



**PERMITS AND MUNICIPAL APPROVALS:**

- THE GENERAL CONTRACTOR WILL PREPARE AND APPLY FOR ALL REQUIRED CONSTRUCTION PERMITS. HE SHALL START THE PERMIT PROCESS AND MAINTAIN THE RESPONSIBILITY FOR COORDINATION & INSPECTIONS THROUGHOUT THE PROJECT.
- UNDER THE PENNSYLVANIA UNIFORM CONSTRUCTION CODE, PERMITTING IS A MULTI-PART PROCESS, WITH SECTIONS RELATING TO MAJOR TRADES. BECAUSE ALL PARTS ARE INTER-RELATED, SOME MUNICIPALITIES REQUIRE ALL PARTS BE SUBMITTED AT THE SAME TIME. THIS REQUIRES PLANNING AND COORDINATION BY THE GENERAL CONTRACTOR, AND MAY INCLUDE SEPARATE REVIEWERS (THIRD PARTY) FOR DIFFERENT PARTS, VARIOUS REQUIREMENTS, AND FORMS.
- THE ARCHITECT'S DRAWINGS DESCRIBE THE: A) STRUCTURAL DESIGN; B) THE EXTERIOR ENVELOPE; C) AND ENERGY CONSERVATION REQUIREMENTS. IN GENERAL, THE ARCHITECT IS DESCRIBING THE OVERALL BUILDING SHELL, AND LOCATING THE MAJOR FIXTURES AND EQUIPMENT. THE ARCHITECT MAY, OR MAY NOT, INCLUDE PERFORMANCE SPECIFICATIONS FOR OTHER WORK.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL OTHER TRADE INPUT REQUIRED TO COMPLETE THE PERMIT PROCESS. THE ARCHITECT IS NOT PROVIDING DESIGN AND DOCUMENTATION OR INSTALLATION DETAILS FOR PLUMBING, SPRINKLER, HVAC, ELECTRICAL, OR SECURITY SYSTEMS WORK. THE GC MUST ENGAGE QUALITY SUBCONTRACTORS WITH THE EXPERTISE AND CAPABILITY TO PROVIDE ANY DOCUMENTATION (SHOP DRAWINGS, EQUIPMENT SIZING, PLUMBING RISER DIAGRAMS, DESIGN LAYOUTS, HEAT GAIN & HEAT LOSS CALCULATIONS, ELECTRICAL LOAD CALCULATIONS, CATALOG CUT SHEETS, EQUIPMENT ENERGY RATINGS, ETC.) NECESSARY TO SUPPORT THESE PERMIT SECTIONS.

**SEISMIC AND WIND DESIGN COMPONENTS: RESIDENTIAL**

- INTERNATIONAL RESIDENTIAL CODE CLASSIFIES THE DELAWARE VALLEY AS SEISMIC DESIGN CATEGORY "C." NOTE: DETACHED ONE AND TWO FAMILY DWELLINGS ARE EXEMPT FROM THE SEISMIC REQUIREMENTS OF THIS CODE.
- INTERNATIONAL RESIDENTIAL CODE CLASSIFIES BUCKS AND MONTGOMERY COUNTIES AS HAVING WIND SPEEDS OF 90 MPH. THE LOWER (MOST EASTERLY) PART OF BUCKS COUNTY IS RATED WITH WIND SPEEDS OF 100 MPH.

**RESIDENCE DESIGN LOADS** THE PROJECT HAS BEEN DESIGNED WITH THESE LOADS

DESIGN LOADS	ROOFS	FLOORS	FLOORS	ATTIC FLOOR	BALCONIES /DECKS
	WOOD OR ASPHALT SHINGLES	WOOD, CARPET OR VCT	CERAMIC, SLATE OR STONE	UNFINISHED SHEATHING	SPACED DECK BO'S
DEAD LOAD (PSF)	15	15	25	15	10
LIVE LOAD (PSF)	30	40	40	20	60
TOTAL (PSF)	45	55	65	35	70

**BELOW SLAB RIGID INSULATION BOARD**

- INSULATION BOARD PLACED BELOW INTERIOR CONCRETE SLABS SHALL BE DOW "BLUEBOARD" STYROFOAM, OR EQ., A MINIMUM OF 2-INCHES THICK, R-10, TIGHTLY FITTED, T&G.

