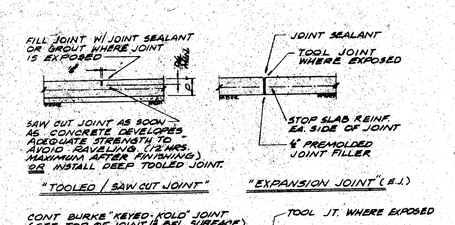
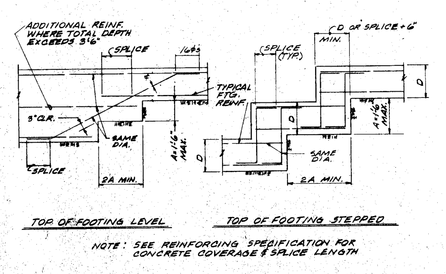
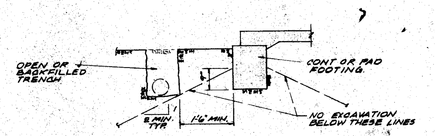



1/— CONCRETE SLAB JOINT

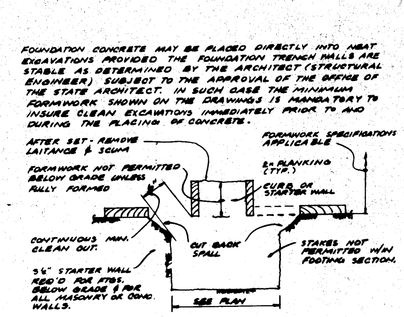



NOTE: SEE REINFORCING SPECIFICATION FOR CONCRETE COVERAGE & SPLICE LENGTH.

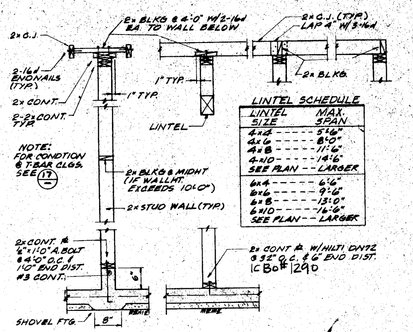
2/— STEP FOOTINGS



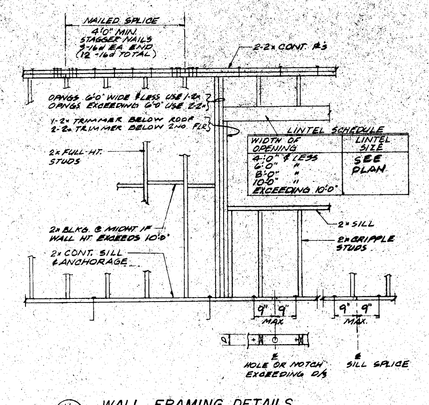

3/— TRENCH - FOOTING CLEARANCE




6/— UNFORMED FOOTING




11/— NON-BEARING PARTITION DETAILS

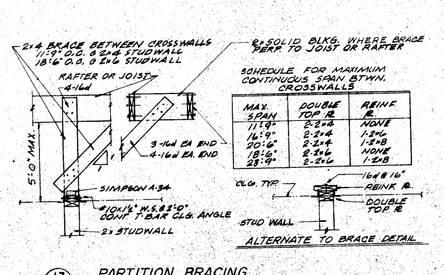



16/— WALL FRAMING DETAILS

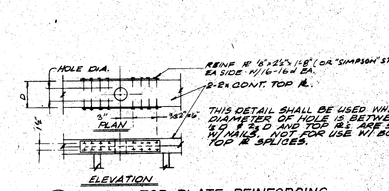



| MEMBER DEPTH D | MAX DIA. OF HOLE X | NOT ALLOWED |
|---|---|---|
| 3" | 1" | |
| 4" | 1 1/2" | |
| 5" | 2" | |
| 6" | 2 1/2" | |
| LARGER | D/3 | |

