

CHAPTER 12

APPENDIX – A123.1

Results of the Hydraulic Analysis for the Feasibility Study

A123.1 Results of the Hydraulic Analysis for the Feasibility Study

This appendix shows detailed results of the hydraulic analysis of trunk mains on the proposed priority water supply project of the feasibility study, for the three towns of Zone West in 2016. The conditions of this hydraulic analysis are the same as those explained for the Master Plan in **Sections 77.1** and **77.2** of the main report.

These results include trunk distribution mains, but not include distribution network mains that are explained in **Appendix A123.2** as well as in **Section 12.3.1** of the main report. The total lengths of the trunk distribution mains to be newly installed and replaced in the priority project, which are illustrated in **Figure A123.1.1**, are shown in **Table A123.1.1**.

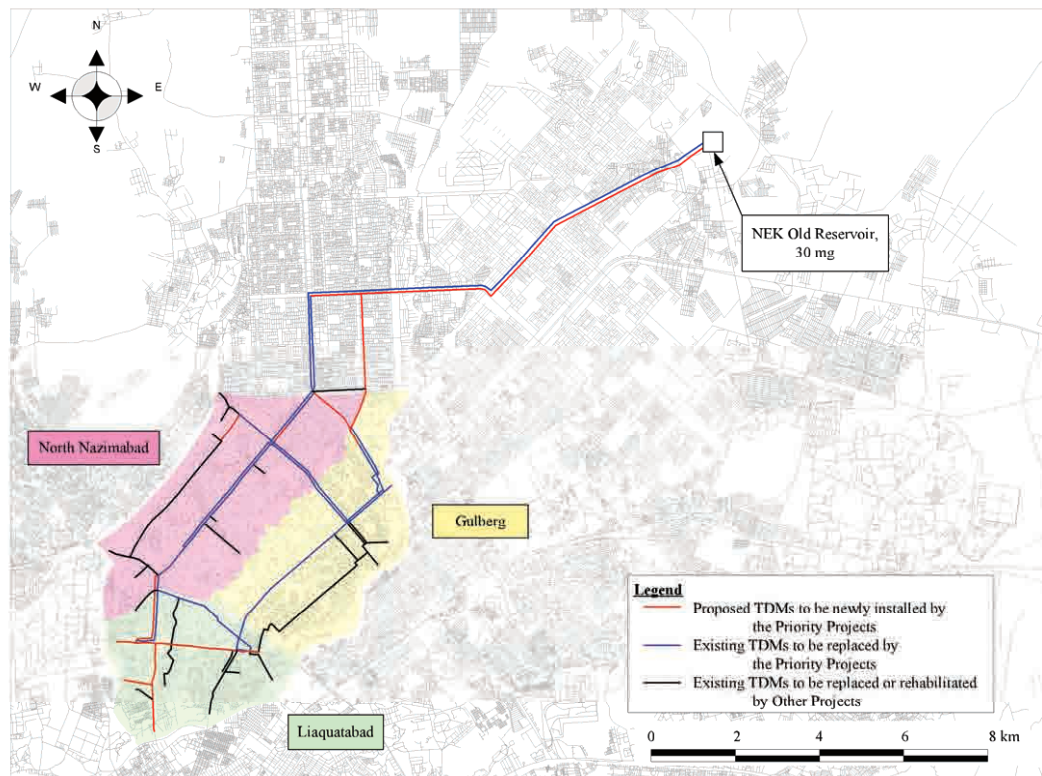


Figure A123.1.1 Pipe Replacement and Installation for the Priority Area

Table A123.1.1 Trunk Distribution Mains for the Priority Project

Diameter (in)	Length (m)	
	New Mains to be installed	Existing Mains to be replaced
100	9,620	0
88	2,320	0
72	1,210	0
64	30	4,180
56	3,830	4,660
48	1,820	19,160
36	3,120	0
32	10	1,030
28	90	0
24	1,360	10,550
18	2,140	4,210
16	440	2,460
14	0	3,240
Total	25,990	49,490

Figure A123.1.2 shows all the trunk distribution mains in 2016 (including continuous use of existing pipes as well as the replacement of existing pipes and installation of additional new pipes proposed for the priority project) for the three towns of the feasibility study in different colours depending on pipe diameter as results of the hydraulic analysis.

Tables A123.1.2 and A123.1.3 also show the results of the analysis, such as length and discharge of each pipe, regarding to the existing and new trunk distribution mains for the priority project shown in **Figure A123.1.2**. **Tables A123.1.4** shows the results on the distribution network junctions shown in **Figure A123.1.2** such as water pressure at each junction.

