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सत्यमेव जयते

भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ - 226011

Government of India-Ministry of Railways
Research Designs & Standards Organisation
Lucknow- 226011

No. CBS/DWF

Dated: 09.03.2010

General Manager (Engineering / Works):

1. Central Railway, Mumbai CST-400 001.
2. Eastern Railway, Fairlie Place, Kolkata-700 001.
3. East Central Railway, Hazipur-844 101.
4. East-Coast Railway, Bhubaneshwar-751 016.
5. Northern Railway, Baroda House, New Delhi- 110 001.
6. North-Central Railway, Allahabad-211 001.
7. North Eastern Railway, Gorakhpur-273 001.
8. North-Western Railway, Jaipur-302 001.
9. Northeast Frontier Railway, Maligaon, Guwahati-781 011.
10. Southern Railway, Park Town, Chennai-600 003.
11. South Central Railway, Rail Nilayam, Secunderabad-500 371.
12. South East Central Railway, Dilaspur-495 004
13. South Eastern Railway, Garden Reach, Kolkata-700 043
14. South-West Railway, Hubli-580 023.
15. Western Railway, Mumbai-400 020.
16. West-Central Railway, Jabalnur-482 001.

कार्यालय अधिष्ठाता Office Super	दिनांक Date
निदेशक Director	सहायक निदेशक Asst. Dir.
TAC	

Sub: A&C Slip No. 2 to Manual on Design and Construction of Well and Pile Foundations.

Ref: (1) This office letter No. CBS/C-78 dated 17/07/2009.

(2) Director/Civil Engg./B&S Railway Board's letter No. 2008/CE-I/BR/Seminar (BSC) 2 dated 23.06.2009 and 02.03.2010.

This is with reference to this office letter dated 17/07/2009 as above referred (i) communicating Railway Board's orders - vide Director/Civil Engg./B&S Railway Board's letter No. 2008/CE-i/BR/Seminar (BSC) 2 dated 23.06.2009 - on item No. 996 on the committee's recommendations in the Minutes of 78th Bridge Standards Committee (BSC) Meeting held in January, 2009 at Puducherry/S.Railway. Item No. 996 is titled "Review of Para 1.3.1 of Manual on the Design and Construction of Well and Pile Foundations (1985)".

In compliance, this office submitted to Railway Board for approval a draft A&C Slip No. 2 containing amendment proposed in Para No. 1.3.1 as per the Committee's recommendations approved by Railway Board as above mentioned. Based on Railway Board (ME)'s approval of this draft A&C slip communicated vide Director/Civil Engg./B&S, Railway Board letter dated 02.03.2010, enclosed is A&C Slip No. 2 to Manual on the Design and Construction of Well & Pile Foundations, which is issued herewith.

DA: Copy of A&C Slip No. 2 as above mentioned.
(One Sheet)

(Pradeep Singh)
Executive Director/Structures
for Director General/B&S

GOVERNEMENT OF INDIA
MINISTRY OF RAILWAYS
(Railway Board)

MANUAL OF THE DESIGN AND CONSTRUCTION OF
WELL AND PILE FOUNDATIONS

(ADOPTED - 1985)

ISSUED BY RDSO, LUCKNOW

ADDENDUM & CORRIGENDUM SLIP NO.2 DATED 09.03.2010

The formulae for allowable bearing pressure ' q_a ' for permissible value of settlement within 25 mm for well foundations in the existing Para 1.3.1 are indicated below:-

$$q_a = 9.8 \times \frac{5}{6} \left(1 + \frac{0.3}{2B}\right)^2 \quad \text{for } B > 1.2\text{m - in Newton / m}^2$$

$$\left[q_a = \frac{5}{6} \left(1 + \frac{0.3}{2B}\right)^2 \quad \text{for } B > 1.2\text{m - in Kg/m}^2 \right]$$

$q_a = N$ approximately irrespective of B .

$$q_a = 9.8 \times 1.367N \quad \text{for } B \leq 1.2\text{m - in Newton/m}^2$$

$$\left[q_a = 1.367N \text{ t/m}^2 \quad \text{for } B \leq 1.2\text{m - in Kg / m}^2 \right]$$

Where,

$N =$ corrected standard penetration resistance
(No of blows per 30 cm)

The above mentioned formulae in Para 1.3.1 are modified as under:-

$$q_a = 9.8 \times (1 + 0.3/B)^2 N \quad \text{for } B > 1.2\text{m - in KN/m}^2$$

$$\left[q_a = (1 + 0.3/B)^2 N \quad \text{for } B > 1.2\text{m - in tonne / m}^2 \right]$$

$q_a = N$ - in tonne / m² (approximately irrespective of B)

$$q_a = 9.8 \times 1.4 N \quad \text{for } B \leq 1.2\text{m - in KN/m}^2$$

$$\left[q_a = 1.4 N \quad \text{for } B \leq 1.2\text{m - in tonne / m}^2 \right]$$

Where,

$N =$ corrected standard penetration resistance
(No of blows per 30 cm)