

# JENSEN DEFLECTIVE SEPARATOR, MODEL JDS144-9480-OFFLINE

## HYDRAULICS AND TREATMENT :

STORMWATER QUALITY DESIGN FLOW (SQDF)	≤ 25.7 - CFS
STORM DRAIN DESIGN CONVEYANCE FLOW	XX.XX - CFS
RETURN FREQUENCY/PERIOD OF PEAK DESIGN CONVEYANCE FLOW	XXX - YRS
DIVERSION WEIR CREST ELEVATION	XXXX.XX' ±

STORMWATER TREATMENT UNIT EMPLOYING THE CONTINUOUS DEFLECTIVE SEPARATION TREATMENT PROCESS TO PRODUCE A NON-BLOCKING SCREENING SYSTEM WITH SWIRL CONCENTRATION. THE DEPLOYMENT OF THIS HYDRODYNAMIC SEPARATION TREATMENT UNIT IN THE OFFLINE CONFIGURATION SHOWN ON THIS SHEET REQUIRES A SEPARATE DIVERSION STRUCTURE CONSTRUCTED WITHIN THE PIPELINE ALIGNMENT TO DIVERT THE STORMWATER QUALITY FLOW LISTED IN THE TABLE ABOVE AS WELL AS ENSURE THE BYPASS OF THE PIPELINE CONVEYANCE FLOW WITHOUT SCOUR OF CAPTURED SOLIDS FROM THE OFFLINE JDS UNIT.

## TREATMENT :

- CERTIFIED FOR 100% CAPTURE FOR TRASH & DEBRIS BY CALIFORNIA STATE WATER RESOURCES CONTROL BOARD.
- CERTIFIED FOR 50% TOTAL SUSPENDED SOLIDS (TSS) REMOVAL BY NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- JENSEN DEFLECTIVE SEPARATOR IS A NON-BLOCKING SCREENING UNIT.
- JENSEN DEFLECTIVE SEPARATOR DESIGNED TO PROCESS ENTIRE SQDF.
- CAPTURE OF OTHER WATER QUALITY CONSTITUENTS INCLUDE:
  - TOTAL SUSPENDED SOLIDS (TSS)
  - HEAVY METALS
  - OIL & GREASE
  - NUTRIENTS
  - FECAL COLIFORM

## DIVERSION STRUCTURE DESIGN NOTES :

- FINAL DIVERSION STRUCTURE/VAULT DIMENSIONS TO BE DETERMINED (TBD) FROM ENGINEERING AND HYDRAULIC & ENERGY GRADELINE ANALYSES.

## GENERAL NOTES:

- STANDARD CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE READILY AVAILABLE. CONTACT JENSEN STORMWATER SYSTEMS FOR CUSTOM DESIGNS, [www.jensenengineersystems.com](http://www.jensenengineersystems.com).
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN STORMWATER SYSTEMS.
- FOUNDATION, SUBGRADE, AND BACKFILL TO BE DESIGNED BY OTHERS.
- GROUNDWATER ELEVATION IS ASSUMED TO BE BELOW THE BOTTOM OF PRECAST STRUCTURE. CONTACT JENSEN STORMWATER SYSTEMS FOR HIGH GROUNDWATER CONDITIONS.
- JENSEN STORMWATER SYSTEMS TO PROVIDE; JDS AND DIVERSION BOX/VAULT TO FINISHED GRADE WITH INLET & OUTLET CONDUITS BETWEEN THESE STRUCTURES.
- OUTLET INVERT ELEVATION TYPICALLY SET EQUAL TO INLET ELEVATION OR SET 1" LOWER THAN INLET.


## INSTALLATION NOTES :

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS IN FIELD PRIOR TO INSTALLATION.
- PRECAST CONCRETE JOINTS TO BE SEALED USING BUTYL RUBBER COMPOUND SUPPLIED BY JENSEN PRECAST.
- CONTRACTOR TO GROUT ALL PIPE PENETRATIONS IN PRECAST CONCRETE OPENINGS IN FIELD AS NECESSARY.
- CONTRACTOR TO ADJUST ELEVATION OF FRAME AND COVER IN FIELD AS NECESSARY.
- CONCRETE CASING COLLARS AROUND INLET AND OUTLET CONDUITS MUST BE POURED IN FIELD BY CONTRACTOR. CONTACT JENSEN FOR DETAILS.
- MATERIALS :**
  - ALL DIMENSIONS ARE IN FOOT-INCH
  - PRECAST MATERIALS AND MANUFACTURING METHODS SHALL CONFORM TO ASTM C-478, C-857 AND LACSD S-A-206, WHEN IN LA COUNTY.
  - CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH  $F'c = 5,000$ -psi AT 28-DAYS.
  - THE PORTLAND CEMENT USED IN THE PRECAST SECTION SHALL MEET THE REQUIREMENTS OF TYPE II/V HIGH SULFATE RESISTANT CEMENT IN ACCORDANCE WITH ASTM CLASS M C-150.
  - MANHOLE COMPONENTS CONFORM TO CURRENT SPECIFICATIONS, ASTM, C-478 AND AASHTO M199
  - FLAT TOPS AND BASE SLABS ARE DESIGNED FOR AASHTO HS-20 WHEEL LOADING
  - ALL PRECAST CONCRETE COMPONENTS TO BE MANUFACTURED IN AN NPCA CERTIFIED PLANT

