The City of SARASOTA

City of Sarasota
Downtown Circulator Feasibility Study Appendices

Tindale Oliver

April 2015

Appendix A: Circulator Conceptual Alignments - Utility Mapset

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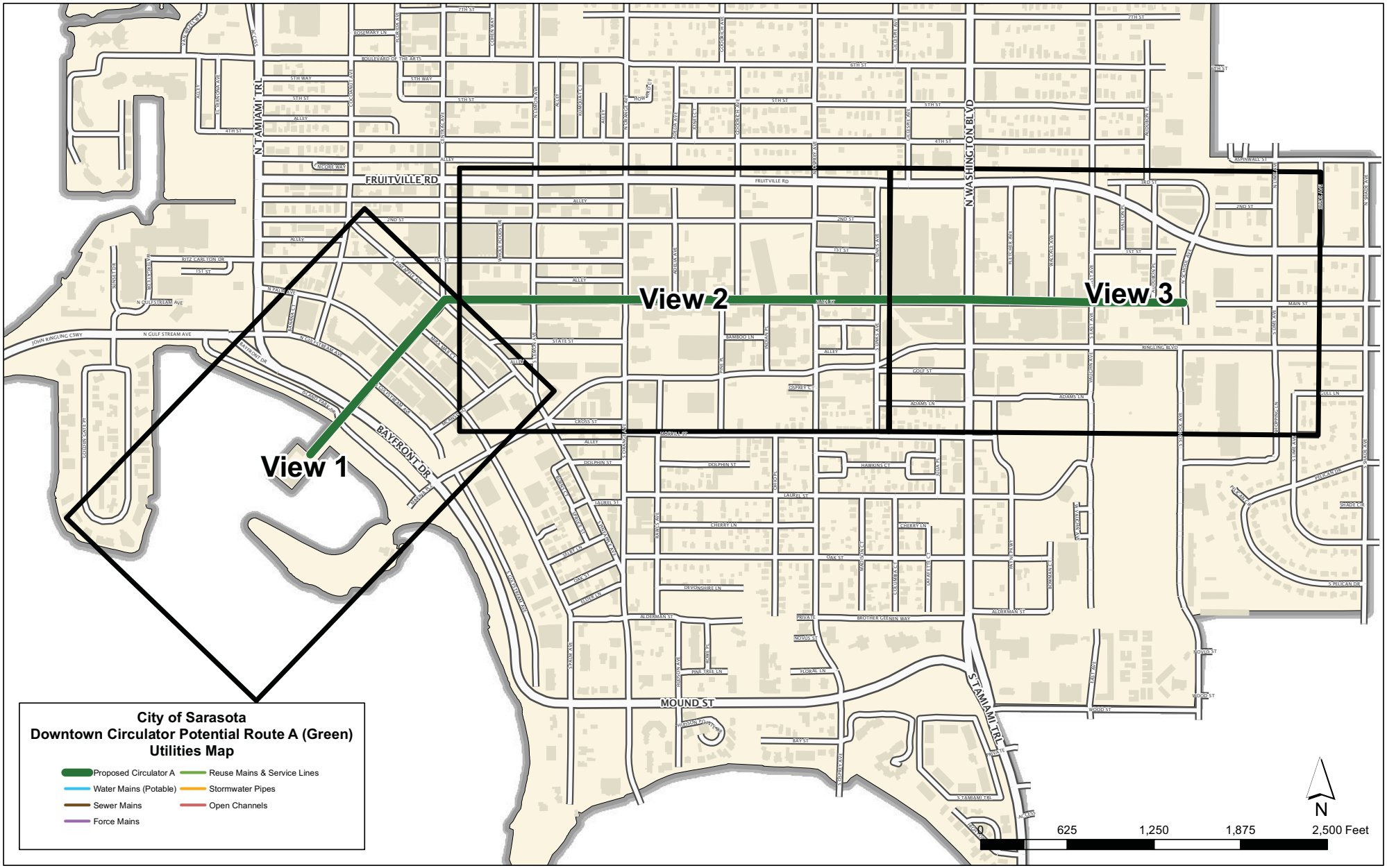
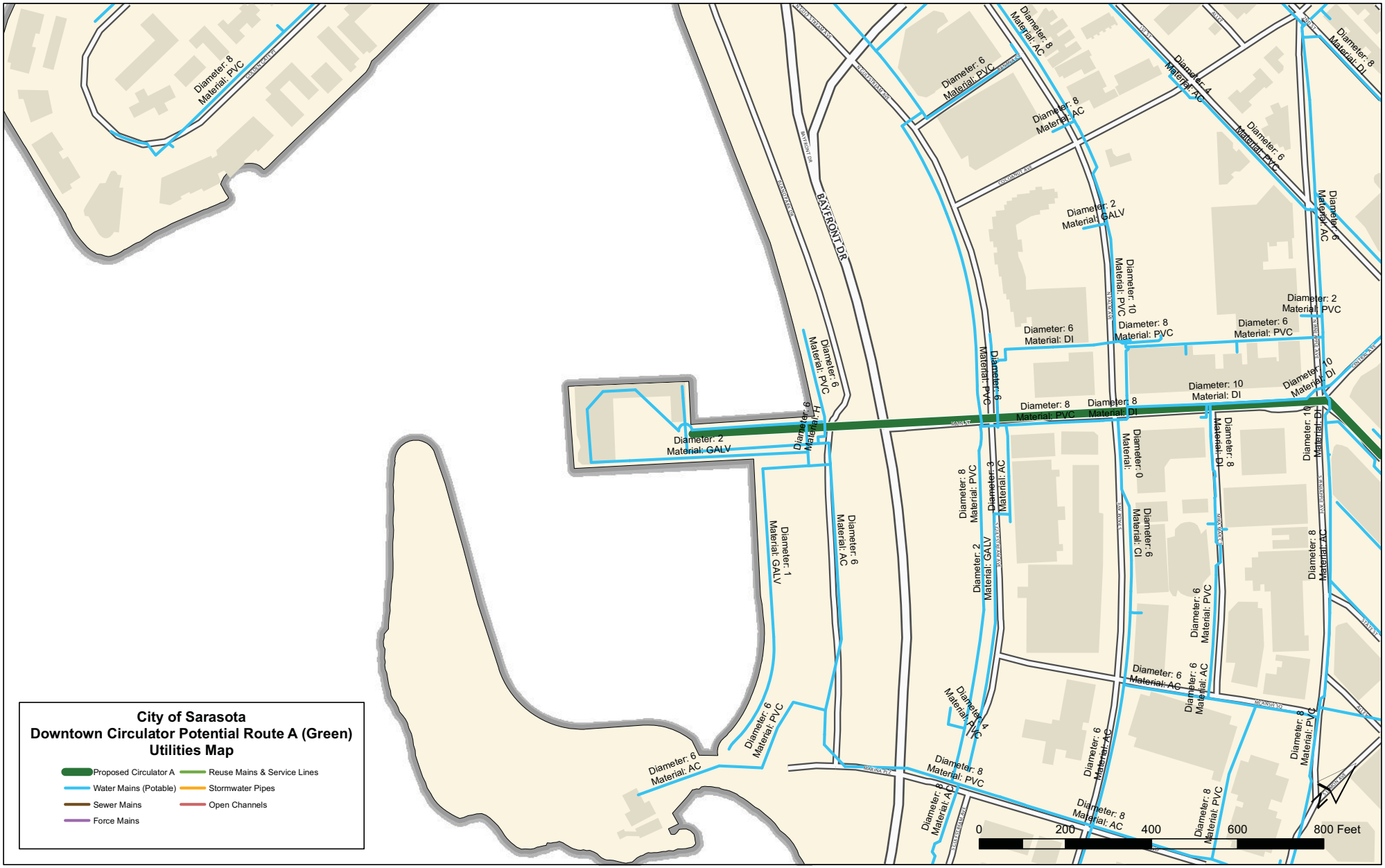
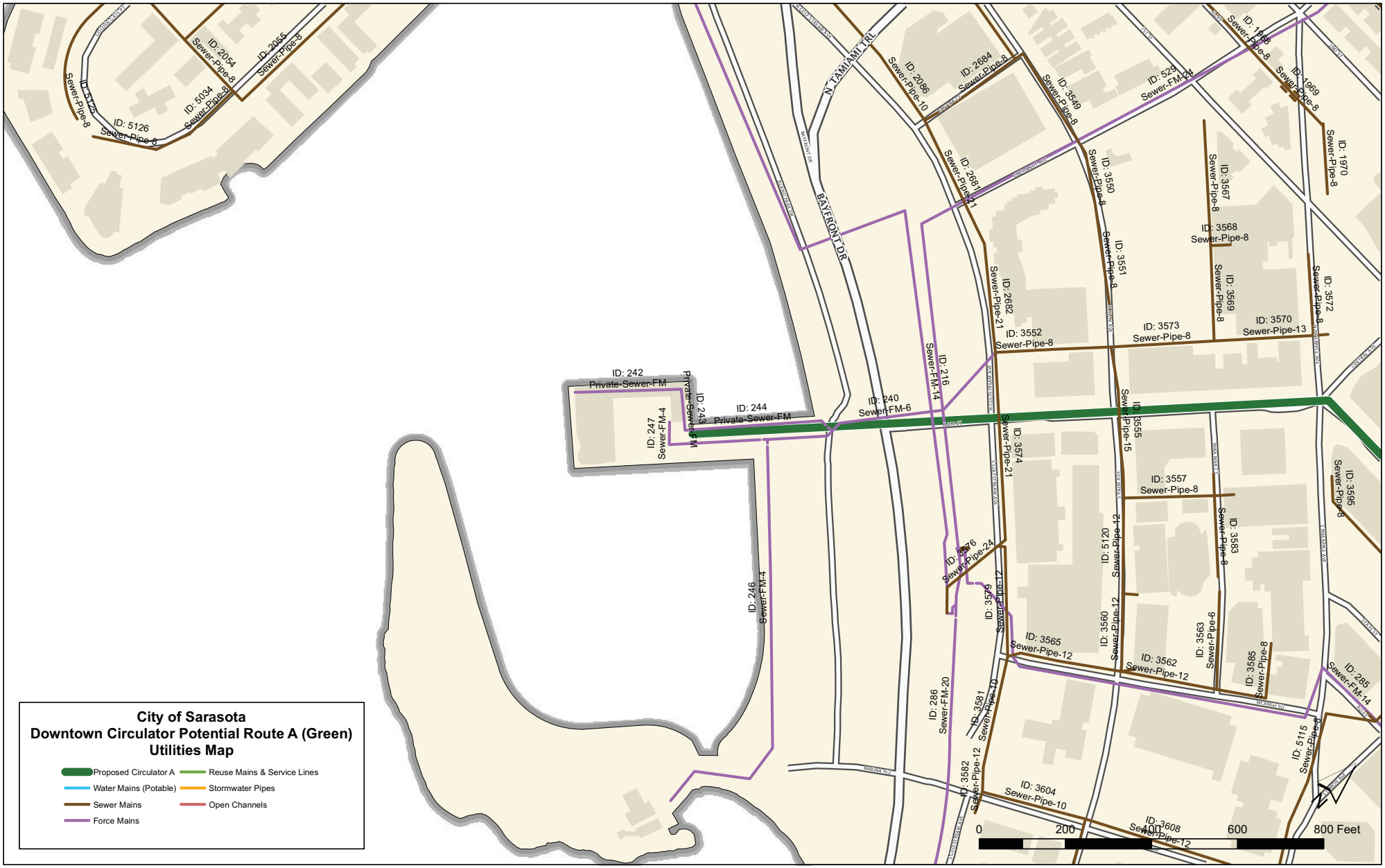
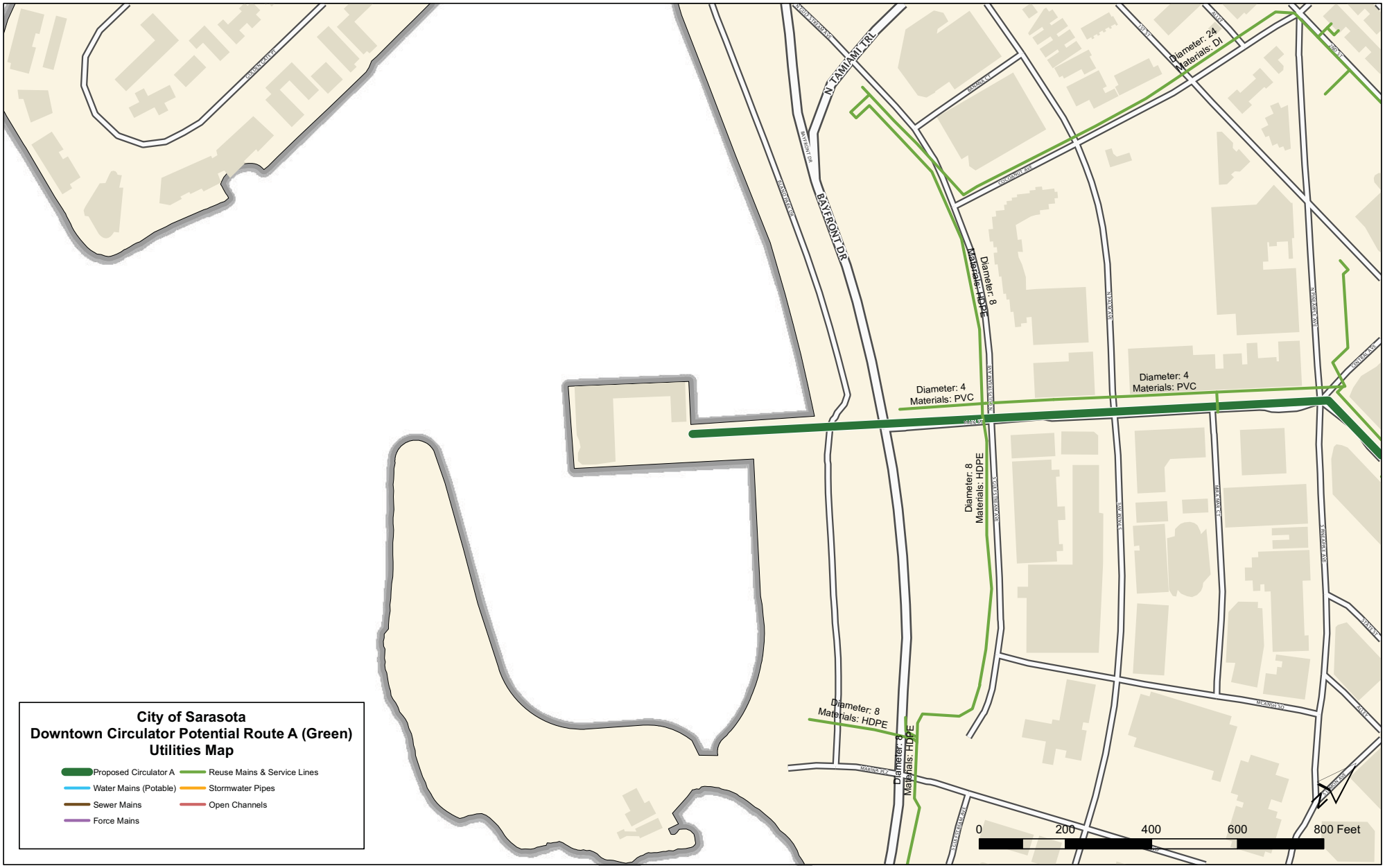

City of Sarasota
Downtown Circulator Potential Route A (Green)
Utilities Map
Proposed Circulator A
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
View 1
View 2
View 3
FRUITVILLE RD
N TAMIAMI TRL
N WASHINGTON BLVD
S TAMIAMI TRL
BAYFRONT DR
MOUND ST
MAIN ST
RINGLING BLVD
N GULF STREAM AVE
JOHN RINGLING CSWY
0
625
1,250
1,875
2,500 Feet
N

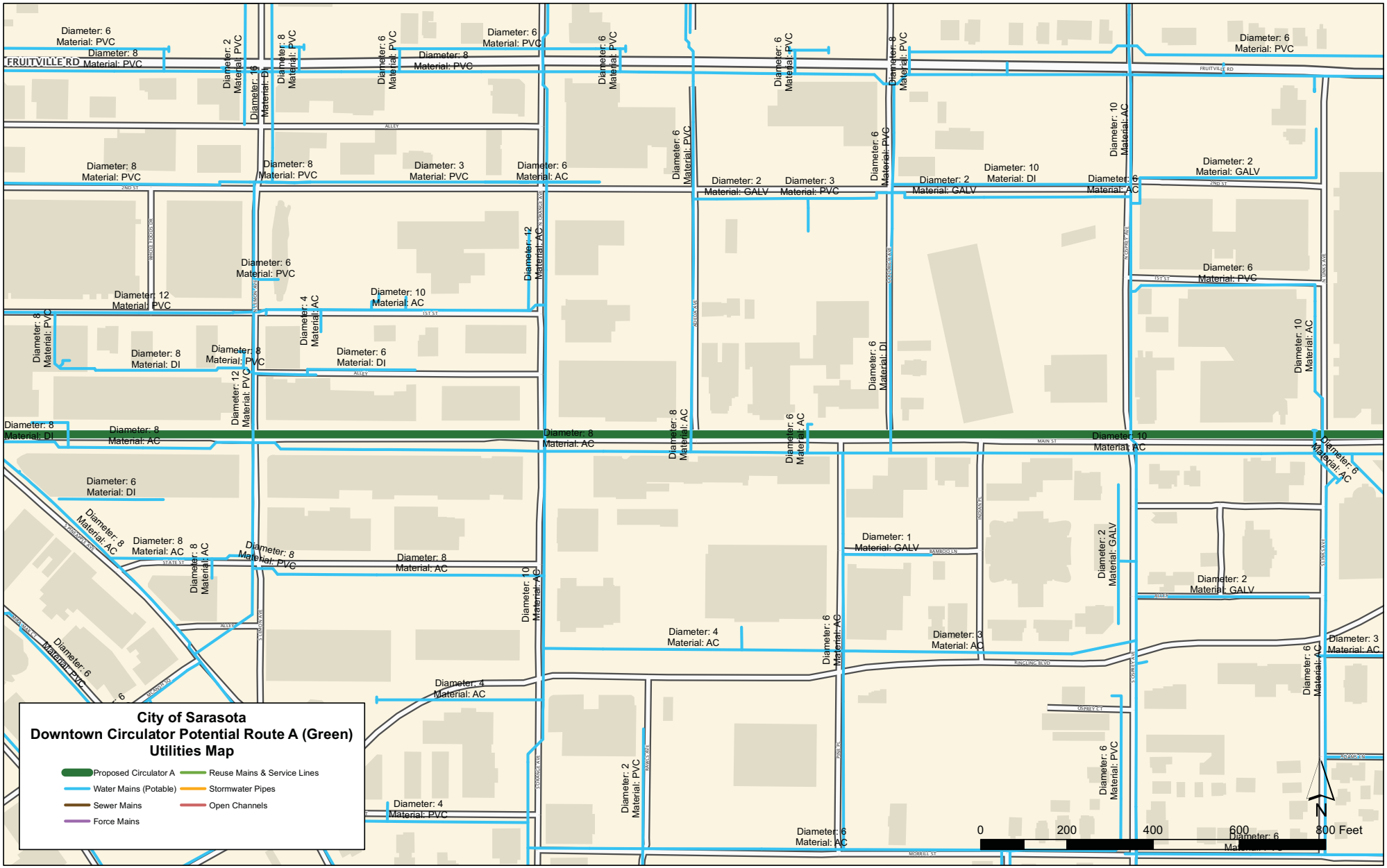
Map 1 of 13


City of Sarasota
Downtown Circulator Potential Route A (Green)
Utilities Map
Proposed Circulator A
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
BAYFRONT DR
0
200
400
600
800 Feet


City of Sarasota
Downtown Circulator Potential Route A (Green)
Utilities Map
Proposed Circulator A
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
N TAMIAMI TRL
BAYFRONT DR
ID: 242
Private-Sewer-FM
ID: 243
Private-Sewer-FM
ID: 244
Private-Sewer-FM
ID: 247
Sewer-FM-4
ID: 240
Sewer-FM-6
ID: 246
Sewer-FM-4
ID: 216
Sewer-FM-14
ID: 529
Sewer-FM-24
ID: 285
Sewer-FM-14
ID: 286
Sewer-FM-20
ID: 2054
Sewer-Pipe-8
ID: 2055
Sewer-Pipe-8
ID: 5034
Sewer-Pipe-8
ID: 5125
Sewer-Pipe-8
ID: 5126
Sewer-Pipe-8
ID: 2086
Sewer-Pipe-10
ID: 2684
Sewer-Pipe-8
ID: 2681
Sewer-Pipe-21
ID: 2682
Sewer-Pipe-21
ID: 3549
Sewer-Pipe-8
ID: 3550
Sewer-Pipe-8
ID: 3551
Sewer-Pipe-8
ID: 3552
Sewer-Pipe-8
ID: 3573
Sewer-Pipe-8
ID: 3570
Sewer-Pipe-13
ID: 3567
Sewer-Pipe-8
ID: 3568
Sewer-Pipe-8
ID: 3569
Sewer-Pipe-8
ID: 1969
Sewer-Pipe-8
ID: 1970
Sewer-Pipe-8
ID: 3572
Sewer-Pipe-8
ID: 3574
Sewer-Pipe-21
ID: 3555
Sewer-Pipe-15
ID: 3557
Sewer-Pipe-8
ID: 3583
Sewer-Pipe-8
ID: 3595
Sewer-Pipe-8
ID: 3576
Sewer-Pipe-24
ID: 3579
Sewer-Pipe-21
ID: 5120
Sewer-Pipe-12
ID: 3560
Sewer-Pipe-12
ID: 3563
Sewer-Pipe-6
ID: 3565
Sewer-Pipe-12
ID: 3562
Sewer-Pipe-12
ID: 3585
Sewer-Pipe-8
ID: 3581
Sewer-Pipe-10
ID: 3582
Sewer-Pipe-12
ID: 3604
Sewer-Pipe-10
ID: 3608
Sewer-Pipe-12
ID: 5115
Sewer-Pipe-8
0
200
600
800 Feet


City of Sarasota
Downtown Circulator Potential Route A (Green)
Utilities Map
Proposed Circulator A
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
N TAMIAMI TRL
BAYFRONT DR
Diameter: 24
Materials: DI
Diameter: 8
Materials: HDPE
Diameter: 4
Materials: PVC
Diameter: 4
Materials: PVC
Diameter: 8
Materials: HDPE
Diameter: 8
Materials: HDPE
Diameter: 8
Materials: HDPE
0
200
400
600
800 Feet

City of Sarasota
Downtown Circulator Potential Route A (Green)
Utilities Map
Proposed Circulator A
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
BAYFRONT DR
ID: PI_06192008_093120
Measure: 18
Material: RCP
ID: PI_06262008_144317
Measure: 15
Material: RCP
ID: PI_06192008_093111
Measure: 48
Material: RCP
ID: PI_06192008_093112
Measure: 34
Material: RCP
ID: PI_06192008_140606
Measure: 36
Material: RCP
ID: PI_06192008_093115
Measure: 24
Material: RCP
ID: PI_06172008_132331
Measure: 24
Material: RCP
ID: PI_06194008_115528
Measure: 24
Material: RCP
ID: OC_07242009_100908
Width: 0Depth: 0
Bank: Bottom
ID: PI_06192008_140001
Measure: 24
Material: RCP
ID: PI_06262008_103025
Measure: 15
Material: RCP
ID: PI_06262008_101344
Measure: 15
Material: RCP
ID: PI_06192008_093127
Measure: 30
Material: RCP
ID: PI_06182008_090639
Measure: 30
Material: RCP
ID: PI_06182008_093100
Measure: 18
Material: RCP
ID: PI_06112008_124500
Measure: 15
Material: RCP
ID: PI_06112008_111445
Measure: 30
Material: RCP
ID: PI_06112008_102021
Measure: 18
Material: RCP
ID: PI_06232008_105488
Measure: 12
Material: RCP
ID: PI_06242008_124823
Measure: 30
Material: RCP
ID: PI_06122008_135416
Measure: 12
Material: RCP
ID: PI_06242008_154212
Measure: 54
Material: RCP
ID: PI_06112008_084453
Measure: 18
Material: RCP
ID: PI_06232008_131049
Measure: 18
Material: RCP
ID: PI_06232008_161745
Measure: 54
Material: RCP
ID: PI_06232008_154129
Measure: 18
Material: RCP
ID: PI_06232008_150829
Measure: 54
Material: RCP
ID: PI_06232008_141344
Measure: 15
Material: RCP
0
200
600
800 Feet


City of Sarasota
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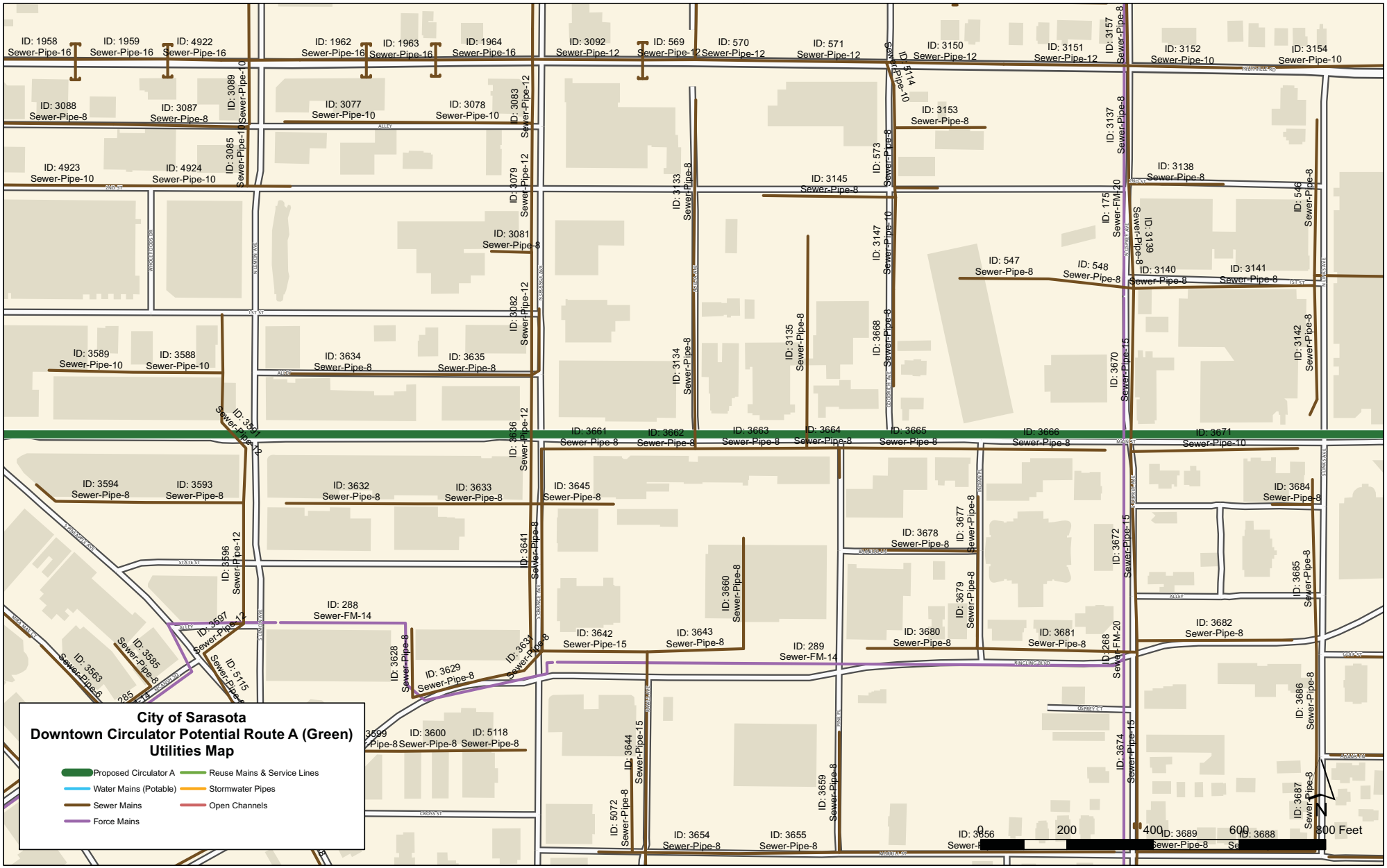
Utilities Map
Proposed Circulator A
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
FRUITVILLE RD
ALLEY
2ND ST
1ST ST
MAIN ST
STATE ST
BAMBOO LN
RINGLING BLVD
MORRILL ST
0
200
400
600
800 Feet
N

Map 6 of 13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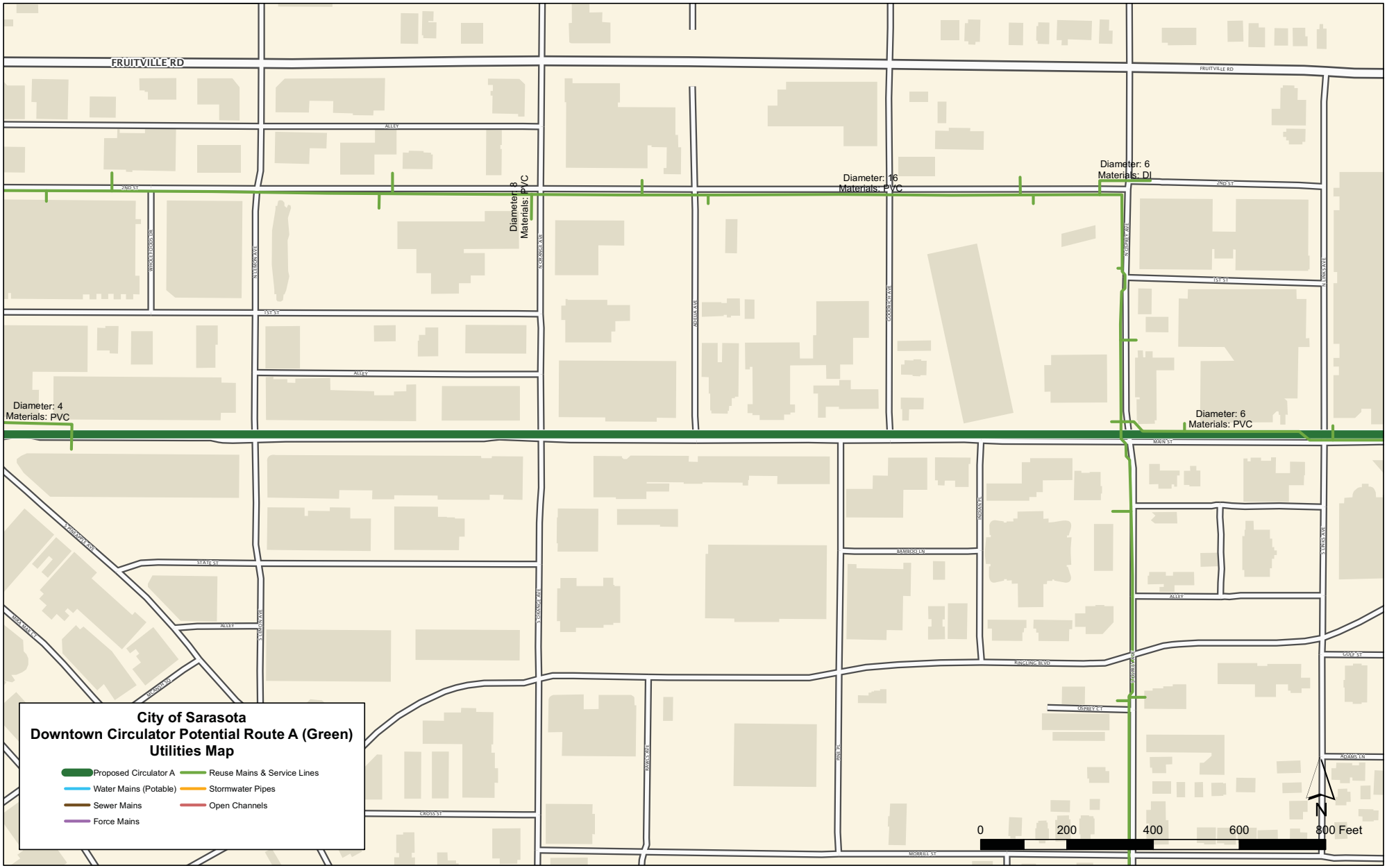
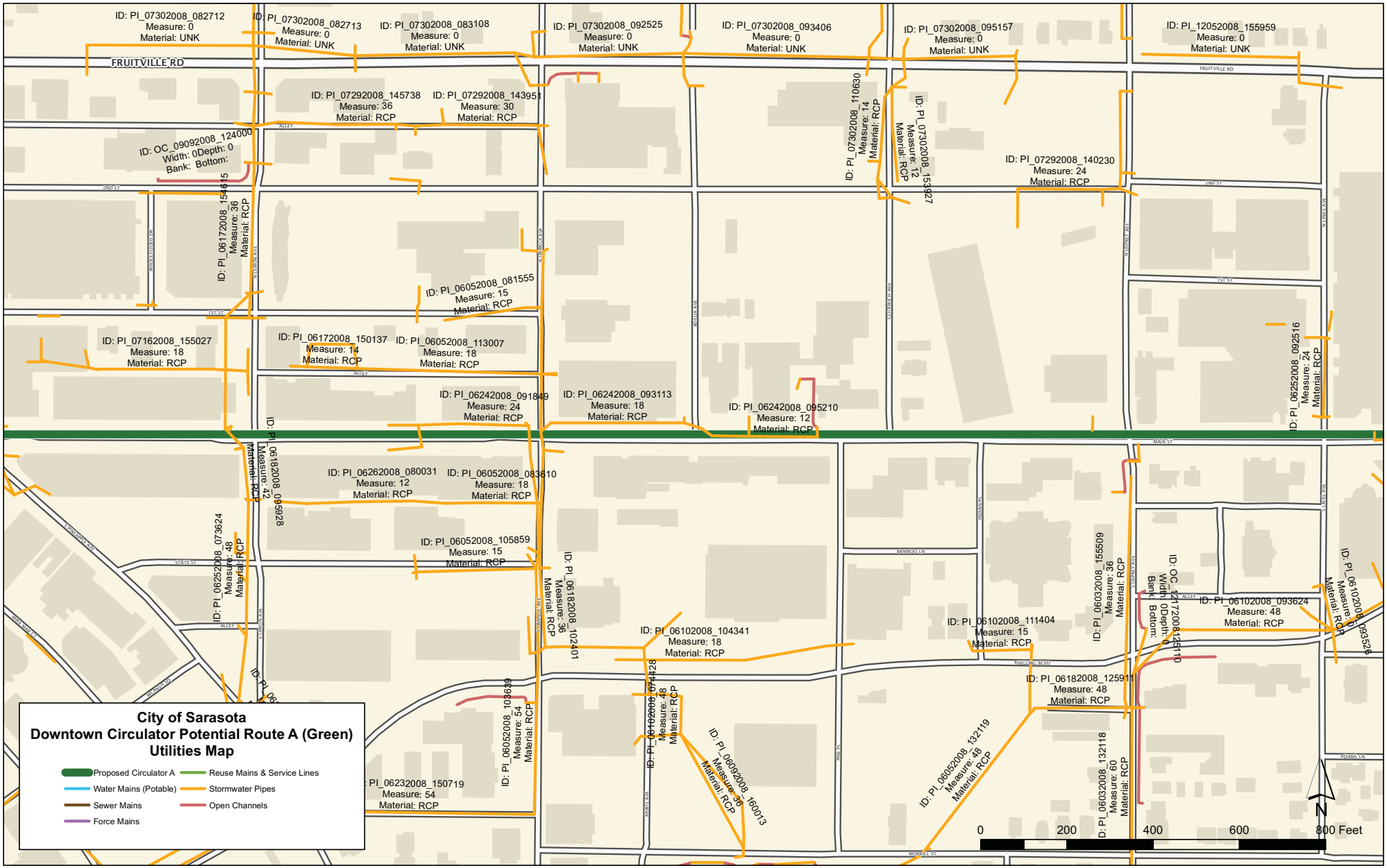
Proposed Circulator A
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
0
200
400
600
800 Feet
N


