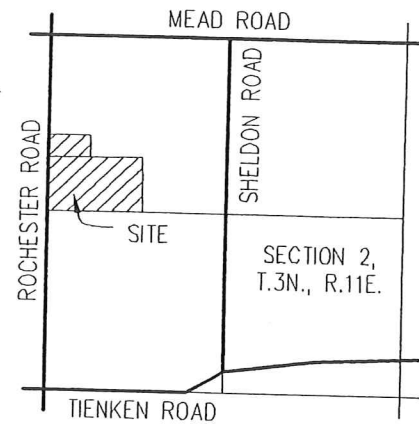


# "ROCHESTER ENCLAVES"

PART OF THE N.E. 1/4 OF SECTION 2,  
T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.



LOCATION MAP  
NOT TO SCALE

### LEGAL DESCRIPTION - PARCEL 15-02-177-001

Part of the Northwest 1/4 of Section 2, T.3N., R.11E., City of Rochester Hills, Oakland County, being more particularly described as follows: Beginning at the West 1/4 Corner of said Section 2, thence N02°09'30"E 821.50 ft. along the West line of said Section 2 (Rochester Road); thence S88°16'53"E 1383.39 ft. to a Concrete Monument at the Southwest corner of "Hillwood Subdivision" as recorded in Liber 58, Page 7 of Plats, Oakland County Records; thence S01°08'06"W 802.76 ft. to a point on the East-West 1/4 Line of said section 2, said point also being on the North Line of "Cross Creek Sub. No. 2", as recorded in Liber 217, Pages 28 through 33 of plats, Oakland County Records; thence N89°13'01"W 1398.00 ft. along the East-West 1/4 Line of said Section 2 and following the North Line of said "Cross Creek Sub. No. 2" and the North Line of "Cross Creek Sub. No. 1" as recorded in Liber 198, Pages 24-28 of Plats, Oakland County Records to the Point of Beginning.

Containing 25.93 Acres.  
Subject to the rights of the public in Rochester Road.

### LEGAL DESCRIPTION - PARCEL 15-02-102-023

Part of the Northwest 1/4 of Section 2, T.3N., R.11E., City of Rochester Hills, Oakland County, being more particularly described as follows:  
Commencing at the West 1/4 Corner of said Section 2, thence N02°09'30"E 821.50 ft. along the West line of said Section 2 (Rochester Road) to the Point of Beginning; continuing along said line N02°09'30"E 322.60 ft.; thence S88°16'53"E 620.00 ft.; thence S02°00'30"W 322.00 ft.; thence S88°16'53"E 620.00 ft. to the point of beginning.

Containing 4.59 Acres.  
Subject to the rights of the public in Rochester Road.

PROJECT  
ROCHESTER ENCLAVES

ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

CLIENT / APPLICANT  
TJ REALVEST

JERRY KISIL  
35312 CONNECTICUT DRIVE  
STERLING HEIGHTS, MICHIGAN 48310  
PHONE: (586) 321-6151

PROJECT PLANNER  
DESIGN TEAM +

RALPH L. NUÑEZ, RLA, CLARB, ASLA, GRP  
975 EAST MAPLE RD., SUITE 210  
BIRMINGHAM, MICHIGAN 48009  
PHONE: (248) 224-5933

PROJECT ENGINEER  
JJ ASSOCIATES., INC.

JAMES J. JONES, P.E.  
PROFESSIONAL ENGINEER, No.  
1055 SOUTH BOULEVARD EAST, SUITE 200  
ROCHESTER HILLS, MICHIGAN 48307  
PHONE: (586) 726-9111

WETLAND CONSULTANT  
KING AND MACGREGOR ENVIRONMENTAL, INC.

WOODY L. HELD  
43050 FORD ROAD, SUITE 130  
CANTON, MICHIGAN 48187  
PHONE: (734) 354-0594

### SHEET INDEX

SHEET 1	COVER SHEET
SHEET 2	PRELIMINARY SITE PLAN (1"=100')
SHEET 3	PRELIMINARY UTILITY LAYOUT AND GRADING PLAN (1"=60')
SHEET 3A	WETLAND DETAIL PLAN
SHEET 4	BOUNDARY AND TOPOGRAPHIC SURVEY
SHEET 5	ROCHESTER ROAD TOPOGRAPHIC SURVEY
SHEET 6	TREE SURVEY
PS-06-813A	
SHEET 1	STEEP SLOPE PLAN

NOTE:  
THE PROPOSED PRIVATE ROADS ARE NOT DESIGNED TO MEET THE CITY PUBLIC ROAD STANDARDS. THEREFORE, THEY CANNOT BE TRANSFERRED TO THE CITY AS PUBLIC ROADS IN THE FUTURE.



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

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

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**JJ ASSOCIATES, INC.**  
Civil Engineering and Surveying  
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Mobile: www.jjassociates.net

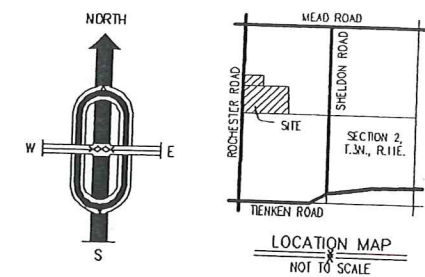
DESCRIPTION	REV. DATE	DATE
SUBMITTAL TO CITY	03/11/2014	12/20/2013
WETLAND DETAILS	04/17/2014	DRAWN BY J.L.S.
REV. WETLAND DETAILS	06/05/2014	CHECKED BY J.J.J.
FINAL PUD	07/09/2014	
	07/25/2015	

**"ROCHESTER ENCLAVES"**  
PART OF THE N.E. 1/4 OF SECTION 2,  
T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.

COVER SHEET

SCALE	NONE
CITY FILE #	03-009
DRAWING	PS-06-813
	1 of 6





**LEGAL DESCRIPTION - PARCEL 15-02-177-001**  
 Part of the Northwest 1/4 of Section 2, T.3N., R.11E., City of Rochester Hills, Oakland County, being more particularly described as follows: Beginning at the West 1/4 Corner of said Section 2; thence N02°09'30"E 821.50 ft. along the West line of said Section 2 (Rochester Road), thence S88°16'53"E 1383.39 ft. to a Concrete Monument at the Southwest corner of "Hilwood Subdivision" as recorded in Liber 58, Page 7 of Plats, Oakland County Records; thence S01°08'06"W 802.76 ft. to a point on the East-West 1/4 Line of said section 2, said point also being on the North Line of "Cross Creek Sub. No. 2", as recorded in Liber 217, Pages 26 through 33 of plats, Oakland County Records; thence N89°03'01"W 1398.00 ft. along the East-West 1/4 Line of said Section 2 and following the North Line of said "Cross Creek Sub. No. 2" and the North Line of "Cross Creek Sub. No. 1" as recorded in Liber 198, Pages 24-28 of Plats, Oakland County Records to the Point of Beginning.

Containing 25.93 Acres.  
 Subject to the rights of the public in Rochester Road.

**LEGAL DESCRIPTION - PARCEL 15-02-102-023**  
 Part of the Northwest 1/4 of Section 2, T.3N., R.11E., City of Rochester Hills, Oakland County, being more particularly described as follows: Commencing at the West 1/4 Corner of said Section 2; thence N02°09'30"E 821.50 ft. along the West line of said Section 2 (Rochester Road) to the Point of Beginning; continuing along said line N02°09'30"E 322.60 ft.; thence S88°16'53"E 620.00 ft.; thence S02°00'30"W 322.00 ft.; thence S88°16'53"E 620.00 ft. to the point of beginning.  
 Containing 4.59 Acres.  
 Subject to the rights of the public in Rochester Road.

