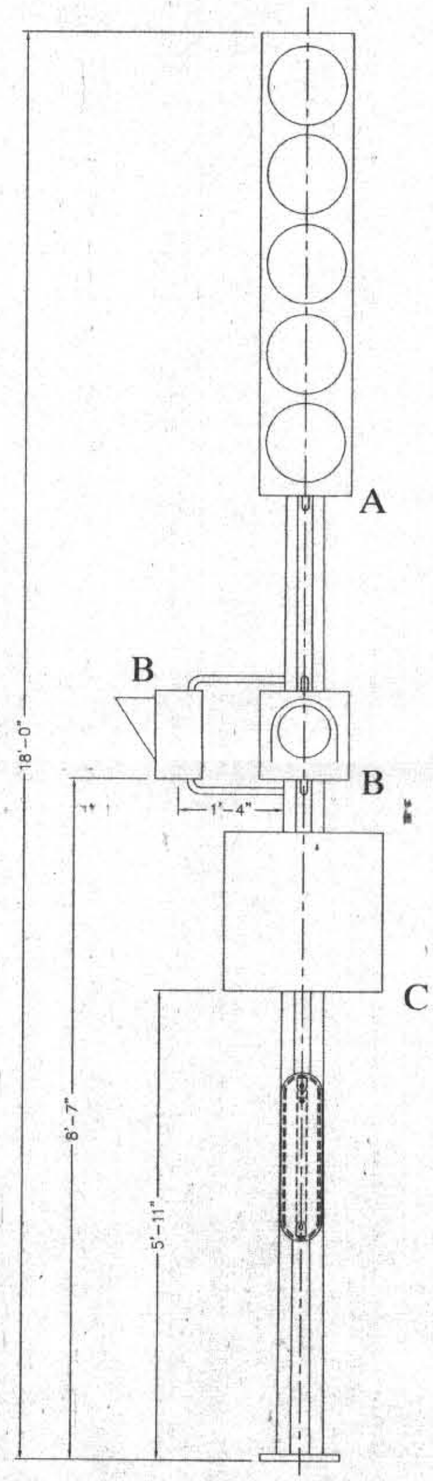
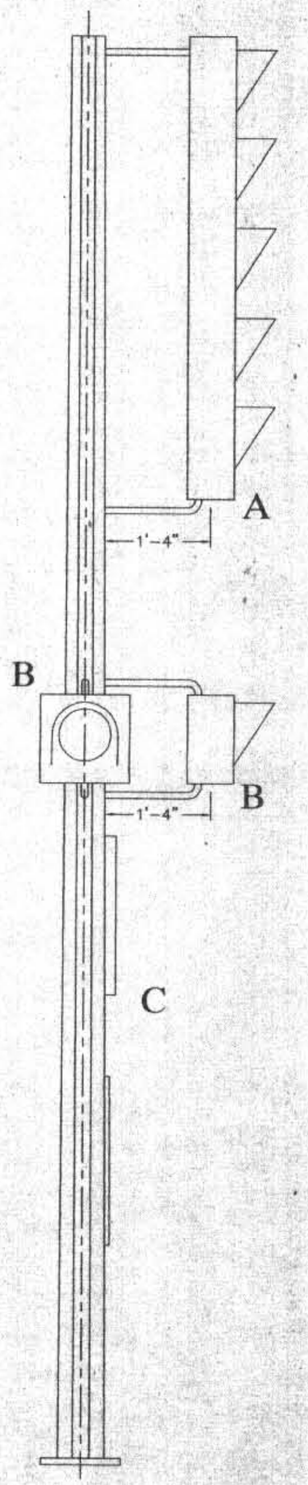



LOADING CONFIGURATION
FRONT VIEW




LOADING CONFIGURATION
SIDE VIEW

TRAFFIC SIGNAL LIGHT DUTY STRAIGHT SHAFT DESIGN CRITERIA.

DESIGN AS PER THE 2001 4th EDITION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. THE TRAFFIC SIGNAL LIGHT DUTY STRAIGHT SHAFT IS DESIGNED TO SUPPORT LOADS AS SHOWN ON THIS DRAWING AND DESCRIBED IN THE TECHNICAL SPECIFICATION FOR AASHTO GROUP LOAD COMBINATION I, II, AND III. FATIGUE STRESS RANGE FOR NATURAL WIND GUSTS AT CRITICAL FATIGUE LOCATIONS WERE CALCULATED FOR TRAFFIC SIGNAL FATIGUE CATEGORY III AS PER AASHTO TABLE 11-1. ALL RESULTS ARE LISTED IN DESIGN RESULT REPORT. THE DESIGN WIND PRESSURE $Pz=0.00256KzGV^2IrCd$ psf WHERE $(0.00256\ GV^2)=25.6$ psf, Kz AS PER AASHTO TABLE 3-5 EXCEPT NOT LESS THAN 1.0, Ir=1.0 FOR 50 YEAR DESIGN LIFE AND Cd AS PER AASHTO TABLE 3-6.

PROPERTIES OF SIGNALS AND SIGN

FACE AREAS LISTED BELOW DO NOT INCLUDE DRAG COEFFICIENT

A 5 SECTION 12" SIGNAL HEAD SIDE MOUNT
FACE AREA 6.8 sq. ft. (14" x 70")
END AREA 1.34 sq. ft.
WEIGHT 80 lb.

B TWO PEDESTRIAN HEADS AT 90°
TOTAL EFFECTIVE PROJECTED AREA 3.3 sq. ft. (EACH 13½" W x 13½" H)
TOTAL WEIGHT 50 lb.

C TRAFFIC SIGN
FACE AREA 4.0 sq. ft. (24" W x 24 H")
WEIGHT 14 lb.

PROVINCE OF MANITOBA
G.E. SELME
Aug 20/04
REGISTERED PROFESSIONAL ENGINEER

| REV. No. | DATE | REVISIONS | APPROVED |
|---|---|---|---|
| 2 | MAY 26, 2004 | REDRAWN, ADDED SHEET 2 | D Selme |

Winnipeg

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DIVISION

GES ENGINEERING INC.
CALGARY, AB. PHONE (403) 240-2921 FAX (403) 240-3713

TRAFFIC SIGNAL LIGHT DUTY STRAIGHT
SHAFT POLE OF 18 FEET IN HEIGHT

| DESIGNED AND APPROVED | DRAWN | DWG No. | |
|---|---|---|---|
| DATE D Selme GES Engineering Inc Aug 17, 2004 | G.G. DATE MAY 12, 2004 | ST-166 | |
| | | SCALE NTS | SHEET 2 OF 2 |
| | | | REV. No. 2 |