



CITY of NOVI CITY COUNCIL

Agenda Item 3
September 24, 2018

SUBJECT: Approval of the request of Cambridge of Novi, LLC, for Villa D'Este, JSP17-52, with Zoning Map Amendment 18.718, to rezone from RA (Residential Acreage) to R-1 (One-Family Residential), subject to a related Planned Rezoning Overlay (PRO) Agreement, and corresponding PRO Concept Plan. The property is approximately 50.6 acres and is located east of Napier Road on the north side of Nine Mile Road. The applicant is proposing a 41-unit single-family housing development in a gated community.

SUBMITTING DEPARTMENT: Community Development Department – Planning Barb

CITY MANAGER APPROVAL:

BACKGROUND INFORMATION:

The applicant is requesting a Zoning Map amendment for a 50.6-acre property on the east side of Napier Road and north side of Nine Mile Road (Sections 29 and 30) from RA (Residential Acreage) to R-1 (One-Family Residential) utilizing the City's Planned Rezoning Overlay (PRO) option. The applicant is proposing a 41-unit single family residential development, with four unit types/sizes shown, on private roads with gated access. The applicant indicated that the residents will have an option to add a loft space or an attic, or an indoor pool. The applicant proposes to add language to deed restrictions that will allow indoor pools, outdoor hot tubs, fire pits, fireplaces, pizza ovens and grills.

The PRO Concept Plan shows two on-site detention ponds in the northwest corner of the site and on the southern side along the entrance to the site. One boulevard access point is proposed off of Nine Mile Road. An emergency access road is proposed off of the west cul-de-sac to Nine Mile Road. The development is proposed to be built in two phases.

Following the City Council's consideration and tentative approval of this matter on July 23, 2018, the applicant submitted a revised Concept Plan to address some of the concerns and clarify others. Among those changes identified include:

1. **The driveway entrance at Garfield and Nine Mile "Version B" is shown on the plans to maintain Garfield Road in its current location**, and not shift it to the west, as had been proposed by the applicant.
2. **A minimum setback of 35 feet from the rear line of the proposed decks to the rear property line of the homes proposed along the north boundary has been added to the plans.** *It appears that no changes have been made to the total amount of open space being offered to the City.*
3. **Solar panel locations have been added to the plan:**
 - a. North of detention basin "B"
 - b. West of the emergency access drive.
 - c. North of detention basin "A".

Additional detail on the location and elevation of the solar panels will be reviewed on the Preliminary Site Plan.

4. **The ITC Trail connection has been relocated to the north side of Nine Mile Road. The plan provides conflicting notes as to its width (both 8 feet and 10 feet are shown).** *The applicant shall provide a ten foot wide asphalt path to be considered part of the ITC Trail connection to the north and south.*
5. **The Unit Data sketch on Sheet 2 shows common area, and unit boundaries for clarification in the Master Deed.** *The note indicates that "Allowable Uses in Limited Common Element Area (at rear and side only) could include fire pits, fireplaces, hot tubs, pools, patios, sidewalks, decks, gardens and related appurtenances. Setbacks for these items to comply with R-1 Zoning Setbacks". The submitted response letter dated August 13, 2018 further indicates that certain units have expanded side yards for the listed uses. The applicant has indicated that the uses proposed must be approved by the developer. Staff notes that the location of such items shall be subject to all relevant codes and ordinances, as well as with any language provided in the Master Deed. Language association with such approvals shall be approved by the City Attorney as a part of the PRO Agreement and Master Deed, and any other related documents.*
6. **Proposed unit boundaries may be combined, subject to developer approval.** *Staff notes that modification to the plan shall be subject to review by City Staff and Consultants, and modifications to the approved plans and any Master Deed may be needed to make such changes at the time of Site Plan Review.*
7. **Curb and gutter for Comfort Station Parking lot.** *The applicant has declined to offer the installation of curb and gutter for the Comfort Station parking lot. Engineering staff does not have any objections.*
8. **Woodland Replacements.** *The applicant has submitted a revised Woodland plan on September 19, 2018 (plan dated 8.22 2018). The plan shows a reduced number of woodland replacement trees will be required due to the applicant's efforts to preserve more of the existing trees (from 915 replacements required to 902 replacements required). Due to the lateness of this submittal, the numbers have not yet been reviewed by the City's Woodland Consultant, and may be subject to change on the Preliminary Site Plan.*

Ordinance Deviations Requested

Section 7.13.2.D.i.c(2) permits deviations from the strict interpretation of the Zoning Ordinance within a PRO agreement. These deviations must be accompanied by a finding by City Council that *"each Zoning Ordinance provision sought to be deviated would, if the deviation were not granted, prohibit an enhancement of the development that would be in the public interest, and that approving the deviation would be consistent with the Master Plan and compatible with the surrounding areas."*

The deviations requested are the following:

- a. Planning Deviation from Sec. 3.1.2 of Zoning Ordinance for reduction of the minimum lot size, setbacks, minimum lot frontage and minimum site acreage as shown on the proposed concept plan provided:
 - i. The proposed unit boundary shown on the concept plan (sheet 02) is to be considered the maximum allowable footprint. Any accessory uses such as hot tubs, patios, etc. will be provided within the footprint shown on the plan.
 - ii. A minimum of 15 feet shall be maintained between two buildings.
 - iii. A minimum of 30 feet is provided between the front façade and the back of the curb.

- iv. Rear setbacks will be as shown on the Concept plan, based on the proposed boundary line of land to be donated to City.
- b. Façade deviation from Sec 3.7, similar dissimilar ordinance, to replace internal calculation of square footage to a 2200 square foot minimum requirement for this development;
- c. Landscape deviation from Sec. 5.5.3.B.ii and iii of Zoning Ordinance for lack of berms along the westerly Nine Mile Road frontage and portions of the easterly frontage, due to existing natural features;
- d. Engineering deviation from Sec. 4.04, Article IV, Appendix C-Subdivision ordinance of City Code of Ordinances for absence of a stub street required at 1,300 feet intervals along the property boundary to provide connection to the adjacent property boundary, due to conflict with existing wetlands;
- e. Engineering deviation from Chapter 7(c)(1) of Engineering Design manual for reducing the distance between the sidewalk and back of the curb: 15 feet required, 10 feet proposed;
- f. Engineering deviation for absence of sidewalk along a portion of Villa Drive, with payment into the City's sidewalk fund for the cost of the sidewalk not constructed;
- g. Engineering deviation for absence of curb and gutter for parking lot and driveway for the proposed comfort station from Sec. 11-239(b)(1),(2)of Novi City Code;
- h. Traffic deviation for not conforming to minimum required standards as indicated in Figure IX.5 of the City's Code of Ordinances for residential driveway, provided the applicant works with staff to minimize the number of driveways that deviate from the standard at the time of Preliminary Site Plan;
- i. Traffic deviation from Figure VIII-A in the City Code of Ordinances, for not providing the minimum width for local residential road for Villa D' Este Boulevard, the stretch from the entrance gates to the first intersection (28 feet required, 24 feet provided).
- j. Traffic deviation from Section 7.4.2.c (1) of Engineering Design Manual for not meeting the maximum distance between sidewalk and Right of way line along Nine Mile. A maximum of 1 foot is required for a small portion where it conflicts with existing wetland area;
- k. Deviation to allow alternate locations for street tree plantings to avoid conflict with the utility layout along the internal roads, as detailed in this review letter;
- l. Deviation for the location of accessory structures in an alternate location within the common area, as approved by the Planning Commission in accordance with the Preliminary Site Plan in order to allow the use of free standing solar panels as shown on the Revised Concept Plan to provide power to the access gate and outside lighting.

Public Benefit under PRO Ordinance

Section 7.13.2.D.ii states that the City Council must determine that the proposed PRO rezoning would be in the public interest and the public benefits of the proposed PRO rezoning would clearly outweigh the detriments. The following PRO Conditions shall apply to the Land and/or be undertaken by the Developer:

1. Owner/Developer shall provide the following Public Improvements in connection with the development of the Land:
 - a. Developer shall donate fee title, in the form of a Warranty Deed, to approximately 20.22 acres of land, as shown in the Concept Plan (the "Park Land"), to Novi for existing park system within 30-days of the execution of this Agreement. The donation is for the purpose of expanding City parkland in the area of the Development. The Park Land will connect two additional parcels of City parkland. The City shall be permitted to make minor improvements in the area to propose a trail or accessory uses for a trail, and shall be permitted to combine the Park Land with adjacent City park land into a single unified parcel.
 - b. Developer shall construct an approximate .18 acre comfort station area for the ITC Trailhead in accordance with the drawings, attached and incorporated as Exhibit D (the "Comfort Station Improvements"). The Comfort Station shall include, but shall not be limited to parking spaces, a bike repair station and a picnic shelter, as set forth in Exhibit D. The Comfort Station will be constructed with Phase 1 of the Development, and shall be conveyed to the City for public ownership, operation, use and maintenance upon completion of the Comfort Station Improvements within 60 days of the completion and inspection of the improvements for consistency with the approved site plan.
 - c. Developer shall contribute to the construction of a portion of the ITC Trail along the north side of Nine Mile Road, in the amount of \$43,834.22 in order to provide for use by and in connection with the Development, as shown in the plans attached and incorporate as Exhibit E. The pathway shall comply with City design and construction standards, with minor modifications to be approved administratively, i.e. to modify the alignment for preservation of existing landscaping trees. Dedication of the Right of Way shall be completed on or before November 10, 2018.
 - d. In the event that the Michigan Department of Environmental Quality or any governmental agency requires Developer to provide a compensating cut for the purpose of creating additional floodplain for the Development, the City shall permit the Developer to create the compensating cut, at Developer's own expense, not to exceed 8,000 square feet in size, in a location mutually agreeable to the Developer and the City, including but not limited to locations within the Park Land described, generally, as N/W of the N/W detention basin and the wetland, or, alternatively, an area behind units 12-14. In the event that the compensating cut requires additional tree removal, Developer shall be subject to the applicable woodland replacement standards as set forth in the City's Woodland Ordinance.
2. The development shall be limited to a density of 1.08 dwelling units per acre with a maximum of 41 units as indicated on the PRO concept plan.

3. The proposed unit boundary, as shown on the approved final Concept Plan (sheet 02), ("Unit Boundary"), shall be considered the maximum allowable footprint. Any accessory uses including but not limited to, fire pits, fire places, hot tubs, pools, patios, sidewalks, landscaping walls, landscaping fences, decks and gardens may be included within the Unit Boundary as shown on the approved final site plan or within the rear yard area ("Accessory Unit Boundary"), which is the area beginning at the rear Unit Boundary and is within the side lines of the Unit Boundary, and extending twenty-five (25) to the rear, as shown on the approved final Concept Plan. Sidewalks and small gardens with no permanent structures may be proposed within the side yards subject to limitations set forth in the Master Deed.

No more than two (2) regulated woodland trees may be removed from the Accessory Unit Boundary to accommodate the construction or installation of any pool, or other accessory use. Removal of trees shall be subject to mitigation measures listed in all applicable ordinances. Additionally, no accessory uses shall be constructed within the regulated Wetland or Wetland Buffers shown in the approved Concept Plan. All accessory uses shall be constructed in accordance will applicable ordinances, laws and regulations.

Limitations on the construction of accessory uses, as set forth herein, shall be included within the Master Deed for the Development and shall be delineated on the Exhibit B, Condominium Subdivision Plan.

4. A minimum of 15 feet shall be maintained between two buildings.
5. A minimum of 30 feet shall be provided between the front façade of each home as measured from the back of the curb.
6. The applicant will work with staff to identify a proper location to connect to ITC trail, beyond the subject property line.
7. Except to the extent that limited clearing is authorized in accordance with an approved Preliminary Site Plan, and all applicable ordinances and regulations, including, but not limited to Section 6.1.4.F of the Zoning Ordinance, within the City's reasonable discretion, and a Hold Harmless Agreement acceptable to the City's Attorney is provided, Construction of the Development shall not be permitted to begin prior to completion of the City's Nine Mile sanitary sewer extension project, or alternately, subject to and in accordance with a plan for completion of alternate sanitary sewage disposal facilities, by Developer, at its own expense, which plan shall be reviewed and approved by the City's Engineering Division in accordance with the standards and procedures set forth by City ordinance.
8. Grading requirements for development shall be superseded based on the character of Nine Mile Road.
9. Retention ponds shall be completely screened for safety on all four sides and above the typical standards, as determined at the time of Preliminary Site Plan.
10. The City shall confirm that the proposed trailhead agreement will not negate already existing agreements.

11. The portion of asphalt paving on Nine Mile Road shall be constructed in a manner to reduce or eliminate issues of the interface between gravel and asphalt, to be reviewed and approved by City Engineer at the time of Preliminary Site Plan review.
12. The applicant shall conform to Woodland Ordinance requirements at the time of Preliminary Site Plan and Woodland permit review.
13. Minor modifications to the approved Planned Rezoning Overlay Concept Plan (PRO) can be approved administratively, upon determination by the City Planner, that the modifications are minor, do not deviate from the general intent of the approved PRO Concept plan and result in reduced impacts on the surrounding development and existing infrastructure.
14. Developer shall comply with all conditions listed in the staff and consultant review letters.

Previous City Council Consideration

The City Council granted tentative approval of the request at the July 23, 2018 meeting, and directed the City Attorney's Office to prepare a PRO Agreement.

City Council Action

Because the attached draft PRO Agreement is consistent with the rezoning with PRO requested, and tentatively approved by the City Council at the July 23, 2018 meeting, the City Council is now asked to consider the actual text of the Planned Rezoning Overlay Agreement and give final approval of the agreement, the PRO Plan and the rezoning. Following Council's final approval, the applicant will submit for Preliminary and Final Site Plan approval under standard site plan review procedures.

RECOMMENDED ACTION:

Final approval of the request of Cambridge of Novi, LLC, for Villa D'Este, JSP17-52, with Zoning Map Amendment 18.718, to rezone property in Sections 29 and 30 on the north side of Nine Mile Road, east of Napier Road from RA (Residential Acreage) to R-1 (One-Family Residential) **subject to the related Planned Rezoning Overlay (PRO) Agreement, and corresponding PRO Concept Plan**, and subject to the conditions listed in the staff and consultant review letters, and with any changes and/or conditions as discussed at the City Council meeting, with any final minor alterations required in the determination of the City Manager and City Attorney to be incorporated by the City Attorney's office prior to the execution of the final agreement. This motion is made for the following reasons:

1. The applicant has presented a reasonable alternative to the Master Plan for Land Use recommendation of 0.8 units to the acre (1.08 units to the acre proposed) for the parcel as indicated in the applicant's letter dated December 12, 2017, noting the appropriateness of an empty-nester residential development for the site given the layout of the plan, the proposed preservation of open space, the offer to provide an enhancement to public park facilities, and the provision for landscape or open space buffering on most sides of the development.
2. The proposed plan meets several objectives of the Master Plan, as noted later in this review letter, including:
 - a. *Maintain the semi-rural character of the southwest quadrant of the City that is created by low-density residential development and undeveloped land*

- (by protecting a majority of natural features on site and provides ample screening from Nine Mile Road).
- b. *Provide a wide range of housing options* (by being geared towards empty nesters, or those wishing to downsize from larger homes).
 - c. *Protect and maintain the City's woodlands, wetlands, water features, and open space* (by proposing to donate about 20 acres (40 %) of land with regulated woodlands and wetlands in the rear).
3. The City's Traffic Engineering Consultant has reviewed the Rezoning Traffic Impact Study and found that the proposed senior adult housing would produce 175 less trips per day than 40 single-family homes (as expected to be permitted under the RA zoning district, and the number of trips produced by the senior adult housing development is not expected to significantly impact Nine Mile Road.
 4. Submittal of a Concept Plan and any resulting PRO Agreement, provides assurance to the Planning Commission and to the City Council of the manner in which the property will be developed, and offers benefits that would not be likely to be offered under standard development options.

APPLICANT RESPONSE LETTER
SEPTEMBER 19, 2018

(FOR SEPTEMBER 24 CITY COUNCIL MEETING)



September 19, 2018

Ms. Barbara E. McBeth, AICP
Ms. Sri Komaragiri
City of Novi
45175 Ten Mile Road
Novi, Michigan 48375

Dear Ms. McBeth and Ms. Komaragiri:

Below is our response letter to City Comments from the September 17th review for Villa D'Este. Our comments are minor in nature and are for clarification purposes for this project.

1. **LIMITED COMMON AREA** - Area surrounding the Unit Boundary. Allowable uses in limited common area are fire pits, fireplaces, hot tubs, pools, patios, decks, sidewalks, driveways, fences, walls and gardens etc. All uses subject to City ordinances and Developer approval.
2. **BUILDABLE AREA** - The proposed Unit boundary as shown on page 2 of plans. Allowable uses in this area are Home, deck and allowable uses in Limited Common Area.
3. **UNIT BOUNDARIES** - Unit Boundaries may be combined as long as density stays at 41 or below.
4. **TREES** - Woodland replacement requirements have been reduced to 873 trees.
5. **CITY SIDEWALK FUND** - No payment required as developer is connecting to/ adding/ paying for part of the ITC trail.
6. **WATER MAIN** - To be looped at two locations off 9 mile road not Evergreen Estates.
7. **DETENTION BASIN ACCESS** - Developer may use grass pavers or concrete as access to detention basin.
8. **COMFORT STATION** - Developer agrees to pave parking lot but will not provide curb and gutter. Area is small and storm water can be sheet drained.
9. **CONSTRUCTION TIMING** - Developer will be allowed to proceed with tree clearing for phase 1 and mass grading for phase 1 prior to installation of the 9 mile sanitary sewer. For phase 2 developer would like the ability to stockpile soils at this location prior to and after completion of 9 mile sanitary sewer.

10. **REAL ESTATE SIGNS** - Development location has low visibility from a marketing perspective. We initially requested signs at 3 locations (9 mile & Garfield, 9 mile & Beck and 9 mile & Napier) Developer changes request to two real estate signs one at N/W corner of 8 mile and Garfield and one at N/W corner of 8 mile and Beck Road.

We agree to remaining items on consultant's letters.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark F. Guidobono', with a long horizontal line extending to the right.

Mark F. Guidobono

47765 Bellagio Drive • Northville, Michigan 48167

Phone: 248-348-3800 • Fax: 248-348-1340

APPLICANT RESPONSE LETTER
AUGUST 13, 2018



RECEIVED

AUG 16 2018

CITY OF NOVI
COMMUNITY DEVELOPMENT

August 13, 2018

Ms. Barbara E. McBeth, AICP
Ms. Sri Komaragiri
City of Novi
45175 Ten Mile Road
Novi, Michigan 48375

Dear Ms. McBeth and Ms. Komaragiri:

Attached is the latest submittal for Villa D'Este. Revisions are as follows:

- 1) We have shown entrance B per your request.
- 2) A minimum setback of 35' from unit footprint to rear property line is provided.
- 3) Solar panel locations have been added to the plan.
- 4) The ITC trail has been relocated to the north side of 9 Mile Road.
- 5) As per sketch on sheet 2, area beyond unit boundary is considered Common Element. At rear and sides of the unit, the Common Elements will be identified as Limited Common Element on the Condominium Exhibit B Documents. Allowable uses within the Limited Common Element, which must be approved by developer, are fire pits, fireplaces, hot tubs, pools, fences, walls, patios, sidewalks, decks and gardens.
 - a) Units 2, 4, 5, 9, 12, 17, 36, and 39 have expanded side yards for uses listed above. No disturbances are allowed in wetland or wetland buffer areas except as noted on plans.
- 6) Proposed unit boundaries can be combined, subject to developer approval.

We request approval for marketing signs at 9 Mile & Beck, 8 Mile & Garfield and Nine Mile & Napier due to lack of traffic and exposure at 9 Mile & Garfield roads. Locations are shown on plans. (see sheet 1)

We request to be allowed to proceed with construction of improvements for Villa D'Este as soon as we receive final site plan approval. We will not need sanitary sewer until spring of 2020. We will agree to a Hold Harmless with the city, and in the event of the unlikely scenario of something catastrophic happens and the gravity sewer can't be built, our backup plan would be a connection and upgrade to the Evergreen Estates pump station.

We propose to transplant 100 existing trees from the site that would count toward our tree count.

We would also like to request the ability to put in the basement for our model home prior to the completion of the improvements. Rough carpentry of the model would not begin until roads are paved and water has been turned on.

Sincerely

A handwritten signature in black ink, appearing to read 'Mark F. Guidobono', written in a cursive style.

Mark F. Guidobono

**APPLICANT RESPONSE LETTER
July 11, 2018**

(For July 23, Council Meeting)



July 11, 2018

Ms. Sri Komaragiri
Ms. Barbara E. McBeth, AICP
City of Novi Planning Commission
45175 Ten Mile Road
Novi, Michigan 48375

Dear Ms. Komaragiri and Ms. McBeth:

Below is our response to the review letters received on July 5th, 2018.

Garfield & Nine Mile Road Intersection:

We are open to either option A or B. With Option B, the original submittal will require that we fill 90' of the county drain. Option A, which shows no filling, has raised concerns from traffic regarding the location of the sidewalk to Nine Mile and shifting Nine Mile to the south. With Option A, we could fill 15' to 20' of the county drain which will allow us to leave Nine Mile in its current position and move the sidewalk further away from Nine Mile. This should address AECOM concerns. With Option A or B, the AC/DC lanes are not required due to low traffic volume. With either option A or B, we will work with staff to address all concerns.

Proposed Unit Boundary:

Only allowed items outside the proposed unit boundary are: driveways, sidewalks, at grade patios and fire pits, which must be approved by developer.

Comfort Station:

We agree to asphalt paving for the comfort station parking lot with no curb or gutter. Drainage will be to our onsite catch basin. Comfort station will be constructed with Phase I.

Construction Timetable:

We would like the ability to start tree clearing and mass grading once construction has started on the sanitary sewer on Nine Mile Road. We will agree to sign a Hold Harmless Agreement with the City of Novi.

Mail Boxes:

To be provided at each driveway.

Additional Community Benefit:

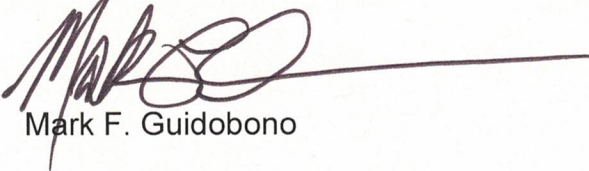
We agree to pay for the ITC trail north of Nine Mile to our eastern property line. We agree to upsize width of pathway to ten feet.

All additional comments can be addressed at preliminary and final site plan approval.

Our proposal impacts 7.5 acres of woodlands. If we were to submit a proposal for large lot single family homes, our proposal would impact 20-25 acres of woodlands. With this empty-nester proposal, we are preserving a majority of the natural features of this site, we are offering significant community benefits, and we are addressing a growing need in our community.

We respectfully request Novi City Council approval at this time.

Sincerely,



Mark F. Guidobono

DRAFT
PLANNED REZONING OVERLAY AGREEMENT

PLANNED REZONING OVERLAY (PRO) AGREEMENT
VILLA D'ESTE

AGREEMENT, by and among **CAMBRIDGE OF NOVI, LLC**, a Michigan limited liability company whose address is 47765 Bellagio Dr., Northville, MI 48167 (referred to as "**Developer**"); and the **CITY OF NOVI**, 45175 Ten Mile Road, Novi, MI 48375-3024 ("**City**").

RECITATIONS:

- I. Developer is the owner and developer of the vacant 50.61 acre property located on the east side of Napier Road and north side of Nine Mile Road, herein known as the "Land" described on **Exhibit A**, attached and incorporated herein.
- II. For purposes of improving and using the Land for a 41-unit residential subdivision at a maximum net density of 1.08 dwelling units per acre, to allow for development with smaller and narrower lots, and a slightly higher density than is permitted in the R-A Classification, Developer petitioned the City for an amendment of the Zoning Ordinance, as amended, so as to reclassify the Land from RA (Residential Acreage) to R-1 (One-Family Residential). The R-A classification shall be referred to as the "**Existing classification**" and R-1 shall be referred to as the "**Proposed Classification.**"
- III. The Proposed Classification would provide the Developer with certain material development options not available under the Existing Classification, and would be a distinct and material benefit and advantage to the Developer.
- IV. The City has reviewed and approved the Developer's proposed petition to amend the zoning district classification of the Land from the Existing Classification to the Proposed Classification under the terms of the Planned Rezoning Overlay (PRO) provisions of the City's Zoning Ordinance; has reviewed the Developer's proposed PRO Plan (including building façade, elevations, and design) attached hereto and incorporated herein as **Exhibit B** (the "PRO Plan"), which is a conceptual or illustrative plan for the potential development of the Land under the Proposed Classification, and not an approval to construct the proposed improvements as shown; and has further reviewed the proposed PRO conditions offered or accepted by the Developer and has determined that, the proposed conditions constitute an overall public benefit that outweighs the deviations, and that if the deviations were not granted, the denial would prohibit an enhancement of the development that would be in the public interest, and that approving the deviations would be consistent with the City Master Plan and compatible with the surrounding area

V. In proposing the Proposed Classification to the City, Developer has expressed as a firm and unalterable intent that Developer will develop and use the Land in conformance with the following undertakings by Developer, as well as the following forbearances by the Developer (each and every one of such undertakings and forbearances shall together be referred to as the “Undertakings”):

- A. Developer shall develop and use the Land solely for a residential subdivision not to exceed 41 units, at a maximum density of 1.08 dwelling units per acre, to the extent permitted under the Proposed Classification (the “Development”). Units may be combined thereby reducing the overall units permitted to less than 41- units provided that the homes proposed within the combined units are still in scale with the remaining homes and meet with the requirements of applicable City ordinances and the PRO Plan. The Development shall be constructed in two (2) phases in accordance with the Phasing Lines as contained on Exhibit B. Developer shall forbear from developing and/or using the Land in any manner other than as authorized and/or limited by this Agreement.

Developer shall develop the Land in accordance with all applicable laws and regulations, and with all applicable ordinances, including all applicable setback requirements of the Zoning Ordinance as relates to the Proposed Classification, except as expressly authorized herein. The PRO Plan is acknowledged by both the City and Developer to be a conceptual plan for the purpose of depicting the general area contemplated for development. Some deviations from the provisions of the City’s ordinances, rules, or regulations are depicted in the PRO Plan are approved by virtue of this Agreement; however, except as to such specific deviations enumerated herein, the Developer’s right to develop the 41-unit residential subdivision under the requirements of the Proposed Classification shall be subject to and in accordance with all applications, reviews, approvals, permits, and authorizations required under applicable laws, ordinances, and regulations, including, but not limited to, site plan approval, storm water management plan approval, woodlands and wetlands permits, façade approval, landscape approval, and engineering plan approval, except as expressly provided in this Agreement. Architectural standards shall be as set forth by the Developer in the Master Deed and Bylaws for the Development, and shall be subject to and in accordance with all applicable laws and ordinances; provided, however, that the architectural elevation and facades of the buildings as shown on the plans shall be the minimum standard; any deviations shall result in an equivalent or better products, as determined by the City’s façade consultant.

- B. In addition to any other ordinance requirements, Developer shall comply with all applicable ordinances for storm water and soil erosion requirements and measures throughout the site during the design and construction phases, and subsequent use, of the development contemplated in the Proposed Classification.

- C. The following PRO Conditions shall apply to the Land and/or be undertaken by Developer:
1. Owner/Developer shall provide the following Public Improvements in connection with the development of the Land:
 - a. Developer shall donate fee title, in the form of a Warranty Deed, to approximately 20.22 acres of land, as shown in the Concept Plan (the "Park Land"), to Novi for existing park system on or before January 15, 2019. The donation is for the purpose of expanding City parkland in the area of the Development. The Park Land will connect two additional parcels of City parkland. The City shall be permitted to make minor improvements in the area to propose a trail or accessory uses for a trail, and shall be permitted to combine the Park Land with adjacent City park land into a single unified parcel.
 - b. Developer shall construct an approximate .18 acre comfort station area for the ITC Trailhead in accordance with the drawings, attached and incorporated as Exhibit D (the "Comfort Station Improvements"). The Comfort Station shall include, but shall not be limited to parking spaces, a bike repair station and a picnic shelter, as set forth in Exhibit D. The Comfort Station will be constructed with Phase 1 of the Development, and shall be conveyed to the City for public ownership, operation, use and maintenance upon completion of the Comfort Station Improvements within 60 days of the completion and inspection of the improvements for consistency with the approved site plan.
 - c. Developer shall contribute to the construction of a portion of the ITC Trail along the north side of Nine Mile Road, in the amount of \$43,834.22, in order to provide for use by and in connection with the Development, as shown in the plans attached and incorporate as Exhibit E. The pathway shall comply with City design and construction standards, with minor modifications to be approved administratively, i.e. to modify the alignment for preservation of existing landscaping trees. Dedication of the Right of Way shall be completed on or before November 10, 2018.
 - d. In the event that the Michigan Department of Environmental Quality or any governmental agency requires Developer to provide a compensating cut for the purpose of creating additional floodplain for the Development, the City shall permit the Developer to create the compensating cut, at Developer's own expense, not to exceed 8,000 square feet in size, in a location mutually agreeable to the Developer and the City, including but not limited to locations within the Park Land described, generally, as N/W of the N/W detention basin and the wetland, or, alternatively, an area behind units 12-14. In the event that the compensating cut requires additional tree removal, Developer shall

be subject to the applicable woodland replacement standards as set forth the City's Woodland Ordinance.

2. The development shall be limited to a density of 1.08 dwelling units per acre with a maximum of 41 units as indicated on the PRO concept plan.
3. The proposed unit boundary, as shown on the approved final Concept Plan (sheet 02), ("Unit Boundary"), shall be considered the maximum allowable footprint. Any accessory uses including but not limited to, fire pits, fire places, hot tubs, pools, patios, sidewalks, landscaping walls, landscaping fences, decks and gardens may be included within the Unit Boundary as shown on the approved final site plan or within the rear yard area ("Accessory Unit Boundary"), which is the area beginning at the rear Unit Boundary and is within the side lines of the Unit Boundary, and extending twenty-five (25) to the rear, as shown on the approved final Concept Plan. Sidewalks and small gardens with no permanent structures may be proposed within the side yards subject to limitations set forth in the Master Deed.

No more than two (2) regulated woodland trees may be removed from the Accessory Unit Boundary to accommodate the construction or installation of any pool, or other accessory use. Removal of trees shall be subject to mitigation measures listed in all applicable ordinances. Additionally, no accessory uses shall be constructed within the regulated Wetland or Wetland Buffers shown in the approved Concept Plan. All accessory uses shall be constructed in accordance will applicable ordinances, laws and regulations.

Limitations on the construction of accessory uses, as set forth herein, shall be included within the Master Deed for the Development and shall be delineated on the Exhibit B, Condominium Subdivision Plan.

4. A minimum of 15 feet shall be maintained between two buildings.
5. A minimum of 30 feet shall be provided between the front façade of each home as measured from the back of the curb.
6. The applicant will work with staff to identify a proper location to connect to ITC trail, beyond the subject property line.
7. Except to the extent that limited clearing is authorized in accordance with an approved Preliminary Site Plan, and all applicable ordinances and regulations, including, but not limited to Section 6.1.4.F of the Zoning Ordinance, within the City's reasonable discretion, and a Hold Harmless Agreement acceptable to the City's Attorney is provided, Construction of the Development shall not be permitted to begin prior to completion of the City's Nine Mile sanitary sewer extension project, or alternately, subject to

and in accordance with a plan for completion of alternate sanitary sewage disposal facilities, by Developer, at its own expense, which plan shall be reviewed and approved by the City's Engineering Division in accordance with the standards and procedures set forth by City ordinance.

8. Grading requirements for development shall be superseded based on the character of Nine Mile Road.
9. Retention pond shall be completely screened for safety on all four sides and above the typical standards, as determined at the time of Preliminary Site Plan.
10. The City shall confirm that the proposed trailhead agreement will not negate already existing agreements.
11. The portion of asphalt paving on Nine Mile Road shall be constructed in a manner to reduce or eliminate issues of the interface between gravel and asphalt, to be reviewed and approved by City Engineer at the time of Preliminary Site Plan review.
12. The applicant shall conform to Woodland Ordinance requirements at the time of Preliminary Site Plan and Woodland permit review.
13. Minor modifications to the approved Planned Rezoning Overlay Concept Plan (PRO) can be approved administratively, upon determination by the City Planner, that the modifications are minor, do not deviate from the general intent of the approved PRO Concept plan and result in reduced impacts on the surrounding development and existing infrastructure.
14. Developer shall comply with all conditions listed in the staff and consultant review letters.

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. Upon the Proposed Classification becoming final following entry into this Agreement:
 - a. The Undertakings shall be carried out by Developer on and for the Land;
 - b. Developer shall act in conformance with the Undertakings;
 - c. The Developer shall forbear from acting in a manner inconsistent with the Undertakings; and
 - d. The Developer shall commence and complete all actions necessary to carry out all of the PRO Conditions.
2. The following deviations from the standards of the zoning ordinance are hereby authorized pursuant to §3402.D.1.c of the City's zoning ordinance.

- a. Planning Deviation from Sec. 3.1.2 of Zoning Ordinance for reduction of the minimum lot size, setbacks, minimum lot frontage and minimum site acreage as shown on the proposed concept plan provided that:
 - i. The proposed unit boundary shown on the concept plan (sheet 02) shall be considered the maximum allowable footprint. Any accessory uses shall be completed in accordance with paragraph V, 1, A, 3.
 - ii. A minimum of 15 feet shall be maintained between two buildings.
 - iii. A minimum of 30 feet shall be provided between the front façade and the back of the curb.
 - iv. Rear setbacks shall be as shown on the Concept Plan, based on the proposed boundary line of land to be donated to the City.
- b. Façade deviation from Sec 3.7, similar dissimilar ordinance, to replace internal calculation of square footage to a 2200 square foot minimum requirement for this development;
- c. Landscape deviation from Sec. 5.5.3.B.ii and iii of Zoning Ordinance for lack of berms along the westerly Nine Mile Road frontage and portions of the easterly frontage, due to existing natural features;
- d. Engineering deviation from Sec. 4.04, Article IV, Appendix C-Subdivision ordinance of City Code of Ordinances for absence of a stub street required at 1,300 feet intervals along the property boundary to provide connection to the adjacent property boundary, due to conflict with existing wetlands;
- e. Engineering deviation from Chapter 7.4.2.c(1) of Engineering Design manual for reducing the distance between the outside edge of the sidewalk and back of the curb: 15 feet required, 10 feet proposed;
- f. Engineering deviation for absence of sidewalk along a portion of Villa Drive, with payment into the City's sidewalk fund for the cost of the sidewalk not constructed;
- g. Engineering deviation for absence of curb and gutter for parking lot and driveway for the proposed comfort station from Sec. 11-239(b)(1),(2)of Novi City Code;
- h. Traffic deviation for not conforming to minimum required standards as indicated in Figure IX.5 of the City's Code of Ordinances for residential driveway, provided the applicant works with staff to minimize the number of driveways that deviate from the standard at the time of Preliminary Site Plan;
- i. Traffic deviation from Figure VIII-A in the City Code of Ordinances, for not providing the minimum width for local residential road for Villa D' Este Boulevard, the stretch from the entrance gates to the first intersection (28 feet required, 24 feet provided).
- j. Traffic deviation from Section 7.4.2.c (1) of Engineering Design Manual for not meeting the maximum distance between sidewalk and Right of Way line along Nine

Mile. A maximum of 1 foot is required for a small portion where it conflicts with existing wetland area;

- k. Deviation to allow alternate locations for street tree plantings to avoid conflict with the utility layout along the internal roads; and
 - l. Deviation for the location of accessory structures in an alternate location within the common area, as approved by the Planning Commission in accordance with the Preliminary Site Plan in order to allow the use of free standing solar panels as shown on the Revised Concept Plan to provide power to the access gate and outside lighting.
3. In the event Developer attempts to or proceeds with actions to complete improvement of the Land in any manner other than as 41-unit residential subdivision, as shown on **Exhibit B**, the City shall be authorized to revoke all outstanding building permits and certificates of occupancy issued for such building and use.
 4. Developer acknowledges and agrees that the City has not required the Undertakings. The Undertakings have been voluntarily offered by Developer in order to provide an enhanced use and value of the Land, to protect the public safety and welfare, and to induce the City to rezone the Land to the Proposed Classification so as to provide material advantages and development options for the Developer.
 5. All of the Undertakings represent actions, improvements, and/or forbearances that are directly beneficial to the Land and/or to the development of and/or marketing of a 41-unit residential subdivision on the Land. The burden of the Undertakings on the Developer is roughly proportionate to the burdens being created by the development, and to the benefit which will accrue to the Land as a result of the requirements represented in the Undertakings.
 6. In addition to the provisions in Paragraph 2, above, in the event the Developer, or its respective successors, assigns, and/or transferees proceed with a proposal for, or other pursuit of, development of the Land in a manner which is in material violation of the Undertakings, the City shall, following notice and a reasonable opportunity to cure, have the right and option to take action using the procedure prescribed by law for the amendment of the Master Plan and Zoning Ordinance applicable to the Land to amend the Master Plan and zoning classifications of the Land to a reasonable classification determined appropriate by the City, and neither the Developer nor its respective successors, assigns, and/or transferees, shall have any vested rights in the Proposed Classification and/or use of the Land as permitted under the Proposed Classification, and Developer shall be estopped from objecting to the rezoning and reclassification to such reasonable classifications based upon the argument that such action represents a “downzoning” or based upon any other argument relating to the approval of the Proposed Classification and use of the Land; provided, this provision shall not preclude Developer from otherwise challenging the reasonableness of such rezoning as applied to the Land.

7. By execution of this Agreement, Developer acknowledges that it has acted in consideration of the City approving the Proposed Classification on the Land, and Developer agrees to be bound by the provisions of this Agreement.
8. After consulting with an attorney, the Developer understands and agrees that this Agreement is authorized by and consistent with all applicable state and federal laws and Constitutions, that the terms of this Agreement are reasonable, that it shall be estopped from taking a contrary position in the future, and, that the City shall be entitled to injunctive relief to prohibit any actions by the Developer inconsistent with the terms of this Agreement.
9. This Agreement shall be binding upon and inure to the benefit of the parties to this Agreement and their respective heirs, successors, assigns and transferees, and an affidavit providing notice of this Agreement may be recorded by either party with the office of the Oakland County Register of Deeds.
10. Except with respect to appeals from the applicable standards of the City's Sign Ordinance, the Zoning Board of Appeals (ZBA) shall have no jurisdiction over the Property or the application of this Agreement until after site plan approval and construction of the development as approved therein.
11. No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. All remedies afforded in this Agreement shall be taken and construed as cumulative, that is, in addition to every other remedy provided by law.
12. This Agreement shall be governed by the laws of the State of Michigan, both as to interpretation and performance. Any and all suits for any and every breach of this Agreement may be instituted and maintained in any court of competent jurisdiction in the County of Oakland, State of Michigan.
13. This Agreement may be signed in counterparts.

{Signatures begin on following page}

CITY OF NOVI

By: _____
Robert J. Gatt, Mayor

By: _____
Cortney Hanson, Clerk

STATE OF MICHIGAN)
) ss
COUNTY OF OAKLAND)

On this ____ day of _____, 2018, before me appeared Robert J. Gatt and Cortney Hanson, who stated that they had signed this document of their own free will on behalf of the City of Novi in their respective official capacities, as stated above.

, Notary Public
County
Acting in County
My commission expires:

Drafted by:

Elizabeth Kudla Saarela
Johnson, Rosati, Schultz & Joppich
27555 Executive Drive, Suite 250
Farmington Hills, MI 48331-5627

When recorded return to:
Cortney Hanson, Clerk
City of Novi
45175 Ten Mile Road
Novi, MI 48375

MAPS

Location

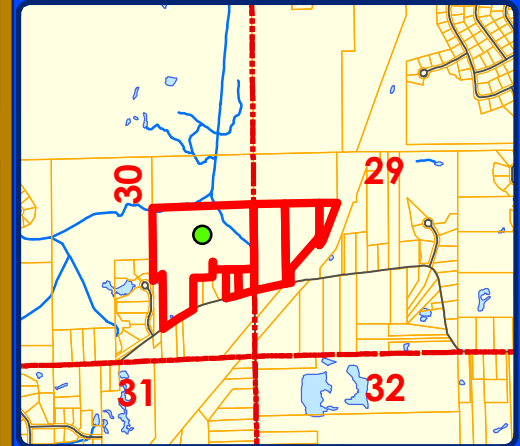
Zoning

Future Land Use

Natural Features

VILLA D'ESTE JSP17-52 WITH REZONING 18.718

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: 10/30/17
Project: VILLA D'ESTE JSP17-52 WITH REZONING 18.718
Version #: 1

0 80 160 320 480
Feet

1 inch = 378 feet

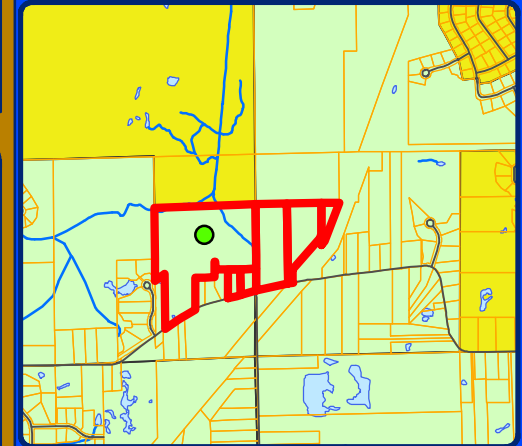
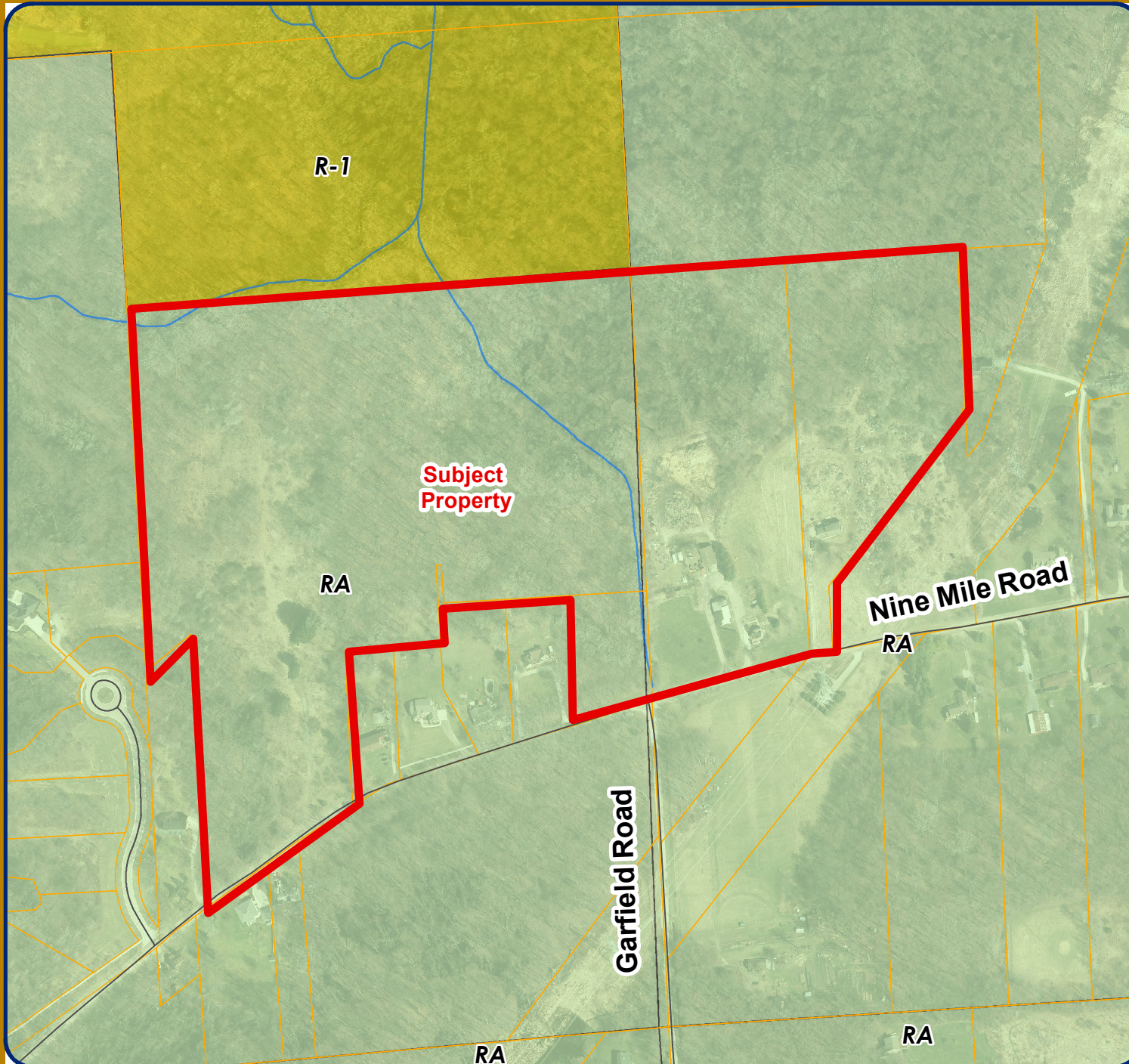


MAP INTERPRETATION NOTICE


Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

VILLA D'ESTE JSP17-52 WITH REZONING 18.718

Zoning



LEGEND

-  R-A: Residential Acreage
-  R-1: One-Family Residential District



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: 10/30/17
Project: VILLA D'ESTE JSP17-52 WITH REZONING 18.718
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1 inch = 378 feet

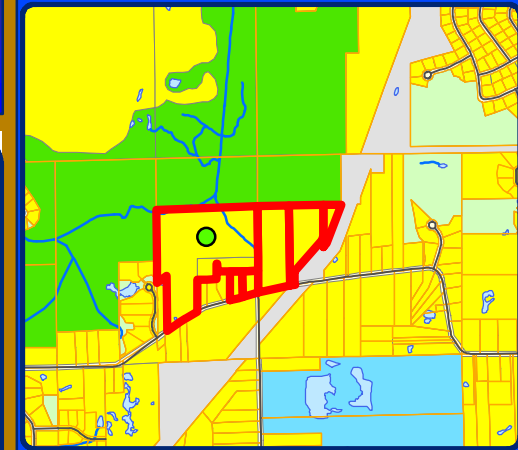
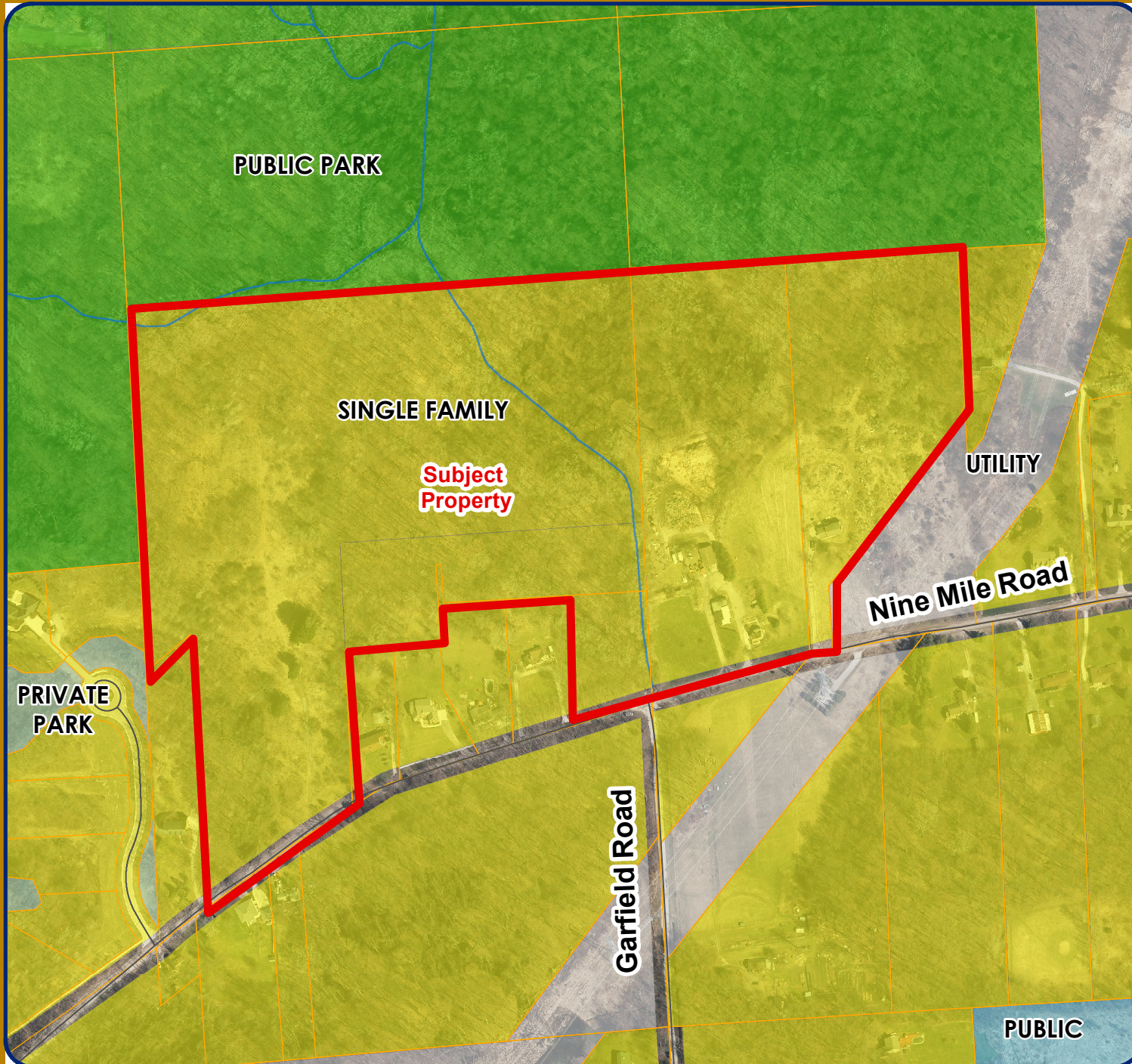


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VILLA D'ESTE JSP17-52 WITH REZONING 18.718

Future Land Use



LEGEND

- FUTURE LAND USE
- Single Family
 - Public
 - Public Park
 - Private Park
 - Utility



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: 10/30/17
Project: VILLA D'ESTE JSP17-52 WITH REZONING 18.718
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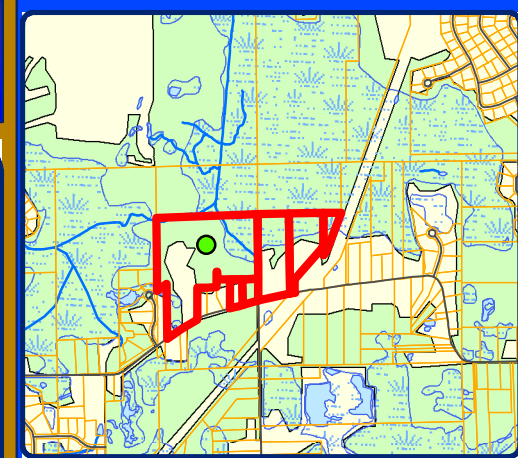
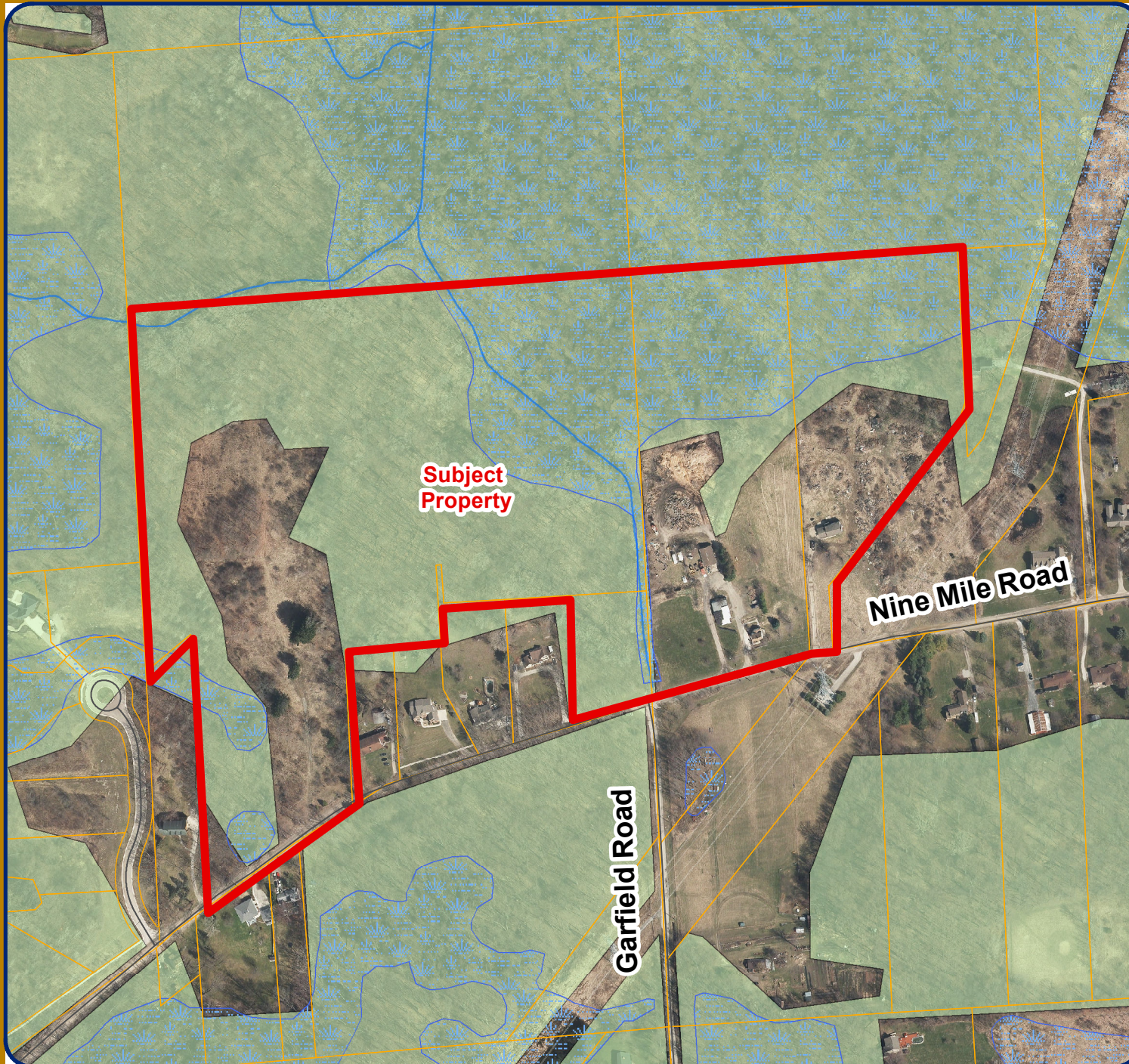


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VILLA D'ESTE JSP17-52 WITH REZONING 18.718

Natural Features



LEGEND

-  WETLANDS
-  WOODLANDS



City of Novi

Dept. of Community Development
City Hall / Civic Center
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**PRO CONCEPT PLAN
6TH REVISION: SUBMITTED DATE 8-21-18**

**(FULL PLAN SET AVAILABLE FOR VIEWING AT
THE COMMUNITY DEVELOPMENT DEPARTMENT)**



PRESERVED WOODLANDS

LAND DONATION 20.22 AC.

PRESERVED WOODLANDS

POCKET PARK

WILDLIFE CORRIDOR

GUEST PARKING

POCKET PARK

TRAIL CONNECTOR

BERM PLANTINGS

POCKET PARK

ADDITIONAL SCREENING

GUEST PARKING

TRAIL COMFORT STATION 0.18 AC.