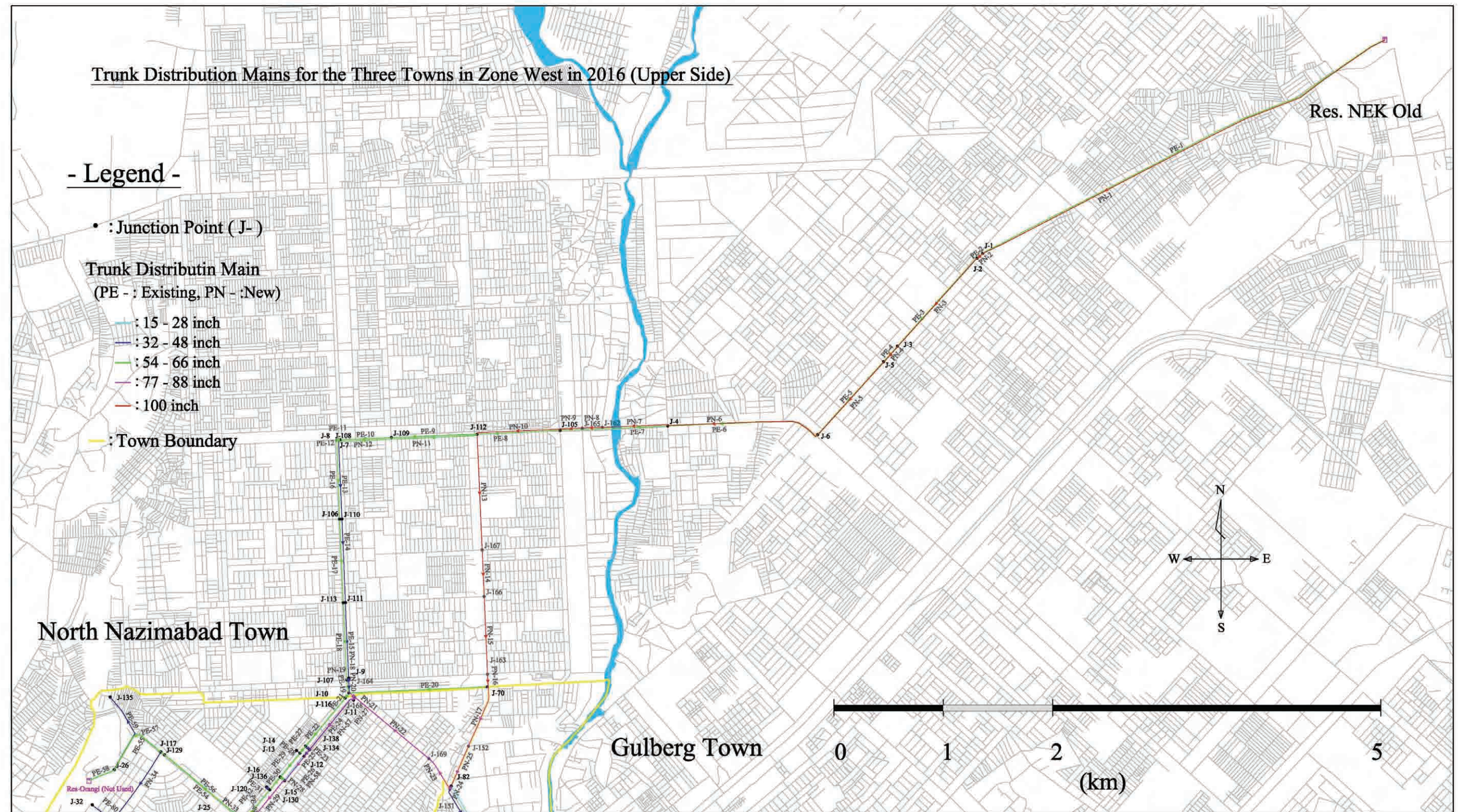


Figure A123.1.2 Proposed Trunk Distribution Mains for the Priority Project (1/2: Upper Side)

