



CITY of NOVI CITY COUNCIL

Agenda Item K
June 16, 2014

SUBJECT: Approval of a request from Interphase Land Development for a variance from the following ordinance sections for the Casa Loma residential development: 1) Section 11-68(a)(1) requiring a minimum of two points of connection for a water main that exceeds 800 feet from a looped source, and 2) Section 11-194(a)(7) regarding the configuration of the proposed cul-de-sac.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division ^{Kan} ^{BTC}

CITY MANAGER APPROVAL: 

BACKGROUND INFORMATION:

Interphase Land Development is the developer of Casa Loma, a single-family residential development located west of Beck Road and south of Nine Mile Road. The site plan was approved by the Planning Commission on March 26, 2014, subject to several variances from the Design and Construction Standards, three of which require approval from City Council. The variances that were identified by staff and are being requested by the developer for City Council consideration are as follows, along with the justification provided by the developer (see attached application and supporting documentation for additional detail):

- Section 11-68(a)(1) requires a second point of connection for water main extensions exceeding 800 feet in length. The developer had agreed to provide a water main stub to the south to provide a future connection when it becomes available (see attached email correspondence) and has demonstrated that the minimum flow and pressures can be achieved. Staff is recommending approval of this request because there are no other water main connections available and the design provides the necessary fire flow for the development.
- Section 11-68(5) requires that water main stubs be provided to property lines for future extension. The developer originally requested a variance to allow deferred construction of the water main by the Homeowners Association in the future should the site to the south develop. There would be many difficulties with construction of the water main between two houses once they are constructed and landscaped; and it would place a burden on the Association to have to fund and manage such a project in the future. Staff worked with the developer who has since agreed to construct the water main stub as part of the development, therefore **this variance is no longer necessary.**
- Section 11-194(a)(7) requires cul-de-sacs to be designed with certain dimensions to facilitate movements by emergency vehicles. The developer is proposing a revised geometry for the cul-de-sac that is unique to this development, but does not deviate substantially from the performance derived from the City's standard design, and is not detrimental to public health because the proposed alternative allows movements and access by emergency vehicles. Therefore, staff is recommending approval of this request as well.

The application package and asserted justifications from the applicant along with the relevant ordinance sections are attached.

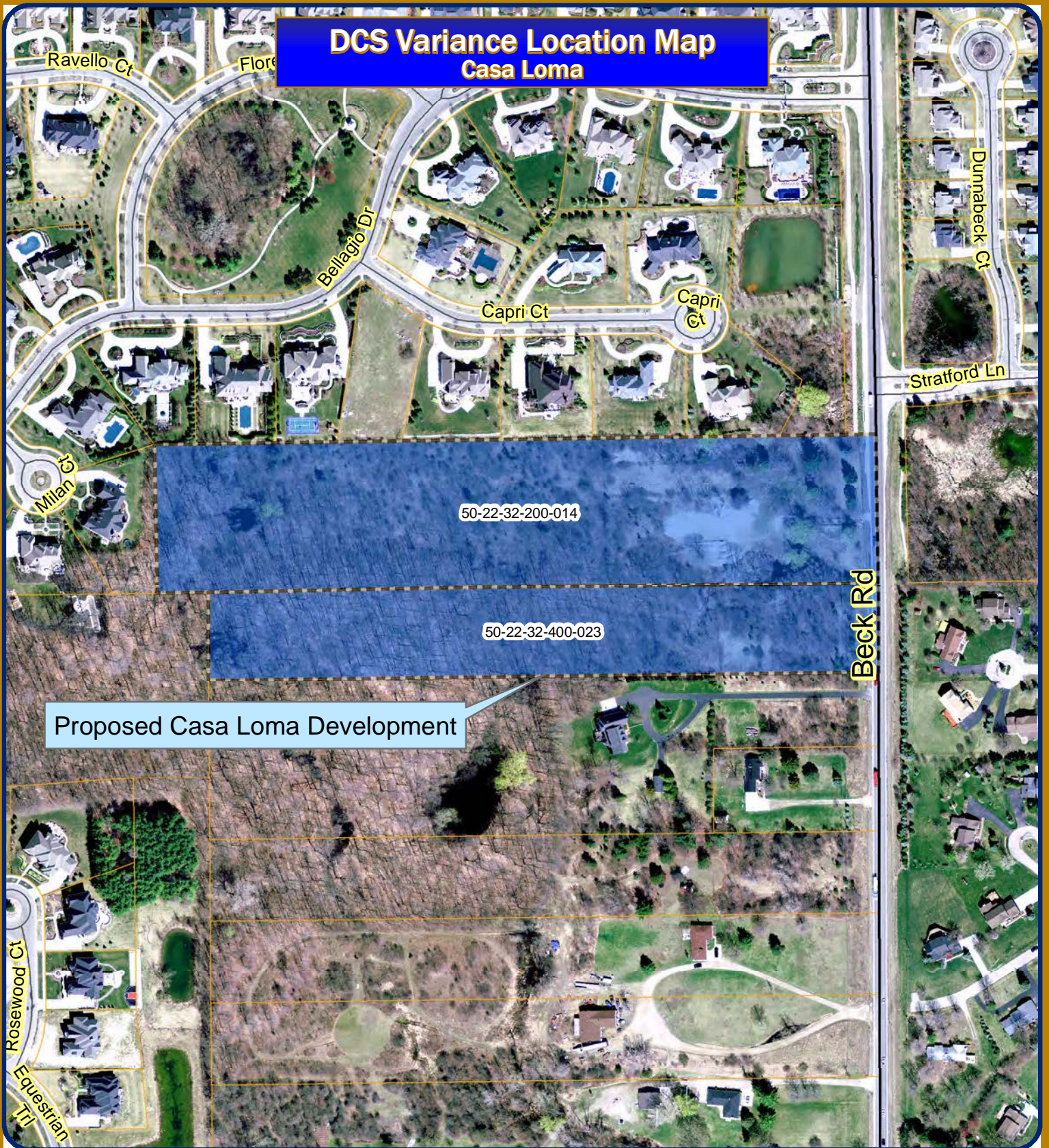
The variance requests were reviewed by Community Development, the Landscape Architect, DPS Field Operations, DPS Engineering, City Attorney and Fire using the criteria in Section 11-10 of the ordinance (attached). With the exception of DPS Engineering, all reviewers took no exception to the variance requests and recommended approval. The only concern from Engineering staff was related to the lack of a future water main connection to the south, which has since been resolved now that the applicant has agreed to provide the water main stub as part of the development.

RECOMMENDED ACTION: Approval of a request from Interphase Land Development for a variance from the following ordinance sections for the Casa Loma residential development: 1) Section 11-68(a)(1) requiring a minimum of two points of connection for a water main that exceeds 800 feet from a looped source provided that the applicant has agreed to provide a water main stub to the south for a future looped connection, and 2) Section 11-194(a)(7) regarding the configuration of the proposed cul-de-sac.

	1	2	Y	N
Mayor Gatt				
Mayor Pro Tem Staudt				
Council Member Casey				
Council Member Fischer				

	1	2	Y	N
Council Member Markham				
Council Member Mutch				
Council Member Wrobel				

DCS Variance Location Map Casa Loma



Proposed Casa Loma Development

50-22-32-200-014

50-22-32-400-023


Map Author: A. Wayne
Date: June 6, 2014
Project:
Version #:

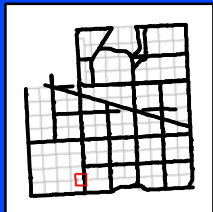
Amended By:
Date:
Department:

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 232 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

Map Legend

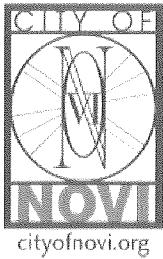
 Casa Loma



City of Novi
Engineering Division
Department of Public Services
26300 Lee BeGole Drive
Novi, MI 48375
cityofnovi.org



1 inch = 264 feet



Request for Variance Design and Construction Standards

Applicant Information

Name: Interphase Land Development

Address: 901 McDonald Drive
Northville MI 48167

Phone No: 248-640-1488

Engineer Information

Name: Nederveld, Inc.

Address: 3025 Miller Road
Ann Arbor MI 48103

Phone No: 734-929-6963

Applicant Status (please check one):

Property Owner Developer Developer / Owner Representative

Other _____

Project Name Casa Loma

Project Address/Location 21633 Beck Road

Variance Request Lack of a second water main connection and defer construction of the water main stub

Justification (attach additional pages if necessary)

See attached.

INTERNAL USE

Date Submitted: _____

Code Section from which variance is sought: _____

Submittal Checklist: One (1) copy of plan on 8.5 x 11 size paper
 \$100 Filing Fee (No fee for driveway width variance requests)

Request Status: APPROVED DENIED

Authorized By: _____

Authorization Date: _____

Coburn, Brian

From: Jason Van Ryn <jvanryn@nederveld.com>
Sent: Thursday, June 05, 2014 9:57 AM
To: Wayne, Adam
Cc: Coburn, Brian
Subject: [SPAM-GFI] - RE: Casa Loma DCS Variance Request

Adam,

I discussed with the project owner and the water main stub to the south property line will be constructed by the developer during site construction. The plans will be modified accordingly.

Jason Van Ryn, PE

Nederveld Inc.
800.222.1868
www.nederveld.com

From: Wayne, Adam [<mailto:awayne@cityofnovi.org>]
Sent: Wednesday, June 04, 2014 9:49 AM
To: Jason Van Ryn
Cc: Coburn, Brian
Subject: Casa Loma DCS Variance Request

Jason,

As part of preparation process, please provide a response/acknowledgement to the draft recommendation below:

“Approval of a request from Interphase Land Development for a Design and Construction Standards variance from Section 11-68(a)(1) requiring a minimum of two points of connection for a water main that exceeds 800 feet from a looped source to allow a 1,263 foot long water main extension **provided that the water main stub to the south is constructed by the developer and accepted by the City at the same time as the rest of the development** to provide a future looped connection.”

Note: The proposed recommendation is subject to review by the City Attorney.

Best regards,

Adam



Adam M. Wayne, E.I.T. | Construction Engineer
City of Novi | Department of Public Services
Field Services Complex | 26300 Lee BeGole Drive | Novi, MI 48375
t: 248.735.5648 f: 248.735.5659

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CASA LOMA

REQUEST FOR VARIANCE FROM
DESIGN AND CONSTRUCTION STANDARDS
ARTICLE III. WATER MAINS, SECTION 11 -68(A)(1) OF THE NOVI CITY CODE
FOR OVER 800 FT OF WATER MAIN STUB WITHOUT A SECONDARY STUB –
REQUEST DEFERRED CONSTRUCTION

Overview: The Casa Loma development is a 10 lot, single family residential site condominium development on the west side of Beck Road, just south of Belagio. As part of the project, 12” public water main will be brought from the east side of Beck Road to the west side of Beck Road. A 12” water main stub will be constructed to the south property line, and a 12” water main will be constructed to the middle portion of the proposed cul-de-sac. From that location to the end of the cul-de-sac, the water main will be an 8” water main to maintain 2,000 gall/minute at 20 psi.

