



PLANNING COMMISSION MEETING AGENDA REGULAR MEETING

500 W. Big Beaver
Troy, MI 48084
(248) 524-3364
www.troymi.gov
planning@troymi.gov

Michael W. Hutson, Chair, and Mark Maxwell, Vice Chair
Donald Edmunds, Philip Sanzica, Robert Schultz, Thomas Strat
John J. Tagle, Lon M. Ullmann and Mark J. Vleck

November 9, 2010

7:30 P.M.

Council Chamber

1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES October 26, 2010 Special/Study Meeting
4. PUBLIC COMMENTS – For Items Not on the Agenda

SPECIAL USE REQUEST

5. PUBLIC HEARING – SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (File Number SU 384) – Proposed LA Fitness, 1501 Maple Lane, South of Maple and West of Coolidge, Section 31, Currently Zoned M-1 (Light Industrial) District

PRELIMINARY SITE PLAN REVIEW

6. PRELIMINARY SITE PLAN REVIEW (File Number SP 965) – Proposed Alpha Dental Center, 405 E. Maple Road, Northeast Corner of Maple and Kirkton, Section 27, Currently Zoned O-1 (Office Building) District

OTHER BUSINESS

7. COMPREHENSIVE ZONING ORDINANCE REWRITE – Discussion with Representatives from Carlisle/Wortman Associates, Inc. - Article 4 District Regulations
8. PUBLIC COMMENTS – Items on Current Agenda
9. PLANNING COMMISSION COMMENTS

ADJOURN

NOTICE: People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk by e-mail at clerk@troymi.gov or by calling (248) 524-3317 at least two working days in advance of the meeting. An attempt will be made to make reasonable accommodations.

The Special/Study Meeting of the Troy City Planning Commission was called to order by Chair Hutson at 7:30 p.m. on October 26, 2010 in the Council Board Room of the Troy City Hall.

1. ROLL CALL

Present:

Donald Edmunds
Michael W. Hutson
Mark Maxwell
Philip Sanzica
Robert M. Schultz
Thomas Strat
Lon M. Ullmann
Mark J. Vleck

Absent:

John J. Tagle

Also Present:

R. Brent Savidant, Acting Planning Director
Allan Motzny, Assistant City Attorney
Zachary Branigan, Carlisle/Wortman Associates, Inc.

2. APPROVAL OF AGENDA

Resolution # PC-2010-10-071

Moved by: Schultz
Seconded by: Edmunds

RESOLVED, To approve the Agenda as prepared.

Yes: All present (8)
Absent: Tagle

MOTION CARRIED

3. APPROVAL OF MINUTES

Resolution # PC-2010-10-072

Moved by: Sanzica
Seconded by: Schultz

RESOLVED, To approve the minutes of the October 12, 2010 Regular meeting as prepared.

Yes: All present (8)
Absent: Tagle

MOTION CARRIED

4. PUBLIC COMMENT

There was no one present who wished to speak.

5. BOARD OF ZONING APPEALS (BZA) REPORT

Mr. Edmunds presented the BZA Report.

6. DOWNTOWN DEVELOPMENT AUTHORITY (DDA) REPORT

Mr. Savidant indicated there was no October DDA meeting.

7. PLANNING AND ZONING REPORT

Mr. Savidant presented the Planning and Zoning Report.

STUDY ITEM

8. COMPREHENSIVE ZONING ORDINANCE REWRITE (ZOTA 236) – Discussion with Representatives from Carlisle/Wortman Associates, Inc.

Mr. Branigan presented the following draft Articles:

- Article 4 District Regulations
- Article 5 General Provisions
- Article 9 Development Options
- Article 11 Sustainable Design and Environmental Standards
- Article 13 Site Design Standards

Mr. Savidant led a discussion regarding the draft Zoning District Map.

There was general discussion on all items.

OTHER BUSINESS9. **PUBLIC COMMENTS** – Items on Current Agenda

There was no one present who wished to speak.

10. **PLANNING COMMISSION COMMENTS**

Mr. Ullmann commented on the newly constructed cell tower at the southwest corner of Square Lake and John R. Mr. Savidant stated he would take a photograph of the tower and email it and the approved site plan and meeting minutes to all Planning Commissioners for their consideration.

ADJOURN

The Special/Study Meeting of the Planning Commission adjourned at 10:05 p.m.

Respectfully submitted,

Michael W. Hutson, Chair

R. Brent Savidant, Acting Planning Director

G:\Planning Commission Minutes\2010 PC Minutes\Draft\10-26-10 Special Study Meeting_Draft.doc

DATE: November 4, 2010

TO: Planning Commission

FROM: R. Brent Savidant, Acting Planning Director

SUBJECT: PUBLIC HEARING – SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (File Number SU 384) – Proposed LA Fitness, 1501 Maple Lane, South of Maple and West of Coolidge, Section 31, Currently Zoned M-1 (Light Industrial) District

The petitioner, Maple Lane Acquisition Co., LLC, submitted the above referenced Special Use application for a 48,118 square foot LA Fitness facility and 14,188 square foot warehouse facility on the 7.03 acre site. The applicant requests a 551 space parking space reduction from the 970 space requirement.

The attached report prepared by Carlisle/Wortman Associates, Inc. summarizes the application.

Attached reports address the issues of parking space reduction and right hand turn lane on Maple Road.

Attachments:

1. Maps
2. Report prepared by Carlisle/Wortman Associates, Inc.
3. Trip Generation and Turn Lane Evaluation, prepared by PEA.
4. Parking Analysis for LA Fitness, prepared by PEA.
5. Parking Analysis and Traffic Analysis, prepared by OHM.

cc: Applicant
File/ SU 384

G:\SPECIAL USE\SU 384 LA Fitness Sec 31\SU-384 LA Fitness 11 09 10.docx

PROPOSED RESOLUTION

5. PUBLIC HEARING – SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (File Number SU 384) – Proposed LA Fitness, 1501 Maple Lane, South of Maple and West of Coolidge, Section 31, Currently Zoned M-1 (Light Industrial) District

Resolution # PC-2010-11-

Moved by:

Seconded by:

RESOLVED, The Planning Commission hereby approves a reduction in the number of required parking spaces for the proposed LA Fitness and warehouse space to 419 when a total of 970 spaces are required on the site based on off-street parking space requirements, as per Article XL. This 551-space reduction is justified through a comparison of parking spaces provided for similar uses in the area, as outlined in the Parking Analysis prepared by PEA and report prepared by OHM.

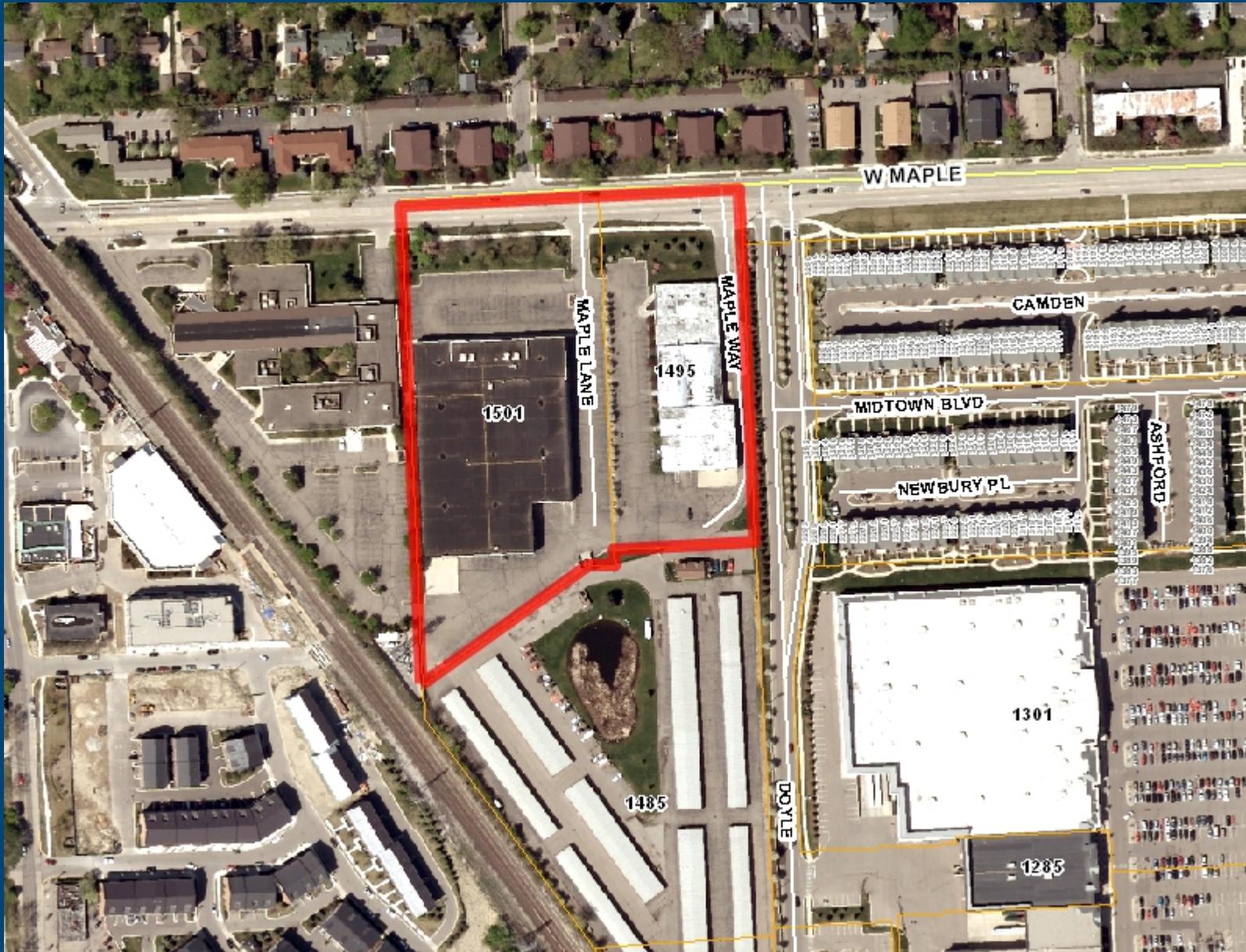
BE IT FURTHER RESOLVED, That Special Use Approval and Preliminary Site Plan Approval for the LA Fitness indoor commercial recreation facility, located south of Maple and west of Coolidge (1501 Maple Lane), Section 31, within the M-1 zoning district, be granted, subject to the following:

1. Provide documentation of cross access easement to Doyle Drive prior to Final Site Plan Approval.
2. Resolve traffic analysis concerns in a matter acceptable to the City Engineer.

Yes:

Absent:

MOTION CARRIED / FAILED



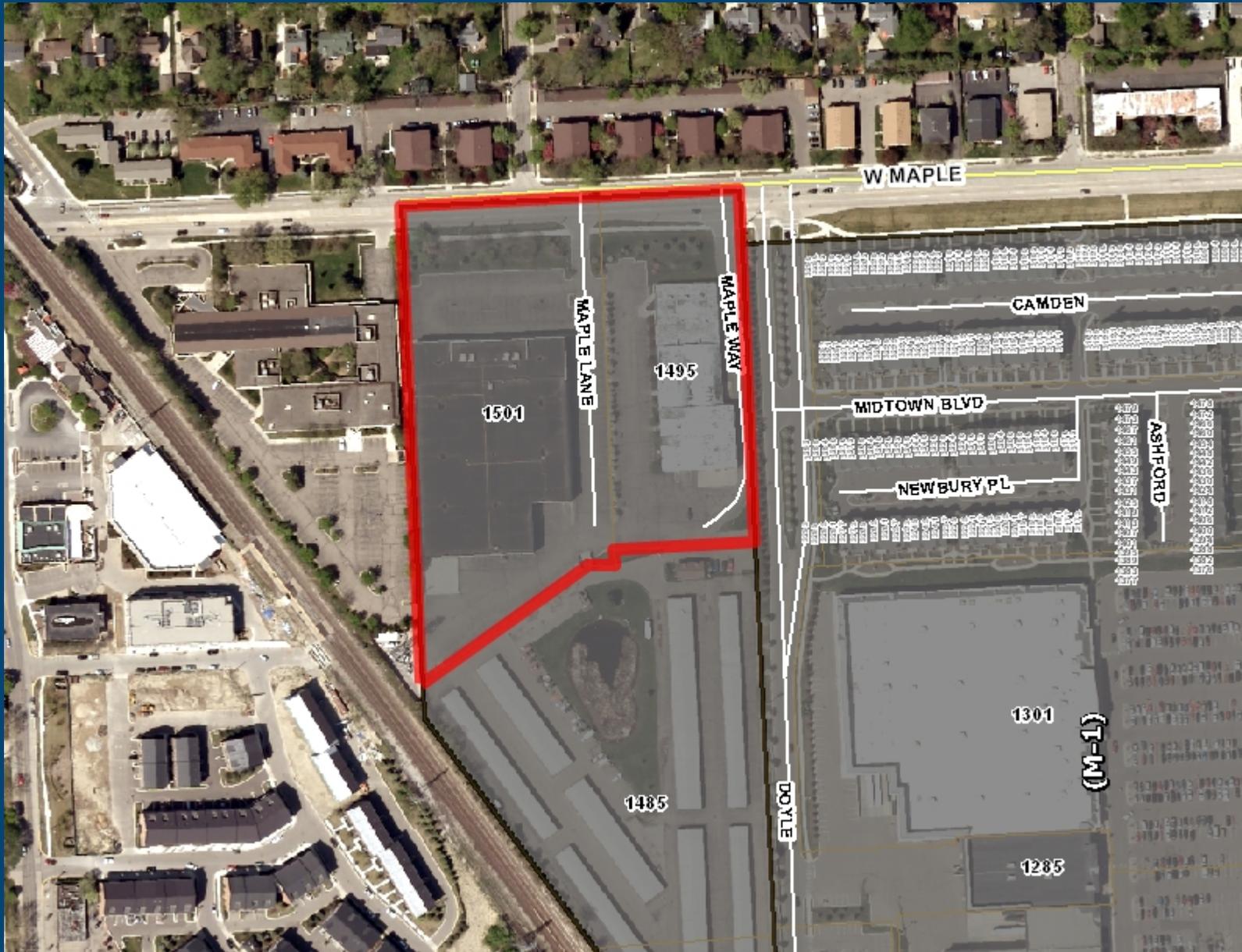
Legend

-  I-75
-  Road Centerline
 -  Major Road
 -  Industrial Road
 -  Local Road
-  Hydrography Poly
-  Hydrography Arc
-  Parcels
- Aerial Photos - 2008
 -  Red: Band_1
 -  Green: Band_2
 -  Blue: Band_3
-  I-75
-  Road Centerline
 -  Major Road
 -  Industrial Road
 -  Local Road
-  Hydrography Poly
-  Hydrography Arc
-  Parcels
- Aerial Photos - 2008
 -  Red: Band_1
 -  Green: Band_2
 -  Blue: Band_3

480 0 240 480 Feet

Scale 1: 2,879





Legend

-  I-75
-  Road Centerline
 -  Major Road
 -  Industrial Road
 -  Local Road
- Zoning**
 -  (PUD) Planned Unit Development
 -  (B-1) Local Business District
 -  (B-2) Community Business District
 -  (B-3) General Business District
 -  (R-C) Research Center District
 -  (C-F) Community Facilities District
 -  (C-J) Consent Judgment
 -  (E-P) Environmental Protection District
 -  (R-EC) Residential Elder Care
 -  (P-1) Vehicular Parking District
 -  (H-S) Highway Service District
 -  (M-1) Light Industrial District
 -  (O-1) Office Building District
 -  (O-M) Office Mid-Rise District
 -  (OSC) Office Service Commercial District
 -  (CR-1) One Family Residential Cluster District
 -  (R-1A) One Family Residential District
 -  (R-1B) One Family Residential District
 -  (R-1C) One Family Residential District
 -  (R-1D) One Family Residential District
 -  (R-1E) One Family Residential District
 -  (R-1T) One Family Attached Residential Distr
 -  (R-2) Two Family Residential District
 -  (R-M) Multiple Family Residential Medium De
 -  (RM-1) Multiple Family Residential District Lc
 -  (RM-2) Multiple Family Residential District (M
 -  (RM-3) Multiple Family Residential District (Hi
-  Hydrography Poly
-  Hydrography Arc
-  Parcels

Aerial Photos - 2008

-  Red: Band_1
-  Green: Band 2

Printed: 11/3/2010

480 0 240 480 Feet

Scale 1: 2,879





CARLISLE/WORTMAN ASSOCIATES, INC.

Community Planners /Landscape Architects

605 S. Main, Suite 1
Ann Arbor, MI 48104
734-662-2200
fax 734-662-1935

6401 Citation Drive, Suite E
Clarkston, MI 48346
248-625-8480
fax 248-625-8455

Date: November 5, 2010

Special Land Use Review For City of Troy, Michigan

Applicant: Maple Lane Acquisition Co., LLC

Project Name: L.A. Fitness

Plan Date: October 12, 2010

Location: 1501 Maple Lane

Zoning: M-1, Light Industrial District

Action Requested: Preliminary Site Plan Approval and Special Use Approval

Required Information: Deficiencies noted

PROJECT AND SITE DESCRIPTION

We are in receipt of a special land use and preliminary site plan submittal for a building renovation for an existing facility to be converted to an L.A. Fitness health club and an attached warehouse space. The building will be reduced in size and an adjacent building will be demolished and the two building sites combined into a single developed lot.

Location of Subject Property:

The property is located along Maple Road, immediately west of Doyle Drive.

Size of Subject Property:

The parcel is 4.86 acres in size.

Proposed Uses of Subject Parcel:

The applicant proposes to reduce the size of the existing building by removing a portion of the building along the north end. The remaining square footage will be substantially renovated into a fitness club and a warehouse space. An existing building located to the east will be removed to make room for an expanded parking area with proposed access to Doyle Drive.

Current Zoning:

The property is currently zoned M-1, Light Industrial. Section 28.30.08 permits indoor commercial recreation spaces as a use permitted subject to special use approval. The warehouse space is permitted by right in the M-1 District.

Zoning Classification of Adjacent Parcels:

- North: City of Birmingham, multiple family residential.
- South: M-1, Light Industrial, self-storage facility.
- East: M-1, Light Industrial, multiple family residential and retail (consent judgment)
- West: City of Birmingham, office

Future Land Use Plan Designation:

The property is located in the Transit Center Land Use Plan designation.

AREA, WIDTH, HEIGHT, SETBACKS

Required and Provided Dimensions:

Section 30.20.09 requires the following setbacks and height limits:

	<u>Required:</u>	<u>Provided:</u>
Setbacks		
Front (east/Doyle Drive)	50 feet	290.87 feet
Front (north/Maple Road)	50 feet	216.61 feet
Rear (south)	20 feet	68.29 feet
Side (west)	10 feet	10.00 feet
Building Height	3 stories, 40 feet	40 feet

Items to be Addressed: None.

PARKING, LOADING

Proposed Parking:

The site plan indicates that 419 spaces are proposed, including 9 barrier-free spaces.

Parking Calculations:

The parking calculations are as follows.

	<u>Required</u>
Health club	1 per 50 square feet or 1 for every 3 persons at maximum occupancy, whichever is greater. In this case, 48,118 sq. ft. requires 962 spaces
Warehouse	1 space for every 1,700 sq. ft. of floor area. In this case, 14,188 sq. ft. requires 8 spaces.
Total Required	970 spaces
Total Provided	419 spaces, including 9 barrier-free spaces

Parking Deficiency:

The proposed site plan does not meet minimum Ordinance requirements. The plan includes 419 spaces where 970 are required, a deficiency of 551 spaces. They have included a parking study conducted by Professional Engineering Associates, Inc., which refers to both ULI and ITE parking rates. They state that these sources justify a deviation in that they recommend 337 and 403, respectively. However, the City engineering consultant, OHM, disagrees that the ULI calculations should be used in that the ULI does not provide sufficient detail on how their figures were arrived at for this particular use. The ITE calculations are valid. OHM does, however, disagree with some of the specific methods of Professional Engineering Associates, Inc., but still arrives at a similar result. OHM states that, using ITE data, 408 total spaces would be required, 11 less than what the applicant is proposing.

The Planning Commission is authorized to modify parking requirements by Section 40.20.12. It states:

The City recognizes that, due to the specific requirements of any given development, inflexible application of the parking standards may result in development with parking in excess of what is needed. The result may lead to excessive paving and stormwater runoff and reduction of area which would be left as open space. Accordingly, the Planning Commission may, in the reasonable exercise of discretion, permit deviations and allow less parking upon a finding that such deviations are likely to provide a sufficient number of parking spaces to accommodate the specific characteristics of the use in question. Such finding shall take into consideration the following standards and shall be based upon specific facts and information provided by the applicant, and such other information the Planning Commission shall determine relevant:

- A. *Nature of use. The nature of the particular use or combination of uses (as the case may be), relying upon accepted planning principles with regard to the anticipation of parking demand.*
- B. *Allocation of square footage. The allocation of square footage to and among uses, including the anticipation of long-term parking (e.g. grocery or movie theater uses), short term parking (e.g. dry cleaners), and/or the absence of parking for some portion of the use (e.g. drive-through use).*
- C. *Impact.*
 - 1. *The reasonably anticipated circumstance in the event there is excess parking demand where the number of parking spaces available and/or the likelihood that parking would occur on major thoroughfares or within residential neighborhoods.*
 - 2. *The need for and benefit of additional open space or landscaped areas on the area, which would not be feasible if the full number of required spaces were improved in the face of an apparent lack of need for all such spaces, taking into consideration accepted planning principles.*
- D. *Other specific reasons which are identified in the official minutes of the Planning Commission. The Planning Commission may attach conditions to the approval of a deviation from off-street parking requirements that bind such approval to the specific use in question.*

Given the recommendations of the City engineering consultant that the requested deviation is warranted, we recommend the Planning Commission approve the request.

Items to be Addressed: *Obtain a parking reduction for the 551 additional required parking spaces.*

SITE ACCESS AND CIRCULATION

Proposed Circulation:

The site will have access to Maple Road via a single driveway at the center of the site. The site plan also includes access to Doyle Drive with a driveway there. Cross access to the landlocked self-storage facility to the south is also provided, as is cross access to the office complex to the west. Doyle Drive is not a public road. As a private drive, the applicant would require a cross access easement to make the proposed connection.

