STATEMENT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS

THIS STATEMENT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS IS SUBMITTED AS A CONDITION FOR BUILDING PERMIT ISSUANCE IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE. IT INCLUDES A SCHEDULE OF SPECIAL INSPECTION SERVICES APPLICABLE TO THIS PROJECT AS WELL AS THE NAME OF THE STRUCTURAL SPECIAL INSPECTION COORDINATOR AND THE IDENTITY OF THE APPROVED AGENCIES TO BE RETAINED FOR CONDUCTING THESE TESTS AND INSPECTIONS.

PROJECT:	OCEAN AVENUE ELEMENTARY SCHOOL
LOCATION:	PORTLAND, MAINE
OWNER:	PORTLAND PUBLIC SCHOOLS
BUILDING OFFICIAL:	(CODE ENFORCEMENT OFFICER)
DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:	JOHN P. POULIN, P.E. (STRUCTURAL ENGINEER)
SEISMIC RESISTANCE:	SEISMIC DESIGN CATEGORY "B" < "C, D, E, F"
WIND RESISTANCE:	EXPOSURE "B," BASIC WIND SPEED 100 MPH < 120 MPH

THE SPECIAL INSPECTION COORDINATOR SHALL KEEP RECORDS OF ALL TESTS AND INSPECTIONS AND SHALL FURNISH REPORTS TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. NONCOMPLIANT WORK (DEFICIENCIES) SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF DEFICIENCIES ARE NOT CORRECTED, IT SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.

INTERIM TEST AND INSPECTION REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ON A MONTHLY BASIS.

A FINAL REPORT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS DOCUMENTING COMPLETION OF ALL REQUIRED TEST, INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES DETECTED SHALL BE SUBMITTED PRIOR TO ISSUANCE OF A CERTIFICATE OF USE AND OCCUPANCY.

PREPARED BY:	JOHN P. POULIN, P.E.	DESIGN PROFESSIONAL SEAL:
SIGNATURE	DATE: 03/18/09	STATE OF MAINE · JOHN P. POULIN · No.11216 · PROFESSIONAL ENGINEER

OWNER'S AUTHORIZATION:		BUILDING CODE OFFICIAL'S ACCEPTANCE:	
SIGNATURE	DATE	SIGNATURE	DATE
PRINT NAME:		PRINT NAME:	

CONTRACTOR'S RESPONSIBILITIES

STRUCTURAL TESTS AND SPECIAL INSPECTIONS DO NOT RELIEVE THE CONTRACTOR OF ITS RESPONSIBILITIES AND OBLIGATIONS FOR QUALITY CONTROL OF THE WORK, ITS OBLIGATIONS FOR SUPERVISING THE WORK, FOR ANY DESIGN WORK THAT IS INCLUDED IN ITS SCOPE OF SERVICES AND FOR FULL COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. FURTHERMORE, THE DETECTION OF, OR THE FAILURE TO DETECT DEFICIENCIES IN THE WORK DURING TESTING AND INSPECTION CONDUCTED PURSUANT TO THIS PROGRAM SHALL NOT RELIEVE THE CONTRACTOR OF ITS RESPONSIBILITY TO CORRECT ALL DEFICIENCIES OR DEFECTS, WHETHER DETECTED OR UNDETECTED, IN ALL PARTS OF THE WORK, AND TO OTHERWISE COMPLY WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.

JOB SITE SAFETY IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND NOT PART OF THESE TESTS AND INSPECTIONS. MATERIALS AND ACTIVITIES TO BE TESTED AND INSPECTED DO NOT INCLUDE THE CONTRACTOR'S EQUIPMENT OR THE MEANS, METHODS AND PROCEDURES USED TO ERECT OR INSTALL THE MATERIALS OR ASSEMBLIES LISTED.

IN ACCORDANCE WITH SECTION 1706 OF THE INTERNATIONAL BUILDING CODE, EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND-FORCE OR SEISMIC-FORCE RESISTING SYSTEM OR COMPONENT SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL, OWNER AND DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT.

