**PHASE 2, STRUCTURAL ASSESSMENT**

**CITY OF NORTH PORT**
**WORK AUTHORIZATION 8, PHASE 2**
**PROJECT WM16HD**

**Prepared for: The City of North Port**

**September 30, 2016**

**DMK 15-0194-8**

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## A. AUTHORIZATION

On March 23, 2016, DMK received Purchase Order 046760, Warm Mineral Springs Existing Building Evaluation authorizing one of two phases of work to evaluate three (3) existing structures located at Warm Mineral Springs, San Servando Avenue, North Port, FL. Phase 1 of the Work Assignment was to provide a Historic and Architectural Evaluation Report of the three (3) buildings to determine eligibility as historic for potential placement in the National Register of Historic Places (NRHP).

Phase 2 was dependent upon the outcome of Phase 1 and required a second Notice to Proceed. On July 29, 2016, a presentation of Phase 1 was made to the City Commission where it was decided to proceed with Phase 2. Following the Commission Workshop, DMK representatives met with City Staff on August 9, 2016 to confirm direction for Phase 2. It was during this meeting that authorization was granted and a Notice to Proceed was authorized for Phase 2 work.

## B. PURPOSE:

The City of North Port desires to make basic decisions regarding either the preservation of existing improvements at Warm Mineral Springs or the construction of new and more modern facilities. There are benefits to both options with regard to preservation of a cultural asset, retaining valued architecture and preserving buildings of historical relevance. These benefits are to be compared with a higher level of functionality and modern safety standards associated with new construction. An alternative involving continued maintenance of the existing facility was not to be considered.

In Phase 1 of the initial authorization, it was determined that the buildings are of cultural relevance, eligible for placement in the NRHP. Additionally, the buildings were designed by a

member of the famed Sarasota School of Architecture providing an additional incentive for restoration.

The purpose of the Phase 2 authorization is to determine the approximate cost of restoration to improve operations and maintenance while still maintaining eligibility for historic designation. The cost of this effort is to be compared to the cost of replacing the buildings with typical new construction on the same site.

**C. SCOPE:**

To prepare a method to compare restoration and new construction costs. This involves site observations, photographs and review of documentation, as necessary, to evaluate the present state of the existing buildings as well as interview operational staff on present day utilization. Perform an inspection to assess the state of the existing construction and determine issues related to application of modern codes and standards to the existing facilities.

Due to the determination of eligibility as "historic", the existing structures qualify for special treatment under the Florida Building Code (FBC) – Existing Building. Using FBC provisions for historic facilities, determine reconstruction efforts that would maximize function while maintaining the historic significance and designation eligibility.

Provide an opinion of cost of new construction based upon a similar use. This cost is to be compared to restoration of the existing facilities as necessary to provide a safe, serviceable installation utilizing the codes and standards in place at the time of original construction.

As the buildings were designed and constructed prior to the adoption of the first building code in the City of North Port and Sarasota County, the determination of historic eligibility allows reconstruction to be based upon the standard practice in place at the time of construction.

Under Phase 2 of the original scope, DMK proposes to:

a. Visit the site as necessary to assess the general condition of structural elements of each building and develop opinions of necessary construction to maintain strength consistent with original design.
b. Provide an opinion regarding renovation standards of construction on or around 1959.
c. Provide a written opinion that under the current 2014 FBC – Existing Building, Historical Buildings are not required to be brought completely to current code standards, instead, the structure need only be brought to original design strength.
d. Provide an Engineers opinion of probable cost for renovation of all three buildings. Construction of individual buildings should be allowed.
e. Provide an Engineers estimate of cost for likely new construction based upon assumed use, function and quality standards.

## D. EXECUTIVE SUMMARY

The Warm Mineral Springs buildings consist of **BUILDING 1:** Retail Center, General Store and Front Offices; **BUILIDING 2:** Changing Rooms, Restrooms and Lockers, Treatment Rooms and Restaurant and **BUILDING 3, CYCLORAMA:** Exhibit and Specific Purpose Area of Assembly. These buildings are in disrepair and in need of significant attention due to deferred maintenance. Structural and mechanical components comprising each building are at the end of their economic life and maintenance of operation costs are high. Though the Springs are a vital asset, the existing facilities currently offer minimal attraction to residents and tourists in the North Port Community. A plan for improvement of the facility is desired.

The buildings were constructed south of the historic Warm Mineral Springs on approximately 80 acres of passive park. They were originally designed and constructed in 1959 by famed

architect, Jack West, a member of the Sarasota School of Architecture. The buildings were created to accommodate a celebration of the Quadracentenial in North Port in the early 60s. After their use in the celebration, the buildings were repurposed as an exhibit and sales office for local real estate operations. At the time of development, the facilities were privately held, maintained and operated.

In 2014, the City of North Port acquired sole interest in Warm Mineral Springs and the original buildings from Sarasota County. Operations continue at the springs through a management contract offering access to the springs as well as a variety of other health related offerings. The buildings are owned and maintained by the City of North Port. More recent failures of equipment and facility elements, both structural and mechanical, have prompted the City to evaluate conditions and seek solutions for long term operation of the facilities.

In researching the historic and cultural value of the facilities under Phase 1 of this authorization, it has been determined that the facilities are eligible for placement in the NRHP. Both the Warm Mineral Springs and the Warm Mineral Springs Motel are already in the NRHP and the addition of the existing buildings have been received well by consultants charged with determining eligibility. A process for renovating the buildings to historic standards will be required ahead of asking for placement. Grant money is available for both design and construction leading to improvements maintaining the historic designation. During renovation, the FBC allows special treatment enabling improvements to be performed under the codes and conditions existing at the original time of construction. This benefit allows the buildings to be renovated without falling under the 50% rule requiring all improvements to be performed in accordance with the most current edition of the FBC.

After rehabilitation to historically approved standards, the buildings may be accepted into the NRHP. At the current time, we have received indication that the State Division of Historic Resources has deemed all of the buildings as eligible, opening the door for building and development consideration that is only available to such structures.

Even though all three of the Warm Mineral Springs buildings are eligible for inclusion in the NRHP, the City may elect not to seek this designation on one or all of the structures. The City may elect to maintain all of the buildings as they presently exist, rehabilitate some or replace some with new facilities designed to more current needs and standards. In any regard, if the buildings are not improved to historic standards and instead repaired without consideration to historic designation we believe that all restoration work will be required to be conducted in accordance with the 2014 FBC 5th edition. Under this requirement, saving each building will most likely be cost prohibitive considering mandated wind loading, accessibility and other mechanical, electrical and plumbing requirements to "Substantial Improvement".

In order to assist the City in developing alternatives to keep, improve or replace the existing buildings, a cost assessment has been made regarding the renovation and replacement options for each building. The following summary of costs has been developed and detailed figures have been presented within the assessment text as well as **Exhibits C and D**. A few alternatives are as follows:

1. Renovating Building 1, Building 2 and Building 3 at an anticipated cost of approximately $2.731 MM
2. Renovating Building 1 and 3 and reconstructing Building 2 at an anticipated cost of approximately $2.764 MM
3. Renovating building 3 and reconstructing Buildings 1 and 2 new at an anticipated cost of approximately $2.734 MM

We believe the City should select a hybrid solution involving retaining Building 1 as historic and maintaining its function as an entrance to the facilities. Building 3, Cyclorama should be preserved, as it provides an excellent example of the original springs facility in use during the Quadricentennial Celebration. We believe that Building 2 should be replaced. The additional cost of replacement would be recovered in the additional services that it would provide as Changing Rooms, Restrooms and Lockers, Treatment Rooms and Restaurant facility. The

building would be designed using modern architecture and though it may never be deemed historic, the building would provide a valuable asset to the operations of the Springs facility. We suggest if replacement of Building 2 is chosen, that the new building be placed over the existing foundation and that the facility operates in the same capacity as the original design.

## E. DEFINITIONS USED IN ASSESSMENT

The following is a partial list of notable definitions that are used within the 2014 FBC 5th edition and the 2014 FBC – Existing Building. Many of these terms are also defined in reference materials relating to restoration, rehabilitation, repair and reconstruction of building facilities. These definitions are provided to assist in interpreting differences between type of construction and reconstruction efforts. The list has been modified to include statements regarding the:

1. **ADDITION.** An extension or increase in floor area, number of stories, or height of a building or structure. *There is no intention of providing an Addition to expand the exterior dimensions of any of the existing buildings under a renovation option.*
2. **ALTERATION.** Any construction or renovation to an existing structure other than a *repair* or *addition*. Alterations are classified as Level 1, Level 2 and Level 3. *Alterations are proposed to be constructed in an effort to upgrade functionality without jeopardizing eligibility for designation as "historic". Proposed alterations will qualify as Level 3.*
3. **CHANGE OF OCCUPANCY.** A change in the purpose or level of activity within a building that involves a change in application of the requirements of this code. *It is not anticipated that there will be a change of occupancy triggering action from the Code Official. The renovated structure will be used in support of Warm Mineral Springs operations and include office, restroom, changing room and restaurant operations.*
4. **EXISTING BUILDING.** A building erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued. *All three buildings under review qualify as Historic Existing Buildings, subject to the FBC 5th Edition (2014) Existing Building, Chapter 12, Historic Buildings.*

5. **FACILITY.** All or any portion of buildings, structures, site improvements, elements and pedestrian or vehicular routes located on a site.
6. **HISTORIC BUILDING.** See FBC 5th Edition (2014) Existing Building, Section 1202. *Exception: If the program that designated the building as historic determines that it will continue to be a historic building after the proposed work is completed, then the proposed work is not considered to be substantial improvement.* For the purposes of this exception, an historic building is
    a. Individually listed in the National Register of Historic Places; or
    b. A contributing resource within a National Register of Historic Places listed district; or
    c. Designated as historic property under an official municipal, county, special district or state designation, law, ordinance or resolution either individually or as a contributing property in a district, provided the local program making the designation is approved by the Department of the Interior (the Florida state historic preservation officer maintains a list of approved local programs); or
    *d. Determined eligible by the Florida State Historic Preservation Officer for listing in the National Register of Historic Places, either individually or as a contributing property in a district.*

    *The three buildings subject to this evaluation qualify as Historic Buildings and as such the proposed work involved in restoring and renovating the facilities will not qualify as "Substantial".*

7. **PRIMARY FUNCTION.** A *primary function* is a major activity for which the facility is intended. Areas that contain a *primary function* include, but are not limited to, the customer services lobby of a bank, the dining area of a cafeteria, the meeting rooms in a conference center, as well as offices and other work areas in which the activities of the public accommodation or other private entity using the facility are carried out. Mechanical rooms, boiler rooms, supply storage rooms, employee lounges or locker

rooms, janitorial closets, entrances, corridors and restrooms are not areas containing a *primary function*. *Buildings defined as Building 1, Building 2 and Building 3 Cyclorama will continue to be used in their present defined role.*

8. **REHABILITATION.** Any work, as described by the categories of work defined within the FBC – Existing, undertaken in an *existing building*. *All work proposed on the Warm Mineral Springs buildings will qualify under Rehabilitation.*
9. **RESTORATION.** Returning a space to its original appearance, at least in terms of the architecture. (non code definition). *It will be the intention of all work proposed for rehabilitation to also fit the terms of Restoration. This will be actuated through the submittal of construction plans to the State Historic Officer as necessary to maintain historic eligibility throughout any rehabilitation process.*
10. **RETROFIT.** The voluntary process of strengthening or improving buildings or structures, or individual components of buildings or structures, for the purpose of making existing conditions better serve the purpose for which they were originally intended or the purpose that current building codes intend. *It is anticipated that some retrofit will take place to strengthen the original design of the Warm Mineral Springs structures. This will only be suggested if it continues to allow treatment as a historic structure.*
11. **REPAIR.** The restoration to good or sound condition of any part of an *existing building* for the purpose of its maintenance.
12. **SUBSTANTIAL IMPROVEMENT.** Any *repair,* reconstruction, rehabilitation, alteration, *addition* or other improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or *repair* is started. If the structure has sustained *substantial damage,* any repairs are considered substantial improvement regardless of the actual *repair* work performed. The term does not, however, include either:
    a. Any project for improvement of a building required to correct existing health, sanitary, or safety code violations identified by the *building official* and that is the minimum necessary to ensure safe living conditions; or

b. *Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.*

*All work as proposed in the restoration and renovation of the existing facilities will be performed with the objective of the buildings remaining of historical significance and eligibility. This determination avoids conflict due to application of the 50% rule.*

13. **SUBSTANTIAL STRUCTURAL DAMAGE.** A condition where:
    a. In any story, the vertical elements of the lateral force-resisting system have suffered damage such that the lateral load-carrying capacity of the structure in any horizontal direction has been reduced by more than 33 percent from its pre-damage condition; or
    b. The capacity of any vertical gravity load-carrying component, or any group of such components, that supports more than 30 percent of the total area of the structure's floor(s) and roof(s) has been reduced more than 20 percent from its pre-damage condition and the remaining capacity of such affected elements, with respect to all dead and live loads, is less than 75 percent of that required by this code for new buildings of similar structure, purpose and location.
14. **TECHNICALLY INFEASIBLE.** An *alteration* of a facility that has little likelihood of being accomplished because the existing structural conditions require the removal or *alteration* of a load-bearing member that is an essential part of the structural frame, or because other existing physical or site constraints prohibit modification or addition of elements, spaces or features which are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility. *DMK proposes that all renovation and restoration concepts will be feasible and that 100% of the work will not qualify as "Technically Infeasible".*
15. **UNSAFE.** Buildings, structures or equipment that are unsanitary, or that are deficient due to inadequate means of egress facilities, inadequate light and ventilation, or that constitute a fire hazard, or in which the structure or individual structural members meet the definition of "*Dangerous*," or that are otherwise *dangerous* to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance

shall be deemed unsafe. A vacant structure that is not secured against entry shall be deemed unsafe.

