

*Preliminary Design Report*

BERNIER CARR & ASSOCIATES PC

**City of Watertown**  
Aviary Reconstruction  
BC&A Project No. 2011-045

*Prepared for:*

City of Watertown  
City Engineering Department  
Watertown, New York 13601

**REVISED SEPTEMBER 9, 2011**

**August 29, 2011**

*Preliminary Design Report*

**City of Watertown**

Aviary Reconstruction Project

Project No. 2011-045

August 29, 2011

**REVISED SEPTEMBER 9, 2011**

**Table of Contents**

Section 1.0	Executive Summary
	1.1 General
Section 2.0	Existing Conditions
	2.1 Existing Building
	2.2 Existing Structure
	2.3 Existing Occupancy
	2.4 Existing Construction Classification
	2.5 Existing Building Square Footage
	2.6 Existing Plumbing and Mechanical Systems
Section 3.0	Preliminary Basis of Design
	3.1 General
	3.2 Preliminary Design Review
	3.2.1 Structural Design Considerations
	3.2.2 Existing Foundations
	3.2.3 Code Compliance
	3.2.4 Existing Building Impacts
	3.2.5 Plumbing System Options
	3.2.6 Mechanical System Options
Section 4.0	LEED
	4.1 LEED
Section 5.0	Project Budget
	5.1 Opinion of Probable Construction
	5.2 Cost of LEED
<b>Appendix</b>	
A	Preliminary Drawings/Sketches

**SECTION 1.0  
EXECUTIVE SUMMARY**

**1.1 General**

City of Watertown has retained the firm of Bernier, Carr & Associates, P.C., to review the existing Aviary structure located the New York State Zoo in Thompson Park.

The current use of the existing structure is an Aviary which currently houses owls, ravens, turkeys and variety of birds. The City of Watertown along with the New York State Zoo is considering the conversion of this existing structure. It is proposed that the existing structure will become an assembly space for educational and gathering of people for lectures, presentations and for social events.

This preliminary design report will first identify background data on existing conditions and then examine the proposed modifications to the existing building and the impacts of the re-design on the existing building.

**SECTION 2.0  
EXISTING CONDITIONS**

**2.1 Existing Building**

The existing Aviary structure is believed to have been designed by Moran and Yaussi Architects in the early 1970's. Construction documents for the Aviary structure were not available to Bernier, Carr & Associates to confirm the original design professional or the original design details.

The Aviary structure is a one (1) story structure that is enclosed with wire mesh attached to the steel framing on the east and west elevation. The north and south ends of the building are enclosed with wood cladding material installed over wood frame walls.

There is an interior cage within the Aviary. This structure also appears to have been constructed with wood frame materials.

**2.2 Existing Structure**

During our visual inspection of July 27, 2011, we observed the existing structure and obtained verbal information from the Zoo staff. It was reported that the "A" frame steel structure was constructed in the early 1970's. It is believed that this structure was constructed in 1971. As stated previously, no existing construction drawings were available for review.

The steel framed portion of the structure is approximately 40' by 47' with an overall height of approximately 29'-0" above the foundation walls. The steel framing consists of two steel bar joist at the roof ridge. The ridge was observed to be supported by (4) 8" by 8" steel columns located in the end walls of the building. The "roof" rafters are bar joists spaced at approximately 5'-0" on center and are sloped at a pitch of 21 on 12 or approximately 60 degrees. The roof rafters are "tied" together with 3 sets of 'C'-channel purlins. The 'C'-channel purlins span horizontally between the joists at a spacing of approximately 8'-0" on center. The C-channels also provide support for the open wire mesh enclosure of the aviary.

The entire steel structure and wood end wall structures were observed to bear on the existing concrete foundation walls. The foundation walls were observed to be approximately 12" thick. *Subsequent to the initial submission of the preliminary design report on August 29, 2011, Bernier, Carr & Associates with assistance for the City of Watertown DPW, explored the existing foundations. On September 7, 2011 Bernier, Carr & Associates confirmed that the existing foundation walls were designed and installed to extend below the local frost depth and are founded on bed rock. The foundation walls sit on a concrete footing which extends approximately 6" beyond the foundation wall. We were not able to confirm the foundation or wall reinforcing but we continue to assume that the existing foundations were designed and installed with appropriate reinforcing for the loads anticipated at the time of construction.*

**2.3 Existing Occupancy**

The existing Occupancy Classification, in accordance with the Building Code of New York State 2010 is 'U' – Utility and Miscellaneous, buildings and structures not classified in any specific occupancy. In addition, there appears to be an area for storage, as well as an area for building utilities.

**2.4 Existing Construction Classification**

The existing Construction Classification is believed to be Type II Non-combustible Construction. Further confirmation of the end walls is required. If the end walls are constructed of wood frame materials, the building would be required to be classified as a Type 5 building. This would reduce the maximum permitted area of the building to 5,500 square feet in lieu of the 8,500 square feet (described below). This could also impact the proposed occupancy of the building.

**2.5 Existing Building Square Footage**

Description	Actual Square Footage	Maximum Permitted by NYS Building Code	Actual Building Height	Remarks
1 <sup>st</sup> Floor	2,162 sf	8,500 sf	30-0" +/-	

**2.6 Existing Plumbing and Mechanical Systems**

The existing Aviary does not have any mechanical heating, ventilating or air conditioning systems. All ventilation is through the wire mesh enclosure.

The Aviary structure is served by a ¾" water supply. The water supply enters the small storage area on the south side of the building. There are no plumbing fixtures within the structure. We believe the water supply provides water to the aviary pond via a garden hose.

**SECTION 3.0**  
**PRELIMINARY BASIS OF DESIGN**

**3.1 General**

When developing the concepts for the re-design and adaptive reuse of the Aviary building one must consider the following:

- Depth of the existing foundations.
- The loads on the steel structure
- Compliance with current State and Federal standards.
- Impacts on the existing building.
- Travel route to and from the main entrance of the zoo.
- Construction Class and Occupancy Classification of the Building.
- Life safety systems
- Mechanical, plumbing and electrical codes as driven by the occupancy change
- Seismic and wind loads.
- Cost effectiveness.

**3.2 Preliminary Design Review****3.2.1. Structural Design Considerations**

As a result of the proposed change of occupancy and proposed reconstruction of the structure, the entire building will require structural design evaluation and potential upgrades to comply with the Building Code of New York State 2010 and ASCE7-05 "Minimum Design Loads for Buildings and Other Structures". Based on our current understanding and our preliminary review of the project requirements, the following structural design parameters are recommended:

Building Structural Design Occupancy Category: II (BCNYS Table 1604.5)

Snow Loads:

- Ground Snow Load: 60 psf
- Flat Roof Snow Load: 46.2 psf
- Sloped Roof Snow Load (60 deg. Pitch): 8 psf (Slippery Surface), 14 psf (Non- Slippery Surface)
- Snow Importance Factor: 1.0
- Thermal Factor: 1.1
- Exposure Factor: 1.0

Wind Loads:

- Basic Design Wind Speed: 90 mph
- Wind Importance Factor: 1.0
- Wind Exposure: B
- Internal Pressure Coefficient: +/- 0.18 (Closed Building)

Preliminary calculations indicate the design wind pressure on the A-Frame would be approximately 11 psf given the geometric shape of the building.

