

# DORAN

**ENGINEERING, PA**  
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**MEMO TO:** City of Northfield Planning/Zoning Board

**FROM:** Matthew F. Doran, Board Engineer

**DATE:** December 23, 2021

**RE:** Homes for All, Inc.  
Doran #9699

**LOCATION:** BLOCK: 92 LOT: 25, 28, 29, 33, 34  
Wabash Avenue, between Tilton and Mill Roads

**STATUS:** Preliminary & Final Site Plan Request

**BASIS FOR REVIEW:** Plans prepared by Dixon Associates Engineering, LLC

Sheet 1 of 9, dated 11-22-21

Sheet 2 of 9, dated 11-22-21

Sheet 3 of 9, dated 11-22-21

Sheet 4 of 9, dated 11-22-21

Sheet 5 of 9, dated 11-22-21

Sheet 6 of 9, dated 11-22-21

Sheet 7 of 9, dated 11-22-21

Sheet 8 of 9, dated 11-22-21

Sheet 9 of 9, dated 11-22-21

Landscape Plan prepared by Joseph P. Adamson, L.L.A., P.P.

Sheet L1, dated 11-19-21

Sheet L1A, dated 11-19-21

Sheet L2, dated 11-19-21

Sheet L3, dated 11-19-21

Architectural Plans prepared by Monteforete Architectural Studio, LLC

Sheet 101, dated 11-17-21

Sheet 102, dated 11-17-21

Sheet 103, dated 11-17-21

Sheet 104, dated 11-17-21

Sheet 105, dated 11-17-21

Traffic Impact Statement, prepared by Dixon Associates, dated 11-22-21

**USE: Residential Age Restricted/Affordable Housing**

**ZONING REQUIREMENTS:** This property is located in the AH1- AR Zone which allows primarily for Age Restricted Housing. The following is a review of the bulk requirements for the proposed project:

ITEM	REQUIRED	PROPOSED	CONFORMITY
LOT AREA	200,000 SF	279,655 SF	C
LOT WIDTH	200'	519'	C
DENSITY	12 / DU/AC	12/ DU/ AC 15% set-aside	C
SETBACKS:			
FRONT (Wabash)	50'	50' min.	C
SIDE (Clark Place)	40' (50' average)	40' (50' average)	C
SIDE (Locust)	30' (80' to residential structure)	30' (>80' to residential structure)	C
HEIGHT	3-sty/45'	2-sty over parking 41'	C
OPEN SPACE	40% gross/20% net	42% / 42%	C
* Distance between buildings	50' minimum	70'	C
* Distance between buildings	25' minimum	70'	C
TOTAL COVERAGE	65%	42.7%	C
FLOOR AREA RATIO			
BUFFER (Locust)	25'	25'	C
*Distance between buildings (both facing walls with windows)			
*Distance between buildings with (one wall with windows)			

215-152.1 (Affordable Housing- Age Restricted District Criteria)  
(C) Standards and Regulations

(1) Density- 12 units per acre, shall include a 15% set-aside of affordable housing units. The maximum density maybe increased by 15 units per acre, provided that the standards of 215-152.01 are satisfied without exception.

(2) Building Setback

- a) A minimum setback to the northern property line (Clark Place) shall be 40-feet, with an average setback of 15'.
- b) A minimum setback to the eastern property line (Locust Drive) is 30-feet. A minimum separation to the existing residential lots from any residential structure shall be 80-feet.

This area shall include a landscape buffer with a minimum of 25-feet.

- c) A minimum setback of 50-feet to Wabash Avenue for residential buildings. A minimum setback of 30-feet to Wabash Avenue for nonresidential buildings with a maximum height of 1.5- story.

(3) Building Height for residential buildings shall not exceed three stories or 45- feet to allow for architectural elements such as pitched roofs, dormers, and other similar features.

Parking maybe permitted on the lower level when increasing the building height to three stories. The residential units shall only occupy two floors in any building.

(4) Open space: 40% of the gross tract area, 20% of which shall be included within the net tract area.

All open space be set aside as permanent common space to be owned in undivided interest by the unit owners.

