CITY OF KELOWNA **MEMORANDUM**

DATE:

September 19, 2008

TO:

City Manager

FROM:

Planning & Development Services Department

APPLICATION NO. Z07-0016

APPLICANTS:

National Society of Hope

(Contact: Luke Stack)

AT:

OWNER:

2059-2129 Benyoulin Ct. 2170 Benvoulin Ct. 2175 Benvoulin Ct.

National Society of Hope National Society of Hope Jabs Construction Ltd.

PURPOSE:

TO REZONE PORTIONS OF THE SUBJECT PROPERTIES FROM THE A1 - AGRICULTURE 1 ZONE TO THE RM5 - MEDIUM DENSITY

MULTIPLE HOUSING ZONE IN ORDER TO DEVELOP A COMPLEX

FOR AFFORDABLE SENIOR'S HOUSING.

EXISTING ZONE:

A1 - AGRICULTURE 1 ZONE

PROPOSED ZONE: RM5 - MEDIUM DENSITY MULTIPLE HOUSING ZONE

REPORT PREPARED BY: NELSON WIGHT

1.0 RECOMMENDATION

THAT Rezoning Application No. Z07-0016 to rezone portions of the following subject properties:

Lot A District Lots 128 and 142, O.D.Y.D., Plan KAP85660, Except Plan KAP86951

Lot 1, District Lot 128, O.D.Y.D., Plan KAP84354

Lot A, District Lot 128, O.D.Y.D., Plan KAP86945, Except Plan KAP86951

located on Benvoulin Court, from A1 - Agriculture 1 to RM5 - Medium Density Multiple Housing, in accordance with Map "A" be considered by Council:

AND THAT the zone amending bylaw be forwarded to a Public Hearing for further consideration:

AND THAT final adoption of the zone amending bylaw be considered subsequent to the requirements of the Works & Utilities Department being completed to their satisfaction;

AND THAT final adoption of the zone amending bylaw be considered subsequent to the lot line adjustments necessary to create proposed Lots A, B, and C;

AND THAT final adoption of the zone amending bylaw be considered in conjunction with Council's consideration of a Development Permit on the subject property.

AND FURTHER THAT final adoption of the zone amending bylaw be considered in conjunction with Council's consideration of a Development Variance Permit on the subject property.

2.0 SUMMARY

The subject properties are in a contiguous block between Benvoulin Court and Benvoulin Road. In this initial application for rezoning, the northern 1.97 ha is proposed to be rezoned to the RM5 - Medium Density Multiple Housing zone in order to develop a complex for affordable senior's housing. An accompanying subdivision application seeks to separate the land area

into three different ownership blocks. The applicant intends to develop the first 164 units of housing on proposed Lot B, with the option to mirror this development on proposed Lot C.

There are accompanying Development Permit and Development Variance Permit applications in stream, which will be forwarded to Council in the future, should this rezoning application receive favourable consideration.

3.0 ADVISORY PLANNING COMMISSION

At a meeting held on March 14, 2007, the Advisory Planning Commission passed the following motion:

THAT the Advisory Planning Commission supports Rezoning Application No. Z07-0016, for 2059 - 2129 Benvoulin Court, Lot 1, Plan 82214, Sec. 21, Twp. 26, ODYD, by National Society of Hope (L. Stack), to rezone the subject properties from the A1 - Agriculture 1 zone to the RM5 - Medium Density Multiple Housing zone in order to develop a complex of affordable senior's housing;

4.0 BACKGROUND

This development cell referred to as the "Benvoulin Triangle" was created with the realignment of Benvoulin Road, connecting directly to Dilworth Drive. This realignment resulted in an expansion of developable land east of Benvoulin Court. These lands were removed from the Agricultural Land Reserve in 2003, and designated for multiple-family (medium density) development within the Kelowna 2020 – Official Community Plan. The lot to the north is under application by Ledingham McCallister for 500 apartment housing units. The proposed Lot A, south of the subject property and owned by Jabs Construction, is not under application at this time.

Vehicle access to this project by National Society of Hope will initially be provided from Benvoulin Court. However, a reciprocal access easement is to be registered between proposed lots A, B, and C, such that access to Benvoulin Road at Mayer Road would also be possible.

Please refer to attached drawings illustrating the proposed development, in addition to the applicant's letter, dated May 2, 2008, which provides design rationale, as well as an explanation for the requested variances.

