

# The Sanctuary at River's Edge Planned Unit Development

Submitted for PUD Final Review

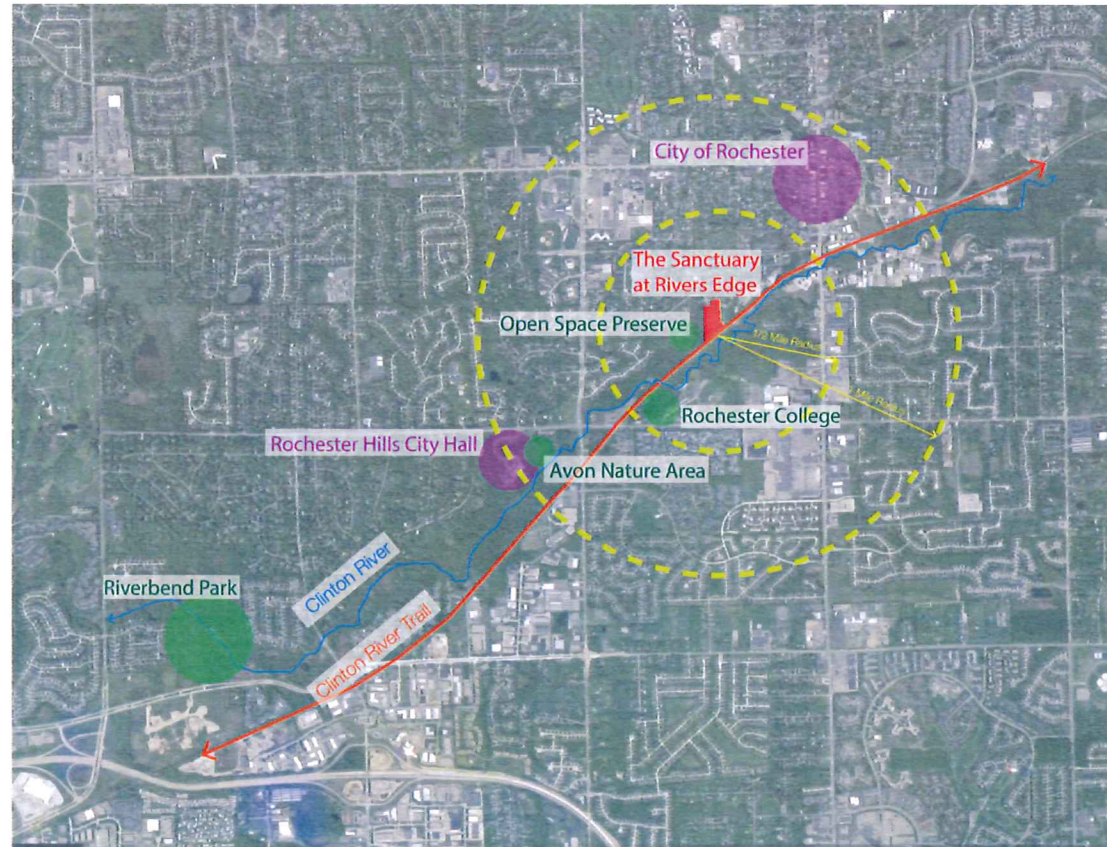
Rochester Hills,  
Oakland County,  
Michigan



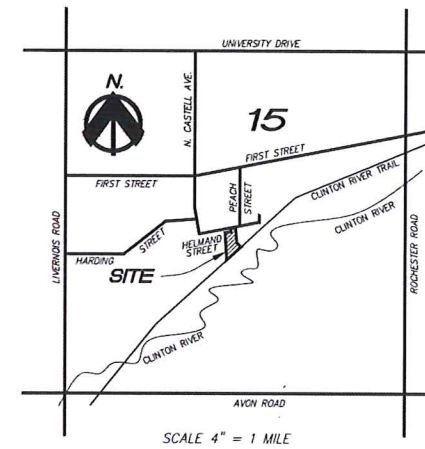
## SHEET INDEX

SP 1.0	COVER SHEET
SP 1.1	SITE PLAN
SP 1.2	OPEN SPACE PLAN
SP 1.3	EXISTING SITE CONDITIONS
SP 1.4	TREE SURVEY
SP 1.5	TREE LIST
SP 1.6	WOODLAND ANALYSIS
SP 1.7	STEEP SLOPES ANALYSIS
LA 1.0	LANDSCAPE CONCEPT PLAN
LA 1.1	LANDSCAPING DETAILS
LA 1.2	LANDSCAPING DETAILS
LA 1.3	SITE SECTION
LA 1.4	ENTRANCE AMENITIES
LA 1.5	ENTRANCE LANDSCAPING PLAN
LA 1.6	ENTRANCE SECTION AND AMENITY DETAILS
LA 2.0	SPECIFICATIONS & DETAILS
LA 2.1	LANDSCAPE COST ESTIMATES
E-1	PRELIMINARY GRADING PLAN
E-2	OVERALL UTILITY PLAN
IR-1	IRRIGATION PLAN
A-1	ARCHITECTURAL CONCEPT ELEVATIONS
A-2	ARCHITECTURAL CONCEPT PLANS

## LOCAL ASSET MAP



## LOCATION MAP



## LEGAL DESCRIPTION

THE EASTERLY 1/2 OF BLOCK 10 OF "C.O. RENSHAW ADDITION TO THE VILLAGE OF ROCHESTER" AS RECORDED IN LIBER 4 OF PLATS, PAGE 55, OAKLAND COUNTY RECORDS, ALSO PART OF THE N.W. 1/4 OF THE S.E. 1/4 OF SECTION 15, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE CENTER OF SECTION OF SAID SECTION 15, THENCE S.02°46'56"W, 272.68 FT. ALONG THE NORTH-SOUTH 1/4 LINE TO THE POINT OF BEGINNING, THENCE N.87°16'43"E., 187.47 FT. ALONG THE SOUTH LINE OF SAID C.O. RENSHAW ADDITION; THENCE N.01°41'02"E., 91.49 FT. TO THE SOUTHERLY RIGHT OF WAY OF HELMAND STREET (50 FT. WIDE); THENCE N.84°13'10"E., 160.33 FT. ALONG THE SOUTHERLY LINE OF SAID HELMAND STREET; THENCE S.01°04'54"W., 471.29 FT.; THENCE S.39°45'17"E., 128.37 FT. TO A POINT ON THE NORTHWESTERLY LINE OF THE CLINTON RIVER TRAIL (FORMERLY THE GRAND TRUNK RAILROAD RIGHT OF WAY); THENCE S.50°14'43"W., 602.80 FT. ALONG THE CLINTON RIVER TRAIL; THENCE N.02°46'56"E., 839.87 FT. ALONG THE NORTH-SOUTH 1/4 LINE TO THE POINT OF BEGINNING, CONTAINING 6.163 ACRES OF LAND.

## NOTES

THE PROPOSED PRIVATE ROADS ARE NOT BEING CONSTRUCTED TO THE CITY'S PUBLIC ROAD STANDARDS, AND THEREFORE, CANNOT BE TRANSFERRED AS PUBLIC ROADS IN FUTURE.

## PROJECT

**THE SANCTUARY AT RIVERS EDGE,  
ROCHESTER HILLS, OAKLAND COUNTY,  
MICHIGAN**

**CLIENT / APPLICANT**  
MJ RIDGEPOINTE, LLC.  
JIM POLYZOIS  
64155 VAN DYKE STE. 269  
WASHINGTON, MICHIGAN 48095  
PHONE: (586) 944-8660

**PROJECT LANDSCAPE  
ARCHITECT/PLANNER**  
DESIGNTEAM PLUS, LLC.  
RALPH L. NUNEZ, RLA, CLARB, ASLA, GRP  
975 EAST MAPLE RD., SUITE 210  
BIRMINGHAM, MICHIGAN 48009  
PHONE: (248) 224-5933

**PROJECT ARCHITECT**  
TR DESIGN GROUP, LLC.  
JEFF ZIEGELBAUR, PRINCIPAL  
6001 N. ADAMS, SUITE 202  
BLOOMFIELD HILLS, MICHIGAN 48304  
PHONE: (248) 792-3256

## ISSUED FOR

PUD CONCEPT PRELIMINARY REVIEW  
DATE: 5/15/14

PUD FINAL REVIEW  
DATE: 10/09/14

## CITY REFERENCE NUMBER

NUMBER: 2014-008

**DesignTeam +**  
975 E. Maple Road, Suite 210  
Birmingham, Michigan 48009

P: 248. 559. 1000

info@designteamplus.com

**Client**  
MJ Ridgepoite, LLC,  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
FAX: 586-421-5742

**Project**  
**The Sanctuary at  
River's Edge**  
Rochester Hills  
Oakland County  
Michigan

Design/Drawn:	RLN/ BC
Checked/Approved:	RLN
Job #	30-2013
File:	Rivers Edge Revised 10_01
Date/Revisions	Issued For
5-15-2014	PUD CONCEPT REVIEW
10-09-2014	PUD FINAL REVIEW
11-20-2014	PUD FINAL REVISION

PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION

**COPYRIGHT** © 2013  
DesignTeam Plus, LLC.  
ALL RIGHTS RESERVED  
This Document and the subject  
matter contained therein is  
proprietary and is not to be used or  
reproduced without the written  
permission of DesignTeam Plus, LLC.  
CITY FILE # 14-008

SP-1.0



**LEGAL DESCRIPTION**

THE EASTERLY 1/2 OF BLOCK 10 OF "C.O. RENSHAW ADDITION TO THE VILLAGE OF ROCHESTER" AS RECORDED IN LIBER 4 OF PLATS, PAGE 55, OAKLAND COUNTY RECORDS, ALSO PART OF THE N.W. 1/4 OF THE S.E. 1/4 OF SECTION 15, T.3N., R.11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE CENTER OF SECTION OF SAID SECTION 15; THENCE S.02°46'56"W, 272.68 FT. ALONG THE NORTH-SOUTH 1/4 LINE TO THE POINT OF BEGINNING; THENCE N.87°16'43"E., 187.47 FT. ALONG THE SOUTH LINE OF SAID C.O. RENSHAW ADDITION; THENCE N.01°41'02"E., 91.49 FT. TO THE SOUTHERLY RIGHT OF WAY OF HELMAND STREET (50 FT. WIDE); THENCE N.84°13'10"E., 160.33 FT. ALONG THE SOUTHERLY LINE OF SAID HELMAND STREET; THENCE S.01°04'54"W, 471.29 FT.; THENCE S.39°45'17"E., 128.37 FT. TO A POINT ON THE NORTHWESTERLY LINE OF THE CLINTON RIVER TRAIL (FORMERLY THE GRAND TRUNK RAILROAD RIGHT OF WAY); THENCE S.50°14'43"W., 602.80 FT. ALONG THE CLINTON RIVER TRAIL; THENCE N.02°46'56"E., 839.87 FT. ALONG THE NORTH-SOUTH 1/4 LINE TO THE POINT OF BEGINNING, CONTAINING 6.163 ACRES OF LAND.

**FIRE DEPARTMENT NOTES**

1. CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC 2006 CHAPTER 14.
2. OPEN BURNING IS NOT PERMITTED INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS. OPEN BURNING FOR WARMING OF SAND AND OR WATER FOR THE PREPARATION OF MORTAR SHALL BE WITHIN THE CITY OF ROCHESTER HILLS BURN PERMIT GUIDELINES. FIRE PREVENTION ORDINANCE CHAPTER 58, SEC. 307.6.2 & 307.6.2.3.

**FILLED WETLANDS**

WETLAND A (FILLED)	+/- .07 Acres
WETLAND B (FILLED)	+/- .13 Acres
WETLAND C (PRESERVED)	+/- .05 Acres
WETLAND D (OFF-SITE)	+/- .02 Acres
<b>TOTAL WETLANDS ON SITE</b>	<b>+/- .27 Acres</b>
<b>TOTAL WETLANDS FILLED</b>	<b>+/- .20 Acres</b>

**LAND USE DATA:**

<b>Existing Zoning</b>	R.C.D.	
<b>Proposed Zoning</b>	P.U.D.	
<b>SITE AREA:</b>		
Total Site Area (Gross)	=6.16 Ac.	100%
Proposed Private Dr.	±0.88 Ac.	14%
Detention Basin	±0.73 Ac.	12%
(Proposed Wetland Fill Upland Area)	±3.01 Ac.	49%
Open Space	±1.54 Ac.	25%
<b>Total Units proposed</b>	<b>=20 Units</b>	
<b>Density</b>	<b>=3.25 DU/AC</b>	

\*WETLAND PERMIT REQUIRED FOR FILL

**BUILDING & SETBACK DATA:**

<b>SETBACKS:</b>		
Front Yard (VARIES):	=25'-45'	
Side Yard: One side 5', 10' other side	=15'	
*CORNER LOT	=20'	
Rear Yard (VARIES)	=30'-35'	
Building Pad*	=45' x 65'	
*LOT 19 (CUSTOM)	=7845 S.F.	
Building Height	=35'	
Building Sq. Ft.	±2,500 - ±4,500	

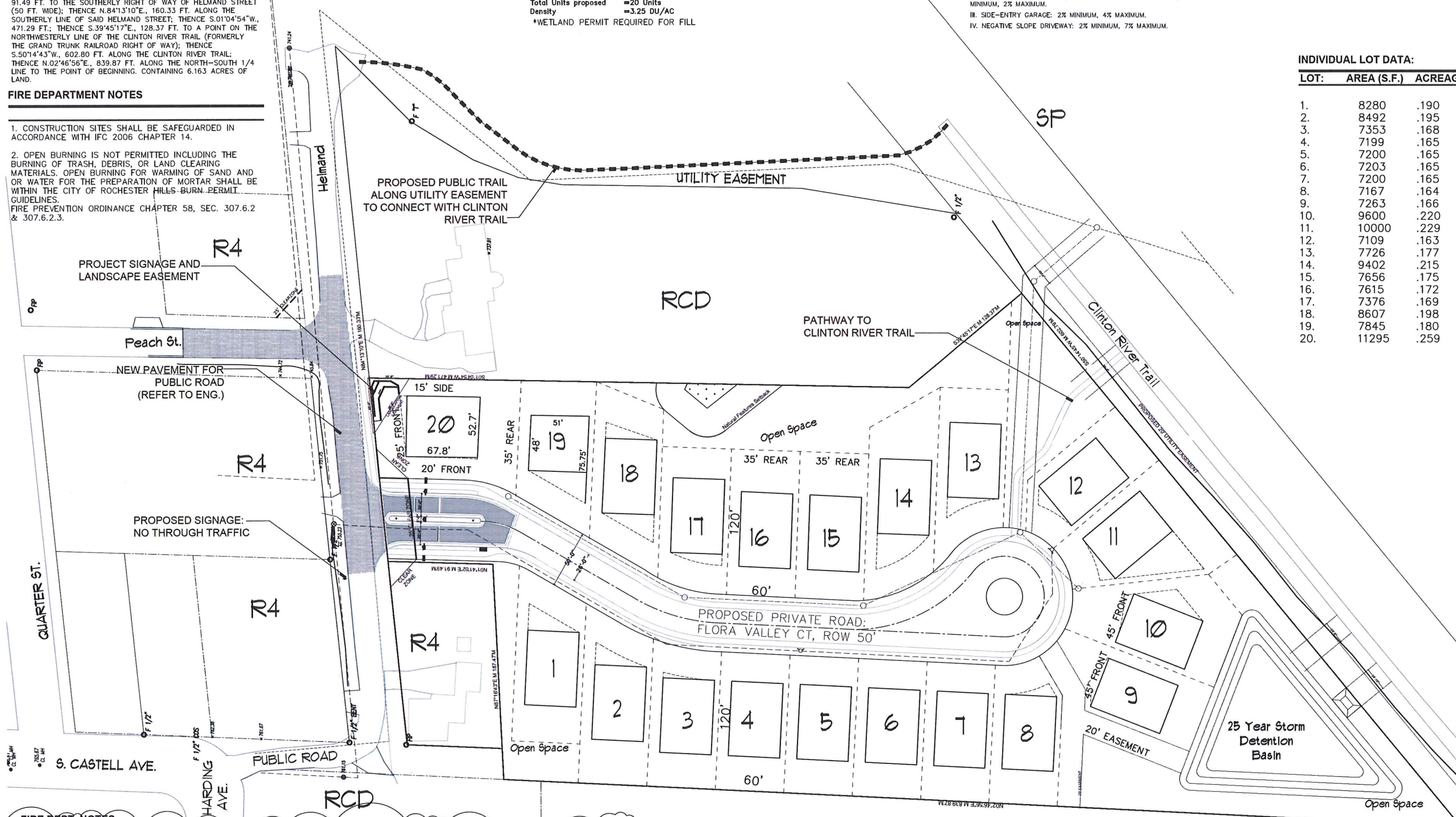
**SITE GRADING NOTES:**

1. SITES SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM OF 6" WITHIN THE FIRST 10' (R401.3).
2. WHEREVER POSSIBLE, SWALES SHALL BE PROVIDED ALONG LOT LINES WITH 1% MINIMUM SLOPE TO CONVEY RUNOFF TO CONVEY RUNOFF TO A STORM SEWER OR OTHER APPROVED COLLECTION POINTS.
3. DRIVEWAY SLOPES SHALL MEET THE FOLLOWING REQUIREMENTS:
  - I. APPROACH AND DRIVEWAY: 2% MINIMUM, - 10% MAXIMUM.
  - II. SIDEWALK CROSS-SLOPE (INCLUDING DRIVEWAY APPROACH): 1% MINIMUM, 2% MAXIMUM.
  - III. SIDE-ENTRY GARAGE: 2% MINIMUM, 4% MAXIMUM.
  - IV. NEGATIVE SLOPE DRIVEWAY: 2% MINIMUM, 7% MAXIMUM.



**INDIVIDUAL LOT DATA:**

LOT:	AREA (S.F.)	ACREAGE:
1.	8280	.190
2.	8492	.195
3.	7353	.168
4.	7199	.165
5.	7200	.165
6.	7203	.165
7.	7200	.165
8.	7167	.164
9.	7263	.166
10.	9600	.220
11.	10000	.229
12.	7109	.163
13.	7726	.177
14.	9402	.215
15.	7656	.175
16.	7615	.172
17.	7376	.169
18.	8607	.198
19.	7845	.180
20.	11295	.259



**FIRE DEPT. NOTES**

1. THE PROPOSED PRIVATE ROADS ARE NOT BEING CONSTRUCTED TO THE CITY'S PUBLIC ROAD STANDARDS, AND THEREFORE, CANNOT BE TRANSFERRED AS PUBLIC ROADS IN FUTURE.
2. THE PROPOSED PRIVATE ROAD, FLORA VALLEY CT. HAS REQUESTED TO WAIVE THE 600' MAX LENGTH FOR THE CUL-DE-SAC.

