

Appendix J

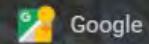
Stormwater Asset GIS Database

CITY OF SEBASTIAN, FL

**ASSET DATABASE FIELD INVESTIGATION
CHANNEL TYPE REFERENCE
STORMWATER MASTER PLAN**

June 2023

392 Bob Cir
Sebastian, Florida



Street View - Mar 2021

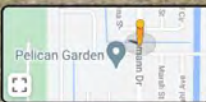
A (small)
(Trapezoidal)
Small bottom
width
2:1 slope



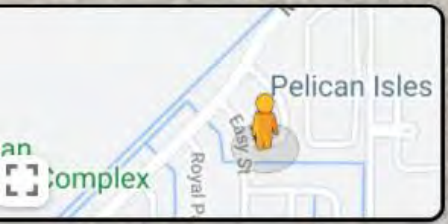
1201 Schumann Dr
Sebastian, Florida



Street View - May 2019



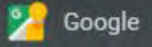
Google



Google

128 Main St

Sebastian, Florida




Street View - Mar 2021

B (big)
(Trapezoidal)
Wider bottom width
2:1 slope



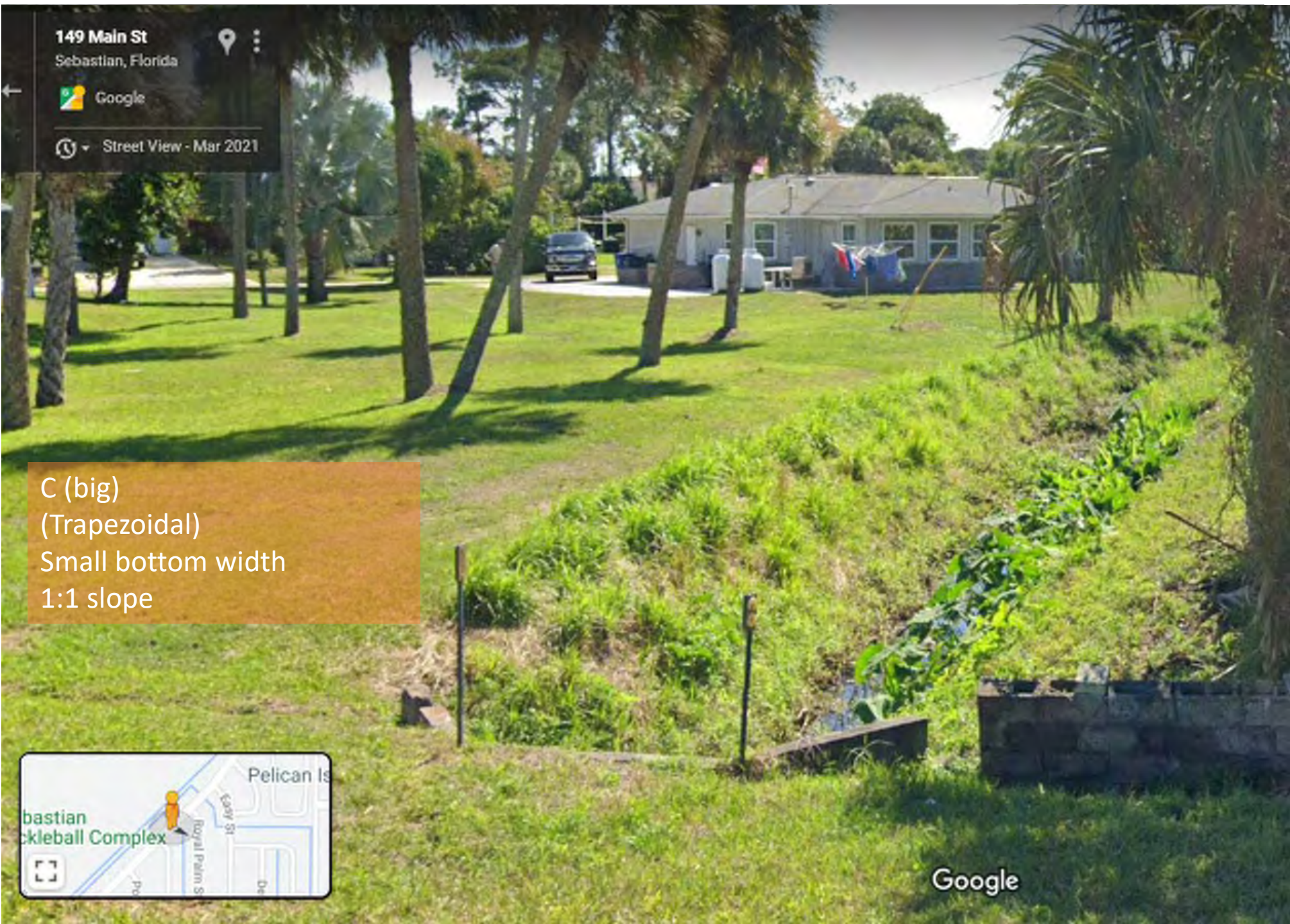
Google

149 Main St
Sebastian, Florida

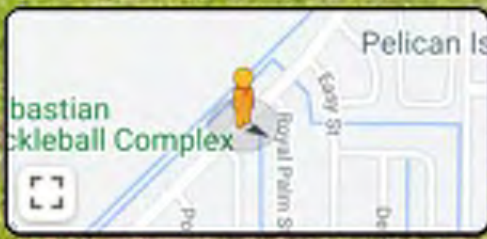


Google

Street View - Mar 2021

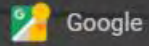


