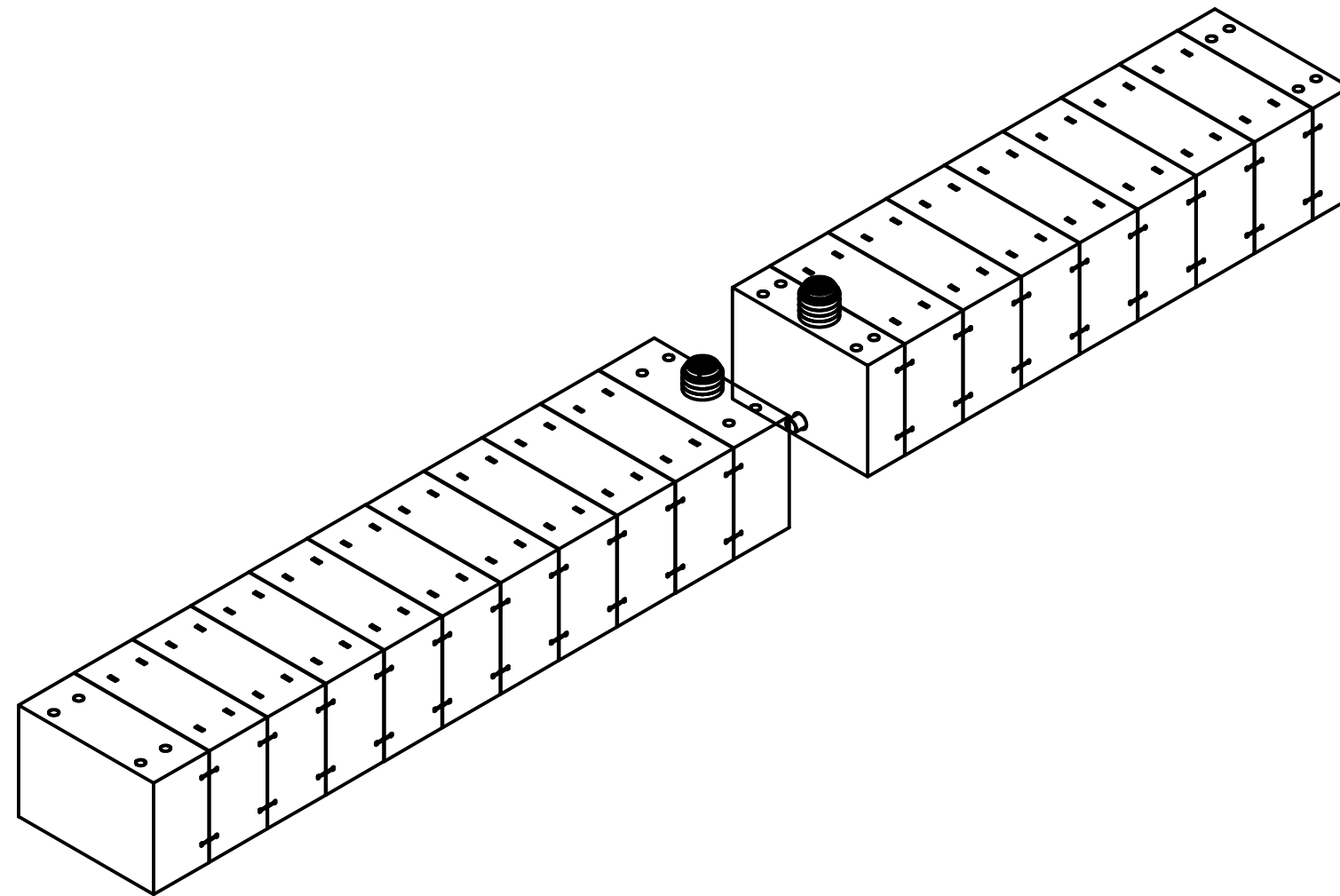


WATER STORAGE SYSTEM

12'x 8'



MATERIALS

Materials used in this work shall conform to ACI (American Concrete Institute)

CONCRETE

28 Day Compressive 5,000 psi (Minimum)
 Mix Design Number 1595455
 Lifting Strength 2000 psi (Minimum)

REINFORCING STEEL

Reinforcing Per ASTM C1433
 12'x 8'x 12" upto 10' of cover
 Reinforcing Cover: 2" Max

FABRICATION

Fabrication shall meet the requirements of the following:

Fabrication Tolerances

1. Width: +1/4", -1/4"
2. Length: +1/4", -1/4"
3. Height: +1/4", -1/4"
4. Deviation from square: 1/4"
5. Member Thickness: +1/4", -1/4"

SHIPPING AND HANDLING

The Precast Supplier and Contractor shall verify that the method of lifting does not overstress the precast concrete pieces in any way.

INSTALLATION SPECIFICATIONS

Box Culvert shall be installed in accordance with ASTM C-891-11 Standard Practice for Installation of Underground Precast Concrete Utility Structures.

The aggregate foundation minimum thickness per calculation is based on an underlying soil bearing pressure of 2000psi. The bearing pressure of the underlying soil must be verified by the geotechnical engineer prior to placing aggregate sub base.

The aggregate base material shall consist of 3/4" angular stone. The stone shall be well compacted and seated using a vibratory roller.

The aggregate shall be graded to a tolerance of 1/4" of the plan elevation.

The aggregate shall extend beyond the Box Culvert perimeter by at least 18".

The Box Culvert shall be placed on line and grade per the site plans. Space between modules shall be 1/2" plus / minus 1/2"

All interior joints between adjacent modules shall be sealed using backer rod, CS-1900 and CS-1800.

BACKFILL

Fill placed around the Box Culvert shall be placed evenly around the entire system in 6" lifts.

Backfill shall be mechanically compacted (no jetting).

Perimeter backfill shall be done in accordance with ASTM C1675. Native material can be used if the material meets the standard as required in section 10.2 and 11.

Fill placement over top of Box Culvert shall be done in accordance with ASTM C1675. Fill placement shall be done in 6" lifts. Fill material not to exceed 120 PCF. At no time shall machinery or vehicles exceeding HS-20 travel over the Box Culvert.

LOCATION: T:\Drawings\Vault\DESIGN\Storm Prism\David's presentation\SPV_SAMPLE.dwg

SYSTEM INFORMATION			
SYSTEM NAME	QTY	DESCRIPTION	SYSTEM STORAGE VOLUME
A-2	1	64' LONG WATER STORAGE SYSTEM	4,538 cbft
A-1	1	48' LONG WATER STORAGE SYSTEM	3,408 cbft

REVISIONS:
No. DATE DESCRIPTION

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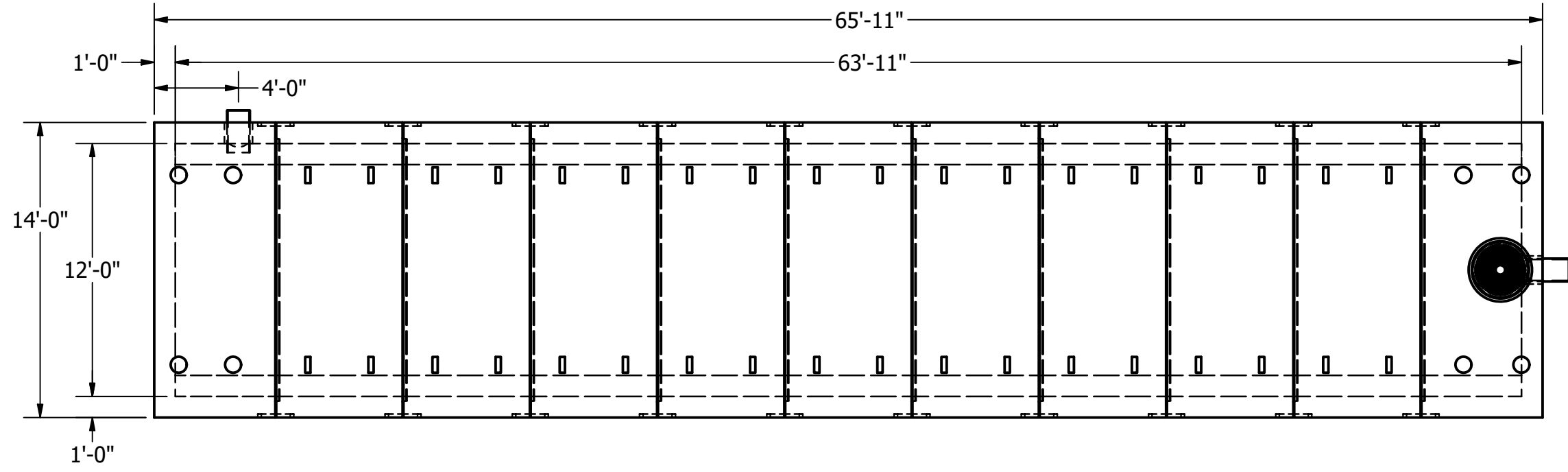
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 LOS ANGELES, CA

