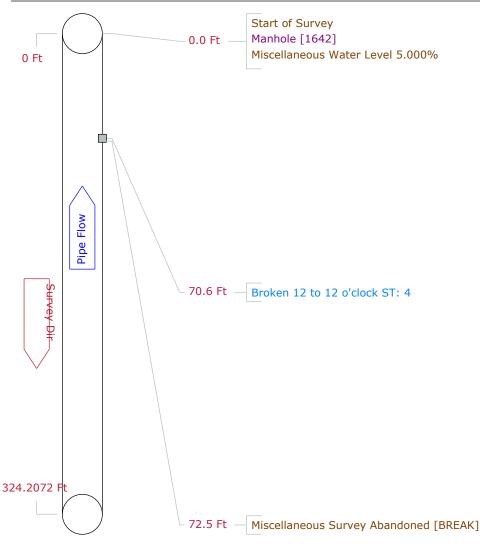
## Arch Ave. (in grass at Dow) - Spot Replacement - MH1643 to 1643

Pipe Graphic Report of PLR 3664 for Hillsdale Setup 516/5 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer **Media Label Project SANITARY** Date 2021/06/07 Time 18:08 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Upstream Street ARCH AVE City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 324.2 Ft Structural O & M Ft 72.50 Ft Year Constructed Miscellaneous **Length Surveyed** Year Renewed Constructional Additional info Up 1643 Rim to invert Grade to invert Rim to grade Ft 1642 Rim to invert **Grade to invert** Rim to grade Ft Down





Taplin Group LLC Phone: 269-375-9595

Tabular Report o	of PSR 3664			for	Н	lillsdale				
Setup 516	Surveyed By A	GS	(	Certificate #	U6140	6021126		Ov	vner	
Reviewed By		Rev	iewer #			Work	Order			
Customer							P/C	) #		
Media Label		Project	SANITARY							
Date 2021/06/07	Time 18	:08	Weather	Dry - no Preci	pitatio <b>F</b>	Pre-Clean	ing N		Date Clean	ed
Flow control		Surve	y Purpose						Direction Up	
Inspection Status	Complete Insp	ection	Cons	sequence Of	Failur	е	Press	sure		
Inspection Techno	ology Used	□ сстv	Laser	☐ Sonar		Sidewall	☐ Zo	om	☐ Other	
Street ARCH AVE				City +	HILLSD	ALE		Dra	inage area	
<b>Location Code</b>						Pipe	Use S	Sanita	ary Sewage Pipe	
Location details						Heig	ht 8	Wie	dth ins	
Shape Circular		Mat	erial Vitrifie	ed Clay Pipe		Linin	g			
Coating			Pipe Joii	nt length	Ft	Total le	ngth 32	24.2	Ft	
Length Surveyed	72.5	Ft Year Co	onstructed	Year F	Renew	ed				
<b>Up</b> 1643		1	Rim to inver	t	Grad	e to inver	t		Rim to grade	- Ft
Northing				Easting			E	Eleva	tion	
<b>Down</b> 1642		1	Rim to inver	t	Grad	e to inver	t		Rim to grade	- Ft
Northing				Easting			E	Eleva	tion	
Coordinate System	m					Ve	rtical D	atun	1	
<b>GPS Accuracy</b>									Structural	O & M
Additional info									Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								1642
0.0		MWL	Miscellaneous Water Level			5.000					
70.6		В	Broken				J	12	12		
72.5		MSA	Miscellaneous Survey Abandoned								BREAK

72.5 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 4	Pipe Ratings Index 4	Quick Rating 4100
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 4	Pipe Ratings Index 4.0	Quick Rating 4100



O & M

Setup 517/5 Surveyed By AGS Certificate # U61406021126 Owner

Reviewed By Reviewer # Work Order

Customer P/O #

Media Label Project SANITARY

Date 2021/06/07Time 18:15Weather Dry - no PrecipitatioPre-Cleaning NDate CleanedFlow controlSurvey PurposeDirection Downstream

Street ARCH AVE City HILLSDALE Drainage area

Location CodePipe UseSanitary Sewage PipeLocation detailsHeight 8Width ins

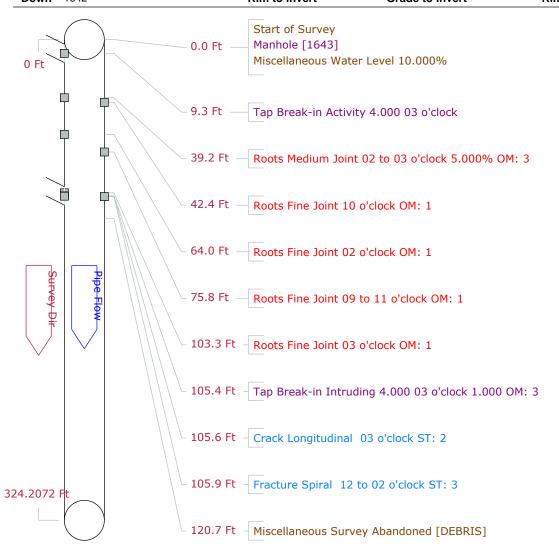
Shape Circular Material Vitrified Clay Pipe Lining

Coating Pipe Joint length Ft Total length 324.2 Ft Structural

Length Surveyed 120.70 Ft Year Constructed Year Renewed Miscellaneous Constructional

Additional info Reverse set up on sheet:451

Up	1643	Rim to invert	Grade to invert	Rim to grade	Ft
Down	1642	Rim to invert	Grade to invert	Rim to grade	Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report of PSR 3664	for	Hillsdale
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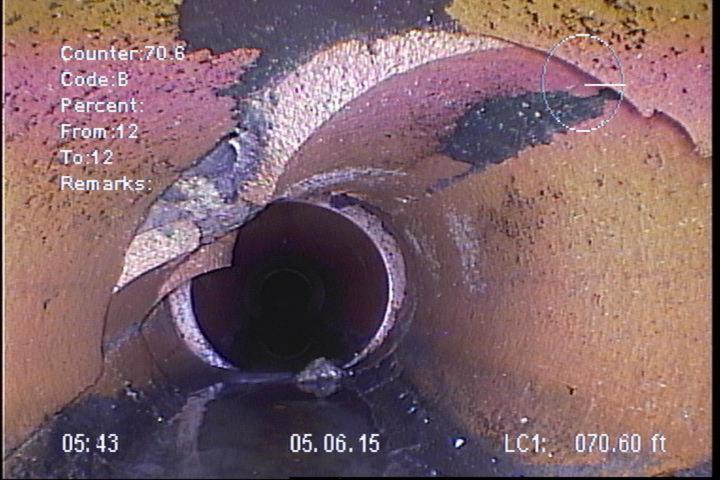
Setup 517 Surv	veyed By AGS	Certificate # U	61406021126 <b>O</b> v	wner	
Reviewed By	Revi	ewer #	Work Order		
Customer			P/O #		
Media Label	Project S	SANITARY			
Date 2021/06/07	<b>Time</b> 18:15	Weather Dry - no Precipi	tatio <b>Pre-Cleaning</b> N	Date Cleane	ed
Flow control	Surve	y Purpose		<b>Direction</b> Dow	n
Inspection Status C	Complete Inspection	Consequence Of Fa	ailure Pressure		
Inspection Technolog	y Used ☐ CCTV	☐ Laser ☐ Sonar	Sidewall Zoom	☐ Other	
Street ARCH AVE	·	City HIL	LSDALE <b>D</b> r	ainage area	
<b>Location Code</b>			Pipe Use Sanit	ary Sewage Pipe	
Location details			Height 8 Wi	dth ins	
Shape Circular	Mate	erial Vitrified Clay Pipe	Lining		
Coating		Pipe Joint length	Ft Total length 324.2	Ft	
Length Surveyed	120.7 Ft Year Co	nstructed Year Re	newed		
<b>Up</b> 1643	F	Rim to invert (	Grade to invert	Rim to grade	Ft
Northing		Easting	Eleva	ation	
<b>Down</b> 1642	F	Rim to invert (	Grade to invert	Rim to grade	Ft
Northing		Easting	Eleva	ation	
Coordinate System			Vertical Datur	n	
<b>GPS Accuracy</b>				Structural	O & M
Additional info	Reverse set up on sheet	:451		Miscellaneous	Constructional

Count Video	CD Code		Val1	Val2	% .	Jnt	Fr	То	ImRef	Remarks
0.0	ST Start o	f Survey								
0.0	AMH Manho	le								1643
0.0	MWL Miscell	aneous Water Level			10.000					
9.3	TBA Tap Br	eak-in Activity	4.000				03			
39.2	RMJ Roots	Medium Joint			5.000	J	02	03		
42.4	RFJ Roots	Fine Joint				J	10			
64.0	RFJ Roots	Fine Joint				J	02			
75.8	RFJ Roots	Fine Joint				J	09	11		
103.3	RFJ Roots	Fine Joint				J	03			
105.4	TBI Tap Br	eak-in Intruding	4.000	1.000			03			
105.6	CL Crack	Longitudinal				J	03			
105.9	FS Fractu	re Spiral				J	12	02		
120.7	MSA Miscell	aneous Survey Abandoned								DEBRIS

120.7 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 5	Pipe Ratings Index 2.5	Quick Rating 3121
	O&M:	Pipe Rating 10	Pipe Ratings Index 1.7	Quick Rating 3214
	Overall	Pipe Rating 15	Pipe Ratings Index 1.9	Quick Rating 3321







## Buena Vista Dr. - Spot Replacement - MH2235 to 2234

for

Miscellaneous

Constructional

Pipe Graphic Report of PLR 4331 Hillsdale Setup 469/4 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/06/01 Time 12:21 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning N Flow control **Survey Purpose Direction** Downstream

Street BUENA VISTA DR City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use

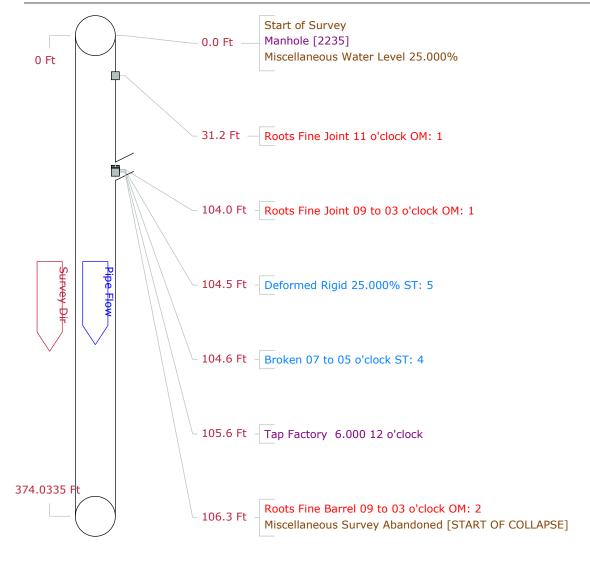
Location details Height 8 Width ins

Shape Circular Material Vitrified Clay Pipe Lining

Coating **Pipe Joint length** Total length 374.0 Structural O & M Ft

Length Surveyed 106.30 Ft Year Constructed Year Renewed Additional info

Up 2235 Rim to invert Grade to invert Rim to grade Ft 2234 Rim to invert Grade to invert Rim to grade Ft Down





**Taplin Group LLC** Phone: 269-375-9595

Tabular Report of PSR	4331	for	Hillsdale

Setup 469 Surveyed By	AGS	Certificate # U6140	6021126 <b>O</b> v	vner		
Reviewed By	Reviewer #		Work Order			
Customer			P/O #			
Media Label	Project SANITARY					
<b>Date</b> 2021/06/01 <b>Time</b> 1	2:21 Weather	r Dry - no PrecipitatioP	re-Cleaning N	Date Cleaned		
Flow control	Survey Purpose			<b>Direction</b> Down		
Inspection Status Complete Ins	spection Con	sequence Of Failure	e Pressure			
Inspection Technology Used	CCTV Laser	☐ Sonar ☐ S	idewall 🗌 Zoom	☐ Other		
Street BUENA VISTA DR		City HILLSD/	ALE Dra	ainage area		
Location Code			Pipe Use Sanita	ary Sewage Pipe		
Location details			Height 8 Wi	dth ins		
Shape Circular	Material Vitrifi	ied Clay Pipe	Lining			
Coating	Pipe Jo	int length Ft	Total length 374.0	Ft		
Length Surveyed 106.3	Ft Year Constructed	Year Renewe	ed			
<b>Up</b> 2235	Rim to inve	rt Grade	e to invert	Rim to grade	Ft	
Northing		Easting	Eleva	ition		
<b>Down</b> 2234	Rim to inve	rt Grade	e to invert	Rim to grade	Ft	
Northing		Easting	Eleva	ition		
Coordinate System			Vertical Datum	n		
GPS Accuracy				Structural	O & M	
Additional info				Miscellaneous	Constructional	

Count Video	CD Code		Val1	Val2	% .	Jnt	Fr	То	ImRe	f Remarks
0.0	ST	Start of Survey								
0.0	AMH	Manhole								2235
0.0	MWL	Miscellaneous Water Level			25.000					
31.2	RFJ	Roots Fine Joint				J	11			
104.0	RFJ	Roots Fine Joint				J	09	03		
104.5	DR	Deformed Rigid			25.000					
104.6	В	Broken				J	07	05		
105.6	TF	Tap Factory	6.000				12			
106.3	RFB	Roots Fine Barrel					09	03		
106.3	MSA	Miscellaneous Survey Abandoned								START OF COLLAPSE

106.3 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 9	Pipe Ratings Index 4.5	Quick Rating 5141
	O&M:	Pipe Rating 4	Pipe Ratings Index 1.3	Quick Rating 2112
	Overall	Pipe Rating 13	Pipe Ratings Index 2.6	Quick Rating 5141

Pipe Graphic Report of PLR 4331

for

Hillsdale

P/O #

Miscellaneous

Constructional

Setup 470/4 Surveyed By AGS

Certificate # U61406021126 Owner

Reviewed By Reviewer # Work Order

Customer P/C

Media Label Project SANITARY

Date 2021/06/01Time 12:33Weather Dry - no PrecipitatioPre-Cleaning NDate CleanedFlow controlSurvey PurposeDirection Upstream

Street BUENA VISTA DR City HILLSDALE Drainage area

Location CodePipe UseSanitary Sewage PipeLocation detailsHeight 8Width ins

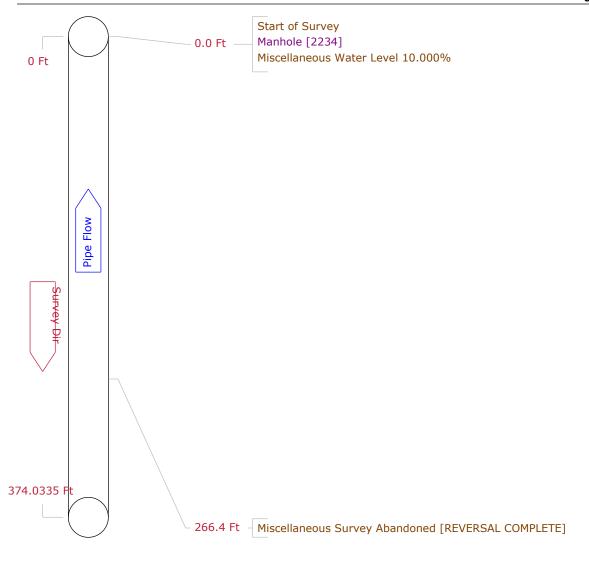
Shape Circular Material Vitrified Clay Pipe Lining

Coating Pipe Joint length Ft Total length 374.0 Ft Structural O&M

Length Surveyed 266.40 Ft Year Constructed Year Renewed

Additional info Reverse set up on sheet:391

Up	2235	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2234	Rim to invert	Grade to invert	Rim to grade	Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report of PSR 43	331	for Hillsdale	
Setup 470 Surveyed E	Sy AGS Cei	rtificate # U61406021126	Owner
Reviewed By	Reviewer #	Work Or	der
Customer			P/O #
Media Label	Project SANITARY		
Date 2021/06/01 Time	e 12:33 Weather Dry	y - no PrecipitatioPre-Cleaning	N Date Cleaned
Flow control	Survey Purpose		<b>Direction</b> Up
Inspection Status Complete	Inspection Conseq	uence Of Failure P	ressure
Inspection Technology Used	CCTV Laser	Sonar Sidewall	Zoom  Other
Street BUENA VISTA DR	C	ity HILLSDALE	Drainage area
Location Code		Pipe Use	Sanitary Sewage Pipe
Location details		Height 8	B Width ins
Shape Circular	Material Vitrified C	Clay Pipe Lining	
Coating	Pipe Joint l	ength Ft Total lengtl	h 374.0 Ft
Length Surveyed 266	6.4 Ft Year Constructed	Year Renewed	
<b>Up</b> 2235	Rim to invert	Grade to invert	Rim to grade Ft
Northing	Eas	sting	Elevation
<b>Down</b> 2234	Rim to invert	Grade to invert	Rim to grade Ft
Northing	Eas	sting	Elevation

Count Video	CD Code		Val1	Val2	% ,	Jnt	Fr T	o In	Ref	Remarks
0.0	ST	Start of Survey								
0.0	AMH	Manhole								2234
0.0	MWL	Miscellaneous Water Level			10.000					
266.4	MSA	Miscellaneous Survey Abandoned							ĺ	REVERSAL COMPLETE

**Vertical Datum** 

Structural

Miscellaneous

O & M

Constructional

266.4 Ft Total Length Surveyed

Reverse set up on sheet:391

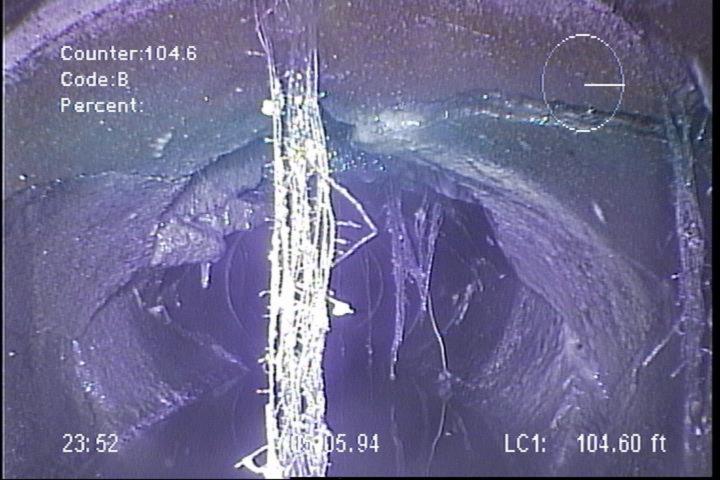
**Coordinate System** 

**GPS Accuracy** 

Additional info

Scores	Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 0	Pipe Ratings Index	Quick Rating 0000

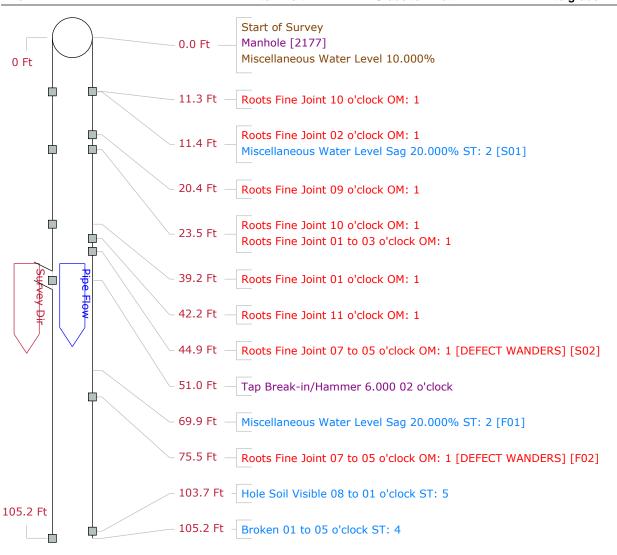




## Division St. - Spot Replacement - MH2177 to 2188

Pipe Graphic Report of PLR 4177 for Hillsdale Setup 940 Surveyed By DLT Certificate # U-0717-07008329 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/08/13 Time 13:31 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning H Flow control **Survey Purpose Direction** Downstream Street DIVISION City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining **Pipe Joint length** Total length 270.0 Structural O & M Coating Miscellaneous Length Surveyed 269.90 Ft Year Constructed Year Renewed Constructional

Up	2177	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2188	Rim to invert	Grade to invert	Rim to grade	Ft





Additional info

Taplin Group LLC Phone: 269-375-9595

### Pipe Graphic Report of PLR 4177

 Setup
 940
 Surveyed By DLT
 Certificate # U-0717-07008329
 Owner

 Reviewed By
 Reviewer #
 Work Order

 Customer
 P/O #

Media Label Project SANITARY

Date 2021/08/13Time 13:31Weather Dry - no PrecipitatioPre-Cleaning HDate CleanedFlow controlSurvey PurposeDirection Downstream

for

Hillsdale

Miscellaneous

Constructional

Street DIVISION City HILLSDALE Drainage area

Location CodePipe UseSanitary Sewage PipeLocation detailsHeight 8Width ins

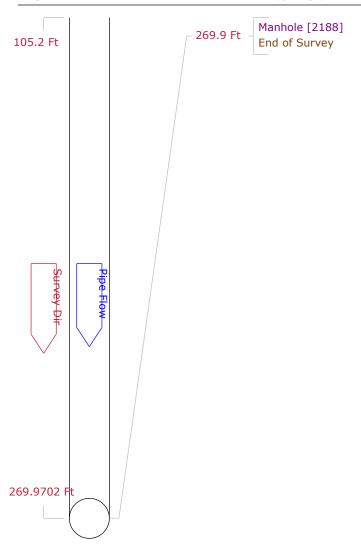
Shape Circular Material Vitrified Clay Pipe Lining

Coating Pipe Joint length Ft Total length 270.0 Ft Structural O&M

Length Surveyed 269.90 Ft Year Constructed Year Renewed

Additional info

Up	2177	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2188	Rim to invert	Grade to invert	Rim to grade	Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report of PSR	4177	for	Hillsdale
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Setup 940 Surveyed By	DLT Certificate #	U-0717-07008329 <b>Owner</b>	
Reviewed By	Reviewer #	Work Order	
Customer		P/O #	
Media Label	Project SANITARY		
Date 2021/08/13 Time 13	3:31 <b>Weather</b> Dry - no Preci	pitatio <b>Pre-Cleaning</b> H Da	ate Cleaned
Flow control	Survey Purpose	Dire	ction Down
Inspection Status Complete Ins	pection Consequence Of	Failure Pressure	
Inspection Technology Used	☐ CCTV ☐ Laser ☐ Sonar	Sidewall Zoom O	other
Street DIVISION	City -	HILLSDALE Drainage	area
Location Code		Pipe Use Sanitary Sewa	age Pipe
Location details		Height 8 Width	ins
Shape Circular	Material Vitrified Clay Pipe	Lining	
Coating	Pipe Joint length	Ft Total length 270.0 Ft	
Length Surveyed 269.9	Ft Year Constructed Year F	lenewed	
<b>Up</b> 2177	Rim to invert	Grade to invert Rim	n to grade Ft
Northing	Easting	Elevation	
<b>Down</b> 2188	Rim to invert	Grade to invert Rim	n to grade Ft
Northing	Easting	Elevation	
Coordinate System		Vertical Datum	
GPS Accuracy		Structi	ural O & M
Additional info		Miscel	Ilaneous Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								2177
0.0		MWL	Miscellaneous Water Level			10.000					
11.3		RFJ	Roots Fine Joint				J	10			
11.4		RFJ	Roots Fine Joint				J	02			
11.4	S01	MWLS	Miscellaneous Water Level Sag			20.000					
20.4		RFJ	Roots Fine Joint				J	09			
23.5		RFJ	Roots Fine Joint				J	10			
23.5		RFJ	Roots Fine Joint				J	01	03		
39.2		RFJ	Roots Fine Joint				J	01			
42.2		RFJ	Roots Fine Joint				J	11			
44.9	S02	RFJ	Roots Fine Joint				J	07	05		DEFECT WANDERS
51.0		ТВ	Tap Break-in/Hammer	6.000				02			
69.9	F01	MWLS	Miscellaneous Water Level Sag			20.000					
75.5	F02	RFJ	Roots Fine Joint				J	07	05		DEFECT WANDERS
103.7		HSV	Hole Soil Visible					08	01		
105.2		В	Broken			İ		01	05		
269.9		AMH	Manhole			İ					2188
269.9		FH	End of Survey			İ	İ				

269.9 Ft Total Length Surveyed



Taplin Group LLC Phone:269-375-9595

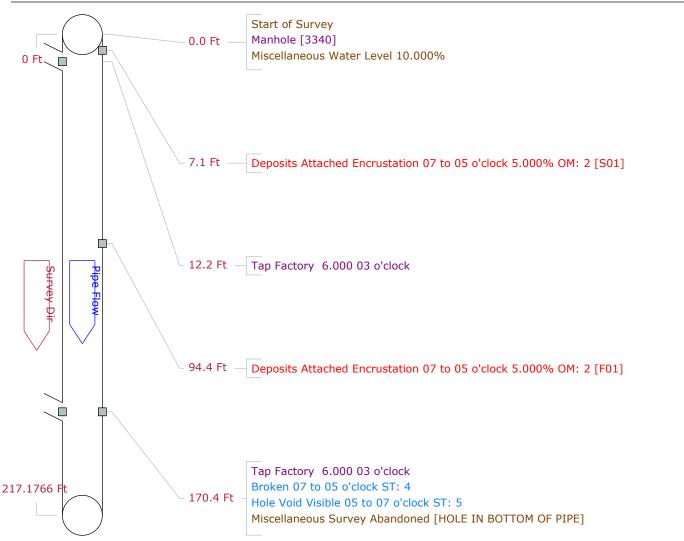
### Tabular Report of PSR 4177

Tabula	r Repo	ort of	<b>PSR</b> 4177		for	Hillsdale			
Setup	940	Date	2021/08/13	<b>Time</b> 13:31	Up	2177		Down	2188
	So	ores	Structural:	Pipe Rating 33	3	Pipe	Ratings Index 2.4		Quick Rating 5141
			O&M:	Pipe Rating 13	3		Ratings Index 1		Quick Rating 1A00
			Overall	Pine Rating 46	3	Pine	Ratings Index 17		Ouick Rating 5141