The proposed development meets the requirements of the RM5 – Medium Density Multiple Housing zone, as follows; conflicts with the Zoning Bylaw requirements are detailed immediately following the table:

CRITERIA	PROPOSAL	RM5 ZONE REQUIREMENTS
	Subdivision Regulations	
Lot Area (m²)	9,900 m ²	1,400 m ²
Lot Width (m)	30.5 m	30.0 m
Lot Depth (m)	40.8 m	35.0 m

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Development Regulations					
Floor Area Ratio	1.16	1.2 (1.1 + 0.15 bonus for 73% or required parking provided underground)			
Site Coverage	40%	40% (buildings) 60% (buildings, parking			
	60%	areas, and driveways)			
Height .	15 m	16.5 m or 4 storeys			
	4-storeys	Total III of 4 diologs			
Front Yard	6.0 m	6.0 m			
Side Yard (north)	4.5 m	4.5 m (< 2 ½ storeys)			
	7.5 m	7.5 m (> 2 ½ storeys)			
Side Yard (south)	4.5 m	4.5 m (< 2 1/2 storeys)			
Gido Tara (Godin)	7.5 m	7.5 m (> 2 ½ storeys)			
Rear Yard	7.3 m ^A	9.0 m			
Projections	(meets requirements)	maximum 0.6 m			
Other Regulations					
Building Frontage	(meets requirements)	No continuous building frontage shall exceed 40.0 m for a 3 or 4 storey building			
Minimum Parking Requirements	170 spaces ^B	Residential: 1.5 per 2-bdrm unit/ 1.25 per 1-bdrm unit Total required: (52 units x 1.5 = 78) + (112 x 1.25 = 140) = 218 spaces			
Small Car Parking Spaces	23 small car spaces	Maximum 40% small car 218 x 40% = maximum 88			
Visitor Parking	(not apparent on drawing)	1 stall for every 7 dwelling units is to be designated for visitor parking = 164 / 7 = 24 spaces of 164 required.			
Bicycle Parking	Inside: 162	Residential			
	Outside: 18	Inside: 0.5/unit = 82 Outside: 0.1/unit = 17			

Private Open Space	5,000 m ²	15.0 m ² of private open space shall be provided per 1-bdrm dwelling, and 25 m ² for 2-bdrm dwelling. 15 m ² x 112 = 1,680 m ² 25 m ² x 52 units = 1,300 m ²	
Landscaping	(meets requirements)	Level 2 and 3 buffer required.	

A The applicant is applying to vary the rear yard setback requirement from 9.0 m to 7.3 m.

5.0 ZONING AND USES OF ADJACENT PROPERTY

North A1 – Agriculture 1
East A1 – Agriculture 1
South A1 – Agriculture 1

West RM5 – Medium Density Multiple Unit Housing

6.0 CURRENT DEVELOMPENT POLICY

6.1.1 City of Kelowna Strategic Plan (2004)

Goal #1 - To maintain, respect, and enhance our natural environment.

Goal #2 - To foster a strong, stable, and expanding economy.

Goal #3 - To foster the social and physical well-being of residents and visitors.

6.1.2 Kelowna Official Community Plan (OCP)

Future Land Use

The subject properties are designated "Multiple Unit Residential – Medium Density" in the OCP. Consequently, the proposal to rezone to the RM5 – Medium Density Multiple Housing zone is consistent with that designation.

Objectives for Residential Development

- All development should be an appropriate response to its physical context, or anticipated future context where an area is designated for increased density or land use transition in the OCP;
- All development should contribute to a sense of community identity and sense of place (integration of development within larger community belonging, community cohesiveness);
- All development should facilitate access by, and minimize conflicts among pedestrian, bicycle, and vehicular modes of transportation (access, mobility);
- All development should promote safety and security of persons and property within the urban environment (CPTED);

Housing Policies:

 Housing Agreements: Support the use of housing agreements to assist in creating affordable and special needs housing;

^B The applicant is seeking to vary the parking requirement from 218 stalls to 170.

Affordable and Special Needs Housing: Encourage the private sector to provide housing that is innovative and affordable and that is targeted to groups identified in the Housing Study, a Housing Reserve Fund Bylaw, or a list published by the City;

7.0 PLANNING AND CORPORATE SERVICES DEPARTMENT COMMENTS

Traffic Concerns

Development of these remaining lands within the "Benvoulin Triangle" presents significant challenges with respect to vehicle and pedestrian movements, given the proximity to three arterial roads (Springfield, Benvoulin, and Cooper). In order to assess that impact, a comprehensive traffic impact study was prepared by Ward Consulting, incorporating proposed development of all three holdings west of Benvoulin Road (Ledingham McCallister, National Society of Hope, and Jabs), in addition to the proposed Farmer's Market development east of Benvoulin Road. In reviewing that report, Staff have made the following observations (see attached Transportation Division Comments):

- The project as outlined in the TIS and the traffic analysis carried out indicates that the operational levels of service and congestion exceed those that the Transportation Department normally consider as acceptable.
- There are some points in the traffic impact study that need to be addressed before implementation
 - The mitigation measures mentioned in the report.
 - The numbers of pedestrians and how they will cross and impact the roads.