City of Sarasota
Downtown Circulator Potential Route A (Green)
Utilities Map
Proposed Circulator A
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
Diameter: 4
Materials: PVC
Diameter: 8
Materials: PVC
Diameter: 16
Materials: PVC
Diameter: 6
Materials: DI
Diameter: 6
Materials: PVC
FRUITVILLE RD
ALLEY
2ND ST
1ST ST
MAIN ST
STATE ST
BAMBOO LN
RINGLING BLVD
OSPREY CT
CROSS ST
MORRILL ST
GULF ST
ADAMS LN
N
0
200
400
600
800 Feet


City of Sarasota
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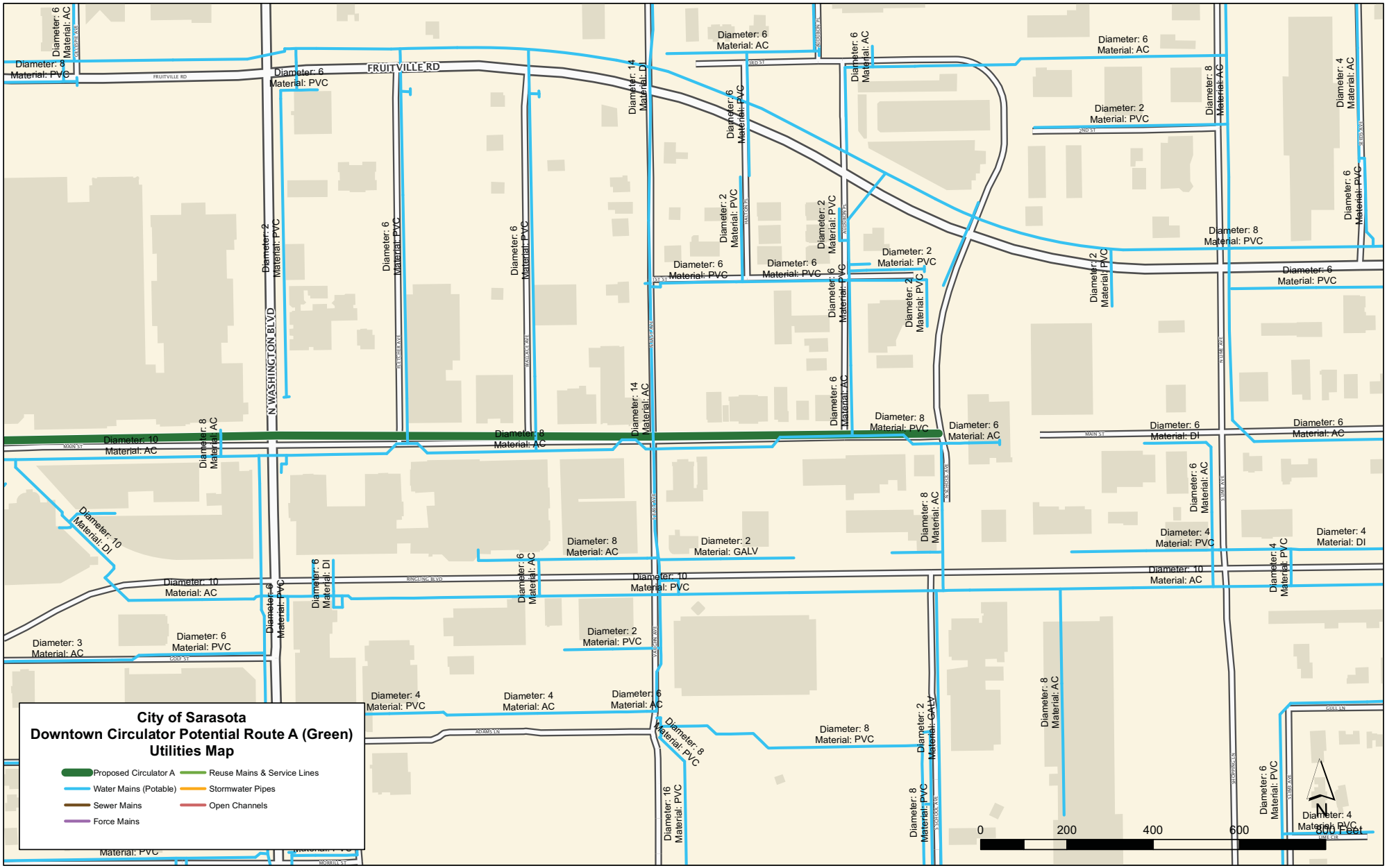
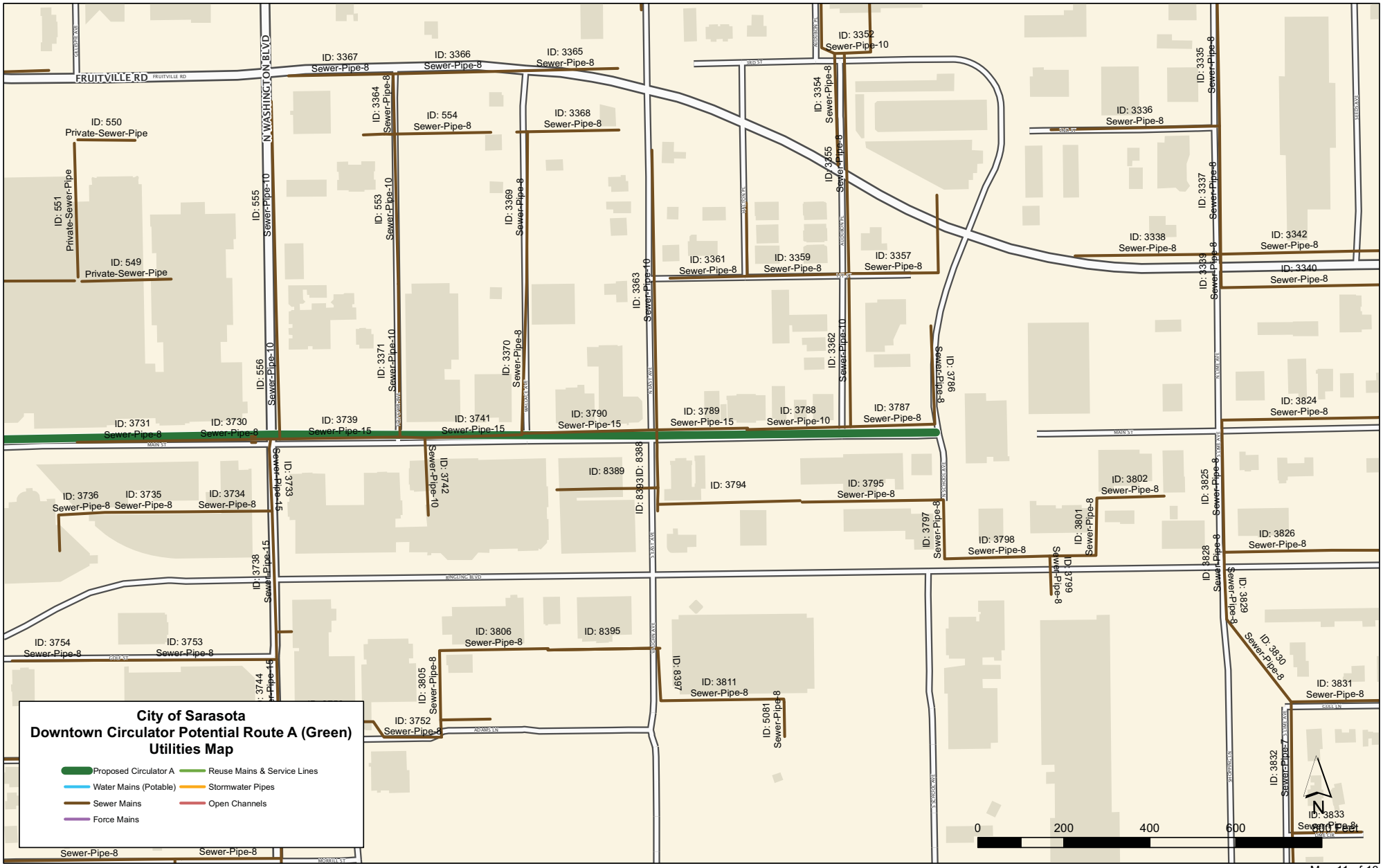
Utilities Map
Proposed Circulator A
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
0
200
400
600
800 Feet
N
FRUITVILLE RD
2ND ST
1ST ST
MAIN ST
STATE ST
ALLEY
BAMBOO LN
RINGLING BLVD
MORRILL ST
ADAMS LN
ID: PI_07302008_082712
Measure: 0
Material: UNK
ID: PI_07302008_082713
Measure: 0
Material: UNK
ID: PI_07302008_083108
Measure: 0
Material: UNK
ID: PI_07302008_092525
Measure: 0
Material: UNK
ID: PI_07302008_093406
Measure: 0
Material: UNK
ID: PI_07302008_095157
Measure: 0
Material: UNK
ID: PI_12052008_155959
Measure: 0
Material: UNK
ID: PI_07292008_145738
Measure: 36
Material: RCP
ID: PI_07292008_143951
Measure: 30
Material: RCP
ID: OC_09092008_124000
Width: 0Depth: 0
Bank: Bottom:
ID: PI_07302008_110630
Measure: 14
Material: RCP
ID: PI_07302008_153927
Measure: 12
Material: RCP
ID: PI_07292008_140230
Measure: 24
Material: RCP
ID: PI_06172008_154615
Measure: 36
Material: RCP
ID: PI_06052008_081555
Measure: 15
Material: RCP
ID: PI_07162008_155027
Measure: 18
Material: RCP
ID: PI_06172008_150137
Measure: 14
Material: RCP
ID: PI_06052008_113007
Measure: 18
Material: RCP
ID: PI_06252008_092516
Measure: 24
Material: RCP
ID: PI_06242008_091849
Measure: 24
Material: RCP
ID: PI_06242008_093113
Measure: 18
Material: RCP
ID: PI_06242008_095210
Measure: 12
Material: RCP
ID: PI_06182008_095928
Measure: 42
Material: RCP
ID: PI_06262008_080031
Measure: 12
Material: RCP
ID: PI_06052008_083610
Measure: 18
Material: RCP
ID: PI_06252008_073624
Measure: 48
Material: RCP
ID: PI_06052008_105859
Measure: 15
Material: RCP
ID: PI_06182008_102401
Measure: 36
Material: RCP
ID: PI_06032008_155509
Measure: 36
Material: RCP
ID: OC_12172008_125110
Width: 0Depth: 0
Bank: Bottom:
ID: PI_06102008_093624
Measure: 48
Material: RCP
ID: PI_06102008_093526
Measure: 60
Material: RCP
ID: PI_06102008_104341
Measure: 18
Material: RCP
ID: PI_06102008_111404
Measure: 15
Material: RCP
ID: PI_06182008_125911
Measure: 48
Material: RCP
ID: PI_06052008_103639
Measure: 54
Material: RCP
ID: PI_06102008_074428
Measure: 48
Material: RCP
ID: PI_06092008_160013
Measure: 36
Material: RCP
ID: PI_06052008_132119
Measure: 48
Material: RCP
ID: PI_06032008_132118
Measure: 60
Material: RCP
ID: PI_06232008_150719
Measure: 54
Material: RCP


City of Sarasota
Downtown Circulator Potential Route A (Green)
Utilities Map
Proposed Circulator A
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
FRUITVILLE RD
N WASHINGTON BLVD
MAIN ST
RINGLING BLVD
2ND ST
3RD ST
GURL LN
ADAMS LN
0
200
400
600
800 Feet
N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Utilities Map
Proposed Circulator A
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
FRUITVILLE RD
N WASHINGTON BLVD
MAIN ST
GULF ST
ADAMS LN
MOBRIL ST
ID: 550
Private-Sewer-Pipe
ID: 551
Private-Sewer-Pipe
ID: 549
Private-Sewer-Pipe
ID: 3367
Sewer-Pipe-8
ID: 3366
Sewer-Pipe-8
ID: 3365
Sewer-Pipe-8
ID: 3364
Sewer-Pipe-8
ID: 554
Sewer-Pipe-8
ID: 3368
Sewer-Pipe-8
ID: 555
Sewer-Pipe-10
ID: 553
Sewer-Pipe-10
ID: 3369
Sewer-Pipe-8
ID: 556
Sewer-Pipe-10
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Sewer-Pipe-10
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Sewer-Pipe-10
ID: 3354
Sewer-Pipe-8
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Sewer-Pipe-8
ID: 3363
Sewer-Pipe-10
ID: 3361
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ID: 3357
Sewer-Pipe-8
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Sewer-Pipe-10
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Sewer-Pipe-8
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Sewer-Pipe-8
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Sewer-Pipe-8
ID: 3338
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Sewer-Pipe-8
ID: 3339
Sewer-Pipe-8
ID: 3340
Sewer-Pipe-8
ID: 3824
Sewer-Pipe-8
ID: 3731
Sewer-Pipe-8
ID: 3730
Sewer-Pipe-8
ID: 3739
Sewer-Pipe-15
ID: 3741
Sewer-Pipe-15
ID: 3790
Sewer-Pipe-15
ID: 3789
Sewer-Pipe-15
ID: 3788
Sewer-Pipe-10
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Sewer-Pipe-8
ID: 3736
Sewer-Pipe-8
ID: 3735
Sewer-Pipe-8
ID: 3734
Sewer-Pipe-8
ID: 3733
Sewer-Pipe-15
ID: 3742
Sewer-Pipe-10
ID: 8389
ID: 8393
ID: 8388
ID: 3794
ID: 3795
Sewer-Pipe-8
ID: 3797
Sewer-Pipe-8
ID: 3798
Sewer-Pipe-8
ID: 3801
Sewer-Pipe-8
ID: 3799
Sewer-Pipe-8
ID: 3802
Sewer-Pipe-8
ID: 3825
Sewer-Pipe-8
ID: 3826
Sewer-Pipe-8
ID: 8828
Sewer-Pipe-8
ID: 3829
Sewer-Pipe-8
ID: 3830
Sewer-Pipe-8
ID: 3831
Sewer-Pipe-8
ID: 3832
Sewer-Pipe-8
ID: 3833
Sewer-Pipe-8
ID: 3738
Sewer-Pipe-15
ID: 3754
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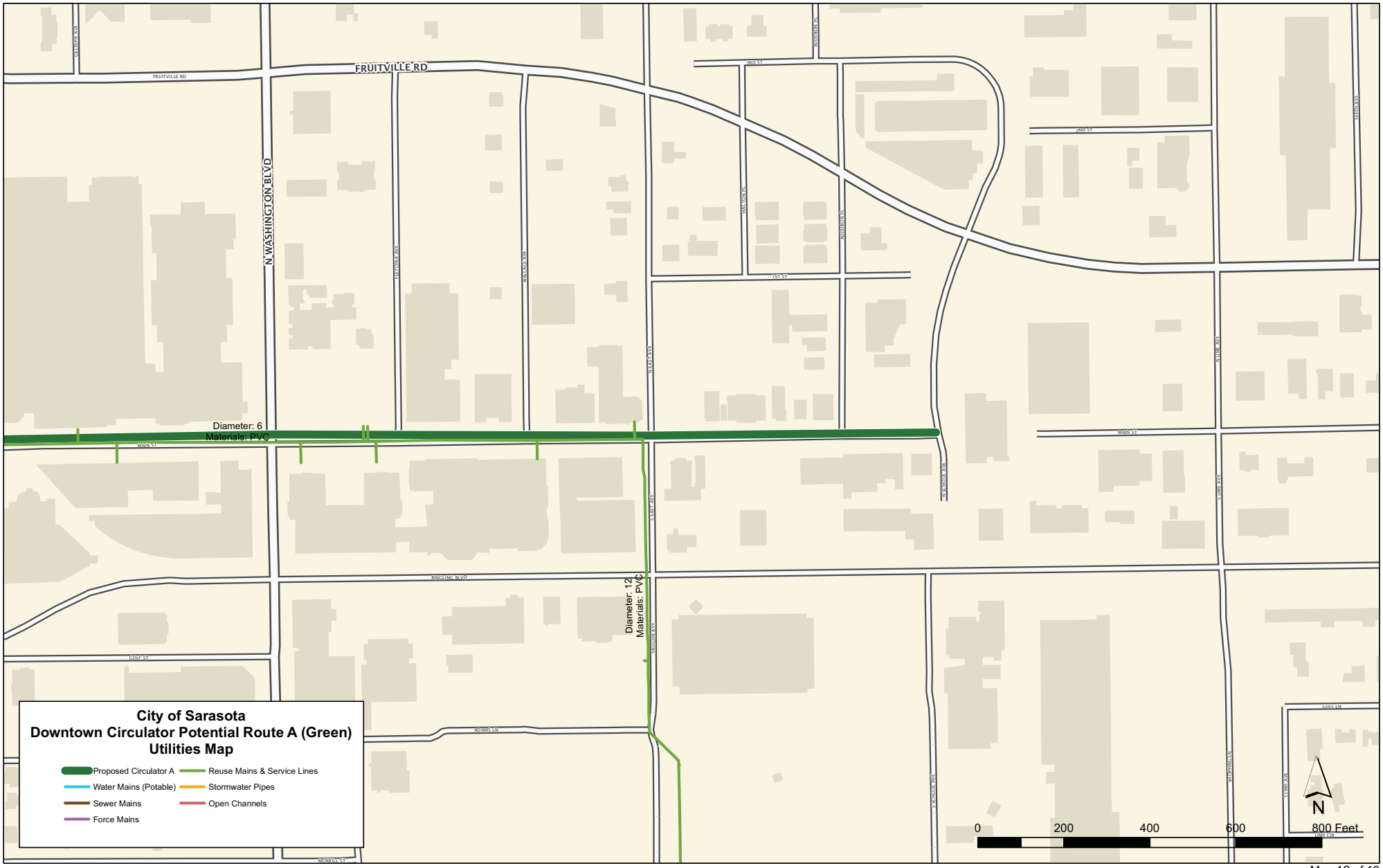
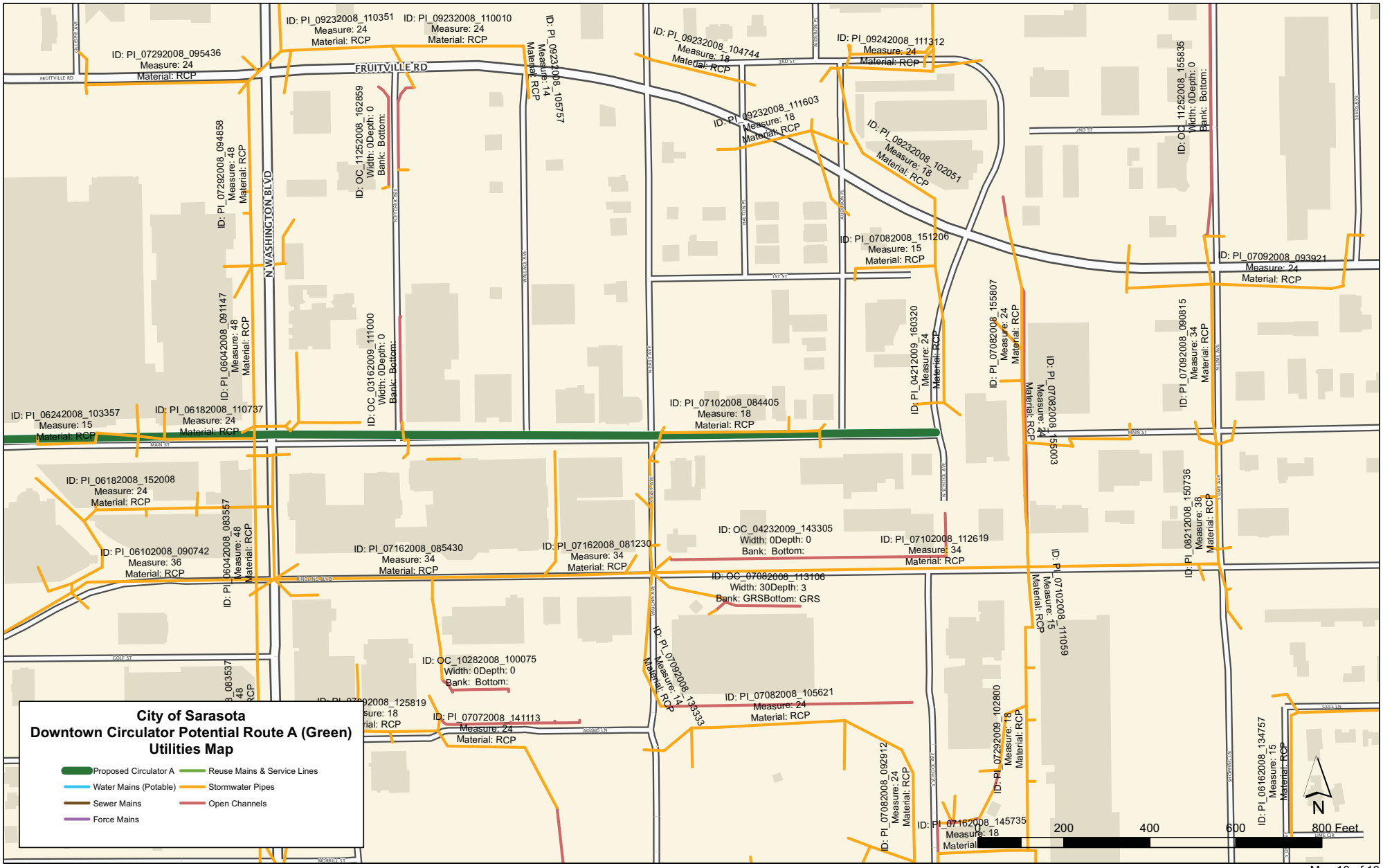
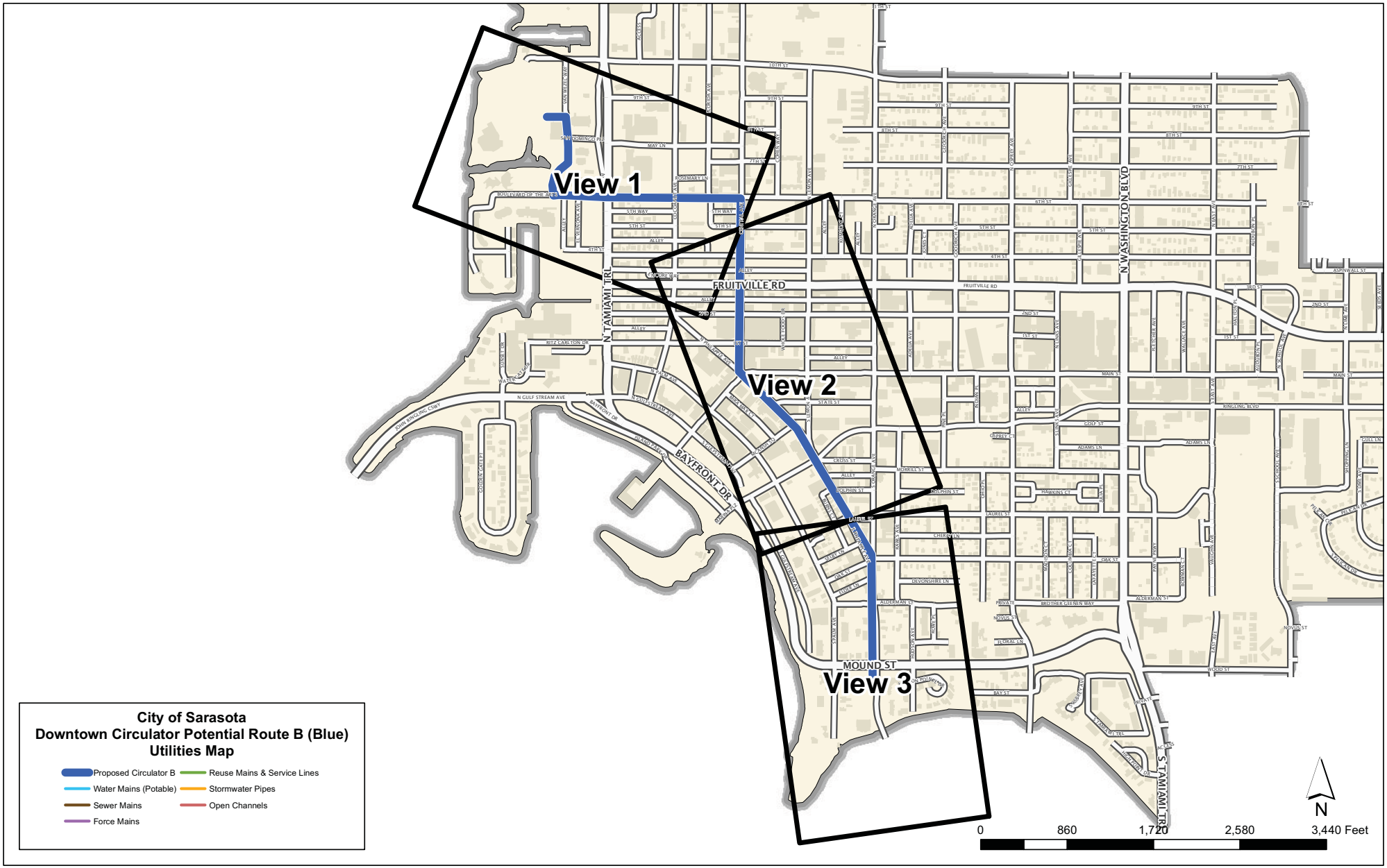
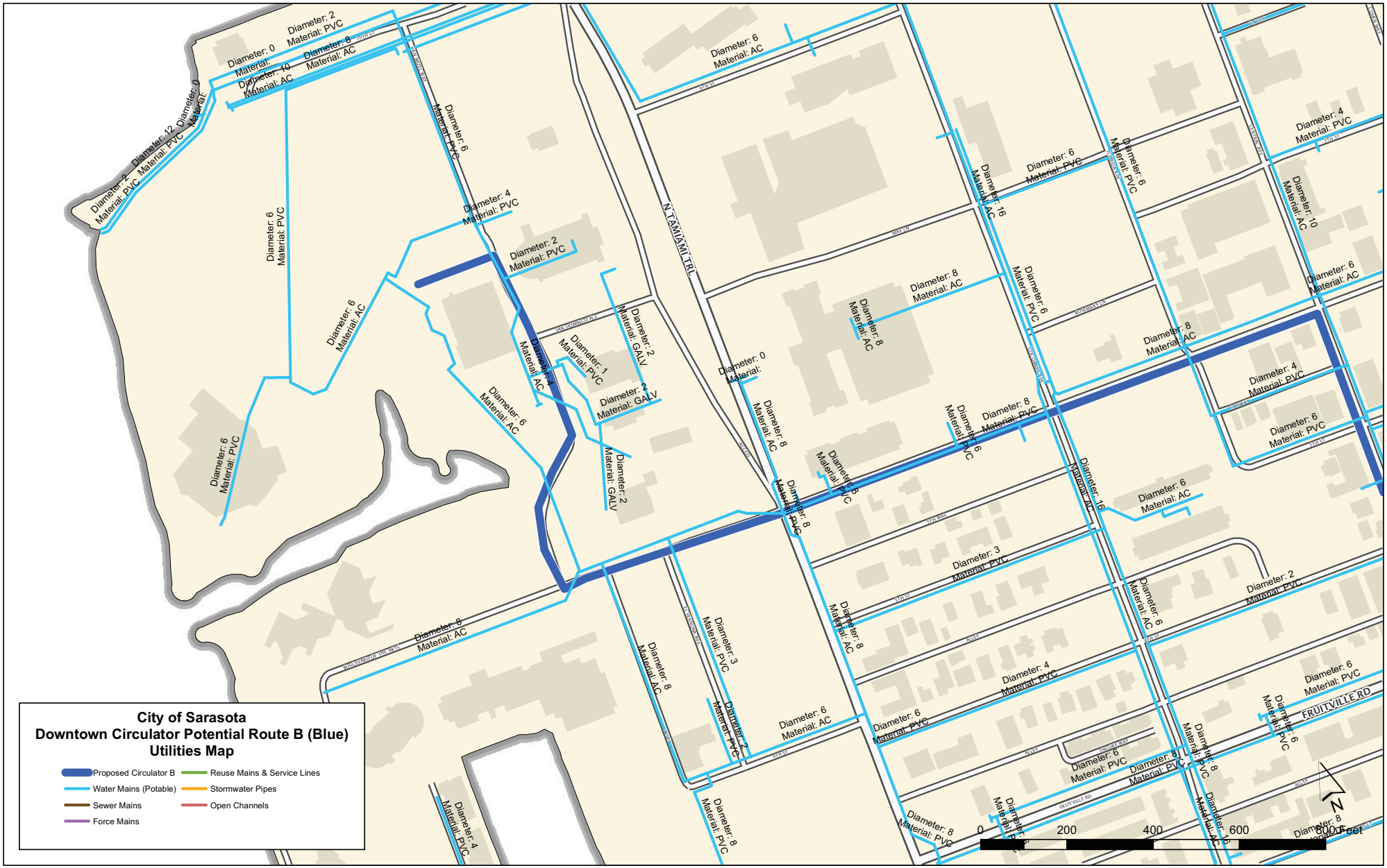
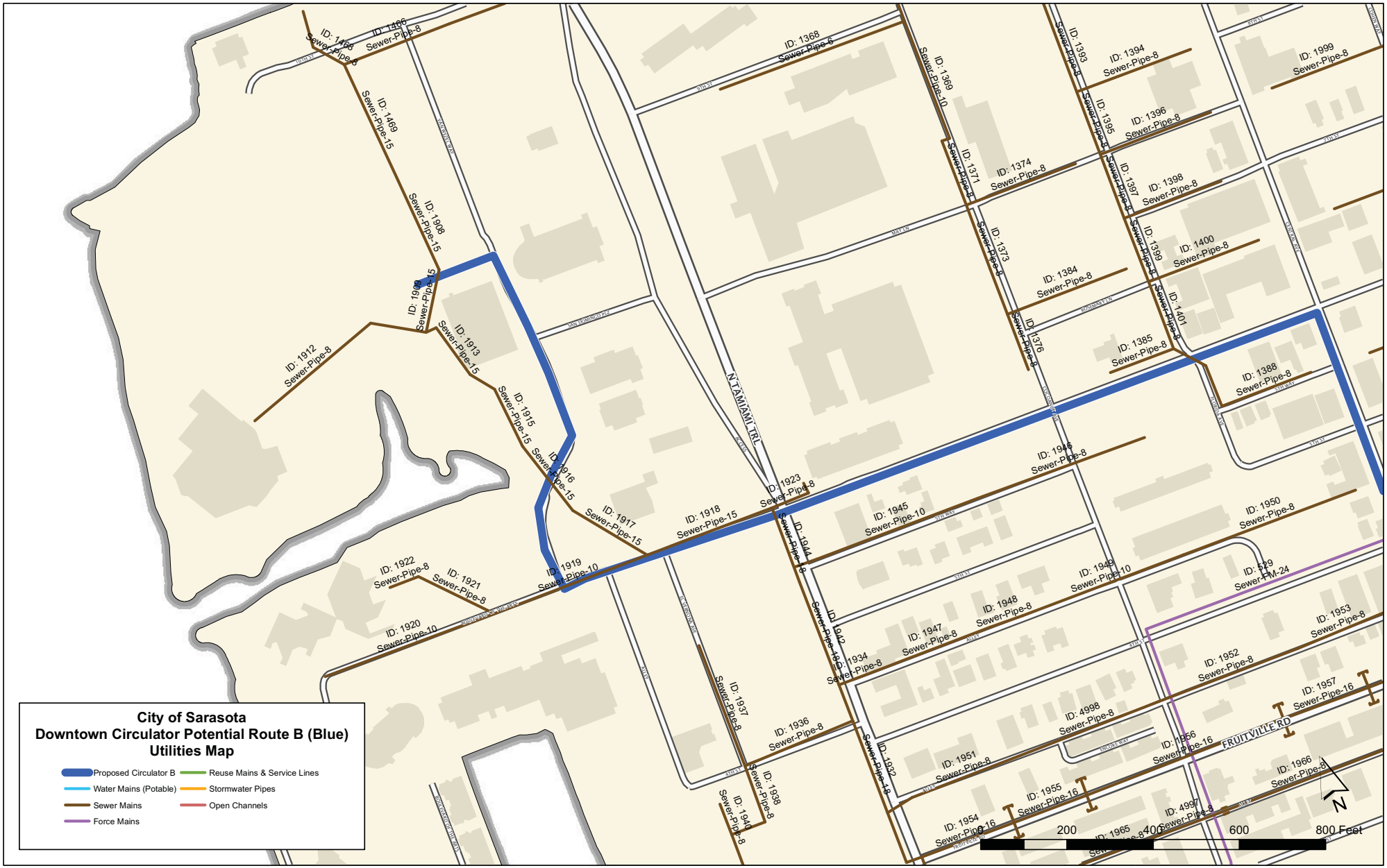
ID: 3753
Sewer-Pipe-8
ID: 3744
Sewer-Pipe-15
ID: 3806
Sewer-Pipe-8
ID: 8395
ID: 3805
Sewer-Pipe-8
ID: 3752
Sewer-Pipe-8
ID: 8397
ID: 3811
Sewer-Pipe-8
ID: 5081
Sewer-Pipe-8
Sewer-Pipe-8
Sewer-Pipe-8
0
200
400
600
800 Feet
N


