Ironwood Heights – Major Preliminary Plat

Applicants:
Carl & Jenessa Amundson / Ironwood Heights, LLC (Property Owners / Developers)
Abaci Consulting, Inc. (Plat Engineer)

Request:
Preliminary Plat approval of a Major Subdivision Plat creating 16 new single-family residential lots

Legal Description:
Approximately 26.41 acres, being Part of Lots 1, 2, 3 and 4 of the Official Plat of the East ½ of the NW ¼ of Section 32, Township 80 North, Range 24 West of the 5th P.M., Polk County, Iowa the same being that part of Government Lot 2 in Section 32, Township 80 North, Range 24 West of the 5th P.M, Polk County, Iowa AND Parcel ‘A’ of the Plat of Survey filed in the Office of the Recorder of Polk County, Iowa on August 20, 2013, and recorded in Book 14926 Page 730, being a part of Government Lot 2, in the NW ¼ of Section 32, Township 80 North, Range 24 West of the 5th P.M., Polk County, Iowa

General Location:
7702 NW 37th Street, Ankeny, being located approximately one (1) mile southwest of the intersection of NW 84th Avenue and NW 35th Street (Hwy 415). See Attachment ‘A’

Existing Zoning:
“RR” Rural Residential District

Surrounding Zoning:
North:  “RR” Rural Residential District / “OS” Open Space District
South:  “OS” Open Space District
East:   “RR” Rural Residential District
West:   “OS” Open Space District

Waiver Request (See Attachment C):
Cul-de-sac streets shall be no longer than 600 feet from adjacent right-of-way to the end of the proposed right-of-way in residential developments
GENERAL COMMENTS:
This preliminary plat (Attachment ‘B’) proposes 16 new single-family residential lots and one (1) street lot on approximately 26.41 acres zoned “RR” Rural Residential District. The subject property is comprised of two (2) existing tax parcels and contains an existing single-family residence and outbuildings addressed as 7702 NW 37th Street. The property has frontage and access onto the existing public roadway of NW 37th Street located directly adjacent to the east of the property. The proposed subdivision includes a cul-de-sac street extension to provide access to 14 of the proposed 16 lots. Lots 14 and 15 are proposed to have frontage and access directly onto NW 37th Street. The development would be served by Polk County sanitary sewer and public water through Des Moines Water Works. The preliminary plat identifies all required improvements, including utility and roadway extensions, grading and storm water detention.

The existing residence on the subject property is located in the northwest corner of the site and served by a long private driveway, including an existing access easement for a portion of the drive crossing the adjacent property at 7700 NW 37th Street. The proposed roadway extension would connect to NW 37th Street in the southern portion of the site in roughly the same location as the existing driveway. The property contains rolling, steep topography as well as a sizable area of mature woodlands. The majority of the property is currently vacant open space except for the existing home area. Surrounding properties to the north, south and west are zoned “OS” Open Space District and held in public ownership as they lie adjacent to the Saylorville Reservoir, dam and Des Moines River outlet located just north and west of the subject property, as well as along Rock Creek adjacent to the south. There is an existing single-family residence located adjacent to the north at 7846 NW 37th Street which is zoned “RR” Rural Residential District. There is also an existing parcel and residence at 7700 NW 37th Street zoned “RR” Rural Residential District, which the subject property borders on the south, west and north. The existing driveway serving the residence on the subject property has an access easement across this adjacent property at 7700 NW 37th Street. The larger surrounding area contains a number of existing single-family developments and established residences located along the north and east side of NW 37th Street and NW Fisher Lane south of Highway 415 and north of NW 70th Avenue within unincorporated Polk County. Polk County recently approved the preliminary plat and construction plans for Timber Valley Estates, a 19-lot single-family subdivision with new cul-de-sac street extension, located directly east of the subject property on the east side of NW 37th Street.

Lot Layout/Configuration
The preliminary plat of Ironwood Heights (Attachment ‘B’) proposes 16 total lots, with the majority ranging in size from one (1) to two (2) acres. Lot 6 and Lot 13 are the largest lots proposed, being 2.46 acres and 3.32 acres respectively. The existing residence at 7702 NW 37th Street would be located on proposed Lot 9. Given the new public roadway extension and orientation of the existing residence and development layout, the rear yard for Lot 9 would be to the north. This creates a nonconforming setback for the existing home, as it does not meet the required rear yard setback of 50 feet for Lot 9. It would observe a rear yard setback of approximately 39 feet from the new rear lot line for Lot 9, and therefore require a variance prior to final plat approval.
The development is proposed under the standard development option for the “RR” Rural Residential District, which requires a minimum lot size of 40,000 square feet. All lots are required to meet the standard minimum lot width of 140 feet. Lots 8, 9, 12 and 13 are located at the end of the cul-de-sac and are pie-shaped lots widening as they extend from their frontage to rear lot lines. The Ordinance allows pie-shaped lots to be clustered around a cul-de-sac bulb given the limited street frontage. The preliminary plat identifies a greater front yard setback line for these lots at the point at which the minimum lot width of 140 feet is met, in accordance with the Ordinance. Staff is still coordinating with the plat engineer on Lots 4, 5, 6, 7 and 11 as they are required to meet the minimum lot width of 140 feet or greater at the 50-foot front setback line. If this cannot be substantiated for these lots under the current layout then the lot lines will need to be adjusted to meet this requirement. Lot 16 is proposed as a flag lot, and meets the requirements for flag lots served by public sewer, by being less than one (1) acre in size and having a flagpole stem less than 400 feet in length. Storm water detention facilities and associated easements are proposed on Lots 1 thru 6 as well as Lot 10 and Lot 16.

