

Utilizing the Wide Node —

Narrow Road Aspect of Roundabouts at Interchanges

Contacts: Kamesh Vedula | Kamesh.Vedula@ghd.com and Ron Boyle | Ronald.Boyle@ghd.com
www.ghd.com | www.omnimeans.com

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INTRODUCTION: Conventional signal interchanges typically require wide bridge structures to accommodate storage for through and turn lanes. Often times, roundabouts eliminate the need for the wide bridge structure by minimizing the number of lanes and queue lengths at the ramp intersections.

1 CASE STUDY

THE ISSUE

- The existing signal resulted in queue spillback to the mainline
- Lack of adequate pedestrian and bicycle facilities



TRADITIONAL SOLUTION

The Problem:

- Traditional solution required a new over-crossing structure
- Traditional solution significantly impacted the right-of-way



ROUNDAABOUT SOLUTION

The Solution:

- The roundabout solution maintained the existing over-crossing
- The roundabout solution minimized the right-of-way impact



2 CASE STUDY

THE ISSUE

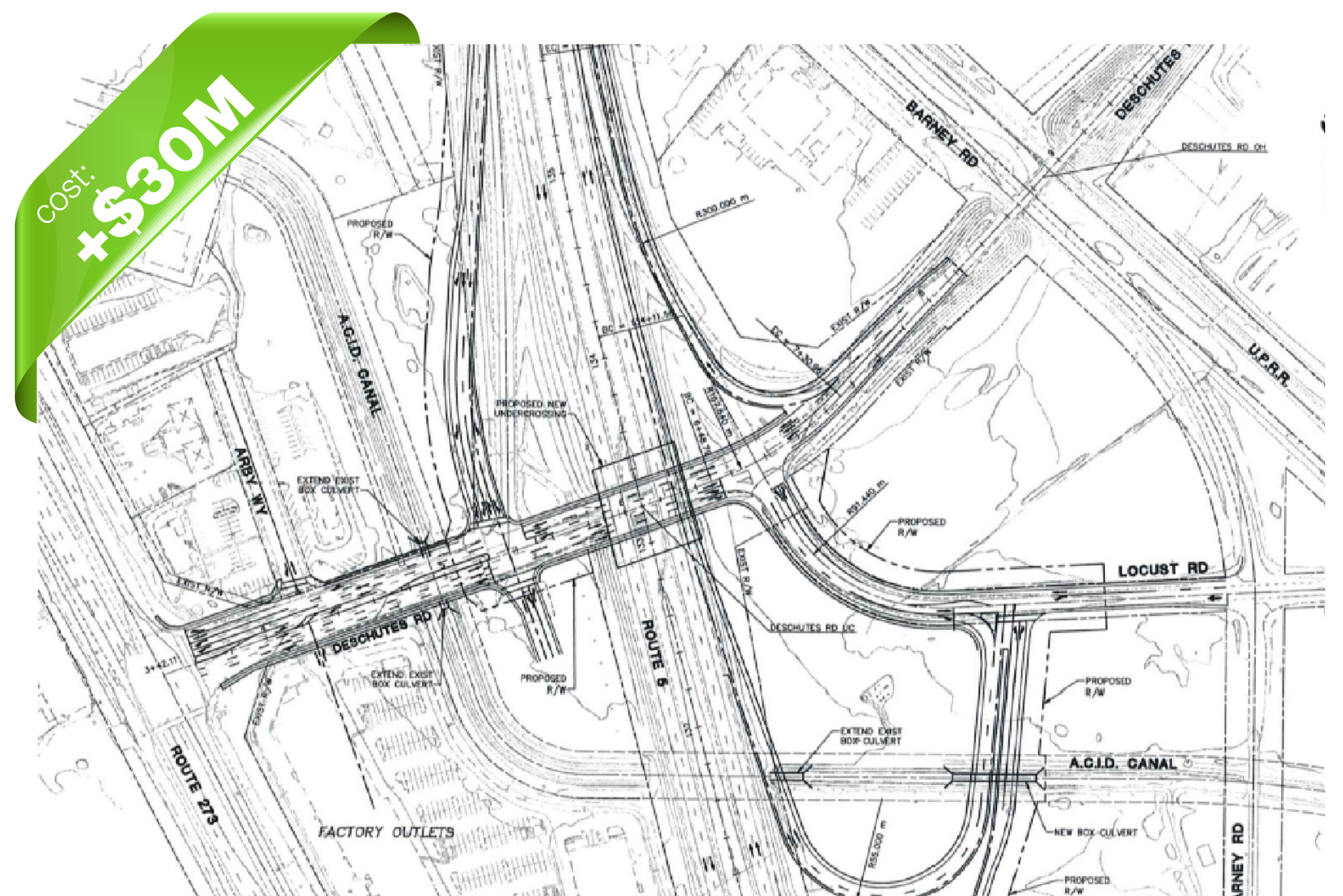
- Lack of freeway access in the NB direction to the factory outlets and other retail
- Requires a NB off-ramp connection for improving access



TRADITIONAL SOLUTION

The Problem:

- Traditional solution required a new undercrossing and freeway reconstruction
- Traditional solution significantly impacted the right-of-way



ROUNDAABOUT SOLUTION

The Solution:

- The roundabout solution eliminated the need for a new undercrossing and freeway reconstruction
- The roundabout solution minimized the right-of-way impact

