

GENERAL INFORMATION
THE PARKUSA FOX FIRST FLUSH DIVERSION SYSTEM IS HYDRAULICALLY ACTUATED FROM THE WASH POINT IN THE WASH BAY, OPENING AUTOMATICALLY AND DIVERTING ALL DIRTY WASH WATER TO THE PUBLIC WASTEWATER SEWER* OR A HOLDING TANK.

HOW DOES IT WORK?
AT THE COMMENCEMENT OF RAIN, THE FF600 AUTOMATICALLY DIVERTS THE CONTAMINATED "FIRST FLUSH OF RAIN" TO THE PUBLIC WASTEWATER (SANITARY) SEWER*. AFTER DIVERTING THE FIRST FLUSH VOLUME OF RAIN TO PUBLIC TREATMENT SYSTEM, THE FF600 AUTOMATICALLY LOCKS THE DIVERSION VALVE CLOSED SENDING ALL SUBSEQUENT RAINWATER TO THE STORMWATER SEWER.

*PLUMBING CODES REQUIRE SEPARATOR PRETREATMENT OF PROCESS WATER PRIOR TO DISCHARGE INTO THE PUBLIC SANITARY SEWER.

OPERATION INFORMATION
THE PARKUSA FOX FF600 IS RECOMMENDED TO ENSURE THAT A WASH PAD AREA WILL BE LEFT FREE OF CONTAMINANTS AT THE END OF A WASHDOWN OPERATION. RUNOFF IS DRAINED TO THE FOX FF600 CHAMBER VIA THE GRATED INLET AND SILT BASKET. DURING A WASH OPERATION, ALL RUNOFF IS DIVERTED TO AN OIL/WATER SEPARATOR AND THEN THE SANITARY SEWER. IF A SANITARY SEWER IS NOT AVAILABLE, A HOLDING TANK MAY BE REQUIRED.

DURING A RAIN EVENT, IF NO WASHDOWN TAKING PLACE, THE LEVEL IN THE CHAMBER WILL RISE AS THE DIVERSION VALVE IS CLOSED. AT A POINT JUST BELOW THE STORMWATER OUTLET, A FLOAT WILL ACTIVATE AND OPEN THE DIVERSION VALVE AND DIVERT THE PIT CONTENTS TO AN OIL/WATER SEPARATOR AND THEN THE SANITARY SEWER (OR HOLDING TANK). THIS PROCESS WILL CONTINUE UNTIL THE REQUIRED 'FIRST FLUSH' VOLUME HAS BEEN DIVERTED. AFTER THE FIRST FLUSH HAS BEEN DIVERTED, THE REMAINING RUNOFF WILL BE DISCHARGED THROUGH THE STORMWATER OUTLET PIPE.

THE SYSTEM ENSURES THAT CONTAMINATED WATER ASSOCIATED WITH FIRST FLUSH IS DIVERTED TO THE SANITARY SEWER WHILE RAINWATER IS DRAINED TO THE STORM SEWER.

THE WORKING VOLUME IS THE 'FIRST FLUSH CAPTURE VOLUME'.
 $FFCV = \text{AREA OF WASH SLAB (SQFT)} \times \text{FIRST FLUSH DEPTH (IN)} \times .623$
 $(\text{GAL/IN-SQFT}) = \text{GAL}$

FOR EXAMPLE.
A 20 (FT) W X 20 (FT) L WASH PAD USING 1/2 (IN) FIRST FLUSH WOULD YIELD:

$FFCV = 20 \text{ (FT)} \times 20 \text{ (FT)} \times .50 \text{ (IN)} \times .623 \text{ (GAL/IN-SQFT)} = 125 \text{ (GAL)} \text{ OR } 17 \text{ (CUFT)}$

THIS IS THE VOLUME OF WATER THAT IS NEEDED TO DISCHARGE TO THE WASTEWATER SEWER TO ENSURE THAT NO POLLUTANTS ARE DISCHARGED TO THE ENVIRONMENT.