Due to the location of the proposed development, the opportunities for looping the proposed water main system is limited. No stub was provided by the Bellagio development to the north for a loop connection. The size and number of lots to the south of the Casa Loma development render it unlikely that this area will ever be developed as a subdivision.

In an effort to accommodate the City’s request of a looped connection, an 8” water main stub and easement is proposed between Lots 2 and 3 to the south property line. This proposed stub and easement will allow for a future water main connection to the south when the south parcel is developed.

The owner is requesting to defer construction of the water main stub to the south property line, provide an easement for the possible future water main, and form an agreement with the City that states that the Homeowners Association will pay for the cost of the water main stub if the water main stub is ever extended in the future. This will be written into the Master Deed and Bylaws.

The justification for not requiring a water main stub to the south property line at this time is as follows:

- 1) The proposed water distribution system provides all 10 lots within the Casa Loma development with the required 2,000 gpm at 20 psi. Water pressure and volume will not be an issue and the stub is not required to get adequate water. Refer to Water Distribution System Model.
- 2) The project is adjacent to woodland and wetland. Not requiring a stub at this time will save trees and vegetation.

- 3) The difference in length between what is allowed (800 ft) and what is proposed (990 ft) is relatively minor (190 ft). The length that is proposed is not excessively above the 800 ft that is allowed without a variance.
- 4) Due to the size and number of lots to the south of the Casa Loma development, it is our opinion that it is unlikely that this area will ever be developed as a subdivision. Therefore, it is our opinion that the water main loop will not be constructed in the future, regardless of whether or not a stub is provided to the south property line.
- 5) The developer will provide a water main easement between Lots 2 and 3 to provide for future construction of a water main loop to the south if the land to the south is ever developed and if the water main loop is deemed beneficial in the future. Therefore, provisions will be made to provide the loop in the future if needed.
- 6) The deferred construction will keep water main from being located in close proximity to the houses on Lots 2 and 3. If the line is installed and a break occurred in that line, the houses on those lots would likely be damaged.
- 7) The deferred construction will reduce the length of “dead end” pipe and will reduce stagnant water in the water main stub.

\\NAa1\docs\15\1500089\Variance Requests\1500089 - DCS Variance Water Main.DOC



Request for Variance Design and Construction Standards

Applicant Information

Name: Interphase Land Development

Address: 901 McDonald Drive
Northville MI 48167

Phone No: 248-640-1488

Engineer Information

Name: Nederveld, Inc.

Address: 3025 Miller Road
Ann Arbor MI 48103

Phone No: 734-929-6963

Applicant Status (please check one):

Property Owner Developer Developer / Owner Representative

Other _____

Project Name Casa Loma

Project Address/Location 21633 Beck Road

Variance Request Proposed cul-de-sac geometry and reduced boulevard lane width

Justification (attach additional pages if necessary)

See attached.

INTERNAL USE

Date Submitted: _____

Code Section from which variance is sought: _____

Submittal Checklist: One (1) copy of plan on 8.5 x 11 size paper
 \$100 Filing Fee (No fee for driveway width variance requests)

Request Status: APPROVED DENIED

Authorized By: _____

Authorization Date: _____



CASA LOMA

REQUEST FOR VARIANCE FROM
DESIGN AND CONSTRUCTION STANDARDS
ARTICLE VIII. STREETS, ROADWAYS AND GENERAL RIGHT-OF-WAY
REQUIREMENTS, SECTION 11-194 (a) (7) AND SECTION 11-198, TABLE VIII-A,
OF THE NOVI CITY CODE FOR BOULEVARD WIDTH AND CUL-DE-SAC GEOMETRY

Overview: The Casa Loma development is a 10 lot, single family residential site condominium development on the west side of Beck Road, just south of Belagio. The proposed project will be serviced by a private, gated, boulevard cul-de-sac connecting to Beck Road. The proposed boulevard will have 22 ft wide driveways adjacent to a 14 ft wide landscaped island. The proposed boulevard section will run the entire length of the proposed cul-de-sac, with openings for cross driveway traffic, and terminate into the center island at the end of the cul-de-sac.

The justification for allowing the 22 ft wide driveway width and boulevard cul-de-sac geometry is as follows.

- 1) Table VIII-A of the City's Design and Construction Standards requires a 24 ft wide pavement surface for a 2-lane roadway. This does not meet the intent of this private gated residential development. The proposed private boulevard is one-way in and one-way out. The proposed boulevard cul-de-sac is intended for private residential use, not a local connector road. The 22 ft wide roadway will provide sufficient ingress/egress and emergency access for the proposed use.

- 2) Design and Construction Standards, Article IX. Drive Approaches, Turn Lanes, and Passing Lanes, Figure IX.3 (shown below) provides a drive with range of 22' to 27'. The proposed drive width is 22 ft, falling within this range.

Design Features		Standard	Range
Intersecting Angle	A	90°	
Width (Driveway)	B	58'	56' to 78'
Width (Local Street)		58'	56' to 78'
Entering Radius (Drive)	C	20'	20' to 35'
Entering Radius (Local Street)		25'	25' to 35'
Exiting Radius (Drive)	D	20'	20' to 35'
Exiting Radius (Local Street)		25'	25' to 35'
Entrance Drive (Drive)	K	24'	22' to 27'
Entrance Drive (Local Street)		24'	22' to 27'
Exit Drive Width	L	24'	22' to 27'
Local Street Width		24'	22' to 27'
Island Width	M	10'	8' to 24' ⁽¹⁴⁾
Nose Offset	P	12'	6' to 18'
Island Length	N	35'	30' to 100'
Total Opening (B+C+D) (Drive)	R	98'	96' to 148'
Total Opening (B+C+D) (Local Street)		108'	106' to 148'

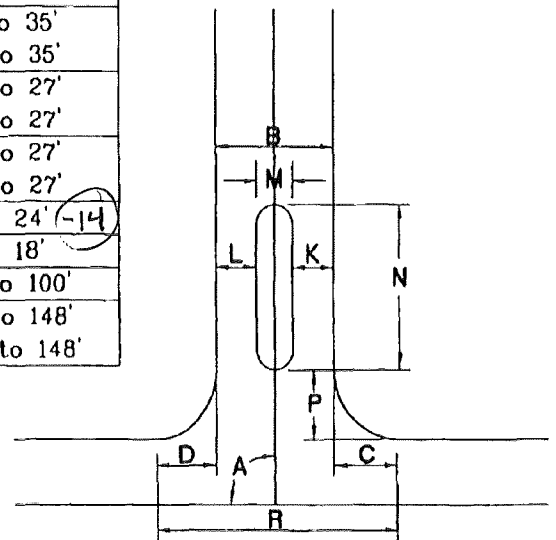


FIGURE IX.3

NOTE: The standard dimension shall be used unless the City specifies, or the applicant shows cause for, a different value. The Range in dimensions indicates the working values for each design feature.

Minimum island size = 200 square feet

Local street intersecting with arterial streets shall provide a 35' entering and exiting radius.

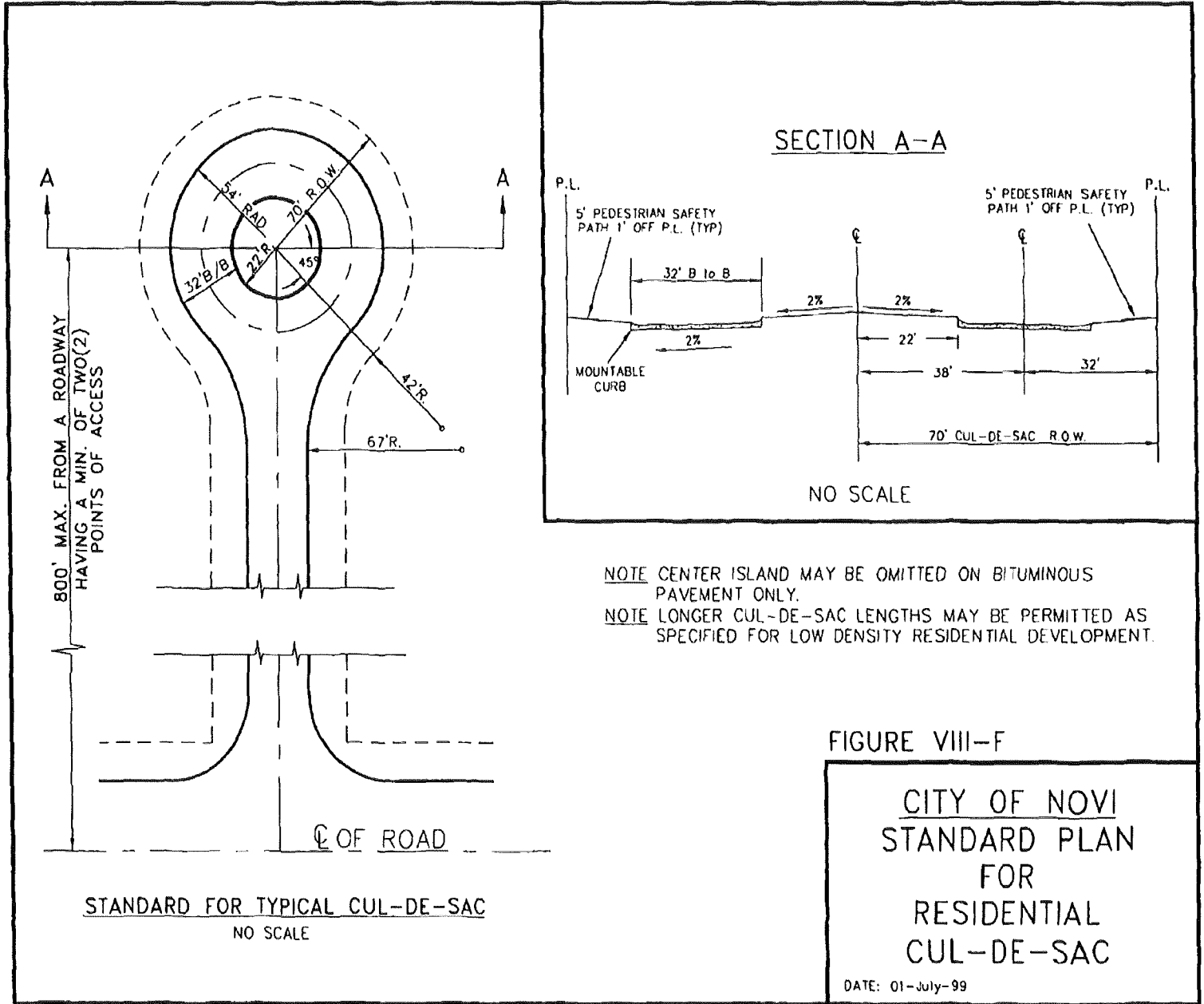
All dimensions are measured from back to back of curb.

