# **CDS Technology Key Features**

# **Applications**

- Storm Water Treatment
- Combined Sewer Overflow Treatment
- Parking Lots
- Screen Dry Weather Flow Diversions
- Vehicle Service Facilities and Corporation Yards
- Pretreatment for Wetlands, Ponds and Swales
- Pretreatment for media and Sand Filters & Infiltration Systems

### Non-Blocking & Non-Mechanical

 Separation screen does not clog and requires no power or supporting infrastructure

### **Unobtrusive & Easy to Install**

 Compact and below ground. Limited space requirement. Ideal for retrofit and redevelopment applications.

### Low-cost, Safe & Easy Pollutant Removal

 Easy maintenance using vactor equipment minimizing maintenance personnel exposure to hazardous materials.

### **Efficient**

- Captures and retains all litter and debris greater than screen aperture
- Effective in capture and retention of fine sand and larger particles and the attached hydrocarbons

### **Large Flow Range**

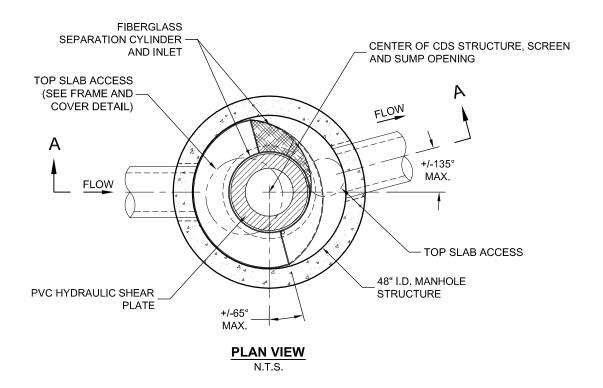
• 3 to 300 cubic feet per second (CFS)

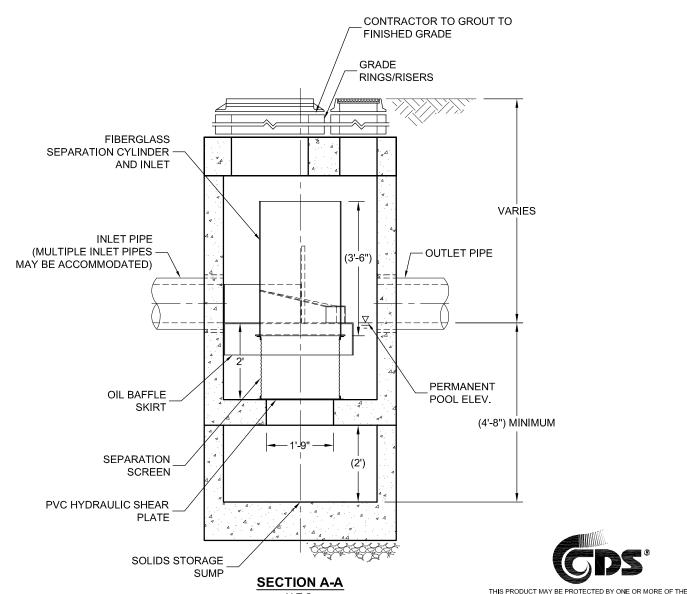
### **Cost-effective**

 Lowest overall cost per pound of gross pollutants removed

# **Improves Discharge Water Quality**

- Separate solids and floatables from storm water runoff
- Removes free oil and grease. This feature can be further enhanced by the use of sorbents but sorbents are not required.
- Separate floatables and remove solids from combined sewer overflows (CSOs)



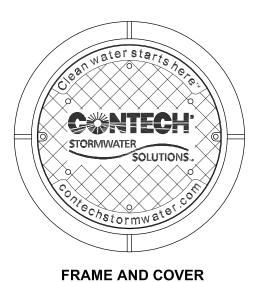


# CDS2015-4 DESIGN NOTES

CDS2015-4 RATED TREATMENT CAPACITY IS 0.7 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 10.0 CFS. IF THE SITE CONDITIONS EXCEED 10.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS2015-4 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

DESIGNATION (MODEL SUFFIX)	CONFIGURATION DESCRIPTION
G	GRATED INLET ONLY (NO INLET PIPE)
GP	GRATED INLET WITH INLET PIPE OR PIPES
K	CURB INLET ONLY (NO INLET PIPE)
KP	CURB INLET WITH INLET PIPE OR PIPES



SITE SPECIFIC						
DATA REQUIREMENTS						
STRUCTURE ID	)					
WATER QUALIT	ΓΥ FLOW F	RATE (CFS)		*		
PEAK FLOW RA	ATE (CFS)			*		
RETURN PERIO	DD OF PEA	AK FLOW (YRS	S)	*		
SCREEN APER	TURE (240	00 OR 4700)	,	*		
PIPE DATA:	I.E.	MATERIAL	DI.	AMETER		
INLET PIPE 1	*	*		*		
INLET PIPE 2	*	*		*		
OUTLET PIPE	*	*		*		
RIM ELEVATION	٧			*		
ANTI-FLOTATION BALLAST WIDTH HEIGHT						
NOTES/SPECIAL REQUIREMENTS:						
* PER ENGINEE	* PER ENGINEER OF RECORD					

#### **GENERAL NOTES**

1. AFC INC. TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

(DIAMETER VARIES) N.T.S.