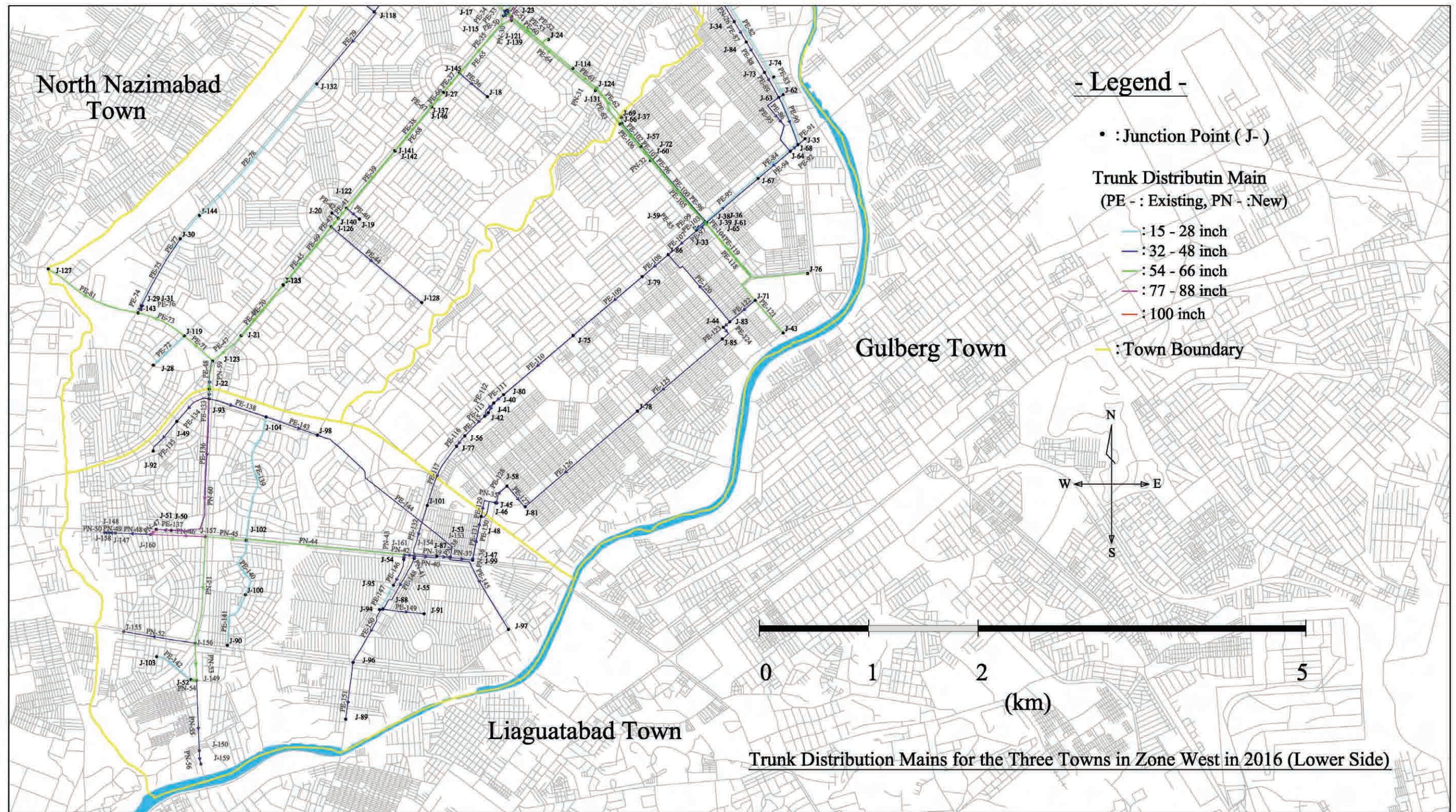


Figure A123.1.2 Proposed Trunk Distribution Mains for the Priority Project (2/2: Lower Side)

Table A123.1.2 Results of the Analysis for the Priority Project (Existing Pipe) 1/3

Label	Length (m)	Diameter (in)	Material	Hazen-Williams C	Velocity (m/s)	Control Status	Discharge (mgd(imp))	Pressure Pipe Headloss (m)	Headloss Gradient (m/km)
PE-1	4176.67	66	PRCC	110	0.74	Open	30.91	1.47	0.35
PE-2	67.36	54	PRCC	110	0.74	Open	20.69	0.03	0.44
PE-3	1083.87	54	PRCC	110	0.72	Open	20.34	0.47	0.43
PE-4	191.11	54	PRCC	110	0.73	Open	20.47	0.08	0.43
PE-5	898.25	54	PRCC	110	0.72	Open	20.10	0.38	0.42
PE-6	1425.85	54	PRCC	110	0.66	Open	18.53	0.52	0.36
PE-7	985.42	54	PRCC	110	0.66	Open	18.43	0.35	0.36
PE-8	759.56	48	PRCC	110	0.62	Open	13.79	0.28	0.37
PE-9	785.16	48	PRCC	110	1.05	Open	23.33	0.77	0.98
PE-10	470.00	48	PRCC	110	1.03	Open	22.95	0.45	0.95
PE-11	13.11	48	PRCC	110	0.79	Open	17.63	0.01	0.59
PE-12	15.54	48	PRCC	110	1.02	Open	22.73	0.01	0.94
PE-13	723.29	18	Cast iron	100	0.63	Open	1.97	1.04	1.43
PE-14	765.05	18	Cast iron	100	0.36	Open	1.13	0.39	0.51
PE-15	689.46	18	Cast iron	100	0.09	Open	0.29	0.03	0.04
PE-16	723.60	48	PRCC	110	0.91	Open	20.22	0.55	0.76
PE-17	765.05	48	PRCC	110	0.85	Open	18.83	0.51	0.66
PE-18	708.36	48	PRCC	110	0.76	Open	16.88	0.38	0.54
PE-19	120.40	48	PRCC	110	0.64	Open	14.26	0.05	0.40
PE-20	1266.44	48	PRCC	110	1.28	Open	28.33	1.79	1.41
PE-21	55.47	48	PRCC	110	0.89	Open	19.72	0.04	0.72
PE-22	569.06	48	PRCC	110	0.88	Open	19.43	0.40	0.70
PE-23	48.77	24	PRCC	110	0.04	Open	0.21	0.00	0.00
PE-24	623.93	18	PRCC	110	0.49	Open	1.53	0.41	0.65
PE-25	78.94	18	PRCC	110	0.30	Open	0.95	0.02	0.31
PE-26	284.68	15	PRCC	110	0.44	Open	0.95	0.22	0.76
PE-27	83.82	48	PRCC	110	0.85	Open	18.78	0.06	0.66
PE-28	37.80	16	MS	110	0.00	Open	0.00	0.00	0.00
PE-29	283.16	48	PRCC	110	0.85	Open	18.78	0.19	0.66
PE-30	150.57	48	PRCC	110	1.00	Open	22.21	0.14	0.90
PE-31	39.93	16	MS	110	0.00	Open	0.00	0.00	0.00
PE-32	348.39	48	PRCC	110	0.98	Open	21.78	0.30	0.87
PE-33	25.91	48	PRCC	110	1.19	Open	26.46	0.03	1.24
PE-34	39.01	48	PRCC	110	0.75	Open	16.60	0.02	0.52
PE-35	665.68	48	PRCC	110	0.99	Open	21.91	0.58	0.88
PE-36	334.67	16	Asbestos Cement	140	0.00	Open	0.00	0.00	0.00
PE-37	402.03	48	PRCC	110	0.93	Open	20.62	0.31	0.78
PE-38	524.26	48	PRCC	110	0.97	Open	21.43	0.44	0.84
PE-39	684.58	48	PRCC	110	0.95	Open	21.00	0.55	0.81
PE-40	154.53	16	Asbestos Cement	140	0.00	Open	0.00	0.00	0.00
PE-41	119.79	48	PRCC	110	0.89	Open	19.85	0.09	0.73
PE-42	74.98	16	Asbestos Cement	140	0.00	Open	0.00	0.00	0.00
PE-43	101.50	48	PRCC	110	0.88	Open	19.42	0.07	0.70
PE-44	1078.69	16	Asbestos Cement	140	0.23	Open	0.57	0.15	0.14
PE-45	690.98	48	PRCC	110	0.82	Open	18.13	0.43	0.62
PE-46	602.89	48	PRCC	110	0.78	Open	17.41	0.34	0.57
PE-47	349.61	48	PRCC	110	1.59	Open	35.25	0.74	2.11
PE-48	266.09	24	MS	110	0.74	Open	4.10	0.31	1.15
PE-49	32.61	24	MS	110	0.87	Open	4.82	0.05	1.55
PE-50	50.29	24	MS	110	1.01	Open	5.60	0.10	2.05

