

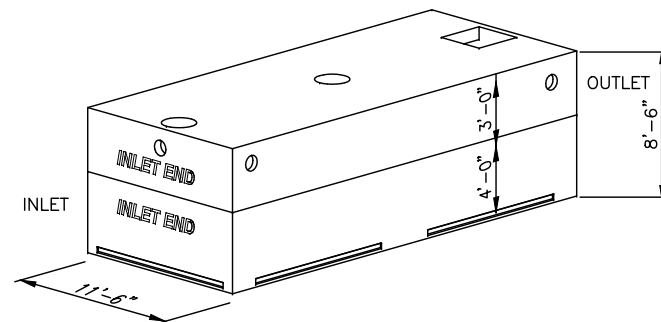
Project: **10k, 17k, 20k, & 27k GALLON SEPTIC TANKS -
12K, 14k, 24k to 26k GALLON EFFLUENT/UTILITY TANK
& KAST-POD SW-DRRTS**

Location: **KCP LOCKPORT**

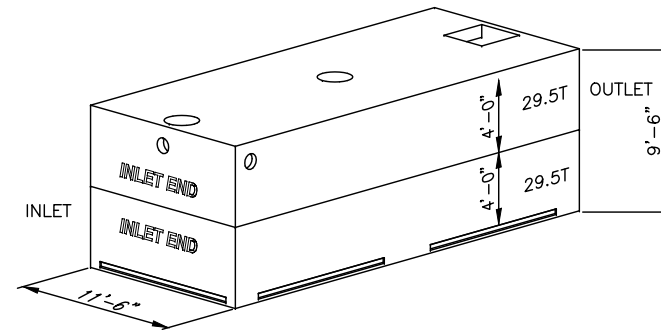
PRESENTATION PACKAGE

**PRESENTATION PACKAGE
SHEET NO. DESCRIPTION**

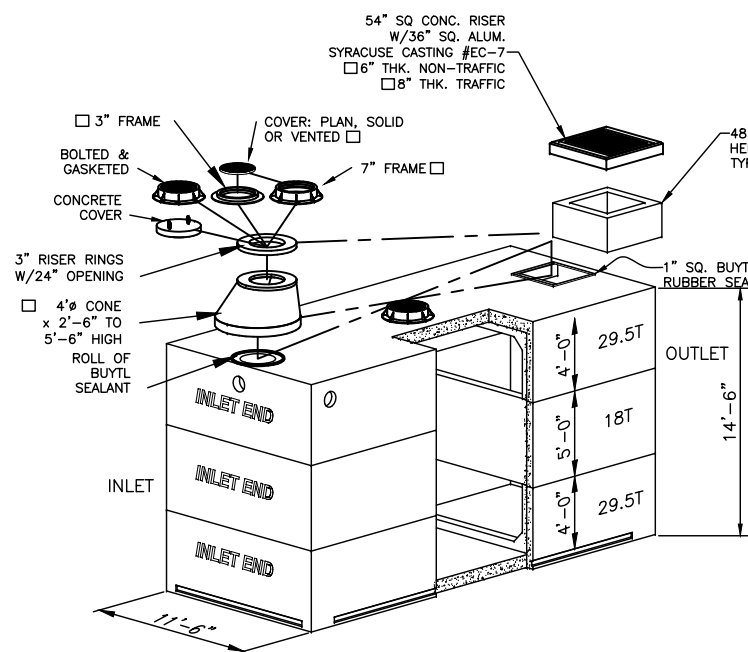
P-7	EFF. / UTILITY & KAST-POD PRESENTATION TITLE SHEET & INDEX
P-8	12,000 GALLON EFFLUENT / UTILITY PRESENTATION DETAILS
P-9	14,000 GALLON EFFLUENT / UTILITY PRESENTATION DETAILS
P-10	24,000 GALLON EFFLUENT / UTILITY PRESENTATION DETAILS
P-11	26,000 GALLON EFFLUENT / UTILITY PRESENTATION DETAILS
P-12	KAST-POD SW-DRRTS - TOP SECTION PRESENTATION DETAILS
P-13	KAST-POD SW-DRRTS - TANK PRESENTATION DETAILS
P-14	8,000 GALLON CONTAINMENT TANK PRESENTATION DETAILS
P-15	CAST IN PLACE BOUYANCY COLLAR PRESENTATION DETAILS
P-16	FIELD LIFT DETAILS



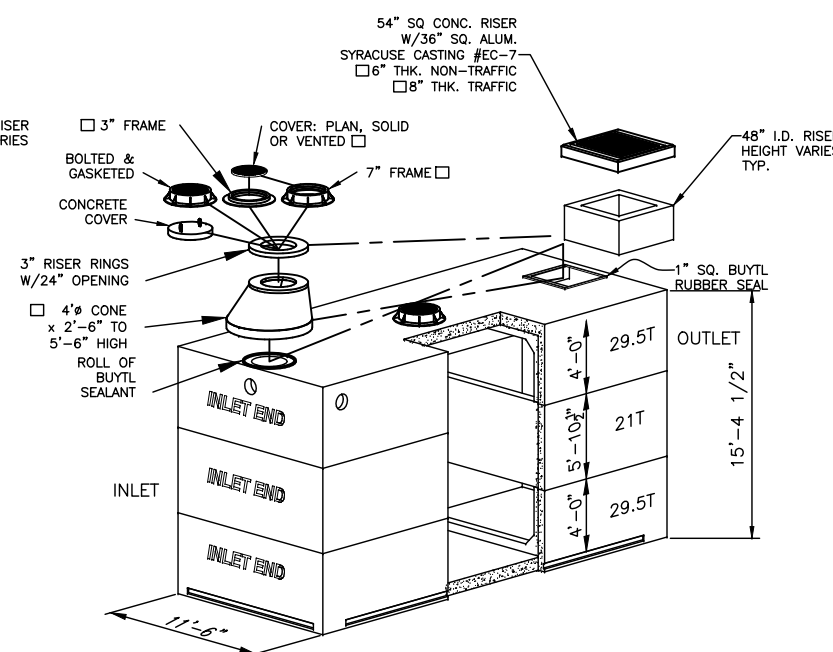
12K - EFFLUENT / UTILITY TANK
(OUTSIDE DIMENSIONS:
27'-4"L x 11'-6"W x 8'-6"H)



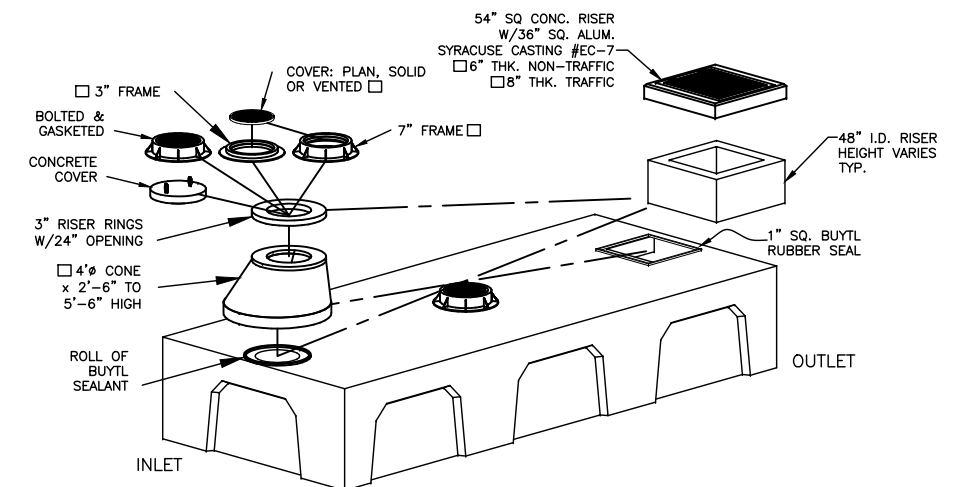
14K - EFFLUENT / UTILITY TANK
(OUTSIDE DIMENSIONS:
27'-4"L x 11'-6"W x 9'-6"H)



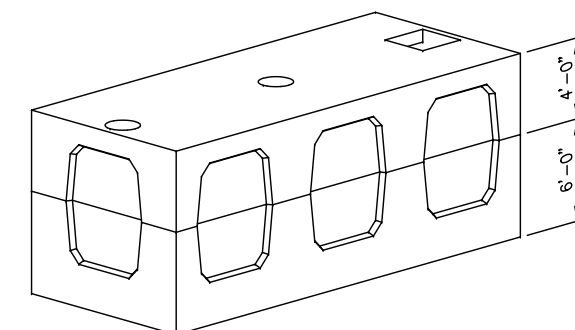
24K - EFFLUENT / UTILITY TANK
(OUTSIDE DIMENSIONS:
27'-4"L x 11'-6"W x 14'-6"H)



26K - EFFLUENT / UTILITY TANK
(OUTSIDE DIMENSIONS:
27'-4"L x 11'-6"W x 15'-4-1/2"H)



**KAST-POD SW-DRRTS STORMWATER SYSTEM
DETENTION / RETENTION / RECHARGE / TSS SYSTEM**
(27'-4"Lx11'-6"Wx4'-9"H O.D.)

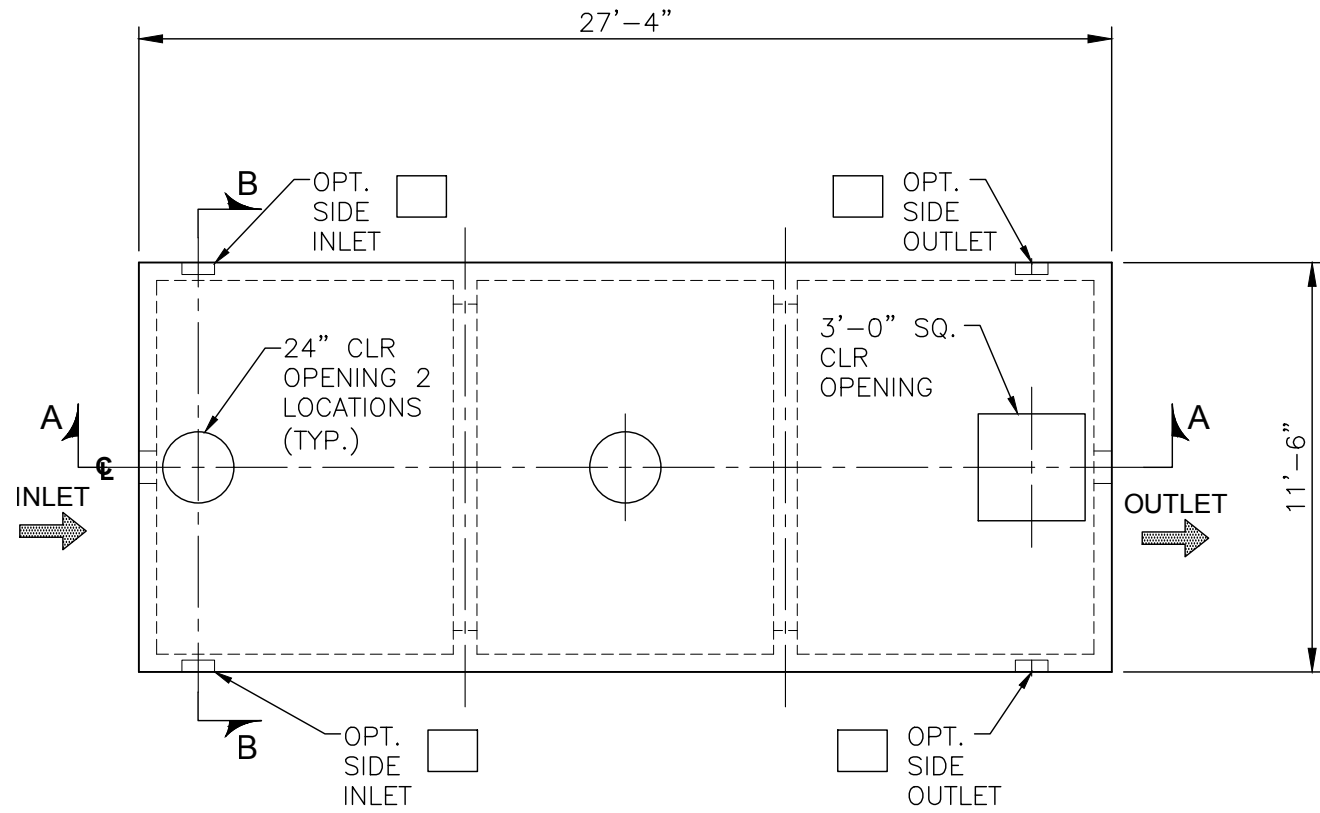


KAST-POD SW-DRRTS STORMWATER SYSTEM
(27'-4"Lx11'-6"Wx10'-9"H O.D.)