Counter:103.7 Code:HSV Percent: From:08 To:01 LC1: +0103.70 ft 12:34 08. 13. 21

## Heathcliff (at Bacon) - Spot Replacement - MH3340 to 3455

Pipe Graphic Report of PLR 3898 for Hillsdale Setup 662/6 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer **Media Label Project SANITARY** Date 2021/06/22 Time 10:32 Weather Dry - no PrecipitatioPre-Cleaning L **Date Cleaned** Flow control **Survey Purpose Direction** Downstream Street HEATHCLIFF DR City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 217.2 Structural O & M Ft Miscellaneous Length Surveyed 170.40 Ft Year Constructed Year Renewed Constructional Additional info Up 3340 Rim to invert **Grade to invert** Rim to grade Ft 3455 Rim to invert Grade to invert Rim to grade Ft Down





Taplin Group LLC Phone: 269-375-9595

Tabular	Report	of PSI	<b>R</b> 3898		f	or	Hillsdale
<u> </u>		_					

Setup 662 Surveyed By	AGS Certificate	# U61406021126 <b>O</b>	wner
Reviewed By	Reviewer #	Work Order	
Customer		P/O #	
Media Label	Project SANITARY		
<b>Date</b> 2021/06/22	0:32 <b>Weather</b> Dry - no Pr	ecipitatioPre-Cleaning L	Date Cleaned
Flow control	Survey Purpose		Direction Down
Inspection Status Complete Ins	spection Consequence	Of Failure Pressure	<u> </u>
Inspection Technology Used	CCTV Laser Son	ar 🗌 Sidewall 🔲 Zoom	☐ Other
Street HEATHCLIFF DR	City	HILLSDALE Dr	ainage area
Location Code		Pipe Use Sanit	ary Sewage Pipe
Location details		Height 8 Wi	dth ins
Shape Circular	Material Vitrified Clay Pipe	e Lining	
Coating	Pipe Joint length	Ft Total length 217.2	Ft
Length Surveyed 170.4	Ft Year Constructed Year	r Renewed	
<b>Up</b> 3340	Rim to invert	Grade to invert	Rim to grade Ft
Northing	Easting	Eleva	ation
<b>Down</b> 3455	Rim to invert	Grade to invert	Rim to grade Ft
Northing	Easting	Eleva	ation
Coordinate System		Vertical Datur	n
GPS Accuracy			Structural O & M
Additional info			Miscellaneous Constructional

Count Vid	leo	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole							;	3340
0.0			MWL	Miscellaneous Water Level			10.000	)				
7.1		S01	DAE	Deposits Attached Encrustation			5.000	J	07	05		
12.2			TF	Tap Factory	6.000				03			
94.4		F01	DAE	Deposits Attached Encrustation			5.000	J	07	05		
170.4			TF	Tap Factory	6.000				03			
170.4			В	Broken				J	07	05		
170.4			HVV	Hole Void Visible				J	05	07		
170.4			MSA	Miscellaneous Survey Abandoned								HOLE IN BOTTOM OF PIPE

170.4 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 9	Pipe Ratings Index 4.5	Quick Rating 5141
	O&M:	Pipe Rating 34	Pipe Ratings Index 2	Quick Rating 2B00
	Overall	Pipe Rating 43	Pipe Ratings Index 2.3	Quick Rating 5141

Pipe Graphic Report of PLR 3898

for

Hillsdale

Setup Surveyed By AGS

Certificate # U61406021126

Owner

Reviewed By

Customer

Reviewer #

**Work Order** 

**Media Label** 

**Project SANITARY** 

Date 2021/06/22

Time 10:43

Weather Dry - no PrecipitatioPre-Cleaning L

**Year Renewed** 

**Date Cleaned** 

Flow control

**Survey Purpose** 

**Direction** Upstream

Street HEATHCLIFF DR

City

HILLSDALE

Drainage area

**Location Code** 

Sanitary Sewage Pipe

Location details Shape Circular

Material Vitrified Clay Pipe

Height 8 Width

Ft

P/O #

ins

Structural

Lining

Pipe Use

O & M

Coating

Pipe Joint length

Total length 217.2 Ft

Miscellaneous

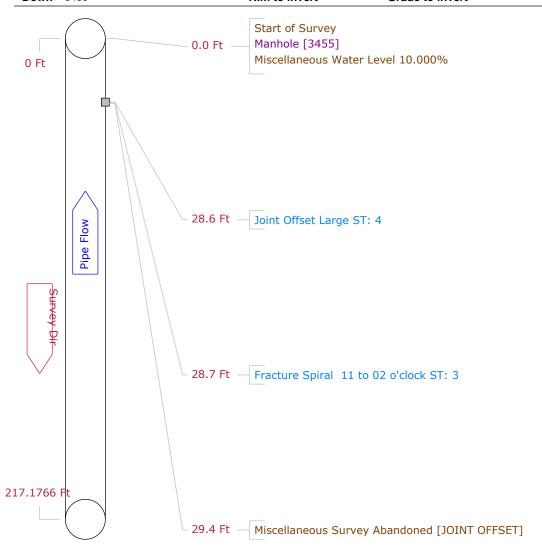
Constructional

**Length Surveyed** Additional info

Reverse set up on sheet:592

29.40 Ft Year Constructed

Up	3340	Rim to invert	Grade to invert	Rim to grade	Ft
Down	3455	Rim to invert	Grade to invert	Rim to grade	Ft





**Taplin Group LLC** Phone: 269-375-9595

Tabular Report of PSR	3898	for Hillsdale	
Setup 663 Surveyed	d By AGS	Certificate # U61406021126	Owner
Reviewed By	Reviewer #	Work	Order
Customer			P/O #
Media Label	Project SANITARY		
Date 2021/06/22 Ti	me 10:43 Weathe	r Dry - no PrecipitatioPre-Clean	ing L Date Cleaned
Flow control	Survey Purpose		Direction Up
Inspection Status Comple	ete Inspection Co	nsequence Of Failure	Pressure
Inspection Technology Us	ed CCTV Lase	Sonar Sidewall	Zoom Other
Street HEATHCLIFF DR		City HILLSDALE	Drainage area
Location Code		Pipe	Use Sanitary Sewage Pipe
Location details		Heig	ht 8 Width ins
Shape Circular	<b>Material</b> Vitri	fied Clay Pipe Linin	g
Coating	Pipe Jo	oint length Ft Total le	ngth 217.2 Ft
Length Surveyed 2	29.4 Ft Year Constructed	Year Renewed	
<b>Up</b> 3340	Rim to inve	ert Grade to inve	t Rim to grade Ft
Northing		Easting	Elevation
<b>Down</b> 3455	Rim to inve	ert Grade to inve	t Rim to grade Ft
Northing		Easting	Elevation
Coordinate System		Ve	rtical Datum
GPS Accuracy			Structural O & M

Count Video	CD Code		Val1	Val2	%	Jnt	Fr	То	ImRe	Remarks
0.0	ST	Start of Survey								
0.0	AMH	Manhole								3455
0.0	MWL	Miscellaneous Water Level			10.000					
28.6	JOL	Joint Offset Large								
28.7	FS	Fracture Spiral				J	11	02		
29.4	MSA	Miscellaneous Survey Abandoned								JOINT OFFSET

Miscellaneous

Constructional

29.4 Ft Total Length Surveyed

Reverse set up on sheet:592

Additional info

Scores	Structural:	Pipe Rating 7	Pipe Ratings Index 3.5	Quick Rating 4131
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 7	Pipe Ratings Index 3.5	Quick Rating 4131

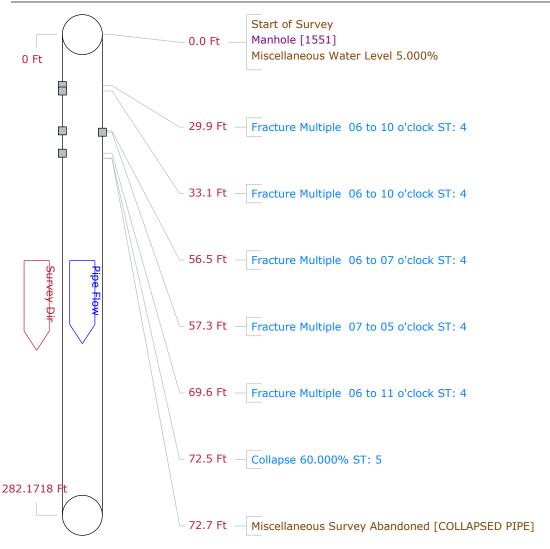






# Mechanic St - Full Replacement - MH1551 to 1552

Pipe Graphic Report of PLR 3682 for Hillsdale Setup 782 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Time 2:53 Date 2021/07/08 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning N Flow control **Survey Purpose Direction** Downstream Street MECHANIC RD City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 282.2 Structural O & M Ft Miscellaneous Length Surveyed 72.70 Ft Year Constructed Year Renewed Constructional Additional info Up 1551 Rim to invert Grade to invert Rim to grade Ft 1552 Rim to invert Grade to invert Rim to grade Ft Down





Taplin Group LLC Phone: 269-375-9595

Tabular Report of PSR	3682	for Hillsdale	
	ed By AGS	Certificate # U61406021126	Owner
Reviewed By	Reviewer #	Work Ord	
Customer			P/O #
Media Label	Project SANITARY	•	
<b>Date</b> 2021/07/08 <b>T</b>	ime 2:53 Weath	er Dry - no PrecipitatioPre-Cleaning	N Date Cleaned
Flow control	Survey Purpose	e	Direction Down
Inspection Status Compl	lete Inspection Co	onsequence Of Failure Pr	ressure
Inspection Technology Us	sed CCTV Lase	er 🗌 Sonar 🗌 Sidewall 📗	Zoom   Other
Street MECHANIC RD		City HILLSDALE	Drainage area
Location Code		Pipe Use	Sanitary Sewage Pipe
Location details		Height 8	Width ins
Shape Circular	<b>Material</b> Vitr	rified Clay Pipe Lining	
Coating	Pipe J	oint length Ft Total length	282.2 <b>Ft</b>
Length Surveyed	72.7 Ft Year Constructed	d Year Renewed	
<b>Up</b> 1551	Rim to inv	vert Grade to invert	Rim to grade Ft
Northing		Easting	Elevation
<b>Down</b> 1552	Rim to inv	vert Grade to invert	Rim to grade Ft
Northing		Easting	Elevation
Coordinate System		Vertica	al Datum

Count V	'ideo (	CD (	Code		Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
0.0		,	ST	Start of Survey								
0.0		1	AMH	Manhole								1551
0.0		I	MWL	Miscellaneous Water Level			5.000					
29.9			FM	Fracture Multiple				J	06	10		
33.1			FM	Fracture Multiple				J	06	10		
56.5			FM	Fracture Multiple				J	06	07		
57.3			FM	Fracture Multiple				J	07	05		
69.6			FM	Fracture Multiple				J	06	11		
72.5			Χ	Collapse			60.000					
72.7		I	MSA	Miscellaneous Survey Abandoned								COLLAPSED PIPE

Structural

Miscellaneous

O & M

Constructional

72.7 Ft Total Length Surveyed

**GPS Accuracy** 

Additional info

Scores	Structural:	Pipe Rating 25	Pipe Ratings Index 4.2	Quick Rating 5145
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 25	Pipe Ratings Index 4.2	Quick Rating 5145



Taplin Group LLC Phone:269-375-9595

Hillsdale

O & M

Setup 821 Surveyed By AGS Certificate # U61406021126 Owner

Reviewed By Reviewer # Work Order

Customer P/O #

Media Label Project SANITARY

Date 2021/07/15Time 1:45Weather Dry - no PrecipitatioPre-Cleaning NDate CleanedFlow controlSurvey PurposeDirection Upstream

Street MECHANIC RD City HILLSDALE Drainage area

Location CodePipe UseSanitary Sewage PipeLocation detailsHeight 8Width ins

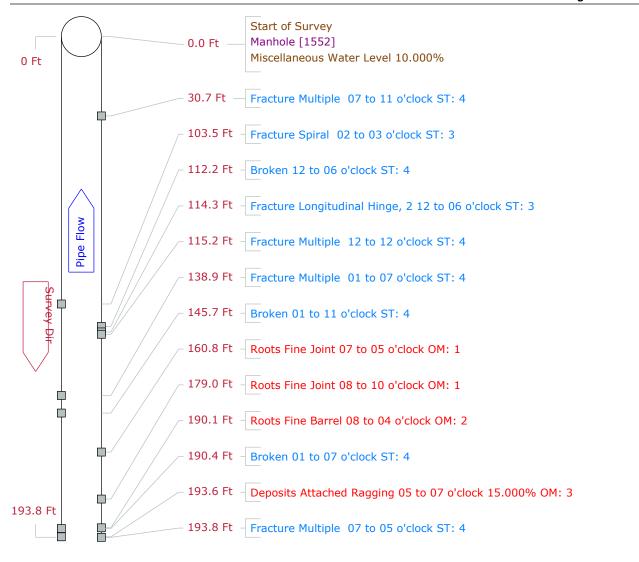
Shape Circular Material Vitrified Clay Pipe Lining

Coating Pipe Joint length Ft Total length 282.2 Ft Structural

Length Surveyed 195.40 Ft Year Constructed Year Renewed Miscellaneous Constructional

**Additional info** Reverse set up on sheet:735

Up	1551	Rim to invert	Grade to invert	Rim to grade	Ft
Down	1552	Rim to invert	Grade to invert	Rim to grade	Ft





Taplin Group LLC Phone: 269-375-9595

Pipe Graphic Report of PLR 3682 for Hillsdale Surveyed By AGS Setup Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer **Media Label Project SANITARY** Date 2021/07/15 **Time** 1:45 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Upstream Street MECHANIC RD City HILLSDALE Drainage area **Location Code** Pipe Use Sanitary Sewage Pipe Location details Height 8 Width ins Material Vitrified Clay Pipe Shape Circular Lining Coating **Pipe Joint length** Total length 282.2 Ft Structural O & M Ft

Additional info Reverse set up on sheet:735

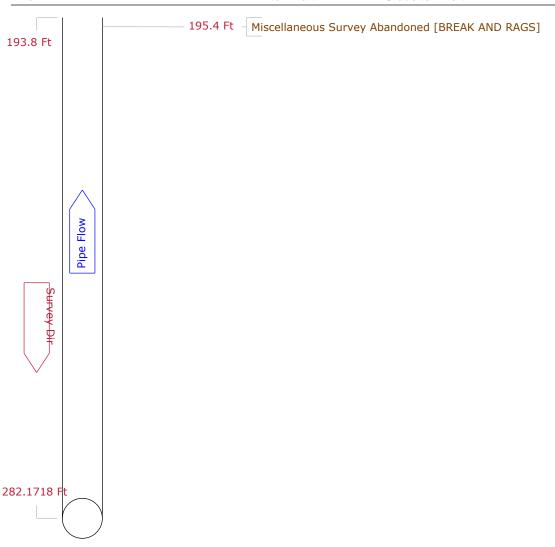
Up 1551 Rim to invert Grade to invert Rim to grade Ft

Down 1552 Rim to invert Grade to invert Rim to grade Ft

Year Renewed

Miscellaneous

Constructional



195.40 Ft Year Constructed



**Length Surveyed** 

Taplin Group LLC Phone: 269-375-9595

Tubului Ito	po o	<b>O</b> 0002					• • • •	iioaaio			
Setup 82	21 <b>Sur</b>	veyed By A	GS			Certificate #	U61406	6021126	Ov	vner	
Reviewed E	Зу			Reviewe	r #			Work	Order		
Customer									P/O #		
Media Label	l		F	Project SAN	TARY						
Date 2021/	07/15	Time 1:4	45	V	/eather	Dry - no Preci	pitatio <b>P</b>	re-Cleani	ng N	Date Clean	ed
Flow contro	l			Survey Pu	rpose					Direction Up	
Inspection S	Status C	Complete Insp	oectio	on	Cons	sequence Of	Failure	•	Pressure		
Inspection 1	Γechnolog	gy Used		ссти 🔲	Laser	☐ Sonar	□ s	idewall	Zoom	☐ Other	
Street MEC	CHANIC RE	)				City H	HILLSDA	\LE	Dra	ainage area	
Location Co	ode							Pipe l	<b>Jse</b> Sanita	ary Sewage Pipe	
Location de	tails							Heigl	nt 8 Wi	dth ins	
Shape Circu	ular			Material	Vitrifie	ed Clay Pipe		Lining	J		
Coating				P	ipe Joi	nt length	Ft	Total len	gth 282.2	Ft	
Length Surv	/eyed	195.4	Ft	Year Constr	ucted	Year R	enewe	d			
<b>Up</b> 155	51			Rim	to inver	t	Grade	to invert	:	Rim to grade	e Ft
Northing						Easting			Eleva	tion	
Down 155	52			Rim	to inver	t	Grade	to invert	:	Rim to grade	e Ft
Northing						Easting			Eleva	tion	
Coordinate	System							Ver	tical Datun	n	
<b>GPS Accura</b>	асу									Structural	O & M
Additional in	nfo	Reverse se	t up	on sheet:735						Miscellaneous	Constructional

Count Video	CD Code		Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
0.0	ST	Start of Survey								
0.0	AMH	Manhole								1552
0.0	MWL	Miscellaneous Water Level			10.000	)				
30.7	FM	Fracture Multiple				J	07	11		
103.5	FS	Fracture Spiral				J	02	03		
112.2	В	Broken				J	12	06		
114.3	FH2	Fracture Longitudinal Hinge, 2				J	12	06		
115.2	FM	Fracture Multiple				J	12	12		
138.9	FM	Fracture Multiple				J	01	07		
145.7	В	Broken				J	01	11		
160.8	RFJ	Roots Fine Joint				J	07	05		
179.0	RFJ	Roots Fine Joint				J	08	10		
190.1	RFB	Roots Fine Barrel					08	04		
190.4	В	Broken				J	01	07		
193.6	DAR	Deposits Attached Ragging			15.000	כ	05	07		
193.8	FM	Fracture Multiple				J	07	05		
195.4	MSA	Miscellaneous Survey Abandoned								BREAK AND RAGS

195.4 Ft Total Length Surveyed

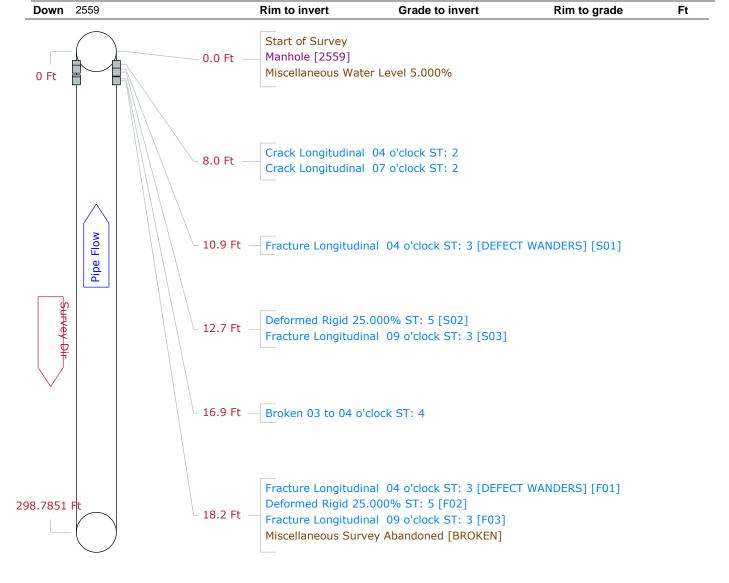
Scores	Structural:	Pipe Rating 34	Pipe Ratings Index 3.8	Quick Rating 4732
	O&M:	Pipe Rating 7	Pipe Ratings Index 1.8	Quick Rating 3121
	Overall	Pipe Rating 41	Pipe Ratings Index 3.2	Quick Rating 4733

## W. St. Joe St. - Full Replacement - MH2559 to 2560

Pipe Graphic Report of PLR 4267

for Hillsdale

Setup 461/4 Surveyed By MJT Certificate # U-1220-70400698 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/04/27 Time 9:22 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Upstream Street W ST JOE STREET City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 298.8 Structural O & M Ft Miscellaneous Length Surveyed 18.20 Ft Year Constructed Year Renewed Constructional Additional info Reverse set up on sheet:57 Up 2560 Rim to invert **Grade to invert** Rim to grade Ft





Taplin Group LLC Phone: 269-375-9595

Tabula	r Repor	t of PS	SR 4267		f	or	Hillsda	ale
				_	 			

Setup 461 Surveyed By	MJT Certificate	# U-1220-70400698 <b>O</b>	wner	
Reviewed By	Reviewer #	Work Order		
Customer		P/O #		
Media Label	Project SANITARY			
<b>Date</b> 2021/04/27 <b>Time</b>	9:22 <b>Weather</b> Dry - no Pre	cipitatio <b>Pre-Cleaning</b> N	Date Cleane	d
Flow control	Survey Purpose		<b>Direction</b> Up	
Inspection Status Complete I	nspection Consequence C	of Failure Pressure	•	
Inspection Technology Used	CCTV Laser Sona	r 🗌 Sidewall 📗 Zoom	☐ Other	
Street W ST JOE STREET	City	HILLSDALE Dr	ainage area	
Location Code		Pipe Use Sanit	ary Sewage Pipe	
Location details		Height 8 W	dth ins	
Shape Circular	Material Vitrified Clay Pipe	Lining		
Coating	Pipe Joint length	Ft Total length 298.8	Ft	
Length Surveyed 18.2	Ft Year Constructed Year	Renewed		
<b>Up</b> 2560	Rim to invert	Grade to invert	Rim to grade	Ft
Northing	Easting	Eleva	ation	
<b>Down</b> 2559	Rim to invert	Grade to invert	Rim to grade	Ft
Northing	Easting	Eleva	ation	
Coordinate System		Vertical Datur	n	
GPS Accuracy			Structural	O & M
Additional info Reverse	set up on sheet:57		Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								2559
0.0		MWL	Miscellaneous Water Level			5.000					
8.0		CL	Crack Longitudinal				J	04			
8.0		CL	Crack Longitudinal				J	07			
10.9	S01	FL	Fracture Longitudinal					04			DEFECT WANDERS
12.7	S02	DR	Deformed Rigid			25.000					
12.7	S03	FL	Fracture Longitudinal			İ		09			
16.9		В	Broken					03	04		
18.2	F01	FL	Fracture Longitudinal					04			DEFECT WANDERS
18.2	F02	DR	Deformed Rigid			25.000					
18.2	F03	FL	Fracture Longitudinal					09			
18.2		MSA	Miscellaneous Survey Abandoned				İ				BROKEN

18.2 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 19	Pipe Ratings Index 3.2	Quick Rating 5141
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 19	Pipe Ratings Index 3.2	Quick Rating 5141

Pipe Graphic Report of PLR 4267

for

Hillsdale

**Work Order** 

Setup 462/4 Surveyed By MJT Certificate # U-1220-70400698 Owner

Reviewed By Reviewer #

Time 16:23

P/O #

**Media Label** 

Flow control

Customer

**Project SANITARY** 

**Survey Purpose** 

Date 2021/04/26

Weather Dry - no Precipitatio Pre-Cleaning N

**Date Cleaned** 

Street W ST JOE STREET

City

**Direction** Downstream

HILLSDALE Drainage area

Pipe Use

Sanitary Sewage Pipe

**Location Code** Location details

Height 8

Width ins

Shape Circular

Material Vitrified Clay Pipe

Lining

Structural O & M

Coating

**Pipe Joint length** 

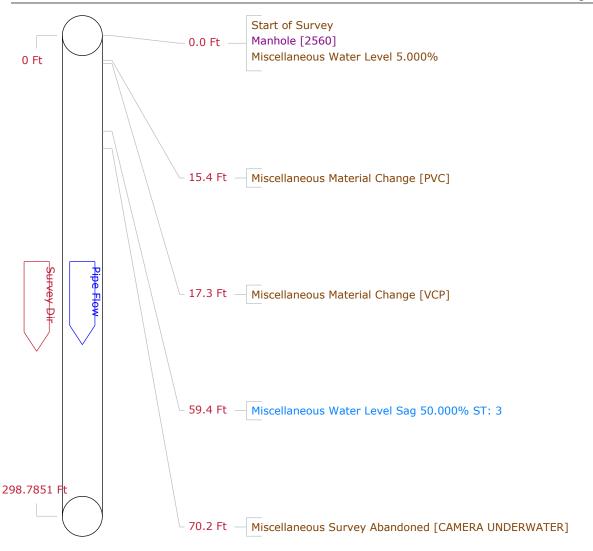
70.20 Ft Year Constructed

Total length 298.8 Ft Year Renewed

Miscellaneous Constructional

**Length Surveyed** Additional info

Up	2560	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2559	Rim to invert	Grade to invert	Rim to grade	Ft





**Taplin Group LLC** Phone: 269-375-9595

Tabular Report of PSR 426	7	for Hil	Isdale		
Setup 462 Surveyed By	MJT	Certificate # U-1220-	70400698 <b>O</b> v	wner	
Reviewed By	Reviewer #		Work Order		
Customer			P/O #		
Media Label	Project SANITARY				
<b>Date</b> 2021/04/26	6:23 Weather	Dry - no PrecipitatioPr	e-Cleaning N	Date Cleane	ed
Flow control	Survey Purpose			<b>Direction</b> Dow	n
Inspection Status Complete Ins	spection Cons	sequence Of Failure	Pressure		
Inspection Technology Used	CCTV Laser	☐ Sonar ☐ Sid	dewall 🔲 Zoom	☐ Other	
Street W ST JOE STREET		City HILLSDA	LE <b>Dr</b> a	ainage area	
Location Code			Pipe Use Sanita	ary Sewage Pipe	
Location details			Height 8 Wi	dth ins	
Shape Circular	<b>Material</b> Vitrifie	d Clay Pipe	Lining		
Coating	Pipe Joir	nt length Ft	Total length 298.8	Ft	
Length Surveyed 70.2	Ft Year Constructed	Year Renewed	1		
<b>Up</b> 2560	Rim to inver	t Grade	to invert	Rim to grade	Ft
Northing	l	Easting	Eleva	ation	
<b>Down</b> 2559	Rim to inver	t Grade	to invert	Rim to grade	Ft
Northing	I	Easting	Eleva	ation	
Coordinate System			Vertical Datur	n	
GPS Accuracy				Structural	O & M
Additional info				Miscellaneous	Constructional

Count \	Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								2560
0.0			MWL	Miscellaneous Water Level			5.000					
15.4			MMC	Miscellaneous Material Change								PVC
17.3			MMC	Miscellaneous Material Change								VCP
59.4			MWLS	Miscellaneous Water Level Sag			50.00	0				
70.2			MSA	Miscellaneous Survey Abandoned								CAMERA UNDERWATER