WHERE A STRUCTURAL COMPONENT OR SYSTEM IS SUBJECT TO TESTS AND INSPECTIONS AS DETERMINED BY THE BUILDING OFFICIAL, AND THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR THE PROJECT HAS NOT BEEN RETAINED TO DESIGN OR TO PREPARE A PERFORMANCE SPECIFICATION FOR SAID COMPONENT OR SYSTEM, THE CONTRACTOR SHALL RETAIN A LICENSED PROFESSIONAL ENGINEER TO DESIGN SAID COMPONENT OR SYSTEM AND TO PROVIDE ANY REQUIRED TESTS AND INSPECTIONS.

THE CONTRACTOR SHALL PROVIDE FREE AND SAFE ACCESS TO THE WORK FOR ALL INDIVIDUALS WHO ARE PERFORMING THE TESTS OR INSPECTIONS. THE CONTRACTOR SHALL PROVIDE ALL LADDERS, SCAFFOLDING, STAGING, AND UP-TO-DATE SAFETY EQUIPMENT, ALL IN GOOD AND SAFE WORKING ORDER, AND QUALIFIED PERSONNEL TO HANDLE AND ERECT THEM, AS MAY BE REQUIRED FOR SAFE ACCESS.

THE CONTRACTOR SHALL GIVE REASONABLE NOTICE TO THOSE PERFORMING INSPECTIONS AND TESTS OF WHEN THE VARIOUS PARTS OF THE WORK WILL BE READY FOR TESTING AND INSPECTION. THE CONTRACTOR SHALL OBTAIN INSTRUCTIONS FROM THE INSPECTION COORDINATOR AS TO WHAT IS REASONABLE NOTICE FOR THE VARIOUS ASPECTS OF THE WORK (TYPICALLY 48 HOURS), WHO IS TO BE NOTIFIED AND HOW.

THE OWNER RESERVES THE RIGHT TO BACK CHARGE THE CONTRACTOR FOR ADDITIONAL EXPENSE INCURRED BY THE OWNER FOR THE SERVICES OF THE INSPECTORS WHEN WORK IS NOT REASONABLY READY FOR INSPECTION IN ACCORDANCE WITH THE NOTICE PROVIDED BY THE CONTRACTOR. LIKEWISE, IF WORK IS REPEATEDLY FOUND DEFICIENT, COSTS FOR A THIRD INSPECTION AND BEYOND MAY BE REIMBURSED FROM THE CONTRACTOR.

SCHEDULE OF TESTING AND INSPECTION AGENCIES

	SPECIAL INSPECTION AGENCIES	FIRM	ADDRESS, TELEPHONE
1	SPECIAL INSPECTION COORDINATOR	WBRC ARCHITECTS ENGINEERS	44 CENTRAL STREET BANGOR, MAINE 04401 V. (207) 947-4511 F. (207) 947-4628
2	BUILDING INSPECTOR	WBRC ARCHITECTS ENGINEERS	44 CENTRAL STREET BANGOR, MAINE 04401 V. (207) 947-4511 F. (207) 947-4628
3	EARTHWORK INSPECTOR	S.W. COLE, INC.	286 PORTLAND ROAD GRAY, MAINE 04039 V. (207) 657-2866 F. (207) 657-2840
4	CONCRETE / MASONRY TESTING LABORATORY	TO BE DETERMINED	
5	STRUCTURAL STEEL WELD TESTING AGENCY	TO BE DETERMINED	
6	COLD FORMED METAL FRAMING INSPECTOR	TO BE DETERMINED, INCLUDED IN THE CONTRACTOR'S SCOPE OF SERVICES	

NOTE: UNLESS NOTED OTHERWISE, THE INSPECTORS AND TESTING AGENCIES SHALL BE ENGAGED BY THE OWNER, AND NOT BY THE CONTRACTOR WHOSE WORK IS TO BE INSPECTED OR TESTED. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE BUILDING OFFICIAL PRIOR TO COMMENCING WORK.

