Notice of Public Meeting Thursday, May 28, 2020 **9:00 a.m.**	FACILITIES & PARKS COMMITTEE	*Door County Government Center* *County Board/Chambers Room (C102) - 1st Floor* *421 Nebraska Street, Sturgeon Bay, WI*

Oversight for Facilities and Parks

To mitigate the impact of COVID-19 this meeting will be conducted by teleconference or video conference. Members of the public may join the meeting remotely or in-person in the Peninsula Room (C121) 1st Floor Government Center (*please note public in-person has limited capacity and is on a first come, first served basis).*

To attend the meeting via computer:
Go to:
https://doorcounty.webex.com/doorcounty/onstage/g.php?MTID=e976263384e27edfde226d6b1eb05e141

Enter the password: May282020fp

To connect via phone:
Call: 1-408-418-9388
Access Code: 968 453 066

AGENDA

1. **Call Meeting to Order**
2. **Establish a Quorum**
3. **Adopt Agenda / Properly Noticed**
4. **Correspondence**
5. **Facilities Division**
   A. Washington Island EMS- Facility Study Review
   B. Former Younkers Building Facility Study Review
   C. Facilities & Parks 3rd Party Use of County Spaces
6. **Request for Agenda Items for Next Month's Meeting**
7. **Next Meeting Date**
   - Regular Meeting – Wednesday, June 10, 2020 – 9:00 a.m.
8. **Meeting Per Diem Code**
9. **Adjourn**

Deviation from order shown may occur

In compliance with the Americans with Disabilities Act, any person needing assistance to participate in this meeting, should contact the Office of the County Clerk at (920)746 2200. Notification 48 hours prior to a meeting will enable the County to make reasonable arrangements to ensure accessibility to that meeting.

Posted _____, 2020 _____

EMERGENCY SERVICES FACILITY ASSESSMENT

WASHINGTON ISLAND
DOOR COUNTY GOVERNMENT
OPERATIONS & EMS CENTER

DRAFT COPY FOR DOOR COUNTY REVIEW

(MAY 4, 2020)

Preliminary Assessment and Cost Estimate
Washington Island Door County Government Operations
and EMS Center

The Samuels Group (TSG) was retained by Door County in early 2020 to provide "Preliminary Assessments and Cost Estimates for an Emergency Services Facility on Washington Island." The work includes development of an appropriate project scope that includes the building program, size and construction budget for the facility and then to assess the relative merit of the project across both new construction on a vacant site at the northwest corner of Town Line Road and Airport Road and renovation construction of the Historic Island Dairy at 1309 Range Line Road.

The assessment is based on:

- Limited conceptual information provided with the RFP. (Appendix 1.1)
- A scope plan and a conceptual site plan submitted by TSG with their proposal.
- A site visit of the Historic Island Dairy by TSG on March 5th.
- The Brussels-Union-Garland (B.U.G.) facility plans. (Appendix 1.4) B.U.G. is a larger facility, combining a fire department with EMS. The EMS program is similar to the requirements for this project.

The Samuels Group proposed to complete the assessment over the course of approximately 2 months. Initially the meetings were proposed as a mix of face to face meetings in Sturgeon Bay supplemented with Video conferences to report progress at agreed upon intervals. However, after the kickoff meeting in Sturgeon Bay, the COVID 19 pandemic shifted meetings to be video conference call from that point forward. As the timing of the work became clearer, the schedule was adjusted to best fit the transitioning of the 2020 elected County Board members to their roles with the county.

As TSG started the assessments, there was a slight shift in emphasis from a strictly EMS Center to a facility for Door County Government Operations on Washington Island. This report reflects this shift in emphasis.

This assessment presents the new building option first. The building program for the new construction includes all spaces required for the EMS building along with spaces that are desired to create a more effective County facility for the Island. This creates the best starting point for both options, though the renovation will meet parts of the program through careful consideration and adjustments in response to the existing conditions of the former Dairy.

The assessment is organized into five parts:

1. Building Program
2. New Construction
3. Renovation
4. Recommendations
5. Appendices

DRAFT

BUILDING PROGRAM

A building program is a written description of the activities and requirements that will occur in a building. The program will name various uses and may identify a combination of some or all of the following: size, relationship, finishes, quality and possibly a large degree of the FF&E (Furniture, Fixtures and Equipment) for each of the uses. The program may also identify the type of construction, general budget and other associated issues.

For this project, the starting point for the building program is the new construction of a standalone EMS facility. The principle features and supporting spaces for a new EMS facility are culled from the completed (2018? Or 2019?) B.U.G. facility. Parts of B.U.G. that were dedicated to EMS were immediately listed in the program. Other parts that are shared between EMS and the Fire Department at B.U.G. were evaluated to identify which of these shared parts are additionally required for the delivery of EMS services. Those parts that were determined to be necessary to EMS were also added to the program.

Most of the following uses included in the Washington Island EMS building program are from the B.U.G. facility. (TSG Scope plan included the highlighted spaces.):

Required for Standalone EMS (based on B.U.G.)

- Vehicle Garage (for a 27' and a 23' vehicle housed simultaneously)
- Storage (parts, equipment, supplies)
- Sleeping Rooms (two, each room capable of two beds)
- Lounge (for EMS personnel)
- Kitchenette (for EMS use)
- Office (with 2 workstations for EMS business)
- Full bathroom (including shower) – Minimum 1, 2 preferred
    - With half bath if only 1 full bathroom
    - OR – Two Public Toilets with showers to serve both public and EMS.

Shared (at B.U.G.) and needed for this EMS Facility

- Mechanical Room (was on roof and shared in B.U.G.)
- Decontamination (with fire department only in B.U.G.)
- Laundry (with fire department only in B.U.G.)
- Training, Meeting Space
- Table and Chair Storage

Required for additional "County Services" operations (occurs similarly at B.U.G.)

- Public Lobby (for shared use by EMS and County Services)
- Office (for county services)
- Conference Room

Unique features for this EMS

- Locker Area (for 20 lockers)

DRAFT

New Construction Program

The program summary for new construction identifies the spaces listed in the Building Program part of this assessment and assigns a net square foot size for the space. A building factor is applied to each net size and the numbers are added together to create the target building size for the project. (Appendix 2.1) Based on this list of requirements, the projected size for the new construction of a standalone Door County Government Operations facility is approximately 5,200 square feet. The proposed location for a new facility is about 500 feet north of the current island location for fire and EMS.

(Note: The TSG proposal showed a facility of approximately 3,600 square feet. (Appendix 1.3) The smaller size than the target size established in this assessment can be attributed to not having the "county services" office, a conference room, a smaller training room with no table and chair storage; to having smaller sleeping rooms, smaller toilet facilities, smaller EMS work area and to having an integrated public lobby.)

Renovation Program

Also considered in this assessment is the renovation and necessary expansion of an existing building known as the Historic Island Dairy. This site is about a half mile east of the current island location for fire and EMS, but it is also a more central island location for responding to emergencies.

Casual inspection suggests that the Historic Island Dairy is a reasonable consideration for renovation into the Door County Government Operations facility. The main floor has ample room for the EMS support services such as lounge, kitchenette, bathroom(s), sleeping rooms, office, storage and connection with the public. However, there are drawbacks to this building as the Door County Government Operations facility. The elevated deck for the second floor has limited 1st floor headroom for vehicle clearance. And the footprint is short (in length) for parking the 2 rescue vehicles in a garage addition under the elevated deck. But the additional space provided by the existing building as a whole and its potential for providing space for other County services makes this property worth consideration.

(Note: The current owner of the Historic Island Dairy property is an Architect. He has explored the option of providing safety services in this building in the past. (Appendix 1.2) Though this design was not for a dedicated EMS facility, he did explore how a similar use might layout in the Dairy building. In his example, the building was remodeled for law enforcement and a garage was added for a vehicle parking. He also showed a future standalone emergency services building on the site.)

The base program for the Door County Government Operations facility for new construction is applicable to the renovation construction. Because of existing conditions of the Historic Island Dairy, the design of some of the spaces become slightly smaller or slightly larger to best accommodate what exists. The building is also larger the than required minimum for the proposed Door County Government Operations facility for

DRAFT

Washington Island. As this existing building is considered for use as the Door County Government Operations facility, the building program was expanded to accurately reflect what this approach to the project becomes. These additions to the base program for the renovation option are:

- 1st Floor – Storage
- 1st Floor – Women's and Men's Public Toilet Room
- 1st Floor – Chair Lift to 2nd Floor
- 2nd Floor – Public Toilet
- 2nd Floor – Kitchen
- 2nd Floor – Elevated Deck

Based on the total capacity of the Historic Island Dairy, construction can be limited to a small garage addition of about 1,600 square feet and renovation of approximately 2,000 square feet of the existing 1st floor for the other support spaces for EMS and County Operations. The remaining 5,100 square feet, most of which is on the second floor in the ballroom, requires minimal if any construction effort. If this option is adopted by the County Board, the total facility would be approximately 8,600 square feet. (Appendix 3.1).

In each option (New Building or Renovation of Existing), TSG includes possible future expansion at each location to include Fire Department Services. With changing requirements for fire apparatus and the increasing challenges of meeting community expectations for emergency response services, Door County will face another decision point in the future regarding the Fire Department and whether to renovate the existing Fire Department or move to new quarters. As such, the future program for each option includes a new fire department construction on each site. For the New Construction option, the Fire Department would be an addition to this new Door County Government Operations building. For the Renovation of the Existing building, the Fire Department would be a standalone building on the Historic Island Dairy property.

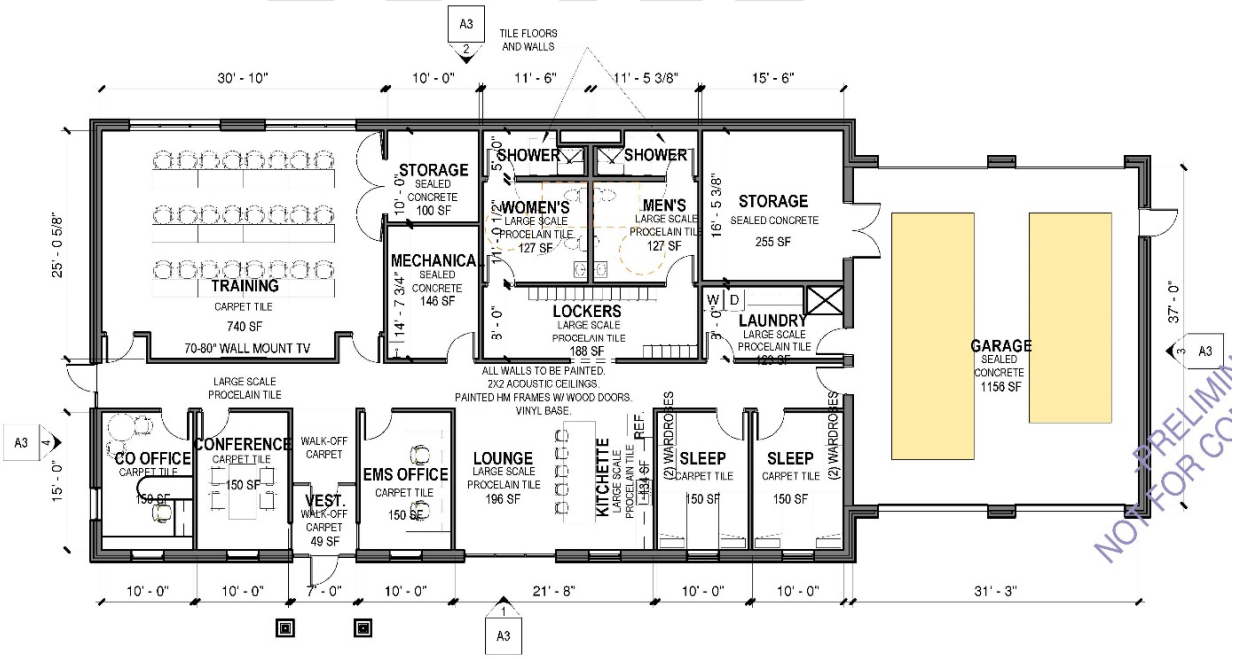
NEW CONSTRUCTION

The RFP identifies the "vacant 10-acre parcel, situated at the (NW) corner of Airport Road and Town Line Road, Town of Washington, Door County, Wisconsin (PIN 0280236342934B1)" as the proposed location for a new building housing Door County Government Operations. Evaluation of this site as "suitable" for the ". . . new construction of, and ongoing use as, a Door County Emergency Services Facility" is limited to consideration of only its size (and the site's ability to accommodate the size of a new facility) and location (the site's ability to provide equal or better overall response times for emergency services). No information was available on the history of the site, its appurtenances, its soils and other subsurface and property conditions that might impact suitability.

The proposed new location is more than three times the size of the existing 3-acre site. Without a drastic site condition that would negatively impact construction, it is expected that a new building can be easily accommodated on this site. The new site is the northwest corner of intersection and the existing site is the southwest corner of the same intersection. It is estimated that the distance from the existing EMS to this new location will be less than 500 feet. This new location would provide nearly identical response times and coverage as the existing location. This proposed location is expected to be just as suitable for a new EMS facility as is the current location with the added advantage of more property size.

The building plan for a new Door County Government Operations facility is organized with consideration for the possibility of future expansion to house Fire Department Services. Common services like the County Office, Conference Room and Training Room, are pulled to one side where future connection to the support services for the Fire Department would be made. In the opposite direction from the future Fire Department, the plan shows public restrooms and space dedicated to the EMS support services with a drive through garage for 2 vehicles at the extreme end other of the building.

This first phase, a new building facility for EMS, will stand on its own now and into the foreseeable future. Should the Fire Department determine a new fire facility is needed to better serve the future of the island, this new location and building would allow expansion on this new site for the Fire Department. The schematic plan developed for this option is approximately 5,360 square feet and is shown below.



It is presumed that the site proposed for the new building has enough capacity to expand an EMS facility built now to include a future Fire Department. Additional planning information showing a site layout and concept elevations are included. (Appendix 2.2)

EMERGENCY SERVICES FACILITY ASSESSMENT

A cost per square foot estimate was prepared based on the scope plan for new construction. The estimate is organized into the typical divisions of the work for building construction. The building is planned as a frost wall, slab-on-grade with steel frame structure, metal stud walls and metal roof trusses. The exterior finish is budgeted as a combination of stone veneer, partial height on public parking side of building only, with vertical groove panels, aluminum storefront windows and doors, sectional overhead doors and standing seam metal roofing. The wall finishes are painted drywall with the exception of the wet walls receiving wall tile. Floors are carpet tile, ceramic tile, luxury vinyl tile or sealed concrete depending on the specific use of the space. Ceilings are typically acoustical ceiling tile or painted gypsum board. Site paving includes base and asphalt for drives and parking. Allowances are included for the mechanical, electrical, holding tank systems and site drainage that will be determined when the A/E design team of record is fully engaged for development of the project documents. The preliminary cost estimate for new construction is based on this schematic plan and the construction materials, systems and finishes as further described in the estimate. (Appendix 2.3).

Estimate (by Division) for New Construction

	Division	Budget (to $1K)
1100	General Requirements	$243,000
2100	Sitework	$232,000
3000	Concrete	$146,000
4000	Masonry	$60,000
5000	Metals	$201,000
6000	Woods & Plastics	$93,000
7000	Therm & Moist Protect	$113,000
8000	Doors & Windows	$101,000
9000	Finishes	$251,000
10000	Specialties	$37,000
15400	Plumbing	$72,000
15600	HVAC	$156,000
16000	Electrical	$129,000
	Sub-Total:	$1,834,000
	Other (insurance, fees, ferry)	included
	Escallation for 2021 construction	included
	Design and Construction Fee	$171,000
	TOTAL:	**$2,005,000**

It is strongly encouraged to include a construction **contingency of 10%**. The added contingency brings the recommended budget for the new construction to **$2.2 million**.

Budget does not reflect property acquisition, extensive utility extensions, site remediation and other work outside the boundaries of the construction described or not specifically mentioned as being included in the estimate.

The schematic design developed for this assessment represents less than 5% of the work required to complete the design, engineering, code review, construction drawings, specifications, bidding and construction administration of this project. It is expected that an Architectural and Engineering team will be retained through an RFP process as the Architect/ Engineer of Record. That team will fully develop the final plans for the approval of Door County. Aspects of the final plans will deviate from what is shown here because of budget, county preferences, new information and other influences.

RENOVATION

The other option of the RFP is to determine if the "Historic Island Dairy Building, situated at 1309 Range Line Road, Town of Washington, Door County, Wisconsin (PIN 0280236342944A2)" and associated site can house the Door County Government Operations. This assessment is to determine ". . . whether or not the site and [renovated existing] structure are suitable . . . [for] . . . ongoing use as a Door County Emergency Services Facility." Evaluation of this option is limited to consideration of the potential of the existing facility to be transformed into the space necessary to support EMS, the size of the site and the site's ability to accommodate the EMS use and the possible addition of a standalone Fire Station use, and this location and its site's ability to provide equal or better overall response times for emergency services. Some information was available about the existing building. The current building owner, who is also the architect of the most recent remodeling of the Historic Island Dairy, has been a valuable resource for the information about the building. Little other information was available on the history of the site, its appurtenances, its soils and other subsurface and property conditions that might impact suitability.

The Historic Island Dairy location is approximately 4.5 acres, or about 1.5 times the size of the existing Fire/EMS site that is approximately 3 acres. Without a drastic site condition negatively impacting construction, it is expected the Historic Island Dairy site can easily function for the EMS use as well as accommodate a potential future Fire Department building. The Historic Island Dairy is approximately a half mile east of the existing site, and on the north side of Town Line Road. If a goal for location of an EMS and future Fire Department building, is to be centrally located on the island, the Historic Island Dairy is closer to the geographic center of the island than is the current Fire Department by approximately half a mile. Casual inspection suggests that the Historic Island Dairy location might provide slightly better overall average response time on the Island. However, if response time is critical to this decision, a separate emergency response study should be considered.

The building plan for renovation of the Historic Island Dairy is organized around 2 premises. The first premise and easier premise is that the existing public lobby, public toilet rooms and the entire second floor that includes a ballroom with storage, kitchen, public toilet and access to the elevated deck, do not need to be altered beyond minor adjustments for wall/door/floor "finish" transitions or considerations of practicality or convenience. For example, the double doors from the public toilet rooms into the current retail space might get reduced to a single door to provide more functional space on the EMS side of the plan. The proposed scope plan meets this consideration well.

DRAFT

The second and more challenging premise is that the apparatus bay can fit beneath the elevated deck of the second floor. As is, this is not possible for several reasons:

- Space is not long enough. The deck is less than 58' long. The emergency vehicles will be 27' and 23' long. The EMS personnel prefer 7' between the bumpers of the vehicles. Added up (27' + 7' + 23' = 57'), that equals the current outside dimensions under the deck. A minimum of 2' is required between the vehicle bumper and the garage door. More space would be preferred.

- Garage Requires a roof and insulation. This garage is to be enclosed and heated during the winter. The current deck does not lend itself to be a weather-tight, insulated exterior envelope. To achieve compliant energy design and resistance to weather, more depth is needed to maintain the floor elevation of the second floor onto the deck and thermal separation of the structure and exterior surfaces from the proposed conditioned interior space.

- Headroom is too short. The clearance from the first-floor ground slab to the bottom of the steel beams is approximately 9'-7". The vehicles themselves, including short, fin antennas are over 9' tall. The minimum height for the overhead door opening is 10'-0", though 12'-0" is the desired height of the rescue bays based on the B.U.G. facility.

The most cost-effective approach will be to dig down while leaving all the existing steel structure as is. Raising the deck, even if access for the second floor is not desired anymore, will be more costly. The biggest issue in raising the deck is that the second exit from the upper floor is off the deck and down at least one of the exterior stairways. Going up a step or two or three before going down the exit stair is not ideal.

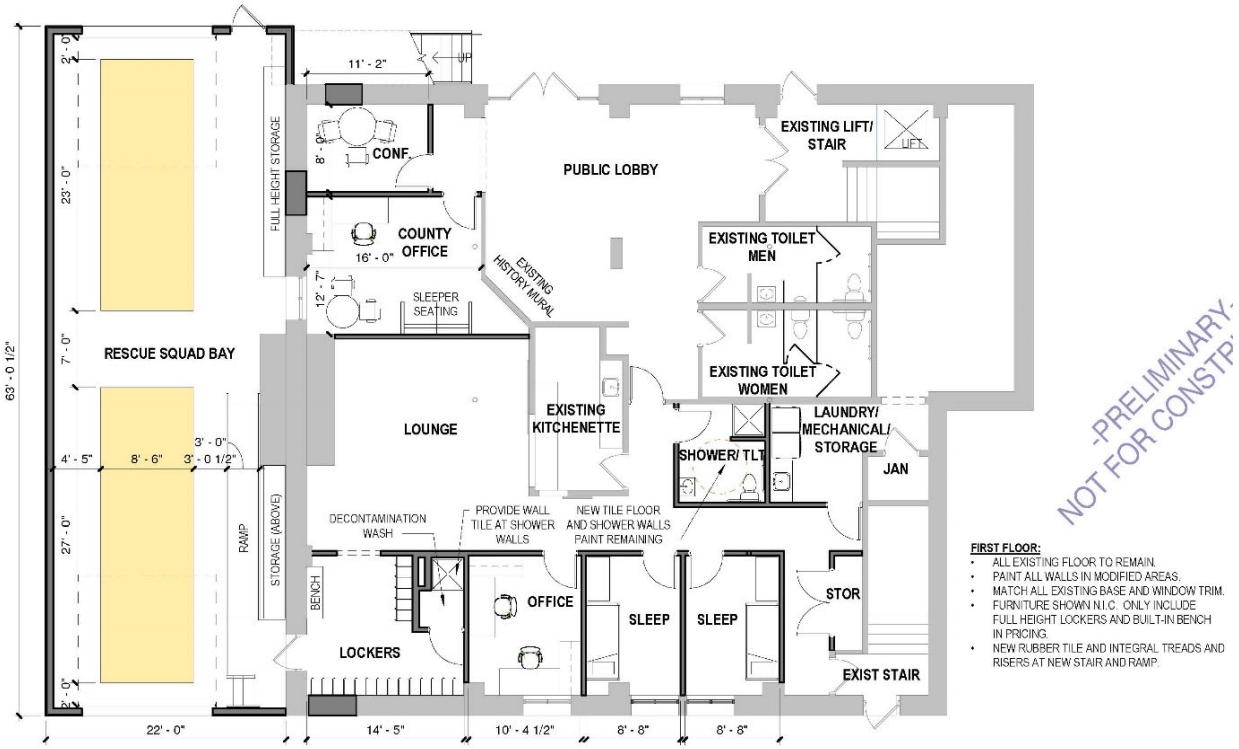
The minimum additional headroom that will be required to gain proper clearance is approximately 20". That can be done. However, by strict interpretation of the IBC by this author and at least one Wisconsin code reviewer, this change in elevation must be accessible from the EMS support side of the building (lounge, locker, sleeping rooms).

(It is the opinion of the author of this assessment and at least one state code reviewer that there might be a path toward a variance to not require the ramp for this situation. It starts with interpreting the comprehensive intention of the entirety of Chapter 11 – Accessibility, including commentary, and applying it broadly and with practical expectations for the given situation. It is reasonable to expect an emergency responder to be able to maneuver stairs from the support side of the EMS facility into the garage to take the rescue apparatus to an emergency setting where the same rescuer will be required to maneuver stairs and more serious obstructions in delivering services. Combine this observation with the commentary for section 1103.2.9 - Equipment Spaces, and there is reason to believe a ramp would not be required. Though the garage is not an equipment space as intended in this section of the code, substituting garage for equipment, the commentary would read as follows:

"Spaces that only contain . . . HVAC, electrical, elevator, communication and similar types of equipment (read 'emergency response apparatus') are considered areas where work could not reasonably be performed by a person utilizing a wheelchair because of the physical requirements of the job activity." The commentary goes on to describe various spaces, many of which could be the place of an emergency.)

For purposes of this assessment, TSG has taken a conservative approach and shows that the garage floor is dropped 21" below the level of the existing main floor. An accessible ramp is included in the garage addition. It is expected that the Architect of Record will be able to get a definitive answer to this question during final project design and documentation and be able to remove the ramp from the plans at that time if it is not wanted in the project by the county.

The renovation works around the Public Lobby as it is and preserves the existing history mural and timeline. The public toilets and the entire second floor are unaffected by the changes needed by EMS. On the first floor, most of the Door County Government Operations functions can fit into the current retail space with some slight modifications. The Conference Room is smaller than programmed, the Sleeping Rooms require bunk beds for two occupants. The storage for the EMS requires more consideration. There appears to be plenty of storage space, but the storage space is not as convenient as it could be.



The extension of the garage allows enough space to house the apparatus equipment and provides a simple solution to the 2nd floor exit stair for the deck and ballroom. The existing exit stairs from the deck can be replacement with a single stair that could double back toward the main entrance. This could create more convenience in the future for access to the deck by the general public. However, this is one of the issues that the Architect of Record will need to address to be sure it best meets the needs of the county and complies with the code.

The site of the renovated Historic Island Dairy as the Door County Government Operations facility lends itself to a standalone Fire Department building. The current property Owner has provided a conceptual sketch of a similar arrangement. (Appendix 1.2). Additional planning information showing a site layout and concept elevations are included. (Appendix 3.2)

A cost per square foot estimate was prepared based on a 1,600 square foot addition and approximately 2,000 square feet of renovation. About 5,100 square feet of space is not impacted by the addition and renovation and stays as is. The total finished building area would be 8,600 square feet. The estimate is organized into the typical "divisions" of the work for building construction. The addition is planned as a continuation of a frost wall, slab-on-grade with steel frame structure, stud walls and metal roof deck. The exterior finish is a combination of stone veneer, exterior door and sectional overhead door and membrane roofing covered with concrete paving tile. The interior is Gypsum Board drywall systems; mostly painted except for some wet areas to receive wall tiling. Floors are carpet tile, ceramic tile (much of the existing to remain in place), luxury vinyl tile or sealed concrete. Ceilings are typically gypsum board or acoustical ceiling tile. Site paving includes base and asphalt for new drives. Allowances are included for the mechanical, electrical, holding tank systems and site drainage that will be determined when the A/E design team of record is fully engaged for the project documents. The preliminary cost estimate for addition and renovation is based on this schematic plan and construction materials, systems and finishes as further described in the estimate (Appendix 3.3).

Estimate Summary (by Division) for Renovation

	Division	Budget (to $1K)
1100	General Requirements	$140,000
2050	Demolition	$65,000
2100	Sitework	$65,000
3000	Concrete	$44,000
4000	Masonry	$93,000
5000	Metals	$49,000
6000	Woods & Plastics	$19,000
7000	Therm & Moist Protect	$99,000
8000	Doors & Windows	$52,000
9000	Finishes	$93,000
10000	Specialties	$26,000
15400	Plumbing	$34,000
15600	HVAC	$29,000
16000	Electrical	$56,000
	Sub-Total:	$864,000
	Other (insurance, fees, ferry)	included
	Escalation for 2021 construction	included
	Design and Construction Fee	$92,000
	TOTAL:	**$955,000**

It is strongly encouraged to include a renovation **contingency of 20%**. The added contingency brings the recommended budget for the renovation to **$1.15 million**.

The budget does not reflect property / building acquisition, extensive utility extensions, site remediation and other work outside the boundaries of the construction described or not specifically mentioned as being included in the estimate.

The schematic design developed for this assessment represents less than 5% of the work required to complete the design, engineering, code review, construction drawings, specifications, bidding and construction administration of this project. It is expected that an Architectural and Engineering team will be retained through an RFP process as the Architect/ Engineer of Record. That Team will fully develop the final plans for the approval of Door County. Aspects of the final plans will deviate from what is shown here because of budget, county preferences, new information, existing building discoveries and other influences.

DRAFT

RECOMMENDATION

The Historic Island Dairy provides a unique opportunity to preserve a piece of Island history while simultaneously providing an up to date facility for Door County Government Operations and EMS. This assessment does not include any consideration of land and building acquisition costs. (Those costs are outside the scope of this assessment and will need to be factored into a final decision by the County when they decide which option can be included for the County budget.)

The conclusion of this assessment is based only on the estimated construction costs of each option. The renovation option provides several advantages:

- The existing building allows for a conversion to EMS while maintaining the small history display and the second-floor ballroom and elevated deck. The remodeling of the first floor will meet the needs of the EMS while also providing Door County Government Operations a central, permanent location for supporting other county services.

- The location provides similar, if not slightly improved average emergency response times because of the slightly more central location of the Historic Island Dairy building.

- The property is large enough to accommodate future growth with a Fire Department consolidation to this same location.

- And the cost of the work, not including acquisition costs, delivers a more significant facility at a significantly lower cost per square foot.

The renovation of the Historic Island Dairy is the stronger option and therefore, the recommendation of this assessment.

Next Steps

Once the County determines the appropriate option for inclusion in the next County budget, the County should establish the schedule for full design services required for preparation of full construction/bidding documents. Simultaneously, the county should also reaffirm the optimum schedule for construction.

With these items decided, the County can formulate an RFP for design services or other method of project delivery if appropriate, to be ready to send as soon as the budget process allows.

DRAFT

APPENDICES

Appendix 1 - Preliminary Information
- 1.1 RFP – Design Professional (Architectural / Engineering) Services; Emergency Services Facility – Washington Island
- 1.2 Owner Concept for Historic Island Dairy
- 1.3 The Samuels Group (TSG) Scope Plan and Conceptual Site Layout for RFP
- 1.4 Select sheets from the Brussels – Union – Gardner (B.U.G.) plans
  - A1.0 Floor Plan
  - A2.0 Elevations
  - A3.0 Wall Sections
  - H100 HVAC Plan
  - P100 Plumbing Underground Plan
  - P101 Plumbing Above Ground Plan
  - E2.0 Electrical Lighting Plan
  - E3.0 Electrical Power Plan

Appendix 2 - Option of New Construction
- 2.1 New Construction Program Summary
- 2.2 New Construction Scope Plan, concept elevations and site
  - A1 Floor Plan
  - A2 Roof Plan
  - A3 Elevations
  - A4 Site Plan
- 2.3 New Construction Cost per Square Foot Estimate

Appendix 3 - Option for Renovation
- 3.1 Renovation Program Summary
- 3.2 Renovation Scope Plan, concept elevations and site
  - A1 First Floor
  - A2 Second Floor
  - B Site Plan
  - C Main Elevation
- 3.3 Renovation Cost per Square Foot Estimate

Appendix 4 - About The Samuels Group ??

DRAFT

FLOOR PLAN
1/8" = 1'-0"

Keller
PLANNERS | ARCHITECTS | BUILDERS

FOX CITIES
N216 State Road 55
P.O. Box 620
Kaukauna, WI 54130
PHONE (920) 766-5795 / 1-800-236-2534
FAX (920) 766-5004

MADISON
6516 Monona Drive
#210
Madison, WI 53716
PHONE (608) 445-2245

MILWAUKEE
W177 N9656 Rivercrest Dr.
Suite 104
Germantown, WI 53022
PHONE (262) 250-9710 1-800-236-2534
FAX (262) 250-9740

WAUSAU
3600 Stewart Avenue
Suite B
Wausau, WI 54401
PHONE (715) 849-3141
FAX (715) 849-3181

www.kellerbuilds.com

PROPOSED BUILDING FOR:

STATION #1

BRUSSELS, WISCONSIN

"COPYRIGHT NOTICE"
The design, drawing and detail is the copyrighted property of KELLER, INC. No part hereof shall be copied, duplicated, distributed, disclosed or made available to anyone without the expressed written consent of KELLER, INC.

REVISIONS

5	9.15.2014	AWS
6	6.4.2014	AWS
7	6.27.2014	TJV
8	7.27.2016	ACM
9	8.15.2016	ACM

PROJECT MANAGER: K. CLAFLIN

DESIGNER: S. KLESSIG

DRAWN BY: TDP

EXPEDITOR: -------

SUPERVISOR: -------

PRELIMINARY NO: P12206

CONTRACT NO: -------

DATE: 12.05.2012

SHEET: A1.0

Contractors.
Innovators.
Over Achievers.

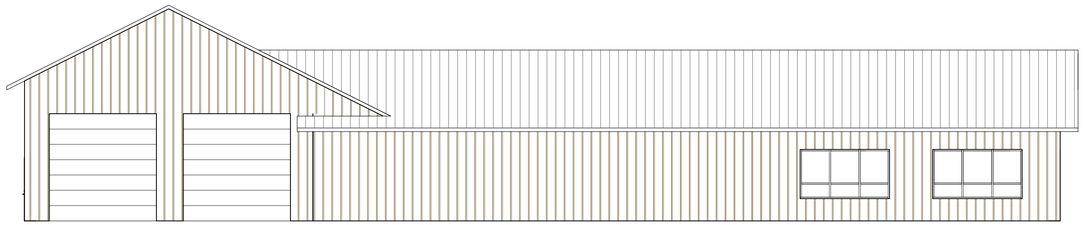
SCOPE PROGRAMMING WORKSHEET

Client: Door County, WI
Project: Washington Island EMS Facility
Project #: 7229D
Date: April 10, 2020 (revision 1)
Location: New Site

BF = BUILDING FACTOR (sq. ft. of interior & exterior walls, corridors, circulation, etc.) TYPICALLY 1.34, BUG (at least at EMS) is 1.19. Suggest using 1.25.

