

LINCOLN CITY/LANCASTER COUNTY PLANNING STAFF REPORT

for September 27, 2006 PLANNING COMMISSION MEETING

PROJECT #: Special Permit #06052

PROPOSAL: Special Permit for a Community Unit Plan of approximately 61 acreage lots.

LOCATION: Northeast of S. W. 70th Street and W. Van Dorn Street

LAND AREA: 157.27 acres, more or less

EXISTING ZONING: AG agriculture

WAIVER /MODIFICATION REQUEST: Waivers are requested for street trees, ornamental street lights, sidewalk, screening, block length over 1320', sewer flow opposite street grades, minimum wide to depth ratio for future lots, CUP in leu of a preliminary plat.

CONCLUSION: The related change of zone is not in conformance with the Comprehensive Plan and is recommended to be denied. This should be denied unless the change of zone is approved.

RECOMMENDATION:

Denial

Waivers/modifications:

Waivers

1.	Street lighting (selected)	Conditional	Approval
2.	Sidewalks		Approval
3.	Street trees		Approval
4.	Landscape screens	Approval	
5.	Block length over 1320		Approval
6.	Preliminary plat		Approval
7.	Sewer flow opposite street grade		Approval

GENERAL INFORMATION:

LEGAL DESCRIPTION: Lot 12 I.T. the SW 1/4 in Section 36, T 10 N, R 5 E of the 6th P.M., Lancaster County NE. Legal Description attached.

EXISTING LAND USE: Ag land with roads "roughed in" for West Van Dorn Heights, SP# 05008.

SURROUNDING LAND USE AND ZONING:

North: Ag land and two acreages, zoned AG Agriculture
South: Acreages to the southwest, Ag land to the south, zoned AG Agriculture to the south and AGR to the southwest.
East: Agriculture, Zoned AG Agriculture
West: Agriculture and one farm residence, Zoned AG Agriculture

ASSOCIATED APPLICATIONS: Change of Zone #06060, AG to AGR

HISTORY: An AG community Unit Plan (SP #05008) was approved for 10 lots, including 24 Build-Through lots, in April 2005. Change of zone #3367 from AG to AGR withdrawn 12/22/04. Changed from AA Rural and Public Use to AG in 1979.

COMPREHENSIVE PLAN SPECIFICATIONS: The 2025 Plan shows this as Agriculture. This is in the Lincoln growth Tier II. The 2025 Comprehensive Plan states:

Currently, acreage development has occurred under two development scenarios: AG - Agricultural District (minimum of 20 acres per lot) and AGR - Agricultural Residential District (minimum of 3 acres per lot) with the possibility in both AG and AGR zoning districts of clustering units together in order to preserve more open space and agricultural areas and/or receive additional density bonuses under a community unit development. The complex issue of acreage development and other public objectives requires a large array of land use strategies (pg F 70)

Acknowledge the "Right to Farm" and preserve areas for agricultural productions throughout the county by designating specific areas in advance for rural residential so as to limit areas of potential conflict between farms and acreages (pg F 70)

Retain the current overall density of 32 dwellings per square mile (20 acre) for all agriculturally zoned land. Provide for an ability to divide two 3 acre lots per "40" acre parcel with conditions and administrative review and right of appeal. This would allow more flexibility for parcel size while retaining the overall density and assist in retaining farmable units of land. (F 70)

In determining areas of higher density rural acreage (200 units or more per square mile), numerous factors will be reviewed, such as but not limited to water and rural water districts, soil conditions, roads, agricultural productivity, land parcelization, amount of existing acreages, and plans for urban or town development. Acreages should develop in areas that best reflect the carrying capacity of that area for acreages. A performance criteria should be developed to review requests for acreage zoning and to determine where these standards can best be met. (F 70)

Development of a performance standard "point system" will allow the location of higher density rural acreage development in either "AG" or "AGR" where the review criteria can be met. This allows equal treatment across the county, maximum freedom of determination of marketing and sale, while locating those developments only in those areas where sufficient "points" can be accumulated to justify the development at the requested location." (F 71)

UTILITIES: There are no utilities or water districts in the area.

TOPOGRAPHY: Gently rolling hills, falling off to the north and east.

TRAFFIC ANALYSIS: W. Van Dorn is a paved county road. S.W. 70th and W. "A" streets are gravel county roads. W. "A" is shown for engineering in the County 1-6.

PUBLIC SERVICE: This area is served by the Lincoln Public School District #1, the South West Rural Fire District, and is in the Norris Public Power District service area.

REGIONAL ISSUES: Clustering and Build-through

ENVIRONMENTAL CONCERNS: The 1862 Nebraska City Steamwagon Road ran through or close to this parcel. The soil rating is approximately 5.87. This is not prime agriculture soil. There is no FEMA flood plain recorded on the site. There is a large farm pond and a water way across the land from northwest to east. Wetlands could be expected at these locations. There was an identified 16 acre parcel of Native Hay in the parcel to the north of this application. No animal feeding operations were identified in the immediate area.

AESTHETIC CONSIDERATIONS: n/a

ALTERNATIVE USES: Farming or 7, 20+acre parcels or utilize the previously approved 10 lot AG CUP.

ANALYSIS:

1. This is a request for a Build Through Community Unit Plan for 61 lots on a parcel of 157.28 acres. This is dependent on a change of zone to AGR to which staff has recommended denial.
2. This request is in not conformance with the Comprehensive Plan.
3. The density calculations for the project are as follows;

157.27 acres of AGR at 0.27 dwelling per acre	=	42.5 dwellings
Bonus for cluster/BTA X 1.20		= 51.0 dwellings
Bonus for community sewerX1.20	=	61.1

Permitted 61 dwellings

Requested 61 units on 61 lots

Note; The shadow plat provides for 126 future buildable lots in the shadow plat.

4. The water report shows adequate/probable quantity and poor quality.
5. This design includes provisions for Build Through as well as accommodating both the unique character of the land and the area. The Build Through requires that in the AGR district, where a community sewer system is proposed, that no more than 40% of the property shall be developed prior to availability of public water and sewer, and the lots are no more than one acre.
6. This design reflects many of the normal adjustments to accomplish a cluster style of acreage subdivision through the CUP.
7. Waivers are requested for street lights, sidewalks, block length, street trees, storm drainage, and screening. These are typical waivers requested, provided for and appropriate for agriculture/acreage clusters. Yards are adjusted from AG to R-3 standards as part of the cluster. Recent amendments no longer required the waiver for street lights, screening, sidewalks and street trees on plots over one acre in size that are not to be annexed. These lots are under an acre in size so the waivers are required. Storm drainage for Acreages typically meet the city standards so this is likely not needed.
8. The waiver to street lights is not supported by staff due to the proposed density. Street lights should be installed at all intersections (only).
9. The County Engineer's memo of September 7, 2006 notes several issues and corrections.
10. The Lincoln/Lancaster County Health Department note groundwater should support the additional residences. Waste water will be approved by the State Department of Environmental Resource.
11. Public Works Department notes several issues and corrections.
12. Building and Safety request clarification of the street name transition of W. Remington and S.W. 68th Street.
13. Norris Public Power is requesting easements.
14. 911 is requesting the future roads not be named or noted "A B C".
15. The Airport Authority is requesting avigation easements at the time of final plat.

If the Planning Commission/Council choose to approve this application, the following conditions are recommended.

CONDITIONS OF APPROVAL:

Site Specific Conditions:

1. This approval permits 61 dwelling units, with waivers/modifications to design standards, yards, and lot area and future 3-1 lot depth to width ratio.
2. The City Council approves associated request:
 - 2.1 Change of Zone # 06060
3. Final plat(s) is/are approved by the City.

If any final plat on all or a portion of the approved community unit plan is submitted five (5) years or more after the approval of the community unit plan, the city may require that a new community unit plan be submitted, pursuant to all the provisions of section 26.31.015. A new community unit plan may be required if the subdivision ordinance, the design standards, or the required improvements have been amended by the city; and as a result, the community unit plan as originally approved does not comply with the amended rules and regulations.

