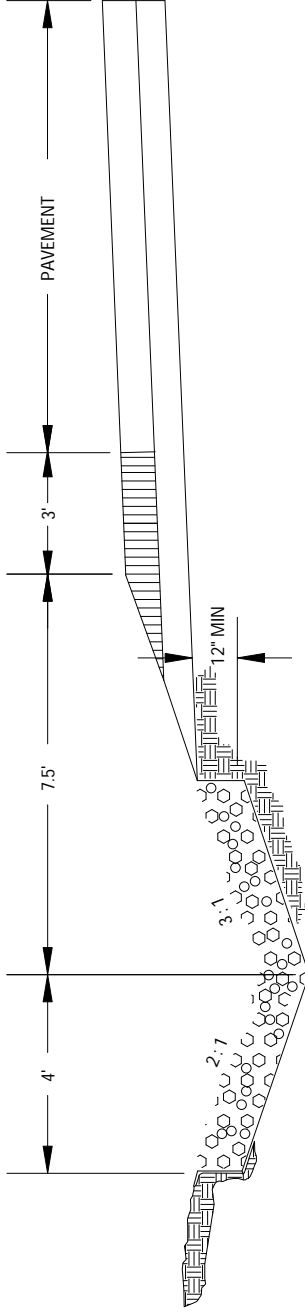


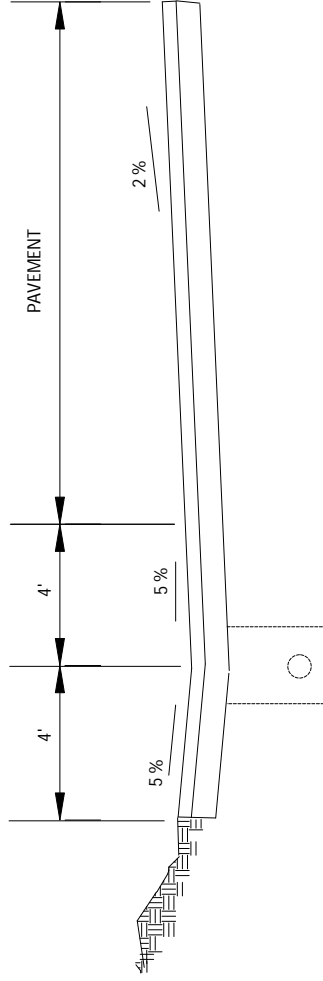
TABLE OF DRAWINGS

SECTION 9 - GDESC PLAN REQUIREMENTS

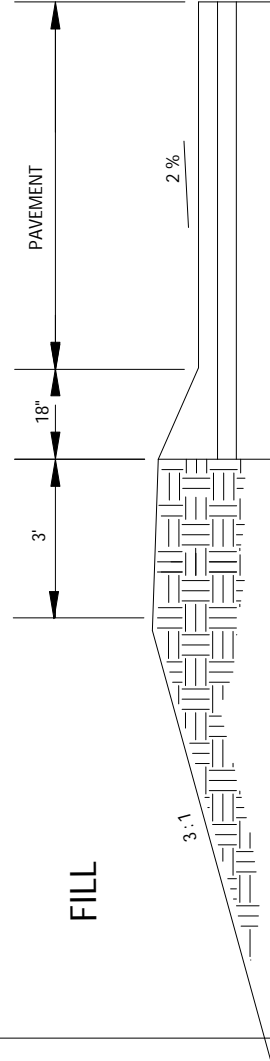
SHOULDER DITCHES AND TURNPIKE SECTION	DWG. 9 - 010
BEVELED END SECTION	DWG. 9 - 030
YARD DRAIN CONNECTIONS	DWG. 9 - 140
TRASH RACK	DWG. 9 - 290
AREA INLET	DWG. 9 - 310
PIPE SLOPE DRAINS	DWG. 9 - 320
ROCK PROTECTION AT OUTFALLS	DWG. 9 - 330
DOWNSPOUT CONNECTION.....	DWG. 9 - 380
FOUNDATION DRAIN.....	DWG. 9 - 390
OIL WATER SEPERATOR.....	DWG. 9 - 420



ROCK - LINED SHOULDER DITCH
IN CUT SECTION

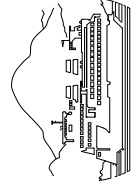


TURNPIKE SHOULDER



ASPHALT THICKENED EDGE
IN FILL SECTION

SEE TEXT SECTION 9-08



CITY OF BAINBRIDGE ISLAND
STANDARD DETAILS

SHOULDER DITCHES AND
TURNPIKE SECTION

REV.

APPROVED

DATE

DWG. NO.
9-010

4/18/97

CITY ENGINEER

REV.