16. **VALUE.** The estimated current replacement cost of the building in kind.

## F. EXISTING AND REFERENCE DOCUMENTATION

Prior to the field visit, DMK conducted a review of provided information on the facility which included:

- Architectural renderings produced by Sweet Sparkman Architects on behalf of a private client, undated.
- "Warm Mineral Springs – Building Condition Assessment", Kimley-Horn, September 2013, prepared for the City of North Port.
- A general facilities layout schematic produced by Lou Sperduto on behalf of the City of North Port dated July, 2013.

Notably missing from the list were construction plans which were not available during the time of this assessment report. Additional research may uncover construction documents which would assist in final design efforts for prescribed or suggested actions.

The reference documents were reviewed prior to the initiation of Phase 1 as they related to the historic, cultural and architectural significance of each building. These documents were used, again, in assessing primary function, construction assembly and original use. Though the documents are over 3 years old, they have assisted in the development of approximate building value.

Additional documents used in the assessment of the facilities included, but were not limited to:

1. 2014 Florida Building Code (5th edition).

2. 2014 Florida Building Code – Existing Building.
3. Minimum Design Loads for Buildings and Other Structures ASCE/SEI 7-10.
4. Guideline for Structural Condition Assessment of Existing Buildings, SEI/ASCE 11-99.
5. American Contractors Engineers "Guide to Construction Costs, 2007 edition, Design & construction Resources, Vol XXXVIII.

Noted documents and references were used for a variety of reasons, and no single reference or document was solely relied upon in attaining the conclusions documented within this assessment report.

## G. INSPECTIONS:

On dates previously mentioned, inspections of the Warm Mineral Springs site along with Buildings 1, 2 and 3 Cyclorama were performed in order to achieve several objectives related to the Purpose and Scope of this authorization:

1. Development of a **general opinion of structural condition** and the range of acceptance with regard to a historic designation.
2. Assessment of **conditions that would qualify under the FBC – Existing Building, as "Substantial Structural Damage"** as referenced within Definition 13 above. This recognition was less important due to the determination that extensive renovation was possible under a historic classification.
3. **Obtaining general measurements of existing improvements** to verify space and use of construction materials and techniques. Measurements were obtained only as necessary to assist in determining **approximate costs for rehabilitation, repair, retrofit or restoration** as conditions required.
4. Development of a general understanding of the structural envelope and the **ability of the structure to withstand appropriate design forces** as allowed by code or historic recognition.

Physical inspections of the three buildings comprising the Warm Mineral Springs Facility were conducted on multiple occasions. For the purposes of this assessment report, the three buildings subject to observation and inspection can be described as:

- **BUILDING 1 –** Retail Center, General Store and Front Offices – located at the southern edge of the facility adjacent to the circular drive and San Servando Ave. Entry into the facility is directed toward the western part of the structure where the Springs store and ticketing counter are located. An entry on the east side of the building grants access to an open office area currently used to store exhibits and serve the security officers desk.
- **BUILIDING 2 –** Changing Rooms, Restrooms and Lockers, Treatment Rooms and Restaurant – located between Building 1 and Warm Mineral Springs. Entry into Building 2 is predominately through Building 1 following entry through a ticketing area and travel down a breezeway and open pergola structure.
- **BUILDING 3, CYCLORAMA –** Exhibit and Specific Purpose Area of Assembly – located west Buildings 1 and 2. The Cyclorama is a round masonry, steel and concrete structure of special use. The primary entrance is through a block appendage to the circular structure. This entry area remains closed and is currently used for storage. Entry to Building 3 is obtained through an external door on the east side of the Cyclorama.

On April 8, 2016 representatives of DMK conducted initial observations of existing conditions within buildings 1 and 2. Observation was coordinated with an architectural review with representatives of Sweet Sparkman Architects. Their intent was to determine the designer of the buildings within the facility. During the initial inspection, a determination of construction methods and techniques were recognized. North Port representative, Lou Sperduto assisted in the initial observation providing access and a history of more recent maintenance and operational issues that have been addressed by the City. As representatives of both Sweet Sparkman and DMK moved through Buildings 1 and 2, basic measurements were recorded as

sufficient to develop initial determinations regarding the function of each structural component.

On September 9, 2016 a follow up inspection was performed in order to verify recorded conditions and dimensions. It was the objective of the second inspection to review construction details and connections between vertical and lateral load transfer elements. Additional measurements were taken to verify those recorded in prior documentation and observation. On the second inspection, Building 3 was further reviewed and photographs recorded. Primary access into the facility was provided and measurements were recorded.

## H BUILDING COMPOSITION:

### 1. BUILDING 1

Has rough dimensions of approximately 48 feet wide at its smallest side to 60 feet long in the longitudinal direction. The building contains approximately 3,800 SF of floor area. Building 1 is constructed of a structural steel frame and partially encased 4-inch structural glazed block. Structural Glazed Block, are ceramic glazed hollow masonry units for load bearing and non-load bearing wall applications. The block has been historically used as partition walls, multi-wythe walls and as an outer veneer. The ceramic finish on one or both sides generally comes in many color options.

The steel columns penetrate though a mostly bare concrete floor to what we believe are isolated footer foundations. Connections as well as dimensions of the assumed foundation were not determined and should be validated at a later time during renovation design. Vertical columns of structural steel are a nominal 6 inches in depth with one flanged side embedded within the vertical glazed block. The block, though not in conformance with current code as a shear wall element appears to provide lateral strength in the line of support parallel to the wall.

Walls run generally in the longitudinal direction on the outside and inner breezeway. Steel beams used for roof support generally run in the transverse direction perpendicular to the

breezeway. These beams are generally unsupported other than the steel columns at each end. Beams running parallel with glazed block walls bear on top of 3-foot-high window frames bearing further on top of the glazed block lintel. From the exterior, the roofline consists of 3 ridges when viewed from the east and west. The ridges form the tops of roofing sections bearing on transverse beam spans running perpendicular to the breezeway. Each roof ridge forms the top of an exterior facing dormer extending away from the main roof ridge. The main roof elements rest on the dormers and the ridge travels directly above and parallel with the centerline of the breezeway. Six dormer roof elements exist with three on each side.

The roof system of Building 1 consists of timber joists bearing on 10-inch W section steel beams that are secured through welds to the tops of the 6-inch steel columns. The frames resulting from such connections run in both the longitudinal and transverse direction within the interior envelope of the building. Beams additionally run along the outer edges of the building envelope, below window frames that span to the roof intersection.

Timber roof joists are spaced on 4 foot centers. They support a plywood deck with a built up roof section of unknown composition. In our opinion, the roof condition is the controlling element in rehabilitating and renovating this structure as well as Building 2. There is extensive decay within the roof system of moderate to severe magnitude. Evidence of rot and decay at roof valleys is prevalent. Roof scuppers are in such disrepair that water is impounded and appears incapable of completely drying out. We believe that the decay exists over more than 20 percent of the roof deck which has been covered with insulated sealant. Coatings to the roof deck are evident. An analysis or determination of the roof deck coating material has not been performed. The magnitude of decay at the eves and valleys make removal of the entire roof system probable under any scenario of restoration or renovation. Roof structural members appear in good condition with the exception of units above the restroom and changing facilities.

Mechanical elements of the structure were only routinely inspected. At the time of second observation, an HVAC repair technician was on site affording our inspection team the ability to view the attic space above the Building 1 breezeway. The attic space was framed of 2x6 rafters supported on rafter seats added to the roof deck of the side dormer sections. Construction elements are as depicted within Exhibit C for all buildings.

## 2. BUILDING 2

Has rough dimensions ranging between 60 and 69 feet wide to approximately 100 feet in length. The finished floor slab area is approximately 6,800 SF in size and is constructed similar to Building 1 with a structural steel frame partially encased within structural glazed block.

As in Building 1, the vertical steel columns penetrate though a mostly bare concrete floor to what we believe are isolated footer foundations. Foundation connections and the encasement within the slab provides partial fixity and resistance to lateral frame loading. Vertical columns of structural steel are believed to be a nominal 6 inches in depth with a single flange side embedded within the vertical glazed block.

Walls run generally in the longitudinal direction on the outside and inner breezeway. The ends of the building are primarily framed glass spanning in both the longitudinal and transverse directions. Steel beams used for dormer roof support, span in the east to west transverse direction perpendicular to the breezeway. These beams are supported on both ends by steel columns embedded within exterior and breezeway walls.

From the exterior of the structure, the roofline forms a zigzag pattern consisting of 5 ridges when viewed from the east or west. The valleys of each section bear upon beams spanning perpendicular to the breezeway supported by columns. The roof sections appear as dormers to the main roof with ridge lines running above the breezeway. The main roof rests upon the dormer framing which in turn rests upon structural steel framing and glazed block.

The roof system of Building 2 is similar to that of Building 1 with the exception of dimensions. Similar to Building 2, there is extensive decay of moderate to severe magnitude. We believe that the decay exists to a similar extent as with Building 1. Coatings to the roof deck are evident and in a deteriorated state. The roof's economic life has effectively expired. The entire roof system is beyond its economic life and in need of replacement.

Mechanical elements of the structure were not closely inspected. An inspection of the northeast corner of the building produced evidence of a cafeteria and kitchen area. Within the kitchen, there were various stove, water heater and sink appliances. There were representative samples of the glazed block used in construction available for observation. Many of the appliances may be salvaged, but for the purposes of this evaluation, all equipment will be required to be removed and is not a cost consideration. Construction elements of Building 2 are further shown within Exhibit C sheets 1, 5, 6, 7 and 10.

### 3. BUILDING 3, CYCLORAMA

The Cyclorama Structure consists of approximately 4215 SF under roof. The structure is built of 8-inch concrete masonry units (CMU) surrounding a steel support structure consisting of steel columns and bar joists. The bar joists span from a central steel collar frame to the exterior perimeter wall where steel columns of unknown dimension are buried within the masonry to accept roof generated vertical loads. The steel bar joists exist as main load carrying frame members. Wood rafters are attached to the joists to form 14 sections originating from the center and terminating in a zig zag pattern around the Cyclorama perimeter. Roof attachments may be necessary as a retrofit to enhance the roof's ability to accept high wind loading.

Original Cyclorama exhibits still exist on the interior. Viewing steps surrounding the center of the facility have been constructed with approximately 3 feet of tread width and 12 inches of riser depth. There is an access ramp originating at the Cyclorama west entrance and rising up

to the top viewing tread. Neither the riser height nor the access ramp slope are in accordance with current code and accessibility requirements.

