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Horticulture Building
1. Statement of Significance

Built in 1916, the Horticulture Building is the former header house for a series of greenhouses, which are now demolished. It holds heritage value due to its age, and as a cultural memory associated with the greenhouses and with the history of agricultural education and research at the University of Saskatchewan. Although built for the purposes of agricultural education and research, the Header Houses also have an association with the College of Medicine; the School of Medical Sciences was located there for its first four years.
2. Character - Defining Elements

2.1 Materials

The exterior of the remaining Horticulture Building is finished in fieldstone or ‘greystone’ (Figure 1). Its windows are single-glazed, with removable storms and insect screens. Windows and doors are all framed in painted wood (Figure 2). Window sills are made from Indiana limestone, also visible in Figure 1. (For further information on building stones used at the U of S, refer to ‘Appendix: Stone’.)

Two metal doors on the west side were later additions. Some of the thresholds under doorways are made from Tyndall stone, as well as two newer lintels on the west façade (Figure 3). The original doorways between the Header Houses and the greenhouses are now filled with exposed concrete block. The hardware on both the interior and exterior of the building is brass which has been painted in some cases and left exposed in others. Asphalt roof shingles, painted wood trim with lead flashing complete the building envelope.

Figure 4. The Horticulture Building, 1930. The greenhouses are visible on the south side. The back of the photo reads, “Anatomy and Physiology Laboratories.” Photo A-11013, retrieved from University of Saskatchewan Archives.

Figure 5. A brass hinge on a wooden door, both of which have been painted.

Figure 6. L to R: a plaster wall and a brick wall, both painted.
The interior walls of the building are clad in a combination of brick and plaster as shown in Figure 6. All outside walls have an interior surface of brick that has been heavily painted. Interior walls are finished in plaster which ranges in condition from very poor to good. The floor of the building is painted concrete in some areas and or vinyl composition tiles in others. As Figure 7 illustrates, the ceiling is clad in painted wood paneling between exposed painted wooden beams. Interior doors are also made from wood which has been painted (Figures 5 and 9). A 1920 photograph shows that the wooden elements were painted by that time. Most of the windows have steel security bars (Figure 9), which are a recent addition. Heat is supplied via cast iron radiators, which are original.

The basement of the Header Houses is largely unfinished. The floor is exposed concrete as is the ceiling, which forms the floor above. Partitions and doors were built with wood, most of which have been painted.

Figure 7. A wooden beam and wood paneling, both painted.

Figure 8. A cast iron radiator.

Figure 9. Steel bars have been retrofitted over the interior side of the windows.

Figure 10. Plan of the Horticulture Building with its green houses attached. The ‘Header Houses’ along the bottom of the plan are all that remain. The plan is oriented with north facing down. Retrieved from Facilities Management Division Asset Record System, File HG-15-T.
2.2 Form

The Header Houses are low and linear in form, measuring only 18 feet, 8 inches wide but approximately 234 feet long, and consisting of one floor above ground level, and a basement. The roof is pitched across the building’s narrow dimension, with a series of 7 intersecting dormers. The interior ceiling height is 11 feet. The main entrance on the north side was added in 1973.

The form of the Horticulture Building relates to its original function, as a support space for a series of greenhouses. The original floor plan is shown in Figure 10. At one time, eight large green houses, each about 50 feet long, were connected to the south side of the building. These greenhouses were added over time and to accommodate them, the Header Houses were expanded as well. The gable ends of the multiple dormers on the north side give the building the appearance of being composed of several adjacent buildings, which contributes to their perception as ‘Header Houses.’

2.3 Style

The style of the Horticulture Building is Arts & Crafts, a mainly domestic style of architecture of the latter half of the 19th century affiliated with the Victorian Gothic revival. The Arts & Crafts movement favoured traditional craftsmanship, simple forms, and manual production techniques. The style shares many characteristics with the Collegiate Gothic used elsewhere at the university; however, the detailing of the Horticulture Building is simplified, in accordance with its original function as an agricultural service building. The dormers on the north elevation are a characteristic of the Arts & Crafts style. Several of the windows and doors are set into arched openings (Figure 12). Greystone quoins frame the building’s corners and constitute another character-defining element. The eaves are ornamented with shaped wooden rafter extensions (Figure 13). Two cupolas protrude from the roof, providing attic ventilation as well as decoration (Figure 14).
2.4 Location & Spatial Configuration

The Horticulture Building was not specifically noted in the 1909 Campus Plan. Its orientation is more significant than its location. The greenhouses were oriented to the south to maximize their solar exposure, therefore the Header Houses were attached to their north side. The stone walls of the Header Houses also functioned as a passive thermal storage device, and were positioned to receive heat from the sun during the day. Heat would be released into the greenhouses at night, regulating their temperature. The configuration of the Header Houses as a long heavy mass with a broad façade facing the south is thus a character-defining element.

