

Village of West Chicago

B & F Construction Code Services
2420 Vantage Drive
Elgin, IL 60124

DATE: 12-15-2023
PROJECT NUMBER: 1129875
PERMIT NUMBER: 23070088
PROJECT ADDRESS: 143 Conde Street, West Chicago, IL
DESCRIPTION: New Greenhouse (Accessory Building)
Response Letter: *HB: Harold Beron response*

Reviewer: Bob Del Principe

1. Indicate on the plans all plumbing work shall be performed in accordance with the 2014 Illinois Plumbing Code.

HB: Under Renewed Permit No. 20120010 a final Plumbing inspection was done and approved on 7/14/23 by Daniel Erath and his approval form no. 423368 is attached.

2. Sheet EP-1 shows a future sink with a grey water filtration system. The Illinois Plumbing Code does not regulate greywater systems. The plans and specifications for a plumbing system whose design does not comply with this Part must be submitted to the Illinois Department of Public Health for approval prior to installation of such a plumbing system. Such approval shall be in writing from the Department and shall be based on a determination that the system is expected to perform and exhibit durability as if meeting the requirements of Plumbing Code. Section 890.1940

HB: Under Renewed Permit No. 20120010 a final Plumbing inspection was done and approved on 7/14/23 by Daniel Erath and his approval form no. 423368 is attached.

3. Sheet EP-1 shows a future sink. Indicate on the plans the sink shall be properly trapped and vented. Section 890.1420 b)

HB: Under Renewed Permit No. 20120010 a final Plumbing inspection was done and approved on 7/14/23 by Daniel Erath and his approval form no. 423368 is attached. Plumbing has not changed since this approval.

4. Sheet EP-1 shows a domestic water service extended from the house and supplying the green house. Indicate on the plans a reduced pressure back flow preventer (RPZ) shall be

installed on the water service line and shall not be subject to freezing. A main shut-off valve shall be installed inside the house and inside the greenhouse. Also, what type of material is the water service? Section 890.1130 f), 890.1190 f), 890.Appendix A Table A

HB: Under Renewed Permit No. 20120010 a final Plumbing inspection was done and approved on 7/14/23 by Daniel Erath and his approval form no. 423368 is attached.

5. Sheet EP-1 shows a hose bib. Indicate on the plans any and all hose bibs shall have proper backflow protection. Section 890.1130 f)

HB: Under Renewed Permit No. 20120010 a final Plumbing inspection was done and approved on 7/14/23 by Daniel Erath and his approval form no. 423368 is attached.

6. Indicate on the plans the water service and water distribution system shall be properly protected from freezing.

HB: Under Renewed Permit No. 20120010 a final Plumbing inspection was done and approved on 7/14/23 by Daniel Erath and his approval form no. 423368 is attached.

7. Indicate on the plans where a health or safety hazard exists because of an existing plumbing installation or lack thereof, the owner or his agent shall install additional plumbing or make such corrections as may be necessary to abate the hazard or violation.

HB: Under Renewed Permit No. 20120010 a final Plumbing inspection was done and approved on 7/14/23 by Daniel Erath and his approval form no. 423368 is attached. Existing approved plumbing will be covered as to not pose a safety hazard, note added to drawings.

Reviewer: Benjamin Rohde

8. Local amendment 9.3-1 has use restrictions for accessory structures including:
- a. No accessory building shall exceed fifteen feet-six inches (15'-6") in height (this structure appears to do so).
 - b. Use of any accessory structure as a dwelling unit is strictly prohibited. Dwelling unit is defined as: "Any rooms or group of rooms located within a structure and forming a single habitable unit with facilities which are used or intended to be used for living, sleeping, cooking and eating."

Revise accordingly. Section Local Amendment: 9.3-1 C 1 & 4

HB: Dimensions added to section 1:A1-3. The building is permitted as a greenhouse being used as a greenhouse; it is not for cooking, dining, or sleeping and it has no bathroom. The loft is only accessible from outside. The running water is a hose bib with no hot water is to be used for the plants.

9. Provide structural calculations and the design loads utilized for the design of the dome, bearing the seal and signature of a currently active Illinois Licensed Structural Engineer responsible. Section Illinois Structural Engineering Practice Act - 225 ILCS 340

HB: Structural calculations are attached.