Roadway/Utilities/Natural Resources
The proposed cul-de-sac roadway connects to NW 37th Street in the southern portion of the property, and provides access into the subject property westerly and eventually turning north and terminating in the northwestern corner of the site. Lots 1 thru 13 and Lot 16 will access the new cul-de-sac, while Lots 14 and 15 will have frontage and access from the existing public roadway of NW 37th Street. A profile has been provided for the proposed cul-de-sac street showing a maximum grade of 6%, which is the maximum grade allowed under the Polk County Subdivision Ordinance. A waiver has been requested to allow the cul-de-sac street with a proposed length of 1,258 feet, in lieu of the maximum of 600 feet allowed under the Subdivision Ordinance. NW 37th Street is a paved, two-lane collector roadway maintained by Polk County. It provides connectivity north to Highway 415 and south to NW Toni Drive and NW Fisher Lane, with connectivity east to NW 26th Street and south to NW 66th Avenue. The roadway is adequate to handle the additional traffic generated by the proposed development.

There is a small area of Zone ‘A’ Floodplain (1% Annual Chance Floodplain) in the far southeastern corner of the subject property extending along Rock Creek adjacent to the south. The floodplain area is minimal and will not impact the proposed development. The site contains significant topographical features and steep slopes. The site generally increases in elevation moving south to north across the property. There is a high elevation of approximately 900 feet in the northwest corner of the site and a low elevation of approximately 810 feet in the southeast corner of the site approaching Rock Creek and its adjacent floodplain area to the south. The site also contains significant areas of existing woodlands, primarily located in the northern half of the property, but also extending throughout the center of the development and along the western property boundary. The applicants are still working through staff comments related to these onsite woodlands. The type of woodlands and their coverage area will need to be identified on the plat, including protection easements showing how the minimum protection requirements can be met. If the minimum protection cannot be achieved, then onsite or offsite mitigation options are available and would have to be approved by Polk County through the preliminary plat process.
Public Water is available through Des Moines Water Works. There is an existing 12-inch water main located along NW 37th Street. The plat developer will be responsible for connection to this main, including a new main extension along the proposed public cul-de-sac roadway to serve the development. In addition to the standard tap and system development fees, Des Moines Water Works has indicated this area has a special connection fee of $3,807.57 per lot. This special connection fee is in place to assist in offsetting previous investments in the system to provide public water service to this area. The development will be served by Polk County sanitary sewer. There is a trunk sewer line located adjacent to the south along Rock Creek. The developer will be responsible for construction of a new main to serve the development, including connection fees. In addition, due to the grade of the property the developer will also be responsible for constructing a private lift station in order to provide the required sanitary sewer service to the development. MidAmerican Energy has commented there is existing electric service in the area capable of serving the development, but there is no natural gas service available.

Waivers
A waiver from the following standard is requested (Attachment C):

*Cul-de-sac streets shall be no longer than 600 feet from adjacent right-of-way to the end of the proposed right-of-way in residential developments*

**STAFF REVIEW:**
Staff has reviewed this plat for compliance with the Polk County Zoning and Subdivision Ordinances as a major subdivision plat submittal. The plat is considered a major subdivision due to the number of divisions requested, as well as the requested waiver and required public improvements. Lot density, dimensions, frontage, access and potential waivers have been reviewed. Pending the Zoning Commission’s recommendation, staff will continue to work with the applicant and their representative on remaining comments. Once all comments have been addressed, the preliminary plat may be forwarded to the Board of Supervisors for their approval. Following preliminary plat approval, construction plans are required to detail the public improvements, including roadway construction, sanitary sewer and water main extensions. These improvements shall be completed or surety provided prior to final plat approval and recording. At this stage, the Commission’s action would affirm, deny, or amend the overall plat layout.

The property lies within the two-mile review jurisdiction of Ankeny and Johnston. Johnston has responded they are able to administratively waive their right to review under their Code given the area does not fall within any defined future growth within their Comprehensive Plan. The City of Ankeny will also waive their review, but will have to take formal action at time of final plat.

