

# Deer Park Devonshire (Madge) Neighbourhood Area Structure Plan



Prepared for:



Melcor Developments Ltd.

Prepared by:



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May 7, 1998  
Revised October, 2000

**DEER PARK DEVONSHIRE (MADGE)  
NEIGHBOURHOOD AREA STRUCTURE PLAN**

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**1.0 Introduction**

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# DEER PARK DEVONSHIRE (MADGE) NEIGHBOURHOOD AREA STRUCTURE PLAN

## 1.0 Introduction

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### 1.1 PURPOSE

The purpose of this Neighbourhood Area Structure Plan is to describe the land use pattern and development objectives for a proposed 64.3 hectare neighbourhood unit within the East Hill Area Structure Plan (ASP) in the City of Red Deer (see Figure 1.0 - Location Plan).

The Neighbourhood Area Structure Plan will implement the general land use framework and development objectives set out in the East Hill ASP by identifying the type, size and location of various land uses, density of development, natural features, public facilities, location of collector and local roadways, conceptual servicing designs and the proposed sequence of development.

The Neighbourhood Area Structure Plan has been prepared on behalf of Melcor Developments Ltd., owners of the land within the proposed plan area.

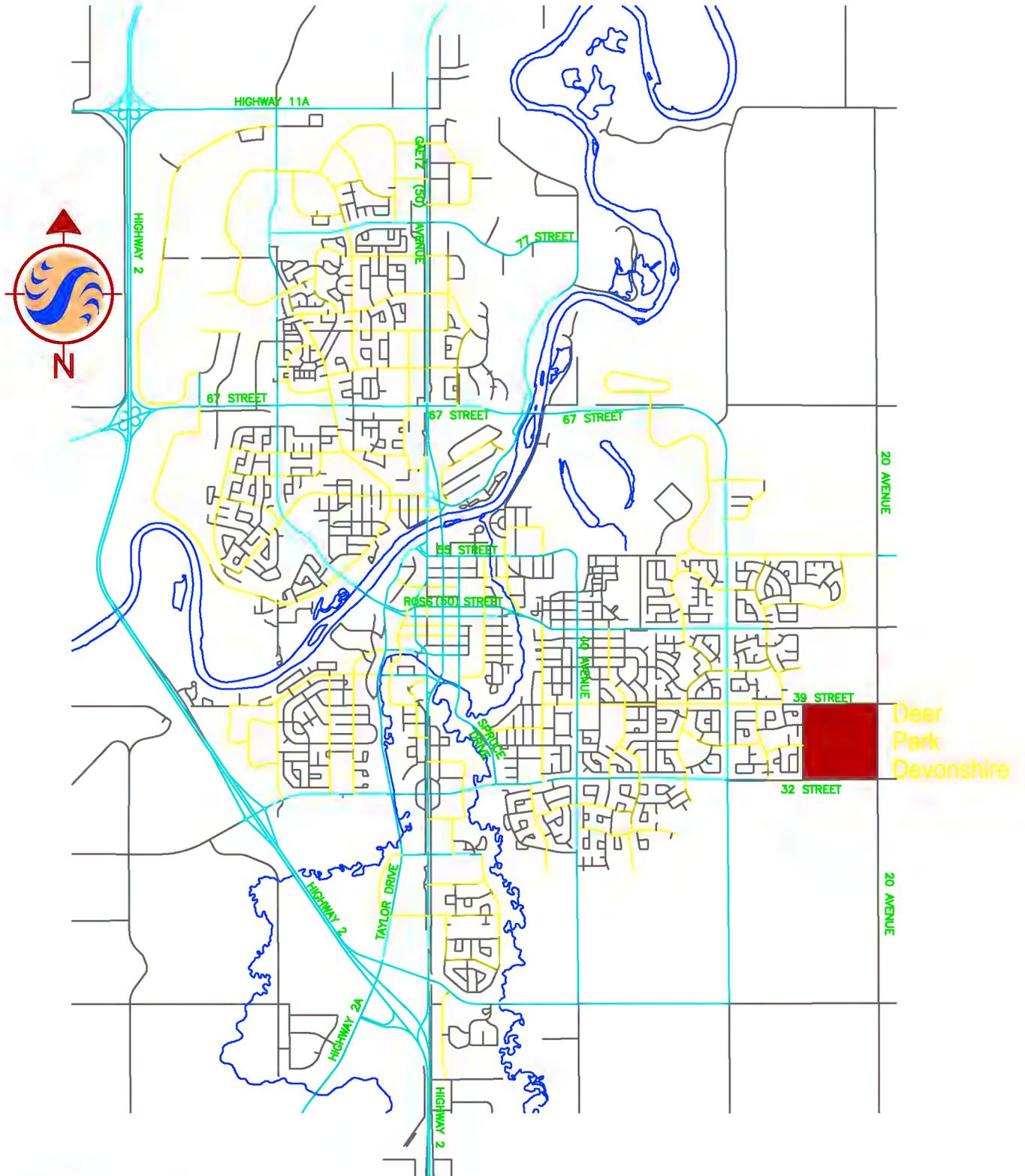
### 1.2 BACKGROUND

The East Hill Concept Plan was initially prepared in 1977-78 and adopted by Red Deer City Council in June 1978. The Concept Plan was subsequently revised in 1985 and 1989 to incorporate revisions to the plan boundaries, proposed land uses and the transportation network.

The East Hill Concept Plan was eventually adopted as an Area Structure Plan under Bylaw No. 3075/92 in September 1992 and subsequently revised by Bylaw No. 3075/A-93 in April 1993, Bylaw No. 3075/A-97 on January 26, 1998, in November 1993 under Bylaw No. 3075/B-93 and furthermore, Bylaw No. 3207/98 adopted APRIL 20 is the new revised East Hill ASP.

Development has taken place west of 30 Avenue in the East Hill ASP in the neighbourhoods of Clearview, Eastview, Morrisroe and Anders and east of 30 Avenue in the neighbourhoods of Rosedale, Deer Park and Lancaster.

A number of Neighbourhood Area Structure Plans, including this one, are in progress for quarter-sections further east of existing development all the way to the City boundary.