City of Sarasota
Downtown Circulator Potential Route A (Green)
Utilities Map
Proposed Circulator A
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
Diameter: 6
Materials: PVC
Diameter: 12
Materials: PVC
FRUITVILLE RD
N WASHINGTON BLVD
MAIN ST
RINGLING BLVD
GOLF ST
ADAMS LN
MORRILL ST
1ST ST
2ND ST
3RD ST
N TAMIAMI TRL
N LAFAYETTE AVE
S LAFAYETTE AVE
N SCHOOL AVE
S SCHOOL AVE
S TUTTLE AVE
S MOCCASIN WALLOW RD
0
200
400
600
800 Feet
N

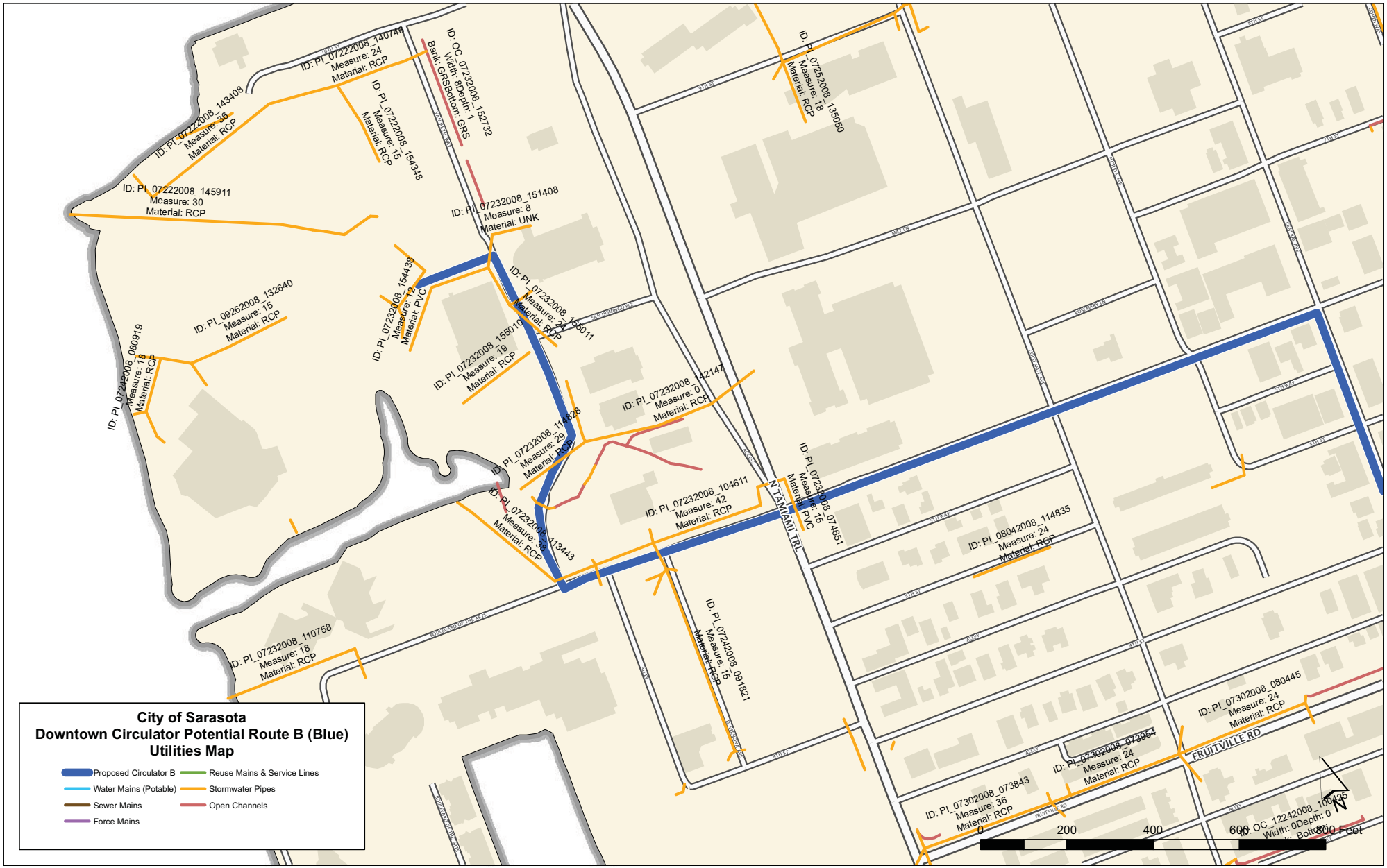

City of Sarasota
Downtown Circulator Potential Route A (Green)
Utilities Map
Proposed Circulator A
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
FRUITVILLE RD
N WASHINGTON BLVD
MAIN ST
1ST ST
2ND ST
3RD ST
GOLF ST
ADAMS LN
MOBILA ST
ID: PI_07292008_095436
Measure: 24
Material: RCP
ID: PI_09232008_110351
Measure: 24
Material: RCP
ID: PI_09232008_110010
Measure: 24
Material: RCP
ID: PI_09232008_105757
Measure: 14
Material: RCP
ID: PI_09232008_104744
Measure: 18
Material: RCP
ID: PI_09242008_111312
Measure: 24
Material: RCP
ID: OC_11252008_155835
Width: 0Depth: 0
Bank: Bottom:
ID: PI_07292008_094858
Measure: 48
Material: RCP
ID: OC_11252008_162859
Width: 0Depth: 0
Bank: Bottom:
ID: PI_09232008_111603
Measure: 18
Material: RCP
ID: PI_09232008_102051
Measure: 18
Material: RCP
ID: PI_07082008_151206
Measure: 15
Material: RCP
ID: PI_07092008_093921
Measure: 24
Material: RCP
ID: PI_06042008_091147
Measure: 48
Material: RCP
ID: OC_03162009_111000
Width: 0Depth: 0
Bank: Bottom:
ID: PI_04212009_160320
Measure: 24
Material: RCP
ID: PI_07082008_155807
Measure: 24
Material: RCP
ID: PI_07082008_155003
Measure: 24
Material: RCP
ID: PI_07092008_090815
Measure: 34
Material: RCP
ID: PI_06242008_103357
Measure: 15
Material: RCP
ID: PI_06182008_110737
Measure: 24
Material: RCP
ID: PI_07102008_084405
Measure: 18
Material: RCP
ID: PI_06182008_152008
Measure: 24
Material: RCP
ID: PI_06102008_090742
Measure: 36
Material: RCP
ID: PI_06042008_083557
Measure: 48
Material: RCP
ID: PI_07162008_085430
Measure: 34
Material: RCP
ID: PI_07162008_081230
Measure: 34
Material: RCP
ID: OC_04232009_143305
Width: 0Depth: 0
Bank: Bottom:
ID: PI_07102008_112619
Measure: 34
Material: RCP
ID: PI_08212008_150736
Measure: 38
Material: RCP
ID: OC_07082008_113106
Width: 30Depth: 3
Bank: GRSBottom: GRS
ID: PI_07102008_111059
Measure: 15
Material: RCP
ID: OC_10282008_100075
Width: 0Depth: 0
Bank: Bottom:
ID: PI_07092008_133333
Measure: 14
Material: RCP
ID: PI_07082008_105621
Measure: 24
Material: RCP
ID: PI_07072008_141113
Measure: 24
Material: RCP
ID: PI_07292009_102800
Measure: 18
Material: RCP
ID: PI_06162008_134757
Measure: 15
Material: RCP
ID: PI_07082008_092912
Measure: 24
Material: RCP
ID: PI_07162008_145735
Measure: 18
N
200
400
600
800 Feet


View 1
View 2
View 3
FRUITVILLE RD
N TAMIAMI TRL
N WASHINGTON BLVD
S TAMIAMI TRL
BAYFRONT DR
MOUND ST
N GULF STREAM AVE
RINGLING BLVD
City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
N
0
860
1,720
2,580
3,440 Feet


City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
N TAMIAMI TRL
FRUITVILLE RD
0
200
400
600
800 Feet


City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
N TAMIAMI TRL
FRUITVILLE RD
ID: 1468 Sewer-Pipe-8
ID: 1466 Sewer-Pipe-8
ID: 1469 Sewer-Pipe-15
ID: 1908 Sewer-Pipe-15
ID: 1909 Sewer-Pipe-15
ID: 1912 Sewer-Pipe-8
ID: 1913 Sewer-Pipe-15
ID: 1915 Sewer-Pipe-15
ID: 1916 Sewer-Pipe-15
ID: 1917 Sewer-Pipe-15
ID: 1918 Sewer-Pipe-15
ID: 1919 Sewer-Pipe-10
ID: 1920 Sewer-Pipe-10
ID: 1921 Sewer-Pipe-8
ID: 1922 Sewer-Pipe-8
ID: 1923 Sewer-Pipe-8
ID: 1368 Sewer-Pipe-8
ID: 1369 Sewer-Pipe-10
ID: 1371 Sewer-Pipe-8
ID: 1373 Sewer-Pipe-8
ID: 1374 Sewer-Pipe-8
ID: 1376 Sewer-Pipe-8
ID: 1384 Sewer-Pipe-8
ID: 1385 Sewer-Pipe-8
ID: 1388 Sewer-Pipe-8
ID: 1393 Sewer-Pipe-8
ID: 1394 Sewer-Pipe-8
ID: 1395 Sewer-Pipe-8
ID: 1396 Sewer-Pipe-8
ID: 1397 Sewer-Pipe-8
ID: 1398 Sewer-Pipe-8
ID: 1399 Sewer-Pipe-8
ID: 1400 Sewer-Pipe-8
ID: 1401 Sewer-Pipe-8
ID: 1999 Sewer-Pipe-8
ID: 1944 Sewer-Pipe-8
ID: 1945 Sewer-Pipe-10
ID: 1946 Sewer-Pipe-8
ID: 1950 Sewer-Pipe-8
ID: 1949 Sewer-Pipe-10
ID: 529 Sewer-FM-24
ID: 1948 Sewer-Pipe-8
ID: 1947 Sewer-Pipe-8
ID: 1942 Sewer-Pipe-18
ID: 1934 Sewer-Pipe-8
ID: 1953 Sewer-Pipe-8
ID: 1952 Sewer-Pipe-8
ID: 1957 Sewer-Pipe-16
ID: 4998 Sewer-Pipe-8
ID: 1956 Sewer-Pipe-16
ID: 1951 Sewer-Pipe-8
ID: 1966 Sewer-Pipe-8
ID: 1955 Sewer-Pipe-16
ID: 1954 Sewer-Pipe-16
ID: 4997 Sewer-Pipe-8
ID: 1965 Sewer-Pipe-8
ID: 1937 Sewer-Pipe-8
ID: 1936 Sewer-Pipe-8
ID: 1938 Sewer-Pipe-8
ID: 1940 Sewer-Pipe-8
ID: 1932 Sewer-Pipe-18
0 200 400 600 800 Feet
N

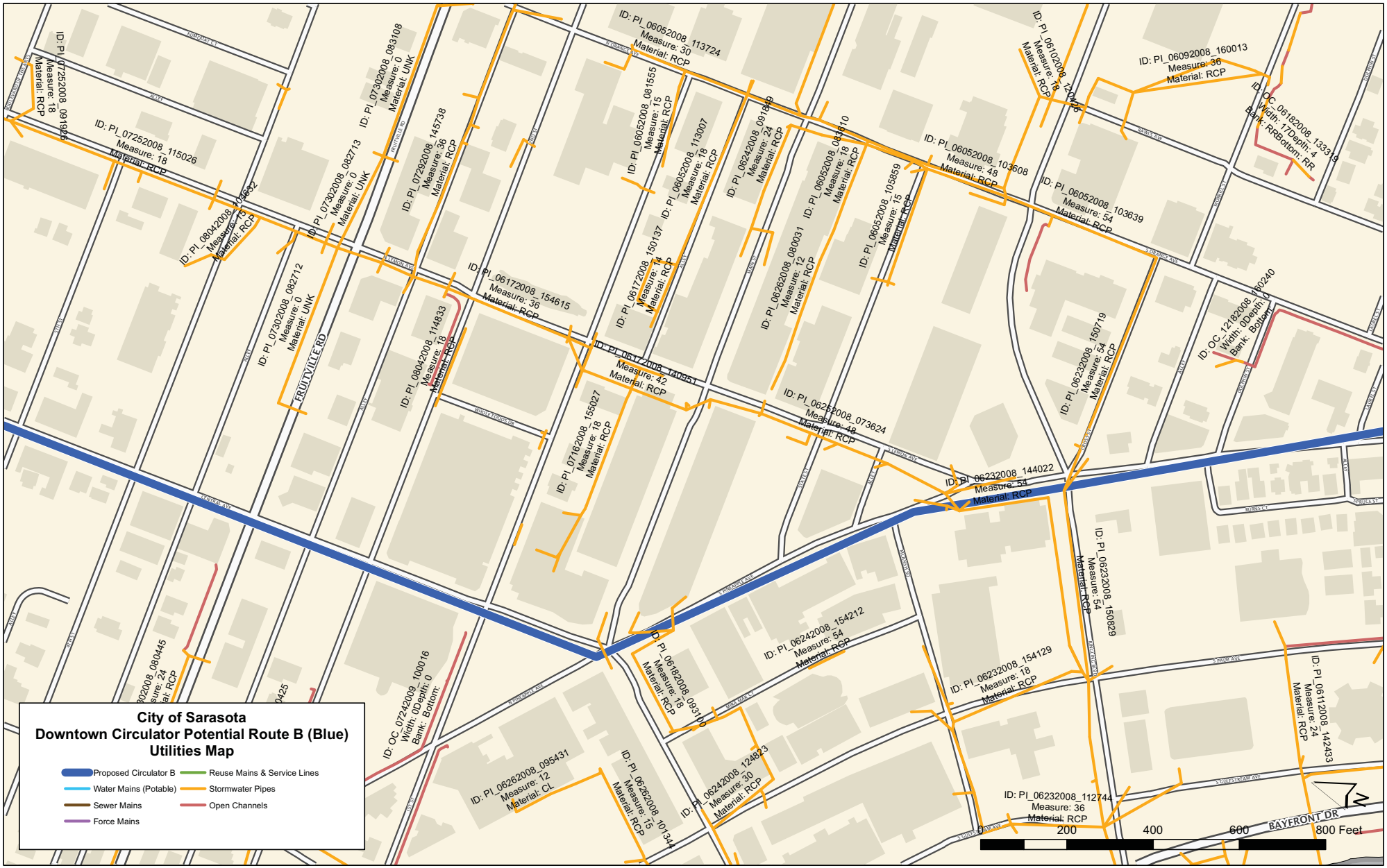
City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
Diameter: 10
Materials: PVC
Diameter: 16
Materials: DI
Diameter: 24
N TAMIAMI TRL
FRUITVILLE RD
0
200
400
600
800 Feet
N

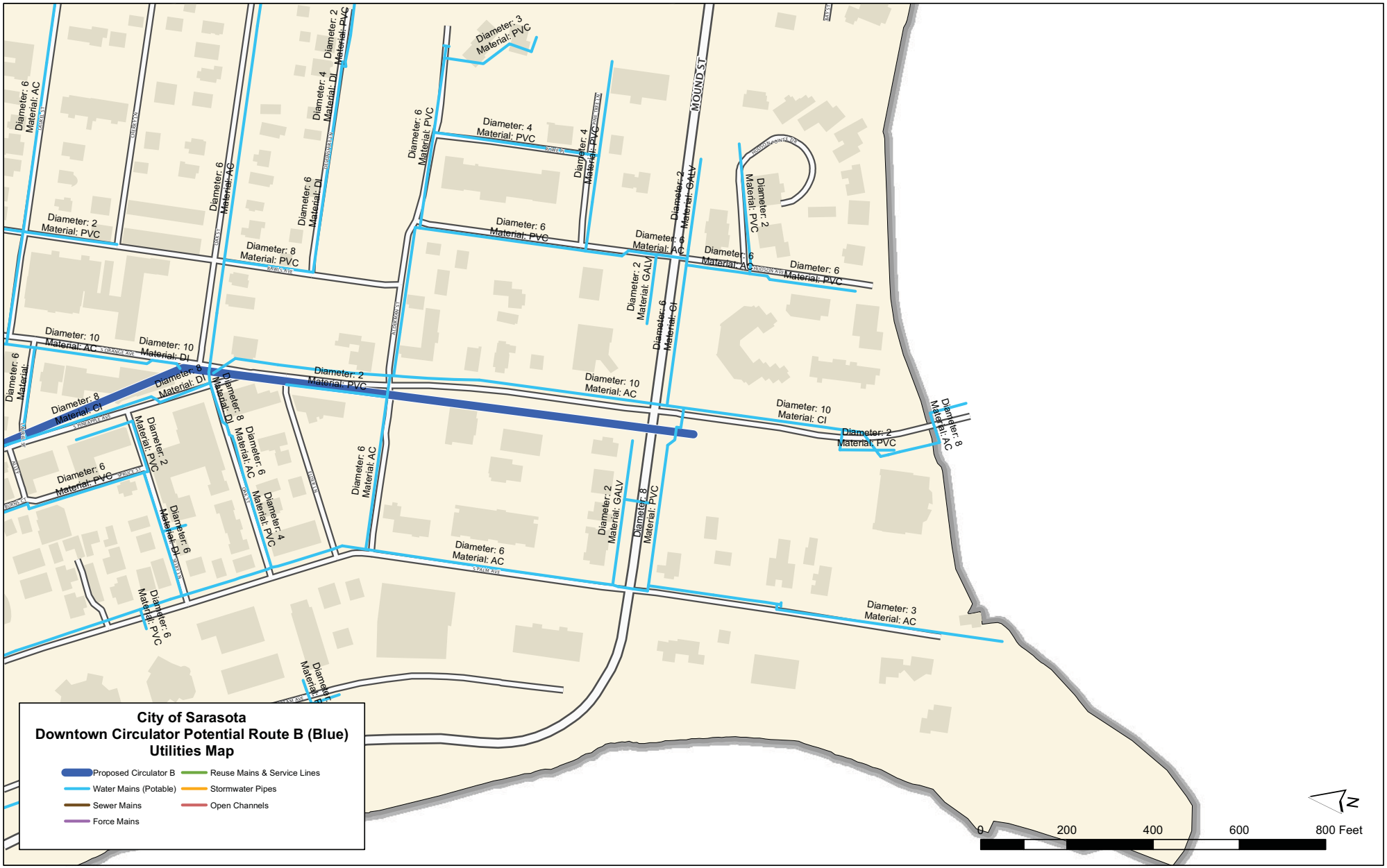

City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
ID: PI_07222008_140746
Measure: 24
Material: RCP
ID: PI_07222008_143408
Measure: 36
Material: RCP
ID: PI_07222008_145911
Measure: 30
Material: RCP
ID: PI_07222008_154348
Measure: 15
Material: RCP
ID: OC_07232008_152732
Width: 8Depth: 1
Bank: GRSBottom: GRS
ID: PI_07232008_151408
Measure: 8
Material: UNK
ID: PI_07232008_154438
Measure: 12
Material: PVC
ID: PI_07232008_155011
Measure: 24
Material: RCP
ID: PI_09262008_132640
Measure: 15
Material: RCP
ID: PI_07242008_080919
Measure: 18
Material: RCP
ID: PI_07232008_155010
Measure: 19
Material: RCP
ID: PI_07232008_114828
Measure: 29
Material: RCP
ID: PI_07232008_113443
Measure: 36
Material: RCP
ID: PI_07232008_142147
Measure: 0
Material: RCP
ID: PI_07232008_104611
Measure: 42
Material: RCP
ID: PI_07232008_110758
Measure: 18
Material: RCP
ID: PI_07242008_091821
Measure: 15
Material: RCP
ID: PI_07232008_074651
Measure: 15
Material: PVC
ID: PI_07252008_135050
Measure: 18
Material: RCP
ID: PI_08042008_114835
Measure: 24
Material: RCP
ID: PI_07302008_080445
Measure: 24
Material: RCP
ID: PI_07302008_073954
Measure: 24
Material: RCP
ID: PI_07302008_073843
Measure: 36
Material: RCP
ID: OC_12242008_100435
Width: 0Depth: 0
Bottom: 0
N TAMIAMI TRL
FRUITVILLE RD
0
200
400
600
800 Feet

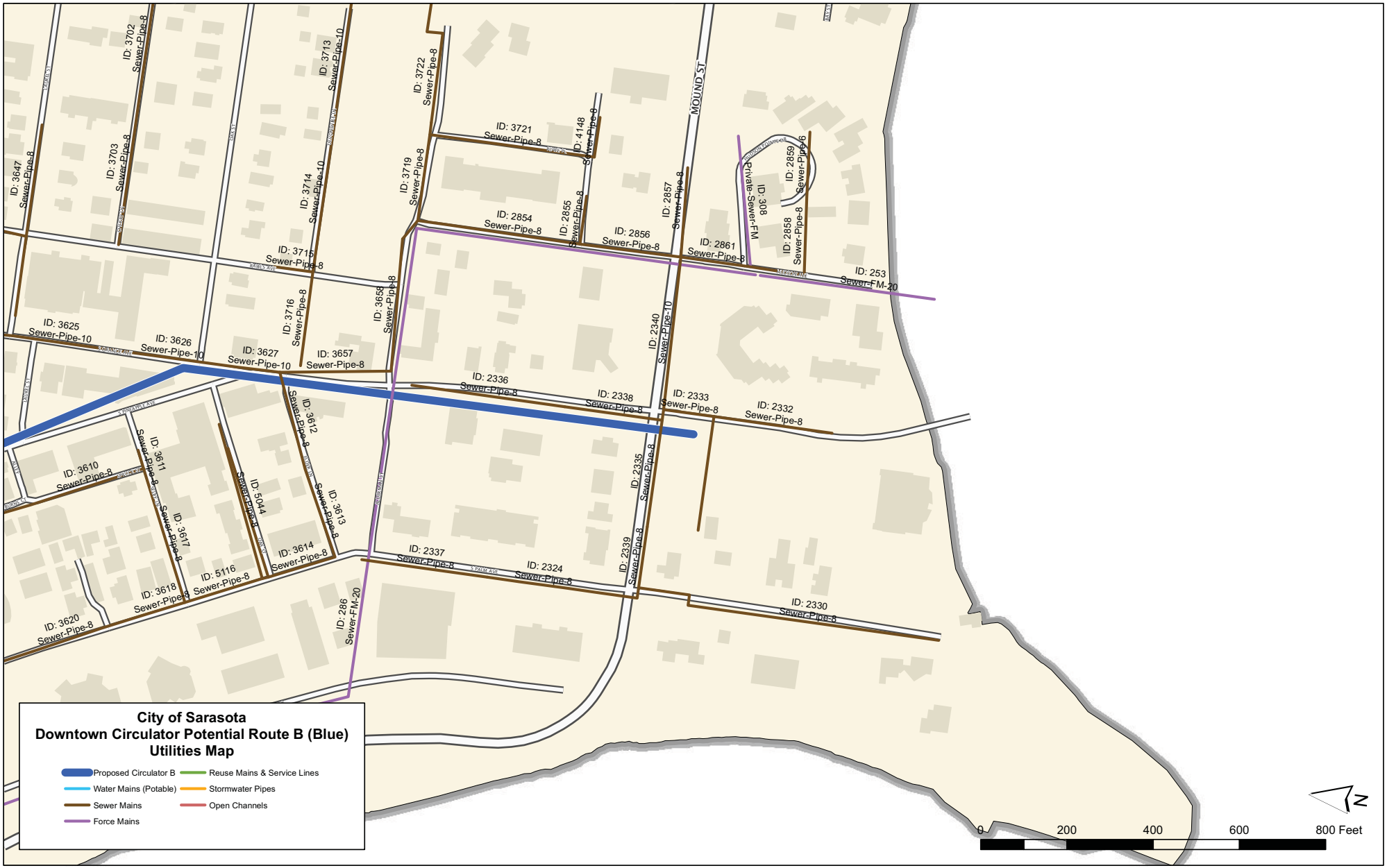
City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
FRUITVILLE RD
BAYFRONT DR
0
200
400
600
800 Feet

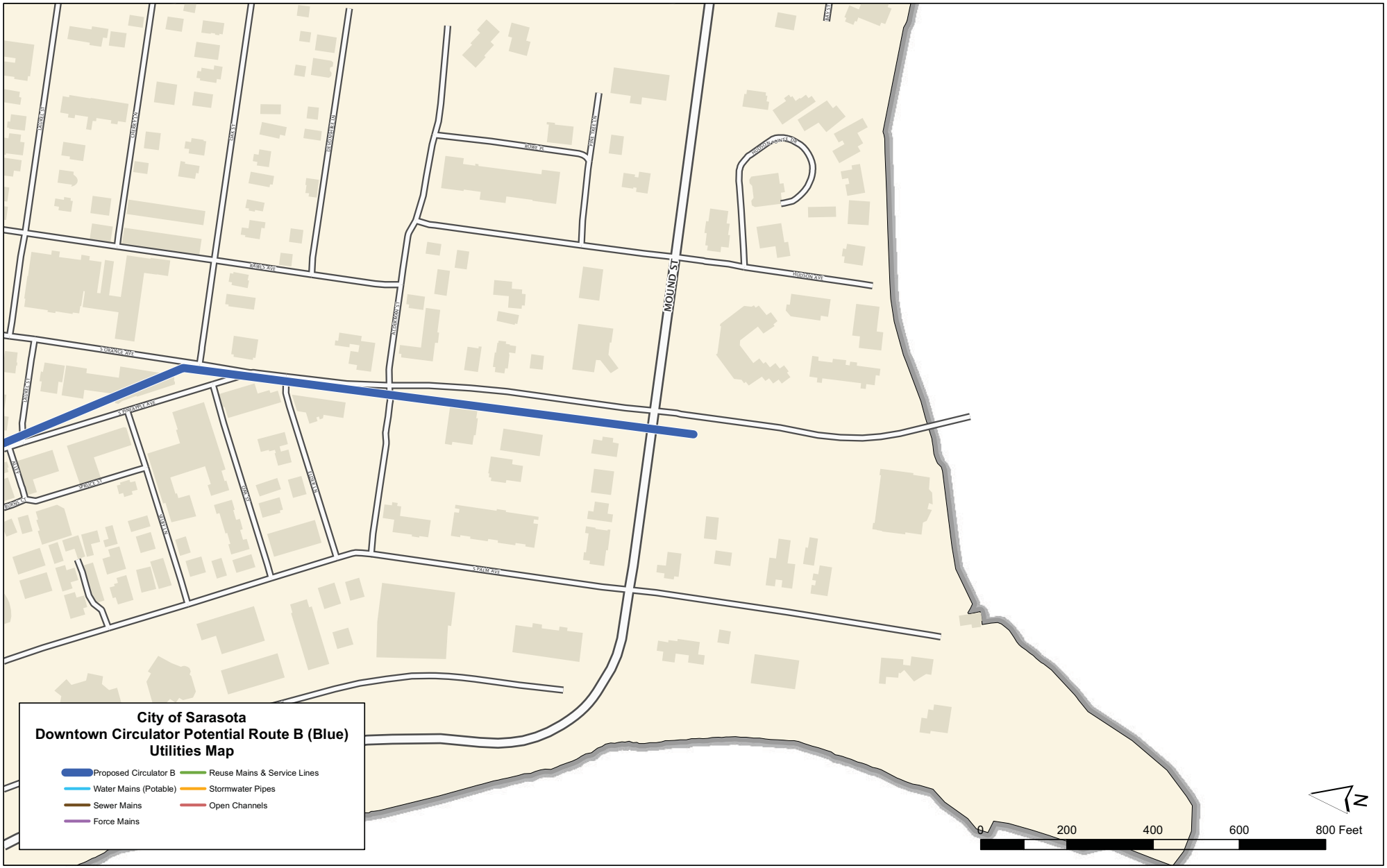
City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
200
400
600
800 Feet
N
FRUITVILLE RD
BAYFRONT DR