Seismic Design Information:

Most likely the structure was not designed with seismic considerations. The following seismic parameters are recommended for reconstruction:

- Seismic Use Group: II (BCNYS)
- Seismic Importance Factor: 1.0
- Site Class: 'D' (Building Code Default)
- Sds: 0.264
- Sd1: 0.118
- Seismic Design Category: **B**

Our preliminary calculations indicate the current structure appears adequate to resist the wind and snow loads applicable when the wire mesh sides are considered solid. A complete Seismic analysis has not been performed. Based on our preliminary calculations the existing bar joist roof rafters will require additional lateral bracing at top chord members. This additional bracing appears to be required at intervals not exceeding 3' on center.

### **3.2.2. The Existing Foundations**

*As discussed in Section 2.0, Bernier, Carr and Associates has confirmed that the existing foundations are below the local frost level and in the area observed are founded on bedrock. It appears that the existing foundations will be adequate to support the dead loads of the existing structure with the proposed enclosure system. We anticipate that due to the increased lateral loads of the enclosure system, that foundation cross-ties will be required. The foundation cross-ties will be installed at the top of the foundation walls to connect the west and east foundation walls. We anticipate that these cross-ties will be at intervals not exceeding 4' on center.*

### **3.2.3 Code Compliance**

The proposed repurposing of the aviary structure will be required to be constructed in compliance with the New York State Building Code, the related family of Codes.

Our interpretation of the building code is:

- The existing Aviary has an Occupancy Classification of "U". The proposed occupancy is A-3 Assembly space. An assembly use intended for recreation or amusement such as Exhibition Halls, Lecture halls, Museums and art galleries. The Change of Occupancy from a "U" occupancy to an A-3 occupancy creates a higher hazard per 912.4, 912.5 and 912.6.

- An A-3 Assembly Space the building will be required to be accessible in accordance with Chapter 11 of the building Code.
- The A-3 assembly structure will be required to re-designed and reconstructed in accordance with the New York State Building Code. The provisions of the Existing Building Code require a change of occupancy classification from one group to another group be in compliance with 902 through 912 of the Existing Building Code. 902 through 912 send the design professional to the New York State Building Code, New York State Fire Code, New York State Mechanical Code and New York State Plumbing Code. In addition, compliance with Chapter 8 of the Existing Building Code is required.
- The estimated occupancy load for the structure is calculated to be approximately 250 people. This is based on Table 1004.1.1 Assembly without fixed seats, concentrated (chairs only – not fixed).
- Chapter 29 of the Building Code will require toilet rooms be provided for the occupants of this building. The toilet rooms will be required to be within a travel distance of 500 feet and must be able to handle the occupant load of this occupancy as well as the occupancy of the building in which the toilet rooms are situated. The existing toilet rooms within the zoo have not been evaluated to determine if they are sufficient to accept this new occupant load. If not, the Aviary Building will be required to have a minimum of 2 water closets and 1 lavatory (women) and for the men 1 water closet, 1 urinal and 1 lavatory as well as a service sink and drinking fountain. *Subsequent to the Preliminary Design Report submission, the City Code Enforcement has confirmed that the Aviary will require toilet rooms to designed to meet the anticipated occupancy described above.*
- Heating, ventilating and air conditioning will be required to be in compliance with the Mechanical Code as well as the Energy Code.
- Chapter 9 of the Building Code will require an automatic sprinkler system should the occupant load exceed 100 people. Further investigation of the water service will be required.
- Chapter 9 will also require a manual fire alarm system as well as an automatic fire detection system. Emergency lighting will also be required.
- The Energy Code will require the building envelope to have the following thermal resistance values for Climate Zone 6:
  - Roof Insulation (Insulation above the roof deck) *R-20*
  - Walls above grade (Metal building) *R-13 +R 5.6 ci*
  - Below grade walls and slabs *R-7.5 ci*
  - Heated slabs *R-15 ci for 24 inches*
  - Skylights (3% maximum of floor area, approximately 60 square feet) *U-0.60 or R-1.6*
  - Vertical Fenestration (40% maximum of floor area, approximately 864 square feet) *U-0.35 or R-2.8*
  - Vertical Fenestration framing system *U-0.45 or R -2.2*
  - Entrance doors *U-0.80 or R-1.25*

**3.2.4 Existing Building Impacts**

The Aviary structure is a unique structure which has sentimental value to the community as well as to the New York State Zoo.

Our preliminary findings on the impacts for the reconstruction of the Aviary structure:

- The existing façade on the North and south faces of the building will require reconstruction. Demolition is anticipated of these walls. We anticipate reconstruction at the existing columns to “tie” the columns together.
- The existing concrete slab which has a depression for the internal pond will require removal. There is not enough information available to determine if the existing slab is adequate for new intended use. This will require demolition.
- We anticipate a new concrete slab will be installed to support the new floor finishes. We also suggest that the City consider a raised floor system. This will allow flexibility in the utility layout of the building including the plumbing, mechanical ductwork, mechanical piping and electrical system.
- We propose that the entrance to the reconstructed Aviary be via the west elevation. This allows the entrance to the building to face the parking area and is visually accessible from the adjacent building.
- We anticipate that the entrance and toilet rooms will be constructed at the entrance area. This will require modifications to the existing steel structure and foundation. Another alternative is the entry at the south side of the building.
- We anticipate, due to the vintage of the building, this building may include asbestos, lead and PCB containing materials. We recommend that the facility be tested by an Environmental Consultant.
- Further information is required of the facilities electrical power availability.
- The re-design shall be sensitive to the existing structure and neighboring buildings as well as the landscaping around the building.
- The re-design and selection of materials shall be sensitive to the maximum load capability of the structure as outlined in the aforementioned.

**3.2.5 Plumbing System Options**

As previously discussed, the existing building has a ¾ inch water service. This provides domestic water to the building; however, there is no domestic hot water available to the building at this time. It is anticipated that the reconstructed Aviary will require hot water for the potential catering kitchen, service area for the animal display and for the public restrooms.

The most conventional option is to provide a domestic hot water heater which would supply hot water to the various fixtures at various locations within the building. Domestic hot water piping would be provided to each fixture from the domestic hot water heater.

A similar concept would be to utilize an instantaneous hot water heater located below the fixture which requires hot water. This would minimize the domestic hot water piping.