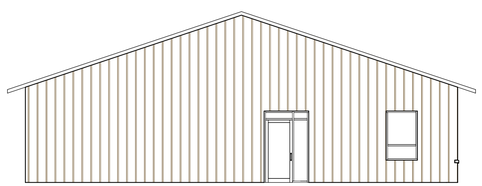
Program Spaces	WORKSPACE															ADJACENCIES	NOTES
	TYPE	W	x	L	=	SF	x	#	=	NET SF	x	BF	NEW GROSS SF	RENOVATED GROSS SF	TOTAL SF		
Vehicle Garage	EMS	32	x	40	=	1280	x	1	=	1280	x	1.25	= 1600.00	+	= 1600.00	Storage, Lockers?	27' and 23' vehicles (net is 10% smaller than BUG); decon?; oxygen?; 7' between
Storage (Parts, Equipment, Supplies)	EMS	12	x	24	=	288	x	1	=	288	x	1.25	= 360.00	+	= 360.00	Can be dispersed?	
Locker Area	EMS	10	x	12	=	120	x	1	=	120	x	1.25	= 150.00	+	= 150.00		20 Lockers (12" wide?) for personal items (no gear or changing) - Not in BUG
Laundry	EMS	8	x	8	=	64	x	1	=	64	x	1.25	= 80.00	+	= 80.00	With Lockers?	(Not in EMS at BUG; associated with Fire at BUG)
Sleeping Room	EMS	12	x	14	=	168	x	2	=	336	x	1.25	= 420.00	+	= 420.00	Bathroom; Away from "action"	(BUG has 3 rooms)
Lounge	EMS	12	x	16	=	192	x	1	=	192	x	1.25	= 240.00	+	= 240.00		
Office	EMS	10	x	12	=	120	x	1	=	120	x	1.25	= 150.00	+	= 150.00		2 built in work stations
Office	County	12	x	16	=	192	x	1	=	192	x	1.25	= 240.00	+	= 240.00	Public Lobby	2 @ BUG includes Sheriff? (May be one larger space with small table this location?)
Bathroom - (w/shower)	EMS	8	x	10	=	80	x	1	=	80	x	1.25	= 100.00	+	= 100.00	Available to Public	(Fixture count for EMS/Trng currently projects to 3 total, combined men and women)
Bathroom - (w/shower & urinal)	EMS	10	x	14	=	140	x	1	=	140	x	1.25	= 175.00	+	= 175.00	Available to Public	
Kitchenette	Common	10	x	12	=	120	x	1	=	120	x	1.25	= 150.00	+	= 150.00		
Mechanical		10	x	15		150	x	1	=	150	x	1.25	= 187.50	+	= 187.50		Doesn't service BUG?; but may be needed? (vs on roof, in roof structure space; mezz?)
Public Lobby	Common	8	x	20	=	160	x	1	=	160	x	1.25	= 200.00	+	= 200.00		With Vestibule (Associated with Fire Station at BUG)
Training; meeting space	Common	24	x	28	=	672	x	1	=	672	x	1.25	= 840.00	+	= 840.00	Public Lobby	(Based on 30 occupants and presumed BUG space allocation of 22 SF/Occ)
Table and Chair Storage	Common	10	x	10	=	100	x	1	=	100	x	1.25	= 125.00	+	= 125.00	Training, meeting space	(Based on Training Room size as established in BUG; +/- 15% of Training)
Conference Room	Common	9	x	12	=	108	x	1	=	108	x	1.25	= 135.00	+	= 135.00	Public Lobby	(Small conference in conjunction with County Office)
KEY:																	
Basic & Sized to EMS @ BUG (u.n.o.)																	
Not at BUG EMS; but discussed for WI																	
Part of BUG, associated with Fire)																	
			x		=	0	x		=	0	x		= 0.00	+ 0.00	= 0.00		
													= **ADDITION**	+ **RENOVATED**	= **TOTAL SF**		
										TOTAL			**5153**	**0**	**5153**		
													DIFFERENCE	AVAILABLE	PROGRAM		
													5200		5200		

one inch = fifty feet 0 10 25 50 100
one inch = twenty feet 0 5 10 15 20 30 40
one inch = ten feet 0 5 10 15 20
one and one half inch = one foot 0 3" 6" 9" 1
one inch = one foot 0 1 2
three quarters inch = one foot 0 1 2
one half inch = one foot 0 1 2
three eighths inch = one foot 0 1 2 3 4
one quarter inch = one foot 0 1 2 3 4
one eighth inch = one foot 0 1 2 4 8



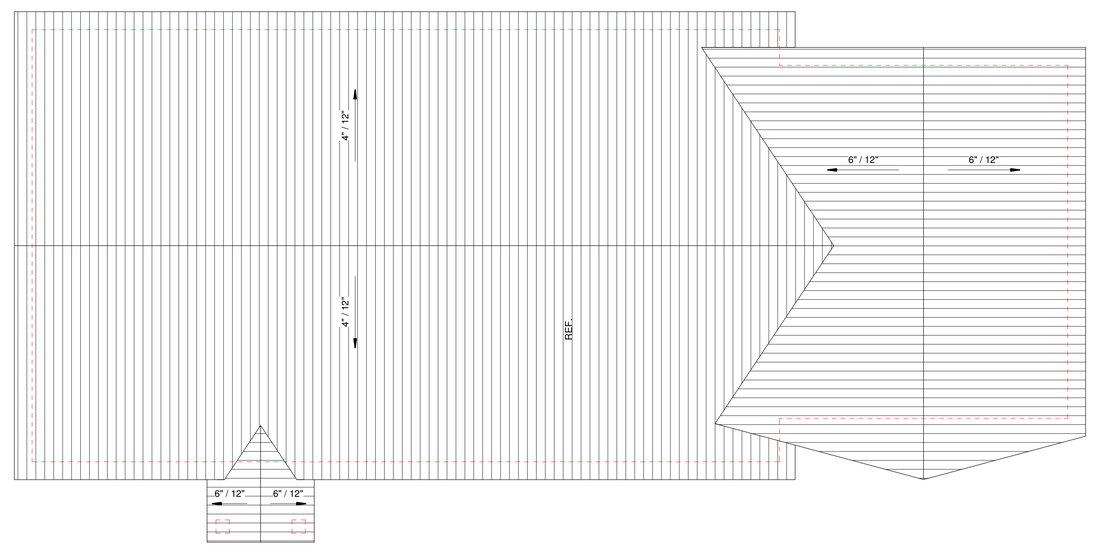
4 A1 **NORTH ELEVATION**
1/8" = 1'-0"

2 A1 **SOUTH ELEVATION**
1/8" = 1'-0"



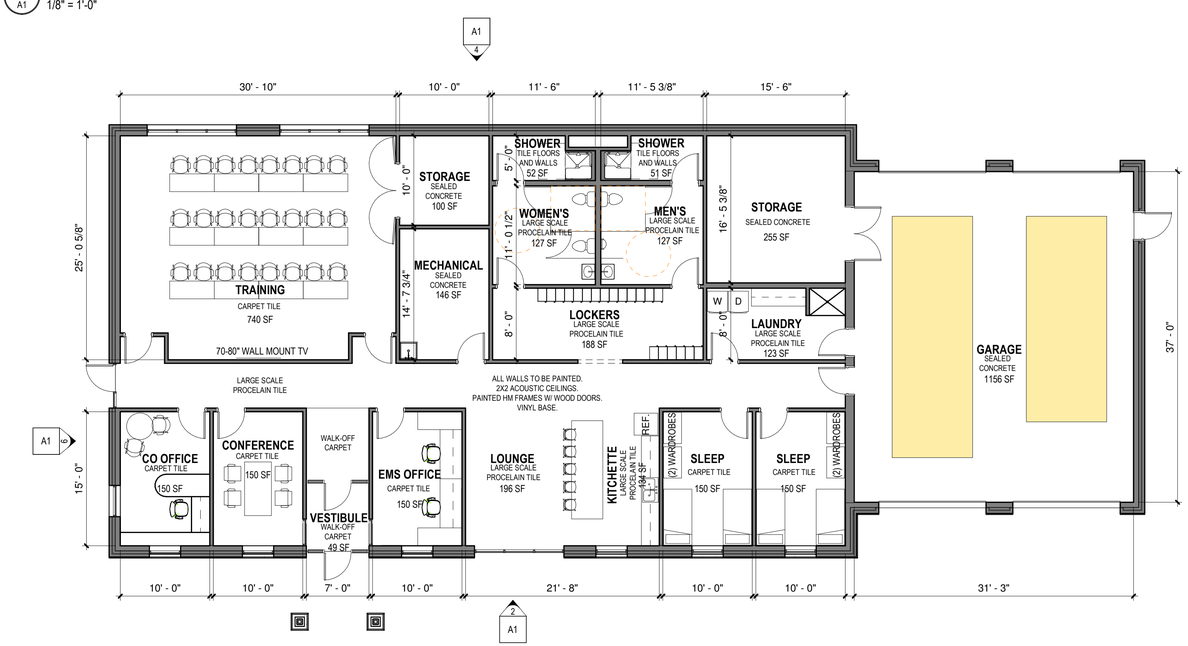
6 A1 **WEST ELEVATION**
1/8" = 1'-0"

5 A1 **EAST ELEVATION**
1/8" = 1'-0"



7 A1 **ROOF PLAN**
1/8" = 1'-0"

3 A1 **SITE PLAN**
1" = 60'-0"



1 A1 **LEVEL 1**
1/8" = 1'-0"

the Samuels Group inc.
www.samuelsgroup.net
CORPORATE OFFICE
311 Financial Way, Suite 300
Wausau, WI 54401
phone 715.842.2222
fax 715.848.8088
IOWA OFFICE
2929 Westown Parkway
Suite 200
West Des Moines, IA 50266
phone 515.288.0467
fax 515.288.0471

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND RESPONSIBLE CHARGE. I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE TO WHICH THE AFFIXED STAMP REFERS.

PRINTED OR TYPED NAME

SIGNATURE DATE

ISSUED FOR:	DATE

WASHINGTON ISLAND EMS BUILDING - NEW

SCHEMATIC

DATE	2020.04.07
PROJECT NUMBER	7229D
DRAWN BY	BJF
CHECKED BY	
TIMESTAMP	4/7/2020 10:17:08 AM

© Copyright 2020

A1

Project name	WASHINGTON ISLAND EMS New Building For EMS SD Estimate #1
Labor rate table	SAMUELSGROUP2019A
Job size	5276 sqft
Report format	Sorted by 'Group phase/Phase' 'Detail' summary Allocate addons

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
1100.00		**GENERAL REQUIREMENTS**						
	1100.01	**Construction Management**						
		On Site Supervision Staff	***0.00 week***	***0***	***0***	***-***	***0***	***0***
	1101.00	**Superintendent**						
		Superintendent	24.00 week	55,087	0	0	-	55,087
		Superintendent		**55,087**				**55,087**
	1141.00	**Project Manager**						
		Project Manager	24.00 week	18,996	0	0	-	18,996
		Project Manager		**18,996**				**18,996**
	1144.00	**Field Secretary**						
		Secretary - 1/4 Time	24.00 week	7,618	-	-	-	7,618
		Field Secretary		**7,618**				**7,618**
	1170.00	**Safety Engineer**						
		Safety Engineer - 1/3 Time	12.00 week	9,998	-	-	-	9,998
		Safety Engineer		**9,998**				**9,998**
	1410.00	**Testing/Quality Control**						
		Testing Sub	1.00 ls			5,693	-	5,693
		Testing/Quality Control				**5,693**		**5,693**
	1511.00	**Temp - Utilities**						
		Temp Electricity	6.00 mnth	-	8,594	-	-	8,594
		Temp Heat	***0.00 mnth***			***-***		
		Hook-up Phone/Power	***0.00 each***	***-***	***0***	***-***	***-***	***0***
		Temp Water	6.00 mnth	-	895	-	-	895
		Temp Toilet	6.00 mnth	-	4,584	-	-	4,584
		Temp Heat - Field Office	***0.00 mnth***	***-***		***-***	***-***	
		Telephone/Fax - Monthly Charges	***0.00 mnth***	***-***	***0***	***-***	***-***	***0***
		Cell Phone	6.00 mnth	-	609	-	-	609
		Temp - Utilities			**14,682**			**14,682**
	1521.00	**Temp - Facilities**						
		Office Trailer 12' x 50'	6.00 mnth	-	-	-	5,124	5,124
		Temp - Facilities					**5,124**	**5,124**
	1590.10	**Consumables**						
		Consumables	1.00 ls		2,984		-	2,984
		Consumables			**2,984**			**2,984**
	1601.00	**Tools & Equipment**						
		Construction Equipment - Forklift	6.00 mnth	-	1,790	-	21,862	23,653
		Tools & Equipment			**1,790**		**21,862**	**23,653**
	1603.00	**Jobsite Vehicles**						
		Pickup Truck	6.00 mnth	-	-	-	5,466	5,466
		Gas and Oil	6.00 mnth	-	4,297	-	-	4,297

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
		Jobsite Vehicles			**4,297**		**5,466**	**9,763**
	1705.00	**Clean Up - Current**						
		Current Clean Up	24.00 wk	11,879			-	11,879
		Clean Up - Current		**11,879**				**11,879**
	1707.00	**Clean Up - Haul Dumpster**						
		Dumpsters	6.00 mnth	-	8,594	-	-	8,594
		Clean Up - Haul Dumpster			**8,594**			**8,594**
	1711.00	**Clean Up - Final**						
		Final Cleanup - Clng Service	5,276.53 sqft	-	-	2,704	-	2,704
		Clean Up - Final				**2,704**		**2,704**
	1744.00	**Subsistance**						
		Subsistance (Field) - Hotel	24.00 week	-	40,107	-	-	40,107
		Subsistance (Field) - Food	24.00 week	-	22,202	-	-	22,202
		Subsistance			**62,309**			**62,309**
	1750.00	**Building Permits**						
		Allowance Building Permit	1.00 ls		3,581		-	3,581
		Building Permits			**3,581**			**3,581**
		GENERAL REQUIREMENTS		**103,577**	**98,238**	**8,397**	**32,452**	**242,664**
2100.00		**SITEWORK**						
	2100.01	**Sitework**						
		Building Layout	1.00 ls	1,668	179	-	569	2,416
		Site/Building Layout	1.00 ls	5,004	179	-	569	5,752
		Allowance Clear & Grub	1.00 ls	-	-	8,540	-	8,540
		Sitework		**6,672**	**358**	**8,540**	**1,139**	**16,708**
	2140.00	**Erosion Control**						
		Erosion Control (Allowance) Silt Fence	1,007.22 lf	-	-	5,734	-	5,734
		Erosion Matt, Class 1, Type B	100.00 sqyd	-	-	1,139	-	1,139
		Erosion Control				**6,873**		**6,873**
	2201.00	**Excav - Remove Topsoil**						
		Topsoil Removal (Allowance)	1,012.24 cuyd	-	-	5,763	-	5,763
		Salvage Topsoil	300.00 cuyd	-	-	3,074	-	3,074
		Excav - Remove Topsoil				**8,837**		**8,837**
	2210.10	**Excav - Sitework Sub etc**						
		Sand Fill Under SOG - 12"	195.14 cuyd	-	-	7,777	-	7,777
		Excavate/Backfill Building Foundations	324.12 lf	-	-	14,762	-	14,762
		Mobilization/Demob On site	1.00 ls	-	-	2,847	-	2,847
		Excavate Building Foundations - Interior	***0.00 cuyd***	**-**	**-**	***0***	**-**	***0***
		Backfill Interior Footings	***0.00 cuyd***	**-**	**-**	***0***	**-**	***0***
		Excav - Sitework Sub etc				**25,386**		**25,386**

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	2220.45	**Excav - Fine Grade**						
		Fine Grade Slab on Grade	5,022.17 sqft	1,989	-	-	-	1,989
		Fine Grade Slab on Grade	1,237.64 sqft	490	-	-	-	490
		Fine Grade Footings - SF	989.13 sqft	1,088	-	-	-	1,088
		Fine Grade Footings - SF	548.00 sqft	603	-	-	-	603
		Excav - Fine Grade		**4,169**				**4,169**
	2511.00	**Asphalt Paving**						
		Base Course New Drives/Parking - 8"	367.95 cuyd	122	0	14,245	-	14,367
		Light Duty Asphalt Paving	1,647.55 sqyd	-	-	56,280	-	56,280
		Street Repair (Utility Connection)	1.00 ls	-	-	2,847	-	2,847
		Asphalt Paving		**122**		**73,371**		**73,493**
	2580.01	**Paving Marking**						
		Asphalt Striping	1.00 ls			2,277		2,277
		Paving Marking				**2,277**		**2,277**
	2600.01	**Site Utilities**						
		6" DIP Potable Water Line + 7.00 Stone	***0.00 lf***	***-***	***-***	***0***	***-***	***0***
		Private Utilities (Relocate & Extend) Allowance	***0.00 lsum***	***-***	***-***	***0***	***-***	***0***
		Hookup Fees By Utility Companies	***0.00 ls***	***-***	***-***	***0***	***-***	***0***
		Allowance - New Septic Field/Well/Garage Waste Disposal	1.00 ls	-	-	56,933	-	56,933
		Site Utilities				**56,933**		**56,933**
	2600.02	**Sanitary Sewer**						
		Connect To Existing Sanitary	***0.00 each***	***-***	***-***	***0***	***-***	***0***
		Install Sanitary Sewer Manhole	***0.00 each***	***-***	***-***	***0***	***-***	***0***
		Install Sanitary Cleanout	***0.00 each***	***-***	***-***	***0***	***-***	***0***
		4" PVC Sanitary Sewer. SDR 35 + 7.00 Stone	***0.00 lnft***	***-***	***-***	***0***	***-***	***0***
	2600.03	**Waterline**						
		Connect to Watermain	***0.00 each***	***-***	***-***	***0***	***-***	***0***
		Back Check Valve & Structure	***0.00 each***	***-***	***-***	***0***	***-***	***0***
		6" Gate Valve & Box	***0.00 each***	***-***	***-***	***0***	***-***	***0***
	2721.00	**Drainage Site Catch Basin**						
		Catch Basin Frame & Cover (Garage - Connect To Sanitary)	1.00 each			1,708	-	1,708
		Drainage Site Catch Basin				**1,708**		**1,708**
	2846.00	**Signage - Traffic**						
		Sign Stop 30" x 30" (Allowance)	3.00 each	313	340	-		653
		Sign Informational 12"x18" (Allowance)	5.00 each	521	298	-		820
		Signage - Traffic		**834**	**639**			**1,473**
	2900.01	**Landscape-General**						
		Landscaping Plantings Tree & Shrub/Seed	1.00 ls	-	-	34,160	-	34,160
		Landscape-General				**34,160**		**34,160**
		SITEWORK		**11,797**	**997**	**218,085**	**1,139**	**232,017**

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
3000.00		**CONCRETE**						
	3100.00	**Concrete Equipment**						
		Compactor-Med Plate, 24" Gas	0.25 mnth	-	27	-	174	201
		Gas Power Buggy - 10 CF	0.25 mnth	-	28	-	175	202
		Gas Power Buggy - 10 CF	0.25 mnth	-	28	-	175	202
		Gas Porto-Conc Saw-Hand Held	0.25 mnth	-	17	-	101	118
		Master 46" Gyro Trowel Machine	0.25 mnth	-	21	-	139	160
		Master 46" Gyro Trowel Machine	0.25 mnth	-	21	-	139	160
		Conc Vibrator - Elec 2" Head	0.25 mnth	-	-	-	91	91
		Allen 7.5' Motorized Screed	0.25 mnth	-	27	-	171	198
		Allen 7.5' Screed Insert	0.25 mnth	-	-	-	90	90
		Concrete Equipment			**168**		**1,254**	**1,422**
	3111.00	**Forms - Footings**						
		Form & Strip Cont. Ftg. SF	740.92 sqft	4,584	663	-	-	5,247
		Form & Strip Column Footings	560.00 sqft	3,960	501	-	-	4,461
		Forms - Footings		**8,543**	**1,165**			**9,708**
	3114.00	**Forms - Walls**						
		Wall Forms 0' to 8'	2,957.60 sqft	18,298	2,648	-	-	20,946
		Construction Joint in Walls	18.67 sqft	308	17	-	-	325
		Forms - Walls		**18,606**	**2,664**			**21,270**
	3126.00	**Forms - Piers**						
		Pier Forms	480.00 sqft	3,394	487	-	-	3,881
		Forms - Piers		**3,394**	**487**			**3,881**
	3127.00	**Forms - BHead Slab On Grd**						
		Slab Edge Form (4 - 6")	96.66 lnft	957	69	-	-	1,026
		Slab Edge Form (6 - 8")	23.00 lnft	285	21	-	-	305
		Slab Edge Form (10 - 12")	334.16 lnft	2,756	399	-	-	3,155
		Slab on Grade Construction Jnt	45.60 lnft	564	41	-	-	605
		Equip. Pad Edge Form 4"	69.29 lnft	572	54	-	-	625
		Forms - BHead Slab On Grd		**5,134**	**583**			**5,717**
	3129.00	**Forms - Blockout for Col**						
		Column Blockouts	18.00 each	2,673	107	-	-	2,780
		Forms - Blockout for Col		**2,673**	**107**			**2,780**
	3131.00	**Forms - Pit & Misc**						
		Set Trench Drain - Garage	30.00 lf	1,251	2,328	-	-	3,579
		Forms - Pit & Misc		**1,251**	**2,328**			**3,579**
	3160.01	**Forms - Screeds**						
		Screeds	4,886.03 sqft	1,612	292	-	-	1,904
		Forms - Screeds		**1,612**	**292**			**1,904**
	3161.00	**Forms - Chamfer Strip**						
		Chamfer Strip (3/4")	69.29 lnft	171	17	-	-	188
		Forms - Chamfer Strip		**171**	**17**			**188**

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	3163.10	**Forms - Expand/Cntrol Jts**						
		Sawn Control Joints	445.11 lnft	1,469	159	-	177	1,805
		Sawn Control Joints	251.35 lnft	829	90	-	100	1,020
		1"x5" Asphalt Coated Exp. Jt	86.11 lnft	341	26	-	-	367
		Forms - Expand/Cntrol Jts		**2,639**	**275**		**278**	**3,192**
	3170.00	**Anchor Bolts**						
		Anchor Bolts - Walls @ Garage	80.00 each	990	1,432	-	-	2,422
		Anchor Bolts		**990**	**1,432**			**2,422**
	3206.00	**Rebar - Footings**						
		Footing Rebar	1.81 ton	2,504	2,373	-	-	4,877
		Footing Rebar	0.90 ton	1,247	1,182	-	-	2,429
		Rebar - Footings		**3,751**	**3,555**			**7,306**
	3209.00	**Rebar - Walls**						
		Wall Rebar	2.98 ton	4,720	3,913	-	-	8,633
		Rebar - Walls		**4,720**	**3,913**			**8,633**
	3211.00	**Rebar - Piers**						
		Pier Rebar	0.74 ton	1,170	970	-	-	2,141
		Rebar - Piers		**1,170**	**970**			**2,141**
	3214.10	**Rebar - Slab On Grade**						
		S.O.G. Rebar	1.14 ton	1,348	1,491	-	-	2,839
		Rebar - Slab On Grade		**1,348**	**1,491**			**2,839**
	3226.00	**Rebar - Wiremesh**						
		WWM Sheets - Walks 6x6 6/6	12.38 sqs	337	618	-	-	954
		Rebar - Wiremesh		**337**	**618**			**954**
	3231.00	**Rebar - Wiremesh Lump Sum**						
		WWM Sheets 6x6 6/6	34.24 sqs	847	1,709	-	-	2,556
		Wiremesh 6x6 10/10	0.45 sqs	45	9	-	-	54
		Rebar - Wiremesh Lump Sum		**892**	**1,718**			**2,610**
	3306.00	**Conc - Column Footings**						
		Footing Conc 3000 psi	28.30 cuyd	1,019	4,433	-	-	5,452
		Conc - Column Footings		**1,019**	**4,433**			**5,452**
	3306.02	**Cont. Footing Concrete**						
		Footing Conc 3000 psi	36.63 cuyd	1,319	5,739	-	-	7,058
		Cont. Footing Concrete		**1,319**	**5,739**			**7,058**
	3307.00	**Conc - Walls**						
		Wall Conc 4000 psi	63.90 cuyd	2,530	10,606	-	-	13,136
		Conc - Walls		**2,530**	**10,606**			**13,136**
	3309.00	**Conc - Piers**						
		Pier Conc 4000 psi	7.14 cuyd	471	1,151	-	-	1,623

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
		Conc - Piers		**471**	**1,151**			**1,623**
	3310.01	**Conc - Slabs On Grade**						
		S.O.G. Conc 4000 psi	78.99 cuyd	3,127	13,364	-	-	16,492
		Conc - Slabs On Grade		**3,127**	**13,364**			**16,492**
	3311.00	**Conc - Walks**						
		Walk Conc 4000 psi	29.93 cuyd	1,317	5,305	-	-	6,622
		Conc - Walks		**1,317**	**5,305**			**6,622**
	3311.01	**Conc - Paving**						
		Handicap Ramps	1.00 each	396	42	-	-	438
		Conc - Paving		**396**	**42**			**438**
	3326.10	**Conc - All Types Generic**						
		Equipment Housekeeping Pads	0.51 cuyd	500	81	-	-	581
		Conc - All Types Generic		**500**	**81**			**581**
	3375.00	**Finish - Protect & Cure**						
		CS 309 Curing Compound	3,388.92 sqft	671	263	-	-	934
		CS 309 Curing Compound	480.00 sqft	95	37	-	-	132
		CS 309 Curing Compound	5,022.17 sqft	994	390	-	-	1,384
		CS 309 Curing Compound	1,237.64 sqft	245	96	-	-	341
		Finish - Protect & Cure		**2,005**	**786**			**2,791**
	3380.01	**Finish - General**						
		Trowel Finish	4,886.03 sqft	3,869	-	-	-	3,869
		Trowel Finish	40.93 sqft	81	-	-	-	81
		Broom/Float Finish	136.14 sqft	67	-	-	-	67
		Broom/Float Finish	1,237.64 sqft	613	-	-	-	613
		Finish Top of Footing - SF	989.13 sqft	1,305	-	-	-	1,305
		Finish Top of Footing - SF	548.00 sqft	723	-	-	-	723
		Finish Top of Pier - SF	48.22 sqft	398	-	-	-	398
		Form Finish	1,478.80 sqft	586	-	-	-	586
		Form Finish	1,478.80 sqft	586	-	-	-	586
		Finish Top of Wall (LF)	369.70 lnft	915	-	-	-	915
		Finish - General		**9,143**				**9,143**
	3610.01	**Grout**						
		Grout Column Baseplates: Med	20.00 ea	1,980	358	-	-	2,338
		Grout		**1,980**	**358**			**2,338**
		CONCRETE		**81,038**	**63,648**		**1,532**	**146,218**
4000.00		**MASONRY**						
	4410.01	**Stone Precast Pieces**						
		Precast Cap @ Exterior Transition	277.38 lf	5,970	5,960	-		11,930
		Stone Precast Pieces		**5,970**	**5,960**			**11,930**
	4419.00	**Stone Veneer**						

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	4419.00	**Stone Veneer**						
		Allowance 4" Ashlar Stone Veneer	693.45 sqft	0	0	48,166	-	48,166
		Stone Veneer				48,166		48,166
		MASONRY		5,970	5,960	48,166		60,096
5000.00		**METALS**						
	5100.00	**Structural Steel**						
		Misc. Angles/Lintels/Plates	1.00 ls	1,668	1,790	-	-	3,458
		Purchase Structural Steel Columns	5,263.48 sqft	-	16,492	0	-	16,492
		Purchase Structural/Misc. Steel - Metal Truss Support	5,263.48 sqft	-	36,126	0	-	36,126
		Light Guage Steel Stud Trusses (Material)	6,152.84 sqft	-	58,755	-	-	58,755
		Decorative Steel Roof Trusses Per Sqft Building Area	94.02 sqft	-	3,367	-	-	3,367
		Structural Steel		1,668	116,530			118,198
	5110.01	**Structural - Framing**						
		Erection Structural Steel Columns	5,263.48 sqft	-	0	17,980	-	17,980
		Erection Structural/Misc. Steel - Metal Truss Support	5,263.48 sqft	-	0	20,976	-	20,976
		Erect Light Guage Steel Stud Trusses (Labor)	6,152.84 sqft	6,072	-	36,781	-	42,854
		Erect Decorative Steel Roof Trusses Per Sqft Building Area	94.02 sqft			1,071	-	1,071
		Structural - Framing		6,072		76,808		82,880
		METALS		7,740	116,530	76,808		201,079
6000.00		**WOOD & PLASTICS**						
	6122.00	**Blocking - Roof Nailers**						
		2" x Hockey Stick" Soffit Framing	324.00 lf	2,111	489		-	2,600
		2" x 4" SPF Blocking For Soffit Nailer (Parallel To Fascia) (Building)	324.00 lf	1,126	277	0	-	1,402
		Blocking - Roof Nailers		3,237	766			4,003
	6123.00	**Blocking - All Types**						
		Blocking For Casework (Fire Treated)	86.12 lnft	299	190	-	-	489
		Blocking @ Exterior Doors & Windows (Standard)	353.54 lnft	2,457	603	0	0	3,061
		Misc. Wood Blocking (Fire Treated)	200.00 lnft	1,042	433	-	-	1,476
		Allowance Fascia Blocking - 2"x	1,185.87 lnft	10,302	1,650	0	0	11,952
		Misc. Wood Blocking (Fire Treated) - OH Doors	60.00 lnft	313	130	-	-	443
		Plywood Sheating (Fire Treated Main Roof)	6,698.31 sqft	21,821	11,433	-	-	33,255
		Blocking - All Types		36,234	14,441			50,675
	6260.30	**Paneling**						
		FRP Panels @ Laundry Room	252.88 sqft	2,197	1,087	-	0	3,283
		Paneling		2,197	1,087			3,283
	6400.00	**Millwork General**						
		P-Laminate Window Sill	40.24 lnft	1,049	865	-	-	1,913
		Millwork General		1,049	865			1,913
	6410.02	**Cabinet - Base**						
		Base Cabinet - Kitchenette	12.20 lnft	636	1,893	-	-	2,529
		Base Cabinet w/Die Wall - Lounce	10.86 lnft	566	5,963	-	-	6,529

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	6410.02	**Cabinet - Base**						
		Base Cabinet - Laundry	3.90 lnft	203	605	0	-	808
		Cabinet - Base		**1,405**	**8,461**			**9,867**
	6410.05	**Cabinet - Wall**						
		Wall Cabinets - Kichenette	12.20 lnft	848	1,602	-	-	2,450
		Wall Cabinets - Laundry	3.90 lnft	271	512	-	-	783
		Cabinet - Wall		**1,119**	**2,114**			**3,233**
	6410.10	**Cabinet - Counter Tops**						
		Install P.Lam Countertop - Kitchenette	12.20 lnft	212	947	-	-	1,159
		Install P.Lam Countertop - Lounge	10.86 lnft	189	843	-	-	1,031
		Install P.Lam Countertop - Laundry	3.90 lnft	68	303	-	-	370
		Cabinet - Counter Tops		**468**	**2,092**			**2,560**
	6450.85	**X Trim - Misc Ext. Items**						
		Exterior Trim Around Windows/Change Of Material (Base)	1,309.06 lnft	13,646	3,867	-	-	17,514
		X Trim - Misc Ext. Items		**13,646**	**3,867**			**17,514**
		WOOD & PLASTICS		**59,356**	**33,692**			**93,048**
7000.00		**THERMAL & MOISTURE PROT**						
	7000.01	**Division 7 Subcontractors**						
		Insulation Subcontractor - Ceiling (Batts & Blown)	5,268.94 sqft	-	-	9,899	-	9,899
		Division 7 Subcontractors				**9,899**		**9,899**
	7192.00	**Vapor Barrier**						
		Poly Vapor Barrier 10 mil	50.22 sqs	6,544	989	-	-	7,533
		Vapor Barrier		**6,544**	**989**			**7,533**
	7211.20	**Insulation - Sound Blankt**						
		Sound Blanket 16" x 3- 5/8"	4,313.98 sqft	3,598	1,892	-	-	5,490
		Sound Blanket 16" x 6.00 "	1,930.84 sqft	2,013	920	-	-	2,932
		Sound Blanket 16" x 6.00 "	2,671.44 sqft	2,785	1,272	-	-	4,057
		Sound Blanket 16" x 6.00 "	1,749.31 sqft	1,824	833	-	-	2,657
		Insulation - Sound Blankt		**10,219**	**4,917**			**15,137**
	7212.10	**Insulation - Rigid**						
		FoilFace Rigid Ins 3.0" x 4' (@ New Garage Walls)	1,055.00 sqft	1,100	4,848	-	-	5,948
		Un Faced Rigid Ins 2.0" x 4'	1,478.80 sqft	1,204	1,262	-	-	2,466
		Insulation - Rigid		**2,304**	**6,110**			**8,415**
	7312.00	**Shingles - Fiberglas**						
		Fiberglass Roof Shingles/Ice & Water/Accessories (Building)	66.98 sqs	15,361	11,873	-	-	27,234
		Install Ice & Water Shield	6,698.31 sqft	3,841	3,078	0	-	6,919
		Shingles - Fiberglas		**19,202**	**14,951**			**34,153**
	7420.01	**Siding - Metal**						
		Liner Wall Panel (Garage/Storage Wallsl)	2,431.96 sqft	3,169	3,338	-	-	6,507
		Liner Wall Panel (Shop Ceiling)	1,445.92 sqft	2,512	1,985	-	-	4,497

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
		Siding - Metal		**5,681**	**5,323**			**11,004**
	7420.04	**LP Smartside Wood Siding - Vertical Panels**						
		LP Smartside Vertical Siding (Vertical Groove Panels)	2,527.54 sqft	13,174	5,883	0	-	19,058
		Vertical Batten @ Exterior Siding	***lf***				-	
		LP Smartside Wood Siding - Vertical Panels		**13,174**	**5,883**			**19,058**
	7620.01	**Sheetmetal - Flashing**						
		Wall Flashing	14.49 lf	0	0	77	-	77
		Wall Cap Flashing/Fascia Perimeter Of Roof	395.29 lf	-	-	3,601	-	3,601
		Sheetmetal - Flashing				**3,678**		**3,678**
	7920.01	**Sealant - Compounds**						
		General Caulking (Interior/Exterior)	5,276.53 sqft	-	-	3,905	-	3,905
		Sealant - Compounds				**3,905**		**3,905**
		THERMAL & MOISTURE PROT		**57,125**	**38,174**	**17,482**		**112,781**
8000.00		**DOORS & WINDOWS**						
	8100.00	**Doors Frames & Hardware**						
		Single Door - Complete	14.00 each	9,008	167	19,129	-	28,304
		Double Doors - Complete	3.00 pair	2,970	72	6,149	-	9,190
		Doors Frames & Hardware		**11,978**	**239**	**25,278**		**37,494**
	8350.01	**Doors - Folding**						
		Double Bifold Closet Doors	2.00 pair	891	24	1,549		2,463
		Sectional Overhead Garage Doors 10' x 12'	4.00 each	-	-	16,397	-	16,397
		Doors - Folding		**891**	**24**	**17,945**		**18,860**
	8460.00	**Automatic Entrance Doors**						
		Automatic Door Operators	2.00 each	-	-	6,103	-	6,103
		Automatic Entrance Doors				**6,103**		**6,103**
	8800.00	**Glass & Glazing**						
		Exterior Punched Openings - Low E (4'-4" x 5')	225.50 sqft	-	-	11,554	-	11,554
		Exterior Aluminum Framed Doors - Sgl.	4.00 each	-	-	9,565	-	9,565
		Exterior Aluminum Storefront	181.80 sqft	-	-	11,592	-	11,592
		Interior Aluminum Storefront	102.00 sqft	-	-	5,575	-	5,575
		Glass & Glazing				**38,286**		**38,286**
		DOORS & WINDOWS		**12,868**	**263**	**87,613**		**100,744**
9000.00		**FINISHES**						
	9110.00	**Non-Load Bearing Frmg Sys**						
		Layout & Supervision	114.69 lnft	378	-	-	-	378
		Layout & Supervision	213.34 lnft	704	-	-	-	704
		Layout & Supervision	478.66 lnft	1,579	-	-	-	1,579
		Clean-up / Misc Labor	114.69 lnft	568	-	-	-	568
		Clean-up / Misc Labor	213.34 lnft	1,056	-	-	-	1,056

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	9110.00	**Non-Load Bearing Frmg Sys**						
		Clean-up / Misc Labor	478.66 lnft	2,369	-	-	-	2,369
		Drywall Equipment	114.69 lnft	-	-	-	653	653
		Drywall Equipment	213.34 lnft	-	-	-	1,215	1,215
		Drywall Equipment	478.66 lnft	-	-	-	2,725	2,725
		Ext. Frame Part'n to 12' High	157.66 lnft	4,459	-	-	-	4,459
		Frame Int. Part'n to 12' High	386.57 lnft	7,653	-	-	-	7,653
		Frame Ext. Part'n 12-16' High	48.07 lnft	1,360	-	-	-	1,360
		Ext. Frame Part'n 12-16' High	55.68 lnft	1,575	-	-	-	1,575
		Frame Int. Part'n 12-16' High	60.94 lnft	1,379	-	-	-	1,379
		Frame Ext. Part'n 16-20' High	66.62 lnft	1,884	-	-	-	1,884
		Frame Int. Part'n 16-20' High	31.15 lnft	822	-	-	-	822
		Frame Door Opening	3.00 each	148	-	-	-	148
		Frame Door Opening	3.00 each	148	-	-	-	148
		Frame Door Opening	20.00 each	990	-	-	-	990
		Frame Borrow Lite Opening	4.00 each	198	-	-	-	198
		Frame Borrow Lite Opening	10.00 each	495	-	-	-	495
		Frame Borrow Lite Opening	3.00 each	148	-	-	-	148
		Int Framing 1.5" Channel x 16'	4,790.42 lnft	-	1,944	-	-	1,944
		StdCeil Frm 7/8 FurChan 20g12'	3,592.82 lnft	-	1,458	-	-	1,458
		Int Framing Stud 358x12'20g	316.00 each	-	2,354	-	-	2,354
		Int Framing Stud 358x14'20g	29.00 each	-	252	-	-	252
		Ext. Framing Stud 600x12'20g	151.00 each	-	4,542	-	-	4,542
		Int Framing Stud 600x12'20g	61.00 each	-	568	-	-	568
		Ext. Framing Stud 600x14'20g	51.00 each	-	1,790	-	-	1,790
		Int Framing Stud 600x14'20g	29.00 each	-	315	-	-	315
		Ext Framing Stud 600x16'20g	45.00 each	-	1,805	-	-	1,805
		Ext Framing Stud 600x20'20g	68.00 each	-	3,409	-	-	3,409
		Int Framing Stud 600x20'20g	30.00 each	-	466	-	-	466
		Track: Standard 20 ga 3-5/8"	708.84 lnft	-	432	-	-	432
		Ext. Track: Standard 20 ga 6.00 "	229.38 lnft	-	192	-	-	192
		Ext. Track: Standard 20 ga 6.00 "	426.68 lnft	-	357	-	-	357
		Track: Standard 20 ga 6.00 "	248.48 lnft	-	190	-	-	190
		Non-Load Bearing Frmg Sys		**27,914**	**20,072**		**4,593**	**52,579**
	9250.00	**Gypsum Board**						
		GWB 5/8x8 Fire Code	62.00 sht	4,091	927	-	-	5,018
		GWB 5/8x8 Fire Code	85.00 sht	5,609	1,271	-	-	6,880
		GWB 5/8x10 Fire Code	154.00 sht	10,163	2,878	-	-	13,041
		GWB 5/8x10 Fire Code	154.00 sht	10,163	2,878	-	-	13,041
		Ext Gyp Sheathing 5/8 x 4 x 8	62.00 sht	6,137	1,415	-	-	7,552
		Ext Gyp Sheathing 5/8 x 4 x 8	85.00 sht	8,414	1,940	-	-	10,354
		Gypsum Board		**44,577**	**11,308**			**55,885**
	9250.02	**Gypsum Board - Ceilings**						
		GWB 5/8x10 Fire Code	120.00 sht	7,919	2,243	-	-	10,162
		Gypsum Board - Ceilings		**7,919**	**2,243**			**10,162**
	9254.00	**GWB - Finish Mud/Tape**						
		Tape & Finish Gypsum Board	1,930.84 sqft	2,940	127	-	-	3,067
		Tape & Finish Gypsum Board	2,671.44 sqft	4,068	175	-	-	4,244
		Tape & Finish Gypsum Board	12,126.58 sqft	18,467	796	-	-	19,264
		Tape & Finish Gypsum Board	4,790.42 sqft	8,622	315	-	-	8,936
		Corner Bead 1-1/8 x 1-1/8	102.86 lnft	255	34	-	-	288
		Corner Bead 1-1/8 x 1-1/8	90.00 lnft	223	29	-	-	252

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	9254.00	**GWB - Finish Mud/Tape**						
		Corner Bead 1-1/8 x 1-1/8	108.00 lnft	267	35	-	-	302
		GWB - Finish Mud/Tape		**34,842**	**1,511**			**36,353**
	9270.00	**Gyp Drywall Accessories**						
		Drywall Acoustical Sealant	458.76 lnft	454	58	-	-	512
		Drywall Acoustical Sealant	853.36 lnft	845	107	-	-	952
		Drywall Acoustical Sealant	1,792.76 lnft	1,775	225	-	-	1,999
		Pins & Loads 3/4"Conc.	229.38 each	-	30	-	-	30
		Pins & Loads 3/4"Conc.	426.68 each	-	56	-	-	56
		Pins & Loads 3/4"Conc.	957.32 each	-	126	-	-	126
		1 1/4" Sharp Pt Screws	3,861.69 each	-	138	-	-	138
		1 1/4" Sharp Pt Screws	5,342.88 each	-	191	-	-	191
		1 1/4" Sharp Pt Screws	12,126.58 each	-	434	-	-	434
		1 1/4" Sharp Pt Screws	4,790.42 each	-	172	-	-	172
		Gyp Drywall Accessories		**3,073**	**1,536**			**4,610**
	9310.01	**Tiling**						
		Floor Tile Subcontractor (Toilets/Lockers/Laundry)	632.08 sqft	0	0	9,356	-	9,356
		Tile Base Subcontractor	237.73 lnft	0	0	3,790	-	3,790
		Wall Tile Full Height	1,083.60 sqft	0	0	17,274	-	17,274
		Tiling				**30,420**		**30,420**
	9515.00	**Ceilings**						
		Allowance 2'x2' ACT	2,518.14 sqft	0	0	12,186	-	12,186
		Vinyl Covered ACT - Toilet/Shower	632.08 sqft	0	0	3,419	-	3,419
		Ceilings				**15,605**		**15,605**
	9660.00	**Flooring - Resilient**						
		Vinyl Base	646.71 lf	-	-	2,062	-	2,062
		LVT Flooring - Lounge/Training/Conference	1,931.75 sqft	-	-	18,697	-	18,697
		Flooring - Resilient				**20,758**		**20,758**
	9670.01	**Flooring Fluid Applied**						
		Sealed Concrete - Garage/Mechanical	1,589.03 sqft	0	0	2,985	0	2,985
		Flooring Fluid Applied				**2,985**		**2,985**
	9682.00	**Flooring - Carpeting**						
		Carpet Tile - Offices/Sleep	602.34 sqft	-	-	4,115	-	4,115
		Walk Off Carpet Tile - Entry	81.72 sqft	-	-	1,256	-	1,256
		Flooring - Carpeting				**5,371**		**5,371**
	9920.01	**Painting - Interior**						
		Paint Walls (Standard)	6,143.75 sqft	-	-	5,247	-	5,247
		Paint Walls (Garage/Laundry/Lockers) - Epoxy	4,582.05 sqft	-	-	7,304	-	7,304
		Paint Hollow Metal Door Frame	17.00 each	-	-	1,258	-	1,258
		Paint Drywall Ceilings - Garage Only	1,432.40 sqft	-	-	2,691	-	2,691
		Painting - Interior				**16,500**		**16,500**
		FINISHES		**118,327**	**36,669**	**91,640**	**4,593**	**251,229**

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
10000.00		**SPECIALTIES**						
	10160.01	**Toilet Partition Metal**						
		Toilet Partitions	3.00 each	1,188	3,115	-	-	4,303
		Urinal Screen	1.00 each	148	334		-	483
		Toilet Partition Metal		**1,336**	**3,450**			**4,786**
	10260.00	**Wall & Corner Guards**						
		Plastic Corner Guard - 3'	11.00 each	544	460	-	-	1,004
		Allowance Wall Protection (IPC .04 Thickness)	314.08 sqft	777	1,350		-	2,127
		Wall & Corner Guards		**1,322**	**1,809**			**3,131**
	10430.01	**Signs**						
		Interior Signage Allowance	1.00 ls	792	895	-	-	1,687
		12" Cast Aluminum Building Letters	19.00 each	940	3,402	-	-	4,342
		Signs		**1,732**	**4,297**			**6,029**
	10507.00	**Lockers - Box**						
		12"W x 18"D x 6'H Lockers - Locker Rooms	20.00 each	7,919		6,376		14,295
		Lockers - Box		**7,919**		**6,376**		**14,295**
	10523.00	**Fire Extinguishr Portable**						
		Fire Extinguishers	1.00 each	99	167	-	-	266
		Fire Extinguishr Portable		**99**	**167**			**266**
	10524.00	**Fire Extinguisher Cabinet**						
		Fire Extinguisher and Cabinet	2.00 each	247	501	-	-	749
		Fire Extinguisher Cabinet		**247**	**501**			**749**
	10800.01	**Misc Toilet/Bath Equip**						
		Soap Dispenser - Wall Mounted	2.00 each	133	84	-	-	216
		Mirror - 18" x 26"	2.00 each	198	537	-	-	735
		Grab Bars - 18"	2.00 each	148	96	-	-	244
		Grab Bars - 36"	2.00 each	148	96	-	-	244
		Grab Bars - 42"	2.00 each	148	95	-	-	244
		Paper Towel Dispensor	2.00 each	99	346	-	0	445
		Coat Hook	7.00 each	346	209	-	0	555
		Sanitary Napkin Disposal	2.00 each	99	203	-	0	302
		TP Dispensor	3.00 each	148	233	-	0	381
		Mop Holder	1.00 each	99	60	-	-	159
		Shower Curtain @ Rod	2.00 each	198	203	-	-	401
		Shower Seat	2.00 each	594	597	-	-	1,191
		Std./Fold Up Bench	2.00 each	198	716	-	-	914
		Utility Shelf	2.00 each	99	155		-	254
		Towel Bar 24"	2.00 each	99	143	-		242
		Misc Toilet/Bath Equip		**2,756**	**3,772**			**6,528**
	10950.00	**Misc. Specialties**						
		Monitor/Television Bracket	3.00 each	594	1,074	-	-	1,668
		Misc. Specialties		**594**	**1,074**			**1,668**
		SPECIALTIES		**16,005**	**15,071**	**6,376**		**37,453**

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
15000.00		**MECHANICAL**						
	15400.00	**Plumbing**						
		Plumbing (Sqft)	5,276.53 sqft	-	-	72,098	-	72,098
		Plumbing				**72,098**		**72,098**
	15600.00	**H.V.A.C.**						
		H.V.A.C. (Sqft)	5,276.53 sqft	-	-	156,212	-	156,212
		H.V.A.C.				**156,212**		**156,212**
		MECHANICAL				**228,309**		**228,309**
16000.00		**ELECTRICAL**						
	16001.00	**Electrical**						
		Electrical (Sqft)	5,276.53 sqft	-	-	129,175	-	129,175
		Electrical				**129,175**		**129,175**
		ELECTRICAL				**129,175**		**129,175**

Estimate Totals

Description	Amount	Totals	Hours	Rate	Cost Basis	Cost per Unit		Percent of Total	
Labor	473,804		4,691.440 hrs			89.804	/sqft	23.63%	
Material	409,242					77.567	/sqft	20.41%	
Subcontract	912,052					172.868	/sqft	45.48%	
Equipment	39,715		3,640.324 hrs			7.527	/sqft	1.98%	
Other									
	1,834,813	**1,834,813**				**347.766**	**/sqft**	**91.49**	**91.49%**
Design & Construction Fee	170,680			10.000 %	T	32.350	/sqft	8.51%	
Total		***2,005,493***				***380.116***	***/sqft***		

Contractors.
Innovators.
Over Achievers.

