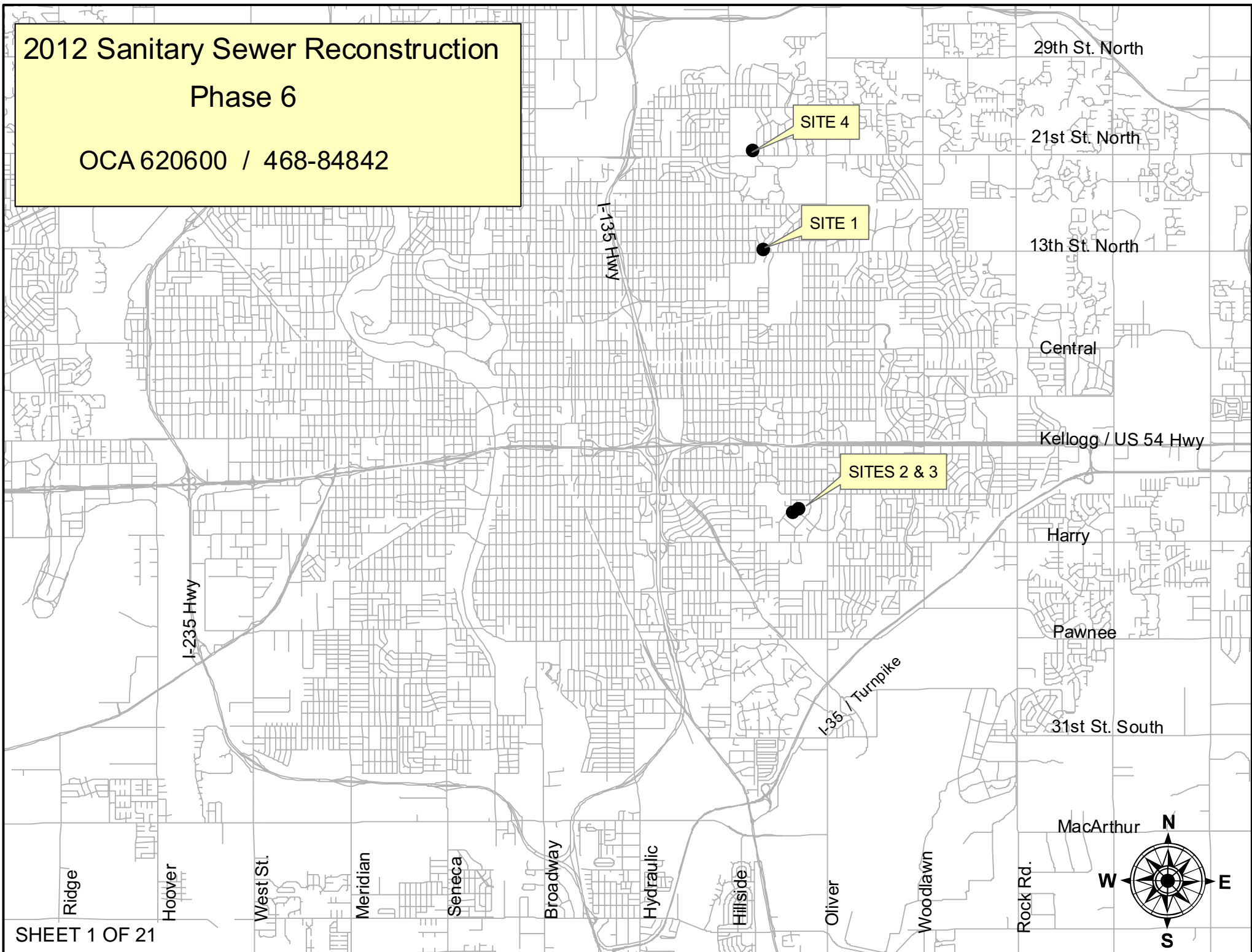


2012 Sanitary Sewer Reconstruction

Phase 6

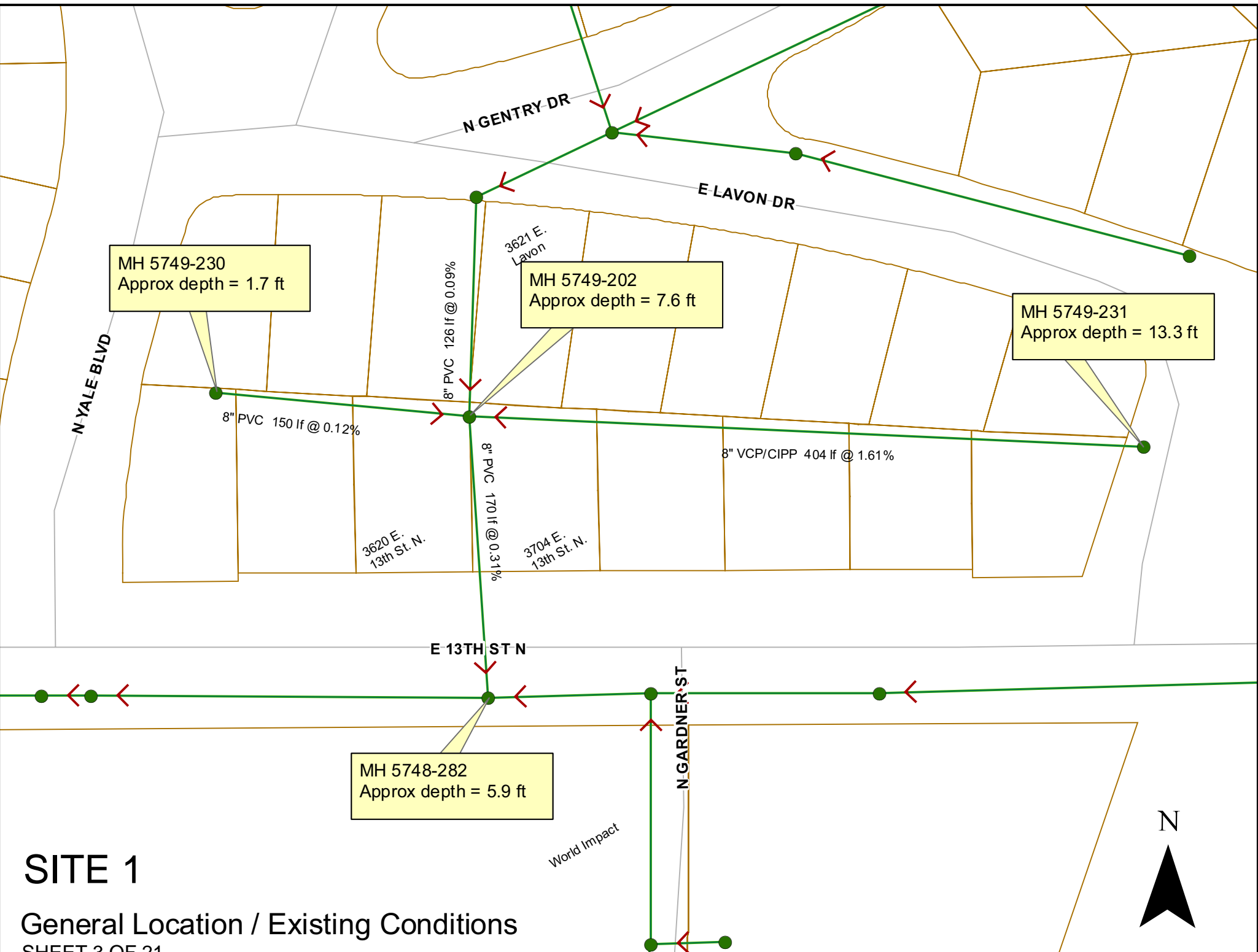
OCA 620600 / 468-84842



Bid Items by Site Reference

2012 Sanitary Sewer Reconstruction Phase 6

<u>Item</u>	<u>Site 1</u>	<u>Site 2</u>	<u>Site 3</u>	<u>Site 4</u>	<u>Totals</u>	
<u>LUMP SUM QUANTITIES:</u>						
Pipe Removed (6") (and associated cleanouts)		432	432		864	If
Pipe, SS 8"	12	432	432		876	If
Pipe Abandoned in Place				1	1	LS
MH Frame & Cover, Replaced		1	1		2	ea
MH, Shallow SS (4')		2	2		4	ea
MH, Standard SS (4')	1				1	ea
MH, Standard SS (5')	1				1	ea
MH Bench & Invert, Removed & Replaced	1				1	ea
Fill, Sand (Flushed & Vibrated)		31	46		77	If
Pavement &/or Curb Removed & Replaced		31	31		62	If
Concrete Sidewalk Removed & Replaced			4		4	If
Concrete Approach Removed & Replaced			11		11	If
Site Clearing					1	LS
Site Restoration					1	LS
<u>MEASURED QUANTITIES:</u>						
Sewer Service Reconnection (4")		17	18		35	ea
Sewer Service Reconnection (6")		1			1	ea
BMP, Silt Fence	40	60	60		160	If



