

Stormwater Rate Design



BURTON & ASSOCIATES

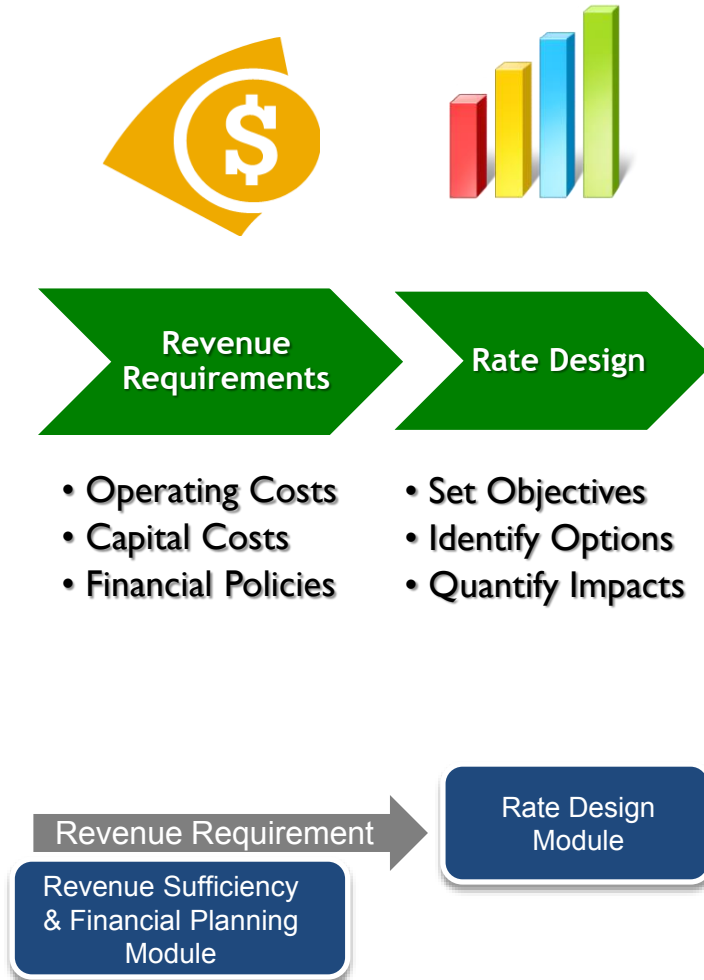
CAM #16-0577

Exhibit 1

4 of 8

6/7/2016

Study Process



Integrated Modeling System

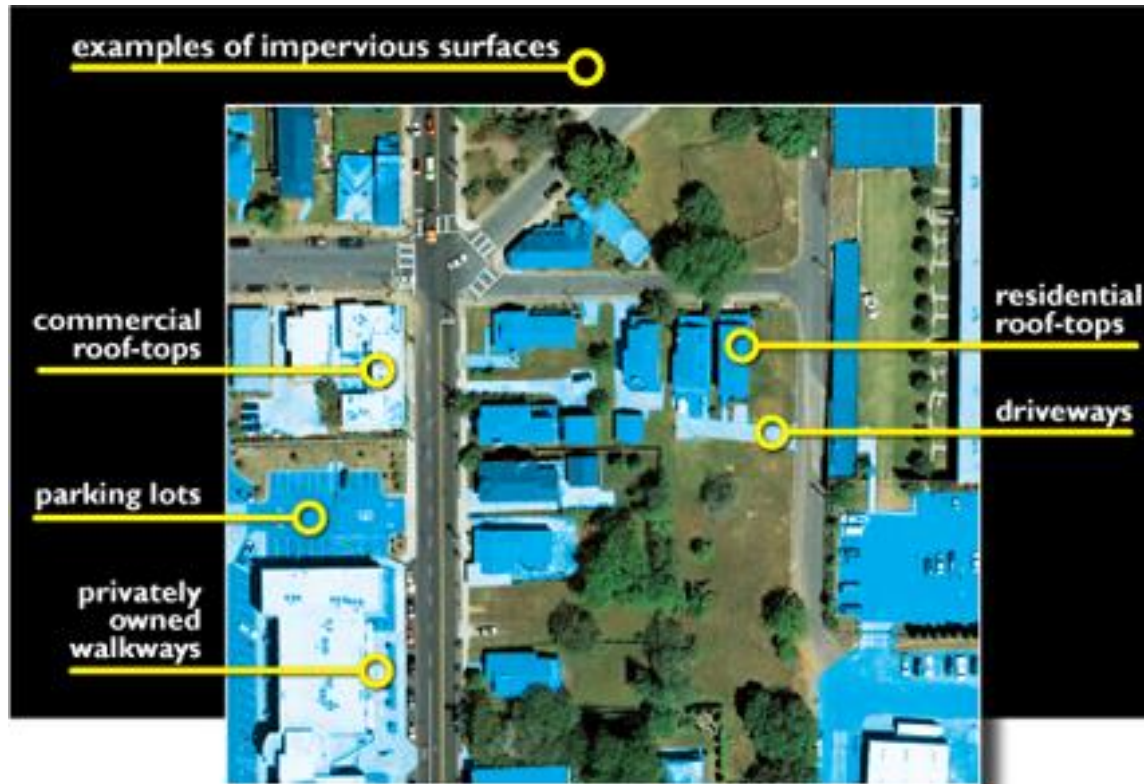
- Industry leading dynamic control panel design
 - Side-by-side scenario comparisons
 - Control of key inputs
- Use of consistent format across all enterprise funds
- Modular process maximizes efficiency and completeness
- Adjusted to match City source data & output formats

