALF BLOCK		
BLOCK LENGTH	BLOCK CODE	BLOCK WEIGHT
24"	BWH24	660#
39"	BWH39	970#
45"	BWH45	1,100#

CORNER BLOCK



CORNER BLOCK		
BLOCK TYPE	BLOCK CODE	BLOCK WT
CORNER	BWFC	1,400#
HALF CORNER	BWHC	700#
HALF TOP CORNER	BWHTC	490#

CORNER BLOCKS ALSO AVAILABLE AS 2' HALF BLOCK

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

ReCon_FH.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY:

ARO

DATE:

06/01/18

PAGE:

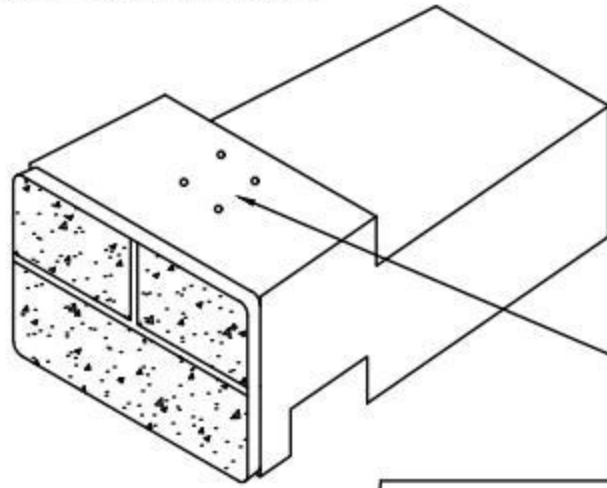
L2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

GUARD RAIL BLOCK

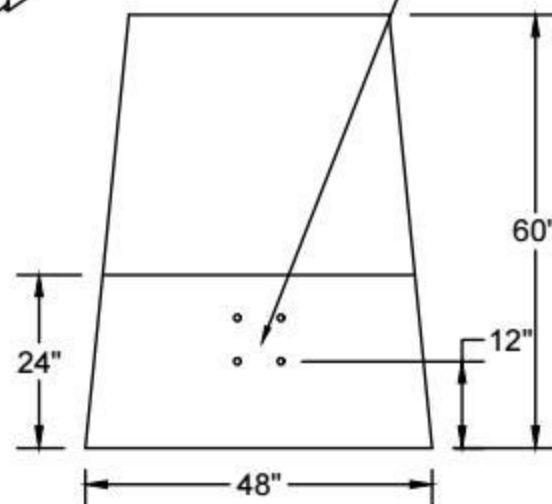


GUARD RAIL BLOCK

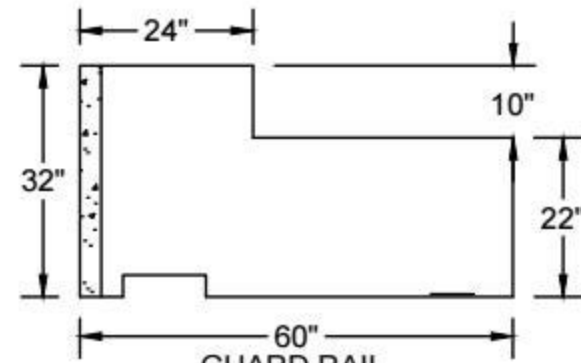
BWGR

5,800#

(4) 1"Ø BOLTS FOR
GUARD RAIL POST

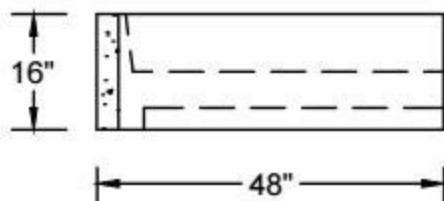
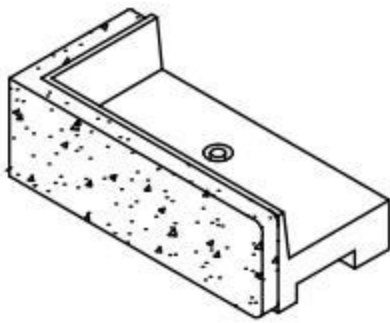


GUARD RAIL TOP VIEW

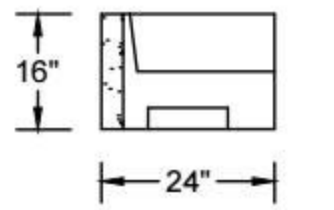


GUARD RAIL
SIDE VIEW

TOP LEFT/RIGHT BLOCK

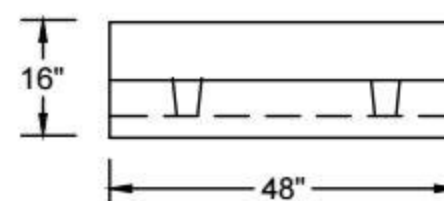
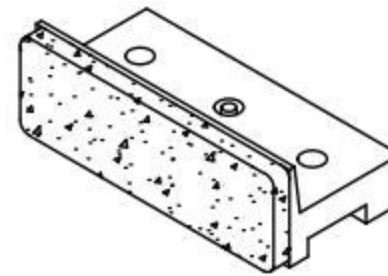


TOP L/R FRONT VIEW

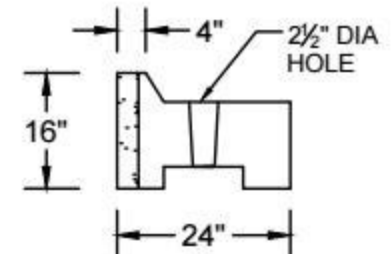


TOP L/R SIDE VIEW

TOP BLOCK



TOP FRONT VIEW



TOP SIDE VIEW

TOP BLOCKS ALSO AVAILABLE AS 2' HALF BLOCK

TOP BLOCK		
BLOCK TYPE	BLOCK CODE	BLOCK WT
TOP LEFT	BWFTCL	870#
TOP RIGHT	BWFTCR	870#
TOP BLOCK FULL	BWFT	970#
TOP BLOCK HALF	BWHT	485#
HALF TOP CORNER	BWHTC	490#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

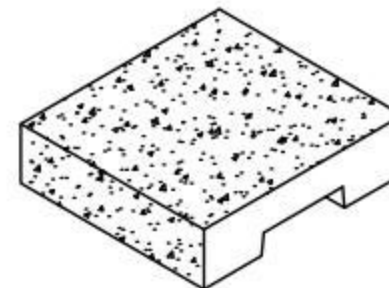
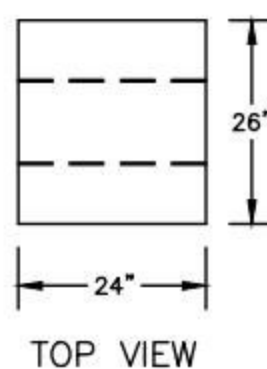
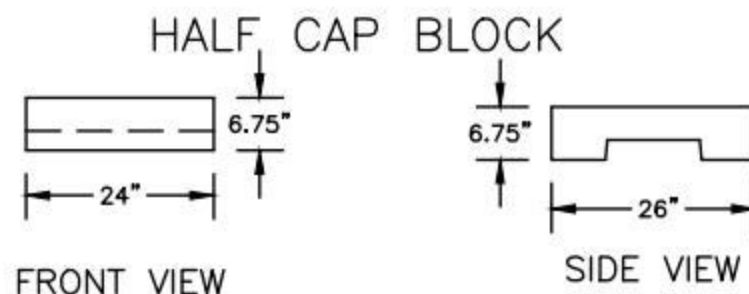
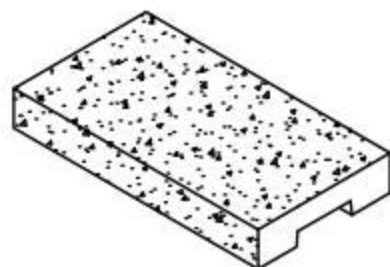
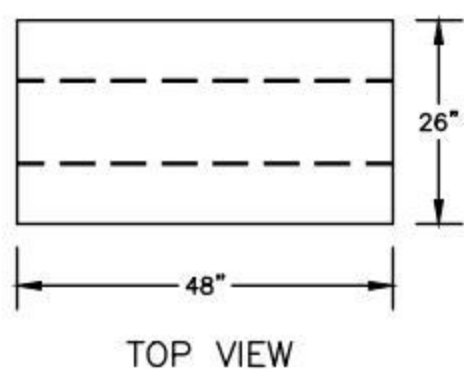
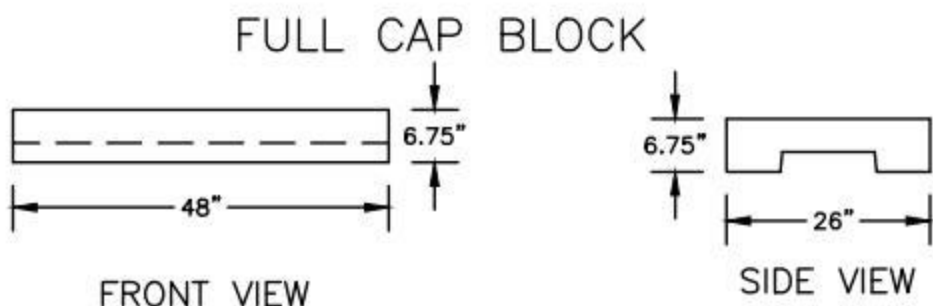
FILE NAME: ReCon_TG.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

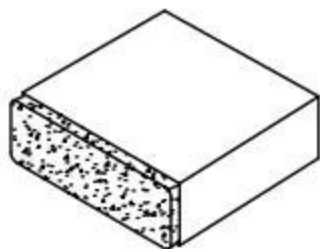
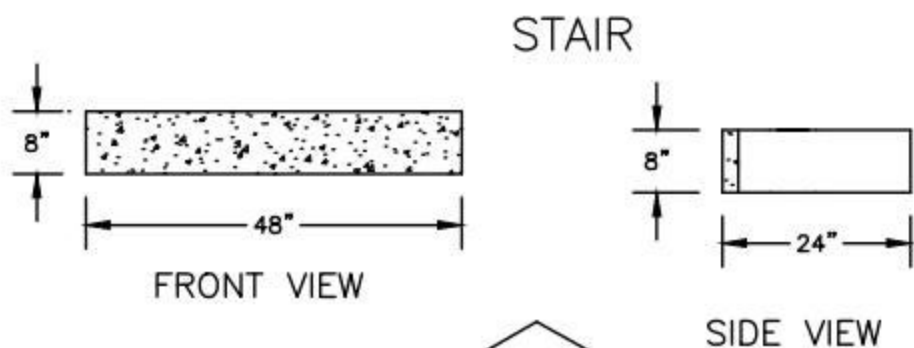
DATE: 06/01/18

PAGE: L3



CAP BLOCKS AVAILABLE WITH OR WITHOUT FINISHED ENDS

CAP & END BLOCK		
BLOCK TYPE	BLOCK CODE	BLOCK WEIGHT
FULL CAP BLOCK	BWFCAP	650#
HALF CAP BLOCK	BWHCAP	325#
FULL END FINISHED	BWFCAPFE	650#
HALF END FINISHED	BWHCAPFE	325#



BLOCK TYPE	BLOCK CODE	BLOCK WEIGHT
STAIR	BWS	790#

SHEA PRODUCT ID:
SEE TABLES

PREPARED FOR:



FILE NAME:

ReCon_C.dwg

WEIGHT (LBS):
SEE TABLES

DRAWN BY:

ARO

DATE:

06/01/18

PAGE:

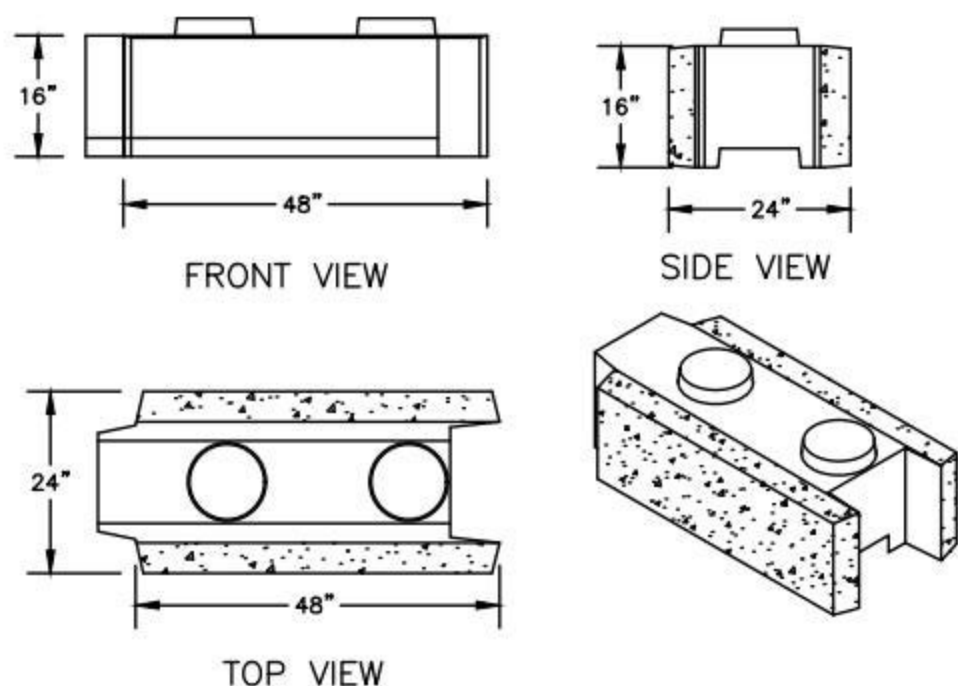
L4



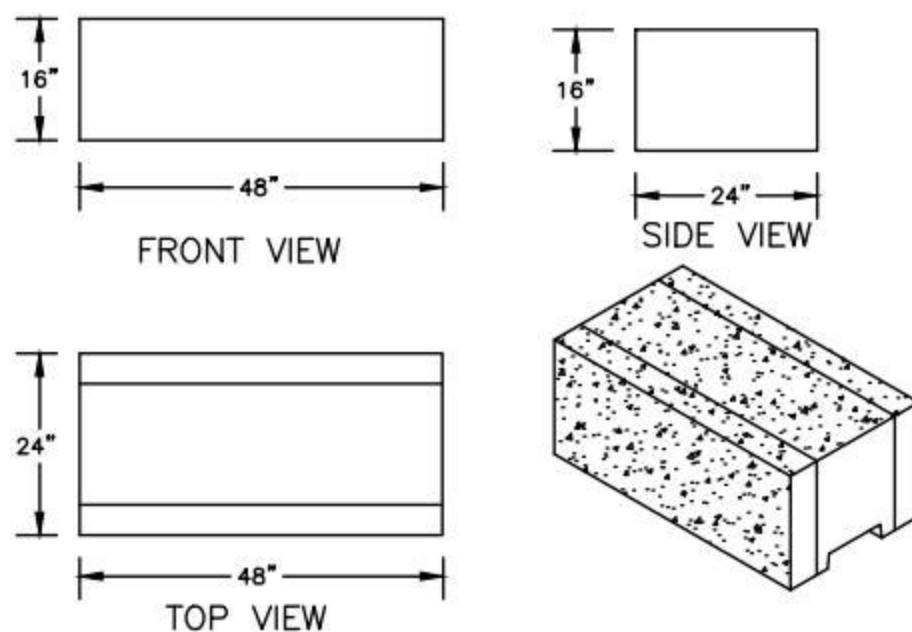
773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

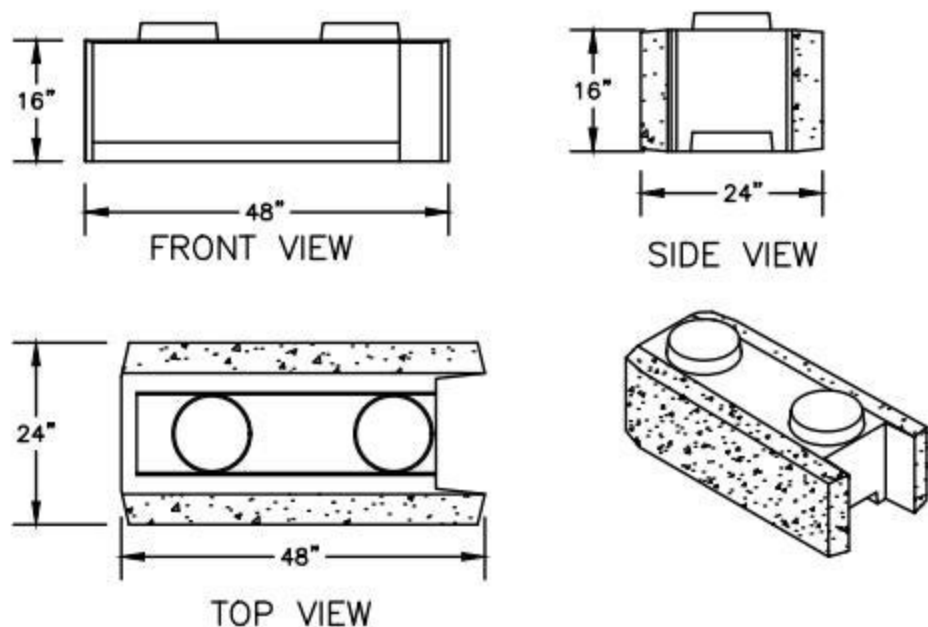
DOUBLE SIDED FULL MIDDLE BLOCK



DOUBLE SIDED TOP BLOCK

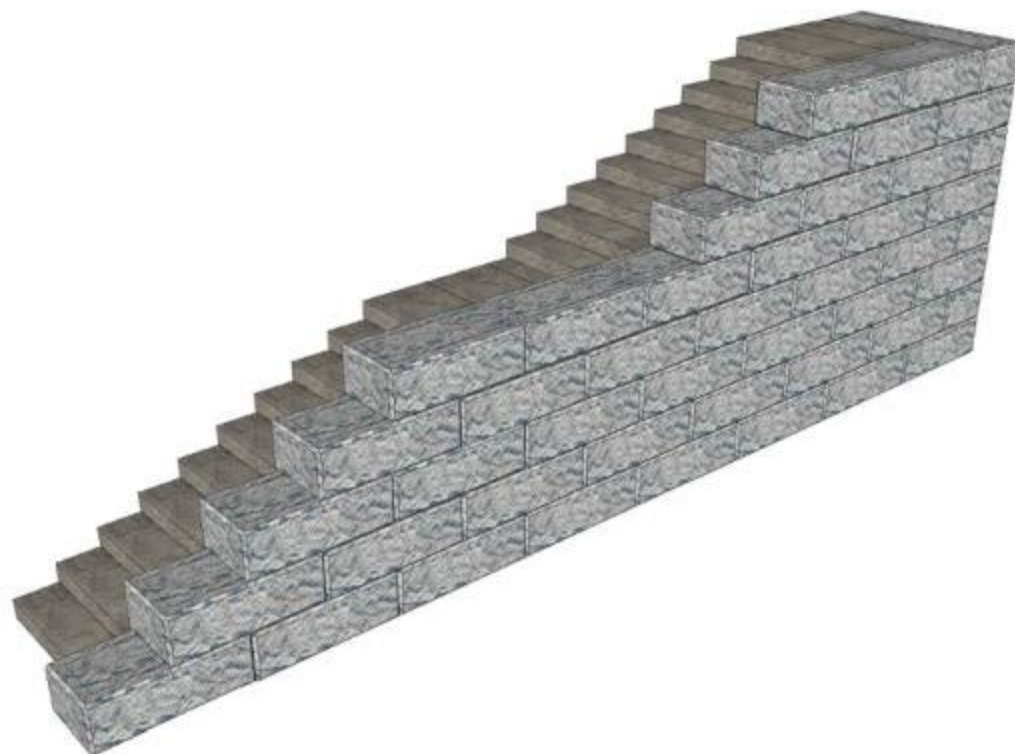


DOUBLE SIDED FULL MIDDLE FLAT FEMALE



DOUBLE SIDED (FENCE, FULL-HIGH) BLOCK		
BLOCK TYPE	BLOCK CODE	BLOCK WEIGHT
D.S. FULL MID	BWFMDS	1,500#
D.S. FULL MID FLAT	BWFMDSEF	1,500#
D.S. HALF MID	BWHMDSEF	750#
D.S. FINISHED TOP	BWFDST	1,500#
D.S. FINISHED HALF TOP	BWHDST	750#

DOUBLE SIDED BLOCK AVAILABLE IN
4' OR 2' SECTIONS, WITH OR
WITHOUT FINISHED ENDS



SHEA PRODUCT ID:
SEE TABLES

PREPARED FOR:



