SPECIAL INSPECTIONS

Instructions - Preparation of the Statement of Special Inspections

1. Who Prepares the Form:

The program of inspection and testing for a project should be prepared by the Registered Design Professional (RDP) that is in responsible charge of the building system requiring inspections and testing. The Structural Engineer of Record (SER) should prepare the sections required for the structural elements such as foundations, concrete, structural steel, etc. The Architect and MEP Engineer of Record should prepare the corresponding sections of the SSI for the building systems that they are responsible for. For further explanation, please refer to the "Guide to Special Inspections and Quality Assurance".

2. The Front Page:

- 2-1. At the top of the page indicate the project name and location as they appear on the Contract Documents, provide the Owner's name (individual, private company, municipality, government agency, etc.), and indicate the Design Professional In Responsible Charge. This should be the RDP in responsible charge of the building systems for which this Statement of Special Inspections is being prepared. See explanation in item 1 above.
- 2-2. Next, read the first paragraph and check the box below indicating the discipline(s) that this SSI will encompass (Structural, Architectural, Mechanical/Electrical/Plumbing, or Other).
- 2-3. After reading the remaining paragraphs, the RDP must indicate the frequency of "Interim Reports" required from the Special Inspection Coordinator for the project. This can be indicated directly on the page, i.e. "weekly", or the adjacent box can be checked to attach a more specific schedule. The Village of Elmsford requires reports be submitted Monthly to the Village as a minimum.
- 2-4. Near the bottom of the page, the RDP must print, sign, and date the form, and stamp the form with their professional seal in the box provided.
- 2-5. The Owner or Owner's agent must sign and date the front page after the SSI has been completed by the RDP.
- 2-6. The Building Official must sign and date the form upon acceptance.

3. Page 2 – Schedule of Inspection and Testing Agencies:

- 3-1. The top of the page lists all of the categories of building systems with a box next to each. The RDP must check the boxes for <u>only</u> the building systems that are going to be covered in this SSI. A completed inspection program page must be attached for each building system that is checked off. (See instruction #5 below.)
- 3-2. The chart below is where the members of the Special Inspection Program are listed. Their names, addresses, telephone numbers, and emails should be filled out in the appropriate boxes. If the Inspectors and Testing Agencies have not been determined yet, the RDP can fill in the boxes with "To Be Determined".

4. Page 3 – Quality Assurance Plan:

4-1. The RDP must review sections 1705 and 1706 in Chapter 17 of the IBC to determine if the project requires a Quality Assurance Plan for the seismic force and wind force resisting systems and components.

- 4-2. The RDP must indicate whether or not a Quality Assurance Plan is required by filling in the information requested on the page. It is only necessary to provide descriptions of the seismic and wind force resisting systems if it is determined that a Quality Assurance Plan is required.
- 5. Inspection Program Pages For Each Building System:
 - 5-1. There is a page attached for each building system where the RDP identifies the inspection requirements of each system. Fill out the pages for <u>only</u> the building systems included in this SSI. <u>Do not</u> include blank pages for building systems not covered under this SSI. Remove all inspections not applicable.
 - 5-2. Indicate the inspection or testing firm (Agency #) that will perform each inspection task. The Agency # is the number listed next to the Inspector or Testing Laboratory on the chart on page 2 of the SSI.
 - 5-3. Indicate the required qualifications of the Inspector for each inspection. A list of qualifications of Inspectors and testing technicians is provided on page 4 of the SSI for reference. The RDP may require additional qualifications beyond the ones listed if they feel it is appropriate. Suggested qualifications have been included for consideration. The RDP must determine what qualifications are appropriate for the particular project and confirm that the selected agency employs individuals with the specified qualifications. The Qualifications of Inspectors and Testing Technicians page must be included with the submission and revised if appropriate to include additional qualifications.
 - 5-4. The scope of each inspection must be filled in by the RDP. The editable text provided in italics reflects the code mandated minimum inspection requirements designated in section 1704 of IBC Chapter 17. The editable text does <u>not</u> include the inspections requirements for seismic and wind resisting systems listed in sections 1705 through 1708. The RDP must determine if the project falls under the requirements of sections 1705 to 1708 and add the required inspections to the building systems. The final scope of the inspections required for the project must be determined by the RDP.
 - 5-5. Descriptions of all inspections must include the required frequency of each inspection or test. "C" for Continuous and "P" for Periodic noted in the Frequency Column.

Instructions - Submittal of Special Inspector Qualifications

Where application is made for construction requiring Special Inspections, the owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more special inspectors to provide inspections during construction on the types of work listed. The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the code enforcement official, for inspection of the particular type of construction or operation requiring special inspection.

