

**STATE OF MINNESOTA
PARTNERSHIP CONTRACT**

This Contract is between the State of Minnesota Acting through its Commissioner of Transportation ("State") and City of Duluth ("City") located at: 411 West 1st Street, Duluth, MN 55802

Recitals

1. Under Minnesota Statutes Section 174.02, subdivision 6, the Commissioner of Transportation may enter into agreements with governmental or nongovernmental entities for research and experimentation, for sharing facilities, equipment, staff, or other means of providing transportation-related services; or for other cooperative programs that promote efficiencies in providing governmental services or that further the development of innovation in transportation for the benefit of the citizens of Minnesota; and
2. The City wishes to build and use a new hoop style salt shed independent of MnDOT's salt/storage building on MnDOT property, located at 1123 Mesaba Ave, Duluth, MN 55811.
3. Both parties are willing to enter into this Contract to set forth their respective rights and duties.

Contract

1. Term of Agreement; Exhibits

- 1.1. **Effective date.** This Agreement will be effective upon execution and approval by the appropriate State and City officials pursuant to Minnesota statutes §16C.05 and other applicable law.
- 1.2. **Expiration date.** This Agreement will expire 25 years from the effective date of this agreement, unless terminated earlier pursuant to Article 17.
- 1.3. **Exhibits.** The following exhibits are attached and incorporated into this agreement:
 - i. Exhibits A, MnDOT "Standard Specifications for Construction" 2020 — Control of Materials, Nos. 1601 through and including No. 1609
 - ii. Exhibit B, Sealed Component Drawings
 - iii. Exhibit C, Location Map

2. Scope of Work and Responsibilities of Each Party.

- 2.1. The project generally consists of the City constructing a new free-standing hoop style sand/salt storage building at State's Mesaba Ave property for use by the City. The term "City Building" will refer to the City's new hoop style sand/salt storage building approximately 80' x 90' and built to the plans attached as Exhibit B, in the location identified on the map attached as Exhibit C, subject to acceptance and approval of the plans by the State. As used in this Agreement the term "Headquarters Site" means the State's building and property at 1123 Mesaba Avenue in Duluth.
- 2.2. **State Responsibilities.** State will:
 - 2.2.1. Upon substantial completion of the construction of the City Building the State will:
 - i. Pay all actual utility charges for the City Building. The cost for the additional service will be minimal to the State.
 - ii. Provide the City with ingress and egress across the Headquarters Site so that City personnel and vehicles have full access to and full use of the City Building for the duration of this agreement.
- 2.3. **City Responsibilities.** The City will:
 - 2.3.1. The City will pay 100% of the costs to construct, operate, and maintain the City Building, at no cost to the State. All necessary permits will be at the City's own expense, and there will be no charge to the State for any permit.

- i. The City will provide and pay for all construction and construction-related costs, including but not limited to, the following:
 - a. Material testing and special inspection costs,
 - b. A geotechnical report for the City Building.
 - c. A civil/site plan and survey for grading and drainage around site; the survey to be provided to State for review and approval.
 - d. A Stormwater Pollution Prevention Plan (SWPPP).
 - e. Developing a plan to reroute and repair damaged drain tile.
 - f. The reroute and repair of damaged tile.
 - g. The cost of administrative fines, penalties, costs or other sanctions imposed or agreed to in connection with any violation of applicable laws or regulations by the City or its agents in connection with the Project.

2.3.2. Upon completion of the project the City must:

- i. Provide State with a copy of all documentation, plans, reports, and surveys and a record copy of plans and surveys and a *.dwg computer file.
- ii. Sweep the yard periodically and implement other good housekeeping measures to comply with MS4 drainage requirements.

3. State Access; Suspension of Work; Remedial Measures.

- 3.1. The State retains the right to enter and inspect the building construction on State's property at any time and without notice to the City or its contractor. If the State determines (in its sole discretion) that the construction is not being performed properly, or that environmental laws (or the terms of permits) are not being complied with, or other necessary safety measures are not being properly implemented, the State may direct the City (and its contractor) to take such remedial measures as the State deems necessary. The State may require the City (and its contractors and consultants) to suspend their operations until suitable remedial action plans are approved and implemented. The State will have no liability to the City (or its contractors or consultants) for exercising its rights under this provision.

4. Contract Terms

- 4.1. The City's contract with its construction contractor(s) must include the following terms:
- 4.1.1. The State of Minnesota, acting through its Commissioner of Transportation, will be an intended third party beneficiary of the contract with respect to the portion of work performed on the State's property; and
 - 4.1.2. The State will be named as an additional insured on any insurance coverage which the contractor is required to provide; and
 - 4.1.3. Any warranties provided by the contractor will flow to, and be enforceable by, the State as the owner of such improvements.
 - 4.1.4. The City must carry, or require its contractor to carry, Builder's Risk insurance to cover any damage to the existing facility that may be caused by the City's contractors.

5. Authorized Representatives

- 5.1. Each party's Authorized Representative is responsible for administering this Contract and is authorized to give and receive any notice required or permitted under this Contract.

5.2. State's Authorized Representative:

Name/Title:	Perry Collins, District 1 Operations Engineer, or successor
Street Address:	1123 Mesaba Ave
City State Zip:	Duluth, MN 55811
Telephone:	218-725-2827
Email:	perry.collins@state.mn.us

5.3. City's Authorized Representative:

Name: Geoff Vukelich, or successor
City: Duluth
Billing Street Address: 411 West 1st Street, Room 120
City State Zip: Duluth, MN 55802
Telephone: 218-730-4465
Email: gvukelich@duluthmn.gov

6. Direction, Supervision and Inspection of Construction

- 6.1. The construction contract will be under the direction of the City; however, the work on State property, covered under this Agreement will be open to inspection by the State's Authorized representatives. The City will give Tiffany Dagon, Building Services Director, 651-366-3551, tiffany.dagon@state.mn.us, MnDOT, 395 John Ireland Blvd MS 700, St. Paul, MN 55016, five days' notice of its intention to start the construction contract.
- 6.2. The control of materials for the construction contract will be the responsibility of the City and its contractor and will be carried out according to Exhibit A — MnDOT "Standard Specifications for Construction" 2020 — Control of Materials, Nos. 1601 through and including No. 1609.

7. Completion of Construction.

- 7.1. The City will cause the construction contract to be started and completed according to the time schedule in the construction contract special provisions. The completion date for the construction contract may be extended, by an exchange of letters between the appropriate City official and the State's Authorized Representative, for unavoidable delays encountered in the performance of the construction contract.
- 7.2. **Plan Changes.** All changes in the Project Plans and all addenda, change orders and supplemental agreements entered into by the City and its contractor for construction contract must be approved in writing by the State's Authorized Representative.
- 7.3. **Compliance with Laws, Ordinances, Regulations.** The City will comply and cause its contractor to comply with all Federal, State and Local laws, and all applicable ordinances and regulations. With respect only to that portion of work performed on the State's trunk highway right-of-way, the City will not require the contractor to follow local ordinances or to obtain local permits.

8. Construction Documents Furnished by the City.

- 8.1. The City will provide a copy of as-built plans. The City will keep State-owned property free from liens or encumbrances of any nature and will, upon State's request, furnish proof of payment to consultants, contractors, and material suppliers.

9. Terms of Payment

- 9.1. This is a no-cost agreement. There will be no transfer of funds.

10. Liability

- 10.1. The City will indemnify, save, and hold, its agents, and employees harmless from any claims or causes of action, including attorney's fees incurred by, arising from the performance of this agreement by the City or the City's agents or employees. This clause will not be construed to bar any legal remedies the City may have for the State's failure to fulfill its obligations under this agreement. This indemnity will also include any administrative fines, penalties, costs, or other sanctions imposed as a result of a violation of a law, regulation, or permit requirement by the City or its agents in connection with the Project. Each party shall be responsible for any damage caused by its employee(s) to the Headquarters Site and the buildings thereon. The responsible party shall pay all costs to repair the damage caused by its employees.

- 10.2. Each party will be responsible for reimbursable design costs as well as actual repair costs if its employees damage buildings or structures on the Headquarters Site.
- 10.3. Neither party shall be liable for damage to the other party's personal property at the site caused by fire, wind or theft by forcible entry, except in the event that damage is caused to one party's property by negligence of the other party.
- 10.4. The cost for the repair of any physical damage done to the City's loader, and which damage is attributable to an act or neglect of a party, shall be the responsibility of the party that caused the damage. This clause does not apply to normal wear and tear or damage caused by the City's failure to perform routine maintenance.
- 10.5. Any and all persons employed by or on behalf of each party to perform any of the work described in this Agreement shall not be considered employees of the other party. Any claims that may or might arise under the Workers' Compensation Act of Minnesota on behalf of said employees or persons while so engaged and any and all claims made by any third person as a consequence of any act or omission on the part of said employees or persons while engaged in any of the work contemplated herein, shall not be the obligation or responsibility of the other party.

11. Audit

- 11.1. Under Minnesota Statutes §16C.05, subdivision 5, the books, records, documents and accounting procedures and practices of the City relevant to this Agreement are subject to examination by State and the Legislative Auditor for a minimum of six years.

12. Jurisdiction and Venue

- 12.1. Minnesota Law governs the validity, interpretation and enforcement of this Agreement. Venue for all legal proceedings arising out of this agreement, or its breach, must be in Ramsey County, Minnesota.

13. Government Data Practices:

- 13.1. The parties must comply with the Minnesota Government Data Practices Act, Minn. Stat. Ch. 13, as it applies to all data provided by under this agreement, and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the parties under this agreement. The civil remedies of Minn. Stat. § 13.08 apply to the release of the data referred to in this clause by either of the parties.

14. Assignment and Amendments

- 14.1. **Assignment.** Neither party may assign nor transfer any rights or obligations under this Agreement without the prior consent of the other party and a fully executed Assignment Agreement, executed and approved by the same parties who executed and approved this Agreement, or their successors in office.
- 14.2. **Amendments.** Any amendment to this Agreement must be in writing and will not be effective until it has been executed and approved by the same parties who executed this original Agreement, or their successors in office.

15. Ownership

- 15.1. State shall retain the ownership of the Headquarters Site including the land underlying the City Building. City will retain ownership of the City Building for the duration of this Agreement and beyond. If the City discontinues use of the City Building, the City must so notify the State and must follow the State's directions for decommissioning of the City Building, which might include a total or partial demolition of the City Building. If the City wishes to remove all or any portion of the City Building, the City must restore the portion of the Headquarters Site disturbed by the presence and removal of the City Building.
- 15.2. Nothing in this Agreement restricts the State from making such improvements to the Headquarters Site and the State's buildings and structures thereon as the State deems necessary or advisable. As the State develops capital improvement plans, it will consult with the City on potential impacts to the City Building. The City will be responsible for changes to the City Building of a temporary or permanent nature as necessary to accommodate the State's improvement, unless otherwise agreed between the

State and City. The State will make reasonable efforts to avoid or minimize the necessity of temporary or permanent changes to the City Building.

- 15.3. This Agreement grants the City only a permit to access and use the City Building across portions of the State's Headquarters Site property. Nothing in this agreement gives the City any property rights over the State's property, whether by easement or otherwise.

16. Waiver; Contract Complete

- 16.1. **Waiver.** If a party fails to enforce any provision of this contract that failure does not waive the provision or the party's right to subsequently enforce it.
- 16.2. **Contract Complete.** This contract contains all negotiations and agreements between the parties. No other understanding regarding this contract, whether written or oral, may be used to bind either party.

17. Termination

- 17.1. This Agreement can be terminated prior to the expiration date as follows:
- 17.1.1. At any time by the mutual agreement of the parties. Such agreement must specify responsibility for decommissioning the City Building. If the Headquarters Site or any portion thereof is destroyed or damaged to the extent that it cannot be used for its intended purpose, this Agreement may be immediately terminated by either party. If total or partial demolition is necessary as a result of such destruction or damage, unless otherwise agreed between the parties, the City will be responsible for the demolition of the City Building and the restoration of that portion of the Headquarters Site disturbed by such demolition. The parties may enter into a new agreement to reconstruct a replacement City Building if it is destroyed or damaged.

[Remainder of this page has been intentionally left blank. Signature page to follow.]

CITY OF DULUTH

The City certifies that the appropriate person(s) have executed the contract on behalf of the City as required by applicable articles, bylaws, resolutions or ordinances.

By: _____

Title: Mayor

Attested By: _____

Title: City Clerk

Date: _____

Reviewed By: _____

Title: City Attorney

Reviewed By: _____

Title: City Auditor

COMMISSIONER OF TRANSPORTATION

By: _____

Title: Asst. Commissioner or Asst. Division Director

Date: _____

COMMISSIONER OF ADMINISTRATION

By: _____

Date: _____

- (22) All documents that reflect the Contractor's actual profit and overhead during the time the Project was being performed and for each of the five years before the commencement of this Project
- (23) All documents related to the preparation of the Contractor's Proposal including the final calculations on which the Proposal was based, unless the documents are placed in escrow as a provision of the Contract
- (24) Worksheets used to prepare the claim submittal, establishing the cost components of the claim, including, but not limited to, labor, benefits and insurance, Materials, Equipment, Subcontractors, and all documents that establish the time periods, individuals involved, the hours and the rates for the individuals

Control of Material

1601 SOURCE OF SUPPLY AND QUALITY

The Contractor shall provide Materials for the Work from sources capable of producing and delivering uniformly acceptable Materials in accordance with 1503, "Conformity with Contract Documents," and the Progress Schedule. The Contractor shall notify the Engineer of intended sources of supply after award of the Contract and before Material delivery or use for the Engineer to inspect and test the Materials before delivery or use.

Unless otherwise specified, the Contractor shall provide new Materials of the specified grade and type or kind.

