



# ENVIRONMENTAL IMPACT STATEMENT

## GOETHALS BRIDGE REPLACEMENT

NEWSLETTER 5 / FALL 2007

### INTRODUCTION

The United States Coast Guard as lead federal agency for this study is preparing an Environmental Impact Statement (EIS) to evaluate the environmental, economic, and social impacts of the proposed Goethals Bridge Replacement (GBR). The Port Authority of NY & NJ, the project sponsor, has proposed this action as part of its Goethals Bridge Modernization Program. This is the fifth in a series of newsletters to inform stakeholders and the public about this study as it progresses.

### IN THIS NEWSLETTER

Introduction.....	1
Refinement of Alternatives for EIS Analysis .....	1-2
Why Were These Alternatives Refined?.....	3
Special Combined TAC/ETF Meeting.....	3
What's Next.....	4

### FOR MORE INFORMATION

For project information, visit the GBR EIS Web site at [www.goethalseis.com](http://www.goethalseis.com). The site contains links to meeting presentations, as well as to previous newsletters and other study materials.



United States Coast Guard

### REFINEMENT OF ALTERNATIVES FOR EIS ANALYSIS

On the basis of the findings of the study's alternatives screening process and input received during outreach meetings held in June 2006, four bridge-replacement alternatives were selected for detailed evaluation in the GBR EIS.

Following completion of the alternatives screening process, the GBR Study Team obtained critical input during its ongoing agency coordination and public outreach program which triggered necessary refinements to the conceptual designs of the four bridge-replacement alternatives presented during the June 2006 outreach meetings. However, it has been determined that the design refinements did not alter the findings and outcome of the previous screening process, as the alignments of the refined alternatives remain largely the same.

The refined alternatives have been re-named to distinguish among them based on whether an alternative incorporates the existing bridge's alignment or is entirely comprised of a new alignment either directly north or south of the existing bridge.

#### These refined alternatives are:

- New Alignment South Alternative - a single-bridge replacement in an alignment directly south of the existing Goethals Bridge (originally 6-Lane Replacement Bridge – South);
- New Alignment North Alternative - a single-bridge replacement in an alignment directly north of the existing Goethals Bridge (originally 6-Lane Replacement Bridge – North);