PRESERVED WOODLANDS

NINE MILE ROAD

POCKET PARK

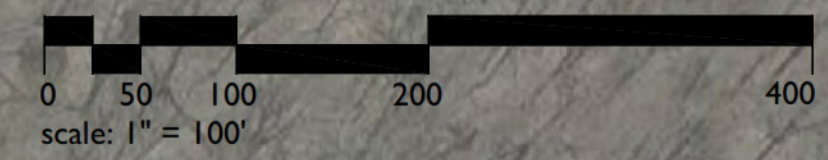
GATED BOULEVARD ENTRANCE

PRESERVED WOODLANDS

EMERGENCY ACCESS

ITC GREENWAY TRAIL

GARFIELD ROAD

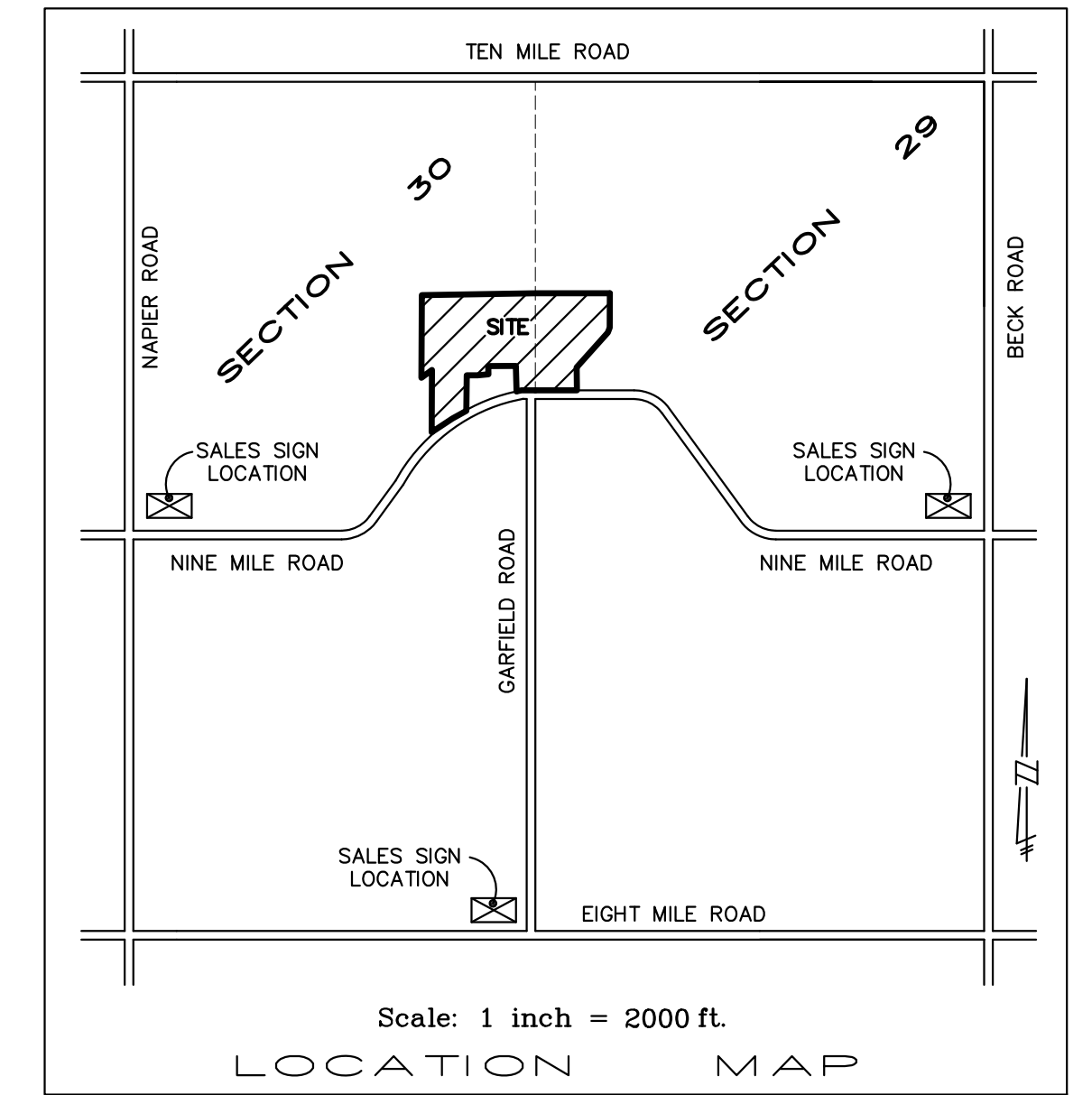


PLANNED REZONING OVERLAY (PRO) PLAN

VILLA D'ESTE

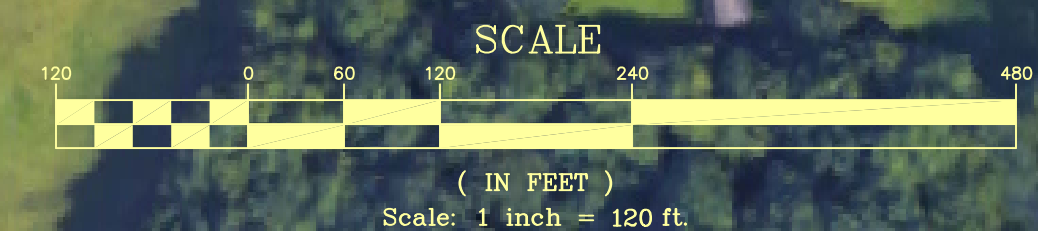
SECTION 29/30, TOWN 1 NORTH, RANGE 8 EAST,
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

PREPARED FOR:
CAMBRIDGE COMPANIES
47765 BELLAGIO DR.
NORTHVILLE, MICHIGAN 48167
PHONE: 248.248.3800



LEGAL DESCRIPTION:
PART OF THE SOUTHEAST 1/4 OF SECTION 30 AND THE SOUTHWEST 1/4 OF SECTION 29, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A POINT LOCATED N84°59'12"E 768.86 FEET ALONG THE NOMINAL CENTER LINE OF 9 MILE ROAD AND THE SOUTH LINE OF SECTION 30, AND CONTINUING ALONG THE APPARENT CENTER LINE OF 9 MILE, N54°40'45"E 637.01 FEET AND ALONG SAID CENTER LINE N48°01'41"E 66.00 FEET AND ALONG SAID CENTER LINE N53°30'11"E 95.52 FEET FROM THE SOUTH 1/4 CORNER OF SECTION 30; THENCE N02°57'55"W 718.50 FEET; THENCE S50°15'11"W 152.36 FEET TO THE EAST LINE OF EVERGREEN ESTATES, CONDOMINIUM PLAN NO. 1908 AS RECORDED IN LIBER 38483, PAGES 71 THROUGH 134, OAKLAND COUNTY RECORDS; THENCE CONTINUING ALONG THE EAST LINE OF EVERGREEN ESTATES N02°56'27"W 285.58 FEET TO THE NORTHEAST CORNER OF EVERGREEN ESTATES; THENCE N02°57'42"W 667.66 FEET; THENCE N85°45'28"E 1317.06 FEET TO THE EAST LINE OF SECTION 30 ALSO BEING THE WEST LINE OF SECTION 29; THENCE ALONG SAID LINE N02°55'33"W 0.79 FEET; THENCE N86°30'23"E 851.95 FEET TO THE WEST LINE OF THE INTERNATIONAL TRANSMISSION COMPANY CORRIDOR; THENCE ALONG THE WESTERLY LINE OF THE INTERNATIONAL TRANSMISSION COMPANY CORRIDOR FOR THE FOLLOWING 4 COURSES: S03°01'41"E 400.57 FEET AND S18°04'51"W 59.86 FEET AND S38°21'57"W 540.51 FEET AND S03°49'56"E 169.15 FEET TO THE NOMINAL CENTER LINE OF 9 MILE ROAD; THENCE ALONG SAID CENTER LINE S75°23'04"W 487.26 FEET TO THE WEST LINE OF SECTION 29 COMMON WITH THE EAST LINE OF SECTION 30; THENCE S02°55'33"E 1.18 FEET ALONG THE SECTION LINE COMMON TO SECTIONS 29 AND 30; THENCE ALONG THE NOMINAL CENTER LINE OF 9 MILE ROAD, S72°10'25"W 225.47 FEET; THENCE N03°29'24"E 94.19 FEET; THENCE S86°30'35"W 324.26 FEET; THENCE S03°29'24"E 94.19 FEET; THENCE S81°07'19"W 123.77 FEET; THENCE S87°09'55"W 126.82; THENCE S02°48'50"E 410.12 FEET TO THE NOMINAL CENTER LINE OF 9 MILE ROAD; THENCE ALONG SAID CENTER LINE S57°34'11"W 181.85 FEET; THENCE CONTINUING ALONG SAID CENTER LINE S53°31'53"W 288.11 FEET TO THE POINT OF BEGINNING. CONTAINING 50.61 ACRES AND SUBJECT TO THE RIGHTS OF THE PUBLIC ON 9 MILE ROAD.

SITE BENCHMARKS:
CITY OF NOVI BM #3041 962.14
NORTH FLANGE BOLT ON FIRE HYDRANT LOCATED 180 FEET SOUTHWEST OF INTERSECTION OF EVERGREEN ESTATES AND 9 MILE ROAD.
CITY OF NOVI BM #3042 963.43
SANITARY MANHOLE LOCATED IN FRONT ON WEST SIDE OF #49750 9 MILE ROAD.
CITY OF NOVI BM #3043
FOUND CUT BOX ON THE WEST END OF A CONCRETE HEADWALL OVER A NORTH TO SOUTH FLOWING DRAIN AT THE INTERSECTIONS OF 9 MILE AND GARFIELD.



WOODLAND PLANS PREPARED BY: ALLEN DESIGN, LLC
LANDSCAPE ARCHITECTURE
557 CARPENTER
NORTHVILLE, MICHIGAN 48167
PHONE: 248.467.4668

TOPOGRAPHIC & BOUNDARY SURVEY BY: JCK GROUP, INC.
8615 RICHARDSON ROAD,
COMMERCE TWP., MICHIGAN 48390
PHONE: 248.363.2550

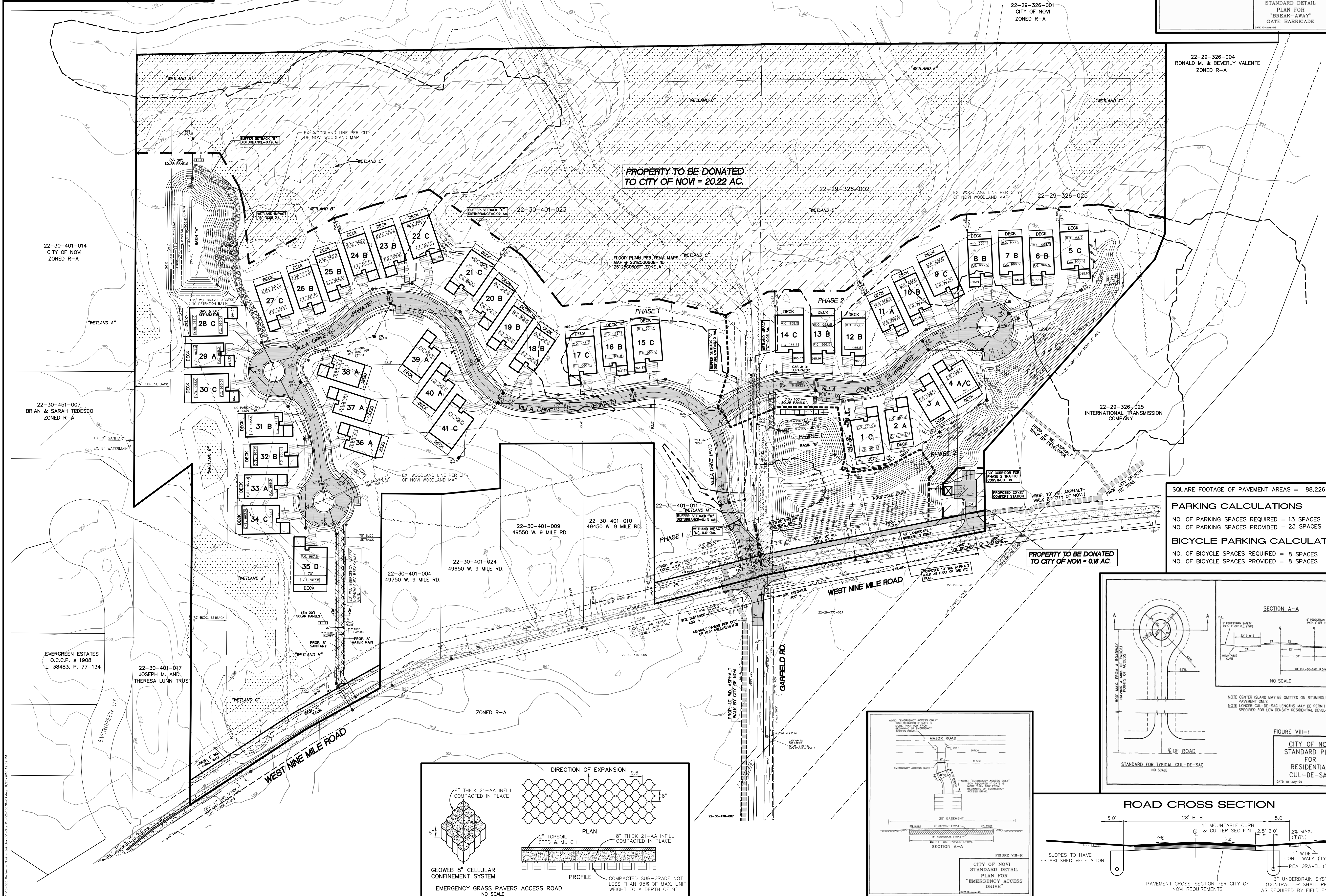
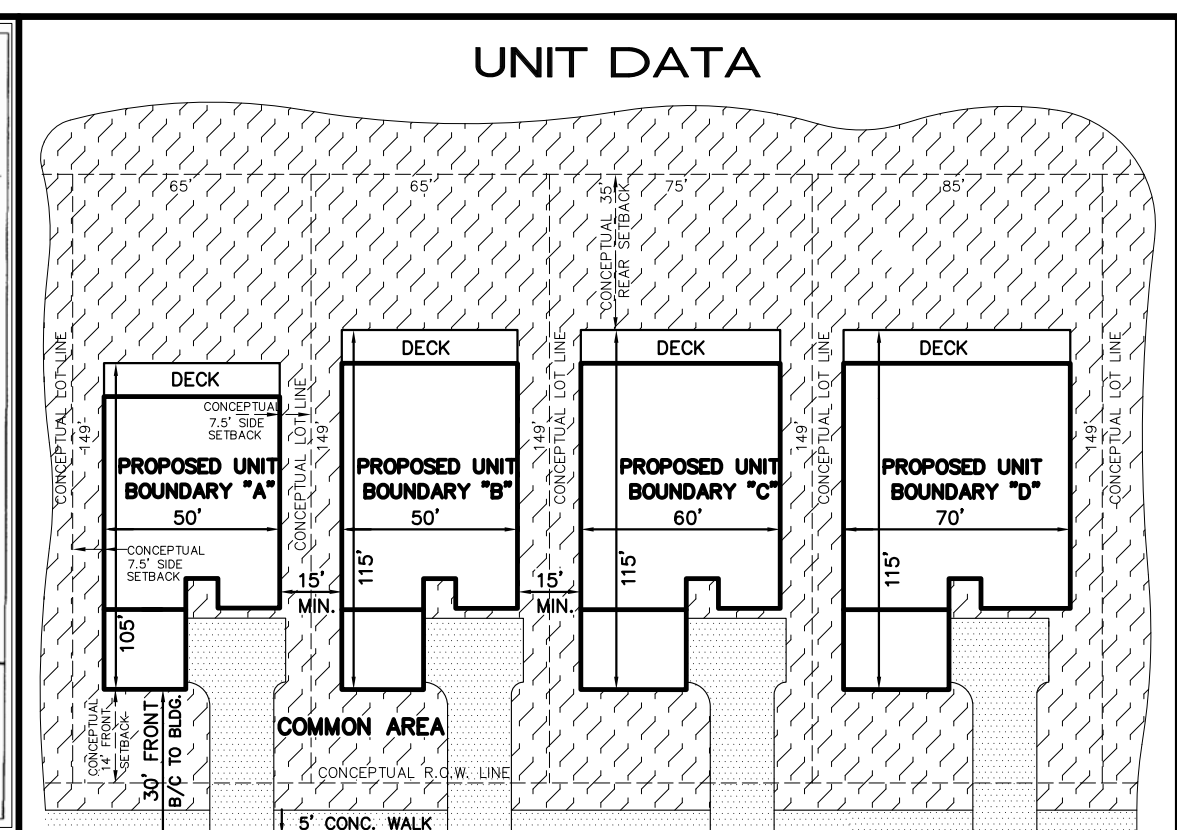
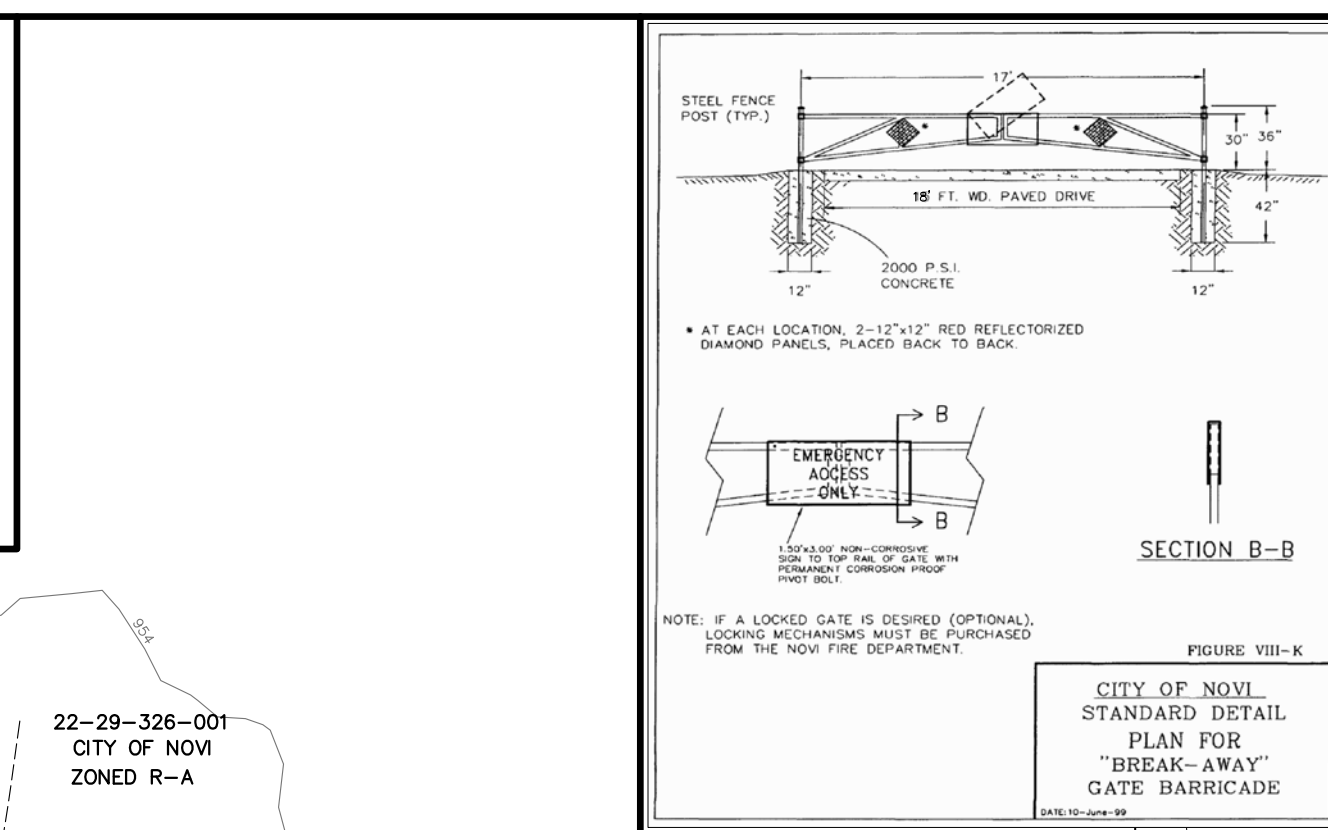
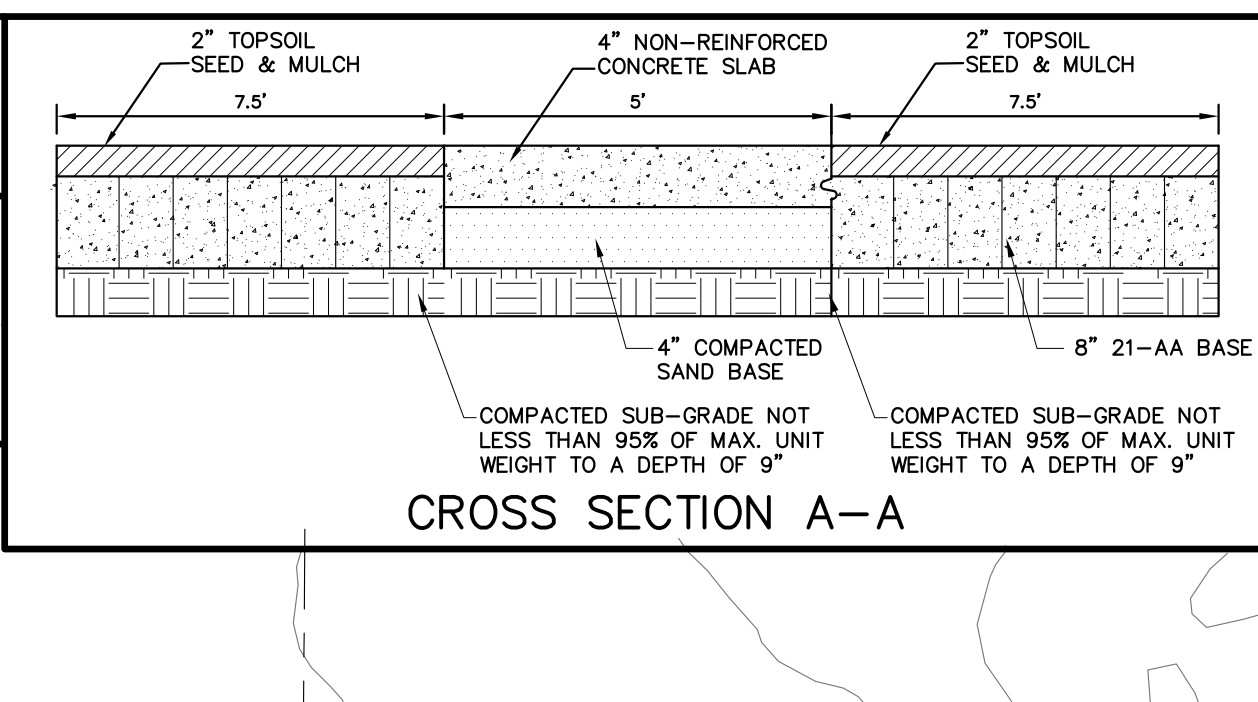
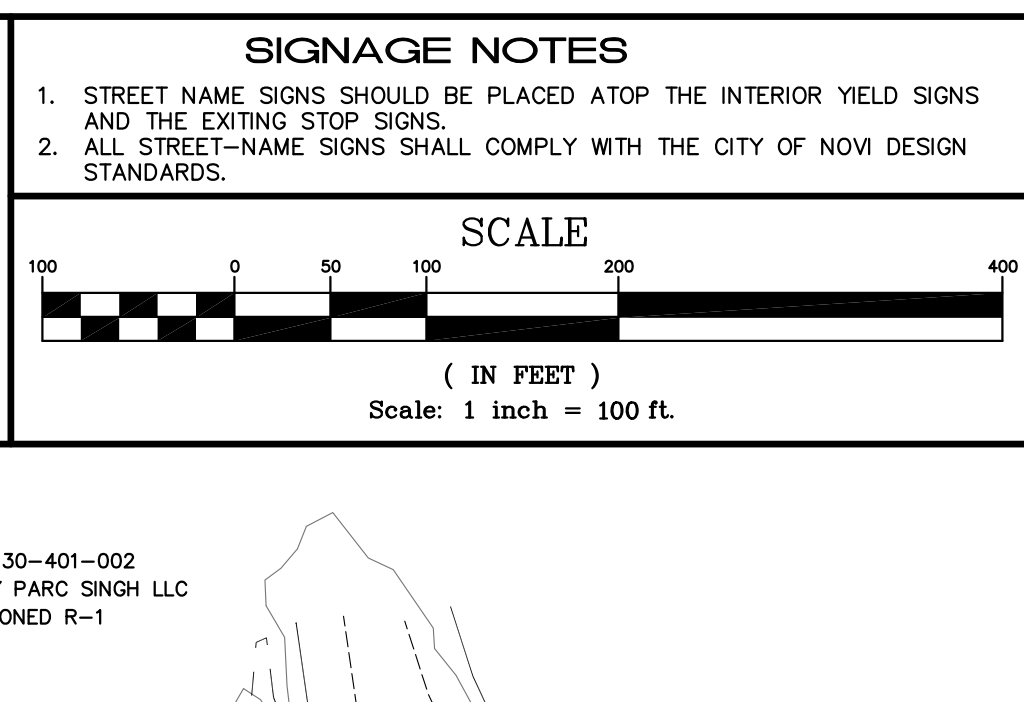
WETLAND FLAGGING PREPARED BY: WILSON ROAD GROUP, INC.
323 JEFFERSON
LAPEER, MICHIGAN 48446
PHONE: 810.664.6300

LANDSCAPE PLANS PREPARED BY: DEAK PLANNING + DESIGN
143 CADYCENTRE #79,
NORTHVILLE, MICHIGAN 48167
PHONE: 866.355.4204

ENGINEER'S SEAL		REVISIONS	
	NO.	ITEM	DATE
	1.	SUBMIT TO CITY	8-2-17
	2.	SUBMIT TO CITY	9-5-17
	3.	SUBMIT TO CITY	10-9-17
	4.	SUBMIT TO CITY	1-26-18
	5.	SUBMIT TO CITY	6-6-18
DESIGNED BY: A.A.			
CHECKED BY: P.K.			
JOB NUMBER: 15-030			
DRAWING FILE: 15-030-CV			
COVER SHEET			
SEIBER, KEAST ENGINEERING, L.L.C. CONSULTING ENGINEERS 100 MAINCENTRE • SUITE 10 • NORTHVILLE, MI • 48167 PHONE: 248.308.3331 EMAIL: info@seiberkeast.com			SHEET 1

REGULATED WETLAND	AREA (AC.)	WETLAND IMPACT AREA (AC.)	25' WETLAND BUFFER DISTURBANCE (AC.)
A	0.115	0	0
B	1.394	0.05	0.19
C	4.804	0.03	0.10
D	2.916	0	0
E	0.473	0	0
F	1.067	0	0
G	0.349	0	0
H	0.023	0	0
J	0.527	0	0
K	0.158	0	0
L	0.077	0	0
M	0.108	0.01	0.13
TOTAL:	12.011	0.09	0.42

SIGN LEGEND		
SYMBOL	DESCRIPTION	QUANTITY
○	"YIELD" SIGN (R1-2)	1 1
◐	"KEEP RIGHT" SIGN (R4-7A)	4 4
⊘	"NO PARKING ANY TIME" SIGN (R7-1)	12 8
⊘	"25 MPH SPEED LIMIT" SIGN (R2-1) (25)	1 1
⊘	"STOP" SIGN (R1-1 30")	1 1
⊘	"STREET NAME" SIGN (D3-1)	3 0
⊘	"NO OUTLET" SIGN (D3-1)	1 0



ALLOWABLE USES IN LIMITED COMMON ELEMENT AREAS (AT REAR AND SIDES ONLY) COULD INCLUDE FIRE PITS, FIREPLACES, HOT TUBS, POOLS PATIOS, SIDEWALKS, DECKS, GARDENS AND RELATED APPURTENANCES. SETBACKS TO THESE ITEMS TO COMPLY WITH R-1 ZONING SETBACKS.

SITE DATA

PROPOSED PLANNED REZONING OVERLAY (PRO)
CURRENT ZONING: "R-A"
ALLOWABLE DENSITY (GROSS) = 0.8 UNITS/ACRE

AREA GROSS = 50.61 ACRES
PROPOSED NO. OF UNITS = 41
PROPOSED DENSITY = 41/50.61 = 0.81 UNITS/ACRE

PROPOSED ZONING: "R-1"
ALLOWABLE DENSITY (GROSS) = 1.65 UNITS/ACRE

PROPOSED DENSITY EXCLUDING WETLANDS

ON-SITE WETLAND AREA	= 12.01 AC.
AREA NET	= 50.61 - 12.01 = 38.60 AC.
NET DENSITY (EXCLUDING WETLANDS)	= 41/38.60 = 1.06 UNIT/ACRE

- PROPOSED IMPROVEMENTS**
- WOODLANDS PLAN, TREE INVENTORY REMOVAL & REPLACEMENT PLAN ARE PROVIDED WITH THIS PRO PLAN SET.
 - MUNICIPAL SEWER TO BE PROVIDED BY CONNECTING TO A PROPOSED SANITARY SEWER (BY OTHERS) TO BE LOCATED ALONG THE SOUTH SIDE OF 9 MILE ROAD.
 - MUNICIPAL WATER TO BE PROVIDED BY CONNECTING TO AN EXIST. WATER MAIN LOCATED ALONG THE NORTH SIDE OF 9 MILE ROAD WITH TWO CONNECTIONS COMPLETING A LOOPED SYSTEM. ALL INTERNAL WATER MAINS TO BE 8" DIA.
 - STORM WATER DETENTION SHALL BE PROVIDED ON SITE.
 - 5' WIDE CONCRETE SIDEWALKS SHALL BE CONSTRUCTED ON BOTH SIDES OF INTERIOR ROADWAYS AS SHOWN. ALSO AN 8' WIDE ASPHALT WALK SHALL BE CONSTRUCTED ALONG 9 MILE ROAD, EAST OF GARFIELD RD. ALL SIDEWALK STUBS SHALL BE PROVIDED WITH RAMPS & DETECTABLE WARNING SURFACES.
 - ALL ROADWAYS TO BE PRIVATE.
 - A CITY OF NOVI RIGHT-OF-WAY PERMIT IS REQUIRED FOR WORK WITHIN ANY PUBLIC ROAD RIGHT-OF-WAY.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
(Hatched pattern)	(Hatched pattern)	PAVEMENT (ASPHALT)
(Hatched pattern)	(Hatched pattern)	SIDE WALK (CONCRETE)
(Hatched pattern)	(Hatched pattern)	CONCRETE CURB AND GUTTER
(Hatched pattern)	(Hatched pattern)	STORM SEWER
(Hatched pattern)	(Hatched pattern)	SANITARY SEWER
(Hatched pattern)	(Hatched pattern)	WATER MAIN
(Hatched pattern)	(Hatched pattern)	MANHOLE
(Hatched pattern)	(Hatched pattern)	CATCH BASIN W/STREAM GUARD
(Hatched pattern)	(Hatched pattern)	CURB INLET W/SILT SAC
(Hatched pattern)	(Hatched pattern)	END SECTION
(Hatched pattern)	(Hatched pattern)	GATE VALVE
(Hatched pattern)	(Hatched pattern)	HYDRANT
(Hatched pattern)	(Hatched pattern)	FLOOD PLAIN
(Hatched pattern)	(Hatched pattern)	CONTOURS
(Hatched pattern)	(Hatched pattern)	SPOT ELEVATION

VILLA D'ESTE
SECTION 29/30, TOWN 1 NORTH, RANGE 8 EAST
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

DATE: 08-2-17 DESIGNED BY: A.A. JOB NUMBER: 15-030
CHECKED BY: P.K. DRAWING FILE: 15-030-0A

REVISIONS

NO.	ITEM	DATE
1.	SUBMIT TO CITY	8-2-17
2.	SUBMIT TO CITY	9-5-17
3.	SUBMIT TO CITY	10-9-17
4.	SUBMIT TO CITY	1-26-18
5.	SUBMIT TO CITY	4-10-18
6.	SUBMIT TO CITY	6-7-18
7.	SUBMIT TO CITY	8-5-18

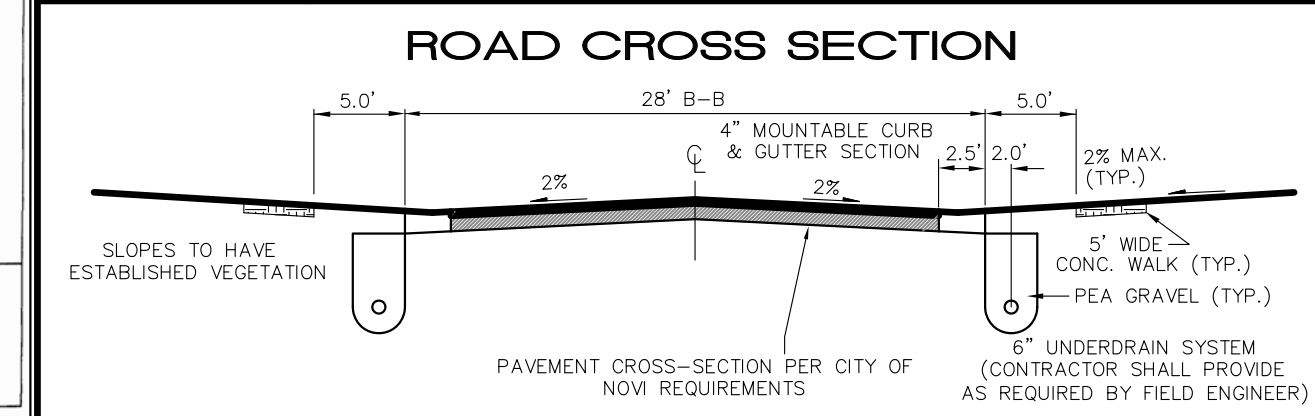
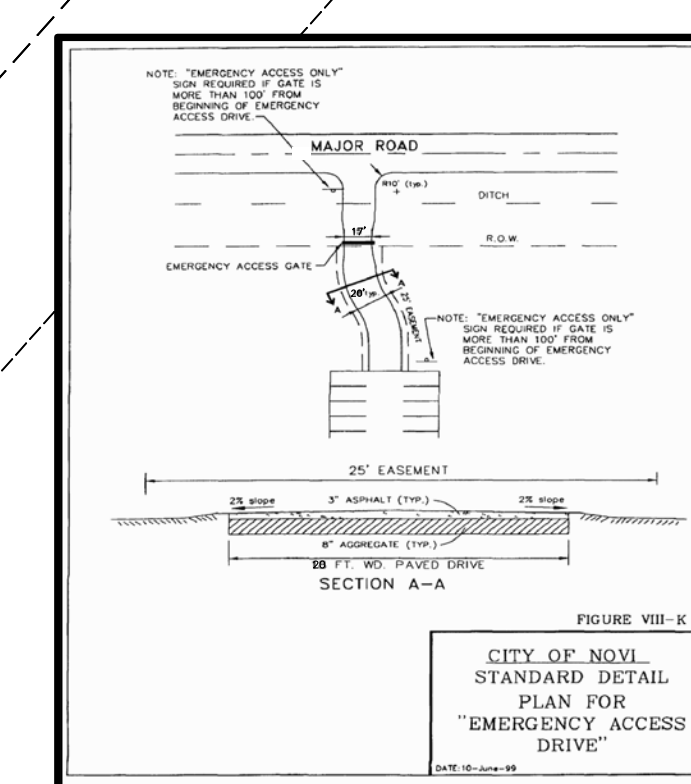
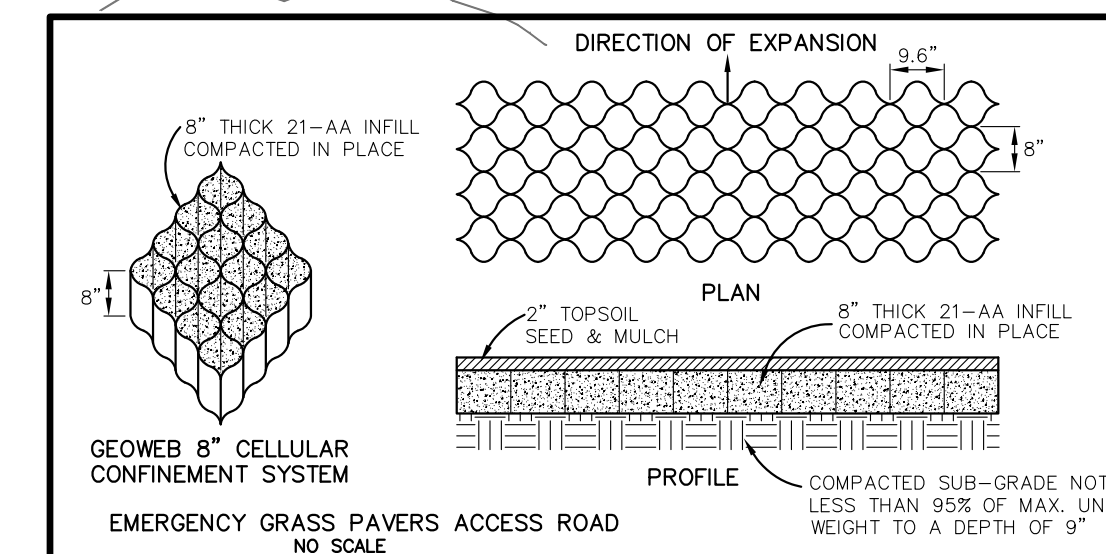
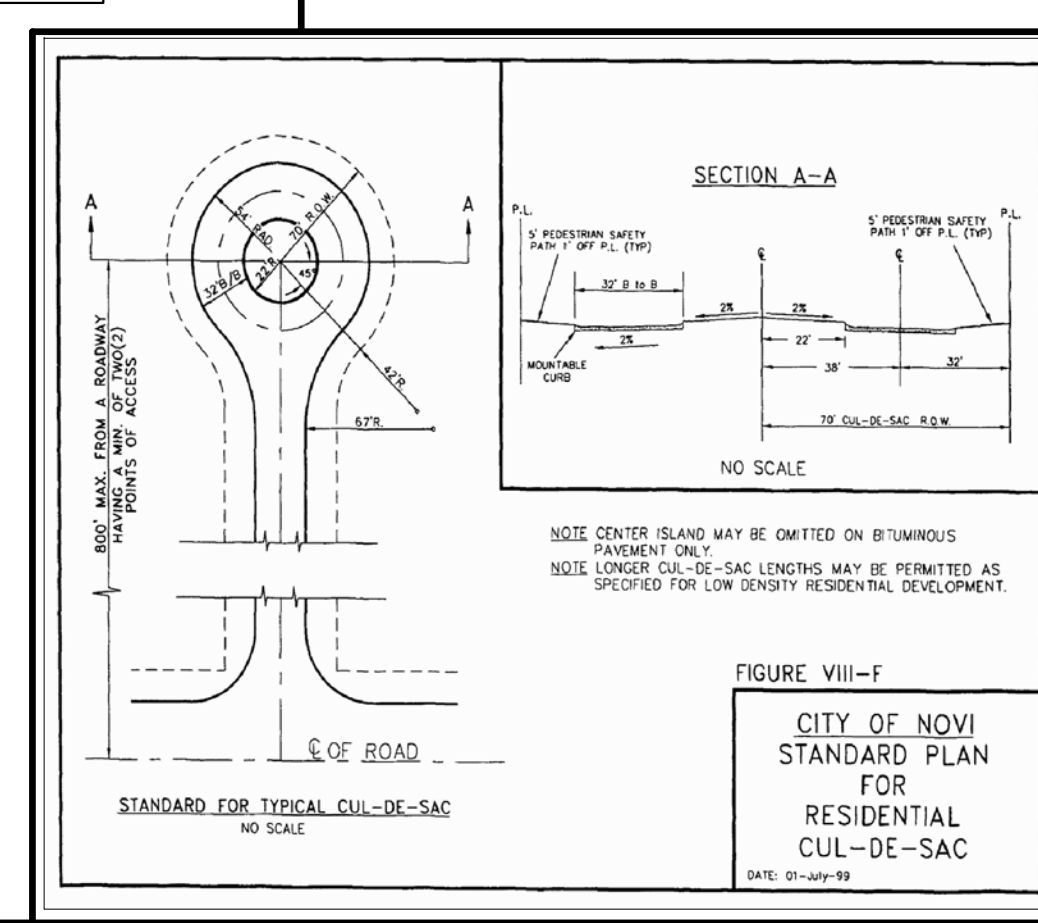
OVERALL PLAN

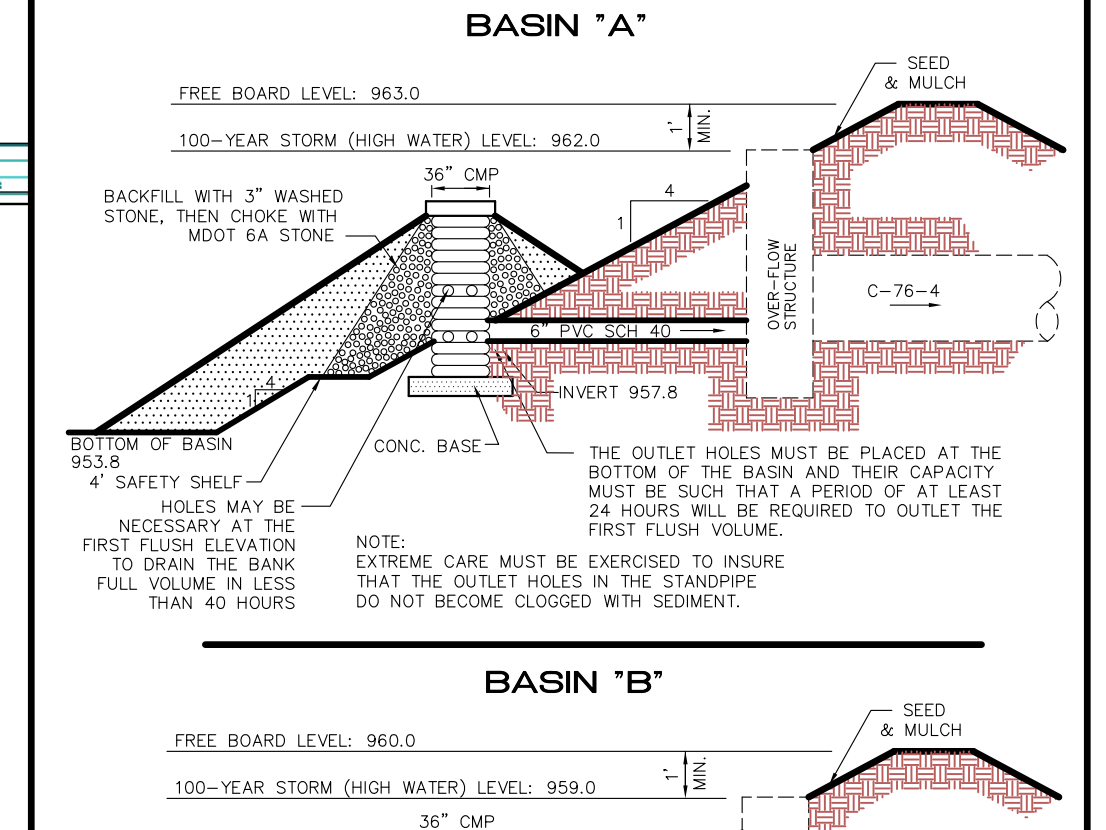
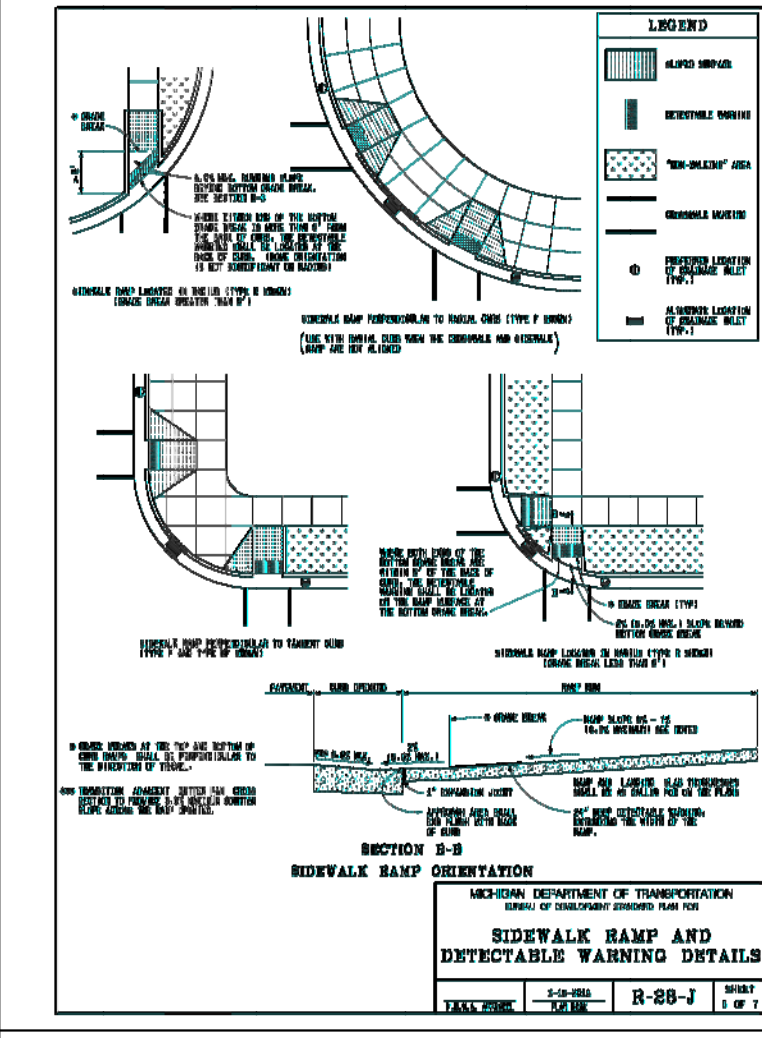
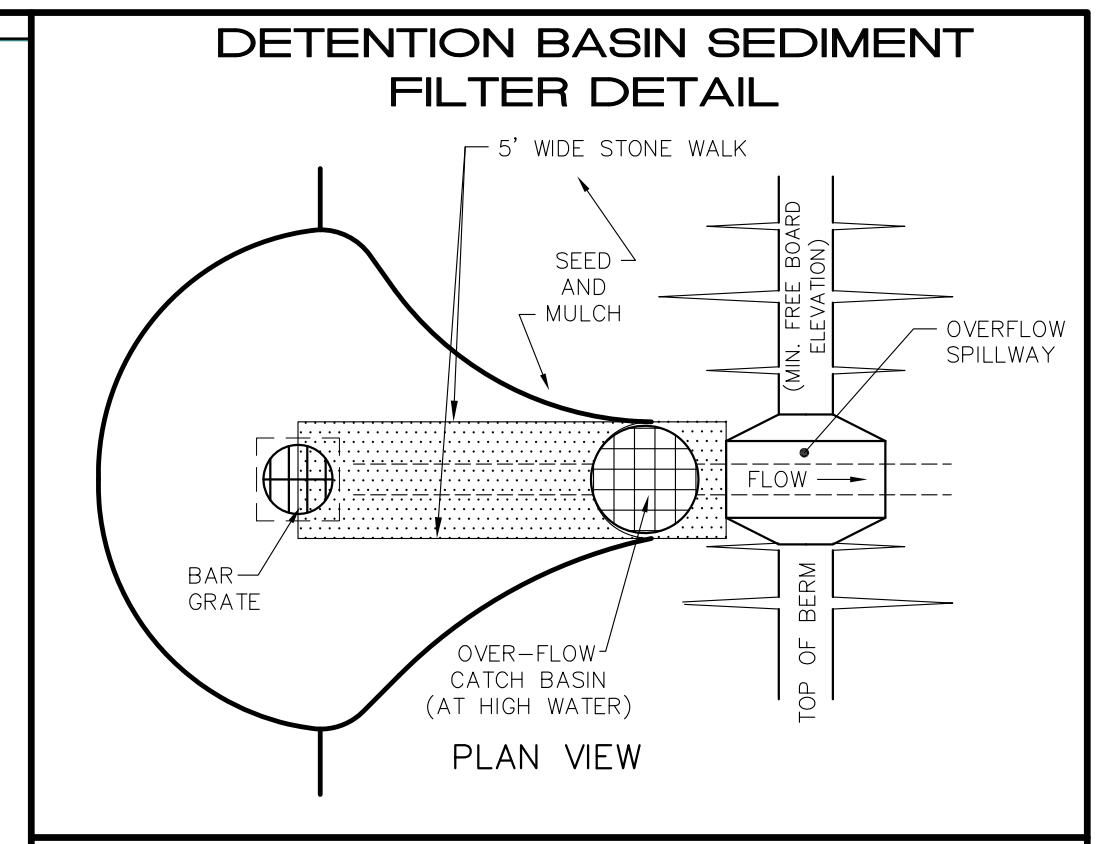
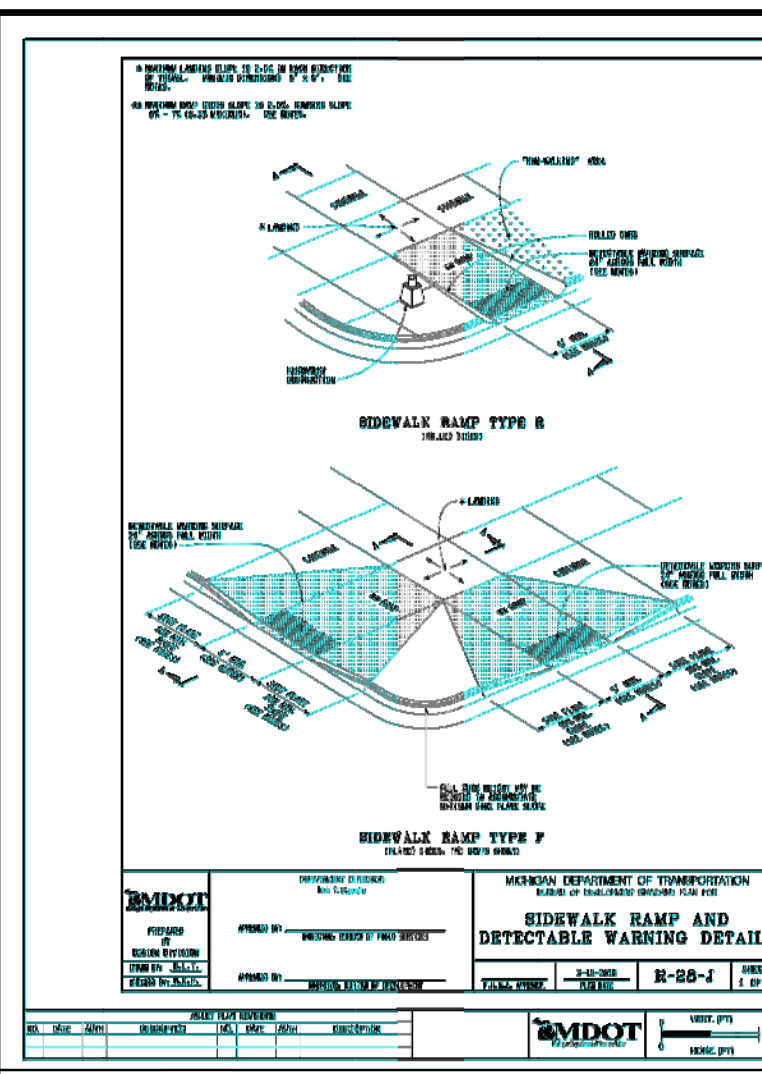
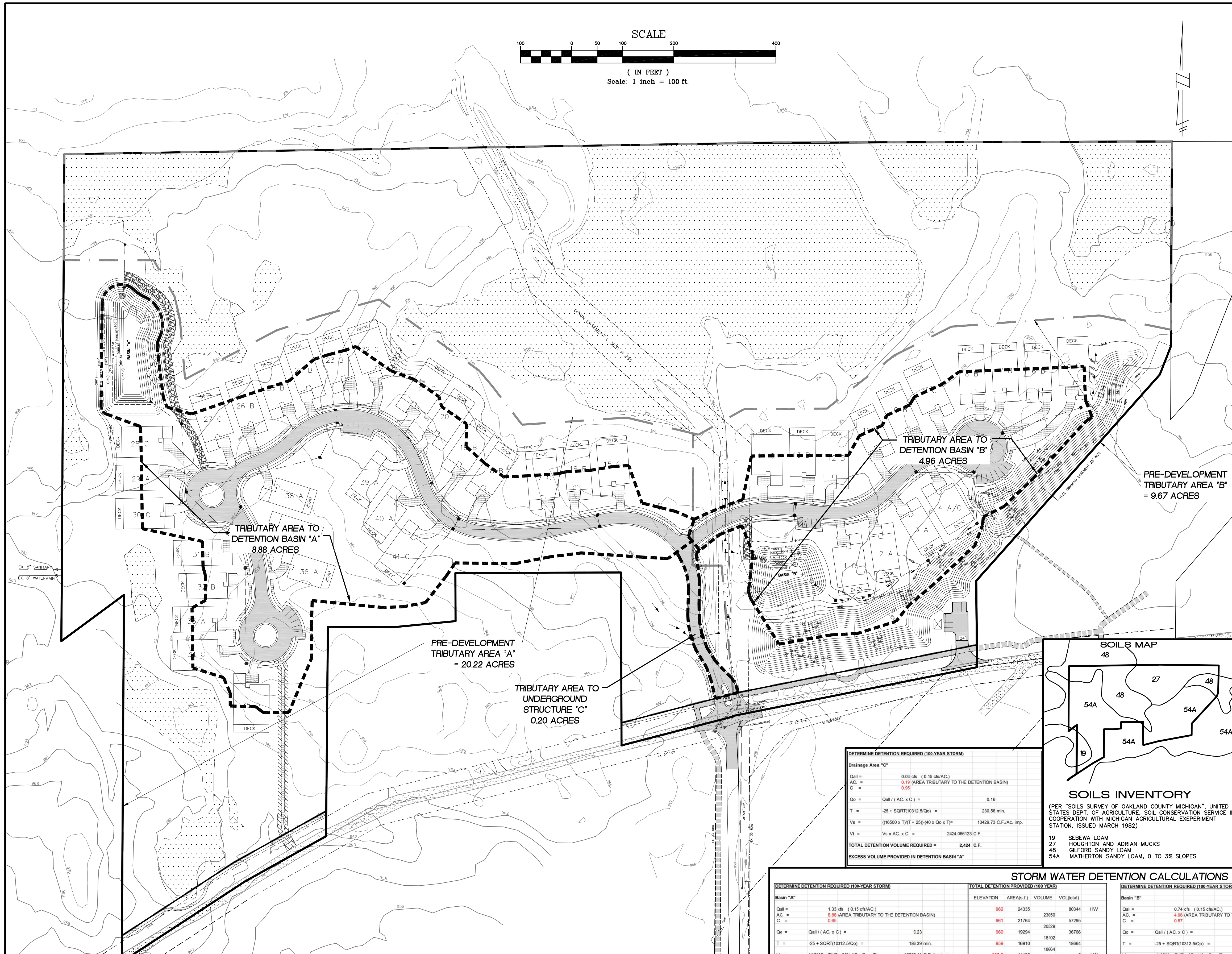
SEIBER, KEAST ENGINEERING, L.L.C.
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100 MAINCENTRE + SUITE 10 • NORTHVILLE, MI • 48167
PHONE: 248.308.3331 EMAIL: info@seiberkeast.com

SHEET 2

PARKING CALCULATIONS
NO. OF PARKING SPACES REQUIRED = 13 SPACES
NO. OF PARKING SPACES PROVIDED = 23 SPACES

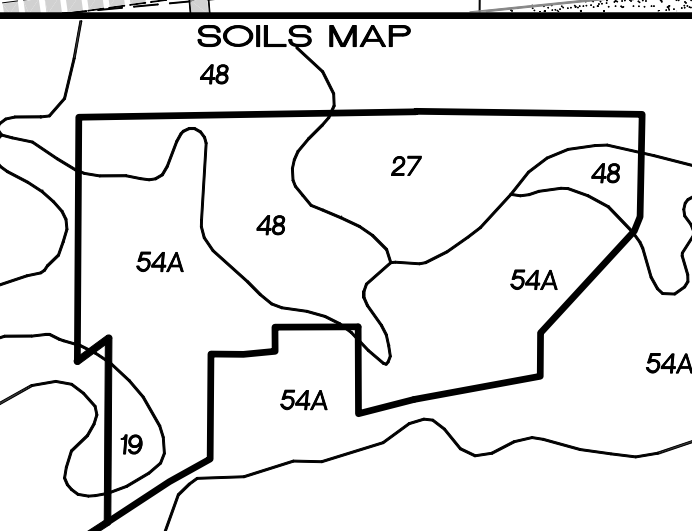
BICYCLE PARKING CALCULATIONS
NO. OF BICYCLE SPACES REQUIRED = 8 SPACES
NO. OF BICYCLE SPACES PROVIDED = 8 SPACES





DETERMINE DETENTION REQUIRED (100-YEAR STORM)

Drainage Area "C"	0.03 cfs (0.15 cfs/AC)
AC =	0.16 (AREA TRIBUTARY TO THE DETENTION BASIN)
C =	0.95
Co =	Qall / (AC x C) = 0.16
T =	-25 + SQRT(10312.5/Co) = 230.56 min.
Vs =	(16500 x T)(T + 25)(40 x Co x T)^2 = 13429.73 C.F./Ac. imp.
Vt =	Vs x AC x C = 2424.069123 C.F.
TOTAL DETENTION VOLUME REQUIRED =	2,424 C.F.
EXCESS VOLUME PROVIDED IN DETENTION BASIN "A"	



SOILS INVENTORY
(PER "SOILS SURVEY OF OAKLAND COUNTY MICHIGAN", UNITED STATES DEPT. OF AGRICULTURE, SOIL CONSERVATION SERVICE IN COOPERATION WITH MICHIGAN AGRICULTURAL EXPERIMENT STATION, ISSUED MARCH 1982)

19 SEBEWA LOAM
27 HOUGHTON AND ADRIAN MUCKS
48 GILFORD SANDY LOAM
54A MATHERTON SANDY LOAM, 0 TO 3% SLOPES

C-Factor Determination for Basin "A"
Tributary Area = 8.88 Ac.

Impervious Areas	
Sidewalks =	0.26 Ac.
Roads =	1.22 Ac.
Houses and Driveways =	2.66 Ac.
at C = 0.95	
Pervious Areas	
Lawn Areas =	4.42 Ac. at C = 0.35
Low Water	0.32 Ac. at C = 1.00
C Avg. = 0.65	

C-Factor Determination for Basin "B"
Tributary Area = 4.96 Ac.

Impervious Areas	
Sidewalks =	0.14 Ac.
Roads =	0.59 Ac.
Houses and Driveways =	0.92 Ac.
at C = 0.95	
Pervious Areas	
Lawn Areas =	3.15 Ac. at C = 0.35
Low Water	0.16 Ac. at C = 1.00
C Avg. = 0.57	

- MAINTENANCE SCHEDULE:**
- THE PROPERTY OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF THE DETENTION BASIN. MAINTENANCE SHOULD BE PERFORMED FOLLOWING ANY STORM AND SHOULD INCLUDE:
- CHECKING THE DEPTH OF SEDIMENT DEPOSIT TO ENSURE THE CAPACITY OF THE BASIN IS ADEQUATE FOR STORM WATER AND SEDIMENT DEPOSITION, AND FOR THE REMOVING OF SEDIMENT.
 - CHECKING THE BASIN FOR PIPING, SEEPAGE, OR OTHER MECHANICAL DAMAGE.
 - CHECKING FOR THE PRESENCE OF ANY SOIL CAKING, WHICH WOULD PREVENT PROPER DRAINAGE FROM THE BASIN.
 - CHECKING THE OUTFALL TO ENSURE DRAINAGE IS NOT CAUSING ANY ROSIVE VELOCITIES AND TO ENSURE THE OUTFALL IS NOT CLOGGED.
 - ANY PROBLEM DISCOVERED DURING THE MAINTENANCE CHECKS SHOULD BE ADDRESSED IMMEDIATELY.
 - SEDIMENT REMOVED DURING CLEANING SHOULD BE PLACED AT AN UPLAND AREA AND STABILIZED SO THAT IT DOES NOT RE-ENTER THE DRAINAGE COURSE.

