CON = Reinforced Concrete Pipe

CMP = Corrugated Metal Pipe CIP - Cast Iron Pipe CH - Channel BR - Bridge

Comment	(2 facilities)	(3 facilities)	(3 facilities)	(2 facilities)	(2 facilities)			(2 facillities)	(2 facillities)			(3 facillities)						(2 facillities)									
Crushed	Š	⁸	Š	Š	Š	Š	Š	Š	Š	Yes	Š	Š	Yes	Š	Š	Š	Š	Š	Š	Š	Š	Š	Š	Š	Š	Š	Yes
Plugged	S N	No	N _o	No	No	No	No	N _o	No	No	No	No	Yes	N _o	No	No	Yes	N _o	N _o	Yes	No	No	No	S N	No	N _o	o N
Weeds	8	^o Z	9 N	9 N	9 N	⁸	⁸	9 N	9 N	9 N	⁸	⁸	9 N	Yes	Yes	Yes	9 N	Š	Yes	9 N	9 N	Yes	9 N	_S	8 N	_S	o N
Water	8 N	^o N	_S	^o Z	^o Z	S N	S N	_S	^o N	^o Z	S N	Yes	_S	_S	Yes	Yes	Yes	Yes	Yes	^o Z	^o N	^o N	8 N				
 Headwall	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	S N	Yes	Yes	S N	S N	S N	N _o	N _o	Yes	S N	S N	Yes	N _o	N _o	N _o	Yes	N _o	No
Type	CON	CON	CON	CON	CON	CON	CON	CON	CON	CMP	CON	CON	CMP	CON	CON	CMP	CMP	CIP	CMP	CMP	CMP	CMP	CON	CON	CON	CMP	CMP
<u>Length</u>	100	09	09	09	09	40	40	40	40	30	40	40	30	20	30	30	30	40	30	30	40	30	09	09	40	30	40
Size	32	32	24	32	32	9' × 3'	9' × 3'	32	18	32	32	24	18	36	36	24	32	80	32	24	24	18	24	18	,9 × ,6	32	32
Number	_	2	က	4	2	9	7	∞	თ	10	11	12	13	4	15	16	17	18	19	20	21	22	23	24	25	26	27

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CON = Reinforced Concrete Pipe

																				(3 facillities)							(2 facillities)		Box on one end			
			Yes	Yes	Š	Yes	2	Yes	2	2	2	2	2	2	2	2	2	2	2	2	2	9	2	2	9 N	°Z	2	2	2	2	°Z	No
			No	No	No	No	_S	Yes	8 N	8 N	Yes	S N	No	N _o	N _o	_S	_S	Yes	No	S N	_S	No	_S	8 N	No	8 N	_S	_S	_S	8 N	8 N	N _O
			8 N	8 N	8 N	8 N	o N	N _o	Yes	N _o	N _o	°N	8 N	Yes	Yes	Yes	Yes	Yes	N _o	N _o	N _o	S N	N _o	N _o	8 N	8 N	o N	o N	o N	N _o	8 N	No
			8 N	°N	S N	S N	o N	N _o	N _o	N _o	N _o	°N	8 N	8 N	8 N	N _o	N _o	N _o	°N	N _o	N _o	°N	N _o	N _o	°N	8 N	o N	o N	o N	N _o	8 N	No
			N _o	N _o	N _o	N _o	Yes	8 N	Yes	Yes	Yes	_S	N _o	S N	S N	8 N	8 N	8 N	S N	_S	Yes	Yes	Yes	Yes	Yes	Yes	8 N	8 N	_o N	8 N	8 N	No
			CMP	CMP	CON	CMP	CON	CON	CON	CON	CON	CON	CON	CON	CON	CON	CMP	CON	CMP	CON	CON	CON	CON	CON	CON	CON	CON	CIP	CON	CON	CMP	CMP
Pipe			30	30	40	20	30	24	24	24	24	24	24	30	30	30	09	09	40	30	30	40	24	30	24	20	20	30	30	30	30	100
CMP = Corrugated Metal Pipe	on Pipe		24	24	24	24	,9 × ,6	24	18	72	24	24	24	24	24	24	42	30	24	18	24	18	24	24	24	18	36	72	36	42	36	36
CMP = Corru	CIP - Cast Iron Pipe CH - Channel	BR - Bridge	28	29	30	31	32	33	34	35	36			6E 2			42	43	44	45	46	47	48	49	20	51	52	53	54	22	26	22