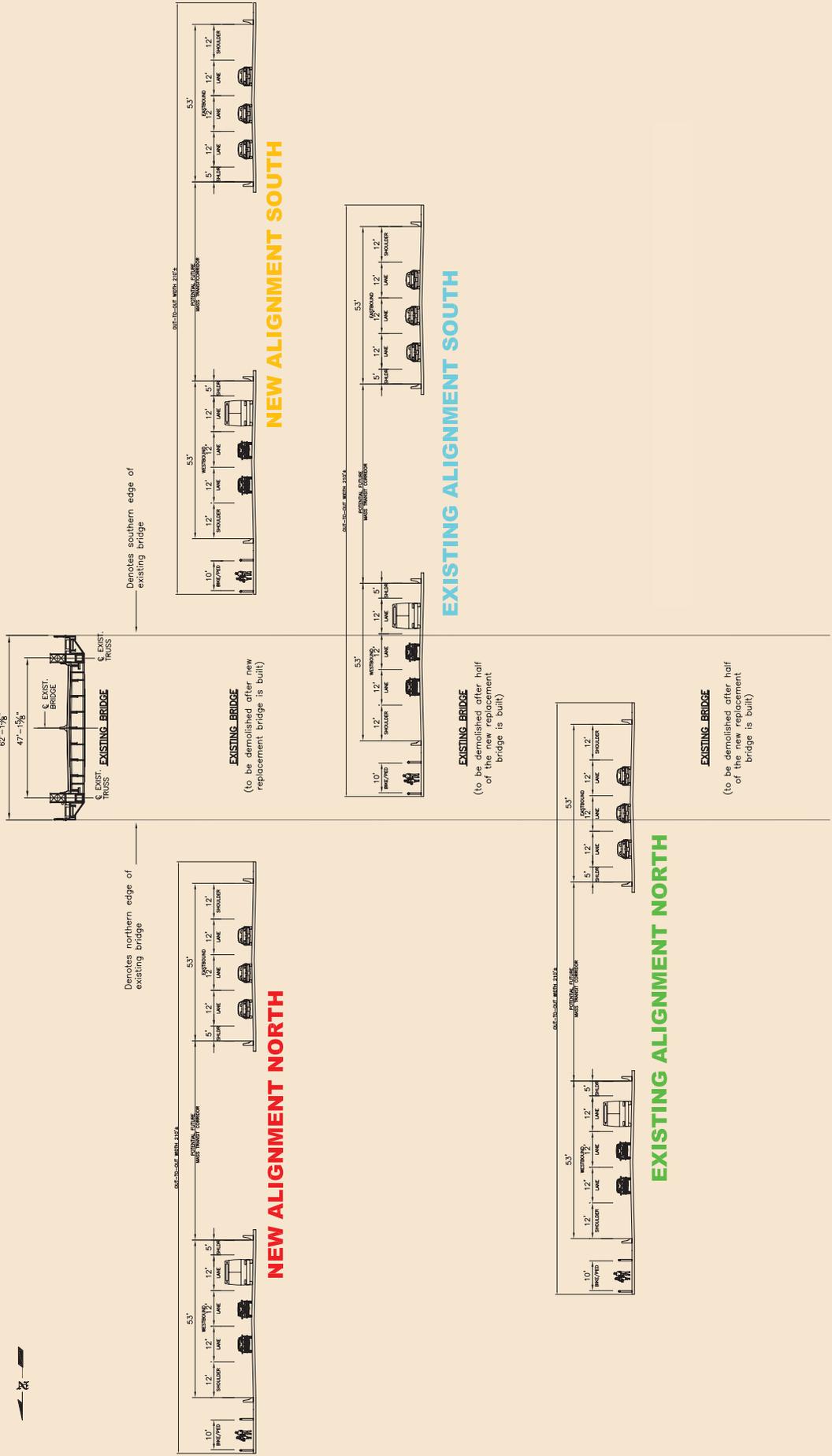
- Existing Alignment South Alternative – a single-bridge replacement in an alignment within and extending south of the existing Goethals Bridge alignment (originally Twin Replacement Bridges – South); and
- Existing Alignment North Alternative - a single-bridge replacement in an alignment within and extending north of the existing Goethals Bridge alignment (originally Twin Replacement Bridges – North).

#### Each refined alternative:

- shares one design concept: a single, cable-stayed bridge with two decks separated by towers and sufficient space to accommodate potential future transit service;
- includes: two decks, each containing three 12-ft. wide lanes; one 12-ft. wide outer shoulder; one 5-ft. wide inner shoulder; and one 10-ft. wide bikeway/sidewalk (northern-most deck only);
- allows for underbridge navigational clearance unchanged from the existing bridge at a minimum of 135 feet above mean high water (MHW); and
- includes a permanent road located generally below the proposed replacement bridge and approach spans for construction, maintenance and security purposes.

The main spans of both "New" Alignment alternatives are proposed to be constructed in their entirety, and then placed into operation before demolition of the existing Goethals Bridge. The main spans of both "Existing" Alignment alternatives are proposed to be constructed in stages using a "half-width" construction approach, in which the existing Goethals Bridge would be demolished after construction of the first half and before construction of the second half of the new bridge.

# CONCEPTUAL CROSS SECTIONS OF 6-LANE REPLACEMENT CAPACITY RELATIVE TO EXISTING GOETHALS BRIDGE ALIGNMENT



## WHY WERE THESE ALTERNATIVES REFINED?

The Goethals Bridge is located approximately 3 miles from the southern boundary of Newark Liberty International Airport (EWR), and within the flight path of EWR. Given this proximity, the Federal Aviation Administration (FAA), which is a member of the GBR EIS' Technical Advisory Committee (TAC), identified a potential concern with the 350-foot high towers originally proposed for the replacement bridge. The Port Authority then conducted aeronautical studies and held further discussions with FAA and representatives of the airlines operating at the airport to determine what tower height for the replacement bridge would not pose a hazard to aviation height clearances.