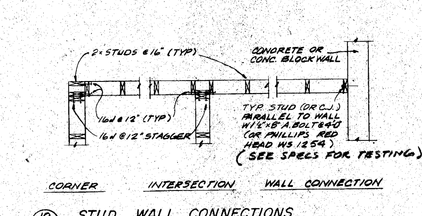
12/— NOTCH and HOLE DETAILS



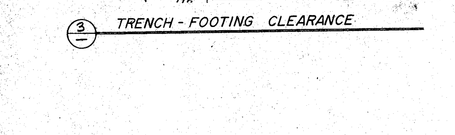

17/— PARTITION BRACING



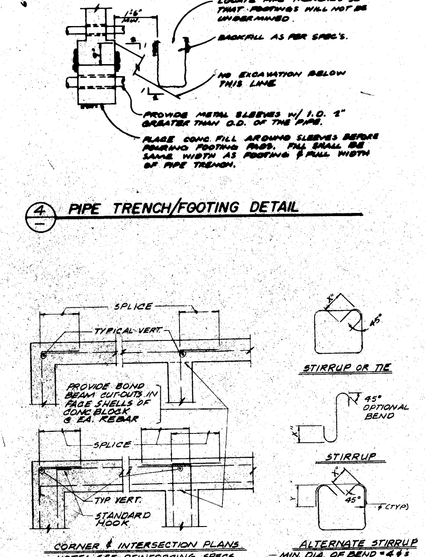

13/— WALL TOP PLATE REINFORCING




18/— STUD WALL CONNECTIONS

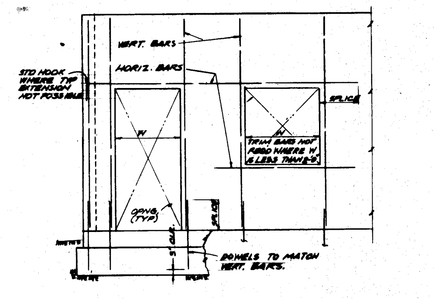



4/— PIPE TRENCH/FOOTING DETAIL



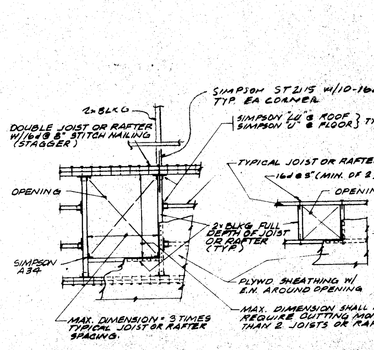

| SIZE | X" | Y |
|---|---|---|
| #3 | 3" | 3" |
| #4 | 4" | 4" |
| #5 | 5" | 5" |
| #6 | 6" | 6" |

5/— REINFORCING DETAILS

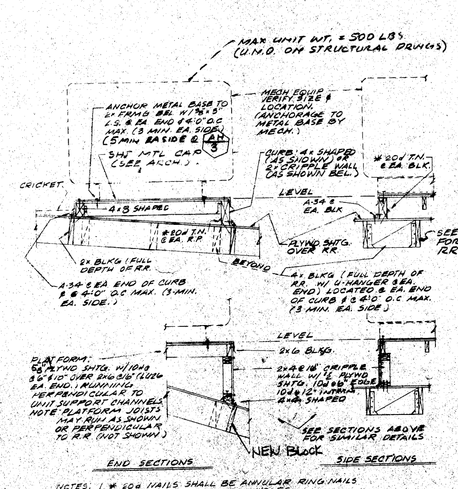



1. REINF. BARS SHOWN ARE IN ADDITION TO TYPICAL WALL REINF. VERT. BARS: 1-#5 @ 32" (U.N.O. ON PLAN).
HORIZ. BARS: SAME AS INTERSECTING VERT. BARS (U.N.O.)
2. SEE SPECIFICATIONS FOR SPLICE LENGTH.

9/— CONCRETE BLOCK WALL OPENINGS (MIN.)




