

GENERAL NOTES (STRUCTURAL):

FOUNDATION DESIGN

- ALL FOOTINGS SHALL BEAR ON UNDISTURBED, NON-SATURATED EARTH AND MIN. 6" COMPACTED GRANULAR FILL.
- SPREAD AND STRIP FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF. MINIMUM ALLOWABLE SOIL BEARING CAPACITY SHALL BE FIELD VERIFIED PRIOR TO PLACING CONCRETE BY A GEOTECHNICAL ENGINEER.
- A 6-MIL POLYETHYLENE VAPOR RETARDER WITH JOINTS LAPPED NOT LESS THAN 6" SHALL BE PLACED BETWEEN THE GROUND AND SUBGRADE BELOW CONCRETE FLOOR SLAB, OR OTHER APPROVED EQUIVALENT METHODS OR MATERIALS SHALL BE USED TO RETARD VAPOR TRANSMISSION THROUGH THE FLOOR SLAB.
- PLACE 1/2" PREMOULDED EXPANSION JOINTS BETWEEN THE SLAB ON GRADE AND ALL WALLS.
- CONTRACTOR SHALL COORDINATE ALL UNDER FLOOR REQUIREMENTS BEFORE POURING FOUNDATIONS AND FLOOR SLABS.

CAST-IN-PLACE CONCRETE

- ALL REINFORCED CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-99) OF THE AMERICAN CONCRETE INSTITUTE.
- MINIMUM F_c REQUIRED AT 28 DAYS:
 - a. FOUNDATIONS AND WALLS 4000 PSI.
 - b. INTERIOR SLABS 4000 PSI.
 - c. EXTERIOR SLABS 4000 PSI.
 MAXIMUM WATER CEMENT RATIO:
 - a. FOUNDATIONS 0.50.
 - b. INTERIOR SLABS 0.45.
 - c. EXTERIOR SLABS 0.40.
- ALL STRUCTURAL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE (144 PCF+) WITH ALL CEMENT CONFORMING TO ASTM C150, TYPE I. MAXIMUM AGGREGATE SIZE SHALL BE 1-1/2" FOR FOOTINGS AND 3/4" FOR WALLS AND SLABS, CONFORMING TO ASTM C33. ALL CONCRETE FOR FLOOR TOPPING SHALL BE LIGHT WEIGHT CONCRETE.
- REINFORCEMENT
 - a. DEFORMED BARS ASTM A615, GRADE 60
 - b. WELDED WIRE FABRIC ASTM A185
- ALL LEVELING GROUT SHALL BE NONMETALLIC SHRINKAGE-RESISTANT GROUT COMPLYING WITH CE-CRD-C621, AND SHALL HAVE A MINIMUM F_c OF 5000 PSI.
- MINIMUM CONCRETE COVER FOR REINFORCING STEEL:
 - a. SLABS AND WALLS 3/4"
 - b. BEAMS 1-1/2"
 - c. CONCRETE EXPOSED TO WEATHER:
 - i. #5 BARS OR SMALLER 1-1/2"
 - ii. BARS LARGER THAN #5 2"
 - d. CONCRETE IN CONTACT WITH EARTH 3"
- CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CONCRETE OPENINGS AND/OR PENETRATIONS REQUIRED FOR OTHER TRADES PRIOR TO PLACING CONCRETE.
- CONDUITS OR PIPES EMBEDDED IN SLABS SHALL NOT HAVE AN OUTSIDE DIMENSION LARGER THAN 1/3 THE SLAB THICKNESS AND SHALL BE SPACED NO CLOSER THAN 3 DIAMETERS ON CENTER. ALUMINUM CONDUITS SHALL NOT BE EMBEDDED IN CONCRETE.

