



**PLANNING COMMISSION
MEETING AGENDA
REGULAR MEETING**

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

Mark Maxwell, Chair and John J. Tagle, Vice Chair
Donald Edmunds, Michael W. Hutson, Tom Krent, Philip Sanzica
Gordon Schepke, Robert Schultz and Thomas Strat

May 8, 2012

7:00 P.M.

Council Chambers

1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES – April 24, 2012 Special/Study Meeting
4. PUBLIC COMMENTS – For Items Not on the Current Agenda

SITE CONDOMINIUM DEVELOPMENT

5. PRELIMINARY SITE PLAN REVIEW – Proposed Cedar Pines Estates No. 2 Site Condominium, 10 units/lots, East Side of Crooks Road, South of South Boulevard, Section 4, Currently Zoned R-1B (One Family Residential) District

OTHER BUSINESS

6. ZONING ORDINANCE TEXT AMENDMENT (File Number: ZOTA 243) – Drive-Throughs for Financial Institutions within the Big Beaver Zoning District
7. PUBLIC COMMENTS – For Items on Current Agenda
8. 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.

Chair Maxwell called the Special/Study meeting of the Troy City Planning Commission to order at 7:30 p.m. on April 24, 2012 in the Council Board Room of the Troy City Hall.

1. ROLL CALL

Present:

- Donald Edmunds
- Michael W. Hutson
- Tom Krent
- Mark Maxwell
- Gordon Schepke
- Robert Schultz
- Thomas Strat
- John J. Tagle

Absent:

- Philip Sanzica

Also Present:

- Allan Motzny, Assistant City Attorney
- R. Brent Savidant, Planning Director
- Mark F. Miller, Economic & Community Development Director
- Glenn Lapin, Economic Development Specialist

2. APPROVAL OF AGENDA

Resolution # PC-2012-04-024

- Moved by: Schultz
- Seconded by: Tagle

RESOLVED, To approve the Agenda as printed.

- Yes: All present (8)
- Absent: Sanzica

MOTION CARRIED

3. MINUTES

Resolution # PC-2012-04-025

- Moved by: Edmunds
- Seconded by: Schultz

RESOLVED, To approve the minutes of the April 10, 2012 Regular meeting as published.

- Yes: All present (8)
- Absent: Sanzica

MOTION CARRIED

4. PUBLIC COMMENT – For Items Not on the Agenda

There was no one present who wished to speak.

5. ZONING BOARD OF APPEALS (ZBA) REPORT

Mr. Strat presented ZBA report.

6. DOWNTOWN DEVELOPMENT AUTHORITY (DDA) REPORT

Mr. Miller reported there will be a DDA meeting on May 2 at 7:30am in Lower Level Conference Room at Troy City Hall.

7. PLANNING AND ZONING REPORT

Mr. Savidant stated he is beginning to have more people contact the Planning Department to discuss residential projects.

OTHER ITEMS

8. POTENTIAL ZONING ORDINANCE TEXT AMENDMENT – Drive-throughs for Financial Institutions within the BB Big Beaver District

Mr. Savidant summarized the item. He indicated there was interest from some financial institutions to add drive-throughs within the Big Beaver District. Presently these uses are not permitted.

There was general discussion on this item. The Planning Commission agreed in concept to permit drive-throughs for financial institutions within the Big Beaver District. Some points that were discussed:

- Special Use Approval
- Drive-through not visible from street or separate from main bank building
- Tubes buried underground
- No additional curb cuts for drive-through

9. PLANNING AND ECONOMIC DEVELOPMENT – Presentation by City Staff

Mark F. Miller, Economic & Community Development Director, discussed the City's improved development approval process.

Glenn Lapin, Economic Development Specialist, discussed the City's new approach to economic gardening.

R. Brent Savidant, Planning Director, discussed the culture of the Planning Department and how it has evolved over time. Additionally, he discussed the role of Planning and Zoning in helping to create an environment for investment in Troy.

There was general discussion on this item.

10. PLANNING COMMISSION COMMENT

There was no one present who wished to speak.

11. PLANNING COMMISSION COMMENT

There was general discussion.

The Special/Study meeting of the Planning Commission adjourned at 9:15 p.m.

Respectfully submitted,

Mark Maxwell, Chair

R. Brent Savidant, Planning Director

DATE: May 3, 2012

TO: Planning Commission

FROM: R. Brent Savidant, Planning Director

SUBJECT: PRELIMINARY SITE PLAN REVIEW – Proposed Cedar Pines Estates No. 2 Site Condominium, 10 units/lots, East Side of Crooks Road, South of South Boulevard, Section 4, Currently Zoned R-1B (One Family Residential) District

The petitioner Mondrian Properties submitted the above referenced Preliminary Site Plan Approval application for a 10-unit site condominium. The property is currently zoned R-1B (One Family Residential) District. The Planning Commission is responsible for granting Preliminary Site Plan Approval for site condominium applications.

The attached report prepared by Carlisle/Wortman Associates, Inc. (CWA), the City's Planning Consultant, summarizes the project. CWA prepared the report with input from various City departments including Planning, Engineering, Public Works and Fire. City Management supports the findings of fact contained in the report and recommends approval of the project, as noted.

Attachments:

1. Maps
2. Report prepared by Carlisle/Wortman Associates, Inc.
3. Letter from MDEQ regarding wetlands.

cc: Applicant
File/Cedar Pines Estates No. 2 Site Condominium

G:\SUBDIVISIONS & SITE CONDOS\Cedar Pines Estates No. 2 Site Condo Sec 4\Preliminary Review PC Memo 05 08 12.docx

PROPOSED RESOLUTION

PRELIMINARY SITE PLAN REVIEW – Proposed Cedar Pines Estates No. 2 Site Condominium, 10 units/lots, East Side of Crooks Road, South of South Boulevard, Section 4, Currently Zoned R-1B (One Family Residential) District

Proposed Resolution # PC-2012-05-

Moved by:

Seconded by:

RESOLVED, That Preliminary Site Condominium Approval, pursuant to Article 8 and Section 10.02 of the Zoning Ordinance, as requested for Cedar Pines Estates No. 2 Site Condominium, 10 units/lots, east side of Crooks, south of South Boulevard, Section 4, within the R-1B (One Family Residential) District, be granted, subject to the following:

1. Identify maximum proposed height, proposed lot coverage, and minimum floor area per unit as part of final site plan approval.
2. Reduce the width of both the curb cut and drive-aisle to a width agreeable with the engineering department.
3. Obtain all required permits identified by the City engineering department; and
4. Indicate if any trees outside of the area surveyed and outside of the 48-foot wide wooded buffer area will remain.

_____) or

(denied, for the following reasons: _____) or

(postponed, for the following reasons: _____)

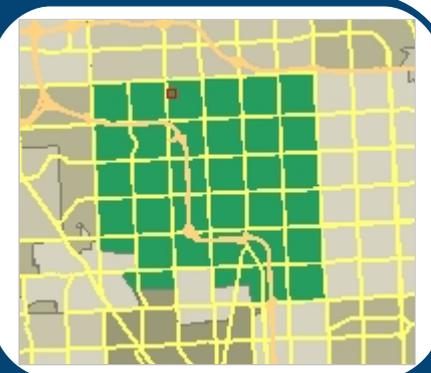
Yes:

No:

MOTION PASSED / FAILED

Cedar Pines Estates No. 2 Site Condominium

City of Troy Planning Department



Legend

- Road Centerline
 - Major Road
 - Industrial Road
 - Local Road
- Ponds and Basins
- Streams and Creeks
- Parcels
- Aerial Photos - 2010
 - Red: Band_1
 - Green: Band_2
 - Blue: Band_3

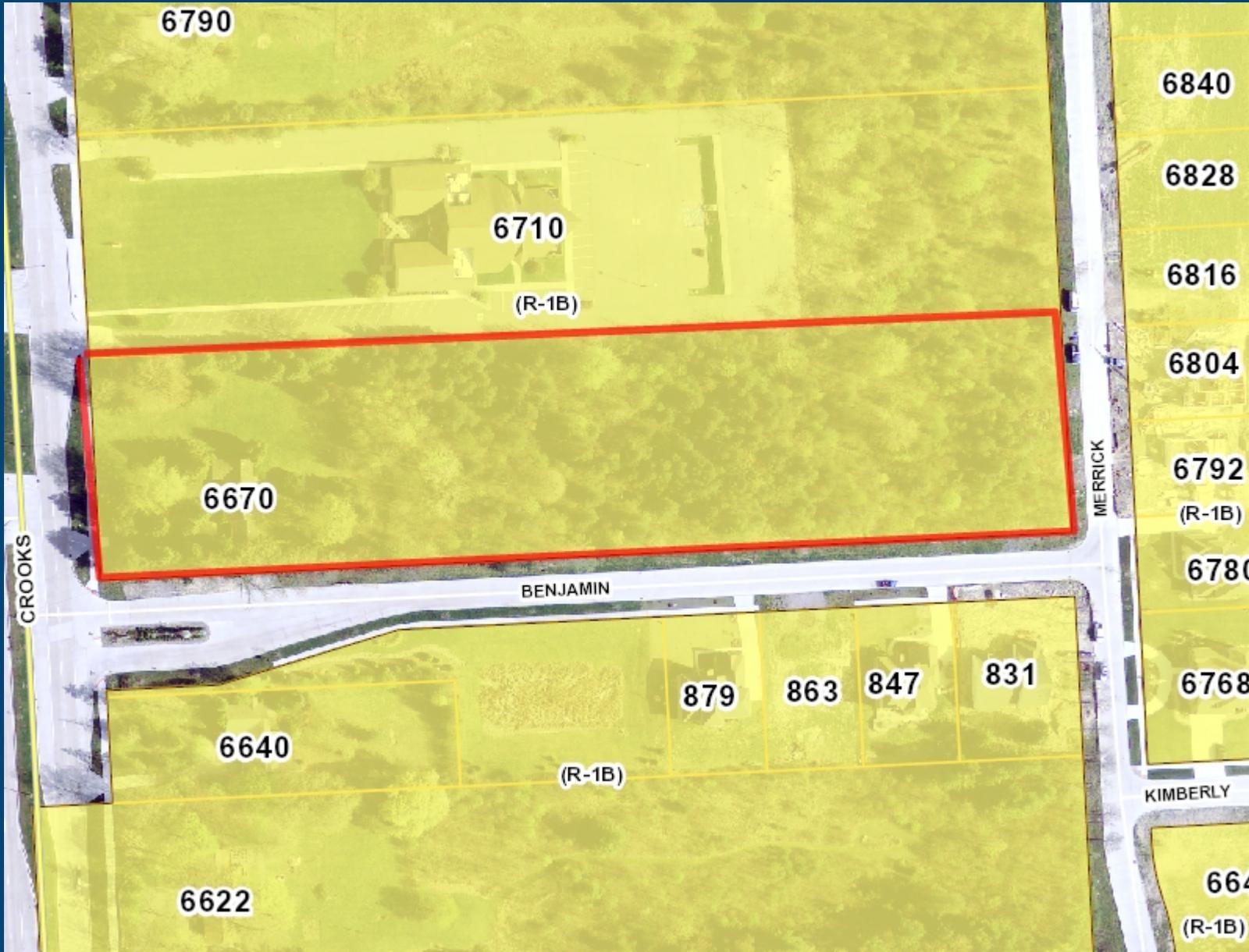
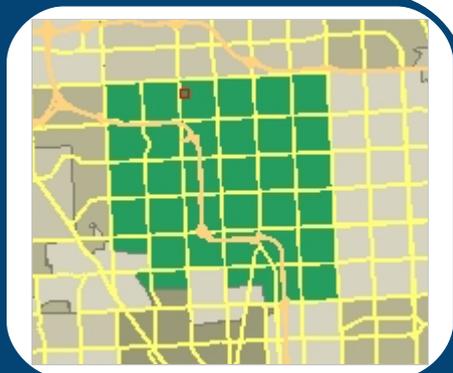
281 0 140 281 Feet

Scale 1: 1,685



Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.

Printed: 4/5/2012



Legend

Road Centerline

-  Major Road
-  Industrial Road
-  Local Road

Current Zoning Ordinance

-  (PUD) Planned Unit Development
-  (CF) Community Facilities District
-  (EP) Environmental Protection District
-  (BB) Big Beaver Road (Form Based)
-  (MRF) Maple Road (Form Based)
-  (NN) Neighborhood Nodes (A-U)
-  (CB) Community Business
-  (GB) General Business
-  (IB) Integrated Industrial Business District
-  (O) Office Building District
-  (OM) Office Mixed Use
-  (P) Vehicular Parking 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
-  (RT) One Family Attached Residential District
-  (MR) Multi-Family Residential
-  (MHP) Manufactured Housing
-  (UR) Urban Residential
-  (RC) Research Center District
-  (PV) Planned Vehicle Sales

Ponds and Basins

Streams and Creeks

Parcels

Aerial Photos - 2010

-  Red: Band_1
-  Green: Band_2
-  Blue: Band_3

281 0 140 281 Feet

Scale 1: 1,685





CARLISLE

WORTMAN
associates, inc.

605 S. Main Street, Ste. 1
Ann Arbor, MI 48104

(734) 662-2200
(734) 662-1935 Fax

Date: May 3, 2012

Site Plan Review For City of Troy, Michigan

Applicant:	Joe Maniaci
Project Name:	Cedar Pines Site Condominium
Plan Date:	April 4, 2012
Location:	6670 Crooks Road
Zoning:	R1-B, One-family Residential District
Action Requested:	Site Plan Approval
Required Information:	Deficiencies noted

PROJECT AND SITE DESCRIPTION

We are in receipt of a site condominium application which includes a site plan, landscape plan, topographic survey, tree preservation and landscape plan, wetlands letter, and typical house floor plans and elevations.

The existing 4.7 acre site currently has one single-family house, which is accessed off Crooks Road, and includes three (3) non-regulated wetlands and significant tree cover. The existing residence and curb-cut will be removed. The applicant intends to gain approval for a 10-lot single family detached site condominium project. The applicant has proposed eight (8) curb cuts off existing Benjamin Road and two (2) curb cuts off existing Merrick Drive. The proposed residential use is permitted by right in the R-1B District.

Location of Subject Property:

East side of Crooks Road, between W. South Boulevard and W. Square Lake Road.



Size of Subject Property:

The parcel is 4.7 acres in area.

Proposed Uses of Subject Parcel:

The applicant proposes to use the site for ten (10) detached, single family homes.

Current Use of Subject Property:

The subject property is currently improved with one single-family house and includes three (3) non-regulated wetlands and significant tree cover.

Current Zoning:

The property is currently zoned R-1B, One-family Residential District.

Surrounding Property Details

Direction	Zoning	Use
North	MF, Multiple-Family Residential District	Faith Apostolic Church of Troy
South	R-1B, One-family Residential District	Single-family homes

East	R-1B, One-family Residential District	Single-family homes
West	R-1B, One-family Residential District.	Single-family homes

SITE ARRANGEMENT

The proposed site condominium consists of 10 units with a lot size ranging between 13,500 square feet and 30,800 square feet, with an average lot size of 19,057 square feet. The layout proposed by the applicant is largely conventional and allows for a simple distribution of the ten (10) units over the property. Access to all units will be off existing public streets and thus the development does not require the installation of any new roads. The applicant has proposed eight (8) curb cuts off the existing Benjamin Road and two (2) curb cuts off the existing Merrick Drive.

The proposed lots are regular in shape, allow for adequate setbacks, and permit sufficient space for the homes and ingress and egress for each unit. The applicant is applying the lot size averaging option, permitted and regulated by Section 10.01. In this instance, the applicant has averaged the lot widths for lots 2 through 8, and lot area for lots 9 and 10. All proposed widths and the average lot width and average lot areas are within the permitted range described by Section 10.01.

Items to be Addressed: *None.*

AREA, WIDTH, HEIGHT, SETBACKS

Required and Provided Dimensions:

Table 4.06.C establishes the requirements for the R-1B District. The requirements and the proposed dimensions are as follows:

	<u>Required:</u>	<u>Provided:</u>	<u>Compliance:</u>
Front	40 foot setback	40 foot setback	Complies
Rear	45 foot setback	45 foot setback	Complies
Side	10 foot minimum for least side setback, 25 foot minimum combined setback	10 foot minimum for least side setback, 25 foot minimum combined setback	Complies
Lot Size per Unit	15,000 square feet (for projects with sewer)	13,500 square feet smallest*, 19,057 square feet average	Complies
Maximum Height	30 feet, 2.5 story	Not identified	Not enough information
Lot Width	100 feet	90 feet smallest, 90 average*	Complies
Maximum Lot Area Covered by Buildings	30 percent	Not identified	Not enough information
Minimum Floor Area per Unit	1,400 square feet	Not identified	Not enough information

*The lot size average option has been applied and Section 10.02 standards have been met.

While the applicant appears to meet height, maximum lot area covered by buildings and minimum floor area per unit detailed calculations have not been provided. The applicant should confirm these calculations as part of the final site plan submittal.

