

Appendix B COST DETAILS

CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

Task Opinion of Probable Costs
 Project City of Lincoln Wastewater Collection System Master Plan
 Job Number 184030429
 BY BEW
 CHK GIA
 ENR 11,013 April - 2018
 Date 5/16/2018

NOTE: Opinions of probable costs presented in this Appendix reflect the probable construction cost. Total Project Costs include an additional 35% contingency and 25% allowance for engineering and environmental documentation.

CIP 1		PWWF	3.0 MGD			Figures 7-2, C-2, & C-3		
Pipeline Profile	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
Profile 1	NW457SSP01	NW457SS01	NW423SS17	560	8.2	18	\$ 243	\$ 136,106
Profile 1	NW423SSP17	NW423SS17	NW423SS16	291	9.2	18	\$ 243	\$ 70,810
Profile 1	NW423SSP16	NW423SS16	NW422SS065	175	10.4	18	\$ 261	\$ 45,732
Profile 1	NW422SSP065	NW422SS065	NW422SS64	182	10.9	18	\$ 261	\$ 47,592
Profile 1	NW422SSP64	NW422SS64	NW422SS62	202	10.8	18	\$ 261	\$ 52,828
Profile 1	NW422SSP62	NW422SS62	NW422SS57	298	10.9	18	\$ 261	\$ 77,805
Profile 1	NW422SSP57	NW422SS57	NW422SS55	249	11.3	18	\$ 279	\$ 69,685
Profile 2	NW422SSP55	NW422SS55	NW422SS53	261	10.3	18	\$ 261	\$ 68,141
Profile 2	NW422SSP054	NW422SS53	NW422SS038	242	12.0	18	\$ 279	\$ 67,487
Profile 2	NW422SSP37	NW422SS038	NW422SS34	252	14.1	18	\$ 340	\$ 85,644
Profile 2	NW422SSP34	NW422SS34	NW422SS29	240	12.6	18	\$ 298	\$ 71,337
Profile 2	NW422SSP029	NW422SS29	NW422SS27	291	12.9	18	\$ 298	\$ 86,627
Profile 2	NW422SSP27	NW422SS27	NW422SS26	205	14.4	18	\$ 340	\$ 69,605
Profile 2	NW422SSP26	NW422SS26	NW422SS13	60	15.5	18	\$ 346	\$ 20,854
Profile 2	NW422SSP13	NW422SS13	NW422SS014	226	17.0	21	\$ 394	\$ 89,197
Profile 2	NW422SSP14	NW422SS014	NW422SS016	211	18.0	21	\$ 403	\$ 84,939
Profile 2	NW422SSP016	NW422SS016	NW388SS015	449	16.9	21	\$ 394	\$ 176,978
Profile 2	NW422SSP017	NW388SS015	NW388SS11	60	16.6	21	\$ 394	\$ 23,524
Profile 2	NW388SSP11	NW388SS11	NW388SS10	16	18.4	21	\$ 412	\$ 6,391
Total (rounded)		CIP 1		4,500				\$ 1,351,000

CIP 2		PWWF	2.2 MGD			Figures 7-2 & C-4		
Pipeline Profile	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
Profile 3	NW457SSP13	NW457SS13	NW457SS12	376	12.5	15	\$ 266	\$ 100,057
Profile 3	NW457SSP12	NW457SS12	NW423SS37	167	12.7	15	\$ 266	\$ 44,521
Profile 3	NW423SSP37	NW423SS37	NW423SS36	301	12.8	15	\$ 266	\$ 80,138
Profile 3	NW423SSP36	NW423SS36	NW423SS35	472	15.2	15	\$ 303	\$ 142,828
Profile 3	NW423SSP35	NW423SS35	NW423SS31	520	15.0	15	\$ 303	\$ 157,430
Profile 3	NW423SSP031	NW423SS31	NW423SS009	156	12.5	15	\$ 266	\$ 41,663
Profile 3	NW423SSP032	NW423SS009	NW423SS27	344	12.7	15	\$ 266	\$ 91,509
Profile 3	NW423SSP27	NW423SS27	NW423SS25	543	14.2	15	\$ 298	\$ 161,597
Profile 3	NW423SSP25	NW423SS25	NW423SS26	67	14.8	15	\$ 298	\$ 19,807
Profile 3	NW423SSP26	NW423SS26	NW389SS39	147	14.4	15	\$ 298	\$ 43,707
Profile 3	NW389SSP039	NW389SS39	NW389SS038	205	13.6	15	\$ 293	\$ 60,023
Profile 3	NW389SSP041	NW389SS038	NW389SS039	166	13.6	15	\$ 293	\$ 48,737
Total (rounded)		CIP 2		3,500				\$ 992,000

See Chapter 9.0 of this Master Plan for Total Project Costs.



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CIP 4		PWWF	4.4	MGD		Figures 7-3 & C-8		
Pipeline Profile	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
Profile 4	NE521SSP51	NE521SS25	NE521SS52	517	12.1	15	\$ 266	\$ 137,722
Profile 4	NE521SSP52	NE521SS52	NE521SS008	502	8.5	15	\$ 226	\$ 113,518
Profile 4	NE521SSP008	NE521SS008	NE487SS03		7.4	18		
Profile 4	NE487SSP001	NE487SS03	NE488SS001		9.0	18		
Profile 4	NE488SSP06	NE488SS001	NE488SS07		13.2	18		
Profile 4	NE488SSP07	NE488SS07	NE488SS005	500	15.9	21	\$ 385	\$ 192,707
Profile 4	NE488SSP001	NE488SS005	NE488SS002	279	16.3	21	\$ 394	\$ 109,993
Profile 4	NE488SSP008	NE488SS002	NE488SS006	502	15.9	24	\$ 442	\$ 222,021
Profile 4	NE488SSP016	NE488SS006	NE489SS001	597	16.2	24	\$ 451	\$ 269,447
Profile 4	NE488SSP009	NE489SS001	NE489SS23	227	17.8	24	\$ 460	\$ 104,237
Total (rounded)		CIP 4		3,100				\$ 1,150,000

CIP 5		PWWF	4.9	MGD		Figures 7-4 & C-12		
Pipeline Profile	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
Profile 11	NW318SSP03	NW318SS03	NW318SS04	376	15.6	18	\$ 346	\$ 129,951
Profile 11	NW318SSP04	NW318SS04	NW319SS05	359	19.8	18	\$ 369	\$ 132,528
Profile 11	NRPSP03	NW319SS06	NRPS2	246	15.9	18	\$ 346	\$ 85,130
Profile 11	NW319SSP05	NW319SS05	NRPS2	232	21.3	18	\$ 384	\$ 89,259
NA	NRPSP05_1	NRPS2	NW319SS002	532	20.9	21	\$ 430	\$ 229,135
NA	NRPSP05_2	NW319SS002	NW319SS001	532	24.3	21	\$ 479	\$ 255,208
NA	NRPSP05_3	NW319SS001	NW285SS09	532	29.0	21	\$ 561	\$ 298,489
Total (rounded)		CIP 5		2,800				\$ 1,220,000

CIP 6		PWWF	2.8	MGD		Figures 7-5 & C-10		
Pipeline Profile	Pipeline ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
Profile 9	NW390SSP21	NW390SS21	NW390SS20	359	18.9	21	\$ 412	\$ 148,067
Profile 9	NW390SSP2	NW390SS20	NW390SS19	346	15.1	21	\$ 385	\$ 133,433
Profile 9	NW390SSP19	NW390SS19	NW390SS18	353	14.5	21	\$ 376	\$ 132,917
Profile 9	NW390SSP18	NW390SS18	NW389SS33	253	15.4	21	\$ 385	\$ 97,354
Profile 9	NW389SSP33	NW389SS33	NW389SS31	190	16.3	21	\$ 394	\$ 75,029
Profile 9	NW389SSP31	NW389SS31	NW389SS25	292	15.1	21	\$ 385	\$ 112,469
Profile 9	NW389SSP25	NW389SS25	NW389SS42	274	13.7	21	\$ 367	\$ 100,613
Profile 9	NW389SSP42	NW389SS42	NW389SS23	62	17.9	21	\$ 403	\$ 25,191
Total (rounded)		CIP 6		2,100				\$ 825,000

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CIP 7		PWWF	1.7	MGD		Figures 7-6 & C-11		
Pipeline Profile	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
Profile 10	SW396SSP17	SW396SS17	SW396SS16	252	21.4	15	\$ 334	\$ 84,381
Profile 10	SW396SSP16	SW396SS16	SW396SS15	278	21.4	15	\$ 334	\$ 92,808
Profile 10	SW396SSP15	SW396SS15	SW396SS14	432	21.5	15	\$ 334	\$ 144,521
Profile 10	SW396SSP14	SW396SS14	SW396SS13	341	21.9	15	\$ 334	\$ 113,826
Profile 10	SW396SSP13	SW396SS13	SW396SS12	377	21.6	15	\$ 334	\$ 126,070
Profile 10	SW396SSP12	SW396SS12	SW396SS11	347	21.9	15	\$ 334	\$ 116,036
Profile 10	NW396SSP11	SW396SS11	SW395SS07	407	23.4	15	\$ 350	\$ 142,456
Profile 10	SW395SSP07	SW395SS07	SW395SS06	401	25.2	15	\$ 376	\$ 150,739
Profile 10	SW395SSP06	SW395SS06	SW395SS05	415	26.6	15	\$ 398	\$ 165,335
Profile 10	SW395SSP05	SW395SS05	SW395SS01	147	28.5	15	\$ 420	\$ 61,755
Total (rounded)		CIP 7		3,400				\$ 1,198,000