70.2 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 3	Pipe Ratings Index 3	Quick Rating 3100
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 3	Pipe Ratings Index 3.0	Quick Rating 3100



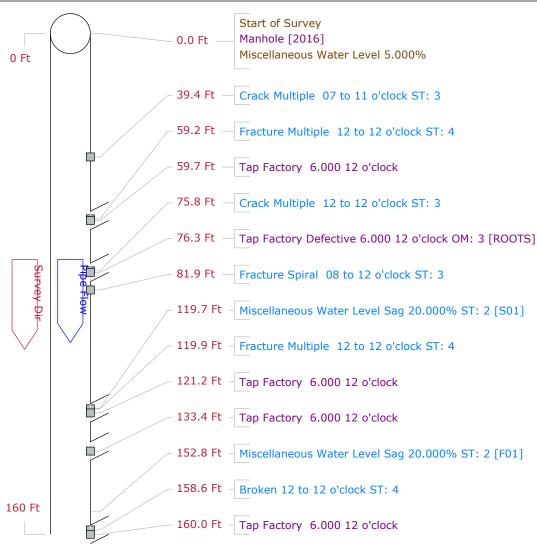
## Willow St. - Full Replacement - MH2016 to 2018

#### Pipe Graphic Report of PLR 4306

for Hillsdale

Setup 968/9 Surveyed By DLT Certificate # U-0717-07008329 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/08/20 Time 11:59 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning H Flow control **Survey Purpose Direction** Downstream Street WILLOW City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 352.3 Structural O & M Ft Miscellaneous Length Surveyed 259.80 Ft Year Constructed Year Renewed Constructional Additional info

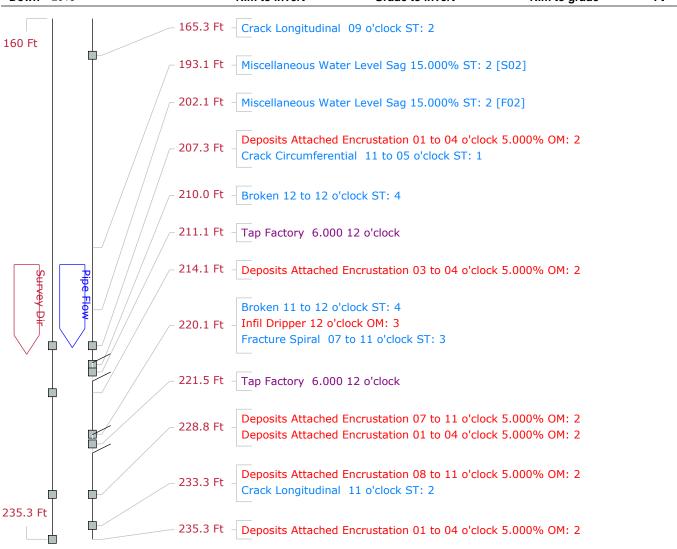
Up	2016	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2018	Rim to invert	Grade to invert	Rim to grade	Ft





Taplin Group LLC Phone: 269-375-9595

Setup	968/9	Surveyed By DLT		Certifica	ate# U	J-0717-07	008329	Ov	vner	
Reviewe	ed By		Reviewer #				Work Order			
Custome	er						P/O	#		
Media La	abel		Project SANITARY							
Date 20	021/08/20	<b>Time</b> 11:59	Weather	Dry - no	Precipi	tatio <b>Pre-</b> (	leaning H		Date Clean	ed
Flow cor	ntrol		Survey Purpose						Direction Dov	wnstream
Street \	WILLOW			City	HII	LSDALE		Dra	inage area	
Location	Code						Pipe Use	Sa	anitary Sewage Pi	ре
Location	details						Height 8	Wie	dth ins	
Shape (	Circular		Material Vitrifie	ed Clay P	ipe		Lining			
Coating			Pipe Joint le	ength	Ft	Total le	ngth 352.3	Ft	Structural	O & M
Length S	Surveyed	259.80 <b>Ft</b>	Year Constructed	Y	ear Re	newed			Miscellaneous	Constructional
Addition	al info							,		
Up 2	2016		Rim to invert		G	rade to i	nvert		Rim to grade	Ft
Down 2	2018		Rim to invert		G	rade to i	nvert		Rim to grade	Ft

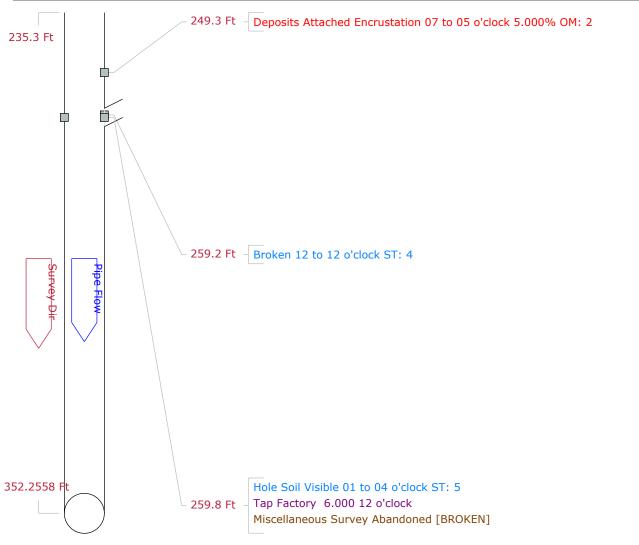




Taplin Group LLC Phone: 269-375-9595

Setup 968/9 Surveyed By DLT Certificate # U-0717-07008329 Owner Reviewed By Reviewer # **Work Order** P/O # Customer **Media Label Project SANITARY** Date 2021/08/20 Time 11:59 Weather Dry - no Precipitatio Pre-Cleaning H **Date Cleaned** Flow control **Direction** Downstream **Survey Purpose** Street WILLOW City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 8 Width ins Material Vitrified Clay Pipe Shape Circular Lining Coating **Pipe Joint length** Total length 352.3 Structural O & M Ft 259.80 Ft Year Constructed Year Renewed Miscellaneous **Length Surveyed** Constructional Additional info

Up2016Rim to invertGrade to invertRim to gradeFtDown2018Rim to invertGrade to invertRim to gradeFt





Taplin Group LLC Phone: 269-375-9595

Tabular Report (	of PSR 4306	5			for	Н	lillsdale			
Setup 968	Surveyed By [	DLT		(	Certificate #	U-071	7-070083	29 (	Owner	
Reviewed By			Reviewe	r #			Work	Order		
Customer								P/O #		
Media Label		F	Project SAN	TARY						
Date 2021/08/20	Time 11	1:59	V	leather	Dry - no Preci	pitatio <b>F</b>	Pre-Clean	ing H	Date Clea	aned
Flow control			Survey Pu	rpose					Direction D	own
Inspection Status	Complete Ins	pecti	on	Cons	sequence Of	Failur	е	Pressu	re	
Inspection Techno	ology Used		ссти 🗌	Laser	☐ Sonar		Sidewall	Zoon	n 🗌 Other	
Street WILLOW					City H	IILLSD	ALE		Prainage area	
<b>Location Code</b>							Pipe	<b>Use</b> Sar	nitary Sewage Pipe	<del>,</del>
Location details							Heig	ht 8 V	Vidth ins	
Shape Circular			Material	Vitrifie	ed Clay Pipe		Linin	g		
Coating			P	ipe Joi	nt length	Ft	Total le	ngth 352.3	3 <b>Ft</b>	
Length Surveyed	259.8	Ft	Year Constr	ucted	Year R	enew	ed			
<b>Up</b> 2016			Rim	to inver	t	Grad	e to inve	rt	Rim to gra	de Ft
Northing					Easting			Ele	vation	
<b>Down</b> 2018			Rim	to inver	t	Grad	e to inve	rt	Rim to gra	de Ft
Northing					Easting			Ele	vation	
Coordinate System	m						Ve	rtical Datu	um	
<b>GPS Accuracy</b>									Structural	O & M
Additional info									Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								2016
0.0		MWL	Miscellaneous Water Level			5.000					
39.4		CM	Crack Multiple				J	07	11		
59.2		FM	Fracture Multiple				J	12	12		
59.7		TF	Tap Factory	6.000				12			
75.8		CM	Crack Multiple				J	12	12		
76.3		TFD	Tap Factory Defective	6.000				12			ROOTS
81.9		FS	Fracture Spiral				J	80	12		
119.7	S01	MWLS	Miscellaneous Water Level Sag			20.000					
119.9		FM	Fracture Multiple				J	12	12		
121.2		TF	Tap Factory	6.000				12			
133.4		TF	Tap Factory	6.000				12			
152.8	F01	MWLS	Miscellaneous Water Level Sag			20.000					
158.6		В	Broken				J	12	12		
160.0		TF	Tap Factory	6.000				12			
165.3		CL	Crack Longitudinal				J	09			
193.1	S02	MWLS	Miscellaneous Water Level Sag			15.000					
202.1	F02	MWLS	Miscellaneous Water Level Sag			15.000					
207.3		DAE	Deposits Attached Encrustation			5.000		01	04		
207.3		CC	Crack Circumferential				J	11	05		
210.0		В	Broken				J	12	12		
211.1		TF	Tap Factory	6.000				12			

### **Tabular Report of PSR** 4306

for	Hillsdale

Setup	968	Date 2021	/08/20 <b>Time</b> 11:59 <b>Up</b>	2	016					Do	wn	2018
Count	Video	CD Code		Val1	Val2	%	Jnt	Fr	To I	mRef	Re	marks
214.1		DAE	Deposits Attached Encrustation			5.000	J	03	04			
220.1		В	Broken				J	11	12			
220.1		ID	Infil Dripper				J	12				
220.1		FS	Fracture Spiral					07	11			
221.5		TF	Tap Factory	6.000				12				
228.8		DAE	Deposits Attached Encrustation			5.000	J	07	11			
228.8		DAE	Deposits Attached Encrustation			5.000	J	01	04			
233.3		DAE	Deposits Attached Encrustation			5.000	J	80	11			
233.3		CL	Crack Longitudinal				J	11				
235.3		DAE	Deposits Attached Encrustation			5.000	J	01	04			
249.3		DAE	Deposits Attached Encrustation			5.000	J	07	05			
259.2		В	Broken					12	12			
259.8		HSV	Hole Soil Visible					01	04			
259.8		TF	Tap Factory	6.000				12				
259.8		MSA	Miscellaneous Survey Abandoned							E	BRO	KEN

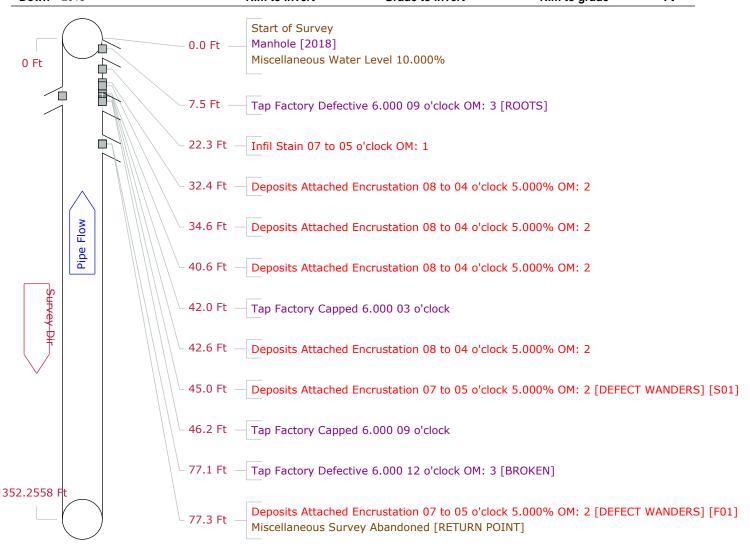
### 259.8 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 64	Pipe Ratings Index 2.8	Quick Rating 5146
	O&M:	Pipe Rating 20	Pipe Ratings Index 2.2	Quick Rating 3227
	Overall	Pipe Rating 84	Pipe Ratings Index 2.6	Quick Rating 5146

Setup 969/9 Surveyed By DLT Certificate # U-0717-07008329 Owner Reviewed By Reviewer # **Work Order** Customer P/O # Media Label **Project SANITARY** Date 2021/08/20 Time 12:34 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning H Flow control **Survey Purpose Direction** Upstream Street WILLOW City HILLSDALE Drainage area **Location Code** Pipe Use Sanitary Sewage Pipe Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining **Pipe Joint length** Total length 352.3 Structural O & M Coating Ft Ft Miscellaneous Length Surveyed 77.30 Ft Year Constructed Year Renewed Constructional

Additional info Reverse set up on sheet:35

Up	2016	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2018	Rim to invert	Grade to invert	Rim to grade	Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report of	<b>F3K</b> 4300	101	Hillsuale		
Setup 969 Su	rveyed By DLT	Certificate #	U-0717-07008329 <b>O</b> v	wner	
Reviewed By	Review	er#	Work Order		
Customer			P/O #		
Media Label	Project SAI	NITARY			
Date 2021/08/20	Time 12:34	Weather Dry - no Precip	oitatio <b>Pre-Cleaning</b> H	Date Cleane	ed
Flow control	Survey P	urpose		Direction Up	
Inspection Status	Complete Inspection	Consequence Of	Failure Pressure		
Inspection Technolo	gy Used CCTV	Laser	☐ Sidewall ☐ Zoom	☐ Other	
Street WILLOW		<b>City</b> H	ILLSDALE <b>D</b> ra	ainage area	
<b>Location Code</b>			Pipe Use Sanit	ary Sewage Pipe	
Location details			Height 8 Wi	dth ins	
Shape Circular	Materia	al Vitrified Clay Pipe	Lining		
Coating		Pipe Joint length	Ft Total length 352.3	Ft	
Length Surveyed	77.3 Ft Year Cons	tructed Year R	enewed		
<b>Up</b> 2016	Rin	n to invert	Grade to invert	Rim to grade	Ft
Northing		Easting	Eleva	ntion	
<b>Down</b> 2018	Rim	n to invert	Grade to invert	Rim to grade	Ft
Northing		Easting	Eleva	ation	
Coordinate System			Vertical Datur	n	
<b>GPS Accuracy</b>				Structural	O & M
Additional info	Reverse set up on sheet:35			Miscellaneous	Constructional

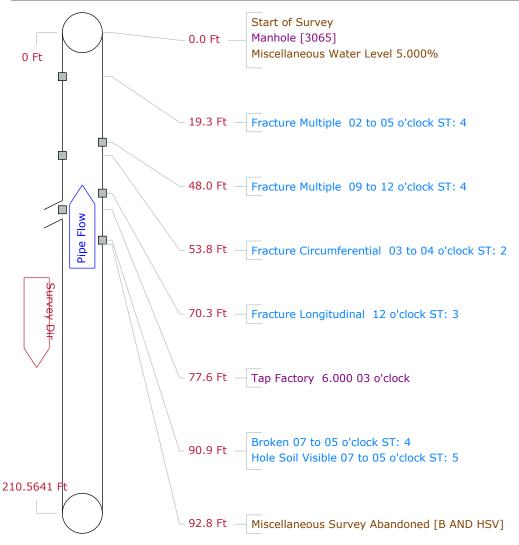
Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								2018
0.0		MWL	Miscellaneous Water Level			10.000					
7.5		TFD	Tap Factory Defective	6.000				09			ROOTS
22.3		IS	Infil Stain				J	07	05		
32.4		DAE	Deposits Attached Encrustation			5.000	J	08	04		
34.6		DAE	Deposits Attached Encrustation			5.000	J	08	04		
40.6		DAE	Deposits Attached Encrustation			5.000	J	08	04		
42.0		TFC	Tap Factory Capped	6.000		İ		03			
42.6		DAE	Deposits Attached Encrustation			5.000	J	08	04		
45.0	S01	DAE	Deposits Attached Encrustation			5.000	J	07	05		DEFECT WANDERS
46.2		TFC	Tap Factory Capped	6.000		İ		09			
77.1		TFD	Tap Factory Defective	6.000				12			BROKEN
77.3	F01	DAE	Deposits Attached Encrustation	İ		5.000	J	07	05		DEFECT WANDERS
77.3		MSA	Miscellaneous Survey Abandoned	İ			İ				RETURN POINT

#### 77.3 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	O&M:	Pipe Rating 27	Pipe Ratings Index 2.1	Quick Rating 322A
	Overall	Pipe Rating 27	Pipe Ratings Index 2.1	Quick Rating 322A

# E. Bacon St. - Spot Replace and Lining - MH3069 to 3065

Pipe Graphic Report of PLR 4301 for Hillsdale 212/2 Surveyed By MJT Certificate # U122070400698 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/04/30 Time 10:15 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned Survey Purpose** Flow control **Direction** Upstream Street E BACON RD City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 210.6 Structural O & M Ft Miscellaneous Length Surveyed 92.80 Ft Year Constructed Year Renewed Constructional Additional info Up 3069 Rim to invert **Grade to invert** Rim to grade Ft 3065 Rim to invert Grade to invert Rim to grade Ft Down





Taplin Group LLC Phone: 269-375-9595

Tabular Repo	rt of PSR 430	1		for Hillsdal	e		
Setup 212	Surveyed By	MJT	Certificat	e # U1220704006	98 <b>O</b> w	ner	
Reviewed By		Reviewer	· #	Wo	rk Order		
Customer					P/O #		
Media Label		Project SANI	TARY				
Date 2021/04/3	30 <b>Time</b> 1	0:15 <b>W</b>	eather Dry - no P	recipitatio <b>Pre-Cle</b> a	aning N	Date Clean	ıed
Flow control		Survey Pur	rpose			Direction Up	
Inspection Stat	us Complete Ins	spection	Consequence	Of Failure	Pressure		
Inspection Tec	hnology Used	□ ссти □	Laser 🗌 Son	ar 🗌 Sidewal	I 🗌 Zoom	☐ Other	
Street E BACC	N RD		City	HILLSDALE	Dra	inage area	
<b>Location Code</b>				Pip	e Use Sanita	ry Sewage Pipe	
Location detail	s			He	ight 8 Wid	dth ins	
Shape Circular		Material	Vitrified Clay Pip	e <b>Lin</b>	ing		
Coating		P	ipe Joint length	Ft Total	length 210.6	Ft	

**Length Surveyed** 92.8 Ft Year Constructed Year Renewed 3069 Up Rim to invert Grade to invert Rim to grade Ft Northing **Easting** Elevation Down 3065 Rim to invert **Grade to invert** Rim to grade Ft Northing **Easting Elevation** 

Coordinate System Vertical Datum

GPS Accuracy Structural O & M

Additional info Miscellaneous Constructional

Count Video	CD Code		Val1	Val2	% .	Jnt	Fr	То	ImRef	Remarks
0.0	ST	Start of Survey								
0.0	AMH	Manhole							3	3065
0.0	MWL	Miscellaneous Water Level			5.000					
19.3	FM	Fracture Multiple				J	02	05		
48.0	FM	Fracture Multiple				J	09	12		
53.8	FC	Fracture Circumferential				J	03	04		
70.3	FL	Fracture Longitudinal				J	12			
77.6	TF	Tap Factory	6.000				03			
90.9	В	Broken					07	05		
90.9	HSV	Hole Soil Visible					07	05		
92.8	MSA	Miscellaneous Survey Abandoned							E	B AND HSV

92.8 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 22	Pipe Ratings Index 3.7	Quick Rating 5143
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 22	Pipe Ratings Index 3.7	Quick Rating 5143

Setup 216/2 Surveyed By MJT Certificate # U122070400698 Owner

Reviewed By Reviewer # Work Order

Customer P/O #

Media Label Project SANITARY

Date 2021/04/30Time 10:24Weather Dry - no PrecipitatioPre-Cleaning NDate CleanedFlow controlSurvey PurposeDirection Downstream

Street E BACON RD City HILLSDALE Drainage area

Location CodePipe UseSanitary Sewage PipeLocation detailsHeight 8Width ins

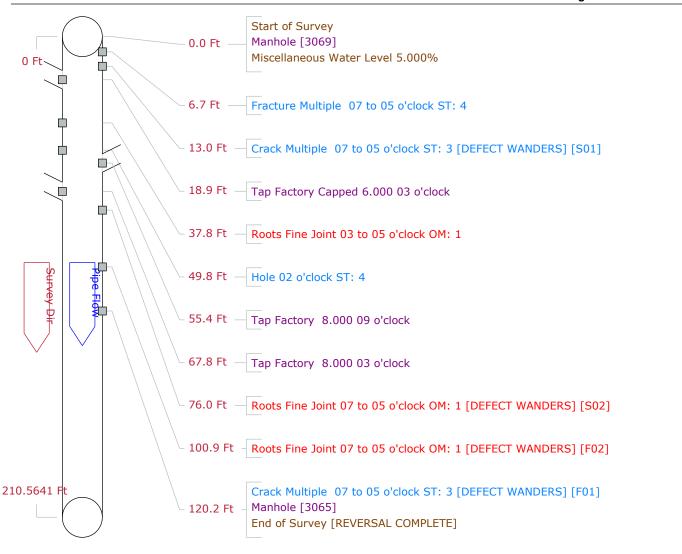
Shape Circular Material Vitrified Clay Pipe Lining

Coating Pipe Joint length Ft Total length 210.6 Ft Structural O & M

Length Surveyed 120.20 Ft Year Constructed Year Renewed Miscellaneous Constructional

Additional info Reverse set up on sheet:98

Up	3069	Rim to invert	Grade to invert	Rim to grade	Ft
Down	3065	Rim to invert	Grade to invert	Rim to grade	Ft





Taplin Group LLC Phone: 269-375-9595

Reverse set up on sheet:98

Owner Reviewed By Reviewer # **Work Order** Customer P/O # Media Label **Project SANITARY** Date 2021/04/30 Time 10:24 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Down Inspection Status **Consequence Of Failure** Complete Inspection **Pressure Inspection Technology Used** ☐ CCTV ☐ Laser ☐ Sonar ☐ Sidewall Zoom Other Street E BACON RD City HILLSDALE Drainage area **Location Code** Pipe Use Sanitary Sewage Pipe Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating Pipe Joint length Ft Total length 210.6 Ft **Length Surveyed** 120.2 Ft Year Constructed Year Renewed Up 3069 Rim to invert Grade to invert Rim to grade Ft **Northing** Easting **Elevation** Down 3065 Rim to invert **Grade to invert** Rim to grade Ft **Northing** Elevation Easting **Vertical Datum Coordinate System GPS Accuracy** Structural O & M Miscellaneous **Additional info** Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								3069
0.0		MWL	Miscellaneous Water Level			5.000					
6.7		FM	Fracture Multiple				J	07	05		
13.0	S01	CM	Crack Multiple				J	07	05		DEFECT WANDERS
18.9		TFC	Tap Factory Capped	6.000				03			
37.8		RFJ	Roots Fine Joint				J	03	05		
49.8		Н	Hole					02			
55.4		TF	Tap Factory	8.000				09			
67.8		TF	Tap Factory	8.000				03			
76.0	S02	RFJ	Roots Fine Joint				J	07	05		DEFECT WANDERS
100.9	F02	RFJ	Roots Fine Joint				J	07	05		DEFECT WANDERS
120.2	F01	СМ	Crack Multiple				J	07	05		DEFECT WANDERS
120.2		AMH	Manhole								3065
120.2		FH	End of Survey								REVERSAL COMPLETE

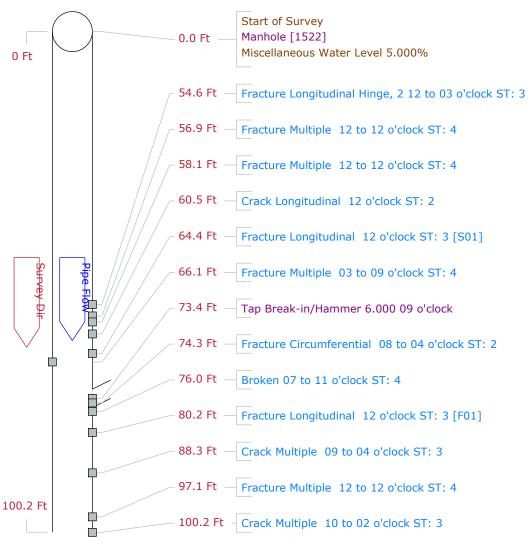
120.2 **Ft Total Length Surveyed** 

Scores	Structural:	Pipe Rating 71	Pipe Ratings Index 3.1	Quick Rating 423C
	O&M:	Pipe Rating 6	Pipe Ratings Index 1	Quick Rating 1600
	Overall	Pipe Rating 77	Pipe Ratings Index 2.7	Quick Rating 423C



## S. Broad St. (M-99 - MDOT) - Spot Replace and Lining - MH1521 to 1522

Pipe Graphic Report of PLR 4037 for Hillsdale Setup 1040/ Surveyed By DLT Certificate # U-0717-07008329 Owner Reviewed By Reviewer # **Work Order** Customer P/O # Media Label **Project SANITARY** Date 2021/09/08 Time 19:43 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning L Flow control **Survey Purpose Direction** Downstream Street M-99 City HILLSDALE Drainage area **Location Code** Pipe Use Sanitary Sewage Pipe Location details Height 7 Width ins Shape Circular Material Vitrified Clay Pipe Lining **Pipe Joint length** Total length 375.1 Structural O & M Coating Ft Miscellaneous Length Surveyed 186.30 Ft Year Constructed Year Renewed Constructional Additional info Up 1522 Rim to invert Grade to invert Rim to grade Ft 1521 Rim to invert Ft Down Grade to invert Rim to grade





Taplin Group LLC Phone: 269-375-9595

Ft

Setup 1040/ Surveyed By DLT Certificate # U-0717-07008329 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/09/08 Time 19:43 Weather Dry - no PrecipitatioPre-Cleaning L **Date Cleaned** Flow control **Survey Purpose Direction** Downstream Street M-99 City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 7 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 375.1 Structural O & M Ft Miscellaneous Length Surveyed 186.30 Ft Year Constructed Year Renewed Constructional Additional info Up 1522 Rim to invert **Grade to invert** Rim to grade Ft