NO SCALE

CITY OF NOVI
DESIGN STANDARD
FOR DIVIDED COMMERCIAL
DRIVEWAY AND LOCAL STREET

DATE: 29-Jan-99

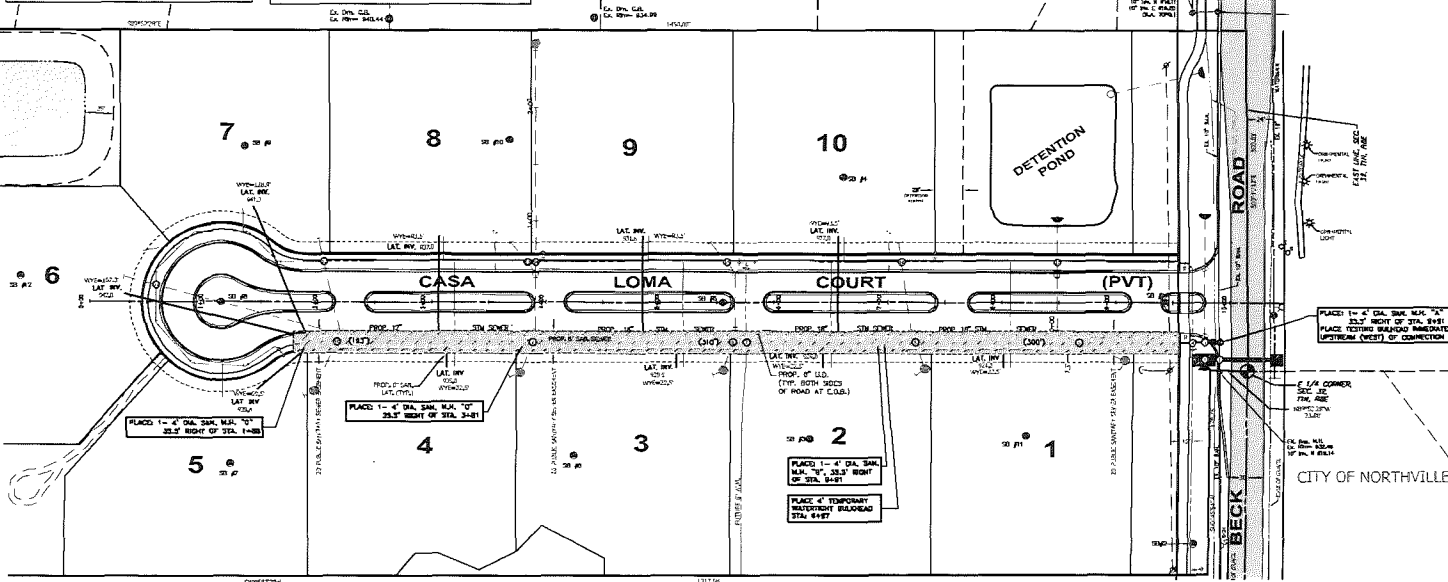
- 3) Article VIII Sec. 11-194 (a) (7) states that "cul-de-sac shall be designed in accordance with Figures VIII-F." Figures VIII-F (shown below) does not take into account boulevard cul-de-sacs, therefore we request



\\NAa1\docs\115\11500089\Variance Requests\11500089 - DCS Variance Boulevard Width.DOC

BENCHMARK #1: U.S.G.S. ELEV. = 937.87
SET TAILROAD STAKE IN NORTH-EAST CORNER OF POWER POLE 55' WEST OF BECK ROAD (1.0 A.C.L.)

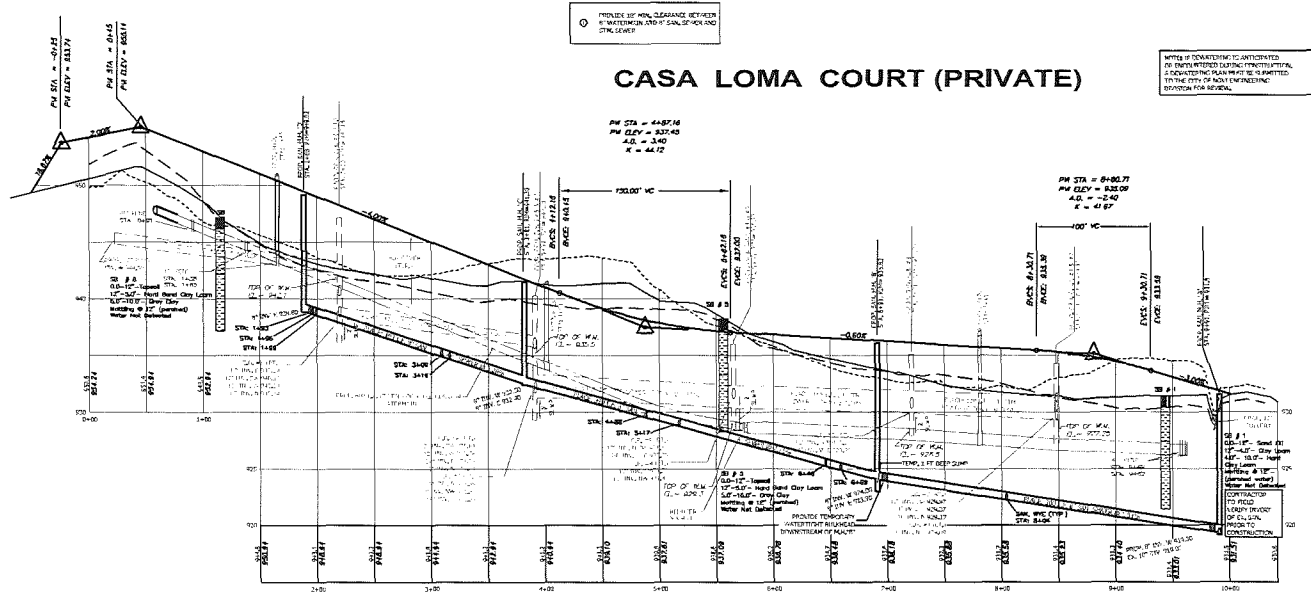
BENCHMARK #2: U.S.G.S. ELEV. = 930.02
L&C SPOKE SOUTH SIDE OF POWER POLE 55' WEST OF BECK + 10' SOUTH OF THE N. PROPERTY LINE (1.0 A.C.L.)



SCALE: Horiz: 1" = 50'
Vert: 1" = 5'

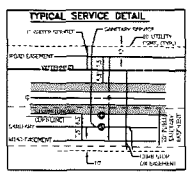
NEDERVELD
www.nederveld.com
801222.1800
ANN ARBOR
3075 Maple Road
Ann Arbor, MI 48106
734.769.4100
CHICAGO
1202 National Parkway
Skokie, IL 60077
708.436.4000
COLUMBUS
1000 19th Street, Suite A
Columbus, OH 43215
614.324.1212
GRAND RAPIDS
20 Cleveland Ave., Suite 102
Grand Rapids, MI 49503
616.455.9999
HOLLAND
340 Hoover Road
Holland, MI 49423
616.835.8000
INDIANAPOLIS
1400 Lafayette St., Suite 100
Indianapolis, IN 46204
317.577.0000

Preliminary Sanitary Sewer Plan
CASA LOMA
FINAL SITE PLAN
(Site Condominium)



CROSSING NUMBER	TOP UTILITY	TOP ELEVATION	BOTTOM UTILITY	TOP ELEVATION	CLEARANCE
1	12" WATER	825.82	12" WATER	825.12	0.70
2	12" WATER	826.18	12" WATER	825.19	0.99
3	12" WATER	828.88	12" WATER	828.21	0.67
4	12" WATER	829.87	12" WATER	829.46	0.41
5	12" WATER	830.75	12" WATER	830.44	0.31
6	12" WATER	834.74	12" WATER	834.44	0.30
7	12" WATER	835.47	12" WATER	835.22	0.25
8	12" WATER	840.26	12" WATER	840.17	0.09
9	12" WATER	842.74	12" WATER	842.51	0.23
10	12" WATER	843.30	12" WATER	843.17	0.13
11	12" WATER	847.44	12" WATER	847.11	0.33
12	12" WATER	847.75	12" WATER	847.17	0.58
13	12" WATER	848.74	12" WATER	848.44	0.30
14	12" WATER	851.30	12" WATER	851.20	0.10
15	12" WATER	852.50	12" WATER	852.10	0.40
16	12" WATER	853.70	12" WATER	853.40	0.30

SANITARY SEWER BASIS OF DESIGN
FOR THIS PROJECT, THE FOLLOWING ASSUMPTIONS MUST BE PROVIDED FOR EACH OF THE ABOVE LISTED ITEMS:
A. THE DESIGN SERVICE IS 4" DIA. WITH A 1.5% SLOPE. (MINIMUM 1.5% SLOPE)
B. THE DESIGN POPULATION IS 10000. (MINIMUM 10000)
C. THE DESIGN PEAK FLOW RATE IS 1.5 GPM PER PERSON. (MINIMUM 1.5 GPM PER PERSON)
D. THE DESIGN PEAK FLOW RATE IS 1.5 GPM PER PERSON. (MINIMUM 1.5 GPM PER PERSON)
E. THE DESIGN PEAK FLOW RATE IS 1.5 GPM PER PERSON. (MINIMUM 1.5 GPM PER PERSON)
F. THE DESIGN PEAK FLOW RATE IS 1.5 GPM PER PERSON. (MINIMUM 1.5 GPM PER PERSON)

