



# NCC Seeds Farm

## NCC Seed Farm



Participant information  
Northfield Construction  
Chris Smisek  
205 South Water St.  
Northfield, ME 55057

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Website: [northfieldconstruction.com](http://northfieldconstruction.com)

Category  
Commercial/Industrial/Institutional Buildings under 10,000 sq. ft.

High Performance: No

Project information  
NCC SEEDS FARM (ORGANIC)  
6903 115th St East  
Northfield, ME 55057

Date Completed: July 2018

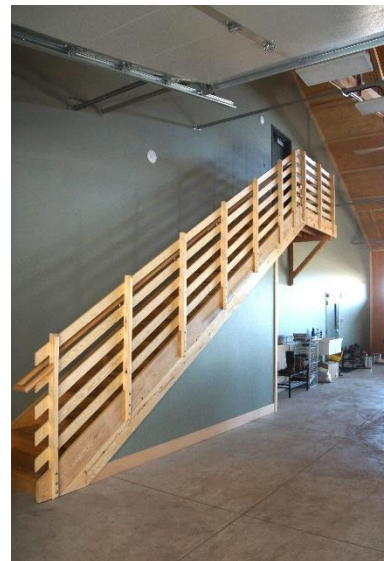
Total cost of project (exclusive of land): \$1,300,000.00

Dimensions of building (all floors of multi-story building): Main floor- staff 39' x 52', Packing area 39' x 52', Equip. storage 76' x 40' (this portion is not SIP's. construction) 2nd floor office & Mech. 14' x 52'. 3rd floor office 14' x 30'.

Total sq. ft. of conditioned space: 4,926 sq. ft.

Built By (if different than applicant)  
Northfield Construction  
205 South Water St.  
Northfield, ME 55057  
Panels Manufactured By

Company Name (members only):  
Energy Panel Structures, Inc.



## NCC Seeds Farm



Designed By (if different than applicant - SIPA will only recognize members)

SMSQ  
Gary Johnson  
205 South Water St.  
Northfield, MN 55057

Total sq. ft. of conditioned space: 4,926 sq. ft.

Describe the end use of the building: This building is on a vegetable farm. The staff areas are a combination of offices, meeting/conference room, knight watchman/living quarters. The Packing area is an area to prepare Vegetables and also has a refrigeration/cooler room. The cold storage is also used to prepare

How did SIP construction help you get this job? The owner started early on, talking about SIP's construction. He spoke with Lee Bergum our area Rep. and liked the energy efficiency. They were willing to customize our structure

SIP wall thickness and core material: 6" EPS Foam R-26 BC Plywood interiors  
SIP roof thickness and core material: 10" Neopor Foam R-50 BC Plywood interiors

Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy? This building was built to stringent structural codes, many, many hold downs, etc. The roof was complex with the overhangs. This was a winter build, once we closed the building in, we poured the heat to it, the frost wasn't hard to get out of the ground. We poured the interior concrete slabs in know time. The buildings energy efficiency was a real plus. EPS used 3/4 " BC plywood for all interior skins, Saved us finishing the interior

Describe any innovative design elements or structural engineering involved: The main staff area has a timber framed vaulted ceiling, even the packing area has vaulted trusses. There are many, many windows to complement the structure. The exterior roof has two dormers in the staff area and one large dormer in the packing area with again many windows. The east side has a portico roof canopy, timber framed. The west side has a Pergola/entertainment area. Side note- There was a Tornado Sept. 20th that went through the farm, it destroyed the green houses next to this building, but no damage other than a window sash, that we suspect was partially left open.

Please list any certifications the project received, such as ENERGY STAR, LEED, National Green Building Standard, WELL, Passive House, Green Globes or local green building programs. Only list certifications that are completed: n/a

Blower door test results (ACH50) (required only for High Performance Category and recommended for residential projects): 2.72 ACH per 50 Tight 5000 sq ft

Describe the HVAC system used on the project: The main source of heat is zoned radiant in floor heat, along with a 95% efficient gas boiler. Also, included is a 4 ton air source heat pump and 4 ton air handler and a HRV air exchanger.

