

**NORTHFIELD TOWNSHIP PLANNING COMMISSION
NOTICE OF REGULAR MEETING
March 18, 2015 at 7:00 p.m.
Second Floor, Public Safety Building
8350 Main Street, Whitmore Lake, MI 48189**

AGENDA

- 1. CALL TO ORDER**
- 2. PLEDGE OF ALLEGIANCE**
- 3. ROLL CALL**
- 4. APPROVAL OF AGENDA**
- 5. CALL TO THE PUBLIC**
- 6. CORRESPONDENCE**
- 7. REPORTS**
 - A. Board of Trustees Report**
 - B. ZBA**
 - C. Staff Report**
 - D. Planning Consultant Report**
- 8. PUBLIC HEARINGS**
- 9. OLD BUSINESS**
 - A. Master Plan Update – discussion of past studies associated with a 2006-2007 residential development proposal denied in the southwest quadrant**
 - B. Residential Densities – follow up discussion to the 3-4-15 presentation**
- 10. NEW BUSINESS**
 - A. Presentation: Huron River Watershed Council Americana Grant for Green Infrastructure Mapping**
 - B. Citizen Survey – status of request for proposal**
 - C. Traffic Study – discussion of available studies and request for additional information**
- 11. MINUTES: March 4, 2015 Regular Meeting**
- 12. POLICY REVIEW AND DISCUSSION**
- 13. CALL TO THE PUBLIC**
- 14. COMMENTS FROM THE COMMISSIONERS**
- 15. ANNOUNCEMENT: Next Regular Meeting – April 1, 2015**
- 16. ADJOURNMENT**

This notice is posted in compliance with PA 267 Of 1976 as amended (open meetings act) MCLA 41.7 2A (2) (3) and the Americans with Disabilities Act. (ADA) Individuals with disabilities requiring auxiliary aids or services should contact the Northfield Township Office, (734) 449-5000 seven days in advance.

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Area Plan/PUD Review For Northfield Township



Applicant: Trowbridge Companies
Mr. Anthony Randazzo
2617 Beacon Hill
Auburn Hills, Michigan 48326

RECEIVED

MAR 28 2007

**BUILDING / PLANNING
DEPARTMENT**

Plan Date: February 14, 2007

Location: Located between North Territorial and Joy Roads, west of
Whitmore Lake Road and east of Hellner Road.

Size of Parcel: 482 acres

Zoning: AR, Agriculture (1 dwelling unit/5 Acres)

Action Requested: Area Plan Approval for a Planned Unit Development.

**Required
Information:** As noted in our review.

PROJECT SITE DESCRIPTION

The site under consideration is approximately 482 acres in area, and is located between North Territorial and Joy Roads, west of Whitmore Lake Road and east of Hellner Road. The Area Plan submitted for the subject property by the Trowbridge Companies, dated January 17, 2007 (Date Stamped January 24, 2007 by the Township), proposes 847 dwelling units, comprised of 134 single-family attached units and 713 single-family detached units on a variety of lot widths (337 units on 50' wide lots, 266 units on 60' wide lots and 110 units on 70' wide lots). The entire pattern of the development is linear with several cul-de-sacs, rather than being more curvilinear with small loop roads and clustering. The overall density as sited on the Area Plan is 1.75 units/acre with 268.11 acres of open space (56% of the site).

Parcel E: The southern end of the site, south of Northfield Church Road, referred to as “Parcel E”, is planned for 110 single-family units with a linear road design and two (2) cul-de-sacs. This area contains most of the woodlands and wetlands on the subject property.

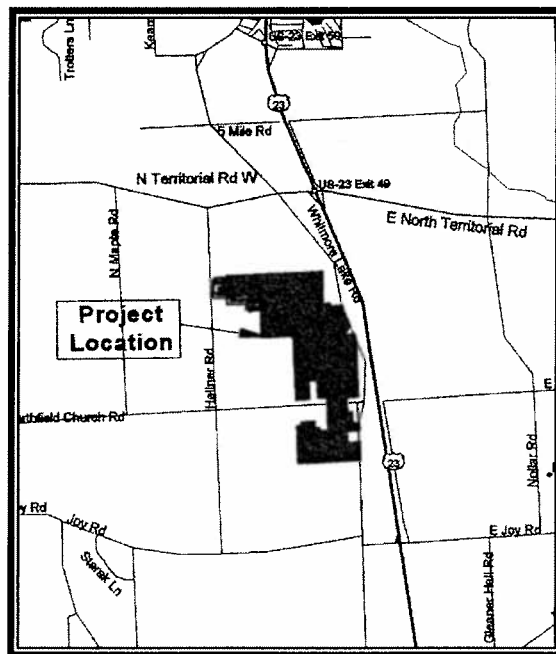
Parcels A and D: The central portion of the site, referred to as “Parcel A” and “Parcel D” on the north side of Northfield Church Road, are proposed to contain 279 single-family units, 173 units on 50 foot wide lots and 106 units with 60 foot wide lots. The development approach for this area is also linear, with six (6) cul-de-sacs. This area also contains the amenity center for the project, which is comprised of 3.69 acres.

Parcels B and C: The northern portion of the site, referred to as “Parcel B” and “Parcel C”, contain the highest number of dwelling units, 458, comprised of 162 single-family lots with 50 foot lot widths, 162 single-family lots with 60 foot lot widths and 134 single-family attached units. Once again, this portion of the site, with the exception of the single-family attached units is very similar to the balance of the proposed development.

Commercial Uses: Instead of a mixed-use component the site plan features an amenity center and two commercial lots comprised of approximately 5 acres that front on Whitmore Lake Road.

Site Access: There are five (5) entrances proposed to access the site, two (2) on Whitmore Lake Road, two (2) on Northfield Church Road and one (1) on Hellner Road.

Parcel Layout and Boundaries for Stratton Farms



SITE ARRANGEMENT

AREA, WIDTH, HEIGHT, SETBACKS

The area width, height, and setback information for both the AR-Agricultural District requirements and the provided deviations to the ordinance are provided in the chart below.

	AR-Agricultural District <u>Required</u>	Area Plan (1-17-07) <u>Provided</u>	Area Plan (1-17-07) Provided for Two Unit/Building Setbacks
Lot Area	5 acres	Combination of the following lot sizes: 50' lot width: 6,000 sq. ft. 60' lot width: 7,200 sq ft. 70' lot width: 8,400 sq. ft.	25.97 acres for Single- family attached
Lot Width	150 ft.	See Above	Not provided
<u>Perimeter Setback</u>	n/a	n/a	100 ft.
<u>Setbacks</u>			
Front	50 ft.	25 ft.	30' from r-o-w
Side	30 ft.	5/10 total	
Side Corner	60 ft.	Not provided	n/a
Rear	50 ft.	30 ft.	n/a
Side-to-Side	n/a	n/a	20 ft.
Side to Rear	n/a	n/a	50 ft.
Rear-to-Rear	n/a	n/a	70 ft.
Lot Coverage	10%	40%	Not provided
Floor Area Ratio	10%	40%	Not provided
Building Height	3 stories/40 feet	Not provided	Not provided
Perimeter	n/a	n/a	100 ft.

Items to be Addressed: Review and acceptance of the deviations by the Planning Commission.

STANDARDS FOR PETITION AND AREA PLAN REVIEW

Growth Management Plan

The Northfield Township Growth Management Plan indicates that the subject parcels are planned for Agricultural (Source: Northfield Township GMP, page 68). More specifically, the subject parcels are located in an area that is considered as primary agricultural land. We have reproduced a portion of the GMP that outlines the Township policies related to prime agricultural lands.

“Primary Agricultural Lands

Within Northfield Township are lands that continue to be suitable for long-term agricultural uses. The principal use characterized within these areas is primary crop and/or livestock production. These lands should not be considered land banks for future rural or urban development or as low density residential areas. Primary agricultural lands are perhaps best suited for intensive agricultural activities. (Source: page 66, Northfield GMP)

Primary Agricultural Lands are generally located:

- a. North and south of North Territorial Road in the central and eastern portions of the Township.*
- b. West of US-23, north and south of North Territorial Road.*
- c. East of US-23 south of Northfield Church road.”*

(Source: Northfield Township GMP, page 66)

Although the area that the subject parcels are located in is designated as “Prime Agricultural” land, this does not mean that residential uses are not allowed. The Growth Management Plan makes the following provisions for residential land uses within agricultural lands:

- “1. Efforts shall be made to direct non-agricultural use away from areas of the Township characterized as Primary Agriculture.*

2. *Residential land uses, however, may be permitted on agricultural lands with the stipulation that, in order to preserve agricultural activities, residential lots are:*
 - a. *Taken from **land unsuited for farming** where available.*
 - b. ***Clustered to allow continued agricultural use** of the remainder of the acreage. Clustered housing shall:*
 - 1) *Establish a lot size in accordance with **Washtenaw County Environmental Health Department** standards while maintaining a minimum density of ten acres per dwelling unit for designated primary agricultural areas. Secondary agricultural lands shall have a minimum density of five acres per dwelling unit.*
 - 2) *Require that **the housing sites be positioned to allow continued agricultural use** of the remainder of the acreage.*
 - 3) *Require that a **buffer of existing or new natural features be created between housing sites and agricultural acreage** so that residential use will not interfere with agricultural activities.*
 - 4) *Require that a **buffer of existing or new natural features be created between housing sites and highways** to preserve and enhance the visual character of rural areas.*
 - 5) *Permit **only agricultural or open space use of the acreage outside of the residential cluster** through zoning, deed restrictions, and conservancy standards.*
 - 6) *Provide **density incentives for establishment of permanent deed restrictions** on agricultural and open space acreage.”*

(Source: Northfield Township GMP, Pages 66, 67)

In summary, the GMP identifies the subject parcels in an area planned for “Prime Agriculture. The GMP also provides for residential development if the following standards are met:

- The land should be unsuitable for farming.
- Clustering techniques should be employed.
- The minimum lot size should be established to Washtenaw County Environmental Health Department Standards.

- In areas designated “Prime Agricultural” land a minimum density of 1 dwelling unit per 10 acres should be maintained.
- Position housing site to allow continued agricultural use of the unused portion of the parcel.
- Provide adequate screening and buffering between agricultural uses and housing sites, natural features and highways in order to promote the visual character of the rural area.
- Permit only agricultural and open spaces uses outside of the residential cluster, protected by deed restriction or conservancy standards.
- Provide density incentives for the establishment of permanent deed restrictions on agricultural land and open space.

Amendment to the GMP

A proposed amendment to the GMP (Public Hearing February 21, 2007) does affect the land use designation of the area in which the subject parcels are located. The area remains planned for primary agriculture. The amendment does however; continue to emphasize the need and importance for the preservation of agriculture and open space.

***Items to be Addressed:** The proposed Area Plan is not consistent Northfield Townships Growth Management Plan.*

Conformance to Intent, Regulations and Standards of the Zoning Ordinance and Article 52.0 Planned Unit Development District - PUD

Article 52.0 cites several objectives in Section 52.01 Purpose, and throughout the body of the Article that mentions innovation in design, conformance with the GMP, and also the fact that the Planning Commission shall determine if the location for a PUD is both suitable and desirable for such a development. There are also several very specific standards that must also be met, such as permitted uses, density regulations, yards, access, etc. Some of these items have been provided and some have not. However, perhaps the one over riding factor that must be satisfied are the objectives that articulate flexibility and innovation in design and land development, and the satisfaction of the objectives that convey a commitment to providing useful open space and the protection and conservation of natural features.

The Area Plan as submitted does not meet the objectives of the GMP, either specifically for the subject parcels or in general for the surrounding area. The density of the surrounding area is much lower, and has developed at a density of one (1) dwelling unit per five (5) acres or more. The overall density for the proposed Area Plan is 1.75 dwelling units per acre, however, one (1) area is proposed for two (2) dwelling units per acre. Lot sizes proposed for the subject parcels are more attuned to the SR-2, Single-

Family Residential District, which permits a 7,500 square foot lot size (almost six (6) dwelling units per acre), rather than the AR, Agriculture District, which permits a density of one (1) dwelling unit per five (5) acres. As previously mentioned, proposed lot sizes range from 6,000 square feet to 8,400 square feet.

The site layout, with its proposed variety of lot widths and lot sizes for single-family detached residences and the single-family attached portion of the site is typical of a suburban layout; the residential units appear to be more or less spread evenly across the property; access is provided with a linear road system, and minimal clustering of residential units has been provided. Therefore, this layout is atypical to what the Planning Commission envisions for this area of the Township. In addition, the current site design pays little attention to the planning concept of transitional land uses. We would expect to see fewer residential units on the southern end of the site, where the majority of the natural features are located, and as the layout moves from east to west a lessening of the density in order to transition to agricultural uses, open space and large lot residential uses. We would prefer to see a lower overall density, more clustering of residential units, and an open space system that flows through the site, rather than being bifurcated by each phase of development.

Items to be Addressed: 1) Provide a transition of density from the east to the west. 2) Lower the overall density. 3) Address the issue of the need for more clustering of residential unit. 4) Redesign the open space.

Public Facilities

Sewer and Water

The densities proposed for this site requires either a public or private water and waste treatment system. The applicant assumes that public sewer and water are available or that capacity exists, however there is little information provided, other than a statement that public sewer and water are to be extended from North Territorial Road to serve the development. Developments of this magnitude with eight hundred forty-seven (847) units can produce a daily flow in the range of 275 to 300 gallons per day (gpd) per unit. Overall gpd for this size of development could be between 233,000 and 254,000 gpd. However, this usually depends on the average size of households in a specific area. More information should be provided in regard to Northfield Township's sewer treatment plant capacity in addition to more accurate information from the applicant in regard to residential equivalency units in comparison to the number and type of units proposed.

Items to be Addressed: Provide more information on the Township's sewer treatment plant and how water is to be provided to the site.

Open Space

Open Space

The applicant has provided a substantial amount of open space, 268 acres or 56% of the site. From what the applicant has provided it is difficult to judge the quality of the open space, especially those areas that are proposed for disturbance and how much of the open space consists of either upland or lowland (wetlands). The Area Plan proposes little disturbance to wetlands (2.09%), while 28.5% of the woodlands and 31.2% of the steep slopes area scheduled to be disturbed.

The standard contained within Article 52.0 against which open space is to be reviewed state the following

“The common open space, any other common properties, individual properties, and all other elements of the PUD are so planned that they will achieve a unified open space and recreation area system with open space and all other elements in appropriate locations, suitably related to each other, the site, and the surrounding land.”

(Source: Northfield Township Zoning Ordinance, page 52-10)

The two operative words in the above paragraph are “unified” and “system.” The best description of the open space and recreation system to be achieved for this development is a “...unified open space and recreation area system.” The word “unified” means combined, joined, cohesive or fused, while the word “system” implies organization, coordination, regularity or an “organism.” It is our opinion that the open space/recreation system proposed in the current Area Plan is not a unified system, but rather is best described as land that exists to serve, and is dominated by, or subjected to the “new” primary use of residential units and the road system. In the proposed lay out open space appears to be what is left over as “interstices” after the road network and lots were designed. Wetlands and ponds for storm water runoff areas appear to be major components of the open space, however, they are not considered as usable from an open space perspective.

Items to be Addressed: 1) Provide a calculation of uplands versus lowlands (wetlands). 2) Redesign the opens space into a unified system. 3) Graphically indicate where trail or nature paths are proposed.

Site Access, Traffic, Pedestrian Circulation

Whitmore Lake Road Entrances – Two (2) entrances are proposed off of Whitmore Lake Road. One entrance is located on the north end, while the other is at the southern most end of the site. The northern most entrance provides access to the amenity center and the area set aside for the attached single-family residences. It is depicted as a major entry (boulevarded entrance) to the site. This collector measures approximately 1,000 feet in length from Whitmore Lake Road to a point at which it turns both northwest, proceeding to Hellner Road, and south, proceeding to Northfield Church Road. This road serves as the collector road for two-thirds (2/3) of the site and will be within a 66 foot wide right-of-way dedicated to the County. Collector Roads are to have an 8 foot wide bike path on one (1) side only. The southern most entrance is also proposed to be a boulevarded entrance from Whitmore Lake Road, providing access into a single-family detached area with 70 foot lot widths. This entrance is to have a 66 foot wide right-of-way, which will be built and dedicated per County Road Commission standards and will serve the entire southerly section of the site south of Northfield Church Road.

In regard to the northern most access from Whitmore Lake Road, we recommend that the northern entrance be realigned so that the wetlands close to Whitmore Lake Road can be preserved as a desirable visual amenity to the development.

Other Entrances – There are two (2) entrances proposed off of Northfield Church Road and one (1) proposed to Hellner Road on the west side of the site. The eastern most entrance to Northfield Church Road, located closest to Whitmore Lake Road, provides access to the southern most part of the site. The western most access to Northfield Church Road provides access to the north.

All access points off of the major county roads are collector roads with 66 foot wide road right-of-ways.

Internal Circulation

With the exception of the area to the south of Northfield Church Road the balance of the interior roads are proposed to be contained within a 45 foot wide easement. They are also to be privately owned and maintained. Private roads must meet the standards of the Northfield Township Private Road Ordinance. Due to the 45 foot right-of-way easement the private roads will not be able to be accepted as public roads in the future, and must be maintained by a homeowners association. Snow removal is also the responsibility of the homeowners association for private roads. The collector roads that are to be built to Washtenaw County Road Commission (WCRC) standards will be dedicated to the public, maintained by the WCRC, including snow removal.

Five (5) foot wide sidewalks are proposed to be provided on both side of the internal road network. The development summary alludes to nature trails throughout the site; however an actual trail system is not graphically shown on the Area Plan. We are particularly

interested in how pedestrians will cross Northfield Church Road, from one section of the site to the other. Will there be some sort of pedestrian path/trail or sidewalk that will connect the different sections of the proposed development? Therefore, we suggest that the applicant consider sidewalks or a pedestrian path on at least one (1) side of all collector roads.

“Major pedestrian circulation shall be provided for within the site, and shall interconnect all residential areas, community areas, and commercial and other services where applicable. The pedestrian system shall provide a logical extension of pedestrian ways from outside the site and shall provide pedestrian connections to the edges of the site, where appropriate.” (Source: Northfield Township Zoning Ordinance, page 52-10)

Items to be Addressed: 1) The northern most access to Whitmore Lake should be realigned so that the wetlands close to Whitmore Lake Road can be preserved as a desirable visual amenity to the development. 2) Private roads shall meet the standards of the Northfield Township Private Road Ordinance. 3) Provide information on nature trails and pedestrian paths and how the development throughout will be accessed by pedestrians. 4) Since there are no sidewalks proposed for the collector roads how will pedestrians cross Northfield-Church Road? 5) Consider providing sidewalks or a pedestrian path on one (1) side of all collector roads.

Traffic

Residential Development: Each single-family detached residence can be expected to generate approximately 9.57 vehicle trips per day (vt/d), while single-family attached or a residential condominium/townhouse may generate approximately 5.86 vehicle trips per day. These figures are taken from Trip Generation, 6th Edition Volume 1, for the following land uses: Residential Condominium/Townhouse (Land Use #230) and Single-Family Detached Housing (Land Use #210). The number of vehicle trips is for Average Vehicle Trip Ends versus Dwelling Units, on a weekday.

The number of vehicle trips that might be generated from the proposed development is as follows:

713 single-family detached units X 9.57 =	6,823 vt/d
134 single-family attached units X 5.86 =	785 vt/d
Total	7,608 vt/d

Commercial Development: Traffic generated by commercial development is calculated in the same manner, except that it depends on the number of square feet and usage. We have estimated that out of the 5.18 acres of commercial land proposed by the applicant that approximately 36,000 square feet of usable commercial space may result. This is

based on a net acreage of 4.14 acres and a ground coverage of 20%. We have also estimated the number of vehicle trips on a Shopping Center (Land Use #820). Average vehicle trip ends versus 1,000 square feet of gross leasable area, on a weekday. Shopping centers based on the above parameters generate approximately 42.02 vehicle trips per 1,000 square feet of leasable floor space. The number of vehicle trips that might be generated from the proposed commercial acreage is as follows:

36 x 42.92 vehicle trips per 1,000 sq. ft. = **1,545 vt/d.**

Total vehicle trips, not including any traffic generated by the Amenity Center, are approximately: **9,153 vt/d.**

Note: The applicant submitted a Traffic Impact Study (TIS) prepared in February 2006. This study was based on 1,140 condominium and 586 single-family homes, a total of 1,726 residential units. (Source: Traffic Impact Study-Northfield Town Center, February 2006, Prepared for Atwell-Hicks, by Parsons, Southfield, Michigan). The current submission dated January 17, 2007, proposes 847 total residential units; 134 single-family attached and 713 single-family detached units. (See attached review of the TIS by Orchard, Hiltz and McCliment)

Items to be Addressed: Review comments from Orchard, Hiltz and McCliment on the TIS.