Before the approval of a final plat, the public streets, private roadway improvements, sidewalks, public sanitary sewer system, public water system, drainage facilities, land preparation and grading, sediment and erosions control measures, storm water detention/retention facilities, drainageway improvements, street lights, landscaping screens, street trees, temporary turnaround and barricades, and street name signs, must be completed or provisions (bond, escrow or security agreement) to guarantee completion must be approved by the City Law Department. The improvements must be completed in conformance with adopted design standards and within the time period specified in the Land Subdivision Ordinance.

If a community wastewater system and/or community water system is proposed the final plat cannot be approved until documentation that the community wastewater system and community water system necessary to serve every lot in the final plat has been completed and approved by the appropriate agency.

Permittee agrees:

To complete the paving of private roadway, and temporary turnarounds and barricades located at the temporary dead-end of the private roadways shown on the final plat within two (2) years following the approval of this final plat.

to complete the enclosed private drainage facilities shown on the approved drainage study to serve this plat within two (2) years following the approval of the final plat.

to complete land preparation including storm water detention/retention facilities and open drainageway improvements to serve this plat prior to the installation of utilities and improvements but not more than two (2) years following the approval of the final plat

to complete the installation of private street lights along streets within this plat within two (2) years following the approval of the final plat.

to complete the installation of the street name signs within two (2) years following the approval of the final plat.

to complete the installation of the permanent markers prior to construction on or conveyance of any lot in the plat.

to complete any other public or private improvement or facility required by Chapter 26.23 (Development Standards) of the Land Subdivision Ordinance in a timely manner which inadvertently may have been omitted from the above list of required improvements.

to complete the public and private improvements shown on the Community Unit Plan.

to submit to the Director of Public Works a plan showing proposed measures to control sedimentation and erosion and the proposed method to temporarily stabilize all graded land for approval.

to retain ownership of and the right of entry to the outlots in order to perform the above-described maintenance of the outlots and private improvements on a permanent and continuous basis. However, Owner(s) may be relieved and discharged of such maintenance obligations upon creating in writing a permanent and continuous association of property owners who would be responsible for said permanent and continuous maintenance subject to the following conditions:

- (1) Owner shall not be relieved of Owner's maintenance obligation for each specific private improvement until a registered professional engineer or nurseryman who supervised the installation of said private improvement has certified to the City that the improvement has been installed in accordance with approved plans.

- (2) The maintenance agreements are incorporated into covenants and restrictions in deeds to the subdivided property and the documents creating the association and the restrictive covenants have been reviewed and approved by the City Attorney and filed of record with the Register of Deeds.

to maintain the outlots and private improvements on a permanent and continuous basis.

to maintain and supervise the private facilities which have common use or benefit on a permanent and continuous basis, and to recognize that there may be additional maintenance issues or costs associated with providing for the proper functioning of storm water detention/retention facilities as they were designed and constructed within the development.

to properly and continuously maintain and supervise the private facilities which have common use or benefit, and to recognize that there may be additional maintenance issues or costs associated with providing for the proper functioning of storm water detention/retention facilities as they were designed and constructed within the development, and that these are the responsibility of the land owner

to submit to the lot buyers and home builders a copy of the soil analysis.

to submit to all potential purchasers of lots a copy of the ground water report.

to pay all design, engineering, labor, material, inspection, and other improvement costs except those cost the City Council specifically subsidizes as follow:

to comply with the provisions of the Land Preparation and Grading requirements of the Land Subdivision Ordinance.

to protect the trees that are indicated to remain during construction and development

to relinquish direct vehicular access to W. Van Dorn and to S. W. 70 Street except for W. Benelli Lane, S.W. 65th Street and a future road connection at the ½ mile line.

to inform all prospective purchasers and users that the land is located within the Airport Environs Noise District, that the land is subject to an avigation and noise easement granted to Lincoln Airport Authority, and that the land is potentially subject to aircraft noise levels which may affect users of the property and interfere with its use.

to submit to all potential purchasers of lots a copy of the ground water report.

General Conditions:

4. Before a final plat is approved:

4.1 The permittee shall complete the following instructions and submit the documents and plans to the Planning Department office for review and approval.

4.1.1 A revised site plan including **5** copies showing the following revisions:

4.1.1.1 Make the revisions noted in the County Engineers memo of September 7, 2006.

4.1.1.2 Make the revisions in the Public Works memo of September 14, 2006.

4.1.1.3 Call out and dimension all easements.

4.1.1.4 Remove the A,B,C designators on future roads.

4.1.1.5 Show future street connections to S.W. 70th and to W. Van Dorn at the ½ mile line.

4.1.1.6 Show and call out all building envelopes.

4.1.1.7 Show the flood pool elevation of the pond.

4.1.1.8 Renumber the lots and blocks per the subdivision ordinance.

4.1.1.9 Show the tree masses to be removed and retained.

4.1.1.10 Add the use and future use reservation for future residential development to the appropriate outlots. Include density.

4.1.1.11 Show the calculations of building coverage per the BTA.

4.1.1.12 Show the acreage of the outlots.

- 4.1.1.13 Show easements for future sewer and storm sewer.
 - 4.1.1.14 Amend note on waivers to reflect the preliminary plat.
 - 4.1.1.15 Amend note #7, page 4 that stormwater detention standards are met.
 - 4.1.1.17 Show a drainageway, future storm sewer and future sanitary sewer easement along the creek in Outlot "C".
 - 4.1.1.18 Show the dimension of all R.O.W.
 - 4.1.1.19 Note where each typical road cross section applies.
 - 4.1.1.20 A permanent final plan with 5 copies as approved.
- 4.1.2 Provide documentation from the Register of Deeds that the letter of acceptance as required by the approval of the special permit has been recorded.
- 4.2 Ornamental street lights at the intersections for private roadways are approved by Norris Public Power. Electricity use and billing is to the owner and association of the development, not the county.
- 4.3 The construction plans comply with the approved plans.
- 4.4 Grant an avigation and noise easement to the Lincoln Airport Authority on all or that part of the land located within the Airport Environs Noise District.

Standard Conditions:

5. The following conditions are applicable to all requests:
- 5.1 Before occupying the dwelling units all development and construction is to comply with the approved plans.
 - 5.2 Before occupying this subdivision City/County Health Department is to approve the water and waste water systems.
 - 5.3 All privately-owned improvements, including landscaping and recreational facilities, are to be permanently maintained by the owner or an appropriately

established homeowners association approved by the City.

- 5.4 The site plan accompanying this permit shall be the basis for all interpretations of setbacks, yards, locations of buildings, location of parking and circulation elements, and similar matters.
 - 5.5 This resolution's terms, conditions, and requirements bind and obligate the permittee, its successors and assigns.
 - 5.6 The applicant shall sign and return the letter of acceptance to the City Clerk within 60 days following the approval of the special permit, provided, however, said 60-day period may be extended up to six months by administrative amendment. The City Clerk shall file a copy of the resolution approving the special permit and the letter of acceptance with the Register of Deeds, filling fees therefor to be paid in advance by the applicant
6. The site plan as approved with this resolution voids and supersedes all previously approved site plans, however all resolutions approving previous permits remain in force unless specifically amended by this resolution.

Prepared by

Mike DeKalb, 441-6370, mdekalb@lincoln.ne.gov
Project Manager

DATE: September 15, 2006

APPLICANT: Mark Palmer
Olsson Associates
1111 Lincoln Mall, Suite 111
Lincoln, NE 68508
(402) 474-6311

OWNER: Layne, L.L.C.
C/O Aspen Builders
1640 Normandy Ct.
Lincoln, NE 68512
(402) 432-6811

CONTACT: Mark Palmer
(402) 474-6811



Special Permit #06052 & Change of Zone #06060

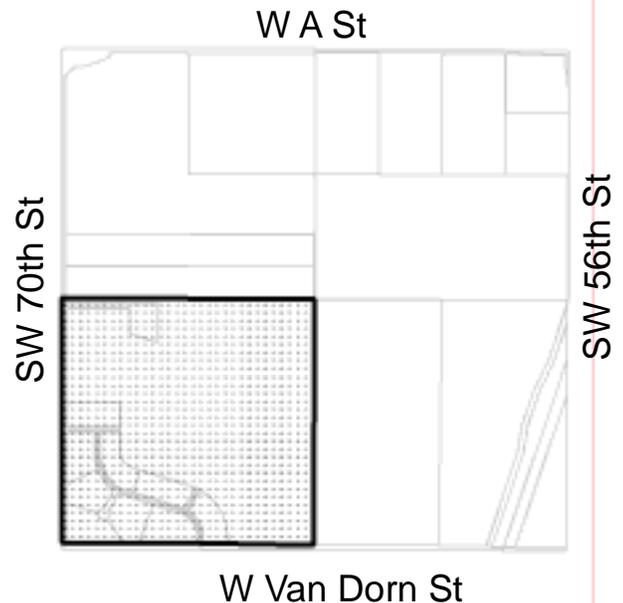
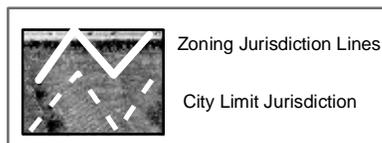
2005 aerial