RCD City Open Space

Overall Site Plan

**DesignTeam +**  
975 E. Maple Road, Suite 210  
Birmingham, Michigan 48009

P: 248. 559. 1000

info@designteamplus.com

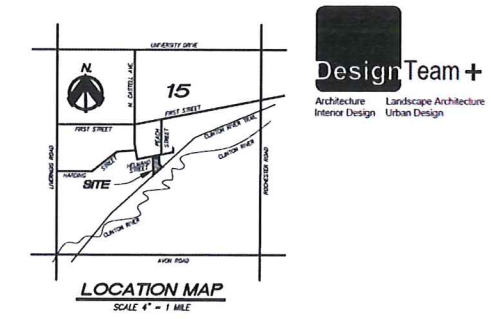
**Client**  
MJ Ridgepointe, LLC,  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
f: 586-421-5742

**Project**  
**The Sanctuary at  
River's Edge**  
Rochester Hills  
Oakland County  
Michigan

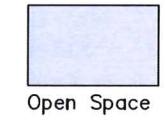
Designed/Drawn:	RLH/ BC
Checked/Approved:	RLH
Job #	30-2013
File:	Rivers Edge Revised 10_01
Date/Revisions	Issued For
5-15-2014	PLD CONCEPT REVIEW
10-09-2014	PLD FINAL REVIEW
11-20-2014	PLD FINAL REVISION

**Copyright** 2013  
DesignTeam Plus, LLC.  
ALL RIGHTS RESERVED.  
This Document and the subject matter contained herein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC.  
CITY FILE # 14-008



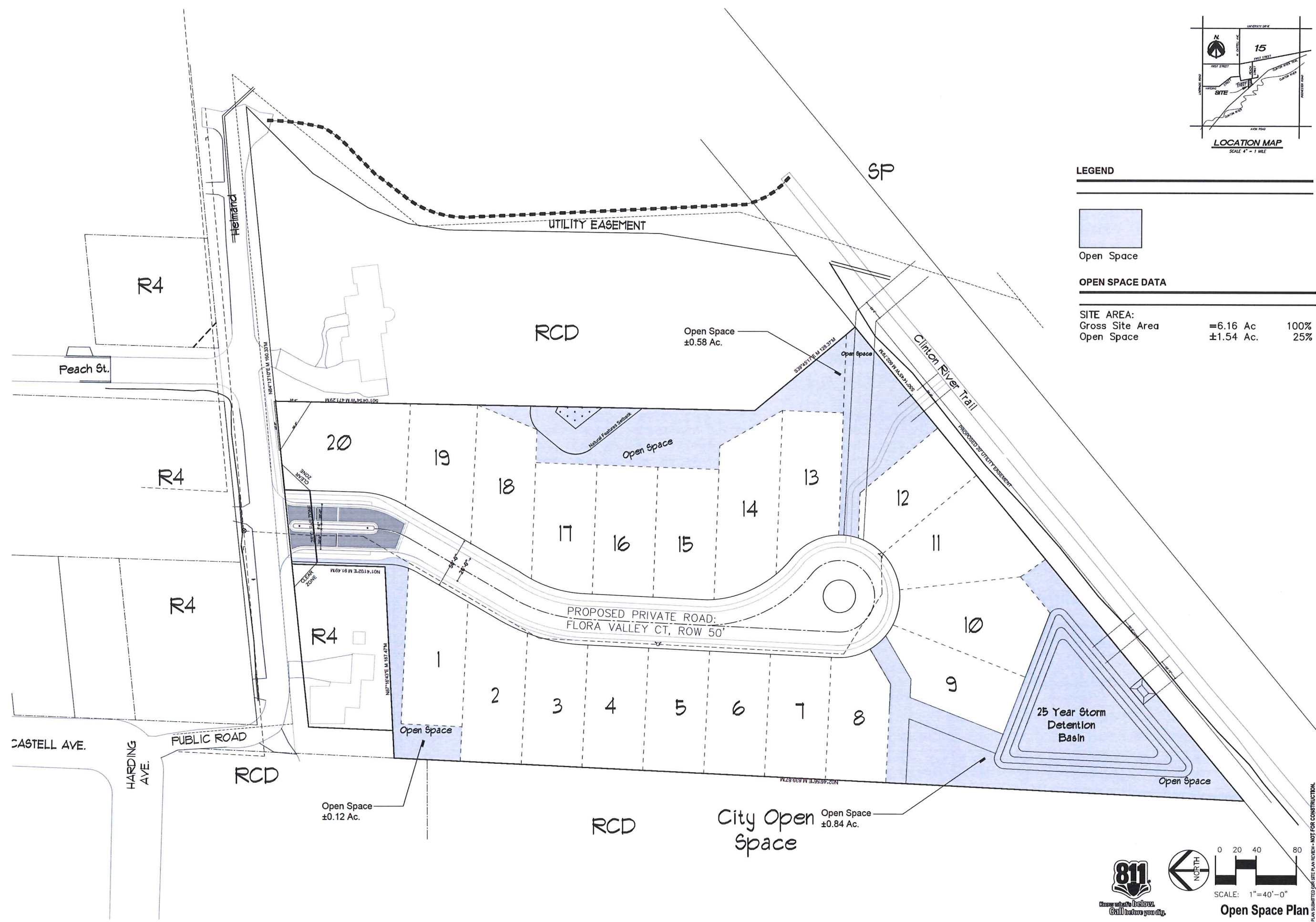


**LEGEND**



**OPEN SPACE DATA**

SITE AREA:		
Gross Site Area	=6.16 Ac	100%
Open Space	±1.54 Ac.	25%



**DesignTeam +**  
975 E. Maple Road, Suite 210  
Birmingham, Michigan 48009  
P: 248. 559. 1000  
info@designteamplus.com

**Client**  
MJ Ridgepointe, LLC,  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
f: 586-421-5742

**Project**  
**The Sanctuary at River's Edge**  
Rochester Hills  
Oakland County  
Michigan

Designed/Drawn:	RLH/ BC
Checked/Approved:	RLH
Job #	30-2013
File:	Rivers Edge Revised 10_01
Date/Revisions	Issued For
5-15-2014	PLD CONCEPT REVIEW
10-09-2014	PLD FINAL REVIEW
11-20-2014	PLD FINAL REVISION

**811**  
Call before you dig.

SCALE: 1"=40'-0"

**Open Space Plan**

SP-1.2

PLD SUBMITTED FOR CITY PLAN REVIEW - NOT FOR CONSTRUCTION.

COPYRIGHT 2013 ©  
DesignTeam Plus, LLC.  
ALL RIGHTS RESERVED.  
This Document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC.  
CITY FILE # 14-008

**SOIL LEGEND**

- 18B Fox sandy loam, 1 to 6 percent slopes
- 41B Aqueuts, sandy, loamy, undulating
- 62B Urban land-Spinks complex, 0 to 8 percent slopes
- 68 Cohoctah-Fox association

**TOTAL TREES SURVEYED: 573**

TOTAL # OF TAGGED TREES	573
# LOW QUALITY TREES ON SITE	529
# HIGH QUALITY TREES ON SITE	44
TOTAL # OF REGULATED TREES	275
TOTAL # OF TREES TO BE REMOVED	275

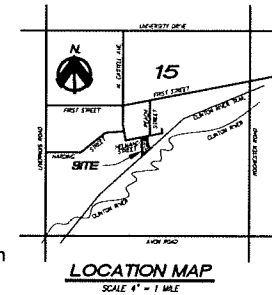
\*REFER TO SP 1.6 FOR TREE DATA

**EXISTING WETLAND DATA**

TOTAL WETLANDS SURVEYED	+/- .27 Acres
WETLAND A	+/- .02 Acres
WETLAND B	+/- .13 Acres
WETLAND C	+/- .05 Acres
WETLAND D (OFF-SITE)	+/- .02 Acres
TOTAL WETLANDS ON SITE	+/- .21 Acres

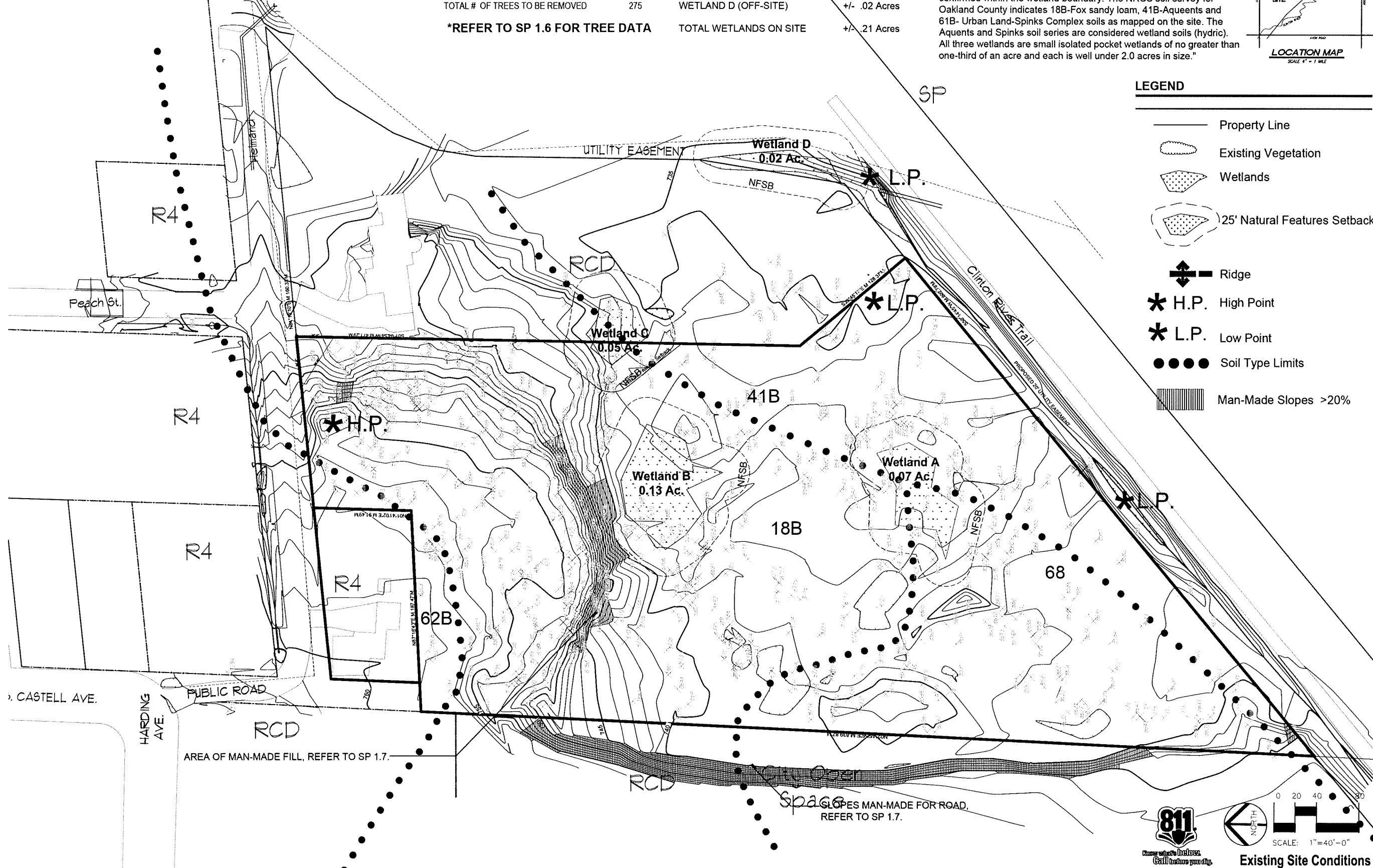
**WETLAND REVIEW REPORT**

"The current site wetland indicators include common soil, plant, and hydrologic traits (moist dark soils), indicative of wetland conditions within the delineated wetlands. Wetland soil (hydric soil) was also confirmed within the wetland boundary. The NRCS soil survey for Oakland County indicates 18B-Fox sandy loam, 41B-Aqueuts and 61B-Urban Land-Spinks Complex soils as mapped on the site. The Aqueuts and Spinks soil series are considered wetland soils (hydric). All three wetlands are small isolated pocket wetlands of no greater than one-third of an acre and each is well under 2.0 acres in size."



**LEGEND**

- Property Line
- Existing Vegetation
- Wetlands
- 25' Natural Features Setback
- Ridge
- \* H.P. High Point
- \* L.P. Low Point
- Soil Type Limits
- Man-Made Slopes >20%



**DesignTeam +**  
975 E. Maple Road, Suite 210  
Birmingham, Michigan 48009

P: 248.559.1000

info@designteamplus.com

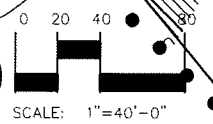
**Client**  
MJ Ridgepointe, LLC,  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
f: 586-421-5742

**Project**  
**The Sanctuary at  
River's Edge**  
Rochester Hills  
Oakland County  
Michigan

Designed/Drawn: RLH/ BC  
Checked/Approved: RLH  
Job # 30-2013  
File: Rivers Edge Revised 10\_01

Date/Revision	Issued For
5-15-2014	PLD CONCEPT REVIEW
10-02-2014	PLD FINAL REVIEW
11-20-2014	PLD FINAL REVISION

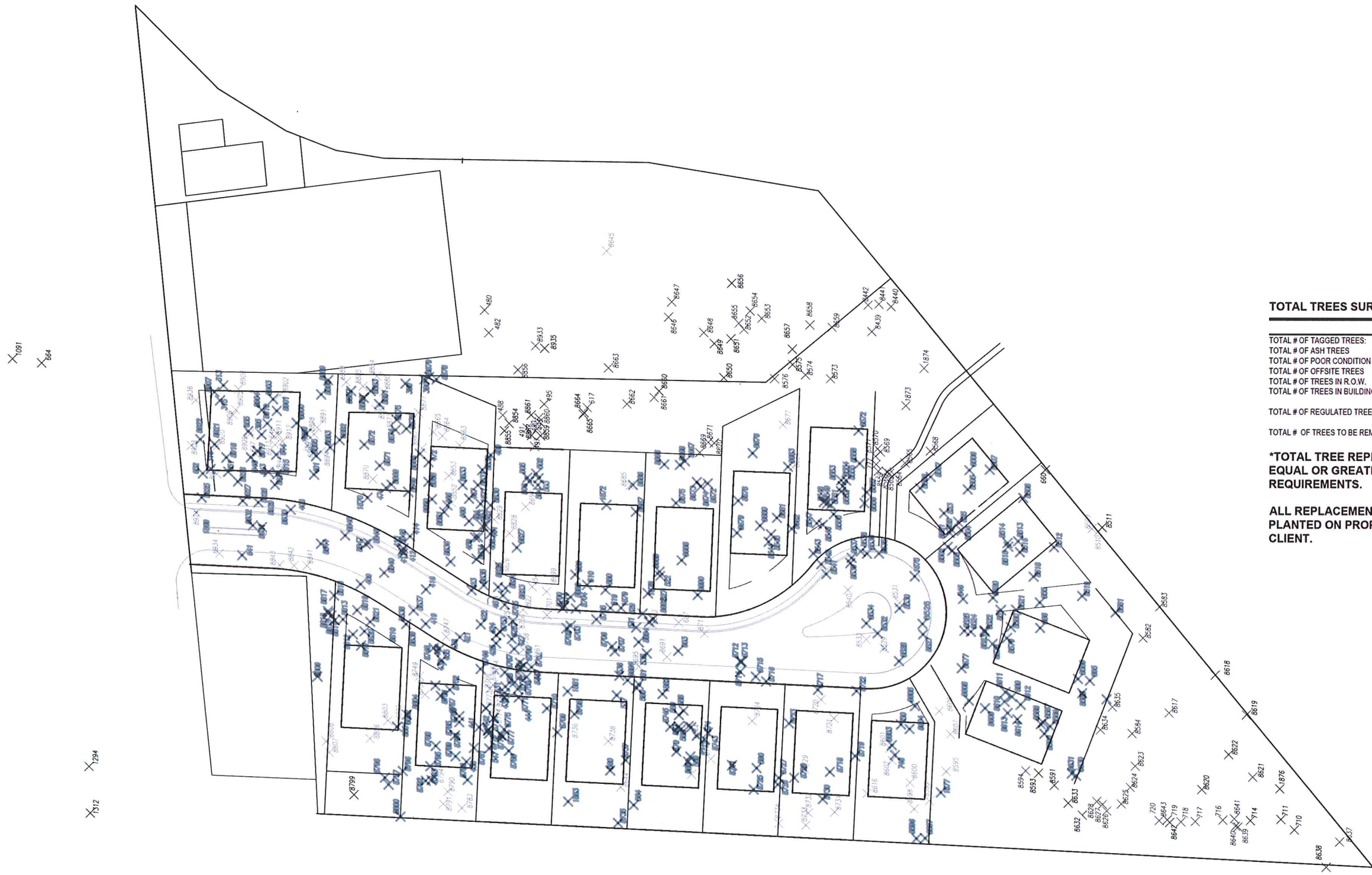
PLAN SUBMITTED FOR CITY REVIEW - JUST FOR CONSTRUCTION.  
COPYRIGHT © 2013 DesignTeam Plus, LLC. ALL RIGHTS RESERVED. The Document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC.  
CITY FILE # 14-008



Existing Site Conditions

SP-1.3





**TOTAL TREES SURVEYED: 573**

TOTAL # OF TAGGED TREES:	573
TOTAL # OF ASH TREES	- 2
TOTAL # OF POOR CONDITION TREES	- 95
TOTAL # OF OFFSITE TREES	- 25
TOTAL # OF TREES IN R.O.W.	- 50
TOTAL # OF TREES IN BUILDING PADS	- 126
TOTAL # OF REGULATED TREES	275
TOTAL # OF TREES TO BE REMOVED	275

**\*TOTAL TREE REPLACEMENT TO BE EQUAL OR GREATER THAN CITY REQUIREMENTS.**

**ALL REPLACEMENT TREES TO BE PLANTED ON PROPERTY OWNED BY CLIENT.**

**DesignTeam +**  
 975 E. Maple Road, Suite 210  
 Birmingham, Michigan 48009

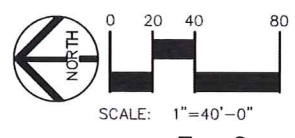
P: 248. 559. 1000  
 info@designteamplus.com

**Client**  
 MJ Ridgepointe, LLC,  
 49587 Compass Pointe  
 Chesterfield Township, MI, 48047  
 o: 588-421-5729  
 FAX: 588-421-5742

**Project**  
**The Sanctuary at River's Edge**  
 Rochester Hills  
 Oakland County  
 Michigan

Designed/Drawn: RLN/ BC  
 Checked/Approved: RLN  
 Job # 30-2013  
 File: Rivers Edge TREE SURVEY 9\_8

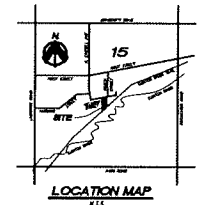
Date/Revisions	Issued For
5-15-2014	PLD CONCEPT REVIEW
10-09-2014	PLD FINAL REVIEW
11-20-2014	PLD FINAL REVISION



PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.

COPYRIGHT © 2013  
 DesignTeam Plus, LLC.  
 ALL RIGHTS RESERVED.  
 This Document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC.  
 CITY FILE # 14-008





Tree Inventory
Sanctuary at River's Edge Site
S. of Heiland St. W. of Peach St.
City of Rochester Hills, Michigan
Updated April 26, 2014

By: M.A.'s Tree Services, Inc.
3000 P. Meadows
Royal Oak, Michigan
ID # 3301045268

B.P. Tree is located in Building Pad area
R.O.W. Tree is located in Right Of Way area

Table with columns: Tree #, D.B.H. in Inches, Species Name (Common - Botanical), Health Condition, Crown Spread, Notes. Lists individual trees with their characteristics and status.

Table with columns: Tree #, D.B.H. in Inches, Species Name (Common - Botanical), Health Condition, Crown Spread, Notes. Continuation of tree inventory list.

Table with columns: Tree #, D.B.H. in Inches, Species Name (Common - Botanical), Health Condition, Crown Spread, Notes. Continuation of tree inventory list.

Table with columns: Tree #, D.B.H. in Inches, Species Name (Common - Botanical), Health Condition, Crown Spread, Notes. Continuation of tree inventory list.

Table with columns: Tree #, D.B.H. in Inches, Species Name (Common - Botanical), Health Condition, Crown Spread, Notes. Continuation of tree inventory list.

Tree Inventory Summary
Sanctuary at River's Edge Site
S. of Heiland St. W. of Peach St.
City of Rochester Hills, Michigan
Updated April 26, 2014

Summary table with columns: Species, Good, Fair, Poor, Very Poor, Dead, Totals, %. Aggregates tree health data by species.