The applicant has provided a study conducted by Professional Engineering Associates, Inc. evaluating turn lanes and trip generation. The City's engineer, OHM, has provided its own review commenting on the Professional Engineering Associates conclusions.

OHM states that a right turn lane must be provided along Maple Road. They disagree with the assertion of Professional Engineering Associates that the previously existing right turn lane was eliminated and not replaced when Maple Road was widened, which supports their opinion that

the lane is unnecessary. OHM states that the reason the lane was not redeveloped was a lack of right-of-way due to the Maple Road expansion taking place entirely in the Troy side of the centerline. They state that this project presents an opportunity to replace the lane. Also, OHM state that the RCOC guidance suggests a right-turn taper is needed and would allow for better access to the site if there is stacking at the Doyle Drive signal.

Sidewalks

The site plan includes the preservation of existing sidewalks along Maple Road and provides adequate sidewalks around the renovated building to allow for safe access. No sidewalk is provided along Doyle Drive, although Doyle Drive is not a public road and no sidewalk is required at this location.

Items to be Addressed: 1.) Provide documentation of cross access easement to Doyle Drive prior to Final Site Plan Approval. 2.) Address the concerns of the November 2, 2010 OHM review letter.

NATURAL RESOURCES

The site is existing and devoid of significant natural features, with the exception of some existing landscaping and a few trees. Please refer to our analysis of site landscaping later in this review.

Items to be Addressed: None.

LANDSCAPING

A landscape plan has been provided identifying how Ordinance requirements are being met. The site does currently have a landscapes greenbelt with mature frontage trees, and the applicant is proposing extensive new trees and landscaping throughout the site.

Trees:

The landscape plan shows the existing greenbelt along Maple Road being preserved, although it does not call out specific trees in this area. The frontage along Maple Road is 540 feet, requiring 18 trees. While specific trees are not identified, the site plan states that “more than 18 trees” are provided. This must be conformed for final site plan and details of existing trees should be identified on the landscape plan.

The greenbelt along Doyle Drive has also been provided as if Doyle Drive were a public street. We support this approach. The Doyle frontage is 507 feet (although sheet L-1, in the greenbelt notes in the Landscape Requirements Table mistakenly identifies the frontage as 195 linear feet). The 507 feet of frontage require 17 trees, which are provided.

Greenbelt:

A ten (10) foot wide greenbelt has been provided along the Maple and Doyle frontages, and required trees are provided as noted above.

Minimum landscaped area:

The proposed landscape plan provides 54,417 total square feet of landscaped area, and 30,623 square feet are required. The plan exceeds Ordinance requirements.

Items to be addressed: None.

ELEVATION

Proposed floor plans and elevations have been provided by the applicant. Building materials consist almost entirely of E.I.F.S. and an aluminum sash and glass system. There are no Ordinance limitations on building materials in the M-1 District at this time.

Items to be Addressed: None.

SPECIAL USE REVIEW

For any special land use, according to Section 03.31.04, the Planning Commission shall review the request, supplementary materials either in support or opposition thereto, as well as the Planning Department's report, at a Public Hearing established for that purpose, and shall either grant or deny the request, table action on the request, or grant the request subject to specific conditions.

Required Information

In the M-1 District, an indoor recreation use is permitted as a special land use, in accordance with Section 28.30.08. The only specific use regulation for indoor commercial recreation centers is that parking must be provided in accordance with established Ordinance requirements. See our parking analysis earlier in this review for more information in this regard.

Standards of Approval

Section 03.31.05 states that before approving any requests for Special Use Approval, the Planning Commission, or the City Council, where indicated, shall find that:

1. *The land use or activity being proposed shall be of such location, size and character as to be compatible with the orderly development or use of adjacent land and/or Districts.*
2. *The land use or activity under consideration is within the capacity limitations of the existing or proposed public services and facilities which serve its location.*

We believe the use of this land use as proposed by the site plan (and as it exists today) is of such location and character as to be compatible with the orderly development or use of adjacent land and/or Districts, and will not exceed the capacity limitations of the existing or proposed public services and facilities in the area.

Items to be addressed: None.

RECOMMENDATIONS

We largely support the proposal as submitted. The site plan conforms to Ordinance requirements and represents a significant improvement to the site and the development of an amenity for the neighboring residential areas. While substantial in scope, the project actually greatly reduces the building square footage on the site and provides additional landscaping, required access, and an improved facility. There are several small outstanding elements noted herein, especially with regard to the provision of a right-turn lane.

We recommend the Planning Commission grant the required parking modification, preliminary site plan, and special use applications conditioned on the resolution of traffic analysis concerns in a matter acceptable to the City Engineer.



CARLISLE/WORTMAN ASSOCIATES, INC.
Zachary G. Branigan, LEED AP, AICP
Associate



PROFESSIONAL ENGINEERING ASSOCIATES, INC.

CIVIL ENGINEERS / LAND SURVEYORS / LANDSCAPE ARCHITECTS

2430 Rochester Court, Suite 100, Troy, MI 48083-1872

P : (248) 689-9090 www.peainc.com F : (248) 689-1044

James P. Butler, PE

President

David E. Cole, PS

Vice President

Wendy E. Graham, PE

Vice President

David N. Hunter, PE, PS, LEED AP

Vice President

TECHNICAL MEMORANDUM

To: Mr. Linden Nelson, Managing Member
2100 Maple, LLC

DRAFT VIA EMAIL
linden@nelsonventures.com

From: Michael J. Labadie, PE
Timothy J. Likens

Date: November 2, 2010

Subject: Proposed LA Fitness
City of Troy, Michigan
Trip Generation and Turn Lane Evaluation
PEA # 2010-207

Introduction

The proposed LA Fitness site is located on the southwest quadrant of the intersection of Maple Road and Doyle Drive in the City of Troy, Michigan. LA Fitness would occupy the existing building at 1501 Maple Lane, and the existing building at 1495 Maple Way would be demolished in order to provide parking for the LA Fitness facility. Currently, the site has 48,800 square feet (SF) of office use and 75,583 SF of warehouse space. The proposed LA Fitness would occupy 48,118 SF, with the remaining 14,188 SF of the existing building to be used for personal storage only.

The City of Troy has requested the completion of a trip generation analysis and right turn lane evaluation for the proposed Maple Road access, as this section of Maple Road is under City jurisdiction. Professional Engineering Associates, Inc. (PEA) has completed this analysis and evaluation in accordance with Section H-1(b) of the City of Troy Development / Engineering Standards and Chapter 41, Section 4.05F of the City Code of Ordinances. The purpose of this memorandum is to outline the results for consideration by the City Engineering and Planning Departments.

Trip Generation Forecast

The number of AM peak hour, PM peak hour, and daily trips that are generated by the existing land uses and that would be generated by the proposed LA Fitness were forecast based on the rates and equations published by the Institute of Transportation Engineers in *Trip Generation, 8th Edition*. A comparison of the site trip generation forecasts is shown in Table 1, which

2009 American Society of Landscape Architects-Michigan Chapter "Firm of the Year"

Howell Office 2900 E. Grand River Avenue, Howell, MI 48843 • (517) 546-8583 • Fax (517) 546-8973

• Municipal Engineering • Traffic Engineering • Asset Management • Sustainable Design • Geotechnical Engineering • Site Development • Wetland Services •

indicates that the proposed LA Fitness would generate 63 fewer AM peak hour trips and 9 additional PM peak hour trips as compared to the existing land uses. Therefore, the impact of the proposed redevelopment on site-generated traffic volumes is insignificant.

Table 1
Existing vs. Proposed Land Use
Site Trip Generation ¹

Land Use	ITE Code	Amount	Units	AM Peak Hour			PM Peak Hour			Average Daily Traffic
				In	Out	Total	In	Out	Total	
Existing										
Office	710	48,800	SF	93	13	106	23	110	133	768
Warehouse	150	75,583	SF	18	5	23	6	18	24	387
TOTAL				111	18	129	29	128	157	1,155
Proposed										
LA Fitness	492	48,118	SF	30	36	66	95	71	166	1,585
DIFFERENCE				(81)	18	(63)	66	(57)	9	430

1. Trip generation based on the Institute of Transportation Engineers' Trip Generation, 8th Edition and Trip Generation Handbook, 2nd Edition

Turn Lane Evaluation

According to the City Development / Engineering Standards, *Right turn deceleration lanes will be installed on major thoroughfares having four (4) or five (5) lanes of pavement at the intersection of driveways for all developments, when the peak hour entering trips generated by the site during the street peak hour are equal to or greater than twenty (20) as contained in the trip table of the current ITE Trip Generation Rates.* Based on the trip generation forecast shown in Table 1, the proposed land use would generate a peak inbound volume of 95 vehicles during the PM peak hour. In order to determine the direction of approach (eastbound versus westbound) for inbound site traffic, the directional distribution of PM peak period (4:00 PM to 6:00 PM) traffic volumes on Maple Road were analyzed.

PEA obtained hourly traffic volume data at the intersection of Maple Road and Doyle Drive from the Road Commission for Oakland County (RCOC). This intersection is controlled by a SCATS traffic signal, which is capable of recording traffic volume data by movement. RCOC provided data for a 24-hour period on Tuesday, October 5th, 2010. These data are attached to this memorandum, and indicate a PM peak period directional distribution of 47% eastbound and 53% westbound on Maple Road adjacent to the subject site.

Based on a PM peak hour forecast of 95 inbound trips and an eastbound trip distribution of 47%, a peak hour volume of 45 vehicles would turn right from Maple Road into the site driveway. This is a worst-case scenario, as a portion of these inbound trips may utilize Doyle Drive to access the site. According to City Standards, this peak hour right turn volume would require the installation of a right turn deceleration lane on Maple Road at the proposed site driveway.

Additional Information

It is important to note that a right turn deceleration lane approximately 50 feet in length previously existed on Maple Road at the site driveway. When Maple Road was widened from 4 to 5 lanes, this turn lane was removed. The existing land uses are forecast to generate 111 peak hour inbound trips, which is greater than the number of peak hour inbound trips that would be generated with the proposed redevelopment. As the proposed redevelopment would not increase the number of right turns from Maple Road as compared to existing conditions, and it was previously determined that a right turn lane is not required at this location, the City Engineer should consider that a right turn lane not be required for this redevelopment.

In addition, PEA completed an evaluation of the *RCOC Warrants for Right Turn Deceleration Lane or Taper*. Although this section of Maple Road is not under RCOC jurisdiction, this warrant was evaluated to document the specifications for driveway permits applied throughout Oakland County, including Maple Road east of Coolidge Highway. The hourly traffic data provided by RCOC indicate that Maple Road carries a two-way 24-hour volume of 24,048 vehicles adjacent to the subject site. Based on an eastbound inbound peak hour right turn volume of 45 vehicles, a right turn lane would not be required based on RCOC standards. The completed RCOC warrant is attached.

Conclusions

The ITE trip generation forecast for the proposed LA Fitness indicates that the redevelopment would not significantly increase site trip generation. During the PM peak hour, the site would generate 95 inbound trips, with 47% or 45 inbound trips traveling eastbound and turning right from Maple Road. This volume of inbound right turns at the site driveway to Maple Road would require a right turn deceleration lane based on City Standards. However, the City Engineer should consider that the existing land uses generate a greater number of peak hour inbound trips as compared to the proposed use, and it was previously determined appropriate to remove a right turn deceleration lane at this location. Furthermore, County standards would not require the construction of a right turn lane at this location. Therefore, PEA recommends that the City not require the construction of a right turn deceleration lane on Maple Road for this redevelopment project.

Any questions related to this turn lane evaluation and memorandum should be addressed to Professional Engineering Associates, Inc.

Attachments:

24-Hour Traffic Volume Data
RCOC Warrants for Right Turn Deceleration Lane or Taper

Site: 1182 Tuesday 5-Oct 2010

Calculated 24-Hour Volume Two-way
on Maple Road at site driveway

Maple & Doyle

Tuesday, 05 October 2010
 NB Doyle 1 2
 WB Maple 3 5
 EB Maple 7 8

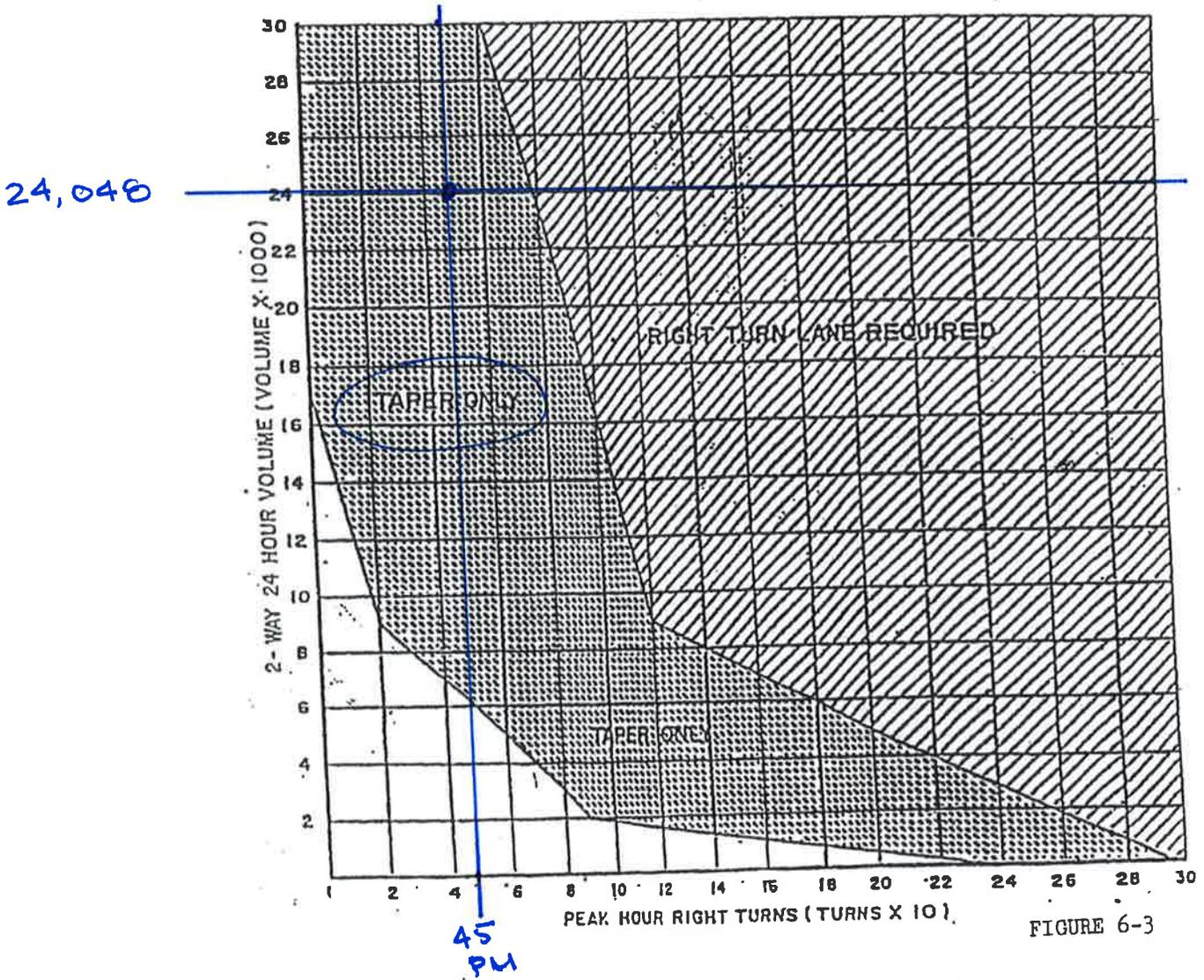
Left, Right
 6 Left, Thru, Right
 9 Thru, Thru, Right

EB Maple Thru, and Right
 WB Maple Thru
 NB Doyle Left

	Approach	Maple 2-way 24-hour		Directional Split	
		EB	WB	EB	WB
1:00 NB Doyle	4	7	11	4	4
1:00 WB Maple	4	16	25	21	21
1:00 EB Maple	34	10	46	46	46
2:00 NB Doyle	5	6	11	5	5
2:00 WB Maple	6	15	28	22	22
2:00 EB Maple	19	9	32	32	32
3:00 NB Doyle	0	0	0	0	0
3:00 WB Maple	3	11	16	13	13
3:00 EB Maple	7	3	11	11	11
4:00 NB Doyle	0	0	0	0	0
4:00 WB Maple	0	8	12	12	12
4:00 EB Maple	5	2	8	8	8
5:00 NB Doyle	0	1	1	0	0
5:00 WB Maple	0	10	12	12	12
5:00 EB Maple	12	4	17	17	17
6:00 NB Doyle	4	11	15	4	4
6:00 WB Maple	4	23	32	28	28
6:00 EB Maple	33	20	62	62	62
7:00 NB Doyle	26	41	67	26	26
7:00 WB Maple	5	84	131	126	126
7:00 EB Maple	112	90	213	213	213
8:00 NB Doyle	51	63	114	51	51
8:00 WB Maple	13	275	456	443	443
8:00 EB Maple	309	267	595	595	595
9:00 NB Doyle	50	77	127	50	50
9:00 WB Maple	29	432	731	702	702
9:00 EB Maple	449	329	857	857	857
10:00 NB Doyle	58	67	125	58	58
10:00 WB Maple	44	385	657	613	613
10:00 EB Maple	350	315	748	748	748
11:00 NB Doyle	76	78	154	76	76
11:00 WB Maple	36	296	578	542	542
11:00 EB Maple	347	278	730	730	730
12:00 NB Doyle	103	113	216	103	103
12:00 WB Maple	55	398	745	690	690
12:00 EB Maple	418	327	872	872	872
13:00 NB Doyle	76	116	192	76	76
13:00 WB Maple	75	416	771	696	696
13:00 EB Maple	447	372	967	967	967
14:00 NB Doyle	96	125	221	96	96
14:00 WB Maple	55	447	792	737	737
14:00 EB Maple	407	328	843	843	843
15:00 NB Doyle	94	143	237	94	94
15:00 WB Maple	46	419	747	701	701
15:00 EB Maple	386	330	831	831	831
16:00 NB Doyle	72	114	186	72	72
16:00 WB Maple	47	445	818	771	771
16:00 EB Maple	429	335	898	898	898
17:00 NB Doyle	64	97	161	64	64
17:00 WB Maple	68	431	879	811	811
17:00 EB Maple	465	356	931	931	931
18:00 NB Doyle	120	118	238	120	120
18:00 WB Maple	73	573	1326	1253	1253
18:00 EB Maple	505	419	1048	1048	1048
19:00 NB Doyle	66	112	178	66	66
19:00 WB Maple	63	554	1231	1168	1168
19:00 EB Maple	406	346	863	863	863
20:00 NB Doyle	107	129	236	107	107
20:00 WB Maple	67	306	579	512	512
20:00 EB Maple	283	240	613	613	613
21:00 NB Doyle	76	80	156	76	76
21:00 WB Maple	71	231	425	354	354
21:00 EB Maple	203	172	432	432	432
22:00 NB Doyle	30	35	65	30	30
22:00 WB Maple	49	163	301	252	252
22:00 EB Maple	159	123	318	318	318
23:00 NB Doyle	27	27	54	27	27
23:00 WB Maple	27	74	131	104	104
23:00 EB Maple	87	58	157	157	157
24:00:00 NB Doyle	11	14	25	11	11
24:00:00 WB Maple	8	36	57	49	49
24:00:00 EB Maple	73	28	108	108	108

TOTAL 24048 PM Peak 1979 2248
47% 53%

WARRANTS FOR RIGHT TURN DECELERATION LANE OR TAPER



THE TRIP GENERATION FOR PROPOSED US FITNESS
 95 INBOUND TRIPS PM PEAK HOUR (30 AM)
 47% EASTBOUND
 53% WESTBOUND

$95 * 47\% = 45$ EASTBOUND INBOUND TRIPS



PROFESSIONAL ENGINEERING ASSOCIATES, INC.
CONSULTING CIVIL ENGINEERS / LAND SURVEYORS / LANDSCAPE
2430 Rochester Court, Suite 100, Troy, MI 48083-1872
(248) 689-9090 www.peainc.com fax (248) 689-1044

James P. Butler, PE
President
David E. Cole, PS
Vice President
Wendy E. Graham, PE
Vice President
David N. Hunter, PE
Vice President

TECHNICAL MEMORANDUM

To: Mr. Brent Savidant, Acting Planning Director
From: Mr. Michael J. Labadie, P.E.
Professional Engineering Associates, Inc.
Date: October 12, 2010
Subject: Parking Analysis for LA Fitness
PEA Job # 2010-207

Introduction

Professional Engineering Associates has completed a parking analysis for the proposed LA Fitness development to be located on the south side of Maple Road west of Doyle Drive in the City of Troy, Michigan. This analysis included the calculation of the number of parking spaces that should be provided considering the proposed standalone LA Fitness center. These calculations are based on the City of Troy Parking Ordinance, the Urban Land Institute (ULI) Parking methodologies and information published by the Institute of Transportation Engineers (ITE).

Development Details

According to the information provided by LA Fitness, the proposed center will be 48,118 gross square feet. There is an additional building that will be 14,188 gross square feet that will be used as private storage for the site owner. LA Fitness has provided that from their experience at other locations in the region they will require 325 parking spaces at this site. The site plan provides 419 parking spaces currently.

City of Troy Parking Ordinance

Application of the requirements in the City of Troy Parking Ordinance results in a total number of spaces required by Ordinance of 970 spaces if the floor space calculation is used, and 329 spaces if the occupancy calculation is used. The Ordinance requires that the larger of the two be used. Comparing these numbers to the number provided on the site plan results in either a 551 space deficiency or a 90 space surplus.

ULI Parking Rates

ULI has compiled parking data for a variety of land uses and has published the peak parking rates in their second edition of *Shared Parking*. For this study, the number of spaces that should be provided was calculated based on the ULI base parking rates for single land uses. Based on this calculation the site will require 7.0 spaces /1,000 GSF or 337 parking spaces. This calculation results in a surplus of 82 spaces compared to the number provided on the site plan.