APPROVED

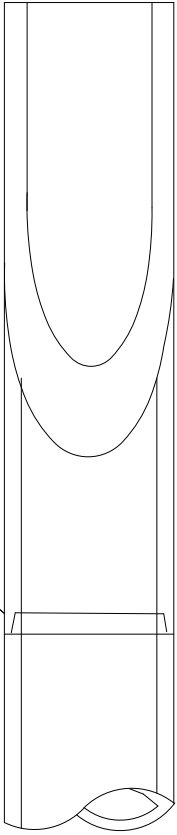
DATE

DWG. NO.
9-010

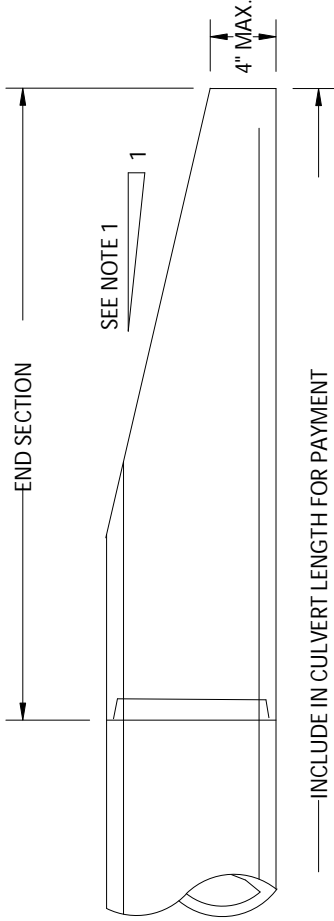
4/18/97

CITY ENGINEER

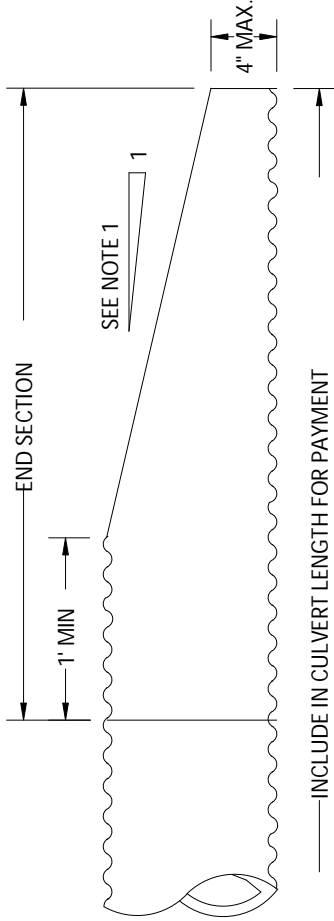
GROOVE END ALWAYS LAID UPGRADE



PLAN



CONCRETE PIPE



METAL PIPE

NOTES:

THE CULVERT ENDS SHALL BE BEVELED TO MATCH THE SIDE SLOPE. FIELD CUT OF CULVERT ENDS IS PERMITTED, WHEN APPROVED BY THE ENGINEER.

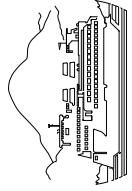
ALL FIELD CUT CULVERT SHALL BE TREATED WITH TREATMENT AS SPECIFIED IN THE WSDOT/APWA SPECIFICATIONS.

CORRUGATED POLYETHYLENE PIPE IS PERMITTED WHEN BEVELED SLOPES ARE 4:1 OR STEEPER.

FOR ANY PIPE SECTION THAT IS BEVELED ON THE END, THE MINIMUM LENGTH OF THE UNBEVELED PORTION OF THE PIPE SHALL BE SUFFICIENT TO BE SECURELY FASTENED TO THE ADJACENT SECTION.

WSDOT/APWA PLAN B-7a

See Text Section 9-09



CITY OF BAINBRIDGE ISLAND
STANDARD DETAILS

BEVELED END SECTION

REV.

APPROVED

DATE

DWG. NO.

4/18/97

Jeffrey M. Jensen
CITY ENGINEER

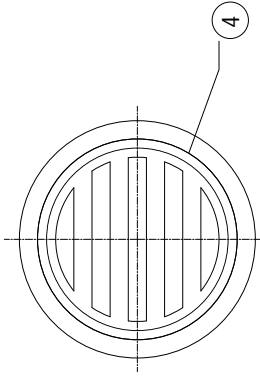
9-030

—— INCLUDE IN CULVERT LENGTH FOR PAYMENT

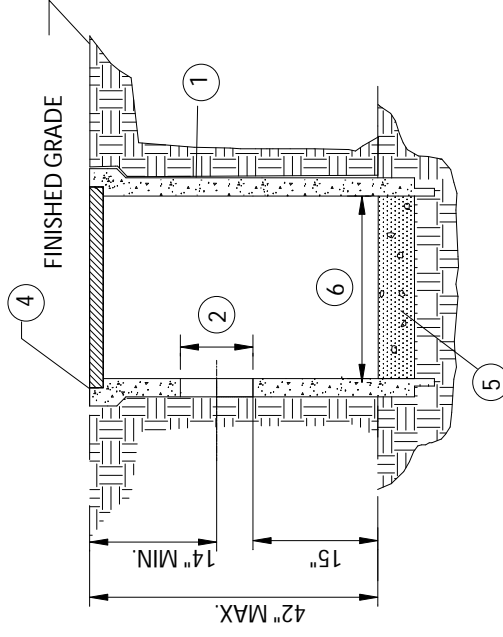
—— INCLUDE IN CULVERT LENGTH FOR PAYMENT

