

BY-LAW NUMBER 2016/56

BY-LAW NO. 2016/56 is a by-law of the County of Wetaskiwin No. 10 in the Province of Alberta, to authorize the adoption of an Area Structure Plan for the purpose of providing a framework for an Area Structure Plan for Arnold Barr within SW 34-47-24-W4M, Plan 7722311, Block 1, Lot 1, in accordance with Section 633 of the Municipal Government Act, Chapter M-26.1, Revised Statutes of Alberta 2000, and amendments thereto.

WHEREAS: at the requirements of County Council, as per Policy 6606, an Area Structure Plan has been prepared for SW 34-47-24-W4M, Plan 7722311, Block 1, Lot 1.

AND WHEREAS: the proposed Area Structure Plan has been widely circulated and discussed within the County pursuant to Section 230, 606(1), and 633(1) of the Municipal Government Act, 2000, Chapter M-26.1, and amendments thereto.

NOW THEREFORE: the County of Wetaskiwin No. 10, duly assembled, hereby enacts as follows:

- (a) The document attached to this By-law as "Appendix A", together with accompanying maps, is hereby adopted as the Arnold Barr Area Structure Plan within SW 34-47-24-W4M, Plan 7722311, Block 1, Lot 1.
2. This by-law comes into effect on the date of third reading.
3. Upon passing By-law 2016/56, this By-law repeals By-law 2015/59

READ: A First time this 15 day of September, A.D., 2016.

READ: A Second time this 15 day of September, A.D., 2016.

READ: A Third time and finally passed this 15 day of September A.D., 2016.



REEVE



SECRETARY-TREASURER

**Proposed Area Structure Plan
Lot 1 Block 1 Plan 772 2311
475019 RR 243
Part of SW 34-47-24-4
Owner: Arnold Barr
Box 390 Millet T0C 1Z0**

SCHEDULE "A"
Bylaw 2016/56

Plan prepared by Robert Riddett, MCIP
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*Once adopted by bylaw, this ASP will
replace the one adopted in January 2016 by Bylaw 2015/59.
Changes from the earlier ASP are indicated in red*

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1 Purpose of this area structure plan

Arnold Barr owns a 39.04 acre parcel of land one mile east of Millet, on the west side of the Pineridge Downes subdivision. The location is shown on Map 1.

The quarter was originally subdivided in 1977 under file number RW/76/104. At that time the County limited subdivisions to 24 lots per quarter section, so the developer chose to concentrate them on the hilly, tree covered part of the quarter. This left a parcel of cleared land in the north-west corner of the quarter.

The County's Millet Acreage Study shows the entire quarter as suitable for subdivision into residential acreage lots. Mr Barr therefore proposes to re-subdivide his land into eight new lots ranging in size from 3.4 to 4.7 acres, comparable in size to those in Pineridge Downes, retaining the existing yard site, which covers 7.2 acres, for his own use.

As required by the County, the owner has prepared this area structure plan (ASP) which describes the location of the land, its physical characteristics, neighbouring land uses, proposed lot layout, and required infrastructure.

An earlier version of this ASP was adopted by Bylaw 2015/59. This version changes the location of the internal road, addresses a water table issue, and clarifies the responsibility for off-site road costs, but is otherwise identical.

2 Present and former use of the land

The land currently contains the Barr residence and yard site, covering about three acres. The remainder of the land has been used for pasture ever since Mr Barr purchased it in 1988. There are no watercourses or year-round standing water. The only trees are a shelterbelt around the yard, and a row along the north fence line.

To the best of the owner's knowledge, the land has never been used for any activity which might have contaminated the soil or groundwater. This has been confirmed by WCPA air photography going back to the 1960s.

Consequently, there is no need to undertake an environmental assessment of the property before proceeding to subdivision.

Map 2 is a recent air photograph of the property.

3 Provincial policies

Although land use is a municipal responsibility, the County must also consider provincial regulations set out in provincial legislation, and particularly in the Subdivision and Development Regulation, AR 43/2002.

Sewer lagoons: Residences must be at least 300 metres away from sewer lagoons.

The closest sewer lagoon is 2,650 metres away, on the west side of Millet.

