

PROJECT PURPOSE

1. Provide a Potomac River crossing that is compatible with the US 301 approach roadways
2. Improve safety at approaches and on Bridge
3. Provide for two-way travel across Potomac during:
 - Wide-load crossings
 - Incidents and poor weather conditions
 - Maintenance and Rehabilitation work
4. Provide capacity across Potomac River for design year 2030

PROJECT NEED

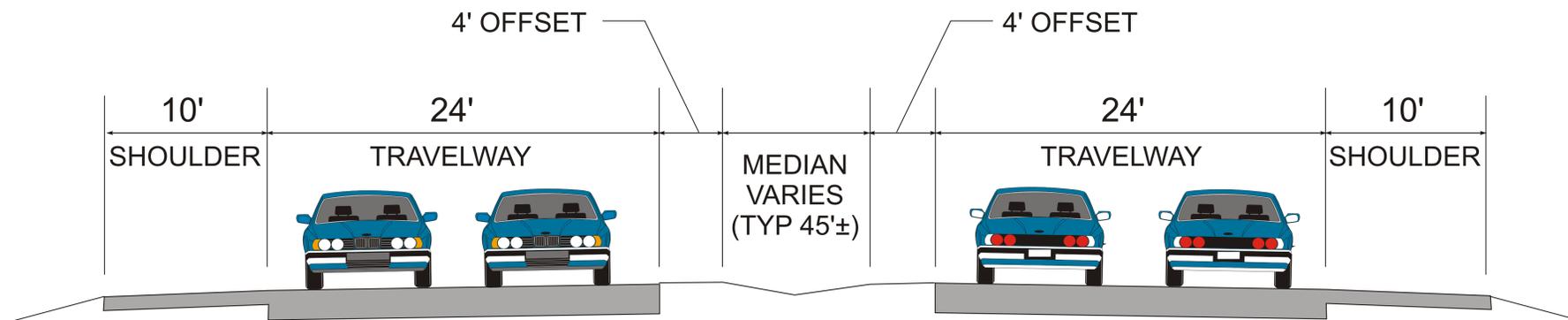
- A. Geometrical inconsistencies between existing bridge and approach roadways
- B. Projected growth
- C. Crash experience
- D. Planned bridge maintenance activities
- E. Transportation significance of facility

DRAFT

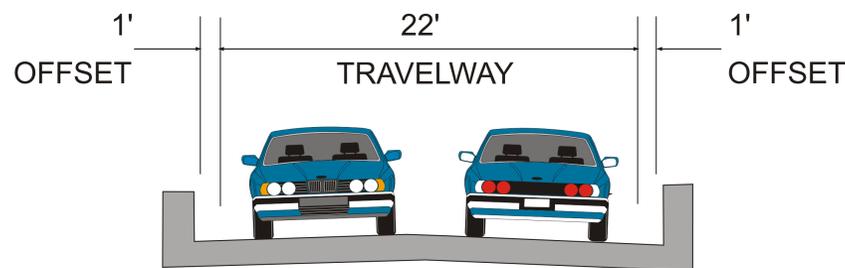
A. Geometrical Inconsistencies

DRAFT

Typical Section



EXISTING US 301 APPROACH ROADWAY



EXISTING BRIDGE

Geometric Features

	Median	Shoulder / Offset	Travel Way	No. of Lanes / Direction	Maximum Grade	Posted Speed
Approach Roadway	wide	4' inside 10' outside	12'	2	2.5% ±	50-55 mph
Bridge	none	1' outside	11'	1	3.75%	40 mph