Table A123.1.2 Results of the Analysis for the Priority Project (Existing Pipe) 2/3

Label	Length (m)	Diameter (in)	Material	Hazen-Williams C	Velocity (m/s)	Control Status	Discharge (mgd(imp))	Pressure Pipe Headloss (m)	Headloss Gradient (m/km)
PE-51	44.50	33	PRCC	110	1.13	Open	11.85	0.08	1.74
PE-52	439.22	33	PRCC	110	0.32	Open	3.35	0.07	0.17
PE-53	517.86	33	PRCC	110	0.32	Open	3.35	0.09	0.17
PE-54	981.76	33	PRCC	110	0.45	Open	4.75	0.31	0.32
PE-55	913.49	33	PRCC	110	0.00	Closed	0.00	0.00	0.00
PE-56	972.01	33	PRCC	110	0.14	Open	1.43	0.03	0.03
PE-57	704.70	33	PRCC	110	0.08	Open	0.86	0.01	0.01
PE-58	252.68	33	PRCC	110	0.00	Closed	0.00	0.00	0.00
PE-59	787.91	18	Asbestos Cement	140	0.28	Open	0.86	0.13	0.17
PE-60	799.19	48	PRCC	110	0.38	Open	8.46	0.12	0.15
PE-61	282.24	48	PRCC	110	0.37	Open	8.17	0.04	0.14
PE-62	351.13	48	PRCC	110	0.44	Open	9.70	0.07	0.19
PE-63	388.01	48	MS	110	0.43	Open	9.49	0.07	0.19
PE-64	1001.57	48	MS	110	0.55	Open	12.31	0.30	0.30
PE-65	914.10	48	MS	110	1.05	Open	23.24	0.89	0.98
PE-66	170.69	48	MS	110	1.05	Open	23.24	0.17	0.98
PE-67	4.88	48	MS	110	0.06	Open	1.24	0.00	0.00
PE-68	524.26	48	PRCC	110	0.93	Open	20.71	0.41	0.79
PE-69	1596.54	48	PRCC	110	0.89	Open	19.71	1.15	0.72
PE-70	602.89	48	PRCC	110	0.80	Open	17.84	0.36	0.60
PE-71	346.56	33	MS	110	0.42	Open	4.44	0.10	0.28
PE-72	389.53	15	PRCC	110	0.00	Open	0.00	0.00	0.00
PE-73	477.32	33	MS	110	0.29	Open	3.00	0.07	0.14
PE-74	72.85	16	Asbestos Cement	140	0.58	Open	1.43	0.05	0.75
PE-75	708.66	16	Asbestos Cement	140	0.00	Open	0.00	0.00	0.00
PE-76	3.66	16	Asbestos Cement	140	0.58	Open	1.43	0.00	0.75
PE-77	982.37	15	PRCC	110	0.66	Open	1.43	1.58	1.61
PE-78	1614.22	15	PRCC	110	0.53	Open	1.15	1.74	1.08
PE-79	863.80	18	PRCC	110	0.97	Open	3.02	2.29	2.65
PE-80	235.92	18	PRCC	110	0.00	Open	0.00	0.00	0.00
PE-81	929.03	33	MS	110	0.05	Open	0.57	0.01	0.01
PE-82	1068.93	15	Cast iron	100	0.72	Open	1.55	2.39	2.24
PE-83	183.79	15	Cast iron	100	0.48	Open	1.03	0.19	1.05
PE-84	1695.91	15	Cast iron	100	0.10	Open	0.22	0.10	0.06
PE-85	26.52	15	PRCC	110	0.10	Open	0.22	0.00	0.05
PE-86	683.97	18	PE	140	0.22	Open	0.68	0.07	0.11
PE-87	216.10	16	Asbestos Cement	140	0.99	Open	2.44	0.44	2.03
PE-88	324.31	16	Asbestos Cement	140	0.83	Open	2.05	0.48	1.47
PE-89	263.35	16	Asbestos Cement	140	0.62	Open	1.53	0.23	0.86
PE-90	466.95	16	Asbestos Cement	140	0.27	Open	0.65	0.08	0.18
PE-91	84.73	24	PRCC	110	0.00	Open	0.00	0.00	0.00
PE-92	93.27	24	PRCC	110	0.07	Open	0.38	0.00	0.01
PE-93	640.08	18	PE	140	0.24	Open	0.75	0.08	0.13
PE-94	384.66	24	PRCC	110	0.17	Open	0.92	0.03	0.07
PE-95	619.35	24	PRCC	110	0.02	Open	0.11	0.00	0.00
PE-96	1188.72	16	Asbestos Cement	140	0.00	Open	0.00	0.00	0.00
PE-97	148.13	24	PRCC	110	0.02	Open	0.11	0.00	0.00
PE-98	24.38	48	PRCC	110	0.39	Open	8.66	0.00	0.16
PE-99	122.83	18	MS	110	0.05	Open	0.15	0.00	0.01
PE-100	745.54	48	PRCC	110	0.40	Open	8.81	0.12	0.16