NOTES:

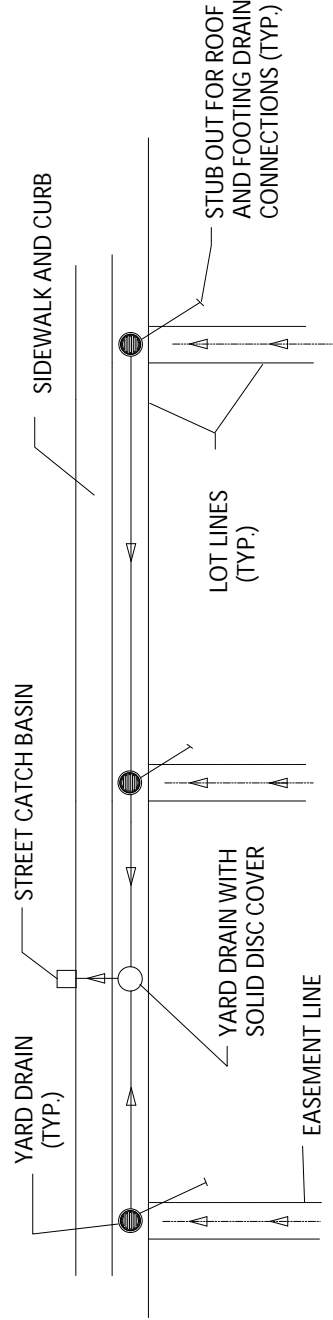
- ① YARD DRAINS TO BE CONSTRUCTED FROM CONCRETE PIPE, IN ACCORDANCE WITH ASTM C 14 UNLESS OTHERWISE SHOWN ON THE PLANS OR NOTED IN THE SPECIFICATIONS.
 - ② CUTOUT HOLE SIZE IS EQUAL TO OUTLET PIPE OUTSIDE DIAMETER PLUS YARD DRAIN WALL THICKNESS.
 - ③ CONNECTION TO OUTLET PIPE TO BE MORTARED AND MADE FLUSH WITH INSIDE OF THE YARD DRAIN WALL.
 - ④ CAST IRON BELL GRATE. FITS INTO BELL RECESS AND EXTENDS FLUSH WITH FACE OF BELL. THE GRATE SHALL HAVE SLOTS (HOLES) THAT CONSTITUTE 50 PERCENT OPEN AREA FOR DRAINAGE. INLET BELL SURFACE SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
 - ⑤ WASHED DRAIN ROCK. 6 INCHES MINIMUM DEPTH.
 - ⑥ VARIES 12 INCHES OR 18 INCHES.
- SPECIAL CAST YARD DRAIN MAY BE REQUIRED FOR MULTIPLE PIPE CONNECTIONS.
- YARD DRAIN IS NOT PERMITTED WITHIN THE RIGHT-OF-WAY.



PLAN VIEW



ELEVATION VIEW

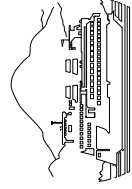


TYPICAL LOT PLACEMENT

See Text Section 9-12

CITY OF BAINBRIDGE ISLAND
STANDARD DETAILS

YARD DRAIN CONNECTIONS



REV.

