

ON GRADE CONDITION

LONGITUDINAL SLOPE 2.00%				
STREET SPREAD (FT)	DEPTH @ GUTTER (FT)	GUTTER FLOW (CFS)	CAPTURED FLOW (CFS)	BY-PASS FLOW (CFS)
2	0.20	0.289	0.289	0.000
3	0.22	0.441	0.431	0.010
4	0.24	0.653	0.601	0.053
5	0.26	0.943	0.797	0.147
6	0.28	1.325	1.018	0.307
7	0.30	1.811	1.260	0.550
8	0.32	2.413	1.530	0.883
9	0.34	3.144	1.822	1.322
10	0.36	4.013	2.135	1.878
11	0.38	5.031	2.469	2.563
12	0.40	6.209	2.822	3.387
16	0.48	12.702	4.422	8.279

LONGITUDINAL SLOPE 2.50%				
STREET SPREAD (FT)	DEPTH @ GUTTER (FT)	GUTTER FLOW (CFS)	CAPTURED FLOW (CFS)	BY-PASS FLOW (CFS)
2	0.20	0.323	0.323	0.000
3	0.22	0.493	0.482	0.011
4	0.24	0.730	0.671	0.060
5	0.26	1.054	0.888	0.166
6	0.28	1.481	1.133	0.348
7	0.30	2.024	1.401	0.623
8	0.32	2.698	1.699	0.999
9	0.34	3.515	2.022	1.493
10	0.36	4.487	2.367	2.119
11	0.38	5.625	2.735	2.890
12	0.40	6.942	3.125	3.817
16	0.48	14.201	4.889	9.313

LONGITUDINAL SLOPE 3.00%				
STREET SPREAD (FT)	DEPTH @ GUTTER (FT)	GUTTER FLOW (CFS)	CAPTURED FLOW (CFS)	BY-PASS FLOW (CFS)
2	0.20	0.354	0.354	0.000
3	0.22	0.540	0.528	0.012
4	0.24	0.800	0.734	0.066
5	0.26	1.155	0.971	0.184
6	0.28	1.622	1.238	0.384
7	0.30	2.217	1.529	0.688
8	0.32	2.955	1.853	1.103
9	0.34	3.850	2.203	1.647
10	0.36	4.915	2.578	2.337
11	0.38	6.162	2.977	3.185
12	0.40	7.605	3.400	4.205
16	0.48	15.557	5.268	10.289

MINNEAPOLIS STANDARD GRATE WITH CURB BOX


FHWA VISUAL URBAN (HY-22) FIXED CONDITIONS	
PAVEMENT CROSS SLOPE	0.02
GUTTER CROSS SLOPE	0.06
MANNING'S COEFFICIENT	0.016
GUTTER WIDTH (FT)	2.00
LOCAL GUTTER DEPRESSION (IN)	1.00
GRATE LENGTH, WIDTH (FT)	1.88
CURB OPENING LENGTH (FT)	1.89
CURB OPENING HEIGHT (IN)	4.60
TYPE OF GRATE	VANE

LONGITUDINAL SLOPE 4.00%				
STREET SPREAD (FT)	DEPTH @ GUTTER (FT)	GUTTER FLOW (CFS)	CAPTURED FLOW (CFS)	BY-PASS FLOW (CFS)
2	0.20	0.409	0.409	0.000
3	0.22	0.623	0.609	0.014
4	0.24	0.924	0.846	0.078
5	0.26	1.334	1.118	0.216
6	0.28	1.873	1.424	0.449
7	0.30	2.561	1.757	0.804
8	0.32	3.413	2.127	1.286
9	0.34	4.446	2.526	1.920
10	0.36	5.675	2.954	2.721
11	0.38	7.116	3.409	3.706
12	0.40	8.781	3.892	4.890
16	0.48	17.963	5.540	12.423

LONGITUDINAL SLOPE 5.00%				
STREET SPREAD (FT)	DEPTH @ GUTTER (FT)	GUTTER FLOW (CFS)	CAPTURED FLOW (CFS)	BY-PASS FLOW (CFS)
2	0.20	0.457	0.457	0.000
3	0.22	0.697	0.681	0.016
4	0.24	1.033	0.945	0.088
5	0.26	1.491	1.248	0.243
6	0.28	2.094	1.588	0.506
7	0.30	2.863	1.958	0.905
8	0.32	3.815	2.369	1.447
9	0.34	4.971	2.812	2.159
10	0.36	6.345	3.266	3.079
11	0.38	7.955	3.670	4.286
12	0.40	9.818	4.076	5.742
16	0.48	20.084	5.678	14.406

REFERENCES:
FHWA VISUAL URBAN (HY-22)
URBAN DRAINAGE DESIGN PROGRAMS

MINNEAPOLIS DESIGN REFERENCE
MNDOT DRAINAGE MANUAL; SECTION 8.7
3 OF 3
NOT TO SCALE

	DRW: DCD	DATE: 5/03	INLET CAPACITY CHART	STANDARD PLATE NO. SEWR-6009
	APP: HRS	DATE: 1/07		