STRUCTURAL INVESTIGATION
SITE INVESTIGATION TESTING DESCRIPTION

OVER VIEW:

The purpose of the condition assessment of buildings A, B, & C, and of the Auditorium is to evaluate the condition of the existing structural system and to determine the load carrying capacity of the structural elements in their existing condition. The condition assessment serves also to assess if the existing structural system is in compliance with the current Florida Building Code (FBC) design requirements. Where the current FBC requirements are not satisfied, our scope includes developing recommendations and upgrading schemes that will address the shortcomings.

For the evaluation of the existing structural member condition, the in-place compressive strength of concrete, the reinforcement rebar size and spacing, and the species, condition and nature of the wood structure must be field determined. There are destructive and non-destructive test methods that can be performed on the concrete structure and wood structure to determine the material characteristics and necessary design/check information listed above. The non-destructive test methods will be performed on the structure, unless they cannot produce accurate results or cannot be performed. If the non-destructive test cannot be performed or are unreliable, the destructive test methods will be used to evaluate the structural elements.

TESTING SERVICES:

Testing and measuring of structural elements must be per ASTM standards and other applicable codes and standards. Coring specimen of in-place concrete structural elements for compressive strength must be taken away from the steel reinforcement (Do not core through steel reinforcement). The test methods are listed below, but not limited:

Reinforced Concrete Elements:

- Coring and testing of existing concrete structural elements specimen must in accordance with ASTM C42,
- Windsor probe (limited strength up to 17000 psi, minimum 3 tests at each location) must be in accordance with ASTM C803,
- Reinforcement location by Rebar Locator: Rebarscope (finding the location, size, depth of steel reinforcement) must be per testing equipment manufacturer's recommendations,
- Condition assessment by Ultrasonic Testing: Ultrasonic Pulse Velocity System must be per ASTM C597-09 (finding voids, cracks, and other area of inhomogenity in concrete and wood),
- Visual observations of existing structural elements,

Wood Framing Elements:

- Visual observations of existing structural elements.
- If require, specimen to taken from site for laboratory testing.

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STRUCTURAL INVESTIGATION
BUILDINGS A & B AND AUDITORIUM - FIRST FLOOR PLAN

LEGEND:

ACCESS HOLES:
INDICATES 24"x24" ACCESS HOLE TO BE CUT AT THE EXISTING FIRST LEVEL TO EXPOSE THE EXISTING FLOOR STRUCTURE (BEAMS AND JOISTS) MEMBERS, UNLESS OTHER MEANS TO ACCESS THE UNDER SIDE OF THE FIRST FLOOR STRUCTURE EXISTS.

AH-i

BORE HOLES:
INDICATES APPROXIMATE LOCATIONS OF THE SOIL INVESTIGATION BY BORING.