PEAK FLOW RUNOFF CALCULATIONS

PEAK FLOW RUNOFF CALCULATIONS

(100 year) = 275/(t+25); where t = 20 minutes

Area A
Q (Existing) Q = CIA = 0.15 x (275/(t+25)) x 20.22 = 18.53 cfs
Q (Proposed) Q = 1.34 cfs

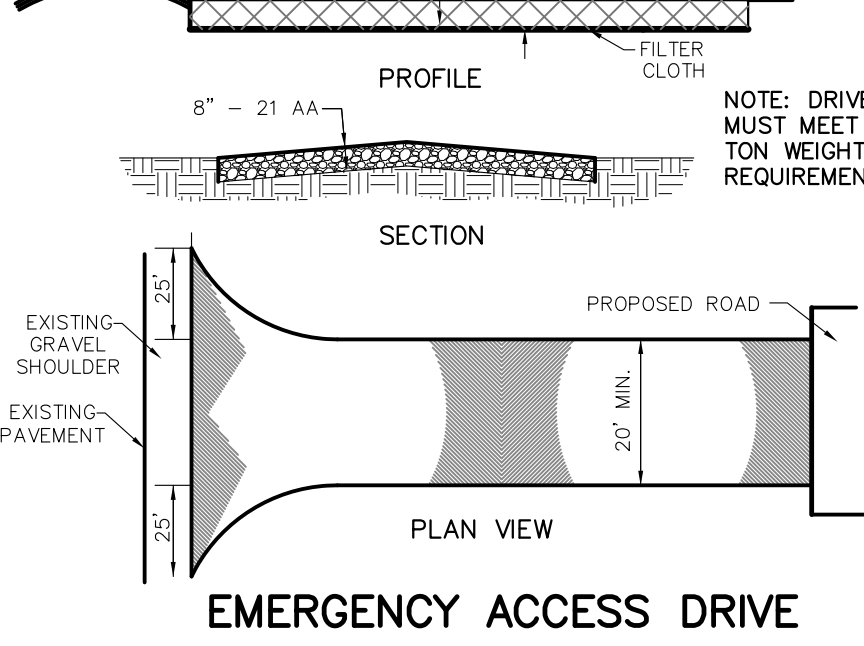
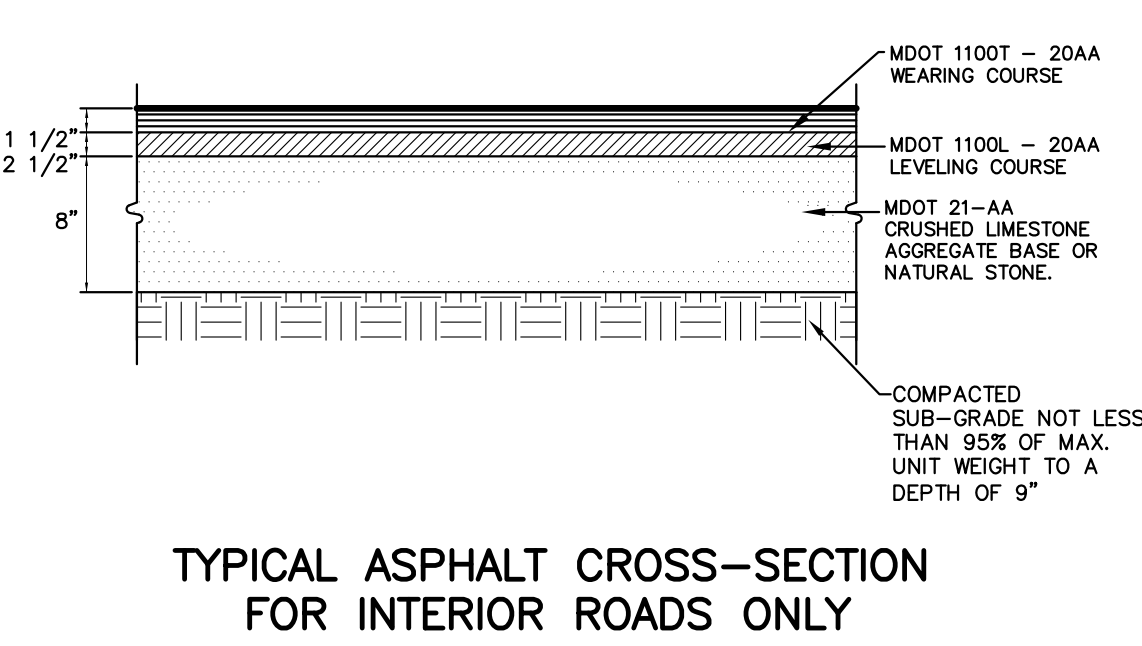
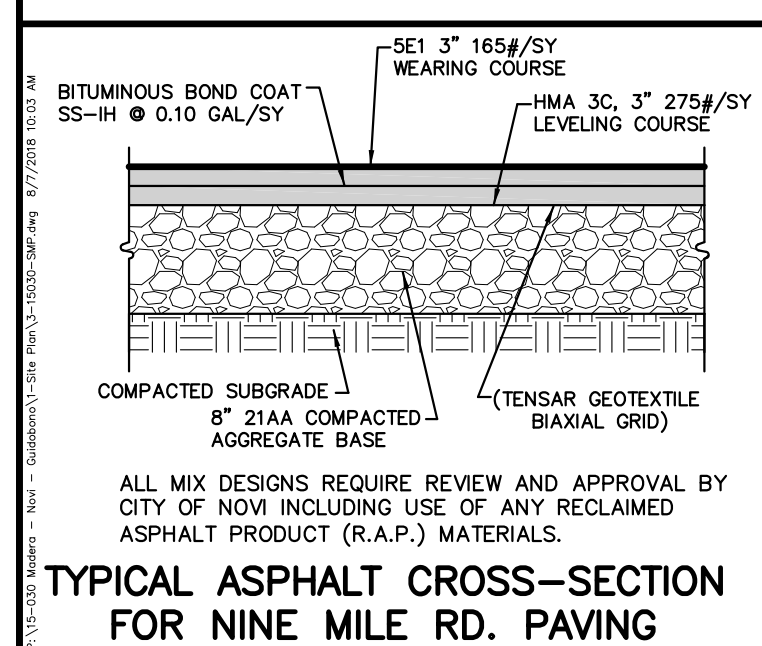
Area B
Q (Existing) Q = CIA = 0.15 x (275/(t+25)) x 9.67 = 8.86 cfs
Q (Proposed) Q = 0.84 cfs

STORM WATER DETENTION CALCULATIONS

DETERMINE DETENTION REQUIRED (100-YEAR STORM)				TOTAL DETENTION PROVIDED (100-YEAR)						
Basin "A"	Drainage Area	ELEVATION	AREAS (f)	VOLUME	VOLtotal	ELEVATION	AREAS (f)	VOLUME	VOLtotal	
Qall =	1.33 cfs (0.15 cfs/AC)	962	24325	23650	80344 HW	961	21764	20529	57295	
AC =	8.88 (AREA TRIBUTARY TO THE DETENTION BASIN)	961	21764	20529	37696	960	19294	18102	18664	
C =	0.65	959	16910	15102	18664	Vs =	(16500 x T)(T + 25)(40 x Co x T)^2 = 12828.11 C.F./Ac. imp.	967.8	14196	18664
Co =	Qall / (AC x C) =					Vt =	Vs x AC x C =			
T =	-25 + SQRT(10312.5/Co) =						7404.83691 C.F.			
Vs =	(16500 x T)(T + 25)(40 x Co x T)^2 =					TOTAL DETENTION VOLUME REQUIRED =	74,041 C.F.			
Vt =	Vs x AC x C =					TOTAL DETENTION VOLUME PROVIDED =	80,344 C.F.			
TOTAL DETENTION VOLUME REQUIRED =	74,041 C.F.									
EXCESS VOLUME PROVIDED IN DETENTION BASIN "A"										

STORM WATER DETENTION CALCULATIONS

DETERMINE DETENTION REQUIRED (100-YEAR STORM)				TOTAL DETENTION PROVIDED (100-YEAR)					
Basin "B"	Drainage Area	ELEVATION	AREAS (f)	VOLUME	VOLtotal	ELEVATION	AREAS (f)	VOLUME	VOLtotal
Qall =	0.74 cfs (0.15 cfs/AC)	959	13017	12173	39256 HW	958	11328	10534	27083
AC =	4.96 (AREA TRIBUTARY TO THE DETENTION BASIN)	957	9740	8995	16549	956	8249	7555	7555
C =	0.57	955	6860	7955	0 LW	Vs =	(16500 x T)(T + 25)(40 x Co x T)^2 = 12595.61 C.F./Ac. imp.		
Co =	Qall / (AC x C) =					Vt =	Vs x AC x C =		
T =	-25 + SQRT(10312.5/Co) =						35916.32028 C.F.		
Vs =	(16500 x T)(T + 25)(40 x Co x T)^2 =					TOTAL DETENTION VOLUME REQUIRED =	36,610 C.F.		
Vt =	Vs x AC x C =					TOTAL DETENTION VOLUME PROVIDED =	39,256 C.F.		
TOTAL DETENTION VOLUME REQUIRED =	36,610 C.F.								
EXCESS VOLUME PROVIDED IN DETENTION BASIN "B"									



VILLA D'ESTE
SECTION 29/30, TOWN 1 NORTH, RANGE 8 EAST
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

REVISIONS

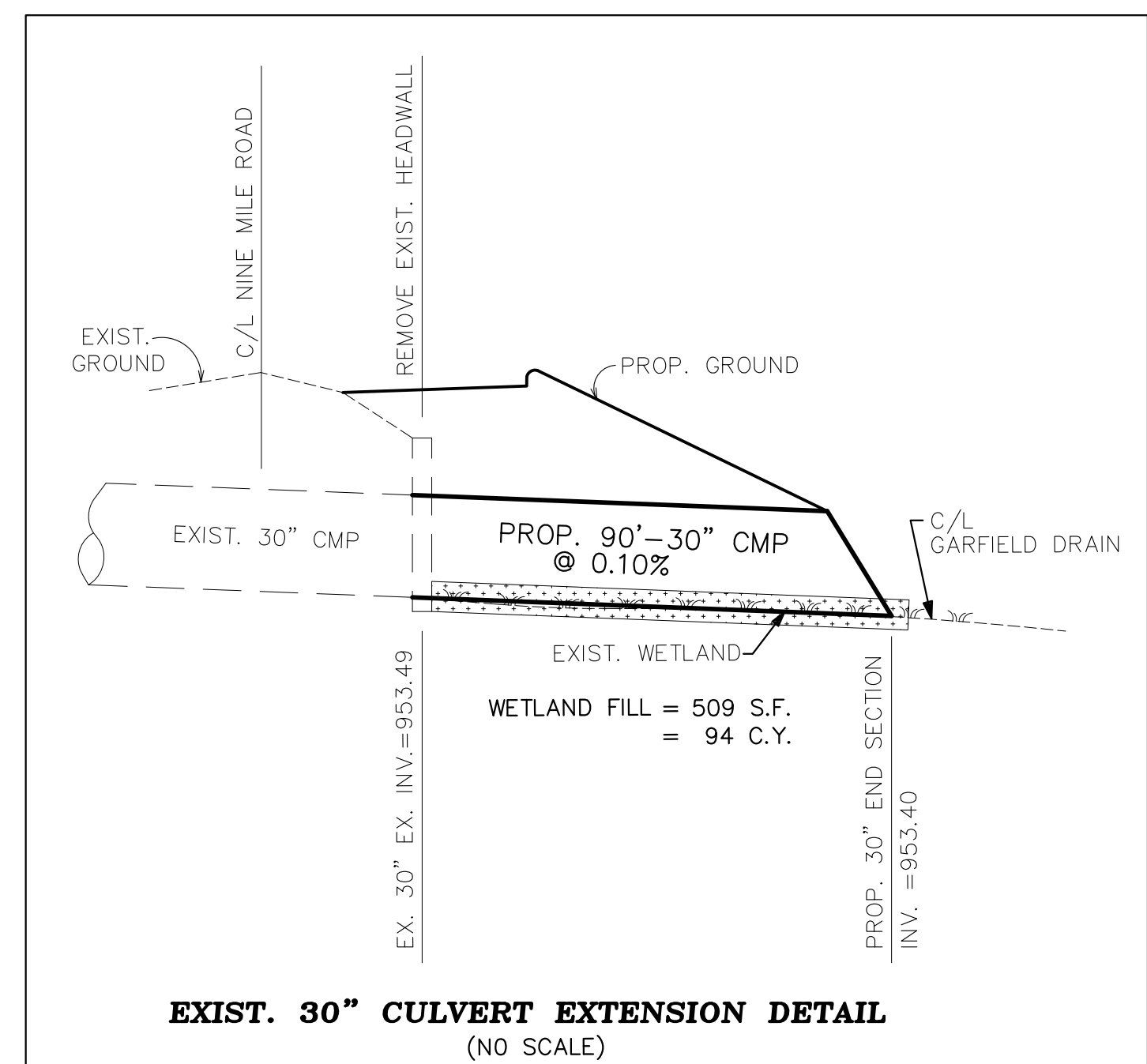
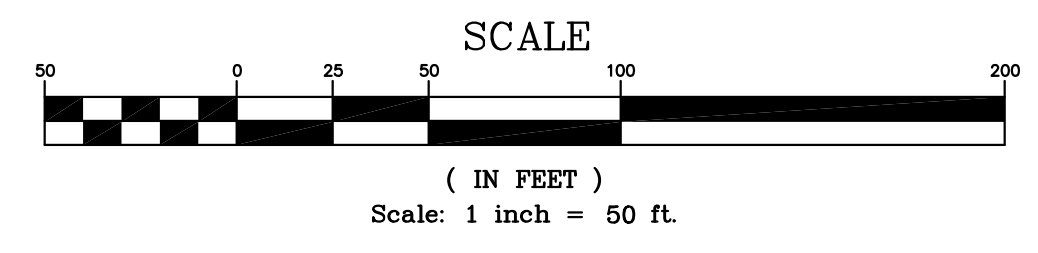
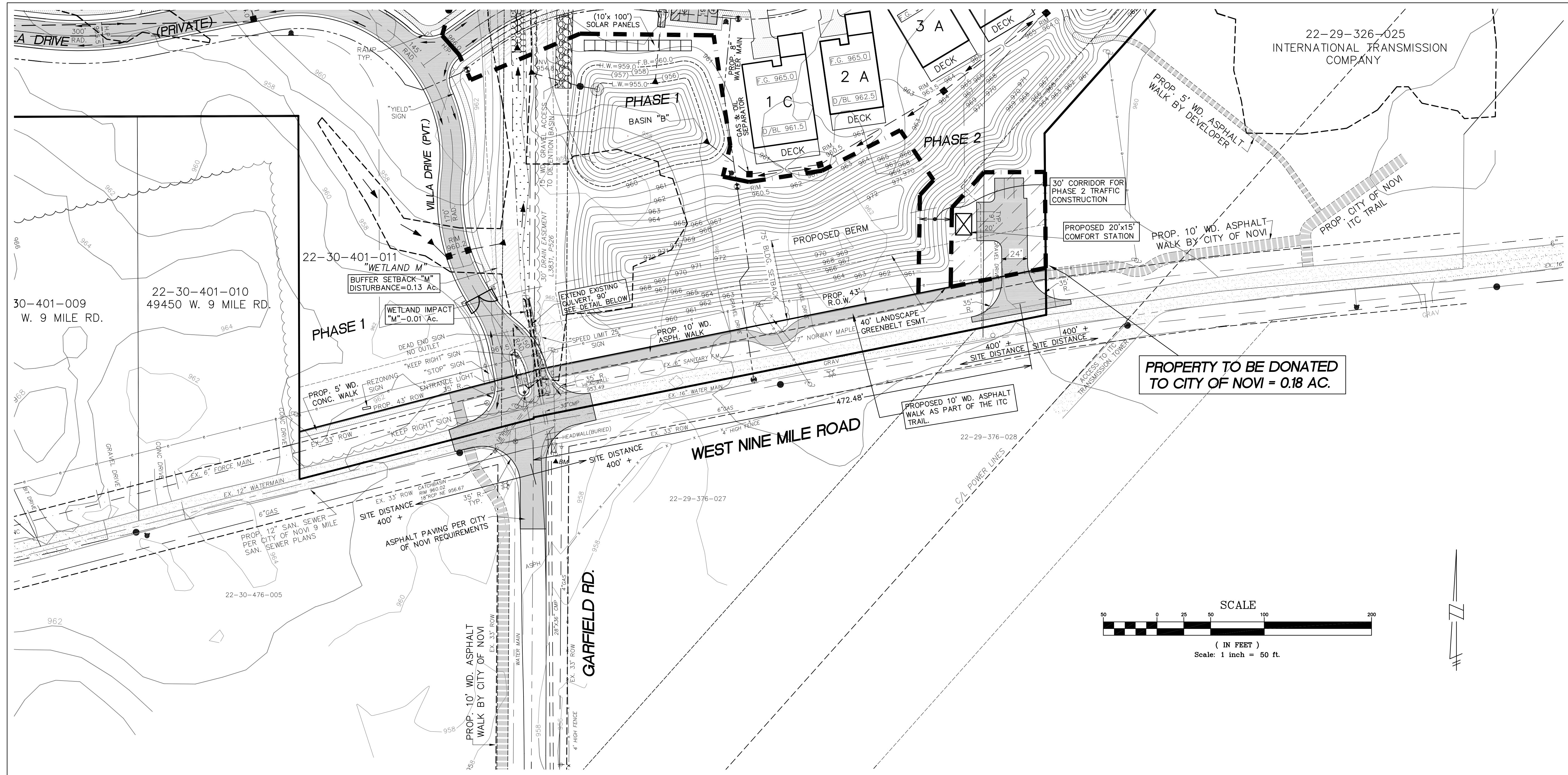
NO.	ITEM	DATE
1.	SUBMIT TO CITY	8-2-17
2.	SUBMIT TO CITY	9-5-17
3.	SUBMIT TO CITY	10-9-17
4.	SUBMIT TO CITY	1-26-18
5.	SUBMIT TO CITY	4-10-18
6.	SUBMIT TO CITY	6-7-18
7.	SUBMIT TO CITY	8-5-18

DATE: 8-2-17 DESIGNED BY: A.A. JOB NUMBER: 15-030
CHECKED BY: P.K. DRAWING FILE: 15-030-SMP

STORM WATER MANAGEMENT PLAN

SEIBER, KEAST ENGINEERING, L.L.C.
CONSULTING ENGINEERS
100 CENTRE + SUITE 10 + NORTHVILLE, MI + 48167
PHONE: 248.308.3331 EMAIL: info@seiberkeast.com

SHEET 3



VILLA D'ESTE
SECTION 29/30, TOWN 1 NORTH, RANGE 8 EAST
CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

DATE: 06-6-18 | DESIGNED BY: A.A. | JOB NUMBER: 15-030
CHECKED BY: P.K. | DRAWING FILE: 15-030-OPTION

REVISIONS		
NO.	ITEM	DATE
1.	SUBMIT TO CITY	8-5-18

ENTRANCE BLVD. PLAN

SEIBER, KEAST ENGINEERING, L.L.C.
CONSULTING ENGINEERS
100 MAINCENTRE • SUITE 10 • NORTHVILLE, MI • 48167
PHONE: 248.308.3331 EMAIL: info@seiberkeast.com

SHEET **4**

Seal:



Title:
Woodland Plan

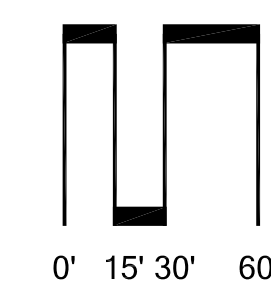
Project:
**Villa D'Este
 Novi, MI**

Prepared for:
 Cambridge Homes
 47765 Bellagio
 Northville, Michigan 48167

Revision:	Issued:
Submission	April 17, 2018
Revised	June 7, 2018
Revised	August 13, 2018
Revised	August 14, 2018
Revised	August 22, 2018

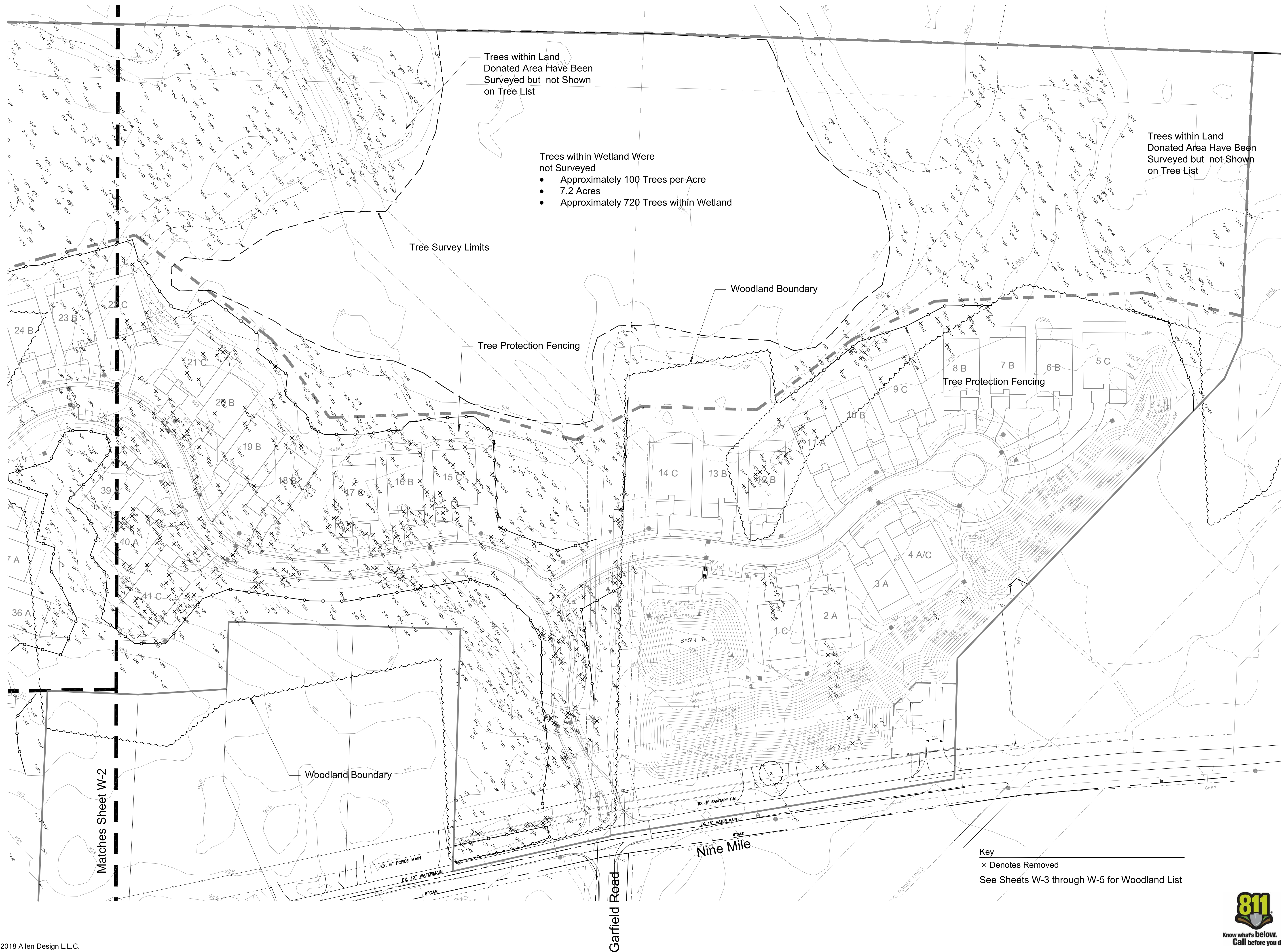
Job Number:
 16-008

Drawn By: jca Checked By: jca



Sheet No.

W-1



Trees within Land Donated Area Have Been Surveyed but not Shown on Tree List

Trees within Land Donated Area Have Been Surveyed but not Shown on Tree List

- Trees within Wetland Were not Surveyed
- Approximately 100 Trees per Acre
 - 7.2 Acres
 - Approximately 720 Trees within Wetland

Tree Survey Limits

Woodland Boundary

Tree Protection Fencing

Tree Protection Fencing

Woodland Boundary

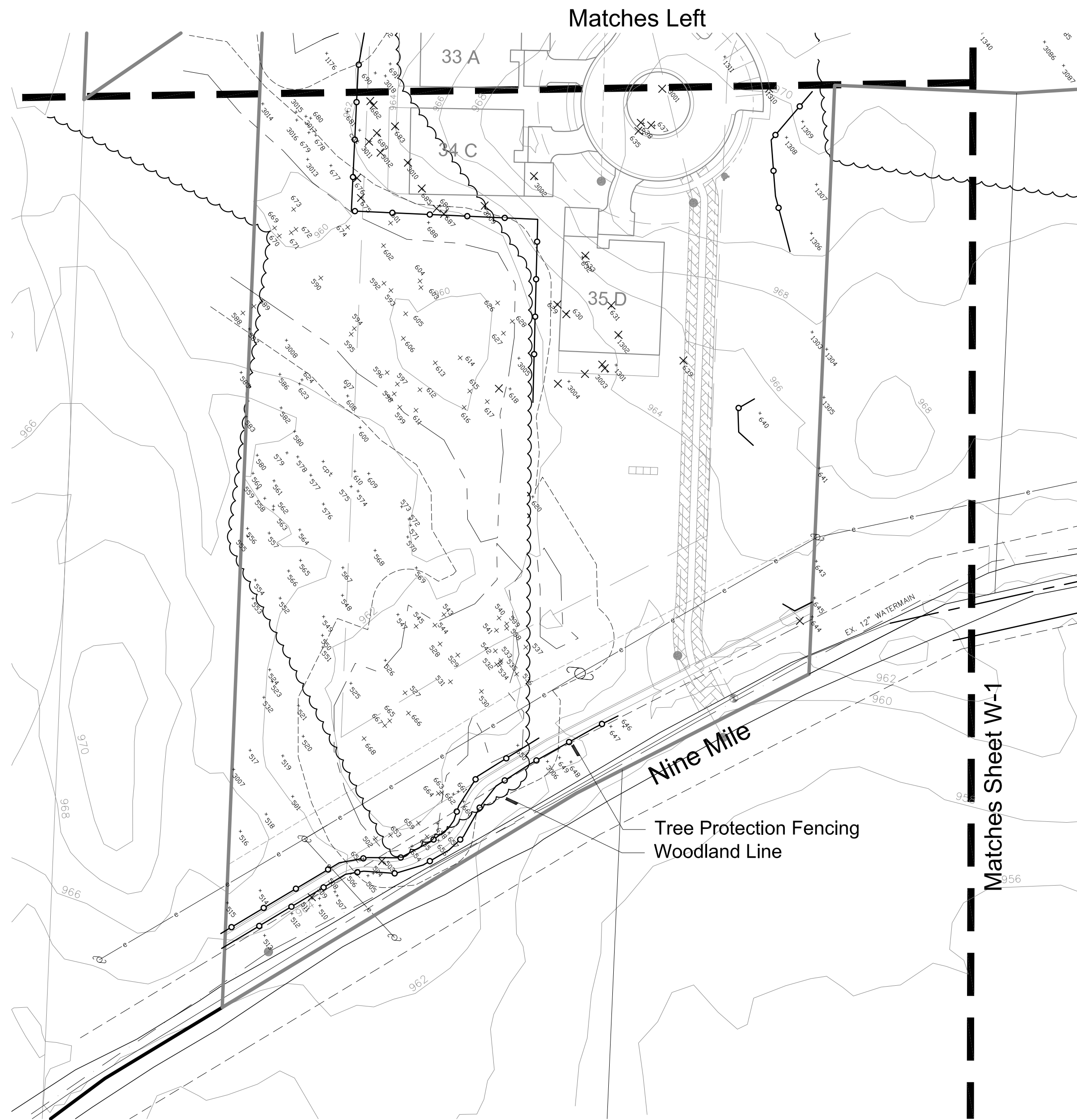
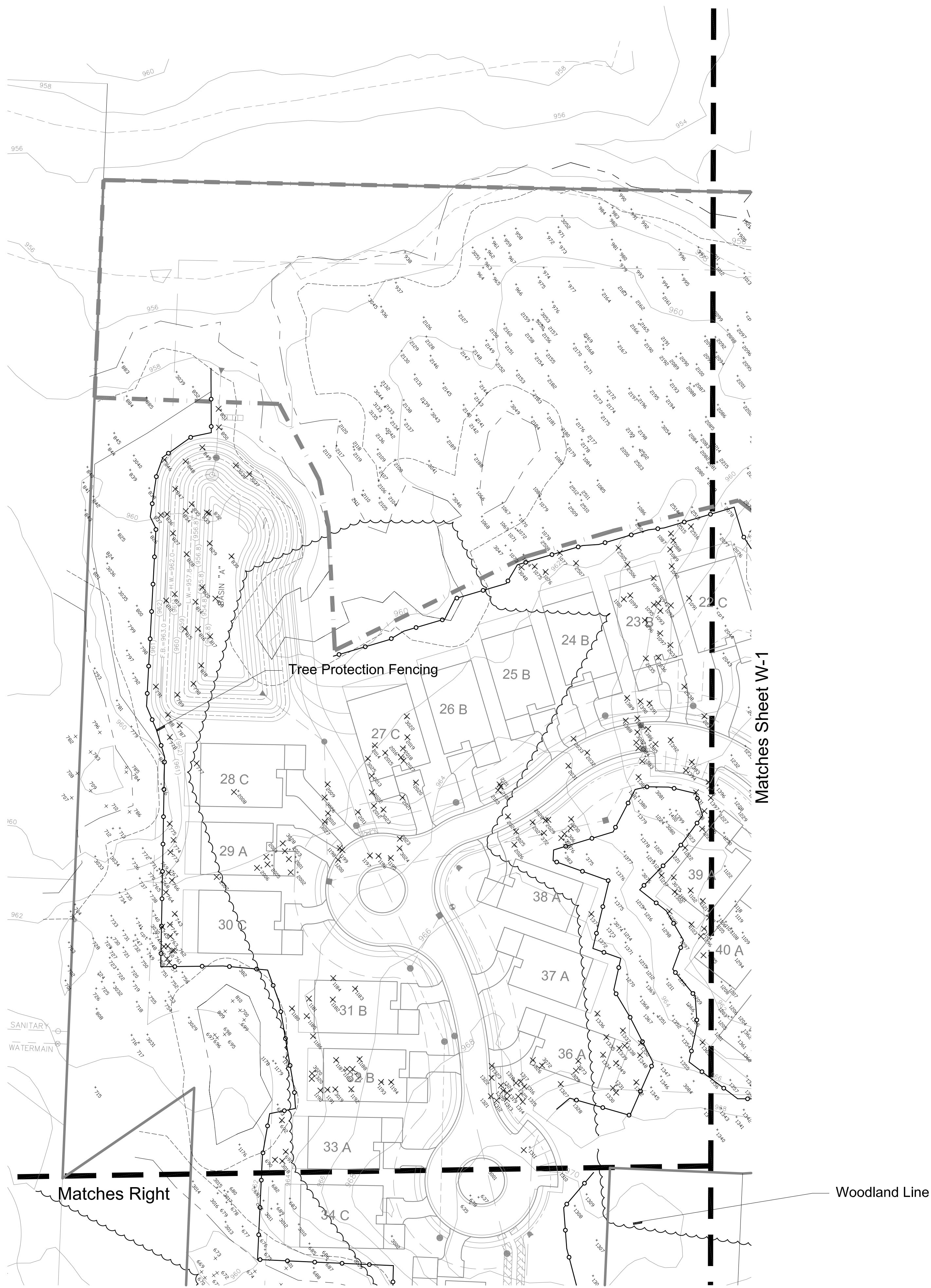
Garfield Road

Nine Mile

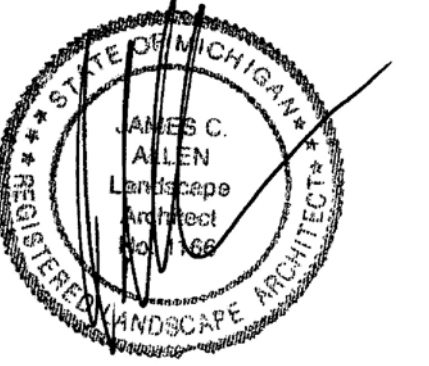
Key
 x Denotes Removed
 See Sheets W-3 through W-5 for Woodland List

Matches Sheet W-2





Seal:



Title:
Woodland Plan

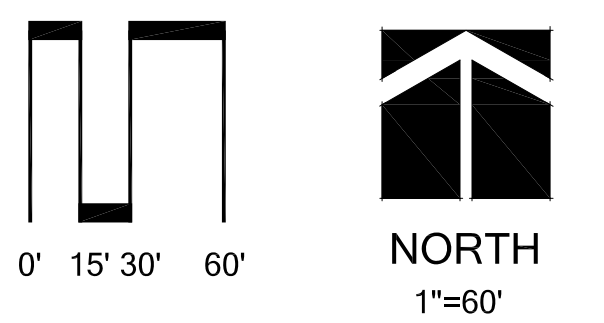
Project:
**Villa D'Este
 Novi, MI**

Prepared for:
 Cambridge Homes
 47765 Bellagio
 Northville, Michigan 48167

Revision:	Issued:
Submission	April 17, 2018
Revised	June 7, 2017
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Revised	August 14, 2018
Revised	August 22, 2018

Job Number:
 16-008

Drawn By: jca Checked By: jca



Key
 × Denotes Removed
 See Sheets W-3 Through W-5 for Woodland List



Sheet No.

W-2

Tree List

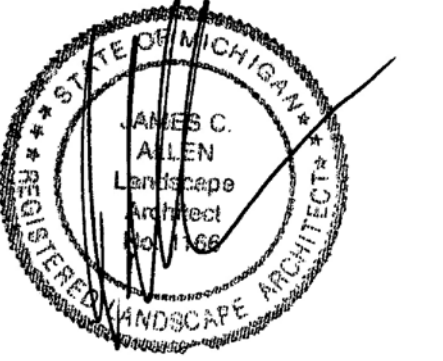
Tag #	Diameter	Common Name	Botanical Name	Condition	Remarks	Required Replacement	Credits	Tag #	Diameter	Common Name	Botanical Name	Condition	Remarks	Required Replacement	Credits	Tag #	Diameter	Common Name	Botanical Name	Condition	Remarks	Required Replacement	Credits							
102	11	Black Locust	Robinia pseudoacacia	Good	Save		569	12	Bur Oak	Quercus macrocarpa	Good	Save		737	12	Quaking Aspen	Populus tremuloides	Good	Save		1116	18	Red Oak	Quercus rubra	Good	Remove	1			
103	12	Black Cherry	Prunus serotina	Good	Save		570	10	Bur Oak	Quercus macrocarpa	Good	Save		738	13	Quaking Aspen	Populus tremuloides	Good	Save		1117	9	Red Oak	Quercus rubra	Good	Remove	1			
104	7.7	Black Locust	Robinia pseudoacacia	Good	Exempt	1	571	13	Silver Maple	Acer saccharinum	Good	Save		739	12	Quaking Aspen	Populus tremuloides	Good	Save		1118	16	Red Oak	Quercus rubra	Good	Remove	2			
105	10	Black Locust	Robinia pseudoacacia	Good	Remove		572	10	Bur Oak	Quercus macrocarpa	Good	Save		740	9	Quaking Aspen	Populus tremuloides	Good	Save		1119	9	Red Oak	Quercus rubra	Good	Remove	2			
106	7	Black Locust	Robinia pseudoacacia	Good	Exempt		573	11	Bur Oak	Quercus macrocarpa	Good	Save		741	14	Quaking Aspen	Populus tremuloides	Good	Save		1120	21	Red Oak	Quercus rubra	Good	Remove	3			
107	10	Black Locust	Robinia pseudoacacia	Good	Save		574	14	Silver Maple	Acer saccharinum	Good	Save		742	8	American Elm	Ulmus americana	Good	Save		1121	11	Red Oak	Quercus rubra	Good	Remove	1			
108	10	Black Locust	Robinia pseudoacacia	Good	Save		575	9	Silver Maple	Acer saccharinum	Good	Save		743	16	Quaking Aspen	Populus tremuloides	Good	Remove	1	1122	21	Red Oak	Quercus rubra	Good	Remove	1			
109	9, 11, 13	Black Locust	Robinia pseudoacacia	Good	Save		576	28	Bur Oak	Quercus macrocarpa	Good	Save		744	11	Quaking Aspen	Populus tremuloides	Good	Remove	1	1124	27	Black Cherry	Prunus serotina	Good	Remove	3			
110	10	Black Locust	Robinia pseudoacacia	Good	Save		577	22	Bur Oak	Quercus macrocarpa	Good	Save		745	9	Quaking Aspen	Populus tremuloides	Good	Remove	1	1126	7, 23	Silver Maple	Acer saccharinum	Good	Remove	3			
111	13	Black Locust	Robinia pseudoacacia	Good	Save		578	12	Silver Maple	Acer saccharinum	Good	Save		746	8	Quaking Aspen	Populus tremuloides	Good	Remove	1	1127	9	Black Cherry	Prunus serotina	Good	Remove	2			
112	8	Black Locust	Robinia pseudoacacia	Good	Save		579	16	Bur Oak	Quercus macrocarpa	Good	Save		747	Dead															
113	11	Black Locust	Robinia pseudoacacia	Good	Save		580	8	Silver Maple	Acer saccharinum	Good	Save		748	11	Quaking Aspen	Populus tremuloides	Good	Save		1129	15	Black Cherry	Prunus serotina	Good	Remove	2			
114	10	Black Locust	Robinia pseudoacacia	Good	Save		581	12	Bur Oak	Quercus macrocarpa	Good	Save		749	10	Quaking Aspen	Populus tremuloides	Good	Save		1130	11	Black Cherry	Prunus serotina	Good	Remove	1			
115	12	Black Locust	Robinia pseudoacacia	Good	Save		582	16	Bur Oak	Quercus macrocarpa	Good	Save		750	9	Quaking Aspen	Populus tremuloides	Good	Save		1131	29	Silver Maple	Acer saccharinum	Good	Remove	3			
116	12	Black Locust	Robinia pseudoacacia	Good	Save		583	9	Black Cherry	Prunus serotina	Good	Save		751	11	Quaking Aspen	Populus tremuloides	Good	Save		1132	10, 12	Basinwood	Tilia americana	Good	Remove	3			
117	8	Black Locust	Robinia pseudoacacia	Good	Save		584	8	American Elm	Ulmus americana	Good	Save		752	12	Quaking Aspen	Populus tremuloides	Good	Save		1133	20	Black Cherry	Prunus serotina	Good	Remove	2			
118	15	Black Locust	Robinia pseudoacacia	Good	Save		585	9	Silver Maple	Acer saccharinum	Good	Save		753	11	Quaking Aspen	Populus tremuloides	Good	Save		1134	9	Silver Maple	Acer saccharinum	Good	Remove	2			
119	10	Black Locust	Robinia pseudoacacia	Good	Save		586	10	Bur Oak	Quercus macrocarpa	Good	Save		754	11	Quaking Aspen	Populus tremuloides	Good	Save		1135	12	Black Cherry	Prunus serotina	Good	Remove	2			
121	8	Black Locust	Robinia pseudoacacia	Good	Save		587	16	Bur Oak	Quercus macrocarpa	Good	Save		755	9, 12	Quaking Aspen	Populus tremuloides	Good	Save		1136	17	Red Oak	Quercus rubra	Good	Remove	2			
122	19	Black Locust	Robinia pseudoacacia	Good	Save		588	9	American Elm	Ulmus americana	Good	Save		756	12	Quaking Aspen	Populus tremuloides	Good	Remove	2	1137	22	Red Oak	Quercus rubra	Good	Remove	3			
123	8, 11	Black Locust	Robinia pseudoacacia	Good	Save		589	12	Silver Maple	Acer saccharinum	Good	Save		757	11	Quaking Aspen	Populus tremuloides	Good	Remove	1	1138	10	Red Oak	Quercus rubra	Good	Remove	1			
124	12	Black Locust	Robinia pseudoacacia	Good	Save		590	12	Silver Maple	Acer saccharinum	Good	Save		758	11	Quaking Aspen	Populus tremuloides	Good	Remove	1	1139	10	Red Oak	Quercus rubra	Good	Remove	1			
125	13	Black Locust	Robinia pseudoacacia	Good	Save		591	14	Silver Maple	Acer saccharinum	Good	Save		759	9	Quaking Aspen	Populus tremuloides	Good	Remove	1	1140	12	Black Cherry	Prunus serotina	Good	Remove	2			
126	13	Black Locust	Robinia pseudoacacia	Good	Save		592	12	Bur Oak	Quercus macrocarpa	Good	Save		760	10	Quaking Aspen	Populus tremuloides	Good	Remove	1	1141	12	Black Cherry	Prunus serotina	Good	Remove	2			
127	13	Black Locust	Robinia pseudoacacia	Good	Save		593	11	Shelbark Hickory	Carya laciniosa	Good	Save		761	8	Quaking Aspen	Populus tremuloides	Good	Remove	1	1142	14	Black Cherry	Prunus serotina	Good	Remove	2			
128	16	Black Locust	Robinia pseudoacacia	Good	Save		594	27, 22	Silver Maple	Acer saccharinum	Good	Save		762	10	Quaking Aspen	Populus tremuloides	Good	Remove	1	1143	8, 12, 13, 22	Basinwood	Tilia americana	Good	Remove	9			
129	14	Black Locust	Robinia pseudoacacia	Good	Save		595	21	Silver Maple	Acer saccharinum	Good	Save		763	9, 10	Quaking Aspen	Populus tremuloides	Good	Remove	3	1144	Dead								
130	10	Black Locust	Robinia pseudoacacia	Good	Save		596	16	Shelbark Hickory	Carya laciniosa	Good	Save		764	11	Basinwood	Tilia americana	Good	Remove	1	1145	15	Black Cherry	Prunus serotina	Good	Remove	2			
131	12	Black Locust	Robinia pseudoacacia	Good	Remove	2	597	24	Bur Oak	Quercus macrocarpa	Good	Save		765	13	Quaking Aspen	Populus tremuloides	Good	Save		1146	10, 10	Black Cherry	Prunus serotina	Good	Remove	3			
132	10	American Elm	Ulmus americana	Good	Remove	1	598	8	American Elm	Ulmus americana	Good	Save		766	11	Quaking Aspen	Populus tremuloides	Good	Remove	1	1147	13	Black Cherry	Prunus serotina	Good	Remove	2			
133	Dead	American Elm	Ulmus americana	Good	Remove		599	10	Shelbark Hickory	Carya laciniosa	Good	Save		767	9	Quaking Aspen	Populus tremuloides	Good	Remove	1	1148	16	Silver Maple	Acer saccharinum	Good	Remove	2			
134	10	American Elm	Ulmus americana	Good	Remove	1	600	29	Bur Oak	Quercus macrocarpa	Good	Save		768	11	Quaking Aspen	Populus tremuloides	Good	Save		1149	14	Black Cherry	Prunus serotina	Good	Remove	2			
135	9	American Elm	Ulmus americana	Good	Remove	1	601	28	Silver Maple	Acer saccharinum	Good	Save		769	9	Red Oak	Quercus rubra	Good	Save		1150	25	Red Oak	Quercus rubra	Good	Remove	2			
136	9	Black Locust	Robinia pseudoacacia	Good	Remove	2	602	8	Bur Oak	Quercus macrocarpa	Good	Save		770	9	Quaking Aspen	Populus tremuloides	Good	Save		1151	11	Black Cherry	Prunus serotina	Good	Remove	1			
137	14	Black Locust	Robinia pseudoacacia	Good	Remove	2	603	26	Bur Oak	Quercus macrocarpa	Good	Save		771	15	Red Oak	Quercus rubra	Good	Save		1152	11	Black Cherry	Prunus serotina	Good	Remove	1			
138	9	Black Locust	Robinia pseudoacacia	Good	Save		604	8	Bur Oak	Quercus macrocarpa	Good	Save		772	8	Black Walnut	Juglans nigra	Good	Save		1153	11	Black Cherry	Prunus serotina	Good	Remove	1			
139	11	Black Locust	Robinia pseudoacacia	Good	Save		605	24	Bur Oak	Quercus macrocarpa	Good	Save		773	10	Eastern Cottonwood	Populus deltoides	Good	Remove	1	1154	18	Black Cherry	Prunus serotina	Good	Remove	2			
140	13	Black Locust	Robinia pseudoacacia	Good	Save		606	22	Bur Oak	Quercus macrocarpa	Good	Save		774	10	Red Oak	Quercus rubra	Good	Remove	1	1155	15	American Elm	Ulmus americana	Good	Remove	1			
141	12	Black Locust	Robinia pseudoacacia	Good	Save		607	13	Bur Oak	Quercus macrocarpa	Good	Save		775	15	Black Cherry	Prunus serotina	Good	Save		1156	15	Black Cherry	Prunus serotina	Good	Remove	1			
142	11, 17	Silver Maple	Acer saccharinum	Good	Save		608	16	Bur Oak	Quercus macrocarpa	Good	Save		776	27	Pin Oak	Quercus palustris	Good	Save		1157	11	Black Cherry	Prunus serotina	Good	Remove	1			
143	10	Black Locust	Robinia pseudoacacia	Good	Save		609	10	American Elm	Ulmus americana	Good	Save		777	9	Quaking Aspen	Populus tremuloides	Good	Remove	1	1158	12	Shelbark Hickory	Carya laciniosa	Good	Remove	2			
144	8	Black Locust	Robinia pseudoacacia	Good	Save		610	26	Silver Maple	Acer saccharinum	Good	Save		778	17	Black Cherry	Prunus serotina	Good	Remove	2	1159	17	American Elm	Ulmus americana	Good	Remove	2			
145	18	Silver Maple	Acer saccharinum	Good	Remove	2	611	26	Bur Oak	Quercus macrocarpa	Good	Save		779	15	Black Cherry	Prunus serotina	Good	Save		1160	15	Black Cherry	Prunus serotina	Good	Remove	2			
146	9	American Elm	Ulmus americana	Good	Save		612	16	Bur Oak	Quercus macrocarpa	Good	Save		780	14	Red Oak	Quercus rubra	Good	Save		1161	25	Red Oak	Quercus rubra	Good	Remove	3			
147	13	Black Locust	Robinia pseudoacacia	Good	Save		613	26	Bur Oak	Quercus macrocarpa	Good	Save		781	17	Black Cherry	Prunus serotina	Good	Save		1162	11	Silver Maple	Acer saccharinum	Good	Remove	1			
148	10	American Elm	Ulmus americana	Good	Save		614	10	Sugar Maple	Acer saccharum	Good	Save		782	17	Black Cherry	Prunus serotina	Good	Save		1163	15	Silver Maple	Acer saccharinum	Good	Remove	2			
149	11	Black Locust	Robinia pseudoacacia	Good	Remove	1	615	25	Bur Oak	Quercus macrocarpa	Good	Save		783	18	Silver Maple	Acer saccharinum	Good	Save		1164	11	Black Cherry	Prunus serotina	Good	Remove	1			
150	11	Black Locust	Robinia pseudoacacia	Good	Remove	1	616	25	Bur Oak	Quercus macrocarpa	Good	Save		784	12	American Elm	Ulmus americana	Good	Save		1165	12	Black Cherry	Prunus serotina	Good	Remove	2			
151	12	Black Locust	Robinia pseudoacacia	Good	Save		617	15	Shelbark Hickory	Carya laciniosa	Good	Save		785	19	Silver Maple	Acer saccharinum	Good	Save		1166	13	Black Cherry	Prunus serotina	Good	Remove	2			
152	8, 9, 9	Common Apple	Malus spp.	Good	Save		618	10	Quaking Aspen	Populus tremuloides	Good	Save		786	10	Basinwood	Tilia americana	Good	Save		1167	8	Black Cherry	Prunus serotina	Good	Remove	1			
153	5, 9	American Elm	Ulmus americana	Good	Save		619	8	American Elm	Ulmus americana	Good	Save		787	8	American Highborn	Ostrya virginiana	Good	Remove	1	1168	11	Black Cherry	Prunus serotina	Good	Remove	1			
154	9	American Elm	Ulmus americana	Good	Save		620	22	Bur Oak	Quercus macrocarpa	Good	Save		788	10	American Elm	Ulmus americana	Good	Save		1169	12	Silver Maple	Acer sacchar						

Tree List

Table with columns: Tag #, Diameter, Common Name, Botanical Name, Condition, Remarks, Required Replacement, Credits. Multiple columns for each category, showing a list of trees with their respective details.

ALLEN DESIGN LAND PLANNING / LANDSCAPE ARCHITECTURE 557 CARPENTER • NORTHVILLE, MI 48167 248 467 4668 • Fax 248 347 0559 Email: jca@wvideopenvest.com

Seal:



Title:

Woodland List

Project:

Villa D'Este Novi, MI

Prepared for:

Cambridge Homes 47765 Bellagio Northville, Michigan 48167

Revision:

Issued:

Table with 2 columns: Revision (Submitted, Revised, Revised, Revised) and Issued (April 17, 2018, June 7, 2018, August 13, 2018, August 22, 2018).

Job Number:

16-008

Drawn By:

jca

Checked By:

jca

Remarks Key:

Table with 2 columns: Remark (Save, Credit, Remove, Exempt) and Description (Tree will be saved, Tree is located outside of a woodland area and will be saved, Tree is located in a regulated woodland and will be removed, Tree is dead or located outside of a woodland area).

Sheet No.

W-4

Tree List

Tag #	Diameter	Common Name	Botanical Name	Condition	Remarks	Required Replacement	Credits
3185	9	American Elm	Ulmus americana	Good	Remove	1	
3186	10	American Elm	Ulmus americana	Good	Remove	1	
3187	8	Silver Maple	Acer saccharinum	Good	Exempt		
3188	10	American Elm	Ulmus americana	Good	Remove	1	
3189	21	Eastern Cottonwood	Populus deltoides	Good	Save		
3191	12	Silver Maple	Acer saccharinum	Good	Save		
3192	10	Silver Maple	Acer saccharinum	Good	Save		
3193	10	Silver Maple	Acer saccharinum	Good	Save		
3194	15	Silver Maple	Acer saccharinum	Good	Save		
3195	16	Silver Maple	Acer saccharinum	Good	Save		
3196	19	Silver Maple	Acer saccharinum	Good	Save		
Woodland Replacements Required						1029	
Woodland Credits							127

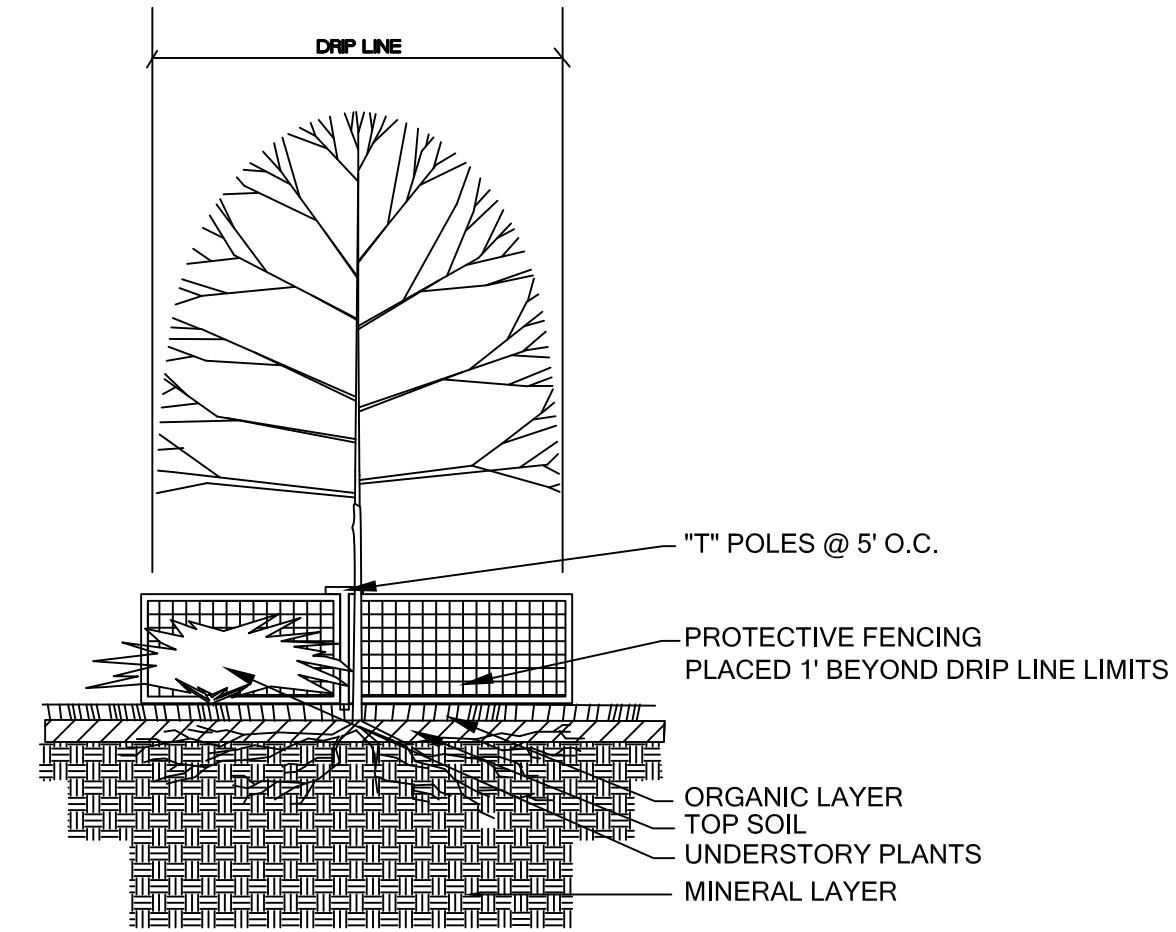
Woodland Summary

Total Trees Surveyed	1,353 Trees
Un-Surveyed Trees in Wetland	720 Trees
Surveyed Trees in Land Donation	418 Trees
Less Non - Regulated Trees:	
Exempt Trees	123 Trees
Net Regulated Trees	2,368 Trees
Regulated Trees Removed	552 Trees (23.3%)

Replacement Required	
Trees 8" - 11"	257 trees x 1= 257 Trees
Trees 11" - 20"	204 trees x 2= 408 Trees
Trees 20" - 30"	44 trees x 3= 132 Trees
Trees 30"+	9 trees x 4= 36 Trees
Multi-Stemmed Trees (38 trees)	196 Trees
Sub-total Replacement Required	1,029 Trees
Less Credits	127 Credits
Total Replacement Required	902 Trees

Remarks Key:

Save	Tree will be saved
Credit	Tree is located outside of a woodland area and will be saved.
Remove	Tree is located in a regulated woodland and will be removed.
Exempt	Tree is dead or located outside of a woodland area.

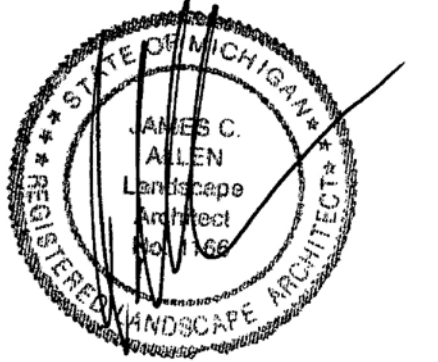


1. Either Plastic or Wood Orange Snow Fencing Shall be Installed at or Beyond the Dripline, Unless More Substantial Fencing is Required.
2. Stakes Shall be Metal "T" Poles Spaced no Further than 5' on Center.
3. Fencing Shall not be Installed Closer to the Tree than the Dripline of Those Trees to be Saved. Special Circumstances Shall be Reviewed by the City.
4. Fencing Shall be Erected Prior to Construction. The City Shall be Notified Once the Fencing is Installed for Inspection.
5. Under no Circumstances Shall the Protective Fencing be Removed Without Proper Approval from the City.
6. No Person Shall Conduct any Activity Within Areas Proposed to Remain. This Shall Include, but not be Limited to:
 - a. No Solvents or Chemicals Within Protected Areas.
 - b. No Building Materials or Construction Equipment Within Protected Areas.
 - c. No Grade Changes, Including Fill, Within Protected Areas.
 - d. No Removal of Vegetation from the Ground Up Without Permission from the Proper Reviewing Authority, Including the Woodlands Review Board.
 - e. Any Required Swale Needs to be Directed Around the Protected Areas. Instances Where Swales are Approved Through a Protected Area, the Swales Need to be HAND DUG. Machinery of Any Kind is Prohibited.
7. Regulated Woodland or Regulated Trees Adjacent to the Property are Also Required to be Protected Whether or not they are Shown on the Plan.

TREE PROTECTION DETAIL

NO SCALE

Seal:



Title:

Woodland List

Project:

Villa D'Este
 Novi, MI

Prepared for:

Cambridge Homes
 47765 Bellagio
 Northville, Michigan 48167

Revision:

Issued:

Submission	April 17, 2018
Revised	June 7, 2018
Revised	August 13, 2018
Revised	August 14, 2018
Revised	August 22, 2018

Job Number:

16-008

Drawn By:

jca

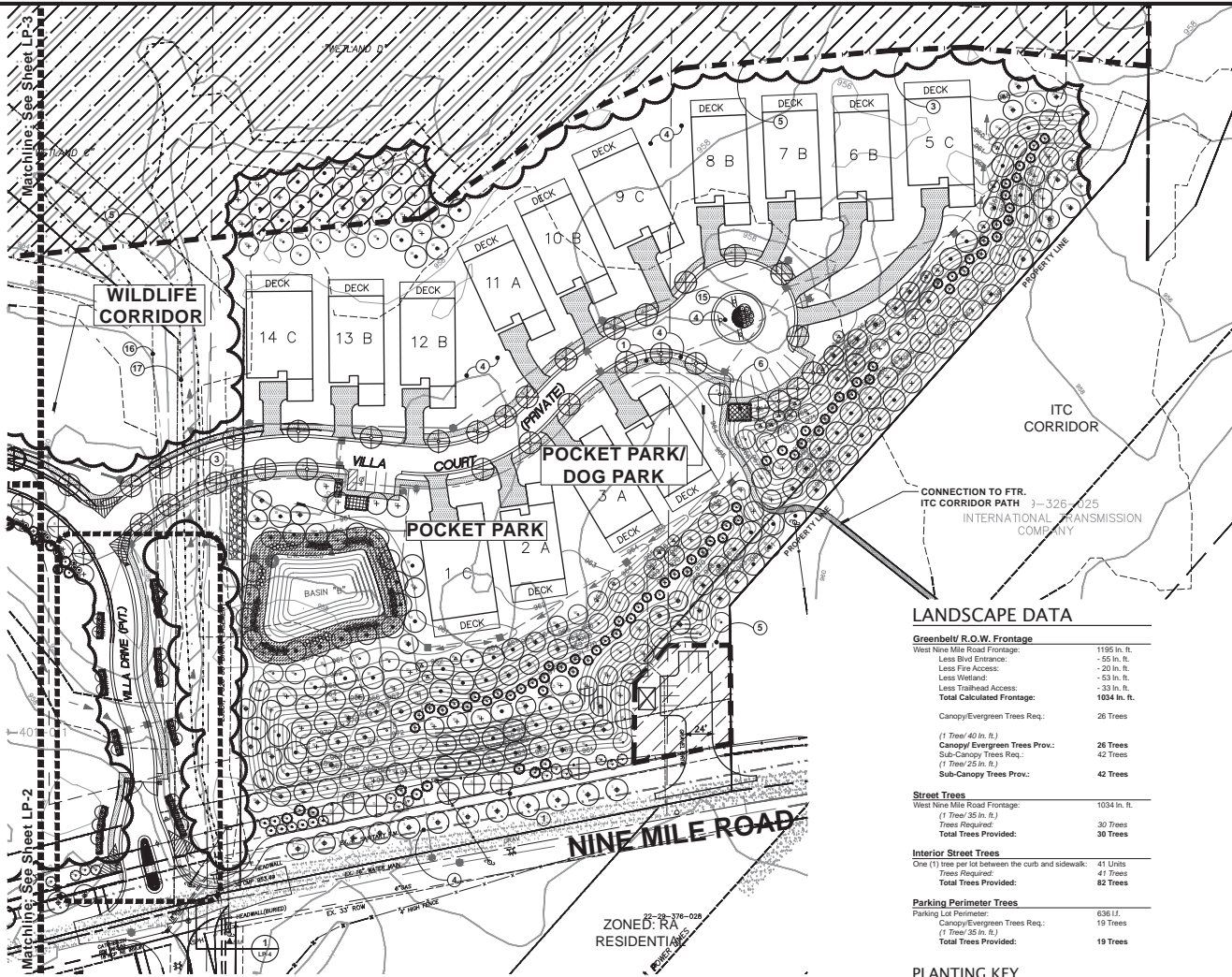
Checked By:

jca

Sheet No.



