

APPENDIX A - RAINFALL INTENSITY - DURATION - RECURRENCE INTERVAL CURVES

1.0 Derivation of Curves

The Rainfall Intensity - Duration - Recurrence Interval (I-D-R) curves were computed in accordance with the method described in the 1973 NOAA Atlas 2 titled "Precipitation-Frequency Atlas of the Western United States, Volume X-Oregon." A regional rainfall analysis was made by comparing rainfall data for 136 cities and areas, and thirteen zones were established that have similar rainfall intensities. A set of I-D-R curves were calculated for each zone and the curves represent average values for that zone.

2.0 Use of Curves

The first step is to determine the zone in which the project is located. This can be accomplished by either using the enclosed map that shows the various zones or the alphabetical listing of cities and their corresponding zones. When the proper zone is located, the I-D-R curves for that zone will provide the needed rainfall intensities. The designer must use engineering judgement in selecting the proper zone if the proposed project lies within two zones or is on or near a dividing line. The zone with larger intensity should be used if no personal knowledge of the area is available, as this gives the most conservative design.

Note: [Rainfall Zone Map](#) and [Rainfall Zone Map with Highway Milepoints](#) are in pdf formats.

TABLE 1: INDEX TO RAINFALL INTENSITY-DURATION-RECURRENCE INTERVAL CURVES

City	Zone	Cave Junction City	5 Zone	Fort Klamath Fossil City	9 13 Zone
	-A-				
Albany	7	Chemult	10		
Alsea	4	Chiloquin	10	Fox	12
Amity	8	Condon	13	Frenchglen	13
Andrews	10	Coos Bay	3		
Arlington	11	Coquille	4		
Ashland	5	Corvallis	8		-G-
Astoria	1	Cottage Grove	8		
