130385

TITLE 24 & 1988 UBC

GENERAL NOTES AND SPECIFICATIONS FOR RIGID FRAME BUILDING

SECTION 1A — GENERAL REQUIREMENTS

1. GENERAL

A. The requirements of the General Conditions of the agreement and this General Requirements apply to the several trade sections with the same force as though fully repeated in each trade section.

B. Name brands are indicated to establish a standard of quality. Items of equal or better quality may be substituted for the listed brand named products.

C. All work shall comply with the requirements of titles 19, 21, and 24 California Administrative Code and 1979 UBC. No changes shall be made from O.S.A. approved drawings or specifications without prior written approval of O.S.A. and the District Architect.

2. SCOPE OF WORK

A. The work consists of manufacturing off-site in a plant, and installing on-site, modular relocatable buildings as defined herein and shown and detailed on drawings.

B. All requirements of 1979 UBC as well as Titles 19, 21 and 24 of the State of California Administrative Code relating to inspections and verified reports shall be complied with and shall include:

1. General responsible charge of Field Administration by the Architect of Record.
2. Inspection in-plant during the course of construction by an inspector approved by the Office of the State Architect and the District Architect. The inspector shall be responsible for and approved to inspect the general construction welding, mechanical and electrical work. Cost of these inspections shall be borne by the School Districts.
3. On site inspection of the building installation electrical and utility installation or connections by an inspector approved by the Office of the State Architect and the District Architect and retained by the School District.
4. Other special tests or inspections as may be required by the Office of the State Architect.

SEE NOTES A, B, & E.

3. WORK NOT INCLUDED

A. All on-site or off-site utilities and the connection of them to the building unless indicated on the drawings.

B. All leveling, grading or other site preparation except concrete or wood leveling strips, where required, unless otherwise indicated on the drawings.

C. Fire alarm system, fire extinguisher, program bell, clock, public addrsss system, intercom system, TV system unless otherwise indicated on the drawings.

4. WHEELS AND HITCH — Shall remain the property of the Contractor.

5. ACCESSIBILITY OF SITE

The School District shall provide access to the site for the installation of buildings. Removal of trees, shrubs, fencing, sprinklers, etc. necessary for the move-in of buildings shall be the responsiblity of the School District.

6. GENERAL CONSTRUCTION

A. Structural Frame. - Each module is designed as a moment resistant rigid frame structure to withstand vertical and horizontal loads and comply with requirements of the Office of the State Architect. The necessary provisions are incorporated in the structure to permit the relocation of the structural frame in sections not exceeding 12 feet in width.

B. Floor - The floor is steel framed with a design live load of 50 lbs per square foot.

C. Watertightness - Workmanship and materials are such that buildings will be weathertight and watertight.

SECTION 3A — CAST IN PLACE CONCRETE (When indicated)

~~1. SCOPE OF WORK~~

~~Contractor shall provide all materials, labor and services for concrete work indicated on drawings.~~

~~2. MATERIALS~~

~~A. Portland Cement- Type 1, standard brand, ASTM C-150~~
~~B. Aggregate- Washed sand, gravel, rock ASTM C-33~~
~~C. Reinforcing steel- ASTM A615 grade 60, deformed, ASTM-305~~

~~3. WORKMANSHIP~~

~~A. Minimum compressive strength at 28 days- 2000 psi: maximum aggregate size 1-1/2"; maximum 7.5 gallons of water per sack of cement; minimum of 5.3 sacks of cement per yard: maximum slump 4". Transit mixed concrete shall be used. Testing will be required.~~

SECTION 5A — STRUCTURAL AND MISC. STEEL

1. SCOPE OF WORK

Contractor shall provide all labor, materials and services required for structural and miscellaneous steel as specified and indicated on the drawings.

2. MATERIALS

A. Structural Steel Shapes- ASTM A-36, open hearth or electric furnace only, all regular shapes as described in AISC Construction Manual, unless otherwise noted.

B. Cold Formed Light Guage Steel- ASTM A-570 Grade C, minimum yield 33,000 PSI.

C. Structural Pipe and Tubing- ASTM A-500 for Tubing.

D. Bolt Material- Bolts and nuts, American Standard Regular, as detailed in AISC Construction Manual, fabricated from structural quality steel, ASTM A-307.

