

# OAKRIDGE DENTAL DESIGN DEVELOPMENT SET

## 01010

### SUMMARY OF WORK

New approx. 5,000 square feet, single story dentist office with surface parking lot for 19 cars and site improvements.

### LEGAL DESCRIPTION OF PROPERTY:

T3N, R11E, SEC 22 PART OF SW 1/4 BEG AT SW SEC COR, TH N 399.94 FT, TH N 89-40-00 E 335 FT, TH S 399.91 FT, TH S 89-39-00 W 335 FT TO BEG, EXC S 60 FT IN RD, ALSO EXC W 60 FT OF N 260 FT OF S 320 FT IN RD 2.26 AB321B-2

Site Area: 92,802 SF or 2.13 Acres  
Tax ID: 15-22-351-002

### PROJECT OWNER:

Samer Obeid  
3115 Glengrove Drive  
Rochester Hills, MI 48309

### PROJECT DESIGNER:

MI/DTW LLC  
1938 Franklin St. #204 Detroit, MI 48207  
313-874-5936 / 866-857-6421 fax  
www.MIDTW.com

### ARCHITECT OF RECORD:

Craig Borum  
679 S. Wagner Rd.  
Ann Arbor, MI 48103  
734-827-2238  
www.plyarch.com

### MECHANICAL / ELECTRICAL / PLUMBING ENGINEER:

MA Engineering  
320-398 Daines St,  
Birmingham, MI 48009  
248-258-1610

### STRUCTURAL ENGINEER:

Artisan Engineering  
2441 S Christian Hills Drive  
Rochester Hills, MI 48309  
248-243-3940

### CIVIL ENGINEER:

Engineering Services, Inc.  
32232 Schoolcraft Road, Suite C-3  
Livonia, MI 48150  
734-525-7330

### LANDSCAPE ARCHITECT:

Nagy Devlin Land Design, L.L.C.  
31736 West Chicago Avenue  
Livonia, MI 48150  
734-634-9208

### PROPERTY OWNER:

Samer Obeid  
3115 Glengrove Drive  
Rochester Hills, MI 48309

## CODE ANALYSIS

Current Building Codes:  
2015 Michigan Building Code  
2015 Michigan Plumbing Code  
2015 Michigan Mechanical Code  
2014 National Electrical Code  
2015 International Fire Code

Use and Occupancy Classification:  
Per Section 304  
Business B (Professional Services, Amb. Care Facility)

Proposed Building:  
Dentist Office: 4,760 SF

Allowable Height and Area:  
Construction Type Classification: Type V-B  
Per Section 504.3 Maximum Building Height  
Max. Height = 40'  
Per Section 504.4 Maximum Stories Above Grade  
Max. 2 Stories above grade  
Per Section 506.2 Maximum Floor Area  
Max. 9,000 SF floor area

Construction Type V-B:  
Per Table 601

Structural Frame: 0 HR FIRE RESISTANCE RATING  
Exterior Bearing Walls: 0 HR FIRE RESISTANCE RATING  
Interior Bearing Walls: 0 HR FIRE RESISTANCE RATING  
Non-Bearing Walls and Partitions: 0 HR  
Floor Construction: 0 HR FIRE RESISTANCE RATING

Occupancy:  
Total SF = 4,760 GSF  
Occupancy per Table 1004.1.2  
Dentist Office: 100 GSF = 4,760/100 = 48 Persons  
Total Occupant Load = 48 Persons

Means of Egress:  
No. of Exits Required: 1 Per 1006.2.1  
Maximum Exit Access Travel Distance:  
200' Per Table 1017.2  
Maximum Common Path of Egress Travel Distance: 75' (OL>30)  
Proposed Maximum Allowable Travel Distance: 134'

Plumbing Fixtures for Use B:  
WC's: 1/25 (First 50) 1/50 Remaining = 1 Men's & 1 Woman's Required  
Lavs: 1/40 (First 80) 1/80 Remaining = 1 Men's & 1 Woman's Required  
Per 2902.2 Separate Facilities Exception (2):  
Separate Men's & Women's facilities are not required

Patients: 1 Unisex ADA Accessible Bathrooms Provided  
Employees: 1 Unisex ADA Accessible Bathrooms Provided  
Office: 1 Private Bathroom Provided

Drinking Fountains: 1/100 = 1 Required 1 Provided  
Service Sink: 1 Required 1 Provided

Fire Suppression:  
Building shall be equipped throughout with an automatic sprinkler system installed in accordance with MBC Section 903.3.1

Per 907.2.2.1 Electronically supervised automatic smoke detection system is required.

Project Includes:  
Architectural, Civil, Landscape, Structural  
Mechanical, Electrical, Plumbing, Interior

END OF SECTION

## ZONING ANALYSIS

Zoning Ordinance:  
City of Rochester Hills

Zoning Classification:  
Per Conditional Rezoning May 17, 2010  
O-1 Office Business District w/  
MR Mixed Residential Overlay  
Future Land Use: Mixed Residential

Proposed Use:  
Professional & Medical Offices  
Permitted use per Section Sec. 138-4.300

Intensity & Dimensional Requirements:  
Per Section Conditional Rezoning  
Max. Building Height 2 Stories / 32 Feet  
Proposed: 1 Story / 16'  
Minimum Yard Setbacks  
Front (Livernois): 35'  
Proposed: +/- 40'  
Side: 30'/20' (North/South)  
Proposed: 109' / 108'  
Rear: 35'  
Proposed: 104'

Off-street Parking Requirements:  
Per Section 138-11.204  
Min # Parking Spaces  
1 Space per 350 sq. ft. of floor area  
4,760 SF / 350 SF = 14 Parking Spaces  
Max # Parking Spaces  
1.25 x 14 = 18 Parking Spaces  
Min. Barrier Free Spaces  
1 BF Space 11'-0" wide with 5'-0" drive aisle  
Loading Space: No requirement  
Only small parcel delivery trucks expected

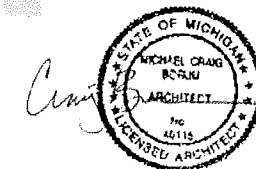
Proposed Parking  
18 Parking Spaces  
1 Barrier Free Parking Space

## DRAWING INDEX

#	DRAWING TITLE	ISSUE DATE	REVISION
A001	COVER SHEET	03 JUL, 2017	01
B102	BOUNDARY AND TOPOGRAPHIC SURVEY	31 MAY, 2017	
C-01	REMOVAL PLAN	03 JUL, 2017	
C-02	SITE & UTILITY PLAN	03 JUL, 2017	
C-03	GRADING PLAN	03 JUL, 2017	
01	PHOTOMETRIC PLAN	05 JUL, 2017	
LP-1	LANDSCAPE PLANTING PLAN	05 JUL, 2017	
LP-2	LANDSCAPE NOTES & DETAILS	05 JUL, 2017	
LP-3	TREE PRESERVATION PLAN	05 JUL, 2017	
AS101	ARCHITECTURAL SITE PLAN	03 JUL, 2017	
A101	FLOOR PLAN	03 JUL, 2017	
A201	EXTERIOR ELEVATIONS	03 JUL, 2017	
A202	EXTERIOR VIGNETTES	03 JUL, 2017	