MH 5749-230
Approx depth = 1.7 ft

MH 5749-202
Approx depth = 7.6 ft

MH 5749-231
Approx depth = 13.3 ft

MH 5748-282
Approx depth = 5.9 ft

SITE 1

General Location / Existing Conditions

MH 5749-202
Remove and Replace Manhole Bench & Invert
(reshape invert to better facilitate moving the flow
from the west through the manhole) (seal off the
pipe on east wall) Approx MH depth = 7.6 ft.

3621 E.
Lavon

MH 5749-204
Construct Standard Manhole (4' dia) over existing sanitary
sewer (locate it as close as possible to MH 5749-202)
(remove line to the west between the manholes)

MH 5749-140
Construct Standard Manhole (5' dia) over existing sanitary
sewer (locate it 10' to 12' south of MH 5749-202)
(manhole does not need a special lining inside)

Shed

Install approx 12 lf of 8" pipe between
MH 5749-204 and MH 5749-140.

3620 E.
13th St. N.

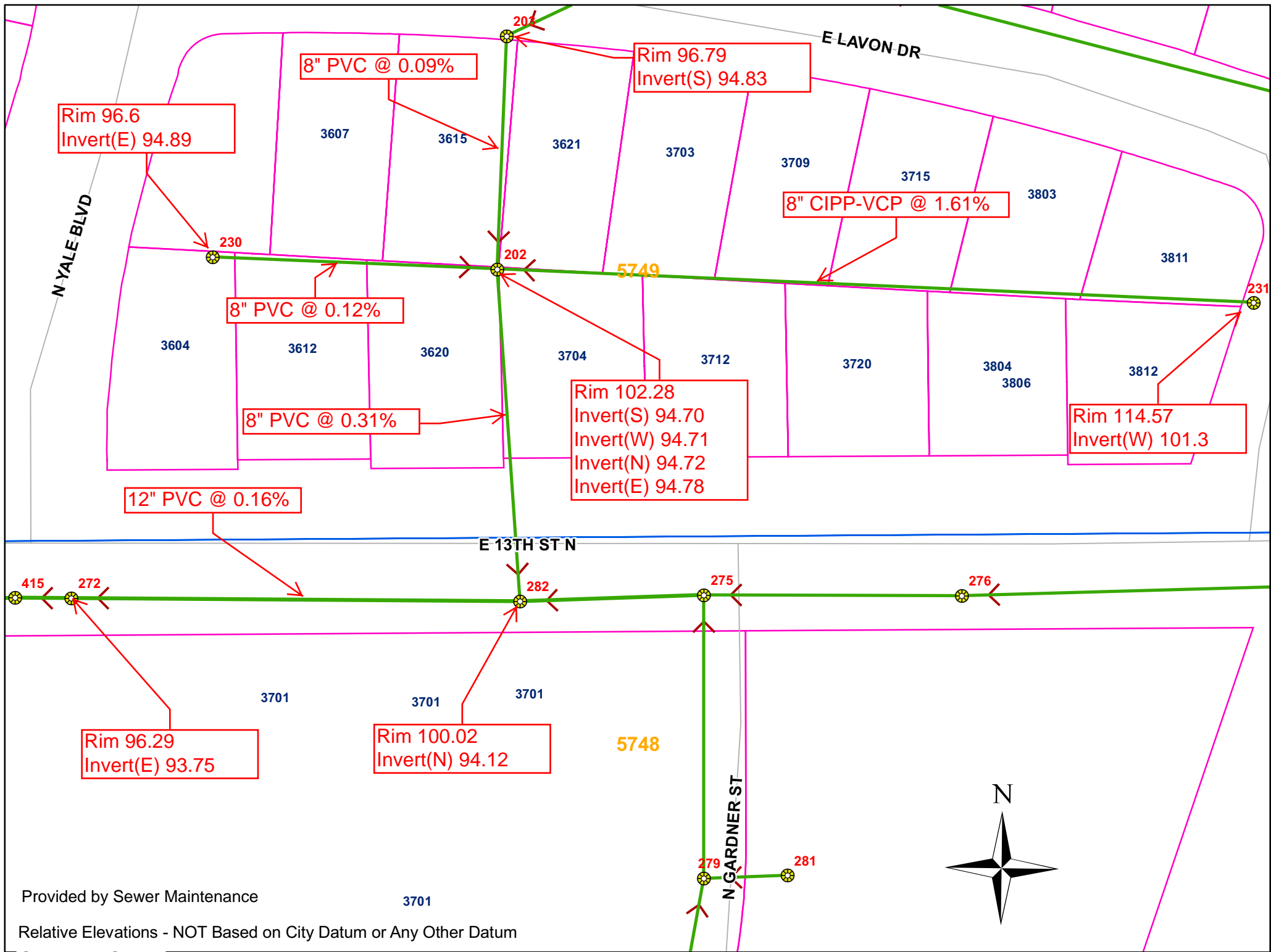
3704 E.
13th St. N.

