Project: Kansas – Santa Fe Trail Buildings Survey (2016-2017)

CONDITION ASSESSMENT:

Assessment date: 04/12/2017 **Assessor:** KSHS/Anderson, Rick.

County: Morris

Site: Big John Farm Limestone Bank Barn
KHRI: 127-0000-00040
Address: 00 – US 56 Highway; Council Grove vicinity; Council Grove, Kansas 66846
Sequence number: MO_021

Attachments: Sketches; photographs

Coordinates: ***[See notes.]***
Coordinates 1*: 38.670120 -96.449450
Coordinates 2*: 14S 721895 4283258
Coordinates 3*: 14S 721880 4283255

Assessment date: 04/12/2017 **Area assessed**: Exterior only
Type of resource: Structure **Occupied**: No
Ruins: No **Present use**: Outbuilding, storage; county equipment

Date of construction: 1871 **Verified**: ***X*** **Reported**: **Estimated**:
Number of stories: 2 **Plan**: Rectangle **Architectural style**: Bank Barn
Roof type: Gable [side] **Roof material**: Wood shingles **Chimney**: Not-applicable
Exterior wall material: Limestone
Window type: Window openings are shuttered
Foundation: Limestone; no basement
Notes: Access to the barn's exterior is prohibited by the county on the lower level by cattle panels and gates, chained and locked. A view of the interior can be made at both entrances of the lower level by looking through the cattle panels. Access to the upper, main level is prohibited by a locked sliding wood door covered with galvanized tin on the north elevation bank approach. The window openings on the north elevation are shuttered.
Landscape features: Bank approach for the upper level, main entrance is on the north side of the barn. Barn is surrounded by pastures and agricultural fields. There is a rodeo arena located approximately one-quarter mile southwest of the barn. The barn is located on the north edge of the Morris County Highway Department property.

Historic designation: Yes; listed on the Register of Historic Kansas Places: 07/02/1990 and on the National Register of Historic Places: 10/25/1990.

Is there a sign or plaque: Yes; sign located at the southwest corner of the barn that reads:
"The Limestone Bank Barn.
1871: Built for a livestock farm by Seth Hays, the first permanent white settler in this area. The Barn is 41 feet wide by 76 feet long. The rafter beams are put together with wooden pegs. The barn is constructed of native limestone.
1899-1945: The farm was used as a County Poor Farm.
1988: The Heart of the Flint Hills Chapter of the Santa Fe Trail Association requested the barn be restored.
1990: The barn was placed on the National Register of Historic Places.
1992-2006: Walls were repaired, a new roof, drain pipes and windows were replaced. Funds for the repairs were paid by fund-raisers and grants. This project was sponsored by The Fremont Park Revitalization Committee & Heart of the Flint Hills Chapter."

* Evaluation *

Collapsed or off foundation: No
Leaning, other structural damage: Moderate; see "Additional Comments". *****
Damage to windows, doors: North elevation window openings have been shuttered.
Falling hazards: Moderate; see "Additional Comments". *****
Roof damage: Minor/none
Foundation damage: Moderate; see "Additional Comments". *****
Exterior wall damage: Moderate; see "Additional Comments". *****
Exterior structural cracks: Moderate; see "Additional Comments". *****
Interior wall damage: Not evaluated; no access.
Interior structural cracks: Not evaluated; no access.
Damaging vegetation (trees, shrubs, etc.): Moderate; see "Additional Comments". *****
Insect/rodent/bird damage: None evident
Moisture damage: Moderate; see "Additional Comments". *****
Inappropriate repairs/additions: Minor/none

*** Additional comments**: Most of the concerns listed here existed earlier to a greater degree as can be seen in the 1990's photos. (See "Images and Documents" to compare photos.) By comparing the 1990s photos to the April 2017 survey assessment photos the repairs can be seen as to how much damage has been evident in the past.
The walls on all four elevations have been secured with tie-rods and plates in most places. There have been attempts to further stabilize the structure with steel plates taken from road grader blades bolted to the exterior surfaces. The plates are located in the following positions:
West elevation – one plate at the upper end of the southwest corner of the structure. A steel rod extending diagonally down to the entrance appears to stabilize the entrance opening or the wall. There is also a short plate securing the wood entrance sill and the entrance arch stones. There is another shorter plate located farther up in the gable above the entrance. There is a combination of two long plates welded together and bolted to the north half of the west elevation's gable. The north wing wall

leading to the west entrance is falling inward (south) with many large gaps in the stones.
South elevation: three long plates are used on the south elevation. One is at the upper-story of the southwest corner and two are at the opposite end on the same level. There are seven tie-rods and plates extending north through the structure between the first and second floors.
East elevation: there are three long plates used on the east elevation located along the second floor; one on the southeast corner and two above the edges of the entrance. There are three short plates in the gable on this elevation.
North elevation, main level: there are four long plates used having two on the northeast corner and two on the northwest corner. One of the tie rods from the south has a plate at ground level on the northwest corner between the first and second floors.

Mortar is missing and some of the limestone blocks have spalled above the entrance to the west elevation. A section of the wall on the right side (south) above the entrance is bowed out approximately one-inch. The mortar on either side of this area in the gable appears to be OK having been re-tuckpointed. The limestone blocks are stained darker in color in the area where the mortar is missing.

The south elevation is probably the greatest concern regarding the stability of the structure in that a large portion of the wall is bowing out (south). Most of this elevation has newer mortar from being re-tuckpointed. The wall may have to be rebuilt.

The east elevation has significant water intrusion and damage from having the guttering no longer attached to the downspout on the northeast corner of the structure. Water is draining directly onto the soil behind the retaining wall on the north side leading to the entrance. This retaining wall also suffers from having large gaps between the stones. An attempt has been made in the past to reconstruct the wall as there are "newer" stones in place amongst the earliest wingwall stones. A portion of this elevation has newer looking mortar from being re-tuckpointed. As with the west elevation, a portion of the east elevation wall at the northeast corner is bowing outward (east) approximately one-two inches. The sill plate above the entrance has been replaced with a concrete sill. The entrance opening has also been rebuilt probably at the same time the concrete sill was installed.

Invasive vines have attached themselves to the northeast and northwest corners of the structure. There is a large tree growing very close to the east elevation and wingwall. The tree roots are probably compounding the problem along with the water intrusion by pushing the wingwall to the south.

Estimated Building Damage:

None: **1-10%:** **10-30%**: **30-60%**: ***X*** → [+30-40%?] **60-90%**: **90-100%**:

Intervention level: Urgent; to prevent active deterioration

Association with the Santa Fe Trail - Direct Association: located 2,740' north of the trail

Proximity to SFT: ***[See notes.]***
KHRI-GLO *: 2,850 ft. (0.54 miles)
NPS ARC-GIS *: 2,740 ft. (0.52 miles)

Ancillary structures: None

*** NOTES ***

Coordinates:
Coordinates 1 - ACME Mapper Google coordinates *[default setting: NS d.ddd EW d.ddd]*
Coordinates 2 - ACME Mapper Google coordinates [*UTM*]
Coordinates 3 - Handheld GPS *[WGS84 datum]*

> *A difference between UTM readings for 'ACME Mapper Google' and 'Handheld' coordinates would be the placement of the GPS unit outside center front of the buildings when possible.*

Proximity to the SFT: Two readings may be recorded per NPS's advice whenever there are possible discrepancies in the distance from the trail to the resource when comparing the KHRI map measurements and the NPS ARC-GIS map measurements.