Village 1 Trunk - A1 & A2		PWWF	1.3	MGD				
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
2	V1P15_1	SE665SS03	SE631SS01	445	26.1	12	\$ 360	\$ 160,391
2	V1P15_2	SE631SS01	SE631SS02	445	23.4	12	\$ 316	\$ 140,803
2	V1P15_3	SE631SS02	SE631SS03	445	20.9	12	\$ 288	\$ 127,928
2	V1P15_4	SE631SS03	SE631SS04	445	20.0	12	\$ 284	\$ 126,277
2	V1P15_5	SE631SS04	SE631SS05	445	20.3	12	\$ 288	\$ 127,928
2	V1P15_6	SE631SS05	SE630SS01	445	20.7	12	\$ 288	\$ 127,928
3	V1P14_1	SE630SS01	SE630SS02	562	20.9	12	\$ 288	\$ 161,501
3	V1P14_2	SE630SS02	SE596SS01	562	20.8	12	\$ 288	\$ 161,504
3	V1P14_3	SE596SS01	SE596SS02	562	20.6	12	\$ 288	\$ 161,495
3	V1P14_4	SE596SS02	SE596SS03	562	18.2	12	\$ 280	\$ 157,336
3	V1P14_5	SE596SS03	SE596SS04	562	15.4	12	\$ 269	\$ 151,084
3	V1P14_6	SE596SS04	SE596SS05	562	15.1	12	\$ 269	\$ 151,084
3	V1P14_7	SE596SS05	SE561SS001	562	18.0	12	\$ 276	\$ 155,252
4	V1P13_1	SE561SS001	SE561SS002	460	21.1	12	\$ 297	\$ 136,647
4	V1P13_2	SE561SS002	SE561SS003	460	22.5	12	\$ 307	\$ 141,083
4	V1P13_3	SE561SS003	SE560SS001	460	18.0	12	\$ 280	\$ 128,800
5	V1P10_1	SE560SS001	SE560SS003	434	11.5	15	\$ 253	\$ 109,766
5	V1P10_2	SE560SS003	SE560SS004	434	11.2	15	\$ 253	\$ 109,766
5	V1P10_3	SE560SS004	SE559SS004	434	13.3	15	\$ 280	\$ 121,354
Total (rounded)		Village 1 Trunk - A1 & A2		9,300				\$ 2,660,000

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Village 1 Trunk - A3		PWWF	0.2 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
6	V1P11	SE560SS002	SE560SS001	400	11.6	12	\$ 220	\$ 88,147
7	V1P12_1	SE594SS06	SE594SS05	500	16.5	12	\$ 273	\$ 136,448
7	V1P12_2	SE594SS05	SE594SS04	500	15.4	12	\$ 269	\$ 134,591
7	V1P12_3	SE594SS04	SE594SS03	500	14.3	12	\$ 265	\$ 132,735
7	V1P12_4	SE594SS03	SE594SS02	500	13.2	12	\$ 248	\$ 124,010
7	V1P12_5	SE594SS02	SE594SS01	500	12.1	12	\$ 234	\$ 117,141
7	V1P12_6	SE594SS01	SE560SS002	500	11.0	12	\$ 207	\$ 103,403
Total (rounded)		Village 1 Trunk - A3		3,400				\$ 840,000

Village 1 Trunk - B1 & B2		PWWF	0.9 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
9	V1P17_1	NE556SS01	NE556SS02	505	20.6	12	\$ 288	\$ 145,093
9	V1P17_2	NE556SS02	SE557SS01	505	16.4	12	\$ 273	\$ 137,607
9	V1P17_3	SE557SS01	SE557SS02	505	25.3	12	\$ 344	\$ 173,595
9	V1P17_4	SE557SS02	SE557SS03	505	23.4	12	\$ 316	\$ 159,699
9	V1P17_5	SE557SS03	SE557SS04	505	21.8	12	\$ 297	\$ 149,963
8	V1P16_1	SE557SS04	SE557SS05	489	21.8	15	\$ 334	\$ 163,370
8	V1P16_2	SE557SS05	SE557SS06	489	21.0	15	\$ 334	\$ 163,370
8	V1P16_3	SE557SS06	SE558SS01	489	22.9	15	\$ 342	\$ 167,178
8	V1P16_4	SE558SS01	SE524SS01	489	26.3	15	\$ 398	\$ 194,618
8	V1P16_5	SE524SS01	SE524SS02	489	20.6	15	\$ 326	\$ 159,563
8	V1P16_6	SE524SS02	SE524SS03	489	17.9	15	\$ 312	\$ 152,569
8	V1P16_7	SE524SS03	SE524SS04	489	21.6	15	\$ 334	\$ 163,374
8	V1P16_9	SE524SS04	SE524SS05	372	15.8	15	\$ 303	\$ 112,584
8	V1P16_10	SE524SS05	SE525SS004	117	13.5	15	\$ 280	\$ 32,652
Total (rounded)		Village 1 Trunk - B1 & B2		6,500				\$ 2,080,000

Village 1 Trunk - C		PWWF	1.9 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
1	V1P04_1	SE627SS01	SE627SS02	501	20.2	18	\$ 375	\$ 187,683
1	V1P04_3	SE627SS02	SE627SS04	769	21.4	18	\$ 384	\$ 295,361
Total (rounded)		Village 1 Trunk - C		1,300				\$ 480,000

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Village 7 Trunk - A		PWWF	0.3 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
79	FSS-74_1	SW360SS011	SW360SS009	461	23.7	12	\$ 316	\$ 145,892
79	FSS-74_2	SW360SS009	SW360SS008	461	26.1	12	\$ 360	\$ 166,188
79	FSS-74_3	SW360SS008	SW361SS001	404	31.5	12	\$ 402	\$ 162,182
Total (rounded)		Village 7 Trunk - A		1,400				\$ 470,000

Village 7 Trunk - B		PWWF	1.4 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
80	FSS-45_1	SW329SS01	SW329SS02	499	18.5	15	\$ 317	\$ 158,095
80	FSS-45_2	SW329SS02	SW329SS03	499	20.8	15	\$ 326	\$ 162,854
80	FSS-45_3	SW329SS03	SW328SS001	499	23.1	15	\$ 350	\$ 174,512
80	FSS-45_4	SW328SS001	SW328SS002	499	25.5	15	\$ 376	\$ 187,734
80	FSS-45_5	SW328SS002	SW328SS005	499	29.9	15	\$ 431	\$ 214,979
Total (rounded)		Village 7 Trunk - B		2,500				\$ 900,000

Airport Trunk		PWWF	9.4 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
23	V3P06_3	NW276SS02	NW276SS03	338	20.3	36	\$ 670	\$ 226,444
23	V3P06_2	NW276SS03	NW276SS04	745	21.5	36	\$ 682	\$ 508,583
23	V3P06_29	NW276SS04	NW276SS05	182	22.0	36	\$ 695	\$ 126,688
23	V3P06_27	NW276SS05	NW277SS01	149	21.2	36	\$ 682	\$ 101,915
23	V3P06_8	NW277SS01	NW277SS01-2	381	21.0	36	\$ 682	\$ 260,060
23	V3P06_28	NW277SS01-2	NW277SS02	275	22.0	36	\$ 682	\$ 187,578
23	V3P06_5	NW277SS02	NW278SS01	515	23.5	36	\$ 707	\$ 364,181
23	V3P06_6	NW278SS01	NW278SS02	518	24.5	36	\$ 720	\$ 372,683
23	V3P06_7	NW278SS02	NW278SS03	520	25.4	36	\$ 761	\$ 395,842
23	V3P06_13	NW278SS03	NW279SS01-1	409	26.9	36	\$ 818	\$ 334,788
23	V3P06_14	NW279SS01-1	NW279SS01-2	207	28.1	36	\$ 875	\$ 180,977
23	V3P06_26	NW279SS01-2	NW279SS02	423	29.1	36	\$ 903	\$ 382,311
23	V3P06_10	NW279SS02	NW279SS03	523	30.0	36	\$ 903	\$ 472,376
23	V3P06_11	NW279SS03	NW280SS001	505	30.5	36	\$ 932	\$ 470,365
23	V3P06_12	NW280SS001	NW280SS002	635	31.7	36	\$ 989	\$ 627,965
23	V3P06_15	NW280SS002	NW280SS003	403	34.1	36	\$ 1,091	\$ 440,217
23	V3P06_25	NW280SS003	NW281SS001	404	34.3	36	\$ 1,091	\$ 440,795
Total (rounded)		Airport Trunk		7,200				\$ 5,890,000

