

STRUCTURAL NOTES FOR WET WELL SHOWN ON DRAWING C-709

SPECIFICATIONS

I. CODES AND STANDARDS

- A. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE *INTERNATIONAL BUILDING CODE-NEW JERSEY EDITION*, AND WITH THE *NUDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION* AS MODIFIED BY SUPPLEMENTARY SPECIFICATIONS.
- B. WHERE MORE STRINGENT, THE LATEST EDITION OF THE FOLLOWING CODES SHALL APPLY TO WORK:
- "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318.
 - "STANDARD PRACTICE FOR SELECTING PROPORTIONS FOR NORMAL, HEAVYWEIGHT AND MASS CONCRETE", ACI 211.1.
 - "RECOMMENDED PRACTICE FOR EVALUATION OF STRENGTH TEST RESULTS OF CONCRETE", ACI 214.
 - "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING", ACI 301.
 - "RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE", ACI 304.
 - "PLACING CONCRETE BY PUMPING METHODS", ACI 304.2R.
 - "HOT WEATHER CONCRETING", ACI 305R.
 - "COLD WEATHER CONCRETING", ACI 306R.
 - "STANDARD PRACTICE FOR CURING CONCRETE", ACI 308.
 - "STANDARD PRACTICE FOR CONSOLIDATION OF CONCRETE", ACI 309.
 - "ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES", ACI 350R.
 - "BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES", ACI 530.

C. REFERENCE DOCUMENTS:

- ACI DETAILING MANUAL -- 1988, SP-66 (INCLUDES ACI 315-80 AND ACI 315R-80).
- MANUAL OF STANDARD PRACTICE, CONCRETE REINFORCING STEEL INSTITUTE.
- STANDARD TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS, ACI 117.
- RECOMMENDED PRACTICE FOR CONCRETE FORMWORK, ACI 347 WITH THE SPECIFIC DELETION OF REFERENCE TO TOLERANCES WHERE IN CONFLICT WITH THIS SPECIFICATION. TOLERANCES GIVEN IN ACI 117 SHALL APPLY TO THE WORK.
- NUDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2007.

II. GENERAL

- A. THIS PROJECT HAS BEEN DESIGNED FOR THE WEIGHTS OF MATERIALS INDICATED IN THE DESIGN DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING, SHORING, ETC.
- B. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY STRUCTURAL ELEVATIONS AND DIMENSIONS WITH EXISTING CONDITIONS AND WITH OTHER DRAWINGS, COORDINATE LOCATION OF SLEEVES AND OPENINGS THROUGH THE STRUCTURE, SLAB DEPRESSIONS, FLOOR DRAINS, INSERTS, AND OTHER RELATED ITEMS.
- C. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CORRECTNESS OF DIMENSIONS OR QUANTITIES AND FOR THE FITTING TO OTHER WORK; FOR WORK TO BE CONFIRMED AND CORRELATED AT THE SITE; FOR INFORMATION PERTAINING TO THE FABRICATION PROCEDURE OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION; AND FOR THE COORDINATION OF STRUCTURAL WORK WITH THE WORK OF ALL OTHER TRADES. THE VERIFICATION OF THE PHYSICAL INTERRELATIONSHIPS OF ELEMENTS OF THE WORK FROM PLANS AND SPECIFICATIONS AND IN THE FIELD IS THE CONTRACTOR'S SOLE RESPONSIBILITY. REVIEW OF CONTRACTOR'S SUBMISSIONS DOES NOT RELIEVE CONTRACTOR FROM THESE RESPONSIBILITIES.
- D. SEE PROCESS, ARCHITECTURAL AND MECHANICAL DRAWINGS FOR DETAILS AND LOCATION OF OPENINGS OR RECESSES IN WALLS AND SLABS AND OTHER DIMENSIONS NOT SHOWN IN STRUCTURAL DRAWINGS.
- SEE PROCESS, MECHANICAL AND ELECTRICAL DRAWINGS FOR INFORMATION REGARDING SIZE AND LOCATION OF OPENINGS FOR DUCTS, PIPES, CONDUITS, MACHINE PADS, AND THE LIKE.
- E. PROPOSED OPENINGS OR RECESSES IN THE STRUCTURE WHICH ARE NOT SHOWN IN THE STRUCTURAL DRAWINGS, EITHER DIRECTLY OR BY TYPICAL DETAIL, SHALL BE SUBMITTED FOR ACCEPTANCE. ALL CONCRETE MASONRY UNITS CONTAINING MASONRY ANCHORS, DOWELS, REINFORCING STEEL AND THE LIKE SHALL BE FILLED SOLID WITH GROUT.