- 2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR AFC INC. STORMWATER SOLUTIONS REPRESENTATIVE. www.afcinc.ca
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 5. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING.
- 6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

### **INSTALLATION NOTES**

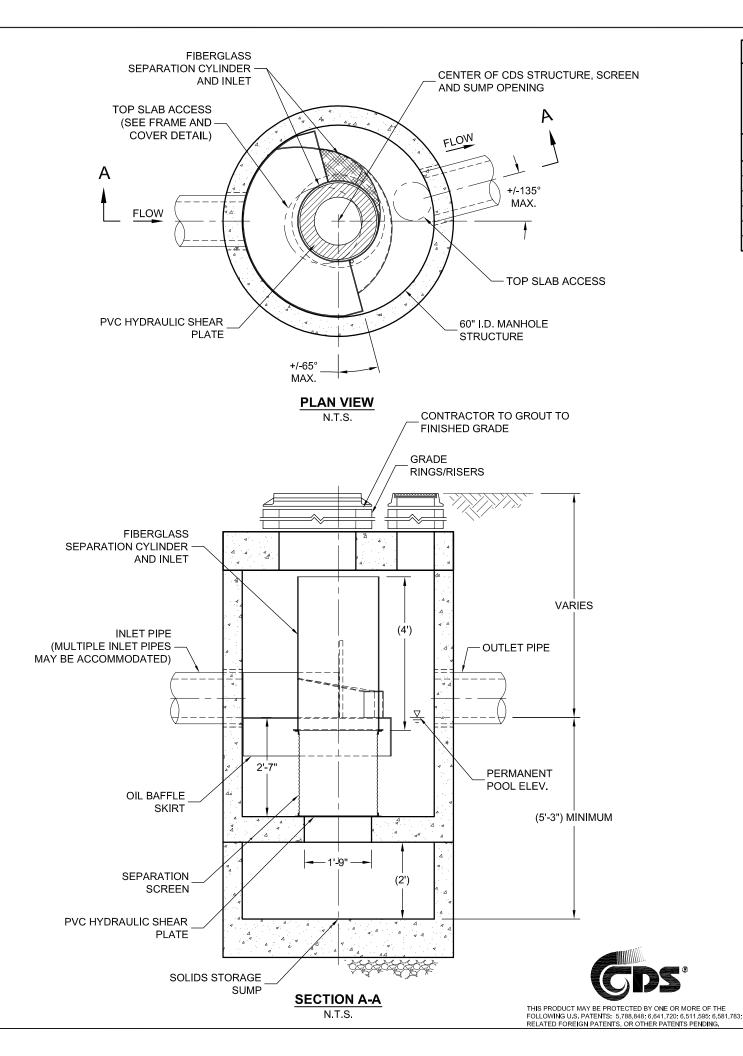
FOLLOWING U.S. PATENTS: 5,788,848; 6,641,720; 6,511,595; 6,581,783; RELATED FOREIGN PATENTS. OR OTHER PATENTS PENDING.

- 1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- 2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- 3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- 4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN
- 5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO

FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



CDS2015-4
PRECAST CONCRETE WATER QUALITY SYSTEM
STANDARD DETAIL



# **CDS2020 DESIGN NOTES**

CDS2020 RATED TREATMENT CAPACITY IS 1.1 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 14.0 CFS. IF THE SITE CONDITIONS EXCEED 14.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS2020 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

DESIGNATION (MODEL SUFFIX) CONFIGURATION DESCRIPTION			
G GRATED INLET ONLY (NO INLET PIPE)			
GP GRATED INLET WITH INLET PIPE OR PIPES			
K CURB INLET ONLY (NO INLET PIPE)			
KP	CURB INLET WITH INLET PIPE OR PIPES		
B SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)			
W	SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS		



SITE SPECIFIC							
DATA REQUIREMENTS							
STRUCTURE ID	)						
WATER QUALIT	ΓΥ FLOW F	RA <sup>-</sup>	ΓΕ (CFS)		*		
PEAK FLOW RA	ATE (CFS)				*		
RETURN PERIO	DD OF PEA	١K	FLOW (YRS	3)	*		
SCREEN APER	TURE (240	00 (	OR 4700)		*		
PIPE DATA:   I.E.   MATERIAL   DIAMETER							
INLET PIPE 1 * * *							
INLET PIPE 2							
OUTLET PIPE	*		*		*		
RIM ELEVATION *							
ANTI-FLOTATION BALLAST WIDTH HEIGHT  * *							
NOTES/SPECIAL REQUIREMENTS:							
* PER ENGINEER OF RECORD							

#### **GENERAL NOTES**

1. AFC INC. TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

(DIAMETER VARIES) N.T.S.