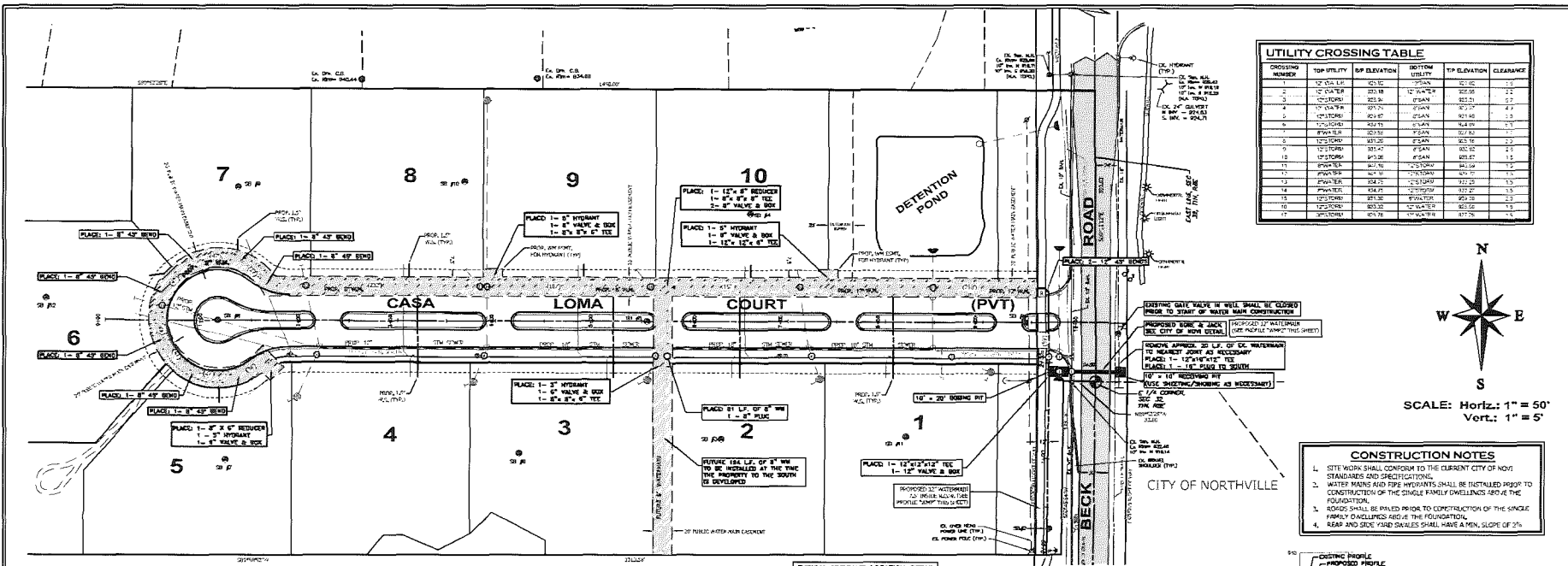


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800.485.4811
www.811.com

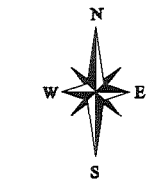
INTERPHASE LAND DEVELOPMENT LLC
Attention: David Compo
801 McDonald Drive
Northville, MI 48168
734.845.6666

NO.	DATE	DESCRIPTION	BY	CHKD.
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2	10/11/11
3	10/11/11
4	10/11/11
5	10/11/11
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8	10/11/11
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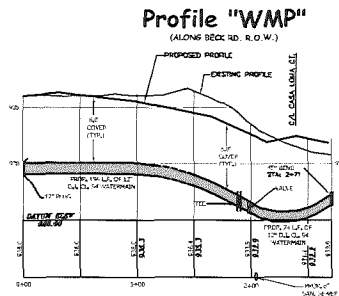
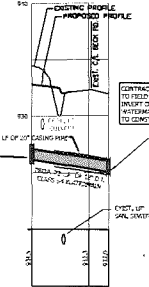
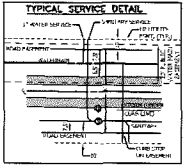
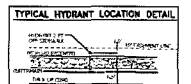
PROJECT NO: 11500089
C-401
SHEET NO: 6 OF 8
© 2011 Nederveld LLC



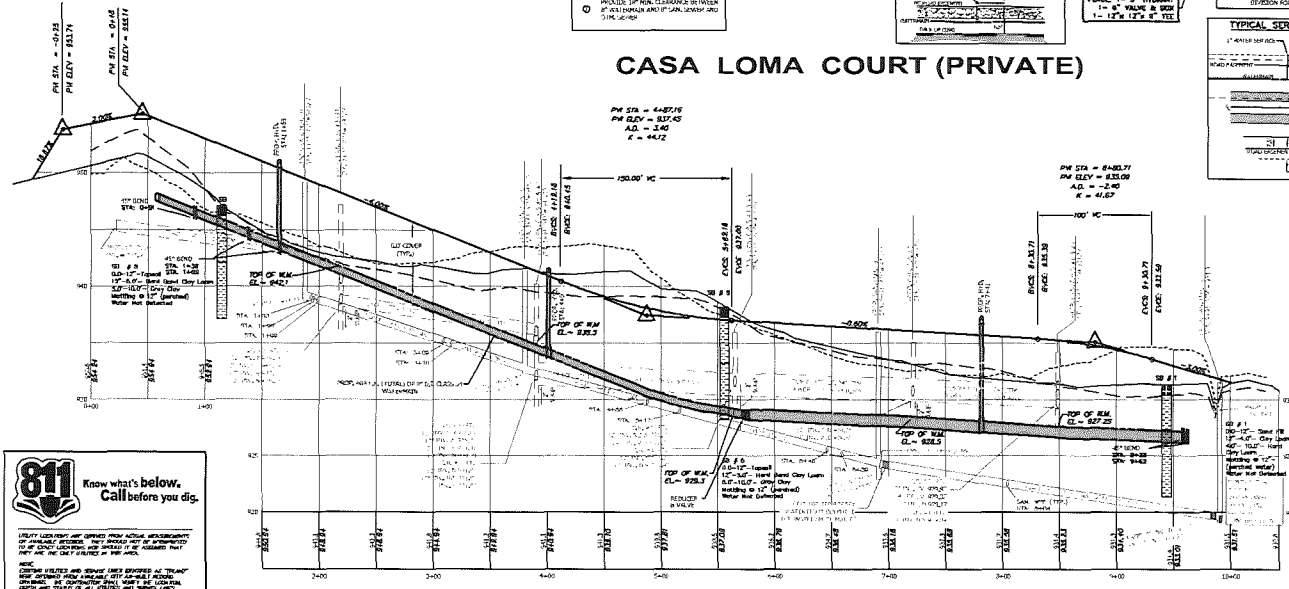
CROSSING NUMBER	TOP UTILITY	SP. ELEVATION	BOTTOM UTILITY	TP. ELEVATION	CLEARANCE
1	12" WATER	421.52	12" WATER	421.52	2.0
2	12" WATER	423.48	12" WATER	423.48	2.0
3	12" WATER	423.38	12" WATER	423.38	2.0
4	12" WATER	423.72	12" WATER	423.72	2.0
5	12" WATER	424.47	12" WATER	424.47	2.0
6	12" WATER	424.73	12" WATER	424.73	2.0
7	12" WATER	425.32	12" WATER	425.32	2.0
8	12" WATER	425.78	12" WATER	425.78	2.0
9	12" WATER	426.47	12" WATER	426.47	2.0
10	12" WATER	427.32	12" WATER	427.32	2.0
11	12" WATER	427.78	12" WATER	427.78	2.0
12	12" WATER	428.47	12" WATER	428.47	2.0
13	12" WATER	429.32	12" WATER	429.32	2.0
14	12" WATER	430.47	12" WATER	430.47	2.0
15	12" WATER	431.32	12" WATER	431.32	2.0
16	12" WATER	432.47	12" WATER	432.47	2.0
17	12" WATER	433.32	12" WATER	433.32	2.0



- CONSTRUCTION NOTES**
1. SITE WORK SHALL CONFORM TO THE CURRENT CITY OF NORTH STANDARDS AND SPECIFICATIONS.
 2. WATER MAINS AND FIRE HYDRANTS SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF THE SINGLE FAMILY DWELLINGS AND THE FOUNDATION.
 3. SIDES SHALL BE PAVED PRIOR TO CONSTRUCTION OF THE SINGLE FAMILY DWELLINGS AND THE FOUNDATION.
 4. ROAD AND SIDE YARD SLOPES SHALL HAVE A MIN. SLOPE OF 2%.



CASA LOMA COURT (PRIVATE)



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UTILITY LOCATIONS ARE OBTAINED FROM ACTUAL UTILITY RECORDS OF AVAILABLE RECORDS. THEY SHOULD NOT BE ASSUMED TO BE ACCURATE UNLESS VERIFIED BY A LICENSED PROFESSIONAL ENGINEER IN THE CITY OF NORTHVILLE.

NOTE: THE CITY OF NORTHVILLE DOES NOT GUARANTEE THE ACCURACY OF ANY INFORMATION PROVIDED BY ANY OTHER PARTY. THE USER OF THIS INFORMATION SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ANY INFORMATION PROVIDED BY ANY OTHER PARTY.

NEDEVELD

4000 Grand Haven Ave.
80222-1868

ANN ARBOR
2025 Maple Road
Ann Arbor, MI 48107
Phone: 313.963.9100

CHICAGO
1000 Federal Parkway
Schaumburg, IL 60197
Phone: 815.353.1000

COLUMBUS
10000 Avery Road, Suite A
Columbus, OH 43240
Phone: 614.881.1000

GRAND RAPIDS
20 Courtville Ave., Suite 102
Grand Rapids, MI 49503
Phone: 616.971.0000

HOLLAND
10000 Grand Haven Road
Holland, MI 49424
Phone: 616.833.1000

INDIANAPOLIS
10000 Courtville Ave., Suite 102
Indianapolis, IN 46240
Phone: 317.221.1000

Preliminary Water Main Plan
CASA LOMA
FINAL SITE PLAN
(Site Condominium)