Prior to the start of construction the names, qualifications, and certifications for all inspectors must be submitted to the Building Department for review. The Village of Elmsford retains the right to reject any or all inspectors.

Work may not commence until competence is demonstrated as required.

Statement of Special Inspections

Project: Location:				
Owner: Design Professional in Responsible Charge:				
This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This Statement of Special Inspections encompass the following disciplines: Structural Mechanical/Electrical/Plumbing Architectural Other:				
The Special Inspection Coordinator shall keep records to the Building Official and the Registered Design discrepancies shall be brought to the immediate a discrepancies are not corrected, the discrepancies shand the Registered Design Professional in Responsible does not relieve the Contractor of his or her responsibility.	Professional in Resp attention of the Contra all be brought to the a c Charge immediatly. T	onsible Charge. Discovered actor for correction. If such ttention of the Building Official		
Interim reports shall be submitted to the Building Responsible Charge.	Official and the Regis	stered Design Professional in		
A Final Report of Special Inspections documenting concorrection of any discrepancies noted in the inspections Use and Occupancy.				
Job site safety and means and methods of construction	are solely the responsi	bility of the Contractor.		
Interim Report Frequency:		or \square per attached schedule.		
Prepared by:				
(type or print name)				
Signature	Date	Design Professional Seal		
Owner's Authorization:	Building Official's Acce	eptance:		
Signature Date	Signature	Date		
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Village of Elmsford Building Department

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Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems: Soils and Foundations Spray Fire Resistant Material Cast-in-Place Concrete Wood Construction **Precast Concrete** Exterior Insulation and Finish System Masonry Mechanical & Electrical Systems Structural Steel **Architectural Systems** Cold-Formed Steel Framing **Special Cases Special Inspection Agencies Firm** Address, Telephone, e-mail 1. Special Inspection Coordinator 2. Inspector 3. Inspector 4. Testing Agency 5. Testing Agency 6. Other

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category

Quality Assurance Plan Required (Y/N)

Description of seismic force resisting system and designated seismic systems:

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust)
Wind Exposure Category
Quality Assurance Plan Required (Y/N)

Description of wind force resisting system and designated wind resisting components:

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

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Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

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 or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

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

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

American Society of Non-Destructive Testing (ASNT) Certification

ASNT Non-Destructive Testing Technician – Level II or III.

International Code Council (ICC) Certification

ICC-SMSI	Structural Masonry Special Inspector
ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-PCSI	Prestressed Concrete 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

Exterior Design Institute (EDI) Certification

EDI-EIFS EIFS Third Party Inspector

Other

Item	Frequency C or P	Agency # (Qualif.)	Scope
Shallow Foundations Required ☐ Yes ☐ No		PE/GE	Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report. Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill
2. Controlled Structural Fill Required ☐ Yes ☐ No		PE/GE	Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material. Inspect placement, lift thickness and compaction of controlled fill. Test density of each lift of fill by nuclear methods (ASTM D2922)
3. Deep Foundations Required ☐ Yes ☐ No		PE/GE	Inspect and log pile driving operations. Record pile driving resistance and verify compliance with driving criteria. Inspect piles for damage from driving and plumbness. Verify pile size, length and accessories. Inspect installation of drilled pier foundations.
4. Load Testing Required ☐ Yes ☐ No			
4. Other: Required ☐ Yes ☐ No			

Cast-in-Place Concrete

Item	Frequency C or P	Agency # (Qualif.)	Scope
1. Mix Design Required Yes No		ACI-CCI ICC-RCSI	Review concrete 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.
Material Certification			
Required Yes No			
3. Reinforcement Installation			Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars
Required Yes No		ACI-CCI ICC-RCSI	are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on
4. Post-Tensioning Operations			Inspect placement, stressing, grouting and protection of post-tensioning tendons. Verify that
Required Yes No		ICC-PCSI	tendons are correctly positioned, supported, tied and wrapped. Record tendon elongations.
5. Welding of Reinforcing			Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating
Required Yes No		AWS-CWI	of steel when required.
6. Anchor Rods			Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and
Required Yes No			consolidation around anchors.
7. Concrete Placement			Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or
Required Yes No		ACI-CCI ICC-RCSI	contamination. Verify that concrete is properly consolidated.
Sampling and Testing of Concrete			Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM
Required Yes No		ACI-CFTT ACI-STT	C231 or C173) and temperature (ASTM C1064).
Curing and Protection			Inspect curing, cold weather protection and hot weather protection procedures.
Required Yes No		ACI-CCI ICC-RCSI	
10. Other:			
Required Yes No			

