

BY-LAW NUMBER 2011/41

BY-LAW NO. 2011/41 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 subsequent subdivision and development of the area known as The Gravesen Area Structure Plan in (SE 26-47-24-W4M, Plan 012 3019, 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, an Area Structure Plan has been prepared for SE 26-47-24-W4M, Plan 012 3019, 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, 1994, Chapter M-26.1, and amendments thereto.

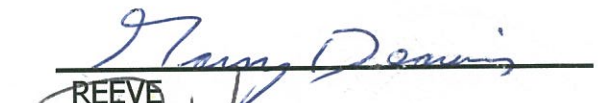
NOW THEREFORE: the County of Wetaskiwin No. 10, duly assembled, hereby enacts as follows:

1. The document attached to this By-law as "Appendix A", together with accompanying maps, is hereby adopted as the *"Gravesen Area Structure Plan in Lot 1, Plan 012 3019, (SE 26-47-24-W4M.)"*
2. Gravesen Area Structure Plan By-law 2011/33 is hereby repealed in its entirety and replaced by the Area Structure Plan, dated September 21, 2011.
3. This by-law comes into effect on the date of third reading.


READ: A First time this 13 day of October, A.D., 2011.

READ: A Second time this 13 day of October, A.D., 2011.

READ: A Third time and finally passed this 13 day of October, A.D., 2011.



REEVE



SECRETARY-TREASURER

"Appendix A"

By-law 2011/41- Gravesen Area Structure Plan

County of Wetaskiwin
Proposed Area Structure Plan
Lot 1 Plan 012 3019
Part of SE 26-47-24-4
Owners: Carl and Anni Gravesen
385380 Alberta Ltd

Adopted 13 October 2011 by Bylaw 2011/41
Replacing Bylaw 2011/33

Introduction

Carl and Anni Gravesen own the western 80 acres of SE 26-47-24-4, legally known as Lot 1 Plan 012 3019, and they wish to subdivide their land into twelve residential lots.

Map 1 shows the location of the Gravesen property. It is two and a half miles east of Millet, and six and a half miles north of Wetaskiwin.

As required by the County, the owners have 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.

Statutory Plans

The Millet-Wetaskiwin Acreage Study, adopted by the County as Bylaw 2004/28, identifies land which is suitable for subdivision into residential lots. Map 1 shows that the Gravesen property is inside that area. It is outside the area where proposed developments must be referred to the City of Wetaskiwin

Present and former use of the land

Map 2 is a recent air photograph of the land. About 30 acres has been cleared and is being used for agriculture. Most of the rest is in natural tree cover, plus one high, open area which is in grass. The CLI rates the soil as 60% 5st, 30%

4s, and 10% 6w. The light sandy soils make it difficult to raise a good crop, which is why the County has designated it as suitable for residential development.

To the best of the owners' knowledge, the land has never been used for any activity which might have contaminated the soil or groundwater.

Investigation of conflicting land uses

The County's policy on area structure plans requires that any conflicting land uses be identified. The following possible conflicts have been investigated, and where they affect the proposed subdivision they are shown on Map 3.

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

The closest sewer lagoon is 5,000 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 closest waste facilities (a transfer station and a former landfill) are over 3,000 metres to the west.

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.

The Gravesen property is a full quarter section away from Highway 814.

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.

Gerard and Natalie Bos operate a 300 cow dairy on NW 25-47-24-4. The size of the operation justifies an MDS of 1,179 metres. However, the County has adopted a policy of reducing the reciprocal MDS by 25% in the Millet-Wetaskiwin Acreage Area, which reduces the required setback to 884 metres. This affects about eight acres of the Gravesen property.

Airports:

The Gravesen property is about 12 km from Wetaskiwin Regional Airport, and about 26 km from Edmonton International Airport, and 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 Gravesen 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:

ERCB records held by West Central Planning Agency show no abandoned oil or gas wells on the property. There is one abandoned well in the ditch on the south side of Township Road 474, but it does not limit the use of the Gravesen property.

In summary, there are no conflicting uses which will prevent residential development on the Gravesen property outside the Bos MDS.

Historical and archaeological resources

As required by the provincial Subdivision and Development Regulation, a copy of this proposal was sent to the Historical Resources Division of Alberta Community Development with a request for comments.

In a letter dated 18 March 2011, the department said that a Historic Resources Impact Assessment is not required. The letter has been forwarded to the County under separate cover.

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.

Contours with a one metre vertical interval are shown on Map 4. The site contains several depressional areas where a high water table might be expected. Historic air photographs held by West Central Planning Agency show standing water in the past at several locations on the property, roughly corresponding to the 760 metre contour. However, when a two metre deep basement was excavated on Lot 1 in August 2010 at an elevation of 759.9 metres, no water was encountered, despite the wet summer.