**West Van Dorn Heights
SW. 70th and W. Van Dorn St.**

Zoning:

- R-1 to R-8 Residential District
- AG Agricultural District
- AGR Agricultural Residential District
- R-C Residential Conservation District
- O-1 Office District
- O-2 Suburban Office District
- O-3 Office Park District
- R-T Residential Transition District
- B-1 Local Business District
- B-2 Planned Neighborhood Business District
- B-3 Commercial District
- B-4 Lincoln Center Business District
- B-5 Planned Regional Business District
- H-1 Interstate Commercial District
- H-2 Highway Business District
- H-3 Highway Commercial District
- H-4 General Commercial District
- I-1 Industrial District
- I-2 Industrial Park District
- I-3 Employment Center District
- P Public Use District

One Square Mile
Sec. 36 T10N R05E



RECEIVE

AUG 3 2006

JOHN CITYLMASTER CO. PLANNING DEPARTMENT

WEST VAN DORN HEIGHTS ASPEN BUILDERS CUP #

OWNER/DEVELOPER: WEST VAN DORN HEIGHTS ASPEN BUILDERS, INC. 1000 W. 70TH ST. SUITE 1000, WEST VAN DORN, MO 64085-1411

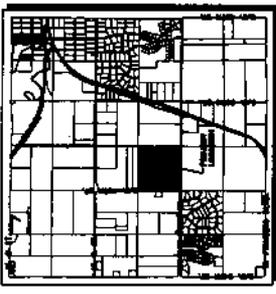
GENERAL NOTES: 1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, IBC, AND ALL APPLICABLE LOCAL ORDINANCES...

DATE: 08/01/06

GENERAL SITE NOTES

- 1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, IBC, AND ALL APPLICABLE LOCAL ORDINANCES... 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF WEST VAN DORN...

- 16. ALL UTILITIES SHALL BE DEPTH MARKED BY THE CONTRACTOR PRIOR TO CONSTRUCTION... 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF WEST VAN DORN...



PROPERTY MAP

- LEGEND: Dashed line for boundary line, solid line for proposed building footprint, etc.

PROPERTY CALCULATION table showing lot area (17,127 sq ft), building area (1,328 sq ft), and coverage (7.75%).

CENTRALLINE CURVE DATA table with columns for station, length, delta, and tangent.

NOTES

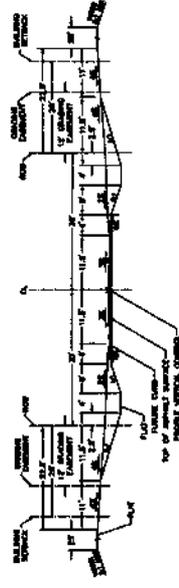
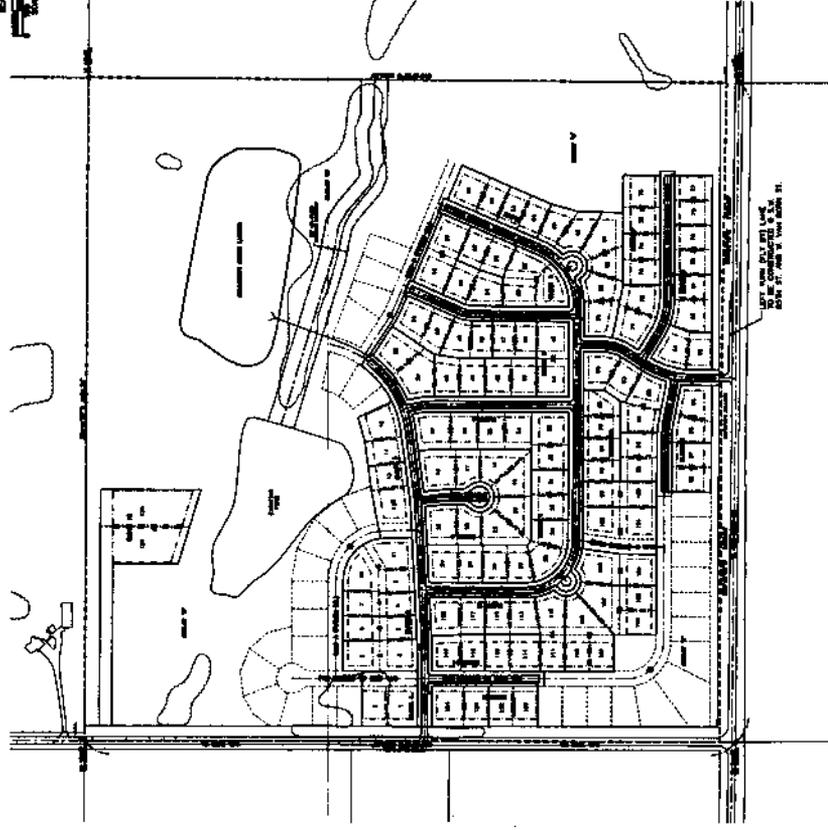
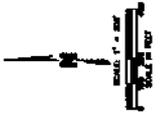
- 1. TO SHOW THE CONSTRUCTION, UTILITIES, AND EROSION CONTROL... 2. TO SHOW THE EXISTING AND PROPOSED IMPROVEMENTS...

STRUCTURAL CERTIFICATE

Professional engineer's signature and stamp for structural certificate.

APPROVAL

Official approval signature and stamp.



TYPICAL CROSS-SECTION FOR BUILDING & RETENTION WALL

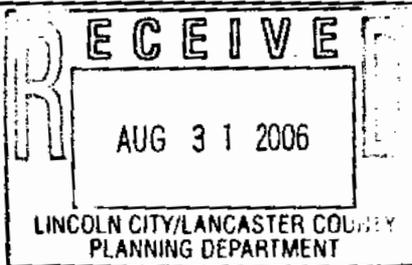
- 1. REFER TO THE CITY OF WEST VAN DORN FOR ALL APPLICABLE ORDINANCES...

Special Permit #06052 & Change of Zone #06060 West Van Dorn Heights SW. 70th and W. Van Dorn St.

OLSSON ASSOCIATES logo



PROJECT INFORMATION table with fields for project name, location, and date.



LEGAL DESCRIPTION

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 36, TOWNSHIP 10 NORTH, RANGE 5 EAST OF THE 6TH P.M., LANCASTER COUNTY, NEBRASKA, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID SOUTHWEST QUARTER, THENCE EAST ALONG THE NORTH LINE OF SAID SOUTHWEST QUARTER ON AN ASSUMED BEARING OF SOUTH 89 DEGREES 41 MINUTES 57 SECONDS EAST, A DISTANCE OF 2,654.36 FEET TO THE NORTHEAST CORNER OF SAID SOUTHWEST QUARTER; THENCE SOUTH 00 DEGREES 15 MINUTES 29 SECONDS WEST, ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 2,596.65 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF W. VAN DORN STREET, SAID POINT BEING LOCATED 50.00 FEET NORTH OF THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER; THENCE NORTH 89 DEGREES 00 MINUTES 13 SECONDS WEST, ALONG THE NORTH RIGHT OF WAY LINE OF SAID W. VAN DORN STREET, A DISTANCE OF 1,185.96 FEET TO A POINT THAT IS LOCATED 65.00 FEET NORTH OF THE SOUTH LINE OF SAID SOUTHWEST QUARTER; THENCE NORTH 89 DEGREES 43 MINUTES 42 SECONDS WEST, ALONG THE NORTH RIGHT OF WAY LINE OF SAID W. VAN DORN STREET, SAID LINE ALSO BEING 65.00 FEET NORTH OF AND PARALLEL TO THE SOUTH LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 1,458.91 FEET TO A POINT ON THE WEST LINE OF SAID SOUTHWEST QUARTER; THENCE NORTH 00 DEGREES 02 MINUTES 43 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 2,583.01 FEET TO THE POINT OF BEGINNING.