PROJECT NUMBER: 11500089
CITY OF NORTHVILLE, MICHIGAN

INTERPHASE LAND DEVELOPMENT LLC

Attention: David Compo

80 McDonald Drive
Northville, MI 48168
Phone: 248.688.1888

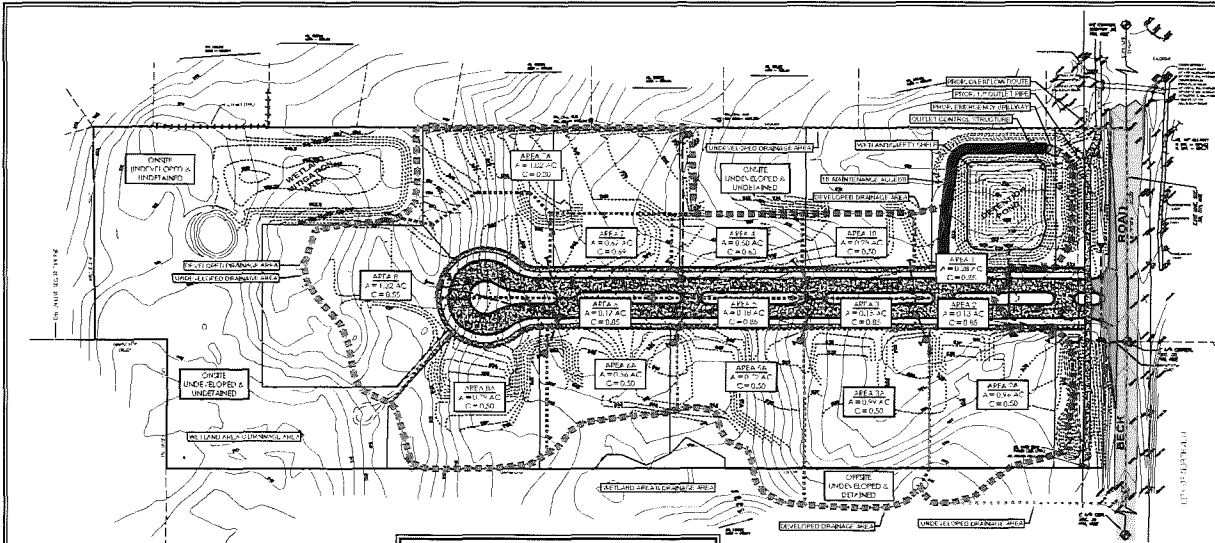
DATE	NO.	DESCRIPTION	BY	CHKD.
11/15/2018	1	ISSUE FOR PERMIT	DAVID COMPO	DAVID COMPO
11/15/2018	2	ISSUE FOR PERMIT	DAVID COMPO	DAVID COMPO
11/15/2018	3	ISSUE FOR PERMIT	DAVID COMPO	DAVID COMPO
11/15/2018	4	ISSUE FOR PERMIT	DAVID COMPO	DAVID COMPO
11/15/2018	5	ISSUE FOR PERMIT	DAVID COMPO	DAVID COMPO
11/15/2018	6	ISSUE FOR PERMIT	DAVID COMPO	DAVID COMPO
11/15/2018	7	ISSUE FOR PERMIT	DAVID COMPO	DAVID COMPO
11/15/2018	8	ISSUE FOR PERMIT	DAVID COMPO	DAVID COMPO
11/15/2018	9	ISSUE FOR PERMIT	DAVID COMPO	DAVID COMPO
11/15/2018	10	ISSUE FOR PERMIT	DAVID COMPO	DAVID COMPO

Project no.: 11500089

C-402

Sheet No.: 7 OF 8

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STORM WATER MANAGEMENT NOTES

MAINTENANCE
 Maintenance of the detention basin will be the responsibility of the Casa Loma Homeowners' Association. The City of Novi will be given an easement to access the pond and storm sewer system for maintenance if required. If the City is required to complete maintenance of the storm sewer system or pond, the City may access the homeowner's Association for the cost of this maintenance. The wet area of the basin will consist of sedimentation volume. The basin shall be periodically dredged to remove the sediment.

STORM WATER DISCHARGE ROUTE
 The water from the pond is to discharge along Beck Road which is intentionally sized to accommodate 300 cfs. The ditch will discharge the storm water to the existing wetland area along the north property line of the subject property between Casa Loma and Debra's developments. There are two 30" culverts that discharge the storm water under Beck Road. Ultimately, the storm water is discharged to an existing drain that flows to the northwest, under N Main Road, then under Randolph Street, then under Center Road and ultimately to an existing lake located to the southwest of the City of Novi. The flow route is shown in the storm sewer calculations that have been submitted for City review. The storm water from the subject site has historically followed this same route, so the route should be adequate for the proposed discharge.

EMERGENCY SPILLWAY ROUTING
 An overflow emergency spillway is provided to accommodate a 100-year storm event. This routing for the retention facility is the same as the basin mentioned above.

EXISTING RUNOFF CALCULATIONS

Time of Concentration (T_c) - Undeveloped

$$T_c = L / (4.83 S^{0.58}) \quad T_c = L / (1.49 S^{0.849})$$

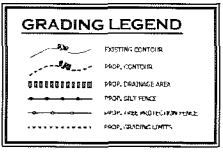
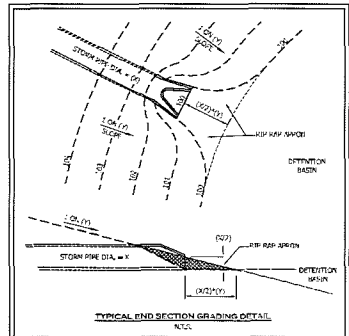
S₁ = 0.02 S₂ = 0.02
 S₁ = 4.0 S₂ = 2.0
 S₁ = 10.0 S₂ = 5.0

Total Time of Concentration (T_c) = 88.1 min

Existing Site Runoff - Undeveloped

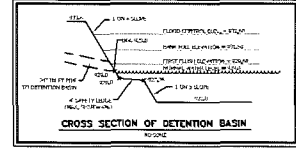
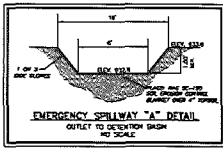
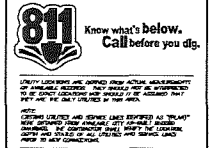
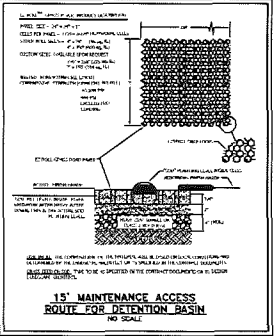
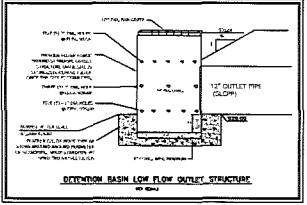
Storm	Flow	Intensity	A ₁	A ₂	Volume	Q _{100 Year}
1 Year	0.20	0.64	11.50	2.11	2.19	0.21
5 Year	0.26	1.28	11.50	4.25	4.35	0.30
10 Year	0.28	1.50	11.50	5.35	5.45	0.35
25 Year	0.28	1.70	11.50	6.40	6.55	0.35
50 Year	0.26	2.07	11.50	7.60	7.85	0.35
100 Year	0.26	2.41	11.50	8.90	9.25	0.35

Note:
 *Water is wetted and discharges through the Sheet Pile.
 *No adjustments were made for price grading.



MAINTENANCE TASKS & SCHEDULE

TASK	DURING CONSTRUCTION		PERMANENT MAINTENANCE	
	Frequency	Duration	Frequency	Duration
1. Inspect for leaks and repairs as needed.	Monthly	1-2 hours	Monthly	1-2 hours
2. Clean debris from the basin.	Quarterly	2-4 hours	Quarterly	2-4 hours
3. Check for sediment buildup.	Annually	4-8 hours	Annually	4-8 hours
4. Check for structural damage.	Annually	4-8 hours	Annually	4-8 hours
5. Check for erosion.	Annually	4-8 hours	Annually	4-8 hours



STORM WATER MANAGEMENT CALCULATIONS

- Total Volume of Detention Area: 235 Year storm
- | Surface | Area | C Factor | Weighted C |
|---------------------------------------|---------|----------|------------|
| Proposed Parking | 40,000 | 0.55 | 0.22 |
| Proposed Pavement | 20,000 | 0.85 | 0.17 |
| Proposed Open Area (pasture) | 10,000 | 0.05 | 0.05 |
| Pervious Area (hydraulic eq. group 1) | 200,000 | 0.05 | 0.10 |
- | Storage Volume to detain "First Flush" Runoff | Volume of 100 Year Storm |
|---|--------------------------|
| 1,838 cfs | 1,838 cfs |
- | Storage Volume to Control "Bankfull" Flood (24 hour storm/24 hr event) | Volume of 100 Year Storm |
|--|--------------------------|
| 8,888 cfs | 8,888 cfs |
- | Storage Volume to Control "Bankfull" Flood (24 hour storm/24 hr event) | Volume of 100 Year Storm |
|--|--------------------------|
| 70,365 cfs | 70,365 cfs |

Storage Volume Provided	Area	Depth	Cumulative Volume
70,365	1,838	3.83	24,900
70,365	1,838	3.83	49,800
70,365	1,838	3.83	74,700
70,365	1,838	3.83	99,600
70,365	1,838	3.83	124,500
70,365	1,838	3.83	149,400
70,365	1,838	3.83	174,300
70,365	1,838	3.83	199,200
70,365	1,838	3.83	224,100
70,365	1,838	3.83	249,000

NEDERVELD
 17000 Westfield Blvd
 48122-1105
 ANN ARBOR
 2025 Motor Road
 Ann Arbor, MI 48106
 734.769.5100
 CHICAGO
 1232 National Parkway
 Schaumburg, IL 60197
 815.344.2800
 COLUMBUS
 1000 Old County Road, Suite A
 Dublin, OH 43017
 614.891.5200
 GRAND RAPIDS
 217 Southville Drive, Suite 102
 Grand Rapids, MI 49503
 616.854.6300
 HOLLAND
 1400 Riverchase Blvd.
 Holland, MI 49423
 616.854.6300
 INDIANAPOLIS
 4600 Lakeshore Dr., Suite B
 Indianapolis, IN 46254
 317.854.6300

Storm Water Management Plan
CASA LOMA
FINAL SITE PLAN
(Site Condominium)
 ATTENTION:
 David McDonald
 800 McDonald Drive
 Novi, MI 48240
 248.462.4455

NO.	DESCRIPTION	DATE	BY	APP.
1	PRELIMINARY PLAN	07/15/10	JD	JD
2	FINAL PLAN	07/15/10	JD	JD

Project No: **1150089**
C-500
 SHEET NO: **8 OF 8**

Sec. 11-10. Variances.

- (a) Upon application, a specific variance to a substantive requirement of these standards may be granted, subject to the following criteria. Where the proposed activity requires site plan or plat approval, or otherwise involves the design or construction of a facility intended to be public, the variance application shall be to the city council. Where the proposed activity does not otherwise require site plan or plat approval, the variance application shall be to the construction board of appeals.
- (b) A variance may be granted when all of the following conditions are satisfied:
 - (1) A literal application of the substantive requirement would result in exceptional, practical difficulty to the applicant;
 - (2) The alternative proposed by the applicant shall be adequate for the intended use and shall not substantially deviate from the performance that would be obtained by strict enforcement of the standards; and
 - (3) The granting of the variance will not be detrimental to the public health, safety or welfare, nor injurious to adjoining or neighboring property.
- (c) The city council may, by resolution, establish an application fee for requests for variances from these standards.