**SITE DATA:**

EXISTING ZONING	R-1
PROPOSED ZONING	P.U.D.
<b>SITE AREA</b>	
Gross Site Area	30.52 Ac.
Existing ROW	±0.87 Ac.
Future ROW	±1.58 Ac.
Net Site Area (Excluding ROW)	±29.65 Ac.
Net site Area (Excluding Future ROW)	±28.94 Ac.
<b>DENSITY (GROSS)</b>	
Rochester Enclaves (Total Number of Units)	26
Total Density	0.85 Units/Ac.
<b>SETBACKS</b>	
Front Yard (MIN)	25
Side Yard	10 MIN, 30' TOTAL
Minimum Separation Between Units	30
Rear Yard	35
Minimum Rear Yard Separation Between Units	70

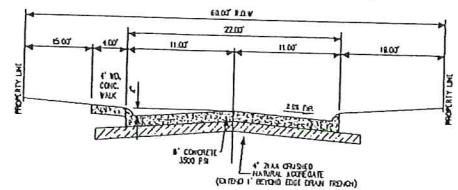


- NOTES:**
- THIS SITE CONDOMINIUM IS ZONED R-1
  - LAYOUT AND DIMENSIONS ARE TENTATIVE AND SUBJECT TO MODIFICATION UPON CALCULATION OF THE CONDOPLAN.
  - ALL UNITS WILL BE SERVED WITH PUBLIC SANITARY SEWER AND WATER MAIN.
  - ALL SANITARY SEWERS, SERVICES AND RELATED ITEMS MUST BE DESIGNATED IN ACCORDANCE WITH THE CITY OF ROCHESTER HILLS ENGINEERING DESIGN STANDARDS.
  - ALL STORM SEWER AND RELATED ITEMS MUST BE DESIGNED IN ACCORDANCE WITH THE CITY OF ROCHESTER HILLS ENGINEERING DESIGN STANDARDS.
  - ALL INTERIOR STREETS WILL BE PAVED WITH CONCRETE OR ASPHALT. PAVEMENT TO BE 26 FT. HD. (BACK TO BACK).
  - THE DEVELOPER SHALL COMPLY WITH APPLICABLE CODES AND ORDINANCES OF THE CITY OF ROCHESTER HILLS, OAKLAND COUNTY AND THE STATE OF MICHIGAN.
  - EXISTING GRADES VARY OVER THE EXISTING SITE. PROPOSED STREET GRADING WILL CONFORM TO THE REQUIREMENTS OF THE CITY OF ROCHESTER HILLS.
  - ELECTRICAL AND GAS LINES WILL BE IN FRONT YARD EASEMENTS.
  - ALL WATER MAIN AND APPURTENANCES MUST BE DESIGNED IN ACCORDANCE WITH CITY OF ROCHESTER HILLS ENGINEERING DESIGN STANDARDS.
  - SOIL TYPES FOR THIS SITE ARE MARLETTE SANDY LOAM, CAPAC SANDY LOAM, ARKPORT LOAMY FINE SAND AND DIXBORO LOAMY FINE SAND ACCORDING TO INFORMATION MADE AVAILABLE BY THE UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE. (WELL-SUITED FOR BUILDING DEVELOPMENT)
  - TOPOGRAPHIC INFORMATION TAKEN FROM SURVEY BY JJ ASSOCIATES, INC.
  - EASEMENTS FOR ALL UTILITIES WILL BE PROVIDED AS REQUIRED.
  - ALL SITE CONDOMINIUM SIGNS REQUIRE PERMITS. ALL SIGNS MUST MEET THE REQUIREMENTS OF SECTION 138-8.603 AND CHAPTER 134 OF THE CITY CODE OF ORDINANCES AND BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING DEPARTMENT.
  - ALL PROPOSED GRADES WILL MATCH EXISTING ELEVATIONS AT THE PROPERTY LINE.
  - SINGLE PHASE CONSTRUCTION.
  - ALL WORK IN THE ROCHESTER ROAD RIGHT-OF-WAY REQUIRE PERMIT FROM OOCR.
  - STREET LIGHTING AND SIGNS, IF DESIRED, WILL BE DESIGNED TO CITY OF ROCHESTER HILLS STANDARDS.
  - IT IS NOT KNOWN WHAT THE MAXIMUM HOME SIZE WILL BE DUE TO THE FACT THAT THE HOME BUILDERS HAVE NOT BEEN CHOSEN AT THIS TIME. HOWEVER WE EXPECT THAT MAXIMUM HOME SIZE TO BE 6000 SF.

- FIRE DEPARTMENT NOTES:**
- CONSTRUCTION SITES SHALL BE SAFEGUARDED IN ACCORDANCE WITH IFC 2006 CHAPTER 14.
  - 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.

- WETLAND NOTES:**
- A MDEU PART 303 PERMIT AND A WETLAND USE PERMIT FROM THE CITY ARE REQUIRED FOR THIS PROJECT AS PROPOSED. ONCE A MDEU PERMIT IS RECEIVED BY THE APPLICANT, IT MUST BE SUBMITTED TO THE CITY FOR REVIEW.
  - NATURAL FEATURE DELINEATION SIGNS SHALL BE INSTALLED ALONG THE WEST LOT LINE OF LOT 23, THE WEST LOT LINES OF LOTS 20 AND 21, THE EAST LOT LINE OF LOT 26 AND THE SOUTH LOT LINE OF LOT 1 IN ORDER TO INDICATE THE LOCATION OF THE NATURAL FEATURE SETBACK AND TO PROHIBIT FURTHER DEVELOPMENT INTO THESE AREAS.
  - ONCE THE FINAL PLAN IS APPROVED BY THE CITY AND THE FINAL AREAS OF WETLAND TO BE PLACED WITHIN A CONSERVATION EASEMENT ARE SPECIFIED, THE APPLICANT SHALL PROVIDE A COPY OF THE FINAL CONSERVATION EASEMENT TO THE CITY FOR FILING.

NOTE:  
 WETLAND BOUNDARIES WERE DELINEATED BY KING & MACCREGOR ENVIRONMENTAL, INC. ON 8-28-13 AND WERE SURVEYED BY JJ ASSOCIATES, INC.



ON-SITE - TYPICAL SECTION THROUGH 22 FT. PAVEMENT  
 NOT TO SCALE

NOTE:  
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**JJ ASSOCIATES, INC.**  
 Civil Engineering and Surveying  
 1035 South Boulevard E. - Suite 200, Rochester Hills, MI 48307  
 Telephone: (568) 726-9111 Fax: (248) 862-7707  
 Website: www.jjassociates.net

DATE	12/20/2013	DRAWN BY	J.J.S.	CHECKED BY	J.J.J.
REV. DATE	03/14/2014	REV. DATE	08/05/2014	REV. DATE	01/20/2015
DESCRIPTION	SUBMIT TO CITY	REV. DATE	06/17/2014	REV. DATE	08/05/2014
	REV. DATE	REV. DATE	REV. DATE	REV. DATE	REV. DATE
	REV. DATE	REV. DATE	REV. DATE	REV. DATE	REV. DATE

**"ROCHESTER ENCLAVES"**  
 PART OF THE N.E. 1/4 OF SECTION 2,  
 T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.

PRELIMINARY P.U.D. SITE PLAN

SCALE  
 1" = 100'  
 CITY FILE# 03-009  
 DRAWING  
 PS-06-813  
 2 of 6

NOTE:  
 NOT TO BE USED AS CONSTRUCTION DRAWINGS



NOTE:  
ROCHESTER ROAD IS UNDER THE JURISDICTION OF THE ROAD COMMISSION FOR OAKLAND COUNTY (ROC). A PERMIT FROM THE ROC IS REQUIRED FOR ALL WORK WITHIN THE ROCHESTER ROAD R.O.W.

NOTE:  
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

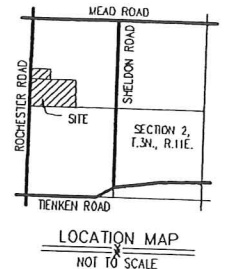
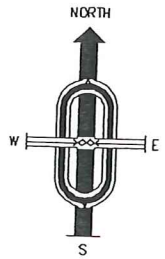
NOTE:  
ALL RETAINING WALLS TO BE BUILT BY DEVELOPER

NOTE:  
RETAINING WALLS EXCEEDING 48" IN HEIGHT SHALL BE DESIGNED BY A LICENSED ENGINEER. SIGNED AND SEALED DESIGN CALCULATIONS SHALL BE SUBMITTED WITH THE CONSTRUCTION PLANS.