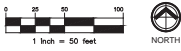
W-5



CONCEPTUAL SITE PLANTING PLAN

SCALE 1" = 50'

ZONED: RA
RESIDENTIAL



NOTE KEY:

- ① NEW CONCRETE WALK - SEE CIVIL DRAWINGS
- ② 2' CLEAR VISION TRIANGLE
- ③ PROPOSED LIMITS OF WOODLAND PRESERVATION
- ④ PROPOSED LAWN SEE ALL DISTURBED AREAS
- ⑤ PROPOSED LIMITS OF LAND DONATION TO CITY - SEE CIVIL DRAWINGS
- ⑥ NOW EXISTING AREA
- ⑦ NO ITEM
- ⑧ NO ITEM
- ⑨ PROPOSED GATED ENTRANCE
- ⑩ PROPOSED BIKE RACKS
- ⑪ NO ITEM
- ⑫ INTENTION WITH SEED MIX FOR SIDE SLOPES
- ⑬ CONTIGUOUS MULCH BED
- ⑭ SHRUB & PERENNIAL PLANTINGS TYP.
- ⑮ 25 FT. WETLAND SETBACK
- ⑯ WETLAND LIMITS
- ⑰ NO ITEM
- ⑱ DOG WALKING AREA W/ SIGNAGE AND WASTE COLLECTION

GENERAL PLANTING REQ.:

- 1. THE WORK SHALL CONSIST OF PROVIDING ALL NECESSARY MATERIAL, LABOR, EQUIPMENT, TOOLS AND SUPERVISION REQUIRED FOR THE COMPLETION AS SHOWN ON THE DRAWING.
- 2. ALL PLANT MATERIAL SHALL CONFORM TO THE TYPE SPECIES ON THE PLANT LIST. SIZES SHALL BE THE MINIMUM SIZES ON THE PLANT LIST UNLESS OTHERWISE NOTED. ALL MEASUREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "A.A.N. STANDARDS FOR NURSERY STOCK".
- 3. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT.
- 4. ALL SHEDS TRUNK CHAIRS TREES SHALL BE HEAVILY BRANCHED AND HAVE DIMENSIONAL CROWNING. ONE SIDED TREES OR THOSE WITH TRIM TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED. ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNING.
- 5. ALL MULTI-STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE DIMENSIONAL CROWNING. ONE SIDED TREES OR THOSE WITH TRIM TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED. ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNING.
- 6. ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND. SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE CROWNING SEASONS.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR PLANTING THE MATERIALS AT THE CORRECT GRADES AND SPACING. THE PLANTER SHALL BE OBLIGATED TO GIVE THE BEST APPEARANCE.
- 8. WHEN THE PLANT HAS BEEN PROPERLY SET, THE PIT SHALL BE BACKFILLED WITH A TOPSOIL AND NUTRIENT SOIL MIXTURE, GRADUALLY FIRING, PATTING AND SETTLING WITH WATER.
- 9. ALL PLANT MATERIALS SHALL BE PRUNED AND INJURIES REPAIRED. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE REMOVAL OF DEAD OR INJURED TWIGS AND TO COMPENSATE FOR THE LOSS OF TWIGS FROM TRANSPORTING. CUTS SHOULD BE FLUSH, LEAVING GRADUALLY FIRING, PATTING AND SETTLING WITH WATER.
- 10. THE CONTRACTOR AGREES TO GUARANTEE ALL PLANT MATERIALS FOR THE PERIOD OF TWO YEARS AT THAT TIME THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT FOR A FINAL INSPECTORIAL PLANT MATERIAL WITH 20% DIE BACK, AS DETERMINED BY THE OWNER'S REPRESENTATIVE SHALL BE REFUSED. THIS GUARANTEE INCLUDES THE FURNISHING OF NECESSARY LABOR AND MATERIALS. THESE NEW PLANTS SHALL ALSO BE GUARANTEED FOR THE PERIOD OF ONE YEAR.
- 11. TOPSOIL SHALL BE FRABLE, FERTILE TOPSOIL OF CLAY LOAM CHARACTER CONTAINING AT LEAST 2% BUT NOT MORE THAN 20% BY WEIGHT OF ORGANIC MATTER WITH PH RANGE FROM 6.0 TO 7.0. SOIL SHALL BE FREE FROM CLAY LUMPS, COARSE SAND, PLANT ROOTS, STONKS AND OTHER FOREIGN MATERIALS.
- 12. NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES. HAND GRADE ALL LAWN AREAS WITHIN DRIPLINE OF EXISTING TREES.
- 13. IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS, WALLS AND PAVED AREAS.
- 14. ALL PLANTING BEDS SHALL RECEIVE 4" SHREDDED BARK MULCH. SEE SPECIFICATIONS.
- 15. SOIL SEED LAWN AREAS: ALL LAWN AREAS BETWEEN CURBS AND BUILDINGS OR BETWEEN BUILDINGS, DISK SOIL TO 4" DEEP BEFORE TOPSOIL PLACEMENT.
- 16. SOIL SHALL BE TWO YEAR OLD "BARONCHERHAELE" KENTUCKY BLUE GRASS GROWN IN A SOIL NURSERY ON LOAM SOIL.

LANDSCAPE DATA

Greenbelt R.O.W. Frontage

West Nine Mile Road Frontage:	1195 In. ft.
Less Blvd Entrance:	-55 In. ft.
Less Fire Access:	-20 In. ft.
Less Wetland:	-53 In. ft.
Less Trailhead Access:	-33 In. ft.
Total Calculated Frontage:	1034 In. ft.
Canopy/Evergreen Trees Req.:	26 Trees
(1 Tree/40 In. ft.)	
Canopy/Evergreen Trees Prov.:	26 Trees
Sub-Canopy Trees Req.:	42 Trees
(1 Tree/25 In. ft.)	
Sub-Canopy Trees Prov.:	42 Trees

Street Trees

West Nine Mile Road Frontage:	1034 In. ft.
(1 Tree/25 In. ft.)	
Trees Required:	30 Trees
Total Trees Provided:	30 Trees

Interior Street Trees

One (1) tree per lot between the curb and sidewalk:	41 Units
Trees Required:	41 Trees
Total Trees Provided:	82 Trees

Parking Perimeter Trees

Canopy/Evergreen Trees Req.:	636 LT
(1 Tree/25 In. ft.)	
Canopy/Evergreen Trees Req.:	19 Trees
Total Trees Provided:	19 Trees

PLANTING KEY

- STREET TREES**
- GREENBELT TREES**
- INTERIOR ROAD TREES**
- DETENTION BASIN TREES**
- WOODLAND REPLACEMENT TREES**
- PARKING TREES**

PLANT MIX

- ALL PLANTINGS PERENNIAL BEDS TO RECEIVE:
- 1 - 6 CU FT. BALE CANADIAN PEAT
- 1 - 40 LB. BAG DRAINAGE
- 1 - 1.8 CU YD. PRISMAS 10-13
- MULTI-PURPOSE FERTILIZER

PER 100 SQ FT BED AREA

HAND TILL INTO SOIL TO A DEPTH OF 12" MINIMUM

MULCH
MULCH TO BE DOUBLE SHREDDED HARDWOOD BARK MULCH
NO GROUND WOOD PALLETTE MULCH PERMITTED

TOPSOIL
CONTRACTOR TO TILL OR DISK SUBGRADE TO 4" DEPTH AND INSTALL 4" COMPACTED DEPTH TOPSOIL IN ALL LAWN AREAS - TOPSOIL SHALL BE PROVIDED BY CONTRACTOR

PLANT KEY

- TREE SYMBOL
- TREE TYPE KEY - SEE PLANT LIST SHEET LP-2
- QUANTITY PLANTING DETAILS SEE SHEET LP-4

IRRIGATION

ALL LANDSCAPE AREAS WILL BE IRRIGATED WITH A FULLY AUTOMATIC IRRIGATION SYSTEM.

[NOT TO BE USED AS CONSTRUCTION DRAWING]

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deakplanningdesign.com

VILLA D'ESTE
PROPOSED DETACHED CONDOMINIUMS - NOVI, MI



project sponsor:
Cambridge Homes, Inc.
4775 Billagio Drive
Northville, MI 48167
248.348.8800

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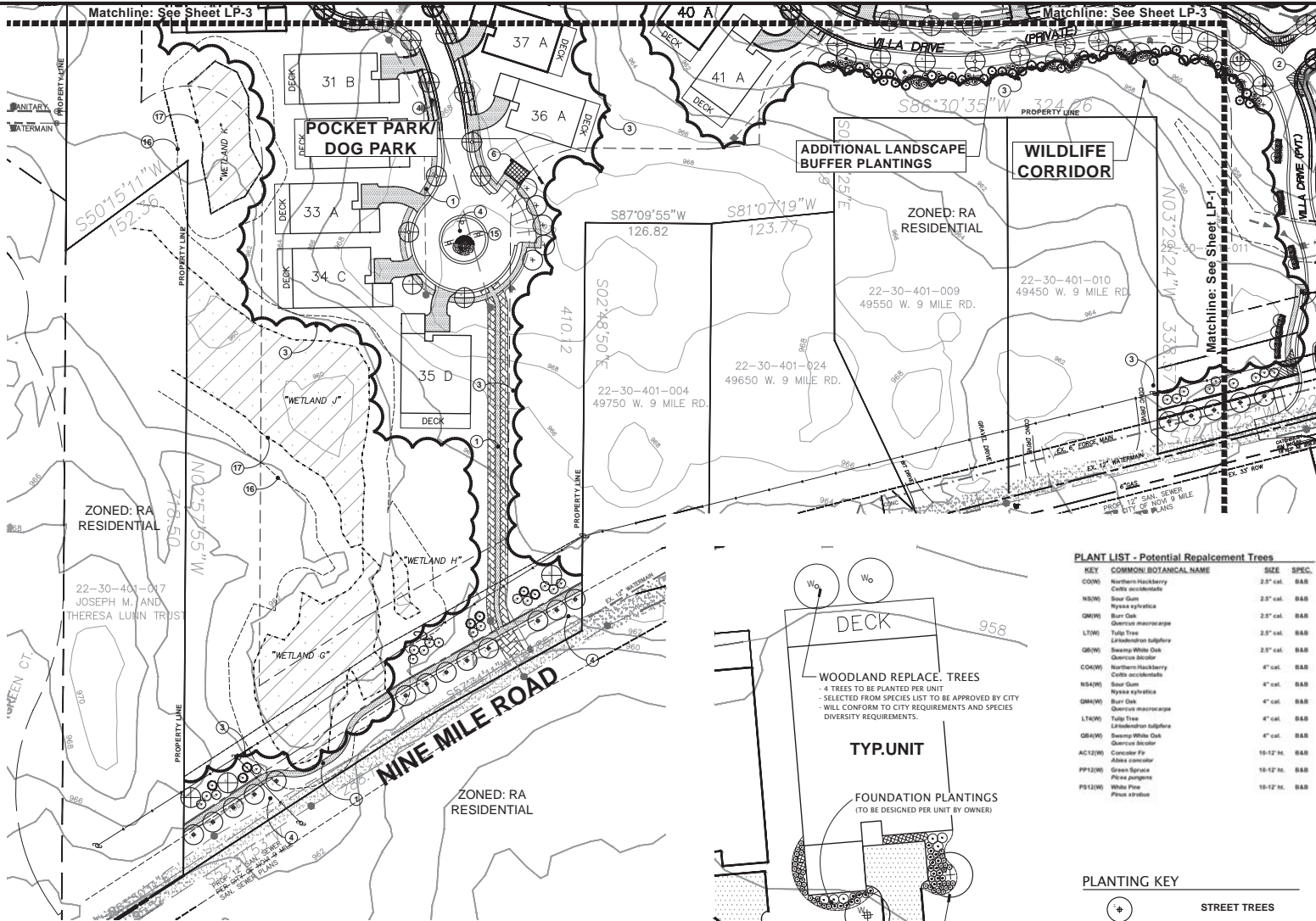
revisions:

PRO APP PRC	08/2/17
RVSU PER OWNER	10/9/17
RVSU PER OWNER	01/25/18
RVSU PER OWNER	04/16/18
RVSU PER OWNER	06/08/18

sheet title:
CONCEPTUAL LANDSCAPE PLAN

project no.
121713

sheet no.
LP-1



- NOTE KEY:**
- ① NEW CONCRETE WALK - SEE CIVIL DRAWINGS
 - ② CLEAR WOOD FRAME
 - ③ PROPOSED LIMITS OF WOODLAND PRESERVATION
 - ④ PROPOSED LAWN SEE ALL DISTURBED AREAS
 - ⑤ PROPOSED LIMITS OF LAND DONATION TO CITY - SEE CIVIL DRAWINGS
 - ⑥ HIGH DISTRICT AREA
 - ⑦ NO ITEM
 - ⑧ NO ITEM
 - ⑨ NO ITEM
 - ⑩ PROPOSED GATED ENTRANCE
 - ⑪ PROPOSED BIKE RACKS
 - ⑫ NO ITEM
 - ⑬ DETENTION WATER SEDIMENT BASIN FOR SIDE SLOPES
 - ⑭ CONTIGUOUS MULCH BED
 - ⑮ SHRUBS & PERENNIAL PLANTINGS TYP.
 - ⑯ 25 FT WETLAND SETBACK
 - ⑰ WETLAND LIMITS
 - ⑱ NO ITEM
 - ⑲ DOG WALKING AREA W/ SIGNAGE AND WASTE COLLECTION

- GENERAL PLANTING REQ.:**
- 1. THE WORK SHALL CONSIST OF PROVIDING ALL NECESSARY MATERIAL, LABOR, EQUIPMENT, TOOLS AND SUPERVISION REQUIRED FOR THE COMPLETION AS SHOWN ON THE DRAWING.
 - 2. ALL PLANT MATERIAL SHALL CONFORM TO THE TYPE SPECIFIED ON THE PLANT LIST. SIZES SHALL BE THE MINIMUM SIZES ON THE PLANT LIST UNLESS ALL MEASUREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "A.N. STANDARDS FOR NURSERY STOCK."
 - 3. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT.
 - 4. ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER. TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED. ALL SINGLE TRUNK SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
 - 5. ALL MULTI-STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE BEYOND TREES OR THOSE WITH TEN OR MORE TRUNKS WILL NOT BE ACCEPTED.
 - 6. ALL SHRUBS/TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
 - 7. THE CONTRACTOR IS RESPONSIBLE FOR PLANTING THE MATERIALS AT THE CORRECT GRADES AND SPACING. THE PLANTS SHALL BE ORIENTED TO GIVE THE BEST APPEARANCE.
 - 8. WHEN THE PLANT HAS BEEN PROPERLY SET, THE PIT SHALL BE BACKFILLED WITH A TOPSOIL AND WATER BENEATH. MULCH TO BE GRADUALLY PLACED, WATERING AND SETTLING WITH WATER.
 - 9. ALL PLANT MATERIALS SHALL BE PRUNED AND INJURIES REPAIRED. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE REMOVAL OF DEAD OR INJURED TWIGS AND TO COMPENSATE FOR THE LOSS OF NORTHERLY TRANSLUCENCY. CUTS SHOULD BE FLUSH, LEAVING GRADUALLY TAPERING, POINTS AND SETTLING WITH WATER.
 - 10. THE CONTRACTOR AGREES TO GUARANTEE ALL PLANT MATERIALS FOR THE PERIOD OF TWO YEARS AT THAT TIME THE OWNER'S REPRESENTATIVE RESERVE THE RIGHT FOR A FINAL INSPECTORIAL PLANT MATERIAL WITH 20% DIE BACK AS DETERMINED BY THE OWNER'S REPRESENTATIVE SHALL BE RETURNED. THIS GUARANTEE INCLUDES THE FURNISHING OF NECESSARY LABOR AND MATERIALS. THESE NEW PLANTS SHALL ALSO BE GUARANTEED FOR THE PERIOD OF ONE YEAR.
 - 11. TOPSOIL SHALL BE FRABLE, FERTILE TOPSOIL OF CLAY LOAM CHARACTER CONTAINING AT LEAST 2% BUT NOT MORE THAN 20% BY WEIGHT OF ORGANIC MATTER WITH A RANGE FROM 6.5 TO 7.5 pH. SOIL SHALL BE FREE FROM CLAY LUMPS, COARSE SAND, PLANT ROOTS, STONES AND OTHER FOREIGN MATERIALS.
 - 12. NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES. HAND GRAB ALL LAWN AREAS WITHIN DRIP LINE OF EXISTING TREES.
 - 13. IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS, WALKS AND PAVED AREAS.
 - 14. ALL PLANTING BEDS SHALL RECEIVE 4" SHREDDED BARK MULCH. SEE SPECIFICATIONS.
 - 15. SOIL BEDS LAWN AREAS: ALL LAWN AREAS BETWEEN CURBS AND BUILDINGS OR BETWEEN BUILDINGS, DISK SOIL TO 4" DEEP BEFORE TOPSOIL PLACEMENT.
 - 16. SOIL SHALL BE TWO YEAR OLD "BARONCHERHAFER" KENTUCKY BLUE GRASS GROWN IN A SOIL NURSERY ON LOAM SOIL.

- PLANT MIX**
- ALL PLANTINGS PERENNIAL BEDS TO RECEIVE:
- 1 - 50/100 FT. BALE CANADIAN PEAT
 - 1 - 40 LB BAG DRAINAGE
 - 1 - 10 LB BAG DRIMAX 15-15-15 MULTI-PHASE FERTILIZER
- PER 100 SQ FT BED AREA
- MULCH**
- HAND TILL INTO SOIL TO A DEPTH OF 12" MINIMUM
- MULCH TO BE DOUBLE SHREDDED HARDWOOD BARK MULCH
- NO GROUND WOOD PALETTE MULCH PERMITTED
- TOPSOIL**
- CONTRACTOR TO TILL OR DISK SUBGRADE TO 4" DEPTH AND INSTALL 4" COMPACTED DEPTH TOPSOIL IN ALL LAWN AREAS - TOPSOIL SHALL BE PROVIDED BY CONTRACTOR
- PLANT KEY**
- TREE SYMBOL
TREE TYPE KEY - SEE PLANT LIST SHEET LP-2
QUANTITY PLANTING DETAILS SEE SHEET LP-4
- IRRIGATION**
- ALL LANDSCAPE AREAS WILL BE IRRIGATED WITH A FULLY AUTOMATIC IRRIGATION SYSTEM.
- NOT TO BE USED AS CONSTRUCTION DRAWING**



VILLA D'ESTE
PROPOSED DETACHED CONDOMINIUMS - NOVI, MI



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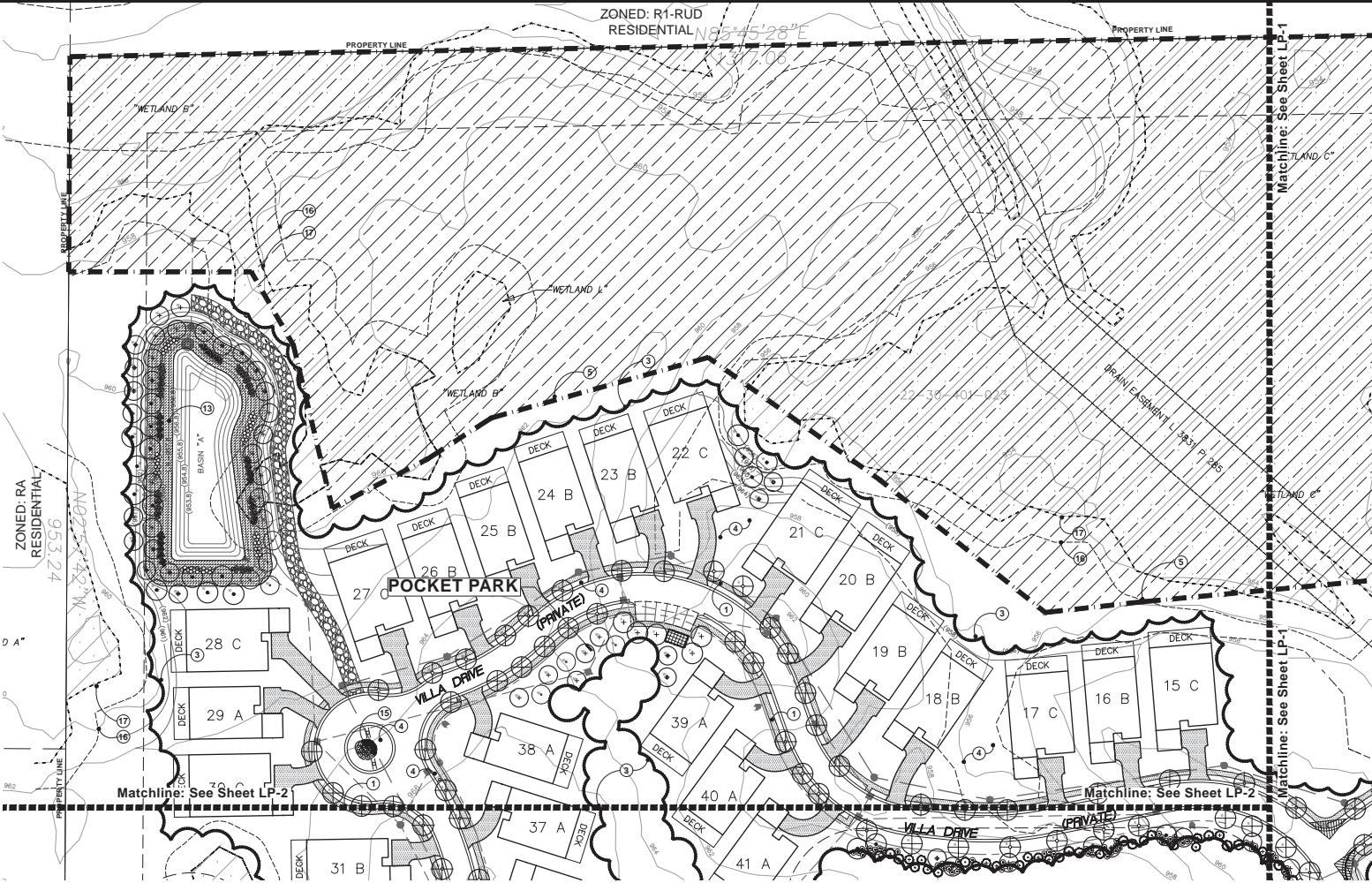
revisions:

REV	DATE	DESCRIPTION
PRC	08/2/17	APP PRC
RVS	10/9/17	REVISED PER OWNER
RVS	01/25/18	REVISED PER OWNER
RVS	04/16/18	REVISED PER OWNER
RVS	06/08/18	REVISED PER OWNER

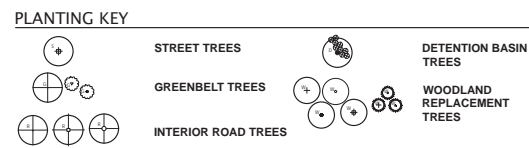
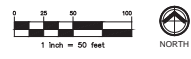
sheet title:
CONCEPTUAL LANDSCAPE PLAN

project no.
121713

sheet no.
LP-2



CONCEPTUAL SITE PLANTING PLAN
SCALE 1" = 50'



- NOTE KEY:**
- ① NEW CONCRETE WALK - SEE CIVIL DRAWINGS
 - ② 2' CLEAR WALKS OF WOODLAND PRESERVATION
 - ③ PROPOSED LAWN SEE ALL DISTURBED AREAS
 - ④ PROPOSED LIMITS OF LAND DONATION TO CITY - SEE CIVIL DRAWINGS
 - ⑤ MOISTURE TEST AREA
 - ⑥ NO ITEM
 - ⑦ NO ITEM
 - ⑧ PROPOSED GATED ENTRANCE
 - ⑨ PROPOSED BIKE RACKS
 - ⑩ NO ITEM
 - ⑪ INTENTION MATIVE SEED MIX FOR SIDE SLOPES
 - ⑫ CONTIGUOUS MULCH BED
 - ⑬ SHRUB & PERENNIAL PLANTINGS TYP.
 - ⑭ 25 FT. WETLAND SETBACK
 - ⑮ WETLAND LIMITS
 - ⑯ NO ITEM
 - ⑰ DOG WALKING AREA W/ SIGNAGE AND WASTE COLLECTION

- GENERAL PLANTING REQ.:**
1. THE WORK SHALL CONSIST OF PROVIDING ALL NECESSARY MATERIAL, LABOR, EQUIPMENT, TOOLS AND SUPERVISION REQUIRED FOR THE COMPLETION AS SHOWN ON THE DRAWING.
 2. ALL PLANT MATERIAL SHALL CONFORM TO THE TYPE LISTED ON THE PLANT LIST. SIZES SHALL BE THE MINIMUM SIZES ON THE PLANT LIST OR AS NOTED. ALL MEASUREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "A.A. STANDARDS FOR NURSERY STOCK".
 3. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT.
 4. ALL SHOULDER TRUNK CHASE TREES TO HAVE A CENTRAL LEAD OR FREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED. ALL SINGLE STEM SHADE TREES TO HAVE A STRAIGHT TRUNK AND SYMMETRICAL CROWNING.
 5. ALL MULTI-STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNING. ONE BEYOND TREES OR THOSE WITH TRUNKS THAT ARE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE CROWNING SEASONS.
 6. THE CONTRACTOR IS RESPONSIBLE FOR PLANTING THE MATERIALS AT THE CORRECT GRADES AND SPACING. THE PLANTS SHALL BE ORIENTED AS TO GIVE THE BEST APPEARANCE.
 7. WHEN THE PLANT HAS BEEN PROPERLY SET, THE PIT SHALL BE BACKFILLED WITH A TOPSOIL AND NURSERY SOIL MIXTURE, GRADUALLY FIRMING, PATTING AND SETTLING WITH WATER.
 8. ALL PLANT MATERIALS SHALL BE PRUNED AND INJURIES REPAIRED. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE REMOVAL OF DEAD OR INJURED TWIGS AND TO COMPENSATE FOR THE LOSS OF ROOTS FROM TRANSPORTING. QUOTE SHALOE BE FLOWING LEAVING THE CONTRACTOR AGREES TO GUARANTEE ALL PLANT MATERIALS FOR THE PERIOD OF TWO YEARS AT THAT TIME THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO A FINAL INSPECTION. PLANT MATERIAL WITH 20% DIE BACK, AS DETERMINED BY THE OWNER'S REPRESENTATIVE SHALL BE REJECTED. THIS GUARANTEE INCLUDES THE FURNISHING OF NECESSARY LABOR AND MATERIALS. THESE NEW PLANTS SHALL ALSO BE GUARANTEED FOR THE PERIOD OF ONE YEAR.
 9. TOPSOIL SHALL BE FRABLE, FERTILE, TOPSOIL OF CLAY LOAM CHARACTER CONTAINING AT LEAST 2% BUT NOT MORE THAN 20% BY WEIGHT OF ORGANIC MATTER WITH A RANGE FROM 6.0 TO 7.0 pH. SOIL SHALL BE FREE FROM CLAY LUMPS, COARSE SAND, PLANT ROOTS, STICKS AND OTHER FOREIGN MATERIALS.
 10. NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES. HAND GRAB ALL LAWN AREAS WITHIN DRIP LINE OF EXISTING TREES.
 11. IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS, WALLS AND PAVED AREAS.
 12. ALL PLANTING BEDS SHALL RECEIVE 4" SHREDDED BARK MULCH, SEE SPECIFICATIONS.
 13. SOOD SEED LAWN AREAS: ALL LAWN AREAS BETWEEN CURBS AND BUILDINGS OR BETWEEN BUILDINGS, DESK SOIL TO 4" DEEP BEFORE TOPSOIL PLACEMENT.
 14. SOOD SHALL BE TWO YEAR OLD 'BARONCHERIE' KENTUCKY BLUE GRASS GROWN IN A SOOD NURSERY ON LOAM SOIL.

- PLANT MIX**
- ALL PLANTINGS PERENNIAL BEDS TO RECEIVE:
- 1 - 6.0 FT. BALE CANADIAN PEAT
 - 1 - 40 LB. SOD DRAINAGE
 - 1 - 1 LB. SOD DRAINAGE 15-15-15
 - MULTI-PURPOSE FERTILIZER
- PER 100 SQ. FT. BED AREA
- MULCH**
- HAND TILL INTO SOIL TO A DEPTH OF 12" MINIMUM
- MULCH TO BE DOUBLE SHREDDED HARDWOOD BARK MULCH
- NO GROUND WOOD PALLETTE MULCH PERMITTED
- TOPSOIL**
- CONTRACTOR TO TILL OR DISK SUBGRADE TO 4" DEPTH AND INSTALL 4" COMPACTED DEPTH TOPSOIL IN ALL LAWN AREAS - TOPSOIL SHALL BE PROVIDED BY CONTRACTOR

- PLANT KEY**
- TREE SYMBOL
TREE TYPE KEY - SEE PLANT LIST SHEET LP-2
QUANTITY PLANTING DETAILS SEE SHEET LP-4
- IRRIGATION**
- ALL LANDSCAPE AREAS WILL BE IRRIGATED WITH A FULLY AUTOMATIC IRRIGATION SYSTEM.
- NOT TO BE USED AS CONSTRUCTION DRAWING**

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VILLA D'ESTE
PROPOSED DETACHED CONDOMINIUMS - NOVI, MI



project sponsor:
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4775 Billings Drive
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revisions:

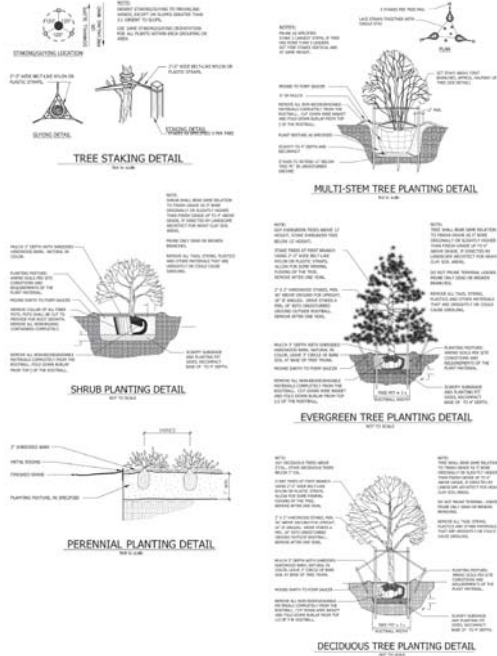
PKL APP PKC	08/2/17
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RUSD PER OWNER	04/16/18

sheet title:
CONCEPTUAL LANDSCAPE PLAN

project no.
121713

sheet no.
LP-3

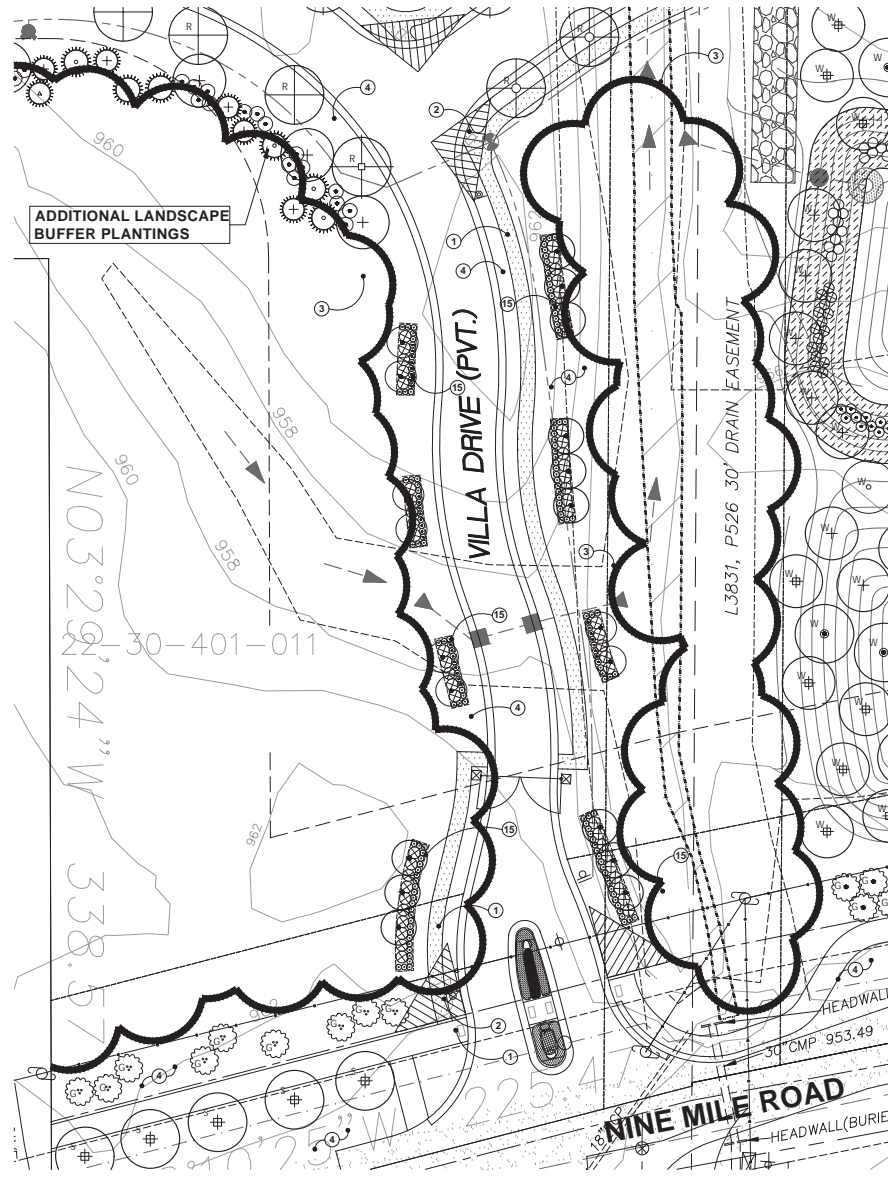
NOVI PLANTING DETAILS



NOVI LANDSCAPE SPECIFICATIONS

- Wherever in this Ordinance landscape plantings are required or permitted, they shall be planted in accordance with the approved final stamped landscape plan.
- All plant materials shall be installed between March 15th and November 15th. All installed landscapes including plant materials, mulch, staking, irrigation, and sodding, must be installed and inspected by the City prior to issuance of a Temporary Certificate of Occupancy. At that time, a financial guarantee of 1.5 times the cost of any deficiencies will be held until inspection occurs for a Final Certificate of Occupancy. In order to receive a Final Certificate of Occupancy, the deficiencies must be addressed within 30 days during the March 15th to November 15th planting season. Under extraordinary circumstances related to the inability to plant during the approved installation period, a financial guarantee of 2 times the cost of any deficiencies will be held until the inspection for a Final Certificate of Occupancy. If the deficiencies are not addressed in the time period outlined above, the City will cash in the amount being held for the outstanding items and remedy those items.
- A City representative will perform landscape inspections following a request from the developer. The inspection time period is from March 15th to November 15th. If an inspection is requested between November 16 and March 31, a financial guarantee is to be provided (cash or CD) times the percent incomplete for a Temporary Certificate of Occupancy as outlined above. Beginning March 31st, the Applicant has 30 days to complete items or the City will cash in the amount being held and remedy those items.
- The establishment period for the plant material guarantee will occur beginning at the Final Certificate of Occupancy inspection approval to 2 years from that date. All plantings shall be properly staked as to be a healthy, growing condition at commencement of the establishment period. At the end of the establishment period, any plantings, which are 20% dead or greater, shall be replaced.
- Notice of installation/Minor changes.
 - The owner or developer must notify the City of the installation schedule. The City may reject any material which is defective or is generally poor condition.
 - Minor changes regarding plant materials per the approved and stamped landscape plan may be altered upon written notification to and written sign-off by the City Landscape Architect of species, size, change, and location.
 - Minor changes due to seasonal planting problems, and lack of plant availability may be approved in writing by the City Landscape Architect when there is no reduction in the quality of plant materials, no significant change in size or location of plant material, the new plant material is compatible with the area and is the same general type (deciduous/evergreen), exhibiting same design characteristics (mature height, crown), as the material being replaced. If these criteria are not fulfilled or changes are significant from approval, plan, the landscape plan shall be revised and resubmitted for plan approval.
 - Maintenance of required plantings by the owner shall be carried out so as to present a healthy, neat and orderly appearance, free from refuse and debris.
 - To insure proper maintenance and as a condition of Final Site Plan approval, the property owner shall enter into and record with the office of the Oakland County Register of Deeds a Landscape Maintenance Agreement, or include such provisions as part of subdivision restrictions or condominium master deed, each of which shall be approved by the City Attorney. Such instrument shall identify the maximum size of replacement, the period of entry responsibility for maintenance, and shall provide the methods, amounts and means for City care of replacement responsibility. Such instrument shall also include provisions that all unhealthy and dead material shall be replaced within one (1) year of the next approved planting period, unless otherwise occurs that all landscaped areas shall be provided with an irrigation system, tree stakes, guy wires and tree wrap use to be removed one winter season, plantings shall be guaranteed for one (1) year of growing season after the date of installation. If the installation of plants exceeds the height specified in Chapter 21 of the Novi Code of Ordinances, or if shrubs are allowed to obstruct the sight triangle at an intersection, the property owner shall be responsible for the maintenance of the plants. The City shall such violations and shall assess the cost of such abatement measures in the manner proposed by the developer and approved by the City in such resolution.
- Responsibility and Certificates of Occupancy. The owner of the property subject to the requirements of this Section shall be responsible for installing and maintaining and maintaining the approved final landscape plan as specified in this Section. Where the property is occupied by a person other than the owner, the occupant shall also be responsible for maintenance. All landscaping work required pursuant to this Section shall be treated as a site improvement for purposes of Sections 3005-B and 9.

* These requirements supersede all other planting requirements or specifications.



1 LP-1 CONCEPTUAL PLANTING DETAIL - ENTRANCE SCALE 1" = 20'

NOTE KEY:

- 1 NEW CONCRETE WALK - SEE CIVIL DRAWINGS
- 2 2" CLEAR VISION FRAMING
- 3 PROPOSED LIMITS OF HOUSING PRESERVATION
- 4 PROPOSED LIMITS OF LAND DONATION TO CITY - SEE CIVIL DRAWINGS
- 5 MOVED EXISTING AREA
- 6 NO ITEM
- 7 NO ITEM
- 8 NO ITEM
- 9 PROPOSED GATED ENTRANCE
- 10 PROPOSED BIKE RACKS
- 11 NO ITEM
- 12 INTENTION MATHE SEED MIX FOR SIDE SLOPES
- 13 CONTIGUOUS MULCH BED
- 14 SHRUB & PERENNIAL PLANTINGS TYP
- 15 25 FT. WETLAND SETBACK
- 16 WETLAND LIMITS
- 17 NO ITEM
- 18 DOG WALKING AREA W/ STORAGE AND WASTE COLLECTION

GENERAL PLANTING REQ.:

- THE WORK SHALL CONSIST OF PROVIDING ALL NECESSARY MATERIAL, LABOR, EQUIPMENT, TOOLS AND SUPPLIES NECESSARY FOR THE COMPLETION AS SHOWN ON THE DRAWING.
- ALL PLANT MATERIAL SHALL BE CONFORM TO THE TYPE SPECIFIED ON THE PLANT LIST. SIZES SHALL BE THE MINIMAL SIZES ON THE PLANT LIST OR LARGER. ALL MEASUREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "A.A.N. STANDARDS FOR NURSERY STOCK."
- ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT.
- ALL SHEDS TRUNK SHADE TREES TO HAVE A CENTRAL LEADER, TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED. ALL SHEDS TRUNK SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- ALL MULTI-STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE BEYOND TREES OR THOSE WITH TRUNKS THAT ARE NOT BE ACCEPTED.
- ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
- THE CONTRACTOR IS RESPONSIBLE FOR PLANTING THE MATERIALS AT THE CORRECT GRADES AND SPACING. THE PLANTS SHALL BE ORIENTED TO GIVE THE BEST APPEARANCE.
- WHEN THE PLANT HAS BEEN PROPERLY SET, THE PIT SHALL BE BACKFILLED WITH A TOPSOIL AND WATERED. THE MIXTURE GRADUALLY FILLING, PATTERNS AND SETTLING WITH WATER.
- ALL PLANT MATERIALS SHALL BE PRUNED AND INJURIES REPAIRED. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE REMOVAL OF DEAD OR INJURED TWIGS AND TO COMPREHENSIVE FOR THE LOSS OF NORTHERLY TRANSLATING. CUTS SHOULD BE FLUSH, LEAVING GRADUALLY FLANG, PATTERNS AND SETTLING WITH WATER.
- THE CONTRACTOR AGREES TO GUARANTEE ALL PLANT MATERIALS FOR THE PERIOD OF TWO YEAR AT THAT TIME THE OWNER'S REPRESENTATIVE RECEIVES THE SIGN OF A FINAL ACCEPTANCE PLANT MATERIAL WITH 20% DE BACK, AS DETERMINED BY THE OWNER'S REPRESENTATIVE SHALL BE REPAIRED. THIS GUARANTEE INCLUDES THE FURNISHING OF NECESSARY LABOR AND MATERIALS. THESE NEW PLANTS SHALL ALSO BE GUARANTEED FOR THE PERIOD OF ONE YEAR.
- TOPSOIL SHALL BE FRABLE, FERTILE TOPSOIL OF CLAY LOAM CHARACTER CONTAINING AT LEAST 2% BUT NOT MORE THAN 20% BY WEIGHT OF ORGANIC MATTER WITH A RANGE FROM 6.5 TO 7.0. SOIL SHALL BE FREE FROM CLAY LUMPS, COARSE SAND, PLANT ROOTS, STONKS AND OTHER FOREIGN MATERIALS.
- NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES. HAND GRADE ALL LAWN AREAS WITHIN DRIP LINES OF EXISTING TREES.
- IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS, WALKS AND PAVED AREAS.
- ALL PLANTING BEDS SHALL RECEIVE 4" SHREDDED BARK MULCH. SEE SPECIFICATIONS.
- SOOD SEED LAYERS ARE ALL LAWN AREAS BETWEEN CURBS AND BUILDINGS OR BETWEEN BUILDINGS, DISK SOIL TO 4" DEEP BEFORE TOPSOIL PLACEMENT.
- SOOD SHALL BE TWO YEAR OLD "BARONCHERIDEPUPP" KENTUCKY BLUE GRASS GROWN IN A SOON NURSERY ON LOAM SOIL.

PLANT MIX

- ALL PLANTING PERENNIAL BEDS TO RECEIVE:
 - 1 - 6 CU FT B&E CANADIAN PEAT
 - 1 - 40 LB 80 DRAMMINE
 - 1 - 1 LB 80 LB COMBIMAX
 - MULTI-PURPOSE FERTILIZER
- PER 100 SQ FT BED AREA.

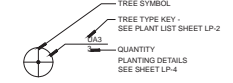
MULCH

- MULCH TO BE DOUBLE SHREDDED HARDWOOD BARK MULCH.
- NO GROUND WOOD PALLETTE MULCH PERMITTED.

TOPSOIL

- CONTRACTOR TO TILL OR DISK SUBGRADE TO 4" DEPTH AND INSTALL A "COMPACTED" DEPTH TOPSOIL IN ALL LAWN AREAS. TOPSOIL SHALL BE PROVIDED BY CONTRACTOR.

PLANT KEY



IRRIGATION

- ALL LANDSCAPE AREAS WILL BE IRRIGATED WITH A FULLY AUTOMATIC IRRIGATION SYSTEM.

[NOT TO BE USED AS CONSTRUCTION DRAWING]

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VILLA D'ESTE
 PROPOSED DETACHED CONDOMINIUMS - NOVI, MI

seal:

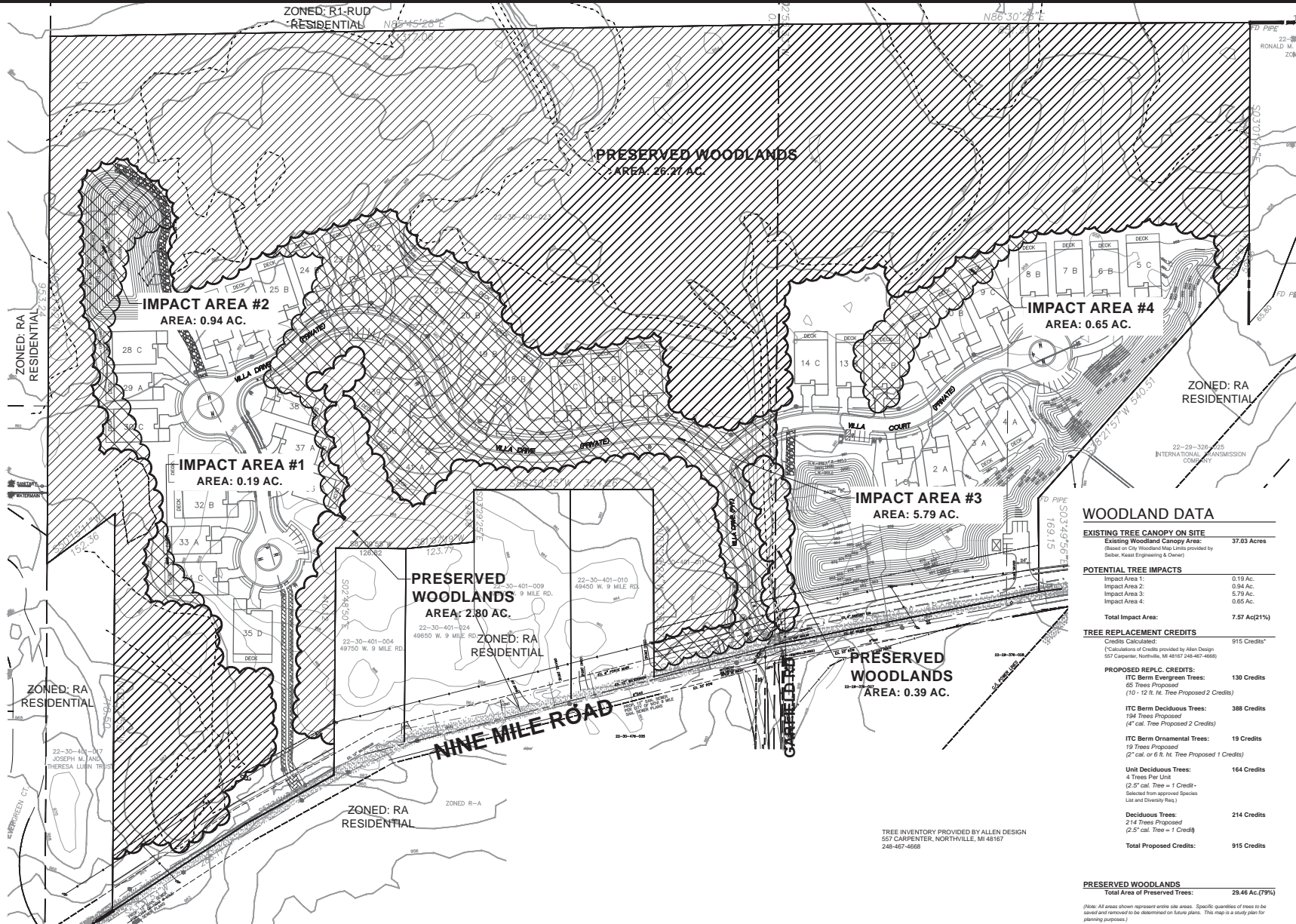
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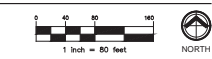
revisions:

PRO APP PKG	08/21/17
RUSD PER OWNER	10/9/17
RUSD PER OWNER	01/25/18
RUSD PER OWNER	04/16/18
RUSD PER OWNER	06/08/18

sheet title:
CONCEPTUAL LANDSCAPE PLAN
 project no.:
 121713
 sheet no.:
LP-4



WOODLAND STUDY MAP
SCALE 1" = 80'



WOODLAND DATA

EXISTING TREE CANOPY ON SITE	37.03 Acres
<small>(Based on City Woodland Map Limits provided by Baker, Naeff Engineering & Design)</small>	
POTENTIAL TREE IMPACTS	
Impact Area 1:	0.19 Ac.
Impact Area 2:	0.94 Ac.
Impact Area 3:	5.79 Ac.
Impact Area 4:	0.65 Ac.
Total Impact Area:	7.57 Ac(21%)
TREE REPLACEMENT CREDITS	915 Credits*
<small>*Credits Calculated: (Calculations of Credits provided by Allen Design 557 Carpenter, Northville, MI 48167 248-467-4688)</small>	
PROPOSED REPLC. CREDITS:	130 Credits
ITO Berm Evergreen Trees: 65 Trees Proposed (10' - 12' ft. ht. Tree Proposed 2 Credits)	
ITC Berm Deciduous Trees: 194 Trees Proposed (4' cal. Tree Proposed 2 Credits)	388 Credits
ITC Berm Ornamental Trees: 19 Trees Proposed (2" cal. or 6 ft. ht. Tree Proposed 1 Credit)	19 Credits
Unit Deciduous Trees: 4 Trees Per Unit (2.5' cal. Tree = 1 Credit - Selected from approved Species List and Diversity Req.)	164 Credits
Deciduous Trees: 214 Trees Proposed (2.5' cal. Tree = 1 Credit)	214 Credits
Total Proposed Credits:	915 Credits
PRESERVED WOODLANDS	29.46 Ac.(79%)
<small>(Note: All areas shown represent entire site areas. Specific quantities of trees to be saved and removed to be determined on future plans. This map is a study plan for planning purposes.)</small>	

TREE INVENTORY PROVIDED BY ALLEN DESIGN
557 CARPENTER, NORTHVILLE, MI 48167
248-467-4688



Project sponsor:
Cambridge Homes, Inc.
47755 Billings Drive
Northville, MI 48167
248.348.3800

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revisions:

PRO APP REV	08/2/17
RVSD PER OWNER	10/9/17
RVSD PER OWNER	10/25/17
RVSD PER OWNER	01/25/18
RVSD PER OWNER	05/17/18
RVSD PER OWNER	05/08/18

sheet title:
WOODLAND STUDY PLAN

project no.
121713

sheet no.
WP-1

EXCERPT FROM
CITY COUNCIL MINUTES
JULY 23, 2018

- A. Approve Minutes of:
 - 1. July 9, 2018 – Regular meeting
- B. Approval to award bid to Stryker Sales Corporation, the lowest bidder, to purchase six (6) Stryker 6252 Stair-Pro chairs, in the amount of \$19,140.12 for the Novi Fire Department.
- C. Approval of amendments to contracts for the City Manager, City Clerk, and City Assessor as prepared and approved as to form by the City Attorney.
- D. Approval of the final payment to Florence Cement Company for the 2017 Neighborhood Road Program - Asphalt Streets (Contract 3) project in the amount of \$43,971.19, plus interest earned on retainage.
- E. Approval to award civil engineering services to AECOM for construction engineering services associated with the 2018 Chip Seal program in the amount of \$15,166.25.
- F. Approval of a License Agreement with The Country Place Condominium Association to construct and maintain a 9-stall parking lot addition within the City-owned Eden Drive right-of-way.
- G. Approval of Claims and Accounts – Warrant No. 1016

CM 18-07-106 Moved by Markham, seconded by Casey; MOTION CARRIED: 6-0

To approve the Consent Agenda as amended.

Roll call vote on CM 18-07-106

**Yeas: Breen, Casey, Markham, Wrobel, Gatt,
 Staudt
Nays: None
Absent: Mutch**

MATTERS FOR COUNCIL ACTION

- 1. Consideration for tentative approval of the request of Cambridge of Novi, LLC, for Villa D'Este, JSP17-52, for a Planned Rezoning Overlay Concept Plan associated with a Zoning Map amendment 18.718, to rezone from RA (Residential Acreage) to R-1 (One-Family Residential). The subject property is approximately 51 acres and is located east of Napier Road on the north side of Nine Mile Road in Sections 29 and 30. The applicant is proposing a 41-unit single-family ranch housing development in a gated community.

Mark Guidobono with Cambridge Homes said he was there regarding Villa D'Este their proposed active adult empty nester community in Novi. He stated that they have

listened to City Council and have made changes to their plan from the last meeting. They eliminated one unit and increased the width of the wildlife corridor to 240 feet wide. He thought it was a nice improvement. It creates enchanting effect as you drive through community from the entrance. The first house is 500 feet from entrance, you won't be able to see it just a street and trees. He said another change they made through the plan was just north of the out lots on 9 Mile was that they shifted that road farther north as far as they could. He said at the northeast corner of easterly out lots they are 93 feet away. This allowed them to preserve more woodlands between the two properties and added additional planting's for more screening for property owners. The detention area on northwest corner was moved 75 feet to the east to preserve 75 foot wide area of hard woods. He stated that moving the detention basin to the east they preserved more trees. He explained that behind lots 36 and 41, those sites back up to each other, they found that they could preserve those trees because those grades match. They can preserve trees closer to a home which is unusual in Michigan. He said the additional community benefit they are offering the City of Novi is that they would agree to move the ITC Trail to the north side of 9 Mile. He thought it was a better detail, and they would be willing to handle cost of that which would save the City money for the ITC Trail at that location. They also submitted a couple of options, A and B for the entrance, they are very open with either Option A or B. They would be happy to work with staff to finalize whatever makes the most amount of sense. When he looks at a piece of property it sends a message to him. The property said to him they should develop this piece of property in a very friendly way. He stated they worked hard to minimize the woodland impact to this property. They have the impact down to seven and a half acres. If they did single family lots, they would impact 25 acres of woodlands. There is a significant difference between single family and empty nester on this site. If we could capture the sun's energy shining on the earth for one hour, we could power the entire world for one year. We are proposing to make Villa D'Este the first solar powered community in Michigan. The technology and affordability is here to greatly reduce a residents overall carbon footprint. We will solar power their model home and the entrance. He believed empty nesters would love not receiving an electric bill on a monthly basis. He said there is no reason why Novi can't lead Michigan as a role model for solar energy. He said he had a representative from Green Panel, Inc. if there are any technical questions. He listed the community benefits. He said they are donating 20 acres of land to the City, building a comforts station, paving 300 feet of 9 Mile Road, they agreed to relocate the ITC trail to the north side of 9 Mile, and they are increasing the tax base by 30 million. They are also allowing the City to use their property as a staging area as a soil stockpiling area and discharge point for the sanitary sewer going down 9 Mile Road. When you look at the value, the value to City of Novi is \$1,355,000. He said this was something they could not offer if they went single family. In summary they are preserving 17.5 additional acres of woodlands with empty nester compared to single family. There will be 45 % less traffic. He said that 60% of site is being preserved. They are offering big community benefits. There will be no impact to school system. Novi has the opportunity to become an environmental leader by having the first solar community in Michigan. He felt that the City of Novi is lacking empty nester housing. He said that seniors have a positive effect on community. They volunteer, join clubs, visit libraries, provides assistance, they donate time to community.

Less likely to commit a crime, or tear up neighborhood. He said he has lived in Novi for a long time. He wants to downsize. There is not an opportunity for him. He believed there are many people like him in all price ranges who would love to stay in Novi. Baby boomers are getting older and ranch empty nester housing is needed.

Member Breen said it was very obvious he listened to everything Council has said, especially with the intention of making this a solar powered community. She wondered if they could spell out logistics of making this a solar powered community. Mr. Guidobono said the price for their model is 2600 square foot home, depending upon what's in home; the cost to consumer is \$15,000 to \$17,000 which seems reasonable considering there is a 30% federal tax credit. This would involve putting panels on roof. He said he does not wall panels highly visible on a roof because of architectural integrity. We are dealing with a situation here that these houses do not have a lot of frontage, but they have depth to them. They will be putting the panels on the roof, starting at the back moving forward in order to catch the solar rays, which is best on the south side, then west, then east. There is a calculation to determine, based on what's in the home, how many panels you need. He said you can make this carbon neutral where you don't have to pay a dime for electricity. Member Breen mentioned that he had gathered a lot of support, and that he reduced it by one unit. She also mentioned he indicated a wildlife corridor. Her question is this passage, but there a gate. She wondered if the gate was absolutely necessary. Is it necessary or can we remove the gate? How high is the berm on either side of the gate? Mr. Guidobono said there will be no berm next to gate. He said the wildlife and pedestrian traffic can get into community via sidewalk. No restriction there. He would prefer to have the gate. Member Breen wondered if there was any reason that they had to have the gate. Mr. Guidobono said the price had to go up because they reduced the number of units. For the \$700k price tag, the customer would want the gate there. Security is an issue in this age range. It provides a sense of security for senior citizens. Member Breen appreciated the changes. She said she was not a fan of gates. With this development they've heard a lot of opinions. She understood the Master Plan issue, the wildlife comments, and concerns about the traffic. The other things we have to weigh is that Novi doesn't own the land, if we don't go with this plan and proceed with another plan under the current density there is an excellent change that more of the environment could be negated by these houses. With this particular plan, she liked that we are going to have parkland donated to the City. This is the type of housing allowing people to age in place. She appreciated the statement that the Master Plan is fluid to a certain extent. She still had some reservations, she was eager to hear what her colleagues had to say about it. No matter what, people will be happy or unhappy.

Member Markham stated that she wasn't at the last meeting; she has read and listened to it though. She had questions for the staff. She asked about moving the ITC to north side of 9 Mile. City Planner McBeth, responded, yes, through the Mayor, it would be on the north side of 9 Mile and also on west side of Garfield Road as shown on the plan. Member Markham said there was a proposal to move Garfield Road to line up better with this development, but that has the potential with interfering with the grant we just received to preserve the property on the southwest corner of that intersection. Is that

correct? Ms. McBeth said yes, that is correct. That is one of the issues with shifting Garfield Road slightly to the west that it would interfere with some of the parkland that we acquired. It would also interfere with some of the woodland trees and the traffic consultant said it wasn't necessary. Member Markham asked about the comfort station, she thought we were planning to build a facility for the trails, how do these both relate? Do we need both? Member Muck said with the ITC Trailhead Park, when we first applied for grant to acquire that property we indicated we would want to put in a small parking area, picnic area/comfort station. If this is being proposed with this development and it is approved we would not have to construct these on the ITC Trailhead property. He said with this proposal, Mr. Guidobono would build the comfort station. He confirmed there was no issue with the City not building it. He said that the grant was written with many options, we can take a look at another option that we could put in there in the future. Member Markham asked if there was a bathroom. Mr. Muck confirmed this was just a picnic/shelter, no restroom. Member Markham was not clear where trail goes. There is some question of it lining up with the ITC Corridor and Mr. Valente's property. Mr. Muck said they had a plan that we could go either the south route, south of 9 Mile, or go along the north route. Mr. Muck said we could come up through the ITC Trailhead Park Property which is on the west side of Garfield. Then we could cross Garfield and go the south route of 9 Mile or go across and go north. Member Markham asked if these are details we can be worked out that will be worked out at the end and she wondered if he saw any real issues with the legal aspects of trying to do what we are doing. Mr. Muck said we would have to have some conversations with ITC with their licensing agreement, but ultimately he didn't believe it would matter either way. Member Markham asked Ms. McBeth a question relating to the upsizing of trees and the tree credits. She stated that the developer wants to put in bigger trees than what our ordinance asked for and get extra credit for that, but the staff doesn't recommend that. She asked what she thought of that. Ms. McBeth said the applicant wants to remove a number of trees from his site and instead of placing standard size trees, he proposed larger trees along berm near the southeast part of the site. He is asking for additional woodland replacement credit to do that. That has not been supported by either our landscape architect or woodland consultant. We don't object to the tree size, but they should not get extra credit for that. Member Markham said this section of woodlands is really high quality. She agreed with Mr. Guidobono that this kind of development encroaches the least amount into those woods. We will be preserving 45 acres permanently of quality woodlands. Consistent with what she has always said they should do. We have to allow people to develop their property, but she also thinks that they need to bring us a development that is sensitive to the special areas that we have. She believed this development has done that and she will support it.