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Item	Frequency C or P	Agency # (Qualif.)	Scope
Plant Certification / Quality Control Procedures Fabricator Exempt		ACI-CCI ICC-RCSI	Review plant operations and quality control procedures.
2. Mix Design Required ☐ Yes ☐ No		ACI-CCI ICC-RCSI	Inspect concrete batching operations and verify compliance with approved mix design
3. Material Certification Required ☐ Yes ☐ No			
4. Reinforcement Installation Required ☐ Yes ☐ No		ACI-CCI ICC-RCSI	Inspect size, spacing, position and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials.
5. Prestress Operations Required ☐ Yes ☐ No		ICC-PCSI	Inspect placement, stressing, grouting and protection of prestressing tendons
6. Connections / Embedded Items Required ☐ Yes ☐ No			
7. Formwork Geometry Required ☐ Yes ☐ No			
8. Concrete Placement Required ☐ Yes ☐ No		ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
9. Sampling and Testing of Concrete Required ☐ Yes ☐ No		ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).
10. Curing and Protection Required ☐ Yes ☐ No		ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures.
11. Erected Precast Elements Required ☐ Yes ☐ No		PE/SE	Inspect erection of precast concrete including member configuration, connections, welding and grouting.
12. Other: Required □ Yes □ No			
Required Yes No 4. Reinforcement Installation Required Yes No 5. Prestress Operations Required Yes No 6. Connections / Embedded Items Required Yes No 7. Formwork Geometry Required Yes No 8. Concrete Placement Required Yes No 9. Sampling and Testing of Concrete Required Yes No 10. Curing and Protection Required Yes No 11. Erected Precast Elements Required Yes No		ACI-CCI ICC-RCSI ACI-CTT ACI-STT ACI-CCI ICC-RCSI	reinforcing steel. Verify that reinforcing bars a free of form oil or other deleterious materials. Inspect placement, stressing, grouting and protection of prestressing tendons Inspect placement of concrete. Verify that conc conveyance and depositing avoids segregation contamination. Verify that concrete is properly consolidated. Test concrete compressive strength (ASTM C31) (C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064). Inspect curing, cold weather protection and howeather protection procedures. Inspect erection of precast concrete including member configuration, connections, welding ar

Masonry	Required Inspection Level: 1 1 2	Page	of
iviasuiii y	Required inspection Level: 1 2	9-	_

Item	Frequency C or P	Agency # (Qualif.)	Scope
Material Certification			
Required Yes No			
2. Mixing of Mortar and Grout			Inspect proportioning, mixing and retempering of mortar and grout.
Required Yes No		ICC-SMSI	O Company of the comp
3. Installation of Masonry			Inspect size, layout, bonding and placement of masonry units.
Required Yes No		ICC-SMSI	
4. Mortar Joints			Inspect construction of mortar joints including tooling and filling of head joints.
Required Yes No		ICC-SMSI	
5. Reinforcement Installation		ICC-SMSI	Inspect placement, positioning and lapping of reinforcing steel.
Required Yes No		AWS-CWI	Inspect welding of reinforcing steel.
6. Prestressed Masonry			Inspect placement, anchorage and stressing of prestressing bars.
Required Yes No		ICC-SMSI	presiressing burs.
7. Grouting Operations			Inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.
Required Yes No		ICC-SMSI	
8. Weather Protection			Inspect cold weather protection and hot weather protection procedures. Verify that wall cavities are
		ICC-SMSI	protected against precipitation.
Evaluation of Masonry Strongth			Test compressive strength of mortar and grout
Strength Required ☐ Yes ☐ No		ICC-SMSI	cube samples (ASTM C780). Test compressive strength of masonry prisms (ASTM C1314).
10. Anchors and Ties			Inspect size, location, spacing and embedment of
Required Yes No		ICC-SMSI	dowels, anchors and ties.
11. Other:			
Required Yes No			