DRAWN BY: K.STRADER

DATE: 3/22/2019

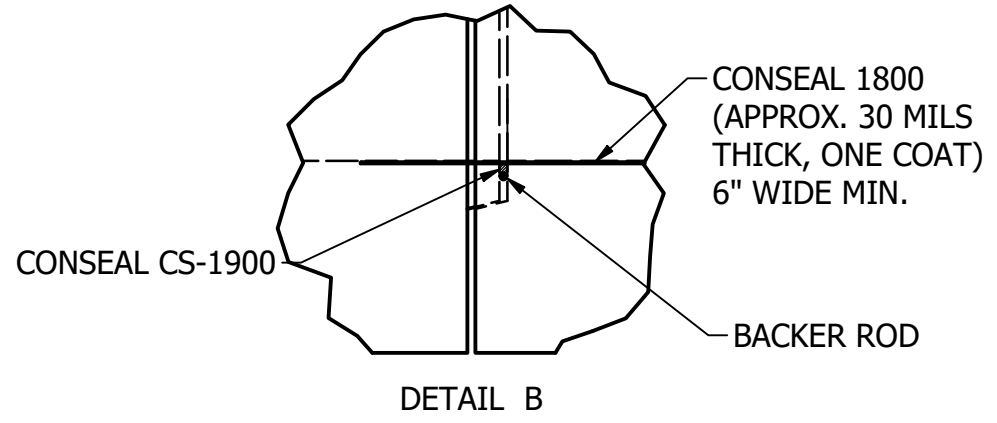
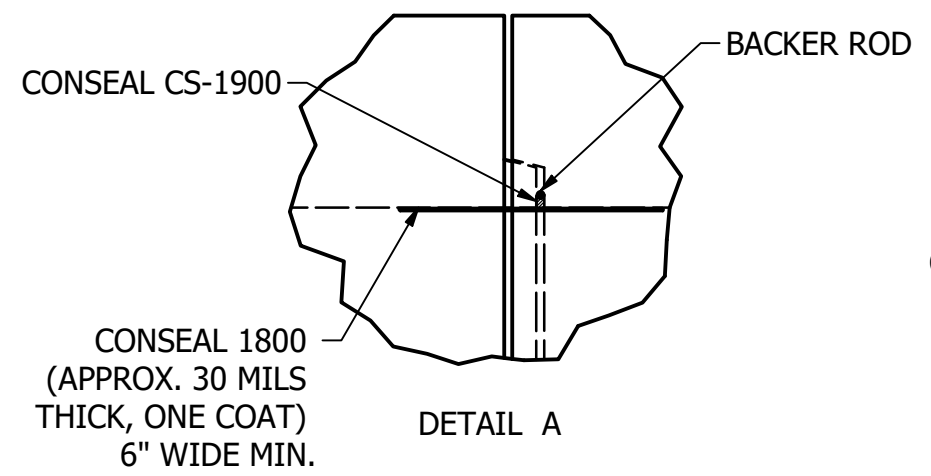
SHEET: 1 OF 9

PART INFORMATION				
PART NUMBER	QTY	DESCRIPTION	APPROX. WEIGHT	YARDS
BC144x96	8	BOX CULVERT SECTIONS 72" LONG	41,400 LBS	10.35 YDS
BC144x96-SP	1	BOX CULVERT SECTIONS 72" LONG WITH PIPE OPENING (TBD)	41,400 LBS	10.35 YDS
BC144x96-57ME	1	BOX CULVERT 57" LONG MALE END	54,100 LBS	13.50 YDS
BC144x96-57FE	1	BOX CULVERT 57" LONG FEMALE END	53,500 LBS	13.40 YDS

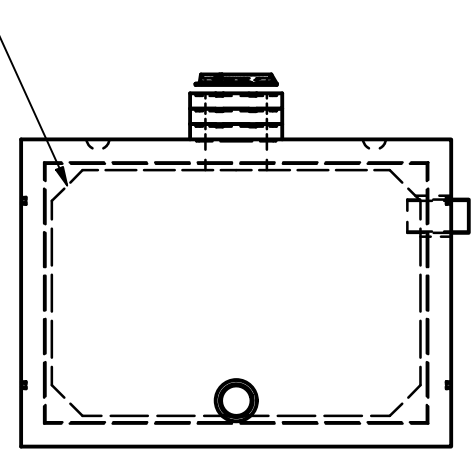
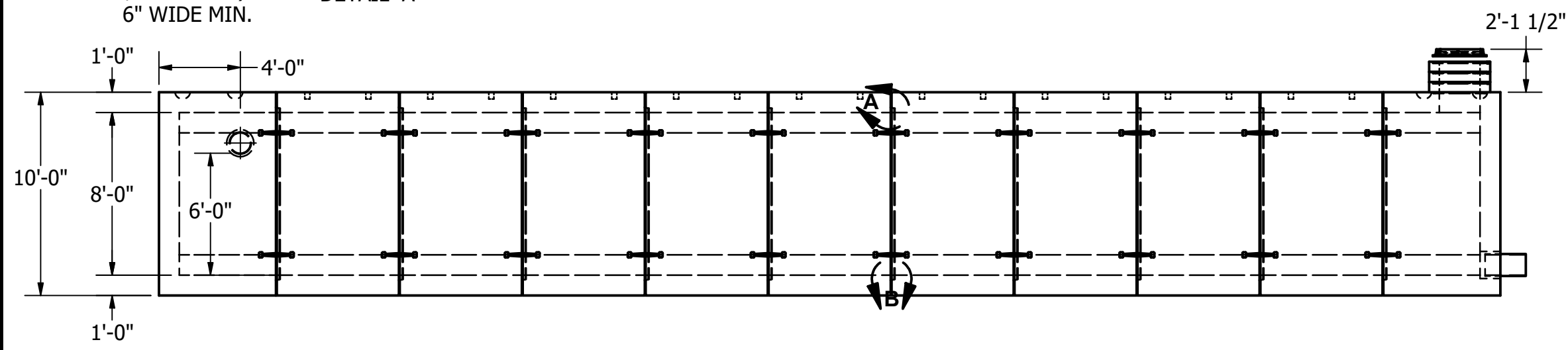


CONCRETE
 28 Day Compressive 5,000 psi (Minimum)
 Mix Design Number 1595455
 Lifting Strength 2000 psi (Minimum)

REINFORCING STEEL
 Reinforcing Per ASTM C1433
 12"x 8"x 12" upto 10' of cover
 Reinforcing Cover: 2" Max



12"x 12" HAUNCHES
 ALL INSIDE CORNERS



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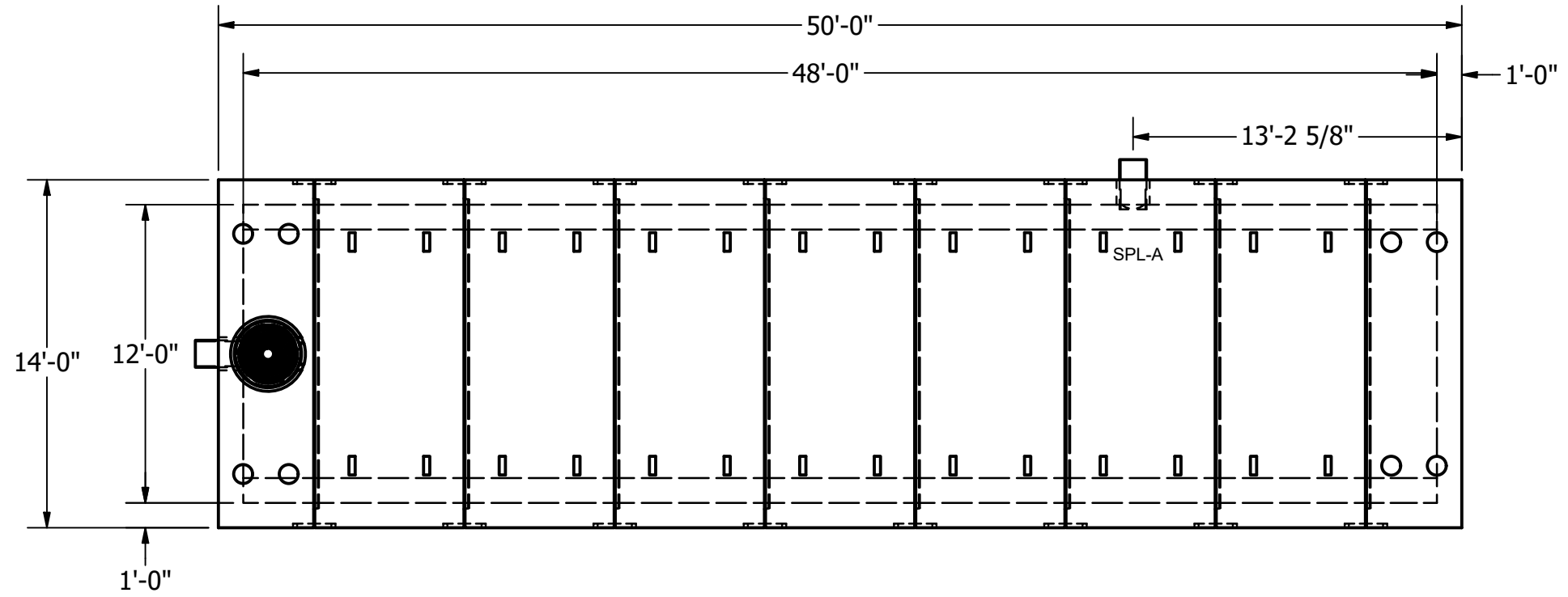
TITLE:
**64' WATER STORAGE SYSTEM
 OVER VIEW,**
 LOS ANGELES, CA