14/— FLOOR and ROOF OPENING DETAILS



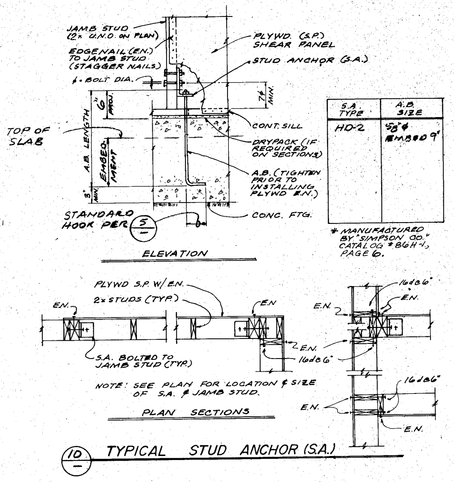

NOTES: 1. # 122 NAILS SHALL BE ANNULAR THREADED NAILS UNLESS NO SPECIFIED.
2. ALL METAL CONNECTORS SHALL BE SIMPSON
3. SEE #20 DRWG. DET. & #2 DRWG. FRAMING PLAN FOR ADDITIONAL DETAILS & MEMBERS NOT SHOWN ABV.

19/— EQUIP. PLATFORM

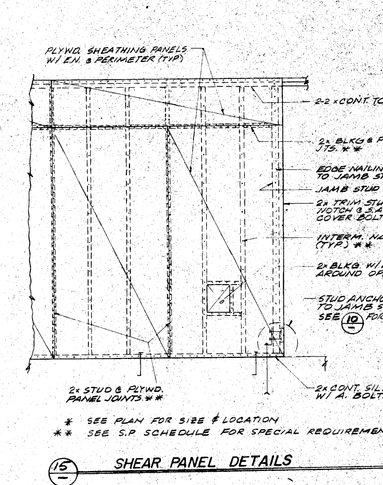



| SIZE | X" | Y |
|---|---|---|
| #3 | 3" | 3" |
| #4 | 4" | 4" |
| #5 | 5" | 5" |
| #6 | 6" | 6" |

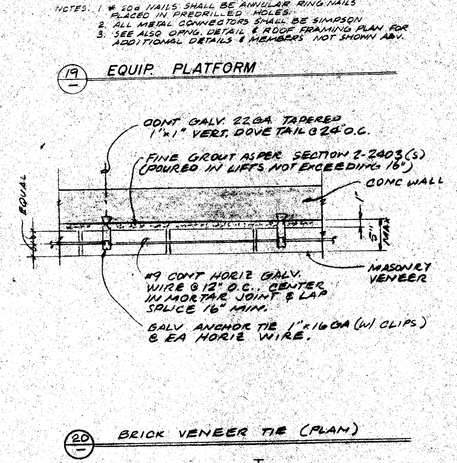
5/— REINFORCING DETAILS




10/— TYPICAL STUD ANCHOR (S.A.)




15/— SHEAR PANEL DETAILS




20/— BRICK VENEER TIE (PLAN)

GENERAL NOTES

GENERAL

TYPICAL DETAILS AND GENERAL NOTES SHALL APPLY IN ALL CASES UNLESS SPECIFICALLY SHOWN OTHERWISE ON THE DRAWINGS. WHERE NO DETAIL IS SHOWN CONSTRUCTION SHALL BE AS SHOWN FOR OTHER SIMILAR WORK. NO DEVIATIONS FROM THE DRAWINGS SHALL BE PERMITTED WITHOUT THE PERMISSION OF THE ENGINEER.

ALL MECH. & ELECT. EQUIP. SHALL BE BRACED & ANCHORED ADEQUATELY FOR SEISMIC LOADS.

CONTRACTOR SHALL VERIFY ALL (E) EXISTING CONDITIONS AND DIMENSIONS AND REPORT ANY DIFFERENCES IN ASSUMED CONDITIONS TO THE ARCHITECT PRIOR TO PROCEEDING.

ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE 1979 U.B.C. AND TITLE 24, PART 2, CALIF. ADMINISTRATIVE CODE.

CONTRACTOR SHALL PROVIDE & BE SOLELY RESPONSIBLE FOR ALL TEMPORARY SHORING NECESSARY FOR STRUCTURAL WORK SHOWN ON THESE DRAWINGS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO RECONSTRUCT THE SCHOOL BUILDING IN ACCORDANCE WITH TITLE 24 C.A.C., SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH SAID TITLE 24 C.A.C., A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE OFFICE BEFORE PROCEEDING WITH THE WORK.

FOUNDATIONS

FOOTINGS SHALL BE PLACED ONLY ON FIRM BEARING AND NOT ON LOOSE SOIL OR UNCOMPACTED FILL. THE BOTTOMS OF ALL FOOTINGS SHALL BE PLACED A MINIMUM OF 2'-0" BELOW FINISH FLOOR U.N.O. ON DRAWINGS.

SOIL TYPE: SANDY LOAM
BASIC ALLOWABLE BEARING PRESSURE (NET) = 1200 LBS/SF

CONTRACTOR SHALL PREFORM ALL WORK (INCLUDING TESTS AND INSPECTIONS) IN CONFORMANCE WITH JOB SPECIFICATIONS.

INSPECTION OF ALL EXCAVATIONS & FILLS REQUIRED PER SECTION 2-2903 TITLE 24.

CONCRETE

MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:

| | |
|---|---|
| PORTLAND CEMENT (ONE BRAND ONLY) | ASTM C150 |
| WATER | DOMESTIC SUPPLY |
| AGGREGATES (FINE & COARSE) | ASTM C-33. (AGGREGATES SHALL CONTAIN NOT MORE THAN 2% SHALE OR OTHER DELETERIOUS PARTICLES) |
| ADMIXTURES (TYPE A, WATER REDUCING) | ASTM C494 |
| CURING COMPOUND (SHALL NOT IMPAIR IN ANY WAY THE APPLICATION OF FLOOR COVERINGS OR PAINT) | ASTM C309 |
| VAPOR BARRIER | 10 MIL POLYVINYL CLORIDE |

CONCRETE MIX AND CONSTRUCTION SHALL CONFORM TO THE FOLLOWING:

| | |
|---|---|
| ALL CONCRETE (U.N.O.), TYPE II, REGULAR WEIGHT (145 LBS) | |
| MINIMUM ULTIMATE COMPRESSIVE STRENGTH @ 28 DAYS | 3000 PSI (DESIGN STRENGTH 2065PSI) |
| MAXIMUM SLUMP (PER ASTM C-143) | SEE SPECIFICATIONS |
| MAXIMUM AGGREGATE SIZE | 1" INCHES |
| MINIMUM CEMENT CONTENT | 5.5 SACKS/CY. |

CONTRACTOR SHALL SUBMIT A LABORATORY CONCRETE DESIGN MIX TO THE ENGINEER PRIOR TO CONCRETE PLACEMENT FOR REVIEW.

CONCRETE BLOCK - CONSTRUCTION SHALL COMPLY WITH TITLE 24 C.A.C. PART 2-2415(a)(b)

CONCRETE BLOCK SHALL BE GRADE N-1, OPEN-END, MEDIUM OR LIGHTWEIGHT UNITS, AND CONFORM TO ASTM C-90 MINIMUM COMPRESSIVE STRENGTHS.

| | |
|---|---|
| MINIMUM MORTAR STRENGTH @ 28 DAYS | 1800 PSI |
| MINIMUM GROUT STRENGTH @ 28 DAYS | 2000 PSI |

BRICK SHALL BE GRADE SW, MATCH(E) & CONFORM TO ASTM C-216 & ASTM C-62

FILL ALL CELLS WITH GROUT. NO SPLICES SHALL BE PERMITTED IN VERTICAL REINFORCING EXCEPT WHERE DETAILED ON THE DRAWINGS. ALL ISOLATED BOLTS EMBEDDED IN MASONRY SHALL BE GROUTED SOLIDLY IN PLACE WITH NOT LESS THAN 1" OF GROUT SURROUNDING THE BOLT.