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Appendix B - Opinion of Probable Costs Details

East Wise Road Trunk - A		PWWF	8.1 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
18	V3P02_1	NE378SS02	NE378SS03	498	28.8	27	\$ 676	\$ 336,616
18	V3P02_2	NE378SS03	NE378SS04	498	27.4	27	\$ 661	\$ 328,924
21	V3P05_1	NE378SS04	NE378SS05	884	24.4	27	\$ 585	\$ 517,073
21	V3P05_19	NE378SS05	NE344SS01	231	24.6	27	\$ 599	\$ 138,134
21	V3P05_2	NE344SS01	NE344SS02	481	25.7	27	\$ 630	\$ 303,300
21	V3P05	NE344SS02	NE344SS03	486	23.5	27	\$ 570	\$ 277,379
Total (rounded)		East Wise Road Trunk - A		3,100				\$ 1,900,000

East Wise Road Trunk - B		PWWF	2.8 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
14	V2P04_19	NE446SS01	NE446SS02	266	32.0	18	\$ 544	\$ 144,908
14	V2P04_7	NE446SS02	NE446SS03	519	31.2	18	\$ 520	\$ 269,736
14	V2P04_8	NE446SS03	NE446SS04	519	30.6	18	\$ 508	\$ 263,322
14	V2P04_9	NE446SS04	NE446SS05	519	30.5	18	\$ 508	\$ 263,322
14	V2P04_10	NE446SS05	NE446SS06	519	30.3	18	\$ 508	\$ 263,322
14	V2P04_11	NE446SS06	NE412SS01	519	29.2	18	\$ 495	\$ 256,907
14	V2P04_12	NE412SS01	NE412SS02	519	28.3	18	\$ 483	\$ 250,492
14	V2P04_13	NE412SS02	NE412SS03	519	27.9	18	\$ 471	\$ 244,078
14	V2P04_14	NE412SS03	NE412SS04	519	26.8	18	\$ 458	\$ 237,663
14	V2P04_15	NE412SS04	NE412SS05	519	26.1	18	\$ 458	\$ 237,663
14	V2P04_16	NE412SS05	NE378SS01	519	27.8	18	\$ 471	\$ 244,078
14	V2P04_17	NE378SS01	NE378SS02	519	29.0	18	\$ 483	\$ 250,492
Total (rounded)		East Wise Road Trunk - B		6,000				\$ 2,930,000

Moore Road Influent Trunk		PWWF	33.0 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
77	V5P03_1	SW259SS01	SW259SS02	325	30.4	60	\$ 1,305	\$ 423,874
77	V5P03_2	SW259SS02	SW259SS03	325	27.8	60	\$ 1,277	\$ 414,677
78	V5P05_3	SW259SS03	SW293SS01	447	26.9	60	\$ 1,268	\$ 566,734
78	V5P05_4	SW293SS01	SW293SS02	448	29.5	60	\$ 1,296	\$ 580,422
78	V5P05_5	SW293SS02	SW293SS03	447	32.3	60	\$ 1,377	\$ 616,112
78	V5P05_1	SW293SS03	SW294SS09	448	32.8	60	\$ 1,377	\$ 616,663
78	V5P05_6	SW294SS09	SW294SS08	448	32.2	60	\$ 1,377	\$ 616,621
78	V5P05_7	SW294SS08	SW294SS02	447	32.8	60	\$ 1,377	\$ 616,070
Total (rounded)		Moore Road Influent Trunk		3,400				\$ 4,450,000

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Moore Road Trunk		PWWF	11.7	MGD				
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
75	V5P08_1	NW157SS01	NW191SS05	516	9.0	42	\$ 551	\$ 284,335
75	V5P08_2	NW191SS05	NW191SS04	516	9.9	42	\$ 551	\$ 284,335
75	V5P08_3	NW191SS04	NW191SS03	516	11.6	42	\$ 605	\$ 312,290
75	V5P08_4	NW191SS03	NW191SS02	516	13.0	42	\$ 632	\$ 326,267
75	V5P08_5	NW191SS02	NW191SS01	516	15.1	42	\$ 723	\$ 373,096
76	V5P07_3	NW191SS01	SW225SS05	467	16.3	42	\$ 741	\$ 346,467
76	V5P07_4	SW225SS05	SW225SS04	467	15.4	42	\$ 723	\$ 337,920
76	V5P07_5	SW225SS04	SW225SS03	467	15.3	42	\$ 723	\$ 337,920
76	V5P07_6	SW225SS03	SW225SS02	467	15.8	42	\$ 723	\$ 337,920
76	V5P07_7	SW225SS02	SW225SS01	467	15.4	42	\$ 723	\$ 337,920
76	V5P07_8	SW225SS01	SW259SS09	467	18.0	42	\$ 759	\$ 355,014
76	V5P07_9	SW259SS09	SW259SS08	467	15.4	42	\$ 723	\$ 337,920
76	V5P07_1	SW259SS08	SW259SS07	421	17.1	42	\$ 759	\$ 320,002
76	V5P07_10	SW259SS07	SW259SS06	421	24.5	42	\$ 911	\$ 383,757
76	V5P07_11	SW259SS06	SW259SS05	421	26.0	42	\$ 980	\$ 412,936
76	V5P07_12	SW259SS05	SW259SS04	421	28.3	42	\$ 1,026	\$ 432,389
76	V5P07_13	SW259SS04	SW259SS01	421	30.5	42	\$ 1,072	\$ 451,842
Total (rounded)		Moore Road Trunk		8,000				\$ 5,970,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

Nelson Lane Trunk		PWWF	21.0	MGD				
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
44	V5P01_2	NW285SS09	NW285SS07	441	31.1	54	\$ 1,242	\$ 547,416
44	V5P01_11	NW285SS07	NW285SS08	441	22.2	54	\$ 1,065	\$ 469,767
44	V5P01_12	NW285SS08	NW286SS01	441	23.4	54	\$ 1,087	\$ 479,073
44	V5P01_13	NW286SS01	NW286SS02	441	34.0	54	\$ 1,356	\$ 598,758
44	V5P01_14	NW286SS02	NW286SS03	441	35.1	54	\$ 1,457	\$ 643,089
44	V5P01_15	NW286SS03	NW287SS01	442	35.7	54	\$ 1,457	\$ 643,585
45	V5P01_3	NW287SS01	NW287SS02	488	37.3	54	\$ 1,558	\$ 760,018
45	V5P01_4	NW287SS02	NW287SS03	491	37.5	54	\$ 1,558	\$ 764,240
45	V5P01_5	NW287SS03	NW288SS01	490	36.8	54	\$ 1,508	\$ 739,435
45	V5P01_6	NW288SS01	NW288SS02	488	37.0	54	\$ 1,508	\$ 735,907
45	V5P01_7	NW288SS02	NW288SS03	487	36.3	54	\$ 1,508	\$ 733,917
45	V5P01_8	NW288SS03	NW289SS01	485	34.3	54	\$ 1,407	\$ 682,883
45	V5P01_9	NW289SS01	NW289SS02	488	33.6	54	\$ 1,356	\$ 661,415
45	V5P01_10	NW289SS02	NW289SS03	485	33.3	54	\$ 1,356	\$ 657,861
45	V5P02_2	NW289SS03	NW289SS04	413	33.0	54	\$ 1,306	\$ 539,844
45	V5P02_11	NW289SS04	NW290SS01	415	32.3	54	\$ 1,306	\$ 542,496
45	V5P02_12	NW290SS01	NW290SS02	416	31.7	54	\$ 1,256	\$ 522,501
45	V5P02_3	NW290SS02	NW290SS03	455	25.0	54	\$ 1,144	\$ 519,974
45	V5P02_4	NW290SS03	SW291SS01	454	22.9	54	\$ 1,065	\$ 483,816
45	V5P02_5	SW291SS01	SW291SS02	454	28.4	54	\$ 1,200	\$ 544,478
45	V5P02_6	SW291SS02	SW291SS03	453	28.8	54	\$ 1,200	\$ 543,866
45	V5P02_7	SW291SS03	SW292SS01	451	28.1	54	\$ 1,200	\$ 541,514
45	V5P02_8	SW292SS01	SW258SS01	454	29.4	54	\$ 1,214	\$ 550,547
45	V5P02_9	SW258SS01	SW258SS02	454	31.7	54	\$ 1,256	\$ 570,121
45	V5P02_10	SW258SS02	SW259SS01	453	31.9	54	\$ 1,256	\$ 569,392
Total (rounded)		Nelson Lane Trunk		11,500				\$ 15,050,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