The facility is in good structural condition with the exception of the built up roof. A visual inspection of the roof indicates that the deck will require partial treatment or replacement and the multi ply, built up roof will require total replacement. We would recommend verifying and adding uplift devices at the bearing walls and frame to steel connections in order to strengthen the structural envelope.

Eight-inch CMU walls are in good condition with the exception of some isolated damaged areas that appear to have resulted from impact. These areas may be repaired with minor effort. The walls should be cleaned and prepared for new stucco. The existing coating is a skim coat of stucco and any new application will be required to have a similar texture to maintain historical relevance. Repairs such as coatings and material protection applications will be required to be verified for use in a historic application.

## I HISTORIC DESIGNATION IMPACT

The FBC – Existing Building, will be the controlling document for any alteration, rehabilitation, restoration, retrofit or repair of any or all of the buildings. Within this code, there is a substantial allowance for the treatment of buildings deemed historic in that alterations will be allowed without triggering a determination of "Substantial Improvement". This was recognized during Phase 1 of the Assessment when the Warm Mineral Springs buildings were deemed eligible as historic. Attached as ***EXHIBIT A,*** is a letter drafted by Marion Almy, Archeological Consultants Incorporated (ACI), seeking formal recognition from the Florida Division of Historical Resources.

Upon receipt of formal recognition, plans for all renovations may be prepared and submitted for Building Official approval under historic standards that would enable the structures to be

renovated under original design criteria. The FBC – Existing Building, provides allowance for adding retrofits for strengthening the overall structure. We anticipate the use of this allowance through specification of enhanced connections and shear resistance elements to bolster building envelope strength. Under Section 1206 of the 2014 FBC – Existing Building "a historic building undergoing alteration…shall be investigated and evaluated. Such report shall be in accordance with the provisions of Sections 4.3.1.2 through 4.3.2 of NFPA 914, Code for Fire Protection of Historic Structures." This report, as produced by a Florida Registered Architect or Engineer, will identify safety features where compliance would be damaging to contributing historic features. The report will further identify features that are ***not*** in compliance with applicable sections of NFPA 914 and how an equivalent level of safety will or may be attained.

In the case where any of the individual buildings under review fail to be deemed historic, alterations and renovations deemed Substantial would be limited to less than 50% of the value of each improvement. Beyond this limit, the structures would have to come into full compliance with the current FBC. This requirement is commonly referred to as the "50% rule." Structural loading as well as the use of code mandated, modern elements would be required to be employed. Older construction material and techniques such as the use of 4-inch structural block for shear wall resistance may not be rated or allowed rendering the building economically unfeasible to renovate. Specific design elements of the facility such as fire protection, means of egress, accessibility and structural requirements may add overwhelming expense to the alternative option of preserving historic and cultural resources. Attached, as ***EXHIBIT B***, is a flow chart we have used to explain the determination of eligibility for use of the historic designation in avoidance of the 50% rule.

Due to exemptions and code allowances associated with the historic designation, rehabilitation of the shell and maintenance of the overall dimensions becomes possible. This report provides a comparison of the cost of renovation, restoration and retrofit to that of new construction on the basis that less construction effort will be required due to the historic designation.

This assumption may be in question if there is a burdensome requirement through the construction process as necessary to maintain the historic designation. This is a requirement of any alteration, restoration or rehabilitation. The building and improvements must remain historic. This will be verified by the local Building Official and the Florida Division of Historical Resources.

This Phase 2 report has been prepared under the assumption that any alteration, rehabilitation or restoration effort will be consistent with maintaining an approved historic designation. If this is not true, then the only other option for comparison will be to construct a new facility. We believe that if the historic designation is not attained, roof repairs, alone, will trigger the 50% cost rule which will require many other alterations rendering the building functionally obsolete.

The buildings, as they presently exist are useful and presently provide service capacity. They may continue to be operated and maintained as long as repairs are not deemed substantial and are not the result of damage. Elements of the building are at the end of their useful life and replacement of major components is imminent. Maintenance costs may be anticipated to increase with time and many maintenance scenarios may require the facility to be closed in an unpredictable and untimely fashion. We believe that the option of "doing nothing" will prove costly in the near future and that the City will continue to face alternatives involving either major restoration or replacement in the near future.

## J. ESTIMATE OF RENOVATION AND RESTORATION COST

A preliminary estimate of construction costs has been prepared for the option of restoring all of buildings 1, 2 and 3 Cyclorama. Many assumptions were made in arriving at construction cost figures, but none greater than the determination that 100 percent of the interior space including Mechanical, Electrical and Plumbing (MEP) would be replaced in all scenarios. This assumption allowed cost figures to be reduced due to the efficiencies of total replacement as

opposed to case-by-case consideration during a construction effort. This decision allows the project to be competitively bid in lieu of negotiated.

Our construction costs are predicated on the ability to close the structure prior to initiation of construction. No public activity would be allowed within a specified clearance zone and distance to any and all construction. Each building would be subject to complete interior demolition prior to initiation of external modifications as specified and allowed under the maintenance of a historic designation. All renovation and restoration activities would begin with isolation of each construction zone and complete demolition of the structural roof and interior slab, leaving intact the foundation and allowable structural wall elements. All roof framing and roof decks are proposed to be reconstructed in such a way as to maintain a historic designation, enhancing strength where possible.

There is an exception to this with respect to Building 3, Cyclorama. This building will keep the roof elements intact and only require isolated deck repair prior to receiving a new roof. The interior of Building 3 will require a considerable amount of effort repurposing the building for final intended use. This improvement will require considerable input from program planners prior to the preparation of a more thorough cost estimate.

Broad cost figures for replacement of interior space elements were utilized in many cases where space requirements and usage may change. In general, typical office and retail space definitions were used in developing the cost per square foot of building area for rehabilitation. A difficulty multiplier was often applied to these figures to take into account location, accessibility and construction sequencing differences between retrofit and new construction.

**EXHIBIT C** is a series of drawings depicting plans, sections and details used to approximate quantities in preparing a preliminary opinion of probable construction costs. These drawings have been assembled in logical order beginning with Building 1 and moving through Building 3, Cyclorama. ***Exhibit D is*** a Preliminary Opinion of Probable Costs for both renovating the

existing structure and replacing it to the current code and general use standard. **Exhibit D** is divided into four sections with the first three sections pertaining to each of the buildings. The fourth section pertains to costs associated with elements typical to all options including master power, temporary operations and site level demolition and adaptability. There is no option for new construction of Building 3, Cyclorama. Costs for renovation of this structure stand alone with no other option presented.

The following table summarizes appropriate Exhibit pages as they relate to each building's construction details and individual Preliminary Opinion of Probable Cost. The table further serves to summarize the findings of each estimate.

**Table 1 – SUMMARY OF EXHIBIT AND PRELIMINARY OPINION OF COST.**

| BUILDING | EXHIBIT C – PLANS AND SECTIONS | EXHIBIT D – ESTIMATES OF PROBABLE COST | COST OF RENOVATION (2016 $'s) | COST OF BUILDING NEW (2016 $'s) | COMMON COST TO ALL ALTERNATIVES (2016 $'s) |
|---|---|---|---|---|---|
| 1 | SHTS 1, 2, 3, 4, 10 | SHTS 1,4 | $794,000 | $764,000 | |
| 2 | SHTS 1, 5, 6, 7, 10 | SHTS 2,4 | $1,326,000 | $1,359,000 | |
| 3, CYCLORAMA | SHTS 1, 8, 9 | SHT 3,4 | $611,000 | | |
| SITE | | SHT 4 | | | $108,000 |

The costs summarized within **Table 1 – Summary of Exhibit and Preliminary Opinion of Cost** include all soft costs (Architect, Engineer and Permitting fees) and contingencies for unknowns. The figures for each building are additive. Renovating buildings 1, 2 and 3 may be anticipated to cost approximately $2.70 Million, without consideration of the common costs associated with site control and operations. The addition of these costs would increase the probable construction cost to $2.88 Million.

The opinion of probable costs for each building was summarized to allow the consideration of maintaining building 1 as historic while replacing building 2 with new and later renovating building 3, Cyclorama. In this scenario, the common costs to all alternatives need only apply one time when building operations during construction are required to be relocated.

A matrix of possibilities may be developed where one or more units may be either renovated or replaced. In addition, it is possible to phase construction as funding allows or becomes available. A further assessment of expenses must be done in each instance to assure that operations are considered with respect to management of the Warm Mineral Springs and ease with which construction efforts may be conducted.

## K LIMITATIONS

Opinions expressed within this document are those of DMK Associates, Inc. Opinions of probable cost are preliminary in nature and based upon published and historical observations adjusted to 2016 dollars. Lump sum and unit costs expressed as a function of square footage are approximate and only to be used for comparison reasons. Actual costs may only be determined through a successful bidding process with a complete set of construction plans where an award has been granted to an appropriately qualified, experienced and licensed contractor.

All observations made in the preparation of this assessment were conducted without the benefit of destructive testing. DMK Associates, Inc. reserves the right to alter, change or modify the findings of this report upon the discovery of updated or more conclusive information.

This report does not fulfill the requirements of FBC 5th Edition (2014) Existing Building, Section 1206 Investigation and Evaluation, as it pertains to NFPA 914, Code for Fire Protection of Historic Structures.

DMK Associates, Inc. and Karl W. Kokomoor, P.E. do not warrant the findings of this report in assessing code conformity or final construction costs. Further work that is more detailed and exhaustive is necessary in order to provide more accurate and dependable analysis results.

END OF REPORT

# EXHIBITS

EXHIBIT A


# *ARCHAEOLOGICAL CONSULTANTS INC.*

***Florida's First Choice in Cultural Resource Management***


ARCHAEOLOGICAL SURVEYS AND EXCAVATIONS

HISTORIC BUILDING SURVEYS AND EVALUATIONS

ARCHIVAL RESEARCH

CULTURAL RESOURCE ASSESSMENTS

NATIONAL REGISTER NOMINATIONS

INTERPRETIVE DISPLAYS

PRESERVATION PLANNING

A MEMBER OF ACRA

September 12, 2016

Timothy Parsons, Ph.D.
Florida Division of Historical Resources
R.A. Gray Building, 500 South Bronough Street
Tallahassee, Florida 32399-0250

RE: Request for Determination of Eligibility

Dear Dr. Parsons:

Recently, Archaeological Consultants, Inc. (ACI) was engaged by the City of North Port, Florida, to evaluate a building complex at the world famous Warm Mineral Springs in terms of eligibility for listing in the National Register of Historic Places (NRHP). The springs itself is already listed as a significant prehistoric site, and the nearby Warm Mineral Springs Motel is also listed and contributes to a growing body of mid-century modern buildings designed by a group of renowned architects who adopted the International Style to the Florida Gulf coast landscape and climate.

As the attached email from DMK notes, the request for a determination is an initial step in the City's efforts to move forward with rehabilitation, as feasible, and to reopen the buildings to the public for use at the Springs and as a potential Mid-Century Modern destination for heritage tourism.

It is of the opinion of Mr. Chris Berger (MHP), architectural historian, that the two resources comprising the Warm Mineral Springs Building Complex Resource Group (8SO07026) are eligible for listing in the National Register of Historic Places (NRHP) as a historic district. The district is eligible under Criterion A in the areas of state history, local history, and entertainment/recreation and under Criterion C in the area of architecture. Further, the resource group's two buildings, the Warm Mineral Springs Spa Building (8SO06928) and the Warm Mineral Springs Cyclorama (8SO06929), appear to be individually eligible for NRHP listing under Criterion A in the areas of state history, local history, and entertainment/recreation and under Criterion C in the area of architecture.