Table A123.1.2 Results of the Analysis for the Priority Project (Existing Pipe) 3/3

Label	Length (m)	Diameter (in)	Material	Hazen-Williams C	Velocity (m/s)	Control Status	Discharge (mgd(lmp))	Pressure Pipe Headloss (m)	Headloss Gradient (m/km)
PE-101	154.23	48	PRCC	110	0.41	Open	9.05	0.03	0.17
PE-102	329.79	48	PRCC	110	0.41	Open	9.05	0.06	0.17
PE-103	4.27	48	MS	110	0.03	Open	0.69	0.00	0.00
PE-104	3.35	48	PRCC	110	0.04	Open	0.86	0.00	0.00
PE-105	766.57	48	MS	110	0.40	Open	8.82	0.12	0.16
PE-106	434.34	48	MS	110	0.42	Open	9.36	0.08	0.18
PE-107	445.92	24	PRCC	110	1.44	Open	7.96	1.75	3.93
PE-108	312.12	24	PRCC	110	1.56	Open	8.63	1.43	4.57
PE-109	829.36	24	PRCC	110	1.25	Open	6.95	2.54	3.06
PE-110	835.46	24	PRCC	110	0.74	Open	4.11	0.97	1.16
PE-111	116.74	24	PRCC	110	0.44	Open	2.43	0.05	0.44
PE-112	102.11	24	MS	110	0.22	Open	1.23	0.01	0.12
PE-113	45.11	24	PRCC	110	0.22	Open	1.23	0.01	0.12
PE-114	151.79	24	PRCC	110	0.22	Open	1.21	0.02	0.12
PE-115	258.78	24	PRCC	110	0.44	Open	2.43	0.11	0.44
PE-116	119.18	24	PRCC	110	0.44	Open	2.43	0.05	0.44
PE-117	610.82	24	PRCC	110	0.18	Open	1.01	0.05	0.09
PE-118	1155.80	48	PRCC	110	0.06	Open	1.42	0.01	0.01
PE-119	929.94	48	PRCC	110	0.35	Open	7.70	0.12	0.13
PE-120	858.32	18	PRCC	110	0.50	Open	1.57	0.68	0.79
PE-121	391.36	48	PRCC	110	0.00	Open	0.00	0.00	0.00
PE-122	304.80	24	PRCC	110	1.27	Open	7.05	0.96	3.14
PE-123	78.33	24	PRCC	110	0.92	Open	5.09	0.13	1.72
PE-124	148.44	18	PRCC	110	1.63	Open	5.09	1.04	6.98
PE-125	1017.12	18	PRCC	110	1.34	Open	4.19	4.95	4.87
PE-126	1349.35	18	PRCC	110	0.27	Open	0.83	0.33	0.24
PE-127	255.42	18	PRCC	110	0.40	Open	1.24	0.13	0.51
PE-128	191.11	18	PRCC	110	0.40	Open	1.24	0.10	0.51
PE-129	261.82	18	PRCC	110	0.20	Open	0.62	0.04	0.14
PE-130	636.12	18	PRCC	110	0.20	Open	0.62	0.09	0.14
PE-131	406.60	18	PRCC	110	0.20	Open	0.62	0.06	0.14
PE-132	669.65	24	PRCC	110	0.10	Open	0.57	0.02	0.03
PE-133	89.61	24	MS	110	0.74	Open	4.10	0.10	1.15
PE-134	382.83	18	Cast iron	100	0.38	Open	1.18	0.21	0.56
PE-135	352.04	18	Cast iron	100	0.38	Open	1.18	0.20	0.56
PE-136	1467.00	24	MS	110	0.41	Open	2.28	0.57	0.39
PE-137	137.16	24	MS	110	0.41	Open	2.28	0.05	0.39
PE-138	547.12	24	Cast iron	100	0.77	Open	4.27	0.81	1.48
PE-139	1179.27	15	Cast iron	100	0.34	Open	0.74	0.67	0.57
PE-140	580.03	15	Cast iron	100	1.08	Open	2.35	2.80	4.83
PE-141	536.45	15	Cast iron	100	0.68	Open	1.47	1.09	2.03
PE-142	386.49	15	PRCC	110	0.82	Open	1.77	0.93	2.40
PE-143	497.43	24	Cast iron	100	0.45	Open	2.50	0.27	0.55
PE-144	1727.30	24	Cast iron	100	0.00	Closed	0.00	0.00	0.00
PE-145	920.50	24	Cast iron	100	0.34	Open	1.91	0.31	0.33
PE-146	258.17	18	PRCC	110	0.38	Open	1.18	0.12	0.47
PE-147	255.12	15	PRCC	110	0.27	Open	0.59	0.08	0.31
PE-148	559.92	24	PRCC	110	0.87	Open	4.85	0.88	1.57
PE-149	379.48	24	PRCC	110	0.27	Open	1.47	0.07	0.17
PE-150	567.84	24	PRCC	110	0.56	Open	3.09	0.39	0.68
PE-151	524.26	24	PRCC	110	0.27	Open	1.47	0.09	0.17