P: 248.559.1000

info@designteamplus.com

Client: MJ Ridgepointe, LLC, 45507 Compass Pointe, Chesterfield Township, MI, 48047, phone: 588-421-5729, fax: 588-421-5742

Project: The Sanctuary at River's Edge, Rochester Hills, Oakland County, Michigan

Design/Drawn: RLK/BC
Checked/Approved: RLK
Job #: 20-1013
File: Rivers Edge TREE SURVEY 9\_8

Date/Revision: Issued For

10-15-2014 PLO CONCEPT REVIEW
10-08-2014 PLO FINAL REVIEW
11-20-2014 PLO FINAL REVISION

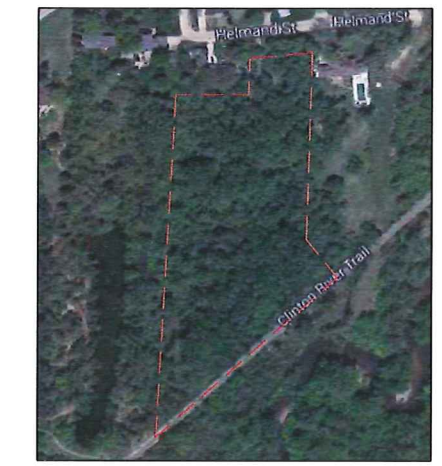
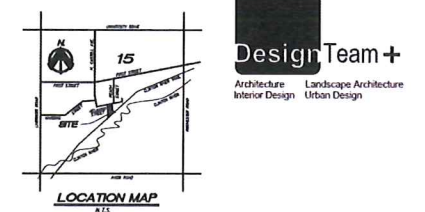
Copyright: DesignTeam Plus, LLC, 2014. All rights reserved. No part of this document may be reproduced without the written permission of DesignTeam Plus, LLC.
City File #: 14-008







1 Woodland Coverage from 1963 – 1990  
SP-1.6



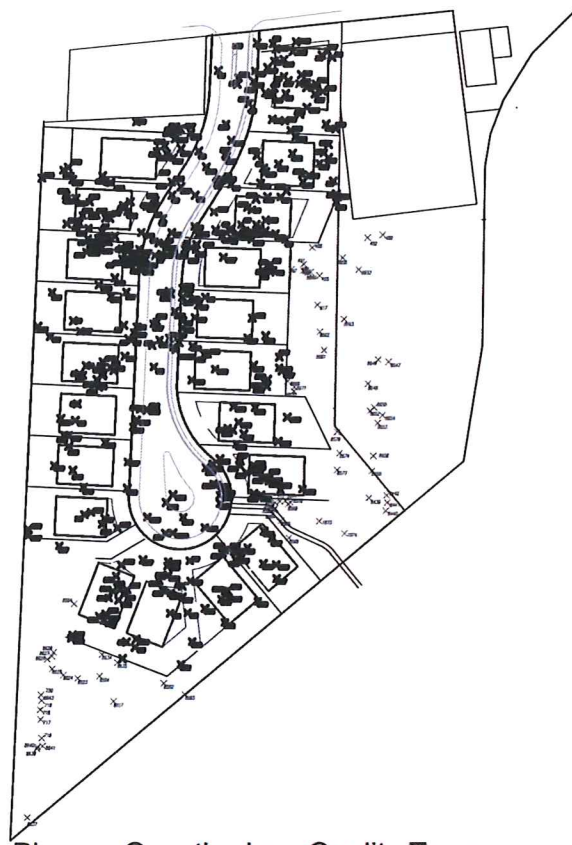
2 Woodland Coverage in 2010  
SP-1.6

**TOTAL TREES SURVEYED: 573**

TOTAL # OF TAGGED TREES:	573
TOTAL # OF ASH TREES	- 2
TOTAL # OF POOR CONDITION TREES	- 95
TOTAL # OF OFFSITE TREES	- 25
TOTAL # OF TREES IN R.O.W.	- 50
TOTAL # OF TREES IN BUILDING PADS	- 126
TOTAL # OF REGULATED TREES	275
TOTAL # OF TREES TO BE REMOVED	275

\*TOTAL TREE REPLACEMENT TO BE EQUAL OR GREATER THAN CITY REQUIREMENTS.

ALL REPLACEMENT TREES TO BE PLANTED ON PROPERTY OWNED BY CLIENT.



**LOW QUALITY TREES ON SITE**

NAME	QTY.
AMERICAN ELM	72
APPLE	2
ASPEN	43
BLACK CHERRY	48
BLACK WILLOW	1
BOXELDER	98
BUCKTHORN	1
COTTONWOOD	154
SIBERIAN ELM	101
WEEPING WILLOW	1
WHITE ASH	2
WHITE MULBERRY	6
<b>TOTAL</b>	<b>529</b>

**HIGH QUALITY TREES ON SITE**

NAME	QTY.
BLACK WALNUT	14
BUR OAK	1
NORWAY MAPLE	3
RED MAPLE	11
RED OAK	4
SCOTCH PINE	5
SHAGBARK HICKORY	1
SWAMP WHITE OAK	1
WHITE OAK	1
WHITE SPRUCE	3
<b>TOTAL</b>	<b>44</b>

3 Pioneer Growth - Low Quality Trees  
SCALE: 1" = 100'-0"  
SP-1.6



4 High Quality Trees  
SCALE: 1" = 100'-0"  
SP-1.6

**DesignTeam +**  
975 E. Maple Road, Suite 210  
Birmingham, Michigan 48009

P: 248. 559. 1000  
info@designteamplus.com

Client  
**MJ Ridgepointe, LLC,**  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
FAX: 586-421-5742

Project  
**The Sanctuary at  
River's Edge**  
Rochester Hills  
Oakland County  
Michigan

Designed/Drawn: RLN/ BC  
Checked/Approved: RLN  
Job #: 30-2013  
File: Rivers Edge TREE SURVEY 9\_8  
Date/Revisions Issued For

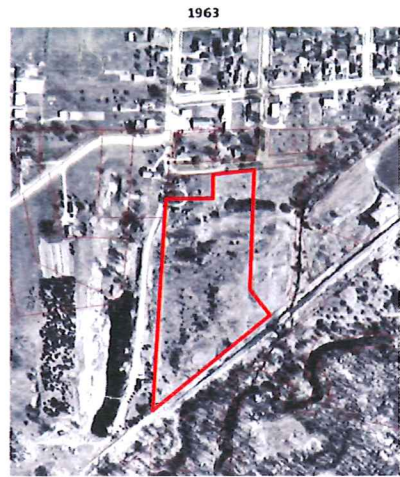
5-15-2014 PLO CONCEPT REVIEW  
10-08-2014 PLO FINAL REVIEW  
11-20-2014 PLO FINAL REVISION

PLAN SUBMITTED FOR CITY PLAN REVIEW - NOT FOR CONSTRUCTION.

COPYRIGHT © 2013  
DesignTeam Plus, LLC.  
ALL RIGHTS RESERVED.  
This Document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC.  
CITY FILE # 14-008







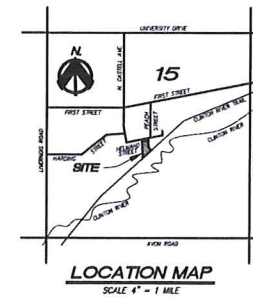
1 inch = 200 feet  
2/18/2014  
Planning and Economic Development  
CITY OF ROCHESTER HILLS

1 inch = 200 feet  
2/18/2014  
Planning and Economic Development  
CITY OF ROCHESTER HILLS

**HISTORICAL DOCUMENTATION OF MAN-MADE LAND DISTURBANCE**

**MAN-MADE STEEP SLOPES**

THE STEEP SLOPES ON THE RIVERS EDGE PROPERTY WERE FILLED BETWEEN 1963 TO 1980 AS EVIDENCE IN THE AERIAL PHOTOS. WE ARE SEEKING AN EXEMPTION FROM THE STEEP SLOPE ORDINANCE REQUIREMENTS AS THEY WERE MAN-MADE LAND FORMS.



**LEGEND**

	Slope <5%
	Slope 5-10%
	Slope 10-20%
	Slope 20-25%
	Slope 25-40%
	Slope >40%



**DesignTeam +**  
975 E. Maple Road, Suite 210  
Birmingham, Michigan 48009

P: 248. 559. 1000

info@designteamplus.com

Client  
**MJ Ridgepointe, LLC,**  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
FAX: 586-421-5742

Project  
**The Sanctuary at  
River's Edge**  
Rochester Hills  
Oakland County  
Michigan

Designed/Drawn: RLN/ BC  
Checked/Approved: RLN  
Job # 30-2013

File: Rivers Edge Revised 10\_01

Date/Revisions Issued For

5-15-2014 PLD CONCEPT REVIEW  
10-09-2014 PLD FINAL REVIEW



SCALE: 1" = 40'-0"  
**Steep Slope Analysis**

PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.

COPYRIGHT 2013 ©  
DesignTeam Plus, LLC.  
ALL RIGHTS RESERVED.  
The Document and the subject matter contained herein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC.  
CITY FILE # 14-008

**SP-1.7**



**TYPICAL GRASSES & GRASS LIKE PLANTS**

BOTANICAL / COMMON NAME

- AG Anropogon gerardii / Big Bluestem
- CP Carex pennsylvanica / Pennsylvania Sedge
- CV Carex vulpinoidea / Fox Sedge
- MS Miscanthus sinensis / Japanese Silver Grass
- SS Schizachyrium scaparium / Little Bluestem
- SH Sporobolus heterolepis / Prairie Dropseed

**TYPICAL PERENNIALS PLANTINGS**

BOTANICAL / COMMON NAME

- AC Acorus calamus / Sweet Flag
- AN Aster novae-angliae / New England Aster
- EP Echinacea purpurea / Purple Coneflower
- FL Fragaria x 'Lipstick' / Lipstick Strawberry
- IP Iris pseudacorus / Yellow Flag Iris
- IV Iris versicolor / Blue Flag Iris
- LC Lobelia cardinalis / Cardinal Flower
- RF Rudbeckia fulgida var. fulgida / Black-eyed Susan

**TYPICAL SHRUB PLANTINGS**

BOTANICAL / COMMON NAME

- AA Aronia arbutifolia / Chokeberry
- BD Cephalanthus occidentalis / Buttonbush
- CL Clethra alnifolia / Summersweet
- CS Cornus sericea / Red Twig Dogwood
- PO Physocarpus opulifolius / Ninebark
- RH Rhus aromatica 'Grow Low' / Grow Low Fragrant Sumac
- VL Viburnum lentago / Nannyberry
- VT Viburnum trilobum / American Cranberrybush

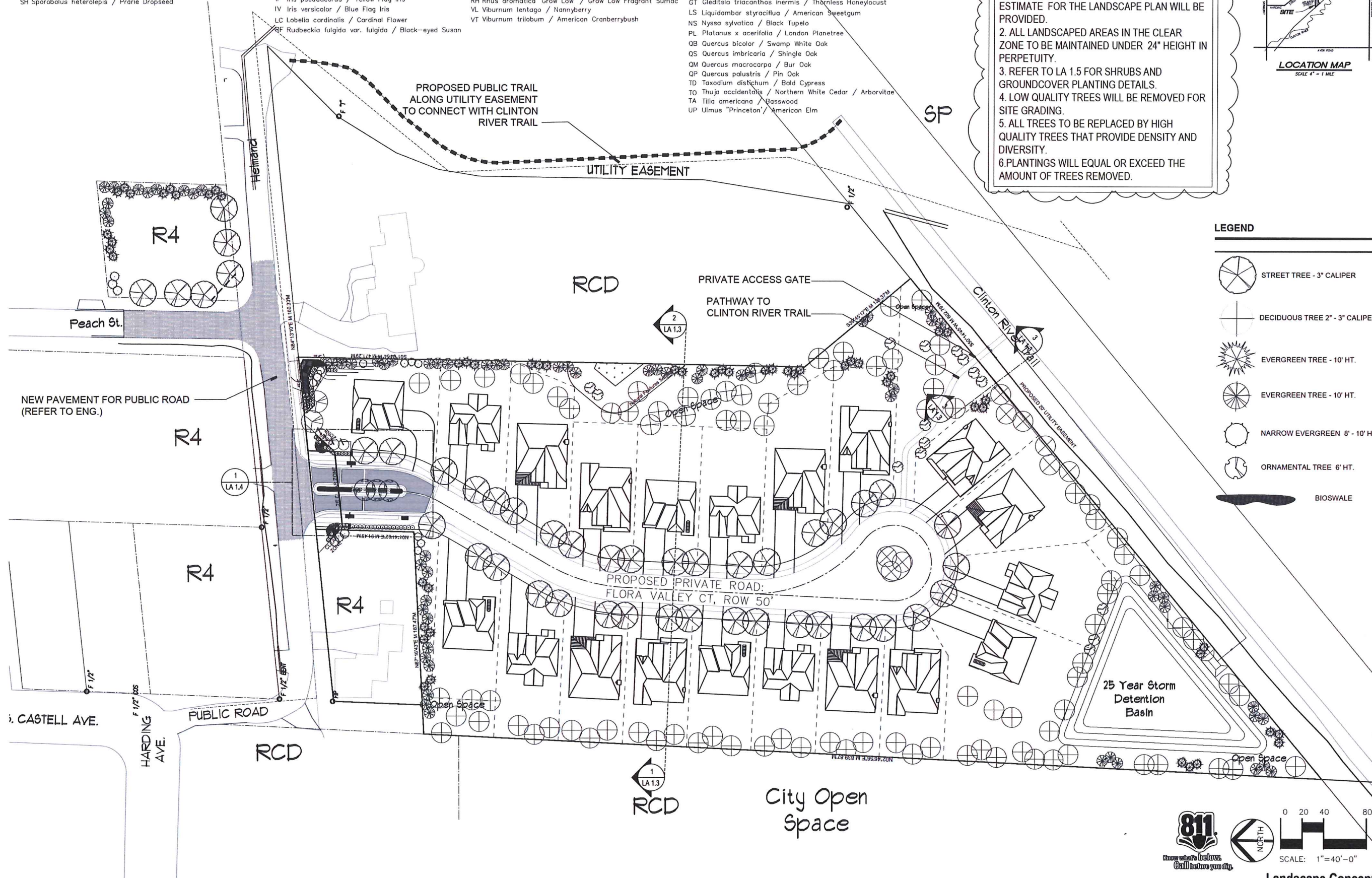
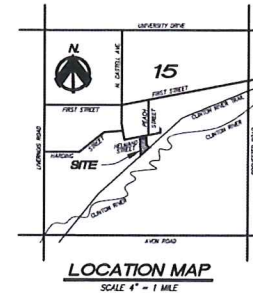
**TYPICAL SHADE TREE PLANTINGS**

BOTANICAL / COMMON NAME

- AF Acer x freemanii / Freeman Maple
- AR Acer Rubrum / Franksred
- BN Betula nigra / River Birch
- CO Celtis occidentalis / Common Hackberry
- CC Cercis canadensis / Eastern Redbud
- GT Gleditsia triacanthos inermis / Thornless Honeylocust
- LS Liquidambar styraciflua / American Sweetgum
- NS Nyssa sylvatica / Black Tupelo
- PL Platanus x acerifolia / London Planetree
- QB Quercus bicolor / Swamp White Oak
- QS Quercus imbricaria / Shingle Oak
- QM Quercus macrocarpa / Bur Oak
- QP Quercus palustris / Pin Oak
- TD Taxodium distichum / Bald Cypress
- TO Thuja occidentalis / Northern White Cedar / Arborvitae
- TA Tilia americana / Basswood
- UP Ulmus 'Princeton' / American Elm

**NOTES:**

1. ALL LANDSCAPED AREAS TO BE WATERED BY AUTOMATIC WATERING SYSTEM. IRRIGATION SYSTEM AND LANDSCAPE COST ESTIMATE FOR THE LANDSCAPE PLAN WILL BE PROVIDED.
2. ALL LANDSCAPED AREAS IN THE CLEAR ZONE TO BE MAINTAINED UNDER 24" HEIGHT IN PERPETUITY.
3. REFER TO LA 1.5 FOR SHRUBS AND GROUNDCOVER PLANTING DETAILS.
4. LOW QUALITY TREES WILL BE REMOVED FOR SITE GRADING.
5. ALL TREES TO BE REPLACED BY HIGH QUALITY TREES THAT PROVIDE DENSITY AND DIVERSITY.
6. PLANTINGS WILL EQUAL OR EXCEED THE AMOUNT OF TREES REMOVED.



**LEGEND**

- STREET TREE - 3" CALIPER
- DECIDUOUS TREE 2" - 3" CALIPER
- EVERGREEN TREE - 10' HT.
- EVERGREEN TREE - 10' HT.
- NARROW EVERGREEN 8' - 10' HT.
- ORNAMENTAL TREE 6' HT.
- BIOSWALE

**DesignTeam +**  
975 E. Maple Road, Suite 210  
Birmingham, Michigan 48009

P: 248. 559. 1000  
info@designteamplus.com

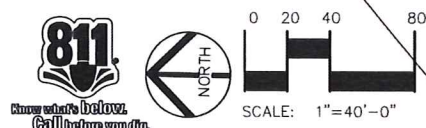
**Client**  
MJ Ridgepointe, LLC,  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
fAX: 586-421-5742

**Project**  
**The Sanctuary at  
River's Edge**  
Rochester Hills  
Oakland County  
Michigan

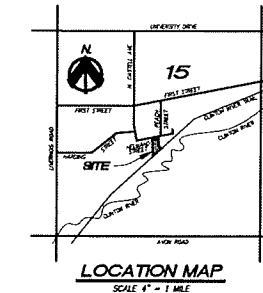
Designed/Drawn: RLJ/ BC  
Checked/Approved: RLJ  
Job # 30-2013  
File: Rivers Edge Revised 10\_01

Date/Revisions	Issued For
5-15-2014	PLD CONCEPT REVIEW
10-08-2014	PLD FINAL REVIEW
11-20-2014	PLD FINAL REVISION

PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.  
COPYRIGHT © 2013 DesignTeam Plus, LLC. ALL RIGHTS RESERVED. The Document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC. CITY FILE # 14-008







**SHADOW PINES PLANT LIST::**

QTY. KEY BOTANICAL / COMMON NAME SIZE ROOT

**SHADE TREES**

8	AF	Acer x freemanii/ Freeman Maple	3" cal	B&B
4	AR	Acer Rubrum 'Franksred'	3" cal	B&B
5	BN	Betula nigra / River Birch	3" cal	B&B
3	CB	Carpinus Betulus 'Fastigiata' / Pyramidal European Hornbeam	3" cal	B&B
2	FS	Fagus Sylvatica 'Purpurea Tricolor'	3" cal	B&B
5	GB	Ginkgo Biloba 'Princeton Sentry' / Princeton Sentry Ginkgo	3" cal	B&B
4	GT	Gleditsia triacanthos inermis / Thornless Honeylocust	3" cal	B&B
4	PH	Phellodendron Amurense 'Supzam' / Superfection Corktree	3" cal	B&B
5	PL	Platanus x acerifolia / London Planetree	3" cal	B&B
5	QB	Quercus bicolor / Swamp White Oak	3" cal	B&B
10	TC	Tilia Cordata 'Greenspire' / Greenspire Little Leaf Linden	3" cal	B&B
7	TD	Taxodium distichum / Bald Cypress	3" cal	B&B

**EVERGREEN TREES**

15	AB	Abies Concolor / Concolor White Fir	10' Ht.	B&B
22	PA	Picea Abies / Norway Spruce	10' Ht.	B&B
12	PG	Picea Glauca var Densata / Black Hills Spruce	10' Ht.	B&B
16	PS	Picea Glauca / White Spruce	10' Ht.	B&B
6	PE	Pinus resinosa / Red Pine	10' Ht.	B&B
7	PR	Pinus resinosa / Red Pine	10' Ht.	B&B
17	TO	Tsuga Occidentalis / Northern White Cedar / Arborvitae	10' Ht.	B&B
9	TS	Tsuga Canadensis / Canadian Hemlock	10' Ht.	B&B

**ORNAMENTAL TREES**

4	MS	Malus 'Snowdrift' / Snowdrift Crab	2" cal	B&B
2	MG	Metasequoia Glyptostroboides / Dawn Redwood	1.5" cal	B&B

**PLANTING MATERIALS**

+/-	Topsoil Installed	CY
+/-	Shredded Hardwood Mulch Installed	CY
+/-	Terra Sorb or Approved Equal	LBS

**LAWN**

+/-	Seed	SF
+/-	Sod (owner's option)	SY

**NOTES:**

1. ALL LANDSCAPED AREAS TO BE WATERED BY AUTOMATIC WATERING SYSTEM. IRRIGATION SYSTEM AND LANDSCAPE COST ESTIMATE FOR THE LANDSCAPE PLAN WILL BE PROVIDED.

2. ALL LANDSCAPED AREAS IN THE CLEAR ZONE TO BE MAINTAINED UNDER 24" HEIGHT IN PERPETUITY.

3. REFER TO LA 1.5 FOR SHRUBS AND GROUND COVER PLANTING DETAILS.

4. 5' SIDEWALK WILL ABUT 18" MOUNTABLE CURB. THE CONCRETE WILL HAVE A ROUGH BROOM FINISH AND WILL BE STAINED FOR VISIBILITY.