SCOPE PROGRAMMING WORKSHEET

Client: Door County, WI
Project: Washington Island EMS Facility
Project #: 7229D
Date: 43902
Location: Historic Island Dairy

BF = BUILDING FACTOR (sq. ft. of interior & exterior walls, corridors, circulation, etc.)
TYPICALLY 1.34, BUG (at least at EMS) is 1.19. Suggest using 1.25.

Program Spaces	WORKSPACE															ADJACENCIES	NOTES
	TYPE	W	x	L	=	SF	x	#	=	NET SF	x	BF	ADDITION GROSS SF	RENOVATED GROSS SF	TOTAL SF		
Vehicle Garage	EMS	32	x	40	=	1280	x	1	=	1280	x	1.25	= 1600.00	+	= 1600.00	Storage, Lockers?	27' and 23' vehicles (net is 10% smaller than BUG); decon?; oxygen?;
Storage (Parts, Equipment, Supplies)	EMS	12	x	24	=	288	x	1	=	288	x	1.25	=	+ 360.00	= 360.00	Can be dispersed?	
Locker Area	EMS	10	x	12	=	120	x	1	=	120	x	1.25	=	+ 150.00	= 150.00		30 Lockers (12" wide?) for personal items (no gear or changing) - Not in BUG
Laundry	EMS	8	x	8	=	64	x	1	=	64	x	1.25	=	+ 80.00	= 80.00	With Lockers?	(Not in EMS at BUG; associated with Fire at BUG)
Sleeping Room	EMS	12	x	14	=	168	x	2	=	336	x	1.25	=	+ 420.00	= 420.00	Bathroom; Away from "action"	(BUG has 3 rooms)
Lounge	EMS	12	x	16	=	192	x	1	=	192	x	1.25	=	+ 240.00	= 240.00		
Office	EMS	10	x	12	=	120	x	1	=	120	x	1.25	=	+ 150.00	= 150.00		
Office	County	12	x	16	=	192	x	1	=	192	x	1.25	=	+ 240.00	= 240.00	Public Lobby	2 @ BUG includes Sheriff? (May be one larger space with small table this location?)
Bathroom - (w/shower)	EMS	8	x	10	=	80	x	1	=	80	x	1.25	=	+ 100.00	= 100.00	Private to EMS	
Bathroom - (w/shower & urinal)	EMS	10	x	14	=	140	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing Toilet Rms to Remain	
Kitchenette	Common	10	x	12	=	120	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing to Remain	
Mechanical		10	x	15		150	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing to Remain	Doesn't service BUG?; but may be needed? (vs on roof, in roof structure space; mezz?)
Public Lobby	Common	8	x	20	=	160	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing to Remain	With Vestibule (Associated with Fire Station at BUG)
Training; meeting space	Common	24	x	28	=	672	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing to Remain	(Based on 30 occupants and presumed BUG space allocation of 22 SF/Occ)
Table and Chair Storage	Common	10	x	10	=	100	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing to Remain	(Based on Training Room size as established in BUG; +/- 15% of Training)
Conference Room	Common	12	x	15	=	180	x	1	=	180	x	1.25	=	+ 225.00	= 225.00	Public Lobby	(May be too large? For this location? - Small Conference instead? 8 x 12)
KEY:																	
Basic & Sized to EMS @ BUG (u.n.o.)																	
Not at BUG EMS; but discussed for WI																	
Part of BUG, associated with Fire)																	
			x		=	0	x		=	0	x		= 0.00	+ 0.00	= 0.00		
													= **ADDITION**	+ **RENOVATED**	= **TOTAL SF**		
										TOTAL			**1600**	**1965**	**3565**		
													DIFFERENCE	AVAILABLE	PROGRAM		
													3600		3600		

Project name	WASHINGTON ISLAND EMS Existing Building For EMS SD Estimate #1
Labor rate table	SAMUELSGROUP2019A
Job size	3103 sqft
Report format	Sorted by 'Group phase/Phase' 'Detail' summary Allocate addons

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
1100.00		**GENERAL REQUIREMENTS**						
	1100.01	**Construction Management**						
		On Site Supervision Staff	***0.00 week***	***0***	***0***	***-***	***0***	***0***
	1101.00	**Superintendent**						
		Superintendent	14.00 week	39,921	0	0	-	39,921
		Superintendent		**39,921**				**39,921**
	1141.00	**Project Manager**						
		Project Manager	12.00 week	9,833	0	0	-	9,833
		Project Manager		**9,833**				**9,833**
	1144.00	**Field Secretary**						
		Secretary - 1/4 Time	12.00 week	3,943	-	-	-	3,943
		Field Secretary		**3,943**				**3,943**
	1170.00	**Safety Engineer**						
		Safety Engineer - 1/3 Time	6.00 week	5,175	-	-	-	5,175
		Safety Engineer		**5,175**				**5,175**
	1410.00	**Testing/Quality Control**						
		Testing Sub	1.00 ls			5,985	-	5,985
		Testing/Quality Control				**5,985**		**5,985**
	1511.00	**Temp - Utilities**						
		Temp Electricity	3.00 mnth	-	4,507	-	-	4,507
		Temp Heat	***0.00 mnth***	***0***		***-***		
		Hook-up Phone/Power	***0.00 each***	***-***	***0***	***-***	***-***	***0***
		Temp Water	3.00 mnth	-	470	-	-	470
		Temp Toilet	3.00 mnth	-	2,404	-	-	2,404
		Temp Heat - Field Office	***0.00 mnth***	***-***		***-***	***-***	
		Telephone/Fax - Monthly Charges	***0.00 mnth***	***-***	***0***	***-***	***-***	***0***
		Cell Phone	3.00 mnth	-	319	-	-	319
		Temp - Utilities			**7,700**			**7,700**
	1521.00	**Temp - Facilities**						
		Office Trailer 12' x 50'	3.00 mnth	-	-	-	2,693	2,693
		Temp - Facilities					**2,693**	**2,693**
	1590.10	**Consumables**						
		Consumables	1.00 ls		1,252		-	1,252
		Consumables			**1,252**			**1,252**
	1601.00	**Tools & Equipment**						
		Construction Equipment - Forklift	3.00 mnth	-	939	-	11,491	12,430
		Tools & Equipment			**939**		**11,491**	**12,430**
	1603.00	**Jobsite Vehicles**						
		Pickup Truck	3.00 mnth	-	-	-	2,873	2,873
		Gas and Oil	3.00 mnth	-	2,254	-	-	2,254

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
		Jobsite Vehicles			**2,254**		**2,873**	**5,126**
	1705.00	**Clean Up - Current**						
		Current Clean Up	12.00 wk	6,149			-	6,149
		Clean Up - Current		**6,149**				**6,149**
	1707.00	**Clean Up - Haul Dumpster**						
		Dumpsters	3.00 mnth	-	3,380	-	-	3,380
		Clean Up - Haul Dumpster			**3,380**			**3,380**
	1711.00	**Clean Up - Final**						
		Final Cleanup - Clng Service	3,102.78 sqft	-	-	1,671	-	1,671
		Clean Up - Final				**1,671**		**1,671**
	1744.00	**Subsistance**						
		Subsistance (Field) - Hotel	12.00 week	-	21,033	-	-	21,033
		Subsistance (Field) - Food	12.00 week	-	11,643	-	-	11,643
		Subsistance			**32,677**			**32,677**
	1750.00	**Building Permits**						
		Allowance Building Permit	1.00 ls		2,504		-	2,504
		Building Permits			**2,504**			**2,504**
		GENERAL REQUIREMENTS		**65,021**	**50,705**	**7,656**	**17,057**	**140,440**
2050.00		**DEMOLITION**						
	2050.01	**Demolition Equipment**						
		Purchase Walk Off Mats	5.00 each	-	-	599	-	599
		Purchase New Filters For Heppa Filters	***0.00 each***	**-**	**-**		**-**	
		Purchase/Rental Heppa Machines	***0.00 each***	**-**	**-**		**-**	
		Demo Small Tools	***0.00 ls***	**-**	**-**	**-**		
		Temp. Construction Partitions/Walls (Plastic) (Protect Lobby Info Wall)	21.81 lf	471	41		-	512
		Demolition Equipment		**471**	**41**	**599**		**1,110**
	2050.03	**Disposal of Debris**						
		Dumpsters For Demolition	5.00 each	-	4,382	-	-	4,382
		Disposal of Debris			**4,382**			**4,382**
	2050.05	**Floor Protection**						
		Floor Protection (All Types)	795.53 sqft	995	249	-	-	1,244
		Floor Protection		**995**	**249**			**1,244**
	2070.50	**Steel Demolition**						
		Remove Exterior Stairs From Deck To Grade	2.00 each	863	-	-	0	863
		Remove Railing At Exterior Stairs	1.00 ls	1,727			-	1,727
		Remove Existing Railing Around Top Of Deck	99.26 lf	3,571	-	-	-	3,571
		Steel Demolition		**6,161**				**6,161**
	2070.60	**Wood Framing Demolition**						
		Remove Wood Decking (Exterior Deck)	1,296.52 sqft	4,664	-	-		4,664

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	2070.60	**Wood Framing Demolition**						
		Remove/Modify Building Overhang For New Exterior Stair	1.00 ls	432	63	-	-	494
		Wood Framing Demolition		**5,096**	**63**			**5,158**
	2070.65	**Wood Trim/Millwork Demo**						
		Remove Casework/Displays/Base	1.00 ls	5,180	-	-	-	5,180
		Wood Trim/Millwork Demo		**5,180**				**5,180**
	2070.80	**Remove Doors & Frames**						
		Remove Door & Frame - Turn Over To Owner	3.00 each	648	-	-	-	648
		Remove Existing Patio Doors/Side Lites	2.00 each	1,727			-	1,727
		Remove Single Exterior Doors @ 2nd Floor	2.00 each	432			-	432
		Remove Doors & Frames		**2,806**				**2,806**
	2070.85	**Remove Windows**						
		Remove Exterior Window	2.00 each	432	-	-	-	432
		Remove Windows		**432**				**432**
	2070.90	**Partition Demolition**						
		Remove Drywall Walls	***0.00 lnft***	***0***	***-***	***-***	***-***	***0***
		Remove Gyp Board Soffit	***0.00 lf***		***-***	***-***	***-***	
		Remove Sheetrock On Walls (But No Studs)	***0.00 sqft***	***0***	***-***	***-***	***-***	***0***
		Create New Wall Opening - For New Door/Window in Masonry/Stud Partition	2.00 each	5,180	501	2,394	-	8,075
		Partition Demolition		**5,180**	**501**	**2,394**		**8,075**
	2070.92	**Ceiling Demolition**						
		Demo Existing Drywall Ceiling for MEP Work	1,652.36 sqft	3,567	1,034	-	0	4,601
		Ceiling Demolition		**3,567**	**1,034**			**4,601**
	2070.94	**Flooring Demolition**						
		Remove Quarry Tile Flooring	824.20 sqft	5,930	0	0	-	5,930
		Flooring Demolition		**5,930**				**5,930**
	2071.00	**Specialty Demolition**						
		Remove Wall & Corner Guards	***0.00 ls***	***0***	***-***	***-***	***0***	***0***
		Remove Toilet Accessories/Partitions	***0.00 each***	***0***	***0***	***0***	***-***	***0***
	2071.10	**Equipment Demolition**						
		Remove Wall Mtd Equipment & Turn Over To Owner	1.00 ls	1,727	-	-	-	1,727
		Equipment Demolition		**1,727**				**1,727**
	2071.50	**Mechanical Demolition**						
		Allowance HVAC Demo	1,652.36 sqft	0	0	2,967	-	2,967
		Mechanical Demolition				**2,967**		**2,967**
	2071.60	**Electrical Demolition**						
		Allowance Electrical Demo	1,652.36 sqft	-	-	3,956	-	3,956
		Electrical Demolition				**3,956**		**3,956**
	2075.00	**C.I.P. Concrete Demolit'n**						
		Remove Slab on Grade (Under Existing Deck)	1,296.52 sqft	3,796	-	-	0	3,796

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	2075.00	**C.I.P. Concrete Demolit'n**						
		Remove Slab on Grade (Shower/Toilet/Laundry)	142.06 sqft	971	-	-		971
		Remove Existing Sidewalk	854.89 sqft	-	-	2,047	-	2,047
		Remove Portion Of North/South Foundation Wall	20.00 lf	2,158		2,394	-	4,552
		C.I.P. Concrete Demolit'n		**6,925**		**4,441**		**11,366**
		DEMOLITION		**44,469**	**6,270**	**14,355**		**65,094**
2100.00		**SITEWORK**						
	2100.01	**Sitework**						
		Building Layout	1.00 ls	1,727	188	-	599	2,513
		Sitework		**1,727**	**188**		**599**	**2,513**
	2140.00	**Erosion Control**						
		Erosion Control (Allowance) Silt Fence	236.71 lf	-	-	1,417	-	1,417
		Erosion Control				**1,417**		**1,417**
	2201.00	**Excav - Remove Topsoil**						
		Topsoil Removal (Allowance)	78.34 cuyd	-	-	469	-	469
		Salvage Topsoil	100.00 cuyd	-	-	1,077	-	1,077
		Excav - Remove Topsoil				**1,546**		**1,546**
	2210.10	**Excav - Sitework Sub etc**						
		Sand Fill Under SOG - 12"	47.40 cuyd	-	-	1,986	-	1,986
		Excavate/Backfill Building Foundations - Garage Foundations	108.76 lf	-	-	5,207	-	5,207
		Excavate Under Existing Deck	113.91 cuyd			1,363	-	1,363
		Mobilization/Demob On site	1.00 ls	-	-	2,992	-	2,992
		Excav - Sitework Sub etc				**11,549**		**11,549**
	2220.45	**Excav - Fine Grade**						
		Fine Grade Slab on Grade	1,338.17 sqft	963	-	-	-	963
		Finegrade Stairs On Grade	18.52 sqft	20		-	-	20
		Fine Grade Footings - SF	318.24 sqft	382	-	-	-	382
		Excav - Fine Grade		**1,364**				**1,364**
	2511.00	**Asphalt Paving**						
		Base Course New Drives	78.34 cuyd	27	0	3,188	-	3,215
		Light Duty Asphalt Paving	235.01 sqyd	-	-	10,127	-	10,127
		Asphalt Paving		**27**		**13,315**		**13,342**
	2600.01	**Site Utilities**						
		Private Utilities (Relocate & Extend) Allowance	***0.00 lsum***	***-***	***-***	***0***	***-***	***0***
		Hookup Fees By Utility Companies	***0.00 ls***	***-***	***-***	***0***	***-***	***0***
		Allowance Garage Waste Water Disposal	1.00 ls	-	-	17,955	-	17,955
		Site Utilities				**17,955**		**17,955**
	2721.00	**Drainage Site Catch Basin**						
		Catch Basin Frame & Cover (Garage - Connect To Sanitary)	1.00 each			2,992	-	2,992
		Drainage Site Catch Basin				**2,992**		**2,992**

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	2846.00	**Signage - Traffic**						
		Sign Stop 30" x 30" (Allowance)	1.00 each	102	94	-		196
		Sign Informational 12"x18" (Allowance)	3.00 each	307	188	-		495
		Signage - Traffic		**410**	**282**			**692**
	2900.01	**Landscape-General**						
		Landscaping Plantings Tree & Shrub/Seed	1.00 ls	-	-	11,970	-	11,970
		Landscape-General				**11,970**		**11,970**
		SITEWORK		**3,528**	**469**	**60,744**	**599**	**65,340**
3000.00		**CONCRETE**						
	3100.00	**Concrete Equipment**						
		Compactor-Med Plate, 24" Gas	0.25 mnth	-	28	-	183	211
		Gas Power Buggy - 10 CF	0.25 mnth	-	29	-	183	213
		Gas Power Buggy - 10 CF	0.25 mnth	-	29	-	183	213
		Gas Porto-Conc Saw-Hand Held	0.25 mnth	-	18	-	107	124
		Master 46" Gyro Trowel Machine	0.25 mnth	-	22	-	146	169
		Master 46" Gyro Trowel Machine	0.25 mnth	-	22	-	146	169
		Conc Vibrator - Elec 2" Head	0.25 mnth	-	-	-	95	95
		Allen 7.5' Motorized Screed	0.25 mnth	-	28	-	180	208
		Allen 7.5' Screed Insert	0.25 mnth	-	-	-	94	94
		Concrete Equipment			**177**		**1,318**	**1,495**
	3111.00	**Forms - Footings**						
		Form & Strip Cont. Ftg. SF	221.05 sqft	1,888	208	-	-	2,095
		Forms - Footings		**1,888**	**208**			**2,095**
	3112.00	**Forms - Footing Steps**						
		Footing Steps	2.00 each	615	25	-	-	640
		Forms - Footing Steps		**615**	**25**			**640**
	3114.00	**Forms - Walls**						
		Wall Forms 0' to 8'	254.80 sqft	2,176	271	-	-	2,447
		One Sided Wall Forms 0-8'	359.58 sqft	3,685	563	-	-	4,248
		Forms - Walls		**5,861**	**834**			**6,695**
	3127.00	**Forms - BHead Slab On Grd**						
		Slab Edge Form (10 - 12")	77.67 lnft	995	97	-	-	1,092
		Forms - BHead Slab On Grd		**995**	**97**			**1,092**
	3131.00	**Forms - Pit & Misc**						
		Set Trench Drain - Garage	56.00 lf	2,417	4,557	-	-	6,975
		Forms - Pit & Misc		**2,417**	**4,557**			**6,975**
	3137.00	**Forms - Steps On Grade**						
		Riser Forms	9.33 lnft	191	58	-	-	250
		Forms - Steps On Grade		**191**	**58**			**250**

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	3163.10	**Forms - Expand/Cntrol Jts**						
		Sawn Control Joints	130.52 lnft	446	82	-	55	582
		1"x6" Asphalt Coated Exp. Jt	83.24 lnft	474	52	-	-	526
		Forms - Expand/Cntrol Jts		**920**	**134**		**55**	**1,108**
	3170.00	**Anchor Bolts**						
		Anchor Bolts - Walls @ Garage	54.00 each	553	203	-	-	756
		Anchor Bolts		**553**	**203**			**756**
	3206.00	**Rebar - Footings**						
		Footing Rebar	0.65 ton	1,067	815	-	-	1,882
		Rebar - Footings		**1,067**	**815**			**1,882**
	3209.00	**Rebar - Walls**						
		Wall Rebar	0.64 ton	1,056	886	-	-	1,942
		Rebar - Walls		**1,056**	**886**			**1,942**
	3214.10	**Rebar - Slab On Grade**						
		S.O.G. Rebar	0.95 ton	1,363	1,308	-	-	2,671
		Rebar - Slab On Grade		**1,363**	**1,308**			**2,671**
	3219.10	**Rebar: Dowels**						
		Allowance Dowel Into Existing Foundation/Slab	1.00 ls	820	313		-	1,133
		Rebar: Dowels		**820**	**313**			**1,133**
	3306.02	**Cont. Footing Concrete**						
		Footing Conc 3000 psi	11.79 cuyd	604	1,937	-	-	2,541
		Cont. Footing Concrete		**604**	**1,937**			**2,541**
	3307.00	**Conc - Walls**						
		Wall Conc 4000 psi	14.38 cuyd	590	2,504	-	-	3,094
		Conc - Walls		**590**	**2,504**			**3,094**
	3310.01	**Conc - Slabs On Grade**						
		S.O.G. Conc 4000 psi	26.22 cuyd	1,343	4,653	-	-	5,997
		Conc - Slabs On Grade		**1,343**	**4,653**			**5,997**
	3314.00	**Conc - Stairs & Steps**						
		Stair/Step Conc 4000 psi	0.86 cuyd	352	145	-	-	497
		Conc - Stairs & Steps		**352**	**145**			**497**
	3375.00	**Finish - Protect & Cure**						
		CS 309 Curing Compound	1,338.17 sqft	274	109	-	-	383
		CS 309 Curing Compound	703.05 sqft	144	57	-	-	201
		CS 309 Curing Compound	16.00 sqft	3	1	-	-	5
		Finish - Protect & Cure		**422**	**167**			**589**
	3380.01	**Finish - General**						
		Trowel Finish	1,266.71 sqft	1,039	-	-	-	1,039
		Broom/Float Finish	71.46 sqft	37	-	-	-	37

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	3380.01	**Finish - General**						
		Finish Top of Footing - SF	318.24 sqft	435	-	-	-	435
		Form Finish	486.98 sqft	250	-	-	-	250
		Form Finish	486.98 sqft	250	-	-	-	250
		Finish Top of Wall (LF)	109.11 lnft	280	-	-	-	280
		Finish - General		**2,289**				**2,289**
	3385.00	**Finish - Stair**						
		Stair Finish	16.00 sqft	164	20	-	-	184
		Finish - Stair		**164**	**20**			**184**
	3395.00	**Finish - Rubbed**						
		Rub Finish	17.85 sqft	183	17	-	-	200
		Finish - Rubbed		**183**	**17**			**200**
		CONCRETE		**23,693**	**19,059**		**1,373**	**44,124**
4000.00		**MASONRY**						
	4419.00	**Stone Veneer**						
		Allowance 4" Ashlar Stone Veneer	1,166.98 sqft	0	0	86,605	-	86,605
		Allowance 4" Ashlar Stone Veneer - Infill Exterior Windows	86.80 sqft			6,442	-	6,442
		Stone Veneer				**93,047**		**93,047**
		MASONRY				**93,047**		**93,047**
5000.00		**METALS**						
	5100.00	**Structural Steel**						
		Purchase Additional Structural Steel Framing/Decking On Existing Structure	1,173.95 sqft	-	12,860	0	-	12,860
		Purchase Structural Steel Framing/Decking On Garage Extension	107.15 sqft	-	4,024	0	-	4,024
		Misc. Angles/Lintels/Plates	1.00 ls	3,279	1,878	-	-	5,157
		Purchase Structural Steel Columns Garage Extension)	107.15 sqft	-	3,354	0	-	3,354
		New Steel Railings For Garage Extension	9.87 lf	355	1,730		-	2,085
		Reinstall Existing Railings After New Roofing Over Garage	99.26 lf	3,571	621	-	-	4,192
		Modify Existing Stair/Add Platform Extension For Reuse	1.00 each	1,727	876	-	-	2,603
		New Steel Railings @ 2nd Floor Deck Access	12.81 lf	691	2,245	0	-	2,937
		New Steel Wall Rail @ 2nd Floor Deck Access	13.83 lf	746	1,039		-	1,785
		Structural Steel		**10,370**	**28,629**			**38,998**
	5110.01	**Structural - Framing**						
		Erection Structural Steel Framing/Decking - Existing Structure	1,173.95 sqft	-	0	8,431	-	8,431
		Erection Structural Steel Framing/Decking - Extension	107.15 sqft	-	0	641	-	641
		Erection Structural Steel Columns	107.15 sqft	-	0	641	-	641
		Structural - Framing				**9,714**		**9,714**
		METALS		**10,370**	**28,629**	**9,714**		**48,712**
6000.00		**WOOD & PLASTICS**						
	6101.00	**Framing - All Types**						

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	6101.00	**Framing - All Types**						
		Build Platform For New Lockers	14.59 lf	394	91		-	485
		Build Ramp/Steps For Access To Deck (Finish Wood)	260.89 sqft	3,520	4,899	0	-	8,419
		Framing - All Types		**3,913**	**4,991**			**8,904**
	6123.00	**Blocking - All Types**						
		Top of Roof Edge Blocking - 3/4" Plywood	255.65 sqft	1,724	423	0	0	2,147
		Blocking @ Exterior Doors & Windows (Standard)	20.00 lf	144	36	0	0	180
		Misc. Wood Blocking (Fire Treated)	200.00 lf	1,079	454	-	-	1,534
		Multiple Wood Blocking @ New Garage Perimeter Edge	435.96 lf	3,812	841	-	-	4,653
		Blocking - All Types		**6,760**	**1,753**			**8,513**
	6410.02	**Cabinet - Base**						
		Base Cabinet With P-Lam Top	4.00 lf	216	952	-	-	1,167
		Cabinet - Base		**216**	**952**			**1,167**
		WOOD & PLASTICS		**10,889**	**7,696**			**18,584**
7000.00		**THERMAL & MOISTURE PROT**						
	7000.01	**Division 7 Subcontractors**						
		Exterior Wood Trim (Doors/Windows)	183.36 lnft	2,474	723		-	3,197
		Division 7 Subcontractors		**2,474**	**723**			**3,197**
	7192.00	**Vapor Barrier**						
		Poly Vapor Barrier 10 mil	13.38 sqs	1,805	276	-	-	2,082
		Vapor Barrier		**1,805**	**276**			**2,082**
	7211.20	**Insulation - Sound Blankt**						
		Sound Blanket 16" x 3- 5/8"	2,113.92 sqft	1,825	973	-	-	2,798
		Sound Blanket 16" x 6.00 "	1,301.76 sqft	1,124	650	-	-	1,774
		Sound Blanket 16" x 6.00 "	86.80 sqft	187	43	-	-	231
		Insulation - Sound Blankt		**3,136**	**1,666**			**4,803**
	7212.10	**Insulation - Rigid**						
		Foil Face Rigid Ins 3.0" x 4' (@ New Garage Walls)	1,055.00 sqft	1,139	4,623	-	-	5,762
		Un Faced Rigid Ins 2.0" x 4'	486.98 sqft	411	396	-	-	807
		Rigid Insulation Under New Garage Slab	1,203.96 sqft	866	980		-	1,846
		Insulation - Rigid		**2,415**	**5,999**			**8,414**
	7531.00	**EPDM - Membrane**						
		EPDM Roofing/Tapered Insulation @ Existing Deck & Extension	1,275.46 sqft	0	0	27,481	-	27,481
		EPDM - Membrane				**27,481**		**27,481**
	7531.40	**Traffic Pavers**						
		Allowance Roof Pavers @ Garage Roof	1,280.96 sqft			45,999	-	45,999
		Traffic Pavers				**45,999**		**45,999**
	7620.01	**Sheetmetal - Flashing**						
		Wall Flashing	60.56 lf	0	0	507	-	507
		Wall Cap Flashing/Fascia Perimeter Of Roof @ Garage	109.00 lf	-	-	2,609	-	2,609

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
		Sheetmetal - Flashing				3,117		3,117
	7920.01	**Sealant - Compounds**						
		General Caulking (Interior/Exterior)	2,999.58 sqft	-	-	3,590	-	3,590
		Sealant - Compounds				3,590		3,590
		THERMAL & MOISTURE PROT		**9,831**	**8,665**	**80,187**		**98,682**
8000.00		**DOORS & WINDOWS**						
	8100.00	**Doors Frames & Hardware**						
		Single Door - Complete	11.00 each	7,327	138	15,800	-	23,265
		Double Doors - Complete	1.00 pair	1,230	25	2,155	-	3,409
		Allowance New 7' Deck Doors With Side Lites & Trim	2.00 each	2,158		6,703	-	8,862
		Doors Frames & Hardware		10,715	163	24,658		35,536
	8350.01	**Doors - Folding**						
		Low Overhead Sectional Garage Doors 10' x 10'	2.00 each	-	-	9,097	-	9,097
		Doors - Folding				9,097		9,097
	8610.01	**Windows - Wood**						
		Wood Windows All Types - 2nd Floor & Trim	2.00 each	1,295	0	2,346	-	3,641
		Windows - Wood		1,295		2,346		3,641
	8800.00	**Glass & Glazing**						
		Exterior Punched Openings - Low E (4'-4" x 5')	64.44 sqft	-	-	3,471	-	3,471
		Glass & Glazing				3,471		3,471
		DOORS & WINDOWS		**12,011**	**163**	**39,572**		**51,745**
9000.00		**FINISHES**						
	9110.00	**Non-Load Bearing Frmg Sys**						
		Layout & Supervision	176.16 lnft	903	-	-	-	903
		Layout & Supervision	108.48 lnft	556	-	-	-	556
		Layout & Supervision	17.36 lnft	178	-	-	-	178
		Clean-up / Misc Labor	176.16 lnft	903	-	-	-	903
		Clean-up / Misc Labor	108.48 lnft	556	-	-	-	556
		Clean-up / Misc Labor	17.36 lnft	89	-	-	-	89
		Drywall Equipment	176.16 lnft	-	-	-	1,054	1,054
		Drywall Equipment	108.48 lnft	-	-	-	649	649
		Drywall Equipment	17.36 lnft	-	-	-	104	104
		Frame Int. Part'n to 12' High	176.16 lnft	3,611	-	-	-	3,611
		Frame Ext. Part'n to 12' High	108.48 lnft	3,176	-	-	-	3,176
		Frame Int. Part'n to 12' High	17.36 lnft	593	-	-	-	593
		Frame Door Opening	9.00 each	461	-	-	-	461
		Frame Door Opening	2.00 each	102	-	-	-	102
		Int Framing Stud 358x12'20g	179.00 each	-	1,398	-	-	1,398
		Ext Framing Stud 600x 8'20g	24.00 each	-	505	-	-	505
		Ext Framing Stud 600x12'20g	94.00 each	-	2,966	-	-	2,966
		Track: Standard 20 ga 3-5/8"	352.32 lnft	-	225	-	-	225
		Ext. Track: Standard 20 ga 6.00 "	216.96 lnft	-	190	-	-	190

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
	9110.00	**Non-Load Bearing Frmg Sys**						
		Ext. Track: Standard 20 ga 6.00 "	34.72 lnft	-	30	-	-	30
		Non-Load Bearing Frmg Sys		**11,127**	**5,314**		**1,807**	**18,249**
	9250.00	**Gypsum Board**						
		GWB 5/8x8 Fire Code	67.00 sht	4,577	1,051	-	-	5,628
		GWB 5/8x8 Fire Code	67.00 sht	4,577	1,051	-	-	5,628
		GWB 5/8x8 Fire Code	41.00 sht	2,801	643	-	-	3,444
		GWB 5/8x8 Fire Code	4.00 sht	273	29	-	-	302
		Ext Gyp Sheathing 5/8 x 4 x 8	41.00 sht	4,202	981	-	-	5,183
		Ext Gyp Sheathing 5/8 x 4 x 8	4.00 sht	410	96	-	-	506
		Gypsum Board		**16,841**	**3,850**			**20,691**
	9251.50	**GWB Ext Frame: Misc.**						
		Allowance Infill Partial Door Openings @ 2nd Floor	2.00 each	432	376		-	807
		GWB Ext Frame: Misc.		**432**	**376**			**807**
	9254.00	**GWB - Finish Mud/Tape**						
		Tape & Finish Gypsum Board	4,227.84 sqft	6,666	291	-	-	6,957
		Tape & Finish Gypsum Board	1,301.76 sqft	2,052	90	-	-	2,142
		Tape & Finish Gypsum Board	86.80 sqft	162	6	-	-	168
		Corner Bead 1-1/8 x 1-1/8	36.00 lnft	92	12	-	-	105
		Corner Bead 1-1/8 x 1-1/8	36.00 lnft	92	12	-	-	105
		GWB - Finish Mud/Tape		**9,064**	**411**			**9,476**
	9270.00	**Gyp Drywall Accessories**						
		Drywall Acoustical Sealant	704.64 lnft	903	93	-	-	995
		Drywall Acoustical Sealant	433.92 lnft	556	57	-	-	613
		Pins & Loads 3/4"Conc.	352.32 each	-	49	-	-	49
		Pins & Loads 3/4"Conc.	216.96 each	-	30	-	-	30
		Pins & Loads 3/4"Conc.	34.72 each	-	5	-	-	5
		1 1/4" Sharp Pt Screws	4,227.84 each	-	212	-	-	212
		1 1/4" Sharp Pt Screws	2,603.52 each	-	130	-	-	130
		1 1/4" Sharp Pt Screws	173.60 each	-	1	-	-	1
		Gyp Drywall Accessories		**1,459**	**576**			**2,035**
	9310.01	**Tiling**						
		Floor Tile Subcontractor	56.79 sqft	0	0	884	-	884
		Tile Base Subcontractor	32.65 lnft	0	0	547	-	547
		Wall Tile Full Height	242.56 sqft	0	0	4,355	-	4,355
		Tiling				**5,786**		**5,786**
	9515.00	**Ceilings**						
		Allowance 2'x2' ACT	1,538.90 sqft	0	0	8,289	-	8,289
		Vinyl Covered ACT - Toilet/Shower	56.79 sqft	0	0	340	-	340
		Ceilings				**8,629**		**8,629**
	9660.00	**Flooring - Resilient**						
		Vinyl Base	585.35 lf	-	-	1,962	-	1,962
		LVT Flooring - Lounge & Storage	756.46 sf	-	-	7,696	-	7,696
		Sheet Flooring In Laundry/Storage	120.13 sqft	-	-	1,438	-	1,438