1 LOCATION REFERENCE  
SCALE: NOT TO SCALE



# OAKRIDGE DENTAL

WEST HAMLIN & SOUTH LIVERNOIS, ROCHESTER HILLS, MI 48307

PROJECT 1631  
ALL WRITTEN MATERIALS DOCUMENTED HEREIN © 2017 MI/DTW LLC

DATE: 03 JUL 2017

DATE SET  
05/31/17 SITE PLAN APPR.  
07/03/17 SITE PLAN APPR.  
REVISION 01

RECEIVED  
JULY 07, 2017

PRELIMINARY  
NOT FOR CONSTRUCTION

SCALE: AS NOTED

COVER SHEET

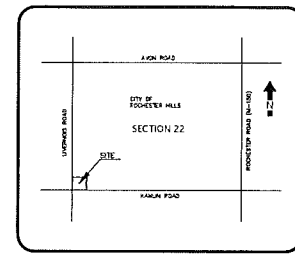
# A001

MI/DTW 1938 FRANKLIN STREET / #204 / DETROIT / MI / 48207 / USA / 313 874 5936 / 866 857 6421 FAX / MAIL@MIDTW.COM

MI/DTW

CITY FILE NO. #17-020

# BOUNDARY / TOPOGRAPHIC AND TREES SURVEY



LOCATION MAP  
NOT TO SCALE

**LEGAL DESCRIPTION: (AS PROVIDED BY CLIENT)**  
**(PER CISLO TITLE COMPANY)**  
**FILE NUMBER: 16-83313**  
**COMMITMENT DATE: NOVEMBER 17, 2016**

**SCHEDULE C**

**LEGAL DESCRIPTION**

A PARCEL OF LAND BEING PART OF THE SOUTHWEST 1/4 OF SECTION 22, TOWN 3 NORTH, RANGE 11 EAST, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 22; THENCE NORTH 399.94 FEET; THENCE N 89°40'00" E 335.00 FEET; THENCE SOUTH 399.91 FEET; THENCE S 89°39'00" W 335.00 FEET TO THE POINT OF BEGINNING, EXCEPT THE SOUTH 60 FEET IN ROAD, ALSO EXCEPT THE WEST 60 FEET OF THE NORTH 260 FEET OF THE SOUTH 320 FEET.

CONTAINS 98,284 SQ. FT. OR 2.256 ACRES OF LAND.  
 SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORDS, IF ANY.  
 PARCEL NUMBER: 15-22-351-002

**REMAINDER PARCEL DESCRIPTION PER FILED FINDINGS**

A PARCEL OF LAND BEING PART OF THE SOUTHWEST 1/4 OF SECTION 22, TOWN 3 NORTH, RANGE 11 EAST, AVON TOWNSHIP (NOW CITY OF ROCHESTER HILLS), OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 22; THENCE N 89°40'44" E ALONG THE SOUTH LINE OF SAID SECTION 22, A DISTANCE OF 60.00 FEET; THENCE N 00°00'00" E ALONG A LINE PARALLEL TO THE WEST LINE OF SAID SECTION 22 A DISTANCE OF 100.00 FEET TO THE EASTERLY 60.00 FEET RIGHT OF WAY LINE OF LIVERNOIS AVENUE AND TO THE POINT OF BEGINNING; THENCE N 00°00'00" E ALONG A LINE PARALLEL TO THE WEST LINE OF SAID SECTION 22 AND ALONG THE EASTERLY 60.00 FEET RIGHT OF WAY LINE OF LIVERNOIS ROAD, A DISTANCE OF 299.95 FEET; THENCE N 89°40'44" E, A DISTANCE OF 275.00 FEET; THENCE S 00°00'00" E, A DISTANCE OF 340.01 FEET TO THE NORTHERLY 60.00 FEET RIGHT OF WAY LINE OF HAMLIN ROAD; THENCE S 89°40'44" W ALONG A LINE PARALLEL TO THE SOUTH LINE OF SAID SECTION 22 AND ALONG THE NORTHERLY 60 FEET RIGHT OF WAY LINE OF HAMLIN ROAD, A DISTANCE OF 240.84 FEET; THENCE N 40°37'56" W, A DISTANCE OF 52.45 FEET TO THE POINT OF BEGINNING.

CONTAINS 92,809.666243 SQ. FT. OR 2.1306 ACRES OF LAND.  
 SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORDS, IF ANY.  
 PARCEL NUMBER: 15-22-351-002

**SCHEDULE BII EXCEPTIONS**

ITEM 7. SUBJECT TO THE TERMS, CONDITIONS AND OTHER MATTERS CONTAINED IN AN EASEMENT DATED NOVEMBER 24, 1970 AND RECORDED FEBRUARY 2, 1971 IN LIBER 5615 PAGE 263, OAKLAND COUNTY RECORDS. (PLOTTED, FALLS WITHIN THE ROADS RIGHT-OF-WAY)

ITEM 9. EASEMENT GRANTED TO THE CITY OF ROCHESTER HILLS, DISCLOSED BY INSTRUMENT RECORDED IN LIBER 40417 PAGE 560. (PLOTTED)

**BOUNDARY NOTE:**

1- ALL BEARINGS ARE IN RELATIONSHIP TO THE FOUND CONCRETE MONUMENT (FOUND SECTION CORNERS) ALONG THE CENTERLINE OF LIVERNOIS ROAD ALSO BEING THE WEST LINE OF SECTION 22, TOWN 3 NORTH, RANGE 11 EAST, AVON TOWNSHIP (NOW CITY OF ROCHESTER HILLS), OAKLAND COUNTY, MICHIGAN. BEARING USED: N 00°00'00" E (PER LEGAL DESCRIPTION)

**FLOOD HAZARD NOTE:**

THE DESCRIBED PARCEL IS NOT LOCATED WITHIN THE FLOOD HAZARD AREAS AS INDICATED BY "FIRM" THE FLOOD INSURANCE RATE MAP NUMBER 26125C0394F, PANEL 394 OF 704 CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN. COMMUNITY: CITY OF ROCHESTER HILLS NUMBER: 250041 PANEL: 0394 SUFFIX: F EFFECTIVE DATE: SEPTEMBER 29, 2006 AS PREPARED BY THE NATIONAL FLOOD INSURANCE PROGRAM, FEDERAL EMERGENCY MANAGEMENT AGENCY.

**SURVEYOR'S NOTES:**

- NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A MICHIGAN LICENSED PROFESSIONAL SURVEYOR.
- PROPERTY CORNERS WILL BE SET AT THE BEGINNING OF THE CONSTRUCTION TIME SCHEDULE
- (a) NO OBSERVED EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS AT TIME OF SURVEY.
- (b) NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS AT TIME OF SURVEY.
- (c) NO OBSERVED EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL AT TIME OF SURVEY.