Member Casey said she reread the conversation from the last meeting and compared the layout from May to this and she thanked him for listening to Council. She's glad they postponed it. He has taken into account the feedback that he received and the piece she appreciated the most was that he moved road as far back as he could. One primary concern was the existing residents that would have an impact. You've given much more space. She appreciated that he made the change to mitigate the

concern. She confirmed with Ms. McBeth that when we have properties like this, what's the opacity going to be on that stretch of road between that road and the residents there? Ms. McBeth referred the question to our Landscape Architect. Because it's residential, there is no requirement for the 80% to 90% opacity. It will depend on the type of plants and the density. Member Casey was encouraged we look for that type of opacity. She agreed with the proposed benefits. She said she will support this development without the extra credit for the oversized trees.

Member Staudt said it is seldom that we have a developer come back three times for the same development. Typically if it's rejected, they don't come back. He said the third time sounds like a charm. Council is ready to approve this. He mentioned the conversation about the Master Plan is always a tenuous balance. In this situation we went from 60+ units to 41, which is considerable reduction. He said it was really following spirit of the Master Plan, which is trying to put the fewest number of homes on this piece of property as possible. Once thing we may overlook is to the north of the property. Singh development will develop the Links of Novi with their own development of some type and any preservation of woodland and wetlands is to our benefit. He said to the north, they were looking at deeding some of that land also. A comment earlier about taking it off the tax rolls; we spend a lot of money buying land to preserve it to take it off the tax rolls. Whenever we can get it, it is a great benefit to us.

CM 18-07-107 Moved by Staudt, seconded by Wrobel; MOTION CARRIED: 5-1

Tentative approval of the request Villa D'Este, JSP17-52, with rezoning 18.718, to rezone the subject property from RA (Residential Acreage) to R-1 (One-Family Residential) with a Planned Rezoning Overlay Concept Plan, based on the following findings, City Council deviations, and conditions, with the direction that the applicant shall work with the City Attorney's Office to prepare the required Planned Rezoning Overlay Agreement and return to the City Council for Final Approval:

- 1. The recommendation shall include the following ordinance deviations and additional information requested by staff for consideration by the City Council:**
 - a. Planning Deviation from Sec. 3.1.2 of Zoning Ordinance for reduction of the minimum lot size, setbacks, minimum lot frontage and minimum site acreage as shown on the proposed concept plan provided,**
 - i. The proposed unit boundary shown on the concept plan (sheet 02) is to be considered the maximum allowable footprint. Any accessory uses such as hot tubs, patios, etc. will be provided within the footprint shown on the plan.**
 - ii. A minimum of 15 feet shall be maintained between two buildings.**

- iii. **A minimum of 30 feet is provided between the front façade and the back of the curb.**
 - iv. **Rear setbacks will be as shown on the Concept plan, based on the proposed boundary line of land to be donated to City.**
- b. **Façade deviation from Sec 3.7, similar dissimilar ordinance, to replace internal calculation of square footage to a 2200 square foot minimum requirement for this development;**
- c. **Landscape deviation from Sec. 5.5.3.B.ii and iii of Zoning Ordinance for lack of berms along the westerly Nine Mile Road frontage and portions of the easterly frontage, due to existing natural features;**
- d. **The applicant shall conform to the ordinance requirements at the time of Preliminary Site Plan and Woodland permit review;**
- e. **Engineering deviation from Sec. 4.04, Article IV, Appendix C-Subdivision ordinance of City Code of Ordinances for absence of a stub street required at 1,300 feet intervals along the property boundary to provide connection to the adjacent property boundary, due to conflict with existing wetlands;**
- f. **Engineering deviation from Chapter 7(c)(1) of Engineering Design manual for reducing the distance between the sidewalk and back of the curb: 15 feet required, 10 feet proposed;**
- g. **Engineering deviation for absence of sidewalk along a portion of Villa Drive, with payment into the City's sidewalk fund for the cost of the sidewalk not constructed;**
- h. **Engineering deviation for absence of hard surface for proposed comfort station parking lot and driveway from Sec. 11-239(b)(1),(2)of Novi City Code, or the applicant shall provide the hard surface as requested by staff, to be determined prior to the submittal of the PRO Agreement;**
- i. **Engineering deviation for absence of curb and gutter for parking lot and driveway for the proposed comfort station from Sec. 11-239(b)(1),(2)of Novi City Code, or the applicant shall provide the curb and gutter as requested by staff, to be determined prior to the submittal of the PRO Agreement;**
- j. **Traffic deviation for not conforming to minimum required standards as indicated in Figure IX.5 of the City's Code of**

Ordinances for residential driveway, provided the applicant works with staff to minimize the number of driveways that deviate from the standard at the time of Preliminary Site Plan;

- k. Traffic deviation from Figure VIII-A in the City Code of Ordinances, for not providing the minimum width for local residential road for Villa D' Este Boulevard, the stretch from the entrance gates to the first intersection (28 feet required, 24 feet provided).**
- l. Traffic deviation from Section 7.4.2.c (1) of Engineering Design Manual for not meeting the maximum distance between sidewalk and Right of way line along Nine mile. A maximum of 1 foot is required for a small portion where it conflicts with existing wetland area;**
- m. Deviation to allow alternate locations for street tree plantings to avoid conflict with the utility layout along the internal roads, as detailed in this review letter:**
- n. The applicant shall meet the replacement requirements per the ordinance standards, by planting additional replacement trees onsite, or pay the difference into the Tree Fund.**
- o. The items outlined by the Planning Commission should be addressed in the drafting of the PRO agreement:
 - i. Construction of this development shall not be permitted to begin prior to the public project gravity sewer main in Nine Mile being in place and available for use.**
 - ii. Grading requirements for development shall be superseded based on the character of Nine Mile Road.**
 - iii. Retention ponds shall be completely screened for safety all four sides and above the typical standards.**
 - iv. The City shall confirm that the proposed trailhead agreement will not negate already existing agreements.**
 - v. The portion of asphalt paving on Nine Mile Road shall be constructed in a manner to reduce or eliminate issues of the interface between gravel and asphalt.****
- 2. The following conditions be requirements of the Planned Rezoning Overlay Agreement:
 - a. The development shall be limited to a maximum density of 41 units,**
 - b. The proposed unit boundary shown on the concept plan (sheet 02) is to be considered the maximum allowable****

- footprint. Any accessory uses such as hot tubs, patios, etc. will be provided within the footprint shown on the plan.
- c. A minimum of 15 feet shall be maintained between any two buildings.
 - d. A minimum of 30 feet shall be provided between the front façade and the back of the curb.
 - e. Rear setbacks will be as shown on the Concept plan, based on the proposed boundary line of land to be donated to City.
 - f. The applicant shall work with staff to identify a proper location to connect to ITC trail, beyond the subject property line.
 - g. The applicant shall limit the wetland and woodland impacts to the areas and percentages indicated on the concept plan at the time of Preliminary Site Plan.
 - h. Minor modifications to the approved Planned Rezoning Overlay Concept Plan (PRO) can be approved administratively, upon determination by the City Planner, that the modifications are minor, do not deviate from the general intent of the approved PRO Concept plan and result in reduced impacts on the surrounding development and existing infrastructure.
 - i. Applicant shall comply with the conditions listed in the staff and consultant review letters.
 - j. Completion of ITC Trail comfort station with Phase 1 of the residential construction.

This motion is made because:

1. The applicant has presented a reasonable alternative to the Master Plan for Land Use recommendation of 0.8 units to the acre (1.08 units to the acre proposed) for the parcel as indicated in the applicant's letter dated December 12, 2017, noting the appropriateness of an empty-nester residential development for the site given the layout of the plan, the proposed preservation of open space, the offer to provide an enhancement to public park facilities, and the provision for landscape or open space buffering on most sides of the development.
2. The proposed plan meets several objectives of the Master Plan, as noted later in this review letter, including:
 - a. *Maintain the semi-rural character of the southwest quadrant of the City that is created by low-density residential development and undeveloped land (by protecting a majority of natural features on site and provides ample screening from Nine Mile Road.*

**PLANNING REVIEW LETTER
SEPTEMBER 17, 2018**

**(BASED ON CHANGES ONLY FROM
AUGUST 21 SUBMITTAL)**



PLAN REVIEW CENTER REPORT

September 17, 2018

Planning Review

Villa D 'Este

JSP17-52 with Rezoning 18.718

PETITIONER

Cambridge Homes, Inc

REVIEW TYPE

6th Revised PRO Concept Plan for rezoning Request from RA (Residential Acreage) To R-1 (One-Family Residential) with Planned Rezoning Overlay (PRO)

PROPERTY CHARACTERISTICS

Section	29 and 30	
Parcel ID's	50-22-30-401-023, Part of 50-22-30-401-009, 50-22-29-326-002, 50-22-30-401-011 and 50-22-29-326-022	
Site Location	West side of Beck Road, east of Napier Road and north of Nine Mile Road	
Site School District	Northville Community School District	
Existing Zoning	RA, Residential Acreage	
Proposed Zoning	R-1, One-Family Residential	
Adjoining Zoning	North	R-1 One-Family Residential with a RUD agreement
	East	RA, Residential Acreage
	West	RA, Residential Acreage
	South	RA, Residential Acreage
Current Site Use	Undeveloped/Single family homes	
Adjoining Uses	North	Links of Novi/vacant;
	East	Single Family Residences
	West	Single Family Residences
	South	Single Family Residential/Vacant
Site Size	50.69 Acres (Net Site Acreage 38.60 Acres): 0.5 acre error in survey updated with the previous submittal	
Plan Date	August 21, 2018	

PROJECT SUMMARY

The applicant is requesting a Zoning Map amendment for a 50.60 acre property on the east side of Napier Road and north side of Nine Mile Road (Section 29,30) from RA (Residential Acreage) to R-1 (One-Family Residential) utilizing the City's Planned Rezoning Overlay (PRO) option. According to the applicant, the rezoning request is necessary to allow the development of a 41-unit single-family housing development (for sale). The applicant indicated that the residents will have an option to add a loft space or an attic, or an indoor pool. The concept plan indicates that this will be a gated community. All land will be considered as common element to be maintained by association. The applicant proposes to add language to deed restrictions that will allow indoor pools, outdoor hot tubs, fire pits, fireplaces, pizza ovens and grills.

The PRO Concept Plan shows two on-site detention ponds in the northwest corner of the site and on the southern side along the entrance to the site. One boulevard access point is proposed off of Nine Mile Road. An emergency access road is proposed off of the proposed cul-de-sac to Nine Mile Road. The development is proposed to be built in two phases.

The current revised plan includes the following changes based on input received from July 23, 2018 City Council meeting (also listed in detail in the applicant's cover letter dated August 13, 2018 and plan submittal August 21, 2018):

1. **The driveway entrance at Garfield and Nine Mile "Version B" is shown on the plans to maintain Garfield Road in its current location, and not shift it to the west, as had been proposed by the applicant.**
2. **A minimum setback of 35 feet from the rear line of the proposed decks to the rear property line of the homes proposed along the north boundary has been added to the plans. *It appears that no changes have been made to the open space being offered to the City.***
3. **Solar panel locations have been added to the plan:**
 - a. North of detention basin "B"
 - b. West of the emergency access drive from the end of the cul de sac to Nine Mile Road.
 - c. North of detention basin "A".

Additional detail on the location and elevation of the solar panels will be reviewed on the Preliminary Site Plan.

4. **The ITC Trail connection has been relocated to the north side of Nine Mile Road. The plan provides conflicting notes as to its width (both 8 feet and 10 feet are shown). *The applicant shall provide a ten foot wide asphalt path to be considered part of the ITC Trail connection to the north and south.***
5. **The Unit Data sketch on Sheet 2 shows common area, and unit boundaries for clarification in the Master Deed.** The note indicates that "Allowable Uses in Limited Common Element Area (at rear and side only) could include fire pits, fireplaces, hot tubs, pools, patios, sidewalks, decks, gardens and related appurtenances. Setbacks for these items to comply with R-1 Zoning Setbacks". The submitted response letter dated August 13, 2018 further indicates that certain units have expanded side yards for the listed uses. The applicant has indicated that the uses proposed must be approved by the developer. *Staff notes that the location of such items shall be subject to all relevant codes and ordinances, as well as with any language provided in the Master Deed. Language association with such approvals shall be approved by the City Attorney as a part of the PRO Agreement and Master Deed, and any other related documents.*
6. **Proposed unit boundaries may be combined, subject to developer approval.** *Staff notes that modification to the plan shall be subject to review by City Staff and Consultants, and modifications to the approved plans and any Master Deed may be needed to make such changes at the time of Preliminary Site Plan Review.*
7. **Curb and Gutter for Comfort Station Parking lot.** *The applicant has declined to offer the installation of curb and gutter for the Comfort Station parking lot. Engineering staff does not have any objections.*

PREVIOUS COUNCIL MEETING

On July 23, 2018, City Council considered the rezoning request with PRO and **tentatively approved** the request with the following motion:

Tentative approval of the request Villa D'Este, JSP17-52, with rezoning 18.718, to rezone the subject property from RA (Residential Acreage) to R-1 (One-Family Residential) with a Planned Rezoning Overlay Concept Plan, based on the following findings, City Council deviations, and conditions,

with the direction that the applicant shall work with the City Attorney's Office to prepare the required Planned Rezoning Overlay Agreement and return to the City Council for Final Approval:

1. The recommendation shall include the following ordinance deviations and additional information requested by staff for consideration by the City Council:

a. Planning Deviation from Sec. 3.1.2 of Zoning Ordinance for reduction of the minimum lot size, setbacks, minimum lot frontage and minimum site acreage as shown on the proposed concept plan provided,

i. The proposed unit boundary shown on the concept plan (sheet 02) is to be considered the maximum allowable footprint. Any accessory uses such as hot tubs, patios, etc. will be provided within the footprint shown on the plan.

ii. A minimum of 15 feet shall be maintained between two buildings.

iii. A minimum of 30 feet is provided between the front façade and the back of the curb.

iv. Rear setbacks will be as shown on the Concept plan, based on the proposed boundary line of land to be donated to City.

b. Façade deviation from Sec 3.7, similar dissimilar ordinance, to replace internal calculation of square footage to a 2200 square foot minimum requirement for this development;

c. Landscape deviation from Sec. 5.5.3.B.ii and iii of Zoning Ordinance for lack of berms along the westerly Nine Mile Road frontage and portions of the easterly frontage, due to existing natural features;

d. The applicant shall conform to the ordinance requirements at the time of Preliminary Site Plan and Woodland permit review;

e. Engineering deviation from Sec. 4.04, Article IV, Appendix C- Subdivision ordinance of City Code of Ordinances for absence of a stub street required at 1,300 feet intervals along the property boundary to provide connection to the adjacent property boundary, due to conflict with existing wetlands;

f. Engineering deviation from Chapter 7(c)(1) of Engineering Design manual for reducing the distance between the sidewalk and back of the curb: 15 feet required, 10 feet proposed;

g. Engineering deviation for absence of sidewalk along a portion of Villa Drive, with payment into the City's sidewalk fund for the cost of the sidewalk not constructed;

h. Engineering deviation for absence of hard surface for proposed comfort station parking lot and driveway from Sec. 11- 239(b)(1),(2)of Novi City Code, or the applicant shall provide the hard surface as requested by staff, to be determined prior to the submittal of the PRO Agreement; **(Paving has been proposed)**

i. Engineering deviation for absence of curb and gutter for parking lot and driveway for the proposed comfort station from Sec. 11-239(b)(1),(2)of Novi City Code, or the applicant shall provide the curb and gutter as requested by staff, to be determined prior to the submittal of the PRO Agreement; **(Curb and gutter are not being proposed)**

- j. Traffic deviation for not conforming to minimum required standards as indicated in Figure IX.5 of the City's Code of Ordinances for residential driveway, provided the applicant works with staff to minimize the number of driveways that deviate from the standard at the time of Preliminary Site Plan;
- k. Traffic deviation from Figure VIII-A in the City Code of Ordinances, for not providing the minimum width for local residential road for Villa D' Este Boulevard, the stretch from the entrance gates to the first intersection (28 feet required, 24 feet provided).
- l. Traffic deviation from Section 7.4.2.c (1) of Engineering Design Manual for not meeting the maximum distance between sidewalk and Right of way line along Nine mile. A maximum of 1 foot is required for a small portion where it conflicts with existing wetland area;
- m. Deviation to allow alternate locations for street tree plantings to avoid conflict with the utility layout along the internal roads, as detailed in this review letter;
- n. The applicant shall meet the replacement requirements per the ordinance standards, by planting additional replacement trees onsite, or pay the difference into the Tree Fund.
- o. The items outlined by the Planning Commission should be addressed in the drafting of the PRO agreement:
 - i. Construction of this development shall not be permitted to begin prior to the public project gravity sewer main in Nine Mile being in place and available for use.
 - ii. Grading requirements for development shall be superseded based on the character of Nine Mile Road.
 - iii. Retention ponds shall be completely screened for safety all four sides and above the typical standards.
 - iv. The City shall confirm that the proposed trailhead agreement will not negate already existing agreements.
 - v. The portion of asphalt paving on Nine Mile Road shall be constructed in a manner to reduce or eliminate issues of the interface between gravel and asphalt.
- 2. The following conditions be requirements of the Planned Rezoning Overlay Agreement:
 - a. The development shall be limited to a maximum density of 41 units,
 - b. The proposed unit boundary shown on the concept plan (sheet 02) is to be considered the maximum allowable footprint. Any accessory uses such as hot tubs, patios, etc. will be provided within the footprint shown on the plan.
 - c. A minimum of 15 feet shall be maintained between any two buildings.
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 - e. Rear setbacks will be as shown on the Concept plan, based on the proposed boundary line of land to be donated to City.
 - f. The applicant shall work with staff to identify a proper location to connect to ITC trail, beyond the subject property line.
 - g. The applicant shall limit the wetland and woodland impacts to the areas and percentages indicated on the concept plan at the time of Preliminary Site Plan.
 - h. Minor modifications to the approved Planned Rezoning Overlay Concept Plan (PRO) can be approved administratively, upon determination by the City Planner, that the modifications are minor, do not deviate from the general intent of the approved

PRO Concept plan and result in reduced impacts on the surrounding development and existing infrastructure.

- i. Applicant shall comply with the conditions listed in the staff and consultant review letters.
- j. Completion of ITC Trail comfort station with Phase 1 of the residential construction.

This motion is made because:

1. The applicant has presented a reasonable alternative to the Master Plan for Land Use recommendation of 0.8 units to the acre (1.08 units to the acre proposed) for the parcel as indicated in the applicant's letter dated December 12, 2017, noting the appropriateness of an empty-nester residential development for the site given the layout of the plan, the proposed preservation of open space, the offer to provide an enhancement to public park facilities, and the provision for landscape or open space buffering on most sides of the development.
2. The proposed plan meets several objectives of the Master Plan, as noted later in this review letter, including:
 - a. Maintain the semi-rural character of the southwest quadrant of the City that is created by low-density residential development and undeveloped land (by protecting a majority of natural features on site and provides ample screening from Nine Mile Road.
 - b. Provide a wide range of housing options (by being geared towards empty nesters, or those wishing to downsize from larger homes.
 - c. Protect and maintain the City's woodlands, wetlands, water features, and open space (by proposing to donate about 20 acres (40 %) of land with regulated woodlands and wetlands in the rear).
3. The City's Traffic Engineering Consultant has reviewed the Rezoning Traffic Impact Study and found that the proposed senior adult housing would produce 175 less trips per day than 40 single-family homes (as expected to be permitted under the RA zoning district, and the number of trips produced by the senior adult housing development is not expected to significantly impact Nine Mile Road.
4. Submittal of a Concept Plan and any resulting PRO Agreement, provides assurance to the Planning Commission and to the City Council of the manner in which the property will be developed, and offers benefits that would not be likely to be offered under standard development options.

RECOMMENDATION

Staff recommends **approval** of the rezoning request from RA (Residential Acreage) to R-1 (One Family Residential) in order to allow the construction of a detached residential development with a maximum density of 1.07 dwelling units per acre along with the revised concept plan, and recommend approval to the City Council of the proposed revised PRO Concept Plan, and PRO Agreement, for the following reasons:

1. The applicant has presented a reasonable alternative to the Master Plan for Land Use recommendation of 0.8 units to the acre (1.08 units to the acre proposed) for the parcel, noting the appropriateness of an empty-nester residential development for the site given the layout of the plan, the proposed preservation of open space, the offer to provide an enhancement to public park facilities, and the provision for landscape or open space buffering on most sides of the development.

2. The proposed plan meets several objectives of the Master Plan, as noted later in this review letter, including:
 1. *Maintain the semi-rural character of the southwest quadrant of the City that is created by low-density residential development and undeveloped land (by protecting a majority of natural features on site and provides ample screening from Nine Mile Road.*
 - b. *Provide a wide range of housing options (by being geared towards empty nesters, or those wishing to downsize from larger homes.*
 - c. *Protect and maintain the City's woodlands, wetlands, water features, and open space (by proposing to donate about 20 acres (40 %) of land with regulated woodlands and wetlands in the rear).*
3. The City's Traffic Engineering Consultant has reviewed the Rezoning Traffic Impact Study and found that the proposed senior adult housing would produce 175 less trips per day than 40 single-family homes (as expected to be permitted under the RA zoning district, and the number of trips produced by the senior adult housing development is not expected to significantly impact Nine Mile Road.
4. Submittal of a Concept Plan and any resulting PRO Agreement provides assurance to the Planning Commission and to the City Council of the manner in which the property will be developed, and offers benefits that would not be likely to be offered under standard development options.

COMMENTS

Please review the letter in detail and note the comments provided in **bold/underline** throughout the letter. Some of the major comments are summarized below. The applicant should address all the comments in the response letter and/or on subsequent submittals:

1. **Density:** The applicant is requesting an increase of 0.26 Dwelling Units per acre (about 34 percent more) than the maximum allowed density for RA (0.8 DUA). The maximum density proposed is 35 percent less than the maximum allowed for R-1 (1.65 DUA). The applicant has made considerable changes to the layout which resulted in less dense development. Even though, it is more than the maximum allowed, the design changes provide visual relief and create an interest.

Net site area also excludes Statutory Rights-of-way, which is 33 feet from the centerline of the Nine Mile Road. The current calculations only exclude wetlands. **Please recalculate and provide the correct density requested.** For the purpose of this calculation, area to be donated can be included in the Net site area.

Please include this information on the Sheet 2 under Site data

- Gross site acreage: 50.61 acres
 - Statutory R.O.W. = 0.9 acres
 - On-site wetland area: 12.01 acres
 - Net site area excluding statutory R.O.W. and wetlands: 37.7 acres
 - Density: $41/37.7 = 1.08$ DUA
 - Area to be donated to the City for preservation: 20.22 acres
 - Area to be donated to the City for Comfort Station: 0.18 acres
2. **Paving Nine Mile Road:** The applicant and the City's Engineering staff have had ongoing discussions regarding the applicant's offer for proposed paving of the Nine Mile Road intersection. The applicant has offered, as a community benefit, to pave 320 lineal feet of Nine Mile Road, with drainage improvements, including the Nine Mile/Garfield intersection. The applicant is willing to work with the City to address the rutting and pothole issues, by providing additional depth of pavement at the transitions from asphalt to gravel. **Staff suggests that the**

applicant and the Department of Public Works continue to work through the construction details of the offered public benefit to reduce maintenance issues.

3. **Infrastructure Concerns:** An initial engineering review was done as part of the rezoning with PRO application to analyze the information that has been provided thus far. **Water main** is currently available to connect along Nine Mile Road and the applicant is connecting it through Evergreen court. The applicant is proposing to connect to the **future gravity sewer main**. The gravity sewer main in Nine Mile is a public project currently under design. The proposed development proposes connection to this gravity main. The City makes no guarantee that the project will be constructed prior to the construction of proposed development as plans are still subject to review and approval by all required governmental entities. Construction of this development would not be permitted to begin prior to the sewer being available for use. In the event that the City's sewer project is not available for this development, the applicant would need to submit an alternative plan for the full review process. A full scale engineering review would take place during the course of the Site Plan Review process for any development proposed on the subject property, regardless of the zoning.

With this submittal, the applicant is also proposing to relocate the **ITC trail** to the north side of Nine Mile Road. The City is currently in the process of acquiring bids for ITC trail construction. Please refer to our Engineering review letters for more comments on construction coordination.

PRO OPTION

The PRO option creates a "floating district" with a conceptual plan attached to the rezoning of a parcel. As part of the PRO, the underlying zoning is proposed to be changed (in this case from RA to R-1) and the applicant enters into a PRO agreement with the City, whereby the City and the applicant agree to tentative approval of a conceptual plan for development of the site. Following final approval of the PRO concept plan and PRO agreement, the applicant will submit for Preliminary and Final Site Plan approval under standard site plan review procedures. The PRO runs with the land, so future owners, successors, or assignees are bound by the terms of the agreement, absent modification by the City of Novi. If the development has not begun within two (2) years, the rezoning and PRO concept plan expires and the agreement becomes void.

SUMMARY OF OTHER REVIEWS

- a. Engineering Review (Revised with current submittal 9-21-18): Additional comments to be addressed with Preliminary Site Plan submittal. Engineering is recommending approval for reasons noted in the letter.
- b. Landscape Review (Revised with previous submittal 06-29-18): Landscape review has identified few waivers that may be required. Refer to review letter for more comments. Landscape recommends approval contingent of Council approval of deviation request.
- c. Wetland Review (Revised with current submittal 8-21-18): A City of Novi Wetland Non-Minor Use Permit and an authorization to encroach into 25 foot buffer setback are required for this site plan at the time of Preliminary Site Plan review. Additional comments to be addressed with Preliminary Site Plan submittal. Wetland is recommending approval for reasons noted in the letter. **The Wetlands Review (Revised with submittal 8-21-18)** noted that there were only minor changes to the wetland buffer impacts from the previous approval. The Wetlands Review notes that approval is recommended subject to requirements provided in the review letter.
- d. Woodland Review (Revised with previous submittal 06-26-18): A City of Novi woodland permit is required for the proposed plan at the time of Preliminary Site Plan review. Additional comments to be addressed with Preliminary Site Plan submittal. Woodland is recommending approval contingent of Council approval of deviation request.

- e. Traffic Review (Revised with previous submittal 06-27-18): Additional Comments to be addressed with subsequent submittals. **The Traffic Engineer prepared an informal review of the revised PRO concept plan from 8/21/18:**
 - i. The applicant has aligned the proposed Villa d'Este Boulevard with Garfield Road.
 - ii. We recommend that the sidewalk along 9 Mile Road to the west of the ITC trail connection to be updated to be 6' wide as had been shown on previous submittals.
 - iii. Accessibility concerns remain with the parking spaces near the comfort station, as mentioned in previous letters, and should be addressed as the plan moves forward.
 - iv. Relative to units 36-41, "where a side entrance garage is proposed there shall be provided a minimum driveway approach to said garage entrance of twenty-two (22) feet, as measured perpendicular to the garage entrance" (Section 11-216(e)(3)). The applicant should address this issue as the plan moves forward.
 - v. Sheet 2 "Proposed Improvements" note 5 should be updated to indicate 10' wide asphalt walk, instead of 8' east of Garfield Rd. The proposed walk west of the development driveway shall be 6' per note above.
- f. Facade Review: Façade review is not required for Concept PRO plan unless the applicant wants to demonstrate that the buildings will an enhancement, which would be unlikely to be achieved if it were not a Planned Rezoning Overlay. Applicant did not indicate any additional enhancement to the building elevations.
- g. Fire Review (Last Updated: 01-31-17): Additional Comments to be addressed with revised concept plan submittal. Fire recommends approval.

NEXT STEP: CITY COUNCIL MEETING

The Final PRO Concept plan with PRO Agreement is scheduled for the September 24, 2018 City Council meeting. The following are required no later than the end of the day September 18, 2018:

1. A response letter to all staff and consultant review letters.
2. A color rendering of the site plan (Optional)
3. Concept plan submittal in PDF format

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.347.0587 or bmcbeth@cityofnovi.org

Barb

Barbara McBeth – City Planner

**ENGINEERING REVIEW LETTER
SEPTEMBER 12, 2018**

**(BASED ON CHANGES ONLY FROM
AUGUST 21 SUBMITTAL)**



PLAN REVIEW CENTER REPORT

September 12, 2018

Engineering Review

Villa d'Este

JSP17-0052

Applicant

Robert Lamp Trust

Review Type

PRO revised Concept Plan

Property Characteristics

- Site Location: North of Nine Mile Road, east of Garfield Road
- Site Size: 48.32 acres
- Plan Date: 08/05/2018
- Design Engineer: Sieber Keast

Project Summary

- A PRO plan for residential development north of Nine Mile Road and east of Garfield Road.
- Water service would be provided by an 8-inch extension from the existing 12-inch water main along the north side of 9 Mile Rd., with two connections to create a looped system.
- Sanitary sewer service would be provided by connection to the proposed gravity main along the north side of Nine Mile Road.
- Storm water would be collected by a single storm sewer collection system and detained on site in proposed detention basins.

Recommendation:

The revised PRO Concept Plan and Storm Water Management Plan is recommended for approval.

Comments:

The Concept plan meets the general requirements of Chapter 11, the Storm Water Management Ordinance and the Engineering Design Manual, with the following items to be revised with the PRO plans, and additional items to be resolved during preliminary and final site plan.

General items and deviations to addressed with PRO plan:

1. The master planned right-of-way for Nine Mile Road is 43 foot half width right-of-way.
 - a. Dedication of the master-planned right-of-way width is requested with this development.
 - b. The City project for the ITC Trail is projected to begin construction in late 2018 with completion in Spring 2019. The right-of-way dedication along Nine Mile may be requested in advance of the development to support the City's construction schedule.
2. Revise the Emergency Access Drive profiles and details on sheets 2 and 3 to be consistent with the plan view which shows a 5-foot walk centered on the 20-foot emergency access drive.
3. A 6-foot pedestrian pathway is required along the Nine Mile frontage, in accordance with the Bicycle and Pedestrian Master Plan, except where the 10-foot ITC Trail is proposed.
 - a. Revise the Concept plan to indicate 6-foot sidewalk on Nine Mile Road.
 - b. Revise Note 5 on sheet 2 to indicate 10-foot asphalt path instead of 8-foot asphalt path, and include the 6-foot sidewalk in the notes.
4. Within the development, sidewalks are required on both sides of the street. **Absence of sidewalk along a portion of Villa Drive requires a variance, with payment into the City's sidewalk fund for the cost of the sidewalk not constructed.** A request to pay into the sidewalk fund in lieu of constructing sidewalk along the south side of Villa Drive where there are no proposed residences can be supported.
5. **Sidewalks on private roadways should be located such that the outside edge of the sidewalk is a minimum of 15 feet from back of curb. The layout plan indicates that 10 feet are provided from the back of curb to outside edge. A request for deviation from this standard can be requested.** It should be noted that landscaping requirements and utility locations must not be in conflict.
6. **A variance from Design and Construction Standards is required where curbs are not proposed with the Comfort Station parking lot area.**

7. A stub street to the property boundary at intervals not to exceed 1,300 feet along the perimeter is required by ordinance. **A request for deviation from Appendix C Section 4.04(A)(1) of the Ordinance can be submitted.** City staff supports this request.

Additional comments to be addressed upon preliminary/final site plan submittals:

General:

8. Provide a minimum of two ties to established section or quarter section corners.
9. A right-of-way permit will be required from the City of Novi for work in the Nine Mile Road right-of-way.
10. A sheet index shall be provided on the cover sheet.
11. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
12. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
13. Provide a utility crossing table indicating that at least 18-inch vertical clearance will be provided, or that additional bedding measures will be utilized at points of conflict where adequate clearance cannot be maintained.
14. Soil borings shall be provided for a preliminary review of the constructability of the proposed development (roads, basin, etc.). Borings identifying soil types, and groundwater elevation should be provided at the time of Preliminary Site plan.
15. A letter from either the applicant or the applicant's engineer must be submitted with the Preliminary Site Plan submittal highlighting the changes made to the plans addressing each of the comments in this review.

Utilities

16. The gravity sewer main in Nine Mile is a public project currently under design. The proposed development proposes connection to this sanitary sewer. The City's project is currently under design and the City makes no guarantee that the project will be constructed as plans are still subject to review and approval by all required governmental entities. Construction of this development would not be permitted to begin prior to the sewer being available for use. In the event that the City's sewer project is not available for this development, the applicant would need to submit an alternative plan for the full review process.

Paving & Grading

17. The right-of-way sidewalk shall continue through the drive approach. If like materials are used for each, the sidewalk shall be striped through the approach. The sidewalk shall be increased to 6-inches thick along the crossing or match the proposed cross-section if the approach is concrete. Provide additional spot grades as necessary to verify the maximum 2-percent cross-slope is maintained along the walk.
18. Revise or adjust sidewalk alignment at the emergency access drive to be routed around the access gate to provide unobstructed pedestrian/bicycle access from the Nine Mile Road pathway. Fire Marshal must also review and approve sidewalk alignment for the purpose of marking the emergency access route.
19. Provide top of curb/walk and pavement/gutter grades to indicate standard 6 inch curb height at the parking spaces shown at 19 feet in length.
20. Provide a grading plan for the paved comfort station and parking lot east of the development.
21. Per Section 26.5-35(c), a statement is required on any plan containing a private street with the following language: "City of Novi has no responsibility to improve or maintain the private streets contained within or private streets providing access to the property described in this plan."
22. The proposed roadway cross section should refer to City standard paving details 1 and 1B for pavement cross section and mixes for the Nine Mile and proposed interior road paving. Further coordination with City staff for the pavement base at the transition points from gravel to asphalt will occur during final site approvals.

Storm Water Management Plan

23. As described in section 5.6.1 of the Engineering Design Manual, a permanent pool volume equal to at least the first flush volume with a minimum 3 foot depth can be provided to meet storm water quality standards. The proposed basin cross sections exceed these requirements.
24. A 4-foot wide safety shelf is required one-foot below the permanent water surface elevation within each basin.
25. Runoff in all areas of development must be pretreated before discharge to the wetlands. Capture the rear yard storm water in all developed areas in the on-site storm water collection and detention basin systems; or provide rain gardens as the pretreatment mechanism. An administrative variance from the Design and Construction Standards may be required to show justification if the rear yard runoff cannot be captured and is otherwise treated prior to discharge to the wetlands.
26. A 25-foot vegetated buffer shall be provided around the full perimeter of each storm water basin. This buffer cannot encroach onto adjacent lots, and should not be placed immediately against adjacent structures. Provide a boundary of shrubbery or other maintainable landscape features between any structures and edge of the non-mowable basin buffer area.

Flood Plain

27. Application for a City floodplain permit shall be submitted as soon as possible to begin the review process. The City's floodplain consultant will review the submittal and provide initial comments regarding the review process. An MDEQ floodplain use permit may also be required prior to final site plan approval.

Off-Site Easements

28. Any off-site easements or agreements must be executed prior to final approval of the plans. Drafts shall be submitted at the time of the Preliminary Site Plan submittal. No off-site easements are anticipated at this time.

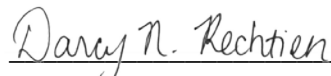
The following must be provided at the time of Preliminary Site Plan submittal:

29. A letter from either the applicant or the applicant's engineer must be submitted with the Preliminary Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved.

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

30. 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).
31. Draft copies and/or revisions to the off-site utility and access easements, a recent title search, and legal escrow funds must be submitted to the Community Development Department for review and approval by the Engineering Division and the City Attorney prior to being executed.

Please contact Darcy Rechtien at (248) 735-5695 with any questions.



Darcy N. Rechtien, P.E.
Plan Review Engineer

cc: Sri Komaragiri, Community Development
George Melistas, Engineering

CITY OF NOVI ITC TRAIL
PHASE 2 PROJECT
PATHWAY COST FOR
VILLA D'ESTE FRONTAGE
9/19/18

**City of Novi ITC Trail - Phase 2 Project
Pathway Cost for Villa D'Este Frontage
9/19/2018**

Item	Item Description	Unit	Quantity	Unit Price	Cost
1	Mobilization (10% of Items)	LS	1	\$ 3,984.93	\$ 3,984.93
2	Masonry and Conc Structure, Rem	Cyd	1.5	\$ 500.00	\$ 750.00
3	Pathway Grading	Sta	4.8	\$ 1,035.00	\$ 4,968.00
4	Silt Fence	Ft	300	\$ 1.84	\$ 552.00
5	Aggregate Base, 21AA Limestone, 6 inch	Syd	589	\$ 5.06	\$ 2,980.34
6	Culv, Conc, 30 inch dia	Ft	90	\$ 87.75	\$ 7,897.50
7	Culv End Sect, Conc, 30 inch	Each	1	\$ 982.30	\$ 982.30
8	HMA, 13A	Ton	85	\$ 97.65	\$ 8,300.25
9	HMA, 36A	Ton	46	\$ 110.25	\$ 5,071.50
10	Surface Restoration	Ft	482	\$ 5.70	\$ 2,747.40
11	Crew Days	Day	8	\$ 700.00	\$ 5,600.00
	TOTAL				\$ 43,834.22

Anglin Civil Bid Prices for Phase 2 Trail Project used excepting for:

Mobilization - 10% of items excluding Mobilization used.

Maintaining Traffic, Construction Access, and Surface Restoration and PreConstruction A-V-

per foot costs were derived from Anglin Lump Sum Prices for these items divided by the project length

Masonry and Conc Structure estimated for headwall removal using Average MDOT Unit Price for small quantity

30" Culvert and End Section estimated using MDOT Average Unit Prices

Pathway quantities do not include area within the proposed driveway and sidewalk ramps (assumed to be done later by developer)

Headwall removal and culvert extension included.

Culvert under 9 Mile Road and drainage structures not included.

Flashing Beacon not included

WETLAND REVIEW LETTER
SEPTEMBER 6, 2018

(BASED ON CHANGES ONLY FROM
AUGUST 21 SUBMITTAL)



ECT Project No. 170538-0900

September 6, 2018

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

Re: Villa d'Este (JSP17-0052)
Wetland Review of the Revised PRO Concept Plan (PSP18-0129)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Revised PRO Concept Plan for the proposed Villa d'Este project prepared by Seiber, Keast Engineering, L.L.C. dated August 5, 2018 and stamped "Received" by the City of Novi Community Development Department on August 16, 2018 (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 currently recommends approval of the Revised PRO Concept Plan for Wetlands. ECT recommends that the Applicant address the items noted in the *Wetland Comments* section of this letter in subsequent site plan submittals.

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 0.09-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 development is located north of the intersection of Nine Mile Road and Garfield Road (i.e., north of Nine Mile Road between Napier Road and North Beck Road, Section 29 & 30. The Plan proposes the construction of forty-one (41) single family detached ranch and story-and-a-half residential condo units (down from 42 on the previous plan), associated roads and utilities as well two (2) storm water detention basins. The proposed project site contains a significant amount of City-Regulated Woodland area as well as a significant amount of on-site City-Regulated wetlands and a tributary to the Novi-Lyon Drain (see Figure 1).

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48105

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769-3164

Wetland Evaluation/Wetland Impact Review

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 continues to recommend that we conduct a wetland field evaluation at the time of Preliminary Site Plan submittal in order to verify the existing on-site wetland boundaries.

The Plan notes that the onsite wetlands were flagged by Wilson Road Group, Inc. and indicates numerous areas of existing wetlands on the site. These wetland areas are generally located along the northern and western portions of the project site. Portions of these wetland areas appear to be included on the City of Novi Regulated Wetlands and Watercourse Map (attached, Figure 1). It should be noted that the current Plan now labels the existing wetlands and provides the wetland areas (i.e., acreages). The *Overall Plan* (Sheet 2) includes a Wetland Impact table that indicates the overall areas of on-site wetlands (acres), the wetland impact area (acres), and the 25-foot wetland buffer disturbance areas (acres).

Please indicate the overall areas of the on-site 25-foot wetland buffers on the Plan (acres) as well as the proposed volume (cut or fill) of the proposed wetland impacts on the Plan (cubic yards). In addition, wetland flag numbers should also be included on the Plan.

The Wetland Impact table indicates a total of twelve (12) existing wetlands on the site (Wetland A through Wetland M). All of these wetlands are regulated by the City of Novi and several are also likely regulated by the Michigan Department of Environmental Quality (MDEQ). The DEQ must determine the following before a permit can be issued:

- The permit would be in the public interest.
- The permit would be otherwise lawful.
- The permit is necessary to realize the benefits from the activity.
- No unacceptable disruption to aquatic resources would occur.
- The proposed activity is wetland dependent **or** no feasible and prudent alternatives exist.

As noted above, several areas of wetland have been confirmed on the subject property by the applicant's wetland consultant. Currently, the Plan indicates three (3) direct impacts to on-site wetlands (to Wetlands B, C, and M). The Plan quantifies the areas of the proposed wetland impacts. The total amount of direct (i.e., fill or excavation) impact to on-site wetlands is 0.09-acre (up from 0.08-acre on the previous plan submittal). The current impacts to Wetlands C and M are for the purpose of constructing a wetland/drain crossing for Villa Drive and Villa Court in two (2) locations as shown on the Plan. The impact to Wetland B is for the purpose of constructing stormwater detention Basin A.

The following table summarizes the proposed wetland impacts as listed on the *Overall Plan* (Sheet 2):

Table 1. Proposed Wetland Impacts

Wetland	Wetland Area (Acres)	City Regulated?	MDEQ Regulated?	Impact Area (acre)	Estimated Impact Volume (cubic yards)
A	0.115	Yes City Regulated /Essential	Likely	None	None
B	1.394	Yes City Regulated /Essential	Likely	0.05	Not Provided
C	4.804	Yes City Regulated /Essential	Likely	0.03	Not Provided
D	2.916	Yes City Regulated /Essential	Likely	None	None
E	0.473	Yes City Regulated /Essential	Likely	None	None
F	1.067	Yes City Regulated /Essential	Likely	None	None
G	0.349	Yes City Regulated /Essential	Likely	None	None
H	0.023	Yes City Regulated /Essential	Likely	None	None
J	0.527	Yes City Regulated /Essential	Likely	None	None
K	0.158	Yes City Regulated /Essential	Likely	None	None
L	0.077	Yes City Regulated /Essential	Likely	None	None
M	0.108	Yes City Regulated /Essential	Likely	0.01	Not Provided
TOTAL	12.011	--	--	0.09	Not Provided

The Plan also includes the construction of several storm water management basins (Basins A and B) located adjacent to existing wetlands. There will be storm water outlets constructed to existing wetland areas in these locations. Stormwater Detention Basin A will outlet to Wetland B in the northwestern section of the site. Stormwater Detention Basin B will outlet to Wetland M in the central/southern section of the site near proposed Villa Drive and Villa Court.

The currently proposed wetland impacts will not likely 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. The current proposed wetland total impact is 0.09-acre. The current Plan does not appear to provide the volume of the proposed wetland cuts/fills. **Please confirm the volume associated with the proposed wetland impacts on subsequent site plan submittals.**

In addition to the proposed wetland impacts, the Plan proposes disturbance to 0.42-acre of on-site 25-foot wetland/watercourse buffer area (this is up from 0.33-acre on previous plan submittals). The wetland buffer impacts are for the purpose of proposed grading between Buildings 21 and 22 (Wetland C Buffer), for the construction of a drain crossing for Villa Drive and Villa Court just north of the project entrance from W.

Nine Mile Road (Wetland C and Wetland M Buffers), and for the construction of stormwater detention Basin A (Wetland B Buffer).

The following table summarizes the impacts proposed to the existing wetland/watercourse setbacks as listed on the Plan:

Table 2. Proposed 25-Foot Wetland/Watercourse Buffer Impacts

Wetland/Watercourse Buffer Impact Area	Impact Area (acre)	Purpose
B	0.19	Gravel access drive to Basin "A"
C	0.10	Grading between Building 21 & 22 and Drain crossing for Villa Drive & Villa Court
M	0.13	Construction of Villa Drive
TOTAL	0.42	--

As noted above, the Plan proposes to construct storm water outfalls to wetlands from Detention Basin A and B. The applicant shall quantify any permanent and/or temporary impacts to wetlands or wetland buffers in these areas (i.e., what are the proposed impacts to Wetland Buffer B for the construction of the outfall from Basin A, and what are the impacts to Wetland M Buffer for the construction of the outfall from Basin B).

It should be noted that the Wetland Impact table on the Plan indicates the impact area to the Wetland C buffer is 0.10-acre. The note in the plan view (i.e., Sheet 2) indicates two (2) impacts to the Wetland C buffer of 0.02-acre and 0.10-acre (totaling 0.12-acre). This quantity shall be clarified on the Plan and Wetland Impact Table.

In addition to the proposed wetland impacts and proposed impact to the regulated drain, the Plan appears to propose impacts to regulated floodplain. Subsequent Plan submittals should address any proposed impacts to existing floodplain areas located on the site. Floodplain impacts will most likely need to be authorized by the Michigan Department of Environmental Quality (MDEQ).

City of Novi Ordinance Requirements

The City of Novi Wetland and Watercourse Protection Ordinance (City of Novi Code of Ordinances, Part II, Chapter 12, and Article V) describes the regulatory criteria for wetlands and review standards for wetland permit applications.

As stated in the Ordinance, it is the policy of the city to prevent a further net loss of those wetlands that are: (1) contiguous to a lake, pond, river or stream, as defined in Administrative Rule 281.921; (2) two (2) acres in size or greater; or (3) less than two (2) acres in size, but deemed essential to the preservation of the natural resources of the city under the criteria set forth in subsection 12-174(b).

The wetland essentiality criteria as described in the Wetland and Watercourse Protection Ordinance are included below. Wetlands deemed essential by the City of Novi require the approval of a use permit for any proposed impacts to the wetland:

All noncontiguous wetland areas of less than two (2) acres which appear on the wetlands inventory map, or which are otherwise identified during a field inspection by the city, shall be analyzed for the purpose of determining whether such areas are essential to the preservation of the natural resources of the city....In making the determination, the city shall find that one (1) or more of the following exist at the particular site:

- (1) *The site supports state or federal endangered or threatened plants, fish or wildlife appearing on a list specified in Section 36505 of the Natural Resources Environmental Protection Act (Act 451 of 1994) [previously section 6 of the endangered species act of 1974, Act No. 203 of the Public Acts of 1974, being section 229.226 of the Michigan Compiled Laws].*
- (2) *The site represents what is identified as a locally rare or unique ecosystem.*
- (3) *The site supports plants or animals of an identified local importance.*
- (4) *The site provides groundwater recharge documented by a public agency.*
- (5) *The site provides flood and storm control by the hydrologic absorption and storage capacity of the wetland.*
- (6) *The site provides wildlife habitat by providing breeding, nesting or feeding grounds or cover for forms of wildlife, waterfowl, including migratory waterfowl, and rare, threatened or endangered wildlife species.*
- (7) *The site provides protection of subsurface water resources and provision of valuable watersheds and recharging groundwater supplies.*
- (8) *The site provides pollution treatment by serving as a biological and chemical oxidation basin.*
- (9) *The site provides erosion control by serving as a sedimentation area and filtering basin, absorbing silt and organic matter.*
- (10) *The site provides sources of nutrients in water food cycles and nursery grounds and sanctuaries for fish.*

After determining that a wetland less than two (2) acres in size is essential to the preservation of the natural resources of the city, the wetland use permit application shall be reviewed according to the standards in subsection 12-174(a).

Permits & Regulatory Status

Based on the criteria set forth in The City of Novi Wetlands and Watercourse Protection ordinance (Part II-Code of Ordinances, Ch. 12, Article V.), the wetlands to be impacted appear to meet the definition of a City-regulated wetland and meets one or more of the essentially criteria (i.e., wildlife habitat, storm water control, etc.). A wetland use permit would be required for any proposed activities within City regulated wetlands.

It appears as though a City of Novi **Non-Minor** Use Wetland Permit would be required for the proposed impacts. The granting or denying of a Nonresidential *Minor* Use Permit shall be the responsibility of the Community Development Department. A Nonresidential *Minor* Use Permit is for activities consisting of no more than one (1) of the following activities which have a minimal environmental effect:

- a. Minor fills of three hundred (300) cubic yards or less and not exceeding ten thousand (10,000) square feet in a wetland area, providing the fill consists of clean, nonpolluting materials which will not cause siltation and do not contain soluble chemicals or organic matter which is biodegradable, and providing that any upland on the property is utilized to the greatest degree possible. All fills shall be stabilized with sod, or seeded, fertilized and mulched, or planted with other native vegetation, or riprapped as necessary to prevent soil erosion.
- b. Installation of a single water outfall provided that the outlet is riprapped or otherwise stabilized to prevent soil erosion.
- c. Watercourse crossings by utilities, pipelines, cables and sewer lines which meet all of the following design criteria:
 - i) The method of construction proposed is the least disturbing to the environment employable at the given site;

- ii) The diameter of pipe, cable or encasement does not exceed twenty (20) inches;
- iii) A minimum of thirty (30) inches of cover will be maintained between the top of the cable or pipe and the bed of the stream or other watercourse on buried crossings; and
- iv) Any necessary backfilling will be of washed gravel.
- d. Extension of a wetland/watercourse permit previously approved by the planning commission.
- e. Replacement of a culvert of an identical length and size, and at the same elevation. If the proposed culvert is of a greater length or size than the existing culvert, or is a new culvert altogether, it must meet the conditions of subpart c., above, to qualify for a nonresidential minor use permit.
- f. Temporary impacts where the encroachment into protected areas is less than five hundred (500) feet.

The proposed impacts include two storm water outfalls as well as three (3) direct impacts to wetlands that likely involve more than 300 cubic yards of wetland fill, therefore the project will require a City of Novi Non-Minor Wetland Use Permit.

A City of Novi *Authorization to Encroach the 25-Foot Natural Features Setback* would be required for any proposed impacts to on-site 25-foot wetland buffers.

It appears as though a MDEQ Wetland Permit would be required for the proposed impacts to on-site wetlands. It should be noted that it is the Applicant's responsibility to contact MDEQ in order to determine the need for a permit from the state. In 1979, the Michigan legislature passed the Geomare-Anderson Wetlands Protection Act, 1979 PA 203, which is now Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The MDEQ has adopted administrative rules which provide clarification and guidance on interpreting Part 303.

In accordance with Part 303, wetlands are regulated if they are any of the following:

- Connected to one of the Great Lakes or Lake St. Clair.
- Located within 1,000 feet of one of the Great Lakes or Lake St. Clair.
- Connected to an inland lake, pond, river, or stream.
- Located within 500 feet of an inland lake, pond, river or stream.
- Not connected to one of the Great Lakes or Lake St. Clair, or an inland lake, pond, stream, or river, but are more than 5 acres in size.
- Not connected to one of the Great Lakes or Lake St. Clair, or an inland lake, pond, stream, or river, and less than 5 acres in size, but the DEQ has determined that these wetlands are essential to the preservation of the state's natural resources and has notified the property owner.

The law requires that persons planning to conduct certain activities in regulated wetlands apply for and receive a permit from the state before beginning the activity. A permit is required from the state for the following:

- Deposit or permit the placing of fill material in a wetland.
- Dredge, remove, or permit the removal of soil or minerals from a wetland.
- Construct, operate, or maintain any use or development in a wetland.
- Drain surface water from a wetland.

Wetland Comments

The following are repeat comments from our *Wetland Review of the Revised PRO Concept Plan (PSP18-0087)* letter dated June 26, 2018. The current status of each comment follows in ***bold italics***:

1. It should be noted that that the Plan does not appear to label the existing wetlands (i.e., Wetland A, B, etc.) or provide the acreages of the individual areas of on-site wetlands. Please label the wetlands and the associated on-site areas on the Plan. Wetland flag numbers should also be included on the Plan.

This comment has been partially addressed. Wetland flag numbers shall be indicated on at least one (1) of the plan sheets.

2. The applicant shall show the following information on subsequent site plans:
 - a. The area of all existing on-site wetland/watercourse areas (square feet or acres);
 - b. The area of all existing 25-foot buffer areas (square feet or acres);
 - c. Area (square feet) and volume (cubic yards) of all wetland/watercourse impacts (both permanent and temporary);
 - d. Area (square feet) of all wetland buffer impacts (both permanent and temporary).

This comment has been partially addressed. The area (square feet or acres) of all existing 25-foot wetland buffer areas shall be shown on the Plan. The volume associated with all of the proposed wetland cut/fill areas shall be shown on the Plan.

3. 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 site design to preserve wetland and wetland buffer areas. Many of the buildings are situated directly adjacent to the 25-foot wetland setback leaving little or no room for construction of the buildings without temporary or permanent impacts to the wetland buffer. The preservation of the 25-foot buffer areas is important to the overall health of the existing wetlands as the existing buffers serve to filter pollutants and nutrients from storm water before entering the wetlands, as well as 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”.

This comment still applies; however the applicant has made modifications to the Plan that have decreased the overall amount of proposed wetland buffer impacts from the initial plan submittals. It should be noted that the only remaining wetland buffer impact being proposed specifically for the construction of the residential buildings is the impact area to the Wetland C buffer (between proposed Buildings 21 & 22). This impact is 0.02-acre, or approximately 900 square feet). ECT continues to suggest that the applicant consider modification of the proposed site design to preserve wetland and wetland buffer areas including the Wetland C buffer between Unit 21 and Unit 22.

4. The Plan proposes to construct storm water outfalls to wetlands from Detention Basin A and B. The applicant shall quantify any permanent and/or temporary impacts to wetlands or wetland buffers in these areas (i.e., square feet/acreage and cubic yards).

This comment still applies. The applicant shall indicate and quantify the area impacts (acres) to both wetland and 25-foot wetland buffer associated with the construction of the proposed stormwater outfalls from both Detention Basin A and Detention Basin B.

5. One of the direct wetland impacts is in the northern section of the site located between Lots 26 and 27. This wetland impact is noted as 0.04-acre. It appears as if this wetland impact is for the purpose of proposed grading between these two lots and for the construction of Villa Drive. ECT encourages the applicant to consider alternative design layouts for this area in order to reduce or avoid wetland and wetland buffer impacts in this area. Is the installation of a retaining wall or other means to avoid impacts to the wetland/wetland buffer feasible in this area? The Applicant should demonstrate that alternative site layouts that would reduce the overall impacts to wetlands and 25-foot wetland setbacks have been reviewed and considered.

This comment has been addressed. This wetland impact was previously removed from the proposed Plan. A small area of proposed wetland buffer impact remains in the area between Buildings 21 and 22. As noted in #3 above, ECT suggests that the applicant consider modification of the proposed site design to preserve wetland and wetland buffer areas including the Wetland C buffer between Unit 21 and Unit 22.

6. It appears as though a MDEQ Wetland Permit and a City of Novi *Wetland Non-Minor Use Permit* would be required for any proposed impacts to site wetlands. A City of Novi *Authorization to Encroach the 25-Foot Natural Features Setback* would be required for any proposed impacts to on-site 25-foot wetland buffers.

It should be noted that it is the Applicant's responsibility to confirm the need for a Permit from the MDEQ for any proposed wetland impact. Final determination as to the regulatory status of each of the on-site wetlands shall be made by MDEQ. The Applicant should provide a copy of the MDEQ Wetland Use Permit application to the City (and our office) for review and a copy of the approved permit upon issuance. A City of Novi Wetland Permit cannot be issued prior to receiving this information.

This comment still applies. A City of Novi Wetland Permit cannot be issued prior to receiving documentation of authorization from MDEQ for the proposed wetland impacts.

7. The Plan should address how any temporary impacts to wetland buffers shall be restored, if applicable. A seed mix consisting of acceptable native plant species shall be indicated on the Plan if necessary. Sod or common grass seed is not acceptable for site restoration within areas of existing wetland or 25-foot wetland buffers. The applicant shall provide information for any proposed seed mixes that will be used to restore the floodplain areas and/or any areas of temporary wetland and wetland buffer impacts. ECT would like to ensure that the proposed plant/seed material contains native plants as opposed to invasive or threatened plant types.

This comment still applies. This information does not appear to have been included on this Revised PRO Concept Plan.

8. The City's threshold for the requirement of wetland mitigation is 0.25-acre of proposed wetland impact. This should be taken into account on subsequent site Plan submittals, if necessary.

This comment still applies; however it does not appear as if wetland mitigation will be necessary.

9. If applicable, 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 necessary). 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.

This comment still applies.

Recommendation

ECT currently recommends approval of the Revised PRO Concept Plan for Wetlands. ECT recommends that the Applicant address the items noted in the *Wetland Comments* section of this letter in subsequent site plan submittals.

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: Lindsay Bell, City of Novi Planner
Sri Komaragiri, City of Novi Planner
Rick Meader, City of Novi Landscape Architect
Hannah Smith, City of Novi Planning Assistant

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



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

PLANNING REVIEW

5th Revision: Submitted Dated 06-07-18



PLAN REVIEW CENTER REPORT

July 5, 2018

Planning Review

Villa D 'Este

JSP17-52 with Rezoning 18.718

PETITIONER

Cambridge Homes, Inc

REVIEW TYPE

5th Revised **PRO Concept Plan** for rezoning Request from RA (Residential Acreage) To R-1 (One-Family Residential) with Planned Rezoning Overlay (PRO)

PROPERTY CHARACTERISTICS

Section	29 and 30	
Parcel ID's	50-22-30-401-023, Part of 50-22-30-401-009, 50-22-29-326-002, 50-22-30-401-011 and 50-22-29-326-022	
Site Location	West side of Beck Road, east of Napier Road and north of Nine Mile Road	
Site School District	Northville Community School District	
Existing Zoning	RA, Residential Acreage	
Proposed Zoning	R-1, One-Family Residential	
Adjoining Zoning	North	R-1 One-Family Residential with a RUD agreement
	East	RA, Residential Acreage
	West	RA, Residential Acreage
	South	RA, Residential Acreage
Current Site Use	Undeveloped/Single family homes	
Adjoining Uses	North	Links of Novi/vacant;
	East	Single Family Residences
	West	Single Family Residences
	South	Single Family Residential/Vacant
Site Size	50.69 Acres (Net Site Acreage 38.60 Acres): 0.5 acre error in survey updated with this submittal	
Plan Date	June 07, 2018	

PROJECT SUMMARY

The applicant is requesting a Zoning Map amendment for a 50.60 acre property on the east side of Napier Road and north side of Nine Mile Road (Section 29,30) from RA (Residential Acreage) to R-1 (One-Family Residential) utilizing the City's Planned Rezoning Overlay (PRO) option. According to the applicant, the rezoning request is necessary to allow the development of a 41-unit single-family housing development (for sale). The applicant indicated that the residents will have an option to add a loft space or an attic, or an indoor pool. The concept plan indicates that this will be a gated community. All land will be considered as common element to be maintained by association. The applicant proposes to add language to deed restrictions that will allow indoor pools, outdoor hot tubs, fire pits, fireplaces, pizza ovens and grills.