Items to be Addressed: *Identify maximum proposed height, proposed lot coverage, and minimum floor area per unit.*

SITE ACCESS AND CIRCULATION

Vehicular access:

As noted, eight (8) lots will be accessed off Benjamin Road and two (2) lots will be accessed off Merrick Drive. The City engineering department has reviewed the plans and has no comments on the plans as submitted.

The applicant has shown a proposed drive-apron and driveway that are 36-feet and 30-feet in width respectively, which creates unnecessary impervious surface area. The proposed curb-cut aprons are greater than allowed 4.16 of the City Code. The applicant should reduce the width of both the curb cut and drive-aisle to an allowed width.

Pedestrian access:

There is an existing 8-foot wide sidewalk along Crooks Road. The site plan indicates a 5-foot wide sidewalk along the Benjamin Road frontage and 5-foot sidewalks along the Merrick Road Drive. In addition to serving this development, these sidewalks provide a direct connection from Crooks Road to the larger adjacent single-family subdivision to the east.

Pedestrian access is sufficient.

Items to be Addressed: *Reduce the width of both the curb cut and drive-aisle to a width agreeable with the engineering department.*

NATURAL RESOURCES

The subject property is currently improved with one single-family house and includes three (3) non-regulated wetlands and significant tree cover.

Wetlands:

Wetland "A" is located on proposed lot 3, wetland "B" is located on proposed lot 5, and wetland "C" is located on proposed lots 8 and 10. The applicant has submitted a letter from the Michigan Department of Environmental Quality stating that none of these three (3) wetlands are regulated and thus, a permit is not required for the project as proposed. While these wetlands might not be regulated by MDEQ, the applicant is still required to obtain final permits from the Oakland County Water Resources Commissioner, Road Commission for Oakland County, and the City of Troy.

Trees:

The applicant has provided a tree survey for the area outlined below in yellow. The heavily wooded portions of the site were not surveyed.



Based on the area surveyed, the applicant proposes the following:

Tree Survey Results			
	Poor	Fair	Good
Remaining	2	9	11
Removed	8	12	20

There are no tree preservation requirements in Troy. In addition to those trees surveyed to remain, the applicant is proposing to maintain a 48-foot wide wooded buffer in the rear of lots 1 through 8. The applicant should confirm if any other tree preservation efforts will take place in the area not surveyed and outside the 48-foot wide wooded buffer area.

Items to be Addressed: 1.) Obtain all required permits identified by the City engineering department; and 2.) Indicate if any trees outside of the area surveyed and outside of the 48-foot wide wooded buffer area will remain.

LANDSCAPING

The application includes a detailed landscape plan. The plan includes 24 ginkgo to be planted in the parkway along Benjamin Road and Merrick Drive, and 21 Colorado green spruce to be planted as screening along Crooks Road. All proposed species fall within Troy regulations and are not prohibited.

The plan includes a detailed planting schedule and detailed calculations regarding landscaping requirements. Site condominium and subdivision landscaping are regulated by Section 13.02.F.2.

	<u>Required:</u>	<u>Provided:</u>	<u>Compliance:</u>
Frontage Screening	Crooks: One evergreen tree for every 10 lineal feet = 21 trees	20 new Spruce and 1 existing Scotch Pine	Complies
	Benjamin: One deciduous tree for every 50 lineal feet = 19 trees	19 new Gingko	Complies
	Merrick: One deciduous tree for every 50 lineal feet = 5 trees	5 new Gingko	Complies
Size, spacing, and species	Spruce: 5-6'; 15-foot max on center	Spruce: 5-6'; 15-foot on center	Complies
	Gingko: 2.5 ' ; 30-foot max on center	Gingko: 2.5 ' ; 30-foot on center	

The applicant has provided the required evergreen screen along Crooks Road and the required greenbelt planting along Benjamin Road and Merrick Drive. The applicant complies with all landscaping requirements.

Items to be Addressed: none

SUBMITTAL REQUIREMENTS

The plans were signed and sealed by Nathan Robinson, Engineer.

Section 10.02.C requires that all site condominium projects shall comply with the standards and procedures set forth in Article 8, Site Plan Review and several unique standards. The only standard for the preliminary plan is that the street pattern and fully dimensioned residential parcel layout, including proposed building configurations, as well as preliminary sanitary sewer, storm sewer, and water main layout must also be submitted. This submittal includes all the required information, with the exception of the proposed building configurations. No building information is provided with this submittal.

Section 10.02.E. regulates physical improvements associated with condominium projects. It requires the following:

- 1. Principal access and circulation through a site condominium shall be provided by public streets constructed to City standards, within sixty (60) foot wide rights-of-way. Secondary access and circulation through such developments, on which some of the residential parcels may have their sole frontage, may be provided by twenty-eight (28) foot wide streets constructed to City public street standards, within forty (40) foot private easements for public access. Satisfied.*
- 2. Principal access to site condominium of five (5) acres or less in area may be provided by way of twenty-eight (28) foot wide streets constructed to City public street standards, within forty (40) foot private easements for public access, when in the opinion of the City Council the property configuration is such that the provision of conforming dwelling unit parcels is impractical. Not applicable.*

3. All entrances to major or secondary thoroughfares shall include deceleration, acceleration and passing lanes as required by Engineering Standards of the City of Troy. **Not applicable.**

4. Sidewalks shall be constructed, in accordance with City Standards, across the frontage of all dwelling unit parcels. Utilities shall be placed within street rights-of-way, or within easements approved as to size and location by the City Engineer. **Satisfied.**

5. All shall be served by public water, sanitary sewer, storm sewer and detention/retention systems constructed to City standards, at the expense of the developer. Easements over these systems shall be conveyed and recorded before occupancy permits are issued for dwelling units. **The applicant has proposed full utilities, but all proposed configurations and easements are subject to approval by the City engineering department.**

As noted above, all condominium projects are subject to Section 8.05.A.7, which establishes the requirements for a preliminary site plan submittal, which is required under the site condominium regulations. Three additional requirements are specifically identified for residential projects. The three additional requirements, identified in 8.05.A.7.o, include:

i. Calculation of the dwelling unit density allowable and a statement of the number of dwelling units, by type, to be provided. **Satisfied.**

ii. Topography on site and fifty (50) feet beyond, drawn at two (2) foot contour intervals, with existing drainage courses, flood plains, wetlands, and tree stands indicated. **Satisfied.**

iii. The typical floor plans and elevations of the proposed buildings, with building height(s). **Satisfied.**

Items to be Addressed: none

RECOMMENDATIONS

We support the proposed project and believe the project does meet requirements. We recommend the Planning Commission approve the preliminary site condominium application conditioned on the applicant satisfying the following requirements:

1. Identify maximum proposed height, proposed lot coverage, and minimum floor area per unit as part of final site plan approval.
2. Reduce the width of both the curb cut and drive-aisle to a width agreeable with the engineering department.
3. Obtain all required permits identified by the City engineering department; and
4. Indicate if any trees outside of the area surveyed and outside of the 48-foot wide wooded buffer area will remain.



CARLISLE/WORTMAN ASSOC., INC.
Benjamin R. Carlisle, LEED AP, AICP



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

April 9, 2012

Mr. Joe Maniaci
Mondrian Properties
50215 Schoenherr Road
Shelby Township, MI 48315

Dear Mr. Maniaci:

SUBJECT: Pre-application Meeting
Michigan Department of Environmental Quality (MDEQ)
File Number 12-63-0028-P
Property Location: Parcel ID No. 20-04-100-013

This letter is a follow-up to our March 16, 2012, pre-application meeting regarding the proposed project in City of Troy, Oakland County. The purpose of a pre-application meeting is to provide you with information that will clarify the permit process, answer preliminary questions about your specific project in order to avoid delays at a later date, and to determine, if possible, the need for wetland or inland lakes and streams permits.

During this meeting we reviewed the need to obtain a permit under Part 301, Inland Lakes and Streams; and Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The review was based on discussion of the proposed project and/or draft permit application, the proposed site, and potential modifications to the project discussed during our meeting. During the review of the project site, the MDEQ's Water Resources Division (WRD) staff made the following findings regarding the need for a permit under Part 301 and Part 303:

- A permit is required for the project as proposed.
- A permit is not required for the project as proposed.
- It cannot be determined whether a permit is required given the information presented at this time.

There are no resources regulated under the authority of Part 301, Inland Lakes and Streams or Part 303, Wetlands Protection on Parcel No. 20-04-100-013 or 6670 Crooks in Troy, Michigan.

The MDEQ file number assigned to this project is 12-63-0028-P. Please keep a record of this file number, and use it when submitting a final application or otherwise corresponding with our office on this project.

12-63-0028-P

4/9/2012

Page 2

We appreciate the opportunity to meet with you or your representative to address these concerns. We have established a file for this project, and the information submitted to date will be used to facilitate processing of the final application. If you should have follow up questions before then, please contact me at 586-753-3866; foosem@michigan.gov; or MDEQ, WRD, Southeast Michigan District Office, 27700 Donald Court, Warren MI, 48092-2793.

Sincerely,

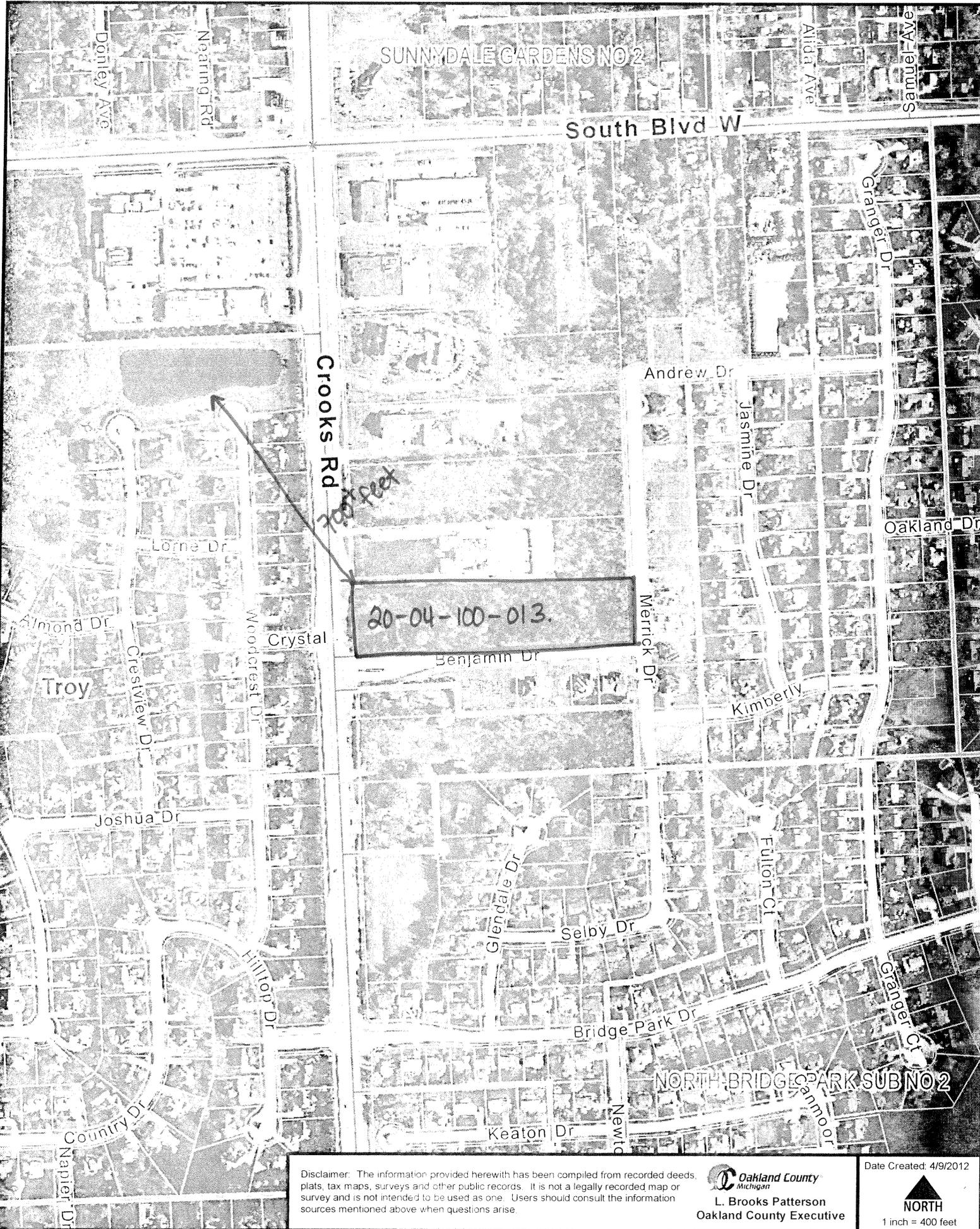
A handwritten signature in cursive script, appearing to read "Melanie J. Foose".

Melanie J. Foose
Environmental Quality Analyst
Water Resources Division

Attachment

cc: City of Troy Clerk
City of Troy Building Department
Mr. Woody Held, King & MacGregor Environmental, Inc.

6670 Crooks



Disclaimer: The information provided herewith has been compiled from recorded deeds, plats, tax maps, surveys and other public records. It is not a legally recorded map or survey and is not intended to be used as one. Users should consult the information sources mentioned above when questions arise.



L. Brooks Patterson
Oakland County Executive

Date Created: 4/9/2012



1 inch = 400 feet

LEGEND

EXISTING CONCRETE PAVEMENT

NOTES

1. CONDOMINIUM LAYOUT AND DIMENSIONS ARE TENTATIVE AND ARE SUBJECT TO MODIFICATION UPON FINAL ENGINEERING APPROVAL AND COMPUTATION OF THE MASTER DEED EXHIBIT "B".
2. THE DEVELOPER SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES OF THE CITY OF TROY, THE COUNTY OF OAKLAND, AND THE STATE OF MICHIGAN.
3. REFER TO PRELIMINARY GRADING & UTILITY PLAN FOR UTILITIES TO SERVE THE PROPOSED UNITS.
4. NO SIGNAGE IS PROPOSED AS A PART OF THIS DEVELOPMENT. "NO PARKING-FIRE LANE" SIGNS SHALL BE INSTALLED AS DIRECTED BY THE CITY FIRE DEPARTMENT IF AND AS REQUIRED.
5. NO SITE LIGHTING IS PROPOSED AS A PART OF THIS DEVELOPMENT.
6. ALL WORK WITHIN CROOKS ROAD RIGHT-OF-WAY SHALL REQUIRE PERMITS FROM THE ROAD COMMISSION FOR OAKLAND COUNTY.
7. ALL WORK WITHIN BENJAMIN ROAD AND MERRICK DRIVE RIGHTS-OF-WAY SHALL REQUIRE PERMITS FROM THE CITY OF TROY.

