

AKZO NOBEL
ROANOKE, VA.

SOLVENT/RESIN TRUCK UNLOADING
GENERAL NOTES

NOTES TO CONTRACTORS

- 1.0 PRIOR TO ANY EXCAVATION OR FABRICATION OF PIPE OR STRUCTURAL STEEL COMPONENTS, CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLAN AND ELEVATION DIMENSIONS OF EXISTING GRADES, STRUCTURES AND UTILITIES.
- 2.0 EXCAVATION CONTRACTOR SHALL USE EXTREME CAUTION DURING ALL EXCAVATIONS TO AVOID HARMING EXISTING UNDERGROUND ELECTRIC LINES, STORM SEWERS, ETC.
- 3.0 CIVIL CONTRACTOR SHALL COORDINATE WITH OWNER TYPE, QUANTITY AND LOCATION OF BOLLARDS TO PROTECT NEW/EXIST. STRUCTURES FROM VEHICULAR TRAFFIC.

STEEL

- 1.0 DESIGN, DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL STEEL AND OTHER MISCELLANEOUS STEEL SHALL BE IN ACCORDANCE WITH THE MANUAL OF STEEL CONSTRUCTION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (LATEST EDITION).
- 2.0 MATERIAL SHALL MEET THE REQUIREMENTS OF THE FOLLOWING SPECIFICATION UNLESS NOTED OTHERWISE:
- A. ASTM A992 ———— STRUCTURAL STEEL WIDE FLANGES
 - B. ASTM A36 ———— STEEL PLATES & REMAINING SHAPES
 - C. ASTM A500 ———— GRADE B HOLLOW STRUCTURAL SECTIONS (HSS)
 - D. ASTM A325 ———— HIGH STRENGTH BOLTS
 - TYPE I HEAVY HEX STRUCTURAL BOLTS (3/4" DIA.)
 - E. ASTM A563 ———— HEAVY HEX NUTS
 - F. ASTM A233 ———— WELDING ELECTRODES (E70XX SERIES)
- 3.0 ALL WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARDS (LATEST EDITION).
- 4.0 CONNECTIONS:
- A. ALL BOLTED CONNECTIONS SHALL BE BEARING TYPE USING 3/4" DIAMETER, A325N HIGH STRENGTH BOLTS WITH THREADS INCLUDED IN THE SHEAR PLANE.
 - B. CONNECTIONS SHALL CONTAIN THE MAXIMUM NUMBER OF BOLT ROWS THAT WILL PHYSICALLY FIT PER GIVEN BEAM DEPTH (U.N.O.).
 - C. SHOP CONNECTIONS MAY BE BOLTED OR WELDED.
 - D. FIELD CONNECTIONS SHALL BE BOLTED UNLESS OTHERWISE NOTED.
- 5.0 GUSSET PLATES SHALL BE 3/8" THICK MINIMUM.
- 6.0 BRACING CONNECTIONS SHALL BE TWO (2) BOLT MINIMUM FOR ANGLES AND FOUR (4) BOLT MINIMUM FOR TEES UNLESS NOTED OTHERWISE.
- 7.0 ALL COLUMN BASE PLATES SHALL BE SHOP WELDED TO THE COLUMNS.
- 8.0 PAINTING OF STRUCTURAL STEEL (INCLUDING SHOP PREPARATION BY POWER TOOL CLEANING), SSPC-SP-3, SHOP PAINTING, AND FIELD TOUCHUP SHALL BE IN CONFORMANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE STEEL STRUCTURES PAINTING COUNCIL. DRY FILM THICKNESS OF SHOP COAT SHALL BE TWO (2) MILS MINIMUM.
- 9.0 THE CONTRACTOR SHALL SUBMIT TWO (2) COPIES OF ALL SHOP DETAIL AND ERECTION DRAWINGS TO THE ENGINEER FOR APPROVAL. FABRICATION SHALL BE IN ACCORDANCE WITH APPROVED DRAWINGS. NO FABRICATION SHALL BEGIN UNTIL SHOP DRAWINGS HAVE BEEN APPROVED.