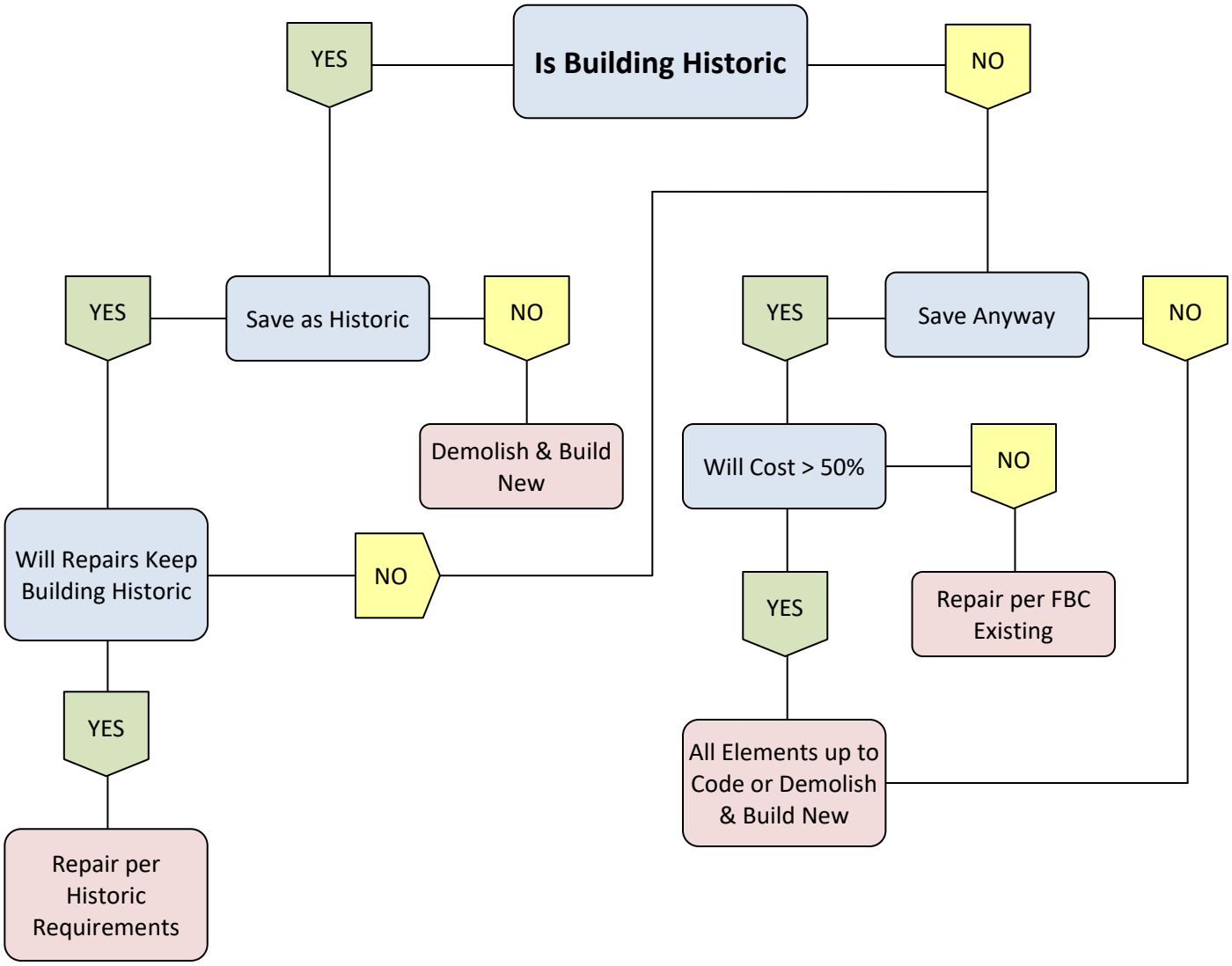
The buildings were designed by architect Jack West, a notable member of the Sarasota School of Architecture, to house exhibits for the Quadricentennial, a statewide celebration of the 400th anniversary of St. Augustine's founding. The Quadricentennial began in Pensacola in 1959 before it moved to Warm Mineral Springs later that year and concluded in St. Augustine in 1965. The Spa Building contained tourism, agriculture, and industry exhibits that promoted the potential of postwar Florida. The Cyclorama featured paintings, statues, and a narration that told the story of Spaniard Juan Ponce de Leon's 16th century explorations of Florida and his rumored quest for the Fountain of Youth. The story reflected 1950s viewpoints toward colonialism, slavery, and human rights. After the Quadricentennial, the Spa Building was converted into a bathhouse, restaurant, real estate office, and gift shop. The Cyclorama remained in operation until about a decade ago. Only an estimated 30 other cycloramas exist in the world.

On behalf of the City of North Port, ACI request that the SHPO review the information provided and make a determination of eligibility regarding the Warm Mineral Springs Spa Building (8SO06928) and the Warm Mineral Springs Cyclorama (8SO06929).

Sincerely,

Marion M. Almy

Marion M. Almy, RPA
President
Attachments: email, report

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ENGINEERS ■ SURVEYORS
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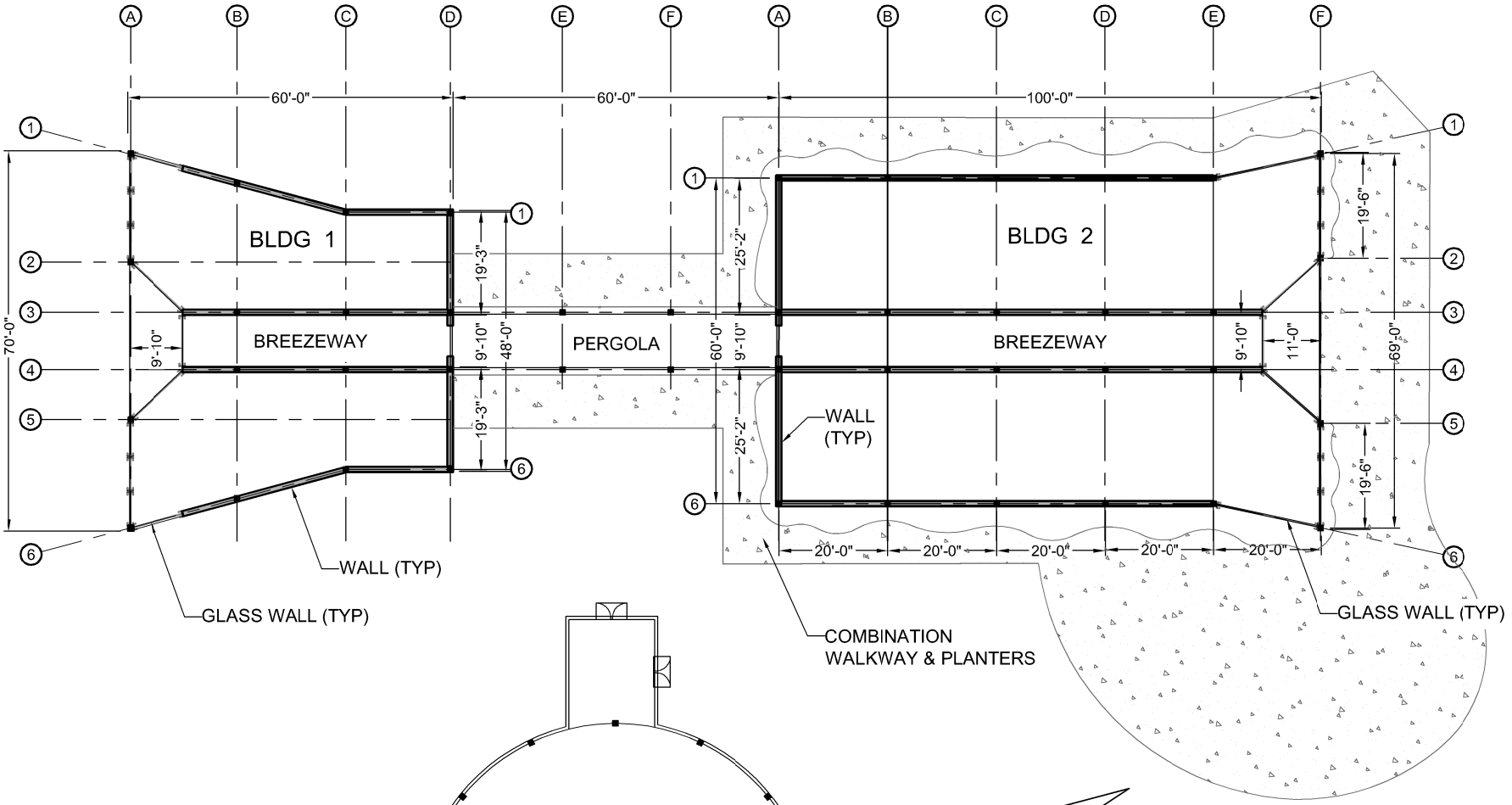
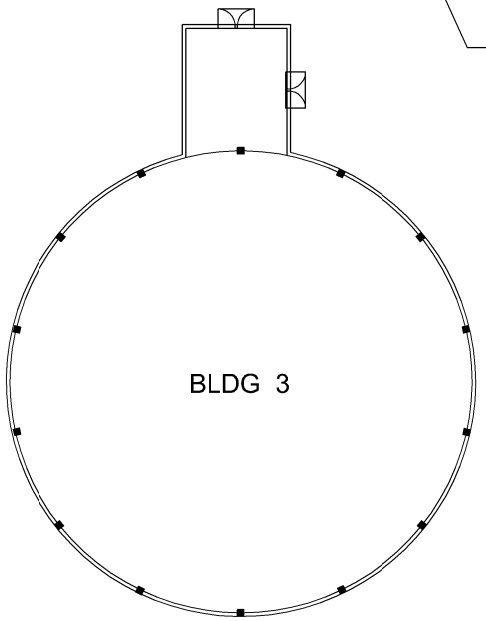
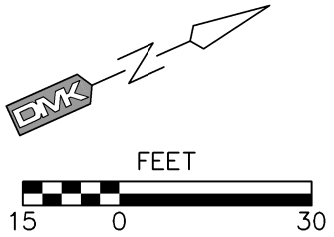
**EXHIBIT B:**
Warm Mineral Springs
Historic Designation Flow Chart

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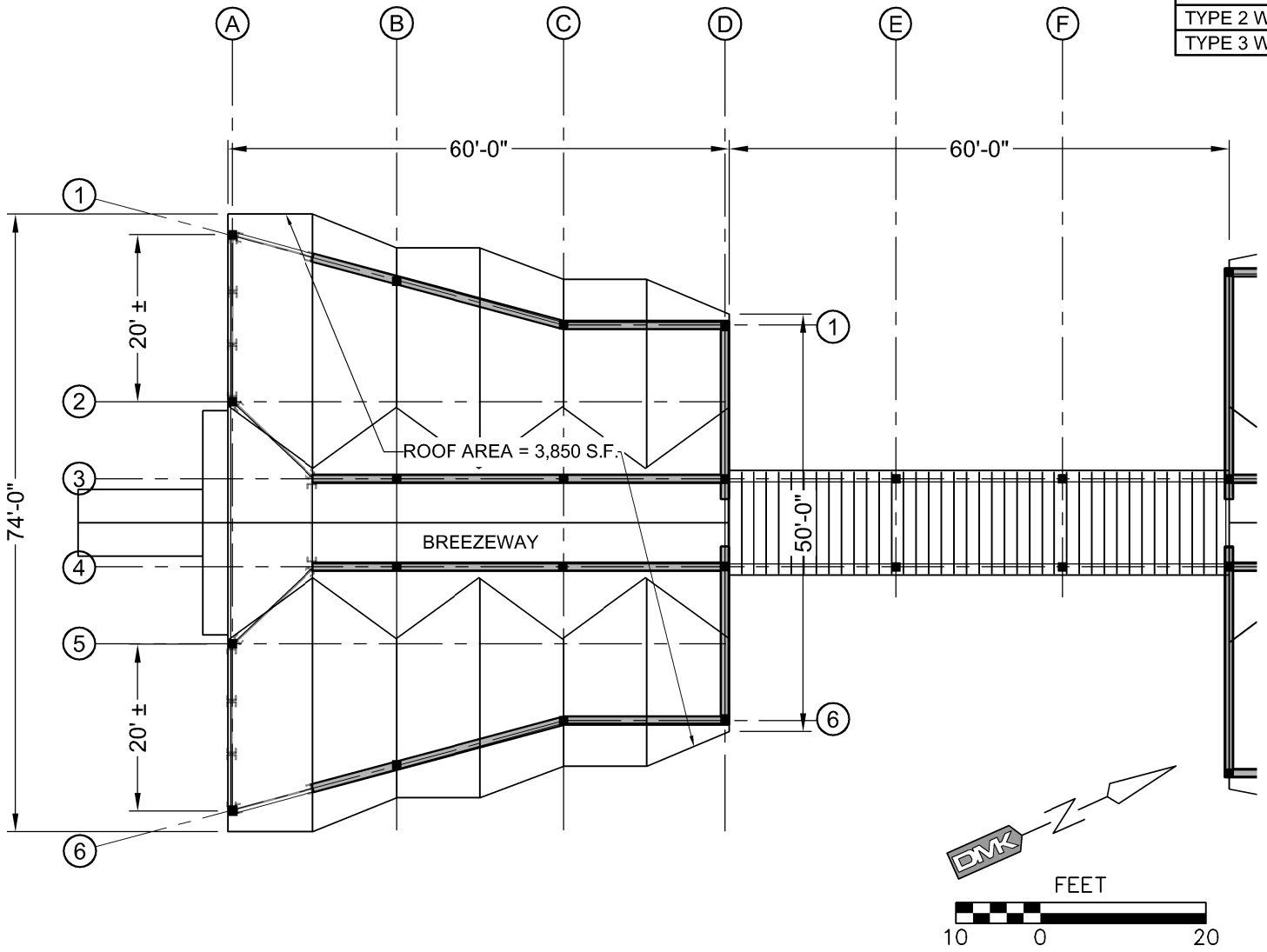
# EXHIBIT C
# WARM MINERAL SPRINGS
# OVERALL SITE AND FLOOR PLAN

SHEET No.