MORTAR SHALL CONTAIN NO ADMIXTURES

GROUT SHALL CONTAIN ONLY "SIKA GROUT AID TYPE II" AS PER MANUFACTURES RECOMMENDATIONS.

REINFORCING STEEL

MATERIALS SHALL BE CONTINUOUS, DEFORMED BARS CONFORMING TO ASTM A615:

| | |
|---|---|
| #3 BARS & SMALLER | GRADE 40 |
| #4 BARS & LARGER | GRADE 40 OR 60 |

CONTINUOUS BAR SPLICES (UNO ON DRAWINGS) SHALL BE:

| | |
|---|---|
| CONCRETE BLOCK | 40 BAR DIAMETERS (2'0" MIN.) |
| CONCRETE | 30 BAR DIAMETERS (2'0" MIN.) |

CONCRETE COVERAGE FOR REINFORCEMENT:

| | |
|---|---|
| CAST AGAINST EARTH & PERMANENTLY EXPOSED TO EARTH | 3" |
| CAST AGAINST FORMS & PERMANENTLY EXPOSED TO EARTH OR WEATHER | 2" |
| CAST AGAINST FORMS & NOT PERMANENTLY EXPOSED TO EARTH OR WEATHER: | |
| SLABS, WALLS & JOISTS | ¾" |
| BEAMS, GIRDERS & COLUMNS | 1½" |

WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. SPLICE WWF WITH A MINIMUM LAP OF 2 LONGITUDINAL WIRES PLUS 2". LOCATE WWF AT MID-DEPTH OF SLABS (UNO).

GLUED-LAMINATED TIMBER

MEMBERS SHALL BE IDENTIFIED BY A QUALITY MARK OR AN AITC CERTIFICATE OF CONFORMANCE TO INDICATE CONFORMANCE TO VOLUNTARY PRODUCT STANDARD PS 56-73, STRUCTURAL GLUED LAMINATED TIMBER (ANSI A 190.1-1973).

MEMBERS SHALL BE PROVIDED WITH THE FOLLOWING GRADES AND PREPARATION:

| | |
|---|---|
| BEAMS (NOT CANTILEVERED) | 24F-V3 |
| BEAMS (CANTILEVERED) | 24F-V8 |
| ADHESIVES | EXTERIOR GRADE |
| APPEARANCE | INDUSTRIAL |
| PROTECTION | CLEAR SEALER & LOAD WRAP |

ALL STRUCTURAL GLUED LAMINATED TIMBER SHALL BE CONTINUOUSLY INSPECTED DURING FABRICATION BY AN INSPECTOR SPECIALLY APPROVED BY THE OFFICE OF THE STATE ARCHITECT AS PER TITLE 24, SECTION 2-2510 (THE QUALITY MARK AND THE CERTIFICATE OF CONFORMANCE WILL NOT MEET THIS REQUIREMENT.)

WOOD

FRAMING LUMBER SHALL BE DOUGLAS FIR GRADE MARKED (U.N.O.)

| | |
|---|---|
| 2X STUDS, PLATES, JOISTS | NO. 2 |
| 3X4 & 4X4 MEMBERS | NO. 2 |
| 3X6 & LARGER MEMBERS | NO. 1 |
| SILLS (HEM-FIR) | PRESSURE TREATED NO. 2 |
| @ ROOF RAFTERS & FLOOR JOISTS | NO. 1 |

PLYWOOD SHALL BE GRADE MARKED AS SHOWN ON THE DRAWINGS.

STANDARD CUT WASHERS SHALL BE USED UNDER BOLT HEADS AND NUTS THAT WOULD OTHERWISE BEAR ON WOOD SURFACES. RETIGHTEN BOLTS BEFORE CLOSING-IN.

