



## TAFT KNOLLS III JSP16-67

### TAFT KNOLLS III JSP 16-67

Public Hearing at the request of 25150 Taft Road, LLC for Preliminary Site Plan With Open Space Preservation Option, Site Condominium, Wetland Permit, Woodland Permit and Stormwater Management Plan Approval. The Subject Property is located in Section 22, South of Eleven Mile Road and East of Taft Road and is Zoned R-4 (One Family Residential). The applicant is proposing to construct up to 15 unit single-family residential development (Site Condominium) utilizing the Open Space Preservation Option.

### REQUIRED ACTION

Approve/deny the Preliminary Site Plan with Open Space Preservation Option, Site Condominium, Wetland Permit, Woodland Permit, and Stormwater Management Plan.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	05-02-17	<ul style="list-style-type: none"> <li>• <b>Approval of Open Space Preservation Option which allows a 20% reduction of lot size and 12.5% reduction of lot width. (Staff Supports)</b></li> <li>• <b>Are undeveloped will be preserved in a permanent Open Space Preservation Easement. (Staff Supports)</b></li> <li>• Items to be addressed on the Final Site Plan submittal.</li> </ul>
Engineering	Approval recommended	05-31-17	<ul style="list-style-type: none"> <li>• <b>DCS Variance for lack of sidewalk one side of street for apportion of Danyas way near the wetlands at the front entrance and for not meeting the minimum stormwater detention pond buffers and for not providing a stub street at 1300 feet intervals along property line (administrative) (Staff Supports)</b></li> <li>• Items to be addressed on the Final Site Plan submittal.</li> </ul>
Landscaping	Approval recommended	05-04-17	<ul style="list-style-type: none"> <li>• <b>Landscape waivers for not meeting the berm along Taft Road and street tree requirements. (Staff Supports)</b></li> <li>• Items to be addressed on the Final Site Plan submittal.</li> </ul>
Wetlands	Approval recommended	05-08-17	<ul style="list-style-type: none"> <li>• <b>Requires a City of Novi Minor Wetland Permit and an Authorization to encroach the 25-Foot Natural Features Setback.</b></li> <li>• <b>Physical means of protection is strongly suggested for wetland buffers that are located in the rear of proposed lots.</b></li> <li>• Items to be addressed on the final site plan submittal</li> </ul>

Woodlands	Approval recommended	05-04-17	<ul style="list-style-type: none"> <li>• <b>Requires a City of Novi Woodland Permit</b></li> <li>• Items to be addressed on the final site plan submittal</li> </ul>
Traffic	Approval recommended	05-26-17	<ul style="list-style-type: none"> <li>• <b>Planning Commission waiver for not meeting the minimum driveway spacing for opposite side driveways. (Staff Supports)</b></li> <li>• Items to be addressed on the Final Site Plan submittal.</li> </ul>
Facade	Not Applicable		
Fire	Approval recommended	04-24-17	

## MOTION SHEET

### Approval – Preliminary Site Plan

In the matter of Taft Knolls III JSP 16-67, motion to **approve** the Preliminary Site Plan Open Preservation and the Site Condominium based on and subject to the following:

- a. Reduction of minimum site area (10,000 required, 8,000 provided), minimum lot width (80 feet required, 70 feet provided) and minimum side yard setbacks (25 feet total two sides required, 20 feet provided), as the proposed site plan utilizes Open Space Preservation by preserving approximately 54 percent of Open Space on Site, as listed in Section 3.30 of Zoning Ordinance;
- b. A Landscape waiver for absence of required berm along entire Taft Road Frontage, as listed in Sec. 5.5.3.B.ii and iii, due to presence of wetlands between the road and lots that are being preserved, which is hereby granted;
- c. A Landscape waiver for absence of five required street trees along entire Taft Road Frontage, as listed in 5.5.3.E.i.c and LDM 1.d., due to lack of space caused by presence of wetlands, which is hereby granted;
- d. City Council Variance for not meeting the minimum 25 foot landscape buffers around proposed storm water detention ponds (25 feet required, 7 feet and 16 feet provided for detention pond #1 and 10 feet and 24 feet provided for detention pond 2), as listed in Sec. 5.6.5 of Engineering Design manual;
- e. City Council Variance for not providing sidewalk on both sides of Danyas Way, for a portion where it conflicts with the existing wetlands near the entrance to the development, as listed in Sec. 11-256;
- f. Administrative variance for not providing a stub street at 1300 foot intervals along property line, as listed in Sec.4.04 A.i.b of Subdivision Ordinance, due to presence of existing regulated woodlands and wetlands;
- g. Planning Commission waiver for not meeting the minimum distance requirement for Opposite side driveways (200 feet required south of school drive, approximately 160 feet provided) due to estimated low volume of vehicles expected from the proposed development, which is hereby granted;
- h. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters, as well as all of the terms and conditions of the PRO Agreement as approved, with these items being addressed on the Final Site Plan; and
- i. *(additional conditions here if any)*

*(This motion is made because the plan is otherwise in compliance with Article 3, Article 4 and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

**-AND-**

### Approval – Wetland Permit

In the matter of Taft Knolls III JSP 16-67, motion to **approve** the Wetland Permit based on and subject to the following:

- a. The applicant should consider demarcation of wetland buffers on-site behind lots 4,5,6,7,14 and 15 through the use of proposed easement signage and potentially other means such as boulders or decorative fencing along the setback boundaries

- 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; and
- c. *(additional conditions here if any)*

*(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.)*

**-AND-**

**Approval – Woodland Permit**

In the matter of Taft Knolls III JSP 16-67, motion to **approve** the Woodland Permit based on and subject to the following:

- a. 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; and
- b. *(additional conditions here if any)*

*(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.)*

**-AND-**

**Approval – Stormwater Management Plan**

In the matter of Taft Knolls III JSP 16-67, motion to **approve** the Stormwater Management Plan, based on and subject to:

- a.
- 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; and
- c. *(additional conditions here if any)*

*(This motion is made because it otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

**-OR-**

**Denial – Preliminary Site Plan with Site Condominium**

In the matter of Taft Knolls III JSP 16-67, motion to **deny** the Preliminary Site Plan Open Preservation and the Site Condominium... *(because the plan is not in compliance with Article 3, Article 4 and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

**-AND-**



**Denial- Wetland Permit**

In the matter of Taft Knolls III JSP 16-67, motion to **deny** the Wetland Permit... *(because the plan is not in compliance with Chapter 12, Article V of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

**-AND-**

**Denial- Woodland Permit**

In the matter of Taft Knolls III JSP 16-67, motion to **deny** the Woodland Permit... *(because the plan is not in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

**-AND-**

**Denial – Stormwater Management Plan**

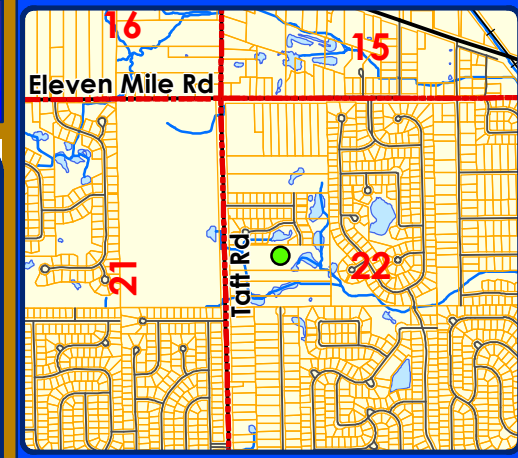
In the matter of Taft Knolls III JSP 16-67, motion to **deny** the Stormwater Management Plan... *(because the plan is not in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

MAPS  
Location  
Zoning  
Future Land Use  
Natural Features



# 16-67 Taft Knolls III

Location

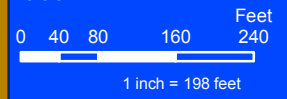


**LEGEND**  
 Sections



**City of Novi**  
Dept. of Community Development  
City Hall / Civic Center  
45175 W Ten Mile Rd  
Novi, MI 48375  
cityofnovi.org

Map Author: Sri Komaragiri  
Date: 06/08/17  
Project: 16-67 Taft Knolls III  
Version #: 1



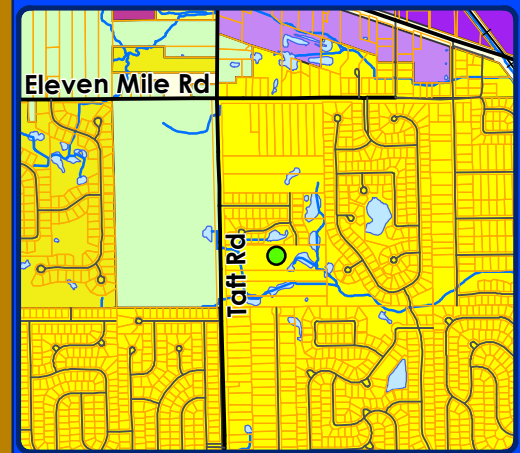
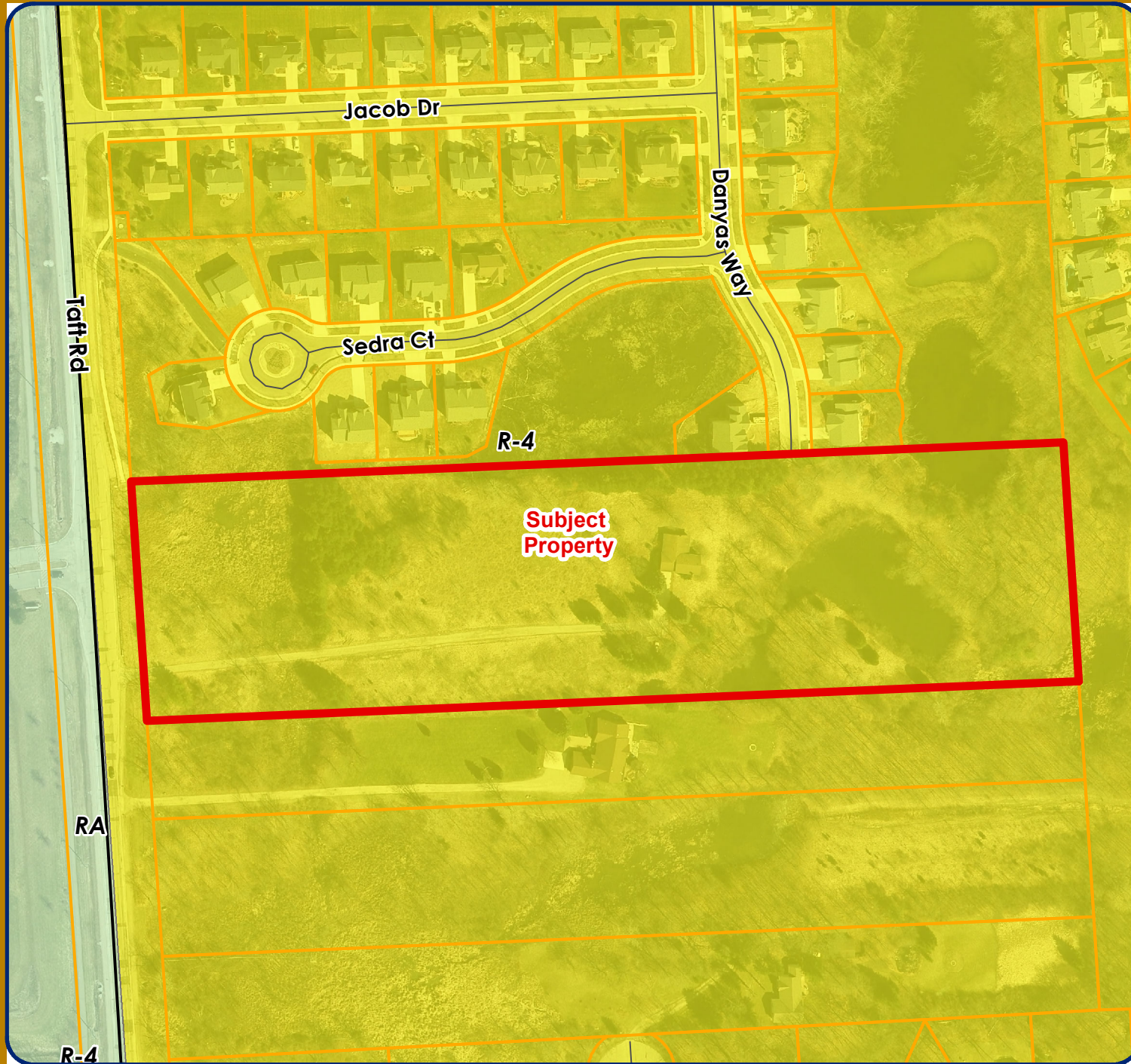
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# 16-67 Taft Knolls III

## Zoning



### LEGEND

- R-A: Residential Acreage
- R-1: One-Family Residential District
- R-2: One-Family Residential
- R-4: One-Family Residential District
- I-1: Light Industrial District
- I-2: General Industrial District
- OST: Office Service Technology



### City of Novi

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 45175 W Ten Mile Rd  
 Novi, MI 48375  
[cityofnovi.org](http://cityofnovi.org)

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1 inch = 198 feet



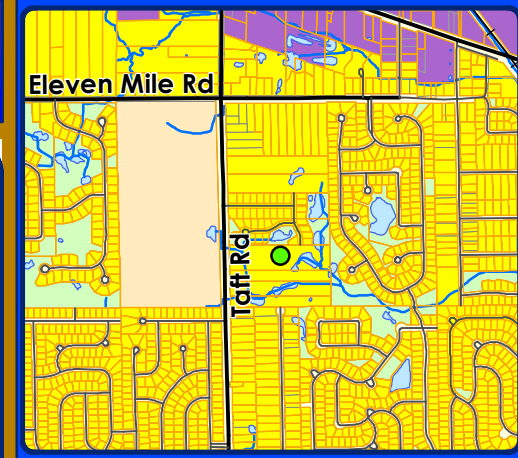
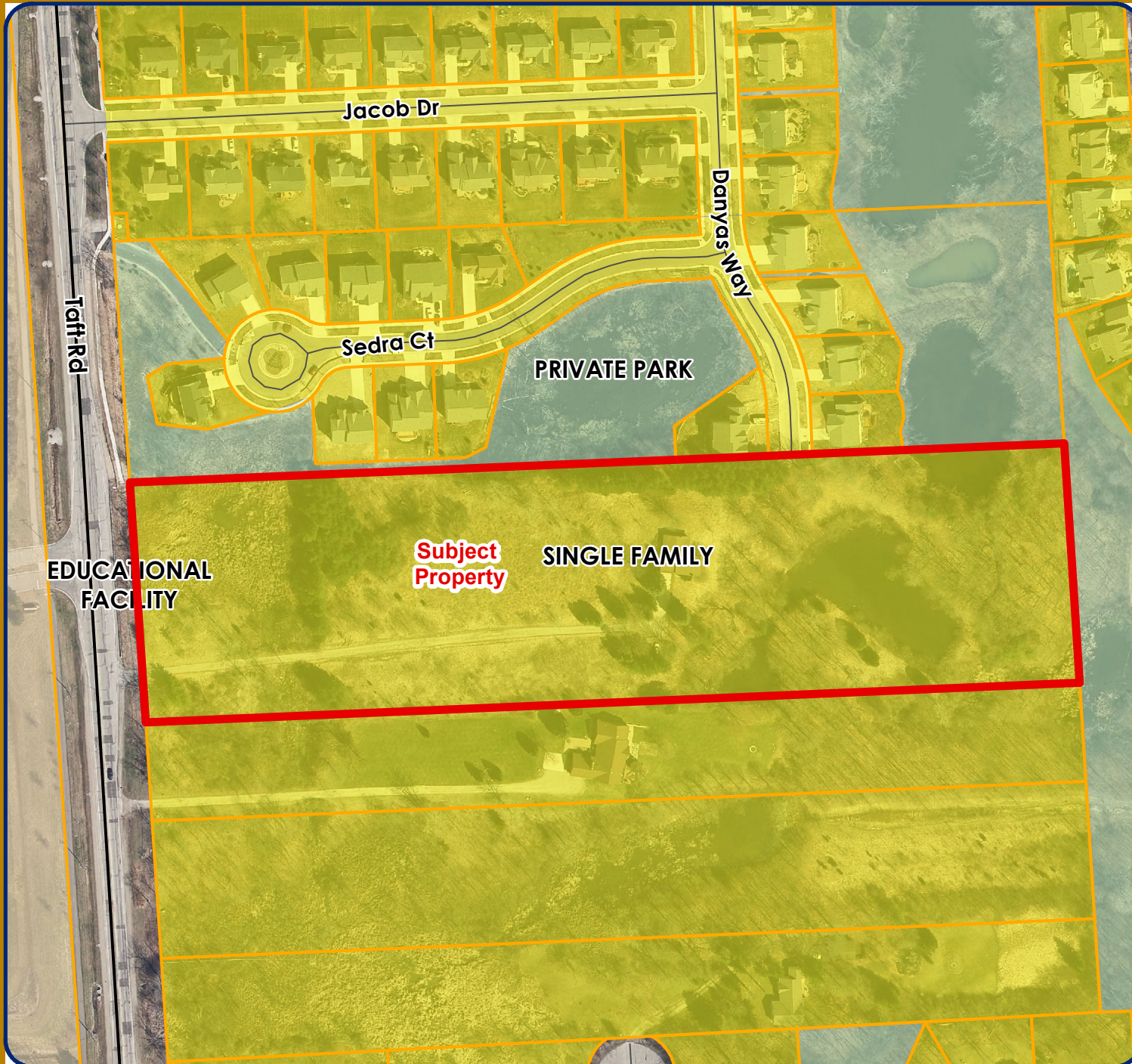
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# 16-67 Taft Knolls III

## Future Land Use



### LEGEND

#### FUTURE LAND USE

-  Single Family
-  Industrial RD Tech
-  Educational Facility
-  Private Park



### City of Novi

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1 inch = 198 feet



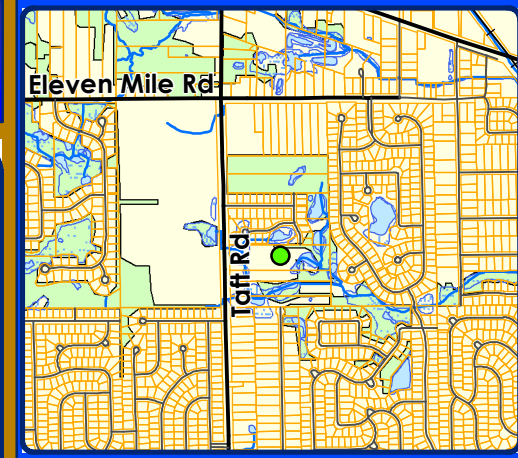
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
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# 16-67 Taft Knolls III

## Natural Features



- LEGEND**
-  WETLANDS
  -  WOODLANDS

**CITY OF**  
  
**NOVI**  
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0 40 80 160 240 Feet  
 1 inch = 198 feet



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**SITE PLAN**

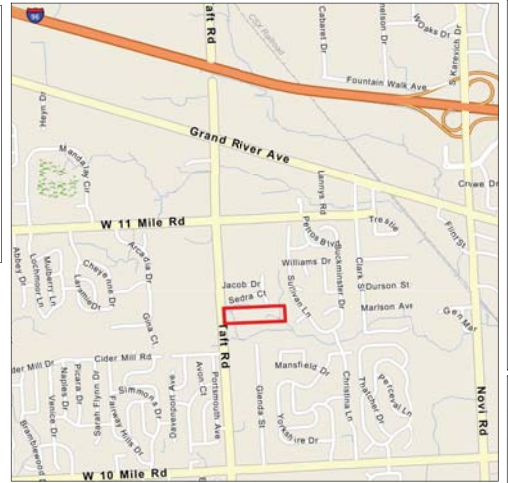
(Full plan set available for viewing at the Community Development Department.)

# SITE PLANS FOR TAFT KNOLLS III CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

**LOT TABLE:**

LOT #	AREA	FRONT SETBACK	SIDE SETBACK	BACK SETBACK	FRONTAGE	RATIO
1	12,826 SF	30'	10'	10'	202.01'	1:1
2	8,040 SF	30'	10'	10'	70.98'	1:1.6
3	8,050 SF	30'	10'	10'	70.00'	1:1.6
4	8,050 SF	30'	10'	10'	70.00'	1:1.6
5	8,050 SF	30'	10'	10'	70.00'	1:1.6
6	8,050 SF	30'	10'	10'	70.00'	1:1.6
7	8,050 SF	30'	10'	10'	70.04'	1:1.6
8	8,021 SF	30'	10'	10'	70.01'	1:1.6
9	8,049 SF	30'	10'	10'	70.01'	1:1.6
10	8,050 SF	30'	10'	10'	70.00'	1:1.6
11	8,050 SF	30'	10'	10'	70.00'	1:1.6
12	8,050 SF	30'	10'	10'	70.00'	1:1.6
13	8,050 SF	30'	10'	10'	70.00'	1:1.6
14	8,067 SF	30'	10'	10'	70.12'	1:1.6
15	9,995 SF	30'	10'	10'	76.68'	1:1.6

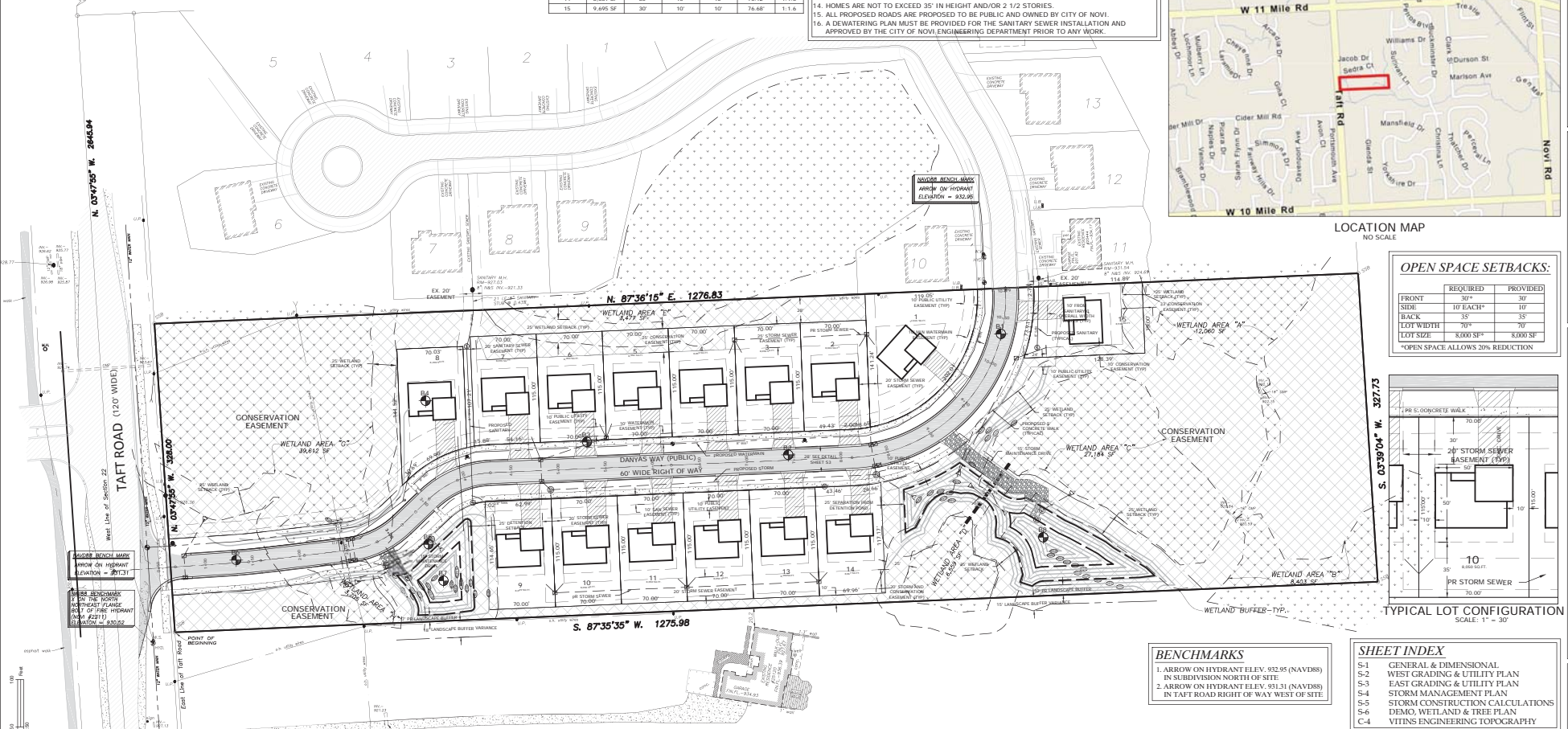
- GENERAL NOTES:**
1. ALL CONSTRUCTION TO CONFORM AND COMPLY TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF NOVI.
  2. NO LOADING/UNLOADING REQUIRED FOR THIS TYPE OF DEVELOPMENT.
  3. WASTE WATER DISPOSAL TO BE EXTENDED TO THE SITE AND DISCHARGED TO THE CITY OF NOVI SEWER WITH OAKLAND COUNTY, MISC AND TOWNSHIP APPROVAL.
  4. WATER SUPPLY TO BE CONNECTED TO THE CITY OF NOVI PUBLIC WATER SUPPLY.
  5. TRASH DISPOSAL TO BE RESIDENTIAL COLLECTION.
  6. A SOIL EROSION AND SEDIMENTATION PERMIT FROM THE CITY OF NOVI WILL BE REQUIRED.
  7. NO STREET LIGHTING PROPOSED.
  8. SIGN DETAILS ARE TO BE PROVIDED TO THE CITY AND APPROVAL GRANTED PRIOR TO THE PLACEMENT OF ANY SIGNS. SEE LANDSCAPE PLANS FOR SIGN DETAILS.
  9. LANDSCAPE PLAN TO BE SUBMITTED AT A LATER DATE FOR PROPOSED LANDSCAPING.
  10. CLEAN STONE ENTRANCE DRIVES TO BE CONSTRUCTED AS FIRST PART OF CONSTRUCTION PROVIDE ACCESS FOR FIRE DEPARTMENT AND CONSTRUCTION TRAFFIC DURING CONSTRUCTION.
  11. ALL ONSITE UTILITIES WILL BE DEDICATED TO THE CITY OF NOVI.
  12. STORM SEWER DETENTION TO BE PROVIDED ON-SITE WITH DETENTION PONDS DISCHARGING TO THE EXISTING ONSITE WETLANDS.
  13. ALL REQUIREMENTS BY THE FIRE DEPARTMENT PER THE INTERNATIONAL FIRE CODE WILL BE MET.
  14. HOMES ARE NOT TO EXCEED 35' IN HEIGHT AND/OR 2 1/2 STORIES.
  15. ALL PROPOSED ROADS ARE PROPOSED TO BE PUBLIC AND OWNED BY CITY OF NOVI.
  16. A DEWATERING PLAN MUST BE PROVIDED FOR THE SANITARY SEWER INSTALLATION AND APPROVED BY THE CITY OF NOVI ENGINEERING DEPARTMENT PRIOR TO ANY WORK.



