

**SPECIFICATIONS
FOR
MATERIAL TESTING SERVICES & SPECIAL INSPECTOR
ALTERATIONS AT ACES BASSETT ROAD, NORTH HAVEN, CT
State Project #244-0043 SP**

I. INTRODUCTION

O&G Industries, Inc. is soliciting bids for Material Testing Services and Special Inspection Coordinator required during the alterations at ACES Bassett Road School, located at 88 Bassett Road North Haven, CT 06473.

The project will start with abatement and demolition activities in April 2024. Services will commence immediately upon award. It is anticipated the project will be completed by December 2025.

II. SCOPE OF WORK

The selected firm shall perform the scope of work as outlined in Appendix I, Statement of Special Inspections agencies 1 and 4 and as described in the plans and specification (contract documents). The quantity of tests and inspections indicated on the proposal page are estimated for bidding purposes only. Firms shall be paid based on the actual quantity of inspections and testing performed. When responding to this bid, bidders shall be aware of the following:

1. All unit prices shall include all travel time, mileage, expenses, overhead, profit, additional insurance, taxes, and all charges of whatever kind.
2. All analyses and services shall be provided in a timely fashion as specified herein.
3. The Bidders laboratory(s) shall comply with all Federal, State, OSHA, laws, ordinances, building and fire codes.
4. The Bidders laboratory(s) shall pay/be responsible for all permits, licenses, and/or charges of similar nature.
5. The Bidders laboratory shall assign a competent service liaison to handle any problem or request.
6. Hours of Availability-normal working hours – 7:00 a.m. through 3:30 p.m., Monday through Friday. Cancellation charge at the half day rate applies for cancellations made after 7:45 a.m. on the day of the scheduled inspection.
7. “Half day” means four (4) hours on-site. “Full day” means eight (8) hours on-site. Travel time and mileage is included in the rates above. Additional charges for these costs are not allowed.
8. Handwritten reports must be submitted to the Construction Manager daily.
9. Type written reports must be submitted within 48 hours of testing to the parties designated by the Construction Manager.
10. The Special Inspector Coordinator and Special Inspections Agent shall have the ability to send and receive communications via e-mail for the duration of the Project.
11. Structural testing is to be performed in accordance with Section 1705 of the Connecticut State Building Code.
12. The Special Inspector Coordinator and Testing Agency shall be NVLAP accredited and approved by the Structural Engineer of record (SER). Proof of accreditation shall be submitted with the Proposal.

13. Inspections shall be performed by inspectors who meet the minimum qualifications of Inspectors and Testing Technicians as identified in the Statement of Special Inspections. All field inspectors shall have a minimum of OSHA 10 training.
14. The Special Inspector Coordinator and Testing Agency shall disclose any past or present business relationship or potential conflict of interest with the Construction Manager, Trade Contractors, or any subcontractors whose work will be inspected or tested.
15. The Special Inspector Coordinator and Testing Agency may not release, revoke, alter, or enlarge on the requirements of the Contract Documents.
16. The Special Inspector Coordinator and Testing Agency shall not have control over the Construction Manager's and Trade Contractor's means and methods of construction.
17. The Special Inspector Coordinator and Testing Agency shall not be responsible for construction site safety.
18. The Special Inspector Coordinator and Testing Agency have no authority to stop Work.
19. Inspection Time Interval – A ½ day interval shall be any 4-hour period or portion thereof. A 1-day interval shall be any 8-hour period or portion thereof beyond the 4-hour ½ day interval. Each interval shall commence upon the inspector's arrival at the site. Each inspector will be required to sign in upon arrival and sign out upon departure with the construction manager's site staff. A sign-in log will be maintained in the construction manager's field office.
20. The Special Inspector Coordinator shall be a Professional Engineer licensed to practice in the State of Connecticut with experience in structural design, inspection, materials testing review and certification. The Special Inspector Coordinator shall have experience performing this role and has acted in the Special Inspector Coordinator capacity on 3 projects of similar size and scope in the past five years.

III. RECORDS AND REPORTS:

1. Detailed reports shall be prepared for each inspection or test. Reports shall include the following:
 - 1) Date of test or inspection
 - 2) Name of Inspector or Technician.
 - 3) Location of specific areas tested or inspected.
 - 4) Description of test or inspection and results
 - 5) Applicable conditions.
 - 6) Weather conditions.
 - 7) Professional Engineer's stamp and signature.
2. Reports shall be addressed to the Building Official with copies emailed to the Architect / Engineer, Owner (Director of Facilities, Town of Manchester), Construction Manager and appropriate Trade Contractor(s).
3. Any discrepancies found within the Contract Documents during a special inspection shall immediately be reported to the Construction Manager. If the discrepancies are not corrected, the Special Inspector Coordinator and Special Inspections Agent shall notify the Architect, Owner and Construction Manager.
4. The Special Inspector Coordinator and Testing Agency shall immediately notify the Special Inspector, Architect, Owner, Construction Manager and Trade Contractor by telephone or email of any test results which fail to comply with the requirements of the Contract Documents.

5. Reports shall be submitted within two (2) days of the inspection or test. Handwritten reports may be submitted if final typed copies are not available.
6. The Special Inspector Coordinator shall review all testing reports on a monthly basis and submit to the Owner, Architect and Construction Manager a report detailing testing acceptance and deficiencies. Prior to issuing this interim monthly report, the Special Inspector Coordinator will visit the project site monthly (during the period June 2024 to December 2025) to review progress, inspect work for deficiencies and become familiar with the project issues.
7. At the Completion of the Work requiring Special Inspections, the Special Inspector Coordinator and Testing Agency, and each testing facility or subcontracted agency as required, shall provide a Case 102 statement to the SER and Owner that all inspections and testing have been completed in substantial conformance with the Contract Documents and that all appropriated inspections and tests were performed.

