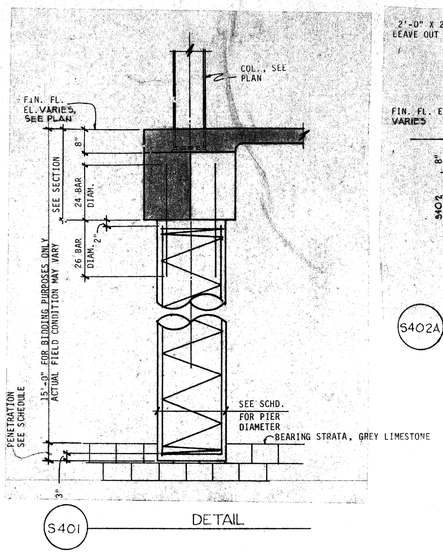
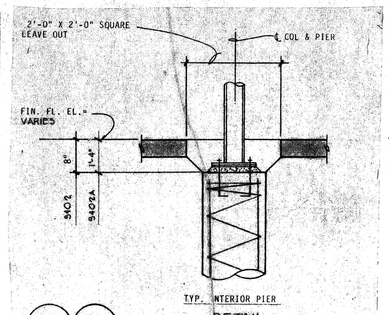
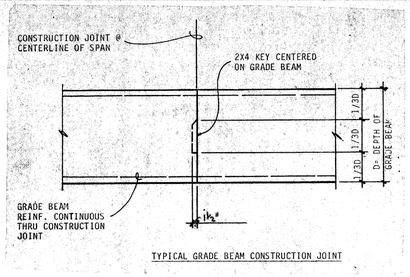


S401 DETAIL

FOUNDATION NOTES
1. DEPTH OF PIERS SHOWN IS FOR BIDDING PURPOSES ONLY AND MAY VARY ACCORDING TO ACTUAL FIELD CONDITIONS.
2. THE CONTRACTOR SHALL VERIFY DEPTHS OF OF PIERS BEFORE PIER STEEL IS CUT. PIER STEEL SHALL BE DELIVERED TO THE JOB SITE IN STOCK LENGTHS AND CUT AS REQUIRED.
3. FOUNDATION DESIGN IS BASED ON RECOMMENDATIONS CONTAINED IN THE SOILS REPORT BY "MAXIM ENGINEERS" DATED SEPTEMBER 25, 1981. THE DESIGN PARAMETERS ARE:
   ALLOWABLE END BEARING 41,800 PSF
   ALLOWABLE SKIN FRICTION 5,100 PSF
4. THE CONTRACTOR SHALL MAKE ACCURATE MEASUREMENTS OF THE DEPTH OF PENETRATION INTO THE BEARING STRATA TO BE ASSURED OF CONFORMANCE WITH THE DEPTH OF PENETRATION REQUIRED AND SUBMIT A REPORT OF THE DEPTH OF PENETRATION DRILLED TO THE ENGINEER.
5. BEARING STRATA SHOWN ON THE PIER DETAIL IS GREY LIMESTONE.
6. MINIMUM PENETRATION INTO THE BEARING STRATA SHALL BE 2'-0".
7. DUE TO THE PRESENCE OF GROUND WATER AND/OR CAVING SOILS CASING OF HOLES MAY BE REQUIRED.
8. CONCRETING OF INDIVIDUAL PIERS SHALL BE COMPLETED WITHIN 8 HOURS OF DRILLING.