SAID TRACT CONTAINS A CALCULATED AREA OF 6,850,912.61 SQUARE FEET OR 157.28 ACRES, MORE OR LESS.

R

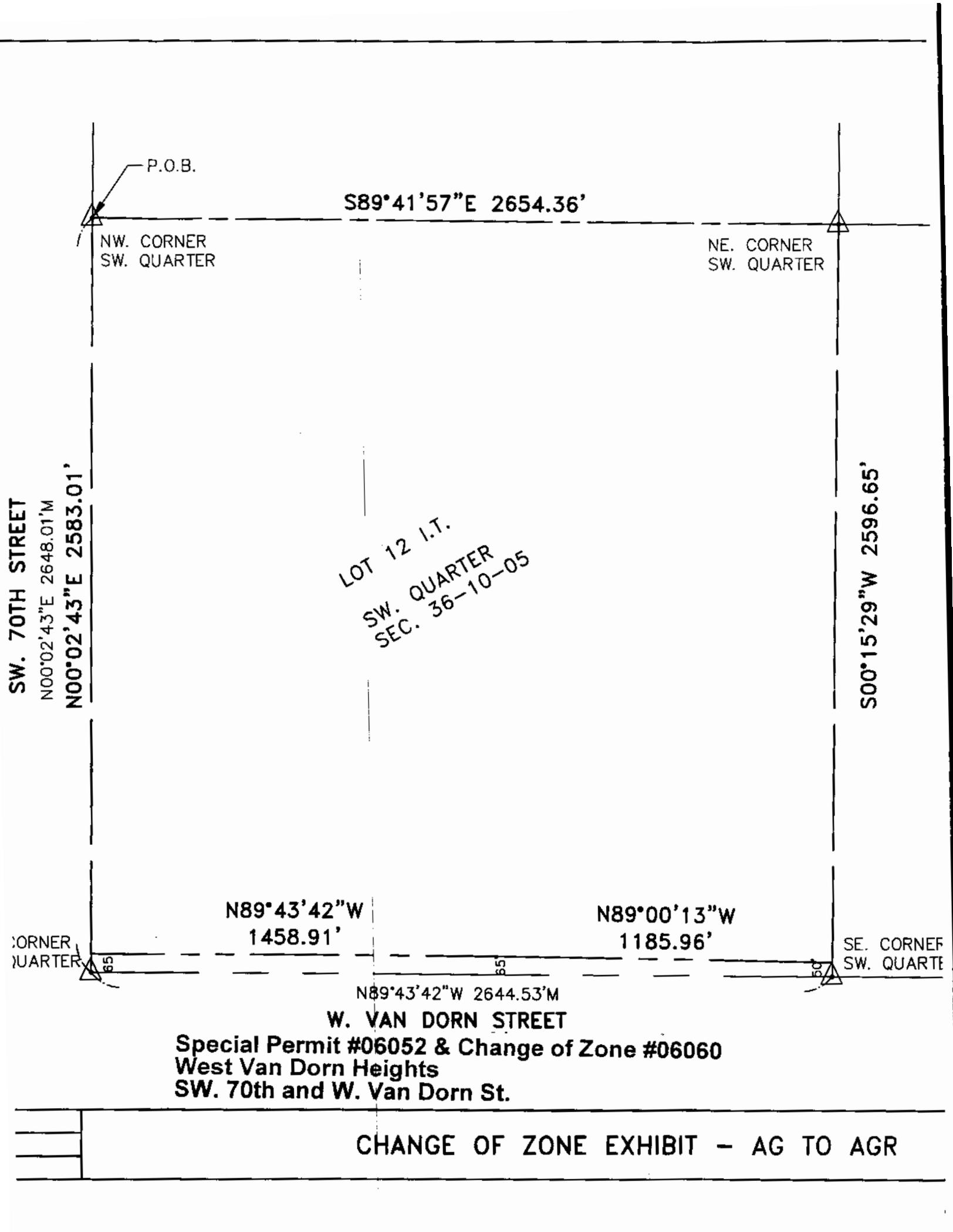
**Special Permit #06052 & Change of Zone #06060
West Van Dorn Heights
SW. 70th and W. Van Dorn St.**



1111 Lincoln Mall, Suite 111
P.O. Box 84808
Lincoln, NE 68501-4608
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FAX 402.474.5180

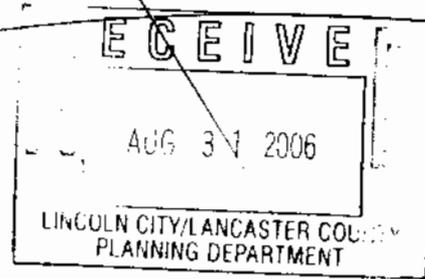
EXHIBIT

1



Special Permit #06052 & Change of Zone #06060
West Van Dorn Heights
SW. 70th and W. Van Dorn St.

CHANGE OF ZONE EXHIBIT - AG TO AGR



August 31, 2006

Mr. Marvin Krout
Planning Department, City of Lincoln
County-City Building
555 South 10th Street
Lincoln, NE 68508

Re: West Van Dorn Heights Community Unit Plan
OA Project No. 2006-0442

Dear Mr. Krout,

Enclosed please find the following for the above-mentioned project:

1. Site Plan - 21 copies.
2. Drainage and Grading Plan - 9 copies.
3. Street Profile Plans - 5 copies.
4. City of Lincoln Change of Zone Application and Exhibit
5. City of Lincoln Application for Special Permit (C.U.P.)
6. \$1,775 for City Applications (61 lots @ \$25 + \$250)
7. Water Report - 3 Copies
8. Storm Water Memo
9. Ownership Certificate
10. 8-1/2" x 11" Reductions of Plans

On behalf of the developer, Layne, L.L.C, I am submitting the attached Community Unit Plan for your review and requesting the change of zone from AG to AGR zoning.

West Van Dorn Heights was previously approved as an AG Community Unit Plan that allowed 10 single family lots. If this change of zone and C.U.P. is approved, I am requesting that the AG C.U.P. be rescinded.

West Van Dorn Heights is located at the northeast corner of S.W. 70th and W. Van Dorn Street. The site contains approximately 157 acres and is currently zoned AG. We are proposing to change the zone to AGR and develop 61 acreage style lots. Each lot will have its own water well, and the site will have a community wastewater system. The private roadways within the development will be 6" thick asphalt. The Community Unit Plan has been designed to the AGR "Build-thru" design standards.

We have met with Planning staff, Public Works staff, and the County Engineer to review this project. We have modified our plans based upon the feedback received at those meetings. Our

Mr. Marvin Krout
August 31, 2006
Page 2 of 2

access points are S.W. 65th Street off West Van Dorn Street and West Benilli Lane off S.W. 70th Street. We propose to asphalt S.W. 70th street to West Benilli Lane using the RUTS format and paving the eastern lanes of the future arterial roadway. The paving of S.W. 70th street would be constructed when West Benilli Lane is platted to connect to S.W. 70th Street. We propose to construct a fly-by lane in West Van Dorn Street to accommodate left turning vehicles at S.W. 65th Street.

We are requesting a 20% C.U.P. bonus and a 20% community wastewater system bonus.

We are requesting the customary waivers to the land subdivision ordinance for block length, sidewalks, street trees, street lighting and landscape screening, as this is an acreage style development and is not being annexed into the City of Lincoln at this time.

We are also requesting the following additional waivers:

1. A waiver to the minimum width to depth ratio for lots in the transitional plat.
2. To allow sanitary sewer to flow opposite street grades where necessary to serve all lots.

Please contact me if you have any questions or require additional information.

