



**SMITH GEE STUDIO**  
ARCHITECTURE URBAN DESIGN INTERIORS

**February 16, 2024**

Stanley Rowland  
Development Manager  
State of Tennessee Real Estate and Asset Management  
Tennessee Tower, 24<sup>th</sup> Floor  
312 Rosa L Parks Avenue  
Nashville, TN 37243

**RE: Natchez Trace State Park Inn Reconstruction, SBC# 126/057-02-2023**

Hello Stan,

Together with our consultants, Smith Gee Studio has reviewed and verified the Program for the Natchez Trace State Park Inn Reconstruction project. We understand the program and feel that it is developed with sufficient detail for us and our team to carry out the design.

Sincerely,

A handwritten signature in blue ink that reads "Dallas G. Caudle, III".

Dallas Caudle, III, AIA  
Principal  
Smith Gee Studio, LLC



# NATCHEZ TRACE STATE PARK INN RECONSTRUCTION

SBC# 126/057-02-2023

## PROGRAM VERIFICATION

FEBRUARY 16, 2024



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**SMITH GEE STUDIO**

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## ARCHITECTURAL NARRATIVE

### Project Overview

This project consists of the demolition of the existing Lodge at Natchez Trace State Park and the reconstruction of a new facility on the same site. A previous program study of this facility was performed in 2022 as part of SBC# 529/000-02-2019-03, Task Authorization # 03-012, at which time it was determined that the existing facility would not be salvaged or refurbished, and a new facility would be built.

### Site Context

The existing lodge is located on Pin Oak Lake in Henderson County, Tennessee. It is located to the south of a Boat Launch, and to the north of the existing park Cabins. The Cabins are intended to share some facilities and amenities in the proposed new facility, including the Laundry, Playground, Restaurant, and Pool.



SITE CONTEXT DIAGRAM



## Existing Conditions

The existing Lodge consists of Guest Rooms, Lobby, Gift Shop, Meeting Spaces, Commercial Kitchen, service spaces, and amenities including a Playground and Pool. No existing facilities or equipment are expected to be reused in the new facility. Programmatic elements will be duplicated and supplemented, but salvage & reuse of components is not anticipated. The following pages include a diagram of the existing site layout, as well as a selection of photos of the existing exterior conditions.



EXISTING SITE LAYOUT DIAGRAM



PHOTO 1 – EXISTING LODGE



PHOTO 2 – ENTRY APPROACH



PHOTO 3 – PANORAMA LAKE VIEW



PHOTO 4 – PANORAMA LAKE VIEW



PHOTO 5 – PANORAMA LAKE VIEW



PHOTO 6 – SEPTIC LIFT STATION



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PHOTO 9 – LAKE VIEW



PHOTO 10 – LAKE VIEW



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PHOTO 12 – POOL/GUEST ROOMS



PHOTO 13 – VIEW FROM LAKE



PHOTO 14 – GUEST ROOMS



PHOTO 15 – SERVICE/EV CHARGING



## **Program Components**

### Demolition

Demolition of the existing Inn is included in the scope of work for this project. A 90-day period shall be scheduled prior to demolition of the existing Inn for Owner evaluation and surplus of existing FF&E. Due to the age of the facility, it is understood that hazardous materials, including but not limited to asbestos may be present. The existing facility should be evaluated for hazardous materials prior to demolition. If hazardous materials are found to be present, abatement measures should be taken. No existing building or site elements are required to remain or be reused in the new design.

### Building Exterior

The exterior material selections for the Inn shall comply with the Tennessee State Parks Design Guidelines and the targeted HPBr points. It was also requested in the Program Verification meetings that the new Inn have a standing seam metal roof with historical look gutters. Exterior lighting shall be dark sky compliant, and selections should have downward facing shades to reduce insect collection. Consideration should be given to exterior and interior lighting near exterior glazing and openings to avoid attracting insects. The drop-off porte-cochere shall be illuminated.

### Parking

Adequate parking shall be provided to support the function space ratio to support the lodge guestrooms, function space capacity, restaurant patron parking, and staff parking. A 2:1 parking space to guest room ratio shall be used as a basis for calculating guest parking. The parking lot should also include oversized spaces for boat parking. Ideally 20 or more boat parking stalls will be provided. Transient outlets for boat charging should be provided in the parking area. EV charging spaces shall be provided. Rivian is the current provider of EV charging spaces for the park. Charging spaces should be capable of level 2 charging, and at least one space should be connected to the generator for emergency charging. At least one EV charging space must be ADA accessible. A minimum of two EV charging spaces shall be installed, with infrastructure for additional spaces to be installed in the future. STREAM to confirm desired number of additional future EV charging spaces.

Overflow parking for the Inn is currently located in a parking lot to the south of the Inn entry. It is anticipated that this lot will remain as overflow parking for the Inn. The bridge connection between the overflow parking lot and the Inn is to remain. It is the park's desire to construct a boat launch area adjacent to this parking lot, although this boat launch is not currently included in the construction budget for this project.

### Front Desk/Lobby/Administration

The main entry doors should include a vestibule with automatic doors. Opening controls for the front entry doors should be located at the front desk. The front desk should be located within the Lobby space, in an area not susceptible to drafts from the front door. The front desk registration areas should consist of two pods with workstations open on each side. The pods should be standing height and have ADA height shelves on each side.

A gift shop & grab-n-go should be located adjacent to the front desk. The grab-n-go should include a microwave, coffee machine, and food and beverage coolers. Adequate Gift Shop storage space is required for backstock items.



The Lobby should have a variety of seating areas, including a communal table and 2-top and 4-top tables for guests. The Lobby will serve as overflow seating for the continental breakfast. All seating areas should have nearby electrical outlets for guest use. The flooring within the Lobby and main public areas should be a wood-look ceramic tile. All lighting should be LED with adjustable temperature control and Lutron or similar controls system. The Lobby lighting should be dimmable with daylight response settings.

The Administration Office shall be located behind the front desk, and shall have a minimum of four offices to match the existing Inn. Employee break area, work room, and restrooms should be included in the Administration office. The fire control panel shall be located in the office space directly behind the front desk. Safe deposit boxes for guests and employees should be included.

#### Guest Lounge

The Guest Lounge should seat at least 20 people and should double as the continental breakfast set up area. A beer & wine self-service unit should be included in this space for happy hours. The Guest Lounge should be in proximity to the Lobby space, and either the Lounge or the Lobby should include a fireplace seating area. The Lounge should have a variety of seating, tables, and community areas for guests to use for workstations, lounging, etc. All seating areas should have nearby electrical outlets for guest use. The Guest Lounge should have a view towards the Lake.

#### Meeting and Prefunction Spaces

The main Banquet Room should have a prefunction space with soft seating and phone booth areas. The Banquet Room should be divisible into four total compartments; three primary compartments with the third compartment divisible in half. Each primary compartment should be sized to hold 50 people minimum. A space for a beverage station within the banquet hall is preferred. The Banquet Room should include pig tails dropped from the ceiling for power to hot boxes for dining. The Banquet Room should be easily accessible from the Kitchen via a back-of-house corridor. The Banquet Room compartments shall be equipped with accessible 4'x8' staging units, banquet chairs with chair carts, and conference tables with carts. Adequate furniture storage areas shall be provided for Banquet Room equipment. Each compartment of the Banquet Room should be equipped with an overhead AV projection system with automatic drop screens that can also be operated manually. The Banquet Hall shall have electrical, AV, and Cat-6 connectivity in multiple locations along the outer walls.

In addition to the Banquet Room, a private Board Room conference space shall be provided. The Board Room shall be sized to accommodate 20 people. The Board Room shall have a large smart television with tabletop controls and speakerphone.

The meeting spaces should have painted walls. A chair rail or wainscot is preferred in these rooms. The meeting spaces do not require Lake views but they may be provided incidentally if the architecture allows it. All meeting spaces shall have dimmable lighting with Lutron or similar controls system.

#### Dining

The Dining Room should be sized to accommodate 125 people. A section of this area should be able to be reserved as Private Dining for conference groups. The Dining Room will include a buffet area that will be used for lunch and dinner service, the buffet area should have the ability to be closed off when not in use. The Dining Room should be easily accessible from the Kitchen via a back-of-house corridor. A full-service bar should be included in the Dining Room but will only be operational as staffing allows. The bar area should include an accessible seating option. The Dining Room should have a view towards the Lake.



### Public Restrooms

Public Restrooms should include one Men's room with a minimum of four stalls and two urinals, a Women's room with a minimum of six stalls, and a Family Restroom sized appropriately to accommodate an adult changing table. The Men's and Women's restroom should include a stainless steel baby changing station. Restrooms should have shelves/hooks for purses and laptops, and a fold-out stepstool for children should be included at the lavatory. All toilet partitions should be top-hung phenolic panels. Restrooms shall utilize hands-free fixtures, including hands free dryers. Water bottle filling stations should be included throughout the public areas of the Inn and should be easily accessible to the meeting spaces.

### Kitchen/Food Service

A space with kitchen prep area should be located near the Lobby to service the continental breakfast & happy hour. This area should have a back room for storage with refrigeration, dish machine, shelving, and sinks. A beer and wine self serve unit shall be located in the continental breakfast/happy hour area to reduce staffing needs. Adequate refrigerated storage shall be located to stock this unit.

The back of house corridor from the Banquet Hall shall include facilities to service conference events, including a beverage station, electric pig tails for hot boxes, and sound barrier curtains. The beverage station shall include coffee and tea brewing, a soda machine, ice machine, and a commercial cooler.

The Kitchen shall consist of cook line, prep station, drink station, walk in coolers & freezer, dry goods storage, and scullery. The kitchen layout and equipment should be capable of servicing buffet dining and counter order options, and should have the capacity to cater events. Refer to kitchen equipment narrative for additional information.

### Guest Rooms

The existing Inn has 47 guest rooms. The new Inn shall have approximately the same guest room capacity as the existing Inn, targeting between 46-48 rooms depending on layout and budget constraints. Ten guest rooms shall be King rooms, and the rest shall be double Queen rooms. One King room per floor shall be sized to also accommodate a bunk bed niche. It is desirable to provide bunk bed niches or trundle locations in additional rooms if the space layout allows for it. All King rooms shall connect to double Queen rooms. Approximately 40% of all total rooms shall be connecting rooms. Suites are not required but may be provided if there are abnormal architectural conditions conducive to this layout. If suites are provided, it is preferred that they be open concept rather than 'parlor' style suites.

All guest rooms shall have a view of the lake. Single-loaded corridors may be utilized to achieve this goal. All guest rooms shall have a balcony or patio. All guest rooms should have small under-counter refrigerators. Double Queen rooms shall have bathtubs and King rooms shall have showers in their bathrooms. Accessible rooms should ideally have roll-in showers. Guest room layouts should ideally include storage space for recreational equipment in addition to standard clothing storage.

Guest room finishes should be durable and easy to maintain. LVT or tile flooring is preferred over carpet in guest rooms. Guest room walls should be painted with an accent headboard. Guest room bathrooms should have tile flooring with dark sealed grout. Shower pans and tubs should be porcelain with Mincey marble walls. Guest bathrooms shall have adequate towel bars and hooks. Vanity mirrors over sinks should have LED backlighting.



All Guest Rooms located above the entry level should be connected with a continuous corridor to reduce elevator requirements. At least two guest elevators shall be provided in the facility. If budget and design layout allows, a third elevator may be provided for service use. Guest floor corridors should include storage for linen and housekeeping on each floor. Guest floors with more than 20 rooms should have a housekeeping closet sized for two housekeeper carts. Ice machines shall be located on every other floor of guest rooms. The housekeeping closet should ideally include a laundry chute connecting to the laundry facility on the entry level. Guest corridor and exterior balcony/patio lighting should have adjustable temperature controls to 2500K.

#### Laundry

The laundry facility is intended to serve as housekeeping laundry for the Inn and the adjacent Cabins, as well as the food and beverage linens. The laundry should ideally be located near or behind the front desk for operational efficiency. The laundry should ideally include a linen chute connecting to the upper level housekeeping closets. Laundry equipment should include a minimum of two 70-lb washers, two 100-lb gas dryers, and ozone disinfectant equipment for hot water and chemical reduction.

#### Utilities/Services

The majority of utilities appear to feed underground from the direction of the drive entry. Utility locations to be confirmed when site survey is performed. The facility will be fully sprinklered and will include adequate space for electrical, mechanical, fire riser, and other utility needs. HVAC will be provided via a cooling tower with four pipe distribution to allow for shoulder season temperature controls. Instantaneous hot water heaters shall be used. The design team will consider water softening treatment equipment as the site is known to have hard water issues. The design shall include a permanent 80-100 KW emergency generator for power outages. The site is known to experience power outages of durations for a week or more on a regular basis. Connected equipment to the generator shall include the walk-in coolers and freezer for the kitchen, emergency lighting in the kitchen, back of house, and egress corridors and stairs, at least one EV charging station, and dedicated outlets in the Front desk, restaurant, and engineering office. The design shall include surge protection for the facility and an Integrated Energy Management system with remote capabilities. Refer to MPE narrative for additional information.

Telecom/Data service feeds to the facility underground from the direction of the drive entry. The entry level shall have an MDF closet, and all other floors will have a small IDF closet. The MDF and IDF closets shall ideally be stacked vertically in location. If the budget allows, it is desired that the Inn also include an Integrated Distributed Antenna System for enhanced cellular coverage. All public spaces, including the Restaurant spaces, shall have an integrated house sound system, which shall be installed prior to acoustical ceilings and flooring.

The existing septic lift station is to be relocated as a part of this project. A separate capital project is in progress to evaluate and replace the septic field and other components of the septic system associated with the Inn. The Design team shall coordinate with STREAM to communicate the requirements of the new Inn in a timely manner to ensure that the septic system replacement is sized correctly.

A recycling initiative is in place within the park. Separate trash and recycling receptacles are to be provided throughout the Inn in accordance with park collection protocols. Separate trash and recycling dumpsters are to be located for collection. Restaurant waste to be separated similar to existing configuration. A loading dock for restaurant & supply deliveries is to be located accessible to the back of house corridors. Design team to make efforts to screen service entries and trash disposal from view of main public drive entry to the Inn.



### Outdoor Amenities

Exterior amenities to the Inn shall include a chlorine pool with hot tub, a playground, and outdoor gathering areas. The pool should be heated and a pool equipment room should be provided housing the heating units. Sand filtration units with chemical sensing & balancing controls should be provided for the pool. The pool should be a beach entry design to avoid the need for an ADA pool lift. The hot tub will require an ADA lift. The pool and playground shall be sized to accommodate guests of the Inn and adjacent Cabins. A splash pad may be considered as part of the design if the budget allows but is not a requirement. A small multipurpose sports court may be considered as part of the design if the budget allows but is not a requirement.

Multiple outdoor gathering areas are requested in the landscape design. These gathering areas should include a fire pit and/or an exterior fireplace. A lakeside deck for water access and outdoor dining is requested. ADA access to the water, particularly for pontoon boats, is critical. The design team has been advised that any built elements connecting to the water or at an elevation at or below 460ft will require a permit from TVA, and the permit process is lengthy. Kayak and canoeing equipment rentals are a part of the Inn offerings. The design should include storage for equipment rentals, including life jackets and oars.