FILE NAME: ReCon_DS.dwg

WEIGHT (LBS):
SEE TABLES

DRAWN BY: ARO

DATE: 06/01/18

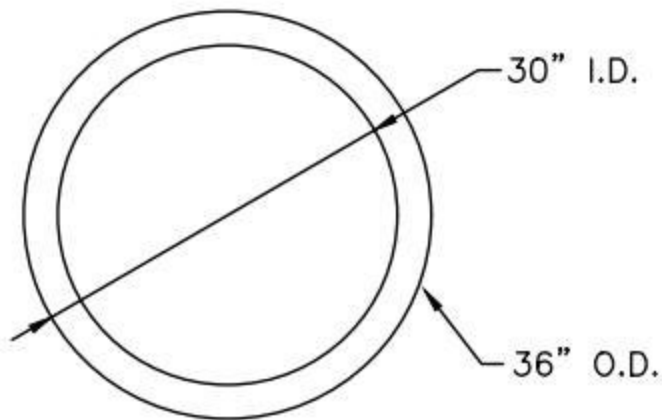
PAGE: L5



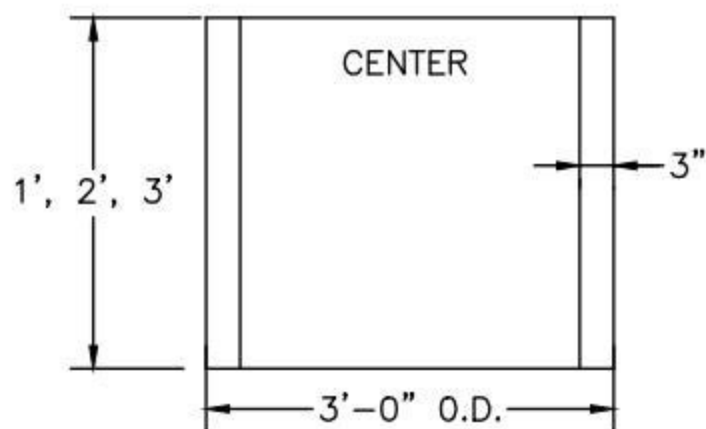
773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

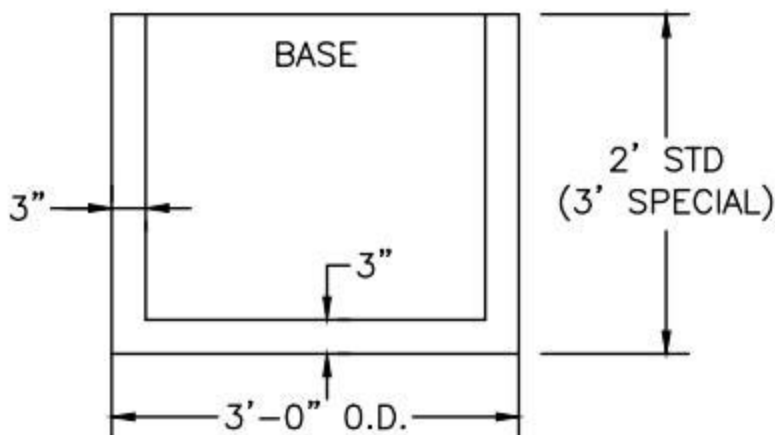
30" I.D. WELL TILE



PLAN VIEW



SECTION VIEW



SECTION VIEW

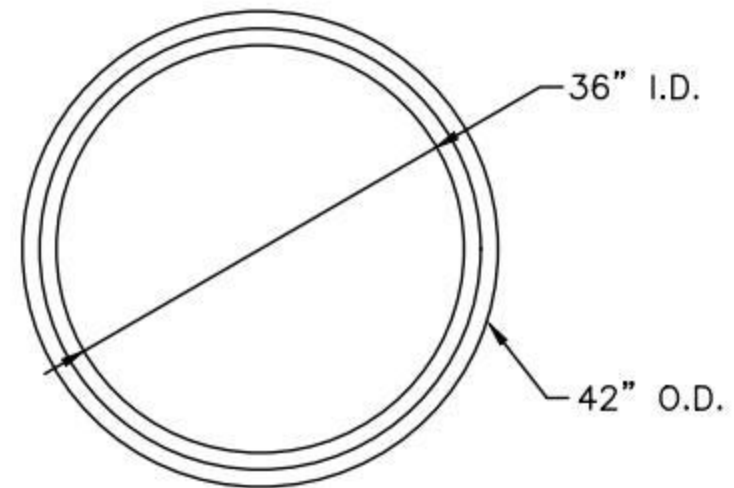
RISER SECTION

HEIGHT	ITEM NO	WEIGHT
1'-0"	WT30X12	320#
2'-0"	WT30X24	640#
3'-0"	WT30X36	960#

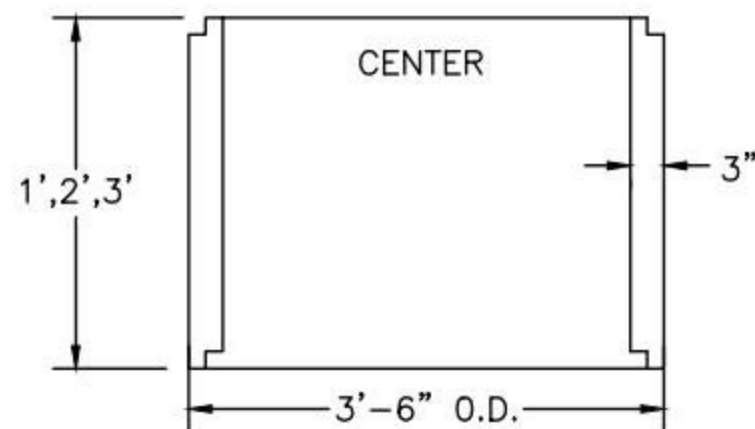
BASE SECTION

HEIGHT	ITEM NO	WEIGHT
2'-0"	WT30X24WB	820#
3'-0"	WT30X36WB	1,140#

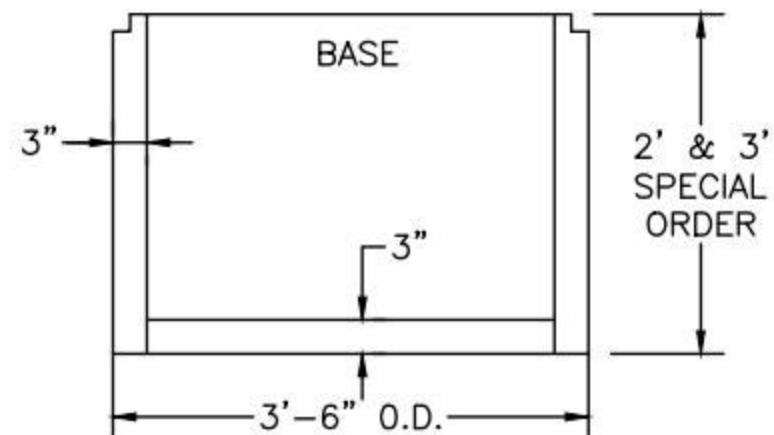
36" I.D. WELL TILE



PLAN VIEW



SECTION VIEW



SECTION VIEW

RISER SECTION

HEIGHT	ITEM NO	WEIGHT
1'-0"	WT36X12	377#
2'-0"	WT36X24	755#
3'-0"	WT36X36	1,132#

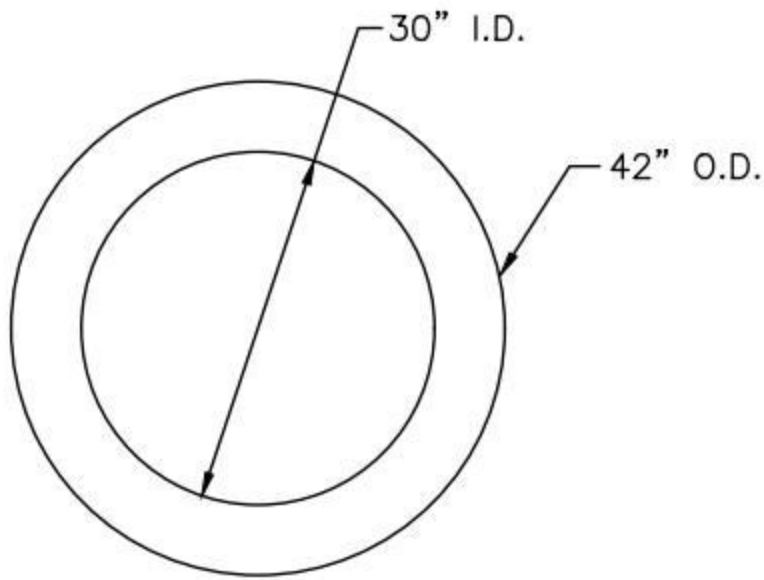
BASE SECTION

HEIGHT	ITEM NO	WEIGHT
2'-0"	WT36X24WB	1,016#
3'-0"	WT36X36WB	1,394#

NOTES:

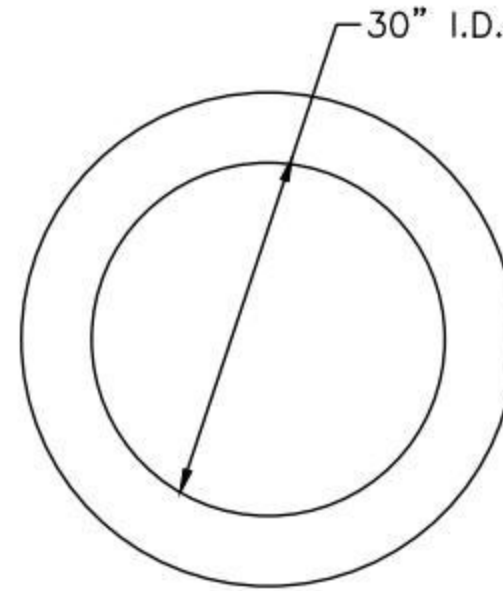
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.

CENTER

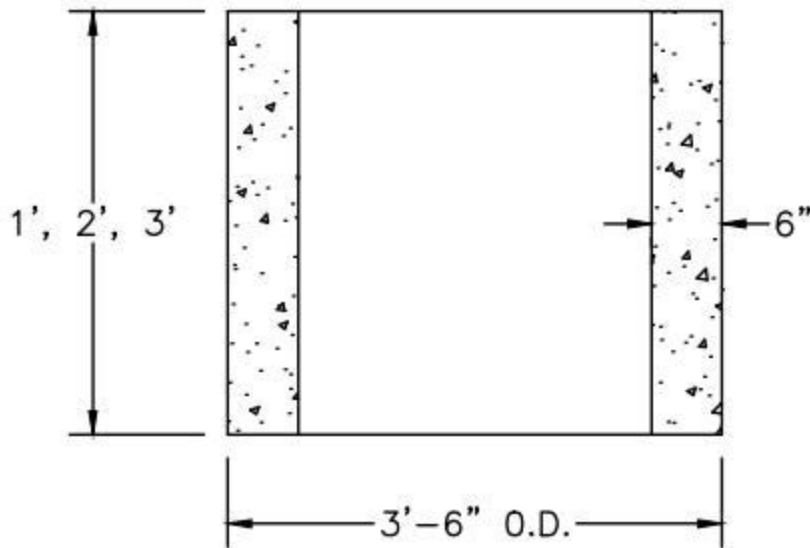


PLAN VIEW

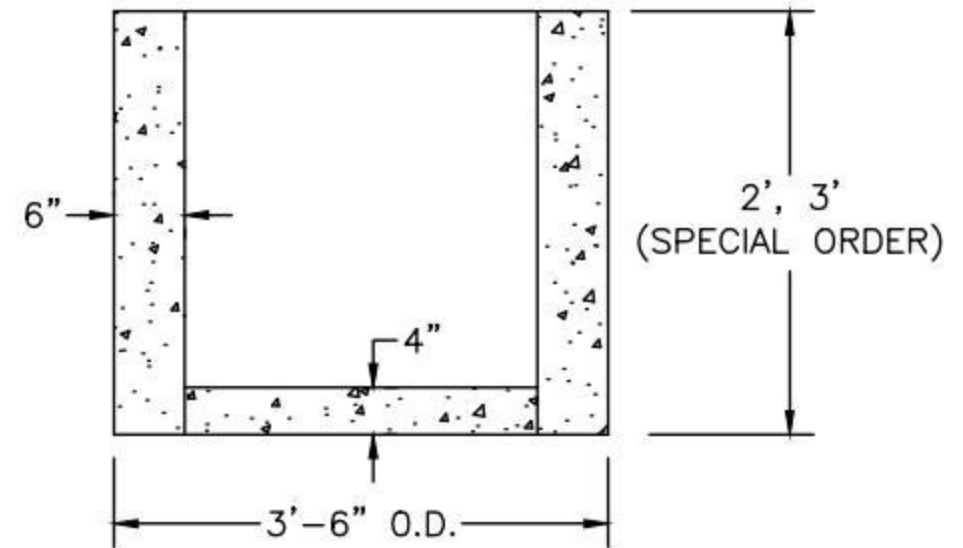
BASE



PLAN VIEW



SECTION VIEW



SECTION VIEW

RISER SECTION

HEIGHT	ITEM NO	WEIGHT
1'-0"	WT30X12H	697#
2'-0"	WT30X24H	1,394#
3'-0"	WT30X36H	2,091#

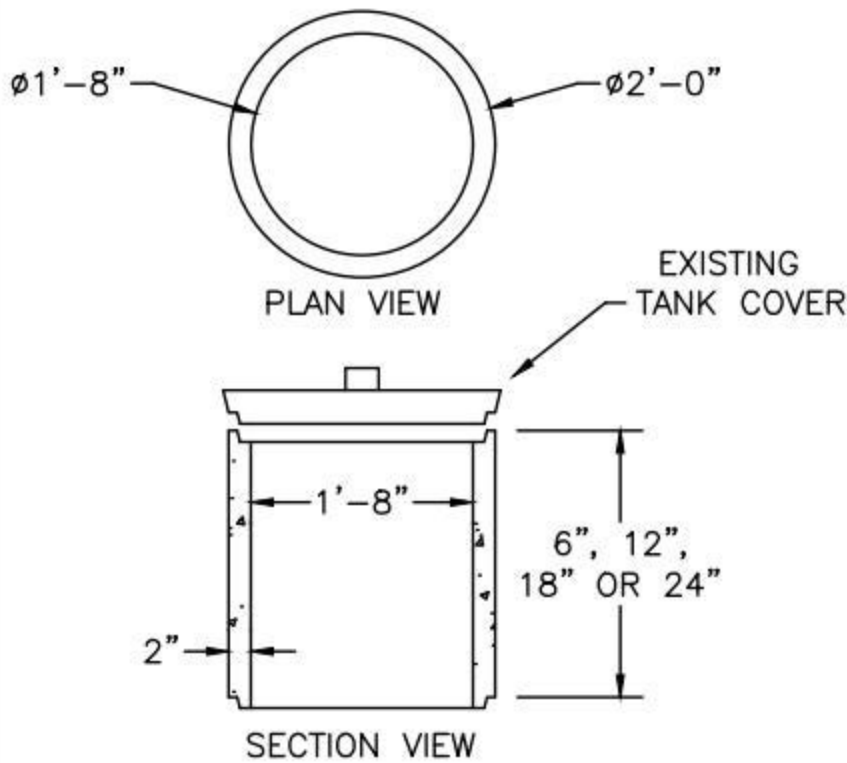
BASE SECTION

HEIGHT	ITEM NO	WEIGHT
2'-0"	WT30X24HWB	1,575#
3'-0"	WT30X36HWB	2,272#

NOTES:

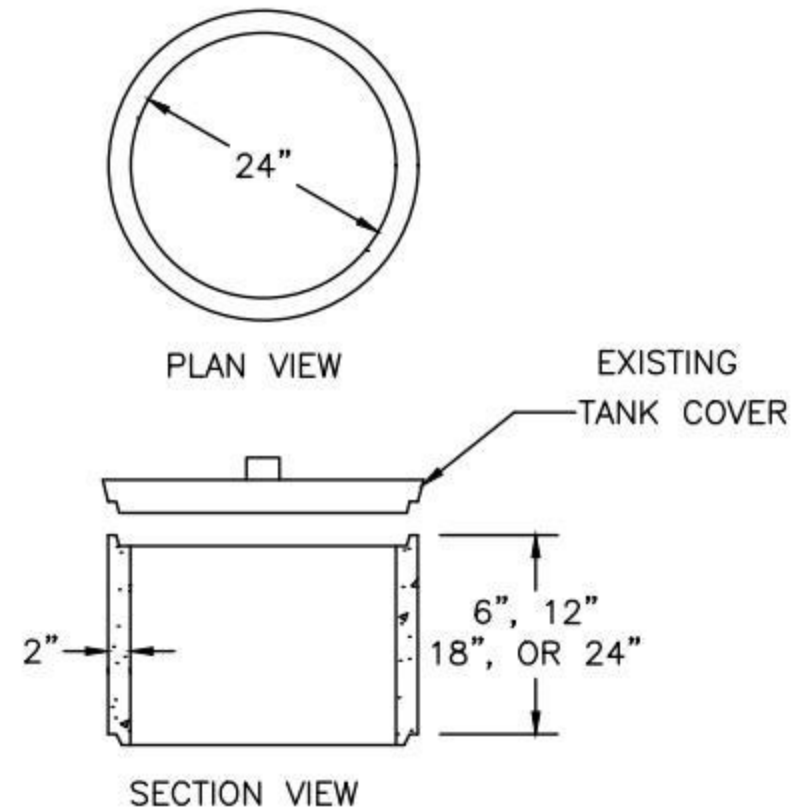
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.

TANK EXTENTIONS



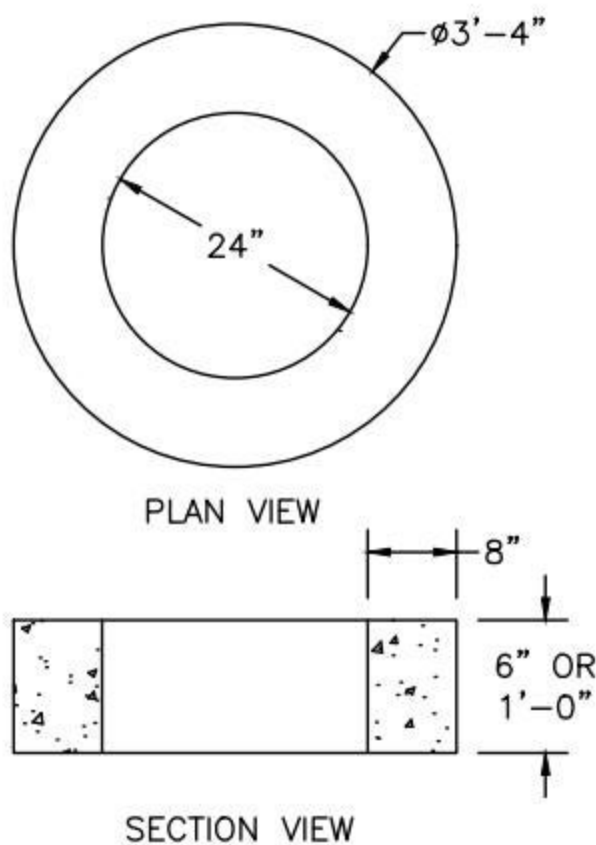
20" ID REGULAR DUTY

ITEM NO.	HEIGHT	WEIGHT
B-TE6X21R	6" HIGH	75#
B-TE12X21R	12" HIGH	150#
B-TE18X21R	18" HIGH	225#
B-TE24X21R	24" HIGH	300#



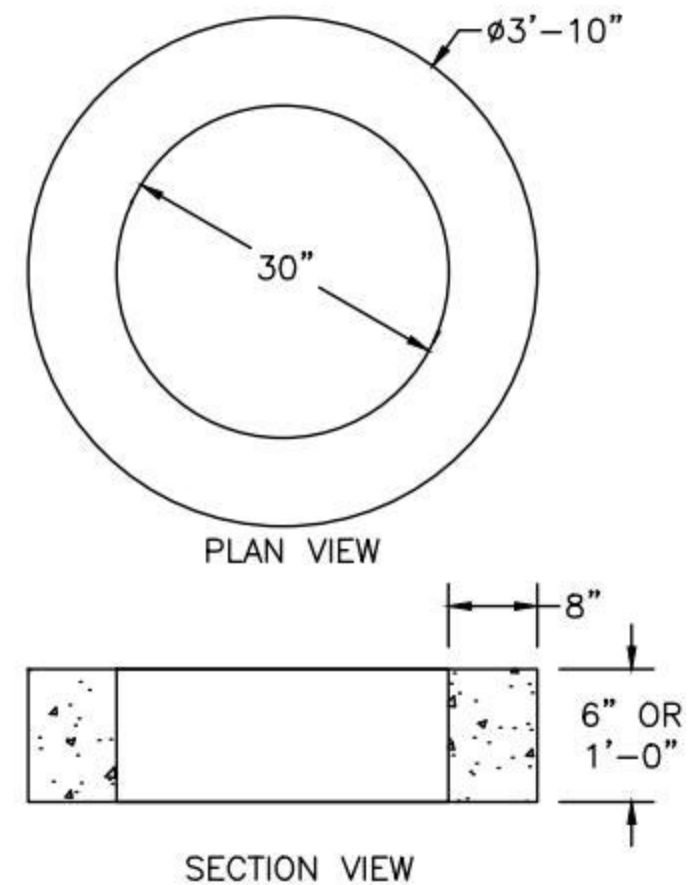
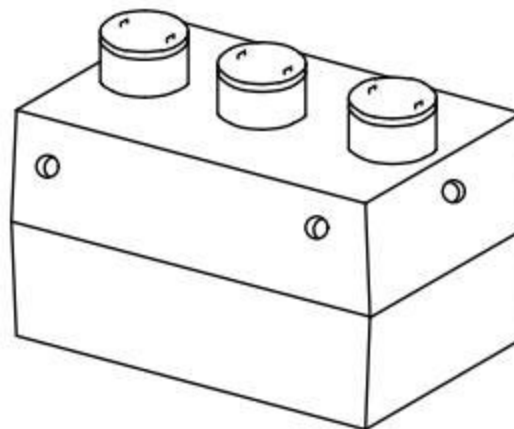
24" ID REGULAR DUTY