Another option could be a solar hot water heater. This solar hot water system could be installed a component of a solar energy array. The solar collectors located on the exterior of the building would provide hot water to a storage tank and a heat exchanger on the interior of the building. This could also be accomplished through a water heat pump system. Both these systems are similar in function.

### **3.2.6 Mechanical System Options**

The new mechanical system for the reconstructed Aviary could utilize a 100 percent outside air unit with a heat recovery wheel. The heat recovery wheel would capture the exhausted air to preheat the required outdoor air for the space. It is anticipated that the reconstruction of the Aviary will include a large amount of glass. If the glazing is the majority of the exterior surface, there is concern for a high solar load. The heat gain from the glazing would be a benefit during the winter season by offsetting some of the heating load. The opposite is true during the shoulder seasons and during the summer. Additional cooling would be required as a result of large amounts of glazing.

Heating and cooling could be provided via a water source heat pump which would be fed via a geothermal well system. Vertical wells or horizontal trenching are two viable geothermal configurations. Additional investigation would be required upon confirmed building layout.

Another option would be to utilize an air source heat pump in lieu of a water source heat pump. This system has some limitations; due to our colder climate an auxiliary heater may be required when Watertown experiences extremely cold days. The auxiliary heater may include an electric reheat coil or water reheat coil. If a water reheat coil was selected a small condensing boiler could be utilized if a natural gas source is available nearby.

**SECTION 4.0**  
**LEED**

**4.1 LEED**

LEED involves the incorporation of green design principles and methods throughout the course of the project beginning at conceptual development and continuing beyond the completion of the project. The decision to develop a project based on a LEED rating system impacts the entire project, influencing decisions ranging from material selections to mechanical and electrical systems design. Projects that are considering to be designed according to LEED standards needs to decide this at or before conceptual design.

The categories that encompass the LEED rating system include Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials & Resources, Indoor Environmental Quality, Innovation in Design and Regional Priority. Each category addresses a number of items a project team can consider to achieve a LEED rating or equivalency.

A few examples of green design options this project may incorporate include geothermal wells or trenching with water source heat pumps, solar and wind power production, onsite treatment and reuse of storm water, regional and recycled materials, comfort control systems for thermal and lighting as well as water and electricity use reduction. Though the incorporation of all of the above systems is not required to achieve LEED equivalency, the project must include a number of items from each category listed in paragraph 2 in order to meet the desired LEED threshold. It is important to note that the options listed above are determined feasible/non-feasible during the design process and that every building needs to be completely evaluated based on owner requirements, location, operation, and use.

The decision to design a project based on LEED definitely influences the project timeline and scope as a number of additional items and considerations present themselves. Through the proper execution of a LEED design, an efficient project is created that decreases impact on its surrounding environment while achieving owner's expectations.

**SECTION 5.0  
PROJECT BUDGET**

**5.1 Opinion of Probable Cost**

The following cost opinions are based upon our current understanding of the project; subsequent changes in the project scope or timeframe may alter project costs. In addition, since we have no control over the cost of labor and materials or market conditions, the opinion of probable construction costs are made based on past experiences and qualifications. These opinions represent our best judgment as a consultant familiar with the industry.

**5.2 Cost LEED**

If the City of Watertown and the New York State Zoo wish to incorporate LEED Certification or LEED Equivalency, it is anticipated that the construction cost associated with the reconstruction of the Aviary could increase as much as 10 percent.

The design services required for LEED includes modeling; sustainable material research and confirmation; certifications and LEED submission. The anticipated cost associated with completing the design and submission for LEED Silver certification is *approximately \$12,800* above the design fee presented in our original fee proposal.

**City of Watertown**  
**Aviary Reconstruction - BC & A Project No. 2011-045**

**Preliminary Opinion of Probable Construction Cost**

August 29, 2011 Revised September 9, 2011

<i>Description</i>	<i>Unit</i>	<i>Cost</i>	<i>Total</i>	<i>Remarks</i>
<b>A. Reconstruction of Existing Structure</b>				
1. Asbestos abatement, lead hazard control, PCBs (allowance)	1	\$ 10,000.00	\$ 10,000	Owner to provide HazMat survey.
2. Demolition of existing slab	35 cy	\$ 65.00 /cy	\$ 2,275	
3. Demolition of end walls	1,200 sf	\$ 5.00 /sf	\$ 6,000	
4. Concrete footings, foundations & slabs	50 cy	\$ 200.00 /cy	\$ 10,000	
5. Back fill	50 cy	\$ 70.00 /cy	\$ 3,500	
6. Concrete block end walls	1,200 sf	\$ 20.00 /sf	\$ 24,000	
7. Structural steel modifications	1.5	\$ 2,500.00 /sf	\$ 3,750	
8. Exterior veneer	1,200 sf	\$ 10.00 /sf	\$ 12,000	
9. Roof deck and roof finish	1,296 lf	\$ 30.00 /lf	\$ 38,880	
10. Glazing/Kalwal	1,296 sf	\$ 77.50 sf	\$ 100,440	
11. Miscellaneous architectural wood work and trim	500 sf	\$ 50.00 /sf	\$ 25,000	
12. Raised flooring system including floor finish and ventilation grilles	1,692 sf	\$ 21.00 /sf	\$ 35,532	
13. Miscellaneous electrical allowance	2,162 sf	\$ 16.80 /sf	\$ 36,322	Including day light harvesting, data, phone, security.
14. Electrical MDP allowance	1 ea	\$ 25,000.00 /ea	\$ 25,000	
15. Miscellaneous mechanical & plumbing (allowance)	2,162 sf	\$ 35.00 /sf	\$ 75,670	
16. Fire protection system (allowance) includes sprinklers and fire alarm system	2,162 sf	\$ 8.50 /sf	\$ 18,377	
17. Site restoration (allowance)	1 ea	\$ 10,000.00	\$ 10,000	
<b>Total Reconstruction</b>			<b>\$ 426,746</b>	