P: 248. 559. 1000

info@designteamplus.com

**Client**  
MJ Ridgepointe, LLC,  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
FAX: 586-421-5742

**Project**

**The Sanctuary at  
River's Edge**  
Rochester Hills  
Oakland County  
Michigan

Designed/Drawn: RLH/ BC

Checked/Approved: RLH

Job # 30-2013

File: Rivers Edge Revised 10\_01

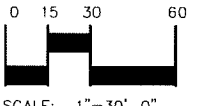
Date/Revisions Issued For

5-15-2014 PUD CONCEPT REVIEW

10-08-2014 PUD FINAL REVIEW

11-20-2014 PUD FINAL REVISION

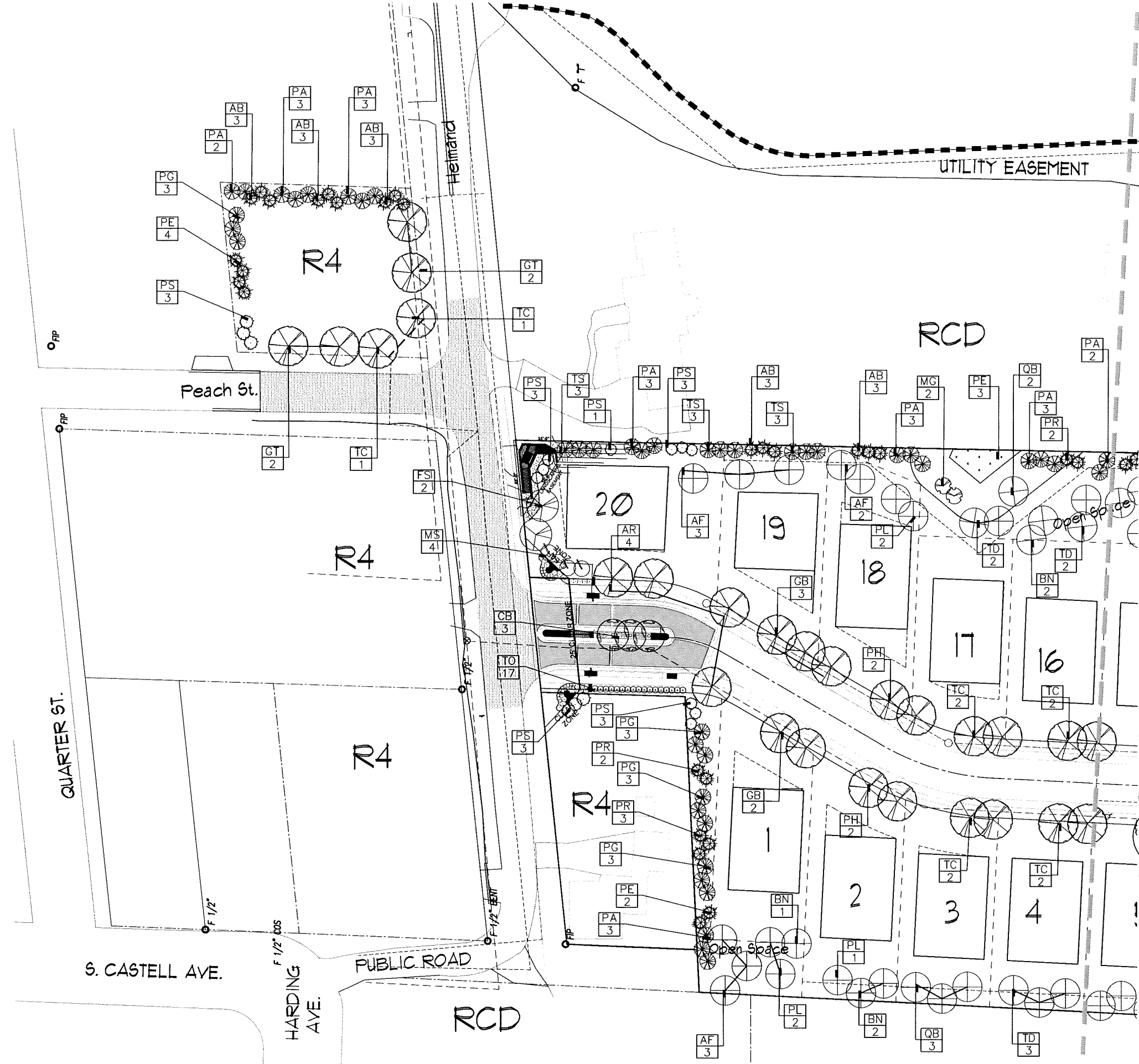
PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.



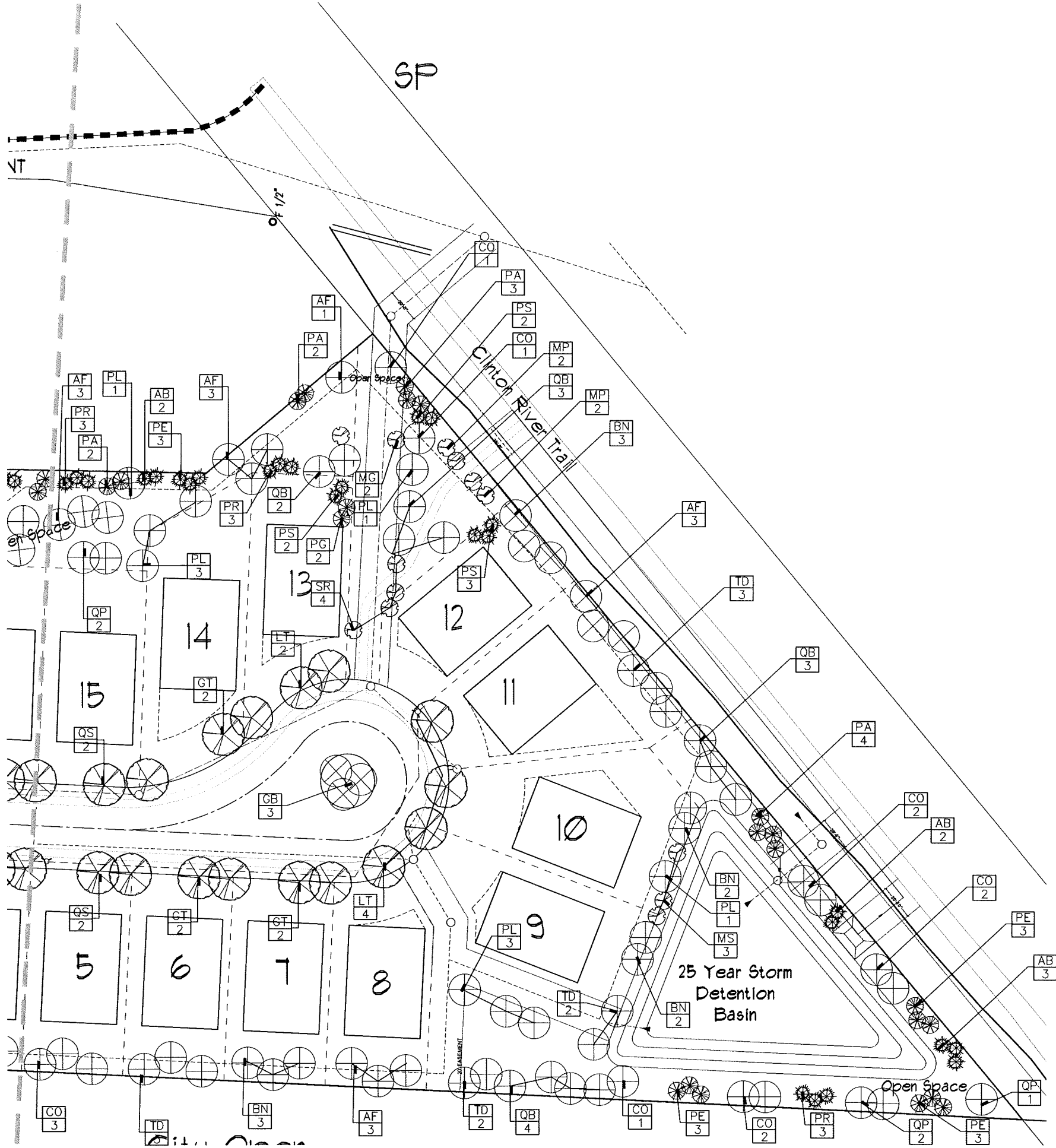
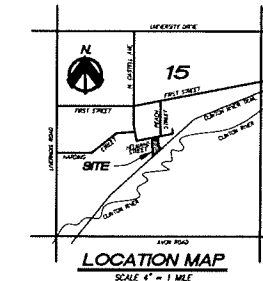
SCALE: 1"=30'-0"

**Northern Landscaping Plan**

LA-1.1







**SHADOW PINES PLANT LIST:**

QTY.	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT
<b>SHADE TREES</b>				
13	AF	Acer x freemianii / Freeman Maple	3" cal	B&B
13	BN	Betula nigra / River Birch	3" cal	B&B
12	CO	Celtis occidentalis / Common Hackberry	3" cal	B&B
6	GT	Gleditsia triacanthos inermis / Thornless Honeylocust	3" cal	B&B
6	LT	Liriodendron Tulipifera / Tulip Tree	3" cal	B&B
9	PL	Platanus x acerifolia / London Planetree	3" cal	B&B
12	QB	Quercus bicolor / Swamp White Oak	3" cal	B&B
4	QS	Quercus imbricaria / Shingle Oak	3" cal	B&B
5	QP	Quercus palustris / Pin Oak	3" cal	B&B
10	TD	Taxodium distichum / Bald Cypress	3" cal	B&B
3	GB	Ginkgo Biloba 'Princeton Sentry' / Princeton Sentry Ginkgo	3" cal	B&B
<b>EVERGREEN TREES</b>				
7	AB	Abies Concolor / Concolor White Fir	10' Ht.	B&B
11	PA	Picea Abies / Norway Spruce	10' Ht.	B&B
2	PG	Picea Glauca var Densata / Black Hills Spruce	10' Ht.	B&B
7	PS	Picea Glauca / White Spruce	10' Ht.	B&B
9	PR	Pinus resinosa / Red Pine	10' Ht.	B&B
12	PE	Pinus Strobus / Eastern White Pine	10' Ht.	B&B
<b>ORNAMENTAL TREES</b>				
4	MP	Malus 'Prairefire' / Prairefire Crab	2" cal	B&B
3	MS	Malus 'Snowdrift' / Snowdrift Crab	2" cal	B&B
2	MG	Metasequoia Glyptostroboides / Dawn Redwood	1.5" cal	B&B
4	SR	Syringa Reticulata 'Ivory Silk' / Ivory Silk Japanese Lilac Tree	2" cal	B&B
<b>PLANTING MATERIALS</b>				
+/-		Topsoil Installed		CY
+/-		Shredded Hardwood Mulch Installed		CY
+/-		Terra Sorb or Approved Equal		LBS
<b>LAWN</b>				
+/-		Seed		SF
+/-		Sod (owner's option)		SY

**NOTES:**

1. ALL LANDSCAPED AREAS TO BE WATERED BY AUTOMATIC WATERING SYSTEM. IRRIGATION SYSTEM AND LANDSCAPE COST ESTIMATE FOR THE LANDSCAPE PLAN WILL BE PROVIDED.
2. ALL LANDSCAPED AREAS IN THE CLEAR ZONE TO BE MAINTAINED UNDER 24" HEIGHT IN PERPETUITY.
3. REFER TO LA 1.5 FOR SHRUBS AND GROUNDCOVER PLANTING DETAILS.
4. 5' SIDEWALK WILL ABUT 18" MOUNTABLE CURB. THE CONCRETE WILL HAVE A ROUGH BROOM FINISH AND WILL BE STAINED FOR VISIBILITY.

**DesignTeam +**  
 975 E. Maple Road, Suite 210  
 Birmingham, Michigan 48009  
 P: 248. 559. 1000

Client  
**MJ Ridgepointe, LLC,**  
 49587 Compass Pointe  
 Chesterfield Township, MI, 48047  
 o: 586-421-5729  
 FAX: 586-421-5742

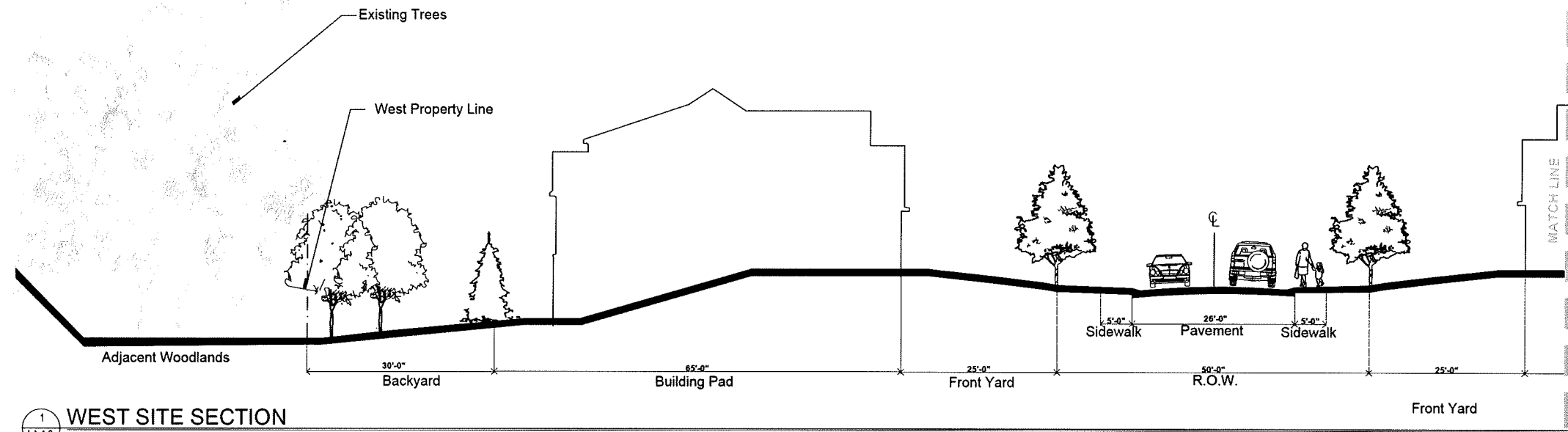
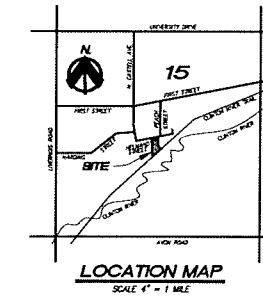
Project  
**The Sanctuary at  
 River's Edge**  
 Rochester Hills  
 Oakland County  
 Michigan

Designed/Drawn: RLH/ BC  
 Checked/Approved: RLH  
 Job # 30-2013  
 File: Rivers Edge Revised 10\_01  
 Date/Revisions Issued For

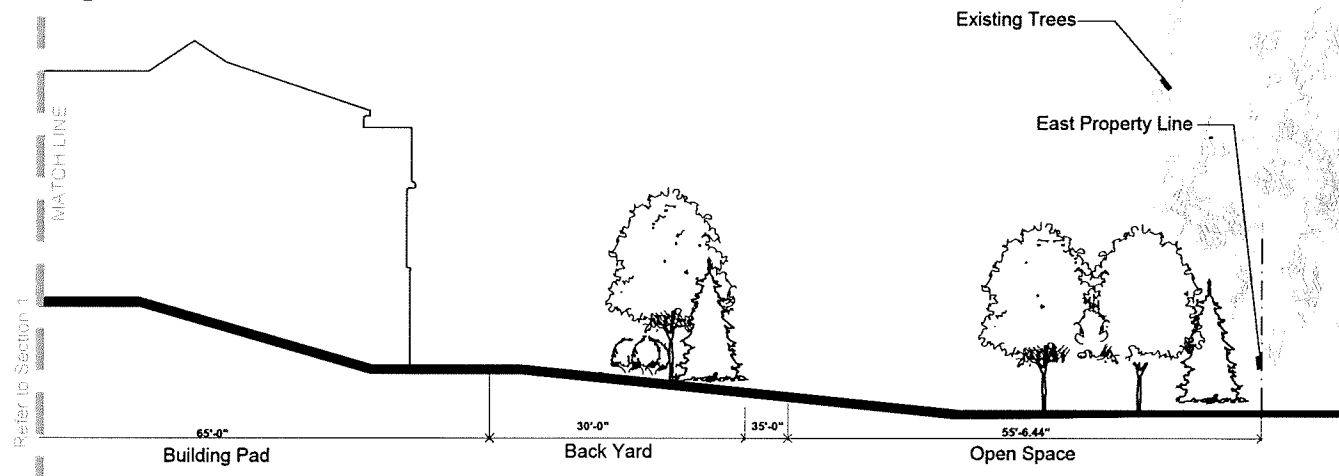
5-15-2014	PUB. CONCEPT REVIEW
10-08-2014	PUB. FINAL REVIEW
11-20-2014	PUB. FINAL REVISION



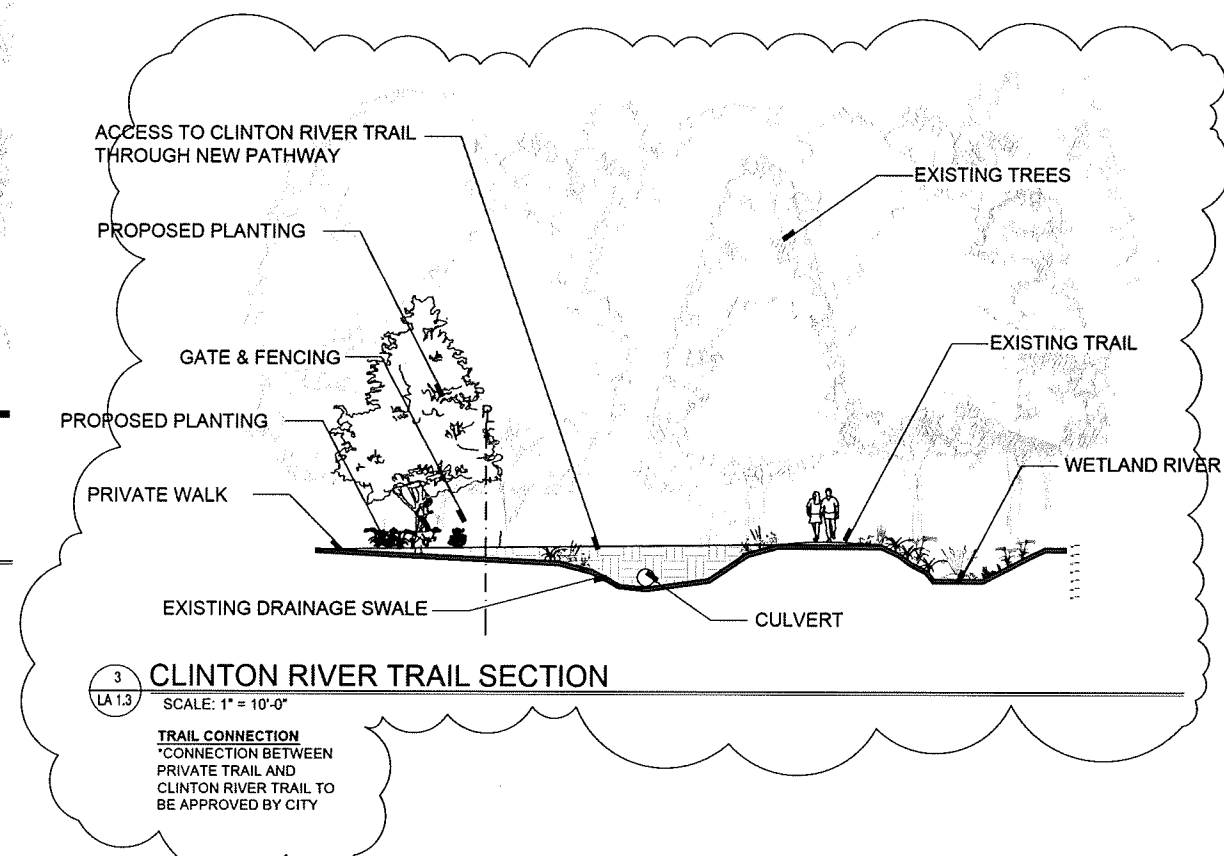




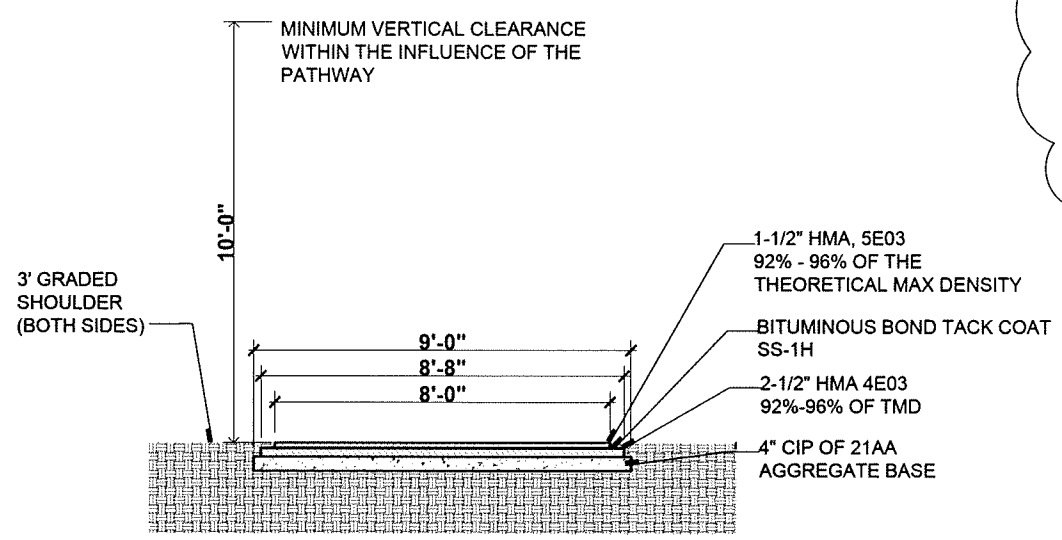
**1 WEST SITE SECTION**  
 LA 1.3 SCALE: 1" = 10'-0"