DATE	DESCRIPTION	BY
10/15/16	Survey	...
10/16/16	Survey	...
10/17/16	Survey	...
10/18/16	Survey	...
10/19/16	Survey	...
10/20/16	Survey	...
10/21/16	Survey	...
10/22/16	Survey	...
10/23/16	Survey	...
10/24/16	Survey	...
10/25/16	Survey	...
10/26/16	Survey	...
10/27/16	Survey	...
10/28/16	Survey	...
10/29/16	Survey	...
10/30/16	Survey	...
10/31/16	Survey	...
11/01/16	Survey	...
11/02/16	Survey	...
11/03/16	Survey	...
11/04/16	Survey	...
11/05/16	Survey	...
11/06/16	Survey	...
11/07/16	Survey	...
11/08/16	Survey	...
11/09/16	Survey	...
11/10/16	Survey	...
11/11/16	Survey	...
11/12/16	Survey	...
11/13/16	Survey	...
11/14/16	Survey	...
11/15/16	Survey	...
11/16/16	Survey	...
11/17/16	Survey	...
11/18/16	Survey	...
11/19/16	Survey	...
11/20/16	Survey	...
11/21/16	Survey	...
11/22/16	Survey	...
11/23/16	Survey	...
11/24/16	Survey	...
11/25/16	Survey	...
11/26/16	Survey	...
11/27/16	Survey	...
11/28/16	Survey	...
11/29/16	Survey	...
11/30/16	Survey	...
12/01/16	Survey	...
12/02/16	Survey	...
12/03/16	Survey	...
12/04/16	Survey	...
12/05/16	Survey	...
12/06/16	Survey	...
12/07/16	Survey	...
12/08/16	Survey	...
12/09/16	Survey	...
12/10/16	Survey	...
12/11/16	Survey	...
12/12/16	Survey	...
12/13/16	Survey	...
12/14/16	Survey	...
12/15/16	Survey	...
12/16/16	Survey	...
12/17/16	Survey	...
12/18/16	Survey	...
12/19/16	Survey	...
12/20/16	Survey	...
12/21/16	Survey	...
12/22/16	Survey	...
12/23/16	Survey	...
12/24/16	Survey	...
12/25/16	Survey	...
12/26/16	Survey	...
12/27/16	Survey	...
12/28/16	Survey	...
12/29/16	Survey	...
12/30/16	Survey	...
12/31/16	Survey	...

**DEFINITION OF RATINGS:**

**\* GOOD:**  
 The tree appears to be in a healthy and satisfactory condition with an overall sound stem structure and with a full and balanced crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty-five (25) years.

**\* FAIR:**  
 The tree appears to be in a healthy and satisfactory condition with a minimum of structural problems and with minor crown imbalance or thin crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty (20) years.

**\* POOR:**  
 The tree appears to be in an unhealthy condition with structural problems and with major crown imbalance, dead or dying limbs, or growth only in the top quarter of the tree; the growth habit is misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than ten (10) years.

**\* VERY POOR (V. Poor):**  
 The tree appears to be in an unhealthy condition with major structural problems and with major crown imbalance or several dead limbs and/or peeling bark; the growth habit is severely misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than five (5) years.

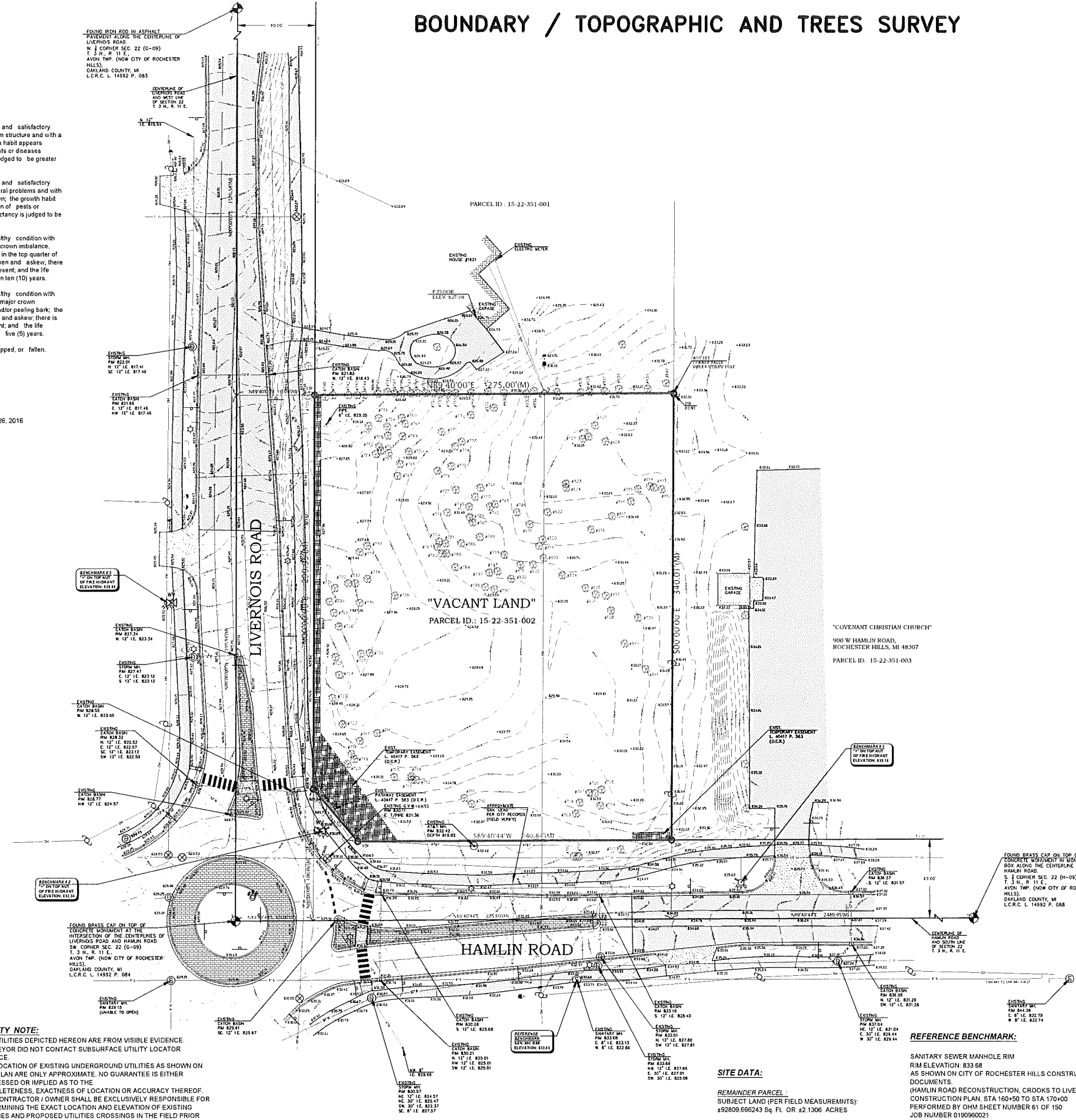
**\* DEAD:**  
 The tree has no live branches, is topped, or fallen.