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
		Flooring - Resilient				**11,096**		**11,096**
	9670.01	**Flooring Fluid Applied**						
		Sealed Concrete - Garage	1,220.36 sqft	0	0	2,191	0	2,191
		Flooring Fluid Applied				**2,191**		**2,191**
	9682.00	**Flooring - Carpeting**						
		Carpet Tile - Offices, Sleep, Small Conference	650.11 sqft	-	-	4,669	-	4,669
		Flooring - Carpeting				**4,669**		**4,669**
	9920.01	**Painting - Interior**						
		Paint Walls (Standard)	4,829.04 sqft	-	-	4,335	-	4,335
		Paint Walls (Garage/Laundry) - Epoxy	1,851.60 sqft	-	-	3,103	-	3,103
		Paint Hollow Metal Door Frame	12.00 each	-	-	934	-	934
		Paint New Deck Doors With Side Lites/Windows	4.00 each	-	-	575	-	575
		Painting - Interior				**8,946**		**8,946**
		FINISHES		**38,922**	**10,528**	**41,318**	**1,807**	**92,575**
10000.00		**SPECIALTIES**						
	10260.00	**Wall & Corner Guards**						
		Plastic Corner Guard - 3'	3.00 each	154	131	-	-	285
		Allowance Wall Protection (IPC .04 Thickness)	1,050.60 sqft	2,692	4,735		-	7,427
		Wall & Corner Guards		**2,845**	**4,867**			**7,712**
	10430.01	**Signs**						
		Interior Signage Allowance	1.00 ls	820	501	-	-	1,321
		12" Cast Aluminum Building Letters	19.00 each	974	3,568	-	-	4,542
		Signs		**1,793**	**4,069**			**5,862**
	10507.00	**Lockers - Box**						
		12"W x 18"D x 6'H Lockers - Locker Rooms - 2-Tier	10.00 each	4,099		3,950		8,049
		Lockers - Box		**4,099**		**3,950**		**8,049**
	10524.00	**Fire Extinguisher Cabinet**						
		Fire Extinguisher and Cabinet	2.00 each	256	526	-	-	782
		Fire Extinguisher Cabinet		**256**	**526**			**782**
	10800.01	**Misc Toilet/Bath Equip**						
		Soap Dispenser - Wall Mounted	1.00 ea	69	44	-	-	113
		Mirror - 18" x 26"	1.00 ea	102	282	-	-	384
		Grab Bars - 18"	1.00 each	77	50	-	-	127
		Grab Bars - 36"	1.00 each	77	50	-	-	127
		Grab Bars - 42"	1.00 each	77	50	-	-	127
		Paper Towel Dispensor	1.00 each	51	182	-	0	233
		Coat Hook	3.00 each	154	94	-	0	248
		Sanitary Napkin Disposal	1.00 each	51	106	-	0	158
		TP Dispensor	1.00 each	51	81	-	0	133
		Mop Holder	1.00 each	102	63	-	-	165
		Shower Curtain @ Rod	1.00 each	102	106	-	-	209
		Towel Bar 24"	1.00 each	51	75	-		126

Group	Phase	Description	Takeoff Quantity	Labor Amount	Material Amount	Sub Amount	Equip Amount	Total Amount
		Misc Toilet/Bath Equip		**965**	**1,183**			**2,149**
	10950.00	**Misc. Specialties**						
		Monitor/Television Bracket	2.00 each	410	751	-	-	1,161
		Misc. Specialties		**410**	**751**			**1,161**
		SPECIALTIES		**10,369**	**11,396**	**3,950**		**25,715**
15000.00		**MECHANICAL**						
	15400.00	**Plumbing**						
		Plumbing (Sqft)	3,102.78 sqft	-	-	34,354	-	34,354
		Plumbing				**34,354**		**34,354**
	15600.00	**H.V.A.C.**						
		H.V.A.C. (Sqft) (Garage Heat/Duct Work Modification)	3,102.78 sqft	-	-	29,155	-	29,155
		H.V.A.C.				**29,155**		**29,155**
		MECHANICAL				**63,509**		**63,509**
16000.00		**ELECTRICAL**						
	16001.00	**Electrical**						
		Electrical (Sqft)	3,102.78 sqft	-	-	55,710	-	55,710
		Electrical				**55,710**		**55,710**
		ELECTRICAL				**55,710**		**55,710**

Estimate Totals

Description	Amount	Totals	Hours	Rate	Cost Basis	Cost per Unit	Percent of Total	
Labor	229,102		2,164.734 hrs			73.833 /sqft	23.98%	
Material	143,578					46.271 /sqft	15.03%	
Subcontract	469,761					151.389 /sqft	49.17%	
Equipment	20,836		2,115.132 hrs			6.715 /sqft	2.18%	
Other								
	863,277	**863,277**				**278.207 /sqft**	**90.36**	**90.36%**
Design & Construction Fee	92,083			12.000 %	T	29.675 /sqft	9.64%	
Total		***955,360***				***307.883 /sqft***		

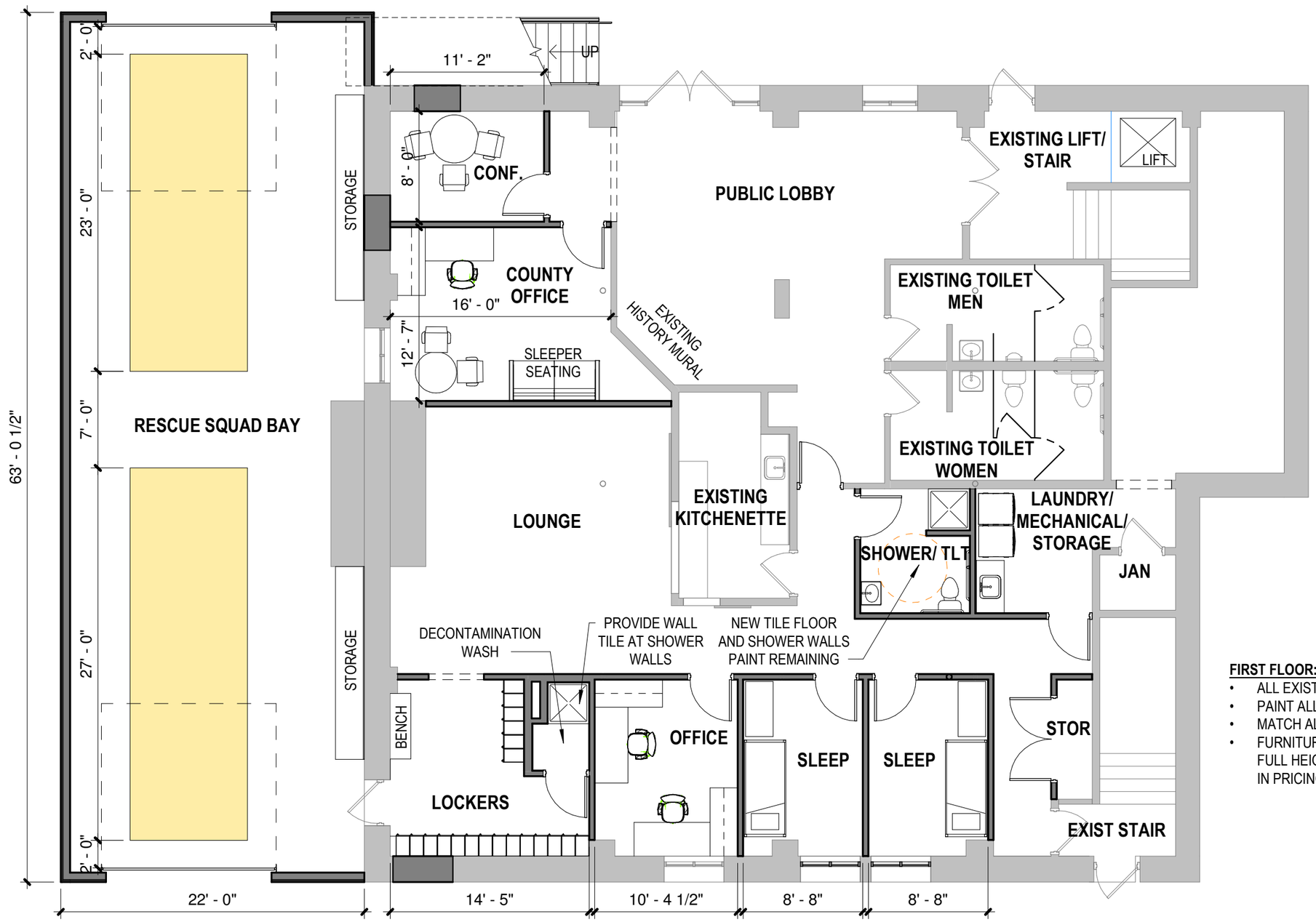
Contractors.
Innovators.
Over Achievers.

SCOPE PROGRAMMING WORKSHEET

Client: Door County, WI
Project: Washington Island EMS Facility
Project #: 7229D
Date: April 10, 2020 (revision 1)
Location: Historic Island Dairy

BF = BUILDING FACTOR (sq. ft. of interior & exterior walls, corridors, circulation, etc.) TYPICALLY 1.34, BUG (at least at EMS) is 1.19. Suggest using 1.25.

Program Spaces	WORKSPACE															ADJACENCIES	NOTES
	TYPE	W	x	L	=	SF	x	#	=	NET SF	x	BF	ADDITION GROSS SF	RENOVATED GROSS SF	TOTAL SF		
Vehicle Garage	EMS	32	x	40	=	1280	x	1	=	1280	x	1.25	= 1600.00	+	= 1600.00	Storage, Lockers?	27' and 23' vehicles (net is 10% smaller than BUG); decon?; oxygen?; 7' between
Storage (Parts, Equipment, Supplies)	EMS	12	x	24	=	288	x	1	=	288	x	1.25	=	+ 360.00	= 360.00	Can be dispersed?	
Locker Area	EMS	10	x	12	=	120	x	1	=	120	x	1.25	=	+ 150.00	= 150.00		20 Lockers (12" wide?) for personal items (no gear or changing) - Not in BUG
Laundry	EMS	8	x	8	=	64	x	1	=	64	x	1.25	=	+ 80.00	= 80.00	With Lockers?	(Not in EMS at BUG; associated with Fire at BUG)
Sleeping Room	EMS	12	x	14	=	168	x	2	=	336	x	1.25	=	+ 420.00	= 420.00	Bathroom; Away from "action"	(BUG has 3 rooms)
Lounge	EMS	12	x	16	=	192	x	1	=	192	x	1.25	=	+ 240.00	= 240.00		
Office	EMS	10	x	12	=	120	x	1	=	120	x	1.25	=	+ 150.00	= 150.00		2 built in work stations
Office	County	12	x	16	=	192	x	1	=	192	x	1.25	=	+ 240.00	= 240.00	Public Lobby	2 @ BUG includes Sheriff? (May be one larger space with small table this location?)
Bathroom - (w/shower)	EMS	8	x	10	=	80	x	1	=	80	x	1.25	=	+ 100.00	= 100.00	Private to EMS	(Fixture count for EMS/Trng currently projects to 3 total, combined men and women)
Bathroom - (w/shower & urinal)	EMS	10	x	14	=	140	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing Toilet Rms to Remain	(Presumed to meet requirements for existing use)
Kitchenette	Common	10	x	12	=	120	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing to Remain	
Mechanical		10	x	15		150	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing to Remain	Doesn't service BUG?; but may be needed? (vs on roof, in roof structure space; mezz?)
Public Lobby	Common	8	x	20	=	160	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing to Remain	With Vestibule (Associated with Fire Station at BUG)
Training; meeting space	Common	24	x	28	=	672	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing to Remain	(Based on 30 occupants and presumed BUG space allocation of 22 SF/Occ)
Table and Chair Storage	Common	10	x	10	=	100	x	0	=	0	x	1.25	=	+ 0.00	= 0.00	Existing to Remain	(Based on Training Room size as established in BUG; +/- 15% of Training)
Conference Room	Common	9	x	12	=	108	x	1	=	108	x	1.25	=	+ 135.00	= 135.00	Public Lobby	(Small conference in conjunction with County Office)
KEY:																	
Basic & Sized to EMS @ BUG (u.n.o.)																	
Not at BUG EMS; but discussed for WI																	
Part of BUG, associated with Fire)																	
			x		=	0	x		=	0	x		= 0.00	+ 0.00	= 0.00		
													= **ADDITION**	+ **RENOVATED**	= **TOTAL SF**		
										TOTAL			**1600**	**1875**	**3475**		
													DIFFERENCE	AVAILABLE	PROGRAM		
													3500		3500		



FIRST FLOOR:

- ALL EXISTING FLOOR TO REMAIN.
- PAINT ALL WALLS IN MODIFIED AREAS.
- MATCH ALL EXISTING BASE AND WINDOW TRIM.
- FURNITURE SHOWN N.I.C. ONLY INCLUDE FULL HEIGHT LOCKERS AND BUILT-IN BENCH IN PRICING.

1 / A1 NEW WORK FIRST FLOOR

1/8" = 1'-0"

the Samuels Group inc.

www.samuelsgroup.net

CORPORATE OFFICE
311 Financial Way, Suite 300
Wausau, WI 54401
phone 715.842.2222
fax 715.848.8088

IOWA OFFICE
2929 Westown Parkway
Suite 200
West Des Moines, IA 50266
phone 515.288.0467
fax 515.288.0471

ISSUED FOR:	DATE

WASHINGTON ISLAND EMS FACILITY

SCHEMATIC

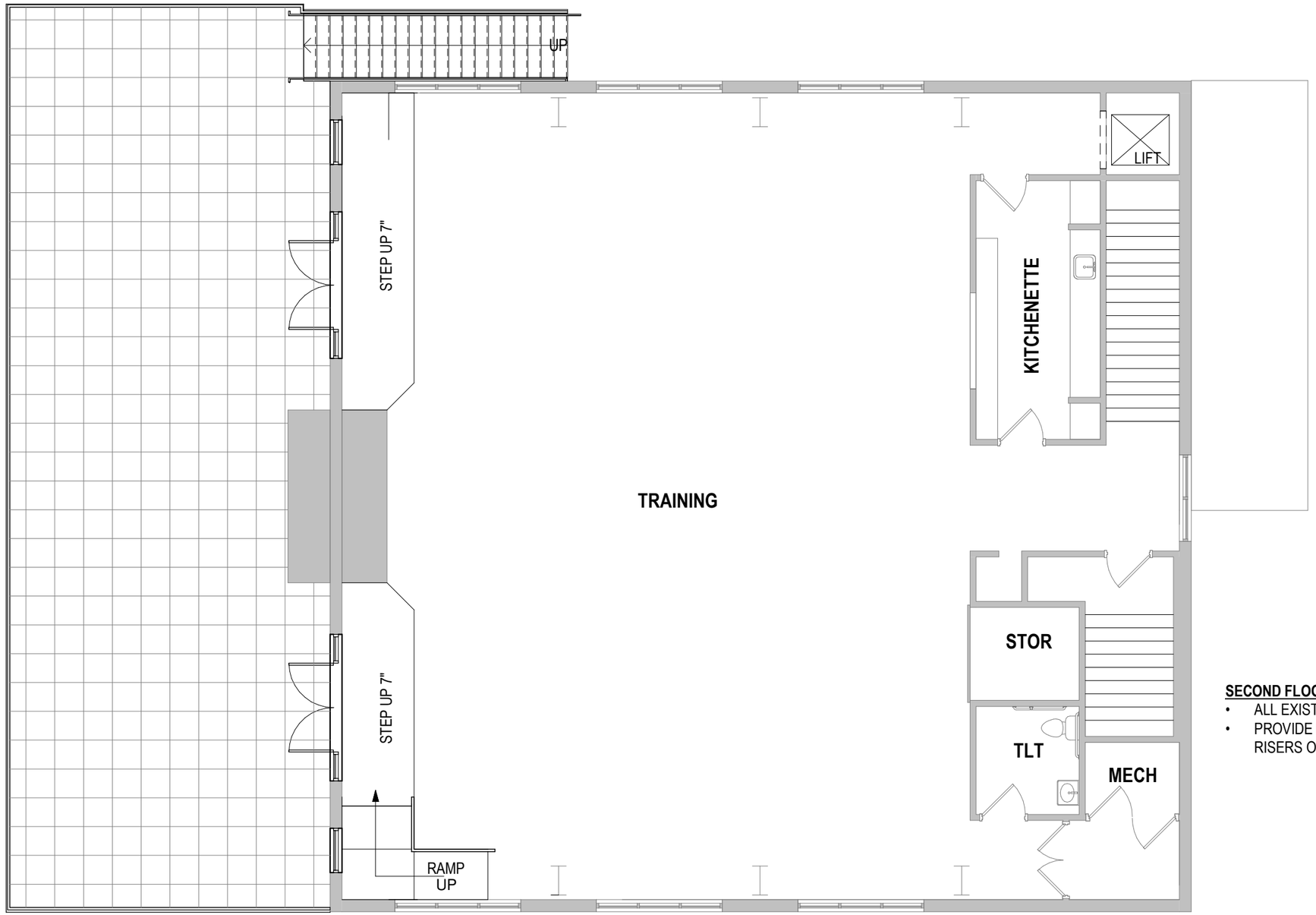
EXISTING HISTORIC ISLAND DAIRY LOCATION

1309 RANGELINE ROAD
WASHINGTON, WI 54246

DATE	4.8.2020
PROJECT NUMBER	7229D
DRAWN BY	JS
CHECKED BY	DR
TIMESTAMP	4/8/2020 4:38:28 PM

© Copyright 2020

A1



SECOND FLOOR:

- ALL EXISTING FINISHES TO REMAIN.
- PROVIDE NEW RUBBER TILE, TREAD AND RISERS ON RAMP AND NEW STEP.

1 / A2 NEW WORK SECOND FLOOR

1/8" = 1'-0"

the Samuels Group inc.

www.samuelsgroup.net

CORPORATE OFFICE
311 Financial Way, Suite 300
Wausau, WI 54401
phone 715.842.2222
fax 715.848.8088

IOWA OFFICE
2929 Westown Parkway
Suite 200
West Des Moines, IA 50266
phone 515.288.0467
fax 515.288.0471

ISSUED FOR:	DATE

WASHINGTON ISLAND EMS FACILITY

SCHEMATIC

EXISTING HISTORIC ISLAND DAIRY LOCATION

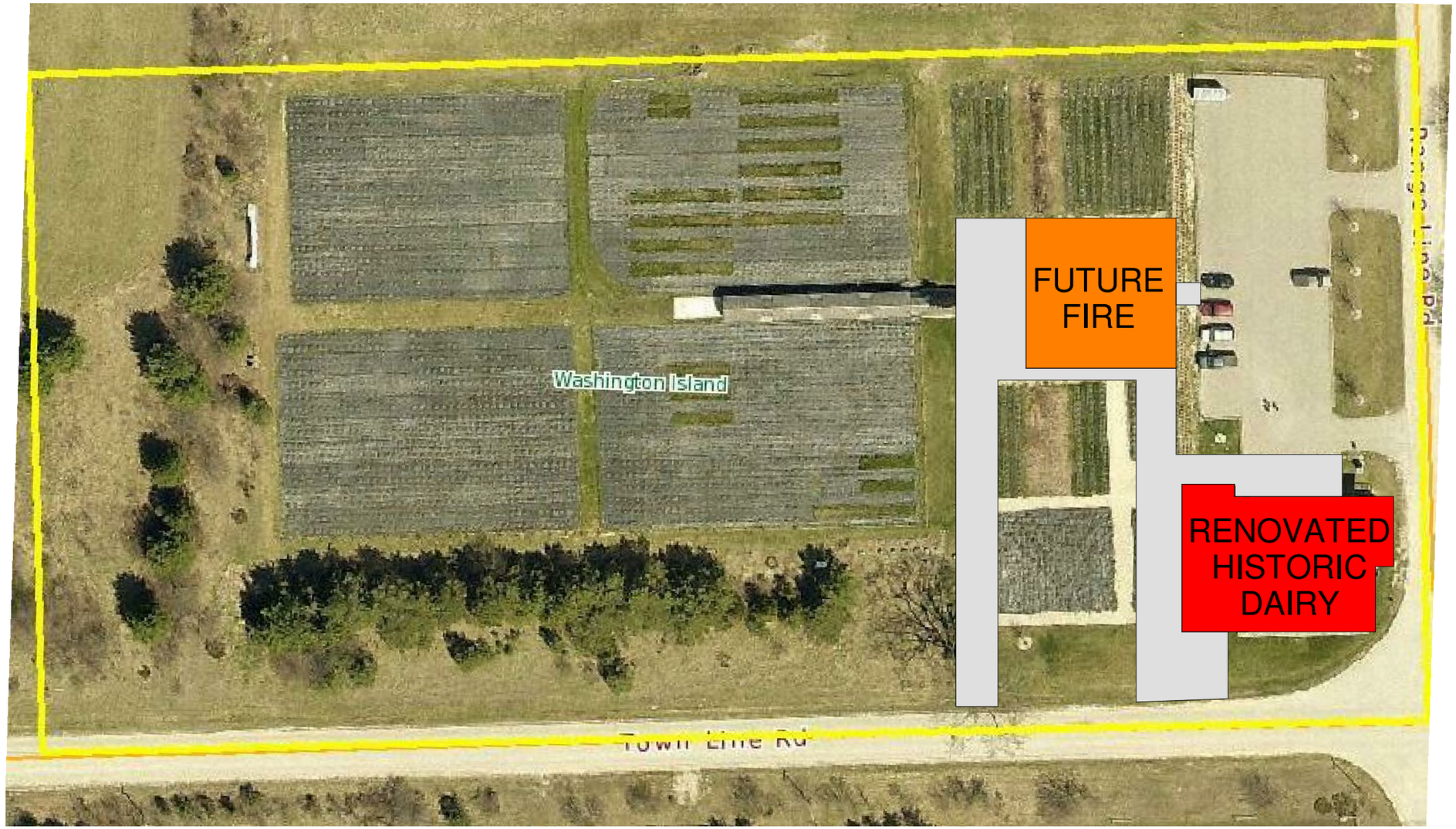
1309 RANGELINE ROAD
WASHINGTON, WI 54246

DATE	4.8.2020
PROJECT NUMBER	7229D
DRAWN BY	JS
CHECKED BY	DR
TIMESTAMP	4/8/2020 4:38:28 PM

© Copyright 2020

A2

three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one sixteenth inch = one foot



1
B
SITE PLAN
1" = 50'-0"

the Samuels Group inc.
www.samuelsgroup.net
CORPORATE OFFICE
311 Financial Way, Suite 300
Wausau, WI 54401
phone 715.842.2222
fax 715.848.8088
IOWA OFFICE
2929 Westown Parkway
Suite 200
West Des Moines, IA 50266
phone 515.288.0467
fax 515.288.0471

ISSUED FOR:	DATE

WASHINGTON ISLAND EMS FACILITY
SCHEMATIC
EXISTING HISTORIC ISLAND DAIRY LOCATION

1309 RANGELINE ROAD
WASHINGTON, WI 54246

DATE	4.8.2020
PROJECT NUMBER	7229D
DRAWN BY	JS
CHECKED BY	DR
TIMESTAMP	4/8/2020 4:38:29 PM

© Copyright 2020

B

three quarters inch = one foot

one half inch = one foot

three eighths inch = one foot

one quarter inch = one foot

one eighth inch = one foot

one sixteenth inch = one foot

1 / C **NORTH ELEVATION**

1/8" = 1'-0"

www.samuelsgroup.net
CORPORATE OFFICE
311 Financial Way, Suite 300
Wausau, WI 54401
phone 715.842.2222
fax 715.848.8088
IOWA OFFICE
2929 Westown Parkway
Suite 200
West Des Moines, IA 50266
phone 515.288.0467
fax 515.288.0471

ISSUED FOR:	DATE

WASHINGTON ISLAND EMS FACILITY

SCHEMATIC

EXISTING HISTORIC ISLAND DAIRY LOCATION

1309 RANGELINE ROAD
WASHINGTON, WI 54246

DATE	4.8.2020
PROJECT NUMBER	7229D
DRAWN BY	Author
CHECKED BY	Checker
TIMESTAMP	4/8/2020 4:38:30 PM

© Copyright 2020

C

Engberg Anderson ARCHITECTS

DOOR COUNTY ARCHIVE

Younker's Building Renovation

April 10, 2020

Prepared with the Assistance of
Engberg Anderson Architects
Architecture | Interior Design | Planning

PARTICIPANTS

Our thanks to all who contributed their stories, expertise and insight into the process.

STAKEHOLDER GROUP

Dan Austad, Door County Board of Supervisors
Bret Bicoy, Door County Community Foundation, Inc.
Myles Dannhausen, Sr., Egg Harbor Historical Society
Mary Gilbert, Door County Historical Society
Emily Irwin, Ephraim Historical Foundation
Ann Jinkins, Belgian Heritage Center
Tina Kakuske, Door County Library
Dan Klansky, Door County Facilities and Parks Department
Joe Krebsbach, Door County Human Services
Rhys Kuzdas, Door County Maritime Museum
Elisabeth Meissner-Gigstead, Miller Art Museum
Marty Olejniczak, Sturgeon Bay Community Development
Kevin Osgood, Door County Maritime Museum
Ken Pabich, Door County Administration
Kristen Peil, Door County Heritage Alliance
Steve Rice, Door County Archives
Jim Schuessler, Door County Economic Development Center
Pam Seiler, Sturgeon Bay Visitor Center
Nyla Small, Door County Historical Museum
Wayne Spritka, Door County Facilities and Parks Department
Sally Treichel, Door County Archive
Josh VanLieshout, City of Sturgeon Bay
Linda Wait, Door County Board of Supervisors
Maggie Weir, Door County Historical Museum

CONSULTANT TEAM

Alexandra Ramsey, Engberg Anderson, Inc.
Eric Blowers, Engberg Anderson, Inc.
Chris Ulm, Ring and DuChateau
Jeff Saunders, Ring and DuChateau
Robert Wagner, Ring and DuChateau
The Concord Group

PREPARED BY ENGBERG ANDERSON

320 East Buffalo St., Suite 500
Milwaukee, WI 53202
P: 414-944-9000
www.engberganderson.com
EA Project no.193078

TABLE OF CONTENTS

Section 1:	Executive Summary	**4**
Section 2:	Investigations	**6**
Section 3:	Concept Options and Evaluations	**9**
Section 4:	Renovation Layout and Images	**14**
Section 5:	Implementation Plan	**17**

APPENDICIES

Appendix I:	Concept Design Narrative	37 pages
Appendix II:	Cost Estimate Breakdown	17 pages
Appendix III:	Meeting Minutes	14 pages

1. EXECUTIVE SUMMARY

Engberg Anderson collaborated with Door County to envision a new home for the Door County Archive in the vacant 22,300 square foot Younker's Building. The study consisted of three distinct steps. First, understanding the existing conditions and defining the needs of the Archive. Second, developing a series of renovation concepts to pair the Archive with other uses to create a true community asset. Finally, developing a preferred concept design and cost estimate to allow for a complete understanding of the scope of the project.

The investigation phase started with a code review and building tour to understand what portions of the building could be reused, what required improvement or replacement. Following the building investigations, the team inventoried the archive collections currently stored in four separate locations. Finally, we assembled a space needs assessment to quantify the current and future storage area for the archive. The existing collection is 751 cubic feet and is expected to double over the next 10 years, occupying almost half of the 3,100 square foot program for the Archive.

As part of the visioning phase of the project, the design team led both community stakeholders and staff in a series of activities to fully understand the potential for the project. As a group, we examined the goals of the project, the opportunities of the site adjacent to the Museum, and possible mixed-use partners. Different design options were presented for the façade renovation and participants voted on their preferences, determining the direction for a final concept design.

The interior layout for the renovated building is largely driven by the placement of the archive and shared amenities, with remaining space available for county use or lease. After several iterations, county staff and consultants landed on the final arrangement with the archive in the south east corner of the building leaving the entire north length of space open for other uses. At the northeast, a space with a separate building entrance was identified for use by the Youth Connection program.

The final vision for the Younkers Building Renovation was crafted to provide a long term home for the archive including long term preservation grade storage for materials, staff spaces adequate for processing and public spaces for access to the collections. Shared spaces can accommodate programming by the Archive, the Museum and the Library related to archive materials. Additional space can be used to offset other costs for the county or to bring other uses to the building to create a true community asset.

The total cost of the renovation has been estimated at approximately $6,067,000. While reusing the existing building shell, this budget includes a complete replacement of building systems, upgrades to the exterior wall performance and a rooftop solar array. The $210 per square foot for construction is well within regional standards.

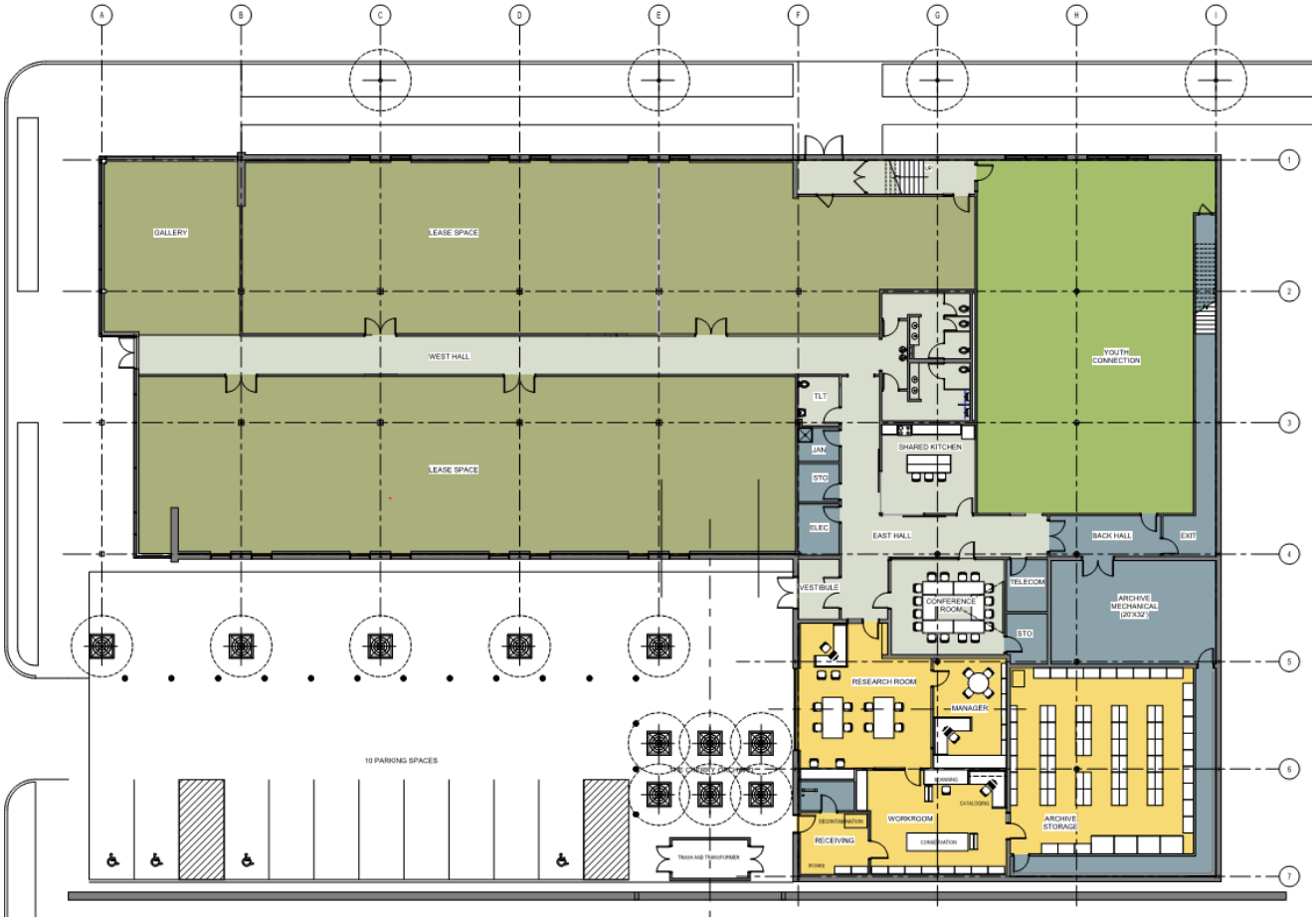


Figure A: Final Renovation Concept Plan

While the lease spaces are shown as two parts with a central hall, the full space could be united into a single suite as long as two exits were maintained.

2. INVESTIGATIONS

Understanding the project parameters is the first step towards developing a renovation plan. Assessing the existing building's deficiencies and potential, then identifying the opportunities of the site and finally establishing the requirements of the archive program, both the quantity and quality of spaces.

The Younkers Building

The existing building is comprised of two parts, a high bay storage building set into a hillside and a lower retail space on the street corner. Both parts are constructed of cast in place foundations, concrete block bearing walls, steel columns and joists supporting a metal deck roof structure.

The structure is in good condition and can continue to define the interior space of the building, as long as additional loads are not imposed. The exterior enclosure requires improvements. Much of the building lacks insulation and the portion of the building nestled into the hill shows clear signs of leakage. While the few large windows at the west were sufficient for a retail showroom, additional windows should be provided if the building supports full time occupants. The roof is currently scheduled for replacement. The building contains hazardous materials that will require remediation.

The building systems, two existing roof top units and several industrial heaters, are inadequate for a future work environment, the single zone system cannot maintain comfort at the various exposures and conditions within the building. They are not capable of delivering the environment needed for the long-term preservation of archival collections. Replacement systems will provide better control and energy efficiency.

The existing restrooms do not meet current accessibility code and do not contain enough fixtures for the proposed uses of the building. It is recognized that while they require expansion and reconfiguration, keeping them close to the original location will reduce the cost of extending the plumbing pipes.

The Building Site

The location of the building just north of the Museum and current Archive in the White House offers the opportunity to create a cultural campus that can meet the needs not just of the Archive, but also some of the priorities identified in previous museum studies. In the Masterplan developed in 2011, an archive space was envisioned with a multi-purpose room and a gift shop. These amenities could be included in the development of the Younker's Building. The drawings below illustrate the site relationship and the proposed expansion of the museum.

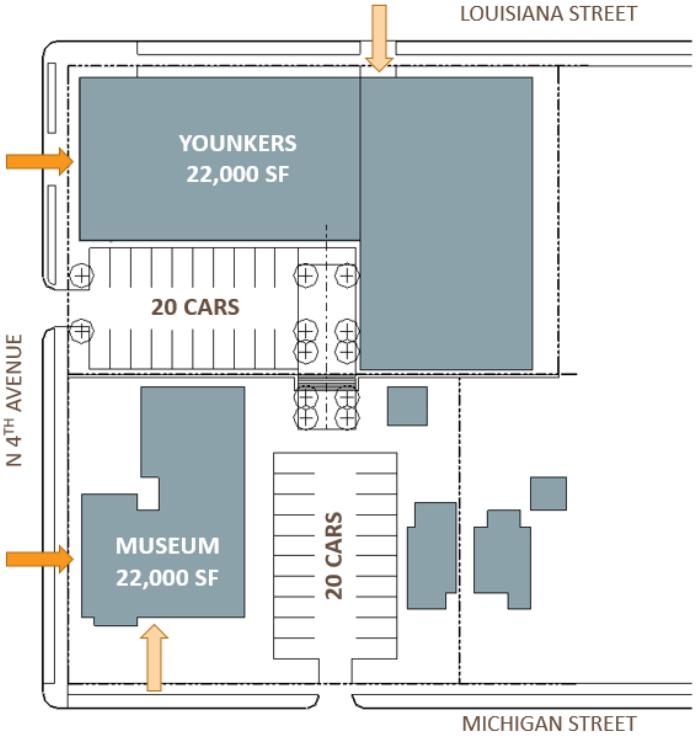


Figure B: Site Plan including the Museum, the White House and the Younkers building.

Figure C: Expansion plan for the Door County Museum, 2011

The Archive Program

The design team performed an inventory of the archive collections, currently located at the Library, the Museum, the White House and the Government Center. In conversations with library and archive staff, it was determined that over the next decade a conservative estimate of acquisitions would likely double the collection. While the current archive materials are stored on a variety of shelving types, the space needs assessment presumes that existing shelving is replaced with typical 42" wide archive shelving that can hold three archive boxes per shelf for the most economical storage arrangement. By efficient use of space, the mechanical systems specified to maintain a preservation grade environment can be minimized. See Appendix A for the complete inventory of collections.

Previous conversations about the role of the Archive in the community resulted in a space program that includes:

- A reception area with lockers to hold visitor's personal items.
- A research room for the public access to collections.
- Office space for archivist, including an area for private consultations.
- A meeting room for programming.
- A small studio for oral history, podcasting, and video production.
- A receiving room for intake and evaluation of collections with an area for decontamination.
- A staff workroom for processing and cataloging incoming items by three volunteers.
- A dedicated storage room to preserve paper, photos, negatives and clothing items.

The Archive has the potential to become the hub of support and cooperation between the various historical societies across the peninsula. While the Archive itself will have a meeting room to host gatherings of local historical societies and other programs, the partnership with the library will allow for outreach programming across the county using branch libraries as host locations. The Archive will become home to shared equipment that can be used by other historic groups including scanning and oral history recording equipment.

The Archive is anticipated to serve a wide range of patrons including individuals researching genealogy, developers looking for information on buildings for tax credit purposes, tour groups interested in the history of the county, school groups learning how to use primary resources for local history units, historians conducting research, and others.

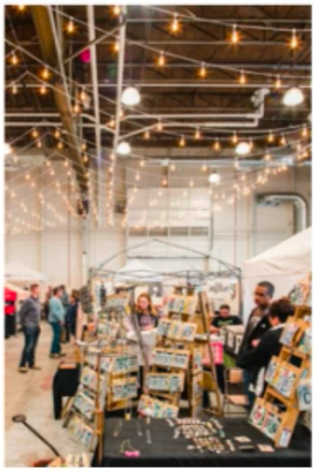
3. CONCEPT OPTIONS AND EVALUATIONS

The planning team invited the community to a public meeting on December 13, 2019 to discuss three questions; what is the best use of the unused portion of the building, where is the base place within the building for the archive, and what should the renovated building look like? Despite the snowy weather, 19 community members attend the evening presentation.