1521 Rim to invert **Grade to invert** Rim to grade Down 103.0 Ft Miscellaneous Water Level Sag 15.000% ST: 2 [S02] 100.2 Ft 109.7 Ft Miscellaneous Water Level Sag 15.000% ST: 2 [F02] 112.9 Ft Tap Factory 6.000 09 o'clock Fracture Multiple 08 to 04 o'clock ST: 4 114.5 Ft Miscellaneous Water Level Sag 15.000% ST: 2 [S03] Miscellaneous Water Level Sag 15.000% ST: 2 [F03] 125.6 Ft <del>Survey Di</del>i Miscellaneous Water Level Sag 15.000% ST: 2 [S04] 137.9 Ft 144.2 Ft Fracture Multiple 10 to 02 o'clock ST: 4

Broken 01 to 04 o'clock ST: 4

Fracture Multiple 02 to 04 o'clock ST: 4



375.0756 F

Taplin Group LLC Phone: 269-375-9595

154.2 Ft

Address: 5140 W Michigan Ave , Kalamazoo, MI

Miscellaneous Water Level Sag 15.000% ST: 2 [F04]

Miscellaneous Survey Abandoned [TRACTOR SLIPPING]

Tabular Report	of PSR 4037		for	Hillsdale			
<b>Setup</b> 1040	Surveyed By DLT		Certificate # U-	-0717-07008329	Ow	ner	
Reviewed By		Reviewer #		Work Ord	er		
Customer				F	P/O #		
Media Label		Project SANITARY					
Date 2021/09/08	<b>Time</b> 19:43	Weather	Dry - no Precipit	atio <b>Pre-Cleaning</b> l	L	Date Clean	ed
Flow control		Survey Purpose				<b>Direction</b> Dow	n
Inspection Status	Complete Inspect	tion Cons	sequence Of Fa	ailure Pro	essure		
Inspection Techn	ology Used	CCTV  Laser	☐ Sonar	Sidewall	Zoom	☐ Other	
Street M-99	·		City HIL	LSDALE	Dra	inage area	
<b>Location Code</b>				Pipe Use	Sanita	ry Sewage Pipe	
Location details				Height 7	Wic	lth ins	
Shape Circular		Material Vitrifie	ed Clay Pipe	Lining			
Coating		Pipe Joi	nt length F	t Total length	375.1	Ft	
Length Surveyed	186.3 <b>Ft</b>	Year Constructed	Year Rei	newed			
<b>Up</b> 1522		Rim to inver	t G	Frade to invert		Rim to grade	Ft
Northing			Easting		Eleva	tion	
<b>Down</b> 1521		Rim to inver	t G	Grade to invert		Rim to grade	Ft
Northing			Easting		Eleva	tion	
Coordinate Syste	m			Vertica	I Datum	1	
<b>GPS Accuracy</b>						Structural	O & M
Additional info						Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								1522
0.0		MWL	Miscellaneous Water Level			5.000					
54.6		FH2	Fracture Longitudinal Hinge, 2					12	03		
56.9		FM	Fracture Multiple				J	12	12		
58.1		FM	Fracture Multiple				J	12	12		
60.5		CL	Crack Longitudinal				J	12			
64.4	S01	FL	Fracture Longitudinal				J	12			
66.1		FM	Fracture Multiple				J	03	09		
73.4		ТВ	Tap Break-in/Hammer	6.000				09			
74.3		FC	Fracture Circumferential					80	04		
76.0		В	Broken				J	07	11		
80.2	F01	FL	Fracture Longitudinal				J	12			
88.3		CM	Crack Multiple				J	09	04		
97.1		FM	Fracture Multiple					12	12		
100.2		CM	Crack Multiple				J	10	02		
103.0	S02	MWLS	Miscellaneous Water Level Sag			15.00	0				
109.7	F02	MWLS	Miscellaneous Water Level Sag			15.00	0				
112.9		TF	Tap Factory	6.000				09			
114.5		FM	Fracture Multiple				J	80	04		
114.5	S03	MWLS	Miscellaneous Water Level Sag			15.00	0				
125.6	F03	MWLS	Miscellaneous Water Level Sag			15.00	0				
137.9	S04	MWLS	Miscellaneous Water Level Sag			15.00	0				



## **Tabular Report of PSR** 4037

for Hillsdale	for	Hillsdale
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Setup	1040	Dat	<b>e</b> 2021/09/08	<b>Time</b> 19:43	Up	1	522					Do	wn	1521
Count	Video	CD	Code			Val1	Val2	%	Jnt	Fr	То	ImRef	Rer	marks
144.2			FM Fracture M	ultiple					J	10	02			
154.2		F04	MWLS Miscellaned	ous Water Level Sa	ag			15.000	)					
154.2			B Broken						J	01	04			
166.4			FM Fracture M	ultiple					J	02	04			
186.3			MSA Miscellane	ous Survey Abando	oned								TRAC	TOR SLIPPING

### 186.3 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 70	Pipe Ratings Index 3	Quick Rating 4936
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 70	Pipe Ratings Index 3.0	Quick Rating 4936

Down

1521

**Grade to invert** 

Ft

Rim to grade

1041/ Surveyed By DLT Setup Certificate # U-0717-07008329 Owner Reviewed By Reviewer # **Work Order** Customer P/O # Media Label **Project SANITARY** Date 2021/09/08 Time 20:32 Weather Dry - no PrecipitatioPre-Cleaning L **Date Cleaned** Flow control **Survey Purpose Direction** Upstream Street M-99 City HILLSDALE Drainage area **Location Code** Pipe Use Sanitary Sewage Pipe Location details Height 7 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating Pipe Joint length Ft Total length 375.1 Ft Structural O & M 175.90 Ft Year Constructed Year Renewed Miscellaneous Constructional **Length Surveyed Additional info** Reverse set up on sheet:106 Up 1522 Rim to invert Grade to invert Rim to grade Ft

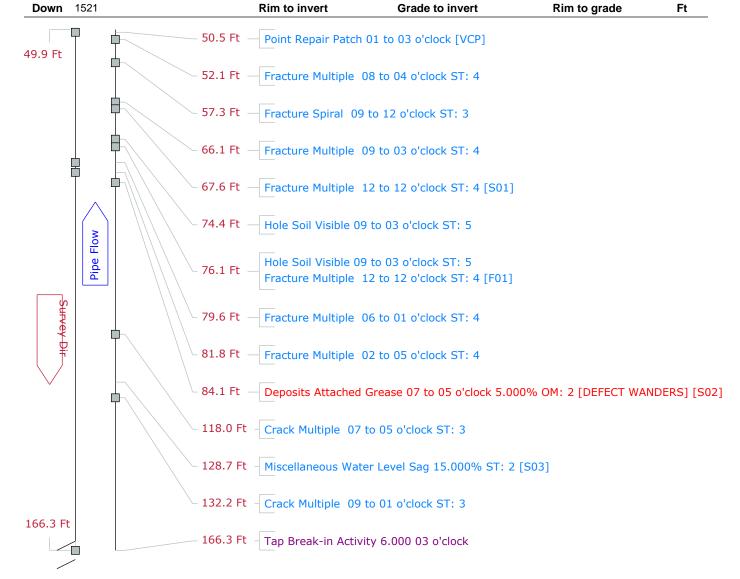
0 Ft			0.0 Ft —	Start of Survey Manhole [1521] Miscellaneous Water Level 5.000%
		<u> </u>	6.3 Ft —	Fracture Multiple 09 to 03 o'clock ST: 4
			8.3 Ft —	Fracture Multiple 09 to 04 o'clock ST: 4
			23.4 Ft —	Fracture Multiple 09 to 02 o'clock ST: 4
			24.8 Ft —	Fracture Multiple 11 to 04 o'clock ST: 4
	Pipe Flow		27.7 Ft -	Fracture Multiple 10 to 02 o'clock ST: 4
م	ا <mark>آھ</mark> ا ا		28.9 Ft -	Fracture Multiple 10 to 02 o'clock ST: 4
Survey Dir	[   [		31.1 Ft —	Fracture Multiple 12 to 12 o'clock ST: 4
\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \			35.2 Ft —	Crack Multiple 11 to 02 o'clock ST: 3
<b>\</b>			41.8 Ft –	Hole Soil Visible 09 to 03 o'clock ST: 5
			43.3 Ft -	Hole Soil Visible 09 to 02 o'clock ST: 5
			46.0 Ft -	Broken 06 to 09 o'clock ST: 4
	' 		47.3 Ft –	Crack Multiple 12 to 04 o'clock ST: 3
49.9 Ft			49.9 Ft –	Broken 04 to 08 o'clock ST: 4

Rim to invert



Taplin Group LLC Phone: 269-375-9595

Setup 1041/ Surveyed By DLT Certificate # U-0717-07008329 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/09/08 Time 20:32 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning L Flow control **Survey Purpose Direction** Upstream Street M-99 City HILLSDALE Drainage area **Location Code** Pipe Use Sanitary Sewage Pipe Location details Height 7 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 375.1 Structural O & M Ft Miscellaneous Length Surveyed 175.90 Ft Year Constructed Year Renewed Constructional Additional info Reverse set up on sheet:106 Up 1522 Rim to invert Grade to invert Rim to grade Ft



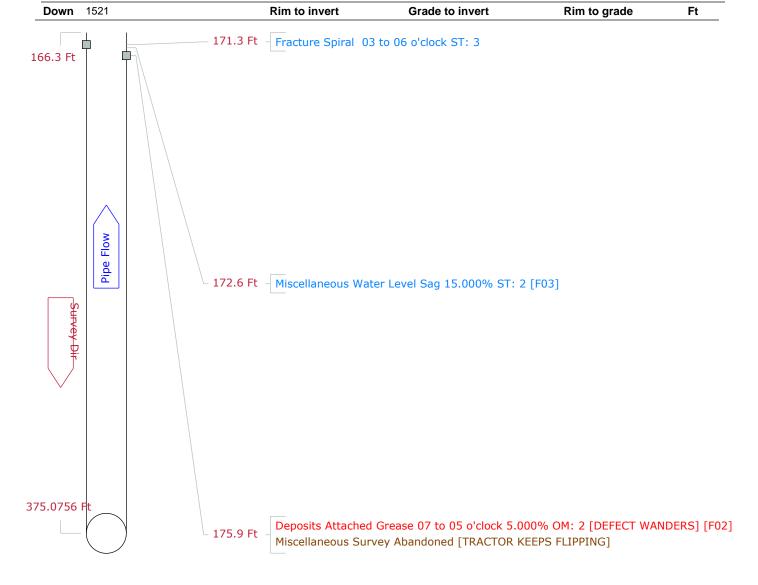


Taplin Group LLC Phone: 269-375-9595

Ft

Surveyed By DLT Setup 1041/ Certificate # U-0717-07008329 Owner Reviewed By Reviewer # **Work Order** P/O # Customer **Media Label Project SANITARY** Date 2021/09/08 Time 20:32 Weather Dry - no PrecipitatioPre-Cleaning L **Date Cleaned** Flow control **Survey Purpose Direction** Upstream Street M-99 City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 7 Width ins Material Vitrified Clay Pipe Shape Circular Lining Coating **Pipe Joint length** Total length 375.1 Ft Structural O & M Ft 175.90 Ft Year Constructed Year Renewed Miscellaneous Length Surveyed Constructional Additional info Reverse set up on sheet:106

Up 1522 Rim to invert Grade to invert Rim to grade





Taplin Group LLC Phone: 269-375-9595

Tabular Report of I	<b>PSR</b> 4037	for	Hillsdale		
Setup 1041 Sur	rveyed By DLT	Certificate #	J-0717-07008329 <b>C</b>	wner	
Reviewed By	Reviewer #		Work Order		
Customer			P/O #		
Media Label	Project SANITARY				
Date 2021/09/08	Time 20:32 Weather	er Dry - no Precip	oitatio <b>Pre-Cleaning</b> L	Date Clean	ed
Flow control	Survey Purpose	•		<b>Direction</b> Up	
Inspection Status	Complete Inspection Co	nsequence Of I	Failure Pressur	e	
Inspection Technolog	gy Used CCTV Lase	r 🗌 Sonar	Sidewall Zoom	☐ Other	
Street M-99		City H	ILLSDALE <b>D</b>	rainage area	
<b>Location Code</b>			Pipe Use San	tary Sewage Pipe	
Location details			Height 7 W	idth ins	
Shape Circular	<b>Material</b> Vitri	ified Clay Pipe	Lining		
Coating	Pipe Jo	oint length	Ft Total length 375.1	Ft	
Length Surveyed	175.9 Ft Year Constructed	I Year R	enewed		
<b>Up</b> 1522	Rim to inv	ert	Grade to invert	Rim to grade	Ft
Northing		Easting	Elev	ation	
<b>Down</b> 1521	Rim to inv	ert	Grade to invert	Rim to grade	- Ft
Northing		Easting	Elev	ation	
Coordinate System			Vertical Datu	m	
<b>GPS Accuracy</b>				Structural	O & M
Additional info	Reverse set up on sheet:106			Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								1521
0.0		MWL	Miscellaneous Water Level			5.000					
6.3		FM	Fracture Multiple				J	09	03		
8.3		FM	Fracture Multiple				J	09	04		
23.4		FM	Fracture Multiple				J	09	02		
24.8		FM	Fracture Multiple				J	11	04		
27.7		FM	Fracture Multiple				J	10	02		
28.9		FM	Fracture Multiple				J	10	02		
31.1		FM	Fracture Multiple				J	12	12		
35.2		CM	Crack Multiple				J		02		
41.8		HSV	Hole Soil Visible				J	09			
43.3		HSV	Hole Soil Visible				J		02		
46.0		В	Broken				J		09		
47.3		CM	Crack Multiple				J		04		
49.9		В	Broken				J	04	80		
50.5		RPP	Point Repair Patch					01	03		VCP
52.1		FM	Fracture Multiple				J		04		
57.3		FS	Fracture Spiral				J		12		
66.1		FM	Fracture Multiple				J	09			
67.6	S01	FM	Fracture Multiple				J		12		
74.4		HSV	Hole Soil Visible				J	09	03		
76.1		HSV	Hole Soil Visible				J	09	03		

## **Tabular Report of PSR** 4037

for Hillsdale
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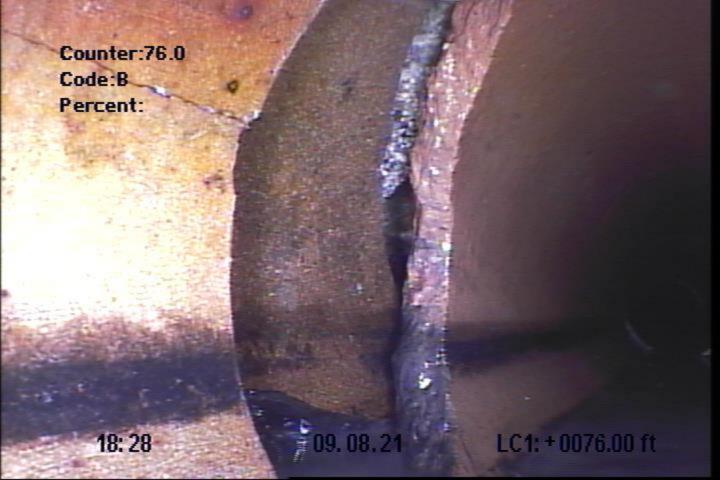
Setup	1041	Date	e 2021/09/08	Time 20:32	Up	15	522					D	own 1521	
Count	Video	CD	Code			Val1	Val2	% .	Jnt	Fr	То	ImRe	f Remarks	
76.1		F01	FM Fracture M	ultiple					J	12	12			
79.6			FM Fracture M	ultiple					J	06	01			
81.8			FM Fracture M	ultiple					J	02	05			
84.1		S02	DAGS Deposits A	ttached Grease				5.000		07	05		DEFECT WAND	DERS
118.0			CM Crack Mult	iple					J	07	05			
128.7		S03	MWLS Miscellane	ous Water Level Sa	ag			15.000						
132.2			CM Crack Mult	iple					J	09	01			
166.3			TBA Tap Break-	in Activity		6.000				03				
171.3			FS Fracture S	oiral					J	03	06			
172.6		F03	MWLS Miscellane	ous Water Level Sa	ag			15.000						
175.9		F02	DAGS Deposits A	ttached Grease				5.000		07	05		DEFECT WAND	DERS
175.9			MSA Miscellane	ous Survey Abando	ned								TRACTOR KEE	PS FLIPPING

### 175.9 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 116	Pipe Ratings Index 3.4	Quick Rating 544B
	O&M:	Pipe Rating 36	Pipe Ratings Index 2	Quick Rating 2B00
	Overall	Pipe Rating 152	Pipe Ratings Index 2.9	Quick Rating 544B







# E. Bacon St. - **Lining** - MH2522 to 2523

Tabular Report of	<b>PSR</b> 4298		for	Hillsdale			
Setup 249 Su	rveyed By MJT		Certificate # U	122070400698	Ow	ner	
Reviewed By		Reviewer #		Work Orde	er		
Customer				F	/O #		
Media Label		Project SANITARY					
Date 2021/04/30	Time 11:30	Weather	Dry - no Precipi	tatioPre-Cleaning N	1	Date Clean	ed
Flow control		Survey Purpose				<b>Direction</b> Dow	/n
Inspection Status	Complete Inspect	tion Con	sequence Of F	ailure Pre	essure		
Inspection Technolo	gy Used	CCTV  Laser	☐ Sonar	Sidewall .	Zoom	☐ Other	
Street E BACON RD	•		City HII	LSDALE	Drai	inage area	
<b>Location Code</b>				Pipe Use	Sanitar	ry Sewage Pipe	
Location details				Height 8	Wid	th ins	
Shape Circular		Material Vitrifie	ed Clay Pipe	Lining			
Coating		Pipe Joi	nt length	Ft Total length	349.6	Ft	
Length Surveyed	353.0 <b>Ft</b>	Year Constructed	Year Re	newed			
<b>Up</b> 2522		Rim to inver	rt (	Grade to invert		Rim to grade	Ft
Northing			Easting		Elevat	ion	
<b>Down</b> 2523		Rim to inver	rt (	Grade to invert		Rim to grade	Ft
Northing			Easting		Elevat	ion	
Coordinate System				Vertical	Datum		
<b>GPS Accuracy</b>						Structural	O & M
Additional info						Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								2522
0.0		MWL	Miscellaneous Water Level			5.000					
8.4		CL	Crack Longitudinal				J	03			
9.0		CL	Crack Longitudinal				J	05			
9.0		RFJ	Roots Fine Joint				J	07	09		
11.0	S01	CM	Crack Multiple				J	07	05		DEFECT WANDERS
14.8		RFJ	Roots Fine Joint	Ì			J	07	05		DEFECT WANDERS
56.8		TF	Tap Factory	8.000				09			
91.2		TF	Tap Factory	8.000				09			
99.3		TF	Tap Factory	8.000				03			
151.7		TFC	Tap Factory Capped	8.000				03			
177.4		В	Broken				J	12	05		
177.4		HSV	Hole Soil Visible				J	12	05		
191.9		HSV	Hole Soil Visible					12			
196.3		TF	Tap Factory	6.000				09			
218.4		TF	Tap Factory	6.000				03			
256.9		TF	Tap Factory	6.000				09			
265.4		RFJ	Roots Fine Joint				J	07	10		
267.5		FM	Fracture Multiple				J	12	05		
271.1		TF	Tap Factory	6.000				09			
287.1		TFD	Tap Factory Defective	6.000				03			ROOTS
301.7		RFJ	Roots Fine Joint				J	02	05		



Taplin Group LLC Phone:269-375-9595

## **Tabular Report of PSR** 4298

for Hillsdale
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Setup	249	Dat	<b>e</b> 2021	/04/30	<b>Time</b> 11:30	Up	2	2522					Do	<b>wn</b> 2523
Count	Video	CD	Code				Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
311.7			RFJ	Roots Fine	e Joint					J	03	05		
313.8			RFJ	Roots Fine	e Joint					J	03	05		
331.8			RFJ	Roots Fine	e Joint					J	09	03		
353.0		F01	CM	Crack Mul	tiple					J	07	05		DEFECT WANDERS
353.0			AMH	Manhole									2	2523
353.0			FH	End of Su	rvey									

### 353.0 Ft Total Length Surveyed

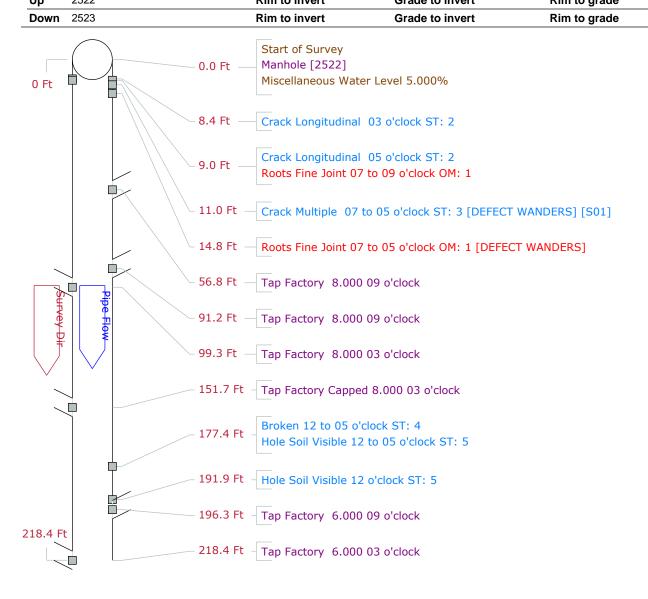
Scores	Structural:	Pipe Rating 226	Pipe Ratings Index 3.1	Quick Rating 5242
	O&M:	Pipe Rating 10	Pipe Ratings Index 1.3	Quick Rating 3117
	Overall	Pipe Rating 236	Pipe Ratings Index 2.9	Quick Rating 5242

Ft

Setup 249 Surveyed By MJT Certificate # U122070400698 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/04/30 Time 11:30 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Downstream Street E BACON RD City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 349.6 Structural O & M Ft Year Renewed Miscellaneous Length Surveyed 353.00 Ft Year Constructed Constructional

Additional info

Up 2522 Rim to invert Grade to invert Rim to grade Ft

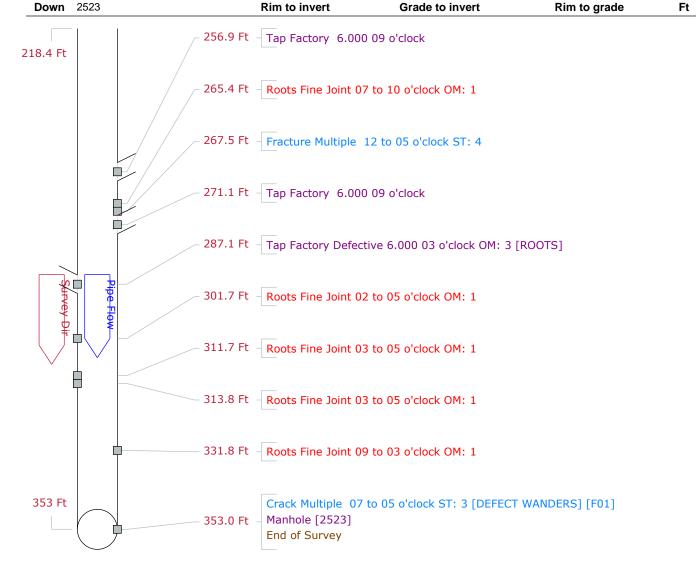




Taplin Group LLC Phone: 269-375-9595

Setup 249 Surveyed By MJT Certificate # U122070400698 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/04/30 Time 11:30 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Downstream Street E BACON RD City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 349.6 Structural O & M Ft Year Renewed Miscellaneous Length Surveyed 353.00 Ft Year Constructed Constructional Additional info

Up 2522 Rim to invert Grade to invert Rim to grade Ft





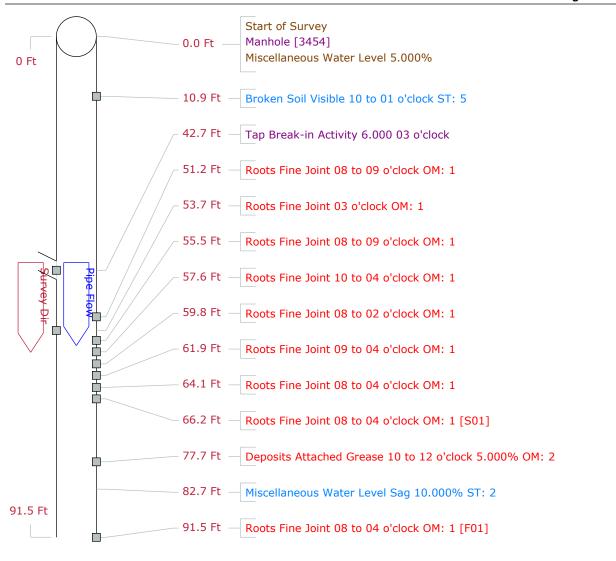
Taplin Group LLC Phone: 269-375-9595



## W. Bacon St. - Lining - MH3454 to 3453

Pipe Graphic Report of PLR 3912 for Hillsdale Setup 1063/ Surveyed By JSG Certificate # U-607-5207 Owner Reviewed By Reviewer # **Work Order** Customer P/O # Media Label **Project SANITARY** Date 2021/09/14 Time 16:01 **Date Cleaned** 2021/09/14 Weather Heavy Rain Pre-Cleaning L Survey Purpose Routine Assessment **Direction** Downstream Flow control De-Watered using J Street W Bacon St City Hillsdale Drainage area **Location Code** Pipe Use Sanitary Sewage Pipe Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining **Pipe Joint length** Total length 198.2 Structural O & M Coating Ft Ft Miscellaneous Length Surveyed 194.30 Ft Year Constructed Year Renewed Constructional Additional info

Up	3454	Rim to invert	Grade to invert	Rim to grade	Ft
Down	3453	Rim to invert	Grade to invert	Rim to grade	Ft

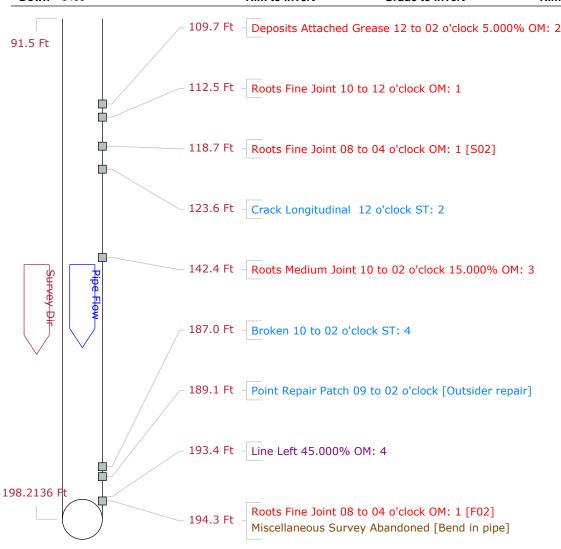




Taplin Group LLC Phone: 269-375-9595

Setup 1063/ Surveyed By JSG Certificate # U-607-5207 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/09/14 Time 16:01 **Date Cleaned** 2021/09/14 Weather Heavy Rain Pre-Cleaning L Flow control De-Watered using J Survey Purpose Routine Assessment **Direction** Downstream Street W Bacon St City Hillsdale Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 198.2 Ft Structural O & M Ft Miscellaneous Length Surveyed 194.30 Ft Year Constructed Year Renewed Constructional Additional info