The PRO Concept Plan shows two on-site detention ponds in the northwest corner of the site and on the southern side along the entrance to the site. One boulevard access point is proposed off of Nine Mile Road. An emergency access road is proposed off of the proposed cul-de-sac to Nine Mile Road. The development is proposed to be built in two phases.

The applicant has provided a **Community Impact Statement** addressing the items required in the Site development manual. Staff reviewed and agrees with the findings. The applicant also provided a **narrative** describing in detail about the concept of the development. According to the narrative, this development is to serve the empty nesters, currently underserved in Novi, that prefer to have privacy with upscale community. The applicant believes the subject property located in low density residential neighborhood and surrounded by wetlands and woodlands fits the needs.

The current revised plan has included the following changes based on input received from May 21, 2018 City Council meeting (also listed in detail in the applicant's cover letter):

1. The gross site acreage has been modified due to a survey error.
 - **Gross site acreage: 50.61 acres** (Previously 51.19 acres)
 - **Statutory R.O.W. = 0.9 acres**
 - **On-site wetland area: 12.01 acres**
 - **Net site area excluding statutory R.O.W. and wetlands: 37.7 acres** (previously 39.18 acres including statutory ROW)
 - **Density: 41/37.7 = 1.08 DUA** (previously 1.07 DUA based on 39.18 net acres)
 - **Area to be donated to the City for preservation: 20.22 acres**
 - **Area to be donated to the City for Comfort Station: 0.18 acres** (previously 0.21 acres)
2. The number of units is decreased from 42 to 41. However, the density is increased slightly due to corrected calculations listed above.
3. The applicant has modified the list of public benefits slightly (as noted near the end of this letter).
4. A 238 feet wide area is now proposed to act as a wildlife corridor through the site.
5. Villa Drive is shifted north to provide additional buffer between the neighbor's property to the south and the subject property.
6. The detention pond near the northwest corner of the site is proposed to be relocated a few feet to the east to protect high quality woodlands, and by filling in a small quantity of regulated wetland.
7. Updated the tree removal calculations as noted by our reviewers.
8. Relocated proposed water and sewer lines along the entrance road up to the first intersection to protect more trees.
9. Tree replacement counts reduced to 915 from 943.
10. Proposed to relocate ITC Trail to the north side of Nine Mile Road as an additional benefit to the public.
11. Proposed realigning the Garfield Road and Nine Mile Road intersection 33 feet to the west.
12. The ITC Comfort Station layout has been modified. The proposed Picnic shelter is now located to the west of parking lot.

PREVIOUS MEETINGS

The new rezoning category requested by the applicant is currently not supported by the Future Land Use Map. On **August 23, 2017**, the plan was presented before **Master Planning and Zoning Committee** for input. The plan received favorable recommendations from the Committee. The Committee directed the applicant to work with staff on issues such as density.

On **September 13, 2017**, Planning Commission held a **public hearing** and postponed the recommendation to Council at a later time based on the following motion.

- a. To allow the applicant time to consider further modifications to the Concept Plan as discussed in the review letters; and
- b. To allow staff to advertise for another public hearing to include the fourth parcel in the public hearing notice, as this was left out from the current notice due to misrepresentation in the site plan submittal.

At the time of Public hearing, Planning Commission asked the applicant to provide further information on the proposed development. Staff met with the applicant and his design team on September 20, 2017 to address the concerns raised by the Commission and the public who attended the meeting.

On **November 08, 2017** Planning Commission held a **second Public hearing** and recommended denial to the City Council based on the following motion

In the matter of Villa D'Este JSP17-52 with rezoning 18.718, motion to recommend denial to the City Council to rezone the subject property from RA (Residential Acreage) to R-1 (One-Family Residential) with a Planned Rezoning Overlay Concept Plan, based on the following:

- a. *The proposed rezoning is not consistent with the recommendations of 2016 Master Plan for Land Use.*

On **January 10, 2018**, the applicant met with the **Master Planning and Zoning Committee** after submitting a revised plan and requested input from the Committee. The applicant received favorable recommendation except for woodland deviations requested.

On **March 14, 2018**, the Planning Commission held the **third public hearing** and recommended the applicant to move forward to the City Council with three conditions listed below in addition to the suggested motion by the staff:

1. *The applicant shall redesign the utility layout along proposed internal roads to avoid conflicts with proposed street trees at the time of Preliminary Site Plan. Street trees cannot be located within the 20 foot wide utility easements.*
2. *The applicant shall provide a tree survey prior to consideration of Concept Plan by City Council, in order to allow staff to identify the proposed impacts and to recommend options to minimize impacts as needed.*
3. *The applicant shall conform to the ordinance requirements at the time of Preliminary Site Plan and Woodland permit review.*

On **May 21, 2018**, **City Council** considered the rezoning request and postponed the matter with the following motion:

To postpone consideration for tentative approval of the request of Cambridge of Novi, LLC, for Villa D'Este, JSP17-52, for a Planned Rezoning Overlay Concept Plan associated with a Zoning Map amendment 18.718, to rezone from RA (Residential Acreage) to R-1 (One-Family Residential).

RECOMMENDATION

Staff recommends **approval** of the rezoning request from RA (Residential Acreage) to R-1 (One Family Residential) in order to allow the construction of a detached residential development with a maximum density of 1.07 dwelling units per acre along with the revised concept plan, and recommend approval to the City Council of the proposed PRO Concept Plan, for the following reasons:

1. The applicant has presented a reasonable alternative to the Master Plan for Land Use recommendation of 0.8 units to the acre (1.08 units to the acre proposed) for the parcel, noting the appropriateness of an empty-nester residential development for the site given

- the layout of the plan, the proposed preservation of open space, the offer to provide an enhancement to public park facilities, and the provision for landscape or open space buffering on most sides of the development.
2. The proposed plan meets several objectives of the Master Plan, as noted later in this review letter, including:
 1. *Maintain the semi-rural character of the southwest quadrant of the City that is created by low-density residential development and undeveloped land (by protecting a majority of natural features on site and provides ample screening from Nine Mile Road.*
 - b. *Provide a wide range of housing options (by being geared towards empty nesters, or those wishing to downsize from larger homes.*
 - c. *Protect and maintain the City's woodlands, wetlands, water features, and open space (by proposing to donate about 20 acres (40 %) of land with regulated woodlands and wetlands in the rear).*
 3. The City's Traffic Engineering Consultant has reviewed the Rezoning Traffic Impact Study and found that the proposed senior adult housing would produce 175 less trips per day than 40 single-family homes (as expected to be permitted under the RA zoning district, and the number of trips produced by the senior adult housing development is not expected to significantly impact Nine Mile Road.
 4. Submittal of a Concept Plan and any resulting PRO Agreement provides assurance to the Planning Commission and to the City Council of the manner in which the property will be developed, and offers benefits that would not be likely to be offered under standard development options.
 5. While the applicant has addressed some of the concerns highlighted in the staff and consultant review letters, there are a number ongoing concerns by staff, details of the likely woodland impacts (which the applicant wishes to address at the time of Preliminary Site Plan Review), and the deviations requested with regard to the off-site replacement, additional credits for upsizing and to waive the diversity requirement.

COMMENTS

Please review the letter in detail and note the comments provided in **bold/underline** throughout the letter. Some of the major comments are summarized below. The applicant should address all the comments in the response letter:

1. **Density:** The applicant is requesting an increase of 0.26 Dwelling Units per acre (about 34 percent more) than the maximum allowed density for RA (0.8 DUA). The maximum density proposed is 35 percent less than the maximum allowed for R-1 (1.65 DUA). The applicant has made considerable changes to the layout which resulted in less denser development. Even though, it is more than the maximum allowed, the design changes provide visual relief and create an interest.

Net site area also excludes Statutory Rights-of-way, which is 33 feet from the centerline of the Nine Mile Road. The current calculations only exclude wetlands. **Please recalculate and provide the correct density requested.** For the purpose of this calculation, area to be donated can be included in the Net site area.

Please include this information on the Sheet 2 under Site data

- Gross site acreage: 50.61 acres
- Statutory R.O.W. = 0.9 acres
- On-site wetland area: 12.01 acres
- Net site area excluding statutory R.O.W. and wetlands: 37.7 acres
- Density: $41/37.7 = 1.08$ DUA
- Area to be donated to the City for preservation: 20.22 acres

- Area to be donated to the City for Comfort Station: 0.18 acres
2. **Proposed Rezoning:** The applicant is proposing single floor living units in a general condominium development. All land outside of the units is under common ownership. The concept plan proposes a development which can be reviewed against either single family development (as it proposes single family residential units) or multi-family development (as the layout that typically aligns with a multifamily development, with minimal setbacks and common areas). At the time of pre-application meeting, staff determined that R-1 would be more suitable rezoning category for the site. The extent of deviations required from R-1 standards is significantly lower than those required from RM-1.
 3. **Woodland Deviations:** The Planning Commission recommended that "The applicant shall conform to the ordinance requirements at the time of Preliminary Site Plan and Woodland permit review." A requested deviation to allow upsizing credits for woodland replacement trees was not recommended for approval at that time. The applicant has indicated that a request is being made for the City Council to allow the credit for upsizing of species on the berm at the east end of the development, in order to assist in screening the view of the two large transmission towers and lines, and to assist in screening the new development from Nine Mile Road in order to maintain a rural feel. The Woodland Review letter indicates that the applicant would be seeking a waiver of the ordinance for a total of 307 tree credits, in order to allow the upsizing of trees on the berm at the east end of the development. **This upsizing credit deviation is not allowed by the Landscape Design Manual and is not supported by staff. City Council may approve the requested deviation. In the event the request for additional credit for upsizing woodland replacement trees is not approved by the City Council, the applicant would have to account for a total of up to 307 replacement trees. A total of \$122,800 should be paid into the tree fund, if the required replacement trees cannot be planted on site.**
 4. **Paving Nine Mile Road:** The applicant and the City's Engineering staff have had ongoing discussions regarding the applicant's offer for proposed paving of the Nine Mile Road intersection. The applicant has offered, as a community benefit, to pave 320 lineal feet of Nine Mile Road, with drainage improvements, including the Nine Mile/Garfield intersection. The applicant is willing to work with the City to address the rutting and pothole issues, by providing additional depth of pavement at the transitions from asphalt to gravel. The applicant believes that the paving of the intersection will reduce the maintenance of that intersection, and that there will be a net savings in maintenance, even with the potential pothole issues. The applicant has declined staff's request to extend the paving an additional 480 feet east to the proposed to the ITC Trail comfort station at this time. **Staff suggests that the applicant and the Department of Public Services continue to work through the construction details of the offered public benefit to reduce maintenance issues.**
 5. **Relocation of Nine Mile Road and Garfield Intersection:** The applicant is proposing to relocate the Nine Mile and Garfield intersection 33 feet to the west. This would require encroachment into the City's property (50-22-31-200-021) , which was recently acquired by the City Parks and Recreation department through a Michigan Natural Resources Trust Fund Grant (Department of Natural Resources). Based on our preliminary evaluation of the woodland impacts, our landscape architect has identified that approximately 15 trees will also be lost. The removals mostly include black locusts. The realignment would also require relocation of Proposed ITC trail west of the Garfield road. Engineering and Traffic has design and traffic concerns which are detailed above. Our initial conversation with the DNR was not optimistic. If Council directs staff to pursue alternate options with the DNR to allow for proposed relocation, staff can initiate further discussions. However, we cannot estimate the process time, effort, feasibility or the potential ramifications on future grant applications at this time.

Traffic notes that "The realignment of the Garfield Road and Nine Mile Road intersection as shown in "Option A" shifts Nine Mile Road to the south slightly upon approaching the development from the east in order to accommodate the proposed 8' wide pathway. This shift, while minor, may pose unnecessary traffic operational concerns that should be considered when reviewing the proposed design. Additionally, the proposed eight foot wide pathway is in close proximity to the roadway in this location, which could result in safety concerns for non-motorized path users. Engineering review agrees with Traffic's comments and notes that the applicant should propose only Option B as previously reviewed and found to be acceptable. Option A (Realignment of Garfield) presents operational concerns. It notes that "Option "A" proposes a shorter stretch of pavement and does not include the tapers previously proposed in Option "B". If Option "A" is to be pursued, additional discussion about the extent of paving and tapers is required."

PRO OPTION

The PRO option creates a "floating district" with a conceptual plan attached to the rezoning of a parcel. As part of the PRO, the underlying zoning is proposed to be changed (in this case from RA to R-1) and the applicant enters into a PRO agreement with the City, whereby the City and the applicant agree to tentative approval of a conceptual plan for development of the site. Following final approval of the PRO concept plan and PRO agreement, the applicant will submit for Preliminary and Final Site Plan approval under standard site plan review procedures. The PRO runs with the land, so future owners, successors, or assignees are bound by the terms of the agreement, absent modification by the City of Novi. If the development has not begun within two (2) years, the rezoning and PRO concept plan expires and the agreement becomes void.

COMPARISON OF ZONING DISTRICTS

The following table provides a comparison of the current (RA) and proposed (R-1) zoning classifications.

	RA Zoning (Existing)	R-1 Zoning (Proposed)
Principal Permitted Uses	<ol style="list-style-type: none"> 1. One-family dwellings 2. Farms and greenhouses 3. Publicly owned and operated parks 4. Cemeteries 5. Schools 6. Home occupations 7. Accessory buildings and uses 8. Family day care homes 	<ol style="list-style-type: none"> 1. One-family detached dwellings 2. Farms and greenhouses 3. Publicly owned and operated parks, parkways and outdoor recreational facilities 4. Home occupations 5. Keeping of horses and ponies 6. Family day care homes 7. Accessory buildings and uses
Special Land Uses	<ol style="list-style-type: none"> 1. Raising of nursery plant materials 2. Dairies 3. Keeping and raising of livestock 4. All special land uses in Section 402 5. Nonresidential uses of historical buildings 6. Bed and breakfasts 	<ol style="list-style-type: none"> 1. Places of worship 2. Schools 3. Utility and public service buildings (no storage yards) 4. Group day care, day care centers, adult day care 5. Private noncommercial recreation areas 6. Golf courses 7. Colleges and universities 8. Private pools 9. Cemeteries 10. Mortuary establishments 11. Bed and breakfasts 12. Accessory buildings and uses
Minimum Lot Size	43,560 square feet (1 acre)	21,780 sq ft (0.5 acres)
Minimum Lot	150 feet	120 ft

	RA Zoning (Existing)	R-1 Zoning (Proposed)
Width		
Building Height	2 1/2 stories -or- 35 feet	2 1/2 stories -or- 35 feet
Building Setbacks	Front: 45 feet Side: 20 feet (aggregate 50 feet) Rear: 50 feet	Front: 30 ft Side: 15 ft (aggregate 40 ft) Rear: 35 ft

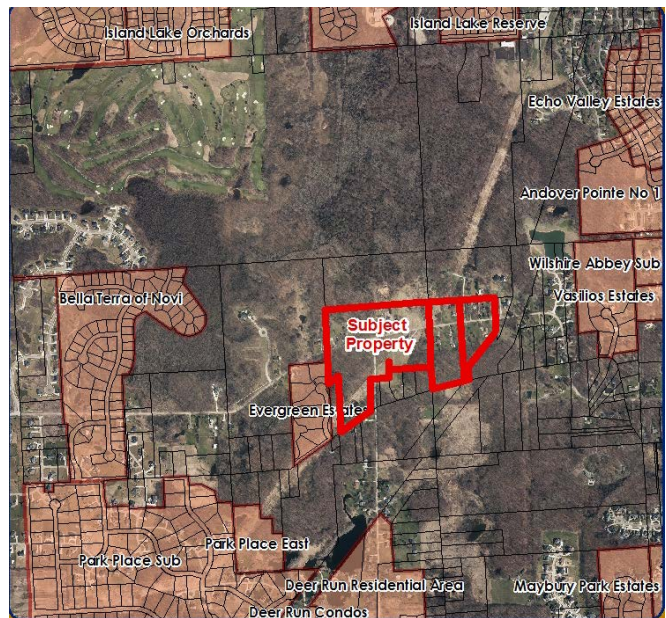
COMPATIBILITY WITH SURROUNDING LAND USE

The surrounding land uses are shown on the above chart. The compatibility of the proposed PRO concept plan with the zoning and uses on the adjacent properties should be considered by the Planning Commission in making the recommendation to City Council on the rezoning request with the PRO option. The following table summarizes the zoning and land use status for the subject property and surrounding properties.

	Existing Zoning	Existing Land Use	Master Plan Land Use Designation
Subject Property	RA, Residential Acreage	Single-Family Residential	Single-Family Residential at a maximum of 0.8 units/acre
Northern Parcels	R-1, One-Family Residential	Links of Novi/Vacant Existing RUD agreement	Single-Family Residential at a maximum of 0.8 units/acre. Existing RUD agreement limits the number of units to 439 per 324 acres
Southern Parcels	RA, Residential Acreage	Vacant	Single-Family Residential at a maximum of 0.8 units/acre
Eastern Parcels	RA, Residential Acreage	Single-Family Residential	Single-Family Residential at a maximum of 0.8 units/acre
Western Parcels	RA, Residential Acreage	Single-Family Residential: Evergreen Estates	Single-Family Residential at a maximum of 0.8 units/acre

All properties immediately adjacent to the subject property are predominantly underdeveloped or vacant.

The property directly **north** of the subject property is currently functioning as a recreational use (Golf course). The current zoning map indicates R-1 for the property on the north, but it has recorded development agreement associated with it which limits the maximum number of units to 439 that can be developed under the conditions listed in Quail Hollow RUD agreement. The development agreement also indicates that 42 percent of total site area (about 137 acres) will be preserved as permanent open space. About 73 acres will be contributed to the City. The development proposes trail system through the community.

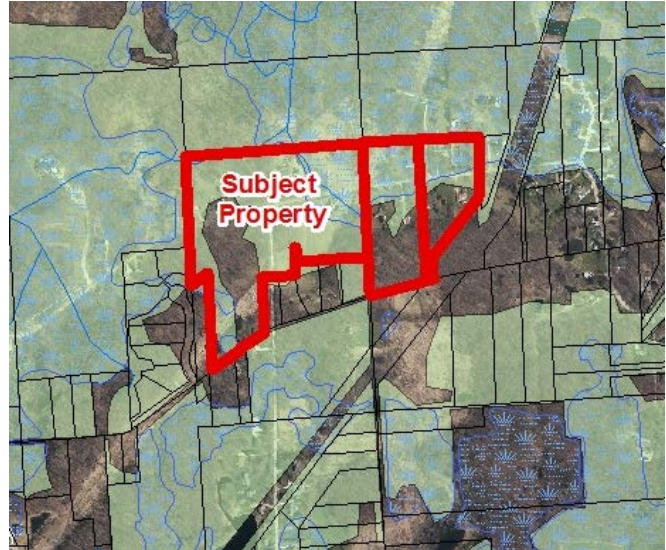


Directly to the **south** of the subject properties are a handful of single-family residential homes on residential lots along Nine Mile Road. All of these properties would experience traffic volumes along Nine Mile Road greater than existing (three single family houses exist on the subject property). However, the volumes are not considerably more than what would be expected with development under the current zoning.

The property to the **west** of the subject property along Nine Mile Road is the Evergreen Estates. It is developed according to RA requirements. The other property on the west is currently a single family residence.

To the **east** is one single family home and the ITC Corridor where the City will be constructing a regional trail to be completed by 2018.

The other developments which are in the vicinity are Bella Terra, Vasilius Estates and Park Place development. Bella Terra was developed using the Residential Unit Development option, thus permanently preserving 61 percent of the total site acreage. Park Place East was developed using the Open Space Conservation option, preserving about 45 percent Open space. All the developments in the surrounding area are either developed by RA requirements or used Open Space or RUD options and preserved open spaces. The applicant was recommended to use one of these options to maintain the natural quality of the area. He indicated that RUD development would not allow him to propose empty nester development he is currently proposing.



Impacts to the surrounding properties as a result of the proposal would be expected as part of the development of any residential development on the subject property and could include construction noise and additional traffic. The loss of woodland area on the property would present an aesthetic change but that would also happen with development under the current zoning. The vacant lots and the single family residences surrounding the subject property have minimum potential for a possible future condominium development as they are predominantly filled with regulated woodlands and wetlands (See Figure to the right).

DEVELOPMENT POTENTIAL AND DENSITY PROPOSED

Development under the current RA zoning could result in the construction of up to 30 single-family homes under the allowable density and net acreage of the site. It is not known whether the site could be developed with 30 lots that meet the dimensional requirements of the RA zoning district. Development under the master-planned density of 0.8 units to the acre (equivalent to existing RA zoning) would be up to 30 single family homes. Development under the proposed R-1 zoning without a PRO option could result in as many as 62 single family detached homes. As proposed, the development would be limited to 41 single-family detached homes.

The applicant is proposing 41 units on the 37.7 net acres resulting in approximately 1.08 units/acre density. As previously mentioned, the Master Plan for Land Use recommends 0.8 units per acre for the subject property and the properties surrounding it. The maximum density proposed is 35 percent less than the maximum allowed for R-1 (1.65 DUA). Proposed density is most consistent with the proposed R-1 One-Family Residential District (maximum density of 1.65 units per acre). It is density is 34 percent more the Master Plan recommendation for the site. The subject property is currently located in the southwest quadrant of the City which is predominantly low residential.

REVIEW CONCERNS

Infrastructure Concerns

An initial engineering review was done as part of the rezoning with PRO application to analyze the information that has been provided thus far. Water main is currently available to connect along Nine Mile Road and the applicant is connecting it through Evergreen court. The applicant is proposing to connect to the future gravity sewer main. The gravity sewer main in Nine Mile is a public project currently under design. The proposed development proposes connection to this gravity main. The City makes no guarantee that the project will be constructed prior to the construction of proposed development as plans are still subject to review and approval by all required governmental entities. Construction of this development would not be permitted to begin prior to the sewer being available for use. In the event that the City's sewer project is not available for this development, the applicant would need to submit an alternative plan for the full review process. A full scale engineering review would take place during the course of the Site Plan Review process for any development proposed on the subject property, regardless of the zoning. Refer to comments on page 4 for additional notes on paving of Nine Mile and relocation of Nine Mile and Garfield intersection.

Traffic

The City's traffic consultant has reviewed the **Rezoning Traffic Impact Study**. The senior adult housing under the PRO produced less trips than both the 40 single-family homes development and the 32 single-family homes development for the AM peak hour, the PM peak hour, and daily trips. It does not appear to impact Traffic patterns in the surrounding area. The applicant has aligned the proposed Villa d'Este Boulevard with Garfield Road.

Non-Motorized Improvements

City of Novi Non-motorized plan planned for two trails abutting the subject property: ITC Regional trail Phase 1A along the eastern boundary of the subject property and (2) proposed Singh trail in the northern property. **The proposed concept plan proposes a connection to the ITC trail from the end of Villa Court cul-de-sac. Connection to the ITC trail within the property proposes a five feet wide concrete walk and past the property line includes a 5 feet wide Asphalt pathway. Staff recommends that the applicant work with Engineering to determine suitable locations for future connections. Please show the proposed ITC trail on the proposed concept plan (DPS can provide with the proposed layout).**

With this submittal, the applicant is also proposing to relocate the ITC trail to the north side of Nine Mile Road. The City is currently in the process of acquiring bids for ITC trail construction. Please refer to our Engineering review for more comments on construction coordination.

Woodlands

The woodland summary provides the following information for the area identified as the limits of disturbance. Sheet WP-1 (Woodland Study Plan) notes that a total of 915 Woodland Replacement Credits are required and that 915 Woodland Replacement trees will be replaced on-site through the planting of Woodland Replacement materials. Approximately, 77% of trees are being preserved and 23% are being removed. The City's Landscape Architect and Woodland Consultant reviewed the plan and are currently recommending conditional approval primarily due to the applicant's request for additional Woodland replacement credits for upsizing replacement tree material. Please refer to the woodland review letter or additional information requested.

Wetlands

The currently proposed wetland impacts will not likely 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. The current plan proposes a total impact is 0.07-acre (452 cubic yards) to the wetlands and 0.33-acre of impacts to on-site 25-foot wetland/watercourse buffer area. On-site evaluation will be done at the time of Preliminary Site Plan review.

Floodplain

The Plan appears to propose some impacts to the existing floodplain on site. The applicant indicated in response letter that the related permits will be applied once the Concept plan is approved.

Open Space

The applicant is proposing to dedicate about 20 acres of land with natural features to the City to be preserved as permanent open space. The revised concept plan eliminated all the previously proposed amenities for residents such as the pool house, lawn bowling etc. **Applicant added few additional amenities such as pocket parks, benches, and pet waste stations thought the development at different locations.**

2016 MASTER PLAN FOR LAND USE: GOALS AND OBJECTIVES

2016 Master Plan for Land Use update (adopted by Planning Commission on July 26, 2017) identifies this property and all adjacent land within the City as single family residential, with a density of 0.8 dwelling units per acre. It matches the existing zoning of the subject property. The proposed development would follow/contradict objectives of the Master Plan as listed below. Staff comments are in **bold**.

1. Quality and variety of housing:

- a. *Maintain the semi-rural character of the southwest quadrant of the City that is created by low-density residential development and undeveloped land. **The proposed development does propose to protect a majority of natural features on site and provides ample screening from Nine Mile Road. However, the housing pattern itself looks dense within the limits of development and does not align with semi-rural character.***
- b. *Provide residential developments that support healthy lifestyle. Ensure provision of neighborhood open space within residential developments. **The proposed development includes a pool with amenities, sidewalks on both sides of the streets (for the most part), dog walk area and a lawn bowling. It also proposes a connection to proposed ITC Connector pathway.***
- c. *Provide a wide range of housing options. **The proposed development is geared towards empty nesters.***

2. Environmental Stewardship

- a. *Protect and maintain the City's woodlands, wetlands, water features, and open space. **The applicant proposes to donate about 20 acres (39%) of land with regulated woodlands and wetlands in the rear.***

MAJOR CONDITIONS OF PLANNED REZONING OVERLAY AGREEMENT

The Planned Rezoning Overlay process involves a PRO concept plan and specific PRO conditions in conjunction with a rezoning request. The submittal requirements and the process are codified under the PRO ordinance (Section 7.13.2). Within the process, which is completely voluntary by the applicant, the applicant and City Council can agree on a series of conditions to be included as part of the approval.

The applicant is required to submit a conceptual plan and a list of terms that they are willing to include with the PRO agreement. The applicant has submitted a conceptual plan showing the

general layout of the internal roads and lots, location of proposed detention ponds, location of proposed open space and preserved natural features and a general layout of landscaping throughout the development. The following conditions can be requirements of the Planned Rezoning Overlay Agreement:

- a. The development shall be limited to a maximum density of 41 units,
- b. The proposed unit boundary shown on the concept plan (sheet 02) is to be considered the maximum allowable footprint. Any accessory uses such as hot tubs, patios, etc. will be provided within the footprint shown on the plan.
- c. A minimum of 15 feet shall be maintained between any two buildings.
- d. A minimum of 30 feet shall be provided between the front façade and the back of the curb.
- e. Rear setbacks will be as shown on the Concept plan, based on the proposed boundary line of land to be donated to City.
- f. The applicant shall work with staff to identify a proper location to connect to the proposed ITC trail, beyond the subject property line.
- g. The applicant shall limit the wetland and woodland impacts to the areas and percentages indicated on the concept plan at the time of Preliminary Site Plan.
- h. Minor modifications to the approved Planned Rezoning Overlay Concept Plan (PRO) can be approved administratively, upon determination by the City Planner, that the modifications are minor, do not deviate from the general intent of the approved PRO Concept plan and result in reduced impacts on the surrounding development and existing infrastructure.
- i. Applicant shall comply with the conditions listed in the staff and consultant review letters. Completion of ITC Trail comfort station with Phase 1 of the residential construction

ORDINANCE DEVIATIONS

Section 7.13.2.D.i.c(2) permits deviations from the strict interpretation of the Zoning Ordinance within a PRO agreement. These deviations must be accompanied by a finding by City Council that *"each Zoning Ordinance provision sought to be deviated would, if the deviation were not granted, prohibit an enhancement of the development that would be in the public interest, and that approving the deviation would be consistent with the Master Plan and compatible with the surrounding areas."* Such deviations must be considered by City Council, who will make a finding of whether to include those deviations in a proposed PRO agreement. The proposed PRO agreement would be considered by City Council after tentative approval of the proposed concept plan and rezoning.

The concept plan submitted with an application for a rezoning with a PRO is not required to contain the same level of detail as a preliminary site plan. Staff has reviewed the concept plan in as much detail as possible to determine what deviations from the Zoning Ordinance are currently shown. The applicant may choose to revise the concept plan to better comply with the standards of the Zoning Ordinance, or may proceed with the plan as submitted with the understanding that those deviations would have to be approved by City Council in a proposed PRO agreement. The following are deviations from the Zoning Ordinance and other applicable ordinances shown on the concept plan. The applicant has submitted a narrative describing the requested deviations. **The applicant should consider submitting supplemental material discussing how if each deviation *"...were not granted, [it would] prohibit an enhancement of the development that would be in the public interest, and that approving the deviation would be consistent with the Master Plan and compatible with the surrounding areas."***

- a. Planning Deviation from Sec. 3.1.2 of Zoning Ordinance for reduction of the minimum lot size, setbacks, minimum lot frontage and minimum site acreage as shown on the proposed concept plan provided,
 - i. The proposed unit boundary shown on the concept plan (sheet 02) is to be considered

- the maximum allowable footprint. Any accessory uses such as hot tubs, patios, etc. will be provided within the footprint shown on the plan.
- ii. A minimum of 15 feet shall be maintained between two buildings.
 - iii. A minimum of 30 feet is provided between the front façade and the back of the curb.
 - iv. Rear setbacks will be as shown on the Concept plan, based on the proposed boundary line of land to be donated to City.
- b. Façade deviation from Sec 3.7, similar dissimilar ordinance, to replace internal calculation of square footage to a 2200 square foot minimum requirement for this development;
 - c. Landscape deviation from Sec. 5.5.3.B.ii and iii of Zoning Ordinance for lack of berms along the westerly Nine Mile Road frontage and portions of the easterly frontage, due to existing natural features;
 - d. The applicant shall conform to the ordinance requirements at the time of Preliminary Site Plan and Woodland permit review;
 - e. Engineering deviation from Sec. 4.04, Article IV, Appendix C-Subdivision ordinance of City Code of Ordinances for absence of a stub street required at 1,300 feet intervals along the property boundary to provide connection to the adjacent property boundary, due to conflict with existing wetlands;
 - f. Engineering deviation from Chapter 7(c)(1) of Engineering Design manual for reducing the distance between the sidewalk and back of the curb: 15 feet required, 10 feet proposed;
 - g. Engineering deviation for absence of sidewalk along a portion of Villa Drive, with payment into the City's sidewalk fund for the cost of the sidewalk not constructed;
 - h. Engineering deviation for absence of hard surface for proposed comfort station parking lot and driveway from Sec. 11-239(b)(1),(2)of Novi City Code, or the applicant shall provide the hard surface as requested by staff, to be determined prior to the submittal of the PRO Agreement;
 - i. Engineering deviation for absence of curb and gutter for parking lot and driveway for the proposed comfort station from Sec. 11-239(b)(1),(2)of Novi City Code, or the applicant shall provide the curb and gutter as requested by staff, to be determined prior to the submittal of the PRO Agreement;
 - j. Traffic deviation for not conforming to minimum required standards as indicated in Figure IX.5 of the City's Code of Ordinances for residential driveway, provided the applicant works with staff to minimize the number of driveways that deviate from the standard at the time of Preliminary Site Plan;
 - k. Traffic deviation from Figure VIII-A in the City Code of Ordinances, for not providing the minimum width for local residential road for Villa D' Este Boulevard, the stretch from the entrance gates to the first intersection (28 feet required, 24 feet provided).
 - l. Traffic deviation from Section 7.4.2.c (1) of Engineering Design Manual for not meeting the maximum distance between sidewalk and Right of way line along Nine mile. A maximum of 1 foot is required for a small portion where it conflicts with existing wetland area;
 - m. Deviation to allow alternate locations for street tree plantings to avoid conflict with the utility layout along the internal roads, as detailed in this review letter;

- n. Deviation from the Woodland Ordinance requirements to allow upsizing of Woodland Replacement trees along the Nine Mile Road berm on the east side of the development
[APPLICANT'S REQUEST]

Tree Type	Credit requested	Credit allowed
6' - 8' Evergreens	1 Credit	0.67 credit
10' - 12' Evergreens	2 Credits	0.67 credit
4" Deciduous Trees	2 Credits	1 credit allowed for 2.5" or more deciduous
Subcanopy	1 Credit	1 credit allowed, if the replacement planting is from recommended list

-OR-

The applicant shall meet the replacement requirements per the ordinance standards, by planting additional replacement trees onsite, or pay the difference into the Tree Fund.

- o. The items outlined by the Planning Commission should be addressed in the drafting of the PRO agreement:
- i. Construction of this development shall not be permitted to begin prior to the public project gravity sewer main in Nine Mile being in place and available for use.
 - ii. Grading requirements for development shall be superseded based on the character of Nine Mile Road.
 - iii. Retention ponds shall be completely screened for safety on all four sides and above the typical standards.
 - iv. The City shall confirm that the proposed trailhead agreement will not negate already existing agreements.
 - v. The portion of asphalt paving on Nine Mile Road shall be constructed in a manner to reduce or eliminate issues of the interface between gravel and asphalt.

Eliminated deviations:

1. A traffic deviation for not meeting the minimum required horizontal curve radii for the proposed streets;
2. Allow offsite woodland replacement planting credits adjacent to Garfield Road, Nine Mile Road on ITC easements in the vicinity of the proposed project entrance and for screening on adjoining neighbor's property. Conditioned on approval by landowners.
3. Landscape deviation from Section 4 of Landscape Design Manual for not meeting the minimum diversity requirements for woodland replacement plantings along ITC corridor; **the applicant met with Master Planning and Zoning Committee on January 10, 2018. While the Committee understands the applicant's intent to screen the ITC power lines from the residents, the Committee agreed that the screening trees cannot be counted towards woodland replacement counts. The Committee recommended the applicant not to seek the deviation, which are now eliminated except for upsizing credits request.**

APPLICANT BURDEN UNDER PRO ORDINANCE

The Planned Rezoning Overlay ordinance requires the applicant to demonstrate that certain requirements and standards are met. The applicant should be prepared to discuss these items, especially in number 1 below, where the ordinance suggests that the enhancement under the PRO request would be unlikely to be achieved or would not be assured without utilizing the Planned Rezoning Overlay. Section 7.13.2.D.ii states the following:

1. *(Sec. 7.13.2.D.ii.a) Approval of the application shall accomplish, among other things, and as determined in the discretion of the City Council, the integration of the proposed land development project with the characteristics of the project area, and result in an enhancement of the project area as compared to the existing*

zoning, and such enhancement would be unlikely to be achieved or would not be assured in the absence of the use of a Planned Rezoning Overlay.

- 2. (Sec. 7.13.2.D.ii.b) Sufficient conditions shall be included on and in the PRO Plan and PRO Agreement on the basis of which the City Council concludes, in its discretion, that, as compared to the existing zoning and considering the site specific land use proposed by the applicant, it would be in the public interest to grant the Rezoning with Planned Rezoning Overlay; provided, in determining whether approval of a proposed application would be in the public interest, the benefits which would reasonably be expected to accrue from the proposal shall be balanced against, and be found to clearly outweigh the reasonably foreseeable detriments thereof, taking into consideration reasonably accepted planning, engineering, environmental and other principles, as presented to the City Council, following recommendation by the Planning Commission, and also taking into consideration the special knowledge and understanding of the City by the City Council and Planning Commission.*

PUBLIC BENEFIT UNDER PRO ORDINANCE

Section 7.13.2.D.ii states that the City Council must determine that the proposed PRO rezoning would be in the public interest and the public benefits of the proposed PRO rezoning would clearly outweigh the detriments. The following are the benefits provided with the revised letter from the applicant dated March 6, 2018. Staff Comments are in **bold**.

- 1. Donate approximately 20 acres of land to Novi for existing park system. This donation is conditional that Novi cannot sell the parcel, or develop the parcel, otherwise the property reverts back to original owner. **Twenty acres would count to about thirty nine percent of total gross area. City may reserve a right to make minor improvements in the area to propose a trail or accessory uses for a trail. City Council expressed interest in acquiring lands with natural features to create nature corridors. Proposed land to be dedicated abuts proposed ITC trail. This is considered a public benefit.***
- 2. The Developer proposes to build a comfort station for ITC Trailhead per drawings provided to Novi. **After further discussion with City Parks department, staff agrees that this would be a suitable location for a trail head. A trail head typically includes few parking spaces, a bike repair station and a possible picnic shelter. The applicant has revised the layout to include seven parking spaces, a picnic shelter and asphalt parking lot. A bike repair station as previously noted is not included on the plan at this time. This is considered a public benefit.***
- 3. Reduce cost for City of Novi to transport soils from installation of sanitary sewer on Nine Mile. Allow the city to place uncontaminated soils on property at Nine Mile and Garfield Road. **As mentioned above, if City acquires the property on Garfield for a trailhead, it is City's intent to transport soils from the sewer installation to that property. The offered benefit would not provide any significant reduction in costs even otherwise. On the contrary, it may benefit the developer by providing soils for the proposed screening berms on the property.***
- 4. Increase tax base by \$40,000,000. Many Novi residents have children in Northville Public schools. This project raises funding for schools and has no negative impact to the school system. Single family homes would increase tax base by \$20,000,000 dollars and have an impact on school system. **An increase in tax base is considered an incidental benefit, and not the sort of benefit contemplated by the PRO ordinance.***
- 5. Provide an outstanding development and extensive landscaping. **Conceptual landscape plans appear to provide more landscaping than required along proposed streets. Staff has***

noted some conflicts with utility locations. There may be some benefit to the public in the increased quality proposed.

6. *Property values near Cambridge Developments see significantly higher increases compared to other developments. Staff is unable to quantify any such increases at this time. This is not considered a tangible benefit to the public.*
7. *Pave part of Nine Mile from Garfield to entrance to Villa D'Este with chip seal and upgrade the Nine Mile and Garfield intersection. Staff has earlier noted some concerns in the memo dated March 7, 2018 with regards to maintenance when transitioning from asphalt to gravel surface. The applicant offered to thicken the asphalt to add strength. Additional details will be required with the Preliminary Site Plan submittal. Please refer to comments on Page 5.*
1. *Added with response letter dated June 08, 2018: Relocate ITC Trail to the north side of Nine Mile Road. A better design for Novi and Cambridge will absorb the additional cost at our property line. The City project to construct this segment of the ITC Trail is estimated to begin construction in late 2018 with completion in Spring 2019. As noted, the estimated completion date for City project is much earlier than the potential start of construction for this development. The City has already started design efforts for this segment of the trail. Staff recommends that the applicant may choose to contribute to the cost of construction of the trail adjacent to their property line based on actual cost of construction to be provided by the City. The City would also request dedication of the Right of way prior to construction of the pathway. It should be noted that the pathway location is subject to final alignment of Garfield Rd and Villa Drive design. Refer to Engineering review for more details. This is considered a public benefit.*

Staff acknowledges the significant benefits 1 and 2, offered by the applicant. It is staff's opinion that benefits do not meet the intent of public benefits and should be eliminated from PRO agreement. Item 8 is hard to justify at this time. Item 9 is recommended by staff.

SUMMARY OF OTHER REVIEWS

- a. Engineering Review (Revised with current submittal 07-02-18): Additional comments to be addressed with revised concept plan submittal. Engineering is recommending approval for reasons noted in the letter.
- b. Landscape Review (Revised with current submittal 06-29-18): Landscape review has identified few waivers that may be required. Refer to review letter for more comments. Landscape recommends approval contingent of Council approval of deviation request.
- c. Wetland Review (Revised with current submittal 06-26-18): A City of Novi Wetland Non-Minor Use Permit and an authorization to encroach into 25 foot buffer setback are required for this site plan at the time of Preliminary Site Plan review. Additional comments to be addressed with Preliminary Site Plan submittal. Wetland is recommending approval for reasons noted in the letter.
- d. Woodland Review (Revised with current submittal 06-26-18): A City of Novi woodland permit is required for the proposed plan at the time of Preliminary Site Plan review. Additional comments to be addressed with Preliminary Site Plan submittal. Woodland is recommending approval contingent of Council approval of deviation request.
- e. Traffic Review (Revised with current submittal 06-27-18): Additional Comments to be addressed with revised concept plan submittal. Traffic is currently recommending denial until the safety and operational concerns around the roadway realignment can be addressed
- a. Facade Review: Façade review is not required for Concept PRO plan unless the applicant wants to demonstrate that the buildings will an enhancement, which would be unlikely to

be achieved if it were not a Planned Rezoning Overlay. Applicant did not indicate any additional enhancement to the building elevations.

- b. Fire Review (Last Updated: 01-31-17): Additional Comments to be addressed with revised concept plan submittal. Fire recommends approval.

NEXT STEP: CITY COUNCIL MEETING

The PRO Concept plan is scheduled for July 23, 2018 City Council meeting. The following are required no later than July 11, 2018:

1. A response letter to all staff and consultant review letters
2. A color rendering of the site plan (Optional)
3. Concept plan submittal in PDF format

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.



Sri Ravali Komaragiri – Planner



PLANNING REVIEW CHART

Review Date: June 30, 2018
Review Type: 5th Revised Concept Plan (Planner Rezoning Overlay)
Project Name: **JSP 17-52 VILLA D'ESTE**
Plan Date: January 26, 2018 (Revised)
Prepared by: Sri Komaragiri, Planner
E-mail: skomaragiri@cityofnovi.org; **Phone:** (248) 735-5607

Items in **Bold** need to be addressed by the applicant with next submittal. Underlined items need to be addressed on the Preliminary Site Plan.

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(adopted July 26, 2017)</i>	Single Family, with master planned 0.8 maximum dwelling units per acre.	41 Unit single family residential development with PRO overlay; 1.08 maximum dwelling units per acre (Net site Area: 37.7 acres)	No	
Zoning <i>(Effective December 25, 2013)</i>	RA: Residential Acreage district	R-1 One-Family Residential District	No	<i>As discussed at the meeting, the applicant is requesting to rezone to R-1.</i>
Uses Permitted <i>(Sec. 3.1.1)</i>	Single Family Dwellings	Single Family Dwellings (Ranch style Condos) with PRO Overlay	No	
Phasing	Is Phasing involved?	Two phases There is a dashed line east of Villa Drive dividing the site into 2, which appears to be a phased line		<p>Provide a phasing plan indicating clearly what is being proposed in each phase.</p> <p>Will phase 2 remain natural while Phase 1 is being build?</p> <p>When will tree removals happen? Will utilities and SWM ponds for both phases build at the same time or with each phase?</p> <p>Will comfort station is being built with Phase 1? Add notes to clarify the above and any additional items.</p>

Item	Required Code	Proposed	Meets Code	Comments
Planned Rezoning Overlay Document Requirements				
Written Statement <i>(Site Development Manual)</i> <i>The statement should describe the following</i>	Potential development under the proposed zoning and current zoning	- Current RA Zoning: up to 30 homes (0.8 DUA) - Proposed R-1 Zoning: up to 62 homes (1.65 DUA) - Proposed Concept: 41 units (1.08 DUA)	Yes	
	Identified benefit(s) of the development	Provided	Yes?	Please refer to comments in the review letter
	Conditions proposed for inclusion in the PRO Agreement (i.e., Zoning Ordinance deviations, limitation on total units, etc)	Not provided	Yes	Please refer to comments in the review letter
Rezoning Sign Location Plan <i>(Page 23,SDM)</i>	Installed within 15 days prior to public hearing Located along all road frontages	Installed	Yes	
Public Benefits <i>(Section 7.13.2.D.ii)</i>	City Council must determine that the proposed PRO rezoning would be in the public interest and the public benefits of the proposed PRO rezoning would clearly outweigh the detriments	Provided in an attachment	Yes?	Refer to Planning review letter for more comments
Traffic Impact Study <i>(Site development manual)</i>	A Traffic Impact Study as required by the City of Novi Site Plan and Development Manual.	Applicant submitted a Traffic Impact Study with the initial submittal. An addendum has been provided with this submittal	Yes	Refer to Traffic Review.
Community Impact Statement <i>(Sec. 2.2)</i>	- Over 30 acres for permitted non-residential projects - Over 10 acres in size for a special land use - All residential projects with more than 150 units - A mixed-use development, staff	Not required, but provided per staff's request	Yes	Staff agrees with the findings

Item	Required Code	Proposed	Meets Code	Comments
	shall determine			
Usable Open Space & Amenities	Usable open space is recommended for residential developments	Provided required sidewalks on either side of street. Proposed connection to ITC trail	No	
The remainder of the review is against R-1 standards				
Height, bulk, density and area limitations (Sec. 3.1.2)				
Maximum Dwelling Unit Density	1.65 DUA For RA: 0.8 DUA(For 37.7 net acres , up to 30 units)	1.08 DUA (41 Units) 12.01 acres of wetland Gross site acreage: 50.61 acres Statutory R.O.W. = 0.9 acres On-site wetland area: 12.01 acres Net site area excluding statutory R.O.W. and wetlands: 37.7 acres Density: 41/37.7 = 1.08 DUA Area to be donated to the City for preservation: 20.22 acres Area to be donated to the City for Comfort Station: 0.18 acres	<u>N</u> <u>O</u>	The maximum density conforms to R-1 requirements. The applicant has reduced the requested density considerably since the first submittal. Net site area should also exclude statutory Rights-of-way prior to calculating density. Please update Site data on the sheet as staff indicated to the left
Minimum Lot Area (Sec 3.1.2)	21,780 square feet For RA: 1 Acre (43,560 square feet)	Unable to determine The layout proposes single floor living with optional loft or basement. The development proposes common areas as opposed to site condominium with lot lines	No	<u>Staff is unable to identify the extent of deviations sought. Council may recommend the concept plan as proposed on Planning Commission's recommendation</u>
Minimum Lot Width (Sec 3.1.2)	120 ft. For RA: 150 ft.	Unable to determine	No	
Building Setbacks (Sec 3.1.2)				
Front	30 ft. <i>RA: 45ft.</i>	30 ft. measured from back of the curb	No	<u>Staff is unable to identify the extent of deviations sought. Council may recommend the concept plan as proposed on Planning Commission's</u>
Side	15 ft. one side and 40 ft. total two sides <i>RA: 20 ft. one side, 50 ft. two sides</i>	15 ft minimum distance between buildings	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Rear	35 ft. <i>RA: 50 ft.</i>	Unable to determine	No	<u>recommendation</u>
Maximum % of Lot Area Covered <i>(By All Buildings)</i> <i>(Sec 3.1.2)</i>	25%	Unable to determine	No	
Minimum Floor Area <i>(Sec 3.1.2)</i>	1,000 Sq. ft.	Information is not provided at this point	No	Due to many deviations sought with regards to setbacks, the applicant is requested to set a maximum building footprint
Building Height <i>(Sec 3.1.2)</i>	35 ft. or 2.5 stories whichever is less	No elevations provided at this time. The applicant indicated in the response letter that the tentative height is 35 ft.	NA	Please specify to verify conformance. <u>Building height reviewed at plot plan phase. Please mention the tentative height.</u>
Frontage on a Public Street. <i>(Sec. 5.12)</i>	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 road within the proposed condominium, with access to Nine Mile Road	Yes	The community is gated and would require City Council approval.
Parking and other requirements				
Number of Parking Spaces Private clubs <i>(Sec.5.2.12.B)</i>	Two (2) for each dwelling unit	Proposed parking in the garage and in front of garage	Yes?	Where are the mailboxes provided? Refer to Traffic comments about limiting on-street parking along cul-de-sacs
Barrier Free Spaces <i>Barrier Free Code</i>	For total 1 to 25 = 1 van accessible	Not applicable for single family development	NA	
Accessory Structures	Any accessory structures shall meet the requirements for section 4.19	Unable to determine	No?	Indicate whether dumpster, generators or rooftop equipment is provided for the poll facility. Any deviations to the possible location should be requested prior to concept plan submittal.
Note to District Standards <i>(Sec 3.6)</i>				

Item	Required Code	Proposed	Meets Code	Comments
Area Requirements (Sec 3.6A & Sec. 2.2)	<ul style="list-style-type: none"> - Lot width shall be measured between two lines where a front setback line intersects with side setback lines. - Distance between side lot lines cannot be less than 90% between the front setback line and the main building. 	<p>Development is not proposing lot lines. Everything other building will be under common ownership</p> <p>Concept plan proposes Unit boundary for four typical size units in the development, which limits all construction within the boundary.</p>	No	<u>Staff is unable to identify the extent of deviations sought. Council may recommend the concept plan as proposed on Planning Commission's recommendation</u>
Additional Setbacks (Sec 3.6B)	NA	Single family development. Off-street parking is provided for the accessory use to the development	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 highwater mark of a watercourse.	<p>25ft. wetland buffer indicated.</p> <p>Total wetland impact area: 0.08 Acres</p> <p>Total wetland buffer impact area: 0.33 Acres</p> <p>Mitigation likely not required</p>	No	<p>Refer to wetland review for more details.</p> <p>On-site wetland evaluation will be completed at the time of Preliminary Site Plan review.</p>
Woodlands (City Code Chapter 37) Replacement of removed trees		<p>Woodland impacts proposed</p> <p>Regulated Trees Removed: 551 (23.3%) Regulated Trees Preserved: 1,815 (76.7%) Total Replacements Required 915 Tree Credits</p> <p>A woodland survey and replacement plan is provided</p>	No	<p><u>The applicant has requested a deviation for the upsizing of Woodland Replacement material (not supported by staff)</u></p> <p>Refer to woodland review for more details.</p>
Subdivision Ordinance (Subdivision Ordinance Appendix C, Article IV)				

Item	Required Code	Proposed	Meets Code	Comments
Blocks (Subdivision Ordinance: Sec. 4.01)	<ul style="list-style-type: none"> - Maximum length for all blocks shall not exceed 1,400 ft. - Widths of blocks shall be determined by the conditions of the layout. 	Block along Villa Drive appears to be longer than 1400 feet	No	Revise the layout to meet the code. <u>This could be a deviation.</u>
Lot Depth Abutting a Secondary Thoroughfare (Subdivision Ordinance: Sec. 4.02.A5)	Lots abutting a major or secondary thoroughfare must have a depth of at least 140'	Nine Mile road along the subject property is considered Scenic road.	NA	
Depth to Width Ratio (Subdivision Ordinance: Sec. 4.02.A6)	Single Family lots shall not exceed a 3:1 depth to width ratio	Unable to determine	No	<u>Staff is unable to identify the extent of deviations sought. Council may recommend the concept plan as proposed on Planning Commission's recommendation</u>
Arrangement (Subdivision Ordinance: Sec. 4.02.B)	<ul style="list-style-type: none"> - Every lot shall front or abut on a street. - Side lot lines shall be at right angles or radial to the street lines, or as nearly as possible thereto. 	Unable to determine	No	
Streets (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"> - practical difficulties because of topographic conditions or natural features - Would create undesirable traffic patterns 	The subject property is surrounded by regulated wetlands on the north and west, ITC corridor on the east.	NA	<u>This could be a deviation and is supported by staff.</u>
Topographic Conditions (Subdivision Ordinance Sec 4.03)				
A. Flood plain	Compliance with applicable state laws and City Code Areas in a floodplain cannot be platted	There is an existing 100 year floodplain on the subject property. Some of the lots are encroaching into the floodplains. The layout also proposes storm water detention within the floodplains	No	Applicant is responsible for contacting the necessary agencies and obtain the necessary permits for the modifying the floodplain limits Clearly indicate the floodplain limits on the

Item	Required Code	Proposed	Meets Code	Comments
				layout plan. Refer to Engineering letter for more details
B. Trees and Landscaping	Compliance with Chapter 37 and Article 5 of City Zoning Code	Landscape Plan is not provided	No	Refer to Landscape review for requirements
C. Natural Features	To be preserved Lots cannot extend into a wetland or watercourse	The site has considerable wetlands	Yes/ No	Refer to Wetland review letter for more comments
D. Man-made Features	To be built according to City standards	None Proposed	NA	
E. Open Space Areas	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.	Landscape and grading plan is not submitted. Unable to determine	No	
F. Non-Access Greenbelt Easements	Along rear or side property lines for reverse frontage lots	Not applicable	NA	
G. Zoning Boundary Screening	A non-residential development abutting a residential development would need screening	Subject property is not abutting any non-residential development	NA	
Sidewalks Requirements				
Non-Motorized Plan	- Proposed unpaved trail, west of subject property from Nine Mile Road to Ten Mile Road through undeveloped park land. - ITC Corridor, abutting the eastern boundary of subject property.	Connections to the proposed ITC trail is proposed through the system of internal sidewalks and the proposed public sidewalk The applicant is proposing a 'comfort station' at the south east corner of the	Yes	Refer to Planning review letter for additional comments on

Item	Required Code	Proposed	Meets Code	Comments
		development to complement the ITC Trail		
Sidewalks <i>(Subdivision Ordinance: Sec. 4.05)</i>	Sidewalks are required on both sides of proposed drives	Sidewalks are proposed on either side of the proposed private drive for the most part	No	The applicant should revise the pathway to 10 feet
Public Sidewalks <i>(Chapter 11, Sec. 11-276(b), Subdivision Ordinance: Sec. 4.05)</i>	Master Plan for Land Use refers to a 10 foot asphalt pathway along Nine Mile Road	A 8 foot asphalt pathway is proposed north of Nine Mile Road in lieu of City proposed	No	
Building Code and other design standard Requirements				
Residential Entryway Lighting	A residential development entrance light must be provided at the entrances to the development off of Dixon Road	None indicated	No	Please contact Darcy Rechten at 248.735.5695 for further details. Provide details of the proposed lighting
Interior Site Lighting	A lighting and photometric plan is required if any interior lighting is proposed.	None proposed at the moment.	Yes?	
Building Code	Building exits must be connected to sidewalk system or parking lot.	Not Applicable.	NA	
Design and Construction Standards Manual (DSM)	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Not provided.	No	Provide land description.
General layout and dimension of proposed physical improvements	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Some dimensions are missing.	No	Please refer to Traffic review comments for additional details.

Item	Required Code	Proposed	Meets Code	Comments
Economic Impact Information	<ul style="list-style-type: none"> - Total cost of the proposed building & site improvements - Home size & expected sales price of new homes 			
Legal Requirements				
Development and Street Names	Development and street names must be approved by the Street Naming Committee before Preliminary Site Plan approval	Project name and street name have been approved	Yes	
Property Split or Combination	Property combination or split shall be reviewed and approved by the Community Development Department.	The subject property is proposing a combination of four whole lots and part of a fifth lot.	Yes	<u>The applicant must create this parcel prior to Stamping Set approval. Plans will not be stamped until the parcel is created.</u>
Development/ Business Sign	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	<u>For sign permit information contact Ordinance at 248-735-5678</u>
Master Deed/Covenants and Restrictions	Applicant is required to submit this information for review with the Final Site Plan submittal	Not applicable at this moment	NA	
Conservation easements	Conservation easements may be required for wetland and buffer impacts	Not applicable at this moment. They will be required at the time of Preliminary Site Plan	NA	<u>The following documents will be required during Site Plan review process after the Concept PRO approval</u>
PRO Agreement (Sec. 7.13.2.D(3))	A PRO Agreement shall be prepared by the City Attorney and the applicant (or designee) and approved by the City Council, and which shall incorporate the PRO Plan and set forth the PRO Conditions and conditions imposed	Not applicable at this moment	NA	<u>PRO Agreement shall be approved by the City Council after the Concept Plan is tentatively approved</u>

Item	Required Code	Proposed	Meets Code	Comments
<p>NOTES:</p> <ol style="list-style-type: none">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

5th Revision: Submitted Dated 06-07-18



PLAN REVIEW CENTER REPORT

July 2, 2018

Engineering Review

Villa d'Este
JSP17-0052

Applicant

Robert Lamp Trust

Review Type

PRO revised Concept Plan

Property Characteristics

- Site Location: North of Nine Mile Road, east of Garfield Road
- Site Size: 48.32 acres
- Plan Date: 06/06/2018
- Design Engineer: Sieber Keast

Project Summary

- A PRO plan for residential development north of Nine Mile Road and east of Garfield Road.
- Water service would be provided by an 8-inch extension from the existing 12-inch water main along the north side of 9 Mile Rd., with two connections to create a looped system.
- Sanitary sewer service would be provided by connection to the proposed gravity main along the north side of Nine Mile Road.
- Storm water would be collected by a single storm sewer collection system and detained on site in proposed detention basins.

Recommendation:

The PRO Concept Plan and Storm Water Management Plan can be recommended for approval.

Comments:

The Concept plan meets the general requirements of Chapter 11, the Storm Water Management Ordinance and the Engineering Design Manual with the following items to be addressed in Preliminary and Final Site Plan submittals:

General

1. A stub street to the property boundary at intervals not to exceed 1,300 feet along the perimeter is required by ordinance. **A request for deviation from Appendix C Section 4.04(A)(1) of the Ordinance can be submitted.** City staff supports this request.
2. A right-of-way permit will be required from the City of Novi.
3. The master planned right-of-way for Nine Mile Road is 43 foot half width right-of-way. Dedication of the master-planned right-of-way width should be part of this development.
4. Provide a minimum of two ties to established section or quarter section corners.
5. A sheet index shall be provided on the cover sheet.
6. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
7. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
8. Provide a utility crossing table indicating that at least 18-inch vertical clearance will be provided, or that additional bedding measures will be utilized at points of conflict where adequate clearance cannot be maintained.
9. Soil borings shall be provided for a preliminary review of the constructability of the proposed development (roads, basin, etc.). Borings identifying soil types, and groundwater elevation should be provided at the time of Preliminary Site plan.
10. A letter from either the applicant or the applicant's engineer must be submitted with the Preliminary Site Plan submittal highlighting the changes made to the plans addressing each of the comments in this review.

Utilities

11. The gravity sewer main in Nine Mile is a public project currently under design. The proposed development proposes connection to this sanitary sewer. The City's project is currently under design and the City makes no guarantee that the project will be constructed as plans are still subject to review and approval by all required governmental entities. Construction of this development would not be permitted to begin prior to the sewer being available for use. In the event that the City's sewer project is not available for

this development, the applicant would need to submit an alternative plan for the full review process.