NOTE:  
ALL DRAINAGE WILL REMAIN ON THE SITE. INTERIOR GRADING WILL MATCH EXISTING GRADING ALONG ADJACENT PROPERTIES.

NOTE:  
LOTS 1, 11, 12, 20, 21, 23, 24, 25, & 28 SUMPS ARE TO DISCHARGE DIRECTLY TO WETLANDS.

NOTE:  
THERE IS NO FLOOD PLAN ON THIS SITE BASED ON F.E.M.A. MAP NUMBER 2612500384F



**LEGAL DESCRIPTION - PARCEL 15-02-177-001**

Part of the Northwest 1/4 of Section 2, T.3N., R.11E., City of Rochester Hills, Oakland County, being more particularly described as follows: Beginning at the West 1/4 Corner of said Section 2; thence N02°09'30"E 821.50 ft. along the West line of said Section 2 (Rochester Road); thence S88°16'53"E 1383.39 ft. to a Concrete Monument at the Southwest corner of "Hillwood Subdivision" as recorded in Liber 58, Page 7 of Plats, Oakland County Records, thence S01°08'06"W 802.76 ft. to a point on the East-West 1/4 Line of said section 2, said point also being on the North Line of "Cross Creek Sub. No. 2", as recorded in Liber 217, Pages 26 through 33 of Plats, Oakland County Records; thence N89°03'01"W 1398.00 ft. along the East-West 1/4 Line of said Section 2 and following the North Line of said "Cross Creek Sub. No. 2" and the North Line of "Cross Creek Sub. No. 1" as recorded in Liber 198, Pages 24-28 of Plats, Oakland County Records to the Point of Beginning.

Containing 25.93 Acres.  
Subject to the rights of the public in Rochester Road.

**LEGAL DESCRIPTION - PARCEL 15-02-102-023**

Part of the Northwest 1/4 of Section 2, T.3N., R.11E., City of Rochester Hills, Oakland County, being more particularly described as follows: Commencing at the West 1/4 Corner of said Section 2; thence N02°09'30"E 821.50 ft. along the West line of said Section 2 (Rochester Road) to the Point of Beginning, continuing along said line N02°09'30"E 322.60 ft.; thence S88°16'53"E 620.00 ft.; thence S02°00'30"W 322.00 ft.; thence S88°16'53"E 620.00 ft. to the point of beginning.  
Containing 4.59 Acres.  
Subject to the rights of the public in Rochester Road.

- LEGEND**
- △ CONTROL POINT
  - ⊗ FIRE HYDRANT
  - CATE VALVE
  - MANHOLE - 51W OR 51W AS INDICATED
  - PAVEMENT CATCH BASIN
  - REAR YARD CATCH BASIN
  - GAS MARKER
  - ⊞ PED
  - ⊞ UTILITY POLE
  - > GUY POLE
  - LIGHT POLE
  - SIGN
  - MAIL BOX
  - STORM SEWER
  - SANITARY SEWER
  - WATERMAN
  - 816.41 PROPOSED ELEVATION
  - 806 EXISTING ELEVATION

**DETENTION CALCULATIONS**  
REQUIRED STORAGE PER O.C.D.C. STANDARDS: (25 YEAR STORM)  
DEVELOPED AREA: 13.54 Ac. C = 0.40  
EQUIVALENT AREA: (13.54 Ac.)(0.40) = 5.42 Ac.  
 $Q_0 = (13.54 \text{ Ac.})(0.20 \text{ CFS/Ac}) = 2.71 \text{ CFS}$   
 $Q_0 = (2.71 \text{ CFS})(5.42 \text{ Ac}) = 0.50$   
 $T = -25 + [(8062.50/0.50)]^{0.5} = 101.98 \text{ MIN}$   
 $V_s = [12.90(101.98 \text{ MIN})] - 40(0.50)(101.98 \text{ MIN}) = 8,320.63 \text{ CF}$   
 $V_t = (8,320.63 \text{ CF})(5.42 \text{ Ac}) = 45,097.8 \text{ CF}$

**DETENTION BASIN STORAGE**  
STORAGE ELEV 797.00 - 794.00  
STORAGE PROVIDED 48,436 CF  
**WEIGHTED C FACTOR CALCULATION:**  
SMALLEST UNIT: UNIT 9  
AREA OF LOT + AREA OF ROW = 18,500 SF  
AREA OF HOUSE = 3,000 SF  
AREA OF PAVT = 2,136 SF  
AREA OF GRASS = 13,414 SF  
C AGRICULTURAL = 0.20  
C PAVEMENT = 0.90  
 $[(3,000 + 2,136)0.90 + (13,414)0.20]/18,500 = 0.39$   
USE C = 0.40

**SANITARY SEWER DESIGN:**  
POPULATION:  
26 LOTS x 3.5 PEOPLE/LOT = 91 PEOPLE  
AVERAGE FLOW:  
 $100 \times 91 / 24 / 3600 / 7.48 = 0.0141 \text{ cfs}$   
PEAK FLOW:  
 $4 \times 0.0141 = 0.0564 \text{ cfs}$   
 $8" \text{ SANITARY SEWER AT } 0.50\% = 0.85 \text{ cfs}$



NOTE:  
NOT TO BE USED AS CONSTRUCTION DRAWINGS.

**ASSOCIATES, INC.**  
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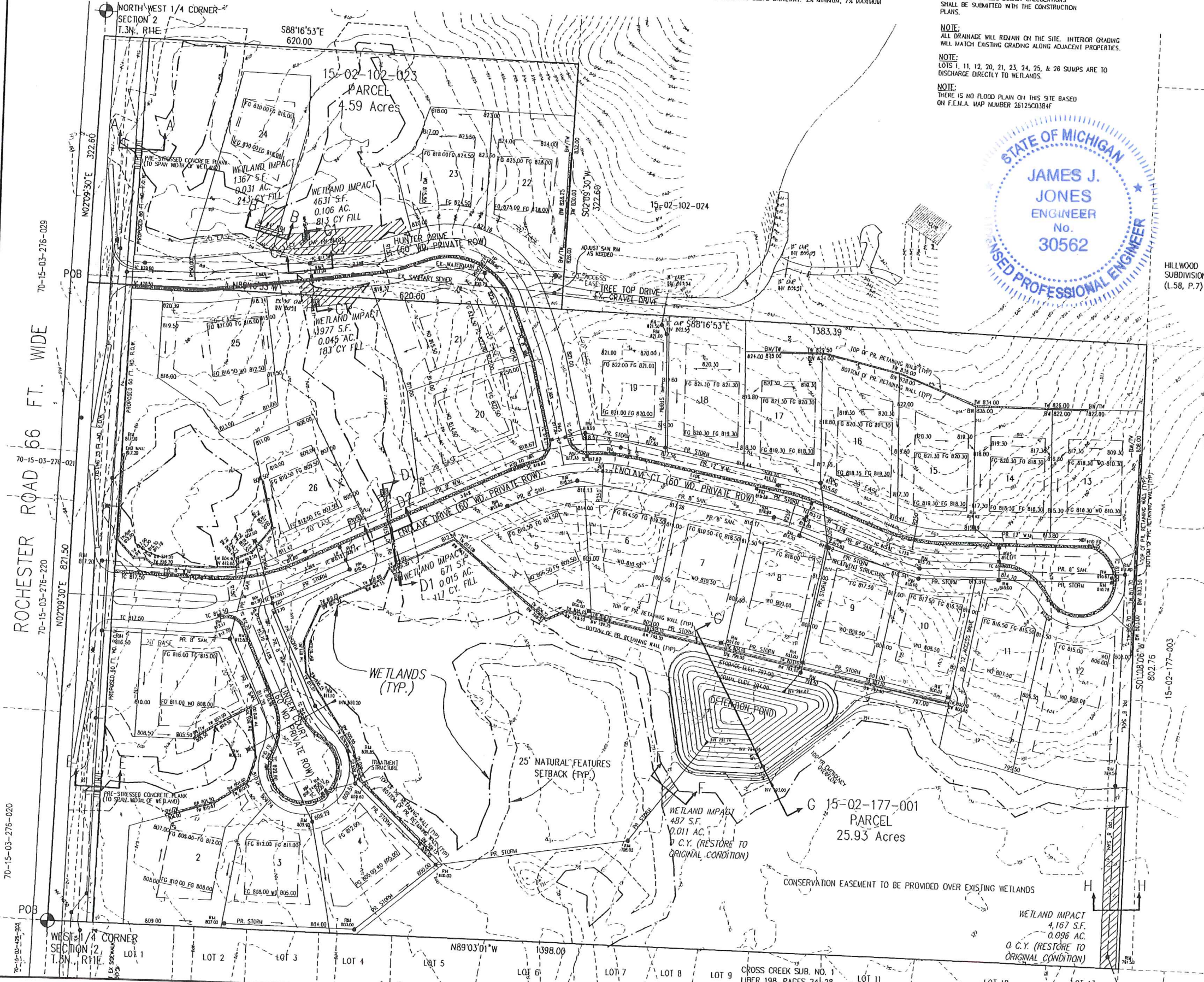
REV. DATE	DESCRIPTION
07/17/2014	REV. PER CITY
04/17/2014	WETLAND DETAILS
05/05/2014	REV. WETLAND DETAILS
07/26/2015	FINAL PLO