																						(2 facillities)		(2 facillities)					(2 facillities)	
	8 8	% 8	%	Yes	2	Yes	Yes	Yes	Yes	8	8 N	8	8	2	2	8	8 N	2	2	2	2	2	_S	2	<u>8</u>	o N	%	8	8	9 N
	°Z	8 N	^o N	S N	_S	Yes	8 N	Yes	_S	S N	_S	S N	S N	_S	_S	8 N	Yes	_o N	Yes	_S	S N	_S	8 N	_o N	8 N	8 N	8 N	8 N	8 N	S N
	8	Š	Š	_S	N _o	N _o	N _o	o N	N _o	_S	Š	Š	Š	N _o	N _o	N _o	Š	No	N _o	N _o	Yes	N _o	S N	No	Yes	Š	_S	S N	N _o	8 N
	o N	%	N _o	N _o	No No	No No	No No	S N	No No	Yes	Yes	N _o	Yes	No	No	N _o	%	No	No No	No No	N _o	No No	No No	No	N _o	8 N	8 N	N _o	No No	9 N
	°Z	Š	Š	Š	N _o	N _o	o N	S N	S N	Yes	Yes	Yes	Yes	N _o	N _o	o N	Š	N _o	S N	S N	Š	N _o	Yes	Yes	o N	Š	_S	o N	o N	N _o
	CON	CMP	CMP	CMP	CMP	CMP	CMP	CMP	CMP	CON	CON	CON	CON	CON	CON	CON	CON	CON	CON	CON	CON	CON	CMP	CON	CON	CON	CON	CON	CON	CMP
e Pipe ipe	30	30	30	30	30	30	30	30	30	30	09	30	40	30	24	24	24	30	24	20	30	30	30	30	24	40	24	30	30	30
CON = Reinforced Concrete Pipe CMP = Corrugated Metal Pipe CIP - Cast Iron Pipe CH - Channel SR - Bridge	24	24	24	24	36	24	24	24	24	24	12' x 8'	18	36	18	18	18	18	09	12	24	18	36	24	24	18	18	18	42	24	24
CON = Reinford CMP = Corruga CIP - Cast Iron CH - Channel BR - Bridge	28	59	09	61	62	63	64	65	99			69			72	73	74	22	9/	27	78	79	80	81	82	83	84	82	98	87

		(3 facillities)				(3 facillities)	(3 facillities)		(2 facillities)			(2 facillities)				(2 facillities)	(2 facillities)			(2 facillities)										
	^o Z	2	_S	_S	2	2	_S	^o Z	9	^o Z	2	_S	_S	2	Š	_S	2	_S	9 N	Š	Š	_S	S N	^o Z	2	2	_S	_S	2	2 N
	_S	_S	8 N	S N	_S	_S	8 N	N _o	S N	_S	_S	8 N	8 N	_S	8 N	_S	_S	8 N	8 N	_S	8 N	_S	8 N	N _o	_S	_S	_S	_S	_S	o N
	§	N _o	9 N	9 N	N _o	N _o	9 N	8 N	%	⁸	N _o	9 N	9 N	N _o	9 N	9 N	N _o	9 N	9 N	N _o	9 N	9 N	9 N	8 N	Yes	Yes	9 N	9 N	N _o	o N
	^o N	8 N	_S	^o N	8 N	8 N	_S	^o N	S N	^o N	8 N	_S	^o N	S N	o N	_S	8 N	_S	9 N	S N	o N	_S	o N	^o N	S N	S N	_S	_S	S N	Yes
	Yes	Yes	8 N	Yes	N _o	Yes	Yes	N _o	Yes	No	N _o	_S	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	_S	_S	_S	_S	N _o	N _o
	CMP	CON	공	CON	끙	CON	CON	끙	CON	CMP	CMP	CMP	CON	CON	CON	CON	CON	CON	CMP	CMP	CMP	CMP	CMP	CMP	CON	CON	CON	CON	CON	CMP
ite Pipe Pipe	30	40		40		30	40		40	30	30	30	30	20	30	40	40	20	20	20	20	40	40	40	30	20	30	30	20	30
CON = Reinforced Concrete Pipe CMP = Corrugated Metal Pipe CIP - Cast Iron Pipe CH - Channel 3R - Bridge	24	27	12	24	12'	24	24	12'	8' × 3'	24	36	42	24	24	24	24	24	24	24	20	30	27	18	48	24	24	24	24	24	72
CON = Reinforced C CMP = Corrugated I CIP - Cast Iron Pipe CH - Channel BR - Bridge	88	88	06	91	92	93	94	92	96		86 age				102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117