Sincerely,

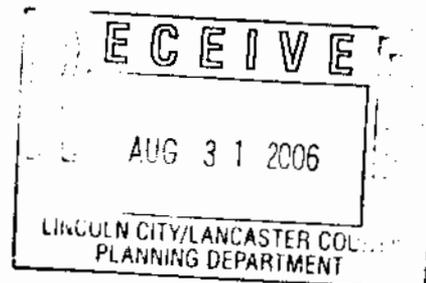


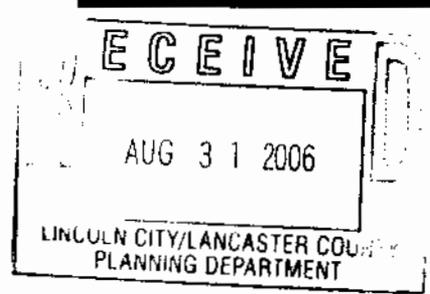
Mark C. Palmer, PE

Encls

cc Bob Benes, Aspen Builders
Kent Seacrest, Seacrest & Kalkowski, P.C.

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TO: Mark Palmer

FROM: Carter Hubbard

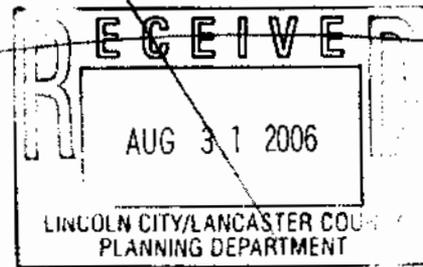
DATE: 08/31/06

RE: Hydrologic Analysis for Van Dorn Heights Development

A hydrologic study of the West Van Dorn Heights development, located on the northeast corner of the intersection of Southwest 70th Street and West Van Dorn Avenue near Lincoln, Nebraska, has been performed. The purpose of the analysis was to determine the impact of the proposed low density residential development on runoff rates from the local watersheds. The local watersheds are shown in the attached plans. The watershed boundaries change for proposed conditions but the watersheds are roughly the same for existing and proposed. The area soils are mainly from the Pawnee, Wymore, and Sharpsburg associations and are evenly divided between Hydrologic Soil Groups B and D. The existing land use on the site is comprised mainly of contoured and terraced row crops. The watershed characteristics and computed peak runoff values for existing and proposed conditions are indicated in Table 1 below.

	Drainage Area (ac)	Time of Conc. (hr)	Curve Number	2-Year Peak Runoff (cfs)	10-Year Peak Runoff (cfs)	100-Year Peak Runoff (cfs)
Existing Conditions						
Watershed A	19	0.15	80	32	69	120
Watershed B	27	0.21	75	26	58	106
Watershed C	42	0.26	75	43	93	171
Proposed Conditions						
Watershed A	14	0.15	80	24	51	88
Watershed B	27	0.28	75	24	54	98
Watershed C	47	0.35	77	43	93	169

Watershed A corresponds to the area labeled A in the attached plans. Watershed B corresponds to the areas labeled B and C in the attached plans. Watershed C corresponds to the areas labeled D, E, F, G, and H in the attached plans. The results of the analysis in Table 1 above indicate that the proposed conditions peak runoff rates from Watersheds A, B, and C are the same or lower than the existing conditions runoff rates. Therefore, the proposed development does not increase peak discharges from any of the local watersheds and detention should not be required for the proposed development.



MEMO

<input type="checkbox"/>	Overnight
<input type="checkbox"/>	Regular Mail
<input checked="" type="checkbox"/>	Hand Delivery
<input type="checkbox"/>	Other: _____

TO:	Mark Palmer
PHONE:	458-5632
FROM:	Karen Griffin, Nebraska Professional Geologist #G-0230
RE:	Review and Update of Groundwater Investigation
DATE:	8/31/06
PROJECT #:	2006-0442
PHASE:	004-702

NOTES:

Mark,

I reviewed the Report of Groundwater Investigation, Subdivision SW 70th and West Van Dorn, SW ¼ Section 36, Township 10 North, Range 5 East by Vincent Dreeszen. The report provides information on water quantity in the area and water quality results from sampling performed in 2004. Based on my review and research on current well registrations, the conclusions stated in the report are still valid.

The report was written in support of the subdivision with plans for 24 residential lots. The current subdivision plans call for 61 residential lots. As stated in the report, "wells yielding an adequate quantity of potable water should be possible in the remaining lots." I have reviewed the current well registrations in the area and concur that even with the additional planned residences the aquifer should be able to support the additional water requirements. As stated in the original report, "The Dakota Sandstone is a major groundwater reservoir containing a substantial quantity of water that is replenished annually from precipitation".

The current plans for the subdivision are to install domestic wells at each residence with well pumping rates of 10-20 gpm. As stated in the report, "reported well yields range from 10 gpm to some wells over 100 gpm in wells that were tested with air."

CC: File

Attachment: Report of Groundwater Investigation, Subdivision SW 70th and West Van Dorn, SW ¼ Sec. 36, 10N., R. 5E.

Report of Groundwater Investigation

Subdivision

SW 70th and West Van Dorn

SW1/4 Sec. 36, 10N., R. 5E.

Southwest 70th and West Van Dorn is a Community Unit Plan to develop a subdivision of 9 lots in the SW1/4 36-10N-5E, Lancaster County. The plan calls for the development of 8 lots mostly in the southwest quarter of the southwest quarter of the section and one lot in the northeast quarter. A reduced plan of the site is attached. The group of 8 lots range in size from slightly more than 3 acres to one of more than 4 acres. Lot 9 in the northeast part of the subdivision consists of 8.9 acres. Lot 12 of about 156 acres is retained for agricultural use and includes a lake, of about 10 acres, on a drainage west to east across the center of the quarter section. Surface drainage is to the south-southeast toward Haines Branch of Salt Creek.

The subdivision is bounded on the west by Southwest 70th Street and on the south by West Van Dorn Street. Nearby subdivisions include Long View Estates one mile to the west, Ridge Park directly southwest and Meadow View one-half mile to the west. There is scattered housing along the south side of Van Dorn Street, the west side of Southwest 70th Street and to the

north in the same section of the subdivision (Figure 1).

Groundwater Reports describing the geology and the availability of groundwater and its quality are available for each of the nearby subdivisions. A number of well logs including those for a large number of registered wells in nearby Ridge Park are also available. One well on Lot 9 in the proposed subdivision has recently been completed and that log and report of the water quality analysis is attached. Table 1 is a summary of information from selected well logs. Table 2 in the report summarizes the available ground water quality.

The only known aquifer in the area and the source of water to existing wells and to individual private domestic wells in the subdivision is the Dakota Sandstone. The Dakota in the area consists of a lower sandstone overlain by Dakota clays and thin sandstones. Glacial till overlies the Dakota red, white and yellow clays. The top of the Dakota is an eroded surface. The Dakota is underlain by limestone and shales of Pennsylvanian Age. None of the existing wells are known to have penetrated the total thickness of the Dakota. The deeper lying sandstone in this area of Lancaster County is generally brackish to highly saline. Most local well drillers are aware of the salinity problem so they construct wells only to depths necessary to obtain the desired yield for a domestic supply. The depth of wells is largely dependent upon surface elevations at the well site. The attached plat map of the subdivision includes a topographic map. It is

expected that most wells in the subdivision will be similar in depth to the well in Lot 9 and the other wells shown in Table 1 (Summary of Well Logs) ie., 240 to 270 feet. Based on the available water quality information, wells drilled to mean sea level depths of less than 1035 to 1040 feet should yield adequate water with low salinity. Note that one well in Ridge Park was completed to a depth referred to mean sea level of 1026 feet.

The depth to water is also dependent largely upon elevations of the land surface. The water in the Dakota is "confined" and represents a potentiometric surface. That surface slopes from about 1190 feet above msl in the southwest corner of the section to about 1175 in the southeast corner and 1160 in the northeast corner. The groundwater divide between Salt Creek to the north and Haines Branch to the south lies along West Van Dorn Street. Groundwater in the proposed subdivision moves toward discharge in Salt Creek Valley lowlands and side slopes.

The Dakota Sandstone is a major groundwater reservoir containing a substantial quantity of water that is replenished annually from precipitation. Water levels will fluctuate to some degree and will respond primarily to climatic conditions. The total saturated thickness as measured from water levels to base of wells appears to average about 130 to 150 feet. Thicknesses of sandstone range considerably from about 10 feet to more than 50 feet. Reported well yields range from 10 gpm to some wells over 100 gpm in wells that were test pumped with air.