It appears that local water table has dropped permanently. "Lake No 1" in Nordic Place was claimed by the Crown when the land was subdivided in 1977. It has since dried up. Similarly, a large slough in Lansdowne Park was dedicated as Lot 1MR 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 probably contributed to a general lowering of the local water table.

Nevertheless, the risk of high water table had to be addressed. On 15 July 2011 test holes were therefore drilled to a depth of three metres on three of the lowest locations proposed for development. The locations are shown on Map 4. In accordance with standard practice, the holes were covered, and left to stand for 24 hours. At the end of that time, holes number 1 and 3 were dry. Number 2 had about 15 cm of water in the bottom, indicating a stabilized water table 2.85 metres below ground. The separation between ground surface and water table thus exceeds Alberta Environment's requirements by more than one metre. This means that conventional basements and individual sewer systems can be constructed with no need to de-water or fill the sites.

Slope

The land contains some areas with steep slopes. The gradient on the side of the main hill is up to 15%. Experience on similar soils elsewhere in the district has shown that there is no risk of slope failure on these gradients.

A house with an exposed basement can be built on a 15% slope. However, every lot will also contain some areas of gentler slope to allow for a more conventional style of house, and for a sewage disposal field.

Proposed design

The proposed subdivision design is shown on Map 5.

Lots will be served by an internal road, with no direct access to TR 474. The first 130 metres of this internal road has already been built to give access to the house now being completed on Lot 1. It will be upgraded if necessary to meet County standards. The road will then run north along the edge of the trees, ending in a 40 metre turning head.

A second road will be built to serve lots on the hill on the east side of the property. It will stop part way up the slope so no part of the municipal road has an excessive gradient. The developers will cut and fill to create acceptable gradients for driveways into Lots 7 and 8.

The table on Map 5 shows lot sizes. Most are between 2.0 acres and 3.3 acres, but there are larger lots at the north end. Lot 3 has 16.4 acres, and Lot 4 has 25.2 acres. Lots of this size will be attractive to buyers who wish to run a few horses. (The County's land use bylaw allows horses on land zoned Country Residential provided they are at least three acres.) These larger lots will also act as a buffer between the small, purely residential lots to the south, and the agricultural land and Bos dairy to the north. Similar buffers have been created on the east side of Grandview Heights (the Flying Colours stable, on a 24 acre lot) and on the west side of Nordic Place (39 acres used as pasture) separating small residential lots from nearby farm land.

Because Lots 3 and 4 are larger than five acres, the developers request a relaxation of the normal five acre maximum on Country Residential lots

Road Standards

Roads will be built on a 20 metre right of way, with a five metre easement on both sides to accommodate utilities. All roads, culverts, and other improvements will be constructed to County standards.

As the subdivision will have only twelve lots, County Policy 6615 does not require that it be paved. It will therefore have a gravel surface with rural cross-section.

Again, as the subdivision will have only twelve lots, there is no requirement to pave the adjacent TR 474. However, Policy 6615 does require a contribution of \$2,000 per lot improve off-site roads. This will be paid immediately prior to registration of the lots.

A future owner wishing to re-subdivide Lots 3 and 4 must be made aware that this will require a new area structure plan, and will also trigger the requirement to pay further road contributions and to pave TR 474. The County should register caveats on both lots, under section 655 of the MGA, informing buyers of this obligation.

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).

In some cases, municipal reserve land is used for active, organized recreation. That was the purpose of Lot R10 in Fairview Heights. It seems unnecessary to create another active-use park on the Gravesen land, less than a mile away. Instead, it is proposed to dedicate land which has value as wildlife habitat, and which can also be used as part of a future walking trail system in the Millet area. The proposed reserve Lot 13MR meets those needs. Possible local trail linkages are shown on Map 6.

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. The developers will avoid this by constructing most of the houses themselves. Additionally, they will register 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.

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.

An investigation by Envirowest Engineering in May 2011 confirmed that there is sufficient water for the proposed lots. Envirowest's report has been forwarded to the County under separate cover.

Sewage Treatment

As noted above, the water table on the Gravesen land is at least 2.85 metres below ground, so conventional septic tanks and tile disposal fields can be installed.

Soil conditions are similar to those on the east 80 acres of this quarter, and across the road in Lansdowne Park. Percolation rates are within the acceptable range, and private sewage systems are working satisfactorily.

The smallest lot in the subdivision will be 7,900 m². This is more than three times the minimum size 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.