ITE Parking Rates

ITE has also compiled parking demand data for a variety of land uses and has published the information in their third edition of *Parking Generation*. For this study, we utilized the ITE parking demand data in two different calculations to determine the "effective parking supply" for this site. The first calculation utilized the 85th percentile rate of 8.27 spaces/1,000 GSF and then added 5%, with the result being an effective supply of $398 + 20 = 418$ parking spaces, a one space surplus. The second calculation utilized the average rate (5.19) + one standard deviation (2.43) + 10 percent. This calculation resulted in an effective supply of 403 parking spaces, a 16 space surplus.

Conclusions

Based on ULI and ITE parking calculations and information provided by LA Fitness, the proposed parking supply of 419 spaces shown on the current site plan is in excess of the number of spaces that would be needed. These calculations indicate that significantly fewer spaces are needed compared to what would be required by City Ordinance. Further, we believe that the number of spaces provided on the site plan will adequately serve this use on this site.

November 2, 2010



Mr. William Huotari, PE
Deputy City Engineer
City of Troy
500 W. Big Beaver Road
Troy, MI 48084

Subject: Review of LA Fitness Site Plan, Parking Analysis and Traffic Analysis
OHM JN: 0128-10-0060

Dear Mr. Huotari:

We have reviewed the material provided for the LA Fitness development at the corner of Maple Road and Doyle Drive. The site plan, Parking Analysis and Traffic Analysis were all prepared by PEA, Inc.

Site Plan

We have a few comments concerning the site plan which should be addressed.

1. There should be pedestrian connections, one to the north to the non-motorized path along Maple Road and one to the east to lead across Doyle Drive.
2. There are locations where parking has the potential to overhang sidewalks, such as against the east side of the proposed building. Where this can occur, the walks should be a minimum of 7' wide.

Parking Analysis

We agree with the finding of the PEA study that the reduction in parking spaces below the City's requirements has merit. However, the study fails to properly support its findings. For example, the study fails to explicitly account for the parking needs of the remnant warehousing contained on this site. Under the discussion they provide of ITE Parking Rates, PEA casually throws in an additional 5 to 10 percent, but does not mention that this may be to cover the warehouse parking needs.

The basis for the parking calculations should be ITE's reference Parking Generation, 3rd Edition. ULI does not adequately cover the information needed, and so should not be used. Given the limited amount of data available for the proposed land uses for this site, there are three potential methods of utilizing the ITE data sets for anticipating the likely parking demand for this site. They would be:

- A. Use of the regression equations for the appropriate land use codes, or
- B. Calculate a standard deviation about the mean of the data sets, or
- C. Use the 85th percentile of the range of the data sets.

For this purpose, we would look at all methods, and calculate the parking generation for both the fitness club (Land Use Code 492) and the warehouse (LUC 150). We would then generally use the greatest value of the three calculations.

OHM reviewed both the City's Ordinance and ITE parking demand rates for the two land uses. We found the City's Ordinance to call for 970 spaces, while ITE points to a peak demand of 408 spaces.

Based on the fact that the proposed parking supply meets the national demand rates provided by ITE, we believe that a deviation should be granted for this site.

Traffic Analysis

We agree with the finding of the PEA Traffic Study that the driveway from the site to Maple Road meets the City's requirement for a right turn lane. However, we do not support their conclusion that a right turn lane does not need to be provided. Rather, we recommend that the developer be required to provide the auxiliary lane.

We believe there are at least two points to support this conclusion. First, as with the parking analysis, the PEA study fails to account for the remnant warehousing contained on this site. While the peak hour impact of only 14,188 sq. ft. of warehousing will not be large, it will nonetheless add to the demand. The demand in the a.m. tends to be employees arriving in personal vehicles. The p.m. demand of arriving vehicles will be relatively small, but will be a mix of personal vehicles and trucking returning to the warehouse. We acknowledge that the PEA studies, both parking and traffic, presume that the warehousing is not an active use. The phrase used was that it was "... to be used for personal storage only." This City will have to determine if this assertion is to be relied upon. From our perspective, if the facility exists, it can be actively used, which would generate traffic demands that should be accounted for.

Next, PEA believes that not replacing the right turn lane at this driveway when Maple Rd was widened from 4 to 5 lanes is significant, proof that there was no need for the lane. That position fails to recognize the project dynamics when the road was widened. Maple Road is not centered on the section line, but biased to the south. The widening occurred on the Troy side of the border due to inadequate right-of-way to the north. In placing the widening on the south side, the result was not having sufficient road right-of-way on the south side to replace such auxiliary lanes without huge added expense to the road project. Forgoing the replacement due to ROW impacts and cost does not mean the need was not there. With the re-development of this site, the unmet needs can now be satisfied.

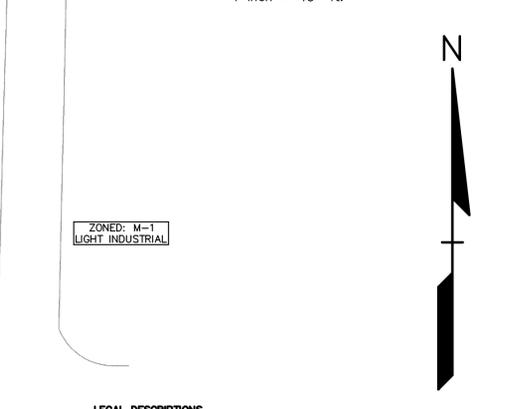
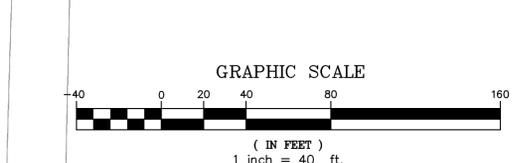
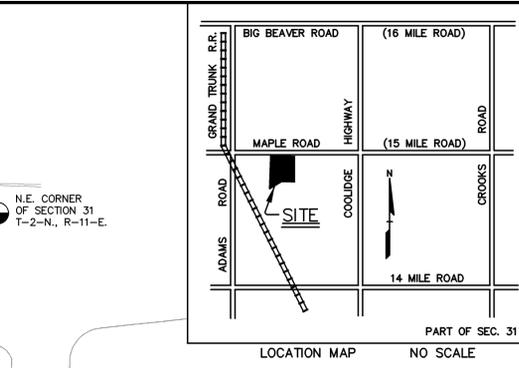
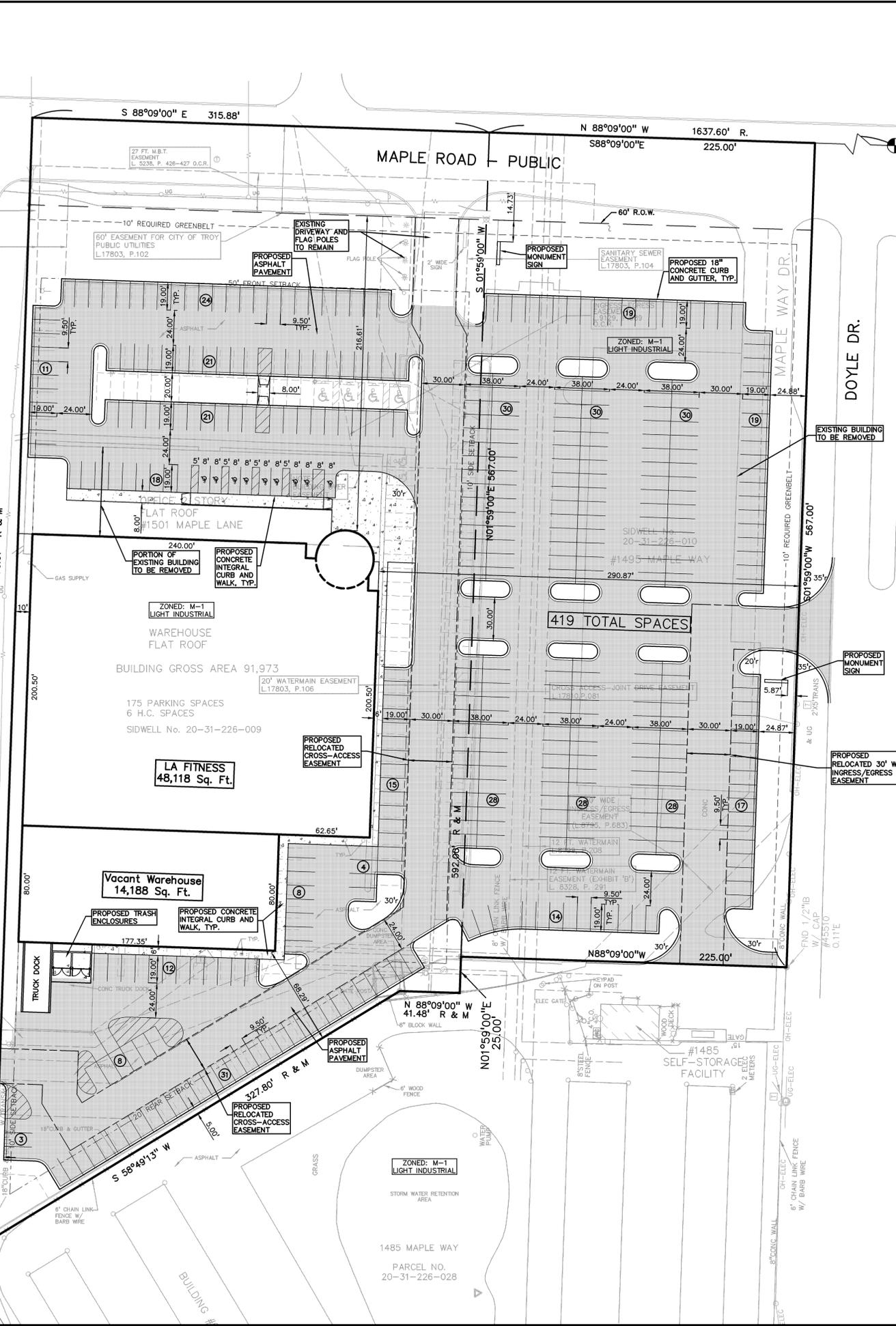
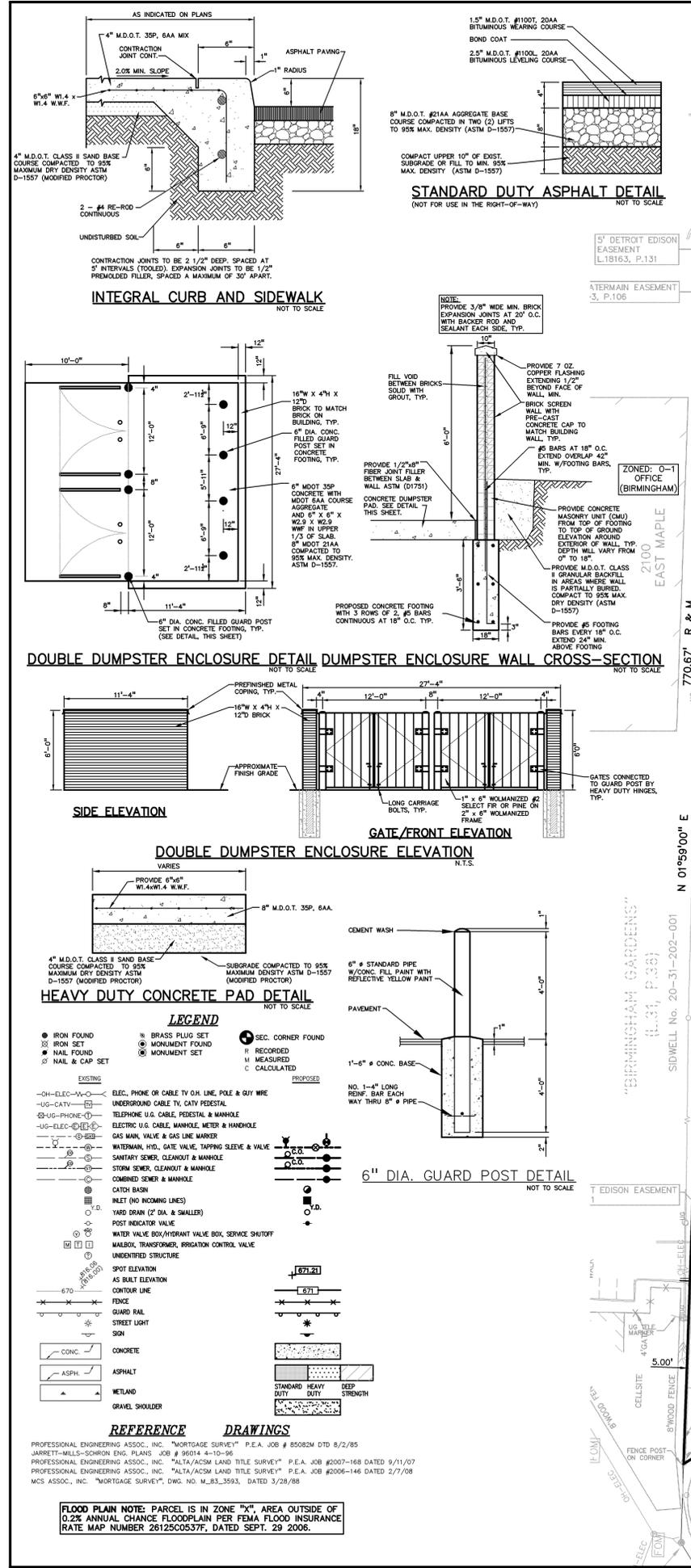
On a side note, providing the evaluation of the right turn lane based on RCOC Warrants for Right Turn Deceleration Lane or Taper may be of some academic interest. But if provided, why did PEA not then conclude, as the RCOC guidance would suggest, that this driveway needs a right turn taper? The only real difference between a turn lane and taper is the nominal lane storage. Given the proximity of this driveway to the traffic signal at Doyle, providing the lane storage may allow patrons of LA Fitness to get into the site easier when traffic queues along Maple when the signal is red.

If you have any further concerns or questions, please let me know.

Sincerely,
Orchard Hiltz & McCliment, Inc.

A handwritten signature in cursive script that reads "Stephen B. Dearing". The signature is written in black ink and is positioned above the printed name.

Stephen B. Dearing, PE, PTOE



LEGAL DESCRIPTIONS
 Parcel A: (Quit Claim Deed Liber 9129, Page 684, OCR, of Tax Parcel 21-31-226-010)
 Part of the NE 1/4 of Section 31, T2N, R11E, City of Troy, Oakland County, Michigan, being more particularly described as: Beginning at a point N88°09'00"W 1412.60' ft. along the North line of said Section 31 from the NE Corner of said Section 31; thence S01°59'00"W 567.00' ft. along the North line of Section 31 from the N.E. Corner of Section 31, T2N, R11E; thence S88°09'00"E 225.00' ft. to the point of beginning, excepting therefrom any part needed for road purposes. (Containing 127,575 Square Feet—2.929 Acres), subject to a permanent easement for ingress and egress beginning at a point which is N88°09'00"W 1412.60' ft. along the North line of Section 31 from the N.E. Corner of Section 31, T2N, R11E; thence S01°59'00"W 459.79' ft.; thence S44°40'16"W 146.16' ft.; thence N88°09'00"W 40.90' ft.; thence N44°40'16"E 162.24' ft.; thence N01°59'00"E 448.00' ft.; thence S88°09'00"E 30.00' ft. along the North line of Section 31 to the point of beginning. (Contains 18,243 Square Feet —0.419 Acres —See Attached Survey)

Parcel B: (Warranty Deed Liber 20249 Page 208, OCR, of Tax Parcel 21-31-226-009)
 Land in the City of Troy, Oakland County, Michigan, more particularly described as:
 Part of the Northeast 1/4 of Section 31, Town 2 North, Range 11 East, Michigan, being more particularly described as: Beginning at a point N88°09'00"W 1637.60' feet along the North line of said Section 31 from the Northeast corner of said Section 31; thence S58°49'13"W 327.80' feet; thence N01°59'00"E 770.67' feet; thence S88°09'00"E 315.88' feet to the point of beginning. (Containing 4,658 Acres)

SITE DATA TABLE:

PROPERTY AREA:	7.03 ACRES (NET)
PROPERTY ZONING:	M-1 (LIGHT INDUSTRIAL)
PROPOSED USE:	COMMERCIAL RECREATION FACILITY (SPECIAL USE) AND WAREHOUSE
BUILDING AREAS:	LA FITNESS = 48,118 S.F. WAREHOUSE = 14,188 S.F. TOTAL = 62,306 S.F.
SETBACKS:	FRONT YARD = 50 FEET (216.61 FEET PROVIDED) REAR YARD = 20 FEET (88.29 FEET PROVIDED) SIDE YARD = 10 FEET (10 FEET PROVIDED)
BUILDING COVERAGE:	MAXIMUM = 40% PROVIDED = 18%
BUILDING HEIGHT:	MAXIMUM ALLOWED = 3 STORIES, 40 FT PROVIDED = 30'-8" (EXISTING, NO CHANGE), 40' TO TOP OF NEW ENTRANCE FEATURE
PARKING CALCULATIONS:	REQUIRED: COMMERCIAL RECREATION FACILITY: 1 SPACE PER 3 MAX. OCCUPANCY OR 1/50 S.F. FITNESS AREA = 1/3 + 963 MAX. OCCUPANCY = 321 SPACES OR = 1/50 + 48,118 S.F. = 962 SPACES WAREHOUSE: 1 SPACE PER 1700 S.F. FLOOR AREA = 1/1700 + 14,188 S.F. = 8 SPACES
TOTAL REQUIRED:	321 + 8 = 329 SPACES OR = 962 + 8 = 970 SPACES
PROPOSED:	419 SPACES PROPOSED (INC. 9 H/C SPACES)

2100 EAST MAPLE ROAD, LLC
 2100 EAST MAPLE ROAD, SUITE 200
 BIRMINGHAM, MI 48009

PRELIMINARY SITE PLAN
LA FITNESS
 PART OF THE NE 1/4 OF SECTION 31, T. 2N, R. 11E,
 CITY OF TROY, OKLAHOMA COUNTY, MICHIGAN

PROFESSIONAL ENGINEERING ASSOCIATES
 2430 Rochester Ct. Suite 100
 Troy, MI 48063-1872
 Phone: (248) 689-9090
 Fax: (248) 689-1044
 website: www.peainc.com

REVISIONS

NO.	BY	CHK	DESCRIPTION	DATE

CAUTION!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND STRUCTURES SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR OBTAINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

3 FULL WORKING DAYS BEFORE YOU DIG CALL

811
 Know what's below
 Call before you dig
 MISS DIG System, Inc.
 1-800-482-7171 www.missdig.net

PEA

PROFESSIONAL ENGINEERING ASSOCIATES
 2430 Rochester Ct. Suite 100
 Troy, MI 48063-1872
 Phone: (248) 689-9090
 Fax: (248) 689-1044
 website: www.peainc.com

2100 EAST MAPLE ROAD, LLC
 2100 EAST MAPLE ROAD, SUITE 200
 BIRMINGHAM, MI 48009

PRELIMINARY SITE PLAN
LA FITNESS
 PART OF THE NE 1/4 OF SECTION 31, T. 2N, R. 11E,
 CITY OF TROY, OKLAHOMA COUNTY, MICHIGAN

PROFESSIONAL ENGINEERING ASSOCIATES
 2430 Rochester Ct. Suite 100
 Troy, MI 48063-1872
 Phone: (248) 689-9090
 Fax: (248) 689-1044
 website: www.peainc.com

SCALE: 1" = 40'
DRAWING NUMBER:
P-1

ORIGINAL ISSUE DATE: OCT. 12, 2010
 PEA JOB NO. 2010-207

PRELIMINARY NOT FOR CONSTRUCTION

REFERENCE DRAWINGS
 PROFESSIONAL ENGINEERING ASSOC., INC. "MORTGAGE SURVEY" P.E.A. JOB # 85062M DTD 8/2/85
 JARRETT-MILLS-SCHROEN ENG. PLANS JOB # 98104 4-10-96
 PROFESSIONAL ENGINEERING ASSOC., INC. "ALTA/ACSM LAND TITLE SURVEY" P.E.A. JOB #2007-168 DATED 9/11/07
 PROFESSIONAL ENGINEERING ASSOC., INC. "ALTA/ACSM LAND TITLE SURVEY" P.E.A. JOB #2006-146 DATED 2/7/08
 MCS ASSOC., INC. "MORTGAGE SURVEY" DWG. NO. M_83_3593, DATED 3/28/88

FLOOD PLAIN NOTE: PARCEL IS IN ZONE "X", AREA OUTSIDE OF 0.2% ANNUAL CHANCE FLOODPLAIN PER FEMA FLOOD INSURANCE RATE MAP NUMBER 26125C0537F, DATED SEPT. 29 2006.