III. REINFORCED CONCRETE

- A. UNLESS OTHERWISE NOTED:
- ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
 - WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- B. PROVIDE CONCRETE WITH THE FOLLOWING PROPERTIES IN THE LOCATIONS INDICATED:

f'c	COARSE AGGREGATE	LOCATIONS
5,000 PSI	NORMAL WEIGHT (SUPER PLASTICIZED)	ALL CONCRETE UNLESS NOTED OTHERWISE
4,000 PSI	NORMAL WEIGHT	PUMP STATION FOUNDATION AND SLABS

- C. SUPERPLASTICIZED CONCRETE: PREPARE WITH A HIGH-RANGE, WATER-REDUCING ADMIXTURE (HRWR). CONTRACTOR'S MIX DESIGN SHALL INCLUDE ALSO WRITTEN DESCRIPTIONS OF CONTRACTOR'S METHODS FOR MIXING, PLACING AND CONVEYING SUCH CONCRETE. HRWR MIXES SHALL BE PREPARED TO PROVIDE CONCRETE WITH 9-INCH MAXIMUM SLUMP WHILE ADHERING TO THE WATER CEMENT RATIO MAXIMUM SPECIFIED. HRWR MIXES SHALL ARRIVE AT THE JOB SITE AT 3 INCHES MINIMUM SLUMP, BE VERIFIED, THEN HIGH RANGE WATER REDUCING ADMIXTURE ADDED TO INCREASE SLUMP TO AN ACCEPTABLE LEVEL.
- D. SPLICING OF REINFORCEMENT IS PERMITTED ONLY AT LOCATIONS SHOWN IN THE CONTRACT DRAWINGS OR AS ACCEPTED BY THE ENGINEER. UNLESS OTHERWISE SHOWN OR NOTED REINFORCING STEEL SHALL BE SPLICED TO DEVELOP ITS FULL TENSILE CAPACITY IN ACCORDANCE WITH ACI 350.
- E. REINFORCING BAR DEVELOPMENT LENGTHS SHALL BE IN ACCORDANCE WITH ACI-350 UNLESS NOTED OTHERWISE.
- F. DETAILING OF REINFORCING STEEL SHALL CONFORM TO ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315).
- G. MINIMUM CONCRETE COVER FOR REINFORCEMENT (SUBJECT TO TOLERANCES G. PERMITTED BY CODE) SHALL BE AS GIVEN IN PARAGRAPH 7.7.1 OF ACI 318, UNLESS OTHERWISE INDICATED.
- H. ALL WALL CONSTRUCTION SHALL BE CAST MONOLITHICALLY H. WITHOUT HORIZONTAL CONSTRUCTION JOINTS, UNLESS SHOWN IN THE CONTRACT DRAWINGS.
- I. LOCATION OF ALL CONSTRUCTION JOINTS ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, CONFORMANCE WITH ACI 350, AND ACCEPTANCE OF THE ENGINEER.
- J. WATERSTOPS: EXTRUDED, VIRGIN POLYVINYL CHLORIDE RESINS CONFORMING TO U.S. CORPS OF ENGINEERS SPECIFICATION CRD-C 572. PROVIDE A TENSILE STRENGTH OF 2,250 PSI, AN ULTIMATE ELONGATION OF NOT LESS THAN 400 PERCENT, AND A SHORE HARDNESS OF 76 + 3, ALL AS PROVIDED BY CRD-C572.
- FOR CONSTRUCTION JOINTS: 6-INCH WIDE, FLAT RIBBED, 3/8" THICK, ACCEPTED MANUFACTURERS:
 - A.C. HORN INC.
 - VINYLEX CORP.
 - SAF-T-GRIIP SPECIALTIES CORP.
 - OTHER ACCEPTED BY ENGINEER.