1

| BUILDING 1 | |
|---|---|
| DESCRIPTION | S.F. |
| FLOOR AREA | 3,850 |
| TYPE 1 WINDOW | 150 |
| TYPE 2 WINDOW | 774 |
| TYPE 3 WINDOW | 752 |

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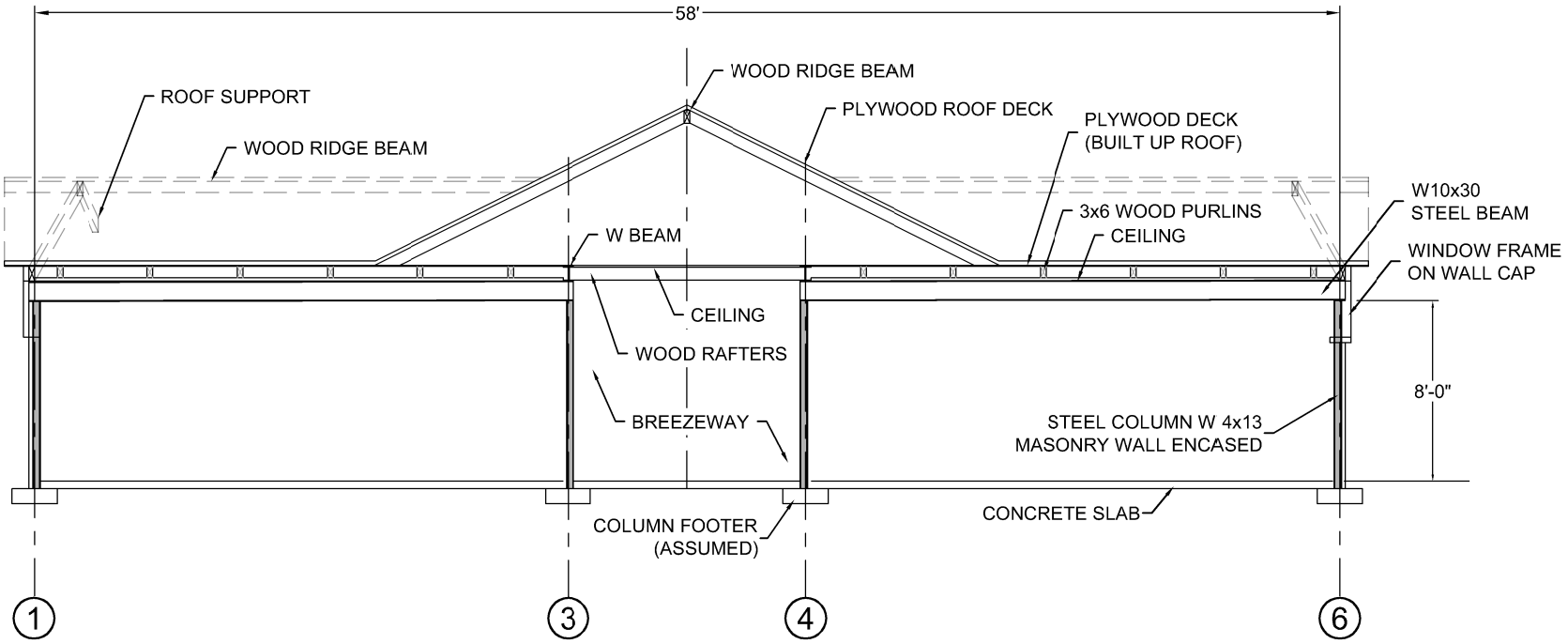
# EXHIBIT C
# WARM MINERAL SPRINGS
# BUILDING 1 - PLAN

SHEET No.
2




# BUILDING 1
## SECTION AT COLUMN LINE C

SCALE 1/8" = 1'

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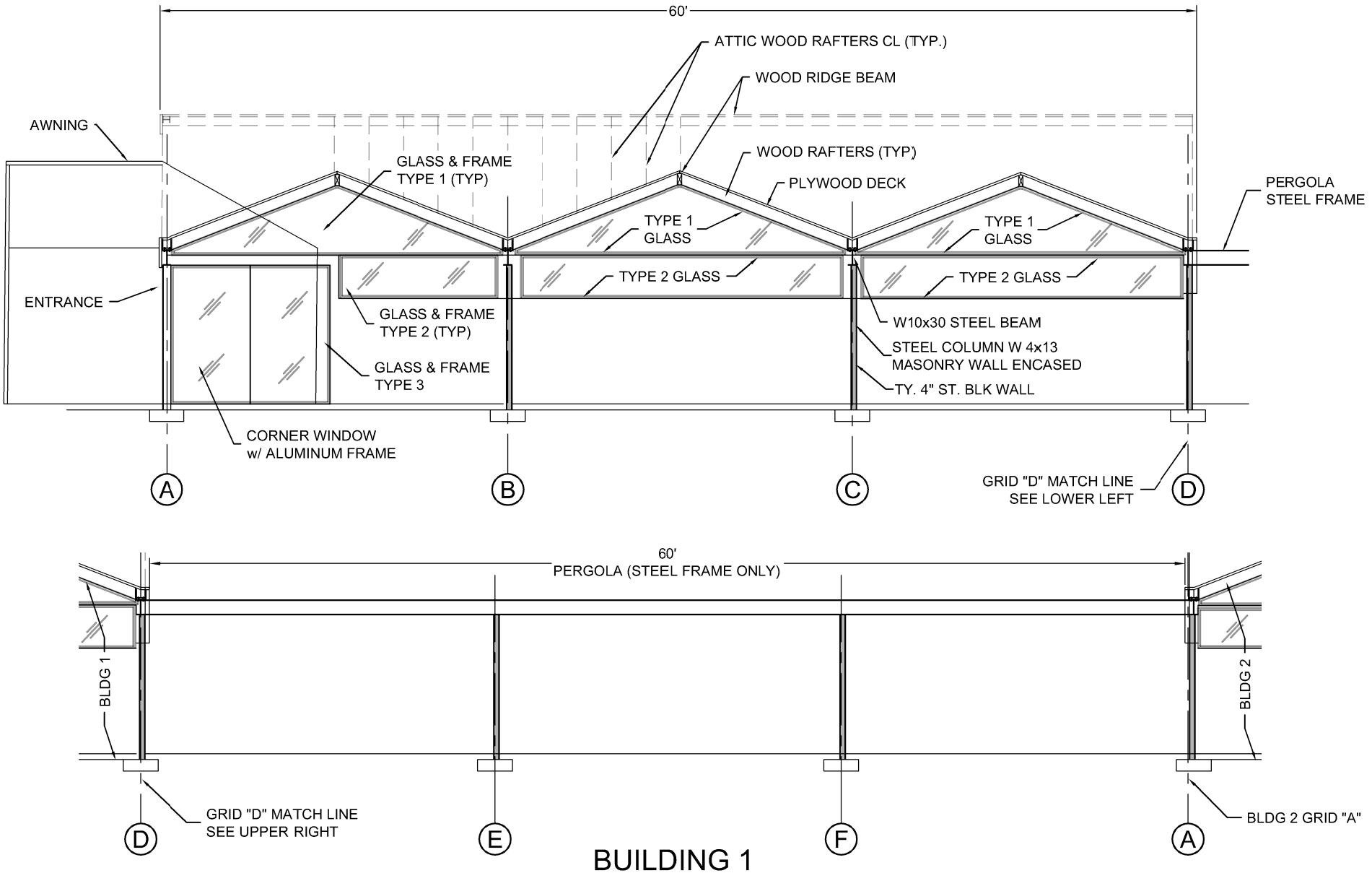
EXHIBIT C
WARM MINERAL SPRINGS
BUILDING 1 - CROSS SECTION AT COLUMN C




# BUILDING 1
## SECTION AT COLUMN LINE 4

SCALE ⅛" = 1'

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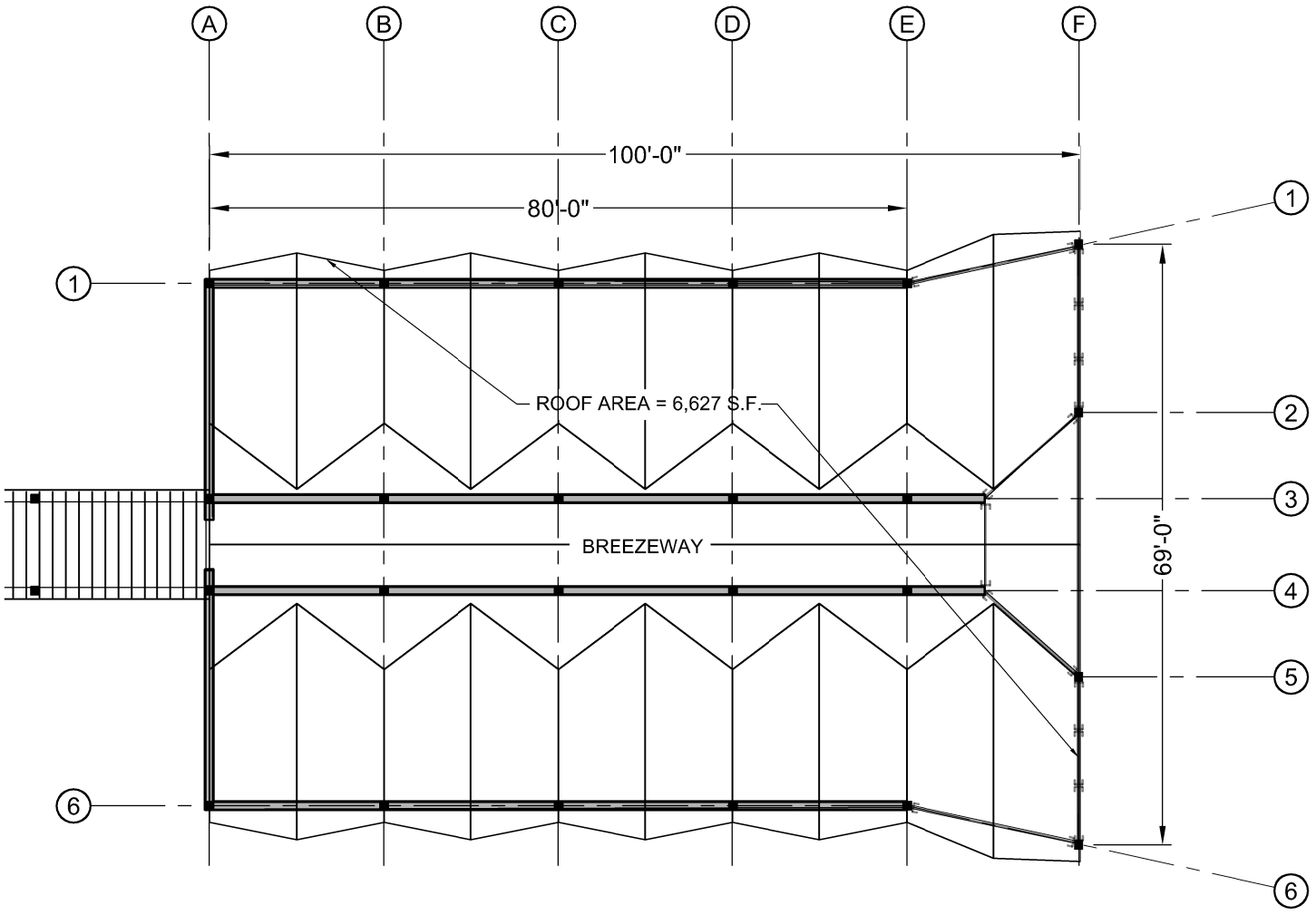
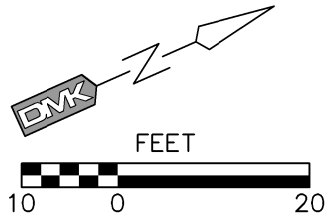
EXHIBIT C
WARM MINERAL SPRINGS
BUILDING 1 - CROSS SECTION AT COLUMN 4