Waste disposal sites: Residences must be at least 300 metres away from a waste disposal site, and no wells for human consumption must be drilled within 450 metres of such a site.

The former Millet waste disposal grounds are situated on SW 33-47-24-4. This is now closed, but the setbacks still apply.

The County currently operates a waste transfer station on NW 28-47-24-4. Because no waste is stored there, only the 300 metre separation applies.

As shown on Map 3, both facilities are far enough away that they do not restrict development of the Barr land.

Proximity to highways: A municipality must not approve a residential subdivision within 800 metres of a provincial highway without the prior approval of Alberta Transportation (AT).

The Barr property is a minimum of 1,230 metres west of Highway 814 and 1,975 metres east of Highway 2A.

Township Road 475 was paved by Alberta Transportation when Highway 814 was built, but it is not a provincial highway. This was confirmed by Lee Bowman of AT in a letter to WCPA in October 2013, file RW/13/39.

Subdivision of the Barr land is therefore not limited by proximity to highways.

Livestock operations:

The Agricultural Operations Practices Act does not allow confined feeding operations close to residences. The minimum separation distance (MDS) depends on the type of operation and its size. The County of Wetaskiwin applies those setbacks reciprocally, and normally does not allow new residences close to confined feeding operations.

The closest confined feeding operation is the Bos dairy farm on NW 25-47-24-4. It requires a 1,179 metre MDS. The actual distance to the Barr property is 3,010 metres.

Airports:

The Barr property is about 13 km from Wetaskiwin Regional Airport, and about 25 km from Edmonton International Airport. It is not under the approach or take-off path for either airport.

Under Transport Canada regulations, this is Class G (uncontrolled) air space.

Sour oil and gas installations:

A proposal to build a residence within 1,500 metres of any sour gas well or pipeline must be referred to the ERCB for comments.

There are no such installations on or within 1,500 metres of the Barr property.

Other oil and gas installations:

Residences are not allowed within 100 metres of a sweet oil or gas well, or within the right-of-way of a sweet oil or gas pipeline.

There are no wells or pipelines on the property, or close enough to affect development.

Abandoned wells:

ABADATA maps show no abandoned oil or gas wells on the property.

Historical resources

The Alberta government's Historical Resources Management Branch (HRMB) has the right to require a historical or archaeological assessment of land which is to be developed.

In a letter dated 9 July 2015, their file 4835-15-0092-001, HRMB gave approval and stated that no site investigation is required.

In summary, there are no provincial policies which prevent residential development on the Barr property.

4 Municipal Policies

The land is in the County of Wetaskiwin, and development is controlled by the County's municipal development plan (MDP), land use bylaw, and planning policies. Three issues need to be addressed: soil quality, number of lots, and policies on re-subdivision.

Soil quality: The land has a farmland assessment rating of 33%. Normally, land of this type would be reserved for agriculture under section 1.2 of the MDP. However, section 2.3.7 of the MDP over-rides this general policy and allows subdivision where council has adopted "comprehensive area-specific planning studies such as the Millet Wetaskiwin Acreage Study". That study, adopted by the County as Bylaw 2004/28, identifies land which is suitable for subdivision into residential lots. Map 1 of the Millet Acreage Study and Figure 4 of the MDP show the Barr property as subdividable.

Policies on re-subdivision: The Barr property was surveyed as part of the Pineridge Downes subdivision. County Policy 6605 regulates the re-subdivision of lots which are in an existing multi-lot subdivision. However, they only apply to land zoned Country Residential. The Barr property is zoned Agricultural, so the restrictions do not apply.

Additionally, Policy 6605 contemplates re-subdivision where "the lot being re-subdivided is significantly larger than its neighbours, so the new lots will be about the same size as most in the area" (section 2.2.1). The County accepted that reasoning when it allowed a similar oversized parcel in nearby Lansdowne Park to be re-subdivided into four lots (Plan 992 5230, RW/98/42).

Density of development: At the time of the original subdivision, the County allowed only 24 residential lots to be created on a quarter section. That was a precautionary measure to ensure that groundwater would not be depleted by too many wells drawing from a single aquifer. That concern was alleviated when the Water Act was passed in 1999. Section 23 requires a developer to provide a report by a professional engineer, geologist, or geophysicist, certifying that a diversion of 1,250 cubic metres of water per year for household purposes for each of the lots within the subdivision will not interfere with any existing household uses, licensees, or traditional agricultural users.

