

NOTES:

- STANDARDS. AASHTO 17TH EDITION BRIDGE DESIGN SPECIFICATIONS, LATEST, MANUAL PART H, LADWP P. 178, ASTM C-857, STRUCTURAL CALCS FOR BOX: #30444.
- MATERIAL. CONCRETE, F'c=5,500 PSI. MIX TO INCLUDE FLY ASH AND DGI. REINFORCEMENT PER ASTM A-706, Fy=60,000.
- LOADS. VERTICAL LIVE LOAD: AASHTO 17TH. LIVE LOAD SURCHARGE: PER MINIMUM 80 PSF (TO BOTTOM OF VAULT) OR LADWP P 178 (104 PSF). SOIL LATERAL LOADS: 36 PCF (DRY), 80 PCF (SATURATED), SATURATED SOIL CONDITIONS 3'-0" BELOW GRADE. SOIL BEARING CAPACITY = 1,500 PSF. DESIGN SOIL DENSITY IS 120 PCF.
- LOADS NOT INCLUDED. DESIGN DOES NOT INCLUDE COOPER E-80 RAILROAD LOADS OR LATERAL OR SURCHARGE LOADS THAT ARE PRODUCED BY FOOTING OR FOUNDATIONS ADJACENT TO THE STRUCTURE. THIS SUBSTRUCTURE SHALL BE KEPT AT LEAST IN A 1:1 RATIO AWAY FROM ALL FOOTINGS AND FOUNDATIONS, UNLESS THE ENGINEER OF RECORD APPROVES IN WRITING.
- INSTALLATION. VAULT TO BE PLACED ON WELL COMPACTED SOIL WITH MIN. 6" DEPTH OF TAMPED CRUSHED AGGREGATE BASE FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION USING A VIBRATORY PLATE COMPACTOR IN A MIN. OF TWO PASSES. BASE TO EXTEND 12" BEYOND THE STRUCTURE. BASE MATERIAL IN ACCORDANCE WITH SECTION 200-2.2 OF THE SSPWC (GREEN BOOK) PER LADWP SPECIFICATION NO. 104.
- VAULTS LONGITUDINAL DIRECTION (22' LENGTH) SHALL BE INSTALLED PARALLEL TO THE TRAVEL DIRECTION OF THE STREET TO AVOID INTERFERENCE WITH ADJACENT UTILITIES.
- EACH CONCRETE SECTION SHALL BE MARKED ON THE INSIDE & OUTSIDE WITH "JENSEN PRECAST", THE DESIGNATION "DWP/FA-CN", AND THE DATE OF THE POUR.
- EACH CONCRETE SECTION SHALL HAVE CAST-IN ON THE INSIDE "JENSEN", THE YEAR, AND THE DESIGNATION "FA-CN".
- NO SHARP OR ROUGH EDGES ON THE TERMINATORS ENTERING THE VAULT.
- K45-VN12-12T VAULT NECK AND COVER, WITH APPROVED CAST IRON COVER TO BE USED WITH THIS VAULT.
- EACH PIECE TO BE STENCILIED WITH ITS PART NO.
- MINIMUM EXCAVATION SIZE: 10'-2" X 24'-2" X DEPTH REQ'D.