2100 EAST MAPLE ROAD, LLC
 2100 EAST MAPLE ROAD, SUITE 200
 BIRMINGHAM, MI 48009

PRELIMINARY SITE PLAN
LA FITNESS
 PART OF THE NE 1/4 OF SECTION 31, T. 2N, R. 11E,
 CITY OF TROY, OKLAHOMA COUNTY, MICHIGAN

PROFESSIONAL ENGINEERING ASSOCIATES
 2430 Rochester Ct. Suite 100
 Troy, MI 48063-1872
 Phone: (248) 689-9090
 Fax: (248) 689-1044
 website: www.peainc.com

REVISIONS

NO.	BY	CHK	DESCRIPTION	DATE

CAUTION!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND STRUCTURES SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR OBTAINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

3 FULL WORKING DAYS BEFORE YOU DIG CALL

811
 Know what's below
 Call before you dig
 MISS DIG System, Inc.
 1-800-482-7171 www.missdig.net

PEA

PROFESSIONAL ENGINEERING ASSOCIATES
 2430 Rochester Ct. Suite 100
 Troy, MI 48063-1872
 Phone: (248) 689-9090
 Fax: (248) 689-1044
 website: www.peainc.com

2100 EAST MAPLE ROAD, LLC
 2100 EAST MAPLE ROAD, SUITE 200
 BIRMINGHAM, MI 48009

PRELIMINARY SITE PLAN
LA FITNESS
 PART OF THE NE 1/4 OF SECTION 31, T. 2N, R. 11E,
 CITY OF TROY, OKLAHOMA COUNTY, MICHIGAN

PROFESSIONAL ENGINEERING ASSOCIATES
 2430 Rochester Ct. Suite 100
 Troy, MI 48063-1872
 Phone: (248) 689-9090
 Fax: (248) 689-1044
 website: www.peainc.com

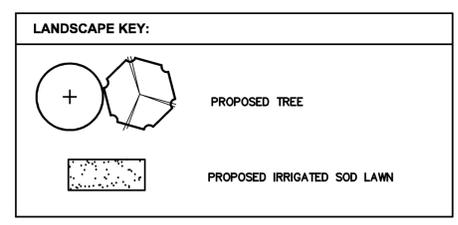
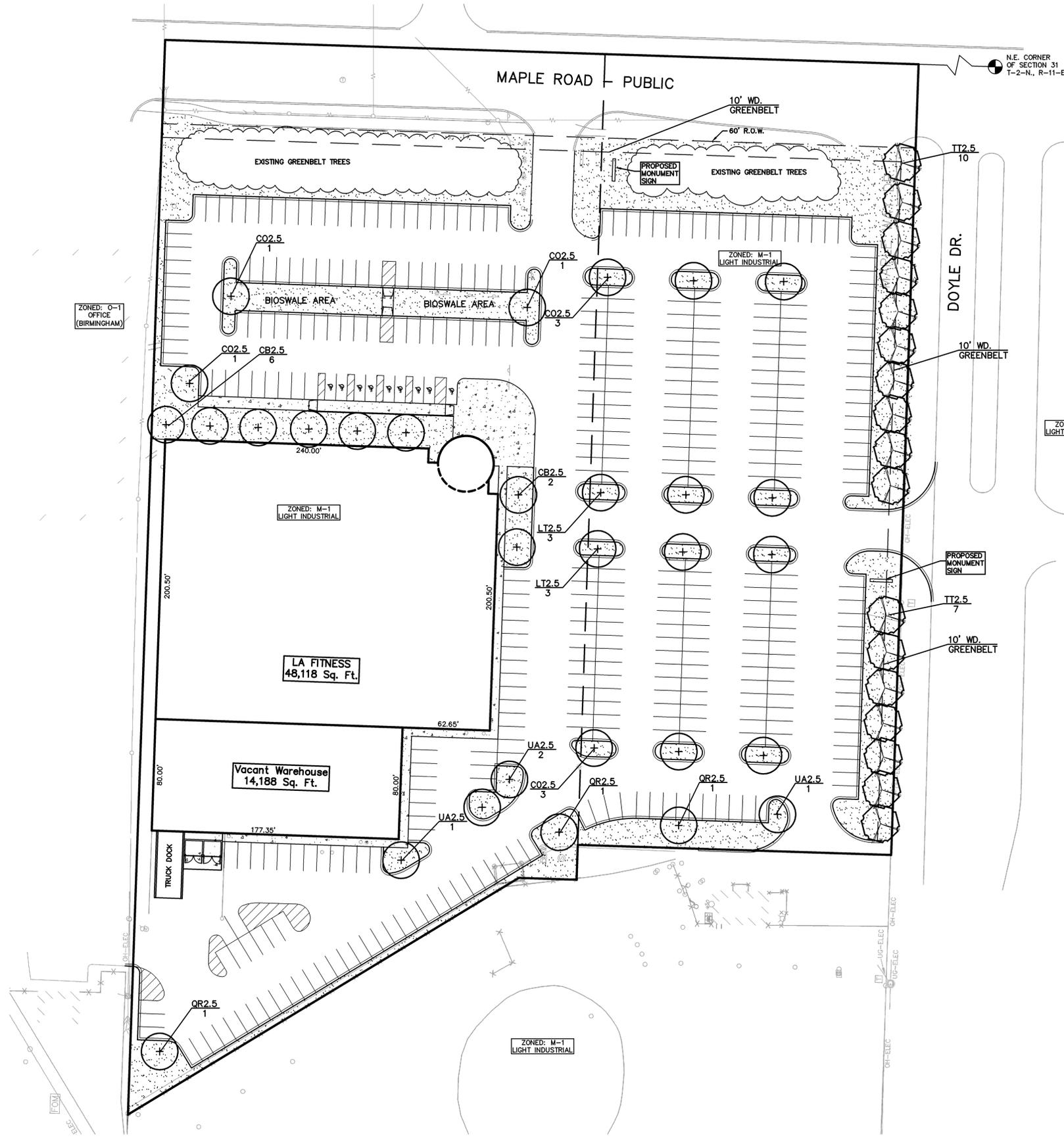
SCALE: 1" = 40'
DRAWING NUMBER:
P-1

ORIGINAL ISSUE DATE: OCT. 12, 2010
 PEA JOB NO. 2010-207

PRELIMINARY NOT FOR CONSTRUCTION

REFERENCE DRAWINGS
 PROFESSIONAL ENGINEERING ASSOC., INC. "MORTGAGE SURVEY" P.E.A. JOB # 85062M DTD 8/2/85
 JARRETT-MILLS-SCHROEN ENG. PLANS JOB # 98104 4-10-96
 PROFESSIONAL ENGINEERING ASSOC., INC. "ALTA/ACSM LAND TITLE SURVEY" P.E.A. JOB #2007-168 DATED 9/11/07
 PROFESSIONAL ENGINEERING ASSOC., INC. "ALTA/ACSM LAND TITLE SURVEY" P.E.A. JOB #2006-146 DATED 2/7/08
 MCS ASSOC., INC. "MORTGAGE SURVEY" DWG. NO. M_83_3593, DATED 3/28/88

FLOOD PLAIN NOTE: PARCEL IS IN ZONE "X", AREA OUTSIDE OF 0.2% ANNUAL CHANCE FLOODPLAIN PER FEMA FLOOD INSURANCE RATE MAP NUMBER 26125C0537F, DATED SEPT. 29 2006.



LANDSCAPE REQUIREMENTS:

TOTAL SITE AREA: 7.03 ACRES
 ZONING: LIGHT INDUSTRIAL (M-1)

SITE LANDSCAPING:
 REQUIRED:
 10% OF THE SITE AREA SHALL BE LANDSCAPED.
 (FRONT AND SIDE YARDS ONLY)
 306,227 SF * 0.10 = 30,623 SF LANDSCAPED AREA REQUIRED

PROVIDED:
 54,417 SF OR 17.8% SITE LANDSCAPED AREA
 (CALCULATION DOES NOT INCLUDE LAND WITHIN GREENBELT, AT REAR OF BUILDING, OR LANDSCAPE AREAS LESS THAN 5' WIDE OR 200 SF.)

GREENBELT:
 REQUIRED:
 10' WIDE GREENBELT ALONG ANY PUBLIC STREET
 1 TREE FOR EVERY 30 LF OF ROAD FRONTAGE
 MAPLE ROAD = 540' LF
 540 LF / 30 LF = 18 TREES REQUIRED

PROVIDED:
 10' WIDE EXISTING GREENBELT ALONG MAPLE ROAD FRONTAGE
 WITH MORE THAN 18 EXISTING TREES

DOYLE DR. = 195.0' LF
 507 LF / 30 LF = 17 TREES REQUIRED

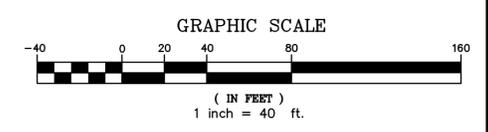
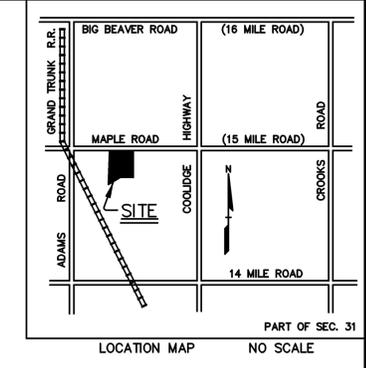
PROVIDED:
 10' WIDE GREENBELT ALONG DOYLE DR. FRONTAGE
 17 TREES

PLANT LIST:

QUAN.	KEY	COMMON/BOTANICAL NAME	SIZE	SPEC.
8	CB2.5	Columnar European Hornbeam <i>Carpinus betulus 'Fastigiata'</i>	2.5" CAL.	B&B
9	CO2.5	Common Hackberry <i>Celtis occidentalis</i>	2.5" CAL.	B&B
6	LT2.5	Tulip Tree <i>Liriodendron tulipifera</i>	2.5" CAL.	B&B
3	QR2.5	Red Oak <i>Quercus rubra</i>	2.5" CAL.	B&B
17	TT2.5	Sterling Silver Linden <i>Tilia tomentosa 'Sterling'</i>	2.5" CAL.	B&B
4	UA2.5	Valley Forge American Elm <i>Ulmus americana 'Valley Forge'</i>	2.5" CAL.	B&B

COST ESTIMATE:

QUAN.	ITEM DESCRIPTION	UNIT	UNIT PRICE	ITEM PRICE
47	Deciduous Trees	2.5" CAL.	\$280.00	\$13,160.00
7,160	Sod Lawn	SY	\$3.00	\$21,540.00
			TOTAL:	\$34,700.00



REVISIONS

NO.	BY	DATE	DESCRIPTION

CAUTION!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY OF THESE UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

THIS DRAWING AND DESIGN ARE THE PROPERTY OF PROFESSIONAL ENGINEERING ASSOCIATES, INC. THEY ARE SUBMITTED ON THE CONDITION THAT THEY ARE NOT TO BE USED, REPRODUCED OR COPIED, IN WHOLE OR IN PART, OR FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF PROFESSIONAL ENGINEERING ASSOCIATES, INC. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHERWISE ARE HEREBY EXPRESSLY RESERVED. © 2010 PROFESSIONAL ENGINEERING ASSOCIATES, INC.

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES.

3 FULL WORKING DAYS BEFORE YOU DIG CALL

811
 Know what's Below
 Call before you dig

MISS DIG System, Inc.
 1-800-482-7171 www.missdig.net

PEA

PROFESSIONAL ENGINEERING ASSOCIATES
 2430 Rochester Ct. Suite 100
 Troy, MI 48063-1872
 Phone: (248) 689-9090
 Fax: (248) 689-1044
 website: www.peainc.com

2100 EAST MAPLE ROAD, LLC
 2100 EAST MAPLE ROAD, SUITE 200
 BIRMINGHAM, MI 35209

PRELIMINARY LANDSCAPE PLAN
LA FITNESS
 PART OF THE NE 1/4 OF SECTION 31, T. 2N., R. 11E.,
 CITY OF TROY, OKLAHOMA COUNTY, MICHIGAN

DES. JTS DN JTS SUR DEC P.M. JPB
 DATE: 12/12/2010

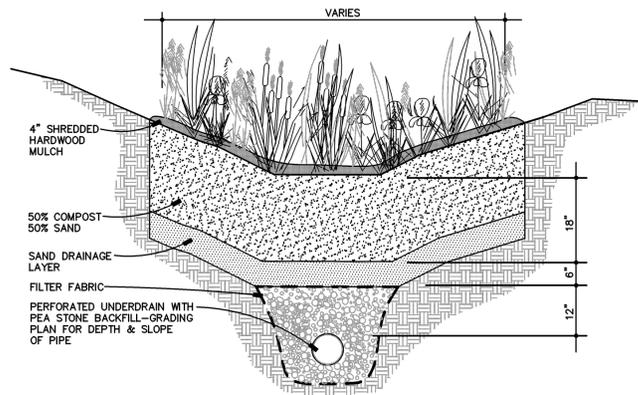
ORIGINAL
 ISSUE DATE: OCT. 12, 2010
 PEA JOB NO. 2010-207

SCALE: 1" = 40'
 DRAWING NUMBER:
L-1

© 2010 Professional Engineering Associates, Inc. All Rights Reserved. 10/27/10

PRELIMINARY NOT FOR CONSTRUCTION

XREF: L:\2010207\DWG\EX-BASE-10207.DWG
 XREF: L:\2010207\DWG\PRELIMINARY-P-BASE-10207.DWG
 XREF: L:\2010207\DWG\PRELIMINARY-P-TBLX-10207.DWG



BIOSWALE – TYPICAL CROSS SECTION

NOT TO SCALE

BIOSWALE MAINTENANCE

- CHECK FOR FLOATABLES AND DEBRIS AND REMOVE AS NECESSARY.
- REMOVE DEAD VEGETATION THAT OBSTRUCTS FLOW (SPRING)
- REPLANT ALL ERODED BANKS, BARE SPOTS ETC. AS NECESSARY.
- INSPECT BIOSWALES FOR INVASIVE SPECIES SUCH AS PURPLE LOOSESTRIFE, PHRAGMITES, BUCKTHORN (COMMON & GLOSSY), HONEYSUCKLE AND AUTUMN OLIVE. (ANNUALLY)

THE CONTRACTOR SHALL ASSUME MAINTENANCE RESPONSIBILITIES FOR A MINIMUM OF ONE (1) YEAR. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, RESEEDING AND OTHER OPERATIONS NECESSARY TO KEEP LANDSCAPE IN A THRIVING CONDITION. SUPPLEMENT WATERING BY TRUCKING WITH MOBILE TANKS ETC. TO SUPPLY THE NECESSARY WATER AS REQUIRED DURING THE ESTABLISHMENT PERIOD.

PLANT SO THAT TOP OF ROOT BALL IS FLUSH TO GRADE OR 1-2" HIGHER IF IN POORLY DRAINED SOILS

SECURE TREE WRAP WITH BIODEGRADABLE MATERIAL AT TOP & BOTTOM REMOVE AFTER FIRST WINTER

3 - 2" x 2" HARDWOOD STAKES DRIVEN (MIN. 18") FIRMLY INTO SUBGRADE PRIOR TO BACKFILLING

SPECIFIED PLANTING MIX WATER & TAMP TO REMOVE AIR POCKETS AMEND SOIL PER SITE CONDITIONS AND TREE REQUIREMENTS

NOTE:
STAKING AS REQUIRED, STAKE PLANTS WITHIN 24 HOURS. REMOVE STAKE AND STRAPS AFTER 1 GROWING SEASON

DO NOT PRUNE TERMINAL LEADER PRUNE ONLY DEAD OR BROKEN BRANCHES

DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

PLANT SO THAT TOP OF ROOT BALL IS FLUSH TO GRADE OR 1-2" HIGHER IF IN POORLY DRAINED SOILS

3 - 2" x 2" HARDWOOD STAKES DRIVEN (MIN. 18") FIRMLY INTO SUBGRADE PRIOR TO BACKFILLING

FORM SAUCER WITH 4" CONTINUOUS RIM

SPECIFIED PLANTING MIX WATER & TAMP TO REMOVE AIR POCKETS AMEND SOIL PER SITE CONDITIONS AND TREE REQUIREMENTS

NOTE:
STAKING AS REQUIRED, STAKE PLANTS WITHIN 24 HOURS. REMOVE STAKE AND STRAPS AFTER 1 GROWING SEASON

EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE OR 1-2" HIGHER IF IN POORLY DRAINED SOILS

SHREDDED HARDWOOD BARK MULCH 3" DEEP AND LEAVE 3" CIRCLE OF BARE SOIL AROUND SHRUB TRUNK DO NOT PLACE MULCH IN CONTACT WITH TRUNK

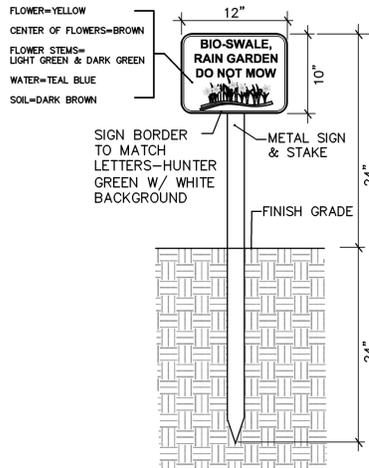
SPECIFIED PLANTING MIX WATER & TAMP TO REMOVE AIR POCKETS

FORM SAUCER WITH 4" CONTINUOUS RIM

FIN. GRADE

SHRUB PLANTING DETAIL

NOT TO SCALE



NATIVE LANDSCAPE MARKER DETAIL

NOT TO SCALE

PLANTING NOTES:

- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER'S REPRESENTATIVE PRIOR TO COMMENCING.
- ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARD FOR NURSERY STOCK. ALL LANDSCAPE MATERIAL SHALL BE NORTHERN GROWN, NO. 1. GRADE.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
- ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
- ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
- ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
- ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
- NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES; HAND GRADE ALL LAWN AREAS WITHIN THE DRIP LINE OF EXISTING TREES.
- ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
- IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM FROM ALL BUILDINGS.
- ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED HARDWOOD BARK MULCH, SEE SPECIFICATIONS. SHREDDED PALETTE AND DIED MULCH WILL NOT BE ACCEPTED.
- ALL LANDSCAPED AREAS SHALL RECEIVE 3" COMPACTED TOPSOIL. EXCAVATION CONTRACTOR TO PROVIDE ROUGH GRADE .1"-2" OF FINISHED GRADE.
- SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.
- NO DEBRIS, STONE, OR OTHER MATERIAL LARGER THAN 1" IN ANY DIMENSION SHALL BE FOUND IN THE TOP 12" OF SOIL AFTER COMPLETION OR ROUGH GRADING. ROUGH GRADES SHALL BE ESTABLISHED PRIOR TO SOIL FRACTURING.
- PRIOR TO PLACING TOPSOIL OR LANDSCAPE BED CONSTRUCTION ALL DESIGNATED AREAS NOT COVERED BY HARD SURFACES (BUILDING, FENCING ETC.) SHALL BE MECHANICALLY FRACTURED TO A MIN. DEPTH OF 8" AND RE-GRADED TO ROUGH GRADES. FRACTURING TECHNIQUES INCLUDE: PLOWING, HYDRO-JET, TILLING, DRILL-N-FILL, COMPRESSED AIR TREATMENT OR HOLLOW TINE AERIFICATION.
- ALL LANDSCAPE AREAS ON THE SITE WILL BE IRRIGATED, EXCEPT FOR BIO-SWALES AND RAIN GARDENS. QUICK COUPLER VALVES WILL BE PROVIDED ALONG BIO-SWALE AND RAIN GARDEN AREAS FOR SUPPLEMENTAL WATERING. AN IRRIGATION PLAN WILL BE PROVIDED AT TIME OF CONSTRUCTION DRAWINGS.

MAINTENANCE:

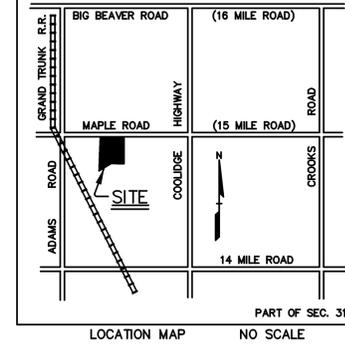
LANDSCAPE SHALL BE MAINTAINED IN A HEALTHY, NEAT AND ORDERLY APPEARANCE, FREE FROM REFUSE.

ALL LANDSCAPE AREAS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM UNLESS OTHERWISE NOTED.

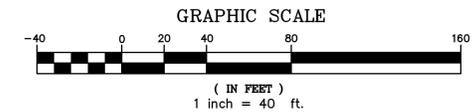
TREE STAKES, GUY WIRES, AND TREE WRAP TO BE REMOVED AFTER ONE WINTER SEASON.

ALL PLANT MATERIAL SHALL BE GUARANTEED BY A ONE YEAR WARRANTY BY THE CONTRACTOR.

AFTER THE ONE YEAR WARRANTY HAS EXPIRED, THE OWNER SHALL BE RESPONSIBLE FOR REPLACING ALL REQUIRED PLANT MATERIAL THAT IS DEAD OR DISEASED WITHIN ONE GROWING SEASON.



LOCATION MAP NO SCALE



CAUTION!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS GIVEN FOR THE ACCURACY OF THESE LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.

THIS DRAWING AND DESIGN ARE THE PROPERTY OF PROFESSIONAL ENGINEERING ASSOCIATES, INC. THEY ARE NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN CONSENT OF PROFESSIONAL ENGINEERING ASSOCIATES, INC. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHERWISE ARE HEREBY EXPRESSLY RESERVED. © 2010 PROFESSIONAL ENGINEERING ASSOCIATES, INC.

CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ASSESSING SOLE AND COMPLETE RESPONSIBILITY FOR ALL PERSONS AND PROPERTY THAT IS DAMAGED OR INJURED DURING THE COURSE OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION TO NORMAL WORKING HOURS AND CONSTRUCTION TO NORMAL WORKING HOURS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION TO NORMAL WORKING HOURS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CONSTRUCTION TO NORMAL WORKING HOURS.