### Landscaping

Landscaping planting shall be comprised only of species that are native/noninvasive to Tennessee. Pin Oak trees are to be included in the landscape planting. Weed barriers are to be provided for mulched planting beds. No mulched landscaping areas are to be located around the pool deck. The design team has been advised that if landscaping irrigation is to be provided from the lake, a permit from TVA will be required, and the permit process is lengthy. Exterior lighting, including landscaping lighting, is to be dark sky compliant. Refer to landscaping narrative for additional landscaping information.

Proposed Site Layout

The Site layout will be determined in Schematic Design. It is understood that TVA has ownership and easement of all property from an elevation of 460 down to the Lake. The new Inn will be sited in a similar location to the existing footprint but oriented so that the Guest Rooms and Dining Area can enjoy Lake Views. The Design Team will consider screening options for service areas when orienting the front entry approach. The septic lift station is to be relocated as part of this project. See below for proposed site concept diagram.



SITE CONCEPT DIAGRAM

Kimley-Horn assumes the proposed scope of work to consist of full demolition of the existing Pin Oak Lodge and replacement with a brand-new Lodge building. This option provides the flexibility to alter the building elevations, and therefore alter site grading and stormwater drainage as appropriate. Additional site investigation remains outstanding to better understand existing site topography and drainage patterns and develop a more detailed civil/site scope of work, after finalization of the new building footprint and elevations. The current program assumes the Lodge as a single loaded corridor with every guest room having a view of the lake. This is only achieved by rotating the building approximately 90 degrees from the orientation of the existing Lodge. This orientation will present some earthwork and grading challenges and the building will no longer be aligned with the ridge line on site and could require some areas of fill or basements on each end of the building to follow the existing topography. The following recommended scope of work is assumed for the current program.

### **Recommended Scope of Work**

- Site demolition, including complete demolition of the existing Pin Oak Lodge and partial/complete demolition of associated driveways, parking, sidewalks, pool, hardscape, and landscape.
  - Kimley-horn assumes that the concrete connection from the parking lot directly west of the existing Lodge, the small rear parking lot directly north of the existing Lodge, and small playground directly north of the existing Lodge will be completely demolished.
  - Kimley-Horn assumes that the entirety of the parking lot directly south of the existing Lodge will be demolished.
  - After finalization of the new Lodge footprint, Kimley-Horn will determine if the parking lot directly west of the existing Lodge can be salvaged; however, demolition of this parking lot may be recommended for improved site circulation.
  - Limits of landscape demolition will be determined after finalization of the new Lodge footprint. Per conversations with the State at the Program Verification kickoff, the Pin Oak trees located in front of the existing Lodge do not need to be salvaged but if they are removed there is strong desire to replace them with large Pin Oak trees.
- Site layout, including building footprint (proposed building to include single loaded guest rooms oriented facing Pin Oak Lake), driveways, parking (including ADA and EV designated parking), sidewalks, and circulation.
  - Kimley-Horn recommends that 2-5% of total vehicular stalls are designated as EV parking, and that potentially additional stalls are prepped to be EV ready.
- Site grading, including earthwork, stormwater routing, and ADA compliance.
  - Kimley-Horn assumes this scope of work to include ADA accessible paths from the ADA parking areas to the building, amenities, and boat launch area.
  - Kimley-Horn assumes that ADA access to the boat launch area will present some grading challenges and will require multiple switchback ramps with landings and handrail, due to the approximate 10-20' change in elevation. Additional site investigation remains outstanding to better understand existing site topography and develop a more detailed scope of work for the site grading.
- Stormwater management, including water quality system design and stormwater management report. Kimley-Horn assumes that a bioretention pond, or potentially pervious pavers in the new parking areas, will be utilized to meet water quality requirements.

- Wet utility design and routing from connection point to proposed building, including domestic water, fire service, and sanitary sewer design and routing from connection point to building.
- Dry utility routing from connection point to building, including gas service, electric service and communications.
- Erosion prevention and sediment control plans.
- Construction details, including site details and EPSC details.

Kimley-Horn will provide technical specifications at the design development and construction drawing phases. Kimley-Horn will also submit for permit approval from the following agencies: TDEC (NPDES Stormwater Construction Permit), and Henderson County (Site Plan Approval and Land Disturbance Permit).

Based on preliminary conversations with surrounding utilities, Kimley-Horn believes the following site utility information to be true:

- The facilities at Natchez Trace State Park are fed from the nearby City of Lexington.
- The Lexington Utility Department provides water and gas service to Natchez Trace State Park.
- The new Lodge will likely connect to the Park's internal network for both of these utility services and will be metered through the Park's overall master meter.
  - Park staff informed Kimley-Horn that the interior fire suppression system in the existing Lodge experiences inadequacies. Additional water line upgrades may be required to appropriately service the new Lodge.
  - Contact: Chris Denley, Lexington Utility Department Assistant General Manager ([chris.denley@lexingtontn.gov](mailto:chris.denley@lexingtontn.gov))
- Lexington Electric System provides electricity to Natchez Trace State Park.
  - Contact: Matt James, LES Engineering Department ([mjames@lexingtonelectric.com](mailto:mjames@lexingtonelectric.com))
- The sanitary lift station serving the site is currently located directly north of Pin Oak Lodge. 8" service lines run from the guest room wings to the lift station, and a 4" force main runs from the existing lift station to the septic field located southwest of the existing Lodge.
  - Per conversations with the State at the Program Verification kickoff, there is a separate capital project to renovate and expand the septic system for the Lodge and surrounding campsite.
  - Kimley-Horn's utility plan will show sanitary sewer service from the new Lodge to the new pump station. Additionally, Kimley-Horn assumes that coordination with STREAM will be required as the separate capital project progresses.
  - Design of the new pump station, design of the force main from the new pump station to the septic field, and design of the septic field are not included in Kimley-Horn's scope of work and will be provided by others under a separate contract.

## **Natchez Trace State Park Landscape Architecture Project Narrative**

HD Project Number: 232350  
Date: 02/14/2024

### **Overall Design and Aesthetic Goals**

Natchez State Park is located in Wildersville, TN. This project will comprise a new State Park Inn nestled on the northwestern side of Pinoak Lake on the park's south end. The Inn will be built on the existing lodge site. The Site Park improvements will include the new lodge, a new dock launch for kayaks and lake viewing, new native planting throughout the site, a new parking lot and associated planting, general site hardscape and planting around the new Inn, and an amenity area for the hotel that includes a pool deck with a zero-entry pool, fire pit areas, and native planting. The site will have a site furnishing package, including benches, trash receptacles, and other site user furnishings that match the existing site and the new Inn aesthetics. The remainder of the site will get general landscape treatments that blend and complement the existing and new planting and buildings. All landscape areas will comprise native plantings that are symbiotic to the surrounding landscape and region. All landscape areas will be irrigated with a fully automatic irrigation system.

### **Hotel Entry Design**

The hotel entry will be an experience for all visitors. As you drive up Pin Oak Lodge Road, you will be greeted by native planting with existing and new pin oaks framing the new Inn's main entrance. Pinoak Lake will become the backdrop to the new amenity and pool deck. As you come to the main entry, you enter the Porte-cochere with a specialty paver drive, raised planters, and outdoor seating for guests to drop off and pick up. Concrete sidewalks will be added around the building for visitors to walk to the lake's new dock. The sidewalks will also be connected to existing sidewalks and pathways to trails within the park.

### **Hotel Amenity and Pool Deck**

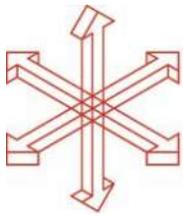
The project will provide a new hotel (Reference architecture narrative for hotel location and design information) nestled into the surrounding trees and lake. Native plantings, trees, shrubs, ornamental grasses, and perennials will be planted throughout the surrounding site and the pool deck as an accent and a buffer from parking and existing roadways. The pool amenity deck will include a zero-entry pool surrounded by modern loungers and soft seating for guests. The pool will be design-build and include mechanical, electrical, and plumbing components that will be housed on-site and determined in a future phase of the project. Additional amenity elements will be added along with the pool to create a well-rounded guest experience. These elements may consist of firepits, outdoor furniture, and shade structures. Additional walks and paths will be added to connect existing and on-site paths. Materials will consist of steel, wood, and tile.

Other elements that will be added to the amenity pool deck will be pool fencing gates and pool lighting. All fencing and gates will be ADA compliant and help provide safety and preserve the view of the lake from the pool deck. For pool lighting, pole lights will be added for night swimming if the park so desires. Other lighting, such as bollards, wall lights, and string lights, will be added for safety and to create an inviting space for guests.

### **Landscape and Irrigation**

All planting will blend native trees, shrubs, ornamental grasses, and groundcovers. Native trees added on site will be a mix of Canopy, flowering, and ornamental trees. The shrubs chosen will be a mix of evergreens and deciduous native shrubs of varying heights and spreads. Ornamental grasses will have a range of heights and spreads. Ground covers will be a mix of annuals and perennials and will also be a mix of evergreens and deciduous plants that vary in size and color.

All Landscaping will be irrigated with drip irrigation—all Trees are to be irrigated with two bubblers per tree. The system will include an automatic controller, separate water meter, and backflow preventer.



**MEPF PROGRAM VERIFICATION DESIGN NARRATIVE FOR:  
NATCHEZ TRACE STATE PARK INN RECONSTRUCTION**  
Wildersville, Henderson County, TN

60 Music Square East, Suite 300 | Nashville, Tennessee 37203 | Office: 615-383-6949 | Fax 615-383-6753 | www.powermgmt.com



<b>PMC PROJECT#:</b>	24006
<b>PREPARED BY:</b>	Max Bryant, P.E. Jonathan Lund, P.E. Craig Shuman, P.E., C.E.M.

VERSION	DATE	DESCRIPTION
1	02/14/2024	Program Verification Phase

# The Lodge at Natchez Trace – MEPF PV Narrative

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## **DIVISION 21 – FIRE PROTECTION SYSTEMS**

### **FIRE LINE SERVICE ENTRANCE**

The fire line will enter the building at the first floor water entry room. The wet system riser will include all OS&Y valves, tamper switches, alarm checks, flow switches, etc. as required by International Fire Code and NFPA to be a fully functional system.

### **WATER SUPPLY**

There will be one 6-inch main wet system riser assembly. The 6-inch main will enter the building at the water entry room. The double detector check valve assembly and post-indicator valve will be located outside. The fire department connection will be provided on the street address side of the building.

### **WET SYSTEM**

Guest rooms, corridors, lobbies, offices, common area restrooms will be designed for Light Hazard occupancy with a density of 0.1 GPM/ft<sup>2</sup> over the most hydraulically demanding area of 1,500 square feet. Mechanical and electrical rooms will be designed for Ordinary Hazard with a design density of 0.15 GPM/ ft<sup>2</sup>ft<sup>2</sup> over the most hydraulically demanding area of 2,000 square feet. Pressure control valves will be included at each zone control valve on each floor level. The zone control valve shall be located at one stairwell only and will feed all wet pipe sprinkler heads on the floor served. A 2-inch drain will be provided at this combination standpipe. There will be a standpipe at each egress stair. All sprinkler piping and fittings will be steel.

### **STANDPIPES**

4-inch combination standpipe/manual wet system piping with 2-1/2-inch hose valves and 1-1/2-inch reducers at each floor will be installed in each egress stairwell. A valved riser connection will extend up to the roof with hose connections to provide fire protection for the roof. All piping and fittings will be steel.

## **DIVISION 22 – PLUMBING SYSTEMS**

### **WATER SERVICE ENTRANCE**

The building will be serviced by a 3-inch domestic water line. The domestic service line will enter the building at the ground level in the Water Entrance Room. The building will be metered per local water department requirements. The reduced pressure backflow preventer assembly will be located outside of the building.

### **FACILITY WATER DISTRIBUTION**

The building will be serviced by a duplex variable speed drive domestic water booster pump system to raise the water pressure as needed to maintain around 50 PSI minimum throughout the building. All domestic water piping will be type K copper.

### **HOT WATER DISTRIBUTION**

Building hot water will be produced by two instantaneous gas fired water heaters located within a central mechanical room. A hot water recirculating system will serve the building, and will be piped back to the water heaters. Thermostatic mixing valves will be utilized to supply the appropriate hot water temperature to individual fixtures, as required.

### **PLUMBING FIXTURES**

Plumbing fixtures will be commercial grade equal to Kohler.

### **SANITARY WASTE AND VENT**

All sanitary waste and vent piping will be cast iron or PVC schedule 40 depending on the project budget.

#### **FACILITY STORM DRAINAGE**

Storm water piping will be cast iron or PVC schedule 40 depending on the project budget. Roof drains will be collected to rainwater leaders and routed to storm sewers and bio-retention areas on site per civil engineer's direction.

#### **SUMP PUMPS**

Elevator sump pump will be provided for each elevator shaft. The capacity of the pump will be equal to 50 GPM times the number of elevator cars located in that shaft.

#### **NATURAL GAS PIPING**

Natural gas piping will be welded schedule 40 black steel.

### **DIVISION 23 – HEATING, VENTILATION, AND AIR CONDITIONING**

#### **HVAC SYSTEMS**

HVAC systems consistent with the intent of each HPBr credit will be proposed and analyzed to meet the OPR and energy efficiency and indoor environmental quality goals.

A building energy model will be used as a decision-making and goal-tracking tool as part of the design process.

A reference will be provided in each specification section relative to the HPBr credits to be implemented.

#### **AIR DISTRIBUTION SYSTEM**

Air will be distributed with sheet metal supply and return ductwork. Where ductwork is visible to occupants, the ductwork shall be spiral duct, and the spaces shall be served by duct registers suitable for mounting in spiral duct. Where ductwork is mounted above ceiling, ductwork shall be rectangular or round and shall feed ceiling-mounted air devices.

#### **CONTROLS AND AUTOMATION**

A centralized Building Automation System (BAS) shall be installed, which shall be capable of monitoring status, adjusting setpoints, and creating and editing occupancy schedules for all HVAC equipment. Where individual, packaged units are installed, these units shall be controlled by thermostats.

#### **COMMISSIONING**

Advanced commissioning will be performed by the Owner's third-party commissioning agent (CxA). The commissioning process will include installation verification, functional performance, and integration of the HVAC systems, HVAC controls, and domestic hot water system.

The Owner's CxA specification sections will be coordinated for inclusion in the project specifications.

### **DIVISION 26 – ELECTRICAL SYSTEMS**

Install all new power systems for the facility as described below.

#### **ELECTRICAL SERVICE & DISTRIBUTION**

The building will be serviced by an underground secondary feeder from a pad mounted transformer with meter located on the utility transformer.

Install new electrical distribution system including main distribution panel and branch circuit panelboards to serve HVAC, kitchen, public areas lighting and power, and guestrooms. Surge protection will be provided for the Main Distribution Panel.

### **EMERGENCY AND STANDBY POWER SYSTEMS**

The system will include an emergency generator located outside on the property. Select loads will be determined to have generator backup. Elevators will be powered by a generator-backed system and will feature automatic recall systems. IT rooms will be backed up by the emergency generator including cooling systems and convenience power. Surge protection will be provided for the Emergency panels.

### **POWER AND BRANCH CIRCUITY**

Install new branch circuitry using EMT conduit/wire and MC cable where applicable. Install receptacles as required by code in guestrooms and kitchens. Install general-use receptacles throughout.