ITEM NO.	HEIGHT	WEIGHT
TE6X24R	6" HIGH	85#
TE12X24R	12" HIGH	170#
TE18X24R	18" HIGH	255#
TE24X24R	24" HIGH	340#



TANK RISER H-20

ITEM NO.	HEIGHT	WEIGHT
40X6-24	6" HIGH	414#
40X12-24	12" HIGH	828#



30" ID TANK RISER H-20

ITEM NO.	HEIGHT	WEIGHT
46X6-30	6" HIGH	490#
46X12-30	12" HIGH	980#

SHEA PRODUCT ID:
SEE TABLES

PREPARED FOR:

FILE NAME:

tankexts.dwg

WEIGHT (LBS):
SEE TABLES

DRAWN BY: ARO

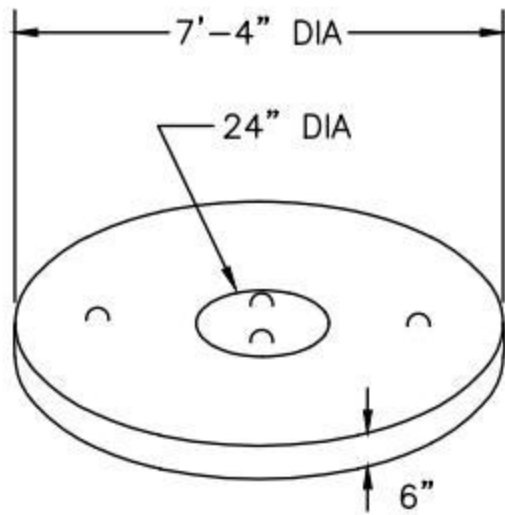
DATE: 06/01/18

PAGE: M3

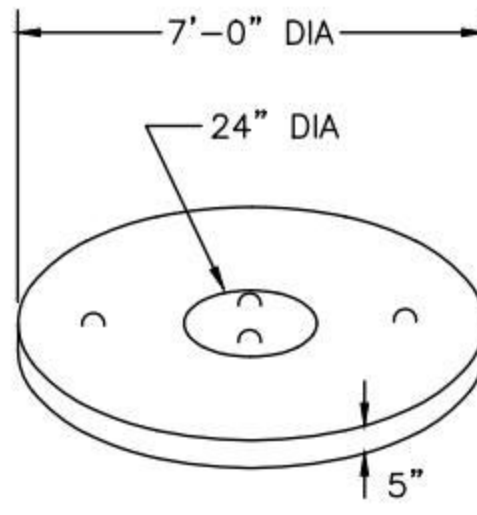


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

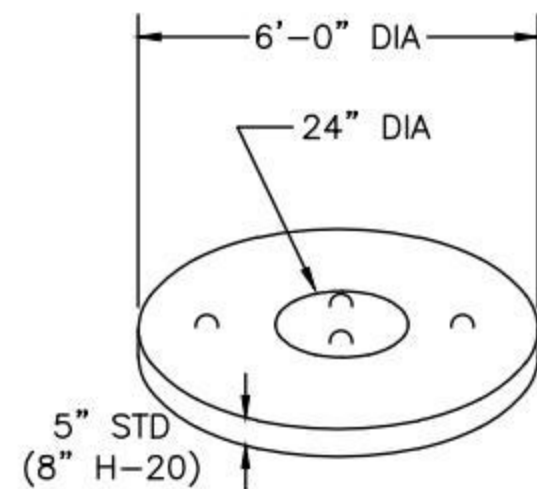
Specifications subject to change without notice



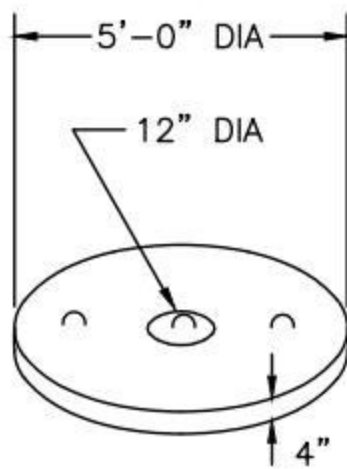
ITEM NO.	STANDARD	WEIGHT
C-88C		3,000#



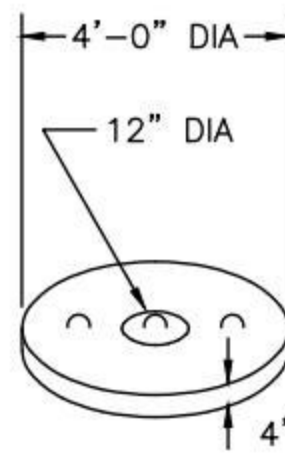
ITEM NO.	STANDARD	WEIGHT
C-84C		2,300#



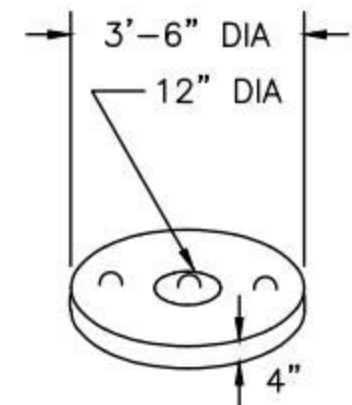
ITEM NO.	STANDARD	WEIGHT
C-72C		1,700#
C-72CH	H-20	2,700#



ITEM NO.	STANDARD	WEIGHT
C-60C		930#

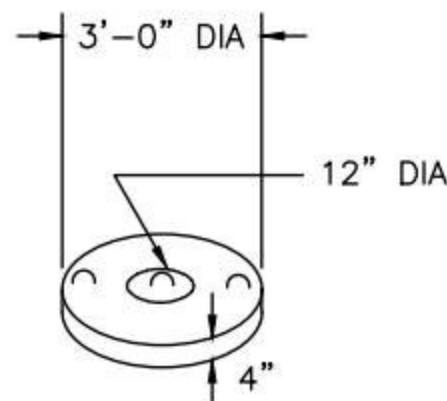


ITEM NO.	STANDARD	WEIGHT
C-48C		600#

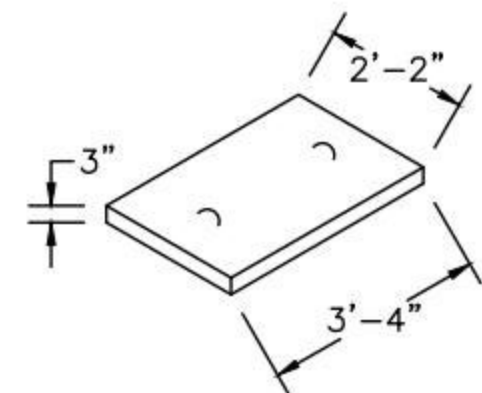


WELL TILE COVER
WITH OR WITHOUT HAT

ITEM NO.	STANDARD	WEIGHT
C-42WTC		450#



ITEM NO.	STANDARD	WEIGHT
C-36WTC		262#

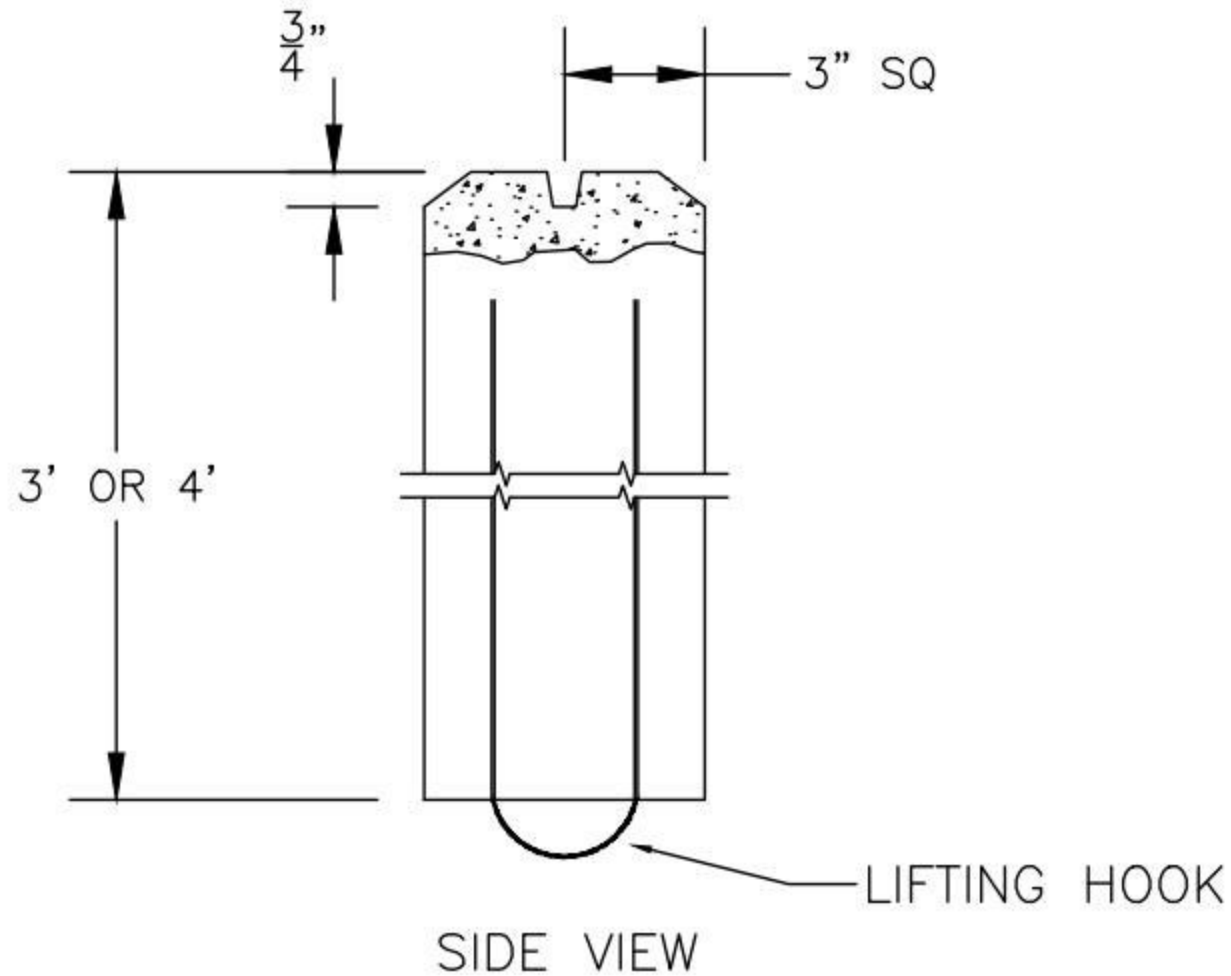
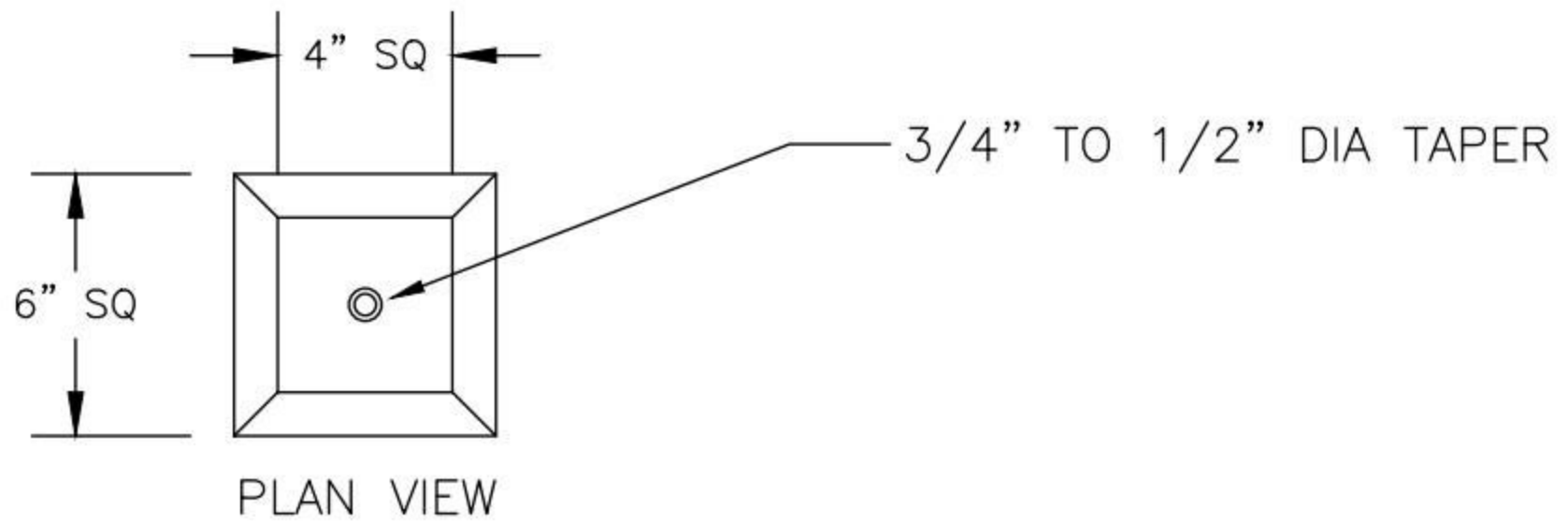


AIR CONDITIONER PAD

ITEM NO.	STANDARD	WEIGHT
C-ACP		250#


NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.

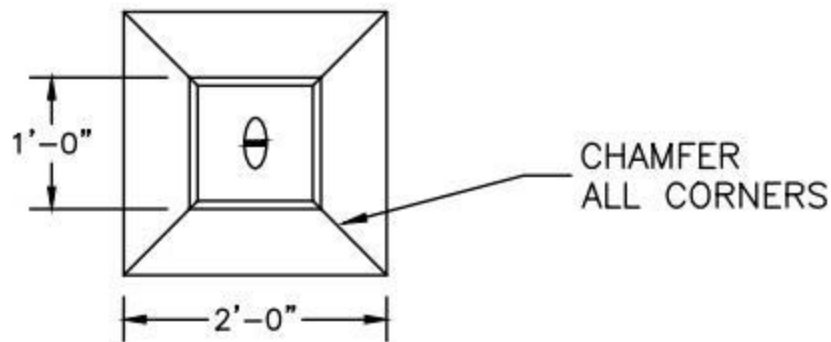


NOTES:

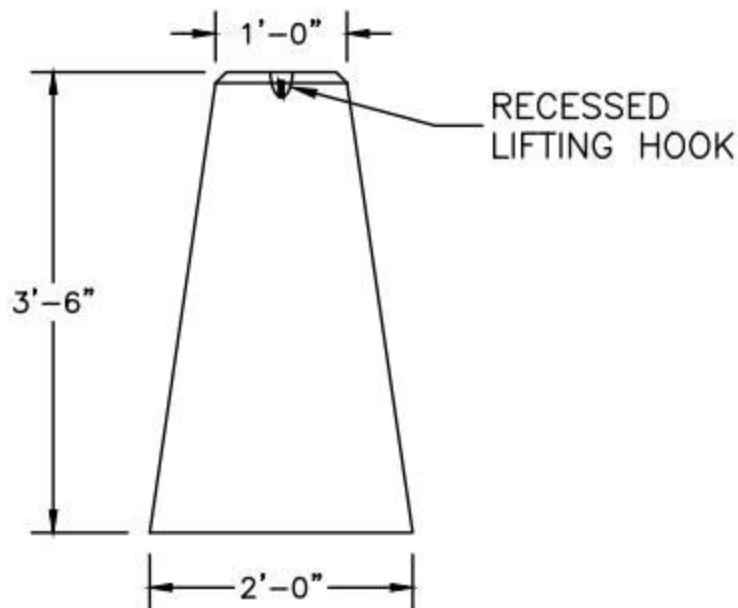
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS

SHEA PRODUCT ID: BM6-3/BM6-4		PREPARED FOR:		FILE NAME: boundmrk.dwg			
WEIGHT (LBS): 110#/147#		DRAWN BY: ARO		DATE: 06/01/18			PAGE: M5
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH							

PRECAST BOLLARD



TOP VIEW



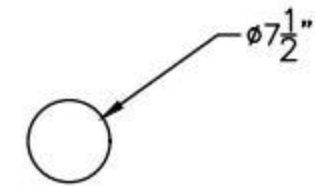
SIDE VIEW

CONCRETE BOLLARD

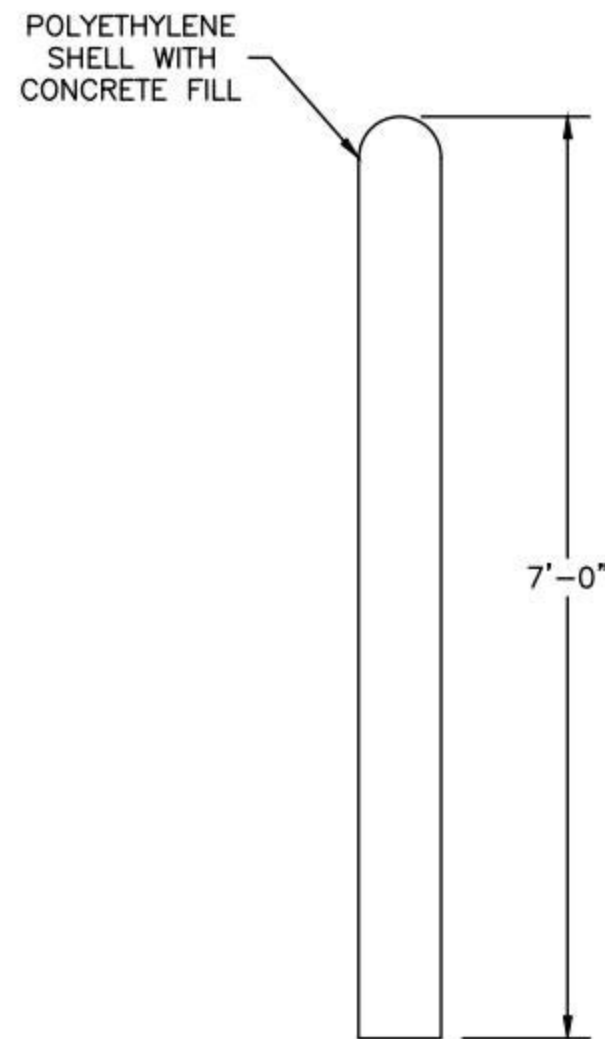
		WEIGHT
ITEM NO.	MC-BOLLARD12X24	1,200#

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. STEEL REINFORCEMENT MEETS ASTM A615, GRADE 60. MINIMUM STEEL COVER 2".



TOP VIEW



SIDE VIEW

POLYETHYLENE BOLLARD

		WEIGHT
ITEM NO.	MC-BOLLARD	290#

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. STEEL REINFORCEMENT CONCRETE FILLED POLYETHYLENE.
3. AVAILABLE IN 5 COLORS: YELLOW, RED, BLUE, LIGHT & DARK GRANITE.