(Ord. No. 86-124, § 16.01, 4-21-86; Ord. No. 87-124.01, Pt. I (16.01), 4-13-87; Ord. No. 91-124.05, Pt. I, 6-3-91; Ord. No. 93-124.06, Pt. V, 2-1-93; Ord. No. 99-124.11, Pt. III, 7-26-99)

Sec. 11-68. Design considerations.

(a) General requirements.

- (1) Generally, the distribution system in all developments requiring more than eight hundred (800) feet of water main shall have a minimum of two (2) connections to a source of supply and shall be a looped system. Exceptions will be made in those instances when a second connection is not available, or it is not otherwise possible to provide a looped system, provided the system is designed to accommodate a second connection when made available. The ability to serve at least two thousand (2,000) gallons per minute in single-family detached residential; three thousand (3,000) gallons per minute in apartment, cluster residential and similar complexes, institutional and school areas; and at least four thousand (4,000) gallons per minute in office, industrial and shopping centers is essential. Water mains are required to be extended along all road frontages abutting the proposed development at the direction of the city in accordance with the City of Novi Master Plan current edition for water main construction.
- (2) Generally, water mains shall be installed on the north or east side of all streets, seven and one-half (7½) feet from a public street right-of-way, or in easements exclusively reserved for such use. All easements shall be a minimum of twenty (20) feet wide and shall be dedicated to the authority having jurisdiction over the system. A barrel-to-barrel horizontal separation of at least ten (10) feet shall be maintained between water mains and sewers. Vertical separation shall be at least eighteen (18) inches.
- (3) Within nonplatted projects, water mains shall generally be installed parallel to the property lines or building lines, with clearance distances to allow for a 20-foot width dedication of easement centered on the centerline of all water mains. Exceptions will be made in those cases where parallel placement creates a hardship or causes excessive lengths of main to be placed under pavement.
- (4) Water mains shall wherever feasible be constructed outside of paved parking areas, streets and drives.
- (5) Water main stubs shall be provided to the property lines at locations designated by the engineer for future extension.
- (6) The easement descriptions shall include hydrant leads and shall extend a minimum of ten (10) feet beyond the hydrant on any lead. The easement documents shall contain a provision prohibiting the construction of or location of any aboveground structures within the limits of such easements.
- (7) Water main stubs shall terminate with a hydrant, followed by a valve and well and a stub and cap.
- (8) All water mains on which fire hydrants are located shall be considered public water mains and must be dedicated to the city unless otherwise approved by the city.
- (9) For interior fire protection systems a separate fire protection line shall be provided in addition to a domestic service for each building. Individual shutoff valves for interior fire protection shall be by post indicator valve (P.I.V.) or by valve in well and shall be provided within a public water main easement.
- (10) The use of ninety-degree water main bends is prohibited unless the city engineer finds that site constraints require such a design.

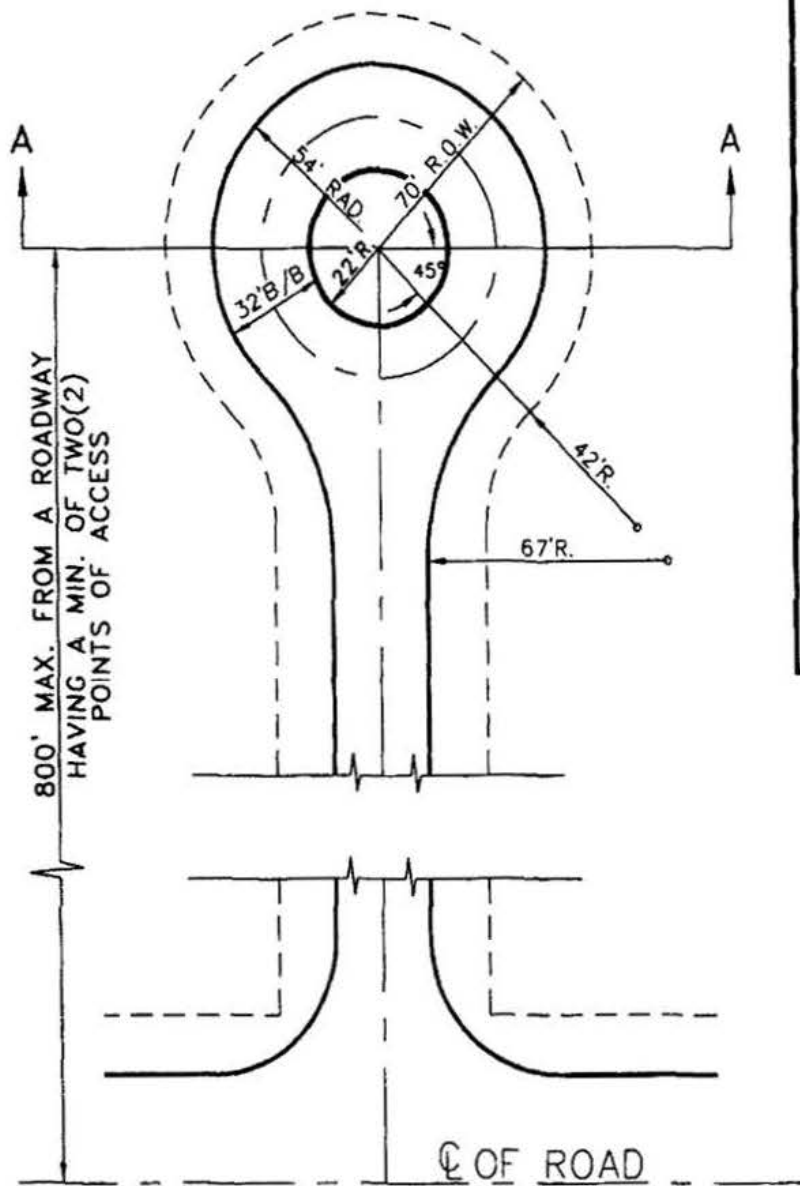
(b) Soil conditions.

- (1) Where required by the engineer, exploratory borings shall be provided by the

Sec. 11-194. Design considerations.

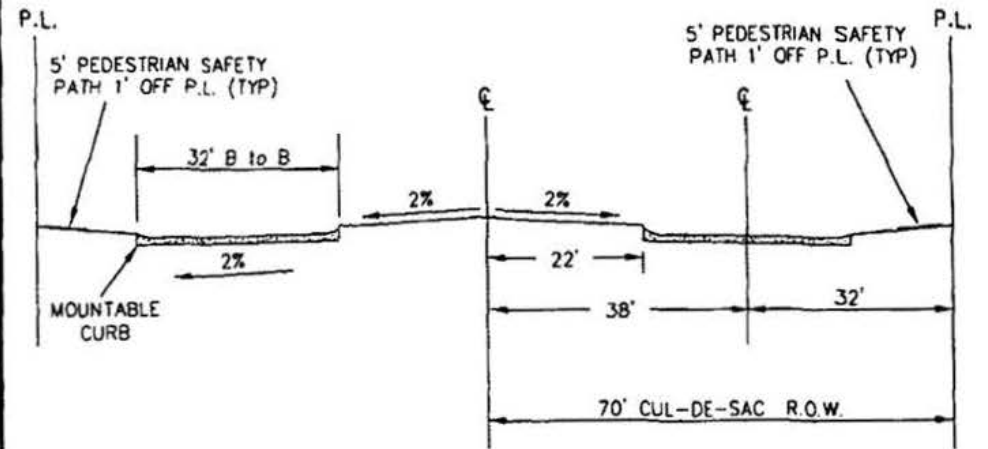
- (a) Street and roadway right-of-way widths, curbed pavement widths and pavement thickness.
- (1) See Table VIII-A for minimum requirements. Roads under the jurisdiction of the state department of transportation and the county road commission shall be subject to the requirements of those agencies. County road right-of-way dedication shall be in accordance with the current adopted road commission master right-of-way plan.
 - (2) Residential and industrial subdivision streets shall be surfaced with bituminous pavement or portland cement concrete pavement, curbed with portland cement concrete curb and gutter sections, and provided with enclosed storm drainage systems.
 - (3) The above requirements may be modified for residential subdivisions to permit open roadside ditches if the following conditions are met:
 - a. Each lot must have a gross area not less than one (1) acre.
 - b. Each lot must have a frontage of not less than one hundred fifty (150) feet.
 - c. Each lot must have a depth not less than the lot width, nor greater than three (3) times the lot width.
 - d. No lot shall be partitioned or divided if such partitioning or dividing would produce lots having less than the minimum width and area stipulated above.
 - e. No water, other than natural surface stormwater shall be allowed to enter such open roadside ditches. Basement sump water, for example, shall not be discharged into open roadside ditches. Footing drainage discharge shall be in accordance with Chapter 12, Article II, "Drainage in Connection with the Construction of Buildings and/or Improvement of Property."
 - f. Discharge of storm drainage into an open roadside ditch shall be in accordance with storm drainage design standards as set forth in this chapter.
 - g. The natural groundwater table must be below the bottom of all ditches.
 - h. Designs for subdivision roads with open roadside ditches shall conform to the requirements shown in Figure VIII-B.
 - (4) Whenever a subdivision is contiguous with a section line, and a road does not exist along the section line, a dedication of sixty (60) feet will be required along the section line as a half-width right-of-way for an arterial road. If some overriding feature of terrain, aesthetics or the like makes it impossible or undesirable for this arterial road to follow the section line, it may be relocated within the plat if it serves the same function. Where the arterial road is relocated within the plat, a dedication of one hundred twenty (120) feet for full-width right-of-way will be required. Provision for arterial roads in locations as outlined above will be required unless a detailed study reveals the inadvisability of same.
 - (5) Whenever a subdivision is contiguous with a quarter-section line, and a road does not exist along that line, a dedication of forty-three (43) feet will be required along the quarter-section line as a half-width right-of-way for a collector street. If some overriding feature of terrain, aesthetics or the like makes it impossible or undesirable for this collector street to follow the quarter-section line, it may be relocated within the plat if it serves the same function. Where the collector street is relocated within the plat, a dedication of eighty-six (86) feet for a full-width right-of-way will be required. Provision for collector streets in locations as outlined above will be required unless a detailed study reveals the inadvisability of same