### **LIGHTING SYSTEMS**

LED lighting will be used primarily throughout the facility for interior and exterior applications. Install exit and egress lighting throughout using integral battery backup. Controls will be provided to meet the applicable IECC standards and STREAM requirements, including occupancy sensors and time-clock controls in the public areas.

### **MISC POWER SYSTEMS**

Install (4) new Level 2 EV charging systems in the designated parking spaces.

## **DIVISION 27 – COMMUNICATION SYSTEMS**

Cellular connectivity is required throughout the building. Boosters or additional antenna options will be explored throughout the SD phase.

Data access points will be located as coordinated with the architect and STREAM requirements.

A main distribution facility (MDF) will be the point of demarcation for all communications entering the building. This location will be coordinated with the architect during the SD phase. Intermediate Distribution Facilities (IDF) will be located as necessary if the run length of backbone cables exceeds 300'.

## **DIVISION 28 – FIRE DETECTION & ALARM**

Install a manual fire alarm system serving the public areas and guest areas with a code compliant addressable system. The system will include a Fire Alarm Control Panel, Power Boosters, NAC & SLC devices as required. Install new stand-alone smoke alarms and CO sensors in each guestroom.

# NARRATIVE

## Natchez Trace Inn – Restaurant, Bar & Guest Ice

HOTEL

Henderson County, TN

Prepared by: Inman Foodservices Group, LLC

Consultant Project No. 23095

02/17/2024

## PROGRAM VERIFICATION PACKAGE

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### PROJECT DESCRIPTION

The purpose of this document is to provide a Schematic Design Package for pricing

### DESCRIPTIVE SCOPES

#### Foodservice Narrative

This narrative will describe Inman Foodservices Group, LLC understanding of the scope of work for the new construction that is to take place.

#### Restaurant Kitchen and Bar

The existing Inn, scheduled for demolition, provided the guest with buffet style dining, as well as catering for the meeting rooms. The Owner (STREAM) would like to move away from buffet style service and create a better guest experience with family casual & fast casual style service. The renovation will include a new commercial kitchen to provide cooking capabilities to accommodate up to a total of 125 seats in the family casual & fast casual restaurant, and also the ability to do catering for a variety of large-scale functions. Catering will need to support large events throughout the park, state agencies or businesses. The food will need to be transported from the Inn and need to maintain proper temperature for food safety. The design will incorporate equipment that will help to maintain the temperature of the food. In addition to the new kitchen, there will be a separate bar with seating, with a mixture of high top tables and bar seats. There will also be a plan to add a mobile bar, located in the pool area. Buffet service will still be available, but limited to only large groups. It will be designed in such a manner to be mobile banquet style and utilize chafing dishes or a mobile buffet cart. Once the Owner (STREAM) has developed a menu, Inman will design a kitchen that is both efficient and versatile to best meet the needs of the Inn. Storage for both dry goods and refrigerated items will be designed to accommodate two deliveries a week. The addition of the bar will be placed in the restaurant dining area, but the exact location and size will be coordinated with the Architect (SGS). The Bar will be designed to allow the Inn to provide a wide variety of liquor, beer and cocktails.

#### Ice/Vending

Alternating Guest floors will include an ice machine with dispenser. Vending machines will need to be coordinated with owner/operator.

#### Grab-N-Go

The Grab-N-Go area will have areas for bottled beverages, pre-made salads, sandwiches, frozen desserts, candies and packaged snacks. There will be proper refrigeration to hold products at the required temperatures. Coffee will also be provided in this area. All other items will be displayed in typical retail fashion on slat walls and merchandising counters.

# NARRATIVE

## Natchez Trace Inn – Laundry

HOTEL

Henderson County, TN

Prepared by: Inman Foodservices Group, LLC

Consultant Project No. 23095

02/17/2024

## PROGRAM VERIFICATION PACKAGE

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### PROJECT DESCRIPTION

The purpose of this document is to provide a Schematic Design Package for pricing

### DESCRIPTIVE SCOPES

#### Laundry Narrative

This narrative will describe Inman Foodservices Group, LLC understanding of the scope of work for the new construction that is to take place.

#### Laundry

The Laundry facility will be designed to accommodate the 46-48 room hotel, plus the ten adjacent Cabins and restaurant linens. The facility will be designed to handle linens for all guest rooms, including box spring covers and towels. Within the laundry space there will be space for two large washing machines on a raised pad, two large dryers, double soak sink, multiple folding tables, storage shelving, soiled and clean bulk laundry carts, chemical storage, eye wash and a hand sink. Behind the washers there will be a location to store the needed chemicals and a drain trough with lint trap. Behind the dryers will be an access space to allow maintenance to service the lint trap. We also recommend a location for a desk and chair.

#### Housekeeping on guest floors.

Each housekeeping space on the guest floors will have storage shelving for clean linen, a housekeeping cart and a soiled bulk laundry cart.



**Program Space Summary**

Entry Level				
Space Name	Quantity	NSF	Total NSF	Notes
Lobby	1	600	600	
Front Desk	1	200	200	
Gift Shop	1	200	200	
Gift Shop Storage	1	90	90	
Guest Lounge	1	800	800	
Public Restrooms	2	300	600	6 stalls each
Family Restroom	1	150	150	with adult changing station
Administration Office	4	100	400	
Break Room	1	200	200	
Work Room	1	250	250	
Office Storage	1	50	50	
Staff Restroom	2	60	120	
Laundry	1	650	650	
Kitchen Prep	1	260	260	
Kitchen Cooking	1	350	350	
Kitchen Counter/Assembly	1	475	475	
Kitchen Pickup	1	190	190	
Kitchen Washing	1	400	400	
Dry Storage	1	320	320	
Walk in Cooler	2	120	240	
Walk in Freezer	1	120	120	
Kitchen Storage	1	60	60	
Kitchen Office	2	100	200	
Kitchen Restroom	1	60	60	
Janitor/Chemical Storage	1	35	35	



Dining Room	1	2,080	2,080	Dining + Private Dining should have 125p capacity
Private Dining	1	562	562	
Dining Bar	1	150	150	
Self Serve Bar Area	1	120	120	Located in Guest Lounge
Bar Storage	1	56	56	
Buffet	1	165	165	Located in Guest Lounge
Prefunction Space	1	1,000	1,000	
Banquet Room	1	3,000	3,000	With moveable partitions divisible into 4 compartments total
Board Room	1	400	400	
Furniture Storage	3	200	600	
Loading Dock	1	600	600	
Sprinkler Riser	1	100	100	
Electrical	1	100	100	
Data - MDF	1	160	160	
Mechanical	1	200	200	
Janitor	1	50	50	
Back of House Corridor	1	1,500	1,500	
Elevator	2	70	140	
Elevator Lobby	1	400	400	
Stair	2	200	400	
Guest Rooms - King	2	350	700	All king rooms to connect to QQ
Guest Rooms - Double Queen	5	370	1,850	3 QQ rooms will connect to king rooms
Guest Rooms - King Suite	1	500	500	All king rooms to connect to QQ, plan king suites with bunk room niche
Guest Room Patios	8	80	640	Exterior Space
Corridor	1	672	672	
Housekeeping	1	150	150	
<b>TOTAL ENTRY LEVEL:</b>		<b>23,315</b>		<b>NSF</b>



Level 2				
Space Name	Quantity	NSF	Total NSF	Notes
Guest Rooms - King	2	350	700	All king rooms to connect to QQ
Guest Rooms - Double Queen	17	370	6,290	3 QQ rooms will connect to king rooms
Guest Rooms - King Suite	1	500	500	All king rooms to connect to QQ, plan king suites with bunk room niche
Guest Room Balconies	20	80	1,600	Exterior Space
Corridor	1	1,680	1,680	
Housekeeping	1	150	150	If 20 or more rooms per floor, housekeeping closet should be sized to hold a minimum of two carts
Ice/Vending Niche	1	20	20	Ice/Vending to be located on every other floor
Stair	2	200	400	
Elevator	2	70	140	
Elevator Lobby	1	100	100	
Storage	1	200	200	
Data - IDF	1	80	80	
<b>TOTAL LEVEL 2:</b>	<b>11,860</b>			<b>NSF</b>

Level 3				
Space Name	Quantity	NSF	Total NSF	Notes
Guest Rooms - King	2	350	700	All king rooms to connect to QQ
Guest Rooms - Double Queen	17	370	6,290	3 QQ rooms will connect to king rooms
Guest Rooms - King Suite	1	500	500	All king rooms to connect to QQ, plan king suites with bunk room niche
Guest Room Balconies	20	80	1,600	Exterior Space
Corridor	1	1,680	1,680	
Housekeeping	1	150	150	If 20 or more rooms per floor, housekeeping closet should be sized to hold a minimum of two carts
Stair	2	200	400	
Elevator	2	70	140	
Elevator Lobby	1	100	100	
Storage	1	200	200	
Data - IDF	1	80	80	
<b>TOTAL LEVEL 3:</b>	<b>11,840</b>			<b>NSF</b>



Site				
Space Name	Quantity	SF	Total SF	Notes
Playground	1	3,000	3,000	
Pool	1	2,020	2,020	Sized for Inn Guests + Cabin Guests
Pool Deck	1	5,400	5,400	
Pool Equipment Room	1	100	100	
Outdoor Dining	1	900	900	
Fire Pit Recreation	1	600	600	
Fireplace Recreation	1	600	600	
Equipment Rental Storage	1	150	150	
Dumpster	2		0	
Restaurant Waste	2		0	
Maintenance Storage Shed	1	200	200	Unconditioned storage



## EXECUTIVE SUMMARY

Prepared For: **Smith Gee Studio**

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Project Name: **Natchez Trace State Park Lodge Reconstruction**

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Location: Wildersville, TN Estimate Date: 2/12/2024

Area: 45,000 GSF Construction Date: 4/1/2025

Project # 24049 Palacio Lead Contact: Michael D. Palacio, CPE

Scope: New upgraded 3-story lodge building with 48 guest rooms, restaurant, banquet hall, etc. as well at building demolition and associated sitework.

CONSTRUCTION COST SNAPSHOT				
PROJECT TYPE	AREA	UNIT	COST/SF	TOTAL
New Build	45,000	SF	\$793.70	\$35,716,497
Building Demolition & Hazardous Abatement	34,000	SF	\$34.17	\$1,161,817
Sitework Allowance	45,000	SF	\$84.37	\$3,796,786
FF&E Package Allowance				\$2,400,000
<b>TOTAL ESTIMATED CONSTRUCTION COST</b>				<b>\$43,075,100</b>
<i>Above / (Below) Bid Target</i>		<b>\$43,081,035</b>	<i>0.0%</i>	<i>(\$5,935)</i>

ESTIMATE ASSUMPTIONS
Anticipated Bid Date: 2nd Quarter 2025 (Add 1.5% per quarter for market escalation beyond this point)
CM-at-risk delivery method
CM to receive bids from at least three (3) qualified subcontractors per trade
Most of the bidders will be from the local market (within 1 hour driving distance)
Assumes normal working hours





Name: Natchez Trace State Park Lodge Reconstruction

Location: Wildersville, TN

Date: 2/12/2024

Area: 45,000 GSF

Construction Date: 4/1/2025

ESTIMATE SUMMARY		13.6 MONTHS			
DESCRIPTION	AREA	UNIT	COST	TOTAL	
1000	GENERAL TRADES & FINAL CLEANING	45,000	SF	6.00	\$270,000
2000	BUILDING & SITE DEMOLITION	45,000	SF	17.00	\$765,000
2400	DEEP FOUNDATIONS	45,000	SF	0.00	\$0
3000	CAST IN PLACE CONCRETE	45,000	SF	14.62	\$657,891
3400	PRECAST CONCRETE	45,000	SF	0.00	\$0
4000	MASONRY	45,000	SF	15.99	\$719,483
5000	STRUCTURAL & MISCELLANEOUS STEEL	45,000	SF	64.68	\$2,910,630
6100	ROUGH CARPENTRY	45,000	SF	2.50	\$112,500
6400	CABINETS & CASEWORK	45,000	SF	2.69	\$121,120
7100	WATERPROOFING & SEALANTS	45,000	SF	4.68	\$210,570
7400	METAL/CEMENT WALL PANELS & INSULATION	45,000	SF	31.47	\$1,416,331
7500	ROOFING & ACCESSORIES	45,000	SF	20.80	\$936,163
7800	FIREPROOFING	45,000	SF	3.77	\$169,628
8100	PASSAGE DOOR ASSEMBLIES	45,000	SF	15.40	\$693,200
8300	SERVICE DOORS	45,000	SF	0.22	\$10,000
8800	GLASS ASSEMBLIES	45,000	SF	36.68	\$1,650,642
9200	DRYWALL ASSEMBLIES & STUCCO	45,000	SF	35.25	\$1,586,093
9300	HARD TILE	45,000	SF	10.86	\$488,668
9500	ACOUSTICAL CEILINGS & WALL PANELS	45,000	SF	19.09	\$858,979
9600	RESILIENT FLOORING & CARPET	45,000	SF	6.90	\$310,624
9900	PAINTING & WALL COVERING	45,000	SF	3.85	\$173,250
10000	SPECIALTIES	45,000	SF	3.60	\$161,967
11000	EQUIPMENT	45,000	SF	23.21	\$1,044,267
12000	FURNISHINGS	45,000	SF	7.27	\$327,027
13000	SPECIAL CONSTRUCTION	45,000	SF	0.00	\$0
14000	ELEVATORS AND ESCALATORS	45,000	SF	9.33	\$420,000
21000	FIRE PROTECTION SYSTEMS	45,000	SF	7.11	\$320,000
22000	PLUMBING	45,000	SF	42.28	\$1,902,543
23000	HVAC	45,000	SF	60.00	\$2,699,905
26000	ELECTRICAL DISTRIBUTION	45,000	SF	39.85	\$1,793,435
26500	LIGHTING	45,000	SF	17.33	\$779,743
27000	COMMUNICATIONS	45,000	SF	2.70	\$121,500
28000	ELECTRONIC SAFETY & SECURITY	45,000	SF	14.48	\$651,425
31000	EARTHWORK	45,000	SF	0.00	\$0
32000	EXTERIOR IMPROVEMENTS	45,000	SF	0.00	\$0
32900	LANDSCAPING AND IRRIGATION	45,000	SF	0.00	\$0
33000	SITE UTILITIES	45,000	SF	0.00	\$0
<b>SUBTOTAL</b>				<b>\$24,282,583</b>	
GC/CM GENERAL CONDITIONS AS %			9%	\$2,185,432	
SUBCONTRACTOR BONDS OR DEFAULT INSURANCE AS %			1%	\$264,680	
CM BOND & INSURANCE AS %			3%	\$801,981	
CONTRACTOR FEE AS %			4.5%	\$1,239,060	
DESIGN/ESTIMATING CONTINGENCY AS %			20%	\$5,754,747	
CM CONTINGENCY (Held by STREAM)			0%	\$0	
<b>SUBTOTAL (CURRENT DOLLARS)</b>				<b>\$34,528,485</b>	
				\$767.30	
Escalation to Start of Construction - Add 1.5% per quarter beyond this point					
2/12/24	to	4/1/25	6.8%	\$2,349,829	
<b>TOTAL ESTIMATED CONSTRUCTION COST</b>				<b>\$36,878,314</b>	
<b>Cost per SF</b>				<b>\$819.52</b>	
Above / (Below) Bid Target		\$43,081,035	-14.4%	(\$6,202,721)	