FIRE RATED OVERHEAD COILING DOORS

- 1.0 CURTAIN: MIN. 18 GAUGE GALV. INTERLOCKING STEEL, DESIGNED TO MEET THE WIND LOAD REQUIREMENTS AS DEFINED IN THE 2000 INTERNATIONAL BUILDING CODE, SLATS SHALL BE FLAT FACED FITTED WITH END LOCKS AND BOTTOM ANGLES. DOOR SHALL BE DESIGNED FOR 25 CYCLES PER DAY.
- 2.0 GUIDES: FORMED ANGLES
- 3.0 HOOD: 24 GAUGE MIN. REINFORCED
- 4.0 MANUAL OPERATION SHALL BE BY CHAIN
- 5.0 AUTOMATIC OPERATION SHALL BE BY FUSIBLE LINK.
- 6.0 FINISH: MATERIAL SHALL BE FACTORY BAKED ON FINISH
- 7.0 DOOR SHALL BE CONSTRUCTED AND LABELED IN ACCORDANCE WITH UNDERWRITERS LABORATORY REQUIREMENTS FOR 3/4 HOUR FIRE DOORS

CONCRETE

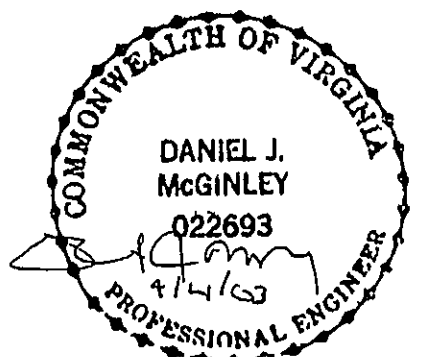
- 1.0 THE CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE ACI-301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI-318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AND ACI-117 "STANDARD SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS".
- 2.0 ALL CONCRETE SHALL ATTAIN A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI, WITH MAXIMUM SLUMP RANGE OF 4" TO 6". AGGREGATE SIZE SHALL BE 1 1/2" MAXIMUM. ALL EXTERIOR CONCRETE TO BE AIR-ENTRAINED 5% TO 7%.
- 3.0 CONCRETE SURFACE FINISH SHALL BE IN ACCORDANCE WITH ACI-301 AS FOLLOWS:
- A. EXPOSED VERTICAL SURFACES SHALL HAVE A GROUT CLEANED FINISH.
 - B. EXPOSED FOUNDATION AND SLAB TOP SURFACES SHALL HAVE A FLOATED FINISH.
 - C. INTERIOR SLABS SHALL HAVE A STEEL TROWELED FINISH.
 - D. EXTERIOR RAMP SHALL HAVE A BROOMED FINISH.
- 4.0 REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM-A615, GRADE 60. SPLICES SHALL BE CLASS "B" IN ACCORDANCE WITH ACI-318.
- 5.0 WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185, FLAT MATS. WWF SHALL HAVE END LAPS OF ONE PITCH PLUS 2" AND SIDE LAPS OF 2".
- 6.0 REINFORCING STEEL SET IN EXISTING CONCRETE WITH EPOXY SHALL BE INSTALLED WITH "HILTI HIT HY-150 SYSTEM" OR APPROVED EQUAL. THE INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 7.0 ANCHOR BOLTS SHALL CONFORM TO ASTM A36 AND SHALL BE FURNISHED BY THE CONCRETE CONTRACTOR. SIZE AND SPACING OF ANCHOR BOLTS TO BE AS DETAILED ON THE DRAWINGS.
- 8.0 ADHESIVE ANCHORS SHALL BE "HILTI HIT OR HAS" THREADED ROD SET IN CONCRETE WITH "HILTI HIT HY-150 SYSTEM" OR APPROVED EQUAL. THE INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 9.0 LOCATION OF ANCHOR BOLTS AND EMBEDMENTS IS CRITICAL. IF NOT CORRECT, CONCRETE WILL BE REJECTED, REMOVED, AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- 10.0 EXPANSION JOINT MATERIAL SHALL BE 1/2" FIBER BOARD SATURATED WITH BITUMINOUS BINDER, ASTM 1751.
- 11.0 GROUT SHALL BE MASTERFLOW #928 AS MANUFACTURED BY MASTERBUILDERS, OR APPROVED EQUAL.
- 12.0 ALL FOUNDATIONS SHALL BE FOUNDED ON UNDISTURBED NATURAL SOIL OR COMPACTED LABORATORY CONTROLLED FILL WITH A MINIMUM SOIL BEARING PRESSURE OF NOT LESS THAN 1000 PSF.
- 13.0 IF BEARING CAPACITY IS IN QUESTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING.
- 14.0 FILL AND/OR BACKFILL PLACED AGAINST WALLS SHALL BE BROUGHT UP EQUALLY ON BOTH SIDES OF THE WALL. WHERE EARTH IS RETAINED ON ONLY ONE SIDE OF THE WALL, THE WALL SHALL BE BRACED TEMPORARILY UNTIL IT IS TIED ONTO STRUCTURE IN ITS FINAL POSITION.
- 15.0 ALL DIMENSIONS AND ELEVATIONS LOCATING EXISTING STRUCTURES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION AND CONSTRUCTION.