B. Projected Growth

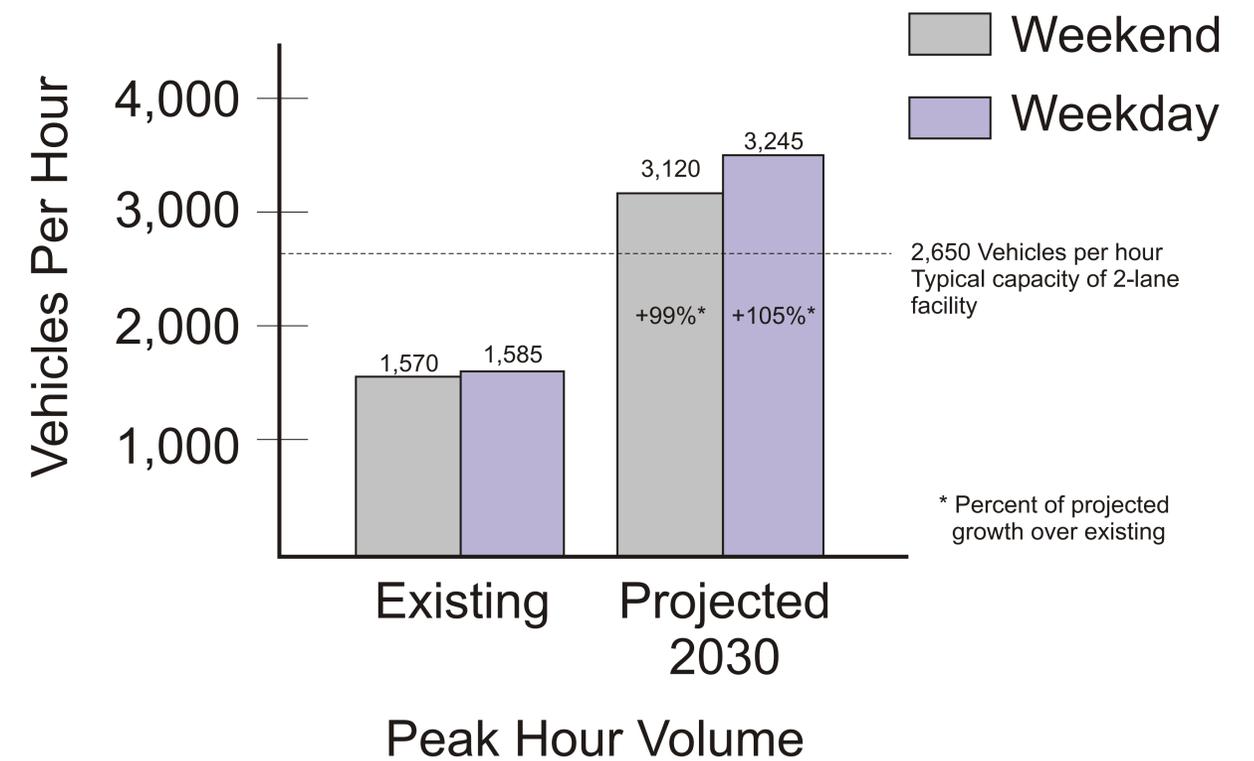
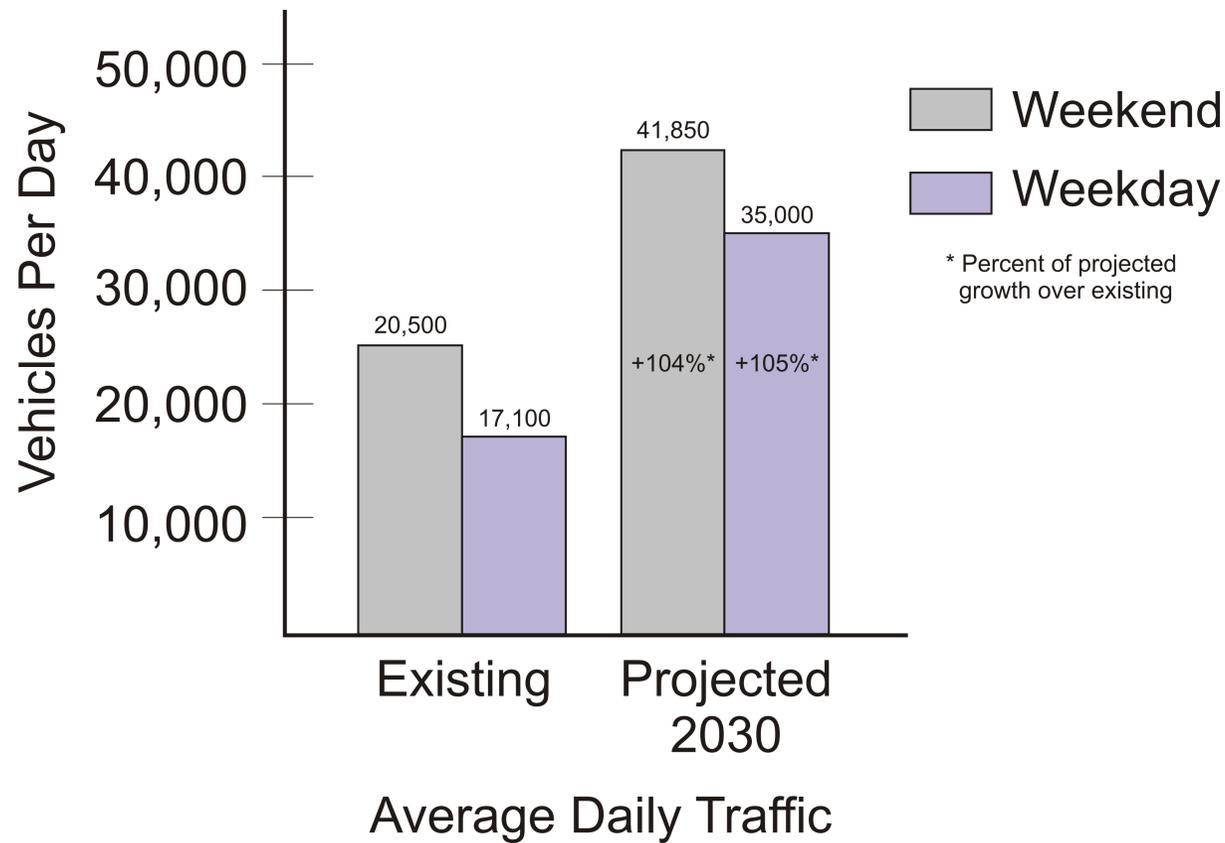
Population & Employment