SITE CRITERIA

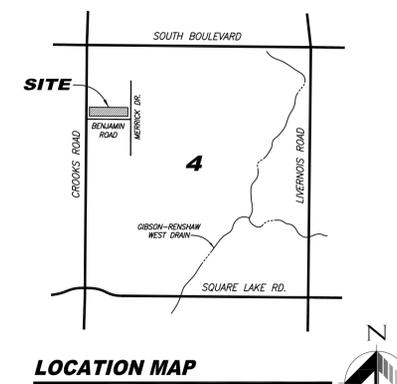
- **PARCEL SUMMARY:**
ADDRESS: #6670 CROOKS ROAD
PARCEL ID NO.: 20-04-100-013
EXISTING ZONING: R-1B, SINGLE FAMILY RESIDENTIAL
ADJACENT ZONINGS: R-1B, SINGLE FAMILY RESIDENTIAL
GROSS SITE AREA: 206,324 S.F. (4.737 ACRES)
NET SITE AREA: 190,574 S.F. (4.375 ACRES)
- **USE SUMMARY:**
EXISTING USE: SINGLE FAMILY RESIDENTIAL ACREAGE PARCEL
PROPOSED USE: SINGLE FAMILY RESIDENTIAL SITE CONDOMINIUM W/ LOT AVERAGING OPTION.
ALLOWABLE DENSITY: 2.2 UNITS PER ACRE OF GROSS SITE AREA = 2.2 x 4.373 Ac. = 10.4 = 10 UNITS.
PROPOSED DENSITY: 10 UNITS.
- **UNIT SUMMARY:**
AVERAGE UNIT AREA REQUIRED: 15,000 S.F.
AVERAGE UNIT AREA PROVIDED: 19,057 S.F.
LOT AVERAGING OPTION ALLOWS FOR 10% REDUCTION IN MIN. UNIT AREA:
MINIMUM UNIT AREA REQUIRED: 13,500 S.F.
MINIMUM UNIT AREA PROVIDED: 13,500 S.F.
LOT AVERAGING OPTION ALLOWS FOR 10% REDUCTION IN MIN. UNIT WIDTH:
MINIMUM UNIT WIDTH REQUIRED: 90'
MINIMUM LOT WIDTH PROVIDED: 90'
- **BUILDING SETBACK SUMMARY:**
FRONT (TO CROOKS ROAD): 50' MIN.
FRONT (TO BENJAMIN & MERRICK): 40' MIN.
REAR: 45' MIN. (GREATER REAR SETBACKS ARE PROVIDED FOR UNITS 2 THRU 8 FOR TREE PRESERVATION)
SIDE: 10' MIN. ONE SIDE; 25' MIN. TOTAL

PROPERTY DESCRIPTION (AS FURNISHED BY CLIENT)

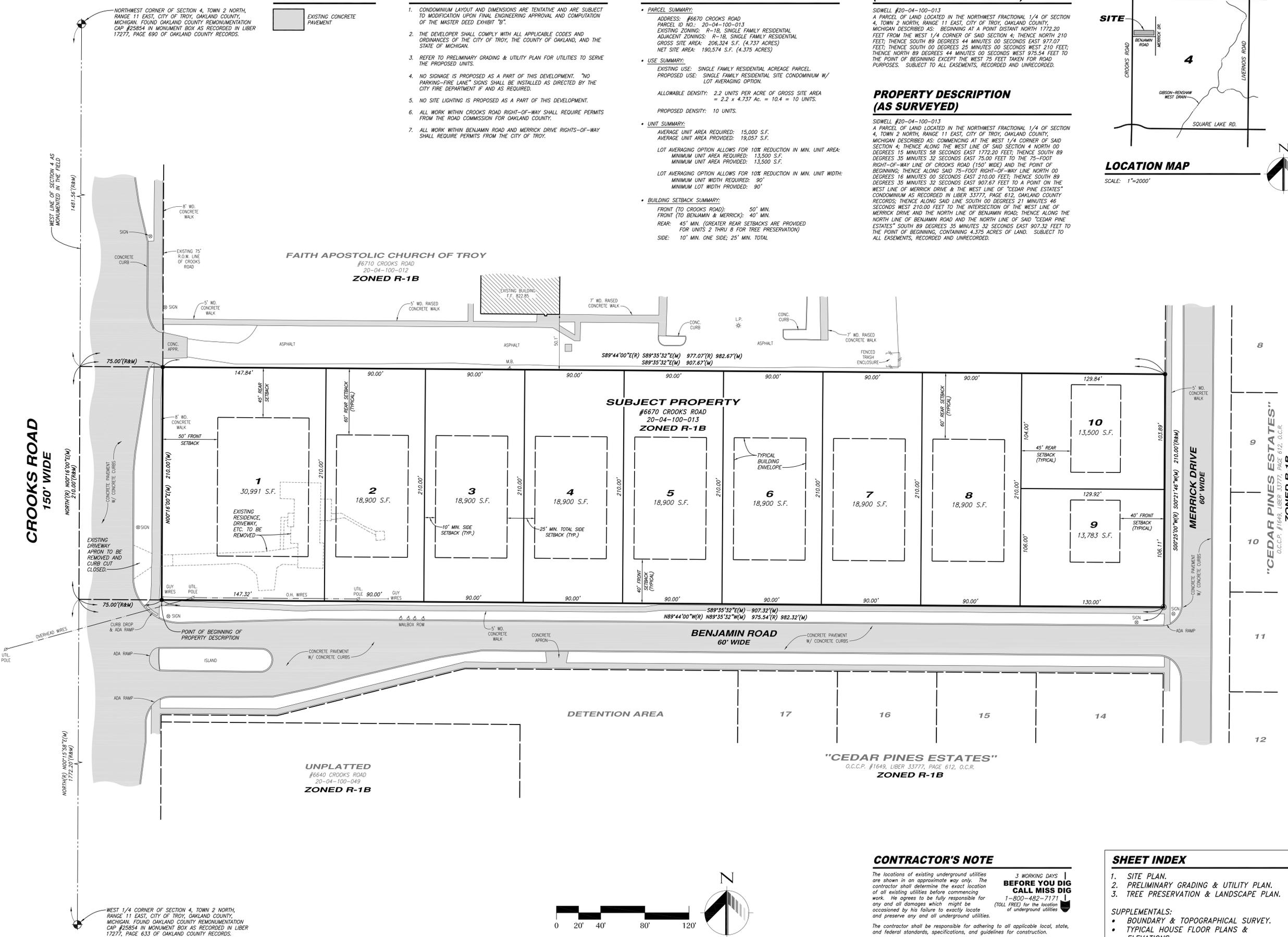
SIDWELL #20-04-100-013
A PARCEL OF LAND LOCATED IN THE NORTHWEST FRACTIONAL 1/4 OF SECTION 4, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN DESCRIBED AS: BEGINNING AT A POINT DISTANT NORTH 1772.20 FEET FROM THE WEST 1/4 CORNER OF SAID SECTION 4; THENCE NORTH 210 FEET; THENCE SOUTH 89 DEGREES 44 MINUTES 00 SECONDS EAST 977.07 FEET; THENCE SOUTH 00 DEGREES 25 MINUTES 00 SECONDS WEST 210 FEET; THENCE NORTH 89 DEGREES 44 MINUTES 00 SECONDS WEST 975.54 FEET TO THE POINT OF BEGINNING EXCEPT THE WEST 75 FEET TAKEN FOR ROAD PURPOSES. SUBJECT TO ALL EASEMENTS, RECORDED AND UNRECORDED.

PROPERTY DESCRIPTION (AS SURVEYED)

SIDWELL #20-04-100-013
A PARCEL OF LAND LOCATED IN THE NORTHWEST FRACTIONAL 1/4 OF SECTION 4, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN DESCRIBED AS: COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION 4; THENCE ALONG THE WEST LINE OF SAID SECTION 4 NORTH 00 DEGREES 15 MINUTES 58 SECONDS EAST 1772.20 FEET; THENCE SOUTH 89 DEGREES 35 MINUTES 32 SECONDS EAST 75.00 FEET TO THE 75-FOOT RIGHT-OF-WAY LINE OF CROOKS ROAD (150' WIDE) AND THE POINT OF BEGINNING; THENCE ALONG SAID 75-FOOT RIGHT-OF-WAY LINE NORTH 00 DEGREES 16 MINUTES 00 SECONDS EAST 210.00 FEET; THENCE SOUTH 89 DEGREES 35 MINUTES 32 SECONDS EAST 907.67 FEET TO A POINT ON THE WEST LINE OF MERRICK DRIVE & THE WEST LINE OF "CEDAR PINES ESTATES" CONDOMINIUM AS RECORDED IN LIBER 33777, PAGE 612, OAKLAND COUNTY RECORDS; THENCE ALONG SAID LINE SOUTH 00 DEGREES 21 MINUTES 46 SECONDS WEST 210.00 FEET TO THE INTERSECTION OF THE WEST LINE OF MERRICK DRIVE AND THE NORTH LINE OF BENJAMIN ROAD; THENCE ALONG THE NORTH LINE OF BENJAMIN ROAD AND THE NORTH LINE OF SAID "CEDAR PINES ESTATES" SOUTH 89 DEGREES 35 MINUTES 32 SECONDS EAST 907.32 FEET TO THE POINT OF BEGINNING, CONTAINING 4.375 ACRES OF LAND. SUBJECT TO ALL EASEMENTS, RECORDED AND UNRECORDED.



LOCATION MAP
SCALE: 1"=2000'



CONTRACTOR'S NOTE

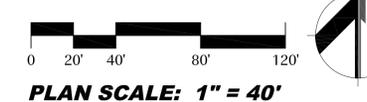
The locations of existing underground utilities are shown in an approximate way only. The contractor shall determine the exact location of all existing utilities before commencing work. He agrees to be fully responsible for any and all damages which might be occasioned by his failure to exactly locate and preserve any and all underground utilities.

The contractor shall be responsible for adhering to all applicable local, state, and federal standards, specifications, and guidelines for construction.

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 (TOLL FREE) for the location of underground utilities.

SHEET INDEX

1. SITE PLAN.
 2. PRELIMINARY GRADING & UTILITY PLAN.
 3. TREE PRESERVATION & LANDSCAPE PLAN.
- SUPPLEMENTALS:
- BOUNDARY & TOPOGRAPHICAL SURVEY.
 - TYPICAL HOUSE FLOOR PLANS & ELEVATIONS.



REVISIONS:

CLIENT: MR. JOSEPH MANACI, MR. JAMES MERRICK, MR. SCOTT SCHROEDER, SHELLEY TWP., MI 48015 (989) 726-7340

JOB NO: 12-051
DATE: 4-2-12
DRAWN BY: N.P.R.

SEAL:

HORIZON ENGINEERING LLC
CIVIL ENGINEERING, SITE PLANNING & LAND DEVELOPMENT CONSULTING
P.O. Box 182158, Shelby Township, Michigan 48318
Phone: 586.453.8097 Fax: 586.580.0053

PROJECT: "Cedar Pines Estates No. 2" Site Condominium #6670 CROOKS ROAD, PARCEL 20-04-100-013 PART OF THE NW 1/4 FRACTIONAL 1/4 OF SECTION 4, T2N., R11E., CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PLAN: **Site Plan**

SHEET: **1** OF **3**

MUNICIPAL REVIEW NUMBERS:

LEGEND

	EXISTING CONTOURS, 1' INTERVAL
	EXISTING CONCRETE PAVEMENT TO REMAIN
	EXISTING TREE TO REMAIN W/ TAG NUMBER
	EXISTING WOODS & BRUSH LINE TO REMAIN
	PROPOSED GRADE
	DIRECTION OF SURFACE DRAINAGE
	LIMITS OF SOIL DISTRICT

- NOTES**
- UTILITY AND GRADING DESIGN ARE TENTATIVE AND ARE SUBJECT TO MODIFICATION UPON FINAL ENGINEERING APPROVAL.
 - THE DEVELOPER SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES OF THE CITY OF TROY, THE COUNTY OF OAKLAND, AND THE STATE OF MICHIGAN.
 - ALL WORK WITHIN CROOKS ROAD RIGHT-OF-WAY SHALL REQUIRE PERMITS FROM THE ROAD COMMISSION FOR OAKLAND COUNTY.
 - ALL WORK WITHIN BENJAMIN ROAD AND MERRICK DRIVE RIGHTS-OF-WAY SHALL REQUIRE PERMITS FROM THE CITY OF TROY.
 - UTILITY EASEMENTS SHALL BE PROVIDED TO THE SATISFACTION OF THE CITY OF TROY ENGINEERING DEPARTMENT.
 - REFER TO THE TREE PRESERVATION & LANDSCAPE PLAN FOR TREE REMOVALS.

BENCHMARKS

SITE BENCHMARK #1
ELEVATION = 818.03 (NAVD 88 DATUM)
TOP ARROW ON HYDRANT #04-189, EAST SIDE OF CROOKS @ NORTH PROPERTY LINE OF #6670 (SUBJECT PROPERTY).
CITY OF TROY BENCHMARK #1733.

SITE BENCHMARK #2
ELEVATION = 817.82 (NAVD 88 DATUM)
TOP ARROW ON HYDRANT #04-187, EAST SIDE OF CROOKS @ NORTH PROPERTY LINE OF #6622.
CITY OF TROY BENCHMARK #1732.

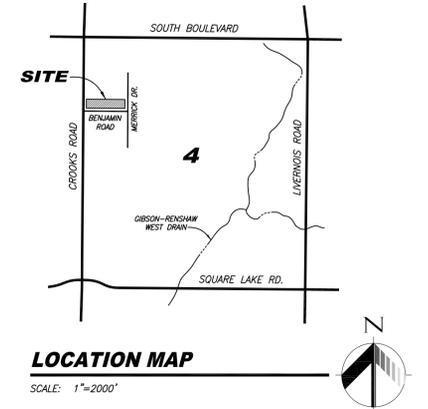
- SITE CRITERIA**
- PARCEL SUMMARY:**
ADDRESS: #6670 CROOKS ROAD
PARCEL ID NO.: 20-04-100-013
EXISTING ZONING: R-1B, SINGLE FAMILY RESIDENTIAL
ADJACENT ZONINGS: R-1B, SINGLE FAMILY RESIDENTIAL
GROSS SITE AREA: 206,324 S.F. (4.737 ACRES)
NET SITE AREA: 190,574 S.F. (4.375 ACRES)
 - UTILITY SUMMARY:**
SANITARY SEWER: UNITS 1 AND 6 THRU 10 ARE TO BE SERVICED BY EXISTING SEWER LEADS. A NEW SANITARY SEWER SHALL BE EXTENDED FROM THE EXISTING SEWER IN CROOKS ROAD ON SITE TO SERVICE UNITS 2 THRU 5.
STORM SEWER: REAR YARD STORM SEWER TO BE INSTALLED TO SERVICE SUMP LEAD DISCHARGES FROM ALL UNITS AND ALSO ACCOMMODATE REAR YARD DRAINAGE.
WATER MAIN: ALL UNITS TO BE SERVICED FROM EXISTING WATER MAINS.
 - NATURAL FEATURES SUMMARY:**
FLOOD PLAIN: SUBJECT PARCEL LIES WITHIN ZONE X: AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE (500-YEAR) FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 26125C0331F, DATED SEPTEMBER 29, 2006 PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
WETLANDS: WETLANDS AREAS SHOWN ARE AS FLAGGED BY KING & MACGREGOR ENVIRONMENTAL INC. ON FEBRUARY 21, 2012 AND HAVE BEEN DETERMINED TO BE NON-REGULATED.

PROPERTY DESCRIPTION (AS FURNISHED BY CLIENT)

SIDWELL #20-04-100-013
A PARCEL OF LAND LOCATED IN THE NORTHWEST FRACTIONAL 1/4 OF SECTION 4, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN DESCRIBED AS: BEGINNING AT A POINT DISTANT NORTH 1772.20 FEET FROM THE WEST 1/4 CORNER OF SAID SECTION 4; THENCE NORTH 210 FEET; THENCE SOUTH 89 DEGREES 44 MINUTES 00 SECONDS EAST 977.07 FEET; THENCE SOUTH 00 DEGREES 25 MINUTES 00 SECONDS WEST 210 FEET; THENCE NORTH 89 DEGREES 44 MINUTES 00 SECONDS WEST 975.54 FEET TO THE POINT OF BEGINNING EXCEPT THE WEST 75 FEET TAKEN FOR ROAD PURPOSES. SUBJECT TO ALL EASEMENTS, RECORDED AND UNRECORDED.

PROPERTY DESCRIPTION (AS SURVEYED)

SIDWELL #20-04-100-013
A PARCEL OF LAND LOCATED IN THE NORTHWEST FRACTIONAL 1/4 OF SECTION 4, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN DESCRIBED AS: COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION 4; THENCE ALONG THE WEST LINE OF SAID SECTION 4 NORTH 00 DEGREES 15 MINUTES 58 SECONDS EAST 1772.20 FEET; THENCE SOUTH 89 DEGREES 35 MINUTES 32 SECONDS EAST 75.00 FEET TO THE 75-FOOT RIGHT-OF-WAY LINE OF CROOKS ROAD (150' WIDE) AND THE POINT OF BEGINNING; THENCE ALONG SAID 75-FOOT RIGHT-OF-WAY LINE NORTH 00 DEGREES 16 MINUTES 00 SECONDS EAST 210.00 FEET; THENCE SOUTH 89 DEGREES 35 MINUTES 32 SECONDS EAST 907.67 FEET TO A POINT ON THE WEST LINE OF MERRICK DRIVE & THE WEST LINE OF "CEDAR PINE ESTATES" CONDOMINIUM AS RECORDED IN LIBER 33777, PAGE 612, OAKLAND COUNTY RECORDS; THENCE ALONG SAID LINE SOUTH 00 DEGREES 21 MINUTES 46 SECONDS WEST 210.00 FEET TO THE INTERSECTION OF THE WEST LINE OF MERRICK DRIVE AND THE NORTH LINE OF SAID "CEDAR PINE ESTATES" SOUTH 89 DEGREES 35 MINUTES 32 SECONDS EAST 907.32 FEET TO THE POINT OF BEGINNING, CONTAINING 4.375 ACRES OF LAND. SUBJECT TO ALL EASEMENTS, RECORDED AND UNRECORDED.



REVISIONS:

CLIENT: MR. JOSEPH MANACI
MR. JAMES L. LUCAS, LLC
5025 SCHOONER RD.
SHELBY TWP., MI 48015
(989) 726-7940

JOB NO: 12-051
DATE: 4-2-12
DRAWN BY: N.P.R.

FAITH APOSTOLIC CHURCH OF TROY
#6710 CROOKS ROAD
20-04-100-012

SITE BENCHMARK #1
ELEVATION = 818.03 (NAVD 88 DATUM)
TOP ARROW ON HYDRANT #04-189,
CITY OF TROY BENCHMARK #1733.