Storm Water Management

The Gravesen property is unusual in that it has almost no off-site flow of water. Because of the sandy nature of the soil, most of the snowmelt and rainwater are absorbed instead of running off. A large part of the runoff ends up in areas of trapped drainage north of the hill, and on the adjacent 80 acres.

Occasionally a small amount of water flows south and west on to Lot 1, thence into the drainage ditch on the north side of TR 474. The natural watercourse will be protected by easement.

Because of the low volumes of flow, and the limited hard surface following development, it does not appear necessary to create storm water detention ponds.

Map 7 shows the proposed storm drainage system.

Fire Protection

The County requires that all rural subdivisions have a supply of water for fire protection. The developers will therefore construct a fire pond, to County specifications, on a small utility lot between Lots 5 and 6.

Staging of development

Depending on market conditions, the subdivision may be developed in stages. The minimum for Stage One will be the Lots 1 and 12, containing an existing house and a house now under construction. The next stage will probably be the lots in the cul-de-sac, but this has not yet been decided. Staging will be discussed with the County at the time of subdivision.

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 adopted by Council after the date of its approval.

Public participation

The developers invited local people to an open house from 6:00 to 8:00 pm on 29 April 2011 at the Millet Agriplex. Invitations were mailed to about 50 nearby landowners. Invitations were also hand delivered to people whose property was adjacent to TR 474.

Seven landowners attended the open house:

Vivian Smith (and her two children)	SW 26-47-24-4 (subdivided lot)
Gerard Bos	NW 25-47-24-4 (farm quarter)
Norm Schmidt	SW 25-47-24-4 (farm quarter)
Jean and Pat Trottier	NE 23-47-24-4 (Lansdowne Park)
John and Jenny Fletcher	SW 30-47-23-4 (farm quarter)

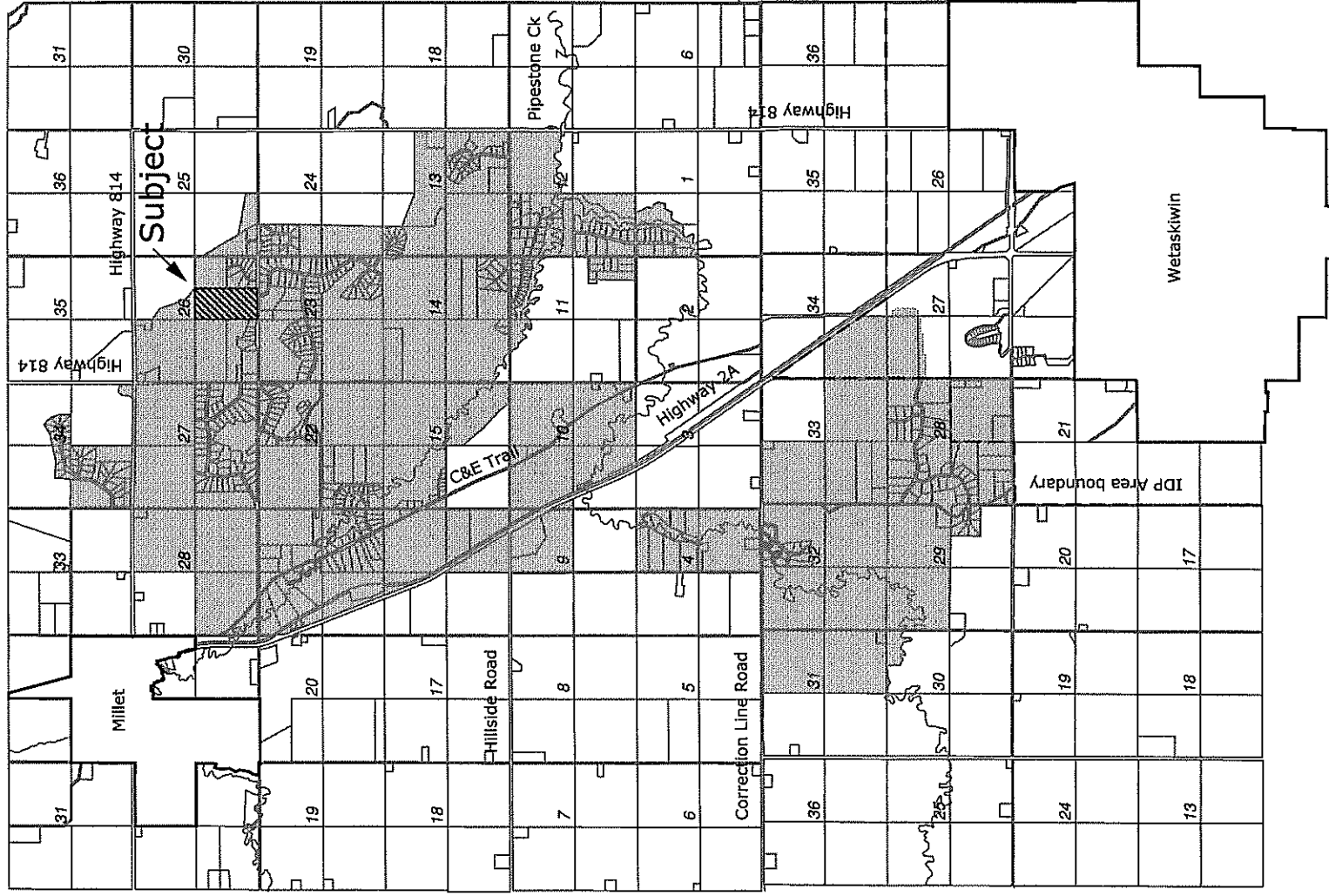
Those present offered no objections to the proposal to create residential lots.