DESIGN LIVE LOADS

- ROOF LIVE LOADS
 - BASIC ROOF LIVE LOAD 30 PSF
 - GROUND SNOW LOAD 25 PSF
 ALL SNOW LOADS APPLIED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2000.
- FLOOR LIVE LOADS: 100 PSF
- WIND LOADS
 - BASIC WIND SPEED 90 MPH
 - EXPOSURE CATEGORY "C"
 - IMPORTANCE FACTOR 1.00
 ALL WIND LOADS ARE APPLIED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2000.
- SEISMIC LOADS
 - S_s = 0.18g
 - S₁ = 0.09g
 - SEISMIC USE GROUP I
 - SEISMIC DESIGN CATEGORY B
 - IMPORTANCE FACTOR = 1.00
 ALL SEISMIC LOADS ARE APPLIED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2000.

CONCRETE UNIT MASONRY

- ALL MASONRY WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530-99/ASCE 5-99) OF THE AMERICAN CONCRETE INSTITUTE AND THE AMERICAN SOCIETY OF CIVIL ENGINEERS, AS WELL AS THE "SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF LOAD-BEARING CONCRETE MASONRY" OF THE NATIONAL CONCRETE MASONRY ASSOCIATION.
- ALL MORTAR SHALL BE ASTM C270, TYPE M (BELOW GRADE) OR TYPE S (ABOVE GRADE).
- ALL MASONRY GROUT SHALL BE ASTM C476, WITH A MINIMUM COMPRESSIVE STRENGTH F_c = 3000 PSI.
- CONCRETE MASONRY UNITS
 - a. HOLLOW UNITS ASTM C90, TYPE N-1
 - b. SOLID UNITS ASTM C145, TYPE N-1
- THE MINIMUM COMPRESSIVE STRENGTH OF MASONRY (f_m) SHALL NOT BE LESS THAN 1500 PSI AT 28 DAYS AFTER PLACEMENT. ALL CMU SHALL BE NORMAL WEIGHT.
- HORIZONTAL TRUSS-TYPE JOINT REINFORCEMENT SHALL BE PLACED IN ALL EXTERIOR AND BEARING WALLS, SPACED AT 16 INCHES ON CENTER.
- FULL BED JOINTS AND HEAD JOINTS SHALL BE USED FOR ALL MASONRY CONSTRUCTION.
- PROVIDE 2-#6 VERTICAL REINFORCEMENT AT JAMBS OF EACH OPENING, AT BOTH SIDES OF CONTROL JOINT, AND AT EACH END OR CORNER OF WALL, UNLESS NOTED OTHERWISE.
- ALL MASONRY BELOW BEAM BEARINGS SHALL HAVE SOLID GROUTED CORES WITH 2-#6 VERTICAL BARS IN THEM.

CONCRETE/MASONRY ANCHORS

- ALL EXPANSION ANCHORS SHALL BE "HILTI KWIK-BOLT II" (AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC.), "RAWL-STUD" (AS MANUFACTURED BY THE RAWLPLUG CO.), OR AN APPROVED EQUAL MEETING THE REQUIREMENTS OF FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS 1.
- ALL ADHESIVE ANCHORS SHALL BE "HILTI HIT ADHESIVE ANCHOR" (AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC.), "CHEM-STUD" (AS MANUFACTURED BY THE RAWLPLUG COMPANY), OR AN APPROVED EQUAL. SCREEN TUBES SHALL BE ADDED AT ALL INSTALLATIONS IN CAVITY WALLS.
- ALL HEADED CONCRETE ANCHORS SHALL BE NELSON 6" INCH DIAMETER BY 1/2 INCH LONG H4L ANCHORS WITH FLUXED ENDS AS MANUFACTURED BY THE NELSON STUD WELDING COMPANY, OR AN APPROVED EQUAL MANUFACTURED FROM MATERIAL WHICH CONFORMS TO ASTM A108.
- ALL HEADED CONCRETE ANCHORS SHALL BE WELDED IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE ANSI/AWS D1.1 OF THE AMERICAN WELDING SOCIETY, AS WELL AS THE RECOMMENDATIONS OF THE NELSON STUD WELDING COMPANY.
- ALL ANCHOR SPACING, EMBEDMENT, EDGE DISTANCE, AND INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. REFER TO SECTIONS AND DETAILS ON THE DRAWINGS FOR ADDITIONAL INFORMATION.