SHEA PRODUCT ID:
SEE TABLES

PREPARED FOR:

FILE NAME:

Bollards.dwg

WEIGHT (LBS):
SEE TABLES

DRAWN BY: ARO

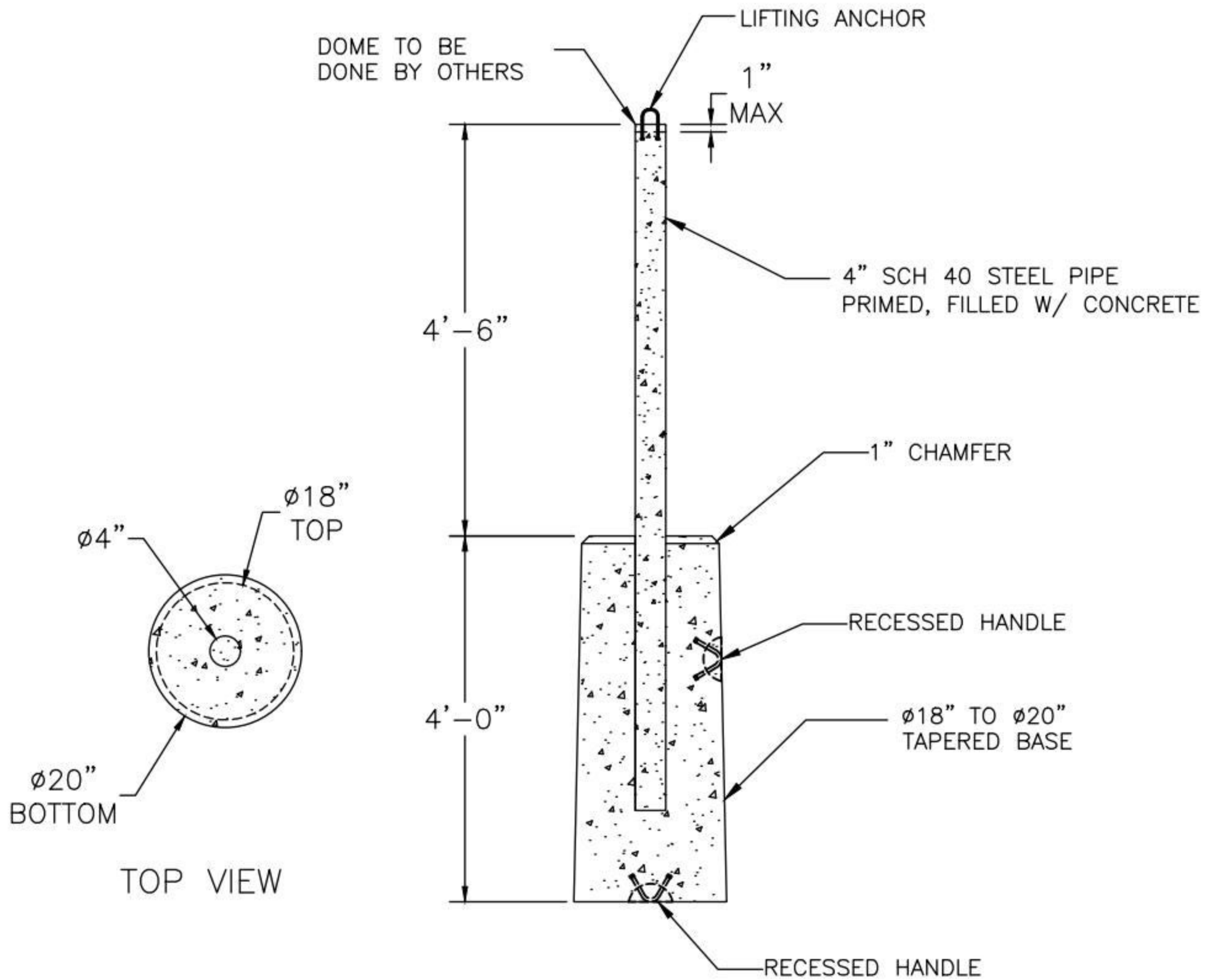
DATE: 06/01/18

PAGE: M6.1



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATION: ASTM A185 WELDED WIRE FABRIC
3. DECORATIVE POLYETHYLENE SLEEVES AVAILABLE

SHEA PRODUCT ID:
PB4-BOLLARD

PREPARED FOR:

FILE NAME:
4IN BOLLARD W BASE.dwg

WEIGHT (LBS):
1,200#

DRAWN BY:
ARO

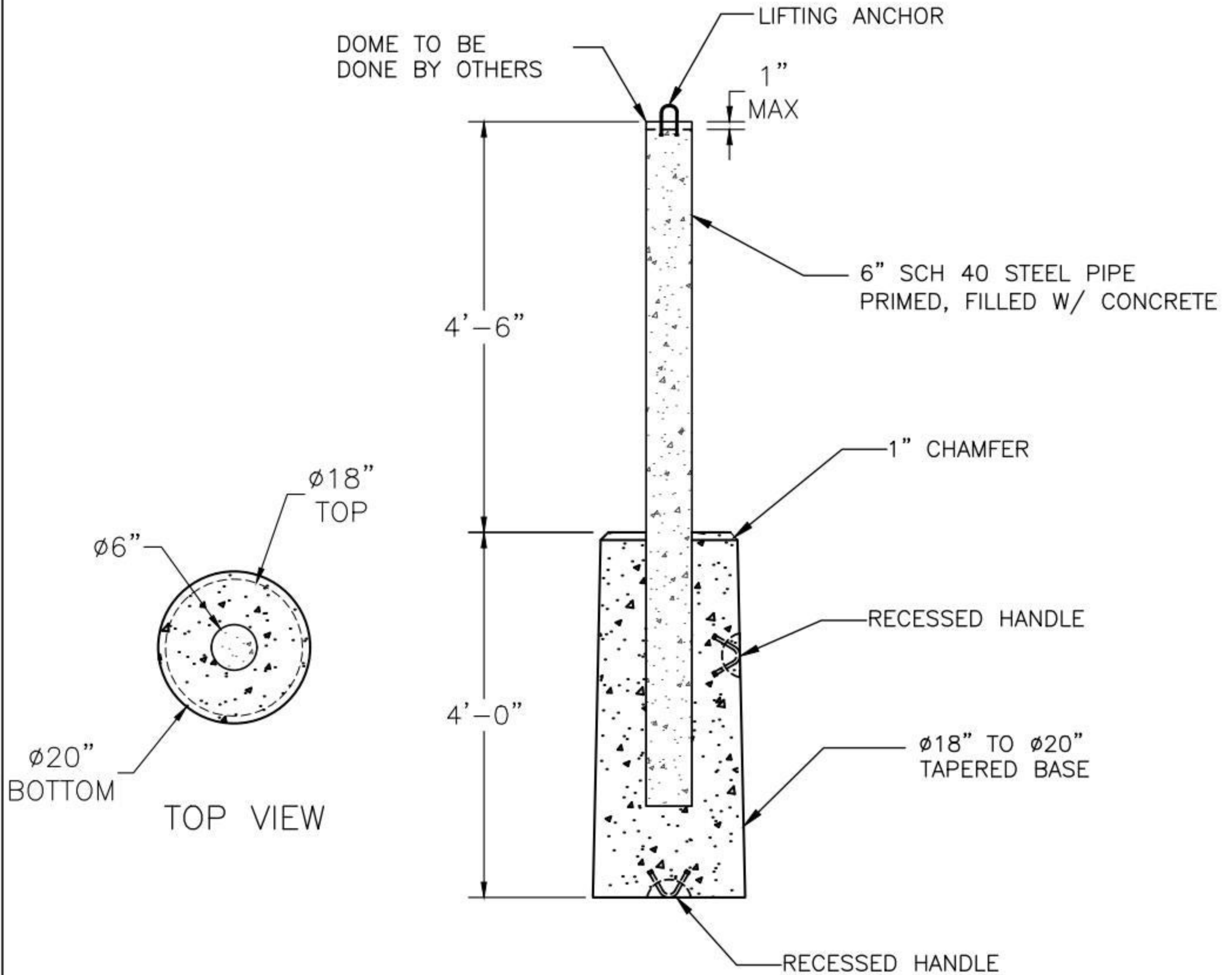
DATE:
06/01/18

PAGE:
M6.2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATION: ASTM A185 WELDED WIRE FABRIC
3. DECORATIVE POLYETHYLENE SLEEVES AVAILABLE

SHEA PRODUCT ID:
PB6-BOLLARD

PREPARED FOR:

FILE NAME:
6IN BOLLARD W BASE.dwg

WEIGHT (LBS):
1,300#

DRAWN BY:
ARO

DATE:
06/01/18

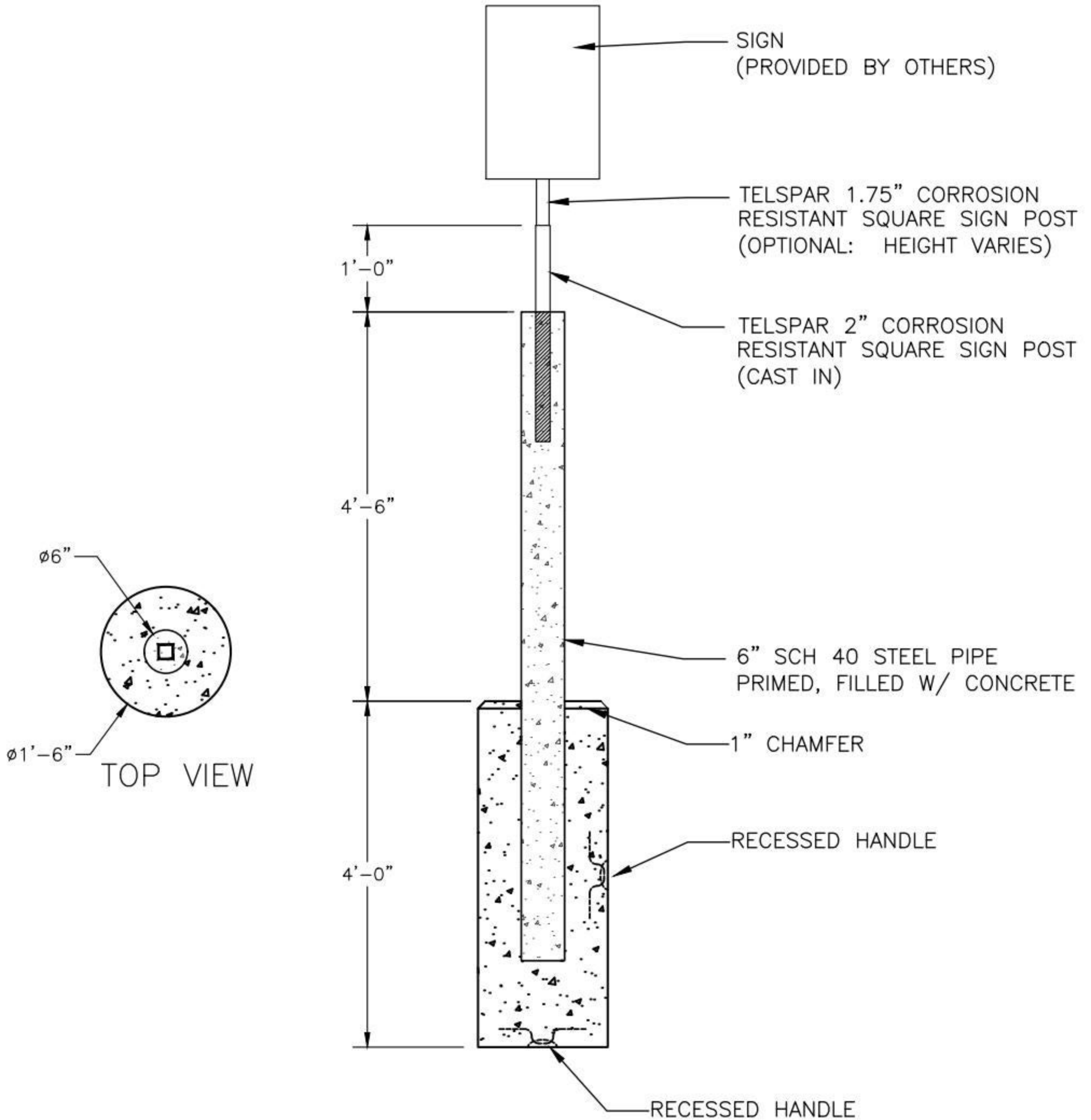
PAGE:
M6.3



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

6" DIAMETER SIGN BOLLARD WITH BASE



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATION: ASTM A185 WELDED WIRE FABRIC

SHEA PRODUCT ID:
PB6-BOLLARDSIGN

PREPARED FOR:

FILE NAME:
6IN SIGN BOLLARD W BASE.dwg

WEIGHT (LBS):
1,300#

DRAWN BY:
ARO

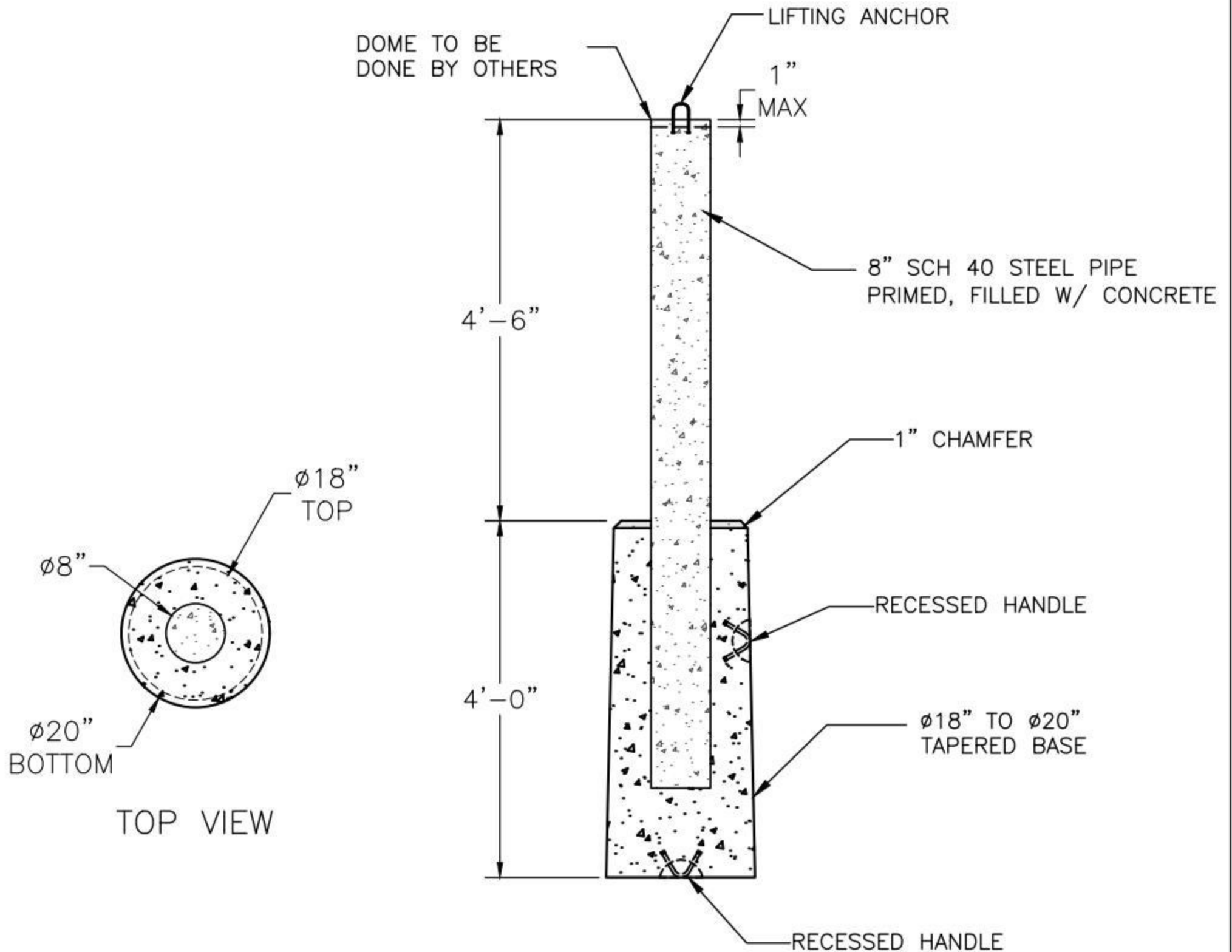
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06/01/18

PAGE:
M6.4



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. STEEL REINFORCEMENT CONFORMS TO LATEST ASTM SPECIFICATION: ASTM A185 WELDED WIRE FABRIC
3. DECORATIVE POLYETHYLENE SLEEVES AVAILABLE

SHEA PRODUCT ID:
PB8-BOLLARD

PREPARED FOR:

FILE NAME:
8IN BOLLARD W BASE.dwg

WEIGHT (LBS):
1,420#

DRAWN BY:
ARO

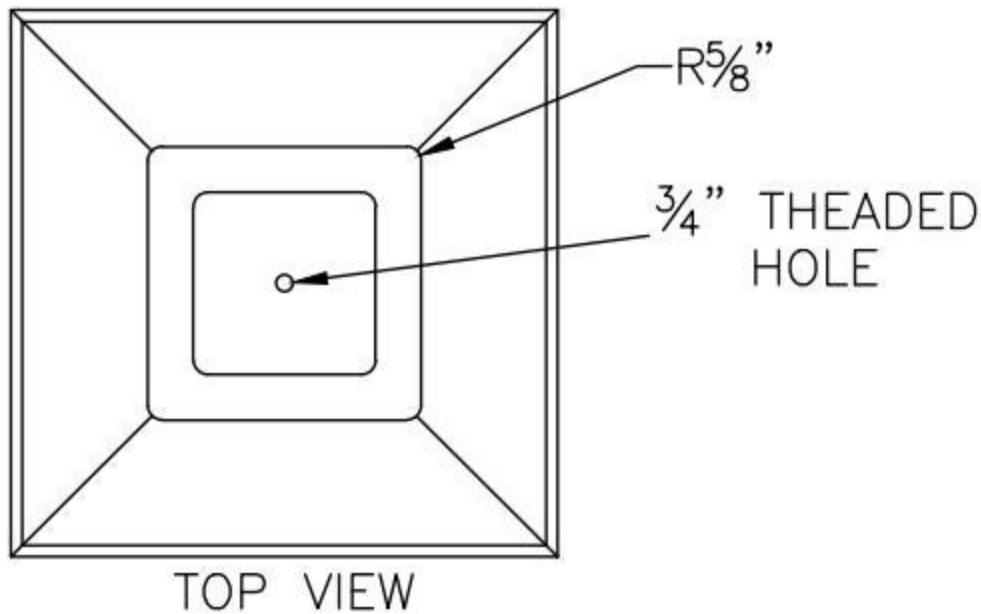
DATE:
06/01/18

PAGE:
M6.5

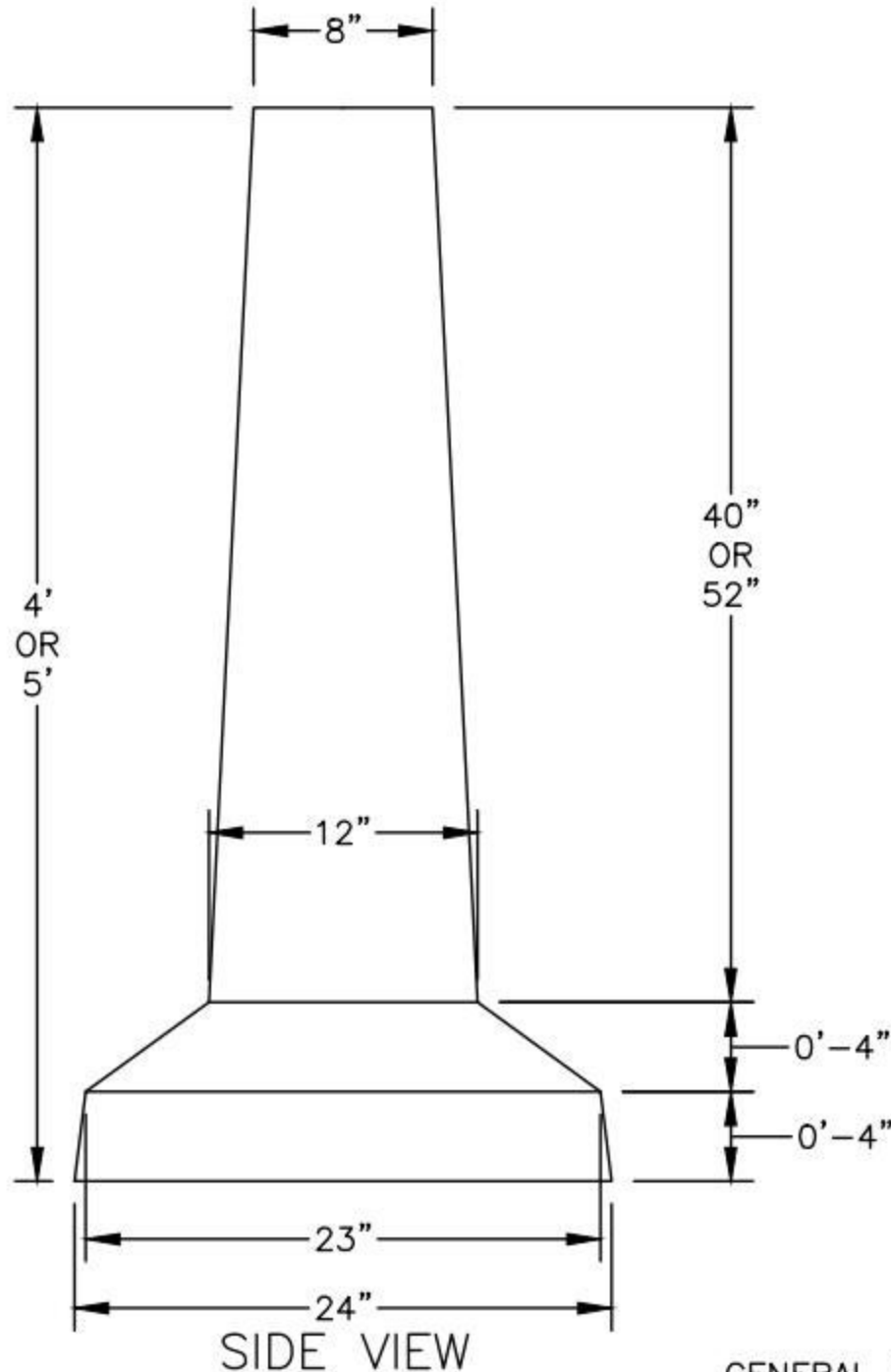


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

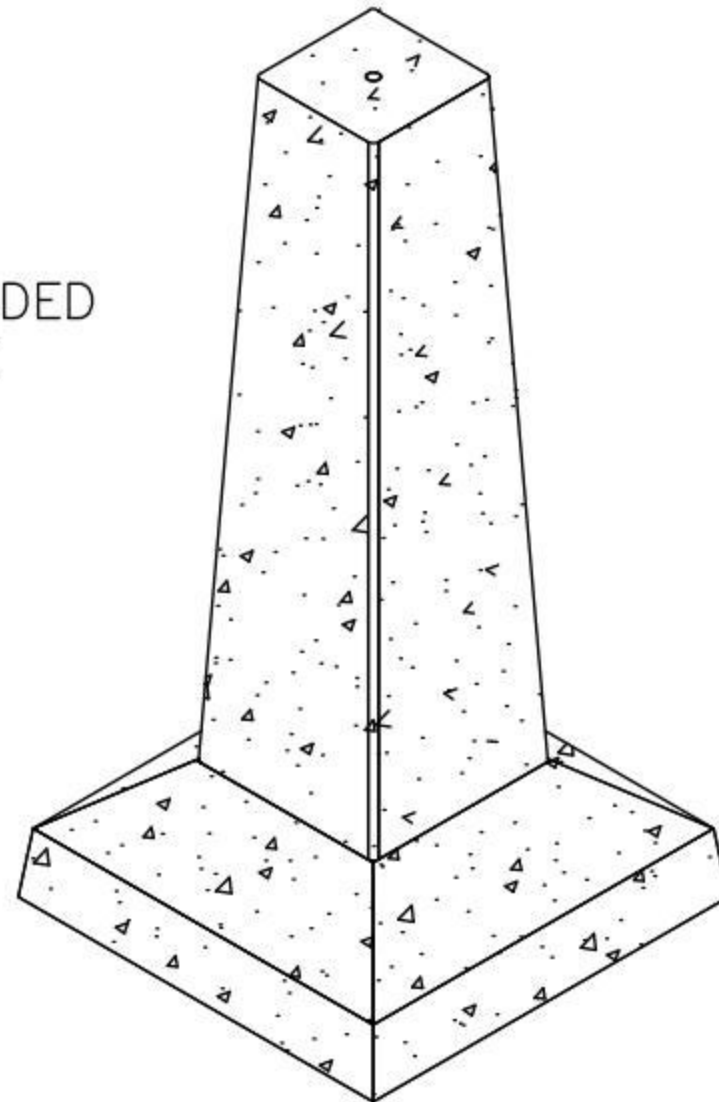
Specifications subject to change without notice