Consulting Civil Engineers  
"Engineering & Better Michigan"

**Powell Engineering & Associates, LLC**  
4700 Cornerstone Drive, White Lake, Michigan 48383  
P: 248.741.6898 info@powellengineering.com

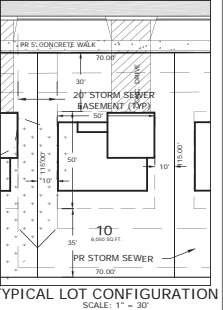
NW CORNER OF SECTION 22, T.1N., R.8E.



**OPEN SPACE SETBACKS:**

	REQUIRED	PROVIDED
FRONT	30'	30'
SIDE	10' EACH	10'
BACK	35'	35'
LOT WIDTH	70'	70'
LOT SIZE	8,000 SF*	8,000 SF

\*OPEN SPACE ALLOWS 20% REDUCTION



W & N CORNER OF SECTION 22, T.1N., R.8E.

**SITE INFORMATION:**  
EXISTING PROPERTY ZONING: R-4  
PROPOSED PROPERTY USE: OPEN SPACE PRESERVATION OPTION  
PROPERTY TAX I.D.: #22-22-100-012  
SITE AREA DATA:  
GROSS SITE AREA = 9.6 ACRES  
NET SITE AREA = 7.19 ACRES  
DENSITY OF UNIT PER ACRE FOR R-4 = 3.3 LOTS/ACRE \* 7.19 ACRES = 23 LOTS  
15 LOTS PROPOSED < 23 MAX DENSITY  
UNDEVELOPED WETLAND = 35,267 SF OR 0.81 A - 0.81/7.19 = 11.3%  
DEVELOPMENT AREAS  
ROAD R.O.W. AREA = 61,038 SF OR 1.4 ACRES  
TOTAL LOT AREA = 126,053 SF OR 2.94 ACRES  
WETLAND AREA = 101,000 SF OR 2.32 ACRES  
AREA UNDEVELOPED = 9.6 ACRES (1.4+2.94+2.32)  
9.6 ACRES - 6.66 ACRES = 2.94 ACRES = 70% DEVELOPED

**TOPOGRAPHY INFO:**  
ALL TOPOGRAPHIC SURVEY IS SHOWN PER JEKABSON & ASSOC. TOPOGRAPHY DATED JUNE 21, 2013 SEE SHEET 55 FOR DETAILED TOPOGRAPHY

**PROPRIETOR/DEVELOPER:**  
TROWBRIDGE LAND DEVELOPMENT  
CONTACT: MR. ANTHONY RANDAZZO  
2617 BEACON HILLS  
AUBURN HILLS, MI 48326  
PHONE: (810) 217-6882

- BENCHMARKS**
1. ARROW ON HYDRANT ELEV. 932.95 (NAVDS) IN SUBDIVISION NORTH OF SITE
  2. ARROW ON HYDRANT ELEV. 931.31 (NAVDS) IN TAFT ROAD RIGHT OF WAY WEST OF SITE

- SHEET INDEX**
- S-1 GENERAL & DIMENSIONAL
  - S-2 WEST GRADING & UTILITY PLAN
  - S-3 EAST GRADING & UTILITY PLAN
  - S-4 STORM MANAGEMENT PLAN
  - S-5 STORM CONSTRUCTION CALCULATIONS
  - S-6 DEMO, WETLAND & TREE PLAN
  - C-4 VITINS ENGINEERING TOPOGRAPHY

**LEGEND**

	EXISTING PROPERTY LINE		PROPOSED STORM CATCH BASIN, MANHOLE
	EXISTING CONTOURS		PROPOSED SANITARY MANHOLE
	EXISTING EDGE OF WETLAND		PROPOSED WATERMAIN, CV AW, HYDRANT
	25' WETLAND SETBACK LINE		PROPOSED UTILITY EASEMENT
	EXISTING OVERHEAD ELECTRICAL, PP		PROPOSED CONTOUR
	EXISTING EDGE OF ROAD		PROPOSED ROAD HATCH
	EXISTING STORM MANHOLE		PROPOSED DRIVE HATCH
	EXISTING ROAD HATCH		PROPOSED FLOW DIRECTION ARROW
	EXISTING WETLAND HATCH		PROPOSED WETLAND FILLING AREA
	EXISTING GRADE		PROPOSED DRAINAGE DISTRICT
	PROPOSED EDGE OF CURBED ROAD		PROPOSED GRADE
	PROPOSED 5' OR 8' CONCRETE WALK		PROPOSED LIMITS OF DISRUPTION
	PROPOSED UNIT LINES		PROPOSED CONSERVATION EASEMENT
	PROPOSED ROAD RIGHT OF WAY		
	PROPOSED CONCEPT HOUSE		
	PROPOSED BUILDING SETBACK		

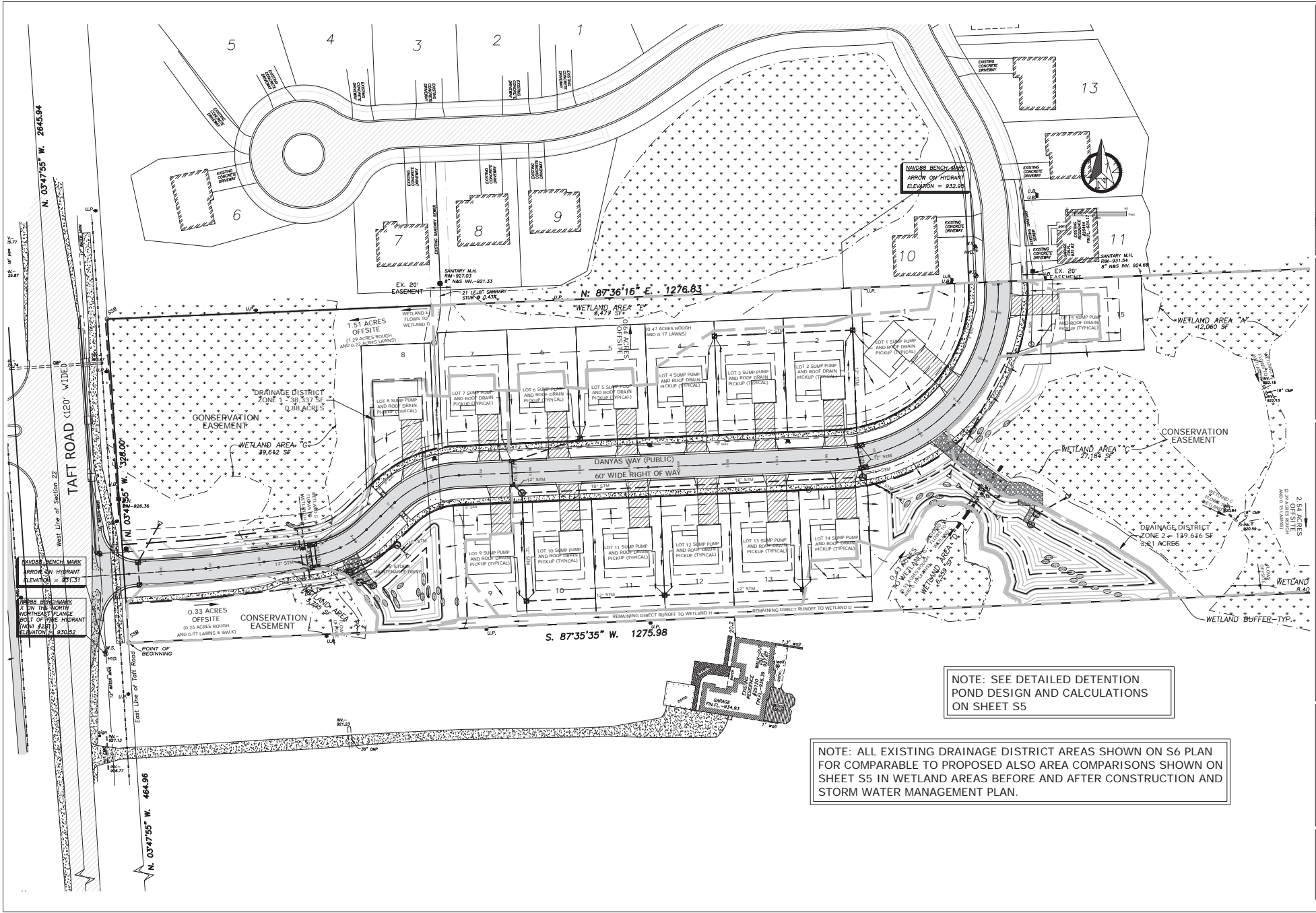
**ENGINEER SEAL**

**ISSUE DATES**

CITY SITE PLAN	05/20/25
CITY SITE PLAN	05/20/25
CITY SITE PLAN	05/20/25
CITY SITE PLAN	05/20/25

DRAWN: MCS  
DESIGNED: MCS  
APPROVED: MGC  
P.E. JOB NO.: 16-472  
SCALE: AS SHOWN  
**S1**  
SITE PLAN





NOTE: SEE DETAILED DETENTION POND DESIGN AND CALCULATIONS ON SHEET S5

NOTE: ALL EXISTING DRAINAGE DISTRICT AREAS SHOWN ON S6 PLAN FOR COMPARABLE TO PROPOSED ALSO AREA COMPARISONS SHOWN ON SHEET S5 IN WETLAND AREAS BEFORE AND AFTER CONSTRUCTION AND STORM WATER MANAGEMENT PLAN.

Consulting Civil Engineers  
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**Poell Engineering & Associates, LLC**  
4700 Cornerstone Drive, White Lake, Michigan 48383  
P: 248.744.8888 info@poellengineering.com



BEFORE YOU DIG  
CALL MISS DIG  
1-800-482-7171

**TAFT KNOLLS III SITE CONDO  
STORM WATER MANAGEMENT**  
TAFT KNOLLS III OPEN SPACE DEVELOPMENT  
TAFT ROAD, CITY OF NOVI, MICHIGAN

**ISSUE DATES**

CITY SITE PLAN	
CITY SITE PLAN	10/20/17
CITY SITE PLAN	8/20/17
CITY SITE PLAN	8/20/17
CITY SITE PLAN	8/20/17
CITY SITE PLAN	8/20/17
CITY SITE PLAN	8/20/17
CITY SITE PLAN	8/20/17
CITY SITE PLAN	8/20/17
CITY SITE PLAN	8/20/17

DRAWN	MCS
DESIGNED	MCS
APPROVED	MCS
P.E. JOB No.	16-472
SCALE	AS SHOWN
<b>S4</b>	<b>SITE PLAN</b>

### STORM WATER CALCULATIONS - DISTRICT AREA 1

**DRAINAGE DISTRICT 1 - DETERMINATION ON C FACTOR**

TOTAL AREA DRAINING TO POND (SLOPES & SIFTS)	=	0.88 ACRES
PAVING AREA (DRINKS, DRIVES, ROADS)	=	0.29 ACRES @ 0.80 = 0.23
BUILDING AREA	=	0.08 ACRES @ 0.80 = 0.07
LAWN AREA	=	0.3 ACRES @ 0.95 = 0.28
DETENTION (LOW WATER AREA)	=	0.21 ACRES @ 1.00 = 0.21
TOTAL AREA	=	0.88 ACRES
C imp. = TOTAL C / TOTAL ACRES	=	0.62 / 0.88 = 0.69

**DRAINAGE DISTRICT 1 - REQUIRED STORAGE CALCULATIONS**

AL = 0.58 ACRES CONTINUING  
 Qd = 0.81 IN PER ACRE ALLOWED TO OUTFLOW = 0.132

**30-YEAR CALCULATIONS**

Qp = Cmp (P/100)^0.78 (T+25)^0.48 (1.49) = 182 CFS  
 Vd = (AL/360) \* (T+25) \* 2.31 \* Qd = 1.296 CU FT/Inch Impervious  
 Wd = Vd/A = 1.50 A = C imp + C.F. REQUIRED = 7826 CU FT  
 REQUIRED 30-YEAR STORAGE = 7826 CU FT

**PROVIDED DETENTION POND STORAGE**

RECY	SOFT	CU FT	ACUMUM
921.5	1799		
922	8070	1217	0
923	4315	2898	4822
924	5300	4708	8100
925	5900	5300	11312

100 YEAR WITH OUTFLOW VOLUME REQUIRED = 7826  
 100 YEAR ELEVATION = 923.92

### STORM WATER CALCULATIONS - DISTRICT AREA 2

**PROPOSED DETENTION POND**

DETERMINATION OF C FACTOR

TOTAL AREA DRAINING TO POND (SLOPES & SIFTS)	=	3.23 ACRES
PAVING AREA (DRINKS, DRIVES, ROADS)	=	0.00 ACRES @ 0.80 = 0.00
BUILDING AREA	=	0.54 ACRES @ 0.80 = 0.43
LAWN AREA	=	1.7 ACRES @ 0.95 = 1.61
DETENTION (LOW WATER AREA)	=	0.99 ACRES @ 1.00 = 0.99
TOTAL AREA	=	3.23 ACRES
C imp. = TOTAL C / TOTAL ACRES	=	1.87 / 3.23 = 0.58

**DETERMINATION OF C FACTOR**

AL = 0.23 ACRES CONTINUING  
 Qd = 0.23 IN PER ACRE ALLOWED TO OUTFLOW = 0.48

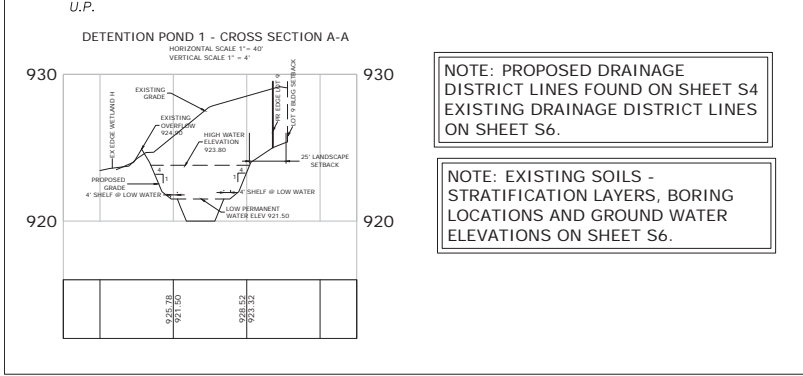
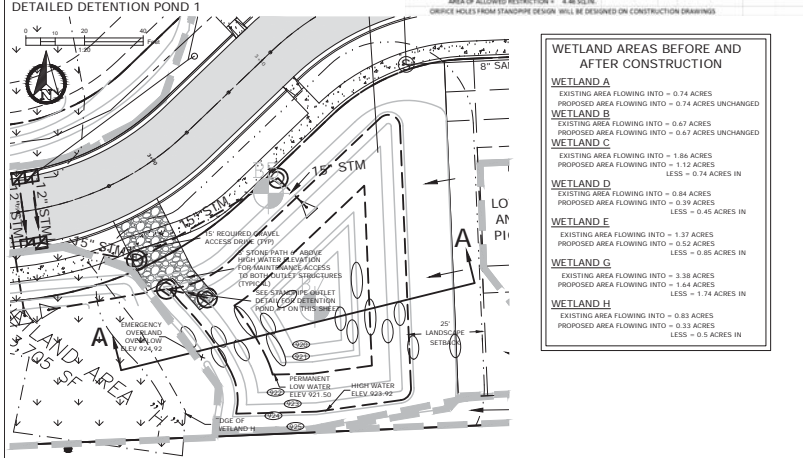
**30-YEAR CALCULATIONS**

Qp = Cmp (P/100)^0.78 (T+25)^0.48 (1.49) = 175 CFS  
 Vd = (AL/360) \* (T+25) \* 2.31 \* Qd = 1.296 CU FT/Inch Impervious  
 Wd = Vd/A = 5.60 A = C imp + C.F. REQUIRED = 23648 CU FT  
 REQUIRED 30-YEAR STORAGE = 23648 CU FT

**PROVIDED DETENTION POND STORAGE**

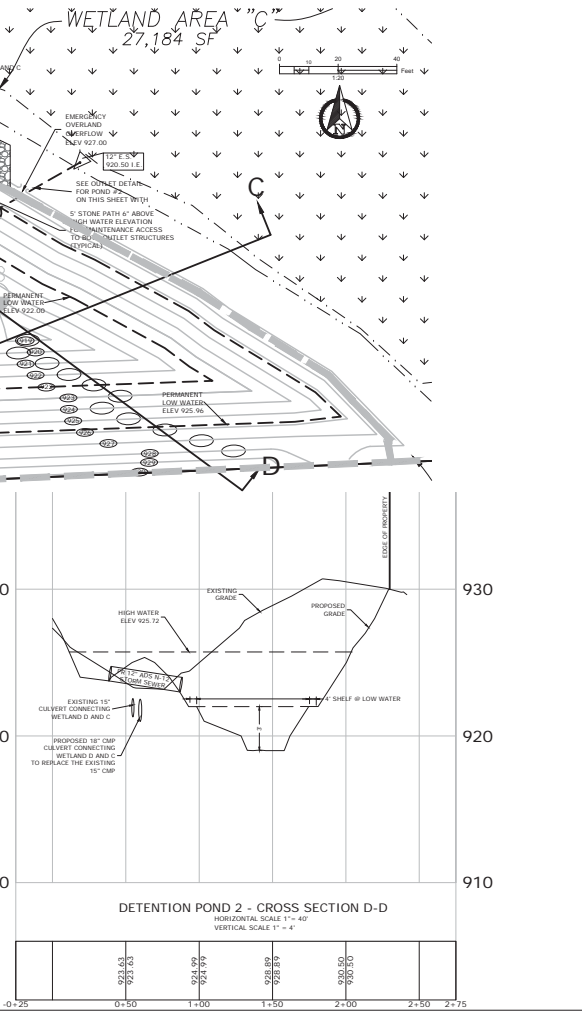
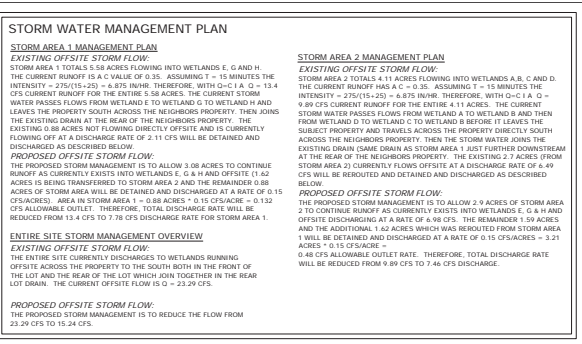
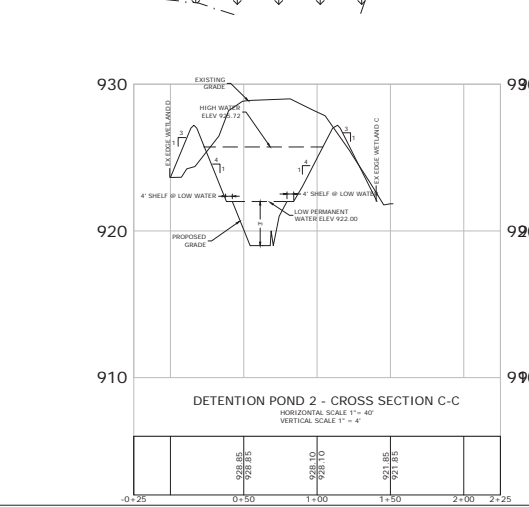
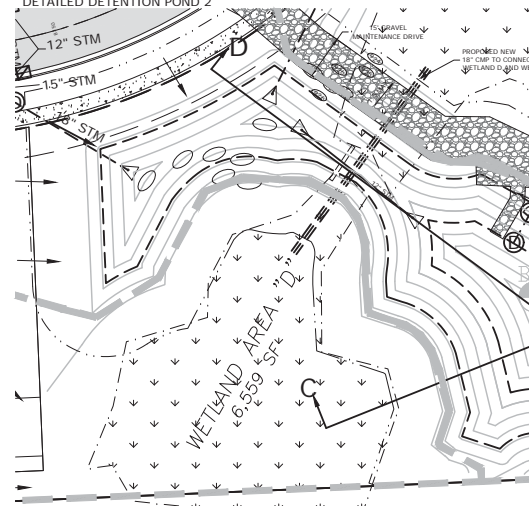
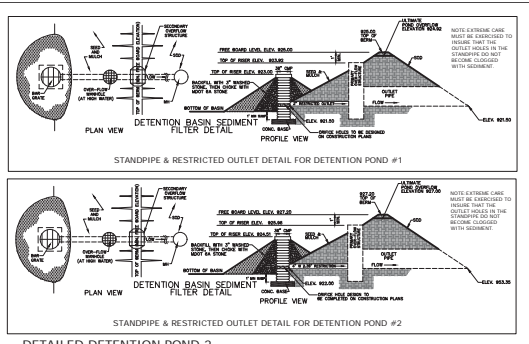
RECY	SOFT	CU FT	ACUMUM
920.5	2898		
921	4043	1645	0
922	6900	5175	1618
923	8920	7826	26122
924	11725	10327	26109
925	14710	12519	10779
921.5	15200	12610	47010

100 YEAR WITH OUTFLOW VOLUME REQUIRED = 23648  
 100 YEAR ELEVATION = 925.96



**NOTE: PROPOSED DRAINAGE DISTRICT LINES FOUND ON SHEET S4 EXISTING DRAINAGE DISTRICT LINES ON SHEET S6.**

**NOTE: EXISTING SOILS - STRATIFICATION LAYERS, BORING LOCATIONS AND GROUND WATER ELEVATIONS ON SHEET S6.**



Consulting Civil Engineers  
 Engineering & Better Michigan

**Polk Engineering & Associates, LLC**  
 4700 Commonwealth Drive, White Lake, Michigan 48383  
 P: 248.747.6888 info@polkengineering.com

**TAFT KNOLLS III SITE CONDO SWMP CALCULATIONS**  
 TAFT KNOLLS III OPEN SPACE DEVELOPMENT  
 TAFT ROAD, CITY OF NOVI, MICHIGAN

ISSUE DATAS  
 CITY SITE PLAN  
 CITY SITE PLAN  
 12/20/2016  
 CITY SITE PLAN  
 5/20/21/17

DRAWN: MCS  
 DESIGNED: MCS  
 APPROVED: MKP  
 P.E. JOB No. 16-472  
 SCALE: AS SHOWN

**S5**  
 SITE PLAN

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Seal:



Title:  
**Landscape Plan**

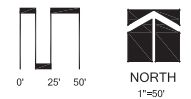
Project:  
**Taft Knolls III  
 Novi, Michigan**

Prepared for:  
 Trowbridge Homes  
 2617 Beacon Hill Dr.  
 Auburn Hills, MI 48326

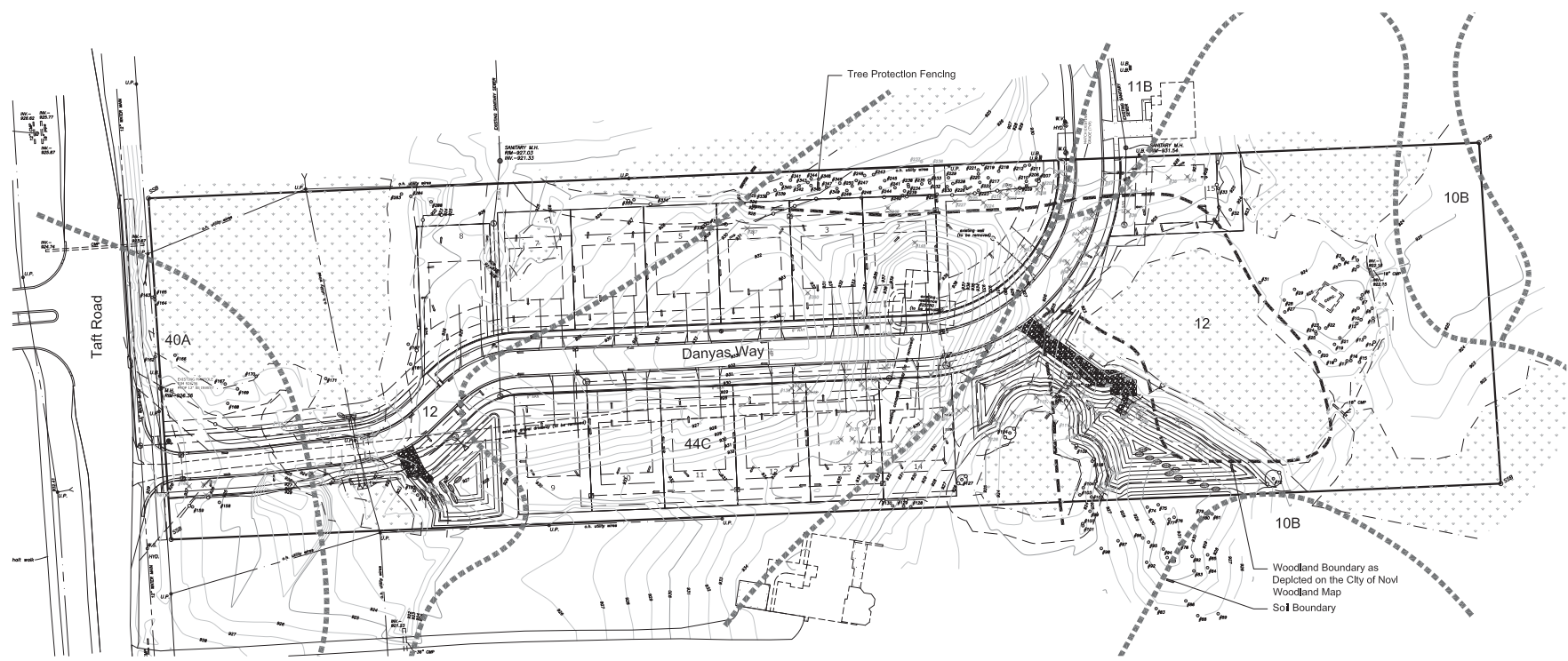
Revision:	Issued:
Submission	February 3, 2014
Revised	July 14, 2014
Revised	December 2, 2015
Revised	October 18, 2016
Revised	March 13, 2017

Job Number:  
 12-017

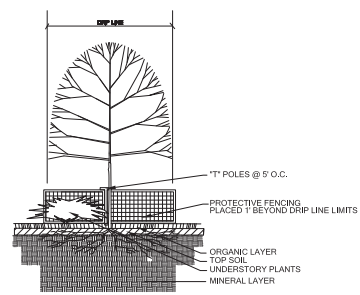
Drawn By: jca      Checked By: jca



Sheet No.