10. Revise the plans to indicate the maximum riser height shall be seven and three-fourths inches (7 ¾"). The greatest riser height within any flight of stairs shall not exceed the smallest by more than three-eighths inch (3/8"). Section R311.7.5.1

HB: This existing stair has a measured riser height of 7". Stair detail added to sheet A1-3.

11. Attach a soil test, or alternatively provide an assumed load-bearing pressure of the soil.
Section R401.4, R401.4.1, Table R401.4.1

HB: Under original Permit No. 20120010 a final Footing and Foundation inspection was done and approved on 1/15/21 by John S. and his approval form is attached.

12. It appears that the glazing in the dome is accessible from the loft. If this is the case, the glazing would need to be safety rated. Clarify on plans or provide safety glazing.
Section R106.1.1

HB: Glazing on the dome is polycarbonate which is 250 times stronger to impact than safety glass, all existing vinyl windows shall be safety glass; Note added to section 1:A1-3.

13. Revise the plans to indicate the species and grade of lumber proposed for floor joists, ceiling joists and rafters. The joist and rafter spans varies per the lumber used. Section R502.1

HB: Structural calculations are attached showing structural stability of floor joists.

14. Provide manufacturer's structural calculations for the 2x10 LVIs. Clarify the span distances and whether or not there is a break in the beam at the post connection. Clarify the width of LVIs. Section R502.11.1

HB: Structural calculations submitted with response and new post needs to be added for adequate support of the loft area.

15. Clarify whether the post holding the loft (as shown per Detail 1/A1-3) is wood or metal.
Provide structural verification for the bearing properties of this post. Section R106.1.1

HB: New 4x4 wood post. Note on section amended to show new structural post with appropriate anchors. Structural calculations submitted with response.

16. Indicate on the plans how the dome shall be connected to wall plates and how the walls shall be connected to the sill plates. Section R106.1.1

HB: The dome is connected to the wall by Walls are connected to the foundation wall by the steel anchors shown in the section, anchor note added to wall section 4:A1-3.

17. Provide detail of the loft framing including joist size and spacing. Section R502.1

HB: Structural calculations are attached showing structural stability of floor joists.

18. Columns in middle of loft appears to be connected to the glazing of the dome, shown per Detail 1/A1-3. Provide a detail showing how this is anchored to ceiling and clarify whether purpose for this is structural. Section R106.1.1

HB: New 4x4 wood post. Notes on section amended to show new structural post with appropriate anchors. Structural calculations submitted with response.

19. Included in submission is information about a wood stove for heating. Clarify if this is intended to be a conditioned space, and if so, how will the requirements of the energy code be met (U- factor, insulation, etc.) Section R106.1.1

HB: This greenhouse is not a habitable space therefore not conditioned. The original Permit No. 20120010 was approved for construction 12/22/20 with the oven on the plans.

20. Traditionally, greenhouses have high moisture levels. Clarify if this space will be used as a traditional greenhouse. If so, detail how moisture levels will be monitored and whether materials, listed in the following below, shall be rated for wet conditions:

- a. Treated wood
- b. Drywall
- c. Lights
- d. Windows

Section R106.1.1

HB: This greenhouse has only one hose bib for watering the plants, there is no misting or fogging system. There are no sprinklers. Humidity in a greenhouse can be between 40-80% for plant life to thrive and the humidity of the interior of a home varies throughout the year but ranges 35-50%. This greenhouse without a misting/fogging system and the humidity if the interior of the greenhouse being within the 40-50% humidity range is suitable for plant life. The paint used will be waterproof high-gloss paint and all exposed wood will have sealer, notes added to drawings. Electrical rough and final inspection have been approved.

21. Provide framing detail for entryway structure including materials used and dimensions. Section R106.1.1

HB: Framing Detail 6:A1-2.

22. On Sheet A1-2, it appears that part of the roof utilizes asphalt shingles. Indicate on the plans that weather-resistant sheathing paper (or housewrap, such as Tyvek) shall be provided under siding to protect the building envelope. Section R703.1

HB: Note added to plans.

23. Indicate on the plans the roof sheeting material and thickness. Section R803.2.1

HB: Note added to plans.

24. Provide an ice and water barrier. It shall consist of not fewer than two (2) layers of underlayment cemented together or a self-adhering polymer-modified bitumen sheet used in place of normal underlayment. This ice barrier shall extend from the lowest edges of all roof surfaces to a point not less than twenty-four inches (24") from the inside of the exterior wall line of the building. Section R905.1.2

HB: Note added to plans.