- (5) Distance between buildings: Buildings shall be considered facing if the walls form any angle of less than 45°:
  - (a) Where both facing walls contain windows of habitable rooms, 50 feet, but not less than two times the eave height of the building containing the highest habitable room.
  - (b) Where only one of two facing walls contains windows of habitable rooms 25 feet, but not less than two times the eave height of the highest of the two buildings containing such facing walls.
  - (c) Where neither of two facing walls contain windows of habitable rooms, 25 feet, or the eave height highest of the two buildings containing such facing walls, whichever is greater.
- (6) Recreation areas. Active and passive outdoor recreational areas shall be provided and shall include be provided and shall include suitable landscaping, sitting, and walking areas as determined by the approving authority. Indoor social, cultural, recreational, and meeting facilities shall be required as similarly directed.
- (7) Maximum impervious surfaces: 65%.
- (8) A landscape buffer with a minimum width of 25 feet is required along the property lines. Existing vegetation can be utilized as part of the landscaping and supplemented as appropriate. The buffer shall be landscaped as detailed in Section 215-85 and 215-100.

### **PROJECT DESCRIPTION:**

This is an application for Preliminary and Final Major Site Plan Approval, with no variance relief requested. This particular property, the old Arthur Henry site, was subject of a minor subdivision approval for single family dwelling units, a few years in the past. The subdivision never perfected and was not filed.

The approval request is for seventy-seven (77) units, to be located in five (5) detached apartment buildings, or a 6.42-acre site. In addition to the seventy-seven garden apartment units, the applicant is also proposing a clubhouse to be located in building #5, a pickleball court, swimming pool, gazebo, pet walking area, and various other site improvements.

The project is required to be age restricted (55- years and older) and must have 15% set aside for affordable housing units.

### **ZONING REVIEW:**

1. The property is located in the AH1- AR Zone, and on this size property, seventy-seven (77) units are permitted with a 15% set aside for affordable units.
2. The applicant has not requested any variance for the proposed development.

Following is a list of design waivers needed as part of the application:

1. Street trees at 30' on centers across the frontage.
2. 5' landscaping around the trash area.
3. Open basins are not permitted by ordinance, a design waiver is required.

#### **ENGINEERING REVIEW:**

1. The application will be reviewed utilizing the Design Standards and Improvement Specifications outline in Article VIII of the ordinance. The State Residential Improvement Standards will take precedence over the local ordinance for this development.

2. The applicant has supplied architectural plans, including building views and floor plans.

The plans show two living floors over parking, which complies. The site is proposed to have thirty-seven (37) one-bedroom units and forty (40) two-bedroom units, for a total of seventy-seven (77) units.

3. As per Section 215-85 buffers are required around the site. The plan meets the Section 215-152.1 of the ordinance modifies the buffer section, to require a 25' landscaped area, along all property lines. Existing vegetation can be utilized, as part of the landscaping and supplemented, as appropriate.

A review of the landscaping plan shows a natural buffer of existing vegetation to remain. The 25' dimension, and line of delineation of the 25' should be shown on the plan.

A note should also be placed on the plan, that the natural buffer is to be supplemented or needed in order to provide a visual barrier, equal to a double staggered row of evergreens, as required by the ordinance.

4. The applicant has supplied a clearing and grading plan with the application.

The clearing limits around the site should be clearly labeled. The ordinance requires that an area of natural buffer remains along the property line.

With regards to grading, the plan is adequate for grading of the site.

A permit from the Cape Atlantic Soil Conservation District for the clearing and stabilization of the site both during construction, and the final planted cover over the site.

5. The ordinance requires that curbs, gutters, and sidewalks are required across the frontage of the property. The plan should be revised in order to show these improvements.

Wabash Avenue presently has a right-of-way width of 40'. The applicant should discuss the need to dedicate 5-foot additional (half width) along their side of Wabash Avenue in order to provide a half width of 25-feet.

The appropriate details for the curbs, gutters, and sidewalks, should be shown. The continuous half width should be 15'.

6. Section 215-19 requires that a 6" concrete apron, with wire mesh (6X6-10/10) be installed for access to the site. The plan should be revised to show the details and dimensions for the driveway.

ADA compliant ramps should be supplied at the driveway entrance. Details and ADA compliant grades should be supplied on the plan.

7. The applicant has proposed one (1) two-way driveway onto Wabash Avenue to the site. The ordinance allows a maximum curb cut of 50'. The applicant is proposing a 75', curb cut. A design waiver is required.

A driveway of 30' for a main access drive, the applicant is proposing a driveway access of 25'. A design waiver is required. (Section 215-92)

8. The plan shows an existing easement crossing the site. It appears that the easement is in favor of the City for storm drainage from Locust Drive. The easement is existing at 10'.
  - a) The existing easement is at the corner of building #5 with setback, in my opinion, it would be difficult to perform repairs on the storm pipes without possibly jeopardizing the structure, this should be discussed.
  - b) The Board should discuss with the applicant expanding the easement to 15' within the property lines of the site. Additional room should be supplied in order to make repairs on the pipes.
9. Section 215-94 allows the Board to require an Environmental Impact Statement if the Board determines the site to be environmental sensitive.