STRUCTURAL STEEL

- ALL STRUCTURAL STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (1989 EDITION) OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- GRADE OF STEEL
 - a. WIDE FLANGE SHAPES ASTM A992 GR 50 OR A572 GR 50
 - b. OTHER SHAPES, PLATE, AND BARS ASTM A36 TYPICAL
 - c. STEEL TUBES ASTM A500, GRADE B
 - d. STEEL PIPES ASTM A501
- GALVANIZED STRUCTURAL STEEL
 - a. STRUCTURAL SHAPES AND RODS ASTM A123
 - b. BOLTS, FASTENERS AND HARDWARE ASTM A153
- ALL STRUCTURAL BOLTS SHALL BE ASTM A325, 3/4" DIAMETER, TYPE N, UNLESS NOTED OTHERWISE.
- ALL ANCHOR BOLTS SHALL BE ASTM A307, 3/4" DIAMETER, UNLESS NOTED OTHERWISE.
- ALL STRUCTURAL WELDING SHALL CONFORM TO AWS D1.1 OF THE AMERICAN WELDING SOCIETY. E70 SERIES ELECTRODES SHALL BE USED FOR ALL WELDING.
- ALL BEAM END CONNECTIONS NOT SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED FOR ONE HALF OF THE UNIFORM LOAD CAPACITY OF THE MEMBER IN ACCORDANCE WITH AISC SPECIFICATIONS, UNLESS SHOWN OTHERWISE.
- ALL BEAMS AND LINTELS SHALL HAVE A MIN. BEARING LENGTH OF 8" ON CONCRETE OR MASONRY.

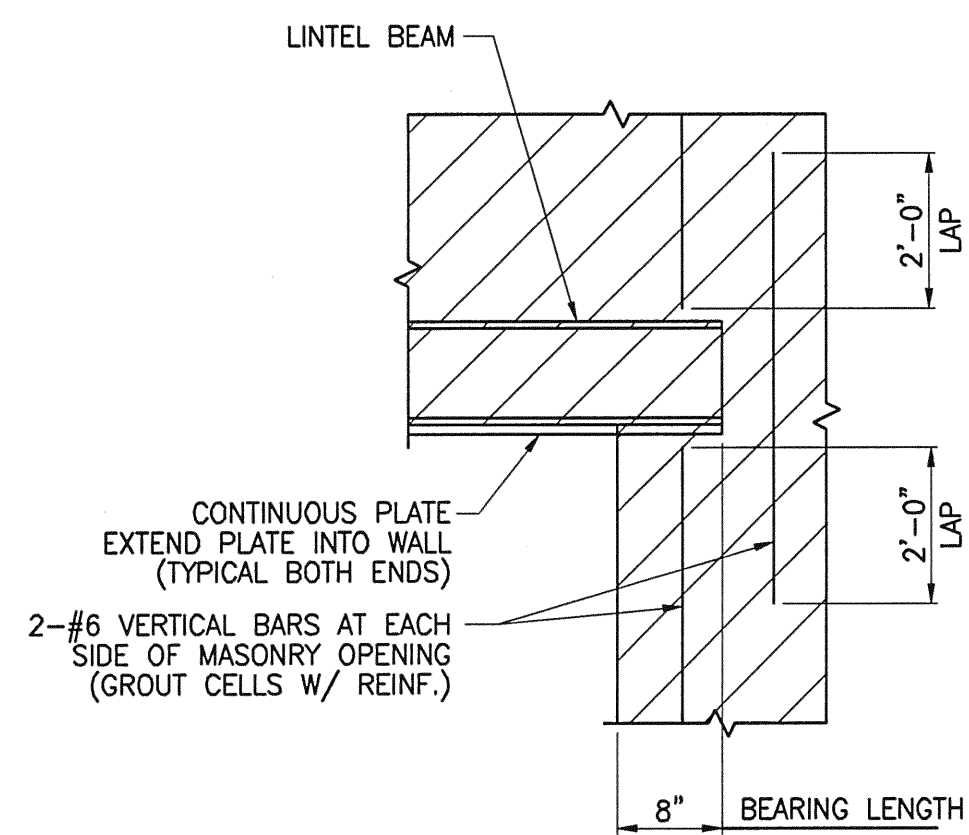
- ALL MODIFICATIONS REQUIRED FOR OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS, AND MADE DURING SHOP FABRICATION. FIELD BURNING OF STRUCTURAL STEEL IS PROHIBITED.
- ALL EXTERIOR STEEL SHALL BE SHOP COATED WITH 1 COAT OF SW KEM KROMIK UNIVERSAL METAL PRIMER (B50Z SERIES). ALL STEEL SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SSPC-SP2 "HAND TOOL CLEANING" OR SSPC-SP3 "POWER TOOL CLEANING" PRIOR TO APPLYING THE PRIMER COAT. SURFACES WITHIN 3" OF WELDS SHALL NOT BE PAINTED PRIOR TO WELDING.
- ALL COLD GALVANIZING COMPOUND SHALL BE "ZRC COLD-GALVANIZING COMPOUND" AS MANUFACTURED BY "ZRC PRODUCTS COMPANY, QUINCY, MA." COLD GALVANIZING COMPOUND SHALL BE APPLIED IN TWO COATS TO ACHIEVE A MINIMUM DRY-FILM THICKNESS OF 3 MILS.