# PALACIO



Name: Natchez Trace State Park Lodge Reconstruction

Location: Wildersville, TN

Date: 2/12/2024

GSF: 45,000

Construction Date: 4/1/2025

Cost per SF: \$819.52

Construction Cost: \$36,878,314

PROGRAM/AREA CALCULATION				H=High Partition/Door Density, M=Medium, L=Low			
Restroom/Janitor	H	1,030	NSF				
Conference/Meeting Room	H	0	NSF				
Upgraded Conference/Board Room	H	400	NSF				
Storage/File Rooms	H	1,140	NSF				
Work/Copy/Mail Room	H	250	NSF				
Break Room	H	200	NSF				
Laundry	H	650	NSF				
Study Room	H	0	NSF				
Office	H	600	NSF				
Guest Rooms	H	14,190	NSF	48	EACH		
Guest Room Bathrooms	H	3,840	NSF	48	EACH		
Open Office	M	0	NSF				
Lab, Dry	M	0	NSF				
Lab, Chemistry	M	0	NSF				
Lab, Biology	M	0	NSF				
Lab, A&P	M	0	NSF				
Lab, Other	M	0	NSF				
Vivarium	M	0	NSF				
Lab Prep, Dry	M	0	NSF				
Lab Prep, Wet	M	0	NSF				
Classroom	M	0	NSF				
TEAL Classroom	M	0	NSF				
Computer Lab	M	0	NSF				
Tiered Classroom/Educational Auditorium	L	0	NSF				
Auditorium (Performance)	L	0	NSF				
Banquet Room	L	3,000	NSF				
Training Room	L	0	NSF				
Guest Lounge	L	800	NSF				
Lobby/Reception/Vestibules	L	1,200	NSF				
Secondary/Elevator Lobby	L	100	NSF				
Kitchen/Bar/Buffer	L	2,906	NSF				
Private Dining	L	562	NSF				
General Dining	L	2,080	NSF				
Retail Area (Gift Shop)	L	200	NSF				
Inventory/Receiving (Book Store)	L	0	NSF				
Library, Stacks/Reference	L	0	NSF				
Library, Circulation/Reading	L	0	NSF				
Gymnasium	L	0	NSF				
Locker Room	L	0	NSF				
Maintenance/Storage	L	0	NSF				
Other	L	0	NSF				
Other	L	0	NSF				
Total Building Net Area		33,148	NSF				
Circulation/Support Area							
Grossing Factor (by %):		36%	11,852	NSF			
Mechanical Penthouse		0	GSF				
Shell Space		0	GSF				
<b>TOTAL BUILDING GROSS AREA</b>		<b>45,000</b>	<b>GSF</b>				





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Location: Wildersville, TN

Date: 2/12/2024

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Cost per SF: \$819.52

Construction Cost: \$36,878,314

**BUILDING SPECIFICS**

Gross Building Area		<b>45,000</b>	<b>GSF</b>					
Project Type		<b>New-Build</b>						
Basement Area		0	SF	50%	<b>Daylight</b>	Basement Type		
Basement Perimeter		0	LF	% Ratio				
Penthouse Area		0	SF	Penthouse Ext Wall Ht:		20	FT	
Penthouse Perimeter		0	LF					
Roof Area		25,140	HSF	Average Roof Overhang		4.5	FT	
# of Floors (Attic/P'house/B'ment not included)		3	EACH					
Average Floor Level Perimeter		770	LF	5.1%	Perimeter to Area Ratio	3.3%	3.8%	4.4%
				% Ratio		Square 1:1	Rectangle 3:1	Bar/L-Shape 5:1
Average Floor to Floor Height		13.0	FT					
Sustainable Design Level		<b>LEED Silver</b>						
Delivery Method		<b>CM-at-Risk</b>						

**ISOLATED BUILDING SYSTEMS**

<b>STRUCTURAL SYSTEM</b>									
Podium Floor Structure	Concrete	0	SF						
Floor Structure	Steel	23,325	SF						
Attic/Penthouse Floor Structure	Steel	0	SF						
Roof Structure	Steel	25,140	SF						
Pre-Engineered Bldg (% of Total Roof Area)	0%	0	SF	20'		Eave Height			
Sloped Interior Balcony Structure		0	SF	Assumes Cantilevered Structure					
Exterior Balcony or Other Structure	Steel	0	SF						
Reinforce Existing Str (Repurpose)	No Work	0	SF	Steel					
<b>EXTERIOR WALL</b>									
Wall Assemblies									
Structural Precast Concrete	0%	0	SF	100% Total					
CMU Back-Up	0%	0	SF						
Wood Stud Framing	0%	0	SF						
Metal Wall Framing	100%	24,114	SF						
Wall Cladding									
Precast Concrete Wall Panel, 4"	0%	0	SF	100% Total					
Cast Stone Wall Panel, 4"	0%	0	SF						
Brick Veneer w/Rigid Insulation	0%	0	SF						
Stone Veneer w/Rigid Insulation	35%	8,440	SF						
Synthetic Stone Veneer w/Rigid Insulation	0%	0	SF						
Metal Wall Panel w/Insulation, PEMB	0%	0	SF						
Metal Wall Panel, Utilitarian	0%	0	SF						
Metal Panel	0%	0	SF						
Composite Metal Panel	0%	0	SF						
Fiber Cement Wall Panel (Equitone)	65%	15,674	SF						
Cementitious Wall Panel (Nichiha)	0%	0	SF						
Cement Board Wall Siding (Hardie or Similar)	0%	0	SF						
Stucco	0%	0	SF						
Penthouse Wall Cladding (Metal Panel)	0%	0	SF						
Soffit & Fascia w/Framing	Metal Panel	3,465	SF						
Demo Along Addition/Existing Bldg (Addition Bldg Type Only)				0.00	0	0	0	0	
<b>INTERIOR PARTITIONS</b>									
Partitions									
Room Type (High Density)		68,334	SF	SF of Partition to Room NSF Ratio					
Room Type (Medium Density)		0	SF						
Room Type (Low Density)		11,584	SF						
Grossing Area		10,758	SF						
Drywall Partitions w/Sound Batts	60%	54,405	SF	100% Total					
Rated Drywall Partitions w/Sound Batts	30%	27,203	SF						
CMU Partitions	10%	9,068	SF						





Name: Natchez Trace State Park Lodge Reconstruction

Location: Wildersville, TN

Date: 2/12/2024

GSF: 45,000

Construction Date: 4/1/2025

Cost per SF: \$819.52

Construction Cost: \$36,878,314

**BUILDING DETAIL BY DIVISION**

DESCRIPTION	QTY	UNIT	PRICE	TOTAL
<b>1000 GENERAL TRADES &amp; FINAL CLEANING</b>				
General Trades	45,000	SF	5.00	225,000
Final Cleaning	45,000	SF	1.00	45,000
<b>TOTAL GENERAL TRADES &amp; FINAL CLEANING</b>				<b>\$270,000</b>

<b>2000 BUILDING &amp; SITE DEMOLITION</b>				
Building Demolition	34,000	SF	15.00	510,000
Selective Interior Demolition	0	SF	0.00	0
Comprehensive Interior Demolition/Gut	0	SF	0.00	0
Hazardous Abatement Allowance	34,000	SF	7.50	255,000
Remove Exterior Wall/Cladding	0	SF	0.00	0
Remove Exterior Windows	0	SF	0.00	0
Remove Roofing	0	SF	0.00	0
Site Demolition-Asphalt	0	SF	0.00	0
Site Demolition-Concrete Paving/Sidewalk	0	SF	0.00	0
Site Utility Demolition	0	LF	0.00	0
<b>TOTAL BUILDING &amp; SITE DEMOLITION</b>				<b>\$765,000</b>

<b>2400 DEEP FOUNDATIONS</b>					
Deep Foundations Premium	0%	0	SF	0.00	0
<b>TOTAL DEEP FOUNDATIONS</b>				<b>\$0</b>	

Pile & Cap Deep Foundation Type

<b>3000 CAST IN PLACE CONCRETE</b>				
Slab on Grade	21,675	SF	10.00	216,750
Elevator Pit	2	EACH	15,000.00	30,000
Foundation System				
Spread Footings	21,675	SF	9.27	200,919
Basement Construction				
Foundation Wall	0	SF	0.00	0
Excavation (Dirt)	0	CY	0.00	0
Slab on Floor Deck	23,325	SF	8.50	198,263
Concrete Topping Floor Slab	0	SF	0.00	0
Concrete Podium Floor Structure	0	SF	0.00	0
Concrete Floor Structure	0	SF	0.00	0
Concrete Attic/Penthouse Floor Structure	0	SF	0.00	0
Concrete Sloped Balcony Structure	0	SF	0.00	0
Concrete Roof Structure	0	SF	0.00	0
Concrete Exterior Balcony or Other Structure	0	SF	0.00	0
Concrete Stair & Landing Pan Fill	5	FLT	2,300.00	11,960
Reinforce Existing Str (Repurpose)	0	SF	0.00	0
<b>TOTAL CAST IN PLACE CONCRETE</b>				<b>\$657,891</b>

Hollow Core & Mass Timber Str

Assumes Cantilevered Structure

<b>3400 PRECAST CONCRETE</b>				
Hollow Core Plank Podium Floor Structure	0	SF	0.00	0
Hollow Core Plank Floor Structure	0	SF	0.00	0
Hollow Core Plank Attic/Penthouse Floor Structure	0	SF	0.00	0
Hollow Core Roof Structure	0	SF	0.00	0
Structural Precast Concrete Wall Panel	0	SF	0.00	0
Precast Concrete Wall Panel, 4"	0	SF	0.00	0
Cast Stone Wall Panel, 4"	0	SF	0.00	0
<b>TOTAL PRECAST CONCRETE</b>				<b>\$0</b>





Name: Natchez Trace State Park Lodge Reconstruction

Location: Wildersville, TN

Date: 2/12/2024

GSF: 45,000

Construction Date: 4/1/2025

Cost per SF: \$819.52

Construction Cost: \$36,878,314

4000 MASONRY					
Brick Veneer w/Rigid Insulation		0	SF	0.00	0
Stone Veneer w/Rigid Insulation		8,440	SF	60.00	506,396
Synthetic Stone Veneer w/Rigid Insulation		0	SF	0.00	0
8" CMU Back-Up	100%	0	SF	0.00	0
12" CMU Back-Up	0%	0	SF	0.00	0
CMU Partitions	0%	0	SF	0.00	0
CMU Partitions, Rated	100%	9,068	SF	23.50	213,087
<b>TOTAL MASONRY</b>					<b>\$719,483</b>

5000 STRUCTURAL & MISCELLANEOUS STEEL						
Structural Steel Podium Structure		0	SF	0.00	0	Includes Metal Floor Deck
Structural Steel Floor Structure		23,325	SF	50.00	1,166,250	Includes Metal Floor Deck
Structural Steel Attic/Penthouse Floor Structure		0	SF	0.00	0	Includes Metal Floor Deck
Structural Steel Roof Structure		25,140	SF	45.00	1,131,300	Includes Metal Roof Deck
Structural Steel/Joist Roof Structure		0	SF	0.00	0	Includes Metal Roof Deck & Bridging
Long Span Joist Premium	0%	0	SF	0.00	0	
Steel Sloped Balcony Structure		0	SF	0.00	0	Assumes Cantilevered Structure
Steel Exterior Balcony or Other Structure		3,200	SF	65.00	208,000	
Green Roof/Roof Terrace Structure Premium		0	SF	0.00	0	
Prefabricated Metal Roof Truss		0	SF	0.00	0	Includes Metal Roof Deck
Tiered Floor Structure (Tiered Classroom & Auditorium)		0	SF	0.00	0	Includes Handrailing
Exit Stairs & Railings (At Basement & Penthouse)		0	FLT	0.00	0	
Upgraded Exit Stairs & Railings		5	FLT	17,900.00	93,080	
Replace Exit Stairs & Railings (Repurpose)		0	FLT	0.00	0	
Monumental Stairs & Railings		0	FLT	0.00	0	
Upgraded Railing at Overlook		0	LF	0.00	0	
Exterior Guard Railing (Roof Terrace, Balcony, Etc)		1,040	LF	300.00	312,000	
Reinforce Existing Str (Repurpose)		0	SF	0.00	0	
<b>TOTAL STRUCTURAL &amp; MISCELLANEOUS STEEL</b>					<b>\$2,910,630</b>	

6100 ROUGH CARPENTRY						
Miscellaneous Wood Blocking & Nailers		45,000	SF	2.50	112,500	
Wood Stud Wall Framing, 2x6		0	SF	0.00	0	
Wood Floor Joists w/Plywood Subfloor (Podium)		0	SF	0.00	0	
Wood Floor Joists w/Plywood Subfloor		0	SF	0.00	0	
Wood Roof Framing w/Plywood Deck		0	SF	0.00	0	
Wood Exterior Balcony or Other Structure		0	SF	0.00	0	
Mass Timber Podium Floor Structure		0	SF	0.00	0	
Mass Timber Floor Structure		0	SF	0.00	0	
Mass Timber Attic/Penthouse Floor Structure		0	SF	0.00	0	
Mass Timber Roof Structure		0	SF	0.00	0	
Mass Timber Exterior Balcony or Other Structure		0	SF	0.00	0	
Reinforce Existing Str (Repurpose)		0	SF	0.00	0	
<b>TOTAL ROUGH CARPENTRY</b>					<b>\$112,500</b>	

6400 CABINERY & CASEWORK						
Restrooms		1	LS	10,300.00	10,300	
Work/Copy/Mail Rooms		1	LS	17,500.00	17,500	
Break Rooms		1	LS	5,250.00	5,250	
Other Millwork		1	LS	72,270.00	72,270	
Miscellaneous Millwork Allowance		1	LS	15,800.00	15,800	
<b>TOTAL CABINERY &amp; CASEWORK</b>					<b>\$121,120</b>	





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7100 WATERPROOFING & SEALANTS					
Foundation Wall Waterproofing & Drainage Mat		0	SF	0.00	0
Weather Barrier		24,114	SF	5.00	120,570
Caulking & Sealants		45,000	SF	2.00	90,000
<b>TOTAL WATERPROOFING &amp; SEALANTS</b>					<b>\$210,570</b>

7400 METAL/CEMENT WALL PANELS & INSULATION						
Metal Wall Panel w/Insulation, PEMB		0	SF	0.00	0	Included with PEMB (Div 13000)
Metal Wall Panel, Utilitarian		0	SF	0.00	0	
Metal Panel		0	SF	0.00	0	
Composite Metal Panel		0	SF	0.00	0	
Fiber Cement Wall Panel (Equitone)		15,674	SF	65.00	1,018,820	
Cementitious Wall Panel (Nichiha)		0	SF	0.00	0	
Cement Board Wall Siding (Hardie or Similar)		0	SF	0.00	0	
Subframing		15,674	SF	7.50	117,556	
Metal Panel Soffit & Fascia w/Framing		3,465	SF	50.00	173,250	
Rigid Wall Insulation		15,674	SF	4.50	70,534	
Batt Wall Insulation		24,114	SF	1.50	36,171	
Batt Floor Insulation/Separation (Podium)		0	SF	0.00	0	
<b>TOTAL METAL/CEMENT WALL PANELS &amp; INSULATION</b>					<b>\$1,416,331</b>	