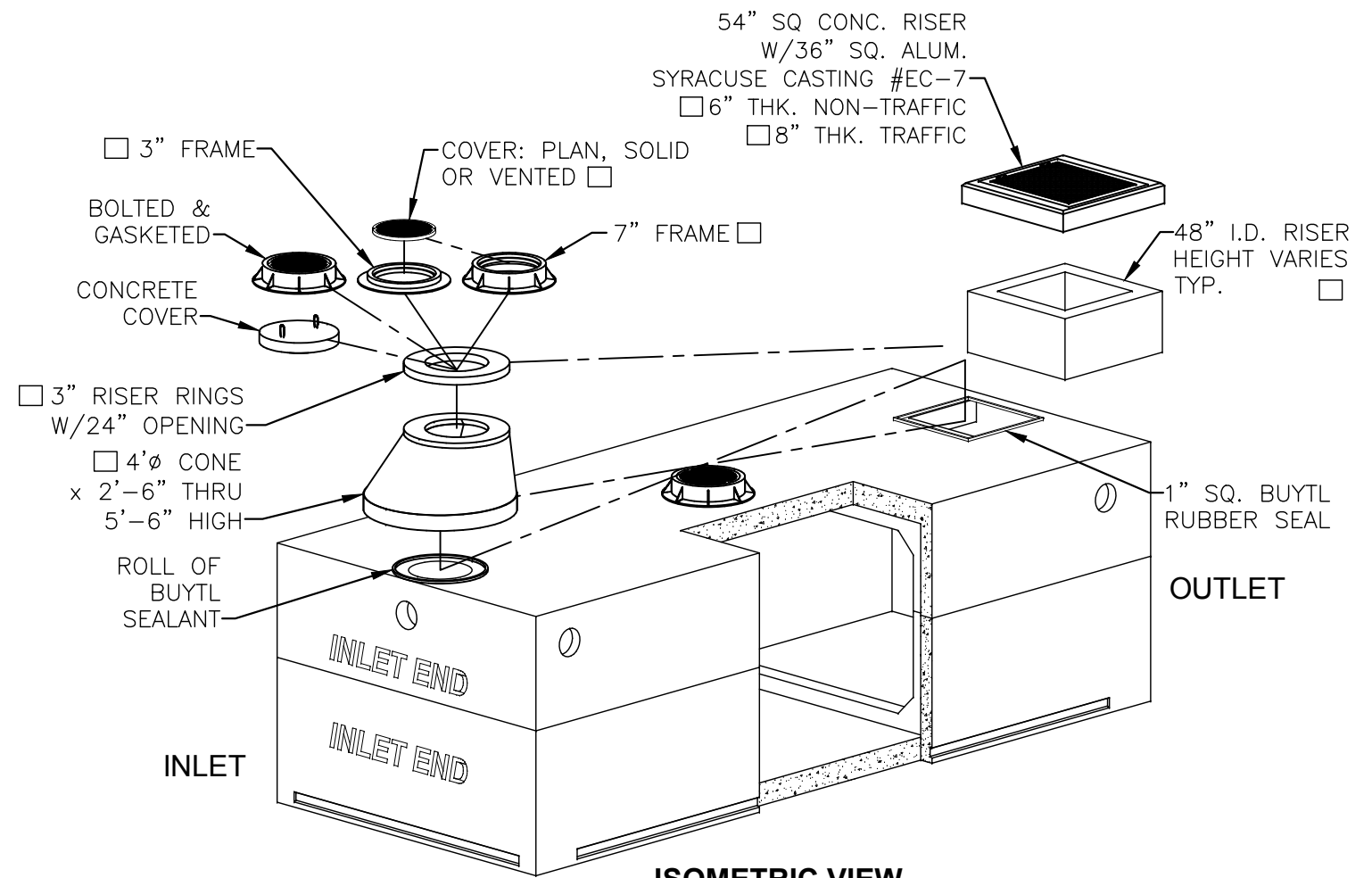
MASTER - PRES.

L:\CADD\PRODUCTS\SQUARE AND RECTANGULAR STRUCTURES\VAULTS\10K-26K SEPTIC TANK WORKBOOK-26K ST-EFF TANK-SW_R5.dwg

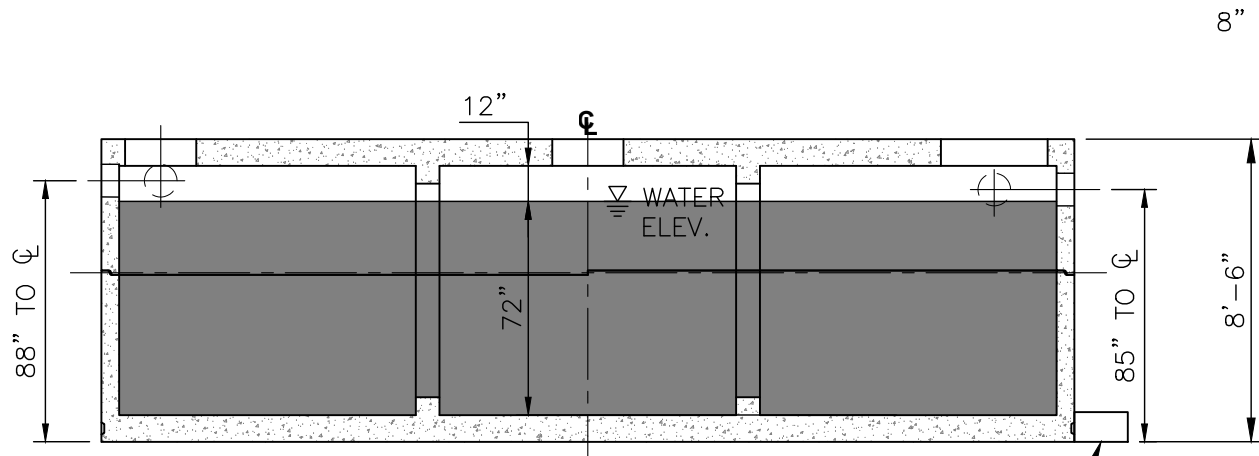
	5550 HINMAN ROAD LOCKPORT, NEW YORK 14094 PHONE 716-434-6157	1 REV. NO.	1/16/19 DATE	PER D.E.C. 2014 DESCRIPTION	DRAWN BY: MAT	DATE: 1/18/19	PROJECT: 10K TO 26K SEPTIC / EFFLUENT / UTILITY TANKS - PRESENTATION WORKBOOK	SHEET TITLE: EFFLUENT / UTILITY & KAST-POD PRESENTATION TITLE & INDEX	SHEET NO.: P-7
					CK'D BY: MJK	SCALE: N.T.S.			FILE NAME: 10k-26k ST-EFF TANK-SW_R5



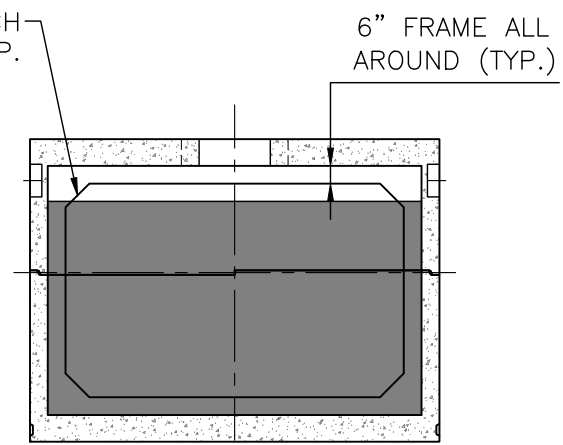
PLAN



**ISOMETRIC VIEW
(w/ CUT-AWAY)**



SECTION A-A



SECTION B-B

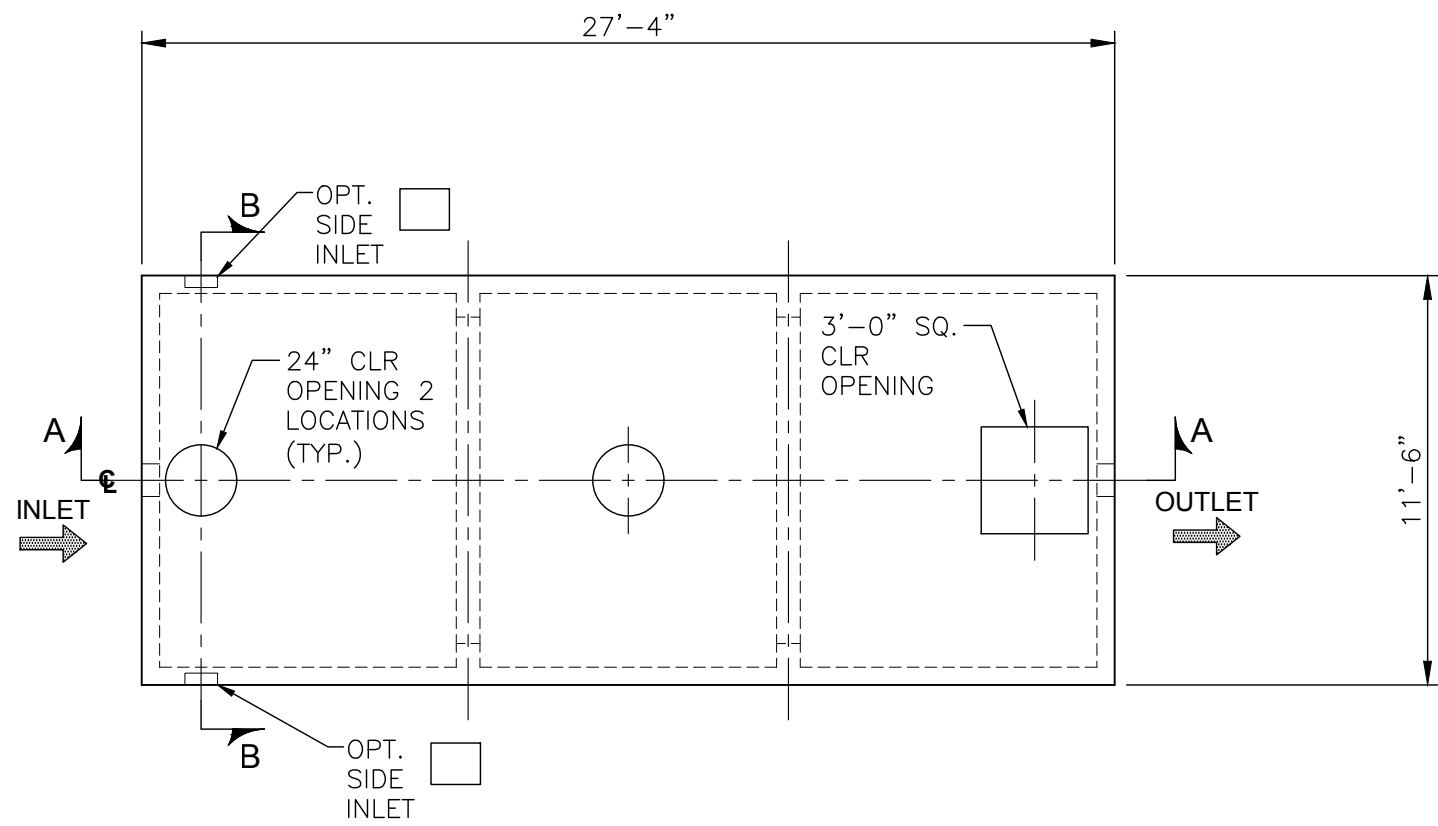
A CAST IN PLACE FLANGE WILL BE REQUIRED TO REIST UPLIFT (C.I.P. - BY G.C. IN FIELD). CONTACT OUR SALES & ENGINEERING DEPARTMENT TO REVIEW THE JOB SPECIFIC REQUIREMENTS

SPECIFICATIONS:
 CONCRETE: 7,000 PSI @ 28 DAYS
 ENTRAINED AIR: 5%-9%
 STEEL: ASTM A496-A615 GRADE 60-60 KSI.
DESIGN LOADING:
 AASHTO HS-20-44 WITH 30% IMPACT AND EQUIVALENT SOIL PRESSURE OF 30 PCF.
 6 FT. OF FILL OVER TOP OF TANK.
FLOATATION FORCES:
 WATER TABLE 3 FT. DOWN FROM GRADE.
 FLOATATION FORCES NOT ACCOUNTED FOR.