**CONCRETE SEALER (IF DESIRED)**

- CONCRETE SEALER FOR ALL HORIZONTAL INTERIOR AND EXTERIOR SLABS WHERE INDICATED SHALL BE "SEALTIGHT INTX" BY W.R. MEADOWS, INC., P.O. BOX 543, ELGIN, ILLINOIS 60121, (312)683-4500.
- INTX IS A NON-YELLOWING WATER BASE ACRYLIC CURING AND SEALING COMPOUND. APPLICATION SHALL BE TWO COATS, PER MANUFACTURER'S RECOMMENDATIONS WITH MINIMUM OF 24 HOURS BETWEEN COATS. APPLICATOR SHALL PROVIDE THE ARCHITECT WITH RECEIPT SHOWING THE QUANTITY OF MATERIAL SUPPLIED TO THE SITE.

**FOOTING PLACEMENT FOR FOUNDATION WALLS**

- BOTTOMS OF ALL FOOTINGS (OR EARTH BORN WALLS) SHALL BEAR ON UNDISTURBED SOILS CAPABLE OF SUPPORTING THE ASSUMED DESIGN LOAD OF 3,000 PSF. THE CONTRACTOR SHALL EXAMINE AND VERIFY THE SOIL CONDITIONS BEFORE ALLOWING CONCRETE FOOTINGS AND FOUNDATIONS TO BE INSTALLED. IF SOILS EXHIBIT A LESSER VALUE, NOTIFY THE ARCHITECT IMMEDIATELY, AS THE FOUNDATION DESIGN MUST BE RE-EVALUATED AND POSSIBLY REDESIGNED.
- THE SOIL IN THE TRENCHES FOR ALL FOOTINGS SHALL BE INSPECTED BY A MUNICIPAL OFFICIAL BEFORE ANY FOOTINGS ARE PLACED. PROVIDE INSPECTION CERTIFICATE.
- THE BOTTOM ELEVATION SHOWN FOR ALL FOOTINGS IS THE MINIMUM, AND SHALL BE NO LESS THAN 36 INCHES BELOW FINAL EXTERIOR GRADE. SOIL CONDITIONS MAY REQUIRE ADDITIONAL DEPTH.
- ALL FOOTING EXCAVATIONS FOR FOUNDATION WALLS ENCLOSING CRAWLSPACES OR OTHER OCCUPIED SPACE SHALL BE MADE WIDE ENOUGH TO ALLOW FOR THE PLACEMENT OF FOUNDATION DRAINAGE PIPING AND DRAINAGE STONE BELOW THE TOP OF THE FOOTING AND THIS MUST BE "FORMED" AS A MINIMUM ON THE EXTERIOR SIDE. IF ALLOWED BY THE MUNICIPALITY, FOOTING FOR "SLABS ON GRADE" MAY BE PLACED IN TRENCH FORMED FOOTINGS.
- FOOTINGS AND SLABS SHALL NOT BE PLACED ON FROZEN SOILS.
- FOOTING CONCRETE SHALL BE MINIMUM 3,000 PSI DESIGN MIX @ 28 DAYS. IN LIEU OF TESTING, CONCRETE SUPPLIER SHALL PROVIDE MIX CERTIFICATE TO CONTRACTOR FOR DELIVERY TO OWNER.
- WHERE PIPES PASS THROUGH A FOOTING, THE FOOTING SHALL BE MINIMUM OF 12 INCHES THICK SOLID BELOW, STEP AS REQUIRED, INSTALL SLEEVE MINIMUM OF PIPE DIAMETER PLUS 2 INCHES.
- FOOTING TO FOUNDATION WALL ANCHORAGE: INSTALL HOOKS FORMED FROM #4 DEFORMED REINFORCING BARS. VERTICAL LEG SHALL BE 20 INCHES LONG, AND HOOK SHALL BE 3-INCHES. BOTTOM OR HOOK SHALL BE 3 INCHES FROM BOTTOM OF FOOTING. INSTALL NOT MORE THAN 12 INCHES FROM ANY CORNER (BOTH SIDES) AND THEN NOT MORE THAN 48 INCHES ON CENTER FOR ENTIRE LENGTH OF WALLS. ALIGN HOOKS TO BE CENTERED IN FOUNDATION THICKNESS AND IN BLOCK CORES IF CMU WALLS.