Overall Vehicular Circulation

The overall circulation system appears adequate, however all private roads will have to be checked by the Township's engineering consultant for conformance to the Township's Private Road Ordinance. The same comment can be made for the collector roads that must conform to the Washtenaw County Road Commission standards.

In reviewing the length of cul-de-sacs we question the length of several due to the difficulty of ingress or egress by auto's or emergency vehicles. Specifically, the large loop road and major cul-de-sac that serves the single-family detached sites and the grouping of 60' wide lots in the southwest corner of the northern portion of the site that has only one (1) major means of egress/ingress to a collector road. We suggest that a secondary means of access be provided for these areas.

Although the interior roads are planned as private, and may not be connected to from outside the development, good planning practice would be to provide for at least two (2) or three (3) stubbed collector roads that could provide access to land to the north and west, eventually connecting to North Territorial or Hellner Roads.

Items to be Addressed: 1) Review the lengths of some of the cul-de-sacs and loop roads with only one (1) ingress/egress to a collector road. Some appear to be excessively long from a safety and emergency vehicle perspective in bad weather. 2) Consider adding a few stubbed public collector roads to enable connection to parcels to the north and east,

eventually connecting to North Territorial Road, in addition to second connection to Hellner Road.

Housing Mix, Type, Density

Housing Mix and Type

Housing mix exists of two (2) types, single-family attached and detached. The single-family detached areas are broken up into different lot widths and sizes which could allude to different types of product styles and square footages. However, without sample elevations and floor plans it is difficult to tell the style, size and price of the residential products. The basic layout of the site, with minimal clustering, and the absence of traditional neighborhood development (TND) is a good indicator of a traditional suburban development where open space is not integrated as a system, or woven into the fabric of the community. There are no pocket parks or a central green; housing types are segregated by size and price; commercial uses are separate from the development, with access only from Whitmore Lake Road.

Density

The overall density being proposed for this area is still too high, and is not consistent with the objectives of the Township's Growth Management Plan (GMP). The current overall density is 1.75 dwelling units per acre (847 units/482 acres), while the planned density is 1 dwelling unit per 5 acres.

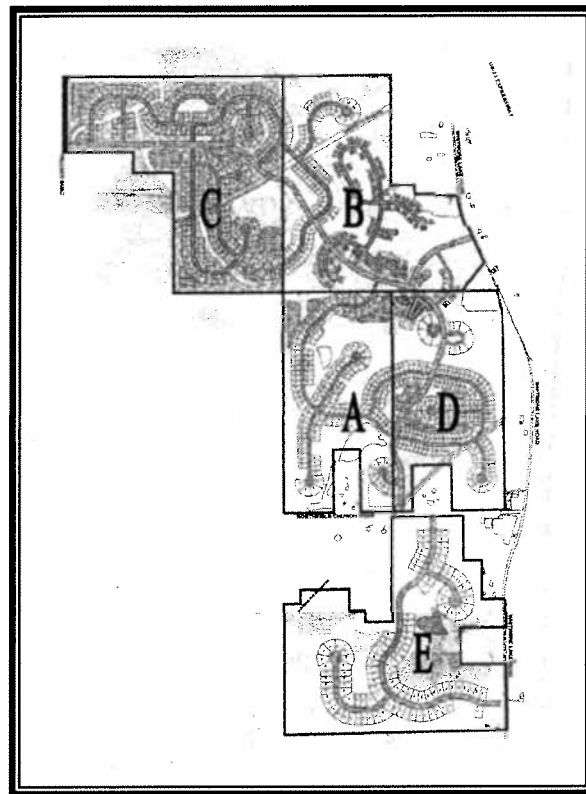
Densities for each portion (Parcel) of the site are as follows:

Northern Portion (Parcels B and C): Total acreage for this area is 218.2 acres for a density of 2.10 dwelling units per acre.

Middle Portion (Parcels A and D): Total acreage for this area is 148.95 acres for a density of 1.87 dwelling units per acre.

Southern Portion (Parcel E): Total acreage for this area is 114.45 acres for a density of 0.96 dwelling units per acre.

Area Plan Parcels



As proposed, the density is not compatible with existing residences or the character of the area. The site and surrounding land contains agricultural fields and natural features such as woodlands and wetlands, and generally has a rural character. The only exceptions are the light industrial uses adjacent to the northeast corner of the site along Whitmore Lake Road.

Items to be Addressed: 1) Provide sample elevations and floor plans. 2) Provide a TND on a portion of the site. 3) Consider a centralized green area, more neighborhood parks. 4) Integrate the proposed commercial component with the rest of the development.

Non-Residential Uses

Non-residential uses consist of an amenity center and approximately 5 acres of commercial use. The proposed amenity center is to consist of a landscaping, a pool and clubhouse, children's play area and active open land for group activities.

The Area Plan also indicates two (2) separate areas that front on Whitmore Lake Road for commercial use. We assume that both of the commercial areas identified on the Area Plan will be developed independently of the residential portion of the site, since it does

not graphically depict any connection, either by sidewalk or pathway to the residential areas. If both of the commercial areas are meant to serve the residents of Stratton Farms, they should be integrated into the development by some other means other than the automobile. The applicant should also discuss the types of commercial uses that are envisioned for both of these areas.

Items to be Addressed: 1) Provide more information on the Amenity Center, include a commercial component. 2) Graphically depict how the commercial component is integrated into the development other than by automobile. 3) Provide more information on what uses are envisioned for the commercial component.

Impacts

A development of this size has several impacts on neighboring land, uses, and services that include but are not limited to: natural features, traffic, transportation system, schools, police and fire, and sewer and water service. The applicant should provide more information in regard to how the proposed development will impact the above issues.

Items to be Addressed: The applicant should provide more information in regard to how the proposed development will impact natural features, traffic, transportation system, schools, police and fire, and sewer and water service.

Natural Features

The site has a rural character and contains a combination of farmland, tree stands, open brush land, and wetlands. The applicant must provide a Natural Features Impact Statement that is required to include the following: 1) a site inventory map, 2) a natural features preservation plan, 3) an alternatives analysis, and 4) a mitigation plan. This information must be provided in accordance with section 60.26.

Topography:

Topography has been provided at a contour interval of 5 feet. After examining the soils information and the topographic information provided, the site appears to be flat to gently rolling.

Woodlands:

There are 228.86 acres of woodland on the site, or 47.48% of the total. The information on The Natural Features Plan on page 3 of the Area Plan indicates that 65.34 acres or 28.55% of the woodlands are proposed for disturbance. These areas are to be converted to either roads or residential lots.

Smaller more fragmented clusters of trees and tree rows are also found throughout the middle portion of the site. Parcel C in the northwest corner of the site contains few natural features and is mostly farmland.

Wetlands:

Wetlands are located throughout the site with the exception of only a few located on Parcel C. Wetlands total 79.4 acres or 16.5% of the site's 482 acres. The Natural Features Plan indicates that only 1.66 acres or 2.09% of the wetlands are to be disturbed.

Floodplains/County Drains:

Both County Drains and their flood plains should be identified on the Area Plan's Natural Features Plan.

Soils:

Detailed soil information from the Washtenaw County Soil Survey is provided. Generally soils on the site are classified in the Miami Conover Brookston loams association. The soil types in this category are often suitable for urban development, though some areas may drain poorly. Site specific soil analysis will be required to ensure that development, drainage systems, and open space are situated in suitable locations with regard to underlying soil types.

Items to be Addressed: Provide a Natural Features Impact Statement in conformance with Section 60.26 of the Zoning Ordinance.

RECOMMENDATION

Based on the fact that Area Plan is not consistent with the Township's Growth Management Plan and the amount of additional information that must be provided by the applicant, we recommend that the Planning Commission deny approval of the Area Plan dated January 17, 2007. Our comments are summarized below:

1. Provide a transition of density from the east to the west.
2. Lower the overall density.
3. Address the issue of the need for more clustering of residential units.
4. Redesign the open space into a unified system.
5. Provide more information on the Township's sewer treatment plant and how water is to be provided to the site.

6. Provide a calculation of uplands versus lowlands (wetlands).
7. Graphically indicate where trail or nature paths are proposed.
8. The northern most access to Whitmore Lake Road should be realigned so that the wetlands can be preserved as a desirable visual amenity to the development.
9. Private roads shall meet the standards of the Northfield Township Private Road Ordinance.
10. Provide information on nature trails and pedestrian paths and how the development throughout will be accessed by pedestrians.
11. Since there are no sidewalks proposed for the collector roads how will pedestrians cross Northfield-Church Road? Consider providing sidewalks or a pedestrian path on one (1) side of all collector roads.
12. Review comments from Orchard, Hiltz and McCliment on the TIS and Area Plan.
13. Review the lengths of some of the cul-de-sacs and loop roads with only one (1) ingress/egress to a collector road. Some appear to be excessively long from a safety and emergency vehicle perspective in bad weather.
14. Consider adding a few stubbed public collector roads to enable connection to parcels to the north and east, eventually connecting to North Territorial Road, in addition to second connection to Hellner Road.
15. Provide sample elevations and floor plans.
16. Provide a TND on a portion of the site.
17. Consider a centralized green area, more neighborhood parks.
18. Integrate the proposed commercial component with the rest of the development. Graphically depict how the commercial component is integrated into the development other than by automobile.
19. Provide more information on the Amenity Center, include a commercial component.
20. Provide more information on what uses are envisioned for the commercial component.
21. The applicant should provide more information in regard to how the proposed development will impact natural features, traffic, transportation systems, schools, police and fire, and sewer and water service.

22. Provide a Natural Features Impact Statement in conformance with Section 60.26 of the Zoning Ordinance.

We look forward to discussing the above issues with you in the near future.

Sincerely,

John Enos, AICP
Township Planner

MR. ANTHONY RANDAZZO
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SITE DATA

[illegible]

This aerial map shows a section of land with five parcels outlined in red. The parcels are labeled 'PARCEL A', 'PARCEL B', 'PARCEL C', 'PARCEL D', and 'PARCEL E'. The map includes several road labels: 'US-24 EXPRESSWAY' running vertically on the left, 'NORTHFIELD CHURCH ROAD' running horizontally across the middle, 'HEWLER ROAD' running vertically on the right, and 'NORTH TERRITORIAL' running horizontally at the bottom. The parcels are situated between Northfield Church Road and Hewler Road, with Parcel A and Parcel B located between the expressway and Northfield Church Road, and Parcel C, Parcel D, and Parcel E located between Northfield Church Road and Hewler Road. The map also shows a mix of green fields, trees, and some buildings.

SHEET INDEX		SHEET NO. DESCRIPTION	
1	COVER SHEET		
2	TOPOGRAPHIC SURVEY / NATURAL FEATURES PLAN		
3	NATURAL FEATURES PLAN		
4	PRELIMINARY SITE PLAN		
5	PRELIMINARY CUT / FILL PLAN		

DEVELOPMENT SUMMARY

MIKE DICICHELLA
NORTHEAST TOWNSHIP
PHONE: (734) 449-2880
WHITMORE LAKE, MICHIGAN 48189

A circular professional engineer seal for the State of Michigan. The outer ring contains the text "STATE OF MICHIGAN" at the bottom and "LICENSED PROFESSIONAL ENGINEER" at the top, separated by two stars. The inner circle contains the name "MATTHEW A. DIFFIN" in the center, "ENGINEER" below it, and "No. 49087" at the bottom.

STRATTON FARMS
A RESIDENTIAL PLANNED DEVELOPMENT
NORTHFIELD TOWNSHIP, WASHINGTON COUNTY, MICHIGAN
SECTION 29, 30, 31, 32 TOWN 1 SOUTH, RANGE 6 EAST

ROWBRIDGE COMPANIES
STRATTON FARMS
COVER SHEET

DATE 11/17/07

REVISIONS

SCALE



DR. S.D. CH. M.D.

P.E. MATTHEW A. DIFFIN

BOOK

SHEET NO. 1 OF 5

JOB 060615

CLIENT	SECTION 29, 30, 31, 32
TROWBRIDGE COMPANIES STRATTON FARMS COVER SHEET	TOWN 1 SOUTH, RANGE 6 EAST NORTHFIELD TOWNSHIP WASHTENAW COUNTY, MICHIGAN

DDC

DIFFIN Development Consultants

CIVIL ENGINEERING • SURVEYING • CONSTRUCTION SERVICES
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PH: (248) 943-8244, FAX: (866) 690-4307
WEB: diffindevelopment.com

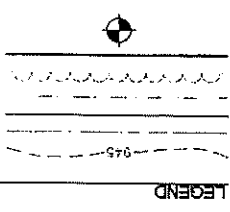
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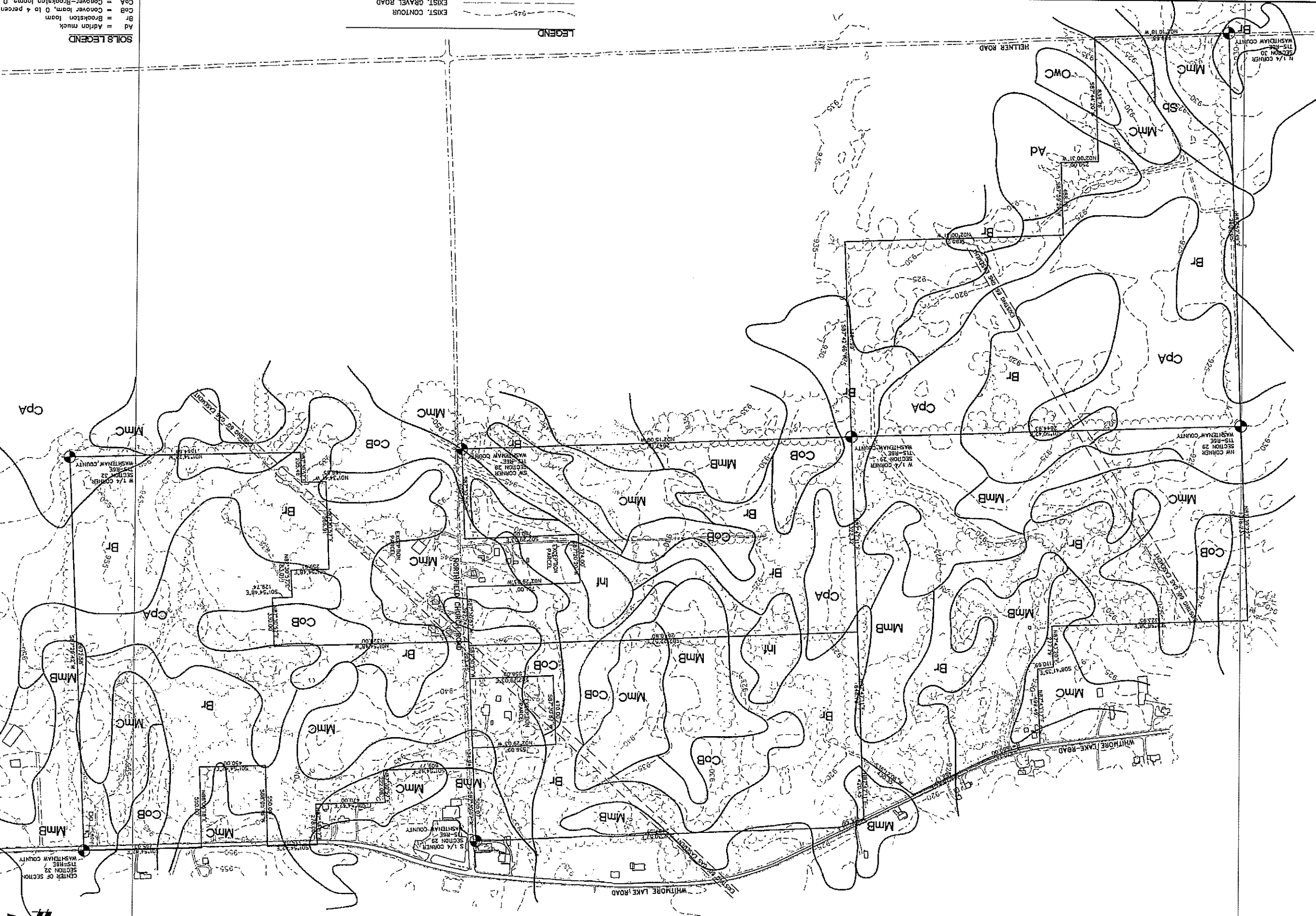
NOTICE: THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS AGENTS. THE CONTRACTOR SHALL OBTAIN THE NECESSARY INFORMATION TO ASSURE THE SAFETY OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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EXIST. CONTOUR
EXIST. ASPHALT ROAD
EDGE OF WETLAND
SOIL DISTRICTS
EXIST. TREE OR BRUSH LIMIT
SECTION CORNER

SOILS LEGEND
Ad = Adon muck
Br = Brookston loam
Cob = Conover loam, 0 to 4 percent slopes
Cpa = Conover-Brookston loams, 0 to 2 percent slopes
Mmb = Miami loam, 2 to 6 percent slopes
Mmc = Miami loam, 6 to 15 percent slopes
Owc = Owoeso-Miami complex, 6 to 12 percent slopes
Sb = Sebawa loam



2 OF 5

FILE NO. 060615

JOB NO. 060615

BOOK

DATE 1-10-07

SCALE 1"=300'

DATE 1-10-07

REVISIONS

CD FILE

QUANT

TROWBRIDGE COMPANIES

STRATTON FARMS

TOPOGRAPHIC SURVEY

SECTION 29, 30, 31, 32

TOWN 1 SOUTH, RANGE 6 EAST

NORTHFIELD TOWNSHIP

WASHTENAW COUNTY, MICHIGAN

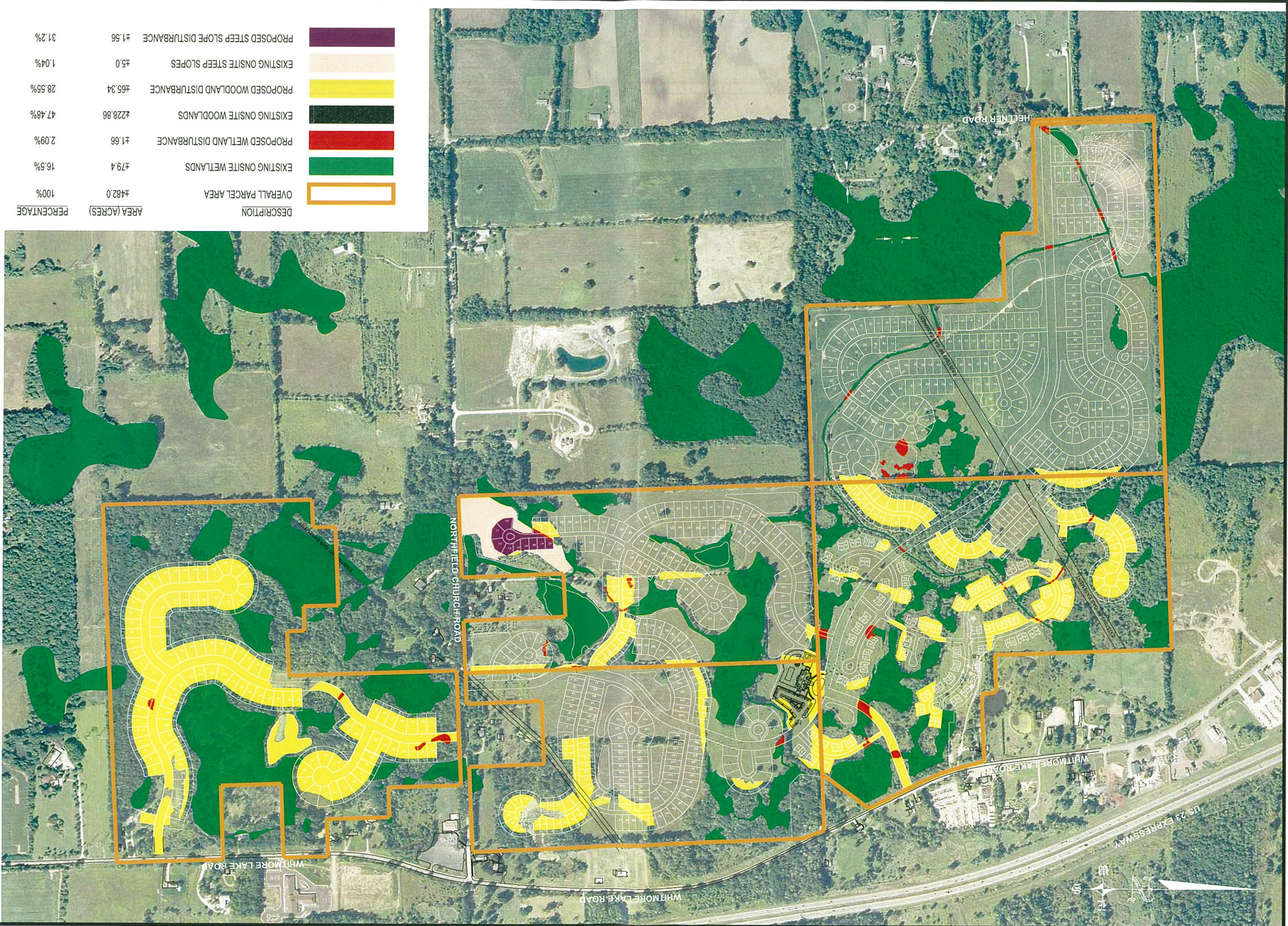
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PH: (248) 943-8244, FAX: (866) 690-4307