As a result of the Port Authority's aeronautical studies and consultation process with the FAA and airport stakeholders, a maximum tower height of 272 feet above mean sea level (MSL) was established for the proposed Goethals Bridge replacement to avoid conflict with flight departures from the airport. This decrease of 78 feet from the originally proposed maximum tower height of 350 feet above MSL required redesign of the proposed bridge-replacement alternatives' main span towers.

Design studies that were undertaken to address the effects of the tower height decrease on the previously prepared conceptual bridge-replacement designs confirmed that the cable-stayed design is the most efficient bridge type, given the Goethals Bridge site's physical characteristics. However, the 272-foot maximum tower height required refinements to the bridge-replacement alternatives' alignments, principally due to changes in tower design and roadway clearance interferences with the lowered angle of the cable stays. The new design studies, while still conceptual, further determined that a single bridge configuration containing two decks separated by a set of bridge towers would be suitable for the alignments of all four bridge-replacement alternatives, instead of the two separate design concepts that had been advanced during the GBR EIS alternatives screening process (i.e., single replacement bridge south or north of the existing bridge's alignment, and twin replacement bridges within and directly south or north of the existing bridge's alignment). Therefore, the twin-replacement bridge alternatives north and south of the existing Goethals Bridge are no longer under consideration.



## SPECIAL COMBINED TAC/ETF MEETING

Following the design studies to refine the four conceptual bridge-replacement alternatives, the refinements were presented to and discussed with the study's TAC and Environmental Task Force (ETF) at a meeting scheduled specifically for this purpose, on September 6, 2007 at the U.S. Coast Guard's (USCG) offices in Lower Manhattan. The purpose of the TAC is to provide an opportunity for transportation and environmental resource agencies to discuss traffic/transportation and related air quality and noise issues and areas of potential concern related to the proposed project. The purpose of the ETF is to cover other environmental aspects of the project that the TAC does not address, and it includes federal, state and local agencies with expertise in all environmental aspects of the project.

Both the TAC and ETF were involved in the earlier review of the alternatives screening process, results, conclusions, and recommendation of the original bridge-replacement alternatives. The recent meeting of the TAC and ETF regarding the refined alternatives included discussion of the underlying airport-related impediments to the previously assumed maximum tower height and associated design concept modifications; comparison of the refined alternatives' alignments to the alignments of the four original bridge-replacement alternatives, via visual displays of overlay mapping of the original and corresponding refined alignments; and the screening results for the four refined alternatives using the same basic criteria and evaluation measures as were previously used in the alternatives screening process.

With the input received from the TAC and ETF review of the refined alternatives, the USCG concluded that the refined alternatives are consistent with the recommendations of the alternatives screening process and appropriate for continued detailed evaluation of the proposed project's potential social, economic and environmental impacts, which is being documented in the GBR EIS.

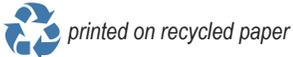


## WHAT'S NEXT?

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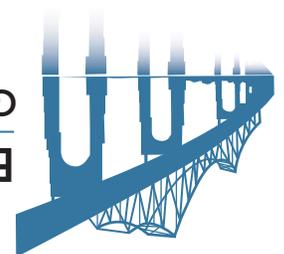
The USCG will provide future opportunities for stakeholders, agencies and the public to learn more about the Study and to review and comment on the results of the Draft EIS analyses:

- The next meetings of the ETF, TAC, and Stakeholder Committee are currently scheduled for early 2008.
- Public Open Houses will also be held in early 2008 in Staten Island, NY, and Elizabeth, NJ.
- The Draft EIS and accompanying public hearings are currently scheduled for Spring 2008.



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