Estimated 40 lf of Silt Fence
No taps

The homes west of MH 5749-202 experience backups, so the goal is to redirect flow and shape manhole inverts in a manner to correct that problem. MH 5749-140 is oversized to allow approx 18 inches between the two incoming pipes.
There is a 10' easement between 3620 and 3704 E. 13th Street, with 5 feet to either side of the property line. There is a 15' easement between 3704 E 13th and 3621 Lavon, with 7.5 feet to either side fo the property line.



13th Street North



Rim 96.6
Invert(E) 94.89

8" PVC @ 0.09%

Rim 96.79
Invert(S) 94.83

8" PVC @ 0.12%

8" CIPP-VCP @ 1.61%

8" PVC @ 0.31%

Rim 102.28
Invert(S) 94.70
Invert(W) 94.71
Invert(N) 94.72
Invert(E) 94.78

Rim 114.57
Invert(W) 101.3

12" PVC @ 0.16%

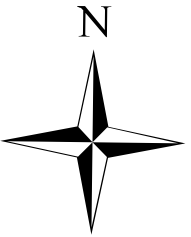
Rim 96.29
Invert(E) 93.75

Rim 100.02
Invert(N) 94.12

Provided by Sewer Maintenance

Relative Elevations - NOT Based on City Datum or Any Other Datum

SHEET 5 OF 21



Pipe Reaming will be allowed as an alternate method of pipe removal and installation, with no change to the contract amount.

Estimated 17 Service Reconnections (4")
Estimated 1 Service Reconnection (6")
Estimated 60 lf of Silt Fence

Cleanout 5746-101
(cleanout was not found)
(depth unknown)
Construct Shallow Manhole