DATE: 12/20/2013  
DRAWN BY: J.L.S.  
CHECKED BY: J.J.J.

**ROCHESTER ENCLAVES**  
PART OF THE N.E. 1/4 OF SECTION 2,  
T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.

**PRELIMINARY UTILITY LAYOUT AND GRADING PLAN**

SCALE: 1" = 60'  
CITY FILE: 03-009  
DRAWING: PS-06-813  
3 of 6



ROCHESTER ROAD 66 FT. WIDE  
70-15-03-276-029  
70-15-03-276-021  
70-15-03-276-020

15-02-177-003

G 15-02-177-001  
PARCEL  
25.93 Acres

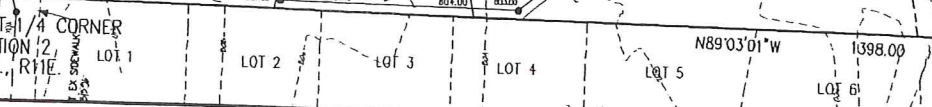
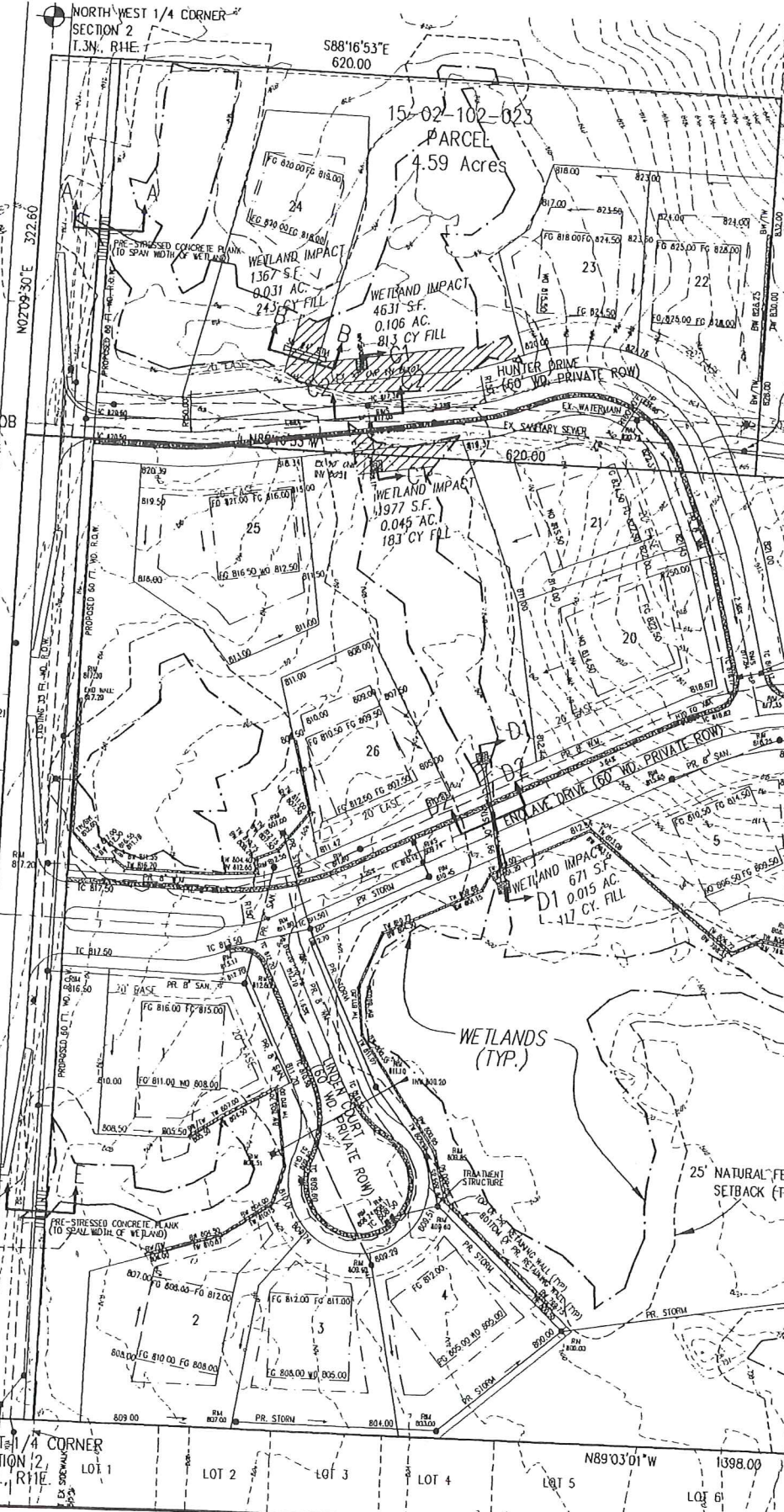
WETLAND IMPACT  
437 S.F.  
0.011 AC.  
0 C.Y. (RESTORE TO ORIGINAL CONDITION)

WETLAND IMPACT  
4,167 S.F.  
0.096 AC.  
0 C.Y. (RESTORE TO ORIGINAL CONDITION)

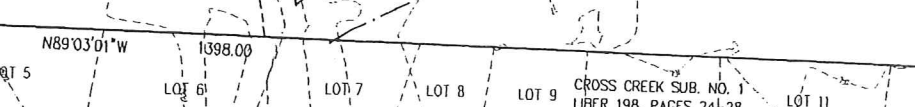
CONSERVATION EASEMENT TO BE PROVIDED OVER EXISTING WETLANDS

WETLANDS (TYP.)