C (big)
(Trapezoidal)
Small bottom width
1:1 slope



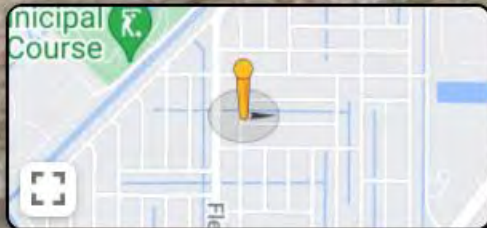
Google

342 Banyan St
Sebastian, Florida



Street View - Jun 2011

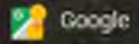
D
Wide bottom width
(Trapezoidal)
2:1 slope



Google

1101 Blossom Dr

Sebastian, Florida



Street View - Jun 2011

E
steep slope (Rectangular)
Wide bottom width
1:1 slope



Google



908 Riviera Ave

Sebastian, Florida



Google



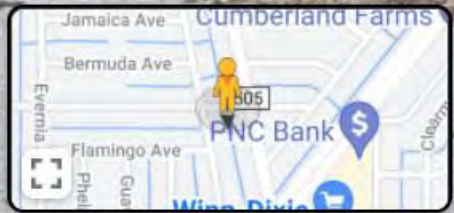
Street View - May 2019

Schwann Dr
Sebastian, Florida
Google
Street View - May 2019



Google

F
(Trapezoidal)
Like B but shallower
slope
2:1 slope



Google

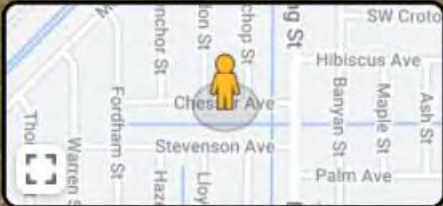
625 Chesser Ave
Sebastian, Florida

Google

Street View - Jun 2011



G
(Triangular)
Almost V ditch
*might not be an actual ditch
(no culvert inlet found)