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- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 5. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING.
- 6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

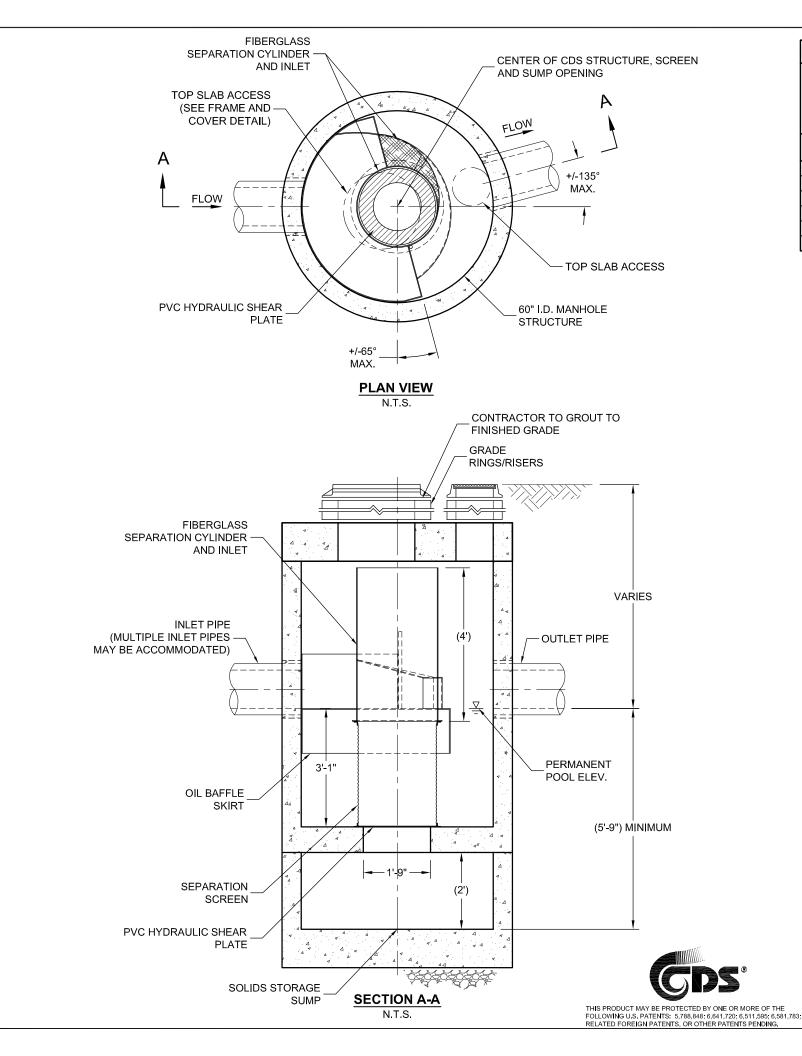
### **INSTALLATION NOTES**

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- 3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- 4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- 5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO

FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



CDS2020
PRECAST CONCRETE WATER QUALITY SYSTEM
STANDARD DETAIL



# **CDS2025 DESIGN NOTES**

CDS2025 RATED TREATMENT CAPACITY IS 1.6 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 14.0 CFS. IF THE SITE CONDITIONS EXCEED 14.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS2025 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

DESIGNATION (MODEL SUFFIX) CONFIGURATION DESCRIPTION			
G GRATED INLET ONLY (NO INLET PIPE)			
GP GRATED INLET WITH INLET PIPE OR PIPES			
K CURB INLET ONLY (NO INLET PIPE)			
KP	CURB INLET WITH INLET PIPE OR PIPES		
B SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)			
W	SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS		



DATA REQUIREMENTS  STRUCTURE ID  WATER QUALITY FLOW RATE (CFS)  PEAK FLOW RATE (CFS)  RETURN PERIOD OF PEAK FLOW (YRS)  SCREEN APERTURE (2400 OR 4700)  PIPE DATA: I.E. MATERIAL DIAMETER INLET PIPE 1  INLET PIPE 2  OUTLET PIPE 2  ATINITED	SITE SPECIFIC						
WATER QUALITY FLOW RATE (CFS)         *           PEAK FLOW RATE (CFS)         *           RETURN PERIOD OF PEAK FLOW (YRS)         *           SCREEN APERTURE (2400 OR 4700)         *           PIPE DATA:         I.E.         MATERIAL         DIAMETER           INLET PIPE 1         *         *           INLET PIPE 2         *         *           OUTLET PIPE         *         *           RIM ELEVATION         *           ANTI-FLOTATION BALLAST         WIDTH         HEIGHT	DATA REQUIREMENTS						
PEAK FLOW RATE (CFS)	STRUCTURE ID	)					
RETURN PERIOD OF PEAK FLOW (YRS)   *	WATER QUALIT	TY FLOW F	RA	ΓΕ (CFS)		*	
SCREEN APERTURE (2400 OR 4700)  PIPE DATA: I.E. MATERIAL DIAMETER INLET PIPE 1 * * * INLET PIPE 2 * * OUTLET PIPE * *  RIM ELEVATION	PEAK FLOW RA	ATE (CFS)				*	
PIPE DATA:   I.E.   MATERIAL   DIAMETER	RETURN PERIO	DD OF PEA	١X	FLOW (YRS	3)	*	
INLET PIPE 1	SCREEN APER	TURE (240	00 (	OR 4700)		*	
INLET PIPE	PIPE DATA:	I.E.	N	1ATER <b>I</b> AL	DI	AMETER	
OUTLET PIPE 2  OUTLET PIPE * *  RIM ELEVATION	INLET PIPE 1	*		*		*	
RIM ELEVATION	INLET PIPE 2	*		*		*	
ANTI-FLOTATION BALLAST WIDTH HEIGHT * *	OUTLET PIPE	*		*		*	
* *	RIM ELEVATION *						
NOTES/SDECIAL DEGLIDEMENTS:							
NOTES/SPECIAL REQUIREMENTS.							
* PER ENGINEER OF RECORD	* PER ENGINEE						