7500 ROOFING & ACCESSORIES						
Flat Membrane Roof w/Tapered Insulation	0%	0	SF	0.00	0	
Metal Roof w/Rigid Laminated Insulation	100%	28,107	SF	32.25	906,463	Roof Pitch: 6 :12
Asphalt Shingles w/Rigid Laminated Insulation	0%	0	SF	13.25	0	Roof Pitch: 6 :12
Pre-Engineered Building Metal Roof w/Insul	0%	0	SF	0.00	0	Included with PEMB (Div 13000)
Gutters (Prefin Metal)		770	LF	15.00	11,550	
Downspouts		1,210	LF	15.00	18,150	
Green Roof Premium (Shallow)		0	SF	0.00	0	
Green Roof/Roof Terrace Premium		0	SF	0.00	0	
Skylights		0	SF	0.00	0	
Roof Monitors		0	SF	0	0	Monitor Ht: 5 FT
<b>TOTAL ROOFING &amp; ACCESSORIES</b>					<b>\$936,163</b>	

7800 FIREPROOFING						
Spray Fireproofing at Steel Structure	Y	48,465	SF	3.50	169,628	
Intumescent Fireproofing		0	SF	0.00	0	
<b>TOTAL FIREPROOFING</b>					<b>\$169,628</b>	

8100 PASSAGE DOOR ASSEMBLIES						
Exterior Doors		10	EACH	5,000.00	50,000	
Interior Doors						Door per Room NSF Ratio
Room Type (High Density)		223	EACH	2,600.00	579,800	100 SF of Part'n per Plan SF
Room Type (Medium Density)		0	EACH	0.00	0	400
Room Type (Low Density)		14	EACH	2,600.00	36,400	800
Grossing Area		10	EACH	2,700.00	27,000	1250
Special Door		0	EACH	0.00	0	
<b>TOTAL PASSAGE DOOR ASSEMBLIES</b>					<b>\$693,200</b>	

8300 SERVICE DOORS						
Overhead Door (10x10)		1	EACH	10,000.00	10,000	
Overhead Door, High Speed (10x10)		0	EACH	0.00	0	
Hangar Door		0	SF	0.00	0	
<b>TOTAL SERVICE DOORS</b>					<b>\$10,000</b>	





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8800 GLASS ASSEMBLIES					
Curtainwall	15%	4,955	SF	125.00	619,369
Sliding Glass Doors at Guest Rooms	12%	3,964	SF	150.00	594,594
Storefront/Aluminum Windows	12%	3,964	SF	85.00	336,937
Upgraded/Historic Windows	0%	0	SF	0.00	0
Skylight		0	SF	0.00	0
Roof Monitor		0	SF	0	0
Interior Storefront & Sidelites	2%	1,814	SF	55.00	99,743
<b>TOTAL GLASS ASSEMBLIES</b>					<b>\$1,650,642</b>

Total Glazing by % of Exterior Wall		
Low	Medium	High
20% to 35%	35% to 45%	+45%

Monitor Ht:	5 FT
Low: 2%	Med: 5% High: +8%

9200 DRYWALL ASSEMBLIES & STUCCO					
Stucco Wall		0	SF	0.00	0
Stucco Soffit & Fascia w/Framing		0	SF	0.00	0
Exterior Wall Framing, 6"		24,114	SF	15.00	361,711
Sheathing, Densglass		24,114	SF	3.00	72,342
Drywall Layer on Wall Framing (Exterior Wall)		24,114	SF	2.00	48,228
Drywall on Framing at CMU/Precast (Ext Wall)	N	0		0.00	0
Drywall Partitions w/Sound Batts		54,405	SF	11.00	598,458
Rated Drywall Partitions w/Sound Batts		27,203	SF	12.50	340,033
Suspended Drywall Ceiling		7,870	SF	11.00	86,570
Drywall Ceiling Attached to Wood Structure		0	SF	0.00	0
Drywall Soffits & Bulkheads	10%	4,500	SF	17.50	78,750
<b>TOTAL DRYWALL ASSEMBLIES &amp; STUCCO</b>					<b>\$1,586,093</b>

9300 HARD TILE					
Floor Tile w/Base		6,746	SF	18.00	121,428
Upgraded Floor Tile w/Base		6,130	SF	35.00	214,550
Terrazzo w/Base		0	SF	0.00	0
Wall Tile		1	LS	152,690.00	152,690
<b>TOTAL HARD TILE</b>					<b>\$488,668</b>

9500 ACOUSTIC CEILINGS & WALL PANELS					
ACT Ceiling, 2x2		28,988	SF	7.50	217,410
Upgraded ACT Ceilings		2,262	SF	20.00	45,240
Specialty Ceilings, Metal or Wood		5,880	SF	35.00	205,800
Acoustic Wall Panel/General Upgraded Wall Finish		1	LS	249,940.00	249,940
Specialty Wall Panel, Metal or Wood		1	LS	62,500.00	62,500
Special/Upgraded Ceiling & Wall Finish Allow	10%	1	LS	78,089.00	78,089
<b>TOTAL ACOUSTIC CEILINGS &amp; WALL PANELS</b>					<b>\$858,979</b>

9600 RESILIENT FLOORING & CARPET					
Carpet Tile or VCT w/Rubber Base		2,390	SF	5.50	13,145
LVT or Stained/Sealed Concrete w/Rubber Base		27,092	SF	7.50	203,190
Wood/Athletic Floor w/Wood Base		2,642	SF	25.00	66,050
Epoxy Flooring w/Integral Base		0	SF	0.00	0
Sealed Concrete w/Rubber Base		0	SF	0.00	0
Special/Upgraded Flooring Allowance	10%	1	LS	28,238.50	28,239
<b>TOTAL RESILIENT FLOORING &amp; CARPET</b>					<b>\$310,624</b>





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9900 PAINTING & WALL COVERING					
Exterior Paint-Siding		0	SF	0.00	0
Interior Paint-Walls, Doors, Drywall Ceilings, Etc		45,000	PSF	3.50	157,500
Interior Paint-Epoxy at Walls		0	SF	0.00	0
Interior Paint-Epoxy at Ceilings		0	SF	0.00	0
Interior Paint-Structure		0	SF	0.00	0
Special/Upgraded Wall Finish Allowance	10%	1	LS	15,750.00	15,750
<b>TOTAL PAINTING &amp; WALL COVERING</b>					<b>\$173,250</b>

10000 SPECIALTIES						
Sunscreens, Horizontal	0%	0	SF	0.00	0	% of Glazing Protected by Sunscreen
Sunscreens, Vertical	0%	0	SF	0.00	0	% of Glazing Protected by Sunscreen
Entry Canopy/Covered Walkway		0	SF	0.00	0	
Mechanical Roof Screen Wall, 10' Tall		0	LF	0.00	0	
Visual Display Boards & Projection Screens		1	LS	29,800.00	29,800	
Lockers		1	LS	0.00	0	
Interior Signage (Door ID & Code Required)		1	LS	24,700.00	24,700	
Folding Partitions, Horizontal		0	SF	0.00	0	
Toilet Compartment, Urinal Scrn & Accessories		1	LS	27,466.67	27,467	
Fireplace Allowance at Lobby		1	LS	35,000.00	35,000	
Miscellaneous Building Specialties		1	LS	45,000.00	45,000	
<b>TOTAL SPECIALTIES</b>					<b>\$161,967</b>	

11000 EQUIPMENT					
Lab Casework Allow (Base, Wall, Reagent)		0	SF	0.00	0
Lab Casework Allow (Base Cabinets & Shelf)		0	SF	0.00	0
Prep Lab Casework Allow. (Base & Wall Cabinets)		0	SF	0.00	0
Fume Hoods		0	EACH	0.00	0
Biosafety Cabinets		0	EACH	0.00	0
Snorkels		0	EACH	0.00	0
Autoclaves		0	EACH	0.00	0
Vivarium Equipment Allowance		0	LS	0.00	0
Miscellaneous Fixed Lab Equipment Allowance		1	LS	0.00	0
Loading Dock Equipment		1	LS	2,500.00	2,500
Food Service Equipment		2,906	SF	350.00	1,017,100
Breakroom/Kitchen Appliance Allowance		1	LS	4,666.67	4,667
Laundry Equipment Allowance		1	LS	20,000.00	20,000
<b>TOTAL EQUIPMENT</b>					<b>\$1,044,267</b>

12000 FURNISHINGS					
Window Covering, Electric Roller Shades		8,919	SF	30.00	267,567
Window Covering, Manual Roller Shades		3,964	SF	15.00	59,459
Fixed Seminar Tables at Tiered Classrooms		0	SEAT	0.00	0
Fixed Auditorium Seats		0	SEAT	0.00	0
<b>TOTAL FURNISHINGS</b>					<b>\$327,027</b>

13000 SPECIAL CONSTRUCTION					
Pre-Engineered Bldg (Structure Only)		0	SF	0.00	0
Pre-Engineered Bldg (Standard PEMB Wall Panels w/Insul)		0	SF	0.00	0
Pre-Engineered Bldg (Standard PEMB Roof Panels w/Insul)		0	SF	0.00	0
Pre-Engineered Bldg (Ext Wall Liner Panels)	0%	0	SF	0.00	0
Pre-Engineered Storage Shed Building		0	SF	0.00	0
Pre-Engineered Pavilion Structure (No Walls)		0	SF	0.00	0
<b>TOTAL SPECIAL CONSTRUCTION</b>					<b>\$0</b>





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14000 ELEVATORS & ESCALATORS					
Passenger Elevator		6	STOP	70,000.00	420,000
Freight Elevator	N	0	STOP	0.00	0
Hospital/Oversized Elevator		0	STOP	0.00	0
Wheelchair Lift		0	EACH	0.00	0
<b>TOTAL ELEVATORS &amp; ESCALATORS</b>					<b>\$420,000</b>

21000 FIRE PROTECTION SYSTEM					
Wet System	New	45,000	SF	6.00	270,000
Dry Pipe System		0	SF	0.00	0
Fire Pump	Y	1	EACH	50,000.00	50,000
Clean Agent Fire Protection System		0	LS	0.00	0
<b>TOTAL FIRE PROTECTION SYSTEM</b>					<b>\$320,000</b>

Attic & canopies wider than 10'  
 0 SF  
 \$5.00/CF  
 No less than \$32,500/rm

22000 PLUMBING					
Public Restroom/Convenience Fixts		41	FIXT	8,500.00	348,500
Guest Room Plumbing		144	FIXT	8,500.00	1,224,000
Central Water Heater Allowance		1	LS	75,000.00	75,000
Vivarium Plumbing		0	SF	0.00	0
Kitchen & Seryery Plumbing		3,468	SF	35.00	121,380
Roof Drain System		0	SF	0.00	0
Sustainable Design Premium	LEED Silver	185	FIXT	722.50	133,663
<b>TOTAL PLUMBING</b>					<b>\$1,902,543</b>

1100 GSF per Fixture

23000 HVAC					
General Area	VAV	42,094	SF	55.00	2,315,170
Lab, Chemistry		0	SF	0.00	0
Lab, Biology		0	SF	0.00	0
Lab Prep, Wet		0	SF	0.00	0
Lab, Other		0	SF	0.00	0
Lab, Dry		0	SF	0.00	0
Vivarium		0	SF	0.00	0
Auditorium (Performance)		0	SF	0.00	0
Kitchen		2,906	SF	60.00	174,360
Attic/Mechanical Penthouse		0	SF	0.00	0
Shell Space (Heat & Ventilation Only)		0	SF	0.00	0
Atrium Exhaust System Allowance		0	LS	0.00	0
Sustainable Design Premium	LEED Silver	45,000	SF	4.68	210,375
<b>TOTAL HVAC</b>					<b>\$2,699,905</b>

DX	VRF/RTU	VAV
DX Split or WSHP	Variable Refrigerant Flow or RTU	Variable Air Vol. (Chiller, Boiler, VAV)
\$28	\$42	\$55

26000 ELECTRICAL DISTRIBUTION					
Distribution					
General Area		42,094	SF	25.00	1,052,350
Labs & Lab Prep		0	SF	0.00	0
Auditorium (Performance)		0	SF	0.00	0
Kitchen		2,906	SF	35.00	101,710
Attic/Mechanical Penthouse		0	SF	0.00	0
Shell Space		0	SF	0.00	0
Emer Power Gen, Nat'l Gas		750	KW	725.00	543,750
UPS System		0	LS	0.00	0
Sustainable Design Premium	LEED Silver	45,000	SF	2.13	95,625
<b>TOTAL ELECTRICAL DISTRIBUTION</b>					<b>\$1,793,435</b>





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26500 LIGHTING					
General Area		19,328	SF	12.50	241,600
Guest Rooms & Bathrooms		18,030	SF	10.00	180,300
Auditorium & Tiered Classroom		0	SF	0.00	0
Banquet Room		3,000	SF	15.00	45,000
Guest Lounge		800	SF	13.50	10,800
Lobby		1,200	SF	20.00	24,000
Dining & Servery		2,642	SF	16.50	43,593
Attic/Mechanical Penthouse		0	SF	0.00	0
Shell Space		0	SF	0.00	0
Exterior Building Lighting	Y	45,000	SF	0.50	22,500
Architectural Lighting Allowance	High	1	LS	2.00	90,000
Daylighting System	Y	27,000	SF	2.85	76,950
Sustainable Design Premium	LEED Silver	45,000	SF	1.00	45,000
<b>TOTAL LIGHTING</b>					<b>\$779,743</b>

27000 COMMUNICATIONS					
Telephone/Data System	Wired	270	EACH	450.00	121,500
Telephone/Data Equipment, NIC					
<b>TOTAL COMMUNICATIONS</b>					<b>\$121,500</b>

28000 ELECTRONIC SAFETY & SECURITY					
Audio/Visual Equipment, Rough-In		45,000	SF	1.50	67,500
Audio/Visual Equip Rough-In (Performance Auditorium)		0	SF	0.00	0
Audio/Visual Equipment Allowance	NIC	0	SF	0.00	0
Security System, Rough-In		45,000	SF	0.50	22,500
Card Reader Access Allowance	Complete	10	EACH	4,000.00	40,000
Guest Room Entry Door Hardware	Complete	48	EACH	2,500.00	120,000
Security Camera Allowance	Rough-In	0	EACH	750.00	0
Fire Alarm System		45,000	SF	4.50	202,500
Intercom System		0	SF	0.00	0
Nurse Call System		0	SF	0.00	0
Emergency Responder System	Y	1	LS	100,000.00	100,000
Distributed Antenna Sys (DAS)	Y	45,000	SF	1.50	67,500
Lightning Protection (Roof Area)	Y	25,140	SF	1.25	31,425
<b>TOTAL ELECTRONIC SAFETY &amp; SECURITY</b>					<b>\$651,425</b>





## Project Requirements

The design must fulfill the Owner's Performance Requirements and meet the targeting objectives identified in the High Performance Building requirements. These requirements are included as an attachment to this document.

The design documentation is also subject to STREAM's BIM requirements. Design disciplines producing documents in BIM shall comply with the Owner's requirements for BIM modeling.

The design is subject to the State of Tennessee adopted building codes and amendments. The project is also subject to the requirements of the Tennessee State Parks Design Guidelines.