SHEET No.
4

| BUILDING 2 | |
|---|---|
| DESCRIPTION | S.F. |
| FLOOR AREA | 6,800 |
| TYPE 1 WINDOW | 250 |
| TYPE 2 WINDOW | 1,300 |
| TYPE 3 WINDOW | 900 |

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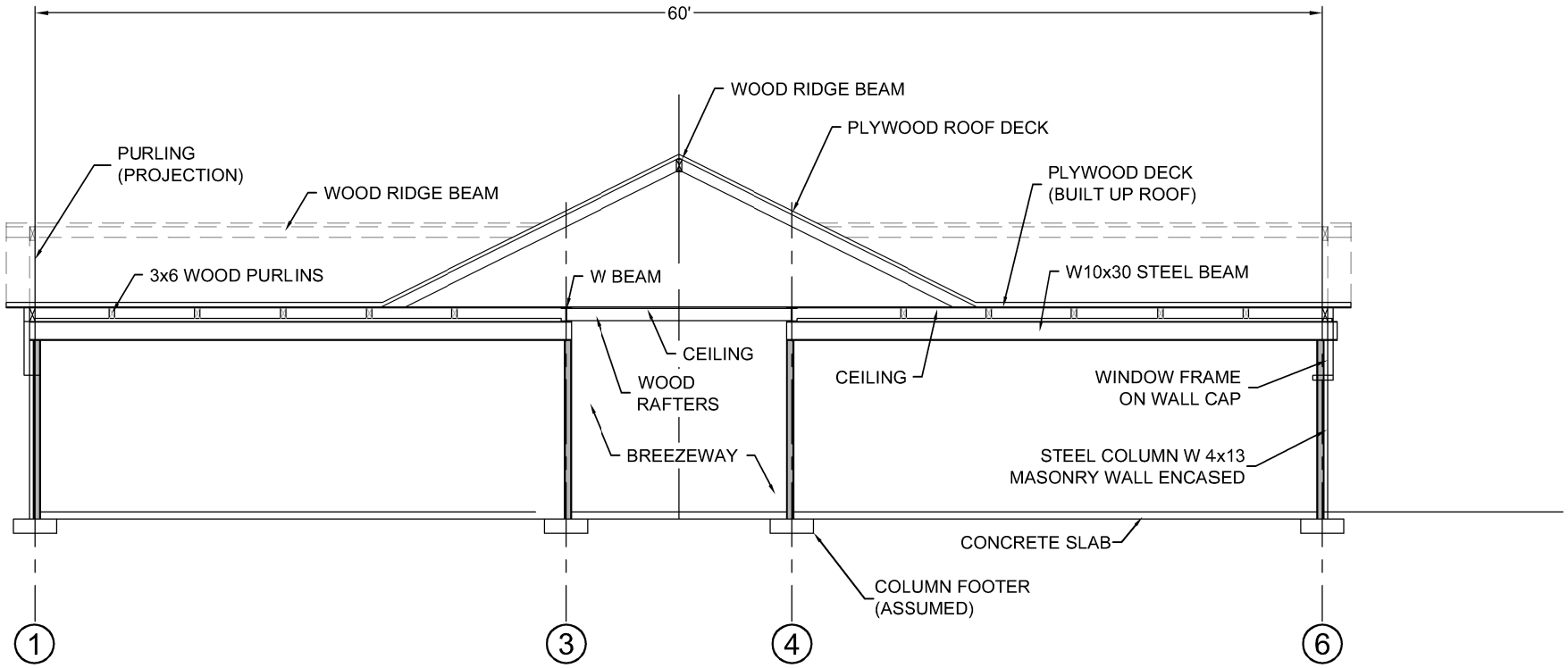
# EXHIBIT C
# WARM MINERAL SPRINGS
# BUILDING 2 - PLAN

SHEET No.

5




# BUILDING 2
## SECTION AT COLUMN LINE E

SCALE ⅛" = 1'

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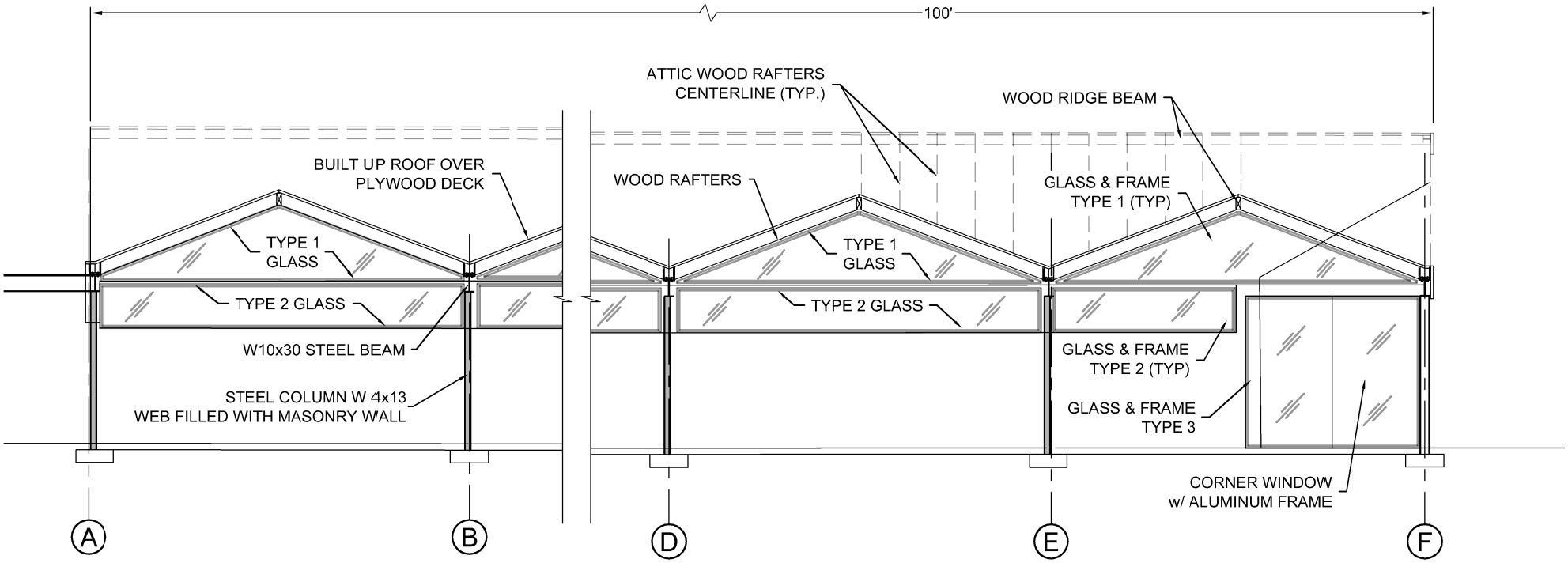
EXHIBIT C
WARM MINERAL SPRINGS
BUILDING 2 - CROSS SECTION AT COLUMN E




# BUILDING 2
# SECTION AT COLUMN LINE 3

SCALE ⅛" = 1'

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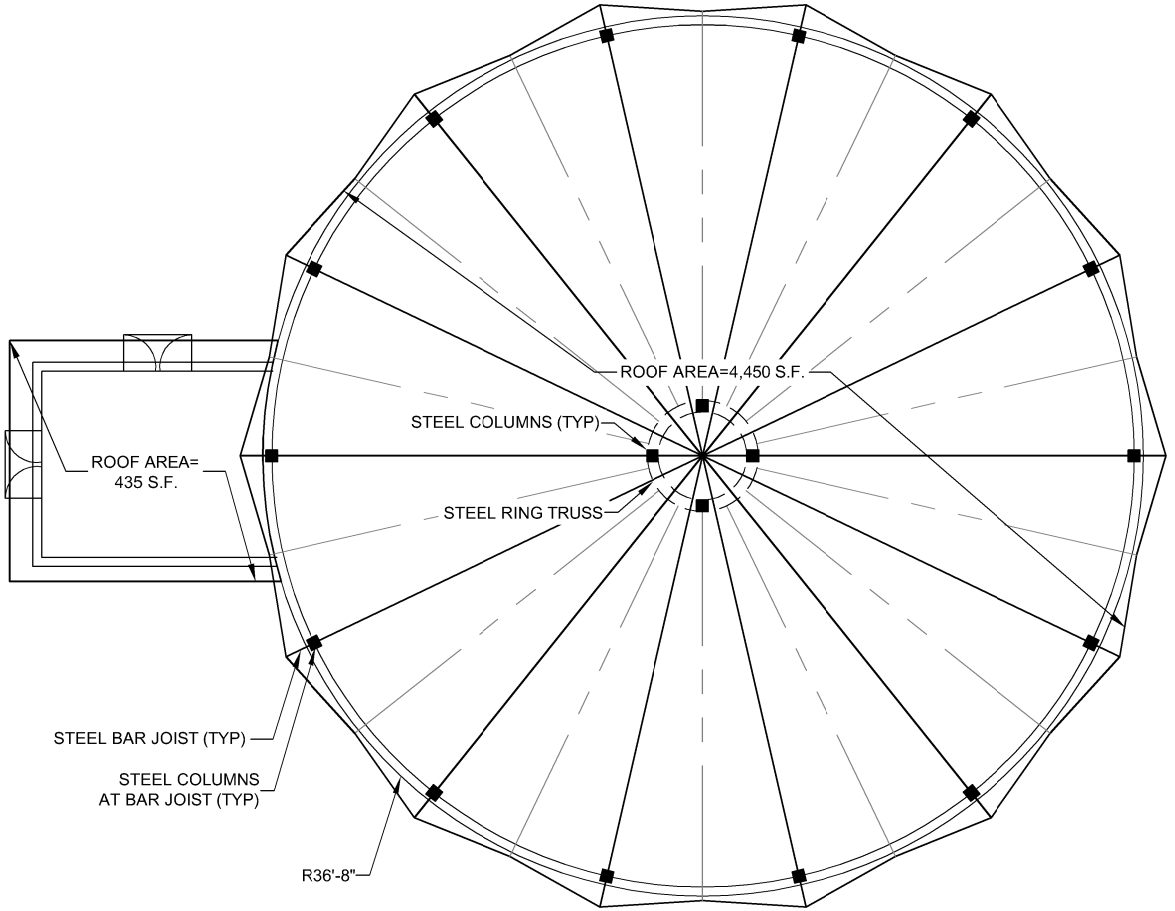
EXHIBIT C
WARM MINERAL SPRINGS
BUILDING 2 - CROSS SECTION AT COLUMN 3

| BUILDING 3 | |
|---|---|
| DESCRIPTION | S.F. |
| FLOOR AREA | 4,885 |
| TYPE 1 WINDOW | 0 |
| TYPE 2 WINDOW | 0 |
| TYPE 3 WINDOW | 0 |
| COLUMN & JOIST | 18 |




# ROOF STRUCTURE PLAN

SCALE 1/16" = 1'