120 Columbus St
Sebastian, Florida

← Google

Street View - Mar 2021

701 Benedictine Terrace
Sebastian, Florida

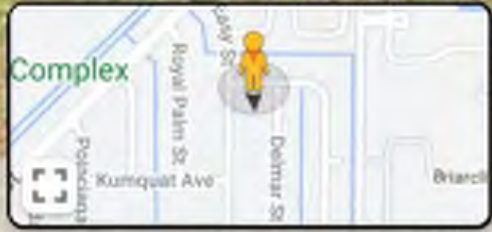
Google

Street View - Jun 2011



Google

H
Rectangular
Almost vertical slope



Complex

Royal Palm St

DeMar St

Kumquat Ave

Polk St

Blanch

Google

452 SW Mango Ave

Sebastian, Florida

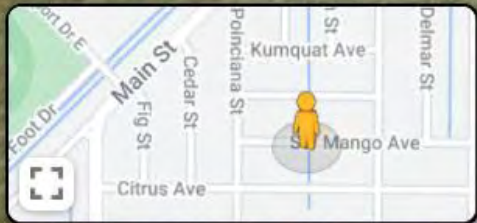


Google



Street View - Jun 2011

(Circular)
Almost round/flat ditch



Google

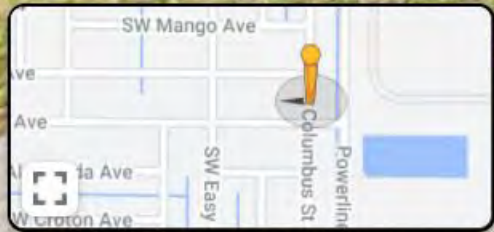
286 Columbus St
Sebastian, Florida

← Google

🕒 Street View - Mar 2021

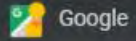


J (Triangular)
Slope:



277 S Wimbrow Dr

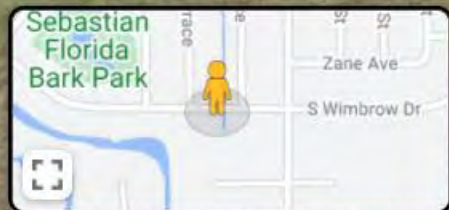
Sebastian, Florida



Google

Street View - Jun 2011

K
Slope:



Google

S Easy St

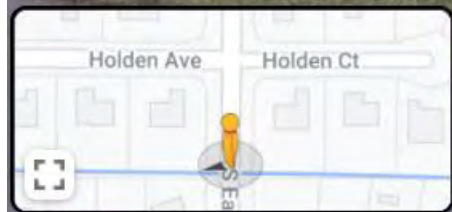
Sebastian, Florida



Street View - Jun 2019

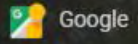


L
(Rectangular)
Slope:



Google

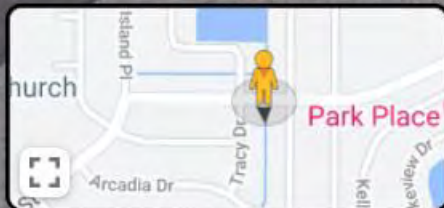
1986 Barber St
Sebastian, Florida



Street View - May 2019



M (wider than B)
Trapezoidal
Slope:



Google

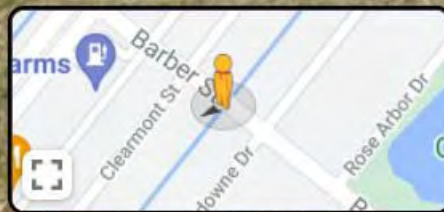
979 Barber St

Sebastian, Florida



Street View - May 2019

N
(Rectangular)
Slope:



Google

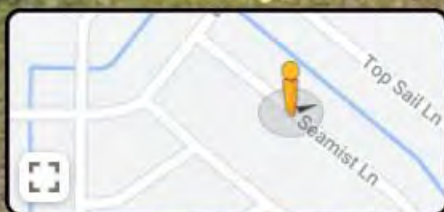
1033 Seamist Ln

Sebastian, Florida

Google

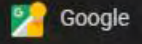
Street View - Jun 2011

O
(either circular or rectangular)
Slope:



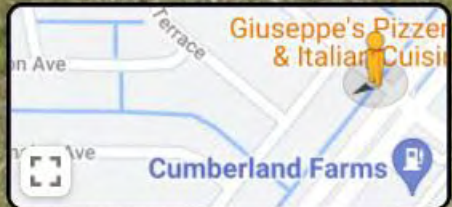
Google

Barber St
Sebastian, Florida



Street View - May 2019

P
(Trapezoidal)
Slope:



Google

City of Sebastian Stormwater Asset GIS Database Fields

June 2023

= the Field is not applicable to the type of asset (nodes versus conduits)

Field	Description	Node	Conduit	Example Node Data	Example Link Data
Comments	General comments	x	x	CB captured fr	<Null>
Survey_Comments	Comments from Survey	x	x	<Null>	Could not locate
Inspected	Inspected Y/N	x	x	Yes	Yes
Outfall Name	Outfall name	x		<Null>	
Model	Modeled Y/N	x	x	Yes	Yes
j_status	Join status - provides information related to the location	x	x	Match-Model	Are identical to, Model ID matches GIS ID
Model_desc	model description and comments	x	x	No IE	<Null>
Type	Type of Asset	x	x	Catch Basin	Culvert
Type_Acronymn	Acronymn of Feature Type	x	x	CB	CU
Asset_ID	6 Digit Asset ID SW Zone + unique 5 digit number	x	x	300001	490075
Address	address text	x	x	INDIAN RIVER DR	RIVER OAK DR
StreetNum	address number	x	x	1201	3
SW_Zone	Stormwater Management Zone	x	x	3	4
X	X coordinate of GIS Feature	x		828074.9	
Y	Y Coordinate of GIS Feature	x		1266176.3	
Z	Elevation from 2007 DEM	x		6.1	
F_Rim_Elev	Best Available Rim Elevation NAVD 88	x		7.68	
F_Inv_Elev	Best Available Invert Elevation NAVD 88	x		1.11	
Channel_Type	Channel Type as described in field investigation		x		K
Survey_Type	Asset Type - Public/Private/Other		x		Public
Canal_Name	Canal Name		x		<Null>
Survey_Condition	Surveyed Condition and Vegetation		x		Some Vegetation
Survey_Sediment_Depth	Survey Sediment Depth inches		x		<Null>
Transect	Name of modeled open channel cross-section geometry, associated with locations F_Cross_Section "Irregular"		x		<Null>
Barrels	Best Available number of barrels (closed pipe networks and culverts)		x		
Inlet_AID	Inlet Node Asset ID		x		400072
Outlet_AID	Outlet Node Asset ID		x		400071
F_Cross_Section	Best Available Cross Section Shape		x		CIRCULAR

City of Sebastian Stormwater Asset GIS Database Fields

June 2023

= the Field is not applicable to the type of asset (nodes versus conduits)

Field	Description	Node	Conduit	Example Node Data	Example Link Data
F_Geom1	Best Available Geom 1, refer to Conduit Geometry Field Descriptions		x		1.25
F_Geom2	Best Available Geom 2, refer to Conduit Geometry Field Descriptions		x		0
F_Geom3	Best Available Geom 3, refer to Conduit Geometry Field Descriptions		x		0
F_Geom4	Best Available Geom 4, refer to Conduit Geometry Field Descriptions		x		0
F_Inlet_IE	Best Available Inlet Elevation NAVD 88		x		13.92
F_Outlet_IE	Best Available Outlet Elevation NAVD 88		x		13.79
F_Length	Best Available Length, feet		x		58.49
Conduit_Material	Material Type based on desktop review and survey		x		<Null>