The following issues were raised at the open house:

- Mrs Smith said that TR 474 was busy, but she agreed that so many people now used it that another 22 users would not make much difference. (The design shown at the open house was for 22 lots.)
- Mr Schmidt moves heavy equipment along TR 474, and he said that he was inconvenienced by the partial road ban (load limit) which the County has imposed to protect the light hard surface. However, he agreed that the proposed subdivision would not change his situation.
- Mr Bos, who operates the dairy on NW 25, said he did not want RR 241 opened to traffic south of his yard. He was pleased to see that all access will be from TR 474 and there are no plans to open RR 241.
- Mr Bos agreed that 884 metres was an adequate separation between his barn and the new lots.
- Mr Trottier said he had drilled his well in the early 1980s and it still gave a good supply of water.

Request for Subdivision Approval

The property already has Country Residential zoning, so as soon as this ASP is adopted by the County, the owners will make an application for subdivision approval.



Proposed Area Structure Plan
 Pt SE 26-47-24-4
 Map 1
 Location of the Gravesen Property

The areas shown shaded are noted as 'suitable for residential subdivision' in Bylaw 04/28, the Millet-Wetaskiwin Acreage Study

Subdivisions after the date of the bylaw are not shown on this map



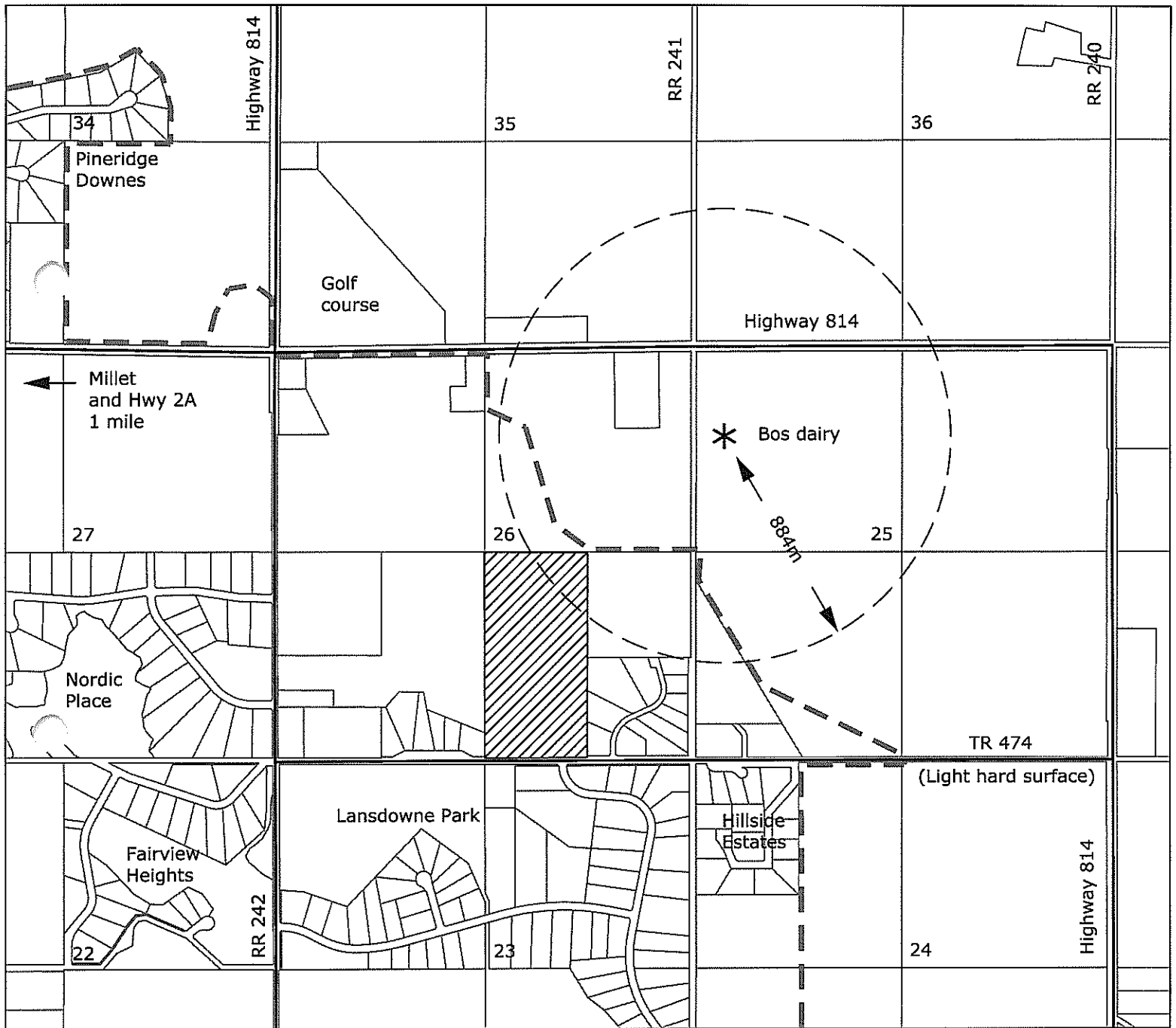
1 km




Proposed Area Structure Plan
Part of SE 26-47-24-4
Map 2
Recent Air Photograph

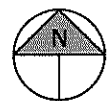


100m

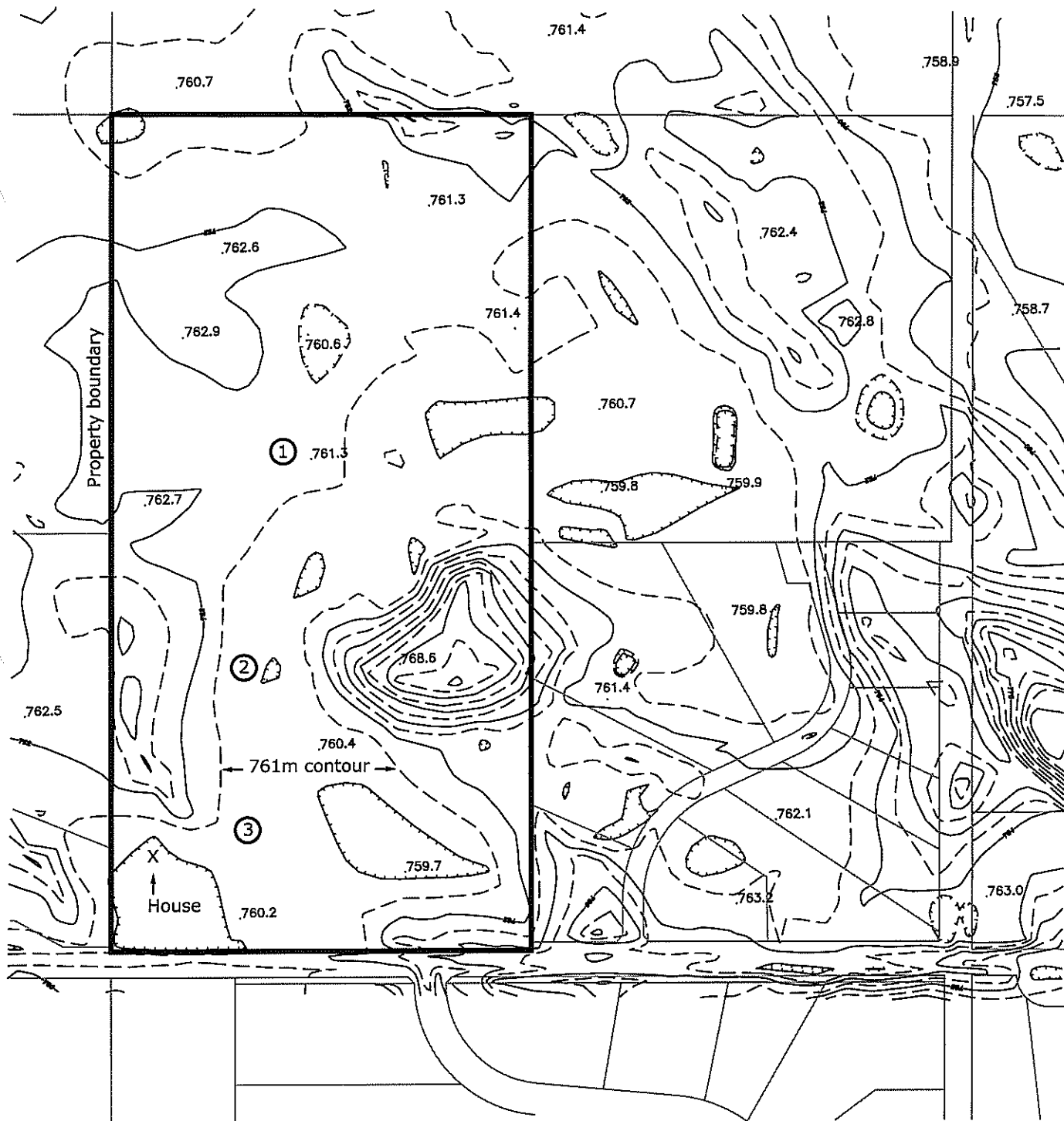


Proposed Area Structure Plan Pt SE 26-47-24-4 Map 3 Neighbouring Land Uses

- Paved grid roads
-  Gravesen property



500m



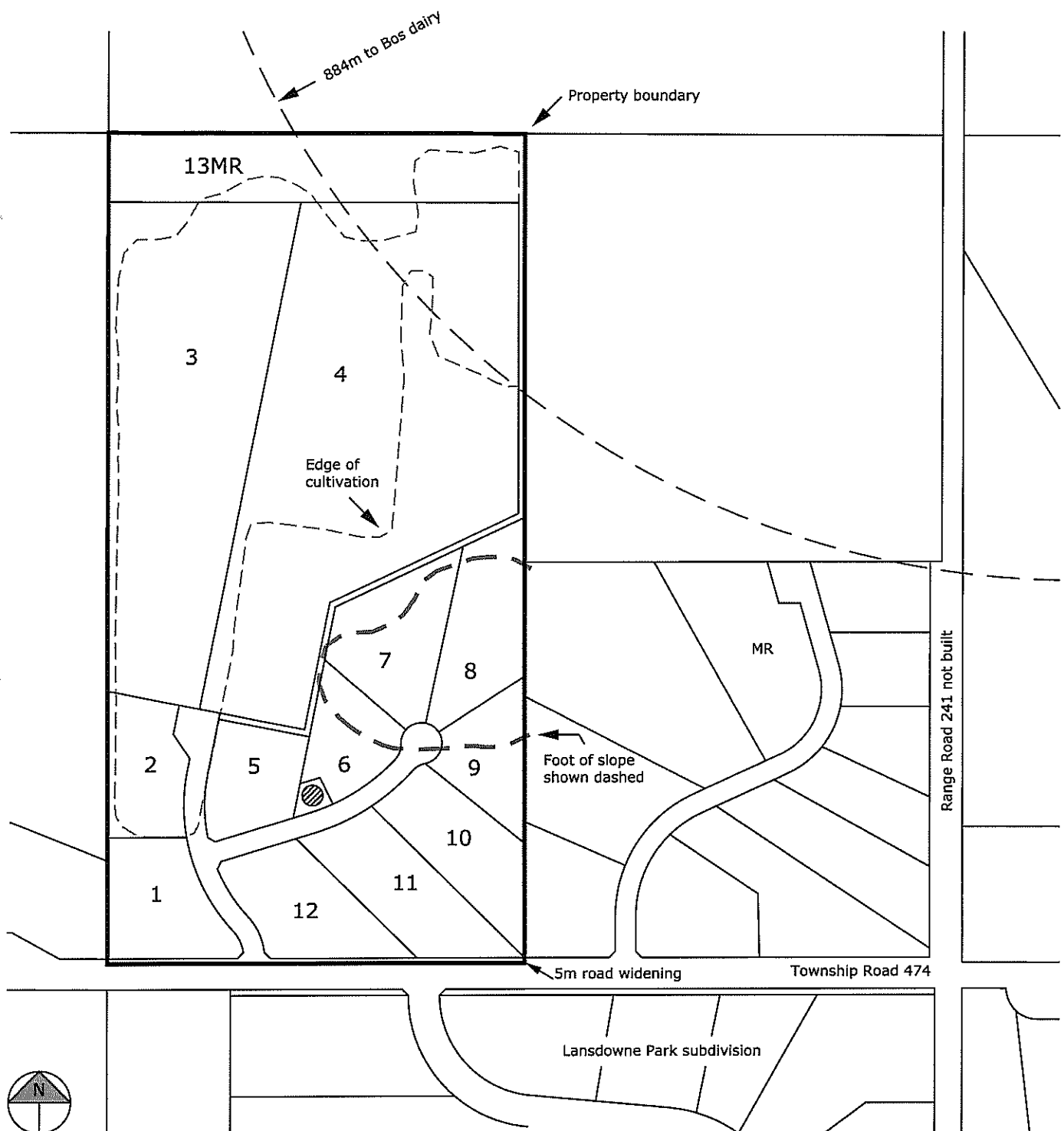
Proposed Area Structure Plan
 Part of SE 26-47-24-4
 Map 4
 Contours and Drainage

