

PIPE RUN			STRUCTURE				MATERIAL				EXCAVATION			EMBEDMENT ENVELOPE			EMBEDMENT ZONE BACKFILL			BACKFILL / WASTE						
Structure From	to	Structure To	Structure Type	Rim	Inv (out)	Structure HT	Type	Size (IN)	Length (LF)	Avg Depth (FT)	Pipe Dia (FT)	Trench Limits per Side (FT)	Trench Width (FT)	Excavate Volume (CY)	Under Pipe (FT)	% Pipe Cover (%)	Pipe Cover (FT)	Bed Volume (CY)	Pipe Vol (CY)	Embedment Zone Backfill (CY)	Net Embedment Zone Backfill (CY)	Common Backfill (CY)	Excess Bank (CY)			
<b>Drainage</b>																										
u-drain	to	CB-2A	U-DRAIN	105.46	102.24	3.22	ADS N-12	6.00	30.00	3.22	0.58	1.67	3.92	14.04	0.50	100%	1.00	9.08	0.30	8.78	8.49	4.96	9.08			
CB-2A	to	CB-3A	B	105.46	102.24	3.22	RCP III O-RING	15.00	19.00	3.11	1.83	1.67	5.17	11.32	0.50	100%	0.75	11.22	1.86	9.37	7.51	0.10	11.22			
u-drain	to	CB-1A	U-DRAIN			3.00	ADS N-12	6.00	126.00	3.00	0.58	1.67	3.92	54.93	0.50	100%	1.00	38.14	1.25	36.90	35.65	16.78	38.14			
10" CO	to	CB-1A	10" CO			3.00	ADS N-12	10.00	81.00	4.17	0.92	1.67	4.26	53.19	0.50	100%	1.00	30.86	1.98	28.88	26.90	22.33	30.86			
CB-1A	to	CB-3A	B	108.12	102.79	5.33	RCP III O-RING	15.00	129.00	4.26	1.83	1.67	5.17	105.17	0.50	100%	0.75	76.21	12.61	63.60	51.00	28.96	76.21			
CB-3A	to	CB-4A	B	105.08	101.90	3.18	RCP III O-RING	18.00	170.00	4.34	2.08	1.67	5.42	148.20	0.50	100%	0.75	113.82	21.45	92.37	70.92	34.37	113.82			
CB-4A	to	CB-5A	B	106.38	100.88	5.50	RCP III O-RING	18.00	118.00	5.38	2.08	1.67	5.42	127.40	0.50	100%	0.75	79.01	14.89	64.12	49.23	48.39	79.01			
CB-5A	to	CB-6A	B	104.69	99.44	5.25	RCP III O-RING	24.00	25.00	5.32	2.58	1.67	5.92	29.15	0.50	100%	0.75	21.02	4.85	16.17	11.32	8.13	21.02			
CB-6A	to	MH-8A	B	104.69	99.31	5.38	RCP III O-RING	24.00	56.00	4.19	2.58	1.67	5.92	51.48	0.50	100%	0.75	47.09	10.87	36.23	25.36	4.38	47.09			
10" CO	to	CB-7A	10" CO			3.00	ADS N-12	10.00	64.00	5.41	0.92	1.67	4.26	54.54	0.50	100%	1.00	24.38	1.56	22.82	21.26	30.15	24.38			
CB-7A	to	MH-8A	B	108.34	100.53	7.81	RCP III O-RING	15.00	97.00	7.12	1.83	1.67	5.17	132.24	0.50	100%	0.75	57.31	9.48	47.83	38.35	74.93	57.31			
MH-8A	to	FES-9A	MANHOLE	103.65	97.23	6.42	RCP III O-RING	24.00	23.00	4.71	2.58	1.67	5.92	23.77	0.50	100%	0.75	19.34	4.46	14.88	10.42	4.42	19.34			
FES-9A			24" CES			3.00																				
MH-1C	to	MH-3C	MANHOLE	110.21	107.44	2.77	RCP III O-RING	15.00	84.00	2.89	1.83	1.67	5.17	46.43	0.50	100%	0.75	49.63	8.21	41.42	33.21	(3.19)	49.63			
u-drain	to	CB-2C	U-DRAIN			3.00	ADS N-12	6.00	77.00	3.00	0.58	1.67	3.92	33.57	0.50	100%	1.00	23.31	0.76	22.55	21.79	10.26	23.31			
u-drain	to	CB-2C	U-DRAIN			3.00	ADS N-12	6.00	94.00	2.72	0.58	1.67	3.92	37.15	0.50	100%	1.00	28.46	0.93	27.53	26.60	8.70	28.46			
CB-2C	to	MH-3C	E	108.92	106.48	2.44	RCP III O-RING	15.00	30.00	2.88	1.83	1.67	5.17	16.55	0.50	100%	0.75	17.72	2.93	14.79	11.86	(1.17)	17.72			
MH-3C	to	MH-4C	MANHOLE	109.70	106.38	3.32	RCP III O-RING	18.00	110.00	3.93	2.08	1.67	5.42	86.72	0.50	100%	0.75	73.65	13.88	59.77	45.89	13.07	73.65			