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DEER PARK DEVONSHIRE QUARTER SECTION  
 NEIGHBOURHOOD AREA STRUCTURE PLAN  
 CITY OF RED DEER

**FIGURE 1.0**  
 Location Plan

Scale 1:60,000

### **1.3 DEFINITION OF PLAN AREA**

The proposed Neighbourhood Area Structure Plan is comprised of the NE 1/4 of Section 11-38-27-4 containing 64.3 hectares. As shown on Figure 1.0 - Location Plan, the Neighbourhood Area Structure Plan is defined by the following general boundaries:

**Northern Boundary** Existing 39 Street

**Eastern Boundary** Future 20 Avenue (current boundary between the City of Red Deer and the County of Red Deer)

**Western Boundary** Existing residential development in Deer Park

**Southern Boundary** Future extension of 32 Street

The Neighbourhood Area Structure Plan constitutes a logical planning unit with respect to identifiable plan boundaries, land ownership and servicing considerations.

### **1.4 STATUTORY PLAN CONTEXT**

The East Hill Area Structure Plan provides general guidelines to facilitate the orderly development of the plan area in terms of proposed land uses, density of development, location of major roads and facilities and the sequence of development. The proposed Neighbourhood Area Structure Plan is a more detailed extension of the land use framework described in the ASP and is consistent with the objectives of that document, namely:

- to provide a framework and guidance for neighbourhood land use planning leading to subdivision and development.

The Neighbourhood Area Structure Plan provides a more detailed description of the proposed land uses consistent with the East Hill ASP as described in Sections 3.0 - Development Objectives & Principles and Section 4.0 - Development Concept.

- to guide City expansion in an orderly and economical manner with respect to the agricultural resources of the area.

The Neighbourhood Area Structure Plan describes a plan area contiguous with existing development in the Deer Park neighbourhood and is proceeding in conjunction with Neighbourhood Area Structure Plans to the north and south. Services to this Neighbourhood Area Structure Plan can be extended in an economical fashion as described in Section 5.0 - Engineering Services.

# DEER PARK DEVONSHIRE (MADGE) NEIGHBOURHOOD AREA STRUCTURE PLAN

## INTRODUCTION

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- to outline the location of roads, in keeping with the City's Transportation Study.

The Neighbourhood Area Structure Plan identifies the proposed collector and local roadway pattern and their relationship to the existing and proposed arterial roadway system.

- to provide for an open space and trail system, in keeping with the Community Services Master Plan.

The Neighbourhood Area Structure Plan reflects the legislative and policy requirements of the Municipal Government Act and the City of Red Deer Community Services Master Plan with respect to the dedication and use of municipal and environmental reserves.

**DEER PARK DEVONSHIRE (MADGE)  
NEIGHBOURHOOD AREA STRUCTURE PLAN**

**2.0 Site Context & Development Considerations**

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## 2.0 Site Context & Development Considerations

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### 2.1 TOPOGRAPHY AND NATURAL FEATURES

The topography of land within the proposed Neighbourhood Area Structure Plan is generally flat with elevations of 903 m in the west rising to 907 m on the east side of the quarter section as shown on Figure 2.0 - Site Features/Existing Contours. The land is cleared and currently used for agricultural purposes with the exception of a few low lying wetland areas in the northwest, northeast and southwest portions of the plan.

The City of Red Deer's *Ratzke/Deer Park Natural Area Ecological Profile* identifies four environmental zones within the proposed Neighbourhood Area Structure Plan and provides descriptions, development considerations and recommendations for each site:

#### 2.1.1 Zone 2 (H9 - 1TE)

This zone is the site of the Milstead Residence, an old farm house in the northwest corner of the plan area surrounded by a permanent wetland with several mature trees, natural vegetation and a variety of wildlife species.

The ecological profile recommends retaining the Milstead area as a park and considers retaining the residence as a youth club, woman's shelter or historical site. Given the age and condition of the dwelling, there may be only limited opportunities for conversion to another use.

#### 2.1.2 Zone 2 (H9 - 1WE)

This zone in the northwest corner of the plan area is the site of the permanent wetland adjacent to the Milstead Residence.

Based on its size and natural aspects, the ecological profile recommends the retention of this site, particularly if the Ratzke Residence and surrounding wetland north of the quarter section remain intact to provide a large natural area.

#### 2.1.3 Zone 4 (H9 - 3TE & 4TE)

This zone is a tree windbreak along the eastern edge of the plan area within the proposed 20 Avenue R/W. The profile recommends preserving the windbreaks and incorporating them into a linear bicycle path system along the edge of the plan.

#### **2.1.4 Zone 5 (H9 - 3WE)**

This zone is the site of a temporary wetland in the northeast corner of the Neighbourhood Area Structure Plan. The ecological profile recommends the retention of this area for use as a small natural park and integration along the proposed bikeway system.

### **2.2 EXISTING LAND USES**

The quarter section is currently districted as A1 (Future Urban Development) District. It is being used for agricultural purposes and contains an older farmhouse in the northwest corner.

The farmhouse is currently occupied by Mrs. Lily Madge who has a short term lease with Melcor Developments Ltd. to occupy the house until July 1, 2000 (or earlier if she chooses to vacate the premises).

### **2.3 EXISTING TRANSPORTATION NETWORK**

Roadway access to the quarter section is available via 39 Street which is currently built to a rural standard. 32 Street and 20 Avenue have not been developed adjacent to the Neighbourhood Area Structure Plan. The future collector roadway access points from the west are built to urban standard up to the eastern boundary of the quarter section.