**2 EAST SITE SECTION**  
 LA 1.3 SCALE: 1" = 10'-0"

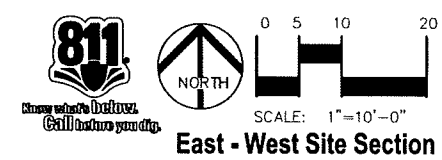


**3 CLINTON RIVER TRAIL SECTION**  
 LA 1.3 SCALE: 1" = 10'-0"

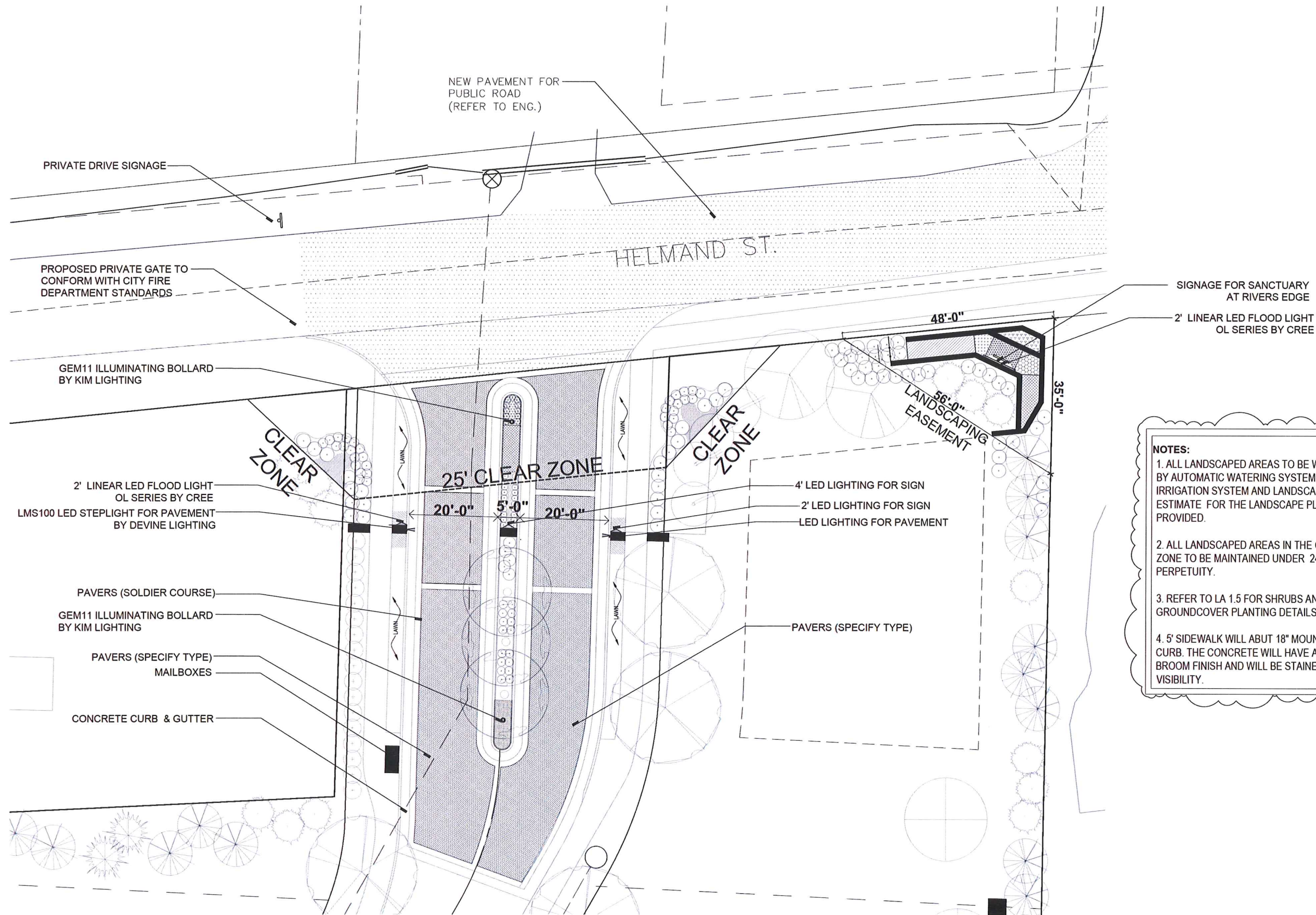


**4 PATHWAY TO CLINTON RIVER TRAIL, PER CITY STANDARD**  
 LA 1.3

Designed/Drawn: RLH/ BC	
Checked/Approved: RLH	
Job #: 30-2013	
File: Rivers Edge Revised 10_01	
Date/Revisions	Issued For
5-15-2014	PUD CONCEPT REVIEW
10-09-2014	PUD FINAL REVIEW
11-20-2014	PUD FINAL REVISION







**NOTES:**

1. ALL LANDSCAPED AREAS TO BE WATERED BY AUTOMATIC WATERING SYSTEM. IRRIGATION SYSTEM AND LANDSCAPE COST ESTIMATE FOR THE LANDSCAPE PLAN WILL BE PROVIDED.
2. ALL LANDSCAPED AREAS IN THE CLEAR ZONE TO BE MAINTAINED UNDER 24" HEIGHT IN PERPETUITY.
3. REFER TO LA 1.5 FOR SHRUBS AND GROUND COVER PLANTING DETAILS.
4. 5' SIDEWALK WILL ABOUT 18" MOUNTABLE CURB. THE CONCRETE WILL HAVE A ROUGH BROOM FINISH AND WILL BE STAINED FOR VISIBILITY.

**DesignTeam +**  
 975 E. Maple Road, Suite 210  
 Birmingham, Michigan 48009  
 P: 248. 559. 1000  
 info@designteamplus.com

Client  
 MJ Ridgepointe, LLC  
 49587 Compass Pointe  
 Chesterfield Township, MI, 48047  
 o: 586-421-5729  
 FAX: 586-421-5742

Project  
**The Sanctuary at River's Edge**  
 Rochester Hills  
 Oakland County  
 Michigan

Designed/Drawn: RLH/ BC	
Checked/Approved: RLH	
Job #: 30-2013	
File: Rivers Edge Revised 10_01	
Date/Revisions	Issued For
5-15-2014	PLD CONCEPT REVIEW
10-08-2014	PLD FINAL REVIEW
11-20-2014	PLD FINAL REVISION

1 ENTRANCE DETAIL  
 LA 1.4 SCALE: 1"=10'-0"

811  
 Call before you dig

NORTH

0 5 10 20  
 SCALE: 1"=10'-0"

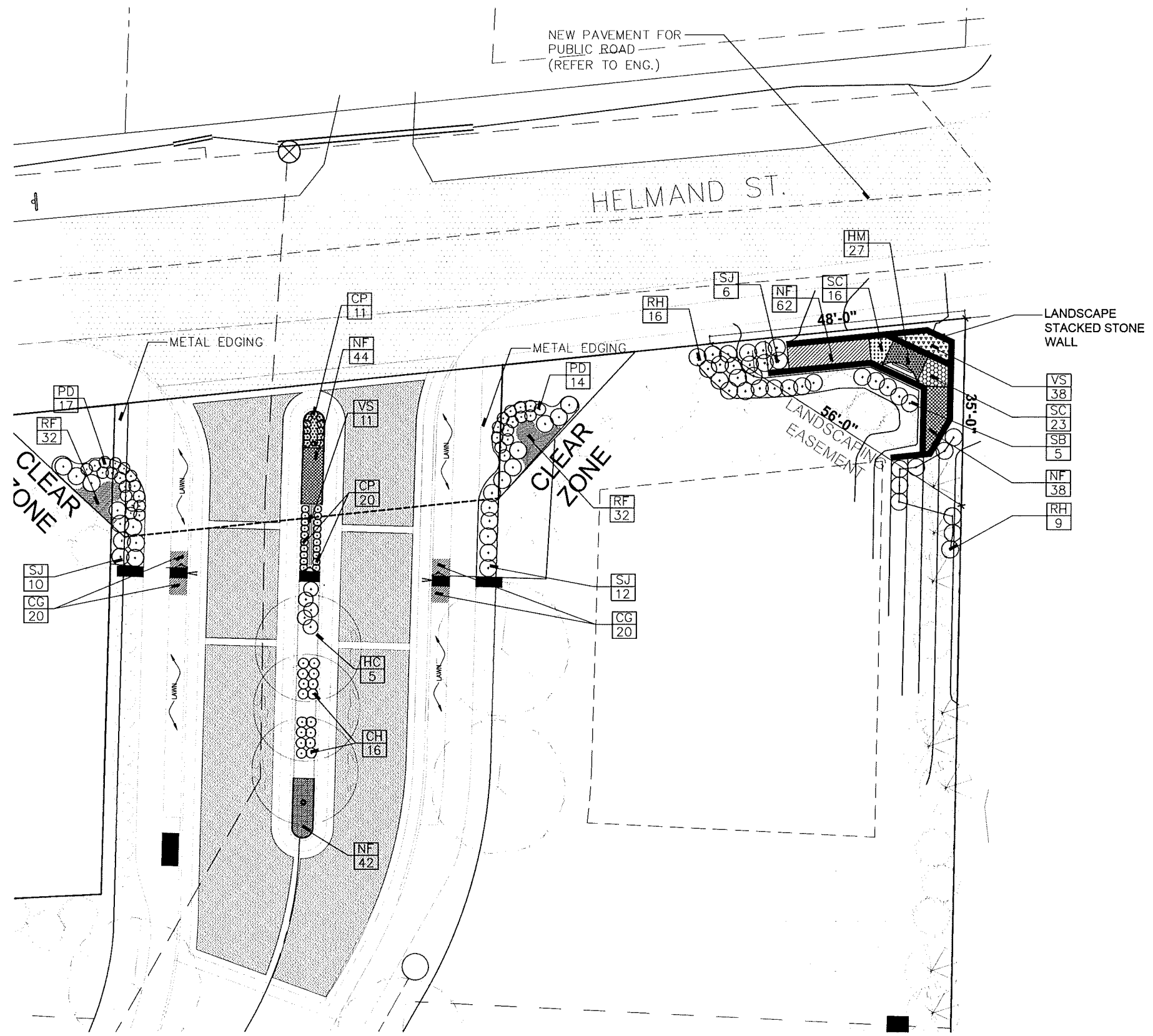
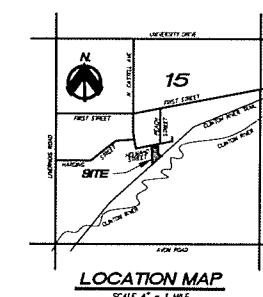
ENTRANCE LANDSCAPE PLAN

LA-1.4

PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.

COPYRIGHT © 2014 DesignTeam Plus, LLC. ALL RIGHTS RESERVED. This Document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC. CITY FILE # 14-008





**SHADOW PINES PLANT LIST:**

QTY	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT
<b>SHRUB PLANTINGS</b>				
16	CH	Cotoneaster horizontalis 'Perpusillus' / Ground Cotoneaster	2' ht, 5'-6" sp	No. 3 Cont.
5	HC	Hydrangea M. 'Cardinal Red' / Cardinal Red Hydrangea	3-4'ht, 3'-4" sp	No. 5 Cont.
31	PD	Potentilla F. 'Gold Drop' / Gold Drop Potentilla	2' ht, 2-3' sp	No. 3 Cont.
25	RH	Rhus aromatica 'Grow Low' / Grow Low Fragrant Sumac	2' ht, 6-8' sp	No. 3 Cont.
5	SB	Spiraea X Bumalda 'Anthony Waterer' / Anthony Waterer Spiraea	3' ht, 4-5' sp	No. 5 Cont.
28	SJ	Spiraea Japonica 'Little Princess' / Little Princess Spiraea	2' ht, 3-4' sp	No. 5 Cont.
<b>PERENNIAL PLANTINGS</b>				
40	CG	Coreopsis Grandiflora 'Illico' / 'Illico' Coreopsis	12"-16" Ht; No. 2 Pots, 12"O.C.	
186	NF	Nepeta X Faassenii / Walker's Low	1 Gal. Cont; 12"O.C.	
27	HM	Hemerocallis 'Black Eyed Stella' / Mini Stella Daylilies	14" Ht; No. 2 Pots, 12"O.C.	
39	SC	Sedum 'Autumn Fire' / 'Autumn Fire' Sedum	14"-20" Ht; No. 1 Pot, 12"O.C.	
64	RF	Rudbeckia Fulgida 'Sullivantii' 'Goldstrum' / 'Goldstrum' Orange Coneflower	2-2.5' Ht; No. 2 Pot, 12" O.C.	
49	VS	Veronica Spicata 'Red Fox' / 'Red Fox' Veronica	12-15" Ht; No. 1 Pot, 12"O.C.	
<b>GRASS PLANTINGS</b>				
31	CP	Carex pennsylvanica / Pennsylvania Sedge	1 Gal. Cont; 12"O.C.	

**NOTES:**

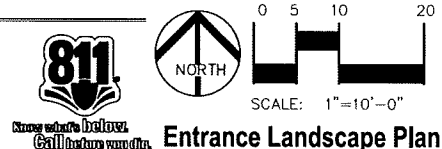
1. ALL LANDSCAPED AREAS TO BE WATERED BY AUTOMATIC WATERING SYSTEM. IRRIGATION SYSTEM AND LANDSCAPE COST ESTIMATE FOR THE LANDSCAPE PLAN WILL BE PROVIDED.
2. ALL LANDSCAPED AREAS IN THE CLEAR ZONE TO BE MAINTAINED UNDER 24" HEIGHT IN PERPETUITY.
3. 5' SIDEWALK WILL ABUT 18" MOUNTABLE CURB. THE CONCRETE WILL HAVE A ROUGH BROOM FINISH AND WILL BE STAINED FOR VISIBILITY.

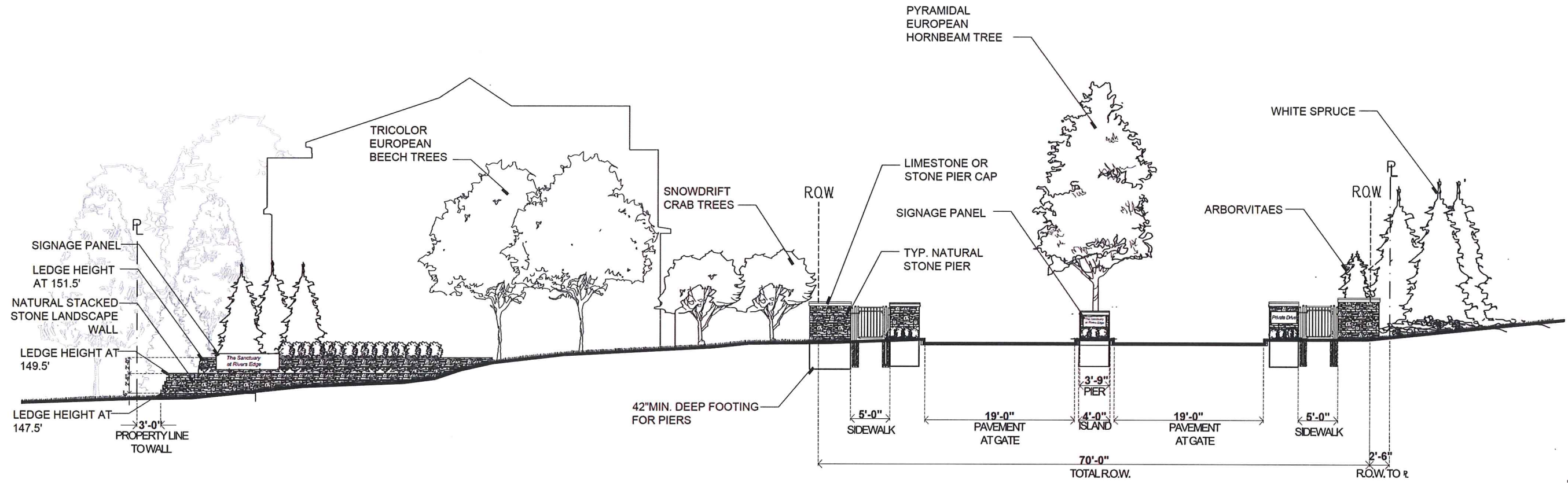
Date/Revisions	Issued For
5-15-2014	PLD CONCEPT REVIEW
10-09-2014	PLD FINAL REVIEW
11-20-2014	PLD FINAL REVISION

PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION

COMPONENT  
DesignTeam Plus, LLC  
ALL RIGHTS RESERVED  
This Document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC.  
CITY FILE # 14-008

**1 ENTRANCE DETAIL**  
LA 1.5 SCALE: 1"=10'-0"





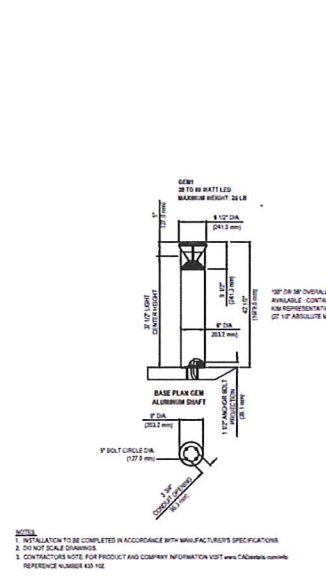
1 ENTRYWAY ELEVATION  
LA-1.6

**DesignTeam+**  
975 E. Maple Road, Suite 210  
Birmingham, Michigan 48009  
P: 248.559.1000

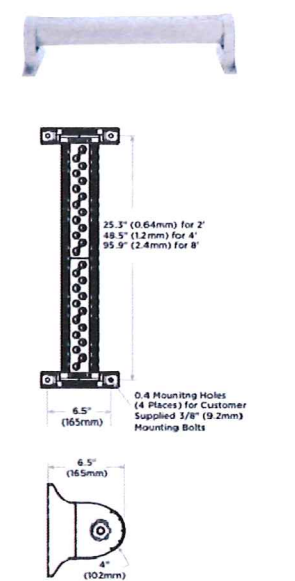
info@designteamplus.com  
Client: MJ Ridgepointe, LLC,  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
f: 586-421-5742

Project: The Sanctuary  
at River's Edge  
Rochester Hills  
Oakland County  
Michigan

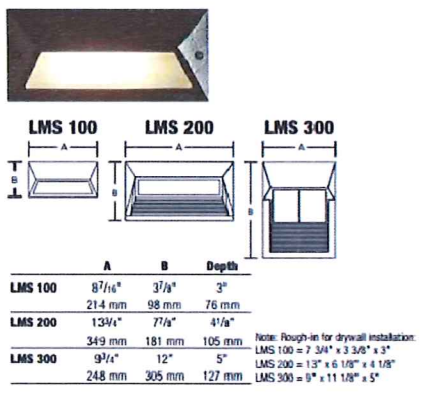
Designed/Drawn:	RLN/ BC
Checked/Approved:	RLN
Job #	30-2013
File:	Rivers Edge Revised 10_01
Date/Revisions	Issued For
5-15-2014	PLO CONCEPT REVIEW
10-02-2014	PLO FINAL REVIEW
11-20-2014	PLO FINAL REVISION