							(2 facillities)								(2 facillities)			(2 facillities)				(2 facillities)				(2 facillities)				(2 facillities)
	8 N	8 N	8	Yes	8	8	8	9 N	9 N	o N	%	Yes	8	8	Yes	8 N	9 N	8	o N	%	9 N	%	9 N	o N	%	9 N	8	9 N	8	o N
	_N	8 N	S N	S N	N _o	_S	_S	Š	Š	_S	8 N	_S	_S	S N	8 N	Š	_S	_S	_S	8 N	Š	8 N	Yes	_S	8 N	Š	_o N	Š	_S	S N
	٥ N	No	S N	S N	Yes	_S	_S	S N	S N	_S	S N	8 N	_S	Yes	o N	S N	_S	_S	_S	o N	S N	S N	S N	8 N	o N	S N	_S	_S	_S	N _O
	_S	S _O	S O	Yes	o N	8 N	_S	_S	S N	_S	8 N	8 N	_S	8 N	8 N	8 N	8 N	_S	_S	8 N	S N	8 N	S N	8 N	8 N	S N	8 N	_S	_S	N _o
	Yes	Yes	N _o	N _o	N _o	8 N	Yes	8 N	8 N	8 N	8 N	8 N	8 N	S N	8 N	8 N	8 N	8 N	8 N	8 N	8 N	8 N	8 N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CON	CON	BR	CMP	CMP	CMP	CON	CMP	CMP	CMP	CMP	CMP	CMP	CMP	CMP	CMP	BR	CMP	CON	BR	CMP	CMP	CMP	CON	CON	CON	CON	CON	CON	CON
e Pipe ipe	30	40	85	30	40	30	24	24	24	20	20	30	24	24	24	30	124	30	24	75	24	24	24	40	40	40	40	40	40	40
CON = Reinforced Concrete Pipe CMP = Corrugated Metal Pipe CIP - Cast Iron Pipe CH - Channel SR - Bridge	18	18		36	24	24	12	48	30	30	30	30	24	24	0.6666667	24		24	18		24	30	42	18	18	24	24	24	24	24
CON = Reinforced C CMP = Corrugated I CIP - Cast Iron Pipe CH - Channel BR - Bridge	118	119	120	121	122	123	124	125	126	127 127	158 158	•	•	_	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147

															(2 facillities)	(2 facillities)		(4 facillities)	(2/3 facillities)				(8 facillities)		(2 facillities)	(2 facillities)				(2 facillities)
	8	N _o	9	8	N _o	N _o	8	N _o	9	8	N _o	N _o	8	N _o	8	N _o	N _o	N _o	8	8	N _o	N _o	°Z	N _o	8	o N	o N	o N	2	Š
	°N	8 N	_S	S N	S N	8 N	Yes	_S	_S	S N	S N	_S	S N	_S	S N	S N	_S	_S	S N	Yes	Š	S N	_S	_S	S N	_S	_S	_S	_o N	S N
	o N	Yes	Yes	No	No	S _O	N _o	No	No	Yes	No	No	No	No	No	No	N _o	No	No	No	No	Yes	Yes	No	No	8 N	8 N	8 N	S N	S N
	o Z	⁸	^o Z	9 N	8 N	Yes	_N	§	^o Z	9 N	⁸	8 N	^o Z	§	9 N	⁸	§	⁸	9 N	9 N	8 N	⁸	9 N	8 N	9 N	9 N	9 N	9 N	_N	Yes
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	S N	S _o	_S	_S	S N	^o N	S N	Yes	Yes	Yes	Yes	Yes	Yes	_S	_S	Yes	S N	_S	_S	_S	_S	_S	Yes
	CON	CON	CON	CON	CON	CON	CON	BR	CON	CIP	CMP	BR	CON	CON	CON	CON	CON	CON	CMP	CON	CON	CON	CON	CON	CMP	CMP	CON	CON	CON	CON
e Pipe ipe	40	40	40	24	24	30	30	40	40	30	40	40	30	40	20	20	30	20	20	30	40	40	30	30	30	24	24	24	24	30
Reinforced Concrete PipeCorrugated Metal PipeCast Iron PipeChannelBridge	24	24	24	18	18	36	24		24	24	36		24	24	4' × 2'	24	24	24	0.8571429	12' x 6'	24	18	48	24	24	24	18	18	18	42
CON = Reinforc CMP = Corruga CIP - Cast Iron CH - Channel BR - Bridge	148	149	150	151	152	153	154	155	156				9 2 of	8 161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177