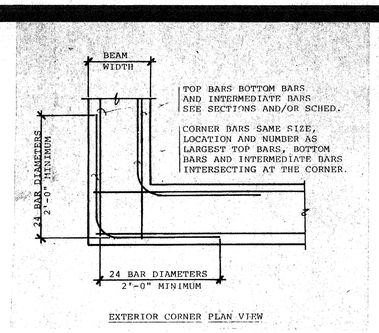


S402A S402 DETAIL



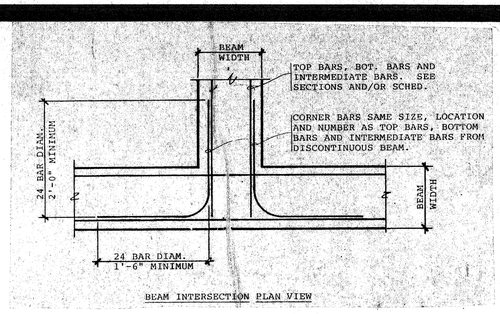
TYPICAL GRADE BEAM CONSTRUCTION JOINT

S403 DETAIL



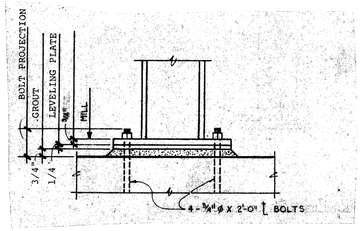
EXTERIOR CORNER PLAN VIEW

S404 DETAIL

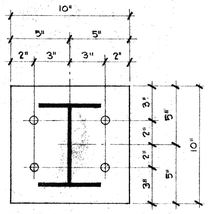


BEAM INTERSECTION PLAN VIEW

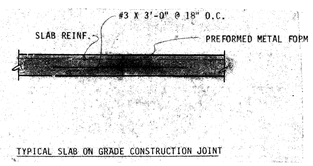
S405 DETAIL



S406 DETAIL

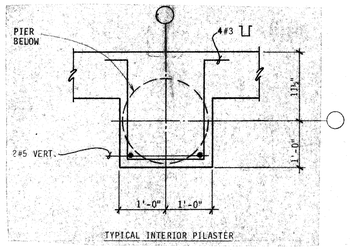


S407 DETAIL



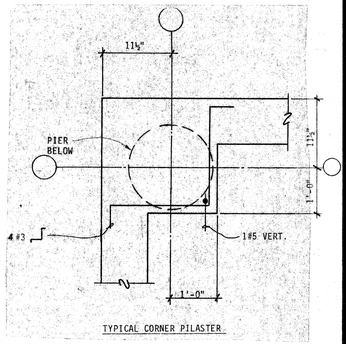
TYPICAL SLAB ON GRADE CONSTRUCTION JOINT

S408 DETAIL



TYPICAL INTERIOR PILASTER

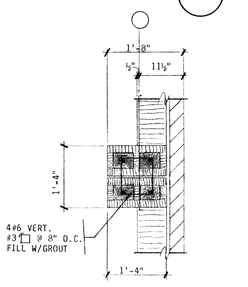
S409 DETAIL



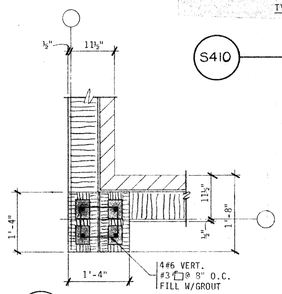
S410 DETAIL

CONCRETE MIX SCHEDULE

LOCATION	28 DAY COMP. STRENGTH - PSI	SLUMP	AIR ENTRAINMENT	MAX. AGGR.
PIERS	2500	2"	—	1½"
EXTERIOR SIDEWALKS BRADE BEAMS	3000	4"	6%	1"
SLAB ON GRADE	3000	4"	—	1"
PRECAST TOPPING SECOND FLOOR SLAB	3500	4"	—	3/4"
EXTERIOR PAVING	3500	4"	6%	1"
GROUT	2500	8"	—	3/8"



S411 DETAIL



S412 DETAIL

PIER SCHEDULE

MARK	SHAFT DIA.	CORE DIA.	VERTICAL REINFORCEMENT	SPIRAL	PENETRATION
A	18"ø	12"ø	6 #5	#3@10"	2'-0"
B	18"ø	12"ø	6 #5	#3@10"	4'-0"
C	12"ø	—	1 #7	—	2'-0"