25. Provide a drip edge at the eaves and rake edges of shingle roofs. Section R905.2.8 .5.

HB: Note added to plans.

26. Doors and windows on east elevation appear to be below grade. Clarify this condition with dimensioned details. Section R106.1.1

HB: The windows on the West Elevation, drawing 7:A1-2, are drawn as if looking at the structure from the front yard and are above grade. There is an area of dirt around part of the structure that has been dug out like a small moat which is less than 36" wide and 24" deep. That is easier to see on East Elevation 5:A1-2 and North elevation 6:A1-2.

26. Indicate the raceway and conductors that are to be utilized for the project. Section R106.1.1

HB: Under original Permit No. 20120010 a final Footing and Foundation inspection was done and approved on 7/22/21 by George Georgis and his approval form is attached.

28. Provide electrical load calculation, submit a panel schedule showing all circuits and sizes for each room. Section R106.1.1

HB: Original Permit No. 20120010 on 12/22/20 and its subsequent renewal on 7/18/22 load calculations were not required and the electrical rough inspection was already approved.

29. Luminaires installed in wet or damp locations shall be installed such that water cannot enter or accumulate in wiring compartments, lamp holders, or other electrical parts. All luminaires installed in wet locations shall be marked, "Suitable for Wet Locations." All luminaires installed in damp locations shall be marked "Suitable for Wet Locations" or "Suitable for Damp Locations." Section NEC 410.10(A)

HB: This greenhouse has no misting or fogging system or sprinklers therefore not located in wet locations.

30. A single electrode consisting of a rod, pipe, or plate that does not have a resistance to ground of 25 ohms or less shall be augmented by one additional electrode of any of the types specified by 250.52(A)(2) through (A)(8). Where multiple rod, pipe, or plate electrodes are installed to meet the requirements of this section, they shall not be less than six feet (6') apart. Revise the ground detail accordingly. Section NEC 250.5 (A)(2-3)

HB: Under original Permit No. 20120010 on 12/22/20 the electrical rough inspection was already approved on 7/22/21 by George Georgis and his approval form is attached.

31. A minimum of ninety percent (90%) of lights in permanently installed lighting fixtures shall be high-efficacy lights. Section IECC R404 .1

HB: Note added to drawings.

32. A bathroom is referenced in the electrical notes on sheet EP-1. No bathroom indicated elsewhere in the plans. Clarify whether this is part of the project. Further comments may arise.
Section R106.1.1

HB: There is no bathroom in the structure. Bathroom note deleted from electrical notes.

33. Provide a response letter and cloud and highlight changes made to the drawings. Upon receipt of the requested information a subsequent plan review with additional comments may be necessary. Section R106.1.1

HB: Response letter with revision clouds and highlight changes were made to the drawings done.

Engineering Review

Reviewer: Stuart Caravallo, Chief Building Official

1. The documents submitted do not include a proposed or as-built grading plan. A separate grading plan was submitted under permit no. 23030042 and approved on April 6, 2023. An as-built grading plan still needs to be submitted for final approval and permit close out. I have no comments regarding the remaining contents of the submitted documents.

HB: Grading plan dated March 10, 2023; attached.

Zoning Review

Reviewer: John Sterrett, City Planner

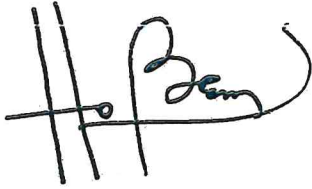
1. Sheet A-2 titled "Proposed Floor Plans" is not shown to scale and therefore the height of the structure on the plans cannot be determined. Please Correct.

HB: Sheet A1-2 has three elevations that are at 3/8" =1'-0" scale. Dimensions of the height of the greenhouse have been added to section 1:A1-3.

2. Sheet C-2 titled Proposed Site Plan indicates a side yard setback of less than the minimum required three (3) feet from the east property line whereas the approved site plan from December of 2020 indicates four (4) foot side yard setback..

HB: The greenhouse is 3'-9 1/4" from the property line as measured from the location given on the site plan with grading from March 10, 2023. Dimension added to sheet C1-2.

If any questions please contact Us at (630)768-7323

A handwritten signature in black ink, appearing to read 'Harold Beron'. The signature is stylized with a large 'H' and a cursive 'B'.

Harold Beron