 - WATERSTOP MANUFACTURER SHALL HAVE A FIELD REPRESENTATIVE AVAILABLE TO VISIT THE SITE AND INSTRUCT CONTRACTOR'S FORCES IN THE PROPER METHODS OF SPLICING AND INSTALLING HIS MATERIAL.
- K. SPLICING OF PVC WATERSTOPS: SPLICE WATERSTOPS TO FORM A CONTINUOUS WATERTIGHT SEAL. AT JUNCTIONS, USE SPECIAL SHOP FABRICATED ELLS, TEES, AND CROSSES. THERMOSTATICALLY CONTROLLED ELECTRIC SPLICERS SHALL BE USED FOR ALL FIELD SPLICES, FOLLOWING PROCEDURES IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS. TEST ALL FIELD SPLICES FOR WATER TIGHTNESS WITH SPARK TESTER IN ACCORD WITH MANUFACTURER'S PRINTED INSTRUCTIONS. EXTEND WATERSTOPS AT LEAST 6 INCHES BEYOND END OF CONCRETE PLACEMENT IN ORDER TO PROVIDE SPLICE LENGTH FOR SUBSEQUENT PLACEMENT. TAKE CARE THAT BOTH SIDES OF WATERSTOP ARE PROPERLY ALIGNED AND EMBEDDED IN CONCRETE AND HELD FIRMLY IN PLACE DURING CONCRETE PLACEMENT. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SECURELY FASTEN WATERSTOPS TO ADJACENT REINFORCING STEEL WITH SUITABLE WIRE AND HOG RINGS 12 INCHES ON CENTER MINIMUM. DO NOT PUNCTURE WATERSTOP EXCEPT BETWEEN THE LAST RIB AND THE END.
- L. NON-SHRINK GROUT SHALL BE PREMIXED AND BAGGED BY MANUFACTURER. ACCEPTABLE NON-SHRINK GROUT: MASTERFLOW 713 BY MASTER BUILDERS OR OTHER ACCEPTED BY ENGINEER.
- M. FORM TIES FOR LIQUID RETAINING CONCRETE: PROVIDE WATER RESISTANT TYPE FORM TIES WITH SWAGED METAL WASHERS AS MANUFACTURED BY RICHMOND.
- N. SPLICES OF WWF, AT ALL SPLICED EDGES, SHALL BE SUCH THAT THE OVERLAP N. MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF THE CROSS WIRE PLUS 2 INCHES, NOR LESS THAN 8 INCHES, AND IN ACCORDANCE WITH PARAGRAPH 12.18 OF ACI-318.
- O. WELDING OF REINFORCING BARS IS PROHIBITED.
- P. BAR SUPPORTS SHALL BE ALL-GALVANIZED METAL WITH PLASTIC TIPS.
- Q. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE TO PREVENT DISPLACEMENT BY CONSTRUCTION TRAFFIC OR CONCRETE. TIE WIRE SHALL BE 16 GAUGE CONFORMING TO ASTM A82.

IV. FOUNDATIONS

- A. DEWATERING SHALL BE PROVIDED AS REQUIRED SO THAT EXCAVATION, CONCRETE WORK AND BACKFILLING ARE PERFORMED IN THE DRY.
- B. TEMPORARY BRACING, SHEETING AND SHORING, ETC. SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE DESIGNED, FABRICATED AND INSTALLED IN ACCORDANCE WITH ACCEPTED DRAWINGS PREPARED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW JERSEY.