CAM #16-0577

Exhibit 1

BURTON & ASSOCIATES

Current Rate Structure

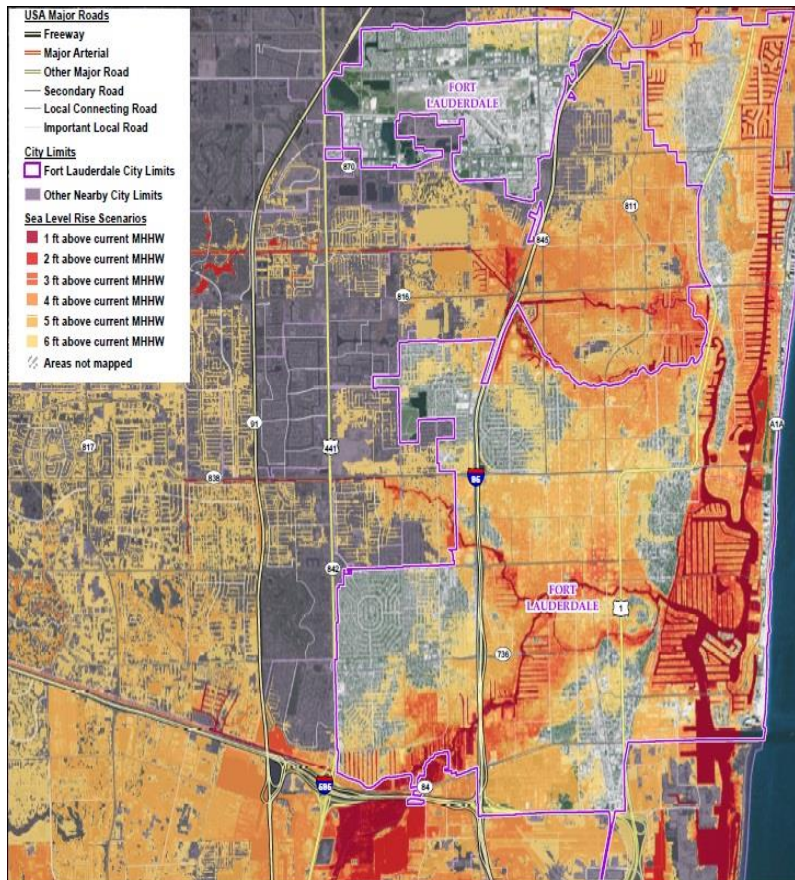


Contribution Method (Impervious Area)

- Rates based on the relative contribution by customer class, determined by sampling
- Easy to implement rate structure and the most common in use
- Creates complex administrative credit system to address onsite attenuation

Rate Category	FY 2016 Rate	Revenue Estimate
Category I - Residential Lot/Parcels (3 Or Less Units)	\$6.00/Unit	\$2,776,894
Category II - Lots/Parcels Other Than Category I	\$60.48/Acre	\$5,250,079
Category III - Unimproved Land	\$19.17/Acre	\$473,027
Total		\$8,500,000