**City of Watertown**  
**Aviary Reconstruction - BC & A Project No. 2011-045**

**Preliminary Opinion of Probable Construction Cost**

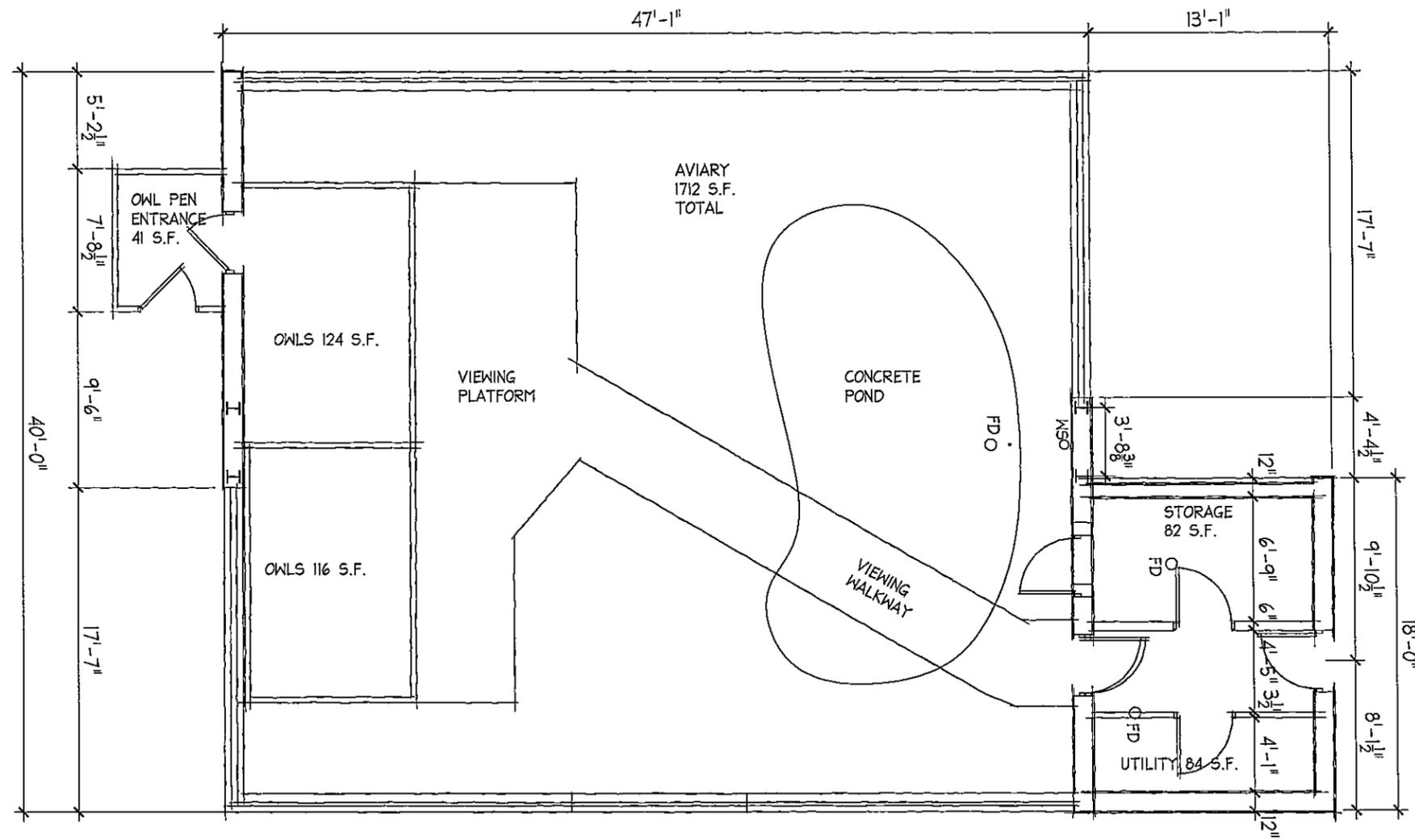
August 29, 2011 Revised September 9, 2011

<i>Description</i>	<i>Unit</i>	<i>Cost</i>	<i>Total</i>	<i>Remarks</i>
<b>B. Alternative Energy Systems</b>				
18. Photovoltaic array	10 Kw	\$ 10,000.00 /Kw	\$ 100,000	There is a potential for rebate. Past experience has been approximately 40% rebate on the initial installation cost.
19. Geothermal test well	1 well	\$ 20,000.00 /well	\$ 20,000	Testing for heat rejection.
20. Geothermal well field (10 to 12 wells) including heat pumps	11 well	\$ 10,000.00 /well	\$ 110,000	Sized anticipated for additional structure tie-in at later date.
21. Solar hot water system (to serve prep area, toilet rooms and catering kitchen), includes 2 collectors, circulators & 120 tank	1 ea	\$ 10,000.00	\$ 10,000	
<b>Total Alternative Energy Systems</b>			<b>\$ 240,000</b>	
<b>C. Building Additions</b>				
22. Entry addition (8' x 24')	192 sf	\$ 150.00 /sf	\$ 28,800	
23. Toilet room & catering kitchen addition (18' x 30')	540 sf	\$ 150.00 /sf	\$ 81,000	City Code Enforcement confirmed toilet room is required.
24. Mechanical addition & exhibit area (12' x 30')	360 sf	\$ 150.00 /sf	\$ 54,000	
<b>Total Building Additions</b>			<b>\$ 163,800</b>	
<b>Subtotal A, B &amp; C</b>			<b>\$ 830,546</b>	
<i>1 year Construction Escalation</i>			<i>\$ 29,069</i>	
<i>A &amp; E Design Service</i>			<i>\$ 42,775</i>	
<i>Bond Cost</i>			<i>\$ 21,491</i>	
<i>Construction Inspection</i>			<i>\$ 83,055</i>	
<b>Project Subtotal</b>			<b>\$ 1,006,936</b>	
<i>Project Contingency</i>			<i>\$ 100,694</i>	
<b>Total Project Cost <sup>(2)</sup></b>			<b>\$ 1,107,629</b>	

(1) Incidentals include legal, administration, A/E design fees and insurance.

(2) This Preliminary Opinion of Probable Construction Cost has been prepared on the basis of Bernier, Carr & Associates' experience and represents our judgment as design professionals within the construction industry. Bernier, Carr & Associates, nor the City of Watertown has no control over the cost of labor, materials, equipment or the contractor's method of determining prices or the competitive bidding market. Bernier, Carr & Associates cannot guarantee that the actual bids or the construction cost will not vary from this Preliminary Opinion of Probable Construction cost.

**APPENDIX A  
PRELIMINARY DRAWINGS/SKETCHES**



1ST FLOOR EXISTING DEMO

SCALE: 1/8" = 1'-0"

Contract Drawing Reference No.

EXISTING FLOOR PLAN DEMO

CITY OF WATERTOWN  
 AVIARY BUILDING CONVERSION PROJECT  
 WATERTOWN, NY



THE BERNIER CARR GROUP

BERNIER, CARR & ASSOCIATES, P.C. • MACH ARCHITECTURE + ENGINEERING, P.C.  
 engineers • architects • planners • surveyors • construction managers

COPYRIGHT 2011 - BERNIER, CARR & ASSOCIATES, P.C. ALL RIGHTS RESERVED. REUSE OF THESE DOCUMENTS WITHOUT THE EXPRESS WRITTEN PERMISSION OF BERNIER, CARR & ASSOCIATES, P.C. IS PROHIBITED. WARNING - IT IS A VIOLATION OF ARTICLE 145 SECTIONS 7208 AND 7207 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A REGISTERED ARCHITECT, LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER THIS DRAWING. IF ALTERED SUCH R.A., P.E. OR L.S. SHALL AFFIX HIS OR HER SEAL, SIGNATURE, THE DATE, THE NOTE "ALTERED BY" AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

Revisions:

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE & NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.