IV. CONSTRUCTION MANAGER AND TRADE CONTRACTORS RESPONSIBILITIES:

- 1) The Construction Manager and Trade Contractors shall cooperate with the Special Inspector Coordinator and Testing Agency and their agents so that the special inspections and testing may be performed without hindrance.
- 2) The Construction Manager shall notify the Testing Agency at least 24 hours in advance of a required inspection or test.
- 3) The Construction Manager and Trade Contractors shall provide incidental labor and facilities to provide access to the Work to be inspected or tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.
- 4) The Construction Manager shall keep at the project site the latest set of construction drawings, field sketches, approved shop drawings, and specifications for use by the inspectors and testing technicians.
 - Silver Petrucci is the Architect and Mechanical and Electrical Engineer.
 - Michael Horton Associates, Inc. is the Structural Engineer.
 - SLR is the Site/Civil Engineer.
 - O&G Industries, Inc. is the Construction Manager.

V. BACKGROUND CHECK OF WORKERS – Security Check Fee

1. Upon receipt of the Limited Notice to Proceed, and as a condition of the agreement, the Special Inspector Coordinator and Special Inspections Agent shall provide the following information on ALL employees who will be on site for any reason during the Project.
 - Company Name (vendor, subcontractor or contractor)
 - Employee Legal Name
 - Address
 - Date of Birth
 - Social Security Number
2. Each contractor will be required to set up a project account with Field Control Analytics (FCA) and provide directly to FCA the names and required information of all proposed onsite employees Contractor will be billed directly by Field Control Analytics (FCA) for a company set-up fee of \$50.00 and \$27.00 + tax per employee. **Contractor shall include these costs for the security check in their base bid proposal.** Security check is for disclosure of any and all felony criminal convictions including but not limited to any sex offender registry postings; it is not a credit check. The Owner retains the exclusive right to reject a contractor's employee.

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3. An O&G-issued ID badge is required to enter the project site. Employees who have not been issued a badge or who are not wearing their badge shall not be allowed on the site. Contractors should allow 14 calendar days after submitting the security check information and receiving the Owner review. Contractor is responsible for any delay due to not having sufficient and qualified personnel on the project as a result of not providing the required information in a timely manner.

VI. QUALIFICATIONS OF INSPECTORS AND TESTING TECHNICIANS

The qualifications of inspectors and testing technicians is outlined in Appendix I, Statement of Special Inspections. Inspectors and technicians on this project must possess these minimum qualifications and certifications. The awarded firm shall provide these credentials for assigned personnel upon award. If any tests/services cannot be self-performed, attach to this bid a list of the test/service and provide the name of the intended entity to provide the test/service. Requirements of this work shall apply to all work whether self-performed or not.

With the bid response, bidder shall submit a list of relevant background and experience on similar projects within the last three (3) years. This list shall include contact names and telephone numbers.

VII. INSURANCE REQUIREMENTS

The awarded firm shall provide an insurance certificate per the limits listed on the sample Certificate of Insurance. The firm shall provide all staff assigned to the project with all necessary safety equipment and devices as required by State and Federal regulations.

END OF SECTION

Unit Pricing:

Provide all labor, materials, equipment and services required to complete all Testing Services and Special Inspections per the Statement of Special Inspections, the material specifications and as requested and scheduled by the Construction Manager's site personnel:

<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Extended Total</u>
FIELD SOILS SERVICES			
Inspection of placement and compaction including unlimited in-place density tests or sampling (ASTM D6938)	12	\$ _____	half day \$ _____
	3	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
LABORATORY SOILS SERVICES			
Mechanical Analysis (ASTM D6913)	3	\$ _____	each \$ _____
#200 Sieve Wash	3	\$ _____	each \$ _____
Modified Proctor Tests (ASTM D1557)	3	\$ _____	each \$ _____
Atterberg Limits (Liquid/Plastic Limits)	1	\$ _____	each \$ _____
L.A. Abrasion	1	\$ _____	each \$ _____
INSPECTOR SOILS SERVICES			
Inspect removal of unsuitable fill and preparation prior to placement of controlled fill, and placement, lift thickness and compaction of controlled fill by PE/GE.	2	\$ _____	half day \$ _____
	2	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
Inspect removal of unsuitable fill and preparation prior to placement of controlled fill, and placement, lift thickness and compaction of controlled fill by Senior Soil Technician.	2	\$ _____	half day \$ _____
	1	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
BITUMINOUS PAVING			
Inspection of placement and compaction (CT DOT Form 817 Section 4.06.03, sections 4 & 5). Includes monitoring at time of placement.	2	\$ _____	half day \$ _____
	2	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
Asphalt Thickness by coring per day	2	\$ _____	half day \$ _____
Core thickness testing (each core)	4	\$ _____	each \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____

<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Extended Total</u>
CONCRETE FIELD SERVICES			
Placement monitoring and testing of the slump, air, and temperature, including making and curing test cylinders (4) according to the specifications, including truck time and transportation of the cylinders to the laboratory for testing. Verification of curing and cold weather/hot weather protection procedures.	40	\$ _____	half day \$ _____
	8	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
LABORATORY CONCRETE SERVICES			
Curing and testing of a five (5) cylinder specimen set (ASTM C31 & C39). Includes immediate notification of low test results with report processing and distribution.	40	\$ _____	each \$ _____
Curing and testing of each additional cylinder beyond the five (5) cylinders per specimen set.	1	\$ _____	each \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
REINFORCING STEEL INSPECTION			
Inspection of concrete reinforcement, anchor bolts and formwork to verify compliance with the plans and specifications.	40	\$ _____	half day \$ _____
	2	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
COMBINATION OF REINFORCING STEEL AND CONCRETE INSPECTION			
Combination of reinforcing steel inspection and complete concrete field services.	16	\$ _____	half day \$ _____
	1	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
FIELD MASONRY INSPECTION			
Inspect all aspects of masonry including placement, mortar, grout, reinforcement, joints, weather protection, anchors/ties and production of samples and transportation to the laboratory for testing.	4	\$ _____	half day \$ _____
	4	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
LABORATORY MASONRY SERVICES			
Compression testing of masonry prisms (ASTM C1314)	10	\$ _____	each \$ _____
Compression testing of concrete masonry units (ASTM C140)	8	\$ _____	each \$ _____
Compression testing of mortar (ASTM C780, Annex A6)	4	\$ _____	each \$ _____
Fabrication and testing of grout prisms and cylinders (ASTM C1019 & C39)	4	\$ _____	each \$ _____
Brick test (ASTM C67)	2	\$ _____	each \$ _____

