SCHEDULE OF SPECIAL INSPECTIONS

THE FOLLOWING IS A SUMMARY OF THE INSPECTIONS AND TESTING REQUIRED FOR THIS PROJECT. ADDITIONAL INFORMATION CAN BE FOUND IN SPECIFICATION SECTION (01410) 014533. THE CONSTRUCTION DIVISIONS WHICH REQUIRE SPECIAL INSPECTIONS ARE AS FOLLOWS:

- ■ SOILS AND FOUNDATIONS
- ■ CAST-IN-PLACE AND PRECAST CONCRETE
- □ MASONRY
- ■ STRUCTURAL STEEL
- □ COLD-FORMED METAL FRAMING
- □ WOOD FRAMING AND TRUSSES
- □ MASONRY VENEERS AND ARCHITECTURAL WALL PANELS
- □ SPRAY FIRE-RESISTANT MATERIAL
- □ EXTERIOR INSULATION AND FINISH SYSTEM
- □ SMOKE CONTROL
- □ MECHANICAL SYSTEMS
- □ SPECIAL CASES

INSPECTION AGENTS	FIRM	ADDRESS/PHONE
1. SPECIAL INSPECTOR _____P.E.		
2. GEOTECHNICAL ENGINEER/ INSPECTOR		
3. TESTING/INSPECTING AGENCY		
4. TESTING/INSPECTING AGENCY		

THE QUALIFICATIONS OF ALL PERSONNEL PERFORMING SPECIAL INSPECTION ACTIVITIES ARE SUBJECT TO THE APPROVAL OF THE CODE ENFORCEMENT OFFICIAL. THE CREDENTIALS OF INSPECTORS AND TESTING TECHNICIANS SHALL BE PROVIDED IF REQUESTED.

THE INSPECTION AND TESTING AGENT SHALL BE ENGAGED BY THE OWNER OR THE OWNER'S REPRESENTATIVE, NOT BY THE CONTRACTOR OR SUBCONTRACTOR PERFORMING THE WORK. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE CODE ENFORCEMENT OFFICIAL PRIOR TO COMMENCING WORK.

THE SPECIAL INSPECTOR SHALL BE A PROFESSIONAL ENGINEER EXPERIENCED IN THE DESIGN OF BUILDINGS AND REGISTERED IN THE STATE OF NEW YORK. MINIMUM QUALIFICATIONS OF THE TESTING AGENTS ARE INDICATED ON THE SCHEDULE.

KEY OF MINIMUM QUALIFICATIONS OF INSPECTION AGENTS (MQIA)	
PE	NEW YORK STATE REGISTERED PROFESSIONAL ENGINEER
RDP	NEW YORK STATE REGISTERED DESIGN PROFESSIONAL ENGINEER
EIT	ENGINEER IN TRAINING – INTERN ENGINEER
ACI–CCI	AMERICAN CONCRETE INSTITUTE CERTIFIED CONCRETE CONSTRUCTION INSPECTOR
ACI–CFTT	AMERICAN CONCRETE INSTITUTE CERTIFIED CONCRETE FIELD TESTING TECHNICIAN – GRADE 1
ICC–RCSI	ICC REINFORCED CONCRETE SPECIAL INSPECTOR
ICC–RCC	ICC REINFORCED CONCRETE CERTIFICATION
ICC–SMC	ICC STRUCTURAL MASONRY CERTIFICATION
ICC–SSWC	ICC STRUCTURAL STEEL AND WELDING CERTIFICATION
AWS–CWI	AMERICAN WELDING SOCIETY CERTIFIED WELDING INSPECTOR
ICC–SAFC	ICC SPRAY–APPLIED FIREPROOFING CERTIFICATION
ASNT	AMERICAN SOCIETY OF NON–DESTRUCTIVE TESTING – LEVEL II OR III
ICC–PCC	ICC PRESTRESSED CONCRETE CERTIFICATION