Remove 207 lf of 6" Pipe
(and the cleanout assembly)
Install 207 lf of 8" Pipe

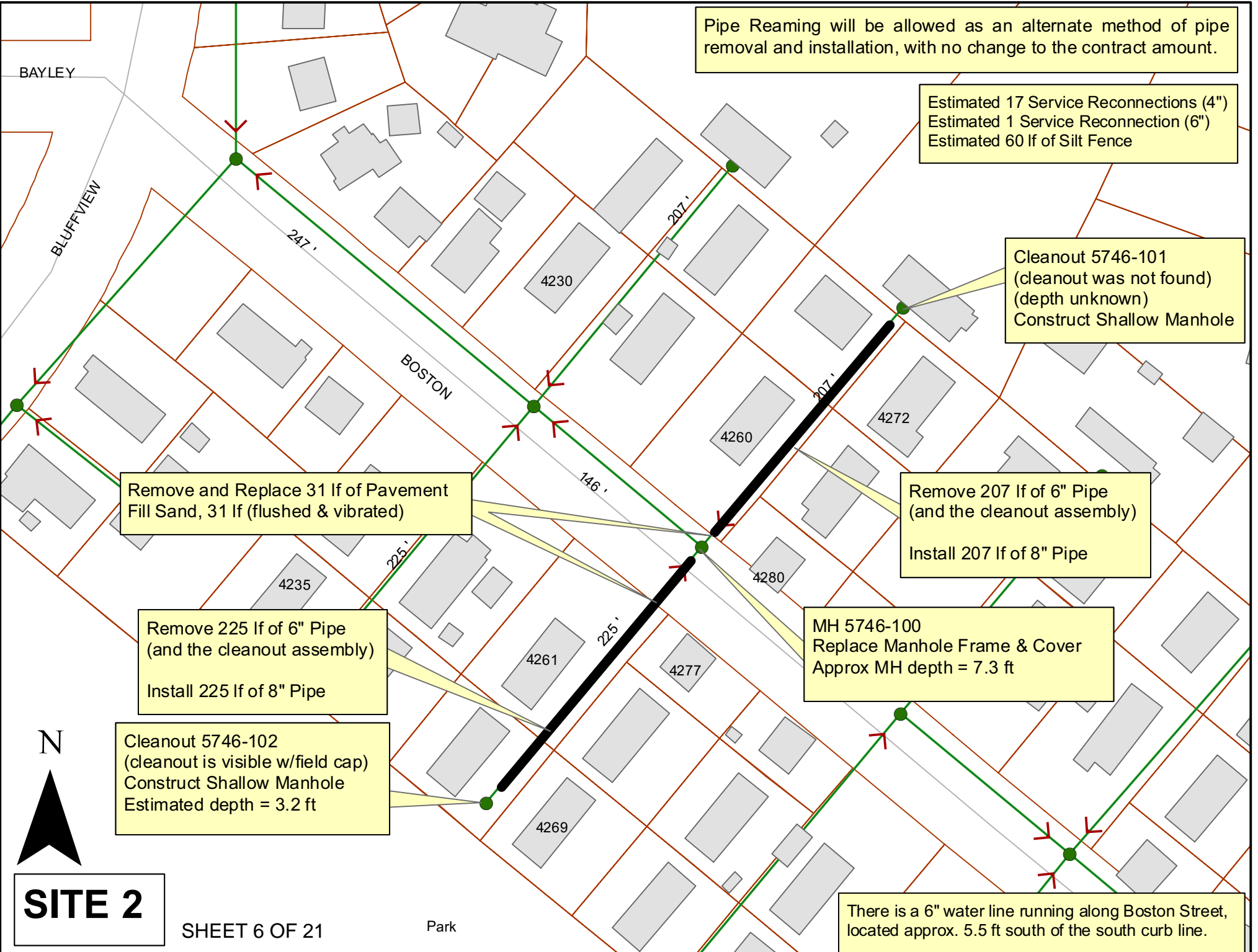
MH 5746-100
Replace Manhole Frame & Cover
Approx MH depth = 7.3 ft

Remove and Replace 31 lf of Pavement
Fill Sand, 31 lf (flushed & vibrated)

Remove 225 lf of 6" Pipe
(and the cleanout assembly)
Install 225 lf of 8" Pipe

Cleanout 5746-102
(cleanout is visible w/field cap)
Construct Shallow Manhole
Estimated depth = 3.2 ft

There is a 6" water line running along Boston Street,
located approx. 5.5 ft south of the south curb line.



SITE 2

SHEET 6 OF 21

Park



Video Inspection Master Report

7/13/2012

1:54 PM

US Structure: **5746-101CO** 4268 E BOSTON CT Date Insp: 3/21/2012 Basin: EC01C
 DS Structure: **5746-100** 4260 E BOSTON ST Dir Televised: Downstream To Upstream

Pipe Information

Shape: Round Length Status: Project No. : I-005
 Dia/Ht: 6 Material: VCP Index:
 Length: 207.5 Slope: 0.580

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings		Remain (gpm)
							Est. (gpm)	Struct Clean	
1		0.0	4260 EAST BOSTON	DS Manhole 5746-100	1	(located in the grass)			
2		29.4	4280 EAST BOSTON	Wye Service	3				
3		71.8	4260 EAST BOSTON	Wye Service	4				
4		71.8	4276-78 EAST BOSTON	Wye Service	2				
5		106.3	4262 EAST BOSTON	Wye Service	3				
6		106.3	4276-78 EAST BOSTON	Wye Service	4				
7		111.5		Roots	3				
8		119.0		Roots	3				
9		124.2		Broken Pipe	3				
10		148.4	4264-66 EAST BOSTON	Wye Service	4				
11		148.6	4272-74 EAST BOSTON	Wye Service	2				
12		156.9	Offset Joint & Pipe Missing		3				
13		157.5	Camera cannot pass offset	Stopped Inspection	3				

Pipe needs upsized to 8"

All wyes are full of roots



Video Inspection Master Report

7/13/2012

1:54 PM

US Structure: **5746-102CO** 4267 E BOSTON AVE Date Insp: 3/21/2012 Basin: EC01C
 DS Structure: **5746-100** 4260 E BOSTON ST Dir Televised: Downstream To Upstream

Pipe Information

Shape: Round Length Status: Project No. : I-005
 Dia/Ht: 6 Material: VCP Index:
 Length: 223.7 Slope: 0.580 Surface:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	

1		0.0		5746-100 DS Manhole	1					
---	--	-----	--	---------------------	---	--	--	--	--	--

2		53.1		Stopped Inspection	4					
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At this point, the pipe defects upward at a slope too great for the camera to crawl up the pipe.