<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Extended Total</u>
STRUCTURAL STEEL AND WELDING INSPECTION			
Inspect and verify conformance of material certification, steel erection, plumbness, bolted connections and shear connectors with the specifications. Inspect welding and side lap fastening of metal roof and floor deck.	5	\$ _____	half day \$ _____
	2	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
Inspect and verify shop and field welding operations including visual inspections, magnetic particle testing, size/length of fillet welds and pre-heat, post-heat and surface preparation between passes.	1	\$ _____	half day \$ _____
	1	\$ _____	full day \$ _____
Perform ultrasonic testing of full penetration shop and/or field welds or magnetic particle testing.	4	\$ _____	half day \$ _____
	1	\$ _____	full day \$ _____
Special inspector fabricating shop and quality control procedures inspection, material certification review and steel framing compliance review.	2	\$ _____	per hour \$ _____
COLD-FORMED STEEL FRAMING			
Inspect and verify member sizes, material thickness, material properties, mechanical connections and framing details.	6	\$ _____	half day \$ _____
	1	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
MULTI-DISCIPLINE INSPECTION SERVICES			
Qualified technician to perform field soils, bituminous paving, concrete, rebar and masonry inspections, samplings, and tests.	8	\$ _____	half day \$ _____
	1	\$ _____	full day \$ _____
	1	\$ _____	(1/2 Saturday) \$ _____
SUB TOTAL			\$ _____
a. SPECIAL INSPECTOR COORDINATOR SERVICES		Lump Sum:	\$ _____
		GRAND TOTAL \$	_____

BIDDER: _____

ADDRESS: _____

SIGNED BY: _____ TITLE: _____

NAME (PLEASE PRINT): _____ TITLE: _____

TELEPHONE: _____ FAX: _____

FEDERAL TAX IDENTIFICATION NUMBER (FEIN): _____

E-MAIL: _____

Statement of Special Inspections

Project: *Alterations at ACES Basset Road*
Location: *88 Basset Road – North Haven Connecticut*
Owner: *Area Cooperative Educational Services (ACES)*
350 State Street
North Haven, Connecticut

Structural Engineer of Record: *Michael Horton Associates, Inc.*

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 of all inspections and shall furnish inspection reports to the Building Official and the Structural Engineer of Record. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Structural Engineer of Record. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Structural Engineer of Record.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: *Monthly* or per attached schedule.

Prepared by:

Paul J. Sheehan
(type or print name)

Signature

08-08-2023
Date



Owner's Authorization:

Building Official's Acceptance:

Signature

Date

Signature

Date

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Soils and Foundations | <input type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input checked="" type="checkbox"/> Masonry | <input type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input checked="" type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator	<i>TBD</i>	
2. Inspector		
3. Inspector		
4. Testing Agency	<i>TBD</i>	
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 *B*
 Quality Assurance Plan Required (Y/N) *N*

Description of seismic force resisting system and designated seismic systems:
Steel system not specifically detailed for seismic resistance

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) *130mph (Vu) 101 (Vasd)*
 Wind Exposure Category *B*
 Quality Assurance Plan Required (Y/N) *N*

Description of seismic force resisting system and designated seismic systems:
Steel system not specifically detailed for seismic resistance

Statement of Responsibility

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

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.
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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
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Other

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	4 PE/GE	<p><i>Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.</i></p> <p><i>Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill</i></p>
2. Controlled Structural Fill	4	<p><i>Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material.</i></p> <p><i>Inspect placement, lift thickness and compaction of controlled fill.</i></p> <p><i>Test density of each lift of fill by nuclear methods (ASTM D2922)</i></p> <p><i>Verify extent and slope of fill placement.</i></p>
3. Deep Foundations		
4. Load Testing		
4. Other:		

Item	Agency # (Qualif.)	Scope
1. Mix Design	4 ICC-RCSI	<i>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.</i>
2. Material Certification		
3. Reinforcement Installation	4 ICC-RCSI	<i>Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters</i>
4.		
5.		
6. Anchor Rods	4 ICC-RCSI	<i>Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.</i>
7. Concrete Placement	4 ICC-RCSI	<i>Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.</i>
8. Sampling and Testing of Concrete	4 ICC-RCSI	<i>Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).</i>
9. Curing and Protection	4 ICC-RCSI	<i>Inspect curing, cold weather protection and hot weather protection procedures.</i>
10. Other:	4 ICC-RCSI	<i>Inspect that drilled and epoxied anchors are the proper size and are installed per the manufacturer's recommendations.</i>

Masonry

Required Inspection Level: A B C

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Item	Agency # (Qualif.)	Scope
1. Material Certification		
2. Mixing of Mortar and Grout	4 ICC-SMSI	<i>Inspect proportioning, mixing and retempering of mortar and grout.</i>
3. Installation of Masonry	4 ICC-SMSI	<i>Inspect size, layout, bonding and placement of masonry units. Inspect walls for plumb and straightness during construction.</i>
4. Mortar Joints	4 ICC-SMSI	<i>Periodically inspect construction of mortar joints including tooling and filling of head joints for CMU units only.</i>
5. Reinforcement Installation	4 ICC-SMSI	<i>Inspect placement, positioning and lapping of reinforcing steel. Inspect welding of reinforcing steel.</i>
6. Prestressed Masonry		
7. Grouting Operations	4 ICC-SMSI	<i>Provide continuous inspection of the placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.</i>
7. Weather Protection	4 ICC-SMSI	<i>Inspect cold weather protection and hot weather protection procedures. Verify that wall cavities are protected against precipitation.</i>
9. Evaluation of Masonry Strength	4 ICC-SMSI	<i>Periodically test compressive strength of mortar cubes. Continuously test compressive strength of grout prisms..</i>
10. Anchors and Ties	4 ICC-SMSI	<i>Periodic inspection of size, location, spacing and embedment of dowels, anchors and veneer ties.</i>
11. Other:	4 ICC-SMSI	<i>Continuously inspect that drilled and epoxied anchors are the proper size and are installed per the manufacturer's recommendations.</i>