The County, in common with other rural municipalities, now takes the view that an engineer's report is sufficient to protect local water supplies. Consequently it is no longer necessary to limit lot numbers for that reason alone. The land use bylaw was therefore changed and "density restrictions shall be set at the discretion of council" (Bylaw 2015/10, Schedule B, clause 3.7(b)), with a major determinant being water supply. This is addressed in section 12 below.

5 Other affected municipalities

The County MDP requires that any proposed development within one mile of another municipality be referred to that municipality for comments (Policy 7.1.2).

Leduc County: The Barr property is one and a half miles south of the Leduc County boundary, putting it beyond the referral area.

Millet: The Barr property is one mile east of Millet. Although this is outside the fringe area, the developers referred this proposal to Millet for comments.

In an email dated 5 November 2015, copied to the County, the CAO said that "The Town of Millet does not have any comments with regard to this ASP."

JEDI: The Joint Economic Development Initiative (JEDI) is an agreement between the City and County of Wetaskiwin and the Town of Millet dealing with economic development, including the sharing of industrial and commercial taxes. The proposed Railside industrial subdivision on SE and SW 33-47-24-4, west of the Barr property, falls under this agreement. An area structure plan has been approved for the entire half section, and a 52 lot subdivision of the SW quarter was approved under file RW/ 07/70.

The subdivision was not completed, and appears to be at a standstill, although a certain amount of earth moving was done. If and when it proceeds, Railside and the Barr development should have very little impact on each other:

- Road access to Railside will be from TR 475 (to the south) with emergency access from TR 480 (to the north). There will be no access to the east from RR 243 and, as a result, no industrial traffic on that road.
- Railside will have a 20 metre wide landscaped strip of municipal reserve along its east boundary, adjacent to RR 243.

6 Slope and drainage

Map 4 shows contours at 5 foot vertical interval. They were produced by Stewart Weir, the surveying and engineering firm, for the 1976 subdivision application, but the land surface has not been altered since then.

The land is highest at 2,535 feet in the north-east corner and lowest at 2,515 feet in the south-west corner, a drop of 20 feet. Drainage runs west to east, from the range road into a ditch on the west side of the internal subdivision road. Some areas of trapped drainage stand out darker on the air photograph. They are shaded on Map 4. The design of the subdivision takes this into account, and ensures that all lots will have high, dry building sites.

7 Near Surface Water Table

Alberta Environment requires that a residential lot has a building site which is at least 1.8 metres (6 feet) above the standing water table during the frost-free part of the year, and 2.4 metres (8 feet) during the remainder of the year.

In July 2015 the developer had Dave's Bobcat Service drill five test holes across the property. Locations are shown on Map 4. All holes were at least two metres deep. All but one were dry when sounded the next day. The only hole to show **any** standing water was number five, where water was encountered at 2.6 metres (8.5 feet). **These** test locations thus meet Alberta Environment's standards for building sites.

County staff expressed some concern that proposed Lots 2 and 4 might have high water tables. Additional test holes were therefore drilled on 5 July 2016 to a depth of 2.1 metres. After stabilizing overnight, hole 6 was dry and hole 7 showed water at 1.95 metres. These depths were verified by County staff. Lots 2 and 4 therefore meet Alberta Environment's standards.

8 Proposed design

The developer proposes to create nine lots: eight new lots, plus the existing yard site. Every lot has a building site out of the depressional areas. In all cases, dimensions and areas are approximate, and may vary slightly when the plan of subdivision is prepared.

The proposed design is shown on Map 5. The existing 39.04 parcel is divided into eight new lots ranging in size from **3.5 to 4.1 acres**, plus the existing yard site which covers 6.9 acres. That is larger than the normal five acre maximum, but it is defined by the existing shelterbelt to the north and some pens and a stock waterer to the east.

Lot 1, the present yard site, will use its existing approach on to RR 243. Lots 2 and 3 will use the Pineridge Downs Road. Lots 4 to 9 will use a short cul-de-sac.