Table A123.1.3 Results of the Analysis for the Priority Project (New Pipe) 1/1

Label	Length (m)	Diameter (in)	Material	Hazen-Williams C	Velocity (m/s)	Control Status	Discharge (mgd(imp))	Pressure Pipe Headloss (m)	Headloss Gradient (m/km)
PN-1	4179.42	100	Steel	110	0.96	Open	92.16	1.47	0.35
PN-2	70.10	100	Steel	110	1.06	Open	102.38	0.03	0.43
PN-3	1086.61	100	Steel	110	1.07	Open	102.72	0.47	0.43
PN-4	194.16	100	Steel	110	1.07	Open	102.60	0.08	0.43
PN-5	900.68	100	Steel	110	1.05	Open	101.49	0.38	0.42
PN-6	1423.72	100	Steel	110	0.97	Open	93.79	0.52	0.36
PN-7	605.64	100	Steel	110	0.97	Open	93.43	0.22	0.36
PN-8	181.97	100	Steel	110	0.96	Open	92.04	0.06	0.35
PN-9	207.26	100	Steel	110	0.95	Open	91.20	0.07	0.34
PN-10	768.40	100	Steel	110	0.98	Open	94.45	0.28	0.37
PN-11	795.22	36	Steel	110	0.87	Open	10.87	0.77	0.97
PN-12	495.91	36	Steel	110	0.85	Open	10.56	0.46	0.92
PN-13	1058.57	88	Steel	110	0.97	Open	72.37	0.44	0.42
PN-14	426.42	88	Steel	110	0.95	Open	71.12	0.17	0.40
PN-15	711.40	88	Steel	110	0.94	Open	70.14	0.28	0.39
PN-16	120.09	88	Steel	110	0.92	Open	68.75	0.05	0.38
PN-17	583.39	72	Steel	110	0.79	Open	39.49	0.21	0.36
PN-18	18.59	18	Steel	110	0.09	Open	0.29	0.00	0.03
PN-19	17.68	18	Steel	110	0.40	Open	1.23	0.01	0.50
PN-20	121.01	18	Steel	110	0.31	Open	0.96	0.04	0.32
PN-21	65.53	72	Steel	110	0.48	Open	23.83	0.01	0.14
PN-22	882.09	56	Steel	110	1.08	Open	32.70	0.77	0.87
PN-23	341.07	56	Steel	110	1.12	Open	33.70	0.31	0.92
PN-24	31.39	56	Steel	110	1.21	Open	36.40	0.03	1.06
PN-25	397.46	56	Steel	110	1.28	Open	38.72	0.47	1.19
PN-26	442.26	16	Steel	110	0.99	Open	2.44	1.40	3.17
PN-27	31.09	72	Steel	110	1.12	Open	55.96	0.02	0.69
PN-28	53.95	48	Steel	110	0.15	Open	3.43	0.00	0.03
PN-29	528.22	72	Steel	110	1.03	Open	51.32	0.31	0.59
PN-30	34.14	64	Steel	110	0.91	Open	35.98	0.02	0.54
PN-31	25.60	48	Steel	110	0.10	Open	2.25	0.00	0.01
PN-32	15.85	48	Steel	110	0.01	Open	0.27	0.00	0.00
PN-33	12.50	32	Steel	110	0.14	Open	1.40	0.00	0.04
PN-34	773.58	24	Steel	110	0.80	Open	4.46	1.04	1.34
PN-35	8.53	18	Steel	110	0.20	Open	0.62	0.00	0.14
PN-36	13.11	18	Steel	110	0.20	Open	0.62	0.00	0.14
PN-37	212.14	24	Steel	110	0.38	Open	2.12	0.07	0.34
PN-38	8.23	24	Steel	110	0.34	Open	1.91	0.00	0.28
PN-39	117.35	24	Steel	110	0.78	Open	4.32	0.15	1.27
PN-40	220.68	24	Steel	110	0.73	Open	4.03	0.25	1.12
PN-41	32.61	24	Steel	110	0.87	Open	4.85	0.05	1.57
PN-42	88.70	28	Steel	110	1.20	Open	9.03	0.21	2.34
PN-43	42.67	18	Steel	110	0.38	Open	1.18	0.02	0.47
PN-44	1454.81	36	Steel	110	0.90	Open	11.24	1.50	1.03
PN-45	374.90	36	Steel	110	1.17	Open	14.62	0.63	1.68
PN-46	502.92	56	Steel	110	0.69	Open	20.96	0.19	0.38
PN-47	73.15	56	Steel	110	0.78	Open	23.47	0.03	0.47
PN-48	320.95	18	Steel	110	0.24	Open	0.74	0.06	0.20
PN-49	57.30	18	Steel	110	0.24	Open	0.74	0.01	0.20
PN-50	43.28	18	Steel	110	0.24	Open	0.74	0.01	0.20
PN-51	980.54	48	Steel	110	0.25	Open	5.60	0.07	0.07
PN-52	662.94	18	Steel	110	0.38	Open	1.18	0.31	0.47
PN-53	341.07	48	Steel	110	0.17	Open	3.68	0.01	0.03
PN-54	56.08	48	Steel	110	0.08	Open	1.77	0.00	0.01
PN-55	640.38	18	Steel	110	0.61	Open	1.91	0.73	1.13
PN-56	125.58	18	Steel	110	0.61	Open	1.91	0.14	1.13
PN-57	622.71	72	Steel	110	1.09	Open	54.43	0.41	0.66
PN-58	366.98	72	Steel	110	1.09	Open	54.37	0.24	0.65
PN-59	350.22	48	Steel	110	1.15	Open	25.57	0.41	1.17
PN-60	1601.11	56	Steel	110	0.70	Open	21.19	0.62	0.39