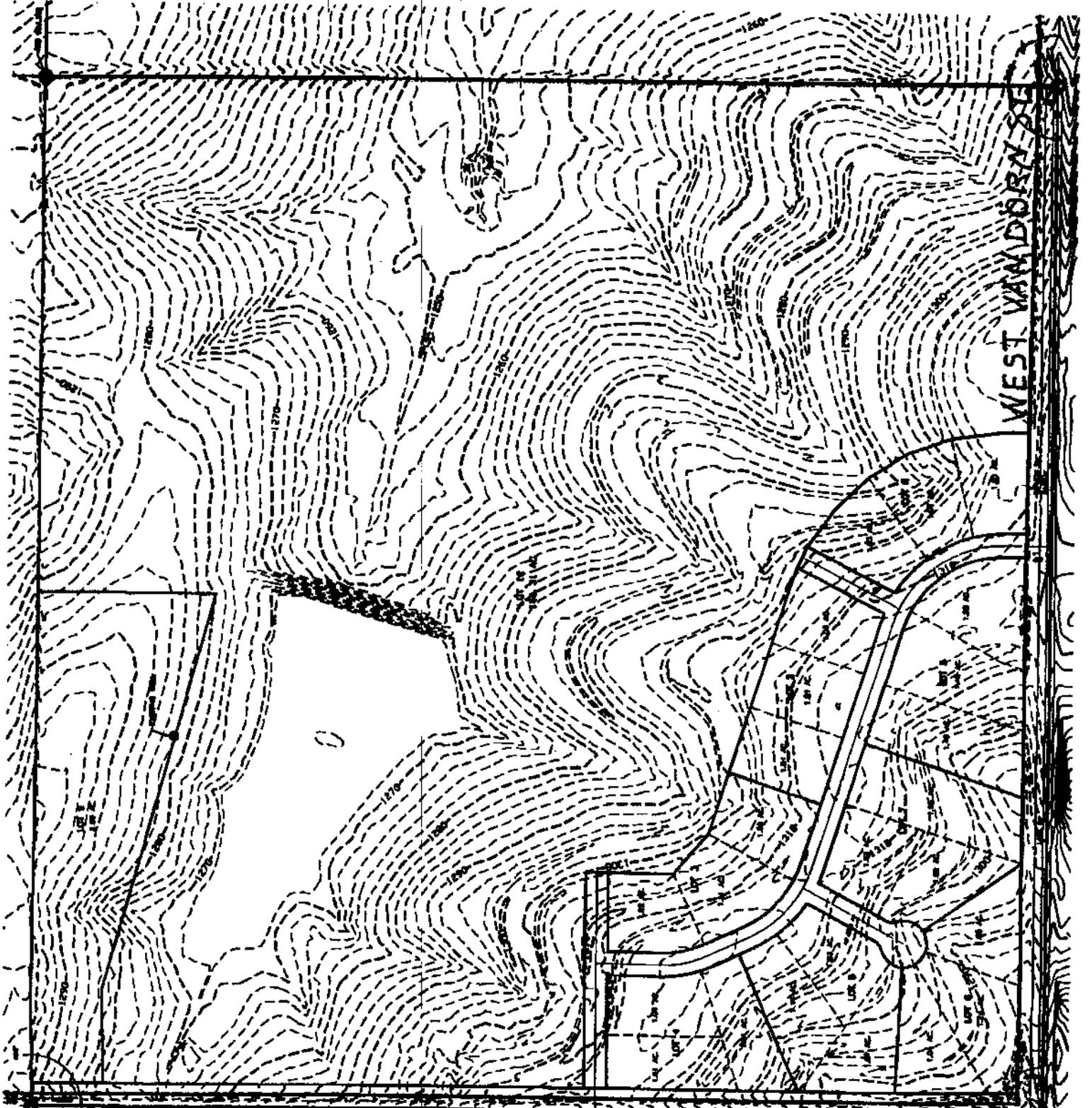
Based upon available information wells in the 8 lots in the southwest portion of the development should be capable of yielding 10 to 20 gpm.

Available water quality information indicates the water can be expected to be potable for wells in the proposed development with total dissolved solids of about 500 to 600 gpm, hardness of about 250 to 440 ppm, sodium from about 45 to 100 ppm, chloride of less than 50 to about 90 ppm, sulfates from about 60 to 90 ppm and iron and manganese from about 0.3 to 0.4 each. Ph is generally about 7.5 and Nitrate-N is less than 0.1 ppm. The water is quite hard and iron concentrations in excess of 0.3 ppm and manganese in excess of 0.2 ppm can cause staining on fixtures and clothes. Most home owners will probably choose to condition their water for household use with water softeners and filtration.

In summary, wells yielding an adequate quantity of potable water should be possible in the remaining lots in the proposed subdivision. A test well to determine water quantity and quality is recommended before home construction on any of the lots. Caution should be exercised with regard to salinity for any well drilled below the mean sea level depth of about 1040 feet.

N ←

SW 70th and
WEST VAN DORN
SUBDIVISION
SW 1/4 36-10N-5E



R 5 E | R 6 E

T 10 N
T 9 N

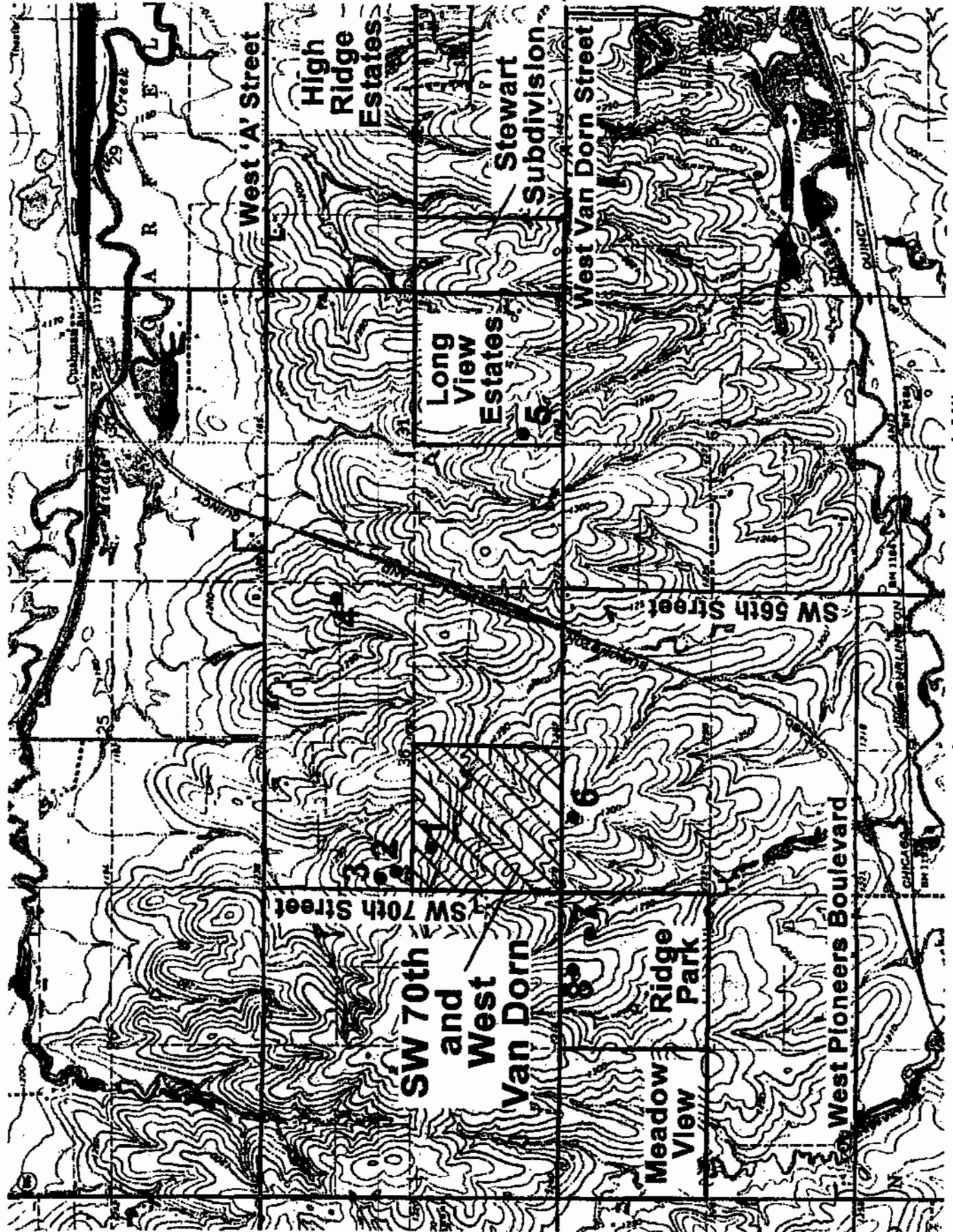


Figure 1. Map showing location of SW 70th and West Van Dorn and nearby subdivisions. Wells, referred to in text and on tables, shown by dot and number.