The Contractor shall not use multiple Material sources to provide one kind or class of Material, unless otherwise approved in writing by the Engineer. If the Engineer approves the use of Material from more than once source, the Engineer will set the conditions for each source change.

The Contractor shall provide Materials from alternative sources capable of producing uniformly acceptable Material as approved by the Engineer if, during production, the Engineer finds either of the following:

- (1) Supply sources of previously approved Materials do not produce uniformly acceptable Materials
- (2) Conditions require extraordinary inspection and testing by the Department to prevent delivery of unacceptable Material

1602 NATURAL MATERIAL SOURCES

The Department may list possible sources of natural Materials in the Contract, but does not warrant or imply the availability of sufficient quantities of acceptable Material in those sources. The Department may also list the same sources as a possible source for other existing or future Contracts. The Contractor shall acknowledge the Department's inability to ascertain from samples the limits for an entire deposit and shall consider variations as usual and expected. The Contractor shall determine the Equipment and Work necessary to produce a Material meeting the Contract requirements.

The Contractor has the right to take Materials from those sources that the Contract lists as specified in the lease.

The Contractor shall notify the Engineer in writing within 15 Calendar Days after Approval of the Contract if the Contractor intends to obtain Material from those sources. The Contractor may not remove Material from the source until the Engineer receives this notice.

For all sources where the Department owns the Material or where the Contractor elects to obtain Material under the terms of a Department lease or permit, the Contractor shall remove the Material in accordance with the following requirements and conditions:

- (1) The Contractor shall procure Material from the portion of the source as directed by the Engineer. The Engineer may reject unacceptable portions of the source.
- (2) The Contractor must use the Material exclusively on the Contract Project.
- (3) The Contractor will perform clearing and grubbing as necessary, in accordance with 2101, "Clearing and Grubbing," at no additional cost to the Department.
- (4) If others are operating concurrently in a pit used as a source of Materials for the Project, the Contractor must cooperate in accordance with 1505, "Cooperation by Contractors."
- (5) If the Contractor's operations necessitate the relocation, adjustment, rearrangement, or other Work on impacted drainage facilities or utility properties, the Contractor shall perform this Work at no additional cost to the Department.
- (6) The Contractor shall blend Materials from various Layers and areas within the source as directed by the Engineer, even to the extent of blending Materials from the top of the deposit with those from the bottom of the deposit.
- (7) Within the areas owned or leased by the Department, the Contractor shall spread or stockpile the strippings and rejected Materials as directed by the Engineer.
- (8) If the Contract includes a Material price table(s), the Contractor can only produce the Materials listed in the table(s). The Contractor shall not use Material suitable for the production of Class 5 or Class 6 base Aggregate as borrow Material unless otherwise approved in writing by the Engineer.
- (9) If the Contract does not contain a separate "Rock Price," the Contractor may not screen off a coarse fraction (+No. 4) of Material and blend it with Material from a different source to produce an Aggregate product (the Contractor may not use rock from a source and blend it with sand from a different source to produce concrete, bituminous, or base, etc.). If the Contract contains a separate "Rock Price," the Contractor may screen off Material and will pay the indicated price for the rock fraction. In addition, the Contractor may not produce riprap, unless there is a separate "Rock Price" for riprap included in the Contract.
- (10) After removing the Material and after completing the Work, the Contractor shall leave the site in a condition acceptable to the Engineer. The Contractor shall level waste piles, trim slopes and pit bottoms, replace the stripping, and perform other cleanup work at no additional cost to the Department.

The Department will provide the Contractor with statements showing the quantities of Material removed and the payment due. The Department will require full reimbursement before making final payment on the Contract.

1603 MATERIALS: SPECIFICATIONS, SAMPLES, TESTS, AND ACCEPTANCE

1603.1 SPECIFICATIONS

The Department will sample, test, and inspect all Materials in accordance with the Contract at any time before being permanently incorporated in the Work. The Department will approve or reject Materials based on the results of this sampling, testing, and inspection. The Material requirements that describe Material sampling, testing and inspection are normally referenced in Division II, "Construction Details," the plans, or the special provisions. In the absence of a specific Material reference, the governing Material specifications, in order of precedence, will be Division III, "Materials," AASHTO, ASTM, and the applicable Industry Standard.

Unless otherwise required, if the Contract cites specifications, standards, methods, tests, or practices from outside associations, societies, or governmental agencies, the Department is referring to the

versions of these references that are current at the date of the Advertisement for Bids. If the Contract refers to other procedures, practices, or allowances established or approved by the Department, the Department will refer to the versions of these references that are current at the date of the Advertisement for Bids. The Department and Contractor may mutually agree to update the referenced provisions to the version current at the time of application.

1603.2 SAMPLING AND TESTING

Refer to the *Schedule of Materials Control* for sampling and testing of Materials on State and Federal-aid Projects. The *Schedule of Materials Control* sets the size of Material samples and the rate of testing. The *Schedule of Materials Control* does not set Contract requirements for the Material. The *Schedule of Materials Control* is included with the Proposal Package.

The Contractor shall provide all required samples at no additional cost to the Department and shall provide such facilities and assistance as the Engineer directs for collecting and forwarding samples. If required by the Engineer, the Contractor shall submit representative preliminary samples to the Engineer in accordance with the specified methods, for examination and testing. The Contractor shall label submitted preliminary samples with the following information:

- (1) Contractor's name
- (2) Project number
- (3) The Material source
- (4) Supplier's name
- (5) Where the Material fits into the Work

For soil and Aggregate samples, the Contractor shall provide the following additional information: legal description of the property where the samples were taken and pit numbers for single source bituminous and concrete Aggregate products

The Department will provide special instructions for sampling upon request from the Contractor.

1603.3 CERTIFICATION OF COMPLIANCE

The Engineer may accept Industry Standardized products by a Certificate of Compliance in lieu of the required sampling and testing, subject to the following:

- (1) The Certificate of Compliance must state that the provided Material meets the Specification requirements, identify the Specification number, and include the Project number.
- (2) Attach the Certificate of Compliance to the invoice, weigh bill, or other shipping document, and identify the supplier, manufacturer, product, and quantities covered.
- (3) Deliver a copy of the Certificate of Compliance with the shipment of the covered Material.
- (4) Provide Certified Test Reports to the Materials Engineer if requested. Keep certified test results on file with the supplier and available to the Engineer for inspection upon request.
- (5) The Certificate of Compliance must be signed by a representative authorized to bind the company supplying the Material covered by the certification.

The Department may require samples and test the Material for compliance regardless of prior certification by the supplier.

When the Contractor uses a Certificate of Compliance in lieu of required sampling and testing, the Engineer will withhold 100 percent of the Contract Unit Price of Work until the Contractor submits the Certificate of Compliance to the Engineer.

1603.4 ACCEPTANCE

Department approval of preliminary samples will not constitute acceptance of the Material represented.

The Department will only consider the Materials actually delivered to the Project for acceptance. The Department will base Material acceptance or rejection on the results of the tests and inspections made by the Engineer. The Engineer will make final inspection and acceptance of Material at the Project.

The Department will not allow use of Material that must meet definite Contract requirements until completion of all required acceptance inspections and tests show the Material complies with the Contract requirements.

Pending determination of test results, the Contractor may use Material having a satisfactory record of compliance with the test requirements at the Contractor's risk, with the understanding that the Department will apply the provisions of 1503, "Conformity with Contract Documents," and 1512, "Unacceptable and Unauthorized Work," if the Material fails to meet the Contract requirements subsequent to placement.

1604 PLANT INSPECTION — COMMERCIAL FACILITY**1604.1 GENERAL**

The Engineer may perform plant inspection and test Material at the source before delivery to determine compliance with those test requirements and process controls required by the Contract during production. The Engineer may retest Material at the site regardless of approvals given before final inspection and acceptance. The Engineer will base Material acceptance on compliance with Contract requirements at the time of incorporation in the Work.

The Engineer may retest Material after delivery and will reject Material that fails to meet the Contract requirements.

The cost of facilities and assistance provided by the Contractor required for inspection of Materials at the source will be considered as part of the production costs and are included in the Contract Unit Prices applying to the Work involved.

1604.2 INSPECTION PROCEDURES

The Contractor shall meet the following conditions when the Engineer performs a plant inspection:

- (1) At least 14 Calendar Days before starting production, notify the Engineer of the date and place of production to allow for arrangements for the plant inspection
- (2) Notify the Engineer of the production schedule and other related information concerning inspection arrangements
- (3) In partnership with the producer, cooperate with and assist the Engineer in the inspection. The Department's inspectors will not handle the Materials being inspected
- (4) Arrange, store, and handle the Material as directed by the inspector
- (5) Provide the Engineer with office space as defined in 1604.3, "Plant Inspection – Commercial Facility, Requirements For Facilities," at commercial production plants and other facilities, tools deemed necessary for inspection, and free entry to the plant locations where manufacturing or production occur
- (6) Provide and maintain safety measures. The Engineer will terminate inspection at the source if conditions are deemed hazardous by the Engineer

1604.3 REQUIREMENTS FOR FACILITIES

Commercial plants producing bituminous mixture, structural concrete, or graded Aggregates for State Projects shall have in-plant inspection facilities meeting the following requirements:

- (1) Floor area of at least 120 square feet, with weatherproof exterior construction, adequate natural lighting, and convenient accessibility
- (2) Equipped with at least one suitable table or workbench, at least one stool and one chair, an approved fire extinguisher for use intended, and a suitable storage cabinet with lock
- (3) Provided with adequate electric lighting and electrical outlets, adequate heating system, conveniently located sanitary facilities, and convenient access to running water supply
- (4) Furnished with at least a 3-burner natural gas or electric stove for sample drying and with effective forced-air ventilation
- (5) Provided with an electrically powered mechanical sieving apparatus to determine particle size distribution of fine Aggregate (less than No. 4 Sieve) capable of accommodating six full height No. 200 round Sieves with pan and cover provided by the Department. The Engineer will approve the apparatus after verifying that the sieving meets the requirements of *AASHTO T 27*, "Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates"

The producer shall make the in-plant inspection facilities available to the Engineer before beginning production.

The producer shall maintain the in-plant inspection facilities until the termination of production, at no additional cost to the Department. If the facilities do not meet the requirements specified in this subsection, the Contractor shall provide an equivalent field laboratory unit at the plant site as directed by the Engineer and at no additional cost to the Department.

1605 SUBSTITUTE MATERIALS

When the Department classifies Material to be incorporated in the Work according to size, strength, type, or other design classification for separate units, courses, sections, or installations, the intent is to specify the acceptable level of compliance, quality, or service. The Contractor may provide Material exceeding the specified class, quality, service life, or other Contract requirements to facilitate the Work.

The Contractor may use substitutions only as approved by the Engineer, at no additional cost to the Department. The Engineer will approve the substitution and establish the revised basis for acceptance in writing.

1606 STORAGE OF MATERIALS

The Contractor shall store Materials in a manner that preserves the quality and fitness of the Materials for the Work. The Department may inspect the stored Materials before use in the Work, even though the Department may have inspected the Materials before storage. The Contractor shall store Materials to facilitate inspection.

The Contractor may use portions of the Project Site for storing Materials and for placing plant and Equipment. The Contractor shall provide needed additional space at no additional cost to the Department. The Contractor shall restore all portions of the Project Site used for storage or operations to an acceptable condition, at no additional cost to the Department, before the Department will grant final acceptance of the Project.

The Contractor shall not use private property for storing Materials or Equipment without written permission of the owner or lessee. The Contractor shall provide the Engineer evidence of the written permission to use private property upon request.

The Department will only allow stockpiling within the Project Site of Materials that the Contractor will incorporate into the Work. This Specification applies to manufactured and natural Materials, including Materials stockpiled for crushing.

1607 HANDLING MATERIALS

The Contractor shall handle Materials to preserve quality and fitness for the Work. The Contractor shall transport Materials in vehicles constructed to prevent loss of Material after loading and measuring. The Contractor shall ensure the quantities of Materials as loaded are the same as the quantities received on the Project.

The Contractor shall use methods and Equipment to load and haul bulk Materials that prevent contamination or loss of Material after measurement and acceptance for the Work.

1608 UNACCEPTABLE MATERIALS

The Department considers Materials that do not meet the Contract requirements before being incorporated into the Work as unacceptable. The Engineer will reject unacceptable Material. The Contractor shall remove unacceptable Material from the Project, unless otherwise directed by the Engineer as allowed by 1603, "Materials: Specifications, Samples, Tests, and Acceptance."

The Contractor may use Material that the Department determined was unacceptable if the Contractor brings the Material into compliance.

1609 DEPARTMENT-PROVIDED MATERIAL

The Department will deliver or make available Department-provided Material at the locations shown on the Plans or in the Special Provisions. The Contract Unit Price for the relevant Contract Items includes the costs of handling, transporting, and placing the Materials.

The Contractor shall take responsibility for Department-provided Material after the Department delivers or makes the Material available to the Contractor. The Department will deduct from moneys due the Contractor for shortages, deficiencies, or damage to the Material occurring after taking possession and for demurrage charges.

Legal Relations and Responsibility to the Public

1701 LAWS TO BE OBSERVED

The Contractor shall observe and comply with the following, relating to the conduct of Work on the Project or to individuals engaged in Work for the Project or employed on the Project:

- (1) All applicable State and Federal laws and regulations
- (2) Orders and decrees of bodies and tribunals with lawful jurisdiction over the Work
- (3) Such local ordinances as are applicable to the Work, as determined by the Department

The Contractor shall hold harmless and indemnify the Department and its representatives against all claims and liabilities arising from or based on violations committed by the Contractor or anyone subject to the control of the Contractor.

The Contractor shall immediately report to the Engineer in writing any Contract requirements that are contrary to or inconsistent with any law, regulation, order, decree, or applicable ordinance.