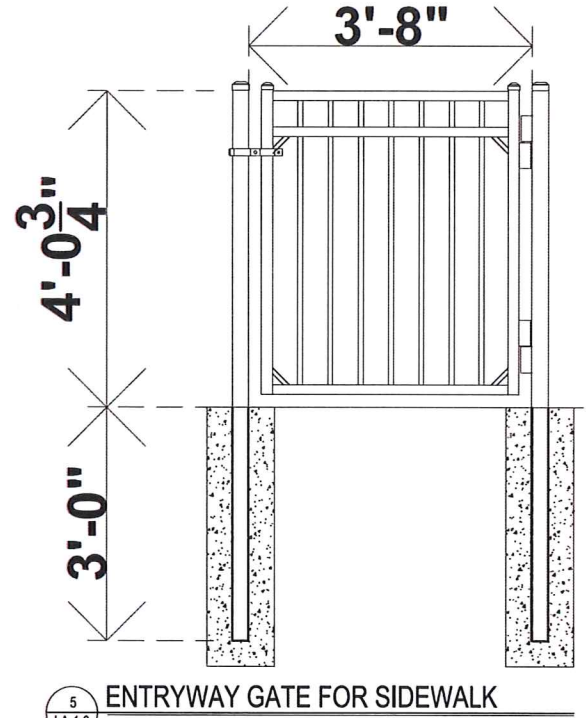
2 GEM 11 BOLLARD BY KIM LIGHTING  
LA-1.6



3 LED OL SERIES FLOOD BY CREE LIGHTING  
LA-1.6



4 LMS LED STEPLIGHT BY DEVINE LIGHTING  
LA-1.6



5 ENTRYWAY GATE FOR SIDEWALK  
LA-1.6



Specifications & Details



## GENERAL NOTES

### CITY NOTES

- ALL PLANT MATERIAL SHALL MEET CURRENT STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN AND APPROVED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE. INC.
- ALL PLANT MATERIAL SHALL BE TRUE TO NAME IN CONFORMANCE TO THE CURRENT EDITION OF STANDARDIZED PLANT NAMES ESTABLISHED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE, OR OTHER SOURCE ACCEPTED BY THE CITY.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN IN A NORTHERN CLIMATE; HARDY TO THE CLIMATE OF MICHIGAN; APPROPRIATE FOR THE SOIL, CLIMATIC AND ENVIRONMENTAL CONDITIONS; AND RESISTANT TO DISEASE AND INSECT ATTACK.
- A MINIMUM FOUR (4) INCHES OF TOPSOIL SHALL BE PROVIDED FOR ALL LAWN AREAS, GROUND COVERS, AND PLANTING BEDS.
- ARTIFICIAL PLANT MATERIAL IS PROHIBITED AND SHALL NOT BE USED TO MEET THE REQUIREMENTS OF THIS ARTICLE.
- LAWN AREAS SHALL BE PLANTED IN SPECIES OF GRASS NORMALLY GROWN IN MICHIGAN. GRASS MAY BE SODDED OR HYDRO-SEEDED, PROVIDED THAT ADEQUATE MEASURES ARE TAKEN TO MINIMIZE SOIL EROSION. SOD OR SEED SHALL BE CLEAN AND FREE OF WEEDS AND NOXIOUS PESTS OR DISEASE.
- A MINIMUM 4-INCH LAYER OF SHREDDED HARDWOOD BARK SHALL BE PLACED IN ALL PLANTER BEDS CONTAINING TREES OR SHRUBS PLANTED WITHIN LAWN AREAS. ALL SHRUBS PLANTED WITHIN LAWN AREAS ARE TO BE PLANTED IN GROUPS AND MULCHED AS A GROUP, AND HEDGEROWS ARE TO BE MULCHED AS ONE CONTINUOUS STRIP.
- LIVE GROUNDCOVERS SUCH AS MYRTLE, BLUE RUG JUNIPERS, BALTIC IVY AND OTHER SIMILAR VINES AND PLANT MATERIAL SHALL BE MULCHED WITH A 2-INCH LAYER OF SHREDDED HARDWOOD BARK. ANY DEVIATIONS MUST BE APPROVED BY THE CITY'S LANDSCAPE ARCHITECT.
- PLANT MATERIALS SHALL NOT BE PLACED CLOSER THAN FOUR FEET FROM THE FENCE LINE OR PROPERTY LINE.
- DECIDUOUS AND ALL SHRUBS MAY NOT BE PLANTED WITHIN 5 FEET, AND EVERGREEN TREES MAY NOT BE PLANTED WITHIN TEN (10) FEET OF ANY CURB OR PUBLIC WALKWAY.
- TREES AND SHRUBS MAY NOT BE PLANTED WITHIN 10 FEET OF A FIRE HYDRANT.
- WHERE PLANT MATERIALS ARE PLANTED IN TWO OR MORE ROWS, PLANTING SHALL BE STAGGERED IN ROWS.
- WHERE SHRUB PLANTINGS ARE REQUIRED TO FORM A CONTINUOUS HEDGE, THE PLANTS SHALL NOT BE SPACED OUT MORE THAN 36 INCHES ON CENTER AT PLANTING AND SHALL HAVE A MINIMUM HEIGHT AND SPREAD OF 30 INCHES. SHRUBS THAT WILL NOT ATTAIN THIS EFFICIENT WIDTH TO FORM A COMPLETE HEDGE SPACED 36 INCHES ON CENTER SHALL BE PLANTED AT A SPACING THAT WILL ALLOW THEM TO FORM A COMPLETE HEDGE WITHIN TWO YEARS OF PLANTING.

### RESPONSIBILITY NOTES

- LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, THE 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.
- CONTRACTOR WILL SUPPLY FINISHED GRADE AND EXCAVATE AS NECESSARY TO SUPPLY 4" TOPSOIL DEPTH IN ALL PLANTING BEDS AND 4" TOPSOIL DEPTH IN ALL LAWN AREAS USING MATERIAL FROM SPOIL PILE.
- ACCEPTANCE OF GRADING AND SOD SHALL BE BY THE LANDSCAPE ARCHITECT AND/OR PROJECT REPRESENTATIVE AND AS DETERMINED BY THE CITY. THE CONTRACTOR SHALL ASSUME MAINTENANCE RESPONSIBILITY FOR A MINIMUM OF TWO (2) YEARS. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, REPLACEMENTS OF WASHOUTS AND OTHER OPERATIONS NECESSARY TO KEEP SOD IN A THRIVING CONDITION. UPON FINAL ACCEPTANCE BY LANDSCAPE ARCHITECT AND/OR PROJECT REPRESENTATIVE AND AS DETERMINED BY THE CITY. THE OWNER SHALL ASSUME ALL MAINTENANCE RESPONSIBILITIES.
- THE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPING FOR A PERIOD OF TWO (2) YEARS BEGINNING AFTER APPROVAL BY THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE DURING AND AT THE END OF THE GUARANTEE PERIOD, ANY DEAD OR UNACCEPTABLE PLANTS, AS DETERMINED BY THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT, WITHOUT COST TO THE OWNER.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.

### LANDSCAPING NOTES

- PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPE PLANTING INCLUDING BUT NOT LIMITED TO EXISTING TREES, REPLACEMENT TREES, BUFFER PLANTINGS, AND PARKING LOT ISLANDS. THE RIGHT-OF-WAY WILL BE INSPECTED BY THE FORESTRY DIVISION TO IDENTIFY ANY PLANTINGS NEW OR EXISTING THAT POSE A HAZARD TO THE SAFE USE OF THE RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE AND POSSIBLY REPLACE ANY SUCH TREES.
- ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC R.O.W., SHADE TREES AND SHRUBS MUST BE PLANTED AT LEAST 5' FROM THE EDGE OF THE PUBLIC WALKWAY. EVERGREEN AND ORNAMENTAL TREES MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC WALKWAY. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM ANY FIRE HYDRANT. SHADE AND EVERGREEN TREES MUST BE PLANTED AT LEAST 15' FROM THE NEAREST OVERHEAD WIRE AND AT LEAST 10' FROM THE NEAREST UNDERGROUND UTILITY.
- NO TREES OR SHRUBS MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY STREET RIGHT-OF-WAY AT A DISTANCE OF 25' FROM THEIR POINT OF INTERSECTION. NO TREES OR SHRUBS MAY BE PLANTED IN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY DRIVEWAY WITH A PUBLIC WALKWAY AT A DISTANCE ALONG EACH LINE OF 15' FROM THEIR POINT OF INTERSECTION.
- PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB IN THE PUBLIC RIGHT-OF-WAY.
- NO SUBSTITUTIONS OR CHANGES OF LOCATION OR PLANT TYPES SHALL BE MADE WITHOUT THE APPROVAL OF THE DEVELOPER AND THE CITY OF ROCHESTER HILLS.
- THE DEVELOPER AND/OR THE CITY OF ROCHESTER HILLS SHALL HAVE THE RIGHT, AT ANY STAGE OF THE INSTALLATION, TO REJECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS OR SPECIFICATIONS.
- REPLACEMENT TREES MAY NOT BE PLANTED WITHIN THE DRIP LINE OF EXISTING TREES.
- NO SUBSTITUTIONS OR CHANGES OF LOCATION OR PLANT TYPE SHALL BE MADE WITHOUT THE APPROVAL OF THE DEVELOPER AND THE CITY OF ROCHESTER HILLS.
- TREES MUST BE AT LEAST 10' FROM UNDERGROUND UTILITIES AND 15' FROM OVERHEAD UTILITIES.

### TREE PROTECTION NOTES

- THE TREE PROTECTION FENCING (TPF) SHALL BE ERRECTED PER THE PLANS APPROVED BY THE CITY OF ROCHESTER HILLS PLANNING DEPARTMENT. THE TPF MUST BE IN PLACE AND BE INSPECTED BY THE CITY OF ROCHESTER HILLS PRIOR TO THE START OF ANY EARTHWORK OR CONSTRUCTION OPERATIONS. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE A TPF INSPECTION. THE TPF SHALL REMAIN IN PLACE THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS OR UNTIL THE CITY AUTHORIZES THE REMOVAL OR ISSUES A FINAL CERTIFICATE OF OCCUPANCY, WHICHEVER OCCURS FIRST.
- UPON COMPLETION OF GRADING AND THE INSTALLATION OF THE INFRASTRUCTURE A SECOND INSPECTION OF THE TPF AND THE TREES DESIGNATED FOR PRESERVATION IS REQUIRED BY THE CITY OF ROCHESTER HILLS PRIOR TO THE START OF ANY ADDITIONAL CONSTRUCTION. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE THIS TPF INSPECTION.
- UPON COMPLETION OF ALL CONSTRUCTION AND PRIOR TO THE REMOVAL OF THE CITY OF ROCHESTER HILLS MUST INSPECT ALL TREES DESIGNATED TO BE PRESERVED. THE LANDSCAPE PERFORMANCE BOND WILL NOT BE RELEASED UNTIL THIS INSPECTION IS COMPLETE AND ALL RELATED ISSUES ARE RESOLVED. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE THIS INSPECTION.
- A FINAL INSPECTION BY THE CITY OF ROCHESTER HILLS IS REQUIRED AT THE END OF THE WARRANTY AND MAINTENANCE PERIOD. THE LANDSCAPE MAINTENANCE BOND WILL NOT BE RELEASED UNTIL THIS INSPECTION IS COMPLETE AND ALL RELATED ISSUES ARE RESOLVED. IT IS THE DEVELOPER'S RESPONSIBILITY TO CONTACT THE CITY PLANNING DEPARTMENT AT 1-248-656-4660 TO SCHEDULE THIS INSPECTION.
- THE TREE CONSERVATION ORDINANCE PROHIBITS ANY CONSTRUCTION OR DEVELOPMENT ACTIVITIES WITHIN THE DRIP LINE OF AND REGULATED TREES NOT APPROVED FOR REMOVAL, INCLUDING BUT NOT LIMITED TO LAND CLEARING, GRUBBING, TRENCHING, GRADING OR FILLING, NO PERSON SHALL PLACE ANY SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, SOIL DEPOSITS, OR HARMFUL MATERIALS WITHIN THE DRIP LINE LIMIT OF TREES DESIGNATED FOR PRESERVATION.
- PROPOSED GRADES ARE TO MATCH THE EXISTING ELEVATIONS OUTSIDE THE LIMITS OF THE TPF. NO GRADING EITHER CUT OR FILL IS PERMITTED WITHIN THE DRIP LINE OF ANY TREE DESIGNATED FOR PRESERVATION.
- DURING THE CONSTRUCTION PROCESS NO PERSON SHALL ATTACH ANY DEVICE OR WIRE/CABLE/CORD/ROPE TO AN EXISTING TREE DESIGNATED TO BE PRESERVED.
- ALL UTILITY SERVICE REQUEST MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE THE TPF.
- SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINE OF THE ANY TREE DESIGNATED FOR PRESERVATION. SWALES SHALL BE CONSTRUCTED SO AS NOT TO DIRECT ANY ADDITIONAL FLOW INTO THE DRIP LINE A TREE DESIGNATED FOR PRESERVATION.
- IF TREE PROTECTION CANNOT BE MAINTAINED FOR A TREE THROUGHOUT ENTIRE PERIOD REQUIRED, THE REPLACEMENT OF THAT TREE WILL BE REQUIRED ON AND INCH FOR INCH BASIS PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
- REGULATED TREES LOCATED OFF-SITE ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION OPERATIONS MUST BE PROTECTED AS DEFINED HERE IN.
- THE TPF SHALL CONSIST OF 4 FOOT HIGH ORANGE SNOW FENCING TO BE INSTALLED AROUND THE DRIP LINE OF ALL TREE DESIGNATED TO BE SAVED. THIS FENCING SHALL BE SUPPORTED BY 6 FOOT METAL T-BAR POSTS 5 FEET ON CENTER AND DRIVEN A MINIMUM OF 24" INTO GROUND. THE TPF FENCING SHALL REMAIN UPRIGHT AND SECURELY IN PLACE FOR THE REQUIRED TIME AS SPECIFIED ABOVE.

### BIOSWALE MAINTENANCE

- PLANTINGS SHALL BE REGULARLY MONITORED TO MAKE SURE THEY ARE RECEIVING A PROPER AND APPROPRIATE AMOUNT OF WATER. AUTOMATIC IRRIGATION SYSTEMS SHOULD BE PROGRAMMED TO SUPPLEMENT NATURAL RAINFALL AND DELIVER THE COMBINED EQUIVALENT OF ONE TO TWO INCHES OF RAINFALL PER WEEK.
- PROVIDE SUPPLEMENTAL HAND WATERING, IF NEEDED, FOR TREES OR BED AREAS NOT ADEQUATELY WATERED BY THE AUTOMATIC IRRIGATION SYSTEM. CONTINUE TO PROVIDE SUPPLEMENTAL WATERING UNTIL PLANTINGS ARE FULLY ESTABLISHED.
- INSPECT PLANTINGS AT FOUR TO SIX WEEK INTERVALS TO CHECK FOR INSECT OR DISEASE ISSUES AND TO MONITOR THEIR CONDITION AND ENSURE PROPER PLANT VIGOR, GROWTH AND ESTABLISHMENT. DIAGNOSE ANY PROBLEMS OR ISSUES DISCOVERED, AND WHEN APPROPRIATE, APPLY SPRAYS OR OTHER TREATMENTS TO CONTROL OR CORRECT EXCESSIVE DAMAGE FROM INSECT OR DISEASE. SHOULD PROBLEMS RELATED TO CULTURAL PRACTICES BE NOTED, RECOMMEND APPROPRIATE CHANGES.
- CULTIVATE SOIL AND MULCH AREAS BETWEEN PLANTS TO PREVENT DEHYDRATION AND WEED GROWTH. SELECTIVELY APPLY HERBICIDES TO CONTROL WEED GROWTH OR REMOVE WEEDS BY HAND. REMOVE AND DISPOSE OF ANY DEBRIS OR LITTER FOUND IN PLANTING BEDS. BED CARE VISITS SHALL BE SCHEDULED AT LEAST ONCE A MONTH, OR AS NEEDED, TO MAINTAIN A NEAT AND ATTRACTIVE APPEARANCE.
- REPAIR, REWORK AND RESTORE ALL AREAS THAT HAVE WASHED OUT, ERODED, SETTLED OR SUBSIDED. REPLACE DEAD OR DAMAGED PLANTS AND RESTORE SEEDED AREAS, AS NECESSARY. RESEED AREAS WITH POOR GERMINATION OR AREAS THAT ARE THIN OR BARE.
- REMOVE AND REPLACE PLANTS THAT HAVE DIED OR ARE IN UNSATISFACTORY CONDITION. PROVIDE REPLACEMENT PLANTS IN CONFORMANCE WITH THE ORIGINAL PROJECT DESIGN AND SPECIFICATIONS AND FULLY RESTORE AREAS DAMAGED BY REPLACEMENT OPERATIONS TO THEIR ORIGINAL AND SPECIFIED CONDITIONS.
- TREE PRUNING DURING THE FIRST GROWING SEASON SHOULD BE KEPT TO A MINIMUM AND SHOULD FOCUS ON THE REMOVAL OF DEAD, DISEASED, CROSSING, WEAK OR BROKEN BRANCHES. SELECTIVE PRUNING SHOULD BEGIN IN SUBSEQUENT SEASONS TO DEVELOP STRONG, WELL-SPACED SCAFFOLD BRANCHES. OAKS SHOULD ONLY BE PRUNED WHILE DORMANT.
- ENSURE THAT ALL STAKES, GUY WIRES AND, TREE WRAP ARE REMOVED WITHIN ONE YEAR OF INSTALLATION.
- RENEW TRENCHED OR SHOVEL-CUT BED EDGES ONCE A YEAR. BED EDGES SHOULD FORM SMOOTH AND FLOWING CURVES, AS PER ORIGINAL PLANS AND SPECIFICATIONS.
- REINSTALL MULCH AROUND AND BETWEEN PLANTS ONCE A YEAR. MULCH SHOULD BE KEPT AT LEAST THREE INCHES AWAY FROM THE CROWNS, STEMS AND TRUNKS OF ALL PLANTINGS. "GREEN" OR OTHER PRE-EMERGENTS, SHOULD NOT BE USED IN PLANTING AREAS UNTIL SEEDED SWALE AREAS ARE DENSE AND FULLY ESTABLISHED.
- FALL CLEAN-UP: ONCE KILLED BY FREEZING TEMPERATURES, REMOVE THE ABOVE GROUND GROWTH OF PERENNIAL PLANTS, AS WELL AS OTHER LEAVES, LITTER AND DEBRIS FROM PLANTING BEDS. ORNAMENTAL GRASSES AND OTHER PERENNIAL PLANTS THAT PROVIDE WINTER INTEREST SHOULD BE LEFT IN PLACE.
- SPRING CLEAN-UP: REMOVE FOLIAGE OF REMAINING PERENNIALS AND ORNAMENTAL GRASSES, LEAVES, LITTER AND DEBRIS FROM PLANTING BEDS.
- ALL DEBRIS FROM MAINTENANCE OPERATIONS SHALL BE DISPOSED OF IN A PROPER AND LEGAL MANNER.