Submitted For
ASPEN BUILDERS INC.

SAMPLE MARKED

1

LABORATORY NUMBER

04704343

DATE RECEIVED

27-Oct-2004

DATE REPORTED

29-Oct-2004

Submitted By

Aspen Builders, Inc
1640 Normandy Ct, Ste A.
Lincoln, NE 68512

ANALYSIS OF CHEMICAL PROPERTIES		YOUR RESULTS			STATUS OF YOUR RESULTS		
		UNIT OF MEASURE	RESULT	LBS/ ACRE FOOT	SATISFACTORY	POSSIBLE PROBLEM	PROBABLE PROBLEM
SOLUBLE CHARACTERISTICS	pH	---	7.6	---	[REDACTED]	[REDACTED]	[REDACTED]
	Hardness	---	224.6	---			
	(For Overhead Sprinkler Only) Bicarbonate	ppm	328.8	894.9			
	Carbonate	ppm	0.0	0.0			
IONIC CONCENTRATION	Electrical Conductivity (ECw)	mmhos/cm	0.84	---	[REDACTED]	[REDACTED]	[REDACTED]
	Total Soluble Salts	ppm	538	1462			
ANIONIC CONCENTRATION	Sodium Chloride	meq/l	1.91	---	[REDACTED]	[REDACTED]	[REDACTED]
		ppm	58	157			
	Boron	ppm	0.10	0.30			
CATIONIC CONCENTRATION	Sodium Chloride	ppm	44.0	120.0	[REDACTED]	[REDACTED]	[REDACTED]
		ppm	58	157			
SODIUM ABSORPTION RATIO	Sodium Absorption Ratio Adj	meq/l	2.82	---	[REDACTED]	[REDACTED]	[REDACTED]
	Electrical Conductivity (ECw)	mmhos/cm	0.84	---			
	Total Soluble Salts	ppm	538	1462			
To maintain good soil structure in arid regions, irrigation water should have the capacity to replace the soluble salts being dissolved. If the salts being dissolved are not replaced, a decrease in permeability may occur.					No anticipated difficulty with most crops.	Some difficulty for sensitive & moderately sensitive crops	Significant difficulty for most crops

ANALYSIS OF NUTRIENTS						
PLANT NUTRIENTS AS NORMALLY REPORTED IN WATER ANALYSIS	RESULTS AS PPM	NUTRIENTS CONVERTED TO BASIC FERTILIZER MATERIAL FORMS	RESULTS LB/ACRE FOOT	CATIONS	MEQ/LITER	
NITRATE (NO ₃ -N)	0.01	NITROGEN (N)	0.00	K+	0.08	
PHOSPHATE (PO ₄)	0.01	PHOSPHATE (P ₂ O ₅)	0.02	NA+	1.91	
POTASSIUM (K)	3.00	POTASH (K ₂ O)	9.70	CA++	3.39	
MAGNESIUM (Mg)	13.0	MAGNESIUM OXIDE (MgO)	58.5	MG++	1.07	
CALCIUM (Ca)	68.0	CALCIUM (Ca)	185.0	ANIONS	CL-	1.63
SULFATE (SO ₄)	68.0	SULFUR (S)	61.2	SO ₄ --	1.42	
MANGANESE (Mn)	0.30	MANGANESE (Mn)	0.82	HCO ₃ -	5.39	
IRON (Fe)	0.40	IRON (Fe)	1.09	CO ₃ --	0.00	
BORON (B)	0.10	BORON (B)	0.30	PO ₄ ---	0.00	
				NO ₃ -	0.00	

pHc 7.20
TOTAL CATIONS 6.45
TOTAL ANIONS 8.44

SAR 1.28

SW 70th and West Van Dorn Subdivision

Table 1. Summary of Well Logs

Well Number	Estimated Ground Altitude (msl)	Well Depth		Static Water		Dakota Formation		Well Yield gpm	Notes
		In ft.	Referred to (msl)	In ft.	Referred to (msl)	Sandstone Intervals in ft.	Sandstone Thickness in ft.		
1	1282	242	1040	99	1183	202-247	45	Est. 20	Lot 9 SW 70th and West Van Dorn
2	1300	258	1042	114	1186	228-260+	32	120 with air	Reg. #G98943 SW 1/4 Sec. 36-10N-5E
3	1290	260	1030	110	1180	230-260+	30	120 with air	Reg. #G100181 SW 1/4 Sec. 36-10N-5E
4	1260	220	1040	91	1169	200-220	20	10	Reg. #G100620 NE NE Sec. 36-10N-5E
5	1272	205	1067	98	1173	130-210+	80	50	Long View Estates SW NW SW SE Sec. 31-10N-6E
6	1312	252	1060	120	1192	215-252	37	60	NE NW NW Sec. 1-9N-5E
7	1265	239	1026	73	1192	210-245+	14+	100 with air	Ridge Park Reg. #G100803 NE NE Sec. 2-9N-5E
8	1318	271	1047	130	1188	260-271	11+	70	Ridge Park NE cor. NW NE Sec. 2-9N-5E

Note: Well locations are shown in Figure 1.

SW 70th and West Van Dorn Subdivision

Table 2. Inorganic Water Quality

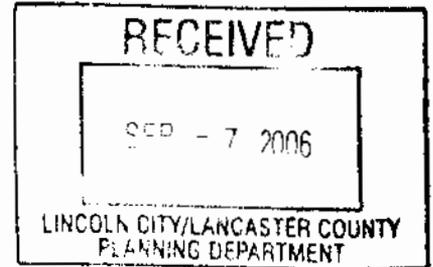
Well Number	Total Dissolved Solids	Total Hardness	Bicarbonate	Sodium	Calcium	Iron	Manganese	Chloride	Sulfate	Nitrate-N	pH	Notes
1	538	224.6	328.6	44	68	0.4	0.3	58	68	0.01	7.6	Lot 9 SW 70th and West Van Dorn
5	614	522	427.4	119.9	120	0.1	0.01	10	31	<0.1	7.6	Long View Estates
8	578	352	286	69	86	0.3	0.36	86	103	<0.1	7.6	Ridge Park

Note: Well locations are shown in Figure 1.



R.R. 1 BOX 56
ROCA, NEBRASKA 68430
402/423-3855
FAX 402/423-8090

AREA 2
SERVICE CENTER



September 6, 2006

Mike Dekalb, Project Planner
555 S. 10th St. #213
Lincoln, NE 68508

RE: West Van Dorn Heights

Dear Mike,

I have reviewed the subject plat, and have no objections, except with regards to easement. I would request our standard 10' on all exterior lot lines, and 10' [5' each side] of lot lines that are adjacent to one another. I request this be included in the " general site notes " section. There is an easement line in the legend, but I don't quite see it on the plat the way it normally shows. It would be best to include Windstream Communications and Time Warner as well.

Please feel free to call me at 423-3855 if you have any questions.

Sincerely,

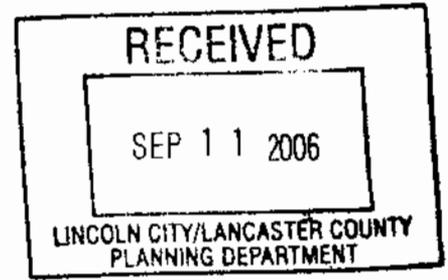
A handwritten signature in cursive script that reads "Rick Volmer".