Up	3454	Rim to invert	Grade to invert	Rim to grade	Ft
Down	3453	Rim to invert	Grade to invert	Rim to grade	Ft





**Taplin Group LLC** Phone: 269-375-9595

Tabular Repo	rt of	PSR 39	912					for	Hills	sdal	е			
<b>Setup</b> 1063	Sı	rveyed E	By JSG	;		Ce	ertificat	e# U-6	607-52	07		Oı	wner	
Reviewed By		-		Re	viewer #					Woi	k Ord	der		
Customer												P/O #		
Media Label				Projec	t SANITAI	RY								
Date 2021/09/	/14	Time	16:01		Wea	ther H	eavy Ra	ain	Pre-	Clea	ning	L	Date Clean	ed 2021/09/14
Flow control	De-V	Vatered us	ing J	Surv	ey Purpo	se Ro	utine As	sessme	ent				<b>Direction</b> Dov	vn
Inspection Sta	tus	Complete	Inspec	tion	(	Conse	quence	of Fai	lure		Pı	essure		
Inspection Tec	hnolo	gy Used		] сстv	′	ser	☐ Sor	nar [	Side	wall		Zoom	☐ Other	
Street W Baco	on St		•			(	City	Hills	dale			Dra	ainage area	
<b>Location Code</b>	•									Pipe	e Use	Sanit	ary Sewage Pipe	
Location detail	ls									Hei	ght 8	Wi	dth ins	
Shape Circular	r			M	aterial \	/itrified	Clay Pip	ре		Lini	ng			
Coating					Pipe	Joint	length	Ft	: То	otal l	ength	198.2	Ft	
Length Survey	ed	194	.3 <b>Ft</b>	Year (	Construct	ed	Ye	ar Ren	ewed					
<b>Up</b> 3454					Rim to i	nvert		Gı	rade to	inve	ert		Rim to grade	. Ft
Northing						Ea	sting					Eleva	ation	
<b>Down</b> 3453					Rim to i	nvert		Gı	rade to	inve	ert		Rim to grade	. Ft
Northing						Ea	sting					Eleva	ation	
0 1 1 - 0	-4									٧	ertica	al Datur	n	
Coordinate Sys	stem													
GPS Accuracy													Structural	O & M
•	,												Structural Miscellaneous	O & M Constructional
GPS Accuracy Additional info	)	Code					Val1	Val2	%	Jnt	Fr To	ImRef	Miscellaneous	
GPS Accuracy Additional info	CD	Code ST St	art of S	Survey			Val1	Val2	<b>%</b>	Jnt	Fr To	ImRef		
GPS Accuracy Additional info	CD	ST St	art of S	Survey			Val1	Val2	%	Jnt	Fr To		Miscellaneous	

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								3454
0.0		MWL	Miscellaneous Water Level			5.000					
10.9		BSV	Broken Soil Visible					10	01		
42.7		TBA	Tap Break-in Activity	6.000				03			
51.2		RFJ	Roots Fine Joint				J	80	09		
53.7		RFJ	Roots Fine Joint				J	03			
55.5		RFJ	Roots Fine Joint				J	80	09		
57.6		RFJ	Roots Fine Joint				J	10	04		
59.8		RFJ	Roots Fine Joint				J	80	02		
61.9		RFJ	Roots Fine Joint					09			
64.1		RFJ	Roots Fine Joint				J	80	04		
66.2	S01	RFJ	Roots Fine Joint				J	80	04		
77.7		DAGS	Deposits Attached Grease			5.000		10	12		
82.7		MWLS	Miscellaneous Water Level Sag			10.000					
91.5	F01	RFJ	Roots Fine Joint				J	80	04		
109.7		DAGS	Deposits Attached Grease			5.000		12	02		
112.5		RFJ	Roots Fine Joint				J	10	12		
118.7	S02	RFJ	Roots Fine Joint				J	80	04		
123.6		CL	Crack Longitudinal					12			
142.4		RMJ	Roots Medium Joint			15.000	J	10	02		
187.0		В	Broken				J	10	02		
189.1		RPP	Point Repair Patch					09	02		Outsider repair



## **Tabular Report of PSR** 3912

### for Hillsdale

Setup	1063	063 <b>Date</b> 2021/09/14		<b>Time</b> 16:01	Up	3	454	<b>Down</b> 3453									
Count '	Video	CD	Code				Val1	Val2	%	Jnt	Fr	То	ImRe	Rem	narks		
193.4			LL	Line Left					45.000								
194.3		F02	RFJ	Roots Fine J	loint					J	80	04					
194.3			MSA	Miscellaneo	us Survey Aband	loned								Bend ir	n pipe		

#### 194.3 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 13	Pipe Ratings Index 3.3	Quick Rating 5141
	O&M:	Pipe Rating 39	Pipe Ratings Index 1.2	Quick Rating 4131
	Overall	Pipe Rating 52	Pipe Ratings Index 1.4	Quick Rating 5142

Pipe Graphic Report of PLR 3912

for

Certificate # U-607-5207

Hillsdale

Setup 1064/ Surveyed By JSG

**Work Order** 

Reviewed By Customer

Reviewer #

P/O #

**Media Label** 

**Project SANITARY** 

Date 2021/09/14

Time 17:08

Weather Heavy Rain

Pre-Cleaning L

Date Cleaned 2021/09/14

Flow control

De-Watered using J

Survey Purpose Routine Assessment

Drainage area

Street W Bacon St

City Hillsdale

Sanitary Sewage Pipe Pipe Use

Owner

**Location Code** Location details

Height 8 Width

Ft

ins

**Direction** Upstream

Shape Circular Coating

Material Vitrified Clay Pipe

**Pipe Joint length** 

Lining Total length 198.2 Ft

Structural

O & M

**Length Surveyed** 

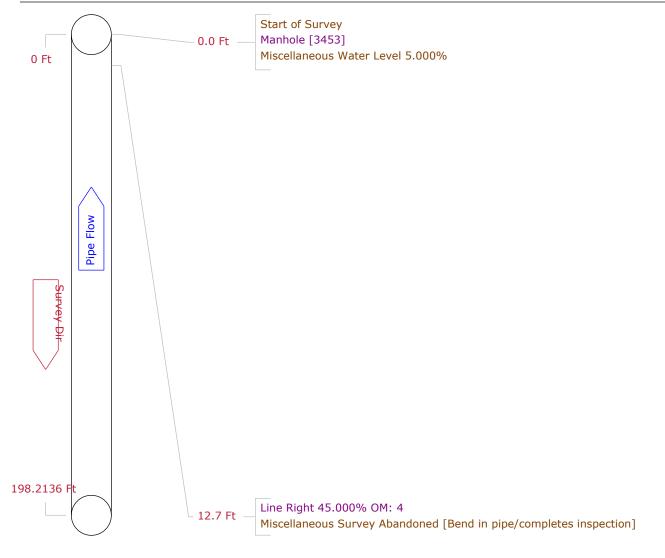
12.70 Ft Year Constructed

Year Renewed

Miscellaneous Constructional

Additional info Reverse set up on sheet:133

Up 3454 Rim to invert Grade to invert Rim to grade Ft 3453 Ft Down Rim to invert **Grade to invert** Rim to grade





**Taplin Group LLC** Phone: 269-375-9595

Tabular Report of PSR 3912	2 <b>f</b>	or Hillsdale	
Setup 1064 Surveyed By	JSG Certificate	# U-607-5207 <b>O</b>	wner
Reviewed By	Reviewer #	Work Order	
Customer		P/O #	
Media Label	Project SANITARY		
<b>Date</b> 2021/09/14	7:08 <b>Weather</b> Heavy Rair	Pre-Cleaning <b>L</b>	<b>Date Cleaned</b> 2021/09/14
Flow control De-Watered using	J Survey Purpose Routine Ass	essment	Direction Up
Inspection Status Complete Ins	spection Consequence	Of Failure Pressure	
Inspection Technology Used	CCTV Laser Sona	r 🗌 Sidewall 📗 Zoom	☐ Other
Street W Bacon St	City	Hillsdale Dr	ainage area
Location Code		Pipe Use Sanit	ary Sewage Pipe
Location details		Height 8 Wi	dth ins
Shape Circular	Material Vitrified Clay Pipe	Lining	
Coating	Pipe Joint length	Ft Total length 198.2	Ft
Length Surveyed 12.7	Ft Year Constructed Yea	Renewed	
<b>Up</b> 3454	Rim to invert	Grade to invert	Rim to grade Ft
Northing	Easting	Eleva	ation
<b>Down</b> 3453	Rim to invert	Grade to invert	Rim to grade Ft
Northing	Easting	Eleva	ation
Coordinate System		Vertical Datur	n
GPS Accuracy			Structural O & M

Count Video	CD Code		Val1	Val2	% .	Jnt	Fr	То	ImRef	Remarks
0.0	ST	Start of Survey								
0.0	AMH	Manhole							;	3453
0.0	MWL	Miscellaneous Water Level			5.000					
12.7	LR	Line Right			45.000					
12.7	MSA	Miscellaneous Survey Abandoned								Bend in pipe/completes inspec

Miscellaneous

Constructional

12.7 Ft Total Length Surveyed

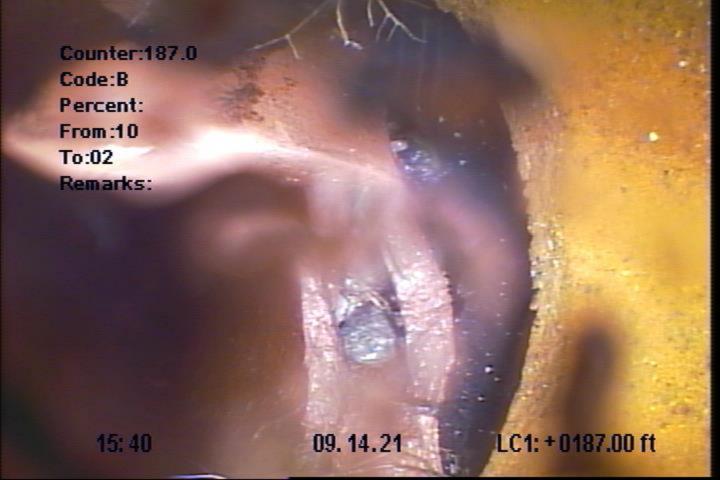
Reverse set up on sheet:133

Additional info

Scores	Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	O&M:	Pipe Rating 4	Pipe Ratings Index 4	Quick Rating 4100
	Overall	Pipe Rating 4	Pipe Ratings Index 4.0	Quick Rating 4100



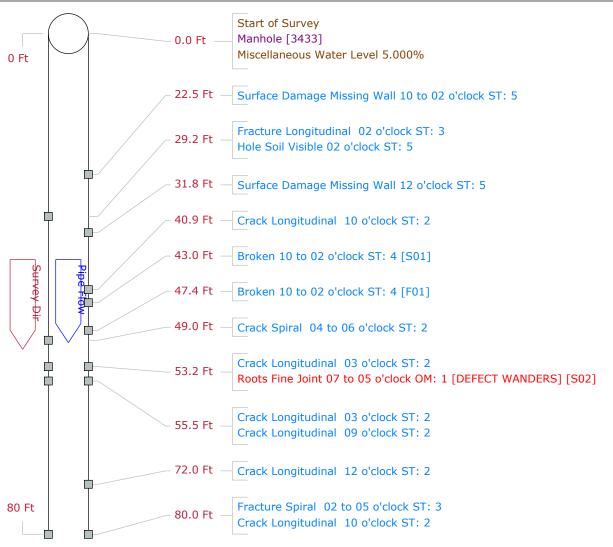






## W. South St. - Lining - MH3433 to New Manhole

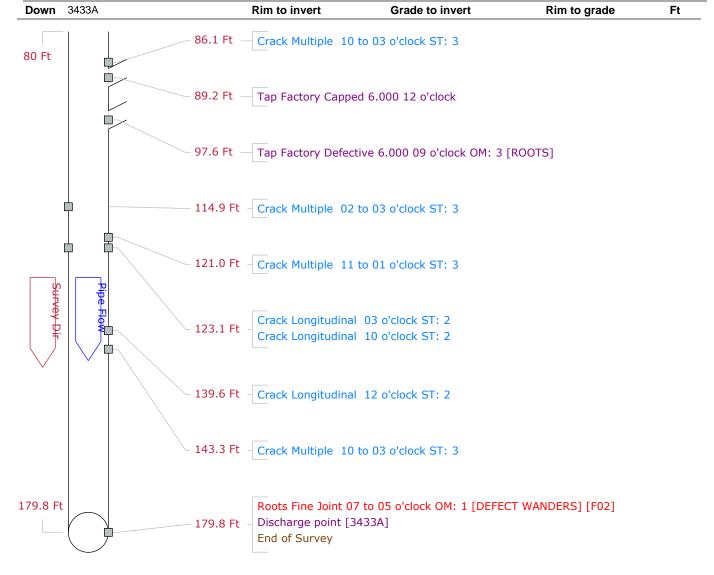
Pipe Graphic Report of PLR 7826 for Hillsdale Setup 1010 Surveyed By DLT Certificate # U-0717-07008329 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/08/27 Time 14:04 Weather Dry - no PrecipitatioPre-Cleaning L **Date Cleaned** Flow control **Survey Purpose Direction** Downstream Street SOUTH City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 6 Width ins Shape Circular Material Vitrified Clay Pipe Lining **Total length** Coating **Pipe Joint length** Structural O & M Ft Miscellaneous Length Surveyed 179.80 Ft Year Constructed Year Renewed Constructional Additional info Up 3433 Rim to invert Grade to invert Rim to grade Ft 3433A Rim to invert Grade to invert Rim to grade Ft Down





Taplin Group LLC Phone: 269-375-9595

Setup	1010	Surveyed By DLT	<u> </u>	Certifica	ate# L	J-0717-0	7008329	Ow	/ner		
Review	ed By		Reviewer #				Work Order				
Custome	er						P/O	#			
Media La	abel		Project SANITARY								
Date 20	021/08/27	Time 14:04	Weathe	r Dry - no	Precip	itatio <b>Pre</b> -	Cleaning <b>∟</b>		D	ate Clear	ned
Flow cor	ntrol		Survey Purpose						Dire	ction Do	wnstream
Street	SOUTH			City	HI	LLSDALE		Dra	inage	area	
Location	Code						Pipe Use	Sa	nitary S	Sewage Pi	ре
Location	details						Height 6	Wic	dth	ins	
Shape (	Circular		Material Vitrif	ied Clay F	ipe		Lining				
Coating			Pipe Joint	length	Ft	Total I	ength	Ft	Struct	ural	O & M
Length S	Surveyed	179.80 <b>Ft</b>	Year Constructed	Υ	ear Re	newed			Misce	llaneous	Constructional
Addition	al info										
Up :	3433		Rim to inver	t	G	rade to	invert		Rim	to grade	Ft





Taplin Group LLC Phone: 269-375-9595

Setup 1010 Surveyed By DLT	Certificate # U	J-0717-07008329 <b>O</b>	wner	
Reviewed By Re	viewer #	Work Order		
Customer		P/O #		
Media Label Project	t SANITARY			
<b>Date</b> 2021/08/27 <b>Time</b> 14:04	Weather Dry - no Precipi	itatio <b>Pre-Cleaning</b> L	Date Clean	ed
Flow control Sur	vey Purpose		<b>Direction</b> Dow	'n
Inspection Status Complete Inspection	Consequence Of F	ailure Pressure	•	
Inspection Technology Used	Laser Sonar	Sidewall Zoom	☐ Other	
Street SOUTH	<b>City</b> HII	LLSDALE <b>D</b> r	ainage area	
Location Code		Pipe Use Sanit	ary Sewage Pipe	
Location details		Height 6 Wi	idth ins	
Shape Circular M	aterial Vitrified Clay Pipe	Lining		
Coating	Pipe Joint length	Ft Total length	Ft	
Length Surveyed 179.8 Ft Year	Constructed Year Re	enewed		
<b>Up</b> 3433	Rim to invert	Grade to invert	Rim to grade	Ft
Northing	Easting	Eleva	ation	
<b>Down</b> 3433A	Rim to invert	Grade to invert	Rim to grade	Ft
Northing	Easting	Eleva	ation	
Coordinate System		Vertical Datur	n	
GPS Accuracy			Structural	O & M
Additional info			Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								3433
0.0		MWL	Miscellaneous Water Level			5.000					
22.5		SMW	Surface Damage Missing Wall				J	10	02		
29.2		FL	Fracture Longitudinal				J	02			
29.2		HSV	Hole Soil Visible					02			
31.8		SMW	Surface Damage Missing Wall					12			
40.9		CL	Crack Longitudinal				J	10			
43.0	S01	В	Broken					10	02		
47.4	F01	В	Broken					10	02		
49.0		CS	Crack Spiral				J	04	06		
53.2		CL	Crack Longitudinal				J	03			
53.2	S02	RFJ	Roots Fine Joint				J	07	05		DEFECT WANDERS
55.5		CL	Crack Longitudinal				J	03			
55.5		CL	Crack Longitudinal				J	09			
72.0		CL	Crack Longitudinal				J	12			
80.0		FS	Fracture Spiral				J	02	05		
80.0		CL	Crack Longitudinal				J	10			
86.1		CM	Crack Multiple				J	10	03		
89.2		TFC	Tap Factory Capped	6.000				12			
97.6		TFD	Tap Factory Defective	6.000				09			ROOTS
114.9		CM	Crack Multiple				J	02	03		
121.0		CM	Crack Multiple				J	11	01		

#### for Hillsdale

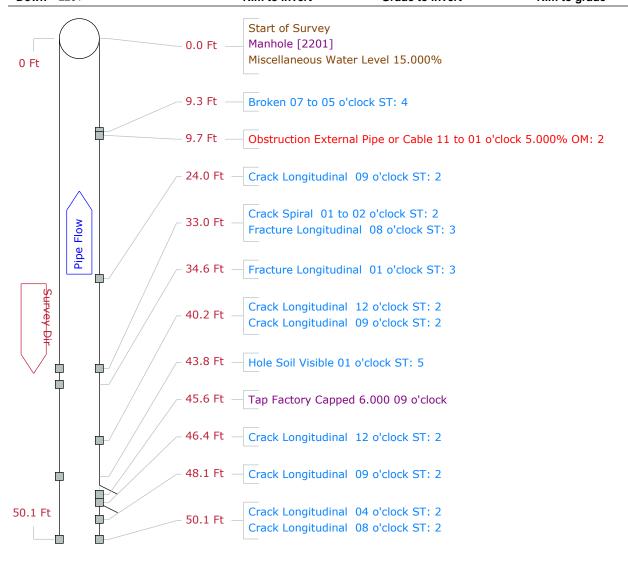
Setup	1010	Dat	<b>e</b> 2021	/08/27	<b>Time</b> 14:04	Up	;	3433					D	own 3433A
Count	Video	CD	Code				Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
123.1			CL	Crack L	ongitudinal					J	03			
123.1			CL	Crack L	ongitudinal					J	10			
139.6			CL	Crack L	ongitudinal					J	12			
143.3			CM	Crack N	lultiple					J	10	03		
179.8		F02	RFJ	Roots F	ine Joint					J	07	05		DEFECT WANDERS
179.8			ADP	Dischar	ge point									3433A
179.8			FH	End of S	Burvey									

#### 179.8 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 57	Pipe Ratings Index 2.9	Quick Rating 5341
	O&M:	Pipe Rating 28	Pipe Ratings Index 1.1	Quick Rating 311D
	Overall	Pipe Rating 85	Pipe Ratings Index 1.8	Quick Rating 5341

# Barber St. - Lining - MH2200 to 2201A to 2201

Pipe Graphic Report of PLR 4186 for Hillsdale Setup 602 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/06/16 Time 11:48 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Upstream Street BARBER DR City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 338.7 Structural O & M Ft Miscellaneous Length Surveyed 140.30 Ft Year Constructed Year Renewed Constructional Additional info Up 2201A Rim to invert Grade to invert Rim to grade Ft 2201 Rim to invert Grade to invert Rim to grade Ft Down

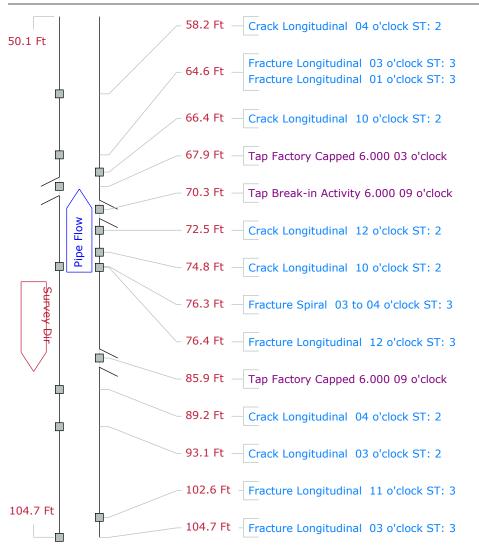




Taplin Group LLC Phone: 269-375-9595

Setup Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** Customer P/O # Media Label **Project SANITARY** Date 2021/06/16 Time 11:48 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning N Flow control **Survey Purpose Direction** Upstream Street BARBER DR City HILLSDALE Drainage area **Location Code** Pipe Use Sanitary Sewage Pipe Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 338.7 Structural O & M Ft Ft Miscellaneous Length Surveyed 140.30 Ft Year Constructed Year Renewed Constructional Additional info

Up2201ARim to invertGrade to invertRim to gradeFtDown2201Rim to invertGrade to invertRim to gradeFt



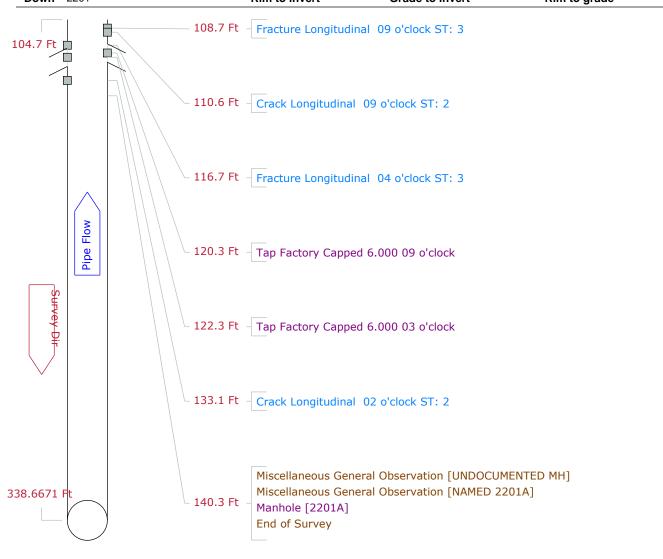


Taplin Group LLC Phone: 269-375-9595

Setup Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer **Media Label Project SANITARY** Date 2021/06/16 Time 11:48 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Upstream Street BARBER DR City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 338.7 Structural O & M Ft Miscellaneous Length Surveyed 140.30 Ft Year Constructed Year Renewed Constructional Additional info

Up 2201A Rim to invert Grade to invert Rim to grade Ft

Down 2201 Rim to invert Grade to invert Rim to grade Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report	of PSR 4186	j		tor	Hillsdale			
Setup 602	Surveyed By /	AGS		Certificate # \	J61406021126	Ov	ner	
Reviewed By			Reviewer #		Work	Order		
Customer						P/O #		
Media Label		Pro	ject SANITARY					
Date 2021/06/16	Time 1	1:48	Weather	Dry - no Precip	itatio <b>Pre-Clean</b>	ing N	Date Clean	ed
Flow control		S	Survey Purpose				<b>Direction</b> Up	
Inspection Status	Complete Ins	pection	Cons	sequence Of F	ailure	Pressure		
Inspection Techno	ology Used	□ cc	CTV Laser	☐ Sonar	Sidewall	Zoom	Other	
Street BARBER D	)R			City HI	LLSDALE	Dra	inage area	
<b>Location Code</b>					Pipe	<b>Use</b> Sanita	ry Sewage Pipe	
Location details					Heig	ht 8 Wid	dth ins	
Shape Circular			Material Vitrifie	ed Clay Pipe	Linin	g		
Coating			Pipe Joi	nt length	Ft Total le	ngth 338.7	Ft	
Length Surveyed	140.3	Ft Ye	ar Constructed	Year Re	enewed			
<b>Up</b> 2201A			Rim to inver	t	Grade to inver	·t	Rim to grade	Ft
Northing			1	Easting		Eleva	tion	
<b>Down</b> 2201			Rim to inver	t	Grade to inver	rt .	Rim to grade	Ft
Northing			I	Easting		Eleva	tion	
Coordinate System	m				Ve	rtical Datum	1	
<b>GPS Accuracy</b>							Structural	O & M
Additional info							Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	% ,	Jnt	Fr	То	ImRe	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								2201
0.0		MWL	Miscellaneous Water Level			15.000					
9.3		В	Broken				J	07	05		
9.7		OBP	Obstruction External Pipe or Cable			5.000		11	01		
24.0		CL	Crack Longitudinal				J	09			
33.0		CS	Crack Spiral				J	01	02		
33.0		FL	Fracture Longitudinal				J	80			
34.6		FL	Fracture Longitudinal				J	01			
40.2		CL	Crack Longitudinal				J	12			
40.2		CL	Crack Longitudinal				J	09			
43.8		HSV	Hole Soil Visible					01			
45.6		TFC	Tap Factory Capped	6.000				09			
46.4		CL	Crack Longitudinal				J	12			
48.1		CL	Crack Longitudinal				J	09			
50.1		CL	Crack Longitudinal				J	04			
50.1		CL	Crack Longitudinal				J	80			
58.2		CL	Crack Longitudinal				J	04			
64.6		FL	Fracture Longitudinal				1	03			
64.6		FL	Fracture Longitudinal				J	01			
66.4		CL	Crack Longitudinal				J	10			
67.9		TFC	Tap Factory Capped	6.000				03			
70.3		TBA	Tap Break-in Activity	6.000				09			