**CERTIFIED BY:**  
 LANDSCAPE PLAN BY:  
 Nagy Devlin Land Design  
 31736 West Chicago Ave  
 Livonia, Michigan 48150  
 (734) 634-9208  
 Date of Trees Inventory: December 26, 2016

**LEGEND OF SYMBOLS & ABBREVIATIONS**

(M)	FIELD MEASUREMENT
(TYP.)	TYPICAL
EXIST.	EXISTING
CONC.	CONCRETE
R.O.W	RIGHT-OF-WAY
I.E.	INVERT ELEVATION
M.H.	MANHOLE
SC	SECTION CORNER
○ FIR	FOUND IRON ROD
○ SIR	SET IRON ROD
○ SPK	SET PK NAIL
---	BOUNDARY LINE
--- AT&T	UNDERGROUND AT&T CABLE LINES
--- E	UNDERGROUND ELECTRIC LINES
--- G	UNDERGROUND GAS LINES
--- R	STORM SEWER
--- S	SANITARY SEWER
--- W	WATER
--- OH	OVERHEAD ELECTRIC LINES
⊗	GATE VALVE & WELL
⊙	SANITARY SEWER MANHOLE
⊙	STORM SEWER MANHOLE
⊙	AT&T MANHOLE
□	SQUARE CATCH BASIN
⊗	WATER IN THE BOX
⊙	HYDRANT
⊙	LIGHT POLE
⊙	UTILITY POLE
⊙	GUY WIRE
⊙	TREE
#12	TREES TAG NUMBER
⊙	MAIL BOX
■	CONCRETE SURFACE
■	ASPHALT PAVEMENT
■	GRAVEL SURFACE
■	PATHWAY EASEMENT HATCH
■	TEMPORARY EASEMENT HATCH

**UTILITY NOTE:**  
 ALL UTILITIES DEPICTED HEREON ARE FROM VISIBLE EVIDENCE SURVEYOR DID NOT CONTACT SUBSURFACE UTILITY LOCATOR SERVICE.  
 THE LOCATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS PLAN ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS, EXACTNESS OF LOCATION OR ACCURACY THEREOF. THE CONTRACTOR / OWNER SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND PROPOSED UTILITIES CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION OR ANY SITE MODIFICATION.



**REFERENCE BENCHMARK:**

SANITARY SEWER MANHOLE RIM  
 RIM ELEVATION: 833.68  
 AS SHOWN ON CITY OF ROCHESTER HILLS CONSTRUCTION DOCUMENTS.  
 (HAMLIN ROAD RESTAURATION, CROOKS TO LIVERNOIS, CONSTRUCTION PLAN, STA 160+50 TO STA 170+00 PERFORMED BY OHM SHEET NUMBER 61 OF 150 JOB NUMBER 01509560021 DATED: 05/12/2008)

**SITE DATA:**

REMAINDER PARCEL:  
 SUBJECT LAND (PER FIELD MEASUREMENTS):  
 #92809.666243 Sq Ft OR 2.1306 ACRES

**ACCURATE SURVEYING AND MAPPING**  
 LAND SURVEYING/DEVELOPMENT CONSULTANT  
 19500 Middlebelt Rd., Suite 340E  
 Livonia, MI 48152  
 www.accurate-surveying.com  
 PH: 313-506-3160  
 PH: 734-437-7740  
 Fax: 734-437-7759

**SEAL:**  
 DATE: DECEMBER 30, 2016  
 CLIENT:  
 DR. SAMER OBEID  
 'SSO LIMITED, LLC'

**PROJECT LOCATION:**  
 "VACANT LAND" AT NORTHEAST CORNER OF HAMLIN ROAD & LIVERNOIS ROAD, CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MI, 48307

**SHEET:**  
 BOUNDARY / TOPOGRAPHIC & TREES SURVEY

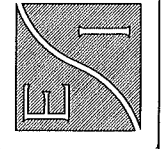
**DATE:** **REVISION:**

**RECEIVED**  
**JULY 07, 2017**

**DRAWN BY:**  
**DESIGNED BY:**  
**APPROVED BY:**  
 C. WEHBE  
**SURVEY DATE:**  
 DECEMBER, 2016  
**SCALE:**  
 1" = 40'  
**BOOK #:**  
 B-102  
**JOB NO. SHEET NO.:**  
 016-163 1 OF 1

"NOT FOR CONSTRUCTION"

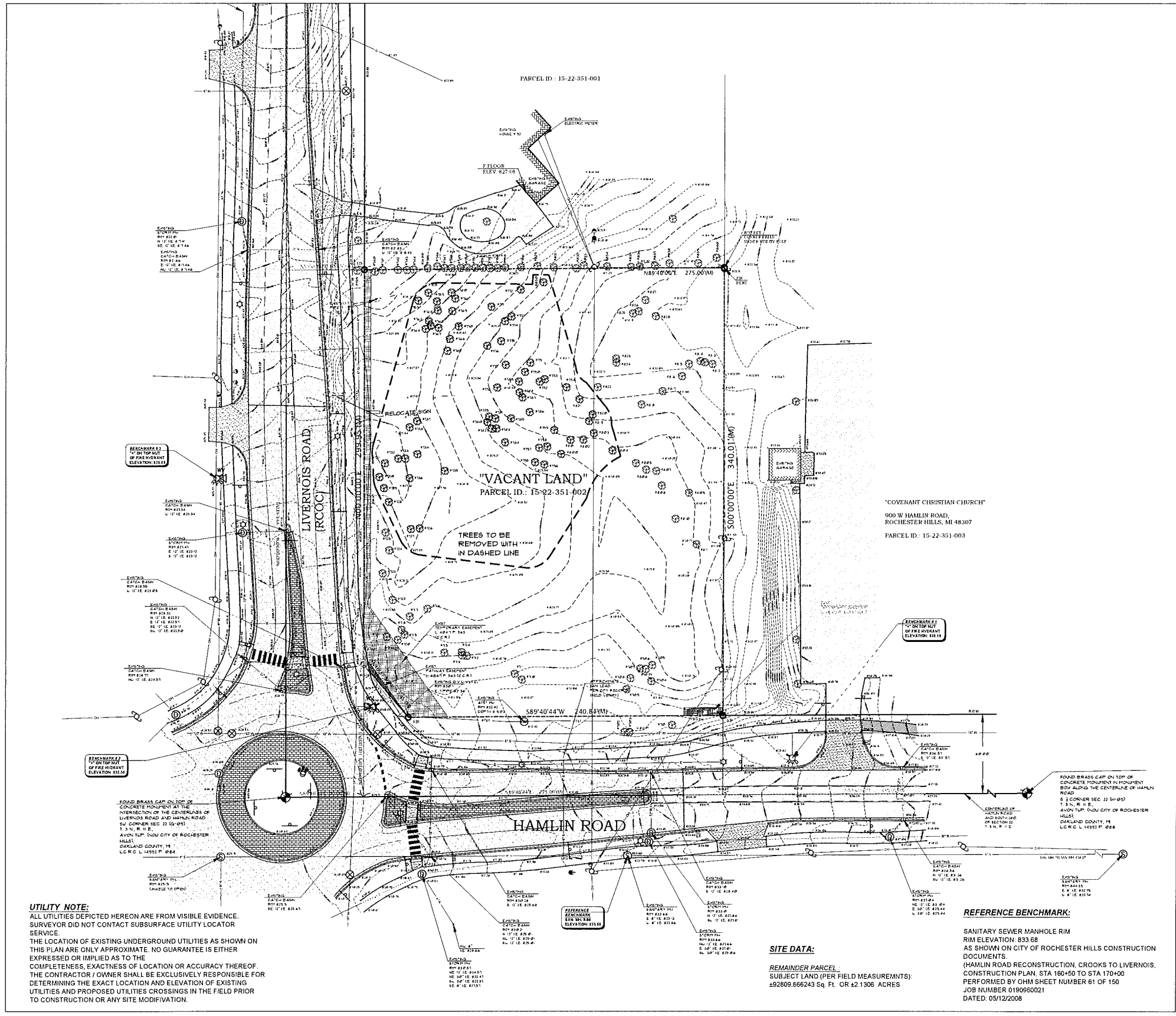
CONSULTING ENGINEERS  
32232 SCHOOLCRAFT ROAD  
TAYLOR, MICHIGAN 48150  
PH # (734) 525-7330  
FAX # (734) 525-7225  
ENGINEERING SERVICES, INC.  
CIVIL, ARCHITECTURE, ENVIRONMENTAL, GEOTECH, SURVEYING.