**PIER FOUNDATIONS (AT DECKS)**

- BOTTOMS OF ALL PIERS SHALL BEAR ON UNDISTURBED SOILS CAPABLE OF SUPPORTING THE ASSUMED DESIGN LOAD OF 3,000 PSF. THE CONTRACTOR SHALL EXAMINE AND VERIFY THE SOIL CONDITIONS BEFORE ALLOWING CONCRETE TO BE POURED. IF SOILS EXHIBIT A LESSER VALUE, NOTIFY THE ARCHITECT IMMEDIATELY, AS THE FOUNDATION DESIGN MUST BE RE-EVALUATED.
- SEE DRAWINGS FOR AUGURED PIER DIAMETER. THE BOTTOM ELEVATION SHOWN FOR ALL FOOTINGS IS THE MINIMUM, AND SHALL BE NO LESS THAN 36 INCHES BELOW FINAL EXTERIOR GRADE. SOIL CONDITIONS MAY REQUIRE ADDITIONAL DEPTH.

**EMERGENCY MEANS OF EGRESS: SPECIAL RESIDENTIAL**

- ALL HABITABLE BASEMENTS IN EXCESS OF 200 SQ.FT., AND ALL SLEEPING ROOMS SHALL HAVE A MINIMUM OF ONE ALTERNATE OPENABLE EMERGENCY ESCAPE AND RESCUE OPENING, GENERALLY AN "EGRESS WINDOW." EACH OPENING SHALL: A) HAVE A MINIMUM NET CLEAR OPEN AREA OF 5.7 SQUARE FEET; B) THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 20 INCHES; C) THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20 INCHES; D) THE SILL HEIGHT OF THE OPENING SHALL NOT BE MORE THAN 44 INCHES ABOVE THE FLOOR; E) WHEN THE INTERIOR WINDOW SILL IS MORE THAN 72 INCHES ABOVE GRADE, THEN THE INTERIOR SILL HEIGHT SHALL NOT BE LESS THAN 24 INCHES ABOVE FINISHED FLOOR; F) THE OPERATION OF THE EMERGENCY OPENING SHALL NOT REQUIRE ANY SPECIAL HARDWARE OR KEY.
- WHERE A WINDOW (INCLUDING ACCESSORIES SUCH AS EGRESS AREAWAY) PROVIDES THIS EMERGENCY OPENING, PROVIDE THE MANUFACTURER'S CATALOG CUTS VERIFYING THIS REQUIREMENT IS MET.