Paving & Grading

12. The right-of-way sidewalk shall continue through the drive approach. If like materials are used for each, the sidewalk shall be striped through the approach. The sidewalk shall be increased to 6-inches thick along the crossing or match the proposed cross-section if the approach is concrete. Provide additional spot grades as necessary to verify the maximum 2-percent cross-slope is maintained along the walk.
13. Provide top of curb/walk and pavement/gutter grades to indicate standard 6 inch curb height at the parking spaces shown at 19 feet in length.
14. Within the development, sidewalks are required on both sides of the street. **Absence of sidewalk along a portion of Villa Drive requires a variance, with payment into the City's sidewalk fund for the cost of the sidewalk not constructed.** The request to pay into the sidewalk fund in lieu of constructing sidewalk along the south side of Villa Drive where there are no proposed residences can be supported.
15. **Sidewalks on private roadways should be located such that the outside edge of the sidewalk is a minimum of 15 feet from back of curb. The layout plan indicates that 10 feet are provided from the back of curb to outside edge. A request for deviation from this standard can be requested.** It should be noted that landscaping requirements and utility locations must not be in conflict.
16. Per Section 26.5-35(c), a statement is required on any plan containing a private street with the following language: "City of Novi has no responsibility to improve or maintain the private streets contained within or private streets providing access to the property described in this plan."
17. Pavement of Nine Mile as shown in Option "B" has been previously reviewed and found to be acceptable.
18. Option "A" on sheet 4 proposes realignment of Garfield Road that would require right-of-way dedication west of existing Garfield right-of-way.
 - a. While the realigned intersection has some benefits, the right-of-way dedication out of the public park land presents concerns.
 - b. Option "A" also shifts Nine Mile Road to the south, presenting operational concerns as described in the Traffic review letter.
 - c. Option "A" proposes a shorter stretch of pavement and does not include the tapers previously proposed in Option "B". If Option "A" is to be pursued, additional discussion about the extent of paving and tapers is required.
19. The applicant proposes to construct 8 foot pathway along the north side of Nine Mile to serve as a segment of the public ITC Trail currently under design by the City.
 - a. The ITC Trail currently being designed by the City is 10 foot in width along the south side of Nine Mile. The City is designing an alternate alignment of 10 foot pathway on the north side of Nine Mile, similar to the pathway

alignment shown in Option "B" on sheet 4. The proposed Option "A" alignment shows a portion of the pathway just off the edge of proposed Nine Mile Road pavement, presenting safety concerns. If Option "A" is to be pursued for the Garfield and Villa Drive intersections, the culvert extension would be required to maintain the east-west alignment of 10 foot pathway across Villa Drive.

- b. The City project for the ITC Trail is projected to begin construction in late 2018 with completion in Spring 2019. If the pathway is to be constructed along the north side of Nine Mile, the right-of-way dedication along Nine Mile would be requested in advance of the development to support the City's construction schedule.
20. The proposed roadway cross section shown on sheets 2 and 3 should refer to City standard paving details 1 and 1B for pavement cross section and mixes.
21. The Villa Drive boulevard entrance width proposed as 20 feet must be increased to 24 feet as described in the Traffic review letter, and widened to 28 feet beyond the boulevard section.
22. The emergency access road cross section shall include 4 inches of 21AA base with 6 inch concrete walkway.
23. Provide a grading plan for the paved comfort station and parking lot east of the development. Parking lots are required to be curbed. **A variance from Design and Construction Standards would be required if curbs are not proposed.**

Storm Water Management Plan

24. As described in section 5.6.1 of the Engineering Design Manual, a permanent pool volume equal to at least the first flush volume with a minimum 3 foot depth can be provided to meet storm water quality standards. The proposed basin cross sections exceed these requirements.
25. A 4-foot wide safety shelf is required one-foot below the permanent water surface elevation within each basin.
26. Runoff in all areas of development must be pretreated before discharge to the wetlands. Capture the rear yard storm water in all developed areas in the on-site storm water collection and detention basin systems; or provide rain gardens as the pretreatment mechanism. An administrative variance from the Design and Construction Standards may be required to show justification if the rear yard runoff cannot be captured and is otherwise treated prior to discharge to the wetlands.
27. A 25-foot vegetated buffer shall be provided around the full perimeter of each storm water basin. This buffer cannot encroach onto adjacent lots, and should not be placed immediately against adjacent structures. Provide a boundary of shrubbery or other maintainable landscape features between any structures and edge of the non-mowable basin buffer area.

Flood Plain

28. Application for a City floodplain permit shall be submitted as soon as possible to begin the review process. The City's floodplain consultant will review the submittal and provide initial comments regarding the review process. An MDEQ floodplain use permit may also be required prior to final site plan approval.

Off-Site Easements

29. Any off-site easements or agreements must be executed prior to final approval of the plans. Drafts shall be submitted at the time of the Preliminary Site Plan submittal. No off-site easements are anticipated at this time.

The following must be provided at the time of Preliminary Site Plan submittal:

30. A letter from either the applicant or the applicant's engineer must be submitted with the Preliminary Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved.

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

31. 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).
32. Draft copies and/or revisions to the off-site utility and access easements, a recent title search, and legal escrow funds must be submitted to the Community Development Department for review and approval by the Engineering Division and the City Attorney prior to being executed.

Please contact Darcy Rechten at (248) 735-5695 with any questions.



Darcy N. Rechten, P.E.

Plan Review Engineer

cc: Sri Komaragiri, Community Development
George Melistas, Engineering

LANDSCAPE REVIEW

5th Revision: Submitted Dated 06-07-18



PLAN REVIEW CENTER REPORT

June 29, 2018

Fourth Revised PRO Concept Site Plan

Villa d' Este

Review Type

Fourth Revised PRO Concept Plan Landscape Review

Job

JSP17-0052

Property Characteristics:

- Site Location: North side of 9 Mile Road, near Garfield
- Site Zoning: R-A – Proposed R-1 with PRO
- Adjacent Zoning: North: R-A and R-1, East: R-A and ITC Corridor, South: R-A, West, R-A
- Plan Date: 6/6/2018

Recommendation:

This concept is **recommended for approval but one significant deviation is not supported by staff**. A deviation that was supported by the Planning Commission on March 14, 2018 was:

Landscape deviation from Sec. 5.5.3.B.ii and iii of Zoning Ordinance for lack of berms along the westerly Nine Mile Road frontage and portions of the easterly frontage, due to existing natural features.

Also at that meeting, the Planning Commission voted that "The applicant shall conform to the ordinance requirements at the time of Preliminary Site Plan and Woodland permit review." A requested deviation to allow upsizing credits for woodland replacement trees was **not** recommended for approval at that time. On the latest plan submittal, upsizing credits for replacement trees on the berm along the eastern section of the project, adjacent to the ITC corridor and Nine Mile Road, are still requested. **This upsizing credit deviation is not allowed by the Landscape Design Manual, and is not 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** below and on the accompanying Landscape Chart must be addressed and incorporated as part of the Preliminary Site Plan submittal. Underlined items must be addressed and incorporated as part of the Final 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 Soils (Preliminary Site Plan checklist #10, #17)

Provided

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

Provided

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

1. A tree survey has been provided for the area to be disturbed.
2. Replacement calculations have been included that include upsizing credits are requested for both evergreen trees and deciduous trees. **This deviation is not supported**

by staff.

3. As noted previously, the Landscape Design Manual does not allow upsizing credits for Woodland Replacement Trees. The Planning Commission, with their vote, did not recommend the upsizing credits for replacement trees.
4. **Please revise the calculations to not include upsizing credits for replacement trees.**

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

Proposed contours are provided on Landscape Plans.

Snow Deposit (LDM.2.q.)

Provided.

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

9 Mile Road

1. 1195 lf frontage, less the ordinance allowances for access ways/clear vision zone (total of 140'), less the 85' to be donated for the trail parking lot = 970 lf. 28 deciduous canopy trees are required, 30 are provided.
2. **A landscape deviation to not provide street trees in front of the wetland in order to not disturb the 160 lf of wetland or wetland buffer would be supported by staff. 5 street trees (160lf/1 tree per 35 lf) would not need to be planted in that area.**

Internal streets

1. 87 trees are provided in front of units and along the interior roads. As this proposal's layout doesn't conform to any current ordinance, there is no ordinance requirement to compare this to. With that said, the number of trees provided is satisfactory.
2. Cul-de-sac islands and boulevard island trees are not counted toward required street trees. This is correct.
3. As the area between the curb and sidewalk is only 5 feet, deciduous subcanopy trees are used as street trees, as specified in the Landscape Design Manual.
4. The conceptual utility layout shown on the landscape plan appears to create a number of conflicts. **Please re-align the sanitary and water lines such that they and their 20 foot easements don't conflict with the street trees shown on the plan.**
5. **Please move all trees to no closer than 10 feet from a hydrant or structure, and 5 feet from an underground line.**
6. **As sections of residential roads that aren't in front of residences aren't required to have street trees, the proposed plantings along the entry drive up to the intersection and along the south side of the road across from units 15-18 could be counted toward the required woodland replacement credits if they were species on the Woodland Tree Replacement Chart. Subcanopy trees, shrubs and perennials could also count toward the replacement if they were species native to Michigan. See the attached Woodland Tree Replacement Chart and the Reforestation Credit Table.**

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

1. 1195 lf frontage, less the ordinance allowances for access ways (total of 75'), less the 85' to be donated for the trail parking lot = 1035 lf.
2. Large evergreens or canopy trees: 1 tree per 40 lf = 26 trees required, 26 provided.
3. Subcanopy trees required: 1 tree per 25 lf = 41 trees required, 42 provided.
4. *Berms are not provided in the entire western frontage, nor in the area immediately west of the entrance. A landscape deviation for this shortage was recommended by the Planning Commission.*
5. **A landscape deviation to not provide greenbelt plantings along the 500 lf of frontage along 9 Mile Road where existing vegetation is being preserved would be supported by staff as the existing vegetation provides sufficient screening from the road.**

Corner Clearance (Zoning Sec 5.9)

1. Provided.
2. **Please remove the street tree from the west edge of the Fire Access drive. It does not need to be planted elsewhere.**
3. **Please move all trees at least 10 feet from driveways.**

Parking Lot Landscaping/Perimeter Trees (Zoning Sec. 5.5.3.C.)

1. Perimeter trees are required at the rate of 1/35 lf. A total of 11 trees (378lf/35) are required for the perimeter trees around the 3 bays, 18 are provided. **If desired, the extra trees do not need to be provided.**
2. **Please use full-sized deciduous canopy tree species for the perimeter trees when they are not located in a 5 foot gap between the sidewalk and curb.**

Transformer/Utility Box Screening (Zoning Sec 5.5.3.D.)

When utility box locations are provided, required screening should be added to plan and plant list.

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

1. Requirement for 70% of pond rim to be landscaped with large native shrubs appears to be satisfied.
2. The detention pond trees shown are not required, and are shown as woodland replacement trees. This is acceptable.

Plant List (LDM 2.h. and t, LDM 4)

1. No plant list is provided to verify required diversity or whether any prohibited species are included. Based on the symbols provided, it appears that the plan is in compliance with all ordinances except as noted above and below. It is assumed that the applicant will comply with all landscape standards regarding tree sizes, species and diversity. A complete plant list shall be provided on the Final Site Plan (Preliminary Site Plan would be preferable).
2. **When a plant list is provided, the non-replacement trees should use a diversity of species per the guidelines in Landscape Design Manual Section 4 and at least 50% of those species should be native to Michigan.**
3. **The Proposed Replacement Species must all come from the Woodland Replacement Tree Chart. Concolor Fir and Green Spruce are not on the Woodland Replacement Tree Chart so they should be removed from the list.**
4. **The plan has been revised so that evergreen trees do not account for more than 10% of the replacement trees planted. This is acceptable. All trees included in the woodland replacement calculations need to appear on the plan. Currently only about 145 trees (of the 214 shown on the calculation) appear graphically on the plan. If the 214 trees can't be fit on the site in a reasonable density, then the number of evergreen trees will need to be reduced to meet the 10% limit agreed to here.**
5. **The species composition of only 10% evergreens also needs to be followed for the individual unit replacement trees (4 trees per unit). That information should be included in the master deed for the development.**

Planting Notations and Details (LDM)

Please revise the notes per the Landscape Chart.

Woodland Replacement Credits (Section 37-8)

In addition to the notes above, the applicant could gain credit for the additional buffering plants placed along the adjacent properties' borders across from Units 15-18 if they were species native to Michigan. See the attached revised Woodland Tree Replacement Chart and Reforestation Credit Table.

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

An irrigation plan for landscaped areas or an alternative plan for ensuring that plants get the water required for establishment and long-term survival is required for Final Site Plans.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5621 or rmeader@cityofnovi.org.



Rick Meader – Landscape Architect

LANDSCAPE REVIEW SUMMARY CHART – Fourth Revised PRO Concept Plan

Location: Nine Mile at Garfield, north side.
Review Date: June 29, 2018
Project Name: JSP17 – 0052: VILLA D’ESTE
Plan Date: June 6, 2018
Prepared by: Rick Meader, Landscape Architect E-mail: 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.

LANDSCAPE DEVIATION APPROVED BY THE PLANNING COMMISSION ON MARCH 14, 2018

No berm is provided along the entire 570 lf of western frontage. The required berm is an undulating berm with a minimum height of 4 feet and crest 4 feet wide

Please show this landscape deviation on the sheet LP-1, with the approval date.

LANDSCAPE DEVIATIONS RECOMMENDED BY STAFF FOR THIS REVISION:

- No berms provided along any of frontage west of entrance to protect existing natural vegetation (570LF) – No berms are provided**
- No greenbelt landscaping provided within existing natural areas to be protected (500 LF) (Proposed greenbelt landscaping calculations include these areas and plantings per those calculations so the greenbelt (not street trees) could be reduced with this deviation)**
- No street trees provided for 160lf of frontage along Nine Mile Road that are in wetlands to be preserved (5 trees)**

Item	Required	Proposed	Meets Code	Comments
Landscape Plan Requirements (LDM (2))				
Landscape Plan <i>(Zoning Sec 5.5.2, LDM 2.e.)</i>	<ul style="list-style-type: none"> ▪ 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' Detail: 1" = 20'
Project Information <i>(LDM 2.d.)</i>	Name and Address	Yes	Yes	
Owner/Developer Contact Information <i>(LDM 2.a.)</i>	Name, address and telephone number of the owner and developer or association	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
Landscape Architect contact information (LDM 2.b.)	Name, Address and telephone number of RLA/LLA	Yes	Yes	
Sealed by LA. (LDM 2.g.)	Requires original signature	Yes	Yes	<u>Needed for Final Site Plans.</u>
Miss Dig Note (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Not on Sheets LP-1 through LP-4, WP-1	No	Please add to all landscape plan sheets.
Zoning (LDM 2.f.)	Include all adjacent zoning	Site: R-A Proposed R-1 with PRO North: R-A and R-1, East: R-A and ITC corridor, South: R-A, West: R-A	Yes	On Sheet 2
Survey information (LDM 2.c.)	<ul style="list-style-type: none"> ▪ Legal description or boundary line survey ▪ Existing topography 	<ul style="list-style-type: none"> • Description is provided on Cover Sheet. • No topographic survey is provided. 	Yes/No	Please provide a topographical survey of the site in the plan set.
Existing plant material Existing woodlands or wetlands (LDM 2.e.(2))	<ul style="list-style-type: none"> ▪ Show location type and size. Label to be saved or removed. ▪ Plan shall state if none exists. 	Yes	Yes	<ol style="list-style-type: none"> 1. A tree survey is provided. 2. Trees to be removed are clearly shown and a tree fence line is provided. 3. Woodland replacement calculations are provided. 4. See ECT's review for a complete discussion of woodlands and wetlands.
Soil types (LDM.2.r.)	<ul style="list-style-type: none"> ▪ As determined by Soils survey of Oakland county ▪ Show types, boundaries 	Sheet 3	Yes	
Existing and proposed improvements (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	Yes	
Existing and proposed utilities (LDM 2.e.(4))	Overhead and underground utilities, including hydrants	Some existing and all proposed utility lines are shown on the plans.	Yes/No	<ol style="list-style-type: none"> 1. Based on site visits and street views of the site, it appears that there are overhead lines along 9 Mile Road at the

Item	Required	Proposed	Meets Code	Comments
				site. 2. Please clearly show all overhead utility lines on landscape plans and keep trees away from them. 3. The conceptual utility plan appears to create a number of conflicts where street trees couldn't be planted as shown. Please realign water and sanitary utilities to allow all interior street trees to be planted at least 10 feet from structures and 5 feet from underground lines. 4. If the utility lines aren't revised to avoid impacts, trees closer than 10 feet from utility structures and 5 feet from underground utility lines. This is especially applicable to trees in front of units 19, 21, 23, 30 and 31.
Proposed grading. 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	<ul style="list-style-type: none"> Proposed berm contours are shown east of the entry drive. Required berms are not provided west of the entry. 	Yes/No	A landscape deviation was approved to not provide the berm.
Snow deposit (LDM.2.g.)	Show snow deposit areas on plan	Yes	Yes	
LANDSCAPING REQUIREMENTS				
Parking Area Landscape Requirements LDM 1.c. & Calculations (LDM 2.o.)				
General requirements (LDM 1.c)	<ul style="list-style-type: none"> Clear sight distance within parking islands No evergreen trees 	NA – no parking islands are on plan		
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	NA		

Item	Required	Proposed	Meets Code	Comments
General (Zoning Sec 5.5.3.C.ii)				
Parking lot Islands (a, b, i)	<ul style="list-style-type: none"> ▪ A minimum of 200 SF to qualify ▪ 200 sf per tree planted in an island ▪ 6" curbs ▪ Islands minimum width 10' BOC to BOC 	NA		
Curbs and Parking stall reduction (c)	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	NA		
Contiguous space limit (i)	Maximum of 15 contiguous spaces	Maximum bay is 7 spaces	Yes	
Parking Lot perimeter trees	<ul style="list-style-type: none"> • 1 per 35 lf • 378/35 = 11 trees 	18 trees	Yes	Fewer trees can be provided along edge of parking areas if desired.
Plantings around Fire Hydrant or Utility structures (d)	<ul style="list-style-type: none"> • No plantings with matured height greater than 12' within 10 ft. of fire hydrants, manholes or catch basins. • Trees should be at least 5 feet from underground lines. 	Most are far enough away.	Yes	<ol style="list-style-type: none"> 1. Keep all trees and large shrubs at least 10' away from hydrants, manholes and outside of the required 20' water and sanitary utility easements. 2. Please relocate the trees in front of Units 19, 21, 23, 30 and 31. 3. Please relocate the trees along the entry drive that are on top of or too close to the underground utility line. 4. (If the dashed line along the east side of the sidewalk is not a utility line, please either identify it or remove it from the drawing as it appears to be a utility line)
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	NA		
Clear Zones (LDM 2.3.(5))	25 ft corner clearance required. Refer to Zoning Section 5.5.9	Clear zones are provided.		1. Please remove the street tree at the west edge of the fire

Item	Required	Proposed	Meets Code	Comments
				<p>access drive. As there are 2 street trees more than necessary on 9 Mile Road it does not have to be planted elsewhere.</p> <p>2. Please shift all trees near driveways to positions at least 10 feet away from the driveway.</p>
Berms, Walls and ROW Planting Requirements				
Berms				
<ul style="list-style-type: none"> ▪ 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. ▪ Berms should be constructed of loam with 6" top layer of topsoil. 				
Residential Adjacent to Non-residential (Zoning Sec 5.5.3.A and LDM 1.a)				
Berm requirements (Zoning Sec 5.5.A)	Adjacent Zoning is RA and R1	NA		
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	NA		
Adjacent to Public Rights-of-Way (Zoning Sec 5.5.3.A and LDM 1.b)				
Cross-Section of Berms (Zoning Sec 5.5.3.B and LDM 2.j)				
Slope, height and width (Zoning Sec 5.5.3.A.v)	<ul style="list-style-type: none"> ▪ Label contour lines ▪ Maximum 33% slope ▪ Constructed of loam ▪ 6" top layer of topsoil 	Details are not provided.	No	Please provide a typical berm cross section detail for each proposed berm. REPEATED COMMENT
Type of Ground Cover		Yes	Yes	Lawn
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	No	No	Please show all overhead utilities – existing or proposed – on the detail if they are near the berm.
Walls (LDM 2.k & Zoning Sec 5.5.3.vi)				
Material, height and type of construction footing	Freestanding walls should have brick or stone exterior with masonry or concrete interior	None proposed		
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		NA		
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)				

Item	Required	Proposed	Meets Code	Comments
Greenbelt width (2)(3) (5)	34 ft.	54' min.	Yes	
Min. berm crest width	4 ft.	4 ft	Yes/No	<ol style="list-style-type: none"> 1. The required berm is provided east of the entrance. 2. A berm is not provided west of the entrance. A <i>landscape deviation was granted by the Planning Commission.</i> 3. No berm is provided on the western 570 lf frontage. 240 feet of this is wetland. A <i>landscape deviation was granted by the Planning</i> 4. Due to the fire access lane and limited space, there isn't sufficient room for the required berm east of the wetland. A <i>landscape deviation for this was granted by the Planning Commission.</i>
Minimum berm height (9)	4 ft.	4 ft	Yes/No	See above
3' wall (4) (7)	NA	No		
Canopy deciduous or large evergreen trees Notes (1) (10) LDM1.d.(1)(b)	<ul style="list-style-type: none"> ▪ 1 tree per 40 l.f.; ▪ 9 Mile Road (1195-55-20-85)/40 = 26 trees ▪ Possible waiver for preserved woodlands and wetlands/buffers: 500/40 = 13 trees 	26 trees	Yes	<ol style="list-style-type: none"> 1. Calculations and required trees are provided. 2. The required trees aren't provided within 180 lf of wetland and wetland buffer along the right-of-way which would be negatively impacted by grading/planting and where existing screening is sufficient. 3. If desired, the proposed plantings could be decreased if a landscape

Item	Required	Proposed	Meets Code	Comments
				waiver for the preserved woodland and wetland areas was requested. That waiver would be supported by staff.
Sub-canopy deciduous trees Notes (2)(10)	<ul style="list-style-type: none"> ▪ 1 tree per 25 l.f.; ▪ 9 Mile Road (1195-55-20-85)/25 = 41 trees ▪ Possible waiver for preserved woodlands and wetlands/buffers: 500/25 = 20 trees 	42 trees	Yes	See above regarding landscape deviation for subcanopy trees.
Street Trees (LDM 1.d.(1) and Novi Street Tree List))	<ul style="list-style-type: none"> ▪ 9 Mile Road: 1 tree per 35 lf (1195-120-20-85)/35 = 28 trees ▪ Internal lots: 1 tree per unit since individual lots are not provided. 42 units. ▪ Entry drive: 1 deciduous canopy tree per 35 lf are required on both sides of the drive. 	<p><u>9 Mile Road:</u> 30 trees</p> <p><u>Lots:</u> 83 trees</p> <p><u>Entry Drive:</u> Planters indicated along drive with unidentified species.</p>	<ul style="list-style-type: none"> • Yes • Yes • TBD 	<ol style="list-style-type: none"> 1. As no street trees are required along open space, the proposed plantings along the entry drive and along the south side of the drive across from units 15-18 could be counted toward the woodland replacement requirement if they were plants native to Michigan 2. See Section 37-8 and the attached revised Woodland Tree Replacement chart and revised Reforestation Credit Table
Island & Boulevard Planting (Zoning Sec & LDM 1.d.(1)(e))	<ul style="list-style-type: none"> ▪ Must be landscaped & irrigated ▪ Mix of canopy/sub-canopy trees, shrubs, groundcovers, etc. ▪ No plant materials between heights of 3-6 feet as measured from street grade 	Trees shown in all islands, additional plantings in entry island.		A mix of canopy and subcanopy trees, shrubs, groundcovers etc. is provided.
Transformers/Utility boxes (LDM 1.e from 1 through 5)	<ul style="list-style-type: none"> ▪ A minimum of 2ft. separation between box and the plants ▪ Ground cover below 4" is allowed up to pad. ▪ No plant materials 	NA		<ol style="list-style-type: none"> 1. When the locations of transformer/utility boxes are determined, add landscaping per city requirements. 2. Please add a note to

Item	Required	Proposed	Meets Code	Comments
	within 8 ft. from the doors			<p>the plans stating that all utility boxes shall be screened per the standard city screening requirements.</p> <p>3. Please add the city screening detail to the plans. It is attached with this review.</p>
Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)				
Planting requirements <i>(Sec. 5.5.3.E.iv)</i>	<ul style="list-style-type: none"> ▪ 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 	<ul style="list-style-type: none"> • Proposed shrubs provide required coverage. • Detention pond trees provided are shown as woodland replacements. This is fine. 	Yes	<ol style="list-style-type: none"> 1. When species are identified, the shrubs should be large shrubs native to Michigan. 2. The replacement trees will need to be from the revised Woodland Tree Replacement Chart.
Woodland Replacements (Chapter 37 Woodlands Protection)				
Woodland Replacement Calculations – Required/Provided	<ul style="list-style-type: none"> ▪ Show calculations based on a tree chart provided in the plans. ▪ Indicate boundary of regulated woodland on plan 	<ul style="list-style-type: none"> ▪ Removals and trees saved are shown on plan and chart ▪ Upsizing credits are proposed for these replacements: <ul style="list-style-type: none"> ○ Berm evergreen trees ○ Berm deciduous trees 	No	<ol style="list-style-type: none"> 1. Upsizing credits for woodland replacement trees are not allowed per the Landscape Design Manual (9.b.(2)(a). and were not approved by the Planning Commission. This deviation is not supported by staff as the purpose of the replacements is to provide quantities of replacement trees to replace lost habitat over a long period of time, not to address immediate aesthetics. 2. Please revise the calculations to not include upsizing credits.
Woodland Replacement Trees	<ul style="list-style-type: none"> ▪ Show clearly on plan and plant list which 	<ul style="list-style-type: none"> ▪ A mix of evergreen and 	No	<ol style="list-style-type: none"> 1. Provided woodland replacement trees

Item	Required	Proposed	Meets Code	Comments
<p>Proposed</p>	<p>trees are proposed as woodland replacement trees</p> <ul style="list-style-type: none"> ▪ Reforestation credit table breakdown, if applicable 	<p>deciduous replacement trees are indicated – no species given.</p> <ul style="list-style-type: none"> ▪ Approximately 10% of replacement trees appear to be evergreen, by their symbol. 		<p>should be from the Woodland Replacement Tree Chart. Concolor Fir and Green Spruce are not on the chart so these should be removed from the Potential Replacement Tree Plant List on LP-2. REPEATED COMMENT</p> <p>2. Woodland replacement trees should be an approximate composition as the trees removed. Based on calculations on WP-1, the mix proposed has evergreen trees comprising about 10% of the trees planted but the existing woods has only about 3% evergreens. This is acceptable, but all 214 extra deciduous trees need to be clearly shown on the plan. Currently they do not appear to be. (Only about 145 were counted). If the 214 trees can't fit on the site, then the number of evergreen trees will need to be reduced to meet the 10% limit accepted here.</p> <p>3. The guideline for woodland composition representation will also need to be followed for replacements planted for each unit.</p>

Item	Required	Proposed	Meets Code	Comments
				<p>4. The extra screening trees and shrubs provided along the adjacent property lines across from Units 15-18 could be counted toward the replacement requirement per Section 37-8 if they are species native to Michigan.</p> <p>5. See the ECT review for a more detailed discussion of the woodlands.</p>
LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS				
Landscape Notes – Utilize City of Novi Standard Notes				
Installation date <i>(LDM 2.i. & Zoning Sec 5.5.5.B)</i>	Provide intended date	Between Mar 15 – Nov 15	Yes	
Maintenance & Statement of intent <i>(LDM 2.m & Zoning Sec 5.5.6)</i>	<ul style="list-style-type: none"> ▪ 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	
Plant source <i>(LDM 2.n & LDM 3.a.(2))</i>	Shall be northern nursery grown, No.1 grade	Yes	Yes	
Irrigation plan <i>(LDM 2.s.)</i>	A method for ensuring that plantings receive sufficient watering for establishment and long-term survival must be provided.	No	No	<p>1. <u>If an irrigation system is to be provided, the plan for that system should be provided with Final Site Plans.</u></p> <p>2. <u>If a system is not provided, notes regarding how plantings will receive sufficient water for establishment and survival must be part of the Final Site Plans.</u></p>
Other information <i>(LDM 2.u)</i>	Required by Planning Commission	NA		1. Please change Novi notes #2 and #3 to show financial guarantee factor of

Item	Required	Proposed	Meets Code	Comments
				1.2, not 1.5 or 2. REPEATED COMMENT 2. Please change Novi note #3 to state that first inspection date is April 15, not March 15. REPEATED COMMENT
Establishment period (Zoning Sec 5.5.6.B)	2 yr. Guarantee	Yes	Yes	
Approval of substitutions. (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
Plant List (LDM 2.h.) – Include all cost estimates				
Quantities and sizes	Refer to LDM suggested plant list	No plant list	No	1. No plant list is provided to verify required diversity or whether any prohibited species is included. Based on the symbols provided, it appears that the plan is in compliance with all ordinances except as noted above for replacement species. 2. It is assumed that the applicant will comply with all landscape standards regarding tree sizes, species and diversity (apart from woodland replacements). 3. <u>A complete plant list should be provided on the Final Site Plan (Preliminary Site Plan would be preferable).</u>
Root type				
Botanical and common names				
Breakdown of genus/species diversity (LDM 1.d.(1).d.				

Item	Required	Proposed	Meets Code	Comments
				Manual (5.d) 2. At least 50% of species used, not including replacement trees, need to be native to Michigan.
Type and amount of lawn		No		<u>Need for Final Site Plan</u>
Cost estimate (LDM 2.t)	For all new plantings, mulch and sod as listed on the plan	No		<u>Need for Final Site Plan</u>
Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	Please add callout stating that root ball dirt should be removed from root flare.
Evergreen Tree		Yes	Yes	See above
Multi-stem Tree		Yes	Yes	See above
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	Provide tree fencing locations on demolition or grading plans.
Other Plant Material Requirements (LDM 3)				
General Conditions (LDM 3.a)	Plant materials shall not be planted within 4 ft. of property line	Yes	Yes	Please add note near property lines.
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	No	No	
Landscape tree credit (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	None		
Plant Sizes for ROW, Woodland replacement and others (LDM 3.c)	Refer to Chapter 37, LDM for more details	Yes	No	Include sizes on plant list when one is provided.

Item	Required	Proposed	Meets Code	Comments
Plant size credit (LDM3.c.(2))	NA			
Prohibited plants (LDM 3.d)	No plants on City Invasive Species List	No plant list included	TBD	
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities			Please dimension distance from proposed trees close to overhead lines if any exist.
Collected or Transplanted trees (LDM 3.f)		NA		
Nonliving Durable Material: Mulch (LDM 4)	<ul style="list-style-type: none"> ▪ 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. 	Yes	Yes	Please specify compost instead of peat mulch in your planting mix. Canadian wetlands are harvested for the peat, causing environmental damage.

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.

WETLAND REVIEW

5th Revision: Submitted Dated 06-07-18



ECT Project No. 170538-0700

June 26, 2018

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

Re: Villa d'Este (JSP17-0052)
Wetland Review of the Revised PRO Concept Plan (PSP18-0087)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Revised PRO Concept Plan for the proposed Villa d'Este project prepared by Seiber, Keast Engineering, L.L.C. dated June 6, 2018 and stamped "Received" by the City of Novi Community Development Department on June 8, 2018 (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 currently recommends approval of the Revised PRO Concept Plan for Wetlands. ECT recommends that the Applicant address the items noted in the *Wetland Comments* section of this letter in subsequent site plan submittals.

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 0.07-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 development is located north of the intersection of Nine Mile Road and Garfield Road (i.e., north of Nine Mile Road between Napier Road and North Beck Road, Section 29 & 30. The Plan proposes the construction of forty-one (41) single family detached ranch and story-and-a-half residential condo units (down from 42 on the previous plan), associated roads and utilities as well two (2) storm water detention basins. The proposed project site contains a significant amount of City-Regulated Woodland area as well as a significant amount of on-site City-Regulated wetlands and a tributary to the Novi-Lyon Drain (see Figure 1).

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Wetland Evaluation/Wetland Impact Review

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 recommends that we conduct a wetland field evaluation at the time of Preliminary Site Plan submittal in order to verify the existing on-site wetland boundaries.

The Plan notes that the onsite wetlands were flagged by Wilson Road Group, Inc. and indicates numerous areas of existing wetlands on the site. These wetland areas are generally located along the northern and western portions of the project site. Portions of these wetland areas appear to be included on the City of Novi *Regulated Wetlands and Watercourse Map* (attached, Figure 1). It should be noted that the current Plan now labels the existing wetlands and provides the wetland areas (i.e., acreages). The *Overall Plan* (Sheet 2) includes a Wetland Impact table that indicates the overall areas of on-site wetlands (acres), the wetland impact area (acres), and the 25-foot wetland buffer disturbance areas (acres).

Please indicate the overall areas of the on-site 25-foot wetland buffers on the Plan (acres) as well as the proposed volume (cut or fill) of the proposed wetland impacts on the Plan (cubic yards). In addition, wetland flag numbers should also be included on the Plan.

The Wetland Impact table indicates a total of twelve (12) existing wetlands on the site (Wetland A through Wetland M). All of these wetlands are regulated by the City of Novi and several are also likely regulated by the Michigan Department of Environmental Quality (MDEQ). The DEQ must determine the following before a permit can be issued:

- The permit would be in the public interest.
- The permit would be otherwise lawful.
- The permit is necessary to realize the benefits from the activity.
- No unacceptable disruption to aquatic resources would occur.
- The proposed activity is wetland dependent **or** no feasible and prudent alternatives exist.

As noted above, several areas of wetland have been confirmed on the subject property by the applicant's wetland consultant. Currently, the Plan indicates two (2) direct impacts to on-site wetlands. The Plan quantifies the areas of the proposed wetland impacts. The total amount of direct (i.e., fill or excavation) impact to on-site wetlands is 0.08-acre. The current impacts to Wetlands C and M are for the purpose of constructing a wetland/drain crossing for Villa Drive and Villa Court in two (2) locations as shown on the Plan. The impact to Wetland B is for the purpose of constructing stormwater detention Basin A.

The following table summarizes the proposed wetland impacts as listed on the *Overall Plan* (Sheet 2):

Table 1. Proposed Wetland Impacts

Wetland	Wetland Area (Acres)	City Regulated?	MDEQ Regulated?	Impact Area (acre)	Estimated Impact Volume (cubic yards)
A	0.115	Yes City Regulated /Essential	Likely	None	None
B	1.394	Yes City Regulated /Essential	Likely	0.050	Not Provided
C	4.804	Yes City Regulated /Essential	Likely	0.030	Not Provided
D	2.916	Yes City Regulated /Essential	Likely	None	None
E	0.473	Yes City Regulated /Essential	Likely	None	None
F	1.067	Yes City Regulated /Essential	Likely	None	None
G	0.349	Yes City Regulated /Essential	Likely	None	None
H	0.023	Yes City Regulated /Essential	Likely	None	None
J	0.527	Yes City Regulated /Essential	Likely	None	None
K	0.158	Yes City Regulated /Essential	Likely	None	None
L	0.077	Yes City Regulated /Essential	Likely	None	None
M	0.108	Yes City Regulated /Essential	Likely	None	None
TOTAL	12.011	--	--	0.080	Not Provided

The Plan also includes the construction of several storm water management basins (Basins A and B) located adjacent to existing wetlands. There will be storm water outlets constructed to existing wetland areas in these locations.

The currently proposed wetland impacts will not likely 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. The current proposed wetland total impact is 0.08-acre. The current Plan does not appear to provide the volume of the proposed wetland cuts/fills. Please confirm the volume associated with the proposed wetland impacts on subsequent site plan submittals.

In addition to the proposed wetland impacts, the Plan proposes disturbance to 0.33-acre of on-site 25-foot wetland/watercourse buffer area. The wetland buffer impacts are for the purpose of proposed grading between Buildings 21 and 22, for the construction of a drain crossing for Villa Drive and Villa Court just north of the project entrance from W. Nine Mile Road, and for the construction of stormwater detention Basin A.

The following table summarizes the impacts proposed to the existing wetland/watercourse setbacks as listed on the Plan:

Table 2. Proposed 25-Foot Wetland/Watercourse Buffer Impacts

<i>Wetland/Watercourse Buffer Impact Area</i>	<i>Impact Area (acre)</i>	<i>Purpose</i>
B	0.190	Gravel access drive to Basin "A"
C	0.100	Grading between Building 21 & 22 and Drain crossing for Villa Drive & Villa Court
M	0.040	Construction of Villa Drive
TOTAL	0.33	--

As noted above, the Plan proposes to construct storm water outfalls to wetlands from Detention Basin A and B. The applicant shall quantify any permanent and/or temporary impacts to wetlands or wetland buffers in these areas.

It should be noted that the Wetland Impact table on the Plan indicates the impact area to the Wetland C buffer is 0.100-acre. The note in the plan view (i.e., Sheet 2) indicates two (2) impacts to the Wetland C buffer of 0.02-acre and 0.10-acre (totaling 0.12-acre). This quantity shall be clarified on the Plan and Wetland Impact Table.

In addition to the proposed wetland impacts and proposed impact to the regulated drain, the Plan appears to propose impacts to regulated floodplain. Subsequent Plan submittals should address any proposed impacts to existing floodplain areas located on the site. Floodplain impacts will most likely need to be authorized by the Michigan Department of Environmental Quality (MDEQ).

City of Novi Ordinance Requirements

The City of Novi Wetland and Watercourse Protection Ordinance (City of Novi Code of Ordinances, Part II, Chapter 12, and Article V) describes the regulatory criteria for wetlands and review standards for wetland permit applications.

As stated in the Ordinance, it is the policy of the city to prevent a further net loss of those wetlands that are: (1) contiguous to a lake, pond, river or stream, as defined in Administrative Rule 281.921; (2) two (2) acres in size or greater; or (3) less than two (2) acres in size, but deemed essential to the preservation of the natural resources of the city under the criteria set forth in subsection 12-174(b).

The wetland essentiality criteria as described in the Wetland and Watercourse Protection Ordinance are included below. Wetlands deemed essential by the City of Novi require the approval of a use permit for any proposed impacts to the wetland:

All noncontiguous wetland areas of less than two (2) acres which appear on the wetlands inventory map, or which are otherwise identified during a field inspection by the city, shall be analyzed for the purpose of determining whether such

areas are essential to the preservation of the natural resources of the city....In making the determination, the city shall find that one (1) or more of the following exist at the particular site:

- (1) The site supports state or federal endangered or threatened plants, fish or wildlife appearing on a list specified in Section 36505 of the Natural Resources Environmental Protection Act (Act 451 of 1994) [previously section 6 of the endangered species act of 1974, Act No. 203 of the Public Acts of 1974, being section 229.226 of the Michigan Compiled Laws].*
- (2) The site represents what is identified as a locally rare or unique ecosystem.*
- (3) The site supports plants or animals of an identified local importance.*
- (4) The site provides groundwater recharge documented by a public agency.*
- (5) The site provides flood and storm control by the hydrologic absorption and storage capacity of the wetland.*
- (6) The site provides wildlife habitat by providing breeding, nesting or feeding grounds or cover for forms of wildlife, waterfowl, including migratory waterfowl, and rare, threatened or endangered wildlife species.*
- (7) The site provides protection of subsurface water resources and provision of valuable watersheds and recharging groundwater supplies.*
- (8) The site provides pollution treatment by serving as a biological and chemical oxidation basin.*
- (9) The site provides erosion control by serving as a sedimentation area and filtering basin, absorbing silt and organic matter.*
- (10) The site provides sources of nutrients in water food cycles and nursery grounds and sanctuaries for fish.*

After determining that a wetland less than two (2) acres in size is essential to the preservation of the natural resources of the city, the wetland use permit application shall be reviewed according to the standards in subsection 12-174(a).

Permits & Regulatory Status

Based on the criteria set forth in The City of Novi Wetlands and Watercourse Protection ordinance (Part II-Code of Ordinances, Ch. 12, Article V.), the wetlands to be impacted appear to meet the definition of a City-regulated wetland and meets one or more of the essentially criteria (i.e., wildlife habitat, storm water control, etc.). A wetland use permit would be required for any proposed activities within City regulated wetlands.

It appears as though a City of Novi **Non-Minor** Use Wetland Permit would be required for the proposed impacts. The granting or denying of a Nonresidential *Minor* Use Permit shall be the responsibility of the Community Development Department. A Nonresidential *Minor* Use Permit is for activities consisting of no more than one (1) of the following activities which have a minimal environmental effect:

- a. Minor fills of three hundred (300) cubic yards or less and not exceeding ten thousand (10,000) square feet in a wetland area, providing the fill consists of clean, nonpolluting materials which will not cause siltation and do not contain soluble chemicals or organic matter which is biodegradable, and providing that any upland on the property is utilized to the greatest degree possible. All fills shall be stabilized with sod, or seeded, fertilized and mulched, or planted with other native vegetation, or rippapped as necessary to prevent soil erosion.
- b. Installation of a single water outfall provided that the outlet is rippapped or otherwise stabilized to prevent soil erosion.

- c. Watercourse crossings by utilities, pipelines, cables and sewer lines which meet all of the following design criteria:
 - i) The method of construction proposed is the least disturbing to the environment employable at the given site;
 - ii) The diameter of pipe, cable or encasement does not exceed twenty (20) inches;
 - iii) A minimum of thirty (30) inches of cover will be maintained between the top of the cable or pipe and the bed of the stream or other watercourse on buried crossings; and
 - iv) Any necessary backfilling will be of washed gravel.
- d. Extension of a wetland/watercourse permit previously approved by the planning commission.
- e. Replacement of a culvert of an identical length and size, and at the same elevation. If the proposed culvert is of a greater length or size than the existing culvert, or is a new culvert altogether, it must meet the conditions of subpart c., above, to qualify for a nonresidential minor use permit.
- f. Temporary impacts where the encroachment into protected areas is less than five hundred (500) feet.

The proposed impacts include two storm water outfalls as well as two (2) direct impacts to wetlands that likely involve more than 300 cubic yards of wetland fill, therefore the project will require a City of Novi Non-Minor Wetland Use Permit.

A City of Novi *Authorization to Encroach the 25-Foot Natural Features Setback* would be required for any proposed impacts to on-site 25-foot wetland buffers.

It appears as though a MDEQ Wetland Permit would be required for the proposed impacts to on-site wetlands. It should be noted that it is the Applicant's responsibility to contact MDEQ in order to determine the need for a permit from the state. In 1979, the Michigan legislature passed the Geomare-Anderson Wetlands Protection Act, 1979 PA 203, which is now Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The MDEQ has adopted administrative rules which provide clarification and guidance on interpreting Part 303.

In accordance with Part 303, wetlands are regulated if they are any of the following:

- Connected to one of the Great Lakes or Lake St. Clair.
- Located within 1,000 feet of one of the Great Lakes or Lake St. Clair.
- Connected to an inland lake, pond, river, or stream.
- Located within 500 feet of an inland lake, pond, river or stream.
- Not connected to one of the Great Lakes or Lake St. Clair, or an inland lake, pond, stream, or river, but are more than 5 acres in size.
- Not connected to one of the Great Lakes or Lake St. Clair, or an inland lake, pond, stream, or river, and less than 5 acres in size, but the DEQ has determined that these wetlands are essential to the preservation of the state's natural resources and has notified the property owner.

The law requires that persons planning to conduct certain activities in regulated wetlands apply for and receive a permit from the state before beginning the activity. A permit is required from the state for the following:

- Deposit or permit the placing of fill material in a wetland.

- Dredge, remove, or permit the removal of soil or minerals from a wetland.
- Construct, operate, or maintain any use or development in a wetland.
- Drain surface water from a wetland.

Wetland Comments

The following are repeat comments from our *Wetland Review of the Revised PRO Concept Plan (PSP18-0012)* letter dated February 13, 2018. The current status of each comment follows in ***bold italics***:

1. It should be noted that that the Plan does not appear to label the existing wetlands (i.e., Wetland A, B, etc.) or provide the acreages of the individual areas of on-site wetlands. Please label the wetlands and the associated on-site areas on the Plan. Wetland flag numbers should also be included on the Plan.

This comment has been partially addressed. Wetland flag numbers shall be indicated on at least one (1) of the plan sheets.

2. The applicant shall show the following information on subsequent site plans:
 - a. The area of all existing on-site wetland/watercourse areas (square feet or acres);
 - b. The area of all existing 25-foot buffer areas (square feet or acres);
 - c. Area (square feet) and volume (cubic yards) of all wetland/watercourse impacts (both permanent and temporary);
 - d. Area (square feet) of all wetland buffer impacts (both permanent and temporary).

This comment has been partially addressed. The area (square feet or acres) of all existing 25-foot wetland buffer areas shall be shown on the Plan. The volume associated with all of the proposed wetland cut/fill areas shall be shown on the Plan.

3. 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 site design to preserve wetland and wetland buffer areas. Many of the buildings are situated directly adjacent to the 25-foot wetland setback leaving little or no room for construction of the buildings without temporary or permanent impacts to the wetland buffer. The preservation of the 25-foot buffer areas is important to the overall health of the existing wetlands as the existing buffers serve to filter pollutants and nutrients from storm water before entering the wetlands, as well as 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”.

This comment still applies; however the applicant has made modifications to the Plan that have decreased the overall amount of proposed wetland buffer impacts from the initial plan submittals. It should be noted that the only remaining wetland buffer impact being proposed for the construction of the residential buildings is the impact area to the Wetland C buffer (between proposed Buildings 21 & 22). ECT continues to suggest that the

applicant consider modification of the proposed site design to preserve wetland and wetland buffer areas including the Wetland C buffer between Unit 21 and Unit 22.

4. The Plan proposes to construct storm water outfalls to wetlands from Detention Basin A and B. The applicant shall quantify any permanent and/or temporary impacts to wetlands or wetland buffers in these areas (i.e., square feet/acreage and cubic yards).

This comment still applies. The applicant shall indicate and quantify the area impacts (acres) to both wetland and 25-foot wetland buffer associated with the construction of the proposed stormwater outfalls.

5. One of the direct wetland impacts is in the northern section of the site located between Lots 26 and 27. This wetland impact is noted as 0.04-acre. It appears as if this wetland impact is for the purpose of proposed grading between these two lots and for the construction of Villa Drive. ECT encourages the applicant to consider alternative design layouts for this area in order to reduce or avoid wetland and wetland buffer impacts in this area. Is the installation of a retaining wall or other means to avoid impacts to the wetland/wetland buffer feasible in this area? The Applicant should demonstrate that alternative site layouts that would reduce the overall impacts to wetlands and 25-foot wetland setbacks have been reviewed and considered.

This comment has been addressed. This wetland impact was previously removed from the proposed Plan. A small area of proposed wetland buffer impact remains in the area between Buildings 21 and 22. As noted in #3 above, ECT suggests that the applicant consider modification of the proposed site design to preserve wetland and wetland buffer areas including the Wetland C buffer between Unit 21 and Unit 22.

6. It appears as though a MDEQ Wetland Permit and a City of Novi *Wetland Non-Minor Use Permit* would be required for any proposed impacts to site wetlands. A City of Novi *Authorization to Encroach the 25-Foot Natural Features Setback* would be required for any proposed impacts to on-site 25-foot wetland buffers.

It should be noted that it is the Applicant's responsibility to confirm the need for a Permit from the MDEQ for any proposed wetland impact. Final determination as to the regulatory status of each of the on-site wetlands shall be made by MDEQ. The Applicant should provide a copy of the MDEQ Wetland Use Permit application to the City (and our office) for review and a copy of the approved permit upon issuance. A City of Novi Wetland Permit cannot be issued prior to receiving this information.

This comment still applies. A City of Novi Wetland Permit cannot be issued prior to receiving documentation of authorization from MDEQ for the proposed wetland impacts.

7. The Plan should address how any temporary impacts to wetland buffers shall be restored, if applicable. A seed mix consisting of acceptable native plant species shall be indicated on the Plan if necessary. Sod or common grass seed is not acceptable for site restoration within areas of existing wetland or 25-foot wetland buffers. The applicant shall provide information for any proposed seed mixes that will be used to restore the floodplain areas and/or any areas of temporary wetland and

wetland buffer impacts. ECT would like to ensure that the proposed plant/seed material contains native plants as opposed to invasive or threatened plant types.

This comment still applies. This information does not appear to have been included on this Revised PRO Concept Plan.

8. The City's threshold for the requirement of wetland mitigation is 0.25-acre of proposed wetland impact. This should be taken into account on subsequent site Plan submittals, if necessary.

This comment still applies; however it does not appear as if wetland mitigation will be necessary.

9. If applicable, 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 necessary). 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.

This comment still applies.

Recommendation

ECT currently recommends approval of the Revised PRO Concept Plan for Wetlands. ECT recommends that the Applicant address the items noted in the *Wetland Comments* section of this letter in subsequent site plan submittals.

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: Lindsay Bell, City of Novi Planner
Sri Komaragiri, City of Novi Planner
Rick Meader, City of Novi Landscape Architect
Hannah Smith, City of Novi Planning Assistant

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



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

WOODLAND REVIEW

5th Revision: Submitted Dated 06-07-18



ECT Project No. 170538-0800

June 26, 2018

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

Re: Villa d'Este (JSP17-0052)
Woodland Review of the Revised PRO Concept Plan (PSP18-0087)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Revised PRO Concept Plan for the proposed Villa d'Este project prepared by Seiber, Keast Engineering, L.L.C. dated June 6, 2018 and stamped "Received" by the City of Novi Community Development Department on June 8, 2018 (Plan). The Plan was reviewed for conformance with the City of Novi Woodland Protection Ordinance Chapter 37.

ECT currently recommends approval of the PRO Concept Plan for Woodlands contingent on the applicant addressing the items noted in the *Woodland Comments* section of this letter in subsequent site plan submittals and City Council approval of the requested deviation for the upsizing of Woodland Replacement material for additional credit as currently indicated on the Plan. ECT is not in support of this deviation and recommends that the applicant revise the Plan as noted in the *Woodland Comments* section of this letter.

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 development is located north of the intersection of Nine Mile Road and Garfield Road (i.e., north of Nine Mile Road between Napier Road and North Beck Road, Section 29 & 30. The Plan proposes the construction of forty-one (41) single family detached ranch and story-and-a-half residential condo units (down from 42 on the previous plan submittal), associated roads and utilities as well two (2) storm water detention basins. The proposed project site contains a significant amount of City-Regulated Woodland area as well as a significant amount of on-site City-Regulated wetlands and a regulated drain (see Figure 1).

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*

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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's in-office review of available materials included the City of Novi Regulated Woodland map and historical aerial photographs. The site includes areas indicated as City-regulated woodland on the official City of Novi Regulated Woodland Map (see Figure 1). ECT conducted an on-site woodland evaluation on Friday, May 4, 2018. The purpose of this site visit was to verify the existing woodland information (tree sizes, species, conditions, etc.) that has been provided as part of the current Plan submittal.

Previous plan submittals noted that the gross site area is approximately 51.2 acres. The proposed project site contains a significant area of regulated woodland. High quality woodlands are found throughout the property; many of the woodlands also contain forested wetland. The highest quality woodlands (and the largest diameter trees) are located in the northeast, central and western portions of the site. The site is essentially surrounded by areas designated as either City of Novi Regulated Wetland or Woodland. A portion of the southeastern section of the proposed development site includes existing residential lots. A portion of the eastern side of the site includes an area that appears to be somewhat disturbed and contains some existing overhead utility lines (ITC Corridor).

The proposed site development will involve significant impacts to regulated woodlands and will include a significant number of tree removals. The on-site trees have been identified in the field with metal tags on aluminum nails. This allowed ECT to compare the tree diameters reported on the tree list to the existing tree diameters in the field. ECT took numerous diameter-at-breast-height (d.b.h.) measurements and found that the data provided on the Plan was consistent with the field measurements.

The Plan includes a tree survey, tree inventory list, and a list of individual trees proposed to be removed. The Plan also includes a removal and replacement plan. On-site woodland contains American elm (*Ulmus americana*), Austrian pine (*Pinus nigra*), basswood (*Tilia Americana*), bitternut hickory (*Carya cordiformis*), black cherry (*Prunus serotina*), black locust (*Robinia pseudoacacia*), black walnut (*Juglans nigra*), box elder (*Acer negundo*), Bur oak (*Quercus macrocarpa*), common apple (*Malus spp.*), eastern cottonwood (*Populus deltoides*), honey locust (*Gleditsia triacanthos*), Norway maple (*Acer platanoides*), Norway spruce (*Picea abies*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), red oak (*Quercus rubra*), shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), silver maple (*Acer saccharinum*), sugar maple (*Acer saccharum*), white oak (*Quercus alba*), white pine (*Pinus strobus*), and few other species. Based on the tree list provided, maple species make up approximately 25% of the surveyed trees, oak species make up about 20%, and black cherry comprise about 18%.

In terms of habitat quality and diversity of tree species, the overall project site is of good quality. The majority of the woodland areas consist of mature growth trees of good health. These wooded areas provide a relatively high level environmental benefit and function in terms of a scenic asset, windblock, noise buffer and habitat for local wildlife.

Reviews of the Plan as well as our on-site woodland evaluation have indicated that there are numerous trees on-site that meet the minimum caliper size for designation as a specimen tree according to the Woodland Ordinance.

The Applicant should be aware of the City's Specimen Tree Designation as outlined in Section 37-6.5 of the Woodland Ordinance. This section states that:

“A person may nominate a tree within the city for designation as a historic or specimen tree based upon documented historical or cultural associations. Such a nomination shall be made upon that form provided by the community development department. A person may nominate a tree within the city as a specimen tree based upon its size and good health. Any species may be nominated as a specimen tree for consideration by the planning commission. Typical tree species by caliper size that are eligible for nomination as specimen trees must meet the minimum size qualifications as shown below:

Specimen Trees Minimum Caliper Size

Common Name	Species	DBH
Arborvitae	<i>Thuja occidentalis</i>	16"
Ash	<i>Fraxinus spp.</i>	24"
American basswood	<i>Tilia Americana</i>	24"
American beech	<i>Fagus grandifolia</i>	24"
American elm	<i>Ulmus americana</i>	24"
Birch	<i>Betula spp.</i>	18"
Black alder	<i>Alnus glutinosa</i>	12"
Black tupelo	<i>Nyssa sylvatica</i>	12"
Black walnut	<i>Juglans nigra</i>	24"
White walnut	<i>Juglans cinerea</i>	20"
Buckeye	<i>Aesculus spp.</i>	18"
Cedar, red	<i>Juniperus spp.</i>	14"
Crabapple	<i>Malus spp.</i>	12"
Douglas fir	<i>Pseudotsuga menziesii</i>	18"
Eastern hemlock	<i>Tsuga Canadensis</i>	14"
Flowering dogwood	<i>Cornus florida</i>	10"
Ginkgo	<i>Ginkgo biloba</i>	24"
Hickory	<i>Carya spp.</i>	24"
Kentucky coffee tree	<i>Gymnocladus dioicus</i>	24"
Larch/tamarack	<i>Larix laricina (eastern)</i>	14"
Locust	<i>Gleditsia triacanthos/Robinia pseudoacacia</i>	24"
Sycamore	<i>Platanus spp.</i>	24"
Maple	<i>Acer spp. (except negundo)</i>	24"
Oak	<i>Quercus spp.</i>	24"
Pine	<i>Pinus spp.</i>	24"

Sassafras	<i>Sassafras albidum</i>	16"
Spruce	<i>Picea spp.</i>	24"
Tulip tree	<i>Liriodendron tulipifera</i>	24"
Wild cherry	<i>Prunus spp.</i>	24"

Specifically, there appear to be at least 23 maple trees equal to or greater than 24" in diameter. Of these, 11 are proposed to be removed. There are approximately 40 oak trees equal to or greater than 24" in diameter on-site. Of these, 14 are proposed for removal.

A nomination for designation of a historic or specimen tree shall be brought on for consideration by the planning commission. Absent objection by the owner, the planning commission may designate a tree as an historic tree upon a finding that because of one (1) or more of the following unique characteristics the tree should be preserved as a historic tree: The tree is associated with a notable person or historic figure;

- The tree is associated with the history or development of the nation, the state or the City;
- The tree is associated with an eminent educator or education institution;
- The tree is associated with art, literature, law, music, science or cultural life;
- The tree is associated with early forestry or conservation;
- The tree is associated with American Indian history, legend or lore.

Any tree designated by the planning commission as an historical or specimen tree shall be so depicted on an historic and specimen tree map to be maintained by the community development department. The removal of any designated specimen or historic tree will require prior approval by the planning commission. Replacement of the removed tree on an inch for inch basis may be required as part of the approval".

Woodland Impact Review & Required Replacements

There appear to be substantial impacts proposed to regulated woodlands associated with the site construction. It appears as if the proposed work (proposed buildings and roads) will cover a significant portion of the buildable areas of the site (i.e., upland areas not containing wetlands or 100-year floodplain) and will involve a considerable number of tree removals. The Woodland Study Plan (Sheet WP-1) notes that of the approximately 37 acres of the development site that is noted as being covered with tree canopy, approximately 7.6 acres will be impacted (approximately 21% of the tree canopy cover). It should be noted that through the modification of the design/location of stormwater detention Basin A and the removal of one of the proposed units, the applicant was able to decrease the overall impact to City-Regulated Woodlands and therefore the total number of Woodland Replacement credits required for the project.

It should be noted that the City of Novi replacement requirements pertain to regulated trees with d.b.h. greater than or equal to 8 inches that are located within areas designated as regulated on the City of Novi Regulated Woodland Map or any tree 36 inches diameter-at-breast height (d.b.h.) or greater regardless of location.

The existing tree list now appears to be complete for the proposed limits of disturbance area. The *Woodland Summary* on Sheet W-5 (*Woodland List*) notes the following:

- Total No. of Trees Surveyed: 1,351
 - Un-surveyed Trees in Wetland areas: 720
 - Surveyed Trees in Land Donation: 418
- Exempt Trees: 123
- Net Regulated Trees: 2,366
- Regulated Trees Removed: 551 (23.3%)
- Regulated Trees Preserved: 1,815 (76.7%)

Replacements Required

Trees 8" – 11"	255 Trees x 1 =	255 Tree credits
Trees 11" – 20"	204 Trees x 2 =	408 Tree credits
Trees 20" – 30"	44 Trees x 3 =	132 Tree credits
Trees 30" +	9 Trees x 4 =	36 Tree credits
<u>Multi-Stemmed Trees (38 Trees)</u>		<u>192 Tree credits</u>
<u>Subtotal Replacements Required</u>		<u>1,023 Tree credits</u>
Less Credits for Non-Woodland Tree Preservation		
		<u>108 Credits</u>
Total Replacements Required		915 Tree Credits

Sheet WP-1 (*Woodland Study Plan*) notes that a total of **915** Woodland Replacement Credits are required (this is decreased from a total of 943 on the previous plan) and that **915** Woodland Replacement trees will be replaced on-site through the planting of the following Woodland Replacement materials. It should be noted that the applicant continues to request additional Woodland Replacement Credit for the upsizing of replacement tree material. This is not supported by the City's Woodland Ordinance for Woodland Replacement Trees:

ITC Berm Evergreen Trees: 130 Credits (Note: Upsizing Proposed)
 65 trees proposed
 (10' to 12' height proposed at 2 credits per tree)

ITC Berm Deciduous Trees: 388 Credits (Note: Upsizing Proposed)
 194 trees proposed
 (4" caliper at 2 credits per tree)

ITC Berm Ornamental Trees: 19 Credits
 19 trees proposed
 (2" caliper or 6-foot height at 1 credit per tree)

Unit Deciduous Trees: 164 Credits
 4 Trees per Unit (@ 41 Units)
 (2.5" caliper Tree at 1 credit per tree)

Deciduous Trees: 214 Credits
 214 Trees Proposed
 (2.5" caliper Tree at 1 credit per tree)

Total Proposed Credits 915 Credits

Woodland Comments

The following are repeat comments from our previous *Woodland Review of the Revised PRO Concept Plan (PSP18-0062)*. The current status of each comment follows in ***bold italics***:

1. ECT encourages the Applicant to minimize impacts to on-site Woodlands to the greatest extent practicable; especially those trees that may meet the minimum size qualifications to be considered a Specimen Tree (as described above).