GENERAL NOTES
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS SHOWN ON THE "CONCRETE MIX SCHEDULE".
2. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60 (60,000 PSI YIELD POINT) EXCEPT THAT #3 BARS MAY BE ASTM A-615, GRADE 40 (40,000 PSI YIELD POINT).
3. REINFORCING STEEL FOR WELDING SHALL CONFORM TO ASTM A-615 GRADE 40. WELDING PROCESS SHALL CONFORM TO AWS D-12.1.
4. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.
5. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE A.C.I. STANDARD "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". (ACI 318) LATEST REVISION.
6. REINFORCING BARS SHALL BE DETAILED AND BAR SUPPORTS AND SPACERS PROVIDED IN ACCORDANCE WITH THE A.C.I. DETAILING MANUAL (ACI-315) AND MANUAL OF STANDARD PRACTICE BY THE CONCRETE REINFORCING STEEL INSTITUTE.
7. GRADE BEAM REINFORCEMENT SHALL BE CONTINUOUS WHERE POSSIBLE. SPLICE BOTTOM BARS AT CENTERLINE OF SUPPORT AND SPLICE TOP BARS AT CENTERLINE OF SPAN. MINIMUM LAP SHALL BE 30 BAR DIAMETERS.
8. PROVIDE CORNER BARS FOR ALL BARS MEETING AT ALL BEAM INTERSECTIONS. SIZE AND NUMBER OF CORNER BARS SHALL BE EQUAL TO THE LARGER BARS INTERSECTING MINIMUM LAP DIMENSION TO BE 30 BAR DIAMETERS OR 2'-0" MINIMUM.
9. SEE ARCHITECTURAL AND MECHANICAL PLANS FOR VERIFICATION OF ALL CAST-IN-PLACE BOLTS, INSERTS, ANCHORS, ETC. AND ALL SLAB LEAVE-OUTS, SLOPES, DEPRESSIONS, ETC.
10. STRUCTURAL STEEL SHAPES, PLATES, ETCS. SHALL CONFORM TO ASTM A-36. ANCHOR BOLTS SHALL BE A-307.
11. STRUCTURAL STEEL SHALL CONFORM TO THE A.I.S.C. "SPECIFICATION FOR THE DESIGN FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" EIGHTH EDITION. LATEST REVISION.
12. WELDED CONNECTIONS SHALL CONFORM TO THE AMERICAN WELDING SOCIETY SPECIFICATIONS AND REQUIREMENTS, LATEST REVISION, E-70 XX ELECTRODES. ALL WELDING SHALL COMPLY WITH THE "STRUCTURAL WELDING CODE" OF THE AWS D1.1.
13. STRUCTURAL BOLTS, NUTS, AND CIRCULAR WASHERS SHALL BE ASTM A-325 OR A-490 BOLTS IN BEARING-TYPE CONNECTIONS. BOLTS AND BOLTED JOINTS SHALL CONFORM WITH THE A.I.S.C. SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A-325 OR A-490 BOLTS. USE BEARING-TYPE BOLTS WITH THREAD ALLOWED ACROSS THE SHEAR PLANE.
14. PLATE SIZES, ANGLE SIZES, NUMBER AND SIZE OF BOLTS AND OR WELDS FOR CONNECTIONS SHALL BE DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF PART 4 OF THE EIGHTH EDITION OF THE A.I.S.C. MANUAL FOR THE SHEAR SHWON ON THE DRAWINGS.
15. IN GENERAL, IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT ALL SHOP CONNECTIONS BE WELDED OR BOLTED AND ALL FIELD CONNECTIONS BE BOLTED EXCEPT WHERE NOTED OTHERWISE ON THE DRAWINGS.
16. NO SHOP OR FIELD SPLICES WILL BE ALLOWED IN ANY BEAMS, GIRDERS, OR COLUMNS AT LOCATIONS OTHER THAN THOSE SHOWN ON THE DRAWINGS.
17. STEEL JOIST SHALL CONFORM TO THE REQUIREMENTS OF THE A.I.S.C. STANDARD SPECIFICATION FOR OPEN-WEB STEEL JOIST "H" AND "LH" SERIES. STEEL JOIST MANUFACTURER SHALL BE A MEMBER OF STEEL JOIST INSTITUTE. MATERIAL SHALL BE DOMESTIC STEEL. JOIST SHALL BE FABRICATED WITH MINIMUM CAMBER AS RECOMMENDED BY THE JOIST INSTITUTE. WELDS SHALL COMPLY WITH AWS D1.1.
18. BOTTOM CHORD OF JOISTS SHALL BE FABRICATED WITH TEE OR ANGLES IN LIEU OF ROD.
19. PROVIDE BOTTOM CHORD CEILING EXTENSIONS ON ALL JOIST WHERE INDICATED, SEE ARCHITECTURAL.
20. ALL HANGERS TO SUPPORT MECHANICAL EQUIPMENT, ETCS. SHALL BE LOCATED AT PANEL POINTS OF THE JOIST.
21. VERIFY THE EXACT SIZE AND LOCATION OF ALL MECHANICAL OPENINGS WITH THE MECHANICAL CONTRACTOR AND THE EQUIPMENT TO BE USED.
22. RIGID X-BRIDGING AS SHOWN ON THE PLANS SHALL BE BOLTED AT THE INTERSECTION OF TWO ANGLES BETWEEN JOIST.
23. JOIST BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET THE DESIGN AND SPACING REQUIREMENTS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION STANDARD SPECIFICATIONS FOR OPEN WEB JOIST.
24. WHERE BRIDGING IS DISCONTINUOUS OR TERMINATES, EXCEPT WHEN TERMINATING AT MASONRY WALLS, THE END BAY OF BRIDGING SHALL HAVE HORIZONTAL AND X-BRIDGING.
25. ANY DEVIATION FORM, ADDITION TO, SUBSTITUTION FOR, OR MODIFICATION TO THE STRUCTURE OR ANY PART OF THE STRUCTURE DETAILED ON THESE CONTRACT DOCUMENTS SHALL BE SUBMITTED, IN WRITING TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS THAT ARE SUBMITTED TO THE ENGINEER FOR HIS REVIEW DO NOT CONSTITUTE "IN-WRITING" UNLESS IT IS BROUGHT TO THE ATTENTION OF THE ENGINEER THAT SPECIFIC CHANGES ARE BEING SUGGESTED.
26. THESE DRAWINGS ARE THE SOLD PROPERTY OF SLIDER/REED, INC. CONSULTING ENGINEERS. THE USE OR RE-USE OF THESE DRAWINGS IS HEREBY RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY WERE PREPARED. REPRODUCTION OF THESE DRAWINGS IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER IS PROHIBITED.