Austin	9			Gladstone	8
				Glendale	5
				Gold Beach	1
	-B-		-D-	Grants Pass	5
				Gresham	8
Bandon	1	Dallas	8		
Baker	13	Dayton	7		
Beatty	13	Detroit	5		-H-
Beaverton	7	Drain	5		
Bend	10			Haines	10
Blue River	5			Hebo	2
Boardman	13		-E-	Helix	13
Boring	8			Heppner	13
Brookings	1	Elgin	12	Hermiston	13
Brownsville	8	Elkton	4	Hillsboro	8
Burns	13	Enterprise	10	Hood River	5
Burnt Woods	5	Estacada	5	Huntington	13
		Eugene	7		
	-C-				-I-
			-F-		
Canby	8			Imnaha	10
Canyonville	5	Florence	3	Independence	8
Cascade Locks	4	Forest Grove	8		

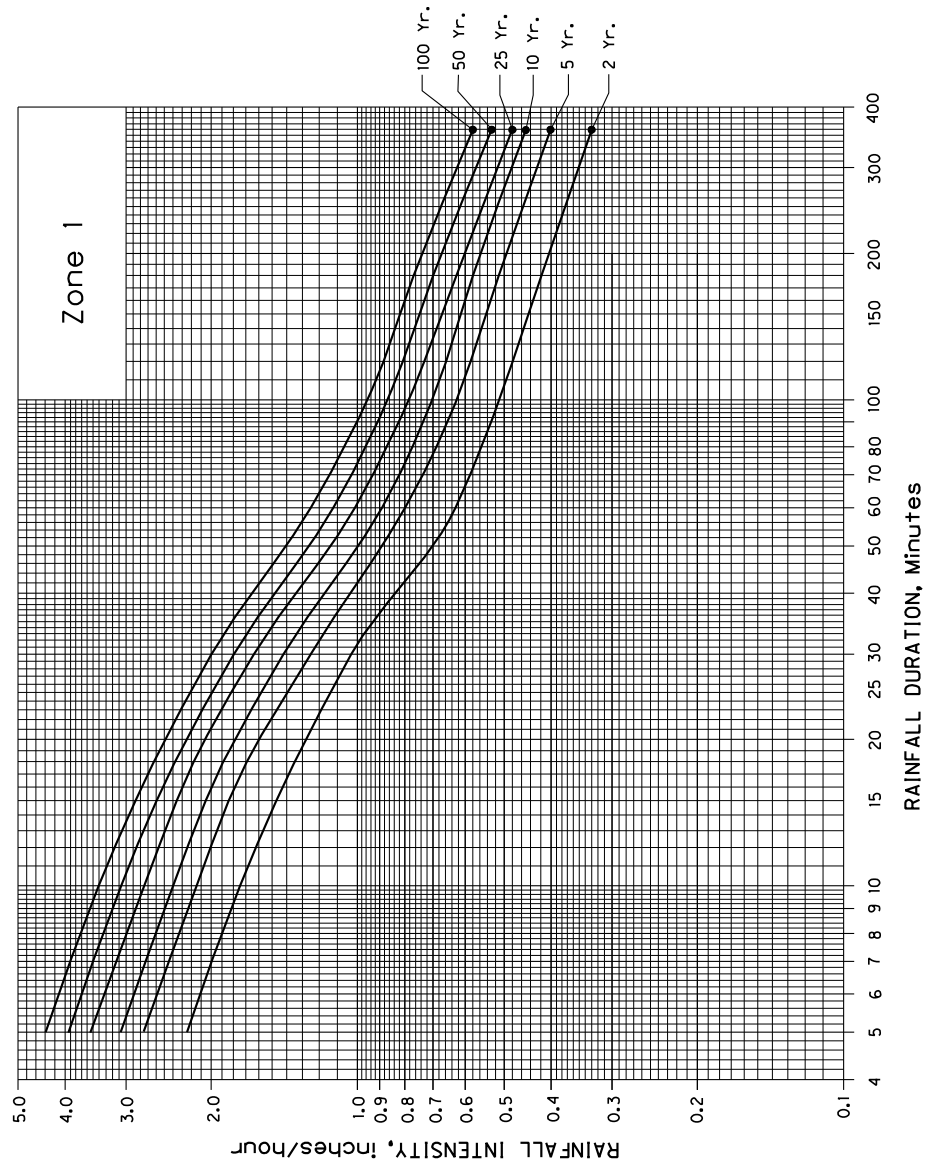