This comment still applies.

2. It appears as if several on-site trees have been omitted from the Plan and the tree list. ECT has asked the applicant's woodland consultant to provide the existing information and the removal status for Tree Numbers 2457 through 2465. These trees are tagged on-site but do not appear on the Plan. The trees in question are located in the area approximately between proposed units 19 and 20.

This comment has been addressed. The previously-omitted trees have been added to the tree survey and tree list.

3. The Plan includes a four (4) sheet *Conceptual Landscape Plan* (LP-1 through LP-4) that indicates that all required Woodland Replacement Trees are proposed to be planted on-site. The current Plan indicates that Woodland Replacement trees are proposed:
 - a. Along the landscaped berm to be located along the southeast section of the site along Nine Mile Road (i.e., east of the proposed site entrance);
 - b. Along the south section of the site (i.e., along south property boundary; adjacent to existing single family residential lots. This is west of the proposed site entrance;
 - c. Along the perimeters of stormwater detention Basins A and B.

Woodland Replacement tree material appears to be indicated on-site, however it does not appear as if the required number of Woodland Replacement credits being provided is correct. The Plan does not currently appear to provide the quantity, species, or sizes of the proposed Woodland Replacement material. Subsequent site Plans should include this information. The Plan should clearly indicate the locations, sizes, species and quantities of all Woodland Replacement trees to be planted on-site. The applicant should review and revise the Plan in order to better indicate how the on-site Woodland Replacement requirements will be met. It is recommended that the applicant provide a table that specifically describes the species, quantities and sizes of proposed Woodland Replacement trees.

This comment has been partially addressed. The Conceptual Landscape Plan (Sheet LP-2) contains a list of Potential Replacement Trees. It should be noted that the following trees listed are not acceptable as Woodland Replacement Trees per the City of Novi:

- Concolor fir (*Abies concolor*);
- Green spruce (*Picea pungens*).

4. All proposed Woodland Replacement tree material shall meet the species requirements in the *Woodland Tree Replacement Chart* (attached). With regard to the Potential Replacement Trees Plant List on Sheet LP-2, two species of evergreen being proposed are not acceptable as Woodland Replacement Tree material:
 - a. Concolor fir (*Abies concolor*); and
 - b. Green spruce (*Picea pungens*).

Please replace these trees with acceptable species from the *Woodland Tree Replacement Chart* (attached).

This comment has not been addressed (see Comment #3, above). ECT continues to recommend that these trees be replaced on the Plan with acceptable species from the Woodland Tree Replacement Chart (attached).

5. Specific to Sheet WP-1 (Woodland Study Plan), the Woodland Replacement Credits should be revised accordingly:

- a. ITC Berm Evergreen Trees – Evergreen trees shall be counted at a replacement ratio of 1.5 trees to 1 credit;

Therefore, the 65 proposed 10' to 12' tall evergreen trees equal 43.3 Woodland Replacement Credits, as opposed to 130 as shown on the Plan.

- b. ITC Berm Deciduous Trees – All trees shall be 2.5" caliper diameter (minimum) and be counted at a replacement ratio of 1 tree to 1 credit. The upsizing of woodland replacement material for additional credit is not supported by the City;

Therefore, the 194 proposed 4" caliper deciduous trees equal 194 Woodland Replacement Credits, as opposed to 388 as shown on the Plan.

- c. ITC Berm Ornamental Trees – It is not clear what species of trees are proposed to be provided as the "ITC Berm Ornamental Trees". As noted in Item No. 4 above, all proposed Woodland Replacement tree material shall meet the species requirements in the *Woodland Tree Replacement Chart* (attached);

This comment still applies. All proposed Woodland Replacement material shall meet the requirements of the Woodland Tree Replacement Chart (attached);

- d. Unit Deciduous Trees - The number of Woodland Replacement Credits from Unit Deciduous trees should be 168 and not 212, as there are currently 42 proposed units at 4 trees per unit;

This comment has been addressed. A total of 164 credits (41 units x 4 Woodland Replacement Credits per unit) is currently proposed.

- e. Deciduous Trees – A total of 179 (non-berm) deciduous trees appear to be indicated on Sheets LP-1 through LP-3, however 181 credits are listed in the Tree Replacement Credit information on Sheet WP-1. This shall be revised.

This comment has been addressed. A total of 164 credits (41 units x 4 Woodland Replacement Credits per unit) is currently proposed.

6. All deciduous replacement trees shall be two and one-half (2 ½) inches caliper or greater and count at a 1-to-1 replacement ratio. All coniferous replacement trees shall be 6-feet in height (minimum) and provide 1.5 trees-to-1 replacement credit replacement ratio (i.e., each coniferous tree planted provides for 0.67 credits). The “upsizing” of Woodland Replacement trees for additional Woodland Replacement credit is not supported by the City of Novi. The Tree Replacement Credits Information on Sheet WP-1 should be reviewed and revised as necessary. This applies to the ITC Berm Evergreen Trees (10'-12' in height) as well as the ITC Berm Deciduous Trees (4" caliper diameter).

This comment has not been addressed. See Comment #5, above.

7. It should be noted that as proposed the Plan requires a total of 943 Woodland Replacement Credits. The applicant has currently proposed to provide all of these credits on-site. Based on our review of the current Plan, it appears as though a total of 590 Woodland Replacement Credits are being provided, not 943 as noted by the applicant (this is a difference of 353 Credits). It should be noted that after correcting for the upsizing of proposed replacement trees on the ITC Berm, 217 Woodland Replacement Credits are being shown on the Plan, not 524 (i.e., a difference of 307 credits from upsizing). The remaining difference in credits (i.e., 46 credits) is from an error in the “Unit Deciduous Trees” and the total “Deciduous Trees” as noted above in Item No. 5.

This comment has not been addressed. The Plan currently requires 915 Woodland Replacement Credits and proposes 915 Woodland Replacement Credits on-site. However, the 915 proposed Woodland Replacement Credits proposed are the result of the upsizing of Woodland Replacement materials. As previously noted, the upsizing of Woodland Replacement Trees is not supported by the City of Novi Woodland Ordinance. Without the upsizing of the proposed Woodland Replacement Credits, the current Plan will provide 634.3 of the required 915 Woodland Replacement Credits on-site (approximately 69% of the required Woodland Replacements).

8. 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.

This comment still applies.

9. With regard to the placement of Woodland Replacement Tree material on the individual lots, the Woodland Ordinance notes the following:
 - *Where replacements are installed in a currently non-regulated woodland area on the project property, appropriate provision shall be made to guarantee that the replacement trees shall be preserved as planted, such as through a conservation or landscape easement to be granted to the city. Such easement or other provision shall be in a form*

acceptable to the city attorney and provide for the perpetual preservation of the replacement trees and related vegetation.

All areas that the Woodland Replacement trees are planted in shall be designated with a woodland conservation easement. This easement shall be submitted to the Planning Division for routing to the Engineering Consultant and City Attorney for review. The executed easement must be submitted for review and approval within 60 days of the issuance of this permit. All conservation easement language and exhibits must be approved prior to issuance of any building permits.

This comment still applies.

10. A Woodland Replacement 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.

This comment still applies.

11. Based on a successful inspection of the installed on-site Woodland Replacement trees, the Woodland Replacement financial guarantee will be returned to the Applicant. A Woodland Maintenance financial guarantee in the amount of twenty-five percent (25%) of the original Woodland Replacement financial guarantee shall then be provided by the applicant. This Woodland Maintenance financial guarantee will be kept for a period of 2-years after the successful inspection of the on-site woodland replacement tree installation.

This comment still applies.

12. 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*.

This comment still applies.

13. Woodland replacement trees should be provided in quantities that are in the approximate composition as the trees removed. It appears as if 266 credits of the 943 credits proposed are shown to be evergreen trees (approximately 28%), however the existing woods is primarily a deciduous hardwood forest. Please review and revise the woodland replacement planting plan as necessary.

This comment has been addressed. Currently, approximately 130 of the 915 required credits proposed (14%) are shown to be evergreen trees. This is an improvement from the previous plan submittal and is an acceptable mix of Woodland Replacement trees (i.e., evergreen vs. deciduous species).

Villa d'Este (JSP17-0052)
Woodland Review of the Revised PRO Concept Plan (PSP18-0087)
June 26, 2018
Page 10 of 14

Recommendation

ECT currently recommends approval of the PRO Concept Plan for Woodlands contingent on the applicant addressing the items noted in the *Woodland Comments* section of this letter in subsequent site plan submittals and City Council approval of the requested deviation for the upsizing of Woodland Replacement material for additional credit as currently indicated on the Plan. ECT is not in support of this deviation and recommends that the applicant revise the Plan as noted in the *Woodland Comments* section of this letter.

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: Lindsay Bell, City of Novi Planner
Sri Komaragiri, City of Novi Planner
Rick Meader, City of Novi Landscape Architect
Hannah Smith, City of Novi Planning Assistant

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



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

Woodland Tree Replacement Chart

(from Chapter 37 Woodlands Protection)
 (All canopy trees to be 2.5" cal or larger, evergreens as listed)

Common Name	Botanical Name
Black Maple	Acer nigrum
Striped Maple	Acer pennsylvanicum
Red Maple	Acer rubrum
Sugar Maple	Acer saccharum
Mountain Maple	Acer spicatum
Ohio Buckeye	Aesculus glabra
Downy Serviceberry	Amelanchier arborea
Smooth Shadbush	Amelanchier laevis
Yellow Birch	Betula alleghaniensis
Paper Birch	Betula papyrifera
American Hornbeam	Carpinus caroliniana
Bitternut Hickory	Carya cordiformis
Pignut Hickory	Carya glabra
Shagbark Hickory	Carya ovata
Northern Hackberry	Celtis occidentalis
Eastern Redbud	Cercis canadensis
Pagoda Dogwood	Cornus alternifolia
Flowering Dogwood	Cornus florida
American Beech	Fagus grandifolia
Thornless Honeylocust	Gleditsia triacanthos inermis
Kentucky Coffeetree	Gymnocladus dioica
Walnut	Juglans nigra or Juglans cinerea
Eastern Larch	Larix laricina
Tuliptree	Liriodendron tulipifera
Tupelo	Nyssa sylvatica
American Hophornbeam	Ostrya virginiana
White Spruce_(1.5:1 ratio) (6' ht.)	Picea glauca
Black Spruce_(1.5:1 ratio) (6' ht.)	Picea mariana
Red Pine_(1.5:1 ration) (6' ht.)	Pinus resinosa
White Pine_(1.5:1 ratio) (6' ht.)	Pinus strobus
American Sycamore	Platanus occidentalis
Black Cherry	Prunus serotina
White Oak	Quercus alba
Swamp White Oak	Quercus bicolor
Scarlet Oak	Quercus coccinea
Shingle Oak	Quercus imbricaria
Burr Oak	Quercus macrocarpa
Chinkapin Oak	Quercus muehlenbergii
Red Oak	Quercus rubra
Black Oak	Quercus velutina
American Basswood	Tilia americana

Site Photos



Photo 1. Looking north at area of woodlands to be preserved and donated to the City of Novi (forested wetland area). ECT, May 4, 2018.



Photo 2. Looking south at proposed area of woodland impact for construction of westernmost stormwater detention basin. ECT, May 4, 2018.



Photo 3. Tree No. 2407 (6-stem basswood) proposed for removal requiring a total of 10 Woodland Replacement Credits (ECT, May 4, 2018).

TRAFFIC REVIEW

5th Revision: Submitted Dated 06-07-18



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

Project name:
JSP17-52 Villa d'Este Revised PRO Concept
Traffic Review

From:
AECOM

Date:
June 27, 2018

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

CC:
Sri Komaragiri, Lindsay Bell, George Melistas,
Theresa Bridges, Darcy Rechten, Hannah Smith

Memo

Subject: Villa d'Este Revised PRO Concept Traffic Review

The revised PRO concept site plan was reviewed to the level of detail provided and AECOM **recommends denial** for the applicant to move forward until the safety and operational concerns around the roadway realignment can be addressed and contingent upon the comments provided below being adequately addressed to the satisfaction of the City.

GENERAL COMMENTS

1. The applicant, Cambridge Homes, LLC, is proposing a 41-unit residential development consisting of single-family site condominiums. The site is located on the north side of Nine Mile Road near the intersection with Garfield Road.
2. The existing zoning is RA (Residential Acreage) and the applicant is proposing R-1 zoning with a PRO (Planned Residential Overlay).
3. Nine Mile Road is under the jurisdiction of the City of Novi.
4. The site condominiums are designated for "empty nesters" and seniors.
5. The applicant has requested the following deviations:
 - a. The applicant has requested a Council Variance for the minimum horizontal curve radii throughout the site.
6. Additional deviations that may be required include:
 - a. The applicant should update the road cross section so that the outside edge of the sidewalk is a minimum of 15 feet from the back of curb, or the applicant may seek a City Council variance.
 - b. The proposed eight foot pathway appears to be closer than 12 feet from the edge of Nine Mile Road, and therefore, the applicant should update the design or may seek a deviation.
 - c. The applicant should install sidewalk along two segments of Villa d'Este Blvd where sidewalk is not currently proposed, in order to be in compliance with the City's Zoning Ordinance Section 6.3.2.A, or seek a City Council variance for lack of sidewalk in these two areas.
7. Summary of critical non-compliant items or traffic concerns (may not be inclusive of all requirements contained herein):
 - a. The realignment of the Garfield Road and Nine Mile Road intersection as shown in "Option A" shifts Nine Mile Road to the south slightly upon approaching the development from the east in order to accommodate the proposed 8' wide pathway. This shift, while minor, may pose unnecessary traffic operational concerns that should be considered when reviewing the proposed design. Additionally, the proposed eight foot wide pathway is in close proximity to the roadway in this location, which could result in safety concerns for non-motorized path users.

TRAFFIC IMPACTS

- The applicant consulted Fleiss & VandenBrink to perform an initial trip generation analysis to review the average daily and peak period traffic volumes expected by the proposed development in comparison to the existing zoning.

ITE Code: Existing Zoning: 210 (Single- Family Residential) / Proposed Development: 251 (Senior Adult Housing – Detached)

Development-specific Quantity: 40 units / 56 units

Trip Generation Summary			
	City of Novi Threshold	Estimated Trips (Permitted under existing zoning)	Estimated Trips (Proposed Development)
AM Peak-Hour, Peak-Direction Trips	100	30	13
PM Peak-Hour, Peak-Direction Trips	100	40	17
Daily (One-Directional) Trips	750	378	239

- 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. The applicant has submitted a revised rezoning traffic impact study dated October 6, 2017. The study incorporates the additional three proposed units under the revised PRO concept submittal. Given the three additional units, the estimated trips for the proposed development still falls below City of Novi thresholds and the trips allow by the maximum density of the existing zoning.
 - Additional traffic impact studies are not warranted at this time.
 - It should be noted that the development-specific quantities included in the studies provided by Fleiss & VandenBrink are in excess of what is actually allowable under current zoning and what the applicant is proposing. Therefore, the anticipated traffic impacts to the site are expected to be less than what is shown in the table above.

EXTERNAL SITE ACCESS AND OPERATIONS

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

- The applicant is proposing one main site access point on Nine Mile Road. The proposed divided driveway shall be consistent with Figure IX.3 of the Code of Ordinances, and the following is a discussion of the proposed design:

Design Feature	Standard	Range	Proposed	Comment
Intersecting Angle	90 degrees		90 degrees	Compliant.
Width (Local Street)	58'	56' to 78'	28'	The applicant is proposing to narrow the roadway to a private local road with 28' width. This is acceptable from a traffic perspective.
Entering Radius (Local Street)	25'	25' to 35'	35'	Because the local street is intersecting with an arterial, a radius of 35' shall be

				provided. This is in compliance with the standards.
Exiting Radius	25'	25' to 35'	35'	Because the local street is intersecting with an arterial, a radius of 35' shall be provided. This is in compliance with the standards.
Entrance Drive (Local Street)	24'	22' to 27'	20'	The applicant shall update the width to 24'.
Exit Drive Width	24'	22' to 27'	20'	The applicant shall update the width to 24'.
Island Width	10'	8' to 24'	10'	Compliant.
Nose Offset	12'	6' to 18'	Not provided.	The applicant shall indicate the nose offset distance.
Island Length	35'	30' to 100'	47.8'	The applicant should update the length of the island to the standard dimension of 35', or may provide justification for the increased length. Because the proposed length is within the allowable range, the applicant may seek an administrative variance.

2. The applicant is proposing as "Option A" on sheet 4, the realignment of Garfield Road and Nine Mile Road 33 feet to the west to reduce the impacts to the county drain and provide better intersection alignment with the development . This design affects the City's proposed ITC Trail and will need to be coordinated with and approved by the City.
 - a. In "Option B", although not required due to low traffic volumes, the applicant proposed right turn entering and exiting tapers at Villa d'Este Blvd from Nine Mile Road. The tapers were in compliance with Figure IX.11 in the City's Code of Ordinances. The applicant has removed the entering and exiting tapers/lanes with the redesigned "Option A".
 - b. The realignment of the Garfield Road and Nine Mile Road intersection as shown in "Option A" also shifts Nine Mile Road to the south slightly upon approaching the development from the east in order to accommodate the proposed 8' wide pathway. This shift, while minor, may pose unnecessary traffic operational concerns that should be considered when reviewing the proposed design. Additionally, the proposed eight foot wide pathway is in close proximity to the roadway in this location, which could result in safety concerns for non-motorized path users.
3. The applicant has indicated more than 400 feet of sight distance in each direction for the Villa d'Este roadway which is compliant with City standards.
4. The applicant has aligned the proposed Villa d'Este Boulevard with Garfield Road. The proposed driveway for the proposed comfort station exceeds City driveway spacing requirements.
5. The applicant has indicated more than 400 feet of sight distance in both directions for the comfort station driveway at Nine Mile Road.
6. There are an adequate number of site access drives. The applicant has proposed an emergency access drive from Nine Mile Road to the west court of Villa Drive. The dimensions of the emergency access drive are compliant with City standards. The applicant has proposed turf pavers surrounding a five foot concrete walk for the emergency access travel way.

INTERNAL SITE OPERATIONS

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

1. General Traffic Flow

- a. The proposed cul-de-sacs are in compliance with City standards.
- b. The proposed roadway cross section is not in compliance with City standards due to the sidewalk placement in relation to the roadway. **The applicant should update the road cross section so that the outside edge of the sidewalk is a minimum of 15 feet from the back of curb, or the applicant may seek a City Council variance.**
- c. The applicant has horizontal curve radii throughout the site that fall below the minimum required horizontal curve radii. Horizontal curves in proposed streets which appear to be continuous shall have a centerline radius of not less than two hundred thirty (230) feet. It should be noted that the City of Novi requires eyebrow designs where a horizontal radius of at least 230 feet cannot be obtained due to property or boundary restrictions. Eyebrows shall be designed in accordance with Figure VIII-G within the City's Code of Ordinances. **The applicant has requested a Council Variance for the minimum radius requirement.**
- d. The applicant should provide a detail for residential driveways in accordance with Figure IX.5 in the City's Code of Ordinances.
- e. The applicant should indicate that all driveways are offset at least three feet from the side lot line.
- f. The applicant should provide turning radii at the intersection of Villa Court and Villa Drive.
- g. The applicant should review the residential driveway designs for Units 36 – 41 and note that there does not appear to be an area where vehicles exiting the driveway can turn around, therefore, requiring them to back out into the street. While this may be acceptable operation, the applicant should confirm that this is the intent for the residential driveways.

2. Parking Facilities

- a. The applicant is proposing 19' and 20' parking spaces throughout the site. The City requires the use of 17 foot parking spaces abutting a four inch curb, or, the use of 19 foot spaces abutting a six inch curb. The applicant should provide curb details, including height, throughout the site.
- b. Parking space width is in compliance with City standards.
- c. The one proposed barrier free parking space width and aisle width is in compliance with van accessible ADA requirements.
- d. The applicant should provide vehicle maneuvering paths for the parking spaces near the comfort station to review acceptable accessibility to all spaces.
- e. The applicant is required to provide one bicycle parking space for every five units under the use of housing for the elderly, totaling eight bicycle parking spaces. The applicant has provided eight bicycle parking spaces.
 - i. The applicant should provide bicycle parking layout details.
 - ii. The applicant could consider dispersing the provided bicycle parking spaces throughout the site.
- f. The applicant has provided no parking signs to restrict parking in the vicinity of cul-de-sacs; however, the applicant should also consider limiting parking along streets where the radii are less than 230', as suggested in the Zoning Ordinance Section 5.10.1.B.iv.

3. Sidewalk Requirements

- a. The applicant has proposed the following sidewalk facilities throughout the site:
 - i. Five foot wide sidewalks within the residential development
 - 1. **The outside edge of sidewalks should be located a minimum of 15 feet from the back of curb to be compliant with the City's Engineering Design Manual Section 7.4.2.C.1, or the applicant may seek a variance.**
 - 2. **The applicant should install sidewalk along two segments of Villa d'Este Blvd where sidewalk is not currently proposed, in order to be in compliance with the City's Zoning Ordinance Section 6.3.2.A, or seek a City Council variance for lack of sidewalk in these two areas.**
 - ii. Six foot wide sidewalk along Nine Mile Road through the western portion of the site, which is in compliance with City standards
 - 1. The outside edge of the sidewalk shall be located one foot inside the right of way line for Nine Mile Road.

2. The sidewalk shall not be placed closer than 12 feet from the edge of Nine Mile Road (uncurbed roadway).
 - iii. Eight foot wide asphalt pathway along Nine Mile Road along the eastern portion of the site to connect with the ITC Trail.
 1. The outside edge of the sidewalk shall be located one foot inside the right of way line for Nine Mile Road.
 2. The sidewalk shall not be placed closer than 12 feet from the edge of Nine Mile Road (uncurbed roadway).
 - a. **The proposed eight foot pathway appears to be closer than 12 feet from the edge of Nine Mile Road, and therefore, the applicant should update the design or may seek a deviation.**
 - b. The applicant should provide a five foot wide sidewalk connection around the emergency access gate to allow for pedestrian connectivity on both sides of the gate.
4. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices. The following is a discussion of the proposed signing and pavement markings.
 - a. The applicant should provide the following notes and details on future site plans.
 - i. All roadside signs should be installed two feet from the face of the curb to the near edge of the sign.
 - ii. Single signs with nominal dimensions of 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post. Multiple signs and/or signs with nominal dimension greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post as dictated by the weight of the proposed signs.
 - iii. Traffic control signs shall use the Federal Highway Administration (FHWA) Standard Alphabet series.
 - iv. Traffic control signs shall have High Intensity Prismatic (HIP) sheeting to meet FHWA retroreflectivity requirements.
 - b. The applicant's proposed signing layout is considered acceptable and in compliance with MMUTCD standards.
 - i. The applicant could consider providing additional "No Parking Any Time" signs near radii <230'.
 - ii. The applicant could consider installing crosswalk signage for the north/south crossing near the intersection of Villa Court and Villa Drive.
 - iii. The applicant should provide a barrier free parking sign along with a van accessible plaque for the proposed barrier free parking space.
 - iv. Details and quantities should be updated and/or provided to coincide with all proposed signing.
 - c. The applicant should refer to the City of Novi Traffic Control Sign Standards for any proposed street name signs.
 - d. The proposed street name and no outlet signs are identified as the same sign in the sign quantities table. The no outlet sign should be identified as a W14-2 sign.
 - e. The location of the proposed yield sign should be moved to the minor drive approach so that the traffic on Villa Court yields to the traffic on Villa Drive.
 - f. The applicant should provide notes and details related to proposed pavement markings.
 - i. Blue may be used for accessible parking spaces. Where a standard parking space is located next to an accessible parking space a white line shall about a blue line.
 - ii. The international symbol for accessibility shall be white or white with a blue background and white border. The applicant should provide a detail.

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

Sincerely,

Memo

AECOM



Maureen N. Peters, PE
Senior Traffic/ITS Engineer



Paula K. Johnson, PE
Senior Transportation Engineer



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

Project Name:
JSP17-0052 Villa d'Este Revised RTIS Review

From:
AECOM

Date:
February 15, 2018

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

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

Memo

Subject: Villa d'Este Revised RTIS Traffic Review

The rezoning traffic impact study 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 has provided a revised re-zoning traffic impact study (RTIS) that accounts for a decrease in the proposed number of units in the concept site plan. The original RTIS was dated July 31, 2017 and included 53 detached senior adult housing units. The revised RTIS is dated January 25, 2018 and includes 42 detached senior adult housing units.
2. The development is located north of Nine Mile at the intersection of Nine Mile Road and Garfield Road.
3. The existing zoning is RA (Residential Acreage). The applicant is proposing a PRO (Planned Residential Overlay).
4. Under RA zoning the City of Novi Zoning Ordinance allows a maximum density of 0.8 dwelling units per acre. The parcel contains 50 acres of land; therefore, a potential of 40 single family homes could be constructed.
5. The RTIS provides a comparison in the number of trips estimated for the proposed development and the number of trips estimated for the maximum number of single-family homes under existing zoning. The RTIS also included a trip generations for a 32 unit and 13 unit single-family home development as alternatives for purposes of comparison.
6. The RTIS utilizes the methodology and data provided in the Institute of Transportation Engineers (ITE) *Trip Generation*, 10th Edition.
7. The results of the trip generation estimation indicate approximately 175 fewer trips per day for the proposed development than for the maximum unit density under the existing zoning (also 11 and 15 fewer trips during the AM and PM peak hours, respectively).
8. The results of the study also indicated that the peak hour trips from a total of 13 single family homes would approximately be equivalent to the 42 unit detached senior adult housing that is being proposed.
9. The estimated trip totals does not exceed the City of Novi thresholds to warrant further traffic analyses.

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

Sincerely,

AECOM

Sterling J. Frazier, PE
Reviewer, Traffic/ITS Engineer

Maureen N. Peters, PE
Senior Traffic/ITS Engineer

FIRE REVIEW

**3rd Revision: Submitted Dated 01-26-17
Presented to Planning Commission for March 14, 2018 meeting**



January 31, 2018

TO: Barbara McBeth- City Planner
Sri Ravali Komaragiri- Plan Review Center
Lindsay Bell-Plan Review Center
Hannah Smith- Plan Review Center

CITY COUNCIL

Mayor
Bob Gatt

Mayor Pro Tem
Dave Staudt

Gwen Markham

Andrew Mutch

Wayne Wrobel

Laura Marie Casey

Kelly Breen

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
Scott R. Baetens

RE: Villa D'ESTE

PSP# 18-0012

PSP# 17-0120

PSP# 17-0141

Project Description:

Build a subdivision with 53 single family homes.

Comments:

1. Water-main sizes **MUST** be put on the plans for review.
2. **MUST** show what you will be using to mark the edge of the secondary access road.
3. **MUST** keep secondary access road clear at all times of the year to include snow removal.

Recommendation:

Approved with conditions

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

**CONCEPTUAL RENDERINGS FOR PROPOSED COMFORT STATION Provided by
the applicant via E-mail dated 03-12-18**

Novi Comfort Station
Proposed Concept

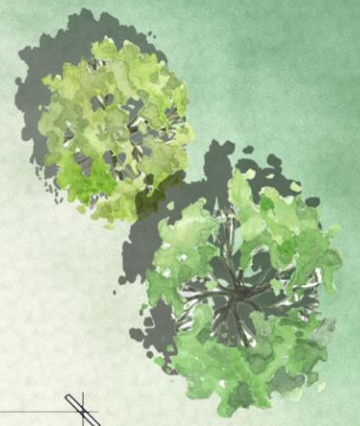
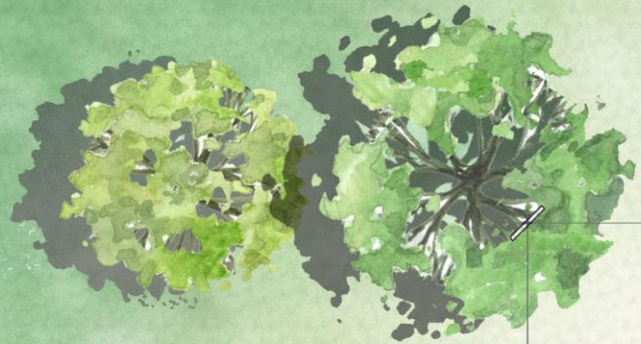
3-8-2018



T K D E S I G N

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A S S O C I A T E S

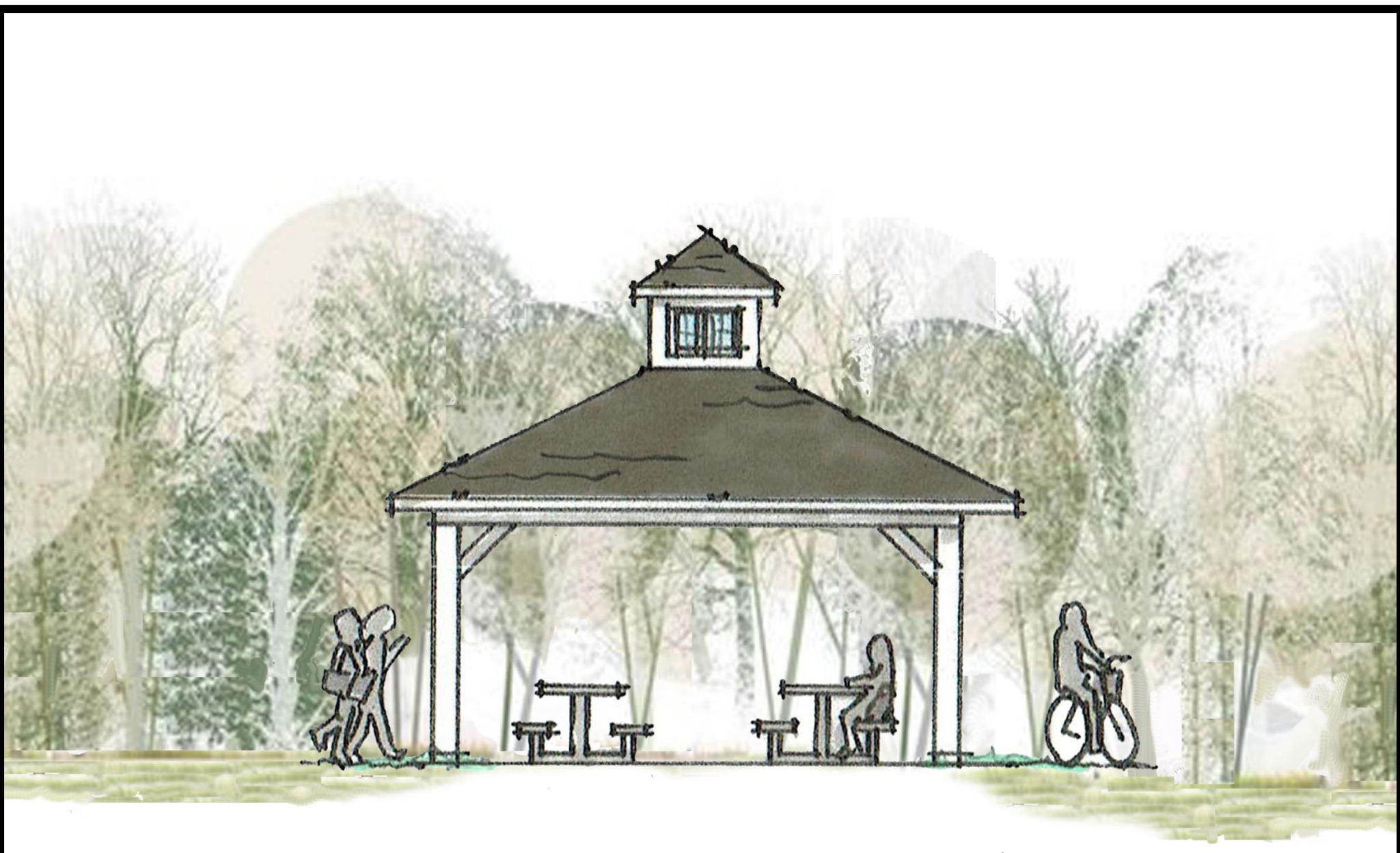


20'

15'



20'-0" X 15'-0"



OPTION A



OPTION B

APPLICANT COVER LETTER

Initial Submittal: August 2, 2017



August 2, 2017

Ms. Barbara E. McBeth, AICP
Ms. Sri Komaragiri
City of Novi
45175 Ten Mile Road
Novi, Michigan 48375

Dear Ms. McBeth and Ms. Komaragiri:

Cambridge Homes, Inc. is proposing a unique, one-of-a-kind, active adult/empty nester, gated community in Novi called Villa D'Este. The development will consist of 53 detached ranch and story and a half high-end homes. We are requesting a PRO and rezoning to R-1 Residential. This new community is proposed specifically for the growing empty nester population in Novi and Oakland County.

Why empty nesters?

1. The Oakland County Silver Tsunami Report on empty nester housing
 - Oakland County will experience an unprecedented older adult population growth.
 - By the year 2030, the number of seniors will double.
 - By 2020, half of Oakland County's 61 communities will have more seniors over 65 than school aged children.
 - Over 40% of registered voters in Oakland County are age 50 and over.
 - On average, seniors will spend 92% of their expenditures within the local economy.
 - Community leaders must be proactive in addressing the coming senior population boom for services and housing.

2. The Missing Middle Empty Nester Housing Report
 - Affluent seniors seek to downsize from their large suburban homes to more convenient, easy to care for condominium homes.
 - Many retirees would like to move close to, but not live with their children and grandchildren.
 - Empty nesters are growing in number and they want a unique type of home and convenient locations in or near their existing communities.

- Currently, traditional single family homes make up 90% of the housing stock. Empty nester housing is under served and its requirements needs to be met.
- Health and wellness are top priorities.
- Connectivity is important
- Diverse households require a greater variety of household sizes and demographics require a greater variety of housing types/choices/locations.
- Conventional zoning doesn't allow this new housing need to fit. Missing Middle housing cannot be effectively regulated by conventional zoning
- There is a gap in the range of housing types that Novi zoning district allows.
- Density based zoning treats all the units the same, regardless of size, thus discouraging smaller units which is exactly what the market needs and wants.

Why at this location?

- Empty nesters like diverse housing options.
- Some prefer to be in urban areas such as downtowns close to restaurants and shopping.
- Some prefer a more economic option such as near intersections or busy corners which caters to their budget.
- Some empty nesters prefer to have privacy in a quiet setting with an upscale feel and amenities. This option is currently not available in Novi and where Villa D'Este will meet this new demand and housing need.

Villa D'Este is more eco-friendly compared to R-A conventional single family zoning.

- Save 50% more trees.
- Minimal impact to wetlands.
- Preserve more open space. (45% of the site preserved)
- Creates less traffic.

Public Benefits:

- Donate approximately 18+ acres of land to Novi for existing park system, with the condition that Novi cannot sell parcel, or develop parcel, or the property reverts back to original owner.
- Build a comfort station for ITC Trailhead (subject to us understanding scope of work, \$200,000.00 cap)

- Reduce cost for City of Novi to transport soils from installation of sanitary sewer on Nine Mile. Allow the city to place uncontaminated spoils on property at Garfield and Nine Mile Road.
- Pave part of Nine Mile from Garfield to entrance to Villa D'Este with chipseal and upgrade the Nine Mile and Garfield intersection.
- Remove blight on property and increase property values in the area.
- Increase tax base by \$37,000,000.00.
- Provide an outstanding development and extensive landscaping.

General Information:

- Number of units: 53 detached condominium units.
- Roads: gated, private, with emergency access drive provided.
- Building footprints: 45' x 100' max.
- Terrace / Deck: 45' x 16' max.
- A range from two (2) car to three (3) and a half car side entry garages.
- Individual Units:
 - Front setback from curb: 30'
 - Distance between homes: 15'
 - Ranch & 1½ story units
 - Walk-out sites: 17
 - Designed and customized per homeowner requirements
 - Minimum unit size: 2,200 square feet
 - Projected average sale price: \$700,000.00
 - Maximum building height per ordinance
- Adjust elevations enough to create a theme. To offer subtle variety of materials and color selections.
- Exteriors: All masonry brick & stone, clad windows (minimum 5 color palettes)
- Interiors: High-end finishes throughout.
- Homeowners will be responsible for maintaining the interior and exterior of their home.
- Association will be responsible for maintaining all landscaping, snow removal, and pool/active area.
- All land will be considered a common element. Some areas could have a limited common element adjacent to each individual home.
- Limited street entrance and pool lighting will be provided. Plan to be provided at final site plan approval.
- Community amenities will include pool, hot tub, fire pit, lanai, bathrooms, grill area, outdoor kitchenette, seating, lawn bowling, and dog walking area.
- Developed in two phases.

Pre-Application Response to Comments:

PLANNING REVIEW (07/26/17)

PRO Documents –

- Rezoning Traffic Impact Study by Fleis & Vandenbrink has been provided under separate cover.
- Community Impact Statement is attached.
- Open Space Amenities – see attached Conceptual Landscape Plan.

Height, bulk, density and area limitations (R-1) -

- See sheet 2 for density calculations; overall site density = 1.10 units/acre < 1.65 max (R-1)
- As requested, conceptual lot lines have been shown on the Lot Detail on sheet 2 to assist in specifying deviations required. If required for implementation of the site plan as proposed, **a deviation is requested.**

Building Setbacks –

- Front, Rear & Side Setbacks; Lot Coverage: As requested, conceptual lot lines have been shown on the Lot Detail on sheet 2 to assist in specifying deviations required. If required for implementation of the site plan as proposed, **a deviation is requested.**
- Gated Community: City Council approval will be requested for this item.

Parking and other requirements –

- 21 parking spaces are provided and shown on sheet 2, which meets requirements so a deviation is not required.
- Bicycle Parking is provided and shown on sheet 2, also per requirements.
- Parking Lot Design and Accessory Structures: No deviations are being requested at this time.

Note to District Standards –

- Area Requirements – conceptual lot lines are provided on the Lot Detail found on sheet 2. Regarding the configuration of lots 5, 6 & 7, if required for implementation of the site plan as proposed, **a deviation is requested.**
- Wetland - See comments under wetland response below.
- Woodlands – see attached Woodland Study Plan and response from Deak Planning and Design.

Subdivision Ordinance –

- Block Length – Proposed block length will exceed 1400 feet, therefore **a deviation is requested.**
- Depth to width ratio / Arrangement: As requested, conceptual lot lines have been shown on the Lot Detail on sheet 2 to assist in specifying deviations required. If required for implementation of the site plan as proposed, **a deviation is requested.**
- Streets – Stub streets to site boundaries not practical due to being surrounded by wetlands and ITC corridor. Therefore, **a deviation is requested.**
- Lot coverage requirements, **a deviation is requested.**

Topographic Conditions –

- Floodplain – FEMA regulated floodplain areas have been shown on the site plan. FEMA, MDEQ and City of Novi Floodplain Regulations will be adhered to in the development of the site plan. No deviations are requested.
- Trees, Landscape, Natural Features & Open Space Areas – see attached plans from Deak Planning and Design.

Sidewalk Requirements –

- A pathway connection to the ITC trail is proposed – see sheet 2.
- Sidewalk width along 9 Mile has been revised to 6'. Applicant currently in discussions with 9 Mile Road residents regarding sidewalk easements along their respective property frontages and will consider installing the sidewalk as part of the PRO.

Building Code and other design standard Requirements –

- Entryway lighting location has been shown on the site plan (sheet 2).
- Interior Site Lighting – Applicant intends to provide lighting in pool area and some street lighting. Additional details will be provided with submittal for Site Plan Approval.
- Legal Description can be found on sheet 1 (cover sheet).
- Dimensions can be found on sheet 2. Also, see below responses to traffic engineer comments for further clarifications.
- No similar/dissimilar review needed, **a deviation from this requirement is requested.**

Legal Requirements –

- Application for Street Names are being submitted under separate cover with required application to Street Naming Committee.

ENGINEERING REVIEW (7-26-17)

Referring to page 2, General Comments –

- Drives within 200' of the site have been shown on sheet 2. Dimensions from the site entry to Garfield Road and the proposed comfort station driveway are also provided.
- Stub streets are not provided due to environmental constraints. **A deviation from this requirement is requested.**
- Right-of-Way permit will be obtained.
- See sheet 2 for 43' ½ ROW width and 6' wide pathway. Pathway is show at 1' off ROW line except along the westerly frontage where it deviates to avoid an existing wetland.
- One section corner tie is provided on sheet 1. A second section corner tie is being surveyed at this time and will be provided in the next submittal.
 - 10. These items will be provided at the time of Final Site Plan Approval.

Utilities -

- Regarding the 9 Mile Sewer Project, we are working with the city's engineering department and have updated the site plan to show the future sanitary sewer as proposed on the latest construction plans.

Paving and Grading -

- With regard to placement of sidewalks through the roadway approach, **a deviation from this requirement is requested.**
- Detailed grading will be provided at the time of Final Site Plan Approval.
- For internal roadways, see pavement cross sections on sheet 2 & 3. Also, please note that pavement improvements to both 9 Mile and Garfield Roads are proposed to be Chipseal pavement. Therefore if this does not meet the city ordinance, **a deviation is requested.**
- A sidewalk is not proposed on the south side of Villa D'Este Drive due to grading constraints and proposed screening with landscape materials at this location. Therefore, if required, **a deviation is requested.**
- Sidewalks will adhere the requirement found in Section 7.4.2.C.1, which states "*Non-Motorized facilities shall not be placed closer than five (5) feet from back of curb for a curbed roadway*".
- **A deviation is requested** for the proposed non-paved eyebrows.
- As requested, the sidewalk along 9 Mile has been revised to 6' wide. See sheet 2.
- A note has been added to sheet 2 regarding private streets.

Storm Water Management Plan –

- 21. - 25. Storm Water Management Plan has been provided (sheet 3) with details, calculations, and maintenance design parameters as specified. Please note that more detailed grading is being provided with the current submittal and as a result the detention basin location have changed from the plans submitted for pre-application review.

Flood Plain -

- FEMA Flood Zone A has been identified and labeled on the site plan, sheet 2.
- Floodplain permits will be applied for once the Concept Plan layout has been approved.

Off-Site Easements -

- No offsite easements are anticipated.

TRAFFIC REVIEW (AECOM 7-27-17)

Referring to page 2, Traffic Impacts -

- See enclosed correspondence from Traffic Engineer Fleis and Vandenbrink.

External Site Access and Operations -

- Additional dimensions have been provided – see sheet 2.
- Corner clearances are shown on the Conceptual Landscape Plan.
- Additional dimensions have been provided – see sheet 2.
- Details related to the proposed improvements to 9 Mile and Garfield Roads have been identified on sheet 2.
- Site Distance has been noted on sheet 2.
- Driveway spacing dimensions have been provided on sheet 2.
- Site Distance for the comfort station driveway has been provided on sheet 2.
- See sheet 2 for driveway geometrics.
- Emergency access - see comments below in the Fire Department response.

Internal Site Operations –

- General Traffic Flow (d) - **A deviation is requested** for the minimum radius requirement of 230' for internal roadways.
- Parking Facilities (a-d) – vehicle and bicycle parking facilities are to be provided and built per city ordinance. Bicycle parking is shown on sheet 2. Also on sheet 2, signage for no parking has been provided and indicated at the cul-de-sacs and eyebrows.
- Sidewalk Requirements – see response to Engineering Review above, items 16-17. Ramps, crosswalks and detectable warning surfaces will be provided and designed per ADA Standards. Details will be provided with the Final Site Plan.
- Signing and Striping shall comply with the Michigan manual on Uniform Traffic Control Devices with details to be provided on the Final Site Plan.

WETLAND REVIEW (ECT, 7-24-17)

Referring to page 3, Wetland Comments -

- Wetland Permits will be obtained from Novi and MDEQ for all encroachments into regulated wetlands and wetland buffers
- Site plan has been laid out to minimize impacts to wetlands and wetland buffers. Almost all wetlands onsite have been preserved.
- Wetland impacts of .07 acres have been identified and labelled on the plan.
- N/A
- Wetland impacts are less than 0.25 acres – no mitigation required.
- Several alternate layouts have been considered including a single family site condominium that was submitted by a different applicant. The PRO plan being submitted now has the least impact.
- It is agreed that conservation easements will be required.
- MDEQ Permit will be obtained.

Response to checklist items can be found above. Preliminary grading design has been added to the site plan.

FIRE DEPARTMENT REVIEW (7-17-17)

- All comments in the review from the Fire Department will be adhered to. As discussed at the pre-application meeting, the emergency access surface will consist of grass pavers with a sidewalk located in the center. See sheets 2 and 3 for details.

LANDSCAPE REVIEW / WOODLANDS REVIEW - (Plan Review Center Report 7-21-17 and ECT, 7-24-17)

- Tree survey to be provided to City prior to final site plan approval. No tree survey will be provided for land donated to City of Novi, **a deviation is requested.**
- Pool equipment at pool area, **a deviation is requested.**
- Requested cap on tree replacement not to exceed 600 credits, **a deviation is requested.**
- Proposed deviations to the Woodlands Replacement Ordinance, **a deviation is requested.** See below:

a.	6' - 8' Evergreens =	1 Credit
b.	10' - 12' Evergreens =	2 Credits
c.	4" Deciduous Trees =	2 Credits
d.	Subcanopy =	1 Credit
- Allow offsite woodland replacement planting credits adjacent to Garfield Road, Nine Mile Road and ITC easements in the vicinity of the proposed project entrance, **a deviation is requested.** Conditioned on approval by landowners.
- Due to the ITC transmission lines, poles and screening for the existing homes on Nine Mile, the diversity requirements will allow a higher use of evergreens relative to species of impacted trees, **a deviation is requested.**
- Reduction of tree lawn minimum width for large deciduous trees from 8' to 5', **a deviation is requested.**

Master Plan:

The Master Plan provides goals for densities and diverse housing types. This portion of the city which is primarily in the R-A zoning district, when fully built out, including the Villa D'Este PRO, will have a density well below the 0.8 units per acre called for in the Master Plan. This parcel is the last developable parcel on Nine Mile as most of the remaining acreage is wetland, owned by the City of Novi as park or has existing housing on site which makes future development economically unfeasible.

Villa D'Este offers:

- A diverse housing type that the City of Novi currently does not have.
- Encourages healthy lifestyles by connecting to the city's pathway system as well as the on-site active adult amenities.
- Protect and maintain large amount of open space. 45% of the site will be preserved as open space.
- Provides diversity of housing for the growing empty nester population.

- This development will result in an enhancement of the project area compared to existing zoning.
- The benefits to this proposal are numerous as described and listed above.

In conclusion, we believe there is a need for this housing and community type in the City of Novi. Cambridge Homes, Inc. is generally considered the gold standard in the building and development community. Two of our award winning developments are located in Novi, Bellagio and Tuscany Reserve. Villa D'Este will serve a need in Novi and there is nothing like this development in Oakland County which makes this development truly unique. We respectfully request to be put on the planning commission agenda for PRO approval as soon as possible.

Sincerely,



Mark F. Guidobono
C.E.O.

COMMUNITY IMPACT STATEMENT

**3rd Revision: Submitted Dated 01-26-17
Presented to Planning Commission for March 14, 2018 meeting**

COMMUNITY IMPACT STATEMENT

VILLA D'ESTE

CITY OF NOVI

Revised January 24, 2018

1. INTRODUCTION

Cambridge Homes, Inc. is proposing to develop 51.19 acres in Novi, Michigan. The development will consist of 42 custom, luxury detached condominium homes targeting active adult / empty nesters.

2. ANTICIPATED EMPLOYEES

- a. Per the National Association of Home Builders study, http://www.nahb.org/fileUpload_details.aspx?contentTypeID=3&contentID=35601&subContentID=219188 an average of 0.53 local permanent jobs are supported for each new home built. Villa D'Este will support approximately 22 permanent jobs.
- b. This study also estimates that 2.13 direct local jobs and 1.11 indirect and induced local jobs are created in the construction of each new single family home. Therefore, for Villa D'Este will create approximately 89 direct construction jobs and 47 indirect construction jobs.

3. POLICE RESPONSES

- a. The project will contain 42 units. Police response calls are estimated to be similar to the fire response calls (3.5 per year) per the information in no. 4 below.

4. FIRE RESPONSES

- a. Per the fiscal impact study contained in the report, The Fiscal Impact of Residential Development in Unincorporated Wabash Township, <http://www.agecon.purdue.edu/crd/localgov/Essays/wabashFIA.htm>, the number of fire department responses per year for the studied developments was 0.063 runs per single family home. For Villa D'Este, with 42 units, applying this ratio would result in an average of three (2.65) fire responses per year.

5. WATER AND SEWER TAPS

- a. The Project will require 42 water and sewer taps.
- b. Sanitary Sewer tap fees: \$4,000.00 per unit x 42 = \$168,000.00 paid to the City of Novi.

6. TAX REVENUE

- a. Projected average sales price per unit is \$700,000.00. Based on an estimated taxable value of \$350,000.00 per unit and using the 2016 Winter

and 2017 Summer combined annual total tax rate of 53.1888 mils, each unit will generate an estimated total of \$18,616.08 per year in tax revenue. Once the development is completed, that would be 42 units x \$18,616.08 = \$781,875.36 tax revenue per year

7. SCHOOLS

- a. 32.618 mils of the above calculated tax revenue, or \$479,484.60 will go toward school taxes per year with very few, if any, students being added to school enrollment rosters. ($\$11,416.30 \text{ per unit} \times 42 = \$479,484.60$)

8. CITY PERFORMANCE STANDARDS

- a. *Smoke:* No smoke to a density greater than the density described as No. 1 on the Ringelmann Chart will be generated from either construction or permanent sources.
- b. *Dust, Dirt, Fly Ash:* The only furnaces that will operate within the Project will be conventional natural gas fired forced air furnaces that meet all applicable air quality standards. Said furnaces will not exceed 0.20 grains of gas-borne or air-borne solids per cubic foot of the carrying medium at a temperature of 500 degrees Fahrenheit.
- c. *Odor:* No offensive, noxious or foul odors will be generated.
- d. *Gases:* No injurious or destructive gasses will be generated.
- e. *Airborne Matter, General:* No quantities of air contaminants or other material will be discharged that cause injury, detriment or nuisance to the public or which endanger the comfort, repose, health or safety of persons or which cause injury or damage to business property.
- f. *Glare and Radioactive Materials:* No glare or radioactive materials will be generated in the project.
- g. *Fire and Explosion Hazards:* No activities which create fire or explosive hazards will be conducted.
- h. *Vibration:* No machines or operations which cause vibration will be operated.
- i. *Sewage Wastes:* No sanitary sewage wastes will be generated which are dangerous to the public health.
- j. *Noise:* No activities will be conducted that generate noise in excess of the standards stated in Section 2519 of the Novi Zoning ordinances.

9. RELATION TO SURROUNDINGS USES

- a. To the north are Legacy Parc Golf Course (the western half), zoned R-1, which was previously approved by the City of Novi at 1.35 units per gross acre, and City owned park land (the eastern half), zoned RA. The proposed Quail Hollow RUD will have a similar development pattern. The proposed Villa D'Este will also preserve significant natural features including woodlands and wetlands adjacent to City owned park land.
- b. To the west is a single family home development and one single family home, both with RA zoning. Proposed buffers, preserved trees and

additional landscaping will allow the proposed development to minimize impacts to these homes.

- c. To the south are vacant lands with RA zoning. Additionally, the ITC corridor extends from the south and runs along the east side of the property.
- d. To the east, the high tension lines are the most significant visual impact to existing residences and the proposed development. The City path system in the ITC easement offers opportunities for this development to create connections and provide potential trail head features. The proposed development pattern allows a transition from compact housing with large preserved natural areas, a proposed berm and landscaping to the existing homes east of the ITC easement.

10. ENVIRONMENTAL FACTORS & IMPACTS

- a. Existing Natural Features:
 - i. Topography. The site has gently rolling topography to the west and flat topography to the north and east.
 - ii. Wetlands. There are seven (7) wetlands on the site, all regulated by the City of Novi and by the MDEQ, totaling 12.01 acres.
 - 1. Total wetland impact for two road crossings = .07 acres.
 - 2. Total buffer impact = .45 acres.
 - 3. Wetland preserved = 11.94 acres.
 - iii. Trees
 - 1. Number and location. Large portions of the site are wooded with regulated trees. Open areas exist in the southwest and southeast areas of the site. Existing woodland canopy area = 35.38 acres (per Novi woodland map). Total Impact area = 10.19 acres (29%). Total preserved area = 25.19 acres (71%). The tree replacement credits required for Villa D'Este are 1,138 credit.
 - 2. Species. There is a fairly wide variety of species, including a lot of upland deciduous: locust, walnut, maple, elm, oak, basswood, hickory and poplar.
- b. Temporary Impacts on Natural Features
 - i. Portions of the property will be cleared and graded for the development. Only two very small portions of wetland will be filled. One .04 acres and the other .03 acres, for a total of .07 acres of wetland fill.
 - ii. The disturbed areas will be covered in paving, new house construction and landscaping so that no unvegetated disturbed soil will remain at the end of construction.

- iii. Some grading will occur in Natural Features setback areas located on the home sites being created. These areas will be restored with appropriate native seeding.
 - c. Permanent Impacts on Natural Features
 - i. Wetlands, .07 acres would be filled per attached plan.
 - ii. The Project stormwater, after treated, will outlet to Wetland area in two locations.
 - iii. 100 year floodplain would be filled on units 1, 5, 6, 7, 8, 9, 10, 11, 17, 22, 23, 24, 25, 26, & 27. It is not anticipated that a compensating cut will be required.
 - d. Hazardous or Toxic Substances. None will be generated, used or stored.
 - e. Underground Storage Tanks. None are known to exist. None are planned.
 - f. Environmental Use History. Some construction debris and woodchips have been disposed of on the 10 acre Lamp Trust property. These areas have been investigated and determined to have no hazardous waste.
 - g. Wildlife Impacts. Most of the open field areas are being disturbed. Rodents and birds that nest in open field areas will lose habitat. Some bird nesting areas in existing trees being removed will be lost.

11. SOCIAL IMPACTS

- a. Relocation of Occupants: One homeowner in the home on the site will be relocated to another home. The second house is unoccupied.
- b. Traffic will be less than what would be generated under the RA zoning (see traffic review by Fleis & Vanderbrink).
- c. Site Amenities:
 - i. Sidewalks in front of each unit.
 - ii. Sidewalks/bike path along 9 Mile Road.
 - iii. Significant natural feature open space, of which, a large amount will be donated to the city.
 - iv. Provide seating areas and dog parks.
 - v. A path connection to the ITC corridor trail.
- d. Population Increases. Population is estimated to increase by 99 people.

TRAFFIC STUDY

Memo

VIA EMAIL

To: Mr. Mark Guidobono
Cambridge Companies

From: Julie M. Kroll, PE, PTOE
Fleis & VandenBrink

Date: January 25, 2018

Re: Villa d'Este, Residential Development
Nine Mile Road & Garfield Road, City of Novi, Michigan
Rezoning Traffic Impact Study

Introduction

This memorandum presents the results of the Rezoning Traffic Impact Study (RTIS) for the proposed Villa d'Este, an senior residential development project located in the northwest quadrant of the Nine Mile Road & Garfield Road in Novi, Michigan. The site is currently zoned Residential Acreage (RA) and is undeveloped. The proposed project includes the development of 42 senior detached housing units with site access provided via one driveway to Nine Mile Road east of Garfield Road. Per the City of Novi Community Development Department's *Site Plan and Development Manual (Section 1)*, and as noted in the Pre-Application review meeting letter from the City's traffic consultant (AECOM) dated July 27, 2017, a RTIS is required for this development.

This RTIS presents a description of the requested use, trip generation of the typical uses permitted under the requested zoning and those within the existing zoning and available existing traffic volume data within the vicinity of the proposed development.

Background

The proposed land use includes the development of 42 Senior Detached Homes. The subject parcel includes 50 acres and is currently zoned Residential Acreage (RA), which according to the City Zoning Ordinance has a maximum density of 0.8 dwelling units per acre. This results in the potential for a 40-unit single-family subdivision to be constructed on the subject parcel.

Therefore, a trip generation comparison between the proposed development and the by right 40-unit single-family residential development was completed to evaluate the potential change in trip generation as a result of the proposed development. This trip generation is summarized in Table 1.

In addition, an alternative development plan of 32 single-family homes and a calculation to determine what the equivalent single-family home density would be with the same number of trips generated by this development was also included in this analysis for comparison purposes.

Trip Generation Analysis

The number of peak hour and daily vehicle trips were generated for the proposed zoning land use and the existing zoning development (maximum density and alternative density) using the equations published by the Institute of Transportation Engineers (ITE) in *Trip Generation, 10th Edition*. Due to the relatively small size of the proposed 42-unit development and the 32 and 40 unit single-family subdivisions as compared to the ITE data sets, the average rate was determined to be more appropriate for use than the non-zero intercept

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regression equations during the AM peak hour to avoid illogical results. The site trip generation comparison is summarized in Table 1.

Table 1: Trip Generation Comparison

Alternative	Land Use	ITE Code	Amount	Units	Average Daily Traffic	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
Proposed Development	Senior Adult Housing - Detached	251	42	D.U.	179	3	7	10	8	5	13
Max Density Existing Zoning (RA)	Single Family	210	40	D.U.	378	8	22	30	25	15	40
Difference					-175	-1	-10	-11	-199	-5	-15
Alternative Density Existing Zoning (RA)	Single Family	210	32	D.U.	302	6	18	24	20	12	32
Equivalent Density Existing Zoning (RA)	Single Family	210	13	D.U.	123	3	7	10	8	5	13

The results of the trip generation comparison indicate that the proposed development would result in a decrease in daily and peak hour trips compared to either the 40 or 32 single family unit subdivision. The equivalent trip generation would be a residential development with approximately 13 single-family homes.

Furthermore, the trip generation for the proposed development and the existing zoning were also compared to the City of Novi thresholds for the determination of need for further analysis associated with either a traffic impact study (TIS) or a traffic impact assessment (TIA). The comparison is summarized in Table 2 and shows that no further study is required for this proposed development.

Table 2: City of Novi Thresholds Trip Generation Comparison

Alternative	Land Use	Amount	Units	Average Daily Traffic	City of Novi Threshold	AM Peak Hour Total	City of Novi Threshold	PM Peak Hour Total	City of Novi Threshold	Meets City Requirement for TIA/TIS (Y/N)
Proposed Development	Senior Adult Housing - Detached	42	D.U.	188	750	11	100	13	100	<i>No</i>
Max Density Existing Zoning (RA)	Single Family	40	D.U.	378	750	30	100	40	100	<i>No</i>
Alternative Density Existing Zoning (RA)	Single Family	32	D.U.	302	750	24	100	32	100	<i>No</i>

Any questions related to this memorandum should be addressed to Fleis & VandenBrink.

Attached: RCOE Traffic Count Data

JMK:jmk



TCDS Locations

- Short
- Continuous
- WIM
- Located Short
- Located Continuous
- Located WIM