APPROVED

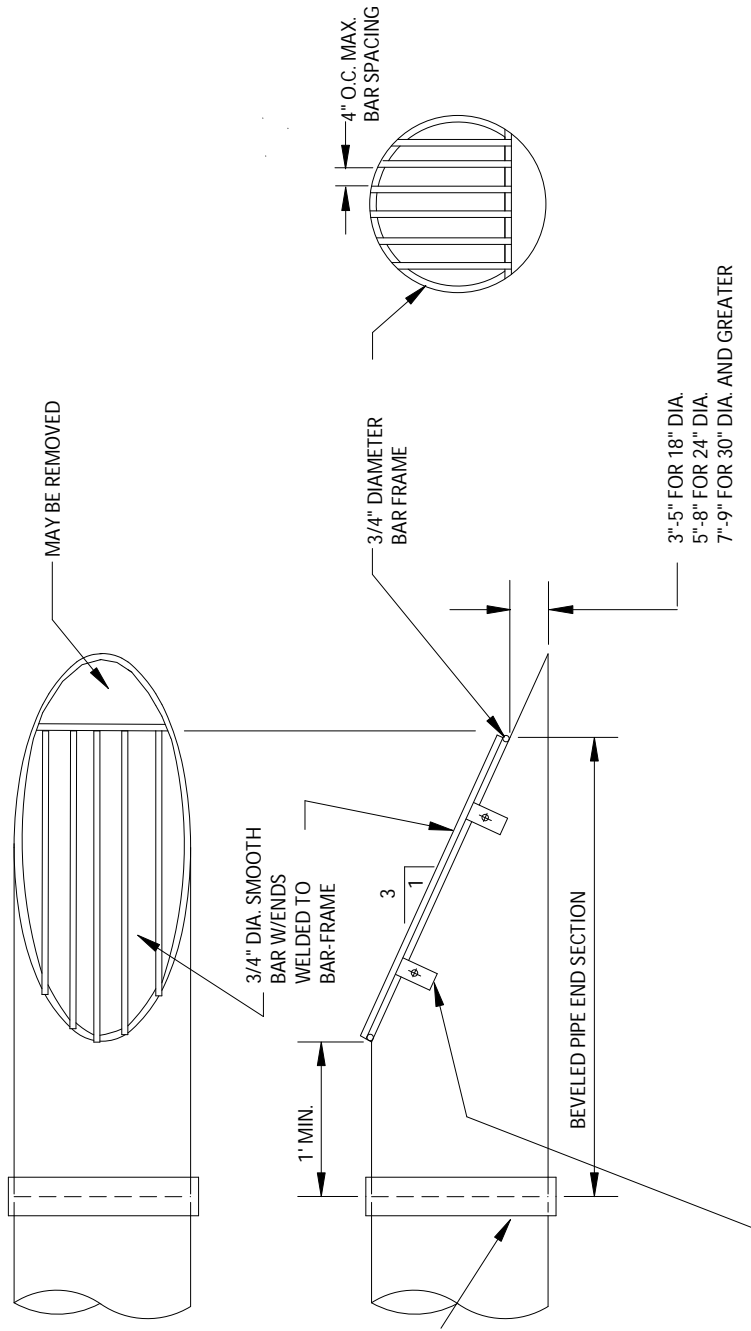
DATE

DWG. NO.

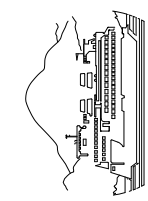
9-140

Jeffrey M. Junson 4/18/97
CITY ENGINEER

NOTES:
 CMP END-SECTION SHOWN;
 ALL STEEL PARTS MUST BE HOT DIPPED GALVANIZED.



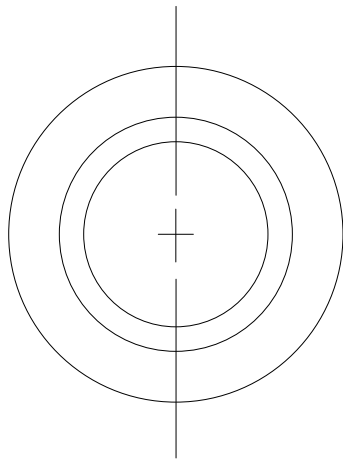
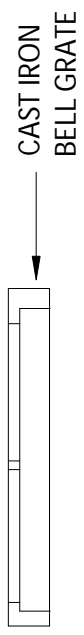
2"x5" ANCHOR STRIPS
 WELDED TO 3/4" DIA.
 BAR-FRAME.
 4 PLCS. SPACED UNIFORMLY
 FASTEN W/ 1/2" HOT DIPPED.
 GALV. BOLTS & NUTS



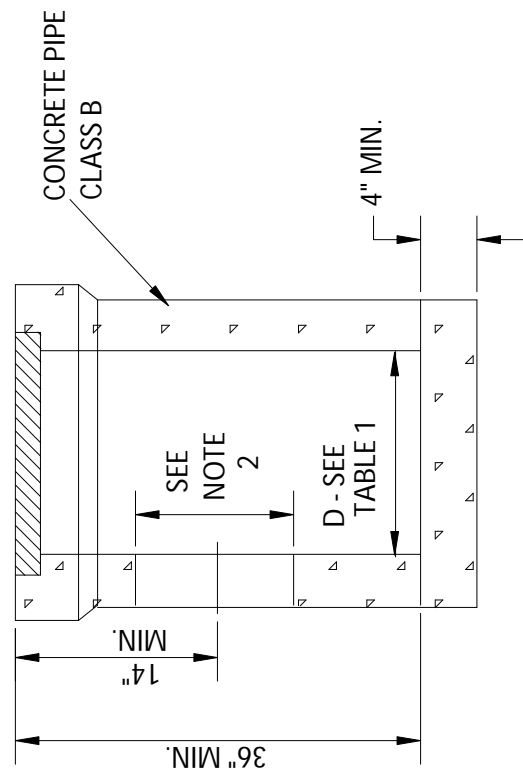
CITY OF BAINBRIDGE ISLAND
 STANDARD DETAILS

TRASH RACK

REV.		
APPROVED	<i>Jeffrey M. Jensen</i>	DATE
CITY ENGINEER		4/18/97
DWG. NO.		9-290



PLAN VIEW

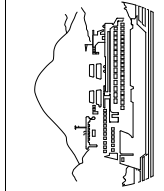


ELEVATION VIEW

TABLE I
DIA.

OUTLET PIPE O.D. DIA.	AREA INLET DIA. (D)
6"	12"
8"	18"
12"	24"

- NOTES:
1. AREA INLETS TO BE CONSTRUCTED FROM CONCRETE PIPE, IN ACCORDANCE WITH ASTM C 14 UNLESS OTHERWISE SHOWN ON THE PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
 2. CUTOUT HOLE SIZE IS EQUAL TO OUTLET PIPE OUTSIDE DIAMETER PLUS AREA INLET WALL THICKNESS.
 3. CONNECTION TO OUTLET PIPE TO BE MORTARED AND MADE FLUSH WITH INSIDE OF THE AREA INLET WALL.
 4. CAST IRON BELL GRATE SHALL HAVE SLOTS (HOLES) THAT CONSTITUTE 50% OPEN AREA FOR DRAINAGE. INLET BELL SURFACE SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.



