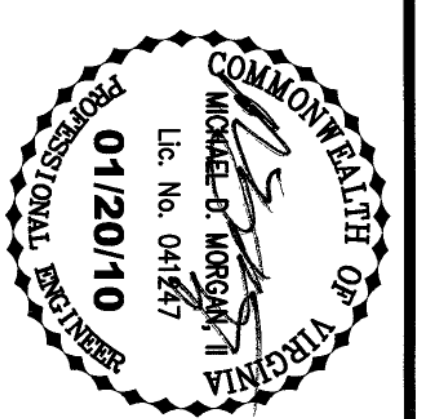


Fire Chamber ID	Max. Length (mm)	Length for Time for Length	Spliced Time for Length L (Shown) (minutes)									
			100	150	200	250	300	350	400	450	500	
4	346	587	300L	346	345	346	346	346	346	346	346	346
6	540	568	684L	640	540	540	540	540	540	540	542	642
6	734	299	1520 L	734	734	734	734	734	736	852	1038	1124
10	826	238	2334 L	826	826	826	826	826	826	1311	1596	1748
10	826	238	2448 L	826	826	826	826	826	826	1311	1596	2248
14	150	159	832 L	1410	1410	1410	1748	2216	2612	3010	3536	4064
18	1700	133	7602 L	1700	1700	1913	2535	3287	3627	4652	5116	5741
18	1930	114	4707 L	1850	2610	3454	4337	5221	6110	6948	7781	
20	2240	99	3357 L	2247	3411	4584	5858	6922	7946	9101	10253	
20	2240	99	3720 L	2247	3411	4584	5858	6922	7946	9101	10253	
30	3410	68	21960 L	3377	5325	7171	8910	10654	12484	14245	16015	
30	3410	72	25862 L	3405	6436	9210	12043	12515	15163	17221	19353	
30	3410	76	30768 L	3417	7615	10235	12812	15355	17929	20507	23046	

**APPROVED**

REVISION	
1- PER COUNTY COMMENTS	
2- 10/03/07- PER VDOT AND PER COUNTY COMMENTS	
3- 11/06/07- PER COUNTY COMMENTS	
4-12/11/07- PER VDOT	
COMMENTS	
6- 11/20/09- ADDED PHASE 1 AND PHASE 2 LINES TO PLAN	



<b>2006-125</b>		<b>MME PROJECT NUMBER</b>
<b>DRAWN BY:</b>		<b>CHECK BY:</b>
<b>DLC</b>		<b>MDM</b>
<b>DATE</b>	<b>03/21/07</b>	<b>ISSUE</b>
		<b>01/20/10</b>

[illegible]

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET AND INCHES.
2. THE TURBINE SHALL BE DESIGNED TO OPERATE AT A SPEED OF 1800 RPM.
3. THE TURBINE SHALL BE DESIGNED TO OPERATE AT A HEAD OF 10 FEET.
4. THE TURBINE SHALL BE DESIGNED TO OPERATE AT A FLOW RATE OF 100 GPM.
5. THE TURBINE SHALL BE DESIGNED TO OPERATE AT A PRESSURE OF 10 PSI.
6. THE TURBINE SHALL BE DESIGNED TO OPERATE AT A TEMPERATURE OF 70°F.
7. THE TURBINE SHALL BE DESIGNED TO OPERATE AT A VIBRATION LEVEL OF 0.1 G.
8. THE TURBINE SHALL BE DESIGNED TO OPERATE AT A NOISE LEVEL OF 85 DBA.
9. THE TURBINE SHALL BE DESIGNED TO OPERATE AT A CORROSION RATE OF 0.001 IN/100 HRS.