PLYWOOD SHALL BE APPLIED DIRECTLY TO WOOD MEMBERS. USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION AND THE APPROVAL BY THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER AND THE OFFICE OF THE STATE ARCHITECT. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. IF NAILHEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.

SIMPSON CONNECTORS SHALL BE PER ICBO #1211, 1268, 1746, NER-209

NAILING SCHEDULE:

| | |
|---|---|
| JOISTS OR RAFTERS (8" OR LESS) | |
| TO SIDES OF STUDS (F.N.) | 3-16d |
| FOR EA ADDITIONAL 4 INCHES IN DEPTH ADD 1-16d | |
| AT ALL BEARINGS - EA SIDE (T.N.) | 2-10d |
| CEILING JOISTS | |
| LAPS OVER PARTITIONS (F.N.) | 3-16d |
| TO PARALLEL RAFTERS (F.N.) | 3-16d |
| BLOCKING BETWEEN JOISTS OR RAFTERS | |
| TO JOISTS OR RAFTERS - EA. SIDE, EA. END (T.N.) | 2-10d |
| TO JOISTS OR RAFTERS BEARINGS - EA. END (T.N.) | 2-10d |
| BLOCKING BETWEEN STUDS - EA. END | (T.N.) 2-10d OR (E.N.) 2-16d |
| SOLE PLATE TO: | |
| TOP OF JOISTS OR BLOCKING (F.N.) | 16d @ 16" |
| BOTTOM OF STUDS (E.N.) | 2-16d |
| DOUBLE TOP PLATES: | |
| LOWER PLATE TO TOP OF STUD (F.N.) | 2-16d |
| UPPER PLATE TO LOWER PLATE (F.N.) | 16d @ 12" |
| UPPER PLATE TO LOWER PLATE @ INTERSECTION (F.N.) | 2-16d |
| BUILT-UP STUDS - STAGGERED (F.N.) | 16d @ 12" |
| BUILT-UP BEAMS - EA. EDGE (F.N.) | 16d @ 12" |
| 2 x RIBBONS TO STUDS (F.N.) | 2-16d |
| 1 x LET-IN BRACE TO EA: STUD AND EA. PLATE (F.N.) | 3-8d |

NOTES:

1. ALL NAILS SHALL BE COMMON WIRE NAILS.
2. WHEN POSSIBLE, NAILS DRIVEN PERPENDICULAR TO THE GRAIN SHALL BE USED IN-STEAD OF (T.N.).
3. ABBREVIATIONS: (T.N.) = TOE NAIL, (F.N.) = FACE NAIL, (E.N.) = END NAIL.
4. HOLES FOR 20d NAILS AND LARGER SHALL BE PRE-DRILLED.
5. SUBDRILL WHENEVER NECESSARY TO PREVENT SPLITTING.

PROOF LOAD TESTS FOR EXPANSION TYPE ANCHOR BOLTS (Bolts must have I.C.B.O. Approval)

All concrete anchor bolts of the expansion type (loaded in either pullout or shear) shall have 50 percent of the bolts (alternate bolts in any group arrangement) proof tested in tension to twice the allowable tension load, if there are any failures, the immediately adjacent bolts must then also be tested.

| Type of Materials | Type of Test | Bolt Diameter 3/8" | 1/2" | 5/8" | 3/4" |
|---|---|---|---|---|---|
| Hard Rock Concrete | Direct Pull-Tension, LBS. | 1300 | 2000 | 2900 | 4300 |
| | Torque Wrench-Torque, FT. LBS. | 25 | 50 | 110 | 150 |
| Lt. Wt. Concrete | Direct Pull-Tension, LBS. | 970 | 1400 | 1950 | 2590 |
| | Torque Wrench-Torque, FT. LBS. | 20 | 35 | 75 | 90 |