#### **GENERAL NOTES**

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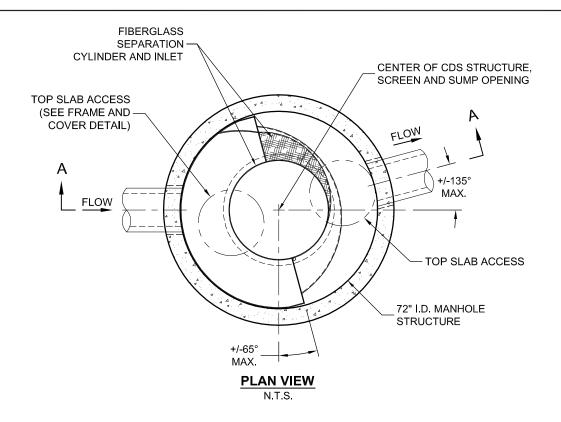
### **INSTALLATION NOTES**

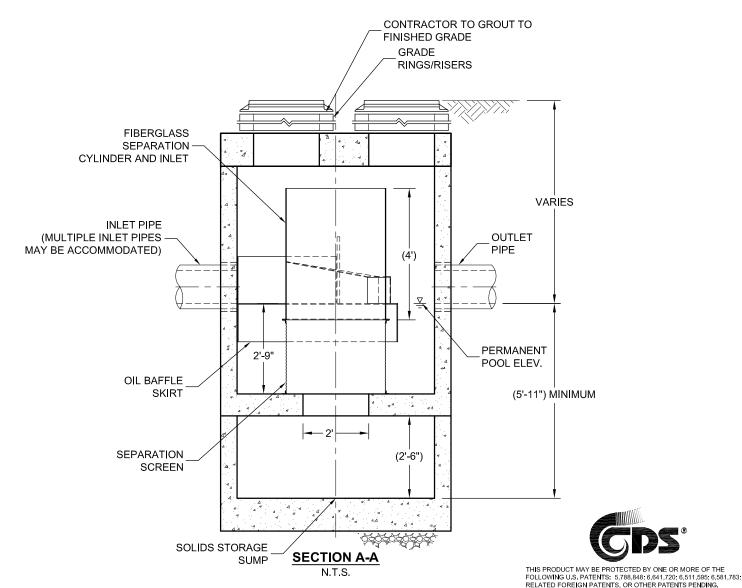
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- 3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- 4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN
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CDS2025
PRECAST CONCRETE WATER QUALITY SYSTEM
STANDARD DETAIL



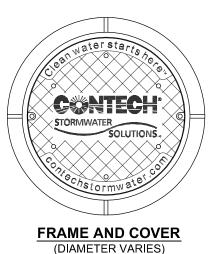


# CDS3020 DESIGN NOTES

CDS3020 RATED TREATMENT CAPACITY IS 2.0 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 20.0 CFS. IF THE SITE CONDITIONS EXCEED 20.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS3020 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

DESIGNATION (MODEL SUFFIX)	CONFIGURATION DESCRIPTION		
G GRATED INLET ONLY (NO INLET PIPE)			
GP GRATED INLET WITH INLET PIPE OR PIPES			
K	CURB INLET ONLY (NO INLET PIPE)		
KP	CURB INLET WITH INLET PIPE OR PIPES		
B SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)			
W	SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS		



N.T.S.

SITE SPECIFIC							
DATA REQUIREMENTS							
STRUCTURE ID	)						
WATER QUALIT	ΓΥ FLOW F	RATE (CFS)		*			
PEAK FLOW RA	ATE (CFS)			*			
RETURN PERIO	DD OF PEA	AK FLOW (YR	S)	*			
SCREEN APER	TURE (240	00 OR 4700)		*			
DIDE DATA	1.5	MATERIAL	ГБ	ANACTED			
PIPE DATA:	I.E.	MATERIAL	101	AMETER			
INLET PIPE 1	*	*		*			
INLET PIPE 2	*	*		*			
OUTLET PIPE	OUTLET PIPE * * *						
RIM ELEVATION	RIM ELEVATION *						
ANTI-FLOTATION BALLAST WIDTH HEIGHT							
NOTES/SPECIAL REQUIREMENTS:							
* PER ENGINEE	R OF REC	CORD					

### **GENERAL NOTES**

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- 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR AFC INC. STORMWATER SOLUTIONS REPRESENTATIVE. www.afcinc.ca
- 4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 5. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING.