Current Stormwater System

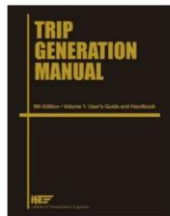


System Observations

- The current system has two types of stormwater events:
 - tidally driven
 - precipitation driven
- The stormwater system is designed and constructed to address road flooding not private property
- Areas exhibiting tidal flooding are identifiable using GIS resources

Building Blocks of a New Rate Structure

ITE's Trip Generation Handbook¹

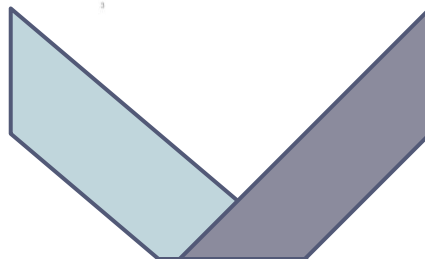


Current state-of-the-practice for estimating trip generation for Traffic Impact Analysis

Includes:

- Methodology
- ~160 land uses
- ~550 locations
- ~5,000 points

¹(ITE, 2004; ITE, 2012)



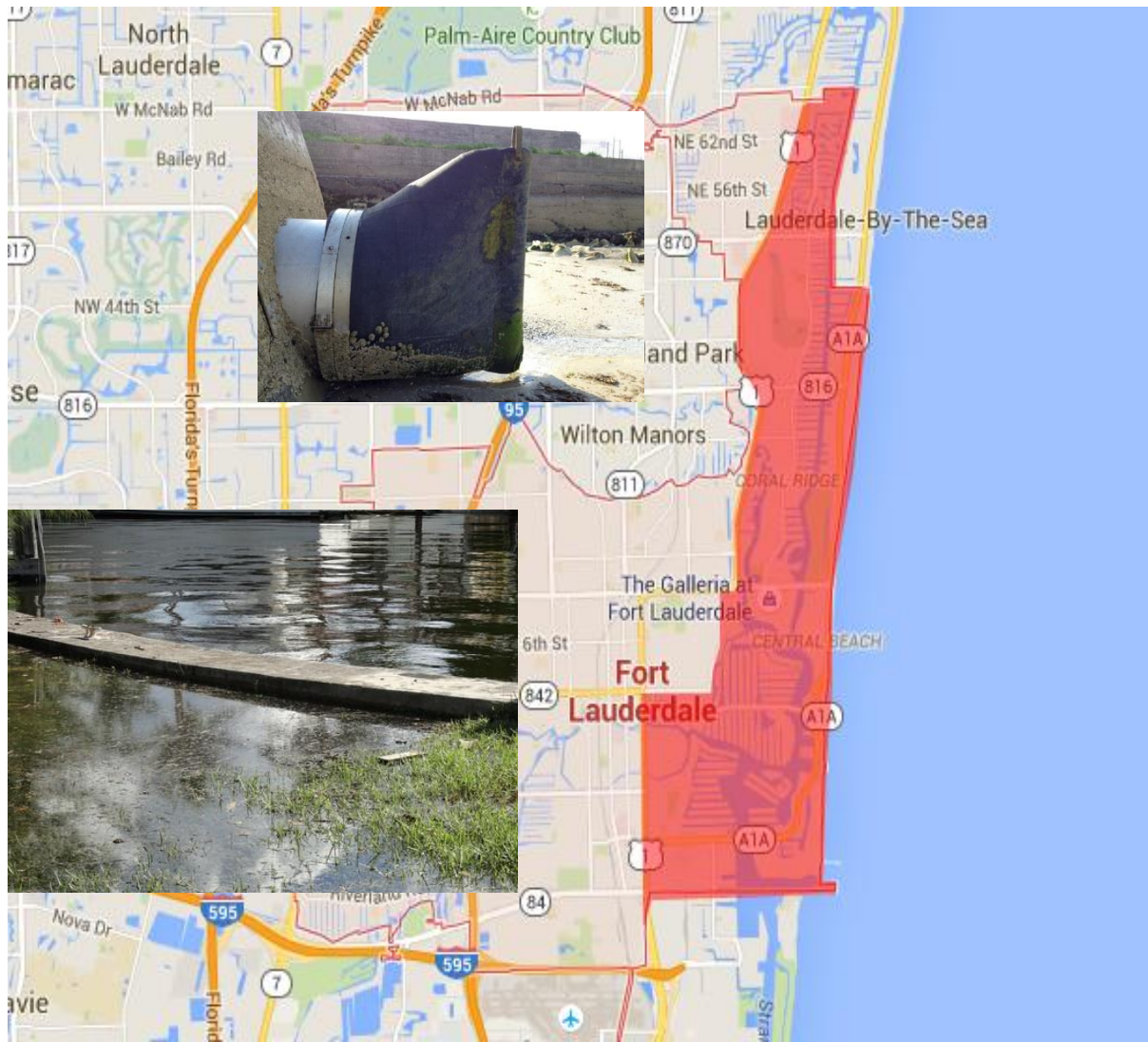
Example Property Types

DOR Code	Trip Generation Rate	Unit of Measurement	ERU
Single Family	290	Unit	1.00
Supermarkets	1,120	SQFT	3.86
Regional Shopping Centers	442	SQFT	1.52
Professional services building	335	SQFT	1.16
Light manufacturing	211	SQFT	0.73
Multi-family – 10 units or more	202	Unit	0.70

Rate Structure Goals

- Rates need to be tailored to form a nexus to customer benefit
- Trip generation rates provide granular data connecting property use to a specific benefit of maintaining clear roadways
- The Property Appraiser data base allows for the identification and application of specific customer rates
- The common unit of trips generated allows for the expression of rates in equivalent residential unit (ERU) terms

Tidally Influenced Areas



Rationale Behind Bifurcation

- Areas exhibiting tidal flooding are identifiable using GIS Technology
- Tidally influenced areas receive increased benefit from tidal migration assets
- Tidally related costs are expected to grow (5% of current budget) and are identifiable in both the operating and capital budgets

Rate Structure

Representative Revenue Requirement