DRAWN BY:
K.STRADER

DATE:
3/22/2019

SHEET:
2 OF 9

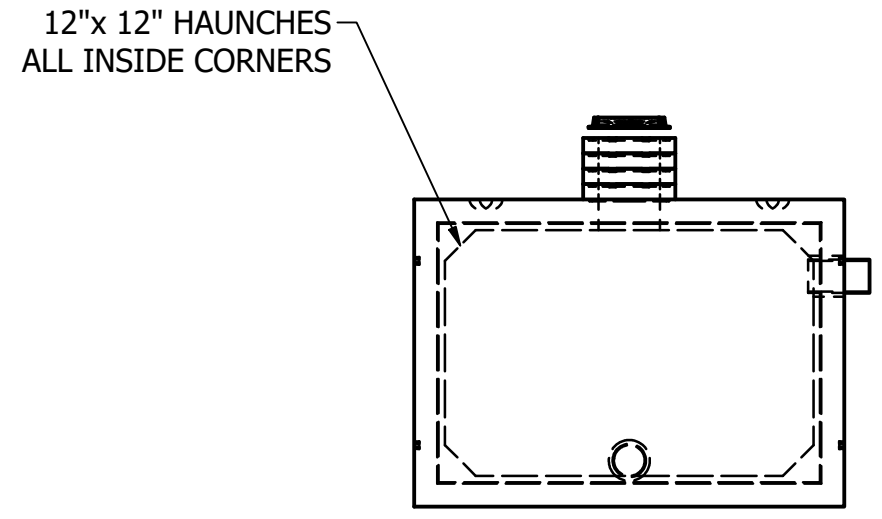
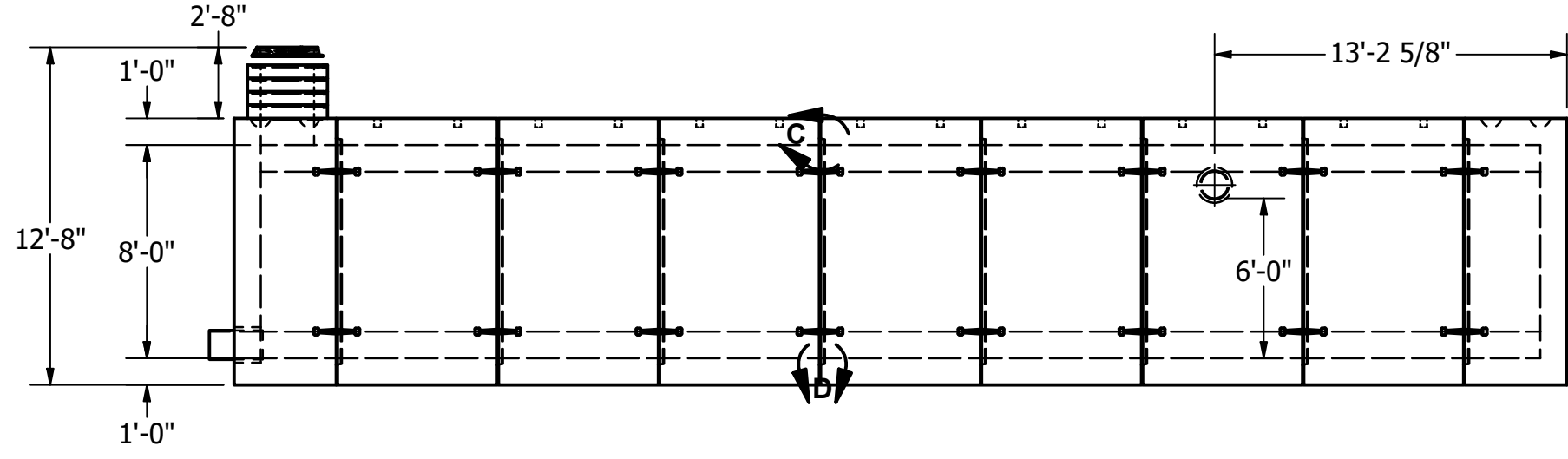
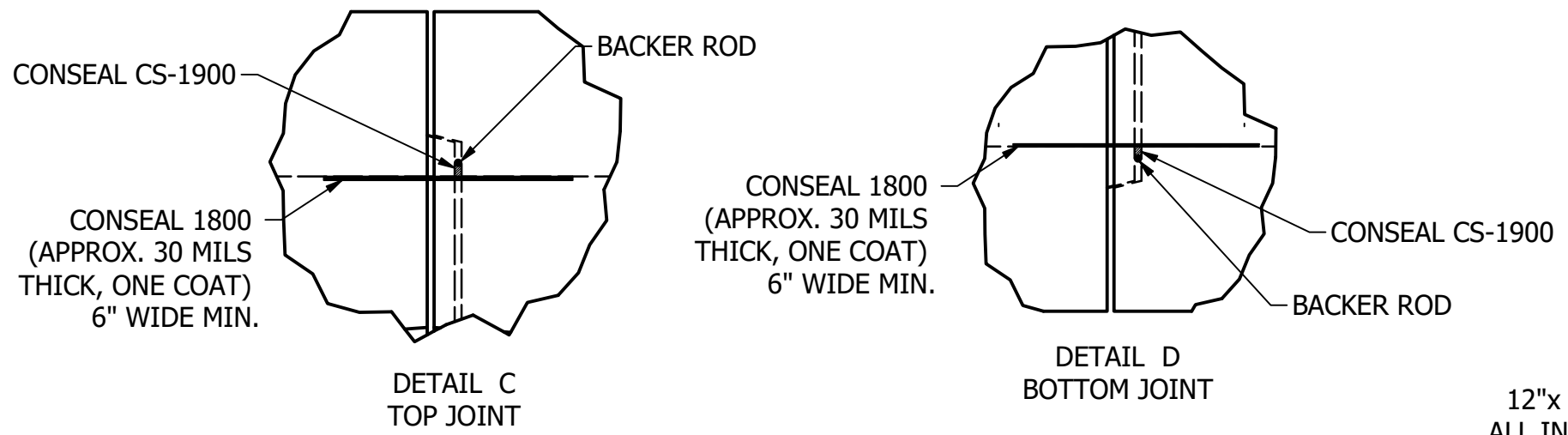
LOCATION:T:\Drawings\Vault\DESIGNS\Storm Prism\David's presentation\SPV_SAMPLE.dwg



PART INFORMATION				
PART NUMBER	QTY	DESCRIPTION	APPROX. WEIGHT	YARDS
BC144x96	6	BOX CULVERT SECTIONS 72" LONG	41,400 LBS	10.35 YDS
BC144x96-SP-1	1	BOX CULVERT SECTIONS 72" LONG WITH PIPE OPENING (TBD)	41,400 LBS	10.35 YDS
BC144x96-34ME	1	BOX CULVERT 34" LONG MALE END	40,300 LBS	10.10 YDS
BC144x96-36FE	1	BOX CULVERT 36" LONG FEMALE END	40,300 LBS	10.10 YDS

CONCRETE
 28 Day Compressive 5,000 psi (Minimum)
 Mix Design Number 1595455
 Lifting Strength 2000 psi (Minimum)

REINFORCING STEEL
 Reinforcing Per ASTM C1433
 12"x 8"x 12" upto 10' of cover
 Reinforcing Cover: 2" Max



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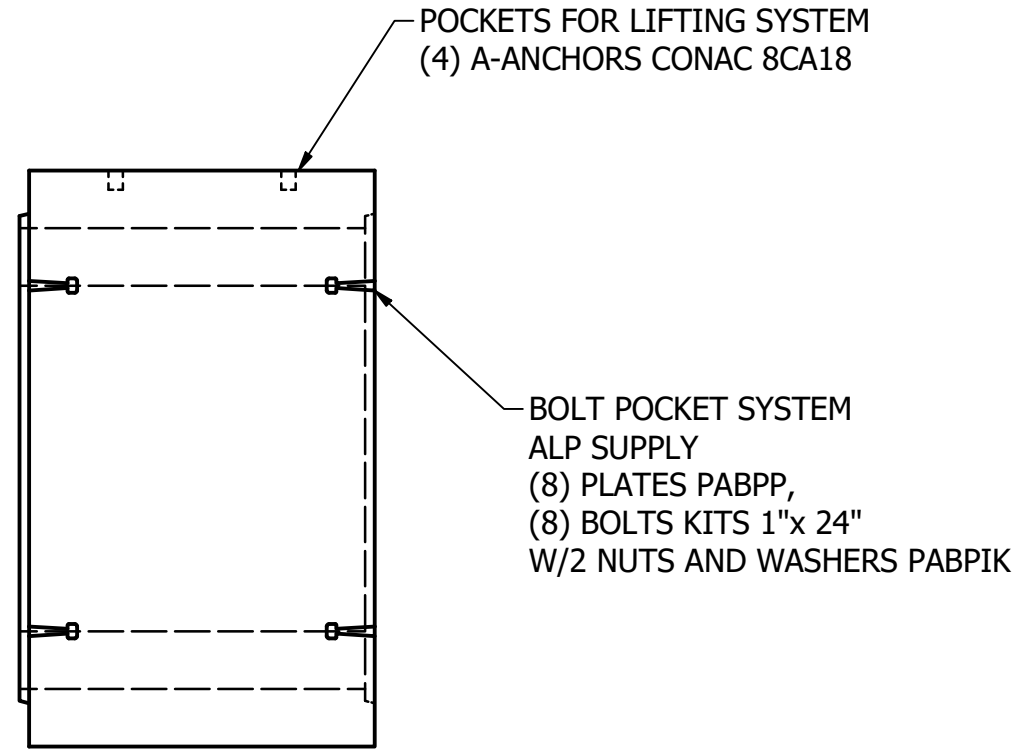
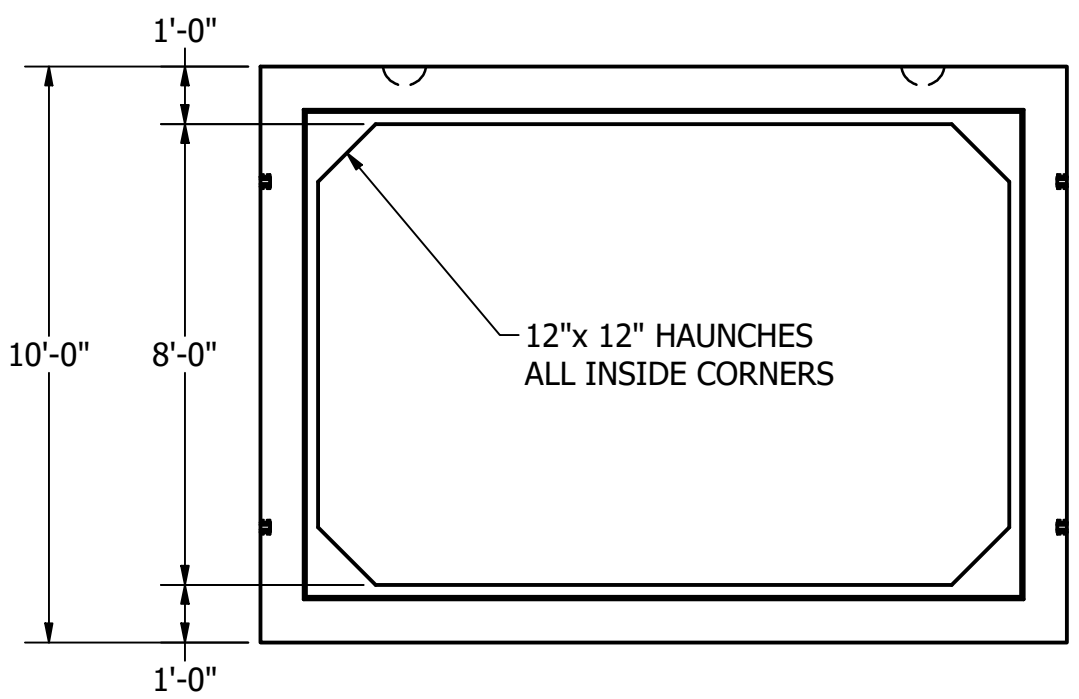
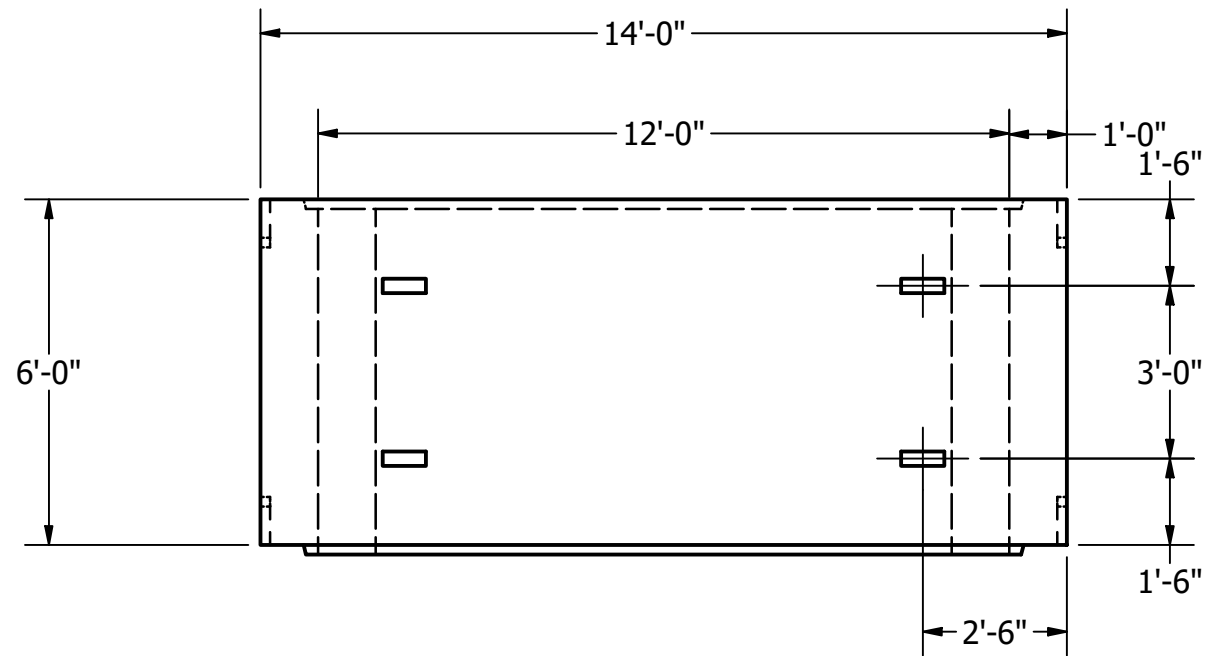
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TITLE:
48' WATER STORAGE SYSTEM OVERVIEW,
 LOS ANGELES, CA

