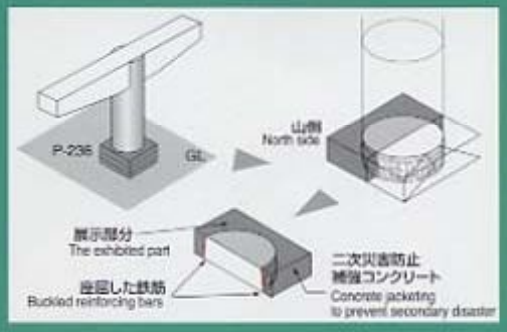
B-3 RC橋脚基部付近での曲げ破壊

Flexural failure around the base of reinforced concrete pier



■**損傷内容**／柱基部付近で、主鉄筋が全周にわたって座屈する激しい曲げ損傷が生じた

■**位置**／3号神戸線 神P-236（神戸市東灘区御影本町）

■**構造形式**／円形RC単柱 直径3.0m

■**竣工時期**／昭和44年度

■**適用基準**／道路橋下部構造設計指針（昭和41年）ほか

■**復旧方法**／柱基部において柱を切断・撤去し、その後、直径3.4mの円形RC柱を現場で構築し、工場で製作した鋼製梁を結合させた

■**展示物紹介**／二次災害防止のため、コンクリートで巻き立て補強した部分を2分割したものの一つ（橋脚の撤去は展示しているようなブロックで搬出した）

■**展示物諸元**

コンクリート設計基準強度240kgf/cm²
主鉄筋 D32（SD30）×2段
帯鉄筋 D16（SD30）×300mmピッチ

■**Damage descriptions**／ Serious flexural failure was occurred at the column base with the buckling of longitudinal reinforcements.

■**Location**／ P-236 on the Kobe Route #3 (Mikage Honmachi, Higashinada-ku, Kobe)

■**Structural configuration**／ Reinforced concrete single cylindrical column with a diameter of 3.0 m

■**Completion**／ 1969

■**Major standards applied**／ Design Guidelines for Highway Bridge Substructures (1966)

■**Restoration**／ The damaged column was cut at the base and removed, and subsequently a new reinforced concrete cylindrical column (diameter: 3.4 m) was built on site. Finally a factory-fabricated steel beam was connected on it to complete the pier.

■**Descriptions of the exhibits**／ The damaged portion of the column around which had been temporarily jacketed with the concrete for secondary disaster prevention is exhibited. The column was divided into two blocks to remove from the site, as shown here.

■**Specifications of the exhibits**

Designed concrete strength: 240 kgf/cm²
Longitudinal reinforcements: D32 (SD30) in double arrangement
Lateral ties: D16 (SD30) at 300 mm intervals