- Soils**
- 10B Marlette Sandy Loam
  - 11B Capac Sandy Loam
  - 12 Brookston and Colwood Loams
  - 40A Udorthents
  - 44C Riddles Sandy Loam



1. After Work or Wind Change, Tree Protection Shall be Installed or Beyond the Existing Limits.
2. Stone or Concrete T-Poles Shall be Spaced no Further than 5' on Center.
3. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
4. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
5. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
6. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
7. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
8. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
9. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
10. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
11. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
12. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
13. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
14. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
15. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
16. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
17. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
18. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
19. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.
20. Fencing Shall be Installed 1' Beyond the Outside of the T-Poles.

**TREE PROTECTION DETAIL**  
 NO SCALE





**Tree List**

Tree #	Scientific Name	Common Name	DBH	Condition	Remarks	Replacement	Credit
1	Tilia americana	Black Cherry	2.1	3	Remove		
2	Acer saccharum	Sugar Maple	16.7	2	Save		
3	Tilia americana	Black Cherry	5.0	1	Save		
4	Tilia americana	Black Cherry	23.1	1	Save		
5	Ulmus americana	American Elm	13.0	2	Save		
6	Prunus serotina	Black Cherry	10.3 / 6.8	1	Save		
7	Tilia americana	Black Cherry	12.8	1	Save		
8	Acer saccharum	Sugar Maple	10.0	3	Save		
10	Tilia americana	Black Cherry	12.6	1	Save		
11	Tilia americana	Black Cherry	8.5	1	Save		
12	Tilia americana	Black Cherry	9.1	1	Save		
13	Tilia americana	Black Cherry	8.5	3	Save		
14	Tilia americana	Black Cherry	15.4	2	Save		
15	Tilia americana	Black Cherry	8.5	3	Save		
16	Tilia americana	Black Cherry	3.6 / 7.0 / 6.1	3	Save		
17	Tilia americana	Black Cherry	12.9 / 9.2	2	Save		
18	Tilia americana	Black Cherry	10.4 / 7.6	1	Save		
19	Tilia americana	Black Cherry	8.2	2	Save		
20	Ulmus americana	American Elm	9.0	1	Save		
21	Quercus rubra	Red Oak	16.8	1	Save		
22	Prunus serotina	Black Cherry	9.5	1	Save		
23	Quercus rubra	Red Oak	17.7	1	Save		
24	Tilia americana	Black Cherry	11.4	1	Save		
25	Tilia americana	Black Cherry	11.8 / 6.8	3	Save		
26	Ulmus americana	American Elm	8.2 / 8.2	1	Save		
27	Acer saccharum	Sugar Maple	22.5	1	Save		
28	Ulmus americana	American Elm	22.8	2	Save		
29	Acer saccharum	Sugar Maple	21.0	2	Save		
30	Platanus rugelii	Hughlii Platanus	11.0	2	Save		
31	Acer saccharum	Sugar Maple	10.0	1	Save		
32	Acer saccharum	Sugar Maple	13.5	2	Remove	2	
33	Tilia americana	Black Cherry	10.0	1	Save		
34	Tilia americana	Black Cherry	17.5 / 6.0 / 5.0 / 5.1	1	Remove	4	
35	Acer saccharum	Sugar Maple	22.0	1	Remove	2	
36	Acer saccharum	Sugar Maple	27.9	2	Remove	3	
37	Acer saccharum	Sugar Maple	22.0	1	Remove	2	
38	Acer saccharum	Sugar Maple	26.1	3	Remove/Exempt		
39	Prunus serotina	Black Cherry	14.9	1	Remove/Exempt		
40	Ulmus americana	American Elm	10.0	1	Remove/Exempt		
41	Fagus grandifolia	Beech	3.8	1	Remove/Exempt		
42	Fagus grandifolia	Beech	3.8	1	Remove/Exempt		
43	Fagus grandifolia	Beech	28.5	2	Remove/Exempt		
44	Fagus grandifolia	Beech	11.4	2	Remove/Exempt		
45	Fagus grandifolia	Beech	3.8	2	Remove/Exempt		
46	Ulmus americana	American Elm	4.5	2	Remove/Exempt		
48	Fagus grandifolia	Black Cherry	11.4	2	Remove/Exempt		
49	Fagus grandifolia	Black Cherry	8.2 / 6.0	1	Remove/Exempt		
51	Fagus grandifolia	Beech	12.9	1	Remove/Exempt		
52	Prunus serotina	Black Cherry	11.4	3	Remove/Exempt		
53	Tilia americana	Black Cherry	12.1 / 10.0 / 10.1 / 15.3	1	Remove/Exempt		
54	Prunus serotina	Black Cherry	11.0	1	Remove/Exempt		
54	Prunus serotina	Black Cherry	24.8	2	Remove	3	
55	Acer platanoides	Norway Maple	10.0	1	Remove/Exempt		
56	Prunus serotina	Black Cherry	16.6	1	Remove/Exempt		
57	Acer saccharum	Sugar Maple	24.4	1	Remove/Exempt		
58	Acer saccharum	Sugar Maple	34.3	3	Remove/Exempt		
59	Salix nigra	Willow	13.0	2	Remove	2	
60	Prunus serotina	Black Cherry	10.6	2	Remove	1	
61	Ulmus americana	American Elm	8.1	2	Remove	1	
62	Populus deltoides	Cottonwood	15.3	1	Remove	2	
63	Acer saccharum	Sugar Maple	10.9	1	Remove	1	
64	Thuja occidentalis	White Cedar	10.2	1	Remove	1	
65	Acer saccharum	Sugar Maple	10.4 / 12.4 / 7.9	1	Remove	4	
66	Prunus serotina	Black Cherry	14.2	2	Remove	2	
67	Acer saccharum	Sugar Maple	10.1	2	Remove	1	
68	Ulmus americana	American Elm	3.5	3	Remove	1	
69	Acer saccharum	Sugar Maple	10.2	1	Remove	4	
70	Thuja occidentalis	White Cedar	10.3 / 10.2 / 10.0 / 5.5 / 10.0	2	Remove	4	
71	Populus deltoides	Cottonwood	11.1 / 10.4	1	Save		
72	Populus deltoides	Cottonwood	12.8 / 12.5	1	Remove	4	
73	Acer saccharum	Sugar Maple	8.1	1	Save		
74	Prunus serotina	Black Cherry	8.1	1	Save		
75	Acer saccharum	Sugar Maple	10.6	1	Save		
76	Acer saccharum	Sugar Maple	8.1	1	Save		
77	Prunus serotina	Black Cherry	10.6	2	Save		
78	Acer saccharum	Sugar Maple	9.9	2	Save		
80	Prunus pennsylvanica	Pear	12.4	2	Save		
81	Quercus macrocarpa	Red Oak	8.2	1	Save		
82	Acer saccharum	Sugar Maple	9.7	1	Save		
83	Prunus serotina	Black Cherry	13.6	2	Save		
84	Acer saccharum	Sugar Maple	9.6	1	Save		
85	Acer saccharum	Sugar Maple	8.0	2	Save		
86	Acer saccharum	Sugar Maple	9.2	2	Save		
87	Prunus serotina	Black Cherry	9.5	3	Save		
88	Prunus serotina	Black Cherry	10.9	3	Save		
90	Prunus serotina	Black Cherry	8.4	3	Save		
91	Acer saccharum	Sugar Maple	9.9	1	Save		
92	Acer saccharum	Sugar Maple	8.4	3	Save		
93	Acer saccharum	Sugar Maple	10.0	2	Save		
94	Acer saccharum	Sugar Maple	8.5	1	Save		
95	Acer saccharum	Sugar Maple	9.0	2	Save		
96	Acer saccharum	Sugar Maple	10.7	1	Save		
97	Quercus macrocarpa	Red Oak	10.2	2	Save		
98	Tilia americana	Black Cherry	17.7	1	Save		
99	Fagus grandifolia	Beech	16.6	3	Save		
100	Tilia americana	Black Cherry	14.9	2	Save		
101	Tilia americana	Black Cherry	15.1	2	Save		
102	Tilia americana	Black Cherry	11.8	2	Save		
103	Tilia americana	Black Cherry	11.8	2	Save		







Tree #	Scientific Name	Common Name	DBH	Condition	Remarks	Replacement	Credit
104	Prunus serotina	Black Cherry	21.5	3	Save		
105	Prunus serotina	Black Cherry	15.1	2	Save		
106	Tilia americana	Black Cherry	3.4	2	Save		
107	Prunus serotina	Black Cherry	9.3	1	Remove	1	
108	Acer saccharum	Sugar Maple	19.3	1	Save		
109	Prunus serotina	Black Cherry	9.5	2	Save		
110	Prunus serotina	Black Cherry	10.1	2	Remove	1	
111	Acer saccharum	Sugar Maple	9.2	1	Remove	1	
112	Acer saccharum	Sugar Maple	20.4	1	Remove	2	
113	Acer saccharum	Sugar Maple	11.1	2	Remove/Exempt		
114	Prunus serotina	Black Cherry	9.8	2	Save		
115	Prunus serotina	Black Cherry	11.1	2	Remove/Exempt		
116	Prunus serotina	Black Cherry	11.3	3	Remove/Exempt		
117	Acer saccharum	Sugar Maple	10.9	1	Remove/Exempt		
118	Prunus serotina	Black Cherry	11.3	3	Remove/Exempt		
119	Prunus serotina	Black Cherry	11.2	3	Remove/Exempt		
120	Prunus serotina	Black Cherry	11.8	3	Remove/Exempt		
121	Acer saccharum	Sugar Maple	12.0	1	Remove/Exempt		
122	Acer saccharum	Sugar Maple	13.8	1	Remove/Exempt		
123	Acer saccharum	Sugar Maple	10.1 / 10.1	2	Remove/Exempt		
124	Acer platanoides	Norway Maple	10.0	2	Credit		
125	Acer platanoides	Norway Maple	14.4	2	Credit		
126	Acer platanoides	Norway Maple	14.4	2	Credit		
127	Acer saccharum	Sugar Maple	29.4	3	Credit		
128	Prunus serotina	Black Cherry	16.5	1	Credit		
129	Prunus serotina	Black Cherry	16.7	1	Credit		
130	Prunus serotina	Black Cherry	11.7	3	Credit		
131	Prunus serotina	Black Cherry	13.4	1	Remove/Exempt		
132	Prunus serotina	Black Cherry	13.4	1	Remove/Exempt		
133	Prunus serotina	Black Cherry	15.0	1	Remove/Exempt		
134	Prunus serotina	Black Cherry	15.4	1	Remove/Exempt		
135	Prunus serotina	Black Cherry	10.0	2	Remove/Exempt		
136	Prunus serotina	Black Cherry	10.1	2	Remove/Exempt		
137	Prunus serotina	Black Cherry	15.0	3	Remove/Exempt		
138	Prunus serotina	Black Cherry	19.1	2	Remove/Exempt		
139	Prunus serotina	Black Cherry	9.2	1	Remove/Exempt		
140	Prunus serotina	Black Cherry	14.5	1	Remove/Exempt		
141	Prunus serotina	Black Cherry	14.5	1	Remove/Exempt		
142	Prunus serotina	Black Cherry	10.5	2	Remove/Exempt		
143	Prunus serotina	Black Cherry	10.1	2	Remove/Exempt		
144	Prunus serotina	Black Cherry	22.0	1	Remove/Exempt		
145	Prunus serotina	Black Cherry	22.0	1	Remove/Exempt		
146	Prunus serotina	Black Cherry	22.0	1	Remove/Exempt		
147	Acer saccharum	Sugar Maple	15.6	1	Remove/Exempt		
148	Acer saccharum	Sugar Maple	20.2	1	Remove/Exempt		
149	Prunus serotina	Black Cherry	16.5	1	Remove/Exempt		
150	Prunus serotina	Black Cherry	15.4	1	Remove/Exempt		
151	Prunus serotina	Black Cherry	16.5	1	Remove/Exempt		
152	Prunus serotina	Black Cherry	15.0	2	Credit		
153	Prunus serotina	Black Cherry	11.5	1	Remove/Exempt		
154	Salix nigra	Willow	24.2	2	Remove/Exempt		
155	Populus deltoides	Cottonwood	15.2	2	Remove/Exempt		
156	Prunus serotina	Black Cherry	11.6	1	Remove/Exempt		
157	Prunus serotina	Black Cherry	12.9	1	Remove/Exempt		
158	Prunus serotina	Black Cherry	10.0	1	Remove/Exempt		
159	Prunus serotina	Black Cherry	9.6	1	Remove/Exempt		
160	Fraxinus americana	American Ash	8.6	2	Remove/Exempt		
161	Rubus pseudoacris	Black Locust	17.7 / 22.1	1	Remove/Exempt		
162	Ulmus americana	American Elm	8.2 / 10.1 / 8.1	2	Credit		
163	Salix nigra	Willow	15.0	3	Credit		
164	Salix nigra	Willow	18.8	3	Credit		
165	Salix nigra	Willow	19.8	2	Credit		
166	Salix nigra	Willow	9.1 / 7.8	1	Credit		
167	Populus deltoides	Cottonwood	11.9	2	Credit		
168	Juglans nigra	Black Walnut	11.2	1	Credit		
169	Populus deltoides	Cottonwood	9.3	2	Credit		
170	Populus deltoides	Cottonwood	15.4	2	Credit		
171	Ulmus americana	American Elm	10.5	2	Save		
172	Populus deltoides	Cottonwood	19.1	2	Remove/Exempt		
173	Populus deltoides	Cottonwood	8.6	2	Remove/Exempt		
174	Ulmus americana	American Elm	9.3	2	Save		
175	Prunus serotina	Black Cherry	10.8	2	Save		
176	Fraxinus pennsylvanica	Red Ash	9.5	3	Remove/Exempt		
177	Prunus serotina	Black Cherry	11.0	1	Save		
178	Prunus serotina	Black Cherry	8.1 / 7.8	1	Save		
179	Prunus serotina	Black Cherry	11.8	1	Save		
180	Prunus serotina	Black Cherry	10.0	1	Save		
181	Prunus serotina	Black Cherry	9.7	1	Credit		
182	Prunus serotina	Black Cherry	11.2	1	Save		
183	Prunus serotina	Black Cherry	10.8	1	Save		
184	Prunus serotina	Black Cherry	9.3	1	Save		
185	Prunus serotina	Black Cherry	12.4	1	Save		
186	Prunus serotina	Black Cherry	10.3	1	Save		
187	Prunus serotina	Black Cherry	10.8	1	Credit		
188	Prunus serotina	Black Cherry	12.8	1	Save		
189	Prunus serotina	Black Cherry	11.0	1	Save		
190	Prunus serotina	Black Cherry	8.0	2	Save		
191	Prunus serotina	Black Cherry	8.7	1	Save		
192	Prunus serotina	Black Cherry	9.2	1	Save		
193	Prunus serotina	Black Cherry	8.9	1	Save		
194	Prunus serotina	Black Cherry	11.2	1	Save		
195	Prunus serotina	Black Cherry	11.8	1	Save		
196	Prunus serotina	Black Cherry	9.2	1	Save		
197	Prunus serotina	Black Cherry	9.8	1	Save		
198	Prunus serotina	Black Cherry	10.2	2	Remove	1	
199	Prunus serotina	Black Cherry	12.0	1	Remove	2	
200	Prunus serotina	Black Cherry	9.2	1	Remove	2	
201	Prunus serotina	Black Cherry	8.1	1	Remove	1	
202	Prunus serotina	Black Cherry	11.5	1	Remove	2	
203	Prunus serotina	Black Cherry	12.0	1	Remove	2	
204	Prunus serotina	Black Cherry	11.0	1	Remove	2</	

OPEN SPACE PRESERVATION EASEMENT

# NOVI TAFT KNOLLS III DEVELOPMENT



## LEGEND

	PROPOSED HOUSE		PROPOSED MAINTENANCE DRIVE
	PROPOSED LAWN		PROPOSED DETENTION POND
	EXISTING WETLAND		EXISTING UNDISTURBED & WETLAND



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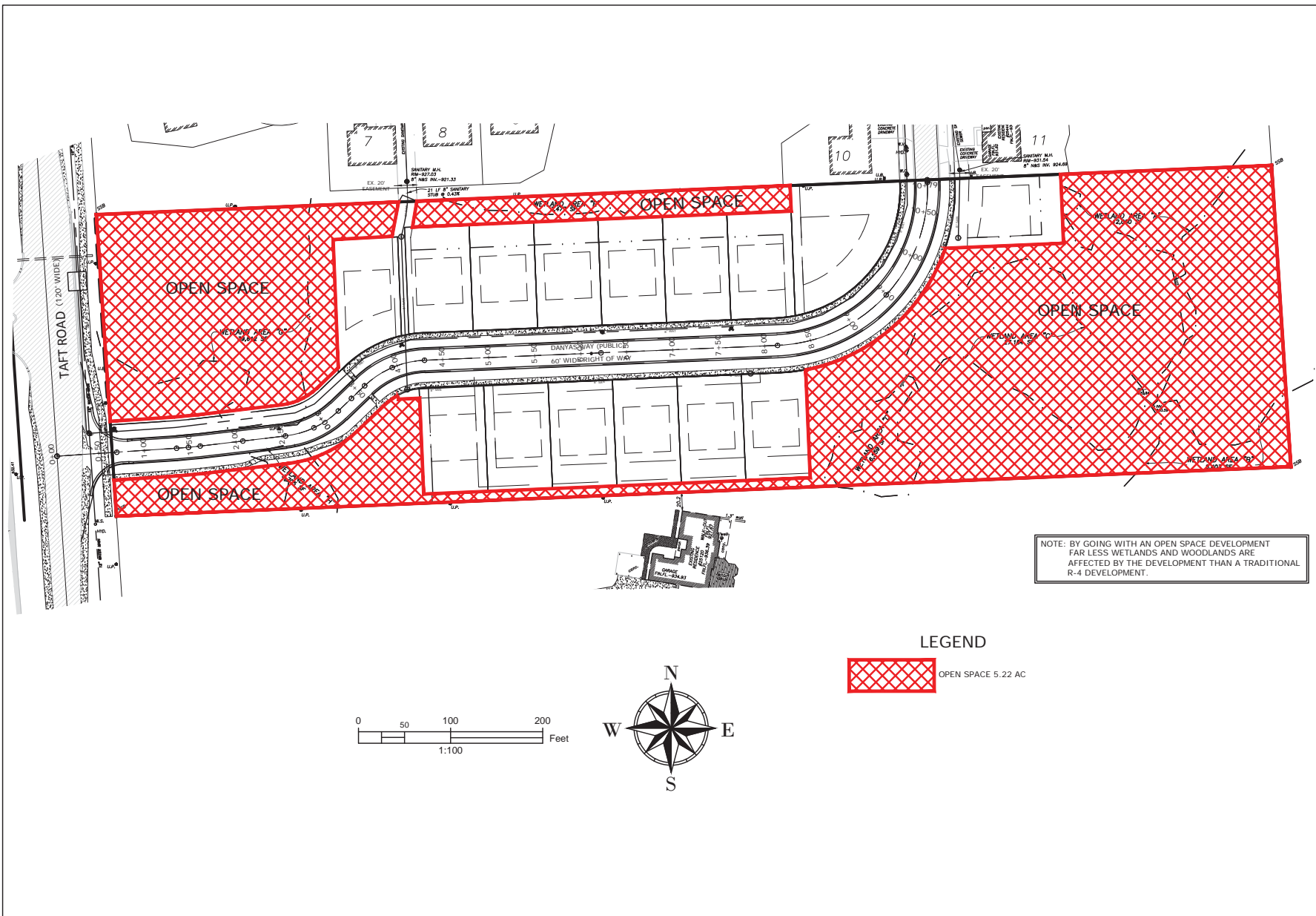


**TAFT KNOLLS III SITE CONDO PRESENTATION PLAN**  
 TAFT KNOLLS III SITE CONDOMINIUM  
 TAFT ROAD, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

### ISSUE DATES


DRAWN	MCS
DESIGNED	MCS
APPROVED	MEP
P.E. #00000	16472
SCALE	AS SHOWN
<b>P1</b>	PRESENTATION





**TAFT KNOLLS III SITE CONDO  
OPEN SPACE EXHIBIT**  
CITY OF NOVI, MICHIGAN  
TAFT ROAD, CITY OF NOVI, MICHIGAN

**LEGEND**  
 OPEN SPACE 5.22 AC

NOTE: BY GOING WITH AN OPEN SPACE DEVELOPMENT FAR LESS WETLANDS AND WOODLANDS ARE AFFECTED BY THE DEVELOPMENT THAN A TRADITIONAL R-4 DEVELOPMENT.