DRAWN BY:
K.STRADER
 DATE:
3/22/2019
 SHEET:
3 OF 9

LOCATION:T:\Drawings\Vault\DESIGN\Storm Prism\David's presentation\SPV_SAMPLE.dwg



PART INFORMATION				
PART NUMBER	QTY	DESCRIPTION	APPROX. WEIGHT	YARDS
BC144x96	12	BOX CULVERT SECTIONS 72" LONG	42,000 LBS	10.35 YDS

CONCRETE
 28 Day Compressive 5,000 psi (Minimum)
 Mix Design Number 1595455
 Lifting Strength 2000 psi (Minimum)

REINFORCING STEEL
 Reinforcing Per ASTM C1433
 12'x 8'x 12" upto 10' of cover
 Reinforcing Cover: 2" Max

REVISIONS:	No.	DATE	DESCRIPTION

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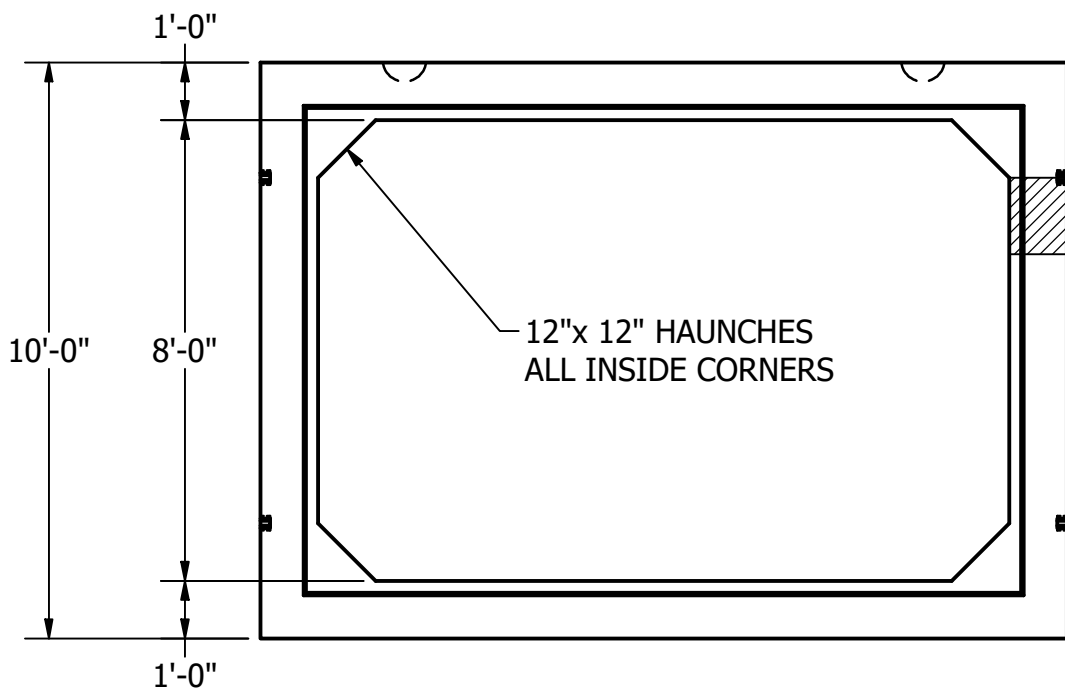
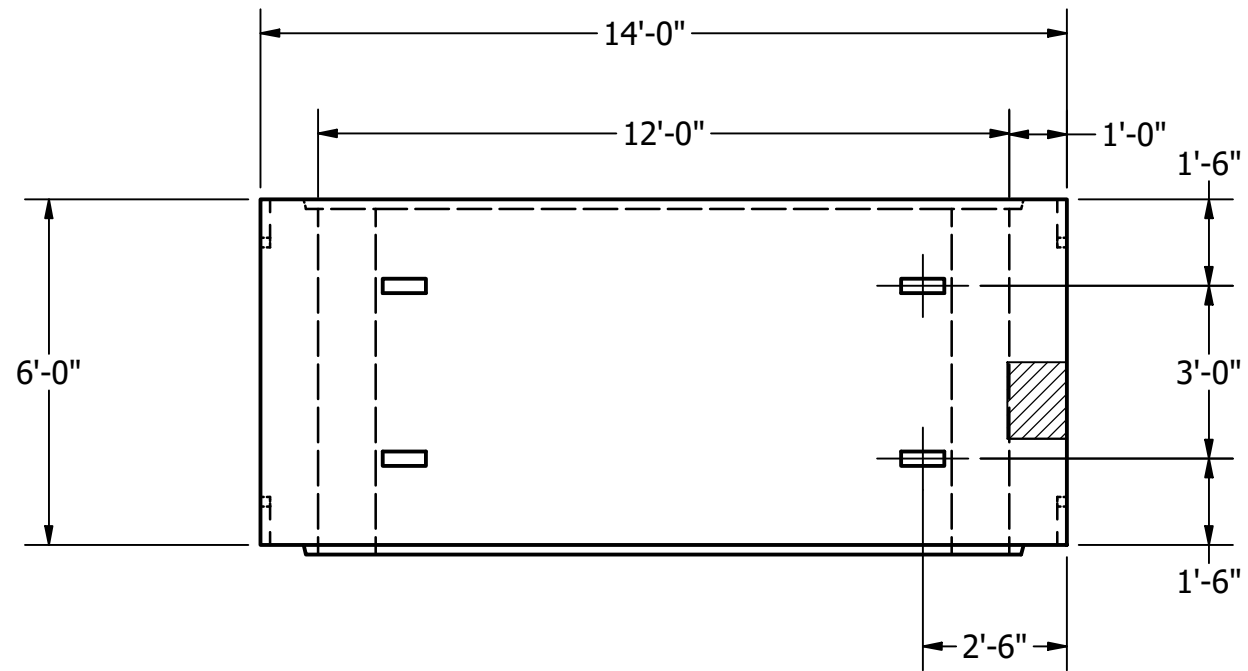
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TITLE: **6' STANDARD SECTION,**
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DATE: **3/22/2019**