TOP VIEW



SIDE VIEW



PRECAST VS. CONVENTIONAL

CONVENTIONAL 12" DIAMETER SONOTUBE:
ALLOWABLE LOAD BEARING AT SOIL =
ALLOWABLE BEARING CAPACITY * AREA =
 $2000\text{PSF} * (0.5 * 0.5 * 3.142) = 1571\text{LBS}$
MAX LOAD BEARING IS 1,571LBS

PRECAST FOOTING/FROST POST:
ALLOWABLE LOAD BEARING AT TOP =
CONCRETE PSI * AREA / FACTOR OF SAFETY
 $4000\text{PSI} * (8 * 8) / 2.22 = 115,315\text{LBS}$

ALLOWABLE LOAD BEARING AT SOIL =
ALLOWABLE BEARING CAPACITY * AREA =
 $2000\text{PSF} * (2 * 2) = 8,000\text{LBS}$

THEREFORE MAX ALLOWABLE LOAD APPLIED
IS LIMITED BY THE SOILS CAPACITY OF
8,000LBS, WHICH IS GREATER THAN THE MAX
LOAD OF 1,571LBS FOR THE 12" SONOTUBE

GENERAL NOTES:

1. CONCRETE 4000 PSI IN 28 DAYS.
2. CALCULATIONS BASED ON SOIL PRESSURE OF 2000 PSF.

SHEA PRODUCT ID:
SONA4/SONA5

PREPARED FOR:

FILE NAME:

FrostPost8SQ.dwg

WEIGHT (LBS):
624#/725#

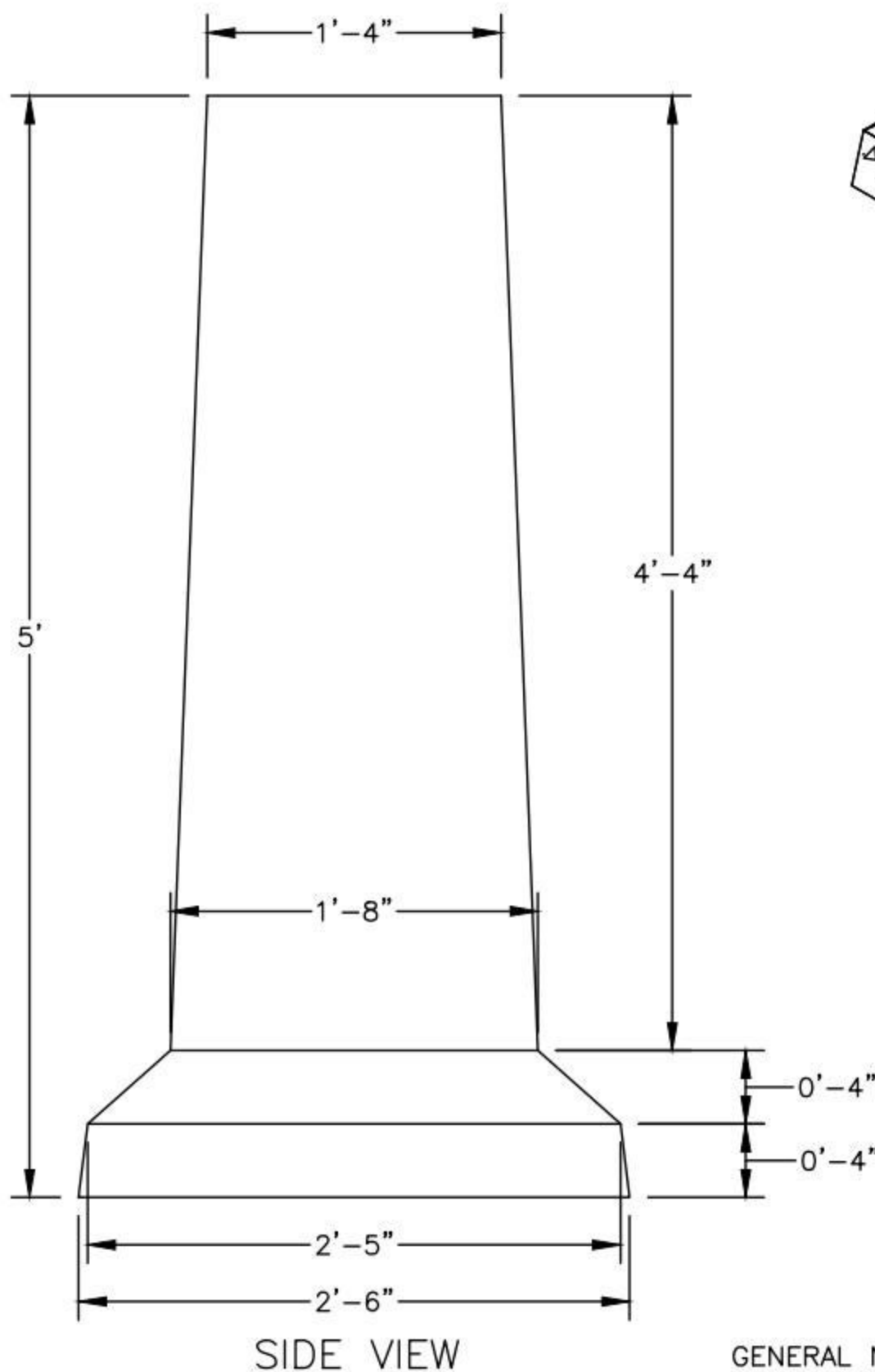
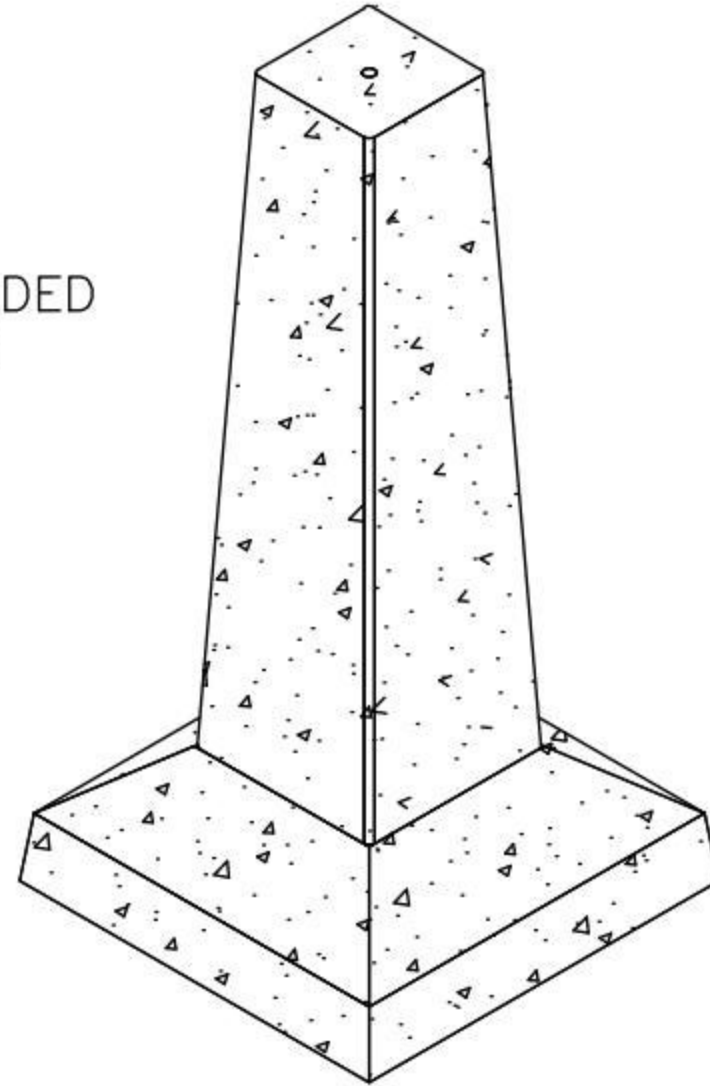
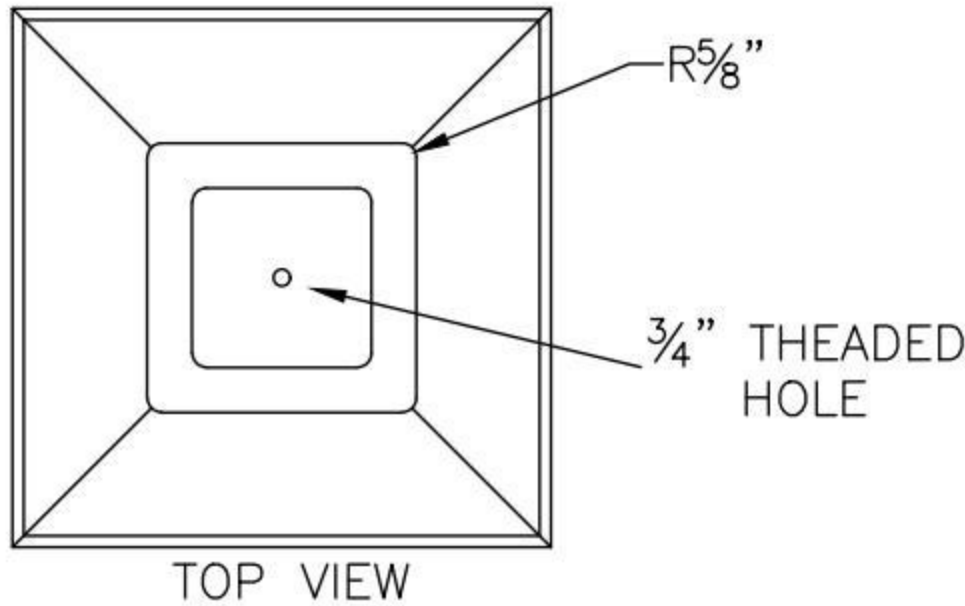
DRAWN BY:
ARO

DATE:
03/01/2018

PAGE:
M7.1



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH




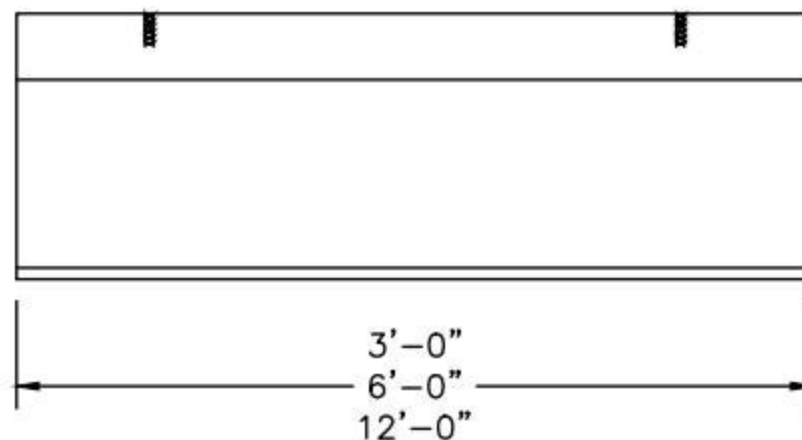
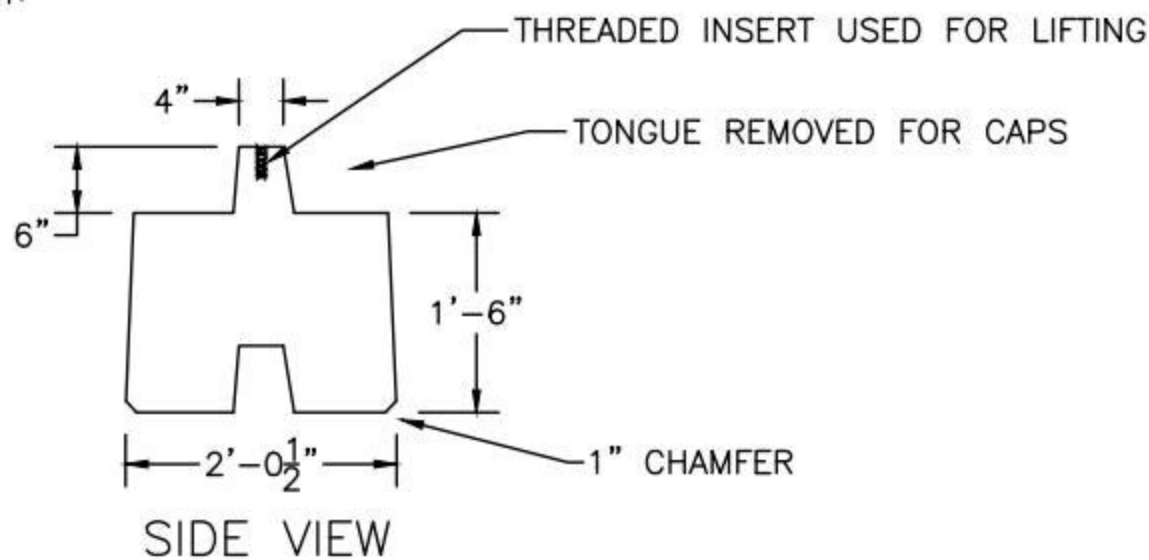
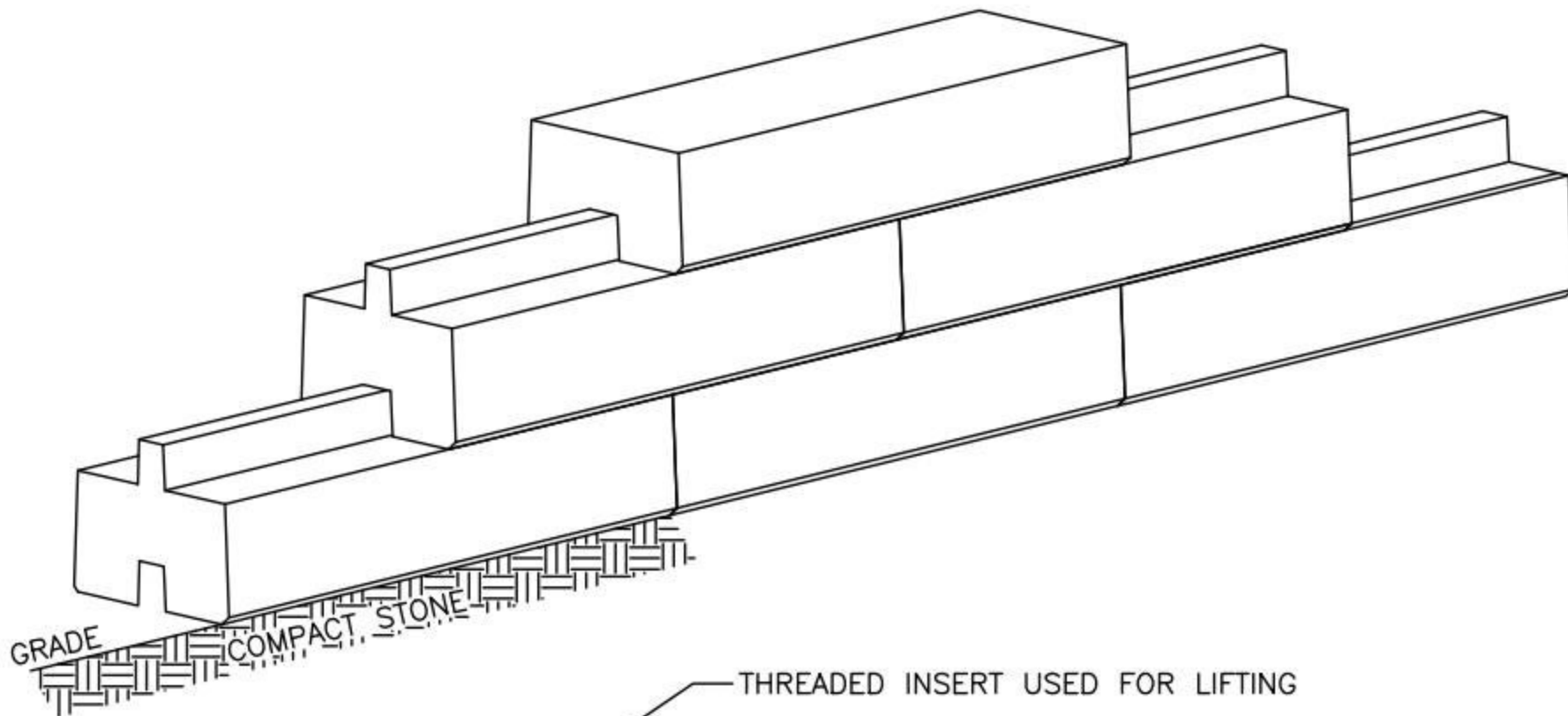
PRECAST FOOTING/FROST POST:
LOAD BEARING AT TOP =
CONCRETE PSI * AREA * FACTOR OF SAFETY
 $4000\text{PSI} * (16*16) * 0.45 = 460,800\text{LBS}$

LOAD BEARING AT SOIL =
SOIL PRESSURE * AREA =
 $2000\text{PSF} * (2.5*2.5) = 12,500\text{LBS}$

THEREFORE MAX LOAD BEARING IS LIMITED
TO SOIL CONDITIONS OF 12,500LBS

GENERAL NOTES:
1. CONCRETE 4000 PSI IN 28 DAYS.
2. CALCULATIONS BASED ON SOIL PRESSURE OF 2000 PSF.

SHEA PRODUCT ID: SONA16		PREPARED FOR:		FILE NAME: SONATUBE18SQ.DWG			
WEIGHT (LBS): 1600#		DRAWN BY: ARO		DATE: 03/01/2018			PAGE: M7.2
773 Salem Street—Wilmington, MA 153 Cranberry Hwy—Rochester, MA 87 Haverhill Road—Amesbury, MA 160 Old Turnpike Rd—Nottingham, NH							



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.

		WEIGHT
ITEM NO.	BB3TG	1,388#
ITEM NO.	BB6TG	2,775#
ITEM NO.	BB12TG	5,550#

		WEIGHT
ITEM NO.	BB3C	1,319#
ITEM NO.	BB6C	2,627#
ITEM NO.	BBDF	270#
ITEM NO.	BBSF	270#

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:

BunkerBlock.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY: ARO

DATE: 03/01/2018

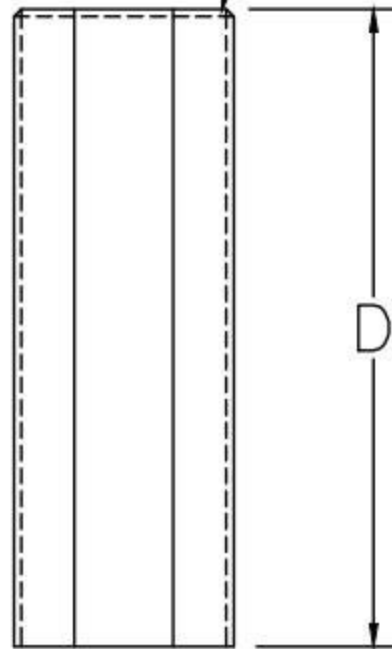
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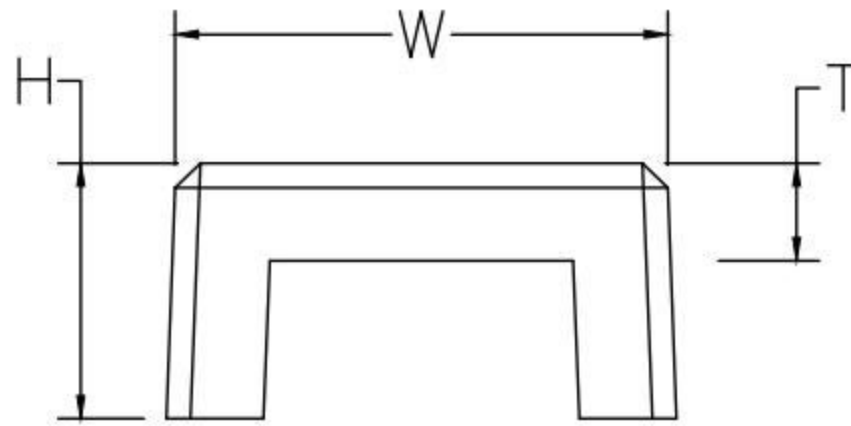
773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

1/2" CHAMFER
 (TYP)