CITY OF BAINBRIDGE ISLAND
STANDARD DETAILS

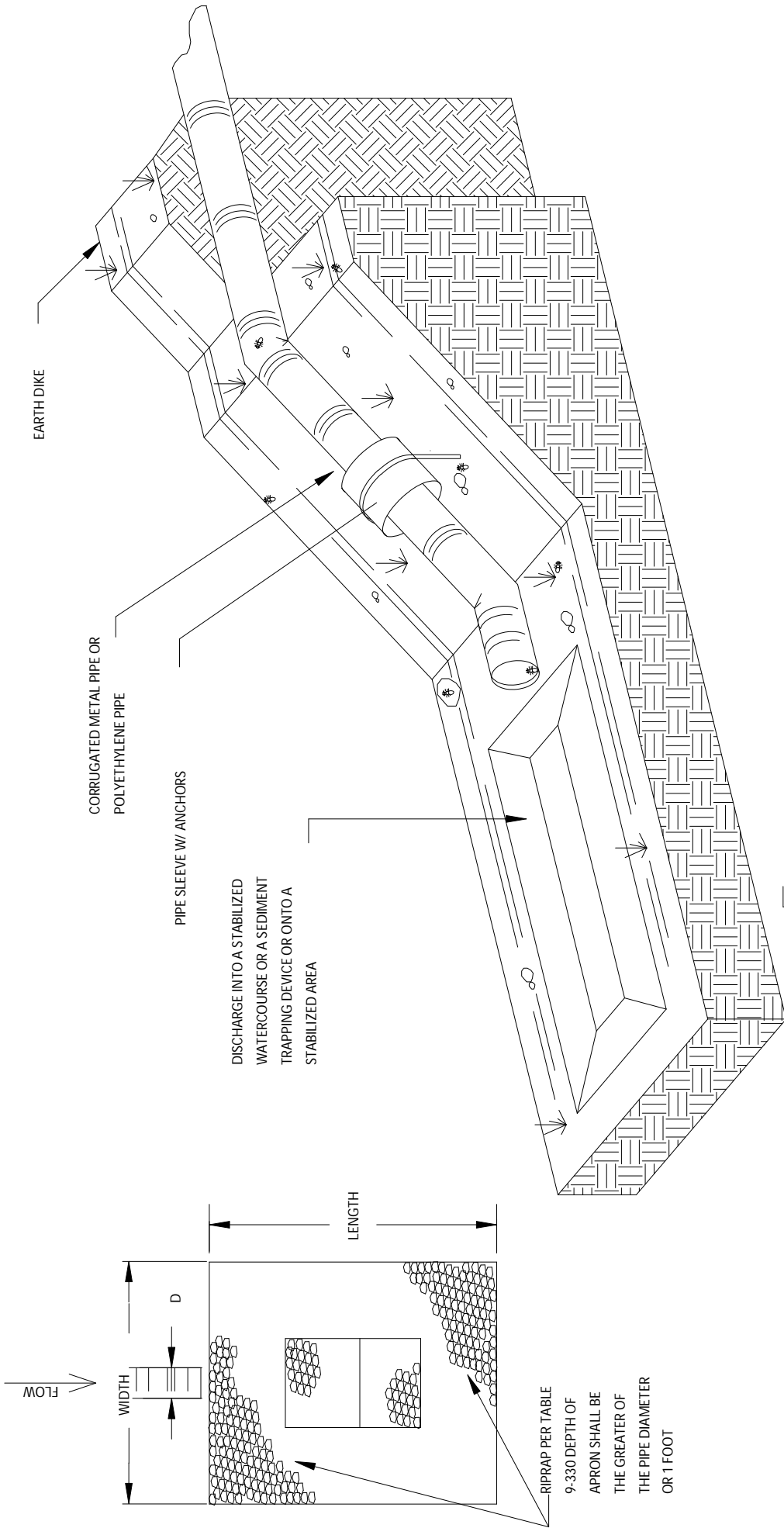
AREA INLET

REV.