The Contractor shall endeavor to comply with relevant and significant ordinances, in consultation with the Engineer. Work on the State Trunk Highway system is generally not subject to regulation by political subdivisions of the State.

EXHIBIT B

This project has been designed and fabricated in accordance with the following:

1. DESCRIPTION
Owner's Name and Address: CITY OF DULUTH - PATTI STALVIG
411 WEST FIRST STREET, DULUTH, MN. 55802

Building Supplier's Name and Address: GREYSTONE CONSTRUCTION
2995 WINNER CIRCLE DRIVE, SHAKOPEE, MN. 55379

Manufacturer's Name and Address: BRITESPAN BUILDING SYSTEMS INC.
688 JOSEPHINE ST. N. R.R.#1, WINGHAM, ON. N0G 2W0

Site Location: 1123 MESABA AVE., DULUTH, MN. 55811

Legal Address: 411 WEST FIRST STREET, DULUTH, MN. 55802

Building Type: ATLAS 18.2
Building Size: 48L8 x 80' @ 8' o.c. (3,840 sq. ft.)
Applicable Building Code: ASCE 7-16 / IBC 2018
Intended Use and Occupancy: SALT/ SAND STORAGE
Use Group: S-2 LOW
Fabric Type: RU88X-6 400 (NON-FR)

2. DESIGN STANDARDS
The design as per ASCE 7-16 (SECTION 2.4.1 Allowable Stress Design), 2020 MINNESOTA Building Code with 2018 IBC amendments, Minimum Design Loads for Building and Other Structures. SANSI / AISC 360-10, Specification for Structural Steel Buildings AISI-Truss, North American Specification for the Design of Cold-Formed Steel Structural Members NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2015 Edition.

3. MANUFACTURING STANDARDS
Fabrication in accordance with ANSI / AISC 360-10 and AISI-Truss, as applicable. Welding in accordance with AWS D1.1 and D1.3 Structural Welding Code and AISI-Truss, as applicable. BRITESPAN Building Systems Inc. is an AWS approved fabricator as per B5.17 and QC17 standards. Welders have been qualified in accordance with QC7-93.

4. DESIGN CRITERIA
Risk Category: RISK CATEGORY I
Exposure Category: EXPOSURE C (NON COASTAL) - FULLY EXPOSED
Enclosure Category: PARTIALLY ENCLOSED

A) DEAD LOADS
I) Self-weight of Building Components
II) Collateral (hanging) load, not to exceed 0.25 psf as an allowance for mechanical, electrical ceiling, sprinklers, etc, or any combination there of.

B) LIVE LOADS
Live Loads determined in accordance with ASCE 7-16 / IBC 2018
Minimum roof live load. 5.0 psf (Non-reducible)

C) SNOW LOADS
Snow loads determined in accordance with ASCE 7-16 / IBC 2018
Ground Snow Load, Pg (1/50) 60.0 psf
Roof Snow Load, Pf 36.3 psf
Exposure Factor, Ce 0.91
Thermal Factor, Ct 1.2
Importance Factor, Is 0.8
Sloped Roof Snow Co-efficient, Cs (0.72 Nominal)

D) WIND LOADS
Wind loads determined in accordance with ASCE 7-16 / IBC 2018
Wind Speed (V ult) 105.0 mph
Basic Wind Pressure, q 21.9 psf
Exposure Coefficient, Kh 0.91
Topographic Factor, Kzt 1.0
Directionality Factor, Kd 0.85

Wind load reducible by 0.6 in allowable stress load combinations that include wind.

E) LOAD COMBINATIONS
Load combinations determined in accordance with ASCE 7-16 / IBC 2018

BASE REACTION
THE MAXIMUM FORCES AT THE TRUSS SUPPORTS AT ELEVATION 100'-0", DUE TO THE LOADS LISTED ABOVE, ARE AS FOLLOWS: (NOTE: REACTIONS AT COMMON (OR INTERIOR) TRUSSES - END TRUSSES HAVE 1/2 TRIBUTARY WIDTH - FOR SNOW & LIVE LOADS)

	SIDE A		SIDE B	
	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL
LOAD CASE:	X _A (kips)	Y _A (kips)	X _B (kips)	Y _B (kips)
DEAD	0.11	0.37	-0.11	0.37
COLLATERAL	0.02	0.05	-0.02	0.05
LIVE	0.37	0.92	-0.37	0.92
SNOW BALANCED	2.06	4.09	-2.06	4.09
SNOW UNBALANCED	1.43	1.78	-1.43	4.34
WIND: PERPENDICULAR	-3.08	-2.60	-0.30	-2.36
WIND-PARALLEL	-0.33	-4.68	0.33	-4.68
WIND-INTERNAL +	-0.13	2.36	0.13	2.36
WIND-INTERNAL -	0.13	-2.36	-0.13	-2.36
Note: Negative values of Y reactions indicates uplift forces.				



GENERAL
THIS DRAWING INCLUDES INFORMATION HERE-ON, REMAINS THE PROPERTY OF BRITESPAN BUILDING SYSTEMS, INC. IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE SALES ORDER AND SHALL NOT BE MODIFIED, REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF BRITESPAN BUILDING SYSTEMS, INC.

THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE, GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN CONFORMANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION INCLUDING THE PROPER USE OF TEMPORARY BRACING.

THIS BUILDING IS NOT DESIGNED TO BE LIFTED AS AN ASSEMBLED UNIT. BRITESPAN BUILDING SYSTEMS, INC. IS NOT RESPONSIBLE FOR LOSSES AND / OR DAMAGE AS A RESULT OF LIFTING THIS BUILDING. IF, HOWEVER, IT HAS BEEN DETERMINED TO LIFT THIS BUILDING, IT IS THE RESPONSIBILITY OF THE PERSON, FIRM OR COMPANY CONTRACTED TO LIFT THE BUILDING TO SECURE THE SERVICES OF A QUALIFIED ENGINEER TO ENSURE THE LIFT DOES NOT DAMAGE THE BUILDING AND TO DETERMINE AND FINALIZE ALL ASPECTS OF THE LIFT INCLUDING ALL PARTS / CONNECTORS TO BE ADDED TO THE BUILDING TO FACILITATE THE LIFT.

BRITESPAN BUILDING SYSTEMS, INC. IS NOT RESPONSIBLE FOR ERRORS, OMISSION OR DAMAGES INCURRED IN THE ERECTION OF THE COMPONENTS SHOWN ON THIS DRAWING, NOR FOR THE INSPECTION OF ERECTED COMPONENTS TO DETERMINE THE SAME.

THIS CERTIFICATION AND ENGINEERING SEAL APPLIES ONLY TO PRODUCTS DESIGNED AND FABRICATED BY BRITESPAN BUILDING SYSTEMS, INC. FOR THE LOADING CONDITIONS DESIGNED ON THESE DRAWINGS. CONCRETE FOUNDATIONS, STEEL COMPONENTS BY OTHERS AND ERECTION SUPERVISION ARE NOT THE RESPONSIBILITIES OF BRITESPAN BUILDING SYSTEMS, INC. OR THE CERTIFYING ENGINEER. ALL DOORS, WINDOWS AND ROLL-UP CURTAINS MUST BE DESIGNED TO SUPPORT THE SITE WIND LOADING AND ARE RELIED ON TO BE CLOSED IN THE EVENT OF HIGH WINDS.

ANCHOR BOLTS
ANCHOR BOLT DIAMETERS ARE DETERMINED IN ACCORDANCE WITH ASTM F1554 USING MINIMUM GRADE 55 Fy = 55 KSI (380 MPa). ANCHOR BOLT LENGTHS AND LOAD TRANSFER TO THE FOUNDATION ARE TO BE DETERMINED BY OTHERS.

ANCHOR BOLT PROJECTIONS AND LENGTHS ARE RESPONSIBILITY OF FOUNDATION ENGINEER.

FOUNDATION MUST BE LEVEL, SQUARE AND SMOOTH. ANCHOR BOLTS MUST BE ACCURATELY PLACED AS SHOWN ON THE DRAWINGS.

FINISHED FLOOR ELEVATIONS AND UNDERSIDE OF BASE PLATE IS 100'-0" UNLESS NOTED.

ERECTION
THE ERECTION MUST PROVIDE SAFE WORKING CONDITIONS AND PRACTICES CONFORMING TO ALL SAFETY REGULATIONS. ALL THE LIFTING DEVICES ARE TO BE SPECIFICALLY DESIGNED TO LIFT THE VARIOUS BUILDING COMPONENTS. SLINGS AND SPREADER BARS ARE TO BE USED TO PREVENT PERMANENT DEFORMATION OF ALL STRUCTURAL COMPONENTS.

ERECTION SHOULD START AT A BRACED BAY. ERECT AND TEMPORARILY SUPPORT TRUSSES. USE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY OF THE FRAMES. INSTALL PURLINS AND CROSS BRACING. PLUMB AND SQUARE TRUSSES IN ACCORDANCE WITH CAN3-S16.1 AND OSHA 29 CFR PART 1926 - SAFETY STANDARD FOR STEEL ERECTION.

ENSURE ALL PURLINS REMAIN PARALLEL.

STRUCTURAL FRAMING MEMBERS ARE CONSIDERED PLUMB, LEVEL, AND ALIGNED WHEN THE VARIANCE DOES NOT EXCEED 1:300.

STRUCTURAL BOLTS
BOLTS IN CONNECTIONS NOT SUBJECT TO TENSION LOADS, OR WHERE LOOSENING DUE TO VIBRATION OR LOAD FLUCTUATIONS ARE NOT DESIGN CONSIDERATIONS NEED ONLY BE SNUG TIGHTENED, WHICH IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. ALL STRUCTURAL BOLT DIAMETERS LESS THAN 1" CONFORM TO ASTM A449 GR.5, BE GALVANIZED. ALL STRUCTURAL NUT DIAMETERS LESS THAN 1" CONFORM TO ASTM A563 GR.8, BE GALVANIZED.

ALL BOLTS LARGER THAN 1" DIA. CONFORM TO ASTM A325.
ALL OTHER DIA. HEX BOLTS CONFORM TO SAE GR.5 OR EQUIVALENT.
ALL BOLTS SHALL BE GALVANIZED.
ALL BOLT REFERENCES REQUIRE BOTH BOLT AND NUT.

BOLTS IN CONNECTIONS NOT SUBJECT TO TENSION LOADS SHALL BE SNUG TIGHTENED PER RCSC 9.1. THE FOLLOWING TENSION SCHEDULE IS PROVIDED FOR REFERENCE:

TABLE A - BOLT TENSION	
SIZE	GRADE 5
in	kips
5/8	18
3/4	28
7/8	39
1.0	51
SIZE	A325
1 1/8	56
1 1/4	74
1 1/2	106



Servinsky Engineering, PLLC
280 Douglas Avenue
Holland, MI 49424
616-738-1281

STRUCTURAL BOLT TORQUE VALUES (AS REFERENCE ONLY) RSCS APPROVED METHOD REQUIRED WHERE APPROPRIATE. TABLE B LISTS THE BOLT CLAMP WITH SUGGESTED ASSEMBLY TORQUE VALUES.

TABLE B - IMPERIAL						
GRADE 5						
SIZE						
DIA. in	Threads Per Inch	Tensile ksi Min	Proof Load lbs	Clamp Load lbs	Torque Dry ft-lbs	Torque Lube ft-lbs
3/8	16	120	6600	4950	15	23
7/16	14	120	9050	6780	50	35
1/2	13	120	12100	9050	75	55
5/8	11	120	19200	14400	150	110
3/4	10	120	28400	21300	260	200
A325						
1 1/4	7	105	71700	53800	1120	840
1 1/2	7	135	103000	77300	1775	1330

MATERIAL SPECIFICATIONS:
ROLLED STRUCTURAL SECTIONS CONFORM TO ASTM A36 / A36M-14 (42W / 50W).

STRUCTURAL PLATE CONFORMS TO THE FOLLOWING SPECIFICATIONS:
PLATES ASTM A572 GR 42 / 50 & CSA G40.20 300W / 350W
H.S.S. ASTM A500 GRADE C / CSA G40.21 350W

COATINGS OF STRUCTURAL COUPLER & KINGPIN PLATES ARE HOT-DIP GALVANIZED IN ACCORDANCE WITH A123 / A123M-17.

ALL WELDED COMPONENTS (TRUSSES) ARE HOT-DIP GALVANIZED INSIDE AND OUT IN ACCORDANCE ASTM A123 / A123M-17.

PURLINS AND TIE-DOWN PIPE ARE PRE-GALVANIZED.

DIAGONAL BRACE STEEL CABLES EXTRA HIGH STRENGTH PER ASTM A475-03 (2014)
CROSS CABLES - Ø 5/16" TYP U/N.

STRUCTURAL COMPONENTS				
MODEL	CHORD SIZE	TRUSS DEPTH	WEB	LEG (If Applicable)
ATLAS 18.2	2-3/8" DIA.	18"	1-1/4" DIA.	2-1/2" Square
PURLINS				
2-7/8" (73.0mm) DIA.				

ALL OTHER SIZE / GAUGES - MIN YIELD = 50ksi.

FABRIC / LINER NOTES
EXTERIOR FABRIC IS AN INTEGRAL PART OF THE STRUCTURAL SYSTEM; REMOVAL OR ALTERATION WITHOUT PRIOR AUTHORIZATION IS PROHIBITED. ALL TEARS MUST BE PATCHED IMMEDIATELY TO AVOID WARRANTY PROBLEMS.

EXTERIOR FABRIC WILL DEFLECT UNDER LOAD, THEREFORE ALL BUILDING ACCESSORIES (LIGHTING, HVAC, SPRINKLERS, ETC) MUST BE LOCATED BENEATH THE INNER CORD OF THE TRUSS. ANYTHING ABOVE THIS MUST BE REVIEWED AND APPROVED IN WRITING BY BRITESPAN BUILDING SYSTEMS, INC. SEVERE DAMAGE TO THE BUILDING AND ACCESSORIES MAY RESULT FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.