SHEET: **4 OF 9**



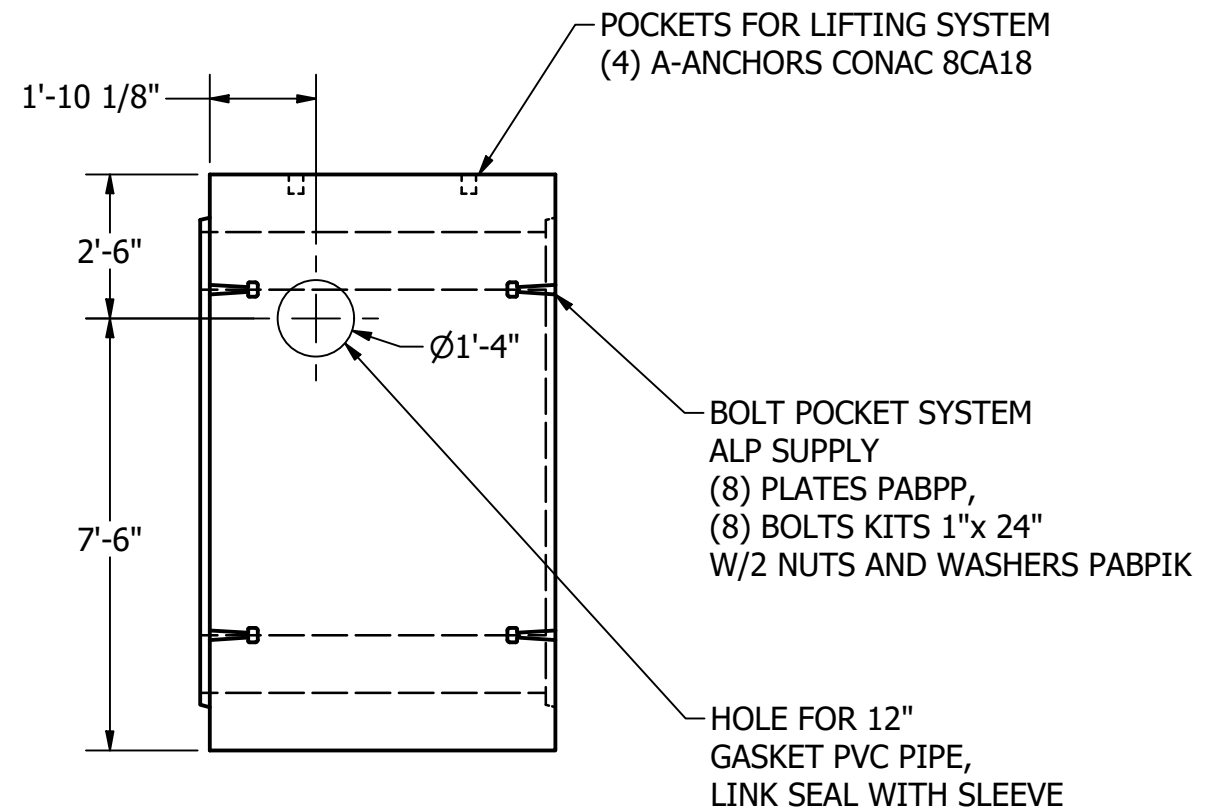
PART INFORMATION				
PART NUMBER	QTY	DESCRIPTION	APPROX. WEIGHT	YARDS
BC144x96-SP-A	1	BOX CULVERT SECTIONS 72" LONG WITH HOLE FOR LINKSEAL	42,000 LBS	10.35 YDS

CONCRETE

28 Day Compressive 5,000 psi (Minimum)
 Mix Design Number 1595455
 Lifting Strength 2000 psi (Minimum)

REINFORCING STEEL

Reinforcing Per ASTM C1433
 12'x 8'x 12" upto 10' of cover
 Reinforcing Cover: 2" Max



REVISIONS:
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TITLE:
6' SPECIAL A

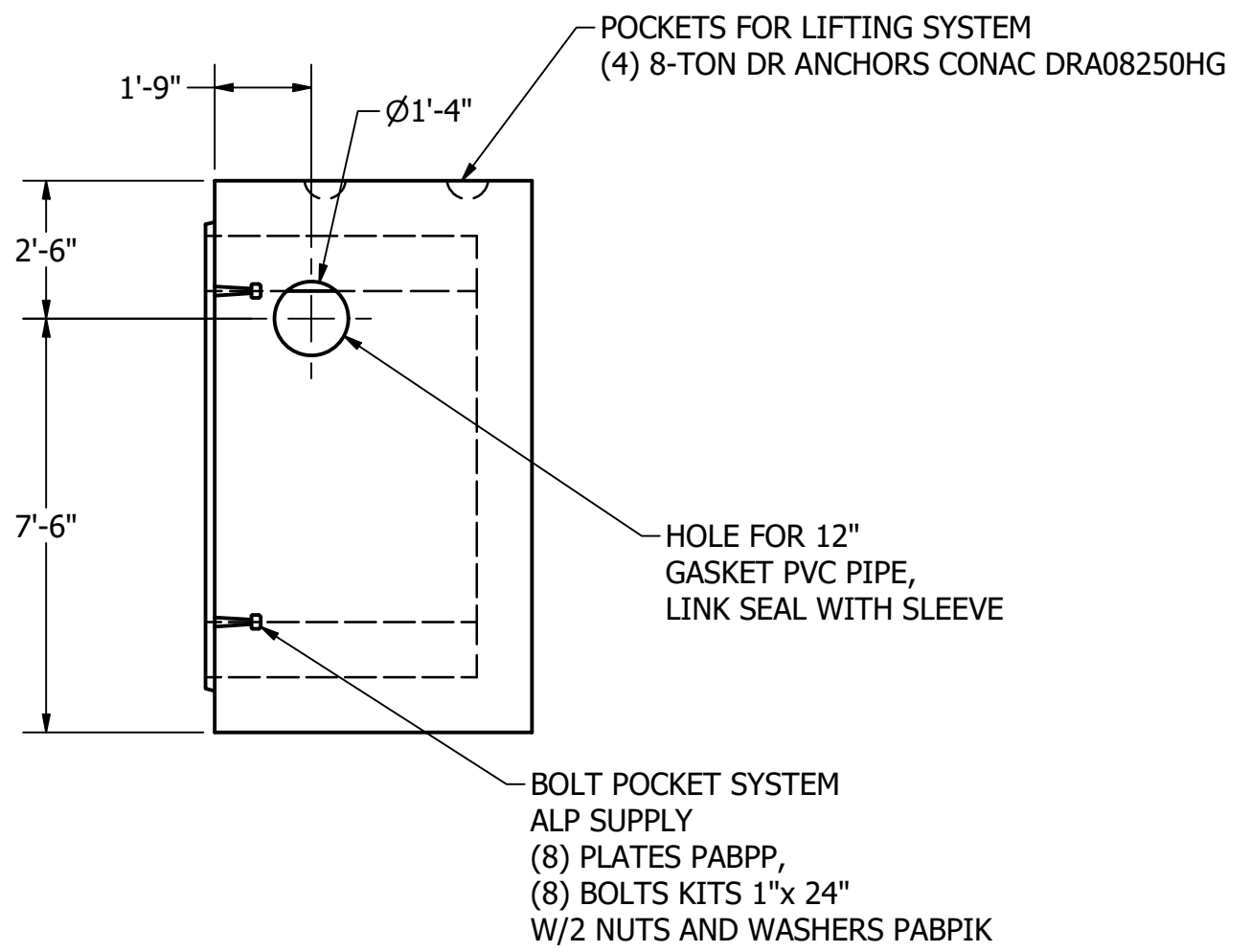
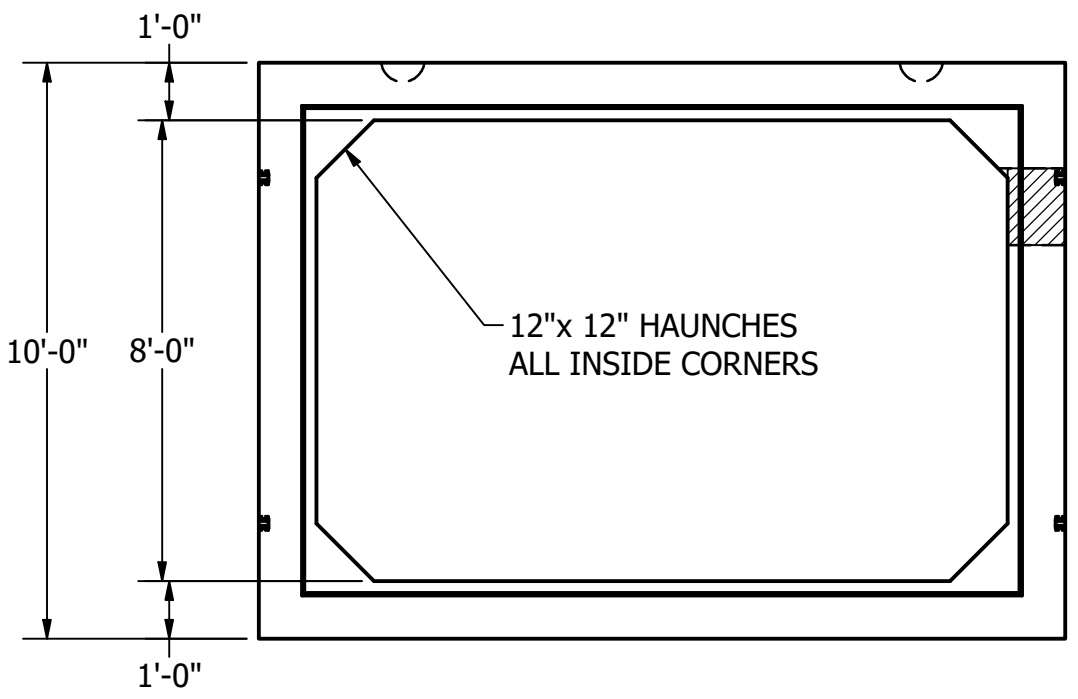
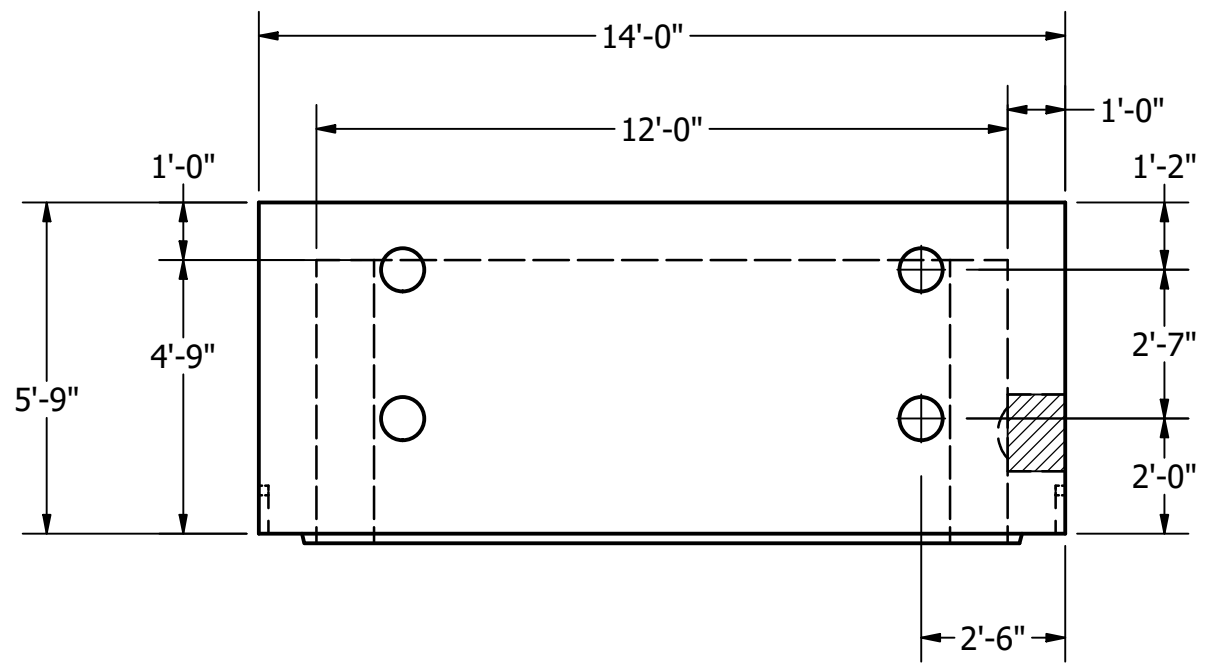
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DATE:
3/22/2019