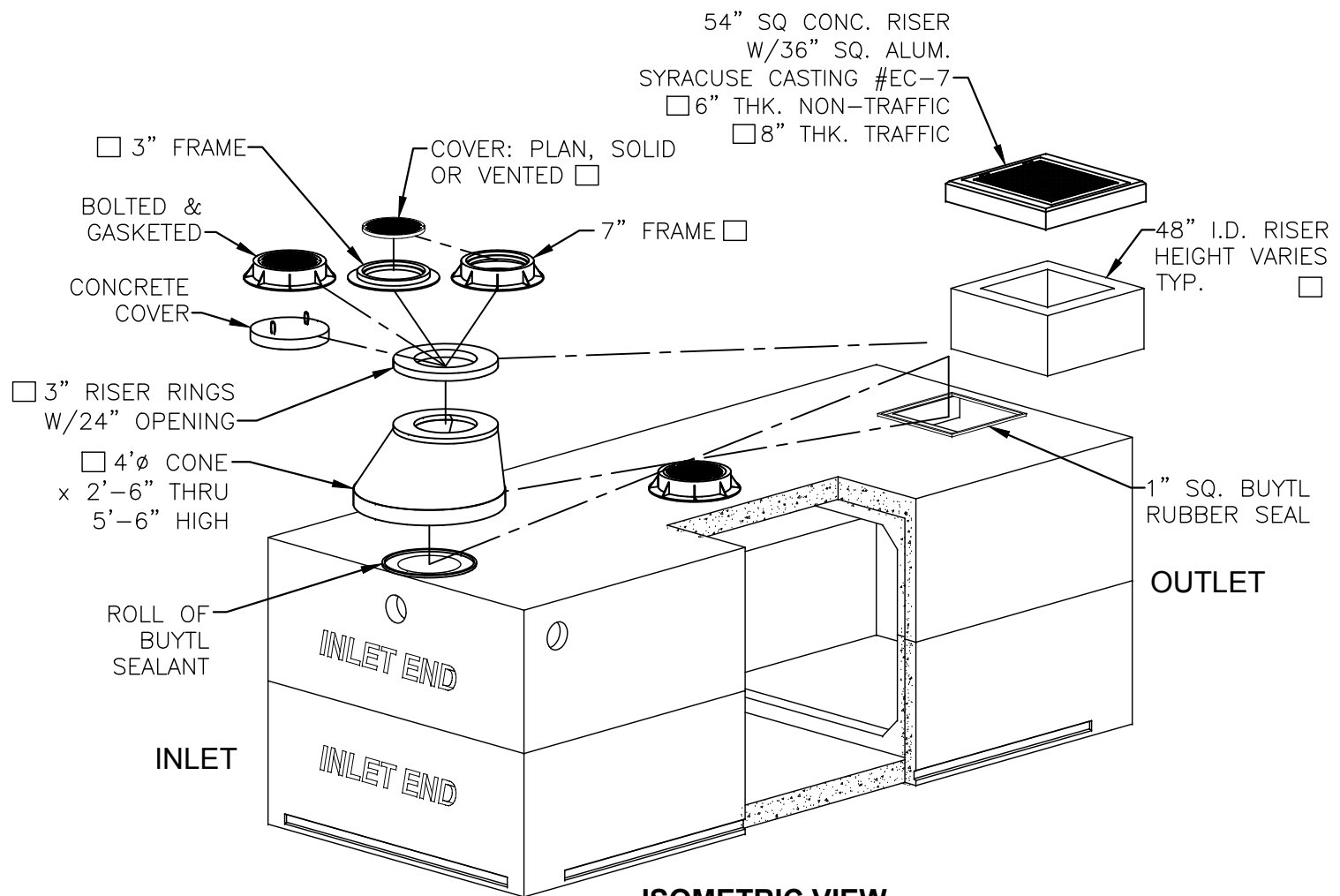
WEIGHTS:
 TOP: 54,800 LBS
 BOTTOM: 60,600 LBS
 TOTAL: 115,400 LBS

DISTANCE FROM FLOOR TO HOLE INVERT		GALLONAGE
INLET	OUTLET	
75"	72"	12,000

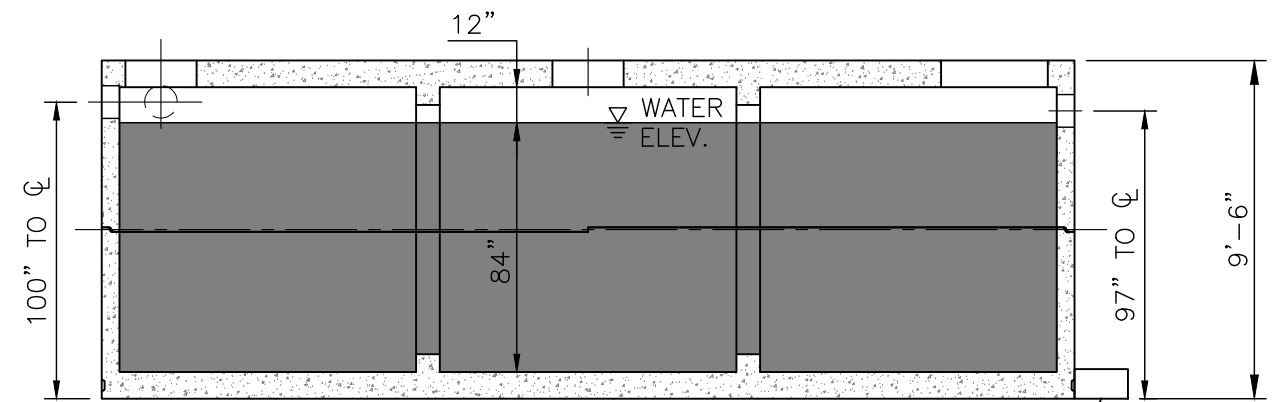
L:\CADD\PRODUCTS\SQUARE AND RECTANGULAR STRUCTURES\VAULTS\10k-26k SEP-EFF TANK\WRK\10k-26k ST-EFF TANK-SW_R5.dwg



PLAN

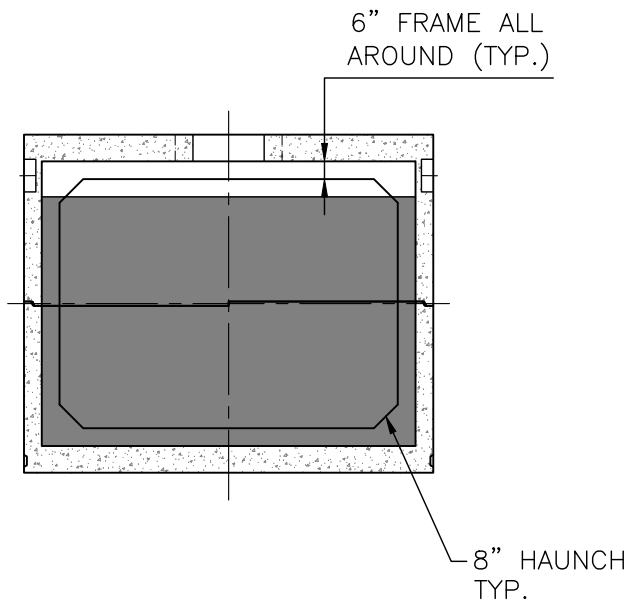


ISOMETRIC VIEW (w/ CUT-AWAY)



SECTION A-A

A CAST IN PLACE FLANGE WILL BE REQUIRED TO REIST UPLIFT (C.I.P. - BY G.C. IN FIELD). CONTACT OUR SALES & ENGINEERING DEPARTMENT TO REVIEW THE JOB SPECIFIC REQUIREMENTS



SECTION B-B

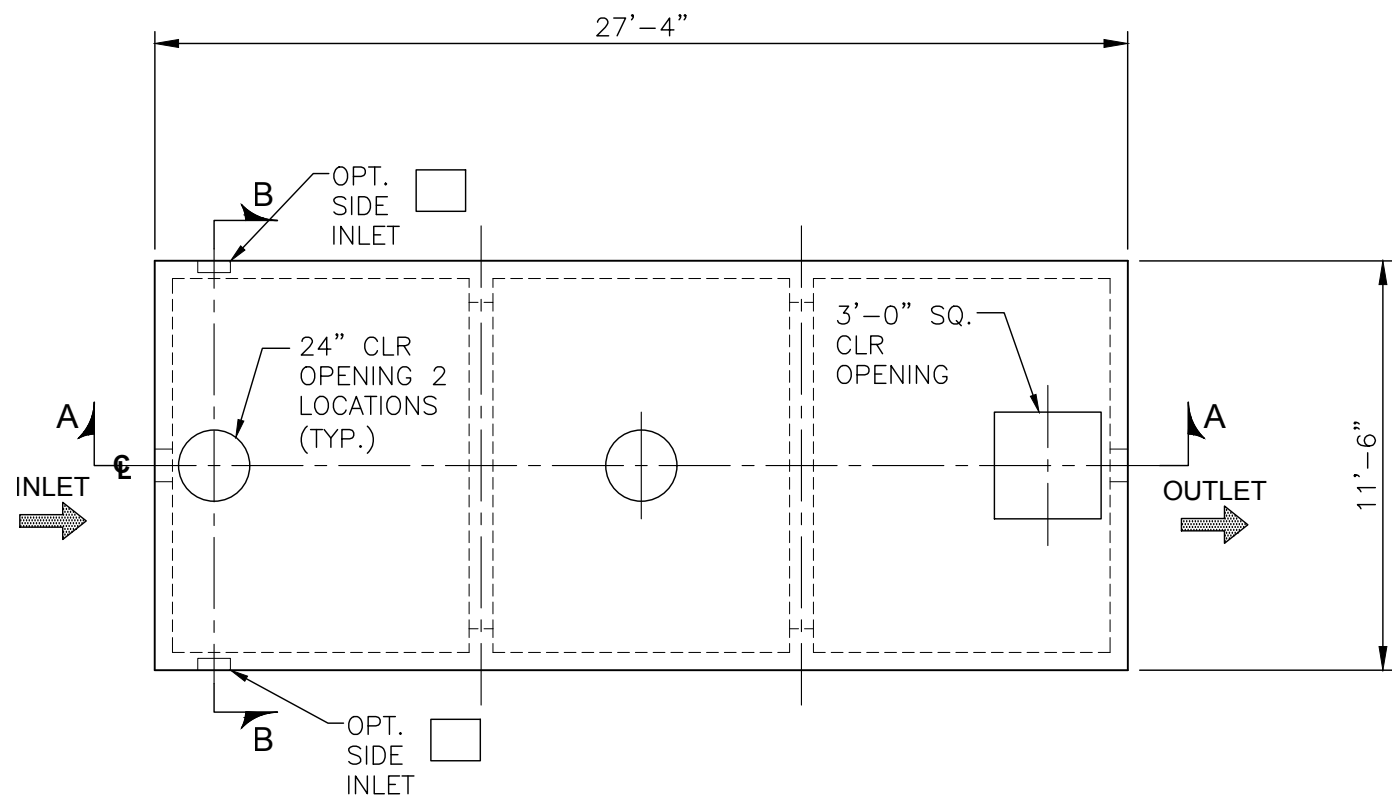
SPECIFICATIONS:
 CONCRETE: 7,000 PSI @ 28 DAYS
 ENTRAINED AIR: 5%-9%
 STEEL: ASTM A496-A615 GRADE 60-60 KSI.

DESIGN LOADING:
 AASHTO HS-20-44 WITH 30% IMPACT AND EQUIVALENT SOIL PRESSURE OF 30 PCF. 6 FT. OF FILL OVER TOP OF TANK.

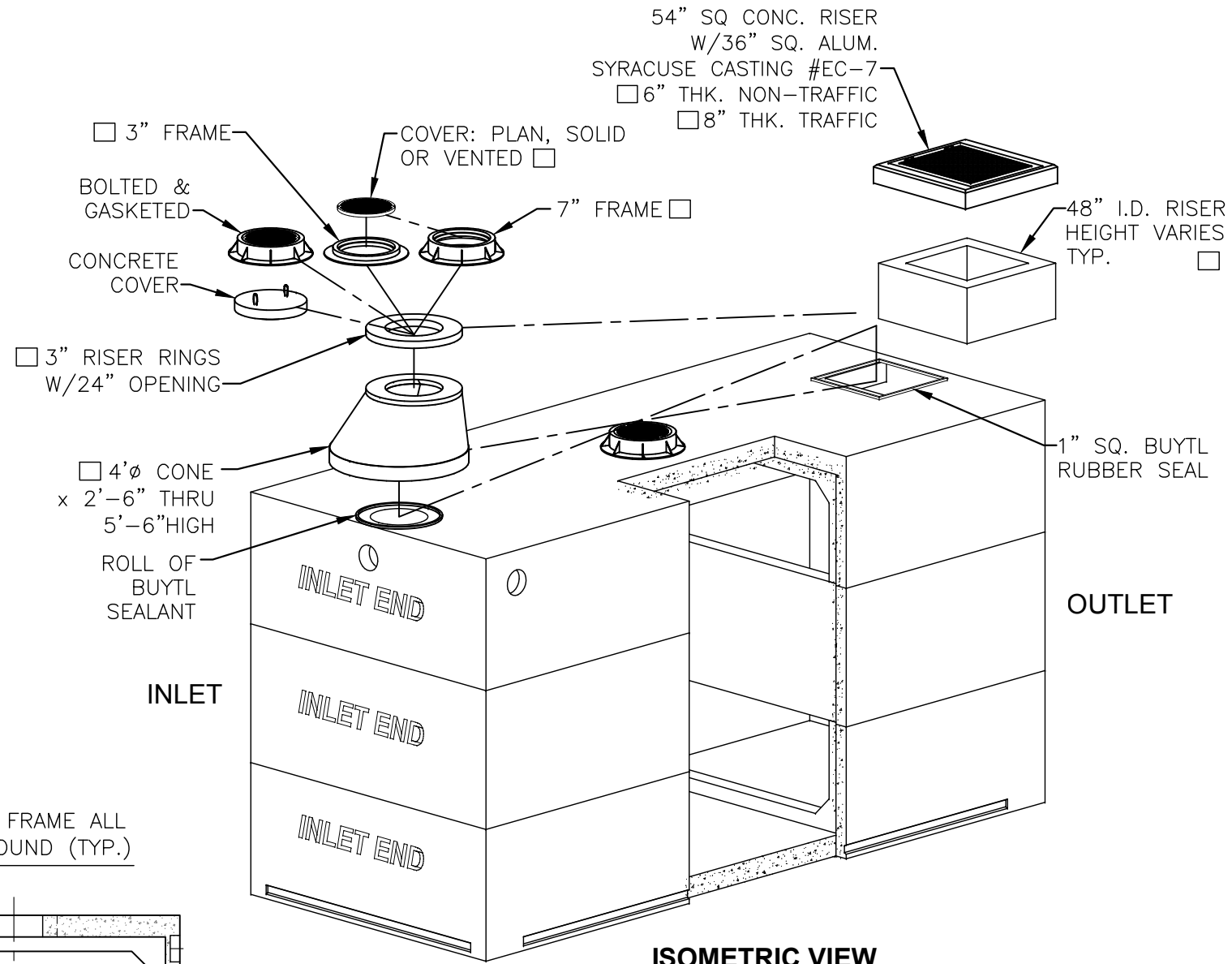
FLOATATION FORCES:
 WATER TABLE 3 FT. DOWN FROM GRADE. FLOATATION FORCES NOT ACCOUNTED FOR.

