UNITED GREENHOUSE
SYSTEMS, INC.
1857 TOWER DRIVE
EDGERTON, WI 53534
PHONE: (800) 433-6834
(608) 884-8941
FAX: (608) 884-6137

DESIGN LOADS FOR:

LA CROSSE CENTRAL HIGH SCHOOL GREENHOUSE

LA CROSSE, WI

GROUND SNOW LOAD OF 40 PSF, WIND EXPOSURE B, RISK CAT. II, SINGLE HOUSE

GREENHOUSE LOADING IS BASED ON THE 2018 WISCONSIN COMMERCIAL BUILDING CODE (BASED ON THE 2015 INTERNATIONAL BUILDING CODE). THE GREENHOUSE WILL BE DESIGNED USING THE LOADS AS INDICATED BELOW UNLESS OTHERWISE STATED IN THE UNITED GREENHOUSE SYSTEMS, INC. PROPOSAL, IN LOAD COMBINATIONS PER ASCE7-10. THE PURCHASER IS TO VERIFY THESE LOADS WITH THE DESIGN PROFESSIONAL OF RECORD AND THE AUTHORITY HAVING JURISDICTION FOR THE BUILDING SITE. IF THE PURCHASER OF THE GREENHOUSE HAS DOCUMENTS OR KNOWLEDGE OF LOADING REQUIREMENTS THAT VARY FROM THAT SHOWN BELOW, THIS SHEET MUST BE MARKED WITH CORRECTIONS AND RETURNED TO UNITED GREENHOUSE SYSTEMS, INC. FOR REVISION OF PROPOSAL AND ASSOCIATED COSTS.

DESIGN LOADS

ROOF:

GROUND SNOW LOAD (Pg) = 40 PSF
RISK CATEGORY = II
SNOW IMPORTANCE FACTOR (Is) = 1.0
SNOW LOAD EXPOSURE FACTOR (Ce) = 1.0
ROOF THERMAL FACTOR (Ct) = 0.85 (CONT. HEATED PER ASCE7)
ROOF SLOPE FACTOR (Cs) = 0.67
ROOF SNOW = 0.7 x (Ce) x (Ct) x (Cs) x (Is) x (Pg) = 16 PSF
LIVE LOAD = 20 PSF (REDUCIBLE PER ASCE7)
DEAD LOAD = GREENHOUSE SELF-WEIGHT
COLLATERAL LOAD = 5 PSF
- UNIFORMLY DIST. ON TRUSS BOTTOM CHORDS

WIND:

WIND SPEED = 115 MPH ULTIMATE (89.1 MPH NOMINAL)
WIND EXPOSURE = B
WIND RISK CATEGORY = II
ENCLOSURE CLASSIFICATION = ENCLOSED
COMPONENT & CLADDING DESIGN PRESSURE = PER ASCE7-10

SEISMIC:

SEISMIC RISK CATEGORY (IF APPLICABLE) = II
SEISMIC IMPORTANCE FACTOR (I) = 1.0
SEISMIC SITE CLASS = D (ASSUMED)
SEISMIC DESIGN CATEGORY = A
SPECTRA RESPONSE COEFFICIENTS PER ASCE7
FORCE RESISTING SYSTEM (MAY VARY):
- ORDINARY MOMENT FRAMES OF STEEL
- STEEL CONCENTRICALLY BRACED FRAMES

DESIGN BASE SHEAR = BUILDING DEAD WEIGHT x 0.017
ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE

ADDITIONAL INFO

- GREENHOUSE SIZE:
  41'-6" WIDE x 60' LONG x 12' UNDER GUTTER HEIGHT
- LOADING ASSUMES THIS TO BE A SINGLE HOUSE ONLY, WITHOUT ADDITIONAL GUTTER CONNECTED HOUSES.
- ADJACENT BUILDINGS WOULD NOT REQUIRE A SNOW DRIFT LOAD TO BE APPLIED TO THE GREENHOUSE.
- BOTTOM OF TRUSS BOTTOM CHORD IS AT APPROX. 12'-0" ABOVE FINISH FLOOR.
- KNEEBRACES AT APPROX. 8'-6" (+/- 1'-0") ABOVE FINISH FLOOR.
- ASSUMED BUILDING LOCATION:
  1801 LOSEY BLVD S,
  LA CROSSE, WI 54601

CONCRETE FOUNDATION, ANCHOR BOLTS, AND ENGINEERING OF SUCH BY OTHERS. f'_c = 3000 PSI WILL BE ASSUMED FOR BASE PLATE DESIGN AND REACTIONS WILL BE PROVIDED IN THE DESIGN CALCULATION. UNITED GREENHOUSE SYSTEMS, INC. IS A COMPONENT METAL BUILDING/GREENHOUSE MANUFACTURER AND SUPPLIER. THEIR GREENHOUSE STEEL STRUCTURAL ENGINEERING REPRESENTATIVE IS NOT TO BE CONSIDERED THE PROJECT DESIGN PROFESSIONAL OF RECORD. THE DESIGN OF ANY MATERIALS NOT DIRECTLY SUPPLIED BY UNITED GREENHOUSE SYSTEMS, INC. IS NOT PROVIDED UNDER THE SCOPE OF THIS PROPOSAL. GREENHOUSE GLAZING/COVERING IS NOT A DESIGNED ELEMENT - ANY MAINTENANCE WORK MUST BE PERFORMED IN A WAY THAT DOES NOT PUT THE LOAD OF A WORKER(S) ON THE ROOF GLAZING/COVERING. UNITED GREENHOUSE SYSTEMS, INC. TAKES NO RESPONSIBILITY FOR THE EVALUATION OF ANY EXISTING OR ADJACENT STRUCTURES WHOSE CONDITION(S) MAY BE AFFECTED IN ANY WAY BY THE PRESENCE OF THE GREENHOUSE.