Despite the fact that the operational levels will be less than optimal at full build-out of this development cell, Staff maintain their support for this rezoning application, since this RM5 density is supported by the Kelowna 2020 — Official Community Plan. Unfortunately, the background traffic in this area (assuming a reasonable growth rate) will result in operational levels below acceptable standards with or without the +/- 900 residential units targeted for this area under the current OCP. Further discussions will be necessary between the applicant and Transportation Division Staff to address those points listed above.

Development Variance Permit

With regard to the relaxation of the rear yard setback, Staff has no concerns, given (a) the proposed future development on the site to the north should not be impacted by this minor reduction, and (b) the rationale behind the reduction is to enhance some of the courtyard areas between the buildings.

The reduction in the parking provided is not only supported by Staff, but strongly encouraged. The National Society of Hope has experience in providing this form of housing and is well aware of the parking demands of the future tenants. Construction of any surplus parking that would go unused is a waste of resources that could be better spent on reducing the housing cost. Furthermore, the location of this facility is within reach of various amenities (e.g. shopping, Mission Park Greenway, etc.) through other modes of transportation (walking, cycling, transit, scooters, etc.), or using one of

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the pool vehicles. In this case there appears to be good reason not to satisfy this parking requirement.

Conclusions

This project seeks to provide a much-needed form of housing, at an affordable price, and in a location which allows for alternate modes of transportation to nearby commercial and recreation amenities. For those reasons, Staff recommends that this project be supported.