#### for Hillsdale

Setup	602	<b>Date</b> 2021	/06/16 <b>Time</b> 11:48	Up	22	201A					Do	own 2201
Count \	√ideo	CD Code			Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
72.5		CL	Crack Longitudinal					J	12			
74.8		CL	Crack Longitudinal					J	10			
76.3		FS	Fracture Spiral					J	03	04		
76.4		FL	Fracture Longitudinal					J	12			
85.9		TFC	Tap Factory Capped		6.000				09			
89.2		CL	Crack Longitudinal					J	04			
93.1		CL	Crack Longitudinal					J	03			
102.6		FL	Fracture Longitudinal					J	11			
104.7		FL	Fracture Longitudinal					J	03			
108.7		FL	Fracture Longitudinal					J	09			
110.6		CL	Crack Longitudinal					J	09			
116.7		FL	Fracture Longitudinal					J	04			
120.3		TFC	Tap Factory Capped		6.000				09			
122.3		TFC	Tap Factory Capped		6.000				03			
133.1		CL	Crack Longitudinal					J	02			
140.3		MGO	Miscellaneous General Obser	rvation								UNDOCUMENTED MH
140.3		MGO	Miscellaneous General Obser	rvation								NAMED 2201A
140.3		AMH	Manhole									2201A
140.3		FH	End of Survey									

#### 140.3 Ft Total Length Surveyed

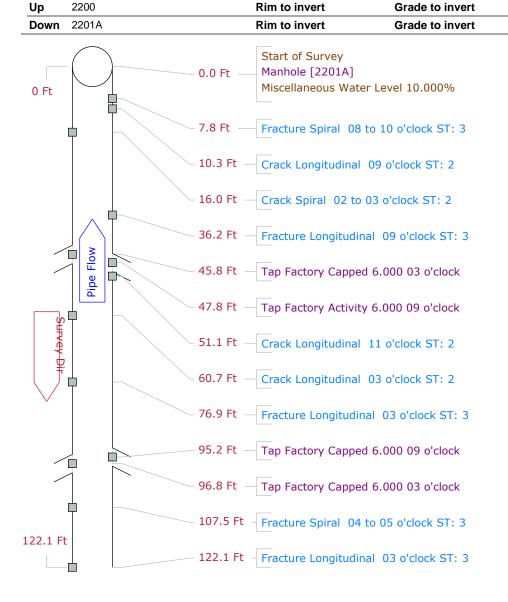
Scores	Structural:	Pipe Rating 71	Pipe Ratings Index 2.5	Quick Rating 5141
	O&M:	Pipe Rating 2	Pipe Ratings Index 2	Quick Rating 2100
	Overall	Pipe Rating 73	Pipe Ratings Index 2.5	Quick Rating 5141



Ft

Rim to grade

Setup 603	Surveyed By AGS	Cert	ificate # U61406021126	Owner					
Reviewed By		Reviewer #	Work Order						
Customer			P/	O #					
Media Label		Project SANITARY							
Date 2021/06/	16 <b>Time</b> 12:14	Weather Dry	- no Precipitatio <b>Pre-Cleaning</b> N	Date Cleaned					
Flow control		Survey Purpose		<b>Direction</b> Upstream					
Street BARBE	R DR	Cit	ty HILLSDALE	Drainage area					
<b>Location Code</b>			Pipe Us	e Sanitary Sewage Pipe					
Location detail	ls		Height 8	Width ins					
Shape Circular	•	Material Vitrified CI	ay Pipe <b>Lining</b>						
Coating		Pipe Joint lengt	h Ft Total length	Ft Structural O & M					
Length Survey	ed 200.20 <b>Ft</b>	Year Constructed	Year Renewed	Miscellaneous Constructional					
Additional info	1								
<b>Up</b> 2200		Rim to invert	Grade to invert	Rim to grade Ft					

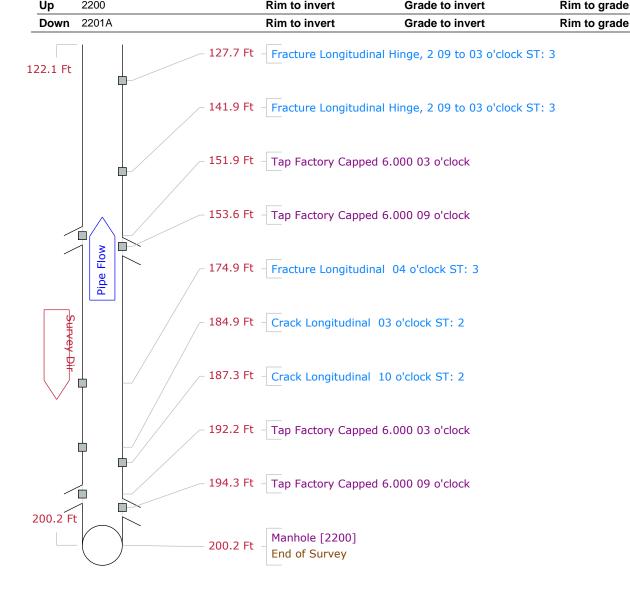




**Taplin Group LLC** Phone: 269-375-9595

Ft

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Setup	603	Surveyed By AGS	Certifi	cate # U61406021126	Owner
Revie	wed By		Reviewer #	Work Order	r
Custo	mer			P/	O #
Media	Label		Project SANITARY		
Date	2021/06/16	Time 12:14	Weather Dry - n	no Precipitatio <b>Pre-Cleaning</b> N	Date Cleaned
Flow c	ontrol		Survey Purpose		<b>Direction</b> Upstream
Street	BARBER	DR	City	HILLSDALE	Drainage area
Locati	on Code			Pipe Us	e Sanitary Sewage Pipe
Locati	on details			Height 8	Width ins
Shape	Circular		Material Vitrified Clay	Pipe Lining	
Coatin	g		Pipe Joint length	Ft Total length	Ft Structural O & M
Length	n Surveyed	200.20 <b>Ft</b>	Year Constructed	Year Renewed	Miscellaneous Constructiona
Additio	onal info				
Up	2200		Rim to invert	Grade to invert	Rim to grade Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report o	of PSR 4186A		for	Hillsdale		
Setup 603	Surveyed By AGS	3	Certificate #	J61406021126	Owner	
Reviewed By		Reviewer #		Work Ord	ler	
Customer					P/O #	
Media Label		Project SANITARY				
Date 2021/06/16	<b>Time</b> 12:14	Weather	Dry - no Precip	oitatio <b>Pre-Cleaning</b>	N Date Clean	ed
Flow control		Survey Purpose			Direction Up	
Inspection Status	Complete Inspec	tion Con	sequence Of I	Failure Pr	essure	
Inspection Techno	ology Used	CCTV  Laser	☐ Sonar	☐ Sidewall ☐	Zoom	
Street BARBER D	R		City H	ILLSDALE	Drainage area	
<b>Location Code</b>				Pipe Use	Sanitary Sewage Pipe	
Location details				Height 8	Width ins	
Shape Circular		Material Vitrifi	ed Clay Pipe	Lining		
Coating		Pipe Joi	int length	Ft Total length	. Ft	
Length Surveyed	200.2 <b>Ft</b>	Year Constructed	Year R	enewed		
<b>Up</b> 2200		Rim to inve	rt	Grade to invert	Rim to grade	- Ft
Northing			Easting		Elevation	
<b>Down</b> 2201A		Rim to inve	rt	Grade to invert	Rim to grade	- Ft
Northing			Easting		Elevation	
Coordinate System	n			Vertica	ıl Datum	
<b>GPS Accuracy</b>					Structural	O & M
Additional info					Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRef	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								2201A
0.0		MWL	Miscellaneous Water Level			10.00	0				
7.8		FS	Fracture Spiral				J	08	10		
10.3		CL	Crack Longitudinal				J	09			
16.0		CS	Crack Spiral				J	02	03		
36.2		FL	Fracture Longitudinal				J	09			
45.8		TFC	Tap Factory Capped	6.000				03			
47.8		TFA	Tap Factory Activity	6.000				09			
51.1		CL	Crack Longitudinal				J	11			
60.7		CL	Crack Longitudinal				J	03			
76.9		FL	Fracture Longitudinal				J	03			
95.2		TFC	Tap Factory Capped	6.000				09			
96.8		TFC	Tap Factory Capped	6.000				03			
107.5		FS	Fracture Spiral				J	04	05		
122.1		FL	Fracture Longitudinal				J	03			
127.7		FH2	Fracture Longitudinal Hinge, 2				J	09	03		
141.9		FH2	Fracture Longitudinal Hinge, 2				J	09	03		
151.9		TFC	Tap Factory Capped	6.000				03			
153.6		TFC	Tap Factory Capped	6.000				09			
174.9		FL	Fracture Longitudinal				J	04			
184.9		CL	Crack Longitudinal				J	03			
187.3		CL	Crack Longitudinal				J	10			

## Tabular Report of PSR 4186A

#### for Hillsdale

Setup	603	<b>Date</b> 2021	/06/16 <b>T</b> i	<b>me</b> 12:14	Up	22	200					Do	<b>wn</b> 2201A	
Count	Video	CD Code			V	al1	Val2	%	Jnt	Fr	To Im	Ref	Remarks	
192.2		TFC	Tap Factory Ca	pped	6	6.000				03				
194.3		TFC	Tap Factory Ca	pped	6	6.000				09				
200.2		AMH	Manhole									2	2200	
200.2		FH	End of Survey											

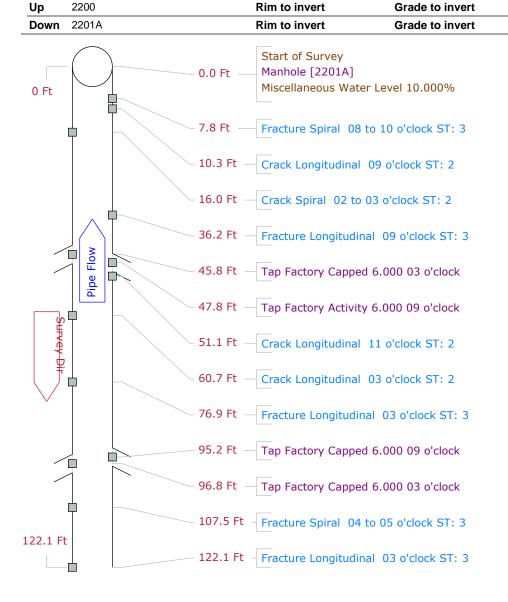
#### 200.2 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 36	Pipe Ratings Index 2.6	Quick Rating 3826
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 36	Pipe Ratings Index 2.6	Quick Rating 3826

Ft

Rim to grade

Setup 603	Surveyed By AGS	Cert	ificate # U61406021126	Owner
Reviewed By		Reviewer #	Work Orde	r
Customer			P/	O #
Media Label		Project SANITARY		
Date 2021/06/	16 <b>Time</b> 12:14	Weather Dry	- no Precipitatio <b>Pre-Cleaning</b> N	Date Cleaned
Flow control		Survey Purpose		<b>Direction</b> Upstream
Street BARBE	R DR	Cit	ty HILLSDALE	Drainage area
<b>Location Code</b>			Pipe Us	e Sanitary Sewage Pipe
Location detail	ls		Height 8	Width ins
Shape Circular	•	Material Vitrified CI	ay Pipe <b>Lining</b>	
Coating		Pipe Joint lengt	h Ft Total length	Ft Structural O & M
Length Survey	ed 200.20 <b>Ft</b>	Year Constructed	Year Renewed	Miscellaneous Constructional
Additional info	1			
<b>Up</b> 2200		Rim to invert	Grade to invert	Rim to grade Ft

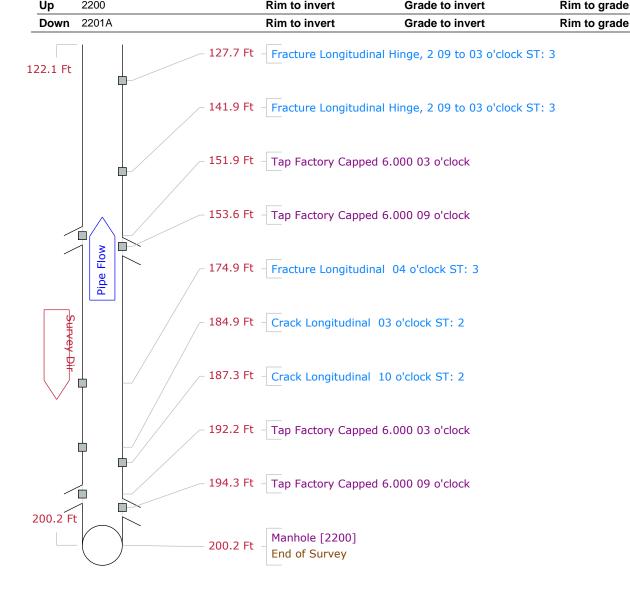




**Taplin Group LLC** Phone: 269-375-9595

Ft

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Setup	603	Surveyed By AGS	Certifi	cate # U61406021126	Owner
Revie	wed By		Reviewer #	Work Order	r
Custo	mer			P/	O #
Media	Label		Project SANITARY		
Date	2021/06/16	Time 12:14	Weather Dry - n	no Precipitatio <b>Pre-Cleaning</b> N	Date Cleaned
Flow c	ontrol		Survey Purpose		<b>Direction</b> Upstream
Street	BARBER	DR	City	HILLSDALE	Drainage area
Locati	on Code			Pipe Us	e Sanitary Sewage Pipe
Locati	on details			Height 8	Width ins
Shape	Circular		Material Vitrified Clay	Pipe Lining	
Coatin	g		Pipe Joint length	Ft Total length	Ft Structural O & M
Length	n Surveyed	200.20 <b>Ft</b>	Year Constructed	Year Renewed	Miscellaneous Constructiona
Additio	onal info				
Up	2200		Rim to invert	Grade to invert	Rim to grade Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report o	of PSR 4186	δA			for	· F	lillsdale			
Setup 603	Surveyed By	AGS			Certificate #	U6140	06021126		Owner	
Reviewed By			Review	er#			Work	Order		
Customer								P/O #	ŧ	
Media Label		ı	Project SA	NITARY						
Date 2021/06/16	Time 12	2:14		Weather	Dry - no Preci	pitatio	Pre-Cleani	ing N	Date Clean	ed
Flow control			Survey F	urpose					Direction Up	
Inspection Status	Complete Ins	pecti	ion	Con	sequence Of	Failur	e	Pressu	re	
Inspection Techno	ology Used		ссти [	Laser	☐ Sonar		Sidewall	Zooi	m 🗌 Other	
Street BARBER D	R				City +	HILLSD	ALE		Drainage area	
<b>Location Code</b>							Pipe	<b>Use</b> Sai	nitary Sewage Pipe	
Location details							Heig	ht 8 \	Width ins	
Shape Circular			Materi	al Vitrifie	ed Clay Pipe		Lining	g		
Coating				Pipe Joi	nt length	Ft	Total ler	ngth	Ft	
Length Surveyed	200.2	Ft	Year Cons	tructed	Year R	Renew	ed			
<b>Up</b> 2200			Rin	to inver	rt .	Grad	e to inver	t	Rim to grade	Ft
Northing					Easting			Ele	vation	
<b>Down</b> 2201A			Rin	to inver	rt	Grad	e to inver	t	Rim to grade	Ft
Northing					Easting			Ele	vation	
Coordinate System	m						Vei	rtical Dat	um	
<b>GPS Accuracy</b>									Structural	O & M
Additional info									Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								2201A
0.0		MWL	Miscellaneous Water Level			10.000	)				
7.8		FS	Fracture Spiral				J	08	10		
10.3		CL	Crack Longitudinal			İ	J	09			
16.0		CS	Crack Spiral				J	02	03		
36.2		FL	Fracture Longitudinal				J	09			
45.8		TFC	Tap Factory Capped	6.000				03			
47.8		TFA	Tap Factory Activity	6.000				09			
51.1		CL	Crack Longitudinal				J	11			
60.7		CL	Crack Longitudinal				J	03			
76.9		FL	Fracture Longitudinal				J	03			
95.2		TFC	Tap Factory Capped	6.000				09			
96.8		TFC	Tap Factory Capped	6.000				03			
107.5		FS	Fracture Spiral				J	04	05		
122.1		FL	Fracture Longitudinal				J	03			
127.7		FH2	Fracture Longitudinal Hinge, 2				J		03		
141.9		FH2	Fracture Longitudinal Hinge, 2				J	09	03		
151.9		TFC	Tap Factory Capped	6.000				03			
153.6		TFC	Tap Factory Capped	6.000				09			
174.9		FL	Fracture Longitudinal				J	04			
184.9		CL	Crack Longitudinal				J	03			
187.3		CL	Crack Longitudinal				J	10			

## Tabular Report of PSR 4186A

for Hillsdale
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Setup	603	<b>Date</b> 2021	/06/16 <b>Time</b>	12:14 <b>Up</b>	2	200				D	own	2201A		
Count '	Video	CD Code			Val1	Val2	%	Jnt	Fr T	o ImRe	f Re	marks		
192.2		TFC	Tap Factory Capped		6.000				03					
194.3		TFC	Tap Factory Capped		6.000				09					
200.2		AMH	Manhole								2200			
200.2		FH	End of Survey											

#### 200.2 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 36	Pipe Ratings Index 2.6	Quick Rating 3826
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 36	Pipe Ratings Index 2.6	Quick Rating 3826



# at Fairgrounds - Lining - MH2934 to 3933

Pipe Graphic Report of PLR 4048

for

Hillsdale

Structural

O & M

Setup 391 Surveyed By AGS Certificate # U61406021126 Owner

Reviewed By Reviewer # Work Order

Customer P/O #

Media Label Project SANITARY

Date 2021/05/24Time 10:24Weather Dry - no PrecipitatioPre-Cleaning HDate CleanedFlow controlSurvey PurposeDirection Downstream

Street FAIRGROUNDS City HILLSDALE Drainage area

Location CodePipe UseSanitary Sewage PipeLocation detailsHeight 8Width ins

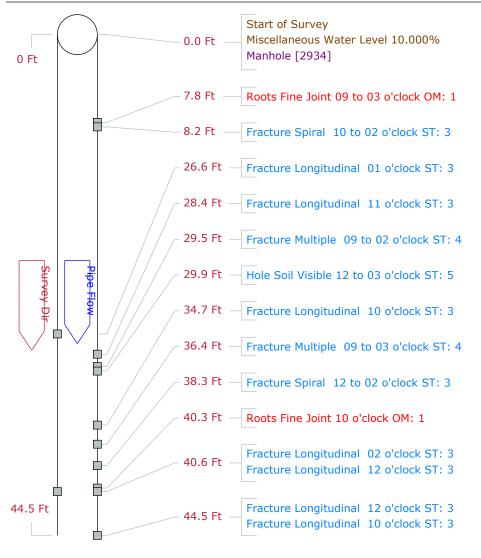
Shape Circular Material Vitrified Clay Pipe Lining

Coating Pipe Joint length Ft Total length 232.1

Length Surveyed 243.30 Ft Year Constructed Year Renewed Miscellaneous Constructional

Additional info

Up	2934	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2933	Rim to invert	Grade to invert	Rim to grade	Ft

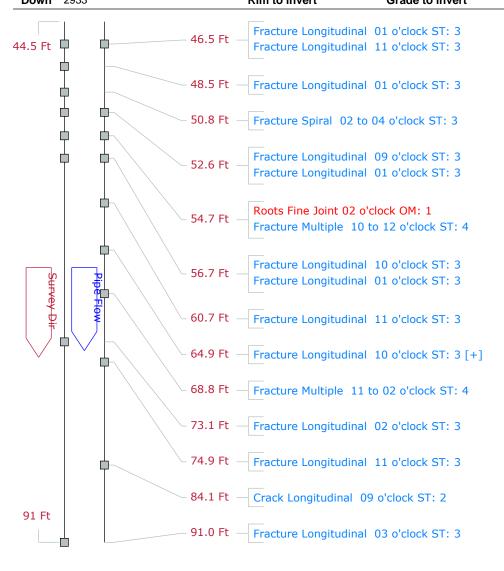




Taplin Group LLC Phone: 269-375-9595

Setup 391 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/05/24 Time 10:24 Weather Dry - no Precipitatio Pre-Cleaning H **Date Cleaned** Flow control **Survey Purpose Direction** Downstream Street FAIRGROUNDS City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 232.1 Structural O & M Ft Year Renewed Miscellaneous Length Surveyed 243.30 Ft Year Constructed Constructional Additional info

Up2934Rim to invertGrade to invertRim to gradeFtDown2933Rim to invertGrade to invertRim to gradeFt



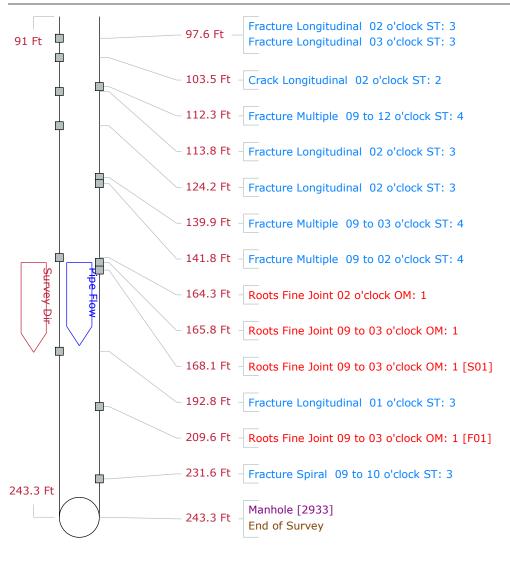


Taplin Group LLC Phone: 269-375-9595

Additional info

Setup 391 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/05/24 Time 10:24 Weather Dry - no Precipitatio Pre-Cleaning H **Date Cleaned** Flow control **Survey Purpose Direction** Downstream Street FAIRGROUNDS City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 232.1 Structural O & M Ft Year Renewed Miscellaneous Length Surveyed 243.30 Ft Year Constructed Constructional

Up2934Rim to invertGrade to invertRim to gradeFtDown2933Rim to invertGrade to invertRim to gradeFt





Taplin Group LLC Phone: 269-375-9595

Tabular Report of PSF	₹ 4048	to	or Hillsdale		
Setup 391 Survey	yed By AGS	Certificate a	# U61406021126	Owner	
Reviewed By	Re	viewer #	Work Order		
Customer			P/O	#	
Media Label	Project	SANITARY			
Date 2021/05/24	<b>Time</b> 10:24	Weather Dry - no Pre	cipitatio <b>Pre-Cleaning</b> H	Date Clean	ed
Flow control	Surv	ey Purpose		<b>Direction</b> Dow	'n
Inspection Status Com	plete Inspection	Consequence C	of Failure Pressu	ıre	
Inspection Technology U	Used ☐ CCTV	Laser Sona	r 🗌 Sidewall 🔲 Zoo	m 🗌 Other	
Street FAIRGROUNDS		City	HILLSDALE	Drainage area	
<b>Location Code</b>			Pipe Use Sa	initary Sewage Pipe	
Location details			Height 8	Width ins	
Shape Circular	Ma	aterial Vitrified Clay Pipe	Lining		
Coating		Pipe Joint length	Ft Total length 232	.1 <b>Ft</b>	
Length Surveyed	243.3 Ft Year C	Constructed Year	Renewed		
<b>Up</b> 2934		Rim to invert	Grade to invert	Rim to grade	Ft
Northing		Easting	El	evation	
<b>Down</b> 2933		Rim to invert	Grade to invert	Rim to grade	Ft
Northing		Easting	El	evation	
Coordinate System			Vertical Da	tum	
GPS Accuracy				Structural	O & M
Additional info				Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	% .	Jnt	Fr	То	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		MWL	Miscellaneous Water Level			10.000	)				
0.0		AMH	Manhole								2934
7.8		RFJ	Roots Fine Joint				J	09	03		
8.2		FS	Fracture Spiral				J	10	02		
26.6		FL	Fracture Longitudinal				J	01			
28.4		FL	Fracture Longitudinal				J	11			
29.5		FM	Fracture Multiple				J	09	02		
29.9		HSV	Hole Soil Visible				J	12	03		
34.7		FL	Fracture Longitudinal				J	10			
36.4		FM	Fracture Multiple				J	09			
38.3		FS	Fracture Spiral				J	12	02		
40.3		RFJ	Roots Fine Joint				J	10			
40.6		FL	Fracture Longitudinal				J	02			
40.6		FL	Fracture Longitudinal				J	12			
44.5		FL	Fracture Longitudinal				J	12			
44.5		FL	Fracture Longitudinal				J	10			
46.5		FL	Fracture Longitudinal				J	01			
46.5		FL	Fracture Longitudinal				J	11			
48.5		FL	Fracture Longitudinal				J	01			<u> </u>
50.8		FS	Fracture Spiral				J	02	04		<u> </u>
52.6		FL	Fracture Longitudinal				J	09			
52.6		FL	Fracture Longitudinal				J	01			

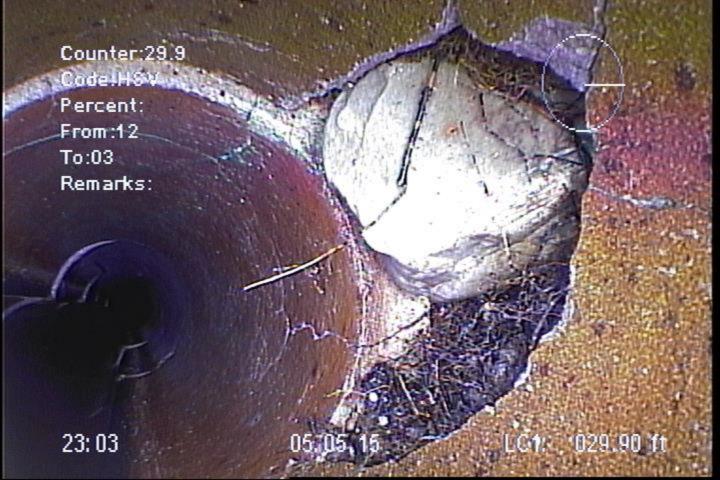
#### for Hillsdale

Setup	391	Date	<b>e</b> 2021.	/05/24 <b>Time</b> 10:24	Up	2	934					Do	wn	2933	
Count	Video	CD	Code			Val1	Val2	%	Jnt	Fr	То	ImRef	Re	marks	
54.7			RFJ	Roots Fine Joint					J	02					ĺ
54.7			FM	Fracture Multiple					J	10	12				
56.7			FL	Fracture Longitudinal					J	10					
56.7			FL	Fracture Longitudinal					J	01					
60.7			FL	Fracture Longitudinal					J	11					
64.9			FL	Fracture Longitudinal					J	10			+		
68.8			FM	Fracture Multiple					J	11	02				
73.1			FL	Fracture Longitudinal					J	02					
74.9			FL	Fracture Longitudinal					J	11					
84.1			CL	Crack Longitudinal					J	09					
91.0			FL	Fracture Longitudinal					J	03					
97.6			FL	Fracture Longitudinal					J	02					
97.6			FL	Fracture Longitudinal					J	03					
103.5			CL	Crack Longitudinal					J	02					
112.3			FM	Fracture Multiple					J	09	12				
113.8			FL	Fracture Longitudinal					J	02					
124.2			FL	Fracture Longitudinal					J	02					
139.9			FM	Fracture Multiple					J	09					
141.8			FM	Fracture Multiple					J	09	02				
164.3			RFJ	Roots Fine Joint					J	02					
165.8			RFJ	Roots Fine Joint					J	09	03				
168.1		S01	RFJ	Roots Fine Joint					J	09	03				
192.8			FL	Fracture Longitudinal					J	01					
209.6		F01	RFJ	Roots Fine Joint					J	09	03				
231.6			FS	Fracture Spiral					J	09	10				
243.3			AMH	Manhole									2933		
243.3			FH	End of Survey											