### PLANTING NOTES:

- INSTALL AND MAINTAIN ALL LANDSCAPING ACCORDING TO ROCHESTER HILLS STANDARDS. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, THE PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS
- ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK. PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK. CONTRACTOR TO SUPPLY NURSERY SOURCES FOR ALL PURCHASED MATERIAL. NO BARE ROOT OR PARK GRADE MATERIAL WILL BE ACCEPTED.
- SOD: IF OWNER SELECTS THIS OPTION, CONTRACTOR WILL INSTALL SOD IN ALL AREAS INDICATED AS LAWN ON PLAN. SOD TO BE WELL ESTABLISHED, MINERAL GROWTH. SOD BLEND SHALL CONSIST OF A MINIMUM OF THREE (3) IMPROVED VARIETIES OF BLUEGRASS. ACCEPTANCE AND GUARANTEE NOTES SHALL APPLY TO ALL SOD.
- EDGING SHALL BE A SHOVEL EDGE.
- ALL TREE PITS MUST BE TESTED FOR PROPER DRAINAGE PRIOR TO PLANTING TREES. A DRAINAGE SYSTEM MUST BE INSTALLED IF PLANTING PIT DOES NOT DRAIN SUFFICIENTLY (REQUIRED IN HEAVY CLAY SOILS).
- ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESS WATER FROM STANDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.
- STAKES USED FOR TREE SUPPORTS SHALL POINT AWAY FROM ANY CIRCULATION ROUTES.
- MULCHING AND WATERING OF ALL PLANTS AND TREES SHALL BE IMMEDIATELY OR WITHIN 16 HOURS AFTER INSTALLATION.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- REMOVE ALL TREE STAKES AND GUY WIRES AFTER ONE WINTER.
- USE GRADE "A" DOUBLE SHREDDED HARDWOOD BARK.
- DIG SHRUB PITS 1' LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2' LARGER THAN ROOT BALLS. BACK FILL WITH ONE PART TOPSOIL AND ONE PART SOIL FROM THE EXCAVATED PLANTING HOLE. PLANT TREES AND SHRUBS AT THE SAME GRADE LEVEL AT WHICH THEY WERE PLANTED AT THE NURSERY. IF WET, CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS HIGHER.
- REMOVE ALL TWINE, WIRE, AND BURLAP FROM THE TOP 1/3 OF TREE AND SHRUB EARTH BALLS AND FROM TREE TRUNKS.
- LAWN TREES ARE TO BE MULCHED WITH A MINIMUM OF 4" WIDE BY 4" DEEP SHREDDED BARK FOR TRUNK PROTECTION. ONLY NATURAL-COLORED SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.
- SHRUB BEDS ARE TO BE MULCHED WITH SHREDDED BARK MULCH TO A MINIMUM DEPTH OF 4". ONLY NATURAL-COLORED SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.
- BACKFILL DIRECTLY BEHIND ALL CURBS AND ALONG SIDEWALKS AND COMPACT TO THE TOP OF CURB OR WALK TO SUPPORT VEHICLE AND PEDESTRIAN WEIGHT WITHOUT SETTLING.
- ALL LANDSCAPE AREAS, SPECIAL PARKING LOT ISLANDS AND LANDSCAPE BEDS NEXT TO BUILDINGS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS TO A DEPTH OF 12"-18" AND BACK-FILLED WITH GOOD, MEDIUM TEXTURED PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY). ADD 4"-6" OF TOPSOIL OVERFILL MATERIAL AND CROWN A MINIMUM OF 6" ABOVE TOP OF CURBS AND/OR WALKS AFTER EARTH SETTLING UNLESS OTHERWISE NOTED ON THE LANDSCAPE PLAN.
- CONVERSION OF ALL ASPHALT AND GRAVEL AREAS TO LANDSCAPE SHALL BE DONE IN THE FOLLOWING MANNER:
  - REMOVE ALL ASPHALT, GRAVEL AND COMPACTED EARTH TO A DEPTH OF 6"-18" DEPENDING ON THE DEPTH OF THE SUB-BASE AND DISPOSE OF OFF SITE.
  - REPLACE EXCAVATED MATERIAL WITH GOOD, MEDIUM TEXTURES PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY) TO A MINIMUM OF 2" ABOVE TOP F CURB AND SIDEWALK, ADD 4"-6" OF TOPSOIL AND CROWN TO A MINIMUM OF 6" ABOVE ADJACENT CURB AND WALK AFTER EARTH SETTLING UNLESS OTHERWISE NOTED ON THE LANDSCAPE PLAN.

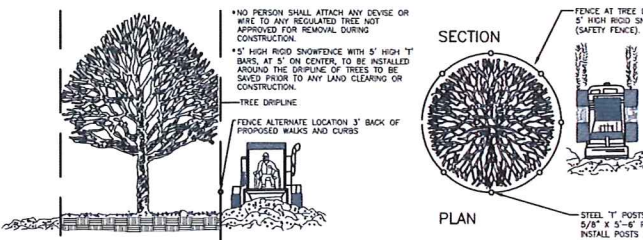
- IF CONVERSION TO LANDSCAPE OCCURS IN AN EXISTING (OR BETWEEN) LANDSCAPE AREA(S), REPLACE EXCAVATED MATERIAL TO 4"-8" BELOW ADJACENT EXISTING GRADES WITH GOOD MEDIUM TEXTURED PLANTING SOIL (LOAM OR LIGHT YELLOW CLAY) AND ADD 4"-6" OF TOPSOIL TO MEET EXISTING GRADES AFTER EARTH SETTLING.
- ALL PLANT MATERIAL TO RECEIVE TERRA-SORB SUPER ABSORBENT POLYMER OR APPROVED EQUAL BY LANDSCAPE ARCHITECT, FOLLOW MANUFACTURER'S SPECIFICATIONS.

### MAINTENANCE NOTES

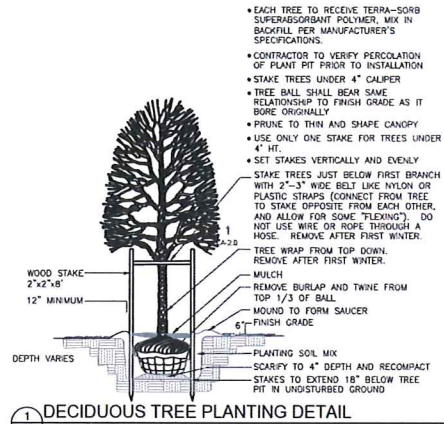
- THE CLEAR ZONE SHALL BE MAINTAINED AT ALL INTERSECTIONS THAT INGRESS AND EGRESS TO THE SITE. IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN THE PLANT MATERIAL AT A HEIGHT OF NOT OVER THIRTY (30) INCHES ABOVE PAVEMENT AND PROVIDE UNOBSTRUCTED SIGHT DISTANCE FOR DRIVERS IN VEHICLES APPROACHING THE INTERSECTION.
- VERTICAL CLEARANCE OF AT LEAST EIGHTY (80) INCHES MUST BE PROVIDED ABOVE WALKS AT ALL TIMES. IT IS THE OWNER'S RESPONSIBILITY TO MAINTAIN TREES AND OTHER OVERHANGING OBJECTS TO PROVIDE ADEQUATE HEADROOM TO COMPLY WITH ADA GUIDELINES.

### IMPORTANT:

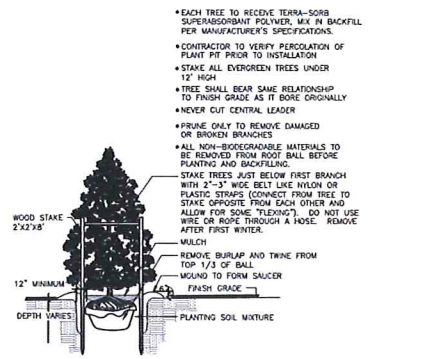
ALL TREES ON ADJACENT PROPERTIES MUST BE PROTECTED. THE TREE PROTECTIVE FENCING MAY BE PLACED ALONG THE ACTUAL PROPERTY LINE IF THE BRANCHES OF THE TREES ON THE ADJACENT PROPERTIES DO NOT OVERHANG ONTO THE SITE BEING DEVELOPED. IF THE BRANCHES OVERHANG ONTO THE AREA OF THE SITE BEING DEVELOPED THE TREE PROTECTIVE FENCING MUST BE PLACED AT THE ACTUAL DRIP LINE OF THESE TREES. IT SHOULD ALSO BE NOTED THAT THE SILT FENCING MUST BE PLACED ON THE DEVELOPMENT SIDE OF THE TREE PROTECTIVE FENCING. THE SILT FENCING MAY NOT BE PLACED BETWEEN THE TREE BEING PRESERVED AND THE TREE PROTECTIVE FENCING. IF ANY REGULATED TREES ARE DAMAGED ON THE ADJACENT PROPERTIES THE DAMAGED TREES WILL BE EITHER REPLACED ON THE OWNERS PROPERTY ON AN INCH FOR INCH BASIS OR A FINE IN THE SUM \$122.00 PER CALIPER INCH WILL BE ISSUED AGAINST THE DEVELOPMENT. THIS FINE WILL BE DUE PRIOR TO THE BUILDING PERMITS BEING ISSUED. IF YOU HAVE ANY QUESTIONS OR NEED ADDITIONAL INFORMATION CALL THE CITY'S PLANNING DEPARTMENT 248-646-4660.



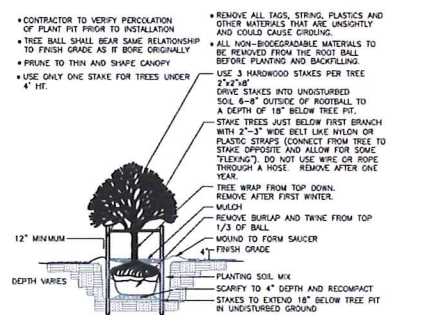
TREE PROTECTION FENCE DETAIL



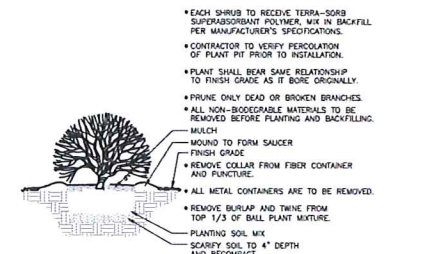
DECIDUOUS TREE PLANTING DETAIL



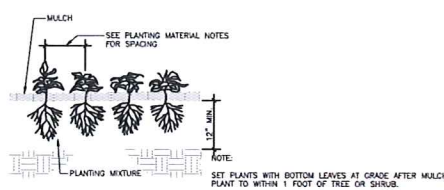
EVERGREEN TREE PLANTING DETAIL



ORNAMENTAL TREE PLANTING DETAIL



SHRUB PLANTING DETAIL



ANNUAL, PERENNIAL, GROUND COVER PLANTING DETAIL



DesignTeam+  
975 E. Maple Road, Suite 210  
Birmingham, Michigan 48009

P. 248. 559. 1000

info@designteamplus.com

MJ Ridgepointe, LLC,  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
fAX: 586-421-5742

The Sanctuary at  
River's Edge  
Rochester Hills  
Oakland County  
Michigan

Designed/Drawn: RLJ/ BC  
Checked/Approved: RLJ  
Job #: 30-2013  
Date/Revisions: Revised 10\_01  
Issued For:

5-15-2014 PUD CONCEPT REVIEW  
10-08-2014 PUD FINAL REVIEW  
11-20-2014 PUD FINAL REVISION

COPYRIGHT 2013  
DesignTeam Plus, LLC.  
ALL RIGHTS RESERVED.  
This Document and the subject matter contained herein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC.  
CITY FILE # 14-008

LA-2.0

PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION.



**TREE LIST LA 1.1:**

QTY.	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT	UNIT PRICE	TOTAL
<b>SHADE TREES</b>						
8	AF	Acer x freemanii/ Freeman Maple	3" cal	B&B	540	4320
4	AR	Acer Rubrum 'Franksred'	3" cal	B&B	540	2160
5	BN	Betula nigra / River Birch	3" cal	B&B	650	3250
3	CB	Carpinus Betulus 'Fastigiata' / Pyramidal European Hornbeam	3" cal	B&B	545	1635
2	FS	Fagus Sylvatica 'Purpurea Tricolor/ Tricolor European Beech'	3" cal	B&B	550	1100
5	GB	Ginkgo Biloba 'Princeton Sentry' / Princeton Sentry Ginkgo	3" cal	B&B	550	2750
4	GT	Gleditsia triacanthos inermis / Thornless Honeylocust	3" cal	B&B	540	2160
4	PH	Phellodendron Amurense 'Supzam' / Superfection Corktree	3" cal	B&B	630	2520
5	PL	Platanus x acerifolia / London Planetree	3" cal	B&B	560	2800
5	QB	Quercus bicolor / Swamp White Oak	3" cal	B&B	575	2875
10	TC	Tilia Cordata 'Greenspire' / Greenspire Little Leaf Linden	3" cal	B&B	560	5600
7	TD	Taxodium distichum / Bald Cypress	3" cal	B&B	560	3920
						35090
<b>EVERGREEN TREES</b>						
15	AB	Abies Concolor / Concolor White Fir	10' Ht.	B&B	500	7500
22	PA	Picea Abies / Nonway Spruce	10' Ht.	B&B	500	11000
12	PG	Picea Glauca var Densata / Black Hills Spruce	10' Ht.	B&B	500	6000
16	PS	Picea Glauca / White Spruce	10' Ht.	B&B	500	8000
7	PR	Pinus resinosa / Red Pine	10' Ht.	B&B	500	3500
17	TO	Tsuga Occidentalis / Northern White Cedar / Arborvitae	10' Ht.	B&B	500	8500
9	TS	Tsuga Canadensis / Canadian Hemlock	10' Ht.	B&B	500	4500
6	PE	Pinus resinosa / Red Pine	10' Ht.	B&B	500	3000
						52000
<b>ORNAMENTAL TREES</b>						
4	MS	Malus 'Snowdrift' / Snowdrift Crab	2" cal	B&B	300	1200
2	MG	Metasequoia Glyptostrobodies / Dawn Redwood	1.5" cal	B&B	560	1120
						2320
<b>PLANTING MATERIALS</b>						
+/-		Topsoil Installed	T.B.D.	CY		
+/-		Shredded Hardwood Mulch Installed	T.B.D.	CY		
+/-		Terra Sorb or Approved Equal	T.B.D.	LBS		
<b>LAWN</b>						
+/-		Seed	T.B.D.	SF		
+/-		Sod (owner's option)	T.B.D.	SY		
						SUB TOTAL
						89,410

**TREE LIST LA 1.2:**

QTY.	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT	UNIT PRICE	TOTAL
<b>SHADE TREES</b>						
13	AF	Acer x freemanii/ Freeman Maple	3" cal	B&B	540	7020
10	BN	Betula nigra / River Birch	3" cal	B&B	650	6500
12	CO	Celtis occidentalis / Common Hackberry	3" cal	B&B	560	6720
6	GT	Gleditsia triacanthos inermis / Thornless Honeylocust	3" cal	B&B	540	3240
6	LT	Liriodendron Tulipifera / Tulip Tree	3" cal	B&B	575	3450
9	PL	Platanus x acerifolia / London Planetree	3" cal	B&B	560	5040
12	QB	Quercus bicolor / Swamp White Oak	3" cal	B&B	575	6900
4	QS	Quercus imbricaria / Shingle Oak	3" cal	B&B	540	2160
5	QP	Quercus palustris / Pin Oak	3" cal	B&B	540	2700
10	TD	Taxodium distichum / Bald Cypress	3" cal	B&B	560	5600
3	GB	Ginkgo Biloba 'Princeton Sentry' / Princeton Sentry Ginkgo	3" cal	B&B	550	1650
						50980
<b>EVERGREEN TREES</b>						
7	AB	Abies Concolor / Concolor White Fir	10' Ht.	B&B	500	3500
11	PA	Picea Abies / Norway Spruce	10' Ht.	B&B	500	5500
2	PG	Picea Glauca var Densata / Black Hills Spruce	10' Ht.	B&B	500	1000
7	PS	Picea Glauca / White Spruce	10' Ht.	B&B	500	3500
9	PR	Pinus resinosa / Red Pine	10' Ht.	B&B	500	4500
12	PE	Pinus Strobus / Eastern White Pine	10' Ht.	B&B	500	6000
						24000
<b>ORNAMENTAL TREES</b>						
4	MP	Malus 'Prairiefire' / Prairiefire Crab	2" cal	B&B	335	1675
3	MS	Malus 'Snowdrift' / Snowdrift Crab	2" cal	B&B	300	1340
2	MG	Metasequoia Glyptostrobodies / Dawn Redwood	1.5" cal	B&B	560	1120
4	SR	Syringa Reticulata 'Ivory Silk' / Ivory Silk Japanese Lilac Tree	2" cal	B&B	370	1480
<b>PLANTING MATERIALS</b>						
+/-		Topsoil Installed	T.B.D.	UNIT		5615
+/-		Shredded Hardwood Mulch Installed	T.B.D.	CY		
+/-		Terra Sorb or Approved Equal	T.B.D.	LBS		
						SUB TOTAL
						80595
<b>LAWN</b>						
+/-		Seed	T.B.D.	SF		
+/-		Sod (owner's option)	T.B.D.	SY		

**LA 1.5 ENTRYWAY PLANT LIST:**

QTY.	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT	UNIT PRICE	TOTAL
<b>SHRUB PLANTINGS</b>						
16	CH	Coloneaster horizontalis 'Perpusillus' / Ground Cotoneaster	No. 3 Cont.	B&B	40	640
6	HC	Hydrangea M. 'Cardinal Red' / Cardinal Red Hydrangea	No. 5 Cont.	B&B	40	240
31	PD	Potentilla F. 'Gold Drop' / Gold Drop Potentilla	No. 3 Cont.	B&B	40	1240
25	RH	Rhus aromatica 'Grow Low' / Grow Low Fragrant Sumac	No. 3 Cont.	B&B	45	1125
5	SB	Spiraea X Bumalda 'Anthony Waterer' / Anthony Waterer Spiraea	No. 5 Cont.	B&B	35	700
22	SJ	Spiraea Japonica 'Little Princess' / Little Princess Spiraea	No. 5 Cont.	B&B	35	210
<b>PERENNIAL PLANTINGS</b>						
40	CG	Coreopsis Grandiflora 'Illico' / 'Illico' Coreopsis	12"-16" Ht; No. 2 Pots, 12" O.C.		11	440
188	NF	Nepeta X Faassenii / Walker's Low	1 Gal. Cont; 12" O.C.		13	2418
27	HM	Hemerocallis 'Black Eyed Stella' / Mini Stella Daylilies	14" Ht; No. 2 Pots, 12" O.C.		11	297
39	SC	Sedum 'Autumn Fire' / 'Autumn Fire' Sedum	14"-20" Ht; No. 1 Pot, 12" O.C.		11	429
64	RF	Rudbeckia Fulgida 'Sullivanii' Goldstrum / 'Goldstrum' Orange Coneflower	2-2.5' Ht; No. 2 Pot, 12" O.C.		11	704
49	VS	Veronica Spicata 'Red Fox' / 'Red Fox' Veronica	12-15" Ht; No. 1 Pot, 12" O.C.		10	490
<b>GRASS PLANTINGS</b>						
31	CP	Carex pennsylvanica / Pennsylvania Sedge	1 Gal. Cont; 12" O.C.		10	310
						SUB TOTAL
						9243



**DesignTeam +**  
975 E. Maple Road, Suite 210  
Birmingham, Michigan 48009

P: 248. 559. 1000

info@designteamplus.com

**Client**  
MJ Ridgepointe, LLC,  
49587 Compass Pointe  
Chesterfield Township, MI, 48047  
o: 586-421-5729  
fAX: 586-421-5742

**Project**  
**The Sanctuary at  
River's Edge**  
Rochester Hills  
Oakland County  
Michigan

Designed/Drawn: RLJ/ BC  
Checked/Approved: RLJ  
Job # 30-2013  
File: Rivers Edge Revised 10.01

Date/Revisions	Issued For
5-15-2014	PUD CONCEPT REVIEW
10-09-2014	PUD FINAL REVIEW
11-20-2014	PUD FINAL REVISION

<b>NEIGHBORHOOD LANDSCAPE PLANTINGS:</b>	
LA 1.1	\$89,410
LA 1.2	\$80,595
<b>ENTRYWAY PLANTINGS</b>	
LA 1.5	\$ 9,243
<b>GRAND TOTAL</b>	<b>\$179,248</b>

\* All landscape areas to have an automatic irrigation system. Irrigation Plan will be provided by an approved Irrigation Distributor for the final PUD approval.

Irrigation will occur between the hours of midnight and 5 a.m. Irrigation of all landscape areas including buffer areas and street trees.

**IRRIGATION SYSTEM:**  
The irrigation will be designed for each building and the adjacent common areas.  
Contractor to coordinate to provide irrigation for all landscape areas.