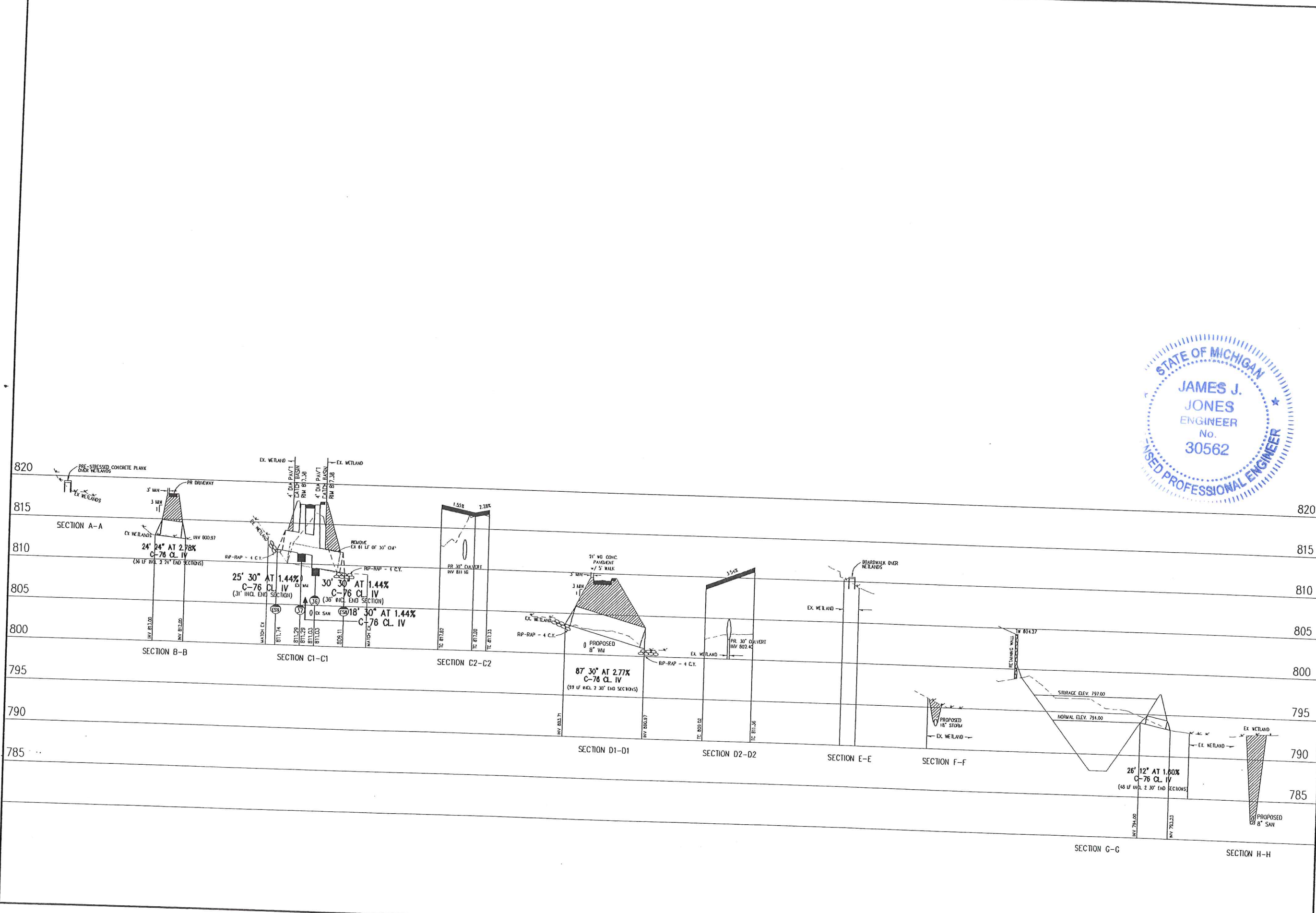
25' NATURAL FEATURES SETBACK (TYP.)



WEST 1/4 CORNER SECTION 2, T.3N., R.11E.







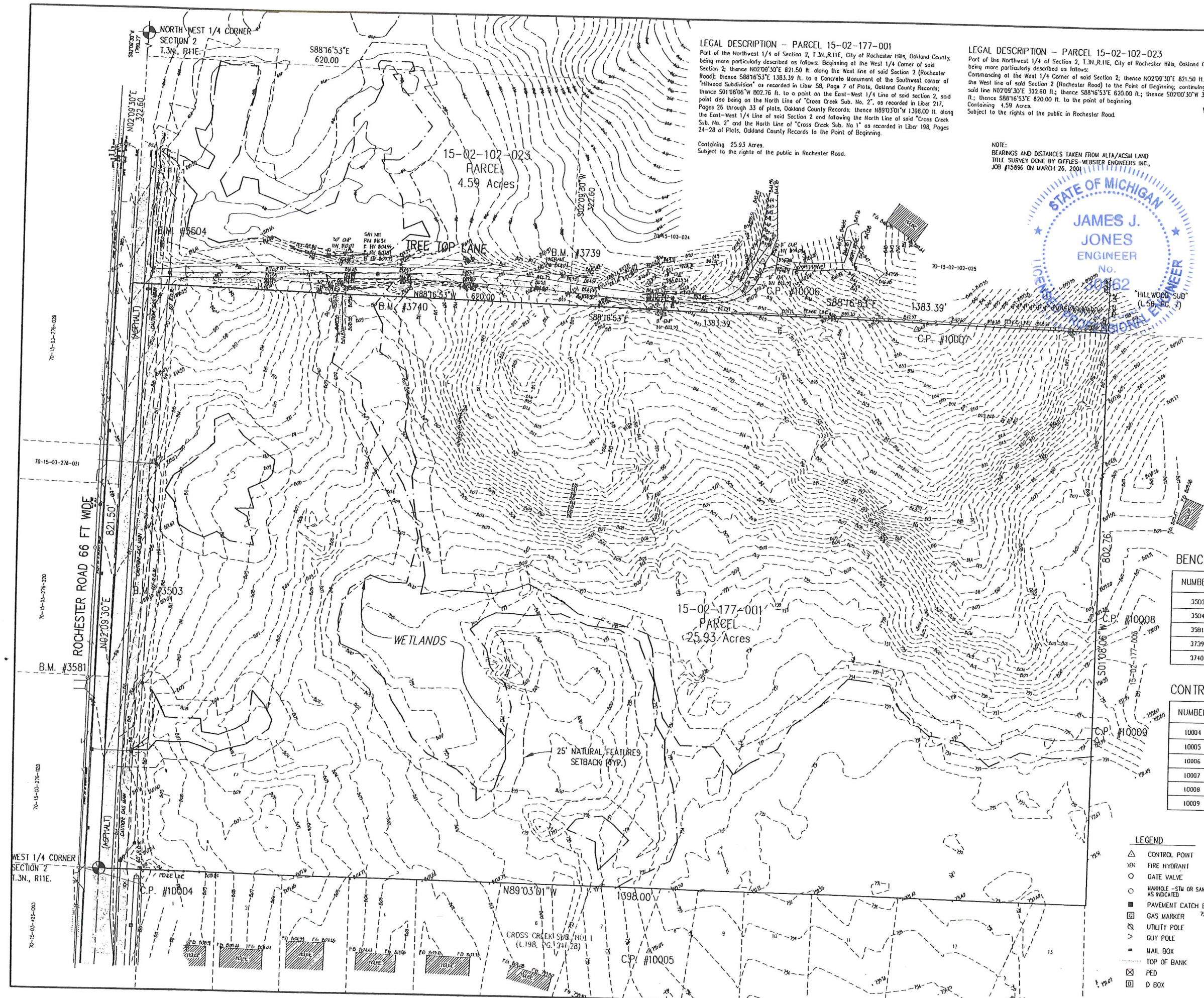
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 Telephone: (586) 726-9111 Fax: (248) 652-7707  
 Website: www.jjassoc.com

DATE	12/20/2013
DESCRIPTION	REVISED TO CITY WETLAND DETAILS REV. WETLAND DETAILS FINAL PUD
REV. DATE	03/14/2014 04/17/2014 08/05/2014 09/09/2014 02/26/2015
DRAWN BY	J.L.S.
CHECKED BY	J.J.J.

**ROCHESTER ENCLAVES**  
 PART OF THE N.E. 1/4 OF SECTION 2,  
 T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.  
 WETLAND DETAILS

SCALE: HOR 1"=50'  
 VER 1"=5'  
 CITY FILE# 03-009  
 DRAWING PS-06-813  
**3A of 6**



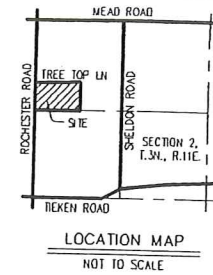
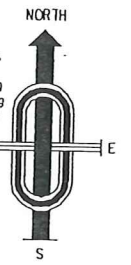
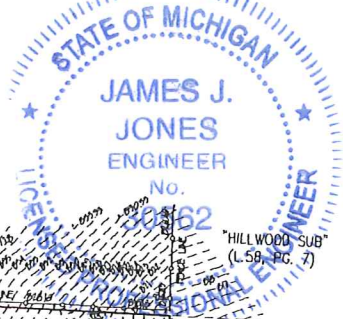


**LEGAL DESCRIPTION - PARCEL 15-02-177-001**  
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Containing 25.93 Acres.  
 Subject to the rights of the public in Rochester Road.