Incomplete televising.

5746-102CO (cleanout) is visible

Pipe Reaming will be allowed as an alternate method of pipe removal and installation, with no change to the contract amount.

Cleanout 5746-103
(cleanout was not found)
(depth unknown)
Construct Shallow Manhole

Remove 207 lf of 6" Pipe
(and the cleanout assembly)
Install 207 lf of 8" Pipe

MH 5746-099
Replace Manhole Frame & Cover
Approx MH depth = 7.1 ft

Estimated 18 Service Reconnections (4")
Estimated 60 lf of Silt Fence

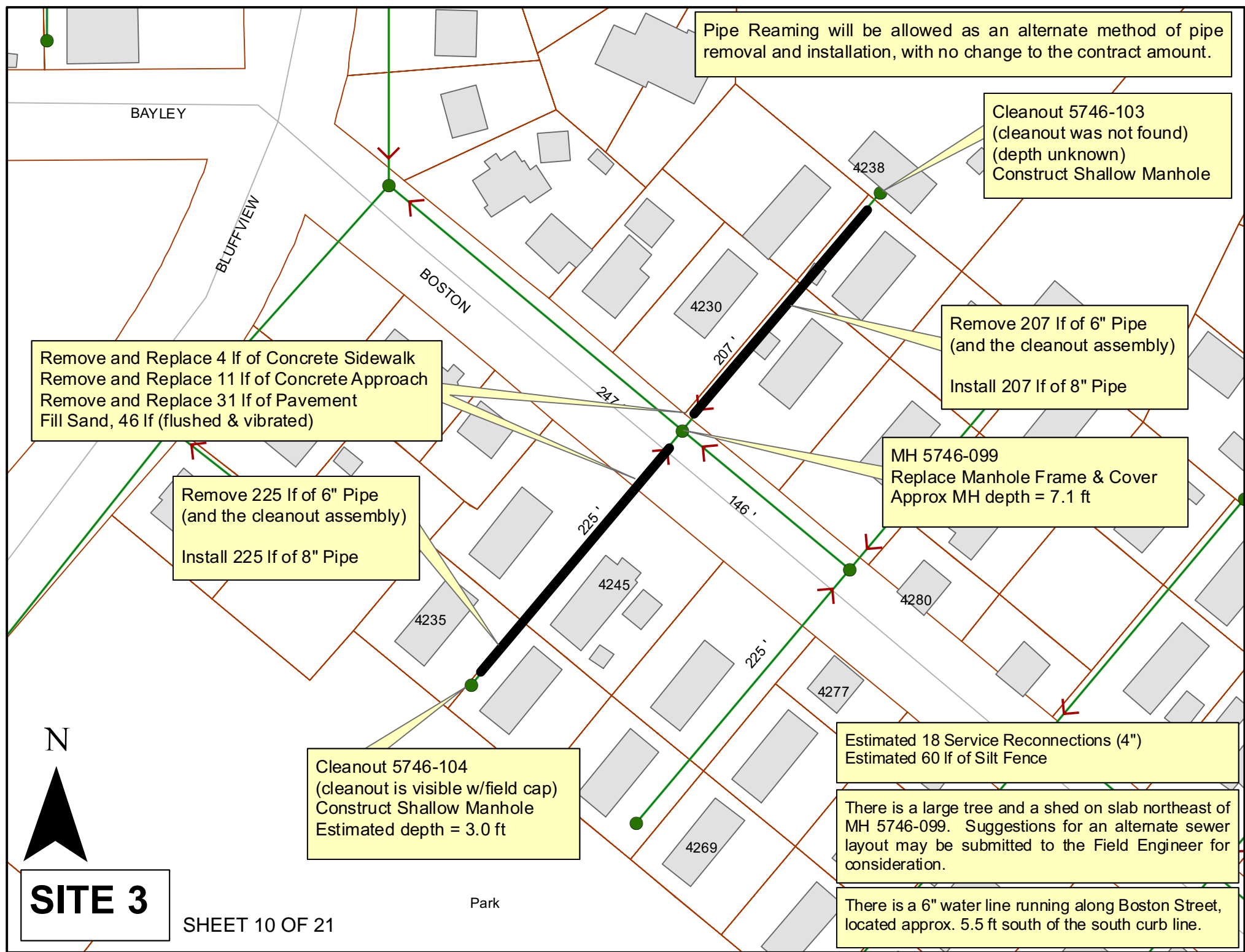
There is a large tree and a shed on slab northeast of MH 5746-099. Suggestions for an alternate sewer layout may be submitted to the Field Engineer for consideration.