Structural Steel Page of

Item	Frequency C or P	Agency # (Qualif.)	Scope
Fabricator Certification/ Quality Control Procedures Fabricator Exempt		AWS/AISC- SSI ICC-SWSI	Review shop fabrication and quality control procedures.
Material Certification Required ☐ Yes ☐ No		AWS/AISC- SSI ICC-SWSI	Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes
3. Open Web Steel Joists Required ☐ Yes ☐ No			Inspect installation, field welding and bridging of joists.
4. Bolting Required Yes No		AWS/AISC- SSI ICC-SWSI	Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slipcritical connections.
5. Welding Required Yes No		AWS-CWI ASNT	Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. Ultrasonic testing of all full-penetration welds.
6. Shear Connectors Required Yes No		AWS/AISC- SSI ICC-SWSI	Inspect size, number, positioning and welding of shear connectors. Inspect suds for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.
7. Structural Details Required Yes No		PE/SE	Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.
8. Metal Deck Required Yes No		AWS-CWI	Inspect welding and side-lap fastening of metal roof and floor deck.
9. Other: Required Yes No			
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Cold-Formed Steel Framing

Item	Frequency C or P	Agency # (Qualif.)	Scope
1. Member Sizes			
Required Yes No			
2. Material Thickness			
Required Yes No			
3. Material Properties			
Required Yes No			
4. Mechanical Connections			
Required Yes No			
5. Welding			
Required Yes No			
6. Framing Details			
Required Yes No			
7. Trusses			
Required Yes No			
8. Permanent Truss Bracing			
Required Yes No			
9. Other:			
Required Yes No			

Page

Spray-Applied Fire Resistant Material

Item	Frequency C or P	Agency # (Qualif.)	Scope
Material Specifications			
Required Yes No			
Laboratory Tested Fire Design			Review UL fire resistive design for each rated
Resistance Design		ICC-SFSI	beam, column, or assembly.
Required Yes No			
3. Schedule of Thickness			Review approved thickness schedule.
Required Yes No		ICC-SFSI	
4. Surface Preparation			Inspect surface preparation of steel prior to
Required Yes No		ICC-SFSI	application of fireproofing
5. Application			Inspect application of fireproofing.
Required Yes No		ICC-SFSI	
6. Curing and Ambient			Verify ambient air temperature and ventilation is
Condition		ICC-SFSI	suitable for application and curing of fireproofing.
Required Yes No			
7. Thickness			Test thickness of fireproofing (ASTM E605). Perform a set of thickness measurements for every
Required Yes No		ICC-SFSI	1,000 SF of floor and roof assemblies and on not less than 25% of rated beams and columns.
8. Density			Test the density of fireproofing material (ASTM
Required Yes No		ICC-SFSI	E605).
9. Bond Strength			Test the cohesive/adhesive bond strength of fireproofing ASTM E736). Perform not less than
Required Yes No		ICC-SFSI	one test for each 10,000 SF.
10. Other:			
Required Yes No			

Item	Frequency C or P	Agency # (Qualif.)	Scope
Fabricator Certification/ Quality Control Procedures Fabricator Exempt			Inspect shop fabrication and quality control procedures for wood truss plant.
2. Material Grading			
Required Yes No			
3. Connections			
Required Yes No			
4. Framing and Details			
Required Yes No			
5. Diaphragms and Shearwalls			Inspect size, configuration, blocking and fastening of shearwalls and diaphragms. Verify panel grade and thickness.
Required Yes No			
Prefabricated Wood Trusses			Inspect the fabrication of wood trusses.
Required Yes No			
7. Permanent Truss Bracing			
Required Yes No			
8. Other:			
Required Yes No			

Exterior Insulation & Finish Systems (EIFS)

Item	Frequency C or P	Agency # (Qualif.)	Scope
Material Submittals			
Required Yes No			
2. Condition of Substrate			
		EDI-EIFS	
Required Yes No			
Application of Foam Plastic Board			
Required Yes No		EDI-EIFS	
Application of Coatings			
		EDI-EIFS	
Required Yes No			
5. Application of Mesh			
		EDI-EIFS	
Required Yes No			
6. Ambient Condition and Curing			
		EDI-EIFS	
Required Yes No			
7. Flashing and Joint Details			
		EDI-EIFS	
Required Yes No			
8. Sealants/Caulks			
		EDI-EIFS	
Required Yes No			
9. Other:			
Required Yes No			

Mechanical & Electrical Systems

Item	Frequency C or P	Agency # (Qualif.)	Scope
1. Smoke Control			
Required Yes No			
2. Mechanical, HVAC & Piping			
Required Yes No			
3. Electrical System			
Required Yes No			
4. Other:			
Required Yes No			

Architectural Systems

Item	Frequency C or P	Agency # (Qualif.)	Scope
Wall Panels & Veneers Required ☐ Yes ☐ No			
2. Suspended Ceilings			
Required Yes No			
3. Access Floors			
Required			
4. Other:			
Required Yes No			

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Item	Frequency C or P	Agency # (Qualif.)	Scope