On-Grade Inlet Capacity Calculation Table (100 Year)

Inlet No.	Inlet Type	Drainage Areas: Area No.	Areas (acres)	Runoff "C"	Design Storm Frequency	Conc. Time (min.)	Intensity (in/hr.)	Runoff (cfs)	Bypass From	Bypass Flow (cfs)	Total Flow to Inlet "Q" (cfs)	"SL" Street Long Slope	Street Section (type)	Roadway Cross Slope "Sx" (ft/ft)	Manning's coefficient for pavement	Street Width (F-F) (ft)	Street Crown Height (in)	Half Street Gutter Capacity to Crown (cfs)	Full Street Capacity to Curb (cfs)	Depth of Flow (ft)	Spread of Flow "T" (ft)	Gutter Cross Slope "SW" (ft/ft)	Width of Depressed Gutter "W" (ft)	Ratio of Flow "Eo"	Gutter Depression Depth "a" (ft)	Equivalent Cross Slope "Se" (%)	Required Length "Lr" (ft)	Length Provided "L" (ft)	Inlet Effciency "E"	Captured Flow "QT" (cfs)	Inlet Capacity (cfs)	Bypass Flow "q" (cfs)	Target Inlet	Remarks
E4	ONGC	E4	0.27	0.50	100	10	9.80	1.3	-	-	1.3	0.0080	Straight Crown	0.0150	0.0175	26	6	9.30	18.85	0.24	6.24	0.3333	2	0.968	0.5	0.257	4.0	5	100%	1.30	2.17	-	-	
E5	ONGC	E5	0.85	0.50	100	10	9.80	4.2	-	-	4.2	0.0252	Straight Crown	0.0180	0.0175	26	6	16.50	33.46	0.30	7.80	0.3333	2	0.918	0.5	0.247	9.5	10	100%	4.20	4.73	-	-	
L2	ONGC	L2	1.33	0.50	100	10	9.80	6.5	-	-	6.5	0.0080	Straight Crown	0.0088	0.0175	26	6	9.30	18.85	0.44	11.44	0.3333	2	0.903	0.5	0.235	8.4	10	100%	6.50	9.95	-	-	
L3	ONGC	L3	0.37	0.50	100	10	9.80	1.8	-	-	1.8	0.0080	Straight Crown	0.0139	0.0175	26	6	9.30	18.85	0.27	7.02	0.3333	2	0.957	0.5	0.253	4.7	5	100%	1.80	2.13	-	-	
L6	ONGC	L6	0.36	0.50	100	10	9.80	1.8	-	-	1.8	0.0080	Straight Crown	0.0385	0.0175	26	6	9.30	18.85	0.27	7.02	0.3333	2	0.859	0.5	0.253	4.7	5	100%	1.80	2.13	-	-	
L7	ONGC	L7	1.30	0.50	100	10	9.80	6.4	-	-	6.4	0.0080	Straight Crown	0.0385	0.0175	26	6	9.30	18.85	0.44	11.44	0.3333	2	0.636	0.5	0.198	9.2	10	100%	6.40	7.78	-	-	
M1	ONGC	M1	0.32	0.50	100	10	9.80	1.6	-	-	1.6	0.0232	Straight Crown	0.0357	0.0175	28	6	17.55	35.12	0.22	6.16	0.3333	2	0.909	0.5	0.263	6.0	10	100%	1.60	5.47	-	-	
M2	ONGC	M2	0.78	0.42	100	10	9.80	3.2	M5	1.0	4.2	0.0232	Straight Crown	0.0357	0.0175	28	6	17.55	35.12	0.29	8.12	0.3333	2	0.814	0.5	0.239	9.5	10	100%	4.25	4.78	-	-	
M3	ONGC	M3	1.93	0.41	100	10	9.80	7.8	-	-	7.8	0.0080	Straight Crown	0.0296	0.0175	36	6	17.52	27.83	0.36	16.88	0.3333	2	0.488	0.5	0.151	11.7	10	75%	5.32	5.32	2.5	M4	Warped Pavement
M4	ONGC	M4	1.04	0.46	100	10	9.80	4.7	M3	2.5	7.2	0.0080	Straight Crown	0.0357	0.0175	28	6	10.32	20.62	0.42	11.76	0.3333	2	0.637	0.5	0.195	9.7	10	100%	7.18	7.63	-	-	
M5	ONGC	M5	1.88	0.40	100	10	9.80	6.2	-	-	6.2	0.0260	Warped Alley	0.0600	0.0175	19.5	6		9.35	0.42	6.50	0.3333	2	0.828	0.5	0.267	10.8	10	87%	5.15	5.15	1.0	M2	Warped Pavement
~~M6~~	~~ONGC~~	~~M6~~	~~0.54~~	~~0.50~~	~~100~~	~~10~~	~~9.80~~	~~2.6~~			~~2.6~~	~~0.0080~~	~~Warped Alley~~	~~0.0336~~	~~0.0175~~	~~19.5~~	~~6~~		~~6.71~~	~~0.42~~	~~12.50~~	~~0.3333~~	~~2~~	~~0.617~~	~~0.5~~	~~0.188~~	~~6.5~~	~~10~~	~~100%~~	~~2.60~~	~~7.24~~			~~Warped Pavement~~