MISCELLANEOUS

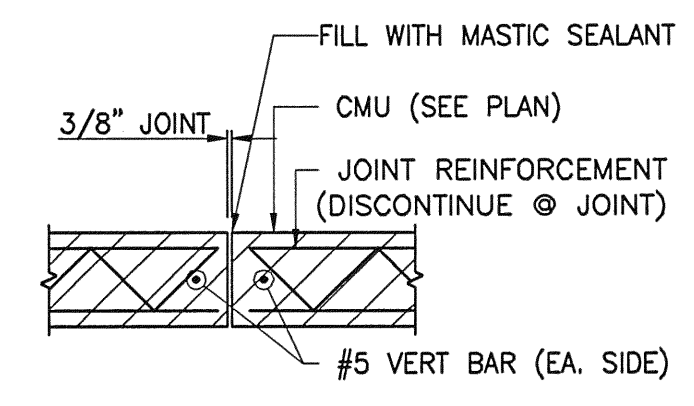
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS BEFORE BEGINNING WORK. NOTIFY ARCHITECT/ENGINEER IMMEDIATELY OF ANY AND ALL DISCREPANCIES.
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL STRUCTURAL STEEL AND REINFORCING STEEL.
- ALL SHOP DRAWINGS MUST BE REVIEWED BY STRUCTURAL ENGINEER PRIOR TO FABRICATION FOR CONFORMANCE TO DESIGN INTENT. ANY DEVIATIONS FROM DESIGN SHALL BE NOTED TO STRUCTURAL ENGINEER.
- CONTRACTOR RESPONSIBLE FOR ALL TEMPORARY BRACING PRIOR TO ALL PARTS OF FINAL STRUCTURE IN PLACE.
- CONTRACTOR RESPONSIBLE FOR SITE SAFETY AND FOR MAINTAINING A SECURE CONSTRUCTION SITE.

FLEXICORE FLOOR UNITS

- ALL FLEXICORE FLOOR UNITS SHALL BE 8" DEEP AND DESIGNED AND MANUFACTURED BY THE FLEXICORE CO. INC. ALL FLEXICORE UNITS SHALL BE DESIGNED TO SAFELY SUPPORT ALL LIVE AND DEAD LOADS INDICATED ON DRAWINGS.
- FLEXICORE FLOOR UNITS SHALL BE DESIGNED TO CANTILEVER OVER THE STEEL BEAM SUPPORT TOWARD THE COURTYARD. COURTYARD C10 BEAM LINE EXISTS TO CAP THE END OF THE FLOOR SYSTEMS AND TO PROVIDE ADDITIONAL CONTROL OF DEFLECTION ONLY.