WEIGHTS:
 TOP: 58,100 LBS
 BOTTOM: 59,700 LBS
 TOTAL: 117,800 LBS

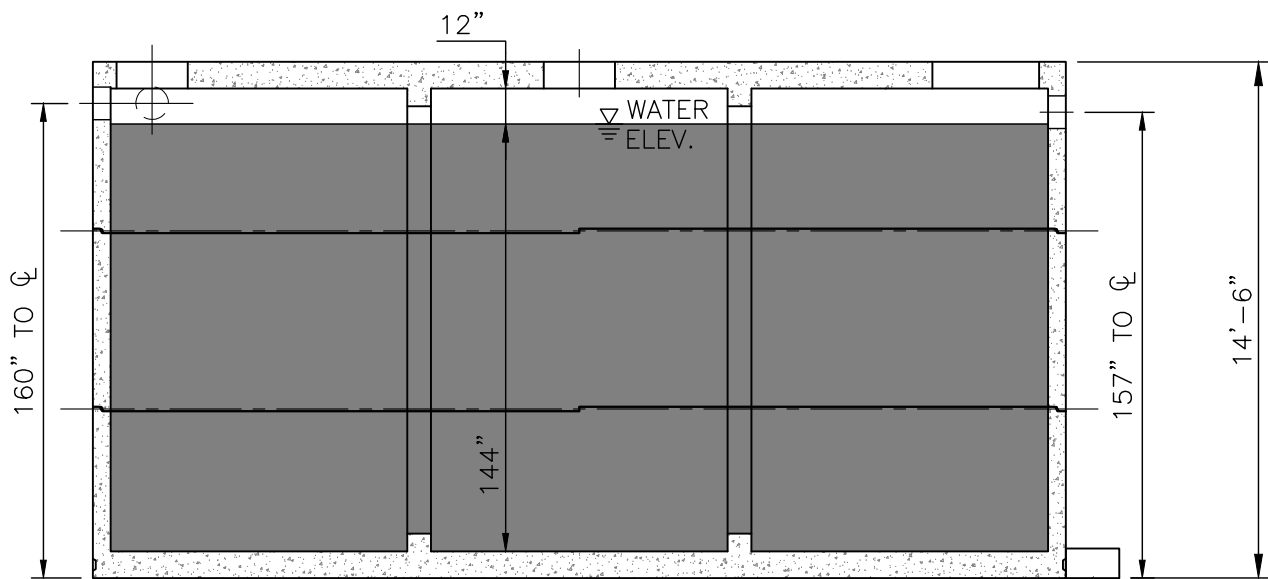
DISTANCE FROM FLOOR TO HOLE INVERT		GALLONAGE
INLET	OUTLET	
87"	84"	14,000



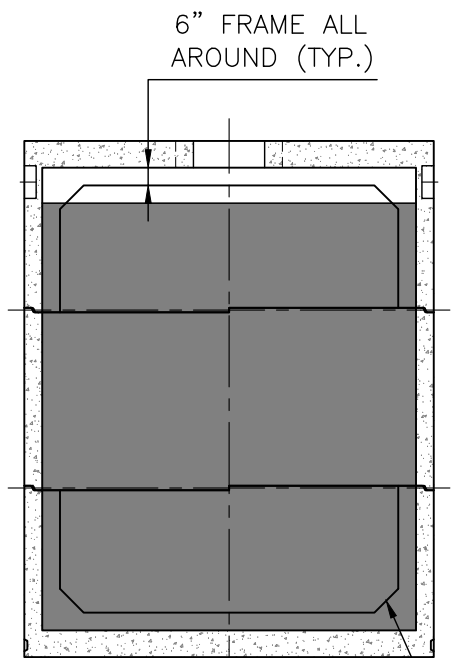
PLAN



ISOMETRIC VIEW (w/ CUT-AWAY)



SECTION A-A



SECTION B-B

A CAST IN PLACE FLANGE WILL BE REQUIRED TO REIST UPLIFT (C.I.P. - BY G.C. IN FIELD). CONTACT OUR SALES & ENGINEERING DEPARTMENT TO REVIEW THE JOB SPECIFIC REQUIREMENTS

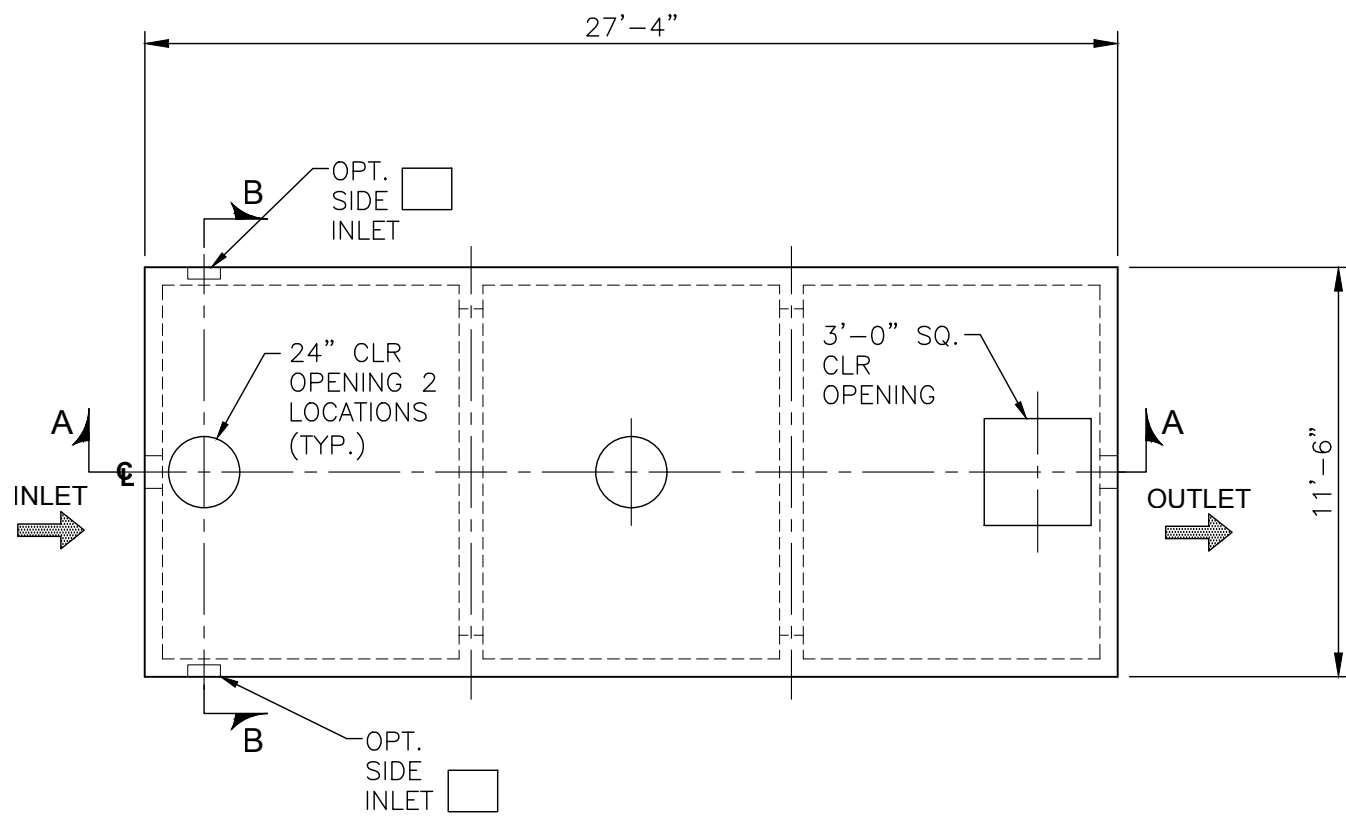
SPECIFICATIONS:
 CONCRETE: 7,000 PSI @ 28 DAYS
 ENTRAINED AIR: 5%-9%
 STEEL: ASTM A496-A615 GRADE 60-60 KSI.

DESIGN LOADING:
 AASHTO HS-20-44 WITH 30% IMPACT AND EQUIVALENT SOIL PRESSURE OF 30 PCF.
 6 FT. OF FILL OVER TOP OF TANK.

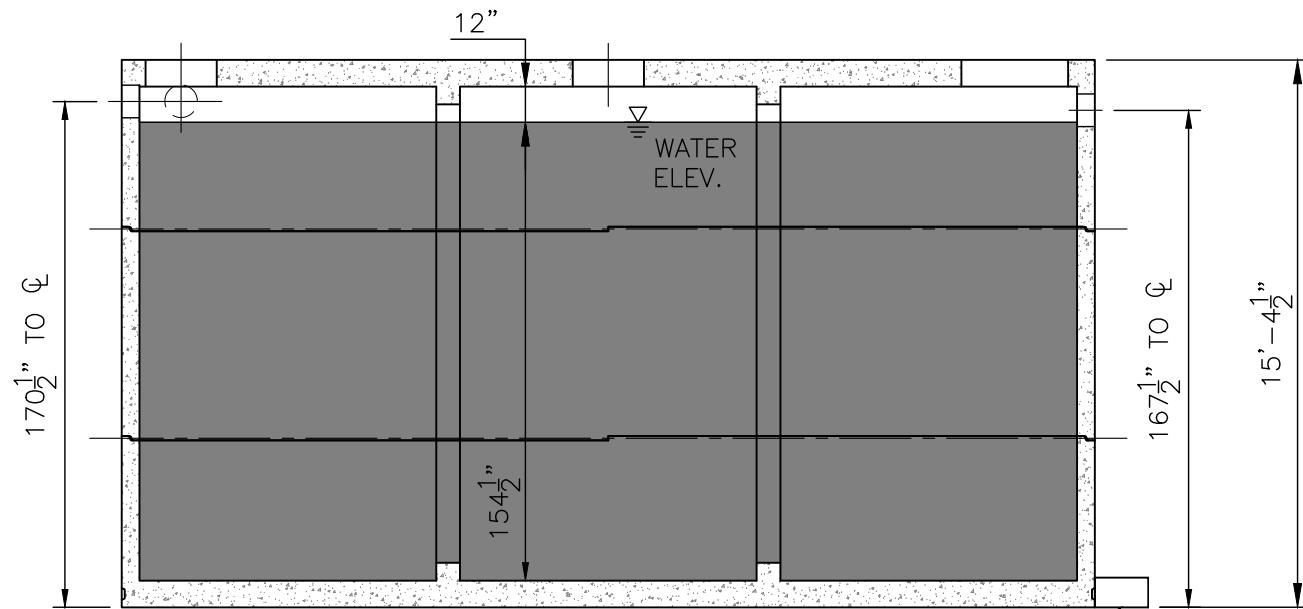
FLOATATION FORCES:
 WATER TABLE 3 FT. DOWN FROM GRADE.
 FLOATATION FORCES NOT ACCOUNTED FOR.