#### 243.3 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 121	Pipe Ratings Index 3.2	Quick Rating 5147
	O&M:	Pipe Rating 13	Pipe Ratings Index 1	Quick Rating 1A00
	Overall	Pipe Rating 134	Pipe Ratings Index 2.6	Quick Rating 5147





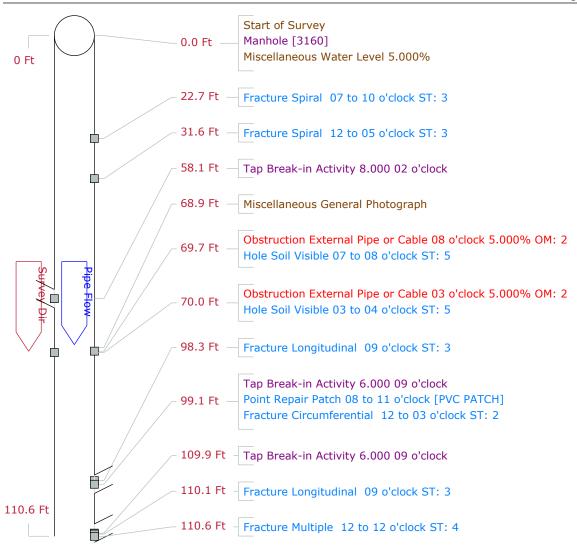
## Goodrich - Lining - MH3160 to 3131

### Pipe Graphic Report of PLR 3790

for Hillsdale

Setup 41 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/04/08 Time 14:49 **Date Cleaned** Weather Light Rain Pre-Cleaning N Flow control **Survey Purpose Direction** Downstream Street GOODRICH AVE City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 196.1 Structural O & M Ft Miscellaneous Length Surveyed 195.40 Ft Year Constructed Year Renewed Constructional Additional info

Up3160Rim to invertGrade to invertRim to gradeFtDown3131Rim to invertGrade to invertRim to gradeFt





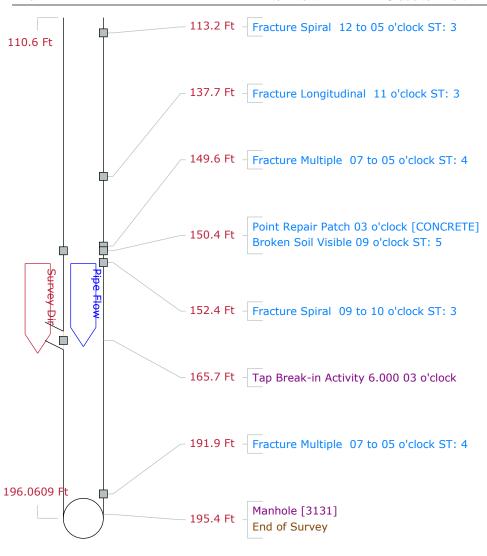
Taplin Group LLC Phone: 269-375-9595

Setup Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/04/08 Time 14:49 Weather Light Rain **Date Cleaned** Pre-Cleaning N Flow control **Survey Purpose Direction** Downstream Street GOODRICH AVE City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 196.1 Structural O & M Ft Year Renewed Miscellaneous Length Surveyed 195.40 Ft Year Constructed Constructional

Additional info

Up 3160 Rim to invert Grade to invert Rim to grade Ft

Down 3131 Rim to invert Grade to invert Rim to grade Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report o	of PSR 3790	)			for	Н	lillsdale			
Setup 41	Surveyed By /	AGS			Certificate #	U6140	6021126	0	wner	
Reviewed By			Reviewe	r #			Work	Order		
Customer								P/O #		
Media Label		F	Project SAN	TARY						
Date 2021/04/08	Time 14	4:49	V	/eather	Light Rain	F	Pre-Clean	ing N	Date Clean	ed
Flow control			Survey Pu	rpose					<b>Direction</b> Dov	vn
Inspection Status	Complete Ins	pecti	ion	Cons	sequence Of	Failur	е	Pressure	•	
Inspection Techno	ology Used		ссти 🗌	Laser	☐ Sonar		Sidewall	Zoom	☐ Other	
Street GOODRICE	H AVE				City H	HLLSD	ALE	Dr	ainage area	
<b>Location Code</b>							Pipe	<b>Use</b> Sanit	ary Sewage Pipe	
Location details							Heig	ht 8 W	idth ins	
Shape Circular			Material	Vitrifie	ed Clay Pipe		Linin	g		
Coating			F	ipe Joi	nt length	Ft	Total le	ngth 196.1	Ft	
Length Surveyed	195.4	Ft	Year Consti	ucted	Year R	Renew	ed			
<b>Up</b> 3160			Rim	to inver	t	Grad	e to inver	t	Rim to grade	. Ft
Northing					Easting			Elev	ation	
<b>Down</b> 3131			Rim	to inver	t	Grad	e to inver	t	Rim to grade	. Ft
Northing					Easting			Elev	ation	
Coordinate System	m						Ve	rtical Datu	m	
<b>GPS Accuracy</b>									Structural	O & M
Additional info									Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								3160
0.0		MWL	Miscellaneous Water Level	İ		5.000					
22.7		FS	Fracture Spiral				J	07	10		
31.6		FS	Fracture Spiral				J	12	05		
58.1		TBA	Tap Break-in Activity	8.000				02			
68.9		MGP	Miscellaneous General Photograph								
69.7		OBP	Obstruction External Pipe or Cable			5.000		80			
69.7		HSV	Hole Soil Visible					07	80		
70.0		OBP	Obstruction External Pipe or Cable			5.000		03			
70.0		HSV	Hole Soil Visible					03	04		
98.3		FL	Fracture Longitudinal				J	09			
99.1		TBA	Tap Break-in Activity	6.000				09			
99.1		RPP	Point Repair Patch					80	11		PVC PATCH
99.1		FC	Fracture Circumferential				J	12	03		
109.9		TBA	Tap Break-in Activity	6.000				09			
110.1		FL	Fracture Longitudinal				J	09			
110.6		FM	Fracture Multiple				J		12		
113.2		FS	Fracture Spiral				J	12	05		
137.7		FL	Fracture Longitudinal				J	11			
149.6		FM	Fracture Multiple				J	07	05		
150.4		RPP	Point Repair Patch					03			CONCRETE
150.4		BSV	Broken Soil Visible					09			·

#### for Hillsdale

Setup	41	<b>Date</b> 2021	Up	3	160				<b>n</b> 3131						
Count	Video	CD Code				Val1	Val2	%	Jnt	Fr	То	ImRe	f I	Remarks	
152.4		FS	Fracture S	Spiral					J	09	10				
165.7		TBA	Tap Brea	k-in Activity		6.000				03					
191.9		FM	Fracture I	Multiple					J	07	05				
195.4		AMH	Manhole										31	31	
195.4		FH	End of Su	ırvey											

### 195.4 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 50	Pipe Ratings Index 3.6	Quick Rating 5343
	O&M:	Pipe Rating 4	Pipe Ratings Index 2	Quick Rating 2200
	Overall	Pipe Rating 54	Pipe Ratings Index 3.4	Quick Rating 5343



## E. South St. - Lining - MH1636 to 2546

Pipe Graphic Report of PLR 4000 for Hillsdale

Setup 279 Surveyed By AGS Certificate # U61406021126

279 Surveyed By AGS Certificate # U61406021126 Owner
By Reviewer # Work Order

Reviewed By Reviewer # Work Order

Customer P/O #

Media Label Project SANITARY

Date 2021/05/07Time 10:02Weather Dry - no PrecipitatioPre-Cleaning LDate CleanedFlow controlSurvey PurposeDirection Downstream

Street SOUTH ST City HILLSDALE Drainage area

Location CodePipe UseSanitary Sewage PipeLocation detailsHeight 6Width ins

Shape Circular Material Vitrified Clay Pipe Lining

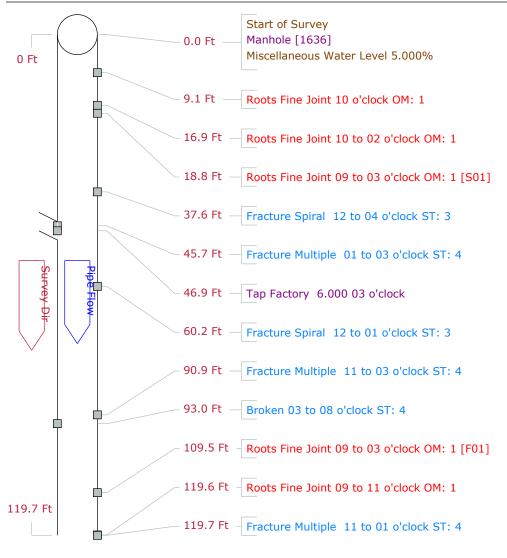
Coating Pipe Joint length Ft Total length 169.4 Ft Structural

Length Surveyed 170.40 Ft Year Constructed Year Renewed Miscellaneous Constructional

O & M

Additional info

Up	1636	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2546	Rim to invert	Grade to invert	Rim to grade	Ft

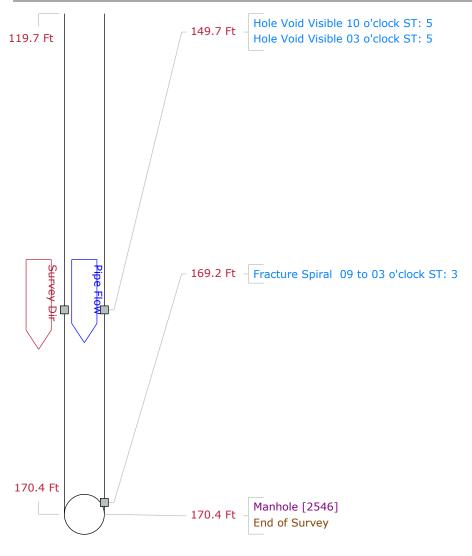




Taplin Group LLC Phone: 269-375-9595

Setup Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer **Media Label Project SANITARY** Date 2021/05/07 Time 10:02 Weather Dry - no PrecipitatioPre-Cleaning L **Date Cleaned Direction** Downstream Flow control **Survey Purpose** Street SOUTH ST City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 6 Width ins Material Vitrified Clay Pipe Shape Circular Lining **Pipe Joint length** Coating Total length 169.4 Ft Structural O & M Ft 170.40 Ft Year Constructed Year Renewed Miscellaneous **Length Surveyed** Constructional Additional info

Up1636Rim to invertGrade to invertRim to gradeFtDown2546Rim to invertGrade to invertRim to gradeFt





Taplin Group LLC Phone: 269-375-9595

Tabular Report of PSR	4000	for	Hillsdale
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Setup 279 Surve	eyed By AGS	Certificate #	U61406021126 <b>O</b>	wner	
Reviewed By	Rev	iewer #	Work Order		
Customer			P/O #		
Media Label	Project	SANITARY			
Date 2021/05/07	Time 10:02	Weather Dry - no Preci	pitatio <b>Pre-Cleaning</b> L	Date Cleane	ed
Flow control	Surve	y Purpose		<b>Direction</b> Dow	n
Inspection Status Con	mplete Inspection	Consequence Of	Failure Pressure	•	
Inspection Technology	Used	☐ Laser ☐ Sonar	☐ Sidewall ☐ Zoom	☐ Other	
Street SOUTH ST		City H	IILLSDALE <b>D</b> r	ainage area	
<b>Location Code</b>			Pipe Use Sanit	ary Sewage Pipe	
Location details			Height 6 W	idth ins	
Shape Circular	Mat	terial Vitrified Clay Pipe	Lining		
Coating		Pipe Joint length	Ft Total length 169.4	Ft	
Length Surveyed	170.4 Ft Year Co	onstructed Year R	enewed		
<b>Up</b> 1636		Rim to invert	Grade to invert	Rim to grade	Ft
Northing		Easting	Elev	ation	
<b>Down</b> 2546		Rim to invert	Grade to invert	Rim to grade	Ft
Northing		Easting	Elev	ation	
Coordinate System			Vertical Datu	n	
GPS Accuracy				Structural	O & M
Additional info				Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	% .	Jnt	Fr	То	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole							İ	1636
0.0		MWL	Miscellaneous Water Level			5.000				İ	
9.1		RFJ	Roots Fine Joint				J	10		İ	
16.9		RFJ	Roots Fine Joint				J	10	02	İ	
18.8	S01	RFJ	Roots Fine Joint				J	09	03	İ	
37.6		FS	Fracture Spiral				J	12	04	İ	
45.7		FM	Fracture Multiple				J	01	03	İ	
46.9		TF	Tap Factory	6.000				03		İ	
60.2		FS	Fracture Spiral				J	12	01	İ	
90.9		FM	Fracture Multiple				J	11	03	İ	
93.0		В	Broken				J	03	08	İ	
109.5	F01	RFJ	Roots Fine Joint				J	09	03	İ	
119.6		RFJ	Roots Fine Joint				J	09	11	İ	
119.7		FM	Fracture Multiple				J	11	01	İ	
149.7		HVV	Hole Void Visible					10		İ	
149.7		HVV	Hole Void Visible					03			
169.2		FS	Fracture Spiral				J	09	03		
170.4		AMH	Manhole								2546
170.4		FH	End of Survey								

170.4 Ft Total Length Surveyed



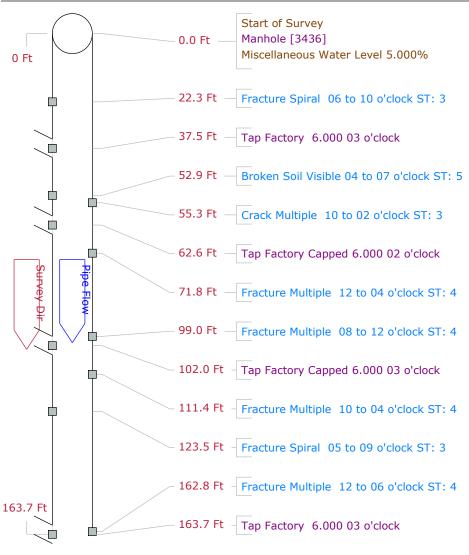
Tabula	ır Repo	ort of	<b>PSR</b> 4000			for	Hillsdale		
Setup	279	Date	2021/05/07	<b>Time</b> 10:02	Up	1636		Down	2546
	So	ores	Structural:	Pipe Rating 35		Pipe	Ratings Index 3.9		Quick Rating 5244
			O&M:	Pipe Rating 21			Ratings Index 1		Quick Rating 1C00
			Overall	Pine Rating 56		Pine	Ratings Index 19		Ouick Rating 5244



## W. South St. - Lining - MH3436 to 2507

Pipe Graphic Report of PLR 3835 for Hillsdale Setup 870/8 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/07/15 Time 16:28 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning N Flow control **Survey Purpose Direction** Downstream Street SOUTH ST City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 6 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 395.6 Structural O & M Ft Ft Miscellaneous Length Surveyed 216.70 Ft Year Constructed Year Renewed Constructional

Up	3436	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2507	Rim to invert	Grade to invert	Rim to grade	Ft

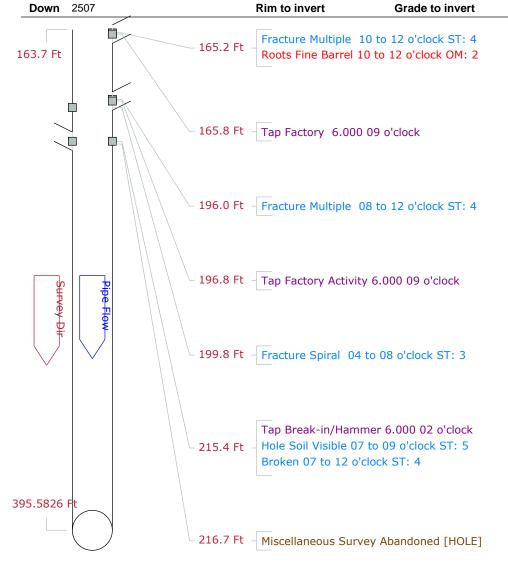




Additional info

Taplin Group LLC Phone: 269-375-9595

Setup 870/8 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/07/15 Time 16:28 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Downstream Street SOUTH ST City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 6 Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 395.6 Structural O & M Ft Year Renewed Miscellaneous Length Surveyed 216.70 Ft Year Constructed Constructional Additional info Up 3436 Rim to invert **Grade to invert** Rim to grade Ft Rim to grade Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report	of PSR 3835			for	Hillsdal	е		
Setup 870	Surveyed By A	GS	Cer	tificate #	U6140602112	6 <b>O</b> \	wner	
Reviewed By		Reviewe	er#		Wo	rk Order		
Customer						P/O #		
Media Label		Project SAN	IITARY					
Date 2021/07/15	<b>Time</b> 16:	28 <b>\</b>	<b>Veather</b> Dry	/ - no Preci	pitatio <b>Pre-Cle</b> a	ning N	Date Clean	ed
Flow control		Survey Pu	ırpose				<b>Direction</b> Dov	/n
Inspection Status	Complete Inspe	ection	Conseq	uence Of	Failure	Pressure		
Inspection Techn	ology Used	□ сстv □	Laser [	☐ Sonar	☐ Sidewal	Zoom	☐ Other	
Street SOUTH S	Г		С	ity ⊢	IILLSDALE	Dra	ainage area	
Location Code					Pip	e Use Sanita	ary Sewage Pipe	
Location details					He	ight 6 Wi	dth ins	
Shape Circular		Materia	Vitrified C	lay Pipe	Lin	ing		
Coating		ı	Pipe Joint le	ength	Ft Total	length 395.6	Ft	
Length Surveyed	216.7 <b>F</b>	Ft Year Const	ructed	Year R	Renewed			
<b>Up</b> 3436		Rim	to invert		Grade to inv	ert	Rim to grade	Ft
Northing			Eas	sting		Eleva	ntion	
<b>Down</b> 2507		Rim	to invert		Grade to inv	ert	Rim to grade	- Ft
Northing			Eas	sting		Eleva	ntion	
Coordinate Syste	m				\	ertical Datur	n	
<b>GPS Accuracy</b>							Structural	O & M
Additional info							Miscellaneous	Constructional

Count Video	CD Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0	ST	Start of Survey								
0.0	AMH	Manhole			İ					3436
0.0	MWL	Miscellaneous Water Level			5.000					
22.3	FS	Fracture Spiral				J	06	10		
37.5	TF	Tap Factory	6.000				03			
52.9	BSV	Broken Soil Visible				J	04	07		
55.3	CM	Crack Multiple				J	10	02		
62.6	TFC	Tap Factory Capped	6.000				02			
71.8	FM	Fracture Multiple				J	12	04		
99.0	FM	Fracture Multiple				J	08	12		
102.0	TFC	Tap Factory Capped	6.000				03			
111.4	FM	Fracture Multiple				J	10	04		
123.5	FS	Fracture Spiral				J	05	09		
162.8	FM	Fracture Multiple				J	12	06		
163.7	TF	Tap Factory	6.000				03			
165.2	FM	Fracture Multiple				J	10	12		
165.2	RFB	Roots Fine Barrel					10	12		
165.8	TF	Tap Factory	6.000				09			
196.0	FM	Fracture Multiple				J	08	12		
196.8	TFA	Tap Factory Activity	6.000				09			
199.8	FS	Fracture Spiral				J	04	08		
215.4	ТВ	Tap Break-in/Hammer	6.000				02			
215.4	HSV	Hole Soil Visible					07	09		

#### for Hillsdale

Setup	870	Date 2021/07/15	<b>Time</b> 16:28	Up	3436				Do	own 2507	
Count Video		CD Code		Va	ıl1 Val	2 %	Jnt FrTo ImRef Remarks				
215.4		B Broken					07	12			
216.7		MSA Miscellane	ous Survey Aband	oned						HOLE	

#### 216.7 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 50	Pipe Ratings Index 3.8	Quick Rating 5247
	O&M:	Pipe Rating 2	Pipe Ratings Index 2	Quick Rating 2100
	Overall	Pipe Rating 52	Pipe Ratings Index 3.7	Quick Rating 5247

Miscellaneous

Constructional

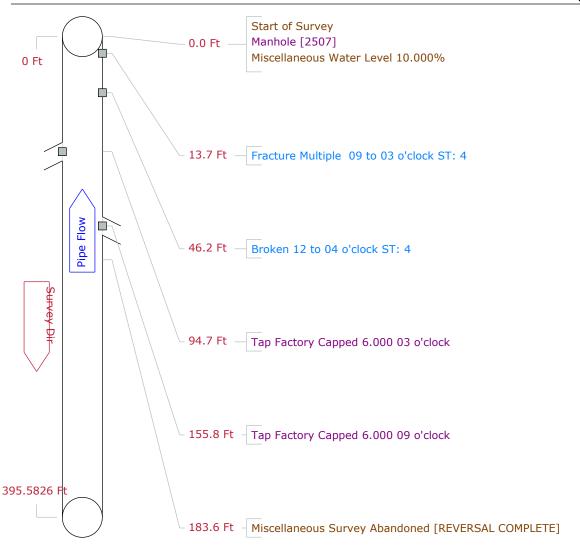
Setup 871/8 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer **Media Label Project SANITARY** Date 2021/07/15 Time 17:44 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Upstream Street SOUTH ST City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 6 Width ins Shape Circular Material Vitrified Clay Pipe Lining

Coating **Pipe Joint length** Total length 395.6 Ft Structural O & M Ft

Year Renewed **Length Surveyed** 183.60 Ft Year Constructed

Additional info Reverse set up on sheet:834

Up	3436	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2507	Rim to invert	Grade to invert	Rim to grade	Ft





**Taplin Group LLC** Phone: 269-375-9595

<b>Tabular Report of PSR</b>	3835
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Setup 871 S	Surveyed By AGS	Certificate #	U61406021126 <b>O</b>	wner	
Reviewed By	Revie	wer #	Work Order		
Customer			P/O #		
Media Label	Project S	ANITARY			
Date 2021/07/15	Time 17:44	Weather Dry - no Precip	oitatio <b>Pre-Cleaning</b> N	Date Cleane	ed
Flow control	Survey	Purpose		Direction Up	
Inspection Status	Complete Inspection	Consequence Of	Failure Pressure	<b>)</b>	
Inspection Techno	logy Used	☐ Laser ☐ Sonar	☐ Sidewall ☐ Zoom	☐ Other	
Street SOUTH ST	-	<b>City</b> H	IILLSDALE <b>D</b> i	ainage area	
<b>Location Code</b>			Pipe Use Sani	ary Sewage Pipe	
Location details			Height 6 W	idth ins	
Shape Circular	Mate	rial Vitrified Clay Pipe	Lining		
Coating		Pipe Joint length	Ft Total length 395.6	Ft	
Length Surveyed	183.6 Ft Year Cor	nstructed Year R	enewed		
<b>Up</b> 3436	Ri	im to invert	Grade to invert	Rim to grade	Ft
Northing		Easting	Elev	ation	
<b>Down</b> 2507	Ri	im to invert	Grade to invert	Rim to grade	Ft
Northing		Easting	Elev	ation	
Coordinate System	1		Vertical Datu	m	
<b>GPS Accuracy</b>				Structural	O & M
Additional info	Reverse set up on sheet:8	334		Miscellaneous	Constructional

for

Hillsdale

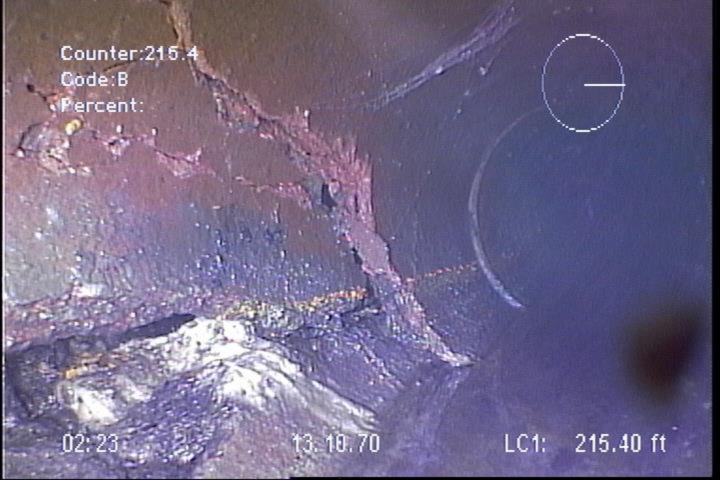
Count \	Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole							j.	2507
0.0			MWL	Miscellaneous Water Level			10.000				Ì	
13.7			FM	Fracture Multiple				J	09	03	Ì	
46.2			В	Broken				J	12	04	Ì	
94.7			TFC	Tap Factory Capped	6.000				03			
155.8			TFC	Tap Factory Capped	6.000				09		Ì	
183.6			MSA	Miscellaneous Survey Abandoned							Ì	REVERSAL COMPLETE

183.6 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 8	Pipe Ratings Index 4	Quick Rating 4200
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 8	Pipe Ratings Index 4.0	Quick Rating 4200