HOLLOW METAL DOORS AND FRAMES

- 1.0 DOORS SHALL BE 1 3/4" THICK 18 GAUGE UNITS COMPLYING WITH SDI 100 OF TYPE AND STYLES AS SHOWN ON THE DRAWINGS.
- 2.0 FRAMES SHALL BE FULLY-WELDED 16 GAUGE UNITS OF TYPES AND STYLES AS SELECTED BY THE OWNER.
- 3.0 DOORS AND FRAMES SHALL BE SHOP PAINTED ONE COAT OF RUST-INHIBITIVE PRIMER.
- 4.0 SUPPLIER SHALL SUBMIT A DOOR & FRAME SCHEDULE TO THE OWNER FOR APPROVAL PRIOR TO INSTALLATION.

MASONRY

- 1.0 GENERAL
- A. ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE PROVISIONS OF THESE NOTES, DRAWINGS, CODES, AND SPECIFICATIONS LISTED HEREIN:
 - 1) 2000 INTERNATIONAL BUILDING CODE
 - 2) CONCRETE MASONRY HANDBOOK
 - 3) DESIGN MANUAL OF NATIONAL CONCRETE MASONRY ASSOCIATION
 - 4) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530) AND SPECIFICATIONS (ACI 530.1)
 - 5) APPLICABLE CODES AND STANDARDS SHALL BE THE LATEST EDITION.
 - B. BOND PATTERN SHALL BE RUNNING CENTER BOND.
 - C. MASONRY SHALL HAVE HORIZONTAL JOINT REINFORCING @ 16 INCHES O.C.
 - D. MASONRY REINFORCING SHALL BE AS SHOWN ON THE DRAWINGS.
 - E. ANCHORAGE TO COLUMNS, BEAMS AND SIMILAR STRUCTURAL MEMBERS SHALL BE AS SHOWN ON THE DRAWING.
 - F. AT THE COMPLETION OF WORK ALL HOLES IN JOINTS SHALL BE FILLED AND TOOLED. WALLS SHALL BE DRY BRUSHED AT THE END OF EACH DAY, LEFT CLEAN AND FREE OF MORTAR SPOTS.
 - G. UNITS SHALL BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS.
- 2.0 MORTAR — MATERIALS
- A. PORTLAND CEMENT: ASTM C150, TYPE I
 - B. MASONRY: ASTM C91, TYPE II
 - C. LIME: ASTM C207, TYPE S
 - D. SAND: ASTM C144
 - E. WATER: DRINKABLE, FROM PUBLIC SOURCE
- 3.0 MORTAR — MIXES
- A. USE TYPE S MORTAR (1800 PSI) FOR ALL CLAY OR CONCRETE UNIT MASONRY WORK.
- 4.0 CONCRETE UNIT MASONRY — MATERIALS
- A. HOLLOW NON-BEARING: ASTM C129
- 5.0 MASONRY ACCESSORIES — MATERIALS
- A. JOINT REINFORCEMENT: MIN. 9 GAUGE WIRE (GALV.)
 - B. ANCHORS, TILES & ACCESSORIES: ASTM A82
- 6.0 ALL BOND BEAMS AND FILLED CELLS SHALL BE FILLED WITH 3000 PSI PEA GRAVEL CONCRETE



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| 0 ISSUED FOR CONSTRUCTION | | TOB | 4/21/03 | DJM |
| REV | DESCRIPTION | BY | DATE | APPROVAL |
| THIS DRAWING IS THE PROPERTY OF PENTA ENG. THE INFORMATION CONTAINED HEREON MAY NOT BE USED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE OWNER. | | PREPARED BY: PENTA ENGINEERING, P.A. 7000 NORTH POINT BLVD. WINSTON-SALEM, NC 27106 | | |
| SCALE 1" = 1'-0" | | DATE 4/2/03 | | |
| DESIGNED BY | JFM | 4/2/03 | | |
| DRAWN BY | TOB | 4/2/03 | | |
| CHECKED BY | JFM | 4/9/03 | | |
| APPROVAL | DJM | 4/16/03 | | |
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