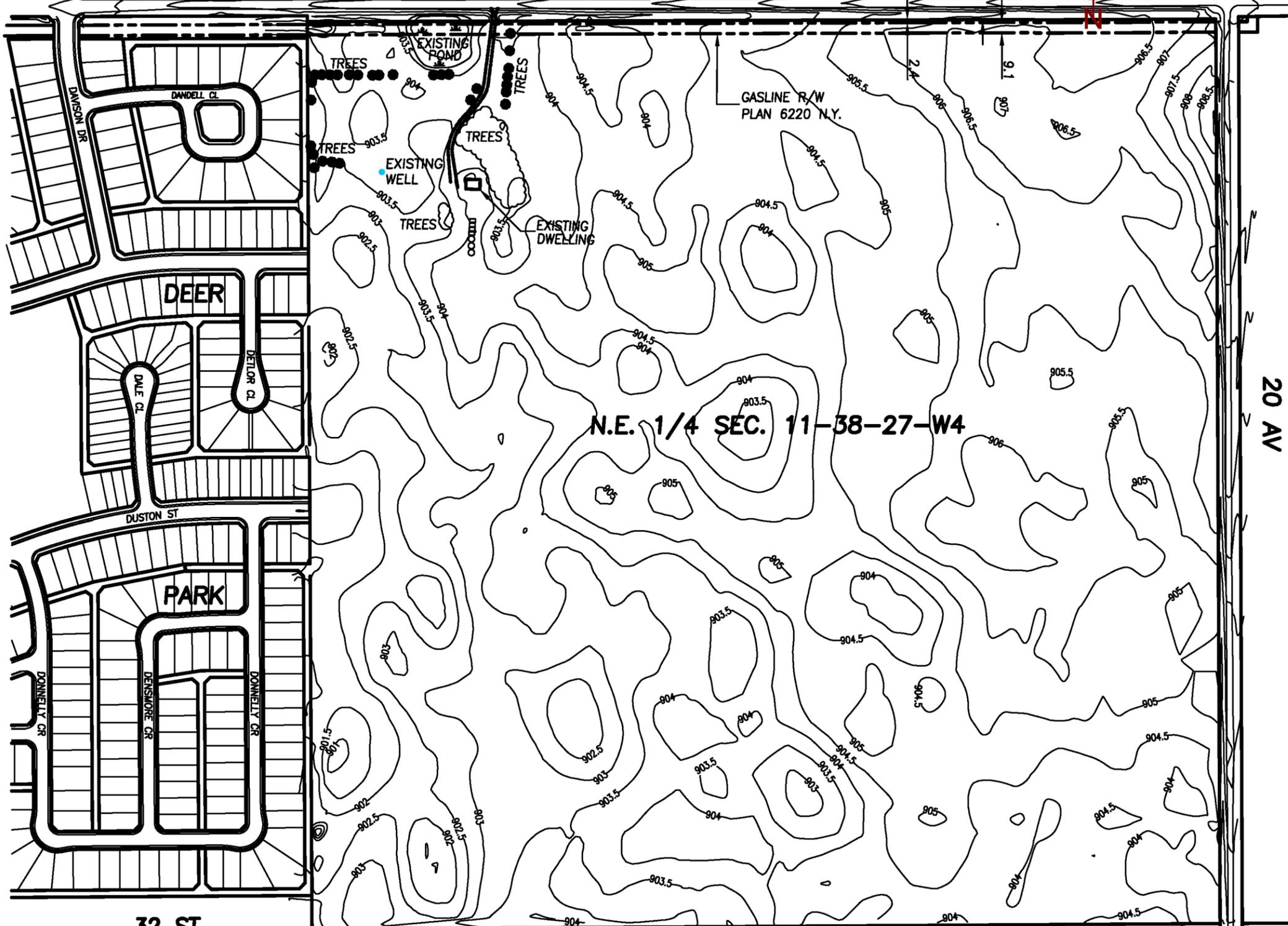
See Section 4.3 for a discussion on the future transportation network in and adjacent to the Neighbourhood Area Structure Plan.

### **2.4 ENVIRONMENTAL LEVEL ONE ASSESSMENT**

AGRA Earth & Environmental completed a Phase I Environmental Site Assessment (ESA) for the subject lands in July, 1997. The assessment consisted of a historical review of the site and surrounding properties, interviews with local municipal and provincial agencies, a site inspection of the property and buildings and the preparation of a summary report. The ESA found no evidence of any significant environmental concerns and the property was rated as "low" in terms of environmental risk.

S.E. 1/4 SEC. 14-38-27-W4

39 ST



N.E. 1/4 SEC. 11-38-27-W4

32 ST

S.E. 1/4 SEC. 11-38-27-W4



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CLIENT

MELCOR DEVELOPMENTS LTD.

PROJECT

DEER PARK DEVONSHIRE  
(MADGE) QUARTER SECTION  
N.E. 1/4 SEC. 11-38-27-W4

SUBJECT

SITE FEATURES  
EXISTING CONTOURS

SCALE

1:4000

DESIGNED BY

R.W.

DRAWN BY

F.C.

CHECKED BY

APPROVED BY

CADD FILE NAME

12870120\FIG2.DWG

SHEET No.

OF

JOB No.

128-70120

REVISION

FIGURE

DATE DRAWN

OCTOBER, 2000

STATUS

2.0

**DEER PARK DEVONSHIRE (MADGE)  
NEIGHBOURHOOD AREA STRUCTURE PLAN**

**3.0 Development Objectives & Principles**

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## **3.0 Development Objectives & Principles**

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### **3.1 DEVELOPMENT OBJECTIVES**

The Neighbourhood Area Structure Plan has been prepared as a comprehensively planned residential neighbourhood taking advantage of both the natural features and the location attributes of the area.

The main objectives of the Neighbourhood Area Structure Plan are:

- to develop a plan consistent with the general intent and purpose of The East Hill Area Structure Plan.
- to provide a framework to deliver a high quality, comprehensively planned residential area by defining the collector and arterial roadway network, the type, size and location of land uses, linkages, location of park sites/open space, servicing designs and development staging.
- to integrate natural features of the area into the plan where feasible and environmentally sustainable.
- to allow implementation of the plan on an orderly, staged basis with flexibility to adapt to changing market conditions.

### **3.2 DEVELOPMENT PRINCIPLES**

Development of the various land uses within the Neighbourhood Area Structure Plan is defined through the following general principles:

#### **3.2.1 Residential**

- Provide for a mixture of low and medium density housing forms consistent with consumer preferences and in conformance with municipal standards and policies.
- Identify the proposed zoning of the residential areas and ensure a smooth transition of lot sizes and housing forms within the Neighbourhood Area Structure Plan and with respect to existing residential development to the west.

- Establish sufficient overall densities to support the efficient provision of educational facilities, recreational facilities and municipal services such as public transit both within the Neighbourhood Area Structure Plan (where applicable) and the East Hill Area Structure Plan.
- Locate residential development so as to take advantage of natural and man-made features such as stormwater management facilities, walkways and park space.