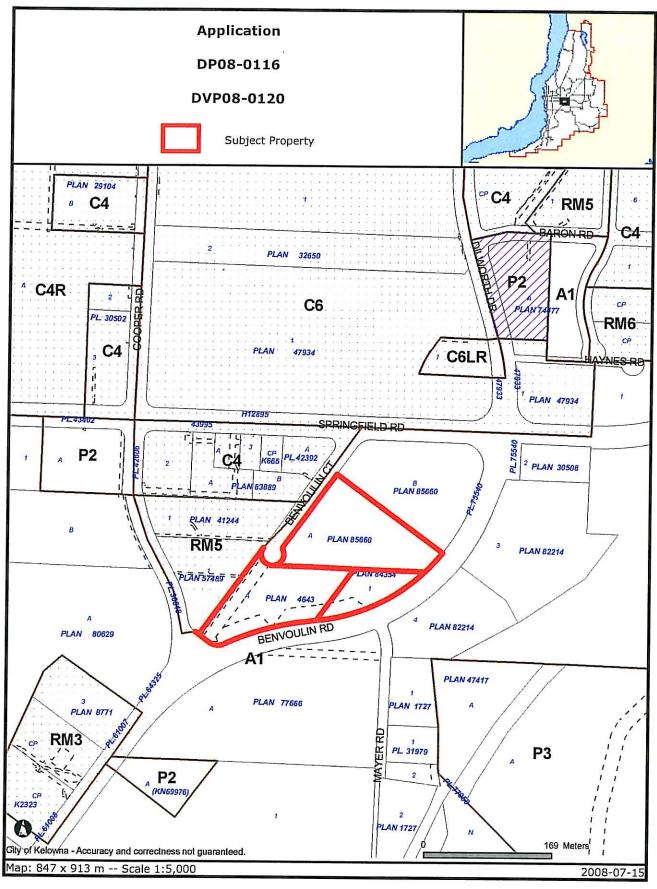
Shelley Gambacort

Planning and Development Services

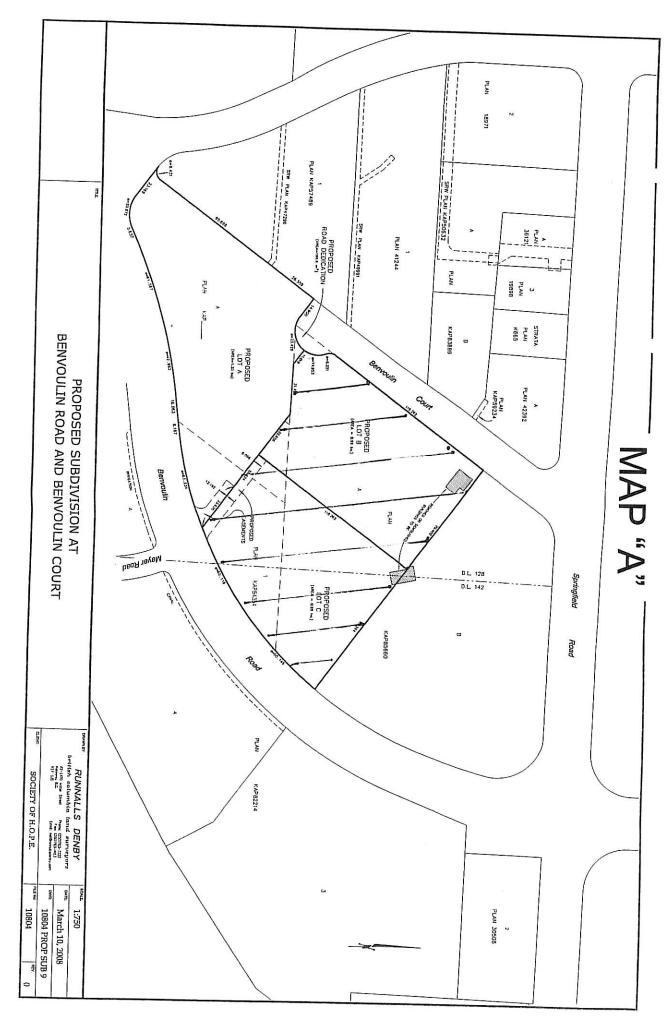
NW/nw

ATTACHMENTS

Location of subject property
Map "A"
3-D Rendering and Project Stats
Site Context Plan
Landscape Plan
Letter from Applicant
Works and Utilities Report, dated September 18, 2008
Transportation Division Comments and Appendix