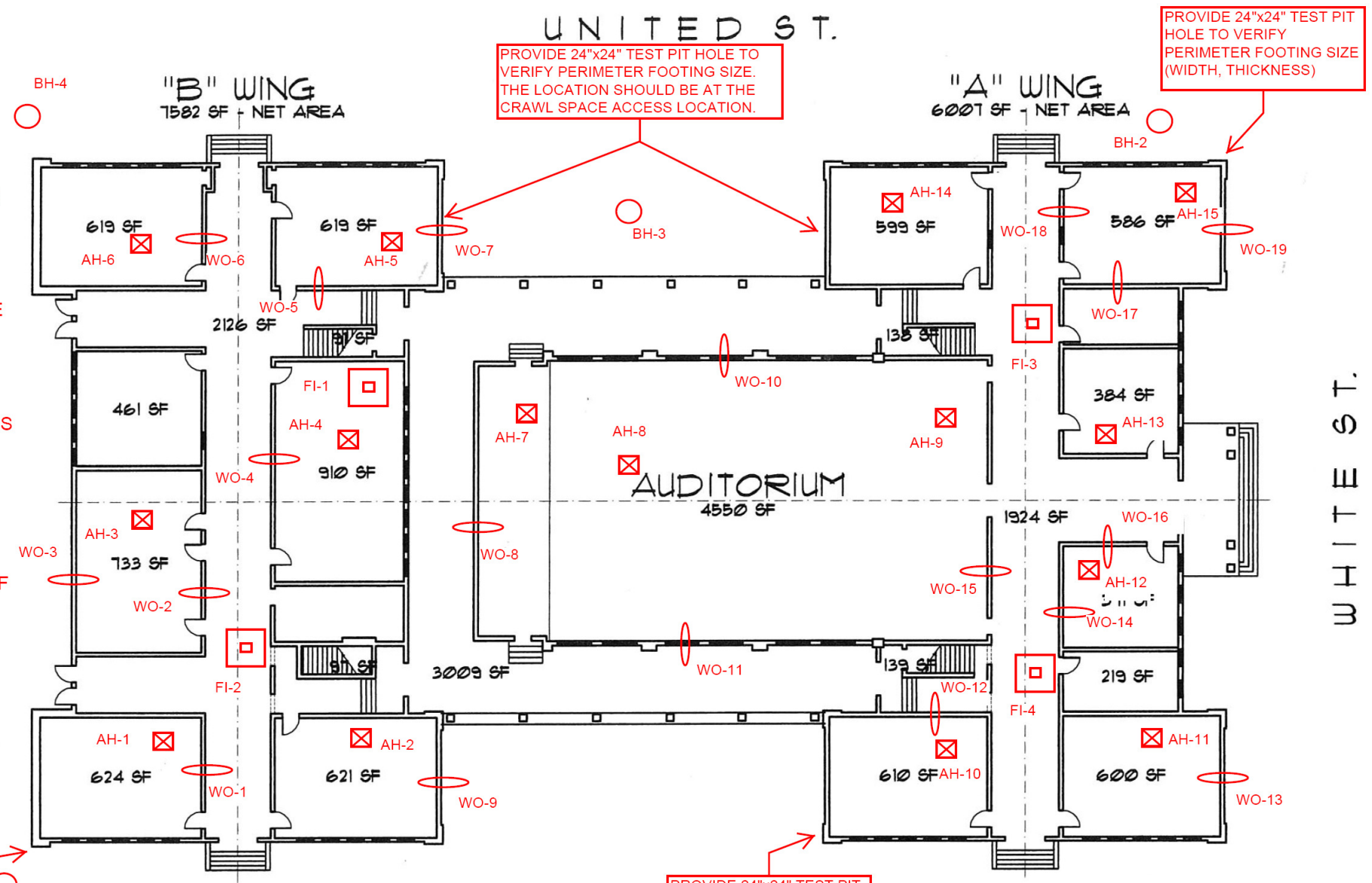
BH-i

WALL OPENINGS:
INDICATES APPROXIMATE LOCATIONS OF THE INTERIOR WALL INVESTIGATION. EXPOSE BOTTOM OF WALL BY CUTTING 12"x16" OPENING AND EXPOSE TOP OF WALL ABOVE THE DROPPED CEILING LEVEL BY CUTTING 12"x16" OPENING.

WO-i

FOOTING INVESTIGATION:
LOCATE TWO INTERIOR SPREAD FOOTINGS AND EXCAVATE TO THE BOTTOM OF FOOTING TO VERIFY THE FOOTING SIZE (LENGTH, WIDTH, AND THICKNESS).