One metre vertical interval

Test hole locations ③



100m



Proposed Area Structure Plan
Part of SE 26-47-24-4
Map 5
Proposed Lot Layout

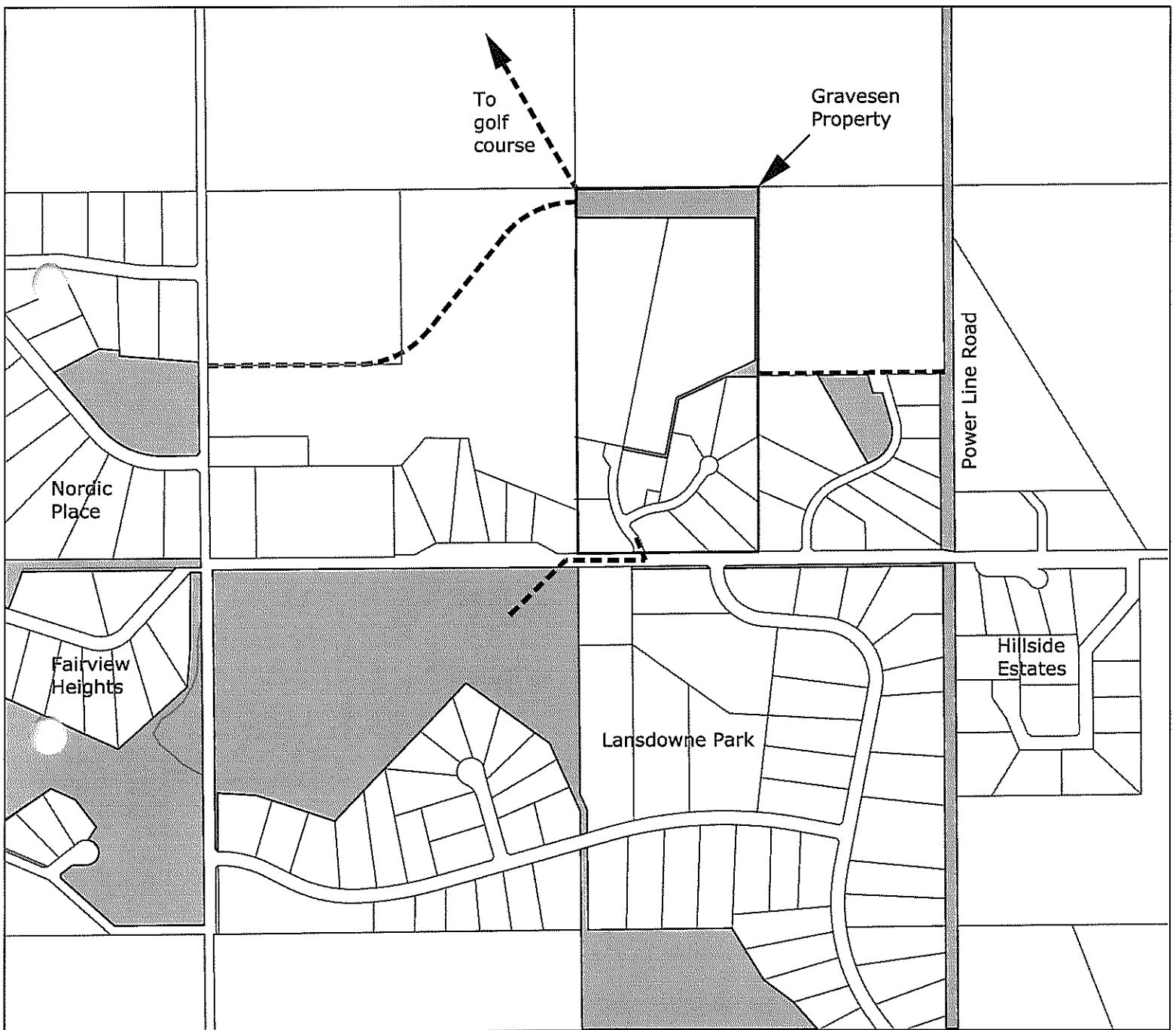
Fire pond on PUL

100m

Approximate Lot Areas

Lot	Ha	Acres	Lot	Ha	Acres
1	1.2	2.9	8	1.3	3.1
2	1.0	2.4	9	0.9	2.1
3	6.6	16.4	10	1.2	3.1
4	10.2	25.2	11	1.3	3.3
5	0.8	2.2	12	1.2	3.0
6	0.8	2.0	13MR	3.3	8.0
7	1.3	3.3	PUL	0.1	0.2