TITLE **OAKRIDGE DENTAL**  
WEST HAMLIN & SOUTH LIVERNOIS,  
ROCHESTER HILLS, MI 48307  
DESIGNED BY: G. KHALAF, P.E.  
SCALE: 1" = 40'  
APPROVED BY: H. SHARR, P.E.  
DATE: 08/03/15  
DRAWING NO.: C-01

**REMOVAL PLAN**

NO.	DATE	REVISIONS
02	07/03/17	REVISED PER CITY'S COMMENTS ON 06/28/2017



**UTILITY NOTE:**  
ALL UTILITIES DEPICTED HEREON ARE FROM VISIBLE EVIDENCE. SURVEYOR DID NOT CONTACT SUBSURFACE UTILITY LOCATOR SERVICE.  
THE LOCATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS PLAN ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS, EXACTNESS OF LOCATION OR ACCURACY THEREOF. THE CONTRACTOR / OWNER SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND PROPOSED UTILITIES CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION OR ANY SITE MODIFICATION.

**REFERENCE BENCHMARK:**  
SANITARY SEWER MANHOLE RIM  
RIM ELEVATION: 833.68  
AS SHOWN ON CITY OF ROCHESTER HILLS CONSTRUCTION DOCUMENTS.  
(HAMLIN ROAD RECONSTRUCTION, CROOKS TO LIVERNOIS, CONSTRUCTION PLAN, STA 160+50 TO STA 170+00 PERFORMED BY OHM SHEET NUMBER 61 OF 150 JOB NUMBER 0196950021 DATED: 03/12/2008)

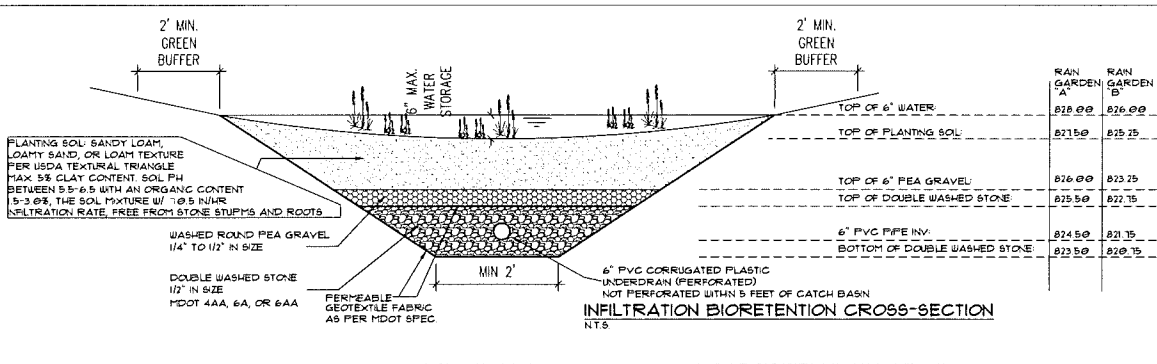
**SITE DATA:**  
REMAINDER PARCEL:  
SUBJECT LAND (PER FIELD MEASUREMENTS):  
±92809.666243 Sq. Ft. OR ±2.1306 ACRES

RECEIVED  
JULY 07, 2017



CITY FILE NO. 17-020

"NOT FOR CONSTRUCTION"



**SANITARY SEWER LOAD CALCULATIONS FOR 6" SANITARY LEAD**  
 NUMBER OF BUILDINGS - INITIAL 1 (2.26 ACRES)  
 ULTIMATE 1 (2.26 ACRES)  
 NUMBER OF PERSONS PER BUILDING - 48 PERSONS (USING OCCUPANT LOAD)  
 TOTAL NUMBER OF PERSONS= INITIAL 48  
 ULTIMATE NUMBER OF PERSONS= ULTIMATE 48  
 AVERAGE SANITARY FLOW = 100 GALS. P.C.D.  
 TOTAL AVG. SANITARY FLOW -  
 INITIAL DESIGN AVE. FLOW = 48 X 100 = 4800 GAL./DAY = 0.008 CFS  
 ULTIMATE DESIGN AVE. FLOW = 48 X 100 = 4800 GAL./DAY = 0.008 CFS  
 PEAK SANITARY FLOW FACTOR : USE 4.0  
 TOTAL PEAK SANITARY FLOW = PEAK SAN. FLOW FACTOR X AVG. FLOW  
 INITIAL DESIGN PEAK FLOW = 4.0 X 0.008 = 0.032 CFS  
 ULTIMATE DESIGN MAX. FLOW = 4.0 X 0.008 = 0.032 CFS  
 CAPACITY OF PROP. 6" SANITARY SEWER @ 1% AND (N= 0.13) = 0.56 CFS  
 VELOCITY OF FULL FLOW = 2.87 FPS

**SYSTEM "A" BIORETENTION (RAIN GARDEN)**

A=	C=	D=	E=	F=
0.12	0.95	0	1	0.25
1.291	5622.00	0.00	51163.00	96215
A(0.95) (SQ. FT.)	A(1.00) (SQ. FT.)	A(0.25) (SQ. FT.)	TOTAL AREA (SQ. FT.)	
1291	5622	0	6913	

**25-YEAR STORM CALCULATION (PEAK DISCHARGE < 0.2 CFS per Acre)**

C Ave =	3.85	Q <sub>10</sub> =	0.02	Q <sub>max</sub> =	0.06	T25 =	359.56	Vs 25 =	11278.45	Vt =	732.92	Vt25 =	4553.59
Q <sub>10</sub> =	0.02	Q <sub>max</sub> =	0.06	T25 =	359.56	Vs 25 =	11278.45	Vt =	732.92	Vt25 =	4553.59		

**PROVIDED VOLUME BY RAIN GARDEN**

ELEVATION (FT)	AREA (SQ. FT)	HEIGHT (FT)	VOIDS RATIO	VOLUME (CU FT)	
828.00	5214	0	0%	0	
827.5	4596	0.5	100%	2451	
824.50	4001	3	20%	2577	
PROVIDED VOLUME OF	8027.37	>	REQUIRED VOLUME OF	4553.59	D.K.