E. Arc-Welding Electrodes- Class E-70 Series for welding A-36 steel to A-36 and E-60 Series for welding A-570 steel to A-36, conforming to requirements of the "Structural Welding Code" of American Welding Society, latest edition.

3. WORKMANSHIP

A. GENERAL- All work shall conform to the requirements of AISC Standard Specifications, Titles 21 and 24 of the California Administrative Code and the American Iron and Steel Institute Specifications for Design of Light Guage Steel Structural Members

B. WELDING- All welding done by shielded electric-arc or flux cored-arc process complying with requirements of the "Structural Welding Code" of the American Welding Society. Welding done by operators qualified by tests acceptable to the Office of the State Architect.

C. ERECTION- Structural Steel erected true, straight, plumb and to its disignated locations. Field connections bolted or welded as indicated on the drawings.

D. NAILS, BOLTS, SCREWS, NUTS, etc.- For exterior work shall be cadmium plated or galvanized.

E. HANDRAILS- Fabricated as detailed, welds ground smooth.

F. SHOP PAINT-
1. Exposed steel coated with one shop coat of red oxide primer
2. Non-exposed steel coated with one shop coat of red oxide primer
3. All surfaces thoroughly cleaned by effective means prior to application of shop coats

G. TESTS-
1. Provide mill certificates or test the following members per T-24 Section 2727(a): [12"x20.7, [7"x9.8, Z 6"x13 Ga. or Z 7"x11 Ga., TS 4" x 4" x 1/4", [12"x 11 Ga. RFC.
2. Welds shall be inspected and/or tested per T-24 Sections 2727 (d), (e), (g) and UBC section 2722 (f).

SECTION 6A — CARPENTRY

1. SCOPE OF WORK

Contractor shall provide all labor, materials and services to install carpentry.

2. MATERIALS

Lumber grade marked in accordance with "Standard Grading and Dressing Rule No. 16" of West Coast Lumber Inspection Bureau, or "Grading Rules for Western Lumber, 3rd. Edition" of Western Wood Products Association. Plywood grade marked in accordance with "Product Standard PS 1-83 for Softwood Plywood", of American Plywood Association, complying with UBC Standard 25-9 and UBC section 2505.

A. JOISTS, RAFTERS, HEADERS, PLATES- Douglas Fir S4S, #2
B. BLOCKING- Hem Fir stud grade
C. SILLS AND LUMBER IN CONTACT WITH CONCRETE, MASONRY OR EARTH- Hemlock Fir pressure treated with Wolman Salts, Tanalith U or chromated copper arsenic: Standard and Better grade- 2x4: No. 2 grade- 2x6 and larger, cut ends dipped in preservative (Cuponal).
D. ~~PLYWOOD ROOF DECKING (When indicated on drawings) APA C-D grade, Group 1, Exposure 1 with exterior glue. On overhangs, C-C plugged and touch sanded.~~
E. PLYWOOD FLOOR DECKING- APA STURD-I-FLOOR 2-4-1 1-1/8" tongue and groove floor sheathing.
F. EXTERIOR SIDING/SHEATHING- APA Type 303, exterior, T-1-11 8" o.c., group II; or MDO, exterior, group II
G. MOISTURE BARRIER- Kraft waterproof building paper UBC Standard 17-1.
H. STUDS AND POSTS- Doug Fir stud grade
J. FASTENERS- All nails shall be corrosion resistant per U.B.C. Standard 25.1717. (Box nails)
K. BUILDING TRIM- 2x Resawn Select D.F. or H.F.
L. DOOR/WINDOW TRIM- 1x4 Resawn Select D.F. or H.F.

3. WORKMANSHIP

A. FRAMING- securely nailed, bridged and blocked to form rigid structure. Work cut, fitted and assembled level, plumb and true to line. Trim in as long lengths as possible with all standing trim in one piece. Trim sealed at all edges.