QUALIFICATIONS OF INSPECTORS AND TESTING TECHNICIANS

THE CREDENTIALS AND QUALIFICATIONS OF ALL INDIVIDUALS PERFORMING SPECIAL INSPECTION AND TESTING ACTIVITIES ARE SUBJECT TO THE APPROVAL OF THE BUILDING OFFICIAL AND THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. CREDENTIALS SHALL BE PROVIDED FOR REVIEW, APPROVAL AND RECORD.

KEY FOR MINIMUM QUALIFICATIONS OF INSPECTION AGENTS: WHEN THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE DEEMS IT APPROPRIATE THAT THE INDIVIDUAL PERFORMING A STIPULATED TEST OR INSPECTION HAVE A SPECIFIC CERTIFICATION, LICENSE OR EXPERIENCE LEVEL AS INDICATED BELOW, SUCH DESIGNATION SHALL APPEAR WITH THE AGENCY NAME ON THE SCHEDULE.

ENGINEER	
PE/SE	STRUCTURAL ENGINEER – A LICENSED SE OR PE SPECIALIZING IN THE DESIGN OF BUILDING STRUCTURES
PE/GE	GEOTECHNICAL ENGINEER – A LICENSED PE SPECIALIZING IN SOIL MECHANICS AND FOUNDATIONS
EIT	ENGINEER-IN-TRAINING – A GRADUATE ENGINEER WHO HAS PASSED THE FUNDAMENTALS OF ENGINEERING EXAMINATION
EXPERIENCED TESTING TECHNICIAN	
ETT	EXPERIENCED TESTING TECHNICIAN - AN EXPERIENCED TESTING TECHNICIAN WITH A MINIMUM 5 YEARS EXPERIENCE WITH THE STIPULATED TEST.
AMERICAN CONCRETE INSTITUTE (ACI) CERTIFICATION	
ACI-CFTT	CONCRETE FIELD TESTING TECHNICIAN – GRADE 1
ACI-CCI	CONCRETE CONSTRUCTION INSPECTOR
ACI-LTT	LABORATORY TESTING TECHNICIAN – GRADE 1&2
ACI-STT	STRENGTH TESTING TECHNICIAN
AMERICAN WELDING SOCIETY (AWS) CERTIFICATION	
AWS-CWI	CERTIFIED WELDING INSPECTOR
AWS/AISC-SSI	CERTIFIED STRUCTURAL STEEL INSPECTOR
INTERNATIONAL CODE COUNCIL (ICC) CERTIFICATION	
ICC-SMSI	STRUCTURAL MASONRY SPECIAL INSPECTOR
ICC-SWSI	STRUCTURAL STEEL AND WELDING SPECIAL INSPECTOR
ICC-RCSI	REINFORCED CONCRETE SPECIAL INSPECTOR
NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET)	
NICET-CT	CONCRETE TECHNICIAN – LEVELS I, II, III & IV
NICET-ST	SOILS TECHNICIAN - LEVELS I, II, III & IV
NICET-GET	GEOTECHNICAL ENGINEERING TECHNICIAN - LEVELS I, II, III & IV