WEB: ddtdevelopment.com



PERCENTAGE	AREA (ACRES)	DESCRIPTION
100%	482.0	OVERALL PARCEL AREA
16.5%	79.4	EXISTING ONSITE WETLANDS
2.09%	1.66	PROPOSED WETLAND DISTURBANCE
47.48%	228.86	EXISTING ONSITE WOODLANDS
28.55%	136.34	PROPOSED WOODLAND DISTURBANCE
1.04%	0.5	EXISTING ONSITE STEEP SLOPES
31.2%	15.6	PROPOSED STEEP SLOPE DISTURBANCE



3 OF 5

FILE NO. 060615

BOOK

DR. L.D. CH. M.D. P.M. MATTHEW A. DIFFIN

SCALE 1" = 300'

DATE 11/17/2007

REVISIONS

CAD FILE

CLIENT

TROWBRIDGE COMPANIES

STRATTON FARMS

NATURAL FEATURES PLAN

SECTION

TOWN SOUTH, RANGE EAST

NORTHFIELD TOWNSHIP

WASHTENAW COUNTY, MICHIGAN

DDC

DIFFIN Development Consultants

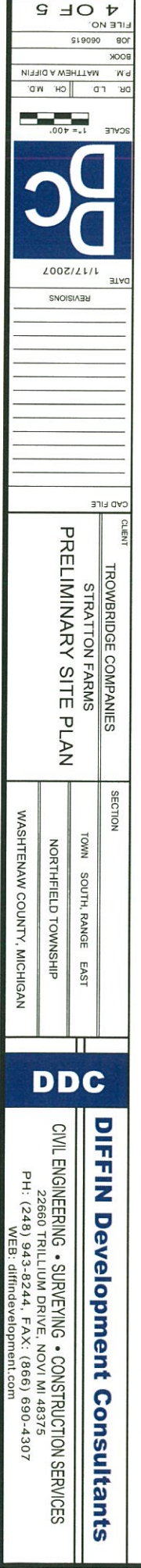
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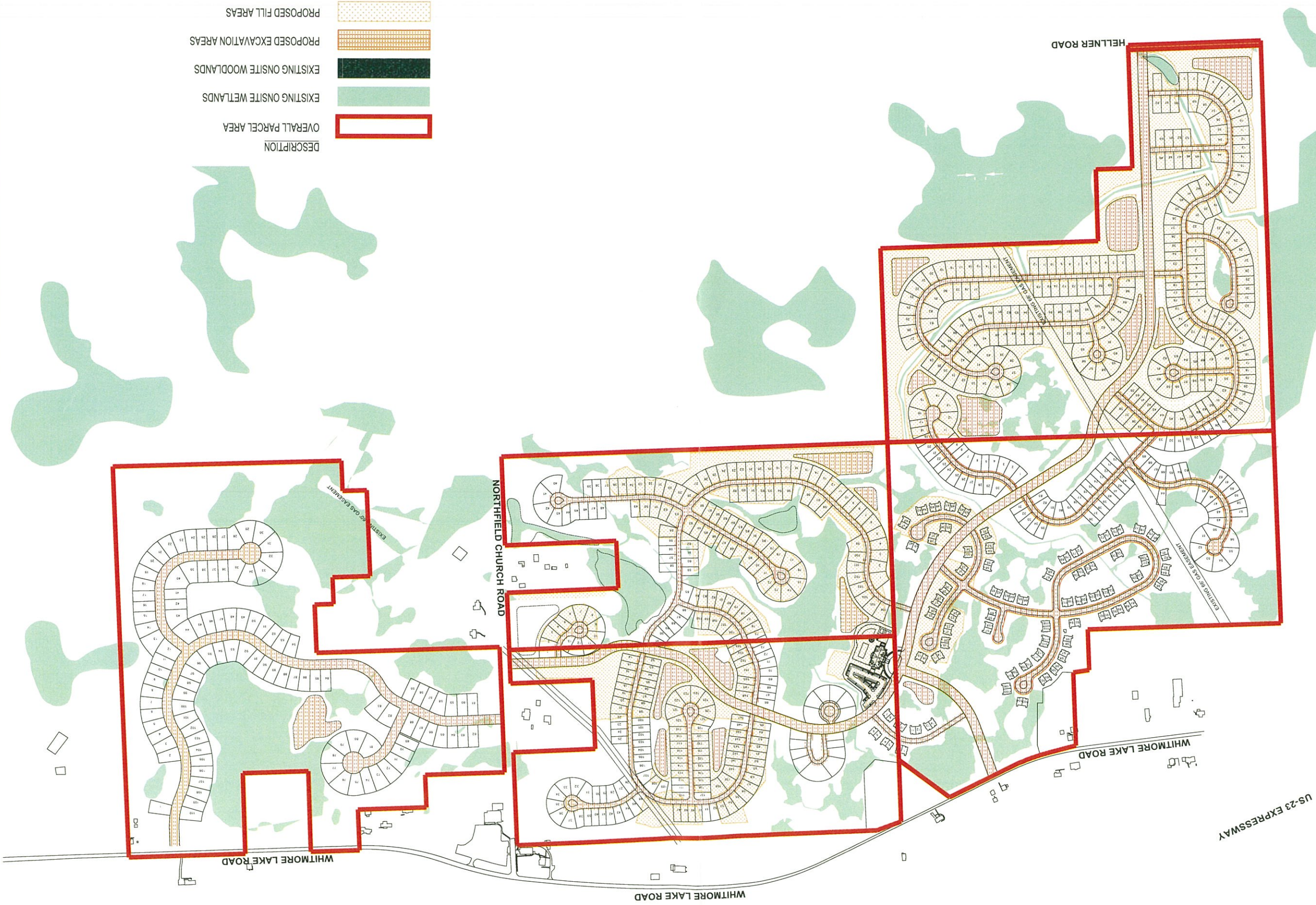
22660 TRILLIUM DRIVE, NOVI MI 48375

PH: (248) 943-8244, FAX: (866) 690-4307

WEB: diffindevelopment.com

SITE DATA			
CURRENT ZONING:	AGRICULTURAL	482± ACRES	506'±
PROPOSED ZONING:	PUD		6000-SF
GROSS SITE AREA:		40%	7200-SF
LOT WIDTH :		40%	60'
MINIMUM LOT AREA:		40%	8400-SF
MAXIMUM LOT COVERAGE:		40%	70'
LOT SETBACKS:		25'	25'
FRONT:		25'	25'
SIDE:		30'	30'
REAR:		30'	30'
TOTAL NUMBER OF LOTS:		847	847
DUPLEX UNITS		134	134
50' LOTS		337	337
60' LOTS:		266	266
70' LOTS:		110	110
BUILDING SETBACKS:		2-UNIT	100'
PERMETER:		30'	30'
FRONT:		30'	30'
SIDE-TO-SIDE:		20'	20'
SIDE-TO-REAR:		50' MIN.	50' MIN.
REAR-TO-REAR:		70' MIN.	70' MIN.
FLOOR AREA RATIO:		40%	40%
GROSS DENSITY:		1.75 UNITS / ACRE	1.75 UNITS / ACRE
TOTAL OPEN SPACE AREA:		268.11 ACRES (56% OF SITE)	268.11 ACRES (56% OF SITE)





DESCRIPTION	
OVERALL PARCEL AREA	
EXISTING ONSITE WETLANDS	
EXISTING ONSITE WOODLANDS	
PROPOSED EXCAVATION AREAS	
PROPOSED FILL AREAS	

SCALE 1" = 300'

DDC

DATE 11/17/2007

REVISIONS

CAD FILE

CLASH	TROWBRIDGE COMPANIES
	STRATTON FARMS
	CUT \ FILL PLAN
SECTION	
TOWN, SOUTH, RANGE, EAST	
NORTHFIELD TOWNSHIP	
WASHTENAW COUNTY, MICHIGAN	

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5 OF 5

FILE NO.

JOB 000615

BOOK

P.M. MATTHEW A. DIFFIN

DR. L.D. CH. M.D.

////////////////////////////////////

FINANCIAL IMPACT STUDY
on
**NORTHFIELD
TOWNSHIP**
and
**ANN ARBOR & WHITMORE LAKE
SCHOOL DISTRICTS**

////////////////////////////////////

RECEIVED

MAR 09 2006

BUILDING / PLANNING
DEPARTMENT

February 13, 2006

To: Board of Trustees
Northfield Township
Washtenaw County, Michigan

From: Member: Brad Byarski,
Northfield Twp. Properties, L.L.C.
2617 Beacon Hill Drive
Auburn Hills, Michigan 48326

Re: Special Report on the Financial Impact of a Residential
Planned Unit Development (Northfield Town Center) on
Northfield Township, Ann Arbor and Whitmore Lake
School Districts.

Prepared by: Jack M. Hosmer, RSBA
Jack M. Hosmer, Jr., CPA, CFP
J. Mills Consulting Company
48679 Robin Ct.
Plymouth, Michigan 48170
(734) 416-9039

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Report Summary

Introduction

This report is the presentation of a study that was done to determine the revenue impact of a proposed development on Northfield Township, Whitmore Lake Public Schools and Ann Arbor Public Schools. The study also examines the development's impact on the tax base of each of these three governmental units and on the township's building department fees. And finally, in respect to facilities, the study examines each school district's ability to accommodate the new students. It is noted herein that the development's geography is located entirely in Northfield Township but is divided between the two above named school districts.

Scope of Study

The developer (petitioner) is offering, for township consideration, a residential planned unit development community that is presently in a concept stage. Throughout this study, this residential community is referred to repeatedly in a few different ways. Any reference to or use of the terms "development", "proposed development", "project", "Northfield Town Center" or "RPUD" (Residential Planned Unit Development) is made with this thought in mind.

The focus of this study is on revenues that will financially impact the township and the school districts each year as a result of the development. It does not deal with the financial impact on local businesses and other local governmental units such as county government, district library or the intermediate school district. This study concerns itself, for the most part, with revenues that repeat year after year on a regular basis. These are referred to in this study as annual revenues. Categorical revenues such as federal, state and other agency grants, special assessments, trust funds, donations, gain from sale of assets and interfund transfers are not considered since these types of revenues are usually restrictive and/or are not available on a recurring annual basis. This study does not examine the impact on costs that would impact the township and school districts as a result of the development.

Size of Development

The development is 482 ± acres in size and has 1,726 dwelling units consisting of 586 single family units and 1,140 multiplex (cluster) units. The single family units are expected to range in floor size from 1,800 to 2,400 sq. ft. with an estimated 2,100 sq. ft per average unit. The multiplex units will range in size from 1,300 to 1,600 sq. ft. with an estimated 1,450 square feet per average unit. The land (undeveloped or developed as proposed) is referred to in this study as the subject property.

Location of Development

The subject property, consisting of six tax parcels of land is located in Northfield township. The general location is as follows: The subject property is north of Joy Road, west of Whitmore Lake Road, south of North Territorial Road and east of Hellner Road. See copy of map (Appendix D) which shows the general location. The southern portion of the development is located in the Ann Arbor school district and the northern portion is located in the Whitmore Lake school district.

Population Data

It is estimated that the average unit (household) in the development will yield a ratio of 2.335 persons including 0.335 students per average household (see Table 1 below). These ratios fall near the projected ratios reported in SEMCOG'S (Southeast Michigan Council of Governments) January 2006 Community Profiles for Washtenaw county and Northfield township. SEMCOG'S ratios for the county show 0.37 student (all persons age 5-17) and 2.36 persons per average household. (1) Reported ratios for the township show 0.45 student and 2.54 persons per average household. (1) The actual number of persons and students per average household in the development, once fully occupied, will likely differ from the ratios reported above. For the purpose of this study, it is assumed the differences would not be that significant.

Table 1

<u>Type of Structure</u>	<u>Site Plan Data (units)</u>	<u>No. Students</u> (yield/unit)	<u>Total Persons</u> (yield/unit)
Single family unit	586	293 (.50)	1,465 (2.50)
Multiplex unit (2)	520	130 (.25)	1,170 (2.25)
Multiplex unit (8-12)	<u>620</u>	<u>155</u> (.25)	<u>1,395</u> (2.25)
Total	1,726	578 (.335)	4,030 (2.335)

Note: The study's estimated number of 578 students represents only K-12 public school students. Private, home schooled, charter and parochial students, if any, are not included in this estimate.

Information Sources

Projecting revenues is not an exact science. However, it can be done with some accuracy if care is taken to thoroughly examine documents such as current budgets, audited financial statements, other related financial documents and to collect pertinent financial information and other input by meeting with or contacting local public officials.

To help determine the impact on revenues, much of the data and information needed in the study was secured through telephone contact*, visit** or personal interview*** with the following officials:

Township-

Supervisor Mike Cicchella*

Treasurer Cindy Wilson*

Building/Zoning Admin. Assist. Pam Boegler**

Receptionist Karen Hayes**

Assessor Clayton Rider Jr. **

Whitmore Lake School District

Superintendent Scott A. Menzel***

Ann Arbor School District

Director of Finance Donna A. Welch*

(1) Southeast Michigan Council of Governments, Community Profile for Washtenaw County and Northfield Township, January 2006.

Qualification of Reported Numbers

The annual revenues reported in this study are to be considered as estimates only. Calculations of the revenue figures shown are based on information taken from current budgets, recent audited financial statements, state and local tax/revenue formulas and from limited discussions or communications with key township, school district and other persons. It is explicitly noted that the estimates reported are not intended to represent actual budget projections.

With the proposed development in mind, a summary of the annual financial impact on the township and school district is as follows:

Financial Impact on Township (all funds)**1. Taxable tax base (subject property)**

• Existing (undeveloped) land -----	\$ 473,200
• Proposed development -----	\$ 160,655,000

2. Property tax

• Existing (undeveloped) land -----	\$ 3,959
• Proposed development -----	\$ 1,344,152

3. Revenues (including property taxes)

• Existing (undeveloped) land -----	\$ 4,171
• Proposed development -----	\$ 1,756,808

6. Building dept. fees (one-time monies)

• Existing (undeveloped land -----	\$ 0
• Proposed development -----	\$ 2,601,082

Financial Impact on Ann Arbor School District (all funds)**1. Taxable tax base (subject property)**

• Existing (undeveloped) land -----	\$ 323,496
• Proposed development -----	\$ 68,855,000

2. Property tax

• Existing (undeveloped) land -----	\$ 5,339
• Proposed development -----	\$ 606,089

3. Revenues (including property taxes)

• Existing (undeveloped) land -----	\$ 1,746*
• Proposed development -----	\$ 3,362,926

* Represents only property taxes. Since there are no students residing on the subject property (undeveloped), there is no foundation (general fund) revenue. Foundation revenue is the result of the taxation changes under Proposal A of 1994.

Financial Impact on Whitmore Lake School District (all funds)**1. Taxable tax base (subject property)**

• Existing (undeveloped) land -----	\$ 149,704
• Proposed development -----	\$ 91,800,000

2. Property tax

• Existing (undeveloped) land -----	\$ 1,530
• Proposed development -----	\$ 721,539

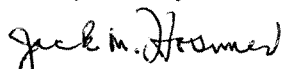
3. Revenues (including property taxes)

• Existing (undeveloped) land -----	\$ 1,176*
• Proposed development -----	\$ 2,680,914

Summary

Based on our findings, it is our opinion that the development of the subject property as proposed will generate substantial new revenues for all three taxing units. For a statement on findings, conclusions and each district's ability to accommodate the new students, see p.17. In the following sections of this study, the new revenues are examined in more detail starting with the assumptions upon which this study is based.

Respectfully,



Jack M. Hosmer, RSBA
J. Mills Consulting Company
48679 Robin Court
Plymouth, Michigan 48170
(734) 416-9039

Statement of Assumptions

In preparing this study, the following assumptions were made:

1. Northfield Town Center will be developed on 482 +/- acres of land located in the township and will yield approximately 1,726 dwelling units (homes).
2. The homes, when occupied, will be classified for tax purposes as homestead or more recently referred to as PRE (Primary Residential Equivalent) property and the homes would consist of a product mix and be assessed individually on an average basis as follows:

<u>Type of structure</u>	<u>No. of Units</u>	<u>True cash value</u>	<u>Assessed value</u>
Single family unit	586	\$235,000	\$117,500
Multiplex unit (2)	520	\$179,000	\$ 89,500
Multiplex unit (8-12)	620	\$146,000	\$ 73,000
Total	1,726		

3. Population yield of 2.5 persons including 0.5 students per average single family home and 2.25 persons/.25 student per average multiplex unit. Overall the development will average 2.335 persons and .335 student per average unit. The development will yield a total of 4,030 persons (2.335 X 1,726 households) including 578 public school K-12 students (0.335 X 1,726). It is assumed that the age demographics of the residents in the development will be similar to that of the residents of the township in general and that the additional K-12 students, as a result of the development, will be spread proportionately across grade levels. It is further assumed that all the students from the single family units will be in the Ann Arbor school district and all the students from the multiplex units will be in the Whitmore Lake school district.
4. It is assumed for the purpose of this study that all school property taxes and state revenues would flow to the Ann Arbor school district for all homes including students located in Parcel D of the developer's site plan. This assumption is based on the fact that at the present time, all K-12 school property taxes from this parcel flow to the Ann Arbor school district. It is understood that the district boundary line (see developer's site plan sheets 1, 3 & 5) traverses the northern portion of this parcel with Whitmore Lake S. D. on the north side and Ann Arbor S.D. on the south side. Assuming the boundary line is correctly located and based on input received from the Whitmore Lake S.D. superintendent, it is noted that approximately 14 homes including an estimated seven students (14 single family homes x .5) could become part of the Whitmore Lake S.D. In the future, this matter may be addressed by the two school districts.
5. In order to avoid the repetitiveness of showing township and school district revenues for each year of the seven year phased development and to avoid dealing with the effect of inflation on future revenues, it is assumed, for ease of calculation and presentation, that the development would be completed and fully occupied in the year 2007. Estimated revenues are reported accordingly using present dollar values.

Statement of Assumptions Continued

6. Authorized millage rates of the township and the school district in the future will remain near the current rates. It is assumed the development will not be affected by any tax abatement programs or tax financing authorities.
7. All residents, including student age children, moving into the development will represent an increase in the township's population and each school district's student enrollment. Some of the residents will come from areas outside the township. Residents who move from dwellings elsewhere in the township to homes in the development will not be new township residents but their move will ultimately cause an increase in the township's population as their vacated dwellings become occupied by new residents from outside the township. This is not to say that each time a township dwelling is vacated it will become occupied by a new township resident. Rather, the assumption is that the end result of all the related movement of residents within the township will eventually result in an increase in the township's population. The same also applies to the new students in each school district.
8. Each school district's current per pupil foundation allowance is used for projecting New foundation revenue. The township's per capita revenue sharing rate reflected in the township's most recent audited financial statements is used for computing new state revenue sharing. It is assumed the rates used for computing state revenues and the rates used for computing local revenues of each local governmental unit will not change significantly in the future.
9. It was reported that Ann Arbor school district's current tax base is 6.6 billion, Whitmore Lake school district's tax base is \$318,430,378 and the township's tax base is \$318,327,621. It is assumed this and other information provided by school district and township officials is accurate
10. All new residents expected to move into the township as a result of the proposed development would be certified by the next federal census in the year 2010 or no later than a township initiated and state approved mid-decade special census taken in a year that falls within the state's time frame of April, 2013 through April, 2017. In order for the township to receive extra state shared revenue as the result of a state approved mid-decade special census, the township's total 2010 census population count would need to increase a minimum of 10% by the special census count date. It is further assumed the township would qualify for a mid-decade increase in state shared revenue, if a special census was taken.
11. It is assumed that actual revenues received by each of the school districts and the township in the future, as a result of this development, will deviate but not significantly from the revenue estimates reported in this study.
12. Franchise cable television would be available to the residents of the development and would be utilized by 85% of the households and the township will continue to receive five percent of the gross receipts as franchise payments.