There is a 6" water line running along Boston Street, located approx. 5.5 ft south of the south curb line.

Remove and Replace 4 lf of Concrete Sidewalk
Remove and Replace 11 lf of Concrete Approach
Remove and Replace 31 lf of Pavement
Fill Sand, 46 lf (flushed & vibrated)

Remove 225 lf of 6" Pipe
(and the cleanout assembly)
Install 225 lf of 8" Pipe

Cleanout 5746-104
(cleanout is visible w/field cap)
Construct Shallow Manhole
Estimated depth = 3.0 ft



N
SITE 3

Park





Video Inspection Master Report

7/13/2012

1:54 PM

US Structure: 5746-103CO 4240 E BOSTON CT Date Insp: 3/22/2012 Basin: EC01C
 DS Structure: 5746-099 4248 E BOSTON ST Dir Televised: Downstream To Upstream

Pipe Information

Shape: Round Length Status: Project No. : I-005
 Dia/Ht: 6 Material: VCP Index:
 Length: 207.7 Slope: 0.580 Surface:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings		Remain (gpm)
							Est. (gpm)	Struct Clean	
1		0.0		5746-099 DS Manhole	1				
2		9.3		Roots	4				
3		11.2		Roots	3				
4		21.2		Roots	3				
5		41.6		Roots	4				
6		46.1		Roots	3				
7		49.0		Roots	3				
8		51.3		Roots	3				
9		53.6		Roots	3				
10		61.3		Roots	3				
11		64.1		Roots	3				
12		68.0		Other	0				
13		72.1	4230 EAST BOSTON	Wye Service	4				
14		72.1	4246 EAST BOSTON	Wye Service	4				
15		106.5	4232 EAST BOSTON	Wye Service	3				
16		106.5	4248 EAST BOSTON	Wye Service	2				
17		132.7		Broken Pipe	2				
18		148.8	4244 EAST BOSTON	Wye Service	1				
19		149.0	4234 EAST BOSTON	Wye Service	4				
20		158.2		Stopped Inspection	5				Camera slipping, can't continue

Incomplete televising

All wyes are full of roots



Video Inspection Master Report

7/13/2012

1:54 PM

US Structure: 5746-104CO **4239 E BOSTON ST** **Date Insp:** 3/21/2012 **Basin:** EC01C
DS Structure: 5746-099 **4248 E BOSTON ST** **Dir Televised:** Downstream To Upstream

Pipe Information

Shape: Round **Length Status:** **Project No. :** I-005
Dia/Ht: 6 **Material:** VCP **Index:**