FABRIC SPECIFICATIONS
ALL POLYETHYLENE MEMBRANES WILL POSSESS THE FOLLOWING MINIMUM SPECIFICATIONS:

NON-FR - RU88X-6 400		
PHYSICAL	PROPERTIES	DESCRIPTION
WEAVE	Woven clear HDPE scrim	
COATING	LDPE, 4 mil (95 g/m ² /side)	
WEIGHT	12 oz/ yd ² (407 g/m ²) +/-5%	
THICKNESS	23 mil (0.59 mm)	ASTM D-1777
GRAB TENSILE	WARP 370 lb 1664 N / WEFT 345 lb 1532 N	ASTM D-5034
STRIP TENSILE (N/5cm)	WARP 250 lb/in (2220) / WEFT 235 lb/in (2086)	ASTM D-5035
TONGUE TEAR	WARP 110 lb 488 N / WEFT 100 lb 444 N	ASTM D-2261
TRAPEZOIDAL TEAR	WARP 100 lb 444 N / WEFT 90 lb 400 N	ASTM D-4533
MULLEN BURST	650 psi (4428 kPa)	ASTM D-3786
LOW TEMPERATURE BEND	-60°C	ASTM D-2136
FR PERFORMANCE	This product meets the requirements of ASTM E84-00a (Class 1)	

END WALL UNFACTORED REACTIONS - SO-8937				
	PART #	WIND PRESSURE (Ksf)	VERT. REACTION (Kip)	LONGIT. REACTION (Kip)
END 1	EC-1	0.02	0.63	3.41

DRAWING SCHEDULE		RELEASE			
DWG #	DRAWING TITLE	REL.	DATE	REL.	DATE
CV-1 US	COVER PAGE	0	08.NOV.2021		
BP-1	BASEPLATE LAYOUT	0	08.NOV.2021		
BP-2	BASEPLATE DETAILS	0	08.NOV.2021		
ISO-1	PROJECT LAYOUT	0	08.NOV.2021		
PU-1	PURLIN & X-CABLE LAYOUT	0	08.NOV.2021		
BR-1	BRACING LAYOUT - PLAN VIEW	0	08.NOV.2021		
BR-2	BRACING LAYOUT - ELEVATION	0	08.NOV.2021		
EW-1	ENDWALL 1 LAYOUT	0	08.NOV.2021		
EW-2	ENDWALL 2 LAYOUT	0	08.NOV.2021		
SD-1	STANDARD DETAILS 1	0	08.NOV.2021		
SD-2	STANDARD DETAILS 2	0	08.NOV.2021		
FD-1	FABRIC DETAILS 1	0	08.NOV.2021		
ED-1	ENDWALL DETAILS	0	08.NOV.2021		

ROOF PLAN NOTES
UNLESS NOTED, USE Ø5/8" BOLTS FOR PURLIN TO TRUSS, CABLE OR ROD BRACING TO TRUSS AND ANGLES TO TRUSS FOR ALL CONNECTIONS.

CABLE / ROD AND PURLIN BRACING ARE AN INTEGRAL PART OF THE TRUSS STRUCTURAL SYSTEMS AND SHOULD BE PROPERLY INSTALLED PRIOR TO ERECTION OF FABRIC ROOF AND ENDWALL PANELS. REMOVAL OR ALTERATION OF ANY BRACING WITHOUT PRIOR AUTHORIZATION FROM BRITESPAN BUILDING SYSTEMS, INC. IS PROHIBITED.

ELEVATION NOTES
HOLES REQUIRED IN HSS COLUMNS, HEADERS OR PURLINS FOR FRAMED OPENINGS - FIELD DRILLED. DOOR OR WINDOW POST CONNECTIONS TO BE BY ERECTOR.

WALK DOOR, WINDOW AND FRAMED OPENING POSTS TO BE FIELD ANCHORED TO CONCRETE WITH Ø1/2" "HILTI KWIK-BOLTS" OR SIMILAR

MATERIAL STORAGE
GALVANIZED, ALUMINIZED, AND COLORED MATERIALS ARE SUBJECT TO CORROSION AND DISCOLORATION IF THEY ARE IMPROPERLY STORED. SHORT TERM JOB SITE STORAGE OF STEEL COMPONENTS MAY BE TOLERATED, PROVIDED CARE IS TAKEN TO KEEP THE MATERIALS DRY AT ALL TIMES. WHEN TRUSSES ARE TO BE STORED OUTDOORS, THEY SHOULD BE PLACED AT AN ANGLE SUFFICIENT TO PROMOTE GOOD DRAINAGE. IN ADDITION, SEVERAL INCHES OF CLEARANCE MUST BE PROVIDED BETWEEN THE LOWER END AND THE GROUND TO ALLOW VENTILATION.

NOTE: BRITESPAN BUILDING SYSTEMS, INC. WILL NOT BE HELD RESPONSIBLE FOR MATERIALS WHICH ARE IMPROPERLY PROTECTED AFTER DELIVERY.

BRITESPAN BUILDING SYSTEMS, INC. IS AN AWS CERTIFIED DIVISION 2.1 MANUFACTURER OF TRUSSES. ALL WELDS ARE COMPLETED IN SHOP AS PER AWS STANDARD AWS D1.3. AS PART OF OUR AWS CERTIFICATION AN INDEPENDENT THIRD PARTY TESTS OUR WELDERS AND PROCEDURES AND AUDITS OUR FACILITIES. THIS CERTIFICATION MEETS WITH AWS D1.1 AND D1.3 CRITERIA.

FOUNDATION DESIGN IS NOT BY ENGINEER OF STRUCTURE UNLESS BY SEPARATE SIGNED CONTRACT.

MINIMUM EDGE DISTANCE OF ANCHOR BOLT CENTRELINE TO EDGE OF CONCRETE FOUNDATION SHALL BE 4 INCHES. ANCHOR DESIGN IS BY FOUNDATION ENGINEER.

FOUNDATION DESIGNER SHALL DETERMINE ANCHOR BOLT SIZE AND TYPE FOR BRITESPAN LOADS. PROPER MINIMUM EDGE DISTANCE FROM CENTER OF ANCHORS TO EDGE OF CONCRETE SIDEWALLS AND ENDWALLS SHALL BE PROVIDED FOR THE ANCHOR TYPE. FOR FOUNDATION DESIGN & RESPONSIBILITY - PLEASE SEE FOUNDATION DRAWINGS (DRAWN & SUPPLIED BY OTHERS).

*** MAINTENANCE REQUIREMENTS FOR THE STRUCTURE ***

YEARS 1 - 2 EVERY 12 MONTHS:
100% of all cable tensioning inspected and reported to in writing to BRITESPAN and Engineer of structure.
YEARS 3 - 10 EVERY 24 MONTHS:
25% of all cable tensioning (randomly chosen) - where tensioning found not adequate, check all other similar cable tensioning, report in writing to BRITESPAN and Engineer of structure.

*** NOTE ***
TEMPORARY BRACING / SUPPORTS REQUIRED DURING ERECTION OF BUILDING. BRACING MUST REMAIN IN PLACE UNTIL STRUCTURE AND ALL PERMANENT BRACING IS COMPLETELY INSTALLED. TEMPORARY BRACING DESIGN AND SUPPLY IS NOT THE RESPONSIBILITY OF BRITESPAN BUILDING SYSTEMS INC.

PROFESSIONAL ENGINEER

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: MARK S. SERVINSKY P.E.
Signature: [Signature]
Date: 11/10/2021 License # 46330
City of Duluth Contract No. _____

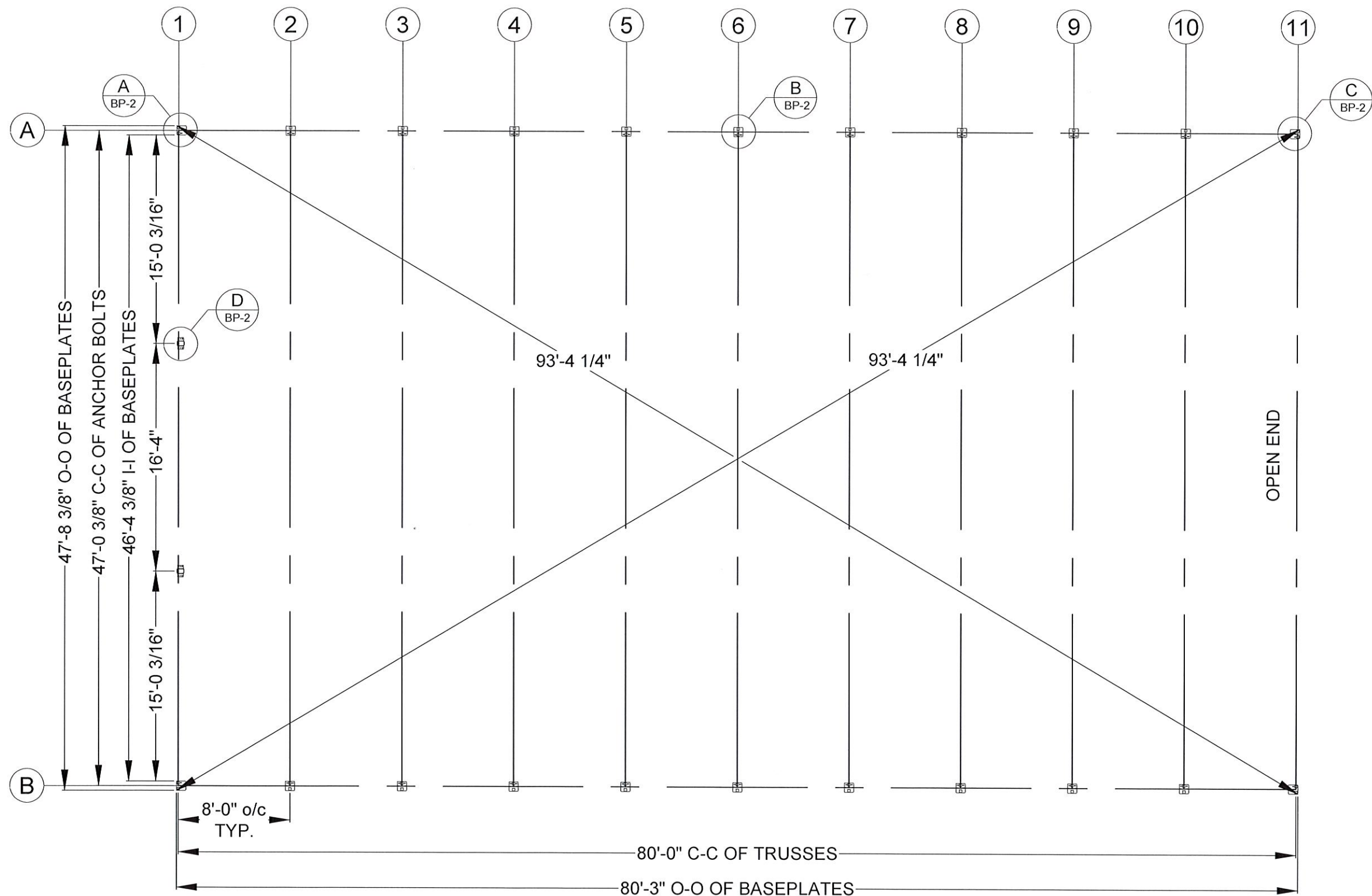


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REV #	CR #	DESCRIPTION:	DATE:	DEALER:	CUSTOMER:
0		ISSUED FOR CONSTRUCTION	08.NOV.2021	GREYSTONE CONSTRUCTION 2995 WINNER CIRCLE DRIVE SHAKOPEE, MN. 55379	CITY OF DULUTH 411 WEST FIRST STREET DULUTH, MN. 55802
				PROJECT: ATLAS 18.2 48L8 x 80' 8' oc	ORDER ID: SO# 8937 WIDTH-MOUNT-FABRIC 48-L8-320
					DRAWING TITLE: COVER PAGE SHEET NUMBER: CV-1 US
					PAGE NUMBER: 01 /13