**LEGAL DESCRIPTION - PARCEL 15-02-102-023**  
 Part of the Northwest 1/4 of Section 2, T.3N, R.11E, City of Rochester Hills, Oakland County, being more particularly described as follows:  
 Commencing at the West 1/4 Corner of said Section 2; thence N02°09'30"E 821.50 ft. along the West line of said Section 2 (Rochester Road) to the Point of Beginning; continuing along said line N02°09'30"E 322.60 ft.; thence S88°16'53"E 620.00 ft.; thence S02°00'30"W 322.00 ft. to the Point of Beginning.  
 Containing 4.59 Acres.  
 Subject to the rights of the public in Rochester Road.

NOTE:  
 BEARINGS AND DISTANCES TAKEN FROM ALTA/ACSM LAND TITLE SURVEY DONE BY GIFFLES-WEBSTER ENGINEERS INC., JOB #15896 ON MARCH 26, 2001.



- PRIMARY BENCHMARK:**
- #3503: TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF ROCHESTER ROAD APPROXIMATELY ± 405' NORTH OF THE SOUTH PROPERTY LINE. ELEV. = 817.86
  - #3504: TOP NUT OF HYDRANT LOCATED ON THE EAST SIDE OF ROCHESTER ROAD APPROXIMATELY ± 58' NORTH OF THE NORTH PROPERTY LINE. ELEV. = 823.09
  - #3581: MAG NAIL IN EAST FACE OF BLACK WALNUT LOCATED ON THE WEST SIDE OF ROCHESTER ROAD APPROXIMATELY ± 305' NORTH OF THE SOUTH PROPERTY LINE. ELEV. = 818.45
  - #3739: ARROW ON HYDRANT LOCATED APPROXIMATELY 15' NORTH OF THE NORTH PROPERTY LINE AND 615' EAST OF THE CENTERLINE OF ROCHESTER ROAD. ELEV. = 826.19
  - #3740: VERTICAL MAG NAIL IN SOUTH ROOT OF 12" ASH (DEAD) TAG #748 LOCATED APPROXIMATELY 10' NORTH OF THE NORTH PROPERTY LINE AND 400' EAST OF THE CENTERLINE OF ROCHESTER ROAD. ELEV. = 812.24

NOTE:  
 WETLAND BOUNDARIES WERE DELINEATED BY KING & MASCREGOR ENVIRONMENTAL, INC. ON 8-28-13 AND WERE SURVEYED BY JJ ASSOCIATES, INC.

**BENCHMARKS:**

NUMBER	NORTHING	EASTING	ELEVATION
3503	5403.5793	5050.9769	817.86
3504	5877.3233	5070.4292	822.09
3581	5304.2097	4979.0529	818.45
3739	5845.9801	5641.3179	826.19
3740	5845.9801	5424.1454	812.24

**CONTROL POINTS:**

NUMBER	NORTHING	EASTING	ELEVATION
10004	4988.2269	5054.1293	813.93
10005	4898.2079	5781.7024	795.19
10006	5870.4931	5924.4107	835.25
10007	5870.4931	6142.6936	840.99
10008	5392.9975	6419.6154	802.35
10009	5208.7696	6409.8510	794.44

**LEGEND**

- △ CONTROL POINT
- XXX FIRE HYDRANT
- GATE VALVE
- MANHOLE - STW OR SAN AS INDICATED
- PAVEMENT CATCH BASIN
- GAS MARKER
- ⊗ UTILITY POLE
- > GUY POLE
- MAIL BOX
- TOP OF BANK
- ⊗ PED
- D BOX



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

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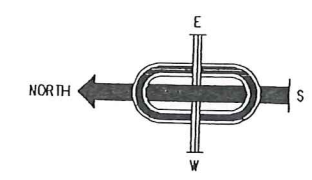
**JJ ASSOCIATES, INC.**  
 Civil Engineering and Surveying  
 1000 South Boulevard E. - Suite 200, Rochester Hills, MI 48307  
 Telephone: (586) 726-9111 Fax: (248) 852-7707  
 Website: www.jjassociates.net

DATE	REV. DATE	DESCRIPTION
12/20/2013		
03/14/2014	02/26/2015	SUBMITTAL TO CITY FINAL P.L.D.

**"ROCHESTER ENCLAVES"**  
 PART OF THE NE 1/4 OF SECTION 2,  
 T. 3N, R. 11E, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.  
**BOUNDARY, TOPOGRAPHIC AND WETLAND SURVEY**

SCALE	1" = 60'
CITY #	
DRAWING #	PS-06-813
	4 of 6



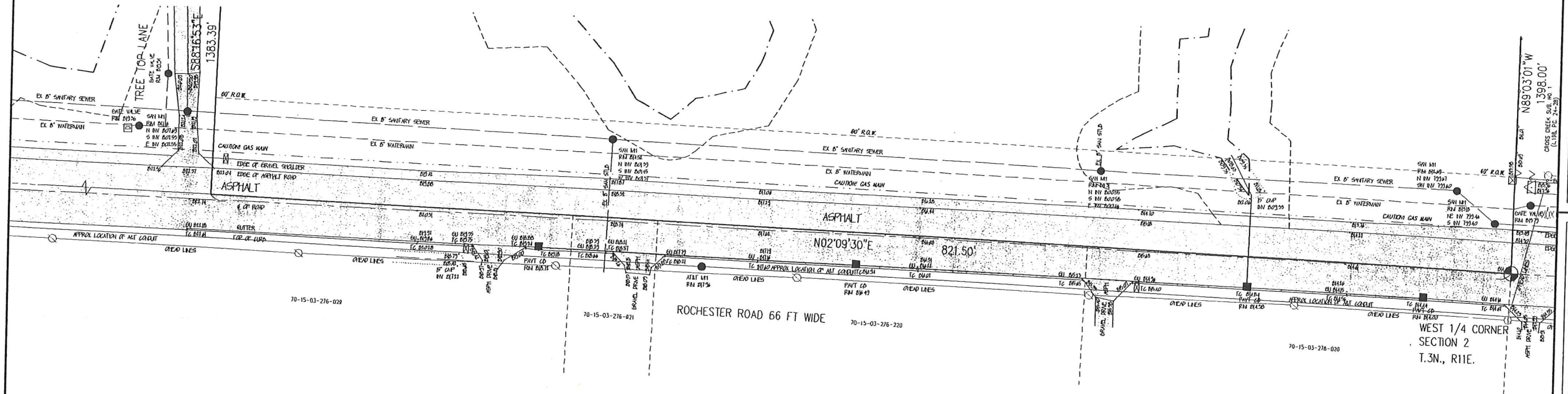


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Website: www.jjassociates.net

DATE	12/20/2013	REVISION	03/14/2014
DATE	02/26/2015	DESCRIPTION	FINAL P.U.D.
DATE	02/26/2015	DESCRIPTION	FINAL P.U.D.
DATE	02/26/2015	DESCRIPTION	FINAL P.U.D.