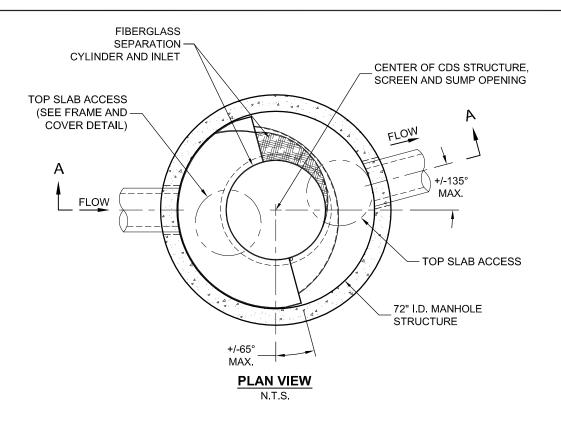
### **INSTALLATION NOTES**

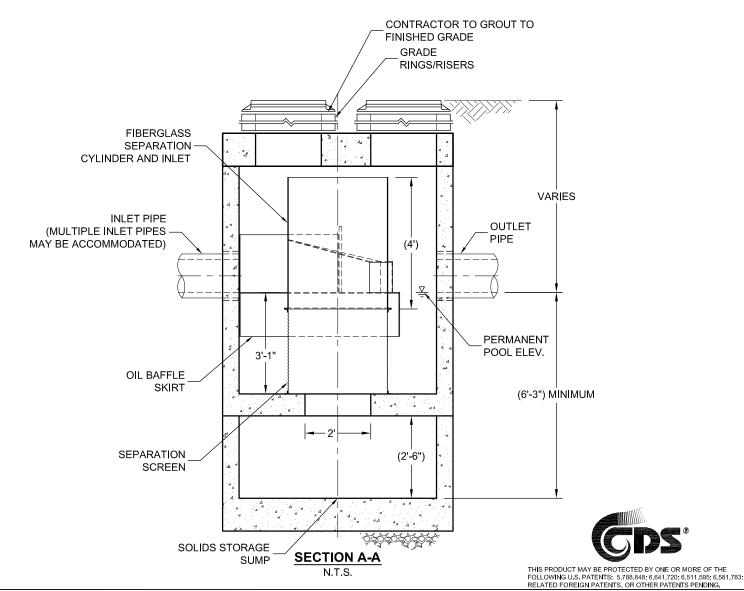
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CDS3020
PRECAST CONCRETE WATER QUALITY SYSTEM
STANDARD DETAIL



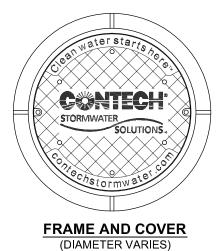


# CDS3025 DESIGN NOTES

CDS3025 RATED TREATMENT CAPACITY IS 2.5 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 20.0 CFS. IF THE SITE CONDITIONS EXCEED 20.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS3025 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

DESIGNATION (MODEL SUFFIX) CONFIGURATION DESCRIPTION			
G GRATED INLET ONLY (NO INLET PIPE)			
GP GRATED INLET WITH INLET PIPE OR PIPES			
K CURB INLET ONLY (NO INLET PIPE)			
KP	CURB INLET WITH INLET PIPE OR PIPES		
B SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)			
W	SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS		



SITE SPECIFIC						
DATA REQUIREMENTS						
STRUCTURE ID	)					
WATER QUALIT	TY FLOW F	RATE (CFS)		*		
PEAK FLOW RA	ATE (CFS)			*		
RETURN PERIO	DD OF PEA	AK FLOW (YRS	3)	*		
SCREEN APER	TURE (240	00 OR 4700)		*		
PIPE DATA:	I.E.	MATERIAL	ы	AMETER		
INLET PIPE 1	*	*	Di	*		
INLET PIPE 2 * * *						
OUTLET PIPE	*	*		*		
RIM ELEVATION *						
ANTI-FLOTATION BALLAST WIDTH HEIGHT  * *						
NOTES/SPECIAL REQUIREMENTS:						
* PER ENGINEE	R OF REC	CORD				

#### SENERAL NOTES

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N.T.S.

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- 4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 5. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING.

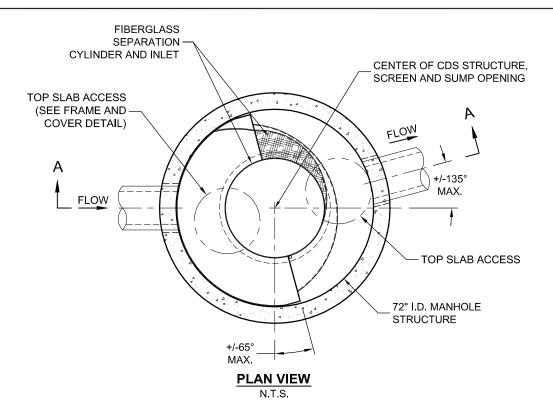
#### INSTALLATION NOTES

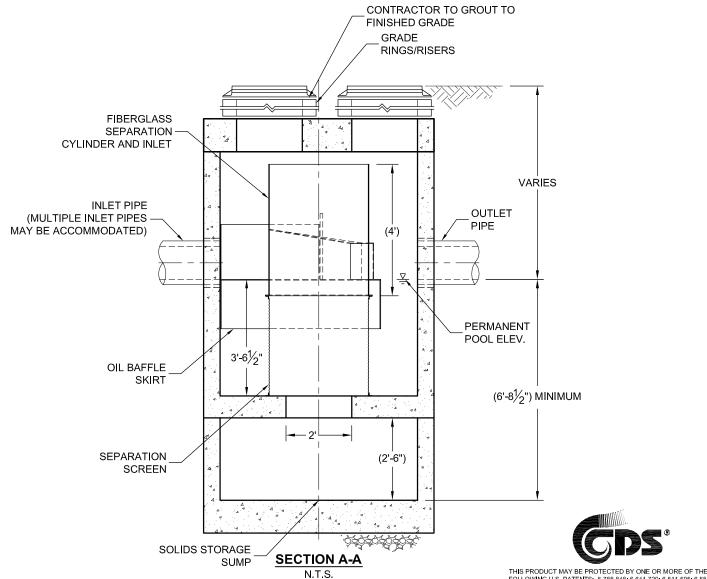
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CDS3025
PRECAST CONCRETE WATER QUALITY SYSTEM
STANDARD DETAIL