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RDR
CHECKED BY:
TWF



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CHECKED BY:
TWF

REV #	CR #	DESCRIPTION:	DATE:
0		ISSUED FOR CONSTRUCTION	08.NOV.2021

DEALER:
GREYSTONE CONSTRUCTION
2995 WINNER CIRCLE DRIVE
SHAKOPEE, MN. 55379

PROJECT:
ATLAS 18.2
48L8 x 80'
8' oc

CUSTOMER:
CITY OF DULUTH
411 WEST FIRST STREET
DULUTH, MN. 55802

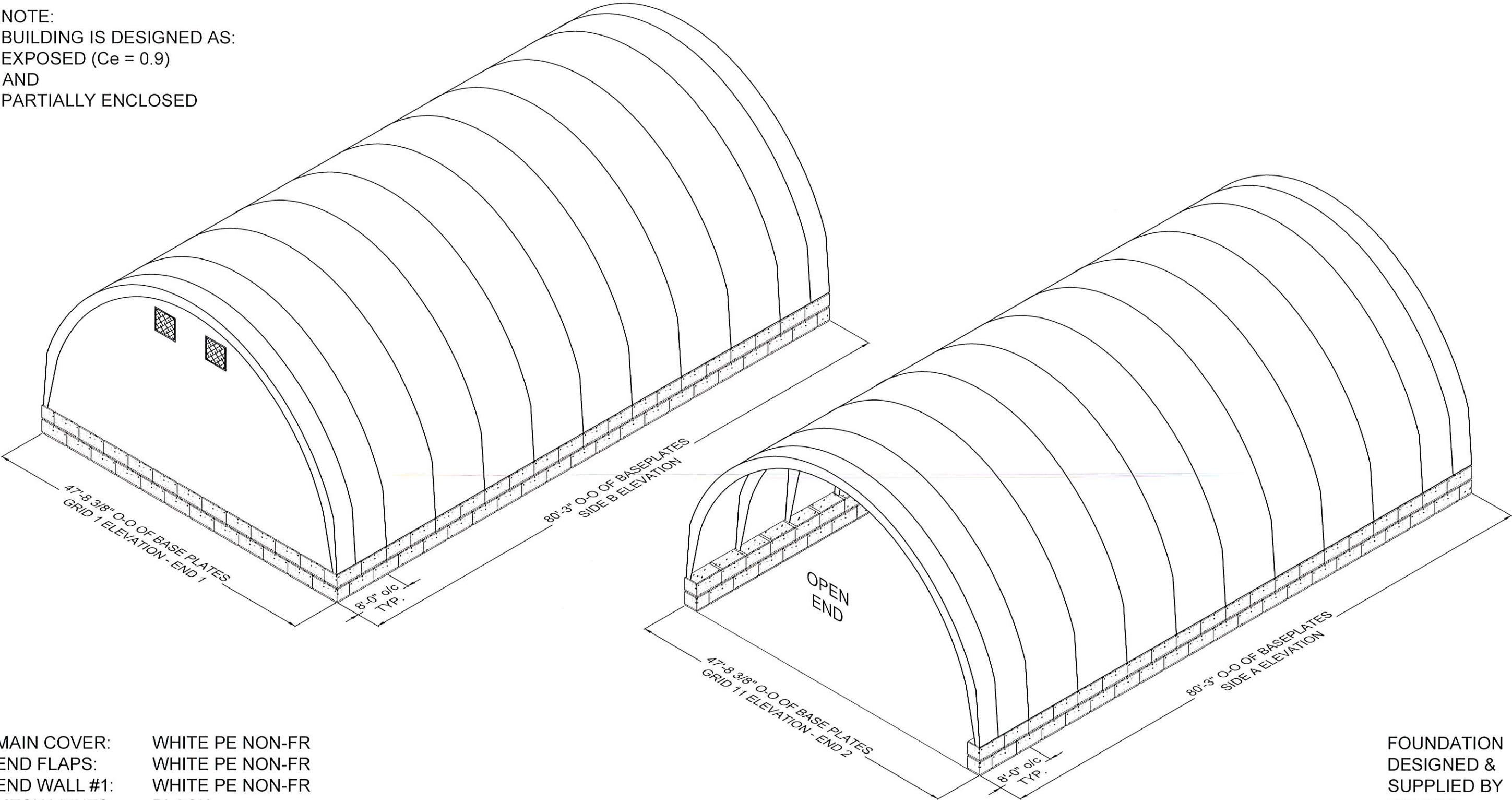
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48-L8-320

DRAWING TITLE:
BASEPLATE LAYOUT
SHEET NUMBER:
BP-1

PAGE NUMBER:
02 /13

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Print Name: MARK S. SERVINSKY P.E.
Signature: [Signature]
Date: 11/10/2021 License # 46330
City of Duluth Contract No. _____

NOTE:
BUILDING IS DESIGNED AS:
EXPOSED (Ce = 0.9)
AND
PARTIALLY ENCLOSED



MAIN COVER: WHITE PE NON-FR
END FLAPS: WHITE PE NON-FR
END WALL #1: WHITE PE NON-FR
MESH VENTS: BLACK

FOUNDATION
DESIGNED &
SUPPLIED BY
OTHERS



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CUSTOMER:
CITY OF DULUTH
411 WEST FIRST STREET
DULUTH, MN. 55802

DRAWING TITLE:
PROJECT LAYOUT
SHEET NUMBER:
ISO-1

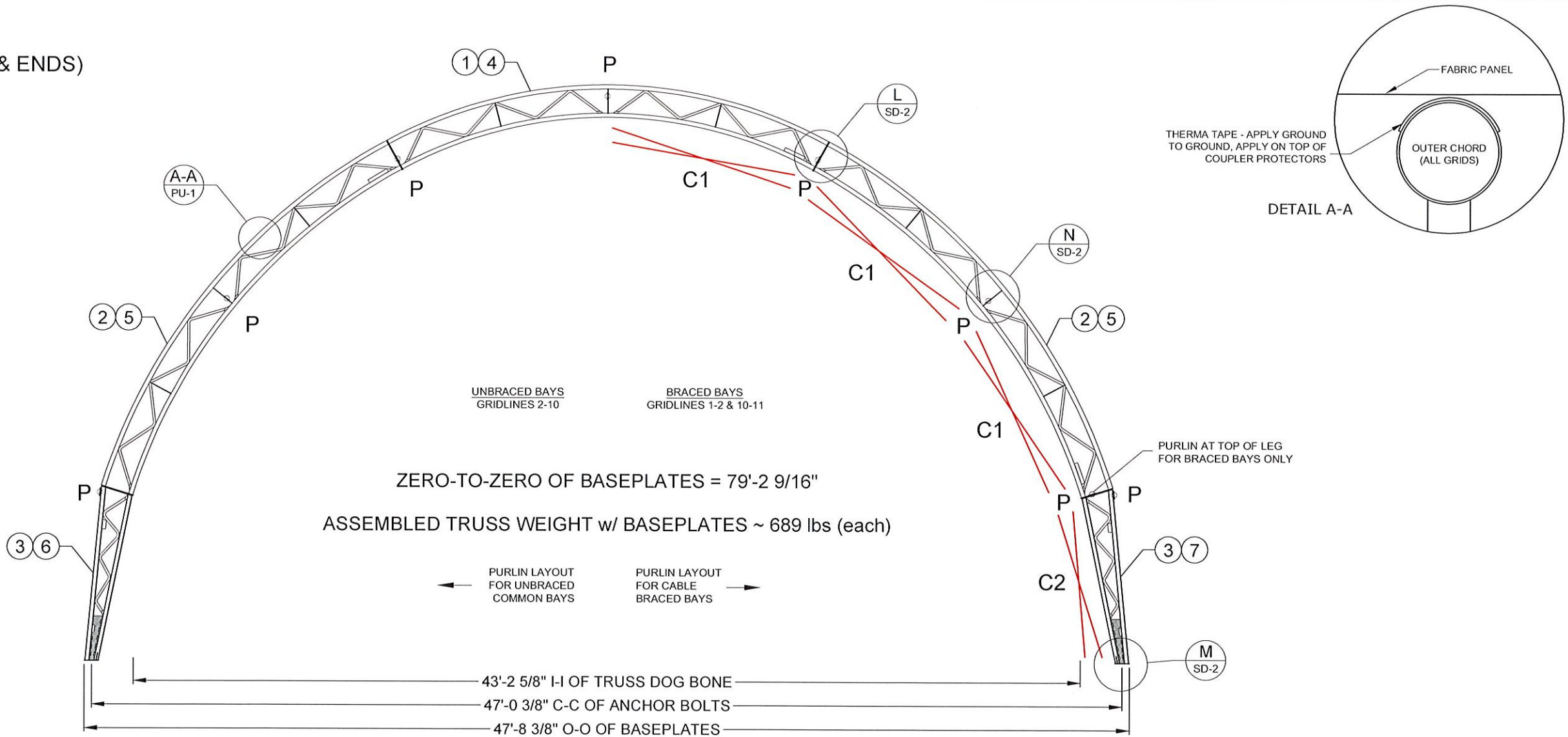
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Print Name: MARK S. SERVINSKY, P.E.
Signature: [Signature]
Date: 11/10/2021 License # 44330
City of Duluth Contract No. _____

NOTE:
HDG HARDWARE (BUILDING & ENDS)



ATLAS 18.2 - 48L8 WIDE

TRUSS COMPONENTS FOR ATLAS 18.2 - 48L8							
LOCATION	ITEM #	PART #	QTY.	DESCRIPTION	O/C	I/C	WEB
INTERIOR	1	18A4201C1	1	SECTION - ATLAS 18.2 - 42W - COMMON	11GA.	11GA.	1-1/4" 14GA.
	2	18A5001C1	2	SECTION - ATLAS 18.2 - 50W - COMMON	11GA.	11GA.	1-1/4" 14GA.
	3	6834	2	LEG - A18.1 - 32L8 - COMMON	1/8"	1/8"	1-1/4" 14GA.
END	4	18A4201E1	1	SECTION - ATLAS 18.2 - 42W - END	11GA.	11GA.	1-1/4" 14GA.
	5	18A5001E1	2	SECTION - ATLAS 18.2 - 50W - END	11GA.	11GA.	1-1/4" 14GA.
	6	6835	1	LEG - A18.1 - 32L8 - LEFT END	1/8"	1/8"	1-1/4" 14GA.
	7	6836	1	LEG - A18.1 - 32L8 - RIGHT END	1/8"	1/8"	1-1/4" 14GA.

ATLAS 18.2 48L8	8' BAY	
	PART #	LENGTH
C1 CABLE	C05TT157G	157"
C2 CABLE	C05TT134G	134"

BRACING LEGEND	
ITEM	DESCRIPTION
X	= CROSS CABLE 5/16"
P	= TYPICAL PURLIN - 2-7/8" DIA. X 14 GA.
CABLE LEGEND	
ITEM	DESCRIPTION
	CROSS CABLE 5/16"

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REV # 0

CR #

DESCRIPTION: ISSUED FOR CONSTRUCTION

DATE: 08.NOV.2021

DEALER: GREYSTONE CONSTRUCTION
2995 WINNER CIRCLE DRIVE
SHAKOPEE, MN. 55379

CUSTOMER: CITY OF DULUTH
411 WEST FIRST STREET
DULUTH, MN. 55802

PROJECT: ATLAS 18.2
48L8 x 80'
8' oc

ORDER ID: SO# 8937

WIDTH-MOUNT-FABRIC: 48-L8-320

DRAWING TITLE: PURLIN & X-CABLE LAYOUT

SHEET NUMBER: PU-1

PAGE NUMBER: 05 /13

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CHECKED BY: TWF

PROFESSIONAL ENGINEER

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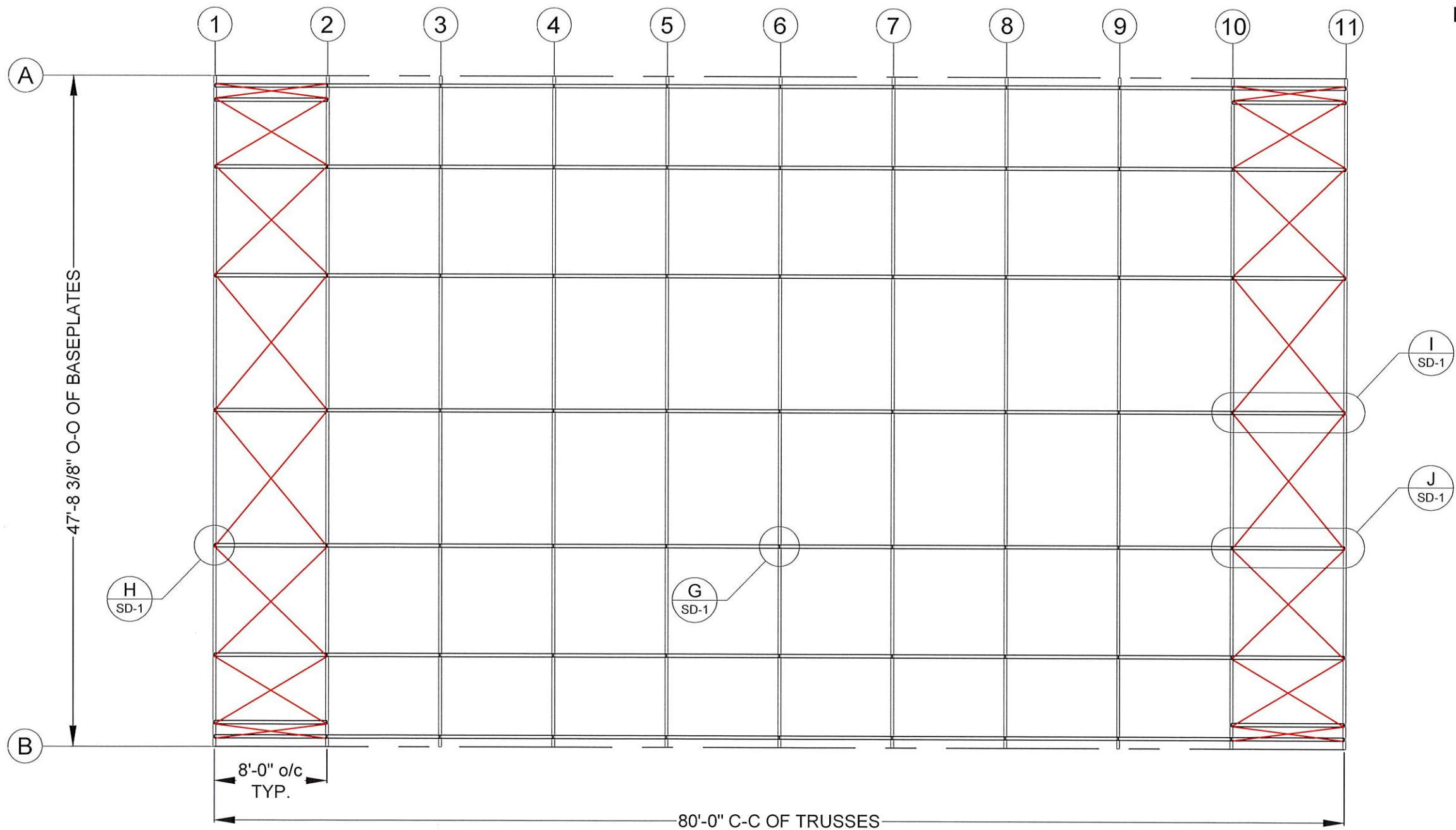
Print Name: MARK S. SERVINSKY, P.E.