V. MISCELLANEOUS MATERIAL

- A. DRILLED-IN ANCHORS INTO WORK SHALL BE STAINLESS STEEL EXPANSION TYPE UNLESS NOTED OTHERWISE. ACCEPTABLE ANCHORS: KWIK BOLT II BY HILTI FASTENING SYSTEMS, TULSA, OKLAHOMA; RED HEAD WEDGE ANCHORS BY ITT PHILLIPS DRILL DIVISION, OR OTHER ACCEPTED BY ENGINEER.
- B. ALL ALUMINUM ALLOY MEMBERS, FABRICATION THEREOF, AND ERECTION OF, SHALL CONFORM TO *SPECIFICATIONS FOR ALUMINUM STRUCTURES* BY ALUMINUM ASSOCIATION, THIRD EDITION, UNLESS NOTED OTHERWISE.
- C. ALUMINUM ALLOY FOR ALL ROLLED SECTIONS, PLATES AND ANGLES SHALL BE ALLOY 6061-T6 UNLESS OTHERWISE SPECIFIED.
- D. ALUMINUM ALLOY FOR PIPE SHALL BE ALLOY 6063-T832 UNLESS OTHERWISE SPECIFIED.
- E. ALL FASTENING BETWEEN ALUMINUM MEMBERS AND DISSIMILAR METALS SHALL BE MADE WITH STAINLESS STEEL BOLTS UNLESS OTHERWISE NOTED. ALL CONTACT SURFACES OF ALL MEMBERS SHALL BE PAINTED WITH ZINC CHROMATE PRIMER.
- F. ALL ALUMINUM SURFACES TO BE PLACED IN CONTACT WITH WOOD, CONCRETE, OR MASONRY SHALL BE GIVEN A HEAVY COAT OF AN ALKALI RESISTANT BITUMASTIC PAINT.
- G. ALL STRUCTURAL STEEL WORK, INCLUDING DETAILING, FABRICATION AND ERECTION, SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE *AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION*, EXCEPT AS HEREIN MODIFIED BY THE CONTRACT DRAWINGS AND SPECIFICATIONS.
- H. EPOXY ANCHORS INTO CONCRETE SHALL BE HILTI FASTENING SYSTEMS, TULSA, OK; RED HEAD EPOXY ANCHORS BY ITT PHILLIPS DRILL DIVISION, OR OTHER AS APPROVED BY THE ENGINEER, INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS WRITTEN SPECIFICATIONS.

VI. SUBMITTALS

- A. GENERAL: SUBMIT SAMPLES, SHOP DRAWINGS, PRODUCT DATA, TEST REPORTS AND DATA, MANUFACTURER'S NAMES, CERTIFICATIONS AND PROCEDURES FOR ALL SPECIFIED ITEMS AND AS REQUESTED. SHOP DRAWINGS SHALL CONFORM TO THE BEST STANDARDS OF THE CONSTRUCTION INDUSTRY, AND SHALL BE PREPARED BY AND UNDER THE SUPERVISION OF COMPETENT ENGINEERING PERSONNEL.
- B. REINFORCED CONCRETE:
- SUBMIT REINFORCING STEEL SHOP DRAWINGS INCLUDING APPLICABLE BAR LISTS AND BENDING SCHEDULES. INDICATE ALL LAP LENGTHS AND LOCATIONS AND CLEAR COVER ON REINFORCING STEEL IN THE PLACING PLANS.
 - SUBMIT CERTIFIED MILL TEST REPORTS FOR CEMENT AND STEEL REINFORCING UPON REQUEST.
 - SUBMIT CONCRETE MIX DESIGN.
 - SUBMIT CATALOG CUTS FOR TIES, WATERSTOPS, VAPOR BARRIER, EPOXY ANCHORS AND EXPANSION ANCHORS.
- C. STRUCTURAL STEEL / ALUMINUM:
- INCLUDE ALL STRUCTURAL STEEL BENDS, STAIRS, HANDRAILS, GRATING AND MISCELLANEOUS SUPPORTS.
 - INCLUDE DETAILS FOR ALL CONNECTIONS.
 - SUBMIT CATALOG CUT SHEET FOR EPOXY AND EXPANSION ANCHORS.
- D. PRECAST CONCRETE:
- SUBMIT REINFORCING STEEL SHOP DRAWINGS, AND CALCULATIONS. SEE ADDITIONAL NOTES ON SHEET C-709.