To spur the discussion regarding potential mixed-use partners, Engberg Anderson presented the following four types of activities that could occur within the building:

The Bubbler in Madison

MoDiv in Grand Rapids



The Stanley in Denver

The Waxwing in Milwaukee

NEW SERVICES
Youth Connection
Tinker Lab
Audio-Video Club

INCUBATOR
Retail Incubator
Business Incubator
Co-working Space

MARKET
Winter Market
Craft Market

ENTREPRENEUR
Artist Consignment
Café / Retail
Traditional Lease

New Services was the most popular option among those in attendance. This approach would provide programming by an existing county institution, such as the library or senior center. This would not result in any income to offset expenses. Ideas such as a Children's Museum or other family activity space was proposed.

Entrepreneur came in a close second. This approach would use a typical lease to rent the space, generating income on a predictable interval. Ideas included a theater, restaurant or a Wellness Center which could offer yoga/chiropractor/spa/message or a gift shop that featured local goods.

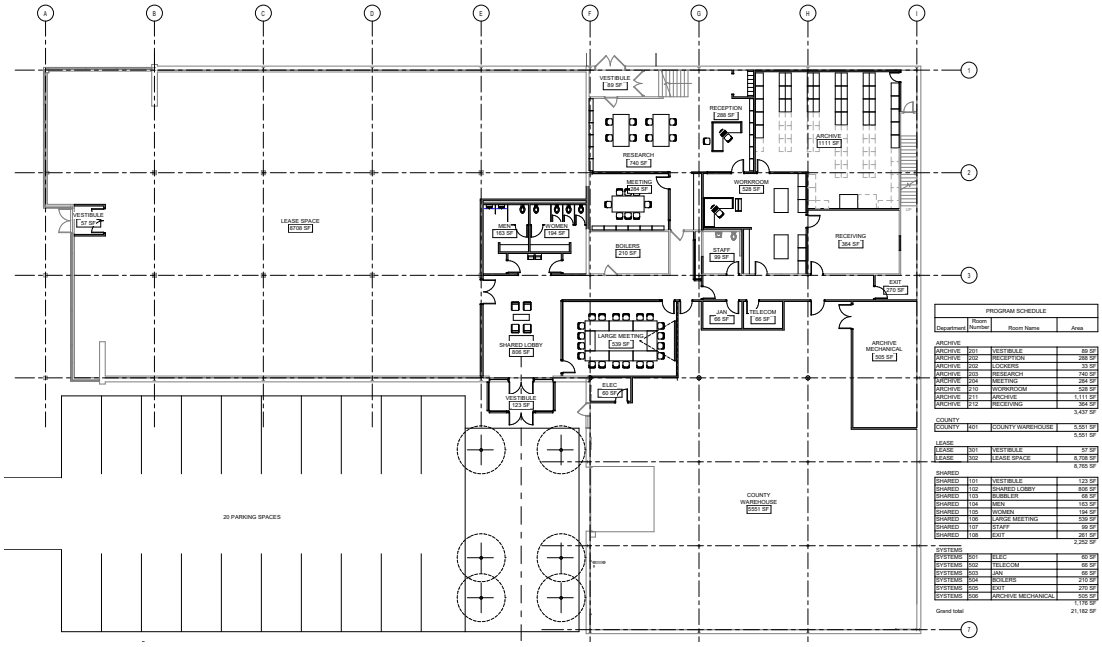
Incubator was the third choice of attendees. The space could host either a retail or business incubator and would include some services by the County to support emerging businesses who would pay a fee for both the support and the retail space within the building.

Market was the least favored of the options. It would include temporary rentals managed by the County. This could include special events including indoor markets or lectures.

Layout Option Exploration

After considering what type of partner would be most appropriate for the building, the discussion turned to where within the building the Archive should be located. Two options were presented for consideration. Both options maintain the warehouse space for county use and future development and provide a shared meeting room for use by the Archive and the other building occupant.

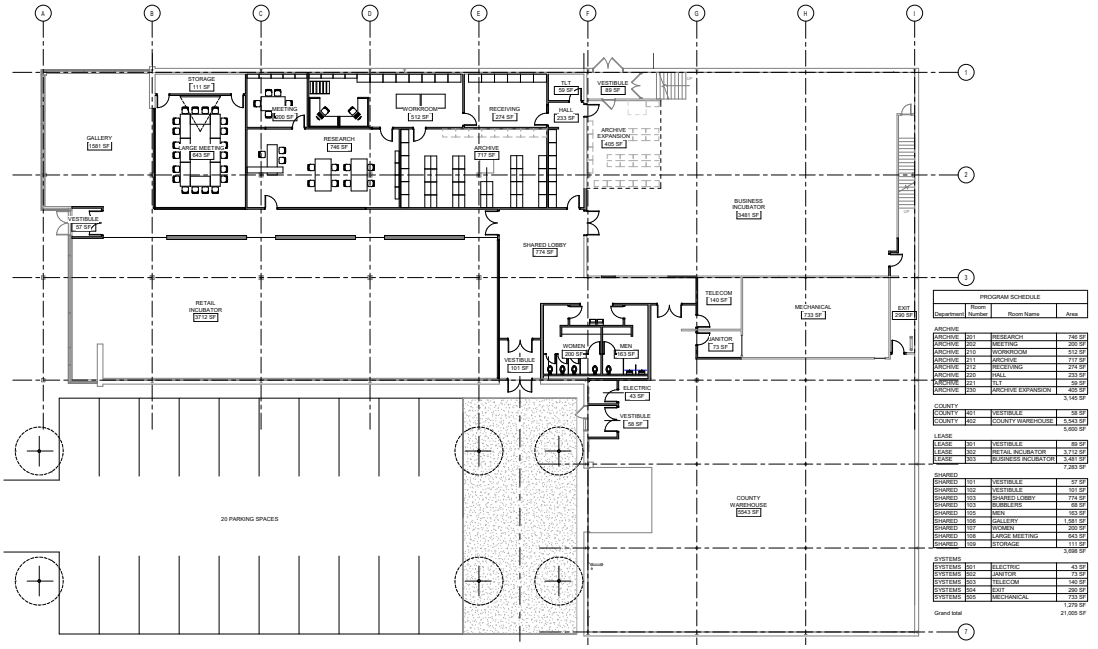
Figure D: Layout Option A



PROGRAM SCHEDULE			
Department	Room Number	Room Name	Area
ARCHIVE			
ARCHIVE	201	VESTIBULE	89 SF
ARCHIVE	202	RECEPTION	285 SF
ARCHIVE	202	LOCKERS	33 SF
ARCHIVE	203	RESEARCH	746 SF
ARCHIVE	204	MEETING	284 SF
ARCHIVE	210	WORKROOM	528 SF
ARCHIVE	211	ARCHIVE	1,111 SF
ARCHIVE	212	RECEIVING	364 SF
			3,439 SF
COUNTY			
COUNTY	401	COUNTY WAREHOUSE	5,551 SF
			5,551 SF
LEASE			
LEASE	301	VESTIBULE	57 SF
LEASE	302	LEASE SPACE	8,708 SF
			8,765 SF
SHARED			
SHARED	101	VESTIBULE	123 SF
SHARED	102	SHARED LOBBY	806 SF
SHARED	103	BUBBLER	68 SF
SHARED	104	MEN	163 SF
SHARED	105	WOMEN	194 SF
SHARED	106	LARGE MEETING	539 SF
SHARED	107	STAFF	99 SF
SHARED	108	EXIT	281 SF
			2,252 SF
SYSTEMS			
SYSTEMS	501	ELEC	60 SF
SYSTEMS	502	TELECOM	66 SF
SYSTEMS	503	JAN	66 SF
SYSTEMS	504	BOILERS	210 SF
SYSTEMS	505	EXIT	270 SF
SYSTEMS	506	ARCHIVE MECHANICAL	505 SF
			1,176 SF
Grand total			21,182 SF

This option takes the fixed elements of the program and anchors them at the back of the building, with the storage tucked into the far corner. The northwest wing is maintained as a large leasable space with the primary street frontage.

Figure E: Layout Option B



PROGRAM SCHEDULE			
Department	Room Number	Room Name	Area
ARCHIVE			
ARCHIVE	201	RESEARCH	746 SF
ARCHIVE	202	MEETING	200 SF
ARCHIVE	210	WORKROOM	512 SF
ARCHIVE	211	ARCHIVE	717 SF
ARCHIVE	212	RECEIVING	274 SF
ARCHIVE	220	HALL	233 SF
ARCHIVE	221	TLT	59 SF
ARCHIVE	230	ARCHIVE EXPANSION	405 SF
			3,145 SF
COUNTY			
COUNTY	401	VESTIBULE	58 SF
COUNTY	402	COUNTY WAREHOUSE	5,543 SF
			5,600 SF
LEASE			
LEASE	301	VESTIBULE	89 SF
LEASE	302	RETAIL INCUBATOR	3,712 SF
LEASE	303	BUSINESS INCUBATOR	3,481 SF
			7,283 SF
SHARED			
SHARED	101	VESTIBULE	57 SF
SHARED	102	VESTIBULE	101 SF
SHARED	103	SHARED LOBBY	774 SF
SHARED	103	BUBBLERS	68 SF
SHARED	105	MEN	163 SF
SHARED	106	GALLERY	1,581 SF
SHARED	107	WOMEN	200 SF
SHARED	108	LARGE MEETING	543 SF
SHARED	109	STORAGE	111 SF
			3,698 SF
SYSTEMS			
SYSTEMS	501	ELECTRIC	43 SF
SYSTEMS	502	JANITOR	73 SF
SYSTEMS	503	TELECOM	140 SF
SYSTEMS	504	EXIT	290 SF
SYSTEMS	505	MECHANICAL	733 SF
			1,279 SF
Grand total			21,005 SF

This option provides a prominent location for the Archive with a gallery space in the corner storefront window. The gallery can host temporary exhibits, advertising the archive collections and programs, inviting visitors in to explore the collections and services provided. The leasable space is divided into two sections, with the front part best suited to small retail units, perhaps an incubator space for local products, perhaps including a gift shop for the museum and archive. The space at the northeast of the building has a back entry and would be suitable for a business use with less need for storefront exposure.

While there was great support for the public exposure for the archive shown in Option B, Option A was preferred for future flexibility and the design team was tasked with exploring an option that placed the Archive in the southeast wing of the building to provide a larger flexible space for other uses.

Renovation Design Exploration

The final task for the community meeting was to consider three different image options for the renovated Younker's Building. Each option focuses the investment on the northwest storefront, replacing the outdated cedar shake awning with a new look. Each option explores adding a new entry at the junction of the two wings to provide separate accessible entrances for all building occupants and adding windows for a more attractive and humane interior.

Figure F: Storefront Option A

This option is designed to fit most comfortably with Door County's historic storefront traditions. New storefront windows, lap siding and masonry piers clad the existing building structure using the current geometry. Deep awnings are added to shade the storefront and provide shelter for passers-by.

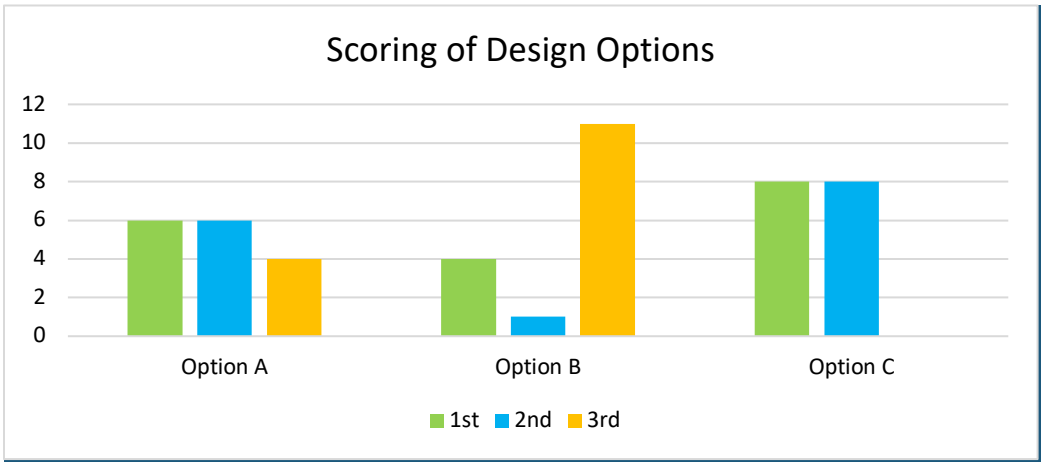
Figure G: Storefront Option B

The second option for renovation takes a completely new and contemporary approach to the design of the building. While the existing geometry is maintained, the façade is now composed of a panelized façade, a flat frame projecting marquee, and colored glass storefront windows.

Figure H: Storefront Option C

The final option was comprised of more rustic materials including brick piers, weathered wood siding and steel accent trim. While the basic geometry of the building remains the same, the storefront windows are enlarged with the head height moved up two feet to adjust the proportions between the solid sign band above and the area of glass below. A sunshade constructed of steel sections and wood slats shelters the glass.

All participants voted their preferences for these approaches with the following results:



As you can see, Option C gathered the most first-place, the most second-place and no third-place votes. Option A was the second favorite and Option C was scored last by a majority those participating.

Comments on the selected option included:

- Raising the windows improves the appearance, additional light is a must.
- The coloration may be too dark, appearance may be too rustic.
- Tie the visual image of the building to the Museum to promote the cultural campus concept.

Following the community meeting, the consultant team reviewed the layouts and designs with broader stakeholder group. Of the 15 participants, 11 selected Option C as their first choice.

The consultant team worked with county and archives staff to further develop the floor plan and building images to arrive at a final concept design to use as the basis of a cost estimate. The renderings and floor plans are included on the following section.

4. RENOVATION LAYOUT AND IMAGES

What follows in this section are floor plan layouts and conceptual images designed to convey the potential of the renovation project. Initial concepts were tested, presented and modified to address additional insight by county staff and committee members. The final floor plan layout is shown below. It is important to note however that these concepts are meant to advance the project to the next stages, helping establish a budget and the viability of the project. They are not, however, finished design documents.

RENOVATION FLOOR PLAN:

The plan for the project is comprised of three main components; the archive in the southeast wing, a space for Youth Connection in the northeast area and a large space available for lease in the northwest wing. The parking area is reduced to provide a visible and safe entry for pedestrians as they travel from the sidewalk to a dedicated entry recessed from the street. That second entry provides access to the shared building amenities including a 16-person conference room, a kitchen and restrooms.

Figure I: Renovation Floor Plan

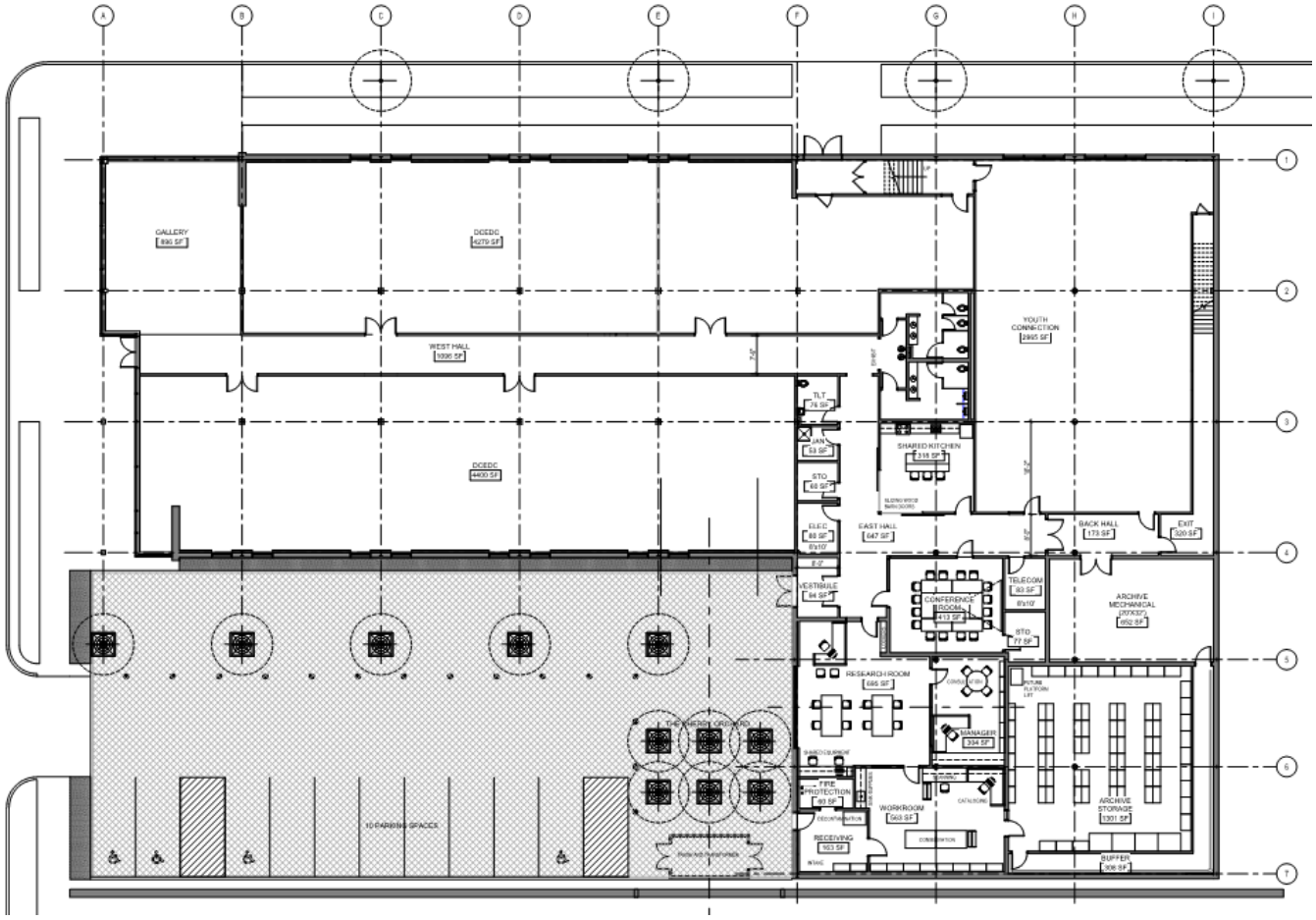


Figure J: View of primary entrance at North 4th Avenue and Louisiana Street

Figure K: View of secondary entrance recessed off North 4th Avenue

Figure L: View of renovated building from the south west

5. IMPLEMENTATION PLAN

With a vision for the building renovation, the planning team assembled a concept design narrative, see Appendix I, to describe the scope of work for the project, including the quantity and quality of materials and labor involved to renovate the 22,300 square foot project area. An independent cost estimator, the Concord Group, used the concept drawings and narrative to provide an estimate for the cost of construction if the project were to be fully designed, bid and built by the end of 2021.

The following summary is a cost breakdown of the estimate, including an anticipated 5.7% escalation.

CONSTRUCTION COSTS	ESTIMATE	
Interior Construction	$ 2,388,000	
Mechanical, Electrical and Plumbing	$ 2,012,000	
Sitework	$ 266,000	
Rooftop Solar Array (140 kw)	$ 534,000	
TOTAL CONSTRUCTION COST	$ 5,200,000	$233 per square foot
Additional Costs	$ 194,000	
Soft Costs	$ 440,000	
Contingency	$ 233,000	
TOTAL PROJECT COST	$ 6,067,000	$272 per square foot

The detailed estimate is included in Appendix II.

Many decisions regarding material selection, system development and project parameters have yet to be defined. Market conditions, as always, are beyond the control of the architect or estimator and will vary over time. No guarantee is given or implied that costs will not vary from this estimate. It is imperative that additional estimates are prepared as the project is developed to ensure conformance with project budgets.

APPENDIX I: Concept Design Narrative

February 5, 2020

CONCEPT DESIGN ESTIMATE NARRATIVE

Door County Archive | Younker's Building Renovation Study

Engberg Anderson Project No. 193078

Contents

PART 1 - BUILDING INFORMATION 3

PART 2 - ESTIMATE PARAMETERS 4

PART 3 - SITE AND LANDSCAPE 5

PART 4 - STRUCTURE 6

PART 5 - ENCLOSURE 7

PART 6 - INTERIOR CONSTRUCTION 8

PART 7 - FIRE PROTECTION SYSTEMS 10

PART 8 - PLUMBING SYSTEMS 11

PART 9 - HEATING VENTILATING AND AIR CONDITIONING 13

PART 10 - ELECTRICAL SYSTEMS 28

PART 1 - BUILDING INFORMATION

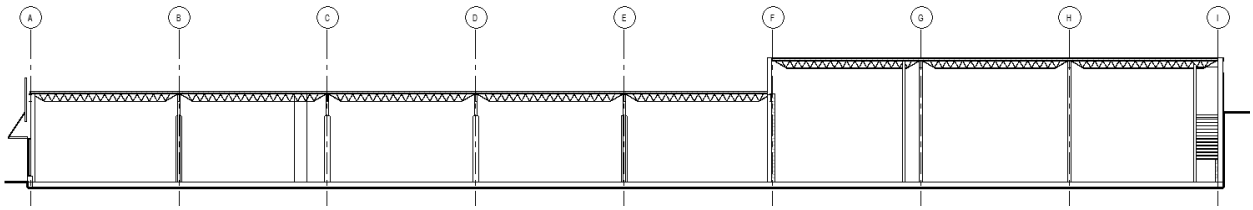
LOCATION
(Former) Younkers Furniture Store
56 N. 4th Ave
Sturgeon Bay, WI 54235

AREA

First Floor – Total Building Area	22,163	sf

The existing building is owned by the County of Door and managed by the Door County Facilities and Parks Department.

BUILDING DESCRIPTION
The building is composed of two adjoined masses; a large retail floor area fronting N 4th Ave and a taller warehouse storage space set back on the NE corner of the site. The one-story building is composed of load bearing 12" CMU block exterior walls with steel columns, open web joists and non-load bearing interior partitions. The concrete floor slab is at sidewalk level along N. 4th Ave and is consistent throughout the building's interior. The grade along Louisiana St. steeply increases traveling NE toward 5th Ave. such that the majority of the existing building volume along its north edge is below grade.



East West Section thru Building Looking North

View of Existing Building Looking Northeast

PART 2 - ESTIMATE PARAMETERS

DESIGN DOCUMENTS

Estimate Narrative (this document)
Concept Drawings

- A01 - Demolition/Repair Drawing
- A10 - Conceptual Site/New Construction Floor Plan
- Renderings of the Concept Design

ESTIMATE COMPONENTS

The estimate shall include a base cost for the construction and related work associated with the building as described below. Include separate line items for all divisions of work with separate alternate line items for the following:

1. Interior buildout for Archive as tenant, including partitions, windows, doors, millwork for rooms south of the demising wall shown on the plans along grid 5. Include mechanical, plumbing, electrical, and lighting.
2. Canopy at north entry door.

SCHEDULE

Construction period will be as described in the following baseline schedule. Comment on validity of construction timeline. Estimate construction costs in current year prices and escalate to midpoint of construction.

ACTIVITY	
Design & Contract Documents	Summer and Fall 2020
Bidding/Award	January to February 2021
Construction	March 2021 – December 2021
Furnishings Installation	January 2022
Archives Opening	February 2022
Tenant Buildouts (NIC)	October 2021 – January 2022

ACCESS

The site is located on the east corner of N 4th Ave and Louisiana St within a well-traveled commercial district. The building is currently vacant and will remain so throughout the project. The continuous on-street parking along Louisiana St. may be utilized in addition to the on-site surface parking lot. The pedestrian sidewalk pathway will need to be provided along N 4th Ave and Louisiana St. during exterior renovations.

PHASING

The project will be constructed in a single phase and includes finishing the tenant suites to a “white box” level of completion. Future phases will include the fit out of the tenant spaces.

KNOWN ENVIRONMENTAL HAZARDS

Aesbestos has been found within the building and will be abated by the Owner under a separate contract.

PART 3 - SITE AND LANDSCAPE

GENERAL DESCRIPTION

The existing property is composed almost entirely of impervious surfaces. The "L-shaped" building footprint occupies a majority of the site cradling the adjacent parking lot occupying the southeastern portion of the site. The north side of the site contains a public sidewalk with two thin planting strips.

The building is set into a hill with the west side at the same elevation as the adjacent sidewalk and street and the east side of the building approximately 12'-8" below grade.

The areas of demolition and new construction are identified on the drawings and include the following:

PERMEABLE PAVER SYSTEM

Remove the existing asphalt parking lot and subgrade and replace with a permeable paver system. The system will include interlocking concrete pavers (Harmony or equal) with the following properties:

1. Pavers with granular joint material set within a concrete edge restraint.
2. 2" bedding course of 3/8" open graded aggregate
3. 4" base course of 1" open graded aggregate
4. 8" sub base course of 2-3" open graded aggregate over geotextile fabric
5. Underdrainage overflow pipe from west side to city sewer.
6. Bollards and tree grates as shown on the drawings.

LANDSCAPE

Provide a landscape bed at the north side of the parking area and extending north towards the entry as shown on the drawings. Provide 12" topsoil over subgrade.

Provide (5) canopy trees and (6) cherry trees with 2" caliper as shown on the drawings.

PART 4 - STRUCTURE

GENERAL DESCRIPTION OF EXISTING STRUCTURE

The existing structure shall remain in place.

- Existing cast in place concrete foundation walls vary in elevation to follow grade.
- Existing exterior walls are composed of 12” load bearing concrete masonry units.
- Interior columns are steel HSS with bays of ranging from 21’-0” x 27’-3” to 25’-8” x 27’-3”.
- HSS columns support open web joist girders and joists carrying a corrugated metal deck.

SLAB ON GRADE

The existing floor slab is a cast-in-place concrete slab-on-grade. The exact thickness, reinforcing, and extents of gravel underlayment is unknown. Where portions of the existing floor slab are dug up, the new slab-on-grade shall consist of similar depth concrete slab reinforced with welded wire fabric at a minimum dosage rate of 4.5 #/cubic yard. The slab sub-grade shall consist of 4 inches of compacted granular fill over a 10mil vapor barrier. Slab control or construction joints shall be spaced no further than 15 feet on center.

NEW WINDOW LINTELS

Where openings are indicated on the plans for new windows, sawcut the existing CMU bearing walls and install steel lintels to support walls above. Lintels to be back to back channels with insulation between to provide a thermal break and will extend 8” past the opening for bearing.

PART 5 - ENCLOSURE

The majority of the existing CMU exterior walls will remain in service. Walls shall be cleaned, tuckpointed and painted. All existing sealant joints shall be removed and resealed.

SCOPE TO INCLUDE:

1. NW ENTRY: The existing cedar canopy, parapet and aluminum storefront systems shall be removed and replaced with a new entrance design, see attached renderings.
2. NORTH ENTRY: Remove and replace the existing double entry doors with new storefront doors. Provide new canopy as shown in the renderings.
3. PARKING ENTRY: Remove and replace the existing entry door with new full glass storefront doors, provide new canopy as shown in the renderings.

STONE BASE (NW ENTRY ONLY)

At brick piers and below storefront system, provide 12” high stone base (Adair stone).

BRICK PIERS (NW ENTRY ONLY)

All masonry shall be installed over a 2-inch air cavity. Flashings shall be EPDM type, 40 mil thick with pre-finished stainless steel drip edge bent to profile and exposed at outer edge.

WOOD SIDING SYSTEM

Wood siding shall be Arbor Wood Co., thermally modified timber, light ash with oil finish installed over z-furring strips, with 2.5” rigid insulation, attached to gypsum sheathing over existing metal studs.

ALUMINUM STOREFRONT SYSTEM

Provide Kawneer Trifab 451UT Storefront framing system or equal, with powdercoat factory finish.
Doors shall be Kawneer AA 425 Entrances, 4.25” top and side and 6.5” bottom rails.
Glass shall be 1” insulated glass with low e coating and argon fill. Tempered as required.

STEEL TRIM AND CANOPY STRUCTURES

Elements to be constructed from standard steel channels, galvanized and finished with high performance paint systems, Tnemec three coat system including Zinc primer, Endura-Shield and Fluoronar.

Wood slats to be Arborwood thermally modified timber, light ash with oil finish.

ROOF SYSTEM

Shall be fully adhered EPDM on shaped extruded polyisocyanurate insulation, pitched 1/4 inch per foot min. to internal drains, on 1/2" gypsum thermal barrier with 6 mil polyethylene vapor barrier. Provide 4” of roof insulation at minimum at roof drains. Wrap roofing up parapet walls and under new two-part compression cap flashing.

SHEET METAL FLASHING AND TRIM

Sheet metal work shall include soffit panels, coping, trim and flashing. Replace all existing copings, 8” face with drip edge typical. Copings at NW Entry shall be multi-part profile fabricated from aluminum with clear anodized finish to match storefront system, see renderings.

PART 6 - INTERIOR CONSTRUCTION

EXTERIOR WALL FURRING

At all exterior load bearing CMU walls, provide 3-5/8" cold formed metal framing up to roof deck w/ 2" min. spray foam insulation and 5/8" gypsum board finish with (1) coat primer, (2) coats finish paint.

DOORS AND FRAMES

- Interior Aluminum partitions system to be Wilson Partitions or similar.
- Typical doors to be solid core wood doors with full glass lites where appropriate, plain sliced cherry.
- Frames to be painted hollow metal, fully welded, with custom sidelights as shown on the plans.
- Kitchen sliding doors to be 8' x 8' custom cherry wood stile and panel doors hung on barn door sliding door hardware, Crown Industrial (43H Standard Flat Track) or equal.

DOOR HARDWARE

- Standard interior Hardware: Mortise Lockset, 3 hinges, closer, hold open, stop.
- Egress doors to have panic hardware.
- Doors to Archive Storage to be fire rated and furnished with full weatherstripping.
- Access control doors to have powered mortise hardware, or egress hardware. Include door monitoring and motion control (where alarmed) from staff side.

RESTROOMS

Finishes:

Floor: 12" x 24" porcelain tile monolithic configuration with 1/8" grout joints. Walls: 12" x 24" tile stack bond configuration. Tile will be located on all walls up to 5 feet, paint above.

Partitions:

Floor mounted, overhead braced, phenolic resin partitions.

Lavatories:

Solid surface with integrated sinks (metal wall bracket supports). Basis-of-design: Bradley Corp – Verge.

Drinking fountains:

ADA hi-lo with integrated bottle filler

FLOOR FINISHES

- Walk off mat at Vestibules.
- LVT plank flooring at Corridor, Hall, Kitchen, Storage, Telecom, Receiving.
- Carpet Tile at Conference Room, Storage, Research Room, Manager, Workroom.
- Sealed Concrete at Archive Storage, Buffer, Fire Protection, Elec, Janitor, Archive Mechanical, Back Hall, Exit, Youth Connection, DCEDC.
- Rubber base – 4" - typical

TYPICAL WALL FINISHES

Gypsum Board interior partitions - (2) coats paint and (1) coat primer.
Kitchen north wall to have glass tile backsplash between counter and underside of upper cabinets/hood.

CEILING FINISHES

Typical ACT to be Armstrong Ultima 2x2 w/ 9/16" grid.
No ceiling at Exit, Archive Mechanical.

MILLWORK

Kitchen Casework

- P-Lam casework with solid surface quartz counter top, undermount stainless steel double basin sink, faucet with integrated sprayer, deck mounted water glass filler.
- Provide electrical and plumbing connections for oven/range, vent hood, dishwasher, 1 refrigerator, coffee maker, 2 microwaves.

Archive Casework

- P-Lam Casework (upper and lower) with HDPL counter top, drop-in single basin stainless steel sink

SPECIALTIES

Accessories

Fire Extinguisher Cabinets

(3), semi-recessed cabinet, white finish. Provide 10# extinguisher at each cabinet.

Toilet Accessories:

- Semi-recessed Paper Towel Dispensers w/ Trash Receptacles 1 each toilet room
- Toilet Paper Dispensers 1 each stall
- Soap Dispensers 1 each lavatory
- Napkin Dispenser 1 each women's room
- Napkin Disposals 1 each women's room stall
- Changing Table 1 each public toilet room
- Changing Table 1 each single occ. restroom
- Coat Hook 1 each stall
- Coat Hook 1 each single occ. restroom
- Hand dryers 1 in Single occ. restroom
- Hand dryers 1 each in Primary Men's and Women's Restrooms

Day-Use Lockers

- 12 Half height lockers: 6 units horizontally, two units tall, 12"x 12" x 36"

Signage

- Interior code required building signage.
- Exterior building signage: Cut aluminum letters, painted, offset mounted. See renderings.

PART 7 - FIRE PROTECTION SYSTEMS

GENERAL

System Type:

1. New Pre-action System with Hydrogen fill (All archives areas),
2. Existing Wet-Pipe (all other), modify head locations based on final layout.

General tenant suites and public spaces will be light hazard. Archive storage will be Ordinary hazard group 2.

The water service is separate from the domestic. There is a backflow preventer installed on the fire service.

Pipe material will be black steel. Large diameter pipes will be joined by roll-grooved fittings. Sprinkler heads on finished ceilings will be with concealing covers, factory coated in a white finish.

CODE

- IFC 2012 + Amendments, NFPA 13
- DSPS Department of Safety and Professional Services

DESIGN CONSIDERATIONS

One main fire alarm panel will serve the entire building. At minimum, each section of building will be separated into zones for sprinkler system and fire alarm purposes.

Sprinklers in areas with finished ceilings will be UL listed recessed quick response pendant type. Finish for sprinkler and escutcheon shall be white.

Sprinklers in unfinished areas or rooms without ceilings will be UL listed brass quick response upright type.

INCLUDE CONSIDERATIONS FOR HIGH PILE STORAGE AND HIGH BAY STORAGE CODE REQUIREMENTS

PART 8 - PLUMBING SYSTEMS

GENERAL

Shared restrooms at the building's core will serve all building occupants. One accessible single occupant gender neutral restroom is also provided.

Sanitary Drainage System:
The sanitary drainage system will collect from all plumbing fixtures and drain by gravity to the city sewer.

Storm Drainage System:
The storm water from flat roof areas will be collected by roof drains with interior conductors and drain piping.

Domestic Water System:
The building has an existing water service – verify size if adequate for remodel. Metered water service for the domestic water supply and wall hydrants.

Code
- IBC Plumbing Code 2012 + Amendments
- DSPS Wisconsin Department of Safety And Professional Services

FIXTURES
Fixtures will comply with ADA Accessibility Guidelines where required.
- Water Closets: Elongated wall-mounted 1.28-gpf high efficiency (HET) fixture with top spud, open front seat, and infrared-sensor flush valve.
- Urinal: Wall-mounted washout 0.125-gpf (one pint per flush) high efficiency (HEU) fixture with top spud and infrared-sensor flush valve.
- Lavatories: Solid surface counters with integral bowls and wall-hung vitreous china lavatories. Lavatories shall generally have infrared-sensor faucets that flow at 0.5-gpm.
- Sinks: Single-compartment, self-rimming, counter-mount, 18-gauge, 302 stainless steel with manually-operated faucets, maximum 1.5 gpm.
- Mop Basin: 24" x 24" x 10" molded stone basin and faucet with elevated vacuum breaker, and FRP wall guards.

PLUMBING SPECIALTIES
- Floor drains in finished areas will have cast iron bodies with nickel-bronze strainers.
- Floor drains in mechanical areas will have cast iron bodies with cast iron strainers.
- Roof drains will have cast iron bodies with a cast iron dome strainer
- Overflow storm downspout nozzles will have nickel bronze body, outlet nozzle, and wall flange.
- Floor cleanouts will have cast iron bodies with nickel-bronze covers.
- Wall cleanouts will have a stainless steel wall plate.
- Trap primers will be provided for floor drains subject to trap seal evaporation.
- ASSE 1013 reduced pressure principle backflow preventer will be furnished in the water supply to mechanical equipment and on the water services, fire and domestic.

PIPE MATERIALS

Pipe material for sanitary waste, storm water, clear-water waste, and vent piping above floor will be cast iron pipe. Similar exterior piping and interior buried piping will be Schedule 40 PVC pipe.

Water service piping and water distribution piping 4” and larger shall be ductile iron with mechanical joints. Water distribution piping 3” and smaller will be Type L copper.

Pipe Insulation

Fiberglass insulation of 1” thickness will be installed on domestic hot water piping including circulating return. Fiberglass insulation of ½” thickness with a vapor barrier will be installed on domestic cold water piping. Fiberglass pipe insulation will be jacketed with a kraft-foil covering.

Fiberglass insulation of ½” thickness with a vapor barrier will be installed on horizontal storm piping installed above floor and initial 4’ of vertical storm conductors. Fiberglass pipe insulation will be jacketed with a kraft-foil covering.

DOMESTIC WATER HEATING

A high-efficiency gas water heater will be provided for domestic hot water. The heater will include a circulation pump for distribution temperature maintenance and a mixing valve.

PART 9 - HEATING VENTILATING AND AIR CONDITIONING

BASE DESIGN CRITERIA

Applicable Codes, Guidelines, and Standards.

2015 Wisconsin State Building Code (amendments to International Codes)

2015 International Building Code

2015 International Mechanical Code.

2015 International Fuel Gas Code

2015 International Energy Efficiency Code

National Fire Protection Association (NFPA) guidelines and standards including the following:

NFPA 30 - Flammable and Combustible Liquids Code

NFPA 54 - National Fuel Gas Code.

NFPA 90A – Standard for the Installation of Air Conditioning and Ventilating Systems

NFPA 101 – Life Safety Code.

ASCE 7 – Minimum Design Loads for Buildings and Other Structures.

Occupational Safety and Health Administration (OSHA).

ASHRAE Standard 90.1 - 2016 Energy Standard for Buildings Except Low-Rise Residential Buildings.