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SAG INLET CALCULATIONS (100 YEAR)

Inlet No.	Area Designation	Areas (acres)	Runoff "c"	Conc. Time (min)	Design Storm (yr.)	100-year Intensity (in/hr)	100-year Total Q (cfs)	Depth of Depress. "a" (ft)	Length of Inlet Opening L (ft)	Width of Depress. (ft)	Depth of Flow at Opening "d" (ft)	Max Depth before bypass "dmax" (ft)	Capacity of Inlet (cfs)	Carry -Over into Overflow (cfs)	Percent Q_{100} captured by Inlet (%)	Remarks
L4	L4	0.63	0.50	10	100	9.80	3.10	0.50	5	2.0	0.29	0.50	6.99	0.00	100%	
L5	L5	1.60	0.50	10	100	9.80	7.80	0.50	10	2.0	0.40	0.50	11.06	0.00	100%	
P1	P1	0.87	0.50	10	100	9.80	4.30	0.50	5	2.0	0.36	0.50	6.99	0.00	100%	
P2	P2	3.19	0.44	10	100	9.80	13.60	0.50	15	2.0	0.39	0.50	15.13	0.00	100%	

DROP INLET CALCULATIONS (100 YEAR)

Inlet No.	Area Designation	Areas (acres)	Runoff "c"	Conc. Time (min)	Design Storm (yr.)	100-year Intensity (in/hr)	100-year Total Q (cfs)	Depth of Depress. "a" (ft)	Length of Inlet Opening L or P (ft)	Inlet Size (ft)	Max Depth of Flow at Opening "y" (ft)	Length of Inlet Opening Required (ft)	Capacity of Inlet (cfs)	Percent Q_{100} Captured by Inlet (%)	Remarks
L1	L1	1.02	0.50	10	100	9.80	5.00	0.50	8	2x2	0.50	4.58	8.73	100%	
M5	M7 & M8	6.18	0.40	10	100	9.80	54.50	0.50	25	5x5	0.79	25.00	54.50	100%	

CONSTRUCTION RECORDS
DATE: 10-10-2019 BY: TP
THIS DRAWING INDICATES THE WORK COMPLETED PER INFORMATION SUPPLIED BY THE CONTRACTOR. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION HAS NOT BEEN VERIFIED. ACTUAL ON THE GROUND SURVEY VERIFICATION WAS NOT PERFORMED EXCEPT AS SPECIFICALLY NOTED. TOMDEN ENGINEERING, L.L.P. SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS.
TOMDEN ENGINEERING, L.L.P.

1 THIS SHEET SUPPLEMENTS ORIGINAL SHT C14 AND SHALL BE USED FOR THE CONSTRUCTION OF THE CLOUDED INFORMATION ONLY. BINKLEY BARFIELD SHALL BE RESPONSIBLE FOR ALL OTHER DESIGN INFORMATION SHOWN.

1	01.21.2019 REMOVED INLET M6 FROM TABLE

DESIGNED BY: TPJ
DRAWN BY: ADC
CHECKED BY: TPJ
JOB NO:
DATE: 01/21/2019
SCALE: AS SHOWN

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PARK PLACE WEST - PHASE III
R. BALLARD SURVEY ABSTRACT NO. 29
ROCKWALL, ROCKWALL COUNTY, TEXAS

INLET CALCULATIONS

Sheet No:
C14.1
OF 37