# CDS3030 DESIGN NOTES

CDS3030 RATED TREATMENT CAPACITY IS 3.0 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 20.0 CFS. IF THE SITE CONDITIONS EXCEED 20.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS3030 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

DESIGNATION (MODEL SUFFIX) CONFIGURATION DESCRIPTION		
G GRATED INLET ONLY (NO INLET PIPE)		
GP GRATED INLET WITH INLET PIPE OR PIPES		
K	CURB INLET ONLY (NO INLET PIPE)	
KP	CURB INLET WITH INLET PIPE OR PIPES	
В	SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)	
W	SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS	



SITE SPECIFIC							
DATA REQUIREMENTS							
STRUCTURE ID	)						
WATER QUALIT	TY FLOW F	RAT	E (CFS)		*		
PEAK FLOW RA	ATE (CFS)				*		
RETURN PERIO	DD OF PEA	٩K١	LOW (YRS	3)	*		
SCREEN APER	TURE (240	00 C	OR 4700)		*		
PIPE DATA:	I.E.	ΙM	IATERIAL	DI	AMETER		
INLET PIPE 1	*	l	*		*		
INLET PIPE 2	INLET PIPE 2 * * *						
OUTLET PIPE	OUTLET PIPE * * *						
RIM ELEVATION *							
ANTI-FLOTATION BALLAST WIDTH HEIGHT  * *							
NOTES/SPECIAL REQUIREMENTS:							
* PER ENGINEE	R OF REC	COF	RD				

#### SENERAL NOTES

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N.T.S.

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- 4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 5. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING.

### **INSTALLATION NOTES**

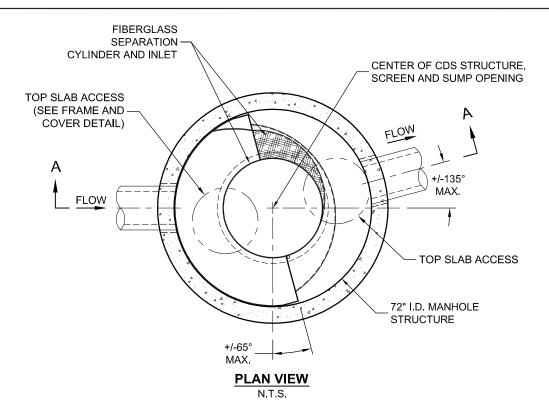
FOLLOWING U.S. PATENTS: 5,788,848; 6,641,720; 6,511,595; 6,581,783; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

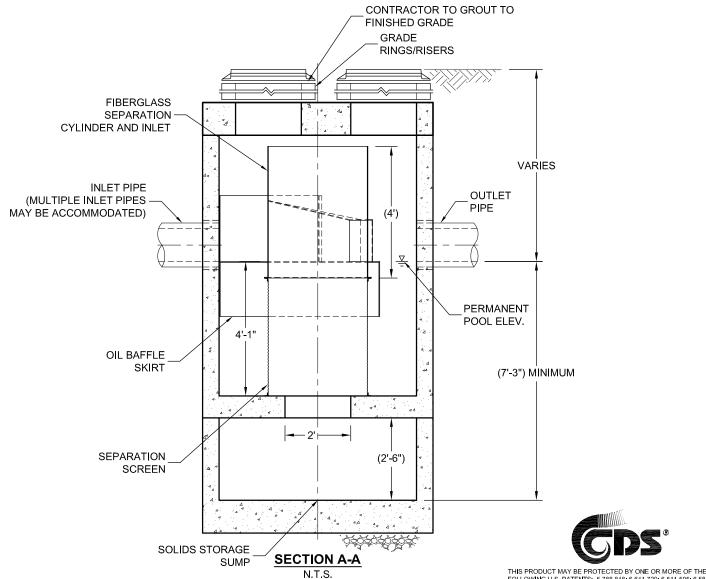
- 1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- 2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
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CDS3030
PRECAST CONCRETE WATER QUALITY SYSTEM
STANDARD DETAIL



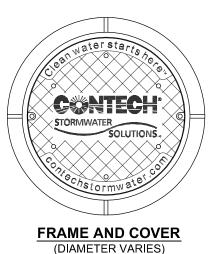


# CDS3035 DESIGN NOTES

CDS3035 RATED TREATMENT CAPACITY IS 3.8 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 20.0 CFS. IF THE SITE CONDITIONS EXCEED 20.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS3035 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