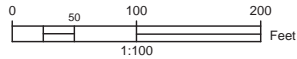
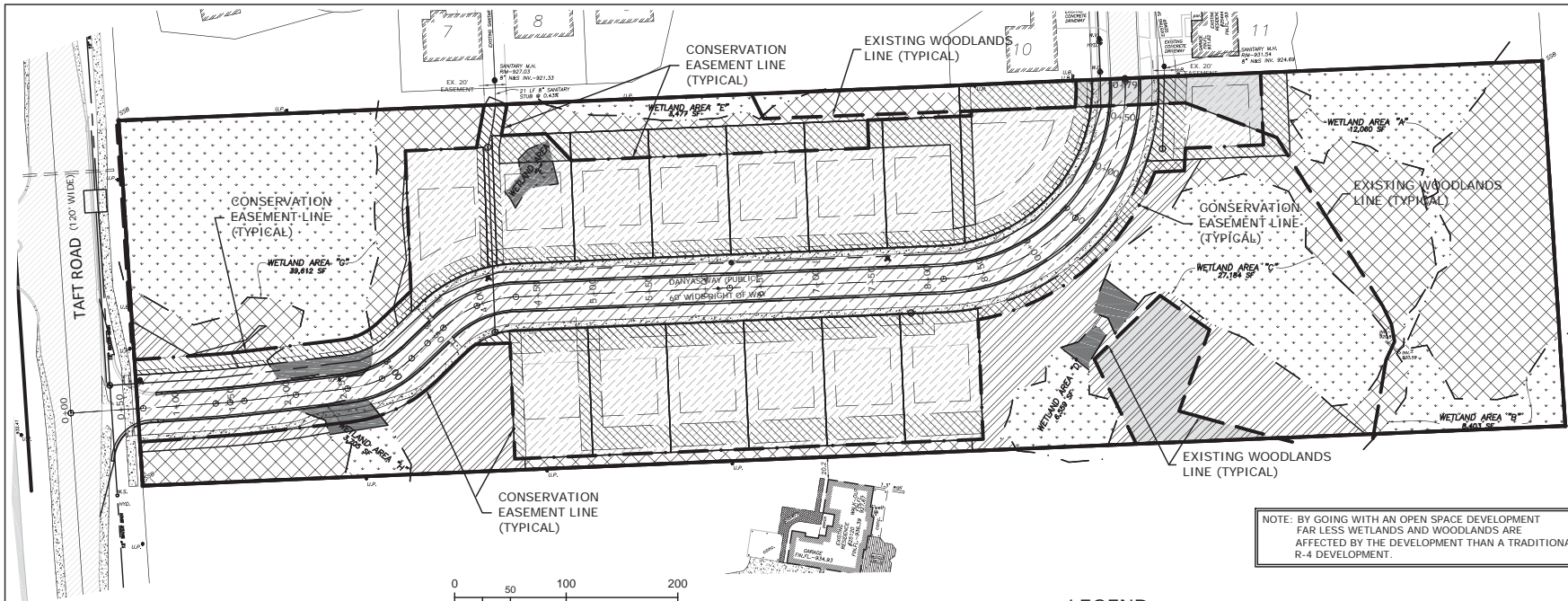
ISSUE DATES  
 CITY OF NOVI: \_\_\_\_\_  
 BOARD: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

DRAWN: MFC  
 DESIGNED: MFC  
 APPROVED: MFC  
 P.E. (NOV 14, 2013)  
 SCALE: 1"=100'  
**1**  
 OPEN SPACE EXHIBIT

Consulting Civil Engineers  
"Engineering A Better Michigan"

**Poell Engineering & Associates, LLC**  
 4750 Cornerstone Drive, White Lake, Michigan 48383  
 P: 248.744.0222 E: info@poelleng.com

BEFORE YOU DIG  
CALL MISS DIG  
1.800.482.7171



**LEGEND**

- UNDISTURBED OPEN SPACE 1.8 AC
- DISTURBED OPEN SPACE 1.15 AC
- LOT AREA 2.91 AC
- ROAD RIGHT OF WAY 1.4 AC
- EASEMENT (OVERLAPS)
- UNDISTURBED WETLANDS 2.29 AC (PER BROOKS WILLIAMSON)
- PROPOSED FILLED WETLANDS 0.1 AC
- PROPOSED WOODLAND REMOVAL 0.33 AC
- EXISTING WOODLANDS LINE (PER CITY OF NOVI FIGURE 1 PROVIDED)
- PROPOSED CONSERVATION AREA/OPEN SPACE 5.18 AC

NOTE: BY GOING WITH AN OPEN SPACE DEVELOPMENT FAR LESS WETLANDS AND WOODLANDS ARE AFFECTED BY THE DEVELOPMENT THAN A TRADITIONAL R-4 DEVELOPMENT.

Consulting Civil Engineers  
Engineering A Better Michigan

**Powell Engineering & Associates, LLC**  
2700 Cornerstone Drive, White Lake, Michigan 48393  
P: 313.247.1222 F: 313.247.1223 E: info@powelleng.com

**Taft Knolls III Site Condo Open Space Exhibit**  
Taft Knolls III Site Condo  
Taft Road, City of Novi, Michigan

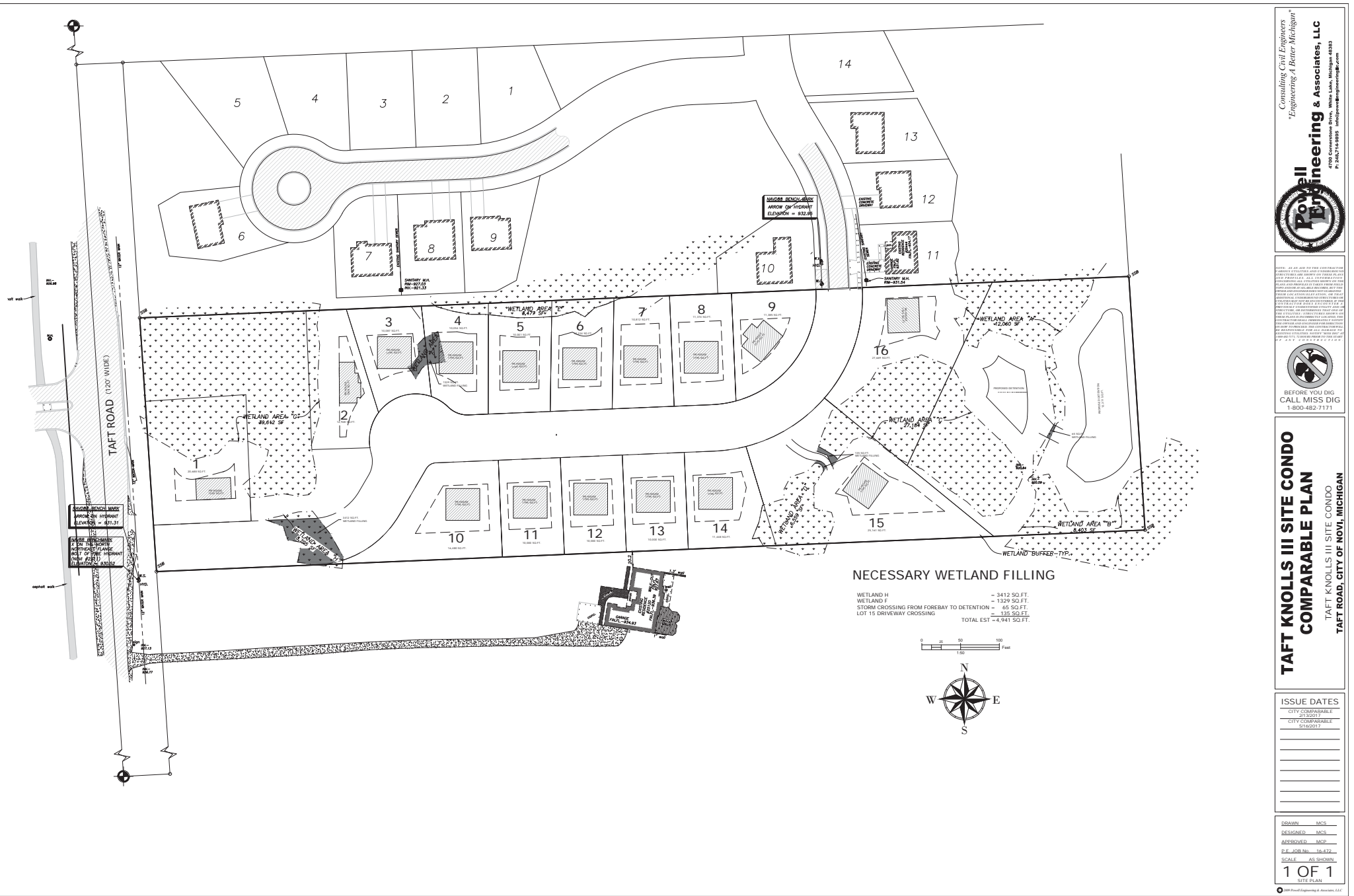
ISSUE DATES


DRAWN: MFC  
DESIGNED: MFC  
APPROVED: MFC  
P.E. (08/01) 16-013  
SCALE: 1"=100'  
**1**  
OPEN SPACE EXHIBIT

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**BONDAFIDE PLAN**



**NECESSARY WETLAND FILLING**

WETLAND H	= 3412 SQ.FT.
WETLAND F	= 1329 SQ.FT.
STORM CROSSING FROM FOREBAY TO DETENTION	= 65 SQ.FT.
LOT 15 DRIVEWAY CROSSING	= 135 SQ.FT.
<b>TOTAL EST</b>	<b>= 4,941 SQ.FT.</b>



Consulting Civil Engineers  
*"Engineering A Better Michigan"*



NOTE: AS AN ADD TO THE CONTRACT DOCUMENTS, THIS SHEET AND ITS CONTENTS SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. ALL INFORMATION ON THIS SHEET IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE. THE USER OF THIS SHEET SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER OF THIS SHEET SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER OF THIS SHEET SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

  
 BEFORE YOU DIG  
 CALL MISS DIG  
 1-800-482-7171

**TAFT KNOLLS III SITE CONDO  
 COMPARABLE PLAN**  
 TAFT KNOLLS, III SITE CONDO  
 TAFT ROAD, CITY OF NOVI, MICHIGAN

**ISSUE DATES**

CITY COMPARABLE	07/20/21
CITY COMPARABLE	07/20/21

DRAWN: MFC  
 DESIGNED: MFC  
 APPROVED: MFC  
 P.E. JOB No. 16-472  
 SCALE: AS SHOWN  
**1 OF 1**  
 SITE PLAN

## PLANNING REVIEW



# PLAN REVIEW CENTER REPORT

May 02, 2017

## Planning Review

Taft Knolls III

JSP 16-67

### Petitioner

25150 Taft Road, LLC

### Review Type

Preliminary Site Plan with Open Conservation Easement

### Property Characteristics

<b>Section</b>	22	
<b>Site Location</b>	north of 10 Mile Road and east of Taft Road	
<b>Site School District</b>	Novi Community School District	
<b>Site Zoning</b>	R-4, One-Family Residential	
<b>Adjoining Zoning</b>	North	R-4, One-Family Residential
	East	R-4, One-Family Residential
	West	RA, One-Family Residential
	South	R-4, One-Family Residential
<b>Current Site Use</b>	Vacant	
<b>Adjoining Uses</b>	North	Single-Family Residential
	East	Single-Family Residential
	West	School
	South	Single-Family Residential
<b>Site Size</b>	9.6 acres	
<b>Plan Date</b>	March 30, 2017	

### Project Summary

The subject property is located on the east side of Taft Road north of 10 Mile Road in Section 22 of the City of Novi. The property totals 9.6 acres. The current zoning of the property is R-4, One-Family Residential. The applicant has proposed a 15 unit single-family residential development (Site Condominium) utilizing the Open Space Preservation Option.

The Open Space Preservation Option is intended "...to encourage the long-term preservation of open space and natural features and the provision of recreation and open space areas." The site meets the general eligibility requirements outlined in the ordinance detailing the Open Space Preservation Option. The site also has a substantial amount of both regulated wetlands and woodlands.

### Recommendation

Approval of the *Preliminary Site Plan with Open Space Conservation, Site Condominium is recommended*. The plan mostly conforms to the requirements of the Zoning Ordinance, with a few deviations listed in this and other review letters. **Planning Commission's approval for Preliminary Site Plan with Open Space Conservation, Site Condominium and Storm Water Management Plan is required.**

### Ordinance Requirements

This project was reviewed for conformance with the Zoning Ordinance with respect to Article 3 (Zoning Districts), Article 4 (Use Standards), Article 5 (Site Standards), and any other applicable provisions of the Zoning Ordinance. **Deviations from the Zoning Ordinance are listed below.**

**Please see the attached chart for information pertaining to ordinance requirements.** Items in **bold** below must be addressed and incorporated as part of the Final Site Plan submittal:

1. Open Space Preservation Option: The applicant is utilizing the Open Space Preservation Option which allows an applicant to develop the allowed number of units on a property on a portion of the site in exchange for the preservation of natural features and open space. The applicant has provided the required parallel plan showing the number of units that could be developed on the site. In order to qualify for the option, the applicant must save a minimum of 10% of the site as permanent open space. The applicant has proposed 54% open space in this case. **The applicant has shared an Open Space exhibit via e-mail. Please include the plan in the Final Site Plan.** The Planning Commission will hold the required public hearing prior to their consideration of the matter.
2. Bonafide plan: A parallel plan is required, which identifies how the property will be developed under conventional developmental standards. A bonafide plan is included in the plan which indicates 16 lots that can be developed under conventional development standards. The plan included additional details such as setbacks, frontage, conceptual storm water management and wetland fills. **Staff reviewed the plan and has determined the proposed density is allowable based on the maximum density proposed on the Bonafide plan. The Open Space Preservation plan proposes 15 lots, while the Bonafide plan indicates 16 lots.**
3. Non-Access Greenbelt: A 40 ft. non-access greenbelt is required adjacent to Taft Road. **It does not appear there would be any conflicts with the current layout. Please show and label the non-access greenbelt on the plans.**
4. Residential Development Entrance Lighting: A residential development entrance light must be provided at the entrances to the development off of Dixon Road. The applicant should contact the Engineering Division at 248-735-5695 to begin the process of working with the City and DTE on the installation of the entrance light.
5. Signage: **Exterior Signage is not regulated by the Planning Division or Planning Commission.** Sign permit applications that relate to construction of a new building or an addition to an existing building may submitted, reviewed, and approved as part of a site plan application. Proposed signs shall be shown on the preliminary site plan. Alternatively, an applicant may choose to submit a sign application to the Building Official for administrative review. Following preliminary site plan approval, any application to amend a sign permit or for a new or additional sign shall be submitted to the Building Official. Please contact the Ordinance Division 248.735.5678 for information regarding sign permits. **The entryway sign may have conflicts with corner clearance or required landscape trees and existing wetlands and buffer. Indicate the location of monument sign on the plans to determine if any variances would be required.**
6. Parcel Split/Combination: **The site plan is not proposing any Parcel split or combination. A Master Deed is required for the proposed Site Condominium. The applicant must provide a draft copy of the Master Deed with Electronic Stamping Set submittal.** The applicant must create this parcel prior to Stamping Set approval and/or applying for new site address. Plans will not be stamped until the parcel is created.

#### **Other Reviews**

- a. Engineering Review: DCS variances may be required for this site plan which would require additional information prior to Planning Commission meeting. Additional comments to be addressed with Final Site Plan. Engineering recommends approval.
- b. Landscape Review: Landscape review has identified waivers that may be required. Refer to review letter for more comments. Landscape recommends approval.
- a. Wetlands Review: A City of Novi Wetland Permit and Buffer Authorization are required for the proposed impacts to wetlands and regulated wetland setbacks. Additional comments to be addressed with Final Site Plan. Wetlands recommend approval.

- b. Woodlands Review: A City of Novi Woodland permit is required for the proposed impacts to regulated woodlands. Additional comments to be addressed with Final Site Plan. Woodlands recommend approval.
- c. Traffic Review: Traffic identified one deviation that would require Planning Commission waiver. Additional information requested to perform complete review. Traffic recommends approval.
- d. Traffic Study Review: none required
- e. Facade Review: Not Applicable for single family homes at the time of site plan review
- f. Fire Review: Fire recommends approval.

### **Planning Commission Meeting**

This Site Plan is scheduled to go before Planning Commission for public hearing on June 14, 2017. Please provide the following **no later than 9:00am, June 06, 2017** if you wish to keep the schedule.

1. Original Site plan submittal in PDF format. **NO CHANGES MADE**
2. A response letter addressing ALL the comments from ALL the review letters and **a request for waivers as you see fit.**
3. A color rendering of the Site Plan, if any.
4. A variance is required for absence of sidewalk on both sides of Danya's way around wetlands. Engineering is currently have not determined whether they support the variance. Please provide the information requested in Item #16 of Engineering Review letter.

### **Final Site Plan Submittal**

After receiving the Preliminary Site Plan approval, please submit the following for Final site plan review and approval

1. Six copies of Final Site Plan addressing all comments from Preliminary review
2. Response letter **addressing all comments and refer to sheet numbers where the change is reflected.**
3. Final Site Plan Application
4. Final Site Plan Checklist
5. Engineering Estimate
6. Landscape Estimate
7. Other Agency Checklist
8. Hazardous Materials Packet (Non-residential developments)
9. Non-Domestic User Survey (Non-residential developments)
10. No Revision Façade Affidavit (if no changes are proposed for Façade)
11. Legal Documents as required per the attached Planning and Engineering Legal Transmittals

### **Electronic Stamping Set Submittal and Response Letter**

After receiving Final Site Plan approval, please submit the following for Electronic stamping set approval:

1. Plans addressing the comments in all of the staff and consultant review letters in PDF format.
2. Response letter addressing all comments in ALL letters and ALL charts and **refer to sheet numbers where the change is reflected.**

### **Stamping Set Approval**

Stamping sets are still required for this project. After having received all of the review letters from City staff the applicant should make the appropriate changes on the plans and submit **10 size 24" x 36" copies with original signature and original seals.** to the Community Development Department for final Stamping Set approval. Plans addressing the comments in all of the staff and consultant review letters should be submitted electronically for informal review and approval prior to printing Stamping Sets.

### **Site Addressing**

**New addresses will be required for the proposed lots.** The applicant should contact the Building Division for an address prior to applying for a building permit. Building permit applications cannot be processed without a correct address. The address application can be found by clicking on this [link](#).

Please contact the Ordinance Division 248.735.5678 in the Community Development Department with any specific questions regarding addressing of sites.

**Street and Project Name**

**This project does not require approval from the Street and Project Naming Committee.** Please contact Richelle Leskun (248-347-0579) in the Community Development Department for additional information. The address application can be found by clicking on this [link](#).


**Pre-Construction Meeting**

**A Pre-Construction meeting is required for this project.** Prior to the start of any work on the site, Pre-Construction (Pre-Con) meetings must be held with the applicant's contractor and the City's consulting engineer. Pre-Con meetings are generally held after Stamping Sets have been issued and prior to the start of any work on the site. There are a variety of requirements, fees and permits that must be issued before a Pre-Con can be scheduled. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah Marchioni [248.347.0430 or [smarchioni@cityofnovi.org](mailto:smarchioni@cityofnovi.org)] in the Community Development Department.

**Chapter 26.5**

Chapter 26.5 of the City of Novi Code of Ordinances generally requires all projects be completed within two years of the issuance of any starting permit. Please contact Sarah Marchioni at 248-347-0430 for additional information on starting permits. The applicant should review and be aware of the requirements of Chapter 26.5 before starting construction.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5607 or [skomaragiri@cityofnovi.org](mailto:skomaragiri@cityofnovi.org).



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Sri Ravali Komaragiri – Planner



**PLANNING REVIEW CHART: R-4\_One Family Residential with Open Space preservation Option**

**Review Date:** May 05, 2017  
**Review Type:** Preliminary Site Plan  
**Project Name:** JSP16-67 Taft Knolls III  
**Plan Date:** March 30, 2017  
**Prepared by:** Sri Komaragiri, Planner  
**Contact:** **E-mail:** skomaragiri@cityofnovi.org; **Phone:** (248) 735-5607

Items in **Bold** need to be addressed by the applicant and/or the Planning Commission before approval of the Preliminary Site Plan. Underlined items need to be addressed on the Final Site Plan.

Item	Required Code	Proposed	Meets Code	Comments
<b>Zoning and Use Requirements</b>				
<b>Master Plan</b> <i>(adopted August 25, 2010)</i>	Single Family, with master planned 1.65 maximum dwelling units per acre.	15 Unit single family residential development with 2.08 DUA (net site area: 7.19 Ac)	Yes	While the proposed density is slightly above what is master planned, it is well within the density permitted by zoning
<b>Zoning</b> <i>(Effective December 25, 2013)</i>	R-4:One-Family Residential	R-4: One-Family Residential Site Condominium with Open Space preservation Option	Yes	This would require a Planning Commission approval following a 15-day public hearing
<b>Uses Permitted</b> <i>(Sec.3.1.6)</i>	Single Family Dwellings	Single Family Dwellings	Yes	
<b>Phasing</b>		Phasing is not proposed	Yes	
<b>Open Space Preservation Option (Sec. 3.30)</b>				
<b>Intent</b> <i>(Sec. 3.30.1)</i>	To encourage long-term preservation of open space and natural features and provision of recreation and open space areas	Total site area: 9.6 Ac Total ROW: 1.4 Ac Total Lots: 2.91 Ac Total Wetlands: 2.32 Ac Total Developed: 4.31 Ac (46 %) <b>Total area preserved: 5.18 Ac (54%)</b>	Yes	Recreation Open space is not proposed
<b>Eligibility Requirements</b> <i>(Sec. 3.30.2)</i>	Shall be zoned RA to R-4 if served by municipal sewer If not, shall be zoned RA to R-2	Has City water and sewer; Zoned: R-4	Yes	
<b>Density Maximum developable land</b> <i>(Sec. 3.30.3.A &amp; Sec. 3.30.3.B)</i>	No more than 80% of the land can be developed using this options A special land use permit is required for more than 80%	Maximum number of units that can be developed with typical development: 16 (according to bonafide plan) Current site plan only	Yes	



Item	Required Code	Proposed	Meets Code	Comments
	Other conditions apply	proposes 15 units		
<b>Permitted Density and Bonafide Plan</b> (Sec. 3.30.3.C)	A parallel plan shall identify how the property will be developed under conventional developmental standards	A bonafide plan is included in the plan which indicates 16 lots that can be developed under conventional development standards. The plan included additional details such as setbacks, frontage, conceptual storm water management and wetland fills	Yes	
<b>Design Requirements: Permanent Open Space</b> (Sec. 3.30.4.A)	10% of gross site area shall be preserved as permanent open space or for recreational purposes	Undisturbed Open Space: 1.8 Acres Undisturbed wetlands: 2.29 Acres Disturbed Open Space: 1.15 Acres	Yes	<b>Please include both Open space exhibits shared via e-mail as part of final site plan</b>
<b>Qualifying Open Space</b> (Sec. 3.30.4.B)	Steep slopes Wetlands Wetland Setback Areas Floodplains Natural watercourses Woodlands Scenic views Agricultural or equestrian components Recreational facilities as listed in Sec 3.30.4.B	Total area under Conservation easement: 5.18 Acres		
<b>Allowable lot area reductions</b> (Sec. 3.30.4.C)	Equal to the percentage of qualifying open space permanently preserved, up to the limits listed in the chart <u>For R-4 10,000 reduced to a minimum of 8,000</u>	8,000 SF minimum (20% reduction)	Yes	<i>Bonafide plan allows for the requested reduction</i>
<b>Allowable side yard setback reductions</b> (Sec. 3.30.4.C)	Equal to one-half of the percentage of qualifying open space permanently preserved, up to the limits listed in the chart  <u>For 70 or greater, but less than 90, 10 ft side yard minimum, with 20 feet aggregate on two sides</u>	10 ft. minimum, 20 ft. aggregate	Yes	<i>Bonafide plan allows for the requested reduction</i>
<b>Additional</b>	Additional	Current site plan is	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>Modifications</b> (Sec. 3.30.4.C)	modifications to lot and width may be permitted by the approving body to comply with the intent of Sec. 3.30	requesting a reduction of lot width from 80 ft. to 70 ft.		
<b>Accessibility to Open Space</b> (Sec. 3.30.4.D)	It must be accessible to all lots in the development	Open space accessible to all lots via the internal sidewalk system	Yes	
<b>Connected with other Open Space</b> (Sec. 3.30.4.E)	It shall be connected with adjacent open space, public land, and existing or planned pedestrian/bicycle paths, where feasible, as determined by the approving body.	Internal sidewalks are connected to public sidewalks	Yes?	
<b>Open Space Preservation Option</b> (Sec. 3.30.4.F)	Approval of this option does not constitute zoning change	The plans are in compliance with Sec. 3.30 and other applicable regulations except for Sec. 3.30.3.A & Sec. 3.30.3.B	Yes	
<b>Restrictions</b> (Sec. 3.30.4.G)	<ul style="list-style-type: none"> <li>- No multi-family units</li> <li>- No effect on welfare of person or property</li> <li>- No unreasonable burden on public facilities</li> <li>- No unreasonable burden on surrounding properties</li> </ul>	No multi-family units are proposed	Yes	
<b>Qualifying Permanent Open Space Maintenance</b> (Sec. 3.30.5.A)	<ul style="list-style-type: none"> <li>- Conservation easement required for all open space areas except developed recreation areas</li> <li>- Developed recreation areas shall be preserved via a restrictive covenant or other legal means</li> </ul>	An Open space exhibit was provided which indicates 5.18 Acres of disturbed and undisturbed Open Space proposed under Conservation easement	No	<p><u>A conservation easement is required for review and approval along with Final Site plan submittal</u></p> <p><u>Applicant must provide a conservation easement for undeveloped woodland and wetland areas</u></p> <p><u>Applicant must preserve any developed recreation areas</u></p>
<b>Donation of land to the City</b> (Sec. 3.30.5.C)	City Council shall approve any donations to the City following a public hearing	No donation of land is begin proposed	NA	

Item	Required Code	Proposed	Meets Code	Comments
<b>Resource Inventory</b> (Sec. 3.30.6.B)	<ul style="list-style-type: none"> <li>- 1) All floodplains, wetlands, and water bodies;</li> <li>- (2) A woodlands analysis identifying all regulated woodlands;</li> <li>- (3) All wildlife habitat areas, per the City's Wildlife Habitat Master Plan.</li> <li>- (4) An analysis of onsite soils and topography to identify limitations to development; and</li> <li>- (5) An analysis of the contextual features of the site, such as scenic views, historic structures, patterns of original farm fields, fences or stone walls, recreational uses and the like</li> </ul>	A topographic survey has been provided which indicates all the wetlands, woodlands and soils information	Yes?	
<b>Other Review Procedures</b> (Sec. 3.30.6)	<ul style="list-style-type: none"> <li>- The approving body shall determine that the proposed plan satisfies the intent</li> <li>- A public hearing will be held</li> <li>- A special land use is required if development is proposed more than 80% of the site, as could be developed using standard development</li> </ul>	Development is proposed in 70% of the site	Yes	<b>This requires a 15 day public hearing</b>
<b>Height, bulk, density and area limitations (Sec. 3.1.5)</b>				
<b>Maximum Dwelling Unit Density</b> (Sec. 3.1.6)	3.3 DUA	2.08 DUA	Yes	
<b>Minimum Lot Area</b> (Sec 3.1.5)	10,000 square feet	8,000 sq. ft. minimum <i>Open Space Preservation Option</i>	Yes	<i>Open Space Preservation Option</i>
<b>Minimum Lot Width</b> (Sec 3.1.5)	80 ft.	70 ft. minimum <i>Open Space Preservation Option</i>	Yes	
<b>Building Setbacks (Sec 3.1.5)</b>				
<b>Front</b>	30 ft.	30 ft.	Yes	<i>Open Space Preservation</i>