**SYSTEM "B" BIORETENTION (RAIN GARDEN)**

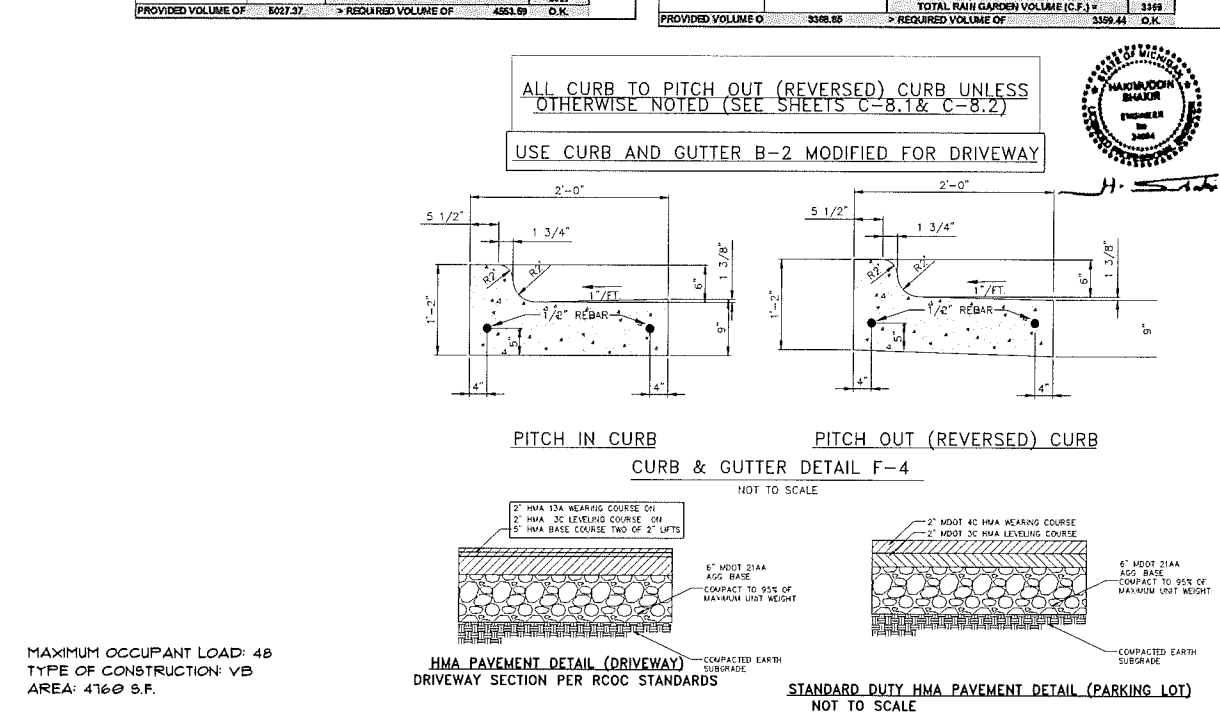
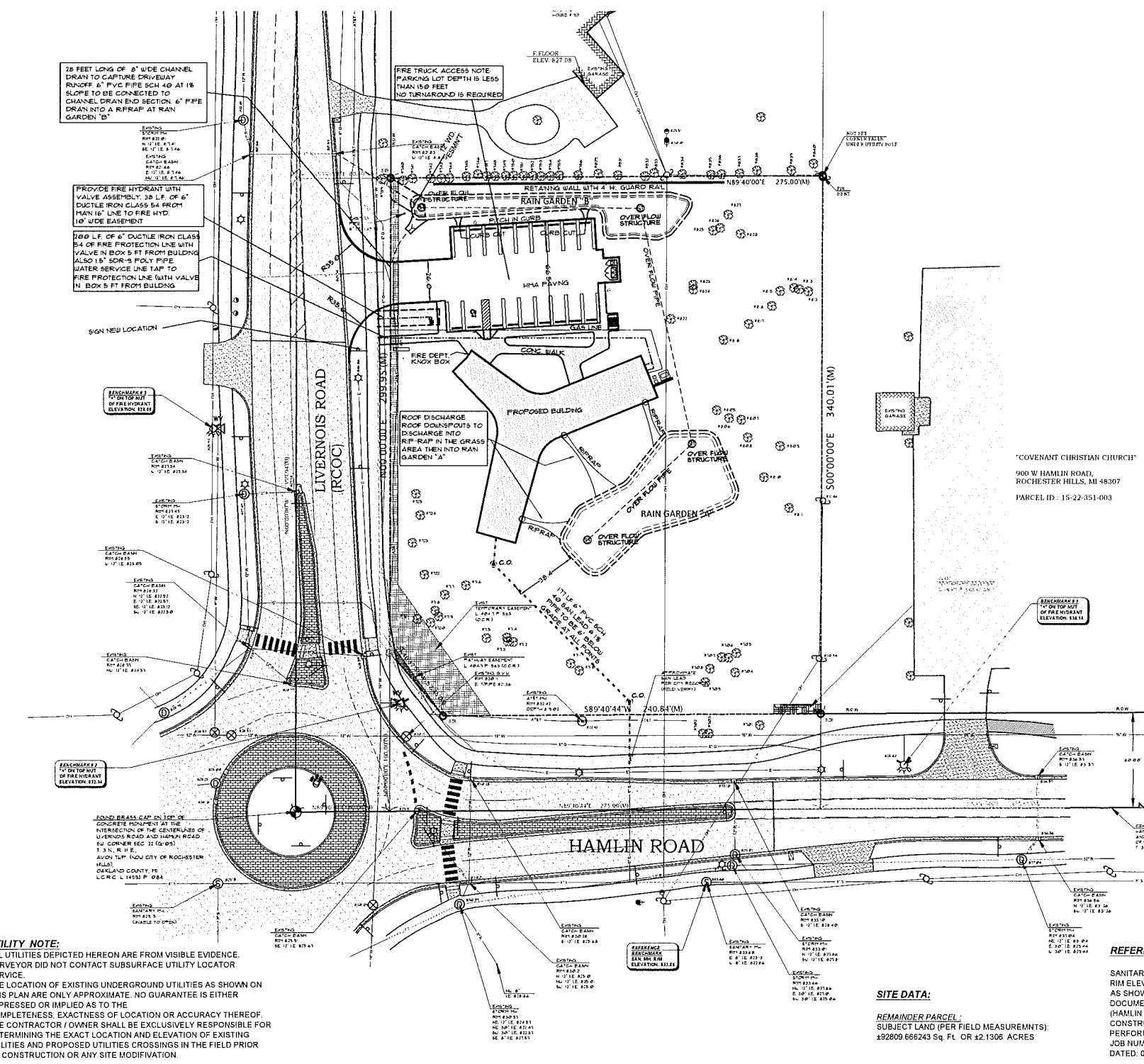
A=	C=	D=	E=	F=
0.10	0.95	0	1	0.25
0.654	8280.00	0.00	21522.00	29812
A(0.95) (SQ. FT.)	A(1.00) (SQ. FT.)	A(0.25) (SQ. FT.)	TOTAL AREA (SQ. FT.)	
654	8280	0	9934	

