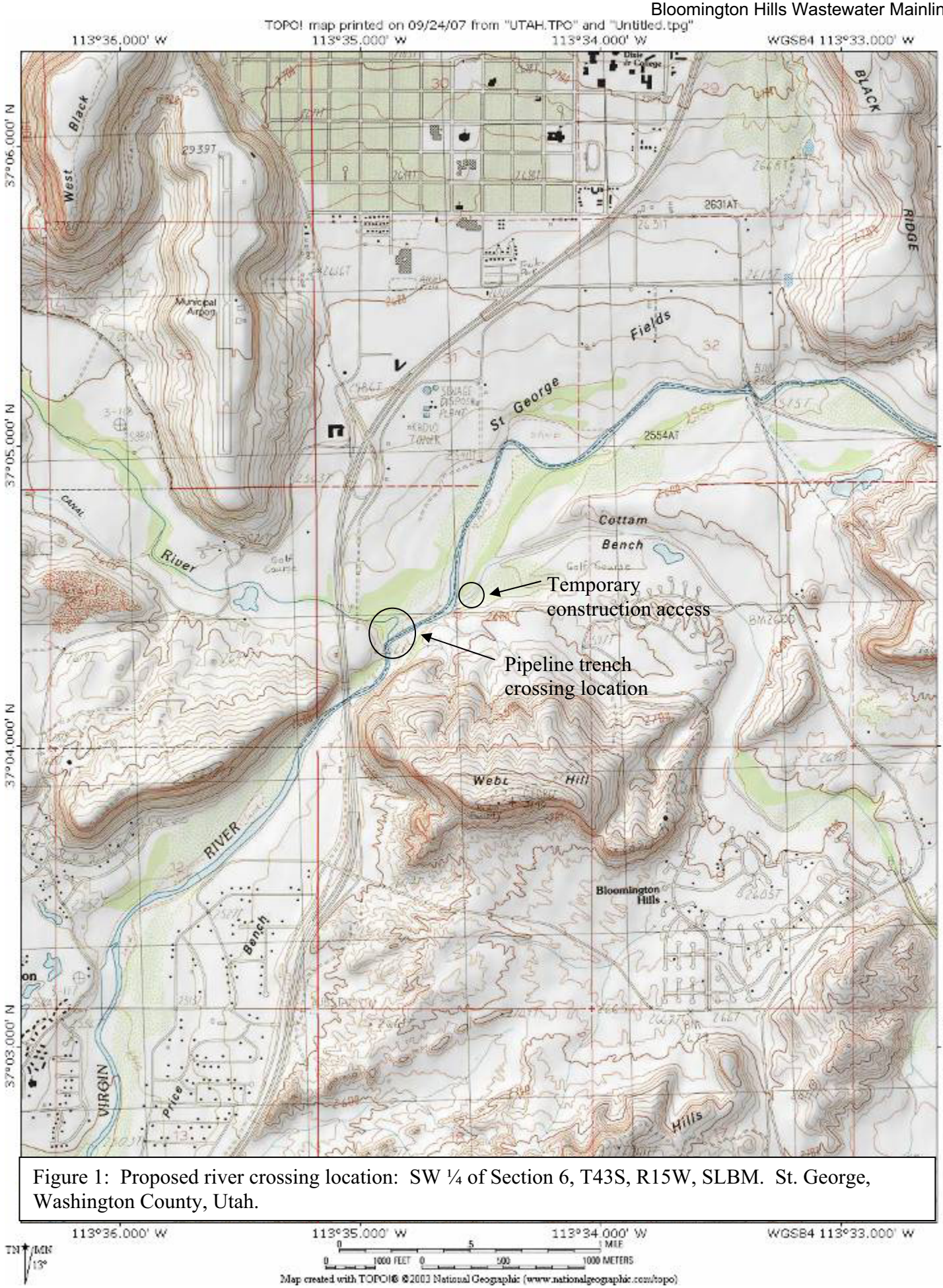


Figure 1: Proposed river crossing location: SW ¼ of Section 6, T43S, R15W, SLBM. St. George, Washington County, Utah.