B. NAILING- in accordance with Title 24, California Administrative Code, Table 2-25-F.

C. EXTERIOR WALLS- factory fabricated. Caulking provided between perimeter of wall and structural members providing weather-proof and water-tight seal. Necessary closers, seals, and flashings placed at top and base support of panels and around openings.

D. MACHINE APPLIED NAILING- shall have prior demonstration and approval by OSA field representative and the Architect. Plywood shall have a minimum thickness of 3/8".

E. MOISTURE BARRIER- applied to studs weather-board fashion. horizontal joints lapped min. 2", vertical joints lapped min. 6". Plywood siding/sheathing applied over moisture barrier.

F. Trim sealed at all edges. Sealant painted to match trim or siding.

G. RETIGHTEN ALL BOLTS BEFORE CLOSING IN.

NOTES

A. LAB SHALL BE EMPLOYED BY SCHOOL DISTRICT & NOT BY CONTRACTOR.

B. CHANGE ORDER OR APPROVED DRAWINGS SHALL BE SUBBMITTED AND APPROVED BY O.S.A. PRIOR TO STARTING WORK.

C. BUILDING INSULATION:

MAX. FLAMESPREAD 25 — PER UBC 1002(c) & 1005
MAX. SMOKE DENSITY 450

D. DUCT INSULATION:

MAX FLAME SPREAD 25 — PER UBC 1002(a) & 1005
MAX SMOKE DENSITY 50

E. THE SCHOOL DISTRICT WILL PAY TESTING COSTS FOR TEST. BUT MAY BE REIMBURSED BY THE CONTRACTOR FOR SUCH COSTS UNDER THE CONTRACT CONDITION.

SECTION 7B — SHEET METAL

1. SCOPE OF WORK

Contractor shall provide all labor, materials, and services to install indicated sheet metal.

2. MATERIALS

A. SHEET METAL- Steel sheets hot dip galvanized with 1.25 Oz. per square foot zinc coating conforming to ASTM A123. Minimum 26 Ga. unless otherwise noted on the drawings.

B. SOLDER- Of standard brand, Grade "A" of equal parts lead and tin ASTM B32.

C. FLUX- Zinc saturated muriatic acid.

3. WORKMANSHIP

Sheet metal accurately formed to dimensions and shapes detailed with true straight lines, corners and angles. Flashings installed in longest lengths possible. Exterior work formed, fabricated and installed so that it adequately provides for expansion and contraction in the completed work and finishes water and weather tight. Aluminum shall be separated from ferrous metal by polyethelene tape or flood coat of asphaltic paint.

SECTION 7C — METAL ROOFING

1. GENERAL

Shall be 22 Ga. interlocking panels with a 3" standing seam. Steel deck shall be galvanized and shall conform to ASTM A-446 grade A. All fasteners shall have neoprene washers.

SECTION 7J — SEALANT

1. SCOPE OF WORK

Contractor shall provide all labor, materials and services to seal buildings.

2. MATERIALS

Vulkem Sealant, polyurethane, manufactured by MAMECO INTERNATIONAL

3. WORKMANSHIP

Sealant applied to dry clean surfaces, wherever indicated in details and as needed to make building watertight, in accordance with manufacturer's specifications.

SECTION 8B — HOLLOW METAL DOORS AND FRAMES

1. SCOPE OF WORK

Contractor shall provide all labor, materials and services to install hollow metal doors and frames.

2. MATERIALS

A. DOORS- Type L full flush, manufactured by Steelcraft Manufacturing company, 18 Ga. 1-3/4" thick.

B. FRAMES- 16 Ga. cold rolled, 2" faces.

3. WORKMANSHIP

All work fabricated in shop to required profiles by forming and welding, with arises and edges straight, sharp fit, fabricated accurately with square corners, hairline joints and surfaces free from warp, wave, buckle or other defects. After fabrication, doors and frames cleaned thoroughly, all welds ground smooth and given prime coat.