Item	Required Code	Proposed	Meets Code	Comments
Side	10 ft. one side 25 ft. total two sides	10 ft. one side 20 ft. total two sides	Yes	<i>Option</i>
Rear	35 ft.	35 ft.	Yes	
Maximum % of Lot Area Covered (Sec 3.1.5)	25% (By All Buildings)	Unknown	Yes	<b>Provide the maximum lot area covered by all buildings</b>
Minimum Floor Area (Sec 3.1.5)	1,000 Sq.ft.	Information not provided	N/A	Individual buildings are reviewed as part of the building permit application
Building Height (Sec 3.1.5)	35 ft. or 2.5 stories whichever is less	Information not provided	N/A	
Frontage on a Public Street. (Sec. 5.12)	No lot or parcel of land shall be used for any purpose permitted by this Ordinance unless said lot or parcel shall front directly upon a public street, unless otherwise provided for in this Ordinance.	All units front on a proposed public road (Danyas Way) within the proposed condominium, with access to Taft Road	Yes	
<b>Note to District Standards (Sec 3.6)</b>				
Area Requirements (Sec 3.6A & Sec. 2.2)	<ul style="list-style-type: none"> <li>- Lot width shall be measured between two lines where a front setback line intersects with side setback lines.</li> <li>- Distance between side lot lines cannot be less than 90% between the front setback line and the main building.</li> </ul>	Complies	Yes	
Additional Setbacks (Sec 3.6B)	NA	Single family development and no off-street parking	NA	
Exterior Side yard abutting Streets (Sec 3.6C)	NA	Side yards abutting residential districts	NA	
Wetland/Water-course Setback (Sec 3.6M)	25ft. from boundary of a wetland and 25ft. from the ordinary high water mark of a watercourse.	25ft. wetland buffer indicated. Lots 3 through 7 have wetland buffers in the rear yards	Yes?	<b>Refer to wetlands review for additional comments.</b>  <b>Clarify the means of wetland buffer protection</b>
<b>Subdivision Ordinance</b>				

Item	Required Code	Proposed	Meets Code	Comments
<b>Blocks</b> (Subdivision Ordinance: Sec. 4.01)	<ul style="list-style-type: none"> <li>- Maximum length for all blocks shall not exceed 1,400 ft.</li> <li>- Widths of blocks shall be determined by the conditions of the layout.</li> </ul>	Layout appears to be in conformance	Yes	
<b>Lots: Sizes and Shapes</b> (Subdivision Ordinance: Sec. 4.02A)				
<b>Lot Depth Abutting a Secondary Thoroughfare</b> (Subdivision Ordinance: Sec. 4.02.A5)	Lots abutting a major or secondary thoroughfare must have a depth of at least 140'	None of the lots are abutting major or secondary thoroughfare	NA	
<b>Depth to Width Ratio</b> (Subdivision Ordinance: Sec. 4.02.A6)	Single Family lots shall not exceed a 3:1 depth to width ratio	Appear to comply	Yes	
<b>Arrangement</b> (Subdivision Ordinance: Sec. 4.02.B)	<ul style="list-style-type: none"> <li>- Every lot shall front or abut on a street.</li> <li>- Side lot lines shall be at right angles or radial to the street lines, or as nearly as possible thereto.</li> </ul>	<ul style="list-style-type: none"> <li>- All lots front on proposed street</li> <li>- All lots conform to shape requirement</li> </ul>	Yes	
<b>Streets</b> (Subdivision Ordinance: Sec. 4.04)	Extend streets to boundary to provide access intervals not to exceed 1,300 ft. unless one of the following exists: <ul style="list-style-type: none"> <li>- practical difficulties because of topographic conditions or natural features</li> <li>- Would create undesirable traffic patterns</li> </ul>	Stub streets are not proposed at 1300 foot interval along property line	No	<b>Refer to Engineering review letter for more details. This is a deviation that can be approved administratively</b>
<b>Topographic Conditions</b> (Subdivision Ordinance Sec 4.03)				
<b>A. Flood plain</b>	Compliance with applicable state laws and City Code Areas in a floodplain cannot be platted	A 0.2% Chance Flood Zone X is located on the southeast corner of the parcel, however lots do not extend into floodplain	NA?	Work with the Building Official at 248-347-0417 or to obtain any required permits
<b>B. Trees and Landscaping</b>	Compliance with Chapter 37 and Article 5 of City Zoning Code	Landscape Plan is provided	Yes	<b>Refer to Landscape review letter for further details</b>

Item	Required Code	Proposed	Meets Code	Comments
<b>C. Natural Features</b>	To be preserved Lots cannot extend into a wetland or watercourse	The site has wetlands	Yes	<b>Refer to Wetland review letter for more comments</b>
<b>D. Man-made Features</b>	To be built according to City standards	None Proposed	NA	
<b>E. Open Space Areas</b>	Any Open Space Area shall meet the following: - Require performance guarantee - Shall be brought to a suitable grade - Compliance with zoning ordinance - Except for wooded areas, all ground area should be top dressed with a minimum of 25% of red fescue and a maximum of 20% perennial rye.	The open space that is provided will need to meet these standards.	Yes	
<b>F. Non-Access Greenbelt Easements</b>	For lots abutting major thoroughfares - Shall be 15 feet wide - Shall be 20 feet wide where power lines exist	Non-access greenbelt is not shown	No	<b>Landscape Subdivision code requires a 40 ft. non-access greenbelt easement.</b>  <b>Show the required 40' non-access greenbelt easement on the plans</b>
<b>G. Zoning Boundary Screening</b>	A non-residential development abutting a residential development would need screening	Subject property is not abutting any non-residential development	NA	
<b>Sidewalks Requirements</b>				
<b>Non-Motorized Plan</b>	A six foot wide is required along Taft Road	Six foot wide sidewalk is proposed along Taft Road	Yes	
<b>Sidewalks</b> (Subdivision Ordinance: Sec. 4.05)	Sidewalks are required on both sides of proposed drives	Five foot Sidewalks are proposed on either side of the proposed public drive within the development, except along the extent of wetland near the entrance	No	<b>Please provide more information on wetland impacts (such as fill etc) if sidewalk is proposed on both sides of Danya's Way.</b>  <b>A DCS variance to be approved by Council may be required. Please refer to Engineering review for</b>

Item	Required Code	Proposed	Meets Code	Comments
				more details.
<b>Other Requirements</b>				
<b>Residential Entryway Lighting</b>	A residential development entrance light must be provided at the entrances to the development off of Dixon Road	None indicated	No	The residential light may have conflicts with corner clearance or required landscape trees and existing wetlands and buffer. Indicate the location of monument sign on the plans to determine if any variances would be required. Work with Engineering on entryway lighting
<b>Development and Street Names</b>	Development and street names must be approved by the Street Naming Committee before Preliminary Site Plan approval	Taft Knolls is the name of the existing development and Danyas way is an existing public street	NA	
<b>Economic Impact Information</b>	- Total cost of the proposed building & site improvements  - Home size & expected sales price of new homes			
<b>Legal Requirements</b>				
<b>Property Split or Combination</b>	Property combination or split shall be reviewed and approved by the Community Development Department.	Not applicable	NA	
<b>Development/ Business Sign</b>	Sign permit applications that relate to construction of a new building or an addition to an existing building may submitted, reviewed, and approved as part of a site plan application. Refer to Planning review for more details	Signage is not indicated	Yes/ No	The entryway sign may have conflicts with corner clearance or required landscape trees and existing wetlands and buffer. Indicate the location of monument sign on the plans to determine if any variances would be required. <u>For sign permit information contact Ordinance at 248-735-5678</u>

Item	Required Code	Proposed	Meets Code	Comments
<b>Master Deed</b>	A draft master deed is required at the time of electronic stamping sets	Not required at this time	Yes/No o	<u>Please submit a draft Master Deed including buffers and other easement at the time of electronic stamping sets</u>
<b>Conservation Easements</b>	The Applicant shall provide preservation/conservation easements for any areas of remaining wetlands and woodland.	Wetland and Woodland Conservation easements are required in addition to the Open Space Conservation easement		<b>Refer to woodlands review letter for more details.</b>  <b>Applicant is required to submit the drafts prior to stamping sets approval</b>

**NOTES:**

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. Please refer to those sections in Article 3, 4 and 5 of the zoning ordinance for further details.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.



## ENGINEERING REVIEW



# PLAN REVIEW CENTER REPORT

May 31, 2017

## Engineering Review

Taft Knolls III  
JSP16-0067

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### Applicant

25150 Taft Road, LLC

### Review Type

Engineering Review of Preliminary Site Plan

### Property Characteristics

- Site Location: East of Taft Road and South of 11 Mile Road
- Site Size: 9.6 acres
- Plan Date: Revised 03/30/17
- Design Engineer: Powell Engineering & Associates, LLC

### Project Summary

- Construction of 15-unit Site Condominium
- Water service would be provided by the 8-inch water main extension from the existing 12-inch water main along the east side of Taft Road and connecting to the existing 8-inch water main stub at the south end of existing Danyas Way.
- Sanitary sewer would be provided from the existing sanitary sewer stubs – one at the south end of existing Danyas Way and the other from the existing manhole between existing Lots 7 and 8 to the north .
- Storm sewer would be collected and directed to two (2) separate proposed detention basins.

### Recommendation

**Approval of the Preliminary Site Plan and Preliminary Storm Water Management Plan is recommended.**

### Comments:

The Preliminary Site Plan meets the general requirements of the design and construction standards as set forth in Chapter 11 of the City of Novi Codified Ordinance, the Storm Water Management Ordinance and the Engineering Design Manual with the following items to be addressed at the time of Final Site Plan submittal (further engineering detail will be required at the time of the final site plan submittal):

**Additional Comments (to be addressed upon Final Site Plan submittal):**

General

1. The City standard detail sheets are not required for the Final Site Plan submittal. They will be required with the Stamping Set submittal. They can be found on the City website ([www.cityofnovi.org/DesignManual](http://www.cityofnovi.org/DesignManual)).
2. Consider having separate sheets for storm sewer & grading plan, water main & sanitary sewer plan, and paving plan.

Water Main

3. Sheet S1: The proposed 10 ft. wide water main easement is indicated to be approximately 6 feet onto the proposed public right-of-way. Easement is not necessary if the utility, private or public, is located within the public right-of-way. Also, it does not appear that the shown easement is necessary provided that the water main maintains adequate distance from the right-of-way line. Provide dimension for the water main distance from said line.
4. Provide three (3) signed and sealed sets of revised utility plans along with the MDEQ permit application (1/07 rev.) for water main construction. The Streamlined Water Main Permit Checklist should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets and the standard detail sheets.

Sanitary Sewer

5. Per previous comment, hanging plumbing for sanitary sewer is discouraged. If low pressure pumped leads are considered to service houses with shallow sewer leads, the said leads would require review and approval from the city's Water and Sewer Department.
6. Provide seven (7) signed sealed sets of revised utility plans along with the MDEQ permit application (04/14 rev.) for sanitary sewer construction and the Streamlined Sanitary Sewer Permit Certification Checklist should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets and the standard detail sheets. Also, the MDEQ can be contacted for an expedited review by their office.

Storm Sewer

7. It appears that storm sewer layout can be revised on the south side of proposed street such that storm run between Units 9 and 10 can be relocated to between Units 13 and 14 saving/minimizing depth for the whole storm run on the south side of units.

Storm Water Management Plan

8. The Storm Water Management Plan for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the new Engineering Design Manual.

9. Per previous comment on pre-application submittal review, add c-factors and imperviousness of the existing and proposed conditions in "Wetland Areas Before and After Construction" table.
10. Per previous comment on pre-application submittal review, a 25-foot vegetated buffer must be provided around the perimeter of each storm water basin. This buffer cannot encroach onto the adjacent units and or parcel. The alternative would be to obtain easements to preserve and maintain any offsite vegetated buffer. The developer is seeking variance for the remainder of the 25' landscaped buffer encroaching onto the adjacent property to the south.

#### Paving & Grading

11. As noted on Sheet S2, "proposed retaining required if walk to be concrete." The retaining wall design, detail and specifications must be included in the final engineering plan submittal. This can be addressed in the final engineering plan submittal review. A permit is required from the Building Department.
12. Per previous comment on pre-application submittal review (Sheet S3), shown "standard road cross" must include the cross-section for the whole 60 ft. right-of-way, i.e., show proposed sidewalks, area between sidewalk and road, etc. Also, the noted 1 ½" HMA SE1 should be written as 1 ½" HMA SE1.
13. Call out the relocation of the existing pole from the proposed street location
14. Mitigate the finish grade differences between Unit 1 and the adjacent existing lot to the north and between Unit 15 and its adjacent existing lot to the north.
15. Per previous comment, the proposed sidewalk must not cut through the proposed street. Also, provide ADA-compliant ramp on both sides of proposed street.
16. Per previous comment, provide sidewalk along the north side of Danyas Way between Unit 8 and Taft Road. The developer is seeking a variance from this requirement due to the impact on wetlands. The variance applicant must complete the Request for Variance form available on the City website (<http://www.cityofnovi.org/Reference/Forms/Eng-DesignAndConstructionVariance.aspx>) and submit said form to the Community Development. The variance request must include justification and include some description of the extent of the wetland impact. The staff would like more information on this matter to determine whether the variance is to be supported or denied.
17. The proposed street layout should extend to the boundary of the proposed development site to provide access to adjoining property. City Council approval is required for the stub street requirement waiver.

#### Flood Plain

18. A small area of Zone X is indicated on the southeast corner of the project site as shown on the Topographic Survey sheet.

#### Soil Erosion and Sediment Control

19. A SESC permit is required. A full review has not been done at this time. The review checklist detailing all SESC requirements is attached to this letter. An informal review will be complete with the Final Site Plan if SESC plans are included in the submittal.

#### Off-Site Easements

20. Any off-site utility easements anticipated must be executed **prior to final approval of the plans**. If you have not done so already, drafts of the easements and a recent title search shall be submitted to the Community Development Department as soon as possible for review, and shall be approved by the Engineering Division and the City Attorney prior to executing the easements. The portion of the required 25' detention basin landscape area encroaches onto the abutting parcel to the south and requires an offsite easement for this encroachment portion. The developer is seeking a variance for this landscape area requiring off-site easement on the abutting parcel. The variance applicant must complete the Request for Variance form available on the City website (<http://www.cityofnovi.org/Reference/Forms/Eng-DesignAndConstructionVariance.aspx>) and submit said form to the Community Development.

#### **The following must be submitted at the time of Final Site Plan submittal:**

21. A letter from either the applicant or the applicant's engineer must be submitted with the Final Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved
22. An itemized construction cost estimate must be submitted to the Community Development Department at the time of Final Site Plan submittal for the determination of plan review and construction inspection fees. This estimate should only include the civil site work and not any costs associated with construction of the building or any demolition work. **The cost estimate must be itemized** for each utility (water, sanitary, storm sewer), on-site paving, right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pretreatment structure and restoration).
23. Draft copies of any off-site utility easements, a recent title search, and legal escrow funds must be submitted to the Community Development Department for review and approved by the Engineering Division and the City Attorney prior to getting executed.
24. All request for variances from the City of Novi Design and Construction Standards must be approved by the City Council.

#### **The following must be submitted at the time of Stamping Set submittal:**

25. A draft copy of the maintenance agreement for the storm water facilities, as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department with the Final Site Plan. Once the form of the agreement is approved, this agreement must be approved by

City Council and shall be recorded in the office of the Oakland County Register of Deeds.

26. A draft copy of the conservation easement must be submitted to the Community Development Department.
27. A draft copy of the easement for the water main to be constructed on the site must be submitted to the Community Development Department.
28. A draft copy of the 20-foot wide easement for the sanitary sewer to be constructed on the site must be submitted to the Community Development Department.
29. A 20-foot wide easement where storm sewer or surface drainage crosses lot boundaries must be shown on the Exhibit B drawings of the Master Deed.
30. Executed copies of any required off-site utility easements must be submitted to the Community Development Department.

**The following must be addressed prior to construction:**

31. A pre-construction meeting shall be required prior to the commencement of any site work. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430).
32. A City of Novi Grading Permit will be required prior to any grading on the site. This permit will be issued at the pre-construction meeting.
33. A Soil Erosion Control and Sedimentation Control (SESC) Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department (248-347-0430) for forms and information.
34. An NPDES permit must be obtained from the MDEQ since the site is over 5 acres in size. The MDEQ requires an approved SESC plan to be submitted with the Notice of Coverage application.
35. A permit for work within the right-of-way of Taft Road must be obtained from the City of Novi. The application is available from the City Engineering Division and should be filed at the time of Final Site Plan submittal. Please contact the Engineering Division at 248-347-0454 for further information.
36. A permit for water main construction must be obtained from the MDEQ. This permit application must be submitted through the Water and Sewer Senior Manager after the water main plans have been approved.
37. A permit for sanitary sewer construction must be obtained from the MDEQ. This permit application must be submitted through the Water and Sewer Senior Manager after the sanitary sewer plans have been approved.
38. A permit for all work in state-regulated wetlands must be obtained from the MDEQ.
39. Construction Inspection Fees, to be determined once the construction cost estimate is submitted, must be paid prior to the pre-construction meeting.

40. A storm water performance guarantee, equal to 1.2 times the amount required to complete storm water management and facilities as specified in the Storm Water Management Ordinance, must be posted at the Treasurer's Office.
41. An incomplete site work performance guarantee, equal to 1.2 times the amount required to complete the site improvements (excluding the storm water detention facilities) as specified in the Performance Guarantee Ordinance, must be posted at the Treasurer's Office.
42. A street sign financial guarantee in an amount to be determined (\$400 per traffic control sign proposed) must be posted at the Treasurer's Office.
43. Permits for the construction of each retaining wall must be obtained from the Community Development Department (248-347-0415).

To the extent this review letter addresses items and requirements that require the approval of or a permit from an agency or entity other than the City, this review shall not be considered an indication or statement that such approvals or permits will be issued.

Please contact Noel Y. Santos or David E. Richmond at (248) 844-5400 with any questions.



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Noel Y. Santos, P.E.

cc: Darcy Rechten, Engineering  
Theresa Bridges, Engineering  
George Melistas, Engineering  
Barb McBeth, Community Development  
Tina Glenn, Treasurers  
Kristen Pace, Treasurers  
Ben Croy, Water and Sewer

**Engineering Review of Preliminary Site Plan**

Taft Knolls III

JSP16-0067

May 4, 2017

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cc: Darcy Rechten, Engineering  
Theresa Bridges, Engineering  
George Melistas, Engineering  
Barb McBeth, Community Development  
Tina Glenn, Treasurers  
Kristen Pace, Treasurers  
Ben Croy, Water and Sewer



## LANDSCAPE REVIEW



# PLAN REVIEW CENTER REPORT

May 4, 2017

## Preliminary Site Plan - Landscaping

Taft Knolls III

### Review Type

Preliminary Site Plan Landscape Review

### Project Number

JSP16-0067

### Property Characteristics

- Site Location: East side of Taft, south of Taft Knolls II
- Site Zoning: R-4
- Adjacent Zoning: North, East and South: R-4, West: R-A (Novi Woods School)
- Plan Date: March 13, 2017

### Recommendation:

This project is **recommended for approval** with the understanding that the items listed below and on the associated Landscape Chart will be addressed satisfactorily in the Final Site Plans.

### Landscape Waivers Required:

1. Right-of-way greenbelt berm along entire frontage – not provided due to presence of wetlands between the road and lots that are being preserved. Supported by staff
2. Five (5) Street trees not proposed due to lack of room between wetland and road. Supported by staff.

### Ordinance Considerations

This project was reviewed for conformance with Chapter 37: Woodland Protection, Zoning Article 5.5 Landscape Standards, the Landscape Design Manual and any other applicable provisions of the Zoning Ordinance. Items in **bold** in this letter and on the associated landscape chart must be addressed and incorporated as part of the Preliminary Site Plan submittal. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review is a summary and not intended to substitute for any Ordinance.

## **EXISTING ELEMENTS**

### Existing Soils (Preliminary Site Plan checklist #10, #17)

Soil information is provided.

### Existing and proposed overhead and underground utilities, including hydrants.(LDM 2.e.(4))

Provided. Trees have minimum 10 feet between them and utility structures.

### Existing Trees and Tree Protection (Sec 37 Woodland Protection, Preliminary Site Plan checklist #17 and LDM 2.3 (2) )

1. All existing trees, tree removals and trees to be saved are shown on plans.
2. Tree protection fencing and fencing details have been provided.

## **LANDSCAPING REQUIREMENTS**

### Adjacent to Public Rights-of-Way – Berm (Wall) & Buffer (Zoning Sec. 5.5.3.B.ii and iii)

1. Based on frontage, a 4 foot tall berm with a 4 foot wide crest is required across the entire 328lf frontage (less the road access). This berm is not provided due to the existing wetlands. **A landscape waiver is requested, and is supported by staff.**

2. Also based on the frontage, 5 large evergreen trees or deciduous canopy trees, and 8 subcanopy trees are required. All required trees are provided at the road entry.

Street Tree Requirements (Zoning Sec. 5.5.3.E.i.c and LDM 1.d.)

1. Based on the Taft Road frontage, 5 deciduous canopy trees are required between the sidewalk and the road. Since the wetland extends into the right-of-way, there is no room between the sidewalk and the road so a landscape waiver is requested to not provide the required trees. **This waiver is supported by staff.**
2. Based on the lot frontages, 33 street trees are required. A total of 44 street trees on the interior road are provided, including in front of the open space areas. The extra trees are counted toward the required woodland replacements.

Storm Basin Landscape (Zoning Sec 5.5.3.E.iv and LDM 1.d.(3))

1. The required number of large shrubs is provided around the detention pond.
2. **Please replace *Clethra alnifolia* with a species that is native to Michigan.**

Transformer/Utility Box and Fire Hydrant Plantings (LDM 1.3 from 1-5, Zoning Sec 5.5.3.C.ii.d)

1. The required utility box screening and screening details have been provided.
2. **Trees are located at least 10 feet from utility structures and a note on the plan stating the required spacing for use by contractors is provided.**

## OTHER REQUIREMENTS

Plant List, Notations and Details (LDM 2.h. and t.)  
All have been provided satisfactorily.

Tree Credits (LDM 1.3.b.(1).d)

**Please do not take credit for preserving trees #125 or #126 since they are being removed, or for #163 or #163 since they are in the right-of-way.**

Cost estimates for Proposed Landscaping (LDM 2.t.)

Cost estimates were provided.

Irrigation (LDM 1.a.(1)(e) and 2.s)

An irrigation plan for all landscaped areas is required as part of the Final Site Plans.

Proposed topography. 2' contour minimum (LDM 2.e.(1))

Provided.

Snow Deposit (LDM.2.q.)

Snow deposit areas have been noted on the plans.

Corner Clearance (Zoning Sec 5.9)

Required corner clearances are provided.

If the applicant has any questions concerning the above review or the process in general, please do not hesitate to contact me at 248.735.5621 or rmeader [rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org).



## LANDSCAPE REVIEW SUMMARY CHART

**Review Date:** May 4, 2017  
**Project Name:** JSP16 – 0067: TAFT KNOLLS III  
**Plan Date:** March 13, 2017  
**Prepared by:** Rick Meader, Landscape Architect E-mail: [rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org)  
 Phone: (248) 735-5621

Items in **Bold** need to be addressed by the applicant before approval of the Preliminary Site Plan.  
Underlined items need to be addressed for Final Site Plan.

Item	Required	Proposed	Meets Code	Comments
<b>Landscape Plan Requirements (LDM (2))</b>				
<b>Landscape Plan</b> (Zoning Sec 5.5.2, LDM 2.e.)	§ New commercial or residential developments § Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less. § 1"=20' minimum with proper North. Variations from this scale can be approved by LA § Consistent with plans throughout set	Yes	Yes	Overall plan 1"=50'
<b>Project Information</b> (LDM 2.d.)	Name and Address	Yes	Yes	
<b>Owner/Developer Contact Information</b> (LDM 2.a.)	Name, address and telephone number of the owner and developer or association	Yes	Yes	
<b>Landscape Architect contact information</b> (LDM 2.b.)	Name, Address and telephone number of RLA/LLA	Yes	Yes	
<b>Sealed by LA.</b> (LDM 2.g.)	Requires original signature	Yes	Yes	<u>Need for Final Site Plan</u>
<b>Miss Dig Note</b> (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Yes	Yes	
<b>Zoning</b> (LDM 2.f.)	Include all adjacent zoning	Site: R-4 North, East, South: R-4 West: R-A	Yes	
<b>Survey information</b> (LDM 2.c.)	§ Legal description or boundary line survey § Existing topography	Yes	Yes	Topographic survey has been provided.