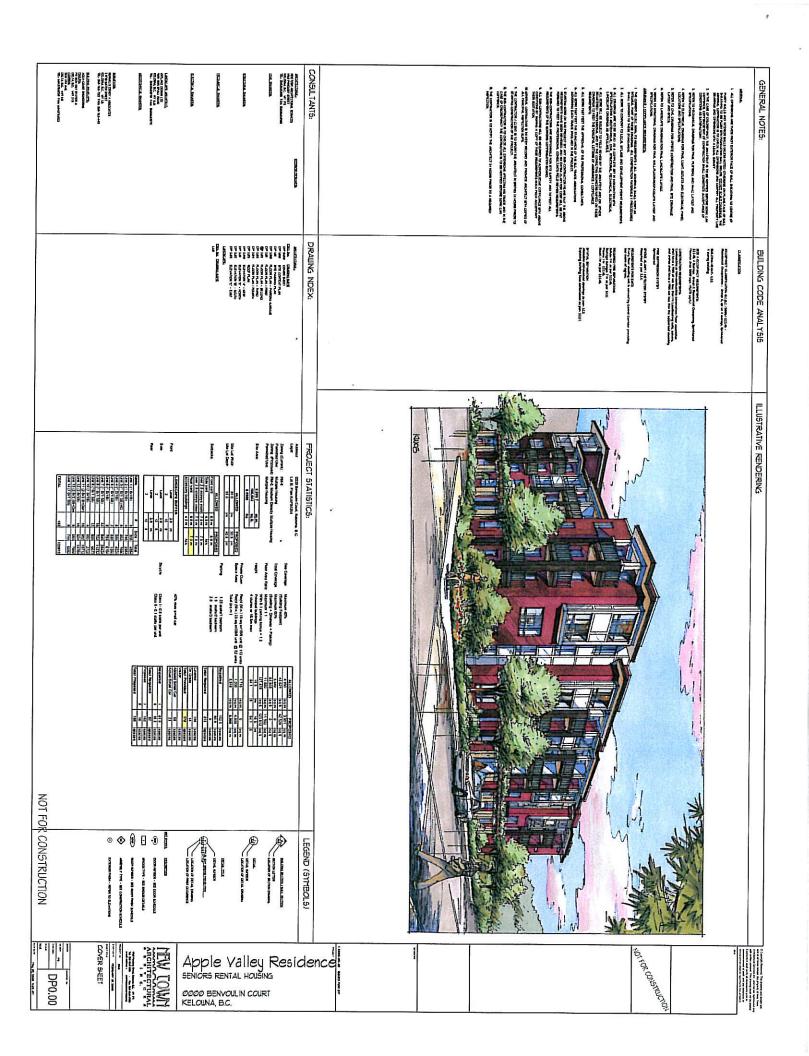


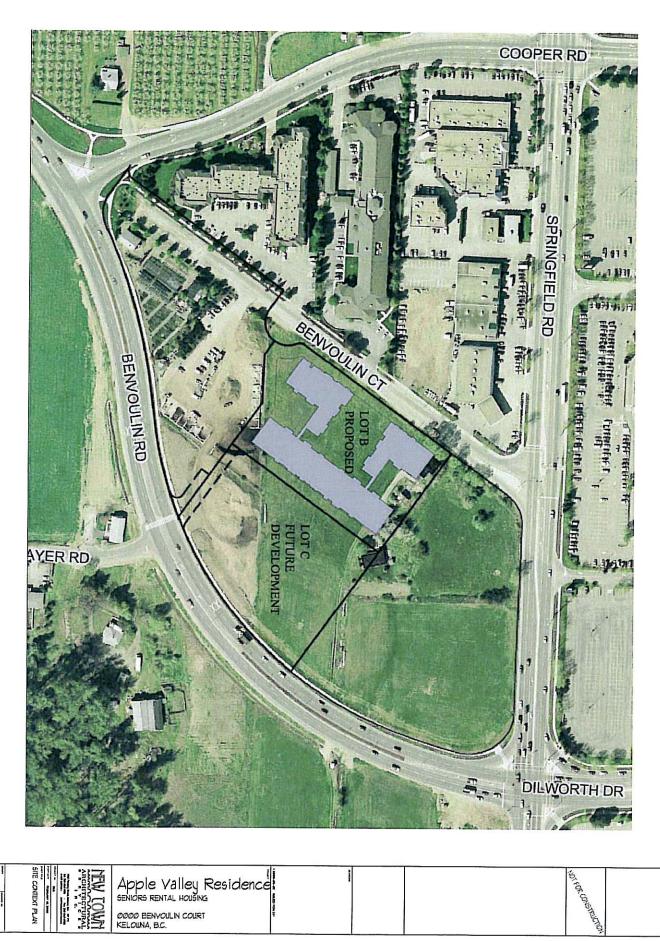
Certain layers such as lots, zoning and dp areas are updated bi-weekly. This map is for general information only. The City of Kelowna does not guarantee its accuracy. All information should be verified.





Rezone from A1 to RMS

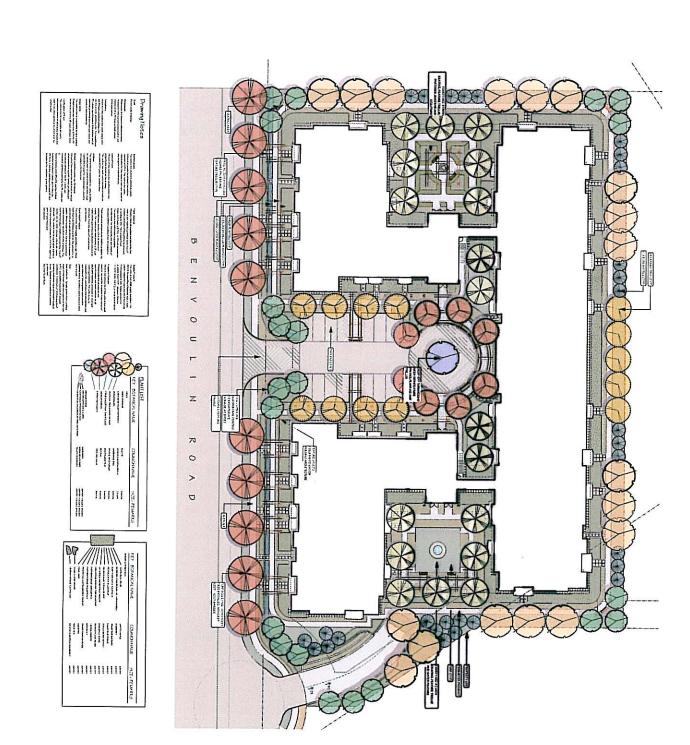




DP1.00

Apple Valley Residence

0000 BENYOULIN COURT KELOUNA, B.C.







105-1259 Spall Road Lelowna, BC VIY 472 let (750) 505-0270 es: (750) 505-0279



08-042 DJ SP FC Apr. 21, 2008 1:200

Project No: Design By: Drawn By: Checked By: Date: Scale:

Apple
Valley
Residence
Scuiors
Rental Housing Benvoulin Court Kelowna, BC 04.25.08





May 02, 2008

Our File: 3165

City of Kelowna 1435 Water Street Kelowna, BC V1Y 1J4

Attention: Nelson Wight, Planning & Development Officer

Dear Mr. Wight:

Re: Development Permit Application for

0000 Benvoulin Court

This development proposal will adhere to the requirements of the RM-5 zone as described in the City of Kelowna Zoning Bylaw No. 8000.

Project Description

The proposed project is a 162-unit, wood framed, four-storey residential complex over a one-storey concrete underground parking garage. Access to the building and the parking will be off of Benvoulin Court. At present the lot is zoned A1 (not within ALR) with the OCP designating the future land use to be medium density RM5.

Pedestrian access will be off Benvoulin Court. Garbage and recycling will be enclosed within the parking garage and picked-up by way of staging area near the cul-de-sac (South of property).

Design Rationale

As the lot only has a single street frontage off Benvoulin Court, the unique building design features two 'U' shaped footprints that are connected by a two story amenity building. This maximizes the daylight entering into the units as well as provides 2 large private courtyard/gardens along with a central drop-off area. This layout also allows the building to turn a larger faces to the (potential) adjacent projects to the North and South therefore reducing the visual impact to the properties as well creating more security for the projects. We have positioned the largest building facade to view east utilizing the largest setback to alleviate any shadowing that may occur.