Statement of Assumptions Continued

13. It is assumed that the township, through its building department, would be able to handle the building inspections, tests and other construction monitoring activities related to the seven year phased development and that the township's building department fee rates reported in this study would be adjusted proportionately should inspection costs increase in the future.
14. The township would not receive any water/sewer revenues from households in Northfield Town Center since the development will have its own water and sewer systems. The same also applies to on-site water and sewer tap fees.
15. Numeric calculations in this study have been rounded to the nearest whole dollar. It is assumed that the effect of this rounding is inconsequential.
16. Specific township revenues normally reported separately in the general fund, enterprise fund, special revenue fund, debt fund or other funds are combined in this report for ease of presentation. It is assumed that the combined grouping helps provide a better understanding of the overall revenues without causing any major distortions.
17. It is assumed that construction and occupancy of Northfield Town Center would occur in phases starting in 2007 and be completed in the year 2013. A timetable illustrating this phased development is shown on the following page.

**ESTIMATED TIME TABLE FOR CONSTRUCTION AND OCCUPANCY
OF THE PROPOSED DEVELOPMENT**

YEAR	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	TOTAL
Phase 1	>>>>>>>	⊗⊗⊗⊗									
Phase 2		>>>>>>>	⊗⊗⊗⊗								
Phase 3			>>>>>>>	⊗⊗⊗⊗							
Phase 4				>>>>>>>	⊗⊗⊗⊗						
Phase 5					>>>>>>>	⊗⊗⊗⊗					
Phase 6						>>>>>>>	⊗⊗⊗⊗				
Phase 7							>>>>>>>	⊗⊗⊗⊗			
No. of units		246	246	246	247	247	247	247			1,726
No. of persons		576	576	576	576	576	575	575			4,030
Ann Arbor SD											
No. of students		42	42	42	42	42	42	41			293
Whitmore L SD											
No. of students		41	41	41	41	41	40	40			285

>>>>>>> Construction
 ⊗⊗⊗⊗ Occupancy

////////////////////////////////////

**SUBJECT PROPERTY
TAX DATA**

////////////////////////////////////

**Current Assessed Value of Subject Property
(Consisting of 6 Parcels)**

<u>Sidwell Number of Tax Parcel</u>	<u>Reported Acres on Tax Bill</u>	<u>Assessed Value SEV</u>	<u>Assessed Value (Taxable)</u>	<u>P.R.E %</u>
Northfield TWP-Ann Arbor SD				
B02-29-300-002	80.00	\$ 468,800	\$ 86,853	59.0%
B02-29-300-004	74.00	324,600	72,324	100.0%
B02-32-200-012	<u>111.67</u>	<u>524,300</u>	<u>164,319</u>	0.0%
<i>Subtotal</i>	265.67	1,317,700	323,496 *	
Northfield TWP-Whitmore Lk SD				
B02-29-200-011	40.00	\$ 46,400	\$ 19,684	100.0%
B02-29-200-012	68.52	162,000	53,206	63.0%
B02-30-100-008	<u>111.09</u>	<u>183,800</u>	<u>76,814</u>	100.0%
<i>Subtotal</i>	219.61	392,200	149,704 **	
Northfield TWP (both school districts)	<u>485.28</u>	<u>\$ 1,709,900</u>	<u>\$ 473,200</u>	

* Northfield Township-Ann Arbor SD

P.R.E. Taxable Portion	\$ 123,567
Non-P.R.E Taxable Portion	<u>199,929</u>
TOTAL	323,496

** Northfield Township-Whitmore Lk SD

P.R.E. Taxable Portion	\$ 130,018
Non-P.R.E Taxable Portion	<u>19,686</u>
TOTAL	149,704

Combined TOTAL 473,200

Note: Above information taken from 2005 property tax bills. Developer's site plan reports 482 +/- acres.

Current and Projected Assessed Values of Subject Property

	Assessed Value (SEV)	Assessed Value (Taxable)
Township (both school districts included):		
Subject Property- Current Value		
(Undeveloped land) ----- (T.C.V. of \$3,419,800)	\$ 1,709,900	\$ 473,200
Subject Property- Projected Value		
(Proposed Development) ----- (Estimated T.C.V. of \$235,000** per site x 586 sites [single unit] + \$179,000** per site x 520 sites [2-unit] + \$146,000** per site x 620 sites [8-12 unit] = total T.C.V. of \$321,310,000 x 50%)	\$ 160,655,000 *	\$ 160,655,000 *
<hr/>		
Township (Ann Arbor SD):		
Subject Property- Current Value		
(Undeveloped land) ----- (T.C.V. of \$2,635,400)	\$ 1,317,700	\$ 323,496
Subject Property- Projected Value		
(Proposed Development) ----- (Estimated T.C.V. of \$235,000** per site x 50% = \$117,500 per site x 586 sites [single unit])	\$ 68,855,000 *	\$ 68,855,000 *
<hr/>		
Township (Whitmore Lk SD):		
Subject Property- Current Value		
(Undeveloped land) ----- (T.C.V. of \$784,400)	\$ 392,200	\$ 149,704
Subject Property- Projected Value		
(Proposed Development) ----- (Estimated T.C.V. of \$179,000** per site x 520 sites [2-unit] + \$146,000** per site x 620 sites [8-12 unit] = total T.C.V. of \$183,600,000 x 50%)	\$ 91,800,000 *	\$ 91,800,000 *

* The proposed development, once completed, would be classified homestead property (primary residence).

** Estimated market values provided by the developer.

Assessed value (SEV) includes land, streets, water/sewer lines and other infrastructure. Since the proposed development represents new development in the future, the projected assessed value of \$160,655,000 is an estimate. Actual total assessment may be more or less than the amount projected.

Note: T.C.V. = True Cash Value. SEV = State Equalized Valuation (50% of T.C.V.)

Comparison of Property Tax Yields on Subject Property Undeveloped Land versus Proposed Development

Taxing Unit and Funding Source	Current Millage Rate	Property Tax Undeveloped Land (Taxable Value=\$473,200*)	Property Tax Proposed development (Taxable Value=\$160,655,000*)
Township:			
General	0.8215	\$ 389	\$ 131,978
Police	4.3030	2,036	691,298
Fire/Rescue	1.9766	935	317,551
Debt	<u>1.2656</u>	<u>599</u>	<u>203,325</u>
Subtotal	8.3667	3,959	1,344,152
Ann Arbor SD:			
General	17.9730	3,593 ¹	exempt
General: H.H.	5.5088	681 ²	379,308 ⁶
Sinking Fund	0.9922	321 ³	68,318 ⁶
Debt Service	<u>2.3014</u>	<u>744</u> ³	<u>158,463</u> ⁶
Subtotal	26.7754	5,339	606,089
Whitmore Lk SD:			
General	18.0000	354 ⁴	exempt
Recreation	0.6099	91 ⁵	55,989 ⁷
Debt Service	<u>7.2500</u>	<u>1,085</u> ⁵	<u>665,550</u> ⁷
Subtotal	25.8599	1,530	721,539
County:	5.5024	2,604	883,988
Other (Ann Arbor SD):	16.9637 **	5,488 ³	1,168,036 ⁶
Other (Whitmore Lk SD):	15.0305 ***	2,250 ⁵	1,379,800 ⁷
Total		<u>21,170</u>	<u>6,103,604</u>
Total w/Ann Arbor SD:	57.6082	\$ 17,390	\$ 4,002,265
Total w/Whitmore Lk SD:	54.7595	\$ 10,343	\$ 4,329,479

* Footnote 1 = taxable value (TV.) of \$199,929; 2 = TV. of \$123,567; 3 = TV. of \$323,496; 4 = TV. of \$19,686; 5 = TV. of \$149,704 (footnotes 1-5: see Schedule 1). Footnote 6 = TV. of \$68,855,000 and footnote 7 = TV. of \$91,800,000 (footnotes 6-7: see Schedule 2). Note: Special assessments (if any) are excluded from the property tax calculations shown above.

**** Millage rate breakdown (Ann Arbor SD):**

State of Michigan	6.0000
Washtenaw ISD	3.9970
Washtenaw Com College	3.7249
Northfield Library	1.3086
Ann Arbor Library	<u>1.9332</u>
Total →	16.9637

***** Millage rate breakdown (Whitmore Lk SD):**

State of Michigan	6.0000
Washtenaw ISD	3.9970
Washtenaw Com College	3.7249
Northfield Library	<u>1.3086</u>
Total →	15.0305

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**NORTHFIELD
TOWNSHIP**

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Northfield Township Revenue Impact

(all funds combined)

<u>Revenue Source</u>	<u>Subject Property (Undeveloped)</u>	<u>Proposed Development</u>
1. Property Tax	\$ 3,360	\$ 1,140,827
2. Cable Franchise Revenue	0	44,010
3. State Revenue Sharing	0	300,719
4. Administrative Fees	212	61,036
5. State Road Monies (Act 51)	0	0
6. Water and Sewer Billings	0	0
7. Solid Waste Billings	0	0
8. Building Department Fees	0	0
9. Water/Sewer Tap Fees	0	0
10. Auxiliary Programs	0	6,891
11. Fire & Rescue Department Billings	0	0
12. Emergency 911 Charges	0	0
13. Property Tax (Debt Service)	<u>599</u>	<u>203,325</u>
TOTAL	<u>\$ 4,171</u>	<u>\$ 1,756,808</u>

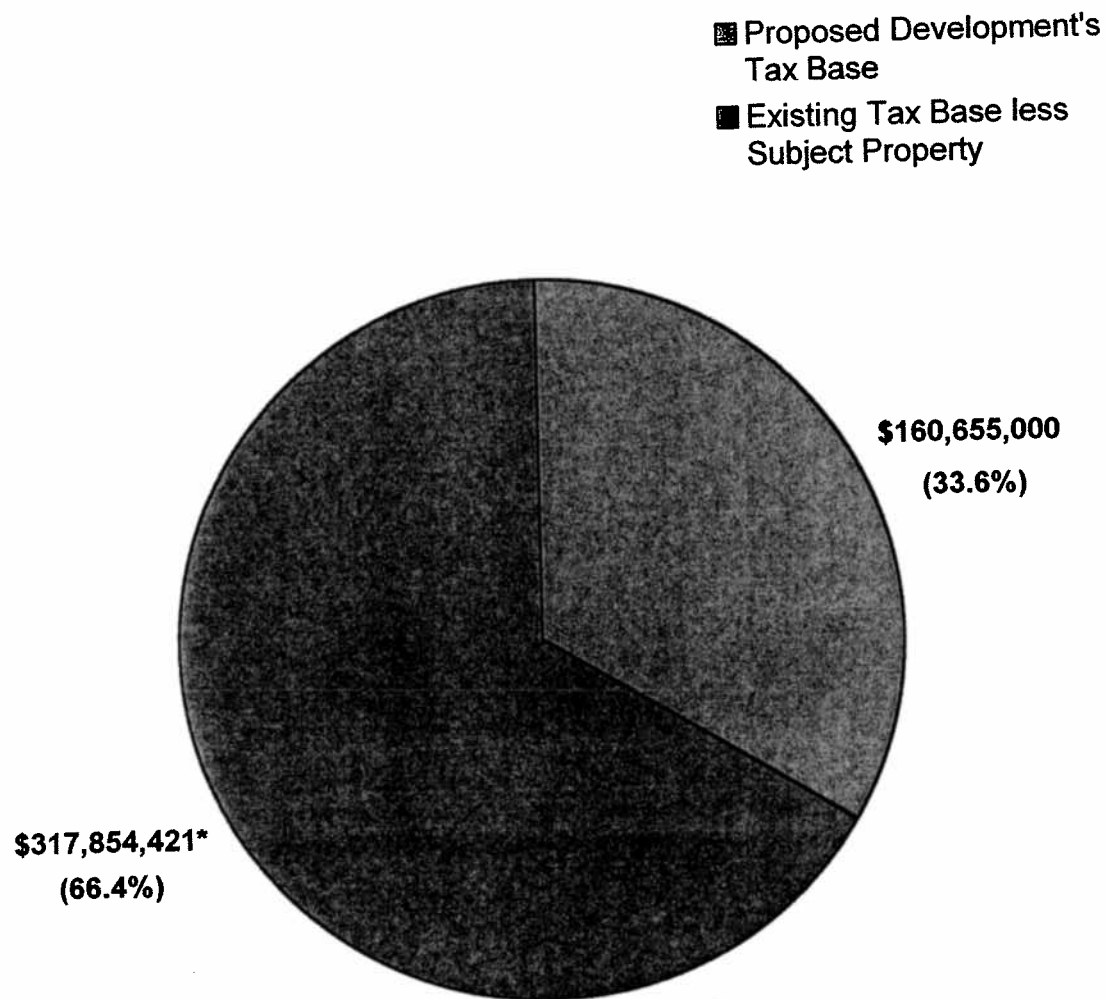
Note: See Appendix A for a detailed explanation of how the revenues reported in this schedule were calculated.

Northfield Township Other Financial Considerations

Schedule 5 on the next page shows the proposed development's projected taxable value, once completed, as a percent of the township's total (taxable) tax base.

Schedule 6 on the subsequent page shows the estimated building department permit/inspection fees and the sewer tap fees that the township would collect during the construction phases of the development.

Proposed Development's Impact on Township Tax Base



* Existing tax base \$318,327,621 less subject property's tax base of \$473,200 equals \$317,854,421.

Northfield Township Fees for Permits/Inspections

<u>Building Department</u>	<u>Proposed Development</u> <u>(1726 homes)</u>	
Electrical Permits	\$ 96,656	
\$56 per home * (\$160 x 35%)		
Plumbing Permits	84,574	
\$49 per home * (\$140 x 35%)		
Mechanical Permits	72,492	
\$42 per home * (\$120 x 35%)		
Building Permits	2,286,950	
\$1,325 per home * (\$1,325 x 100%)		
Gas Pressure/Fireplace Permits	<u>60,410</u>	
\$35 per home * (\$100 x 35%)		
Subtotal		\$ 2,601,082
 <u>Water/Sewer Fund</u>		
Sewer Tap Fees	0	
\$0 per home		
Water Tap Fees	<u>0</u>	
\$0 per home		
Subtotal		<u>0</u>
TOTAL		<u>\$ 2,601,082</u> **

* The fees shown above were extracted from schedules provided by township administrative assistant building and zoning department Pam Boegler on January 30, 2006. All fee amounts are net of the related costs to perform the inspections by sub-contractors.

** It is estimated the township would collect these one-time fees during a 7 year period at an average rate of \$371,583 per year (\$2,601,082 divided by 7).

Note: When the development is completed, the building department permit/inspection fees reported above would no longer be collected by the township; although it is expected some permit fees would continue to be collected each year for ancillary types of permit-required changes such as new decks, porches, small additions, garages, new furnaces, etc.

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**ANN ARBOR
SCHOOL DISTRICT**

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Ann Arbor School District Revenue Impact

(all funds combined)

<u>Revenue Source</u>	<u>Subject Property (Undeveloped)</u>	<u>Proposed Development</u>
1. Property Tax (general fund)	\$ 3,593	\$ 0 *
2. State Membership Revenue	<u>(3,593)</u>	<u>2,756,837</u> *
<i>Subtotal</i>	0 **	2,756,837
3. Property Tax (debt service fund)	744	158,463
4. Property Tax (sinking fund)	321	68,318
5. Property Tax (general fund: H.H.)	<u>681</u>	<u>379,308</u>
TOTAL	<u>\$ 1,746</u>	<u>\$ 3,362,926</u>

* Under the state's school foundation funding plan (Proposal A of 1994), the local non-homestead property tax revenue (general fund) and the state membership revenue work together as reciprocals to equalize the district's foundation revenue. See example below showing how the district's new foundation revenue is based on a per pupil allowance of \$9,409.

Foundation RevenuesPer pupil allowance

Property taxes of \$0 divided by 293 students =

0

State revenue of \$2,756,837 divided by 293 students =

9,409**TOTAL****\$ 9,409**

** Since there are no students residing on the subject property (undeveloped), there is no foundation revenue.

Note: See Appendix B for a detailed explanation of how the revenues reported in this schedule were calculated.

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**WHITMORE LAKE
SCHOOL DISTRICT**

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Whitmore Lake School District Revenue Impact

(all funds combined)

<u>Revenue Source</u>	<u>Subject Property (Undeveloped)</u>	<u>Proposed Development</u>
1. Property Tax (general fund)	\$ 354	\$ 0 *
2. State Membership Revenue	<u>(354)</u>	<u>1,959,375</u> *
<i>Subtotal</i>	0 **	1,959,375
3. Property Tax (debt service fund)	1,085	665,550
4. Property Tax (recreation fund)	<u>91</u>	<u>55,989</u>
TOTAL	<u>\$ 1,176</u>	<u>\$ 2,680,914</u>

* Under the state's school foundation funding plan (Proposal A of 1994), the local non-homestead property tax revenue (general fund) and the state membership revenue work together as reciprocals to equalize the district's foundation revenue. See example below showing how the district's new foundation revenue is based on a per pupil allowance of \$6,875.

Foundation RevenuesPer pupil allowance

Property taxes of \$0 divided by 578 students =

0

State revenue of \$1,959,375 divided by 578 students =

3,390**TOTAL****\$ 3,390**

** Since there are no students residing on the subject property (undeveloped), there is no foundation revenue.

Note: See Appendix C for a detailed explanation of how the revenues reported in this schedule were calculated.

Findings

Subject property's current total revenue yield per taxing unit:

<u>Taxing unit</u>	<u>Type of Revenue</u>	<u>Annual Amount</u>
Township	Property tax/Admin. fee	\$4,171
Ann Arbor S.D.	Property taxes	\$5,339
	Foundation revenues	0 (no students)
Whitmore Lk S.D.	Property taxes	\$1,530
	Foundation revenues	0 (no students)

As a result of the proposed development:

Township will realize

- Total tax base increase of 50.3% or \$160.18 million
- Annual revenues of \$1.75 million per year (all funds combined)
- Building department net fees of \$372,000 per year for seven years

Ann Arbor School District will realize

- Total tax base increase of 1.0% or \$68.53 million
- Annual operating revenues of \$3.20 million per year
- Debt service revenues of \$158,000 per year

Whitmore Lake School District will realize

- Total tax base increase of 28.78% or \$91.65 million
- Annual operating revenues of \$2.02 million per year
- Annual debt service revenues of \$666,000 per year

Conclusions

As a result of the proposed development:

- The seven year phased approach should allow each governmental unit time to anticipate, to plan and to budget.
- The township's and each school district's tax base growth will have a positive impact on future bonding capacity and the production of future property tax revenues.
- New operating revenues generated will enhance each school district's and the township's ability to maintain existing programs, to improve existing programs and to add new programs.
- It is expected, based on inputs received from school officials, that each school district will have classroom space available to accommodate most if not all the new students.
- The increase in the township's and each school district's debt service revenues can be used to increase debt fund reserves, reduce debt millage rates, redeem (call) existing bonds or fund new debt in the future.

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APPENDIXES

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Detailed Calculation of Township Revenues

Annual Revenue Items

1. Property Tax

For property tax revenue, the township levies 7.1011 mills (all except debt mills) for the current year on the taxable value of all taxable properties in the township. Using this millage rate and based on the projected taxable value of the proposed RPUD, it is estimated the township would collect each year the following revenue:

Proposed development

projected taxable value ----- \$160,655,000 x 7.1011 = \$ 1,140,827

Subject property- undeveloped

current taxable value ----- \$473,200 x 7.1011 = 3,360

2. Cable Franchise Revenue

It is estimated that 85% of the homes in the proposed development will utilize cable service. Based on an estimated \$600 of service use per year for each home, the total cable receipts per year is calculated as follows:

85% of 1726 homes -----	1,467	x	\$600	=	\$880,200
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Under a contractual arrangement, the local authorized cable company pays a 5.0% franchise fee to the township on total cable receipts. Based on the proposed RPUD being fully developed, it is estimated the township would collect each year the following revenue:

Proposed development

total cable receipts ----- \$880,200 x 5.0% = \$ 44,010

Subject property- undeveloped

total cable receipts ----- \$0 x 5.0% = 0

3. State Revenue Sharing

The township receives state revenue sharing each year based on the number of township residents per its 2000 U.S. census. The 06-30-05 audited financial statements (p. 45) show that the township received \$615,731 of state revenue. Using the township's 2000 census of 8,252 persons, an average per capita rate for revenue sharing is calculated as follows:

state revenue -----	\$615,731	/	8,252	=	\$74.62
---------------------	-----------	---	-------	---	---------

Using this per capita rate and based on the proposed RPUD being fully developed, it is estimated that the township would receive each year the following revenue:

Proposed development

revenue sharing per person -----	\$74.62	x	4,030	= \$	300,719
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Subject property- undeveloped

revenue sharing per person -----	\$74.62	x	0	=	0
----------------------------------	---------	---	---	---	---

4. Administrative Fees

Municipalities have the option to levy an administrative fee up to 1.0% of the total tax on each property tax bill issued. Northfield township charges a 1.0% fee. Based on the proposed RPUD being fully developed, it is estimated the township would receive each year the following revenue:

Proposed development

total tax bill (see Schedule 3) -----	\$6,103,604	x	1.0%	= \$	61,036
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Subject property- undeveloped

total tax bill (see Schedule 3) -----	\$21,170	x	1.0%	=	212
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5. State Road Monies (Act 51)

Townships are not eligible to receive state revenue for their local and major streets.