SLAB ON GRADE NOTES
1. SLAB SHALL BE A 4" THICK CONCRETE SLAB OVER 1'-6" MINIMUM LOW P.I. FILL.
2. REINFORCE SLAB WITH #3 BARS AT 18" O.C., EACH WAY, PLACED AT CENTERLINE OF SLAB.
3. PRIOR TO PLACING THE LOW P.I. FILL, STRIP THE SITE OF TOP SOIL, DEBRIS, FILL, ETC., AND CUT AS REQUIRED.
4. PRIOR TO PLACING THE SELECT FILL, SCARIFY THE TOP 12" OF THE EXPOSED SUBGRADE, RAISE MOISTURE CONTENT ABOVE OPTIMUM CONTENT, AND RECOMPACT TO 95% OF A.S.T.M. D-698.
5. BEGIN PLACEMENT OF SELECT FILL NOT MORE THAN 8 HOURS AFTER COMPLETION OF RECOMPACTION OF THE EXISTING SUBGRADE AS NOTED ABOVE.
6. LOW P.I. FILL HSALL GAVE A MAXIMUM P.I. OF 15, MINIMUM P.I. OF 4, AND LIQUID LIMIT OF 30 OR LESS. PLACE FILL IN 8" LOOSE LIFTS AND COMPACTED TO 95% TO 100% OF ASTM D-698 AT OR ABOVE OPTIMUM MOISTURE CONTENT.
7. PROVIDE ONE OF THE FOLLOWING JOINTS ON THE CONTERLINES OF ALL COLUMNS AND AT OTHER LOCATIONS SHOWN ON THE PLANS.
   a. CONSTRUCTION JOINT
   b. SAWCUT CONTROL JOINTS
   c. PRE-FORMED METAL CONTROL JOINT.
8. IF SAWCUT JOINTS ARE UTILIZED TO CONTROL SLAB CRACKING (SEE PLAN FOR LOCATION) SAWCUTS SHALL BE ¼" WIDE X 1" DEEP. SAW CUTTING SHALL COMMENCE AS SOON AS THE FINISHED CONCRETE CAN BE CUT AND PRODUCE A SMOOTH EDGE. ALL SAWCUTS SHALL BE COMPLETED BEFORE 8 HOURS HAVE PASSED AFTER PLACING.
9. IF PRE-FORMED CONSTRUCTION JOINT IS USED, PROVIDE #3 X 2'-6" DOWELS @ 18" O.C. AT EACH JOINT.
10. CONSTRUCTION JOINTS SHALL BE SIMILAR TO CONTRACTION JOINTS WITH REINFORCEMENT CONTINUOUS ACROSS THE JOINT.
11. SEPARATE SLAB FROM SUBGRADE WITH A 6 MIL POLYETHYLENE VAPOR BARRIER.