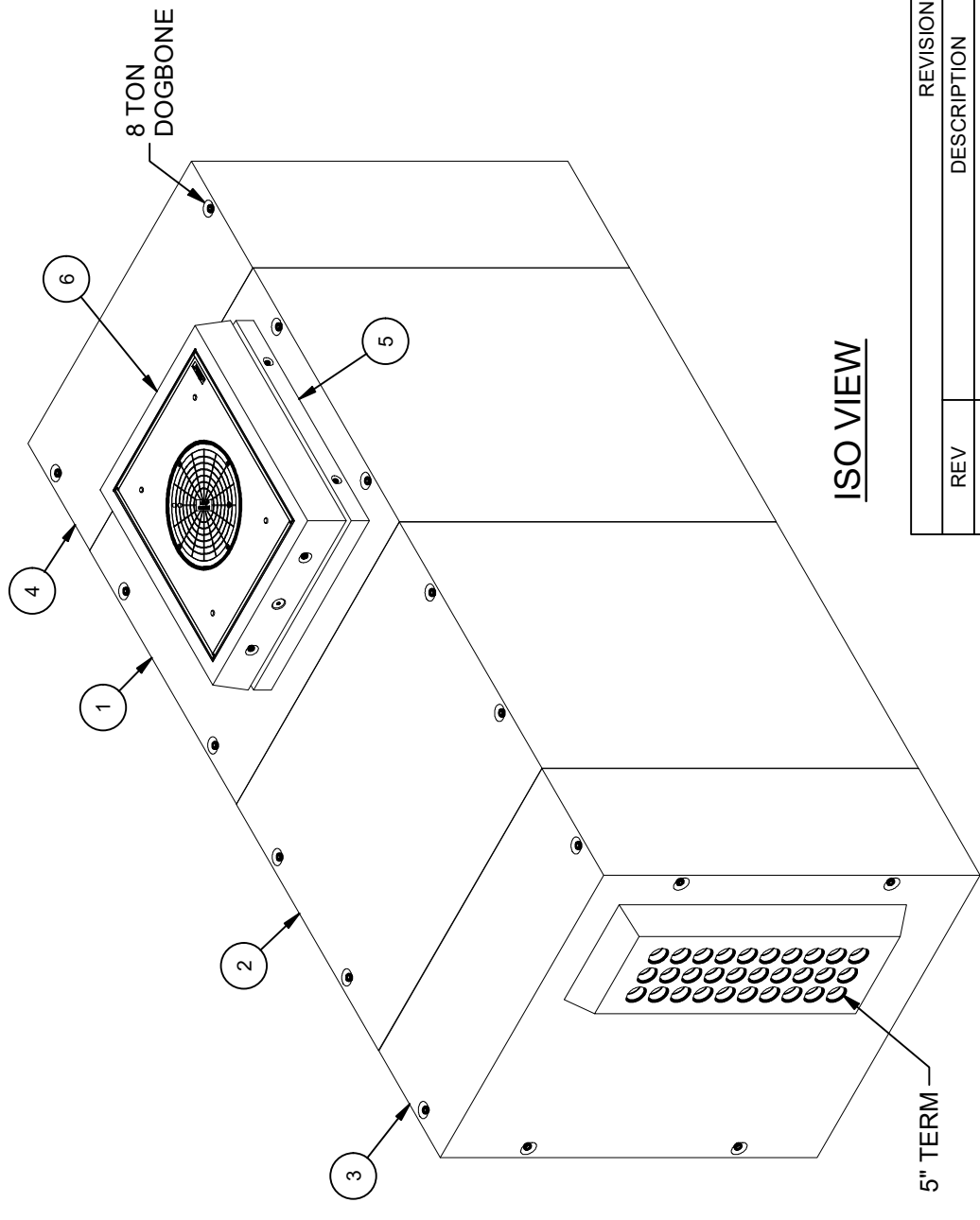
LIFTING NOTES

■ THIS CONCRETE PRODUCT IS DESIGNED TO BE LIFTED WITH 4 EQUALLY LOADED RIGGINGS LEGS MIN. 90° SLING ANGLE, MEASURED FROM HORIZONTAL.