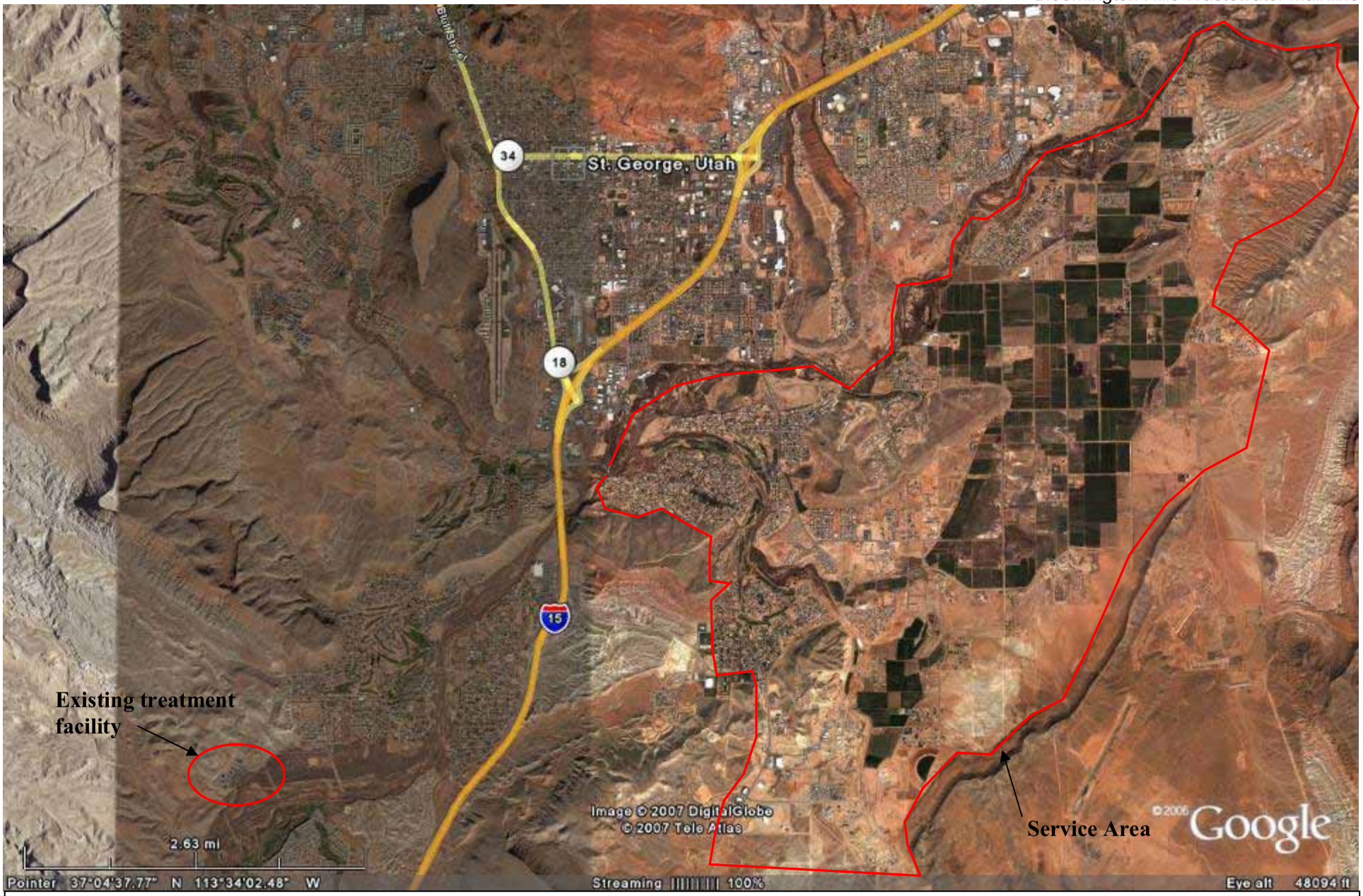
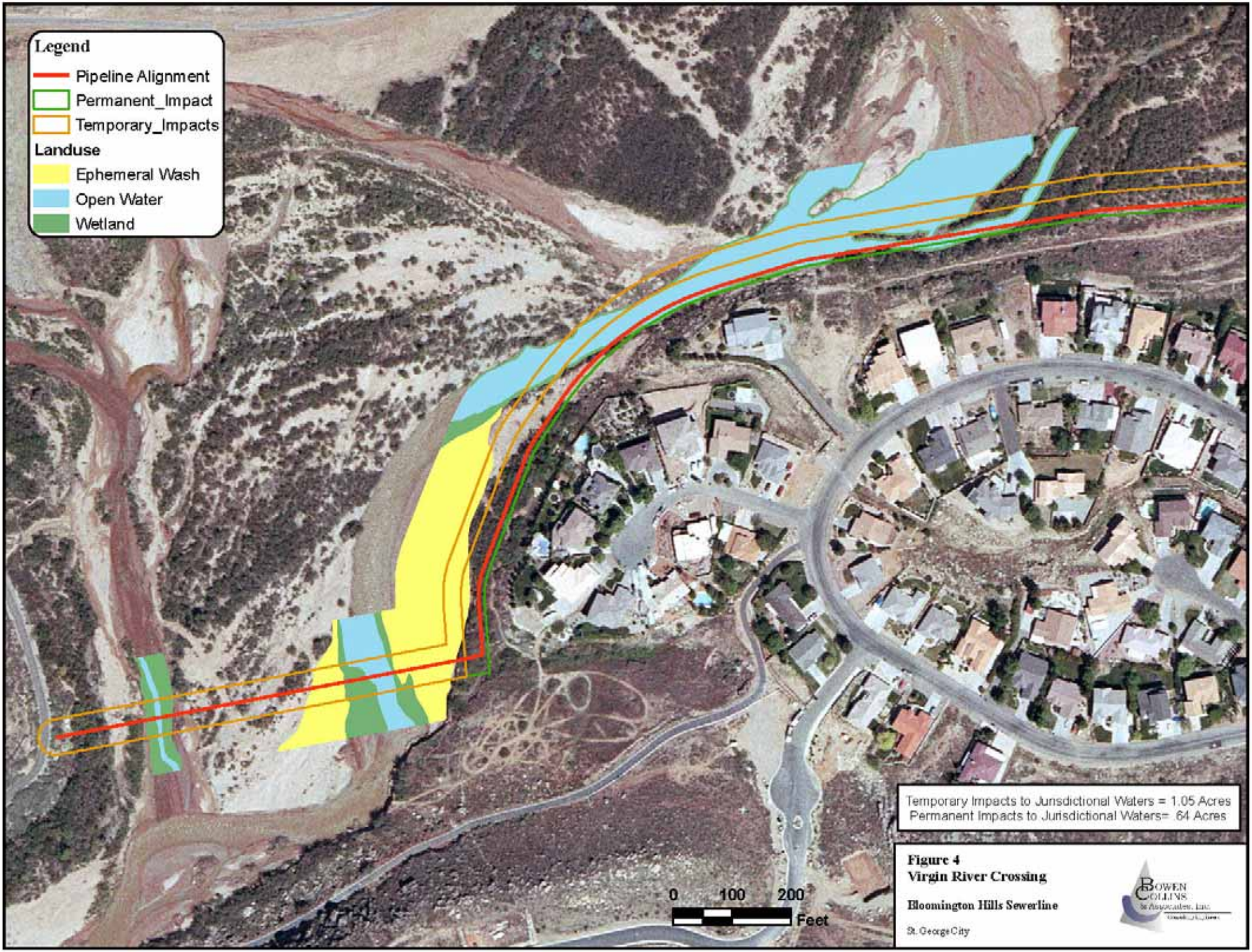


Figure 2: Approximate service area boundaries to be supported by the proposed wastewater transmission pipeline.

Figure 3: Area of proposed impact at toe of slope around Webb Hill.


Legend
Pipeline Alignment
Permanent_Impact
Temporary_Impacts
Landuse
Ephemeral Wash
Open Water
Wetland
Temporary Impacts to Jurisdictional Waters = 1.05 Acres
Permanent Impacts to Jurisdictional Waters= .64 Acres
0
100
200
Feet
Figure 4
Virgin River Crossing
Bloomington Hills Sewerline
St. George City
Bowen Collins & Associates, Inc.