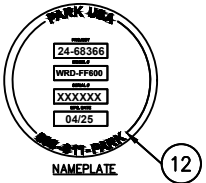
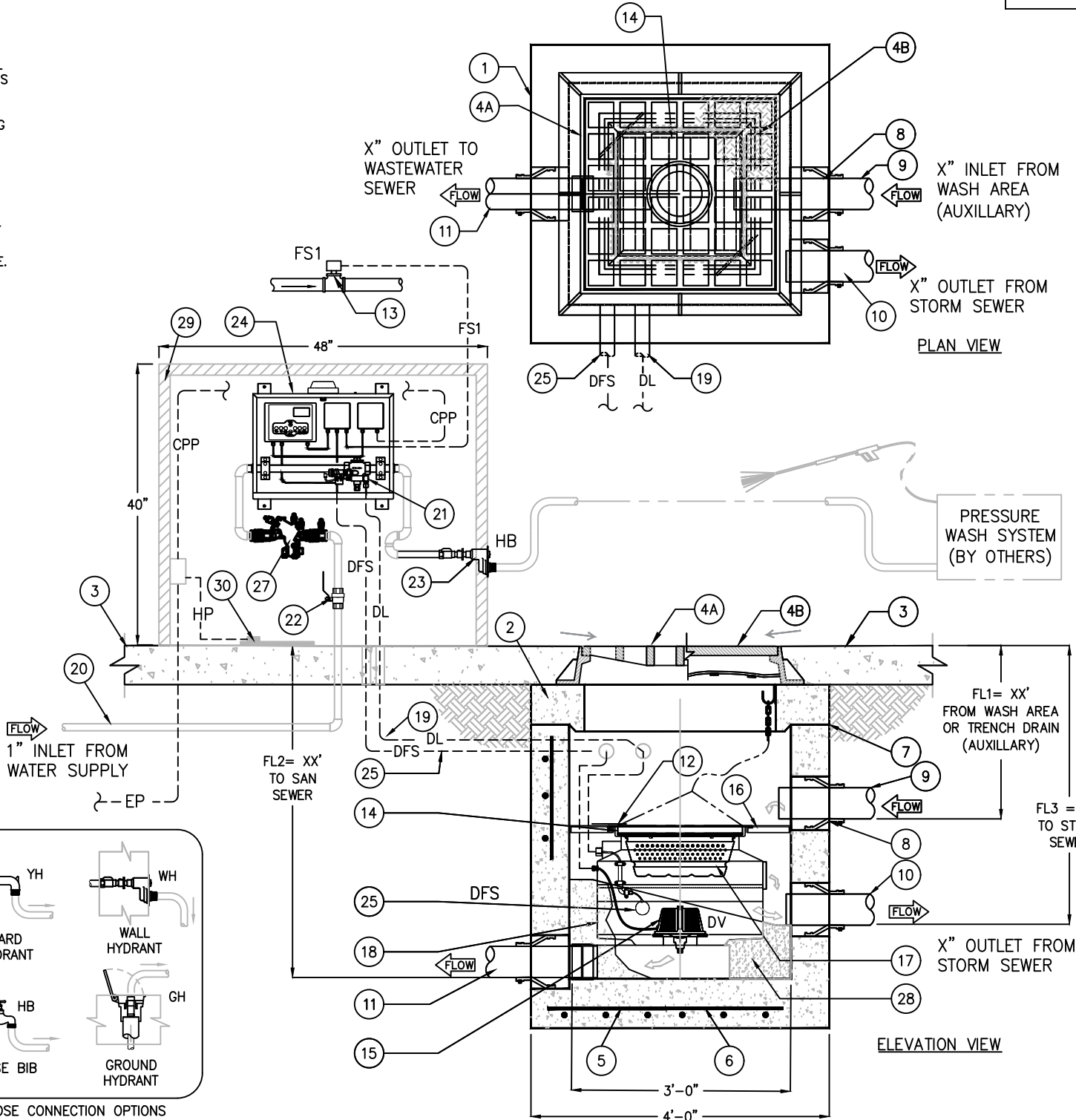
CONDUIT/WIRE LEGEND				
MARK	DESCRIPTION	ELECT	WIRE SIZE	CONDUIT SIZE
CPP	DIVERTER PANEL POWER	120 VAC-GFIC	(3) 12AWG	3/4"
FS1	FLOW SWITCH (OPTIONAL)	120 VDC	(2) 18AWG	1/2"
DFS	DIVERTER FLOAT SWITCH	120 VDC	(4) 18AWG	3/4"
DL	DIVERTER DRIVE LINE	-	-	1/2" PVC
EP	ENCLOSURE POWER	120 VDC/20A	(3) 12AWG	1"
HP	HEATER POWER	120 VDC/4.16A	(4) 10AWG	1/2"