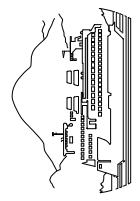
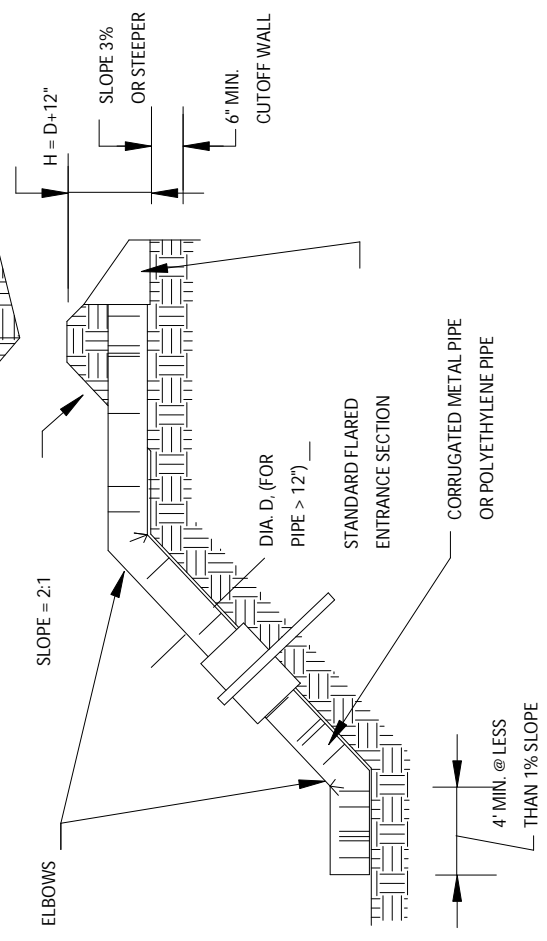
APPROVED
CITY ENGINEER

DATE

DWG. NO.
9-310



RIPRAP PER TABLE
 9-330 DEPTH OF
 APRON SHALL BE
 THE GREATER OF
 THE PIPE DIAMETER
 OR 1 FOOT



CITY OF BAINBRIDGE ISLAND
 STANDARD DETAILS

PIPE SLOPE DRAINS

REV.	APPROVED	DWG. NO.
	<i>Jeffrey M. Jensen</i>	9-320
	CITY ENGINEER	DATE
		4/18/97

ROCK PROTECTION AT OUTFALLS

REQUIRED PROTECTION

DISCHARGE VELOCITY AT DESIGN FLOW (FPS)#		MINIMUM DIMENSIONS				
GREATER THAN	LESS THAN OR EQUAL TO	TYPE	THICKNESS	WIDTH	LENGTH	HEIGHT
0	5	RIP RAP*	1 FT.	DIAMETER + 6 FT.	8 FT. OR 4 X DIA. WHICHEVER IS GREATER	CROWN + 1 FT.
5	10	RIP RAP**	1 FT.	DIAMETER OR 3 X DIA. WHICHEVER IS GREATER	12 FT. OR 4 X DIA. WHICHEVER IS GREATER	CROWN + 1 FT.
10	20	GABION OUTFALL	1 FT.	(AS - DESIGNED)	(AS - DESIGNED)	CROWN + 1 FT.
20	N/A	ENGINEERED ENERGY DISSIPATOR REQUIRED				

* RIP RAP SHALL BE IN ACCORDANCE WITH SECTION 9-13.1 OF THE WSDOT/APWA STANDARD SPECIFICATIONS.
RIP RAP TO BE REASONABLY WELL GRADED WITH ROCK GRADATION AS FOLLOWS:

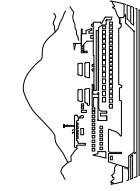
PASSING 8 INCH SQUARE SIEVE 100% OR MAXIMUM STONE SIZE 8" 100%
 PASSING 6 INCH SQUARE SIEVE 40-60% OR MEDIUM STONE SIZE 6" 40-60%
 PASSING 2 INCH SQUARE SIEVE 0-10% OR MINIMUM STONE SIZE 2" 0 - 10%

* RIP RAP TO BE REASONABLY WELL GRADED WITH ROCK GRADATION AS FOLLOWS:

MAXIMUM STONE SIZE 24" (NOMINAL DIAMETER)
 MEDIUM STONE SIZE 16"
 MINIMUM STONE SIZE 4"

FPS = FEET PER SECOND

NOTE: RIP RAP SIZING GOVERNED BY SIDE SLOPES ON OUTLET CHANNEL, ASSUMED TO BE - 3:1.