DESIGN LOAD CRITERIA

SNOW LOADS:

Pg = 25 PSF
Pf = 20 PSF
Ce = 0.9
Ct = 1.0

TOP SLAB DESIGN

HS-25 LOADING
BASIC WIND SPEED = 110 MPH
SEISMIC SOIL CLASS D

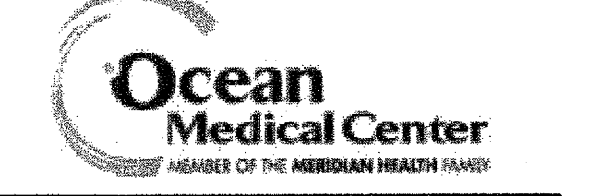
ROOF TRUSS DESIGN:

ROOF DL = 12 PSF
BOTTOM CHORD DL = 10 PSF
ROOF LL = 25 PSF

EXPOSURE CATEGORY B
CLASSIFICATION OF BUILDING FOR IMPORTANCE FACTOR: CAT II
I = 1.25; I = 1.1; I = 1.5
SEISMIC SNOW WIND



Dewberry Engineers Inc.
(Formerly Dewberry Associates, Inc.)
600 PARSONS ROAD
SUITE 301
PARSONS, NJ 07054
973.738.9400 Phone
973.738.9710 Fax
Certificate of Authorization #240328047000



AMENDED PRELIMINARY AND FINAL
SITE PLAN FOR
OCEAN MEDICAL CENTER

BLOCK 1170, LOTS 18, 18.02
425 JACK MARTIN BOULEVARD
BRICK TOWNSHIP, OCEAN COUNTY, NEW JERSEY

SEAL

Christopher M. Cirrotti, P.E.
New Jersey License No. 24GE03853800
KEY PLAN

SCALE

NONE

No.	DATE	BY	Description
8	04.17.12	SLP	TOWNSHIP SIGN OFF
7	03.15.12	SLP	PERMIT FOR CONSTRUCTION
6	02.20.12	SLP	LOCAL REVIEW COMMENTS
5	02.15.12	SLP	PER NPA & STMA COMMENTS
4	01.28.12	SLP	PER DEP REVIEW
3	12.21.11	SLP	TOWNSHIP COMMENTS
2	10.28.11	SLP	LOCAL SUBMISSION
1	09.02.11	SLP	TOWNSHIP COMPLIANCE

No.	DATE	BY	Description
REVISIONS			
DRAWN BY SLP			
APPROVED BY CC			
CHECKED BY JM			
DATE 07.29.11			

TITLE

CONSTRUCTION
DETAILS
-10-

PROJECT NO. 50045193

C-710

SHEET NO.

THIS SITE FOR WHICH AMENDED FINAL SITE PLAN APPROVAL WAS GRANTED BY THE BRICK TOWNSHIP PLANNING BOARD VIA APPROVAL RESOLUTION 6-19-12, SHALL BE MAINTAINED AS ORIGINALLY APPROVED.

APPROVED BY
BRICK TOWNSHIP PLANNING BOARD

DATE 5/6/12
ATTEST SECRETARY
DATE 5/6/12 BOARD ENGINEER