- (6) Subdivision street right-of-way dedication shall not be less than sixty (60) feet in single-family residential subdivisions and for other than collector streets in multiple-occupancy developments, seventy (70) feet in industrial subdivisions (a sixty-foot dedicated right-of-way and two (2) five-foot easements for all public highway purposes may be substituted for a seventy-foot right-of-way), seventy (70) feet for collector streets in multiple-occupancy developments, eighty-six (86) feet for single-family residential collector streets or one-half mile roads, and one hundred (100) feet for boulevards (collector type), and eighty-six (86) feet for boulevards (minor or local type).
- (7) Cul-de-sac shall be designed in accordance with Figures VIII-F. The maximum cul-de-sac street length shall be eight hundred (800) feet for all developments except for R-A zoned properties where maximum cul-de-sac street length shall be one thousand five-hundred (1,500) feet unless the property is to be developed using a Zoning Option which decreases lot size below the R-A district minimum in which case maximum cul-de-sac street length will be one thousand (1,000) feet. The standard outside pavement radius of cul-de-sac shall be sixty (60) feet in industrial areas and fifty-four (54) feet in all other areas. Wherever cul-de-sac contain islands, parking shall be prohibited along the island. The island radius shall be twenty-two (22) feet and standard pavement width shall be thirty-two (32) feet, back to back of curb. Islands will not be allowed in industrial areas.
- (8) Eyebrows. Eyebrows will be accepted for use in areas where property boundary or environmental restrictions limit the ability to provide a continuous two hundred thirty (230) feet centerline road radius. Eyebrows shall be designed in accordance with Figure VIII-G. Eyebrows shall have an outside pavement radius of sixty-four (64) feet for industrial developments and fifty-four (54) feet for residential subdivisions. The radius point shall be the intersection of, or projected intersection of the right-of-way lines on the opposite side of the street from the eyebrow. Islands will not be permitted in eyebrows.
- (9) U-street right-of-way widths shall be at least one hundred forty (140) feet, terminating in a half-circle at least one hundred forty (140) feet in diameter. Minimum pavement width at the half circle shall be thirty-two (32) feet back to back of curb.
- (10) Marginal access streets for residential or nonresidential uses, where permitted or required, shall have a right-of-way or easement width of at least thirty (30) feet for one-way operation abutting a major thoroughfare right-of-way. The width of the marginal access street shall be twenty (20) feet, back to back of curb and parking shall be prohibited. One-way operation shall be standard. However, the pavement width and right-of-way width may be increased to provide for two-way operation when it is demonstrated that two-way operation is more desirable than one-way operation from a safety and traffic flow perspective. At a minimum, pavement width for two-way operation shall be twenty-eight (28) feet and right-of-way or easement width shall be forty (40) feet.
- (11) Pavement width for alleys shall be at least twenty-two (22) feet.
- (12) For roadways (private), public right-of-way is not required.
- (13) Right-of-way shall be required to be platted or deeded for all public highway purposes.
- (14) The right-of-way widths required above shall generally govern; however, if the city determines that additional right-of-way is required for proper construction because of special circumstances, which shall include but not be limited to requirements for horizontal sight distances, grading operations, location of open channels, permanent structures occupying portions of the right-of-way, or for a road that is not so designated but which may function as a collector or arterial road, such facts will be made known to



STANDARD FOR TYPICAL CUL-DE-SAC
NO SCALE

SECTION A-A



NO SCALE

- NOTE CENTER ISLAND MAY BE OMITTED ON BITUMINOUS PAVEMENT ONLY.
NOTE LONGER CUL-DE-SAC LENGTHS MAY BE PERMITTED AS SPECIFIED FOR LOW DENSITY RESIDENTIAL DEVELOPMENT.

FIGURE VIII-F

CITY OF NOVI
STANDARD PLAN
FOR
RESIDENTIAL
CUL-DE-SAC

DATE: 01-July-99



JOHNSON ROSATI SCHULTZ JOPPICH PC

27555 Executive Drive Suite 250 ~ Farmington Hills, Michigan 48331
Phone: 248.489.4100 | Fax: 248.489.1726

Elizabeth Kudla Saarela
esaarela@jrsjlaw.com

www.johnsonrosati.com

May 28, 2014

Adam Wayne, Construction Engineer
City of Novi
45175 Ten Mile Road
Novi, Michigan 48375

Re: ***Casa Loma Site Condominium***
Variance from Design and Construction Standards

Dear Mr. Wayne:

Our office has reviewed the proposed request for two variances from the City's Design and Construction Standards:

First, the property owner has requested a waiver from Section 11-68 (a)(1) of the City of Novi Code, which states in relevant part:

- (a) *General requirements.*
- (1) Generally, the distribution system in all developments requiring more than eight hundred (800) feet of water main shall have a minimum of two (2) connections to a source of supply and shall be a looped system. Exceptions will be made in those instances when a second connection is not available, or it is not otherwise possible to provide a looped system, provided the system is designed to accommodate a second connection when made available. The ability to serve at least two thousand (2,000) gallons per minute in single-family detached residential; three thousand (3,000) gallons per minute in apartment, cluster residential and similar complexes, institutional and school areas; and at least four thousand (4,000) gallons per minute in office, industrial and shopping centers is essential. Water mains are required to be extended along all road frontages abutting the proposed development at the direction of the city in accordance with the City of Novi Master Plan current edition for water main construction.

The Second variance is requested from Section 11-194 (a)(7), which states:

- (7) Cul-de-sac shall be designed in accordance with Figures VIII-F. The maximum cul-de-sac street length shall be eight hundred (800) feet for all developments except for R-A zoned properties where maximum cul-de-sac street length shall be one thousand five-hundred (1,500) feet unless the property is to be developed using a Zoning Option which decreases lot size below the R-A district minimum in which case maximum cul-de-sac street length will be one thousand (1,000) feet. The standard outside pavement radius of cul-de-sac shall be sixty (60) feet in industrial areas and fifty-four (54) feet in all other areas. Wherever cul-de-sac contain islands, parking shall be prohibited along the island. The island radius shall be twenty-two (22) feet and standard pavement width shall be thirty-two (32) feet, back to back of curb. Islands will not be allowed in industrial areas.

Section 11-10 of the Ordinance Code permits the City Council to grant a variance from the Design and Construction Standards when a property owner shows all of the following:

- (b) A variance may be granted when all of the following conditions are satisfied:
 - (1) A literal application of the substantive requirement would result in exceptional, practical difficulty to the applicant;
 - (2) The alternative proposed by the applicant shall be adequate for the intended use and shall not substantially deviate from the performance that would be obtained by strict enforcement of the standards; and
 - (3) The granting of the variance will not be detrimental to the public health, safety or welfare, nor injurious to adjoining or neighboring property.

The applicant indicates with respect to the variance from providing a looped water main, or alternatively, a water main stub, that it is likely that the adjacent property will never be developed in such a manner so as to provide a connection to a stub. As an alternative, the developer will include the obligation for the Developer or Association to build and connect the stub within the Condominium Master Deed at the time a connection to the stub would be made available.

With respect to the variance for the cul-de-sac design requirements, the applicant indicates that the alternative design is adequate for a private means of ingress and egress on the basis that the road is not intended to be a local connector for public use.

In the event that City Council finds that the standards for a variance or waiver have been met, our office sees no legal impediment to granting the variances, subject to the condition that the Engineering Division and the Public Safety Department have also

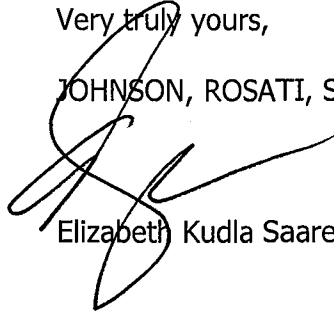
Adam Wayne, Construction Engineer
May 28, 2014
Page 3

reviewed and approved the proposed plans from a public health, safety and welfare perspective, and also subject to the condition that adequate provisions be made for construction of the water main stub within the Master Deed for the development, including a mechanism to ensure the Homeowners' Association has adequate funding to construct the stub.

If you have any questions regarding the above, please call me.

Very truly yours,

JOHNSON, ROSATI, SCHULTZ & JOPPICH, P.C.



Elizabeth Kudla Saarela

EKS

Enclosures

C: Maryanne Cornelius, Clerk (w/Enclosures)
Charles Boulard, Community Development Director (w/Enclosures)
Matt Wiktorowski, Field Operations (w/Enclosures)
Brian Coburn, Engineering Manager (w/Enclosures)
David Beschke, Landscape Architect (w/Enclosures)
Jeff Johnson, Fire Department (w/Enclosures)
Thomas R. Schultz, Esquire (w/Enclosures)

you to consider the waiver concerning the berm because of the statements as to the natural buffer that will still remain; the same with the section 9 waiver on the façade which is recommended by the city's architect. We do reserve the right to go to the City Council to request a waiver under the tree ordinance for the amount that we have to pay, which in this case is about a quarter of a million dollars. I would like to reserve any other comments to the next meeting in case there are some public questions that we have to respond to.

Chair Pehrson opened public hearing. There was no correspondence on this topic. Seeing no one wishing to speak, Chair Pehrson asked if there was a motion.

Moved by Member Greco and seconded by Member Lynch:

ROLL CALL VOTE ON ADJOURNMENT UNTIL THE APRIL 9TH PLANNING COMMISSION MEETING MOTION MADE BY MEMBER GRECO AND SECONDED BY MEMBER LYNCH:

In the matter of Beck North Lot 56, JSP14-07, motion to adjourn the public hearing to be continued on April 9, 2014 at 7:00 PM. Motion carried 5-0.

2. CASA LOMA, JSP13-52

Public hearing at the request of Interphase Land Development for Preliminary Site Plan utilizing the Open Space Preservation Option with a Site Condominium, Wetland Permit, Woodland Permit and Stormwater Management Plan approval. The subject property is 14.91 acres in Section 32, located at 21633 Beck Road on the west side of Beck Road, north of Eight Mile Road in the RA, Residential Acreage District. The applicant is proposing a ten unit single-family residential development using the Open Space Preservation Option.

Planner Kapelanski said the applicant is proposing a 10 unit single-family residential development using the open space preservation option on the west side of Beck Road north of Eight Mile Road. To the north and west of the property is the Bellagio Residential Development. Also to the west is Maybury Park Estates. Single-family residential is on the east side of Beck Road and to the south. The subject property is currently zoned RA, Residential Acreage. The site is bordered by RA zoning to the north, south and west and R-1 and single-family zoning on the east side of Beck Road, which is partially part of the City of Northville. The Future Land Use map indicates single family uses for the subject property and park and single-family uses for the surrounding properties. The natural features map does show almost the entire site is covered by either regulated woodlands or wetlands.

The applicant is proposing 10 single-family lots. The open space preservation option which the applicant is utilizing is intended to encourage the preservation of open space and natural features. The applicant has proposed 25.23% of the site as preserved open space, exceeding the 10% threshold required by the ordinance. It should be noted that a plan very similar to the proposal was previously approved for the site several years ago but that approval has since expired.