BURY DEPTH:	1.0' - 4.0' to Top
WATER LEVEL:	3.0'
DESIGN SPEC:	ACI 318, ASTM C857
AGENCY:	LADWP
APPROX. WEIGHT:	93421.66 Lbs
LOADING SPEC:	A-16 (AASHTO HS20-44)
AGENCY SPEC:	H-171 G-4

BILL OF MATERIALS

ITEM	UNIT QTY	QTY	PART NUMBER	DESCRIPTION	MASS (lb)
1	1	1	100013011	Tunnel Vault TV96112 Center - Groove Groove 96Wx112Hx96L LADWP H-171	24934
2	1	1	100013067	Tunnel Vault TV96112 Extension 96Wx112Hx96L LADWP H-171	26666
3	1	1	100009767	Tunnel Vault TV96112 End - Tongue 96Wx112Hx36L Knockout, Terminators LADWP H-171 BT	18179
4	1	1	100009765	Tunnel Vault TV96112 End - Tongue 96Wx112Hx36L Knockout, Terminators LADWP H-171 AT	18179
5	1	1	200012851	Riser 4860X6 LADWP 1-802 2B	1169
6	1	1	200081398	Vault Neck and Plug Cover Assembly 4860x12 30°C LADWP 1-802 G-2B R-1581	3939
7	1	12	100007114	ROD THREADED COIL YELLOW DIP 3/4 X 20"	
8	1	24	100008121	WASHER 3X3X.5 W.875 HOLE GALV	
9	1	32	100007010	HEX COIL NUT 3/4-4.5 POST YELLOW DIP	
10	1	4	100009239	ROD THREADED COIL YELLOW DIP 3/4 X 10-1/2"	
11	1	8	100007136	WASHER FLAT 3/4 REGULAR TYPE A ZINC	
12	1	1	100007585	LADDER HANGER ASSEMBLY GALV	
13	1	1	100009251	LADDER HOOKED GALV 12FT ED/LA I3382	
14	1	110	100004339	BOLT HEX 1/2-13 UNC 2 304SS	
15	1	110	100007767	WASHER FLAT 1/2 REGULAR 1.25 OD 304SS	
16	1	6	100006063	STRUT SLOTTED C-CHANNEL 1-5/8 X 1-5/8 12GA BOLT-ON GALV 22IN	
17	1	4	100006065	STRUT SLOTTED C-CHANNEL 1-5/8 X 1-5/8 12GA BOLT-ON GALV 36IN	
18	1	12	100006069	STRUT SLOTTED C-CHANNEL 1-5/8 X 1-5/8 12GA BOLT-ON GALV 92IN	
19	6,000 gal	6,000 gal	100006420	COATING PAINT LATEX WHITE	
20	1,000 ul	2,000 ul	100005749	SEALANT JOINT BUTYL RUBBER ASTM C-990 AND M198 CS-102 1IN EQUIV X14.5FT PER BOX 118FT	



ISO VIEW

REVISION HISTORY

REV	DESCRIPTION	DATE	APPROVED
E-1	ADDED NECKING, LADDER, STRUTS & HARDWARE	2/2/2024	

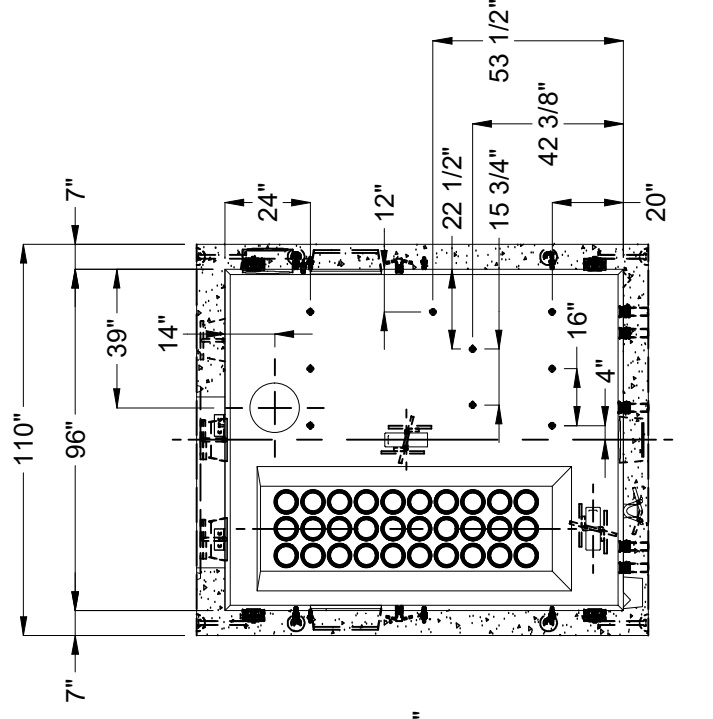
DESCRIPTION:
Tunnel Vault Layout TV96112x22' Knockout, Terminators Ducted, Sump 48"x60"E LADWP H-171 G-4 Int.
Paint - White Latex