9 Road Standards

Pineridge Downes Road is built on a 30m right of way and does not require widening. RR 243 has been widened by 5 metres on the east side, for a total 25m right of way. Any further widening will come on the west side when Railside is developed. In summary, no road widening is required as a result of this subdivision.

County Policy 6615 sets the standards for road surfaces. Rules apply for both internal roads and linking roads.

Internal roads: Pineridge Downes road now has a light hard surface, while the range road north of that point has a gravel surface. County staff have indicated that this is adequate, and the developer will not have to upgrade either road to hot mix pavement (email dated 4 November 2015).

Linking road: A linking road is a County road that connects a subdivision to an existing paved road. In this case that is RR 243 south to TR 475. By email dated 7 November 2015, the County confirms that no further work is needed on this road.

Offsite roads: The developer acknowledges that he must pay the County \$2,000 per lot for the upgrading of offsite municipal roads used by his lots.

10 Municipal Reserves

When land is subdivided into multiple residential lots, the municipality has the right to take ownership of all undevelopable land as environmental reserve, and up to 10% of the developable land as municipal reserve (Municipal Government Act, sections 664 and 665).

There is no undevelopable land on the Barr property, so no environmental reserve is proposed.

The 1977 subdivision took a six metre strip of municipal reserve along the south and west side of the subdivision, covering 1.2 acres. Remaining reserves on the

entire quarter, 14.8 acres, were paid out in cash in the amount of \$25,280, or \$1,708 per acre.

This means that no further reserves are due.

11 Controls on Building Quality and Land Use

Country Residential zoning allows a wide range of building styles and quality. This has given rise to conflicts in some other subdivisions. With the consent of the County, the developer will avoid this by registering restrictive covenants on the titles of all lots, setting out standards for building size, quality, and maintenance, limiting livestock, forbidding the use of the land or buildings for commercial uses, and requiring proper maintenance of buildings and land.

Because the County will not be a party to these covenants, it will not be expected or required to enforce them; that will be done by individual lot owners through civil action.

12 Water Supply

Each of the lots will have an individual well. As there will be more than six lots on the quarter section, section 23 of the Water Act requires the developers to provide a report by a professional engineer, geologist, or geophysicist, certifying that a diversion of 1,250 cubic metres of water per year for household purposes for each of the lots within the subdivision will not interfere with any existing household uses, licensees, or traditional agricultural users.

Envirowest Engineering was engaged to analyze the availability of groundwater. Their report was based on an analysis of 26 well logs in 34-47-24-4 and a total of 59 well logs in the surrounding area. In the executive summary of their report, dated 11 September 2015, they stated:

The estimated water use for the proposed development is 1250 cubic metres per household per year or 30.8 m³/day for all the proposed parcels. This withdrawal rate represents 5.2% of the predicted long term safe pump rate for wells located in close proximity and 6.5% of the wells included in the assessment area. The long term safe pump rate is one which would unlikely impact water resources in the area and was based on a conservative estimate of 2/3 of the drawdown of a well being available for exploitation. An additional factor of 0.7 was applied to the safe withdrawal rate... It is concluded that the proposed withdrawal rate is unlikely to negatively affect the quantity or quality of groundwater resources in the area.

It should be noted that Envirowest's analysis is based on every household drawing 1250 cubic metres of water per year. EPCOR, the City of Edmonton's water supplier, says that a typical metered household uses only 222 cubic metres of water per year, less than one-fifth of the amount quoted in the Water Act. This provides another margin of safety.

13 Sewage Treatment

As noted above, the water table is at least 1.95 metres below ground at all tested locations, so conventional septic tanks and tile disposal fields can be installed.

The smallest lot in the subdivision will be 3.1 acres or 12,992 m². This is almost seven times the minimum size of 1,850 m² required for on-site sewage disposal under the Alberta Private Sewer Systems Standard of Practice.

All sewer systems will be constructed in compliance with the Provincial Safety Codes, and sites will be individually tested by a licensed plumbing installer prior to construction of the sewer system.