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

	VERIFICATION AND INSPECTION TASK	FREQUENCY	AGENT	QUALIF.
1	INSPECTION OF REINFORCING STEEL INCLUDING SIZE, SPACING, COVER, LAPS. VERIFY THAT BARS ARE FREE OF FORM OIL OR OTHER DELETERIOUS MATERIALS. VERIFY THAT BARS ARE ADEQUATELY TIED AND SUPPORTED ON CHAIRS OR BOLSTERS	PERIODIC	WBRC A/E	PE/SE, EIT
2	INSPECTION OF EMBEDDED STRUCTURAL STEEL ITEMS, SUCH AS COLUMN ANCHOR RODS, PRIOR TO AND DURING CONCRETE PLACEMENT. INSPECT SIZE, POSITIONING, EMBEDMENT AND CONCRETE CONSOLIDATION AROUND ANCHORS.	PERIODIC	WBRC A/E	PE/SE, EIT
3	REVIEW BATCH TICKETS AND VERIFY COMPLIANCE WITH APPROVED MIX DESIGN. VERIFY THAT WATER ADDED AT THE SITE DOES NOT EXCEED THAT ALLOWED BY THE MIX DESIGN.	CONTINUOUS	CONCRETE TESTING LAB	ACI-CFTT, ACI-STT
4	AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, VERIFY SLUMP, AIR CONTENT AND TEMPERATURE.	CONTINUOUS	CONCRETE TESTING LAB	ACI-CFTT, ACI-STT
5	INSPECTION OF CONCRETE FOR PROPER PLACEMENT TECHNIQUES, INCLUDING HOT AND COLD WEATHER CONCRETING. VERIFY THAT CONVEYANCE AND DEPOSITING AVOIDS SEGREGATION OR CONTAMINATION AND ACHIEVES PROPER CONSOLIDATION.	CONTINUOUS	CONCRETE TESTING LAB	ACI-CFTT, ACI-STT
6	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	PERIODIC	WBRC A/E	PE/SE, EIT
7	INSPECT FORMWORK GEOMETRY, FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	PERIODIC	WBRC A/E	PE/SE, EIT
8	INSPECT THE TIMELY INSTALLATION OF SLAB CONTROL JOINTS AND LOCATION OF THICKENED SLABS.	PERIODIC	WBRC A/E	PE/SE, EIT

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

	VERIFICATION AND INSPECTION TASK	FREQUENCY	AGENT	QUALIF.
1	REVIEW SHOP FABRICATION CERTIFICATION AND QUALITY CONTROL PROCEDURES.	SUBMITTAL	WBRC A/E	PE/SE
2	VERIFY MATERIALS: REVIEW CERTIFIED MILL TEST REPORTS AND IDENTIFICATION MARKINGS ON WIDE-FLANGE SHAPES, HIGH-STRENGTH BOLTS, NUTS AND WELDING ELECTRODES.	SUBMITTAL	WBRC A/E	PE/SE
3	INSPECT INSTALLATION, FIELD WELDING AND/OR BOLTED AND BRIDGING OF OPEN WEB JOISTS.	PERIODIC	WBRC A/E	PE/SE
4	INSPECT INSTALLATION AND TIGHTENING OF HIGH-STRENGTH BOLTS IN BEARING CONNECTIONS.	PERIODIC	STEEL TESTING AGENCY	AWS/AISC-SSI
5	INSPECTION OF BOLTS IN SLIP-CRITICAL CONNECTIONS.	CONTINUOUS	STEEL TESTING AGENCY	AWS/AISC-SSI
6	VISUALLY INSPECT ALL WELDS. INSPECT PRE-HEAT, POST-HEAT AND SURFACE PREPARATION BETWEEN PASSES. VERIFY SIZE AND LENGTH OF FILLET WELDS.	PERIODIC	STEEL TESTING AGENCY	AWS-CWI
7	ULTRASONIC TESTING OF ALL FULL-PENETRATION WELDS.	PERIODIC	STEEL TESTING AGENCY	AWS-CWI
8	INSPECT SIZE, NUMBER, POSITIONING AND WELDING OF SHEAR CONNECTORS. INSPECT FOR FULL 360 DEGREE FLASH. RING TEST WITH A 3 LB HAMMER; BEND TEST ALL QUESTIONABLE STUDS TO 15 DEGREES.	CONTINUOUS	WBRC A/E	PE/SE, EIT
9	INSPECT STEEL FRAME FOR COMPLIANCE WITH STRUCTURAL DRAWINGS, INCLUDING BRACING, MEMBER CONFIGURATION AND CONNECTION DETAILS.	PERIODIC	WBRC A/E	PE/SE, EIT
10	INSPECT GAGE, TYPE, PLACEMENT, WELDING AND SIDE-LAP FASTENING OF METAL ROOF AND FLOOR DECK.	PERIODIC	WBRC A/E	PE/SE, EIT