SECTION 8D — FINISH HARDWARE

1. SCOPE OF WORK

Contractor shall supply and install finish hardware as specified and as required. (Lever handle type hardware)

2. SCHEDULE FOR EXTERIOR DOORS- See sheet 1.

3. SPECIAL REQUIREMENTS

A. Exit doors shall be openable from the interior without key or special knowledge or effort
B. Closer shall be set for a maximum opening pressure of 8 lbs.
C. Dead bolts not permitted unless openable with single effort by lever hardware.
D. Door hardware to be centered between 30" and 44" above finish floor.

SECTION 9E — PAINTING

1. SCOPE OF WORK

Contractor shall provide all labor, materials and services to paint building. All exposed surfaces of building and ramp shall be paintad except aluminum window frames and thresholds.

2. MATERIALS

A. For Exterior Wood:

Ref. brand--	Dunn Edwards	Glidden	Kelly Moore	Vista
Primer -----	42-9M	1951	220	4100
Finish -----	60-XX	19XX	175-XXX	6000

B. For Interior Trim:

Ref. brand--	Dunn Edwards	Glidden	Kelly Moore	Vista
Finish -----	450-XX	37XX	165-XXX	7000

C. For Metal:

Ref. brand--	Dunn Edwards	Glidden	Kelly Moore	Vista
Finish -----	10-XX	149XX	175-XXX	5700

3. WORKMANSHIP

A. EXTERIOR- Wood siding, trim and skirting- apply two coats of exterior flat acrylic paint sprayed on.

B. INTERIOR TRIM- Trim not precoated shall be painted with two coats of semi-gloss latex over primer.

C. METAL- All metal surfaces shall be painted with two coats of alkyd finish coat over shop primer.

D. RAMP- One coat of epoxy non-skid surfacing.

SECTION 13F — SITE ASSEMBLY

1. SCOPE OF WORK

Contractor shall provide all labor materials and services to prepare the building elements, transport them from the plant to the site and to complete the assembly at the site.

The condition of the site, such as drainage and soil bearing capacity, shall be the responsibility of the School District. Unless specifically called for in the Contract, steps, ramps, walkways or handrails shall not be the responsibility of the contractor.

2. ASSEMBLY OF ELEMENTS

A. In a location on the site as determined by the School District, the contractor shall place concrete leveling strips or other suitable supports as detailed on the drawings.
B. The elements shall be brought to the site on wheel assembly and transferred to the prepared site. Great care shall be taken to avoid damage to the elements by racking or bumping each other.
C. Connection of the elements together shall be done according to instruction on the drawings. Flashings, trim and other loose items shall be installed per details on the drawings.

SECTION 15A — AIR CONDITIONING

1. SCOPE OF WORK

Contractor shall provide all labor, materials and services to install the air conditioning system as shown on the drawings and specifications, including A/C units and accessories, remote thermostat, grilles and power wiring complete to load center. Contractor shall instruct owner's operators on operation and maintenance of A/C system.

2. EQUIPMENT- See note on floor plan for size and type.

3. WORKMANSHIP

Units shall be installed complete and operating with all accessories in accordance with the manufacturer's instructions.

SECTION 16A — ELECTRICAL

1. SCOPE OF WORK

Contractor shall provide all labor, materials and services for electrical installation complete with associated equipment and fixtures, in operating conditions ready for use. The work includes; light and power systems, lighting fixtures complete with lamps, connections and disconnects to A/C equipment.

2. MATERIALS

All new complying with requirements of National Electric Code and National Fire Protection Association.
A. ELECTRIC METALLIC TUBING- couplings and flex conduit galvanized or sherardized.
B. PANELBOARDS- flush mounted with hinged lockable doors and indexed card holders. Locks furnished by school district.
C. CONDUCTORS- copper, insulated for 600 volts, type THHN for sizes #12 to #6, type THW for larger sizes. Minimum size #12.
D. RECEPTACLES- General Electric 5242-2 or equal, +12" min.
E. CLOCK RECEPTACLE- Eagle or equal
F. SWITCHES- General Electric 5901-2 or equal, +48" max.
G. LIGHTING FIXTURES- as noted on the drawings.

3. WORKMANSHIP

Materials and equipment installed in a secure, neat, workmanlike manner in accordance with code requirements. Panelboard cards filled out. Conduit and cable installed in wall and ceiling spaces. Work piercing waterproofed areas flashed and sealed to a watertight condition.