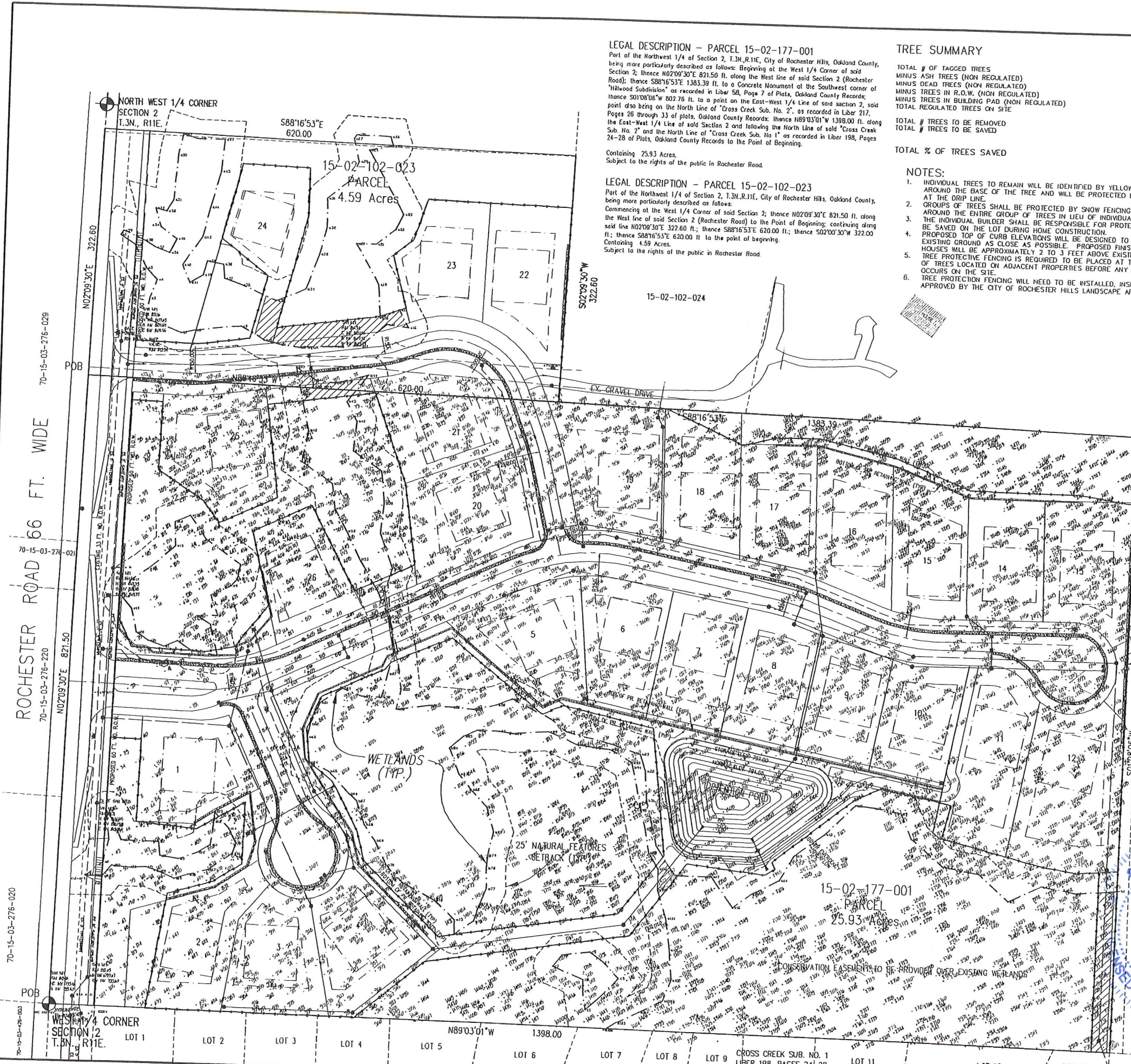
**ROCHESTER ENCLAVES**  
PART OF THE N.E. 1/4 OF SECTION 2,  
T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.

ROCHESTER ROAD TOPOGRAPHIC SURVEY



SCALE	1" = 30'
CITY	ROCHESTER HILLS
DRAWING	PS-06-813
5 of 6	





**LEGAL DESCRIPTION - PARCEL 15-02-177-001**  
 Part of the Northwest 1/4 of Section 2, T.3N., R.11E., City of Rochester Hills, Oakland County, being more particularly described as follows: Beginning at the West 1/4 Corner of said Section 2; thence N02°09'30"E 821.50 ft. along the West line of said Section 2 (Rochester Road); thence S88°16'53"E 1383.39 ft. to a Concrete Monument at the Southwest corner of "Hillwood Subdivision" as recorded in Liber 58, Page 7 of Plats, Oakland County Records; thence S01°08'08"W 802.76 ft. to a point on the East-West 1/4 Line of said section 2, said point also being on the North Line of "Cross Creek Sub. No. 2," as recorded in Liber 217, Pages 28 through 33 of plats, Oakland County Records; thence N89°03'01"W 1398.00 ft. along the East-West 1/4 Line of said Section 2 and following the North Line of said "Cross Creek Sub. No. 2" and the North Line of "Cross Creek Sub. No. 1" as recorded in Liber 198, Pages 24-28 of Plats, Oakland County Records to the Point of Beginning.

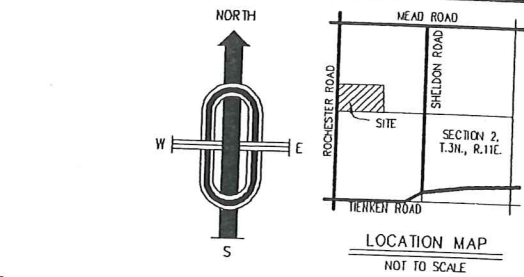
Containing 25.93 Acres.  
 Subject to the rights of the public in Rochester Road.

**LEGAL DESCRIPTION - PARCEL 15-02-102-023**  
 Part of the Northwest 1/4 of Section 2, T.3N., R.11E., City of Rochester Hills, Oakland County, being more particularly described as follows: Commencing at the West 1/4 Corner of said Section 2; thence N02°09'30"E 821.50 ft. along the West line of said Section 2 (Rochester Road) to the Point of Beginning; continuing along said line N02°09'30"E 322.60 ft.; thence S88°16'53"E 620.00 ft.; thence S02°09'30"W 322.60 ft.; thence S88°16'53"E 620.00 ft. to the point of beginning.  
 Containing 4.59 Acres.  
 Subject to the rights of the public in Rochester Road.

**TREE SUMMARY**

TOTAL # OF TAGGED TREES	3671
MINUS ASH TREES (NON REGULATED)	- 682
MINUS DEAD TREES (NON REGULATED)	- 362
MINUS TREES IN R.O.W. (NON REGULATED)	- 260
MINUS TREES IN BUILDING PAD (NON REGULATED)	- 313
TOTAL REGULATED TREES ON SITE	2055
TOTAL # TREES TO BE REMOVED	-1101
TOTAL # TREES TO BE SAVED	954
TOTAL % OF TREES SAVED	46%

- NOTES:**
- INDIVIDUAL TREES TO REMAIN WILL BE IDENTIFIED BY YELLOW FLAGGING AROUND THE BASE OF THE TREE AND WILL BE PROTECTED BY SNOW FENCE AT THE DRIP LINE.
  - GROUPS OF TREES SHALL BE PROTECTED BY SNOW FENCING PLACED AROUND THE ENTIRE GROUP OF TREES IN USE OF INDIVIDUAL TREES.
  - THE INDIVIDUAL BUILDER SHALL BE RESPONSIBLE FOR PROTECTING TREES TO BE SAVED ON THE LOT DURING HOME CONSTRUCTION.
  - PROPOSED TOP OF CURB ELEVATIONS WILL BE DESIGNED TO MATCH EXISTING GROUND AS CLOSE AS POSSIBLE. PROPOSED FINISH GRADE OF HOUSES WILL BE APPROXIMATELY 2 TO 3 FEET ABOVE EXISTING GROUND.
  - TREE PROTECTIVE FENCING IS REQUIRED TO BE PLACED AT THE DRIP LINE OF TREES LOCATED ON ADJACENT PROPERTIES BEFORE ANY ACTIVITY OCCURS ON THE SITE.
  - TREE PROTECTION FENCING WILL NEED TO BE INSTALLED, INSPECTED AND APPROVED BY THE CITY OF ROCHESTER HILLS LANDSCAPE ARCHITECT.