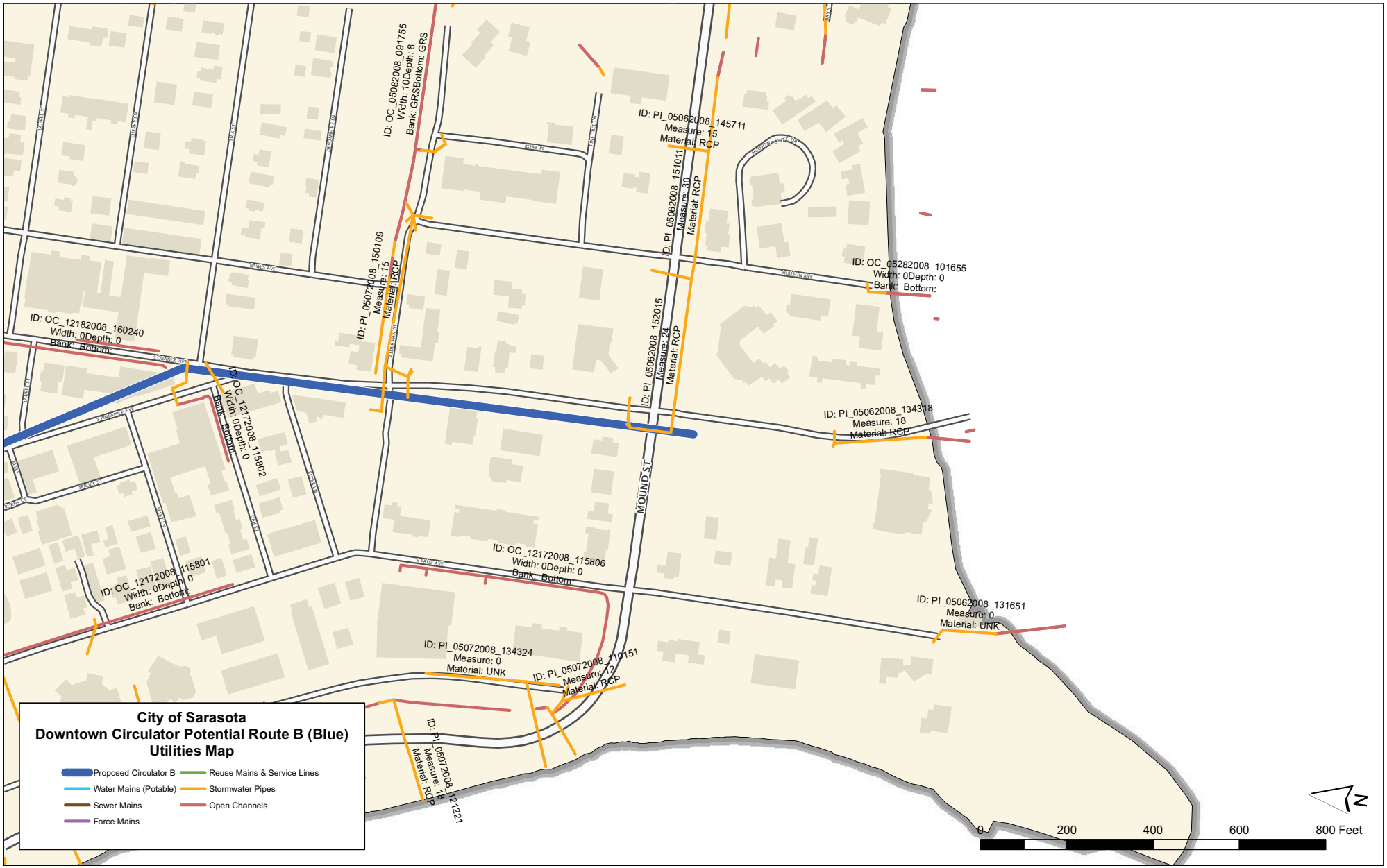
City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
Diameter: 8
Materials: PVC
Diameter: 16
Materials: PVC
Diameter: 16
Materials: DI
Diameter: 4
Materials: PVC
Diameter: 4
Materials: PVC
Diameter: 8
Materials: HDPE
Diameter: 8
Materials: HDPE
FRUITVILLE RD
BAYFRONT DR
200
400
600
800 Feet

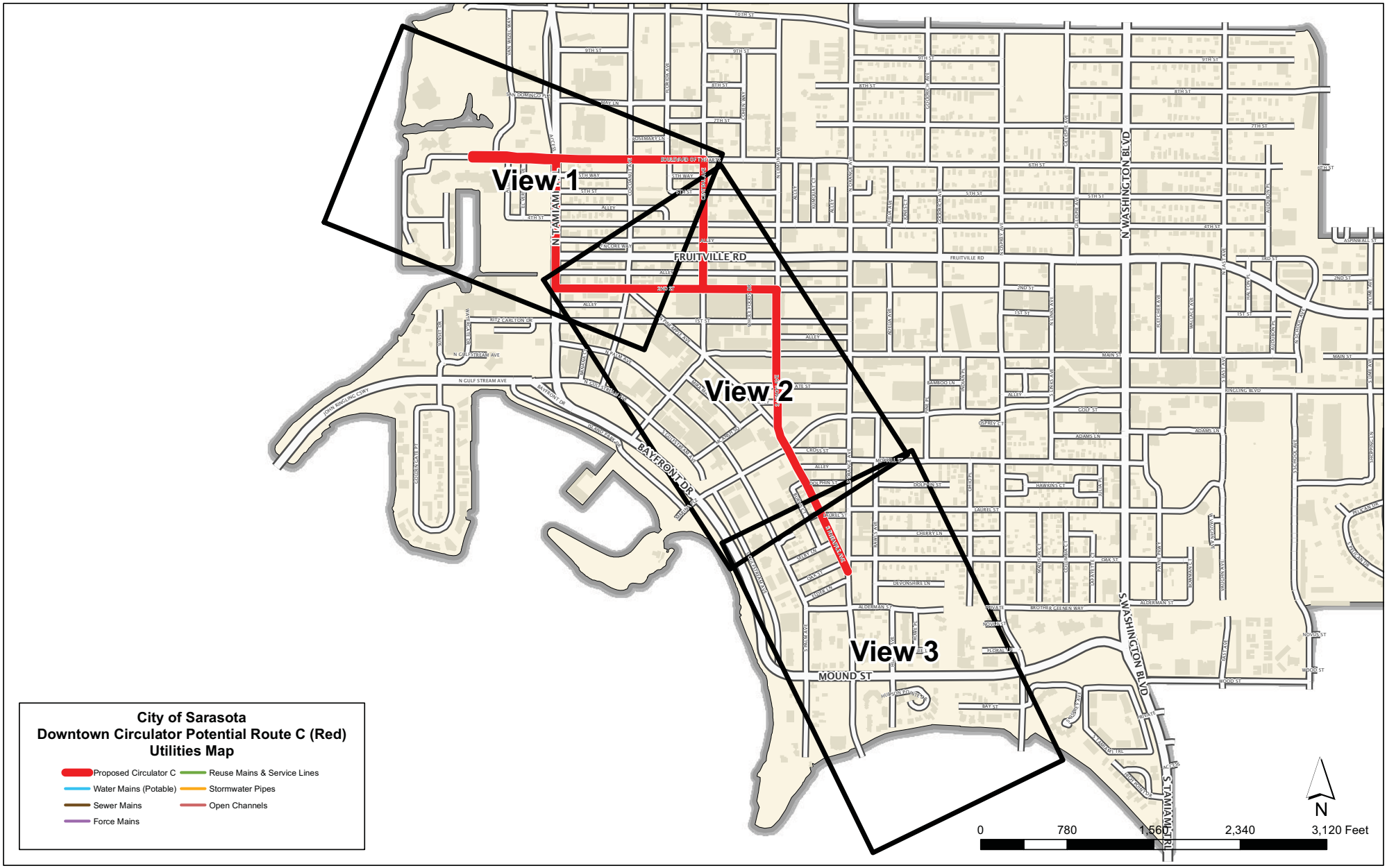

City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
ID: PI_06052008_113724
Measure: 30
Material: RCP
ID: PI_06092008_160013
Measure: 36
Material: RCP
ID: OC_06182008_133319
Width: 17Depth: 4
Bank: RRBottom: RR
ID: PI_06052008_103608
Measure: 48
Material: RCP
ID: PI_06052008_103639
Measure: 54
Material: RCP
ID: PI_06052008_081555
Measure: 15
Material: RCP
ID: PI_06052008_113007
Measure: 18
Material: RCP
ID: PI_06242008_091309
Measure: 24
Material: RCP
ID: PI_06052008_083810
Measure: 18
Material: RCP
ID: PI_06052008_105859
Measure: 15
Material: RCP
ID: PI_06172008_150137
Measure: 24
Material: RCP
ID: PI_06262008_080031
Measure: 12
Material: RCP
ID: PI_06172008_154615
Measure: 36
Material: RCP
ID: PI_06172008_140951
Measure: 42
Material: RCP
ID: PI_06262008_073624
Measure: 48
Material: RCP
ID: PI_06232008_144022
Measure: 54
Material: RCP
ID: PI_06232008_150719
Measure: 54
Material: RCP
ID: OC_12182008_160240
Width: 0Depth: 0
Bank: Bottom:
ID: PI_06232008_150829
Measure: 54
Material: RCP
ID: PI_06242008_154212
Measure: 54
Material: RCP
ID: PI_06232008_154129
Measure: 18
Material: RCP
ID: PI_06182008_093109
Measure: 18
Material: RCP
ID: PI_06112008_142433
Measure: 24
Material: RCP
ID: PI_06232008_112744
Measure: 36
Material: RCP
ID: PI_06262008_095431
Measure: 12
Material: CL
ID: PI_06262008_101344
Measure: 15
Material: RCP
ID: PI_06242008_124823
Measure: 30
Material: RCP
ID: OC_07242009_100016
Width: 0Depth: 0
Bank: Bottom:
ID: PI_07252008_091926
Measure: 18
Material: RCP
ID: PI_07252008_115026
Measure: 18
Material: RCP
ID: PI_07302008_083108
Measure: 0
Material: UNK
ID: PI_07302008_082713
Measure: 0
Material: UNK
ID: PI_07292008_145738
Measure: 36
Material: RCP
ID: PI_08042008_106622
Measure: 15
Material: RCP
ID: PI_07302008_082712
Measure: 0
Material: UNK
ID: PI_08042008_114833
Measure: 18
Material: RCP
ID: PI_07182008_155027
Measure: 18
Material: RCP
ID: PI_08042008_080445
Measure: 24
Material: RCP
FRUITVILLE RD
BAYFRONT DR
200
400
600
800 Feet

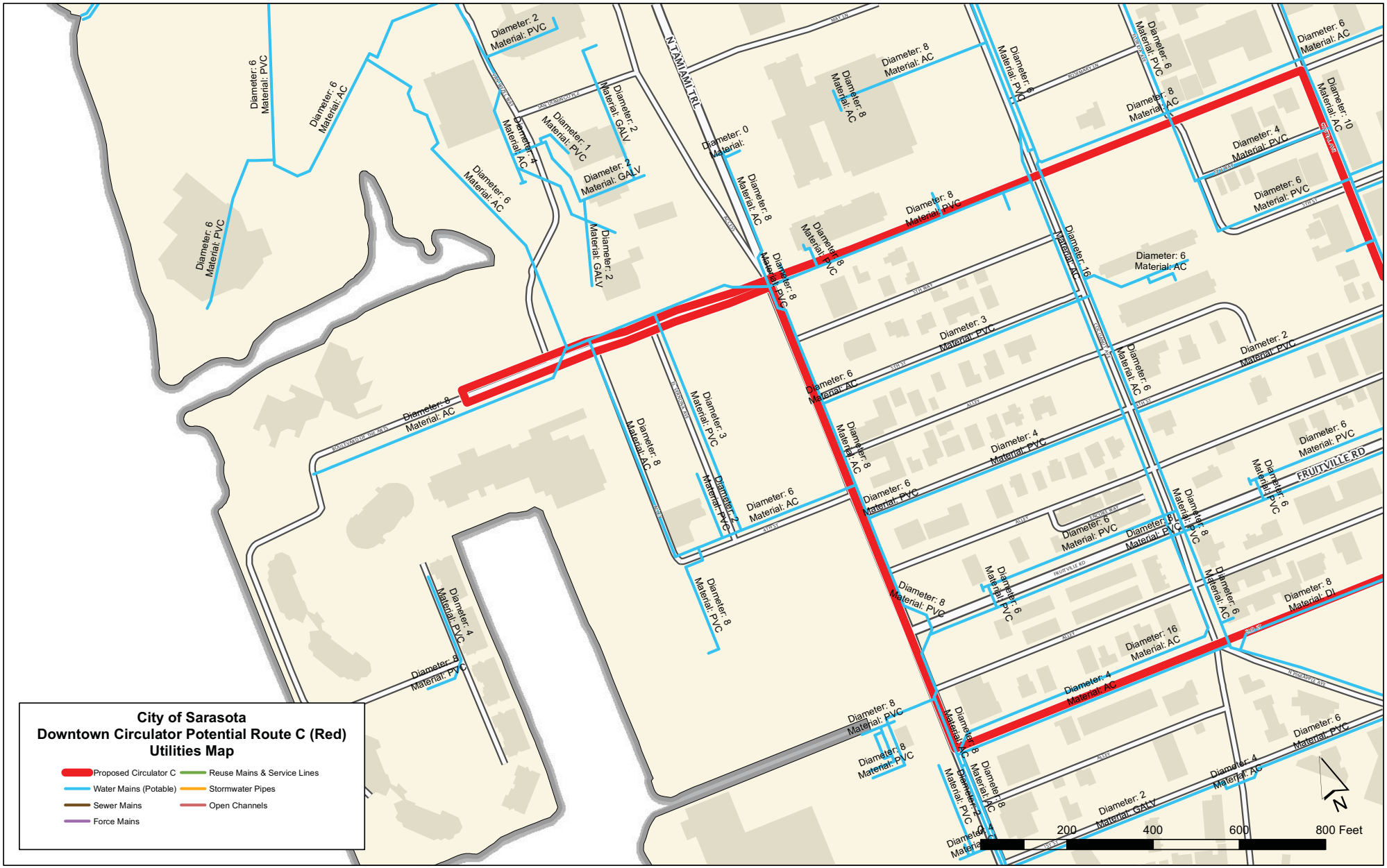

City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
0
200
400
600
800 Feet
N
MOUND ST
Diameter: 3
Material: PVC
Diameter: 4
Material: PVC
Diameter: 6
Material: PVC
Diameter: 2
Material: PVC
Diameter: 8
Material: PVC
Diameter: 10
Material: AC
Diameter: 10
Material: DI
Diameter: 8
Material: DI
Diameter: 8
Material: CI
Diameter: 6
Material: AC
Diameter: 2
Material: GALV
Diameter: 6
Material: CI
Diameter: 10
Material: CI
Diameter: 3
Material: AC
Diameter: 8
Material: AC

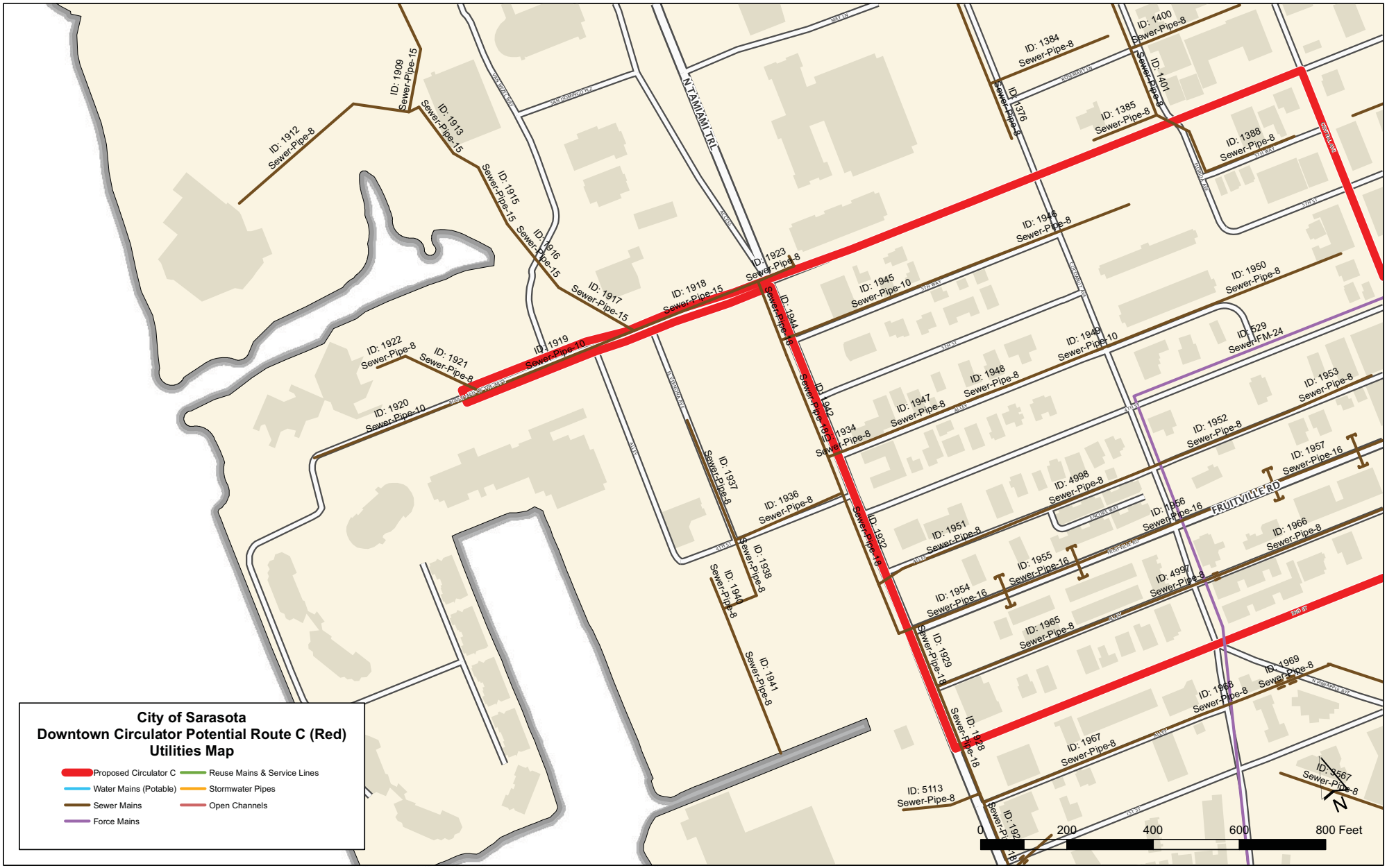

City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
ID: 3647 Sewer-Pipe-8
ID: 3702 Sewer-Pipe-8
ID: 3703 Sewer-Pipe-8
ID: 3713 Sewer-Pipe-10
ID: 3714 Sewer-Pipe-10
ID: 3715 Sewer-Pipe-8
ID: 3716 Sewer-Pipe-8
ID: 3722 Sewer-Pipe-8
ID: 3719 Sewer-Pipe-8
ID: 3721 Sewer-Pipe-8
ID: 4148 Sewer-Pipe-8
ID: 2854 Sewer-Pipe-8
ID: 2855 Sewer-Pipe-8
ID: 2856 Sewer-Pipe-8
ID: 2857 Sewer-Pipe-8
ID: 2861 Sewer-Pipe-8
ID: 308 Private-Sewer-FM
ID: 2859 Sewer-Pipe-6
ID: 2858 Sewer-Pipe-8
ID: 253 Sewer-FM-20
ID: 3658 Sewer-Pipe-8
ID: 3625 Sewer-Pipe-10
ID: 3626 Sewer-Pipe-10
ID: 3627 Sewer-Pipe-10
ID: 3657 Sewer-Pipe-8
ID: 2340 Sewer-Pipe-10
ID: 2336 Sewer-Pipe-8
ID: 2338 Sewer-Pipe-8
ID: 2333 Sewer-Pipe-8
ID: 2332 Sewer-Pipe-8
ID: 3612 Sewer-Pipe-8
ID: 3611 Sewer-Pipe-8
ID: 3610 Sewer-Pipe-8
ID: 3613 Sewer-Pipe-8
ID: 5044 Sewer-Pipe-8
ID: 3617 Sewer-Pipe-8
ID: 3614 Sewer-Pipe-8
ID: 5116 Sewer-Pipe-8
ID: 3618 Sewer-Pipe-8
ID: 3620 Sewer-Pipe-8
ID: 286 Sewer-FM-20
ID: 2335 Sewer-Pipe-8
ID: 2339 Sewer-Pipe-8
ID: 2337 Sewer-Pipe-8
ID: 2324 Sewer-Pipe-8
ID: 2330 Sewer-Pipe-8
MOUND ST
0 200 400 600 800 Feet
N

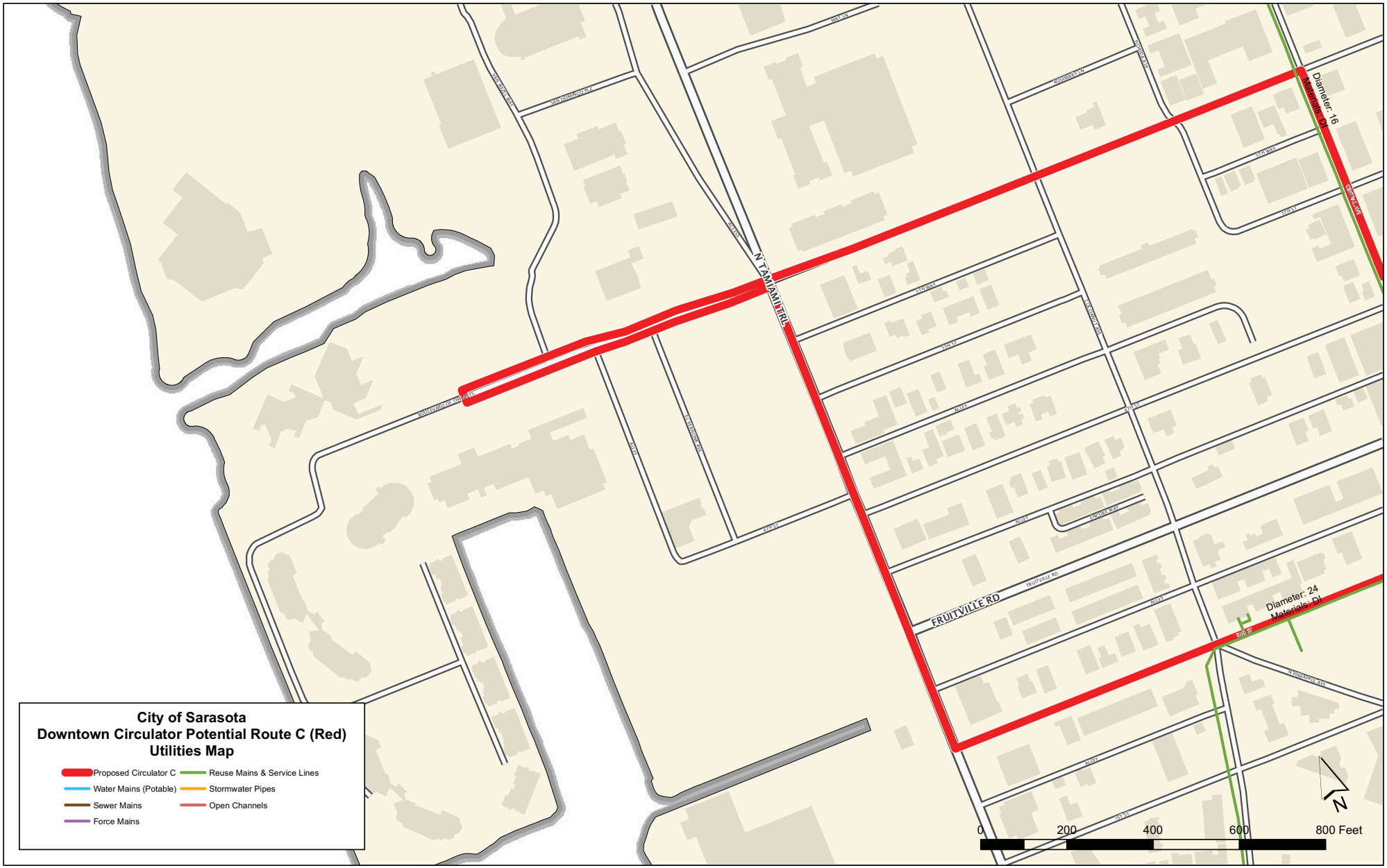

City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
MOUND ST
HUDSON AVE
PALM AVE
0
200
400
600
800 Feet
N

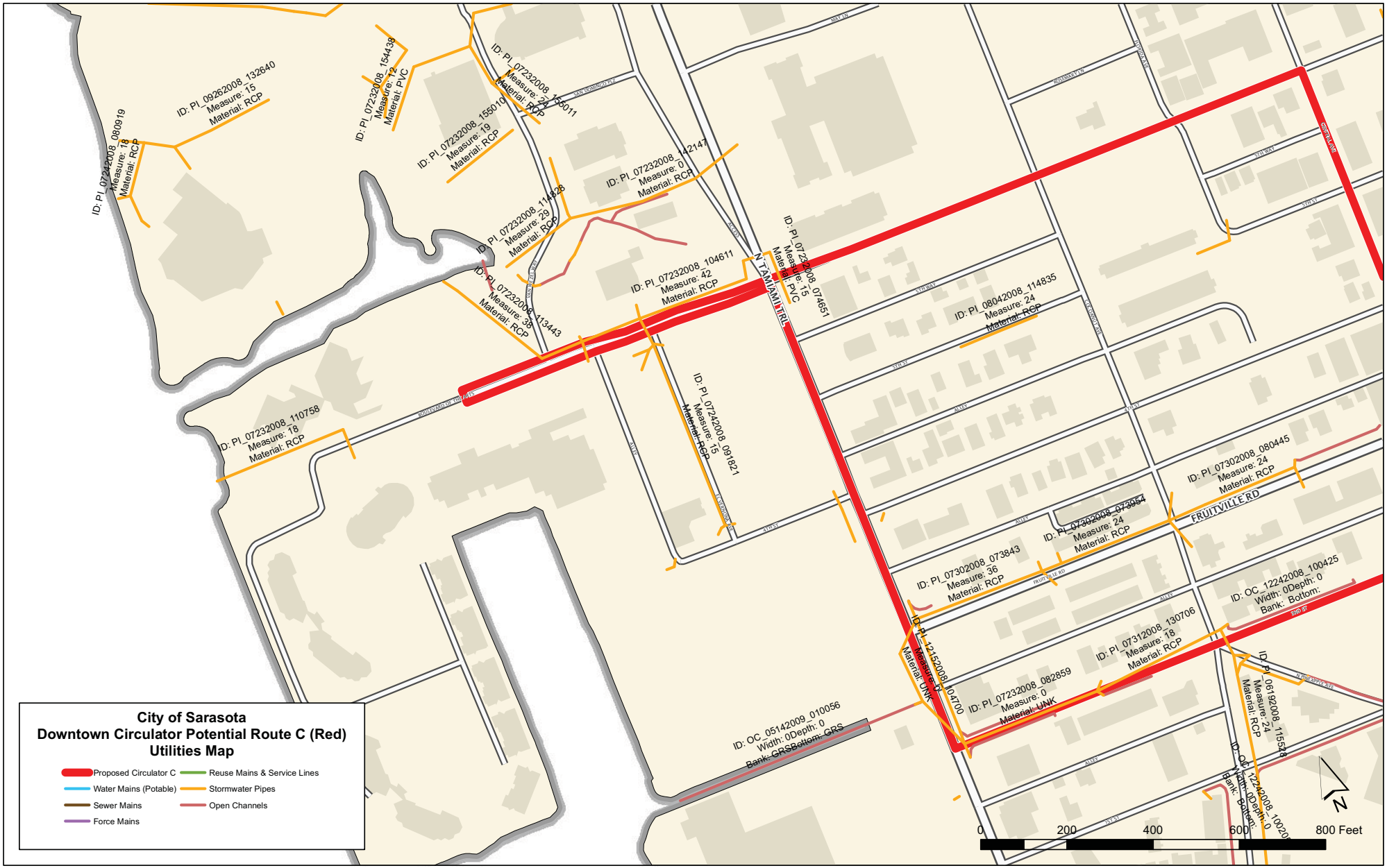

City of Sarasota
Downtown Circulator Potential Route B (Blue)
Utilities Map
Proposed Circulator B
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
ID: OC_05082008_091755
Width: 10Depth: 8
Bank: GRSBottom: GRS
ID: PI_05062008_145711
Measure: 15
Material: RCP
ID: PI_05062008_151011
Measure: 30
Material: RCP
ID: OC_05282008_101655
Width: 0Depth: 0
Bank: Bottom:
ID: PI_05072008_150109
Measure: 15
Material: RCP
ID: OC_12182008_160240
Width: 0Depth: 0
Bank: Bottom:
ID: PI_05062008_152015
Measure: 24
Material: RCP
ID: OC_12172008_115802
Width: 0Depth: 0
Bank: Bottom:
ID: PI_05062008_134318
Measure: 18
Material: RCP
MOUND ST
ID: OC_12172008_115806
Width: 0Depth: 0
Bank: Bottom:
ID: OC_12172008_115801
Width: 0Depth: 0
Bank: Bottom:
ID: PI_05062008_131651
Measure: 0
Material: UNK
ID: PI_05072008_134324
Measure: 0
Material: UNK
ID: PI_05072008_110151
Measure: 12
Material: RCP
ID: PI_05072008_121221
Measure: 18
Material: RCP
0
200
400
600
800 Feet
N


View 1
View 2
View 3
N TAMIAMI TRL
FRUITVILLE RD
N WASHINGTON BLVD
S WASHINGTON BLVD
S TAMIAMI TRL
BAYFRONT DR
MOUND ST
N GULF STREAM AVE
JOHN RINGLING CONV
RINGLING BLVD
City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
0
780
1,560
2,340
3,120 Feet
N


City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
N TAMIAMI TRL
FRUITVILLE RD
N PINEAPPLE AVE
200
400
600
800 Feet
N


City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
N TAMIAMI TRL
FRUITVILLE RD
ID: 1912 Sewer-Pipe-8
ID: 1909 Sewer-Pipe-15
ID: 1913 Sewer-Pipe-15
ID: 1915 Sewer-Pipe-15
ID: 1916 Sewer-Pipe-15
ID: 1917 Sewer-Pipe-15
ID: 1918 Sewer-Pipe-15
ID: 1919 Sewer-Pipe-10
ID: 1920 Sewer-Pipe-10
ID: 1921 Sewer-Pipe-8
ID: 1922 Sewer-Pipe-8
ID: 1923 Sewer-Pipe-8
ID: 1944 Sewer-Pipe-18
ID: 1942 Sewer-Pipe-18
ID: 1934 Sewer-Pipe-8
ID: 1932 Sewer-Pipe-18
ID: 1929 Sewer-Pipe-18
ID: 1928 Sewer-Pipe-18
ID: 1937 Sewer-Pipe-8
ID: 1936 Sewer-Pipe-8
ID: 1938 Sewer-Pipe-8
ID: 1940 Sewer-Pipe-8
ID: 1941 Sewer-Pipe-8
ID: 1384 Sewer-Pipe-8
ID: 1376 Sewer-Pipe-8
ID: 1400 Sewer-Pipe-8
ID: 1401 Sewer-Pipe-8
ID: 1385 Sewer-Pipe-8
ID: 1388 Sewer-Pipe-8
ID: 1946 Sewer-Pipe-8
ID: 1945 Sewer-Pipe-10
ID: 1950 Sewer-Pipe-8
ID: 1949 Sewer-Pipe-10
ID: 529 Sewer-LFM-24
ID: 1948 Sewer-Pipe-8
ID: 1947 Sewer-Pipe-8
ID: 1953 Sewer-Pipe-8
ID: 1952 Sewer-Pipe-8
ID: 1957 Sewer-Pipe-16
ID: 4998 Sewer-Pipe-8
ID: 1956 Sewer-Pipe-16
ID: 1951 Sewer-Pipe-8
ID: 1966 Sewer-Pipe-8
ID: 1955 Sewer-Pipe-16
ID: 4997 Sewer-Pipe-8
ID: 1954 Sewer-Pipe-16
ID: 1965 Sewer-Pipe-8
ID: 1969 Sewer-Pipe-8
ID: 1968 Sewer-Pipe-8
ID: 1967 Sewer-Pipe-8
ID: 5113 Sewer-Pipe-8
ID: 8567 Sewer-Pipe-8
0 200 400 600 800 Feet
N


City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
N TAMIAMI TRL
FRUITVILLE RD
Diameter: 16
Materials: DI
Diameter: 24
Materials: DI
0
200
400
600
800 Feet
N