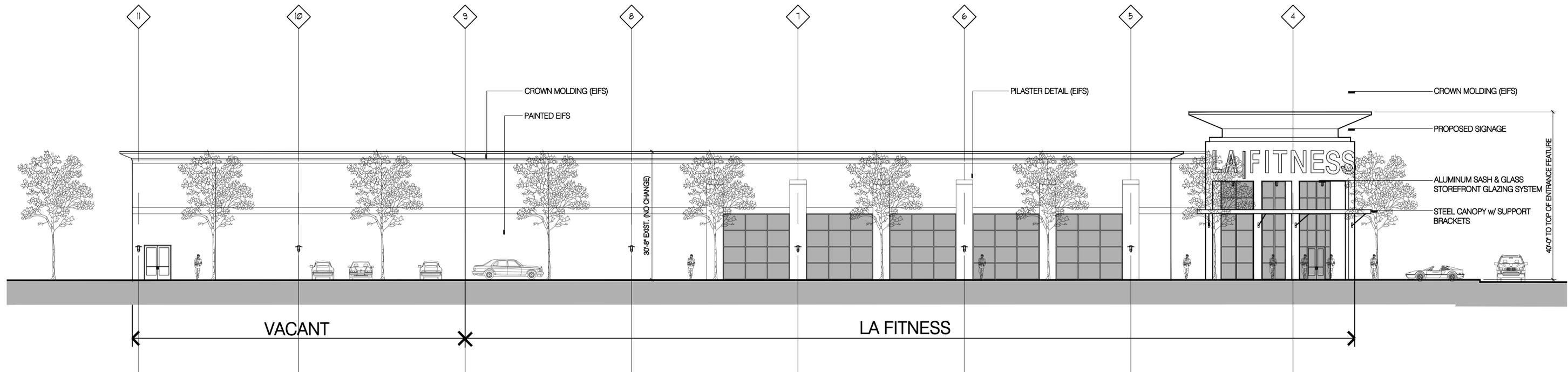
3 FULL WORKING DAYS BEFORE YOU DIG CALL

811
Know what's below
Call before you dig
MISS DIG System, Inc.
1-800-482-7171 www.missdig.net
(TOLL FREE)



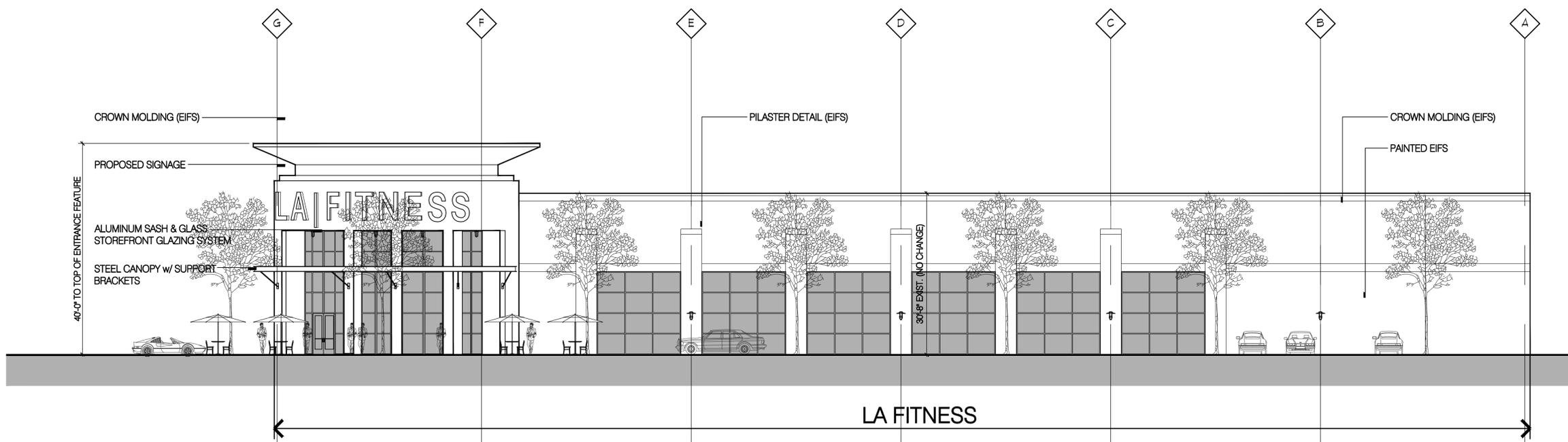
PROFESSIONAL ENGINEERING ASSOCIATES
2430 Rochester Ct. Suite 100
Troy, MI 48063-1872
Phone: (248) 689-9090
Fax: (248) 689-1044
website: www.peainc.com

2100 EAST MAPLE ROAD, LLC		2100 EAST MAPLE ROAD, SUITE 200 BIRMINGHAM, MI 35209	
PRELIMINARY LANDSCAPE DETAILS		LA FITNESS	
PART OF THE NE 1/4 OF SECTION 31, T. 2N, R. 11E., CITY OF TROY, OKLAHOMA COUNTY, MICHIGAN		DES. JTS DN. JTS SUR. JTS DEC. JTS P.M. JPB	
ORIGINAL ISSUE DATE: OCT. 12, 2010		DRAWING NUMBER: L-2	
PEA JOB NO. 2010-207		SCALE: 1" = 40'	
PRELIMINARY NOT FOR CONSTRUCTION		XREF: L:\2010207\DWG\EX-BASE-10207.DWG XREF: L:\2010207\DWG\PRELIMINARY-P-BASE-10207.DWG XREF: L:\2010207\DWG\PRELIMINARY-P-TLX-10207.DWG	



Proposed East Elevation

SCALE: 3/32" = 1'-0"



Proposed North Elevation

SCALE: 3/32" = 1'-0"

LA FITNESS

1501 Maple Lane
Troy, Michigan

Nelson Ventures

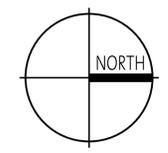
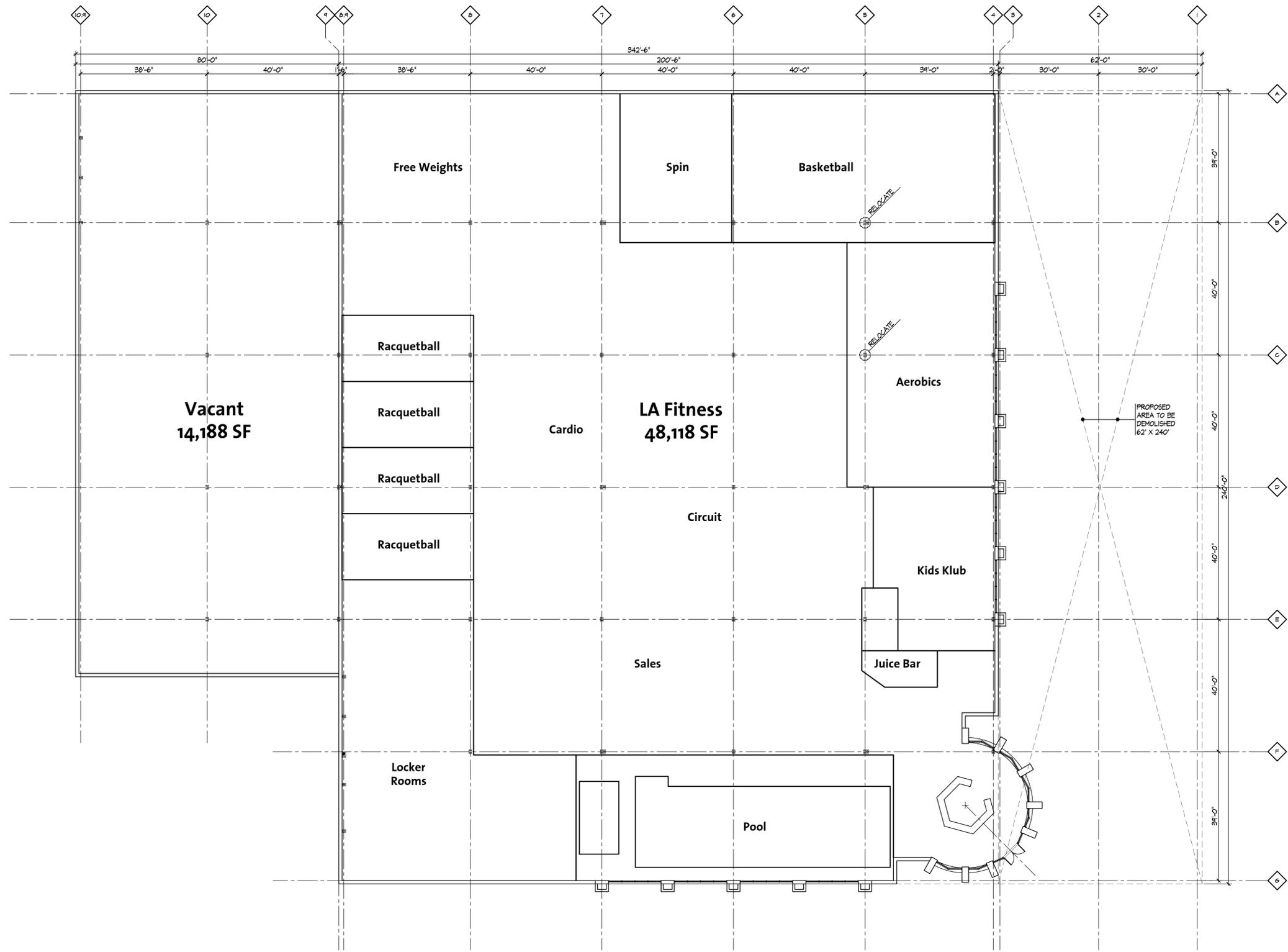
Elevations

Scale: 3/32" = 1'-0"
10-12-2010

Victor Saroki & Associates ARCHITECTS PC

430 N. Old Woodward Avenue / Birmingham, MI 48009

T: 248.258.5707 F: 248.258.5515



LA FITNESS

1501 Maple Lane
Troy, Michigan

Nelson Ventures

Floor Plan

Scale: 1/16" = 1'-0"
10-12-2010

Victor Saroki & Associates ARCHITECTS PC
430 N. Old Woodward Avenue / Birmingham, MI 48009
T: 248.258.5707 F: 248.258.5515

DATE: November 4, 2010

TO: Planning Commission

FROM: R. Brent Savidant, Acting Planning Director

SUBJECT: PRELIMINARY SITE PLAN REVIEW (File Number SP 965) – Proposed Alpha Dental Center, 405 E. Maple Road, Northeast Corner of Maple and Kirkton, Section 27, Currently Zoned O-1 (Office Building) District

The petitioner, Camelia Sandulache, submitted the above referenced Preliminary Site Plan Approval application for a 522 square foot addition to a 915 square foot residential building. The applicant proposes a dental office on the site.

The attached report prepared by Carlisle/Wortman Associates, Inc. summarizes the application.

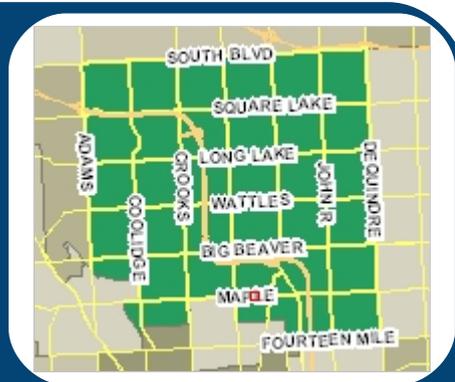
The applicant will need to seek two variances from the Board of Zoning Appeals. Therefore no action will be taken by the Planning Commission at the November 9, 2010 Regular meeting. The item will be back before the Planning Commission at a future meeting for action.

Attachments:

1. Maps
2. Report prepared by Carlisle/Wortman Associates, Inc.

cc: Applicant
File/ SP 965

G:\SITE PLANS\SP 965 Alpha Dental Center Sec 27\SP-965 Alpha Dental Center 11 09 10.docx



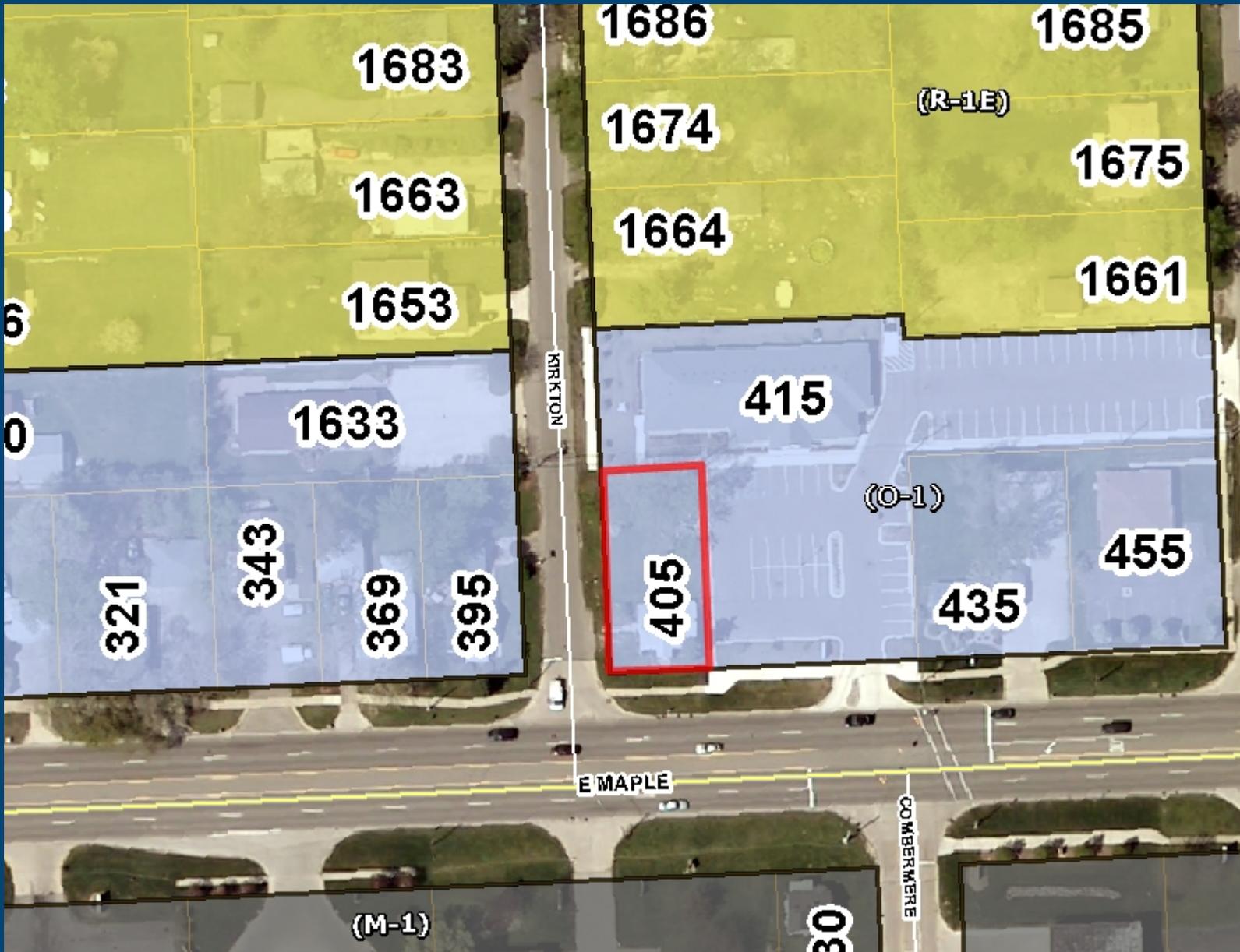
Legend

-  I-75
-  Road Centerline
 -  Major Road
 -  Industrial Road
 -  Local Road
-  Hydrography Poly
-  Hydrography Arc
-  Parcels
- Aerial Photos - 2008**
 -  Red: Band_1
 -  Green: Band_2
 -  Blue: Band_3

120 0 60 120Feet

Scale 1: 720





Legend

- I-75
- Road Centerline**
 - Major Road
 - Industrial Road
 - Local Road
- Zoning**
 - (PUD) Planned Unit Development
 - (B-1) Local Business District
 - (B-2) Community Business District
 - (B-3) General Business District
 - (R-C) Research Center District
 - (C-F) Community Facilities District
 - (C-J) Consent Judgment
 - (E-P) Environmental Protection District
 - (R-EC) Residential Elder Care
 - (P-1) Vehicular Parking District
 - (H-S) Highway Service District
 - (M-1) Light Industrial District
 - (O-1) Office Building District
 - (O-M) Office Mid-Rise District
 - (OSC) Office Service Commercial District
 - (CR-1) One Family Residential Cluster District
 - (R-1A) One Family Residential District
 - (R-1B) One Family Residential District
 - (R-1C) One Family Residential District
 - (R-1D) One Family Residential District
 - (R-1E) One Family Residential District
 - (R-1T) One Family Attached Residential District
 - (R-2) Two Family Residential District
 - (R-M) Multiple Family Residential Medium Density
 - (RM-1) Multiple Family Residential District (Low Density)
 - (RM-2) Multiple Family Residential District (Medium Density)
 - (RM-3) Multiple Family Residential District (High Density)
- Hydrography Poly
- Hydrography Arc
- Parcels

Aerial Photos - 2008

- Red: Band_1
- Green: Band_2

Printed: 10/13/2010

180 0 90 180 Feet

Scale 1: 1,080





CARLISLE/WORTMAN ASSOCIATES, INC.
Community Planners /Landscape Architects

605 S. Main, Suite 1
Ann Arbor, MI 48104
734-662-2200
fax 734-662-1935

6401 Citation Drive, Suite E
Clarkston, MI 48346
248-625-8480
fax 248-625-8455

Date: November 4, 2010

Preliminary Site Plan Review For City of Troy, Michigan

Applicant: Camelia Sandulache
Project Name: Alpha Dental Center
Plan Date: October 10, 2010
Location: 405 East Maple Road
Zoning: O-1, Office Building District
Action Requested: Preliminary Site Plan Approval
Required Information: Deficiencies noted

PROJECT AND SITE DESCRIPTION

We are in receipt of a preliminary site plan which includes a site plan, landscaping plan, topographic survey, lot survey, photometric plan, perspective drawing, proposed floor plan, and exterior elevations.

Location of Subject Property:

The property is located on the north side of Maple Road between Rochester Road and Livernois Road, on the corner of Maple Road and Kirkton Avenue.

Size of Subject Property:

The parcel is 0.17 acres in size.

Proposed Uses of Subject Parcel:

The applicant proposes to build an addition to an existing building for the purpose of housing a new dental office with its own parking lot. The building is currently 915 square feet, and the proposed addition would add 522 square feet.

Current Use of Subject Property:

The subject property is currently an existing single family home.

Current Zoning:

The property is currently zoned O-1, Low Rise Office.

Zoning Classification of Adjacent Parcels and Current Land Use:

North: O-1, Low Rise Office; office building

South: (across Maple Road) M-1, Light Industrial District; single family home, industrial building (former U.S. Computer Exchange)

East: O-1, Low Rise Office; office building

West: O-1, Low Rise Office; office building

BUILDING LOCATION AND SITE ARRANGEMENT

The existing building is located at the corner of the site near the street, with a typical residential rear yard behind. The proposed layout adds square footage to the rear (north) side of the building, and a parking area in what is currently the rear yard. This rear yard parking area would have access to Kirkton Avenue and cross access to the existing office building complex that wraps around the property on the north and east sides. The preservation of the existing building necessitates this design, which effectively uses the small area available on this site.

Items to be Addressed: *None.*

AREA, WIDTH, HEIGHT, SETBACKS

Required and Provided Dimensions:

Section 30.20.00 requires the following setbacks and height limits:

For this project, there are two front yards, on Kirkton Avenue and Maple Road, both of which require a front yard setback. Given that this single family home was rezoned for office use, there are legal existing nonconformities with regard to setbacks. The front yard setback on Maple Road is unaffected, given that no improvements are proposed along that frontage. However, the Kirkton Avenue front yard and the side yard along the east property boundary will be affected by the proposed addition. Consequently, all the setback requirements are not met. The applicant must obtain variances for the new addition, which encroaches into the front yard setback on the west side and the side yard setback on the east side.

	<u>Required:</u>	<u>Provided:</u>
Front (to Maple Road R.O. W)	30 Feet	6 feet (previously existing legal nonconformity)
Front (existing building) (to Kirkton Drive R.O.W)	30 Feet	19 Feet, 6 inches 6 feet (previously existing legal nonconformity)
Front (addition) (to Kirkton Drive R.O.W)	30 Feet	25 Feet, 6 inches
Rear (to north property line)	20 Feet	67 Feet, 6 inches
Side (to east property line)	20 Feet	4 Feet
Building Height	Maximum of 3 stories or 36 feet.	1 story; 14 feet, 6 inches

Items to be Addressed: Obtain variances for nonconforming setbacks.

PARKING

Proposed Parking:

The site plan shows 9 parking spaces, including a barrier free space.

Parking Calculations:

The parking calculations provided by the applicant are as follows.

<u>Required</u>	<u>Provided</u>
One (1) space per 100 S.F. of Usable Area 817/100=8 spaces	8 spaces plus (1) Barrier Free space= 9 spaces

The applicant has provided an extra parking space. The proposed plan meets minimum parking requirements.

Items to be Addressed: None.

SITE ACCESS AND CIRCULATION

Proposed Circulation:

The site will be accessed from two proposed entrances; one on Kirkton Avenue and a second, which will access the existing parking area for the adjacent office property to the east and north. This configuration is acceptable and provides adequate access to the small parking area in a challenging space.

Sidewalks:

The applicant is proposing two sidewalks around the west (Kirkton Avenue) and south (Maple Road) frontages. The south sidewalk is 8 feet in width, as required, and the west sidewalk is 5 feet, also as required. These sidewalks continue existing sidewalks in the vicinity and provide sufficient pedestrian access across the site. The site plan also includes new paved area and a walkway connecting the main entrance of the office to the parking area and the Kirkton Avenue sidewalk.

Items to be Addressed: None.

NATURAL RESOURCES

The site is an existing single family home with typical residential landscaping. The rear yard does have four existing trees that would be removed in order to allow for the installation of the parking lot. The landscape plan includes the installation of 5 new trees to meet minimum landscaping requirements. The proposed plan would not impact any protected natural features.

Items to be Addressed: None.

LANDSCAPING

A landscape plan has been provided identifying how Ordinance requirements are being met in accordance to the City of Troy Landscape Design and Tree Preservation Standards.

Article 39.20.02 states “All land use buffers, landscaping, screening and open space areas required under the terms of this Chapter shall be reviewed by the Planning Department as to compliance with the intent of this Chapter, and by the Department of Parks and Recreation as to compliance with the Landscape Design and Tree Preservation Standards.”

Trees:

The landscape plan appears to show 5 existing trees, one of which is along Maple and does not appear to be proposed for removal, although it is not identified on the “existing tree schedule” on sheet L-1. There are 4 existing trees that will be removed for the new parking area, but 5 new trees will be installed to meet minimum landscaping requirements for the street frontage requirements for Kirkton Avenue and Maple Road. The 5 proposed trees, paired with the single existing tree to be preserved (mentioned above) meet the minimum frontage tree requirements.

Greenbelt:

A ten (10) foot wide greenbelt has been provided along the public street frontages.

Minimum landscaped area:

The proposed landscape plan provides 810 total square feet of landscaped area, and 562 square feet are required. The plan exceeds Ordinance requirements.

Items to be Addressed: None.