The building is highly articulated by the introduction of protruding balconies and undulating vertical planes to further soften the overall mass of the building. Large roof over-hangs add to the visual interest and provide needed shading and weather protection.

The exterior materials will be a combination of brick, stucco and hardi board. These materials, along with the corresponding rich natural colour palette, will further add to the visual diversity and provide a sophisticated addition to the existing urban context. The building has been designed without a typical base to create more focus on the vertical elements rather than the horizontal mass.

Requested Variance

- 1) The rear yard of this property is adjacent to another parcel of land that is owned by our client which is currently vacant. We feel in this case that the rear yard setback is not really any different than the side yard setbacks and are asking for a minor relaxation. When the future development of the adjacent parcel is finished we will still have 17 meters between the buildings which is much more than that of the side yards. Please understand that we are able to meet the setback requirement; but in doing so would be compromising the livability of units as well as the enjoy ability of our amenity courtyards.
- 2) We also request a reduction of parking stalls from the required 213 to 170 which all but 14 will be located completely underground. We feel this is a justifiable variance for the following reasons:
 - a) The target market for this project is senior's rental housing all of which do not traditionally own two cars. We have allowed for almost one stall for each unit in anticipation of the actual parking requirement reality.
 - b) Sustainable design dictates that people should live closer to work and amenities in order to reduce our carbon footprint. This project is located well within walking distance of all major amenities and major bus routes servicing downtown and the university. The location of this project reduces the need for a car to the point where it is a choice rather than a necessity. The owner also anticipates providing a car co-op program for those that need to get around from time to time but without the hassles of car maintenance and up keep.

I trust that you will find our application in good order. Please contact our office if you require any further information.

Sincerely,

Patrick M. McCusker, M.A.I.B.C Principal

PM/ps

CITY OF KELOWNA

MEMORANDUM

Date:

September 18, 2008

File No.:

Z07-0016

To:

Planning and Development Officer (NW)

From:

Development Engineering Manager (SM)

Subject:

National Society of Hope - Lot 1, Plan 82214 - 2059-2129 Benvoulin court

Works and Utilities has the following requirements associated with this development application to rezone the subject property from A1 to RM5:

1. Subdivision.

- a) The applicant is proposing to subdivide the subject property into two parcels. All the servicing requirements will be dealt under subdivision application S07-0023.
- b) Register a cross access agreement with the property to the south to allow access to Benvoulin Road at Mayer Road from both properties.
- c) Provide easements as may be required.

2. Geotechnical Study

- a) Provide a comprehensive geotechnical report (3 copies), prepared by a Professional Engineer competent in the field of hydro-geotechnical engineering to address the items below:
- b) The Geotechnical report must be submitted to the Planning and Development Services Department (Planning & Development Officer) for distribution to the Works & Utilities Department and Inspection Services Division prior to submission of Engineering drawings or application for subdivision approval.
 - Area ground water characteristics, including any springs and overland surface drainage courses traversing the property. Identify any monitoring required.
 - (ii) Site suitability for development.
 - (iii) Site soil characteristics (i.e. fill areas, sulphate content, unsuitable soils such as organic material, etc.).
 - (iv) Any special requirements for construction of roads, utilities and building structures.
 - Suitability of on-site disposal of storm water, including effects upon adjoining lands.
 - viii) Recommendations for items that should be included in a Restrictive Covenant.

- ix) Any items required in other sections of this document.
- x) Recommendations for roof drains and perimeter drains.

3. <u>Domestic Water and Fire protection.</u>

- a) The domestic water supply system has previously been installed by the City and services have been provided at the property line. The locations of the services were based upon a tentative parcel configuration that has been modified since then. Only one service is permitted per parcel, all the redundant services must be disconnected at the developer's cost. In the latest proposed parcel configuration, lot 'C' has two full sets of services, one of the service must be removed at the applicant's expense, the estimated cost of removing the domestic water service is \$8,400.00 inclusive of a bonding escalation.
- b) The applicant is to confirm with the City of Kelowna water division that the supply of domestic water and fire protection is achievable in accordance with the City standards for the proposed development.

4. Sanitary Sewer.

- a) The sanitary sewer has previously been installed by the City and services have been provided at the property line. The locations of the services were based upon a tentative parcel configuration that has been modified since then. Only one service is permitted per parcel, all the redundant services must be disconnected at the developer's cost. In the latest proposed parcel configuration, lot 'C' has two full sets of services, the service in the front of lot B plan 85660 must be removed at the applicant's expense, the estimated cost of removing the sanitary sewer service is \$8,400.00 inclusive of a bonding escalation.
- b) An application for inclusion in the Specified Area service boundary must be made and an administration levy of \$250.00 is required to incorporate this development into Sewer service area # 1.
- c) It should be noted that proposed lot B is not serviced by the Municipal wastewater collection system, a sanitary main extension along Benvoulin Court will be required and will be addressed in more details in the subdivision report under file S07-0023.