### **3.2.2 Transportation**

- Provide a safe, logical and efficient hierarchy of transportation systems within the plan area to address the pedestrian, bicycle, public transit and automobile transportation needs of residents moving to, from and within the Neighbourhood Area Structure Plan.

### **3.2.3 Parks & Open Space**

- Provide a central park site and open space linkages within the Neighbourhood Area Structure Plan through the dedication of municipal reserves and in conjunction with walkways to address the active and passive recreation needs of residents.
- Incorporate unique and sustainable environmental areas into the open space and park system where practicable through the dedication of municipal reserves.
- Investigate the feasibility of incorporating the Milstead Residence and surrounding property into the parks and open space system.
- Incorporate park space into the stormwater management system with the application of dual use facilities.

### **3.2.4 Social Facilities**

- Provide sites for a public day care facility, a social care residence and a church in appropriate locations within the Neighbourhood Area Structure Plan consistent with the requirements of the Planning & Subdivision Guidelines.

**DEER PARK DEVONSHIRE (MADGE)  
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**4.0 Development Concept**

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## **4.0 Development Concept**

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The development concept for the Neighbourhood Area Structure Plan has been prepared in response to current and anticipated residential market trends in the City of Red Deer.

The following sections describe the development concept for the Neighbourhood Area Structure Plan in response to the development objectives and principles outlined in Section 3.0 and contained within the East Hill Area Structure Plan.

### **4.1 NEIGHBOURHOOD UNIT**

The Neighbourhood Area Structure Plan is comprised of 64.3 hectares and is bound on three sides by existing and proposed arterial roadways and on the fourth side by existing residential development to create a logical planning unit as shown on Figure 3.0 - Development Concept / Land Use.

### **4.2 RESIDENTIAL**

The majority of land within the Neighbourhood Area Structure Plan is intended for residential development as shown on Figure 3.0. The pattern of the collector and local roadways allows the development of residential land uses in clusters to help distinguish the various segments and to provide a greater sense of identity of these sub-units with the plan.

On the western edge of the Neighbourhood Area Structure Plan where the property adjoins the existing residential development in Deer Park, similar zoning has been applied to ensure a smooth transition of development and to maintain the character of the neighbourhood.

A mix of low and medium density residential dwelling units is proposed and will be further refined based on market conditions and consumer preferences at the time of development. The current market conditions are now calling for smaller lots for starter homes ( R1N ) and in order to accommodate more of these lot types the South East corner layout has been revised to provide for R1N lots. The following Table outlines predicted populations for the development based on the landuse areas and densities.

<b>Land Use</b>	<b>Area (Ha)</b>	<b>Density (Units/Ha)</b>	<b>Density Persons/Unit</b>	<b>Population</b>
R1	22.4	20	3.4	1520
R1N	8.95	26	3.4	787
R1A	1.31	32	2.8	122
R2/R3	4.62	40	2.5	460

#### **4.2.1 Residential Low Density District (R1)**

As shown on Figure 3.0, single detached low density housing developed under the R1 District has been generally located throughout the neighbourhood to take advantage of the amenity offered by the stormwater management facilities, walkways and parks/open space.

Lot dimensions within the R1 District will adhere to the Land Use Bylaws and are envisioned to be in the range of 12.0 m to 15.0 m in width and approximately 32.0 m to 35.0 m in depth. New development adjacent to the existing housing in Deer Park to the west will reflect similar housing styles and sizes.

#### **4.2.2 Residential Narrow lot District (R1N)**

As shown on Fig 3.0, single detached narrow lot housing have been identified in the South East portion of the neighbourhood.

Dimensions of R1N lots will adhere to the requirements of the Land Use Bylaw and will typically range in the width of 10.4m to 11.5m (per unit) and have a minimum depth of 36.6m

#### **4.2.3 Residential (Semi-Detached Dwelling) District (R1A)**

As shown on Figure 3.0, a number of small blocks of semi-detached housing development have been identified within the Neighbourhood Area Structure Plan in the South West portion of the plan.

**LEGEND**

- R1 - Residential (Low Density)
- R1N - Residential (Narrow)
- R1A - Residential (Semi-Detached)
- R2/R3 - Residential (Multi Family)
- R1 - Social Care/Day Care/Church
- MR - Municipal Reserve
- PUL - Public Utility Lot

- Two Storey Walkouts
- - - Pedestrian linkages

**STATISTICS**

	HECTARES	PERCENT
Total Gross Area	64.3	100.00
32 Street Dedication	2.22	37.64
20 Avenue Widening	1.70	15.03
R/W Plan 6220 N.Y.	0.82	2.20
4.74		7.75
Total Developable Area	59.56	0.74
R1 - Residential	22.42	6.05
R1N - Residential	8.95	1.81
R1A - Residential	1.31	2.80
R2/R3 - (Multi Family)	4.62	13.91
R1 - Social	0.44	
MR - Municipal Reserve	6.05	
PUL - Public Utility Lot	1.81	
Roads/Lanes	13.91	23.68



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**MELCOR DEVELOPMENTS LTD.**

CLIENT

PROJECT **DEER PARK DEVONSHIRE  
(MADGE) QUARTER SECTION  
N.E. 1/4 SEC. 11-38-27-W4**

SUBJECT **DEVELOPMENT CONCEPT  
LAND USE**

SCALE

1:4000

DESIGNED BY

DRAWN BY

CHECKED BY

APPROVED BY

SHEET No.

OF

CADD FILE NAME  
12870552 YFG3.DWG

JOB No.  
128-70552

REVISION  
4

DATE DRAWN  
May 2002

FIGURE  
3.0

STATUS



S.E. 1/4 SEC. 14-38-27-W4

S.E. 1/4 SEC. 11-38-27-W4

Semi-detached housing has been located along the collector road contiguous with the existing semi-detached housing located in Deer Park. Other segments of semi-detached housing have been located adjacent to the stormwater management facility in the southwest to provide opportunities for more up-scale housing with amenity views.

Dimensions of R1A lots will adhere to the requirements of the Land Use Bylaw and will typically range in width from 8.0 m to 10.0 m (per unit) in width and 32.0 m to 35.0 m in depth.