**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SECTION D-D**

**SECTION E-E**

**SECTION F-F**

**SECTION G-G**

**SECTION H-H**

**SECTION I-I**

**SECTION J-J**

**SECTION K-K**

**SECTION L-L**

**SECTION M-M**

**SECTION N-N**

**SECTION O-O**

**SECTION P-P**

**SECTION Q-Q**

**SECTION R-R**

**SECTION S-S**

**SECTION T-T**

**SECTION U-U**

**SECTION V-V**

**SECTION W-W**

**SECTION X-X**

**SECTION Y-Y**

**SECTION Z-Z**

**SECTION AA-AA**

**SECTION BB-BB**

**SECTION CC-CC**

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[illegible]

DATE _____		WESTERN SHEET	
TYPING BEYOND CLEANOFF BOX		WESTERN SHEET	
VIRGINIA WATER AUTHORITY — CONSTRUCTION STANDARDS —		WESTERN SHEET	

[illegible][illegible][illegible][illegible]

Figure 1 consists of two diagrams, (a) and (b), illustrating typical details for welded connections in structural steel. Diagram (a) shows a column-to-beam connection. The column is a vertical member, and the beam is a horizontal member. The connection is made using a column end plate and a beam end plate, which are welded together. The column end plate is shown with a fillet weld to the column, and the beam end plate is shown with a fillet weld to the beam. The connection is labeled 'COLUMN END PLATE', 'BEAM END PLATE', 'WELDED JOINT', 'COLUMN', 'BEAM', 'FLOOR SLAB', 'CEILING SLAB', 'FOUNDATION', 'ROOF SLAB', 'WALL'. Diagram (b) shows a beam-to-column connection. The beam is a horizontal member, and the column is a vertical member. The connection is made using a column end plate and a beam end plate, which are welded together. The column end plate is shown with a fillet weld to the column, and the beam end plate is shown with a fillet weld to the beam. The connection is labeled 'COLUMN', 'BEAM', 'FLOOR SLAB', 'CEILING SLAB', 'FOUNDATION', 'ROOF SLAB', 'WALL', 'COLUMN', 'BEAM', 'FLOOR SLAB', 'CEILING SLAB', 'FOUNDATION', 'ROOF SLAB', 'WALL'.

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VIRGINIA WATER AUTHORITY	CONSTRUCTION STANDARDS	WESTERN REGION	

[illegible]

Technical drawing of a 12-inch concrete pipe section. The drawing shows a cross-section of the pipe with various components labeled. The pipe is labeled "12\"/>

[illegible][illegible][illegible]

DESIGN AND CONSTRUCTION STANDARDS

SEWERAGE AND WASTE WATER TREATMENT PLANTS

UNDER PAVEMENT AND IN-THE-WAY

S-31

The figure consists of two main cross-sectional diagrams labeled (A) and (B), illustrating different types of sewerage structures.

- (A) MANHOLE UNDER PAVEMENT:** This diagram shows a vertical structure with a concrete base and walls. The top opening is covered by a "MANHOLE COVER WITH GASKET". Above the cover is a layer of "GRAVEL OR CRUSHED STONE". The surrounding area above the gravel is labeled "PAVEMENT". Below the base of the manhole is a layer of "GRAVEL OR CRUSHED STONE". A note indicates: "CONCRETE SHALL BE MINIMUM 150 MM THICK FOR ALL PARTS EXCEPT THE BASE WHICH SHALL BE MINIMUM 200 MM THICK".
- (B) CATCH BASIN IN-THE-WAY:** This diagram shows a horizontal structure designed to collect debris. It has a sloped bottom leading to a collection chamber. The top is covered by a "MANHOLE COVER WITH GASKET". Above the cover is "GRAVEL OR CRUSHED STONE". The structure is surrounded by "PAVEMENT". Below the base is another layer of "GRAVEL OR CRUSHED STONE". A note specifies: "CONCRETE SHALL BE MINIMUM 150 MM THICK FOR ALL PARTS EXCEPT THE BASE WHICH SHALL BE MINIMUM 200 MM THICK".

Additional labels include "WATER TIGHT JOINTS" at the connections between sections and "SPRINKLERS" shown as small circles on the ground surface near the structures.

[illegible]