MH-4C	to	MH-11C	MANHOLE	110.53	106.00	4.53	RCP III O-RING	18.00	114.00	3.77	2.08	1.67	5.42	86.21	0.50	100%	0.75	76.33	14.39	61.94	47.56	9.88	76.33			
u-drain	to	CB-6C	U-DRAIN			3.00	ADS N-12	6.00	81.00	2.89	0.58	1.67	3.92	33.96	0.50	100%	1.00	24.52	0.80	23.72	22.92	9.44	24.52			
CB-6C	to	MH-7C	B	109.92	107.15	2.77	RCP III O-RING	15.00	44.00	2.76	1.83	1.67	5.17	23.31	0.50	100%	0.75	25.99	4.30	21.69	17.39	(2.68)	25.99			
MH-5C	to	MH-7C	MANHOLE	109.96	107.20	2.76	RCP III O-RING	15.00	70.00	3.23	1.83	1.67	5.17	43.25	0.50	100%	0.75	41.35	6.84	34.51	27.67	1.90	41.35			
MH-7C	to	MH-9C	MANHOLE	110.65	106.96	3.69	RCP III O-RING	15.00	31.00	3.23	1.83	1.67	5.17	19.19	0.50	100%	0.75	18.31	3.03	15.28	12.26	0.87	18.31			
CB-8C	to	MH-9C	B	109.92	107.15	2.77	RCP III O-RING	15.00	26.00	3.09	1.83	1.67	5.17	15.39	0.50	100%	0.75	15.36	2.54	12.82	10.28	0.03	15.36			
MH-9C	to	MH-10C	MANHOLE	110.26	106.85	3.41	RCP III O-RING	15.00	101.00	3.86	1.83	1.67	5.17	74.60	0.50	100%	0.75	59.67	9.87	49.80	39.93	14.93	59.67			
MH-10C	to	MH-11C	MANHOLE	110.80	106.50	4.30	RCP III O-RING	15.00	171.00	4.51	1.83	1.67	5.17	147.60	0.50	100%	0.75	101.02	16.71	84.31	67.60	46.58	101.02			
MH-11C	to	MH-12C	MANHOLE	109.66	104.95	4.71	RCP III O-RING	24.00	221.00	3.86	2.58	1.67	5.92	186.90	0.50	100%	0.75	185.85	42.88	142.97	100.09	1.05	185.85			
u-drain	to	MH-12C	U-DRAIN			3.00	ADS N-12	6.00	134.00	3.00	0.58	1.67	3.92	58.41	0.50	100%	1.00	40.57	1.33	39.24	37.91	17.85	40.57			
u-drain	to	MH-12C	U-DRAIN			3.00	ADS N-12	6.00	134.00	3.43	0.58	1.67	3.92	66.69	0.50	100%	1.00	40.57	1.33	39.24	37.91	26.12	40.57			
MH-12C	to	FES-13C	MANHOLE	108.02	104.17	3.85	RCP III O-RING	24.00	48.00	3.43	2.58	1.67	5.92	36.07	0.50	100%	0.75	40.37	9.31	31.05	21.74	(4.30)	40.37			
FES-13C			24" CES			3.00																				
CB-5B	to	MH-7B	E	109.14	106.37	2.77	RCP III O-RING	15.00	35.00	3.09	1.83	1.67	5.17	20.72	0.50	100%	0.75	20.68	3.42	17.26	13.84	0.04	20.68			
CB-6B	to	MH-7B	E	109.66	106.25	3.41	RCP III O-RING	15.00	35.00	3.41	1.83	1.67	5.17	22.87	0.50	100%	0.75	20.68	3.42	17.26	13.84	2.19	20.68			
MH-7B	to	FES-8B	MANHOLE	109.66	106.25	3.41	RCP III O-RING	18.00	202.00	3.46	2.08	1.67	5.42	140.19	0.50	100%	0.75	135.25	25.49	109.76	84.27	4.94	135.25			
FES-8B			18" CES			3.50																				
OS-1D	to	MH-2D	OUTLET STRUCTURE	106.34	100.50	5.84	RCP III O-RING	30.00	76.00	6.44	3.08	1.67	6.42	116.35	0.50	100%	0.75	78.35	21.01	57.34	36.34	38.00	78.35			
MH-2D	to	MH-3D	MANHOLE	107.65	100.62	7.03	RCP III O-RING	30.00	285.00	10.12	3.08	1.67	6.42	686.15	0.50	100%	0.75	293.81	78.78	215.03	136.26	392.35	293.81			
EX INL	to	MH-3D	EX INL CON	110.65	97.44	13.21	RCP III O-RING	15.00	96.00	10.21	1.83	1.67	5.17	187.71	0.50	100%	0.75	56.72	9.38	47.33	37.95	131.00	56.72			
MH-3D	to	FES-4D	MANHOLE	104.30	97.10	7.20	RCP III O-RING	30.00	19.00	5.60	3.08	1.67	6.42	25.31	0.50	100%	0.75	19.59	5.25	14.34	9.08	5.73	19.59			
FES-4D			30" CES			4.00																				
<b>TOTALS</b>									<b>3,256.00</b>										<b>3,016.73</b>				<b>1,642.92</b>	<b>1,270.58</b>	<b>1,001.48</b>	<b>2,015.25</b>