

Town of Nags Head

The West Side Multi-Use Pathway Development Project



Prepared by:

Department of Public Works

April 28, 2014

Pathway Overview



Goals of Multi-Use Path

- Encourage Recreational Use compatible w/ land uses
- Provide a Variety of opportunities for non-water activities (active and passive)
- Actively plan and seek funds for development of traditional recreation
- 2006 Land Use Plan
 - 80% of respondents agreed Town should increase the number and quality of bicycle & pedestrian facilities
 - 65% of respondents agreed the Town should build bicycle & pedestrian facilities adjacent to US 158
- Parks and Recreation Plan
 - Create Bicycle & Pedestrian connectivity throughout the Town



Pathway Design Criteria

- NCDOT Bicycle Facilities Guide
- Provides a physical barrier between pedestrian & vehicular traffic
- Grade separated with a positive barrier if 5' horizontal distance between pavement & pathway cannot be attained
- Minimum 10' wide paved pathway
- Compliant with current ADA standards
- Should function as a mode of transportation between well defined locations, (i.e. schools, shopping centers, etc.)
- Retain landscaping associated with NCDOT enhancement program
- Retain existing stormwater conveyances
- Cost



Phasing

- Phase I: W. Eighth St. – Carolinian Circle (2008)
- Phase II: Carolinian Circle – W. Oak Knoll Dr. (2009)
- Phase III: W. Oak Knoll Dr. – W. Barnes St. (2010)
- Phase IV: W. Barnes St. – Bonnett St. (2012)
- Phase V: Bonnett St. – W. Villa Dunes Dr. (2013)
- Phase VI: W. Villa Dunes Dr. – W. Windjammer Dr. (2014)
- Phase VII: W. Windjammer Dr. – Carolista Dr. / Hollowell St. (FY 2014/15 CIP)



After



Before



After



Before



After



Before



Project Costs

Phase I

Description: 1,420 l.f. 10' wide multi-use pathway
Location: W. Eighth St. to Carolinian Circle
Year of Construction: 2008
Total Project Cost: \$117,492 +/- (80% NCDOT/20%Town)

Phase II

Description: 510 l.f. 10' wide multi-use pathway
Location: Carolinian Circle to W. Oak Knoll
Year of Construction: 2009
Total Project Cost: \$74,293 +/- (Town 100%)



Project Costs

Phase III

Description: 2850 l.f. 10' wide multi-use pathway
Location: W. Oak Knoll to W. Barnes St.
Year of Construction: 2010
Total Project Cost: \$303,477 +/- (OBVB 48%/Town 52%)

Phase IV

Description: 1,100 l.f. 10' wide multi-use pathway
Location: W. Barnes St. to Bonnett St.
Year of Construction: 2012
Total Project Cost: \$137,825 +/- (Town 100%)



Project Costs

Phase V

Description: 1,150 l.f. 10' wide multi-use pathway
Location: Bonnett St. to W. Villa Dunes Dr.
Year of Construction: 2013
Total Project Cost: \$173,331 +/- (OBVB 47%/Town 53%)

Phase VI

Description: 1,770 l.f. 10' wide multi-use pathway
Location: W. Villa Dunes Dr. to Windjammer Rd.
Year of Construction: 2014
Total Project Cost: \$210,939 +/- (OBVB 47%/Town 53%)