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	4 AWS/AISC	<i>Review shop fabrication and quality control procedures.</i>
2. Material Certification	4 AWS/AISC	<i>Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes</i>
3. Open Web Steel Joists		
4. Bolting	4 AWS/AISC	<i>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 slip-critical connections.</i>
5. Welding	4 AWS/AISC	<i>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.</i>
6. Shear Connectors	4 AWS/AISC	<i>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.</i>
7. Structural Details	4 AWS/AISC	<i>Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.</i>
8. Metal Deck	4 AWS/AISC	<i>Inspect welding and side-lap fastening of metal roof and floor deck.</i>
9. Other:		

Cold-Formed Steel Framing

Item	Agency # (Qualif.)	Scope
1. Member Sizes	4 PE	<i>Inspect size of members for conformance to the Contract Documents and shop drawings, for work constructed.</i>
2. Material Thickness	4 PE	<i>Review product data submission for conformance with the Contract Documents and shop drawings, for work constructed.</i>
3. Material Properties	4 PE	<i>Review product data submission for conformance with the Contract Documents and shop drawings, for work constructed.</i>
4. Mechanical Connections	4 PE	<i>Review installation of screw connections for conformance with the Contract Documents and shop drawings, for work constructed.</i>
5. Welding	4 PE	<i>Review installation of welded connections for conformance with the Contract Documents and shop drawings, for work constructed. Verify welder's certifications</i>
6. Framing Details	4 PE	<i>Review installation of cold formed structural metal framing for conformance with the Contract Documents and shop drawings, for work constructed.</i>
7. Trusses		
8. Permanent Truss Bracing		
9. Other:		

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and -control requirements for individual work results are specified in their respective Specification Sections. Requirements in individual Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections:
 - 1. Divisions 02 through 49 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include contract enforcement activities performed by Architect.
- C. Mockups: Full-size physical assemblies that are constructed on-site either as freestanding temporary built elements or as part of permanent construction. Mockups are constructed to verify selections made under sample submittals; to demonstrate aesthetic effects and qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.

1. Integrated Exterior Mockups: Mockups of the exterior envelope construction on-site as freestanding temporary built elements or as part of permanent construction, consisting of multiple products, assemblies, and subassemblies.
 - D. Preconstruction Testing: Tests and inspections performed specifically for the Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.
 - E. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
 - F. Source Quality-Control Tests: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.
 - G. Field Quality-Control Tests: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
 - H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
 - I. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
 1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade or trades.
 - J. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five (5) previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- 1.4 DELEGATED-DESIGN SERVICES
- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- 1.5 CONFLICTING REQUIREMENTS
- A. Conflicting Standards and Other Requirements: If compliance with two (2) or more standards or requirements are specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for direction before proceeding.
 - B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the

minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.6 ACTION SUBMITTALS

- A. Shop Drawings: For mockups.
 - 1. Include plans, sections, and elevations, indicating materials and size of mockup construction.
 - 2. Indicate manufacturer and model number of individual components.
 - 3. Provide axonometric drawings for conditions difficult to illustrate in two (2) dimensions.
- B. Delegated-Design Services Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

1.7 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data: For Contractor's quality-control personnel.
- C. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility submitted to authorities having jurisdiction before starting work on the following systems.
 - 1. Seismic-force-resisting system, designated seismic system, or component listed in the Statement of Special Inspections.
 - 2. Main wind-force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.
- D. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- E. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Entity responsible for performing tests and inspections.
 - 3. Description of test and inspection.
 - 4. Identification of applicable standards.
 - 5. Identification of test and inspection methods.
 - 6. Number of tests and inspections required.
 - 7. Time schedule or time span for tests and inspections.
 - 8. Requirements for obtaining samples.
 - 9. Unique characteristics of each quality-control service.
- F. Reports: Prepare and submit certified written reports and documents as specified.

- G. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

1.8 CONTRACTOR'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within ten (10) days of Notice to Proceed, and not less than five (5) days prior to preconstruction conference. Submit in format acceptable to Architect. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities. Coordinate with Contractor's construction schedule.
- B. Quality-Control Personnel Qualifications: Engage qualified personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D. Testing and Inspection: Include in quality-control plan a comprehensive schedule of Work requiring testing or inspection, including the following:
 - 1. Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections. Distinguish source quality-control tests and inspections from field quality-control tests and inspections.
 - 2. Special inspections required by authorities having jurisdiction and indicated on the "Statement of Special Inspections."
 - 3. Owner-performed tests and inspections indicated in the Contract Documents.
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Architect has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.9 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
 - 1. Date of issue.
 - 2. Project title and number.
 - 3. Name, address, and telephone number of testing agency.
 - 4. Dates and locations of samples and tests or inspections.
 - 5. Names of individuals making tests and inspections.
 - 6. Description of the Work and test and inspection method.
 - 7. Identification of product and Specification Section.

8. Complete test or inspection data.
 9. Test and inspection results and an interpretation of test results.
 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
 12. Name and signature of laboratory inspector.
 13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of technical representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.
 3. Statement that products at Project site comply with requirements.
 4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
 5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 6. Statement whether conditions, products, and installation will affect warranty.
 7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of factory-authorized service representative making report.
 2. Statement that equipment complies with requirements.
 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
 4. Statement whether conditions, products, and installation will affect warranty.
 5. Other required items indicated in individual Specification Sections.

1.10 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
- F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
 - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
 - 2. Notify Architect seven (7) days in advance of dates and times when mockups will be constructed.
 - 3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at the Project.
 - 4. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 5. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
 - a. Allow seven (7) days for initial review and each re-review of each mockup.
 - 6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - 7. Demolish and remove mockups when directed, unless otherwise indicated.
- K. Integrated Exterior Mockups: Construct integrated exterior mockup according to approved Shop Drawings. Coordinate installation of exterior envelope materials and products for which mockups are required in individual Specification Sections, along with supporting materials. Comply with requirements in "Mockups" Paragraph.

1.11 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
 - 2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
 - 3. Costs for testing that is cancelled will be charged to the Contractor, and the Contract Sum will be adjusted by Change Order.

- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify that the Work complies with requirements.
 - 1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 - 2. Engage a qualified testing agency to perform these quality-control services.
 - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 - 3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
 - 4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 - 5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 - 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."

- D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.

- E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.

- F. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
 - 1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.