		(2 facillities)					(2 facillities)			(3 facillities)					(2 facillities)												(2 facillities)			Box on one end
	2	Š	9 N	Yes	2	2	2	2	2	2	2	2	Yes	2	2	2	2	2	9	2 N	o Z	2	2	Yes	2	2	2	2	2	8 N
	o N	S _O	^o N	8 N	8 N	8 N	Yes	_S	_S	_S	8 N	8 N	8 N	8 N	8 N	o N	8 N	_S	S N	o N	S N	8 N	8 N	Yes	8 N	_S	o N	o N	o N	Yes
	°N N	8 N	S N	N _o	o N	N _o	N _o	8 N	°N	°N	N _o	N _o	8 N	N _o	o N	o N	N _o	8 N	Yes	o N	o N	N _o	N _o	N _o	N _o	°N	o N	o N	o N	N _o
	Yes	S _o	^o N	_S	o N	_S	o N	_S	Yes	Yes	_S	o N	8 N	_S	o N	o N	_S	_S	N _o	o N	o N	_S	Yes	o N	_o N	_S	o N	o N	o N	N _o
	Yes	Yes	^o N	_S	8 N	8 N	8 N	S N	8 N	8 N	8 N	8 N	8 N	_S	Yes	_o N	8 N	Yes	Yes	o N	S N	8 N	8 N	8 N	Yes	Yes	Yes	Yes	Yes	Yes
	CIP	CMP	BR	CMP	CON	CMP	CON	BR	CMP	CON	CON	CON	CMP	CON	CON	CON	CON	CON	CON	CMP	CMP	CMP	CMP	CMP	CON	CON	CON	CON	CON	CON
ste Pipe Pipe	30	40	24	30	30	40	40	20	40	30	30	30	20	30	24	30	100	30	40	40	40	30	40	24	30	30	30	30	24	75
CON = Reinforced Concrete Pipe CMP = Corrugated Metal Pipe CIP - Cast Iron Pipe CH - Channel BR - Bridge	72	42		36	,9 × ,9	09	30		30	24	30	24	24	18	24	24	30	30	24	24	96	42	48	18	24	24	24	24	48	36
CON = Reinforced C CMP = Corrugated I CIP - Cast Iron Pipe CH - Channel BR - Bridge	178	179	180	181	182	183	184	185	186	187 187	age		•		192	193	194	195	196	197	198	199	200	201	202	203	204	202	206	207

APPENDIX 9.1 CITY OF LUCAS EXISTING DRAINAGE FACILITIES

CON = Reinforced Concrete Pipe

							Box on one end			(2 facillities)					NEED DATA
				% 8	°Z	°N	°Z	°Z	°Z	Yes	°N	°N	°Z	°Z	Š
				N _o	N _o	N _o	N _o	N _o	N _o						
				Yes	Yes	Š	Š	Š	Š	Yes	Š	Š	Š	Yes	8
				^o Z	^o Z	_S	8 N	8 N	8 N	^o Z	_S	_S	8 N	8 N	8
				_S	8 N	8 N	8 N	8 N	8 N	8 N	Yes	Yes	Yes	8 N	<u>8</u>
				CON	CON	CON	CON	CMP	CMP	CMP	CON	CON	CON	CON	
ipe				40	40	30	30	30	30	24	20	100	40	24	
gated Metal P	n Pipe			24	24	18	28	72	24	24	24	36	48	48	
CMP = Corru	CIP - Cast Iron Pipe	CH - Channel	BR - Bridge	208				512 of		214	215	216	217	218	219

Source: 2004 Survey by Tim F. Glendening & Associates, Inc.