New Aviation Trunk		PWWF	9.4 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
24	V3P06	NW281SS001	NW281SS002	641	31.7	42	\$ 1,119	\$ 716,533
24	V3P06_16	NW281SS002	NW281SS003	517	29.4	42	\$ 1,049	\$ 542,353
24	V3P06_17	NW281SS003	NW282SS003	520	29.1	42	\$ 1,049	\$ 545,134
24	V3P06_18	NW282SS003	NW282SS002	521	30.8	42	\$ 1,072	\$ 558,306
24	V3P06_19	NW282SS002	NW283SS001	517	32.3	42	\$ 1,164	\$ 601,433
24	V3P06_20	NW283SS001	NW283SS002	517	31.6	42	\$ 1,119	\$ 578,305
24	V3P06_21	NW283SS002	NW283SS23	518	31.7	42	\$ 1,119	\$ 579,255
24	V3P06_22	NW283SS23	NW284SS26	520	33.0	42	\$ 1,209	\$ 628,114
24	V3P06_23	NW284SS26	NW284SS25	518	32.0	42	\$ 1,164	\$ 602,689
24	V3P06_24	NW284SS25	NW285SS09	521	31.4	42	\$ 1,095	\$ 570,423
Total (rounded)		New Aviation Trunk		5,400				\$ 5,920,000

Nicolaus Road Trunk - A1		PWWF	10.8 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
43	V5P22_1	NW217SS01	NW251SS05	483	19.6	42	\$ 796	\$ 384,423
43	V5P22_2	NW251SS05	NW251SS04	483	20.0	42	\$ 796	\$ 384,733
43	V5P22_3	NW251SS04	NW251SS03	482	21.3	42	\$ 834	\$ 402,152
43	V5P22_4	NW251SS03	NW251SS02	482	22.8	42	\$ 853	\$ 411,501
43	V5P22_5	NW251SS02	NW251SS01	483	24.5	42	\$ 891	\$ 430,366
43	V5P22_6	NW251SS01	NW285SS06	482	24.8	42	\$ 911	\$ 439,406
43	V5P22_7	NW285SS06	NW285SS05	483	25.0	42	\$ 911	\$ 439,752
43	V5P22_8	NW285SS05	NW285SS04	483	25.9	42	\$ 957	\$ 462,196
43	V5P22_9	NW285SS04	NW285SS03	483	27.4	42	\$ 1,003	\$ 484,234
43	V5P22_10	NW285SS03	NW285SS02	483	29.4	42	\$ 1,049	\$ 506,950
43	V5P22_11	NW285SS02	NW285SS09	483	31.0	42	\$ 1,072	\$ 517,481
Total (rounded)		Nicolaus Road Trunk - A1		5,400				\$ 4,860,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

Nicolaus Road Trunk - A2		PWWF	9.7 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
39	V4FM01_2	1TONAME	NW149SS01	547	11.1	36	\$ 521	\$ 284,988
41	V5P23_1	NW149SS01	NW183SS05	518	11.8	36	\$ 521	\$ 270,248
41	V5P23_2	NW183SS05	NW183SS04	518	11.9	36	\$ 521	\$ 270,055
41	V5P23_3	NW183SS04	NW183SS03	518	13.1	36	\$ 566	\$ 292,899
41	V5P23_4	NW183SS03	NW183SS02	518	13.2	36	\$ 566	\$ 293,335
41	V5P23_5	NW183SS02	NW183SS01	518	12.6	36	\$ 544	\$ 281,669
42	V5P23_6	NW183SS01	NW217SS05	518	13.8	36	\$ 588	\$ 304,406
42	V5P23_7	NW217SS05	NW217SS04	518	15.5	36	\$ 611	\$ 316,722
42	V5P23_8	NW217SS04	NW217SS03	519	16.7	36	\$ 623	\$ 323,118
42	V5P23_9	NW217SS03	NW217SS02	518	17.7	36	\$ 635	\$ 328,867
42	V5P23_10	NW217SS02	NW217SS01	519	18.9	36	\$ 646	\$ 335,225
Total (rounded)		Nicolaus Road Trunk - A2		5,800				\$ 3,300,000

SOI - North PS Influent Sewer		PWWF	8.3 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
37	V4P05_10	NW113SS04	NW113SS05	336	28.0	36	\$ 846	\$ 284,754
37	V4P05	NW113SS05	NW079SS01	645	26.8	36	\$ 818	\$ 527,492
37	V4P05_3	NW079SS01	NW079SS02	491	26.8	36	\$ 818	\$ 401,335
37	V4P05_4	NW079SS02	NW079SS03	491	26.2	36	\$ 818	\$ 401,335
37	V4P05_5	NW079SS03	NW079SS04	491	23.1	36	\$ 707	\$ 347,096
37	V4P05_6	NW079SS04	NW079SS05	491	20.8	36	\$ 670	\$ 328,530
37	V4P05_7	NW079SS05	NW079SS06	491	22.5	36	\$ 695	\$ 340,907
37	V4P05_8	NW079SS06	NW045SS01	491	24.5	36	\$ 733	\$ 359,472
37	V4P05_9	NW045SS01	NW045SS02	491	23.3	36	\$ 707	\$ 347,096
37	V4P05_11	NW045SS02	NW045SS03	175	22.6	36	\$ 695	\$ 121,573
38	V4P05_12	NW045SS03	V4PS	316	22.7	36	\$ 695	\$ 219,334
Total (rounded)		SOI - North PS Influent Sewer		5,000				\$ 3,680,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

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Appendix B - Opinion of Probable Costs Details

SOI - South PS Influent Sewer		PWWF	5.2 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
63	4_1	NW157SS04	NW157SS05	531	25.9	24	\$ 576	\$ 305,896
63	4_2	NW157SS05	NW157SS06	531	28.2	24	\$ 623	\$ 330,512
71	7_1	NW157SS06	NW123SS01	517	29.5	24	\$ 638	\$ 329,784
71	7_2	NW123SS01	NW123SS02	517	29.4	24	\$ 638	\$ 329,784
71	7_3	NW123SS02	NW123SS03	517	29.0	24	\$ 638	\$ 329,784
71	7_4	NW123SS03	NW123SS04	517	29.0	24	\$ 638	\$ 329,784
71	7_5	NW123SS04	NW123SS05	517	28.7	24	\$ 623	\$ 321,795
71	7_6	NW123SS05	NW089SS01	517	28.5	24	\$ 623	\$ 321,795
71	7_7	NW089SS01	NW089SS02	517	29.1	24	\$ 638	\$ 329,784
71	7_8	NW089SS02	NW089SS03	517	28.3	24	\$ 623	\$ 321,795
71	7_9	NW089SS03	NW089SS04	517	27.0	24	\$ 592	\$ 305,817
71	7_10	NW089SS04	NW089SS05	517	26.5	24	\$ 592	\$ 305,817
71	7_11	NW089SS05	NW055SS01	517	26.7	24	\$ 592	\$ 305,817
71	7_12	NW055SS01	NW055SS02	517	26.5	24	\$ 592	\$ 305,817
71	7_13	NW055SS02	NW055SS04	517	26.7	24	\$ 592	\$ 305,817
71	7_14	NW055SS04	V6SS03	517	26.6	24	\$ 592	\$ 305,817
Total (rounded)		SOI - South PS Influent Sewer		8,300				\$ 5,090,000

SUD-A Trunk - A		PWWF	2.3 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
29	SAP04_1	NW176SS01	NW177SS04	512	21.2	18	\$ 384	\$ 196,549
29	SAP04_2	NW177SS04	NW177SS03	512	20.9	18	\$ 375	\$ 191,801
29	SAP04_3	NW177SS03	NW177SS02	512	20.2	18	\$ 375	\$ 191,801
29	SAP04_4	NW177SS02	NW177SS01	512	20.0	18	\$ 375	\$ 191,801
29	SAP04_5	NW177SS01	NW143SS01	512	21.7	18	\$ 384	\$ 196,549
29	SAP04_6	NW143SS01	NW144SS02	512	22.1	18	\$ 393	\$ 201,296
29	SAP04_7	NW144SS02	NW144SS01	512	22.9	18	\$ 393	\$ 201,296
29	SAP04_8	NW144SS01	NW145SS03	512	25.5	18	\$ 433	\$ 221,869
29	SAP04_9	NW145SS03	NW145SS02	512	26.5	18	\$ 458	\$ 234,529
29	SAP04_10	NW145SS02	NW145SS01	512	27.2	18	\$ 471	\$ 240,859
29	SAP04_11	NW145SS01	NW146SS05	512	27.7	18	\$ 471	\$ 240,859
Total (rounded)		SUD-A Trunk - A		5,700				\$ 2,310,000

See Chapter 9.0 of this Master Plan for Total Project Costs.



CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

SUD-A Trunk - A1		PWWF	0.8 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
28	SAP05_1	NW174SS02	NW174SS01	463	6.9	12	\$ 193	\$ 89,364
28	SAP05_2	NW174SS01	NW175SS03	463	9.1	12	\$ 193	\$ 89,364
28	SAP05_3	NW175SS03	NW175SS02	463	12.0	12	\$ 234	\$ 108,440
28	SAP05_4	NW175SS02	NW175SS01	463	14.7	12	\$ 265	\$ 122,875
28	SAP05_5	NW175SS01	NW176SS04	463	17.2	12	\$ 276	\$ 128,031
28	SAP05_6	NW176SS04	NW176SS03	463	18.9	12	\$ 280	\$ 129,749
28	SAP05_7	NW176SS03	NW176SS01	463	20.5	12	\$ 288	\$ 133,187
Total (rounded)		SUD-A Trunk - A1		3,300				\$ 800,000

SUD-A Trunk - A2		PWWF	1.1 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
27	SAP06_1	NW207SS01	NW208SS02	510	9.7	15	\$ 226	\$ 115,313
27	SAP06_2	NW208SS02	NW208SS01	510	12.8	15	\$ 266	\$ 135,729
27	SAP06_3	NW208SS01	NW209SS03	510	15.1	15	\$ 303	\$ 154,201
27	SAP06_4	NW209SS03	NW209SS02	510	15.6	15	\$ 303	\$ 154,201
27	SAP06_5	NW209SS02	NW209SS01	510	18.3	15	\$ 317	\$ 161,492
27	SAP06_6	NW209SS01	NW210SS02	510	20.4	15	\$ 326	\$ 166,353
27	SAP06_7	NW210SS02	NW210SS01	510	20.4	15	\$ 326	\$ 166,353
27	SAP06_8	NW210SS01	NW176SS02	510	20.6	15	\$ 326	\$ 166,353
27	SAP06_9	NW176SS02	NW176SS01	510	21.1	15	\$ 334	\$ 170,323
Total (rounded)		SUD-A Trunk - A2		4,600				\$ 1,390,000

SUD-A Trunk - A3		PWWF	0.6 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
26	SAP07_1	NW207SS05	NW207SS04	467	7.2	12	\$ 193	\$ 90,122
26	SAP07_2	NW207SS04	NW207SS03	467	7.8	12	\$ 193	\$ 90,122
26	SAP07_3	NW207SS03	NW207SS02	467	8.4	12	\$ 193	\$ 90,122
26	SAP07_4	NW207SS02	NW207SS01	467	8.7	12	\$ 193	\$ 90,122
Total (rounded)		SUD-A Trunk - A3		1,900				\$ 360,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

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Appendix B - Opinion of Probable Costs Details

SUD-A Trunk - B		PWWF		1.6 MGD				
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
32	SAP01_1	NW214SS04	NW214SS05	476	25.5	15	\$ 387	\$ 184,256
32	SAP01_2	NW214SS05	NW180SS01	476	25.9	15	\$ 387	\$ 184,256
32	SAP01_3	NW180SS01	NW180SS02	476	25.8	15	\$ 387	\$ 184,256
32	SAP01_4	NW180SS02	NW180SS03	476	25.9	15	\$ 387	\$ 184,256
32	SAP01_5	NW180SS03	NW180SS04	476	26.6	15	\$ 398	\$ 189,454
32	SAP01_6	NW180SS04	NW180SS05	476	27.0	15	\$ 409	\$ 194,651
32	SAP01_7	NW180SS05	NW146SS05	476	27.4	15	\$ 409	\$ 194,651
Total (rounded)		SUD-A Trunk - B		3,400				\$ 1,320,000

SUD-A Trunk - B1		PWWF		0.6 MGD				
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
30	SAP03_1	NW212SS01	NW213SS03	496	22.0	12	\$ 307	\$ 152,110
30	SAP02_3	NW215SS03	NW214SS01	469	19.6	12	\$ 284	\$ 133,072
30	SAP03_2	NW213SS03	NW213SS02	496	23.1	12	\$ 316	\$ 156,892
30	SAP03_3	NW213SS02	NW213SS01	496	24.0	12	\$ 326	\$ 161,674
30	SAP03_4	NW213SS01	NW214SS04	496	25.0	12	\$ 336	\$ 166,456
31	SAP02_1	NW215SS01	NW215SS02	469	16.0	12	\$ 269	\$ 126,114
31	SAP02_2	NW215SS02	NW215SS03	469	17.1	12	\$ 276	\$ 129,593
31	SAP02_4	NW214SS01	NW214SS02	469	22.1	12	\$ 307	\$ 143,856
31	SAP02_5	NW214SS02	NW214SS04	469	24.0	12	\$ 326	\$ 152,902
Total (rounded)		SUD-A Trunk - B1		4,400				\$ 1,320,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

SUD-C Trunk - A1		PWWF	4.6 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
70	SCP04_5	SW161SS01	SW161SS02	477	21.7	24	\$ 498	\$ 237,279
70	SCP04_6	SW161SS02	SW160SS01	477	17.0	24	\$ 460	\$ 219,118
70	SCP04_7	SW160SS01	SW160SS02	477	14.5	24	\$ 434	\$ 206,615
70	SCP04_8	SW160SS02	SW160SS03	477	16.3	24	\$ 451	\$ 214,950
70	SCP04_9	SW160SS03	NW159SS01	477	21.1	24	\$ 498	\$ 237,279
70	SCP04_10	NW159SS01	NW159SS02	477	20.9	24	\$ 486	\$ 231,621
70	SCP04_11	NW159SS02	NW159SS03	477	18.3	24	\$ 469	\$ 223,286
69	V6P01_1	NW159SS03	NW159SS04	474	18.4	24	\$ 469	\$ 222,288
69	V6P01_2	NW159SS04	NW159SS05	474	18.6	24	\$ 469	\$ 222,288
69	V6P01_3	NW159SS05	NW159SS06	474	18.7	24	\$ 469	\$ 222,288
69	V6P01_4	NW159SS06	NW159SS07	474	18.7	24	\$ 469	\$ 222,288
69	V6P01_5	NW159SS07	NW159SS08	474	18.5	24	\$ 469	\$ 222,288
68	V6P02_1	NW159SS08	NW158SS01	508	19.0	24	\$ 469	\$ 238,081
68	V6P02_2	NW158SS01	NW158SS02	508	20.1	24	\$ 486	\$ 246,969
68	V6P02_3	NW158SS02	NW158SS03	508	21.0	24	\$ 486	\$ 246,969
68	V6P02_4	NW158SS03	NW157SS07	508	21.8	24	\$ 498	\$ 253,002
68	V6P02_5	NW157SS07	NW157SS06	508	26.0	24	\$ 576	\$ 292,844
Total (rounded)		SUD-C Trunk - A1		8,300				\$ 3,960,000

SUD-C Trunk - A2		PWWF	3.9 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
66	SCP03_1	SW197SS01	SW197SS02	454	15.5	21	\$ 385	\$ 174,872
66	SCP03_2	SW197SS02	SW197SS03	454	17.1	21	\$ 403	\$ 183,050
66	SCP03_3	SW197SS03	SW197SS04	454	19.3	21	\$ 421	\$ 191,229
66	SCP03_4	SW197SS04	SW197SS05	454	18.7	21	\$ 412	\$ 187,139
66	SCP03_5	SW197SS05	SW197SS06	454	22.0	21	\$ 455	\$ 206,431
66	SCP03_6	SW197SS06	SW163SS01	454	25.3	21	\$ 505	\$ 229,367
67	SCP04_1	SW163SS01	SW162SS01	477	26.3	21	\$ 533	\$ 254,017
67	SCP04_2	SW162SS01	SW162SS02	477	26.9	21	\$ 533	\$ 254,017
67	SCP04_3	SW162SS02	SW162SS03	477	26.8	21	\$ 533	\$ 254,017
67	SCP04_4	SW162SS03	SW161SS01	477	26.0	21	\$ 533	\$ 254,017
Total (rounded)		SUD-C Trunk - A2		4,700				\$ 2,190,000

See Chapter 9.0 of this Master Plan for Total Project Costs.



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Appendix B - Opinion of Probable Costs Details

SUD-C Trunk - A3		PWWF	2.1		MGD			
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
65	SCP02_1	SW265SS06	SW231SS01	452	23.3	18	\$ 403	\$ 181,965
65	SCP02_2	SW231SS01	SW231SS02	452	25.5	18	\$ 446	\$ 201,531
65	SCP02_3	SW231SS02	SW231SS03	452	23.3	18	\$ 403	\$ 181,965
65	SCP02_4	SW231SS03	SW231SS04	452	21.3	18	\$ 384	\$ 173,579
65	SCP02_5	SW231SS04	SW231SS05	452	19.7	18	\$ 369	\$ 166,751
65	SCP02_6	SW231SS05	SW197SS01	452	17.3	18	\$ 357	\$ 161,480
Total (rounded)		SUD-C Trunk - A3		2,800				\$ 1,070,000

SUD-C Trunk - A4		PWWF	1.1		MGD			
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
64	SCP01_1	SW265SS01	SW265SS02	490	17.0	15	\$ 312	\$ 152,909
64	SCP01_2	SW265SS02	SW265SS03	490	16.1	15	\$ 307	\$ 150,573
64	SCP01_3	SW265SS03	SW265SS04	490	15.1	15	\$ 303	\$ 148,236
64	SCP01_4	SW265SS04	SW265SS05	490	15.8	15	\$ 303	\$ 148,236
64	SCP01_5	SW265SS05	SW265SS06	490	19.2	15	\$ 322	\$ 157,582
Total (rounded)		SUD-C Trunk - A4		2,500				\$ 760,000