	Southern MD (Charles, Calvert and St. Mary's counties)		Washington, DC Suburban Region (Frederick, Montgomery and Prince George's counties)		Virginia (King George County)	
	Population	Jobs	Population	Jobs	Population	Jobs
1990 - 2000	+23%	+35%	+14%	+14%	+24%	+23%
2000 - 2010	+27%	+32%	+13%	+17%	+21%	+33%

Source: MD Department of Planning, Planning Data Services, October 2005
 King George County Comprehensive Plan, March 2006
 Virginia Employment Commission Website

B. Projected Growth (cont.)

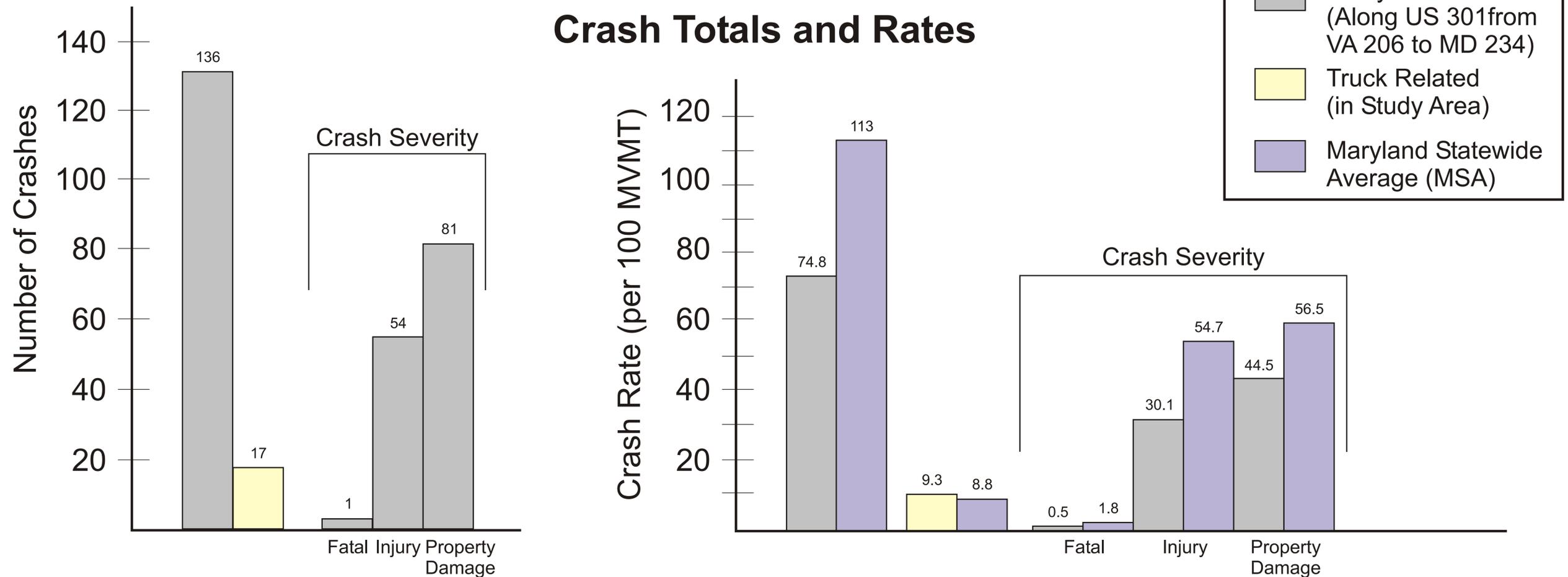
Travel Demand at Bridge



Level of Service (LOS) at the Nice Bridge (7:00am to 6:00pm)

	Hours of LOS E		Hours of LOS F	
	Weekend	Weekday	Weekend	Weekday
Existing	7	2	0	0
Projected 2030	4	10	7	2

C. Crash Experience (January 2003 to December 2005)



DRAFT

Other Crash Features

Feature	Study Area	Nice Bridge	Maryland Statewide Average
Probable Cause	Driver failure to give full time attention - 61%	Driver failure to give full time attention - 21%	N/A
Crash Type	Rear-end Collison - 34%	Opposite Direction- 36%	N/A
Wet Surface Crashes	18%	28%	28%

NOTE:

- 1) 100 MVMT = 100 Million Vehicle Miles of Travel