#### **4.2.4 Residential (Multiple Family) District**

Three R2/R3, multiple family parcel has been identified in the southwest, northwest and central portion of the plan along the main collector roadway adjacent to the park site. These sites will provide for medium density housing opportunities within the Neighbourhood Area Structure Plan while ensuring that the additional traffic generated by the site will not significantly impact on the low density areas in the rest of the neighbourhood.

Opportunities for walkout basements are envisioned for lots backing onto the stormwater management facility in the southwest portion of the neighbourhood and potentially adjacent to the existing natural area in the northwest.

Areas designated for R1, R1A and R2/R3 development are shown in Figure 3.0.

### **4.3 PARKS & OPEN SPACE**

A number of park and open space amenities have been identified within the Neighbourhood Area Structure Plan including a 3.68 hectare park in the central portion of the neighbourhood along the collector road.

A small, 0.37 hectare park site has been located in the southeast corner of the neighbourhood to provide a recreation area within the cell.

The wetland and natural area surrounding the Milstead Residence in the northwest has been dedicated as 1.0 hectares of municipal reserve in order to preserve the features and to provide a pleasant amenity for residents of the neighbourhood.

A 1.0 hectare portion of the stormwater management facility in the southwest portion of the neighbourhood has been identified as municipal reserve.

#### **4.4 SOCIAL FACILITIES**

As directed by the Community Services Master Plan, a 0.12 hectare Social Care Residence and a 0.13 hectare Public Day Care Facility have been designated in the Neighbourhood Area Structure Plan in the south central portion of the neighbourhood along the main collector roadway. These sites were selected for their easy access while at the same time integrated within the community.

A 0.19 hectare Church site has also been identified in the plan along the collector road at the intersection of 32nd Street. This site provides easy access to the Church from a main arterial and limits the amount of traffic entering the neighbourhood. Should these sites not be purchased for their intended use, then they would be developed as residential R1 or R1A.

#### **4.5 PROPOSED TRANSPORTATION NETWORK**

A hierarchy of roadways and pathways are proposed for the Neighbourhood Area Structure Plan to provide convenient, safe and efficient access for residents traveling to, from and within the neighbourhood.

##### **4.5.1 Arterial Roadways**

The Neighbourhood Area Structure Plan is bound on two sides by proposed arterial roadways: 32 Street and 20 Avenue. As noted earlier in the report, only 39 Street currently exists and it is only developed to a rural standard. There are no roadways currently built within the 32 Street and 20 Avenue road right-of-ways.

NOTE: 32<sup>nd</sup> Street has been extended to Daines Avenue and 39<sup>th</sup> Street is scheduled to be upgraded to an urban cross section in the 2000 construction schedule.

##### **4.5.2 Collector Roadways**

There are two collector road loops within the proposed Neighbourhood Area Structure Plan as directed by the East Hill Area Structure Plan. The main collector is an extension of Duston Street coming east from Deer Park and loops its way through the middle of the site and north to 39 Street with one access south to 32 Street. The secondary collector loop is an extension of Dowler Street and segments the northwest portion of the plan as it winds its way north to 39 Street.

The collector roadways have been designed according to City standards and range from 20.0 m wide for undivided to 28.0 m wide for divided roadways. Medians will be employed at the entrances to the collectors off 39 Street and 32 Street as well as at

select locations throughout the plan to provide for entrance features. These medians are shown on Figure 3.0.

#### **4.5.3 Local Roadways**

The local roadway system provides access to most of the individual lots throughout the neighbourhood. Local roadways have been designed according to City standards and the right-of-way widths range from 15.0 m for undivided roads to 22.0 m for portions with median dividers.

In locations where cul-de-sac designs have been employed, their length is within City standards.

#### **4.5.4 Laneways**

The vast majority of lots within the neighbourhood have been planned with rear laneways with the exception of most of the lots backing on to the stormwater management facility and park space. Rear laneways will be designed according to City of Red Deer standards and are shown as 6.0 m in width.

#### **4.5.5 Bicycle/Pedestrian Pathways**

As directed in the Community Services Master Plan, a bicycle/pedestrian pathway has been identified along the southern and eastern boundaries of the Neighbourhood Area Structure Plan.

Internal pathways have been designed to accommodate pedestrian movements between park spaces throughout the development. These internal pathways also link to the City's major trail system along 32nd Street and 20th Avenue. Figure 3.0 illustrates the location of these pathways.

### **4.6 NEIGHBOURHOOD PARK PLAN**

The Neighbourhood Park Plan shown in Figure 3.0 identifies the arrangement of various playing fields and park facilities in the park areas provided, including a skating rink, ball diamond, soccer field, playground and sliding hill. This plan was developed in cooperation with the City of Red Deer Community Services.

DEER PARK DEVONSHIRE (MADGE)  
NEIGHBOURHOOD AREA STRUCTURE PLAN

## 5.0 Engineering Services

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## 5.0 Engineering Services

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### 5.1 STORMWATER DRAINAGE

#### 5.1.1 Site Drainage

The existing Madge 1/4 section (64.3 ha.) topography generally slopes from the Northeast to the Southwest with a small portion of the Northwest corner (9 ha.) sloping to the North. The servicing plan developed for the City of Red Deer in the study entitled "The City of Red Deer, Red Deer South Areas Servicing Study", prepared by Al-Terra Engineering Ltd. in association with J. N. MacKenzie Engineering Ltd. dated June, 1990 has been closely followed for developing the stormwater drainage concepts for this area. The report recommends development of a stormwater detention facility in the southwest corner of the quarter section, to capture runoff from the area and release it at a controlled rate to the City storm sewer to the south across 32nd Street.

The South Area Servicing Study also identified a small area (approximately 9 ha) in the northwest corner of the development, to drain north across 39th Street. It is however our understanding that City modeling has shown there is no additional capacity remaining in the storm system to the Northwest. Although there is a small wetland storm retention area proposed for the Northwest corner we have allowed for the majority of the flows from this area to be included in the Southwest stormwater detention facility.

There is an additional 16.5ha. of land in the existing Deerpark subdivision to the west which drains overland to the Southwest corner of this subdivision. The City have identified that runoff in excess of the minor system from this area must be included in the sizing of the stormwater detention pond.