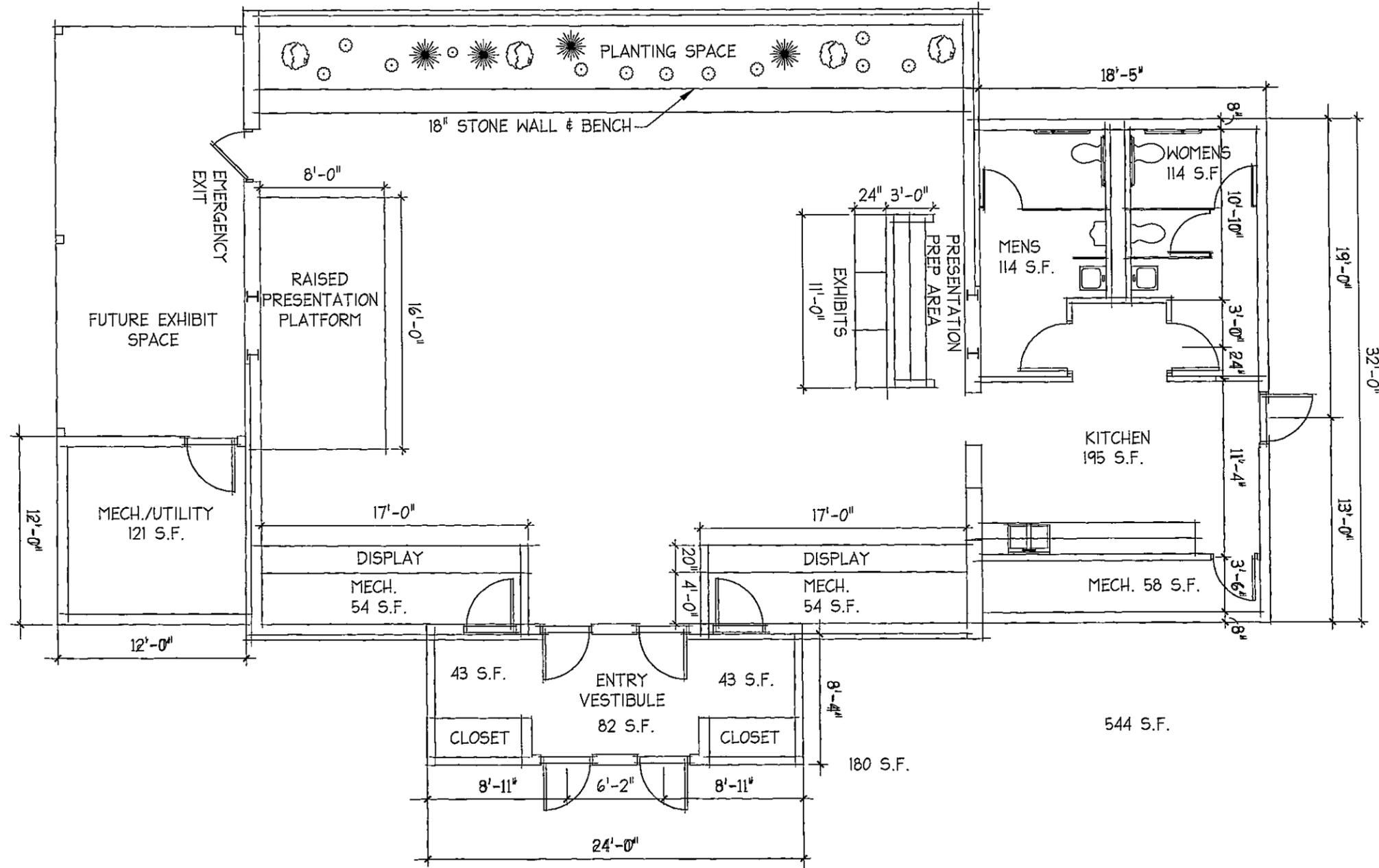
Drawn By JLF	Checked By MLC
-----------------	-------------------

Scale AS NOTED	Date 8-29-11
-------------------	-----------------

File No. 2011-045

Sheet No.

**A-001**



**1ST FLOOR PLAN**  
 SCALE: 1/8" = 1'-0"

Contract Drawing Reference No.

**FLOOR PLAN**

**CITY OF WATERTOWN  
 AVIARY BUILDING CONVERSION PROJECT  
 WATERTOWN, NY**

**THE BERNIER CARR GROUP**

**BERNIER, CARR & ASSOCIATES, P.C. • MACH ARCHITECTURE + ENGINEERING, P.C.**  
 engineers • architects • planners • surveyors • construction managers



COPYRIGHT 2011 - BERNIER CARR & ASSOCIATES, P.C. ALL RIGHTS RESERVED. REUSE OF THESE DOCUMENTS WITHOUT THE EXPRESS WRITTEN PERMISSION OF BERNIER, CARR & ASSOCIATE, P.C. IS PROHIBITED. WARNING - IT IS A VIOLATION OF ARTICLE 145 SECTIONS 7209 AND 7207 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A REGISTERED ARCHITECT, LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER THIS DRAWING. IF ALTERED SUCH R.A., P.E. OR L.S. SHALL AFFIX HIS OR HER SEAL, SIGNATURE, THE DATE, THE NOTE "ALTERED BY" AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

Revisions:

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE & NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.