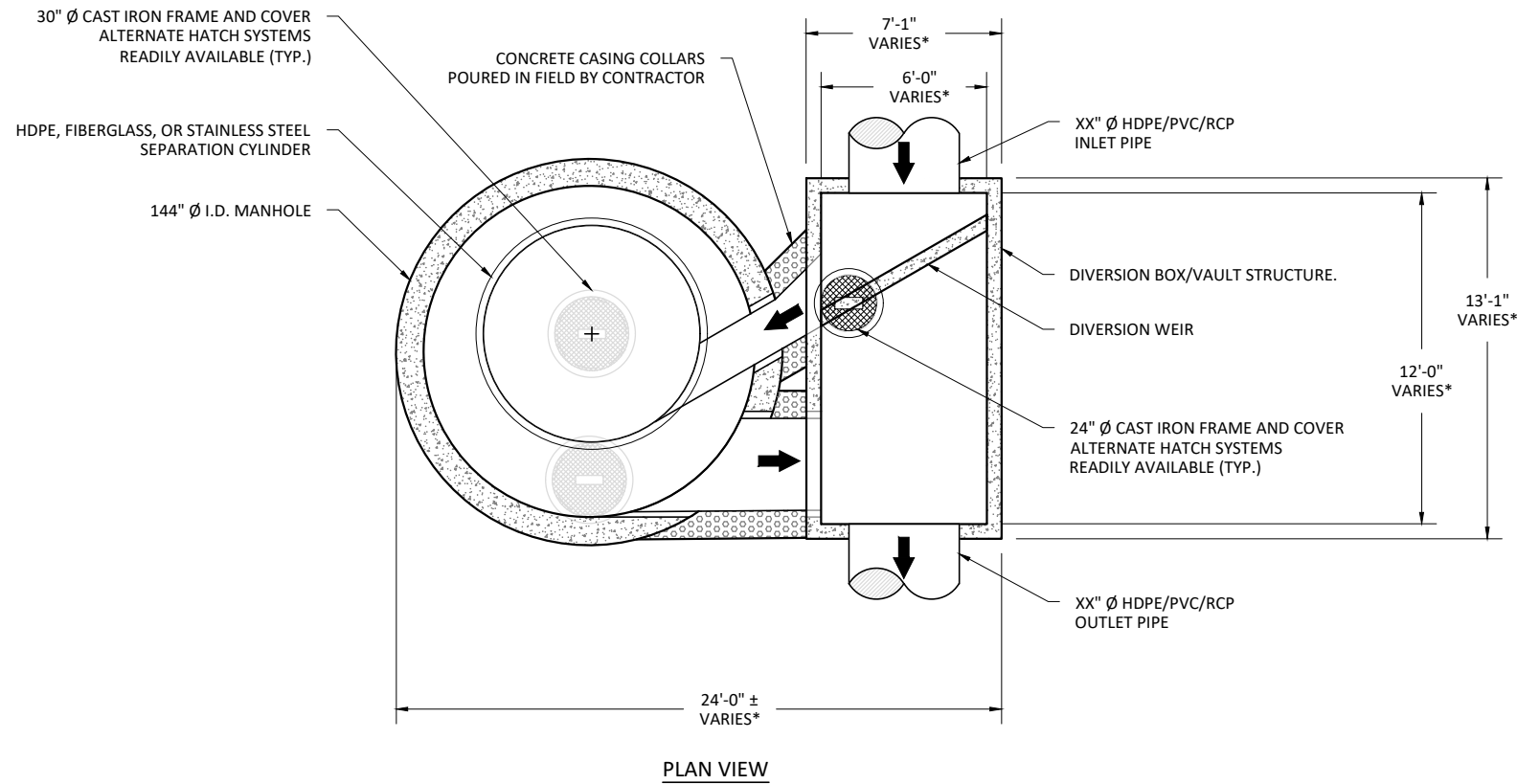
QTY.	COMPONENT DESCRIPTION	RESPONSIBLE PROVIDER	RESPONSIBLE INSTALLER
1	SEPARATION SCREEN AND SEPARATION CYLINDER	JENSEN	CONTRACTOR
1	XX" Ø HDPE/PVC/RCP INLET PIPE	CONTRACTOR	JENSEN
1	XX" Ø HDPE/PVC/RCP OUTLET PIPE	CONTRACTOR	JENSEN
1	30" Ø CAST IRON FRAME AND COVER, H20 RATED	JENSEN	CONTRACTOR
X	3" TALL 36" Ø GRADE RINGS	JENSEN	CONTRACTOR
X	6" TALL 36" Ø GRADE RING	JENSEN	CONTRACTOR