DESIGNATION (MODEL SUFFIX)	CONFIGURATION DESCRIPTION
G	GRATED INLET ONLY (NO INLET PIPE)
GP	GRATED INLET WITH INLET PIPE OR PIPES
K	CURB INLET ONLY (NO INLET PIPE)
KP	CURB INLET WITH INLET PIPE OR PIPES
В	SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
W	SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



SITE SPECIFIC					
DATA	DATA REQUIREMENTS				
STRUCTURE ID	)				
WATER QUALIT	TY FLOW F	RA <sup>-</sup>	ΓE (CFS)		*
PEAK FLOW RA	ATE (CFS)				*
RETURN PERIO	DD OF PEA	١K	FLOW (YRS	3)	*
SCREEN APER	TURE (240	00 (	OR 4700)		*
PIPE DATA:	I.E.	E.   MATERIAL   DIAMETER			AMETER
INLET PIPE 1	*		*	*	
INLET PIPE 2	*		*	*	
OUTLET PIPE	*		* *		
RIM ELEVATION *					
ANTI-FLOTATION BALLAST WIDTH					HEIGHT *
NOTES/SPECIAL REQUIREMENTS:					
* PER ENGINEER OF RECORD					

#### SENERAL NOTES

1. AFC INC. TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

N.T.S.

- 2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR AFC INC. STORMWATER SOLUTIONS REPRESENTATIVE. www.afcinc.ca
- 4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 5. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING.

### **INSTALLATION NOTES**

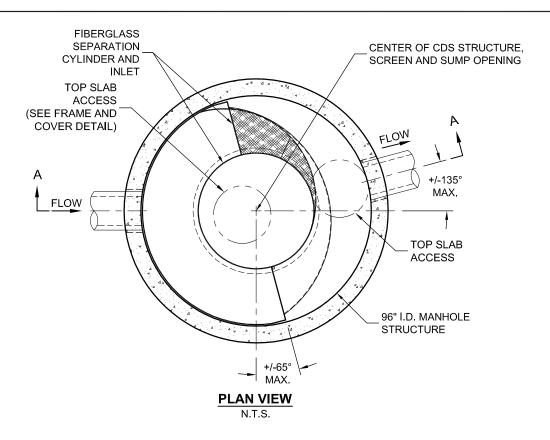
FOLLOWING U.S. PATENTS: 5,788,848; 6,641,720; 6,511,595; 6,581,783; RELATED FOREIGN PATENTS. OR OTHER PATENTS PENDING.

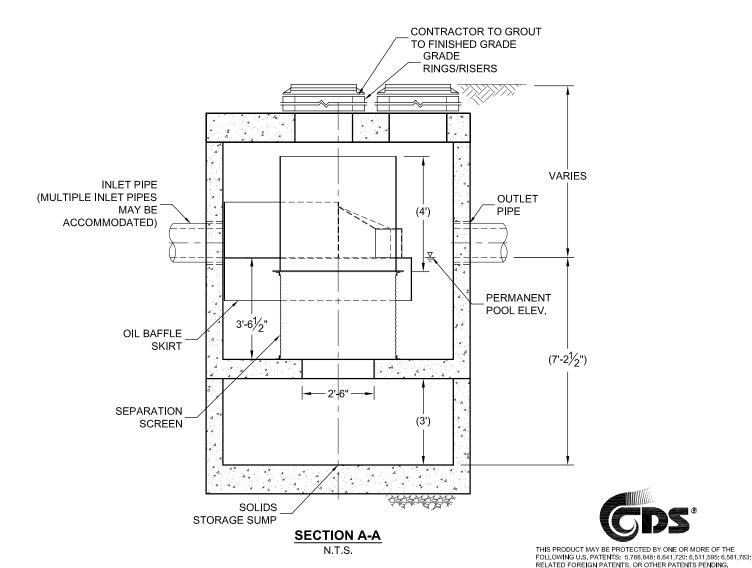
- 1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- 2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- 3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- 4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- 5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO

FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



CDS3035
PRECAST CONCRETE WATER QUALITY SYSTEM
STANDARD DETAIL



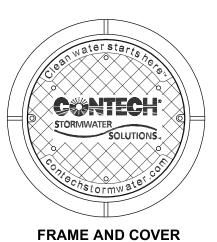


# **CDS4030 DESIGN NOTES**

CDS4030 RATED TREATMENT CAPACITY IS 4.5 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 30.0 CFS. IF THE SITE CONDITIONS EXCEED 30.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS4030 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

DESIGNATION (MODEL SUFFIX)	CONFIGURATION DESCRIPTION
G	GRATED INLET ONLY (NO INLET PIPE)
GP	GRATED INLET WITH INLET PIPE OR PIPES
K	CURB INLET ONLY (NO INLET PIPE)
KP	CURB INLET WITH INLET PIPE OR PIPES
В	SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
W	SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



(DIAMETER VARIES) N.T.S.