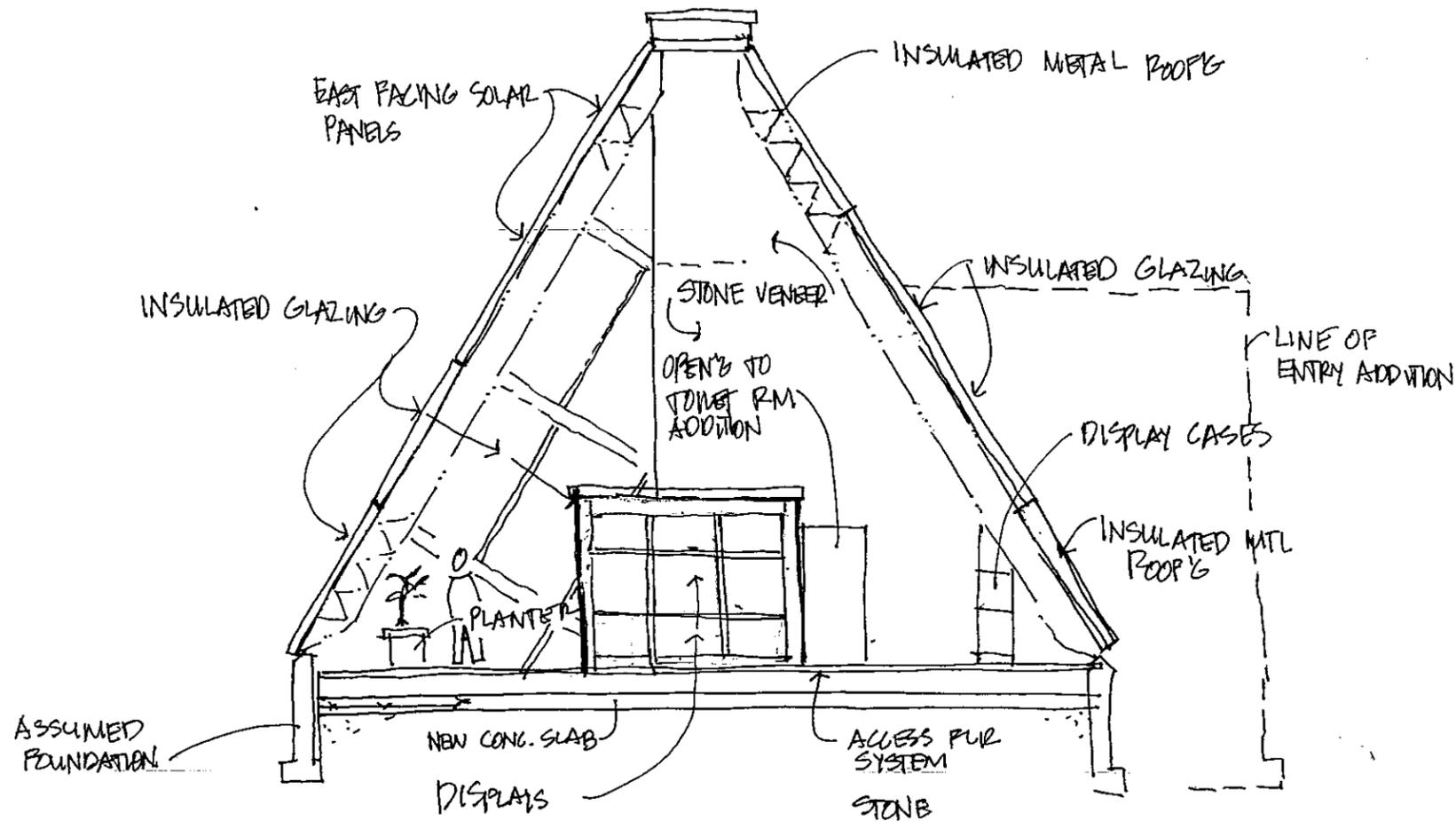
Drawn By JLF	Checked By MLC
-----------------	-------------------

Scale AS NOTED	Date 8-29-11
-------------------	-----------------

File No. 2011-045

Sheet No.

**A-100**



PROPOSED INTERIOR ELEVATION (LOOKING SOUTH)  
 CITY OF WATERTOWN AVIARY RECONSTRUCTION  
 AUGUST 29, 2011

PROPOSED INTERIOR ELEVATION / SECTION

CITY OF WATERTOWN  
 AVIARY BUILDING CONVERSION PROJECT  
 WATERTOWN, NY

THE BERNIER CARR GROUP

BERNIER, CARR & ASSOCIATES, P.C. • ARCHITECTURE + ENGINEERING, P.C.  
 engineers • architects • planners • surveyors • construction managers



COPYRIGHT 2011 - BERNIER CARR & ASSOCIATES, P.C. ALL RIGHTS RESERVED. REUSE OF THESE DOCUMENTS WITHOUT THE EXPRESS WRITTEN PERMISSION OF BERNIER, CARR & ASSOCIATES, P.C. IS PROHIBITED. WARNING - IT IS A VIOLATION OF ARTICLE 145 SECTIONS 7209 AND 7207 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A REGISTERED ARCHITECT, LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER THIS DRAWING. IF ALTERED SUCH R.A., P.E. OR L.S. SHALL AFFIX HIS OR HER SEAL, SIGNATURE, THE DATE, THE NOTE "ALTERED BY" AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

Revisions:

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE & NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.

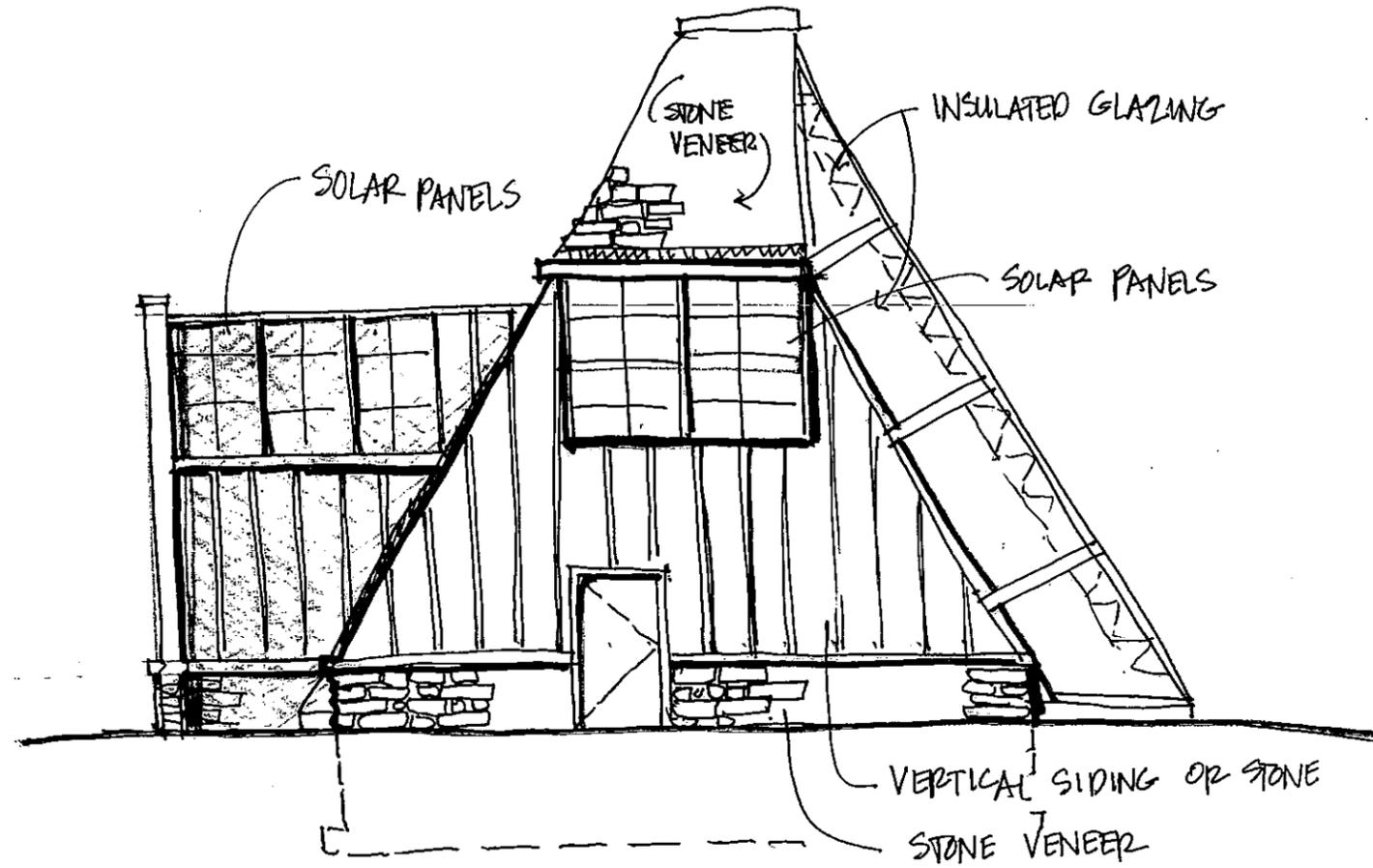
Drawn By JLF	Checked By MLC
Scale AS NOTED	Date 8-29-11