Lot boundaries may be adjusted slightly at time of survey




Proposed Area Structure Plan Pt SE 26-47-24-4

Map 6

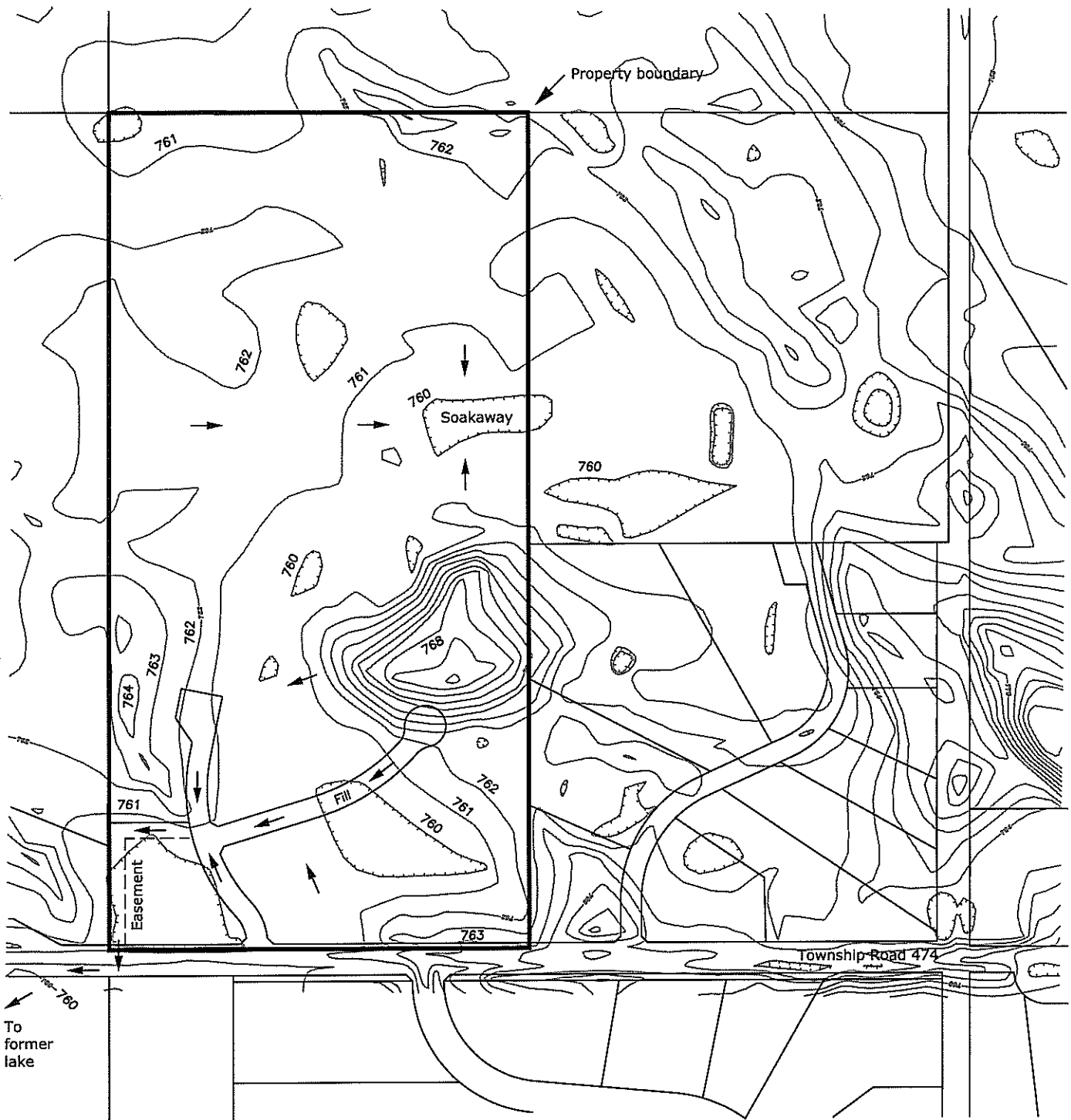
Possible walkways to other subdivisions

----- Linkage to possible future MR

 Reserves, Crown land, and undeveloped roads



500m



Proposed Area Structure Plan
Part of SE 26-47-24-4
Map 7
Proposed Storm Drainage System



→ Overland flow

100m