Table A123.1.4 Results of the Analysis for the Priority Project (Junction) 1/2

Label	Elevation (m)	Demand (Calculated) (mgd(Imp))	Calculated Hydraulic Grade (m)	Pressure (m H2O)	Label	Elevation (m)	Demand (Calculated) (mgd(Imp))	Calculated Hydraulic Grade (m)	Pressure (m H2O)
J-1	59.0	0.00	77.03	18.00	J-51	42.0	0.00	66.44	24.39
J-2	58.5	0.00	77.00	18.47	J-52	28.0	0.00	66.13	38.05
J-3	60.5	0.00	76.54	16.01	J-53	38.0	0.00	63.47	25.42
J-4	62.0	0.46	75.56	13.53	J-54	38.0	0.00	64.05	26.00
J-5	61.0	1.47	76.45	15.42	J-55	38.0	0.00	63.82	25.76
J-6	60.0	0.28	76.08	16.04	J-56	46.5	0.00	63.75	17.21
J-7	65.0	0.00	73.70	8.69	J-57	62.0	0.00	70.76	8.75
J-8	65.0	0.00	73.68	8.66	J-58	42.0	0.00	63.21	21.17
J-9	65.0	0.00	72.24	7.22	J-59	56.0	0.26	70.62	14.59
J-10	65.0	0.00	72.20	7.18	J-60	61.0	0.26	70.74	9.72
J-11	65.0	0.00	72.17	7.15	J-61	56.0	0.26	70.61	14.58
J-12	65.0	0.00	71.73	6.72	J-62	60.0	0.13	70.72	10.70
J-13	65.0	0.00	71.70	6.69	J-63	60.0	0.13	70.72	10.70
J-14	65.0	0.00	71.70	6.69	J-64	58.0	0.13	70.64	12.62
J-15	65.0	0.00	71.52	6.50	J-65	56.0	0.13	70.61	14.58
J-16	65.0	0.00	71.38	6.37	J-66	64.0	0.13	70.82	6.80
J-17	65.0	0.00	71.05	6.04	J-67	57.5	1.03	70.61	13.09
J-18	65.0	0.00	70.44	5.43	J-68	58.5	1.03	70.64	12.12
J-19	65.0	0.00	69.13	4.13	J-69	64.0	0.65	70.82	6.81
J-20	65.0	0.00	69.05	4.04	J-70	65.0	0.93	73.98	8.97
J-21	61.5	0.00	68.20	6.69	J-71	50.5	0.65	70.50	19.96
J-22	57.5	0.00	67.16	9.64	J-72	61.0	0.52	70.74	9.72
J-23	65.0	0.00	71.13	6.12	J-73	61.5	0.52	70.95	9.43
J-24	65.0	0.00	71.13	6.12	J-74	61.0	0.52	70.91	9.89
J-25	65.0	0.00	71.05	6.04	J-75	51.0	2.84	64.90	13.87
J-26	65.0	0.00	71.09	6.08	J-76	51.5	1.42	70.61	19.07
J-27	65.0	0.00	70.30	5.29	J-77	46.0	1.42	63.69	17.66
J-28	62.0	0.00	67.37	5.36	J-78	44.5	3.36	63.41	18.87
J-29	65.0	0.00	67.25	2.24	J-79	54.0	1.68	67.43	13.41
J-30	65.0	0.00	67.25	2.24	J-80	48.5	1.68	63.93	15.40
J-31	65.0	0.00	67.25	2.24	J-81	40.0	2.07	63.08	23.04
J-32	65.0	0.00	69.69	4.68	J-82	65.0	0.77	73.30	8.28
J-33	56.0	0.00	70.62	14.59	J-83	49.5	0.39	69.54	20.00
J-34	64.0	0.00	71.86	7.85	J-84	63.0	0.39	71.43	8.41
J-35	58.5	0.00	70.64	12.12	J-85	48.5	0.90	68.37	19.83
J-36	56.0	0.00	70.62	14.59	J-86	55.0	0.90	68.86	13.83
J-37	64.0	0.00	70.62	6.60	J-87	38.0	0.29	63.62	25.57
J-38	56.0	0.00	70.62	14.59	J-88	34.5	0.29	62.94	28.38
J-39	56.0	0.00	70.61	14.58	J-89	27.0	1.47	62.46	35.39
J-40	48.0	0.00	63.88	15.85	J-90	31.0	1.47	61.69	30.63
J-41	47.5	0.00	63.86	16.33	J-91	34.0	1.47	62.87	28.81
J-42	47.5	0.00	63.86	16.33	J-92	52.0	1.18	66.65	14.62
J-43	48.5	0.00	70.50	21.95	J-93	56.5	0.74	67.06	10.54
J-44	49.5	0.00	69.40	19.86	J-94	34.5	0.59	63.85	29.30
J-45	41.0	0.00	63.31	22.26	J-95	36.0	0.59	63.93	27.88
J-46	41.0	0.00	63.31	22.26	J-96	31.0	1.62	62.55	31.49
J-47	37.5	0.00	63.40	25.85	J-97	33.0	1.91	63.16	30.10
J-48	40.0	0.00	63.34	23.30	J-98	50.0	2.50	65.98	15.94
J-49	55.0	0.00	66.85	11.82	J-99	37.5	0.88	63.40	25.85
J-50	42.0	0.00	66.49	24.44	J-100	36.0	0.88	62.78	26.72