I believe this site was required to perform site remediation by the NJDEP. The applicant should supply a copy of any final approval form the NJDEP.

10. The applicant should discuss with the Board if any fencing is existing, or proposed at the site, as part of the development.
11. The plan should be submitted to the Fire Department for review and approval.
12. The applicant has supplied a Landscaping Plan (4 sheets) prepared by J. Adamson LLC, the plan shows a good blend of trees, shrubs, and ground cover.

Following is a review of the plan, as it relates to the ordinance (Section 215-100):

- A. The exterior of the building shall include a landscape strip, at least 4' wide suitably planted.

The applicant has provided a typical detail of the perimeter planning on Sheet L1-A of the Landscaping Plan. The applicant should discuss the acceptability of this plan with the Board.

- B. The ordinance requires shade/street trees across the front of the property at 30' on center. The plan shows a pocket of trees and shrubs across the front; however, they are not planted on 30' on center. The plan should be revised, or a design waiver requested.
  - C. The plan should identify and locate the existing trees six inches or greater on the plan. A note should be added if these trees are to remain or removed.
  - D. The plan proposes a substantial amount of fill in buffer plantings around the site. This is acceptable.
  - E. The ordinance requires one (1) pollution resistant shade or ornamental tree for ten (10) parking spaces. 146 spaces are proposed, so 15 trees are required. The plan complies with the requirement. Details for tree planting have been provided.
13. The plan proposes a Club House/ Management Office to be located on the ground floor of building #5.

The applicant should discuss the types of deliveries that can be expected at the site.

The ordinance requires a loading zone for this type of use for areas in excess of 5,000SF.  
(Section 215-106)

The types of trucks expected to utilize the site should be discussed. The plan does not provide parking, or a turnaround area for any type of delivery truck.

14. The applicant has supplied parking areas onsite for the proposed units. The plan proposes 72 spaces under the residential units, and 74 spaces outside the buildings in the proposed parking areas. Access to the site is attained by two- 2way driveways located on Wabash Avenue. The plan proposes 146 spaces for 77 units.
15. The applicant to utilize granite curbing and asphalt paving throughout the site.
- The granite curb detail conforms to the Residential Stie Improvement Standards, as does the asphalt paving section of 4" subbase, 3" of stab base and 1.5' of topcoat.
16. The plan should be revised in order to identify this location of all granite and concrete curbing. ADA corner ramps should be identified at all sidewalk/driveway crossings.
17. The location of ADA parking should be shown on the plan. The required ADA spaces are shown on the architectural plans, but not the site plan.

I would recommend that the site plan be revised to provide a note and detail that two (2) typical ADA spaces are provided in the garage.

18. A Traffic Control Plan, including the location of all signage and labeled crosswalks should be provided.
19. Onsite drive isles for two-way traffic are required to be 25'. The plan should note the dimensions of the drive isles. The plan should also show that the parking spaces are 9' x 18'. The required aisle width as show in the Table 4.5 of the Residential Improvement Standards is 24'.
20. The plan shows the location of the sight easement at the driveway exit from the site.

The design of the easement, showing all bearings and distances shall be shown on the plan.

The plan should be revised to show the restriction language, as outlined in Section 215-93 C (2).

21. As previously stated, the applicant is proposing 146 parking spaces for 77 units.

The required parking demand will be calculated utilizing the State Residential Improvement Standards, as required.

Following is a review of the parking:

- A. 38 one (1) bedroom units- 1.8 spaces per unit as required, therefore 68 spaces are needed.
- B. 39 two (2) bedroom units- 2.0 spaces per unit is needed, therefore 78 spaces are needed.

A total of 146 parking spaces are required and 146 spaces are proposed.

It appears on the plan, five (5) ADA compliant parking spaces are proposed on the site. This complies with the number required by ordinance.

The plan should clarify where the spaces are to be located.

22. The applicant has provided areas of common open space item. Proposed are a pickle ball court, gazebo, and swimming pool.

The items should be discussed with the Board in order to determine if these improvements are acceptable.

The plan should be revised in order to show a fence around the pool area. A separate building permit will be required from the Northfield Building Department for the pool.

23. A note should be added to the plan that exterior mechanicals are required to be screened from public view, as per Section 215-110 of the ordinance.
24. The plan should be submitted to the City of Northfield Sewer Department for review and approval for the on and offsite sewer systems.