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Describe any other energy-saving materials used in the building envelope other than SIPs. List U-values of windows used and the U or R-value of any insulation materials. (judged only for High Performance Category) Marvin Windows Clad Ultimate casements low-e with argon U Factor 29

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar (judged only for High Performance Category): LED LIGHTING; ENERGY STAR APPLIANCES

Please list any sustainable materials or design features not listed above, such as recycled materials, low-VOC finishes, landscaping, etc. (judged only for High Performance Category): Low VOC Finishes  
All main floors are stained concrete with in floor heat

Any additional comments on the project: From owner:

We are impressed with the quality of material and the engineering of the building. It is a structure that will withstand the test of time. EPS was very attentive to our needs and in designing the building we wanted. The structural quality and engineering, along with the energy efficiency are what make me feel good about our investment,

By using SIPs we were able to zone this building easier, we have a produce area attached to living and office areas, easily controlled to their own temperature by using insulated panels, we also incorporated metal clad panels for a large walk-in cooler within the structure



Exterior front view

**NCC Seeds Farm**





Panorama view

**NCC Seed Farm**





Interior view

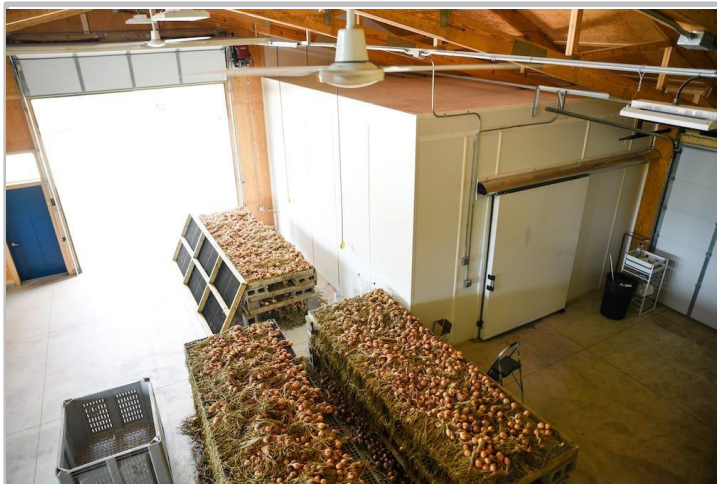
**NCC Seed Farm**





Interior views

NCC Seed Farm





Interior and Portico view

**NCC Seed Farm**

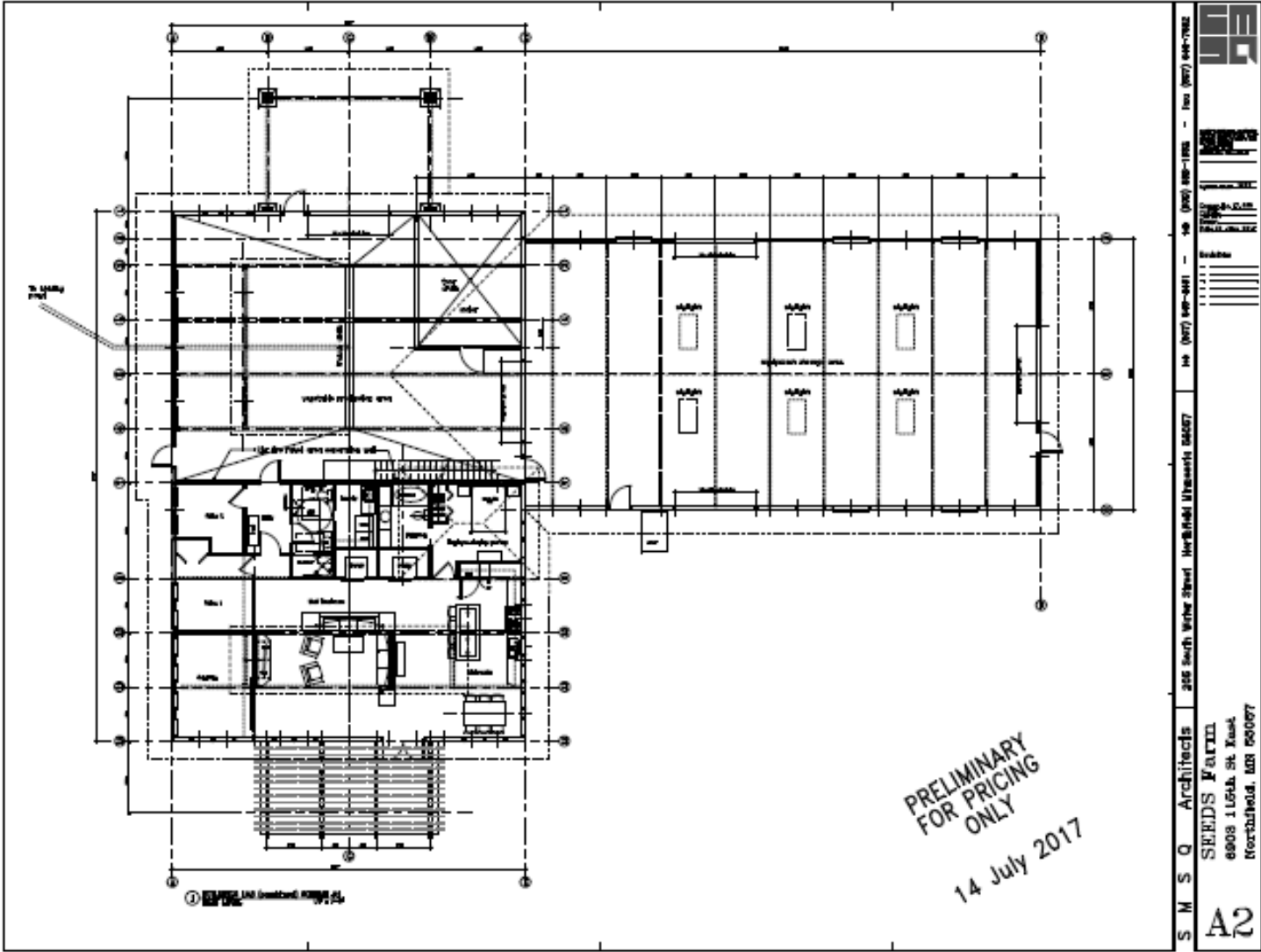


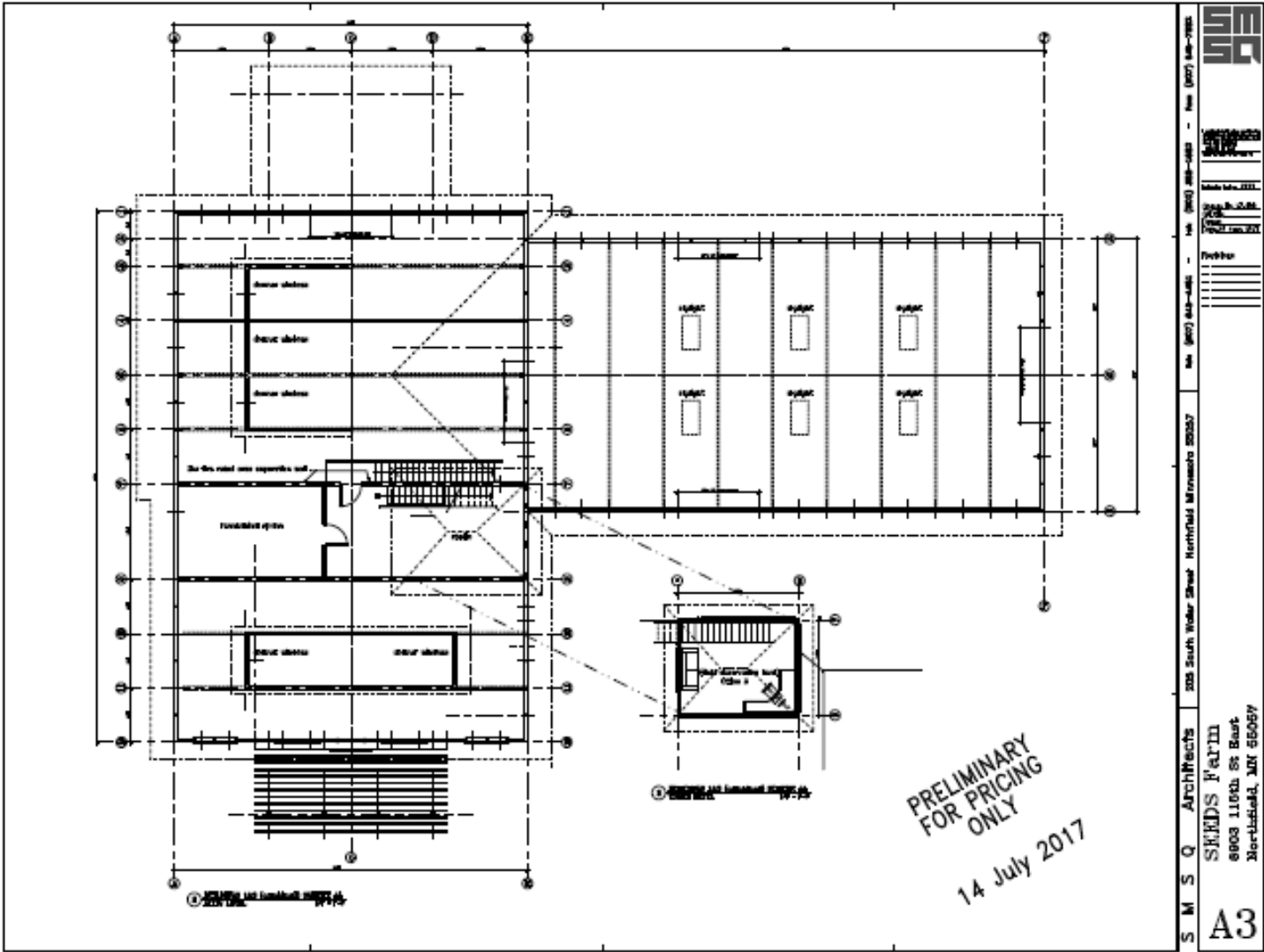




Plans

NCC Seed Farm

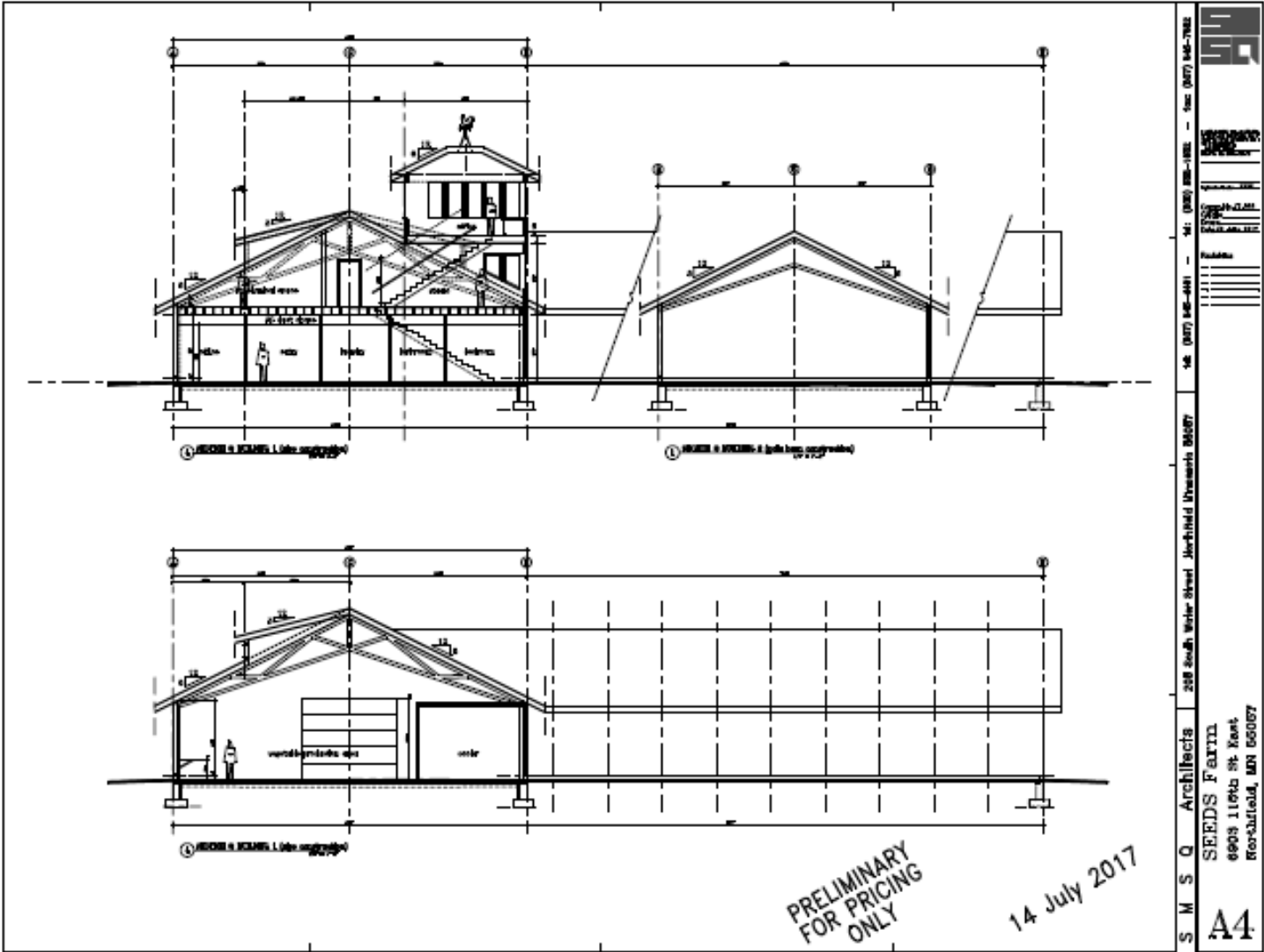






Plans

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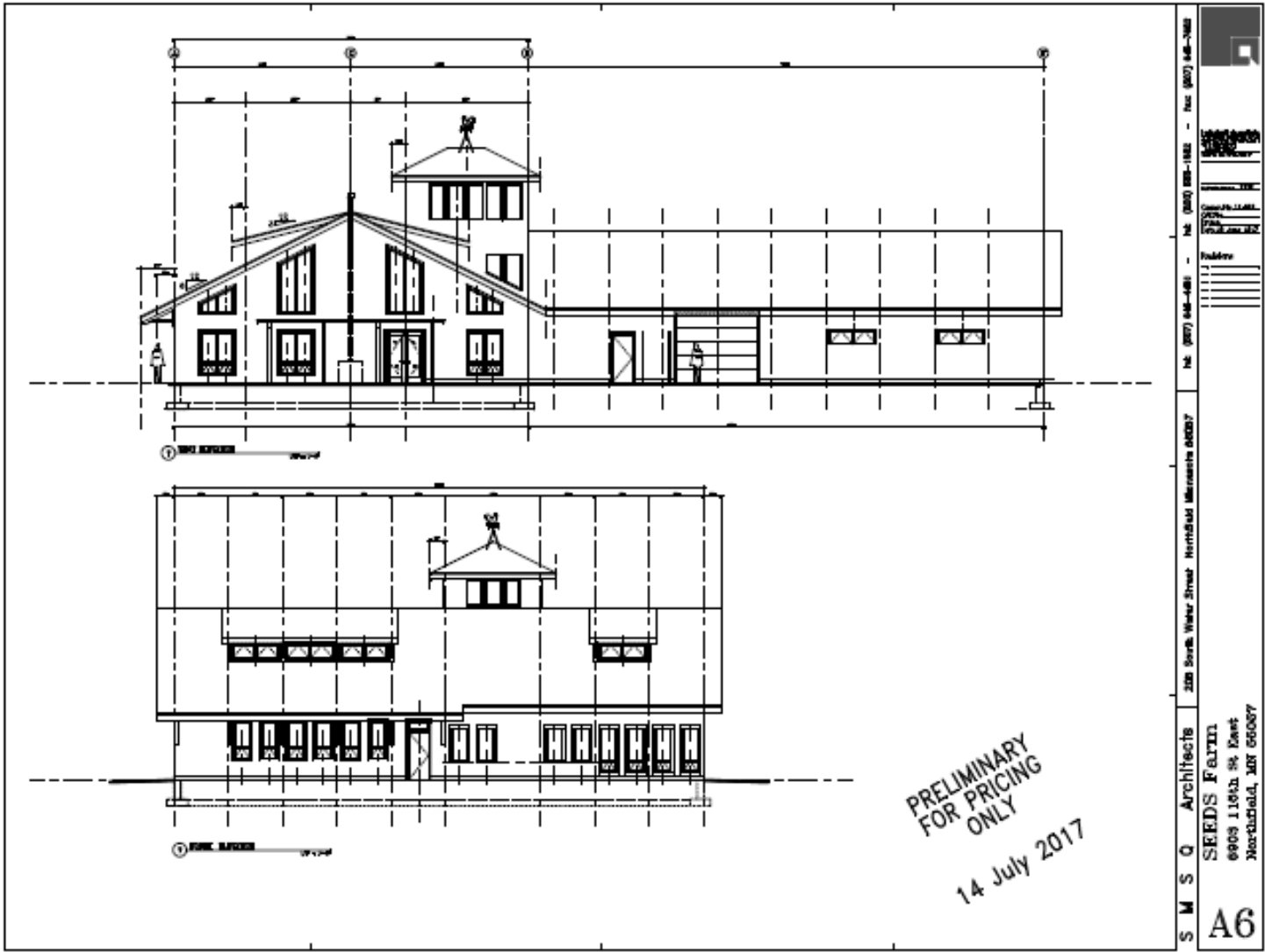






Plans

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