

FOUNDATION NOTES

- ALL CONCRETE WORK SHALL COMPLY WITH THE LATEST RECOMMENDATIONS AND SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE LOCAL BUILDING CODES.
- ALL CONCRETE SHALL BE NORMAL WEIGHT HAVING A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS WITH THE FOLLOWING REQUIREMENTS:
 PORTLAND CEMENT - ASTM C150, TYPE II, MINIMUM 5 SACKS PER CUBIC YARD.
 AGGREGATE - ASTM C33, 1 1/2 MAXIMUM SIZE.
 WATER - POTABLE WITH A MAXIMUM WATER CEMENT RATIO OF 0.55.
 SLUMP - 3" TO 5".
 ADMIXTURES - USE AIR ENTRAINING AGENT CONFORMING TO ASTM C260 WITH 4-6% TOTAL AIR. USE WATER REDUCING AGENT CONFORMING TO ASTM C494 IN ALL CONCRETE.
 DESIGN MIX - SUBMIT A CURRENT DESIGN MIX, WITH 28 DAY COMPRESSIVE STRENGTH TESTS, TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING CONSTRUCTION.
- ALL REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 60 EXCEPT STIRRUPS AND TIES TO BE GRADE 40.
- REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPER PLACE BEFORE AND DURING POURING OPERATIONS USING APPROVED CHAIRS AND SPACERS AS REQUIRED. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL OF THE ENGINEER.
- FOOTINGS SHALL REST ON SUITABLE UNDISTURBED SOIL OR COMPACTED GRANULAR FILL HAVING MINIMUM BEARING CAPACITY OF 3000 PSF. ELEVATIONS OF BOTTOM OF FOOTINGS ARE SHOWN ON PLANS, BUT ARE SUBJECT TO REVISION WHEN TRUE SOIL CONDITIONS ARE EXPOSED BY EXCAVATION. THE ENGINEER SHALL BE NOTIFIED PROMPTLY OF ANY WEAK STRATA, WATER CONDITIONS OR OTHER POOR BEARING CONDITIONS.
- CONTRACTOR TO DESIGN, FURNISH AND INSTALL ALL TEMPORARY SHEETING, SHORING AND BRACING NECESSARY TO SAFELY COMPLETE THE CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT AND CONTINUOUSLY DEMATER THE SITE TO FACILITATE CONSTRUCTION AND SAFE WORKING CONDITIONS.
- SHOP DRAWINGS PREPARED IN ACCORDANCE WITH ACI STANDARDS WILL BE REQUIRED FROM THE CONTRACTOR FOR REINFORCING STEEL PRIOR TO CONSTRUCTION.

STRUCTURAL NOTES

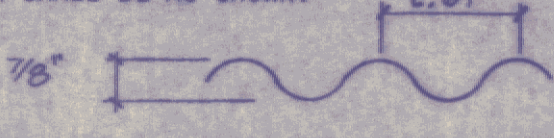
- ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE "SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" OF THE A.I.S.C. AND TO THE REQUIREMENTS OF THE LOCAL BUILDING CODES.
- ALL WELDING SHALL CONFORM TO THE "STRUCTURAL WELDING CODE - ANSI/AWS D1.1" OF THE AMERICAN WELDING SOCIETY.
- STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING:
 STRUCTURAL SHAPES
 ASTM A36, Fy = 36,000 PSI
 BOLTS
 ASTM A325
 STRUCTURAL TUBING
 ASTM A500, GRADE B, Fy = 46,000 PSI
- ALL SHOP CONNECTIONS SHALL BE BOLTED OR WELDED. ALL FIELD CONNECTIONS SHALL BE BOLTED EXCEPT WHERE WELDING IS SPECIFICALLY CALLED FOR. BOLTS SHALL BE 3/4" MINIMUM WITH OPEN HOLES 1/16" LARGER, EXCEPT FOR COLUMN GROUT PLATES WHICH ARE 3/16" LARGER AND COLUMN BASE PLATES WHICH ARE 5/16" LARGER. CONNECTIONS NOT DETAILED SHALL BE DESIGNED FOR THE LOADS INDICATED ON THE DRAWINGS OR THOSE GIVEN IN THE AISC UNIFORM LOAD TABLES, WHICHEVER IS GREATER.
- ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED (MINIMUM 2 MILS DRY FILM THICKNESS) WITH AN APPROVED RUSH INHIBITIVE PRIME PAINT. STEEL SHALL BE THOROUGHLY CLEANED PRIOR TO PAINTING. FIELD TOUCH UP WITH THE SAME PAINT WILL BE REQUIRED.
- THE STRUCTURAL STEEL CONTRACTOR SHALL PROVIDE ALL NECESSARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STEEL FRAME PLUMB AND SQUARE UNTIL THE PERMANENT BRACING AND SUPPORT DETAILS ARE INSTALLED.
- THERE WILL BE NO FIELD BURNING, CUTTING OR OTHER ALTERATIONS OF STRUCTURAL STEEL WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (ONE REPRODUCIBLE PRINT AND TWO BLUE PRINTS) TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION FOR THE STRUCTURAL STEEL.

