



Department of Civil Engineering
Indian Institute of Technology(BHU), Varanasi
U.P. - 221005, India

Dr. Pramod Kumar Singh, Professor

Thursday, March 14, 2013

To, Er. D. P. Adhikari
Charu Engineering Consultants (Consulting Engineers)
JE-9, Khirki Extension, 106-107, I-Floor, Opp. B-Block,
Trikona Park, Malviya Nagar, New Delhi-110017.

Subj.: Proof checking of 20 Nos. pipe designs of varying diameters from 1600mm to 2400mm.

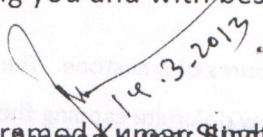
Ref.: Your E-mail dt. 19.2.2013

Sir,

Please find enclosed herewith the duly checked copies of the designs and drawings as mentioned above.

The designs are found safe as per IS 458, but the appended suggestions may be considered for improvement in the design.

Thanking you and with best regards.


(Prof. Pramod Kumar Singh)
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Varanasi-221005

Encl.: as above.

Typical suggestions (1600mm dia):

1. Last but one page:
Mult = 200898 A max = 0.99 in²/lin ft
As = 200898/[60489(4.0-0.65)] = 0.99 in²/lin ft = 2094 mm²/m
Taking same moment for the longitudinal steel,
Increase 12 nos. 7.2mm wires to 24 no. as longitudinal steel.
2. Clear cover may be revised to 25mm on inner as well as outer side.
3. Longitudinal reinforcement may be bent at the end as shown in the figure.