PART NUMBER:	200067670	DRAWN BY:	J. Prado
CREATED:	6/25/2020	MODIFIED:	2/2/2024

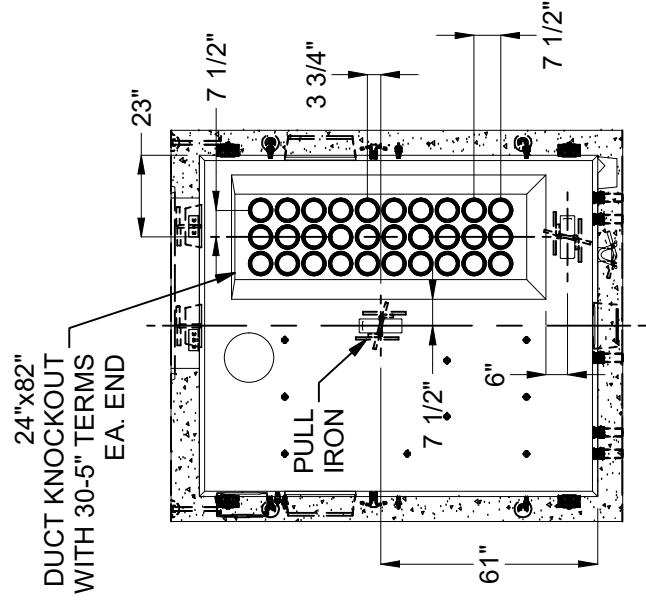
REV: E-11
SHEET: 13
1 OF 2