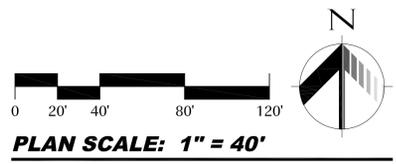
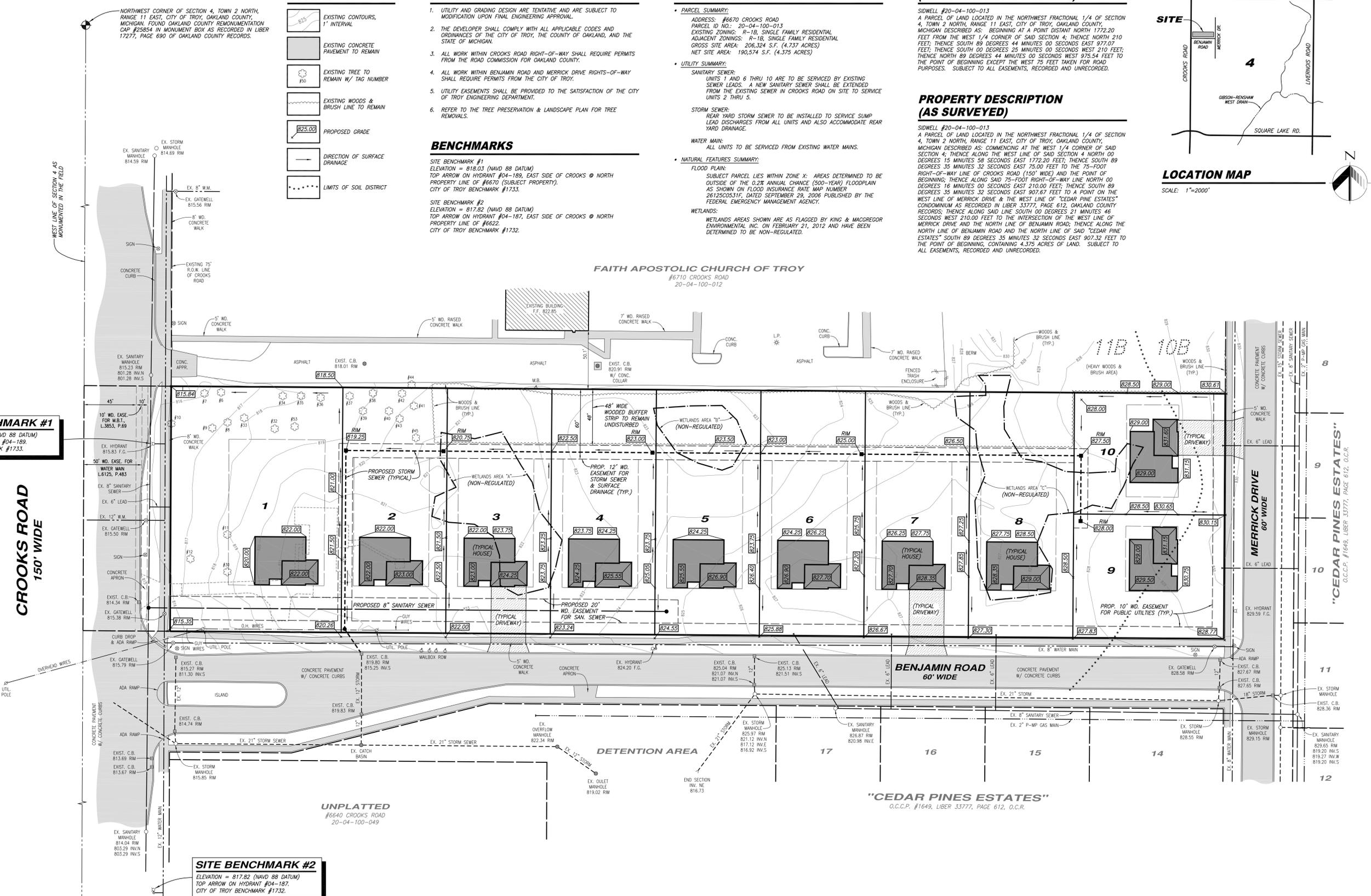
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TOP ARROW ON HYDRANT #04-187,
CITY OF TROY BENCHMARK #1732.

CROOKS ROAD
150' WIDE

"CEDAR PINES ESTATES"
O.C.C.P. #1649, LIBER 33777, PAGE 612, O.C.P.

"CEDAR PINES ESTATES"
O.C.C.P. #1649, LIBER 33777, PAGE 612, O.C.P.

UNPLATTED
#6640 CROOKS ROAD
20-04-100-049



SOILS (FROM COUNTY SOILS SURVEY)

10B MARLETTE SANDY LOAM (1 TO 6% SLOPES).
0"-8" DARK GRAYISH-BROWN SANDY LOAM, 8"-20" DARK YELLOWISH-BROWN CLAY LOAM, 20"-31" YELLOWISH-BROWN CLAY LOAM, 31"-60" YELLOWISH-BROWN AND PALE BROWN LOAM, MODERATELY SLOW PERMEABILITY, MEDIUM RUNOFF.

11B CAPAC SANDY LOAM (0 TO 4% SLOPES).
0"-8" VERY DARK GRAYISH-BROWN SANDY LOAM, 8"-20" BROWN CLAY LOAM, 20"-32" GRAYISH-BROWN CLAY LOAM, 32"-60" PALE BROWN LOAM, MODERATELY SLOW PERMEABILITY, SLOW RUNOFF.

CONTRACTOR'S NOTE

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P.O. Box 182158, Shelby Township, Michigan 48318
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PROJECT:

"Cedar Pines Estates No. 2"
Site Condominium
#6670 CROOKS ROAD, PARCEL 20-04-100-013
PART OF THE NW FRACTIONAL 1/4 OF SECTION 4, T2N., R11E,
CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PLAN:

Preliminary Utility & Grading Plan

SHEET: **2** OF **3**

MUNICIPAL REVIEW NUMBERS:

CONTRACTOR'S NOTE

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LEGEND

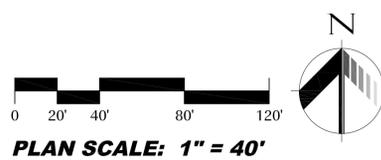
- EXISTING CONCRETE PAVEMENT TO REMAIN
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- EXISTING WOODS & BRUSH LINE TO REMAIN

PLANT SCHEDULE & COST ESTIMATE

DECIDUOUS TREES:						
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	UNIT PRICE	INSTALLATION COSTS
24 EACH		GINGKO BILOBA (MALE)	GINGKO	2.5" CAL.	\$300.00	\$25.00
						UNIT TOTAL: \$7,800.00
CONIFEROUS TREES:						
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	UNIT PRICE	INSTALLATION COSTS
21 EACH		PICEA PUNGENS	COLORADO GREEN SPRUCE	5" HT.	\$300.00	\$25.00
						UNIT TOTAL: \$6,825.00
TOTAL TREES: 45						SUBTOTAL COST: \$14,625
						5% CONTINGENCY: \$731
						TOTAL ESTIMATE: \$15,356

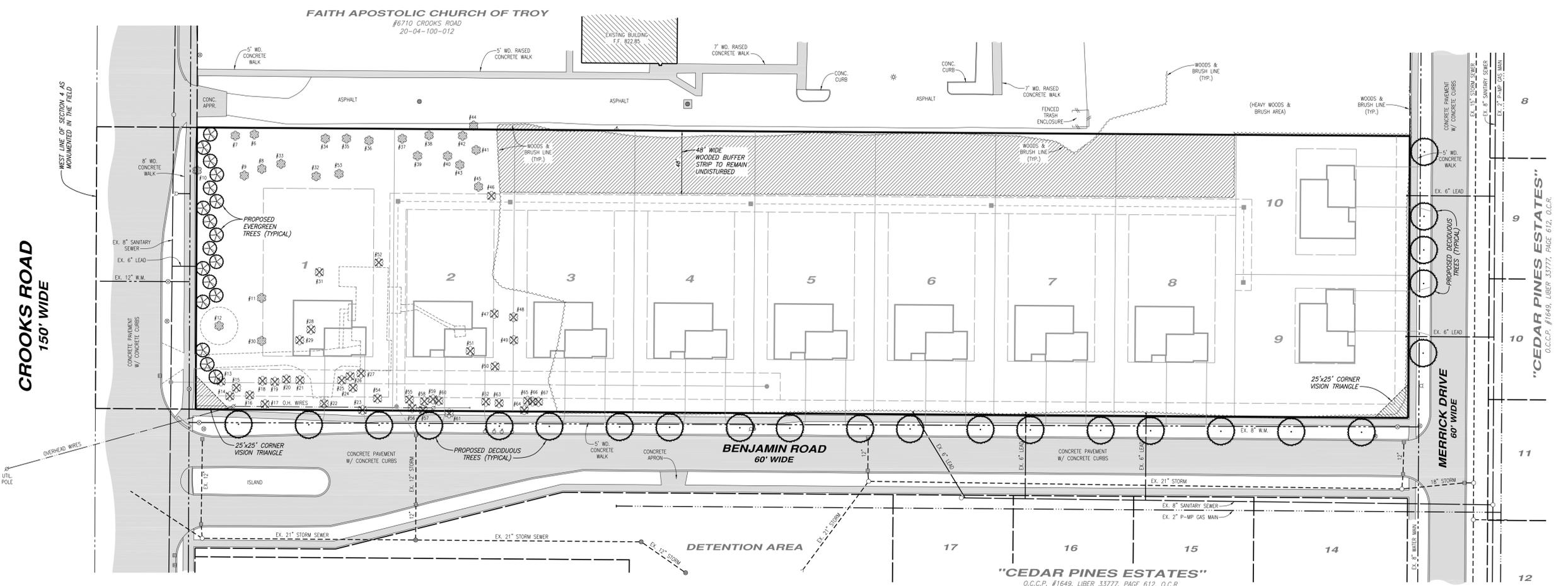
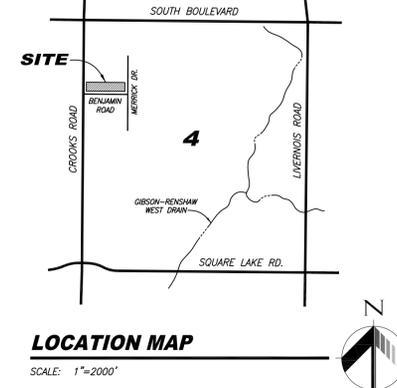
NOTES

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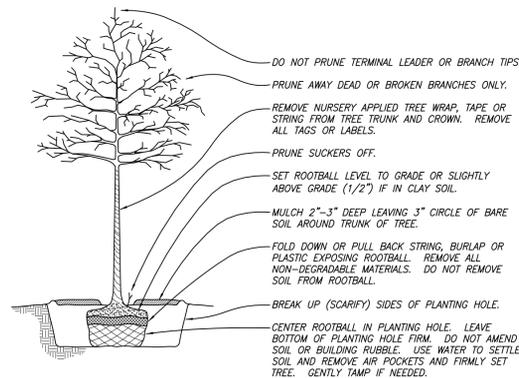
SITE CRITERIA

- PARCEL SUMMARY:**
ADDRESS: #6670 CROOKS ROAD
PARCEL ID NO.: 20-04-100-013
EXISTING ZONING: R-1B, SINGLE FAMILY RESIDENTIAL
ADJACENT ZONINGS: R-1B, SINGLE FAMILY RESIDENTIAL
GROSS SITE AREA: 206,324 S.F. (4.737 ACRES)
NET SITE AREA: 190,574 S.F. (4.375 ACRES)
- LANDSCAPING SUMMARY:**
CROOKS ROAD FRONTAGE:
REQUIRED: ONE LARGE EVERGREEN TREE EVERY 10 FEET = 210'/10' = 21 TREES REQUIRED.
PROVIDED: 20 TREES + 1 EXISTING PINE = 21 TOTAL.
- BENJAMIN ROAD:
REQUIRED: ONE LARGE DECIDUOUS TREE EVERY 50 FEET = 307.32'/50' = 18.1 = 19 TREES REQUIRED.
PROVIDED: 19 TREES.
- MERRICK DRIVE:
REQUIRED: ONE LARGE DECIDUOUS TREE EVERY 50 FEET = 150'/50' = 4.2 = 5 TREES REQUIRED.
PROVIDED: 5 TREES.



TREE INVENTORY

TAG NO.	BOTANICAL NAME	COMMON NAME	D.B.H. (INCHES)	CONDITION	TAG NO.	BOTANICAL NAME	COMMON NAME	D.B.H. (INCHES)	CONDITION
6	PICEA SP.	SPRUCE	11	FAIR	37	PICEA SP.	SPRUCE	13	GOOD
7	MALUS SP.	CRAB APPLE	10	POOR	38	PICEA SP.	SPRUCE	12	FAIR
8	ACER SP.	MAPLE	26	GOOD	39	PICEA SP.	SPRUCE	16	GOOD
9	PINUS NIGRA	AUSTRIAN PINE	19	FAIR	40	PICEA SP.	SPRUCE	19	GOOD
10	ACER SP.	MAPLE	16	FAIR	41	PICEA SP.	SPRUCE	19	POOR
11	ACER SP.	MAPLE	26	GOOD	42	PICEA SP.	SPRUCE	14	FAIR
12	PINUS SYLVESTRIS	SCOTCH PINE	26	GOOD	43	PICEA SP.	SPRUCE	8	FAIR
13	PINUS SYLVESTRIS	SCOTCH PINE	19	GOOD	44	ACER SP.	MAPLE	22	FAIR
14	ACER SP.	MAPLE	Multiple, 5 to 6	FAIR	45	PICEA SP.	SPRUCE	8	GOOD
15	PICEA SP.	SPRUCE	8	GOOD	46	PICEA SP.	SPRUCE	5	FAIR
16	MALUS SP.	CRAB APPLE	10	FAIR	47	PICEA SP.	SPRUCE	9	POOR
17	PICEA SP.	SPRUCE	8	FAIR	48	PICEA SP.	SPRUCE	10	POOR
18	PICEA SP.	SPRUCE	16	GOOD	49	PICEA SP.	SPRUCE	13	FAIR
19	PICEA SP.	SPRUCE	8	GOOD	50	PICEA SP.	SPRUCE	5	POOR
20	PICEA SP.	SPRUCE	7	FAIR	51	ACER SP.	MAPLE	29	GOOD
21	PICEA SP.	SPRUCE	16	GOOD	52	JUNIPERUS SP.	CEDAR	Twin 18, 18	GOOD
22	ACER SP.	MAPLE	19	FAIR	53	PICEA SP.	SPRUCE	11	GOOD
23	FRAXINUS SP.	ASH	24	FAIR	54	PINUS SYLVESTRIS	SCOTCH PINE	12	FAIR
24	PICEA SP.	SPRUCE	14	GOOD	55	PINUS SYLVESTRIS	SCOTCH PINE	11	POOR
25	PICEA SP.	SPRUCE	13	GOOD	56	ACER SP.	MAPLE	Multiple, 5 to 15	FAIR
26	JUNIPERUS SP.	CEDAR	Multiple, 3	POOR	57	ACER SP.	MAPLE	13	FAIR
27	PICEA SP.	SPRUCE	7	FAIR	58	PINUS SYLVESTRIS	SCOTCH PINE	8	POOR
28	PICEA SP.	SPRUCE	16	GOOD	59	PINUS SYLVESTRIS	SCOTCH PINE	8	POOR
29	PICEA SP.	SPRUCE	14	GOOD	60	PINUS SYLVESTRIS	SCOTCH PINE	12	POOR
30	PICEA SP.	SPRUCE	16	GOOD	61	ACER SP.	MAPLE	Multiple, 5 to 16	GOOD
31	PICEA SP.	SPRUCE	19	GOOD	62	PICEA SP.	SPRUCE	Twin 6, 7	GOOD
32	PICEA SP.	SPRUCE	63	GOOD	63	ACER SP.	MAPLE	Multiple, 4 to 6	GOOD
33	PICEA SP.	SPRUCE	14	FAIR	64	PICEA SP.	SPRUCE	13	GOOD
34	PICEA SP.	SPRUCE	17	GOOD	65	PICEA SP.	SPRUCE	9	GOOD
35	PICEA SP.	SPRUCE	13	FAIR	66	PICEA SP.	SPRUCE	18	GOOD
36	PICEA SP.	SPRUCE	15	GOOD	67	PICEA SP.	SPRUCE	8	GOOD



PLANTING NOTES

- ALL CONSTRUCTION AND PLANT MATERIAL LOCATIONS TO BE ADJUSTED ON SITE IF NECESSARY TO AVOID UTILITIES, STRUCTURES, DRIVEWAYS, ETC.
- ANY SUBSTITUTIONS OF PLANT MATERIAL OR ALTERATION IN PLANT SIZES OR SPECIFICATIONS SHALL BE IN ACCORDANCE WITH CITY OF TROY ORDINANCE STANDARDS. ALL STREET TREES SHALL MEET THE MINIMUM SIZE, SPACING AND SPECIES REQUIREMENTS AS SET FORTH IN THE CITY OF TROY'S ZONING ORDINANCE, SECTION 13.02.H, "MINIMUM SIZE AND SPACING REQUIREMENTS" AND SECTION 13.02.I, "PROHIBITED SPECIES".
- ALL LARGE TREES AND EVERGREENS TO BE STAKED, GUYED, AND WRAPPED. PLANT BEDS TO BE MULCHED AND DRESSED WITH 4" OF SHREDDED HARD BARK.
- DIG SHRUB PITS 1' LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2' LARGER THAN ROOT BALLS. BACKFILL WITH ONE PART TOP SOIL FROM EXCAVATED PLANTING HOLE.
- REMOVE ALL TWINE, WIRE, AND BURLAP FROM THE TREE AND SHRUB EARTH BALLS AND FROM TREE TRUNKS.
- LAWN BEDS TO BE MULCHED WITH A 2' WIDE MINIMUM OF 6" DEEP SHREDDED BARK RING OR APPROVED ALTERNATE DESIGN FOR TRUNK PROTECTION.
- PROVIDE HYDRO-SEEDING AND/OR SOD FOR ALL NEW LAWN AREAS.
- INSTALLATION OF PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.
- PLANT MATERIAL, ESPECIALLY EVERGREENS, TO BE PLANTED HIGHER THAN NORMAL WHEN HEAVY SOIL CONDITIONS (CLAY, ETC.) PREVAIL.
- ALL PLANTING AREAS TO BE PREPARED WITH APPROPRIATE SOIL MIXTURES AND FERTILIZER BEFORE PLANT INSTALLATION.
- PLANT TREES AND SHRUBS GENERALLY NO CLOSER THAN THE FOLLOWING DISTANCES FROM SIDEWALKS, CURBS, AND PARKING STALLS:
 - SHADE TREES.....5 FT.
 - ORNAMENTAL AND EVERGREEN TREES.....10 FT. (CRAB, PINE, SPRUCE, ETC.)
 - SHRUBS THAT ARE LESS THAN 1 FOOT TALL AND WIDE AT MATURITY.....2 FT.
- NO TREES OR EVERGREENS TO BE INSTALLED OVER ANY PROPOSED OR EXISTING UTILITY LINES AS SHOWN ON THE OVERALL LANDSCAPE PLAN. REFER TO ENGINEERING PLANS FOR EXACT LOCATIONS OF UTILITY LINES.
- FOR EXISTING TREE PROTECTION, A 4-FOOT HIGH ORANGE SNOW FENCE SHALL BE ERECTED AROUND TREE DRIP LINES PRIOR TO LAND CLEARING AND SITE CONSTRUCTION AND MAINTAINED THROUGHOUT SITE DEVELOPMENT PERIOD. NO CUTTING, FILING OR TRESPASSING SHALL OCCUR INSIDE FENCED AREAS WITHOUT PRIOR CITY APPROVAL.

