

Today's Date: Design Needed By:



REQUEST

CULTIVATION ENVIRONMENT DESIGN

Optimized Air System Requirements

General Information

Company: _____
 Name: _____
 Phone: _____
 Email: _____

Address:

Project name and Location:

Site Information

Crops Grown: _____

Utilities:

Natural gas Liquid propane Electric Other (biomass, waste heat, etc). Describe: _____

Electrical service: Voltage: _____ Phase _____ Hz _____

Control System:

None Agrowtek Argus Hortimax Link4 Microgrow Priva Wadsworth Other _____

Existing Equipment

Boiler BTUH capacity: _____ Chiller Tons: _____

Structure Information

Phases

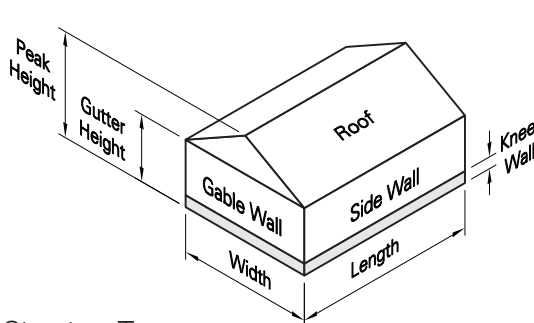
How many phases? _____

Zones

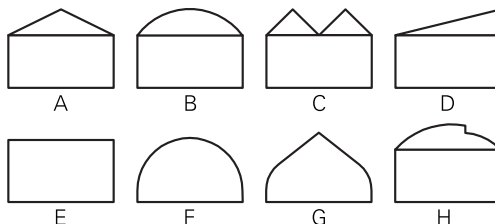
How many zones should we design? _____

Using the lists and diagrams below, indicate dimensions and glazings/coverings for your project.

<input type="checkbox"/> New <input type="checkbox"/> Existing							
House	1	2	3	4	5	6	
Number of ranges:							
Bays per range:							
Gutter height (ft):							
Knee wall height (ft):							
Bay width (ft):							
Bay length (ft):							
Peak height (ft):							
Structure type*:							
Glazing/Covering (from list)							
Side wall:							
Gable wall:							
Roof:							
Kneewall:							



Structure Types:



Growing surface:

Benches:

- Stationary Gutters Mobile Trays Troughs Rolling

Floor:

- Concrete Gravel/Sand Rafts in ponds

Glazing/Covering List:

1. Polyethylene Film, Single
2. Polyethylene Film, Double
3. Acrylic Sheet, 8mm
4. Polycarbonate Sheet, 16mm
5. Polycarbonate Sheet, 8mm
6. Polycarbonate Sheet, 6mm
7. Polycarbonate Sheet, Triple Wall
8. Polycarbonate Sheet, Corrugated
9. Fiberglass
10. Glass, Sealed
11. Glass, Lap
12. Concrete, 4"
13. Concrete, 8"
14. Concrete, Block
15. Wood
16. Metal
17. Insulated (R-Value)
18. Other: _____

AC/Dehu Systems

AC/Dehumidification Design Conditions

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Setpoint						
Crop Type:						
Target VPD:						
Day setpoint temperature (F):						
Day setpoint relative humidity (%):						
Night setpoint temperature (F):						
Night setpoint relative humidity (%):						
Irrigation						
Irrigation water input per bay (gal/day):						
Irrigation drain to waste (%):						
Shade						
Shade curtain energy savings (%):						
Lights						
Lights per room:						
Wattage per light:						

Dehumidification period: Night Day Both

Air Movement Systems

Optimized Air Flow Fans

Are you interested in fans? Yes No

Describe existing fans: HAF VAF Other _____

Plantcentric® Features

CO2

Polyduct & Fans

Root Zone Heating

Structure

Evap. Pad & Bug Screen

No Evap. Pad & Bug Screen

By Others

Site Sketch Checklist

Please sketch your site, including:

- Structure footprint and dimensions
- Aisles and walkways (locations and sizes)
- Bed or bench dimensions
- Control zones required
- Boiler/Mechanical room desired
- Indication of existing and retrofit items
- North arrow
- Doors
- Utility locations
- Water system (storage and fertigation)

A large grid area for sketching the site plan, consisting of a 30x30 grid of small squares.