### Permitting

This project falls within the jurisdiction of Henderson County. It is our understanding that Henderson County does not require building or construction permits, and review of this project will primarily fall to the State Fire Marshal. Based on the budget Construction Cost, less the estimated site work and excavation costs, we estimate the permit fees for State Fire Marshal review to be approximately **\$78,872.00**.

In addition to construction documents submission to the State Fire Marshal, the Design Team will prepare documents for NPDES Stormwater Construction Permit from TDEC and Site Plan Approval and Land Disturbance Permit from Henderson County. The Design Team will also coordinate required documentation for permits from TVA for any structures or elements to connect to the Lake or to be located below an elevation of 460, including water access features and potential irrigation connections.

### Accessibility

Tennessee State Parks are working toward the implementation of the Access 2030 program, and Park Accessibility is a critical goal. The new Inn will be fully ADA compliant, including accessible guest rooms, public spaces, and amenities. Site amenities will be located on an accessible path and have accessible components, and accessible parking will include EV charging spaces.

### Historic Designation

It is our understanding that although the existing facility is over 50 years old, it is not considered a historic structure by the Tennessee Historical Commission.

### Surveying & Geotechnical Services

Surveying and Geotechnical services are understood to be an additional service to the Base Services of design for this project. The Design Team will solicit proposals for these services and coordinate with STREAM to contract them.

### Commissioning

Commissioning is understood to be outside of the Base Services of design for this project. It is our understanding that STREAM has engaged with Gresham Smith for these services in a separate contract. Advanced Commissioning is required as part of the Owner's Performance Requirements. The Design Team shall work with the Owner's Commissioning agent to coordinate all required information for facilitation of their services in a timely manner.



### FF&E Specification

Specification and coordination of FF&E is understood to be within the design scope for this project. Procurement and installation of FF&E is understood to be within the CM/GC's scope of work and is understood to be included within the MACC budget for the project.

The furniture, fixtures, and equipment (FF&E) should be hospitality grade with a commercial warranty. FF&E encompasses all the movable items, decor, and equipment necessary to furnish and outfit the public areas, meeting spaces, guest rooms, offices and back of house areas. FF&E items include furniture such as beds, chairs, soft seating and tables; fixtures like lighting and bathroom fittings; and equipment such as safes, televisions, and case goods. The CM/GC will consider using ADM for the purchase and installation of FF&E, as they have performed well in the past. The design team will provide 2 other purchasing and installation firms for consideration. See below for preliminary furniture descriptions in select areas.

### Lobby & Guest Lounge

The FF&E will provide a variety of zones for lounging by the fireplace, community tables for working or games, and quiet zones to enjoy the lakeside views.

### Prefunction, Banquet Room & Board Room

Prefunction will have phone booth areas and a flex area for break outs or a place to work. The Banquet Room & Board room will have banquet tables and aluminum stacking banquet chairs with action back and stack cart for tables and chairs.

### Restaurant

Provide a variety of booth and table seating, private dining area FF&E will be the same as restaurant for large group/event flexibility.

### Guest Rooms

Case goods will have integrated lighting and power for guest comfort. Suites should have an area for a bunk room or pull out sleeper sofa. Provide a desk, desk chair and dresser with mini fridge in all guestrooms.

### Outdoor & Pool Area

A variety of dining and lounge seating is desired. Firepit locations will have lounge furniture.

The pool area will have a loungers and tables with umbrellas and chairs

### Project Delivery

The project will utilize a Construction Manager/General Contractor (CM/GC) delivery method. It is understood that the CM/GC will be solicited by the Owner at the conclusion of the Program Verification phase and will be onboarded before the end of Schematic Design. The project will be GMP priced at the conclusion of the Design Development phase.

### Project Budget

The Construction Budget/Bid Target for this project is \$43,081,035. The Maximum Allowable Construction Cost for the project is \$45,235,087. It is understood that the FF&E procurement and installation are to be included in the construction costs for the project. We have evaluated the budget with our cost estimator, and it appears to be feasible for the scope of the program. Refer to Budget Verification documentation for additional information.



## Project Schedule

### Program Verification:

01/19/24: Notice to Proceed Design  
01/19/24: Project Kick-off Meeting  
01/26/24: Site Visit  
02/16/24: **Program Verification Deliverable**  
02/17/24 - 03/07/24: *HOLD - Ownership Review*  
03/12/24: Program Verification Phase Approval

### Schematic Design:

03/13/24: Schematic Design Kick-off  
05/13/24: **Schematic Design Deliverable**  
05/14/24 - 05/24/24: *HOLD - Ownership Review*  
05/28/24: Schematic Design Phase Approval

### Design Development:

05/29/24: Design Development Kick-off  
08/21/24: **Design Development Deliverable**  
08/22/24 - 10/21/24: *HOLD - Ownership Review & GC GMP Pricing*  
10/25/24: Design Development Phase Approval

### Construction Documents:

10/28/24: Construction Documents Kick-off  
12/23/24: **Construction Documents 90% Checkset**  
12/24/24 - 02/21/25: *HOLD - Ownership Review*  
02/22/25: Construction Documents Resume  
03/10/25: **Construction Documents 100% Deliverable**  
03/17/25: Construction Documents Phase Approval

### Bidding & Negotiation:

Duration TBD in accordance with the Owner's Schedule & Construction Schedule

### Construction Administration:

Duration TBD in accordance with the Owner's Schedule & Construction Schedule

Closeout: 30 days after final completion of construction



## Quality Management Plan

### Introduction

This Quality Management Plan outlines the general guidelines associated with ensuring a quality design is produced for the Natchez State Park Inn Reconstruction project. This plan also documents the interdisciplinary parties responsible for the design and the quality of the design. Quality controls from each discipline are incorporated into every phase of the design to ensure quality.

### Project Design Team

Architecture/Interior Design: **Smith Gee Studio**

Civil Engineering: **Kimley-Horn**

Landscape Architecture: **HDLA**

Structural Engineering: **Structural Design Group**

M/P/E/FP Engineering: **Power Management Corporation**

*Note: Refer to Project Team Directory for individual team members & contact information.*

### Project Description

The project scope includes the demolition of the existing Lodge at Natchez Trace and reconstruction of a new facility on the same site. The new Inn will have approximately 48 guest rooms, as well as lobby, conference spaces, restaurant, guest lounge, and outdoor amenities as described in the project Programming Document. Refer to the project Programming Document for a detailed project description.

### Procurement

The project is expected to utilize a Construction Manager/General Contractor (CM/GC), to be procured and onboarded during the Schematic Design Phase. Once onboarded, Smith Gee Studio will coordinate with the Owner and CM/GC to develop project deliverables appropriate for CM/GC pricing and feedback to benefit the project development in accordance with the requirements of the Designer's Manual.

### Quality Management Processes

In addition to the kick-off meetings for each design phase, Smith Gee Studio will have regular coordination meetings with the Owner and appropriate user groups at intervals to be determined with Ownership. Smith Gee Studio recommends that these meetings be scheduled bi-weekly at a minimum to ensure project coordination and communication. Smith Gee Studio shall participate in the tracking and resolution of design issues through an issues/comments log throughout the duration of the design process. Smith Gee Studio will be responsible for preparing meeting agendas and meeting notes for coordination meetings with Ownership. Consultant members of the Project Design Team shall be available to attend these meetings on an as-needed basis. Smith Gee Studio will be responsible for coordinating meeting conclusions and design items with the Project Design Team. Once procured, the CM/GC is expected to participate in project coordination and advise as appropriate for the success of the project. Each discipline will be responsible for reviewing their own documentation for correctness, completeness, and development of information appropriate to each project phase. Smith Gee Studio will be responsible for reviewing consultant deliverables to ensure overall quality and coordination of the project development. Each team member is expected to report design issues to the team in a timely manner for coordination and resolution. Smith Gee Studio will work to ensure that the processes of design development are undertaken in a professional manner and that the objectives are met.



### Design Deliverables per Phase

The design deliverables will include but not be limited to the following elements at each project phase. Each discipline will audit their deliverables against requirements of the most current version of the STREAM Designer's Manual to ensure that the project information is developed and complete as appropriate to the requirements at each design phase.

### Schematic Design Deliverables

- Civil Site Plans, including analysis of Site Grading and Utilities
- Schematic Landscape Plan
- Preliminary Code Analysis & Square Footage Summaries
- Preliminary Building Life Safety Diagrams
- Building floor plan concepts
- Guest Room plan concepts
- Building Exterior Elevation concepts
- Building Sections
- Civil Engineering Narrative
- Landscaping Narrative
- Architectural Design Narrative
- Interior Design Narrative
- Structural Engineering Narrative
- MEP & FP Narrative
- Preliminary Specifications Table Of Contents
- Opinion of Probable Cost

In addition to the deliverables listed above, a concept submittal for State Fire Marshal review shall be prepared upon acceptance of the schematic design package.

### Design Development Deliverables

- Preliminary Civil Engineering Drawings
- Preliminary Landscaping Drawings
- Code Analysis & Gross and Net Area Calculations
- Refinement of Building Life Safety Diagrams
- Refinement of Building Floor Plans
- Refinement of Guest Room Plans
- Preliminary Interior Finish Plans
- Preliminary Reflected Ceiling Plans
- Refinement of Building Exterior Elevations
- Refinement of Building Sections
- Building Wall Sections
- Wall Type, Door, and Window Schedules
- Vertical Circulation Plans and Sections
- Preliminary FF&E Plans
- Preliminary Structural Engineering Drawings
- Preliminary MEP & FP Engineering Drawings
- Preliminary Specifications
- Detailed Cost Estimate

As the CM/GC is expected to provide GMP pricing of the 100% Design Development Set, the Project Design Team will work to coordinate the project documentation to ensure that pricing information is included to the highest degree possible at this phase of development. The CM/GC is expected to advise on information required for pricing as part of their participation in the coordination process.



In addition to the deliverables listed above, Smith Gee Studio will be responsible for the preparation and presentation of the design concept for an Early Design Presentation to the SBC when the Owner and Designer are confident that the scope, schedule, and budget are in alignment and the project is ready to move forward into the Construction Documents and Construction Phases.

#### Construction Document Deliverables

- Civil Engineering Drawings
- Landscaping Drawings
- Code Analysis & Gross and Net Area Calculations
- Building Life Safety Diagrams
- Building Floor Plans
- Guest Room Plans
- Enlarged Plans
- Interior Finish Plans
- Reflected Ceiling Plans
- Building Exterior Elevations
- 3D Views & Perspectives as Required
- Building Interior Elevations
- Building Sections
- Building Wall Sections
- Wall Type, Door, and Window Schedules
- Vertical Circulation Plans and Sections
- Design Details
- FF&E Plans and Specifications
- Structural Engineering Drawings
- MEP & FP Engineering Drawings
- Full Project Manual Specifications

A 90% Construction Documents checkset will be coordinated and delivered for Ownership review in addition to the final Construction Documents. Design Team to hold for ownership review & resume Construction document development once comments are received per the project schedule.

Although the project is expected to GMP from the Design Development Set, changes to the drawings during the development of Construction Documents will not be tracked as revisions. The CM/GC is expected to be involved in coordination throughout the Construction Documents phase, and will be apprised of changes as part of this process.

#### Software & Design Tools

The architectural project drawings are expected to be generated in Revit 2022. Structural and MPE engineering are also expected to be documented in Revit 2022 and coordinated through BIM 360 Design Collaboration. Civil and Landscaping documentation is not expected to utilize Revit for this project. Smith Gee Studio will be responsible for establishing a BIM Collaboration schedule for Design Team members utilizing BIM. Smith Gee Studio will be responsible for managing the coordination of Civil and Landscaping site base files throughout the design phases. BIM models shall be developed and delivered in accordance with the Owner's BIM requirements.

The Design team is not responsible for creation or maintenance of the CM/GC's construction BIM modeling.



### Project Construction

A goal of the quality management plan is to ensure correctness and completeness of the drawing set, and construction document revisions should be held to a minimum. Any necessary changes to the drawings after the issuance of the 100% Construction Documents will be tracked as revisions to the documents. Drawing revisions will be clouded on the sheet and tagged with a revision number. A narrative of changes will be issued with each revision. Revisions to the project manual/specifications will be indicated with text shown in red italics. The design team will remain consistent from design through construction in order to preserve continuity of communication.

Smith Gee Studio will be responsible for maintaining Designer logs of the construction RFIs, RFPs, ASIs, Submittals, and other project Logs in accordance with the requirements of the Designer's Manual. The Project Design Team will be responsible for responding to RFIs and Submittals in accordance with the Contract requirements. Smith Gee Studio will be responsible for coordinating responses to RFIs and Submittals with the other disciplines within the Project Design Team.



## Project Team Directory

<b>Owner:</b>	<b>STREAM</b>	
	Tennessee Tower, 24th Floor 312 Rosa L. Parks Ave. Nashville, TN 37243	
<u>Design Development Manager</u>		
Stan Rowland	Stanley.Rowland@tn.gov	615.693.0391
<u>Project Manager</u>		
Larry Milton	Larry.Milton@tn.gov	615.708.0083
<b>Architecture &amp; Interior Design:</b>	<b>Smith Gee Studio</b>	
	602 Taylor St., Suite 201 Nashville, TN 37208 615.739.5555	
<u>Principal in Charge</u>		
Dallas Caudle	dcaudle@smithgeestudio.com	615.645.5502
<u>Senior Project Manager</u>		
Julia Grissett	jgrissett@smithgeestudio.com	615.645.5523
<u>Accounting</u>		
Kim Dobbins	kdobbins@smithgeestudio.com	615.645.5537
<u>Senior Designer II</u>		
Mara Caoile	mcaoile@smithgeestudio.com	
<u>Designer II</u>		
Erin Reed	ereed@smithgeestudio.com	
<u>Interiors Senior Project Manager</u>		
Leslie May Nicholson	lmay@smithgeestudio.com	615.645.5536
<u>Interiors Senior Designer</u>		
Danielle Metzger	dmetzger@smithgeestudio.com	615.739.5555
<u>Interiors Designer II</u>		
Katelyn Courtney	kcourtney@smithgeestudio.com	
<b>Civil Engineering:</b>	<b>Kimley-Horn</b>	
	10 Lea Avenue, Suite 400 Nashville, TN 37210 615.564.2701	
<u>Principal</u>		
Zac Dufour	Zachary.Dufour@kimley-horn.com	615.564.2709
Mary McGowan	mary.mcgowan@kimley-horn.com	615.800.4004
Mark Boyd	mark.boyd@kimley-horn.com	804.212.6652
Madison Moitoso	Madison.moitoso@kimley-horn.com	629.255.0735



**Landscape Architect:**

**HDLA**  
507 Main St.  
Nashville, TN 37206  
615.327.4447

Principal

Richie Jones rjones@hodgsondouglass.com 615.953.5061

Project Manager

Gabrielle Holle gholle@hodgsondouglass.com 615.953.8753

Project Designer

Taylor Uren turen@hodgsondouglass.com 615.647.6340

**Structural Engineering:**

**Structural Design Group**  
220 Great Circle Rd, Suite 106  
Nashville, TN 37228  
615.255.5537

Principal in Charge/PM

Jim Parker jimp@sdg-structure.com 615.515.4202

Senior Structural Engineer

Jennifer Acton jennifera@sdg-structure.com

**MEP Engineering:**

**Power Management Corporation**  
60 Music Square East, Suite 300  
Nashville, TN 37203  
615.383.6949

Plumbing & Fire Protection EOR

Max Bryant mbryant@powermgmt.com 615.760.2607

Mechanical EOR

Craig Shuman cshuman@powermgmt.com

Electrical EOR

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Electrical Designer

Larry Ulman lulman@powermgmt.com

**Cost Estimating:**

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400 Galleria Parkway SE, Suite 1500  
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Chief Cost Manager

Michael Palacio mpalacio@palaciocollaborative.com 404.372.6405

**Kitchen & Laundry:**

**Inman Foodservices Group**  
3807 Charlotte Avenue  
Nashville, TN 37209

Billy Inman

Frank Flowers billy.inman@inman-inc.com  
Frank.Flowers@inman-inc.com

615.620.7446

**SMITH GEE STUDIO**



**Pool Design:**

**WaterDesign**

508 Osceola Rd.  
Belleair, FL 33756  
770.310.1737

Craig Bleakley

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770.310.1737

**Environmental Graphics:**

**McCoy Signage**

615 Main Street, Suite 202  
Nashville, TN 37206

Laura McCoy  
Catherine Short

laura@mccoynash.com  
cshort@mccoynash.com

615.403.6509



PROJECT NAME: Natchez Trace State Park Inn Reconstruction

OPR AUTHOR: Stan Rowland

SBC #: 126/057-02-2023

ASSET #: Enter Asset Number

AGENCY #: TDEC / Parks

BUILDING #: Natchez Trace Inn

# Tennessee High Performance Building Requirements: OPR

June 14

# 2019

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The OPR is a deliverable of the High Performance Building requirements and is completed for State of Tennessee Projects. This document shall be completed for all State of Tennessee projects; it is adaptable to individual project objectives and scope.