SIDE VIEW

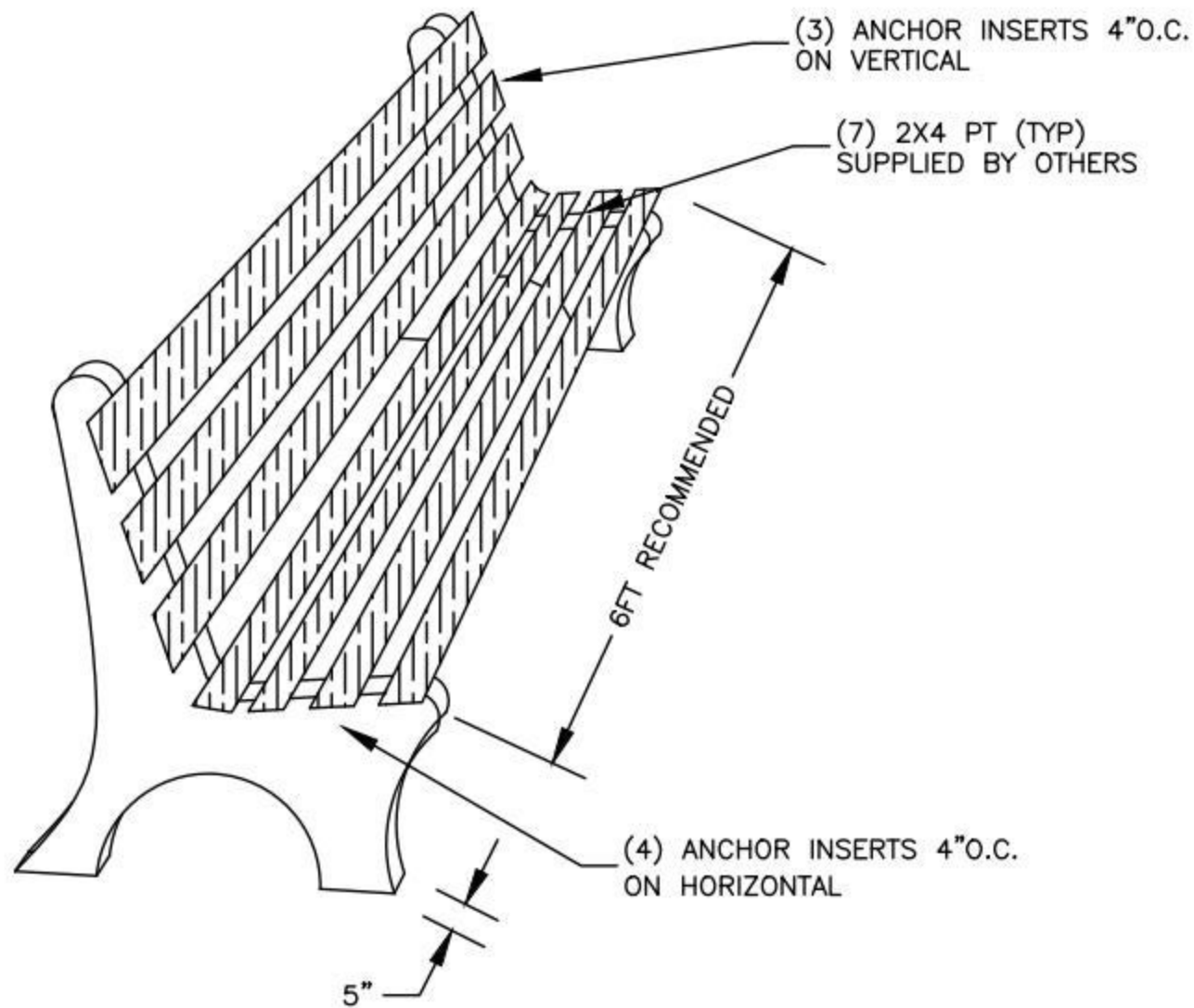


TOP VIEW

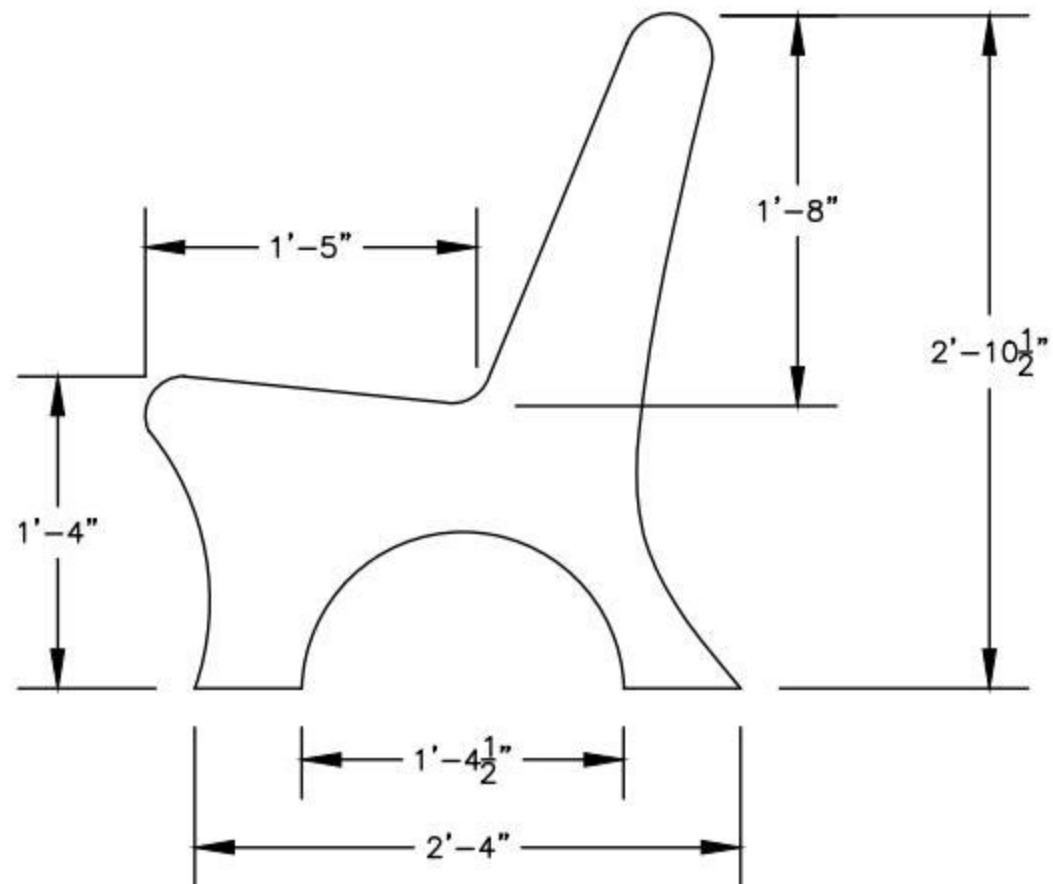
COLUMN WRAP DIMENSIONS					
DIMS	H	W	T	D	WEIGHT
CW5X10	5 1/4"	10 1/8"	3 1/4"	3'-6"	115#
CW7X14	7"	1'-2"	3 3/4"	3'	230#
CW7X14 (A1)	7"	1'-2"	2 3/4"	3'	230#
CW7X14 (A2)	7"	1'-2"	3 1/2"	3'	230#
CW14X14	1'-1 3/4"	1'-2"	4"	3'	392#

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. EPOXY BY OTHERS



ISO VIEW



SIDE VIEW

NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. INSERTS FOR 3/8-16 FLAT HEAD BOLTS, 2 1/2" (QTY: 7 PER END)

SHEA PRODUCT ID:
BENCH

PREPARED FOR:

FILE NAME:

BenchEnd.dwg

WEIGHT (LBS):
450#

DRAWN BY:
ARO

DATE:
03/01/2018

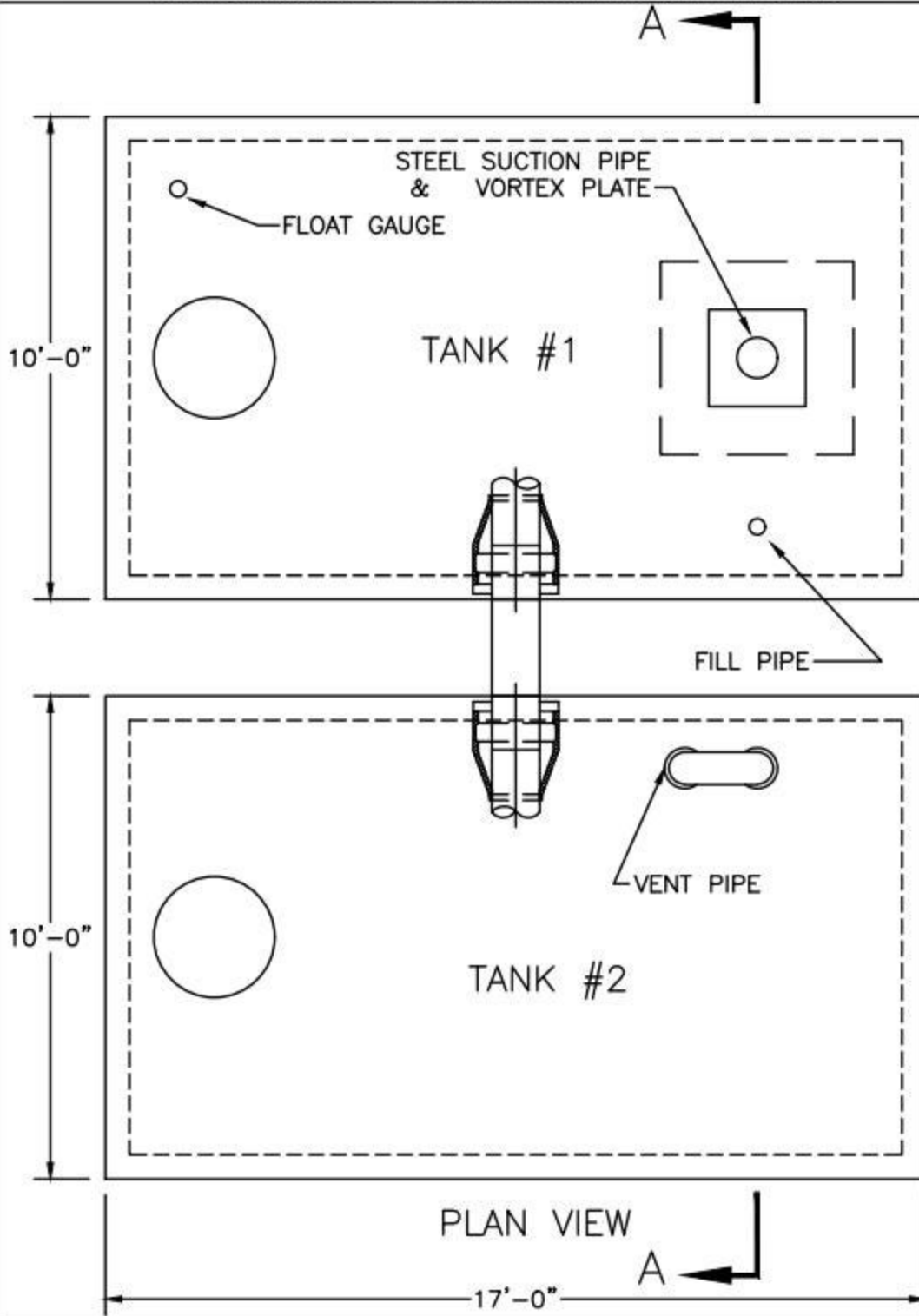
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M10



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

FIRE CISTERN



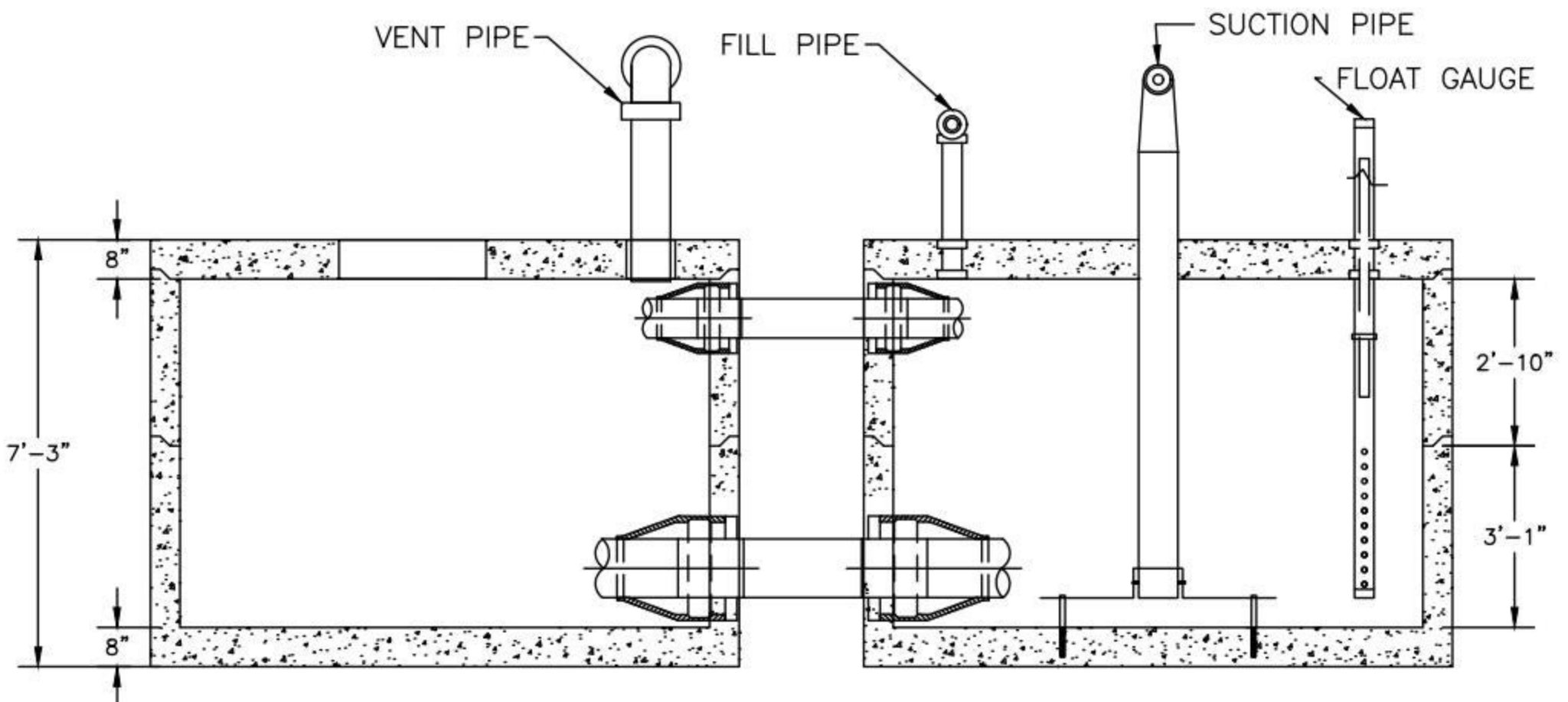
ROAD WAY

BACKFILL NOTES:

- 1) FOUNDATION MATERIAL SHALL BE $\frac{3}{4}$ " CRUSHED STONE, MINIMUM 12" THICK.
- 2) BACKFILL MATERIAL SHALL BE NO GREATER THAN $1\frac{1}{2}$ " AND SHALL BE COMPACTED TO 95% PROCTOR. ALL COMPACTION TO BE DONE WITH HAND-OPERATED EQUIPMENT.
- 3) ALL AREAS BETWEEN TANKS SHALL BE FILLED TO A MINIMUM OF 12" ABOVE CROWN OF INTERCONNECTION PIPE WITH $\frac{3}{4}$ " CRUSHED STONE.
- 4) ALL BACKFILL MATERIAL AROUND AND BETWEEN TANKS SHALL BE PLACED IN 12" LIFTS EVENLY ON ALL SIDES.
- 5) 2" INSULATION IS REQUIRED IF THE FILL OVER THE FIRE CISTERN IS LESS THAN 4 FEET. SUPPLIED BY OTHERS.

NOTES:

- 1) CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
- 2) REINFORCING PER ASTM A615, GRADE 60 MINIMUM 1" COVER.
- 3) DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET.
- 4) TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN PER ASTM C990. OVERALL HEIGHT MAY INCREASE DUE TO THE BUTYL RESIN USED.
- 5) EXTERIOR COATED UPON REQUEST.
- 6) DIMENSIONS BASED ON 10,000 GALLON FIRE CISTERN, OTHER SIZES AVAILABLE UPON REQUEST.



SHEA PRODUCT ID:

PREPARED FOR:

FILE NAME:

FireCistern.dwg

WEIGHT (LBS):

DRAWN BY:

ARO

DATE:

06/01/18

PAGE:

M11



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice

BOAT RAMP PANEL

3/8" GALVANIZED CABLE LOOPS
8'-0" TOTAL LENGTH TYPICAL
(SEE CONNECTION DETAIL BELOW)

AS REQ'D
12" TYP

8'-0"
OR AS REQ'D

16'-0"
OR AS REQ'D

TOP VIEW

8" THICK
OR AS
REQ'D

'V' GROOVE
(SEE DETAIL)

16'-0"

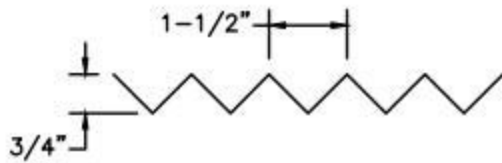
SIDE VIEW

8" THICK
OR AS
REQ'D

'V' GROOVE

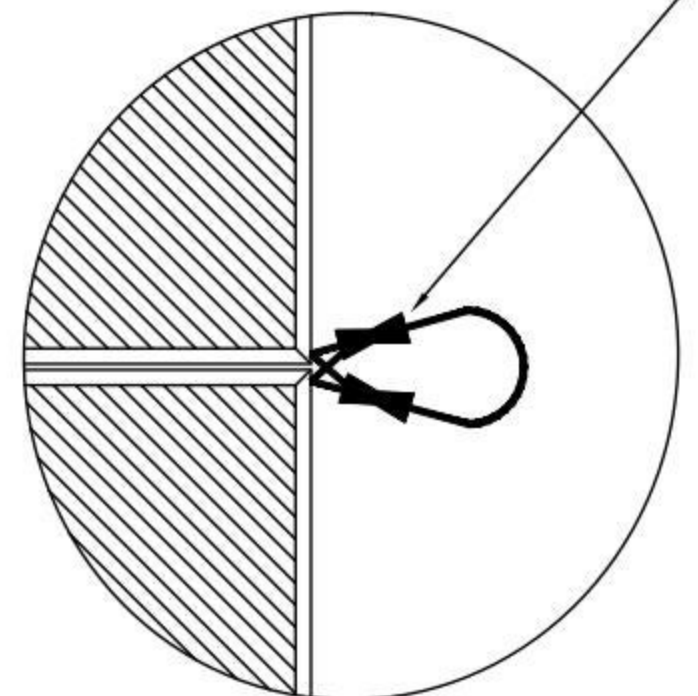
8'-0"

END VIEW



'V' GROOVE DETAIL

CABLE CLAMP
CONNECTS LOOPS



TYPICAL PANEL CONNECTION

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS
2. REBAR TO BE #4 EPOXY COATED (TYP 12" O.C. BOTH WAYS).