Rick Volmer, Staking Engineer



www.lincolnairport.com

September 8, 2006



Mike DeKalb, Project Planner
City County Planning
555 South 10th Street
Lincoln, NE 68508

Subject: West Van Dorn Heights
Special Permit (CUP) # SP06052
Change of Zone (PUD) #CZ06060

Mr. DeKalb:

After reviewing the subject proposal we have the following comments.

This development is within the Airport Environs Noise District and so will need to conform to the requirements of Chapter 27.58. Specifically, the development will require an aviation easement per Chapter 27.58.080.

It also appears that a portion of this proposal is within a turning zone as defined in Chapter 27.59 of the Lincoln Municipal Code and its associated Lincoln Airport Zoning Map. That area is also defined as being above elevation 1,248', as indicated by the "shaded" areas of the Map. Any development in those areas should be required to go through the height permitting process to ensure they do not exceed allowable structure heights.

If you have any questions or comments, please advise.

Sincerely,

AIRPORT AUTHORITY

Jon L. Large, P.E.
Deputy Director of Engineering

JLL/sn

Cc: Bill Austin, w/attachments

Lancaster

DON R. THOMAS - COUNTY ENGINEER

County

Engineering

DEPUTY- LARRY V. WORRELL
COUNTY SURVEYOR

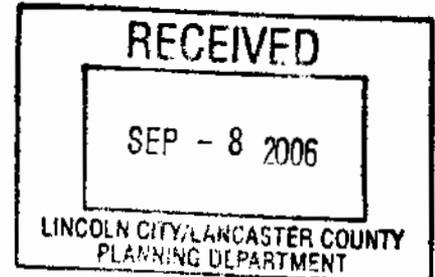
Department

DATE: September 7, 2006

TO: Mike DeKalb
Planning Department

FROM: Larry V. Worrell
County Surveyor

SUBJECT: WEST VAN DORN HEIGHTS
CZ 06060 SP 06052



Upon review, this office would have the following comments:

- 1) West Van Dorn shall be regraded for the left turn lane with 4' shoulders. Details should be shown for the design of the left turn lane.
- 2) Concrete pavement shall be installed as approved by Public Works.
- 3) Developer shall install survey monument boxes at all centerline control points and set centerline control upon acceptance of the paving.
- 4) Developer shall be responsible for transitional grading of SW 70th Street north of West Benelli Lane and RUTS design south of West Benelli Lane. The RUTS design will require additional right-of-way on the west side of SW 70th Street.
- 5) Developer shall be responsible for the installation of all street identification signs and traffic control as designated by this office during staging of final plats.
- 6) *General Note 32* should be revised since there is no flood plain on the property.
- 7) *General Note 33* is not needed in light of *General Note 19*.
- 8) The end treatments described in *General Note 22* are not required for private drives, but are required for private roadways.
- 9) The notes under the Typical Cross-Section for Rural & Intermediate BTA do not apply.

**WEST VAN DORN HEIGHTS
CZ 06060 SP 06052**

- 10) The minimum culvert size under the roadway is 24". Culvert 2 and 10 are too small.
- 11) Drainage area hydrology and culvert hydrologys shall be included on the drainage plans.
- 12) The maximum profile grade is 7.0%. The grade of 8.0% on West Hallowell Lane is too steep.
- 13) The approach grade of SW 65th Street (south leg) at West Remington Drive should be 3.0% or less.
- 14) The radius of the returns at NW 70th Street and at West Van Dorn Street shall be 50 feet. Interior returns shall have 30 feet radius.



"Sgt. Don Scheinost"
<lpd798@CJIS.CI.LINCOLN.
NE.US>

09/01/2006 02:16 PM

To Mike DeKalb <mdekalb@lincoln.ne.gov>

cc

bcc

Subject West Van Dorn Heights SP06052, CZ06060

Mr. DeKalb,

The Lincoln Police Department has one objection to the West Van Dorn Heights Special Permit (CUP) # SP06052, Change of Zone (PUD) CZ06060. The Lincoln Police Department objects to the requested waiver for block lengths to exceed 1,320 feet, due to safety issues not only during construction, but at times of traffic accidents or other emergency situations that take place after construction.

Sergeant Don Scheinost, #798
Lincoln Police Department
Management Services
(402) 441-7215
lpd798@cjis.ci.lincoln.ne.us



Status of Review: Active

Reviewed By

ANY

Comments:

Status of Review: Denied

09/04/2006 8:34:08 AM

Reviewed By 911

ANY

Comments: Site Plan shows three "future roads" with names Road A, Road B and Road C. We have denied two other developers request for these names and will continue to do so. Lettered streets A through Z are well established and any variation will only lead to confusion and a danger to the Public.

Status of Review: Approved

Reviewed By Alltel

ANY

Comments:

Status of Review: FYI

09/01/2006 1:52:06 PM

Reviewed By Building & Safety

Terry Kathe

Comments: 65th Street (off of West Van Dorn) should be 66th.

66th Street west of this segment should be 67th Street.

Does West Remington Drive change at the intersection of SW 66th or at the cul-de-sac? Clarify on the plat.
Probably better at the cul-de-sac.

Status of Review: Active

Reviewed By Fire Department

ANY

Comments:

Status of Review: Approved

09/08/2006 1:59:20 PM

Reviewed By Health Department

ANY

Comments: LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT
INTER-OFFICE COMMUNICATION

TO: Mike DeKalb DATE: September 8, 2006

DEPARTMENT: Planning FROM: Chris Schroeder

ATTENTION: DEPARTMENT: Health

CARBONS TO: EH File SUBJECT: West Van Dorn Heights

EH Administration SP #06052 CZ #06060

The Lincoln-Lancaster County Health Department has reviewed the proposed development with the following noted:

This community unit plan proposes the use of individual wells for potable water. The updated groundwater report indicates that wells yielding an adequate quantity of water should be able to support the additional water requirements of the additional residences. Homeowners will likely need to condition their water for household use with water softeners and filtration. Well depth may be a concern due to salinity in the wells below the mean sea level depth of about 1040 feet. A test well is recommended before home construction on any of the lots.

A community wastewater system is proposed. The wastewater system will require the approval of the Nebraska Department of Environmental Quality as well as the LLCHD.

All wind and water erosion must be controlled during construction. The Lower Platte South Natural Resources District should be contacted for guidance in this matter.

During the construction process, the land owner(s) will be responsible for controlling off-site dust emissions in accordance with Lincoln-Lancaster County Air Pollution Regulations and Standards Article 2 Section 32. Dust control measures shall include, but not limited to application of water to roads, driveways, parking lots on site, site frontage and any adjacent business or residential frontage. Planting and maintenance of ground cover will also be incorporated as necessary.

Status of Review: Active

Reviewed By Lancaster County Sheriff Department

ANY

Comments:

Status of Review: Active

Reviewed By Lincoln Police Department

DON SCHEINOST

Comments:

Memorandum

To: Mike Dekalb, Planning Department

From: Chad Blahak, Public Works and Utilities

Subject: West VanDorn Heights

Date: September 14, 2006

cc:

Engineering Services has reviewed the submitted plans for the West VanDorn Heights special permit, located on the northeast corner of SW 70th and West VanDorn Street, and has the following comments:

- The easement for the future trunk sanitary sewer needs to be shown along the existing channel.
- The possible future detention areas need to be shown and labeled on the plans. If the existing pond is intended to serve as the future detention cell, this needs to be indicated on the plans.
- The public access easements for the private roadways need to be clearly labeled and dimensioned on the plan sheets.
- The future roads shown on the build through plan need to be labeled with easements or platted as outlots to ensure that these required roads are able to be constructed when the development is further subdivided into urban density.
- A conceptual layout needs to be shown incorporating the half mile line roads that will connect to both SW 70th Street and West VanDorn Heights.
- The information shown on the preliminary plat relating to the public water main system, public sanitary sewer system, and public storm sewer system has been reviewed to determine if the sizing and general method providing service is satisfactory. Design considerations including, but not limited to, location of water main bends around curves and cul-de-sacs, connection of fire hydrants to the public main, temporary fire hydrant location, location and number of sanitary sewer manholes, location and number of storm sewer inlets, location of storm sewer manholes and junction boxes, and the method of connection storm sewer inlets to the main system are not approved with this review. These and all other design considerations can only be approved at the time construction drawings are prepared and approved.