Planner Kapelanski continued stating the planning and landscape reviews recommend approval of the plan noting additional items that should be addressed in the final site plan submittal. The engineering review also recommends approval. Several City Council variances are required for the lack of a second water main connection, to defer construction of the water main stub and for the proposed cul-de-sac geometry. An administrative variance is required for the placement of franchise utilities outside of rear lot lines. The traffic review recommends approval noting a City Council variance is also required for the reduced boulevard width. A wetland permit and authorization to encroach into the required natural features setback is required for the proposed impacts along with a conservation easement for preserved areas. A woodland permit is required and the applicant has requested a Planning Commission waiver to allow greater credit for upsized woodland plantings. The plan is recommended for approval for both

wetlands and woodlands. The fire review does not recommend approval, but it should be noted that a second point of access is not technically required by the ordinance.

Bob Langan, on behalf of the interface land development corporation, said he appreciated the comments of the reviewers and acknowledged the recommendation of approval. He met with Fire Marshal Shelton yesterday. We had a very positive meeting and he said he would indicate to you that he would support our efforts to obtain the variances necessary to get this project moving forward and that he acknowledges that we're doing the very best we can. Certainly we would like the Commission to view this application favorably and recommend approval subject to our need to go and obtain the necessary variances for the elements of our project that are not in conformity with the Novi code and its various sections.

Chair Pehrson opened public hearing.

Ron Bush, resident on Beck Road, said he wanted to be on record here about his concern that this grading and landscaping plan would accommodate the water that's going to leave his property and enter their property and get down to the little creek which is the way the drainage has been there all along. If you looked at the grading plan, you'll see lot two is currently identified as a wetland and it's quite low. Mr. Bush said, the thought occurs to him that he could have two issues. Number one, when the infrastructure goes in, then it's low enough that it'll flow. Number two, when lot two and three are developed the landscaping and grading are consistent with maybe five or six acres worth of drainage because his property accepts water from a couple surrounding properties.

No one else wished to speak and there was no correspondence. Chair Pehrson closed the public hearing.

Member Greco confirmed this will be a gated community and asked the applicant what size homes were expected.

Mr. Langan said we don't have copies of the deed restrictions yet, but I was in conversation with the principal of the applicant and I believe the intention is a minimum 2,800 square foot ranch and 3,600 square foot two story.

Member Greco asked if the applicant was aware of Mr. Bush's concerns regarding the drainage.

Jason Van Ryn of Nederveld said we have every intention of maintaining existing drainage patterns. We'll work with the City on that. We're proposing a storm sewer so certainly we can accommodate offsite drainage if there is some. I'm not overly concerned about it but I'm sure the resident is and that is something we can address.

Engineer Wayne said Mr. Bush stopped into the City offices about two weeks and dropped off his approved grading plan. Through the City's permitting software we've actually flagged the property to notify Mr. Bush when the applicant has submitted their final site plan to discuss with him their proposed grades and to ensure that any of his drainage concerns are alleviated. As Mr. Van Ryn pointed out, the applicant is required to maintain existing drainage patterns and the site plan, as submitted, demonstrates feasibility. These final grades and stormwater designs will really be nailed down during the final site plan review process.

Member Lynch said I remember this project coming to us years ago. With the drain, I understand that you said it was your intent to verify the grades. Adam, you're going to verify that this is going to happen, correct?

Engineer Wayne said that is correct. We have the approved grades from Mr. Bush's original plot plan and we'll verify those with what's proposed.

Member Lynch said the project seems like it fits in well into that area and he's glad to see it back.

Member Zuchlewski asked in regard to the variance on the boulevard width, what's the justification of the dimensions?

Mr. Langan said the truth of the boulevard is that the applicant is viewing this as an upscale view shed that is an amenity not necessarily intended to be a true boulevard that accommodates a lot of traffic both ways. Certainly it would be adequate to put in a single two lane road with no boulevard on this site, but the presences of the planted islands in the middle of the road constitutes an added amenity as a road scape feature. It enhances the look and feel of this development.

Mr. Langan said from a traffic perspective I think we're providing a little over 19 feet of actual travel with the lane width. We're also providing no parking signs along the road. A normal lane is 12, so 19 should allow adequate passage. They are one way in each direction. I think it works from a traffic perspective. As far as the aesthetics, the applicant would like the island width as large as he can so that he can put the planters and landscaping as a feature on the site. The owner is very big on this width of the landscape islands. That was a concern with the fire department but we've added two additional hydrants. Marshal Shelton had an issue with pulling hoses across that street. He was concerned because with a typical cul-de-sac you could park the fire truck on one side on the inbound lane and still service the south side of the street. But he was concerned with the plantings that you wouldn't be able to access the south side. So we added two hydrants on the south side. So I think there are a total of four fire hydrants on the site for ten houses which is pretty substantial.

Member Zuchlewski said my other question was concerning the Fire Marshal's initial non-recommendation in terms of having a second water main connection. I'm assuming this is a small lot and there's really nowhere to put them.

Mr. Langan said it's just the feasibility. If Bellagio would have provided a stub to our property, it would have been easy to do, but they did not. They connected through Maybury to the west. We're providing a conservation easement on the west end of our site so for us to take our water main to the west to make another connection, essentially we're going through all the trees we're trying to conserve on the site. The south side of the site, there's really no development there and the north side is all developed but there's no stub. We're going to propose a stub into the south. We would like to defer it for the future. We want to give an easement now and a stub under the road. And in the future, if anything ever gets built to the south there would be an easement in place so that the connection can to made.

Mr. Van Ryn said the City required a water study be done so we did an updated flow test last month and updated the water flow. There was a study done when the project was originally submitted in 2005. That report was updated with new flow data to show that we can provide 2000 gallons a minute at the worst-case situation, which is the lot furthest at the end, lot 5.

Chair Pehrson asked if Landscape Architect Beschke was okay with the proposal.

Landscape Architect Beschke said I'm okay with the landscaping. They've actually done more than what was required. They've met all of the requirements, so that's great. The only comment that I had outstanding is from the cul-de-sac. They've got a trail and it was suggested at one time that it would connect to the neighborhood to the west or south. I was kind of hoping that someone could speak to that because that would great; we always look for more walkways.

Mr. Langan said he is unprepared to talk about that. We will certainly talk about it with the principal and see about the feasibility. I'm just simply unaware of any considerations so my apologies.

Chair Pehrson said my only other comment was about the waiver for the upsized woodland replacement. That's a little bit odd, isn't it?

Planner Kapelanski said that is something that the Planning Commission has seen in the past. We actually have our woodland and wetland consultants here this evening if you wanted to talk to them.

Pete Hill, the City's woodland and wetland consultant, said as Planner Kapelanski was saying there have been other developments that have requested upsized vegetation.

Chair Pehrson said is this the result of the boulevard trees or is it just physically the size of the stock that they're bringing to the site.

Wetland and Woodland Consultant Hill said basically the woodland ordinance provides guidance on how big the replacement materials need to be and they're looking to provide fewer larger trees to meet the requirement. I think some of the details are in our revised preliminary letter, but they are looking to provide larger pine trees and conifers over the required height. So they're looking to provide taller trees to for more credits.

Member Zuchlewski asked what size are these trees would be.

Rick Tuttle, landscape architect with Great Oaks Landscape, said our firm prepared the landscape plan for this project. Down the boulevard there are some larger trees because the developer requested to have a larger size tree installed so that they would blend better with the existing trees that are on the site because there are very mature trees on the site rather than put in smaller size trees which take longer to grow.

Member Zuchlewski asked if drivers would be able to see around the trees in the boulevard.

Mr. Tuttle said they would be limbed up so you could see underneath them. Our idea is to have to clear line of site while traveling along the boulevard.

Member Zuchlewski asked where the snow plowers would pile the snow in the winter months.

Mr. Tuttle said that's a good question. Our firm generally does plow a lot of snow over the winter and in this kind of a situation, I would expect that they would probably have to plow all the way down each side and not pile the snow on the boulevard because there wouldn't really be room to do that.

Moved by Member Greco and seconded by Member Lynch:

ROLL CALL VOTE ON THE PRELIMINARY SITE PLAN APPROVAL MOTION MADE BY MEMBER GRECO AND SECONDED BY MEMBER LYNCH:

In the matter of Casa Loma, JSP13-52, motion to approve the Preliminary Site Plan utilizing the Open Space Preservation Option with a Site Condominium based on and subject to the following:

- a. The Planning Commission has made the determination that the parallel plan is acceptable and, based on that plan, has determined the maximum number of dwelling units that would be permitted under the OSP Option is twelve units;**
- b. The Planning Commission has made the determination that the Open Space Preservation Option Plan satisfies the intent of the Open Space Preservation Option;**

- c. Administrative DCS variance for the placement of franchise utilities outside of rear lot lines;
- d. City Council DCS variance for the lack of a second water main connection;
- e. City Council DCS variance to defer construction of the water main stub;
- f. City Council DCS variance for the proposed cul-de-sac geometry;
- g. City Council DCS variance for the reduced boulevard width, (24' required, 22' provided); and
- h. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan.

This motion is made because the plan is otherwise in compliance with Article 3, Article 24 and Article 25 of the Zoning Ordinance and all other applicable provisions of the Ordinance. *Motion carried 5-0.*

Moved by Member Greco and seconded by Member Lynch:

ROLL CALL VOTE ON THE WETLAND PERMIT APPROVAL MOTION MADE BY MEMBER GRECO AND SECONDED BY MEMBER LYNCH:

In the matter of Casa Loma, JSP13-52, motion to approve the Wetland Permit based on and subject to the following:

- a. Applicant providing the required conservation easement; and
- b. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan.

This motion is made because the plan is otherwise in compliance with Chapter 12, Article V of the Code of Ordinances and all other applicable provisions of the Ordinance. *Motion carried 5-0.*

Moved by Member Greco and seconded by Member Lynch:

ROLL CALL VOTE ON THE WOODLAND PERMIT APPROVAL MOTION MADE BY MEMBER GRECO AND SECONDED BY MEMBER LYNCH:

In the matter of Casa Loma, JSP13-52, motion to approve the Woodland Permit based on and subject to the following:

- a. Planning Commission waiver to permit greater credit for upsized woodland replacement plantings, which is hereby granted; and
- b. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan.

This motion is made because the plan is otherwise in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance. *Motion carried 5-0.*

Moved by Member Greco and seconded by Member Lynch:

ROLL CALL VOTE ON THE STORMWATER MANAGEMENT PLAN APPROVAL MOTION MADE BY MEMBER GRECO AND SECONDED BY MEMBER LYNCH:

In the matter of Casa Loma, JSP13-52, motion to approve the Stormwater Management Plan, subject to the findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and items listed in those letters being addressed on the Final Site Plan. This motion is made because the plan is otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance. *Motion carried 5-0.*

MATTERS FOR CONSIDERATION

1. TOWN CENTER STUDY APPROVAL