**Owner  
Project  
Requirements**

# Table of Contents

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- 3. Project Information Table ..... 4
- 4. High Performance Building Goals ..... 6

# 1. Owner Project Requirements Summary

The Owner Project Requirements (OPR) is a deliverable of the State of Tennessee High Performance Building Requirements which promotes the design, construction, and operation of high performance state-owned buildings. The goal of the HPBr is to embed a greater economic value within the state building portfolio through reduced operating costs, higher performance and increased sustainability.

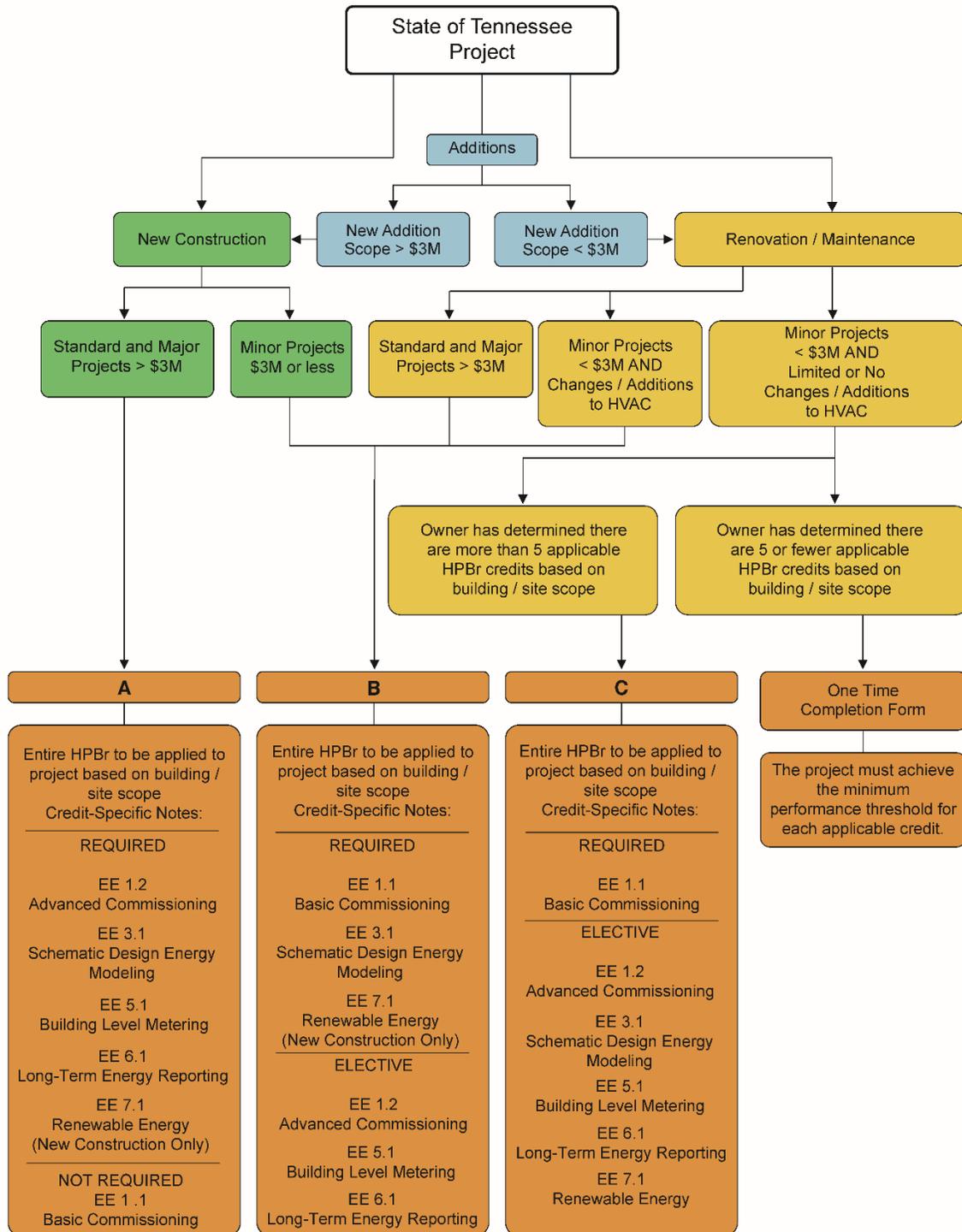
The OPR identifies the intended functional requirements and the expectations of the building's design and operation, including those systems which will be commissioned. The OPR is to be used in conjunction with the State of Tennessee High Performance Building Requirements (HPBr) Manual. The Manual provides detailed direction to the project team in terms of site, materials, energy efficiency, indoor environment, and other high performance design features. The OPR will provide early stage guidance to the project team, informing all parties on project-specific owner requirements. It will also serve as an overview of the commissionable systems which will be included in the Commissioning Plan.

The OPR also incorporates the HPBr Project Applicability Tree which guides the Owner and Design Team through the process of determining whether particular energy efficiency credits are required for a given project and what their minimum level of achievement must be. There are other credits as outlined in the High Performance Building Goals section that are always required when applicable to the project scope. They do not change to Elective based on the project category in the Applicability Tree.

The more accurate and complete the OPR is, the more it can serve as the basis for evaluating project activities and decisions from design through operations. The Commissioning Agent will review the OPR for completeness and the project team is responsible for ensuring that the performance criteria contained in this document are incorporated into the design documents, and building construction.

## 2. Project Applicability Tree

### State of Tennessee HPBr Project Applicability Tree



GENERAL NOTE 1: Project managers may determine which Required credits are applicable to their project based on building/site scope.

GENERAL NOTE 2: Additional credits are required when Applicable regardless of the project category. Refer to High Performance Building Goals section for the full list.

### 3. Project Information Table

<b>Project Classification</b>				
<b>Project Type</b>	<input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Addition <input type="checkbox"/> Renovation / Maintenance			
<b>Project MACC Budget (Maximum Allowable Construction Cost)</b>	<input checked="" type="checkbox"/> Standard and Major (Greater than \$3M) <input type="checkbox"/> Minor (\$3M or less)			
<b>Replacement or Additions to Existing HVAC Systems</b>	Enter Yes or No with short description			
<b>Project Requirements on Applicability Tree (Refer to the figure above)</b>  The credits under the selected option shall be "Required"  Refer to High Performance Building Goals section for additional required credits	<input checked="" type="checkbox"/> A EE1.2 EE3.1 EE5.1 EE6.1 EE7.1	<input type="checkbox"/> B EE1.1* EE3.1 EE7.1	<input type="checkbox"/> C EE1.1*	<input type="checkbox"/> One-Time HPBr Completion Form
<b>Choose Basic or Advanced Commissioning*</b>  (Owner to de-select systems not to be commissioned in "Commissioning" section below)	<input type="checkbox"/> EE1.1 Basic Commissioning <input checked="" type="checkbox"/> EE1.2 Advanced Commissioning <input type="checkbox"/> Not applicable based on building/site scope			

\*When Basic Commissioning is required based on project application, Advanced Commissioning may still be chosen at the Owner's discretion.

General Operation Schedules	
<b>Lighting</b>	Weekday: 24 hours Saturday: 24 hours Sunday: 24 hours Holiday: 24 hours
<b>HVAC</b>	Weekday: 24 hours Saturday: 24 hours Sunday: 24 hours Holiday: 24 hours
<b>After-hour overrides</b>	24 hours

<b>Project Overview and Special Requirements</b>
<b>Project Description:</b> (Include general description, leasable area, conditioned area, gross floor area, occupancy figures including type and number, as well as expected facility and program life spans)
Replace the existing Pin Oak Lodge with a new 64,000 sf Natchez Trace Inn to include guest rooms, conference rooms, dining room, gathering spaces, kitchen, laundry, and other support spaces.
<b>Planned future program or building changes as well as any concurrent projects</b> (Include location changes, space usage, related scopes, etc.)
The existing inn will be replaced with a new one.
<b>General Building Requirements</b> (Include those related to energy, ventilation, occupancy, etc. where applicable to the entire building)
Comply with State HPBr and TDEC / State Park Inn/hospitality requirements
<b>Special Space Requirements</b> (Include laboratory, server room, or other special area requirements as applicable)
Kitchen, Landry, Pool Equipment, STS IT room, electrical, telecom, etc.
<b>Special HVAC System Requirements</b> (Include required or desired characteristics such as type of system, humidity control, etc.)
Comply with State HPBr and TDEC / State Park Inn/hospitality requirements
<b>Special Lighting Requirements</b> (Include required or desired characteristics such as illuminance levels, power density, fixture requirements, control interfaces, etc.)
Comply with State HPBr and TDEC / State Park Inn/hospitality requirements
<b>Special Building Control Systems Requirements</b> (Include required or desired integration or communication between control systems, including lighting, BAS, HVAC, Fire Suppression, etc)
Comply with State HPBr and TDEC / State Park Inn/hospitality requirements

## 4. High Performance Building Goals

- A. High performance building criteria will be implemented to improve the following, based on the building/site scope:
  - a. Land Management
  - b. Water Efficiency
  - c. Energy Efficiency
  - d. Material and Resource Use
  - e. Indoor Environmental Quality
  - f. Innovation in Design and Construction
  
- B. The HPBr Checklist includes a summary of the Owner's high performance design requirements and has been attached to this document.
  - a. In addition to the credits found in the Project Information Table, the following credits will be "Required" except where they do not apply to the building/site scope of the project:
    - LM 2.1 Site Disturbance – Erosion Control
    - LM 4.2 Landscape Design
    - LM 6.4 Stormwater Design
    - WE 1.1 Water Efficient Landscaping
    - WE 3.1 Water Use Reduction
    - EE 2.1 Energy Efficient Purchasing Policy
    - EE 3.3 Minimum Energy Performance
    - MR 1.1 Recycling Storage and Collection
    - MR 3.1 Sustainable Materials
    - EQ 1.1 Tobacco Smoke Control
    - EQ 2.1 Minimum Ventilation
    - EQ 6.1 through EQ 6.5 Material VOC Limits
    - EQ 7.2 Pollutant Control – Hazardous material storage
    - EQ 8.1 Thermal Comfort
  
  - b. Based on building/site scope, the project team will evaluate all applicable or relevant "Elective" credits to achieve all credits required by the Owner and as many as budgetary and other constraints allow. To comply with the HPBr, the project team will achieve 50% of the points applicable to the project. Determination for credit achievement will be made by the Owner.
  
  - c. While the HPBr Checklist provides a summary of the applicable requirements for each credit, more detailed instructions can be found in the HPBr Manual.

C. Commissioning:

- a. The systems to be commissioned shall align with the contracted scope of commissioning work for the Basic and Advanced commissioning credits.
- b. The commissioning process should verify the installation, functional performance, and integration of the following building systems:
  - Minimum required systems to commission
    - Heating, ventilating, air conditioning and refrigeration (HVAC&R) systems
    - HVAC controls including BAS graphic display points and data trending capability
    - Domestic Hot Water Systems
    - Distribution Panels
    - Branch Circuit Panel boards
    - Emergency Power Equipment, including generator and switchgear
    - UPS System
    - Lighting Control System
    - Renewable Energy Systems
  - Optional systems to commission based on Owner or Owner agent determination.
    - Domestic Booster Pumps
    - Lighting Level Measurements
    - Excessive Voltage Drop, Power Circuit
    - Grounding of Panels
    - Smoke Evacuation Systems
    - Building Envelope/Enclosure
    - Other Systems: Enter other systems to be commissioned

# High Performance Building Requirements - July 2021

## CHECKLIST / TRACKING FORM

Phase	Points Summary
Applicable	91
Minimum	46
Programming	77
SD	0
DD	0
CD	0
Closeout	0

SBC Number:	126/057-02-2023
Project Name:	Natchez Trace State Park Inn Reconstruction
Date:	2/8/2024
Project Type:	New_Construction
Project Phase:	Programming
Category from Applicability Tree:	Category A
Compliance Check:	Project Complies with the HPBr

Helpful Hints:

- 1) Refrain from copying and pasting data in Column C, "Applicable to Building/Site Scope?" as this can cause errors in some rows.
- 2) If any cell highlights red below, then you have a point allocated to a credit that is "not applicable." This is an error. Simply delete the contents of the cell to reset.
- 3) In column C, if you have copied or pasted in this column and a cell highlights all red, delete the contents of that cell to correct the error.
- 4) If no points are available in the dropdown, this means you have listed that credit as "not applicable" and points cannot be attempted.