Item	Required	Proposed	Meets Code	Comments
<b>Existing plant material</b> <b>Existing woodlands or wetlands</b> (LDM 2.e.(2))	Show location type and size. Label to be saved or removed.	Yes	Yes	1. Please show all tree tag labels on L-2 in a legible weight. 2. Please show tree fencing for #152 since it is being saved for credit.
<b>Soil types</b> (LDM.2.r.)	§ As determined by Soils survey of Oakland county § Show types, boundaries	Yes	Yes	
<b>Existing and proposed improvements</b> (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	Yes	
<b>Existing and proposed utilities</b> (LDM 2.e.(4))	Overhead and underground utilities, including hydrants	Yes	Yes	Existing and proposed utility lines, including overhead lines, are shown.
<b>Proposed grading. 2' contour minimum</b> (LDM 2.e.(1))	Provide proposed contours at 2' interval	Yes	Yes	Proposed spot elevations are shown on Sheets S2 and S3.
<b>Snow deposit</b> (LDM.2.q.)	Show snow deposit areas on plan	Yes	Yes	Note indicates snow will be deposited adjacent to drives and on curb lawn. This is acceptable.
<b>LANDSCAPING REQUIREMENTS</b>				
<b>Parking Area Landscape Requirements LDM 1.c. &amp; Calculations (LDM 2.o.)</b>				
<b>General requirements</b> (LDM 1.c)	§ Clear sight distance within parking islands § No evergreen trees	NA		There are no parking areas on the plan.
<b>Name, type and number of ground cover</b> (LDM 1.c.(5))	As proposed on planting islands	NA		
<b>General (Zoning Sec 5.5.3.C.ii)</b>				
<b>Parking lot Islands</b> (a, b. i)	§ A minimum of 300 SF to qualify § 6" curbs § Islands minimum width 10' BOC to BOC	NA		
<b>Curbs and Parking stall reduction (c)</b>	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft	NA		
<b>Contiguous space</b>	Maximum of 15	NA		

Item	Required	Proposed	Meets Code	Comments
limit (i)	contiguous spaces			
<b>Plantings around Fire Hydrant (d)</b>	No plantings with matured height greater than 12' within 10 ft. of fire hydrants	All proposed trees are away from utility structures.	Yes	A note on the plan indicates that all trees are to be at least 10' away from hydrants, manholes.
<b>Landscaped area (g)</b>	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	NA		
<b>Clear Zones (LDM 2.3.(5))</b>	25 ft corner clearance required. Refer to Zoning Section 5.5.9			Clear zones are provided at Taft Road.
<b>Berms, Walls and ROW Planting Requirements</b>				
<b>Berms</b>				
§ All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours § Berm should be located on lot line except in conflict with utilities.				
<b>Residential Adjacent to Non-residential (Zoning Sec 5.5.3.A and LDM 1.a)</b>				
<b>Berm requirements (Zoning Sec 5.5.A)</b>	Adjacent Zoning is RA and R1	NA		
<b>Planting requirements (LDM 1.a.)</b>	LDM Novi Street Tree List	NA		
<b>Adjacent to Public Rights-of-Way (Zoning Sec 5.5.3.A and LDM 1.b)</b>				
<b>Cross-Section of Berms (Zoning Sec 5.5.3.B and LDM 2.j)</b>				
Slope, height and width (Zoning Sec 5.5.3.A.v)	§ Label contour lines § Maximum 33% slope § Min. 4 feet crest § Constructed of loam § 6" top layer of topsoil	No	No	1. Due to existing topography and wetlands, no berms are provided along Taft Road. 2. <b>A landscape waiver is requested, and is supported by staff. It has been listed on the landscape plan.</b>
Type of Ground Cover		Yes	Yes	Lawn is indicated.
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	Yes	Yes	No trees are proposed near overhead utilities.
<b>Walls (LDM 2.k &amp; Zoning Sec 5.5.3.vi)</b>				
<b>Material, height and type of construction footing</b>	Freestanding walls should have brick or stone exterior with	None proposed		

Item	Required	Proposed	Meets Code	Comments
	masonry or concrete interior			
<b>Walls greater than 3 ½ ft. should be designed and sealed by an Engineer</b>		NA		
<b>ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)</b>				
<b>Greenbelt width (2)(3) (5)</b>	34 ft.	255' minimum distance from Taft to nearest lot	Yes	
Min. berm crest width	4 ft.	None		1. No berm is proposed due to existing wetland to remain between Taft and homesites. 2. <b>A landscape waiver, which is supported by staff, is requested on the plan</b>
Minimum berm height (9)	4 ft.	4'	Yes	<b>See above</b>
3' wall (4) (7)	NA	No		
<b>Canopy deciduous or large evergreen trees</b> Notes (1) (10) LDM1.d.(1)(b)	§ 1 tree per 35 l.f.; § Taft Road 328 lf frontage – 166 lf preserved area/35 = 5 trees	<u>Taft Road:</u> 5 spruce trees	Yes	<b>A waiver is not required since the required trees are proposed.</b>
<b>Sub-canopy deciduous trees</b> Notes (2)(10)	§ 1 tree per 20 l.f.; § 9 Mile Road (328 - 166)/20 = 8 trees	<u>Taft Road:</u> 8 subcanopy trees	Yes	<b>A waiver is not required since the required trees are proposed.</b>
<b>Street Trees</b> (LDM 1.d.(1) and Novi Street Tree List))	<ul style="list-style-type: none"> <li>• <u>Taft Road:</u> 1 tree per 35 lf</li> <li>• 328/35 = 9 trees</li> <li>• <u>Internal lots:</u> 33 trees required based on number of lots and lot widths</li> </ul>	<u>Taft Road:</u> 0 trees <u>Interior:</u> 33 trees	No	1. Taft Road frontage is occupied by either the entry and corner clearance zones, or wetland to be preserved. <b>A landscape waiver to requested and is supported by staff since there is no room for the trees in the right-of-way or behind it.</b> 2. Internal lot trees meet requirement. They are spread throughout the development, including along the interior wetland

Item	Required	Proposed	Meets Code	Comments
				frontages.
<b>Island &amp; Boulevard Planting</b> (Zoning Sec & LDM 1.d.(1)(e))	§ Must be landscaped & irrigated § Mix of canopy/sub-canopy trees, shrubs, groundcovers, etc. § No plant materials between heights of 3-6 feet	NA		
<b>Transformers/Utility boxes</b> (LDM 1.e from 1 through 5)	§ A minimum of 2ft. separation between box and the plants § Ground cover below 4" is allowed up to pad. § No plant materials within 8 ft. from the doors	No		1. Standard screening detail is provided with other details. 2. If/when location of transformer/utility boxes is determined, add landscaping per city requirements.
<b>Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)</b>				
<b>Planting requirements</b> (Sec. 5.5.3.E.iv)	§ Clusters shall cover 70-75% of the basin rim area § 10" to 14" tall grass along sides of basin § Refer to wetland for basin mix	110 shrubs total proposed for 3 ponds	Yes	<b>Please use a species other than Clethra alnifolia since it is not native to Michigan.</b>
<b>Woodland Replacements (Chapter 37 Woodlands Protection)</b>				
<b>Woodland Replacement Calculations – Required/Provided</b>	§ Show calculations based on existing tree chart. § Indicate boundary of regulated woodland on plan	Tree chart showing trees to be removed has been provided.	Yes	Calculations are provided and replacement trees are clearly marked.
<b>LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS</b>				
<b>Landscape Notes – Utilize City of Novi Standard Notes</b>				
<b>Installation date</b> (LDM 2.i. & Zoning Sec 5.5.5.B)	Provide intended date	Between April – November 2017	Yes	
<b>Maintenance &amp; Statement of intent</b> (LDM 2.m & Zoning Sec 5.5.6)	§ Include statement of intent to install and guarantee all materials for 2 years. § Include a minimum one cultivation in June, July and August for the 2-year warranty period.	Yes	Yes	
<b>Plant source</b> (LDM 2.n & LDM	Shall be northern nursery grown, No.1 grade	Yes	Yes	



Item	Required	Proposed	Meets Code	Comments
3.a.(2))				
<b>Irrigation plan</b> (LDM 2.s.)	A fully automatic irrigation system and a method of draining is required with Final Site Plan	No	No	<u>Need for final site plan</u>
<b>Other information</b> (LDM 2.u)	Required by Planning Commission	NA		
<b>Establishment period</b> (Zoning Sec 5.5.6.B)	<b>2 yr. Guarantee</b>	Yes	Yes	
<b>Approval of substitutions.</b> (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
<b>Plant List (LDM 2.h.) – Include all cost estimates</b>				
Quantities and sizes	Refer to LDM suggested plant list	Yes	Yes	
Root type		Yes	Yes	
Botanical and common names		Yes	Yes	
Breakdown of genus/species diversity (LDM 1.d.(1).d.		No		Diversity of plantings is sufficient.
Type and amount of lawn		No		<u>Please indicate areas of sod or seed on Final Site Plan</u>
Cost estimate (LDM 2.t)		For all new plantings, mulch and sod as listed on the plan	No	
<b>Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details</b>				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	
Evergreen Tree		Yes	Yes	
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	Yes	Yes	
<b>Other Plant Material Requirements (LDM 3)</b>				
<b>General Conditions</b> (LDM 3.a)	Plant materials shall not be planted within 4 ft. of property line	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
<b>Plant Materials &amp; Existing Plant Material</b> (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	Yes	Yes	
<b>Landscape tree credit</b> (LDM3.b.(d))	Substitutions to landscape standards for preserved canopy trees outside woodlands/wetlands should be approved by LA. Refer to Landscape tree Credit Chart in LDM	Yes	Yes	1. Calculations on Sheet L-3 show 70 credits are being taken. 2. <b>Please do not take credit for trees #125 or #126 since they are being removed, or for #163 or #163 since they are in the right-of-way.</b>
<b>Plant Sizes for ROW, Woodland replacement and others</b> (LDM 3.c)	Refer to Chapter 37, LDM for more details	Yes	Yes	
<b>Plant size credit</b> (LDM3.c.(2))	NA	No		
<b>Prohibited plants</b> (LDM 3.d)	No plants on City Invasive Species List	None	Yes	
<b>Recommended trees for planting under overhead utilities</b> (LDM 3.e)	Label the distance from the overhead utilities			No proposed trees are near overhead utilities.
<b>Collected or Transplanted trees</b> (LDM 3.f)		None		
<b>Nonliving Durable Material: Mulch</b> (LDM 4)	§ Trees shall be mulched to 4" depth and shrubs, groundcovers to 3" depth § Specify natural color, finely shredded hardwood bark mulch. Include in cost estimate. § Refer to section for additional information	Yes	Yes	

**NOTES:**

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. For the landscape requirements, please see the Zoning Ordinance landscape section 5.5 and the Landscape Design Manual for the appropriate items under the applicable zoning classification.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

WETLANDS REVIEW



ECT Project No. 170313-0100

May 8, 2017

Ms. Barbara McBeth  
City Planner  
Community Development Department  
City of Novi  
45175 W. Ten Mile Road  
Novi, Michigan 48375

Re: Taft Knolls III (JSP14-0009)  
Wetland Review of the Preliminary Site Plan (PSP17-0064)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Preliminary Site Plan for the proposed Taft Knolls III project prepared by Powell Engineering & Associates, LLC dated March 30, 2017 (Plan). The Plan was reviewed for conformance with the City of Novi Wetland and Watercourse Protection Ordinance and the natural features setback provisions in the Zoning Ordinance. ECT conducted a wetland evaluation for the property on May 2, 2017.

ECT recommends approval of the Preliminary Site Plan for Wetlands; however, the Applicant should address the items noted below in the *Wetland Comments* Section of this letter prior to receiving Wetland approval of the Final Site Plan.

The following wetland related items are required for this project:

Item	Required/Not Required/Not Applicable
Wetland Permit (specify Non-Minor or Minor)	Required (Non-Minor)
Wetland Mitigation	Not Required (Impacts currently 0.11-acre < 0.25-acre wetland mitigation threshold)
Wetland Buffer Authorization	Required
MDEQ Permit	To Be Determined. It is the applicant's responsibility to contact the MDEQ in order to determine the need for a wetland use permit.
Wetland Conservation Easement	Required

The proposed project is located east off of Taft Road, between Ten and Eleven Mile Roads, and just south of the Taft Knolls (Phase 2) project (Section 22). The property consists of approximately 9.6 acres (Sidwell No. 22-22-100-012). An existing home is located on the parcel. The parcel contains a mix of land cover/land types including wetlands, open field and relatively sparse tree cover in several areas of the site including around some areas of the on-site wetlands.

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An on-site wetland delineation and tree survey have been previously completed for the site. The project includes the construction of 15 residential units, access drive (Danyas Way), associated utilities and two (2) proposed storm water detention basins. Based on our review of the Plan, Novi aerial photos, Novi GIS, and the City of Novi Official Wetlands and Woodlands Maps (see Figure 1); it appears as if this proposed project site contains both Regulated Wetlands and Regulated Woodlands.

### Wetland Evaluation

ECT's in-office review of available materials included the City of Novi Regulated Wetland and Watercourse map, USGS topographic quadrangle map, NRCS soils map, USFWS National Wetland Inventory map, and historical aerial photographs. The site includes areas indicated as City-regulated wetland on the official City of Novi Regulated Wetland and Watercourse Map (see Figure 1).

ECT visited the site on May 2, 2017 for the purpose of a wetland boundary verification. The focus of the inspection was to review site conditions in order to determine whether on-site wetlands are considered regulated under the City of Novi's Wetland and Watercourse Protection Ordinance. Wetland boundary flagging was in place at the time of this site inspection, however it is not clear how recently the wetland delineation had been completed on the site. ECT concurs with the eight (8) wetland areas (Wetlands A, B, C, D, E, F, G, and H) indicated on the Plan. These wetlands appear to be accurately flagged in the field.

Wetlands A, B, C, and D are all primarily open water/emergent wetlands located in the eastern section of the subject property. These wetland areas contained standing water at the time of our site visit. These wetlands contains the following species of vegetation around their fringes: common buckthorn (*Rhamnus cathartica*), American elm (*Ulmus americana*), silky dogwood (*Cornus amomum*), green ash (*Fraxinus pennsylvanica*), and some narrow-leaved cattail (*Typha angustifolia*). Of these four wetland areas, Wetland B is the most vegetated.

Wetland E is an open water wetland with emergent fringe located on the northern edge of the subject parcel. This wetland also contained standing water at the time of our visit and contains the same species of vegetation as Wetlands A through D, listed above. Some areas of the Wetland E fringe contain the invasive common reed (*Phragmites australis*).

Wetland F is a scrub shrub wetland located in the northern and western section of the site (south of existing Lots 7 & 8 of the Taft Knolls South development. This wetland appears to contain seasonal standing water. This area contains common buckthorn (*Rhamnus cathartica*) and common reed (*Phragmites australis*).

Wetlands G and H are emergent wetlands with areas of open water. These wetlands are located in the western portion of the property and appear to be connected with a culvert under the existing gravel driveway. These wetlands contain mainly cattails (*Typha spp.*) and some areas of common reed (*Phragmites australis*).

What follows is a summary of the wetland impacts associated with the proposed site design.

### Wetland Impact Review

The Plan indicates eight (8) areas of existing wetland on the development site (totaling 2.35-acre). A description of proposed wetland impacts on this parcel follows. The following table (Table 1) summarizes the existing wetlands and the proposed wetland impacts.

**Table 1. Proposed Wetland Impacts**

<i>Wetland Area</i>	<i>Wetland Area (square feet)</i>	<i>Wetland Area (acre)</i>	<i>City Regulated?</i>	<i>Impact Area (square feet)</i>	<i>Impact Area (acre)</i>	<i>Impact Volume (cubic yards)</i>
A	12,060	0.28	City/Essential	None	0	None
B	8,403	0.19	City/Essential	None	0	None
C	27,184	0.62	City/Essential	1,000	0.02	Not Provided
D	6,559	0.15	City/Essential	510	0.02	Not Provided
E	3,477	0.08	City/Essential	None	0	None
F	1,326	0.03	City/Essential	1,326	0.03	Not Provided
G	39,612	0.91	City/Essential	1,622	0.04	Not Provided
H	3,705	0.09	City/Essential	1,295	0.03	Not Provided
<b>TOTAL</b>	<b>102,326</b>	<b>2.35</b>	--	<b>5,753</b>	<b>0.13</b>	<b>Not Provided</b>

As shown in Table 1, the current Plan indicates a permanent wetland impact of 0.13-acre. The proposed volume of fill for each of these impacts has not been provided.

In addition to wetland impacts, the Plan also proposes impacts to the 25-foot natural features setbacks. These impact have not, however, been indicated on the Plan. It should be noted that sections of 25-foot wetland buffers are contained within proposed Lots, 4, 5, 6, 7, 14, and 15.

The applicant shall show the following information on subsequent site plans:

- Area (square feet) and volume (cubic yards) of all wetland impacts (both permanent and temporary);
- Area (square feet) of all existing 25-foot wetland buffers;
- Area (square feet) and volume (cubic yards) of all wetland buffer impacts (both permanent and temporary).

The currently proposed wetland impacts do not appear to require wetland mitigation as the City's threshold for wetland mitigation is 0.25-acre of wetland impact and the MDEQ's threshold is 0.30-acre.

**Permits & Regulatory Status**

Any proposed use of on-site wetlands A through H will require a City of Novi *Wetland Use Permit* as well as an *Authorization to Encroach the 25-Foot Natural Features Setback* for any proposed impacts to the 25-foot wetland buffers. The on-site wetlands are considered essential by the City as they appear to meet one or more of the essentiality criteria set forth in the City's Wetland and Watercourse Protection Ordinance (i.e., storm water

storage/flood control, wildlife habitat, etc.). It is the Applicant's responsibility to contact MDEQ in order to determine if the proposed development would require a wetland use permit from the MDEQ. The on-site wetlands could be regulated by the Michigan Department of Environmental Quality (MDEQ) as some appear to be located within 500-feet of a pond, stream, drain or lake. Final determination of regulatory status should be made by the MDEQ. A permit from this agency may be required for any direct impacts, or potentially for storm water discharge from the proposed detention basin to existing wetlands (i.e., to Wetland C on the eastern side of the site and to Wetland H on the western side of the site).

**Wetland Comments**

Please consider the following comments when preparing subsequent site plan submittals:

1. The applicant shall show the following information on subsequent site plans:
  - a. Area (square feet) and volume (cubic yards) of all wetland impacts (both permanent and temporary);
  - b. Area (square feet) of all existing 25-foot wetland buffers;
  - c. Area (square feet) and volume (cubic yards) of all wetland buffer impacts (both permanent and temporary).
2. ECT encourages the Applicant to minimize impacts to on-site wetlands and wetland setbacks to the greatest extent practicable. The Applicant should consider modification of the proposed lot boundaries and/or site design in order to preserve wetland and wetland buffer areas. It is ECT's opinion that the preservation of the 25-foot wetland buffer areas is important to the overall health of the wetlands, especially after site development. The existing buffer serves to filter pollutants and nutrients from storm water before entering the wetlands, as well as to provide additional wildlife habitat.

The City regulates wetland buffers/setbacks. Article 24, Schedule of Regulations, of the Zoning Ordinance states that:

*"There shall be maintained in all districts a wetland and watercourse setback, as provided herein, unless and to the extent, it is determined to be in the public interest not to maintain such a setback. The intent of this provision is to require a minimum setback from wetlands and watercourses.*

*Within an established wetland or watercourse setback, unless and only to the extent determined to be in the public interest by the body undertaking plan review, there shall be no deposition of any material, removal of any soils, minerals and/or vegetation, dredging, filling or land balancing, or construction of any temporary or permanent structures.*

*In determining whether proposed activities are in the public interest, the benefit which would reasonably be expected to accrue from the proposal shall be balanced against the reasonably foreseeable detriments of the construction or other activity, taking into consideration the local, state, and national concern for the protection and preservation of the natural feature in question. If, as a result of such a balancing, there remains a debatable question whether the proposal is clearly in the public interest, authorization for the construction or other activity within the setback shall not be granted".*

It is ECT's opinion that the impacts proposed to the 25-foot wetland buffers for the development of Lots 4, 5, 6, 7, 14, and 15 is not clearly in the public interest and that authorization for construction within these areas should not be granted.

ECT recommends that should the orientation of Lots 4, 5, 6, 7, 14, and 15 remain unchanged, the applicant provide assurance that the 25-foot wetland setback on these lots will be maintained either through a conservation easement or deed restriction, etc. Any proposed conservation easement areas should be demarcated on-site through the use of proposed easement signage and potentially other means such as boulders or decorative fencing along the setback boundaries.

3. Should temporary impacts to either wetland or wetland setback be required, the applicant shall designate on the Plan a proposed native seed mix to be used in the restoration of these areas. Temporary impacts to wetlands and wetland setbacks shall be restored using a native seed mix; common grass seed or sod is not authorized in these areas. Seed mix details shall be included on the Plan, if applicable. The applicant should review and revise the Plan as necessary.
4. The Applicant shall provide wetland conservation easements as directed by the City of Novi Community Development Department for any areas of remaining wetland as well as for any proposed wetland mitigation areas (if applicable). A Conservation Easement shall be executed covering all remaining wetland areas on site as shown on the approved plans. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Wetland and Watercourse permit.
5. It is the Applicant's responsibility to contact MDEQ in order to determine if the proposed development would require a wetland use permit from the MDEQ. The on-site wetlands could be regulated by the Michigan Department of Environmental Quality (MDEQ) as some appear to be located within 500-feet of a stream or drain. Final determination of regulatory status should be made by the MDEQ. A permit from this agency may be required for any direct impacts, or potentially for storm water discharge from the proposed detention basins to existing wetlands. A City of Novi Wetland Permit shall not be issued until this information is received from the Applicant.

**Recommendation**

ECT recommends approval of the Preliminary Site Plan for Wetlands; however, the Applicant should address the items noted below in the *Wetland Comments* Section of this letter prior to receiving Wetland approval of the Final Site Plan.



Taft Knolls III (JSP14-0009)  
Wetland Review of the Preliminary Site Plan (PSP17-0064)  
May 8, 2017 (REV.1)  
Page 6 of 10

If you have any questions regarding the contents of this letter, please contact us.

Respectfully submitted,

**ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.**



Pete Hill, P.E.  
Senior Associate Engineer

cc: Sri Komaragiri, City of Novi Planner  
Richelle Leskun, City of Novi Planning Assistant  
Rick Meader, City of Novi Landscape Architect  
Kirsten Mellem, City of Novi Planner

Attachments: Figure 1 – City of Novi Regulated Wetland and Woodland Map  
Site Photos

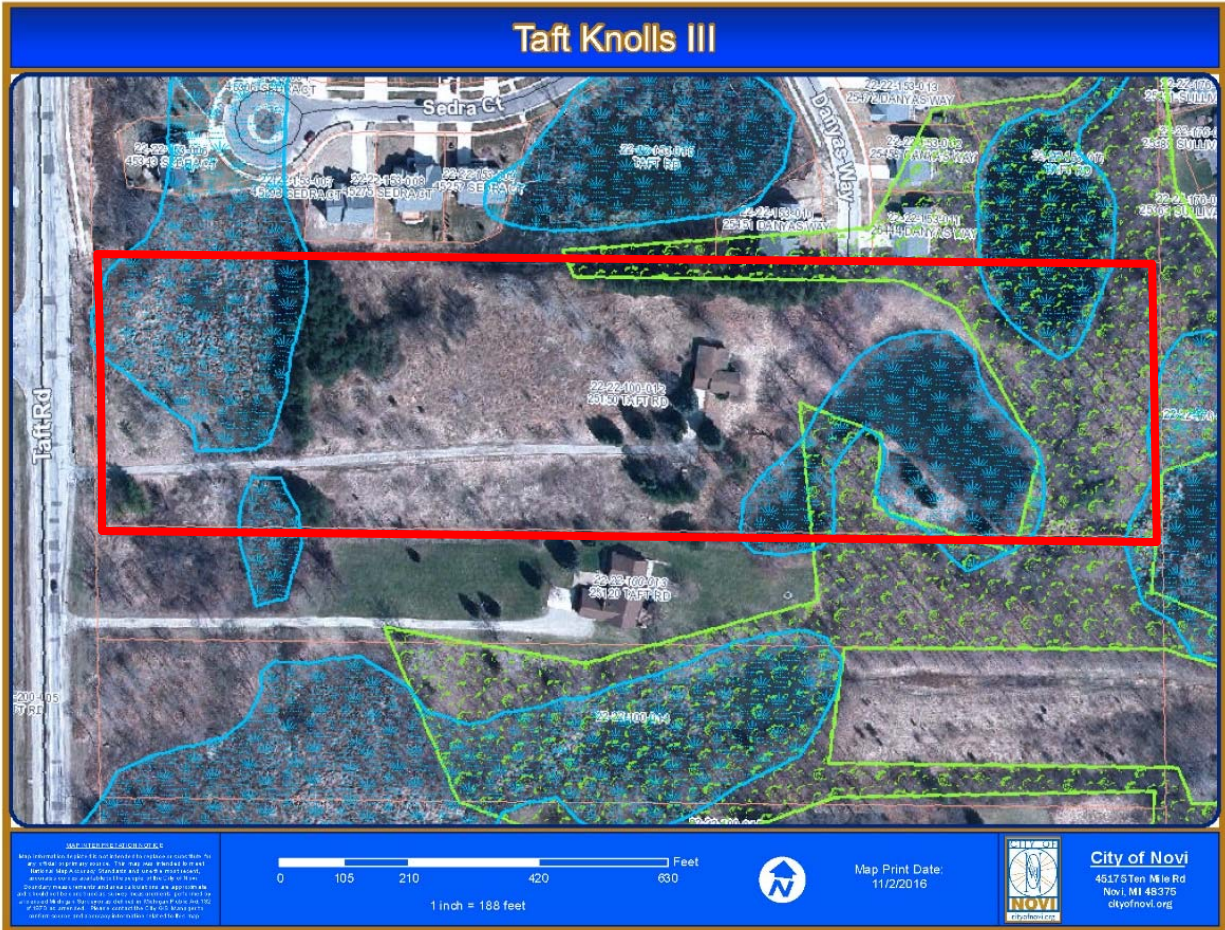


Figure 1. City of Novi Regulated Wetland & Woodland Map (approximate project boundary shown in red). Regulated Woodland areas are shown in green and regulated Wetland areas are shown in blue).