Pathway Elements



Drainage Improvements



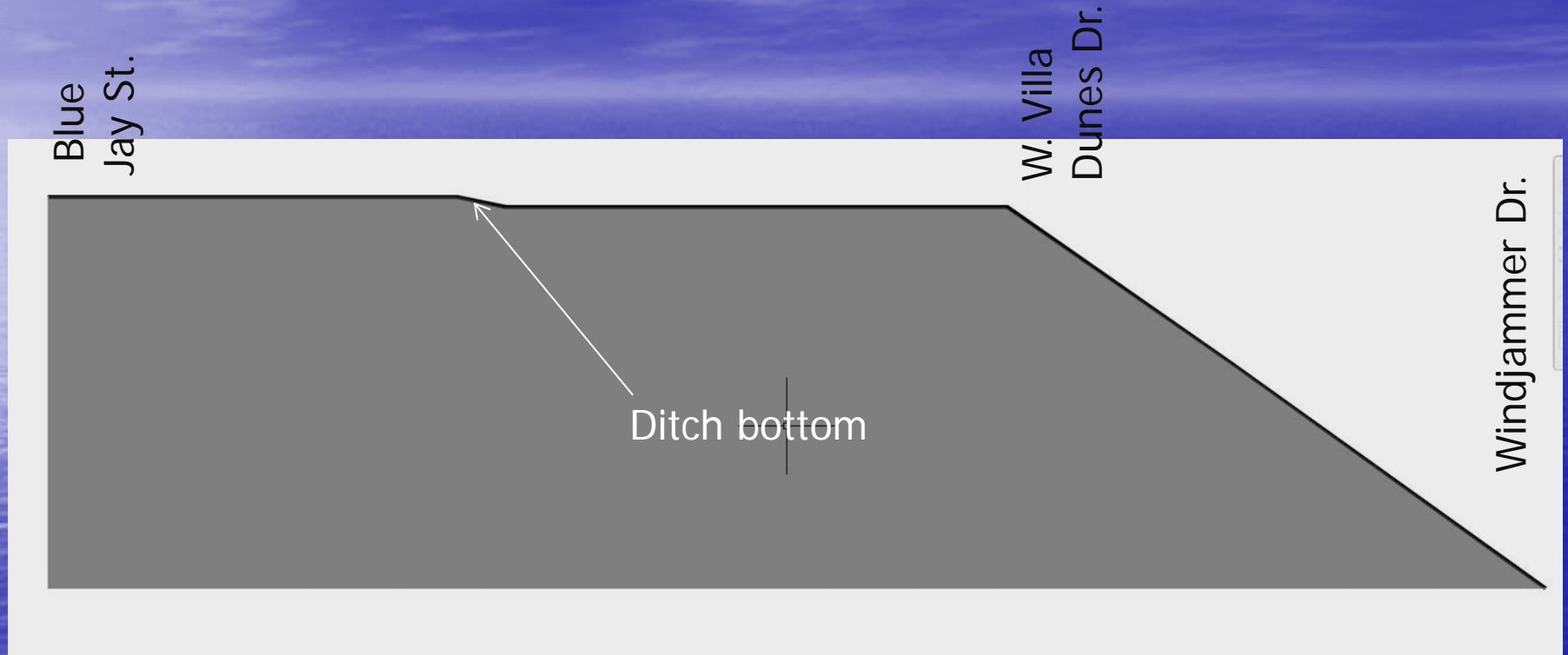
Drainage System Profile



Before



Drainage System Profile



After



After



Before



After



Before



Net Results of Drainage Improvements

- Re-Establish a continuous flowline along the project length
 - Adjusting pipe invert elevations
 - Eliminating "high points" in the ditch bottom which prohibited flow
- Removed dense spans of vegetation which had impacted flow characteristics
- Increase Hydraulic Capacity (increasing pipe size and ditch geometry where appropriate)
- Enhanced pollutant removal through established vegetation filtration and infiltration techniques
- Drainage improvements result in increased level of service and increased system efficiency



Project Summary

- Total Project Cost to date: \$1,017,357 +/-
 - Construction Costs: \$916,244 +/-
 - Professional Service Fees: \$101,113 +/- (Engineering, Surveying, Material Testing, etc.)
 - Town of Nags Head Portion: \$572,520 +/-
- Quantities
 - 1.67 miles of pathway developed
 - 9,576 square yards of concrete pathway
 - 71 Drainage Structures
 - 3,085 lineal feet of drainage pipe (over ½ mile)
 - 6,850 lineal feet of concrete curb & gutter (1.3 miles)



Questions ???

What's Next