CATEGORY	MINIMUM QUALIFICATIONS
A. EXCAVATION AND FILLING VERIFICATION OF SOILS PILES AND DRILLED PIERS MODULAR RETAINING WALLS	1. CURRENT LEVEL II CERTIFICATION IN GEOTECHNICAL ENGINEERING TECHNOLOGY/CONSTRUCTION FROM THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET). 2. EIT OR PE WITH RELEVANT EXPERIENCE
B. REINFORCED CONCRETE	1. CURRENT ICC–RCSI OR ACI–CCI 2. ACI–CFTT 3. EIT OR PE WITH RELEVANT EXPERIENCE
C. PRESTRESSED CONCRETE	1. CURRENT ICC–RCC OR ICC–PCC 2. ACI–CFTT WITH ONE YEAR OF RELEVANT EXPERIENCE 3. EIT OR PE WITH RELEVANT EXPERIENCE 4. CURRENT POST–TENSIONING INSTITUTE (PTI) CERTIFICATION.
D. MASONRY	1. CURRENT ICC–SMC AND ONE YEAR RELEVANT EXPERIENCE 2. EIT OR PE WITH RELEVANT EXPERIENCE
E. WELDING	1. CURRENT AWS–CWI 2. CURRENT ICC–SSWC AND ONE YEAR OF RELEVANT EXPERIENCE 3. CURRENT LEVEL II ASNT 4. CURRENT LEVEL III ASNT, BUT ONLY IF ALSO LEVEL II
F. HIGH–STRENGTH BOLTING AND STEEL FRAME INSPECTION	1. CURRENT ICC–SSWC AND ONE YEAR RELEVANT EXPERIENCE 2. EIT OR PE WITH RELEVANT EXPERIENCE
G. INSPECTION OF FABRICATORS	1. PRECAST: CURRENT ICC–RCC AND ONE YEAR OF RELEVANT EXPERIENCE 2. BAR JOISTS: SEE WELDING REQUIREMENTS 3. METAL BUILDINGS: SEE WELDING REQUIREMENTS. 4. STRUCTURAL STEEL: SEE WELDING REQUIREMENTS.
H. COLD–FORMED METAL FRAMING	1. QUALIFIED PERSON WITH ONE YEAR OF RELEVANT EXPERIENCE 2. EIT OR PE WITH RELEVANT EXPERIENCE
I. NOT APPLICABLE	
J. EXTERIOR AND INTERIOR ARCHITECTURAL WALL PANELS	1. MASONRY VENEERS: SEE MASONRY QUALIFICATIONS. 2. EIT OR PE WITH RELEVANT EXPERIENCE
K. SPRAYED FIRE–RESISTANT MATERIALS	1. CURRENT ICC–SAFC AND ONE YEAR OF RELEVANT EXPERIENCE 2. EIT OR PE WITH RELEVANT EXPERIENCE
L. NOT APPLICABLE	
M. SMOKE CONTROL	1. RDP RESPONSIBLE FOR DESIGN
N. MECHANICAL SYSTEMS	1. RDP RESPONSIBLE FOR DESIGN
O. SEISMIC RESISTANCE	1. SEE APPLICABLE CATEGORIES IN THIS TABLE

SOILS AND FOUNDATIONS

VERIFICATION/INSPECTION	AGENT NO.	MQIA	CONT.	PERIODIC	REFERENCED STANDARD
1. VERIFY SITE PREPARATION IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL EVALUATION:					
A. IDENTIFY SOILS REQUIRING UNDERCUTTING AND REPLACING WHILE OBSERVING PROOF ROLLING AND WHEN SUBGRADE IS EXPOSED.	2	A.2	X	–	
B. VERIFY FOOTING AND TUNNEL BEARING STRATA.	2	A.2	–	X	
C. REVIEW AND ACCEPT FILL MATERIALS	2	A.2	–	X	
D. OBSERVE AND ACCEPT BACKFILLING AND COMPACTION PROCEDURES	2	A.2	X	–	
E. VERIFY USE OF FILL MATERIAL AND LIFT THICKNESS IN FIELD.	2 OR 3	A.1, A.2	–	–	
2. COMPACTION AND MOISTURE CONTENT TESTING: A. TWO TESTS OF SUBGRADE FOR EACH 20–FOOT LENGTH OF TUNNEL, ONE ON EACH SIDE. B. ONE TEST OF EACH LIFT OF FILL MATERIALS FOR EACH 2000 SF OF TUNNEL AREA, BUT NOT LESS THAN 4 TESTS.	3	A.1	–	X	ASTM D 1557 ASTM D 6938