TABLE 1: INDEX TO RAINFALL INTENSITY-DURATION-RECURRENCE INTERVAL CURVES

City	Zone	City	Zone	City	Zone
	-J-				-R-
John Day	13	Mitchell	13	Rainier	5
Jordan Valley	13	Molalla	8	Redmond	13
Junction City	7	Myrtle Point	4	Reedsport	3
Juntura	13			Rhododendron	5
			-N-	Rome	13
				Roseburg	6
	-K-	Newberg	7		
		Newport	2		
Kamela	9	North Bend	3		-S-
Klamath Falls	10			St. Helens	8
				Salem	7
			-O-	Sandy	5
	-L-	Oakridge	5	Scappoose	8
Lapine	10	Ontario	13	Scottsburg	4
Lake Oswego	7	Oregon City	8	Seaside	1
LaGrande	10			Seneca	12
Lakeview	13			Shady Cove	6
Lebanon	7		-P-	Sheridan	8
Lincoln City	2			Sherwood	7
Lyons	5	Paisley	13	Silver Lake	13
		Paulina	12	Silverton	8
		Pendleton	12	Siskiyou Summit	5
	-M-	Philomath	8	Spray	13
		Port Orford	1	Stanfield	13
Madras	13	Portland	7	Stayton	8
McMinnville	8	Powers	1	Steamboat	5
Medford	6	Prineville	10	Sumpter	10
Mill City	5			Sutherlin	5
Milton Freewater	13			Suttle Lake	9
Milwaukie	7			Sweet Home	5

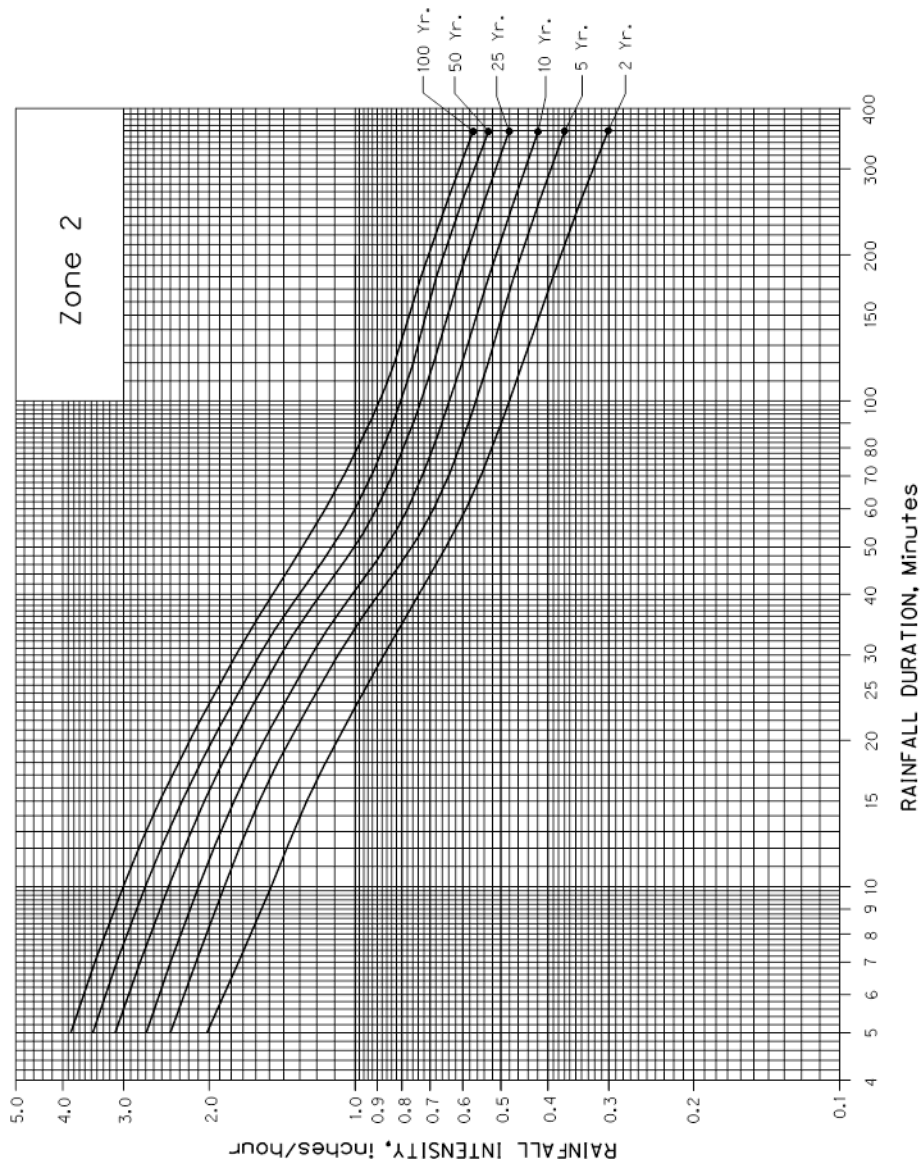
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City	Zone	City	Zone
-T-			
The Dalles	11	Yachats	2
Tidewater	4	Yamhill	8
Tillamook	2		
Tiller	6		