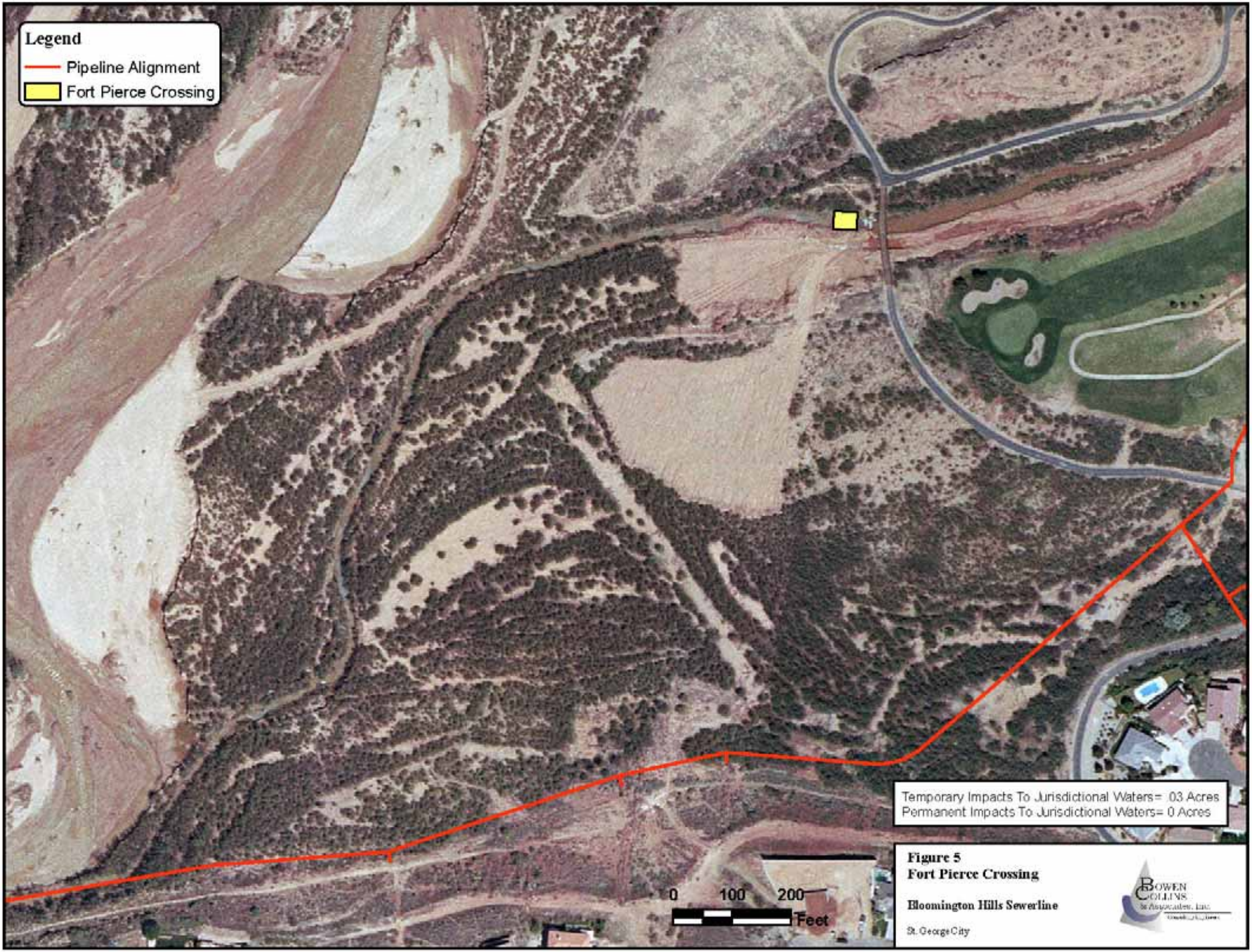


Figure 5
Fort Pierce Crossing

Bloomington Hills Sewerline

St. George City

Bowen Collins & Associates, Inc.

Figure 6
Virgin River Diversion

Bloomington Hills Sewerline

St. George City

Bowen Collins & Associates, Inc.
Consulting Engineers

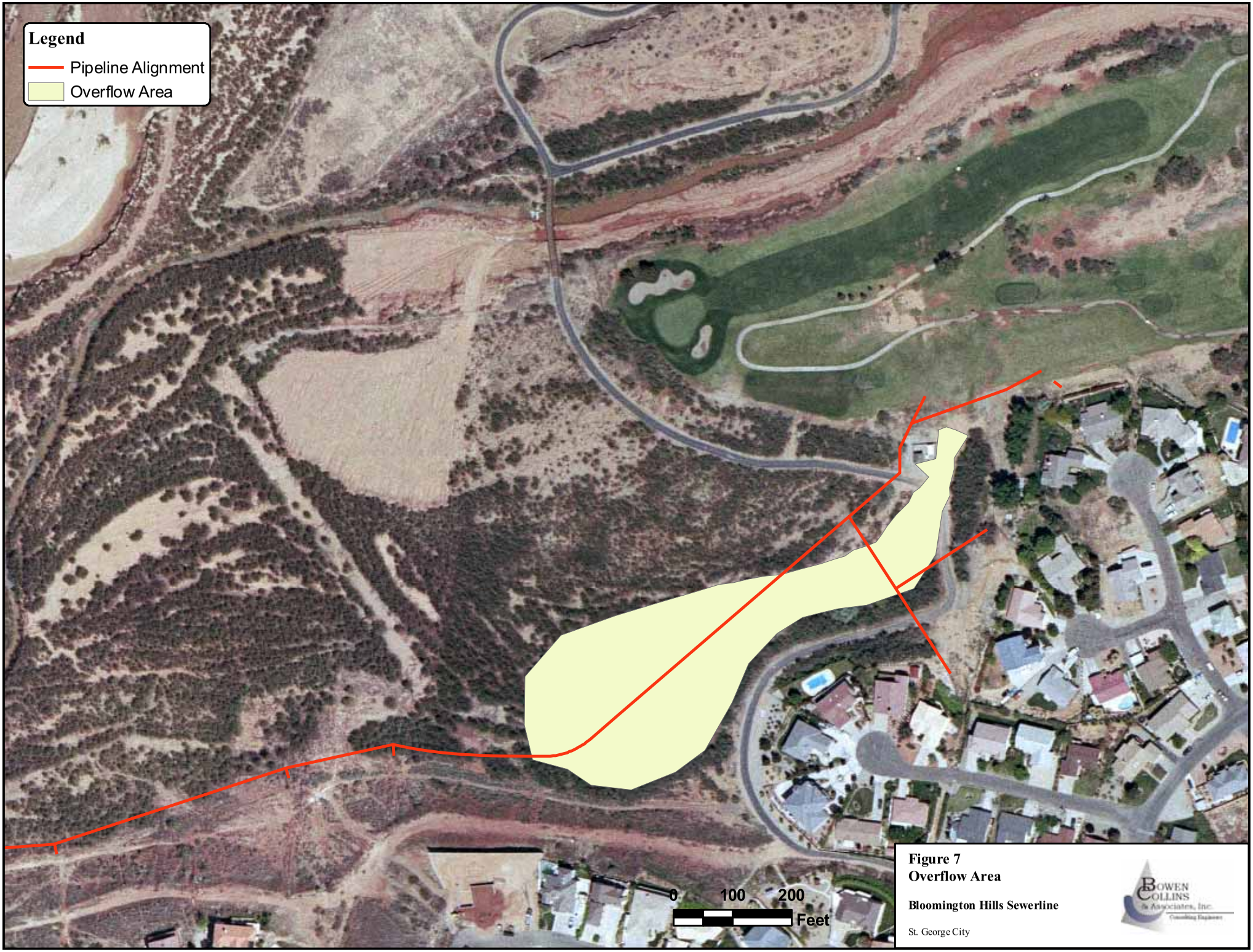
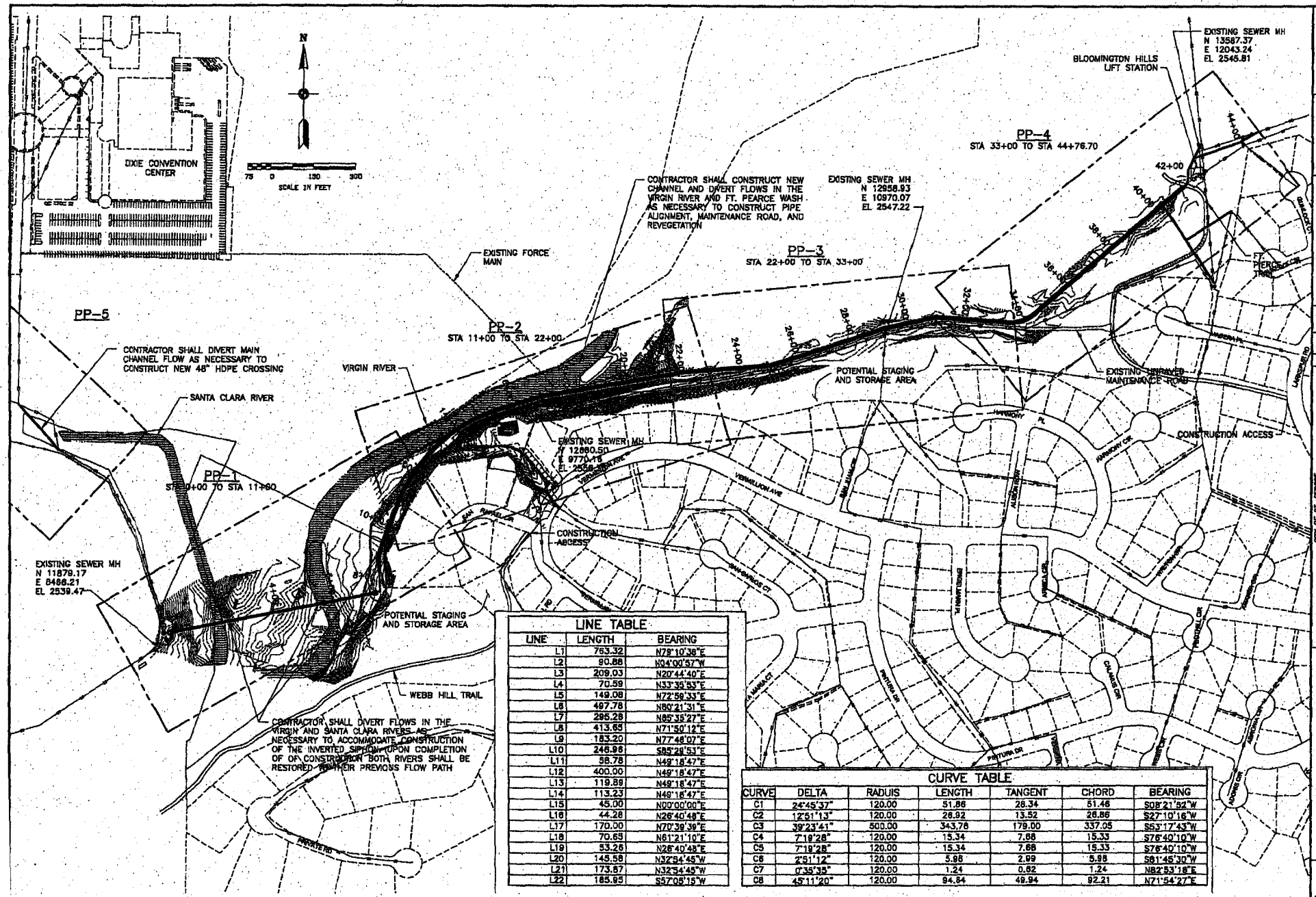