ASHRAE Standard 55 - 2013 Thermal environmental Conditions for Human Occupancy

ASHRAE Standard 62.1 - 2016 Ventilation for Acceptable Indoor Air Quality

Standard 15-2013 Safety Standard for Refrigeration Systems

American Industrial Hygiene Association (AIHA) guidelines and standards

Sheet Metal and Air Conditioning Contractors National Association (SMACNA)

Outdoor Design Conditions

Cooling Design Outdoor Air Conditions:

Dry-Bulb Temperature: 89°Fdb/74°Fwb. (based on ASHRAE 0.04% DB/MCWB for Sheboygan, Wisconsin)

Heating Design Outdoor Air Conditions

Dry-Bulb Temperature: -15°F (based on ASHRAE 99.6% Heating DB)

Ambient Design Outdoor Air Conditions

Dry-Bulb Temperature: 95°F

Wet-Bulb Temperature: 78°F

Indoor Design Conditions

Indoor/outdoor design conditions will be based on data in the ASHRAE standard 55 (summarized in the table below).

Area Description	Temp °F	Relative Humidity % (see note# 1 below)	Equipment (Watts/SF) (see note# 2 below)	Lighting (Watts/SF) (see note# 3 below)	Min. Air Change (see note# 4 below)	Acoustic Criteria (See note# 6 below)
Archive Storage	62°-65°F ± 1°F	30-50% ± 2%	0.25	1.0	2.0	35 NC
Tenant/Studio Spaces	70°-75°F ± 2°F	20-60% ± 2%	0.25	1.0	2.0	30 NC
Corridors and Public Areas	72°-75°F ± 2°F	20-60% ± 5%	0.0-0.5	0.5	1.5	35 NC
Lobbies	72°-75°F ± 2°F	20-60% ± 5%	0.5	2.0	2.0	35 NC
Office Spaces	70°-75°F ± 2°F	30-60% ± 2%	1.0	0.8	1.5	35 NC
Work Areas	72°-75°F ± 2°F	30-80% ± 5%	0.5	1.0	1.5	40 NC
Information Technology Data & Telecom Rooms	72°-75°F ± 2°F (Year-round)	Not Controlled	1.0	1.0	1.5	-
Mechanical Equipment Rooms	60°-90°F	-	-	-	-	-
Outdoor Mechanical Equipment	-	-	-	-	-	55 NC (At property line) (See note# 5 below)

1. Summer: 50% RH (High Limits); Winter: No Humidity Control.
2. Estimated equipment load information for initial HVAC loads.
3. Lighting load information for final HVAC loads will be based on Division 26 Electrical Information.
4. Minimum Air Changes per Hour will be provided to meet code. The final design minimum and maximum air changes will be determined by final cooling loads, system air balance to meet room required air pressure relationships and any Owner's special procedure requirements provided in the project programing identified for special HVAC operating conditions.

5. Exterior mechanical equipment shall be evaluated for anticipated sounds levels and attenuation provided as appropriate to comply with all applicable local noise requirements.

Design Building Loads (to be confirmed as the design progresses):

Trace 700 HVAC calculation software will be used to calculate building heating and cooling loads.

Lighting and Power: Refer to the Electrical Design Narrative.

Occupancy: Based on quantities identified in the architectural programming.

- Sensible and Latent loads will be increased in design calculations to account for activities that differ from typical occupancy heat rejections listed below, and as identified in the architectural programing.
- The typical occupancy heat rejection will be as follows:
    - Sensible: 250 Btuh/person
    - Latent: 250 Btuh/person

Rooms with large equipment shall be calculated for actual equipment load and actual lighting load, per space program and equipment data.

Where specific lighting load information is not available, an average of 1.5 watts per square foot will be used until actual lighting load information is confirmed.

Diversity: 80%.

Infiltration:

- The building heat loss calculations will include an infiltration load based on 0.15 cfm of infiltration air per square foot of exterior wall area.
- Infiltration rates of 200 cfm per door or up to 10 air changes per hour will be used for main entrance. Infiltration rates of 100 cfm will be used for secondary entrances and exits.

Building Envelope

- Performance criteria for building envelope construction materials shall be provided by Architect.
- Construction material coefficients will comply with the International Energy Conservation Code requirements as a minimum.

Vibration Elimination Criteria

All HVAC equipment shall be isolated per Table 47, Chapter 48 of the 2015 ASHRAE - HVAC Applications handbook.

Minimum Ventilation Rates

Outdoor Air:

- General Office Areas: 20 cfm per occupant, or as required to meet the requirements of ASHRAE Standard 62.1.
- Conference Areas: 20 cfm per occupant, or as required to meet the requirements of ASHRAE Standard 62.1.

Exhaust Air:

- Toilet Rooms: 10 air changes per hour or minimum code requirement.
- Janitor Closet: 10 air changes per hour or minimum code requirement.
- Kitchen/Servery Areas: Exhaust rate shall meet minimum code requirements or 2.0 cfm/sq. ft. of food preparation areas.

Minimum Air Changes:

- As required by ASHRAE Standard 62.1, or as required to meet cooling load.
- All rooms shall be designed for a minimum of 0.4 cfm/sf, or 30% of the maximum cooling air volume, whichever is greater.

Building Pressure Relationships:

As defined by ASHRAE Standard 62.1. Generally pressures shall be as follows:

SPACE/AREA	AIR MOVEMENT
Offices	Neutral
Main Corridors	Neutral
Conference/Meeting	Neutral
Kitchen/Servery	In
Toilet	In
Janitors Closet	In

GOALS

Sustainable Design: The project will not be LEED certified. However, the intent is to follow LEED principals where appropriate.

Redundancy: The ability to continue to operate areas of the facility in the event of equipment failure is very important. Systems will be designed with redundant components as appropriate to meet this requirement.

COMMON EQUIPMENT AND MATERIALS

Piping Systems:

Natural Gas

- 2" and smaller and pressure less than 5 psig: ANSI B16.3, malleable iron, Class 150, black, threaded.
- 2-1/2" and larger or pressure greater than 5 psig: ASTM A234, forged steel, standard weight, seamless, welded.

- All gas piping serving kitchen equipment shall be welded.
- Welded fittings may be used for all pipe sizes, regardless of pressure at Contractor's option.

Hot Water Water Systems

- Material:
  - Type L copper piping with soldered fittings or carbon steel pipe with threaded fittings for pipes 2" and smaller.
  - Carbon steel piping with welded fittings for pipes 2-1/2" and larger.
  - Insulation: Rigid Fiberglass, 1-1/2” thickness for piping 1-1/4” and smaller, 2” thickness for piping 1-1/2” and larger.
- Pipe Sizing
  - Maximum pressure drop of 4 ft of water/100 ft of piping for piping 1” and larger.
  - 2 fps minimum velocity to 10 fps maximum velocity.
- Expansion Compensation
  - “L-bend”, “U-bends” and “Z-bends” will be used for expansion compensation on the floors, space permitting.
  - Pre-fabricated expansion loops, similar to Metraflex “Metraloops” will be utilized where space does not permit the use of hard loops.

Refrigerant

- Material:
  - Type ACR hard drawn copper tubing with brazed fittings.
  - Insulation: Polyisocyanurate or Closed Cell, 1” thickness for piping 1-1/4” and smaller, 1-1/2” thickness for piping 1-1/2” and larger.
- Provide with accessories such as moisture indicators, filter dryers, expansion valves and service valves for a complete system.

Cooling Condensate and Drain

- Material:
  - Type L copper piping with soldered fittings or carbon steel pipe with threaded fittings for pipes 2" and smaller.
  - Carbon steel piping with welded fittings for pipes 2-1/2" and larger.
  - Insulation: Polyisocyanurate or Closed Cell, 1/2” thickness for piping 1-1/4” and smaller, 1” thickness for piping 1-1/2” and larger.

Ductwork:

- Supply, Return, Transfer and General Exhaust Ductwork: Galvanized Sheetmetal.
- Supply air ductwork will not be lined. Sound attenuating flexible duct up to 6 ft in total length, will be provided at the supply diffusers to control noise.
- Return air duct systems may be lined depending on sound criteria required for each system.

- Ductwork will be constructed in accordance with SMACNA Standards for appropriate pressure class.
- Ductwork will be sealed to meet SMACNA Seal Class A as a minimum and to limit ductwork leakage not exceeding 1% of the design flow rate for high pressure ductwork and 2% for low pressure ductwork.
- All high pressure Supply, Return and Exhaust ductwork will be leak tested per SMACNA Standards.
- Supply and Return ductwork will be designed in a looped system where appropriate, to allow greater flexibility for future changes.

Insulation:

- Supply Ductwork
  - Exposed above 12 feet: 2" Flexible Fiberglass Wrap
  - Exposed below 12 feet: 2" Rigid Fiberglass Board with Canvas or Laminate covering
  - Concealed: 2" Flexible Fiberglass Wrap.
- Return ductwork (where insulation is required per code):
  - Exposed above 12 feet: 2" Flexible Fiberglass Wrap
  - Exposed below 12 feet: 2" Rigid Fiberglass Board with Canvas or Laminate covering
  - Concealed: 2" Flexible Fiberglass Wrap.
- General Exhaust (from damper to roof or wall):
  - Exposed above 12 feet: 2" Flexible Fiberglass Wrap
  - Exposed below 12 feet: 2" Rigid Fiberglass Board with Canvas or Laminate covering
  - Concealed: 2" Flexible Fiberglass Wrap.

Note: Increase insulation thickness 1" for ductwork exposed to weather.

Duct System Distribution Criteria:

- Supply Ductwork Sizing
  - From Air Handling Unit to Air terminal Units (ATU) Device:
    - 0.10"/100 ft when < 10,000 cfm
    - 1,800 fpm when > 10,000 cfm.

    (Duct size to ATU device = ATU inlet size within 6 ft of ATU)
  - Air Terminal Unit to Supply Diffuser
    - 0.08"/100 ft when < 8,000 cfm.
    - 1,600 fpm when > 8,000 cfm.
- Return Ductwork Sizing
  - From Return Grille to Return Air main:
    - 0.05"/100 ft when < 8,000 cfm.
    - 1,200 fpm when > 8,000 cfm.

    - Return Air main:
        - 0.10”/100 ft when < 10,000 cfm
        - 1,800 fpm when > 10,000 cfm
- Exhaust Ductwork Sizing
    - From Exhaust Grille to Exhaust Air main:
        - 0.08"/100 ft when < 8,000 cfm.
        - 1,600 fpm when > 8,000 cfm.
    - Exhaust Air main:
        - 0.10”/100 ft when < 10,000 cfm
        - 1,800 fpm when > 10,000 cfm

Grilles and Diffusers:

- Supply Ceiling Diffusers: Aluminum, Square Plaque type similar to Titus Omni.
- Supply Linear Bar Grilles: Extruded Aluminum, similar to Titus Flowbar.
- Supply Sidewall Diffusers: Aluminum, double deflection, ¾” blade spacing, similar to Titus Aero Blade 272.
- Return and Exhaust Ceiling & Sidewall grilles: Aluminum, ¾” blade spacing with 45º deflection, similar to Titus 3FL.

Air Terminal Units

- Supply:
    - Single duct, with non-friable interior liner, flow measuring station and low leakage dampers.
    - Galvanized sheetmetal construction with round inlet and square outlet.
    - Hot water coil 18” from damper with double wall, cam locking access panel upstream of reheat coil.
- Zoning
    - In general, each room shall have an independent supply air terminal unit.
    - Small offices and other miscellaneous spaces may be combined onto a single air terminal unit provided the rooms have similar functions, occupancy and exposures. No more than three (3) rooms will be combined on any one supply box.

- Controls
    - Each supply air terminal unit will have DDC control.
    - The return or exhaust box shall track the supply box airflow less any scheduled offset, to maintain desired room pressure relationships.

Hot Water Terminal Units

Space heating shall be accomplished by the VAV box reheat coils and terminal hot water units.

Terminal hot water units may consist of the following:

- Unit Heaters
- Cabinet Heaters
- Finned Pipe Radiation

Unit heaters shall be used in unfinished areas such as storage rooms, mechanical rooms, etc.

Cabinet Unit heaters shall be used in finished areas such as vestibules, stairways and lobbies.

Finned pipe radiation may be used for all rooms where the glass area exceeds 30% of the gross wall area.

Sizing:

- All terminal equipment, except perimeter radiation, shall be sized for a 30 ºF temperature drop or a minimum flow rate of 0.5 gpm.
- All radiation shall be sized for a 20 ºF temperature drop or a minimum flow rate of 0.5 gpm.

INFRASTRUCTURE

Natural Gas

Utility: Local Gas Utility.

Pressure: 2 psig (to be confirmed).

Meter Location: Outside of Garage at South wall.

Distribution: Gas from the utility meter will be distributed in the building to the hot water boilers. A valved connection shall be left for extension by the Plumbing Contractor to the domestic water heater and any kitchen equipment. Pressure reducing valves shall be provided as appropriate.

Piping and gas entrance equipment will be designed and installed in accordance with local gas utility and State code requirements.

The size of new gas meter, pressure regulating valves and other accessories will be determined by the local gas utility to account for estimated current load and any identified future capacity requirements.

Hot Water Heating System

The system shall provide hot water to all air handling unit heating coils, VAV box reheat coils, cabinet heaters, perimeter radiation and all other hot water terminal units.

- Redundancy: The hot water system will have redundant boilers, pumps and VFDs.
- Reserve Capacity: None.
- Future Expansion: None.
- Design Criteria:
    - Entering Water Temperature: 110 ºF.
    - Leaving Water Temperature: 140 ºF
- System will consist of the following:

  Condensing Boilers:
    - Two (2) modulating sealed combustion condensing boilers, similar to Aerco Benchmark. Capable of minimum 20:1 turndown operating with natural gas.
    - Boiler blowers shall be equipped with variable frequency drives for capacity control.
    - Each boiler shall be equipped with safety relief valves and FM gas train.

    - Estimated capacity of 750 mbh input per boiler.
- A variable flow hot water pumping system shall be provided and consist of the following components:
    - A "Spirovent" or equivalent air eliminator and dirt separator with an automatic air elimination valve.
    - A 5 micron filter system designed for 10% of the flow. The filter system shall be piped across the pumps from the supply to the return piping.
    - Two (2) end suction pumps, with suction diffusers and triple duty valves. Each pump will be selected for 100% of the design flow plus 10% additional flow for the by-pass filter.
    - A VFD for each pump shall be provided for capacity control.
    - Components may be skid mounted package purchased from a pre-approved vendor or constructed by contractor to the engineer's specifications.
- The contractor shall furnish and install the following accessory components:
    - Bladder expansion tanks as required
    - Automatic make up water valves connected to a non-potable water supply
    - Safety relief valves
    - Chemical pot feeder.
- In general, two way control valves shall be provided at all terminal units and air handling units. Selected terminal units and air handling units shall have 3 way valves to provide minimum flow for the pumps and maintain loop temperature.

Cooling System

Systems will use dedicated DX refrigerant cooling for air handling units.

DX systems will use multiple compressors, with a minimum of one (1) lead variable speed compressor or digital scroll compressors for capacity control.

DX systems will use low sound condenser fans with variable speed control.

Air Handling Systems

Standard packaged air conditioning units shall be provided as indicated.

Design Criteria: Equipment shall be provided to conform to ASHRAE 90.1 requirements and to help achieve the energy reduction goals of the project.

- Air Handling Unit Component Sizing
    - Maximum allowable nominal face velocities for air handling unit components are as follows:
        - Air Intake Louvers (free area) - 600 fpm
        - Hot Water Heating Coils - 600 fpm
        - Cooling Coils - 500 fpm
        - Pre-filters and Final-filters - 450 fpm
        - Sound Attenuating Devices - 1200 fpm

    - Reduced face velocities shall be maintained as indicated above to conform to ASHRAE 90.1 requirements and help achieve the energy reduction goals of the project.
- Common features:
    - Casings:
        - Indoor units: 2” thick foam filled double wall units.
        - Outdoor units: 4” thick foam filled double wall units, with sloped roof and piping enclosure.
    - Leakage Rates: 1% of rated CFM at 150% of design pressure.
    - Drain Pans: Double wall, pitched, stainless steel meeting all the requirements of ASHRAE 62. Provide drain pans in the following sections:
        - Outdoor air intake
        - Downstream of cooling coils
        - In fan sections immediately downstream of cooling coils.
    - Access sections: 18” minimum width provided between each component.
    - Access Doors
        - Provide on both side of units unless shown otherwise
        - Gasketed, double wall, positive latching with a view window.
        - Doors shall open up against pressure.
    - Ultra-low leakage Class II dampers.
    - Lights: Waterproof LED marine lights in each access section and fan section. Lights shall be prewired to switches outside each door.
    - Vibration isolation: All fans shall be internally isolated.
    - UV Lights: Space shall be provided for future installation of UV lights, located downstream of each cooling coil.
    - Pipe Stands (indoor units): 12” high minimum or as required to provide adequate clearance for cooling coil trap.
    - Roof Curbs (outdoor units): Minimum 36” high insulated prefab curbs (higher where required for return duct routing).
    - Smoke Dampers: Provided at the inlet and outlet of each unit as indicated.
    - Charcoal Filters: Space shall be provided at each pre-filter section to allow for the installation of a future charcoal filter bank. Fan selection shall account for additional pressure drop.
- All systems will be a single duct, variable air volume reheat system providing heating and cooling to the spaces.
- The air handling systems will utilize a ceiling plenum return air system. All material within the ceiling plenum space shall conform to applicable code requirements. Return and transfer air ductwork will be acoustically lined.

Air Handling Unit (AHU-1)

- Serves: DCEDC (Tenant) area.
- Location: Roof

- CFM/TSP: 10,000 CFM @ 5.5" TSP
- System Type: Draw through, Variable Air Volume (VAV)
- DX Cooling Capacity: 25 tons
- Typical packaged outdoor air handling unit shall consist of the following:
    - Return Isolation Damper
    - Return Air Silencer (may be installed in the ductwork)
    - Return/Relief Air Fan, with VFD and Air Flow Measuring Station (AFMS)
    - Return and Relief Air Dampers
    - Outside Air Intake Damper with Airflow Measuring Station
    - Air Mixing Device
    - MERV 8 Pre-filters and MERV 13 Final filters
    - Supply Air Fan, with VFD and AFMS
    - Pumped Hot Water Heating Coil
    - DX Refrigerant Cooling Coil
    - Dehumidification (hot gas reheat) coil
    - Sound Attenuation (may be installed in the ductwork)
    - Supply Isolation Damper

Air Handling Unit (AHU-2)

- Serves: Youth Connection area.
- Location: Roof
- CFM/TSP: 3,000 CFM @ 5.5" TSP
- System Type: Draw through, Variable Air Volume (VAV)
- DX Cooling Capacity: 7.5 tons
- Typical packaged outdoor air handling unit shall consist of the following:
    - Return Isolation Damper
    - Return Air Silencer (may be installed in the ductwork)
    - Return/Relief Air Fan, with VFD and Air Flow Measuring Station (AFMS)
    - Return and Relief Air Dampers
    - Outside Air Intake Damper with Airflow Measuring Station
    - Air Mixing Device
    - MERV 8 Pre-filters and MERV 13 Final filters
    - Supply Air Fan, with VFD and AFMS
    - Pumped Hot Water Heating Coil
    - DX Refrigerant Cooling Coil
    - Dehumidification (hot gas reheat) coil
    - Sound Attenuation (may be installed in the ductwork)
    - Supply Isolation Damper

Air Handling Unit (AHU-3)

- Serves: Research/Workroom area.

- Location: Roof.
- CFM/TSP: 4,000 CFM @ 5.5" TSP
- System Type: Draw through, Variable Air Volume (VAV)
- DX Cooling Capacity: 10 tons
- Typical packaged outdoor air handling unit shall consist of the following:
    - Return Isolation Damper
    - Return Air Silencer (may be installed in the ductwork)
    - Return/Relief Air Fan, with VFD and Air Flow Measuring Station (AFMS)
    - Return and Relief Air Dampers
    - Outside Air Intake Damper with Airflow Measuring Station
    - Air Mixing Device
    - MERV 8 Pre-filters and MERV 13 Final filters
    - Supply Air Fan, with VFD and AFMS
    - Pumped Hot Water Heating Coil
    - DX Refrigerant Cooling Coil
    - Dehumidification (hot gas reheat) coil
    - Sound Attenuation (may be installed in the ductwork)
    - Supply Isolation Damper

Air Handling Unit (AHU-4)

- Serves: Archive Storage.
- Location: Archive Mechanical Room.
- CFM/TSP: 4,000 CFM @ 7.0" TSP
- System Type: Draw through, Variable Air Volume (VAV)
- DX Cooling Capacity: 25 tons
- Typical packaged indoor air handling unit shall consist of the following:
    - Return Isolation Damper
    - Return Air Silencer (may be installed in the ductwork)
    - Return/Relief Air Fan, with VFD and Air Flow Measuring Station (AFMS)
    - Return and Relief Air Dampers
    - Outside Air Intake Damper with Airflow Measuring Station
    - Air Mixing Device
    - MERV 8 Pre-filters and MERV 13 Final filters
    - Supply Air Fan, with VFD and AFMS
    - Pumped Hot Water Heating Coil
    - Hot Water Reheat Coil
    - DX Refrigerant Pre-Cooling Coil
    - DX Refrigerant Post-Cooling Coil
    - Dehumidification (hot gas reheat) coil
    - Sound Attenuation (may be installed in the ductwork)

    - Supply Isolation Damper
    - Desiccant dehumidification section including a desiccant wheel, modulating gas or electric reactivation air heater and blower, and face and bypass plenum.
- System shall be capable of 100% exhaust/outside air in case of a purge exhaust condition. Space conditions may fall outside of the indicated ranges during such a condition.
- System shall include a roof mounted DX condensing unit, paired with the indoor air handling unit, to serve the pre-cooling and post-cooling coils.

Exhaust/Make-up Air Systems

A general exhaust system shall be provided for each major area of the project.

The system shall provide exhaust for the following rooms:

- Kitchen/Cafe services.
- Toilet Rooms.
- Janitor's Closets.
- Workrooms.
- Any other rooms requiring general exhaust by code or use.

Exhaust Fans: Backward inclined, belt or direct drive, aluminum, power roof ventilators or backward inclined, belt or direct drive square inline or mixed flow axial fans. Direct drive with EC motors to be provided where fan selection allows.

Miscellaneous Cooling Systems

Miscellaneous Cooling Systems shall be provided for the following rooms where mechanical cooling is required:

- Telecomm/Data Rooms.
- Electrical Rooms.

Design Criteria

- 2 tons or less: Supply and transfer/exhaust air from the central air handling system with a dedicated air terminal unit and transfer/exhaust fan.
- 2 tons or greater: Self-contained DX split system with condensate pump and associated outdoor condensing unit.

Building Automation System (BAS)

- A new Building Automation System will be provided for connection to new equipment, and extended for control and monitoring of any existing HVAC systems to remain.
- System shall be provided by Automated Logic Controls, to be integrated with the existing Door County facility controls system.
- The system will have a Web based portal for remote access by operating personal.
- System to include a complete graphics package with system schematics and floor plans locating each major piece of equipment controlled.
- Field control devices (valve and damper actuators, etc.) shall be DDC.
- System will be designed for no more than 50% of its maximum loading.

- The following systems may be integrated via Lon or BACnet into the Building Automation System:
    - Electrical Systems:
        - Emergency Generator
        - Transfer Switches
        - Power Monitoring Systems
        - Lighting Control Panels
        - Fire Alarm System
    - Fire Suppression Systems:
        - No integration
    - Plumbing Systems:
        - No integration
    - HVAC Systems:
        - Boiler Control System
        - Rooftop Air Conditioning Units
        - Variable Frequency Drives
        - All other HVAC system and equipment that are not directly controlled by the BAS

LIFE SAFETY

- Smoke detectors (and dampers where required by code) will be provided at air handling unit supply and return ductwork for unit shutdown/isolation upon signal from fire alarm system. Smoke detectors will be provided by the Electrical Contractor.
- Fire and smoke dampers will be provided at rated construction to meet applicable code requirements. Smoke detectors will be provided by the Electrical Contractor.

TESTING AND BALANCING

- Central air distribution systems will be balanced to deliver the required airflows for the project.
- Hot water distribution systems to be balanced to deliver the required hot water flow for the project.
- Air handling unit hot water coils and terminal units to be balanced to deliver the required water flows for the project.
- Provide phased testing and balancing to meet project construction phasing requirements.

FUTURE DESIGN CONSIDERATIONS

No future design considerations are taken into account. New equipment and associated distribution systems will need to be provided as part of any future building remodeling or expansion projects.

COMMISSIONING

- All major systems (air handling units, hot water heating, DX cooling, etc.) as well as life safety systems will be commissioned.

- The appropriate contractor will be expected to verify the equipment installed meets all performance requirements, as well as to address and remedy any issues discovered during the commissioning process.
- Commissioning work to be performed by the Mechanical Contractor shall include, but not be limited to:
    - Start-up and testing of equipment.
    - Performing commissioning tests, including seasonal tests.
    - Providing appropriate commissioning documentation.
    - Attend commissioning meetings per Cx agent request.

PART 10 - ELECTRICAL SYSTEMS

APPLICABLE CODES, GUIDELINES, AND STANDARDS

The codes and standards listed below are considered to provide the minimum design requirements necessary. Actual design parameters may exceed these requirements where appropriate.

- DSPS Wisconsin Department of Safety and Professional Services
- IEEE Institute of Electrical and Electronics Engineers
- IESNA Illuminating Engineering Society of North America
- NEC National Electrical Code as adopted in Wisconsin
- NECA National Electrical Contractors Association
- NEMA National Electrical Manufacturers Association
- UL Underwriters Laboratories
- NFPA 1, 70, 72, 99, 101, 780
- ADAAG Americans with Disabilities Act Accessibility Guidelines
- ADA Americans with Disabilities Act
- DFD Department of Facilities Development Guidelines
- DFD Guidelines/Standards for Design and Sustainability
- TIA Telecommunications Industry Association
- ICC International Code Council (ICC)
  - International Building Code, Occupancy Classification: “B” Business
  - International Energy Conservation Code
  - International Electrical Code
  - International Fire Code

NORMAL POWER SYSTEM

Utility

- Building shall be served with a new 208Y/120V, 3ø, 4W secondary service.
- Provide pad mounted utility transformer. Mount CT cabinet on exterior of building. Coordinate location of transformer and CT cabinet.

Equipment Rooms

- Provide a new Main Electrical Room on the First Floor adjacent to the exterior.

System Description

- Provide a 208Y/120V, 3ϕ, 4W, 800A wall mounted power distribution panel in the main electrical room.
- Main distribution panel shall feed motor loads, large loads and branch circuit panelboards.
- Provide a Surge Protective Device (SPD) on the main distribution panel to protect against transient voltage caused by external sources. SPD equipment shall be located next to the panelboard being protected.
- Provide three double tub 200A, 208Y/120V, 3ø, 4W panelboards to serve lighting, receptacles and other small loads. One shall be for the north tenant spaces, one for the south, and one for the Archive Storage area.

Equipment and Material

- Power distribution panelboards shall be deadfront construction utilizing thermal magnetic circuit breakers and copper bus bars. All panels shall be fully rated for the available short circuit current. All trims shall be door-in-door type. All panels shall be provided with copper ground busses. The capacity of the panels shall be sufficient for an additional 25% future connected load. Feeder circuit breaker space shall be provided for the addition of 25% future circuit breakers.
- Branch circuit and lighting panelboards shall be deadfront construction utilizing thermal magnetic circuit breakers and copper bus bars. All panels shall be fully rated for the available short circuit current. All trims shall be door-in-door type. The panelboard connected load shall be limited to provide an additional 25% future connected load. The panelboards shall contain 10% spare 20A branch circuit breakers, and space for the addition of 25% future circuit breakers.
- Point-of-use power connection devices shall include power receptacles, furniture connections, elevators and other equipment connections as required.

Distribution

- Raceway for feeders and branch circuits less than 600V shall be metallic, electrical metallic tubing (EMT) subject to the restrictions of the National Electrical Code, minimum size 1/2". EMT shall not be used in concrete construction or where subjected to mechanical damage.
- 600-volt feeders shall be single-conductor, copper 600-volt rated with XHHW, XHHW-2, or THHW insulation, feeders shall be color coded using color type at all connections and in all pull and junction boxes.
- Aluminum feeder conductors are not allowed.
- All feeders shall be installed in conduit.
- Branch circuit conductors shall be single - conductor copper 600-volt rated with THWN or THHN insulation with continuous color-coding. Branch circuits shall utilize dedicated neutrals to allow use of single pole circuit breakers.

EMERGENCY POWER SYSTEM

Provide a centralized lighting inverter to create the Article 700 Branches of power. Size of inverter estimated at 5kVA.

LIGHTING

General

All new lighting shall be hung from the building structure independently of ceiling support system including all grid mounted fixtures. All lighting fixtures shall be complete with LEDs, drivers, hangers, lenses, etc.

Lighting shall be 120V LED. Fluorescent or incandescent lighting shall not be used.

Examples of light fixtures to establish quality shall be as follows:

- Youth Connection / Private Office
  - Direct LED Linear fixtures for general illumination. If ceiling heights allow, suspended type shall be used.
- Research / Work Rooms
  - Direct LED Linear fixtures for general illumination. If ceiling heights allow, suspended type shall be used.
- Break room and Corridors/Transition spaces

    - 2'x2' or 2’x4’ recessed architectural troffer with center diffuser.
- Conference/Seminar Rooms
    - Direct LED linear fixtures for general illumination.
    - 6” dimming LED downlight.
    - Possible accent lighting around perimeter if feature displays are present.
- Restrooms
    - Sinks - Wall mounted linear sconces adjacent to mirrors.
    - Stalls - Recessed narrow slot LED fixture against wall, length of stalls. Equal to Focal Point Seem.
    - Center of ceiling - 6" downlight.
- Utility Spaces
    - Lensed type LED recessed fixtures where a ceiling is present and industrial type LED suspended fixtures where a ceiling is not present.
- Stairwells
    - Wall mounted linear LED fixtures with Direct/Indirect lighting output.

Provide egress lighting and exit signs along the entire path of egress. Serve emergency light fixtures from centralized lighting inverter.

All lighting levels shall conform to the Illuminating Engineering Society's recommendations. Actual ambient levels may be adjusted due to power density considerations and supplemented with task lighting. This shall be determined as the project progresses and surface finishes are selected.

Controls shall be provided as follows:

- Main, Public areas shall be provided with an automatic lighting control system with Astronomic time clock to achiever Auto-Off requirements.
- Small, enclosed areas shall be provided with ceiling-mounted occupancy sensors to automatically control lighting. Sensor shall be provided as follows:
- Janitor’s closets, small storage rooms: Wall mounted infrared.
- Multi-occupant restrooms: Ceiling mounted ultrasonic technology infrared / ultrasonic.
- Large storage rooms: Ceiling mounted dual technology.
- Individual office, Open areas, conference rooms: Ceiling-mounted dual technology infrared / ultrasonic.
- All ceiling mounted occupancy sensors shall be provided with power packs capable of interfacing with the HVAC for system setback.
- All rooms with occupancy sensors shall have manual override to positively shutoff light fixtures as needed.
- Daylight areas, fifteen feet from windows, shall be provided with 0-10V dimming fixtures.
- Most all spaces shall utilize 0-10V dimming – whether through an automatic control system or through wallbox dimmer control.
- Mechanical and electrical rooms shall be controlled via line voltage switches for safety.

Sustainability
- Lighting densities will be a minimum of 30% lower than required by IECC 2015.

Exterior Lighting
- Provide new cutoff pole mounted light fixtures in parking lot.
- Canopies. Lighting under entrance canopies shall consist of LED downlight or wall sconce fixtures.

- Exterior Architectural Building Lighting. Some exterior LED lighting fixtures shall be used to highlight architectural features.
- All exterior lighting shall be controlled via lighting relay panelboard.
- Life Safety circuits shall be provided to LED lamped fixtures illuminating the code required path between the exit discharge and the public way. The remainder of the site lighting shall be wired to a combination of normal and critical branch lighting circuits.

Exterior Power

- Building mounted exterior, weatherproof, GFCI receptacles shall be mounted around the perimeter of the building at each exit door, and no more than 100' on center.
- Provide power to any internally lit signage and / or exterior illuminated building signage.
- Provide power general power and illumination to serve outdoor mechanical unit if present

FIRE ALARM SYSTEM

- Provide a new monitored, multiplexed, fully addressable horn fire alarm system control panel in the building. The fire alarm system shall be composed of smoke detectors, heat detectors, magnetic door holders, duct smoke detectors, manual pull stations, water flow monitors, tamper switches, and audio/visual signaling devices. All devices in project shall be new.
- Design Criteria
    - The fire alarm system shall comply with requirements of NFPA 72, Life Safety Codes and State Building Code.
    - Backup power for the fire alarm shall be an internal battery dedicated to the fire alarm system.
    - A fire alarm annunciator panel shall be mounted at the 4th Street entrance.
    - Audio/visual devices shall be installed in all areas of the building in accordance with the NFPA and ADA guidelines. All areas of the building shall be covered by audible device coverage as required by NFPA 72 and the International Building Code as adopted in Wisconsin. Visual devices shall be installed in those public and common areas as recognized by ADA such as corridors, bathrooms, kitchen, serveries, dining rooms, conference rooms, waiting rooms, break areas and lobbies. Visual devices shall also be provided in mechanical areas as a supplement to the audible devices.
    - Smoke detectors shall be installed as required by the National Fire Protection Association and the International Building Code. Smoke detectors shall be installed in, but not limited to, the following locations: air handling units and electrical equipment rooms.
    - Heat detectors shall be installed in areas that are not suitable for smoke detectors.
    - Dual-action manual pull stations shall be installed adjacent to all exit doors and at floor exit stairwells. Pull stations shall have covers.
- Equipment and Material
    - Remote transponder panels shall be used to provide supervised amplifiers and signal circuits for audio/visual devices and magnetic door holders.
    - The system shall utilize individual addressable, photoelectric smoke detectors, heat detectors, addressable manual pull stations, and addressable monitor and control modules. The system shall monitor all sprinkler supervisory and water flow switches and shall interface with elevators, HVAC smoke control, and smoke fire dampers.
    - All detectors shall be labelled with their system address in a font large enough to be easily seen from the ground below the units.
- Distribution

- All initiating and signaling devices shall operate at 24VDC and shall be installed in accordance with manufacturer's specifications.
- All wiring in areas with exposed structure shall be installed in conduit, ½" minimum.
- All wiring above ceilings may be free-air, plenum rated, support with J-hooks.

TELECOMMUNICATIONS

- New utility services shall be brought to the facility per owner's requirement and terminated in the main telecommunications room.
- Existing fiber connection to the museum shall be terminated to the new rack in the main telecommunications rooms.
- Provide a new main equipment room (MER) on the Main Floor.
  - This room will house the core switch(s) serving the building

LOW VOLTAGE RACEWAY SYSTEMS

- Horizontal Distribution: Horizontal cable shall utilize J-Hooks above accessible ceilings, conduit to pass above inaccessible ceilings and plenum rated cabling. These systems may include:
  - Voice/Data Horizontal Category 6 Cabling
  - Wireless Access Point (WLAN) Cabling
  - Copper Backbone Cabling
  - Optical Fiber Backbone Cabling
  - Security CCTV, Access Control, Intrusion Detection, and Duress System Cabling
  - Distributed Antenna Cabling (DAS)
  - Building Automation Systems
- Low Voltage Cable Distribution – Special Systems: Provide a recessed junction box sized to accommodate device within the wall at the outlet location and a 1" conduit routed from the junction box stubbed to the nearest accessible ceiling space. J-hooks shall be utilized above the accessible ceiling from the 1" conduit every 4' or less to support cabling.
- Low Voltage Cable Distribution – Horizontal Voice/Data: Provide a flush two-gang box with a single-gang plaster ring within the wall at outlet location and a 1" conduit routed from the box stubbed above the accessible ceiling. J-hooks shall be utilized above the accessible ceiling from the 1" conduit every 4' or less to support cabling.
- Equipment and Material
  - Conduit Stubs: 1" EMT Conduit shall be used with plastic end bushings to protect cabling.
  - Conduit Sleeves: 4" EMT Conduit shall be used with plastic end bushings to protect cabling.
  - J-Hooks: Equivalent to Caddy or B-Line, Minimum ¾" (CAT12) and Maximum 4" (CAT64).
  - Cable Tray: Equivalent to Cablofil, B-Line or Chatsworth clear finish.
  - Cable tray within Telecommunications Equipment Rooms: 12"W x 4"D and 18"W x 4"D

TELECOMMUNICATIONS STRUCTURED CABLING SYSTEM

- Service Entrance Facility (EF)
  - Existing ductbank and service entrance room shall remain as existing.
- Main Equipment Room (MER)
  - Provide a new MER on the main level, minimum room size: 10ft. x 12ft.
  - MER will terminate the incoming telecommunications services as well as provide horizontal crossconnect for the building.
- MER Design Requirements

- The MER should be located as necessary to limit the longest network cable run to 295ft.
- The room walls shall be finished with drywall (Completely taped, sanded, and painted) or concrete block (painted) prior to mounting the plywood. All walls should be installed "deck to deck" and sealed as required by applicable building code.
- Walls in these rooms shall be lined with AC grade ¾" Plywood 8ft. high, painted with two coats of fire retardant paint on all 6 sides, leaving at least one plywood fire rating stamp visible on each sheet for future reference.
- Each room doorway should be a minimum of 3'-0" in width x 6'8" in height. All doors should swing out if possible to maximize usable room space.
- Each room shall be provided with card access control with keyed override.
- These rooms should not be placed so it is boxed in by restrooms, mechanical rooms, pipe chases, elevator shafts, stairways, or high voltage electrical rooms. These rooms should be placed so each is accessible from a hallway or open space for easy access.
- Provide a wall mounted telephone outlet in each room. Phone to be provided by the Owner.
- Specified distances should be maintained from possible sources of electromagnetic interference (EMI) exceeding 5 kilovolt-amperes (kVA)
    - 24in. - From unshielded power lines or electrical equipment in proximity to open or non-metal pathways.
    - 12in. - From unshielded power lines or electrical equipment in proximity to grounded metal conduit pathway.
    - 6in. - From power lines enclosed in a grounded metal conduit in proximity to a grounded metal conduit pathway
    - 48in. - From motors and transformers.
    - 2in. - From branch circuits of 5kVA or less
- Rooms shall be designed without drop ceilings. Ceiling shall be open to the structure.
- Ceilings and walls should be void of electrical conduits, HVAC duct work, and all plumbing pipe with the exception of that which directly services the room.
- If room is to have sprinkler heads a Dry System, Pre-action, or a Clean Agent Solution should be considered. At a minimum wire cages should be installed around the sprinkler heads to prevent accidental water release.
- HVAC shall be designed to maintain:
    - Control 24hrs a day, 365 days a year.
    - A positive pressure with a minimum of one air change per hour.
    - A temperature between 65 and 80 degrees Fahrenheit, and a relative humidity range of 30 to 55%.
- Floors within the rooms should be treated or tiled to minimize static electricity and dust. Rooms shall be designed without access flooring.
    - Each room should have a minimum 500 lux (50 foot candles) measured at the point of cable termination (36" AFF). Fixtures shall not be placed directly over data racks or cabinets.
- Data Racks
    - Two (2) Floor mounted 7'H x 19" standard 3" channel spaced data racks shall be installed in the MER for termination of horizontal cabling, optical fiber backbone cabling, and copper backbone cabling as well as the installation of owner furnished network data equipment and associated patching. Each rack has 45 useable Rack Units (1 RU = 1.75").