Operating Budget	Base operation	Tier 1 (Base Operations)	Tier 2 (Tidal Operations)
\$ 16,582,390	95%	\$ 15,824,424	\$ 757,967
Billing Units			
ERU's		219,784	63,164
Estimated Monthly Fee Per ERU		\$ 6.00	\$ 1.00

FY 2016 Monthly Bill for Single Family

	Tier 1 (Base Fee)	Tier 2 (Tidal Fee)	Total Bill
West of Federal Highway	\$ 6.00	\$ -	\$ 6.00
East of Federal Highway	\$ 6.00	\$ 1.00	\$ 7.00

Rate Structure Attributes

- Addresses unique connection of system function and customer benefit
- Provides flexibility to address both precipitation and tidally influenced challenges
- Utilizes existing data sources to simplify and enhance customer understanding as well as administration

Example Bills For Each Customer Class

		Current Charges FY 16		Proposed Base Charge		Proposed Tidal Charge (East of Fed. Hwy.)		
Customer Type	Land Use	Total Charge	Base Charge	Total	Change in Charge	Tidal Charge	Total Base + Tidal	Change in Charge
Residential	Single Family	\$ 6.00	\$ 6.00	\$ 6.00	\$ -	\$ 1.00	\$ 7.00	\$ 1.00
Multifamily	Multi-family-10 units or more	\$ 84.80	\$ 334.34	\$ 334.34	\$ 249.54	\$ 55.72	\$ 390.07	\$ 305.27
Commercial	Stores, 1-story	\$ 13.03	\$ 19.57	\$ 19.57	\$ 6.54	\$ 3.26	\$ 22.83	\$ 9.80
Government	Municipal other than parks, recreational areas, colleges, hospitals	\$ 272.49	\$ 1,433.74	\$ 1,433.74	\$ 1,161.25	\$ 238.96	\$ 1,672.70	\$ 1,400.21
Industrial	Warehousing, distribution terminals, trucking terminals, van & storage warehousing	\$ 104.26	\$ 36.57	\$ 36.57	\$ (67.69)	\$ 6.09	\$ 42.66	\$ (61.60)
Institutional	Churches	\$ 132.75	\$ 107.14	\$ 107.14	\$ (25.62)	\$ 17.86	\$ 124.99	\$ (7.76)

CAM #16-0577

Exhibit 1

7 of 8

Discussion



Presentation By:
Mike Burton
President

Office: 904-923-1466

Mobile: 904-247-0787

Email:

8 mburton@burtonandassociates.com

CAM #16-0577

Exhibit 1

BURTON & ASSOCIATES