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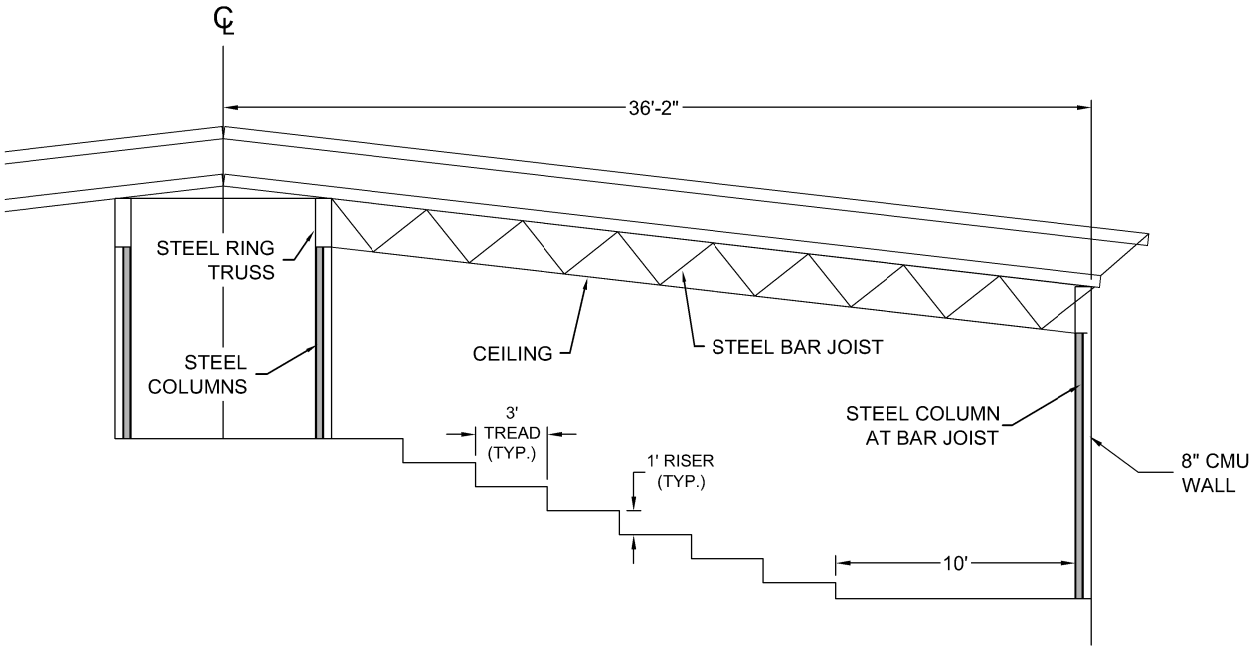
EXHIBIT C
WARM MINERAL SPRINGS
BUILDING 3 - CYCLORAMA PLAN




## BUILDING 3 TYPICAL SECTION

SCALE $\frac{1}{8}$" = 1'

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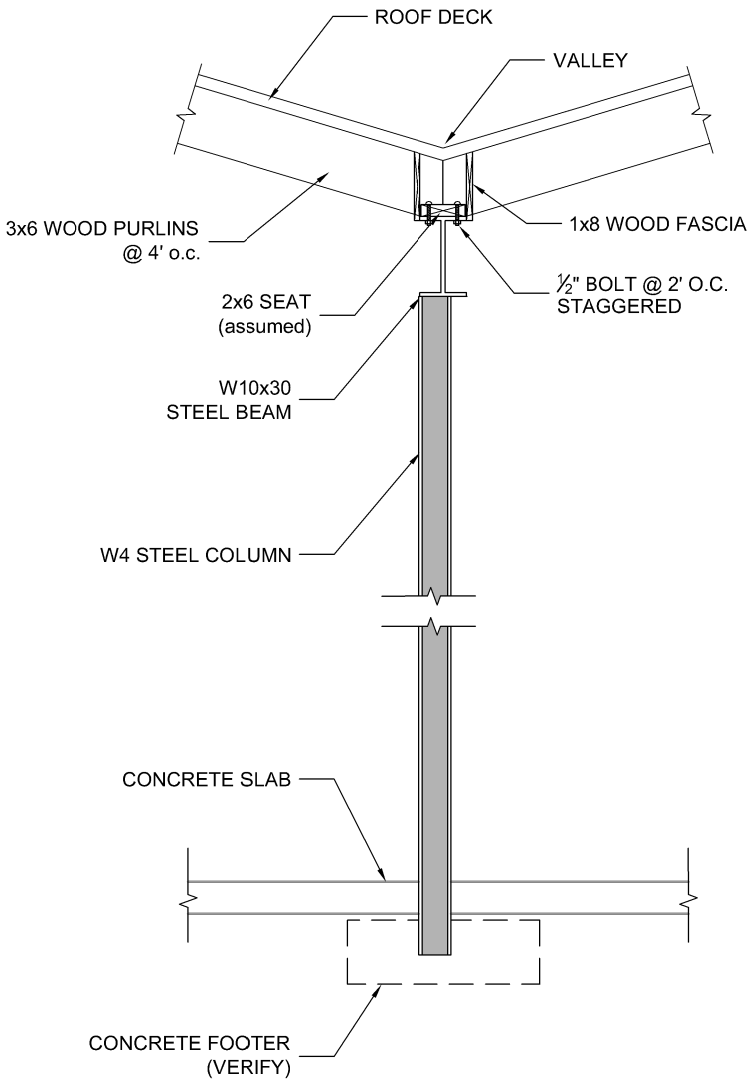
EXHIBIT C
WARM MINERAL SPRINGS
BUILDING 3 - CYCLORAMA TYPICAL SECTION




## BUILDING 1 & 2
## TYPICAL COLUMN SECTION

SCALE ¼" = 1'

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# EXHIBIT C
# WARM MINERAL SPRINGS
# STRUCTURAL DETAILS

**EXHIBIT D - 1**
**BUDGETARY COST ESTIMATE**
**BUILDING 1, HISTORIC RENOVATION VS. CONSTRUCT NEW**

| ITEM # | | DESCRIPTION | QTY | UNITS | UNIT PRICE | PRICE | * |
|---|---|---|---|---|---|---|---|
| | **Building1 Historic Renovation. 3,850 SF Steel Frame, 4-in Glazed Block, Timber Built up Roof, New Interior.** | | | | | | |
| 1 | | Selective Interior Slab and Mechanical Removal | 3850 | S.F. | $ 6.50 | $25,025 | 1 |
| 2 | | Roof, Mechanical and Electrical Selective Demolition | 3850 | S.F. | $ 6.00 | $23,100 | 2 |
| 3 | | Interior Shear Wall Construction | 448 | S.F. | $ 20.00 | $8,960 | 3 |
| 4 | | New Roof Deck and Built up Roof (Historical) | 3850 | S.F. | $ 14.11 | $54,324 | 4 |
| 5 | | Roof Attachment Modification | 60 | EA. | $ 50.00 | $3,000 | 5 |
| 6 | | Structural Masonry Wall Rehab and Recondition (Historical) | 1660 | S.F. | $ 20.00 | $33,200 | 6 |
| 7 | | Steel Col and Beam Rehab and Reconditioning | 16 | EA. | $ 500.00 | $8,000 | 7 |
| 8 | | 3 foot Gable Window Frame and Glazing Replacement (Historical) (Type 1) | 160 | S.F. | $ 90.00 | $14,400 | 8 |
| 9 | | 3 foot Window Frame and Glazing Replacement Historical (Type 2) | 800 | S.F. | $ 75.00 | $60,000 | 9 |
| 10 | | Entry and Side Window Replacement (Type 3) | 900 | S.F. | $ 60.00 | $54,000 | 10 |
| 11 | | Interior Space, Carpentry and Millwork, Sheetrock, Finishes, Equip, Doors, Floor Treatment, Furnishings | 3850 | S.F. | $ 52.06 | $200,431 | 11 |
| 12 | | Mechanical Plumbing (New) | 3850 | S.F. | $ 5.27 | $20,290 | 12 |
| 13 | | Mechanical HVAC, (New Central System) | 3850 | S.F. | $ 21.50 | $82,775 | 13 |
| 14 | | Electrical (Updated, New) | 3850 | S.F. | $ 12.50 | $48,125 | 14 |
| 15 | | Concrete Slab (New) | 3850 | S.F. | $ 7.00 | $26,950 | 15 |
| 16 | **Sub Total 1 - Building 1 Renovation (without contingencies & common elements)** | | | | | **$662,579** | 16 |
| 17 | | Contingencies | 8% | Percent | $ 53,006.32 | | 17 |
| 18 | **Sub Total 2 - Building 1 Renovation** | | | | | **$715,585** | 18 |
| 19 | | Soft Costs (Design, Survey & Permitting) | 11% | Percent | $ 78,714.39 | | 19 |
| 20 | **Total Estimated Cost** | | | | | **$794,300** | 20 |
| | | | | | Rounded cost estimate to the nearest thousand dollars | **$794,000** | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Building 1, CMU Replacement Building (New, Assumed Typical Construction)** | | | | | | |
| 1 | | Demolition and Disposal of All Structure | 3850 | S.F. Allow | $ 7.00 | $26,950 | 21 |
| 2 | | Fill and Grading | 4200 | S.F. Allow | $ 3.50 | $14,700 | 22 |
| 3 | | Shell, Exterior Block, Frame Roof, Composite Roof, Moderate Glass | 3850 | S.F. Allow | $ 92.00 | $354,200 | 23 |
| 4 | | Interior Office Space with Moderate Cabinet and Trim | 3850 | S.F. Allow | $ 64.00 | $246,400 | 24 |
| 5 | **Sub Total 1 - Building 1, Construct New** | | | | | **$642,250** | 25 |
| 6 | | Contingencies | 8% | Percent | $ 51,380.00 | | 26 |
| 7 | **Sub Total 2 - Building 1, Construct New** | | | | | **$693,630** | 27 |
| 8 | | Soft Costs (Design, Survey & Permitting) | 11% | Percent | $ 70,647.50 | | 28 |
| 9 | **Total Estimated Cost** | | | | | **$764,278** | 29 |
| | | | | | Rounded cost estimate to the nearest thousand dollars | **$764,000** | |

**General Notes**

a All Square Foot measurements are approximate only.
b Square Foot (S.F.) costs are adjusted to 2016 in US Dollars.
c Soft Cost Calculations include Architect, Engineer and Permitting.
d Lump Sum Prices (L.S.) are for budgetary reasons and comparison.
e Cost Estimate is preliminary and subject to significant change upon the development of construction plans and bid documents.
f Soft Costs do not include consideration for common elements construction.

Sheet Specific Notes *

1 Saw cut and removal of internal slab to within .5 feet of vertical walls. Removal and disposal included.
2 Careful removal of all deck and roofing leaving girders and beams in place
3 Design calculations assume 4 feet of shear wall adjacent to all columns in opposite plane of existing walls
4 Re-construction of structural deck (historic), interior insulation, 4-ply built up roof. Rough estimate
5 Anticipated strengthening of all girder to girder connections with bolt modification for wind resistance.
6 Crazed glazing repair. Repainting as necessary. Repair grout to steel columns.
7 Specified number of columns to be sand blasted, reconstructed and coated.
8 Replace all triangular window frames and glass panel installations with load bearing frames and tempered glass
9 Replace all aluminum window frames and glass above 4 inch block. Includes areas now covered with wood.
10 Replace all aluminum frames and windows at corners of building
11 Budget estimate dependent upon nature of space and anticipated use. No kitchen equip.
12 Office area has minimal plumbing
13 Central A/C for office
14 New wiring throughout
15 Replace demolished slab. Finish for tile or carpet.
16 Sub Total 1
17 8% Contingency for unforseeables
18 Sub Total 2
19 Design and routine inspection. No representative services. Permits @ 1% estimate.
20 Total Estimate including contingencies and Soft Costs.
21 Mass demolition and disposal of all debris
22 Compaction and grading as ready for new construction
23 Shell construction including rough carpentry and MEP
24 Interior space including carpentry, trim, coverings and MEP
25 Sub Total 1
26 8% Contingency for unforseeables
27 Sub Total 2
28 Design and routine inspection. No representative services. Permits @ 1% estimate.
29 Total Estimate including contingencies and Soft Costs.