2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 6. Do not perform any duties of Contractor.
- G. Associated Contractor Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
 4. Facilities for storage and field curing of test samples.
 5. Delivery of samples to testing agencies.
 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents Coordinate and submit concurrently with Contractor's construction schedule. Update as the Work progresses.
1. Distribution: Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.
- 1.12 SPECIAL TESTS AND INSPECTIONS
- A. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:
1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
 2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect, Contractor and to authorities having jurisdiction.
 4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
 - 1. Date test or inspection was conducted.
 - 2. Description of the Work tested or inspected.
 - 3. Date test or inspection results were transmitted to Architect.
 - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.
 - 1. Submit log at Project closeout as part of Project Record Documents.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
 - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

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COORDINATE LIMITS WITH CONTRACT GENERAL CONDITIONS

1 The Trade Contractor shall purchase insurance from an insurance company or companies rated A- or better by A.M. Best Companies lawfully authorized to do business in the state where the project is located. A sample Certificate of Insurance may be furnished to the Trade Contractor. The insurance provisions set forth below are minimum requirements. In the event Contract Documents specify additional coverages and/or amounts of coverage than those set forth below and pertaining to the Trade Contractor's work, then the Trade Contractor shall provide the coverages and/or amounts in accordance with the Contract Documents. Such insurance will protect the Trade Contractor from claims which may arise out of or result from the Trade Contractor's operations under the Subcontract and for which the Trade Contractor may be legally liable, whether such operations be by the Trade Contractor or by a subtrade contractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Trade Contractor, and any subtrade contractors engaged by the Trade Contractor, shall obtain the following insurance:

1.1 Workers Compensation Insurance. For all work performed pursuant to this Subcontract, Trade Contractor shall maintain Workers' Compensation Insurance, including coverage for all executive officers, sole proprietors and partners, and other similar employee benefits in the amounts required by all applicable statutes, laws, regulations or acts. Such Workers' Compensation Insurance must list on Item 3A. of the policy Information Page "Part One of the policy applies to the Workers' Compensation Law of the state where the project is located" and provide a Waiver of Subrogation endorsement (NCCI form WC 00 03 13 or its equivalent) that prohibits the insurance company from enforcing subrogation and recovery rights against the Owner, O&G, and their respective officers and employees. If work is to be performed over or adjacent to navigable waterways, the Workers' Compensation Insurance shall contain the United States Longshore and Harbor Workers' Act Endorsement (NCCI Form WC 00 01 06 or its equivalent).

1.2 Employers' liability insurance for damages because of bodily injury, occupational sickness or disease, or death of the Trade Contractor's employees. Such insurance shall be written with coverage of \$1,000,000 each accident /\$1,000,000 disease policy limits and \$1,000,000 per disease per each employee. A waiver of subrogation endorsement that prohibits the insurance company from enforcing subrogation and recovery rights against the Owner, O&G, and their respective officers and employees, shall be included;

1.3 Commercial general liability insurance written on an "occurrence" basis for damages because of bodily injury, property damage, personal and advertising injury arising out of the Work shall include coverage for:

- All operations and premises of the Trade Contractor;
- All products and completed operations of the Trade Contractor;
- All liability and/or responsibility assumed by the Trade Contractor in the Contract Documents.
- Explosion, collapse and underground (XCU) hazards;
- The Owner and O&G as an additional insured;
- Defense expenses paid in addition to the policy limits;
- Contractual Liability – Railroad (ISO Form CG 24 17 or its equivalent) if Work is within 50 feet of railroad property.

Additional insured coverage shall be provided to the Owner, O&G, and their respective officers and employees, and shall be for both on-going operations via ISO Form CG 2010 (July 2004 Edition or its equivalent) and products and completed operations via ISO Forms CG 2037 (July 2004 Edition or its equivalent). Coverage shall be provided on primary basis with no contribution by the Owner's or O&G's liability insurance. All additional insured endorsements shall be submitted for review and acceptance by O&G.

If additional insured status for the Owner, O&G, and their respective officers and employees is not reasonably available for products and completed operations via ISO form CG 2037 (July 2004 Edition date or its equivalent), O&G may, at its sole discretion, waive such requirement.

Commercial General Liability insurance purchased by the Trade Contractor shall provide the following minimum limits of liability and all coverages shall maintain GL coverage for the period of repose in the state where the Work is performed after final completion of the Subcontract and at all times thereafter when Trade Contractor may be erecting, removing or replacing defective work or performing Project work and at all times shall include

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coverage for Owner and O&G as additional insured as required:

\$1,000,000 Each Occurrence Limit;
\$1,000,000 Personal & Advertising Injury - Per Person or Organization Limit
\$2,000,000 General Aggregate Limit –Per Project Basis
\$2,000,000 Products-Completed Operations Aggregate Limit

1.4 Automobile Liability insurance for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of any motor vehicle and/or trailer that the Trade Contractor owns, hires, leases or borrows or any motor vehicle used on behalf of the Trade Contractor. Automobile liability insurance shall provide coverage for “any auto- Symbol 1” or alternatively “owned autos, non-owned autos, and hired autos – Symbols 2, 8, 9.” Automobile Liability insurance shall also include:

- Any equipment that is subject to a compulsory or financial responsibility law or motor vehicle insurance law in the state in which the equipment is principally garaged;
- Pollution liability – Broadened Coverage for Covered Autos – CA 99 48 (09 02) or its equivalent;
- Owner and O&G as additional insured via ISO Form CA 20 48 or its equivalent;
- All liability and/or responsibility assumed by the Trade Contractor in the Contract Documents.
- Contractual Liability – Railroad (ISO Form CA 20 70 or its equivalent) if Work is within 50 feet of railroad property.

Such coverage shall provide minimum limits of \$1,000,000 Each Accident - Combined Single Limit and shall be maintained for the life of the Subcontract and at all times thereafter when Trade Contractor may be erecting, removing or replacing defective work or performing Project work.

1.5 Umbrella Liability insurance for damages because of bodily injury, property damage, personal and advertising injury with, at minimum, the same terms and conditions as the Employers’ Liability, Commercial General Liability, and Automobile Liability insurance required by the Subcontract and arising out of the Work.