CAST–IN–PLACE AND PRECAST CONCRETE

VERIFICATION/INSPECTION	AGENT NO.	MQIA	CONT.	PERIODIC	REFERENCED STANDARD
1. INSPECT REINFORCING STEEL AND PLACEMENT. A. FOOTINGS, FOUNDATIONS WALLS. B. CONCRETE BEAMS AND STRUCTURAL SLABS.	1	B.1, B.3 0.1	– –	X 50% X 100%	
2. INSPECT EMBEDDED BOLTS AND ANCHOR RODS PRIOR TO PLACEMENT OF CONCRETE:	1	B.1, B.3 0.1			
3. VERIFY USE OF REQUIRED DESIGN MIX.	3	B.2	X	–	
4. SAMPLE AND TEST FRESH CONCRETE: A. TAKE SIX STANDARD CYLINDERS FOR EACH 50 CUBIC YARDS OF CONCRETE OR EACH 5000 SF OF SLAB AREA FOR EACH CLASS OF CONCRETE. B. RECORD TIME CONCRETE IS BATCHED, TIME CONCRETE IS SAMPLED, AND TIME THE TRUCK IS EMPTY. C. PERFORM ONE SLUMP TEST FOR EACH TRUCK; TWO IF THE CONCRETE IS PUMPED. D. MEASURE AIR CONTENT. E. RECORD CONCRETE AND AMBIENT AIR TEMPERATURE. F. RECORD UNIT WEIGHT OF CONCRETE. G. PERFORM COMPRESSIVE STRENGTH TESTS.	3	B.2	X	–	ASTM C 172 ASTM C 31 ASTM C 94 ASTM C 231 ASTM C 138 ASTM C 567 ASTM C 39
5. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	3	B.1, B.2	X	–	ACI 318 5.9, 5.10
6. INSPECT FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	3	B.1, B.2	–	X	ACI 318 5.11–5.13
7. VERIFY IN–SITU CONCRETE STRENGTH OF FIELD CURED CYLINDERS: A. PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	3	B.2, C.4	X	–	ACI 318 6.2
8. INSPECT PRECAST/PRESTRESSED CONCRETE: A. SHOP INSPECT PRESTRESSING TENDONS, REINFORCING AND EMBEDMENTS INCLUDING PLACEMENT. B. APPLICATION OF PRESTRESSING FORCES.	1 1 OR 3	G.1 C.1, C.3 C.1, C.3	– X	X –	ACI 318 18.20

STRUCTURAL STEEL

VERIFICATION/INSPECTION	AGENT NO.	MQIA	CONT.	PERIODIC	REFERENCED STANDARD
1. VERIFY FABRICATOR(S) MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES.	1 OR 3	G.2, G.3, G.4	–	X	
2. MATERIAL VERIFICATION OF HIGH–STRENGTH BOLTS, NUTS, AND WASHERS: A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE. C. TEST 3 HIGH–STRENGTH BOLT ASSEMBLIES FROM EACH LOT.	3 1 OR 3 3	F.1 F.1, F.2 F.1	– – –	X 100% X X	APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC ASD, A3.4; AISC LRFD, A3.3
3. INSPECTION OF HIGH–STRENGTH BOLTING: A. BEARING–TYPE CONNECTIONS.	3	F.1, O.1	–	X 100%	AISC LRFD M2.5
4. MATERIAL VERIFICATION OF STRUCTURAL STEEL: A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. B. MANUFACTURER'S CERTIFIED MILL TEST REPORTS REQUIRED.	1 OR 3 1	F.2	– –	X 100% X 100%	ASTM A 6 OR ASTM A 568 ASTM A 653
5. PERFORM PULL–OUT TESTS ON DRILLED–IN, ADHESIVE, EXPANSION, AND SLEEVE ANCHORS: A. TEST 10% OF EACH ANCHOR TYPE (MINIMUM OF 2) BY APPLYING A LOAD EQUAL TO 125% OF ALLOWABLE PULL–OUT STRENGTH. B. TEST 100% OF ANCHORS BY PULLING WITH A CLAW HAMMER USING THE WEIGHT OF ONE MAN.	3		–	X 100%	
6. MATERIAL VERIFICATION OF WELD FILLER MATERIALS: A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS. B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	3 1 OR 3	E.1, E.2 E.1, E.2 E.3	X X	– –	AISC ASD, A3.6; AISC, LRFD, A3.5
7. INSPECTION OF WELDING OF STRUCTURAL STEEL: A. COMPLETE AND PARTIAL PENETRATION GROOVE WELDS. 100% VISUAL INSPECTION AND 10% ULTRASONIC TESTING. B. FILLET WELDS. 100% VISUAL INSPECTION AND 10% MAGNETIC PARTICLE TESTING. 1. SINGLE PASS (5/16 OR LESS).	3	E.1, E.2, O.1	X FOR UT – –	X X X	AWS D1.1 ASTM E 587 ASTM E 709 AWS D1.1
8. INSPECT CONDITION OF ERECTED MATERIALS.	1 OR 3	F.1, F.2	–	X 100%	