City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
ID: PI_09262008_132640
Measure: 15
Material: RCP
ID: PI_07242008_080919
Measure: 18
Material: RCP
ID: PI_07232008_154438
Measure: 12
Material: PVC
ID: PI_07232008_155010
Measure: 19
Material: RCP
ID: PI_07232008_155011
Measure: 24
Material: RCP
ID: PI_07232008_142147
Measure: 0
Material: RCP
ID: PI_07232008_114828
Measure: 29
Material: RCP
ID: PI_07232008_113443
Measure: 38
Material: RCP
ID: PI_07232008_104611
Measure: 42
Material: RCP
ID: PI_07232008_074651
Measure: 15
Material: PVC
N TAMIAMI TRL
ID: PI_08042008_114835
Measure: 24
Material: RCP
ID: PI_07242008_091821
Measure: 15
Material: RCP
ID: PI_07232008_110758
Measure: 18
Material: RCP
ID: PI_07302008_080445
Measure: 24
Material: RCP
FRUITVILLE RD
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Measure: 24
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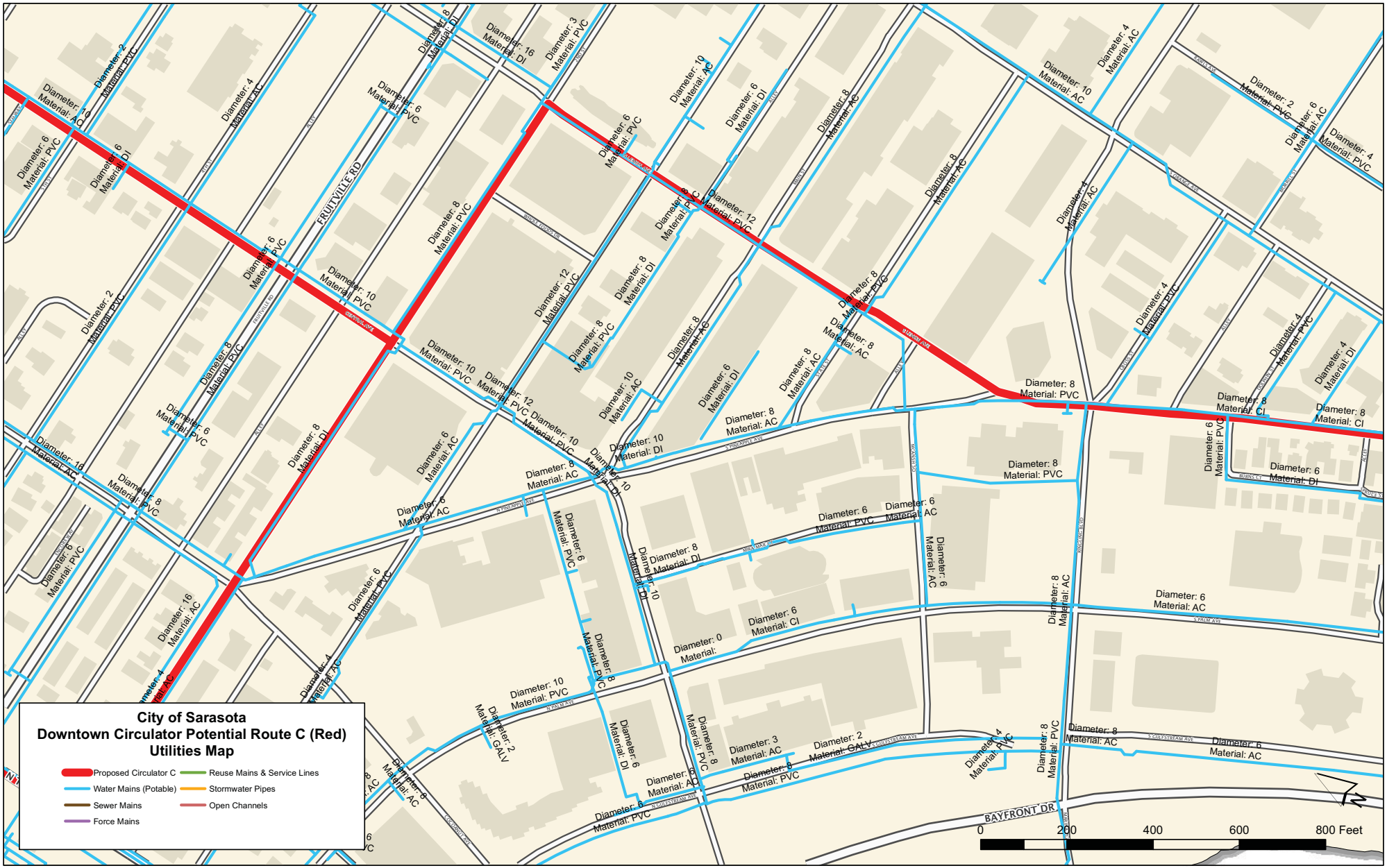
City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
FRUITVILLE RD
BAYFRONT DR
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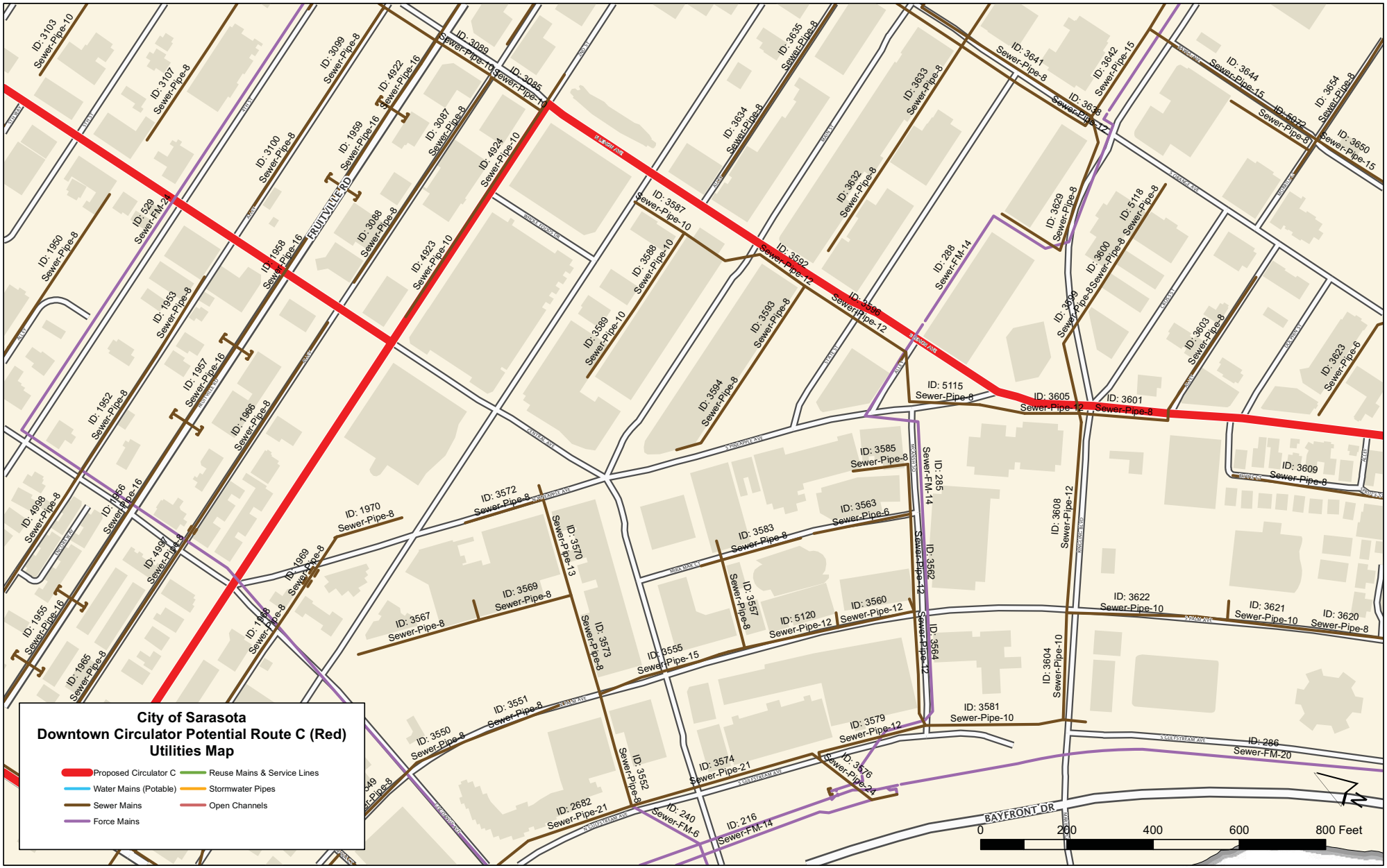
200
400
600
800 Feet


City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
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800 Feet
FRUITVILLE RD
BAYFRONT DR
ID: 3103 Sewer-Pipe-10
ID: 3107 Sewer-Pipe-8
ID: 3089 Sewer-Pipe-8
ID: 4922 Sewer-Pipe-16
ID: 3100 Sewer-Pipe-8
ID: 1959 Sewer-Pipe-16
ID: 3087 Sewer-Pipe-8
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ID: 529 Sewer-FM-24
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ID: 1958 Sewer-Pipe-16
ID: 3088 Sewer-Pipe-8
ID: 4923 Sewer-Pipe-10
ID: 1953 Sewer-Pipe-8
ID: 1957 Sewer-Pipe-16
ID: 1966 Sewer-Pipe-8
ID: 1952 Sewer-Pipe-8
ID: 4998 Sewer-Pipe-8
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ID: 4997 Sewer-Pipe-8
ID: 1955 Sewer-Pipe-16
ID: 1965 Sewer-Pipe-8
ID: 1968 Sewer-Pipe-8
ID: 1969 Sewer-Pipe-8
ID: 1970 Sewer-Pipe-8
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ID: 3562 Sewer-Pipe-8
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ID: 3574 Sewer-Pipe-21
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ID: 5072 Sewer-Pipe-8
ID: 3654 Sewer-Pipe-8
ID: 3650 Sewer-Pipe-15

City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
Diameter: 16
Materials: DI
Diameter: 16
Materials: PVC
Diameter: 24
Materials: DI
Diameter: 4
Materials: PVC
Diameter: 4
Materials: PVC
Diameter: 4
Materials: PVC
Diameter: 8
Materials: HDPE
Diameter: 8
Materials: HDPE
Diameter: 8
Materials: HDPE
FRUITVILLE RD
BAYFRONT DR
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400
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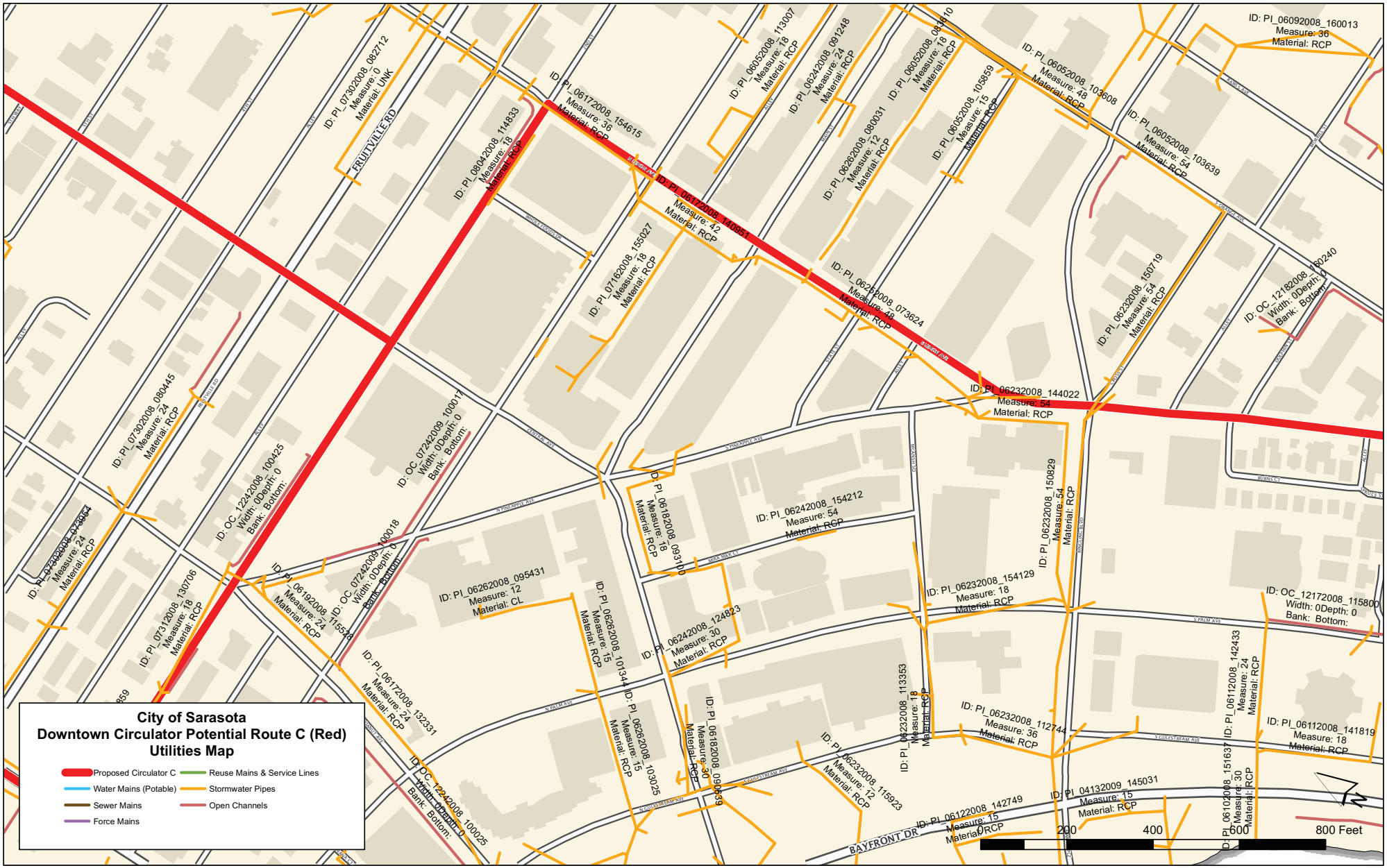
800 Feet


City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
ID: PI_06092008_160013
Measure: 36
Material: RCP
ID: PI_06052008_103608
Measure: 48
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Measure: 54
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Measure: 15
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Measure: 18
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Measure: 54
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Measure: 54
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Measure: 18
Material: RCP
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Bank: Bottom:
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Bank: Bottom:
BAYFRONT DR
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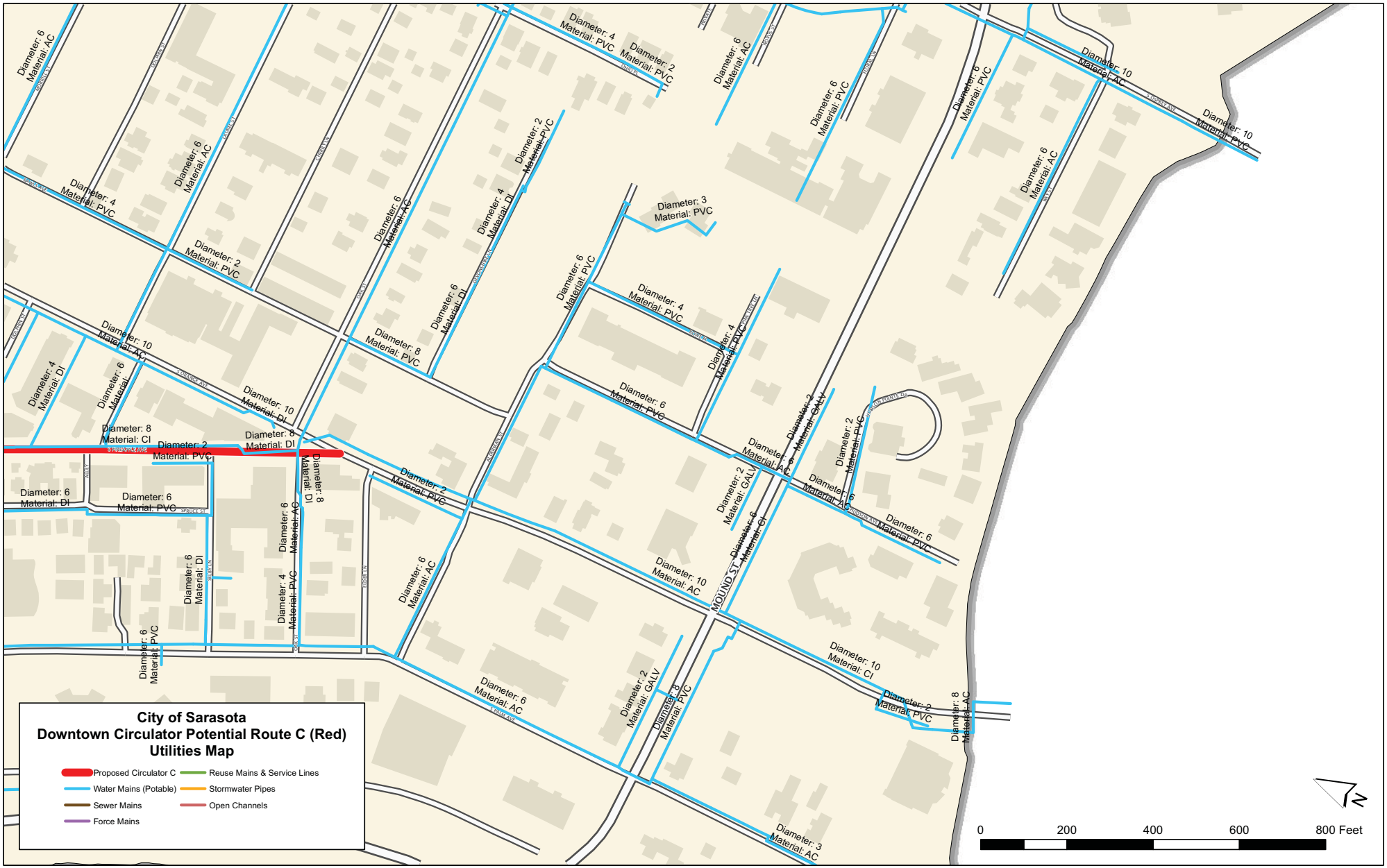
City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
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400
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800 Feet
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Diameter: 6 Material: AC
Diameter: 4 Material: PVC
Diameter: 2 Material: PVC
Diameter: 6 Material: AC
Diameter: 4 Material: PVC
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Diameter: 8 Material: CI
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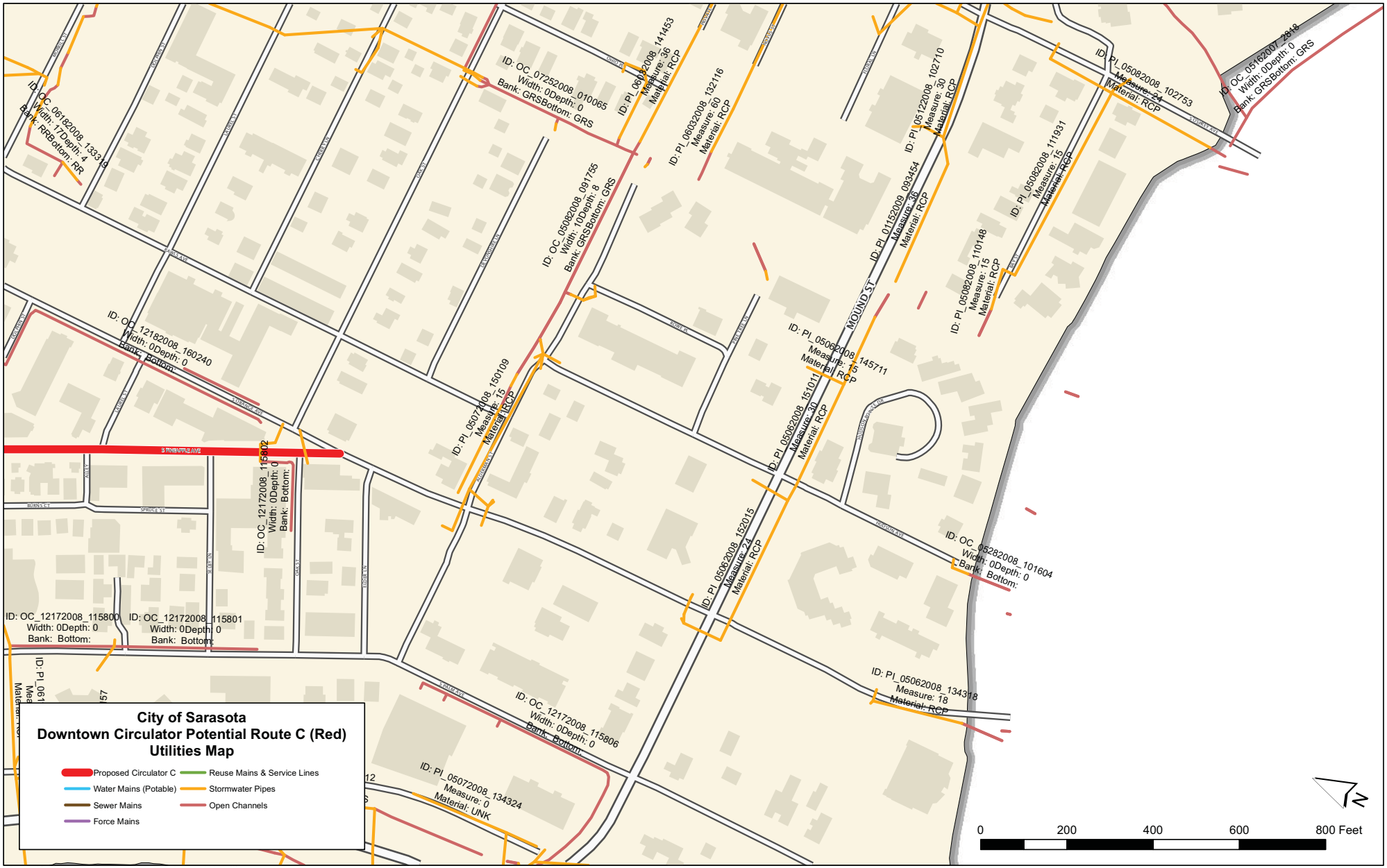
Diameter: 6 Material: AC
Diameter: 2 Material: GALV
Diameter: 6 Material: CI
Diameter: 2 Material: PVC
Diameter: 6 Material: AC
Diameter: 6 Material: PVC
Diameter: 10 Material: AC
MOUND ST
Diameter: 10 Material: CI
Diameter: 2 Material: PVC
Diameter: 8 Material: AC
Diameter: 6 Material: AC
Diameter: 2 Material: GALV
Diameter: 8 Material: PVC
Diameter: 3 Material: AC

City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
MOUND ST
0
200
400
600
800 Feet

City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Reuse Mains & Service Lines
Water Mains (Potable)
Stormwater Pipes
Sewer Mains
Open Channels
Force Mains
Diameter: 16
Materials: PVC
MOUND ST
PINE AVE
SPRUCE ST
BURNS CT
0
200
400
600
800 Feet


City of Sarasota
Downtown Circulator Potential Route C (Red)
Utilities Map
Proposed Circulator C
Water Mains (Potable)
Sewer Mains
Force Mains
Reuse Mains & Service Lines
Stormwater Pipes
Open Channels
0
200
400
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800 Feet
N
MOUND ST
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Bank: RRBottom: RR
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Material: RCP
ID: PI_05082008_102753
Measure: 24
Material: RCP
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Bank: GRSBottom: GRS
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Measure: 15
Material: RCP
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Measure: 15
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Material: UNK

Appendix B: Sample Streetcar Budget Tables

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HILLSBOROUGH TRANSIT AUTHORITY
FY2013 Planned as of August 17, 2011 and FY2013 Proposed as of May 16, 2012
Streetcar

Streetcar Service	17-Aug-11 FY2013 Planned	16-May-12 FY2013 Proposed	FY 2013 Proposed Incr (Decr) FY 2013 Planned
Operating Revenues:			
Fare Revenues	$223,380	$122,000	($101,380)
Pass Revenues	$472,610	$498,000	$25,390
Total Fare & Pass Revenues	$695,990	$620,000	($75,990)
Advertising	$0	$0	$0
Interest Income	$0	$0	$0
Other Income	$980	$11,000	$10,020
Total System Revenues	$980	$11,000	$10,020
Ad Valorem Tax Receipts	$0	$0	$0
Ad Valorem Millage Increase	$0	$0	$0
Ad Valorem decrease due to Property Values	$0	$0	$0
Ad Valorem Increase due to Property Values	$0	$0	$0
Ad Valorem Transfers	$0	$0	$0
Total Ad Valorem Revenues	$0	$0	$0
Federal Operating Grants	$200,000	$200,000	$0
State Operating Grants	$100,000	$100,000	$0
Local Operating Grants	$450,000	$450,000	$0
Tampa Historic Streetcar	($65,850)	$0	$65,850
Total Operating Grants	$684,150	$750,000	$65,850
Total Operating Revenues	$1,381,120	$1,381,000	($120)
Operating Expenses:			
Salaries	$719,590	$662,000	($57,590)
Fringe Benefits	$170,900	$180,000	$9,100
Fuel and Oil	$3,000	$1,000	($2,000)
Parts and Supplies	$101,170	$106,000	$4,830
Operational Services	$22,990	$21,000	($1,990)
Administrative Services	$34,340	$30,000	($4,340)
Legal Services	$0	$0	$0
Marketing and Printing	$49,160	$49,000	($160)
Insurance Costs	$94,200	$98,000	$3,800
Utilities	$172,870	$188,000	$15,130
Taxes and Fees	$0	$0	$0
Other Expenses	$12,900	$15,000	$2,100
Total Operating Expenses	$1,381,120	$1,350,000	($31,120)
Revenues over(under) Expenses	$0	$31,000	$31,000

Little Rock River Rail 2012 Operating Budget

	2010	2011	
	ACTUAL	ANNUALIZED	2012 BUDGET
REVENUE:			
OPERATING			
PASSENGER CASH	$57,681	$57,660	$59,000
PASS INCOME	$14,184	$9,482	$11,000
MERCHANDISE SALE	$7	$14	$25
ADVERTISING INCOME	$3,540	$2,640	$3,000
CONTRACT CAR RENTAL	$3,605	$5,678	$6,000
TOTAL OPERATING REVENUE	$79,017	$75,474	$79,025
EXPENSES:			
MISCELLANEOUS	$42	$220	$200
TRAINING	$7,760	$0	$100
MARKETING	$28,211	$24,540	$25,000
UTILITIES	$60,936	$71,568	$72,000
SUPPLIES	$12,317	$13,234	$14,000
SECURITY	$834	$3,872	$4,000
JANITORIAL	$28,477	$30,016	$31,000
BATTERIES	$1,043	$943	$1,000
SOAP	$728	$2,784	$3,000
PRINTING	$8,355	$5,000	$5,000
DUES	$2,500	$2,500	$2,500
TRAVEL & MEETINGS	$3,419	$3,500	$3,500
REPAIRS	$23,669	$1,450	$3,000
INSURANCE	$66,792	$72,558	$75,808
WAGES	$451,021	$446,729	$460,131
FRINGES	$150,315	$154,612	$160,319
FLEET	$106,396	$58,798	$63,500
FREIGHT	$1,389	$570	$1,500
GROUNDS MAINTENANCE	$10,284	$6,662	$7,000
WASTE MANAGEMENT	$1,254	$1,392	$1,500
UNIFORMS	$7,776	$6,606	$6,500
TELEPHONE	$3,456	$2,326	$2,500
ELECTRICAL REPAIRS	$28,104	$14,822	$15,000
RADIO EXPENSE	$0	$3,444	$3,500
SUBSCRIPTIONS	$204	$204	$600
EQUIPMENT RENTAL	$2,228	$532	$600
TOTAL EXPENSES	$1,007,510	$928,882	$962,758
INCOME FROM FUNDING CITIES	$928,493	$853,408	$883,733

Appendix C: FTA Fact Sheet for Section 5309

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Moving Ahead for Progress in the 21st Century Act (MAP-21)

A Summary of Public Transportation Provisions

Federal Transit Administration

Overview

On July 6, 2012 President Obama signed into law a new two-year transportation authorization, entitled Moving Ahead for Progress in the 21st Century (MAP-21). The new law authorizes $10.6 billion in FY 2013 and $10.7 billion in FY 2014 for public transportation.

MAP-21 furthers several important goals, including safety, state of good repair, performance, and program efficiency. MAP-21 gives FTA significant new authority to strengthen the safety of public transportation systems throughout the United States. The act also puts new emphasis on restoring and replacing our aging public transportation infrastructure by establishing a new needs-based formula program and new asset management requirements. In addition, it establishes performance-based planning requirements that align Federal funding with key goals and tracks progress towards these goals. Finally, MAP-21 improves the efficiency of administering grant programs by consolidating several programs and streamlining the major capital investment grant program known as "New Starts." These, and other important changes, are summarized in this document.

While this summary focuses on the transit title (Division B, including amendments to chapter 53 of title 49, United States Code), several provisions that reside in the highway title (Division A, including amendments to title 23, United States Code) also affect transit. These provisions include performance measures in transportation planning, the Transportation Infrastructure Finance and Innovation Act (TIFIA), the Surface Transportation Program (STP), the Congestion Management and Air Quality program (CMAQ), and acceleration of project delivery through streamlining environmental reviews. A summary of these provisions can be found at http://www.fhwa.dot.gov/map21/summaryinfo.cfm.

MAP-21 will take effect on October 1, 2012. Until then, FTA will continue to manage agency programs under existing law (SAFETEA-LU), which expires on September 30, 2012.

New Programs

Safety (5329)[1]

MAP-21 grants FTA the authority to establish and enforce a new comprehensive framework to oversee the safety of public transportation throughout the United States. FTA will implement the new law in consultation with the transit community and the U.S. Department of Transportation's (DOT) Transit Rail Advisory Committee for Safety (TRACS), which has been working since September of 2010 to help guide this effort.

[1] Section numbers are provided in parentheses in order to refer readers to the relevant sections of Title 49 of the United States Code.

Safety performance criteria and standards

Under the new law, FTA must develop safety performance criteria for all modes of public transportation (rail, bus, etc.). FTA must also develop minimum safety performance standards for vehicles not regulated by other Federal agencies. In addition, FTA must develop a public transportation safety certification training program for individuals involved in transit safety.

Grantee safety plans

The new law requires all recipients of FTA funding to develop agency safety plans that include performance targets, strategies, and staff training. For rural recipients, the plan may be drafted by the State. For small urban systems, FTA must issue a rule designating which small urban systems may have their safety plans drafted by the State. These measures and targets must be incorporated into metropolitan and statewide transportation plans and transportation improvement programs.

State Safety Oversight

MAP-21 includes new requirements for the State Safety Oversight (SSO) program, through which States with heavy rail, light rail, and streetcar systems must establish safety oversight for these transit systems. MAP-21 requires State Safety Oversight Agencies (SSOAs) to be legally and financially independent from the rail systems they oversee, and have the authority, staff training, and expertise to enforce Federal and State safety laws. FTA must certify whether each SSO is adequate and meets the requirements. FTA will oversee implementation of the SSO programs and audit each SSO agency at least triennially.

Funding for State Safety Oversight

The law also directs FTA to distribute funding via formula to support State safety oversight work. The funding is a takedown (one-half of one percent) from the Urbanized Area Formula program, and totals approximately $22 million per year. A 20 percent local match is required for these funds.

Additional Authorities

The new law provides FTA with several additional authorities including the authority to inspect and audit all public transportation systems; to make reports and issue directives with respect to the safety of public transportation systems; to issue subpoenas and take depositions; to require the production of documents; to prescribe record-keeping and reporting requirements; to investigate public transportation accidents and incidents; to enter and inspect equipment, rolling stock, operations and relevant records; and to issue regulations to carry out transit safety provisions.

MAP-21 also grants FTA enforcement authority and permits FTA to issue directives, require more frequent oversight of transit systems, impose more frequent reporting requirements, and require that formula grant funds be spent to correct safety deficiencies before funds are spent on other projects.

State of Good Repair Grants (5337)

MAP-21 establishes a new grant program to maintain public transportation systems in a state of good repair. This program replaces the fixed guideway modernization program (Section 5309). Funding is limited to fixed guideway systems (including rail, bus rapid transit, and passenger ferries) and high intensity bus (high intensity bus refers to buses operating in high occupancy vehicle (HOV) lanes.) Projects are limited to replacement and rehabilitation, or capital projects required to maintain public transportation systems in a state of good repair. Projects must be included in a transit asset management plan (see next section) to receive funding. The new formula comprises: (1) the former fixed guideway modernization formula; (2) a new service-based formula; and (3) a new formula for buses on HOV lanes. Authorized funding for this program is $2.1 billion in FY 2013 and $2.2 billion in FY 2014.