LIGHTING

The applicant has provided a photometric plan and detail of proposed lighting and indicated the proposed location for parking lot luminaires on site plan. Lighting is sufficient for the site as shown in the preliminary plan, although we are concerned that some light levels appearing on the photometric plan which encroach into the adjacent property to the north and east may be excessive. This encroachment would need to be eliminated prior to final site plan review to comply with Section 40.25.11, which states:

All lighting used to illuminate any off-street parking area shall be so installed as to be confined within and directed only onto the parking area and the property which it serves. Parking structures shall be designed so that all architectural and vehicular lighting is shielded or screened from view from adjacent properties. No lighting shall be so located or visible as to be a hazard to traffic safety.

Items to be Addressed: Eliminate lighting encroachment prior to final site plan approval.

ELEVATION

Proposed floor plans and elevations have been provided by the applicant. Building materials include brick veneer, typical residential shingles, and E.I.F.S. or saddle siding for a small detail over entrances. Materials are suitable to this type of building.

Items to be Addressed: None.

SUBMITTAL REQUIREMENTS

Section 3.43.01 establishes the requirements for preliminary site plan approval. Required elements and detail sufficient to review the preliminary site plan have been provided.

Items to be Addressed: None.

RECOMMENDATIONS

We support the proposed project, however there are two variances required to permit the project to proceed as designed. We recommend the Planning Commission take no action on the site plan as submitted to allow the applicant to pursue these variances and resubmit a site plan addressing our comments noted above.

Alpha Dental, November 4, 2010

A handwritten signature in black ink, appearing to read "Zachary Branigan", with a horizontal line extending to the right from the end of the signature.

CARLISLE/WORTMAN ASSOCIATES, INC.
Zachary G. Branigan, LEED AP, AICP
Associate

#225-02-10125

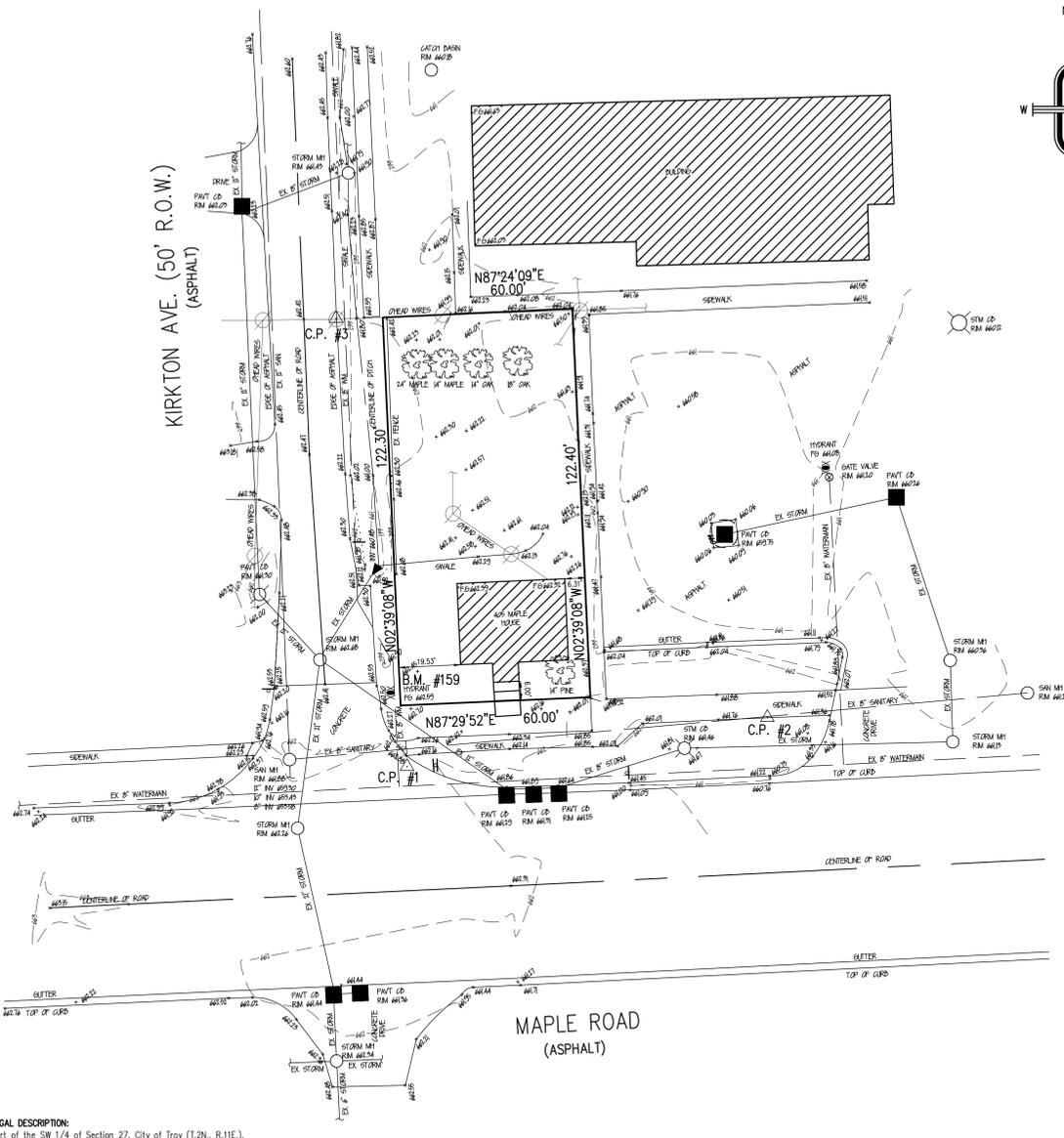
"ALPHA DENTAL CENTER"

PART OF THE SW 1/4 OF SECTION 27,
T. 2N., R. 11E., CITY OF TROY, OAKLAND COUNTY, MICHIGAN.



JJ ASSOCIATES, INC.
Civil Engineering and Surveying
44444 Mound Road - Suite 100, Sterling Heights, MI 48314
Telephone: (586) 726-9111 Fax: (586) 726-9112
Website: www.jjassociates.net

DATE	REV. DATE	DESCRIPTION
09/15/2010		
DRAWN BY		
CHECKED BY		



- LEGEND**
- △ CONTROL POINT
 - XX FIRE HYDRANT
 - GATE VALVE
 - MANHOLE - AS INDICATED
 - CATCH BASIN
 - PAVEMENT CATCH BASIN
 - ↑ SIGN
 - TOP OF BANK
 - ⊥ OF DRAIN
 - EXISTING WATERMAIN
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - TREE
 - EXISTING PAVEMENT

811 Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL EXISTING UTILITIES (WHETHER SHOWN OR NOT SHOWN ON THIS DRAWING) BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

© 2008 - JJ ASSOCIATES, INC. ALL RIGHTS RESERVED. THESE PLANS AND DRAWINGS ARE OWNED BY AND THE SOLE PROPERTY OF JJ ASSOCIATES, INC. ANY REPRODUCTION, COPYING, REUSE OR DISTRIBUTION OF THESE PLANS AND DRAWINGS IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF JJ ASSOCIATES, INC.

PRIMARY BENCHMARK
ARROW ON TOP OF HYDRANT LOCATED AT THE NORTHEAST CORNER OF MAPLE ROAD AND KIRKTON AVE. ELEVATION 664.65

BENCHMARKS:

NUMBER	NORTHING	EASTING	ELEVATION
159	384573	13454040.73	664.65

CONTROL POINTS: △

NUMBER	NORTHING	EASTING	ELEVATION
1	384549.79	13454044.59	661.86
2	384565.27	13454158.41	661.55
3	384690.90	13454040.73	664.65

LEGAL DESCRIPTION:
Part of the SW 1/4 of Section 27, City of Troy (T.2N., R.11E.), Oakland County, Michigan, described as follows:
Lot 3, "Supervisors Re-Plot of Lots 1 to 8, 51 to 55, 69 to 74, and 117 to 128, all inclusive, Council Heights" as recorded in L.52, P.15 of Plats, Oakland County Records.

"ALPHA DENTAL CENTER"
PART OF THE SW 1/4 OF SECTION 27,
T. 2N., R. 11E., CITY OF TROY, OAKLAND COUNTY, MICHIGAN.

TOPOGRAPHIC SURVEY
SCALE
1" = 20'
CITY #
DRAWING
C-1
1 of 1

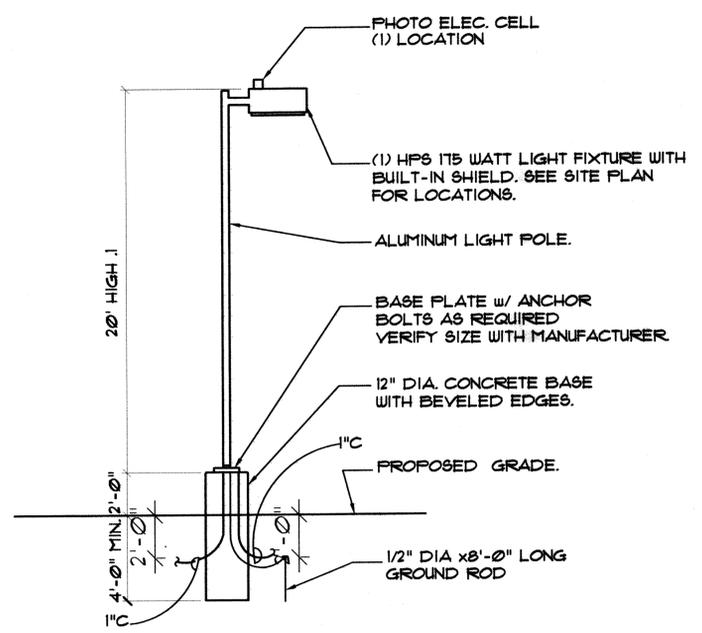
LUMINAIRE SCHEDULE									
Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
WB	WB	1	LITHONIA #WST 175M WT	ARCHITECTURAL SCONCE WITH WIDE THROW DISTRIBUTION WITH CLEAR, FLAT GLASS LENS. CLEAR LAMP.	ONE 175-WATT CLEAR ED-17 METAL HALIDE, HORIZONTAL POSITION.	LTL11070 IES	12800	0.75	213
HB	HB	1	LITHONIA #KAD 175M SR4SC (SINGLE - 20' POLE HTG)	AREA LIGHT WITH HIGH PERFORMANCE SR4SC OPTICS, CLEAR FLAT GLASS.	ONE 175-WATT CLEAR BT-28 METAL HALIDE, HORIZONTAL POSITION.	BB9492 IES	12000	0.75	213

STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PARKING & DRIVE AREA - VALUES AT GRADE	X	1.1 fc	3.6 fc	0.4 fc	9.0:1	2.8:1
SITE VALUES AT GRADE	+	0.5 fc	5.6 fc	0.0 fc	N/A	N/A

LUMINAIRE LOCATIONS							
No.	Label	X	Location Y	Z	MH	Orientation	Tilt
1	WB	-79.0	1323.9	15.0	15.0	270.0	0.0
2	HB	-145.1	1323.2	22.5	20.0	90.0	0.0

- NOTES
- SEE MH COLUMN OF LUMINAIRE LOCATIONS FOR MOUNTING HEIGHTS.
 - SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTORS.
 - CALCULATIONS ARE SHOWN IN FOOTCANDLES AT GRADE SURFACE.

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP. GBA DOES NOT ACT AS THE CIVIL OR STRUCTURAL ENGINEER AND DOES NOT DETERMINE BASE REQUIREMENTS. POLES SPECIFICATIONS ARE NOT INCLUDED WITH EXTERIOR LIGHTING PHOTOMETRIC ANALYSIS. THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.



TYPICAL PARKING LOT LUMINAIRE DETAIL
SCALE: NOT TO SCALE



Specifications
Length: 16.25 (41.3)
Depth: 6.19 (15.7)
Overall Height: 7.25 (18.4)
Max. Weight: 36 lbs (16.3 kg)

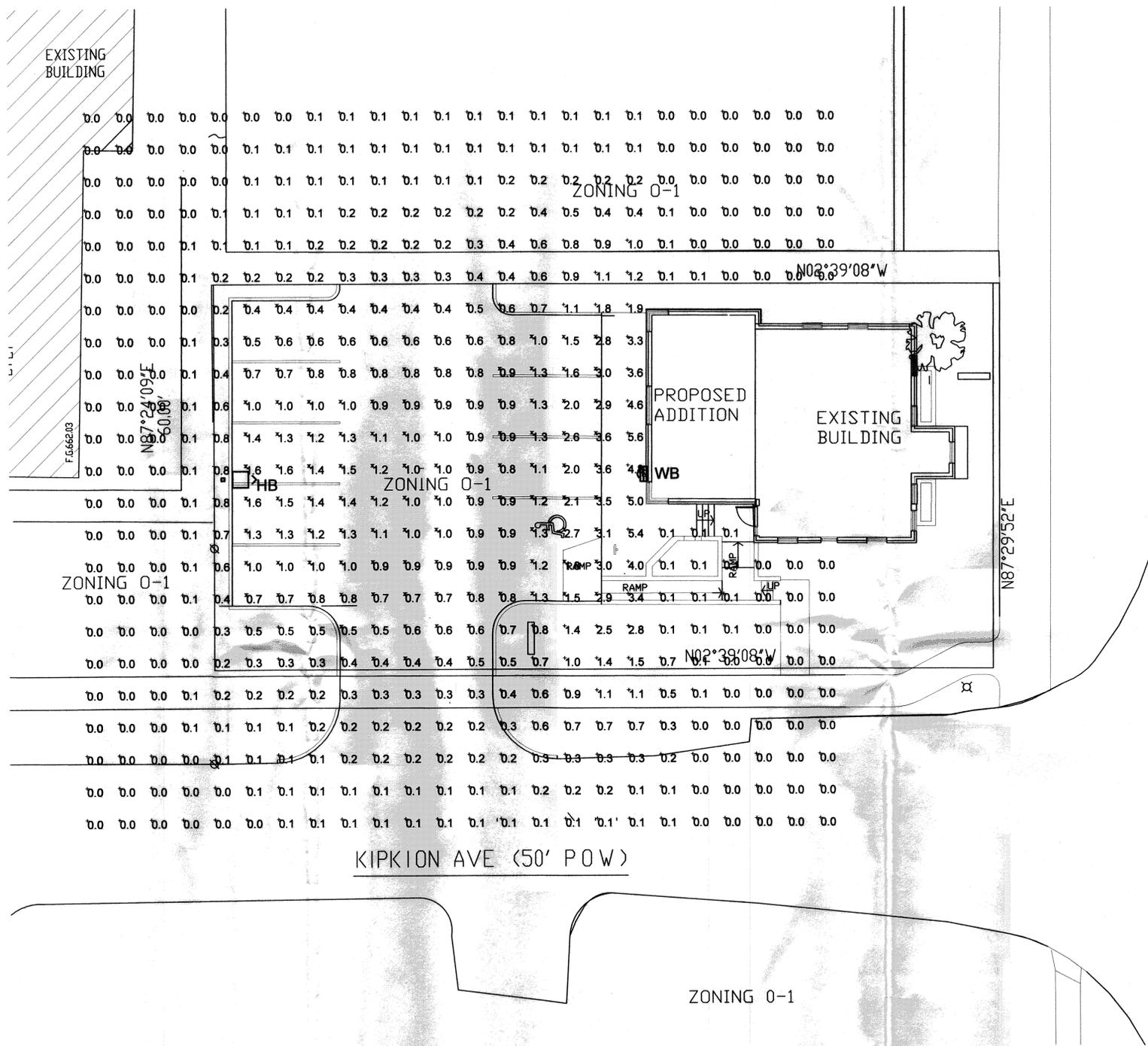
All dimensions are inches (centimeters) unless otherwise specified.

LIGHT FIXTURE TYPE-WB
NOT TO SCALE



Standard Dimensions
EPA: 1.2x1.7
Weight: 41 lbs (18.6 kg)
Length: 17-1/2" (44.5 cm)
Width: 17-1/2" (44.5 cm)
Depth: 7-1/8" (18.1 cm)

LIGHT FIXTURE TYPE-HB
NOT TO SCALE



PHOTOMETRIC SITE PLAN
SCALE: 10"=1'-0"

SITE PARKING LOT LTG VALUES AT GRADE
PREPARED FOR:
ARTHUR E. KALAJIAN & ASSOCIATES
GASSER BUSH ASSOCIATES

Designer LAK/JAB Date OCT 06 2010
Drawing No. GBA10-24T11-V1



1871 AUSTIN DRIVE
TROY MICHIGAN
48063

OFFICE: 248-524-3616
FAX: 248-524-0217
aekalajian@sbcglobal.net

PROPOSED DENTAL CLINIC
RENOVATION AND
ADDITION TO EXISTING
BUILDING

OWNER AND
CONTACT PERSON

CAMILIA SANDULACHE

586-412-1144
586-873-0455

ALPHA DENTAL CENTER
405 E MAPLE
TROY MI 48063

DESCRIPTION:
PHOTOMETRIC SITE PLAN

JOB NO.
ADC-1010

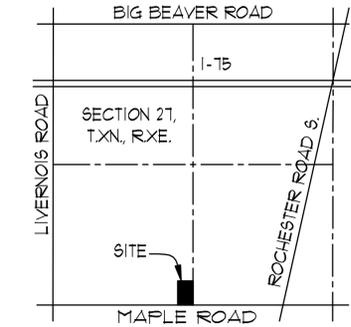
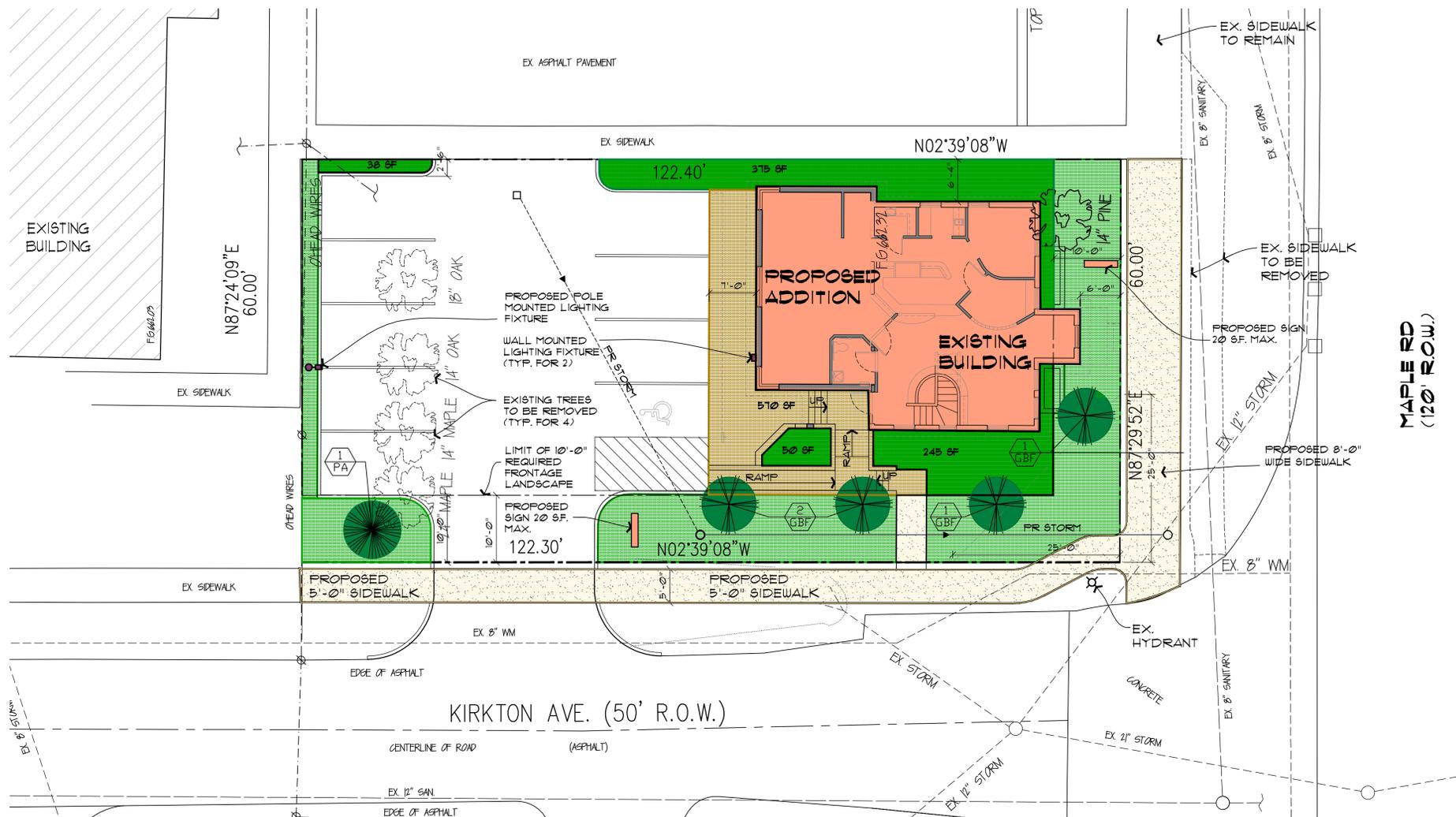


DATE	REVISION	BY	REASON
10-09-10	RVL	AK	1

SHEET NO.
SP-2

COPYRIGHT © 2010

THIS DOCUMENT & SUBJECT MATTER CONTAINED THEREIN IS PROPRIETARY AND IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY FOR WHICH IT WAS PREPARED AND IS NOT TO BE USED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF ARTHUR E. KALAJIAN & ASSOCIATES INC.



LOCATION MAP
NOT TO SCALE

- PROPOSED ORGANIC LANDSCAPE AREA
- REQUIRED FRONTAGE LANDSCAPED AREA
- NON ORGANIC PART OF LANDSCAPE AREA
- NON ORGANIC AREA
- BUILDING

LANDSCAPE AREA REQUIREMENT

• TOTAL SITE AREA	1,341 SF.
• NET SITE AREA (MINUS 10' FRONTAGE)	5,611.2 SF.
• REQUIRED LANDSCAPE AREA + 10% OF SITE NET AREA	562 SF.
• TOTAL PROP. ORGANIC AREA	708 SF.
• TOTAL NON ORGANIC AREA	570 SF.
• 20% REQUIRED LANDSCAPE AREA TO BE NON ORGANIC AREA	102 SF.