PLAN SUBMITTED FOR SITE PLAN REVIEW - NOT FOR CONSTRUCTION

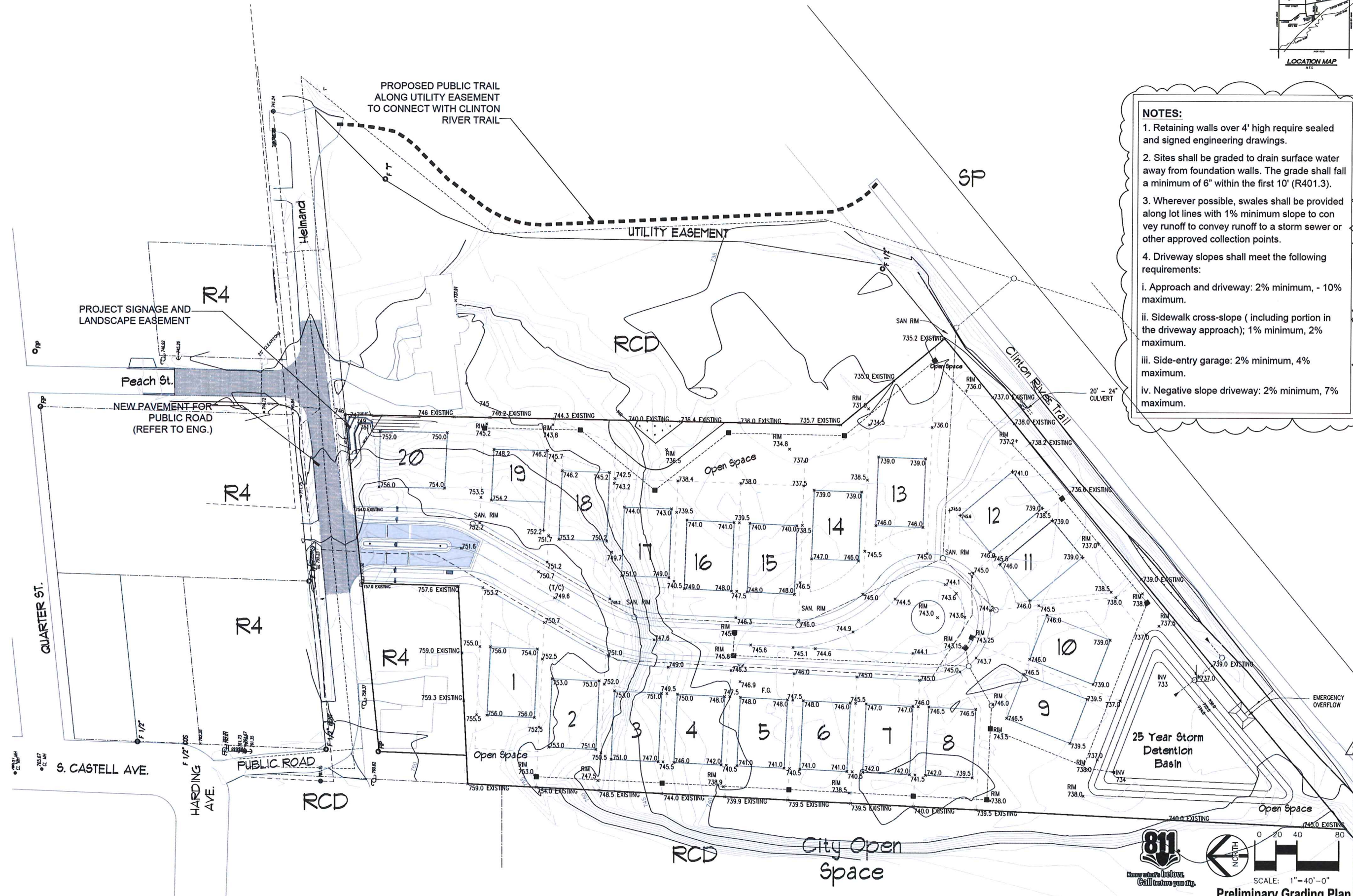
COPYRIGHT © 2013  
DesignTeam Plus, LLC  
ALL RIGHTS RESERVED  
This Document and the subject matter contained herein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC.  
CITY FILE # 14-008





**NOTES:**

1. Retaining walls over 4' high require sealed and signed engineering drawings.
2. Sites shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of 6" within the first 10' (R401.3).
3. Wherever possible, swales shall be provided along lot lines with 1% minimum slope to convey runoff to convey runoff to a storm sewer or other approved collection points.
4. Driveway slopes shall meet the following requirements:
  - i. Approach and driveway: 2% minimum, - 10% maximum.
  - ii. Sidewalk cross-slope (including portion in the driveway approach); 1% minimum, 2% maximum.
  - iii. Side-entry garage: 2% minimum, 4% maximum.
  - iv. Negative slope driveway: 2% minimum, 7% maximum.



**DesignTeam +**  
 975 E. Maple Road, Suite 210  
 Birmingham, Michigan 48009  
 P: 248.559.1000  
 info@designteamplus.com

Client: **MJ Ridgepointe, LLC,**  
 49587 Compass Pointe  
 Chesterfield Township, MI, 48047  
 o: 588-421-5729  
 FAX: 588-421-5742

Project: **The Sanctuary at River's Edge**  
 Rochester Hills  
 Oakland County  
 Michigan

Designed/Drawn: RLM/ BC	
Checked/Approved: RLM	
Job #: 20-2013	
File: Rivers Edge Revised 10_01	
Date/Revisions	Issued For
5-15-2014	PLD. CONCRETE REVIEW
10-09-2014	PLD. FINAL REVIEW
11-20-2014	PLD. FINAL REVISION

811  
 Call before you dig.

Scale: 1" = 40'-0"

**Preliminary Grading Plan**

City File # 14-008

E-1.0



**DETENTION CALCULATIONS:**

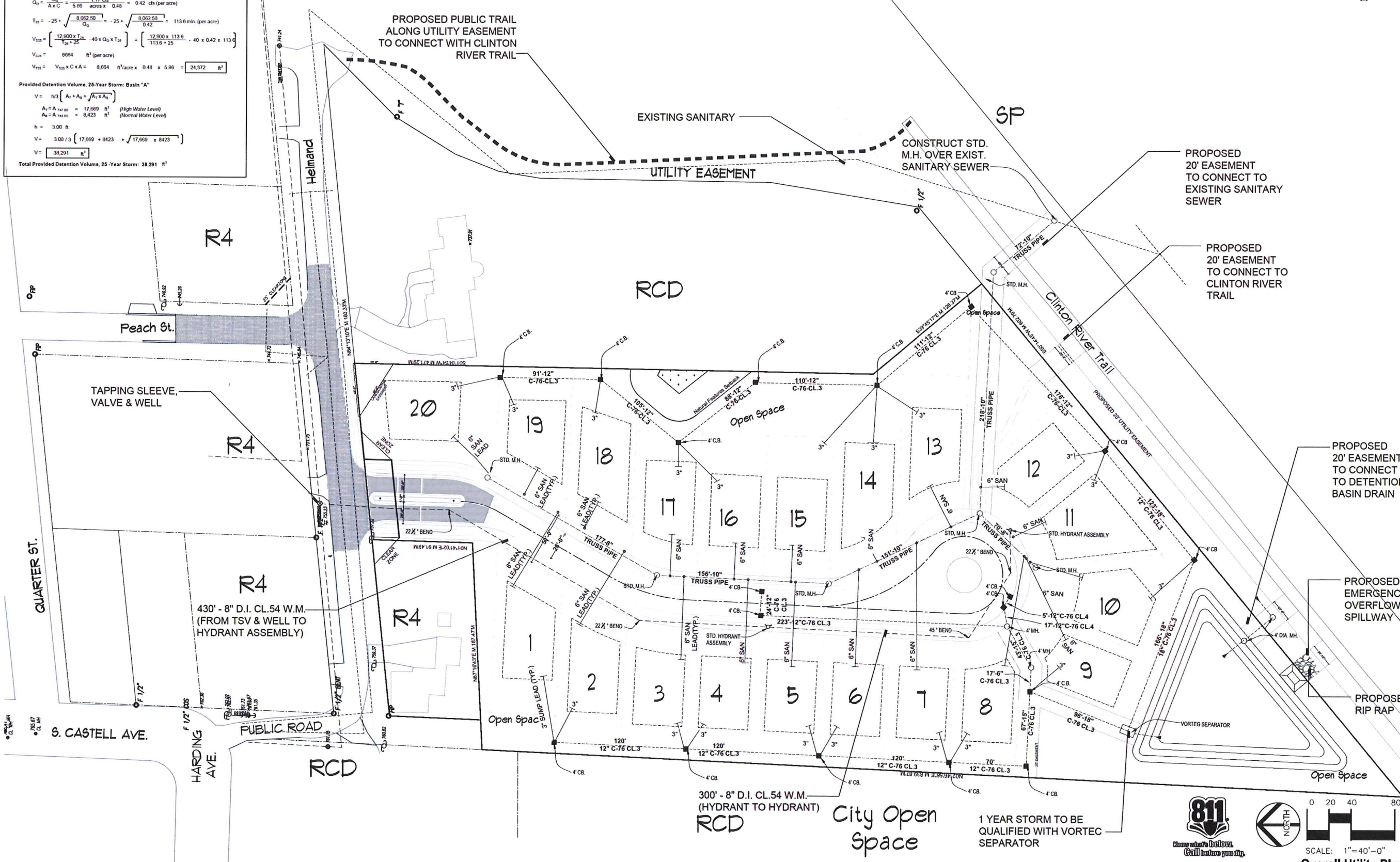
**Detention Calculations**  
 Project Name: The Sanctuary at Rivers Edge  
 Job Number: 2012-043  
 Date: 6-6-13  
 Revisions: 6-6-13 4-1-14  
 Allowable Outflow:  
 Total Acreage: A = 6.16 acres  
 Tributary Acreage: A<sub>t</sub> = 5.95 acres (Gross site area minus area of Bioswales)  
 Allowable Outflow = 0.20 cfs/acre  
 $Q_a = 0.20 \times A = 1.17 \text{ cfs}$   
 Runoff Coefficient = C = 0.48

**Required Detention Volume, 25-Year Storm:**  
 $Q_a = \frac{Q_p}{A \times C} = \frac{1.17 \text{ cfs}}{5.95 \text{ acres} \times 0.48} = 0.42 \text{ cfs (per acre)}$   
 $T_{25} = -25 + \sqrt{\frac{8.062 \times 50}{0.42}} = -25 + \sqrt{\frac{8.062 \times 50}{0.42}} = 113.6 \text{ min. (per acre)}$   
 $V_{25} = \left[ \frac{12,000 \times T_{25}}{1.25 \times 25} - 40 \times Q_a \times T_{25} \right] = \left[ \frac{12,000 \times 113.6}{1.25 \times 25} - 40 \times 0.42 \times 113.6 \right]$   
 $V_{25} = 8664 \text{ ft}^3 \text{ (per acre)}$   
 $V_{25} = V_{25} \times C \times A = 8,664 \text{ ft}^3/\text{acre} \times 0.48 \times 5.95 = 24,372 \text{ ft}^3$

**Provided Detention Volume, 25-Year Storm: Basin "A"**  
 $V = \frac{h}{3} \left[ A_1 + A_2 + \sqrt{A_1 \times A_2} \right]$   
 $A_1 = A_{100} = 17,669 \text{ ft}^2 \text{ (High Water Level)}$   
 $A_2 = A_{10} = 8,423 \text{ ft}^2 \text{ (Normal Water Level)}$   
 $h = 3.00 \text{ ft}$   
 $V = \frac{3.00}{3} \left[ 17,669 + 8,423 + \sqrt{17,669 \times 8,423} \right]$   
 $V = 38,291 \text{ ft}^3$   
**Total Provided Detention Volume, 25-Year Storm: 38,291 ft<sup>3</sup>**

**SANITARY SEWER BASIS OF DESIGN**

**CLINTON RIVER TRAIL CONNECTION**  
 INITIAL:  
 Population: 20 lots x 3.5 persons = 70  
 Average Flow:  $\frac{70 \text{ persons} \times 100 \text{ gal/capita}}{24 \text{ hr}} = 0.0109 \text{ cfs}$   
 $7.48 \text{ gal/ft}^3 \times 0.0109 \text{ cfs} = 0.0081 \text{ cfs}$   
 Peak Flow:  $18 \times \sqrt{\frac{70}{1000}} \times 0.046 \text{ cfs} = 0.046 \text{ cfs}$   
 $4 \times \sqrt{\frac{70}{1000}} \times 0.046 \text{ cfs} = 0.046 \text{ cfs}$   
 INITIAL = ULTIMATE: CAPACITY OF AN 8" SEWER AT 0.40% = 0.76 cfs



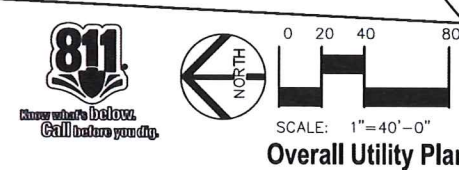
**DesignTeam +**  
 975 E. Maple Road, Suite 210  
 Birmingham, Michigan 48009  
 P: 248. 559. 1000  
 info@designteamplus.com

Client: **MJ Ridgepointe, LLC,**  
 49587 Compass Pointe  
 Chesterfield Township, MI, 48047  
 o: 586-421-5729  
 FAX: 586-421-5742

Project: **The Sanctuary at Rivers Edge**  
 Rochester Hills  
 Oakland County  
 Michigan

Design/Drawn	Rev./DC
Checked/Approved	RLN
Job #	30-2013
File:	Rivers Edge Revised 10_01
Date/Revisions	Issued For
5-15-2014	PLD CONCEPT REVIEW
10-09-2014	PLD FINAL REVIEW
11-21-2014	PLD FINAL REVISION

PLAN SUBMITTED FOR CITY REVIEW - NOT FOR CONSTRUCTION.  
 COPYRIGHT © 2013 DesignTeam Plus, LLC. ALL RIGHTS RESERVED. This Document and the subject matter contained therein is proprietary and is not to be used or reproduced without the written permission of DesignTeam Plus, LLC.  
 CITY FILE # 14-008





# MJ Ridgepointe LLC



Elevation Concept A  
SCALE 1/4" = 1'-0"

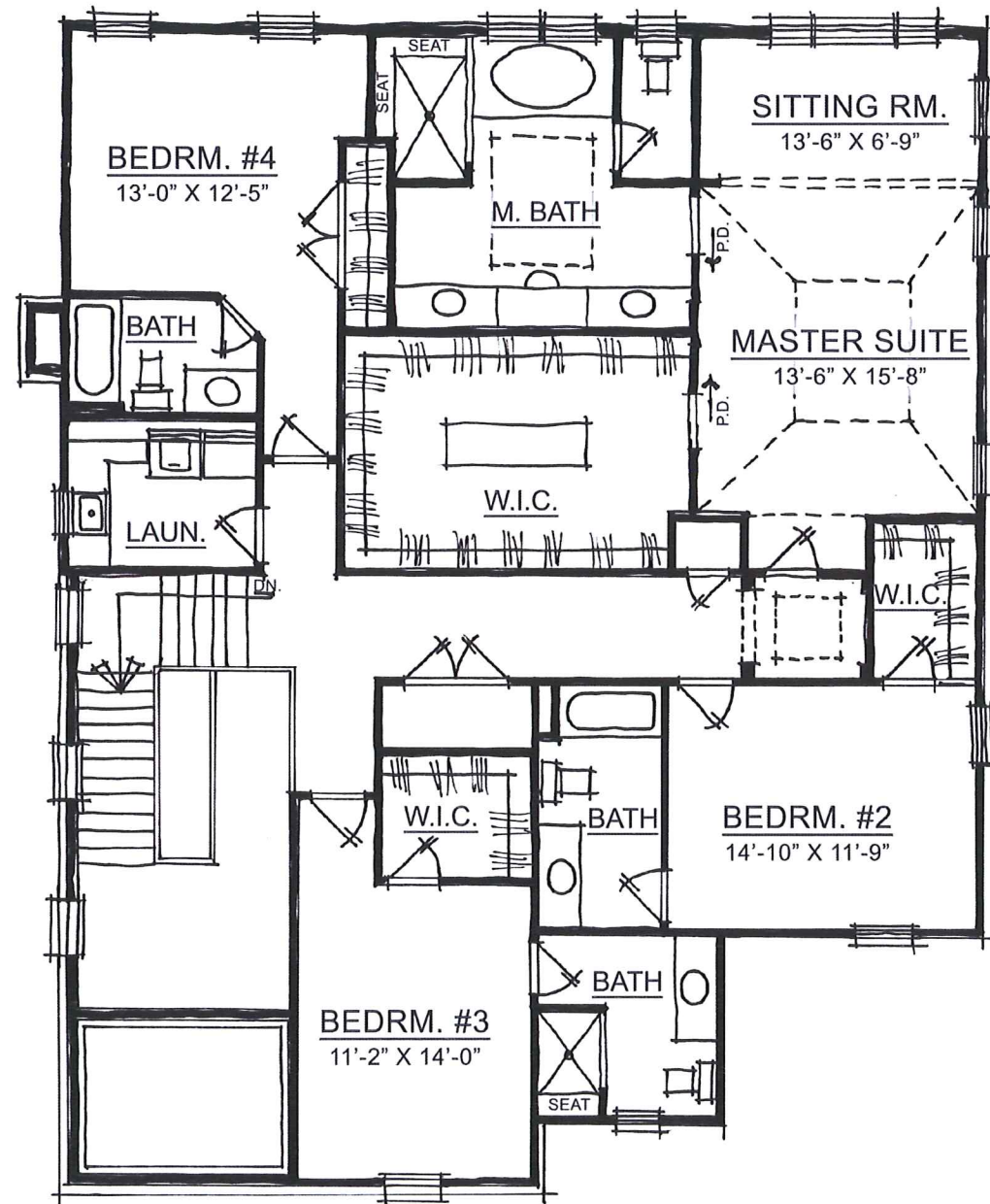


Elevation Concept B  
SCALE 1/4" = 1'-0"

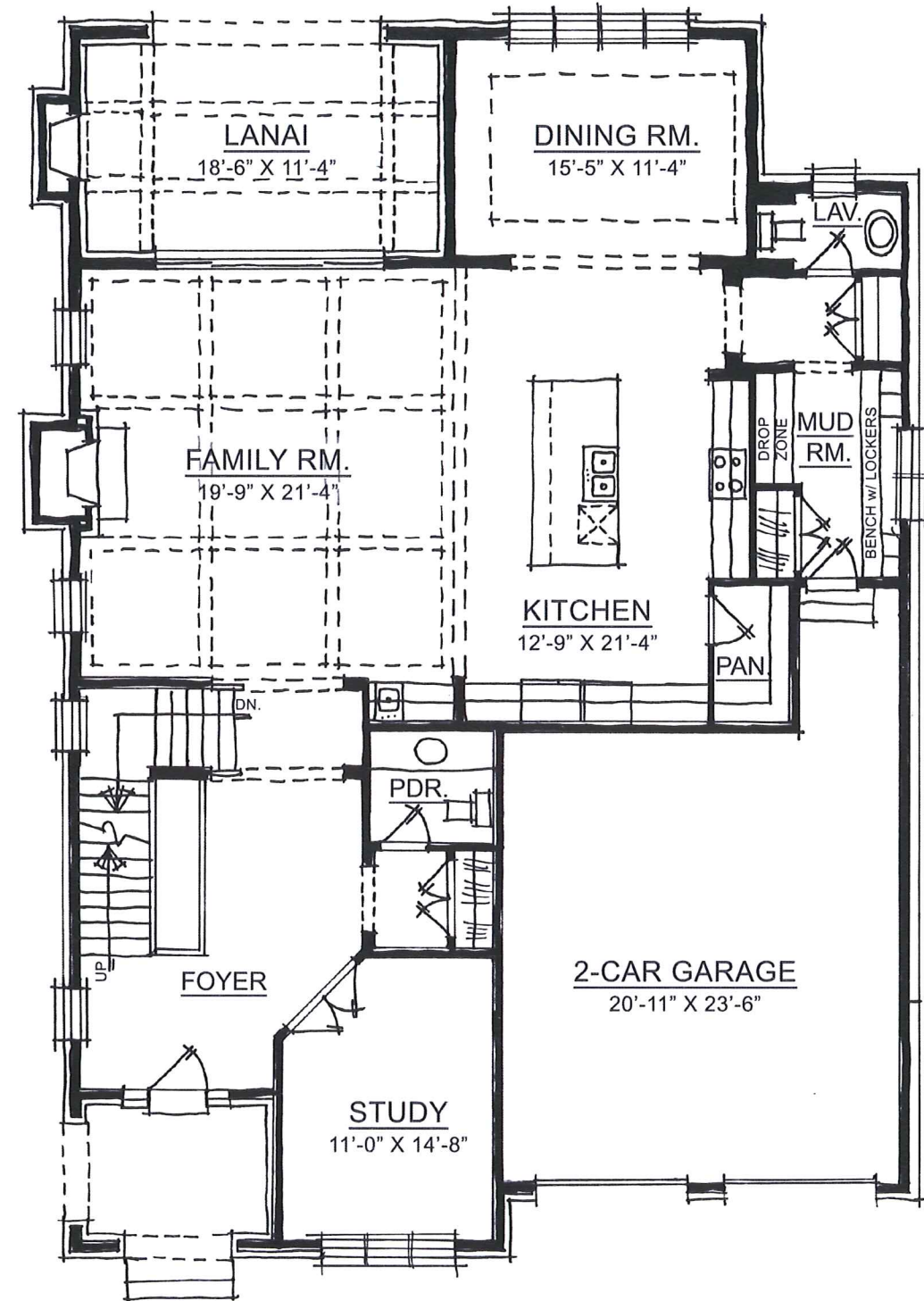




# MJ Ridgpointe LLC



**SECOND FLOOR PLAN**  
SCALE: 1/4" = 1'-0"



**FIRST FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