        - 10” Vertical cable managers with hinged covers shall be installed on each end and between each data rack to provide adequate vertical cable management for patch cords and optical fiber jumpers. Vertical cable managers shall be fingered to allow for 48 Category 6 patch cords to be dressed for each Rack Unit (RU).
        - 2-RU Horizontal cable management with hinged covers shall be installed across the top and middle of each rack to allow for routing of patch cords. Horizontal cable managers for each patch panel will not be required. The use of angled patch panels (below) eliminates that need.
    - Data Server Cabinets
        - Not anticipated to be required at this time.
    - Overhead Cable Raceway
        - Overhead basket type cable tray shall be provided in each room to transition all horizontal and backbone cabling from the ceiling to the wall field, data racks or server cabinets within the MER or TR’s. This cable tray shall be a minimum 18”W x 4”D. All tray shall be supported by a combination of support hardware off of walls, racks, and building structure. Center hung cable trays and center hung support hardware shall not be allowed.
    - Grounding
        - A Telecommunication Ground Busbar (TGB) shall be provided in each TR as part of the Telecommunication Grounding System. Each TGB shall be bonded to the Telecommunications Bonding Backbone (TBB) which in turn shall be connected to the Telecommunications Main Ground Busbar (TMGB) located in the MER, which in turn, is connected to the main electrical service entrance. Minimum grounding backbone conductor in the grounding system shall be #3/0.
        - The TMGB shall be ¼” thick by 4” tall by the length needed for all terminations plus 30% future growth (>/=20”).
        - The TGB shall be ¼” thick by 2” tall by the length needed for all terminations plus 50% future growth (>/=12”).
        - All data racks, server cabinets, cable trays, lightning protection, metal cable jackets, and equipment per manufacturer’s recommendation shall be grounded to the TMGB within the MER and each TGB in each TR using approved two-hole ground lugs.
    - Cable Pathway & Fire stopping
        - STI EZ-path sleeves or an equal solution for cable pathway from the MER and each TR to the main corridor shall be used on all rated walls. UL listed systems shall be chosen based on the rating of the wall the cable pathway need to penetrate. Appropriate UL Firestop System labeling shall be required for each penetration installed.
    - Additional Systems Space Requirements
    - Space shall be allotted in the MER and each TR for the following other systems as required:
        - Fire Alarm
        - CATV/MATV
        - Security CCTV and Access Control
        - Future Distributed Antenna System (DAS)

TELECOMMUNICATIONS CABLING

- Service Entrance Cabling

    - Existing will be protected in place and reused.
- Intra-Building Copper Backbone Cabling
    - A 25 pair Category 3 24AWG copper backbone shall be installed between the MER and each TR.
    - Cabling shall be UL rated type CMP.
    - Copper backbone cabling shall be installed onto:
    - Wall mounted 110 style termination blocks in the MER, and;
    - Rack mounted patch panels in the TR's. The cables shall terminate "one pair per port" on the patch panels to facilitate the patching of analog phone lines (POTS), fax, power fail phones, etc.
- Intra-Building Optical Fiber Backbone Cabling
    - A minimum of 24-Strands of OS2 Singlemode in an armored construction shall be installed from the MER to each TR.
    - Cable shall be UL rated type OFCP.
    - All optical fiber strands shall be terminated using LC type optical fiber connectors.
    - No splices shall be allowed in any optical fiber cable between the MER and any TR. The exception is that fusion spliced singlemode "pig-tails" may be used at the MER and TR at the contractor's discretion.
    - 4-RU optical fiber termination shelves shall be used in the MER and be located adjacent to network switch equipment.
    - 2-RU optical fiber termination shelves shall be used in each TR. All shelves shall be provided with the appropriate LC Singlemode adapter panels.
- Horizontal Category 6 Cabling
    - Standard Workstation Locations will be comprised of (4) Cat6 data drops into two single telecom outlet (TO):
        - Each cubicle will have two TO.
        - Each office will have two TO's – one each on the two walls opposite the doorway.
    - All cabling shall be UTP Category 6 cabling and shall be capable of be used for voice, data, or other IP device.
    - Cabling shall be rated UL type CMP.
    - All four pairs shall be terminated on the telecommunications outlet and in the MER/TR upon rack mounted 48-port angled jack panels.
    - At standard outlet locations Faceplates shall be flush wall mounted or flush furniture mounted type faceplates.
    - All horizontal cable shall be terminated at the jack and on patch panels using the TIA-568B wiring standard.
    - Minimum compliant category 6 cabling shall not be considered. Cabling shall exceed category 6 standards.
    - Each Coaxial cabled CATV/MATV workstation outlet shall be cabled with a single RG-6 cable as well as a single category 6 cable.
        - The RG-6 cable will terminate on a wallfield in the TR.
        - The cat6 cable drop will be terminate with other data drops onto a modular patch panel in the TR.
    - The structured cabling system shall be provided as a certified cabling system. The manufacturer or manufacturers of the cable and termination components shall qualify and warranty the performance of the entire system for a minimum of (20) years.
- Wireless Access Point Workstation Outlets

- All data cabling shall be FTP Category 6A and shall be capable of being used for wireless data and voice and be PoE IEEE 802.11ac compliant.
- Each WAP location will receive (2) Cat 6A data drops.
- Cable shall be rated UL type CMP.
- All four pairs shall be terminated on the telecommunications outlet and in the MER/TR upon rack mounted 24 and/or 48-port angled patch panels.
- At the Wireless Access Point outlet locations, surface mounted boxes shall be installed above the drop ceiling.
- These workstations shall be installed with 15ft. of slack installed at the workstation coiled on the last J-hook before the outlet for the ability to adjust these workstations based on coverage needs.
- It is the assumption that predictive RF surveys shall be accomplished prior to installation of the cabling. Then cabling shall be installed based on these predictive surveys.
- A sound preliminary wireless layout for the facility would have each Wireless Access Point located on a grid pattern with a separation of approximately 9m between AP's on each floor throughout the entire facility.
- A post-deployment RF surveys should be performed once the access points are installed and the system is energized.
- The contractor should include preliminary surveys; post surveys (and re-deployment time as needed), as well as installing the customer provided Access Point Radios and patch cords at each WAP location.
- It is assumed Owner furnished network equipment, wireless controllers, etc. shall be installed by the owner or an owner representative.

FIRST RESPONDER RADIO SYSTEM

This system does not exist in this building but code requires all parts of the building to able to access the 800mHZ EM response system.

Provide an RF survey performed of the entire building to determine the need for the system.

ACCESS CONTROL SYSTEM

Provide new access control system in the building.

All raceways and backboxes for the security equipment along with power to door locking hardware as required.

Provide all access controllers, cabinets, and power supplies.

Provide associated wiring to all field devices, both composite type and category 6 data grade.
Card readers – wired or IP – at all doors

Provide a category 6 data cable to each door controller.

CLOSED CIRCUIT TELEVISION SECURITY SYSTEM

Provide a security camera system. Coordinate quantity of cameras and locations with Owner.

AUDIO VISUAL SYSTEMS

Data connections shall be installed based on location and Owner requirements for network connections.

Conduits and flush mounted outlet boxes shall be designed for specialized Owner or AV contractor cabling between AV and/or network devices.

APPENDIX II: Cost Estimate

			FULL PROJECT
PROJECT SUMMARY		TOTAL COST:	**$ 6,066,376**

A	**CONSTRUCTION COST (See detailed breakdown)**		FULL PROJECT
1	Existing Conditions		141,537
2	Building Exterior Improvements (Divisions 3 thru 8)		1,296,611
3	Building Interior Improvements (Divisions 9 thru 11)		578,039
4	Fire Suppression		82,633
5	Plumbing		136,763
6	HVAC		928,241
7	Electrical		686,006
8	Communications *(Includes scope corrections)*		47,758
9	Safety & Security *(Includes scope corrections)*		130,651
10	Earthwork		34,476
11	Exterior Improvements		183,668
12	Utilities		47,878
13	Archive Tenant Improvements		370,856
14	From Concord Estimate 2/20/2020		**$ 4,665,117**
B	**ADDITIONAL CONSTRUCTION COSTS**		**HIGH**
1	Abatement		20,000
2	FFE - Archive Furnishings		113,250
3	FFE - Shared Conference Room		15,000
4	Solar Array at Roof (140-150 kilowatt system)		534,307
5	Electrical - Pad Mounted Transformer		25,000
6	ATT & Cable		20,635
7	Subtotal		**$ 728,192**
C	**SOFT COSTS**		
1	AE Design Fees (8% of A1 less Concept Design Fee)	8%	340,809
2	Site Survey (for parking improvements)	allowance	2,000
3	Geotechnical Report (for parking drainage design)	allowance	2,000
4	Plan Review Fee		1,700
5	Builder's Risk Insurance	2%	93,302
6	Owners Contingency	5%	233,256
7	Moving Allowance	by City	-
8	Subtotal		**$ 673,068**

55 East Monroe Street
Suite 2850
Chicago, IL 60603
312.424.0250 T
www.concord-cc.com

Door County Archive

Younker's Building Renovation

58 N 3rd Avenue
Sturgeon Bay, WI 54235

Conceptual Estimate
February 20, 2020
DRAFT

Project: 2019A185

Prepared For:
Engberg Anderson Architects
320 E Buffalo Street
Suite 500
Milwaukee, WI 53202

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

NOTES REGARDING PREPARATION OF ESTIMATE

This estimate was prepared based on the following documents provided by Engberg Anderson Architects:

1. Concept Design Pricing Package provided by Engberg Anderson Architects dated February 5, 2020.

2. Information regarding the project was also obtained via meetings, phone conversations, and email messages that clarified the project scope.

BIDDING PROCESS - MARKET CONDITIONS

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been generated from current material/labor rates, historical production data, and discussions with relevant subcontractors and material suppliers. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated.

Pricing reflects probable construction costs obtainable in the Sturgeon Bay, Wisconsin area on the bid date. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors with a minimum of 3 bidders for all items of subcontracted work and a with a minimum of 3 bidders for a general contractor. Experience indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since The Concord Group has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, this statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents The Concord Group's best judgment as professional construction cost consultants familiar with the construction industry. However, The Concord Group cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

ASSUMED CONSTRUCTION PARAMETERS

The pricing is based on the following project parameters:

1. A bid opening date of February, 2021.
2. A construction notice to proceed date of March, 2021.
3. A substantial completion date of December, 2021.
4. The contract will be competitively bid to multiple contractors.
5. All contractors will be required to pay prevailing wages.
6. There are no phasing requirements.
7. The contractors will have full access to the site during normal working hours
8. Estimate includes pricing as of February 2020.

EXCLUSIONS
The following are excluded from the cost of this estimate:

1. Professional Design Fees
2. Testing Fees
3. Owner Contingencies/Scope Changes
4. Construction Contingency
5. Premium Time / Restrictions on Contractor Working Hours
6. Cost Escalation Beyond a Start Date of March 2021
7. Finance and Legal Charges
8. Environmental Abatement Costs
9. Contaminated Soil Removal
10. Structurally Unsuitable Soil Removal
11. Temporary Facilities
12. Loose Furniture
13. Equipment (Owner Furnished/Installed)
14. Artwork
15. Third Party Commissioning
16. Non-fixed Audio/Visual Equipment & Wiring
17. Telephone / Data Equipment
18. Intercom System

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

	COST SUMMARY	22,267 GSF	$/SF	BUILDING TOTAL
01000	GENERAL REQUIREMENTS		$0.00	$0
02000	EXISTING CONDITIONS		$4.76	$105,959
03000	CONCRETE		$2.09	$46,547
04000	MASONRY		$6.33	$140,889
05000	METALS		$2.73	$60,806
06000	WOODS, PLASTICS & COMPOSITES		$1.67	$37,188
07000	THERMAL & MOISTURE PROTECTION SYSTEM		$20.10	$447,536
08000	OPENINGS		$10.49	$233,609
09000	FINISHES		$17.70	$394,128
10000	SPECIALTIES		$1.52	$33,919
11000	EQUIPMENT		$0.38	$8,375
12000	FURNISHINGS		$0.00	$0
13000	SPECIAL CONSTRUCTION		$0.00	$0
14000	CONVEYING EQUIPMENT		$0.00	$0
21000	FIRE SUPPRESSION		$2.78	$61,862
22000	PLUMBING		$4.60	$102,385
23000	HEATING, VENTILATING & AIR CONDITIONING		$31.21	$694,912
26000	ELECTRICAL		$23.06	$513,567
27000	COMMUNICATIONS		$8.49	$189,158
28000	ELECTRONIC SAFETY AND SECURITY		$8.61	$191,726
31000	EARTHWORK		$1.16	$25,810
32000	EXTERIOR IMPROVEMENTS		$6.18	$137,500
33000	UTILITIES		$1.61	$35,843
	SUBTOTAL		**$155.46**	**$3,461,719**
	DESIGN CONTINGENCY	10.0%	$15.55	$346,172
	GENERAL CONDITIONS/BOND/INSURANCE	11.0%	$18.81	$418,868
	CONTRACTOR'S FEES	3.5%	$6.64	$147,937
	ESCALATION TO MID-POINT OF CONSTRUCTION	5.7%	$11.20	$249,358
	TOTAL ESTIMATED CONSTRUCTION COSTS		**$207.66**	**$4,624,053**

ALTERNATES

Alternate #1: Interior Buildout for Archive, South of Demising Wall	**ADD**	$370,855
Alternate #2: Canopy at North Entry Door	**ADD**	$5,492

CONCORD GROUP

Door County Archive
Younker's Building
Renovation

Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
BASE BID				
02000 EXISTING CONDITIONS				
02100 Selective Demolition				
Remove roof	21,509	SQFT	1.28	27,501
Remove storefront and glass doors, exterior	1,188	SQFT	4.73	5,616
Remove masonry partition	527	SQFT	1.79	943
Create window opening in exterior wall, 4'-0" x 4'-0"	6	EACH	1,745.76	10,475
Create window opening in exterior wall, 4'-0" x 6'-0"	8	EACH	2,001.48	16,012
Create window opening in exterior wall, 12'-0" x 4'-0"	2	EACH	3,491.52	6,983
Remove drywall metal stud partition	9,490	SQFT	1.22	11,583
Remove acoustical ceiling system, assumed	21,043	SQFT	0.47	9,913
Remove flooring	21,043	SQFT	0.60	12,554
Remove interior door and frame, single	9	EACH	100.69	906
Remove interior door and frame, double	1	EACH	134.25	134
Remove exterior single door and frame	1	EACH	166.20	166
Remove exterior double door and frame	1	EACH	199.44	199
Remove overhead door	1	EACH	797.76	798
Remove toilet accessories, single user	2	EACH	265.92	532
Remove front canopy	120	LNFT	8.86	1,064
Sawcut 2" x 2" trench	78	LNFT	7.43	579
		SUBTOTAL: Selective Demolition		**$105,959**
TOTAL: EXISTING CONDITIONS				**$105,959**
03000 CONCRETE				
03300 Cast in Place Concrete				
Concrete slab on grade infill, 5" thk - quantity allowance	200	SQFT	12.70	2,540
CA-6 base, 4" thk, at concrete slab on grade infill - quantity allowance	3	CUYD	296.38	889
Vapor barrier at slab on grade infill - quantity allowance	200	SQFT	3.03	606
		SUBTOTAL: Cast in Place Concrete		**$4,035**
03900 Miscellaneous Concrete				
Create 8" dia sump pit	1	EACH	1,793.39	1,793
Cutting and patching slab on grade for plumbing	150	LNFT	49.11	7,367
Prepare existing slab for new floor finish	17,393	SQFT	1.92	33,351
		SUBTOTAL: Miscellaneous Concrete		**$42,511**
TOTAL: CONCRETE				**$46,547**
04000 MASONRY				
04100 Exterior Masonry				
Brick facade, modular, 2-2/3"x8"x4" thk	228	SQFT	26.00	5,927
Stone veneer base, 12" high	153	SQFT	77.57	11,868
		SUBTOTAL: Exterior Masonry		**$17,795**
04200 Exterior Masonry Restoration				

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Powerwash CMU facade, water & chemicals	13,115	SQFT	2.37	31,106
Tuckpoint CMU facade	13,115	SQFT	6.80	89,128
SUBTOTAL: Exterior Masonry Restoration				**$120,234**
04300 Interior Masonry				
Brick facade, modular, 2-2/3"x8"x4" thk	110	SQFT	26.00	2,860
SUBTOTAL: Interior Masonry				**$2,860**
TOTAL: MASONRY				**$140,889**
05000 METALS				
05100 Structural Steel				
Structural steel lintels	1	TONS	5,155.15	5,155
SUBTOTAL: Structural Steel				**$5,155**
05200 Structural Metal Stud Framing				
Structural metal studs, 6" thick	1,553	SQFT	9.81	15,242
SUBTOTAL: Structural Metal Stud Framing				**$15,242**
05400 Metal Fabrications				
Metal canopy	680	SQFT	59.43	40,409
SUBTOTAL: Metal Fabrications				**$40,409**
TOTAL: METALS				**$60,806**
06000 WOODS, PLASTICS & COMPOSITES				
06200 Rough Carpentry				
Exterior gypsum sheathing, 5/8" thk	1,553	SQFT	2.34	3,629
SUBTOTAL: Rough Carpentry				**$3,629**
06300 Millwork				
P-lam base cabinets and quartz countertops	13	LNFT	378.63	4,922
P-lam island base cabinets and quartz countertops	9	LNFT	511.39	4,602
P-lam wall hung cabinets	18	LNFT	252.82	4,551
Solid surface bathroom counter	13	LNFT	201.41	2,618
SUBTOTAL: Millwork				**$16,694**
06900 Miscellaneous Woods, Plastics & Composites				
Miscellaneous wood blocking & rough carpentry	18,513	SQFT	0.91	16,865
SUBTOTAL: Miscellaneous Woods, Plastics & Composites				**$16,865**
TOTAL: WOODS, PLASTICS & COMPOSITES				**$37,188**
07000 THERMAL & MOISTURE PROTECTION				
07100 Dampproofing & Waterproofing				
Air barrier, fluid applied, at cavity wall	1,553	SQFT	2.06	3,205
SUBTOTAL: Dampproofing & Waterproofing				**$3,205**
07200 Thermal Insulation				
Closed cell spray insulation, 2" thk	3,655	SQFT	5.82	21,288

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Rigid insulation, 2.5" thk	1,553	SQFT	3.52	5,466
SUBTOTAL: Thermal Insulation				**$26,754**
07300 Non-Metallic Panels Systems				
Wood panel siding	1,172	SQFT	31.84	37,320
Wood trellis, at canopy	680	SQFT	39.83	27,083
SUBTOTAL: Non-Metallic Panels Systems				**$64,403**
07400 Roofing				
Create new parapet behind new NW canopy, 2'-0" high	239	SQFT	20.92	5,000
EPDM roofing including insulation	21,870	SQFT	13.40	293,062
Flashing & counterflashing	869	LNFT	24.14	20,973
Metal coping	798	LNFT	39.62	31,614
SUBTOTAL: Roofing				**$350,650**
07800 Caulking & Sealants				
Miscellaneous caulking & sealants	18,513	SQFT	0.14	2,525
SUBTOTAL: Caulking & Sealants				**$2,525**
TOTAL: THERMAL & MOISTURE PROTECTION				**$447,536**
08000 OPENINGS				
08100 Windows				
Exterior AL windows	384	SQFT	61.01	23,426
SUBTOTAL: Windows				**$23,426**
08200 Curtainwall & Storefront				
Exterior storefront	1,344	SQFT	77.14	103,671
SUBTOTAL: Curtainwall & Storefront				**$103,671**
08300 Exterior Doors, Frames, & Hardware				
HM frame, 3'-0" x 7'-0"	1	EACH	473.08	473
HM door, 3'-0" x 7'-0"	1	EACH	483.54	484
AL/GL door, (2) 3'-0" x 7'-0"	3	EACH	6,167.08	18,501
Hardware set, single	1	EACH	667.08	667
Hardware set, double	3	EACH	1,184.16	3,552
SUBTOTAL: Exterior Doors, Frames, & Hardware				**$23,677**
08400 Interior Doors, Frames, & Hardware				
HM frame, 3'-0" x 7'-0"	12	EACH	473.08	5,677
HM frame, 3'-0" x 7'-0", sidelite 2'-0" x 7'-0"	2	EACH	931.39	1,863
HM frame, 3'-0" x 7'-0", sidelite 3'-0" x 7'-0"	2	EACH	1,097.39	2,195
HM frame, 6'-0" x 7'-0"	6	EACH	610.62	3,664
AL/GL door, 3'-0" x 7'-0"	2	EACH	3,083.54	6,167
AL/GL door, (2) 3'-0" x 7'-0"	1	EACH	6,167.08	6,167
WD door, 3'-0" x 7'-0", cherry	10	EACH	468.54	4,685
WD door, 3'-0" x 7'-0", cherry, w/ vision lite 6" x 2'-9"	6	EACH	768.54	4,611
WD door, (2) 3'-0" x 7'-0", cherry, w/ vision lite 6" x 2'-9"	6	EACH	1,537.08	9,222
WD sliding door, 8'-0" x 8'-0", incl frame and hardware	2	EACH	2,101.24	4,202

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Hardware set, single	18	EACH	667.08	12,007
Hardware set, double	7	EACH	1,184.16	8,289
SUBTOTAL: Interior Doors, Frames, & Hardware				**$68,751**
08500 Interior Glazing				
Interior storefront	382	SQFT	36.87	14,084
SUBTOTAL: Interior Glazing				**$14,084**
TOTAL: OPENINGS				**$233,609**
09000 FINISHES				
09100 Plaster & Gypsum Board				
Gypboard backup at exterior wall, 5/8" thk	1,553	SQFT	2.87	4,458
Gypboard furring, at exterior CMU wall; 3-5/8" metal studs, 5/8" type x gypboard one side (2" spray foam insulation incl above), full-height	3,655	SQFT	7.55	27,612
Gypboard furring; 3-5/8" metal studs, 5/8" type x gypboard one side, 3" mineral fiber blanket insulation, full-height	1,236	SQFT	7.63	9,435
Gypboard furring; 6" metal studs, 5/8" type x gypboard one side, 5" mineral fiber blanket insulation, full-height	88	SQFT	8.57	754
Gypboard partition standard; 3-5/8" metal studs, 5/8" type x gypboard each side, 3" mineral fiber blanket insulation, full-height	13,383	SQFT	9.98	133,609
Gypboard partition standard; 6" metal studs, 5/8" type x gypboard each side, 5" mineral fiber blanket insulation, full-height	2,409	SQFT	10.72	25,834
Gypboard partition standard vapor; 6" metal studs, 5/8" type x gypboard each side, 5" mineral fiber blanket insulation, vapor barrier at structure, full-height	1,993	SQFT	11.60	23,110
SUBTOTAL: Plaster & Gypsum Board				**$224,813**
09200 Floor Finishes				
Porcelain tile floor	414	SQFT	16.86	6,982
Luxury vinyl tile	3,153	SQFT	8.50	26,816
Rubber base, 4" high	2,288	LNFT	2.05	4,700
Carpet tile	484	SQFT	4.34	2,101
Entrance mats	93	SQFT	16.98	1,579
SUBTOTAL: Floor Finishes				**$42,178**
09300 Wall Finishes				
Porcelain tile wall	834	SQFT	15.68	13,078
Glass tile backsplash	31	SQFT	26.56	823
FRP wall finish at janitor	23	SQFT	6.24	143
SUBTOTAL: Wall Finishes				**$14,044**
09400 Ceiling Finishes				
ACT system, 2'-0" x 2'-0"	12,028	SQFT	5.00	60,080
SUBTOTAL: Ceiling Finishes				**$60,080**
09600 Paints & Coatings				
Clean and paint exposed exterior steel column	4	EACH	383.59	1,534
Concrete sealer	8,849	SQFT	1.28	11,346
Paint interior door	2	EACH	93.08	186

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Paint walls	23,820	SQFT	0.90	21,367
Paint CMU facade	13,115	SQFT	1.42	18,580
SUBTOTAL: Paints & Coatings				**$53,013**
TOTAL: FINISHES				**$394,128**
10000 SPECIALTIES				
10200 Signage				
Interior signage - quantity allowance	40	EACH	109.77	4,391
Exterior building signage, cut aluminum letters	43	EACH	396.63	17,055
SUBTOTAL: Signage				**$21,446**
10400 Toilet Accessories				
Toilet partition, accessible	2	EACH	1,067.08	2,134
Toilet partition, standard	2	EACH	833.66	1,667
Urinal screen	1	EACH	390.95	391
Toilet paper dispenser, double roll	5	EACH	102.85	514
Paper towel dispenser/disposal, recessed	2	EACH	333.66	667
Napkin vendor, stainless steel	1	EACH	517.08	517
Napkin disposal, stainless steel, surface mounted	4	EACH	111.77	447
Baby diaper changing station	3	EACH	746.14	2,238
Soap dispenser	5	EACH	76.77	384
Electric hand dryer	3	EACH	533.54	1,601
Coat hook	5	EACH	17.97	90
Grab bar set, three piece	3	EACH	240.31	721
SUBTOTAL: Toilet Accessories				**$11,372**
10500 Fire Protection Specialties				
Fire extinguisher & cabinet, semi-recessed	3	EACH	367.08	1,101
SUBTOTAL: Fire Protection Specialties				**$1,101**
TOTAL: SPECIALTIES				**$33,919**
11000 EQUIPMENT				
11300 Food Service Equipment				
Commercial hood	1	EACH	5,334.16	5,334
Commercial coffee maker	1	EACH	383.54	384
Microwave oven	1	EACH	506.46	506
Refrigerator	1	EACH	1,266.83	1,267
Range	1	EACH	883.54	884
SUBTOTAL: Food Service Equipment				**$8,375**
TOTAL: EQUIPMENT				**$8,375**
21000 FIRE SUPPRESSION				
21300 Sprinkler Heads & Piping				
Reconfigure existing wet sprinkler system for renovation/buildout	22,267	SQFT	2.78	61,862
SUBTOTAL: Sprinkler Heads & Piping				**$61,862**

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
TOTAL: FIRE SUPPRESSION				**$61,862**
22000 PLUMBING				
22100 Selective Demolition				
Demo existing plumbing fixtures, equipment, and equipment	22,267	SQFT	0.51	11,390
SUBTOTAL: Selective Demolition				**$11,390**
22200 Plumbing Fixtures				
Water closet, wall hung, manual flush valve	5	EACH	1,964.12	9,821
Lavatory, wall hung, manual faucet	1	EACH	1,747.34	1,747
Lavatory, solid surface integral (fixture by others) - faucet, undersink supplies & waste, rough-in	4	EACH	737.95	2,952
Urinal, wall hung, manual flush valve	2	EACH	1,851.73	3,703
Sink, stainless steel, double basin self-rimming, manual faucet	1	EACH	2,088.11	2,088
Electric water cooler, ADA-bilevel	1	EACH	4,694.37	4,694
Mop basin, floor fixture	1	EACH	2,062.98	2,063
SUBTOTAL: Plumbing Fixtures				**$27,069**
22300 Plumbing Equipment & Specialties				
Domestic water heater, gas-fired	1	EACH	6,099.30	6,099
DHW recirculating pump	1	EACH	1,312.65	1,313
Expansion tank	1	EACH	384.59	385
Thermostatic mixing valve - central	1	EACH	2,059.56	2,060
Circuit setter balancing valve, 3/4"	2	EACH	135.96	272
Floor drains	3	EACH	469.82	1,409
Cleanouts - allowance	10	EACH	300.32	3,003
Vent thru roof	2	EACH	259.84	520
SUBTOTAL: Plumbing Equipment & Specialties				**$15,060**
22400 Domestic Water, Waste & Vent, & Storm Drainage Piping				
Domestic water pipe, fittings, and supports, type L copper - allowance	400	LNFT	38.18	15,274
Pipe insulation, domestic water piping - allowance	400	LNFT	7.96	3,185
Vent pipe, fittings, and supports, PVC, AG - allowance	150	LNFT	43.43	6,515
Sanitary/waste pipe and fittings, PVC, UG - allowance	150	LNFT	55.34	8,301
Excavation, bedding, backfill - UG piping	150	LNFT	86.90	13,035
Pipe and valve tagging	400	LNFT	1.00	400
System pressure testing, water pipe chlorination, and pipe flushing - domestic plumbing	1	LSUM	2,157.36	2,157
SUBTOTAL: Domestic Water, Waste & Vent, & Storm Drainage Piping				**$48,866**
TOTAL: PLUMBING				**$102,385**
23000 HEATING VENTILATION & AIR CONDITIONING				
23200 Ventilation & Exhaust				
Demo existing HVAC systems	22,267	SQFT	0.40	8,940
Rooftop unit AHU-1, 25 tons packaged, DX coil, HW coil, fans, filters, condenser section	1	EACH	41,751.36	41,751

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Rooftop unit AHU-2, 7.5 tons packaged, DX coil, HW coil, fans, filters, condenser section	1	EACH	17,042.80	17,043
Rooftop unit AHU-3, 10 tons packaged, DX coil, HW coil, fans, filters, condenser section	1	EACH	19,042.80	19,043
Air handling unit AHU-4, 25 tons packaged, DX coil, HW coil, fans, filters, condenser section	1	EACH	38,751.36	38,751
AC split system, 1-1/2 tons	1	EACH	4,717.12	4,717
Refrigerant piping, AC split system	60	LNFT	20.63	1,238
Pipe insulation, refrigeration piping, up to 1" dia.	60	LNFT	7.68	461
Condensate drain piping, 3/4" copper	20	LNFT	22.75	455
Variable air volume terminals w/HW reheat coil - allowance	17	EACH	1,054.28	17,923
Reheat coil connections, VAV - valves, fittings, and insulation	17	EACH	899.45	15,291
Galvanized steel duct & insulation	18,153	SQFT	8.77	159,225
Registers, grilles and diffusers - allowance	170	EACH	95.43	16,223
Fire/smoke/combination damper allowance	1	LSUM	2,242.85	2,243
SUBTOTAL: Ventilation & Exhaust				**$343,304**
23300 Central Hydronic & Steam Equipment & Specialties				
HW boilers, condensing	2	EACH	21,438.24	42,876
CA duct, HW boilers	35	LNFT	11.87	416
CA duct, water heater	35	LNFT	11.87	416
Boiler flue/breeching	35	LNFT	102.22	3,578
Water heater flue	35	LNFT	38.76	1,357
HW system pump, base-mount	2	EACH	4,339.34	8,679
HW coil pump, RTU/AHU	4	EACH	1,589.89	6,360
Variable frequency drive, HW pumps	2	EACH	1,990.44	3,981
Vibration isolation, HW pumps	2	EACH	1,679.78	3,360
Isolation valves, pumps, butterfly, HW pumps	2	EACH	1,002.45	2,005
Flexible pump connections, HW pumps	4	EACH	339.78	1,359
Suction diffuser	2	EACH	1,949.45	3,899
Triple duty valve	2	EACH	3,449.45	6,899
Pump strainer, Y-type	2	EACH	1,026.45	2,053
Expansion tank	1	EACH	8,578.68	8,579
Air separator	1	EACH	3,839.34	3,839
Chemical pot feeder	1	EACH	1,259.56	1,260
Pressure fill/makeup water system	1	EACH	8,359.56	8,360
SUBTOTAL: Central Hydronic & Steam Equipment & Specialties				**$109,272**
23400 Heating & Ventilating Terminals				
Cabinet unit heaters, HW hydronic	1	EACH	1,809.56	1,810
Unit heaters, HW hydronic	1	EACH	1,159.56	1,160
Fintube radiators, HW - allowance	160	LNFT	62.47	9,996
HW connections - valves, fittings, and specialties	2	EACH	379.78	760
SUBTOTAL: Heating & Ventilating Terminals				**$13,724**
23500 HVAC Piping				

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
HHWS/R piping, std. wgt. blk. steel pipe, fittings, and supports, welded/flanged, mains	500	LNFT	72.28	36,138
HHWS/R pipe, type L copper pipe, fittings, and supports, runouts	800	LNFT	33.25	26,599
Natural gas piping, std. wgt. blk. steel pipe, fittings, and supports, threaded	100	LNFT	36.36	3,636
Pipe insulation, HHWS/R, mains	500	LNFT	11.19	5,595
Pipe insulation, HHWS/R, runouts	800	LNFT	7.68	6,146
Pipe and valve tagging - interior bldg HVAC piping	1,400	LNFT	1.00	1,398
SUBTOTAL: HVAC Piping				**$79,511**
23600 Temperature Controls				
DDC controls - rooftop units	4	EACH	3,000.00	12,000
DDC controls - AC split system - MDF room	1	EACH	2,000.00	2,000
DDC controls - exhaust fan, general, toilet	5	EACH	2,000.00	10,000
DDC controls - VAV terminals w/reheat coil	17	EACH	1,800.00	30,600
DDC controls - HW boilers	2	EACH	2,500.00	5,000
DDC controls - hydronic pumps, constant speed	4	EACH	2,000.00	8,000
DDC controls - hydronic pumps, variable speed	2	EACH	5,000.00	10,000
Thermostats/temperature sensors	17	EACH	400.00	6,800
CO sensors	1	EACH	400.00	400
Emergency boiler shutoff switch	2	EACH	900.00	1,800
Miscellaneous points & devices	1	LSUM	7,500.00	7,500
Utility meter interfaces	1	LSUM	8,000.00	8,000
Engineer's station	1	LSUM	12,000.00	12,000
Programming, testing, and training	1	LSUM	7,500.00	7,500
SUBTOTAL: Temperature Controls				**$121,600**
23700 Testing, Balancing, & Commissioning				
Air testing and balancing	1	LSUM	15,000.00	15,000
Pipe system testing and balancing	1	LSUM	7,500.00	7,500
HVAC system commissioning	1	LSUM	5,000.00	5,000
SUBTOTAL: Testing, Balancing, & Commissioning				**$27,500**
TOTAL: HEATING VENTILATION & AIR CONDITIONING				**$694,912**
26000 ELECTRICAL				
26100 Selective Demolition				
Selective demolition and removal	1	LSUM	11,067.80	11,068
SUBTOTAL: Selective Demolition				**$11,068**
26200 Main Power Distribution				
Provide a 208Y/120V, 3ph, 4w, 800A power distribution panel	1	EACH	18,386.00	18,386
Transient suppressor/voltage regulator, including connection to switchboard	1	EACH	1,070.70	1,071
Double tub 200A, 208Y/120V, 3ø, 4W panelboards and associated feeder	3	EACH	5,203.57	15,611
SUBTOTAL: Main Power Distribution				**$35,067**
26300 Emergency Power Distribution				
Lighting inverter assembly - 5kVA.	1	EACH	11,886.62	11,887
SUBTOTAL: Emergency Power Distribution				**$11,887**

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
26400 Grounding & Lightning Protection System				
Grounding System per code	1	LSUM	7,228.88	7,229
SUBTOTAL: Grounding & Lightning Protection System				**$7,229**
26500 Lighting				
Miscellaneous light fixtures	19,137	SQFT	9.13	174,654
Miscellaneous light fixtures - shell space	3,026	SQFT	0.84	2,537
Exterior Architectural Building Lighting - allowance	1	LSUM	20,000.00	20,000
Pole mounted light fixtures in parking lot. and associated conduit and wiring	4	EACH	8,461.59	33,846
Lighitng control system	19,137	SQFT	1.15	22,052
Lighitng control system - shell space	3,026	SQFT	0.22	671
Lighting relay panelboard for exterior lights	1	EACH	6,026.97	6,027
Branch wiring installation 600 V, including 1/2" EMT conduit and THWN wire, 20A	22,163	SQFT	2.63	58,375
SUBTOTAL: Lighting				**$318,161**
26600 Branch Power Distribution & Devices				
Miscellaneous receptacles and hardwired connections	19,137	SQFT	0.37	7,025
Electric metallic tubing, 1/2" diameter, to 15' high, including fittings and supports	22,163	SQFT	3.63	80,469
SUBTOTAL: Branch Power Distribution & Devices				**$87,495**
26700 Mechanical Equipment Connections & Feeders				
Motors connection, disconnect switches and associated feeders - Air Handling Unit (AHU-1)	1	EACH	3,412.86	3,413
Motors connection, disconnect switches and associated feeders - Air Handling Unit (AHU-2)	1	EACH	2,444.35	2,444
Motors connection, disconnect switches and associated feeders - Air Handling Unit (AHU-3)	1	EACH	2,444.35	2,444
Motors connection, disconnect switches and associated feeders - Air Handling Unit (AHU-4)	1	EACH	2,444.35	2,444
Motors connection, disconnect switches and associated feeders - Self-contained DX split system	2	EACH	2,582.71	5,165
Motors connection, disconnect switches and associated feeders - Exhaust Fans	6	EACH	1,383.59	8,302
Motors connection, disconnect switches and associated feeders - Miscellaneous equipment	1	LSUM	18,447.92	18,448
SUBTOTAL: Mechanical Equipment Connections & Feeders				**$42,661**
TOTAL: ELECTRICAL				**$513,567**
27000 COMMUNICATIONS				
27200 Tele/Data Systems				
Provision for IT room, plywood, cable tray, grounding, sleeves	1	EACH	5,947.43	5,947
MDF rack assembly 2 racks, switching equipment by Owner	1	EACH	3,405.28	3,405
Telecommunication and television system	19,137	SQFT	9.13	174,805
SUBTOTAL: Tele/Data Systems				**$184,158**
27600 Audio/Visual & Television System				
Audio/visual System, rough-in only	1	SQFT	5,000.00	5,000
SUBTOTAL: Audio/Visual & Television System				**$5,000**