CITY OF BAINBRIDGE ISLAND
STANDARD DETAILS

**ROCK PROTECTION
AT OUTFALLS**

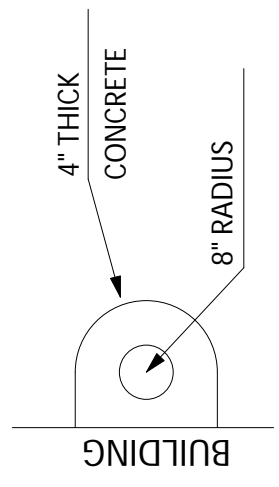
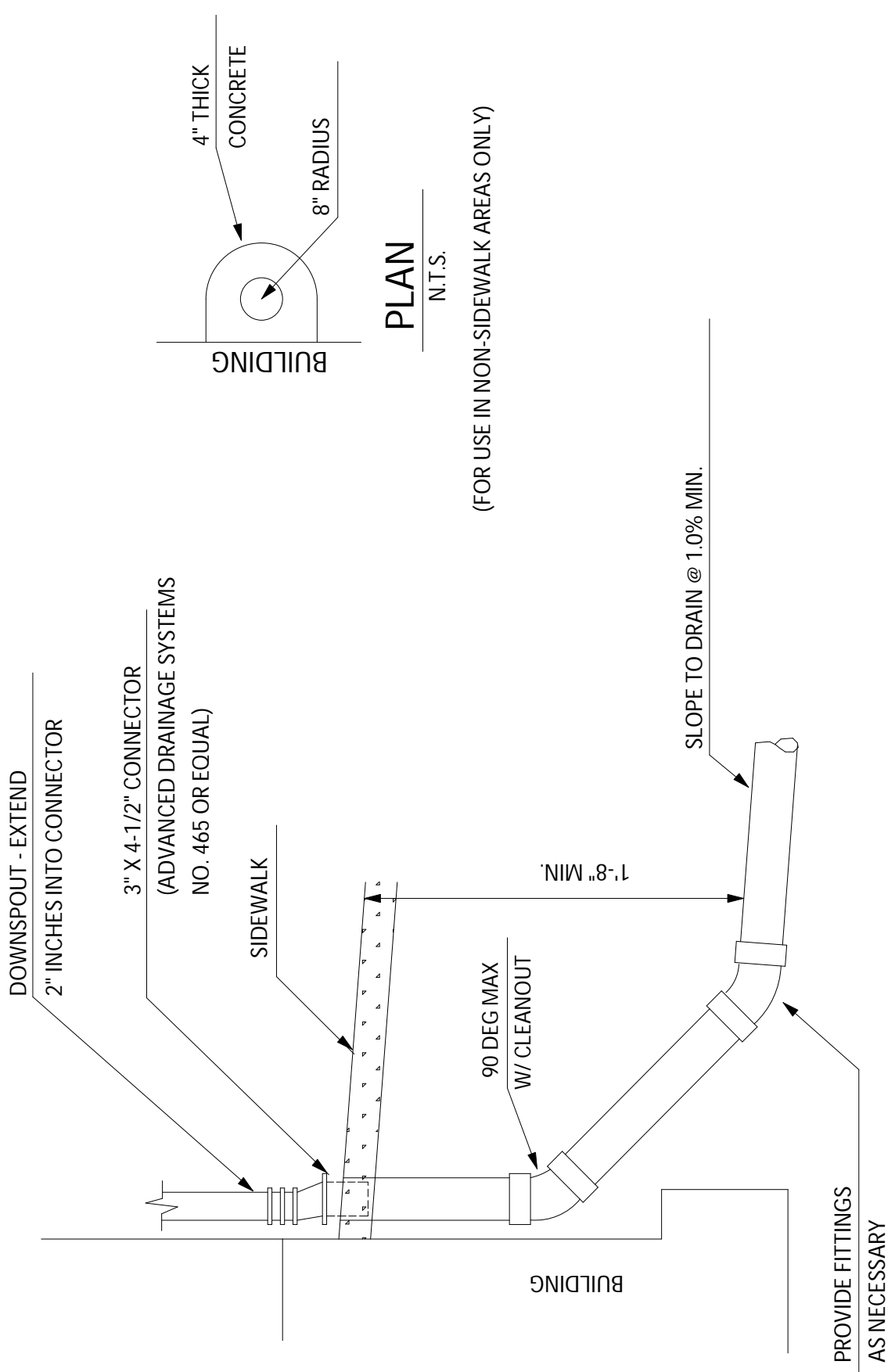
REV.

APPROVED
CITY ENGINEER

Jeffrey M. Jensen
4/18/97

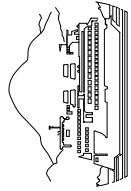
DATE

DWG. NO.
9-330



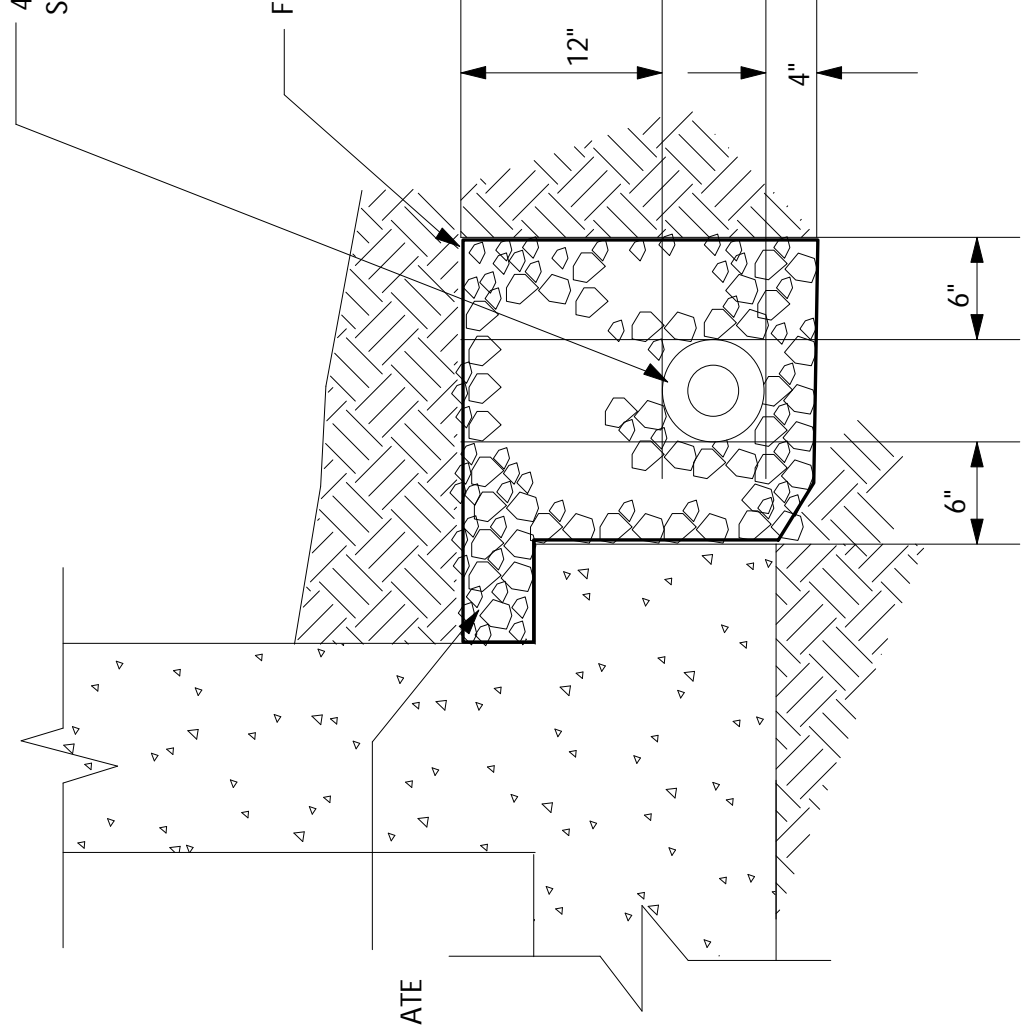
PLAN
N.T.S.