Proposed development

0

Subject property- undeveloped

0

6. Water and Sewer Billings

The proposed RPUD would provide its own water system and its own sewer treatment and disposal system. As a result, the township would not receive any revenue for these utilities.

Proposed development

0

Subject property- undeveloped

0

7. Solid Waste Billings

The township does not provide a regular (weekly/monthly/etc.) rubbish (solid waste) collection program. Since solid waste collection is the responsibility of each homeowner, the township would not receive any revenue from the proposed RPUD.

Proposed development

0

Subject property- undeveloped

0

8. Building Department Fees

Since these fees are collected on a one time basis, they are not considered recurring revenues and thus are not reported as revenue on Schedule 4. An itemized list of the estimated fees to be collected by the township from all the homes in the proposed development is shown on Schedule 6.

Proposed development	0
Subject property- undeveloped	0

9. Water/Sewer Tap Fees

Since these fees are collected on a one time basis, they are not considered recurring revenues and thus are not reported as revenue on Schedule 4. An itemized list of the estimated fees to be collected by the township from all the homes in the proposed development is shown on Schedule 6.

Proposed development	0
Subject property- undeveloped	0

10. Auxiliary Programs

The 06-30-05 audited financial statements (p. 57) show that the senior citizens program collected \$14,079 in user fees. Using this collection amount and an estimated population of 8,252 persons in the service area, a per capita rate of \$1.71 is calculated. Using this per capita rate and the 4,030 persons from the proposed RPUD, it is estimated the township would collect each year the following revenue:

per capita rate -----	\$1.71	x	4,030	=	\$6,891
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As a result of the township collecting user fees from new participants in the auxiliary programs provided and based on the proposed RPUD being fully developed, it is estimated the township would collect each year the following revenue:

Proposed development						
total per capita rate -----	\$1.71	x	4,030	=	\$	6,891
Subject property- undeveloped						
total per capita rate -----	\$1.71	x	0	=		0

11. Fire & Rescue Department Billings

It was reported that the township does not operate a cost recovery program for fire or EMS runs. As a result, it is not expected that the township would collect these revenues.

Proposed development	0
Subject property- undeveloped	0

12. Emergency 911 Charges

Each year approximately \$0.00 (911- emergency system charge) is collected from each billable (monthly) telephone facility in the township. These designated monies are collected by the local telephone company and are normally routed to a conference agency and then distributed to the local municipality or a third party agency. It was reported the township does realize these revenues. Using this service charge amount and based on the proposed RPUD being fully developed, it is estimated the township would collect each year the following revenue:

Proposed development

number of homes -----	1,726	x	\$0.00	=	0
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Subject Property- undeveloped

number of homes -----	0	x	\$0.00	=	0
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13. Property Tax (Debt Service)

The township currently levies 1.2656 mill(s) for debt service. Based on this millage rate, it is estimated the township would collect each year through its tax levy the following revenue:

Proposed development

projected taxable value -----	\$160,655,000	x	1.2656	=	\$ 203,325
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Subject property- undeveloped

current taxable value -----	\$473,200	x	1.2656	=	\$ 599
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Calculation of Ann Arbor SD Revenues

Annual Revenue Items

1. Property Tax (general fund)

Under the 'Proposal A' 18 mill provision, the school district levies zero operating mills for the current year on the taxable value of all homestead taxable properties in the district. Using this millage rate and based on the projected taxable value of the proposed RPUD, it is estimated the district would collect each year through its tax levy the following revenue:

Proposed development

projected taxable value ----- \$68,855,000 x 0* = 0

Subject property- undeveloped

current taxable value ----- \$199,929 x 17.9730 = 3,593

Note: See Item 5 for other general fund millage

2. State Membership Revenue

The district's estimated foundation allowance for the current year is \$9,409 per student. Using this per pupil allowance and based on the estimated 293 new students from the proposed RPUD, the district's total new foundation revenue as a result of the additional students is calculated as follows:

number of new students ---	293	x	\$9,409	=	\$2,756,837
----------------------------	-----	---	---------	---	-------------

The general fund property tax revenue (see item 1 above) is subtracted from the total new foundation revenue to yield the following state membership revenue:

	<u>Total</u>		<u>Local</u>		<u>State</u>
Proposed development					
total foundation revenue -----	\$ 2,756,837	-	0	=	\$ 2,756,837
Subject property- undeveloped					
no foundation revenue (no students) --	0	-	3,593	=	(3,593)

3. Property Tax (debt service fund)

For debt service revenue, the school district levies 2.3014 mill(s) for the current year on the taxable value of all taxable properties in the district. Using this millage rate and based on the projected taxable value of the proposed RPUD, it is estimated the district would collect each year the following revenue:

Proposed development

projected taxable value ----- \$68,855,000 x 2.3014 = \$ 158,463

Subject property- undeveloped

current taxable value ----- \$323,496 x 2.3014 = 744

4. Property Tax (sinking fund)

For sinking fund revenue, the school district levies 0.9922 mills for the current year on the taxable value of all taxable properties in the district. Using this millage rate and based on the projected taxable value of the proposed RPUD, it is estimated the district would collect each year the following revenue:

Proposed development

projected taxable value -----	\$68,855,000	x	0.9922	=	\$ 68,318
-------------------------------	--------------	---	--------	---	-----------

Subject property- undeveloped

current taxable value -----	\$323,496	x	0.9922	=	321
-----------------------------	-----------	---	--------	---	-----

5. Property Tax (general fund: H.H.)

For hold harmless revenue, the school district levies 5.5088 mills for the current year on the taxable value of all taxable homestead properties in the district. Using this millage rate and based on the projected taxable value of the proposed RPUD, it is estimated the district would collect each year the following revenue:

Proposed development

projected taxable value -----	\$68,855,000	x	5.5088	=	\$ 379,308
-------------------------------	--------------	---	--------	---	------------

Subject property- undeveloped

current taxable value of homestead --- property	\$123,567	x	5.5088	=	681
--	-----------	---	--------	---	-----

Calculation of Whitmore Lake SD Revenues

Annual Revenue Items

1. Property Tax (general fund)

For property tax revenue, the school district levies 18.0000 operating mills for the current year on the taxable value of all non-homestead taxable properties in the district. Using this millage rate and based on the projected taxable value of the proposed RPUD, it is estimated the district would collect each year through its tax levy the following revenue:

Proposed development

projected taxable value ----- \$91,800,000 x 0.0000* = 0

Subject property- undeveloped

current taxable value ----- \$19,686 x 18.0000 = 354

* No local operating millage levied due to homestead classification.

2. State Membership Revenue

The district's estimated foundation allowance for the current year is \$6,875 per student. Using this per pupil allowance and based on the estimated 285 new students from the proposed RPUD, the district's total new foundation revenue as a result of the additional students is calculated as follows:

number of new students ---	285	x	\$6,875	=	\$1,959,375
----------------------------	-----	---	---------	---	-------------

The general fund property tax revenue (see item 1 above) is subtracted from the total new foundation revenue to yield the following state membership revenue:

	<u>Total</u>		<u>Local</u>		<u>State</u>
Proposed development					
total foundation revenue -----	\$ 1,959,375	-		0	= \$ 1,959,375
Subject property- undeveloped					
no foundation revenue (no students) --	0	-		354	= (354)

3. Property Tax (debt service fund)

For debt service revenue, the school district levies 7.2500 mill(s) for the current year on the taxable value of all taxable properties in the district. Using this millage rate and based on the projected taxable value of the proposed RPUD, it is estimated the district would collect each year the following revenue:

Proposed development

projected taxable value ----- \$91,800,000 x 7.2500 = \$ 665,550

Subject property- undeveloped

current taxable value ----- \$149,704 x 7.2500 = 1,085

4. Property Tax (recreation fund)

For recreation fund revenue, the school district levies 0.6099 mills for the current year on the taxable value of all taxable properties in the district. Using this millage rate and based on the projected taxable value of the proposed RPUD, it is estimated the district would collect each year the following revenue:

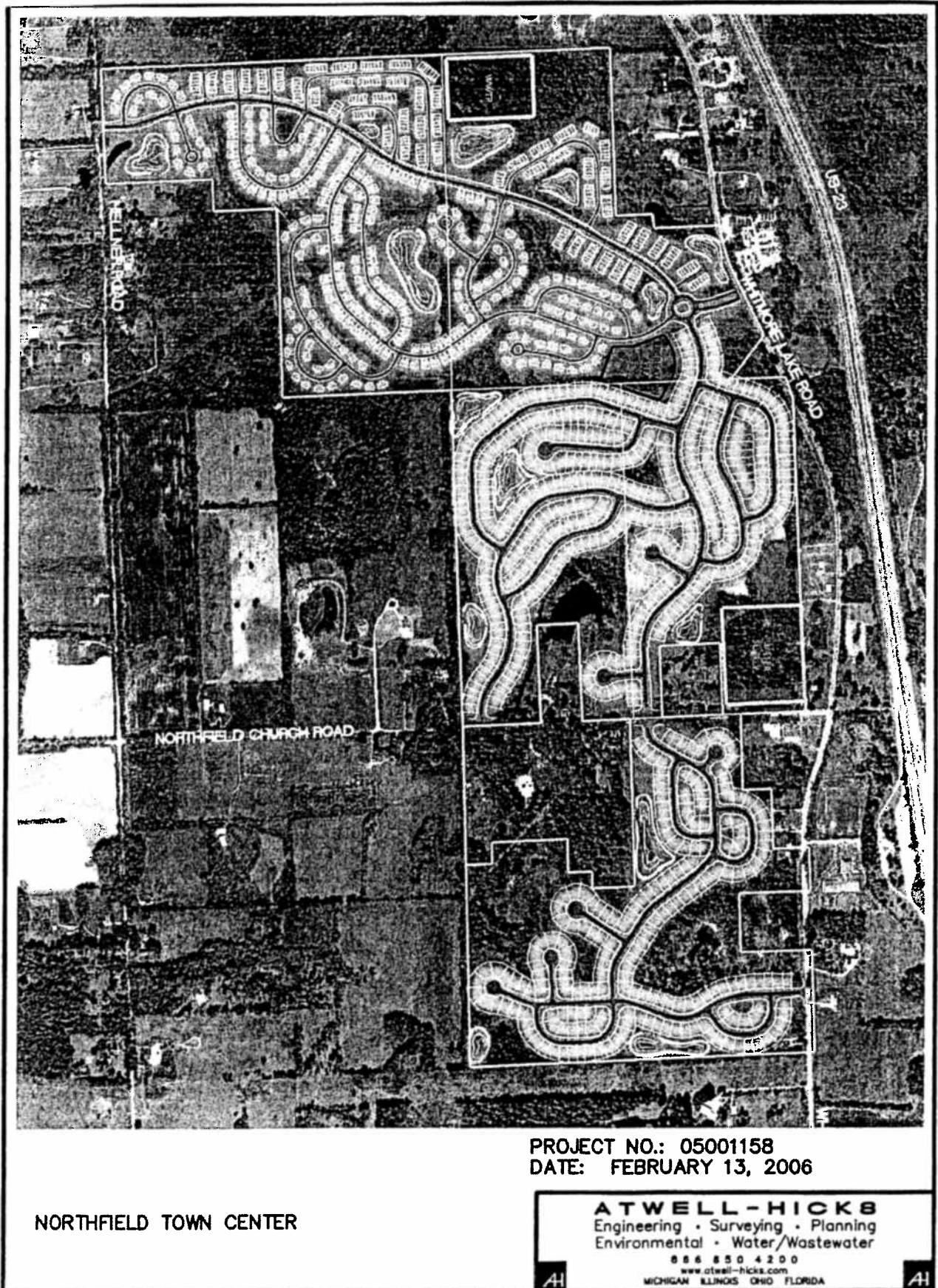
Proposed development

projected taxable value ----- \$91,800,000 x 0.6099 = \$ 55,989

Subject property- undeveloped

current taxable value ----- \$149,704 x 0.6099 = 91

Location of Subject Property



DOCUMENT SOURCES USED IN THIS REPORT

1. Northfield Township, Report on Audit of Financial Statements for the Year Ended June 30, 2005.
2. Assessment and Tax Roll Certificate and Warrant for Northfield Township.
3. Subject property 2005 summer tax bills and 2005 winter tax bills issued by Northfield Township.
4. 2005 Millage Rates, Northfield Township, Resolution No. 05 -.
5. Northfield Township Permit Application forms for Plumbing, Electrical, Heating and Building.
6. Southeast Michigan Council of Governments (SEMCOG) Community Profile for Northfield Township-January 2006.
7. Southeast Michigan Council of Governments (SEMCOG) Community Profile for Washtenaw County-January 2006.
8. Whitmore Lake Public Schools, Whitmore Lake, Michigan, Financial Statements June 30, 2005.

Jack M. Hosmer

CONSULTING EXPERIENCE

J. Mills Consulting Company
President

1989 - Present

Presently self-employed as a financial consultant specializing in preparing financial impact studies on municipalities and school districts for clients in the business of land development. Studies involve one or more of the following types of developments: manufactured home communities, site built home subdivisions, apartments, corporate parks, and shopping centers. Client work has involved approximately 100 communities consisting of cities, townships, villages and school districts.

SCHOOL DISTRICT EXPERIENCE

Van Buren Public Schools
Director of Business and Finance

1974 - 1996

Westwood Community Schools
Assistant Superintendent - Business Affairs

1969 - 1974

MUNICIPAL EXPERIENCE

Northville Township - Northville, Michigan
Treasurer
Deputy Treasurer

1991-1992 / Appointed
1990-1991 / Appointed

EDUCATION

Wayne State University - Detroit, Michigan
Master of Education Degree (M.A.)
Bachelor of Science Degree (B.S.)

1967
1960

PROFESSIONAL ORGANIZATIONS & CERTIFICATIONS

CFO (Chief Financial Officer) certification issued by MSBO
RSBA (Registered School Business Administrator) certification by ASBO
Chief Business Official Administrator certificate issued by the State of Michigan
Michigan School Business Officials (MSBO), *emeritus member*
Association of School Business Officials (ASBO), *past member*
Michigan Municipal Finance Officers Association, *past member*
Public Risk Management Association, *past member*
Wayne County Association of Treasurers, *past member*

Jack M. Hosmer, Jr.
Certified Public Accountant
Certified Financial Planner

CONSULTING EXPERIENCE

J. Mills Consulting Company
Vice President

1997-Present

Presently self-employed as a financial consultant specializing in preparing financial impact studies on municipalities and school districts for clients in the business of land development. Studies involve one or more of the following types of developments: manufactured home communities, site built home subdivisions, apartments, corporate parks, and shopping centers.

PUBLIC ACCOUNTING EXPERIENCE

Robinson, Pietras, Kalisky & Co., P.C.
Staff Accountant

1993 - Present

Kahn & Associates, P.C.
Staff Accountant

1992 - 1993

EDUCATION

University of Michigan - Ann Arbor, Michigan
Bachelor of General Studies (B.G.S.) 1991

PROFESSIONAL ORGANIZATIONS

American Institute of Certified Public Accountants, *member*
Michigan Association of Certified Public Accountants, *member*

Northfield Township

8350 Main Street, Whitmore Lake, MI 48189
Phone (734) 449-2880 FAX (734) 449-0123

Community Survey – Request for Proposals (RFP)

March 2015

Northfield Township, Michigan (Washtenaw County) is inviting all interested, qualified consultants and firms to submit proposals to develop and conduct a citizen opinion survey. The selected consultant will develop an appropriate survey instrument and methodology to gauge citizen opinion of land development within the Township. Areas to be assessed or explored include future land use development, appropriate development densities, and future sewer service expansions. Northfield Township is seeking assistance in determining the correct and most cost effective survey methodology for the proposed subject matter. The consultant will also be responsible to further conduct the task of carrying out the survey, tabulating its results, and preparing a final report.

Copies of the RFP and related materials may be obtained from the Northfield Township website (www.twp.northfield.mi.us) or the Township Offices located at 8350 Main Street, Whitmore Lake, MI 48189.

Questions concerning the RFP can be directed to Doug Lewan at dlewan@cwaplan.com or (734) 662-2200.

Responses to this RFP will be accepted until April 3, 2015. It is the sole responsibility of the consultant to ensure that the proposal is received before the submission deadline. Late proposals will not be considered. Northfield Township reserves the right to reject any or all proposals, waive minor informalities, and accept the proposal deemed to be in the best interest of the Township.

Background Information

Northfield Township is located in northeastern Washtenaw County, approximately one (1) mile north of the City of Ann Arbor, and 47 miles west of Detroit. The 2010 U.S. Census reported Northfield Township's population to be 8,245 persons encompassing 3,303 households. Northfield Township is a growing community that faces the difficult challenge of accommodating increasing growth and development while retaining its rural character. The community is divided by various interests and opinions related to future growth and development.

The Township is bisected by US-23 which traverses north/south through the western portion of the Township. The Township's existing development is centered on US-23, Whitmore Lake and Horseshoe Lake in the northwest and northcentral portions of the Township.

Scope of Work

The selected consultant shall:

- Assist the Planning Commission in determining the most cost effective, reasonable, and productive survey methodology to employ for Northfield Township's demographics. This includes the quantity of surveys, length of survey, suggested content and duration of survey collection.
- Assist in developing objective questions designed to gauge community sentiment about issues such as: growth impacts, appropriate development density and sewer service expansion. The survey and questions shall be designed to ensure statistical validity and unambiguous, quantifiable results.
- After the approach, quantification and the content and scope of questions are developed/agreed upon, the selected consultant shall then proceed with administration of the survey within the agreed upon schedule, and formulate results.

Deliverables

The consultant will provide 15 bound copies and an electronic copy (Word/Excel and PDF) of the final report including, but not limited to:

- Executive Summary
- Survey Background
- Copy of Survey Instrument
- Profile of Northfield Township
- Profile of Respondents
- General Overview of Survey
- Content description and summaries of each survey topic
- Statistical analysis of survey results including graphs, raw data, and any other information that the consultant believes could be beneficial to the report.

Proposal Format

- All proposals must be made in writing and signed by an authorized agent or representative for the consultant/firm making such proposal.
- All responses will include the name, address, telephone number(s) and email contact information of the consultant/firm's primary contact person for the proposal.

- All proposals shall include:
 - Cover Letter: A cover letter shall be provided which explains the service provider's interest in the project.
 - Qualifications of Key Personnel: Submit summaries of all staff members who will be involved in completing the scope of services. Please include their individual experience in performing the required and necessary services or functions.
 - References: Provide at least three (3) references for completed projects of similar size and scope. Include the name of the organization, a brief summary of work performed, and the contact information for the individual being provided as a reference.
 - Township Responsibilities: Identify any services that are expected to be provided by Northfield Township to complete the scope of work.
 - Fee Schedule: Provide a fee schedule for services that includes a not-to-exceed amount for completion of the scope of work.

All proposals must be submitted in writing and by email on or before April 3, 2015 to:

Northfield Township Offices
8350 Main Street, Whitmore Lake MI 48189
Marlene Chockley, Planning Commission Chair chockleym@twp.northfield.mi.us
Doug Lewan, Planning Consultant dlewan@cwaplan.com
Howard Fink, Township Manager finkh@twp.northfield.mi.us

Consideration of Proposals:

All proposals will be subject to public review and disclosure by the Northfield Township Planning Commission and Township Board, including discussion at public meetings.

Proposals will be evaluated on the following criteria:

- Qualifications and Experience
- Qualifications and Experience of Project Team
- Narrative and Project Approach
- Cost Effectiveness

After reviewing all proposals and determining a finalist, the Planning Commission will make a recommendation to the Township Board on whether to proceed.



CARLISLE

WORTMAN
associates, inc.