PROJECT NOTES

• Stamped structural engineering is included

• (1) Micro Grow Procom™ environmental control system provided for control of (1) curtain, (1) ridge vent, (1) side vent, (3) exhaust fans, (2) heaters, & (4) HAF's. All electrical BY OTHERS.

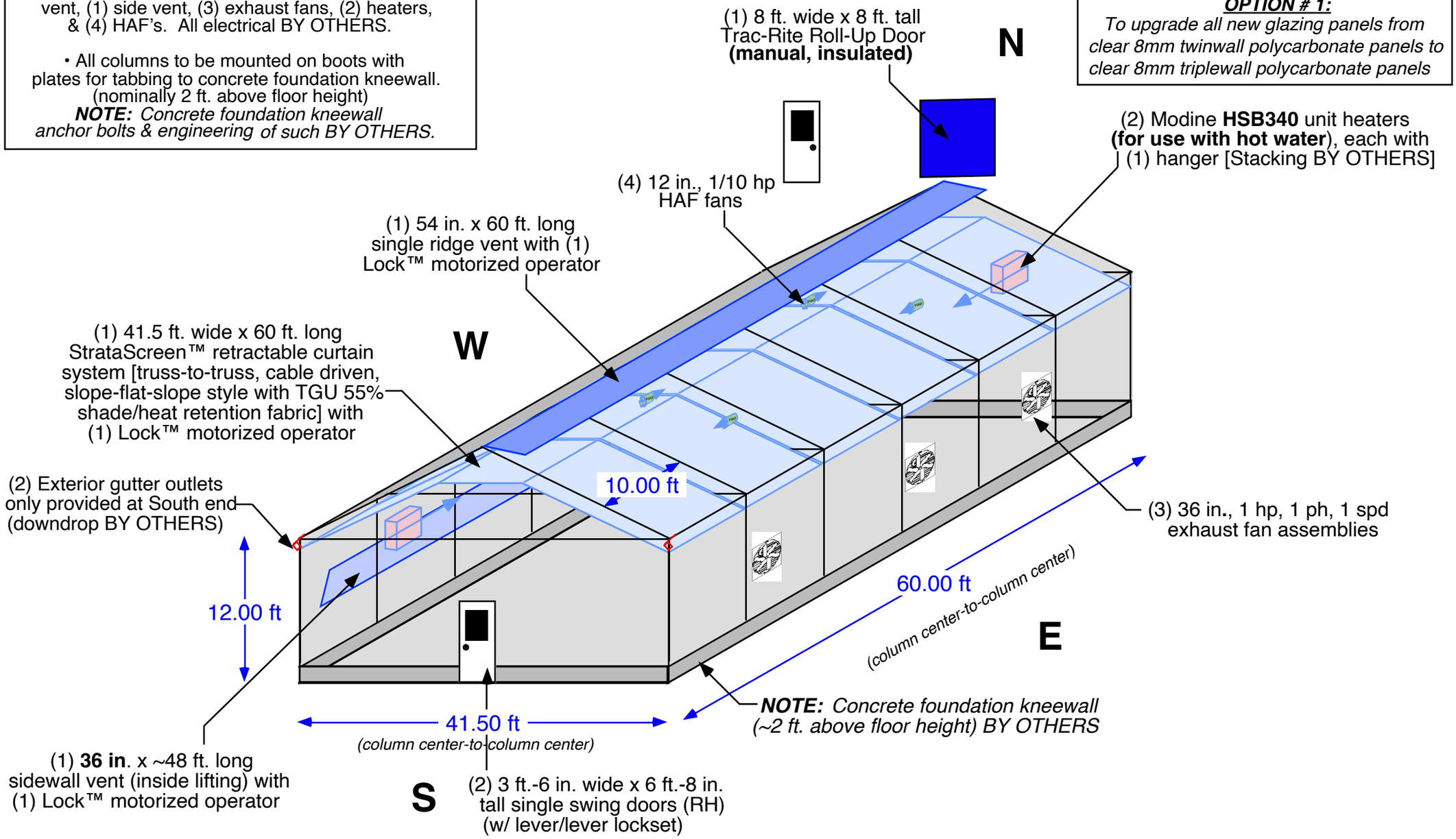
• All columns to be mounted on boots with plates for tabbing to concrete foundation kneewall. (nominally 2 ft. above floor height)
NOTE: *Concrete foundation kneewall anchor bolts & engineering of such BY OTHERS.*

OPTION # 2: *To add benching system (detail / pricing - TBD)*
OPTION # 3: *To add Micro Grow On-Site Start-Up Training Package*
OPTION # 4: *To add (1) Micro Grow WeatherMaster (for wind speed/direction & rain detection)*
OPTION # 5: *To add (1) Micro Grow GrowLink Package (for remote monitoring capability)*
OPTION # 6: *To add (1) Micro Grow Irrigation Controller (modle / need / pricing - TBD)*

COVERINGS

Clear 8mm **twinwall** polycarbonate for:
• (1) Roof
• (2) Sidewalls
• (2) Gable endwalls

OPTION # 1:
To upgrade all new glazing panels from clear 8mm twinwall polycarbonate panels to clear 8mm triplewall polycarbonate panels



UNITED GREENHOUSE SYSTEMS, INC.

United Greenhouse Systems, Inc.
PO Box 249
Edgerton, Wisconsin 53534-1150
1-800-433-6834

JB.lrb

LACROSSE CENTRAL HIGH SCHOOL

LaCrosse, WI

Ambassador Crown™ Greenhouse
(1) 41 ft.-6 in. x 60 ft. x 12 ft. ug x 10 ft. bay
Free-Standing

Concept Sketch Project
B-Revised
1/13/25