Meter That Roundabout!

Case Study: Clearwater Beach

Ken Sides, P.E, PTOE, CNU, LCI, RLRM

Sam Schwartz Engineering

4th Annual Ohio Roundabouts Conference

Hosted by the Ohio LTAP Center

October 5, 2020
Meter That Roundabout!

Why?

- Routine events
  - Football games
  - Peak hour flows
Meter That Roundabout!

Why?
- Routine events
  - Football games
  - Peak hour flows
- Unusual events
  - Emergencies
- Seasonal events
  - Spring Break
- In lieu of adding lanes now or in the future

How?
- Case Study:
  Clearwater Beach Entryway Roundabout
Clearwater Entryway Roundabout

DESIGN OBJECTIVES

• Signature Project
• Sense of Arrival
• Sense of Place
❖ Economic Development
Since 2002, $1-billion in new construction has been planned for a 1.4 mile stretch of Clearwater Beach. Currently some 30 projects are in the works. Here is a look at the 10 largest. Two are built, one is under way, six have been approved by the city of Clearwater and one is proposed.

- **$10.0 M** – Entryway Roundabout
- **$63.9 M** – Memorial Causeway Bridge (FDOT)
- **$2.5 M** – Mandalay Av Streetscape
- **$16.0 M** – Beach Walk
- **$92.0 M** – public funding
- **$100 M** – **Hyatt**
  
  250 hotel rooms, 18 condos
- **$100 M** – **Entrada**
  
  241 hotel rooms, 38 condos
- **$31 M** – **Harborview Grande** (being built)
  
  55 condos
- **$50 M** – **Clearwater Grande**
  
  91 hotel suites
- **$110 M** – **Holiday Inn Sunspree**
  
  150 condos
- **$855 M** – in private investment
Rain Event Preemption

• Summer afternoon storms
• Everyone packs up & leaves the beach
• Rain sensors detect
• Timing plans go into effect
  ➢ 14 signals on SR 60 given longer green time for eastbound traffic
VIEW FROM BRIDGE
(Before roundabout)
Before Construction
Before Construction

90 vehicle/vehicle conflict points
Before Construction
Entryway Roundabout

26 vehicle/vehicle conflict points
71% reduction in conflicts
43% reduction in ped/vehicle conflicts
Capacity

Design volume
33,300 weekday vpd
39,500 vpd weekend

Spring Break 2000
58,456 vpd weekday
55,596 vpd weekend

From the roof of the Beach Hilton
two technicians for 12 hrs/day,
over 11 days counted:
6,019 pedestrians / 12 hours
~ 8,000 pedestrians / 24 hours
Fire Station
2535'

Bridge
SYSTEM, METHOD AND APPARATUS FOR MANUAL CONTROL OF A TRAFFIC LIGHT

Inventors: Paul Bertels, Largo, FL (US); Himanshu Patni, Clearwater, FL
Signal Controls
- Fire preemption
- Metering
  - Loop
  - Manual
- Crosswalk
- Bus pullout

Trail Bridge
Questions?

Ken Sides
Sam Schwartz Engineering
KSides@SamSchwartz.com