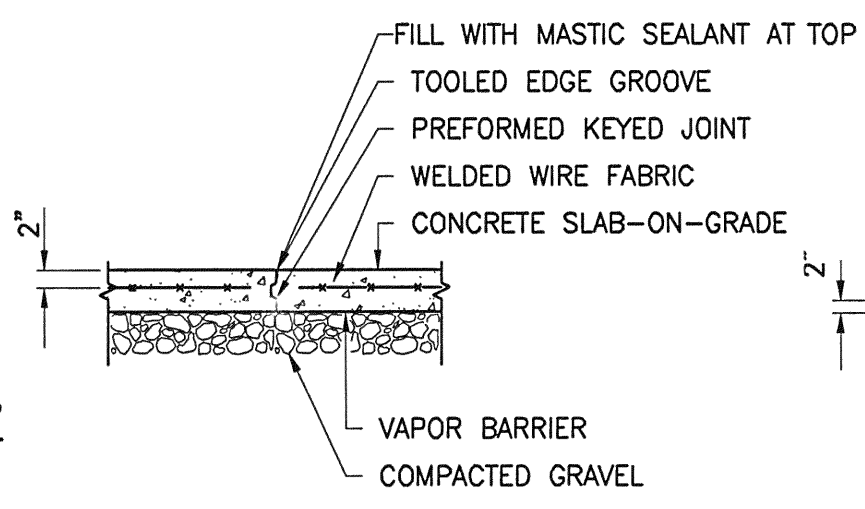


TYP. LINTEL BEARING DETAIL ON CMU



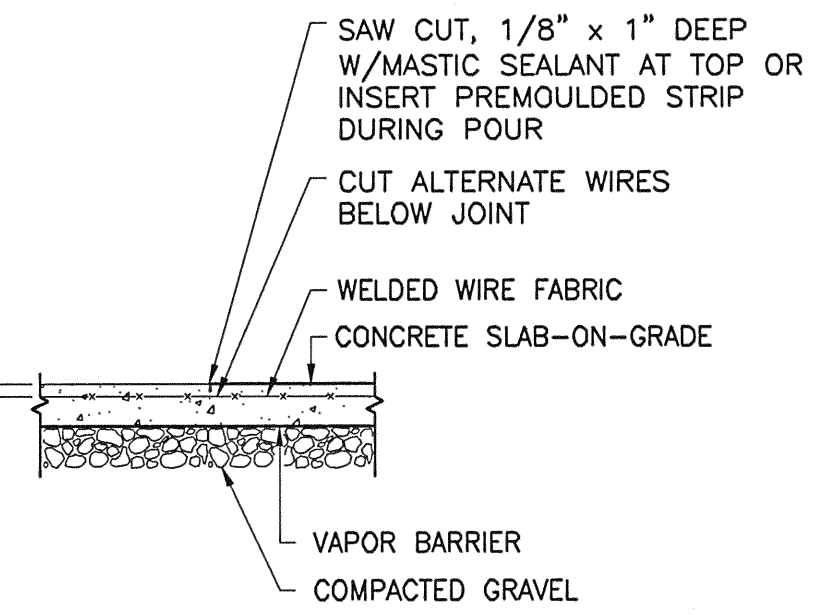
TYPICAL MASONRY CONTROL JOINT
SCALE: NO SCALE

NOTE: LOCATE MASONRY WALL CONTROL JOINTS AT EXTERIOR COLUMNS AND INTERMEDIATE SPACES WHERE SHOWN ON ARCHITECTURAL DRAWINGS.
TYP. MASONRY WALL CONTROL JOINT 20'-0" MAX. JOINT SPACING.