File No. 2011-045

Sheet No.

A-101

Contract Drawing Reference No.



SOUTH ELEVATION

**PROPOSED SOUTH ELEVATION**

CITY OF WATERTOWN  
 AVIARY BUILDING CONVERSION PROJECT  
 WATERTOWN, NY

THE BERNIER CARR GROUP

BERNIER, CARR & ASSOCIATES, P.C. • MACH ARCHITECTURE + ENGINEERING, P.C.  
 engineers • architects • planners • surveyors • construction managers

COPYRIGHT 2011 - BERNIER CARR & ASSOCIATES, P.C. ALL RIGHTS RESERVED. REUSE OF THESE DOCUMENTS WITHOUT THE EXPRESS WRITTEN PERMISSION OF BERNIER CARR & ASSOCIATES, P.C. IS PROHIBITED. WARNING - IT IS A VIOLATION OF ARTICLE 145 SECTIONS 7209 AND 7207 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A REGISTERED ARCHITECT, LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER THIS DRAWING. IF ALTERED SUCH R.A., P.E. OR L.S. SHALL AFFIX HIS OR HER SEAL, SIGNATURE, THE DATE, THE NOTE "ALTERED BY" AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



Revisions:

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE & NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.

Drawn By JLF	Checked By MLC
-----------------	-------------------

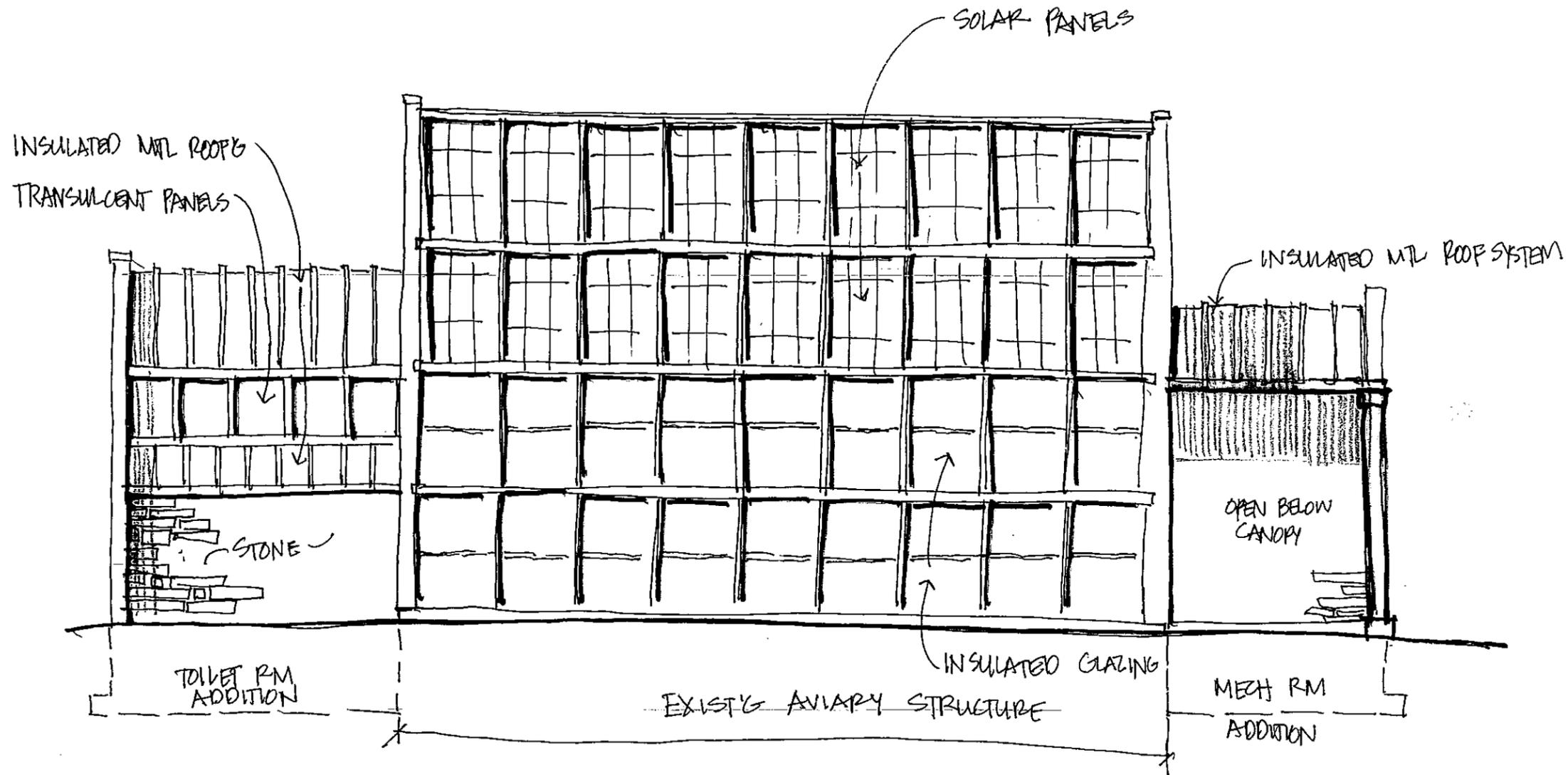
Scale AS NOTED	Date 8-29-11
-------------------	-----------------

File No. 2011-045

Sheet No.

**A-102**

Contract Drawing Reference No.