Umbrella Liability insurance shall include the Owner, O&G, their respective officers and employees, as additional insureds on a primary basis with no contribution by the Owner’s or O&G’s liability insurance. If additional insured status on a primary and non-contributory basis for the Owner and O&G is not reasonably available, O&G may, at its sole discretion, waive such requirement for the Umbrella Liability insurance.

Umbrella Liability insurance shall be written as excess of Trade Contractor’s Employers’ Liability, Commercial General Liability and Automobile Liability Insurance and also shall be written to drop down and provide primary insurance, including coverage for defense, for the Trade Contractor in the event that an aggregate limit has been exhausted.

Such insurance purchased by the Trade Contractor shall provide the following minimum limits of liability and shall be maintained during and for at least three years after final completion of the Subcontract and at all times thereafter when Trade Contractor may be erecting, removing or replacing defective work or performing Project work and at all times shall include coverage for Owner and O&G as additional insured as required:

\$5,000,000 Each Occurrence
\$5,000,000 General Aggregate Limit
\$5,000,000 Products-Completed Operations Aggregate Limit

1.6 Trade Contractor’s Pollution Liability insurance if the Work involves the handling, abatement, clean-up or removal of any pollutants or hazardous material, including but not limited to asbestos, PCBs, contaminated soils, and lead-based paint. The requirement of the Trade Contractor to purchase Trade Contractor’s Pollution Liability insurance is at the sole discretion of the O&G.

Trade Contractor’s Pollution Liability insurance shall be written with minimum limits of \$5,000,000 each claim and \$5,000,000 aggregate, and shall include:

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- Products and completed operations coverage;
- Premises and Operations
- Owner and O&G as additional insureds;
- All liability assumed by the Trade Contractor in the Contract Documents;

If such insurance is required and purchased by the Trade Contractor, minimum limits of liability shall be maintained during and for at least ten (10) years after final completion of the Subcontract and at all times thereafter when the Trade Contractor may be erecting, removing or replacing defective work or performing Project work and at all times shall include coverage for Owner and O&G as additional insured as required.

1.7 Trade Contractors who are performing engineering or other design services in connection with their work shall obtain Professional Liability insurance issued by an insurance company acceptable to O&G having minimum limits of \$2,000,000 for each claim and \$2,000,000 annual aggregate. Such insurance shall not have a deductible in excess of \$50,000 and shall remain in full force and effect from the date hereof until the Substantial Completion Date and for a period of ten (10) years thereafter.

1.8 If any of the foregoing insurance is written with a deductible or self-insured retention, Trade Contractor shall disclose the specifics of such arrangements to O&G and is subject to O&G's approval. Further, a Trade Contractor who is self-insured for any of the foregoing insurance shall disclose the self-insurance arrangements to O&G and is subject to O&G's approval. Approval of such insurance or self-insurance is at O&G's sole discretion. Copies of insurance policies shall be furnished upon request.

1.9 All Risk Equipment Insurance shall be provided by all Trade Contractors utilizing a crane or other equipment in connection with the performance of the Work and insured to the full value of equipment.

1.10 Unless otherwise provided, Trade Contractor shall purchase Installation Floater insurance protecting Trade Contractor's insurable interest in all materials, equipment, fittings, accessories, wiring and supports and like items until same have been permanently installed in the Project. The Installation Floater insurance shall provide coverage for such property while at the Project site, while in transit and while temporarily stored at a location other than the Project site.

2 The following terms and conditions are applicable to all insurance described above (unless specifically noted otherwise):

2.1 O&G, Owner, any such other entities as may be reasonably requested, and any of their respective officers, agents, servants, or employees, and affiliates, parents and subsidiaries shall be named as additional insureds under the policies of insurance maintained by the Trade Contractor (with the exception of Workers Compensation and Professional Liability insurance), whether during the performance of the Work or any time thereafter, that may in any respect be applicable to matters, claims or suits arising out of or related to this Contract, and Trade Contractor will submit with the certificate of insurance copies of an endorsement on ISO Form C.G. 20 10 11 85 or equivalent by which all parties required to be listed by Trade Contractor as an additional insured are deemed so listed. In the event that the law of the state in which the project is located (or other applicable law) limits the additional insured coverage requires of Trade Contractor, then Trade Contractor shall be required to obtain additional insured coverage to the fullest extent of coverage and limits allowed by applicable law and this Contract shall be read to conform to such law.

2.2 It is expressly agreed and understood by and between Trade Contractor and O&G that all insurance, whether issued on a primary or excess basis, afforded the additional insureds shall be primary insurance to any other insurance available to the additional insureds and that any other insurance carried by the additional insureds shall be excess of all other insurance carried by the Trade Contractor and shall not contribute with the Trade Contractor's insurance.

2.3 Prior to commencing the Work, Trade Contractor shall submit Certificates of insurance and supporting additional insured endorsements, acceptable to O&G, including any additional coverages and/or amounts of coverage specified in the Contract Documents. These certificates and the insurance policies required by Paragraph 1 of this Exhibit to the Trade Contract shall contain a provision that coverages afforded under the policies will not be

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canceled or allowed to expire or be materially changed until **at least 30 days' prior written notice (10 days' prior written notice for reason of non-payment)** has been given to O&G. If any of the foregoing insurance coverages are required to remain in force after final completion of this Contract, additional certificates evidencing continuation of such coverage shall be submitted to O&G annually. Attached hereto is a sample certificate.

2.4 Trade Contractor agrees that the amount of insurance available to O&G and the additional insureds shall be for the full amount of the loss up to policy limits of liability and shall not be limited to the minimum requirements of this Subcontract.

2.5 To the extent permitted by law, Trade Contractor hereby waives all rights of recovery from O&G, the Owner and any other entities added as additional insureds, including but not limited to rights of subrogation, with respect any matter, claim or suit that is to be covered by insurance to be maintained by Trade Contractor pursuant to the Contract Documents. All insurance policies required pursuant to this Exhibit to the Trade Contract shall be endorsed to prohibit the insurance company from enforcing subrogation and recovery rights.