605 S. Main Street, Ste. 1
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(734) 662-1935 Fax

MEMORANDUM

TO: Northfield Township Planning Commission

FROM: Douglas J. Lewan, Community Planner
Laura K. Kreps, Community Planner

DATE: March 10, 2015

RE: Whitmore Lake Road Traffic Information

In response to the master plan discussion at the March 4th Planning Commission meeting, we have begun to research traffic information as it relates to Whitmore Lake Road, specifically between North Territorial Road and Joy Road.

We are continuing to collect information and have a call into the Washtenaw County Road Commission regarding the current Level of Service (LOS), more recent traffic counts and future plans for widening or modifying roads in our research area. All of the following traffic count and crash data provided below was found on the SEMCOG website.

Additionally, we researched the Whitmore Lake / M-14 intersection in Barton Hills as any new traffic generated from potential development in the southwestern portion of the Township will likely utilize this freeway entry.

Traffic Counts

Road Name	Direction	Limits	Year	AADT*
Whitmore Lake	NW Bound	200 feet NW of Territorial	-	1,260
Whitmore Lake	SE Bound	200 feet NW of Territorial	-	1,176
Whitmore Lake	NW Bound	200 feet SE of Territorial	-	1,840
Whitmore Lake	SE Bound	200 feet SE of Territorial	-	1,476
Whitmore Lake	2-way	North of N. Territorial	2011	2,397
Whitmore Lake	2-way	South of N. Territorial	2011	2,937
Whitmore Lake	2-way	North of Dhu Varren (Barton Hills)	2012	3,382

*AADT = Annual Average Daily Traffic (AADT) are traffic volumes that are adjusted by a month and day of week factor to account for seasonal variations in traffic for the given location for the stated year (if given).

Source: SEMCOG website

High-Frequency Crash Locations – Intersections

SEMCOG has ranked High-Frequency Crash Location – Intersections in Northfield Township between 2009 and 2013. The data related to the Top 10 intersections in the Township is provided in the table below. You will note the study area has four (4) locations in the Top 10 ranking.

Local Rank	County Rank	Intersection	2009	2010	2011	2012	2013	AVG. 2009-2013
1	348	8 Mile @ Whitmore Lake	3	3	6	4	3	3.8
2	370	6 Mile/S U.S. 23 @ S U.S. 23	7	2	3	3	3	3.6
3	402	N. Territorial @ Whitmore Lake	3	3	1	8	2	3.4
4	427	S U.S. 23/Territorial Ramp @ N. Territorial	2	5	2	3	4	3.2
5	455	N U.S. 23/6 Mile Ramp @ 6 Mile	6	2	4	2	1	3.0
6	489	N U.S. 23/Territorial Ramp @ N. Territorial	7	5	1	0	1	2.8
7	489	S U.S. 23 @ Territorial/S U.S. 23 Ramp	4	1	3	4	2	2.8
8	489	Main St. @ Shore Dr. E	5	2	0	5	2	2.8
9	563	N. Territorial @ Dixboro Rd. N.	5	1	2	1	3	2.4
10	626	S U.S. 23/8 Mile Ramp @ 8 Mile	2	5	0	2	2	2.2

Source: SEMCOG website – Note: Intersections are ranked by the number of reported crashes, which does not take into account traffic volume. Crashes reported occurred within 150 feet of the intersection.

Additionally, SEMCOG reports the highest ranked intersection in Barton Hills for high-frequency crash locations at intersections is W. M-14/Whitmore Lake Ramp at Whitmore Lake Road which averages 2.6 crashes during the same time period.

High-Frequency Road Segment Crash Rankings

In addition to the intersection crash data provided above, SEMCOG also provides road segment crash data. The Top 10 road segments with the most crashes between 2009 and 2013 are provided in the table below.

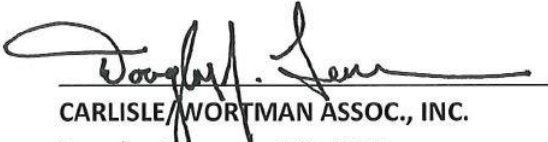
Local Rank	County Rank	Segment	From Road – To Road	Annual AVG. 2009-2013
1	14	S U.S. 23	Warren Road – Territorial/S U.S. 23 Ramp	33.4
2	16	N U.S. 23	Warren Road – N U.S. 23/Territorial Ramp	32.4
3	28	N. Territorial	Webster Church – Whitmore Lake Road	26.4
4	84	Whitmore Lake	Warren Road – N. Territorial	16.4

5	124	N. Territorial	N U.S. 23/Territorial Ramp – Sutton Road	14.0
6	152	Dixboro	Warren Road – Pontiac Trail	12.8
7	199	S U.S. 23	S U.S.23/6 Mile Ramp – Barker/S U.S. 23 Ramp	11.0
8	218	N U.S. 23	6 Mile/N U.S. 23 Ramp – N U.S. 23/Barker Ramp	10.6
9	312	N. Territorial	Sutton Road – Pontiac Trail	8.4
10	312	N U.S. 23	Territorial/N U.S. 23 Ramp – N U.S. 23/6 Mile Ramp	8.4


Source: SEMCOG website – Note: Segments are ranked by the number of reported crashes, which does not take into account traffic volume.

As mentioned previously, we have contacted the WCRC with additional questions related to the study area. From the WCRC Future ROW Map and Road Classification Map provided on their website, we find Whitmore Lake and North Territorial Roads are both considered primary county roads with proposed future ROW widths of 120 feet. We anticipate additional information from WCRC to include: level of service (LOS) for Whitmore Lake, North Territorial, Northfield Church and Joy Roads, recent traffic counts (after 2011), and plans and timeline for road improvements in these areas.

We look forward to discussing this initial information with you at the Planning Commission meeting. Please feel free to contact us with any questions/comments.



CARLISLE/WORTMAN ASSOC., INC.
Douglas J. Lewan, PCP, AICP
Principal



CARLISLE/WORTMAN ASSOC., INC.
Laura K. Kreps, AICP
Associate

**Traffic Impact Study
for
Northfield Town Center
Residential Development
Northfield Township, Michigan**

Prepared for:
Atwell-Hicks, Inc.

Prepared by:
PARSONS

RECEIVED

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BUILDING / PLANNING
DEPARTMENT

Traffic Impact Study – Northfield Town Center

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1.

Summary of Findings and Recommendations

This section of the report summarizes the results of a traffic impact study conducted by Parsons for the proposed Northfield Town Center residential development in Northfield Township, Michigan. The proposed Northfield Town Center site is located on the west side of Whitmore Lake Road between North Territorial Road and Joy Road. The following represents the findings and recommendations of this study:

1. The proposed development will consist of 1,140 condominiums and 586 single-family homes. The site is expected to be built-out by 2018.
2. The site is proposed to be served by six access drives, two of which will be located on Whitmore Lake Road, one on Hellner Road and three on Northfield Church Road.
3. The peak periods studied were the weekday A.M. and P.M. peak hours. These peak hours were found to occur from 7:15 to 8:15 A.M. and 4:45 to 5:45 P.M.
4. To assess the impact of the site on the surrounding area roadways, the following intersections were included in the study:
 - North Territorial Road and US-23 NB On/Off Ramps
 - North Territorial Road and US-23 SB On/Off Ramps
 - North Territorial Road and Whitmore Lake Road
 - North Territorial Road and Hellner Road
 - Whitmore Lake Road and Northfield Church Road
 - Whitmore Lake Road and Joy Road
 - Hellner Road and Northfield Church Road
 - Hellner Road and Joy Road
5. Background traffic takes into account the additional traffic on the roadway system that will be generated by approved developments in the area that may be completed by the time the buildout of the site occurs. Only one development, described later in this report, was considered that would impact the key

intersections being analyzed in this study. In addition, growth factors of three percent for the years from 2006 to 2010 and one and one-half percent per year for the years from 2010 to 2018 were used to account for other unknown developments that may occur prior to buildout of this site.

6. The number of trips that would be generated by the proposed development was estimated based on rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation*, 7th Edition and were found to be 782 trips in the A.M. peak hour and 970 trips in the P.M. peak hour.
7. The directional distribution of traffic generated by the development was estimated based on employment data provided by the Southeast Michigan Council of Governments (SEMCOG). The data was analyzed to determine travel routes based on an approximate 20-mile radius, the estimated average work trip length. The resulting estimated directional distribution from this analysis is shown below.

ESTIMATED DIRECTIONAL DISTRIBUTION

Direction	Distribution
To and from the north on Whitmore Lake (north of North Territorial)	4%
To and from the south on Whitmore Lake (south of Joy)	10%
To and from the east on North Territorial (east of US-23)	4%
To and from the west on North Territorial (west of US-23)	2%
To and from the north on US-23	30%
To and from the south on US-23	48%
To and from the east on Joy (east of Whitmore Lake)	1%
To and from the west on Joy (west of Hellner)	1%
To and from the west on Northfield Church Road	Negligible
Total	100%

8. Capacity analyses were conducted at the critical intersections, listed in paragraph 4 above, for existing conditions, background conditions (without development of the site), background mitigated conditions, future conditions (with development of the site and without background mitigation), and future mitigated conditions.
9. Based on the results of this analysis, under **background conditions** (without the site traffic), the following mitigation measures may be necessary to enable the intersection of *North Territorial Road and US-23 Northbound On/Off Ramp* to operate at acceptable levels of service:
 - Additional green time for the northbound off-ramp movement.

To enable the intersection of *North Territorial Road and US-23 Southbound On/Off Ramp* to operate at acceptable levels of service the following mitigation may be needed:

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- Additional green time for the southbound off-ramp movement.
10. Under **future conditions** the following mitigation will be needed to enable the intersection of *North Territorial Road and US-23 Northbound On/Off Ramp* to operate at acceptable levels of service:
 - Construction of an exclusive westbound right-turn lane.
 - Adjustment of traffic signal timings with an increase in the signal's cycle length.

To enable the intersection of *North Territorial Road and US-23 Southbound On/Off Ramp* to operate at acceptable levels of service the following mitigation may be needed:

 - Construction of an exclusive eastbound right-turn lane.
 - Adjustment of traffic signal timings with an increase in the signal's cycle length.

To enable the intersection of *North Territorial Road and Whitmore Lake Road* to operate at acceptable levels of service the following mitigation may be needed:

 - Construction of exclusive left-turn lanes on the east and west approaches.
 - Construction of exclusive right-turn lanes on the west and south approaches.
 - Introduction of a left-turn phase for North Territorial Road.
 11. Based upon the analysis of the site access drives the following improvements are necessary:

Whitmore Lake Road and North Site Drive (Site Drive #1)

 - Construction of a northbound left-turn lane.
 - Construction of a southbound right-turn lane

Based on the results of this analysis, the surrounding area roadways and intersections will be able to adequately accommodate site traffic with the improvements discussed above.

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2.

Area Conditions

Introduction

The proposed Northfield Town Center site is located on the west side of Whitmore Lake Road between North Territorial Road and Joy Road in Northfield Township, Michigan. Figure 1 illustrates the site location. The Northfield Town Center residential development will consist of 1,140 condominiums and 586 single-family homes. A general plan of site for the proposed development may be found in Appendix A. The site is expected to be built-out by 2018. This study was conducted to assess the impact of the development on the adjacent roadway system.

Area Road Network

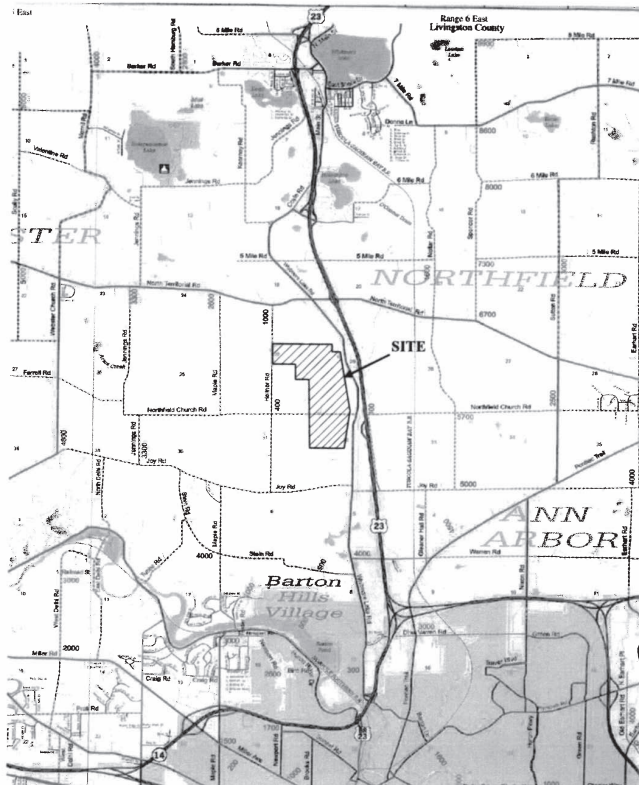
The primary roads providing access to the development are US-23, North Territorial Road and Whitmore Lake Road. Other peripheral roads that are impacted to a lesser degree by the development but are also analyzed as a part of this study include Joy Road, Hellner Road and Northfield Church Road. These roads are described in the following paragraphs.

North Territorial Road is an east-west, two-lane, paved arterial in the vicinity of the site. Its intersection with Whitmore Lake Road is signalized, operating as a two-phase traffic signal. Left-turn lanes are provided on the north and south approaches to the intersection. Its intersection with Hellner Road is unsignalized and controlled by stop sign on Hellner Road. The speed limit on North Territorial Road is posted at 50 miles per hour (mph) and it is under the jurisdiction of Washtenaw County Road Commission (WCRC).

Whitmore Lake Road is a north-south, two-lane, paved arterial in the vicinity of the site with a posted school speed limit of 25 miles per hour (mph) between Northfield Church Road and Joy Road. The school speed limit is in effect from 7:15 to 8:15 A.M. and from 2:45 to 3:45 P.M. on school days. At other times the speed limit would be prima facie at 55 mph. There is no posted speed limit sign north of Northfield Church Road and south of Joy Road, therefore a prima facie speed limit of 55 mph would also apply. Its T-intersection with Northfield Church Road is unsignalized and is controlled by a stop sign on Northfield Church Road. The intersection of Whitmore Lake Road with Joy Road is unsignalized and controlled by stop signs on Joy Road. The east and west approaches of

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SITE LOCATION

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FIGURE 1

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Joy Road at Whitmore Lake are offset by approximately 300 feet. Whitmore Lake Road is under the jurisdiction of the WCRC.

US-23 Northbound On/Off Ramp is under the jurisdiction of the Michigan Department of Transportation (MDOT). Its intersection with North Territorial Road is signalized with an exclusive left-turn lane and a shared through/right lane on the northbound off ramp approach.

US-23 Southbound On/Off Ramp is under the jurisdiction of MDOT. Its intersection with North Territorial Road is signalized. The southbound off ramp approach widens at the intersection to provide for two lanes of traffic. The approach is not marked for the lane use.

Hellner Road is a north-south, two-lane, roadway in the vicinity of the site that starts at North Territorial Road on the north and ends at Joy Road to the south. In the vicinity of the site, Hellner Road is generally unpaved, with a short paved section as it approaches North Territorial Road from the south. The intersection of Hellner Road with Northfield Church Road is unsignalized and controlled by stop signs on Hellner Road. There is no posted speed limit on Hellner in the site vicinity and, therefore, it would be considered prima facie at 55 mph. It is under the jurisdiction of WCRC.

Joy Road is an east-west, two-lane, roadway in the vicinity of the site. In the vicinity of the site, Joy Road is generally unpaved, with a short paved section as it approaches Whitmore Lake Road from the west. The T-intersection of Joy Road with Hellner Road is unsignalized and is controlled by a stop sign on Hellner Road. There is no posted speed limit on Joy Road in the site vicinity and, therefore, it would be considered prima facie at 55 mph. It is under the jurisdiction of WCRC.

Northfield Church Road is an east-west, two-lane, unpaved roadway in the vicinity of the site with no posted speed limit and, therefore, it would be considered prima facie at 55 mph. It is under the jurisdiction of WCRC.

Planned Roadway Improvements

The Washtenaw County Road Commission (WCRC) was consulted regarding planned roadway improvements in the vicinity. It was found that there are no plans at this time regarding any roadway improvements in the site vicinity.

Site Accessibility

Northfield Town Center will be provided access via two drives on Whitmore Lake Road, one drive on Hellner Road and three drives on Northfield Church Road. Two of the three driveways on Northfield Church Road will be located directly across from each other

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serving the two parcels of the development located north and south of Northfield Church Road, respectively.

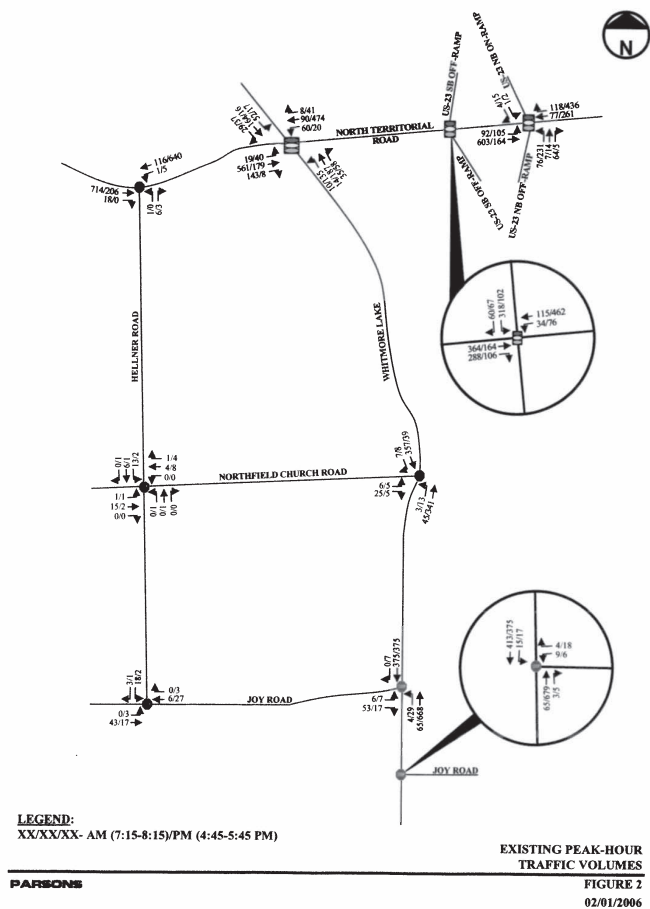
Existing Traffic Volumes and Conditions

A field reconnaissance was conducted of the site and its environs to obtain a database of existing conditions. The peak traffic periods for the proposed use would typically occur during weekday morning and evening times.

Traffic turning movement counts were conducted at the following intersections between 7:00-9:00 A.M. and 4:00-6:00 P.M. on Tuesday, Wednesday and Thursday, January 24th, 25th and 26th, 2006.

- North Territorial Road and US-23 NB On/Off Ramps
- North Territorial Road and US-23 SB On/Off Ramps
- North Territorial Road and Whitmore Lake Road
- North Territorial Road and Hellner Road
- Whitmore Lake Road and Northfield Church Road
- Whitmore Lake Road and Joy Road
- Hellner Road and Northfield Church Road
- Hellner Road and Joy Road

Summaries of the count data indicate that the A.M. and P.M. peak hours of traffic occur from 7:15-8:15 A.M. and 4:45-5:45 P.M., respectively. The traffic volume counts used in this study may be found in Appendix B. The existing traffic volumes are illustrated on Figure 2.



Traffic Impact Study – Northfield Town Center

3. Projected Traffic

As part of the site planning process for the proposed development, a detailed analysis was completed of the traffic needs for all known approved developments in the vicinity of the site.