SHEET:
5 OF 9

LOCATION: T:\Drawings\Vault\DESIGN\Storm Prism\David's presentation\SPV_SAMPLE.dwg



PART INFORMATION				
PART NUMBER	QTY	DESCRIPTION	APPROX. WEIGHT	YARDS
BC144x96-57ME	1	BOX CULVERT SECTIONS 57" LONG MALE END WITH HOLE AND LINKSEAL	54,000 LBS	12.25 YDS

CONCRETE
 28 Day Compressive 5,000 psi (Minimum)
 Mix Design Number 1595455
 Lifting Strength 2000 psi (Minimum)

REINFORCING STEEL
 Reinforcing Per ASTM C1433
 12'x 8'x 12" upto 10' of cover
 Reinforcing Cover: 2" Max

REVISIONS:	No.	DATE	DESCRIPTION

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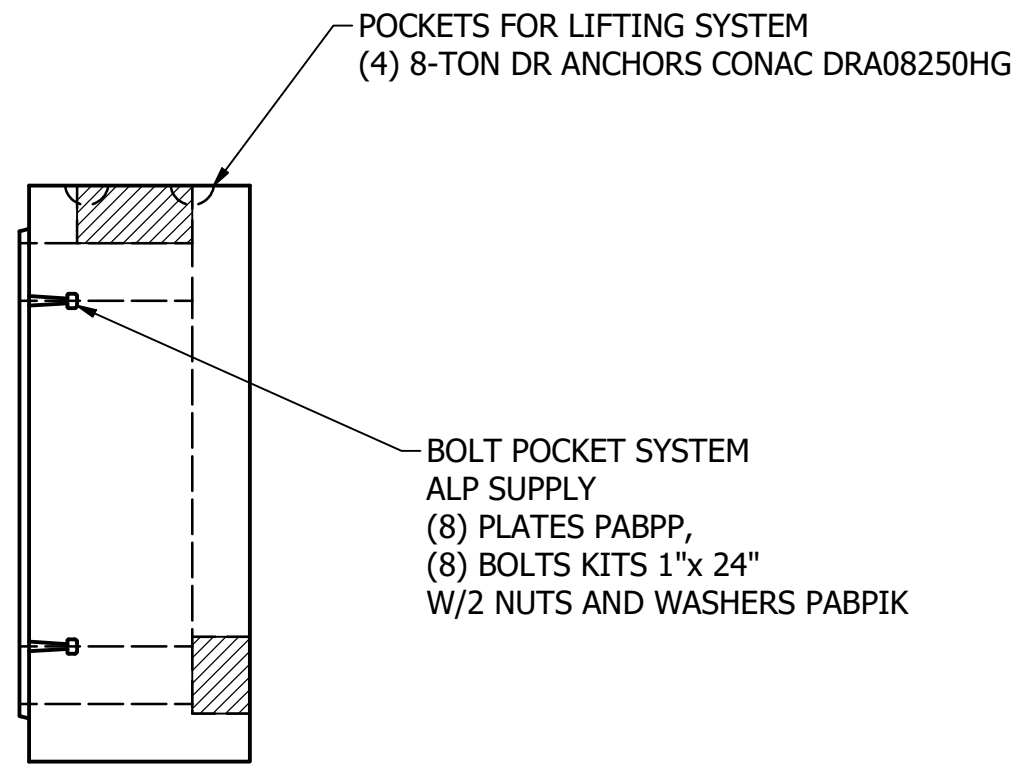
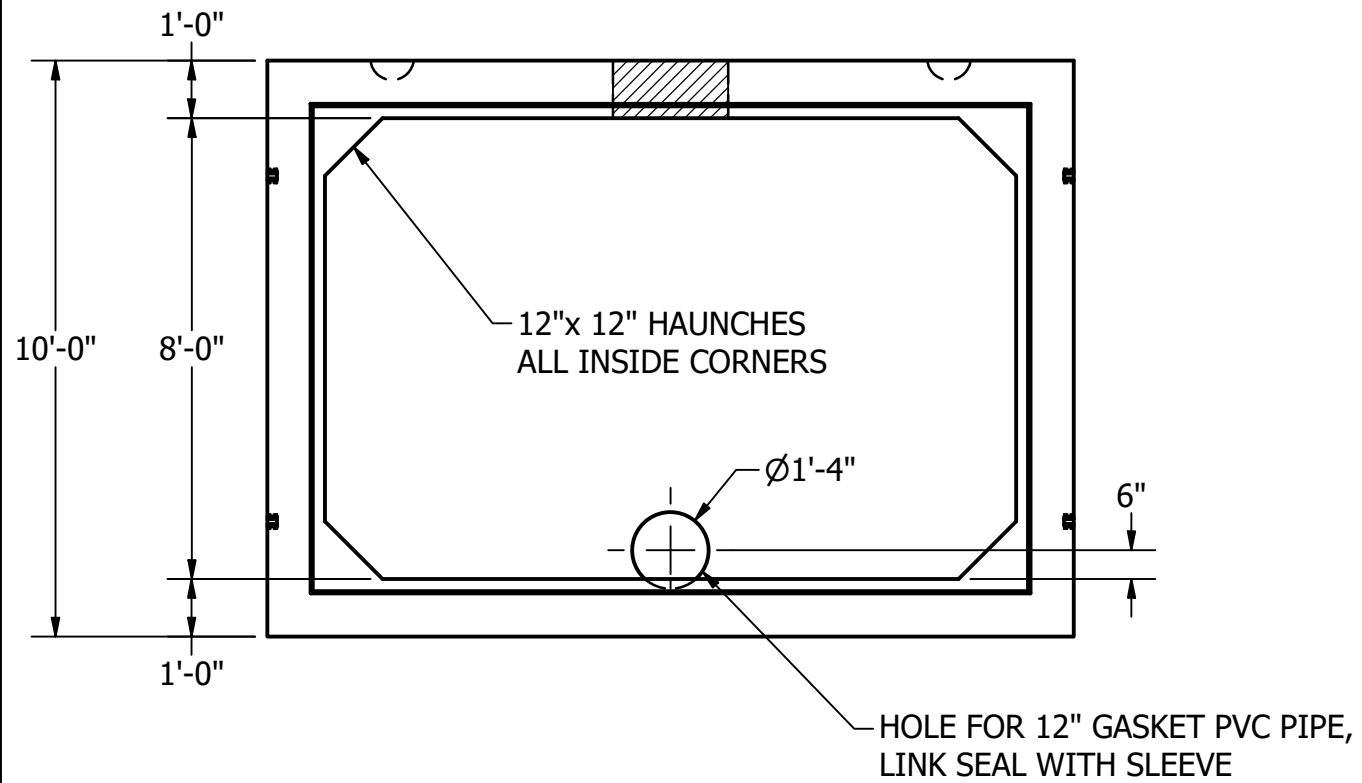
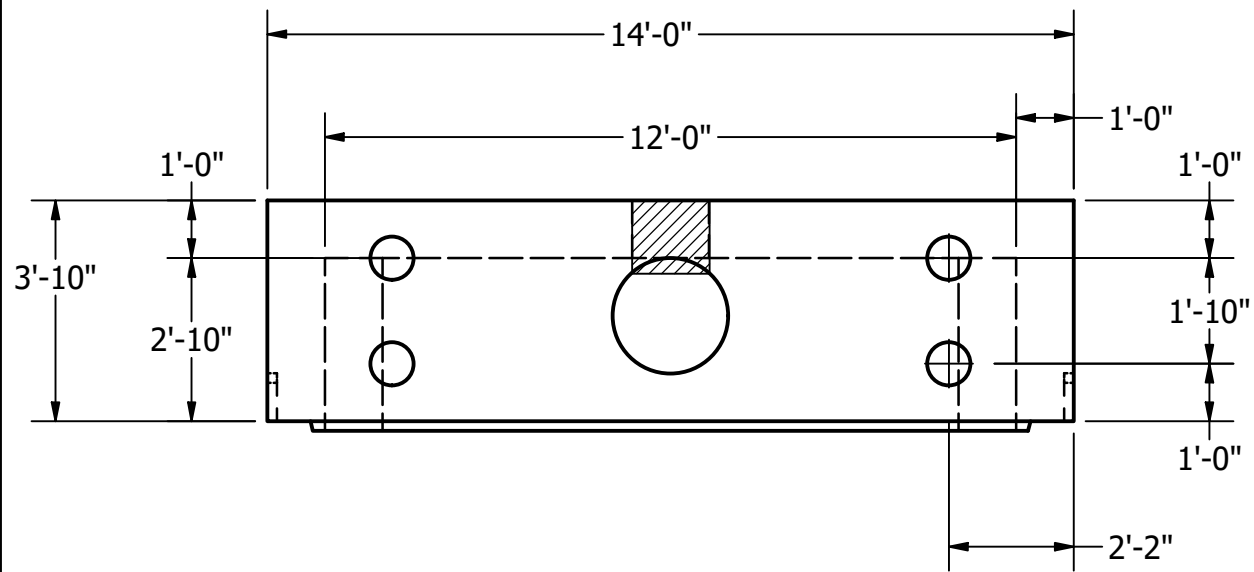
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TITLE: **57" MALE END SECTION DETAIL,**
 LOS ANGELES, CA