FI-i



Partial First Floor Plan – A&B Wings

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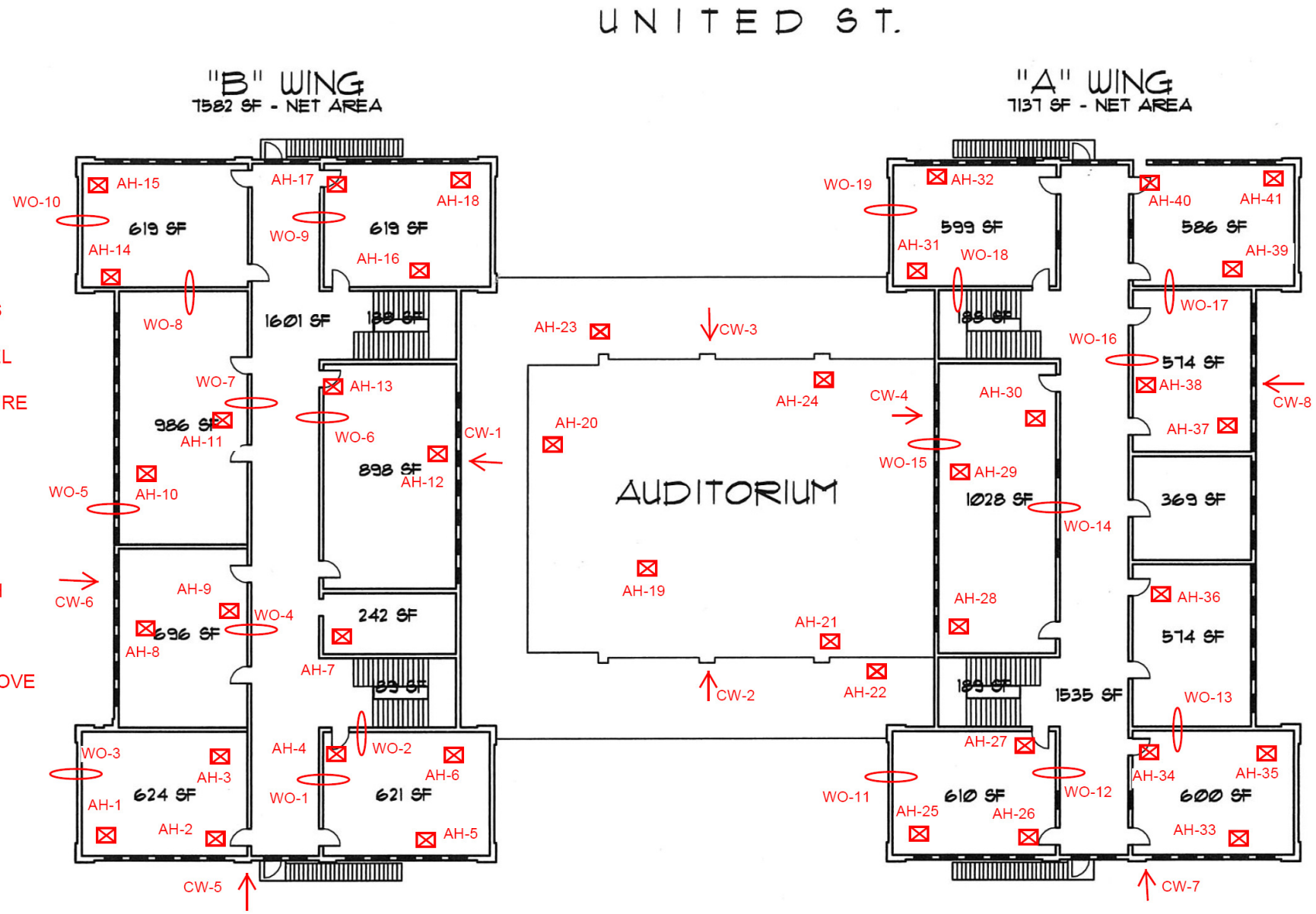
STRUCTURAL INVESTIGATION
BUILDINGS A & B AND AUDITORIUM - SECOND FLOOR PLAN



LEGEND:

AH-i

ACCESS HOLES:
INDICATES 24"x24" ACCESS HOLE TO BE CUT AT THE EXISTING CEILING OF LEVEL BELOW TO EXPOSE THE EXISTING FLOOR STRUCTURE (BEAMS AND JOISTS) MEMBERS.

CW-i

CONCRETE WALL:
INDICATES APPROXIMATE LOCATION OF CONCRETE SAMPLE TO BE TAKEN FOR COMPPRESSIVE STRENGTH AND DETERMINE REINFORCEMENT IN THE CONCRETE WALL. TAKE SAMPLE AT 2 TO 3 FEET ABOVE TOP OF WINDOW.

WO-i

WALL OPENINGS:
INDICATES APPROXIMATE LOCATIONS OF THE INTERIOR WALL INVESTIGATION. EXPOSE BOTTOM OF WALL BY CUTTING 12"x16" OPENING AND EXPOSE TOP OF WALL ABOVE THE DROPPED CEILING LEVEL BY CUTTING 12"x16" OPENING.