**RESIDENTIAL STAIRS (STRAIGHT), HANDRAILS, AND GUARDRAILS**

- STAIRWAY WIDTH SHALL NOT BE LESS THAN 36" CLEAR. HANDRAILS SHALL NOT PROJECT MORE THAN 4.5" INTO STAIR. THE MIN. CLEAR WIDTH OF STAIRS BETWEEN HANDRAILS SHALL NOT BE LESS THAN 31.5" WITH ONE HANDRAIL, AND 27" WITH HANDRAILS BOTH SIDES.
- MINIMUM STAIR HEADROOM SHALL NOT BE LESS THAN 80" MEASURED VERTICALLY FROM THE TREAD NOSING, THE SAME APPLIES TO LANDINGS.
- TREAD DEPTH MIN. IS 10" NOSING TO NOSING. STAIR RISER MAX. HEIGHT IS 7.75".
- STAIRS SHALL BE DESIGNED TO SUPPORT A UNIFORMLY DISTRIBUTED LIVE LOAD OF 40 PSF, AND/OR THE TREADS SHALL BE ABLE TO SUPPORT A CONCENTRATED LOAD OF 300 POUNDS APPLIED OVER A 4 SQ.INCH AREA, WHICHEVER PRODUCES THE GREATER STRESS.
- LANDINGS: AT THE TOP AND BOTTOM OF STAIRS SHALL BE A LANDING OF EQUAL WIDTH TO THE STAIR SERVED, AND MIN. DEPTH OF 36" MEASURED IN THE DIRECTION OF TRAVEL. A LANDING IS NOT REQUIRED AT THE TOP OF INTERIOR STAIRS, PROVIDED NO DOOR SWINGS OVER THE STAIR.
- HEIGHT OF VERTICAL TRAVEL: NO STAIR SHALL RISE MORE THAN 144" VERTICAL WITHOUT AN INTERMEDIATE LANDING.
- HANDRAILS HAVING MINIMUM AND MAXIMUM HEIGHTS OF 34 INCHES AND 38 INCHES RESPECTIVELY, MEASURED VERTICALLY FROM THE NOSING OF THE TREADS, SHALL BE PROVIDED ON AT LEAST ONE SIDE OF STAIRWAYS OF FOUR (4) OR MORE RISERS.
- REQUIRED HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS FROM A POINT DIRECTLY ABOVE THE TOP AND BOTTOM RISER. ENDS SHALL BE RETURNED TO THE WALL OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1.5" BETWEEN THE WALL AND THE HANDRAIL.
- HANDRAILS SHALL HAVE A CIRCULAR CROSS SECTION WITH A DIAMETER OF 1.25 TO 2 INCHES, OR A NONCIRCULAR CROSS SECTION WITH A PERIMETER DIMENSION OF AT LEAST 4 INCHES BUT NOT MORE THAN 4.5 INCHES AND A LARGEST CROSS-SECTION DIMENSION NOT EXCEEDING 2.25 INCHES, OR THE SHAPE SHALL PROVIDE EQUIVALENT GRASP ABILITY. EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8 INCH. SEE CODE FOR ADDITIONAL REQUIREMENTS.
- GUARDRAILS: PORCHES, STAIR LANDINGS, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 36 INCHES IN HEIGHT. OPEN SIDES OF STAIRS WITH A TOTAL RISE OF MORE THAN 30 INCHES ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 34 INCHES IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS.
- GUARDRAILS SHALL HAVE INTERMEDIATE RAILS (BALUSTRADE) OR ORNAMENTAL CLOSURES WHICH DO NOT ALLOW THROUGH PASSAGE OF AN OBJECT OF 4-INCH DIAMETER OR MORE.
- EXCEPTION: THE TRIANGULAR OPENING FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARDRAIL AT THE OPEN SIDE OF A STAIRWAY SHALL BE PERMITTED TO BE OF A SIZE THAT A SPHERE 6-INCHES IN DIAMETER CANNOT PASS THROUGH.
- HANDRAIL AND GUARDRAIL DESIGN SHALL BE OF SUFFICIENT STRENGTH TO RESIST A SINGLE CONCENTRATED LOAD OF 200 POUNDS APPLIED IN ANY DIRECTION ALONG THE TOP. INFILL BALUSTRADES SHALL BE DESIGNED TO RESIST A HORIZONTALLY APPLIED LOAD OF 50 POUNDS APPLIED ON AN AREA OF 1 SQ.FT., WHERE DEFLECTION OF ALL MEMBERS (HORIZONTAL AND VERTICAL) SHALL BE LIMITED TO L/240.

**SECOND FLOOR PLAN**

REV.#	REVISION DESCRIPTION	DATE
01	START UP	OCT. 22, 2008
02	FINAL PRELIMINARY REVIEW	12-11-2008
03	FOR PERMIT SUBMISSION	01-05-2009
04	REVISED PER ARCH. DESIGNER REVIEW	01-15-09

NOT VALID FOR PERMITS UNLESS AFFIXED WITH EMBOSSED SEAL & ORIGINAL SIGNATURE IN RED

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**NEW SECOND FL. PLAN**  
**639 Walnut Avenue, East**  
**ADDITIONS & RENOVATIONS**  
**BENSALEM TWP., BUCKS CO., PA**