Project Team Representatives

Initials

O -	Owner	SR
C -	Contractor	
ME -	Mechanical Engineer	CS
EE -	Electrical Engineer	JL
CE -	Civil Engineer	ZD
A -	Architect	DC
CxA -	Commissioning Agent	JC
LA -	Landscape Architect	RJ
Other -	Other	

				Programming	SD	DD	CD	Closeout												
Checklist Total				77	0	27	0	0	104	0	0	104	0	0	104					
22 Points				LM Total:	16	0	6	0	0	22	0	0	22	0	0	22	Primary Credit Responsibility			
Possible Points	Credit ID	Applicable to Building/Site Scope?	Description	Level:	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	Comment:	Role	Initials	
1	LM1.1	No	Site Selection - Reuse Existing Buildings	Priority 2			1			1			1			1	Outside project scope	O	SR	
1	LM1.2	Yes	Site Selection - Show preference for building on developed sites: Preserve farmland/habitat, wetlands, floodplains, public parkland	Priority 1	1		0			1			1			1	Other (explain)	O	SR	
1	LM1.3	No	Site Selection - Brownfield Redevelopment - Remediate and Restore contaminated sites when possible	Priority 2			1			1			1			1	Outside project scope	O	SR	
1	LM1.4	No	Site Selection - Urban Development - Locate building within existing infrastructure	Priority 1			1			1			1			1	Outside project scope	O	SR	
1	LM2.1	Yes	Site Disturbance - Sediment and Erosion control during construction	Required	1		0			1			1			1		C	0	
1	LM2.2	Yes	Site Disturbance - Limit site disturbance during construction to minimum development footprint	Priority 1	1		0			1			1			1		CE	ZD	
1	LM3.1	No	Transportation - Plan for access to public transportation	Priority 2			1			1			1			1	Outside project scope	O	SR	
1	LM3.2	Yes	Transportation - Provide bicycle storage for 5% of building occupants and shower/changing facilities for 0.5% of FTE occupants	Priority 2	1		0			1			1			1		CE	ZD	
1	LM3.3	Yes	Transportation - Plan site to include preferred parking for carpooling for 5% of all spaces provided	Priority 2	1		0			1			1			1		CE	ZD	
1	LM3.4	Yes	Transportation - Plan site to include preferred parking for low-emitting/fuel efficient vehicles for 5% of all spaces provided	Priority 2	1		0			1			1			1		CE	ZD	
1	LM4.1	Yes	Landscape Design - Maximize vegetated open space	Priority 2	1		0			1			1			1		Other	0	
1	LM4.2	Yes	Landscape Design - Native and drought tolerant planting	Required	1		0			1			1			1		Other	0	
1	LM5.1	Yes	Heat Island Reduction - Non roof surface reflectivity and shading	Priority 1	1		0			1			1			1		CE	ZD	
1	LM5.2	Yes	Heat Island Reduction - Reflective roof materials	Priority 2	1		0			1			1			1		A	DC	
1	LM5.1	Yes	Stormwater Design - Post development discharge rate and volume not to exceed Pre-development rate	Priority 1	1		0			1			1			1		CE	ZD	
2	LM5.2	No	Stormwater Design - Reduce discharge rate and volume 25% on previously developed sites	Priority 2			2			2			2			2		CE	ZD	
1	LM6.3	Yes	Stormwater Design - Design to remove 80% Total Suspended Solids from the average annual rainfall event. Verify local requirements.	Priority 1	1		0			1			1			1		CE	ZD	
1	LM6.4	Yes	Stormwater Design - Design per TDEC BMP References	Required	1		0			1			1			1		CE	ZD	
1	LM7.1	Yes	Exterior Site Lighting - Design exterior lighting power to be 10% less than is allowed by ASHRAE 90.1-2010, Section 9.4.3	Priority 2	1		0			1			1			1		EE	JL	
1	LM7.2	Yes	Exterior Site Lighting - Locate fixtures to minimize illuminance above the horizontal plane	Priority 1	1		0			1			1			1		EE	JL	
1	LM7.3	Yes	Exterior Site Lighting - Locate exterior fixtures to minimize light trespass at property lines. Document foot-candle levels at site boundary	Priority 1	1		0			1			1			1		EE	JL	
7 Points				WE Total:	5	0	2	0	0	7	0	0	7	0	0	7		Primary Credit Responsibility		
Possible Points	Credit ID	Applicable to Building/Site Scope?	Description	Level:	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	Comment:	Role	Initials	
1	WE1.1	Yes	Water Efficient Landscaping. Utilize efficient irrigation technologies and planting measures	Required	1		0			1			1			1			ME	CS
1	WE.1.2	Yes	Water Efficient Landscaping. Non potable sources or no irrigation	Priority 1	1		0			1			1			1		A	DC	
1	WE2.1	Yes	Wastewater Treatment & Conveyance: On site treatment	Priority 2	1		0			1			1			1		ME	CS	
1	WE2.2	No	Wastewater Treatment & Conveyance: Utilize non potable water	Priority 2			1			1			1			1		ME	CS	
2	WE3.1	Yes	Water Use Reduction - Fixture flow and flush rates	Required	1		1			2			2			2		ME	CS	
1	WE3.2	Yes	Water Use Reduction - Utilize auto-flow / auto-flush valves	Priority 2	1		0			1			1			1		ME	CS	
37 Points				EE Total:	21	0	15	0	0	36	0	0	36	0	0	36		Primary Credit Responsibility		
Possible Points	Credit ID	Applicable to Building/Site Scope?	Description	Level:	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	Comment:	Role	Initials	
0	EE1.1	Yes	Commissioning - Basic commissioning process	Not Required			0			0			0			0			CxA	JC
3	EE1.2	Yes	Commissioning - Advanced commissioning process	Required	3		0			3			3			3			CxA	JC

# High Performance Building Requirements - July 2021

## CHECKLIST / TRACKING FORM

<b>Phase</b>	<b>Points Summary</b>	SBC Number: <b>126/057-02-2023</b>
<b>Applicable</b>	<b>91</b>	Project Name: <b>Natchez Trace State Park Inn Reconstruction</b>
<b>Minimum</b>	<b>46</b>	Date: <b>2/8/2024</b>
Programming	77	Project Type: <b>New_Construction</b>
SD	0	Project Phase: <b>Programming</b>
DD	0	Category from Applicability Tree: <b>Category A</b>
CD	0	Compliance Check: <b>Project Complies with the HPBr</b>
Closeout	0	

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LA -	Landscape Architect	RJ
Other -	Other	

				Programming	SD	DD	CD	Closeout											
Checklist Total				77	0	27	0	0	104	0	0	104							
1	EE2.1	Yes	Energy Efficient Purchasing Policy - Energy Star qualified appliances & equipment	Required	1	0	1	1	1	1	1	1	These will be specified	O	SR				
1	EE3.1	Yes	Energy Efficiency - Schematic Design energy modeling	Required	1	0	1	1	1	1	1	1		Other	0				
1	EE3.2	Yes	Energy Efficiency - Life Cycle Cost Analysis	Priority 1	1	0	1	1	1	1	1	1		Other	0				
1	EE3.3	Yes	Minimum Energy Performance - all projects to demonstrate compliance with ASHRAE 90.1-2010, according to project scope	Required	1	0	1	1	1	1	1	1		Other	0				
8	EE3.4	Yes	Improved Energy Performance - energy model is used during design, and final design demonstrates energy cost savings that exceed those required by the Minimum Energy Performance credit (EE3.3)	Priority 1	1	7	8	8	8	8	8	8		Other	0				
5	EE4.1	Yes	Energy Efficiency in Existing Buildings - Lighting Power Reduction	Priority 1	1	4	5	5	5	5	5	5		EE	JL				
2	EE4.2	Yes	Energy Efficiency in Existing Buildings - Daylight Harvesting Controls	Priority 1	2	0	2	2	2	2	2	2		EE	JL				
2	EE4.3	Yes	Energy Efficiency in Existing Buildings - Vacancy sensor-controlled lighting	Priority 1	2	0	2	2	2	2	2	2		EE	JL				
2	EE4.4	Yes	Energy Efficiency in Existing Buildings - High efficiency HVAC Equipment	Priority 1	2	0	2	2	2	2	2	2		ME	CS				
1	EE5.1	Yes	Energy Metering, Monitoring and Reporting: Building-Level Metering	Required	1	0	1	1	1	1	1	1		ME	CS				
3	EE5.2	Yes	Energy Metering, Monitoring and Reporting: System level energy metering with measurement and verification - New Construction	Priority 1	3	0	3	3	3	3	3	3		Other	0				
3	EE5.3	No	Energy Metering, Monitoring and Reporting: System level energy metering with measurement and verification - Existing Buildings	Priority 1	3	0	3	3	3	3	3	3		Other	0				
1	EE6.1	Yes	Long-Term Energy Reporting - Maintain energy and water consumption data in Energy Star Portfolio Manager	Required	1	0	1	1	1	1	1	1		O	SR				
1	EE7.1	Yes	Renewable Energy - Investigate life-cycle cost effectiveness of on-site renewable energy	Required	1	0	1	1	1	1	1	1		Other	0				
1	EE7.2	No	Renewable Energy - Provide Renewable Energy Credits (RECs) equal to 10% of annual site electricity through TVA or RECs equal to 35% from another source	Priority 2	1	0	1	1	1	1	1	1		O	SR				
15 Points			<b>Materials and Resources</b>	<b>MR Total:</b>	<b>11</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>Primary Credit Responsibility</b>		
<b>Possible Points</b>	<b>Credit ID</b>	<b>Applicable to Building/Site Scope?</b>	<b>Description</b>	<b>Level:</b>	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	<b>Comment:</b> Describe implementation approach for each pursued credit. New comments should be appended to old comments at each project phase. If credits are neither pursued nor applicable, provide justification.	<b>Role</b>	<b>Initials</b>
1	MR1.1	Yes	Recycling Collection and Storage	Required	1	0	1	1	1	1	1	1	1	Agency will manage at facility level	O	SR			
3	MR2.1	Yes	Construction Waste Management (50%, 75%, 95%)	Priority 1	1	2	3	3	3	3	3	3	3		C	0			
1	MR3.1	Yes	Sustainable Materials: Recycled content 10%	Required	1	0	1	1	1	1	1	1	1		A	DC			
1	MR3.2	No	Sustainable Materials: Recycled content 20%	Priority 2	1	0	1	1	1	1	1	1	1		A	DC			
3	MR3.3	Yes	Sustainable Materials: Tennessee Produced Materials (non-wood) - Harvested AND manufactured in state - 10% of total cost. Harvested OR manufactured in TN, 50% of product cost contributes to credit.	Priority 1	3	0	3	3	3	3	3	3	3		A	DC			
3	MR3.4	Yes	Sustainable Materials: Tennessee Produced Wood Products -Wood materials harvested AND manufactured in state - 50% of wood products. When harvested OR manufactured in state, 50% of material cost contributes to credit.	Priority 1	3	0	3	3	3	3	3	3	3		A	DC			
1	MR3.5	Yes	Sustainable Materials: Regional materials - 20%	Priority 2	1	0	1	1	1	1	1	1	1		A	DC			
1	MR3.6	No	Sustainable Materials: Material reuse	Priority 2	1	0	1	1	1	1	1	1	1		A	DC			
1	MR3.7	Yes	Sustainable Materials: Rapidly renewables	Priority 2	1	0	1	1	1	1	1	1	1		A	DC			
19 Points			<b>Indoor Environmental Quality</b>	<b>EQ Total:</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>Primary Credit Responsibility</b>		
<b>Possible Points</b>	<b>Credit ID</b>	<b>Applicable to Building/Site Scope?</b>	<b>Description</b>	<b>Level:</b>	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	<b>Comment:</b> Describe implementation approach for each pursued credit. New comments should be appended to old comments at each project phase. If credits are neither pursued nor applicable, provide justification.	<b>Role</b>	<b>Initials</b>
1	EQ1.1	Yes	Tobacco Smoke Control	Required	1	0	1	1	1	1	1	1	1	This will be a non-smoking facility - smoking areas will be nearby	O	SR			
1	EQ2.1	Yes	Minimum Ventilation: Design to meet ASHRAE 62.1-2007 or 2012 IMC	Required	1	0	1	1	1	1	1	1	1		ME	CS			
1	EQ3.1	Yes	Outdoor Air Delivery Monitoring: Provide a direct outdoor airflow measurement device	Priority 2	1	0	1	1	1	1	1	1	1		ME	CS			
1	EQ4.1	Yes	CO2 Monitoring: Provide CO2 monitors in all high occupancy areas	Priority 2	1	0	1	1	1	1	1	1	1		ME	CS			
1	EQ5.1	Yes	Air Quality Management: During construction	Priority 1	1	0	1	1	1	1	1	1	1		C	0			
1	EQ5.2	Yes	Air Quality Management: Before occupancy	Priority 2	1	0	1	1	1	1	1	1	1		C	0			
1	EQ6.1	Yes	Material VOC Limits: Adhesives and sealants	Required	1	0	1	1	1	1	1	1	1		A	DC			
1	EQ6.2	Yes	Material VOC Limits: Paints	Required	1	0	1	1	1	1	1	1	1		A	DC			
1	EQ6.3	Yes	Material VOC Limits: Coatings and anti-corrosive paints	Required	1	0	1	1	1	1	1	1	1		A	DC			
1	EQ6.4	Yes	Material VOC Limits: Flooring systems	Required	1	0	1	1	1	1	1	1	1		A	DC			

# High Performance Building Requirements - July 2021 CHECKLIST / TRACKING FORM

Phase	Points Summary
Applicable	91
Minimum	46
Programming	77
SD	0
DD	0
CD	0
Closeout	0

SBC Number:	126/057-02-2023
Project Name:	Natchez Trace State Park Inn Reconstruction
Date:	2/8/2024
Project Type:	New_Construction
Project Phase:	Programming
Category from Applicability Tree:	Category A
Compliance Check:	Project Complies with the HPBr

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				Programming	SD	DD	CD	Closeout											
1	EQ6.5	Yes	Material VOC Limits: Composite wood and agrifiber	Required	1	0	1	0	0	104	0	0	104		A	DC			
1	EQ7.1	Yes	Pollutant Control: Entryway systems	Priority 1	1	0	1	0	0	1	0	0	1		A	DC			
1	EQ7.2	Yes	Pollutant Control: Hazardous material storage	Required	1	0	1	0	0	1	0	0	1		A	DC			
1	EQ7.3	Yes	Pollutant Control: Filtration media	Priority 1	1	0	1	0	0	1	0	0	1		ME	CS			
1	EQ8.1	Yes	Thermal Comfort: Design to meet ASHRAE Standard 55-2004	Required	1	0	1	0	0	1	0	0	1		ME	CS			
1	EQ9.1	Yes	Individual Occupant System Controls: Lighting controls	Priority 1	1	0	1	0	0	1	0	0	1		EE	JL			
1	EQ9.2	Yes	Individual Occupant System Controls: Thermal comfort	Priority 2	1	0	1	0	0	1	0	0	1		ME	CS			
1	EQ10.1	Yes	Daylight to Occupied spaces	Priority 1	1	0	1	0	0	1	0	0	1		A	DC			
1	EQ11.1	Yes	Views from Occupied spaces	Priority 1	1	0	1	0	0	1	0	0	1		A	DC			
5	Points		Innovation in Design and Construction	ID Total:	5	0	0	0	0	5	0	0	5	0	0	5	Primary Credit Responsibility		
Possible Points	Credit ID	Applicable to Building/Site Scope?	Description	Level:	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	Yes	M a y b e	No	Comment: Describe implementation approach for each pursued credit. New comments should be appended to old comments at each project phase. If credits are neither pursued nor applicable, provide justification.	Role	Initials
1	ID1.1	Yes	Innovation in Design: Provide Specific Title	Priority 1	1	0	1	0	0	1	0	0	1	0	0	1		Other	0
1	ID1.2	Yes	Innovation in Design: Provide Specific Title	Priority 2	1	0	1	0	0	1	0	0	1	0	0	1		Other	0
1	ID1.3	Yes	Innovation in Design: Provide Specific Title	Priority 2	1	0	1	0	0	1	0	0	1	0	0	1		Other	0
1	ID1.4	Yes	Innovation in Design: Provide Specific Title	Priority 2	1	0	1	0	0	1	0	0	1	0	0	1		Other	0
1	ID2.1	Yes	Environmentally Accredited Design Team	Priority 1	1	0	1	0	0	1	0	0	1	0	0	1		Other	0
Checklist Total:					77	0	27	0	0	104	0	0	104	0	0	104			