Due to its unique form, the interior of the space has a distinct configuration. The ground floor is narrow, yet spacious in feeling owing to its relatively high ceiling. The linear floor plate of the Horticulture Building is one of its most palpable character-defining elements. Several doors and windows are located along the north side of the building, providing ample natural light due to the narrow floor plate.

The south side of the building no longer features any openings. With the demolition of the green houses and subsequent construction of the Kinesiology Building, all of the south-facing openings were filled in with concrete block (Figure 16).

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**Figure 15.** The shadows in this photo show the orientation of the Header Houses in relation to the sun. Photo A-425 retrieved from http://scaa.sk.ca/gallery/uofsbuildings/

**Figure 16.** Concrete block fills the openings on the south side.

**Figure 17.** Cross section. Retrieved from Facilities Management Division Asset Record System, File HG-19-T.
2.5 Systems

The narrow floor plate of the Horticulture Building allows its roof to be supported by a series of simple trussed rafters, which are concealed on the inside of the building by wood paneling, but are visible on the exterior as exposed rafter ends. Wooden beams supporting the rafters of the large dormers are visible on the interior. The foundations and basement walls are cast-in-place concrete. Concrete beams support the ground floor concrete floor. No interior columns are required. The exterior walls are of load-bearing stone and brick masonry. Figure 17 provides a cross section of the building.

The Horticulture Building was provisioned with radiant heating pipes which ran around the perimeter of each greenhouse. The greenhouses and their piping systems were demolished; however, the same provision was made, on a smaller scale, in the Header Houses. Some of these pipes still exist and can be found along the base of the exterior walls. Figures 18 & 19 show this system of pipes.
2.6 Use(s)

Horticultural education and research were the impetus behind the construction of the Horticulture Building. Horticulture is the industry and science of plant cultivation including the process of preparing soil for the planting of seeds, tubers, or cuttings. The Header Houses served to support the functions of the greenhouses. Classrooms, offices, laboratories, and preparation rooms to support plant pathology, horticulture, field husbandry, forage plants and soils were all housed in the Header Houses. All of these uses were located on the ground floor. The basement held storage and work rooms.

From 1926 until 1937 the Header Houses served as the School of Medical Sciences. In 1937 the medical students moved into the Archaeology Building, known at the time as the Crop Science Building. Figures 21 - 23 document the use of the Header Houses for medical education.

Currently the ground floor of the Header Houses is used for storage, and the basement is unused.

2.7 Cultural & Chronological Associations

The Horticulture Building is associated with agriculture and agricultural education at the University of Saskatchewan. Although the greenhouse portion of the building has been removed, its distinct form is a reminder of its original purpose.

The Header Houses are also associated with the College of Medicine at the University of Saskatchewan. (See Section 2.6 Uses).
3. Associated Objects
N/A

4. Supporting Documents


Facilities Management Division (2011). Asset Resource Database [Data File]. Retrieved from \usask\fmddfs\files\iis\IIS_Public\ARS.

5. Summary of Character - Defining Elements

Materials
- greystone walls
- Indiana limestone trim
- Tyndall stone thresholds
- oak window frames, doors and surrounds (painted)
- wood paneling (painted)
- lead flashing
- brick
- concrete
- plaster
- brass fixtures
- cast iron radiators
- single-glazed windows
- cast iron radiators

Form
- long and narrow form

Style
- arched doorways and windows
- keystones
- cupolas
- quoins
- exposed rafter ends

Location & Spatial Configuration
- solar orientation
- high ceiling on ground floor
- narrow, long floor plate
- several entrances and exits

Systems
- rafters supported by exterior walls
- heating pipes & radiators

Uses
- horticultural education and research
- medical education

Cultural & Chronological Associations
- agriculture
- College of Medicine