**RECOMMENDATION:**
Staff recommends approval of the Preliminary Plat of Ironwood Heights, as well as the requested waiver to the cul-de-sac length. Staff is supportive of the waiver due to the site topography and lack of development potential of adjacent properties, as surrounding ground is primarily held in public ownership and contains floodplain and natural features including steep topography, Rock
Creek and the Des Moines River outlet at the Saylorville Reservoir Dam. Approval is subject to the applicants addressing all remaining staff comments and Ordinance requirements. Any significant change to the current layout would require re-approval by the Polk County Zoning Commission.
Ironwood Heights
Major Preliminary Plat

PLAT INFORMATION: This subdivision plat proposes 16 single-family residential lots and one (1) street lot on approximately 26.41 acres zoned “RR” Rural Residential District.

SEWER: Polk County Sanitary Sewer

TOWNSHIP: Crocker

WATER: Des Moines Water Works

OWNER & DEVELOPER: Carl Amundson, Ironwood Heights, LLC (owner/developer)

Vicinity Map:
NOTES:
1. TYPICAL (NORMAL) SECTION SHOWN WILL BE MODIFIED APPROPRIATELY IN AREAS OF INTERSECTIONS, INTAKE LOCATIONS, AND/OR OTHER LOCATIONS SPECIFICALLY DESIGNED BY THE ENGINEER. REFER TO AT LEAST THE INTERSECTION, CUL-DE-SAC, OVERFLOW, AND/OR SIDEWALK RAMP SHEETS FOR ADDITIONAL INFORMATION AND DETAILS.
2. EXCAVATE AND BACKFILL - TWO (2.0) FOOT WIDTH TYPICAL.
3. REFER TO INTERSECTION AND/OR CUL-DE-SAC SHEETS FOR JOINTING AND GRADING DETAILS.
4. SEE SUDAS SECTION 2010.3.04 FOR PREPARING SUBGRADE.
5. REFER TO INTERSECTION AND/OR CUL-DE-SAC SHEETS FOR JOINTING AND GRADING DETAILS.
6. TYPICAL & MAX. TRANSVERSE JOINT SPACING ('C' JOINTS) = 15 FT.

TYPICAL CROSS SECTION - LOOKING UP STATION - 2-LANE PCC ROADWAY WITH CURB AND GUTTER

*FROM 0+75.79 TO 12+09.06

Parcel Line and Curve Table

<table>
<thead>
<tr>
<th>Curve</th>
<th>Length</th>
<th>Radius</th>
<th>Superelevation</th>
<th>Street Length</th>
<th>Street Radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>1</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Parcel Line and Curve Table

<table>
<thead>
<tr>
<th>Curve</th>
<th>Length</th>
<th>Radius</th>
<th>Superelevation</th>
<th>Street Length</th>
<th>Street Radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>1</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

ABACI CIVIL ENGINEERING - LAND SURVEYING
3000 SE GRIMES BLVD, STE. 800
GRIMES, IOWA 50111
OFFICE: (515) 986-5048

CONSULTING, INC.
Memo

To: Polk County Engineer

From: Mark McMurphy, Abaci Consulting, Inc. on behalf of Ironwood Heights, LLC

Date: Tuesday, November 16, 2021

Subject: Ironwood Heights Preliminary Plat – Request for Cul-de-sac Length Waiver

In response to the received comments, and as an attachment to the Preliminary Plat Planset of Ironwood Heights, this is a request for a waiver to the cul-de-sac length.

The Polk County Subdivision Ordinance (Article 5: Subdivision Plat Design Standards, Section 7(B)(1) page 28) states that a cul-de-sac can be “no longer than 600 feet from adjacent right of way to the end of the proposed right of way in Residential Developments.”

The proposed cul-de-sac length is 1,258 feet, which includes the intersection length off NW 37th Street as well as the entire length of the bulb at the end of the cul-de-sac. From that point, there is 18 feet to the right of way, bringing the total to 1,278 feet.

The length waiver is required in order to fully develop the parcel per the Land Use Plan and Zoning designation. This parcel is enveloped on the south, west and northwest by United States of America owned land that is part of Saylorville Reservoir. Additionally, the land directly to the north has been developed and then has USA land adjacent on its north side. As such, it is not feasible to extend a street across this property to the south, west, or north. Without the length waiver, the codified limitations on flagpole length would prevent the full development of this property.

The cul-de-sac design length was also increased to overcome the large elevation difference from the lowest point on the cul-de-sac to the highest while maintaining a maximum longitudinal slope of 6%. Had the cul-de-sac been designed any shorter, the slope would need to exceed the specified non-negotiable maximum of 6%.

Considering this, a waiver is required to proceed with design. We are hoping Polk County will kindly oblige.

Sincerely.