FLOWLINE INFORMATION

FL1 - MINIMUM TRENCH DRAIN INLET FLOWLINE IS 12" (TOR - TDFL).

FL2 - THE MINIMUM WASTEWATER SEWER OUTLET FLOWLINE DEPTH IS 42" (TOR-FL).

FL3 - THE MINIMUM STORM OUTLET FLOWLINE DEPTH IS 24" (TOR-FL).



KEYED NOTES		
MARK	QTY	DESCRIPTION
1	1	INLET BASIN, 36"X36" ID PRECAST CONCRETE
2	1	BASIN TOP SECTION
3	-	CONCRETE APRON (BY OTHERS)
4A	1	FRAME & GRATE 36"X36" CAST IRON, TRAFFIC DUTY
4B	-	FRAME & SOLID COVER 36"X36" CAST IRON, TRAFFIC DUTY (OPTIONAL)
5	1	MONOLITHIC BOTTOM
6	-	STEEL REINFORCEMENT
7	-	JOINTS MADE WATER-TIGHT W/RAM-NEK SEALANT
8	3	RESILIENT RUBBER PIPE CONNECTIONS
9	1	AUXILIARY X" INLET FROM WASH RACK
10	1	X" DISCHARGE TO STORM SEWER
11	1	X" DISCHARGE TO SANITARY SEWER
12	1	NAMEPLATE INDICATING: MFG: ParkUSA 888-611-PARK www.ParkUSA.com MODEL: WRD-FF600E-C3672 DATE MANUFACTURED
13	0	FLOW SWITCH FOR PROCESS WATER (OPTIONAL)
14	1	DIVERSION VALVE ASSEMBLY
15	1	DIVERSION VALVE (LEAD-FREE BRASS) (DV)
16	1	PLATFORM, SS304 STAINLESS STEEL
17	1	SILT SCREEN (HDPE) w/ RETRIEVAL CHAIN
18	1	DIVERSION PIT, HDPE
19	1	1/2" DRIVELINE
20	1	COLDWATER SUPPLY
21	1	1" DEMAND VALVE (LEAD-FREE BRASS)
22	1	1" SHUT OFF VALVE (LEAD-FREE BRASS)
23	1	1" HOSE BIB (FREEZE PROOF)
24	1	CONTROL PANEL 24"X22" W/PLC & DEMAND VALVE MOUNTED ON WALL
25	1	DIVERTER FLOAT SWITCH (DFS)
26	1	DIVERTER FLOAT SWITCH CABLE
27	1	RPZ BACKFLOW PREVENTER, 1"
28	1	FACTORY GROUTED INVERT
29	1	INSULATED ALUMINUM ENCLOSURE W/ REMOVABLE ACCESS PANELS, DRAIN, & SS HARDWARE (48"Lx30"Wx40"H)
30	1	PLATEN ELECTRIC HEATER MOUNTED ON SLAB, 500 W-120V W/ THERMOSTAT