Figure 7
Overflow Area

Bloomington Hills Sewerline

St. George City

Bowen Collins & Associates, Inc.
Consulting Engineers



LINE TABLE		
LINE	LENGTH	BEARING
L1	763.32	N79°10'38"E
L2	90.88	N04°00'57"W
L3	209.03	N20°44'40"E
L4	70.59	N33°35'53"E
L5	149.08	N72°59'33"E
L6	497.78	N80°21'31"E
L7	295.28	N85°35'27"E
L8	413.65	N71°50'12"E
L9	183.20	N77°46'07"E
L10	246.96	S85°29'53"E
L11	58.78	N49°18'47"E
L12	400.00	N49°18'47"E
L13	119.89	N49°18'47"E
L14	113.23	N49°18'47"E
L15	45.00	N00°00'00"E
L16	44.28	N26°40'48"E
L17	170.00	N70°39'39"E
L18	70.65	N61°21'10"E
L19	53.26	N26°40'48"E
L20	145.58	N32°54'45"W
L21	173.87	N32°54'45"W
L22	185.95	S57°05'15"W

CURVE TABLE						
CURVE	DELTA	RADUIS	LENGTH	TANGENT	CHORD	BEARING
C1	24°45'37"	120.00	51.86	28.34	51.46	S08°21'52"W
C2	12°51'13"	120.00	26.92	13.52	26.86	S27°10'16"W
C3	39°23'41"	500.00	343.78	179.00	337.05	S53°17'43"W
C4	7°19'28"	120.00	15.34	7.68	15.33	S76°40'10"W
C5	7°19'28"	120.00	15.34	7.68	15.33	S76°40'10"W
C6	2°51'12"	120.00	5.98	2.99	5.98	S81°45'30"W
C7	0°35'35"	120.00	1.24	0.62	1.24	N82°53'18"E
C8	45°11'20"	120.00	94.84	49.94	92.21	N71°54'27"E

CITY OF ST. GEORGE

BLOOMINGTON HILLS SEWER LINE

DESIGN M. CHANDLER
DRAWN P. COLOSIMO
REVIEW CHECKED K. SPIERS
APPROVED K. SPIERS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