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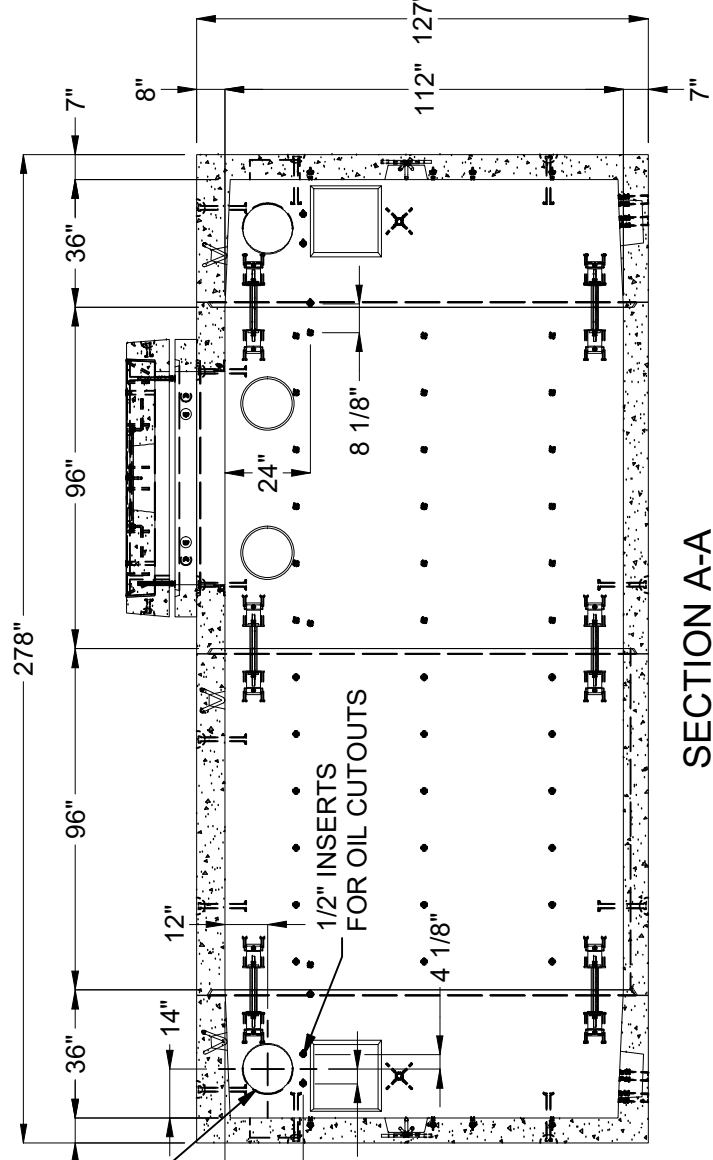
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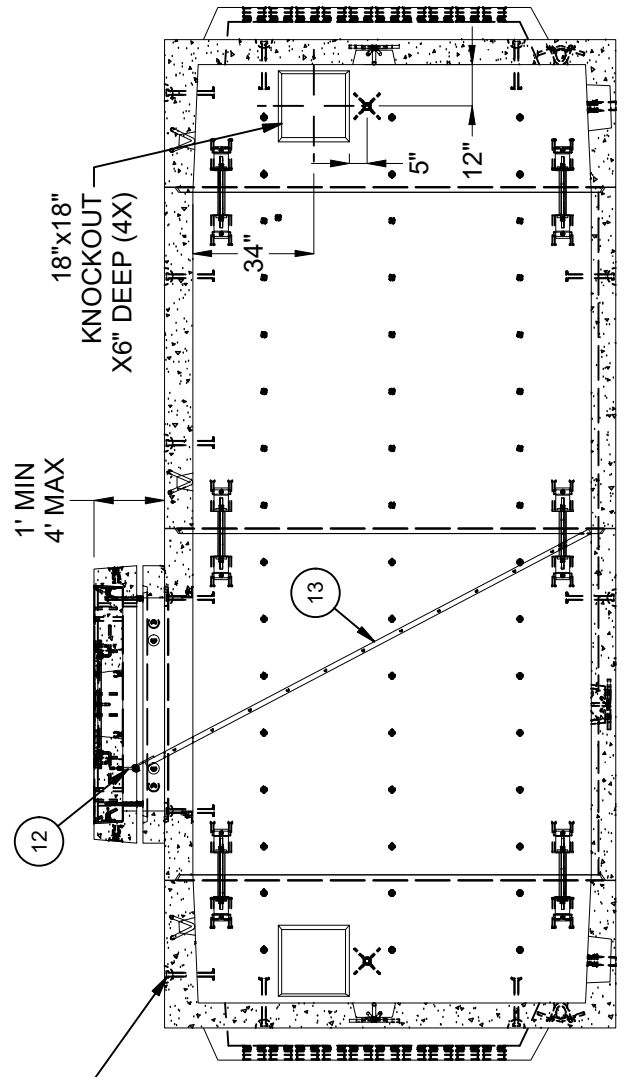
SECTION B-B