Asset Type Descriptions and Type Acronymns

Type	Description	Type_Acronymn	Conduit or Node
Backyard Ditch	Ditch behind houses	BD	Conduit
Backyard Pipe	Pipe behind houses	BP	Conduit
Canal	Canal	CA	Conduit
Cross Ditch	Ditch between two houses	CD	Conduit
Cross Pipe	Pipe between two houses	CP	Conduit
Culvert	Culvert - at road crossings	CU	Conduit
Ditch	General Ditch (unspecified)	DI	Conduit
Driveway Culvert	Driveway Culvert	DC1	Conduit
Orifice	Orifice	OR	Conduit
Pipe	General Pipe (unspecified)	PI	Conduit
Pump	Pump	PU	Conduit
Roadside Ditch	Roadside Ditch (not maintained by the City)	RD	Conduit
Weir	Weir	WR	Conduit
Baffle Box	Baffle Box	BB	Node
Catch Basin	(Yard Inlet, storm drain, curb inlet) Pipe to pipe node receiving additional runoff flow	CB	Node
Channel Node	Open Channel to Open Channel	CN	Node
Manhole	Manhole (pipe to pipe node without receiving additional runoff flow)	MH	Node
Model Node	Node Created for modeling purposes not a specific structure	MN	Node
Outfall	Outfall	OF	Node
Pipe End	Pipe/Culvert to Open Channel or Pond inlet/outlet	PE	Node
Storage Node	Storage Node (detention basins, ponds, etc)	SN	Node
Driveway culvert	created for each address point within the SW management Zones	DC2	Node
Roadside Swale	created for each address point within the SW management Zones	RS	Node

Conduit Geometry Field Descriptions

Type of Feature the Cross-Section is associated with	F_Cross_Section	F_Geom1	F_Geom2	F_Geom3	F_Geom4
Pipe	Circular	Diameter, ft			
Pipe	Horiz_Ellipse	Rise, ft	Span, ft		
Open Channel	Irregular				
Open Channel	Parabolic	Depth, ft	Top Width, ft		
Open Channel	Trapezoidal	Depth, ft	Bottom Width, ft	Left Slope (Horiz ft/Vertical ft)	Right Slope (Horiz ft/Vertical ft)
Open Channel	Triangular	Depth, ft	Top Width, ft		
Pipe	Vert_Ellipse	Rise, ft	Span, ft		
Weir	V-notch	Height, ft	Top Width, ft		
Weir	Transverse	Height, ft	Top Width, ft		
Weir	Trapezoidal	Height, ft	Bottom Width, ft	Side Slope (Horiz ft/Vertical ft)	
Orifice	Circular	Diameter, ft			
Orifice	Rect_Closed	Height, ft	Width, ft		

Join Status between the Survey Database and the H&H Model

J_Status Field	Description	Conduit or Node
Are identical to	Spatial join between the features, no	Conduit
Are identical to, Model ID matches GIS ID	Spatial join between the features and ID join with the PCSWMM Model	Conduit
GIS only, not modeled	Feature is in GIS only and not	Conduit
ID match	Spatially not a match but the ID	Conduit
Only modeled, not on GIS	Feature was added in the model but	Conduit
Orifice	Orifice Feature added to Model	Conduit
Pump	Pump Feature added to Model	Conduit
Spatially matched	Spatially joined but the Feature ID	Conduit
Weir	Weir Feature added to Model	Conduit
Combined Node	Node feature added for modeling	Node
GIS only, not modeled	Feature is in GIS only and not	Node
Match and location changed	ID join with model but location adjusted during system review	Node
Match-Model X,Y diff < 1	Spatial join between the features and	Node
Modeled	Feature was added in the model but	Node
Spatially Matched	Spatially joined but the Feature ID	Node

City of Sebastian Stormwater Asset GIS Database Detailed

June 2023

= the Field is not applicable to the type of asset (nodes versus conduits)