NO. DATE REV. BY DESCRIPTION
REVISIONS

SHEET INDEX AND SITE PLAN

DATE: JULY 2007
PROJECT NUMBER 01-06-02

DRAWING NO. C-1
SHEET 3 OF 27

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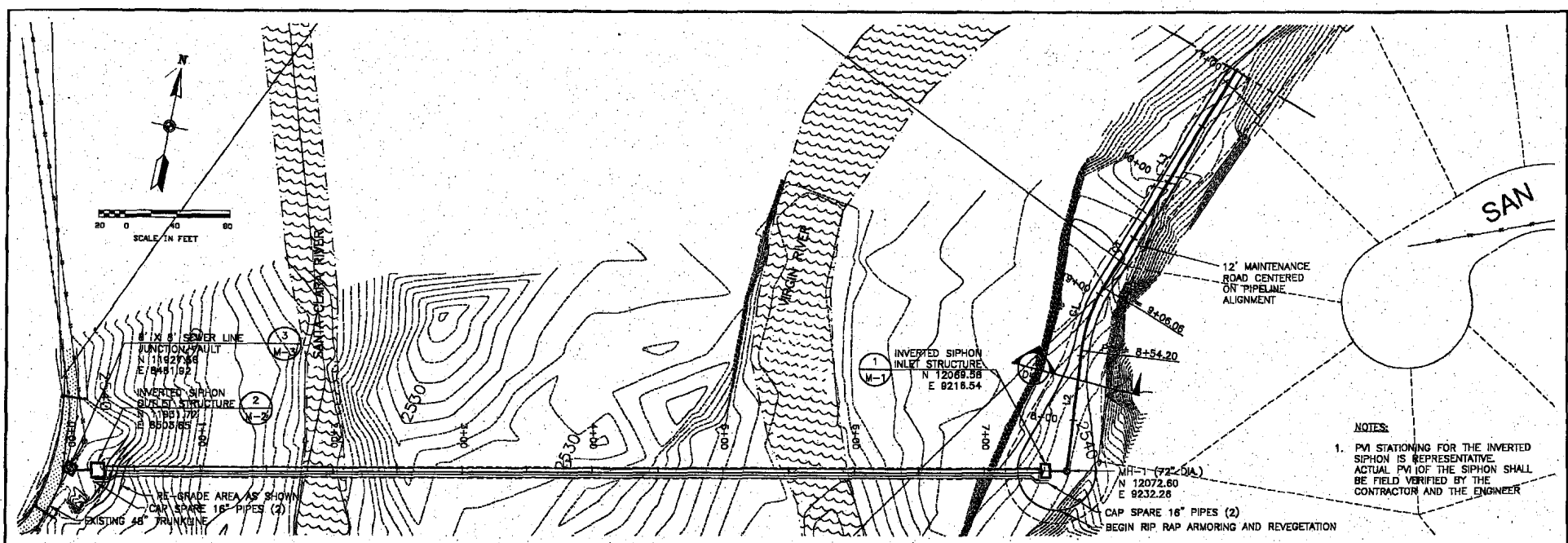
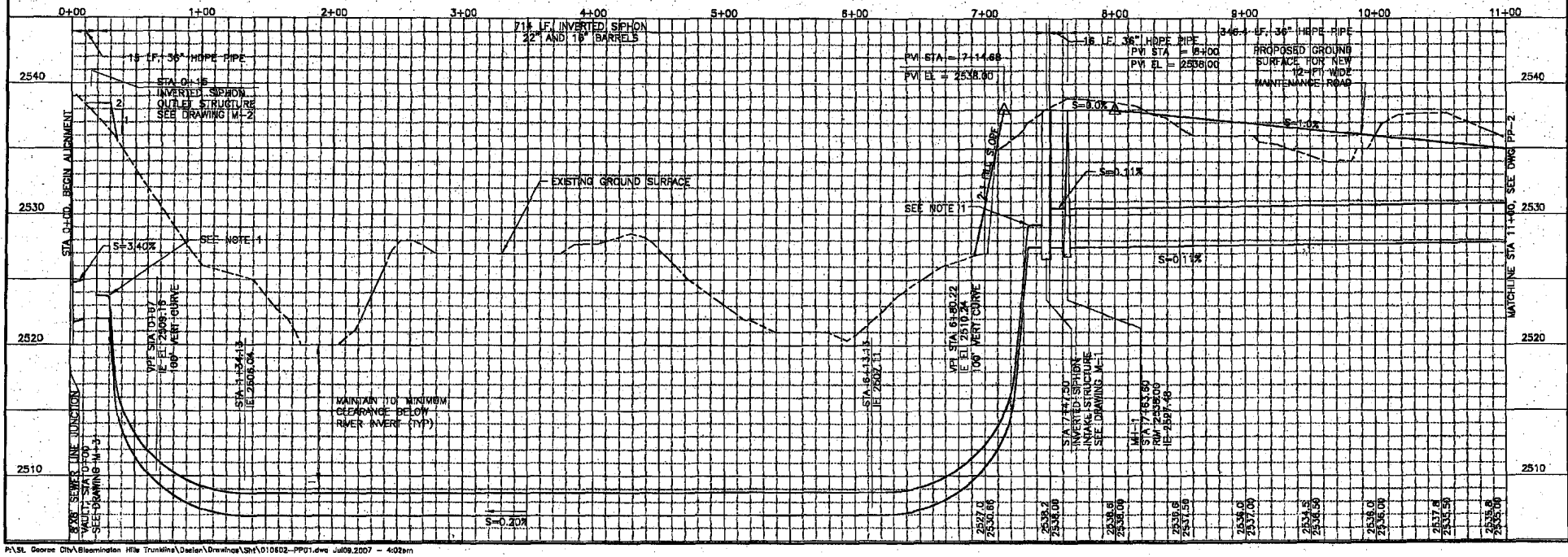


NOTES:

1. PVI STATIONING FOR THE INVERTED SIPHON IS REPRESENTATIVE. ACTUAL PVI OF THE SIPHON SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND THE ENGINEER



CITY OF ST. GEORGE

BLOOMINGTON HILLS SEWER LINE

PLAN & PROFILE - 1

DESIGN	M. CHANDLER	
DESIGN	P. COLOSIMO	
DRAWN		
DATE:	JULY 2007	
PROJECT NUMBER	01-06-02	

REVIEW
CHECKED K. SPIERS
APPROVED K. SPIERS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	BY	DESCRIPTION
			REVISIONS

DRAWING NO. PP-1

SHEET 4 OF 27

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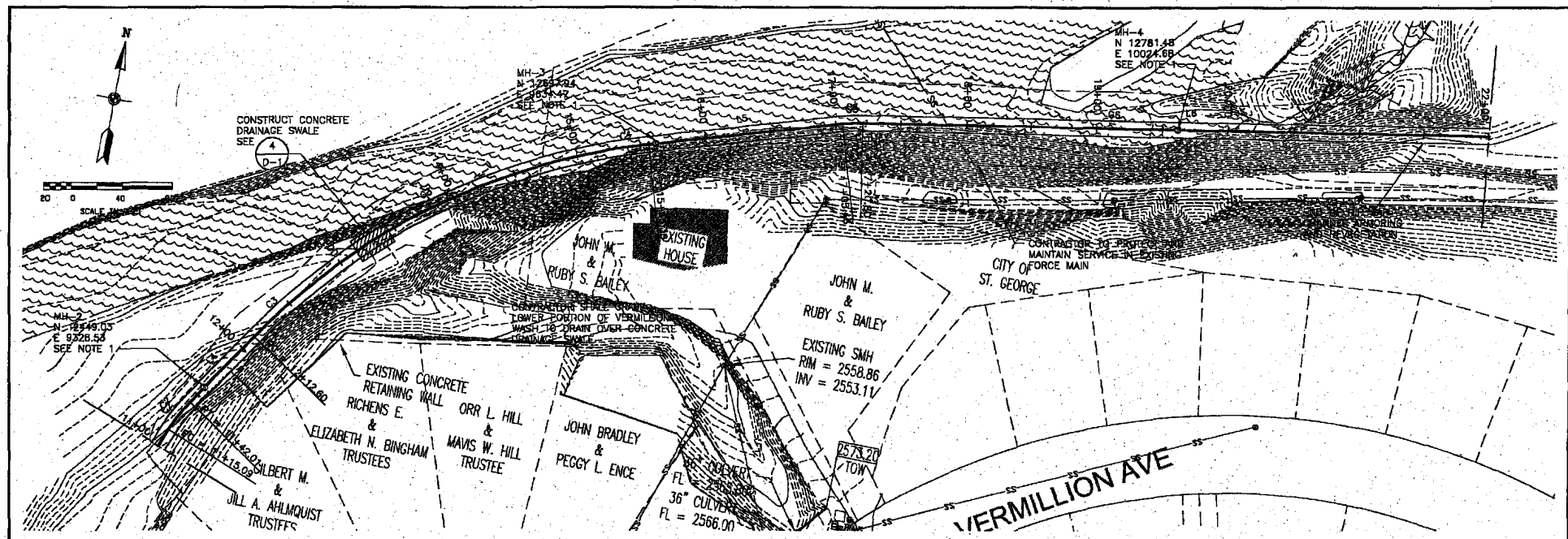