DRAWN BY: **K.STRADER**

DATE: **3/22/2019**

SHEET: **6 OF 9**



PART INFORMATION				
PART NUMBER	QTY	DESCRIPTION	APPROX. WEIGHT	YARDS
BC144x96-34ME	1	BOX CULVERT 34" LONG MALE END	41,000 LBS	10.10 YDS

CONCRETE
 28 Day Compressive 5,000 psi (Minimum)
 Mix Design Number 1595455
 Lifting Strength 2000 psi (Minimum)

REINFORCING STEEL
 Reinforcing Per ASTM C1433
 12'x 8'x 12" upto 10' of cover
 Reinforcing Cover: 2" Max

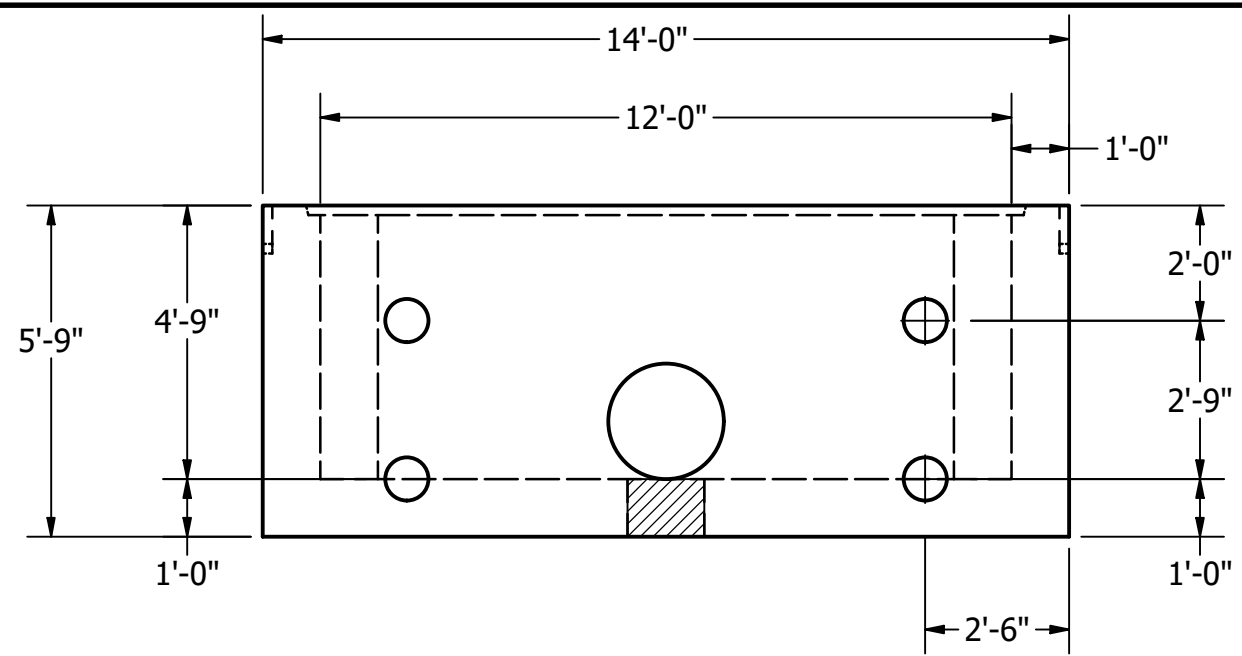
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TITLE: 34" MALE END SECTION
 DETAIL,
 LOS ANGELES, CA

DRAWN BY: K.STRADER
 DATE: 3/22/2019
 SHEET: 7 OF 9



PART INFORMATION				
PART NUMBER	QTY	DESCRIPTION	APPROX. WEIGHT	YARDS
BC144x57-57FE	1	BOX CULVERT 57" LONG FEMALE END	55,000 LBS	13.40 YDS

CONCRETE
 28 Day Compressive 5,000 psi (Minimum)
 Mix Design Number 1595455
 Lifting Strength 2000 psi (Minimum)

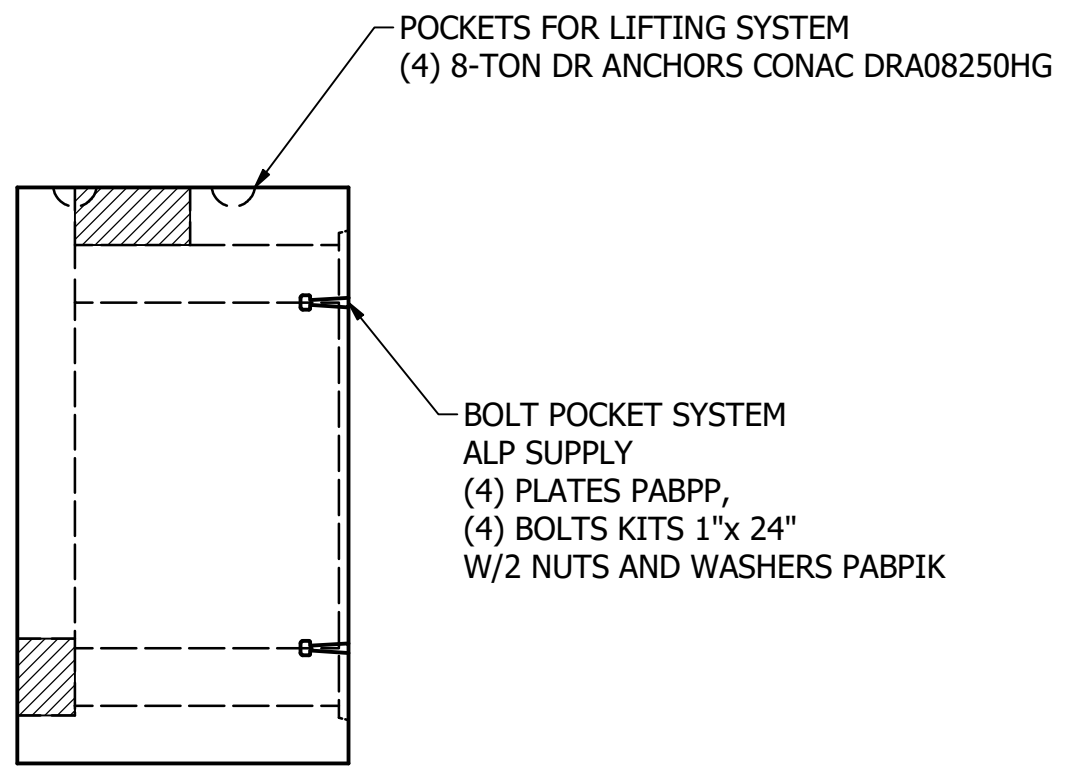
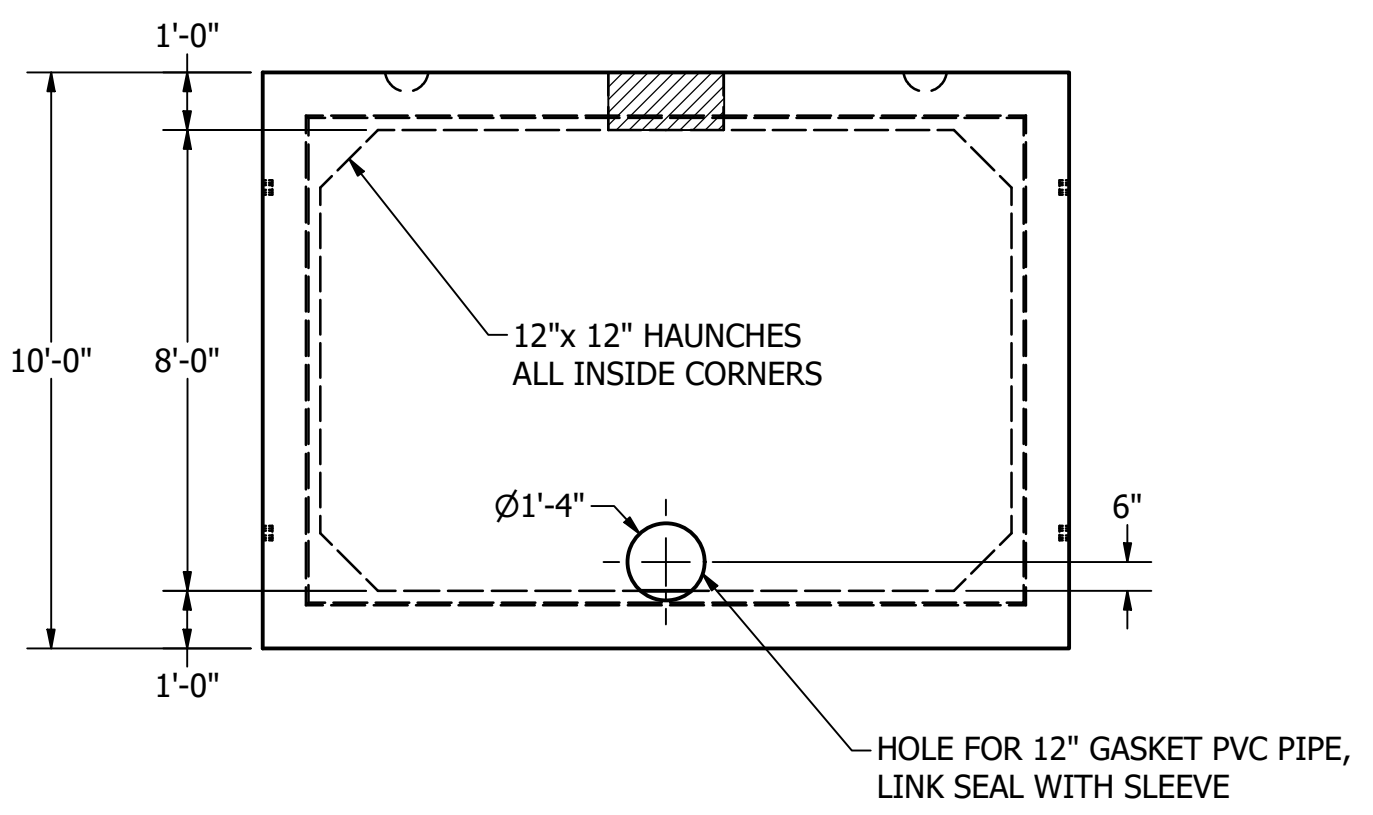
REINFORCING STEEL
 Reinforcing Per ASTM C1433
 12"x 8"x 12" upto 10' of cover
 Reinforcing Cover: 2" Max