REQUIRED VERIFICATION AND LEVEL 1 INSPECTION OF MASONRY CONSTRUCTION

	VERIFICATION AND INSPECTION TASK	FREQUENCY	AGENT	QUALIF.
1	VERIFY STRENGTH: SAMPLE, PREPARE AND TEST GROUT SPECIMENS, MORTAR SPECIMENS, AND MASONRY PRISMS.	CONTINUOUS	MASONRY TESTING LAB	ETT
2	INSPECT PROPORTIONING, MIXING AND RETEMPERING OF MORTAR AND GROUT.	CONTINUOUS	MASONRY TESTING LAB	ETT
3	VERIFY MASONRY INSTALLATION SPECIFICATIONS. INSPECT SIZE, LAYOUT, BONDING AND PLACEMENT OF MASONRY UNITS.	CONTINUOUS	MASONRY TESTING LAB	ETT
4	INSPECT CELLS PRIOR TO GROUTING AND VERIFY GROUTING PROCEDURES. INSPECT PLACEMENT AND CONSOLIDATION OF GROUT. INSPECT MASONRY CLEAN-OUTS FOR HIGH-LIFT GROUTING.	CONTINUOUS	MASONRY TESTING LAB	ETT
5	INSPECT CONSTRUCTION OF MORTAR JOINTS INCLUDING TOOLING AND FILLING OF HEAD JOINTS.	CONTINUOUS	MASONRY TESTING LAB	ETT
6	INSPECT ANCHORAGE OF MASONRY TO OTHER CONSTRUCTION, AND THE INSTALLATION OF EMBEDDED ITEMS.	PERIODIC	WBRC A/E	PE/SE, EIT
7	VERIFY CURING AND PROTECTION PROCEDURES. VERIFY PROTECTION FOR COLD AND HOT WEATHER PROCEDURES. VERIFY THAT WALL CAVITIES ARE PROTECTED AGAINST PRECIPITATION.	PERIODIC	WBRC A/E	PE/SE, EIT
8	INSPECT THE SIZE, QUANTITY, CONDITION AND PLACEMENT OF REINFORCING.	PERIODIC	WBRC A/E	PE/SE, EIT
		CONTINUOUS	MASONRY TESTING LAB	ETT

REQUIRED VERIFICATION AND INSPECTION OF SOILS

	VERIFICATION AND INSPECTION TASK	FREQUENCY	AGENT	QUALIF.
1	VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY AND ARE CONSISTENT WITH THE GEOTECHNICAL REPORT.	PERIODIC	SW COLE	PE/GE EIT, ETT
2	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED THE PROPER MATERIAL.	PERIODIC	SW COLE	PE/GE EIT, ETT
3	PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.	PERIODIC	SW COLE	PE/GE EIT, ETT
4	TEST AND VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	CONTINUOUS	SW COLE	PE/GE EIT, ETT
5	INSPECT REMOVAL OF UNSUITABLE MATERIAL AND PREPARATION OF SUBGRADE PRIOR TO PLACEMENT OF CONTROLLED FILL.	CONTINUOUS	SW COLE	PE/GE EIT, ETT
6	PROPER TO PLACEMENT OF CONTROLLED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	PERIODIC	SW COLE	PE/GE EIT, ETT
7	APPROVE SUBGRADE PRIOR TO FORMING FOOTINGS, PREPARING SLABS-ON-GRADE AND PLACING CONCRETE.	PERIODIC	SW COLE	PE/GE EIT, ETT

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STATE OF MAINE · JOHN P. POULIN · No.11216 · PROFESSIONAL ENGINEER

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PROJECT: OCEAN AVENUE ELEMENTARY SCHOOL
PORTLAND, ME

SHEET TITLE: STRUCTURAL TESTS AND SPECIAL INSPECTIONS

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A1	STRUCTURAL TESTS AND SPECIAL INSPECTIONS
NONE	

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