SPECIAL INSPECTION NOTES

1. THE OWNER WILL ENGAGE THE SERVICES OF A QUALIFIED SPECIAL INSPECTOR FOR THIS PROJECT, WHO WILL PROVIDE AND/OR COORDINATE INSPECTION AND TESTING REQUIREMENTS AS NECESSARY IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 17 OF THE BCNYS.
2. THE REGISTERED DESIGN PROFESSIONAL HAS PREPARED A STATEMENT OF SPECIAL INSPECTIONS, WHICH INCLUDES SPECIFICATION 014533, AND THE SCHEDULE OF SPECIAL INSPECTIONS THESE DOCUMENTS WILL BE SUBMITTED WITH THE CONTRACT DOCUMENTS AND THE APPLICATION FOR BUILDING PERMIT TO THE CODE ENFORCEMENT OFFICIAL. A COPY OF THE SCHEDULE OF SPECIAL INSPECTIONS IS INCLUDED ON DRAWING S0.2.
3. SPECIAL INSPECTIONS AND TESTING SHALL BE CONTINUOUS OR PERIODIC DURING PERFORMANCE OF THE WORK, AS NOTED.
4. THE CONTRACTOR SHALL HOLD A PRE–CONSTRUCTION MEETING WITH THE REGISTERED DESIGN PROFESSIONAL, SPECIAL INSPECTOR, TESTING AGENCY, AND AFFECTED SUB–CONTRACTORS TO REVIEW THE REQUIRED SPECIAL INSPECTION AND TESTING REQUIREMENTS FOR THE PROJECT. THE CONTRACTOR SHALL DISTRIBUTE CONSTRUCTION SCHEDULES TO EACH ATTENDEE.
5. THE SPECIAL INSPECTOR SHALL SUBMIT INTERIM REPORTS AND, AT THE COMPLETION OF SPECIAL INSPECTIONS, A FINAL STATEMENT OF SPECIAL INSPECTIONS. REPORTS SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER.
6. THE SPECIAL INSPECTOR SHALL NOTIFY THE CONTRACTOR IMMEDIATELY OF DISCREPANCIES. SUBSEQUENT REPORTS SHALL NOTE WHEN AND HOW DEFICIENCIES WERE CORRECTED. THE SPECIAL INSPECTOR SHALL NOTIFY THE REGISTERED DESIGN PROFESSIONAL AND THE CODE ENFORCEMENT OFFICIAL OF DISCREPANCIES WHICH HAVE NOT BEEN CORRECTED.
7. THE CONTRACTOR SHALL COOPERATE WITH THE SPECIAL INSPECTOR INCLUDING ADVANCE NOTIFICATION OF REQUIRED INSPECTION OR TEST, INCIDENTAL LABOR AND SAFE ACCESS TO THE WORK AREAS, AND ACCESS TO CONTRACT DOCUMENTS SO THAT INSPECTIONS AND TESTING MAY BE PERFORMED WITHOUT HINDRANCE.
8. THE SPECIAL INSPECTION PROGRAM SHALL IN NO WAY RELIEVE THE CONTRACTOR OF THE OBLIGATION TO PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS OR FROM IMPLEMENTING AN EFFECTIVE QUALITY CONTROL PROGRAM.
9. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

FINAL DESIGN (100%)
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

Quality Service Since 1944
FRIEDMAN FISHER ASSOCIATES, P.C.
CONSULTING ENGINEERS
22 Aviation Road, Albany, New York 12205
TEL (518) 456–7040 FAX (518) 456–7043
mail@friedmanfisher.com

RYAN-BIGGS ASSOCIATES, P.C.
257 Ushers Road p 518.406.5500
Clifton Park, NY 12205 f 518.406.5514
www.ryanbiggs.com

EBERLIN AND EBERLIN, P.C.
31 SODOM ROAD, BREWSTER, NEW YORK 10509
CONSULTING ENGINEERS, PLANNERS, LANDSCAPE ARCHITECTS
845.582.0359 PHONE 845.279.2062 FAX

STATE OF NEW YORK — NEIL E. WEISS — 054091 — LICENSED PROFESSIONAL ENGINEER

ARCHITECT/ENGINEERS:

Hyman Hayes
ASSOCIATES
6 WEMBLEY COURT, ALBANY, NEW YORK 12205
(518) 452-3470 (518) 452-3783 Fax
Over 20 years of quality architectural service

HHA Proj. 12072

Drawing Title: SCHEDULE OF SPECIAL INSPECTIONS

Approved Project Director:

Project Title: REPAIR HOT WATER LINES PHASE III Stratton VA Medical Center

Location: Albany, New York

Date: MAY 10, 2013 | Checked: NEW | Drawn: CGM

Project Number: VA 528A8-10-814

Building Number: –

Drawing Number: S0.2

Dwg. 9 of 19

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231

10046.3

F:\DWG\10046-3SB\2.dwg, 5/8/2013 2:47:41 PM, CMason