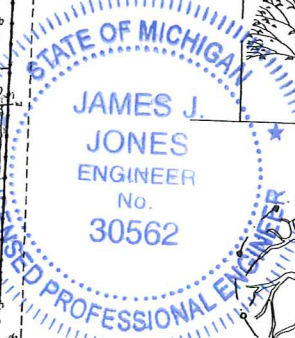
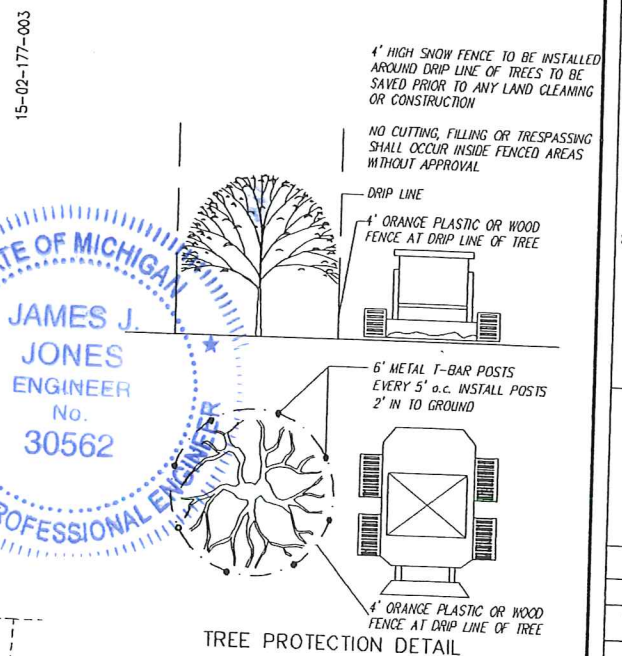


- TREE PROTECTION NOTES**
- The tree protection fencing (TPF) shall be erected per the plans approved by the City of Rochester Hills Planning Department. The TPF must be in place and be inspected by the City of Rochester Hills Landscape Architect prior to the start of any earthwork or construction operations. 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 Landscape Architect 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 TPF the City of Rochester Hills Landscape Architect 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 TPF inspection.
  - A final inspection by the City of Rochester Hills Landscape Architect is required at the end of the warranty and maintenance period. 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 TPF inspection.
  - The Tree Conservation Ordinance prohibits any construction or development activities within the drip line of and regulates trees not approved for removal, including but not limited to land clearing, grubbing, trenching, grading or filling, no person shall place any solvents, building material, 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/rod/rope to an existing tree designated to be preserved.
  - All utility service requests 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 of 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 an 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 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.

**HILLWOOD SUBDIVISION (L.58, P.7)**

Prior approval is required to plant any tree or shrub on the public right-of-way. All trees and shrubs must be planted at least 10' from the edge of the public road. Shade trees and shrubs must be planted at least 5' from the edge of the public roadway. Evergreen and ornamental trees must be planted at least 10' from the edge of the public roadway. No trees or shrubs may be planted within the triangular area formed at the intersection of any street right-of-way lines at a distance along each line of 25' from their point of intersection. Any driveway with a public sidewalk at a distance along each line of 15' from their point of intersection with a public sidewalk must be planted at least 10' from any fire hydrant. Shade and evergreen trees must be at least 15' away from the nearest overhead wire. Trees must be planted a minimum of 5' from an underground utility, unless the city's landscape Architect requires a greater distance.

Prior to the release of the performance bond, the City of Rochester Hills Forestry Division needs to inspect all trees existing or planted to identify any that pose a hazard to the safe use of the public right-of-way. Forestry may require the developer to remove, and possibly replace, any such trees.



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DESCRIPTION	REVISION TO CITY PERMITAL AND WETLAND DETAILS
REV. DATE	03/14/2014
REV. DATE	04/17/2014
REV. DATE	08/05/2014
REV. DATE	09/09/2014
REV. DATE	02/26/2015
DATE	12/20/2013
DRAWN BY	J.L.S.
CHECKED BY	J.L.J.

**"ROCHESTER ENCLAVES"**  
 PART OF THE NE 1/4 OF SECTION 2,  
 T. 3N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.

**TREE SURVEY AND PROTECTION PLAN**

SCALE: 1" = 60'  
 CITY FILE# 03-009  
 DRAWING: PS-06-813  
 6 of 6



NOTE:  
ROCHESTER ROAD IS UNDER THE JURISDICTION OF THE ROAD COMMISSION FOR OAKLAND COUNTY (RROC). A PERMIT FROM THE RROC IS REQUIRED FOR ALL WORK WITHIN THE ROCHESTER ROAD R.O.W.

NOTE:  
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

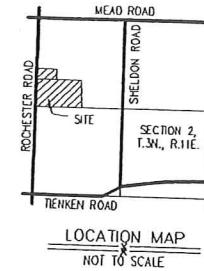
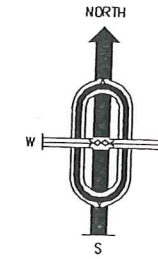
NOTE:  
ALL RETAINING WALLS TO BE BUILT BY DEVELOPER

NOTE:  
RETAINING WALLS EXCEEDING 48" IN HEIGHT SHALL BE DESIGNED BY A LICENSED ENGINEER. SIGNED AND SEALED DESIGN CALCULATIONS SHALL BE SUBMITTED WITH THE CONSTRUCTION PLANS.

NOTE:  
ALL DRAINAGE WILL REMAIN ON THE SITE. INTERIOR GRADING WILL MATCH EXISTING GRADING ALONG ADJACENT PROPERTIES

NOTE:  
LOTS 1, 11, 12, 20, 21, 23, 24, 25, & 26 SUMPS ARE TO DISCHARGE DIRECTLY TO WETLANDS.

NOTE:  
THERE IS NO FLOOD PLAN ON THIS SITE BASED ON F.E.N.A. MAP NUMBER 26125C0384F



STEEP SLOPE AREAS  
AREA 1 (788 SF): AREA TO BE REGRADED FOR SIDE YARD SWALE BETWEEN LOTS 5 & 6.  
AREA 2 (1388 SF): AREA TO BE REGRADED FOR PROPOSED ROAD.  
AREA 3 (813 SF): AREA TO REMAIN NATURAL IN OPEN SPACE.

(NOTE: ALL STEEP SLOPE AREAS ARE LESS THAN 5,000 S.F. AND THEREFORE ARE EXEMPT FROM THE PROVISIONS OF ARTICLE 9, CHAPTER 2.)

NOTE:  
THE ABOVE-MENTIONED STEEP SLOPE AREAS 1 AND 2 ARE BEING RE-GRADED TO THE PROPOSED ELEVATIONS SHOWN ON THIS SHEET IN ORDER TO CONFORM TO THE GRADING STANDARDS AS SPECIFIED BY THE CITY OF ROCHESTER HILLS BUILDING AND ENGINEERING DEPARTMENTS. THE PROPOSED RE-GRADING WILL ELIMINATE EXISTING EROSION, ENHANCE DRAINAGE AND PROVIDE GREATER PROTECTION OF THE ADJACENT AREAS

HILLWOOD SUBDIVISION (L.58, P.7)

LEGEND

- STEEP SLOPE AREAS
- CONTROL POINT
- FIRE HYDRANT
- GATE VALVE
- MANHOLE - SW OR S/W AS INDICATED
- PAVEMENT CATCH BASIN
- REAR YARD CATCH BASIN
- GAS MARKER
- PED
- UTILITY POLE
- GUY POLE
- LIGHT POLE
- SIGN
- MAIL BOX
- STORM SEWER
- SANITARY SEWER
- WATERMAIN



**"ROCHESTER ENCLAVES"**  
PART OF THE N.E. 1/4 OF SECTION 2,  
T. 34N., R. 11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN.

STEEP SLOPE PLAN

SCALE: 1" = 60'  
CITY FILE# 03-009  
DRAWING PS-06-813-A

1 of 1

NOTE:  
NOT TO BE USED AS CONSTRUCTION DRAWINGS.

**ASSOCIATES, INC.**  
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Website: www.jacobsoninc.net

REVISIONS  
SUBMITTED TO CITY  
REV. PER CITY  
WETLAND DETAILS  
REV. WETLAND DETAILS  
FINAL PUD

REV. DATE  
03/17/2014  
04/17/2014  
06/05/2014  
09/09/2014  
01/20/2015

DATE  
12/20/2013  
DRAWN BY  
J.L.S.  
CHECKED BY  
J.J.J.



ROCHESTER ROAD 66 FT. WIDE

WEST 1/4 CORNER SECTION 2, T.3N., R.11E.

LOT 1 LOT 2 LOT 3 LOT 4 LOT 5 LOT 6 LOT 7 LOT 8 LOT 9 LOT 10 LOT 11 LOT 12 LOT 13

CROSS CREEK SUB. NO. 1 LIBER 198, PAGES 24-28

BEFORE YOU DIG CALL MISS DIG 1-800-482-7171