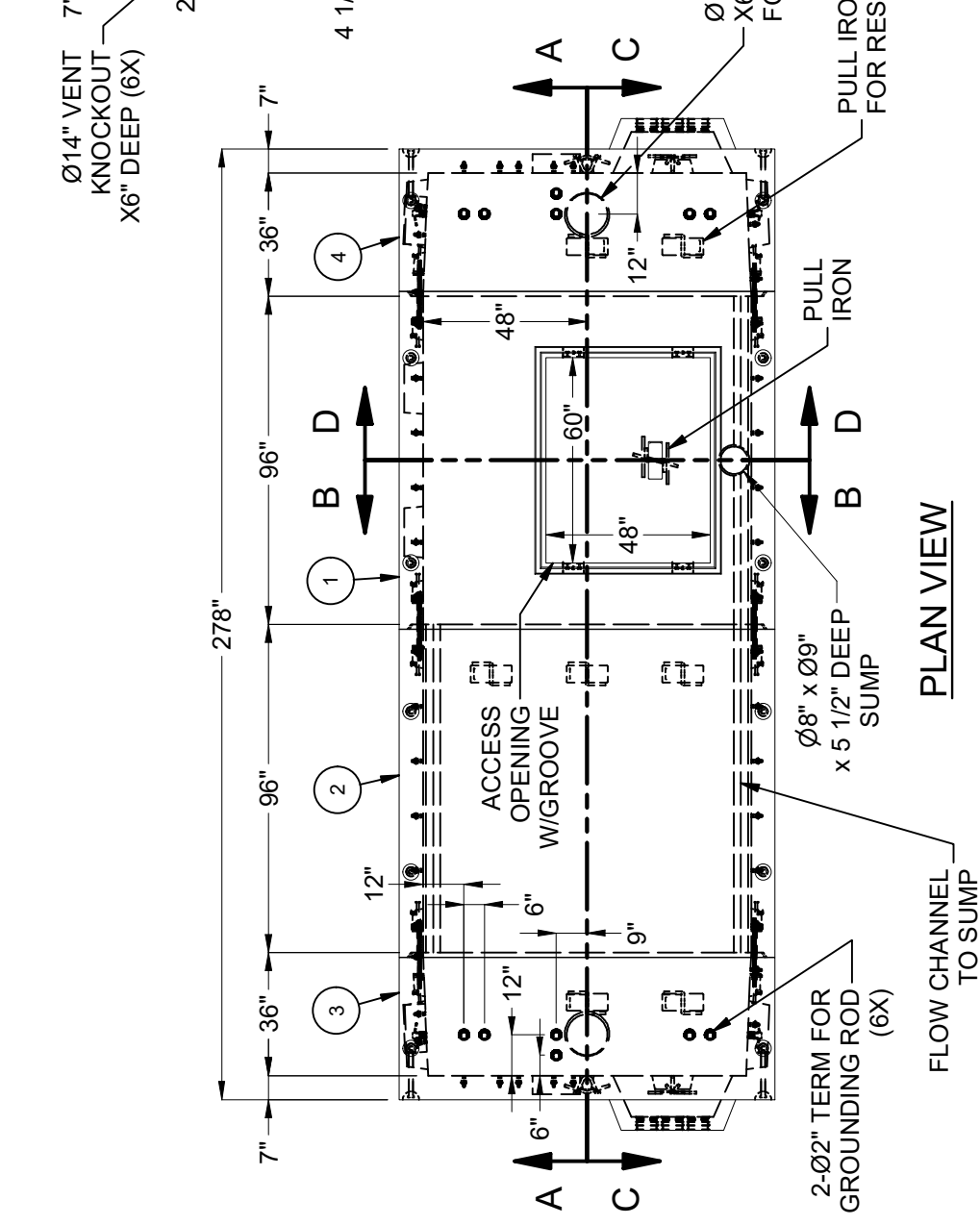
SECTION D-D



SECTION A-A



SECTION C-C



PLAN VIEW

BURY DEPTH:	1.0' - 4.0' to Top	DESIGNATION:	200067670	REV:	E-114
WATER LEVEL:	3.0'	APPROX. WEIGHT:	93421.66 Lbs	LAYOUT REVIEW	
DESIGN SPEC:	ACI 318, ASTM C857	LOADING SPEC:	A-16 (AASHTO HS20-44)	DRAWN BY:	J. Prado
AGENCY:	LADWP	AGENCY SPEC:	H-171 G-4	MODIFIED:	2/2/2024
DESCRIPTION:		Tunnel Vault Layout TV96112x22' Knockout, Terminators Ducted, Sump 48"x60"E LADWP H-171 G-4 Int. Paint - White Latex			
PART NUMBER:		200067670			
CREATED:		6/25/2020			



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