GRANULAR FILL NOTES

- GRANULAR FILL SHALL BE AN APPROVED, WELL GRADED BANK RUN OR CRUSHER RUN GRAVEL MEETING THE REQUIREMENTS OF THE FOLLOWING TABLE:

SIEVE DESIGNATION	% PASSING
2"	100
No. 4	40-70
No. 100	5-20
No. 200	4-8
- THE MATERIAL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D1557, MODIFIED PROCTOR.

BIFOLD DOOR NOTES

- HORIZONTAL BIFOLD DOOR SHALL BE FURNISHED AND INSTALLED BY THE OWNER.
- THE DOOR SHALL BE MANUFACTURED BY WILSON INDUSTRIAL DOORS, INC., WILMOUTH, WISCONSIN. DOORS OF EQUAL QUALITY BY ALTERNATE MANUFACTURERS WILL BE CONSIDERED BY THE OWNER AND THE ENGINEER, BUT THE SUBSTITUTION MUST HAVE WRITTEN APPROVAL OF THE OWNER PRIOR TO RECEIPT OF BIDS. SUGGESTED ALTERNATE MANUFACTURERS ARE FLEMING STEEL COMPANY AND MOSHER DOORS, INC. DESIGN DETAILS ON THESE PLANS ARE FOR A WILSON DOOR. SHOULD AN ALTERNATE MANUFACTURER BE ACCEPTED, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REVISION OF THE DESIGN AND DETAILS TO ACCOMMODATE THE ALTERNATE DOOR. SAID REVISIONS MUST HAVE APPROVAL OF THE ENGINEER.
- THE DOOR SHALL BE PROVIDED WITH THE COLD WEATHER PACKAGE AND AUTOMATIC LOCKS. THE DOOR MUST BE FABRICATED SO THAT IT WILL ACCEPT METAL SIDING ON BOTH THE INTERIOR AND EXTERIOR SURFACES WITHOUT FIELD APPLIED STUDS OR GIRTS.
- INSTALLATION OF THE BIFOLD DOOR SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTION MANUAL, AND SHALL BE SUPERVISED BY A REPRESENTATIVE OF THE MANUFACTURER. ONE COPY OF THE MANUAL SHALL BE FURNISHED TO THE OWNER AND ONE TO THE ENGINEER PRIOR TO CONSTRUCTION.
- DOOR INSULATION SHALL BE 3/4" NYLON-REINFORCED, FOIL-BACKED, FIBERGLASS INSULATION.
- METAL SIDING SHALL BE 7/8" DEEP .032" ALUMINUM WITH A BAKED ENAMEL FINISH. SIDING SHALL BE MANUFACTURED BY REYNOLDS METALS COMPANY OR APPROVED EQUAL. SIDING COLOR SHALL BE AS DETERMINED BY OWNER. SIDING BY ALTERNATE MANUFACTURERS WILL BE CONSIDERED, BUT THE SUBSTITUTION MUST HAVE WRITTEN APPROVAL OF THE ENGINEER. SIDING CONFIGURATION SHALL BE AS SHOWN:


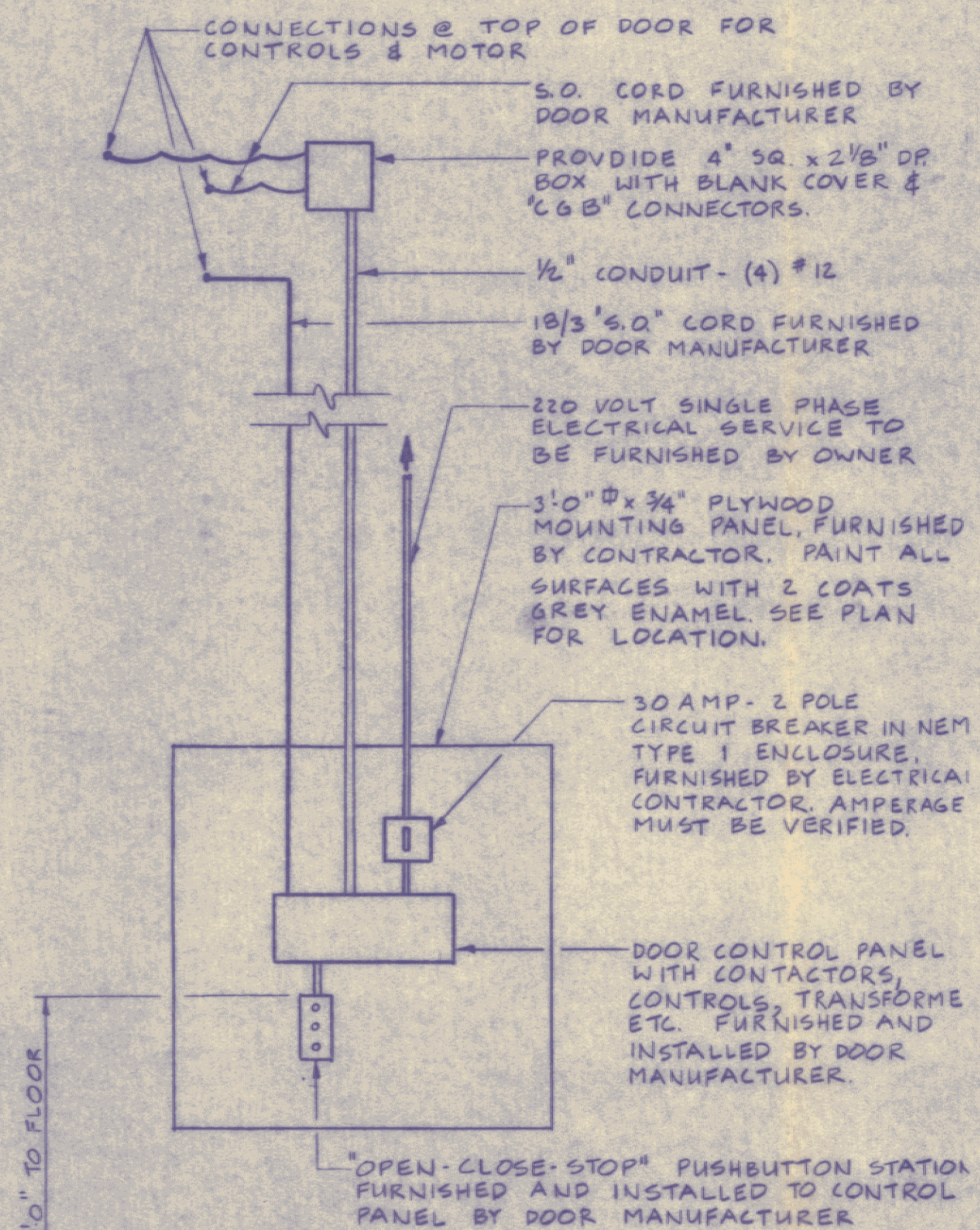
PROVIDE 3 EXTRA 10'-0" LONG SHEETS FOR OWNER'S FUTURE USE.

- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (5 COPIES) TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION FOR THE FOLLOWING ITEMS:
 BIFOLD DOOR
 INSULATION
 METAL SIDING
 ELECTRICAL ITEMS

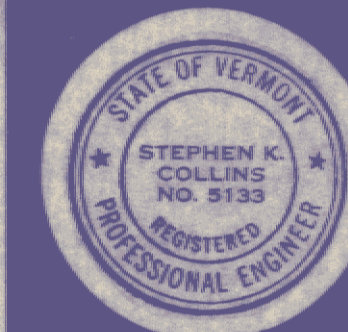
ELECTRICAL NOTES

- ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, LATEST EDITION, AND ALL STATE AND LOCAL CODES AND REGULATIONS.
- ALL ELECTRICAL CONTROL AND POWER WIRING SHALL BE INSTALLED UNDER THE DIRECT SUPERVISION OF THE MANUFACTURER'S REPRESENTATIVE.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PERMITS AND SHALL PAY ALL INSPECTION FEES. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE OWNER A CERTIFICATE OF INSPECTION UPON COMPLETION OF THE PROJECT.
- ALL CONDUIT SHALL BE "EMT" WITH STEEL SET-SCREW COUPLINGS.
- ALL WIRE SHALL BE COPPER - "THHN" INSULATION.
- ALL S.O. CORD SHALL BE FURNISHED BY THE DOOR MANUFACTURER. ALL CONNECTIONS ON THE DOOR, TO CONTROLS AND TO MOTORS, SHALL BE INSTALLED AT THE FACTORY, WITH LEADS REQUIRED FOR CONNECTIONS TO REMOTE CONTROLS AS SHOWN ON "ELECTRICAL SCHEMATIC" ON THESE DRAWINGS.
- DESIGN LOADS:

WEIGHT OF DOOR FRAME	1700 lbs.
WEIGHT OF SIDING AND INSULATION	1650 lbs. (2 PSF MAXIMUM)
TOTAL	3350 lbs.
WIND LOAD - 20 PSF	



ELECTRICAL SCHEMATIC
SCALE = 3/4" = 1'-0"



No.	DATE	REVISION

Lawes Consulting Engineers, Inc.
 01495
 Williston, Vermont
 ROUTE 7A
 STATE OF VERMONT DIVISION OF BUILDINGS
 2 WESTERN AVENUE MONTPELIER, VERMONT

HANGAR DOOR #1
 HARTNESS AIRPORT
 SPRINGFIELD, VERMONT
 SPECIFICATIONS & DETAILS

DRAWN SOMA	PROJ. No. 8576
CHECKED SKC/TFB	DATE 11-22-85