(FOR USE IN NON-SIDEWALK AREAS ONLY)

	CITY OF BAINBRIDGE ISLAND STANDARD DETAILS	
	DOWNSPOUT CONNECTION	
REV. _____	APPROVED <i>Jeffrey M. Jensen</i> 4/18/97 CITY ENGINEER	DWG. NO. 9-380
	DATE _____	

4" DIA. TO 6" DIA. PERF. PIPE
SLOPE TO DRAIN

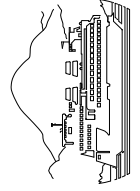
FILTER FABRIC (AS REQUIRED)



DRAIN ROCK OR
COURSE AGGREGATE

CITY OF BAINBRIDGE ISLAND
STANDARD DETAILS

FOUNDATION DRAIN



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4/18/97

DATE

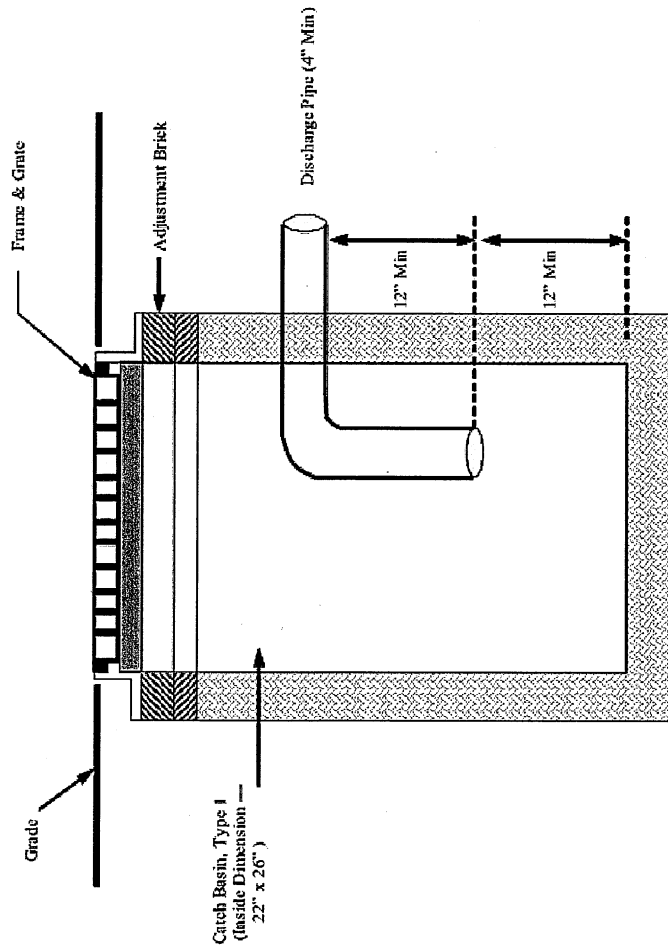
DWG. NO.


9-390

TYPE 1 — OIL/WATER SEPARATOR

(Figure 1)

(Mandatory for all new or re-built driveways when a storm water detention system is not required)



	CITY OF BAINBRIDGE ISLAND	
	STANDARD DETAILS	
	CATCH BASIN	
	TYPE 1 — OIL/WATER SEPARATOR	
REV. 12/20/2016 REW. RTG	APPROVED <i>Samuel J. Wells</i> PUBLIC WORKS DIRECTOR	DWG. NO. 9-420
		DATE