The County has indicated that it may in future impose an off-site levy on lots which have a private sewer system. This levy would be payable at the time of subdivision. The developer recognizes that he may have to pay this levy if the lots are registered after any such bylaw comes into effect.

14 Storm Water Management

High density development increases the amount and intensity of runoff from snow melt and heavy rainfall, and this can damage downstream watercourses. Alberta Environment therefore requires that the rate of runoff be no higher than it was before development. Section 7.1 of the County of Wetaskiwin's engineering design guidelines has a similar requirement.

Soils in the area are generally sandy, which results in a high percolation rate. Stewart Weir measured it as between two to ten inches (5cm to 25cm) per minute (subdivision application RW/76/104). Rainfall and snow melt therefore tend to be absorbed easily, reducing surface runoff.

Runoff is increased by hard surfaces. The total hard surface is estimated as follows:

Nine driveways, 5 metre driving surface times 100 metre length,
gives 4,500 m² of gravel surface

Roofs: Nine houses at 150 m² plus outbuildings at 50 m², gives 1,800 m² of roofs

Roadway: 180 metres long, 8m driving surface plus turning head, gives 1,450 m² of gravel surface

Total: 7,750 m² (1.9 acres) of hard surface. This is less than 5% of the 39 acres in the subdivision, so the increase in runoff intensity will be insignificant.

Because the increase in hard surface is so small, no storm water pond is proposed. However, if the County requires one, it can be put on a utility lot in the south-west corner of Lot 1, which is the lowest point in the subdivision. This would then drain south in the roadside ditch towards TR 475. As required by the MGA, the pond would be built by the developer and necessary land dedicated to the County at no cost.

15 Fire Protection

The County requires that rural subdivisions have a supply of water for fire protection. There are two ways of achieving this.

- Construct a fire pond on the Barr property. The County standard is 5,000 gallons (about 23 m³) per residence, so nine lots will require a 210 m³ pond. This can be accommodated on a 20x40 metre utility lot (less than a quarter of an acre). As with a storm water pond, the pond would be built by the developer and the land dedicated to the County at no cost.
- Use a Town of Millet fire hydrant. At present the closest hydrant is about 2,000 metres distant on the east side of Millet. Hydrants will be closer when Ralside is developed.

The developer prefers the second alternative. Ease of access outweighs the extra distance, and the County avoids the liability that can come with the operation of an open pond. In an email dated 5 November 2015, the Town's CAO wrote that "due to mutual aid agreements, water can be taken from a Town hydrant."

16 Subsequent changes to County policies

Should development not be started (defined as at least one lot registered) within two years of the adoption of this ASP, the plan may be subject to any new policy **or bylaw** adopted by Council after the date of ASP approval. Further, the developer acknowledges that if the subdivision is registered in phases, all policies and bylaws at the time of registration shall apply **to that phase**.

The developer or lot owner recognizes that the subdivision and development of the lots may also be subject to cost recovery for intersection upgrades at Highway 2A and TR 475. The County may impose such recovery in the form of a policy, bylaw, development agreement, or development permit.

17 Request for Approval

The landowner requests the County to repeal Bylaw 2015/59, the previous ASP for this land, and to adopt this plan in its place. The land has already been rezoned to Country Residential. A subdivision application will then be made immediately.

Appendix 1 Public participation

Sixty adjacent landowners were mailed a brief summary of the proposals and were invited to an open house to discuss them. The open house was held at the Millet Agriplex on 26 August 2015. Thirteen people attended, and they raised four issues.

Quality of the development: Several people wanted assurance that this would be a high quality development with good looking houses and no unsightly or incompatible land uses. It was felt that the County's land use bylaw and enforcement process might be insufficient to guarantee this. The developer's consultant explained that Mr Barr intended to register a restrictive covenant on each of the lots. This would set a higher standard than the County's rules, and it could be invoked by any of the landowners without requiring any action by the County.

Several people asked to have the terms of the restrictive covenant set out in the ASP, and the developer agreed to do this.

Shallow groundwater: One landowner, who has farmed in the area for many years, said that the near-surface water table was currently lower than in the past, so the tests referred to in the ASP might be misleading.