STRUCTURAL STEEL

MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:

| | | |
|---|---|---|
| SHAPES, PLATES, ETC. | ASTM | A36 |
| PIPE COLUMNS AND STRUTS | GRADE B, ASTM | A53 |
| SQUARE AND RECTANGULAR TUBING | GRADE B, ASTM | A500 |
| LIGHT GAGE STEEL | GRADE C, ASTM | A611 |
| WELDING ELECTRODES | AWS | E70XX |
| MACHINE BOLTS | ASTM | A307 |
| HIGH STRENGTH BOLTS (H.S.) | ASTM | A325F |

BENT PLATES SHALL BE BENT COLD TO THE FOLLOWING INSIDE RADII IN TERMS OF THICKNESS, T"

| | |
|---|---|
| PLATES ½" THICK AND LESS | 1½ TIMES T" |
| PLATES GREATER THAN ½" AND LESS THAN 1" THICK | 2 TIMES T" |

WELDING SHALL BE DONE BY THE ELECTRIC SHIELDED ARC OR SUBMERGED ARC PROCESS. WELDERS SHALL BE CERTIFIED AND WORK DONE IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE, AWS D1.1. FABRICATION AND ERECTION SHALL CONFORM TO THE LATEST EDITION OF THE AISC SPECIFICATIONS. ALL STEEL NOT IN CONTACT WITH CONCRETE SHALL RECEIVE ONE COAT OF SHOP PAINT IN ACCORDANCE WITH THE PROVISIONS OF THE CODE OF STANDARD PRACTICE OF AISC.

SHOP DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE ARCHITECT PRIOR TO FABRICATION. STEEL FABRICATOR SHALL VERIFY ALL DIMENSIONS, DETAILS AND QUANTITIES WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

BOLTED CONNECTIONS TO (E) STEEL SHALL BE ACCOMPLISHED WITH DRILLED HOLES. NO WELDING OF (E) STEEL IS ALLOWED UNLESS APPROVED BY THE ENGINEER OR THE OFFICE OF THE STATE ARCH. OR AS SHOWN ON DRAWINGS!

| | | | |
|---|---|---|---|
| T.S. | = TOP OF SHTG. | ABV. | = ABOVE |
| T.W. | = TOP OF WALL | BEL. | = BELOW |
| F.O. | = FACE OF | ARCH | = ARCHITECTURAL DRWGS |
| F.O.S | = FACE OF STUD | SIM. | = SIMILAR |
| F.O.C | = FACE OF CONC | TYP. | = TYPICAL |
| (E) | = EXISTING | DET. | = DETAIL |
| U.N.O. | = UNLESS NOTED OTHER WISE | T.N. | = TOE NAIL |
| RR. | = ROOF RAFTER / RIGID FRAME | F.F. | = FINISH FLOOR |
| C.J. | = CEILING JOIST / CONTROL JOINT. | E.J. | = EXPANSION JOINT |
| B.M. | = EDGE NAILING. | W.P. | = WATERPROOFING |
| ◇ | = DIRECTION OF SLOPE | V.B. | = VAPOR BARRIER |
| N.T.S. | = NOT TO SCALE | SHTG. | = SHEATHING |
| CONT. | = CONTINUOUS - MAY BE SPLICED AS PER TYP. DETAIL OR AS NOTED | D.S. | = DIAGONAL SHTG. |
| | | S.S. | = STRAIGHT SHTG. |
| (+X'-Y") | ELEVATION: (+)= HEIGHT ABV. ℄ (-)= HEIGHT BELOW DATUM) SEE (7/S3) FOR DATUM | F.S. | = FAR SIDE |
| | | B.F. | = BOTT. OF FTG. |
| | | FTG. | = FOOTING |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approved
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GENERAL NOTES & TYPICAL DETAILS NTS

**BLAIR LEARNING CENTER RECONSTRUCTION**

900 belle terrace, bakersfield, california

job 88-102

date 3 OCT 1980

final

S 1

#5649 JAP

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