Signature:

Date: 11.10.2021 License #: 46330

City of Duluth Contract No. _____

NOTE:
HDG HARDWARE (BUILDING & ENDS)



PLAN VIEW

FOR PURLIN DETAILS SEE: SD-1

FOR CABLE DETAILS SEE: SD-2

PURLIN LEGEND	
ITEM	DESCRIPTION
	TYPICAL PURLIN 2-7/8" DIA. X 14 GA.
CABLE LEGEND	
ITEM	DESCRIPTION
	CROSS CABLE 5/16"



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REV #	CR #	DESCRIPTION:	DATE:
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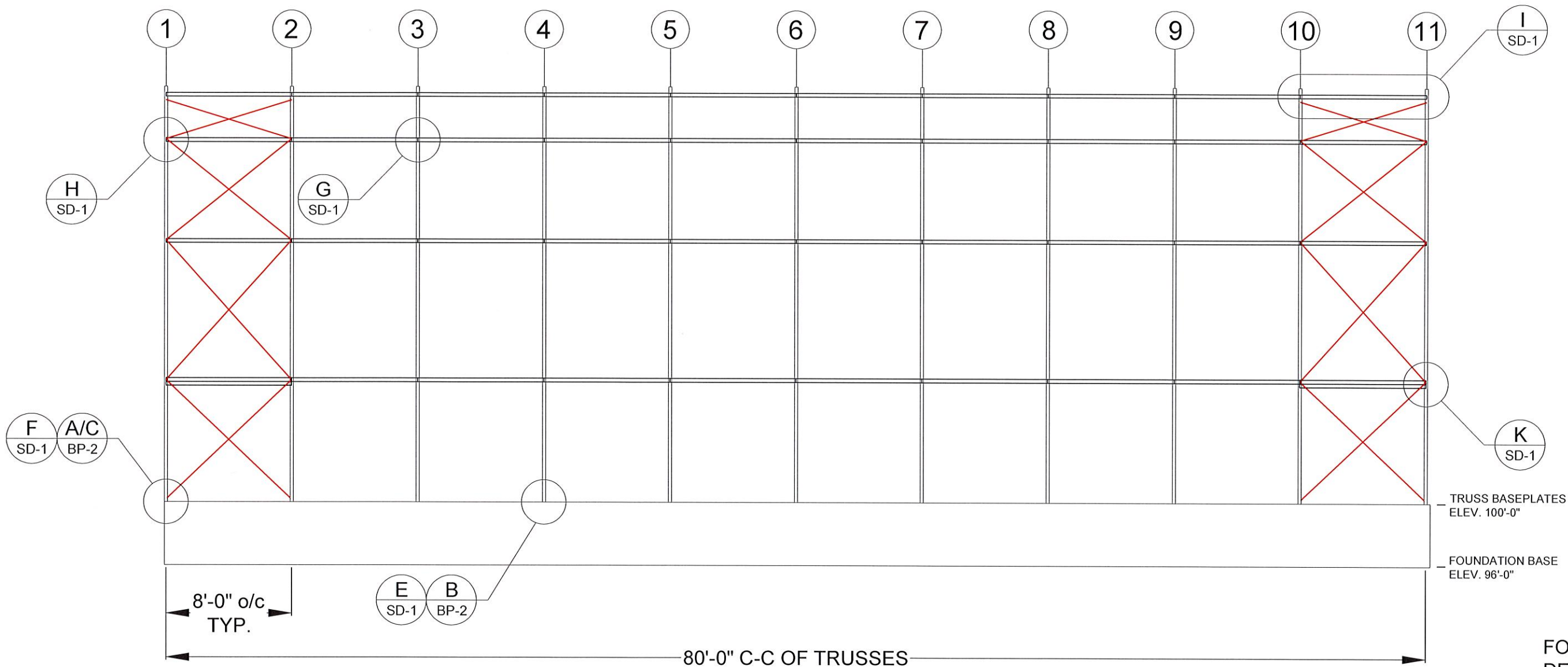
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DRAWING TITLE:
BRACING LAYOUT - PLAN VIEW
SHEET NUMBER:
BR-1
PAGE NUMBER:
06 /13

PROFESSIONAL ENGINEER
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Print Name: **MARK S. SERVINSKY P.E.**
Signature:
Date: **11/10/2021** License # **46330**
City of Duluth Contract No. _____

NOTE:
HDG HARDWARE (BUILDING & ENDS)



ELEVATION

FOR PURLIN DETAILS SEE: SD-1
FOR CABLE DETAILS SEE: SD-2

FOUNDATION
DESIGNED &
SUPPLIED BY
OTHERS

PURLIN LEGEND	
ITEM	DESCRIPTION
	TYPICAL PURLIN 2-7/8" DIA. X 14 GA.
CABLE LEGEND	
ITEM	DESCRIPTION
	CROSS CABLE 5/16"



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RDR
CHECKED BY:
TWF

REV #	CR #	DESCRIPTION:	DATE:
0		ISSUED FOR CONSTRUCTION	08.NOV.2021

DEALER:
GREYSTONE CONSTRUCTION
2995 WINNER CIRCLE DRIVE
SHAKOPEE, MN. 55379

PROJECT:
ATLAS 18.2
48L8 x 80'
8' oc

ORDER ID:
SO# 8937
WIDTH-MOUNT-FABRIC
48-L8-320

CUSTOMER:
CITY OF DULUTH
411 WEST FIRST STREET
DULUTH, MN. 55802

DRAWING TITLE:
BRACING LAYOUT - ELEVATION
SHEET NUMBER:
BR-2

PAGE NUMBER:
07 /13

PROFESSIONAL ENGINEER

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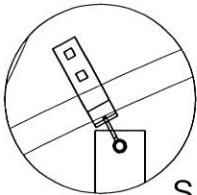
Print Name: **MARK S. SERVINSKY, P.E.**
Signature:
Date: **11/10/2021** License # **46330**
City of Duluth Contract No. _____

NOTES:

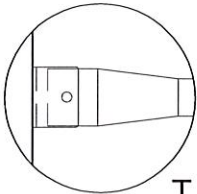
1. "H" DENOTES BLOCK WINCH & STRAP FOR FASTENING TUBE
2. EC VERTICAL LOCATION DIMENSIONS ARE TO THE CENTRELINE OF MEMBERS
3. FIELD DRILL HSS AS REQUIRED
4. FINAL FABRIC TERMINATION DESIGNED & SUPPLIED BY OTHERS FOR ALL APRONS

PART #	QTY.	COMPONENTS (in)
EC-1	2	2408- HSS- VERTICAL- 4" X 6" X 3/16"- 3" CENTRES- 276"
161	2	BRKT- 6" DEEP HSS TOP SADDLE- 2-3/8" CHORD
2407	4	HEADER/ BASE ANGLE- 4" X 6" HSS - 3" CENTRES
HZ-1	1	1529-39 (2 1/2 - 14GA) + 1531-170 (2 7/8" 14GA) PRE-GALV
195	2	BRKT - ESS HORIZ. ANGLE

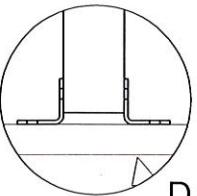
NOTE:
HDG HARDWARE (BUILDING & ENDS)



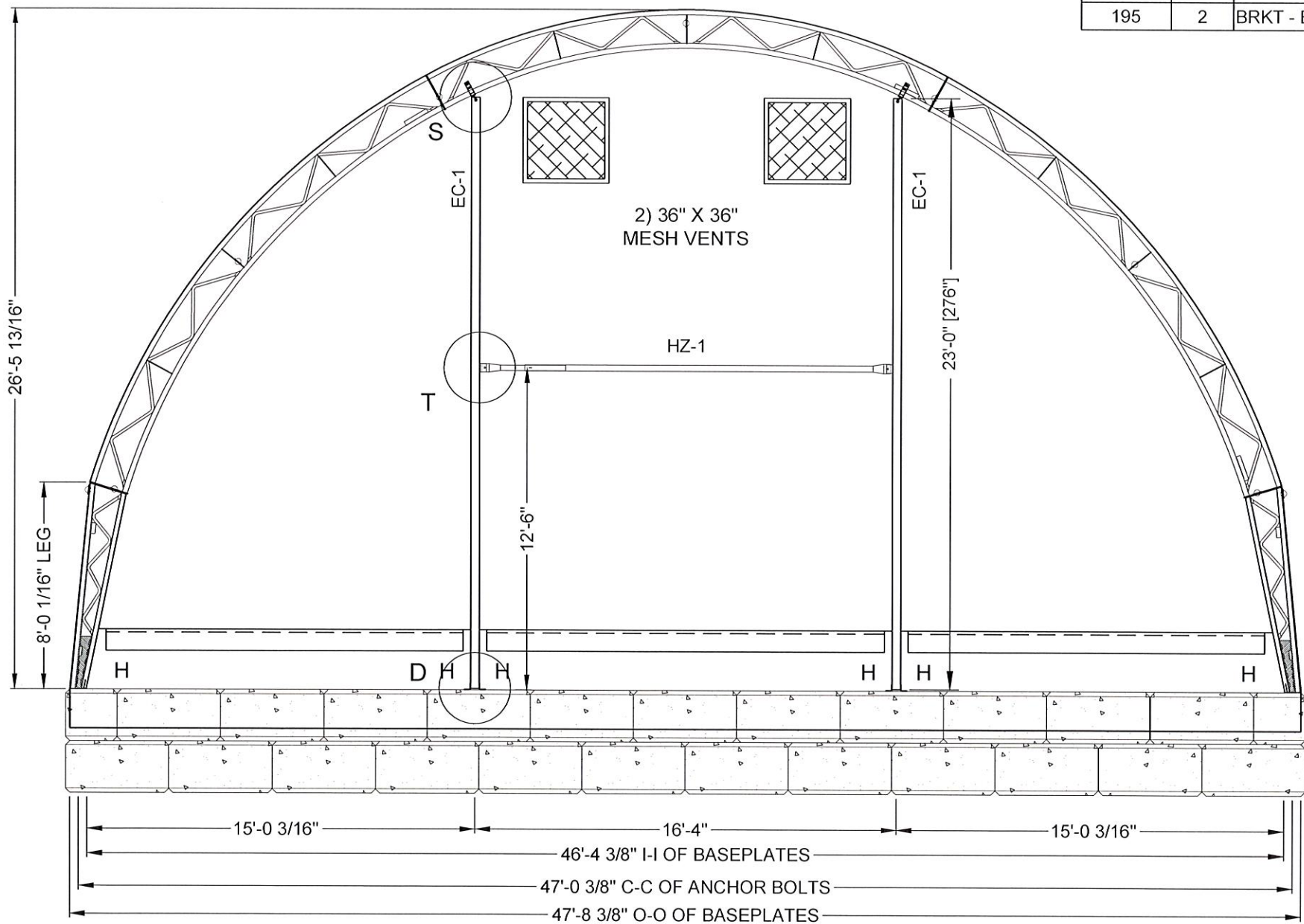
S 161



T 195




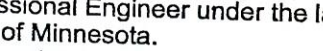
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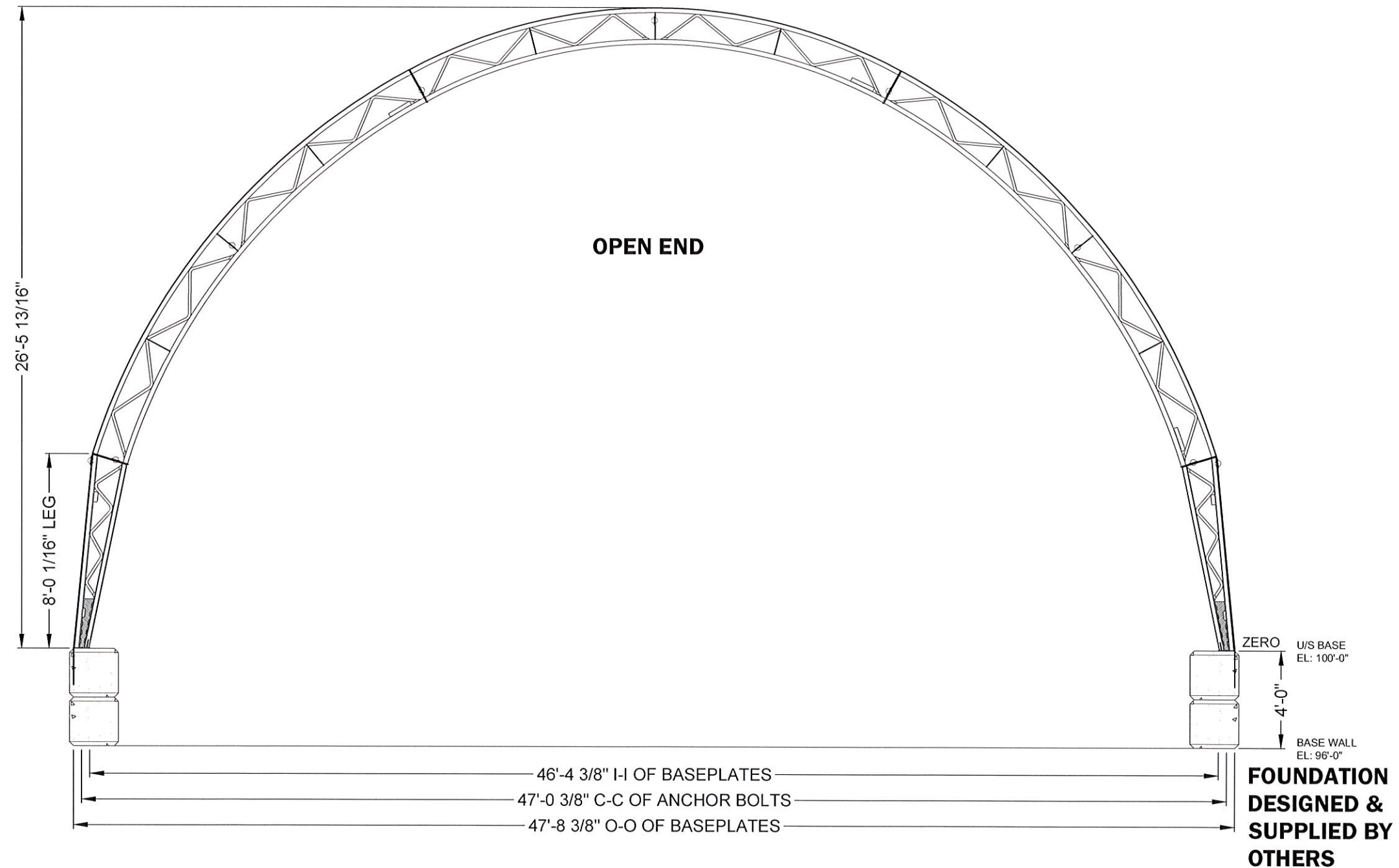