PROPOSED EAST ELEVATION

PROPOSED EAST ELEVATION

CITY OF WATERTOWN  
 AVIARY BUILDING CONVERSION PROJECT  
 WATERTOWN, NY

THE BERNIER CARR GROUP

BERNIER, CARR & ASSOCIATES, P.C. • MACH ARCHITECTURE + ENGINEERING, P.C.  
 engineers • architects • planners • surveyors • construction managers

COPYRIGHT 2011 - BERNIER CARR & ASSOCIATES, P.C. ALL RIGHTS RESERVED. REUSE OF THESE DOCUMENTS WITHOUT THE EXPRESS WRITTEN PERMISSION OF BERNIER, CARR & ASSOCIATES, P.C. IS PROHIBITED. ANY PERSON USING ANY PART OF THIS DRAWING IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF BERNIER, CARR & ASSOCIATES, P.C. SHALL BE IN VIOLATION OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER THIS DRAWING, IF ALTERED SUCH R.A., P.E. OR L.S. SHALL AFFIX HIS OR HER SEAL, SIGNATURE, THE DATE, THE NOTE "ALTERED BY" AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



Revisions:

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE & NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.

Drawn By JLF	Checked By MLC
-----------------	-------------------

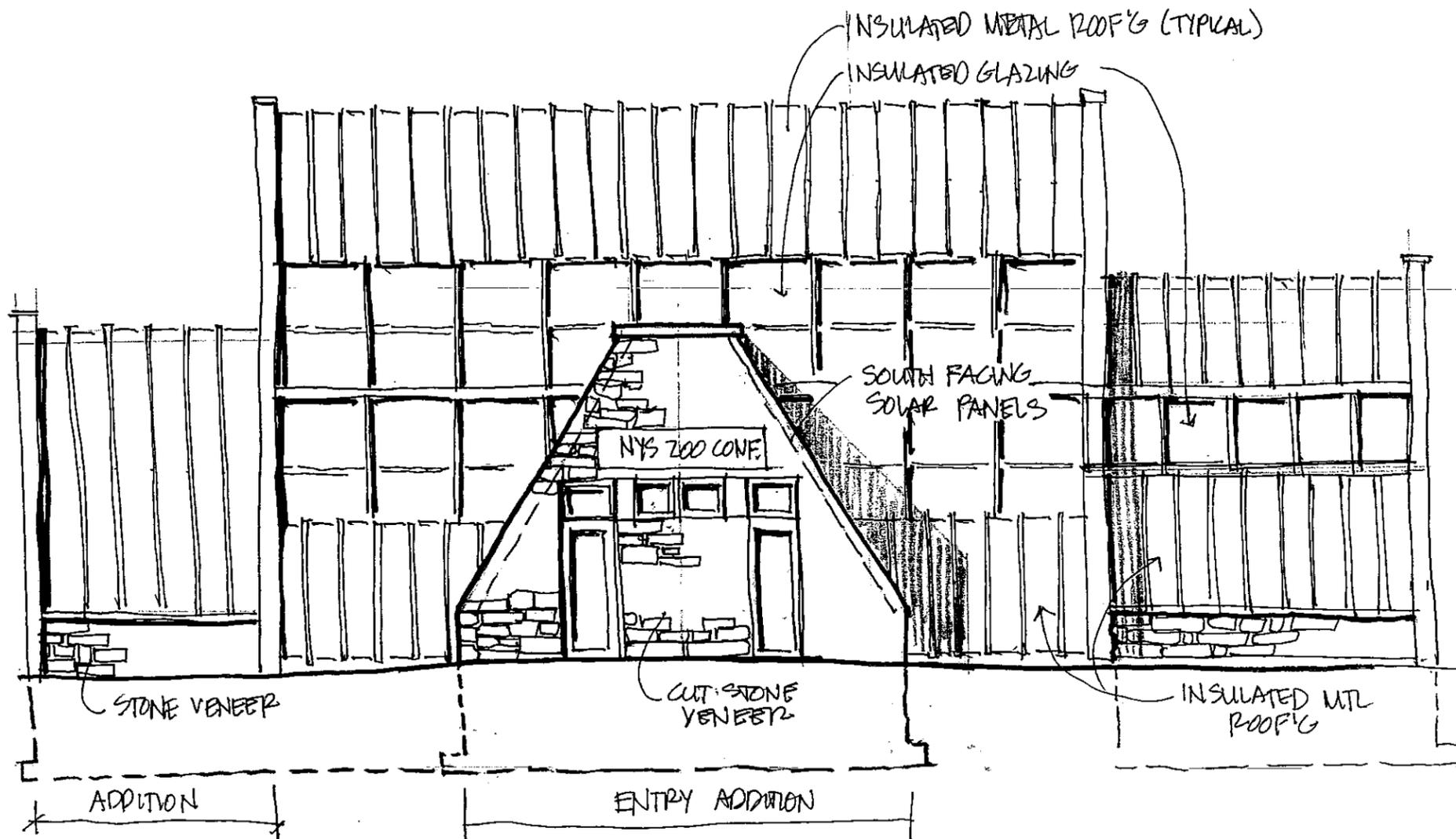
Scale AS NOTED	Date 8-29-11
-------------------	-----------------

File No. 2011-045

Sheet No.

A-103

Contract Drawing Reference No.



PROPOSED WEST ELEVATION  
 CITY OF WATER AVIARY RECONSTRUCTION  
 AUGUST 29, 2011

PROPOSED WEST ELEVATION

CITY OF WATERTOWN  
 AVIARY BUILDING CONVERSION PROJECT  
 WATERTOWN, NY

THE BERNIER CARR GROUP

BERNIER, CARR & ASSOCIATES, P.C. • MACH ARCHITECTURE + ENGINEERING, P.C.  
 engineers • architects • planners • surveyors • construction managers



COPYRIGHT 2011 - BERNIER, CARR & ASSOCIATES, P.C. ALL RIGHTS RESERVED. REUSE OF THESE DOCUMENTS WITHOUT THE EXPRESS WRITTEN PERMISSION OF BERNIER, CARR & ASSOCIATES, P.C. IS PROHIBITED. WARNING - IT IS A VIOLATION OF ARTICLE 145 SECTIONS 7200 AND 7207 OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A REGISTERED ARCHITECT, LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER THIS DRAWING. IF ALTERED SUCH R.A., P.E. OR L.S. SHALL AFFIX HIS OR HER SEAL, SIGNATURE, THE DATE, THE NOTE "ALTERED BY" AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

Revisions:

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE & NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.

Drawn By JLF	Checked By MLC
-----------------	-------------------

Scale AS NOTED	Date 8-29-11
-------------------	-----------------

File No. 2011-045

Sheet No.  
**A-104**

Contract Drawing Reference No.