PIPE SIZES, ORIENTATIONS & ELEVATIONS TO BE CONFIRMED PRIOR TO PRODUCTION (TYP)

APPLICATIONS

- MAINTENANCE WASHDOWN & GARAGES
- HANGAR FACILITIES
- FIRE STATIONS & WASHDOWN FACILITIES
- CARWASHES
- STORMWATER RUNOFF
- SERVICE STATION FUEL DEPOTS
- MANUFACTURING FACILITY EFFLUENT WATER
- REMEDATION WATER CLEANUP
- GENERAL INDUSTRY
- EQUIPMENT RENTAL & MANUFACTURING
- DUMPSTER & TRASH COMPACTOR AREAS

MARK: -
LINE: -
STA: -
SHEET: - NO PLANS
DATE: - NO PLANS

OPERATION SEQUENCE						
DEVICE				DIVERTER VALVE (DV)		NOTES
TAG#	DESCRIPTION	TYPE	ACTION	POSITION	DRAINS TO	
HB	HOSE BIBB	FLOW	NON FLOW	CLOSED	STORM	1
			FLOW	OPEN	WASTEWATER	2
DL	DRIVE LINE	PRESSURE	NON PRESSURIZED	CLOSED	STORM	1
			PRESSURIZED	OPEN	WASTEWATER	2
DFS	DIVERTER FLOAT SWITCH	LEVEL	PIT EMPTY	CLOSED	STORM	1
			PIT FULL	OPEN	WASTEWATER	3
FS1	FLOW SWITCH (OPTIONAL)	FLOW	NON FLOW	CLOSED	STORM	1, 4
			FLOW	OPEN	WASTEWATER	2, 4

NOTES:

- THE DIVERTER VALVE (DV) WILL PERMANENTLY "CLOSE" ONLY AFTER WASH ACTIVITY STOPS & PROGRAMMED ELAPSED FIRST FLUSH VOLUME IS REACHED.
- THE DIVERTER VALVE (DV) WILL "OPEN" UPON > 1/2 GPM FLOW DETECTED.
- LEVEL RISE WILL OCCUR DURING A RAIN EVENT. THIS WILL ACTIVATE THE SYSTEM TO DISCHARGE (DV OPEN) THE "FIRST-FLUSH" VOLUME TO THE WASTEWATER SEWER SYSTEM.
- FLOW SWITCHES (FS) ARE OPTIONAL AND CAN BE USED IF IN REMOTE LOCATIONS OR IF MULTIPLE WATER OUTLETS ARE USED.

SPECIFICATIONS

CONCRETE : CLASS I/II CONCRETE WITH DESIGN STRENGTH OF 5000 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.

REINFORCEMENT: GRADE 60 REINFORCED WITH STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.

MATERIALS: MANHOLE FRAMES, COVERS OR GRATES ARE MANUFACTURED OF DUCTILE IRON CONFORMING TO ASTM A536, AASHTO M306, & AASHTO M105 STANDARDS. GRATING SHALL BE NOMINAL 36" X 36" AND BE H20 TRAFFIC DUTY.

ENGINEERING DATA

UNIT SHALL BE STRUCTURALLY AND HYDRAULICALLY ENGINEERED CONFORMING TO UPC AND ACI BUILDING CODES. MANUFACTURER SHALL ENSURE VAULT ASSEMBLY DESIGN ACCOUNTS FOR PREVENTION OF BUOYANCY EFFECT. FIELD EXCAVATION AND PREPARATION SHALL BE COMPLETED PRIOR TO DELIVERY OF UNIT. USE DIMENSIONAL DATA AS SHOWN.



WASHRACK DIVERSION VALVE ASSEMBLY
MODEL DSB-C-3636-WRK-FF3-06-IEWH

PM	PC	DRN	ENG	DWG. NO.		REV.
				DSB-C-3636-WRK-FF3-06-IEWH		A