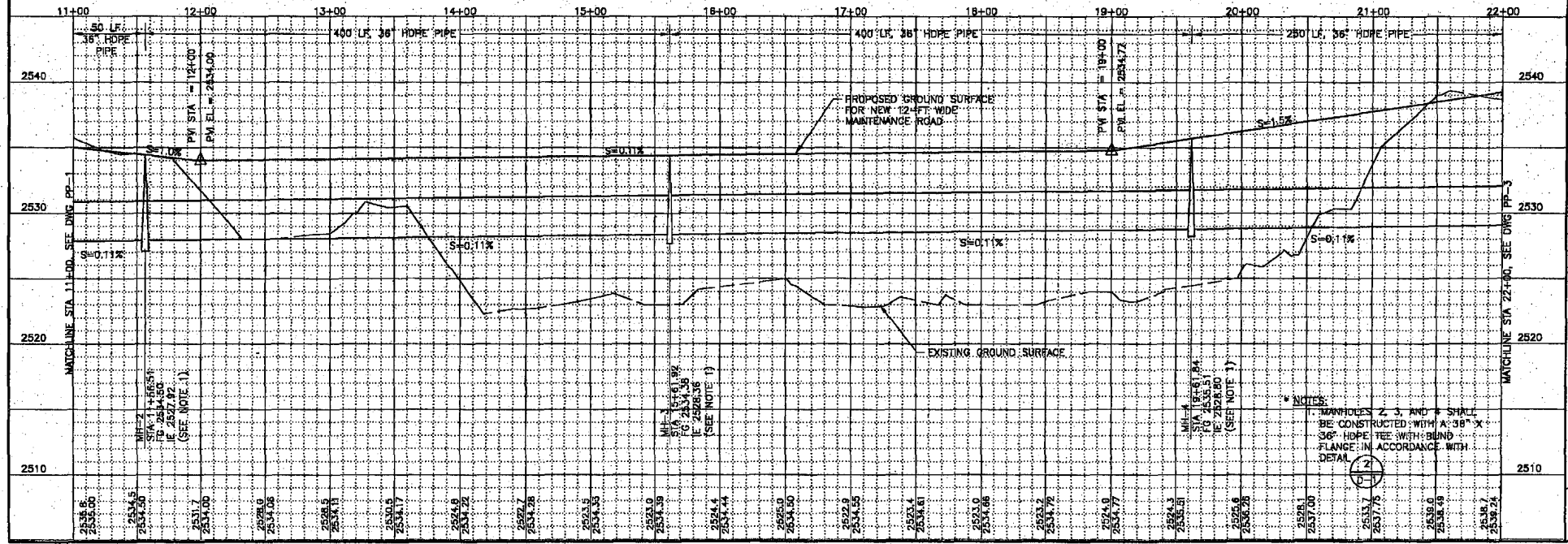

CITY OF ST. GEORGE

BLOOMINGTON HILLS SEWER LINE

PLAN & PROFILE – 2

DESIGN M. CHANDLER
DRAWN P. COLOSIMO
REVIEW CHECKED K. SPIERS APPROVED K. SPIERS

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DATE: JULY 2007
PROJECT NUMBER 01-06-02

DRAWING NO. PP-2
SHEET 5 OF 27

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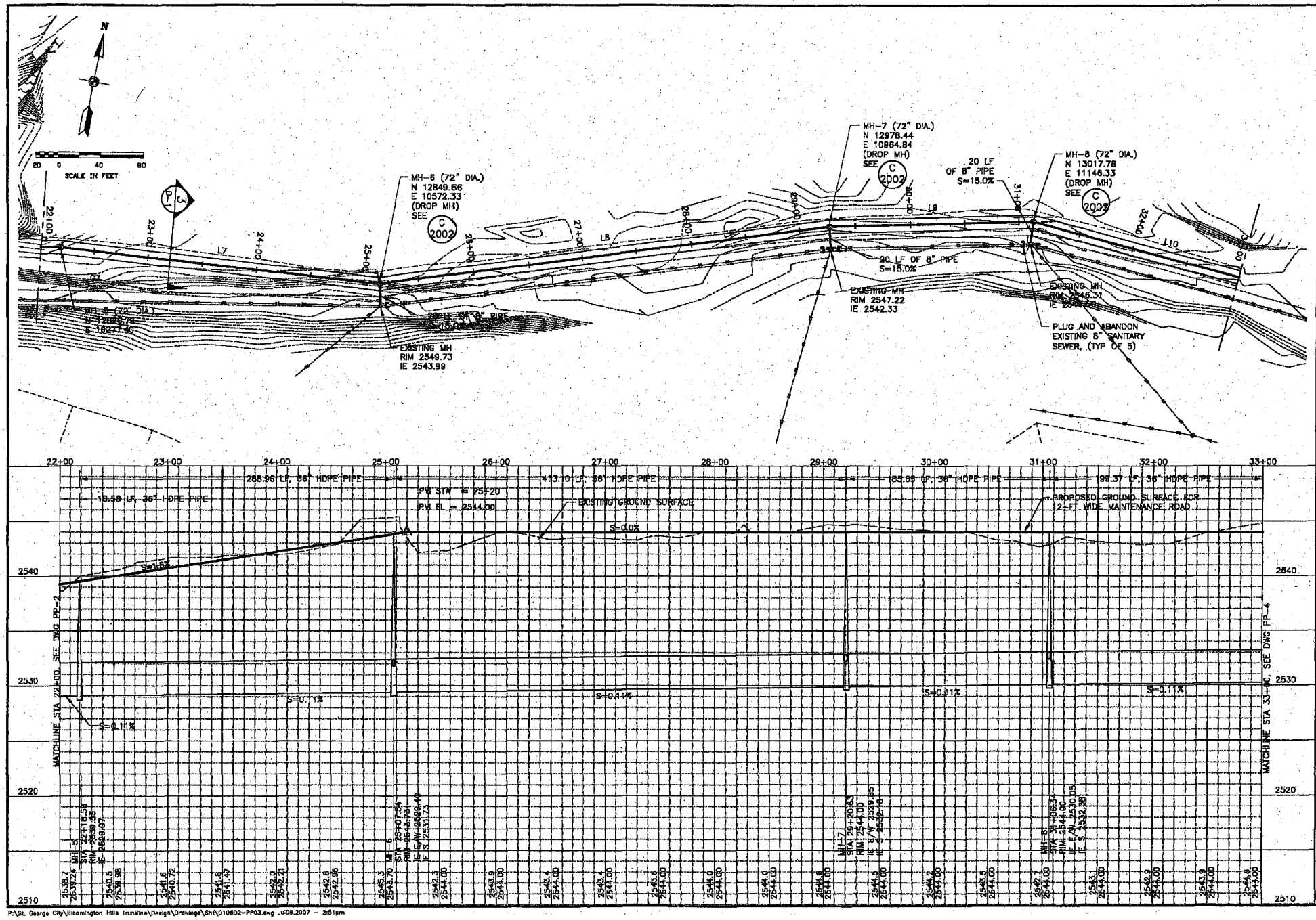