SITE SPECIFIC						
DATA	DATA REQUIREMENTS					
STRUCTURE ID	)					
WATER QUALIT	ΓΥ FLOW F	RAT	E (CFS)		*	
PEAK FLOW RA	ATE (CFS)				*	
RETURN PERIO	DD OF PEA	\K F	LOW (YRS	S)	*	
SCREEN APERTURE (2400 OR 4700)					*	
DIDE DATA.	ır	N /	ATEDIAL	ГЫ	AMETED	
PIPE DATA:	I.E.	IVI	ATERIAL *	וטו	AMETER *	
INLET PIPE 1	*		*		*	
INLET PIPE 2	*		*		*	
OUTLET PIPE	*		*	*		
RIM ELEVATION *						
ANTI-FLOTATION BALLAST WIDTH					HEIGHT	
* * *						
NOTES/SPECIAL REQUIREMENTS:						
* PER ENGINEER OF RECORD						

#### SENERAL NOTES

- 1. AFC INC. TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- 2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR AFC INC. STORMWATER SOLUTIONS REPRESENTATIVE. www.afcinc.ca
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 5. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING.

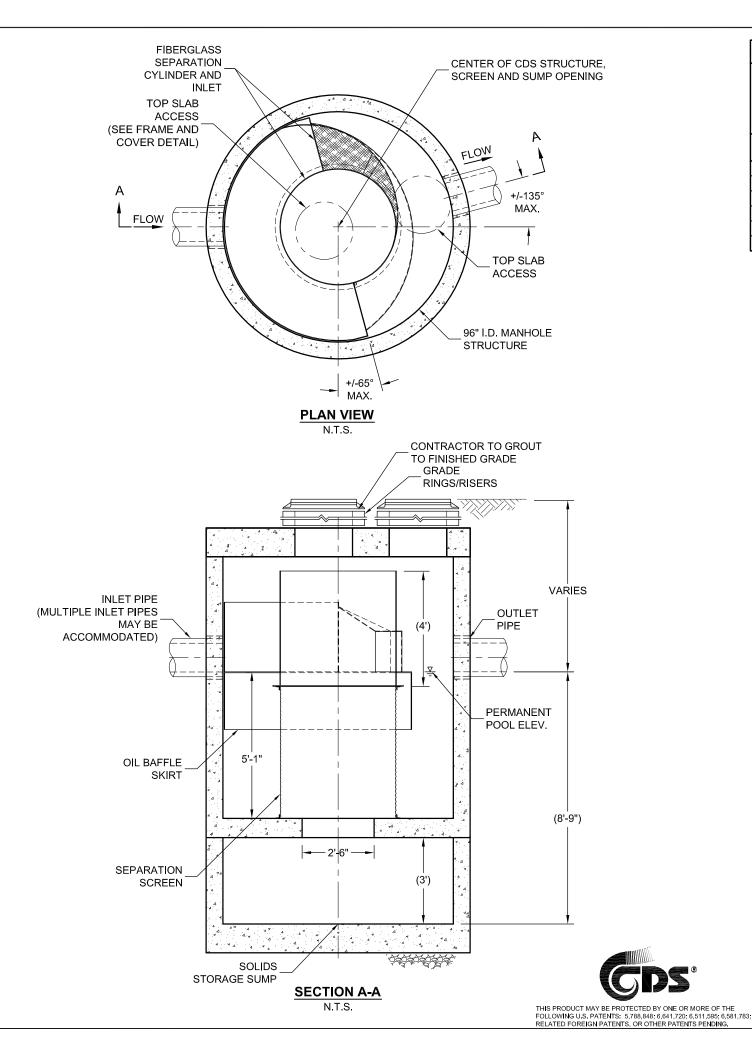
### **INSTALLATION NOTES**

- 1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- 2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- 3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- 4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- 5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO

FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



CDS4030
PRECAST CONCRETE WATER QUALITY SYSTEM
STANDARD DETAIL



# CDS4045 DESIGN NOTES

CDS4045 RATED TREATMENT CAPACITY IS 7.5 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 30.0 CFS. IF THE SITE CONDITIONS EXCEED 30.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS4045 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

DESIGNATION (MODEL SUFFIX)	CONFIGURATION DESCRIPTION
G	GRATED INLET ONLY (NO INLET PIPE)
GP	GRATED INLET WITH INLET PIPE OR PIPES
K	CURB INLET ONLY (NO INLET PIPE)
KP	CURB INLET WITH INLET PIPE OR PIPES
В	SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
W	SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



N.T.S.

SITE SPECIFIC						
DATA	DATA REQUIREMENTS					
STRUCTURE ID	STRUCTURE ID					
WATER QUALI	TY FLOW F	RATE (CFS)		*		
PEAK FLOW RA	ATE (CFS)			*		
RETURN PERIO	DD OF PEA	AK FLOW (YRS	3)	*		
SCREEN APER	SCREEN APERTURE (2400 OR 4700) *					
PIPE DATA:	I.E.	MATERIAL	DI	AMETER		
INLET PIPE 1	*	*	*			
INLET PIPE 2	*	*		*		
OUTLET PIPE	*	*	*			
RIM ELEVATION *						
ANTI-FLOTATION BALLAST WIDTH HEIGHT  * *						
NOTES/SPECIAL REQUIREMENTS:						
* PER ENGINEER OF RECORD						

#### GENERAL NOTES

- 1. AFC INC. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- 2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR AFC INC. STORMWATER SOLUTIONS REPRESENTATIVE. www.afcinc.ca
- 4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 5. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING.

### **INSTALLATION NOTES**

- 1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- 2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- 3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- 4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- 5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO

FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



CDS4045
PRECAST CONCRETE WATER QUALITY SYSTEM
STANDARD DETAIL