Partial Second Floor Plan – A&B Wings

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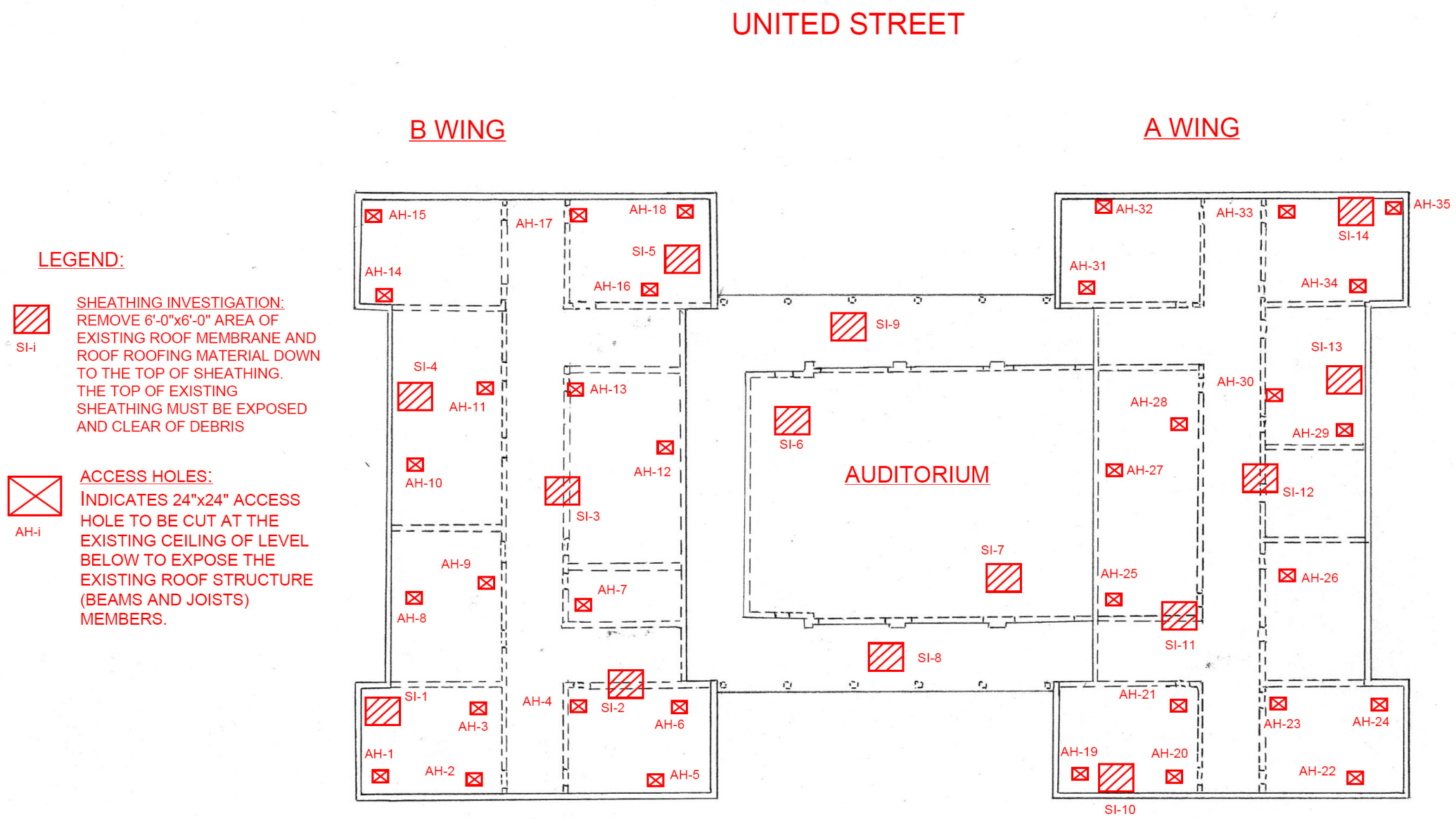
STRUCTURAL INVESTIGATION
BUILDINGS A & B AND AUDITORIUM - ROOF PLAN



PARTIAL ROOF PLAN - A & B WINGS

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