Drainage.

a) The storm sewer has previously been installed by the City and services have been provided at the property line. The locations of the services were based upon a tentative parcel configuration that has been modified since then. Only one service is permitted per parcel, all the redundant services must be disconnected at the developer's cost. In the latest proposed parcel configuration, lot 'C' has two full sets of services, one of the services must be removed at the applicant's expense, the estimated cost of removing the storm drainage service is \$8,400.00 inclusive of a bonding escalation.

6. Road improvements.

a) Springfield Road.

Springfield Road is a major arterial road and the transportation division has indicated that some upgrades will be required due to the traffic generated within the properties located to the south and east of Benvoulin Court. A Traffic Impact Study has been submitted by the owner of lot B, plan 85660; the City of Kelowna is reviewing the study which will produce the basis used to determine the financial impact (if any) per unit for the benefiting properties

within the study area. The financial contributions attributed to this development will have to be provided by the applicant prior to the adoption to the zone amending Bylaw.

b) Benvoulin Court.

The applicant is responsible to upgrade Benvoulin Court along the frontage of the subject property to a paved urban collector standard (SS-R5). The construction consists of curb, gutter, sidewalk, fillet paving, street lights, pipe storm drainage system, boulevard landscaping, removal and/or relocation of utilities as may be required, etc. The estimated cost for this work, for bonding purpose, would be \$85,400.00, inclusive of a bonding contingency (power poles removal not included)

c) Benvoulin Road.

- (i) The applicant is responsible to replace the dropped portion of curbs with a barrier curb and complete the landscaping with irrigated grassed boulevard and approved trees. The estimated cost for this work, for bonding purpose, would be \$16,800.00, inclusive of a bonding contingency.
- (ii) The applicant is responsible to install traffic lights at the intersection of Benvoulin Road and Mayer Road. The estimated cost for this work, for bonding purpose, would be \$240,000.00, inclusive of a bonding contingency.

7. Power and Telecommunication services.

The property is located with the Urban Town Center therefore the existing overhead distribution system must be relocated underground. The services to and within this development are to be installed underground. It is the developer's responsibility to make an application to the respective utilities companies. The utility companies are then required to obtain the City's approval before commencing their works.

8. Street Lights

Street lights must be installed on all roads in accordance as per Bylaws requirements. Design drawings to include level of illumination plan.

9. Design and Construction.

- a) Design, construction supervision and inspection of all off-site civil works and site servicing must be performed by a Consulting Civil Engineer and all such work is subject to the approval of the City Engineer. Drawings must conform to City standards and requirements.
- b) Engineering drawing submissions are to be in accordance with the City's "Engineering Drawing Submission Requirements" Policy. Please note the number of sets and drawings required for submissions.
- c) Quality Control and Assurance Plans must be provided in accordance with the Subdivision, Development & Servicing Bylaw No. 7900 (refer to Part 5 and Schedule 3).
- d) A "Consulting Engineering Confirmation Letter" (City document 'C') must be completed prior to submission of any designs.

e) Before any construction related to the requirements of this subdivision application commences, design drawings prepared by a professional engineer must be submitted to the City's Works & Utilities Department. The design drawings must first be "Issued for Construction" by the City Engineer. On examination of design drawings, it may be determined that rights-of-way are required for current or future needs.

10. Servicing Agreements for Works and Services

- a) A Servicing Agreement is required for all works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings or reports and estimates for the required works. The Servicing Agreement must be in the form as described in Schedule 2 of the bylaw.
- b) Part 3, "Security for Works and Services", of the Bylaw, describes the Bonding and Insurance requirements of the Owner. The liability limit is not to be less than \$5,000,000 and the City is to be named on the insurance policy as an additional insured.

11. DCC Credits.

None of the required improvements qualify for DCC credit consideration, as these upgrades are not identified in the current DCC schedules.