Village 2 Trunk - A		PWWF	2.8		MGD			
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
13	V2P04_1	NE449SS04	NE448SS01	519	25.3	18	\$ 433	\$ 224,834
13	V2P04_2	NE448SS01	NE448SS02	519	26.8	18	\$ 458	\$ 237,663
13	V2P04_3	NE448SS02	NE447SS01	519	28.7	18	\$ 483	\$ 250,492
13	V2P04_4	NE447SS01	NE447SS02	519	31.7	18	\$ 532	\$ 276,151
13	V2P04_5	NE447SS02	NE447SS03	519	34.5	18	\$ 567	\$ 294,295
13	V2P04_18	NE447SS03	NE446SS01	252	33.9	18	\$ 556	\$ 140,239
Total (rounded)		Village 2 Trunk - A		2,900				\$ 1,420,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

Village 2 Trunk - A1		PWWF	0.6 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
12	V2P03_1	NE451SS01	NE450SS01	512	12.7	12	\$ 234	\$ 119,798
12	V2P03_2	NE450SS01	NE450SS02	512	14.5	12	\$ 265	\$ 135,746
12	V2P03_3	NE450SS02	NE449SS02	512	16.5	12	\$ 273	\$ 139,543
12	V2P03_4	NE449SS02	NE449SS03	512	19.2	12	\$ 284	\$ 145,238
12	V2P03_5	NE449SS03	NE449SS04	512	22.6	12	\$ 307	\$ 157,009
Total (rounded)		Village 2 Trunk - A1		2,600				\$ 700,000

Village 2 Trunk - A2		PWWF	1.5 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
11	V2P02_1	NE518SS03	NE517SS01	538	22.0	15	\$ 342	\$ 183,983
11	V2P02_2	NE517SS01	NE517SS02	538	22.6	15	\$ 342	\$ 183,983
11	V2P02_3	NE517SS02	NE483SS01	538	23.5	15	\$ 350	\$ 188,174
11	V2P02_4	NE483SS01	NE483SS02	538	23.1	15	\$ 350	\$ 188,174
11	V2P02_5	NE483SS02	NE483SS03	538	22.5	15	\$ 342	\$ 183,983
11	V2P02_6	NE483SS03	NE483SS04	538	22.7	15	\$ 342	\$ 183,983
11	V2P02_7	NE483SS04	NE483SS05	538	23.3	15	\$ 350	\$ 188,174
11	V2P02_8	NE483SS05	NE449SS04	538	24.2	15	\$ 358	\$ 192,364
Total (rounded)		Village 2 Trunk - A2		4,400				\$ 1,490,000

Village 2 Trunk - A3		PWWF	0.7 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
10	V2P01_1	NE554SS01	NE553SS01	531	19.0	12	\$ 284	\$ 150,775
10	V2P01_2	NE553SS01	NE553SS02	531	19.0	12	\$ 280	\$ 148,804
10	V2P01_3	NE553SS02	NE552SS01	531	13.3	12	\$ 248	\$ 131,657
10	V2P01_4	NE552SS01	NE552SS02	531	12.4	12	\$ 234	\$ 124,365
10	V2P01_5	NE552SS02	NE552SS03	531	14.4	12	\$ 265	\$ 140,921
10	V2P01_6	NE552SS03	NE518SS01	531	19.2	12	\$ 284	\$ 150,775
10	V2P01_7	NE518SS01	NE518SS02	531	22.6	12	\$ 307	\$ 162,995
10	V2P01_8	NE518SS02	NE518SS03	531	22.4	12	\$ 307	\$ 162,995
Total (rounded)		Village 2 Trunk - A3		4,300				\$ 1,170,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

Village 3 Trunk - A		PWWF	1.5 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
19	V3P03_1	NE411SS05	NE411SS04	528	21.0	15	\$ 334	\$ 176,547
19	V3P03_2	NE411SS04	NE411SS03	528	20.9	15	\$ 326	\$ 172,432
19	V3P03_3	NE411SS03	NE411SS02	528	20.8	15	\$ 326	\$ 172,432
19	V3P03_4	NE411SS02	NE411SS01	528	20.5	15	\$ 326	\$ 172,432
19	V3P03_5	NE411SS01	NE377SS06	528	20.5	15	\$ 326	\$ 172,432
19	V3P03_6	NE377SS06	NE377SS05	528	20.4	15	\$ 326	\$ 172,432
19	V3P03_7	NE377SS05	NE377SS04	528	19.4	15	\$ 322	\$ 169,913
19	V3P03_8	NE377SS04	NE377SS03	528	19.2	15	\$ 322	\$ 169,913
20	V3P04_1	NE377SS03	NE377SS02	508	23.4	15	\$ 350	\$ 177,825
20	V3P04_2	NE377SS02	NE377SS01	508	22.8	15	\$ 342	\$ 173,865
20	V3P04_3	NE377SS01	NE378SS07	508	20.1	15	\$ 326	\$ 165,945
20	V3P04_4	NE378SS07	NE378SS06	508	24.6	15	\$ 365	\$ 185,745
20	V3P04_5	NE378SS06	NE378SS04	508	26.5	15	\$ 398	\$ 202,403
Total (rounded)		Village 3 Trunk - A		6,800				\$ 2,280,000

Village 3 Trunk - B		PWWF	2.7 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
17	V3P01_1	NE381SS03	NE380SS01	475	23.4	18	\$ 403	\$ 191,279
17	V3P01_2	NE380SS01	NE380SS02	475	25.5	18	\$ 446	\$ 211,847
17	V3P01_3	NE380SS02	NE380SS03	475	26.2	18	\$ 458	\$ 217,724
17	V3P01_4	NE380SS03	NE379SS01	475	28.7	18	\$ 483	\$ 229,476
17	V3P01_5	NE379SS01	NE379SS02	475	28.8	18	\$ 483	\$ 229,476
17	V3P01_6	NE379SS02	NE378SS02	475	27.7	18	\$ 471	\$ 223,600
Total (rounded)		Village 3 Trunk - B		2,900				\$ 1,300,000

Village 3 Trunk - B1		PWWF	1.1 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
15	V2P06_1	NW383SS01	NE382SS01	472	17.2	12	\$ 276	\$ 130,433
15	V2P06_2	NE382SS01	NE382SS02	472	29.1	12	\$ 385	\$ 181,789
15	V2P06_3	NE382SS02	NE382SS03	472	40.0	12	\$ -	\$ -
15	V2P06_4	NE382SS03	NE381SS01	472	36.3	12	\$ 117	\$ 55,274
15	V2P06_5	NE381SS01	NE381SS02	472	30.4	12	\$ 393	\$ 185,679
15	V2P06_6	NE381SS02	NE381SS03	472	26.4	12	\$ 360	\$ 170,117
Total (rounded)		Village 3 Trunk - B1		2,900				\$ 720,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

Village 3 Trunk - B2		PWWF	1.3 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
16	V2P05_1	NE415SS02	NE415SS01	458	27.2	15	\$ 409	\$ 187,409
16	V2P05_2	NE415SS01	NE381SS05	458	25.8	15	\$ 387	\$ 177,402
16	V2P05_3	NE381SS05	NE381SS04	458	26.0	15	\$ 398	\$ 182,405
16	V2P05_4	NE381SS04	NE381SS03	458	24.0	15	\$ 350	\$ 160,256
Total (rounded)		Village 3 Trunk - B2		1,900				\$ 710,000

Village 4 Trunk - A		PWWF	1.0 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
34	V4P04_1	NW115SS01	NW114SS01	507	18.1	12	\$ 280	\$ 142,102
34	V4P04_2	NW114SS01	NW114SS02	507	18.5	12	\$ 280	\$ 142,105
34	V4P04_3	NW114SS02	NW114SS03	507	20.7	12	\$ 288	\$ 145,869
34	V4P04_4	NW114SS03	NW113SS01	507	20.5	12	\$ 288	\$ 145,875
34	V4P04_5	NW113SS01	NW113SS02	507	21.0	12	\$ 288	\$ 145,869
34	V4P04_6	NW113SS02	NW113SS03	507	21.8	12	\$ 297	\$ 150,763
34	V4P04_7	NW113SS03	NW113SS04	507	25.2	12	\$ 344	\$ 174,520
Total (rounded)		Village 4 Trunk - A		3,600				\$ 1,050,000

Village 4 Trunk - B1		PWWF	2.0 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
36	V4P02_1	NW041SS01	NW041SS02	512	11.7	18	\$ 279	\$ 142,935
36	V4P02_2	NW041SS02	NW076SS01	512	13.0	18	\$ 316	\$ 161,537
36	V4P02_3	NW076SS01	NW076SS02	512	13.3	18	\$ 316	\$ 161,541
36	V4P02_4	NW076SS02	NW076SS03	512	14.9	18	\$ 340	\$ 173,821
36	V4P02_5	NW076SS03	NW077SS01	512	16.1	18	\$ 351	\$ 179,787
36	V4P02_6	NW077SS01	NW077SS02	512	17.5	18	\$ 357	\$ 182,770
36	V4P02_7	NW077SS02	NW077SS03	512	20.1	18	\$ 375	\$ 191,719
36	V4P02_8	NW077SS03	NW078SS01	512	20.6	18	\$ 375	\$ 191,719
36	V4P02_9	NW078SS01	NW078SS02	512	22.2	18	\$ 393	\$ 201,210
36	V4P02_10	NW078SS02	NW078SS03	512	23.3	18	\$ 403	\$ 205,955
36	V4P02_11	NW078SS03	NW112SS08	512	22.6	18	\$ 393	\$ 201,210
36	V4P02_12	NW112SS08	NW113SS04	512	25.1	18	\$ 433	\$ 221,774
Total (rounded)		Village 4 Trunk - B1		6,200				\$ 2,220,000

See Chapter 9.0 of this Master Plan for Total Project Costs.



CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

Village 4 Trunk - B2		PWWF	0.8 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
35	V4P01_1	NW109SS01	NW109SS02	486	7.2	12	\$ 193	\$ 93,785
35	V4P01_2	NW109SS02	NW109SS03	486	6.4	12	\$ 193	\$ 93,785
35	V4P01_3	NW109SS03	NW109SS04	486	6.9	12	\$ 193	\$ 93,785
35	V4P01_4	NW109SS04	NW109SS05	486	7.4	12	\$ 193	\$ 93,785
35	V4P01_5	NW109SS05	NW075SS01	486	7.5	12	\$ 193	\$ 93,785
35	V4P01_6	NW075SS01	NW075SS02	486	9.3	12	\$ 193	\$ 93,785
35	V4P01_7	NW075SS02	NW075SS03	486	11.1	12	\$ 220	\$ 107,132
35	V4P01_8	NW075SS03	NW075SS04	486	10.0	12	\$ 193	\$ 93,785
35	V4P01_9	NW075SS04	NW075SS05	486	9.2	12	\$ 193	\$ 93,785
35	V4P01_10	NW075SS05	NW041SS01	486	10.3	12	\$ 207	\$ 100,459
Total (rounded)		Village 4 Trunk - B2		4,900				\$ 960,000

Village 4/SUD-A Trunk		PWWF	5.0 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
33	V4P03_1	NW146SS05	NW146SS04	516	28.7	24	\$ 623	\$ 321,590
33	V4P03_2	NW146SS04	NW146SS03	516	30.1	24	\$ 654	\$ 337,557
33	V4P03_3	NW146SS03	NW146SS02	516	29.8	24	\$ 638	\$ 329,574
33	V4P03_4	NW146SS02	NW146SS01	516	28.8	24	\$ 623	\$ 321,590
33	V4P03_5	NW146SS01	NW112SS04	516	28.1	24	\$ 623	\$ 321,590
33	V4P03_6	NW112SS04	NW112SS03	516	28.3	24	\$ 623	\$ 321,590
33	V4P03_7	NW112SS03	NW112SS02	516	26.8	24	\$ 592	\$ 305,622
33	V4P03_8	NW112SS02	NW112SS01	516	27.0	24	\$ 592	\$ 305,622
33	V4P03_9	NW112SS01	NW113SS04	516	28.8	24	\$ 623	\$ 321,590
Total (rounded)		Village 4/SUD-A Trunk		4,700				\$ 2,890,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

Village 5/SUD-B Trunk - A		PWWF	0.6 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
59	V5P11_1	NW152SS01	NW152SS02	460	21.3	15	\$ 334	\$ 153,887
59	V5P11_2	NW152SS02	NW152SS03	460	21.0	15	\$ 334	\$ 153,750
59	V5P11_3	NW152SS03	NW152SS04	459	21.1	15	\$ 334	\$ 153,406
60	3_15	NW152SS04	NW153SS03	483	21.5	15	\$ 334	\$ 161,442
60	3_16	NW153SS03	NW153SS04	483	22.0	15	\$ 342	\$ 165,205
60	3_17	NW153SS04	NW153SS05	483	23.1	15	\$ 350	\$ 168,967
60	3_18	NW153SS05	NW154SS06	483	23.7	15	\$ 350	\$ 168,967
61	3_3	NW154SS06	NW154SS07	421	24.0	15	\$ 350	\$ 147,312
61	3_19	NW154SS07	NW154SS08	421	24.6	15	\$ 365	\$ 153,873
61	3_20	NW154SS08	NW155SS03	421	25.5	15	\$ 387	\$ 163,073
61	3_21	NW155SS03	NW155SS02	421	25.9	15	\$ 387	\$ 163,073
61	3_22	NW155SS02	NW155SS01	421	26.9	15	\$ 398	\$ 167,672
62	3_4	NW155SS01	NW156SS04	489	27.9	15	\$ 409	\$ 200,235
62	3_23	NW156SS04	NW156SS05	489	28.3	15	\$ 420	\$ 205,582
62	3_24	NW156SS05	NW156SS06	489	28.6	15	\$ 420	\$ 205,582
62	3_25	NW156SS06	NW157SS04	489	26.8	15	\$ 398	\$ 194,889
Total (rounded)		Village 5/SUD-B Trunk - A		7,400				\$ 2,730,000

Village 5/SUD-B Trunk - B1		PWWF	1.3 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
46	V5P17_1	NW155SS06	NW156SS01	487	12.9	21	\$ 334	\$ 162,575
46	V5P17_2	NW156SS01	NW156SS02	486	13.3	21	\$ 351	\$ 170,374
46	V5P17_3	NW156SS02	NW156SS03	486	11.8	21	\$ 317	\$ 154,116
46	V5P17_4	NW156SS03	NW157SS01	486	9.6	21	\$ 284	\$ 137,959
Total (rounded)		Village 5/SUD-B Trunk - B1		2,000				\$ 630,000

Village 5/SUD-B Trunk - B2		PWWF	0.8 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
47	V5P15_1	NW154SS01	NW154SS02	418	11.5	18	\$ 279	\$ 116,715
47	V5P15_2	NW154SS02	NW154SS03	418	11.7	18	\$ 279	\$ 116,824
47	V5P15_3	NW154SS03	NW155SS04	418	11.4	18	\$ 279	\$ 116,715
47	V5P15_4	NW155SS04	NW155SS05	418	12.2	18	\$ 298	\$ 124,220
47	V5P15_5	NW155SS05	NW155SS06	418	12.6	18	\$ 298	\$ 124,283
Total (rounded)		Village 5/SUD-B Trunk - B2		2,100				\$ 600,000

See Chapter 9.0 of this Master Plan for Total Project Costs.



CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

Village 5/SUD-B Trunk - C		PWWF	3.1 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
49	V5P10_1	NW189SS03	NW190SS03	487	15.6	24	\$ 442	\$ 215,542
49	V5P10_2	NW190SS03	NW190SS02	488	12.9	24	\$ 382	\$ 186,167
49	V5P10_3	NW190SS02	NW190SS01	488	11.7	24	\$ 360	\$ 175,670
49	V5P10_4	NW190SS01	NW191SS01	488	14.4	24	\$ 434	\$ 211,475
Total (rounded)		Village 5/SUD-B Trunk - C		2,000				\$ 790,000

Village 5/SUD-B Trunk - C1		PWWF	0.3 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
48	V5P04_3	NW188SS01	NW188SS02	416	13.6	12	\$ 262	\$ 108,746
48	V5P04_4	NW188SS02	NW188SS03	416	14.3	12	\$ 265	\$ 110,371
48	V5P04_5	NW188SS03	NW189SS01	416	15.7	12	\$ 269	\$ 111,882
48	V5P04_6	NW189SS01	NW189SS02	416	15.7	12	\$ 269	\$ 111,993
48	V5P04_7	NW189SS02	NW189SS03	416	16.1	12	\$ 273	\$ 113,409
Total (rounded)		Village 5/SUD-B Trunk - C1		2,100				\$ 560,000

Village 5/SUD-B Trunk - C2		PWWF	2.6 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
58	V5P06_3	NW223SS01	NW223SS02	483	17.6	21	\$ 403	\$ 194,908
58	V5P06_13	NW223SS02	NW223SS03	484	16.5	21	\$ 394	\$ 190,688
58	V5P06_14	NW223SS03	NW223SS04	486	16.1	21	\$ 394	\$ 191,567
58	V5P06_15	NW223SS04	NW223SS05	485	16.1	21	\$ 394	\$ 191,197
58	V5P06_16	NW223SS05	NW223SS06	481	16.1	21	\$ 394	\$ 189,564
58	V5P06_17	NW223SS06	NW189SS03	481	16.4	21	\$ 394	\$ 189,678
Total (rounded)		Village 5/SUD-B Trunk - C2		2,900				\$ 1,150,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

CITY OF LINCOLN - WASTEWATER COLLECTION SYSTEM MASTER PLAN

Appendix B - Opinion of Probable Costs Details

Village 5/SUD-B Trunk - C3		PWWF	2.6 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
54	V5P06_1	NW256SS02	NW256SS03	480	17.3	18	\$ 357	\$ 171,354
55	V5P06_8	NW256SS03	NW257SS01	480	17.5	18	\$ 357	\$ 171,479
55	V5P06_9	NW257SS01	NW257SS02	478	17.6	18	\$ 357	\$ 170,696
56	V5P06_10	NW257SS02	NW257SS03	478	17.4	18	\$ 357	\$ 170,568
56	V5P06_11	NW257SS03	NW257SS04	477	17.1	18	\$ 357	\$ 170,396
57	V5P06_12	NW257SS04	NW223SS01	477	17.8	18	\$ 357	\$ 170,525
Total (rounded)		Village 5/SUD-B Trunk - C3		2,900				\$ 1,030,000