Toledo	2		
-U-			
Union	13		
Union Creek	3		
Umatilla	13		
-V-			
Vale	13		
Veneta	5		
Vernonia	8		
Vida	5		
-W-			
Wagontire	13		
Waldport	2		
Wallowa	10		
Willamina	8		
Wilsonville	7		
Woodburn	7		

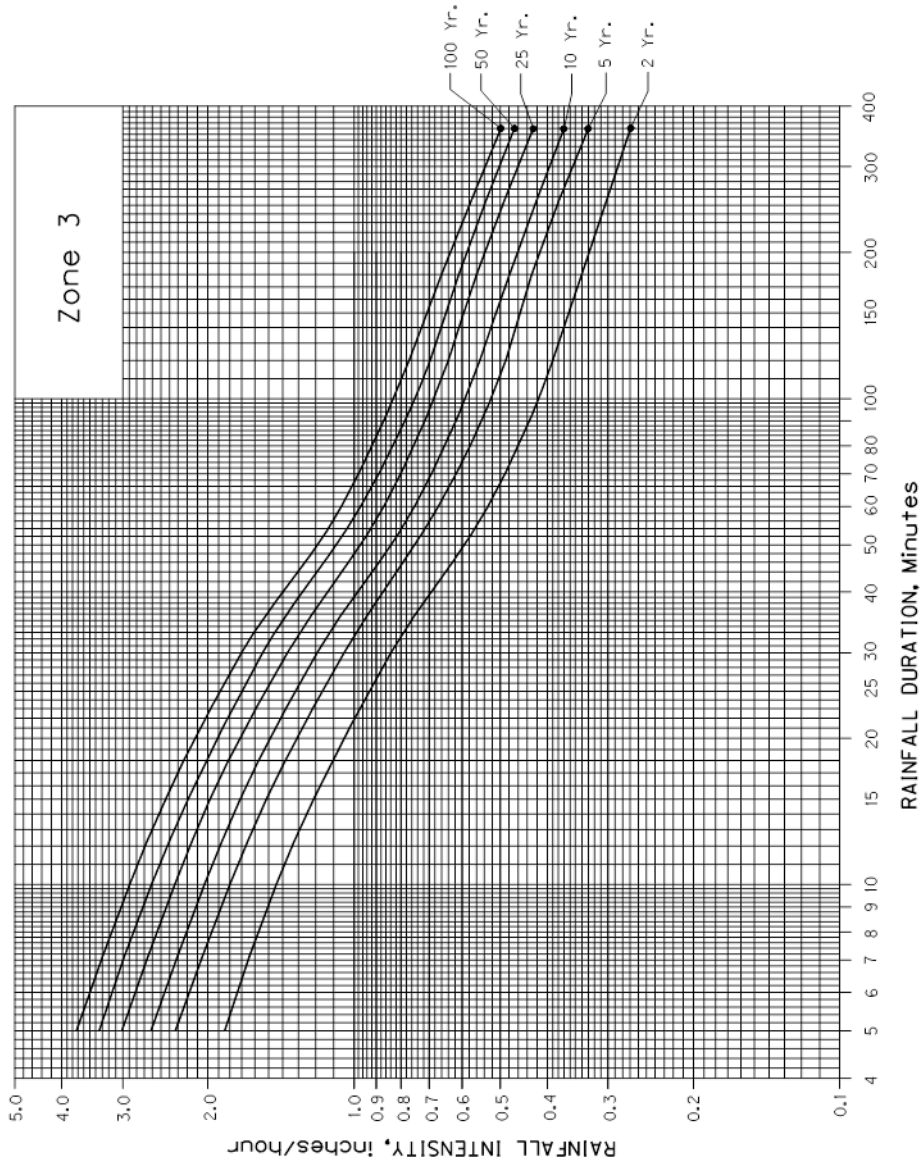
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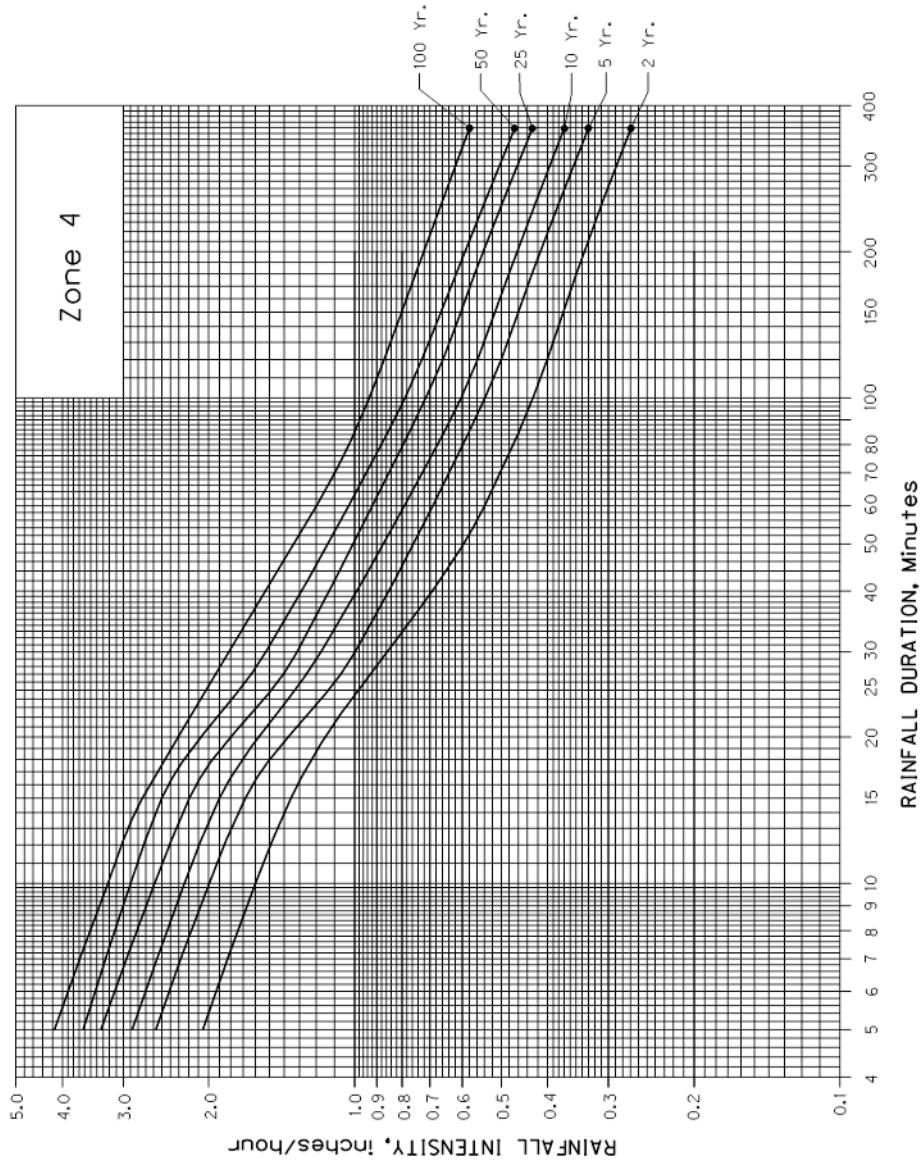
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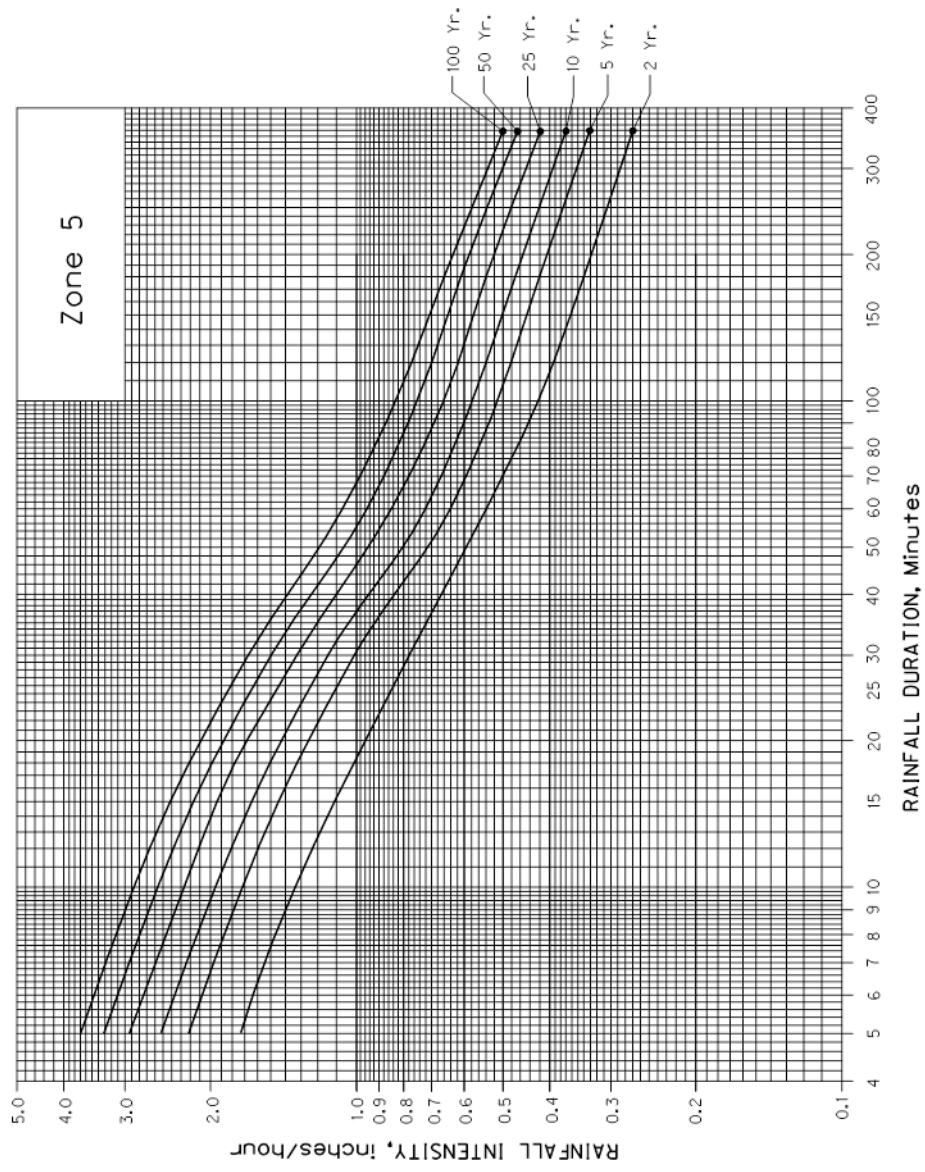
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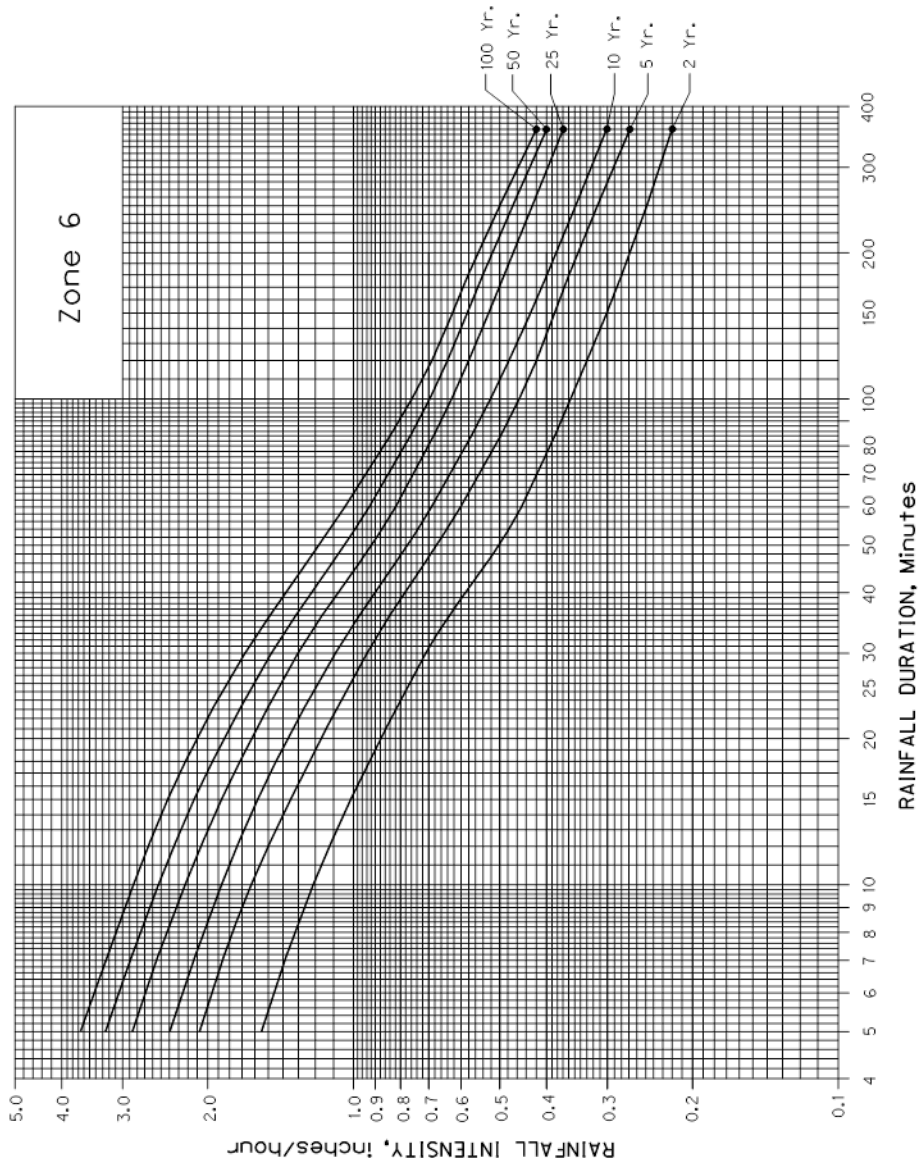