REVISIONS:

CLIENT: MR. JOSEPH MANACI
3022 SCHROEDER RD.
SHELBY TWP., MI 48015
(989) 726-7340

JOB NO: 12-051
DATE: 4-2-12
DRAWN BY: N.P.H.

SEAL: **HORIZON ENGINEERING LLC**

PROJECT: "Cedar Pines Estates No. 2" Site Condominium

PLANNING & LAND DEVELOPMENT CONSULTING
P.O. Box 182158, Shelby Township, Michigan 48318
Phone: 586.453.8087 Fax: 586.580.0053

#6670 CROOKS ROAD, PARCEL 20-04-100-013
PART OF THE N.W. QUARTER 1/4 OF SECTION 4, T2N., R11E., CITY OF TROY, OAKLAND COUNTY, MICHIGAN

SHEET: **3** OF: **3**

MUNICIPAL REVIEW NUMBERS:

CONSTRUCTION NOTES

OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH EITHER SOLID WOOD DOORS NOT LESS THAN 1-3/8 INCHES IN THICKNESS OR 20 MINUTE RATED DOORS, OR EQUIVALENT.

SAFETY GLAZING SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS:
 -GLAZING IN EGRESS AND MEANS OF EGRESS DOORS EXCEPT JALOUSIES
 -GLAZING IN ALL UNFRAMED SWINGING DOORS
 -GLAZING IN AN INDIVIDUAL, FIXED, OR OPERABLE PANEL, ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24 INCH RADIUS OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE.

PROVIDE 5/8 INCH TYPE 'X' GYPSUM WALL BOARD ON THE GARAGE SIDE ADJACENT TO THE RESIDENCE AND ITS ATTIC AREA OR EQUIVALENT.

EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY ESCAPE OR RESCUE. THE UNITS MUST BE OPERABLE FROM THE INSIDE TO A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS OR RESCUE, THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR. ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET (5 SQUARE FEET ON GRADE FLOORS). THE MINIMUM NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24 INCHES. THE MINIMUM NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20 INCHES.

A MINIMUM 3 FEET BY 3 FEET LANDING SHALL BE REQUIRED ON EACH SIDE OF AN EGRESS DOOR OR DOORWALL. THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1-1/2 INCHES LOWER THAN THE TOP OF THE THRESHOLD.

WINDOWS ARE PERMITTED PROVIDED THE WIDTH OF THE TREAD AT A POINT NOT MORE THAN 12 INCHES FROM THE SIDE WHERE THE TREADS ARE NARROWER IS NOT LESS THAN 10 INCHES DEEP. THE MINIMUM WIDTH OF ANY TREAD SHALL NOT BE LESS THAN 6 INCHES, AND THE AVERAGE WIDTH OF ANY TREAD IS NOT LESS THAN 9 INCHES.

FIRESTOPPING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN THE TOP STORY AND THE ROOF SPACE. FIRESTOPPING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:
 -IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVEL.
 -AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES, WHICH OCCUR AT SOFFITS, DROP CEILINGS, ETC.
 -IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM RUN.
 -AT OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS AND FIREPLACES AT CEILING AND FLOOR LEVELS, WITH NON-COMBUSTIBLE MATERIALS.

EXCEPT AS PROVIDED IN THE ITEM ABOVE, FIRESTOPPING SHALL CONSIST OF 2 INCH NOMINAL LUMBER, OR (2) THICKNESSES OF 1 INCH NOMINAL LUMBER WITH BROKEN LAP JOINTS, OR (1) THICKNESS OF 23/32 INCH PLYWOOD WITH JOINTS BACKED BY 23/32 INCH PLYWOOD, OR (1) THICKNESS OF 3/4 INCH TYPE 2-M PARTICLEBOARD WITH JOINTS BACKED BY 3/4 INCH TYPE 2-M PARTICLEBOARD, OR OTHER APPROVED MATERIALS. THE INTEGRITY OF ALL FIRESTOPS SHALL BE MAINTAINED.

IN SHOWER AND BATH AREAS, FLOORS AND WALLS SHALL BE FINISHED WITH A SMOOTH, HARD AND NON-ABSORBANT SURFACE TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE FINISHED FLOOR. IN AREAS SUBJECT TO REPEATED DAMPNESS AND MOISTURE ACCUMULATION, WATER RESISTANT GYPSUM BOARD IS TO BE INSTALLED IN ACCORDANCE WITH GA-216 AS LISTED IN SECTION 5-26.502.

RAFTERS AND CEILING JOISTS SHALL BE PROVIDED WITH LATERAL SUPPORT AT POINTS OF BEARING TO PREVENT ROTATION.

RAFTER OR TRUSS TIES SHALL BE PROVIDED, WHEN ROOF TRUSSES AND ASSEMBLIES MAY BE SUBJECT TO WIND UPLIFT PRESSURES OF 20 PER SQUARE FOOT OR GREATER AND SHALL BE DESIGNED IN ACCORDANCE WITH ASCE 7, AS LISTED IN 5-26.702

A READILY ACCESSIBLE ATTIC ACCESS FRAMED OPENING NOT LESS THAN 22 INCHES BY 30 INCHES SHALL BE PROVIDED TO ANY ATTIC HAVING A CLEAR HEIGHT OVER 30 INCHES.

ASPHALT SHINGLE ROOFS SHALL HAVE ICE AND WATER SHIELDS, OR (2) LAYERS OF 15 POUND FELT CEMENTED TOGETHER FOR A DISTANCE OF 2 FEET INSIDE THE OUTSIDE WALLS AND AN UNDERLAYMENT OF NOT LESS THAN ONE PLY OF NUMBER 15 FELT, APPLIED AS REQUIRED IN SECTION R-802 AND TABLE NUMBER R-803.4

CHIMNEYS SHALL EXTEND AT LEAST 2 FEET HIGHER THAN ANY PORTION OF THE BUILDING WITHIN 10 FEET BUT SHALL NOT BE LESS THAN 3 FEET ABOVE THE POINT WHERE THE CHIMNEY PASSES THROUGH THE ROOF.

NOTE: EGRESS WINDOWS

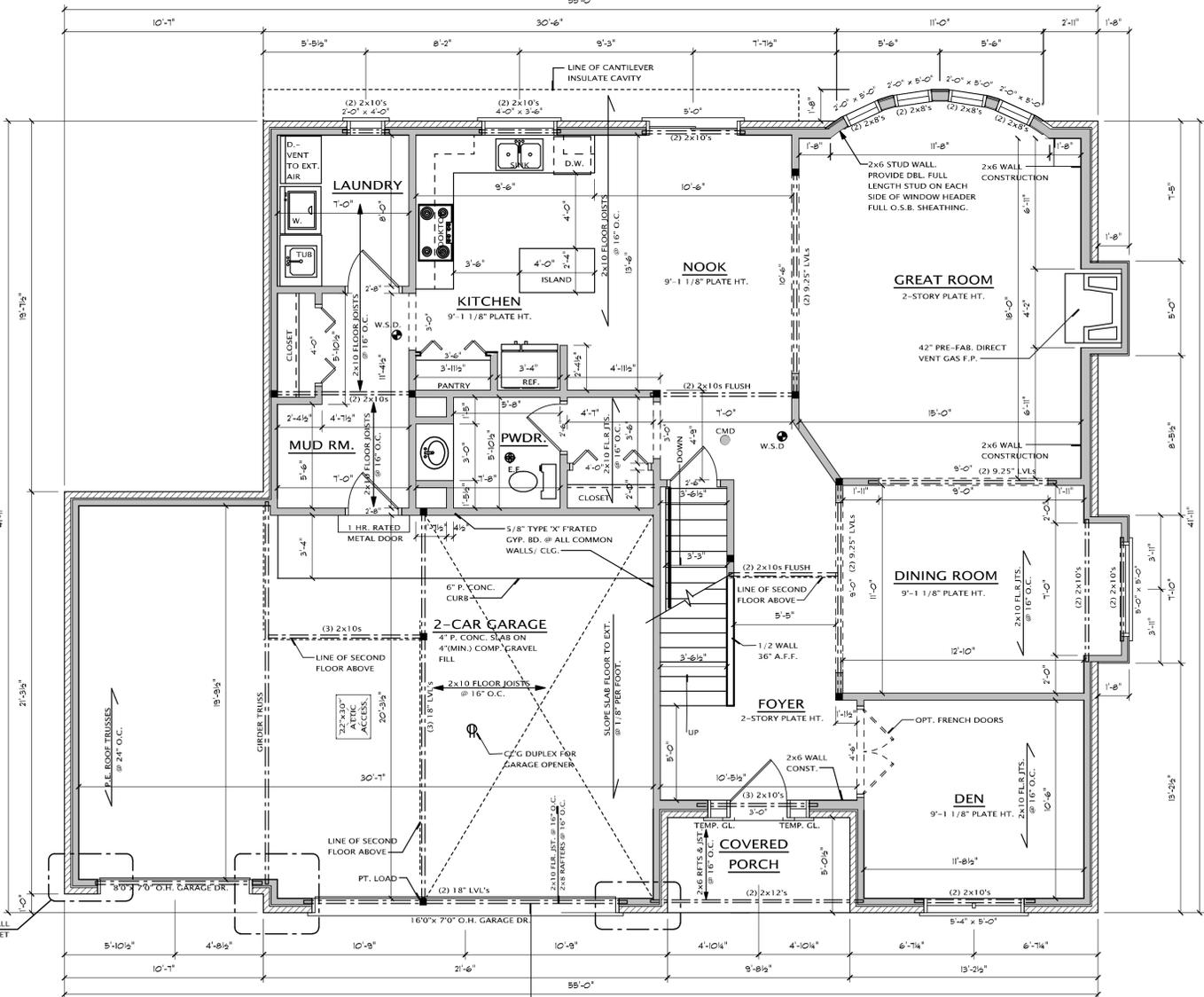
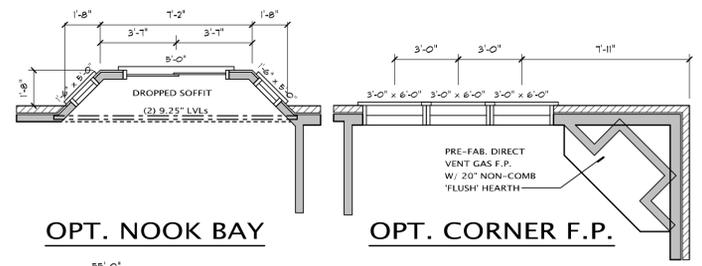
EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY ESCAPE OR RESCUE. EACH EGRESS WINDOW SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. THE NET CLEAR OPENING SHALL BE AT LEAST 24 INCHES IN HEIGHT AND AT LEAST 20 INCHES IN WIDTH. THE BOTTOM OF THE CLEAR OPENING SHALL NOT BE MORE THAN 44 INCHES ABOVE THE FLOOR. (EXCEPTION: THE MINIMUM NET CLEAR OPENING FOR GRADE FLOOR WINDOWS SHALL BE 5 SQUARE FEET.)

ALL BEARING WALLS SHALL HAVE FLOOR JOIST UNDER EACH BEARING STUD. TYP. ALL BEARING WALLS

PROVIDE ALL ATTIC ACCESS W/ WEATHER STRIPPING

OPERABLE WINDOW NOTE:
 ALL WINDOWS THAT ARE OPERABLE AND THE BOTTOM OF THE WINDOW IS 72" OR MORE ABOVE GRADE, SHALL BE 24" ABOVE FINISH FLOOR TO THE BOTTOM OF THE WINDOW.

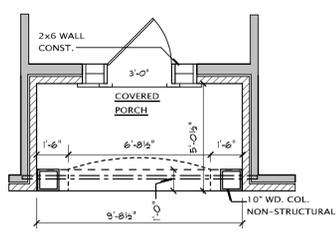
NOTE: ALL WINDOW SIZES ON PLAN REPRESENT ROUGH OPENING SIZES FOR FELLA WINDOWS. THERMOSTAT LINE. VERIFY WINDOW SCHEDULE W/ CONTRACTOR.



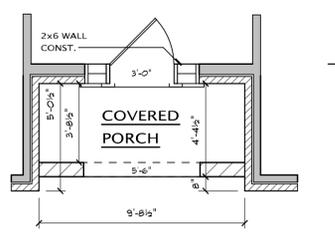
FIRST FLOOR PLAN

1ST FLOOR: 1,394 sq. ft.
 2ND FLOOR: 1,285 sq. ft.
 TOTAL: 2,679 sq. ft.

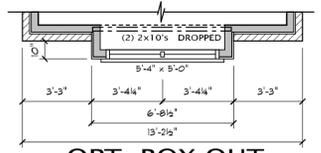
SCALE: 1/4" = 1'-0"



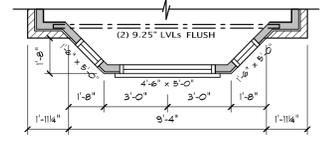
OPT. FRONT ENTRY
 FOR ELEVATION 'C'



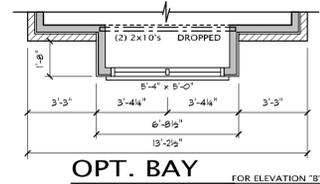
OPT. FRONT ENTRY
 FOR ELEVATION 'E & D'



OPT. BOX OUT
 FOR ELEVATION 'C'



OPT. DEN BAY
 FOR ELEVATION 'D.E. & G'



OPT. BAY
 FOR ELEVATION 'B'

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 16161 LEONE DR.
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 TEL: 586.232.4045
 FAX: 586.232.4037
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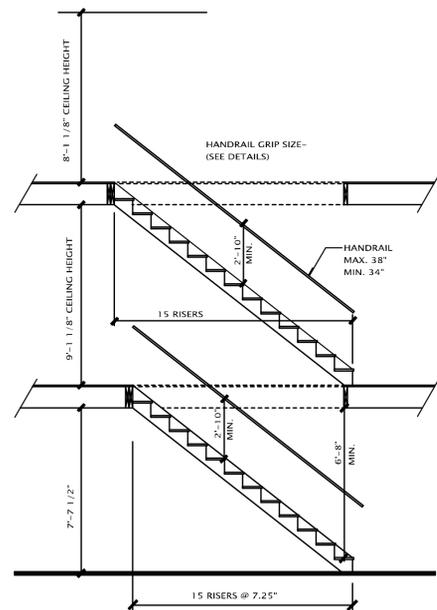
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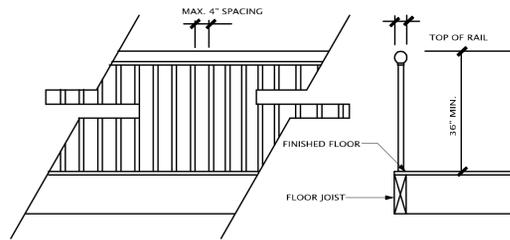
SHEET TITLE:
FIRST FLOOR PLAN

DATE:	DRAWN BY:
1/15/12	J.V.C.
2/29/12	CHECKED BY:
03/12/12	J.P.
JOB NUMBER:	
12 - 108	
SHEET NUMBER:	



TYPICAL STAIR SECTION

N.T.S.



