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PRINT ISSN : 0289-8063

STRUCTURAL ENGINEERING / EARTHQUAKE ENGINEERING

Vol. 23 (2006) , No. 1 pp.135s-141s

[\[PDF \(533K\)\]](#) [\[References\]](#)**RESPONSE CHARACTERISTICS OF BRIDGE ABUTMENTS
SUBJECTED TO COLLISION OF GIRDER DURING AN
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(Received: June 1, 2005)

In a bridge which is equipped with a rubber bearing support and undergoes relatively large displacement of its girders during an earthquake, the girder and abutment collide in the case that the expansion spacing is not sufficient. However, it may be possible to improve the seismic performance of the overall bridge by constraining the displacement of girders by taking a measure such as reinforcing the colliding members or by installing collision absorbers. In order to use such seismic resistant structures, it is essential to clarify the behavior of the abutment subject to collision force. This paper reports on an analytic study of the characteristics of the dynamic behavior of an abutment and the soil behind it, and the seismic performance of the overall bridge when a bridge girder collides with the parapet wall of the abutment during a large earthquake.

Key Words: seismic design, girder, abutment, collision[\[PDF \(533K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

To cite this article:

Yuusuke OGURA and Shigeki UNJOH; "RESPONSE CHARACTERISTICS OF BRIDGE ABUTMENTS SUBJECTED TO COLLISION OF GIRDER DURING AN EARTHQUAKE", *Structural Eng./Earthquake Eng.*, Vol. 23, No. 1, pp.135s-141s, (2006) .

doi:10.2208/jsceseee.23.135s

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