SECOND FLOOR NOTES
1. FLOOR SLAB SHALL BE 3" (TOTAL THICKNESS) CONCRETE SLAB OVER "STANDARD MULTI-RIB FROM DECK" AS MANUFACTURED BY "MERCO MANUFACTURING, INC." DALLAS, TEXAS. DECK SHALL BE CONTINUOUS OVER THREE OR MORE SUPPORTS AND SHALL BE ATTACHED TO ALL SUPPORTS OVER THREE OR MORE SUPPORTS AND SHALL BE ATTAGED TO ALL SUPPORTS W/12-24 X 7/8" HWH "TEKS"/4 SCREWS @ 4 PLACES PER SHEET WIDTH.
2. REINFORCE SLAB WITH 6 X 6 -W1.4 X W1.4 WELDED WIRE FABRIC PLACED 1¼" BELOW TOP OF SLAB. USE OF CHAIRS OR BOLSTERS SHALL BE REQUIRED. END SPANS SHALL RECEIVE 2 LAYERS OF REINFORCEMENT. STEEL SHALL CONFORM TO ASTM A-446, GRADE E. DECK SHALL BE GALVANIZED.

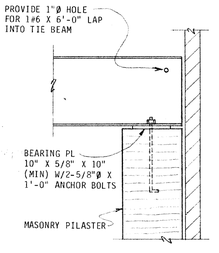
ROOF DECK NOTES
1. ROOF DECK SHALL BE 22 GAGE TYPE "F" METAL DECK WITH 1½" DEEP RIBS AT 6" O.C. MEETING THE REQUIREMENTS OF THE STEEL DECK INSTITUTE. DECK SHALL CONFORM TO ASTM A-611, GRADE C AND SHALL BE PAINTED. DECK SHALL BE CONTINUOUS OVER 3 OR MORE SUPPORTS AND SHALL BE CONNECTED TO THE SUPPORTS AS FOLLOWS:
   a. 5 PLACES PER SHEET WIDTH AT EACH TRANSVERSE SUPPORT W/12-24 X 7/8" HWH TEKS/4 SCREWS.
   b. 12-24 X 7/8" HWH TEKS/4 @ 18" O.C. AT PERIMETER SUPPORTS PARALLEL TO DECK RIBS.
   c. SIQE LAPS OF ADJACENT SHEETS SHALL BE SCREWED TOGETHER AT CENTERLINE, BETWEEN EACH PAIR OF JOISTS. SCREWS SHALL BE 12-24 X 3/4" HWH TEKS/1 AS MANUFACTURED BY BUILDEX, INC., ELK GROVE VILLAGE, ILLINOIS.

DESIGN LIVE LOADS

ROOF GRAVITY LOAD	20 PSF
ROOF UPLIFT	15 PSF
HORIZONTAL WIND (BASIC WIND PRESSURE)	20 PSF
OFFICE	50 PSF
PARTITION	20 PSF
STAIRWAYS, CORRIDORS, EXITS	100 PSF
JAIL	60 PSF