NAILING SCHEDULE

Joists or rafters to sides of studs 8" joist or less	3-16d
For each additional 4" in depth of joist	1-16d
Bridging to joist, toenails each end	2-8d
a. blocking between joists or rafters toenails each side, each end	2-10d
b. blocking between studs, each end	2-16d or 2-10d toenails
Sole plate to joist or blocking, face nail	16d @ 16" o.c.
Top plate to stud, end nail	2-16d
Stud to sole plate	4-8d toenail or 2-16d endnail
Double studs, face nail	16d @ 24" o.c.
Double top plates, face nail	16d @ 16" o.c.
Continuous header, two pieces	16d @ 16" o.c. along each edge
Ceiling joists to plate, toenail	3-8d
Continuous header to stud, toenail	4-8d
Ceiling joists, laps over partitions, face nail	3-16d
Ceiling joists to parallel rafters, face nail	3-16d
Joists or rafters at all bearings, toenails each side	2-10d
1" brace to each stud and plate, face nail	2-8d
Built up corner studs	16d @ 24" o.c.
Plywood and particleboard[5] Subfloor, roof and wall sheathing to framing: 1/2" and less	6d[2]
19/32" - 3/4"	8d[3] or 6d[2]
7/8" - 1"	8d[2]
1-1/8" - 1-1/4"	10d[3] or 8d[2]
Combination subfloor/underlayment to framing: 3/4" or less	6d[2]
7/8" - 1"	8d[2]
1-1/8" - 1-1/4"	10d[3] or 8d[2]
Panel siding to framing: 1/2" or less	6d[6]
5/8"	8d[6]

1. Common or box nails may be used except where otherwise stated
2. Deformed shank
3. Common
4. Not Used
5. Nails spaced at 6" on center at edges, 12" at intermediate supports (10" at intermediate supports for floors), except 6" at all supports where spans are 48" or more. for nailing of plywood and particle board diaphragms and shear walls, refer to Section 2513 (c). Nails for wall sheathing may be common, box or casing.
6. Corrosion resistant siding or casing nails conforming to the requirements of Section 2516 (j) 1.
7. Fasteners spaced 3" o.c. at ext. edges and 6" o.c. at intermediate supports
8. Corrosion resistant roofing nails with 7/16" dia. head and 1-1/2" length for 1/2" sheathing and 1-3/4" length for 25/32" sheathing conforming to the requirements of Section 2516 (j) 1.
9. Corrosion resistnat staples with nominal 7/16" crown and 1-1/8" length for 1/2" sheathing and 1-1/2" length for 25/32" sheathing conforming to the requirements of Section 2516 (j) 1.
10. When possible, nails driven perpendicular to the grain shall be used instead of toenails.

Identification Stamp — Department of General Services, Office of the State Architect — APR 23 1991 — Structural Safety Section — SA 56074 — Checked By B.F. (L.A.)

ACS

FIRE MARSHAL — APPROVED FIRE AND PANIC ONLY — APR 23 1991 — STATE FIRE MARSHAL

LICENSED ARCHITECT — GLENN E. HARTZELL — C 10298 — REN. DATE OCT 31 1991 — STATE OF CALIFORNIA

STRUCTURAL — No. 776 — STATE OF CALIFORNIA — LICENSE EXPIRES 12-31-92

REGISTERED PROFESSIONAL ENGINEER — WILLIAM B. GERUNG — NO. M 26682 — EXP. 9/30/90 — MECHANICAL — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — WILLIAM B. GERUNG — E 11862 — EXP. 6/30/91 — ELECTRICAL — STATE OF CALIFORNIA

OFFICE OF THE STATE ARCHITECT ACCESS COMPLIANCE SECTION — APPLICATION NO. 56074 — APR 23 '91

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RELOCATABLE CLASSROOM BUILDING FOR BAKERSFIELD CITY SCHOOL DISTRICT WAYSIDE SCHOOL

GENERAL NOTES & SPECIFICATIONS

By ___ Date 4-11-91

SHEET 9

9/1/90 — 3278

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