WEIGHTS:
 TOP: 58,100 LBS
 MIDDLE: 38,900 LBS
 BOTTOM: 59,700 LBS
 TOTAL: 156,700 LBS

DISTANCE FROM FLOOR TO HOLE INVERT		GALLONAGE
INLET	OUTLET	
144"	141"	24,000

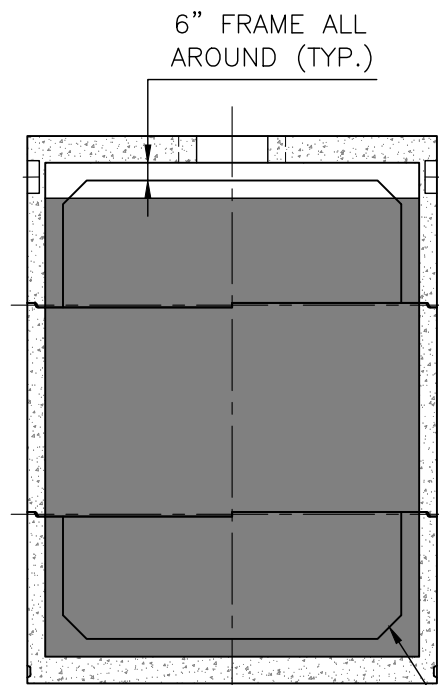


PLAN

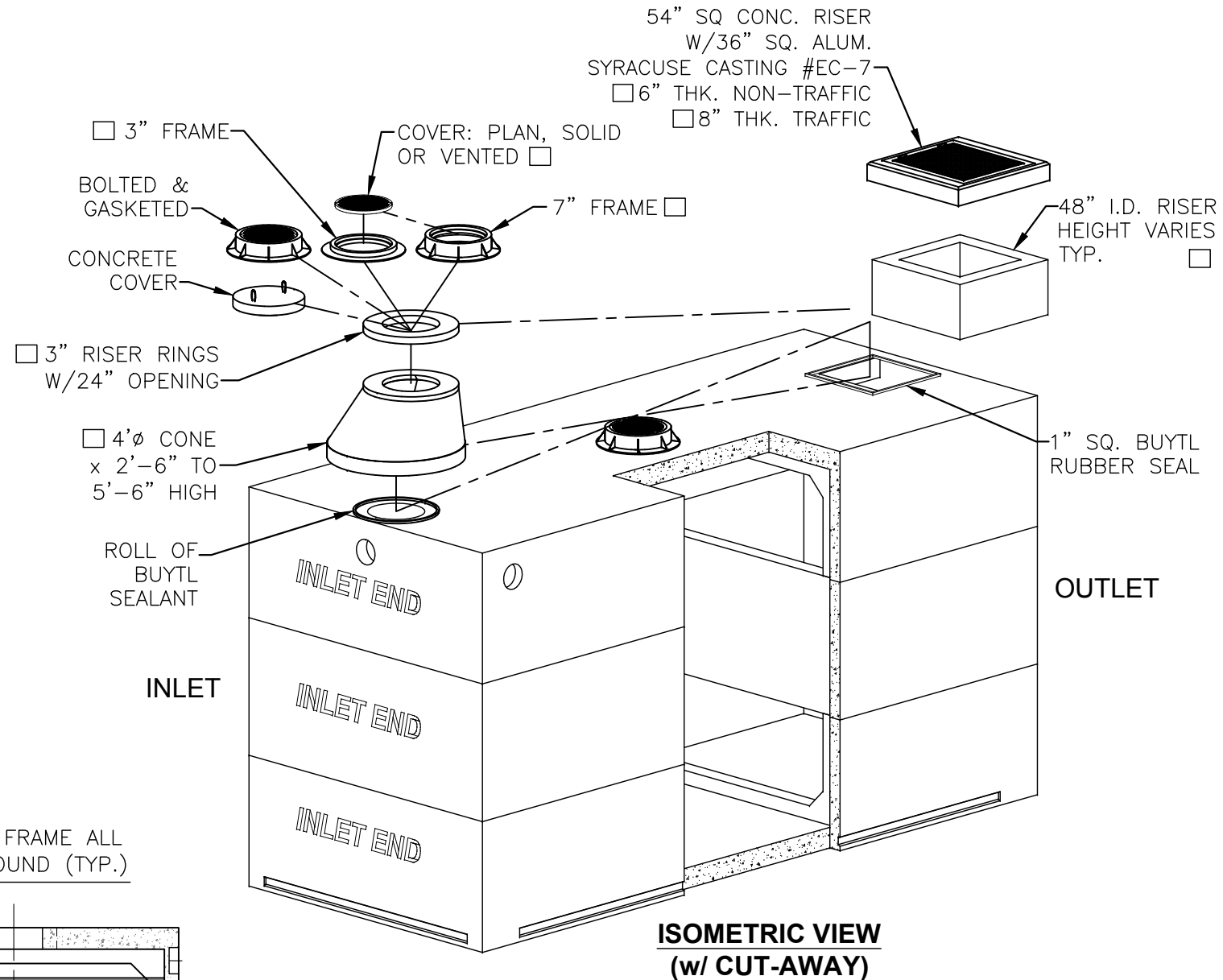


SECTION A-A

A CAST IN PLACE FLANGE WILL BE REQUIRED TO RESIST UPLIFT (C.I.P. - BY G.C. IN FIELD). CONTACT OUR SALES & ENGINEERING DEPARTMENT TO REVIEW THE JOB SPECIFIC REQUIREMENTS



SECTION B-B



ISOMETRIC VIEW (w/ CUT-AWAY)

SPECIFICATIONS:
 CONCRETE: 7,000 PSI @ 28 DAYS
 ENTRAINED AIR: 5%-9%
 STEEL: ASTM A496-A615 GRADE 60-60 KSI.

DESIGN LOADING:
 AASHTO HS-20-44 WITH 30% IMPACT AND EQUIVALENT SOIL PRESSURE OF 30 PCF.
 6 FT. OF FILL OVER TOP OF TANK.

FLOATATION FORCES:
 WATER TABLE 3 FT. DOWN FROM GRADE.
 FLOATATION FORCES NOT ACCOUNTED FOR.

WEIGHTS:
 TOP 58,100 LBS
 MIDDLE 45,700 LBS
 BOTTOM 59,700 LBS
 TOTAL 163,500 LBS

DISTANCE FROM FLOOR TO HOLE INVERT		GALLONAGE
INLET	OUTLET	
157 1/2"	154 1/2"	26,000



KISTNER CONCRETE PRODUCTS, INC.

5550 HINMAN ROAD
 LOCKPORT, NEW YORK 14094
 PHONE 716-434-6157

02

REV. NO.

11/19/18

DATE

REVISED INLET/OUTLET.
 ADDED KNOCKOUTS.

DESCRIPTION

DRAWN BY:

MAK

CK'D BY:

MJK

DATE:

1/18/19

SCALE:

N.T.S.

PROJECT:

10k TO 26k SEPTIC / EFFLUENT / UTILITY TANKS - PRESENTATION WORKBOOK

SHEET TITLE:

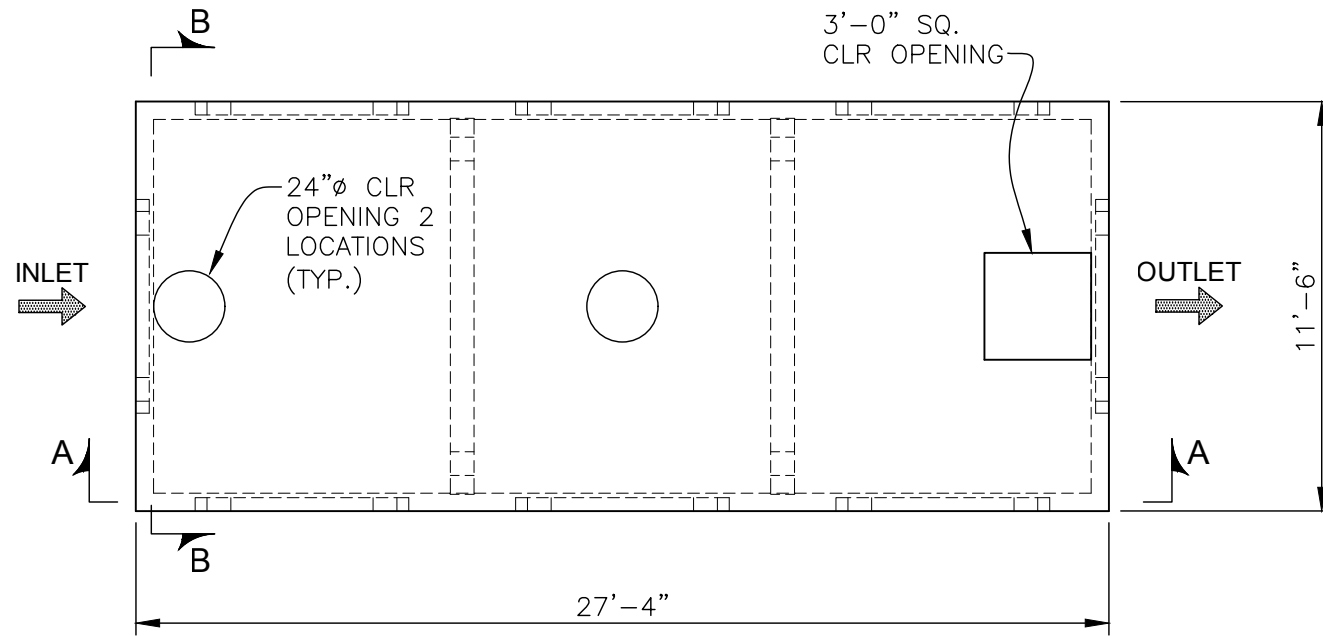
26,000 GALLON UTILITY / EFFLUENT TANK DETAIL PRESENTATION SHEET

SHEET NO:

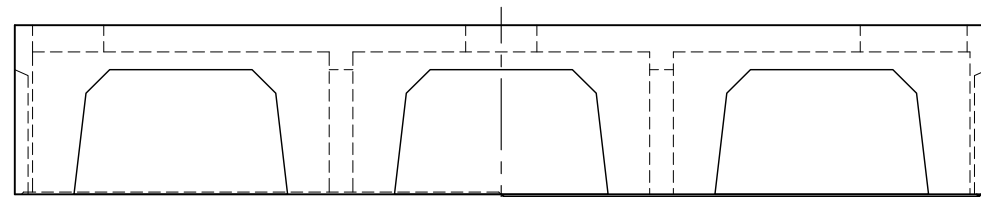
P-11

FILE NAME: 10k-26k ST-EFF TANK-SW_R5

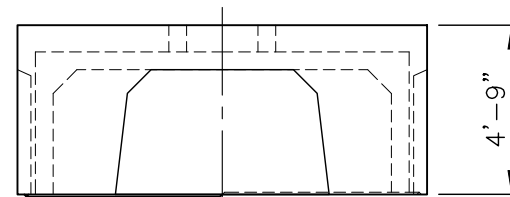
L:\CADD\PRODUCTS\SQUARE AND RECTANGULAR STRUCTURES\VAULTS\10k-26k SEP-EFF TANK W\K\K\10k-26k ST-EFF TANK-SW_R5.dwg



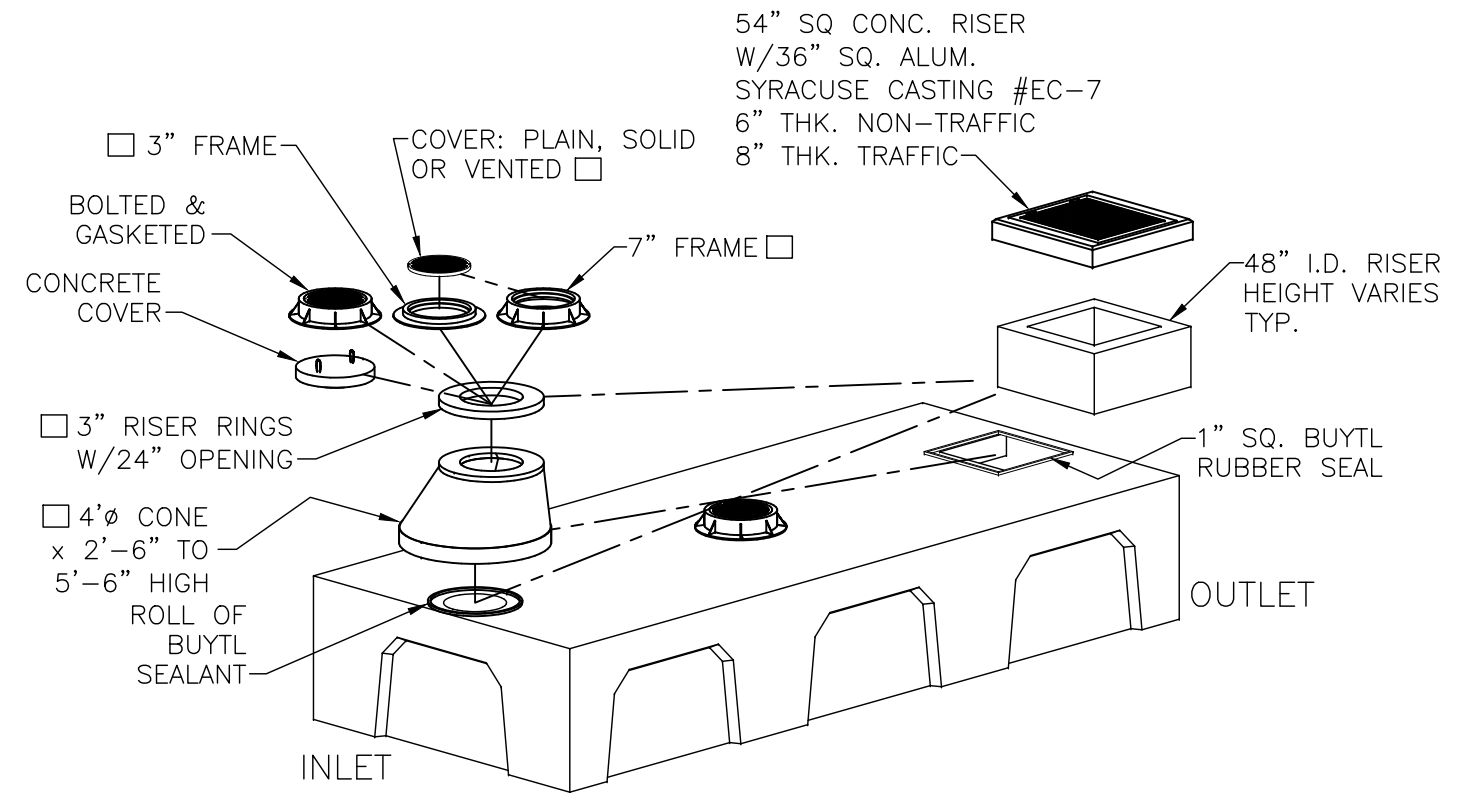
PLAN



SECTION A-A



SECTION B-B



ISOMETRIC VIEW

SPECIFICATIONS:
 CONCRETE: 5,000 PSI @ 28 DAYS
 ENTRAINED AIR: 5%–9%
 STEEL: ASTM A496–A615
 GRADE 60–60 KSI.
DESIGN LOADING:
 AASHTO HS-20-44 WITH 30%
 IMPACT AND EQUIVALENT SOIL
 PRESSURE OF 30 PCF.
 6 FT. OF FILL OVER TOP OF TANK.
FLOATATION FORCES:
 WATER TABLE 3 FT. DOWN FROM GRADE.
 FLOATATION FORCES NOT ACCOUNTED FOR.
WEIGHT:
 TOP 46,500 LBS

NOTE: SIDEWALL SURFACE AREA AVAILABLE: 310 SQ. FT./UNIT

KISTNER HAS DEVELOPED AND CAN SUPPLY AN ARRAY OF STRUCTURAL BMP FOR STORM WATER APPLICATIONS:
 THESE SYSTEMS ALLOW: DETENTION / RETENTION / RECHARGE / TSS SYSTEMS
 THEY ARE OFFERED TO HELP THE ENGINEERING COMMUNITY MEET THE CURRENT STORM WATER REGULATIONS & COMPLIANCE ISSUES.