2.6 Trade Contractor shall advise O&G of the amount of any Deductible or Self-Insured Retention that exists on any policies of insurance on the face of the certificates provided. Likewise, a Trade Contractor who is self-insured for any of the foregoing insurance shall disclose the self-insurance arrangements to O&G. Approval of any such deductible, self-insured retention or self-insurance is at O&G's sole discretion. If approved by O&G, Trade Contractor shall be solely responsible for and agrees to pay and/or reimburse O&G, as the case may be, for any such deductible, self-insured retention or self-insurance.

2.7 Upon request, Trade Contractor shall furnish copies of any of the insurance policies required in this Exhibit to this Trade Contract. Receipt of copies of insurance policies or certificates of insurance does not waive O&G's right to enforce any terms of this Contract.

2.8 Trade Contractor shall require all its subtrade contractors to provide the same insurance as required of the Trade Contractor in this Exhibit, including adding the Owner and O&G as additional insured where required. As to the insurance required of its subtrade contractor, the Trade Contractor agrees to obtain from the subtrade contractor's insurance company (or authorized agent) certificates of insurance as evidence of the required insurance, including the provision that all policies will not be canceled or allowed to expire or be materially changed until at least 30 days' prior written notice (10 days' prior written notice for reason of non-payment) has been given to O&G. Such certificates of insurance shall be filed with and acceptable to O&G prior to the execution of this Contract.

2.9 Information concerning reduction of limits due to claims paid under the **General Aggregate or the Products and Completed Operations Aggregate**, or both, shall be furnished by the Trade Contractor to O&G with reasonable promptness in accordance with the Trade Contractor's information and belief.

2.10 Failure of Trade Contractor to provide the insurance set forth in this Exhibit or any proof of insurance as herein described may, at the option of O&G result in this Contract being terminated for cause, or in lieu of such action O&G at its option shall have the right to maintain all said insurance for and in the name of the Trade Contractor and Trade Contractor agrees to pay for the cost thereof and O&G may deduct such cost from monies otherwise due the Trade Contractor.

2.11 If, in O&G's discretion, O&G is concerned that any insurance company selected by Trade Contractor has, at any time, faced diminished financial strength or that the insurance company may no longer provide the same level of financial strength (such as a decline in an A. M. Best, Standard and Poor's or Moody's rating), O&G may require that Trade Contractor provide replacement insurance coverage through an insurance company satisfactory to O&G.

3 Unless expressly stated otherwise, Builder's Risk Property insurance will NOT be provided by the Owner or O&G.

3.1 If provided, Builder's Risk insurance shall be purchased in a company or companies lawfully authorized to do business in the state where the project is located and be written on a builder's risk "all risk" or equivalent policy form in the amount of this Contract, plus the value of subsequent Contract modifications and cost

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INSURANCE REQUIREMENTS

CERTIFICATE OF INSURANCE

of materials supplied or installed by others, excluding Trade Contractor's tools and equipment, comprising total value for the entire Project at the site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in this Contract or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 5 of the Trade Contract or until no person or entity other than the Owner has an insurable interest in the property required by this Paragraph, whichever is later. This insurance shall include interests of the Owner, O&G, the Trade Contractor and subtrade contractors in the Project. If O&G provides the Builder's Risk Property insurance, the deductible shall be the responsibility of the affected Trade Contractor. If the Owner provides the Builder's Risk Property insurance and the Owner/O&G Contract provides that O&G is responsible for the deductible, the affected Trade Contractor shall, nevertheless, be responsible to O&G for that portion of the deductible attributable to the Trade Contractor.

3.2 Regardless of the existence of Builder's Risk Property Insurance, Trade Contractor shall be responsible for any loss, damage, injury and/or loss of use of any of its tools or equipment.

3.3 Builder's Risk Property insurance shall be on an "all-risk" or equivalent policy form and shall include insurance against the perils of fire (with extended coverage) and physical loss or damage including, theft, earthquake, flood, testing and startup, and limited debris removal, and shall cover reasonable compensation for Architect's and Trade Contractor's services and expenses required as a result of such insured loss.

3.4 Waivers of Subrogation. The Owner, O&G and Trade Contractor waive all rights against (1) each other and any of their subtrade contractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described herein, if any, and any of their subtrade contractors, subtrade contractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by Builder's Risk Property insurance obtained pursuant to this Paragraph 3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by O&G as fiduciary. The Owner, O&G, or Trade Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors, if any, and the Trade Contractors, subtrade contractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of such rights shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

3.5 A loss insured under the Builder's Risk Property insurance described herein shall be adjusted by the Owner or O&G as the case may be as fiduciary and made payable to the Owner or O&G as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause. The Trade Contractor shall pay subtrade contractors their just shares of insurance proceeds received by the Trade Contractor, and by appropriate agreements, written where legally required for validity, shall require subtrade contractors to make payments to their sub-subtrade contractors in similar manner.

3.6 Equipment Breakdown Coverage. The Owner or O&G shall have the option to purchase and maintain equipment breakdown insurance required by this Contract or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, O&G, Trade Contractors, and subtrade contractors in the Work, and the Owner and O&G shall be named insureds.

3.7 If Builder's Risk Property insurance is provided, partial occupancy or use shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and O&G shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

3.8 In the event that Builder's Risk Property Insurance is not being furnished, Trade Contractor shall purchase Installation Floater insurance protecting Trade Contractor's insurable interest in all materials, equipment, fittings, accessories, wiring and supports and like items until same have been permanently installed in the Project. The Installation Floater insurance shall provide coverage for such property while at the Project site, while in transit and while temporarily stored at a location other than the Project site.

CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
7/12/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Subcontractor's Agent Name and Address	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A:	AM Best Rated A-, VII or better
INSURED Subcontractor's Name and Address	INSURER B:	AM Best Rated A-, VII or better
	INSURER C:	AM Best Rated A-, VII or better
	INSURER D:	AM Best Rated A-, VII or better
	INSURER E:	AM Best Rated A-, VII or better
	INSURER F:	AM Best Rated A-, VII or better

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	X	X	Endorsement Forms: CG 20 10 07 04 CG 20 37 07 04 CG 24 04 05 09 (or carrier equivalent) CG 20 01 04 13 (or carrier equivalent) No XCU Exclusions CG 24 17 10 01			EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS	X	X	CA 99 48 10 13 CA 20 48 02 99 (or carrier equivalent) CA 04 44 10 13 (or carrier equivalent) CA 04 50 11 16 (or carrier equivalent)			COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB DED <input type="checkbox"/> RETENTION \$	X	X	Follow Form over underlying General Liability, Auto Liability, and Employers Liability (Carrier equivalent)			EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WC 00 03 13 (or carrier equivalent) INCLUDES EXEC. OFFICERS, SOLE PROP. APPLIES TO WC LAW IN CT, CT AS 3A STATE			<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
	PROFESSIONAL POLLUTION LIABILITY INSURANCE	X	X	IF WORK INCLUDES DESIGN IF WORK INCLUDES HAZ MAT			EACH OCC./AGG. \$2,000,000/\$2,000,000 EACH OCC./AGG. \$5,000,000/\$5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Project: Alteration and Additions - 88 Bassett Road North Haven, CT 06473
 Area Cooperative Educational Services Corp. (ACES), Silver/ Petrucelli + Associates and O&G Industries, Inc. are additional insureds under the General Liability, Auto Liability, Umbrella and Excess Liability and Pollution Liability policies on a primary and non-contributory basis. Each policy must be endorsed to provide 30 days' notice of cancellation to O&G Industries, Inc. All policies should also include a Waiver of Subrogation. Umbrella/Excess Liability follows form over underlying.

CERTIFICATE HOLDER	CANCELLATION
Area Cooperative Educational Services Corp. (ACES) 350 State Street North Haven, CT 06473	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE

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POLICY NUMBER:

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED - OWNERS, LESSEES OR
CONTRACTORS - SCHEDULED PERSON OR
ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
Area Cooperative Educational Services Corp. (ACES) , Silver/ Petrucelli + Associates O&G Industries, Inc.	Project: Alteration and Additions 88 Bassett Road North Haven, CT 06473

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

POLICY NUMBER:

CERTIFICATE OF INSURANCE
COMMERCIAL GENERAL LIABILITY
CG 20 37 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED - OWNERS, LESSEES OR
CONTRACTORS - COMPLETED OPERATIONS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location And Description Of Completed Operations
Area Cooperative Educational Services Corp. (ACES) Silver/ Petrucelli + Associates O&G Industries, Inc.	Project: Alteration and Additions 88 Bassett Road North Haven, CT 06473

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 24 04 05 09

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

<p>Name Of Person Or Organization: Area Cooperative Educational Services Corp. (ACES) Silver/ Petrucelli + Associates O&G Industries, Inc.</p>
<p>Information required to complete this Schedule, if not shown above, will be shown in the Declarations.</p>

The following is added to Paragraph 8. **Transfer Of Rights Of Recovery Against Others To Us** of Section IV – Conditions:

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement
Insured

Effective Policy No.

Endorsement No.
Premium

Insurance Company

Countersigned by _____

WC 00 03 13
(Ed. 4-84)

POLICY NUMBER:

COMMERCIAL AUTO
CA 04 44 10 13

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**WAIVER OF TRANSFER OF RIGHTS OF RECOVERY
AGAINST OTHERS TO US (WAIVER OF SUBROGATION)**

This endorsement modifies insurance provided under the following:

- AUTO DEALERS COVERAGE FORM
- BUSINESS AUTO COVERAGE FORM
- MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured:
Endorsement Effective Date:

SCHEDULE

Name(s) Of Person(s) Or Organization(s):

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The **Transfer Of Rights Of Recovery Against Others To Us** condition does not apply to the person(s) or organization(s) shown in the Schedule, but only to the extent that subrogation is waived prior to the "accident" or the "loss" under a contract with that person or organization.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NONCONTRIBUTORY - OTHER INSURANCE CONDITION

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM
GARAGE COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

The following is added to the **Other Insurance Condition** in the Business Auto and Garage Coverage Forms and the **Other Insurance - Primary And Excess Insurance Provisions** in the Motor Carrier Coverage Form and supersedes any provision to the contrary:

This Coverage Form's Liability Coverage is primary to and will not seek contribution from any other insurance available to an "insured" under your policy provided that:

1. Such "insured" is a Named Insured under such other insurance; and

2. You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to such "insured".

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**POLLUTION LIABILITY – BROADENED COVERAGE
FOR COVERED AUTOS – BUSINESS AUTO,
MOTOR CARRIER AND TRUCKERS COVERAGE FORMS**

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM
TRUCKERS COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

A. Liability Coverage is changed as follows:

1. Paragraph **a.** of the **Pollution** Exclusion applies only to liability assumed under a contract or agreement.
2. With respect to the coverage afforded by Paragraph **A.1.** above, Exclusion **B.6. Care, Custody Or Control** does not apply.

B. Changes In Definitions

For the purposes of this endorsement, Paragraph **D.** of the **Definitions** Section is replaced by the following:

- D.** "Covered pollution cost or expense" means any cost or expense arising out of:
 1. Any request, demand, order or statutory or regulatory requirement that any "insured" or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of "pollutants"; or
 2. Any claim or "suit" by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to or assessing the effects of "pollutants".

"Covered pollution cost or expense" does not include any cost or expense arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of "pollutants":

- a.** Before the "pollutants" or any property in which the "pollutants" are contained are moved from the place where they are accepted by the "insured" for movement into or onto the covered "auto"; or
- b.** After the "pollutants" or any property in which the "pollutants" are contained are moved from the covered "auto" to the place where they are finally delivered, disposed of or abandoned by the "insured".

Paragraphs **a.** and **b.** above do not apply to "accidents" that occur away from premises owned by or rented to an "insured" with respect to "pollutants" not in or upon a covered "auto" if:

- (1) The "pollutants" or any property in which the "pollutants" are contained are upset, overturned or damaged as a result of the maintenance or use of a covered "auto"; and
- (2) The discharge, dispersal, seepage, migration, release or escape of the "pollutants" is caused directly by such upset, overturn or damage.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**PRIMARY AND NONCONTRIBUTORY –
OTHER INSURANCE CONDITION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

The following is added to the **Other Insurance** Condition and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that:

- (1) The additional insured is a Named Insured under such other insurance; and

- (2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.