CITY OF ST. GEORGE

BLOOMINGTON HILLS SEWER LINE

PLAN & PROFILE - 3

DESIGN M. CHANDLER
DRAWN P. COLOSIMO
REVIEW
CHECKED K. SPIERS
APPROVED K. SPIERS

DATE: JULY 2007
PROJECT NUMBER 01-06-02

DRAWING NO. PP-3
SHEET 6 OF 27

VERIFY SCALE
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			REVISIONS

Bowen Collins & Associates, Inc. Consulting Engineers

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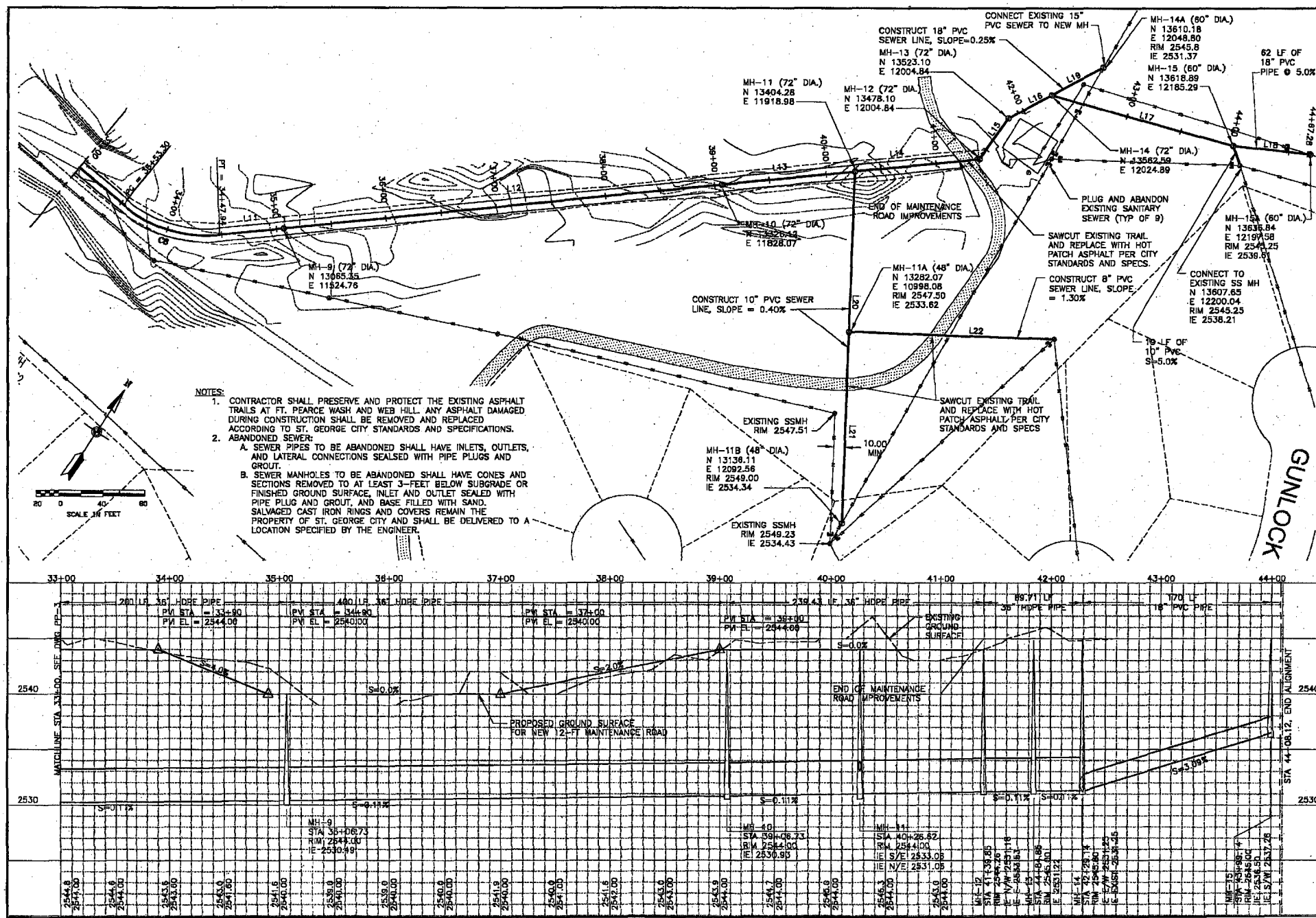

NOTES:

1. CONTRACTOR SHALL PRESERVE AND PROTECT THE EXISTING ASPHALT TRAILS AT FT. PEARCE WASH AND WEB HILL. ANY ASPHALT DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED ACCORDING TO ST. GEORGE CITY STANDARDS AND SPECIFICATIONS.
2. ABANDONED SEWER:
   A. SEWER PIPES TO BE ABANDONED SHALL HAVE INLETS, OUTLETS, AND LATERAL CONNECTIONS SEALSED WITH PIPE PLUGS AND GROUT.
   B. SEWER MANHOLES TO BE ABANDONED SHALL HAVE CONES AND SECTIONS REMOVED TO AT LEAST 3-FEET BELOW SUBGRADE OR FINISHED GROUND SURFACE, INLET AND OUTLET SEALED WITH PIPE PLUG AND GROUT, AND BASE FILLED WITH SAND. SALVAGED CAST IRON RINGS AND COVERS REMAIN THE PROPERTY OF ST. GEORGE CITY AND SHALL BE DELIVERED TO A LOCATION SPECIFIED BY THE ENGINEER.