- TREE REQUIREMENT**
- NUMBER OF REQUIRED FRONTAGE TREES = FRONTAGE (FT) / 30 PER CITY OF TROY ZONING ORDINANCE SEC 39.70.02
 - SOUTH FRONTAGE = 60'-0" / 30 = 2 TREES REQUIRED
 - WEST FRONTAGE = 122'-4" / 30 = 4 TREES REQUIRED
 - TOTAL NUMBER OF TREES REQUIRED = 6 TREES
 - TOTAL NUMBER OF TREES PROVIDED = 6 TREES (1 EXISTING + 5 PROPOSED)

NOTE
NO EXISTING TREES TO BE PRESERVED BETWEEN 4" - 10" CALIFER PER CITY OF TROY LANDSCAPE DESIGN & PRESERVATION STANDARD SECTION 2.04-A1 AND 2.

LANDSCAPE NOTES AND PLANTING SPECIFICATIONS:

1. ALL REQUIRED LANDSCAPE AREAS SHALL BE COMPLETELY PLANTED WITH GRASS, GROUND COVER OR OTHER LANDSCAPE MATERIAL.
2. ALL LANDSCAPE MATERIAL EXCEPT TREES SHALL BE MAINTAINED SO AS NOT TO EXCEED (3) FEET IN HEIGHT.
3. ALL PLANT AND GRASS MATERIALS TO BE IN COMPLIANCE WITH THE CITY ORDINANCE AND CONFORM TO THE STANDARDS OF THE MICHIGAN ASSOC. OF NURSERYMEN.
4. ALL PLANT MATERIAL SHALL RECEIVE (3) PARTS TOPSOIL TO (1) PART PEAT MOSS PLANTING MIX.
5. ALL PLANTING BEDS SHALL RECEIVE A 4" LAYER OF SHREDDED BARK MULCH. ALL BEDS SHALL RECEIVE A PRE-EMERGE WEED KILLER PRIOR TO INSTALLATION OF MULCH. ALL BEDS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24 HR. PERIOD AFTER PLANTING.
6. PLANT MATERIAL (B & B) SHALL BE BALLED WITH ORIGINAL SOIL, INTACT WITH THE FIBROUS ROOTS TO INSURE MAX. RECOVERY AFTER PLANTING.
7. ANY BARE AREAS OF 12" OF LARGER DIA. SHALL BE RESEEDED AND INCLUDED IN MAINTENANCE PERIOD.
8. ALL NURSERY STOCK SHALL BE PLANTED PER APPLICABLE STANDARDS INCLUDING THE INSTALLATION STANDARDS BY THE MICHIGAN STATE HIGHWAY DEPT. AND SIZED AS SHOWN IN THE PLANTING SCHEDULE.
9. LANDSCAPING SHALL BE PLANTED IN A SOUND WORKMAN LIKE MANNER AND ACCEPTED GOOD PLANNING PROCEDURES. THE LANDSCAPE AREAS TO BE PROTECTED FROM VEHICULAR ENCRDACHMENT.
10. MAINTENANCE TO THE LANDSCAPING SHALL BE PERFORMED SUCH AS TO KEEP THE LANDSCAPE IN GOOD CONDITION WITH A HEALTHY, NEAT AND ORDERLY APPEARANCE FREE OF REFUSE AND DEBRIS. ALL UNHEALTHY AND DEAD MATERIAL SHALL BE REPLACED WITHIN (1) YEAR OR PART OF THE NEXT PLANTING PERIOD WHICHEVER IS FIRST.
11. SEE SHEET A FOR LOCATION OF PLANT MATERIAL

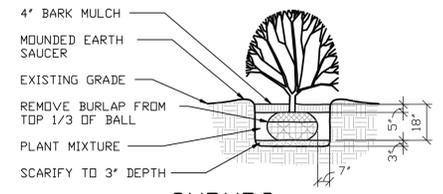
PROPOSED SITE PLAN
SCALE: 10"=1'-0"

PLANT SCHEDULE

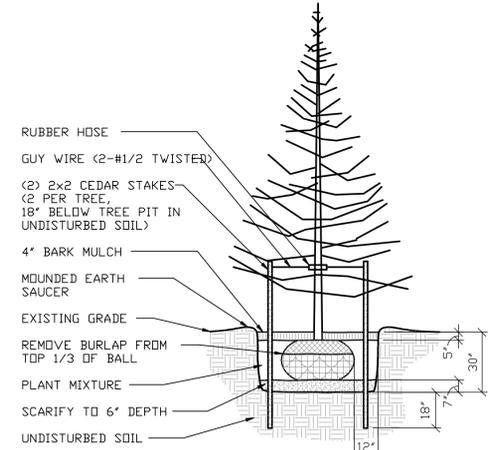
QTY.	TYPE	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
2	PA	NORWAY SPRUCE	Picea abies	6'-8" H.	
3	GBF	FASTIGIATE MAIDENHAIR TREE	Gingko biloba 'FASTIGIATA' (male only)	3" cal. B&B	20' DN CENTER

EX. TREE SCHEDULE

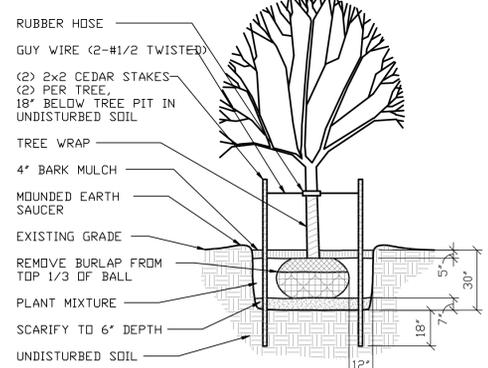
ID. NO.	SIZE	TREE TYPE	CONDITION	NOTES
1	18"	OAK	GOOD	TO BE REMOVED
2	14"	OAK	GOOD	TO BE REMOVED
3	14"	MAPLE	GOOD	TO BE REMOVED
4	24"	MAPLE	GOOD	TO BE REMOVED



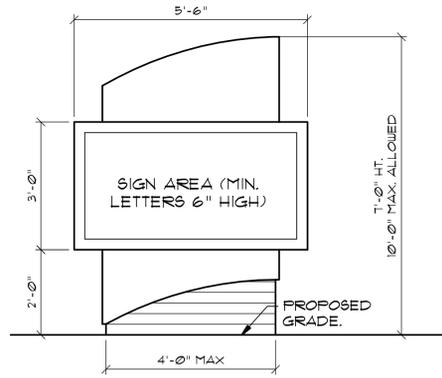
SHRUBS



EVERGREEN TREES



DECIDUOUS TREES



GROUND SIGN DETAIL
SCALE: NONE

NOTE:
MAX. SIZE GRD SIGN 20' SQ. FT. 10' HIGH
PROPOSED 20 SQ. FT. 5' HIGH

LEGEND

- DETAIL NO.
- SHT. NAME
- QUANTITY
- COMMON NAME
- PROPOSED DECIDUOUS SHRUBS
- PROPOSED DECIDUOUS TREES
- PROPOSED EVERGREEN TREES OR SHRUBS



ARTHUR E. KALAJIAN & ASSOC. INC. ARCHITECTS
1871 AUSTIN DRIVE TROY MICHIGAN 48063
OFFICE: 248-834-3818
FAX: 248-834-0217
akalajian@abglobal.net

PROPOSED DENTAL CLINIC TO EXISTING BUILDING

OWNER AND CONTACT PERSON

CAMILIA SANDULACHE
586-412-1144
586-873-0455

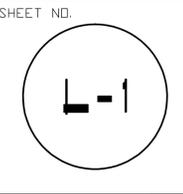
ALPHA DENTAL CENTER
105 E MAPLE TROY MI 48063

DESCRIPTION: LANDSCAPE SITE PLAN AND DETAILS

JOB NO. ADC-1010

SEAL:

DATE	ISSUE	DESIGN	DRAWN
02-05-10	REV 01	AEK	MA



SHEET NO.

1

© COPYRIGHT © 2010
THIS DOCUMENT & SUBJECT MATTER CONTAINED THEREIN IS PROPRIETARY AND IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY FOR WHICH IT WAS PREPARED AND IS NOT TO BE USED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF ARTHUR E. KALAJIAN & ASSOCIATES INC.

Date: November 5, 2010

To: Planning Commission

From: R. Brent Savidant, Acting Planning Director

Subject: COMPREHENSIVE ZONING ORDINANCE REWRITE (ZOTA 236) – Discussion with Representatives from Carlisle/Wortman Associates, Inc. - Article 4 District Regulations

Representatives of Carlisle/Wortman Associates, Inc. (CWA) will attend the November 9, 2010 Regular meeting to discuss draft Article 4 District Regulations. This article was briefly introduced at the October 26, 2010 Special/Study meeting. Revisions made to the article include the following:

- This Article went from approximately 150 pages to 21 pages.
- Intent statements were revised and strengthened.
- District names and abbreviations were simplified.
- All the repetitive specific use regulations were removed and are being incorporated into Article 8.
- All the uses permitted with special conditions were removed, and are now either permitted or special.
- All uses were removed from the district sections and placed in a large, three page table with simplified, consolidated use listings.
- The individual district sections will ultimately have a small, simple graphic like the ones we will have for Article 20 (Form Based Codes).
- The number of districts has been reduced and simplified.
- Location requirements and most of the district specific development regulations were made redundant by the new Site Design Standards and were therefore removed entirely.

Please be prepared to discuss these items at the November 9, 2010 Regular meeting.

Attachment:

1. Draft Article 4

cc: Richard Carlisle, Carlisle/Wortman Associates, Inc.

G:\ZOTAs\ZOTA 236 Zoning Ordinance Rewrite\PC Memo 11 09 2010.doc

ARTICLE IV

ZONING DISTRICTS AND MAP

5

SECTION 4.01 DISTRICTS

For the purpose of this Chapter, the City of Troy is hereby divided into the following Districts:

- | | | |
|----|------|---|
| 10 | R-1A | One-Family Residential District |
| | R-1B | One-Family Residential District |
| | R-1C | One-Family Residential District |
| | R-1D | One-Family Residential District |
| | R-1E | One-Family Residential District |
| 15 | RT | One-Family Attached Residential District |
| | MR | Multiple-Family Residential District |
| | UR | Urban Residential District |
| 20 | CF | Community Facilities District |
| | EP | Environmental Protection District |
| | CB | Community Business District |
| | GB | General Business District |
| 25 | IB | Integrated Industrial and Business District |
| | O | Office District |
| | OM | Office Mixed Use District |
| | P | Vehicular Parking District |
| 30 | RC | Research Center District |

SECTION 4.02 MAP

35 The boundaries of the districts set forth in Section 4.01, Establishment of Districts are shown upon the map attached hereto and made a part of this Ordinance which map is designated as the Official Zoning Map of the City of Troy. The Zoning Map, along with all notations, references and other explanatory information, are available at the City of Troy offices.

40

SECTION 4.03 INTERPRETATION OF DISTRICT BOUNDARIES

Where uncertainty exists with respect to the boundaries of any district indicated on the Official Zoning Map, the following rules shall apply:

45

- A. Boundaries indicated as approximately following the centerlines of streets, highways, or alleys shall be construed to follow the centerlines.

- B. Boundaries indicated as approximately following platted lot lines shall be construed as following the lot lines.
- 5 C. Boundaries indicated as approximately following city limits shall be construed as following city limits.
- D. Boundaries indicated as following railroad lines shall be construed to be midway between the main tracks.
- 10 E. Boundaries indicated as following shorelines shall be construed to follow the shoreline, and in the event of change in the shoreline shall be construed as moving with the actual shoreline; boundaries indicated as approximately following the centerline of streams, rivers, canals, lakes, or other bodies of water shall be construed to follow the centerline.
- 15 F. Boundaries indicated as parallel to, or extensions of, features indicated in subsections A through E of this section shall be so construed.
- G. Distances not specifically indicated on the zoning map shall be determined by the scale of the map.
- 20 H. Where physical or natural features existing on the ground are at variance with those shown on the official zoning map, or in other circumstances not covered by subsections A through G of this section, the Zoning Board of Appeals shall interpret the district boundaries.
- 25 I. Insofar as some or all of the various districts may be indicated on the zoning map by patterns which, for the sake of map clarity, do not cover public rights-of-way, it is intended that the district boundaries do extend to the center of any public right-of-way.

30 **SECTION 4.04 ZONING OF VACATED AREAS**

Whenever any street, alley or other public way within the City of Troy shall have been vacated by action of the City Council, and when the lands within the boundaries thereof attach to and become a part of lands adjoining such street, alley or public way, such lands formerly within such vacated street, alley or public way automatically, and without further action of the City Council, thenceforth acquire and be subject to the same zoning regulations as are applicable to lands to which same shall attach, and the same shall be used for the same use as is permitted under this Chapter for such adjoining lands.

35

40 **SECTION 4.05 DISTRICT REQUIREMENTS**

A. The Districts set forth herein guide the establishment of district boundaries to further the objectives of the City of Troy Master Plan. The intent of each district defines interrelationships between conflicting and compatible land uses and between land uses and resources such as transportation, utilities, cultural and institutional facilities and the natural environment.

45

B. Except as hereinafter provided, district regulations shall be applied in the following manner:

1. Permitted Uses. Permitted uses shall be permitted by right only if specifically listed as permitted uses in the various zoning districts or are similar to such listed uses.
- 5 2. Accessory Buildings, Structures, and Uses. Accessory buildings, structures, and uses are permitted only if such uses are clearly incidental to the permitted principal uses. Accessory buildings, structures, and uses shall not be established or constructed prior to construction of the principal building or establishment of the principal use to which it is accessory. Accessory buildings, structures, and uses are subject to the provisions of Section 5.03.
- 10 3. Special Uses. Special land uses are permitted as listed, subject to the procedures set forth in Article 7 and any specific standards applicable to a particular use.
- 15 C. If a proposed use is not explicitly listed, the Zoning Administrator shall make a determination as to which listed use the proposed use is most similar to and compatible with, and in which district(s) said use shall be permitted. In making this determination, the Zoning Administrator shall consider factors such as peak hourly and average daily traffic generation, noise, light, demands on public utility systems and potential environmental impacts. The Zoning Administrator may refer any proposed use to the Planning Commission for determination of the appropriate district(s) in which said use may be permitted.
- 20

SECTION 4.06 ONE-FAMILY RESIDENTIAL DISTRICTS R-1A THROUGH R-1E

- A. **Intent.** The Master Plan recognizes that single-family residential neighborhoods are vital components of the City, and comprise the majority of the land area within the City. The intent of the R-1A through R-1E Districts is to provide areas for single-family dwellings with the primary distinction being a range of densities, implemented through varying lot sizes. The R-1A through R-1E Districts are further intended to preserve and improve upon the quality of residential neighborhoods while permitting a limited number of other compatible uses which support residential neighborhoods.
- B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses within the R-1A through R-1E Districts.
- C. **Dimensional Requirements.** The following dimensional requirements shall apply to the R-1A through R-1E Districts:

Minimum Lot Size Per Dwelling Unit			Maximum Height		Minimum Yard Setback (R) (Per Lot in Feet)			Minimum Floor Area Per Unit (Square Feet)	Maximum % of Lot Area Covered by Buildings	
Use District	Area in Sq. Ft.	Width In Ft.	In Stories	In Feet	Front	Sides				Rear
						Least One	Total Two			
R-1A										
No Sewer	30,000	150	2½	25	40	15	30	45	1,400	30%
Sewer	21,780	120	2½	25	40	15	30	45	1,400	30%
R-1B										
No Sewer	21,780	110	2½	25	40	15	30	45	1,400	30%
Sewer	15,000	100	2½	25	40	10	25	45	1,400	30%
R-1C										
No Sewer	21,780	110	2	25	30	15	30	40	1,200	30%
Sewer	10,500	85	2	25	30	10	20	40	1,200	30%
R-1D										
No Sewer	21,780	110	2	25	25	15	30	40	1,000	30%
Sewer	8,500	75	2	25	25	8	20	40	1,000	30%
R-1E										
No Sewer	21,780	110	2	25	25	15	30	35	1,000	30%
Sewer	7,500	60	2	25	25	5	15	35	1,000	30%

Footnote: Setbacks from major thoroughfares: Whenever a lot or acreage parcel abuts a major thoroughfare as established by the Master Thoroughfare Plan adopted in accordance with Act 285, Public Acts of 1931, as amended, the yard setback abutting said major thoroughfare shall be at least fifty (50) feet from the existing or Master Thoroughfare Plan right-of-way line, whichever is greater. This ordinance does not prohibit expansion behind the fifty (50) foot setback. This requirement shall not apply to subdivisions for which Tentative Approval was granted prior to January 1, 1976.

- The side yard abutting upon a street shall not be less than the greater of the side yards required for the District in which located when there is a common rear yard relationship in the block and a common side yard relationship with the block directly across the common separating street. In the case of a rear yard abutting a side yard or when a side yard is adjacent to a front yard across a common separating street, the side yard abutting a street shall not be less than the minimum front yard of the

District in which located, and shall be considered as a front yard.

SECTION 4.07 RT ONE-FAMILY ATTACHED RESIDENTIAL DISTRICT

- A. **Intent.** The intent of the RT, One-Family Attached Residential District is to provide medium density residential areas in those areas where attached forms of residential development achieves the objectives of the Master Plan. The District is designed primarily to permit attached residential dwellings which may serve as a transition between high intensity or non-residential use areas, and lower density residential land use areas. The RT District is further intended to provide medium density residential development in compact areas so as to encourage walkability.
- B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses within the RT District.
- C. **Development standards.**
 - 1. In the course of reviewing plans for development, the Planning Commission may require that the dwelling unit elevations and orientation be modified or varied in order to minimize the repetitive visibility of garage entrances from the street at the front of the units. This may include requiring rear entry for residential units.
- D. **Dimensional Requirements.** The following dimensional requirements shall apply to the RT District:

Minimum Lot Size Per Dwelling Unit				Maximum Height		Minimum Yard Setback			Minimum Floor Area Per Unit (Square Feet)	Maximum % of Lot Area Covered by Buildings	
Use District	Area in Sq. Ft.	Width in Ft. Per Lot Or Unit In Platted Subdivisions or Site Condominiums	Frontage Per Dwelling Unit in Ft. for Traditional Condominium Projects (or multiple buildings on one parcel)	In Stories	In Feet	Front	Sides				Rear
							Least One	Total Two			
R-1T											
No Sewer	15,000	75	NA	2½	25	25	15	30	35	1,000	30%
Sewer	5,000	40	20	2½	25	25	10	20	35	1,000	30%

25 All units that abut a major thoroughfare shall have a rear or side yard relationship to said thoroughfare, and such yards shall not be less than fifty (50) feet in depth as measured from the right-of-way line of the thoroughfare as indicated on the Master Thoroughfare Plan. The Planning Commission may modify the dwelling unit orientation, or relationship to a major thoroughfare, when they determine that the parcel size and configuration are such that the rear or side yard relationship would be impractical or overly restrictive, and a more desirable residential environment can be created by permitting a front yard relationship to the thoroughfare.

30 All units that abut a freeway shall have a yard setback of not less than seventy-five (75) feet in depth as measured from the right-of-way line of the freeway.

35 All units that abut a secondary thoroughfare shall have a yard setback of not less than fifty (50) feet in depth as measured from the right-of-way line of the thoroughfare as indicated on the Master Thoroughfare Plan.

- 5
- 10
- 15
- 20
- 25
1. The side yard abutting upon a street shall not be less than the greater of the side yards required for the District in which located when there is a common rear yard relationship in the block and a common side yard relationship with the block directly across the common separating street. In the case of a rear yard abutting a side yard or when a side yard is adjacent to a front yard across a common separating street, the side yard abutting a street shall not be less than the minimum front yard of the District in which located, and shall be considered as a front yard.
 2. In an R-1T District, front, side, or rear yards need not refer to spacing between buildings for a planned development of two (2) or more buildings on the same parcel. In such cases the minimum distance between any two (2) buildings shall be twenty (20) feet.
 3. Residential structure height may be increased beyond twenty-five (25) feet provided the following conditions are met:
 - a. Heights up to twenty-seven (27) feet shall be approved when attic areas over 2,000 square feet are separated into areas of no more than 2,000 square feet and have no eave or cornice vents directly above exterior openings.
 - b. Heights over twenty-seven (27) feet and up to thirty-two (32) feet shall be approved when the structure is fully protected with an approved fire suppression system and fire retardant materials are used for roof framing and sheathing.

SECTION 4.08 MF MULTIPLE FAMILY RESIDENTIAL DISTRICT

A. **Intent.** The intent of the MF, Multiple Family Residential District, is to provide for multiple family residential development located in areas which are compatible with single-family residential districts and are adequately served with public utilities and services. This District requires significant open space which will enhance the residential desirability and compatibility of the subject properties and adjacent low density residential areas. This District is also intended to allow higher-density projects which will complement and support mixed-use areas of the City, the form-based districts of the City, or one another.

Development in the MF District can offer an urban character while serving as transitional zones between areas of higher and lower intensity of development. The MF District is further provided to accommodate the older multiple-family areas of the City, which were developed to serve the need for a variety of housing types in an otherwise predominantly low-density, single-family community.

B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses within the MF District.

C. **Development Standards.**

1. In MF Districts, the site area shall contain a minimum open space area (apart from buildings, parking and drives or loading areas) equivalent to 450 square feet of land area per dwelling unit within the development.
2. In the MF District, the maximum length of any building up to four stories in height shall not exceed one hundred eighty (180) feet, measured along any exterior elevation. The length of a building five to eight stories in height shall not exceed four times its height.

D. **Dimensional Requirements.** The following dimensional requirements shall apply to the MF District:

Maximum Density	Maximum Height		Minimum Yard Setback				Minimum Floor Area Per Unit (Square Feet)	Maximum % of Lot Area Covered by Buildings	
	Units per Acre	In Stories	In Feet	Front	Rear	Sides			Between buildings
24	8	100	equal to the height of the structure				30	Efficiency or 1-BR-600 2-BR-800 3-BR-1000 4-BR-1200	35%

SECTION 4.09 UR URBAN RESIDENTIAL DISTRICT

A. **Intent.** The Troy Master Plan recognizes that certain areas of the City may be conducive to high-density residential dwellings, particularly when located in close proximity to more intense mixed use and non-residential development. The intent of the UR District is to provide high-density multiple-family housing which provides for an urban character, supports transit, and encourages walkability.