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
TOTAL: COMMUNICATIONS				**$189,158**
28000 ELECTRONIC SAFETY & SECURITY				
28200 Fire Alarm Systems				
Fire alarm control panel, addressable, connections & programming	1	EACH	15,387.79	15,388
Fire alarm annunciator panel, connections & programming	1	EACH	5,192.20	5,192
FA signalling and detection devices and associated conduit and cabling	22,163	SQFT	1.68	37,229
SUBTOTAL: Fire Alarm Systems				**$57,809**
28300 Intrusion Detection & Access Control Systems				
Intrusion Detection System, complete	19,137	SQFT	2.06	39,338
SUBTOTAL: Intrusion Detection & Access Control Systems				**$39,338**
28400 CCTV System				
CCTV System, complete	22,163	SQFT	4.27	94,578
SUBTOTAL: CCTV System				**$94,578**
TOTAL: ELECTRONIC SAFETY & SECURITY				**$191,726**
31000 EARTHWORK				
31100 Site Preparation & Excavation				
Excavate for new site work	337	CUYD	12.50	4,213
Haul off excavated material as CCDD	337	CUYD	26.28	8,858
SUBTOTAL: Site Preparation & Excavation				**$13,071**
31200 Site Grading				
Fine grading	8,918	SQFT	0.74	6,589
SUBTOTAL: Site Grading				**$6,589**
31800 Site Demolition				
Remove asphalt paving	8,918	SQFT	0.69	6,151
SUBTOTAL: Site Demolition				**$6,151**
TOTAL: EARTHWORK				**$25,810**
32000 EXTERIOR IMPROVEMENTS				
32100 Pavement				
CA-1, 8" thk at permeable pavers	200	CUYD	43.18	8,637
CA-7, 4" thk at permeable pavers	100	CUYD	37.64	3,764
CA-16, 2" thk at permeable pavers	50	CUYD	57.89	2,894
Stripe parking space, standard	6	EACH	25.89	155
Stripe parking space, ADA	4	EACH	209.97	840
Geotextile fabric at permeable paver parking lot	7,994	SQFT	1.07	8,547
Flush concrete curb, 4" thk	190	LNFT	12.82	2,435
Flush concrete curb, 6" thk	335	LNFT	14.69	4,920
Permeable pavers at parking lot	7,994	SQFT	7.07	56,501
SUBTOTAL: Pavement				**$88,694**
32400 Enclosures				

CONCORD GROUP

Door County Archive
Younker's Building
Renovation

Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Trash enclosure fence, 6'-0" high	47	LNFT	113.78	5,348
Trash enclosure fence gate, (2) 2'-6" x 6'-0"	2	EACH	1,481.91	2,964
SUBTOTAL: Enclosures				**$8,312**
32600 Landscaping				
Cherry trees, 2" cal	6	EACH	680.54	4,083
Canopy trees, 2" cal	5	EACH	1,038.18	5,191
Groundcover	453	SQFT	2.87	1,301
Topsoil	17	CUYD	64.82	1,102
Mulch	453	SQFT	1.04	472
SUBTOTAL: Landscaping				**$12,148**
32700 Site Furnishings				
Bollard	15	EACH	650.62	9,759
Tree grate, 4'-0" x 4'-0"	11	EACH	1,689.71	18,587
SUBTOTAL: Site Furnishings				**$28,346**
TOTAL: EXTERIOR IMPROVEMENTS				**$137,500**
33000 UTILITIES				
33800 Site Electrical				
Telecommunications utility services terminated in the main telecommunications room.	1	LSUM	26,881.92	26,882
Utility company provisions and coordination - Transformer service	1	LSUM	8,960.64	8,961
SUBTOTAL: Site Electrical				**$35,843**
TOTAL: UTILITIES				**$35,843**
TOTAL: BASE BID				**$3,461,719**

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
ALTERNATE #1: INTERIOR BUILDOUT FOR ARCHIVE, SOUTH OF DEMISING WALL				
02000 EXISTING CONDITIONS				
02100 Selective Demolition				
Cutting and patching slab on grade for plumbing	150	LNFT	24.56	3,683
SUBTOTAL: Selective Demolition				**$3,683**
TOTAL: EXISTING CONDITIONS				**$3,683**
03000 CONCRETE				
03900 Miscellaneous Concrete				
Prepare existing slab for new floor finish	3,378	SQFT	1.92	6,477
SUBTOTAL: Miscellaneous Concrete				**$6,477**
TOTAL: CONCRETE				**$6,477**
06000 WOODS, PLASTICS & COMPOSITES				
06300 Millwork				
P-lam base cabinets and HDPL countertops	18	LNFT	249.26	4,487
P-lam wall hung cabinets	18	LNFT	202.82	3,651
SUBTOTAL: Millwork				**$8,137**
06900 Miscellaneous Woods, Plastics & Composites				
Miscellaneous wood blocking & rough carpentry	3,754	SQFT	0.91	3,420
SUBTOTAL: Miscellaneous Woods, Plastics & Composites				**$3,420**
TOTAL: WOODS, PLASTICS & COMPOSITES				**$11,557**
07000 THERMAL & MOISTURE PROTECTION				
07200 Thermal Insulation				
Closed cell spray insulation, 2" thk	1,980	SQFT	4.96	9,820
SUBTOTAL: Thermal Insulation				**$9,820**
07800 Caulking & Sealants				
Miscellaneous caulking & sealants	3,754	SQFT	0.14	512
SUBTOTAL: Caulking & Sealants				**$512**
TOTAL: THERMAL & MOISTURE PROTECTION				**$10,332**
08000 OPENINGS				
08400 Interior Doors, Frames, & Hardware				
HM frame, 3'-0" x 7'-0"	3	EACH	473.08	1,419
HM frame, 3'-0" x 7'-0", sidelite 2'-0" x 7'-0"	1	EACH	931.39	931
HM frame, 3'-0" x 7'-0", sidelite 6'-0" x 7'-0"	1	EACH	1,596.39	1,596
AL/GL door, 3'-0" x 7'-0"	1	EACH	3,083.54	3,084
WD door, 3'-0" x 7'-0", cherry	1	EACH	468.54	469
WD door, 3'-0" x 7'-0", cherry, fire rated and weather stripping	2	EACH	568.54	1,137
WD door, 3'-0" x 7'-0", cherry, w/vision lite 6" x 2'-9" assumed	2	EACH	768.54	1,537

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Hardware set, single	6	EACH	667.08	4,002
SUBTOTAL: Interior Doors, Frames, & Hardware				**$14,176**
08500 Interior Glazing				
Interior storefront	151	SQFT	36.87	5,567
SUBTOTAL: Interior Glazing				**$5,567**
TOTAL: OPENINGS				**$19,743**
09000 FINISHES				
09100 Plaster & Gypsum Board				
Gypboard furring, at exterior CMU wall; 3-5/8" metal studs, 5/8" type x gypboard one side (2" spray foam insulation incl above), full-height	1,980	SQFT	7.55	14,959
Gypboard partition standard; 3-5/8" metal studs, 5/8" type x gypboard each side, 3" mineral fiber blanket insulation, full-height	1,949	SQFT	9.98	19,458
Gypboard partition standard; 6" metal studs, 5/8" type x gypboard each side, 5" mineral fiber blanket insulation, full-height	117	SQFT	10.72	1,255
Gypboard partition standard vapor; 3-5/8" 25 ga metal studs, 5/8" type x gypboard each side, 3" mineral fiber blanket insulation, vapor barrier at structure, full-height	1,597	SQFT	11.36	18,146
Gypboard partition standard vapor; 6" metal studs, 5/8" type x gypboard each side, 5" mineral fiber blanket insulation, vapor barrier at structure, full-height	813	SQFT	11.60	9,427
SUBTOTAL: Plaster & Gypsum Board				**$63,245**
09200 Floor Finishes				
Luxury vinyl tile	159	SQFT	8.50	1,352
Rubber base, 4" high	674	LNFT	2.05	1,385
Carpet tile	1,556	SQFT	4.34	6,756
SUBTOTAL: Floor Finishes				**$9,493**
09400 Ceiling Finishes				
ACT system, 2'-0" x 2'-0"	3,379	SQFT	4.31	14,554
SUBTOTAL: Ceiling Finishes				**$14,554**
09600 Paints & Coatings				
Concrete sealer	1,663	SQFT	1.28	2,132
Paint walls	6,747	SQFT	0.90	6,052
SUBTOTAL: Paints & Coatings				**$8,184**
TOTAL: FINISHES				**$95,475**
10000 SPECIALTIES				
10600 Lockers & Benches				
Locker, two tier	6	EACH	231.77	1,391
SUBTOTAL: Lockers & Benches				**$1,391**
TOTAL: SPECIALTIES				**$1,391**
22000 PLUMBING				
22200 Plumbing Fixtures				

CONCORD GROUP

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
Sink, stainless steel, single basin self-rimming, manual faucet	1	EACH	1,626.91	1,627
SUBTOTAL: Plumbing Fixtures				**$1,627**
22400 Domestic Water, Waste & Vent, & Storm Drainage Piping				
Domestic water pipe, fittings, and supports, type L copper - allowance	100	LNFT	38.18	3,818
Pipe insulation, domestic water piping - allowance	100	LNFT	7.96	796
Vent pipe, fittings, and supports, PVC, AG - allowance	50	LNFT	43.43	2,172
Sanitary/waste pipe and fittings, PVC, UG - allowance	50	LNFT	55.34	2,767
Excavation, bedding, backfill - UG piping	100	LNFT	86.90	8,690
Pipe and valve tagging	100	LNFT	1.00	100
SUBTOTAL: Domestic Water, Waste & Vent, & Storm Drainage Piping				**$18,343**
TOTAL: PLUMBING				**$19,970**
23000 HEATING VENTILATION & AIR CONDITIONING				
23200 Ventilation & Exhaust				
Variable air volume terminals w/HW reheat coil - allowance	3	EACH	1,054.28	3,163
Reheat coil connections, VAV - valves, fittings, and insulation	3	EACH	899.45	2,698
Galvanized steel duct & insulation	3,754	SQFT	9.58	35,967
Registers, grilles and diffusers - allowance	30	EACH	95.43	2,863
SUBTOTAL: Ventilation & Exhaust				**$44,691**
23500 HVAC Piping				
HHWS/R pipe, type L copper pipe, fittings, and supports, runouts	90	LNFT	33.25	2,992
Pipe insulation, HHWS/R, runouts	90	LNFT	7.68	691
Pipe and valve tagging - interior bldg HVAC piping	90	LNFT	1.00	90
SUBTOTAL: HVAC Piping				**$3,774**
23600 Temperature Controls				
DDC controls - VAV terminals w/reheat coil	3	EACH	1,800.00	5,400
Thermostats/temperature sensors	3	EACH	400.00	1,200
SUBTOTAL: Temperature Controls				**$6,600**
23700 Testing, Balancing, & Commissioning				
Air testing and balancing	1	LSUM	2,500.00	2,500
Pipe system testing and balancing	1	LSUM	1,000.00	1,000
HVAC system commissioning	1	LSUM	1,000.00	1,000
SUBTOTAL: Testing, Balancing, & Commissioning				**$4,500**
TOTAL: HEATING VENTILATION & AIR CONDITIONING				**$59,565**
26000 ELECTRICAL				
26500 Lighting				
Miscellaneous light fixtures - archive area	3,754	SQFT	5.87	22,029
Lighitng control system - archive area	3,754	SQFT	0.71	2,662
SUBTOTAL: Lighting				**$24,691**
26600 Branch Power Distribution & Devices				
Miscellaneous receptacles and hardwired connections	3,754	SQFT	0.37	1,378

Door County Archive
Younker's Building
Renovation
Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
SUBTOTAL: Branch Power Distribution & Devices				**$1,378**
TOTAL: ELECTRICAL				**$26,069**
27000 COMMUNICATIONS				
27200 Tele/Data Systems				
Telecommunication and television system	3,754	SQFT	5.77	21,657
SUBTOTAL: Tele/Data Systems				**$21,657**
TOTAL: COMMUNICATIONS				**$21,657**
28000 ELECTRONIC SAFETY & SECURITY				
28300 Intrusion Detection & Access Control Systems				
Intrusion Detection System, complete	3,754	SQFT	0.46	1,715
SUBTOTAL: Intrusion Detection & Access Control Systems				**$1,715**
TOTAL: ELECTRONIC SAFETY & SECURITY				**$1,715**
TOTAL: ALTERNATE #1: INTERIOR BUILDOUT FOR ARCHIVE, SOUTH OF DEMISING WALL				**$277,635**

Door County Archive
Younker's Building
Renovation

Conceptual Estimate
02/20/2020
DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
ALTERNATE #2: CANOPY AT NORTH ENTRY DOOR				
05000 METALS				
05400 Metal Fabrications				
Metal canopy	15	SQFT	185.46	2,782
SUBTOTAL: Metal Fabrications				**$2,782**
TOTAL: METALS				**$2,782**
26000 ELECTRICAL				
26500 Lighting				
Electrical provisions	1	LSUM	1,329.51	1,330
SUBTOTAL: Lighting				**$1,330**
TOTAL: ELECTRICAL				**$1,330**
TOTAL: ALTERNATE #2: CANOPY AT NORTH ENTRY DOOR				**$4,111**

APPENDIX III: Meeting Mintues

- October 22, 2019 Stakeholder Meeting 5 pages
- December 12, 2019 Community Meeting 3 pages
- December 13, 2019 Staff Meeting 2 pages
- December 13, 2019 Stakeholder Meeting 3 pages

October 24, 2019

MEETING NOTES | Stakeholder Meeting 1

Door County Archive | Younkers Building Renovation
Engberg Anderson Project No. 193078

DATE & TIME	Tuesday, October 22, 2019 @ 12:30 – 2:00	
LOCATION	Door County Library	
PRESENT:	Dan Austad	Door County Supervisor
	Myles Dannhausen	Egg Harbor Historical Society, Board President
	Mary Gilbert	Door County Historical Society
	Emily Irwin	Ephraim Historical Foundation
	Ann Jinkins	Belgian Heritage Center, Board Secretary
	Tina Kakuske	Door County Library Director
	Joe Krebsbach	Door County Human Services Director
	Elizabeth Meissner-Gigstead	Miller Art Museum, Director
	Marty Olejniczak	Sturgeon Bay Community Development Director
	Ken Pabich	Door County Administrator
	Kristen Peil	Door County Heritage Alliance
	Steven Rice	Door County Library
	Pam Seiler	Sturgeon Bay Visitors Center Director
	Nyla Small	Door County Historical Museum
	Wayne Spritka	Door County Facilities and Parks Director
	Sally Treichel	Archives
	Josh VanLieshout	City of Sturgeon Bay Administrator
	Eric Blowers	Engberg Anderson Architects
	Alex Ramsey	Engberg Anderson Architects
PURPOSE:	Visioning the Door County Archive	

Item	Description
	WHAT DO WE HAVE?

1	<u>Describe Door County and what makes it special?</u>
	• Connection to the water
	• Diversity within Door County community
	  o Year-round tourism
	  o Agricultural
	  o Fishing
	  o Strong retirement community
	  o Shipbuilding and other industry (Manufacturing – Marine travel lifts)

Item	Description
	o Ethnically: Belgian, Scandinavian and German heritage • Authenticity in experiencing the diversity of the County • Pride in place (historically and culturally) • Connection to the Arts
2	<u>What will the County be like in 5 years or more?</u> • Increased interest in History of the Peninsula • Shift from smaller independent businesses to larger corporate holdings. • Generational shift – residents are aging, younger folks can't afford location. • Shift from family owned residences to time shares.
3	<u>Describe the evolution of the archive.</u> • The archive started with a few community members researching and gathering documents. The collections are currently scattered in multiple buildings, primarily the White House, with less than ideal environmental conditions. • As it grew, the Museum considered including archive space in a planned expansion to the north of the museum. At the time, the Younkers store next door was a successful business with no anticipated change. • When the Younker's Building became available it seemed an obvious choice for purchase by the County given its ideal location. At 22,000 sf, it is too large for the archive alone, however other uses are anticipated to fill the space. • Conversations have begun with local historical societies for mutual support and cooperation, allowing for the sharing of expertise and equipment. • There is a desire for archives to become digitized to allow for both preservation and accessibility.
4	<u>What services will the archive offer and to whom?</u> • Individuals researching genealogy or architecture. • Tour groups interested in local history, an orientation followed by excursions. • School groups learning about local history or how to use primary resources. • Media seeking information, photographs or documents. • Cultural institutions with research needs. • Individuals seeking to use specialized equipment • Local Historical Societies seeking to collaborate or share equipment. • Developers looking for documents to support preservation projects funded with state and local historic tax credits. • Programming can be broadcast live or recorded to reach those who cannot travel. • Programs can travel throughout the County, hosted by branch libraries.

Item	Description
5	<u>The Younkers Building</u> • EA described the condition of the building. It is a simple structure with high ceilings, with generous storefront windows facing the street and built into the hillside. The current construction was built economically to support a retail environment and will require extensive renovations to support the long term preservation needs of the archive collections. The engineering team toured the building and will be providing a narrative of the existing systems and the proposed modifications. • The group pointed to a couple local examples of renovations that are now used to support community functions, the Community Foundation on 3rd Avenue and the ADRC on 14th Avenue. • Any proposed renovation should take advantage of the storefront windows by assigning active uses to animate the street. If multiple tenants (the archive and another) share the space, they should both have a street presence. • There is interest in sustainable systems. EA will explore the option of solar for the building and provide both an initial cost for the system and a return on investment analysis.
	WHAT DO WE NEED?

6	<u>What are the primary goals for the project?</u>
	• Long term preservation of the archive collections.
	• A space for staff and volunteers to work with the collections, intake and digitize.
	• An accessible space for people to engage with the collections; research and programming.
	• Make good use of the additional space:
	  o Lease retail space for income to offset purchase price.
	  ▪ Coffee shop or restaurant. (Concern with incompatibility of use.)
	  ▪ Local craft market / indoor market (Duplicate current?)
	  ▪ Maker space.
	  ▪ Business/retail incubator space.
	  ▪ County youth programming (Duplicate other community spaces?)
	  o Use space to support mission of archive and adjacent museum
	  ▪ Relocate and expand Museum Store
	  ▪ Lease to the Door County Historical Society
	  ▪ Provide shared space for multiple County Historical Societies.
	  ▪ Provide a leasable program/event space with catering kitchen. The Egg Harbor Kress Pavilion is a good precedent. (Better view.)
	  o County is using part of the building for storage, a use anticipated to continue.

7	<u>What are the needs of the Archive space?</u>
	
	The program included in the Door County Library/Archives Merger Proposal is used as a starting point for understanding the needs of the Archive, which can be summarized as follows:
	1. A retail style display space to draw people into the facility.
	2. A reception space and waiting area, with lockers to store bags and coats.
	3. A small meeting room for consultations, 2-4 people.
	4. A larger meeting room for 6-8 people.
	5. A reference and research room for access to collections with supervision.
	6. Staff spaces for the manager, support staff and volunteers.
	7. A workroom for receiving, stabilizing, cataloguing, digitizing collections.
	8. Collections storage space.
	9. Receiving area with provisions for decontamination.
	10. Staff break room and restrooms for staff and public.
	
	The stakeholder group added the following details:
	• A front door, visibility on 4th street.
	• Accessibility for the aging population. Extra handicap parking, signage, lighting, etc.
	• Can the Archive be self-service during slow times?
	• Make it an attractive and welcoming space for volunteers.
	• Collections may include additional items:
	  o Items from local historical societies if requested.
	  o County records, property assessments, minute books, etc.
	  o Museum clothing collection, photographs that have been digitized.
	• The larger meeting space should be big enough to hold a busload of school kids, two classes or up to 55 kids. A room this size could fulfill a variety of functions including collaborative meetings between all County Historical Societies.
	• The smaller meeting room should be provided with good acoustics and the equipment needed to support Oral History projects, or other podcasting activities.
	• Provide media programming opportunities and shareable equipment.
	• Engage the next generation with vibrant and relevant services and spaces.

	<u>What are the potential headlines resulting from the study?</u> "Archive Facility Established to Support Local Preservation Efforts." Make sure that the perception is that the Archive will be supporting and not replacing local groups. "Door County Makes Great Use of Existing Building" Make sure the project is mindful of local tax dollars and makes good use of capital already spent. The project will benchmark the cost of the renovation against the cost of a new

	building to lead the group to an informed recommendation. Demolition may be politically problematic. "Archive Plan Gains Momentum and Financial Backing" Don't move ahead too fast, make sure the study presents a reasonable vision to build support as it is developed. More participation from Northern Door stakeholders should be sought. A community presentation at the next meeting would be appropriate. "Door County, City of Sturgeon Bay, the Library and the Museum Create Successful Partnership to Enhance and Preserve Historical Resources." Cooperation is the key to success, branch libraries are important for outreach, engagement and inclusivity for a county wide initiative.

These meeting minutes constitute the author's understanding of the issues discussed and the decisions reached. Please contact the undersigned with any additions, deletions or changes.

Prepared by

Alexandra Ramsey, AIA
Partner

Copied Bret Bicoy, Door County Community Foundation, Inc., President and CEO
Jim Schuessler, Door County Economic Development Center Director

EA File Name: P:\2019 3005\193078 Door Co Historic - Younkers\1-Project Administration\7-Meetings\19-10-22 Trip 1\Door Archive Minutes 19-10-22.Docx

Engberg Anderson ARCHITECTS

MEETING NOTES | Community Meeting

Door County Archive | Younkers Building Renovation
Engberg Anderson Project No. 193078

DATE & TIME December 12, 2019 @ 5:30pm
LOCATION Door County Library
PURPOSE: Visioning the Door County Archive

Item	Description
1	The team began the meeting with a summary of the investigation phase, a discussion of the history of the archive, the condition of the building and previously identified priorities. The goals of the Archive project were summarized as: 1. Unite archive collections; 750 cubic feet at four separate locations 2. Preserve the collections with proper temperature and humidity controls 3. Achieve accessibility for the collections 4. Accommodate researchers 5. Engage public in cooperation with the museum and library 6. Support historical societies across the county The goals for the Building Renovation were summarized as: 1. Create a mixed-use project 2. Create a community asset 3. Draw people to the building 4. Support the mission of the archive 5. Support the mission of the museum 6. Provide income to offset costs
2	MIXED USE PARTNERS The group discussed potential four types of partners: New Services, Incubator, Market and Entrepreneur. Use space to relocate or add to existing county services: • A children's museum, perhaps partner with Boys and Girls Club • Develop a lending library of things similar to the tool collection at the Oakland Library.

Item	Description
	• Relocate the Youth Connection program, currently renting space. • Add a gift shop and or gallery space to serve the museum and the archive. • Relocate the Museum into the building with the Archive. Incubating new businesses • DCEDC – runs and existing business incubator, could be expanded here. Rental space for markets or special events • A winter market is currently run once a month at the Lutheran Church Long term lease for entrepreneurs: • A pizza and brewery. • Spa and wellness center. After a discussion, participants voted on what type of use was most appropriate. New services was the most popular option, followed by entrepreneur, then incubator with market coming in last. Other questions included: • What types of services are provided at similar size communities? • How many people are anticipated to visit the archive? • Does the County need to reserve 5,000 sf for a warehouse, or can this area also be developed? • Can the archive use the vertical space to limit the floor area of storage? • The amount of parking provided is not strictly regulated in the central business district. Some spaces may be eliminated to improve the safety and function of the courtyard.
3	LAYOUT OPTION EXPLORATION Two options were presented, descriptions and comments follow. Option A: Archive is consolidated into the rear of the building with an entry off Louisiana St. 1. Can the local history room be relocated from the library to this building? 2. The Museum anticipates a donation of clothing, can this and the existing clothing collection be stored in the archive storage area? 3. The warehouse area to the south could be expansion space for the Archive. 4. The archive may not need to be visible from the street corner, if there are not that many visitors the visibility may be better utilized by the other building occupants. Option B: Archive utilizes the main building entry at the street corner. 1. The arrangement of the archive limits the use of the remaining space. 2. Focus on future flexibility when locating the permanent spaces of the archive.
5	IMAGE OPTIONS Three images were presented for the exterior renovation of the building. After the presentation, attendees voted their preferences. The results were as follows:

Item	Description

	Option A			Option B			Option C		
Ranking	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Ballot									
1	1					1		1	
2							1		
3	1					1		1	
4	1								
5									
6	1					1		1	
7				1					
8		1				1	1		
9		1				1	1		
10			1		1		1		
11			1	1				1	
12		1				1	1		
13			1	1				1	
14		1				1	1		
15	1					1		1	
16		1				1	1		
17			1	1				1	
18		1				1	1		
19	1					1		1	
Number of votes	6	6	4	4	1	11	8	8	0
Points by rank	3	2	1	3	2	1	3	2	1
Score	18	12	4	12	2	11	24	16	0
Weighted score		**34**			**25**			**40**	

These meeting minutes constitute the author's understanding of the issues discussed and the decisions reached. Please contact the undersigned with any additions, deletions or changes.

Prepared by

Alexandra Ramsey, AIA
Partner

MEETING NOTES | Staff Meeting

Door County Archive | Younkers Building Renovation
Engberg Anderson Project No. 193078

DATE & TIME	December 13, 2019 @ 10:00 am
LOCATION	Door County Administrative Building
PURPOSE:	Discuss technical needs of Archive
ATTENDEES:	Ken Pabich, Door County Administration Tina Kakuske, Door County Library Wayne Spritka, Door County Facilities and Parks Department Alex Ramsey, Engberg Anderson Eric Blowers, Engberg Anderson

Item	Description
1	YOUNKER'S BUILDING The group discussed the layouts and additional technical requirements for the Archive space. 1. Provide decontamination equipment, a heater or similar. Make recommendations for consideration. 2. The workroom will be used for digitization, refer to merger proposal for list of equipment. 3. Provide infrastructure (power, data, etc.) for all future equipment, show locations on plans. 4. Provide a fourplex Cat 5 cable to each workstation. 5. Provide a gender-neutral restroom in addition to the gendered restrooms for the public. Provide a staff restroom if possible. 6. Keep the large meeting room as a shared building amenity, allow for it to open to a larger space if layout allows, similar to gallery in Option B. 7. The lease space should be developed to as a white box. 8. The small meeting room can be even smaller, half the size currently shown. It will be used for consultations between 3-4 people. 9. Provide space for Youth Connection, identify current space use. 10. The county warehouse space can be compressed or eliminated. 11. Rogue theater is a possible tenant. 12. Think about utilizing high bay storage. Provide two costs, one for standard height shelving (up to 90") and one for high bay. Taller shelving will require equipment for access, noting that the typical volunteer is elderly. 13. Provide a card key access system throughout the building. 14. It is desired that the Archive have some display presence on 4th avenue.

Item	Description
	15. Explore the option of eliminating parking spaces to create a pedestrian path from street to new shared entry at rear of parking area. 16. Develop a master plan concept to help committee understand the greater vision for the museum and archive. 17. The study should reach out to the community for another round of input on building aesthetic preference. Next Steps: 1. Develop a narrative for repairs, renovations and building systems. 2. Use the updated design as the basis for a cost estimate.
2	YOUTH CONNECTION Wayne took Eric and Alex on a tour of the current youth connection space. Key elements include: 1. Space for up to 12 kids and two staff 2. Multiple escape routes for staff 3. Basketball, ping pong, other similar activities 4. A kitchen, currently 20 ft. by 28 ft., with: a. Commercial range hood b. Pizza oven c. Microwave d. Coffee 5. A lounge, separate from the kitchen, currently 20 ft. by 28 ft. 6. 3 – 8 homework cubicles 7. A consultation room 8. Bathrooms 9. 4-Cat 5 cables per workstation, Door County standard.

These meeting minutes constitute the author's understanding of the issues discussed and

the decisions reached. Please contact the undersigned with any additions, deletions or changes.

Prepared by

Alexandra Ramsey, AIA
Partner

MEETING NOTES | Stakeholder Meeting

Door County Archive | Younkers Building Renovation
Engberg Anderson Project No. 193078

DATE & TIME	December 13, 2019 @ 1:30pm
LOCATION	Door County Library
PURPOSE:	Visioning the Door County Archive
ATTENDEES:	Dan Austad, Door County Board of Supervisors Myles Dannhausen, Sr., Egg Harbor Historical Society Mary Gilbert, Door County Historical Society Emily Irwin, Ephraim Historical Foundation Tina Kakuske, Door County Library Dan Klansky, Door County Facilities and Parks Department Rhys Kuzdas, Door County Maritime Museum Elisabeth Meissner-Gigstead, Miller Art Museum Steve Rice, Door County Archives Pam Seiler, Sturgeon Bay Visitor Center Nyla Small, Door County Historical Museum Wayne Spritka, Door County Facilities and Parks Department Sally Treichel, Door County Archive Maggie Weir, Door County Historical Museum Alex Ramsey, Engberg Anderson Eric Blowers, Engberg Anderson

Item	Description
1	The team began the meeting with a summary of the investigation phase, a discussion of the history of the archive, the condition of the building and previously identified priorities. The goals of the Archive project were summarized as: 1. Unite archive collections; 750 cubic feet at four separate locations 2. Preserve the collections with proper temperature and humidity controls 3. Achieve accessibility for the collections 4. Accommodate researchers 5. Engage public in cooperation with the museum and library 6. Support historical societies across the county The goals for the Building Renovation were summarized as:

Item	Description
	1. Create a mixed-use project 2. Create a community asset 3. Draw people to the building 4. Support the mission of the archive 5. Support the mission of the museum 6. Provide income to offset costs
2	MIXED USE PARTNERS The group discussed potential four types of partners; new services provided by the county, incubator space partially financed by the county, short term rental for markets or special events, long term lease for entrepreneurs. The group voiced enthusiasm for an "all door county" store that showcased locally produced and manufactured goods. It could include food, art, pottery, textiles, etc. It could attract craft market vendors year-round, currently the craft market is open only in summer. Another idea would be an open flex space that could be scheduled day to day, this could be tested in the white box until a long-term tenant is approved.
3	LAYOUT OPTION EXPLORATION Two options were presented, comments generally apply to both layouts: 1. Can the archive shelving be compact shelving? The answer is yes, it is possible given the likely structural capacity of the slab on grade. However, it is advisable to save this as a potential future growth strategy. 2. Include casework and sink in the meeting rooms. 3. If possible, combine the meeting rooms for a total capacity of 50-60 people. 4. If possible, take advantage of the vertical space for archive storage. 5. Develop a site plan with a more generous pathway to the recessed second entry by eliminating one row of parking. As shown, people would need to walk down the drive aisle of the parking lot which is unsafe. 6. With the proximity of the building to an existing theater and event space, these uses do not need to be duplicated here. 7. Can the kitchen and meeting spaces of Youth Connections be shared amenities for the building? This can be explored. 8. Will the archive spaces have access to natural light? Yes, windows will be added for all occupied spaces. 9. Youth Connection will have its own entrance, wherever it falls within the building. 10. The building should provide a kitchen, breakroom, and office equipment space for shared use by all occupants as a building amenity. 11. The "courtyard" space can be developed as an outdoor market or special event space. Some of the features will be permanent and parking can be closed for larger events.

5

IMAGE OPTIONS

Three images were presented for the exterior renovation of the building.
Concern was expressed for snow buildup on canopies, steps should be taken to prevent snow slippage such as the installation of snow guards.

A "Window of the Past" rotating exhibit of archive and museum materials in the primary storefront window was proposed.

After the presentation, attendees voted their preferences. Option "C" was the clear favorite with a majority of first place votes. The results were as follows:

	Option A			**Option B**			**Option C**		
Ranking	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
Ballot									
1	1					1		1	
2		1			1				1
3			1		1			1	
4							1		
5			1		1		1		
6		1				1	1		
7		1				1	1		
8			1		1		1		
9			1		1		1		
10		1				1	1		
11		1				1	1		
12		1				1	1		
13		1				1	1		
14							1		
Number of votes	1	7	4	0	5	7	11	2	1
Points by rank	3	2	1	3	2	1	3	2	1
Score	3	14	4	0	10	7	33	4	1
Weighted score		**21**			**17**			**38**	

These meeting minutes constitute the author's understanding of the issues discussed and

the decisions reached. Please contact the undersigned with any additions, deletions or changes.

Prepared by

Alexandra Ramsey, AIA
Partner

LET'S SAFELY RE-OPEN DOOR COUNTY
May 19, 2020 Guidelines and Recommendations
Effective immediately
[In full force and effect from and after May 19, 2020]

CONTACT: Susan Powers, RN, BSN, Health Officer/Public Health Manager,
Email: publichealth@co.door.wi.us Telephone: 920-746-2234

These guidelines and recommendations supersede and replace the *May 14, 2020, Order of the Door County Health Officer*, the April 22, 2020 *Revised Health Order: Modified Campground Operations in Door County*, and the April 15, 2020 *Health Order: Temporary Closure of all Campgrounds Within Door County*. The goals are to safely re-open Door County, minimize exposures to COVID-19, and slow the spread of the disease. It will require all persons within Door County to take responsibility, work cooperatively together, and support best practices if these goals are to be achieved.

It's important to remember that at present, the COVID-19 pandemic continues.
Background information:

1. COVID-19 is an easily transmittable communicable disease spread mainly through close contact from person-to-person which has achieved worldwide pandemic status. There are approximately 4.4 million confirmed positive cases and 300,000 deaths worldwide, 1.4 million confirmed positive cases and 88,000 deaths in the United States and 12,000 positive cases and 450 deaths in Wisconsin.

2. COVID-19 is currently present and being actively transmitted in Door County, Wisconsin. As of May 19, 2020, there are 34 confirmed positive cases, with 14 cases recovered, and 3 deaths.

3. Wisconsin saw meaningful benefits from the statewide "Safer at Home Order". These benefits included flattening the curve of COVID-19 infection (i.e., slow the spread of the virus, preservation of healthcare resources, and save lives) in Wisconsin.

4. May 13, 2020, the Wisconsin Supreme Court issued a decision declaring "Safer at Home" unlawful, invalid and unenforceable. The State Legislature and Governor have not, to date,

worked together to establish a lawful rule that addresses COVID-19. County and municipal governments have been left to local control.

5. Door County is a popular tourist destination and home to many seasonal residents. Local businesses rely on seasonal workers, many who travel from out of state and county to work in Door County. The expected influx of these individuals has the potential to further the spread COVID infection, and tax our health care system.

6. Door County has approximately 30% of its population that is age 65 or older, and data demonstrates that the aged population is particularly vulnerable to the severe symptoms associated with COVID-19 virus along with all groups those that have underlying health issues.

Basic recommendations for everyone:

- Physical distance, maintaining six (6) feet between people.
- Wear cloth face coverings (masks) when out in public.
- Practice good hand hygiene: wash your hands with soap and water, or use hand sanitizer, especially after touching frequently used items/surfaces.
- Clean/sanitize frequently touched surfaces.
- Avoid going to places where safety measures are not in place.
- If you are sick, stay home and call your healthcare provider about testing.
- Limit travel to reduce the potential for virus transmission.

Community Gatherings:
Follow social distancing, cloth face coverings and sanitation guidelines when in public settings and consider the following guidance for planning, scheduling or attending events and gatherings.

Low Risk	Moderate Risk	High Risk	Not Advisable
Staying at Home	Gatherings Under 10 People	Gatherings of 10-50 People	Gatherings of 50 or more

The Door County Health Officer offers the following as guidelines and recommendations:
Persons (e.g., businesses and individuals) are strongly encouraged to review, become and remain familiar with, and comply with the WEDC, CDC, WDHS and OSHA guidelines and recommendations. These may be found at:

A. The Wisconsin Economic Development Corporation ("WEDC") has compiled a series of industry-specific documents to help businesses reopen. These may be found at: https://wedc.org/reopen-guidelines/.

B. The Centers for Disease Control and Prevention ("CDC") has developed guidance for businesses related to COVID-19. This guidance may be found at: https://www.cdc.gov/niosh/emres/2019_ncov.html

C. The Wisconsin Department of Health Services ("WDHS") has developed guidance for businesses related to COVID-19. This guidance may be found at: https://www.dhs.wisconsin.gov/covid-19/employers.htm

D. The Occupational Safety and Health Administration ("OSHA") has developed guidance for businesses related to COVID-19. This guidance may be found at: https://www.osha.gov/SLTC/covid-19/

These references may change as we learn more about COVID-19 and we encourage checking for updates. Doing so will help you get back to business while taking the necessary precautions to maximize safety and minimize the spread of COVID-19.

Enforcement: Compliance with these guidelines and recommendations by persons (businesses or individuals) are encouraged, but voluntary. Non-compliance may have serious repercussions to the health and safety of our residents and visitors. Verified complaints of persistent non-compliance may be investigated. If substantiated, a notice and an opportunity to correct will be provided. If non-compliance persists a targeted order may be issued under *Sec. 252.03, Wis. Stats.*

Duration: This communication shall become effective May 19, 2020 and shall remain in effect until revoked or superseded by subsequent recommendations or order.

As Door County Health Officer, I recognize this situation will continue to evolve and may require future orders to suppress, prevent and control the spread of communicable disease, as well as protect the public's health and safety. The expectation is that individuals and businesses will voluntarily follow guidance and recommendations from public health to protect each other. Future decisions will be consistent with established legal authority granted to Local Health Officers, pursuant *to Sec. 252.03, Wis. Stats.* Considerations include scientific data, local information, and the benefits associated with continuation/resumption of local personal activities and business.

Thank you all for your previous and anticipated ongoing cooperation to keeping our community safe as we navigate this in the coming months. It is my hope that our community will continue to take the threat of the virus seriously and take precautions to slow its spread as we enter this next phase of reopening our County.

Your efforts to limit the spread of COVID-19 are appreciated by those who live, work and enjoy Door County.

Dated this 19th day of May, 2020.

Susan M Powers

Susan Powers, RN, BSN
Door County Health Officer/Public Health Manager