SHEA PRODUCT ID:

PREPARED FOR:

FILE NAME:

Boat Ramp Panel.dwg

WEIGHT (LBS):

DRAWN BY:

ARO

DATE:

03/01/2018

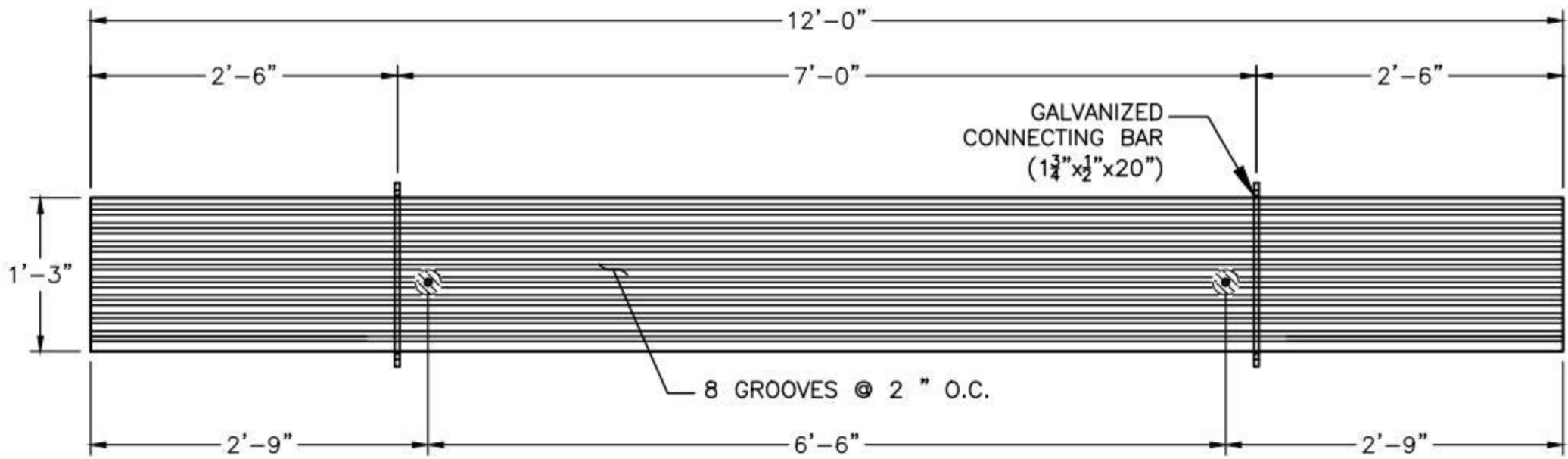
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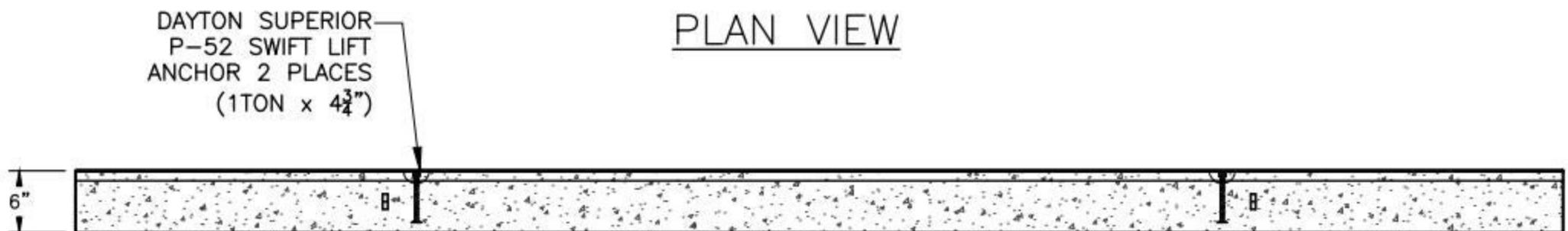


773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

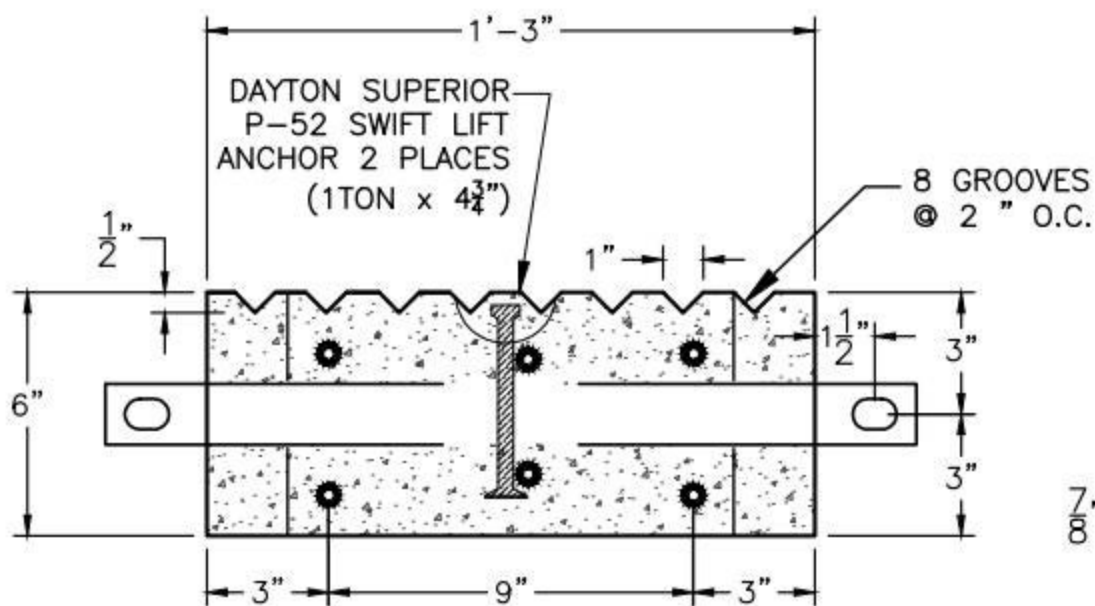
Specifications subject to change without notice



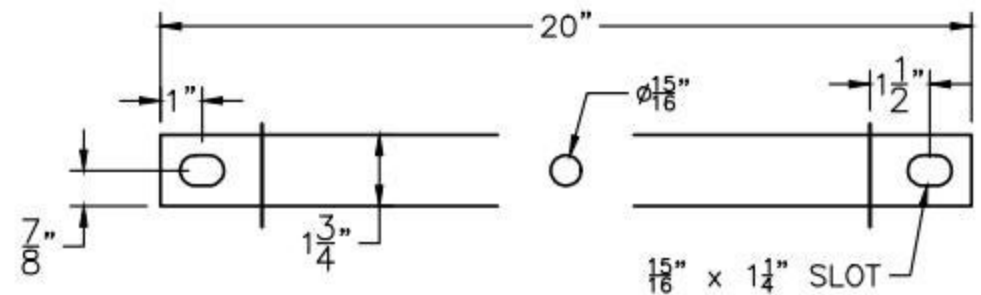
PLAN VIEW



ELEVATION VIEW



ENLARGED SECTION VIEW



GALVANIZED CONNECTING BAR
(1 3/4" x 1/2" x 20")

NOTES:

1. CONCRETE: 5000 PSI MINIMUM AFTER 28 DAYS
2. REINFORCED STEEL: CONFORMS TO ASTM A615 GRADE 60
(6) #4 REBAR W/ 1 1/2" COVER.
3. 1 3/4" x 1/2" x 20" STEEL CAST INTO CONCRETE SECTIONS.

WEIGHT

TOTAL	1,050
-------	-------

SHEA PRODUCT ID:

PREPARED FOR:

FILE NAME:

Boat Ramp NHFG.dwg

WEIGHT (LBS):

DRAWN BY:

ARO

DATE:

06/01/18

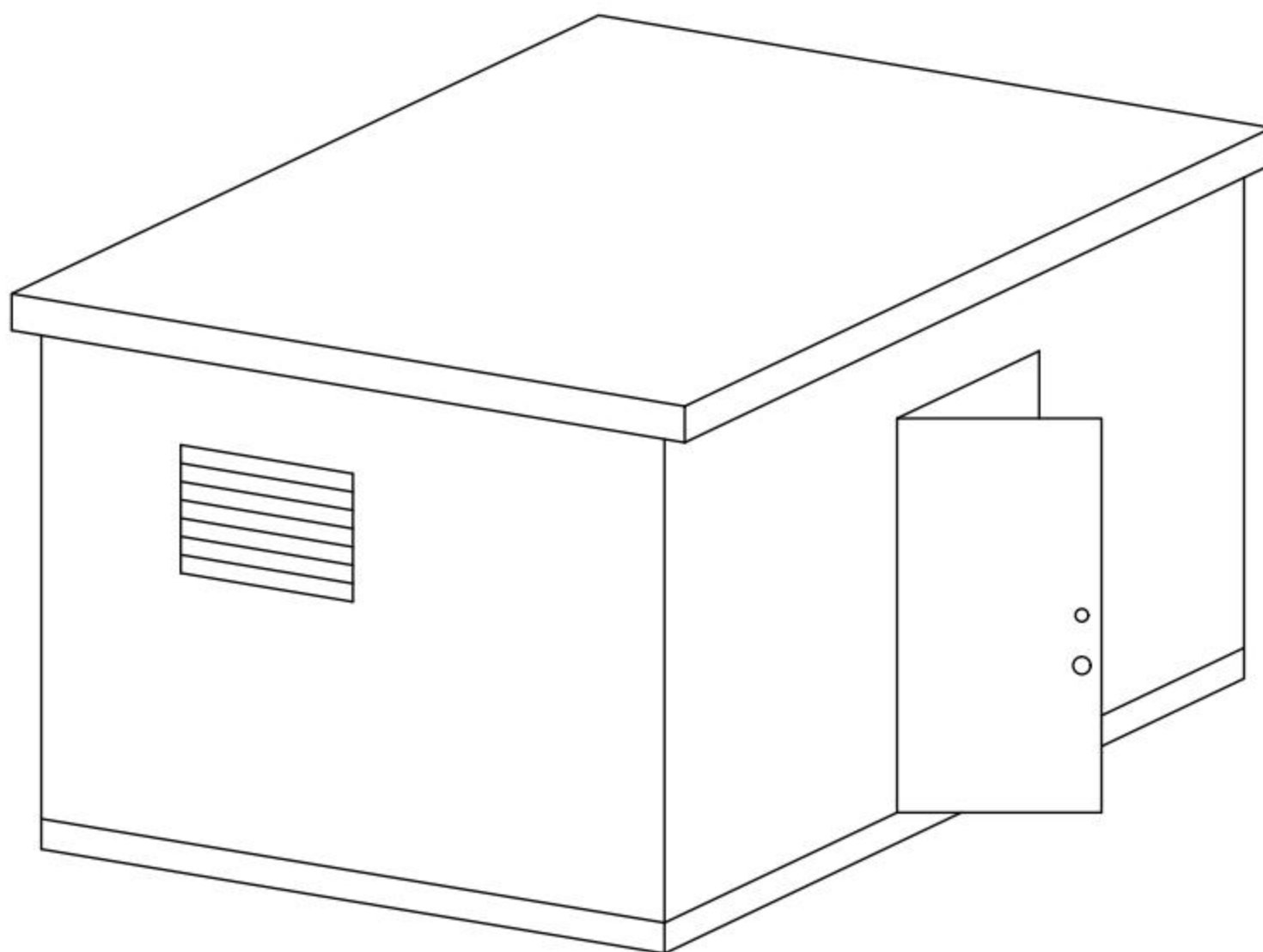
PAGE:

M12.2



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH


Specifications subject to change without notice



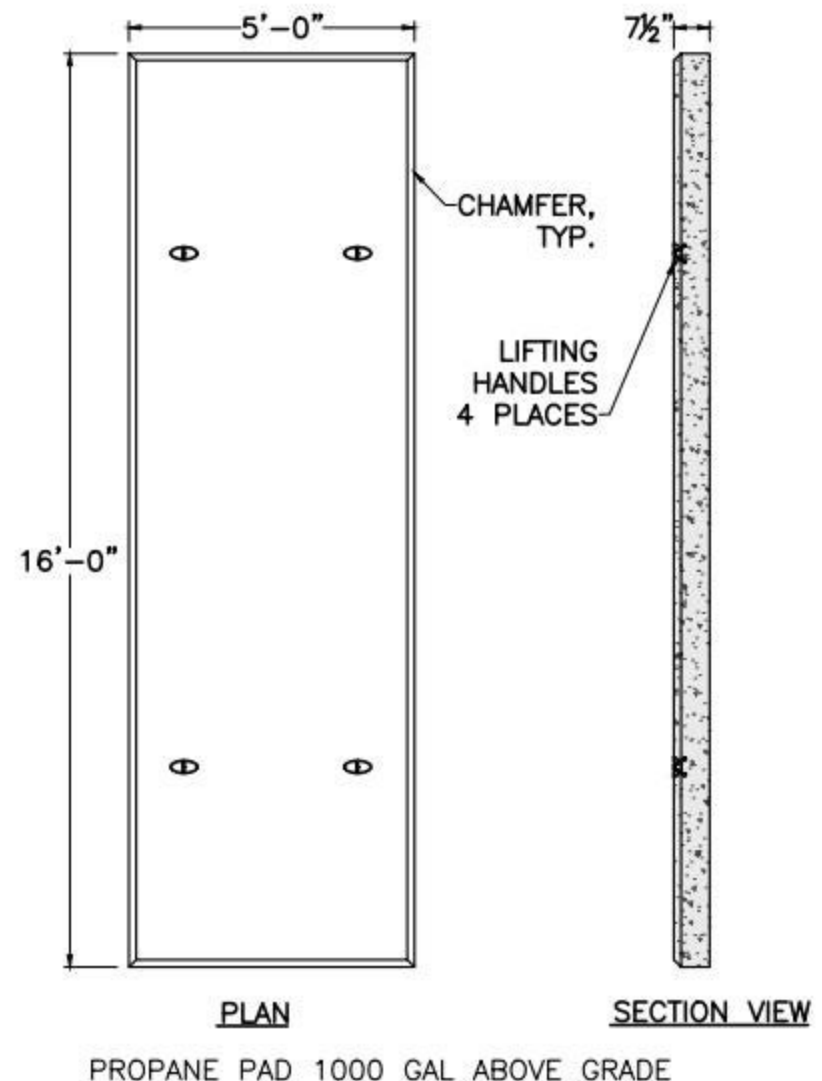
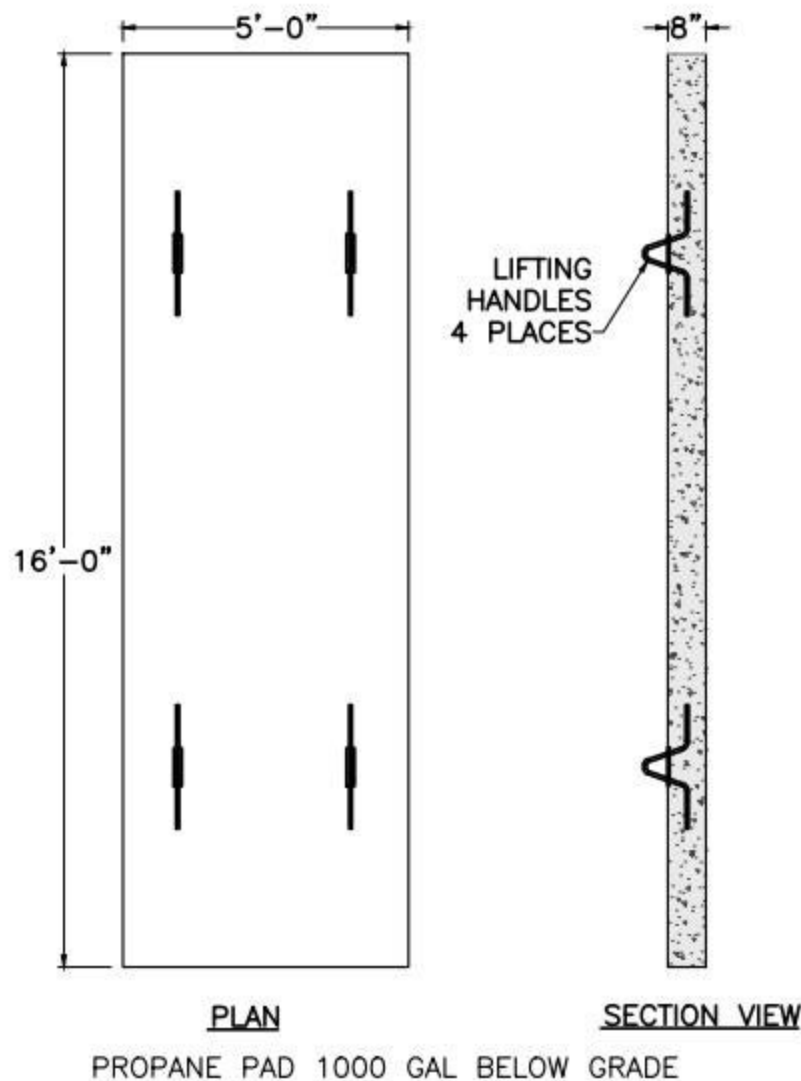
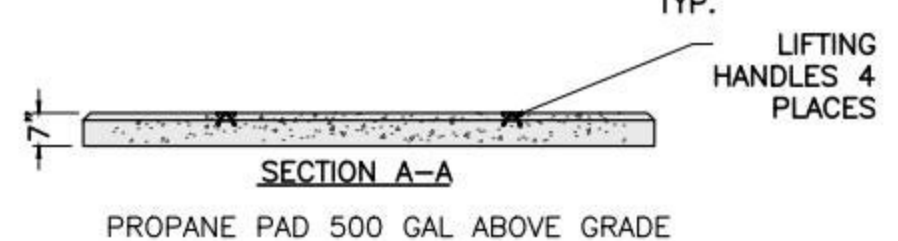
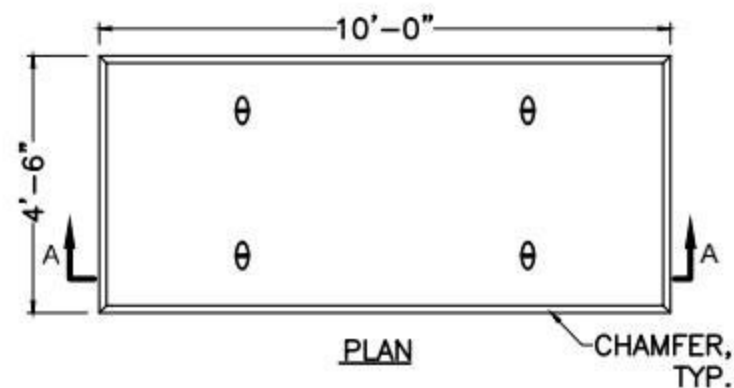
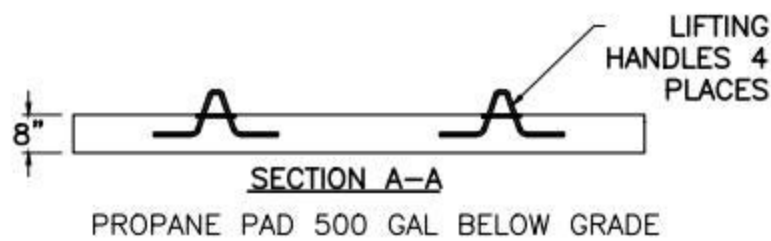
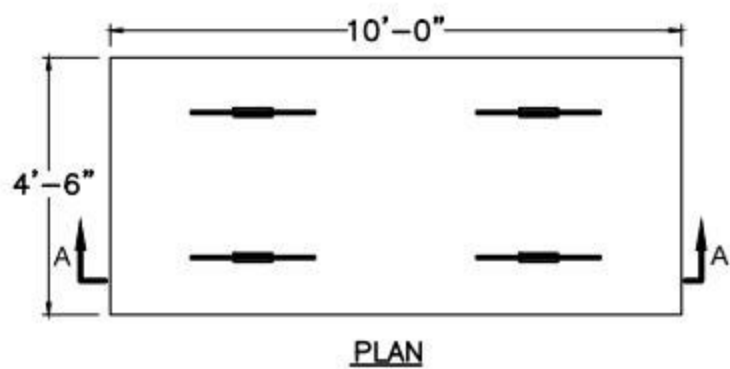
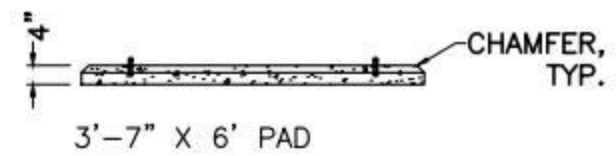
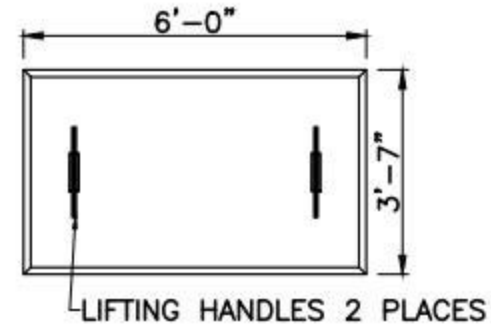
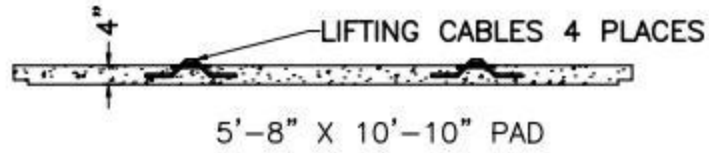
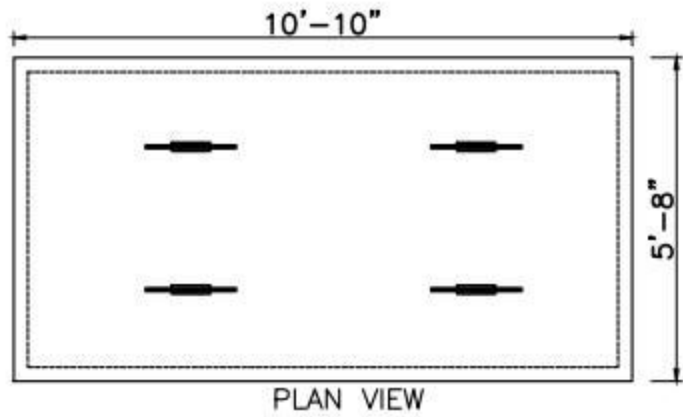
BUILDINGS USED FOR:
 RESTROOMS
 STORAGE
 HAZMAT
 PUMP SYSTEMS
 COMMUNICATIONS
 DUGOUTS
 CONCESSIONS
 ETC...