The plan should be revised to show a bedding detail for the sewer main. The locations of all sewer laterals, cleanouts, and pipe sizes for the laterals.

The applicant will be required to obtain a Treatment Works Approval from the NJDEP, prior to signing of the plans.

25. The applicant will be required to supply a copy of the NJDEP CAFRA Permit, prior to signing of the plans.
26. The applicant will be required to provide a Domestic Water Layout Plan, including line locations and sizes, valve locations, meter locations, service locations, including fire suppression lines, if required.

Water service will be provided by the NJ American Water Company. An approval letter from the NJ American Water Company should be supplied.

27. The applicant has supplied a lighting plan for review. The plan provides a layout of freestanding lighting around the parking areas, and common areas.

The plan should be revised to show lighting intensity throughout the site, consistent with the ordinance requirements, and details, including, heights, of light and poles, and details of the poles and foundation.

The plan should also show the building mounted lights that are also proposed.

The lighting detail should also show a light shielding detail for all the lights. The property contains residential homes adjacent to most of the perimeter of the site.

28. The plan shows a freestanding identification sign along the front of the property which must comply to Section 215-113 (I) of the ordinance.

A) Following is a review of the proposed freestanding sign:

- 1) Height-6' in height is permitted, 7' is proposed. The plan should be revised to show 6' max.
- 2) Setback- 20' min; 15' is proposed. The plan should be revised to show a 20' setback.
- 3) Must contain address.
- 4) Size-30 SF max is permitted, the applicant has proposed a 30 SF sign face, plus approximately 7.0 SF for the street address.

The applicant should discuss with the Board if a variance is required for the sign area and height, or a reduction in sign area and height is needed.

The identification portion of the sign complies to the 30 SF sign size requirement, and height allowance of 6'.

The address portion of the sign and 7 SF of sign area, and 1-foot of height, which is utilized as part of the sign, does not comply.



B) The types of lighting for the sign should be discussed with the Board, and details added to the plan.

Building and electrical permits are required for the sign.

29. The applicant has proposed a Trash/Recycling enclosure to be located between buildings 4 and 5. The enclosure is proposed to be constructed with block materials to match the building's exterior. The ordinance requires that a 5' wide landscaped area around three sides of the enclosure. The plan should be revised, or a design waiver granted by the Board.

The applicant should discuss with the Board how trash will be handled in each building.

It appears that each ground floor (parking) will have a small trash area. This will be difficult for trash trucks to enter the garage area to pick up the trash.

30. The applicant has supplied a drainage plan and report for the drainage system proposed on the site. The plan consists of a series of storm water inlets and pipe networks, which collects the water and flows the runoff thru bio-retention/infiltration swales, plus a detention basin, prior to releasing the controlled storm water into an existing storm water pipe onsite.
31. The application as presented, is a major development, as defined by the New Jersey Storm Water Management Plan. Therefore, the State BMP Manual will be utilized for the review.

The applicant has supplied a Storm Water Management Report prepared by Dixon Associates for the project.

Following is a review of steps and details of the report, as they compare to the requirement of the rules:

- A. The applicant states that the Soil Conservation Service Technical Release No. 55 (TR-55) was utilized. The TR-5 (1986) has been superseded; therefore, the proper Methodology should be identified.

Allowable Methods of calculating storm water runoff are the Rational or Modified Rational Method can be used in a single drainage area of 20 AC or less.

NRCS Methodology allows for TR-55 (updated version) also.

- B. Determining Curve Numbers (CN)

The applicant has provided CN charts for the site. Additional clarity is required for the pre and post determinations.

A plan should be provided showing the mapped soil types, conditions of the existing coverage and label the areas of differing soil types. The same breakdown should be supplied for the post condition plan.

- C. A map of pre and post conditions should be provided that identifies the individual path for storm water and at individual Time of Concentration. (TC)

A chart, mirroring the map for determining each leg of the TC route should be supplied for review. The different types of flow, such as sheet flow, shallow concentrated flow, and channel flow should be identified.

All these items shall be evaluated in determining the TC.

- D. The design engineer should clarify the design storm, as it relates to Atlantic County. The runoff chart should be supplied for review.

- E. The applicant should provide pre and post construction hydrographic for the 2yr., 10 yr. and 100 yr. Type III storms for Atlantic County.

There are two common methods used for the flat coastal areas of New Jersey, they are the SCS Method and the Delmarva Method.

The applicant has utilized the SCS TR-55 Method, which is acceptable.

