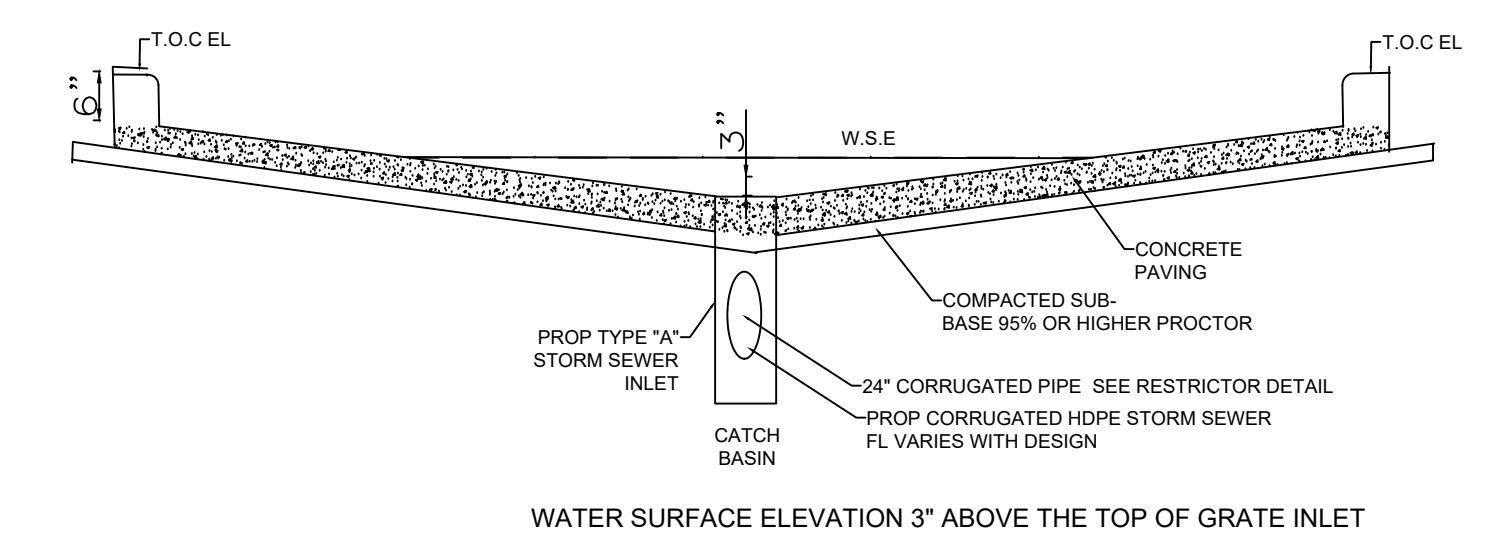


FOR REVIEW & COMMENTS 06/21/21



Parameter Selection

- 1. Select Units  
English
- 2. Select Methodology  
Partial Duration Series (PDS)
- 3. Select County  
JEFFERSON
- 4. Select County Zone  
Zone-1
- 5. Select Time of Concentration (tc)  
10 Minute

Design Annual Exceedance Probability (Design Annual Recurrence Interval)

Coefficient	50% (2-year)	20% (5-year)	10% (10-year)	4% (25-year)	2% (50-year)	1% (100-year)	0.2% (500-year)
e	0.7862	0.7691	0.7505	0.7266	0.7065	0.6872	0.6582
b	69.0281	81.5214	88.8360	97.4049	101.4198	105.5701	126.0455
d (min)	13.2179	13.4732	13.4254	13.3288	13.0449	12.9873	14.9065
Intensity (inches/hour)	5.82	7.20	8.33	9.88	11.05	12.24	15.19

Note: Jefferson County has 1 rainfall zone.

100yr From Atlas Rainfall	
e	0.69
b (in.)	105.57
d (min)	12.99
i=b/(d+Tc)^e	

link	Drainage Area	From	To	Sub Area	Total Area	C	Sum A*C	Tc	I	100yr (Q)
pipe-01	A1	Inlet-01	Inlet-02	0.41	0.41	0.797	0.32673	10.00	12.244	4.00
pipe-02	A2	Inlet-02	Inlet-03	0.42	0.83	0.797	0.661429	10.00	12.244	8.10
pipe-03	A3	Inlet-03	Out-01	0.20	1.03	0.797	0.82081	10.00	12.244	10.05

5yr From Atlas Rainfall	
e	0.77
b (in.)	81.52
d (min)	13.47
i=b/(d+Tc)^e	
Total Land	1.13 Ac
Ape=	0.20 Ac
Aimp=	0.93 AC
Cw=	0.797 -

Site Address : Friar Point Dr at Honeywood Trail, Port Arthur

link	Drainage Area	From	To	Sub Area	Total Area	C	Sum A*C	Tc	I	5yr (Q)	Reach Length	Size (Dia) in	Design Slope (%)	Manning n	R (Hydraulic radius)	V (fps)	Design Q capacity (CFS)	check (Q) with capacity	check (V) V=3fps
pipe-01	A1	Inlet-01	Inlet-02	0.41	0.41	0.797	0.32673	10.00	7.198	2.35	142.00	18	0.26	0.013	0.375	3.031	5.356	OK	OK
pipe-02	A2	Inlet-02	Inlet-03	0.42	0.83	0.797	0.661429	10.00	7.198	4.76	48.00	18	0.26	0.013	0.375	3.031	5.356	OK	OK
pipe-03	A3	Inlet-03	Out-01	0.20	1.03	0.797	0.82081	10.00	7.198	5.91	47.00	24	0.26	0.013	0.5	3.672	11.535	OK	OK

100yr From Atlas Rainfall	
e	0.687196549
b (in.)	105.570114
d (min)	12.98725782
i=b/(d+Tc)^e	

Site Address : Friar Point Dr at Honeywood Trail, Port Arthur

TailWater= -1.36 Ft

From	To	Distance between Points	100yr (Q)	Pipe or box Rise (in)	slope	Manning (n)	Pipe Capacity (cfs)	V at Pipe capacity	Hydraulic gradient % (s)	Hydraulic Head loss L*/100(ft)	HGL Upstream (ft)	HGL elevation (Downstream)	Upstream Invert	D/S Invert
Inlet-01	Inlet-02	142.00	4.00	18	0.260	0.013	5.36	3.03	0.15	0.21	-0.87	-1.07	-2.62	-2.99
Inlet-02	Inlet-03	48.00	8.10	18	0.260	0.013	5.36	3.03	0.59	0.29	-1.07	-1.36	-2.99	-3.12
Inlet-03	Out-01	47.00	10.05	24	0.260	0.013	11.54	3.67	0.20	0.09	-1.27	-1.36	-3.12	-3.24

DRAINAGE PLAN