12. <u>Bonding and Levies Summary.</u>

a) Performance Bonding

Sanitary sewer service removal	\$ 8,400.00
Water service removal	\$ 8,400.00
Storm sewer service removal	\$ 8,400.00
Benvoulin Court frontage upgrade	\$ 85,400.00
Benvoulin Road frontage upgrade	\$ 16,800.00
Benvoulin/Mayer Road traffic lights	\$ 240,000.00

Total performance bonding

\$ 367,400.00

b) Levies

Specified Area inclusion fee Contribution to Springfield road upgrades

\$250.00 To be determined

Transportation Division Comments

Traffic Impact Assessment for Proposed Residential Development Springfield/Benvoulin Residential, prepared by Ward Consulting Group, dated August 2008

General

For the City's Transportation Department the priority in this area are to maintain the capacity, operational efficiency and safety of the arterial roads. In this location Springfield Road is of particular importance, as it is already at or approaching capacity at peak periods. The Springfield / Dillworth / Benvoulin intersection is critical as it affects both the east – west and north – south movements and is one of the busiest on the City's road network. Benvoulin Road has recently been realigned to provide significant operational and safety improvements, it is important not to compromise the gains achieved, by allowing development to occur in a manner which may compromises safety or traffic operations.

The capacity of links on the surrounding Road Network

The existing road network around the development is already at or approaching it capacity of 800 t o 850 vehicles per lane in peak hours. In 2019 with only background traffic almost of the surrounding road network will be over capacity in peak hours. The result of this development will have an impact of adding up to 175 vehicles to Springfield Road in the peak period. (For 2019)

The construction of the Central Okanagon Multi Modal Corridor will relieve congestion on Enterprise Way, Harvey Avenue and Springfield Road. The reduction of traffic on Springfield Road with the COMC in place will be in the order of 150 to 200 vehicles in the peak period. (For 2020)

Due to the importance of the Springfield Road as an east —west arterial road that is already heavily loaded we do not support the pedestrian crossing at Benvoulin Court remaining. This will add additional delays at this intersection and the addition of another set of lights will have a negative impact on the operation of the link.

The ability of Springfield Road to carry large volumes of traffic will be significantly reduced by the access to the development at Benvoulin Court. With vehicles turning in & out the through traffic on Springfield Road will be adversely affected.

Figures for traffic on Links is given in the Appendix

Intersections

The intersections considered in the report are mixed with two intersections approaching a level of service F at peak periods. In 2019 all of the intersections will be at this level of service.

Figures for the operation of intersections is given in the Appendix

Safety

With regard to the traffic impact study some safety concerns remain

- The level of service for the right turn out of Benvoulin Court being F in 2019 and a delay in the pm peak of 90 seconds. Our initial review of this leads us to believe this could be significantly higher. Frustrated drivers are likely to take greater risks.
- Vehicles turning right out of Benvoulin Court wishing to travel north on Dillworth Drive will have a very short weaving length of 188 m to cut across 2 lanes of heavy traffic.

Pedestrian

We do not believe the issue of pedestrians crossing Springfield Road has been adequately addressed. Further consideration also needs to be given to pedestrians on Benvoulin Road.

Conclusions

- The project as outlined in the TIS and the traffic analysis carried out indicates that the operational levels of service and congestion exceed those that the Transportation Department normally consider as acceptable.
- There are some points in the traffic impact study that need to be addressed before implementation
 - The mitigation measures mentioned in the report.
 - The numbers of pedestrians and how the cross and impact the roads.

APPENDIX

Links at or Approaching Capacity of 1600 to 1700 vehicles per hour (vph) in 2008

- Springfield Road east of Dilworth Drive WB am peak 1950 vph
- Springfield Road east of Dillworth Drive WB pm peak 1640 vph
- Springfield Road east of Dillworth Drive EB pm peak 1580 vph
- Benvoulin Road south of Cooper Road SB pm peak 1500 vph
- Benvoulin Road south of Cooper Road NB am peak 1480 vph
- Springfield Road west of Cooper Road WB am peak 1480 vph
- Springfield Road west of Benvoulin Road WB am peak 1390 vph

The figures are vehicles per hour. The estimated capacity is 800 - 850 vehicles per hour per lane which we feel is appropriate for these roads.

Links in 2019 with Development

- Springfield Road east of Dilworth Drive WB am peak 2693 vph
- Springfield Road east of Dillworth Drive WB am peak 1926 vph
- Springfield Road east of Dillworth Drive EB pm peak 2209 vph
- Benvoulin Road south of Cooper Road SB pm peak 2078 vph
- Benvoulin Road south of Cooper Road NB am peak 2053 vph
- Springfield Road west of Cooper Road WB am peak 2043 vph
- Springfield Road west of Benvoulin Road WB am peak 1926vph

Existing Intersection Level of Service 2009 background traffic

- Highway 97 / Dillworth LOS F
- Cooper / Benoulin LOS F
- Springfield / Dillworth LOS D
- Springfield / Benvoulin LOS C
- Springfield Cooper LOS C

Intersection level of Service in 2019 with Development

- Highway 97 / Dillworth LOS F
- Cooper / Benoulin LOS F
- Springfield / Dillworth LOS F
- Springfield / Benvoulin LOS F
- Springfield Cooper LOS F