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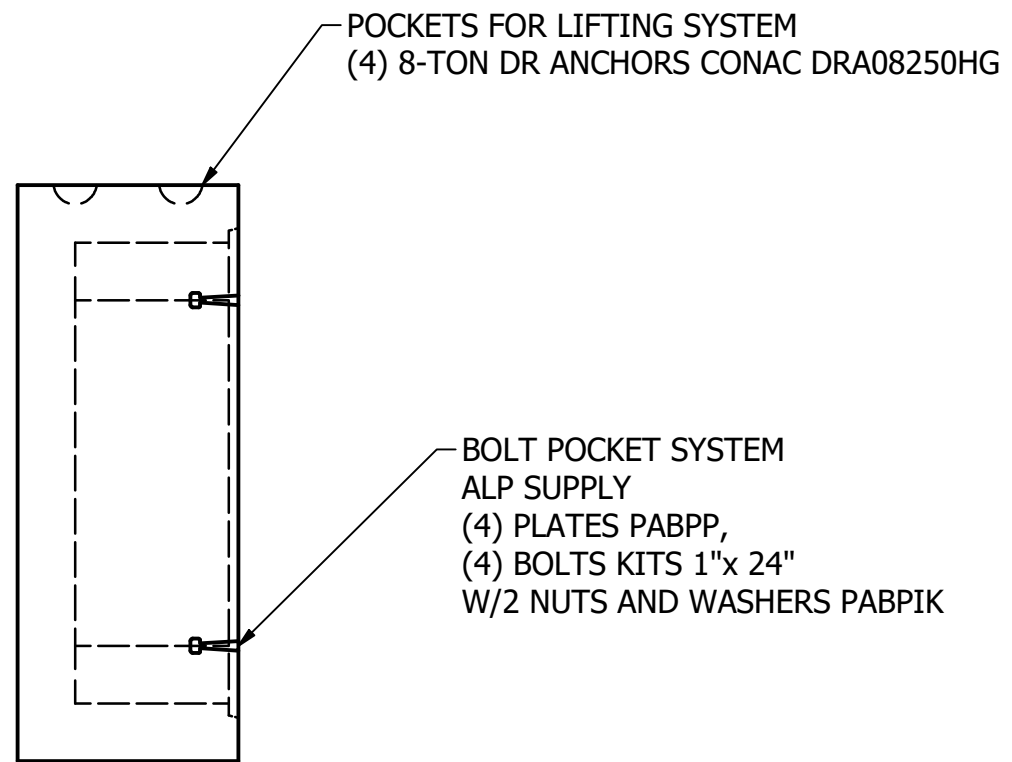
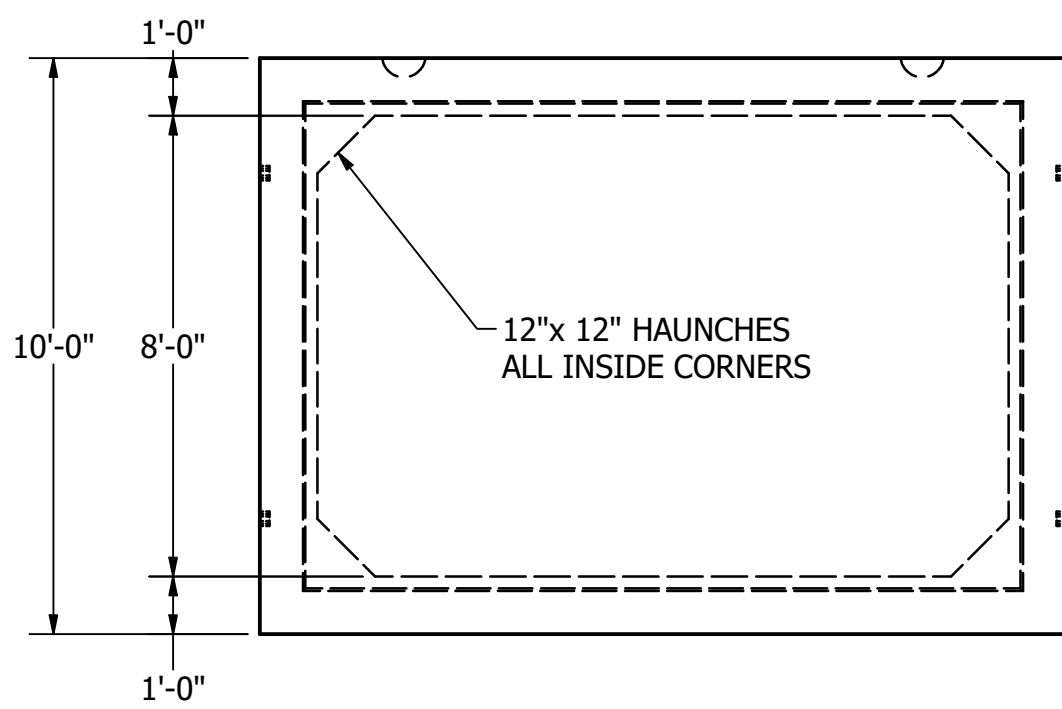
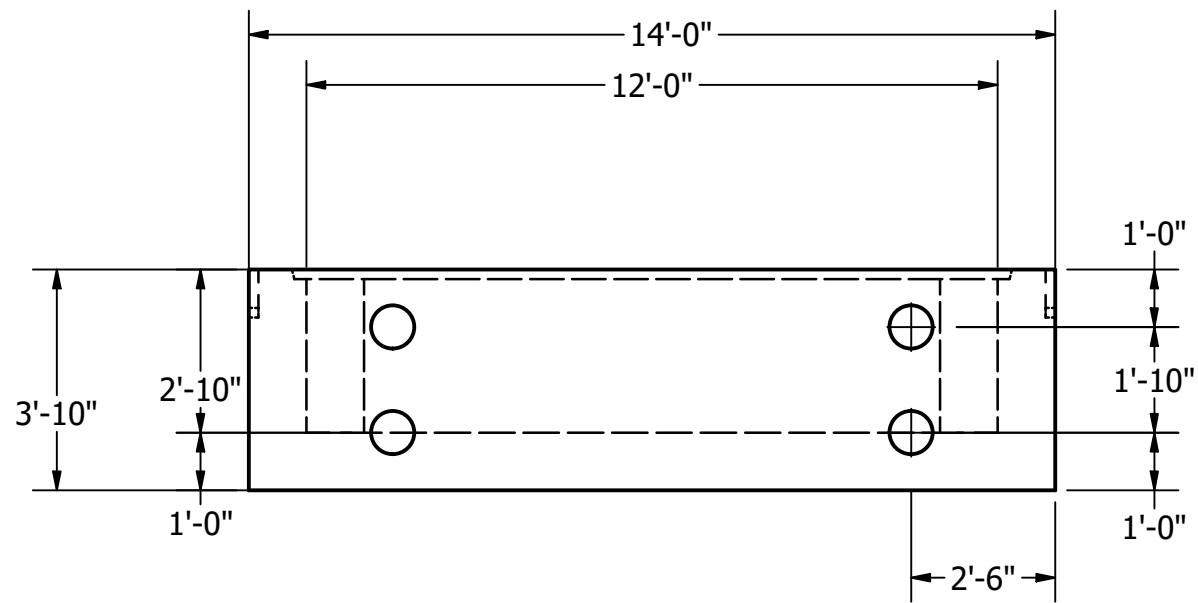


TITLE: **57" FEMALE END SECTION DETAIL,**
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DRAWN BY:	K.STRADER
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SHEET:	8 OF 9

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LOCATION: T:\Drawings\Vault\DESIGN\Storm Prism\David's presentation\SPV_SAMPLE.dwg



PART INFORMATION				
PART NUMBER	QTY	DESCRIPTION	APPROX. WEIGHT	YARDS
BC144x96-34FE	1	BOX CULVERT 34" LONG FEMALE END	41,000 LBS	10.10 YDS

CONCRETE
 28 Day Compressive 5,000 psi (Minimum)
 Mix Design Number 1595455
 Lifting Strength 2000 psi (Minimum)

REINFORCING STEEL
 Reinforcing Per ASTM C1433
 12'x 8'x 12" upto 10' of cover
 Reinforcing Cover: 2" Max

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TITLE: **34" FEMALE END SECTION DETAIL,**
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 DATE: **3/22/2019**
 SHEET: **9 OF 9**