Village 5/SUD-B Trunk - C4		PWWF	1.5 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
52	V5P06_2	NW255SS04	NW255SS06	472	16.5	15	\$ 307	\$ 145,230
52	V5P06_5	NW255SS06	NW255SS07	472	16.6	15	\$ 307	\$ 144,963
52	V5P06_6	NW255SS07	NW256SS01	471	16.7	15	\$ 307	\$ 144,634
53	V5P06_7	NW256SS01	NW256SS02	471	16.8	15	\$ 307	\$ 144,929
Total (rounded)		Village 5/SUD-B Trunk - C4		1,900				\$ 580,000

Village 5/SUD-B Trunk - C5		PWWF	0.6 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
50	V5P19_2	NW289SS06	NW255SS05	479	15.7	15	\$ 303	\$ 144,904
50	V5P19_1	NW255SS05	NW255SS04	480	16.5	15	\$ 307	\$ 147,554
51	V5P18_1	NW255SS01	NW255SS02	513	10.6	15	\$ 240	\$ 122,984
51	V5P18_2	NW255SS02	NW255SS03	516	12.6	15	\$ 266	\$ 137,314
51	V5P18_3	NW255SS03	NW255SS04	514	15.0	15	\$ 303	\$ 155,514
Total (rounded)		Village 5/SUD-B Trunk - C5		2,600				\$ 710,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

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Village 5/SUD-B Trunk - D		PWWF	0.4 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
40	V5P24_1	NW150SS01	NW149SS03	515	6.3	18	\$ 243	\$ 125,144
40	V5P24_2	NW149SS03	NW149SS02	515	6.8	18	\$ 243	\$ 125,032
40	V5P24_3	NW149SS02	NW149SS01	515	9.8	18	\$ 243	\$ 125,168
Total (rounded)		Village 5/SUD-B Trunk - D		1,600				\$ 380,000

Village 6 Trunk - A1		PWWF	1.9 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
74	3_1	SW059SS01	SW058SS03	482	14.2	18	\$ 340	\$ 163,878
74	3_5	SW058SS03	SW058SS02	482	12.9	18	\$ 298	\$ 143,527
74	3_6	SW058SS02	SW058SS01	482	13.5	18	\$ 316	\$ 152,296
74	3_7	SW058SS01	SW057SS03	482	14.1	18	\$ 340	\$ 163,878
74	3_8	SW057SS03	SW057SS02	482	14.2	18	\$ 340	\$ 163,878
74	3_9	SW057SS02	SW057SS01	482	10.6	18	\$ 261	\$ 125,989
74	3_10	SW057SS01	NW056SS03	482	11.8	18	\$ 279	\$ 134,758
74	3_11	NW056SS03	NW056SS02	482	17.6	18	\$ 357	\$ 172,315
74	3_12	NW056SS02	NW056SS01	482	19.8	18	\$ 369	\$ 177,939
74	3_13	NW056SS01	NW055SS03	482	22.1	18	\$ 393	\$ 189,699
74	3_14	NW055SS03	V6SS03	482	23.6	18	\$ 403	\$ 194,173
Total (rounded)		Village 6 Trunk - A1		5,400				\$ 1,780,000

Village 6 Trunk - A2		PWWF	1.1 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
73	V6P06_1	SW061SS01	SW060SS03	506	7.5	15	\$ 226	\$ 114,503
73	V6P06_2	SW060SS03	SW060SS02	506	8.4	15	\$ 226	\$ 114,503
73	V6P06_3	SW060SS02	SW060SS01	506	9.2	15	\$ 226	\$ 114,503
73	V6P06_4	SW060SS01	SW059SS02	506	11.4	15	\$ 253	\$ 128,018
73	V6P06_5	SW059SS02	SW059SS01	506	14.5	15	\$ 298	\$ 150,704
Total (rounded)		Village 6 Trunk - A2		2,600				\$ 620,000

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Village 6 Trunk - A3		PWWF	0.7 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
72	V6P03_1	SW163SS02	SW129SS05	477	14.5	12	\$ 265	\$ 126,586
72	V6P03_2	SW129SS05	SW129SS04	477	14.9	12	\$ 265	\$ 126,586
72	V6P03_3	SW129SS04	SW129SS03	477	13.3	12	\$ 248	\$ 118,265
72	V6P03_4	SW129SS03	SW129SS02	477	11.6	12	\$ 220	\$ 105,164
72	V6P03_5	SW129SS02	SW129SS01	477	12.1	12	\$ 234	\$ 111,715
72	V6P03_6	SW129SS01	SW095SS06	477	9.4	12	\$ 193	\$ 92,063
72	V6P03_7	SW095SS06	SW095SS05	477	6.4	12	\$ 193	\$ 92,063
72	V6P03_8	SW095SS05	SW095SS04	477	6.8	12	\$ 193	\$ 92,063
72	V6P03_9	SW095SS04	SW095SS03	477	9.5	12	\$ 193	\$ 92,063
72	V6P03_10	SW095SS03	SW095SS02	477	11.5	12	\$ 220	\$ 105,164
72	V6P03_11	SW095SS02	SW095SS01	477	11.0	12	\$ 220	\$ 105,164
72	V6P03_12	SW095SS01	SW061SS04	477	9.6	12	\$ 193	\$ 92,063
72	V6P03_13	SW061SS04	SW061SS03	477	8.2	12	\$ 193	\$ 92,063
72	V6P03_14	SW061SS03	SW061SS02	477	6.9	12	\$ 193	\$ 92,063
72	V6P03_15	SW061SS02	SW061SS01	477	6.4	12	\$ 193	\$ 92,063
Total (rounded)		Village 6 Trunk - A3		7,200				\$ 1,540,000

West Wise Road Trunk		PWWF	8.1 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
22	V3P05_5	NE344SS03	NE344SS04	629	21.3	30	\$ 588	\$ 369,830
22	V3P05_6	NE344SS04	NE344SS05	532	20.7	30	\$ 575	\$ 305,987
22	V3P05_3	NE344SS05	NE310SS01	397	21.1	30	\$ 588	\$ 233,090
22	V3P05_8	NE310SS01	NE309SS01	668	21.7	30	\$ 588	\$ 392,760
22	V3P05_9	NE309SS01	NE309SS02	533	21.4	30	\$ 588	\$ 312,928
22	V3P05_4	NE309SS02	NE309SS03	229	21.1	30	\$ 588	\$ 134,413
22	V3P05_7	NE309SS03	NE309SS03-2	533	20.8	30	\$ 575	\$ 306,769
22	V3P05_18	NE309SS03-2	NE309SS04	523	19.8	30	\$ 566	\$ 295,898
22	V3P05_11	NE309SS04	NW275SS01	313	19.4	30	\$ 566	\$ 177,118
22	V3P05_13	NW275SS01	NW275SS02	644	17.9	30	\$ 549	\$ 353,301
22	V3P05_12	NW275SS02	NW275SS03	421	14.6	30	\$ 523	\$ 220,105
22	V3P05_15	NW275SS03	NW275SS04	621	15.3	30	\$ 531	\$ 330,061
22	V3P05_10	NW275SS04	NW276SS01	333	18.7	30	\$ 558	\$ 185,724
22	V3P05_17	NW276SS01	NW276SS02	641	19.8	30	\$ 566	\$ 363,076
Total (rounded)		West Wise Road Trunk		7,100				\$ 3,980,000

See Chapter 9.0 of this Master Plan for Total Project Costs.



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Dual Forcemains		PWWF	15.7 MGD					
Pipeline ID	Pipe Segment ID	Upstream Manhole	Downstream Manhole	Total Length (LF)	Average Depth (ft)	Dual Pipe Size (in)	Unit Cost (\$/LF)	Construction Cost
#N/A	V6FM01	V6FM	NW157SS01	19,407		18	\$ 314	\$ 6,089,190
#N/A	V4FM01_3	V4FM	V4FM2	2,453		18	\$ 314	\$ 769,756
#N/A	V4FM01_4	V4FM2	V4FM3	2,452		18	\$ 314	\$ 769,204
#N/A	V4FM01_5	V4FM3	V4FM4	2,454		18	\$ 314	\$ 769,976
#N/A	V4FM01_6	V4FM4	V4FM5	2,454		18	\$ 314	\$ 770,101
#N/A	V4FM01_7	V4FM5	V4FM6	2,449		18	\$ 314	\$ 768,463
#N/A	V4FM01_8	V4FM6	V4FM7	2,452		18	\$ 314	\$ 769,436
#N/A	V4FM01_9	V4FM7	V4FM8	2,452		18	\$ 314	\$ 769,493
#N/A	V4FM01_10	V4FM8	1TONAME	2,451		18	\$ 314	\$ 769,129
Total (rounded)		Dual Forcemains		39,400				\$ 12,250,000

See Chapter 9.0 of this Master Plan for Total Project Costs.