**25-YEAR STORM CALCULATION (PEAK DISCHARGE < 0.2 CFS per Acre)**

C Ave =	2.76	Q <sub>10</sub> =	0.02	Q <sub>max</sub> =	0.07	T25 =	303.66	Vs 25 =	11859.52	Vt =	532.33	Vt25 =	3359.44
Q <sub>10</sub> =	0.02	Q <sub>max</sub> =	0.07	T25 =	303.66	Vs 25 =	11859.52	Vt =	532.33	Vt25 =	3359.44		

**PROVIDED VOLUME BY RAIN GARDEN**

ELEVATION (FT)	AREA (SQ. FT)	HEIGHT (FT)	VOIDS RATIO	VOLUME (CU FT)	
828.00	2929	0	0%	0	
825.25	2186	0.75	100%	1611	
821.75	1960	3.5	20%	1458	
PROVIDED VOLUME OF	3086.86	>	REQUIRED VOLUME OF	3359.44	D.K.

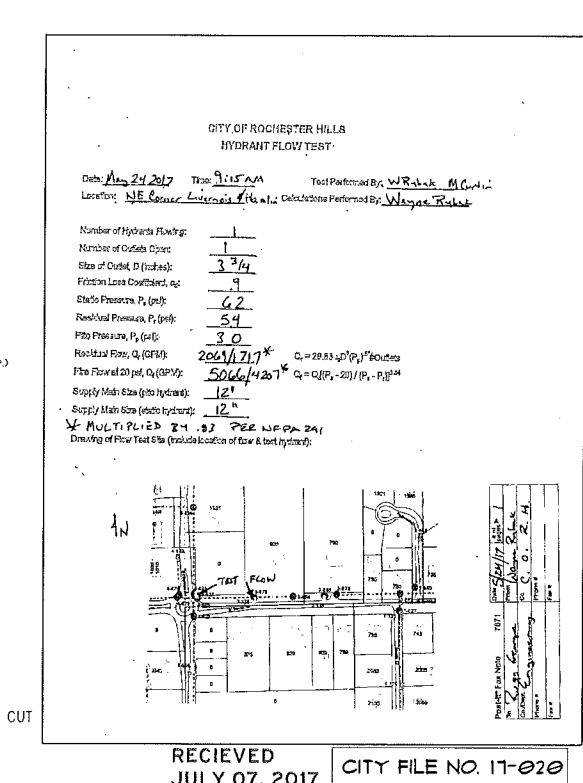


**"COVENANT CHRISTIAN CHURCH"**  
 900 W HAMLIN ROAD,  
 ROCHESTER HILLS, MI 48307  
 PARCEL ID: 15-22-051-003

MAXIMUM OCCUPANT LOAD: 48  
 TYPE OF CONSTRUCTION: VB  
 AREA: 4760 S.F.

- Fire lanes shall be conspicuously posted on both sides of the fire lane, with fire lane signs spaced not more than 100 feet apart, fire lane signs shall read "No Stopping, Standing, Parking, Fire Lane", and in conformance with the Michigan Manual of Uniform Traffic Control Devices. Fire Prevention Ordinance Chapter 58, Section 503
- Construction sites shall be safeguarded in accordance with IFC 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 City of Rochester Hills Burn Permit Guidelines. Contact Rochester Hills Fire Department for permit information. Fire Prevention Ordinance Chapter 58, Section 307.6.2 & 307.6.2.3

**FIRE DEPARTMENT NOTES:**  
 A KNOX KEY SYSTEM SHALL BE INSTALLED IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL. ORDERING INFORMATION IS AVAILABLE FROM THE KNOX COMPANY AT KNOXBOX.COM



**UTILITY NOTE:**  
 ALL UTILITIES DEPICTED HEREON ARE FROM VISIBLE EVIDENCE. SURVEYOR DID NOT CONTACT SUBSURFACE UTILITY LOCATOR SERVICE.  
 THE LOCATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS PLAN ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS, EXACTNESS OF LOCATION OR ACCURACY THEREOF. THE CONTRACTOR / OWNER SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND PROPOSED UTILITIES CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION OR ANY SITE MODIFICATION.

**SITE DATA:**  
 REMAINDER PARCEL:  
 SUBJECT LAND (PER FIELD MEASUREMENTS):  
 492809.666243 Sq. Ft. OR 12.1306 ACRES  
 DATED: 05/12/2008

**REFERENCE BENCHMARK:**  
 SANITARY SEWER MANHOLE RIM  
 RIM ELEVATION: 833.88  
 AS SHOWN ON CITY OF ROCHESTER HILLS CONSTRUCTION DOCUMENTS.  
 HAMLIN ROAD RECONSTRUCTION, CROOKS TO LIVNEROIS,  
 CONSTRUCTION PLAN, STA 160+50 TO STA 170+00  
 PERFORMED BY OHM SHEET NUMBER 61 OF 150  
 JOB NUMBER 0190960021  
 DATED: 05/12/2008

CONSULTING ENGINEERS  
 32322 SCHOOLCRAFT ROAD  
 TAYLOR, MICHIGAN 48150  
 PH: (734) 935-7330  
 FAX: (734) 935-7255

ENGINEERING SERVICES, INC.

CIVIL, ARCHITECTURE ENVIRONMENTAL, GEOTECH, SURVEYING.

TITLE: **OAKRIDGE DENTAL**  
 WEST HAMLIN & SOUTH LIVNEROIS,  
 ROCHESTER HILLS, MI 48307  
 SCALE: AS SHOWN  
 DESIGNED BY: M. SHANKER, P.E.  
 APPROVED BY: M. SHANKER, P.E.