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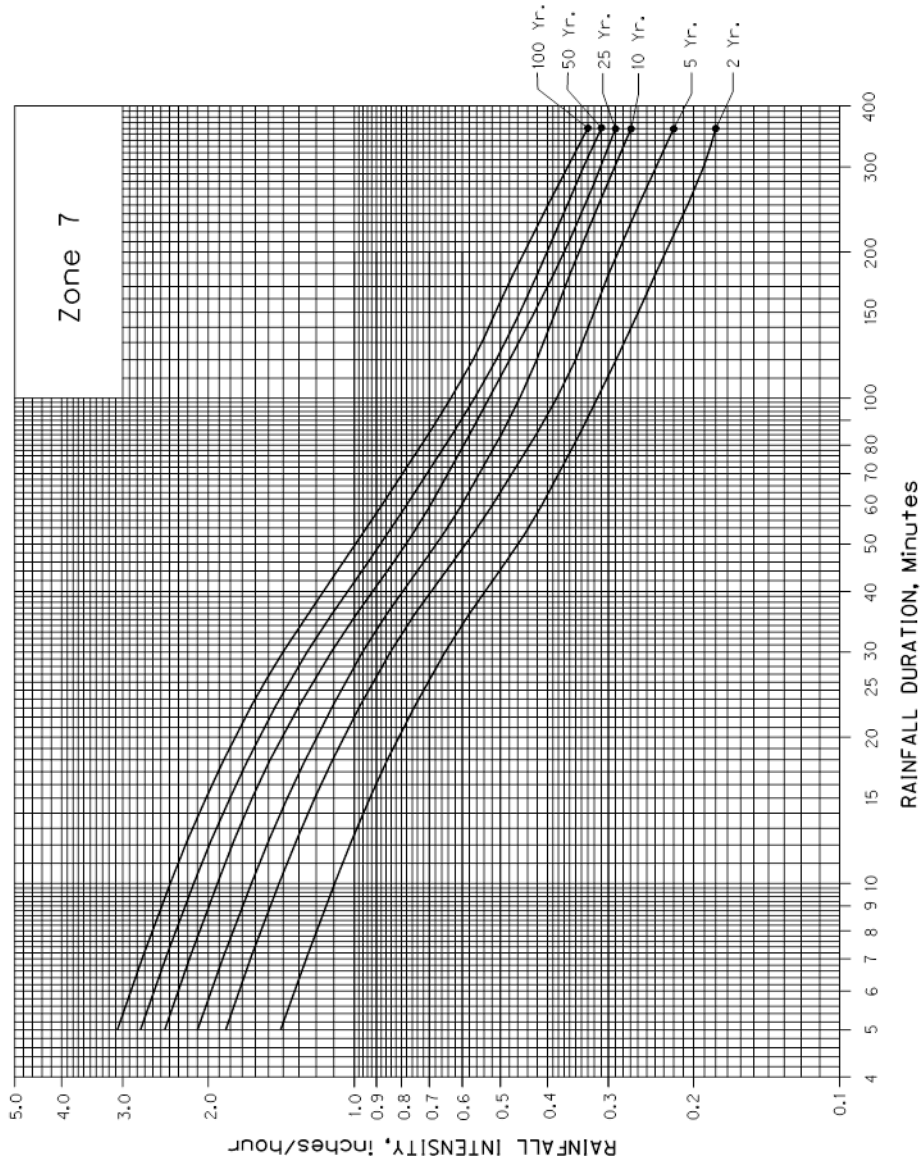
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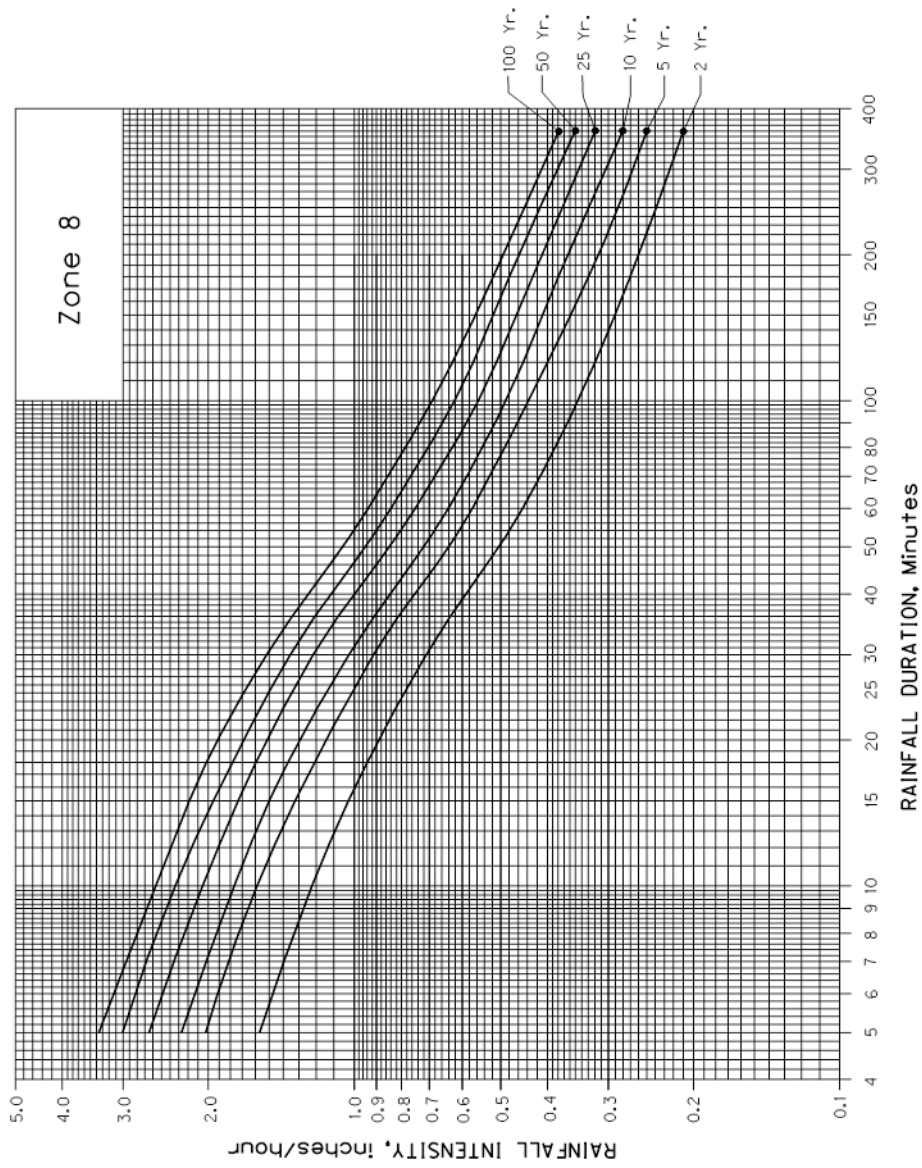
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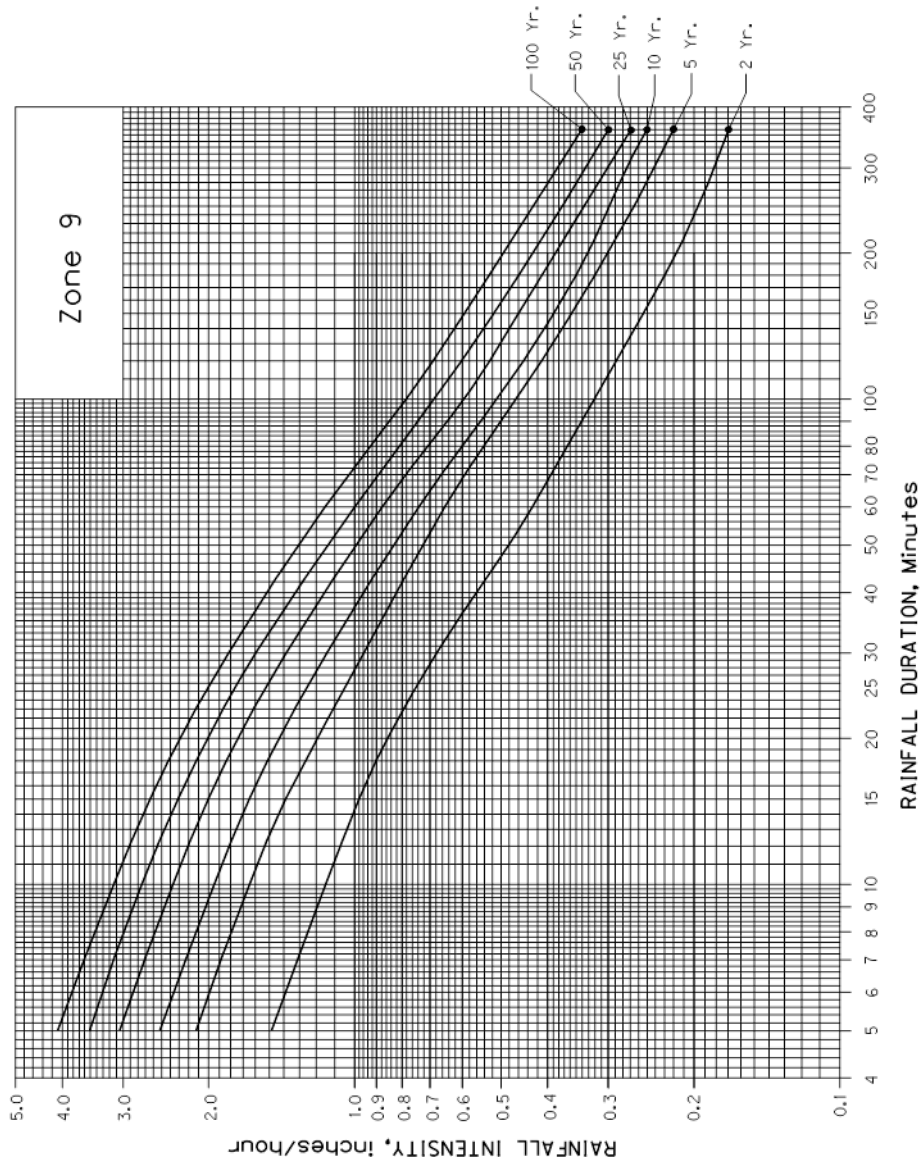
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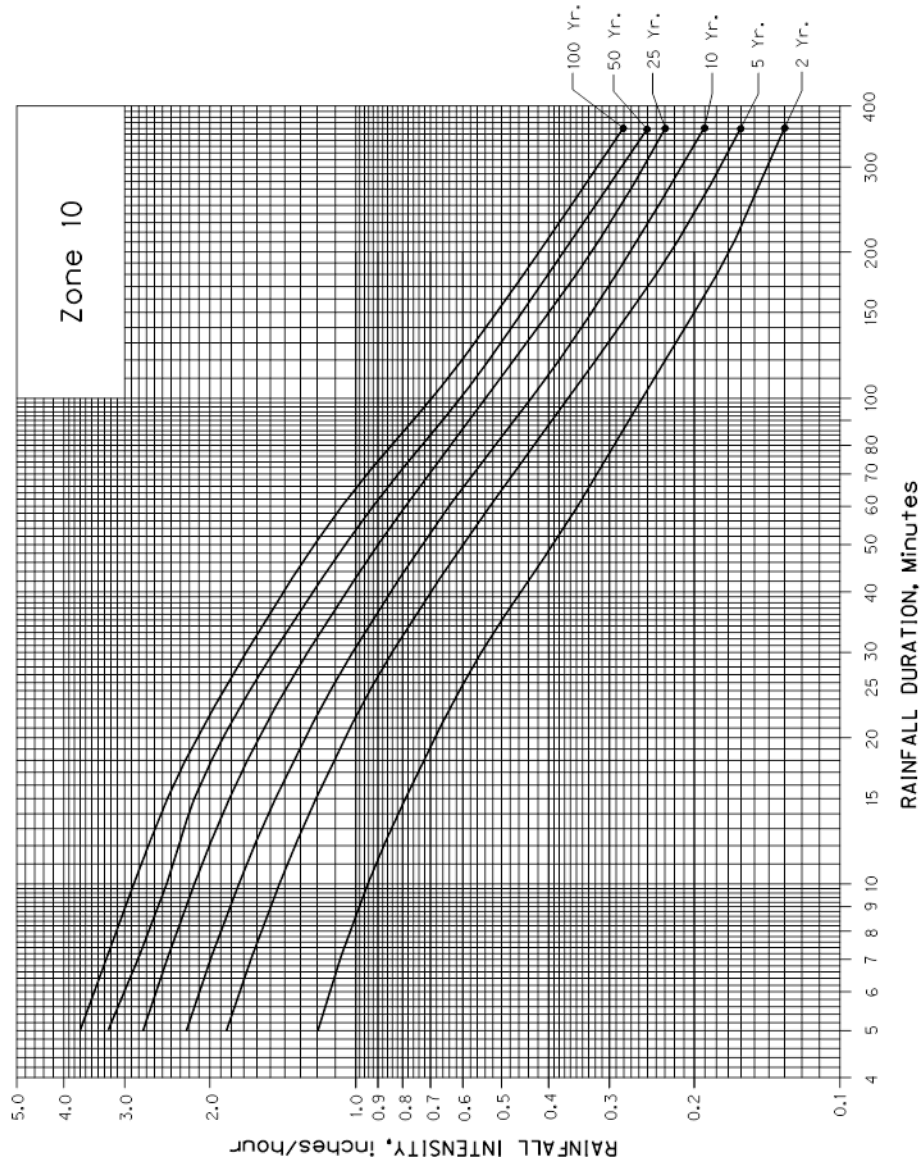
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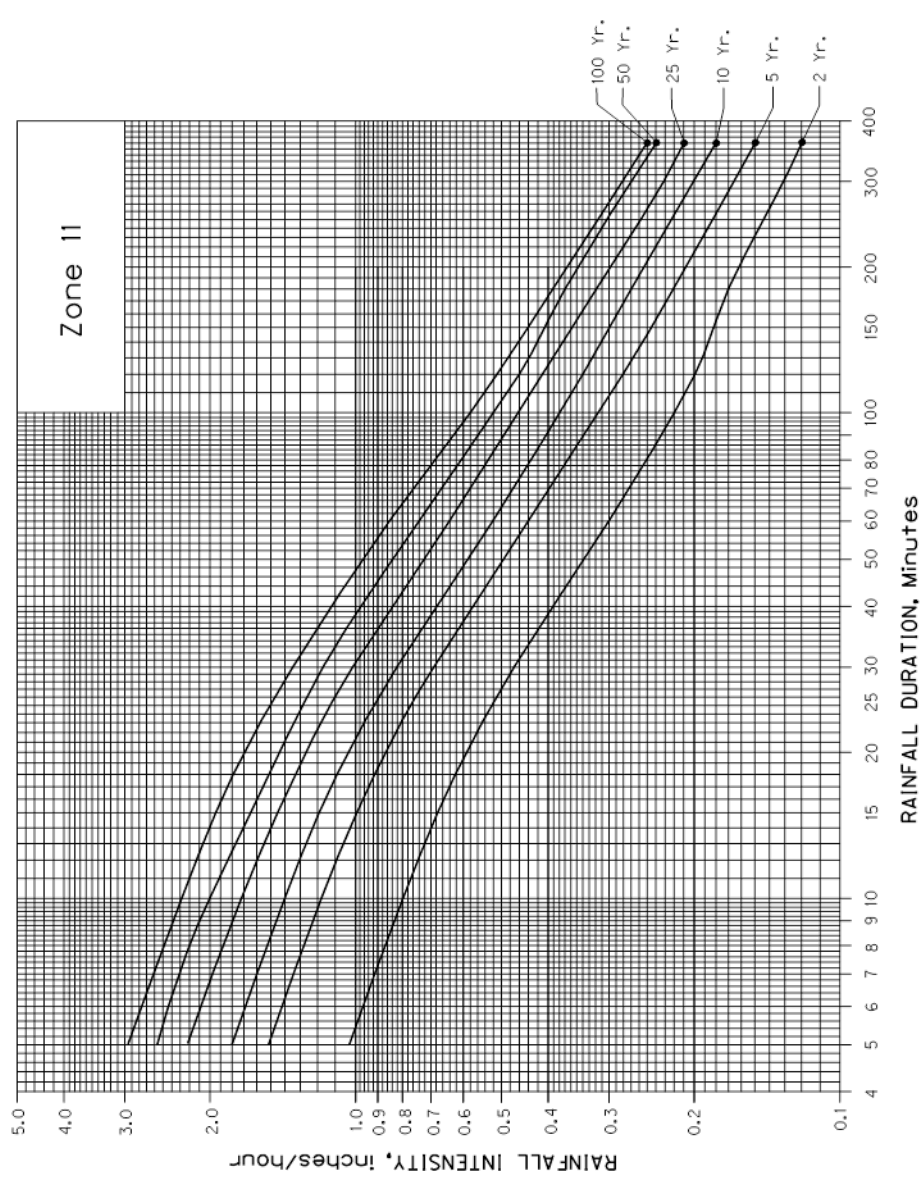
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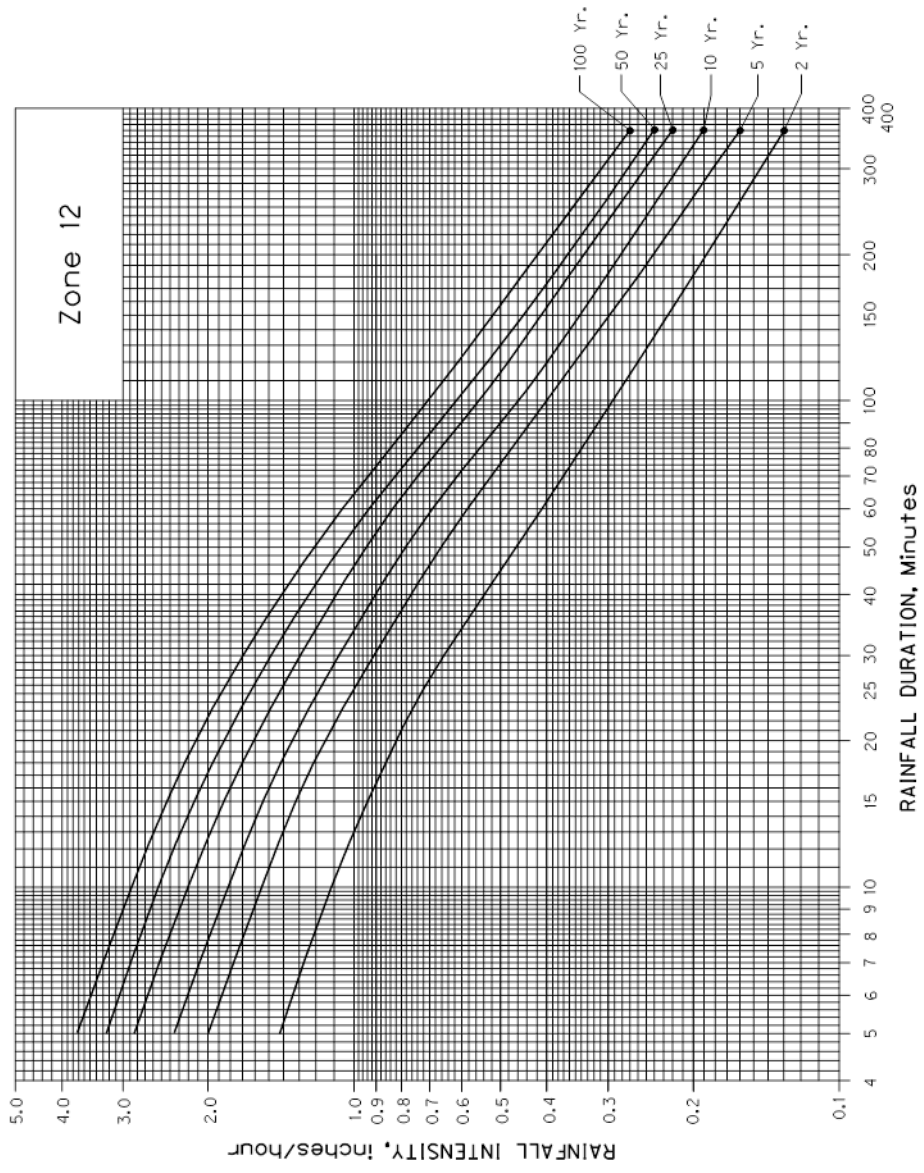
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