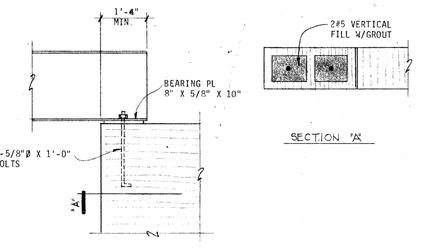
STRUCTURAL MASONRY NOTES
1. HOLLOW LOAD BEARING MASONRY UNITS SHALL CONFORM TO ASTM C-90, LIGHT-WEIGHT, TYPE N1, WITH A MINIMUM COMPRESSIVE STRENGTH OF 1000 PSI ON THE GROSS AREA OF THE BLOCK (AVERAGE OF 3 BLOCKS, NO SINGLE BLOSK LESS THAN 800 PSI).
2. MORTAR SHALL CONFORM TO ASTM C-270 WITH A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI @ 28 DAYS (TYPE S MORTAR). GRADATION OF MASONRY SAND SHALL CONFORM TO ASTM C-144.
3. COARSE GROUT SHALL CONFORM TO ASTM C-476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.
4. VERTICAL BARS SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 8'-0" WITH A MINIMUM CLEARANCE OF ¼" FROM THE MASONRY, AND NOT LESS THAN ONE BAR DIAMETER BETWEEN BARS.
5. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL TO SIX VERTICAL. DOWELS SHALL BE GROUTED INTO A CORE IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELLTO THE VERTICAL WALL REINFORCING.
6. HORIZONTAL REINFORCING BARS SHALL BE PLADED IN THE CONTINUOUS MASONRY COURSES CONSISTING OF BOND-BEAM OR THROUGH BLOCK UNITS, AND SHALL BE SOLIDLY GROUTED IN PLACE.
7. REINFORCING BARS SHALL BE STRAIGHT EXCEPT FOR BENDS AROUND CORNER AND WHERE BENDS OR HOOKS ARE DETAILED ON THE PLANS.
8. REINFORCING STEEL SHALL BE LAPPED 30 BAR DIAMETERS MINIMUM WHERE SPLICED, AND SHALL BE WIRED TOGETHER.
9. HORIZONTAL WALL REINFORCEMENT SHALL BE LAPPED AT LEAST 6 INCHES AT SPLICES AND SHALL CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT IN THE LAPPED DISTANCE.
10. VERTICAL REINFORCING BARS MAY BE APLICED IN 6' TO 8' LENGTHS PROVIDED THE SPLICES IN ADJACENT BARS ARE STAGGERED AND ARRANGED SO NOT MORE THAN 1/3 OF THE TOTAL NUMBER OF BARS ARE SPLICED AT ANY LOCATION AND NOT MORE THAN ⅓ OF THE TOTAL NUMBER OF BARS ARE APLICED AT MID-HEIGHT OF THE WALL OR PILASTER (BETWEEN POINTS OF LATERAL BRACING). MINIMUM LAP AT APLICE SHALL BE 48 BAR DIAMETERS. ALL BARS SHALL BE TIED AT SPLICES.
11. VERTICAL FOUNDATION DOWELS SHALL BE PROVIDED AT EACH PILASTER LOCATION AND OTHER LOCATIONS WHERE VERTICAL REINFORCING IS SPECIFIED AND PROJECT 30 BAR DIAMETER OUT OF THE FOUNDATION. THESE DOWELS SHALL BE EQUAL IN NUMBER AND SIZE TO THE SPECIFIED REINFORCEMENT AND SHALL BE A MINIMUM OF 60 BAR DIAMETERS IN LENGTH.
12. MORTAR AND GROUT FOR MASONRY SHALL BE MIXED TO THE EXACT PROPORTIONS ESTABLISHED BY THE MIX DESIGN. MASONRY CONTRACTOR SHALL PROVIDE CONTAINERS CONSTRUCTED TO THE REQUIRED SIZES FOR EACH INGREDIENT.

STRUCTURAL FLOOR NOTE
1. STRUCTURAL FLOOR TO BE 4'-0" WIDE (NOMINAL) X 8" THICK PRECAST CONCRETE DECK UNITS EQUAL TO "SPAN-DECK" AS MANUFACTURED BY TEXAS INDUSTRIES, INC., DALLAS, TEXAS.
2. PRECAST CONCRETE AND NORMAL WEIGHT CONCRETE TOPPING TO BE DESIGNED AS A COMPOSITE UNIT.
3. MANUFACTURER SHALL DESIGN THE PRECAST FOR THE DEAD LOADS SHOWN AND THE LIVE LOADS LISTED ON THESE PLANS. DESIGN SHALL BE BY AN ENGINEER REGISTERED IN THE STATE OF TEXAS. SUBMIT ANALYSIS AND DESIGN WITH SHOP DRAWINGS PRIOR TO FABRICATION.
4. COORDINATE ALL FLOOR PENETRATIONS WITH PRECAST CONCRETE DECK UNITS. MAXIMUM OPENING IS 12" WIDE AND MUST FALL WITHIN VOID SPACE BETWEEN RIBS.
5. REINFORCE TOPPING WITH 6 x 6- W2.1 x W2.1 WELDED WIRE FABRIC.
6. GROUT ALL SHEAR KEYS SOLID.



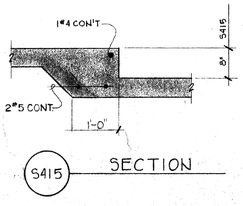
TYPICAL BEAM BEARING @ PILASTER

S413 DETAIL

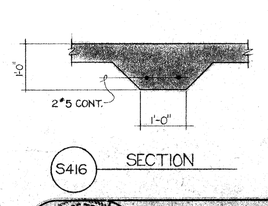


SECTION 'A'

S414 DETAIL



S415 SECTION



S416 SECTION

SLIDER/REED, INC.
STRUCTURAL ENGINEERS AND PLANNERS
DALLAS, TEXAS 214-748-0418

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A NEW POLICE FACILITY FOR THE
TOWN OF ADDISON
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REGISTERED ARCHITECT STATE OF TEXAS

REVISIONS

DATE 7-12-82

SHEET
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