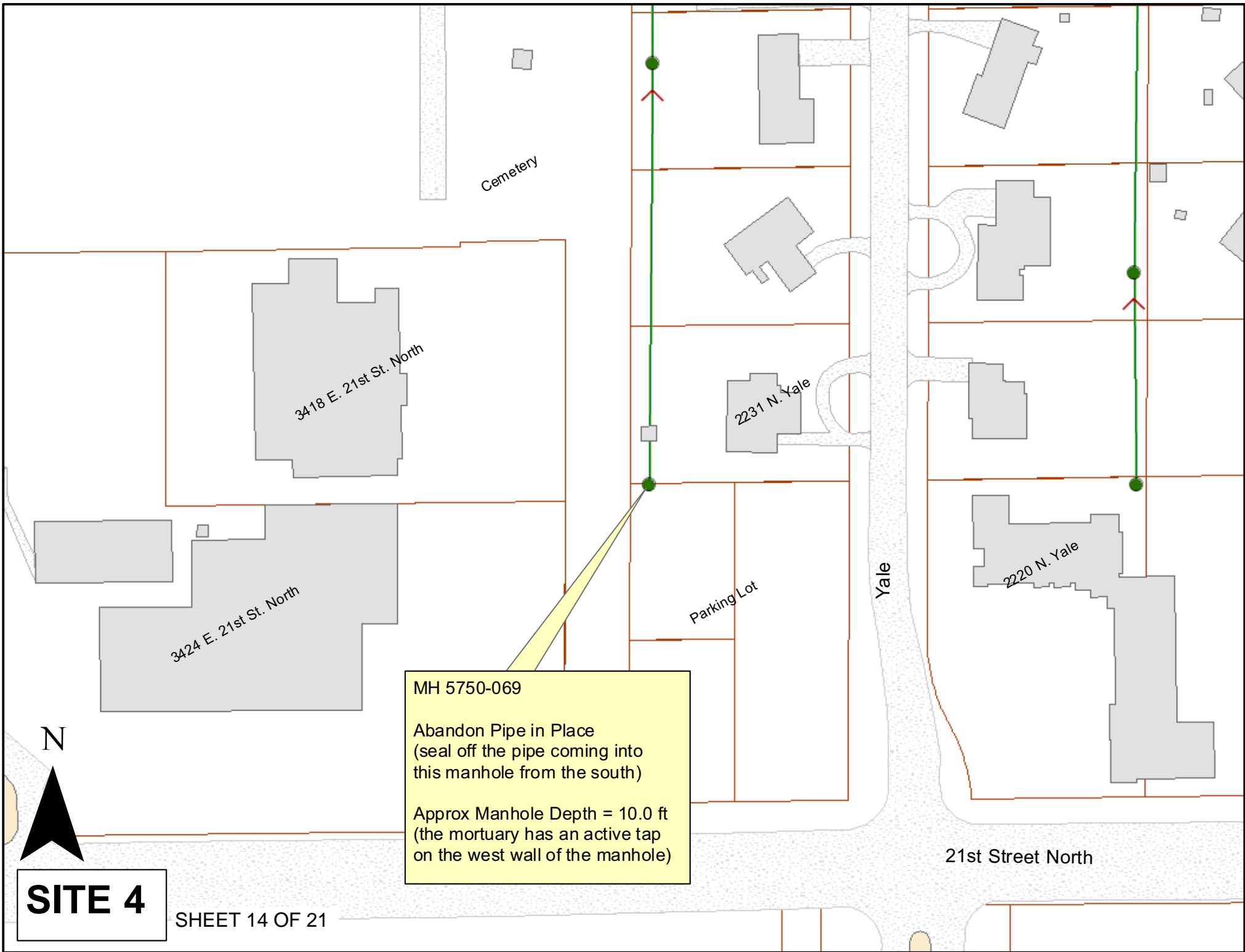
Length: 228.8 **Slope:** 0.580 **Surface:**

Obs. #	VTR Counter	Distance	Location	Description	Rating	Ratings			
						Obsrvd (gpm)	Est. (gpm)	Struct Clean	Remain (gpm)
1		11.6		5746-099 DS Manhole	1	(pipe gone at manhole wall?)			
2		6.0		Broken Pipe	3				
3		20.1		Broken Pipe	3				
4		70.5		Broken Pipe	3				
5		72.0	pipe missing in all quadrants	Broken Pipe	5				
6		90.9		Crack-Radial	3				
7		113.0	4243-45 EAST BOSTON	Wye Service	3				
8		113.0	4231-33 EAST BOSTON	Wye Service	4				
9		135.4		Broken Pipe	3				
10		149.4	4243 EAST BOSTON	Wye Service	3				
11		149.4	4233 EAST BOSTON	Wye Service	3				
12		190.8	4235 EAST BOSTON	Wye Service	3				
13		191.0	4241 EAST BOSTON	Wye Service	3				
14		217.8		Broken Pipe	3				
15		222.2		Broken Pipe	3				
16		224.7	4237 EAST BOSTON	Wye Service	4				
17		224.7	4241 EAST BOSTON	Wye Service	5				
18		225.3	HUGE BALL OF ROOTS/	US Cleanout 5746-104CO	1				

US Cleanout 5746-104CO is visible

Pipe has poor grade / needs upsized to 8"

All wyes are full of roots



MH 5750-069
Abandon Pipe in Place
(seal off the pipe coming into
this manhole from the south)

Approx Manhole Depth = 10.0 ft
(the mortuary has an active tap
on the west wall of the manhole)

N



SITE 4

SHEET 14 OF 21

Cemetery

3418

2231

N YALE AVE

2220

3424

Location

E 21ST ST N

N YALE ST

WSU

