

ACR, LLC

2617 Beacon Hill Drive, Auburn Hills, Michigan 48326

ANDOVER WOODS

CITY OF ROCHESTER HILLS FLOODPLAIN PERMIT APPLICATION

Section 114-157

- (1) A site plan showing existing structures, topographical features, and all proposed changes. The site plan shall include existing and proposed ground elevations and contours (one-foot intervals) and a contour showing the base flood elevation.

The approved detailed grading plans dated 10/19/2016 are attached. These plans include all existing structures and topography to one foot intervals. The grading plans include proposed grades as contour lines with 1 foot intervals as well as spot grades around the buildings and the grades of lowest finished floors of the buildings. The property is adjacent to the Sarent Creek. The 100 year floodplain elevation changes over the course of the property from east to west. A contour representing the limits of the 100 year floodplain and the 100 year floodway are shown on the plans. Three benchmarks are provided on the grading plans, all tied to the NAVD88 datum.

- (2) The elevation in relation to the North American Vertical Datum of 1988 (NAVD88) of the lowest floor of all structures.

The floodplain elevations are tied to the NAVD88 datum and range from a low of 806.9 on the east end of the property to 817.1 on the west end of the property. The finished floor elevation of each unit and its corresponding near 100 year floodplain elevation are shown in the table below. Every basement elevation is at least 2 feet above the corresponding 100 year floodplain elevation:

Unit Number	Basement FF elevation	Corresponding 100 year floodplain elev	Difference
1	815.5	813.5	2.0
2	815.5	813.5	2.0
3	815.5	813.5	2.0
4	816.0	812.1	3.9
5	815.0	812.1	2.9
6	815.0	811.1	3.9
7	813.9	810.6	3.3
8	813.4	810.6	2.8
9	813.1	810.4	2.7
10	813.1	810.2	2.9
11	814.4	810.2	4.2
12	814.4	810.2	4.2
13	815.3	808.5	6.8
14	815.8	808.5	7.3
15	815.5	808.5	7.3
16	815.0	808.5	6.5
17	813.6	810.2	3.4
18	813.0	810.2	2.8
19	813.0	810.4	2.6
20	813.5	810.4	3.1
21	813.6	810.6	3.0
22	814.1	811.1	3.0
23	814.8	812.1	2.7
24	814.8	812.1	2.7

ACR, LLC

2617 Beacon Hill Drive, Auburn Hills, Michigan 48326

25	816.0	813.5	2.5
26	815.5	813.5	2.0
27	816.3	814.3	2.0
28	816.8	814.3	2.3
29	816.8	814.5	2.3
30	817.3	814.5	2.8
31	820.7	814.6	6.1
32	821.2	814.6	7.6
33	822.8	814.7	8.1
34	823.3	814.7	7.6
35	824.3	814.9	9.4
36	824.8	814.9	9.9
37	824.0	817.1	6.9
38	824.0	817.1	6.9
39	825.9	817.1	8.8
40	826.4	817.1	9.3
41	827.5	817.1	10.4
42	827.5	817.1	10.4
Garage	834.4 (no basement)	817.1	17.3

- (3) Where floodproofing will be employed, the elevation in relation to NAVD88 to which a structure will be floodproofed.
There are no building floor elevations below the corresponding 100 year floodplain level, therefore no floodproofing will be employed.
- (4) Where floodproofing will be employed, a certificate from a licensed professional engineer or architect that the floodproofing criteria of this article will be met.
NA
- (5) Where it can be determined that development is proposed within the regulatory floodway, a certification as required by subsection 114-101(c).
The development is not located within the regulatory floodway.
- (6) A description to the extent to which any watercourse will be altered or relocated as a result of the proposed development.
The Paint Creek, the only watercourse on or adjacent to the property, is not being altered or relocated.
- (7) Proof of development permission from appropriate local, state and federal agencies as required by subsection 114-156(1), including a floodplain permit approval, or a letter of no authority from the state department of natural resources under authority of part 31 of the natural resources and environmental protection act, Public Act No. 451 of 1994.
Attached is the floodplain permit received from the MDEQ, dated Jun 2, 2015.
- (8) Base flood elevation data where the proposed development is subject to Public Act No. 288 of 1967 or greater than five acres in size.
Base flood elevation data is provided approximately every 100 feet on an east/west basis on the grading plans.
- (9) Such other additional information, requested by the engineering department, building department or the city council, which may be reasonably necessary to determine compliance with this article.
No other requirements known.