THE LATEST OF THESE PRODUCT IS THE:
 “ KAST-POD SW-DRRTS STORMWATER SYSTEM “
 A STRONG TOOL YOU CAN USE TO MEET YOUR REQUIREMENTS.

KISTNER AS ALWAYS CONSIDERS:
 CAPITAL COSTS ((I.E.) ONE TIME UP FRONT COST.)
 INSTALLATION TIME, COST, & INSTALLATION DIFFICULTY.
 DESIGN LOADING & FOOTPRINT OF STRUCTURE.
 SIZE & CAPACITY OF STRUCTURE AND FLOW RATES.
 MAINTENANCE COST AND TIME & EASE OF PERFORMANCE OF MAINTENANCE.

PLEASE CALL TO LEARN MORE ABOUT THE “ KAST-POD SW-DRRTS STORMWATER SYSTEM “
 OR ANY OF OUR OTHER STORM WATER STRUCTURAL BMP'S FOR STORM WATER: DETENTION



**KISTNER
 CONCRETE
 PRODUCTS, INC.**

5550 HINMAN ROAD
 LOCKPORT, NEW YORK 14094
 PHONE 716-434-6157

REV. NO.	DATE	DESCRIPTION

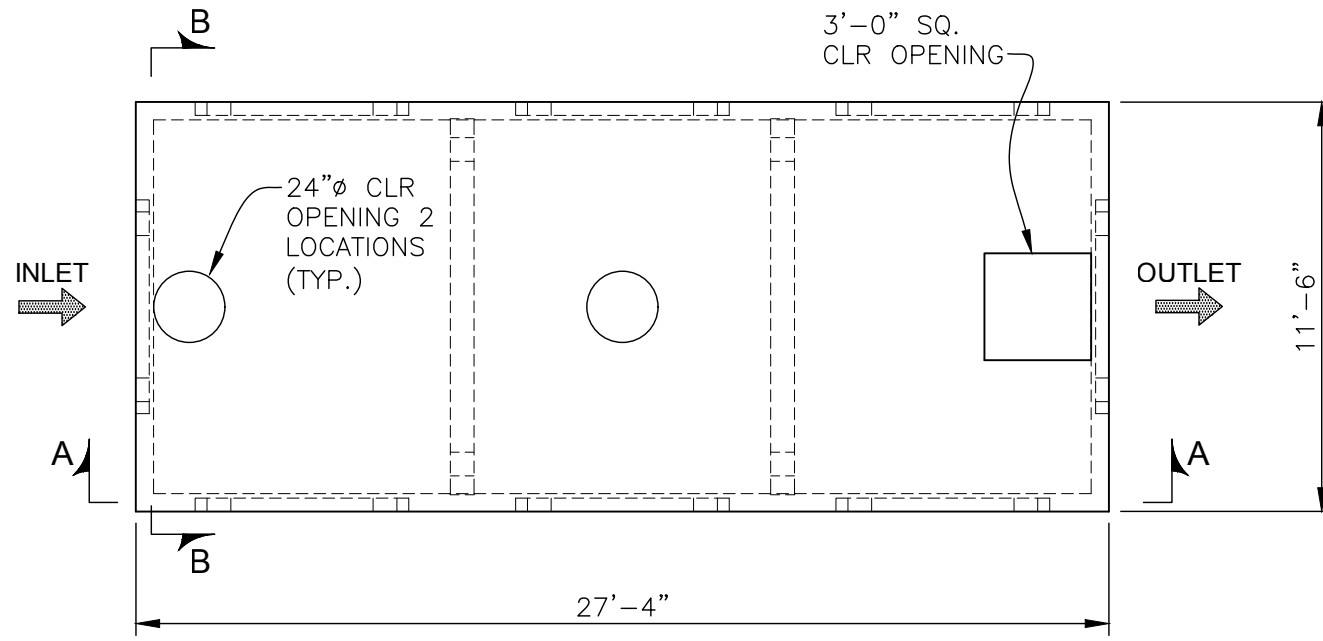
DRAWN BY:
MAK
 DATE:
1/18/19
 CK'D BY:
MJK
 SCALE:
N.T.S.

PROJECT:
**10K TO 26K SEPTIC / EFFLUENT / UTILITY
 TANKS - PRESENTATION WORKBOOK**

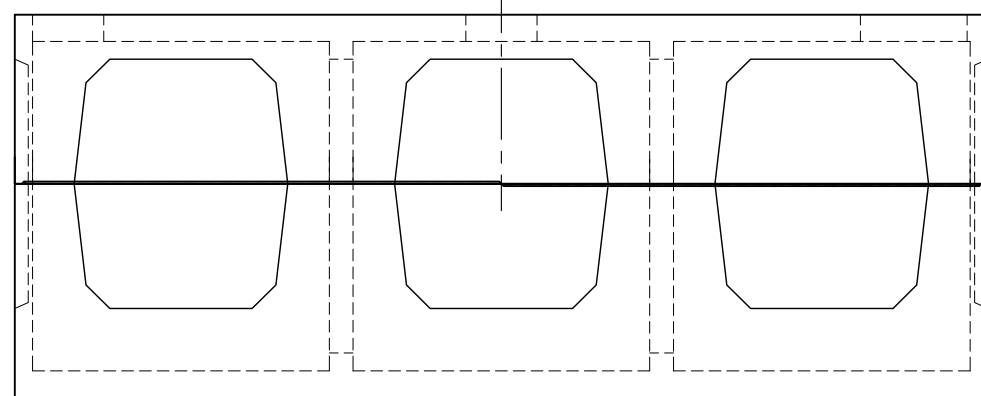
SHEET TITLE:
**PRESENTATION OF TOP SECTION DETAILS
 KAST-POD SW-DRRTS STORMWATER SYSTEM
 DETENTION / RETENTION / RECHARGE / TSS SYSTEM**

SHEET NO:
P-12
 FILE NAME:
10k-26k ST-EFF TANK-SW_R5

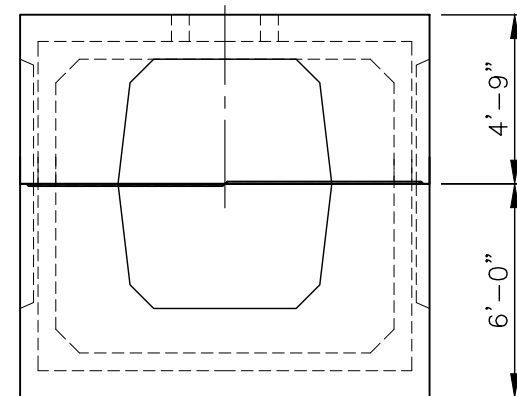
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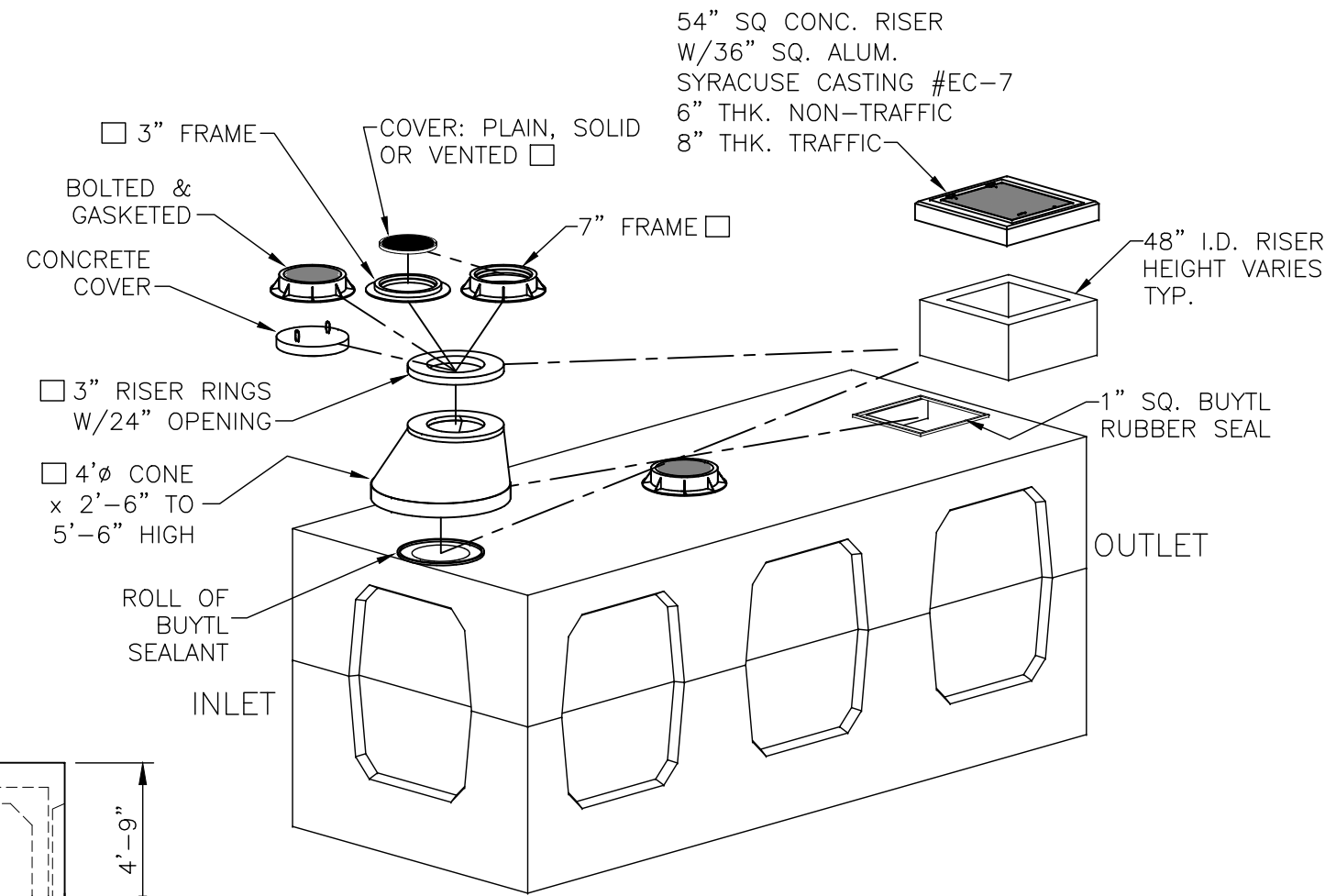
PLAN



SECTION A-A



SECTION B-B



ISOMETRIC VIEW

SPECIFICATIONS:
 CONCRETE: 5,000 PSI @ 28 DAYS
 ENTRAINED AIR: 5%–9%
 STEEL: ASTM A496–A615 GRADE 60–60 KSI.
DESIGN LOADING: AASHTO HS-20-44 WITH 30% IMPACT AND EQUIVALENT SOIL PRESSURE OF 30 PCF. 6 FT. OF FILL OVER TOP OF TANK.
FLOATATION FORCES: WATER TABLE 3 FT. DOWN FROM GRADE. FLOATATION FORCES NOT ACCOUNTED FOR.
STEEL:
 TOP 46,500 LBS
 BOTTOM 55,000 LBS
 TOTAL 101,500 LBS

NOTE: SIDEWALL SURFACE AREA AVAILABLE: 310 SQ. FT./UNIT

KISTNER HAS DEVELOPED AND CAN SUPPLY AN ARRAY OF STRUCTURAL BMP FOR STORM WATER APPLICATIONS:
 THESE SYSTEMS ALLOW: DETENTION / RETENTION / RECHARGE / TSS SYSTEMS
 THEY ARE OFFERED TO HELP THE ENGINEERING COMMUNITY MEET THE CURRENT STORM WATER REGULATIONS & COMPLIANCE ISSUES.