TYPICAL RAILING DETAIL

N.T.S.

R311.5.6 HANDRAIL DETAILS: HANDRAIL GRIPPING SURFACES SHALL BE CONTINUOUS, WITHOUT INTERRUPTION BY NEWEL POST, OTHER STRUCTURE ELEMENTS OR OBSTRUCTIONS. A HANDRAIL AND ANY WALL OR OTHER SURFACE ADJACENT TO THE HANDRAIL SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS. THE CLEAR SPACE BETWEEN THE HANDRAIL AND THE ADJACENT WALL SURFACE SHALL NOT BE LESS THAN 1-1/2 INCHES (38mm).

R311.5.2 HEADROOM: THE MINIMUM HEADROOM IN ALL PARTS OF A STAIRWAY SHALL NOT BE LESS THAN 80 INCHES (2032mm) MEASURED VERTICALLY FROM THE TREAD NOSING OR FROM THE FLOOR SURFACE OF THE LANDING OR PLATFORM.

R311.5.3 TREADS AND RISERS: MAXIMUM RISER HEIGHT SHALL BE 8 1/4 INCHES (210mm). MINIMUM TREAD DEPTH SHALL BE 9 INCHES (229mm) MEASURED HORIZONTALLY BETWEEN THE VERTICAL PLANES OF THE FOREMOST PROJECTION OF ADJACENT TREADS AND AT THE RIGHT ANGLE TO THE TREAD'S LEADING EDGE.

DIMENSIONAL UNIFORMITY: THERE SHALL NO BE VARIATION EXCEEDING 3/8 INCH (10mm) IN THE DEPTH OF ADJACENT TREADS OR IN THE HEIGHT OF ADJACENT RISERS. THE TOLERANCE BETWEEN THE LARGEST AND THE SMALLEST RISER OR BETWEEN THE LARGEST AND SMALLEST TREAD SHALL NOT EXCEED 3/8 INCH (10mm) IN A FLIGHT OF STAIRS.

R311.5.6.1 HEIGHT: GUARD HANDRAILS SHALL NOT BE LESS THAN 36 INCHES (914mm) MEASURED VERTICALLY ABOVE THE LEADING EDGE OF THE TREADS OR ABOVE THE FINISHED FLOOR OF THE LANDING OR WALKING SURFACES.

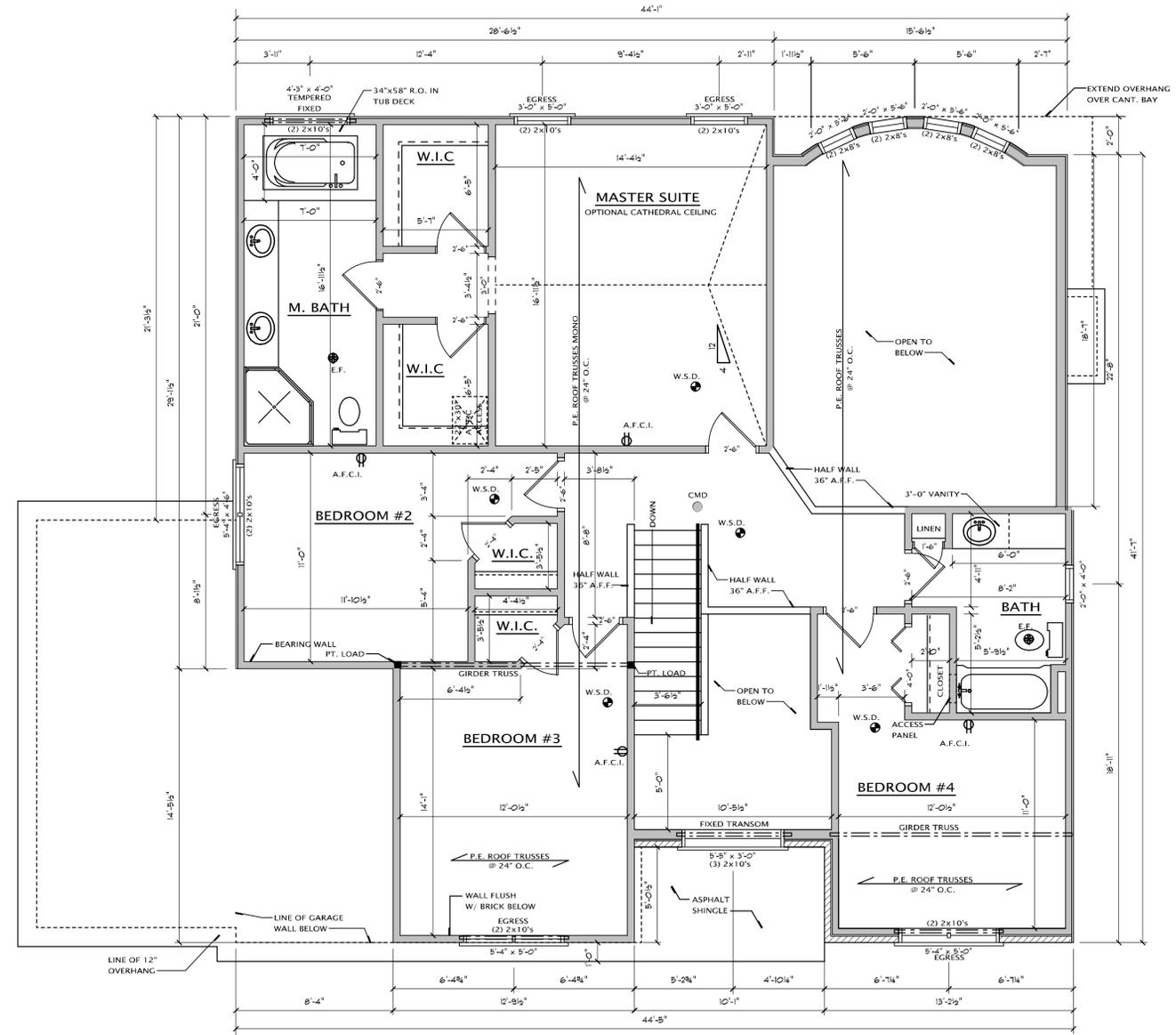
EXCEPTIONS: OPEN SIDES OF STAIRS SHALL HAVE GUARDS NOT LESS THAN 34 INCHES (854mm) IN HEIGHT, MEASURED VERTICALLY FROM THE NOSING OF THE TREADS.

TYPE I:

R311.5.6.3 HANDRAIL GRIP SIZE:
TYPE I:
ALL STAIRS SHALL HAVE A CIRCULAR CROSS SECTION WITH AN OUTSIDE DIAMETER OF 1-1/4 INCHES (32mm) AND NOT GREATER THAN 2 INCHES (51mm).

ANY OTHER SHAPE WITH A PERIMETER OF AT LEAST 4 INCHES (100mm), BUT NOT GREATER THAN 6-1/4 INCHES (158mm) WITH THE LARGEST CROSS-SECTIONAL DIMENSION NOT EXCEEDING 2-1/4 INCHES (57mm).

TYPE II:
HANDRAILS WITH A PERIMETER GREATER THAN 6-1/4 INCHES (160mm) SHALL PROVIDE A GRASPABLE FINGER RECESS AREA ON BOTH SIDES OF THE PROFILE. THE FINGER RECESS SHALL BEGIN WITHIN A DISTANCE OF 3/4 INCH (19mm) MEASURED VERTICALLY FROM THE TALLEST PORTION OF THE PROFILE, AND ACHIEVE A DEPTH OF AT LEAST 5/16 INCH (8mm) WITHIN 7/8 INCH (22mm) BELOW THE WIDEST PORTION OF THE PROFILE.



SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

SQ. FT. 1,285

ARCH FAULT CIRCUIT INTERRUPTER
ALL BRANCH CIRCUITS THAT SUPPLY 125 VOLT SINGLE PHASE 15 & 20 AMP. OUTLETS INSTALLED IN DWELLING UNIT BEDROOM SHALL BE PROTECTED BY ARC-FAULT CIRCUIT INTERRUPTER LISTED TO PROVIDE PROTECTION IN THE ENTIRE CIRCUIT. E3802.11

PROVIDE ALL ATTIC ACCESS W/ WEATHER STRIPPING

OPERABLE WINDOW NOTE:
ALL WINDOWS THAT ARE OPERABLE AND THE BOTTOM OF THE WINDOW IS 72" OR MORE ABOVE GRADE, SHALL BE 24" ABOVE FINISH FLOOR TO THE BOTTOM OF THE WINDOW.

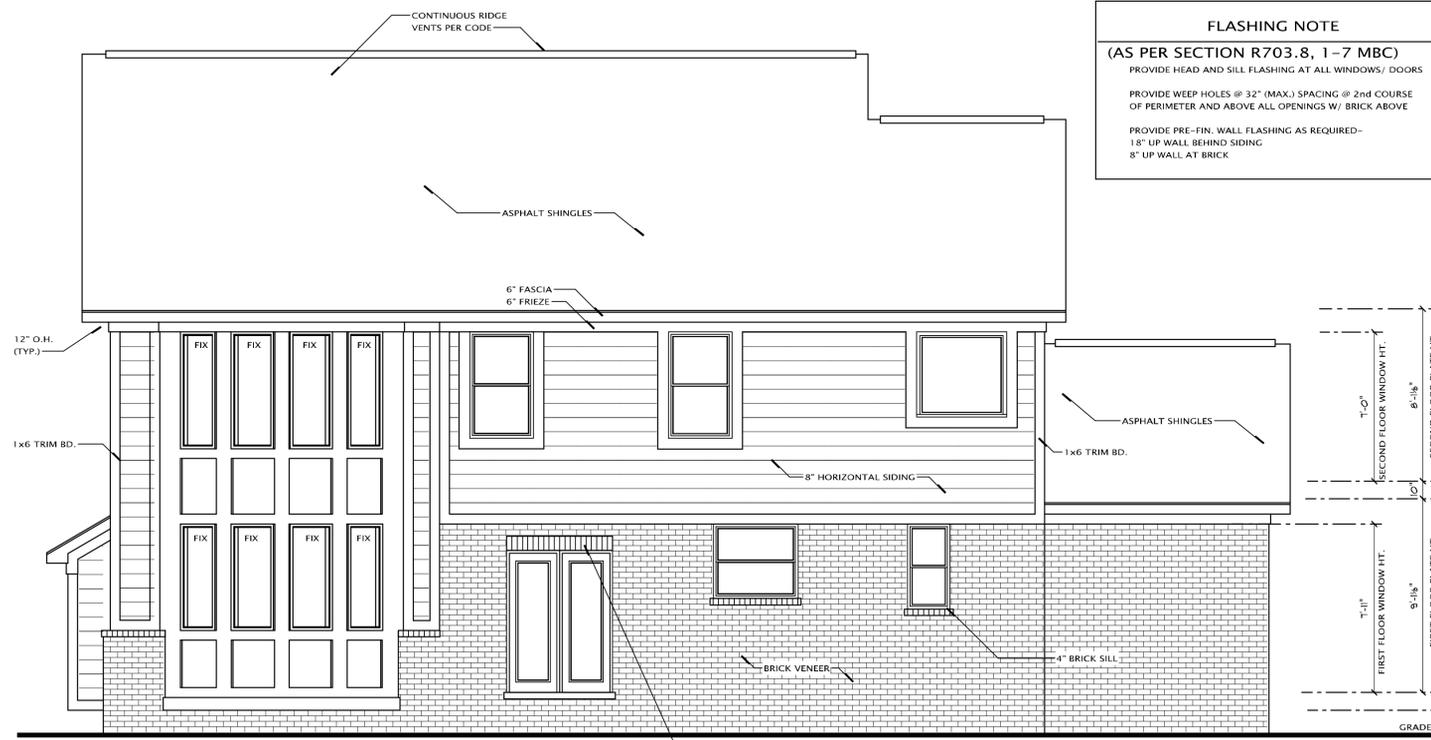
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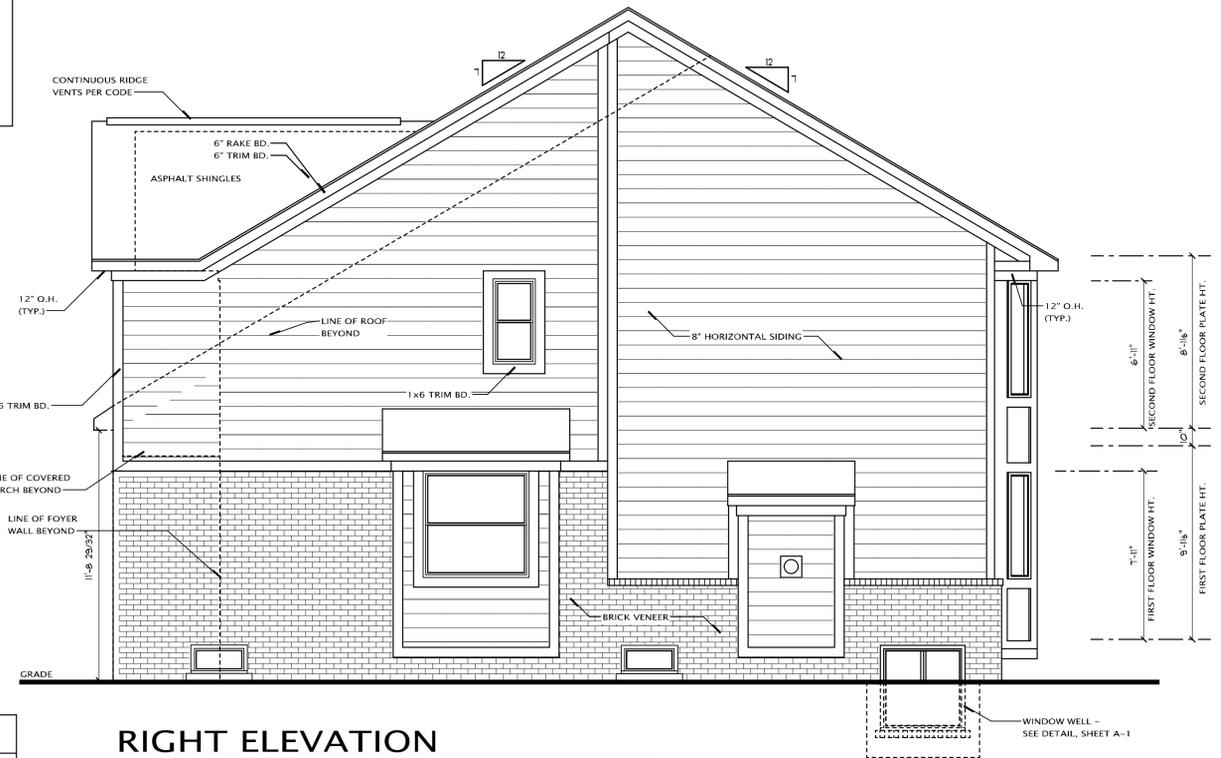
SHEET TITLE:
SECOND FLOOR PLAN

DATE:	DRAWN BY:
1/15/12	J.V.C.
2/29/12	
03/12/12	CHECKED BY:
	J.P.
	JOB NUMBER:
	12 - 108
	SHEET NUMBER:



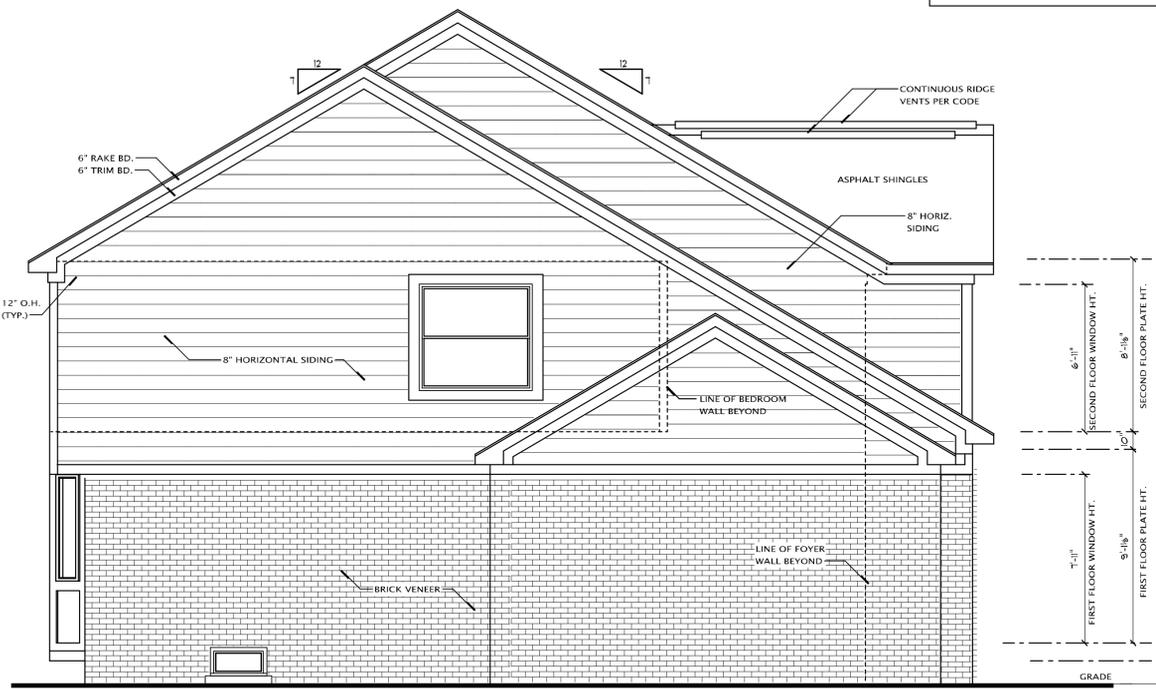
REAR ELEVATION

SCALE: 1/4" = 1'-0"



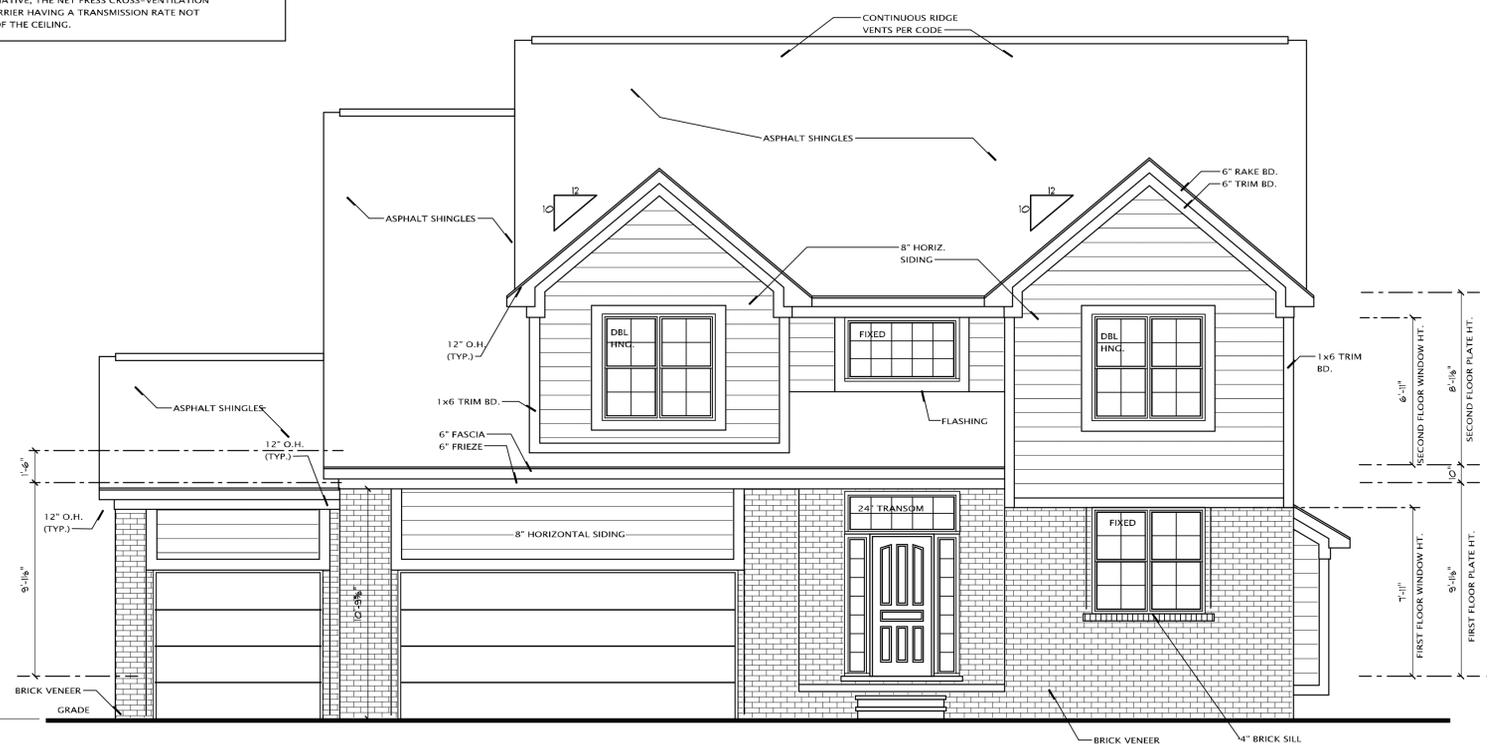
RIGHT ELEVATION

SCALE: 1/4" = 1'-0"



LEFT ELEVATION

SCALE: 1/4" = 1'-0"



STANDARD FRONT ELEVATION "A"

SCALE: 1/4" = 1'-0"

THE IDEAS AND DESIGN CONCEPTS EXPRESSED HEREIN AND THE GRAPHICALLY DISPLAYED ARRANGEMENT OF THEIR COMPONENTS REPRESENTED BY THIS DRAWING HAVE BEEN DEVELOPED FOR THE EXCLUSIVE USE OF THE SPECIFIED PROJECT AND ARE THE SOLE PROPERTY OF JMP Design & Build, Inc. INCORPORATED. A CONVEYANCE OR DISCLOSURE OF THE IDEAS DESIGN CONCEPTS OR USE OF ANY GRAPHICALLY DISPLAYED ARRANGEMENTS OF THE COMPONENTS SHALL BE AT THE DISCRETION AND ONLY THROUGH THE EXPRESSED WRITTEN CONSENT OF JMP Design & Build, Inc. ALL MATERIALS HEREIN ARE PROPRIETARY AND COPYRIGHTED

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SHEET TITLE:
GABLE ELEVATIONS

DATE: 1/15/12 2/29/12 03/12/12	DRAWN BY: J.V.C.
	CHECKED BY: J.P.
	JOB NUMBER: 12 - 108
	SHEET NUMBER:

BOUNDARY & TOPOGRAPHIC SURVEY

CERTIFIED TO: MONDRIAN PROPERTIES, LLC

LEGEND

●	SECTION CORNER AS DESCRIBED	---	PARCEL BOUNDARY
●	FOUND MONUMENT AS NOTED	---	SECTION LINE
●	SET 1/2" REBAR WITH CAP #46724	---	ADJACENT PARCEL
+	UTILITY ANCHOR	---	EXISTING BUILDING
+	FIRE HYDRANT	---	EXISTING FENCE
+	GATEWELL/SHUTOFF	---	OVERHEAD LINES
+	GAS METER	---	EASEMENT LINE
+	MANHOLE (AS NOTED)	---	EXISTING SANITARY LINE
+	END SECTION	---	EXISTING STORM LINE
+	ROUND CATCHBASIN	---	EXISTING WATER LINE
+	SQUARE CATCHBASIN	---	EXISTING GAS LINE
+	LIGHT POLE	---	WETLANDS LINE
+	FLAGPOLE	---	EXISTING CONTOUR
+	SIGN	---	WOODS & BRUSH LINE
+	AIR CONDITIONING UNIT	---	
+	MAILBOX	---	
+	ELECTRIC METER	---	
+	WETLAND FLAG	---	
+	TREE & TAG NUMBER	---	
+	EXISTING GRADE ELEVATION	---	

NORTH



SCALE: 1"=40'

PROPERTY DESCRIPTION (AS FURNISHED BY CLIENT):

SIDWELL #20-04-100-013
A PARCEL OF LAND LOCATED IN THE NORTHWEST FRACTIONAL 1/4 OF SECTION 4, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN DESCRIBED AS: BEGINNING AT A POINT DISTANT NORTH 1772.20 FEET FROM THE WEST 1/4 CORNER OF SAID SECTION 4; THENCE NORTH 210 FEET; THENCE SOUTH 89 DEGREES 44 MINUTES 00 SECONDS EAST 977.07 FEET; THENCE SOUTH 00 DEGREES 25 MINUTES 00 SECONDS WEST 210 FEET; THENCE NORTH 89 DEGREES 44 MINUTES 00 SECONDS WEST 975.54 FEET TO THE POINT OF BEGINNING EXCEPT THE WEST 75 FEET TAKEN FOR ROAD PURPOSES. SUBJECT TO ALL EASEMENTS, RECORDED AND UNRECORDED.

PROPERTY DESCRIPTION (AS SURVEYED):

SIDWELL #20-04-100-013
A PARCEL OF LAND LOCATED IN THE NORTHWEST FRACTIONAL 1/4 OF SECTION 4, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN DESCRIBED AS: COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION 4; THENCE ALONG THE WEST LINE OF SAID SECTION 4 NORTH 00 DEGREES 15 MINUTES 58 SECONDS EAST 1772.20 FEET; THENCE SOUTH 89 DEGREES 35 MINUTES 32 SECONDS EAST 75.00 FEET TO THE 75-FOOT RIGHT-OF-WAY LINE OF CROOKS ROAD (150' WIDE); AND THE POINT OF BEGINNING; THENCE ALONG SAID 75-FOOT RIGHT-OF-WAY LINE NORTH 00 DEGREES 16 MINUTES 00 SECONDS EAST 210.00 FEET; THENCE SOUTH 89 DEGREES 35 MINUTES 32 SECONDS EAST 907.67 FEET TO A POINT ON THE WEST LINE OF MERRICK DRIVE & THE WEST LINE OF "CEDAR PINES ESTATES" CONDOMINIUM AS RECORDED IN LIBER 33777, PAGE 612, OAKLAND COUNTY RECORDS; THENCE ALONG SAID LINE SOUTH 00 DEGREES 21 MINUTES 46 SECONDS WEST 210.00 FEET TO THE INTERSECTION OF THE WEST LINE OF MERRICK DRIVE AND THE NORTH LINE OF BENJAMIN ROAD; THENCE ALONG THE NORTH LINE OF BENJAMIN ROAD AND THE NORTH LINE OF SAID "CEDAR PINES ESTATES" SOUTH 89 DEGREES 35 MINUTES 32 SECONDS EAST 907.32 FEET TO THE POINT OF BEGINNING, CONTAINING 4.375 ACRES OF LAND. SUBJECT TO ALL EASEMENTS, RECORDED AND UNRECORDED.

BENCHMARKS

SITE BENCHMARK #1
ELEVATION = 818.03 (NAVD 88 DATUM)
TOP ARROW ON HYDRANT #04-189, EAST SIDE OF CROOKS @ NORTH PROPERTY LINE OF #6670 (SUBJECT PROPERTY), CITY OF TROY BENCHMARK #1733.

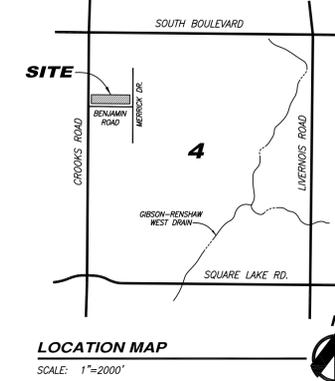
SITE BENCHMARK #2
ELEVATION = 817.82 (NAVD 88 DATUM)
TOP ARROW ON HYDRANT #04-187, EAST SIDE OF CROOKS @ NORTH PROPERTY LINE OF #6622, CITY OF TROY BENCHMARK #1732.

NET PARCEL AREA

TOTAL = 190,574 SQUARE FEET = 4.375 ACRES

BASIS OF BEARING

NORTH 89°35'32" WEST, BEING THE NORTHERLY RIGHT OF WAY LINE OF BENJAMIN ROAD AS RECORDED ON THE "CEDAR PINES ESTATES" CONDOMINIUM IN LIBER 33777, PAGE 612 OF PLATS, OAKLAND COUNTY RECORDS.



LOCATION MAP

SCALE: 1"=2000'

FAITH APOSTOLIC CHURCH OF TROY
#6710 CROOKS ROAD
20-04-100-012

EXISTING BUILDING
F.F. 822.85

7' WD. RAISED CONCRETE WALK

CONC. CURB

EXISTING BUILDING
F.F. 822.85

7' WD. RAISED CONCRETE WALK

CONC. CURB

EXISTING BUILDING
F.F. 822.85

7' WD. RAISED CONCRETE WALK

CONC. CURB

EXISTING BUILDING
F.F. 822.85

7' WD. RAISED CONCRETE WALK

CONC. CURB

CONC

DATE: May 3, 2012

TO: Planning Commission

FROM: R. Brent Savidant, Planning Director

SUBJECT: ZONING ORDINANCE TEXT AMENDMENT (File Number: ZOTA 243) –
Drive-Throughs for Financial Institutions within the Big Beaver Zoning District

The Planning Department has received inquiries recently from various financial institutions requesting drive-through facilities. Drive-throughs are not permitted within the Big Beaver Zoning District.

The attached report, which was presented to the Planning Commission at the April 24, 2012 Special/Study meeting, summarizes this item. The Planning Commission determined that it was appropriate to permit drive-through facilities for Financial Institutions in the Big Beaver Zoning District.

Draft language is attached for your consideration.

Please be prepared to discuss this item at the May 8, 2012 Planning Commission Regular meeting.

Attachments:

1. Draft ZOTA
2. Report prepared by CWA.

G:\ZOTAs\Drive Thrus for Financial Institutions\PC Memo 05 08 2012.doc



CARLISLE

WORTMAN
associates, inc.

605 S. Main Street, Ste. 1
Ann Arbor, MI 48104

(734) 662-2200
(734) 662-1935 Fax

MEMORANDUM

TO: Brent Savidant, Planning Director

FROM: Ben Carlisle, AICP

DATE: May 2, 2012

RE: Zoning Ordinance Language: Drive-throughs on Big Beaver Road

On April 24th the Planning Commission considered and recommended an ordinance amendment to allow drive-throughs for financial institutions within the Big Beaver District. Attached is draft ordinance language for Planning Commission consideration. All new language is highlighted in red.

Due to the existing building form requirement in the Big Beaver District that require buildings to be placed on the street, most of the negative impact issues associated with drive-throughs are mitigated. However, we have included additional standards to ensure that the intended building form along Big Beaver can be maintained, that Big Beaver Road can become a pedestrian friendly environment, and that the safety of pedestrians and automobiles can be maintained. These additional standards for drive-throughs specific to the Big Beaver District include:

- *A drive-through and associated structure cannot be a primary use or principal building.*
- *Drive-throughs must be located behind facade opposite Big Beaver Road or detached from principal structure and shall be located in a manner that will be the least visible from a public thoroughfare.*
- *If detached, the point-to-point tube transport system (pneumatic tubes) must be located underground to serve the drive-through kiosk or canopy.*
- *A drive-through aisle shall not be directly accessed from or exit onto Big Beaver Road.*
- *All stacking lanes must be clearly delineated through the use of striping, landscaping, curbs, or signage.*

I look forward to addressing any comments and questions from the Planning Commission.

CARLISLE/WORTMAN ASSOC., INC.
Benjamin R. Carlisle, LEED AP, AICP

Attached: Draft Ordinance Language: Article 5 Drive-through regulations in Big Beaver District

SECTION 5.04 BIG BEAVER DISTRICT

A. Intent. The Big Beaver (BB) District is intended to implement the policies set forth in the Big Beaver Corridor Study, Big Beaver Design Guidelines, and the [City's Master Plan](#). These regulations are intended to promote a unified vision for transforming Big Beaver Road into a world-class destination focused on mixed-use development and increased land use intensity that is oriented as much to the needs of the pedestrian as to those of the automobile. These regulations are also intended to:

1. Establish a development pattern in which new [buildings](#) and building modifications enhance the character of the existing built environment.
 2. Orient building entrances and storefronts to the [street](#) to add visual interest, increase pedestrian traffic, and to reduce crime through increased surveillance.
 3. Enhance a sense of place and contribute to the sustainability of the City.
 4. Allow a pattern of development which will encourage transportation alternatives (walking, biking, and transit) to reduce automobile dependence and fuel consumption.
 5. Add value to property along the Big Beaver Corridor.
- B. Regulating Plan.

1. The [Regulating Plan](#), as set forth in [Figure 5.04.1](#), identifies allowable uses and permissible development within the District based on location.
2. The Regulating Plan is based on two (2) factors: Site Type and Street Type. Site Types, as described in Section 5.04.B.3, are determined by lot size, location, and relationship to neighboring sites. Street Types, as set forth in Section 5.04B.4, recognize that [street](#) patterns within the City of Troy are established. Streets range from primary corridors which carry a large volume of traffic to local streets which carry lower volumes of neighborhood traffic.
3. Site Types. The Regulating Plan includes three (3) different site types, described as follows:
 - a. Site Type BB:A (large scale regional sites) – These properties are predominantly between ten (10) and twenty (20) acres in area, but they are more strongly related to one another through their nature and large, campus-style properties with multiple large [buildings](#) designed to function as one unit.