ZERO
U/S BASE
EL: 100'-0"
4'-0"
BASE WALL
EL: 96'-0"

**FOUNDATION
DESIGNED &
SUPPLIED BY
OTHERS**

GRIDLINE 1 - END 1

<div><div>TF: 800-407-5846 www.britespanbuildings.com</div></div>		REV #		CR #		DESCRIPTION:		DATE:		DEALER: GREYSTONE CONSTRUCTION 2995 WINNER CIRCLE DRIVE SHAKOPEE, MN. 55379				CUSTOMER: CITY OF DULUTH 411 WEST FIRST STREET DULUTH, MN. 55802				<div>PROFESSIONAL ENGINEER</div> <div>I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.</div> <div>Print Name: <u>MARK S. SERVINSKY P.E.</u></div> <div>Signature: <u></u></div> <div>Date: <u>11/10/2021</u> License # <u>46330</u></div>			
		0				ISSUED FOR CONSTRUCTION		08.NOV.2021													
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		CHECKED BY:		TWF																	



GRIDLINE 11 - END 2



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REV #	CR #	DESCRIPTION:	DATE:
0		ISSUED FOR CONSTRUCTION	08.NOV.2021

DEALER:	CUSTOMER:
GREYSTONE CONSTRUCTION 2995 WINNER CIRCLE DRIVE SHAKOPEE, MN. 55379	CITY OF DULUTH 411 WEST FIRST STREET DULUTH, MN. 55802
PROJECT:	ORDER ID:
ATLAS 18.2	SO# 8937
48L8 x 80'	WIDTH-MOUNT-FABRIC
8' oc	48-L8-320

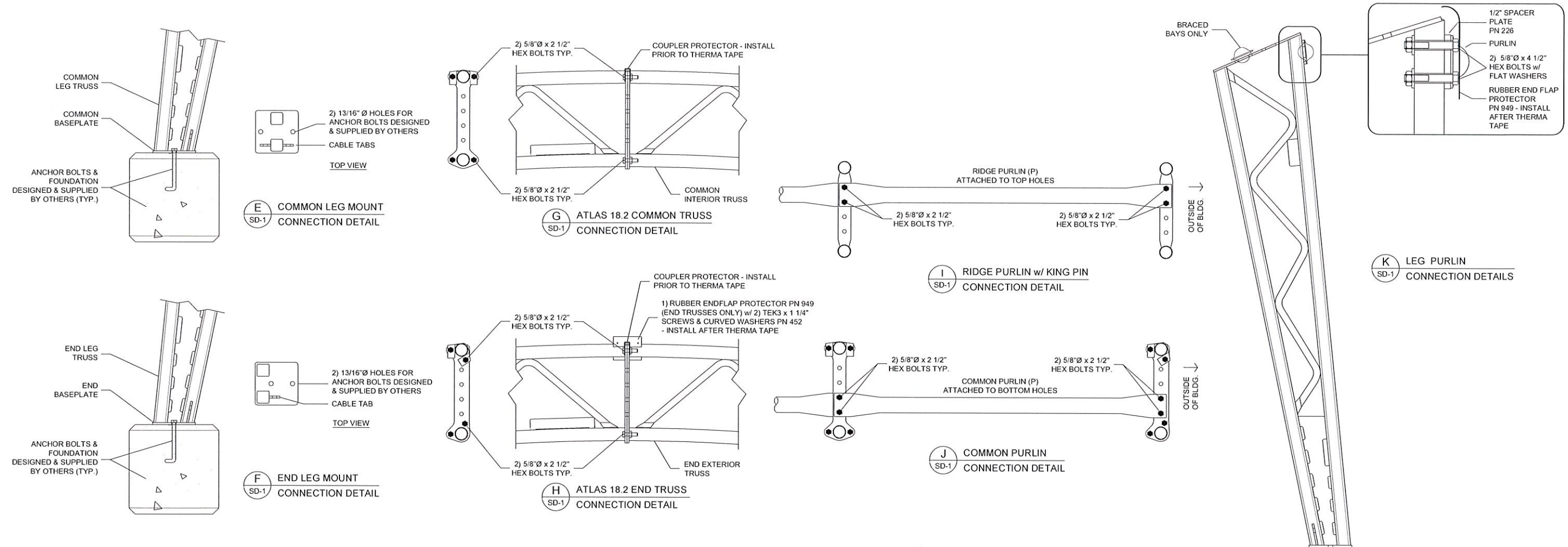
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ENDWALL 2 LAYOUT	09 /13
SHEET NUMBER:	
EW-2	


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RDR
CHECKED BY:
TWF

PROFESSIONAL ENGINEER
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Print Name: MARK S. SERVINSKY P.E.
Signature: [Signature]
Date: 11.10.2021 License # 46330
City of Duluth Contract No. _____


NOTE:
HDG HARDWARE (BUILDING & ENDS)



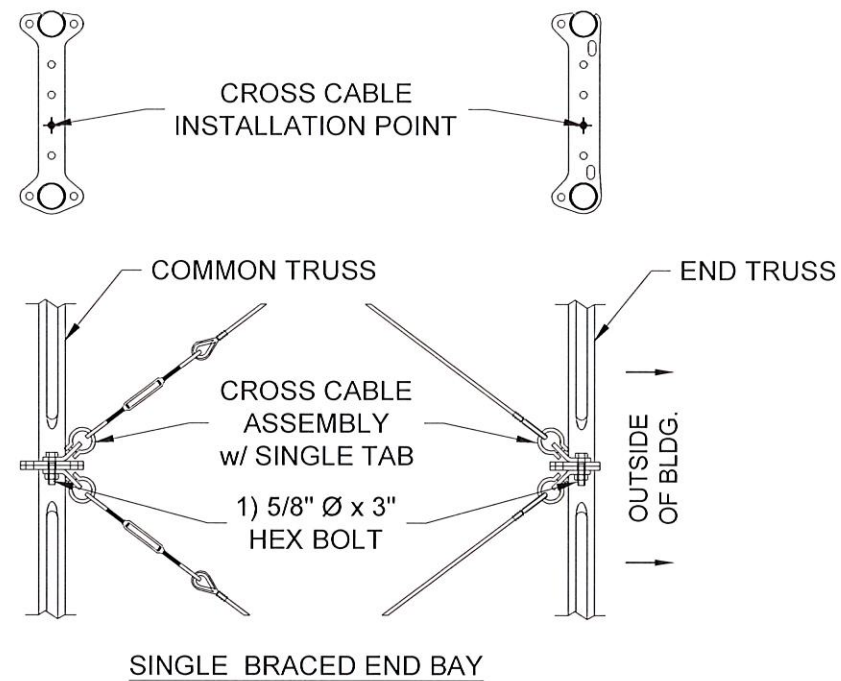
<div><p>TF: 800-407-5846 www.britespanbuildings.com</p></div>		REV #	CR #	DESCRIPTION:	DATE:	DEALER: GREYSTONE CONSTRUCTION 2995 WINNER CIRCLE DRIVE SHAKOPEE, MN. 55379		CUSTOMER: CITY OF DULUTH 411 WEST FIRST STREET DULUTH, MN. 55802		
		0		ISSUED FOR CONSTRUCTION	08.NOV.2021					
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					WIDTH-MOUNT-FABRIC		SHEET NUMBER:			PAGE NUMBER:
					48-L8-320		SD-1			10 /13

PROFESSIONAL ENGINEER

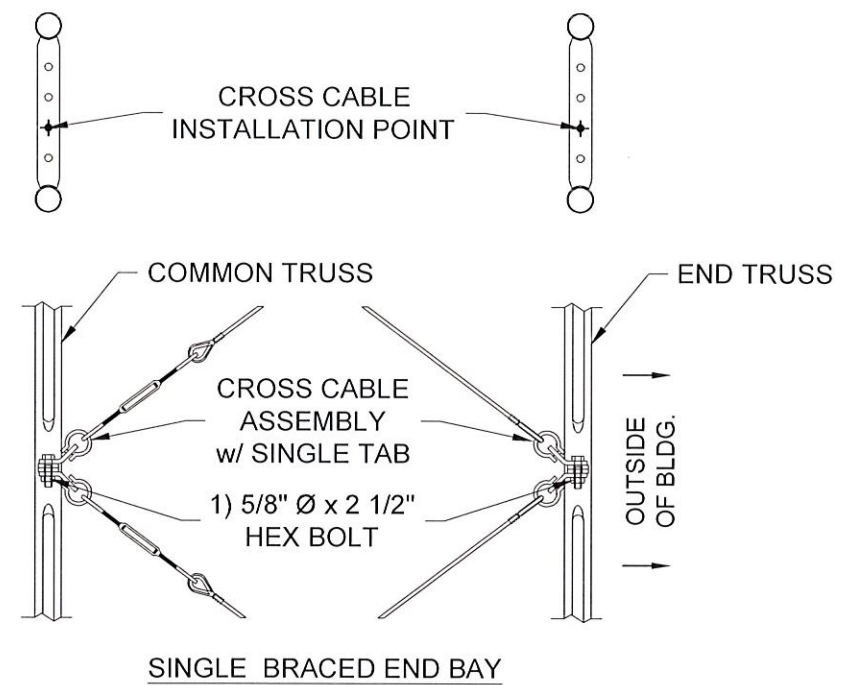
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Print Name: MARK S. SERVINSKY P.E.
Signature: 
Date: 11/10/2021 License # 46330

City of Duluth Contract No. _____

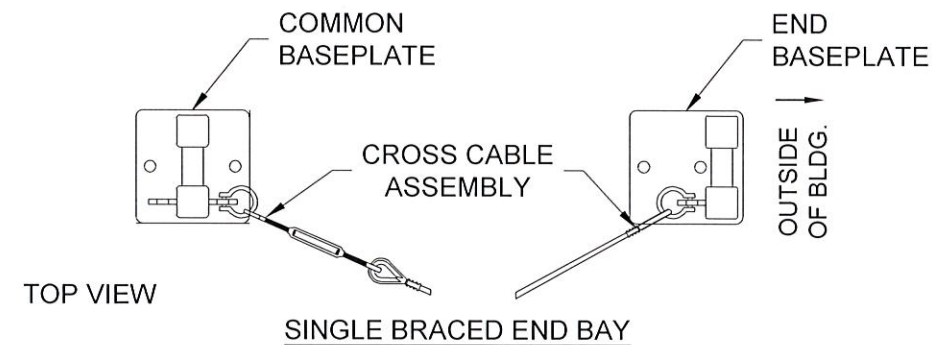


L CROSS CABLES AT DOG BONE
SD-2 CONNECTION DETAILS



N CROSS CABLES AT KINGPIN
SD-2 CONNECTION DETAILS

NOTE:
INSTALL ALL TURNBUCKLES AT ONE
END FOR EASE OF INSTALLATION.