Table A123.1.4 Results of the Analysis for the Priority Project (Junction) 2/2

Label	Elevation (m)	Demand (Calculated) (mgd(imp))	Calculated Hydraulic Grade (m)	Pressure (m H2O)	Label	Elevation (m)	Demand (Calculated) (mgd(imp))	Calculated Hydraulic Grade (m)	Pressure (m H2O)
J-101	42.0	0.44	63.64	21.60	J-151	65.0	0.26	73.27	8.25
J-102	41.0	1.77	65.58	24.53	J-152	65.0	0.77	73.77	8.75
J-103	29.0	1.77	65.20	36.13	J-153	38.0	0.29	63.47	25.42
J-104	53.0	1.03	66.25	13.22	J-154	38.0	0.15	63.87	25.82
J-105	64.5	1.39	75.21	10.69	J-155	30.5	1.18	65.83	35.26
J-106	65.0	1.39	73.13	8.12	J-156	31.0	0.74	66.14	35.07
J-107	65.0	1.39	72.25	7.23	J-157	35.5	0.74	66.21	30.65
J-108	65.0	1.12	73.70	8.68	J-158	41.5	0.74	66.32	24.77
J-109	65.0	0.70	74.15	9.13	J-159	22.0	1.91	65.26	43.17
J-110	65.0	0.84	72.66	7.64	J-160	41.5	1.77	66.40	24.85
J-111	65.0	0.84	72.27	7.25	J-161	38.5	1.03	64.07	25.52
J-112	65.0	1.67	74.92	9.90	J-162	63.0	1.39	75.34	12.32
J-113	65.0	1.95	72.63	7.61	J-163	65.0	1.39	74.03	9.01
J-114	65.0	0.29	70.93	5.92	J-164	65.0	0.56	72.24	7.22
J-115	65.0	0.29	71.03	6.02	J-165	63.5	0.84	75.28	11.75
J-116	65.0	0.29	72.16	7.14	J-166	65.0	0.98	74.31	9.29
J-117	65.0	0.29	70.73	5.72	J-167	65.0	1.25	74.48	9.46
J-118	65.0	1.44	69.69	4.68	J-168	65.0	0.57	72.19	7.17
J-119	64.0	1.44	67.37	3.36	J-169	65.0	1.00	72.95	7.94
J-120	65.0	0.14	71.08	6.07					
J-121	65.0	0.14	71.21	6.20					
J-122	65.0	1.15	69.13	4.13					
J-123	60.5	1.15	67.47	6.95					
J-124	65.0	0.72	70.89	5.88					
J-125	64.0	0.72	68.55	4.54					
J-126	65.0	0.72	68.98	3.97					
J-127	75.5	0.57	67.30	-8.19					
J-128	57.5	0.57	68.83	11.31					
J-129	65.0	0.57	71.10	6.09					
J-130	65.0	0.57	71.52	6.51					
J-131	65.0	0.57	70.89	5.88					
J-132	65.0	1.87	67.40	2.40					
J-133	64.0	1.87	68.57	4.56					
J-134	65.0	0.86	71.76	6.75					
J-135	65.0	0.86	70.96	5.95					
J-136	65.0	0.43	71.38	6.37					
J-137	65.0	0.43	70.13	5.12					
J-138	65.0	0.43	71.76	6.75					
J-139	65.0	0.43	71.19	6.18					
J-140	65.0	0.43	69.05	4.04					
J-141	65.0	0.43	69.69	4.68					
J-142	65.0	1.00	69.72	4.71					
J-143	63.0	1.00	67.30	4.29					
J-144	65.0	2.58	65.66	0.66					
J-145	65.0	1.29	70.44	5.43					
J-146	65.0	1.29	70.13	5.12					
J-147	41.5	0.00	66.34	24.79					
J-148	41.5	0.00	66.33	24.78					
J-149	28.0	0.00	66.13	38.05					
J-150	23.0	0.00	65.40	42.32					