Walkability within and between sites and provision of supporting buildings and [uses](#) are important to the success of the very large, Type BB:A developments. They should be designed with a mix of uses in mind to allow for users to obtain basic services on or immediately near the site. Especially within large office centers, where hundreds of workers may populate the site during the day, [restaurants](#), postal facilities and other daily needs should be integrated within existing buildings or permitted to exist in smaller out-lot developments or nearby developments in Type B or C categories.

Parking for Type BB:A sites should be accommodated in structured parking whenever possible to maximize the use of the site for the primary use and to allow the site to be developed more densely than it could with surface parking.

Site design should strongly focus on putting the densest components of the project within close range of the primary right-of-way to combat the vast open areas that frequently make such sites difficult or undesirable to cross on foot. A busy arrangement of campus uses along the right of way in outlots will help keep pedestrians engaged and will make these larger sites fit better with surrounding smaller sites in the Type BB:B and BB:C categories.

- b. Site Type BB:B (medium sites/classic retail sites/mixed use) – The sites in Site Type B are mostly between 2.51 and ten (10) acres in area, and are located at the edges of larger, Type BB:A sites. They are located on sites large enough to warrant additional consideration to landscaping and surface parking in that they can often accommodate large surface lots, which can compromise the cohesiveness of the area if not designed with connectivity in mind.

This category also includes larger, single-use developments situated nearby one another. [Hotels](#), single office buildings, and other medium single building developments often fall into this category. They often house employment centers.

The Site Type BB:B category should be designed with integration in mind. Integration with one another, with Type BB:A sites, and in support of much larger destination retail and office complex sites in Type BB:A. This will allow for better interaction between users, which could lead to a more readily shared customer and tenant base and could help reduce Big Beaver traffic.

- c. Site Type BB:C (small sites/outlot sites) – Made up mostly of lots in the two and a half (2.5) acre and smaller range, the Site Type BB:C category is reserved for the smallest, single-use sites developed for individually standing businesses. Small coffee shops or [fast food restaurants](#) would often be found in this category, as well as small multi-tenant office buildings or single-tenant office buildings.

Site Type BB:C is primarily found along Big Beaver Road in areas between the “pulses” of major intersections, where lot depths are constrained and where older, smaller **buildings** predominate. These sites must be designed to better integrate with their surroundings to contribute to a more cohesive district, a more consistent **building line**, and more efficient access between sites. Good access for pedestrians and cross access for vehicles will help sites in this category reduce trips entering and existing from Big Beaver Road.

Groups of Site Type BB:C properties may make excellent candidates for coordinated combination of properties to create more cohesive mini-destinations.

4. Street Types. The **Regulating Plan** includes three (3) different street types, described as follows:

- a. Street Type BB:A (Primary Corridor) – Category BB:A refers to Big Beaver Road. Big Beaver has the widest spacing between building fronts of all roads within the **form-based code** area, and has many unique characteristics. The category is meant to reflect the “world class boulevard” characteristics established in the Big Beaver Corridor Study, and is used in the highest profile areas of the City of Troy.

Category BB:A will integrate features designed to accommodate through traffic and local traffic, will focus on gateways, and will enhance the Big Beaver Corridor experience. This category will reflect all the strongest and most prominent features proposed in the Big Beaver Corridor Study.

Strong landscaping regimens, pedestrian and traffic-scale lighting, effective signage, wide non-motorized pathways, and a complementary relationship with transit opportunities will make Category BB:A a distinguished area within the region.

- b. Street Type BB:B (Arterial) – Category BB:B is meant for the main north-south roads that cross the **form-based code** district. These roads connect the area with the rest of the City and the region. They are characterized by a narrower building-to-building distance, safe and effective non-motorized pathways designed to encourage users to reach Big Beaver Road by bike or on foot, effective signage and lighting, and few individual residential curb cuts.

The crosswalks spanning **arterial roads** will make use of a series of features intended to protect pedestrians by establishing equity between pedestrians and motorists through effective design. Raised walks of high-quality materials, signage, landscaping, and pedestrian respite islands are several options that may be found within Category BB:B.

Arterial roads will also be characterized by strong landscaping designed to mitigate the negative impacts of high traffic volumes from adjacent residential areas which provide a unique and memorable visual character for the roadway.

The intersections between Category BB:A and BB:B roads will be marquee places with enhanced community and corridor landmarks. The spaces will be defined by a stable and consistent building-to-building ratio complemented by landmark [structures](#), superior landscaping and community signage with medians and memorable architecture.

- c. Street Type BB:C (Local/Collector) – Category BB:C roads are those roads tying together smaller areas within the District. They have a more varied and localized character than Categories BB:A or BB:B, depending on their context within predominantly office, retail, or residential areas. They act as the backbone of smaller neighborhoods within the area and tie those areas to Category BB:A and BB:B roads.

Category BB:C roads will be very welcoming of non-motorized users and will have defined pedestrian rest areas and other amenities wherever possible. Their scale will be similar to that of a main road within a conventional subdivision or industrial park, and their width will be determined primarily on their purpose. A Category BB:C road within an industrial area may be required to be wider than one (1) in a residential area, although their purpose is similar.

Category BB:C roads will have a much higher frequency of curb cuts than Category BB:A and BB:B roads, and will often provide direct access to retail centers or office complexes. Sufficient width should be retained on either side of the roadway whenever possible to allow for a rigorous landscaping plan to ensure that the immediate uses served are adequately protected from the moderate traffic volumes anticipated on a Category BB:C road.

- C. Authorized Use Groups. Authorized [use](#) groups, as set forth in [Section 5.03.A](#) and in [Table 5.04.C-1](#), are applied to the site types and street types in Big Beaver District in [Table 5.04.C-1](#).
- D. Authorized Building Forms. Authorized building forms, as set forth in [Section 5.03.B](#) and [Table 5.04.C-2](#), are applied to the site types and street types in the Big Beaver District in [Table 5.04.C-2](#).
- E. Design Standards. In addition to standards set forth in this Ordinance, all proposed development shall comply with the standards set forth herein.
1. Façade Variation. The maximum linear length of an uninterrupted [building](#) façade facing public [streets](#) and/or parks shall be thirty (30) feet. Façade

articulation or architectural design variations for building walls facing the street are required to ensure that the building is not monotonous in appearance. Building wall offsets (projections and recesses); cornices, varying building materials or pilasters shall be used to break up the mass of a single building.

2. Pedestrian Access / Entrance.

- a. Primary Entrance for Non-Residential and/or Mixed-Use Building. The primary building entrance shall be clearly identifiable and useable and located facing the right-of-way.
- b. Pedestrian Connection. A pedestrian connection shall provide a clear, obvious, publicly-accessible connection between the primary [street](#) upon which the building fronts and the building. The pedestrian connection shall comply with the following:
 - i. Fully paved and maintained surface not less than five (5) feet in width.
 - ii. Unit pavers or concrete distinct from the surrounding parking and drive lane surface.
 - iii. Located either within a raised median or between wheel stops to protect pedestrians from vehicle overhangs where parking is adjacent.
- c. Additional Entrances. In addition to the primary façade facing front façade and/or the right-of-way, if a parking area is located in the rear or side yard, must also have a direct pedestrian access to the parking area that is of a level of materials quality and design emphasis at least equal to that of the primary entrance.

3. [Ground Story Activation](#).

- a. Transparency.
 - i. The first floors of all [buildings](#) shall be designed to encourage and complement pedestrian-scale activity and crime prevention techniques. It is intended that this be accomplished principally by the use of windows and doors arranged so that active [uses](#) within the building are visible from or accessible to the street, and parking areas are visible to occupants of the building. The first floor of any front façade facing a right-of-way shall be no less than fifty (50) percent windows and doors, and the minimum transparency for facades facing a side street, side yard, or parking area shall be no less than thirty (30) percent of the façade.
 - ii. The minimum transparency requirement shall apply to all sides of a building that abut an open space, including a side yard, or public right-

of-way. Transparency requirements shall not apply to sides which abut an alley.

- iii. Windows for **building** sides shall be concentrated toward the front edge of the building, in locations most visible from an urban open space or public right-of-way.

- b. Transparency Alternatives. The following alternatives may be used singularly or in combination. If used in combination, they may count toward no more than eighty (80) percent of the transparency requirement set forth in Section 5.04 E.4. The wall design alternative may count toward one hundred (100) percent of the side street transparency requirement, provided the entirety of the length and height of the wall is considered.

- i. Wall Design. Wall designs that provide visual interest and pedestrian scale may count toward no more than fifty (50) percent of primary **street** and fifty (50) percent of side street transparency requirements. Wall designs must provide a minimum of three (3) of the following elements, occurring at intervals no greater than twenty-five (25) feet horizontally and ten (10) feet vertically:

- (a) Expression of structural system and infill panels through change in plane not less than three (3) inches.

- (b) System of horizontal and vertical scaling elements such as: belt course, string courses, cornice, pilasters.

- (c) System of horizontal and vertical reveals not less than one (1) inch in width/depth.

- (d) Variations in material module, pattern, and/or color.

- (e) System of integrated architectural ornamentation.

- (f) Green screen or planter walls.

- (g) Translucent, fritted, patterned, or colored glazing.

- ii. Outdoor Dining/Seating. Outdoor dining/seating located between the building and the primary street zone lot line may count toward no more than sixty (60) percent of the transparency requirement. Outdoor dining/seating located between the building and side street zone lot line may count toward no more than eighty (80) percent of the transparency requirement.

iii. Permanent Art. Non-commercial art or graphic design of sufficient scale and orientation to be perceived from the public right-of-way and rendered in materials or media appropriate to an exterior, urban environment and permanently integrated into the building wall may count toward no more than forty (40) percent of the transparency requirement.

4. Transitional Features.

- a. Transitional features are architectural elements, site features, or alterations to building massing that are used to provide a transition between higher intensity [uses](#) and low- or moderate-density residential areas. These features assist in mitigating potential conflicts between those uses. Transitional features are intended to be used in combination with landscape buffers or large [setbacks](#).
- b. Intensity. A continuum of use intensity, where moderate intensity uses are sited between high-intensity uses and low-intensity uses, shall be developed for multi-[building](#) developments. An example would be an office [use](#) between commercial and residential uses.
- c. Height and Mass. [Building height](#) and mass in the form of building step-backs, recess lines or other techniques shall be graduated so that [structures](#) with higher intensity uses are comparable in scale with adjacent structures of lower-intensity uses.
- d. Architectural Features. Similarly sized and patterned architectural features such as windows, doors, arcades, pilasters, cornices, wall offsets, building materials, and other building articulations included on the lower-intensity use shall be incorporated in the transitional features.

5. Site Access, Parking, and Loading.

- a. Required Parking. Off-street parking shall be provided for a principal [use](#), erected, altered, or expanded after the effective date of this Ordinance in accordance with the standards set forth in [Article 13, Site Design Standards](#).

The [form-based districts](#) are intended to encourage pedestrian- and transit-friendly design and compact mixed-use developments. Applicants are encouraged to consider the provisions for shared parking set forth in [Section 13.06.E](#) and flexibility in application set forth in [Section 13.06.F](#).

- b. Location.

- i. When parking is located in a **side yard** (behind the front **building line**) but fronts on the required building line, no more than twenty-five (25) percent of the total site's linear feet along the required building line or sixty (60) feet, whichever is less, shall be occupied by parking.
 - ii. For a **corner lot**, no more than twenty-five (25) percent of the site's cumulative linear feet along the required **building lines** or sixty (60) feet, whichever is less, shall be occupied by parking. The **building** shall be located in the corner of the lot adjacent to the intersection.
 - iii. For a **double frontage lot** or a **lot** that has frontage on three (3) **streets**, the cumulative total of all frontages occupied by parking shall be no more than thirty-five (35) percent of the total site's linear feet along a required **building line** or sixty (60) feet, whichever is less.
 - iv. Where off-street parking is visible from a **street**, it should be screened in accordance with the standards set forth in **Section 13.02.C**.
- c. **Parking Structures.** Parking structures shall be located behind **buildings** in locations that minimize visibility from public streets. Parking structures may be located along public street frontages, subject to the following standards:
- i. **Building height** and placement requirements for **principal building** shall be met.
 - ii. A lining of retail, office, or residential **use** with a useable depth of no less than twenty (20) feet shall be provided.
 - iii. At least fifty (50) percent of the upper floors facing a public **street** shall consist of exposed openings. The openings shall be designed with one or more treatments:
 - (a) Planter boxes with living plants.
 - (b) A rail or fence to give the appearance of a balcony.
 - (c) Framing and mullions to give the appearance of large windows.
- d. **Drive-throughs.** Drive-throughs are allowed in the Big Beaver District in conjunction with the principal building of a Financial Institution under a Special Use, subject to the following standards:
- i. A drive-through and associated structure cannot be a primary use or principal building.

- ii. Ingress and egress to drive-through facilities shall be part of the internal circulation of the site and integrated with the overall site design. Clear identification and delineation between the drive-through facility and the parking lot shall be provided. Drive-through facilities shall be designed in a manner which promotes pedestrian and vehicular safety.
- iii. Drive-throughs must be located behind facade opposite Big Beaver Road or detached from principal structure and shall be located in a manner that will be the least visible from a public thoroughfare.
 - (a) If detached, the point-to-point tube transport system (pneumatic tubes) must be located underground to serve the drive-through kiosk or canopy.
 - (b) Canopy design shall be compatible with the design of the principal building and incorporate similar materials and architectural elements.
- iv. Each drive-through facility shall provide stacking space meeting the following standards:
 - (a) Each stacking lane shall be one-way, and each stacking lane space shall be a minimum of ten (10) feet in width and twenty (20) feet in length.
 - (b) If proposed, an escape lane shall be a minimum of twelve (12) feet in width to allow other vehicles to pass those waiting to be served.
 - (c) Four (4) stacking spaces per drive-through lane.
 - (d) All stacking lanes must be clearly delineated through the use of striping, landscaping, curbs, or signage
- v. A drive-through aisle shall not be directly accessed from or exit onto Big Beaver Road.

Authority and
Administration

Development
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Nonconformity,
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Authority and Administration

Development Regulations

Table 5.04.C-1 Use Groups Permitted									
Use Group (Table 5.03-1)	Site Type BB:A: Major Sites			Site Type BB:B: Medium Sites			Site Type BB:C: Minor Sites		
	Street Type BB:A: Big Beaver	Street Type BB:B: Arterials	Street Type BB:C: Collectors	Street Type BB:A: Big Beaver	Street Type BB:B: Arterials	Street Type BB:C: Collectors	Street Type BB:A: Big Beaver	Street Type BB:B: Arterials	Street Type BB:C: Collectors
1 Residential	NP	NP	NP	NP	NP	NP	NP	NP	NP
2 Residential/Lodging	UP	UP	P	UP	UP	P	UP	UP	P
3 Office/Institution	P	P	P	P	P	P	P	P	P
4 Auto/Transportation	NP	NP	NP	NP	NP	NP	NP	NP	NP
5 Retail/Entertainment/Service*	P	P	P	P	P	P	P	P	P
6 Misc. Commercial	NP	NP	NP	NP	NP	NP	NP	NP	NP
7 Industrial	NP	NP	NP	NP	NP	NP	NP	NP	NP

P - Permitted Use Groups
 UP - Permitted Use Groups in Upper Stories Only
 S - Special Use Approval Groups
 NP - Prohibited Use Groups
 * Drive-through uses for Financial Institutions are allowed under Special Use in compliance with Section 5.04.5.d

Processes and Procedures

Supplemental Design Regulations

Table 5.04.C-2 Building Forms Permitted									
Building Forms	Site Type BB:A: Major Sites			Site Type BB:B: Medium Sites			Site Type BB:C: Minor Sites		
	Street Type BB:A: Big Beaver	Street Type BB:B: Arterials	Street Type BB:C: Collectors	Street Type BB:A: Big Beaver	Street Type BB:B: Arterials	Street Type BB:C: Collectors	Street Type BB:A: Big Beaver	Street Type BB:B: Arterials	Street Type BB:C: Collectors
A: Small, single-purpose, out buildings	P ¹	P	P	P ¹	P	P	P	P	P
B: Small, multi-tenant commercial with mixed use	P ¹	P	P	S	P	P	P	P	P
C: Attached residential or live/work	S	S	S	P	P	P	P	P	P
D: Multi-story mixed use, medium density	P	P	P	P	P	P	P	P	P
E: Large format commercial	P	P	S	P	P	S	NP	NP	NP
F: Large format mixed-use	P	P	S	P	P	S	NP	NP	NP

¹ Permitted only when located in an outlot of a Building Form D, E, or F project in a separate parcel, or within a designated outlot that remains part of the primary parcel.

P - Permitted Building Form
 S - Special Approval Building Form
 NP - Prohibited Building Form

Nonconformity, Appeals, Amendments

Map 5.04.1: Big Beaver District Regulating Plan