The consultant noted that the water table has dropped permanently throughout the area. "Lake No 1" in Nordic Place was claimed by the Crown as a permanent water body when the land was subdivided in 1977. It has since dried up. Similarly, a large slough in Lansdowne Park was dedicated as Lot 1 MR when the land was subdivided in 1979. It has also dried up. The construction of drainage ditches through Fairview Heights (easement plan 772 0092) and Lansdowne Park (easement plan 792 0247) has undoubtedly contributed to a general lowering of the local water table.

Furthermore, the highest standing water was found 2.6 metres (eight and a half feet) below the ground surface on proposed Lot 9. It could rise as much as 0.8 metres (about 30 inches) and still conform to Alberta Environment's standards for a full basement. Even then, there is higher ground on the same lot.

Road standards: One person asked if the roads would be paved. Mr Barr said hot mix paving was extremely expensive. The present light hard surface provided dust control, and the County has stated that this need not be upgraded.

Water supply: Landowners, especially those with cattle, wanted assurance that the additional wells would not deplete the local aquifer to the point where they had to drill deeper wells.

The consultant explained that before a subdivision could be approved, the developer had to demonstrate that the new wells would not interfere with any existing household uses, licensees, or traditional agricultural users. Mr Barr had therefore engaged a hydrogeological engineer to assess the aquifer. The results are noted in section 12 of this ASP.

There was some discussion about the future demand for groundwater by Millet and Rainside. The developer's consultant undertook to investigate this.

In an email dated 31 August 2015, the Director of JEDI informed the consultant that Millet will shortly tie in to Edmonton water. The Capital Region Water Services Commission has approved the project, the funding is in place, the engineering has been done, and the contract will shortly be let. It is expected that water will flow in the fall of 2016. The Town will then cease drawing water from its wells. That will reduce the demand on the local aquifer.

While Rainside remains in the County, it can only take 10% of its water needs from Millet, but if it is annexed into Millet it can take 100% of its water from the Town system, so there would be no demand on local groundwater. The County is unlikely to oppose annexation because the JEDI agreement allows for sharing of tax revenues between the two municipalities.

Appendix 2 Elements of a restrictive covenant controlling land use on subdivided lots

This appendix does not form part of the Area Structure Plan. It is attached for information only, at the request of several adjacent landowners. **As such, the County has not reviewed and will not enforce this restrictive covenant.**

The wording that follows sets out the intent of the covenant. It needs to be put into legally enforceable language.

Style and quality of buildings

Residences must have a minimum floor area (usable space) of at least 1,200 square feet, excluding attached garages.

Residences must be

- *either* built on site ("stick built")
- *or* modular or ready-to-move, and equal in quality and appearance to a site-built house.

Mobile homes and manufactured homes, characterized by a long, narrow footprint, low roof pitch, and small eaves overhangs, are not permitted.

Moved-in (pre-used) buildings are not permitted.

All buildings must be finished prior to use. Finishing includes complete siding, stucco, or other wall treatment.

Metal wall cladding is not acceptable on any residence or accessory building.

Accessory buildings must be no larger in height and area than the main building (dwelling) on the lot.

No accessory building may be constructed on a lot until there is a permanent residence on that lot.

Recreational vehicles, campers, etc may not be placed on a lot unless there is a permanent dwelling on that lot.

All buildings on a lot must be properly maintained.

Outside storage

No unlicensed or inoperable vehicle, or any unsightly material, may be stored on site unless it is inside a building, or invisible from the road and from neighbours' properties.

Livestock

No livestock other than common domestic pets may be kept on any lot, unless they are part of a 4H program.

No more than two dogs may be kept on any lot.

Dogs that are out of control must be removed from the property.

Commercial uses

No commercial vehicles may be stored or parked on a lot except during construction or maintenance of the buildings or landscaping on that lot.

Subject to the County's bylaws, a small scale business may be carried on inside the main building on a lot, provided that it is not visited by a significant number of clients, does not change the external appearance or residential character of the dwelling, and is carried on only by the residents of that dwelling.

Enforcement

The covenant will be mutually enforceable. All lots will be bound by it, and the owner of any lot can take legal action against any other owner to enforce it. The County will not be a party to the covenant, so an aggrieved owner does not need the County's consent to enforce his rights.