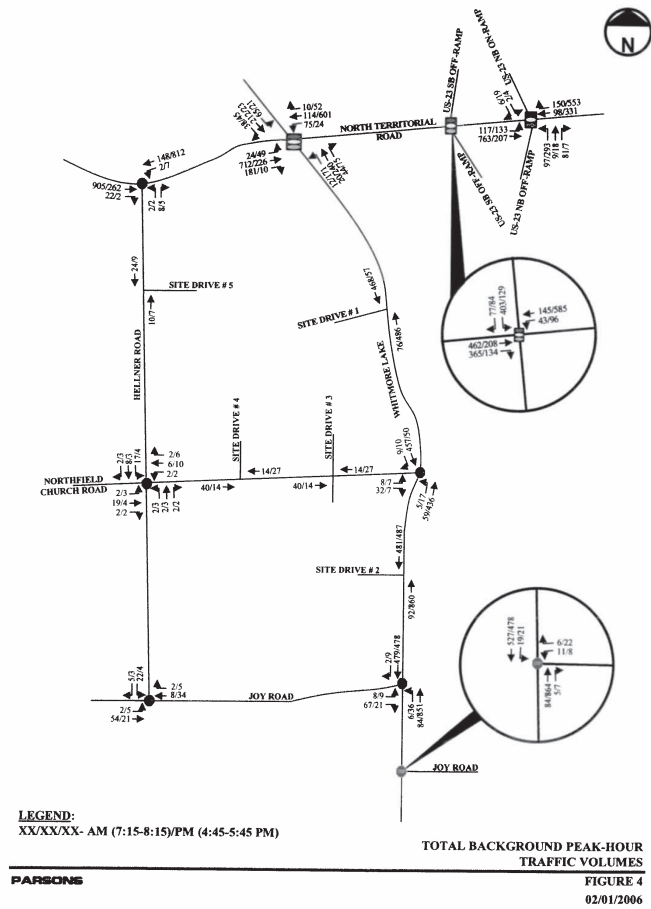
Trip Generation for Background Developments

Background traffic takes into account the additional traffic on the roadway system that will be generated by approved developments in the area that may be completed by the time the buildout of the site occurs. The site is projected to be built-out within the next twelve years. Discussions were held with the Northfield Township Planning Department regarding planned and approved developments that may impact traffic volumes on roadways in the vicinity of the site. Based on these discussions, only one development was identified and considered in this study.

The number of trips that would be generated by this development during the A.M. and P.M. peak hours was determined using rates published by ITE in *Trip Generation*, 7th Edition. The trip generation for this development is shown in Table 1. More detailed information on this development may be found in Appendix C and includes information about its location, size and buildout time frames. The trips generated by the development were assigned to the adjacent street system based on the directional distribution analysis described later in this report. The total peak-hour traffic volumes generated by the development are illustrated on Figure 3.

TABLE 1
PROJECTED PEAK-HOUR BACKGROUND TRAFFIC VOLUMES

Development	Size (Units)	A.M. Peak Hour			P.M. Peak Hour		
		Entering	Exiting	Total	Entering	Exiting	Total
Northfield Preserve	62 units	13	40	53	44	26	70



Traffic Impact Study – Northfield Town Center

Trip Distribution

The directions from which vehicles will approach and depart a site is a function of several variables, including the population and employment distribution within the development's area of influence, the operational characteristics of the roadway system, and the ease with which drivers can travel over various sections of the roadway network without encountering congestion.

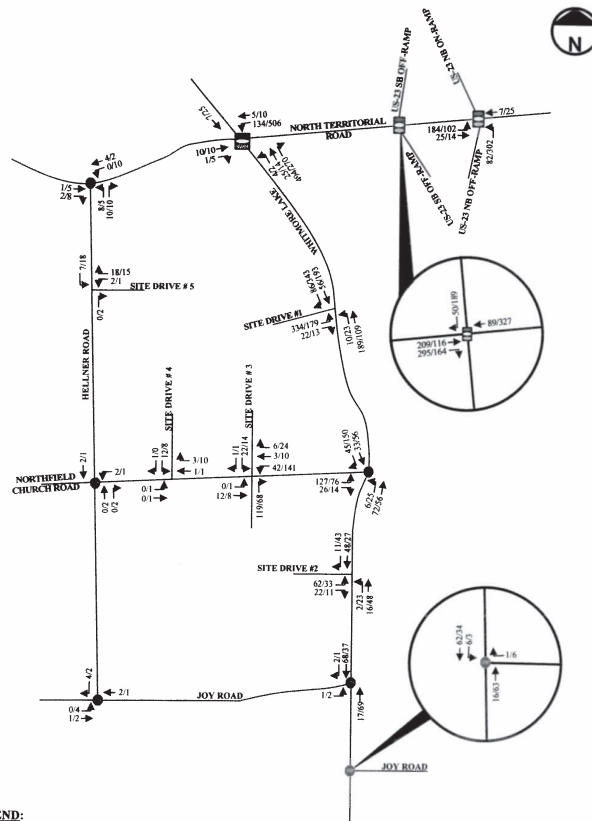
The directional distribution of traffic generated by the proposed development was estimated based on employment data provided by SEMCOG. The data was analyzed to determine travel routes based on an approximate 20-mile work trip radius. The resulting estimated directional distribution from the analysis is shown in Table 3.

TABLE 3
ESTIMATED DIRECTIONAL DISTRIBUTION

Direction	Distribution
To and from the north on Whitmore Lake (north of North Territorial)	4%
To and from the south on Whitmore Lake (south of Joy)	10%
To and from the east on North Territorial (east of US-23)	4%
To and from the west on North Territorial (west of US-23)	2%
To and from the north on US-23	30%
To and from the south on US-23	48%
To and from the east on Joy (east of Whitmore Lake)	1%
To and from the west on Joy (west of Hellner)	1%
To and from the west on Northfield Church Road	Negligible
Total	100%

Trip Assignment

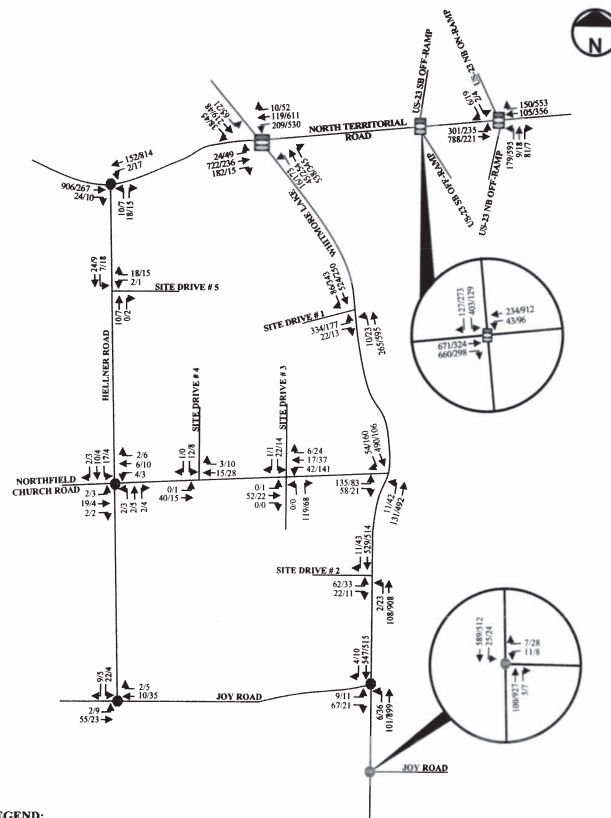
The projected weekday peak-hour traffic volumes for the proposed development were assigned to the adjacent street system based on the estimated directional distribution in Table 3 and are shown on Figure 5. These site-generated volumes were then added to the total background volumes from Figure 4, resulting in the total future volumes illustrated on Figure 6.



SITE GENERATED PEAK-HOUR
TRAFFIC VOLUMES

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FIGURE 5
02/02/2006



TOTAL FUTURE PEAK-HOUR
TRAFFIC VOLUMES

PARSONS

FIGURE 6
02/02/2006

4.

Traffic Analyses

Capacity Analyses

The critical intersections defined for this study were analyzed according to the methodologies published in the 2000 *Highway Capacity Manual*. The analysis determines the "Level of Service (LOS)" of the intersections and is based on factors such as the number and types of lanes, signal timing, traffic volumes, pedestrian activity, etc. Levels of service are expressed in a range from "A" through "F," with "A" being the highest level of service, and "F" representing the lowest level of service. Table 5 and Table 6 show the thresholds for Levels of Service "A" through "F" for unsignalized and signalized intersections, respectively.

TABLE 4
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Level of Service	Delay/Vehicle (seconds)	Description
A	< 10.0	Little or no delay, very low main street traffic.
B	10.1 to 15.0	Short traffic delays, many acceptable gaps.
C	15.1 to 25.0	Average traffic delays, frequent gaps still occur.
D	25.1 to 35.0	Long traffic delays, limited number of acceptable gaps.
E	35.1 to 50.0	Very long traffic delays, very small number of acceptable gaps.
F	> 50.0	Extreme traffic delays, virtually no acceptable gaps in traffic.

Note: Capacity analyses for two-way stop controlled intersections provides the LOS for the critical movements, not of the overall intersection.

TABLE 5
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service	Delay/Vehicle (seconds)	Description
A	< 10.0	Most vehicles do not stop at all.
B	10.1 to 20.0	Some vehicles stop.
C	20.1 to 35.0	The number of vehicles stopping is significant, although many pass through without stopping.
D	35.1 to 55.0	Many vehicles stop. Individual cycle failures are noticeable.
E	55.1 to 80.0	Considered to be the limit of acceptable delay. Individual cycle failures are frequent.
F	> 80.0	Unacceptable delay.

Capacity analyses were conducted for the following conditions:

- Existing Conditions
- Background Conditions
- Background Mitigated Conditions
- Future Conditions (without Background Mitigation)
- Future Mitigated Conditions

The capacity analyses worksheets are presented in Appendices E, F and G, are summarized in Tables 6 and 7 and are discussed in the following paragraphs.

North Territorial Road and US-23 NB On/Off Ramps Intersection

As shown in Table 6 under *existing conditions*, the intersection of North Territorial Road with the US-23 NB On/Off Ramps is operating at an overall LOS "A" and "B" during the A.M. and P.M. peak hours, respectively. All individual movements are operating at level of service (LOS) "D" or better during these peak hours.

Under *background conditions* (without site traffic), the intersection is projected to continue operating at an overall LOS "A" and "B" during the A.M. and P.M. peak hours, respectively. All individual movements would operate at LOS "C" or better during these peak hours except the northbound left-turn off-ramp movement which would degrade to LOS "E" during the P.M. peak hour.

Since the northbound left-turn movement is operating at unacceptable level of service under background conditions, mitigation measures were investigated. It was determined that the intersection would require changes to the signal timings and additional green time for the northbound off-ramp movement to enable all movements to operate at LOS "D" or better.

Under *mitigated background conditions*, as shown in Table 6, with additional green time for the off-ramp movement, the intersection would operate at an overall LOS "B" and

TABLE 6
CAPACITY ANALYSES - EXISTING AND BACKGROUND CONDITIONS

	EXISTING TRAFFIC				BACKGROUND TRAFFIC				BACKGROUND TRAFFIC (Mitigated Conditions)			
	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.	
	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
North Territorial Road and US-23 NB On/Off Ramps (Signalized)												
Overall	7.2	A	11.2	B	9.9	A	19.2	B	11.1	B	20.2	C
EB L+Th	6.8	A	5.6	A	10.7	B	15.3	B	12.7	B	33.9	C
WB Th+Lt	1.7	A	4.6	A	1.7	A	7.8	A	2.3	A	10.6	B
NB Left	23.2	C	37.1	D	24.3	C	58.9	E	22.0	C	34.6	C
NB Th+Rt	8.9	A	17.6	B	8.7	A	16.9	B	7.1	A	15.9	B
SB Right	14.8	B	11.6	B	14.0	B	11.5	B	13.9	B	10.7	B
North Territorial Road and US-23 SB On/Off Ramps (Signalized)												
Overall	24.2	C	6.1	A	49.7	D	7.5	A	22.0	C	7.7	A
EB Th+Rt	5.5	A	2.3	A	8.3	A	2.8	A	22.2	C	3.2	A
WB L+Th	3.8	A	5.1	A	4.1	A	7.0	A	25.1	C	7.6	A
SB Left	76.6	E	24.7	C	165.5	F	26.5	C	24.2	C	24.3	C
SB Right	0.1	A	0.4	A	0.2	A	0.7	A	0.1	A	0.6	A
North Territorial Road and Whitmore Lake Road (Signalized)												
Overall	12.0	B	12.5	B	18.2	B	15.3	B	MITIGATION NOT REQUIRED			
EB L+Th+Rt	10.6	B	7.1	A	19.9	B	9.6	A				
WB L+Th+Rt	6.2	A	9.3	A	9.1	A	14.2	B				
NB Left	18.4	B	21.2	C	17.8	B	21.2	C				
NB Th+Rt	9.4	A	20.1	C	9.0	A	21.0	C				
SB Lt	19.7	B	17.9	B	19.3	B	17.3	B				
SB Th+Rt	20.5	C	9.0	A	21.1	C	8.4	A				
North Territorial Road and Hellner Road (Unsignalized)												
NB L+Rt	14.8	B	9.4	A	18.6	C	13.5	B	MITIGATION NOT REQUIRED			
Whitmore Lake Road and Northfield Church Road (Unsignalized)												
EB L+Rt	11.0	B	10.0	B	12.1	B	10.7	B	MITIGATION NOT REQUIRED			
Whitmore Lake Road and Joy Road (Unsignalized)												
EB L+Rt	11.4	B	14.9	B	12.8	B	20.0	C	MITIGATION NOT REQUIRED			
WB L+Rt	11.4	B	16.8	C	12.5	B	23.4	C				
Joy Road and Hellner Road (Unsignalized)												
SB L+Rt	8.8	A	8.7	A	8.9	A	8.7	A	MITIGATION NOT REQUIRED			
Hellner Road and Northfield Church Road (Unsignalized)												
NB L+Th+Rt	0.0	A	8.9	A	8.8	A	8.9	A	MITIGATION NOT REQUIRED			
SB L+Th+Rt	8.9	A	8.7	A	9.0	A	8.8	A				

Note: Capacity analysis for two-way stop controlled intersections provides the LOS for the critical movements, not for the overall intersection.

TABLE 7
CAPACITY ANALYSES - FUTURE CONDITIONS

	FUTURE TRAFFIC				FUTURE TRAFFIC (Mitigated Conditions)			
	A.M.		P.M.		A.M.		P.M.	
	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
North Territorial Road and US-23 NB On/Off Ramps (Signalized)								
Overall	61.9	E	199.2	F	39.9	D	27.5	C
EB L+Th	86.1	F	>200.0	F	49.4	D	41.0	D
WB Th+Rt	2.0	A	13.5	B	N/A			
WB Through			N/A		3.1	A	14.2	B
WB Right					0.7	A	2.8	A
NB Left	29.0	C	>200.0	F	51.2	D	49.5	D
NB Th+Rt	8.7	A	16.9	B	12.4	B	13.3	B
SB Right	13.9	B	11.5	B	23.5	C	8.3	A
North Territorial Road and US-23 SB On/Off Ramps (Signalized)								
Overall	129.3	F	23.0	C	15.7	B	22.2	C
EB Th+Rt	150.1	F	5.0	A	N/A			
EB Through			N/A		12.3	B	5.0	A
EB Right					2.2	A	1.2	A
WB L+Th	11.6	B	34.8	C	8.4	A	33.7	C
SB Left	181.9	F	25.2	C	53.3	D	30.4	C
SB Right	0.4	A	19.8	B	0.3	A	19.3	B
North Territorial Road and Whitmore Lake Road (Signalized)								
Overall	78.3	E	>200.0	F	24.4	C	19.0	B
EB L+Th+Rt	62.2	E	15.2	B	N/A			
EB Left					7.7	A	9.8	A
EB Through			N/A		28.5	C	21.4	C
EB Right					2.8	A	9.3	A
WB L+Th+Rt	>200.0	F	>200.0	F	N/A			
WB Left			N/A		30.2	C	20.8	C
WB Th+Rt					9.6	A	17.9	B
NB Left	14.9	B	18.8	B	24.4	C	30.7	C
NB Th+Rt	27.0	C	27.3	C	N/A			
NB Through			N/A		24.0	C	29.6	C
NB Right					25.8	C	5.3	A
SB Left	38.0	D	20.7	C	25.5	C	24.8	C
SB Th+Rt	17.6	B	9.1	A	29.5	C	14.8	B
North Territorial Road and Hellner Road (Unsignalized)								
NB L+Rt	20.7	C	14.7	B	MITIGATION NOT REQUIRED			
Whitmore Lake Road and Northfield Church Road (Unsignalized)								
EB L+Rt	21.9	C	18.7	C	MITIGATION NOT REQUIRED			
Whitmore Lake Road and Joy Road (Unsignalized)								
EB L+Rt	13.9	B	23.7	C	MITIGATION NOT REQUIRED			
WB L+Rt	13.2	B	25.8	D				

TABLE 7
CAPACITY ANALYSES - FUTURE CONDITIONS (CONTINUED)

	FUTURE TRAFFIC				FUTURE TRAFFIC (Mitigated Conditions)			
	A.M.		P.M.		A.M.		P.M.	
	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
Joy Road and Helmer Road (Unsignalized)								
SB L+Rt	8.9	A	8.7	A	MITIGATION NOT REQUIRED			
Helmer Road and Northfield Church Road (Unsignalized)								
NB L+Th+Rt	8.9	A	8.9	A	MITIGATION NOT REQUIRED			
SB L+Th+Rt	9.1	A	8.9	A				

“C” during the A.M. and P.M. peak hours. All movements are projected to operate at LOS “C” or better during these peak hours.

Under *future conditions*, as shown in Table 7, (with site traffic), the intersection would degrade to an overall LOS “E” and “F” during the A.M. and P.M. peak hours, respectively. The eastbound through/left-turn movement is projected to operate at LOS “F” during both the A.M. and P.M. peak hours and the northbound left-turn movement is projected to operate at LOS “F” during the P.M. peak hour. All other movements are projected to operate at LOS “C” or better during the peak hours.

Since the intersection is operating at unacceptable levels of service under future conditions, mitigation measures were investigated. It was determined that the intersection would require construction of an exclusive westbound right-turn lane and signal timing changes with an increased cycle length to enable all individual movements to operate at LOS “D” or better.

Under *mitigated future conditions*, as shown in Table 7, with the proposed westbound right-turn lane and increased cycle length, the intersection would operate at an overall LOS “D” and “C” during the A.M. and P.M. peak hours, respectively. All individual movements would operate at LOS “D” or better during these peak hours.

North Territorial Road and US-23 SB On/Off Ramps Intersection

As shown in Table 6 under *existing conditions*, the intersection of North Territorial Road with the US-23 SB On/Off Ramps is operating at an overall LOS “C” and “A” during the A.M. and P.M. peak hours, respectively. All individual movements are operating at acceptable levels during these peak hours except the southbound left-turn off-ramp movement which is operating at LOS “E” during the A.M. peak hour.

Under *background conditions* (without site traffic), the intersection is projected to operate at an overall LOS “D” and “A” during the A.M. and P.M. peak hours, respectively. All the individual movements would operate at LOS “C” or better during these peak hours except the southbound left-turn off-ramp movement which would

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degrade to LOS “F” during the P.M. peak hour with significant increases in delay over the existing conditions.

Since the southbound left-turn off-ramp movement is operating at unacceptable level of service under background conditions, mitigation measures were investigated. It was determined that the intersection would require changes to the signal timings and additional green time for the southbound off-ramp movement to enable all movements to operate at LOS “D” or better.

Under *mitigated background conditions*, as shown in Table 6, with the increased cycle length, the intersection would operate at an overall LOS “C” and “A” during the A.M. and P.M. peak hours, respectively. All individual movements would operate at LOS “C” or better during these peak hours.

Under *future conditions*, as shown in Table 7, (with site traffic), the intersection would degrade to an overall LOS “F” during the A.M. peak hour. The eastbound through/right and southbound left-turn movements are also projected to degrade to LOS “F” during this peak-hour. During the P.M. peak hour, the intersection is projected to operate at an overall acceptable LOS “C” with all movements projected to operate at LOS “C” or better.

Since the intersection is operating at unacceptable levels of service during the A.M. peak hour under future conditions, mitigation measures were investigated. It was determined that the intersection would require construction of an exclusive eastbound right-turn lane and signal timing changes with an increase in the signal’s cycle length to enable all individual movements to operate at LOS “D” or better.

Under *mitigated future conditions*, as shown in Table 7, with the proposed eastbound right-turn lane and an increased cycle length, the intersection would operate at an overall LOS “B” and “C” during the A.M. and P.M. peak hours, respectively. All individual movements would operate at LOS “D” or better during these peak hours.

North Territorial Road and Whitmore Lake Road Intersection

As shown in Table 6 under *existing conditions*, the intersection of North Territorial Road with Whitmore Lake Road is operating at an overall LOS “B” during both the A.M. and P.M. peak hours. All individual movements are operating at LOS “C” or better during these peak hours.

Under *background conditions* (without site traffic), the intersection is projected to continue to operate at an overall LOS “B” during both the A.M. and P.M. peak hours, respectively. All individual movements would operate at LOS “C” or better during these peak hours.

Under *future conditions*, as shown in Table 7, (with site traffic), the intersection would

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degrade to an overall LOS “E” and “F” during the A.M. and P.M. peak hours, respectively. During the A.M. peak hour, the eastbound and westbound movements are projected to degrade to LOS “E” and “F”, respectively, and the southbound left-turn movement is projected to operate at LOS “D”. During the P.M. peak hour, the westbound movements are projected to degrade to LOS “F”.