- F. A plan should be provided showing all flow paths for pervious and impervious ground conditions. Unconnected flow is encouraged, when possible, as it encourages infiltration and helps purify the storm water before reaching the basin.

- G. The applicant has supplied ten (10) soil test pits (backhoe) at the site. Tube Permeameter Test were provided for each pit. Soil conditions for each pit showed K2, K4, and K5 results.

The depths of Permeameter Test should be shown in relation to the soil pit log, so it can be determined if the test was taken to the proper elevation.

- H. The code requires that 80% all Total Suspended Solids be removed from the runoff in the proposed storm water management system. The project proposes the use of infiltration basins to satisfy this requirement.

- I. The applicant has proposed to comply with the Water Quality Standards. The design storm for the water quality requirements are 1.25 inches of rainfall falling in a nonlinear pattern for 2-hours.

The report shows the site complies in that zero runoff from the water quality design storm, due to the fact that the storm water will be infiltrated within 24-hours

This is shown in the calculation.

- J. The drainage report states the basin will empty within a 72-hour time period. Additional calculations need to be provided to assure that this requirement is met.

- K. The applicant has supplied water quantity charts showing the predevelopment flows and post development flows for the site.

All the storm water onsite flows thru the basin onsite and is released thru an inlet overflow well located in large scale basin #3.

The report shows the post construction runoff has been reduced in excess of the requirement of 50%, 75% and 80% for the 2-yr., 10-yr. and 100 yr. storm events, which complies.

Additional hydrographics need to be supplied, in order to graphically show the reductions.

- L. The applicant is required to provide storm water mounding calculations, in order to verify that the basins will be operating as designed.
- M. The applicant should supply, under separate cover, a Maintenance Manual, which includes all items, including, but not limited to process and procedures, cost estimate, person in responsible charge, and all other outlined in the BPM.

32. The applicant has provided open basins onsite. The ordinance does not permit open swales or basins.

The BMP requires swales and basins, which are utilized as Green Infrastructure.

A design waiver is required for the open basin.

33. The expected water depths in each basin are; 2' in basin #1, approximately 2' deep in basin # 2, and 2' deep in basins #3 and 4' deep in basin #4. The maximum water depths are for the 100yr. storm.

The Board should discuss the need for fencing around the basins. Accepted design is to install fencing that protects the small child who may wonder to the basin. The normally accepted fencing for this protection is 3' high post and rail fence, with vinyl coated square wire mesh behind the fence.

34. The plan shows various inlets and piping networks on the plan. A chart, showing flow pipe size, grades should be provided for review.
35. The plan proposes reinforced concrete pipe onsite, which is acceptable.
36. The plan should be revised clearly labeling all traffic control signs and painted STOP bars. I would recommend that STOP signs be added to all parking areas intersecting the main drive aisle.
37. The applicant will be required to post performance guarantee for all perimeter buffer and offsite improvements.

An Engineer's Estimate for all on and offsite improvements should be supplied.

An inspection escrow, equal to 5% of the estimate shall be posted prior to start of work and signing on the plans.

38. This project is subject to the City's Fair Share Housing Agreement.

In order to comply, the applicant should state for the record that twelve (12) Fair Share Housing units will be provided.

39. Any approval by the Board, "the applicant must enter into a Developer's Agreement with the City regarding its obligations related to the twelve (12) affordable housing units, including, but not limited to: construction phasing of the affordable units, bedrooms and income distribution (including 13% very low income requirements), affirmative marketing and other administration of units, and conformance with the City's Affordable Housing Ordinance, UHAC, and COAH regulations, and terms of the City's Judgment of Compliance and Response Center, and the term of the Memorandum of understanding between the City of Northfield and the property owner, Mason Properties".
40. The applicant will be required to obtain all other approvals prior to signing of the plan and start of work.

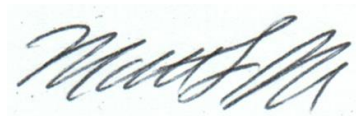
Following is a list of necessary approvals:

a) City of Northfield

- 1) Fire Department Approval
- 2) Sewer Department Approval
- 3) Developer's Agreement, as per the Fair Share Housing Agreement
- 4) Cape Atlantic Soil Conservation District
- 5) New Jersey American Water Company
- 6) Atlantic County Planning Board
- 7) NJ Department of Environmental- CAFRA and Treatment Works Approval.

If you have any questions or require further information, please do not hesitate to contact me.

Very truly yours,



Matthew F. Doran, P.E., P.P., P.L.S.  
Doran Engineering