**EXHIBIT D - 2**
**BUDGETARY COST ESTIMATE**
**BUILDING 2, HISTORIC RENOVATION VS. CONSTRUCT NEW**

| ITEM # | | DESCRIPTION | QTY | UNITS | UNIT PRICE | PRICE | * |
|---|---|---|---|---|---|---|---|
| | | **Building 2 Historic Renovation. 6800 SF Steel Frame, 6 in Structural Block, Timber Built up Roof, New Interior..** | | | | | |
| 1 | | Interior Slab and Mechanical Removal | 6800 | S.F. | $ 6.20 | $42,160 | 1 |
| 2 | | Roof, Mechanical and Electrical Selective Demolition | 6800 | S.F. | $ 6.00 | $40,800 | 2 |
| 3 | | Interior Shear Wall Construction, Each Column with Foundation. | 768 | S.F. | $ 20.00 | $15,360 | 3 |
| 4 | | New Roof Deck and Built up Roof (Historical) | 6800 | S.F. | $ 14.11 | $95,948 | 4 |
| 5 | | Roof Attachment Modification | 80 | EA. | $ 50.00 | $4,000 | 5 |
| 6 | | Structural Masonry Wall Rehab and Recondition (Historical) | 2730 | S.F. | $ 20.00 | $54,600 | 6 |
| 7 | | Steel Col and Beam Rehab and Recondition | 24 | EA. | $ 500.00 | $12,000 | 7 |
| 8 | | 3 foot Gable Window Frame and Glazing Replacement (Historical), Type 1 | 250 | S.F. | $ 90.00 | $22,500 | 8 |
| 9 | | 3 foot Window Frame and Glazing Replacement (Historical), Type 2 | 1290 | S.F. | $ 75.00 | $96,750 | 9 |
| 10 | | Entry and Side Window Replacement, Type 3 | 892 | S.F. | $ 60.00 | $53,520 | 10 |
| 11 | | Interior Space, Carpentry and Millwork, Sheetrock, Finishes, Equip, Doors, Floor Treatment, Furnishings | 6800 | S.F. | $ 52.06 | $354,008 | 11 |
| 12 | | Mechanical Plumbing (New) | 6800 | S.F. | $ 5.27 | $35,836 | 12 |
| 13 | | Mechanical HVAC, (New Central System) | 6800 | S.F. | $ 21.50 | $146,200 | 13 |
| 14 | | Electrical (Updated, New) | 6800 | S.F. | $ 12.50 | $85,000 | 14 |
| 15 | | Concrete Slab (New) | 6800 | S.F. | $ 7.00 | $47,600 | 15 |
| 16 | | **Sub Total 1 - Common Elements Construction** | | | | **$1,106,282** | 16 |
| 17 | | Contingencies | 8% | Percent | $ 88,502.56 | | 17 |
| 18 | | **Sub Total 2 - Construction + Contingencies** | | | | **$1,194,785** | 18 |
| 19 | | Soft Costs (Design, Survey & Permitting) | 11% | Percent | $ 131,426.30 | | 19 |
| 20 | | **Total Estimated Cost** | | | | **$1,326,211** | 20 |
| | | | | | Rounded cost estimate to the nearest thousand dollars | **$1,326,000** | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | **Building 2, CMU Replacement Building (New, Assumed Typical Construction)** | | | | | |
| 1 | | Demolition and Disposal of All Structure | 6800 | S.F. Allow | $ 7.00 | $47,600 | 21 |
| 2 | | Fill and Grading | 7200 | S.F. Allow | $ 3.50 | $25,200 | 22 |
| 3 | | Exterior Block Construction, Frame Roof, Metal Deck, Moderate Glass | 6800 | S.F. Allow | $ 92.00 | $625,600 | 23 |
| 4 | | Interior Office Space with Moderate Cabinet and Millwork | 6800 | S.F. Allow | $ 64.00 | $435,200 | 24 |
| 5 | | **Sub Total 1 - Common Elements Construction** | | | | **$1,133,600** | 25 |
| 6 | | Contingencies | 8% | Percent | $ 90,688.00 | | 26 |
| 7 | | **Sub Total 2 - Construction + Contingencies** | | | | **$1,224,288** | 27 |
| 8 | | Soft Costs (Design, Survey & Permitting) | 11% | Percent | $ 134,671.68 | | 28 |
| 9 | | **Total Estimated Cost** | | | | **$1,358,960** | 29 |
| | | | | | Rounded cost estimate to the nearest thousand dollars | **$1,359,000** | |

**General Notes**

a All Square Foot measurements are approximate only
b Square Foot (S.F.) costs are adjusted to 2016 in US Dollars
c Soft Cost Calculations include Architect, Engineer and Routine Specialties
d Lump Sum Prices (L.S.) are for budgetary reasons and comparison
e Cost Estimate is preliminary and subject to significant change upon the development of construction plans and bid documents.
f Soft Costs do not include consideration for common elements construction

*** Sheet Specific Notes**

1 Saw cut and removal of internal slab to within .5 feet of vertical walls. Removal and disposal included.
2 Careful removal of all deck and roofing leaving girders and beams in place
3 Design calculations assume 4 feet of shear wall adjacent to all columns in opposite plane of existing walls
4 Re-construction of structural deck (historic), interior insulation, 4-ply built up roof. Rough estimate
5 Anticipated strengthening of all girder to girder connections with bolt modification for wind resistance.
6 Crazed glazing repair. Repainting as necessary. Repair grout to steel columns.
7 Specified number of columns to be sand blasted, reconstructed and coated.
8 Replace all triangular window frames and glass panel installations with load bearing frames and tempered glass
9 Replace all aluminum window frames and glass above 4 inch block. Includes areas now covered with wood.
10 Replace all aluminum frames and windows at corners of building
11 Budget estimate dependent upon nature of space and anticipated use. No kitchen equip.
12 Office area has minimal plumbing
13 Central A/C for office
14 New wiring throughout
15 Replace demolished slab. Finish for tile or carpet.
16 Sub Total 1
17 8% Contingency for unforseeables
18 Sub Total 2
19 Design and routine inspection. No representative services. Permits @ 1% estimate.
20 Total Estimate including contingencies and Soft Costs.
21 Mass demolition and disposal of all debris
22 Compaction and grading as ready for new construction
23 Shell construction including rough carpentry and MEP
24 Interior space including carpentry, trim, coverings and MEP
25 Sub Total 1
26 8% Contingency for unforseeables
27 Sub Total 2
28 Design and routine inspection. No representative services. Permits @ 1% estimate.
29 Total Estimate including contingencies and Soft Costs.

**EXHIBIT D - 3**
**BUDGETARY COST ESTIMATE**
**BUILDING 3, CYCLORAMA, RENOVATION OF EXISTING ONLY**

| ITEM # | | DESCRIPTION | QTY | UNITS | UNIT PRICE | PRICE | * |
|---|---|---|---|---|---|---|---|
| | **Building 3, Cyclorama, Renovation Only, No Alternatives** | | | | | | |
| 1 | | Selective Demolition of Entry | 340 | S.F. Allow | $ 6.00 | $2,040 | 1 |
| 2 | | Selective Demolition, Interior Electronics and Walkways | 4215 | S.F. Allow | $ 8.00 | $33,720 | 2 |
| 3 | | Masonry Repairs | 1 | L.S. Budg | $ 4,000.00 | $4,000 | 3 |
| 4 | | Prep and New Exterior Stucco | 1152 | S.F. Allow | $ 8.21 | $9,461 | 4 |
| 5 | | Roof Tear Off and Replace, 5 ply Built up Roof or Sub. | 4215 | S.F. | $ 5.25 | $22,129 | 5 |
| 6 | | New HVAC, Electrical, Mechanical and Plumbing | 4215 | S.F. | $ 19.00 | $80,085 | 6 |
| 7 | | Interior Renovation for Occupancy (code conformed) | 4215 | S.F. Allow | $ 85.00 | $358,275 | 7 |
| 8 | **Sub Total 1 - Common Elements Construction** | | | | | **$509,710** | 8 |
| 9 | | Contingencies | 8% | Percent | $ 40,776.79 | | 9 |
| | **Sub Total 2 - Construction + Contingencies** | | | | | **$550,487** | 10 |
| 10 | | Professional Soft Costs (Design, Survey) | 11% | Percent | $ 60,553.53 | | 11 |
| 11 | **Total Estimated Cost** | | | | | **$611,040** | 12 |
| | | | Rounded cost estimate to the nearest thousand dollars | | | $611,000 | |

**General Notes**

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f Soft Costs do not include consideration for common elements construction

*** Sheet Specific Notes**

1 Entry area is molded and demolition will include all soft materials and doors.
2 All electronics are anticipated to be removed and replaced
3 Exterior block displacement and isolated repairs. Lump Sum item.
4 Exterior stucco blast, wash and restucco.
5 Re roofing of existing deck. Deck replacement as necessary.
6 Broad treatment of HVAC
7 Budget for replacement of all interior surfaces.
8 Sub Total 1
9 8% Contingency for unforseeables
10 Sub Total 2
11 Design and routine inspection. No representative services. Permits @ 1% estimate.
12 Total Estimate including contingencies and Soft Costs.

**EXHIBIT D - 4**
**BUDGETARY COST ESTIMATE**
**CONSTRUCTION ELEMENTS COMMON TO ALL OPTIONS**

| ITEM # | | DESCRIPTION | QTY | UNITS | UNIT PRICE | PRICE | * |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | **Construction Elements Common to All Options** | | | | | |
| 1 | | Mobilization and General Conditions | 1 | L.S. | $ 10,000.00 | $10,000 | 1 |
| 2 | | Temporary Office and Operations, Mobile Structured | 12 | Months | $ 1,000.00 | $12,000 | 2 |
| 3 | | Selective Site Demolition, Concrete, Ponds, Landscaping | 2000 | S.F. | $ 10.00 | $20,000 | 3 |
| 4 | | Fencing Removal and Replacement | 400 | L.F. | $ 30.00 | $12,000 | 4 |
| 5 | | Site Electric Demolition and Modification. | 1 | L.S. | $ 10,000.00 | $10,000 | 5 |
| 6 | | Site Utilities, Water and Wwater Modifications | 1 | L.S. | $ 10,000.00 | $10,000 | 6 |
| 7 | | Grading, Sodding and Landscaping | 2000 | S.F. | $ 10.00 | $20,000 | 7 |
| | | **Sub Total - Common Elements Construction** | | | | **$94,000** | 8 |
| | | Contingencies & Soft Costs | 15% | Percent | $ 14,100.00 | | 9 |
| 8 | | **Total Estimated Cost** | | | | **$108,100** | 10 |
| | | | | | Rounded cost estimate to the nearest thousand dollars | $108,000 | |

### General Notes

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### * Sheet Specific Notes

1 Estimated based on location and accessibility
2 12 months with rent, power, setup and dismantle
3 Extensive LS removal to 15 feet away from all buildings. Disposal
4 Estimated 400 lf of fencing removal and replacement
5 General disconnection of electric and removal/neutralization of exterior power
6 Relocating sewer laterals and replacement as necessary.
7 Budget allowance for replacing removed or damaged landscaping. Budget only.
8 Sub Total
9 Contingencies & Soft Costs at 15%
10 Total estimated costs including contingencies & soft costs

**Picture 1**
Building 1 - Front Entry with Vegetation

**Picture 2**
Building 2 - NE Corner at Restaurant Area. Electric & Mechanical

**Picture 3**
Building 3 - Cyclorama Entry Building

**Picture 4**
Building 1 - Main Entry with Awning & Store Front

**Picture 5**
Building 1 - Deteriorated Roof Soffit at SE Corner

**Picture 6**
Building 1 - 4" Column with Wall & Beam Connection

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**EXHIBIT E**
Warm Mineral Springs
Photographs

**Picture 7**
Building 1 - Breezeway with Timber Rafters

**Picture 8**
Building 1 - Breezeway with Wood Fill Where Glass Existed

**Picture 9**
Building 2 - Dormer Sections from NE Looking SW

**Picture 10**
Building 2 - Type 1 & 2 Windows with Aluminum Frame

**Picture 11**
Building 2 - Dining Area

**Picture 12**
Building 1 - Typical Beam, Girder & Roof Deck Configuration

**Picture 13**
Building 2 - View West to East of Building Front

**Picture 14**
Building 2 - Breezeway Looking South.  Ceiling Joists.

**Picture 15**
Building 1 - Center Section & Support on Side Roof Deck

**Picture 16**
Buidling 3 - Cyclorama Steel Collar & Support for Bar Joists

**Picture 17**
Building 3 - Cyclorama Steel Column in Wall

**Picture 18**
Building 3 - Cyclorama Stucco

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