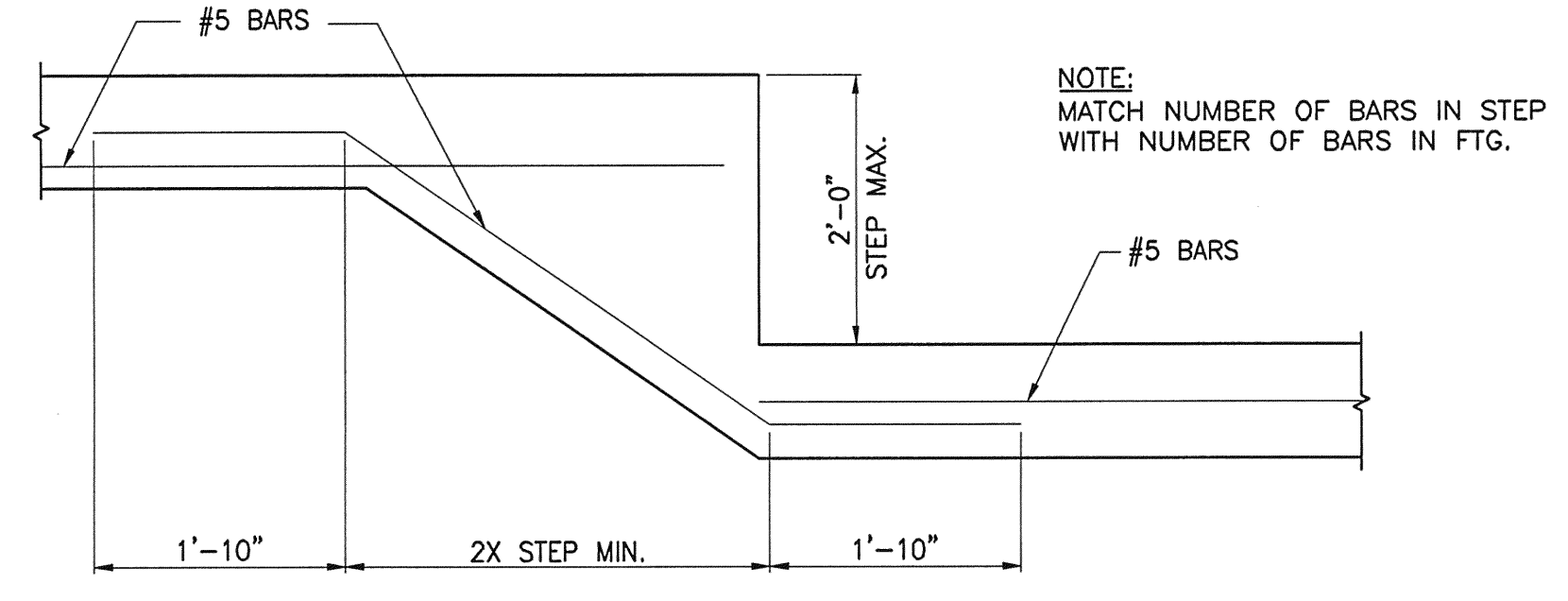


TYPICAL SLAB-ON-GRADE CONSTRUCTION JOINT
SCALE: NO SCALE

NOTE: LOCATE JOINTS ON COLUMN CENTERLINES. PROVIDE SJPPORTS FOR W/M. USE FLAT SHEETS. LAP 2 SPACES.



TYPICAL SLAB-ON-GRADE CONTROL JOINT
SCALE: NO SCALE



IF REQ'D BY SOILS OR SITE CONDITIONS

FOOTING STEP
SCALE: NO SCALE

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		HERITAGE SQUARE GENERAL NOTES & TYP. DETAILS	
FOR: PEORIA CONSTRUCTION CO.			
REVISIONS	DATE	PROJECT NO.	
	6/14/04	233-04032	
	DESIGNED KEF		
	CHECKED DLM	DRAWING NO.	
	DRAWN BRW	S-5	
FIELD BK.	CHECKED DLM	SHEET	OF

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