Notes:

1. Concrete strength $f'_c=5,000$ psi min.
2. Steel reinforcement yield strength $F_y=60,000$ psi min.
3. All openings for electric, mechanical, louvers, etc. sized as required.
4. Standard Finishes (custom finishes available):
 Exterior: Broom, Brick, Exposed Aggregate, Split Block, Barnboard.
 Interior: Concrete, FRP
5. Standard Dimensions:
 Exterior: 10' x 12', 12' x 16' 12' x 20'; custom sizes available.
 Interior Heights: 8'; custom heights available.
6. Standard double doors, 6' x 6'-8" x 13/4"; 18-gauge galvanized steel;
7. Two 12.5-gauge screened aluminum vents; minimum 7" x 18".
8. Post-tensioned roof and floor.
9. Exclusive turn-down roof with built-in drip edge.
10. Roof load capacity: 60 psf standard; higher loadings available.
11. Wind load: 130 mph standard; higher loadings available.
12. Rated Seismic Zone 4.
13. Bullet tested to UL 752, Level 4 (30 caliber rifle fired at 15 feet).
14. Floor load: 250 psf standard; additional capacities available.
15. For larger sizes Easi-Span Building Standard Dimensions:
 Clear-span widths: 20', 24', 30' and 40'.
 Lengths: up to 200' in multiples of 10'.
 Interior Heights: 9'; custom heights available

SHEA PRODUCT ID:	PREPARED FOR:	FILE NAME:	Easi-Set Building.dwg	
WEIGHT (LBS):	DRAWN BY:	DATE:	PAGE:	
	ARO	03/01/2018	M13	
773 Salem Street-Wilmington, MA 153 Cranberry Hwy-Rochester, MA 87 Haverhill Road-Amesbury, MA 160 Old Turnpike Rd-Nottingham, NH				

PROPANE AND GENERATOR PADS



SHEA PRODUCT ID:

PREPARED FOR:

FILE NAME:

Propane Pads.dwg

WEIGHT (LBS):

DRAWN BY:

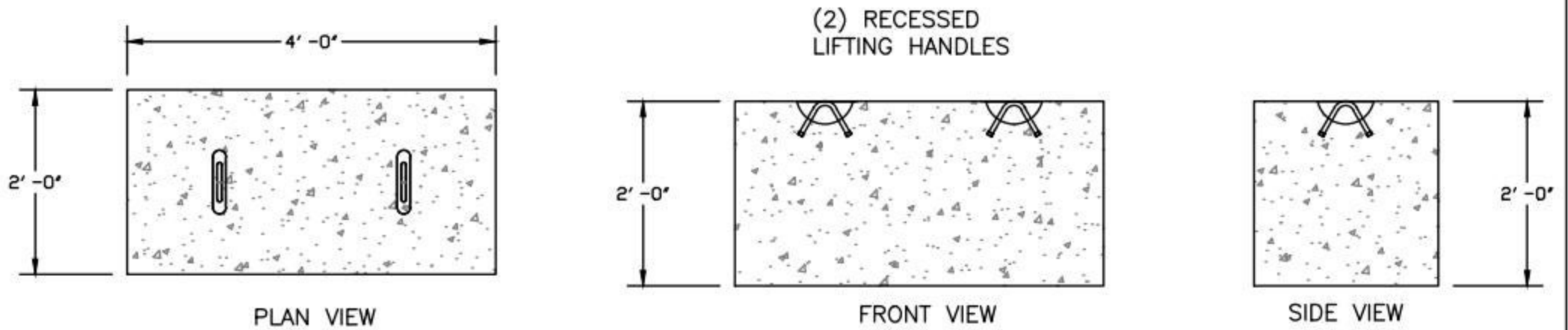
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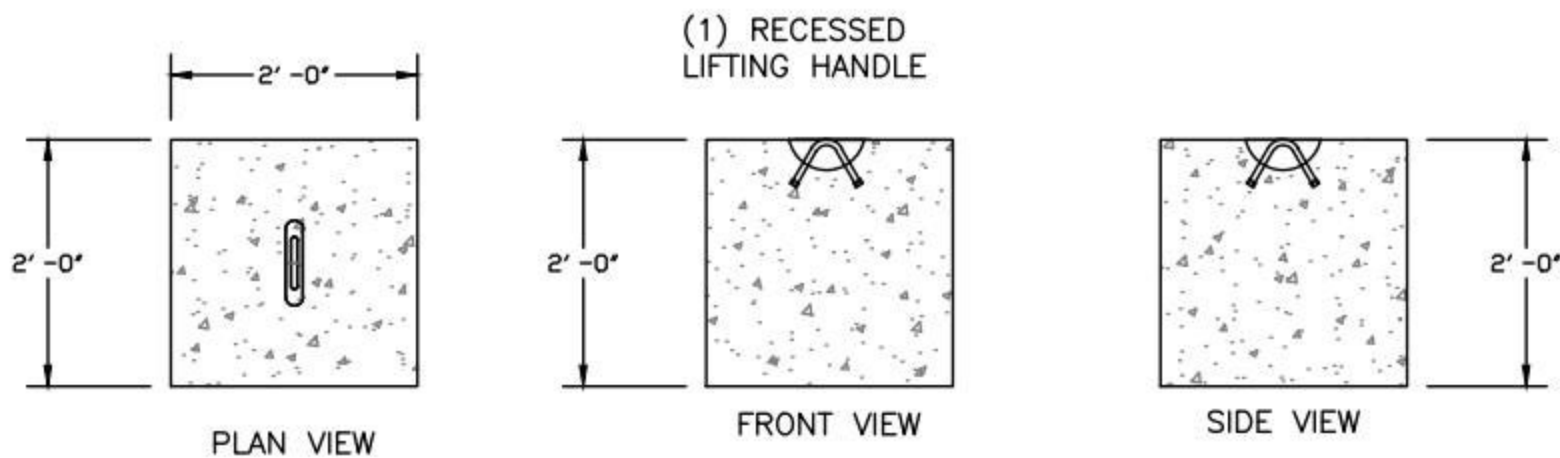
06/06/2018

PAGE:

M14



DIMS	ITEM NO	WEIGHT
2'x2'x4'	TB2X2X4	2400#



DIMS	ITEM NO	WEIGHT
2'x2'x2'	TB2X2X2	1200#

NOTES:

1. CONCRETE: 3,000 PSI MINIMUM AFTER 28 DAYS.

SHEA PRODUCT ID:
SEE TABLE

PREPARED FOR:

FILE NAME:
Thrust Blocks.dwg

WEIGHT (LBS):
SEE TABLE

DRAWN BY:
ARO

DATE:
06/11/2018

PAGE:
M15



773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH

Specifications subject to change without notice



TERMS AND CONDITIONS

Bid and Quotation Policy. Bid and quotations provided by Seller shall include, but not limited to, the following terms, conditions and, or exclusions:

All prices quoted subject to the approval of submittal drawings. Price may change if complete set of drawings not supplied at time of quotation. Prices will be honored for sixty days from the quotation date, unless specified otherwise. Quotations do not include sales tax. Excavation, shoring, and backfilling by others. Plumbing and electrical by others unless specified otherwise. The prices quoted are for normal delivery conditions, see Delivery Terms below. Price is subject to change based on quantity ordered or delivery conditions. Price based on Seller's standard product design specifications, unless otherwise noted. Any site specific or application specific situations that require additional engineering will be at Buyer's expense.

Term of Payment. Unless Buyer has credit approval from Seller, payment in full is due before delivery – No retentions apply. Unless otherwise specifically agreed to in writing by Seller, payment in full on all credit sales is due thirty (30) days from the date of delivery. Payment will not be delayed for the completion of work by other contractors, permitting, inspection or total job completion. Discount when quoted will be allowed only if terms are met. Some orders, under the Seller's discretion, may require a deposit payment and project progress payments. All checks are accepted subject to collection. Past due accounts shall bear interest at 1½% per month. In the event payment is not made as outlined herein, Buyer agrees to pay all costs of collection and attorney's fees incurred by Seller.

Taxes. Prices of the products sold are exclusive of all city, state and federal taxes including without limitation, taxes on the manufacture, sale, delivery, or use of goods. Buyer agrees to pay Seller the amount of such taxes. No claimed exemption from taxes will be recognized unless Buyer furnishes Seller an applicable tax exemption certificate.

Delivery Terms. All deliveries will be made to the best of Seller's ability and dispatch, but no claims will be allowed because of delays in deliveries. Setting into existing excavation is provided for Septic tanks up to 12,000 gallons, Stairs, Bulkheads, and Utility Vaults, providing the excavation is accessible to Seller's truck and crane ordered is of the correct size. Setting of the previous stated items is not provided for sections weighing more than 12 ton unless otherwise stated in writing. Other products not listed above must be offloaded and installed by Buyer. When Deliveries are made to places other than on a paved street, the Buyer must provide approaches permitting access of trucks to the point of delivery under their own power. Seller reserves the right to stop deliveries in the event such roadways are not provided. If access to the excavation site is unavailable for Seller's truck, alternate means of setting the product will be the Buyer's responsibility. Conditions that may cause non-access may include, but not limited to: location not marked, excavation not ready, overhead wires within 20 feet of crane boom height, too small or unlevel pad for the setup of crane with extended outriggers, reach for the boom beyond 15 feet from end of truck, and natural or manmade objects that may reduce clearance. If the Buyer orders deliveries beyond the curb line, the Buyer assumes all liability for damage to sidewalks, driveways, roads or other property and agrees to indemnify the Seller against all inability. The Seller assumes no responsibility for damage to property when delivery is made inside curbing. Buyer agrees to pay any and all costs of repairs, necessitated by damage to Seller's trucks and/or equipment resulting from any cause whatever during the process of delivery on the work site, other than negligence on the part of Seller's employee or mechanical failure of Seller's equipment. Trucks held at work site for more than 1 hour will be billed to the Buyer at the rate of \$160.00 per hour for all excess time.



TERMS AND CONDITIONS (CONTINUED)

Cancellation, Change Orders, Returns. Buyer must immediately pay all cost incurred by Seller and reasonable profit. A minimum of 20% handling charge will be applied to all material returned by the Buyer.

Inspection and notice of defect. On receipt of the material, Buyer will inspect the material for possible damage, obvious defects and for completeness. In case of damage, defects, and/or missing parts it shall be noted on shipping slip and reported to driver.

Warranty. Seller warrants its products to Buyer and guarantees its products in accordance with its standard written "Warranty Policy". Seller warrants the material and workmanship for their product and will remedy any defects according to the terms of the warranty. The warranty does not extend to items not manufactured by Seller. Seller warrants its product, if used in accordance with Seller's Procedures, will be free from material defects and workmanship for a period of one (1) year from date of original delivery. To request warranty service, all claims must be made in writing within the warranty period. Warranty does not extend to material damaged due to acts of God, misuse, improper installation/backfill, maintenance, or operation contrary to their recommended use, whether intentional or otherwise, or any other cause or damage of any kind not the fault of Seller. Seller only warrants repairs or alterations performed by Seller or its authorized contractors. Buyer's sole and exclusive remedy for breach of warranty is limited at Seller's option to: (a) repair of the defect, (b) delivery of a replacement product to the point of original delivery, or (c) refund of the original purchase price. The Buyer must give Seller the opportunity to observe and inspect prior to removal or the claim will be barred. If Seller repairs or replaces a product, its warranty term is not extended. The warranty does not cover costs associated with excavation. No warranties whether express or implied, including, but not limited to, any particular purpose shall extend beyond the respective warranty period. Seller shall not be responsible or liable for any special, incidental or consequential damages or loss arising from the use of this product. In no event shall Seller's total liability hereunder exceed the original purchase price of the product which gave rise to such liability.

Basement Entrance Way. Surface water must be drained away from bulkhead. Roof drainage should be diverted from bulkhead opening. Seller will not be responsible for leaks caused by excessive hydraulic pressure or improper back filling. Perimeter drainage required during excess hydraulic pressure situation. Stairwell must be a minimum of 2" above grade. Step in foundation or floor poured before installation is required to guarantee watertight connection at base of precast unit. Foundation and/or floor not square and plum voids all warranties.

Precast Stairs. Granite or Limestone supplied by Seller is natural material, subject to variations in color, shade, markings, and texture. Samples provided may vary from material delivered. Seller is not responsible in variations of the material. Use of any type of ice melt voids all warranties.

Product Changes. Seller may change its product design at any time. Seller assumes no obligation to incorporate these changes in parts or product manufactured prior to change. Prices are subject to change without notice.



UNDERGROUND TANK WARRANTY

To:

Date:

Re:

Purchased:

Shea Concrete Products ("Seller") warrants to "Owner" that our underground tanks, if used in accordance with Shea Concrete Products Approved Installation Procedure (see attached), will be watertight, free from material defects in materials and workmanship for a period of one (1) year from date of original delivery by Shea Concrete Products. To request warranty service, all claims must be made in writing within the warranty period.

This warranty does not extend to tanks damaged due to acts outside the Sellers control or tank failures caused, in whole or in part, by misuse, improper installation, storage, servicing, maintenance, or operation in excess of their rated capacity or contrary to their recommended use, whether intentional or otherwise, or any other cause or damage of any kind not the fault of the Seller. Shea Concrete Products only warrants repairs or alterations performed by the Seller or its authorized contractors. Shea Concrete Products does not warrant any product, components or parts manufactured by others. Seller not responsible for water tightness of riser and pipe connections. Recommended backfill and installation procedures must be followed or tank warranty is void.

Owner's sole and exclusive remedy for breach of warranty is limited at Shea Concrete Products' option to: (a) repair of the defective tank, (b) delivery of a replacement tank to the point of original delivery, or (c) refund of the original purchase price. A claimant must give Shea Concrete Products the opportunity to observe and inspect the tank prior to removal from the ground or the claim will be barred. If Shea Concrete Products repairs or replaces a product, its warranty term is not extended.

Shea Concrete Products makes no express warranties beyond those stated in this warranty statement. No warranties whether express or implied, including, but not limited to, any particular purpose shall extend beyond the respective warranty period described above.

Shea Concrete Products shall not be responsible or liable for any special, incidental or consequential damages or loss arising from the use of this product. In no event shall Sellers' total liability hereunder exceed the original purchase price of the tank which gave rise to such liability.



New England's Premier Precaster!

**WARRANTY
BASEMENT ENTRANCE SYSTEM**

Shea Concrete Products warrants the material and workmanship for their Basement Entrance System and will remedy any defects according to the terms of this warranty. This limited warranty does not extend to items not manufactured by Shea Concrete Products.

Shea Concrete Products will repair (or at its option, replace) at no charge, the concrete stairwell portion of the basement entrance for one (1) year from the date of purchase. To request warranty service, you must call Shea Concrete Products within the warranty period. If Shea Concrete Products repairs or replaces a product, its warranty term is not extended. This warranty does not cover costs associated with excavation.

This warranty shall not apply if the product has been damaged due to abuse, misuse, misapplication, accident, or as a result of service or modification by anyone other than Shea Concrete Products.

Shea Concrete Products will not be responsible for leaks caused by excessive hydraulic pressure or improper back filling. Surface water must be drained away from bulkhead. Roof drainage should be diverted from bulkhead opening. Perimeter drainage recommended. Stairwell must be a minimum of 2" above grade.

Shea Concrete Products shall not be responsible or liable for any special, incidental or consequential damages or loss arising from the use of this product.

The basement door provided with the Shea Concrete Products Basement Entrance System is covered by Gordon Company warranty. The Gordon door is designed to operate to the customer's satisfaction and to provide a trouble-free service. Should a part fail to function in normal use within a period of five years from the date of purchase, a new part will be furnished at no charge. The Gordon door is not designed to be an airtight system. The door is shipped with a primer coating and must be painted within 30 days of installation with alkyd-base outdoor enamel. Please contact Gordon Door Company.



New England's Premier Precaster!

**WARRANTY
PRECAST CONCRETE STEPS**

Shea Concrete Products warrants the material and workmanship for their precast steps and will remedy any defects according to the terms of this warranty. This limited warranty does not extend to items not manufactured by Shea Concrete Products.

Shea Concrete Products will repair (or at its option, replace) at no charge, the concrete stairs for one (1) year from the date of purchase. To request warranty service, you must contact Shea Concrete Products within the warranty period. If Shea Concrete Products repairs or replaces a product, its warranty term is not extended. This warranty does not cover costs associated with excavation and landscaping.

This warranty shall not apply if the product has been damaged due to abuse, misuse, misapplication, accident, or as a result of service or modification by anyone other than Shea Concrete Products. Use of any type of ice melt voids all warranties.

Shea Concrete Products shall not be responsible or liable for any special, incidental or consequential damages or loss arising from the use of this product.

Granite or Limestone supplied by Shea Concrete Products is a natural material, subject to variations in color, shade, markings, and texture. Samples provided may vary from material delivered. Shea Concrete Products is not responsible in variations of the material.



Overview of a Precast Stair Delivery

Preparation before delivery:

Truck access is very important. The delivery trucks are 13'-6" in height and average about 40 feet in length. Our trucks are heavy so damage may occur to driveway or lawns. Repairs to driveway, lawn or underground structures are not the responsibility of Shea Concrete Products. The stairs are set with a crane so overhead considerations must be made.

Check for:

- Overhead wires
- low tree branches that have to be trimmed
- know the location of your septic tank (our truck cannot drive over it)
- etc...

If existing stairs are precast, we can remove them for an additional charge as long as we can safely lift up as one unit.

Removal of the old steps may reveal that the wooden sill under the house is rotted due to constant exposure to moisture. If this is the case, the best time to repair it would be after the old stairs are removed. Depending on how bad the rot is, a carpenter may be needed to repair the area. It might help to have a carpenter lined up if you think you might have a problem with rot. Shea Concrete Products does not provide carpentry work.

After existing stairs are removed (or on a new site), any prep work needs to be done by others before we deliver stairs. Options for base prep can be bed of crush stone, a large concrete pad or frost footings if the situation requires it. Check with local building department. Shea Concrete Products does not apply for permits, permits to be done by owner or site contractor.

Setting precast stairs:

The following are the basic steps during delivery of stairs.

1. Delivery truck will be required to drive on driveway or lawn to set stairs.
2. When necessary steel brackets are bolted to the foundation using concrete anchors. These will be used to catch the back legs of the stairs if a concrete pad or footing was not provided.
3. Small concrete pads may be used under each side of the steps toward the front of the unit for leveling purposes.
4. The precast stairs are then set on the base (or brackets and pads when necessary) using a boom truck. Plastic shims are used to make small adjustments as necessary.
5. The stairs are set with a slight pitch forward for water runoff.
6. If your stairs require railings, they would be put in place at this time. The railings have flanges on the posts and are anchored to the precast unit.

After delivery of stairs:

In some cases additional work, provided by others, may be needed after delivery.

- Any finish work, such as kick board, trim or filling in gaps between building and stairs.
- Existing walkways may need to be repaired and/or adjusted after setting of stairs.
- Driveway or lawn may need to be repaired due to heavy delivery truck.
- It is recommended to paint railings yearly to help prevent rusting.
- **DO NOT Use Ice Melt on precast concrete stairs.**



Installation Procedure for Concrete Tanks

To warrantee a watertight tank, buyer must meet the following conditions:

1. Manufacturer should be made aware of depths with more than 5 feet of cover on tank.
2. Manufacture should be made aware of excessive water table conditions. Floation calculations are the responsibility of the project engineer.
3. Excavation must be pumped and kept dry during the installation. (use of a sump pump maybe required).
4. Tank sections should be set level. The base must be a transit leveled clean granular, compacted material to support the chamber without the chance of differential settlement (6" of crushed stone recommended). Ledge should be removed a minimum of 12" from bottom of tank.
5. Excavation (by others) needs to be accessible to our truck. If site conditions and/or section weights require the use of a crane, it shall be provided by others.
6. Manufacturer not responsible for damage beyond the curb.
7. A safe working area around tank must be provided to allow sealing from outside.
8. On site personal required by contractor for installation (approximately 2 to 4 people). Customer responsible for supplying personal for positioning of sections and placement of sealant in excavation.
9. The joints must be kept clean of foreign material while sealant is placed and the sections are being set. Joint sealants must be placed per manufacturers specifications. Concrete sealant is placed on the upper and lower ship lap joint. When joining sealant mold together at ends. Remove all paper and backing when applying sealant. Sealant must compress a minimum of 50% before backfilling. Sections must not be removed after sealant is compressed without adding additional sealant.
10. Pushing or pulling tanks or tank sections with excavator not recommended.
11. Vacuum testing is recommended before backfilling. However if water testing, tank must be backfilled prior to filling to prevent shifting of the sections.
12. Suitable backfill material and placement methods must be used to avoid any damage or shifting of the sections.
13. Backfill must be placed evenly on all four sides in a maximum of 12" lifts within one foot of tank wall.
14. In excessive water table conditions, tank should be backfilled and/or partially filled with water to compensate for buoyancy
15. H-20 loading tanks should be used in areas where heavy equipment will be driven over.
16. H-10 Septic tanks are acceptable for situations with less than 5ft cover. H-20 Septic tanks are recommended for 5' to 10' of cover. Consult manufacturer when the cover exceeds 10'.
17. Waiting time or delays beyond our control during installation will be billed additional.

Vacuum testing: Apply 4in of mercury. Tank is approved if 90% of vacuum is held for 2 min.

Water testing: Fill tank with water and let stand for 24 hours. Refill the tank. Tank is approved if water level is held for 1 hour (ASTM C1227).

We acknowledge the receipt of the above conditions and agree to the terms:

Company _____

Name _____

Project _____

Signature _____

Item _____

Title _____



New England's Premier Precaster!

To: _____

From: _____
Date: _____

Approved Installation Procedure for Tunnel Tanks

Buyer must meet the following conditions:

1. Manufacturer should be made aware of depths with more than 5 feet of cover on tank.
2. Manufacture should be made aware of excessive water table conditions. Floation calculations are the responsibility of the project engineer
3. The base must be a transit leveled $\frac{3}{4}$ " stone, compacted material to support the tank without the chance of differential settlement. Any frozen base must be removed and replaced. Ledge should be removed a minimum of 12" from bottom of tank.
4. The excavation must be pumped and kept dry during the installation (use of a sump pump maybe required).
5. A safe working area around tank must be provided to allow sealing from outside.
6. Contractor is required to provide crane (100 ton min) with 4 lifting cables (max weight of piece is 20 ton)
7. Pushing or pulling tanks or tank sections with excavator not recommended.
8. The joints must be kept clean of foreign material while sealant is placed and the sections are being set. Joint sealants must be placed per manufacturers specifications.
9. Grout outside top seam for each section.
10. Tank must be backfilled and kept dry until inside seam is sealed (sump pump pit next to tank maybe required), minimum of 3 days.
11. Suitable backfill material and placement methods must be used to avoid any damage or shifting of sections.
12. Backfill must be placed evenly on all four sides in a maximum of 12" lifts within one foot of tank wall.
13. Tank must be backfilled prior to filling (water testing) to prevent shifting of the sections.
14. Hardware required by contractor; 2 ladders and 4 open end wrenches 1-1/4 ".
15. On site personal required by contractor for installation (approximately 2 to 4 people) and 2 ladders.
16. Waiting time or delays beyond our control during installation will be billed additional at \$125.00/hr

We acknowledge the receipt of the above conditions and agree to the terms:

Company _____

Name _____

Project _____

Signature _____

Item _____

Title _____

Send to: Shea Concrete Products, Inc. 87 Haverhill Road, Amesbury, MA 01913 or Fax to: (978) 388-6959