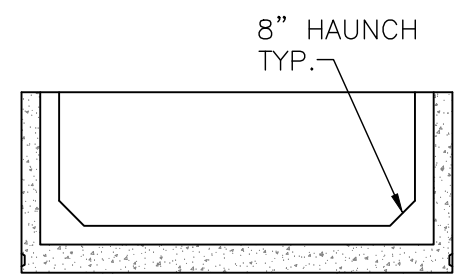
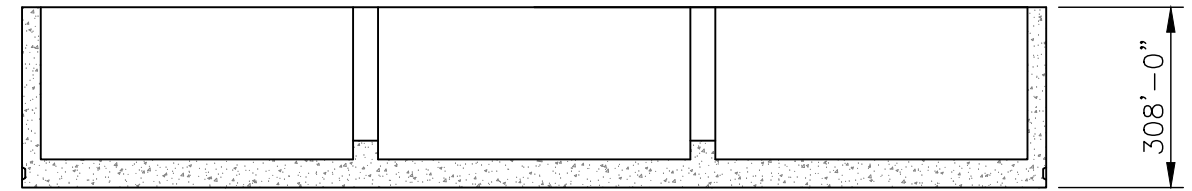
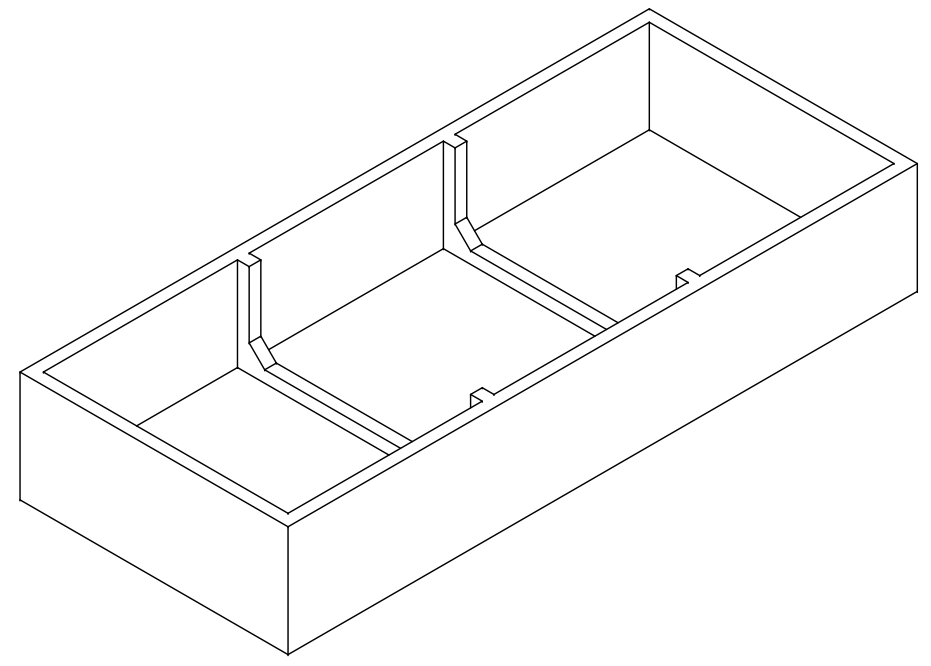
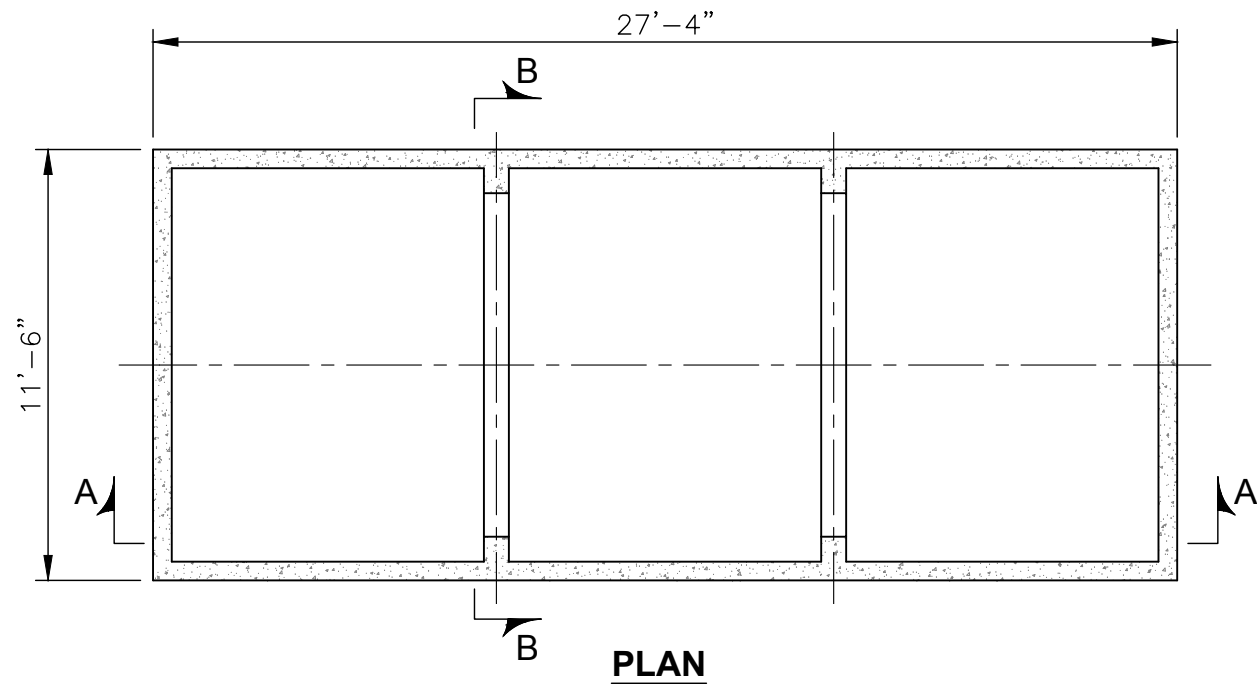
THE LATEST OF THESE PRODUCT IS THE:
 “ KAST-POD SW-DRRTS STORMWATER SYSTEM “
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 INSTALLATION TIME, COST, & INSTALLATION DIFFICULTY.
 DESIGN LOADING & FOOTPRINT OF STRUCTURE.
 SIZE & CAPACITY OF STRUCTURE AND FLOW RATES.
 MAINTENANCE COST AND TIME & EASE OF PERFORMANCE OF MAINTENANCE.

PLEASE CALL TO LEARN MORE ABOUT THE “ KAST-POD SW-DRRTS STORMWATER SYSTEM “
 OR ANY OF OUR OTHER STORM WATER STRUCTURAL BMP'S FOR STORM WATER: DETENTION

L:\CADD\PRODUCTS\SQUARE AND RECTANGULAR STRUCTURES\VAULTS\10k-26k SEP-EFF TANK WRRK\10k-26k ST-EFF TANK-SW_R5.dwg

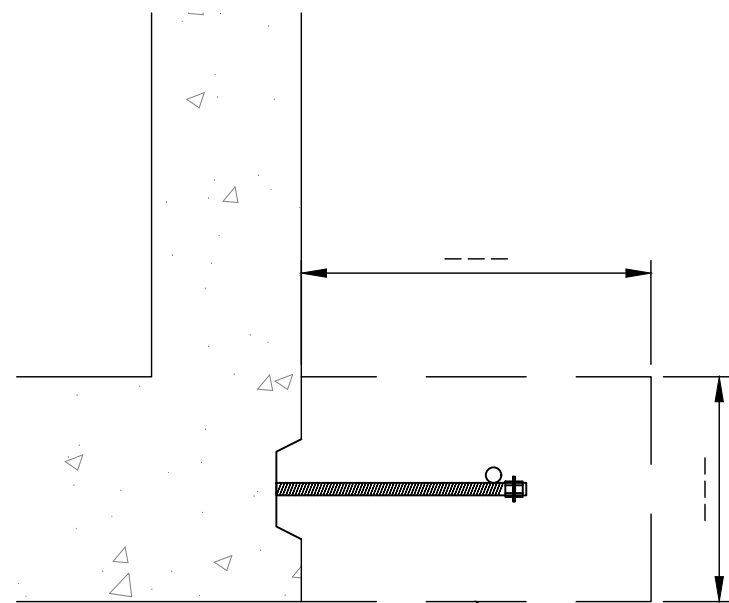
L:\CADD\PRODUCTS\SQUARE AND RECTANGULAR STRUCTURES\VAULTS\10k-26k-SEP-EFF TANK\WRK\10k-26k-SEP-EFF TANK-SW-R5.dwg



SPECIFICATIONS:
 CONCRETE: 7,000 PSI @ 28 DAYS
 ENTRAINED AIR: 5%-9%
 STEEL: ASTM A496-A615
 GRADE 60-60 KSI.
 DESIGN LOADING: AASHTO HS-20-44 WITH 30%
 IMPACT AND EQUIVALENT SOIL
 PRESSURE OF 30 PCF.
 6 FT. OF FILL OVER TOP OF TANK.
 FLOATATION FORCES: WATER TABLE 3 FT. DOWN FROM GRADE.
 FLOATATION FORCES NOT ACCOUNTED FOR.
 WEIGHT:
 BOTTOM 59,420 LBS

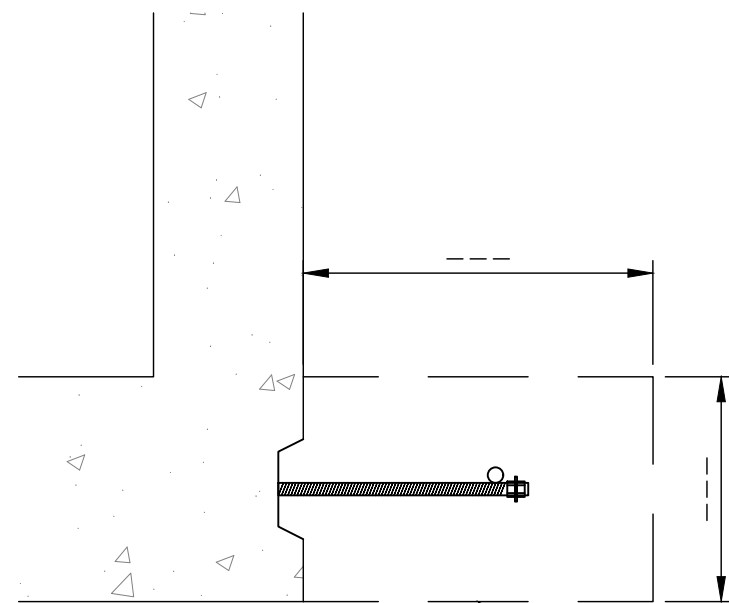
	KISTNER CONCRETE PRODUCTS, INC.	5550 HINMAN ROAD LOCKPORT, NEW YORK 14094 PHONE 716-434-6157	REV. NO.	DATE	DESCRIPTION	DRAWN BY: MAK	DATE: 1/18/19	PROJECT: 10K TO 26K SEPTIC / EFFLUENT / UTILITY TANKS - PRESENTATION WORKBOOK	SHEET TITLE: CONTAINMENT TANK PRESENTATION DETAIL SHEET	SHEET NO: P-14
						CK'D BY: MJK	SCALE: N.T.S.			FILE NAME: 10k-26k ST-EFF TANK-SW_R5

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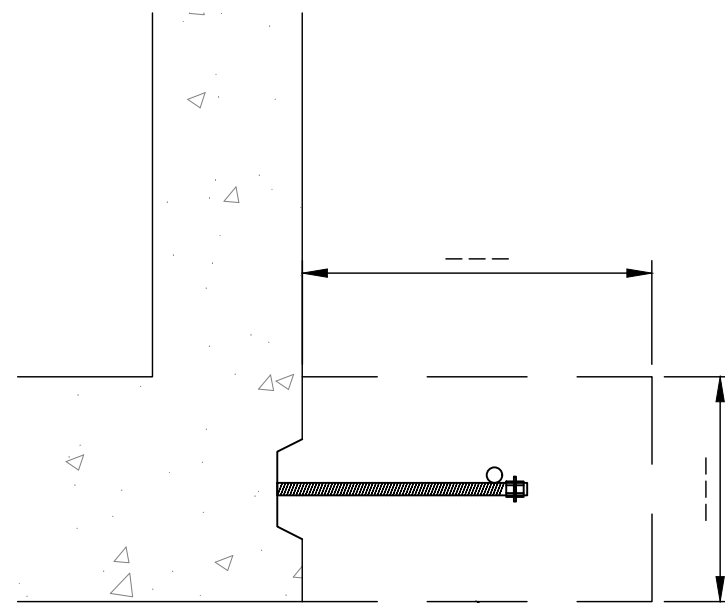
CAST IN PLACE ANTI-BOUYANCY COLLAR