Field	Description	Node	Conduit	Example Node Data	Example Link Data
Shape_Length	Geospatial Length. Modeled length may not match the geospatial length in situations in support of hydraulic model representation		x		58.2
DA_Size	Desktop Analysis Diameter in inches (or elliptical dimensions in inches ex. 44x68) from record drawings		x		12
DA_Material	Desktop Analysis Pipe Material from record drawings		x		HDPE
DA_Comments	Desktop Analysis Comments and drawing references	x	x	MH-1	120
DA_Invert_In	Desktop Analysis Upstream Invert Elevation from record drawings		x		20.15
DA_Invert_Out	Desktop Analysis Downstream Invert Elevation from record drawings		x		20
DA_Rim_Elev	Desktop Analysis Record Drawing Rim Elevation	x		13.35	
DA_Inv_Elev	Desktop analysis Record Drawing Invert Elevation	x		7.6	
DA_Node_Type	Desktop Analysis Record Drawing Node Type	x		Manhole	
Channel_Type	Desktop Analysis Channel Type in support of field investigations		x		NA
Inspected	Inspected Y/N	x	x	Yes	Yes
Survey_Comments	Comments from Survey	x	x	<Null>	2 pipes
Survey_Type	Asset Type - Public/Private/Other		x		Public
Survey_Rim_Elev	Survey Rim Elevation NAVD 88	x		<Null>	
Survey_Inv_Elev	Survey Invert Elevation NAVD88	x		<Null>	
Survey_Node_Type	Survey Node Type	x		<Null>	
Survey_Condition	Surveyed Condition and Vegetation		x		Clear
Survey_Pipe_Material	Surveyed Pipe Material		x		HDPE
Survey_Conduit_Type	Surveyed conduit type ex. Culvert, ditch		x		Culvert
Survey_Channel_Bottom_Width	Surveyed Channel Bottom Width in feet		x		<Null>
Survey_Channel_Top_Width	Surveyed Channel Top Width in feet		x		<Null>
Survey_Channel_Depth	Surveyed Channel Depth in feet		x		<Null>
Survey_Pipe_Size	Survey Pipe Size in feet		x		1
Survey_Sediment_Depth	Survey Sediment Depth feet		x		0.083
Outfall Name	Outfall name	x		<Null>	
j_status	Join status - provides information related to the location	x	x	Match-Model X,Y diff < 1	Are identical to, Model ID matches GIS ID

City of Sebastian Stormwater Asset GIS Database Detailed

June 2023

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Field	Description	Node	Conduit	Example Node Data	Example Link Data
Model	Modeled Y/N	x	x	Yes	Yes
Model_desc	model description and comments	x	x		Clear, HDPE
AssetID	6 Digit Asset ID SW Zone + unique 5 digit number	x	x	300025 Manhole MH	590658
Type	Conduit/Node Asset Type based on desktop review, survey, and modeling effort	x	x		Culvert
Type_Acronymn	Acronymn of Feature Type	x	x		CU
ADDRESS	ADDRESS	x	x	U S HIGHWAY 1	PELICAN ISLAND PL
StreetNum	StreetNum	x	x	1004	138
SW_Zone	SW_Zone	x	x	3	5
Canal_Name	Canal Name		x		<Null>
Transect	Name of modeled open channel cross-section geometry, associated with locations F_Cross_Section "Irregular"		x		
Inlet_AID	Inlet Node Asset ID		x		502182
Outlet_AID	Outlet Node Asset ID		x		502183
F_Cross_Section	Best Available Cross Section Shape		x		CIRCULAR
F_Geom1	Best Available Geom 1, refer to Conduit Geometry Field Descriptions		x		1
F_Geom2	Best Available Geom 2, refer to Conduit Geometry Field Descriptions		x		0
F_Geom3	Best Available Geom 3, refer to Conduit Geometry Field Descriptions		x		0
F_Geom4	Best Available Geom 4, refer to Conduit Geometry Field Descriptions		x		0
Barrels	Best Available number of barrels (closed pipe networks and culverts)		x		2
F_Inlet_IE	Best Available Inlet Elevation		x		20.15
F_Outlet_IE	Best Available Outlet Elevation		x		20
F_Length	Best Available Length, feet		x		58.2
Conduit_Material	Best Available Material Type based on desktop review and survey		x		HDPE
X	X coordinate of GIS Feature	x		828144.5517	
Y	Y Coordinate of GIS Feature	x		1265204.173	
Z	Elevation from 2007 DEM	x		11.48	
F_Rim_Elev	Best Available Rim Elevation NAVD 88	x		13.35	
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