CITY OF ST. GEORGE

BLOOMINGTON HILLS SEWER LINE

DESIGN M. CHANDLER
DRAWN P. COLOSIMO
REVIEW CHECKED K. SPIERS APPROVED K. SPIERS

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

NO.	DATE	REV. BY	DESCRIPTION

REVISIONS

PLAN & PROFILE - 4

DATE: JULY 2007
PROJECT NUMBER 01-06-02

DRAWING NO. PP-4
SHEET 7 OF 27

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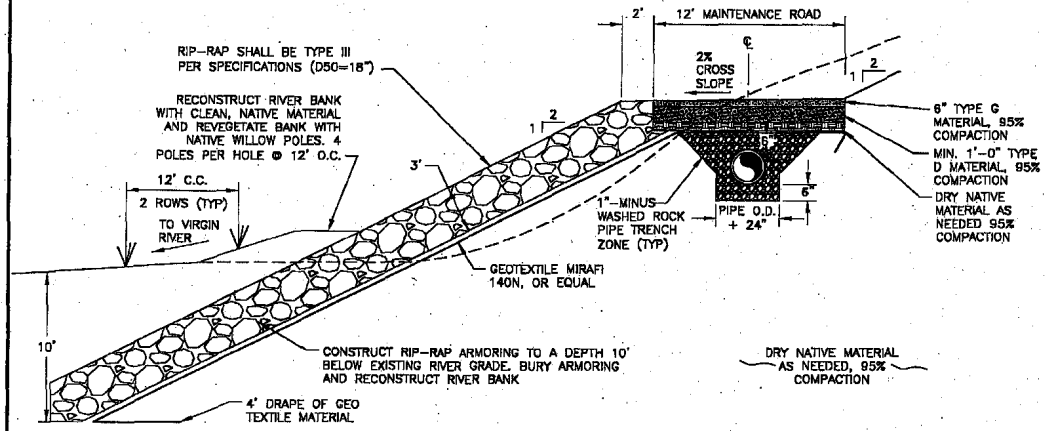
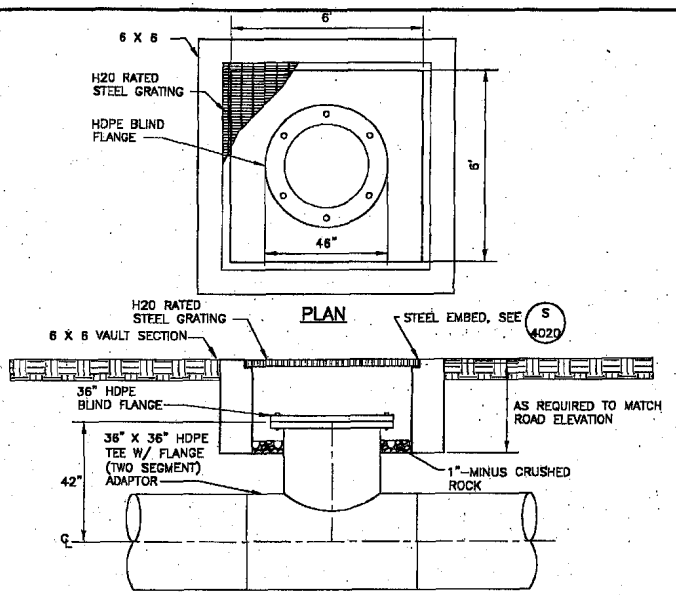
NOTES:

1. CONTRACTOR SHALL REMOVE ALL VEGETATION, TOP SOIL, AND LOOSE MATERIAL FROM PIPE CROSS SECTION AND USE MECHANICAL COMPACTION TO RAISE PIPE ZONE TO GRADE.

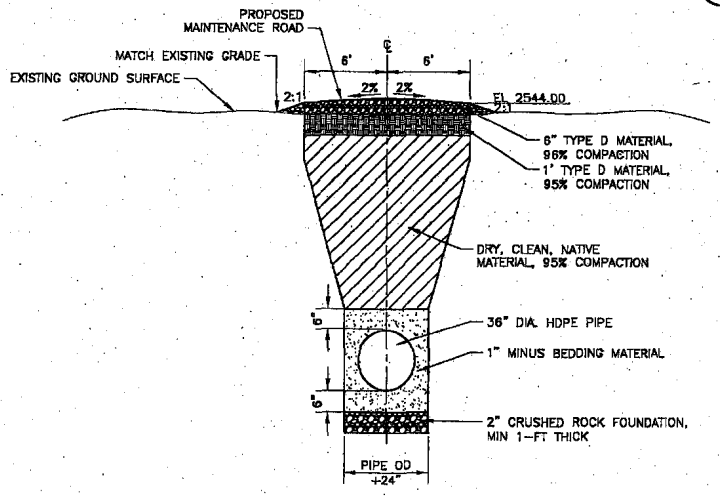




TYPICAL CROSS SECTION STA 8+00 TO 21+00 (1)

SCALE: 1/4" = 1'-0"

PP-1, PP-2



TYPICAL CROSS SECTION STA 22+00 TO LIFT STATION (3)

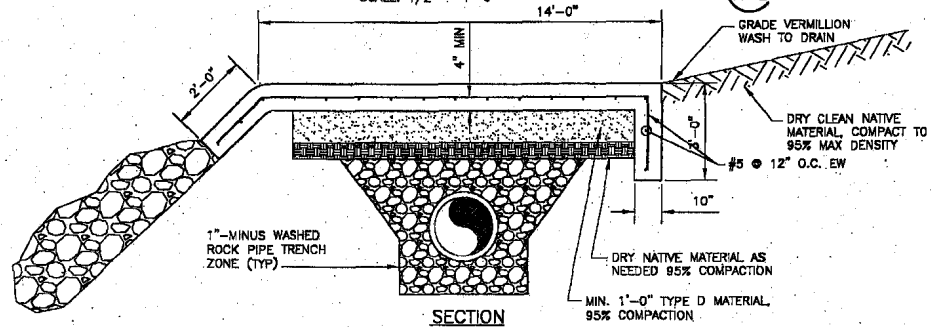
SCALE: NTS

PP-2, PP-3, PP-4

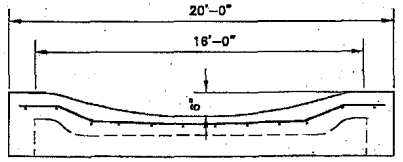
ACCESS MANHOLE DETAIL (2)

SCALE: 1/2" = 1'-0"

PP-2



SECTION



CROSS SECTION

CONCRETE DRAINAGE SWALE (4)

NTS

PP-2

CITY OF ST. GEORGE

BLOOMINGTON HILLS SEWER LINE

DETAILS - 1

DESIGN M. CHANDLER
DRAWN P. COLOSIMO
CHECKED K. SPIERS
APPROVED K. SPIERS
REVIEW

DATE: JULY 2007
PROJECT NUMBER 01-06-02

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

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SHEET 12 OF 27

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