10,000 GALLON TANK



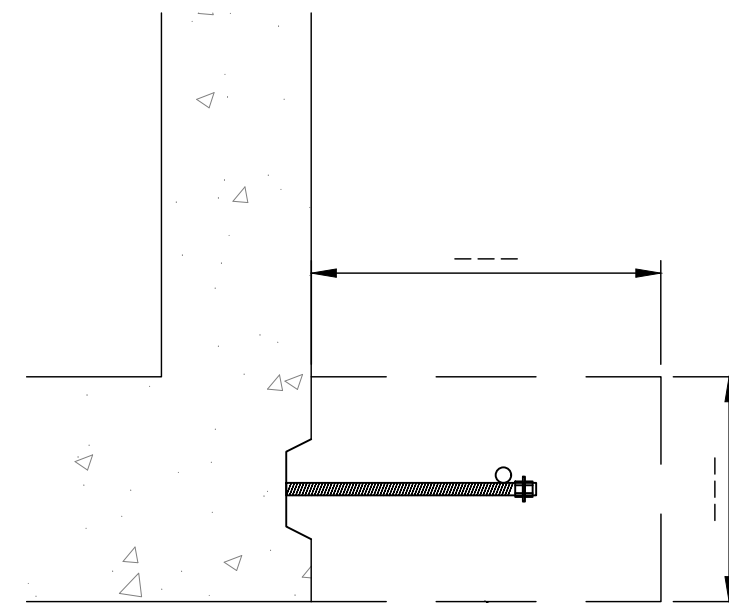
CAST IN PLACE ANTI-BOUYANCY COLLAR

14,000 GALLON TANK



CAST IN PLACE ANTI-BOUYANCY COLLAR

24,000 GALLON TANK



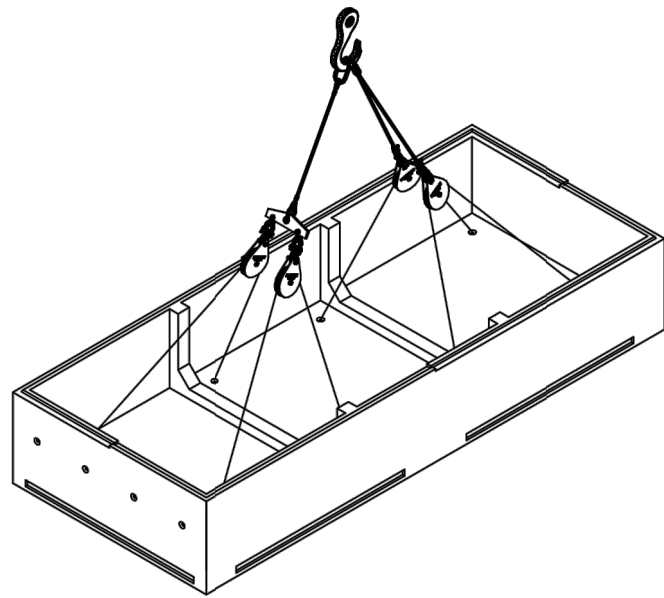
CAST IN PLACE ANTI-BOUYANCY COLLAR

26,000 GALLON TANK

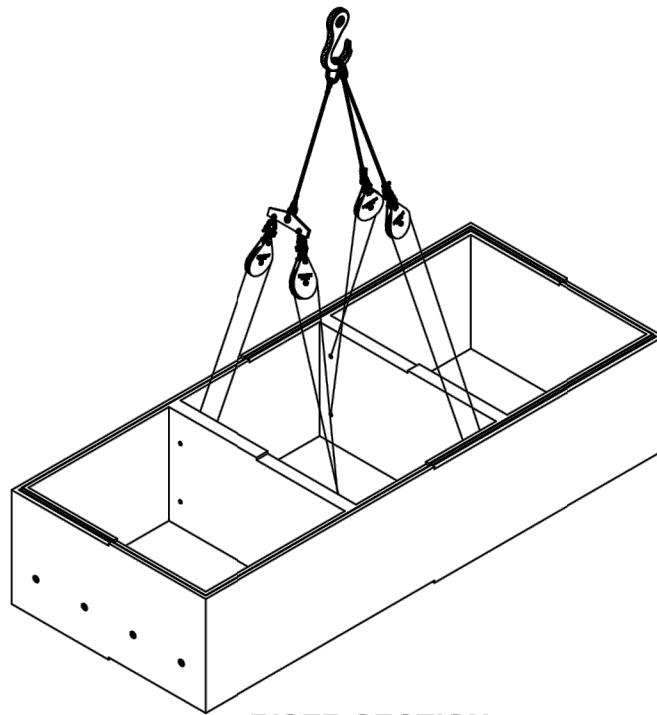
DESIGN ASSUMPTIONS
WATER TABLE
SAFETY FACTOR

IF ABOVE "DESIGN ASUMPTIONS"
REQUIRE MODIFICATION FOR YOUR
SPECIFIC PROJECT, CALL SALES +
ENGINEERING TO DISCUSS.

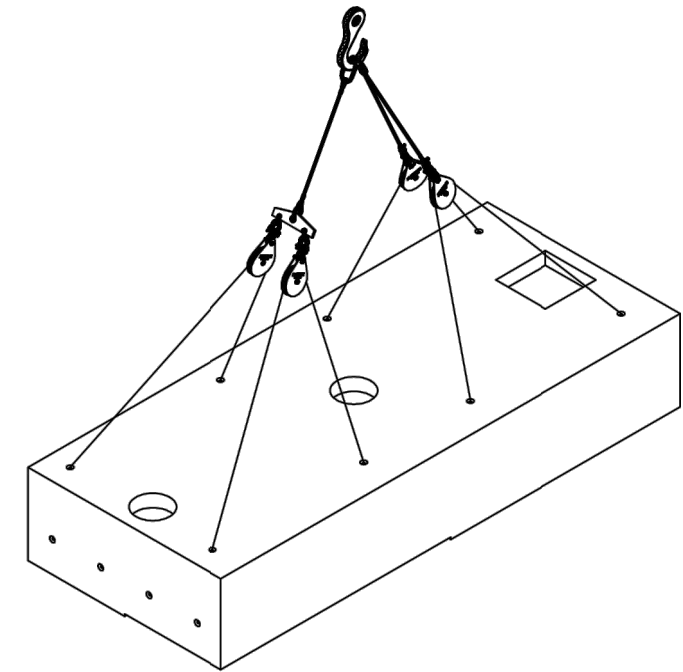
	5550 HINMAN ROAD LOCKPORT, NEW YORK 14094 PHONE 716-434-6157	REV. NO.	DATE	DESCRIPTION	DRAWN BY: ZMS	DATE: 1/18/19	PROJECT: 10K TO 26K SEPTIC / EFFLUENT / UTILITY TANKS - PRESENTATION WORKBOOK	SHEET TITLE: ANTI-BOUYANCY COLLAR DETAILS	SHEET NO: P-15
					CK'D BY: MJK	SCALE: N.T.S.			FILE NAME: 10k-26k ST-EFF TANK-SW_R5



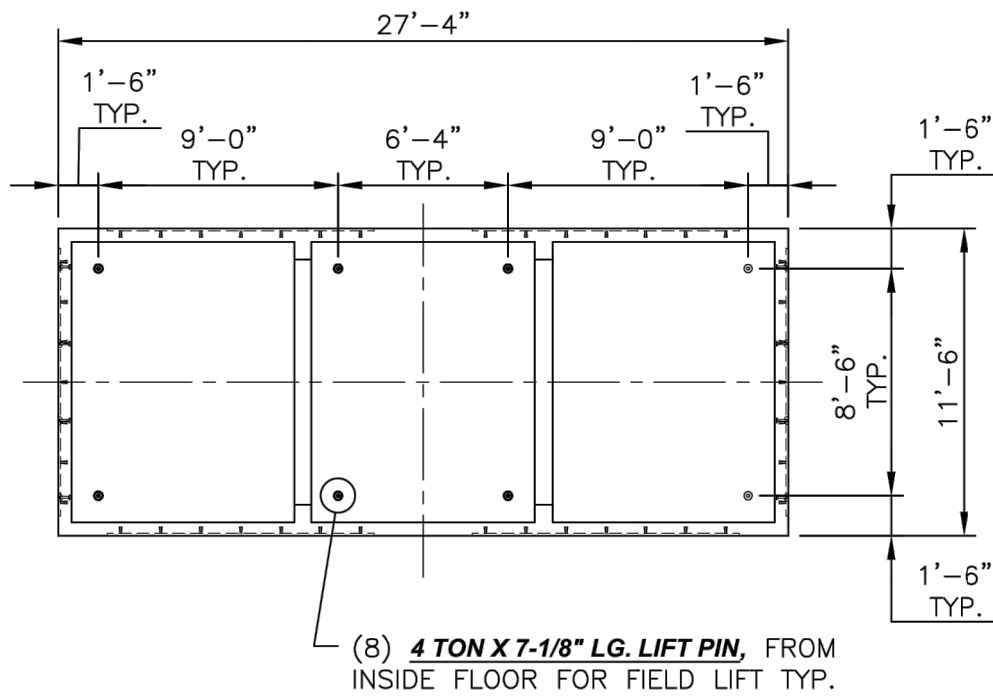
BOTTOM SECTION
8 POINT - INSIDE FLOOR - PICK - FIELD



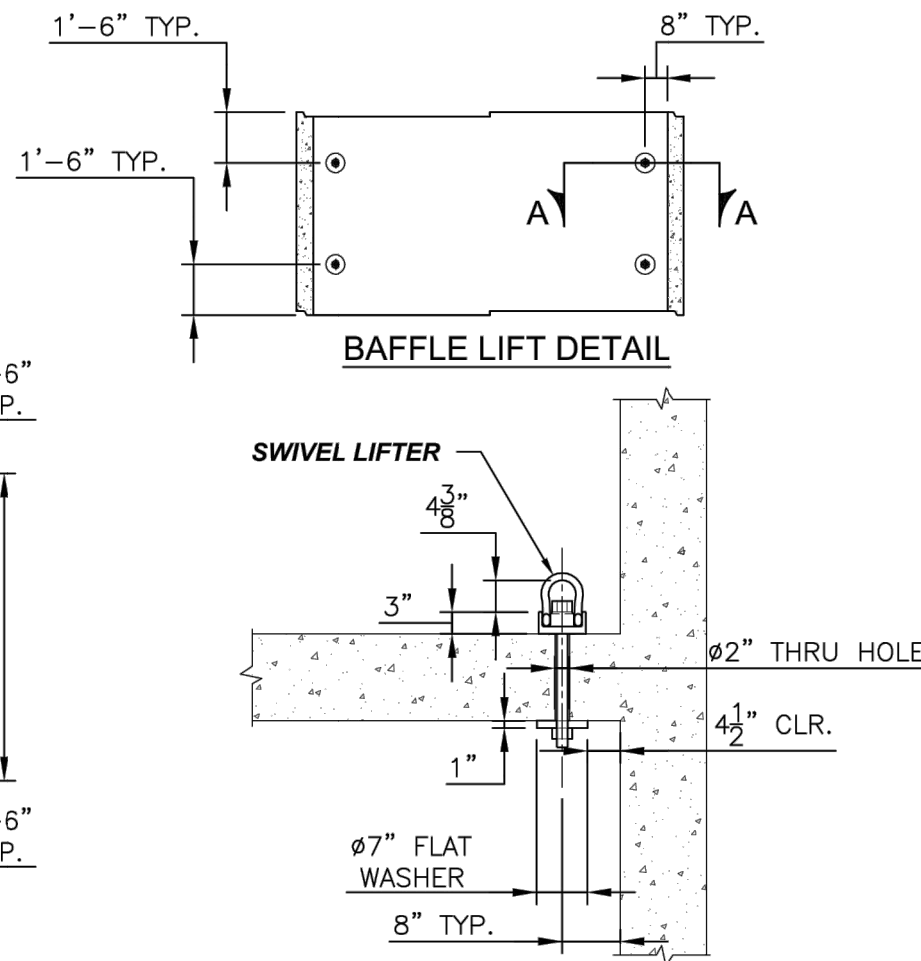
RISER SECTION
8 POINT - BAFFLE WALL - THRU HOLE - PICK - FIELD



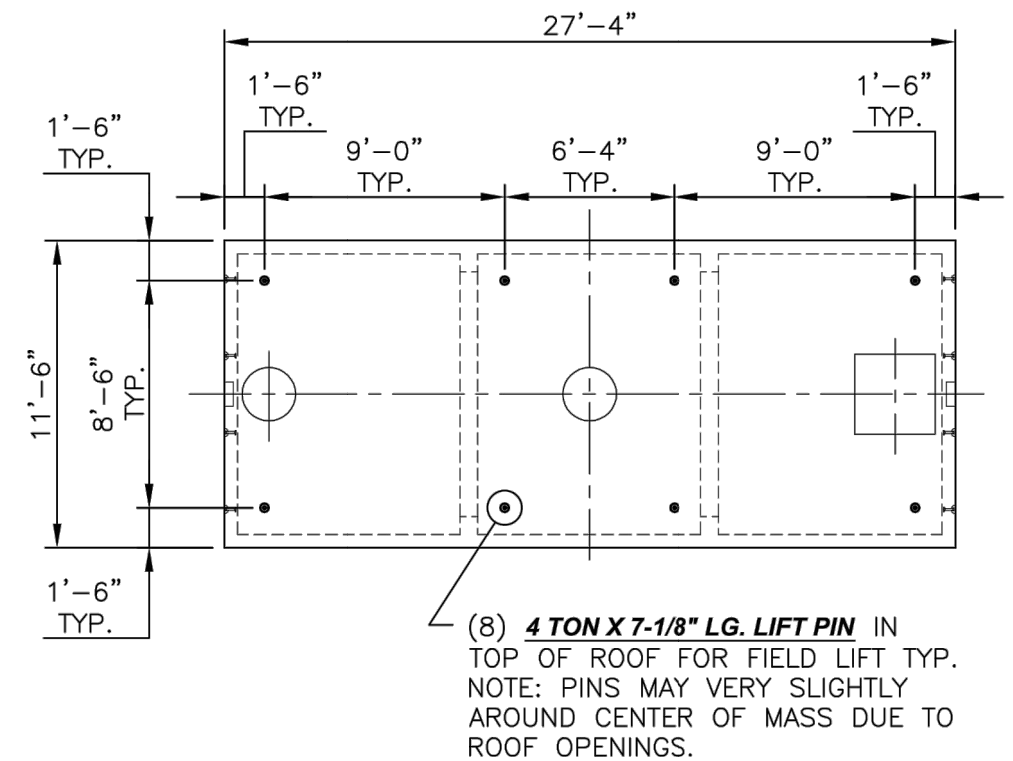
TOP SECTION
8 POINT - TOP - PICK - FIELD



BOTTOM SECTION DETAIL



SECTION A-A



TOP SECTION DETAIL



**KISTNER
CONCRETE
PRODUCTS, INC.**

5550 HINMAN ROAD
LOCKPORT, NEW YORK 14094
PHONE 716-434-6157

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1/18/19
SCALE:
N.T.S.

PROJECT:
**10K TO 26K SEPTIC / EFFLUENT / UTILITY
TANKS - PRESENTATION WORKBOOK**

SHEET
TITLE:

FIELD LIFT DETAILS

SHEET NO:
P-16

FILE NAME:
10k-26k ST-EFF TANK-SW_R5

L:\CADD\PRODUCTS\SQUARE AND RECTANGULAR STRUCTURES\VAULTS\10k-26k SEP-EFF TANK\WRK\10k-26k ST-EFF TANK-SW_R5.dwg