Since the intersection is operating at unacceptable levels of service during the A.M. and P.M. peak hours under future conditions, mitigation measures were investigated. It was determined that the intersection would require exclusive left-turn lanes on the east and west approaches, exclusive right-turn lanes on the west and south approaches and an exclusive left-turn phase for North Territorial to enable all movements to operate at LOS “C” or better.

Under *mitigated future conditions*, as shown in Table 7, with the proposed left-turn lanes on the east and west approaches, right-turn lanes on the west and south approaches and an exclusive east-west left-turn phase, the intersection would operate at an overall LOS “C” and “B” during the A.M. and P.M. peak hours, respectively. All individual movements would operate at LOS “C” or better during these peak hours.

North Territorial Road and Hellner Road Intersection

The T-intersection of North Territorial Road and Hellner Road is controlled by a stop sign on Hellner Road. The northbound movements are critical at this intersection. As shown in Table 6, under *existing conditions*, the critical northbound movements are operating at LOS “B” or better during the A.M. and P.M. peak hours.

As shown in Tables 6 and 7, under *background and future conditions (without and with site traffic)*, the critical northbound movements are projected to operate at an acceptable LOS “C” or better during the A.M. and P.M. peak hours.

Whitmore Lake Road and Northfield Church Road Intersection

The T-intersection of Whitmore Lake Road and Northfield Church Road is controlled by a stop sign on Northfield Church Road. The eastbound movements are critical at this intersection. As shown in Table 6, under *existing conditions*, the critical eastbound movements are operating at LOS “B” during the A.M. and P.M. peak hours.

As shown in Tables 6 and 7, under *background and future conditions (without and with site traffic)*, the critical eastbound movements are projected to operate at LOS “C” or better during the A.M. and P.M. peak hours.

Whitmore Lake Road and Joy Road Intersection

The intersection of Whitmore Lake Road and Joy Road is controlled by stop signs on Joy Road. The eastbound and westbound movements are critical at this intersection. As

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shown in Table 6, under *existing conditions*, the critical eastbound and westbound movements are operating at LOS “C” or better during the A.M. and P.M. peak hours.

As shown in Table 6, under *background and future conditions (without and with site traffic)*, the critical eastbound and westbound movements are projected to operate at LOS “D” or better during the A.M. and P.M. peak hours.

Joy Road and Hellner Road Intersection

The T-intersection of Joy Road and Hellner Road is controlled by a stop sign on Hellner Road. The southbound movements are critical at this intersection. As shown in Table 6, under *existing conditions*, the critical southbound movements are operating at LOS “A” during both the A.M. and P.M. peak hours.

As shown in Tables 6 and 7, under *background and future conditions (without and with site traffic)*, the critical southbound movements are projected to continue to operate at LOS “A” during both the A.M. and P.M. peak hours.

Hellner Road and Northfield Church Road Intersection

The intersection of Hellner Road and Northfield Church Road is controlled by stop signs on Hellner Road. The northbound and southbound movements are critical at this intersection. As shown in Table 6, under *existing conditions*, the critical northbound and southbound movements are operating at LOS “A” during both the A.M. and P.M. peak hours.

As shown in Tables 6 and 7, under *background and future conditions (without and with site traffic)*, the critical northbound and southbound movements are projected to continue to operate at LOS “A” during both the A.M. and P.M. peak hours.

Site Access Analysis

As shown in Table 8, all site drives would operate at acceptable levels of service under *future conditions* during the A.M. and P.M. peak hours except the north site drive on Whitmore Lake Road. At this drive the eastbound left-turn movement would operate at LOS “F” and “E” during the A.M. and P.M. peak hours, respectively. Although this drive onto Whitmore Lake Road has one movement, the eastbound left-turn, operating at an unacceptable level of service, mitigation is not recommended since traffic that is delayed would back-up on-site and not cause additional delay to Whitmore Lake Road traffic. Furthermore, in the presence of alternate exits on Northfield Church Road and Hellner Road, it would be expected that drivers wishing to turn left on Whitmore Lake Road and experiencing unacceptable delay may choose to exit the site via the other two driveways, thus reducing the number of left turns at this driveway and reducing the projected delay. Therefore, no mitigation is recommended at this driveway.

TABLE 8
CAPACITY ANALYSES – SITE DRIVES

	A.M. Peak		P.M. Peak	
	DELAY	LOS	DELAY	LOS
Whitmore Lake Road and North Site Drive (Site Drive #1)				
EB Left	136.2	F	44.1	E
EB Right	12.2	B	9.8	A
Whitmore Lake Road and South Site Drive (Site Drive #2)				
EB Lt+Rt	15.7	C	13.7	B
Northfield Church Road and East Site Drive (Site Drive #3)				
NB Lt+Rt	9.1	A	8.4	A
SB Lt+Rt	11.6	B	13.2	B
Northfield Church Road and West Site Drive (Site Drive #4)				
SB Lt+Rt	8.8	A	8.8	A
Hellner Road and Site Drive (Site Drive #5)				
WB Lt+Rt	8.5	A	8.4	A

Note: Capacity analyses for two-way stop controlled driveways provide the LOS of the critical movement, not of the overall intersection.

Auxiliary Lane Analysis

The WCRC requires that access treatments be built on existing county roads at the entrances to subdivisions. Based on the WCRC guidelines, the minimum treatment would consist of a right-turn entrance taper of 75-foot with 10-foot long full-width tangent section and a 50-foot exiting right-turn acceleration taper. The guidelines further state the requirement for the length of an auxiliary lane must be determined based on the MDOT standards related to the current speed limit. Therefore, the right and left-turn lane requirements at the site drives were evaluated using MDOT standards as required by the WCRC. No auxiliary lane analysis was performed at the site driveways on Hellner and Northfield Church Roads as they are unpaved gravel roads and no improvements are planned for these roads.

Whitmore Lake Road and North Site Drive (Site Drive #1)

Based upon an advancing volume of 618, with four percent left-turns in the advancing volume (peak left turns occurring during the P.M. peak-hour), and an opposing volume of 593, a left-turn lane would be required at this site drive. The WCRC generally requires that center left-turn lanes be provided when needed.

For the right-turn lane requirement, our evaluation was based on the projected peak-hour approach volumes on Whitmore Lake Road and the projected peak-hour right-turn volume into the development. Under *future conditions*, based on the projected peak-hour approach volume of 593 vph and peak-hour right-turn volume of 343 vph (peak right turns occurring during the P.M. peak hour); the analysis indicated that a right-turn lane would be required at this site drive. Based on a prima facie speed limit of 55 mph, a right-turn entrance taper of 225 feet would be required at this site drive in addition to the

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minimum entrance design criteria of the WCRC. The taper length determination was made based on MDOT standards.

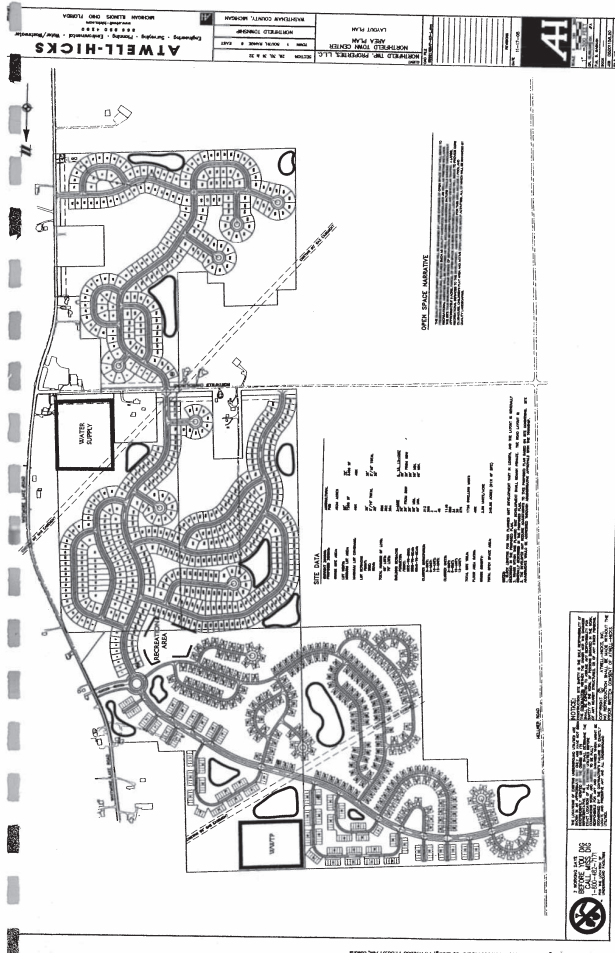
Whitmore Lake Road and South Site Drive (Site Drive #2)

Based upon an advancing volume of 524, with five percent left-turns in the advancing volume (peak left turns occurring during the P.M. peak-hour), and an opposing volume of 127, it was determined that a left-turn lane would not be required at this site drive.

Based on the projected peak-hour approach volume of 127 vph and peak-hour right-turn volume of 43 vph (peak right turns occurring during the P.M. peak-hour), the analysis indicated that right-turn lane would not be required at this site drive. Therefore, the minimum entrance design criteria of the WCRC would apply at this entrance.

The left-turn and right-turn warrant charts may be found in Appendix H.

APPENDIX A
SITE PLAN



NORTHFIELD TOWNSHIP PLANNING COMMISSION

Minutes of Regular Meeting March 4, 2015

1. CALL TO ORDER

The meeting was called to order by Chair Marlene Chockley at 7:00 P.M. at 8350 Main Street.

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL AND DETERMINATION OF QUORUM

Roll call:	
Janet Chick	Present
Marlene Chockley	Present
Brad Cousino	Present
Kenneth Dignan	Absent with notice
Sam Iaquinto	Present (left at 8:55 P.M.)
Larry Roman	Present
Mark Stanalajczo	Present

Also present:
Township Manager Howard Fink
Planning Consultant Douglas Lewan,
Carlisle/Wortman Associates
Recording Secretary Lisa Lemble
Members of the Community

4. APPROVAL OF AGENDA

Chockley asked that Approval of Minutes be moved to follow Policy Review.

- **Motion:** Iaquinto moved, Chick supported, that the agenda be adopted as amended.
Motion carried 6—0 on a voice vote.

5. FIRST CALL TO THE PUBLIC

Planning Process. David Gordon, 5558 Hellner Road, said there should be some political protection between the Planning Commission and Township Board, urged open communication between Commission members and the public, and said the *Courant* is not an appropriate place for publication of Chockley's letter concerning development.

6. CORRESPONDENCE

Chockley reported that she received letters concerning growth in the Township from Mr. Kleinschmidt and Cecilia Infante.

7. REPORTS

7A. Board of Trustees

Chick reported:

- The Board preliminarily reviewed the employee handbook.
- The Board will discuss at their next meeting whether the Board or the Planning Commission will produce the updated Capital Improvements Plan.
- She informed the Board that the Commission will probably be requesting funding for a full review of the Master Plan.
- At a retreat on February 26th the Board determined their top goals.

7B. ZBA

No report.

7C. Staff Report

Nothing to report.

7D. Planning Consultant

Lewan reported that slow progress is being made on the detailed engineering for the Nowatzke project, and he held a variety of meetings about other items.

8. PUBLIC HEARINGS

None.

9. OLD BUSINESS

- 9A. **Planning Commission Annual Report.** Chockley referred to the revised report she had prepared.

- **Motion:** Stanalajczo moved, Iaquinto supported, that the Annual Report to the Board of Trustees be approved as presented.
Motion carried 6—0 on a roll call vote.

- 9B. **Planning Commission 2015 Priorities.** Chockley referred to list of priorities and their rankings by Commissioners, and said the Commission will begin working on them.

10. NEW BUSINESS

10A. Master Plan Update and Revision Issues.

Lewan reviewed his memo regarding tasks and issues that have developed recently.

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Regarding the task identified by Lewan of addressing the Commission's request to Biltmore for three studies, Iaquinto said third parties were not required to produce any studies for the two Master Plans that were developed during his time as a Commissioner. He said he is willing to make a motion to retract those requirements.

Chick noted the Township is doing a sewer study, which was one of the three items requested from Biltmore. Regarding the traffic study, Lewan said he provided information to Biltmore about commissioning a traffic study centered on impacts on Whitmore Lake Road and its intersection with North Territorial. In answer to a question from Fink, Lewan said he does not know if the Washtenaw County Road Commission (WCRC) is willing share their level of service analyses.

Stanalajczo said the Biltmore request has pointed out problems with the current Master Plan, but he does not think it is appropriate to undertake a Plan revision at the request of a developer, so he is also not in favor of requiring a developer to undertake specific studies.

Chockley said the 1,500 homes Biltmore suggested might be built would generate 50,000 vehicle trips, so considering a traffic study would be appropriate, and the Commission asked Biltmore to provide this to avoid having that expense borne by the Township. Lewan noted that Scio Township commissioned a traffic study for the I-94/Zeeb Road intersection, and that type of study could be done for the Territorial and Whitmore Lake Road intersection. Chockley said she agrees the fiscal impact study is not as important, but the sewer study is critical.

Fink said Chick is correct that traffic impact studies for Master Plan reviews are not inappropriate, but they are out of the ordinary, and he asked what the goal of such a study would be and what would be done with the information. He said an analysis of this area would not be the same as for the study done in Scio Township, and without knowing where the traffic outlets from the Biltmore site would be a true analysis will not be possible. Stanalajczo said a study of current conditions would not be useful for the 5, 10, and 15 year points in the future as the a buildout of 1,500 homes unfolded, but if the Commission wants it the cost should be covered by the Township.

Cousino said the entire issue of amending the Master Plan was not being considered prior to the Biltmore request, and it is obvious that there would be serious impacts with the addition of 1,500 homes to the area. Chick said it is not wrong to consider a Master Plan amendment. Chockley said although Biltmore was free to request an amendment to the Master Plan, the Commission was not required to agree to do so.

Roman said he agrees Biltmore should not be required to study traffic in the area, and he noted there is apparently a lot of information which could be provided to the Township from the County, State, and private sources.

Cousino said Biltmore would not be considering this development without the possibility of the sewer extension that is being considered along North Territorial. Fink said since it is not clear whether either the Whitmore Lake sewer assessment district (SAD) or the Biltmore project will happen; they need to be considered independently. Cousino said the area being considered by Biltmore was left in the Master Plan as agricultural because it was not served by sewer, so he questioned whether Biltmore would have considered making their request without the SAD having been proposed. Fink agreed that SAD probably created the momentum, but it is possible that other connection points for the Biltmore development could be provided at a similar cost.

Cousino said a 1,500 unit housing development would constitute a 50% increase in the number of homes in the Township. Stanalajczo said what the developer wants is irrelevant; the Commission needs to visualize what the community should look like in the future, and all types and densities of development need to be accommodated in order for the Plan to be defensible.

Lewan recalled that there was support last year from both the Commission and the Township Board to move forward with a sewer study based on Biltmore's request. Iaquinto said it seems that there is strong interest in having a traffic study for this area. Cousino said it would be helpful for the Township to have whatever data and studies the Michigan Department of Transportation (MDOT) and the WCRC already have. Lewan said he can investigate that.

Fink said the sewer capacity study being prepared now will not address any specific issues related to the Biltmore development. Roman said he understands that, but the information resulting from the study, including capacity, will still be useful in analyzing this request.

Chockley questioned whether—if the sewer study shows a capacity for only another 1,500 homes—the Township would want to commit to dedicating sewer service for all of those homes in one place. She said she thinks the Master Plan is a great one, and the Biltmore area was designated as low density because of the agricultural use and environmental impacts. She said Biltmore could get up to a 150% density bonus—equivalent to one unit per two acres—with the current zoning. Stanalajczo questioned whether sewer service could be denied because it could result in all of the sewer capacity being used up. Fink said he doubts it, but he does not know. Cousino said there is already land zoned for higher densities within the existing

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sewer districts, and he questioned what would happen if no sewer capacity was left for those properties. Fink said it would not be appropriate to hold back capacity for development that may or may not ever occur. He said that is a policy issue that the Board will have to address when the sewer service study is done.

Cousino questioned how the issue of leapfrogging development applies to the Biltmore request. Lewan said the Master Plan indicates sewer service should not be extended to allow leapfrog development. Fink said the end of the line in the proposed SAD would end 500-1000 feet from the next property, so what constitutes leapfrogging becomes a matter of policy and interpretation.

Chockley said she would like to get as much traffic study information as possible without the Township spending a lot of money. Lewan said there should be quite a bit of information available from the County, and he and Fink should be able to have that by the next meeting. Chockley said the Commission would also like to have the sewer study as soon as it is available.

Chick asked about the scientific survey of residents Lewan suggested in his memo. Fink highly recommended that any survey be done scientifically to insure that is representative of the community—random and sampled across multiple variables (geographic, income level, etc.). Chockley asked Lewan and Fink to work on getting quotes for this type of survey. Stanalajczo said if such a survey is done there would not be a need for visioning sessions which would be skewed by the input of those who decided to participate.

Regarding the studies requested from Biltmore, Lewan said there seems to be consensus that a cost of services study will not be required, and while a traffic study could still be requested, further consideration of that can be delayed until after publicly available information is reviewed.

[Iaquinto left at this point].

11. POLICY REVIEW & DISCUSSION

Workshop Presentation: Site Plan Options allowed by the Zoning ordinance for Residential Zoning Classifications. Lewan gave a slide presentation regarding density comparisons for zoning categories. He presented maximum densities for a sample 80 acre parcel assuming the best conditions (soils, natural features, etc.).

Zoning	Lot size	Layout	# Lots
ARMin.	5 acres	Conventional	13
AR1	acre typically	Open Space	30
LR2	acre min.	Conventional	32
LR1	acre min	Yield-Open Space	55
LR½	acre typically	Open Space	55
LRmin.	33K sq. ft.	Yield-Open Space	81
LR¾	acre typically	Open Space w/sewer	81
MDR¾	acre	Conventional	188

Lewan presented a land use map of the US-23 corridor between Ann Arbor and Brighton provided by the Southeast Michigan Council of Governments (SEMCOG). He said it shows denser residential development around Whitmore and Horseshoe Lakes, then again more residential as Brighton is approached.

Chockley said the Huron River Watershed Council has received a grant to help communities prepare maps of Townships' green infrastructure. She said they offered to do this for Northfield Township and it could aid in the work of reviewing the Master Plan. She said they would start work in the spring and complete it by September. She said she will ask them to make a presentation to the Commission about this.

12. MINUTES

February 18, 2015, Regular Meeting

Chockley made several minor corrections.

- **Motion:** Stanalajczo moved, Chick supported, that the minutes of the February 18, 2015, regular meeting be approved as corrected, and to dispense with the reading. **Motion carried 7—0 on a voice vote.**

13. SECOND CALL TO THE PUBLIC

Master Plan. David Gordon, 5558 Hellner Road, said the cost of the last Master Plan was about \$35,000 and he questioned whether the top priority of the Commission would be amending the Master Plan if Biltmore had not made their request. He said none of the people in the proposed development area are in favor of it. He said he would like to see more presentations at Commission meetings about preserving open space, promoting farming, etc.

14. COMMENTS FROM THE COMMISSIONERS

Roman asked for information to be given to the Commission about the alternative infrastructure options for the limited Master Plan study area, and said he hopes any traffic study will be based on the proposed MDOT improvements to US-23. Cousino recalled that Biltmore specifically stated that they chose the site because it is in the Ann Arbor Public Schools (AAPS) district, and he questioned whether that will still be an attraction in light of AAPS seemingly opening up to enrollment from outside the district.

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Chick said everyone involved in developing the current master plan was very happy with it, and until the end of the process the expanded Master Plan study area was designated for higher density, but was changed at the end of the process to provide a buffer area to match agricultural preservation efforts being made by Ann Arbor Township. She added it is very good that the Township is doing a sewer study because the information is needed regardless of the Master Plan review.

15. ANNOUNCEMENT OF NEXT MEETING

March 18, 2015, at 7:00 P.M. at the Public Safety Building was announced as the next regular Commission meeting time and location.

16. ADJOURNMENT

- **Motion:** Chick moved, Roman supported, that the meeting be adjourned.
Motion carried 7—0 on a voice vote.

The meeting was adjourned at 9:39 P.M.

Prepared by Lisa Lemble.

Corrections to the originally issued minutes are indicated as follows:

Wording removed is ~~stricken through~~;

Wording added is underlined.

Adopted on _____, 2015.

Marlene Chockley, Chair

Mark Stanalajczo, Secretary

Official minutes of all meetings are available on the Township's website at
<http://www.twp-northfield.org/government/>