Site Photos



Photo 1. Looking north towards Wetland A (ECT, May 2, 2017).



Photo 2. Looking west at Wetland C (ECT, May 2, 2017).



Photo 3. Looking west at the north side of Wetland E (ECT, May 2, 2017).



Photo 4. Looking south at Wetland G from the Taft Knolls South development, located north of the subject site (ECT, May 2, 2017).





**Photo 5.** Looking north at Wetland G from driveway of existing on-site residence (ECT, May 2, 2017).



**Photo 6.** Looking south at Wetland H from driveway of existing on-site residence (ECT, May 2, 2017).

WOODLANDS REVIEW



ECT Project No.: 170313-0200

May 4, 2017

Ms. Barbara McBeth  
City Planner  
Community Development Department  
City of Novi  
45175 West Ten Mile Road  
Novi, MI 48375

Re: Taft Knolls III (JP14-0009)  
Woodland Review of the Preliminary Site Plan (PSP17-0064)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Preliminary Site Plan for the proposed Taft Knolls III project prepared by Powell Engineering & Associates, LLC dated March 30, 2017 (Plan). The Plan was reviewed for conformance with the City of Novi Woodland Protection Ordinance Chapter 37. ECT conducted a wetland evaluation for the property on May 2, 2017.

**ECT recommends approval of the Preliminary Site Plan for Woodlands; however, the Applicant should address the items noted below in the *Woodland Comments* Section of this letter prior to receiving Woodland approval of the Final Site Plan.**

The following woodland related items are required for this project:

Item	Required/Not Required/Not Applicable
Woodland Permit	Required
Woodland Fence	Required
Woodland Conservation Easement	Required

The proposed project is located east off of Taft Road, between Ten and Eleven Mile Roads, and just south of the Taft Knolls (Phase 2) project (Section 22). The property consists of approximately 9.6 acres (Sidwell No. 22-22-100-012). An existing home is located on the parcel. The parcel contains a mix of land cover/land types including wetlands, open field and relatively sparse tree cover in several areas of the site including around some areas of the on-site wetlands.

An on-site wetland delineation and tree survey have been previously completed for the site. The project includes the construction of 15 residential units, access drive (Danyas Way), associated utilities and two (2) proposed storm water detention basins. Based on our review of the Plan, Novi aerial photos, Novi GIS, and the City of Novi Official Wetlands and Woodlands Maps (see Figure 1); it appears as if this proposed project site contains both Regulated Wetlands and Regulated Woodlands. The Regulated Woodland Boundary as shown on the City of Novi Regulated Woodland Map appears to have been accurately shown on the Landscape Plan (Sheet L-2).

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The purpose of the Woodlands Protection Ordinance is to:

- 1) *Provide for the protection, preservation, replacement, proper maintenance and use of trees and woodlands located in the city in order to minimize disturbance to them and to prevent damage from erosion and siltation, a loss of wildlife and vegetation, and/or from the destruction of the natural habitat. In this regard, it is the intent of this chapter to protect the integrity of woodland areas as a whole, in recognition that woodlands serve as part of an ecosystem, and to place priority on the preservation of woodlands, trees, similar woody vegetation, and related natural resources over development when there are no location alternatives;*
- 2) *Protect the woodlands, including trees and other forms of vegetation, of the city for their economic support of local property values when allowed to remain uncleared and/or unharvested and for their natural beauty, wilderness character of geological, ecological, or historical significance; and*
- 3) *Provide for the paramount public concern for these natural resources in the interest of health, safety and general welfare of the residents of the city.*

What follows is a summary of our findings regarding on-site woodlands associated with the proposed project.

#### **On-Site Woodland Evaluation**

ECT has reviewed the City of Novi Official Woodlands Map and completed an onsite Woodland Evaluation on May 2, 2017. ECT's in-office review of available materials included the City of Novi Regulated Woodland map and other available mapping. The subject property does include areas indicated as City-regulated woodland on the official City of Novi Regulated Wetland and Watercourse Map (see Figure 1).

An existing tree survey has been completed for the site by Allen Design. The Plan includes a Surveyed Tree List (Sheet L-3) that identifies tree tag numbers, diameter-at-breast-height (DBH), common/botanical name, and condition of all surveyed trees. The same sheet includes a Woodland Summary that lists the total woodland replacements credits that are required for the proposed tree removals.

The surveyed trees have been marked with aluminum (foil-type) tree tags allowing ECT to compare the tree diameters reported on the Plan to the existing tree diameters in the field. ECT found that the Plan appears to accurately depict the location, species composition and the size of the existing trees. ECT took a sample of diameter-at-breast-height (DBH) measurements and found that the data provided on the Plan was consistent with the field measurements.

Common tree species found in the woodland areas include American elm (*Ulmus americana*), Austrian pine (*Pinus nigra*), basswood (*Tilia Americana*), beech (*Fagus grandifolia*), black cherry (*Prunus serotina*), black willow (*Salix nigra*), blue spruce (*Picea pungens*), bur oak (*Quercus macrocarpa*), cottonwood (*Populus deltoides*), Scotch pine (*Pinus sylvestris*), sugar maple (*Acer saccharum*), white cedar (*Thuja occidentalis*), white pine (*Pinus strobus*), and several other species.

The highest quality woodlands on site are found in the eastern section of the subject site (in the areas surrounding Wetlands A, B, and C). These areas are dominated by basswood (*Tilia americana*), sugar maple (*Acer saccharum*) and black cherry trees (*Prunus serotina*). There are two (2) main areas of previously-planted coniferous trees



(Scotch pine) are found on the site. One area is located along the southern edge of Wetland E. The other area is located in the area of proposed Lot 8.

It should be noted that the current Plan does not appear to show the locations of all of the trees listed in the *Tree List*. The locations of all trees should be indicated on the Plan regardless of the status of the tree (i.e., trees to be preserved, removed and/or exempt trees should all be indicated on the Plan). Specifically, it appears as though a number of Scotch pine trees located on the eastern side of Wetland Area "G" in the western portion of the site are not indicated on the Plan. The Plan should be reviewed and revised as necessary.

In terms of habitat quality and diversity of tree species, the overall subject site consists of fair to good quality trees. In terms of a scenic asset, wildlife habitat, windblock, noise buffer or other environmental asset, the forested area located on the subject site is considered to be of fair quality. The central and western sections of the site are not mapped as Regulated Woodland on the City of Novi's Regulated Woodland Map. Based on Section 37-29 (*Application Review Standards*) of the City of Novi Woodland Ordinance, the following standards shall govern the grant or denial of an application for a use permit required by this article:

*No application shall be denied solely on the basis that some trees are growing on the property under consideration. However, the protection and conservation of irreplaceable natural resources from pollution, impairment, or destruction is of paramount concern. Therefore, the preservation of woodlands, trees, similar woody vegetation, and related natural resources shall have priority over development when there are location alternatives.*

In addition,

*"The removal or relocation of trees shall be limited to those instances when necessary for the location of a structure or site improvements and when no feasible and prudent alternative location for the structure or improvements can be had without causing undue hardship".*

The City of Novi regulates all trees 8-inches diameter-at-breast-height (DBH) and greater that are located within the areas delineated as regulated woodlands on the City-Regulated Woodlands Map. The City also regulates any individual tree greater than or equal to 36-inches DBH, irrespective of whether such tree is within a regulated woodland. Proposed woodland impacts will require a Woodland Permit and the regulated trees shall be relocated or replaced by the permit grantee.

#### **Proposed Woodland Impacts and Replacements**

A *Woodland Summary* Table has been included on Sheet L-3 (*Landscape Plan*). The Applicant has noted the following woodland impacts associated with the Plan:

- Total Trees: 349
  - Regulated Trees Removed: 53
  - Exempt Trees Removed: 64
  - Regulated Trees Preserved: 232 (66.4%)
- 
- Stems to be Removed 8" to 11": 25 x 1 replacement (Requiring 25 Replacements)
  - Stems to be Removed 11" to 20": 17 x 2 replacements (Requiring 34 Replacements)
  - Stems to be Removed 20" to 30": 5 x 3 replacements (Requiring 15 Replacements)
  - Stems to be Removed 30"+: 1 x 4 replacements (Requiring 4 Replacements)

- Multi-Stemmed Trees: 5 trees (Requires 19 Replacements)
- Sub-Total Replacement Trees Required: 97
- Credit for Non-Woodland Tree Preservation: 70 (preservation of 28 Non-Woodland trees)
- Total Woodland Replacements Required: 27

Sheet L-1 (*Landscape Plan*) notes that all 27 required Woodland Replacement trees will be provided for on-site. The following acceptable, on-site Woodland Replacement trees are proposed:

- 6 – Red maple (*Acer rubrum*);
- 6 – Sugar maple (*Acer saccharum*);
- 4 – Tulip tree (*Liriodendron tulipifera*);
- 6 – Swamp white oak (*Quercus bicolor*);
- 5 – Red oak (*Quercus rubra*)
- Total 27 Woodland Replacements provided

**City of Novi Woodland Review Standards and Permit Requirements**

Based on Section 37-29 (*Application Review Standards*) of the City of Novi Woodland Ordinance, the following standards shall govern the grant or denial of an application for a use permit required by this article:

*No application shall be denied solely on the basis that some trees are growing on the property under consideration. However, the protection and conservation of irreplaceable natural resources from pollution, impairment, or destruction is of paramount concern. Therefore, the preservation of woodlands, trees, similar woody vegetation, and related natural resources shall have priority over development when there are location alternatives.*

In addition,

*"The removal or relocation of trees shall be limited to those instances when necessary for the location of a structure or site improvements and when no feasible and prudent alternative location for the structure or improvements can be had without causing undue hardship".*

The City of Novi regulates all trees 8-inches diameter-at-breast-height (DBH) and greater that are located within the areas delineated as regulated woodlands on the City-Regulated Woodlands Map. The City also regulates any individual tree greater than or equal to 36-inches DBH, irrespective of whether such tree is within a regulated woodland. Proposed woodland impacts will require a Woodland Permit and the regulated trees shall be relocated or replaced by the permit grantee.

**Woodland Comments**

Please consider the following comments when submitting future site development plan submittals:

1. It should be noted that the current Plan does not appear to show the locations of all of the trees listed in the *Tree List*. The locations of all trees should be indicated on the Plan regardless of the status of the tree (i.e., trees to be preserved, removed and/or exempt trees should all be indicated on the Plan). The Plan should be reviewed and revised as necessary.

2. The applicant shall review the tree removals as shown on the Landscape Plan to ensure that this plan is consistent with the Tree List in terms of removal vs. preservation. For example Trees No. 158 and 159 do not appear to graphically be shown as being removed on Sheet L-2, however they are listed as being removed in the Tree List on Sheet L-3. The applicant shall review and revise the Plan as necessary making any changes to the tree removals and Woodland Replacements information, as needed.
3. All Woodland Replacement Trees will need to be planted in common areas or greenspaces and not on individual Lots. Woodland replacement credit will not be granted for any trees planted within the residential lots.
4. A Woodland Permit from the City of Novi would be required for proposed impacts to any trees 8-inch DBH or greater located within the regulated woodland boundaries or any tree greater than 36-inches DBH. Such trees shall be relocated or replaced by the permit grantee either through approved on-site replacement trees or through a payment to the City of Novi Tree Fund. All deciduous replacement trees shall be two and one-half (2 ½) inches caliper or greater and will be counted at a 1:1 replacement ratio. All proposed coniferous replacement trees shall be 6-feet in height (minimum) and will be counted at a 1.5:1 replacement ratio. See the attached City of Novi Woodland Replacement Chart for acceptable woodland replacement species.
5. A Woodland Replacement Performance financial guarantee for the planting of replacement trees will be required. This financial guarantee will be based on the number of on-site woodland replacement trees (credits) being provided at a per tree value of \$400.
6. The Applicant will be required to pay the City of Novi Tree Fund at a value of \$400/credit for any Woodland Replacement tree credits that cannot be placed on site.
7. Based on a successful inspection of the installed on-site Woodland Replacement trees, the Woodland Replacement Performance Guarantee shall be returned to the Applicant. A Woodland Maintenance and Guarantee bond equal to twenty-five percent (25%) of the value of the original Woodland Replacement material will then be kept for a period of 2-years after the successful inspection of the tree replacement installation.
8. The Applicant shall provide preservation/conservation easements as directed by the City of Novi Community Development Department for any areas of remaining woodland and woodland replacement trees. The applicant shall demonstrate that the all proposed woodland replacement trees and existing regulated woodland trees to remain will be guaranteed to be preserved as planted with a conservation easement or landscape easement to be granted to the city. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Woodland permit.
9. Replacement material should not be located 1) within 10' of built structures or the edges of utility easements and 2) over underground structures/utilities or within their associated easements. In addition, replacement tree spacing should follow the *Plant Material Spacing Relationship Chart for Landscape Purposes* found in the City of Novi *Landscape Design Manual*.

Taft Knolls III (JSP14-0009)  
Woodland Review of the Preliminary Site Plan (PSP17-0064)  
May 4, 2017  
Page 6 of 8

**Recommendation**

ECT recommends approval of the Preliminary Site Plan for Woodlands; however, the Applicant should address the items noted in the *Woodland Comments* Section of this letter prior to receiving Woodland approval of the Final Site Plan.

If you have any questions regarding the contents of this letter, please contact us.

Respectfully submitted,

**ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.**



Pete Hill, P.E.  
Senior Associate Engineer

cc: Sri Komaragiri, City of Novi Planner  
Richelle Leskun, City of Novi Planning Assistant  
Rick Meader, City of Novi Landscape Architect  
Kirsten Mellem, City of Novi Planner

Attachments: Figure 1 – City of Novi Regulated Wetland & Woodland Map  
Site Photos

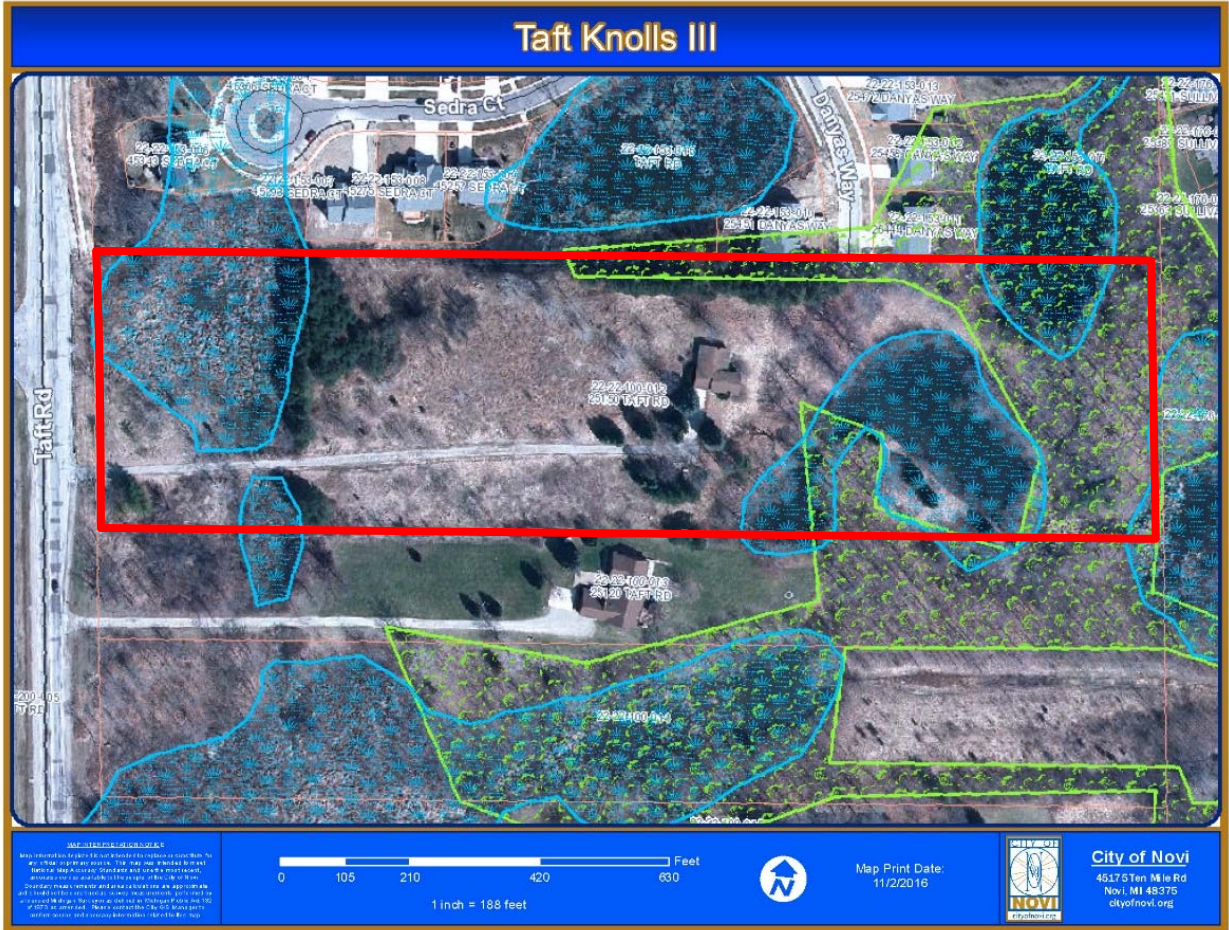


Figure 1. City of Novi Regulated Wetland & Woodland Map (approximate project boundary shown in red). Regulated Woodland areas are shown in green and regulated Wetland areas are shown in blue).



Site Photos



**Photo 1.** Looking west at area of planted conifers located on north of proposed Lots 2, 3, and 4 (ECT, May 2, 2017).



**Photo 2.** Higher quality woodland areas are located on the east side of the Site; near Wetlands A, B, and C (ECT, May 2, 2017).

TRAFFIC REVIEW



AECOM  
 27777 Franklin Road  
 Southfield  
 MI, 48034  
 USA  
 aecom.com

**Project name:**  
 JSP16-0067 Taft Knolls III Preliminary Traffic Review

**From:**  
 AECOM

**Date:**  
 May 26, 2017

**To:**  
 Barbare McBeth, AICP  
 City of Novi  
 45175 10 Mile Road  
 Novi, Michigan 48375

**CC:**  
 Sri Komaragiri, Kirsten Mellem, George Melistas,  
 Darcy Rechten, Theresa Bridges, Richelle Leskun

# Memo

**Subject:** Taft Knolls Preliminary Traffic Review

The preliminary site plan was reviewed to the level of detail provided and AECOM **recommends approval** for the applicant to move forward with the condition that the comments provided below are adequately addressed to the satisfaction of the City.

## GENERAL COMMENTS

1. The applicant, Powell Engineering, is proposing a 15 unit residential development on the west side of Taft Road nearly one half mile south of 11 Mile Road.
2. The site is currently zoned R-4 (Residential) and the applicant is not proposing to rezone the site.
3. The site consists of one east/west residential street off of Taft Road that connects to the existing Danyas Way (north/south residential street), located within the residential development to the north.
4. The distance between Danyas Way and the Novi Meadows/Novi Woods Elementary school entrance on the opposite side of Taft Road do not meet driveway spacing requirements. City standards require the proposed driveway be spaced 200' south of the school driveway and 150' north of the residential driveway. Since City standards are not met, a **Planning Commission waiver** is required. Due to the estimated low volume of vehicles expected from the proposed development, AECOM would support the waiver.
5. The applicant is requesting a **City Council variance** from the requirement to put walks on both sides of the road in the wetlands area. See the Engineering review letter for more information. AECOM does support this variance.

## TRAFFIC IMPACTS

1. AECOM performed an initial trip generation estimate based on the ITE Trip Generation Manual, 9<sup>th</sup> Edition, as follows:

ITE Code: 210 (Single-Family Detached Housing)  
 Development-specific Quantity: 15 dwelling units  
 Zoning Change: N/A

Trip Generation Summary			
	City of Novi Threshold	Estimated Trips	Analysis



<b>AM Peak-Hour, Peak-Direction Trips</b>	100	15	Fitted Curve
<b>PM Peak-Hour, Peak-Direction Trips</b>	100	12	Fitted Curve
<b>Daily (One-Directional) Trips</b>	750	183	Fitted Curve

- The number of trips does not exceed the City’s threshold of more than 750 trips per day or 100 trips per either the AM or PM peak hour. AECOM recommends performing the following traffic impact study in accordance with the City’s requirements:

Traffic Impact Study Recommendation	
Type of Study	Justification
None	N/A

## EXTERNAL SITE ACCESS AND OPERATIONS

The following comments relate to the external interface between the proposed development and the surrounding roadway(s).

- Provide dimensions for the Taft Road entrance such as radii and driveway width.
- The applicant is proposing right turn entrance and exit tapers. Provide dimensions for each of these to show that the modifications are in compliance with the City of Novi's Code of Ordinances.
- Provide sight distance in both directions for Danyas Way at Taft Road.
- The driveway spacing requirements are not met and a **Planning Commission waiver** is required. Alignment with the school driveway would be preferred but not feasible so AECOM supports this waiver.
- Provide a dimension for the distance between Danyas Way and the residential driveway to the south.
- There are an adequate number of site access drives provided.
- The proposed Danyas Way entrance is in the middle of the left turn passing lane for the Novi Schools' driveway. Indicate on the plans where Danyas Way entrance and exit tapers are located in relation to the existing left turn passing lane tapers and the left turn passing lane, and update the plan as applicable.
- The applicant should confirm that the proposed plantings at the entrances do not interfere with the 25' sight triangles. L-1 indicates potential interferences on the north side of the driveway.

## INTERNAL SITE OPERATIONS

The following comments relate to the on-site design and traffic flow operations.

- General traffic flow
  - Provide radii throughout the site to ensure emergency access and large truck maneuverability.
- Parking facilities
  - Parking will be provided via attached garages and driveways that the applicant has proposed for each dwelling unit.
  - The applicant should include the intent to allow or disallow on-street parking, and indicate where on the site such locations are proposed.
- The applicant has proposed a road width of 28 feet which is in compliance with City standards.
- Sidewalk Requirements
  - The proposed internal sidewalk is 5'. The proposed external sidewalk is 8'. Both are in compliance.

Memo

- a. The applicant is **requesting a variance** for the variance from the requirement to put walks on both sides of the road in the wetlands area. AECOM does support this variance and would recommend that the applicant consider additional notification (signing and/or pavement markings) near the proposed mid-block crossing at station 3+50 if the waiver is granted.
  - b. The applicant should provide additional details for the sidewalk ramps, to include the "NOTES" sections.
5. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices.
- a. The applicant has included a note on sheet S1 that refers to the Landscape plans for signing details; however, they are not provided in the landscape plans.
  - b. Signing and striping details were not included in this submittal and should be provided in future submittals.

Should the City or applicant have questions regarding this review, they should contact AECOM for further clarification.

Sincerely,

**AECOM**



Paula K. Johnson, PE  
Reviewer, Senior Transportation Engineer



Maureen N. Peters, PE  
Senior Traffic/ITS Engineer

**FIRE REVIEW**



April 24, 2017

TO: Barbara McBeth- City Planner  
Sri Ravali Komaragiri- Plan Review Center  
Kirsten Mellem- Plan Review Center

**CITY COUNCIL**

**Mayor**  
Bob Gatt

**Mayor Pro Tem**  
Dave Staudt

Gwen Markham

Andrew Mutch

Wayne Wrobel

Laura Marie Casey

Brian Burke

**City Manager**  
Pete Auger

**Director of Public Safety  
Chief of Police**  
David E. Molloy

**Director of EMS/Fire Operations**  
Jeffery R. Johnson

**Assistant Chief of Police**  
Erick W. Zinser

**Assistant Chief of Police**  
Jerrold S. Hart

RE: Taft Knolls III

PSP# 17-0064

**Project Description:**

Add onto an existing subdivision, 15 single family homes off of Taft road in section 22.

**Comments:**

**Must have all fire hydrants in place and operational during construction.**

**Recommendation:**

APPROVAL.