Asset Management Provisions (5326)

MAP-21 requires FTA to define the term "state of good repair" and create objective standards for measuring the condition of capital assets, including equipment, rolling stock, infrastructure, and facilities. Based on that definition, FTA must then develop performance measures under which all FTA grantees will be required to set targets. All FTA grantees and their subrecipients are required to develop transit asset management plans. These plans must include, at a minimum, capital asset inventories, condition assessments, and investment prioritization. Each designated recipient of FTA formula funding will be required to report on the condition of its system, any change in condition since the last report, targets set under the above performance measures, and progress towards meeting those targets. These measures and targets must be incorporated into metropolitan and statewide transportation plans and transportation improvement programs (TIPs). FTA will support this effort through technical assistance, including the development of an analytical process or decision support tool that allows recipients to estimate their capital investment needs over time and assists with asset investment prioritization.

Bus and Bus Facilities Program (5339)

A new formula grant program is established under Section 5339, replacing the previous Section 5309 discretionary Bus and Bus Facilities program. This capital program provides funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities. Authorized funding is $422 million in FY 2013 and $428 million in FY 2014. Each year, $65.5 million will be allocated with each State receiving $1.25 million and each territory (including DC and Puerto Rico) receiving $500,000. The remaining funding will be distributed by formula based on population, vehicle revenue miles and passenger miles. This program requires a 20 percent local match.

Emergency Relief (5324)

This new program assists States and public transportation systems with emergency-related expenses. Emergencies are defined as natural disasters affecting a wide area or a catastrophic failure from an external cause for which the governor of a State has declared an emergency (and the Secretary of Transportation has concurred) or the President has declared a major disaster. The program funds

capital projects to protect, repair, reconstruct, or replace equipment and facilities. It also funds transit agency operating costs related to evacuation, rescue operations, temporary public transportation service, or changing public transportation route service before, during, or after an emergency in an area directly affected. The grants only cover expenses not reimbursed by the Federal Emergency Management Agency (FEMA). The program will provide immediate funding, similar to the FHWA emergency program. Funding will be appropriated by Congress as needed.

Transit-Oriented Development Planning Pilot

MAP-21 creates a new discretionary pilot program for transit-oriented development (TOD) planning grants. Eligible activities include comprehensive planning in corridors with new rail, bus rapid transit, or core capacity projects.[2] The comprehensive plans should seek to enhance economic development, ridership, and other goals; facilitate multimodal connectivity and accessibility; increase access to transit hubs for pedestrian and bicycle traffic; enable mixed-use development; identify infrastructure needs associated with the project; and include private sector participation. MAP-21 authorizes $10 million for FY 2013 and $10 million for FY 2014.

Consolidated Programs

Urbanized Area Formula Grants (5307)

The largest of FTA's grant programs, this program provides grants to urbanized areas[3] to support public transportation. Funding is distributed by formula based on the level of transit service provision, population, and other factors. Total funding is $4.9 billion in FY 2013 and $5 billion in FY 2014 (includes the Growing States and High Density States formula). The program remains largely unchanged with a few exceptions:

Job access and reverse commute activities now eligible

Activities eligible under the former Job Access and Reverse Commute (JARC) program, which focused on providing services to low-income individuals to access jobs, are now eligible under the Urbanized Area Formula program. This includes operating assistance with a 50 percent local match for job access and reverse commute activities. In addition, the urbanized area formula for distributing funds now includes the number of low-income individuals as a factor. There is no floor or ceiling on the amount of funds that can be spent on job access and reverse commute activities.

Expanded eligibility for operating expenses for systems with 100 or fewer buses

MAP-21 expands eligibility for using Urbanized Area Formula funds for operating expenses. Previously, only urbanized areas with populations below 200,000 were eligible to use Federal transit funding for

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[2] MAP-21 states that grants under this subsection are to "assist in financing comprehensive planning associated with an eligible project" and that "eligible project" means a new fixed guideway capital project or core capacity improvement project, as those terms are defined in [49 U.S.C. 5309 (Capital Investment Grants / "New Starts")]."

[3] An urbanized area is an area with a population of 50,000 or more that has been defined and designated in the most recent decennial census as an 'urbanized area' by the Census Bureau.

operating expenses. Now, transit systems in urbanized areas over 200,000 can use their formula funding for operating expenses if they operate no more than 100 buses. Systems operating between 76 and 100 buses in fixed route service during peak service hours may use up to 50 percent of their "attributable share"[4] of funding for operating expenses. Systems operating 75 or fewer buses in fixed-route service during peak service hours may use up to 75 percent of their "attributable share" of funding for operating expenses. This expanded eligibility for operating assistance under the Urbanized formula program excludes rail systems.

New discretionary passenger ferry grants

$30 million per year is set-aside from the Urban formula program totals to support passenger ferries. Funding will be awarded on a competitive selection basis.

New takedown for safety oversight

MAP-21 sets aside one half of one percent (approximately $22 million per year) of Urbanized Area Formula funds for State safety oversight grants (see above section on safety).

Rural Area Formula Grants (5311)

This program provides capital, planning, and operating assistance to support public transportation in rural areas, defined as areas with fewer than 50,000 residents. Funding is based on a formula that uses land area, population, and transit service. Total funding is $600 million in FY 2013 and $608 million in FY 2014. The program remains largely unchanged with a few exceptions:

Job access and reverse commute activities eligible

Activities eligible under the former Job Access and Reverse Commute (JARC) program, which provided services to low-income individuals to access jobs, are now eligible under the Rural Area Formula program. In addition, the formula now includes the number of low-income individuals as a factor. There is no floor or ceiling on the amount of funds that can be spent on job access and reverse commute activities.

Tribal Program

The Tribal program now consists of a $25 million formula program and a $5 million discretionary grant program. Formula factors include vehicle revenue miles and the number of low-income individuals residing on tribal lands.

Appalachian Development Public Transportation Assistance Program

MAP-21 authorizes $20 million each for FY 2013 and FY 2014 for grants to support public transportation in the Appalachian region.

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[4] Attributable share refers to the share of the urbanized area's apportionment that is attributable to a transit system based on the transit system's share of vehicle revenue hours in the urbanized area.

Other changes

The set-aside for States for administration, planning, and technical assistance is reduced from 15 to 10 percent. The cost of the unsubsidized portion of privately provided intercity bus service that connects feeder service is now eligible as in-kind local match.

Enhanced Mobility of Seniors and Individuals with Disabilities (5310)

This program provides formula funding to increase the mobility of seniors and persons with disabilities. Funds are apportioned based on each State's share of the targeted populations and are now apportioned to both States (for all areas under 200,000) and large urbanized areas (over 200,000). The former New Freedom program (5317) is folded into this program. The New Freedom program provided grants for services for individuals with disabilities that went above and beyond the requirements of the Americans with Disabilities Act (ADA). Activities eligible under New Freedom are now eligible under the Enhanced Mobility of Seniors and Individuals with Disabilities program.

Projects selected for funding must be included in a locally developed, coordinated public transit-human services transportation plan; and the competitive selection process, which was required under the former New Freedom program, is now optional. At least 55 percent of program funds must be spent on the types of capital projects eligible under the former section 5310 -- public transportation projects planned, designed, and carried out to meet the special needs of seniors and individuals with disabilities when public transportation is insufficient, inappropriate, or unavailable. The remaining 45 percent may be used for: public transportation projects that exceed the requirements of the ADA; public transportation projects that improve access to fixed-route service and decrease reliance by individuals with disabilities on complementary paratransit; or, alternatives to public transportation that assist seniors and individuals with disabilities. Using these funds for operating expenses requires a 50 percent local match while using these funds for capital expenses (including acquisition of public transportation services) requires a 20 percent local match.

Repealed Programs

MAP-21 focuses on improving the efficiency of grant program operations by consolidating certain programs and repealing other programs. The following programs expire on September 30, 2012 and no new funding is authorized beyond fiscal year 2012:

- Alternatives Analysis (5339),
- Clean Fuels (5308),
- Job Access and Reverse Commute (JARC) (5316),
- New Freedom (5317),
- Transit in the Parks (5320), and
- Over the Road Bus (3038 of TEA-21).

As noted above, in lieu of the current Bus Discretionary Program (section 5309), a new formula-driven Bus and Bus Facilities Program (5339) is established in MAP-21. Eliminating these discretionary programs underscores the need for grantees to carefully prioritize the needs of their own systems and align their capital plans with the new streams of formula assistance provided under MAP-21. With regard to the Transit in the Parks (5320) program, public transportation investments serving National Parks and other Federal lands remain eligible under the Federal Lands Transportation Program administered by the Federal Highway Administration (FHWA). As noted above, job access and reverse commute activities are now eligible under the Urbanized Area Formula program (5307) as well as the Rural Area Formula program (5311). Activities eligible under the former New Freedom program are now eligible under the Enhanced Mobility of Seniors and Individuals with Disabilities program (5310).

Modified Programs

Fixed Guideway Capital Investment Grants (5309)

Also known as "New Starts / Small Starts," this program awards grants on a competitive basis for major investments in new and expanded rail, bus rapid transit (BRT), and ferry systems. The program is funded at $1.9 billion dollars for FY 2013 and FY 2014 subject to appropriations by Congress.

Core capacity projects now eligible

MAP-21 adds new eligibility for core capacity improvement projects, that is, projects that expand capacity by at least 10 percent in existing fixed guideway transit corridors that are at or above capacity, or are expected to be at capacity within five years.

Project development streamlined

MAP-21 streamlines the project development process for New Starts. It eliminates the alternatives analysis requirement and instead relies on the review of alternatives performed during the metropolitan planning and environmental review processes. It creates the "Project Development" phase, during which environmental reviews are completed. Project sponsors must complete this phase within two years, or seek an extension from FTA. MAP-21 reduces the number of FTA approval steps by consolidating the "Preliminary Engineering" and "Final Design" stages into a single "Engineering" step. It also requires FTA to develop an expedited review process for determining the technical capacity of project sponsors to undertake the proposed project if they have recently and successfully completed at least one other new fixed guideway or core capacity improvement project.

Project evaluation and rating

Under certain conditions, MAP-21 allows for the use of "warrants," in other words, ways in which projects may qualify for automatic ratings on the project justification criteria. It also eliminates the operating efficiencies criterion and adds a congestion relief criterion. It requires FTA to evaluate the

benefits of a Small Starts[5] project against the Federal share of the project, rather than the total project cost when developing the project justification rating.

Reorganization

The fixed guideway modernization and bus and bus facilities programs, which were previously funded under Section 5309, have now been restructured and moved to a new Section 5337 State of Good Repair Program and a new Section 5339 Bus and Bus Facilities Program.

Other Provisions

MAP-21 creates a competitive pilot program for expedited project delivery. In addition, it funds Small Starts projects through a single year grant or an expedited grant agreement. New Starts and core capacity projects are funded through a full funding grant agreement (FFGA). Congressional notification of grant award is 10 days for Small Starts projects and 30 days for New Starts and core capacity projects. MAP-21 requires FTA to issue policy guidance on the process and evaluation criteria within 180 days of enactment, and a rule within one year of enactment.

Metropolitan, Statewide, and Nonmetropolitan Planning Programs (5303, 5304, and 5305)

These programs provide funding and procedural requirements for multimodal transportation planning in metropolitan areas and States that is cooperative, continuous, and comprehensive, resulting in long-range plans and short-range programs of transportation investment priorities. $127 million is authorized in FY 2013 and $129 million in FY 2014. The planning programs are jointly administered by FTA and FHWA, which also provides additional funding.

Establishes a performance-based planning process

MAP-21 requires Metropolitan Planning Organizations (MPOs) and States to establish performance targets that address national performance measures issued by the U.S. DOT and are based on goals outlined in law – safety, infrastructure condition, congestion reduction, system reliability, economic vitality, environmental sustainability, reduced project delivery delays, transit safety, and transit asset management. Transportation Improvement Programs (TIPs) must include a description of the anticipated progress toward achieving the targets brought about by implementing the TIP. Five years after enactment of MAP-21, the U.S. DOT will report to Congress on the effectiveness of performance-based planning and assess the technical capacity of MPOs in smaller areas to undertake performance-based planning.

Requires transit representation on MPO policy boards in large areas

Within two years of the date of enactment, MPOs in urbanized areas designated as transportation management areas must include transit officials on their policy boards.

Supports optional scenario development

[5] Small Starts projects have a net capital cost of less than $250 million and a Federal share of less than $75 million.

MPOs may undertake scenario development exercises in preparing the long-range transportation plan that consider alternative demographic growth, revenue options, and other factors.

Allows designation of regional transportation planning organizations

Regional transportation planning organizations comprised of volunteer local government and transportation officials may be designated to assist the State in addressing the needs of non-metropolitan areas. Accordingly, "statewide planning" has been renamed "statewide and non-metropolitan planning" to signify the important role local officials play in the development of statewide plans and programs in non-metropolitan areas of States.

Research, Development, Demonstration, and Deployment (5312)

Previous Section 5312 (Research, development, demonstration, and deployment projects) and Section 5314 (National research programs) are now consolidated into one program under Section 5312. MAP-21 authorizes $70 million annually for FY 2013 and FY 2014 subject to appropriations by Congress. Funding supports public transportation research; innovation and development; and demonstration, deployment, and evaluation. Projects under this last category require a project evaluation within two years of award. MAP-21 creates a new low or no emissions vehicle deployment program. FTA is required to submit an annual report to Congress that includes a description of projects funded, an evaluation of each project described, and a proposed allocation of assistance for the next fiscal year. MAP-21 requires a local match of not less than 20 percent for Section 5312 projects.

Technical Assistance and Standards (5314)

MAP-21 authorizes $7 million annually for FY 2013 and FY 2014 in discretionary funding subject to appropriations by Congress for a wide range of technical assistance activities and development of voluntary standards and best practices. (Previously, some of these activities were funded under research) A local match of not less than 20 percent is required for projects carried out using a grant. An annual report to Congress is required, similar to the one for the research section above.

Human Resources and Training (5322)

The act authorizes $5 million subject to appropriations by Congress in each of FY 2013 and FY 2014 for human resource activities including: employment training and outreach programs; research on public transportation personnel and training needs; and training and assistance for minority business opportunities. MAP-21 authorizes a competitive grant program to support innovative public transportation workforce development. A 50 percent local match is required for this competitive grant program. FTA must submit a report to Congress on measurable outcomes and impacts of the programs funded.

MAP-21 also authorizes $5 million subject to appropriations by Congress in each of FY 2013 and FY 2014 for a national transit institute. Formerly authorized under Section 5315, this national transit institute is to develop training and education programs related to topics in public transportation and must be administered through a public, four-year degree-granting institution.

Other Notable Provisions

Buy America

FTA must submit an annual report to Congress on any Buy America waivers for transit grants.

Veterans Preference

MAP-21 includes veteran's preference for employment on transit construction projects.

Private Sector Participation

MAP-21 requires FTA to provide technical assistance requested by project sponsors and grantees on best practices and methods for using private providers of public transportation, and on how to use public-private partnerships for alternative project delivery of fixed guideway capital projects. MAP-21 also requires FTA to identify public transportation laws, regulations or practices that impede public-private partnerships or private investment in transit capital projects. FTA must also develop procedures through regulation to address these legal impediments, as well as procedures to protect the public interest and any public investment in public transportation capital projects that involves public-private partnerships or private investment. FTA must also develop guidance to promote greater transparency and public access to public-private partnership agreements. A new pilot program for expedited project delivery established under the "New Starts / Small Starts" section (5309) may provide opportunities for public-private partnerships. A new provision related to private providers of vanpool service expands what is eligible as local match and permits excess revenues to be used to acquire rolling stock for use in the service area.

Bus Testing

MAP-21 requires FTA to develop a new pass/fail standard for testing new model buses. Vehicles that do not receive a pass rating are not eligible to be purchased with Federal funds.

Transit Cooperative Research Program

MAP-21 authorizes $7 million subject to appropriations by Congress in each of FY 2013 and FY 2014 to continue the Transit Cooperative Research Program (TCRP).

Government Share for Vehicles, Equipment and Facilities for Complying or Maintaining Compliance with the Americans with Disabilities Act or the Clean Air Act

An FTA grant used for acquiring vehicles to comply with or maintain compliance with the Americans with Disabilities Act (ADA) or the Clean Air Act can now cover 85 percent of net project costs. FTA grants for vehicle-related equipment or facilities needed to comply with or maintain compliance with the ADA or Clean Air Act remains at 90 percent of net project costs of the equipment of facilities attributable to compliance with the Act (the incremental cost).

For More Information

Additional information related to MAP-21 is available on the FTA website at http://www.fta.dot.gov/map21. As implementation of the new law progresses, more material will be posted.

Appendix D: Economic Benefits of Streetcar Detailed Methodology and Analysis

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Appendix D: Economic Benefits of a Downtown Circulator

D.1: INTRODUCTION AND METHODOLOGY

This section of the study forecasts the market growth potential resulting from the introduction of a circulator transit system within the defined study area, generally encompassing downtown Sarasota and proximate adjacent urban areas. The study is based primarily on the survey-based and hedonic (regressive pricing method) approaches and a review of center-city Sarasota characteristics. It will identify three types of *assessed value growth:*

- Growth associated with general, and specific, community improvements and/or an increasingly stronger economic environment
- Growth associated with capital improvements to existing properties
- Growth associated with new residential and commercial development

The survey-based approach includes the input of stakeholders and potential system users and attempts to estimate potential future demand for new development and increases in property values. Focus groups with local stakeholders, representing a wide range of interests, are currently being conducted by the study team to obtain input for this approach and, therefore, play an incomplete role in this draft analysis. It is anticipated that there may be some modification to the final version of this section of the report after additional focus group and community workshops, and key interviews.

The hedonic approach relies on hedonic comparative studies of existing circulator systems in other cities to create a database of economic development impacts within reasonable proximity to those systems. It is an analytical approach that seeks to identify "revealed preference" as a method of estimating demand or value. Estimated future investments in Sarasota can then be compared to the collected data and ranges of possible outcomes of similar characteristics and outcomes in other cities. This approach is heavily influenced by the unique characteristics and environment of Sarasota. The weight attributed to these factors is appropriate due to the size, cultural assets, and high-quality environment of the city, reflecting many decades of positive character and culture building and significant public/private sector investment in the community.

Evaluation of incremental economic development is based on *two primary variables* – growth of the number of development units and growth of the value of each unit. The study team relied on historic growth rates experienced by other communities implementing streetcar systems and from local market knowledge collected during our research and the initial focus group input. These estimates were related to known local factors, including underlying growth rate and population change estimates. When taken together, these data enable the estimation of development potential and property value premiums for the proposed circulator alignments in Sarasota's urban center.

D.2: CITY OF SARASOTA – GENERAL OVERVIEW

This section contains summary background material covered in more detail in other sections and/or phases of this study. It is included here to provide context and assist the reader in associating relevant community characteristics with the conclusions of this section.

Sarasota encompasses a total land area of 14.6 square miles. The city has many desirable attributes and amenities and is generally considered one of Florida's most livable cities.

With an estimated 2012 population of 51,938, Sarasota is a regional shopping destination; $654.0 million[1] in local sales are attributed to non-resident consumers. With a resident civilian workforce of approximately 23,000[2], Sarasota is a regional job center. Its bayfront location, world-class beaches, subtropical climate, nationally-recognized higher education, and extraordinary cultural depth, as well as recognition as a regional shopping destination and a regional job center, all contribute to Sarasota being a city unique in Florida and unusual in the United States.

Figure D-1 summarizes the population growth of Sarasota and illustrates that the city's growth has not kept pace with Sarasota County or the state of Florida. The city's population actually declined by 1.5% from 2000 to 2010, as reflected in Figure D-2. This slower growth may be attributed to community choices, economic factors or some combination thereof. Also, changes in population have a higher percentage impact on the city because of its smaller population base. Regardless of the cause, the slower growth of the city versus the county and state results in less inter-governmental funding based on pro-rata population. It should be noted that while citywide population declined from 2000 to 2010, the population of downtown Sarasota increased. This factor influenced the market potential analyses described later in this section.

[1] © 2012 The Nielsen Company
[2] U.S. Census Bureau, 2010 Census

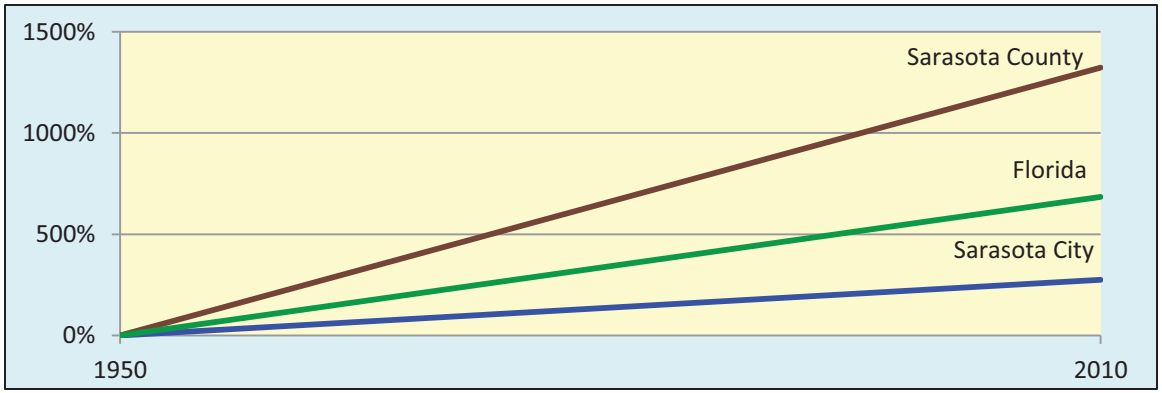


Figure D-1: Comparative Population Growth 1950 to 2010 – Sarasota City, Sarasota County, State of Florida

Source: 2010 Census, U.S. Census Bureau

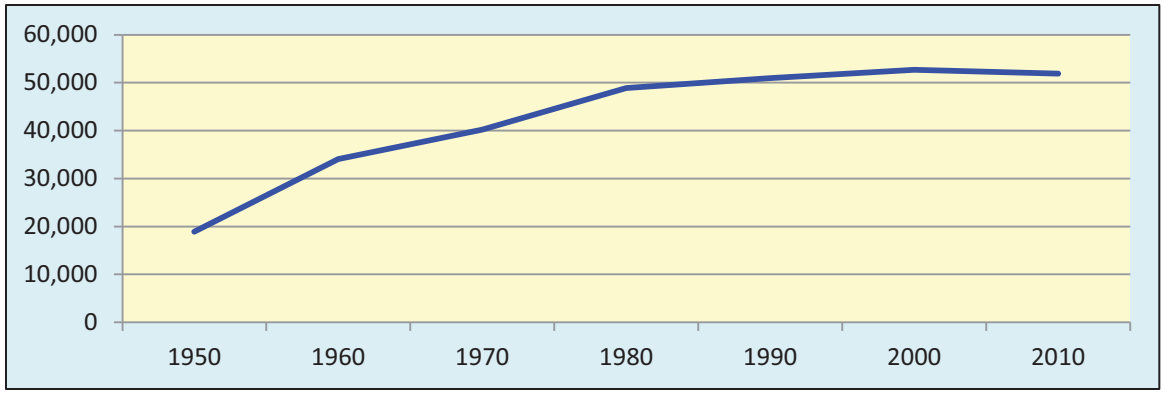


Figure D-2: Population Growth 1950 to 2010 – Sarasota City

Source: 2010 Census, U.S. Census Bureau

Table D-1 provides the current profile of citywide land parcels, an overview of citywide land use, dwelling unit/building counts, and taxable assessed values by use category. The percentage of homestead properties associated with each land use category is also noted.

Table D-1: Citywide Land Parcels Overview by Category

Category	Parcel Count	Land Area (acres)		Dwelling Units / Rooms			Taxable Value			Structure Area (sf)	
		Tot	Avg Parcel	Tot	Hx	% Hx	Total	% Tot	Avg / Acre	Total	% Tot
Single Family	12,700	2,890.69	0.228	12,708	7,575	59.6%	$2,261,424,127	40.7%	$782,313	28,985,657	37.4%
Single Family - Vacant	761	185.29	0.243	0	0	0.0%	$95,151,447	1.7%	$513,523	0	0.0%
Multi-Family	7,307	521.26	0.071	12,112	2,524	20.8%	$1,454,456,544	26.2%	$2,790,256	15,628,304	20.2%
Multi-Family - Vacant	74	21.46	0.290	0	0	0.0%	$7,211,757	0.1%	$335,990	0	0.0%
Industrial	289	219.52	0.760	47	0	0.0%	$95,133,900	1.7%	$433,375	2,904,491	3.7%
Industrial - Vacant	39	33.47	0.858	0	0	0.0%	$4,502,800	0.1%	$134,545	62,484	0.1%
Commercial	2,081	2,173.32	1.044	6,405	18	0.3%	$1,523,139,265	27.4%	$700,835	29,118,056	37.6%
Commercial - Vacant	178	147.05	0.826	137	0	0.0%	$91,661,032	1.7%	$623,323	307,355	0.4%
Other	206	866.13	4.205	1	0	0.0%	$16,975,805	0.3%	$19,600	507,104	0.7%
Other - Vacant	17	24.53	1.443	0	0	0.0%	$0	0.0%	$0	0	0.0%
Total	23,652	7,082.74	0.299	31,410	10,117	32.2%	$5,549,656,677	100.0%	$783,547	77,513,451	100.0%

Source: Sarasota County Property Appraiser. Categories and unit counts developed by grouping DOR Codes. "Other" includes government uses.

Figure D-3 recaps the historic trend of Sarasota's assessed values. The assessed value of residential properties (71.5% of total assesed value for 2011) experienced steady growth from 2001 to 2006, rapid growth from 2006 to 2007, flat value 2007 to 2008, and sharp declines from 2008 to 2010 reflecting the economic downturn. Commercial and service properties (combined total of 23.4%) and industrial properties (1.5% of total) virtually overlapping each other, experiencing modest growth from 2000 to 2008 and modest decline from 2008 to 2010.

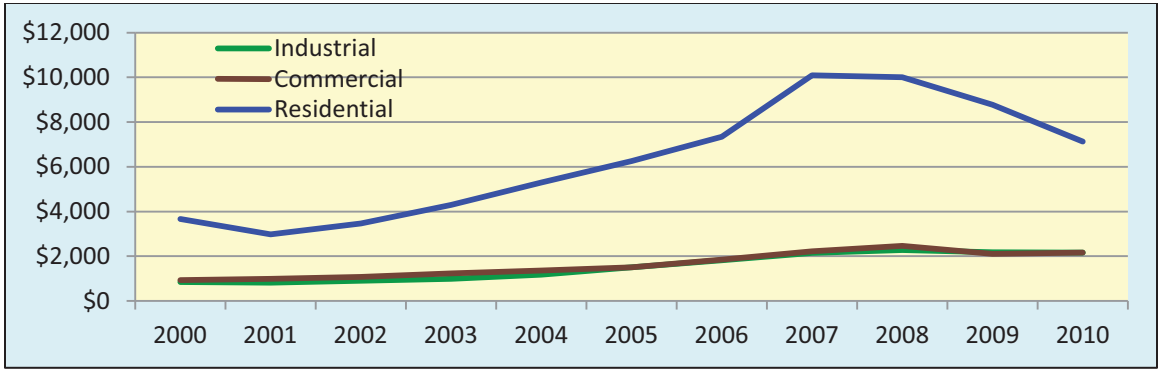


Figure D-3: Sarasota City Assessed Values 2000 to 2010 ($ millions)

Source: Sarasota County Property Appraiser

Figure D-4 recaps the historic trend of Sarasota's total taxable values, driven by the assessed values of residential, commercial, industrial, and personal properties, adjusted by applicable exemptions and the City's millage rate to result in taxable values.

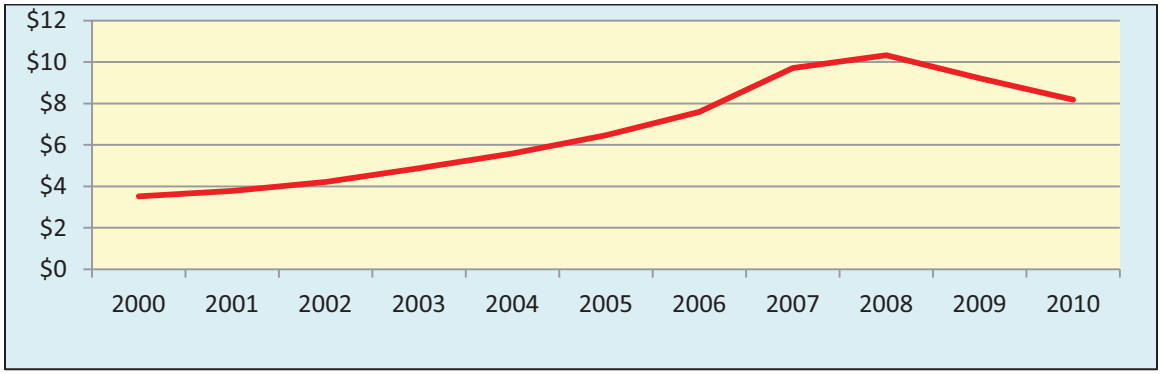


Figure D-4: Sarasota City Taxable Values 2000 to 2010 ($ millions)

Source: Sarasota County Property Appraiser

Figure D-5 provides the values of residential construction permits issued from 2000 to 2011 show a modest spike in 2001 and substantial spikes in 2004 and 2005. The annual average of residential building permits for the last five years is $63,294,452, or an average percentage growth of 10.2% (versus 51.7% for the previous 15 years). The value of commercial construction permits were somewhat flat from 2000 to 2007 but experienced some modest growth/decline fluctuations from 2008 to 2011. The annual average of commercial building permits for the last five years is $104,242,539, or an average percentage growth of 15.2% (versus 16.9% for the previous 15 years). The assessed values of projects resulting from the 2010 and 2011 building permits will start to appear in 2011, 2012, and 2013.

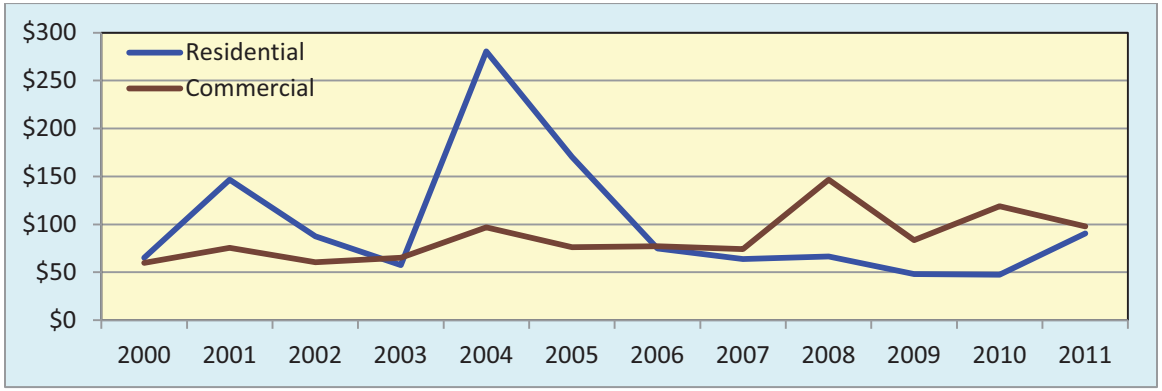


Figure D-5: Sarasota City Construction Permits Issued 1991 to 2010 ($ millions)

Source: City of Sarasota Building and Permitting

In 2007, state legislation was enacted that set maximum millage rates for non-voted levies of counties and municipalities. The legislation created a "Rolled-Back Rate," a rate that, when levied on the current year's tax roll, would provide the same revenue as was raised the previous year, adjusted for growth and other factors, such as new construction. The rolled-back rate allows a "cost of living increase" equal to the increase of per capita income statewide. The data reflected in Figure D-5 above represent new construction value that is not affected by the rolled-back rate and allows City and county revenues to grow beyond the increase of statewide per capita income.

SECTION 6.3: ALIGNMENT ALTERNATIVES/INFLUENCE AREAS

As discussed earlier in the report, there are three proposed alignments reflected on the study area map: Green Alignment, Blue Alignment, and Red Alignment. To facilitate the collection of information and create specificity, positive impact areas corresponding to a ¼-mile radius around each proposed alignment were created within the study area. The ¼-mile radius was selected as direct economic and development impacts from transit systems are most prevalent within this distance. A variety of additional direct and indirect impacts could be realized citywide. There was no attempt in this study to quantify the wider areas impacts to tourist visitation, transit facilities, population growth or economic development. Population growth, development, investment, and property premium effects were focused upon and estimated for each alignment and its primary positive impact area.

The evaluation of each of the three alignments considers the following:

- Current destination value
- Demographic characteristics of the impact area
- Market potential based on existing growth predictions and growth predictions with a circulator system investment
- Potential for transit-oriented development
- Input from Sarasota stakeholders, including leading real estate professionals
- Predicted ability of transit service to positively influence development opportunities
- Adopted neighborhood and city plans
- Known developer plans
- Zoning/land use regulations
- Comprehensive Plan policies
- Market trends and conditions

It should be noted that each impact area has some overlap and/or intersection with the other impact areas due to the close proximity of the three alignments. Therefore, the population growth and development investments (assessed value growth) projected in each impact area cannot be combined with the projections of other impact areas.