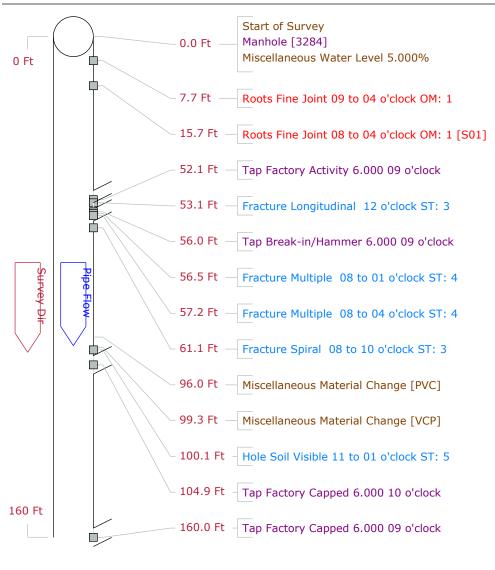


# W. St. Joe St. - Lining - MH3284 to 3283

#### Pipe Graphic Report of PLR 4279

for Hillsdale Setup 333 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # Work Order P/O # Customer Media Label **Project SANITARY** Date 2021/05/17 Time 13:55 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning L Flow control **Survey Purpose Direction** Downstream Street W ST JOES ST City HILLSDALE Drainage area **Location Code** Pipe Use Sanitary Sewage Pipe Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining **Pipe Joint length** Total length 247.5 Structural O & M Coating Ft Miscellaneous Length Surveyed 249.50 Ft Year Constructed Year Renewed Constructional Additional info

Up	3284	Rim to invert	Grade to invert	Rim to grade	Ft
Down	3283	Rim to invert	Grade to invert	Rim to grade	Ft





**Taplin Group LLC** Phone: 269-375-9595

Miscellaneous

Constructional

Setup 333 Surveyed By AGS Certificate # U61406021126 Owner

Reviewed By Reviewer # Work Order

Customer P/O #

Media Label Project SANITARY

Date 2021/05/17Time 13:55Weather Dry - no PrecipitatioPre-Cleaning LDate CleanedFlow controlSurvey PurposeDirection Downstream

Street W ST JOES ST City HILLSDALE Drainage area

Location CodePipe UseSanitary Sewage PipeLocation detailsHeight 8Width ins

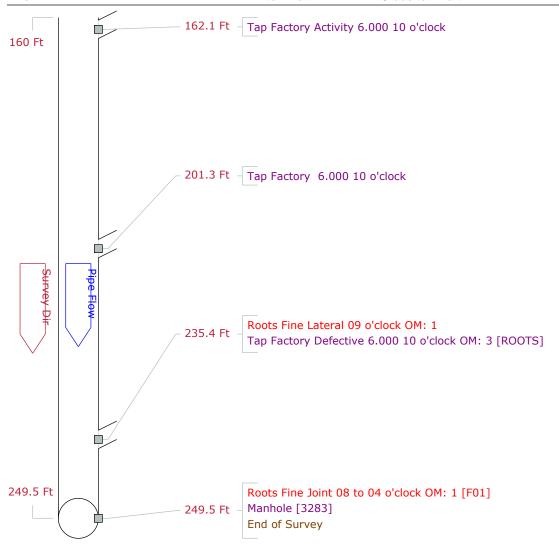
Shape Circular Material Vitrified Clay Pipe Lining

Coating Pipe Joint length Ft Total length 247.5 Ft Structural O&M

Length Surveyed 249.50 Ft Year Constructed Year Renewed

Additional info

Up	3284	Rim to invert	Grade to invert	Rim to grade	Ft
Down	3283	Rim to invert	Grade to invert	Rim to grade	Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report of P	<b>SR</b> 4279		1	for Hil	Isdale			
Setup 333 Sur	veyed By AG	S	Certificate	# U61406	021126	Owner		
Reviewed By		Reviewe	r #		Work Orde	r		
Customer					P/	O #		
Media Label		Project SANI	TARY					
Date 2021/05/17	Time 13:5	5 <b>W</b>	leather Dry - no P	recipitatio <b>Pr</b>	e-Cleaning L	Date 0	Cleaned	
Flow control		Survey Pu	rpose			Direction	<b>n</b> Down	
Inspection Status C	omplete Inspe	ction	Consequence	Of Failure	Pres	ssure		
Inspection Technolog	y Used	ссту 🗆	Laser 🗌 Son	ar 🗌 Sid	dewall 🗌 Z	oom 🗌 Other	,	
Street W ST JOES ST	•		City	HILLSDAL	_E	Drainage area		
Location Code					Pipe Use	Sanitary Sewage F	Pipe	
Location details					Height 8	Width in	ıS	
Shape Circular		Material	Vitrified Clay Pip	е	Lining			
Coating		P	ipe Joint length	Ft -	Total length 2	247.5 <b>Ft</b>		
Length Surveyed	249.5 <b>Ft</b>	t Year Constr	ucted Yea	ar Renewed	I			
<b>Up</b> 3284		Rim t	to invert	Grade	to invert	Rim to	grade	Ft
Northing			Easting			Elevation		
<b>Down</b> 3283		Rim t	to invert	Grade	to invert	Rim to	grade	Ft
Northing			Easting			Elevation		
Coordinate System					Vertical	Datum		
<b>GPS Accuracy</b>						Structural	O & M	
Additional info						Miscellane	ous Constru	uctional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								3284
0.0		MWL	Miscellaneous Water Level			5.000					
7.7		RFJ	Roots Fine Joint				J	09	04		
15.7	S01	RFJ	Roots Fine Joint				J	80	04		
52.1		TFA	Tap Factory Activity	6.000				09			
53.1		FL	Fracture Longitudinal				J	12			
56.0		ТВ	Tap Break-in/Hammer	6.000				09			
56.5		FM	Fracture Multiple				J	08	01		
57.2		FM	Fracture Multiple				J	08	04		
61.1		FS	Fracture Spiral				J	08	10		
96.0		MMC	Miscellaneous Material Change								PVC
99.3		MMC	Miscellaneous Material Change								VCP
100.1		HSV	Hole Soil Visible				J	11	01		
104.9		TFC	Tap Factory Capped	6.000				10			
160.0		TFC	Tap Factory Capped	6.000				09			
162.1		TFA	Tap Factory Activity	6.000				10			
201.3		TF	Tap Factory	6.000				10			
235.4		RFL	Roots Fine Lateral					09			
235.4		TFD	Tap Factory Defective	6.000				10			ROOTS
249.5	F01	RFJ	Roots Fine Joint				J	08	04		
249.5		AMH	Manhole								3283
249.5		FH	End of Survey								



## **Tabular Report of PSR** 4279

 Setup
 333
 Date 2021/05/17
 Time 13:55
 Up
 3284
 Down
 3283

249.5 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 19	Pipe Ratings Index 3.8	Quick Rating 5142
	O&M:	Pipe Rating 52	Pipe Ratings Index 1	Quick Rating 311H
	Overall	Pipe Rating 71	Pipe Ratings Index 1.3	Quick Rating 5142

for

Hillsdale





# Union St. - Lining - MH2201 to 1930

#### Pipe Graphic Report of PLR for Hillsdale Setup 606 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # Work Order P/O # Customer Media Label **Project SANITARY** Date 2021/06/16 Time 14:21 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning N Flow control **Survey Purpose Direction** Upstream Street UNION ST City HILLSDALE Drainage area Sanitary Sewage Pipe **Location Code** Pipe Use Location details Height 8 Width ins

Additional info

Up 1930 Rim to invert Grade to invert Rim to grade Ft

Down 2201 Rim to invert Grade to invert Rim to grade Ft

Ft

Year Renewed

Lining

Structural

Miscellaneous

O & M

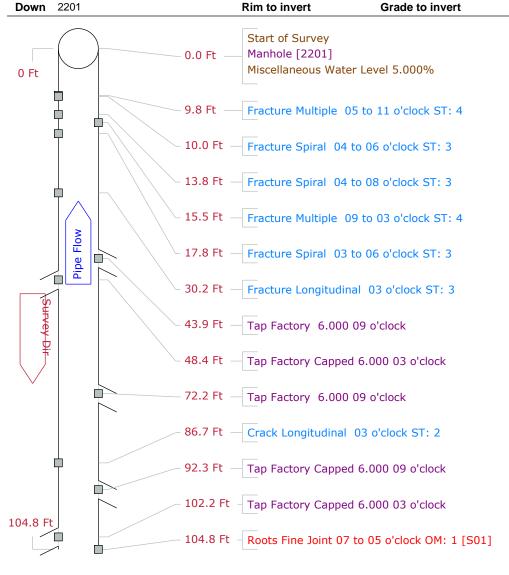
Constructional

Total length 257.4

Material Vitrified Clay Pipe

**Pipe Joint length** 

256.30 Ft Year Constructed





Shape Circular

Length Surveyed

Coating

Taplin Group LLC Phone: 269-375-9595

Up	1930	Rim to invert	Grade to invert	Rim to grade	Ft
Down	2201	Rim to invert	Grade to invert	Rim to grade	Ft



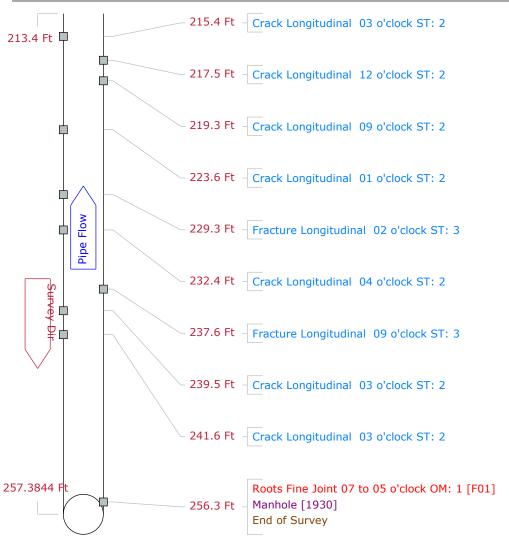


Additional info

Taplin Group LLC Phone: 269-375-9595

Setup Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer Media Label **Project SANITARY** Date 2021/06/16 Time 14:21 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Upstream Street UNION ST City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Height 8 Location details Width ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 257.4 Structural O & M Ft Year Renewed Miscellaneous Length Surveyed 256.30 Ft Year Constructed Constructional Additional info

Up1930Rim to invertGrade to invertRim to gradeFtDown2201Rim to invertGrade to invertRim to gradeFt





Taplin Group LLC Phone: 269-375-9595

Tabular Report	of PSR 4192		for	Hillsdale			
Setup 606	Surveyed By AGS		Certificate # U	61406021126	Ow	ner	
Reviewed By		Reviewer #		Work Or	der		
Customer					P/O #		
Media Label		Project SANITARY					
Date 2021/06/16	Time 14:21	Weather	Dry - no Precipit	tatio <b>Pre-Cleaning</b>	N	Date Clean	ed
Flow control		Survey Purpose				<b>Direction</b> Up	
Inspection Status	Complete Inspect	ion <b>Cons</b>	sequence Of Fa	ailure P	ressure		
Inspection Techn	ology Used	CCTV Laser	☐ Sonar	Sidewall	Zoom	☐ Other	
Street UNION ST			City HIL	LSDALE	Dra	inage area	
<b>Location Code</b>				Pipe Use	<b>S</b> anita	ry Sewage Pipe	
Location details				Height 8	3 Wid	lth ins	
Shape Circular		Material Vitrifie	ed Clay Pipe	Lining			
Coating		Pipe Join	nt length I	Ft Total lengtl	h 257.4	Ft	
Length Surveyed	256.3 <b>Ft</b>	Year Constructed	Year Re	newed			
<b>Up</b> 1930		Rim to inver	t (	Grade to invert		Rim to grade	Ft
Northing			Easting		Eleva	tion	
<b>Down</b> 2201		Rim to inver	t (	Grade to invert		Rim to grade	Ft
Northing			Easting		Eleva	tion	
Coordinate Syste	m			Vertica	al Datum	<u> </u>	
<b>GPS Accuracy</b>						Structural	O & M
Additional info						Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRe	f Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								2201
0.0		MWL	Miscellaneous Water Level			5.000					
9.8		FM	Fracture Multiple				J	05	11		
10.0		FS	Fracture Spiral				J	04	06		
13.8		FS	Fracture Spiral				J	04	80		
15.5		FM	Fracture Multiple				J	09	03		
17.8		FS	Fracture Spiral				J	03	06		
30.2		FL	Fracture Longitudinal				J	03			
43.9		TF	Tap Factory	6.000				09			
48.4		TFC	Tap Factory Capped	6.000				03			
72.2		TF	Tap Factory	6.000				09			
86.7		CL	Crack Longitudinal				J	03			
92.3		TFC	Tap Factory Capped	6.000				09			
102.2		TFC	Tap Factory Capped	6.000				03			
104.8	S01	RFJ	Roots Fine Joint				J	07	05		
126.6		TF	Tap Factory	6.000				09			
130.6		FS	Fracture Spiral				J	02	04		
152.5		TFC	Tap Factory Capped	6.000				03			
157.0		CL	Crack Longitudinal				J	03			
164.8		RFL	Roots Fine Lateral					80	09		
164.8		TFD	Tap Factory Defective	6.000				09			
179.6		FL	Fracture Longitudinal				J	04			



## **Tabular Report of PSR** 4192

#### for Hillsdale

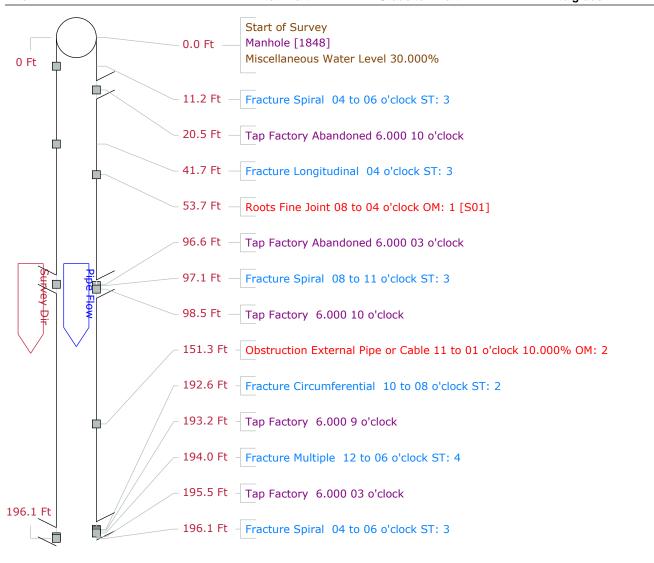
Setup	606	Dat	<b>e</b> 2021.	/06/16 Time 14:21 Up	19	930					D	own 2201
Count '	Video	CD	Code		Val1	Val2	% .	Jnt	Fr	То	ImRe	f Remarks
190.2			RMJ	Roots Medium Joint			40.000	J	07	05		
191.2			OBP	Obstruction External Pipe or Cable			10.000		11	01		
191.7			HVV	Hole Void Visible					10	02		HOLE AND VOID CAUSED FROM
203.0			TFC	Tap Factory Capped	6.000				03			
205.4			TF	Tap Factory	6.000				09			
209.0			MMC	Miscellaneous Material Change								PVC
209.4			TF	Tap Factory	6.000				03			
213.4			MMC	Miscellaneous Material Change								VCP
215.4			CL	Crack Longitudinal				J	03			
217.5			CL	Crack Longitudinal				J	12			
219.3			CL	Crack Longitudinal				J	09			
223.6			CL	Crack Longitudinal				J	01			
229.3			FL	Fracture Longitudinal				J	02			
232.4			CL	Crack Longitudinal				J	04			
237.6			FL	Fracture Longitudinal				J	09			
239.5			CL	Crack Longitudinal				J	03			
241.6			CL	Crack Longitudinal				J	03			
256.3		F01	RFJ	Roots Fine Joint				J	07	05		
256.3			AMH	Manhole								1930
256.3			FH	End of Survey								

#### 256.3 Ft Total Length Surveyed

Scores	Structural:	Pipe Rating 55	Pipe Ratings Index 2.8	Quick Rating 5142
	O&M:	Pipe Rating 39	Pipe Ratings Index 1.1	Quick Rating 3221
	Overall	Pipe Rating 94	Pipe Ratings Index 1.7	Quick Rating 5142

## West St. - Lining - MH1848A to 1848 to 1849

Pipe Graphic Report of PLR 4110 for Hillsdale Setup 564 Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # Work Order Customer P/O # Media Label **Project SANITARY** Date 2021/06/11 Time 14:25 **Date Cleaned** Weather Dry - no PrecipitatioPre-Cleaning N Flow control **Survey Purpose Direction** Downstream Street WEST ST City HILLSDALE Drainage area **Location Code** Pipe Use Sanitary Sewage Pipe Location details Height 8 Width ins Shape Circular Material Vitrified Clay Pipe Lining **Pipe Joint length** Total length 412.1 Structural O & M Coating Ft Miscellaneous Length Surveyed 224.10 Ft Year Constructed Year Renewed Constructional Additional info Up 1848 Rim to invert Grade to invert Rim to grade Ft 1848A Rim to invert Rim to grade Ft Down Grade to invert





Taplin Group LLC Phone: 269-375-9595

#### Pipe Graphic Report of PLR 4110

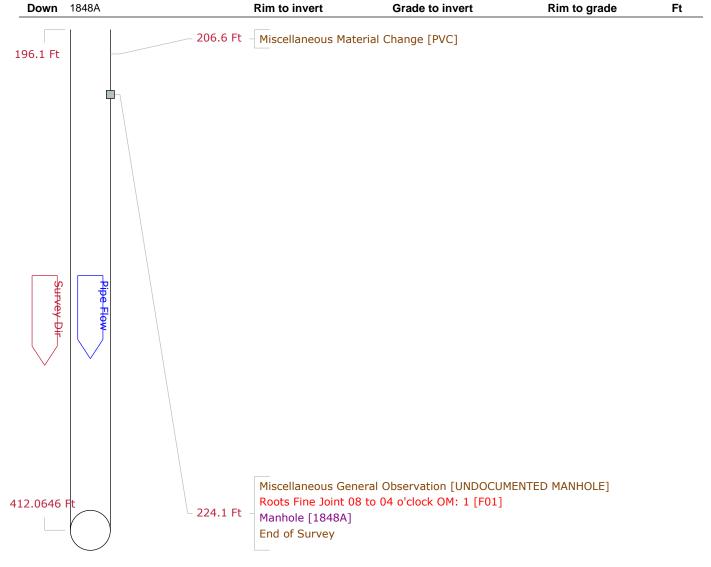
Surveyed By AGS Setup Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer **Media Label Project SANITARY** Date 2021/06/11 Time 14:25 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Direction** Downstream **Survey Purpose** Street WEST ST City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Location details Height 8 Width ins Material Vitrified Clay Pipe Shape Circular Lining **Pipe Joint length** Coating Total length 412.1 Ft Structural O & M Ft 224.10 Ft Year Constructed Year Renewed Miscellaneous Length Surveyed Constructional

for

Hillsdale

Additional info

Up 1848 Rim to invert Grade to invert Rim to grade Ft





Taplin Group LLC Phone: 269-375-9595

Tabular Report of PSR 4110	for	Hillsdale
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Setup 564	Surveyed By AGS	S	Certificate # U6	61406021126	Ow	ner	
Reviewed By		Reviewer #		Work Ord	er		
Customer				ı	P/O #		
Media Label		Project SANITARY					
Date 2021/06/11	Time 14:25	5 Weathe	r Dry - no Precipita	atio <b>Pre-Cleaning</b> 1	N	Date Clean	ed
Flow control		Survey Purpose				<b>Direction</b> Dov	vn
Inspection Status	Complete Inspec	ction Cor	nsequence Of Fa	ilure Pro	essure		
Inspection Techn	ology Used	CCTV Laser	☐ Sonar [	Sidewall	Zoom	☐ Other	
Street WEST ST	·		City HILI	LSDALE	Dra	inage area	
<b>Location Code</b>				Pipe Use	Sanita	ry Sewage Pipe	
Location details				Height 8	Wid	th ins	
Shape Circular		Material Vitrifi	ied Clay Pipe	Lining			
Coating		Pipe Jo	int length F	t Total length	412.1	Ft	
Length Surveyed	224.1 <b>Ft</b>	Year Constructed	Year Rer	newed			
<b>Up</b> 1848		Rim to inve	ert G	rade to invert		Rim to grade	. Ft
Northing			Easting		Elevat	ion	
<b>Down</b> 1848A		Rim to inve	ert G	rade to invert		Rim to grade	. Ft
Northing			Easting		Elevat	ion	
Coordinate Syste	m			Vertica	I Datum		
<b>GPS Accuracy</b>						Structural	O & M
Additional info						Miscellaneous	Constructional

Count Video	CD	Code		Val1	Val2	%	Jnt	Fr	То	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole								1848
0.0		MWL	Miscellaneous Water Level			30.000					
11.2		FS	Fracture Spiral				J	04	06		
20.5		TFB	Tap Factory Abandoned	6.000				10			
41.7		FL	Fracture Longitudinal				J	04			
53.7	S01	RFJ	Roots Fine Joint				J	80	04		
96.6		TFB	Tap Factory Abandoned	6.000				03			
97.1		FS	Fracture Spiral				J	80	11		
98.5		TF	Tap Factory	6.000				10			
151.3		OBP	Obstruction External Pipe or Cable			10.000		11	01		
192.6		FC	Fracture Circumferential					10	08		
193.2		TF	Tap Factory	6.000				9			
194.0		FM	Fracture Multiple				J	12	06		
195.5		TF	Tap Factory	6.000				03			
196.1		FS	Fracture Spiral				J	04	06		
206.6		MMC	Miscellaneous Material Change								PVC
224.1		MGO	Miscellaneous General Observation								UNDOCUMENTED MANHOLE
224.1	F01	RFJ	Roots Fine Joint				J	80	04		
224.1		AMH	Manhole								1848A
224.1		FH	End of Survey								

224.1 Ft Total Length Surveyed



### Tabular Report of PSR 4110

Tabula	r Repo	rt of	<b>PSR</b> 4110		for Hills	sdale	
Setup	564	Date	2021/06/11	Time 14:25	Up	1848	<b>Down</b> 1848A
	Sco	ores	Structural:	Pipe Rating 18		Pipe Ratings	s Index 3 Quick Rating 4134
			O&M:	Pipe Rating 36		Pipe Ratings	s Index 1 Quick Rating 211E
			Overall	Pipe Rating 54		Pipe Ratings	s Index 1.3 Quick Rating 4134

for

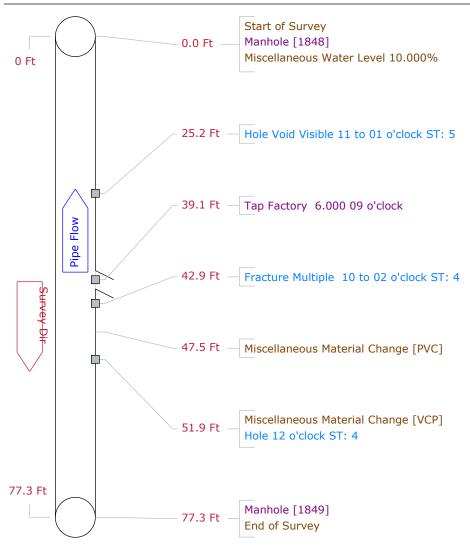
Hillsdale

Setup Surveyed By AGS Certificate # U61406021126 Owner Reviewed By Reviewer # **Work Order** P/O # Customer **Media Label Project SANITARY** Date 2021/06/11 Time 12:29 Weather Dry - no Precipitatio Pre-Cleaning N **Date Cleaned** Flow control **Survey Purpose Direction** Upstream Street WEST ST City HILLSDALE Drainage area **Location Code** Sanitary Sewage Pipe Pipe Use Height 8 Width Location details ins Shape Circular Material Vitrified Clay Pipe Lining Coating **Pipe Joint length** Total length 75.4 Structural O & M Ft Miscellaneous Constructional

77.30 Ft Year Constructed Year Renewed **Length Surveyed** 

Additional info

Up	1849	Rim to invert	Grade to invert	Rim to grade	Ft
Down	1848	Rim to invert	Grade to invert	Rim to grade	Ft





**Taplin Group LLC** Phone: 269-375-9595

Tabular Report	of PSR 4108		for	Hillsdale		
Setup 567	Surveyed By AGS	С	ertificate #	U61406021126	Owner	
Reviewed By		Reviewer #		Work C	Order	
Customer					P/O #	
Media Label	Pr	oject SANITARY				
Date 2021/06/11	Time 12:29	Weather D	Ory - no Preci	oitatio <b>Pre-Cleanin</b>	g N Date	Cleaned
Flow control		Survey Purpose			Direction	<b>on</b> Up
Inspection Status	Complete Inspection	n Conse	equence Of	Failure	Pressure	
Inspection Techn	ology Used	CTV  Laser	☐ Sonar	☐ Sidewall [	Zoom Cthe	r
Street WEST ST			City H	ILLSDALE	Drainage area	a
<b>Location Code</b>				Pipe U	se Sanitary Sewage	Pipe
Location details				Height	8 <b>Width i</b>	ns
Shape Circular		Material Vitrified	l Clay Pipe	Lining		
Coating		Pipe Joint	t length	Ft Total leng	jth 75.4 Ft	
Length Surveyed	77.3 <b>Ft Y</b>	ear Constructed	Year R	enewed		

Rim to grade Up 1849 Rim to invert **Grade to invert** Ft **Northing Easting** Elevation Down 1848 Rim to invert **Grade to invert** Rim to grade Ft Northing **Easting** Elevation **Coordinate System Vertical Datum** 

**GPS Accuracy** Structural O & M Miscellaneous Additional info Constructional

Count Video	CD	Code		Val1	Val2	% .	Jnt	Fr	То	ImRef	Remarks
0.0		ST	Start of Survey								
0.0		AMH	Manhole			İ				1	1848
0.0		MWL	Miscellaneous Water Level			10.000					
25.2		HVV	Hole Void Visible				J	11	01		
39.1		TF	Tap Factory	6.000				09			
42.9		FM	Fracture Multiple				J	10	02		
47.5		MMC	Miscellaneous Material Change							F	PVC
51.9		MMC	Miscellaneous Material Change								/CP
51.9		Н	Hole					12			
77.3		AMH	Manhole							1	1849
77.3		FH	End of Survey								

77.3 **Ft Total Length Surveyed** 

Scores	Structural:	Pipe Rating 13	Pipe Ratings Index 4.3	Quick Rating 5142
	O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	Overall	Pipe Rating 13	Pipe Ratings Index 4.3	Quick Rating 5142