Sincerely,

Kevin S. Pierce-Fire Marshal  
City of Novi – Fire Dept.

cc: file

Novi Public Safety Administration  
45125 W. Ten Mile Road  
Novi, Michigan 48375  
248.348.7100  
248.347.0590 fax

cityofnovi.org

APPLICANT RESPONSE LETTER





**Powell  
Engineering  
& Associates, LLC**

4700 Cornerstone Drive  
White Lake, MI 48383  
Phone: (248)714-9895  
Fax: (248)694-9222  
Email: info@powelleng.net

June 5, 2017

Ms. Sri Ravali Komaragiri, Planner  
Ms. Barb Mcbeth, City Planner  
City of Novi Engineering Department  
45125 W. Ten Mile Road  
Novi, MI 48375

RE: Proposed Novi Taft Knolls III – Planner 3<sup>rd</sup> review response letter  
PSP #16-67; PE Job #16-472

Dear Ms. Sri Ravali Komaragiri:

We have received the third review for our engineered Site Plans for the above referenced job and have the following responses to address all the comments on each review letter as follows:

*PLAN REVIEW CENTER REPORT (dated May 2, 2017 and May 26, 2017)*

1. Open Space Preservation Option: The prepared open space exhibit is included with the full set of Preliminary Site Plans in this current submittal.
2. Bonafide Plan: As stated in the review the bonafide plan provides for 16 lots, the proposed development proposes 15 lots.
3. Non-Access Greenbelt: The nearest development to Taft Rd. other than the entrance drive is more than 250' from the edge of Taft Road, therefore, the 40' non-access greenbelt is met. This will be added to the final site plans if preliminary site plan is approved.
4. Residential Development Entrance Lighting: The applicant will work with the City and DTE to get an entrance lighting plan to meet the City's requirements. We would request the Planning Commission allow us to work with the City's Administration to get a plan done and approved and not hold up site plan approval.
5. Signage: The entrance sign location will be shown on the final landscape drawings. We would request to be able to work with the Planning Department Administration for the entrance sign to meet the City requirements. Our intent is not to need any variances on the entrance sign.
6. Parcel Split or Combination – Master Deed – As stated no parcel splits or combinations are proposed in the development. A master deed and by laws will be provided by the applicant's attorney.

*PLAN REVIEW CHART (dated May 5, 2017 and May 24, 2017)*

**MASTER PLAN** – A bonafide plan was submitted showing that the density is within the permitted zoning as stated by your planner.

**ZONING -** We are seeking out Planning Commission approval for the Open Space development with the required 15 day public hearing timing.

**PERMITTED USE-** The use is per the approved use of Single Family Home.

**PHASING -** Phasing is not proposed in the plan.

**INTENT -** The proposed development is Open Space due to the large amount of natural features including woodlands and wetlands we are looking to maintain in the proposed development. No recreational open space is proposed in the development.

**ELIGIBILITY -** This site meets the eligibility per the Zoning Ordinance by being both R-4 and having City water and Sewer.

**DENSITY -** A bonafide plan has been submitted understanding zoning configuration showing that the proposed development meets and exceeds the required zoning for the site.

**DESIGN -** We meet the required open space per the ordinance. Please see the 2 open space exhibits in the current submittal to document all the site layout and open space.

**LOT AREA-** The lot reductions meet the requirements of not exceeding 80% of the standard zoning lot area. Please see lot chart on sheet S1 of the submitted site plans.

**SETBACK-** The lot building setbacks meet the requirements open space setbacks. Please see lot chart on sheet S1 of the submitted site plans.

**MODIFICATIONS-**To maintain and protect as much existing open space of wetlands and woodlands we are requesting a lot width reduction from 80' to 70' which is permitted in the proposed open space use Section 3.30.

**OPEN SPACE-** The proposed open space is accessible by all lots within the proposed development. In addition it is connected to the open space in the adjacent subdivision to the North and the existing parcel to the South of the proposed development. In addition the Open space preserves a great deal of natural features as the purpose of the open space option requires.

**PERMANENT OPEN SPACE MAINTENANCE**

The Open Space exhibit with legal description as well as a conservation easements with undeveloped woodlands and wetland areas with legal descriptions will be provided by the applicant prior to final site plan approval. Once overall site is approved by the Planning Commission these items will be drafted and submitted to the City Planning Commission for their approval prior to the recording of the documents with the master deed and by laws for the subdivision.

## **RESOURCE INVENTORY**

Information is provided as stated in the preliminary site plans.

## **REVIEW PROCEDURES**

We are finishing up the required 15-day public hearing timeframe. The proposed site is set for presentation before the Planning Commission on June 14, 2017.

## **HEIGHT, BULK, DENSITY AND AREA LIMITATIONS**

- The Density meets Ordinance
- The minimum lot area meets the Open Space Preservation Option
- The minimum lot width meets the Open Space Preservation Option
- The Building setbacks meet the Open Space Preservation Option
- The maximum % of lot area covered meets the Zoning Ordinance with 12.4% maximum building coverage and this will be added to the final site plans.
- The minimum floor area and building height will meet code when reviewed with the building department.
- The frontage on a public street meets the required.
- The lots meet the Area and dimensional requirements of the Zoning Ordinance.
- There are no additional setbacks required for the development
- There is no time when a side yard abuts a street or residential district.
- We are providing a 25' setback from the flagged wetland at everyplace on the plan, however, we are proposing a portion of the 25' setback into the lots with a conservation easement. This will be an exhibited and recorded conservation easement. In addition, we are proposing signs spaced along the proposed conservation easement prohibiting any fertilizer or vegetation disruption beyond that point.
- The site meets Block requirements of not exceeding 1,400 feet.
- No lot abuts a secondary thoroughfare
- The depth to Width ratio of each lot meets the requirements of the Zoning Ordinance.
- All lots abut a street and lot lines are at or close to right angles to the street as required.
- We have provided 2 ingress egress locations into the site. We are requesting a deviation from additional ingress egress due to site difficulties to be approved administratively.

## *TOPOGRAPHIC CONDITIONS:*

- No lot is proposed to extend into the floodplain which is located in the southeast corner of the property where no proposed disruption is to occur.
- Landscape Plan has been provided. There are a few landscape waivers which are being requested. Please see the Landscape response letter for these requested waivers and response to the other items from the landscape review.
- We have provided the existing wetlands which were flagged by Brooks Williamson and the wetland report. We have designed the site per the Open Space Development option to protect as much of the wetlands as possible. Please see our specific response to the wetland review in the wetland section of this letter.

- No man made features exist on the proposed site for development.
- The open space provided meets the requirements of the Zoning Ordinance for an open space development.
- A 40' non-access greenbelt will be shown on sheet 1 of the final site plan. There will be more than 250' from the edge of Taft Road to the nearest lot making more than enough space for the 40' greenbelt along Taft Road.
- All surrounding zoning is the same as the subject zoning; therefore, no special screening requirements are provided.

*SIDEWALK REQUIREMENTS*

- We are providing a 6' wide walk/or boardwalk along Taft Road as required. Detailed grading and cross section will be provided on the final site plans.
- Sidewalks within the development are proposed – most of the site proposes sidewalks on both sides, however, the crossing of the wetland out to Taft from the end of the lots we are proposing a sidewalk only on one side of the road. The purpose for this is due to the additional wetland filling which would be required and would further disrupt the natural features of the lot. In addition, the additional filling may require wetland mitigation per the required ordinance. We are requesting a DCS variance for this additional sidewalk. The neighboring subdivision to the North also received a waiver due to the encroachment and filling which would be required into the wetlands.

*ADDITIONAL REQUIREMENTS*

- The applicant will work with the City and DTE to get an entrance lighting plan to meet the City's requirements as well as show the proposed location of the monument sign to verify no special variances will be required. We would request the Planning Commission allow us to work with the City's Administration to get a plan done and approved and not hold up site plan approval.
- No street names are required as the site proposes the extension of a previously approved road and no new roads are proposed.
- Applicant will the proposed cost of the new homes and site improvements prior to final site plan approval as well as estimated sale price of the new proposed homes in the development.

*LEGAL REQUIREMENTS*

- No property split or recombination is requested with the current submittal.
- We understand that the entry sign to the proposed development needs to be shown on the landscape plans both size and location to determine if any variances will be required with the landscaping requirements. The applicant and their landscape architect will provide detailed sign information which meets the ordinance prior to final site plan approval.
- A Master Deed is being worked on by applicant's attorney. We hope to have this submitted soon. We will work with the City Administration to meet the requirements of the City for the Master Deed of the proposed subdivision.

- We understand that Easements exhibits drafts must be submitted and approved by the City Officials for the following will be required prior to obtaining final site plan approval:
  - Wetland Conservation Easement Exhibit
  - Woodlands Conservation Easement Exhibit
  - Open Space Conservation Easement Exhibit
  - Wetland 15' Buffer Easement Exhibit
  - Greenbelt Easement Exhibit
  - Storm Water Detention Easement Exhibit
  - Sanitary Sewer Easement Exhibit
  - Watermain Easement Exhibit
  - Road Right of Way Easement Exhibit

*PLAN ENGINEERING REVIEW CENTER REPORT (dated May 31, 2017)*

**General**

1. The City standard detail sheets will be provided with the Final Site Plan/Construction Plans as required for final construction approval.
2. Final Construction Plans will have separate sheets for Grading, Storm, Watermain, Sanitary Sewer and Paving due to the additional items which will be added to the plans.

**Water Main**

3. The proposed centerline of said watermain is exactly 7' from the right of way as requested to be in previous reviews. It is our understanding that a 3' additional easement will be required to maintain 10' from the centerline of said watermain. We want to make sure that adequate easement is provided if any future restoration is required. An easement for any encroachment of the 10' into the lots will be provided.
4. MDEQ water permit application with full watermain construction drawings will be submitted upon completion once the project has City Planning Commission and Council approval.

**Sanitary Sewer**

5. We believe the current design will allow all but (worst case scenario) 4 homes into said to sanitary via gravity. We believe it is a better option for the City to have an ejector pump with hung plumbing in these 4 homes than to have the City responsible for grinder pumps on all 15 homes. However, we will design the sanitary to meet the requirements of the City's Water and Sewer Department Engineering Standards.
6. Once the sanitary construction plans meet the approval of the City's Water and Sewer Department whether gravity sewer or low pressure sewer we will submit 7 sets of approved construction drawings to the City with a completed MDEQ Part 41 application.

**Storm Sewer**

7. We will change the location of the for connection of the storm sewer into Detention Pond #2 to between Lots 13 and 14 as recommended. This will be completed on the Final Site Plan/Construction plans where we can also use the expected storm water flow to size the pipes. Thank you for your recommendation.



**Storm Water Management Plan**

- 8. We understand that for final engineered site plan/construction plans the required Storm Water Ordinance and Chapter 5 of the new Engineering Design Manual must be met. The current plans are an overview design to show that the ordinance can be met in the current design.
- 9. As requested a chart will be added to the plans for the final construction plans depicting the c-factor/impervious factor for all wetlands both pre- and post-construction.
- 10. We have provided as much landscape buffer as possible for both Lots 9 and 14 as well as to the property to the South. We were unable to maintain the full 25' landscape buffer; Therefore, we are requesting a waiver for the 4 areas as shown in the chart below:

	<b>Provided</b>	<b>Variance (distance requested)</b>
Lot 9 – Detention Pond #1	16'	9'
Lot 14 - Detention Pond #2	24'	1'
South of Detention Pond #1	7'	18'
South of Detention Pond #2	10'	15'

**Paving & Grading**

- 11. We understand that there will be retaining wall required along the proposed 6' walk on Taft Road if concrete walk is proposed. This pathway will be designed as part of the Final Construction plans and some may have to be a boardwalk. Either way we will work with the City if the design of the pathway and/or retaining wall to meet the City Requirements. Finally, we will apply for a permit from the Building Department of the installation of said walk.
- 12. As required the standard road cross section for the entire 60' proposed right of way will be shown with the pavement cross section on the final construction plans. All paving will be per City requirements.
- 13. The proposed relocation of the power pole will be specified in distance from the proposed edge of road for relocation purposes.
- 14. On the final Construction drawings we will be lowering the proposed finished floor grades for Lot 15 so it is just high enough to connect into the gravity sanitary sewer without hung plumbing. In addition, the proposed house on Lot 1 was set slightly higher than the existing house on Lot 10 of the subdivision to the north because the grade raises a great deal to the proposed building setback area from the adjacent lot and in addition, our goal is to provide gravity sanitary service to Lot 1 without hung plumbing. We do not believe the difference between these lots is extreme, the topography was provided prior to Lot 10 house being built. The Final Site Plan will have finish floors of Lot #10 to show the finish floors as being comparable between Lot 1 on the subject site and Lot 10 of the neighboring site.
- 15. The proposed walk is proposed to cross the street with the same cross section as the road paving. In addition, the walk crossing identifies an ADA compliant ramp. This

will be well documented on the final site plan submittal with the necessary pavement details.

16. Enclosed with this submittal is a copy of the filled out request for variance. We will be submitting this form in addition to the Community Development. In addition we are enclosing a 8.5"x11" drawing showing the additional impact on the wetlands from the current design. We would request that the Community Development department, engineering department and the Planning Commission uphold our request for this variance due to the added disruption to the natural features of the site.
17. We are requesting a stub street requirement waiver for the street being extended to the property to the south of subject development. The area which would be the optimum location is a heavily wooded area with many combined wetlands via culverts.

#### **Floodplain**

18. A small area of Flood Plain Zone X is on the southeast corner of the project site, however, no grade changes or disruption is proposed in the area near this portion of Zone X.

#### **Soil Erosion and Sediment Control**

19. We understand that a SESC permit is required for the site. The SESC plan and details will be submitted with the final site plan and will meet the requirements of the City.

#### **Off-Site Easements**

20. No offsite easements are required for the proposed Site Plan with regards to utilities, however, applicant is requesting a waiver or variance for the portion of the 25' detention pond landscape area which is offsite on the property to the south. A variance application has been completed and is included in this submittal.

#### **Items to be submitted at time of final site plan submittal**

21. Our office will submit a letter with the final site plans itemizing all changes made to address the items above in the final site plan submittal and specifying the sheet that the revision can be found on.
22. Our office will submit an itemized construction cost estimate with the Final site Plan submittal to determine plan review and construction inspection fees. The cost will be itemized for the civil site development costs.
23. Draft copies of all utilities, the most recent title work and legal escrow funds will be submitted to Community Development Department for approval with the Final Site Plans prior to being executed.
24. All requests for variances from the City of Novi and Construction standards have had submitted variances with this letter and will be requested when appearing before City Council.
25. A draft copy of the maintenance agreement for the storm water facilities, as outlined in the Storm Water Management Ordinance, will be submitted as part of the Final Site Plan package. Once approval is granted of the maintenance agreement will be recorded with the Register of Deeds.
26. A draft copy of the conservation easement will be submitted for approval to the Community Development Department.
27. A draft copy of the watermain easement to be constructed will be submitted to the Community Development Department.

28. A draft copy of the sanitary sewer easement to be constructed will be submitted to the Community Development Department.
29. A draft copy of the storm sewer and surface drainage easement and onsite storm water storage will be shown and provided on the Exhibit B Drawings as part of the Master Deed.
30. No offsite utility easement is proposed with the current development.
31. A pre-construction meeting will be required after the final site plan have been approved, but prior to any onsite construction. A meeting will be setup at that time with Ms. Marchioni.
32. We understand that no onsite construction can commence until the final site plan is approved and the grading permit has been issued at said pre-construction meeting.
33. A SESC Plan will be submitted with Final Site Plan for approval and understand no work onsite can commence until the SESC permit is issued by the Community Development Department.
34. An NPDES permit will be applied for once SESC plan has been approved and permit issued, but prior to any onsite work.
35. A Right of Way permit for proposed paving within Taft Road right of way will be applied for and received prior to any work commencing in said right of way.
36. We understand that a permit from the MDEQ for the watermain must be obtained before final approval of the site construction.
37. We understand that a permit from the MDEQ for the sanitary must be obtained before final approval of the site construction.
38. We understand that a permit from the MDEQ is required for all wetland filling as well as wetland discharge. This permit has been applied for and will be issued prior to final site plan approval.
39. We understand that the construction cost estimate submitted as part of the final site plan package will determine the required Construction Inspection fees and must be paid in full prior to the pre-construction meeting.
40. We understand that a storm water performance guarantee must be posted at the Treasurer's office according to the Management Ordinance.
41. We understand that an incomplete site work performance guarantee as required in the Performance Guarantee Ordinance is required to be posted at the Treasurer's office.
42. We understand that a street sign financial guarantee will be required to be posted at the Treasurer's office.
43. We understand that any and all retaining walls proposed onsite must have permits obtained by the Community Development Department prior to approval.

*PLAN LANDSCAPING REVIEW CENTER REPORT (dated May 4, 2017)*

1. A 4' tall and 4' wide berm is required along the entire frontage of the property, however, we are requesting a waiver from this requirement due to the existing wetland and vegetation of the area at the frontage of the site.
2. As required 5 evergreen or deciduous trees as well as 8 subcanopy trees are required and have been provided.

### Street Trees Required

1. Per the length of the frontage on Taft 5 deciduous trees are required along Taft, however the existing wetland extends the entire frontage of Taft Road, therefore, we are requesting a waiver from the required trees.
2. Per the proposed lot frontages on Danya's Court 33 trees are required. 44 Street trees have been provided; 33 for the street tree requirement and an additional 11 for the woodland replacement trees.

### Storm Basin Landscape

1. The required number of large shrubs has been provided around the detention pond.
2. The *Clethra alnifolia* will be replaced on the final site plan landscape plans to a species native to Michigan which is on the approved plantings list for the City of Novi.

### Transformer/Utility Box/ Fire Hydrant Plantings

1. The utility box screening have been provided.
2. Trees are located the required minimum of 10' from utility structures and a note on the plan stating the required spacing has been provided for contractor use.

Revisions to be completed on the final Landscape Site Plan are as follows:

- The *Clethra alnifolia* around the detention pond will be replaced with a species native to Michigan and on City of Novi approved plantings.
- The Final Landscape Site Plans will be Signed and Sealed by a Registered Landscape Architect as required.
- The revised final Landscape plans will show all tree tag labels on L-2 in a legible weight.
- The revised final Landscape plans will show tree fencing for tree #152 since it is being saved for credit.
- Any proposed monument sign - location, size and materials to be shown on revised site landscape plans.
- A landscape cost estimate per the recommended costs will be completed and submitted with the final site landscape plans.
- An irrigation plan will be submitted with final landscape site plans.

### *ECT WETLAND REVIEW (dated May 4, 2017)*

1. a. Final Engineered Site Plans will provide all Area in Square feet and volume in cubic yards of all wetland impacts – both permanent and temporary. Volume will be added to chart as requested on the final Site Plan.  
b. Final Engineered Site Plans will provide Area of filling in the 25' wetland buffer area.  
c. Final Engineered Site Plans will provide area of filling and volume of filling in the 25' wetland buffer setback both permanent and temporary.
2. We understand the concern of ECT of the proposed fill into the 25' wetland buffer of Wetland E. Please understand that the proposed grading on the North side of the site – specifically 6 lots which rear yards are encroaching into the 25' landscape buffer. The current grading plans being proposed show absolutely no fill being proposed in the 25' landscape buffer of Wetland E. Furthermore, we are proposing a

- conservation easement to prevent any filling in the future into Wetland E or into the 25' wetland landscape setback.
3. The final site plans will depict any location in which the 25' wetland landscape buffer will have fill and if any fill is proposed the plan will specify that the restoration will use native seed mix rather than common grass seed or sod (seed mix will be specified on the final landscape plan).
  4. A wetland conservation easement will be submitted for review and approval prior to being included in the master deed and recorded with the property.
  5. A wetland fill application is being submitted to the MDEQ for the small areas of wetland fill as well as storm water outlet into said wetlands. A copy of the approved permit will be submitted to the City of Novi prior to final site plan approval.

*ECT WOODLANDS REVIEW (dated May 4, 2017)*

1. The current existing tree plan will be reviewed to verify that all trees listed on the tree list are shown on the plan view and any necessary revisions will be shown on the final site plan.
2. The tree removals will be reviewed to verify the Landscape plan is consistent with the Tree list in terms of removal vs. preservation.
3. Woodland replacement trees will be relocated into open space rather than in the lots as required.
4. Detailed Woodland replacement tree calculations will be provided on revised plans.
5. We understand that a Woodland Replacement financial guarantee for the replacement trees at a cost of \$400/tree.
6. We understand that the Applicant will be required to pay the City of Novi Tree fund at \$400/credit for any Woodland replacement tree credit that cannot be placed onsite.
7. We understand that once the Woodland Replacement trees have been planted and approved that the performance guarantee will be returned and at that time a bond of 25% of the original Woodland replacement material will then be kept for a period of 2-years to verify successful tree replacement installation.
8. A woodland preservation/conservation easement exhibit will be submitted for approval by the City and once approved by the City will be recorded with the Master Deed for issuance of the City of Novi Woodland permit.
9. We understand the replacement materials must not be located within 10' of any proposed structure and or over underground utilities or within their associated easement. We also understand the tree spacing must also meet the requirements of the City of Novi Landscape Design material and spacing Chart.

*AECOM REVIEW (dated May 26, 2017)*

1. Dimensions at the entrance radii and driveway widths will be provided on Final Site Plans.
2. Dimensions for the tapers and radii at the entrance off of Taft Road will be provided on the Final Site Plans to verify they meet City of Novi requirements.



3. Site Distance in both directions from the proposed drive entrance onto Taft will be provided on the Plan to verify they meet with City of Novi requirements.
4. We are requesting a waiver for the drive spacing between the proposed Danya's and the school driveway on the east side of Taft due to the difficulty in having the drives directly across from each other is hindered by the large wetland across from the school drive.
5. We will provide the proposed dimension from Danya's centerline to the residential driveway to the south on the final site plan.
6. Site access drives meet the requirements of the City of Novi.
7. All dimensions of entrance and exit tapers in relation to the existing left turn school passing lane will be shown on the final site plan as required.
8. The proposed plantings at the entrance of Danya's from Taft will be reviewed to verify that the 25' site triangle is not interfered and the landscaping will be updated accordingly will be completed to maintain the 25' sight triangle and shown as such on the final site plans.
9. A signage and pavement marking plan will be submitted as necessary with the final site plans.

*FIRE MARSHAL COMMENTS – April 24, 2017 Review*

We understand that all fire hydrants must be in place and operation during any building instruction.

If you have any further questions please feel free to contact our office.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michelle C. Spencer', written over a light blue rectangular background.

Michelle C. Spencer  
Project Engineer

File



4700 Cornerstone Drive  
White Lake, MI 48383  
Phone: (248)714-9895  
Fax: (248)694-9222  
Email: info@powelleng.net

June 5, 2017

Ms. Sri Ravali Komaragiri, Planner  
Ms. Barb Mcbeth, City Planner  
City of Novi Engineering Department  
45125 W. Ten Mile Road  
Novi, MI 48375

RE: Proposed Novi Taft Knolls III – Waiver and Variance Request Letter  
PSP #16-67; PE Job #16-472

Dear Ms. Sri Ravali Komaragiri:

The waivers being requested are as follows:

- 1 Allowing the rear of Lots 3, 4, 5, 6 and 7 to encroach on the 25' setback of Wetland E by 2' to 19.8'. The rear yard building setback is proposed at 35' maintaining more than 15' from the building setback line to the 25' wetland setback line. We are proposing a Conservation easement in the rear of those lots as shown on the plans.
- 2 Allowing the rear of Lot 15 to encroach on the 25' setback of Wetland A by 24'. The rear yard building setback is proposed at 35'. This provides more than 10' from the rear building setback line to the 25' wetland setback line. We are proposing and 10' on the side of lot 15 in addition keeping this 25' wetland buffer outside of the building setback. We are proposing a Conservation easement in the rear and side of this lot as shown on the plans.
- 3 We are requesting a waiver for the stub street to the property to the south. It would be difficult to provide a stub road with the woodlands and wetlands along the southern property line.
- 4 We are requesting a landscape waiver for the Right-of-Way greenbelt berm along entire frontage of Taft Road. The berm would cause major disruption to the existing wetlands and vegetation.
- 5 We are requesting a landscape waiver for the 5 trees along Taft Road due to the lack of space between the walk and the edge of road. There is a great deal of existing vegetation between edge of Taft Road and the nearest buildable lot.
- 6 We are requesting a waiver for the required spacing between the residential driveway south of the proposed development and the between the development and the school drive north of the proposed development. Unfortunately, there was no way to provide the proper distance due to existing wetlands. We would request the waiver due to the low expected traffic of the development due to the small size.

Variations requested (application attached):

1. The applicant is requesting a variance from the requirement of putting walks on both sides of Danya's Way due to the additional wetland filling and disruption – see plan.
2. We are requesting a 1' variance for Lot #14 for the 25' detention pond #2 setback. This maintains 34' from the highest possible water elevation of detention pond #2 to the building setback line as well as 24' to the highest possible water line to the proposed lot line for Lot #14.
3. We are requesting a 9' variance for Lot #9 for the 25' detention pond #1 setback. This maintains 26' from the highest possible water elevation to the edge of the building setback line as well 16' from the highest possible water elevation to the edge of proposed Lot #9.
4. We are requesting a variance for the 25' detention landscape area for the area of it that overlaps to the property to the South.

Sincerely,

A handwritten signature in black ink, appearing to read "Michelle C. Spencer", written over a light blue rectangular background.

Michelle C. Spencer  
Project Engineer

File