Table D-2 provides the current profile of the study area land parcels, an overview of the area's land use, dwelling unit/building counts, and taxable assessed values by use category.

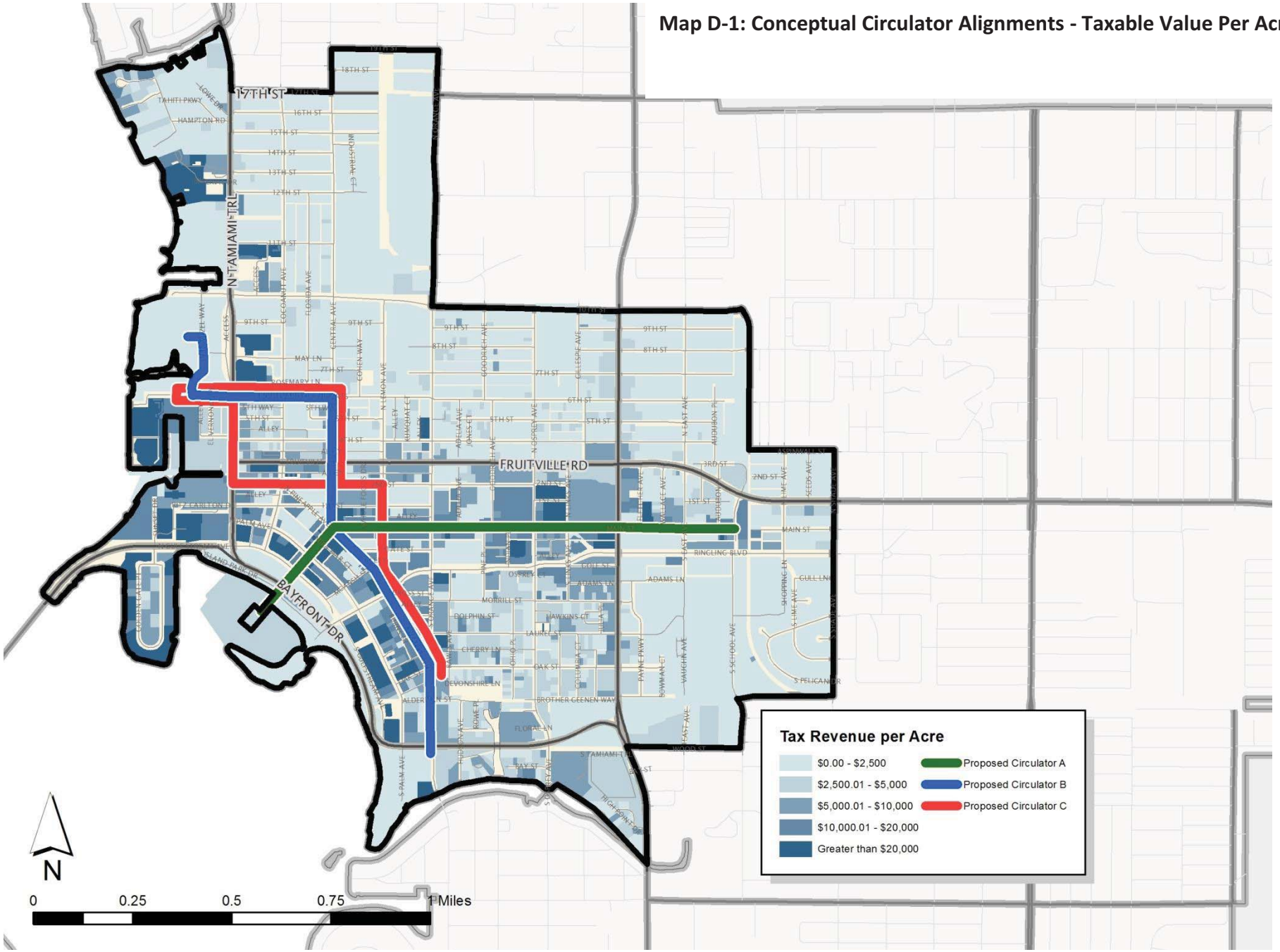
Map D-1 shows the tax revenue per acre for each of the three conceptual circulator alignments that were assessed within this analysis.

Table D-2: Study Area Land Parcels Overview by Category

Category	Parcel Count	Land Area (acres)		Dwelling Units / Rooms			Taxable Value			Structure Area (sf)	
		Tot	Avg Parcel	Tot	Hx	% Hx	Total	% Tot	Avg / Acre	Total	% Tot
Single Family	898	158.31	0.176	902	419	46.5%	$91,822,588	4.1%	$580,006	1,548,429	6.4%
Single Family - Vacant	185	38.05	0.206	0	0	0.0%	$14,867,019	0.7%	$390,676	0	0.0%
Multi-Family	4,317	99.30	0.023	6,037	1,764	29.2%	$1,330,774,819	59.7%	$13,401,444	8,772,356	36.2%
Multi-Family - Vacant	29	5.25	0.181	0	0	0.0%	$4,669,963	0.2%	$889,610	0	0.0%
Industrial	50	33.37	0.667	1	0	0.0%	$14,665,600	0.7%	$439,428	411,575	1.7%
Industrial - Vacant	9	12.08	1.343	0	0	0.0%	$2,062,800	0.1%	$170,700	49,606	0.2%
Commercial	848	483.42	0.570	1,376	12	0.9%	$687,222,705	30.8%	$1,421,583	12,912,861	53.3%
Commercial - Vacant	101	52.63	0.521	56	0	0.0%	$67,978,882	3.0%	$1,291,739	197,196	0.8%
Other	90	183.99	2.044	0	0	0.0%	$16,153,810	0.7%	$87,798	319,104	1.3%
Other - Vacant	9	4.86	0.540	0	0	0.0%	$0	0.0%	$0	0	0.0%
Total	6,536	1,071.27	0.164	8,372	2,195	26.2%	$2,230,218,186	100.0%	$2,081,838	24,211,127	100.0%

Source: Sarasota County Property Appraiser. Categories and unit counts developed by grouping DOR Codes. "Other" includes government uses.

Map D-1: Conceptual Circulator Alignments - Taxable Value Per Acre



Circulator A – Green Alignment

The Circulator A alignment starts at School Avenue and runs west along Main Street to Pineapple Avenue, where it follows the southwest bend of Main Street and terminates at Marina Plaza and the waterfront, a total of approximately 1.3 miles. This alignment transverses Downtown, connecting the retail and government centers along and near Main Street. The activity centers within the impact area include Marina Jack Restaurant and Marina, Waterfront Park, Selby Library, Regal Hollywood Cinema, Whole Foods, many local merchants and restaurants, and Sarasota City and Sarasota County offices.

The most prominent development type contributing to taxable value in this impact area is commercial development, which equals approximately 53.1% of the total taxable value. Multi-family residential contributes the second-highest taxable value at 40% of the total. The ¼-mile radius also encompasses single-family residential development in established neighborhoods along the corridor. The taxable value of vacant properties for all use categories is 3.9% in the Circulator A impact area.

This impact area has a total of approximately 31.2 acres of vacant land, including single-family residential (6.99 acres), multi-family residential (0.69 acres), and commercial (22.76 acres); categorized totals include only parcels of 0.2 acres or larger. The most likely residential development through the future along this corridor will be multi-family properties. In recent years, there have been several zonings approved for multi-family projects totaling 989 dwelling units. Considering the citywide population decline from 2000 to 2010 and the heated marketplace at the time, it is unlikely that all of these projects would have been built, notwithstanding the economic downturn. However, there was considerable development success during that period, and it certainly established that a market for urban residential housing existed in Sarasota.

Table D-3 provides the current profile of the Circulator A influence area land parcels, an overview of citywide land use, dwelling unit/building counts, and taxable assessed values by use category.

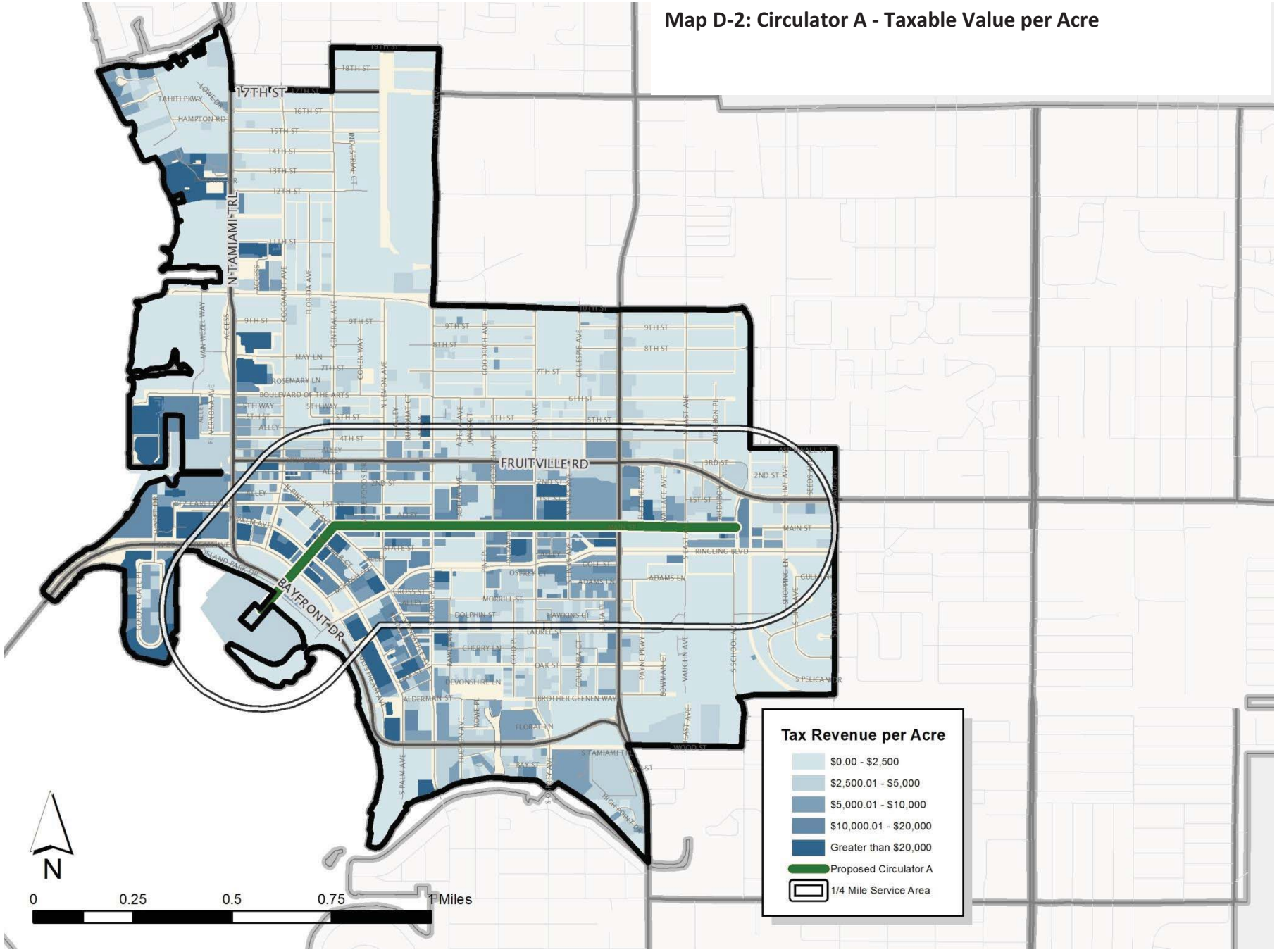
Map D-2 illustrates the tax revenue per acre within the influence area surrounding the Circulator A alignment.

Table D-3: Circulator A (Green Alignment) Influence Area Land Parcels Overview by Category

Category	Parcel Count	Land Area (acres)		Dwelling Units / Rooms			Taxable Value			Structure Area (sf)	
		Tot	Avg Parcel	Tot	Hx	% Hx	Total	% Tot	Avg / Acre	Total	% Tot
Single Family	166	23.89	0.144	166	63	38.0%	$17,644,095	1.7%	$738,653	268,093	2.5%
Single Family - Vacant	33	6.99	0.212	0	0	0.0%	$2,546,533	0.3%	$364,560	0	0.0%
Multi-Family	1,266	24.29	0.019	1,639	558	34.0%	$406,084,529	40.0%	$16,718,610	2,610,787	24.6%
Multi-Family - Vacant	9	0.69	0.077	0	0	0.0%	$458,886	0.0%	$664,663	0	0.0%
Industrial	8	4.37	0.546	0	0	0.0%	$3,260,800	0.3%	$746,933	91,439	0.9%
Industrial - Vacant	3	0.76	0.253	0	0	0.0%	$258,200	0.0%	$339,589	8,784	0.1%
Commercial	645	321.92	0.499	327	9	2.8%	$538,645,707	53.1%	$1,673,211	7,484,401	70.5%
Commercial - Vacant	60	22.76	0.379	31	0	0.0%	$36,075,482	3.6%	$1,585,062	0	0.0%
Other	38	81.08	2.134	0	0	0.0%	$9,306,510	0.9%	$114,775	147,368	1.4%
Other - Vacant	0	0.00	0.000	0	0	0.0%	$0	0.0%	$0	0	0.0%
Total	2,228	486.75	0.218	2,163	630	29.1%	$1,014,280,742	100.0%	$2,083,801	10,610,872	100.0%

Source: Sarasota County Property Appraiser. Categories and unit counts developed by grouping DOR Codes. "Other" includes government uses.

Map D-2: Circulator A - Taxable Value per Acre



Circulator B – Blue Alignment

The Blue Alignment starts at Van Wezel Way and the Performing Arts Center, runs south to Boulevard of the Arts, south on Central Avenue to Pineapple Avenue, continues south on Pineapple Avenue to Orange Avenue, and continues south to 150 feet south of Mound Street, terminating at Selby Gardens, a total of approximately 1.5 miles. This alignment runs south through downtown, crossing Main Street, and connects significant residential areas at each end. The activity centers within the impact area include Van Wezel Performing Arts Center, Selby Library, Burns Court Cinema, Hyatt Regency Hotel, Whole Foods, and Selby Botanical Gardens.

The most prominent development contributing to taxable value in this impact area is multi-family residential which represents 62.7% of the total taxable value. Commercial development is also a significant component with 29.4% of the taxable value within the impact area. The ¼-mile radius also encompasses minor single-family residential development in established neighborhoods along the corridor. The taxable value of vacant properties for all use categories is 3.4% in the impact area.

This impact area has a total of approximately 46.9 acres of vacant land, including single-family residential (15.6 acres), multi-family residential (2.16 acres), and commercial (26.89 acres); categorized totals include only parcels of 0.2 acres or larger. The most likely residential development through the future in this area will be multi-family properties. Therefore, a re-evaluation of the land use regulations, particularly with a fixed guideway transit investment, is recommended in areas that may be able to accommodate greater intensity. In recent years, there have been several zonings approved for multi-family projects, totaling 1,799 dwelling units. While it is unlikely that all of these units will be built, it is an indicator of interest in the area for future residential development.

Table D-4 provides the current profile of the Blue Alignment impact area land parcels, an overview of citywide land use, dwelling unit/building counts, and taxable assessed values by use category.

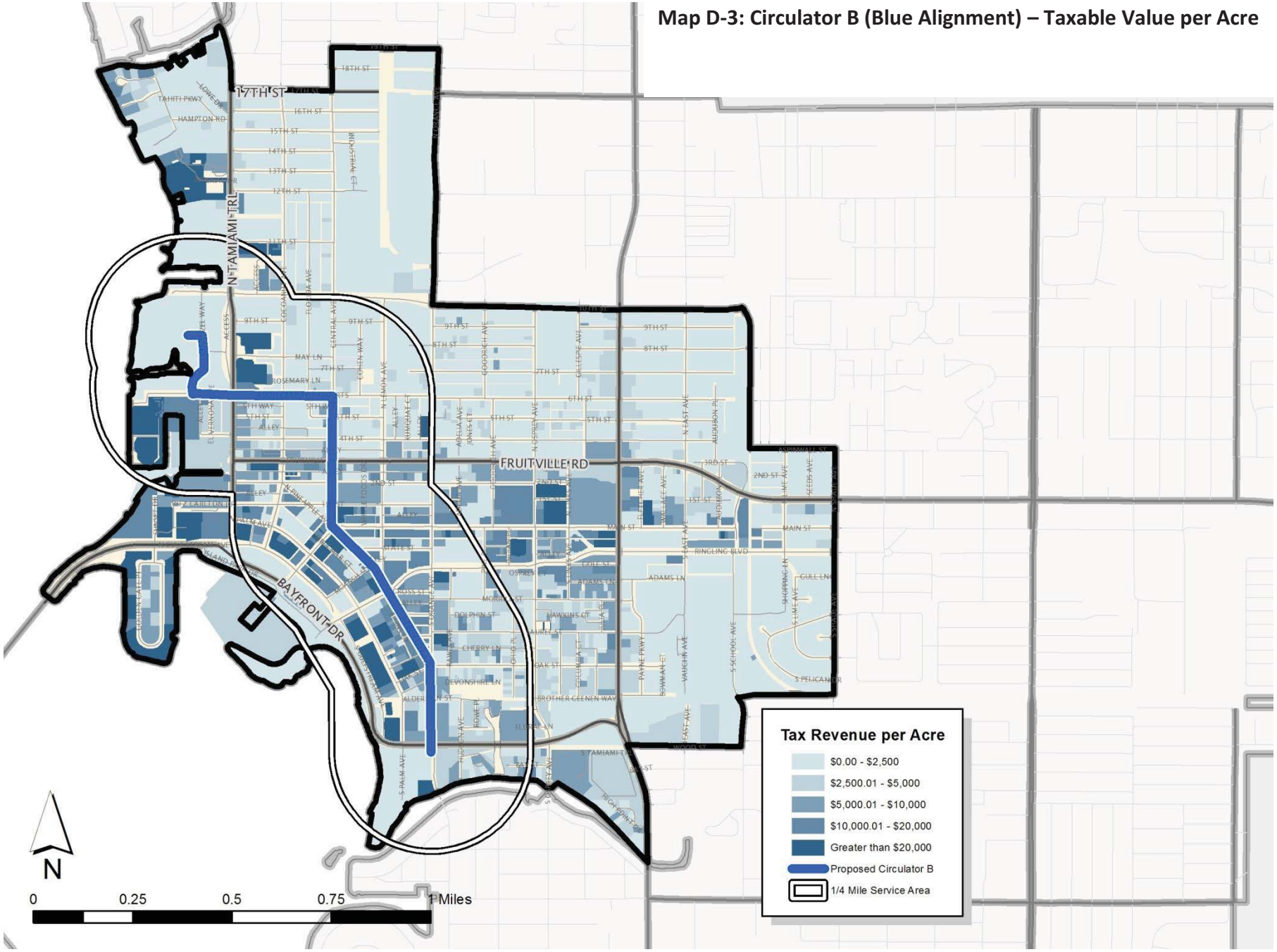
Map D-3 illustrates the tax revenue per acre within the influence area surrounding the Circulator B alignment.

Table D-4: Circulator B (Blue Alignment) Influence Area Land Parcels Overview by Category

Category	Parcel Count	Land Area (acres)		Dwelling Units / Rooms			Taxable Value			Structure Area (sf)	
		Tot	Avg Parcel	Tot	Hx	% Hx	Total	% Tot	Avg / Acre	Total	% Tot
Single Family	184	35.89	0.195	184	113	61.4%	$47,450,127	3.7%	$1,322,093	443,762	3.6%
Single Family - Vacant	78	15.60	0.200	0	0	0.0%	$7,724,484	0.6%	$495,186	0	0.0%
Multi-Family	2,531	31.89	0.013	3,544	1,073	30.3%	$804,677,448	62.7%	$25,231,789	5,232,280	42.0%
Multi-Family - Vacant	9	2.16	0.240	0	0	0.0%	$357,077	0.0%	$165,043	0	0.0%
Industrial	9	2.11	0.235	0	0	0.0%	$1,667,700	0.1%	$788,668	37,583	0.3%
Industrial - Vacant	1	0.28	0.281	0	0	0.0%	$203,100	0.0%	$722,207	0	0.0%
Commercial	467	274.09	0.587	827	7	0.8%	$376,388,890	29.3%	$1,373,207	6,411,436	51.5%
Commercial - Vacant	48	26.89	0.560	38	0	0.0%	$34,931,661	2.7%	$1,299,027	76,283	0.6%
Other	30	83.00	2.767	0	0	0.0%	$9,020,000	0.7%	$108,674	251,048	2.0%
Other - Vacant	6	1.94	0.000	0	0	0.0%	$0	0.0%	$0	0	0.0%
Total	3,363	473.87	0.141	4,593	1,193	26.0%	$1,282,420,487	100.0%	$2,706,271	12,452,392	100.0%

Source: Sarasota County Property Appraiser. Categories and unit counts developed by grouping DOR Codes. "Other" includes government uses.

Map D-3: Circulator B (Blue Alignment) – Taxable Value per Acre



Circulator C – Red Alignment

The Red Alignment starts at the Hyatt Hotel and runs west to Boulevard of the Arts and Tamiami Trail, where it forms a loop around Tamiami Trail, Boulevard of the Arts, Central Avenue, and 2nd Street and continues west to Lemon Avenue, south on Lemon Avenue to Pineapple Avenue, and south on Pineapple Avenue to Orange Avenue, where it terminates at the apex, a total of approximately 1.7 miles. This alignment runs south through Downtown and connects significant residential areas at each end. There are numerous activity centers within the impact area, including Van Wezel Performing Arts Center, Selby Library, Burns Court Cinema, Hyatt Regency Hotel, Ritz-Carlton Hotel and Conference Center, Whole Foods, and Selby Botanical Gardens.

The most prominent development contributing to taxable value in this impact area is multi-family residential (66.8%). Commercial and Service development are also significant components and, when combined, represent a significant segment of taxable value (27.3%). The ¼-mile radius also encompasses minor single-family residential development in established neighborhoods along the corridor. The taxable value of vacant properties for all use categories is 4.2% in the impact area.

This impact area has a total of approximately 49.5 acres of vacant land, including single-family residential (7.6 acres), multi-family residential (1.6 acres), and commercial (27.3 acres); categorized totals include only parcels of 0.2 acres or larger. The most likely residential development through the future in this area will be multi-family properties. Therefore, a re-evaluation of the land use regulations, particularly with a fixed guideway transit investment, is recommended in areas that may be able to accommodate greater intensity. In recent years, there have been several zonings approved for multi-family projects, totaling 1,943 dwelling units.

Table D-5 provides the current profile of the Red Alignment impact area land parcels, an overview of citywide land use, dwelling unit/building counts, and taxable assessed values by use category.

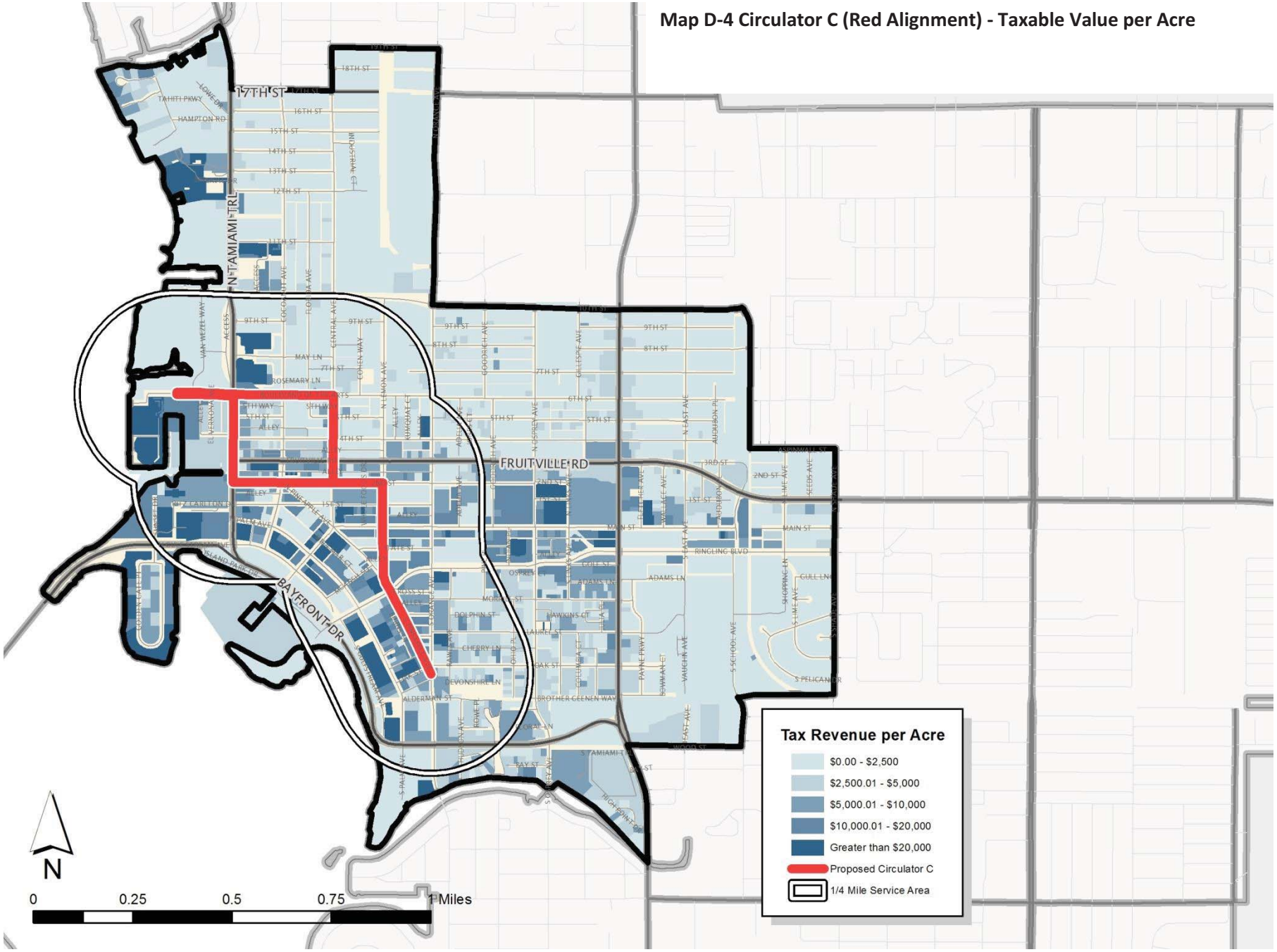
Map D-4 illustrates the tax revenue per acre within the influence area surrounding the Circulator C alignment.

Table D-5: Circulator C (Red Alignment) Influence Area Land Parcels Overview by Category

Category	Parcel Count	Land Area (acres)		Dwelling Units / Rooms			Taxable Value			Structure Area (sf)	
		Tot	Avg Parcel	Tot	Hx	% Hx	Total	% Tot	Avg / Acre	Total	% Tot
Single Family	136	18.80	0.138	136	72	52.9%	$23,138,969	1.7%	$1,231,107	255,661	2.0%
Single Family - Vacant	75	14.70	0.196	0	0	0.0%	$5,878,084	0.4%	$399,958	0	0.0%
Multi-Family	2,628	32.64	0.012	3,627	1,174	32.4%	$911,531,683	66.3%	$27,924,951	5,644,499	44.4%
Multi-Family - Vacant	9	2.16	0.240	0	0	0.0%	$357,077	0.0%	$165,043	0	0.0%
Industrial	9	2.11	0.235	0	0	0.0%	$1,667,700	0.1%	$788,668	37,583	0.3%
Industrial - Vacant	0	0.00	0.000	0	0	0.0%	$0	0.0%	$0	0	0.0%
Commercial	469	276.10	0.589	816	7	0.9%	$371,778,390	27.1%	$1,346,538	6,428,604	50.6%
Commercial - Vacant	55	30.67	0.558	39	0	0.0%	$51,029,261	3.7%	$1,663,889	81,941	0.6%
Other	29	73.18	2.523	0	0	0.0%	$9,020,000	0.7%	$123,257	250,320	2.0%
Other - Vacant	6	1.94	0.000	0	0	0.0%	$0	0.0%	$0	0	0.0%
Total	3,416	452.30	0.132	4,618	1,253	27.1%	$1,374,401,164	100.0%	$3,038,661	12,698,608	100.0%

Source: Sarasota County Property Appraiser. Categories and unit counts developed by grouping DOR Codes. "Other" includes government uses.

Map D-4 Circulator C (Red Alignment) - Taxable Value per Acre



SECTION D.4: COMMON ASSUMPTIONS FOR THE MARKET ANALYSES AND CALCULATION METHODOLOGIES

Common Assumptions

Citywide, the current Sarasota land use inventory identifies 6.4 square miles of properties used for residential buildings/development. Much of this acreage is within existing, highly-developed neighborhoods that present limited opportunity for new growth. The selection of the routes of the proposed Green, Blue, and Red alignments was influenced by the availability of opportunities for growth and development within their impact areas (¼-mile radius). Therefore, it is assumed that each alignment would capture more than its fair share of the citywide population growth in the future. This is reflected in the description of each alignment, with further refinement applicable to specific conditions within the alignment.

The value of all proposed new development and property improvements is based on values specific to the alignment impact area in which they occur. These values are derived from the Sarasota County Property Appraiser databases and reflect "taxable" value. Therefore, the values in the analyses are expected to be marginally lower than market values and require no adjustment to serve as the basis for calculating tax revenues. The current City millage of 2.9249 is used for the entire analysis period. The millage in each impact area is governed by citywide millage, which may change from year to year and may be affected by the "Rolled-Back Rate" legislation enacted in 2007. Assessed values are escalated annually based on the property type and the weighted average of properties with homestead exemptions versus properties without homestead exemptions specific to the impact area.

Circulator System: Rubber-Tire vs. Streetcar

This section contains summary data covered in more detail in other sections and/or phases of this study. It is included to assist the reader in associating relevant factors with the market potential conclusions of this section. There is no intent to influence a reader's opinion on the choice of transit mode in this section.

"There is considerable debate over the relative merits of bus and rail transit (Hass-Klau, et al. 2003; Pascall 2001; GAO 2001; Thompson and Matoff 2003; Balaker 2004; Litman 2004a; Henry and Litman 2006; Hidalgo and Carrigan 2010). Rail transit is considered a prestige service that gains more public support and provides a catalyst for urban redevelopment and more compact, multi-modal development patterns. Transit-oriented land use patterns can increase property values and economic productivity by improving accessibility, reducing costs, improving livability and providing economies of agglomeration. In some cases, increased property values offset most or all transit subsidy costs. This does not generally occur with bus service." [3]

[3] Victoria Transport Policy Institute, 2012 , "Rail Transit In America: Comprehensive Evaluation of Benefits."

Table D-6: Characteristics of Bus Transit

Bus Transit
• Flexibility. Bus routes can change and expand when needed—for example, if a roadway is closed or if destinations or demand changes. • Requires no special facilities. Buses can use existing roadways, and general traffic lanes can be converted into a busway. • More suitable for dispersed land use. Can serve a greater rider catchment area. • Several routes can converge onto one busway. Reduces the need for transfers. For example, buses that start at several suburban communities can all use a busway to a city center. • Lower capital costs. • Is used more by transit dependent people. Bus service improvements provide greater equity benefits.

Table D-7: Characteristics of Rail Transit

Rail Transit
• Greater demand. Rail tends to attract more discretionary riders than buses. • Greater comfort. Includes larger seats with more legroom, more space per passenger, and smother and quieter ride. • More voter support for rail than for bus improvements. • Greater travel speed and reliability. Rail transit is grade-separated. • Greater maximum capacity. Rail requires less space and is more cost-effective on high volume routes, and rail cars tend to carry more passengers per vehicle. • More positive land use impacts. Rail tends to be a catalyst for more intense and accessible development patterns. • Increased property values near transit stations. • Less air and noise pollution. Particularly if electric powered. • Rail stations tend to be more pleasant than bus stations.

"Real estate developers and lending institutions are not willing to base investments on the location of easily-changed bus routes. However, the availability of local bus service does increase the value of at least some urban real estate."[4]

Regardless of their differences, there are some points upon which transit experts[5] agree:

- Bus and rail transit are complementary—bus is best for serving areas with more dispersed destinations and lower demand; rail is best for serving corridors where destinations are concentrated, such as large commercial centers and mixed-use urban villages,
- Bus and rail transit become more efficient and effective at achieving planning objectives if implemented with supportive policies that improve service quality, create supportive land use patterns, and encourage ridership.
- Funding is critical to success. Funding, especially operating funding, was the only factor cited as a major constraint by a majority of survey respondents and is also a dominant factor among agencies that discontinued or never implemented a downtown circulator.
- Partnerships are vital in building a successful downtown circulator. They are very important in providing political support for the circulator and are a means to change the perception of transit in the business community.
- An "If you build it, they will come" approach is not realistic. A new circulator will not bring new customers to a struggling downtown.

