VP

VARCO
PRUDEN
METAL
BUILDING
SYSTEMS

February 19, 1975

Lugbill Supply Company
P. O. Box 98
Archbold, Ohio   43502

Napoleon Warehouse
Building "D" & "D1"
Vertical Live Load   25 psf   NON-COMB
Wind Load   20 psf   NON-COMB
Dead Load   7 psf
Bay Spacing   25'-0"   o/c
Purlin Spacing 4'-6"   o/c
Bldg Size   200 x 100 x 24
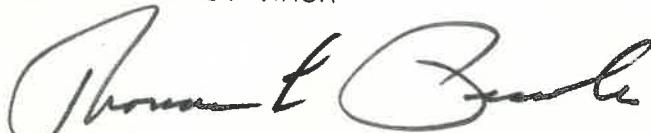   150 x 150 x 24 / 28'-2"

Gentlemen:

Enclosed is design data for the above mentioned building. The
table of contents is as follows:

    1. Post and beam endwall design
    2. Rigid frame analysis
    3. Purlin and girt design
    4. Panel rib properties

*1175
Independence
Dr.*

If there are any questions, please contact us.

Very truly yours,

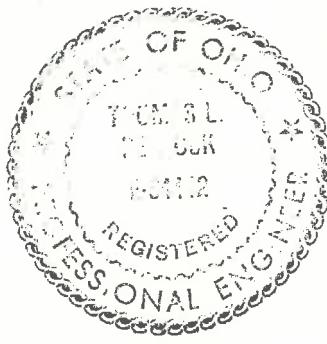VARCO-PRUDEN
Division of AMCA

Thomas L. Peacock, P.E.
Engineering Manager

TLP:ld

Enclosures

(THIS SEAL APPLIES ONLY TO VARCO-PRUDEN   FRAMING
AND PANELING AND DOES NOT COVER OR IMPLY ANY
RESPONSIBILITY FOR OTHER BUILDING ENGINEERING, IF
NECESSARY)

VARCO-PRUDEN, INC.

| DESIGN MANUAL | PANEL RIB LOAD CHART |

LOAD CHART FOR PANEL RIB

Basis:
1) New configuration
2) $Fy = 50,000$ psi, $Fb = 30,000$ psi
3) $E = 29,500,000$ psi
4) Maximun deflection $= L/180$
5) 26 Gage
6) $Ix = 0.0419$ in^4
7) $Sx = 0.0451$ in^3 (Top of rib in compression)
   $Sx = 0.0493$ in^3 (Top of rib in tension)

	3'-0"	3'-3"	3'-6"	3'-9"	4'-0"	4'-3"	4'-6"	4'-9"	5'-0"
Imple, Bending	100	85	73	63	56	49	44	40	35
Imple, Deflection	135	107	85	69	56	47	40	34	29
-Span, Bending	137	117	101	87	77	67	61	54	49
-Span, Deflection	256	201	160	130	107	89	75	64	54
-Span, Bending	127	108	94	82	71	63	56	50	45
-Span, Deflection	272	213	171	138	114	95	80	68	58

BENDING

Simple
$$W = \frac{2\ Fb Sx}{3\ L^2}$$

3-Span
$$\frac{Fb Sx}{(0.100)\ (12)\ (L^2)}$$

4-Span
$$\frac{Fb Sx}{(0.1071)\ (12)\ (L^2)}$$

DEFLECTION

$$W = \frac{384\ (E)\ (Ix)\ (12)}{S\ L^3\ (180)\ (1728)}$$

$$\frac{12\ (E)\ (Ix)}{(0.0069)\ (L^3)\ (180)\ (1728)}$$

$$\frac{12\ (E)\ (Ix)}{(0.0065)\ (L^3)\ (180)\ (1728)}$$