ACR, LLC

2617 Beacon Hill Drive, Auburn Hills, Michigan 48326

Section 114-159

(c) Criteria. A resolution of approval shall be adopted by the city council if it determines that the proposed use would be consistent with the public health, safety and welfare after considering the following factors:

(1) Private or community need for the proposed facility or use;

The applicant has determined that there is definitely an unmet market for the proposed duplexes. We have received numerous calls requesting information since our public hearing for the site plan approval. The proposed floodplain fills allow the use of portions of the property for development of units that would otherwise not be possible and enhances the financial feasibility of the project.

(2) Importance of a waterfront location;

The proposed location provides a highly desirable natural environment for the proposed duplex units. More than 60% of the proposed units back up to this serene environment.

(3) Alternative locations not subject to flooding;

The proposed development considered alternative placement of buildings and roads and determined that the approved site plan was the least impactful of any of the alternatives. The project will fill 1,718 cubic yards of flood plain and provide 4,032 cubic yards of compensating cut, assuring no downstream flooding.

(4) Compatibility with existing and proposed floodplain development and use;

The subject property is zoned for the residential use and master planned for the 1 family cluster residential use. The proposed duplex residential development is consistent with both the zoning and master plan. The adjacent properties along the Sargent Creek were developed with a similar relationship to Sargent Creek; the proposed development is consistent with the floodplain development of these adjacent neighborhoods.

(5) Relationship to comprehensive plans and the floodplain management program;

The proposed development is consistent with both City zoning and master plan and has received the proposed floodplain fill permit from MDEQ. The proposed plan increases the overall flood storage volume which is a goal of the floodplain management program.

(6) Environmental compatibility

The proposed plan avoids nearly all floodplain and wetlands on the site and will utilize soil erosion control techniques to protect sensitive undisturbed wetlands and floodplains on the property. Therefore the proposed plan is environmentally compatible.

(7) Danger to life and property due to increased flood heights or velocities cause by encroachments.

ACR, LLC

2617 Beacon Hill Drive, Auburn Hills, Michigan 48326

The proposed plan actually increases flood storage on the property and does not alter or relocate the Sargent Creek. Therefore there is no danger to life and property due to increased flood heights or velocities caused encroachments.

(8) Danger from materials swept downstream;

The proposed plan does not impact the Sargent Creek or place any structures in the floodway and there is no danger from materials swept downstream.

(9) Ability of public utilities to function during floods and the prevention of disease and contamination.

All public utilities will be placed in areas outside of the 100 year floodplain, therefore said utilities will be able to function during floods to prevent disease and contamination.

(10) The susceptibility of the proposed facility and its contents to flood damage;

All structures will be placed outside and above the 100 year floodplain and will therefore not be subject to flooding.

(11) Potential flood heights, velocities, duration, rate of rise and sediment transport;

Flood heights, velocities, duration and rate of rise will remain constant or will be reduced as a result of the proposed plans. Sediment transport will also remain constant and soil erosion and sedimentation control devices will be installed by the lot owners and monitored by OCDC as the permitting authority.

(12) Accessibility to ordinary and emergency vehicles;

The proposed plan is consistent with Rochester Hills development standards and accessibility to ordinary and emergency vehicles will have accessibility via the proposed new roadways which will be located outside of the 100 year floodplain.

(13) Such other factors as may be relevant to the proposed use and the purpose of this article.

There are no known "other factors" that are relevant to the proposed use and purpose of purpose to Article III of Section 114 that need be considered as a part of this project.

We trust the above, along with the documentation previously submitted for these lots, satisfies the requirements of the City of Rochester Hills and that the project can now be placed on the City Council agenda for approval.

If you should have any questions or comments, please feel free to contact me at any time.

Sincerely,



Bruce Michael, agent for ACR, LLC 248/703-4653