The purpose of the above quotes and references is to provide insight to a critical assumption in the Base Case financial analysis for each alignment impact area; the Base Case market growth potential (reflecting existing conditions) is not affected by the presence or absence of a rubber-tire circulator system. Such a system would be a desirable and beneficial public amenity, but it is not expected to stimulate economic development and/or attract private sector investment to the alignment impact areas.

However, a circulator route serviced by a streetcar system is expected to stimulate economic development and/or attract private sector investment to the alignment impact areas. Operating streetcar systems, found in 28 cities across the United States, have proven to stimulate abnormally high economic development activity. Of course, the actual impacts realized reflect the size, characteristics, and opportunities available along the selected alignments of each city. Streetcar systems have been linked to increases in productivity and value of existing real estate proximate to the alignment. Some examples of these streetcar impacts are:

- Kenosha, Wisconsin: Completed in 2000, attracted more than $120 million in development.
- Tampa, Florida: Completed in 2001, attracted more than $600 million prior to construction and more than $1.3 billion by the

[4] William G. Barker, "Bus Service and Real Estate Values". *68th Meeting of the Institute of Transportation Engineers*

[5] Federal Transit Administration, "Development and Deployment of Downtown Circulators."

end of 2006. The vacant and multifamily properties along the Tampa TECO Streetcar saw increases of 166% and 117%, respectively, since its opening in 2002.

- Portland, Oregon: Completed in 2001, has attracted more than $2.3 billion in development.

An overview of studies indicates that, as with the development of the Portland, Tampa, and Seattle streetcar systems, it is not uncommon to find a 400% increase in the value of property along adjacent areas of their streetcars. In all case studies, underused property became attractive to developers.[6]

Calculation Methodologies

Existing land use characteristics, historic population/development trends, and market values of each specific alignment impact area were evaluated. Previous studies, transit industry experts, and discussions with stakeholders influenced the calculation of assumptions of potential development of commercial/service square footage and number of residential dwelling units. Base Case analyses reflecting existing conditions, with or without a rubber-tire circulator system, was developed for each proposed alignment impact area. Transit Case analyses, reflecting the potential impacts of a streetcar system, were also developed for each proposed alignment impact area.

The Transit Case analysis for each alignment reflects the data and findings of the above references and the experiences of U.S. cities with streetcar systems, coupled with the input of local stakeholders and market conditions/trends specific to Sarasota. The analyses were further refined to account for the specific conditions of each proposed alignment influence area.

Each analysis considers factors relevant to the three types of assessed value growth mentioned earlier in this section.

1. **Increases associated with general community improvements and/or stronger economic environment.**

   - Annual escalation rates to reflect the economic environment were selected for properties with homestead exemptions and for properties without homestead exemptions. Weighted averages specific to each alignment influence area were calculated. Appropriate escalation rates were applied to the existing taxable assessment base for each category of improvements and to new development projected for both the Base Case and Transit Case. These escalation rates and weighted averages are not necessarily applicable to properties citywide.

   - The Transit Case analyses project a slightly more robust, but still conservative, economic escalation for both existing assessed values and new assessed values as they enter the market. This increase reflects the rising value of existing properties proximate to transit experienced in many cities across the U.S.

   - For both the Base and Transit Case analyses, an economic escalation index was calculated. The economic escalation rates, area-specific weighted averages, and resulting 20-year escalation indices for each alignment impact area are reflected in Table D-8.

[6] The Brookings Institution, May 2009, "Value Capture and Tax-increment Financing Options for Streetcar Construction," HDR, Reconnecting America, and RCLCO

Table D-8: Escalation Index

Alignment	Homestead (Hx)	Commercial / Non-Hx	Weighted Avg	20-Yr Esc Index
Green (Base Case)	2.00%	4.00%	3.58%	7.29%
Green (Transit Case)	2.50%	5.00%	4.485	9.16%
Blue (Base Case)	2.00%	4.00%	3.35%	6.81%
Blue (Transit Case)	2.50%	5.00%	4.19%	8.55%
Red (Base Case)	2.00%	4.00%	3.33%	6.78%
Red (Transit Case)	2.50%	5.00%	4.17%	8.51%

2. **Increases associated with capital improvements to existing properties.**

   - Each analysis includes the expectation of periodic annual capital improvement on existing single-family residential properties, e.g., bath/kitchen updates, home addition, etc. The number of properties improved annually is modest (2 per year) in the Base Case analyses, while the Transit Case analyses are more aggressive (4 per year).

     The value of residential capital improvements in each analysis is based on a percentage of the average value of all existing single-family properties[7] within each impact area, regardless of age. Only properties with a structure and a taxable value are included in the average. This average value was increased annually by the weighted average escalation rate applicable to the specific impact area. The value of each improvement in the Base Case analyses is 15.0% of the current year average. The value of each improvement in the Transit Case analyses is 25.0% of the current year average. The larger improvement value in the Transit Case analyses reflect the expectation of more extensive improvements. The value of the improvements is calculated on the value specific to each impact area applicable in the year it is performed.

   - Each analysis includes the expectation of periodic annual capital improvement on existing commercial/service properties, e.g., facade improvements, new awnings, etc. The "quantity" (square feet) of improvements annually is modest (0.2% per year of properties existing in 2010) in the Base Case analyses, while the Transit Case analyses are more aggressive (0.4% per year of properties existing in 2010).

   - The value of commercial capital improvements in each analysis is based on a percentage of the average value of all existing commercial/service properties[8] within each impact area, regardless of age. Only properties with a structure and a taxable value are included in the average. This average

[7] Sarasota County Property Appraiser
[8] Sarasota County Property Appraiser.

value was increased annually by the weighted average escalation rate applicable to the specific impact area. The value of each improvement in the Base Case analyses is 15.0% of the current year average. The value of each improvement in the Transit Case analyses is 30.0% of the current year average. The larger improvement value in the Transit Case analyses reflect the expectation of more extensive improvements. The value of the improvements are calculated on the value specific to each impact area applicable in the year it is performed.

3. **Increases associated with new residential and commercial/service development.**

- The calculation of new residential development (dwelling units) is driven by the estimate of each alignment impact area's share of citywide population growth. Each Base Case analysis assumes the population growth will continue according to the existing citywide share of population for each alignment: Green Alignment (6.3%), Blue Alignment (13.0%), and Red Alignment (13.2%). Each Transit Case analysis assumes the base population growth according to its specific existing citywide share and an additional share of population growth due to the transit amenity. The additional transit-driven share is estimated to be 5% per year.

- The additional population growth may come from the growth already anticipated in the study area, but may also come from outside the study area, the city, or the county.

- Growing population represents the demand for housing. New housing demand was calculated using the citywide average household size for 2012 (2.07[9]). The alignment areas are ideal for the development of multi-family residental properties, and creating areas of higher density (transit-oriented development) is among the objectives of a transit system. The existing numbers of multi-family units within each alignment area are significantly higher than single-family houses: Green Alignment (9.9 times), Blue Alignment (19.3 times), and Red Alignment (26.7 time). All analyses assumed that 95% of new housing demand will be provided by multi-family units. New singe-family residential is assumed to be built in the year of demand; multi-family residential is assumed to be built in advance to meet the cumulative demand for the upcoming three years.

- The housing market in Sarasota, as in many cities across Florida, has a material market demand for non-resident "home" buyers—housing purchased by out-of-area owners for seasonal use and potentially a future retirement residence. These buyers are not reflected in the city's population growth. Therefore, each analyses includes a non-resident buyer demand for housing. This is calculated as a percentage of resident demand for new housing. The Base Case analyses increase the demand for new housing by 20%. The Transit Case analyses increase the demand for

[9] © 2012 The Nielsen Company

new housing by 40%, reflecting the increased desirability of Sarasota for seasonal and/or future retirement housing.

- The value of newer residential properties, both single-family and multi-family, exhibits a clear trend of rising average value associated with the age of the dwelling. This increase seems to be correlated with the trend of building larger units/houses and may also reflect a higher level of amenities and finishes (e.g. more bathrooms). It is reasonable to expect that new housing will be built to standards and values of more recent vintage properties. The average value of single-family and multi-family properties built since 1990 was calculated for each impact area. Only properties with a structure and a taxable value are included in the average. This value was increased annually by the weighted average escalation rate applicable to the specific impact area.

- The value of each new residential unit is calculated to be the specific to each impact area applicable to its type (single-family or multi-family) in the year of its development.

- The projection of the development of new commercial/ service space in the Base Case analyses was linked to the prominence of existing commercial/service space within each alignment. By taxable value, the Green Alignment has a significantly larger share of these properties than the Blue and Red Alignments: Green Alignment (53.1%), Blue Alignment (29.3%), and Red Alignment (27.2%). Limited ongoing growth of commercial/service uses was reflected in the growth projections of the Base Case analyses: Green Alignment (1.0%), Blue Alignment (1.0%), and Red Alignment (1.0%). This results in a faster growth of commercial/service space in the Green Alignment Base Case, because of the larger number of existing properties; however, the new space has a lower value per square foot than the Blue and Red Alignments, reflecting the lower existing average values of the Green Alignment.

- The presence of a transit system will drive the demand for new commercial/service space, businesses that will benefit from improved transportation and retailers meeting the demand of transit ridership. The projection of the development of new commercial/service space in the Transit Case analyses did not favor the prominence of existing commercial/service space within the Green Alignment. With the presence of a transit system, it is expected that the Blue and Red alignments will be more desirable destinations for commercial/service uses than before, including the potential development of one or more hotels. The projected development rates of new commercial/service space in the Transit Case analyses are Green Alignment (1.5%), Blue Alignment (2.3%), and Red Alignment (2.3%). The increased commercial/service property growth may come from outside the study area, the city, or the county. It may also include growth that would not occur “but for” the transit system.

- The value of new commercial/service space was calculated at the value specific to each impact area in the year of its development.

General Conditions of the Analyses

- The assessed value of all improvements and new development are escalated by the appropriate rates specific to each impact area, starting from the year after its completion.
- Ad valorem taxes were calculated using the *incremental* assessed value of each analysis. The base year for calculating the increment was the 2010 taxable value. Sarasota's 2011/12 millage (2.9249) was used for the entire 20-year analysis period. This rate may change from year to year, potentially due to the impact of the 2007 "Rolled-Back Rate" legislation. However, those changes are applied citywide and are not specific to the impact areas of the proposed alignments. As all three proposed alignments fall entirely within the Downtown CRA, all ad valorem revenues reflected in the analyses will be captured by the TIF until it expires.
- Revenue generated by a potential Transit Special Services District (SSD) was calculated for illustrative purposes. The base for the SSD is the entire taxable assessed value. The millage chosen for this illustration was 0.3333 SSD revenue is not captured by the TIF. SSDs are established by the local jurisdiction (City Council) and must be periodically renewed. Thus, continued political will is required for its existance.
- The estimated new development growth impacts associated with transit (streecar) in these analyses are conservative in terms of the impacts realized in most cities with operating streetcar systems. The most relevant factors contributing to this conservatism is the current population in the Sarasota as well as the population growth trends of the city and county.

SECTION 6.5: CIRCULATOR A (GREEN) ALIGNMENT SUMMARY

A comparison of the Base Case and Transit Case *incremental* revenues for the Circulator A Alignment is reflected in Figure D-6. The increment base is established by 2010 taxable assessed value. It should be noted that a new development takes three to four years from the issuance of a building permit to be included on the tax rolls. As to be expected, with multiple projects/improvements occurring over time, it takes 8–10 years for the gap between the Base Case incremental revenue and the Transit Case incremental revenue to have material impact on City revenues. SSD (Special Services District) revenue is based on the total taxable assessed value.

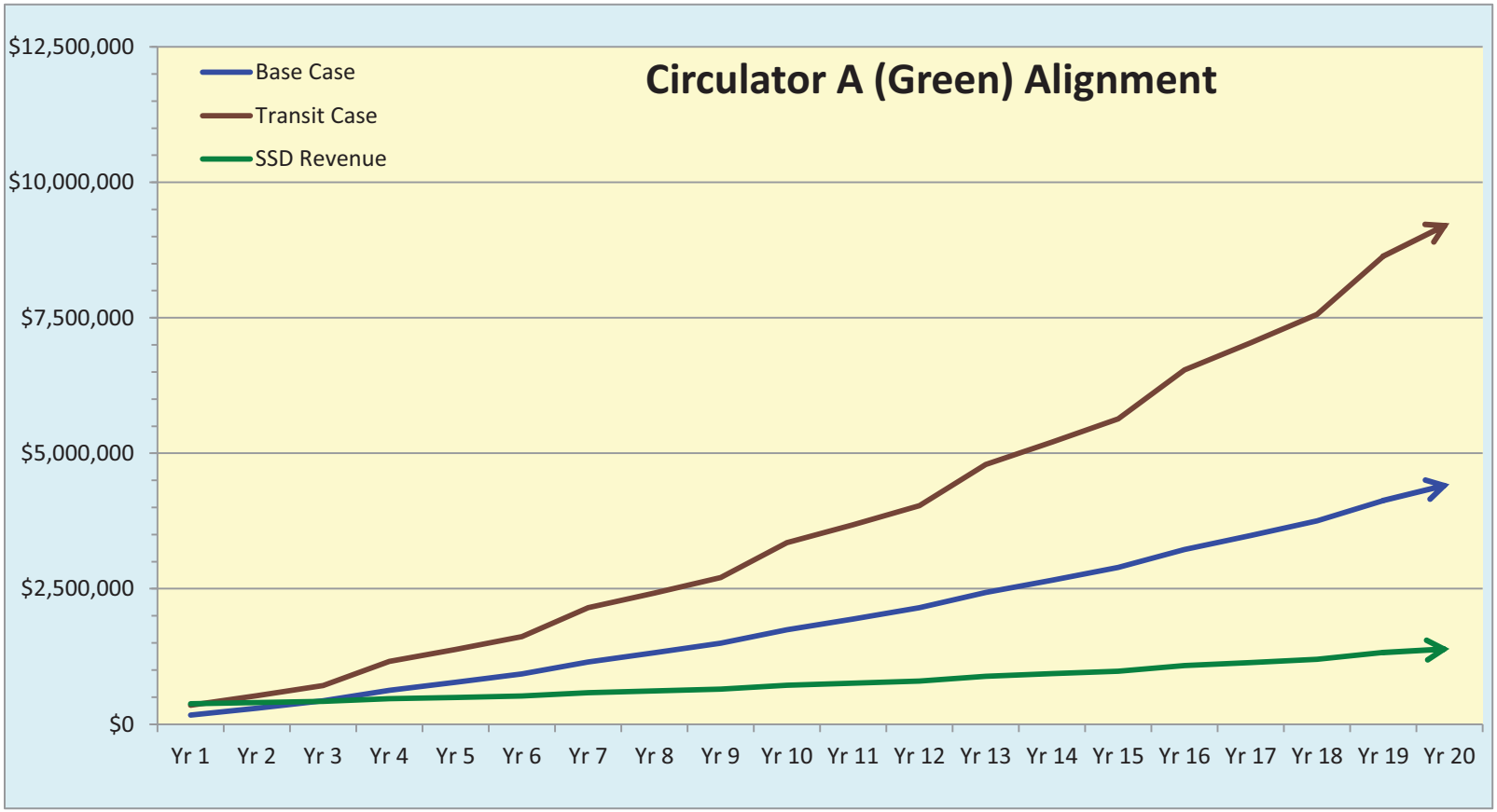


Figure D-6: Comparison of Base Case and Transit Case Incremental Revenue

Table D-9 provides a summary of each source of revenue in the Green alignment by cumulative totals for five-year periods. Establishing a Transit SSD is considered to be more likely to support a streetcar system, but one could be established to support a rubber-tired circulator. Because it is based on total taxable assessed value, the SSD revenue keeps pace with the Base Case incremental revenue for almost the first five years.

Table D-9: Revenue Summary – Cumulative Values for Five-Year Periods - Circulator A

Cumulative Revenue Summary					
Green Alignment	**Yrs 1 - 5**	**Yrs 6 - 10**	**Yrs 11 - 15**	**Yrs 16 - 20**	**Total**
Base Case					
Incremental Revenue	$2,293,321	$6,632,495	$12,076,719	$19,012,294	$40,014,828
Transit Case					
SSD Revenue	$2,161,325	$3,085,440	$4,351,165	$6,136,925	$15,734,855
Incremental Revenue	$4,133,528	$12,243,173	$23,350,634	$39,021,709	$78,749,043

Table D-10 provides a summary of residential and commercial development in the Circulator A Alignment by cumulative totals for five-year periods resulting from both the Base Case and the Transit Case analyses. Residential unit counts and building areas (sf) existing 2010 are provided as a reference point.

Table D-10: New Development Summary – Cumulative Values for Five-Year Periods - Circulator A

Cumulative New Development Summary									
Green Alignment	**Yrs 1 - 5**	**Yrs 6 - 10**	**Yrs 11 - 15**	**Yrs 16 - 20**	**Total**	**Existing In Area 2010**		**Existing In City 2010**	
						Units / SF	**% Growth**	**Units / SF**	**% Growth**
Base Case									
Residential (DU)	55	55	57	59	226	1,805	12.5%	28,583	0.8%
Commercial/Service (SF)	273,252	287,190	301,840	905,030	1,767,312	10,334,810	17.1%	29,118,056	6.1%
Transit Case									
Residential (DU)	258	266	273	278	1,075	1,805	59.6%	28,583	3.8%
Commercial/Service (SF)	413,997	445,992	480,460	517,592	1,858,040	10,334,810	18.0%	29,118,056	6.4%

SECTION D.6: CIRCULATOR B (BLUE) ALIGNMENT SUMMARY

A comparison of the Base Case and Transit Case *incremental* revenues for the Circulator B Alignment is reflected in Figure D-7. The increment base is established by 2010 taxable assessed value. It should be noted that a new development takes three to four years from the issuance of a building permit to be included on the tax role. As to be expected, with multiple projects/improvements occurring over time it takes 8–10 years for the gap between the Base Case incremental revenue and the Transit Case incremental revenue to have material impact on City revenues. SSD revenue is based on the total taxable assessed value.

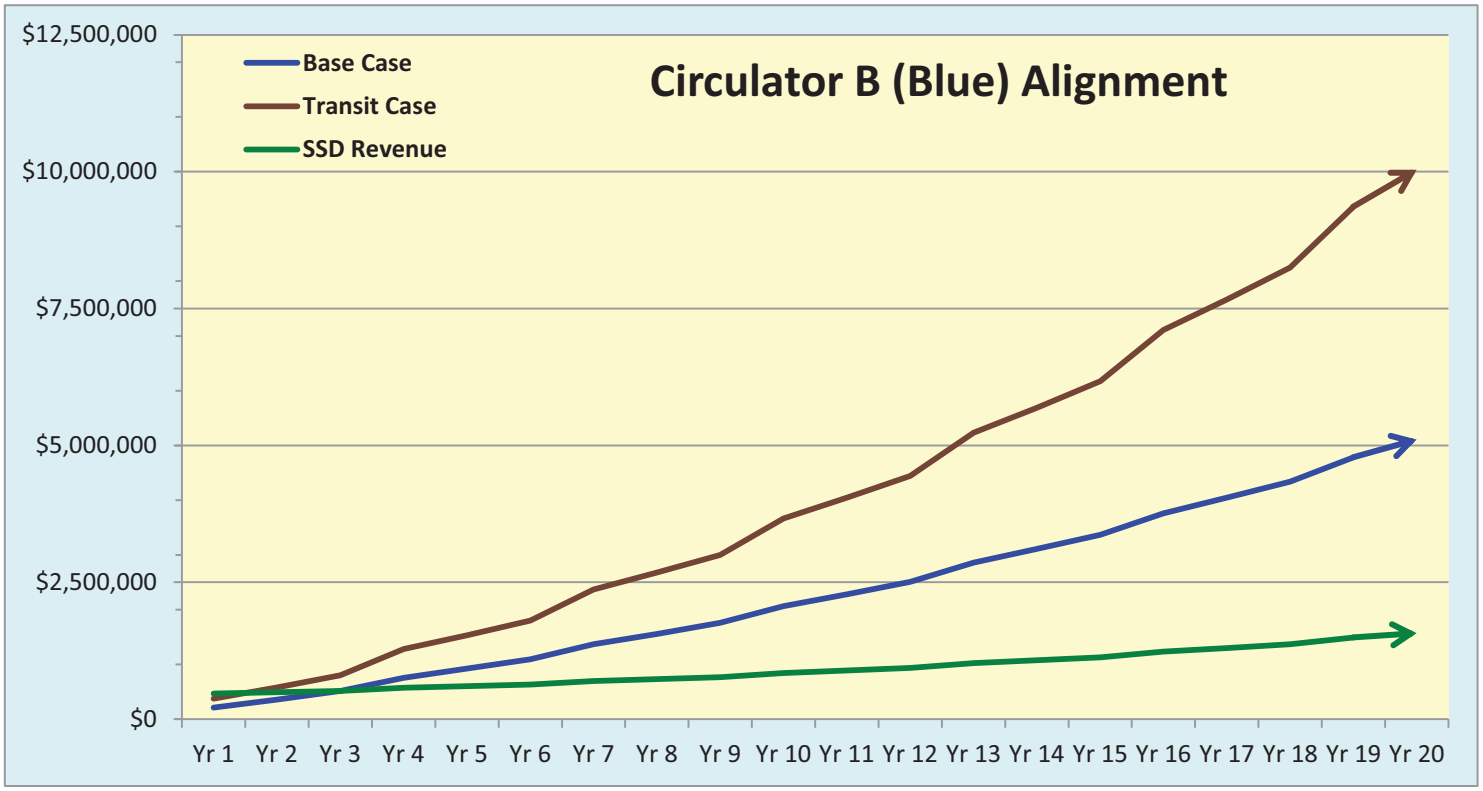


Figure D-7: Comparison of Base Case and Transit Case Incremental Revenues

Table D-11 provides a summary of each source of revenue in the Circulator B Alignment by cumulative totals for five-year periods. As in the Circulator A Alignment, the SSD revenue in the Blue Alignment keeps pace with the Base Case incremental revenue for almost the first five years.

Table D-11: Revenue Summary – Cumulative Values for Five-Year Periods - Circulator B

Cumulative Revenue Summary					
Blue Alignment	**Yrs 1 - 5**	**Yrs 6 - 10**	**Yrs 11 - 15**	**Yrs 16 - 20**	**Total**
Base Case					
Incremental Revenue	$2,762,450	$7,845,542	$14,127,824	$22,037,606	$46,773,422
Transit Case					
SSD Revenue	$2,657,574	$3,677,157	$5,051,974	$6,970,544	$18,357,249
Incremental Revenue	$4,566,985	$13,514,419	$25,579,233	$42,415,793	$86,076,431

Table D-12 provides a summary of residential and commercial development in the Circulator B Alignment by cumulative totals for five-years periods resulting from both the Base Case and the Transit Case analyses. Residential unit counts and building areas (sf) existing 2010 are provided as a reference point.

Table D-12: New Development Summary – Cumulative Values for Five-Year Periods - Circulator B

Cumulative New Development Summary									
Blue Alignment	**Yrs 1 - 5**	**Yrs 6 - 10**	**Yrs 11 - 15**	**Yrs 16 - 20**	**Total**	**Existing In Area 2010**		**Existing In City 2010**	
						Units / SF	**% Growth**	**Units / SF**	**% Growth**
Base Case									
Residential (DU)	105	105	109	110	429	3,728	11.5%	28,583	1.5%
Commercial/Service (SF)	179,408	188,560	198,179	208,288	774,435	6,411,436	12.1%	29,118,056	2.7%
Transit Case									
Residential (DU)	301	306	311	321	1,239	3,728	33.2%	28,583	4.3%
Commercial/Service (SF)	413,887	462,592	517,029	577,871	1,971,378	6,411,436	30.7%	29,118,056	6.8%

SECTION D.7: CIRCULATOR C (RED) ALIGNMENT SUMMARY

A comparison of the Base Case and Transit Case *incremental* revenues for the Circulator C Alignment is reflected in Figure D-8. The increment base is established by 2010 Taxable assessed value. It should be noted that a new development takes three to four years from the issuance of a building permit to be included on the tax role. As to be expected, with multiple projects/improvements occurring over time it takes 8–10 years for the gap between the Base Case incremental revenue and the Transit Case incremental revenue to have material impact on City revenues. SSD revenue is based on the total taxable assessed value.

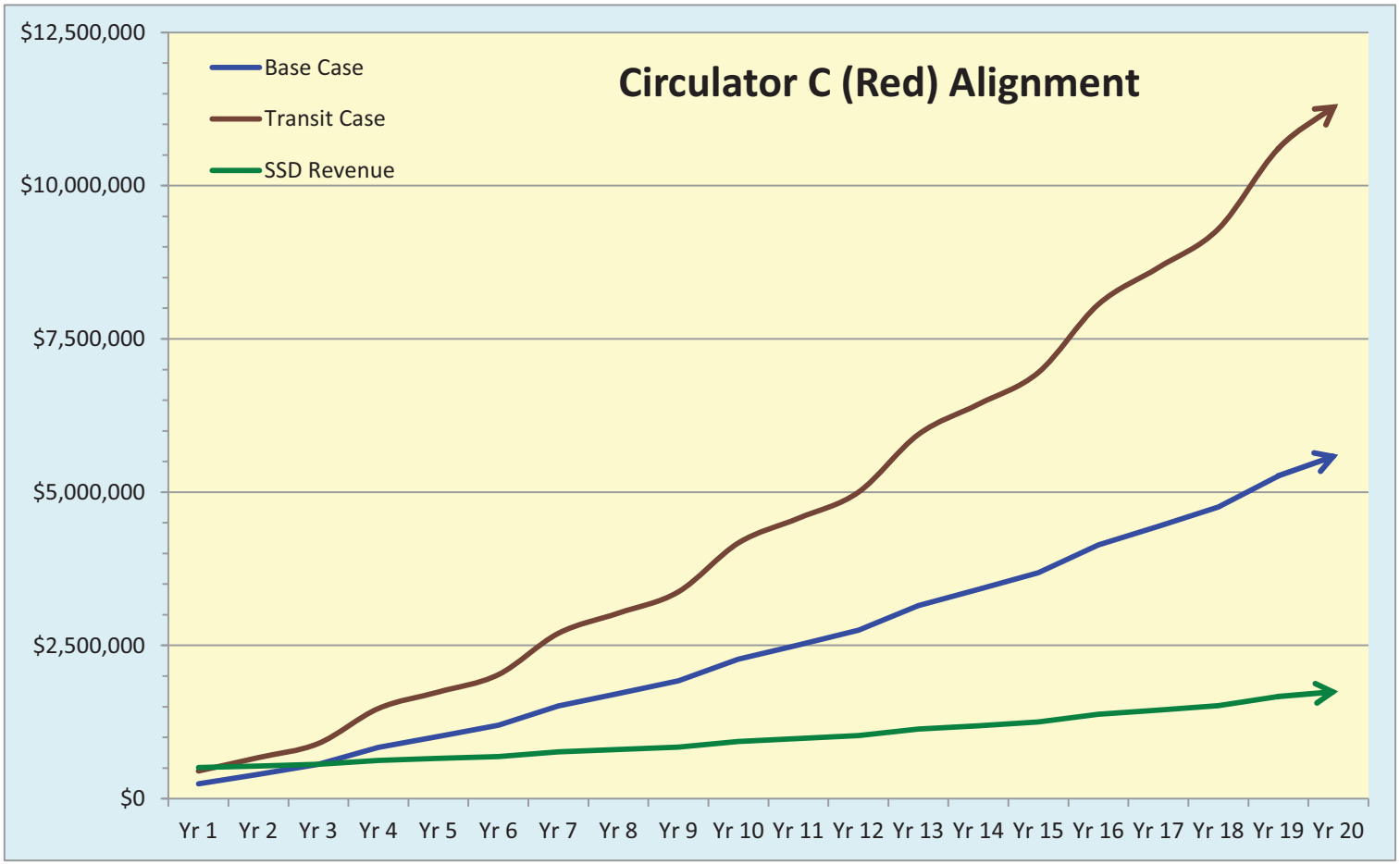


Figure D-8: Comparison of Base Case and Transit Case Incremental Revenues

Table D-13 provides a summary of each source of revenue in the Circulator C Alignment by cumulative totals for five-year periods. As in the Circulator A & Circulator B Alignments, the SSD revenue in the Red Alignment keeps pace with the Base Case incremental revenue for almost the first five years.

Table D-13: Revenue Summary – Cumulative Values for Five-Year Periods - Circulator C

Cumulative Revenue Summary					
Red Alignment	**Yrs 1 - 5**	**Yrs 6 - 10**	**Yrs 11 - 15**	**Yrs 16 - 20**	**Total**
Base Case					
Incremental Revenue	$3,054,616	$8,623,461	$15,506,098	$24,215,288	$51,399,462
Transit Case					
SSD Revenue	$2,886,941	$4,033,163	$5,583,791	$7,755,443	$20,259,338
Incremental Revenue	$5,234,644	$15,293,404	$28,901,062	$47,958,565	$97,387,675

Table D-14 provides a summary of residential and commercial development in the Circulator C Alignment by cumulative totals for five-year periods resulting from both the Base Case and the Transit Case analyses. Residential unit counts and building areas (sf) existing 2010 are provided as a reference point.

Table D-14: New Development Summary – Cumulative Values for Five-Year Periods - Circulator C

Cumulative New Development Summary									
Red Alignment	**Yrs 1 - 5**	**Yrs 6 - 10**	**Yrs 11 - 15**	**Yrs 16 - 20**	**Total**	**Existing In Area 2010**		**Existing In City 2010**	
						Units / SF	**% Growth**	**Units / SF**	**% Growth**
Base Case									
Residential (DU)	114	115	118	120	467	3,763	12.4%	28,583	1.6%
Commercial/Service (SF)	177,121	186,156	195,652	205,632	764,561	6,428,604	11.9%	29,118,056	2.6%
Transit Case									
Residential (DU)	328	332	343	348	1,351	3,763	35.9%	28,583	4.7%
Commercial/Service (SF)	408,610	456,694	510,437	570,504	1,946,244	6,428,604	30.3%	29,118,056	6.7%

SECTION D.8: CROSS-COMPARISON OF THE ALIGNMENTS

Table D-15 compares the cumulative revenue summaries of the three alignments. Side by side, it is more evident that the Circulator C (Red) Alignment has a better potential for economic growth than the other two alignments. However, the gap between the Circulator C and Circulator B alignments is marginal. This is not surprising considering the high level of overlap between the two alignments that connect very similar existing residential densities, commercial densities, and activity centers, as is evident in Table D-16. The market characteristics and values of the Circulator A Alignment are quite different from the Circulator B and Circulator C alignments. The somewhat minor deviations between the alignments generated differences in the market characteristics and values of their respective impact areas, resulting in the marginal gap over the 20-year analysis period. It should be noted that the gap widens over time, even in this 20-year analysis period, and the impacts of a streetcar system do not end in 20 years. Another characteristic of the Circulator C Alignment impact area versus the Circulator B Alignment impact area is that the Circulator C Alignment encompasses more vacant land to accommodate future growth.

Table D-15: New Development Summary – Cumulative Values for Five-Year Periods - All Circulators

Cumulative Revenue Summary					
Alignment/Scenario	**Yrs 1 - 5**	**Yrs 6 - 10**	**Yrs 11 - 15**	**Yrs 16 - 20**	**Total**
Green Alignment					
Base Case					
Incremental Revenue	$2,293,321	$6,632,495	$12,076,719	$19,012,294	$40,014,828
Transit Case					
SSD Revenue	$2,161,325	$3,085,440	$4,351,165	$6,136,925	$15,734,855
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Blue Alignment					
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Red Alignment					
Base Case					
Incremental Revenue	$3,054,616	$8,623,461	$15,506,098	$24,215,288	$51,399,462
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Table D-16: New Development Summary – Cumulative Values for Five-Year Periods - All Circulators

Cumulative New Development Summary									
Alignment/Scenario	Yrs 1 - 5	Yrs 6 - 10	Yrs 11 - 15	Yrs 16 - 20	Total	Existing In Area 2010		Existing In City 2010	
						Units / SF	% Growth	Units / SF	% Growth
Green Alignment									
Base Case									
Residential (DU)	55	55	57	59	226	1,805	12.5%	28,583	0.8%
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Transit Case									
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