In addition to high-density residential dwellings, the UR District permits a limited number of non-residential uses which are compatible with and supportive of a residential environment.

B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses within the UR District.

C. **Development Standards.**

1. In UR Districts, the site area shall contain a minimum open space area (apart from buildings, parking and drives or loading areas) equivalent to 450 square feet of land area per dwelling unit within the development.

2. In the UR District, the maximum length of any building up to four stories in height shall not exceed one hundred eighty (180) feet, measured along any exterior elevation. The length of a building five to eight stories in height shall not exceed four times its height. The maximum length of a building of nine stories or greater in height shall not exceed three times its height.

D. **Dimensional Requirements.** For all developments in the UR District, the following dimensional requirements shall apply:

Maximum Density	Maximum Height		Minimum Yard Setback				Minimum Floor Area Per Unit (Square Feet)	Maximum % of Lot Area Covered by Buildings	
	In Stories	In Feet	Front	Rear	Sides	Between buildings			
35	No limit		0				30	Efficiency or 1-BR-600 2-BR-800 3-BR-1000 4-BR-1200	35%

SECTION 4.10 CF COMMUNITY FACILITIES DISTRICT

A. **Intent.** The CF, Community Facilities, District is intended to provide areas for those public, quasi-public, or private institutional and service uses necessary to serve the cultural, educational, and physical needs of the community. The unique nature and requirements of the uses contained within this District, and their need for a location within the residential portion of the community, warrant the establishment of a separate zoning classification which contains land use controls that will insure that such uses will be compatible with adjacent land uses and not contrary to the spirit and purpose of this ordinance.

B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses within the CF District.

C. **Dimensional Requirements.** The following dimensional requirements shall apply to the CF District:

Maximum Height		Minimum Yard Setback				Maximum % of Lot Area Covered by Buildings
In Stories	In Feet	Front	Rear	Sides	Between buildings	
2	25	50 or equal to that of the abutting single-family zoning district			30	30%

1. In CF Districts, parking shall not be permitted in the front yard.

SECTION 4.11 EP ENVIRONMENTAL PROTECTION DISTRICT

A. **Intent.** Natural features and open space areas constitute important physical, aesthetic, recreation and economic assets of the City.

5

Therefore, the City of Troy has enacted a series of development options and Zoning Districts which have, as a portion of their intent, the conservation, preservation and provision of open space and natural resource areas. Areas such as flood plains also exist wherein the limitation or prohibition of alteration or development is essential to the public health, safety and welfare. The intent of the EP Environmental Protection District is to act in concert with these development options and Zoning Districts and to recognize other areas warranting preservation, conservation, or protection, in such a manner as to: protect for the protection, preservation, use, and maintenance of natural resource areas, minimizing disturbance to them, and to prevent damage resultant from their loss; protect these natural resource and open space areas for their economic support of property values when allowed to remain in an undisturbed natural state; provide for the paramount public concern for these natural resource areas in the interest of health, safety, and the general welfare of the residents of the City of Troy; and promote the public health, safety, and general welfare by preventing or minimizing loss or damage to property, and personal injury, due to flooding.

10

15

20

B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses within the EP District.

C. **Location standards.** In order to achieve the intent of this District, the EP, Environmental Protection District, may be applied to the following types of property:

25

1. Privately or publicly owned property containing significant natural assets or features.
2. Privately owned property consisting of those portions of a development area which are or will be established as open space or natural preserves under the terms of development requirements contained herein or through private actions achieving the same purpose.
3. Flood plains or flood way areas designated or specified by related City, County or Federal standards or programs.
4. Wetlands, determined by engineering and/or soil surveys, whose inherent conditions preclude development in a normal manner.
5. Privately owned property committed for use for non-commercial outdoor recreation purposes.

30

35

40

D. **District Standards.**

1. Lands zoned in the EP, Environmental Protection classification, which are provided in conjunction with residential developments, shall be permitted to be used in the calculation of density for such projects, subject to applicable provisions of this Chapter. The conservation and protection of irreplaceable natural resource areas from pollution, impairment, or destruction shall remain a paramount factor in the design and implementation of such

45

SECTION 4.12 CB COMMUNITY BUSINESS DISTRICT

5 A. **Intent.** The CB Community Business District is intended to provide for retail business and service uses which primarily meet the day-to-day convenience, shopping, and service needs of persons in the immediate residential areas, but to a more limited extent serve a larger consumer population. The CB Districts are the least intense commercial districts within the City, but do contain a variety of potential uses. The CB District is also intended to protect and enhance existing commercial areas of the City where non-residential uses are and ought to be the primary use of the property. The CB District is unique in this more limited purpose, as the form based and other mixed-use districts within the City also allow and encourage the on-site integration of business and service uses with office and residential uses.

15 B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses within the CB District.

15 C. **Dimensional Requirements.** The following dimensional requirements shall apply in the CB District:

Maximum Height		Minimum Yard Setback				Minimum Floor Area in Feet
In Stories	In Feet	Front	Rear	Sides: Least	Sides: Total	
2	30	0	30	20	40	500

20 1. In CB Districts, no building shall be closer than 75 feet from the outer perimeter (property line) of such District, when such abuts a residential District. No side yards are required along the interior side lot lines of the District or along side lot lines in common with the GB or IIBD Districts if all related conditions of this Chapter are complied with. If walls of structures facing such interior or common side lot lines contain windows, or other openings, side yards of not less than ten (10) feet shall be provided.

25 2. When rear yards include parking, loading or property maintenance facilities, necessary access to same shall be provided by means of at least one side yard drive. Such drives shall have a minimum width of twenty-two (22) feet for two-way service or fifteen (15) feet for one-way service, and shall be kept free of any obstruction.

30

SECTION 4.14 GB GENERAL BUSINESS DISTRICT

A. **Intent.** The GB General Business District is intended to provide areas for more diversified retail and service uses, a City-wide or regional market area, and/or arterial exposure. The General Business Districts are typically located along major thoroughfares and/or adjacent to Community Business Districts. The GB District also permits an opportunity for mixed-use development consistent with the intent of the Master Plan to support transit and walkability.

B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses in the GB District.

C. **Dimensional Requirements.** The following dimensional requirements shall apply in the GB District:

Maximum Height		Minimum Yard Setback				Minimum Floor Area in Feet
In Stories	In Feet	Front	Rear	Sides: Least	Sides: Total	
5	75	0	30	20	40	500

1. In GB Districts, no building shall be closer than 75 feet from the outer perimeter (property line) of such District, when such abuts a residential District. No side yards are required along the interior side lot lines of the District or along side lot lines in common with the CB or IB Districts if all related conditions of this Chapter are complied with. If walls of structures facing such interior or common side lot lines contain windows, or other openings, side yards of not less than ten (10) feet shall be provided.

2. When rear yards include parking, loading or property maintenance facilities, necessary access to same shall be provided by means of at least one side yard drive. Such drives shall have a minimum width of twenty-two (22) feet for two-way service or fifteen (15) feet for one-way service, and shall be kept free of any obstruction.

SECTION 4.15 IB INTEGRATED INDUSTRIAL AND BUSINESS DISTRICT

A. **Intent.** The City of Troy Master Plan recognizes that a significant area of the City has been devoted to manufacturing and industrial uses, but may be conducive to be redeveloped to other uses. The IB District is intended to continue to recognize more traditional manufacturing and industrial use and encourage redevelopment and reuse of existing buildings and sites by permitting other compatible uses.

B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses in the IB District.

C. **Dimensional Requirements.** The following dimensional requirements shall apply in the IB District:

Maximum Height		Minimum Yard Setback				Maximum % of Lot Area Covered by Buildings
In Stories	In Feet	Front	Rear	Sides: Least	Sides: Total	
4	50	50	20	10	20	40

- The front yard shall remain as open space, unoccupied and unobstructed from the ground upward except for landscaping, plant materials, or vehicle access drives. Off-street parking spaces, aisles, loading areas, and maneuvering lanes shall not be located in such yards. All yards abutting upon a public street or freeway shall be considered as front yards for setback and open space purposes.
- No building shall be located closer than fifty (50) feet to the outer perimeter (property line) of such District when said property line abuts any residential District, public street or freeway right-of-way.
- When rear yards include parking, loading, property maintenance, or vehicular building access facilities, necessary access to same shall be provided by means of at least one side yard drive. Such drives shall have a minimum width of twenty-two (22) feet for two-way service or fifteen (15) feet for one-way service, and shall be kept free of any obstruction.

SECTION 4.16 O OFFICE DISTRICT

- 5 A. **Intent.** The O Office District is intended to provide areas for office uses and limited related retail and service uses which support an office environment. These districts are typically located along commercial corridors in the City, or on the periphery of regionally prominent retail and service centers. The O District is not so diverse as to include prominent retail or other commercial components, which are more broadly available in the similar, but more intense OM, Office Mixed Use District, which is specifically designed for that purpose. Consequently, due to its less intense nature, the O District is suited to serve as a conventional transitional zone or in support of more regionally prominent areas and districts with a more intense concentration of uses.
- 10 B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses in the O District.
- 15 C. **Dimensional Requirements.** The following dimensional requirements shall apply in the O District:

Maximum Height		Minimum Yard Setback				Minimum Floor Area in Feet
In Stories	In Feet	Front	Rear	Sides: Least	Sides: Total	
3	36	30	20	20	40	500

SECTION 4.17 OM OFFICE MIXED USE DISTRICT

- 5 A. **Intent.** The OM Office Mixed Use District is intended to provide areas for large office uses which serve large numbers of people, as well as the retail, service, restaurant, lodging, and residential options that should be provided to support such large employment centers. A major purpose of this District is to provide areas for buildings of greater height and more intensive land use activity in an otherwise low-density community, while providing amenities on-site or within the same immediate area to foster a walkable, compact, dense urban environment. The OM District is also intended to encourage the development of uses and services that will support and enhance the marketability of the City of Troy as a vibrant and desirable place to work where a high quality of life can be offered for both workers and residents. As such, it is a primary role of the OM District, along with the IB, RC, CB and GB Districts to preserve the economic vitality of the area.
- 10
- 15 B. **Use Regulations.** Section 4.____ sets forth permitted, accessory, and special land uses in the OM District.
- C. **Dimensional Requirements.** The following dimensional requirements shall apply in the OM District:

Maximum Height		Minimum Yard Setback				Minimum Floor Area in Feet
In Stories	In Feet	Front	Rear	Sides: Least	Sides: Total	
5	75	30	30	30	60	500

20

SECTION 4.18 RC RESEARCH CENTER DISTRICT

A. **Intent.** The RC Research Center District is intended to provide areas for industrial-research and office uses in planned developments. Such districts are to be located and developed so as to complement the significant light industrial character of the community, while at the same time providing for the necessary related non-manufacturing uses such as corporate office and research facilities. The RC District is intended to encourage the development of uses and services that will support and enhance the office environment in the RC District, primarily for the benefit of tenants and local residents. Further, the Research Center District is intended to provide for those major industrial-research, and office, and training uses which require proximity to major non-residential areas, rather than office uses serving a local market, which could reasonably be located in commercial and service areas elsewhere in the community.

B. **Use Regulations.** Section 4.__ sets forth permitted, accessory, and special land uses in the RC District.

C. **Dimensional Requirements.** For all developments in the RC District, the following dimensional requirements shall apply:

Maximum Height		Minimum Yard Setback				Minimum Floor Area in Feet
In Stories	In Feet	Front	Rear	Sides: Least	Sides: Total	
3	40	50	20	20	40	500

1. The front yard shall remain as open space, unoccupied and unobstructed from the ground upward except for landscaping, plant materials, or vehicle access drives. Off-street parking spaces, aisles, loading areas, and maneuvering lanes shall not be located in such yards. All yards abutting upon a public street or freeway shall be considered as front yards for setback and open space purposes.

2. In the RC, Research Center District, when front yards abut a freeway, the Zoning Administrator may permit a reduction in the depth of the landscaped portion of such yards to a minimum of twenty (20) feet, when it determines that the nature and orientation of the subject building is such that screening through the use of a fully landscaped yard is not necessary, and that a serious development constraint would be created as a result of the standard landscaped yard requirement.

SECTION 4.0x SCHEDULE OF USE REGULATIONS

A. In all Districts, no building or land shall be used and no building shall be erected except for one or more of the following specified uses, unless otherwise provided in this Article.

5

B. The Schedule of Use Regulations identifies uses as follows:

1. “P” identifies uses permitted as of right.
2. “S” identifies uses requiring special approval.
3. “A” identifies accessory uses.
4. “NP” identifies uses not permitted.

10

15

Uses	Districts											
	R-1A -E	R-IT	MFR	UR	C-F	E-P	CB	GB	IB	O	OM	RC
Residential												
One-family dwellings	P	P	P	P	P	NP	NP	NP	NP	NP	NP	NP
Two-family dwellings	NP	P	P	P	NP	NP	NP	NP	NP	NP	NP	NP
One-family attached dwellings	NP	P	P	P	NP	NP	NP	NP	NP	NP	NP	NP
Home occupations	A	A	A	A	A	NP	A	A	A	NP	A	NP
Multiple-family dwellings (2-8 stories)	NP	NP	P	P	NP	NP	NP	NP	P	NP	NP	NP
Multiple-family dwellings (9+ stories)	NP	NP	NP	P	NP	NP	NP	NP	P	NP	NP	NP
Multiple-family dwellings (on upper floors only in a mixed use building)	NP	NP	NP	NP	NP	NP	P	P	P	NP	P	NP
Senior assisted/independent living	P	P	P	P	P	NP	P	P	P	NP	P	NP
Live/work units	NP	S	P	P	NP	NP	P	P	P	NP	P	NP
Recreation												
Publicly owned and operated parks, parkways, and recreational facilities	P	P	P	P	P	NP	P	P	P	P	P	P
Forestry / non-commercial nurseries	P	P	P	P	P	P	P	P	P	P	P	P
Passive outdoor recreation facilities	P	P	P	P	P	P	P	P	P	P	P	P
Active outdoor recreation facilities	S	S	S	S	P	P	P	P	P	P	P	P
Golf courses	S	S	S	S	S	NP	S	S	S	NP	NP	NP
Swimming pool clubs	S	S	S	S	S	NP	S	S	S	NP	NP	NP
Commercial indoor recreation	NP	NP	NP	NP	NP	NP	P	P	P	NP	NP	NP
Institutional												
Primary/secondary schools (private)	S	S	S	S	P	NP	P	P	P	P	P	P
Places of worship	S	S	S	S	S	NP	P	P	P	P	P	P
Publicly owned/operated office and service facilities	S	S	S	S	P	NP	P	P	P	P	P	P
Fine and performing arts facilities	NP	NP	NP	NP	P	NP	P	P	P	NP	S	NP
Post-secondary schools	NP	NP	NP	NP	S	NP	P	P	P	P	P	P

Uses	Districts											
	R-1A -E	R-1T	MFR	UR	C-F	E-P	CB	GB	IB	O	OM	RC
Bus / transit passenger stations, taxicab offices, dispatching centers	NP	NP	NP	NP	P	NP	P	P	P	P	P	P
Retail, Entertainment, and Service												
Restaurants, standard	NP	NP	NP	A	NP	NP	P	P	P	NP	A	NP
Restaurants, fast food	NP	NP	NP	A	NP	NP	P	P	P	NP	A	NP
Restaurants, drive-through	NP	NP	NP	NP	NP	NP	S	S	P	NP	S	NP
Bar/lounge	NP	NP	NP	A	NP	NP	P	P	P	NP	A	NP
Outdoor dining areas	NP	NP	NP	A	NP	NP	A	A	A	NP	A	NP
Retail, general	NP	NP	NP	A	NP	NP	P	P	P	NP	A	NP
Retail, large-format	NP	NP	NP	NP	NP	NP	S	P	P	NP	NP	NP
Shopping centers	NP	NP	NP	NP	NP	NP	S	P	P	NP	NP	NP
Fitness, gymnastic, and exercise centers	NP	NP	NP	NP	NP	NP	P	P	P	NP	A	NP
Building and lumber supply	NP	NP	NP	NP	NP	NP	P	P	P	NP	NP	NP
Garden centers / nurseries	NP	NP	NP	NP	NP	NP	P	P	P	NP	NP	NP
Indoor commercial recreation	NP	NP	NP	NP	NP	NP	P	P	P	NP	NP	NP
Outdoor commercial recreation	NP	NP	NP	NP	NP	NP	P	P	P	NP	NP	NP
Dance, music, and art studios	NP	NP	NP	NP	NP	NP	P	P	P	NP	A	NP
Dry cleaners and laundry	NP	NP	NP	A	NP	NP	P	P	P	NP	A	NP
Pharmacies, durable medical goods sales/rental	NP	NP	NP	A	NP	NP	P	P	P	NP	A	NP
Open air businesses, as a principal use	NP	NP	NP	NP	NP	NP	P	P	P	NP	NP	NP
Open air businesses, subordinate to principal use	NP	NP	NP	NP	NP	NP	P	P	P	NP	NP	NP
Motel, hotel, extended stay or all-suite residences	NP	NP	NP	NP	NP	NP	P	P	P	NP	S	NP
Conference, meeting, and banquet facilities	NP	NP	NP	NP	S	NP	P	P	P	NP	P	S
Personal services	NP	NP	NP	A	NP	NP	P	P	P	NP	A	A
Home service repair	NP	NP	NP	NP	NP	NP	P	P	P	NP	A	A
Photographic studios	NP	NP	NP	NP	NP	NP	P	P	P	P	P	P
Financial institutions	NP	NP	NP	A	NP	NP	P	P	P	P	P	P
Commercial kennels / pet day care	NP	NP	NP	NP	NP	NP	P	P	P	NP	NP	NP
Drive-up windows and service facilities as an accessory to principal uses	NP	NP	NP	NP	NP	NP	S	S	A	S	S	NP
Theatres and places of assembly	NP	NP	NP	NP	NP	NP	P	P	P	NP	NP	NP
Adult Use Businesses	NP	NP	NP	NP	NP	NP	NP	S	S	NP	NP	NP
Office												
Offices, general	NP	NP	NP	NP	NP	NP	P	P	P	P	P	P
Professional and medical offices	NP	NP	NP	NP	NP	NP	P	P	P	P	P	P
Business services	NP	NP	NP	NP	NP	NP	P	P	P	P	P	P
Medical clinics	NP	NP	NP	NP	NP	NP	P	P	P	P	P	P
Hospitals	NP	NP	NP	NP	S	NP	NP	S	S	NP	NP	NP
Veterinary clinics or hospitals	NP	NP	NP	NP	NP	NP	P	P	P	P	P	P

Uses	Districts											
	R-1A -E	R-1T	MFR	UR	C-F	E-P	CB	GB	IB	O	OM	RC
Industrial												
Prototype or experimental product research and development	NP	NP	NP	NP	NP	NP	NP	NP	P	P	P	P
Any use of basic research, design and pilot or experimental product development	NP	NP	NP	NP	NP	NP	NP	NP	P	P	P	P
Food processing	NP	NP	NP	NP	NP	NP	NP	NP	P	NP	NP	NP
Manufacturing and assembly	NP	NP	NP	NP	NP	NP	NP	NP	P	NP	NP	NP
Laboratories	NP	NP	NP	NP	NP	NP	NP	NP	P	P	P	P
Warehouse and wholesale establishments and truck terminal facilities	NP	NP	NP	NP	NP	NP	NP	NP	P	NP	NP	NP
Central dry cleaning / laundry plants	NP	NP	NP	NP	NP	NP	NP	NP	P	NP	NP	NP
Outdoor storage facilities	NP	NP	NP	NP	NP	NP	NP	NP	S	NP	NP	NP
Mini Warehouse or self-storage	NP	NP	NP	NP	NP	NP	NP	NP	P	NP	NP	NP
Automotive/Transportation												
Automobile, recreational vehicle sales	NP	NP	NP	NP	NP	NP	NP	S	S	NP	NP	NP
Vehicle repair stations	NP	NP	NP	NP	NP	NP	NP	S	S	NP	NP	NP
Vehicle service stations	NP	NP	NP	NP	NP	NP	NP	S	S	NP	NP	NP
Vehicle washes	NP	NP	NP	NP	NP	NP	NP	S	S	NP	NP	NP
Vehicle auctions	NP	NP	NP	NP	NP	NP	NP	S	S	NP	NP	NP
Antique and classic vehicle sales	NP	NP	NP	NP	NP	NP	NP	S	S	NP	NP	NP
Ambulance facilities	NP	NP	NP	NP	NP	NP	S	S	S	NP	NP	NP
Vehicle rental	NP	NP	NP	NP	NP	NP	S	S	S	NP	NP	NP
Miscellaneous												
Accessory buildings and uses	A	A	A	A	A	NP	A	A	A	A	A	A
Agriculture	P	P	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Cemeteries	P	P	P	P	P	NP	NP	NP	NP	NP	NP	NP
Mortuary Establishments	NP	NP	NP	NP	P	NP	P	P	P	NP	NP	NP
Family Day Care Homes	P	P	P	P	P	NP	NP	NP	NP	NP	NP	NP
Group Day Care Homes	P	P	P	P	P	NP	NP	NP	NP	NP	NP	NP
Child Care Centers and Preschools	S	S	P	P	P	NP	P	P	P	P	P	P
Adult Foster Care Facilities	P	P	P	P	P	NP	NP	NP	NP	NP	NP	NP
Private Clubs, Fraternal Organizations and Lodge Halls	NP	NP	NP	NP	S	NP	S	S	P	S	S	NP
Parking garages and off-street parking areas as a principal use	NP	NP	NP	NP	S	NP	S	S	P	S	S	S
Utility and Public Service Buildings and facilities (without storage yards)	S	S	S	S	P	NP	P	P	P	P	P	P
Utility and Public Service Buildings and facilities (with outdoor storage yards)	NP	NP	NP	NP	S	NP	NP	NP	S	S	S	S