- 2) 14 crashes were reported on the Nice Bridge during the analysis period, this results in a crash rate of 11.6 / 100 MVMT

D. Planned Maintenance

Bridge in Service 1940

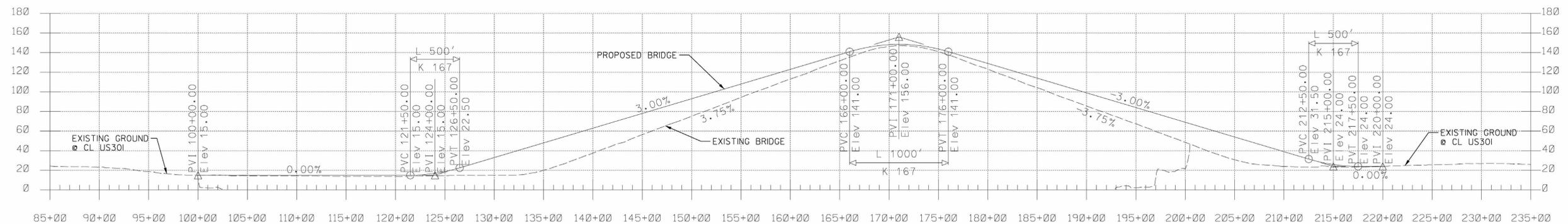
Deck Rehabilitated 1985

Next Deck Rehabilitation Scheduled 2020±

- . Requires long-term single lane closures or complete nighttime bridge closure**
- . Resulting in substantial time delay due to lack of nearby alternate route (I-95, 25 miles upstream)**

E. Transportation Significance

- . Part of National Highway System (NHS)**
- . Part of Strategic Highway Network (STRAHNET)**
- . Provides only direct roadway connection between northeastern Virginia and Southern Maryland**



PROFILE SCALE: 1" = 400' HORZ. 1" = 40' VERT.

Other concepts that will be considered

- No-build Alternate (Alternate I)
- New crossing off current alignment
- Roadway shifts
- Tunnel
- Stacked deck structure
- Three-lane crossing with movable barrier
- Transportation Systems Management (TSM) Alternate
- Transit Alternate

Elements of each Build Alternate

- Open road tolling
- Off-line cash lanes
- Vehicle inspection areas
- Wide-load staging areas
- Authority Facility Campus Master Plan

DRAFT