## (\*) REGIONAL MANUFACTURING DIFFERENCE :

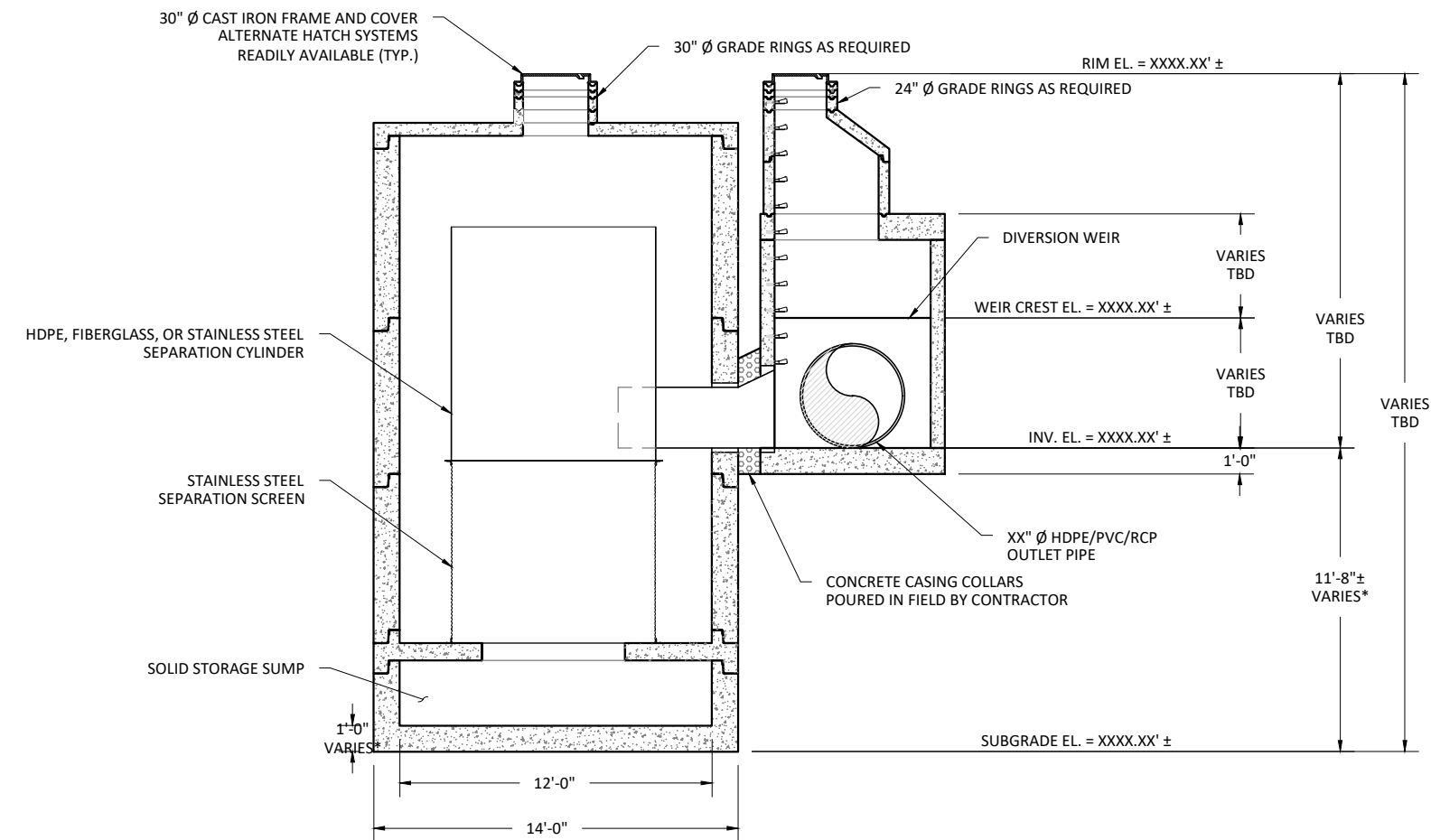
THESE ARE TEMPLATE SITE DESIGN DRAWINGS. JOINTS ORIENTATIONS, AND FINAL SEPARATION AND BASE SLAB THICKNESS VARY ACROSS JENSEN'S REGIONAL MANUFACTURING FACILITIES. CONFIRM FINAL JOINT ORIENTATION AND THICKNESS PER CONSTRUCTION SUBMITTAL DRAWINGS. ADJUST FINAL DIMENSIONS TO EXTERIOR INVERT AND SUBGRADE ELEVATION PER REGION DIFFERENCES.

<b>MODEL:</b> <b>JDS144-9480 OFFLINE JENSEN DEFLECTIVE SEPARATOR</b>		<b>PROJECT:</b> PROJECT NAME CITY, STATE		 521 DUNN CIRCLE, SPARKS, NV 89431-6312 (877) 649-0095 FAX (775) 440-2013 <a href="http://www.jensenengineersystems.com">www.jensenengineersystems.com</a>			
<b>HYDRODYNAMIC SEPARATOR (HDS), SWIRL CONCENTRATING, FULL CAPTURE, NON-BLOCKING SCREENING UNIT</b>		ORG. DWG. DATE XX/XX/XXXX	REV. DWG. DATE XX/XX/XXXX				SCALE: 1:80

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PLAN VIEW



ELEVATION VIEW