#### 5.1.2 Stormwater Storage Facilities

The detention pond in the Southwest area will function as a storage facility for storm events in excess of the required release rate from the development. The minor storm system (underground pipes) and the major storm system (overland flow) will be designed so that storm events in excess of the design minor storm event will back up onto the streets and the stormwater detention pond. The detention pond will then release water at the controlled release rate of 0.1174m<sup>3</sup>/s, via a small diameter pipe, to existing City facilities in the Lancaster Meadows subdivision.



### **5.1.3 Minor Storm System**

The minor storm system shown in figure 4.0 will consist of underground pipes designed to accommodate a 1:5 year storm event. The minor storm system for this development is proposed to consist of 3 collection systems converging in the stormwater detention area with one overflow inlet/outlet structure. The study area does not currently have any storm sewer servicing and will therefore require a new trunk storm sewer system to connect from the stormwater pond facility to the existing south area City storm system thru the Lancaster Meadows subdivision.

### **5.1.4 Major Storm System**

The major storm system will be designed to convey stormwater in excess of the minor storm, overland to the stormwater detention pond. Water ponding because of flow controls in catch basins will be directed overland along streets, lanes or other designated routes to the stormwater detention pond. Design of streets, lanes and other drainage routes will allow for the storage of stormwater in trapped lows, while ensuring that buildings will be protected from flooding during a major storm event.

## **5.2 SANITARY SEWER**

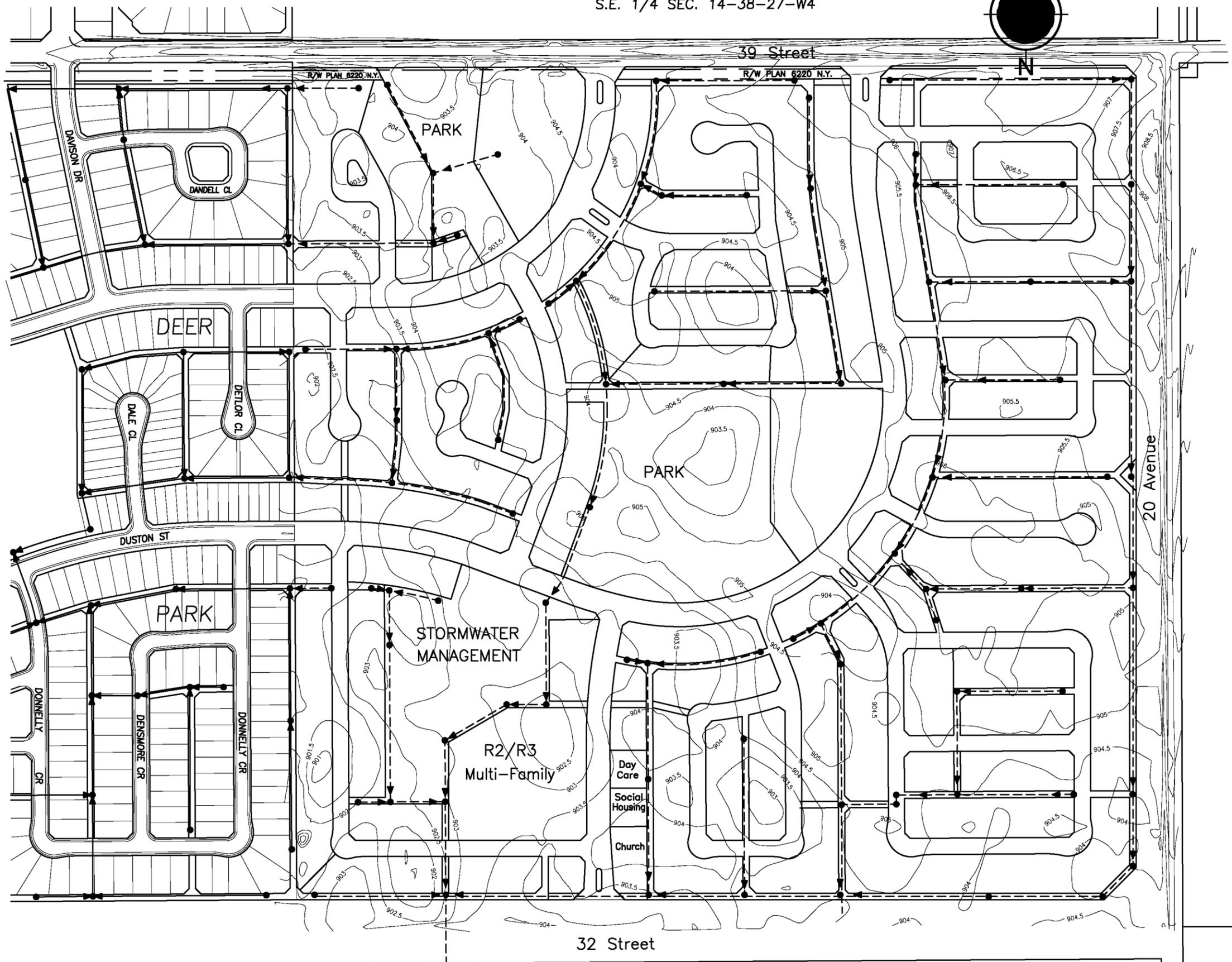
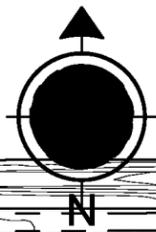
### **5.2.1 Off-Site Sanitary Sewer**

Sanitary sewer service to the area closely follows the system developed in the Red Deer South Area Servicing Study. The majority of the site will be serviced by a sanitary sewer trunk in the Southwest corner of the site connected to the City system thru the Lancaster Meadows Subdivision. The small area (approximately 9 ha) in the Northwest corner that was originally designed to connect to the sanitary sewer trunk to the north across 39th st. will be connected to the existing Deer Park sewer system to the west. A review of the capacity of the existing sanitary sewer system in the Deer Park subdivision to the west indicates there is additional capacity to accommodate these flows.

### **5.2.2 On-Site Sewer System**

The general slope of the land is from a high elevation in the northeast corner of 907 to a low elevation in the southwest corner of 901. The sanitary sewer system will be designed as 3 separate systems that merge together on the development, at the southwest corner and flow to the Lancaster Meadows sewer system. Small portions of the development abutting the existing Deer Park subdivision to the west, will flow into the existing sewer system in that subdivision.