M CROSS CABLES AT BASE
SD-2 CONNECTION DETAILS

NOTE:
HDG HARDWARE (BUILDING & ENDS)



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DEALER:
GREYSTONE CONSTRUCTION
2995 WINNER CIRCLE DRIVE
SHAKOPEE, MN. 55379

CUSTOMER:
CITY OF DULUTH
411 WEST FIRST STREET
DULUTH, MN. 55802

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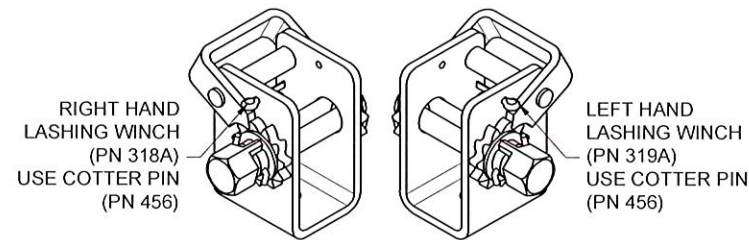
PROJECT:
ATLAS 18.2
48L8 x 80'
8' oc

ORDER ID:
SO# 8937
WIDTH-MOUNT-FABRIC
48-L8-320

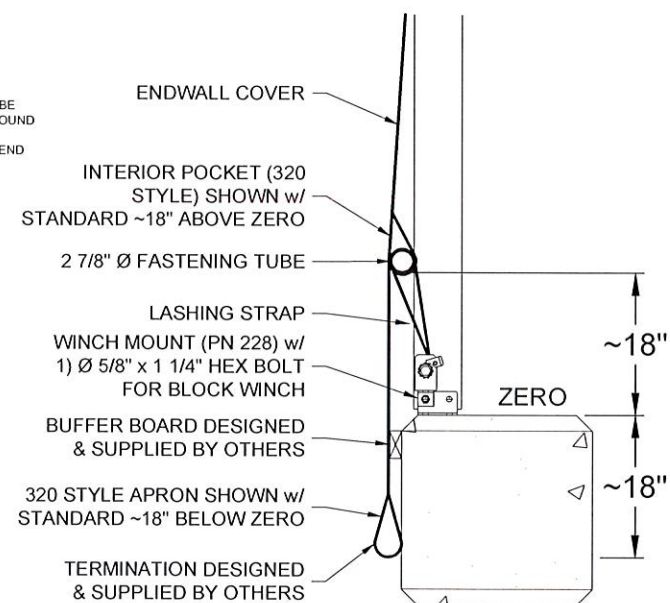
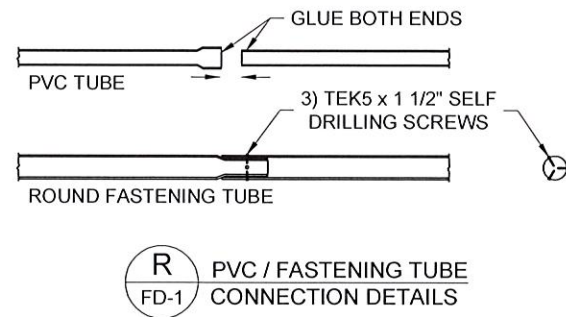
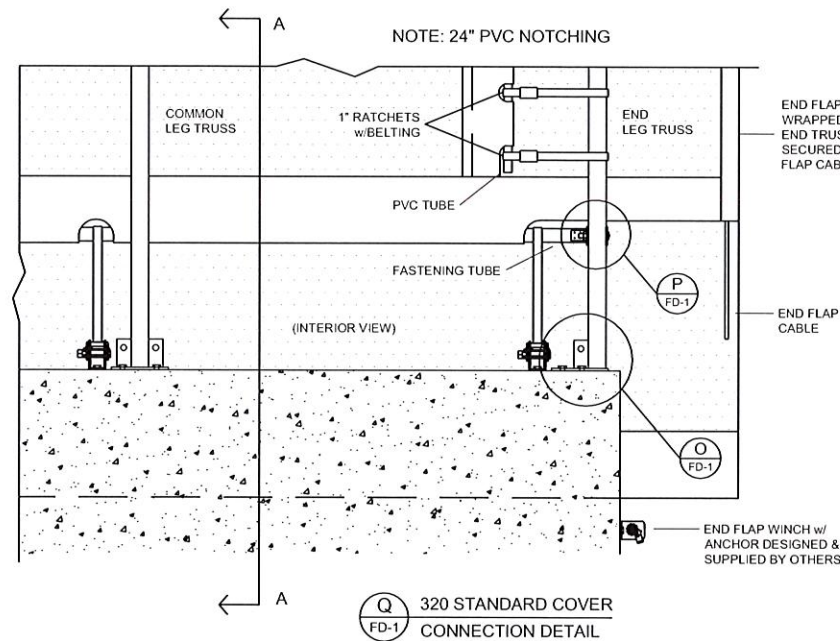
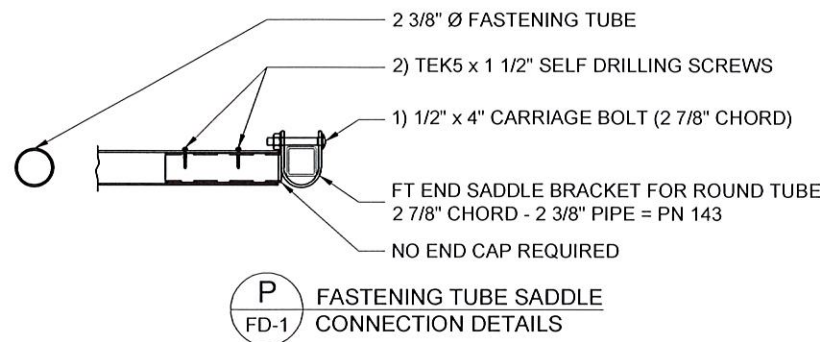
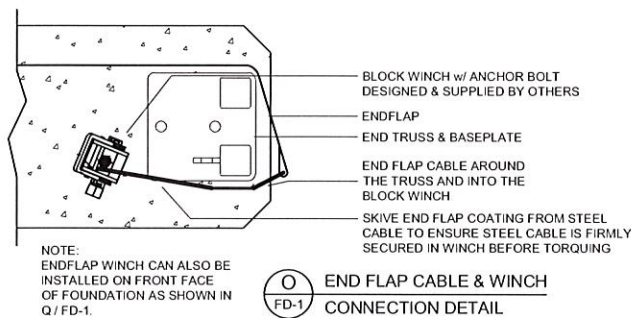
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STANDARD DETAILS 2
SHEET NUMBER:
SD-2

PAGE NUMBER:
11 /13

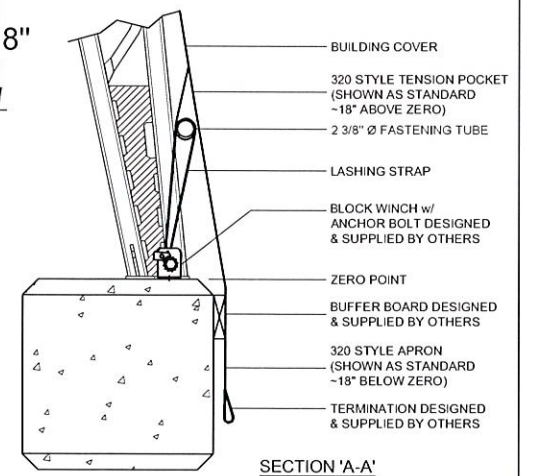
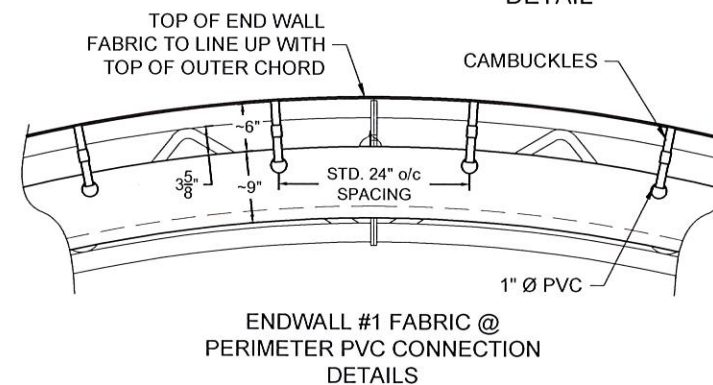
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Print Name: **MARK S. SERVINSKY, P.E.**
Signature: *[Signature]*
Date: **11/10/2021** License # **45330**
City of Duluth Contract No. _____



STANDARD WINCH DETAIL USING COTTER PIN TO HOLD RELEASE BAR



INTERIOR POCKET (320 STYLE) END WALL #1 FABRIC CONNECTION DETAIL



****IMPORTANT****
PROTECT FABRIC
FROM CONTACT WITH
ALL SHARP EDGES



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DEALER:
 GREYSTONE CONSTRUCTION
 2995 WINNER CIRCLE DRIVE
 SHAKOPEE, MN. 55379

CUSTOMER:
 CITY OF DULUTH
 411 WEST FIRST STREET
 DULUTH, MN. 55802

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DRAWN BY:
RDR

CHECKED BY:
TWF

PROJECT:
 ATLAS 18.2
 48L8 x 80'
 8' oc

ORDER ID:
SO# 8937

WIDTH-MOUNT-FABRIC
 48-L8-320

DRAWING TITLE:
FABRIC DETAILS 1

SHEET NUMBER:
 FD-1

PAGE NUMBER:
 12 /13

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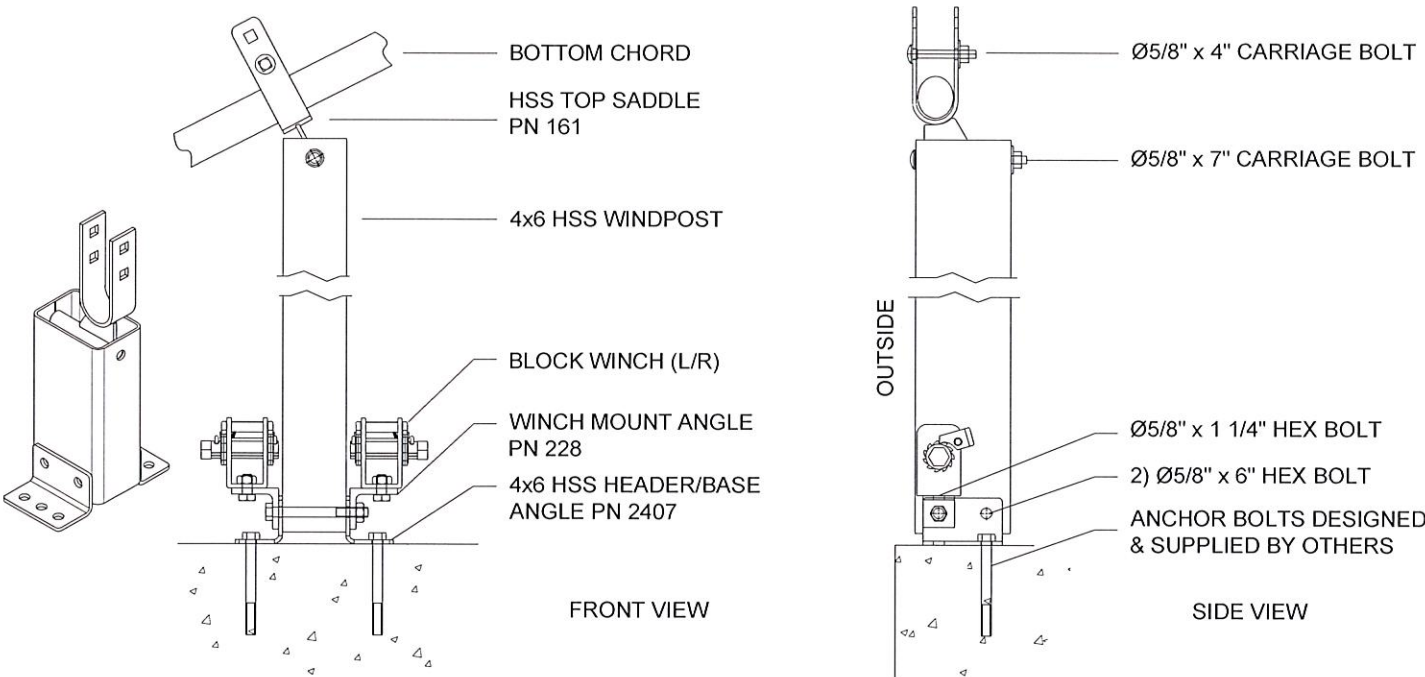
Print Name: **MARK S. SERVINSKY PE**

Signature:

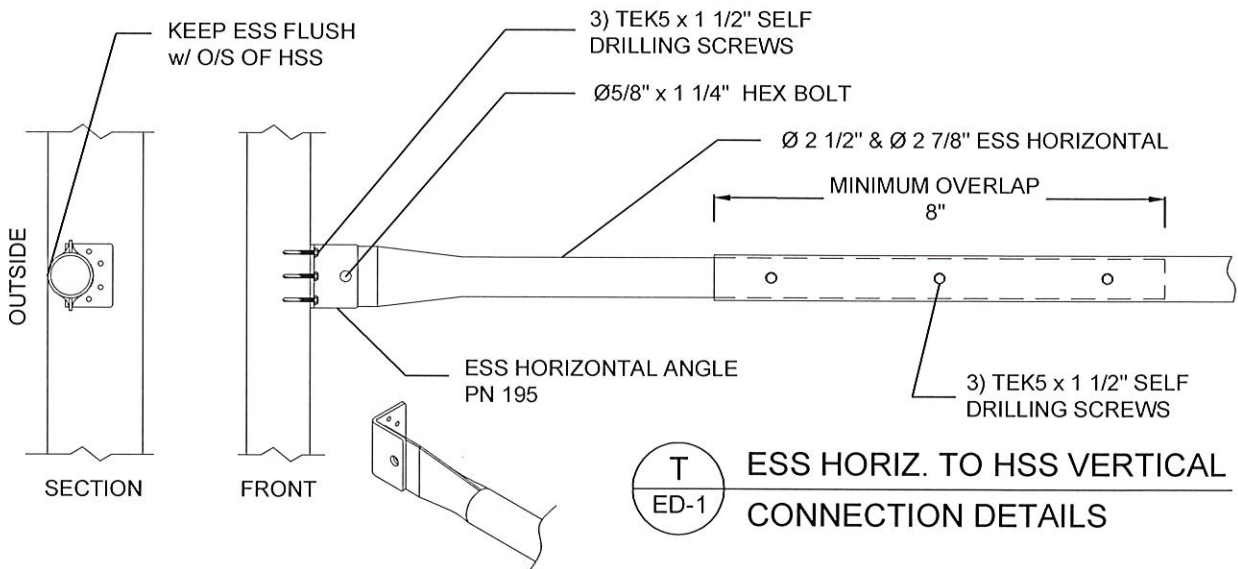
Date: **11/10/2021** License # **48330**

City of Duluth Contract No. _____

NOTE:
HDG HARDWARE (BUILDING & ENDS)



D **S** 4x6 HSS WINDPOST - 2 3/8" CHORD
BP-2 **ED-1** CONNECTION DETAILS



T **ED-1** ESS HORIZ. TO HSS VERTICAL
CONNECTION DETAILS



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DULUTH, MN. 55802

DRAWING TITLE:
ENDWALL DETAILS
SHEET NUMBER:
ED-1

PAGE NUMBER:
13 /13

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EXHIBIT C