S.E. 1/4 SEC. 14-38-27-W4



**LEGEND**

-  EXISTING GROUND CONTOUR
-  PROPOSED STORM SEWER MAIN
-  MANHOLE



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CLIENT

**MELCOR DEVELOPMENTS LTD.**

PROJECT

**DEER PARK DEVONSHIRE  
 (MADGE) QUARTER SECTION  
 N.E. 1/4 SEC. 11-38-27-W4**

SUBJECT

**SITE SERVICING  
 SANITARY SEWER**

SCALE

**1:4000**

DESIGNED BY

DRAWN BY

CHECKED BY

APPROVED BY

R.W.

F.C.

CADD FILE NAME

12870120\FIG6.DWG

SHEET No.

OF

JOB No.

128-70552

REVISION

3

FIGURE

**5.0**

DATE DRAWN

FEBRUARY, 2002

STATUS

## 5.3 WATER DISTRIBUTION

### 5.3.1 Off-Site Water Services

No off-site water service extensions are required to service this development. The major trunk main grid installed in the Deer Park Development to the west, will be continued in this development.

### 5.3.2 On-Site Water Services

The existing 250mm diameter water trunk mains along 32nd Street and 39th Street will be extended to 20th Avenue. A 300mm diameter trunk main along 20th Avenue will connect these two trunk mains. There will be a 200mm diameter link through the development between the existing Deer Park Development on the west to the 300mm diameter trunk main on 20th Avenue, as well as a 200mm diameter trunk main link through the development between 32nd Street and 39th Street. The trunk mains and the internal water distribution system is shown on Figure 6.0

## 5.4 SHALLOW UTILITIES

There are no major servicing concerns regarding shallow utilities. All shallow utilities will be extensions of those already in place.

## 5.5 DEVELOPMENT STAGING

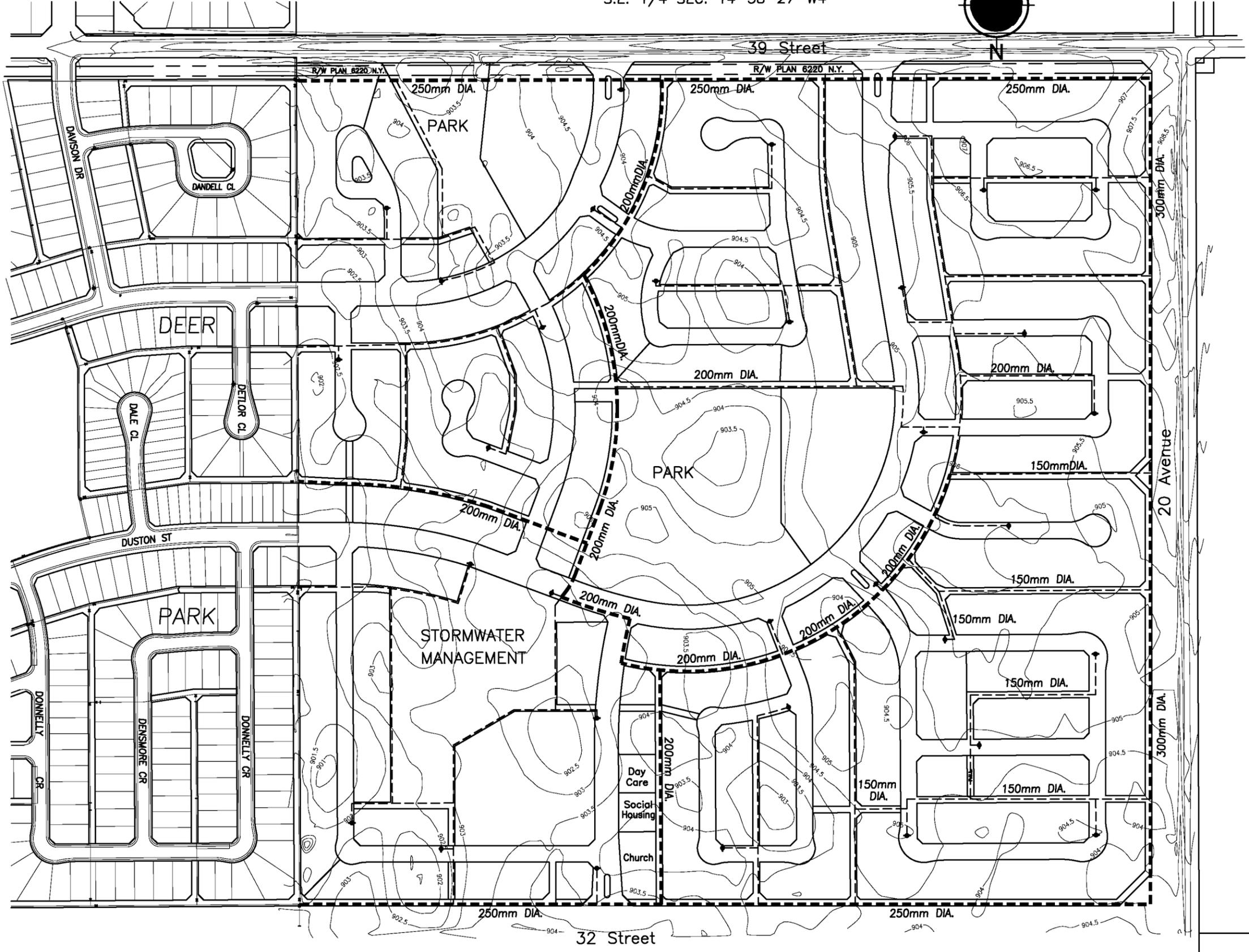
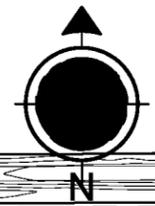
The attached Figure 7.0 outlines the proposed staging for the Development.

The Proposed Staging Plan is based on availability of servicing and economics of development. The initial Stage 1 is shown in the southwest corner of the development and will include construction of the stormwater management pond facility and extension of the storm and sanitary sewer trunk mains from 32nd Street. The remainder of the stages have been set out in a logical orderly fashion. However, it may be necessary to adjust these stages in the future based on market driven needs or economics.

The area shown as Stage 3 can not be developed before the year 2000 due to an existing lease contract to the resident at the Lily Madge homestead.

Each of the stages may be broken down further into smaller construction phases based on consumer demand.

S.E. 1/4 SEC. 14-38-27-W4

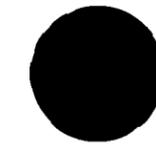


**LEGEND**

- EXISTING GROUND CONTOURS
- - - PROPOSED WATERMAIN 150mm DIAMETER
- - - - PROPOSED WATERMAIN LARGER DIAMETER
- - - -> PROPOSED FIRE HYDRANT & LEAD

**NOTE:**

ALL PROPOSED WATERMAINS 150mm DIA. UNLESS NOTED OTHERWISE.



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PROJECT

**DEER PARK DEVONSHIRE  
(MADGE) QUARTER SECTION  
N.E. 1/4 SEC. 11-38-27-W4**

SUBJECT

**SITE SERVICING  
WATER**

SCALE

**1:4000**

DESIGNED BY

DRAWN BY

CHECKED BY

APPROVED BY

R.W.

F.C.

CADD FILE NAME

12870552\FIG7.DWG

SHEET No.

OF

JOB No.

128-70552

REVISION

3

FIGURE

**6.0**

DATE DRAWN

FEBRUARY, 2002

STATUS

**LEGEND**

----- Staging Boundaries



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PROJECT

**DEER PARK DEVONSHIRE  
(MADGE) QUARTER SECTION  
N.E. 1/4 SEC. 11-38-27-W4**

SUBJECT

**DEVELOPMENT STAGING**

SCALE

**1:4000**

DESIGNED BY	R.W.
DRAWN BY	F.C.
CHECKED BY	
APPROVED BY	

CADD FILE NAME

12870552\FIG8.DWG

SHEET No.

OF

JOB No.

128-70552

REVISION

3

FIGURE

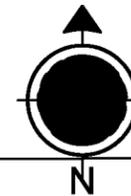
**7.0**

DATE DRAWN

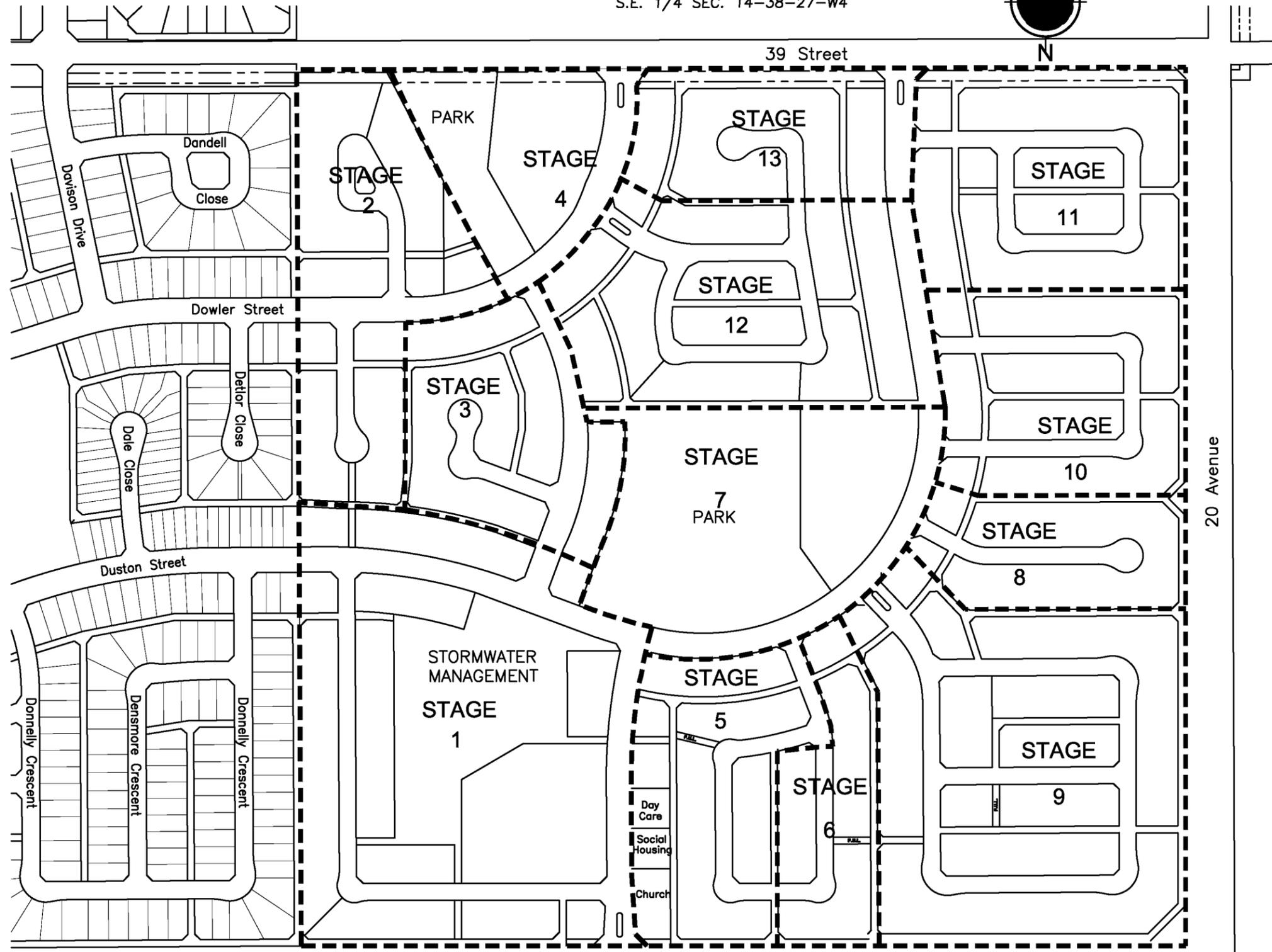
FEBRUARY, 2002

STATUS

S.E. 1/4 SEC. 14-38-27-W4



39 Street



32 Street

S.E. 1/4 SEC. 11-38-27-W4