PROJ. NO. \_\_\_\_\_  
 DATE: 08/03/15  
 DRAWING NO. **C-02**

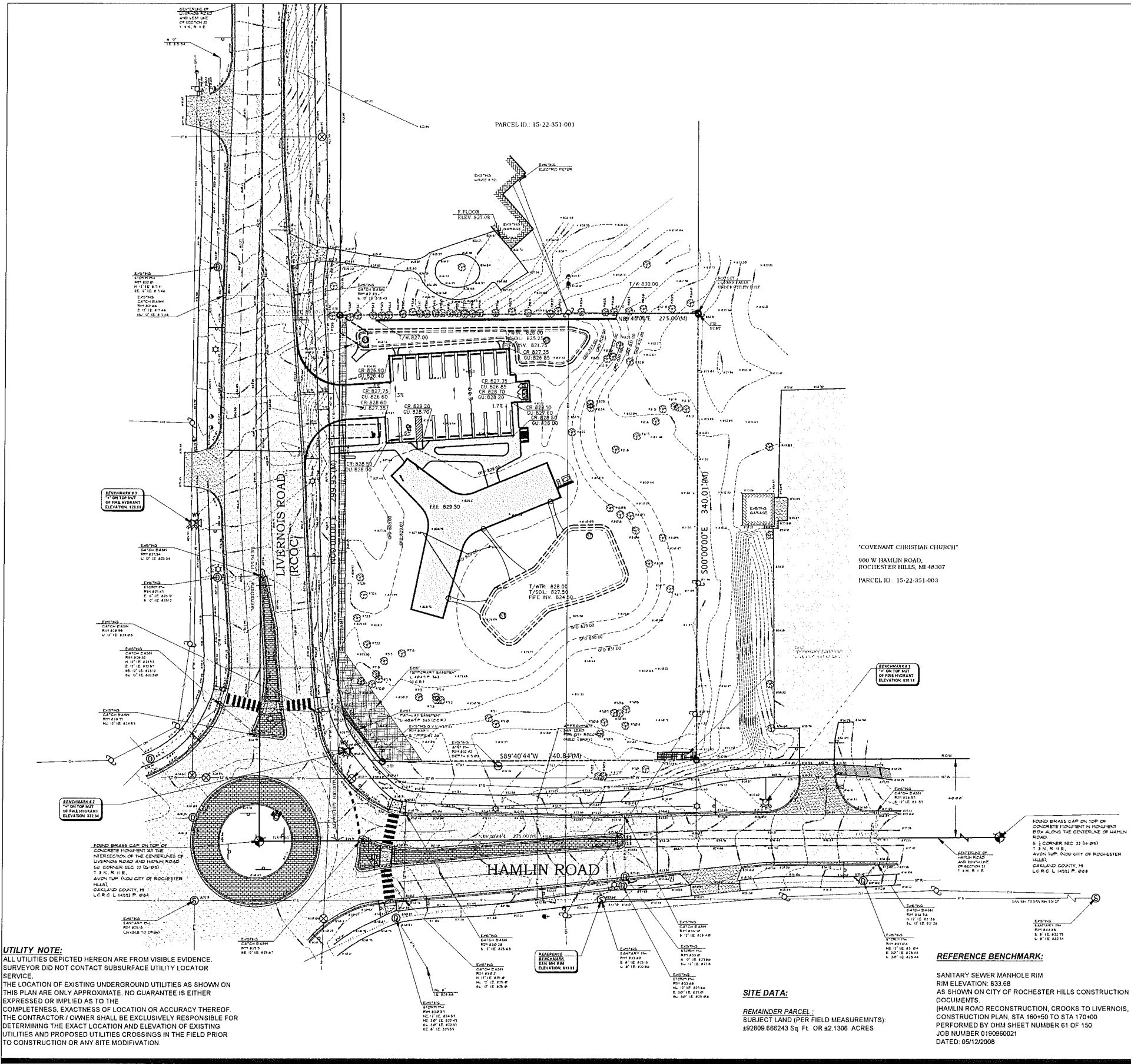
**SITE AND UTILITY PLAN**

REVISIONS

SYM	DATE	DESCRIPTION
02	07/03/17	REVISED PER CITY'S COMMENTS ON 06/28/2017

RECEIVED  
 JULY 07, 2017  
 CITY FILE NO. 17-020

"NOT FOR CONSTRUCTION"



**UTILITY NOTE:**  
 ALL UTILITIES DEPICTED HEREON ARE FROM VISIBLE EVIDENCE. SURVEYOR DID NOT CONTACT SUBSURFACE UTILITY LOCATOR SERVICE.  
 THE LOCATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS PLAN ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS, EXACTNESS OF LOCATION OR ACCURACY THEREOF. THE CONTRACTOR / OWNER SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND PROPOSED UTILITIES CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION OR ANY SITE MODIFICATION.

**SITE DATA:**  
 REMAINDER PARCEL:  
 SUBJECT LAND (PER FIELD MEASUREMENTS):  
 492809.686243 Sq Ft OR 2.1306 ACRES

**REFERENCE BENCHMARK:**  
 SANITARY SEWER MANHOLE RIM  
 RIM ELEVATION: 633.68  
 AS SHOWN ON CITY OF ROCHESTER HILLS CONSTRUCTION DOCUMENTS.  
 (HAMLIN ROAD RECONSTRUCTION, CROOKS TO LIVERNOIS, CONSTRUCTION PLAN, STA 160+50 TO STA 170+00 PERFORMED BY OHM SHEET NUMBER 61 OF 150 JOB NUMBER 0190560021 DATED: 05/12/2008)

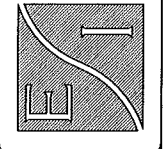
RECEIVED  
 JULY 07, 2017



CITY FILE NO. 17-020

CONSULTING ENGINEERS  
 3232 SPOONBRIDGE  
 TAYLOR, MICHIGAN 48150  
 PH: (734) 555-7333  
 FAX: (734) 555-7255

ENGINEERING SERVICES, INC.  
 CIVIL, ARCHITECTURE  
 ENVIRONMENTAL, GEOTECH, SURVEYING.



TITLE: **OAKRIDGE DENTAL**  
 WEST HAMLIN & SOUTH LIVERNOIS,  
 ROCHESTER HILLS, MI 48307  
 DESIGNED BY: G. KHALAF, P.E.  
 APPROVED BY: H. SHAHR, P.E.  
 SCALE: 1" = 40'  
 DATE: 06/03/15  
 DRAWING NO.: C-03

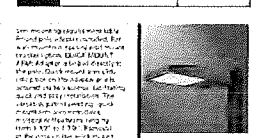
**GRADING PLAN**

REV. NO.	DATE	REVISION
02	07/03/17	REVISED PER CITY'S COMMENTS ON 06/29/2017

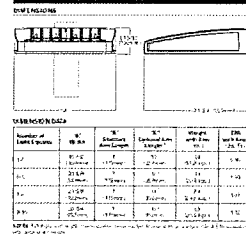
Project:	
Client:	
Designer:	
Date:	

**DESCRIPTION**  
 The McGraw-Edison LED is a high performance, long life, energy efficient lighting fixture. It is designed for use in a variety of applications, including street lighting, parking lot lighting, and general area lighting. The fixture is available in a variety of sizes and finishes to meet your specific needs.

**TECHNICAL FEATURES**  
**Construction:** The fixture is constructed from high quality materials, including aluminum and polycarbonate. It is designed for long life and low maintenance. The fixture is available in a variety of finishes to match your building or environment.  
**Optics:** The fixture features a high quality lens that provides excellent light distribution. The lens is made of polycarbonate and is designed to protect the internal components while allowing maximum light output.  
**Electrical:** The fixture is designed for easy installation and operation. It features a standard electrical connection and is compatible with a variety of lighting systems.  
**Mounting:** The fixture is designed for easy mounting on a variety of surfaces, including walls, poles, and ceilings. It features a standard mounting bracket that is easy to install and adjust.  
**Warranty:** The fixture is backed by a 5-year warranty, ensuring long life and low maintenance.



**GLEON GALLEON LED**  
 1 to 10 Light Sources  
 Lab: 1000-1000  
 1000-1000



**Dimensions**  
 1000-1000

Symbol	Description	Quantity	Notes
A	CAST ALUMINUM HOUSING, FORMED SEMI-SPECULAR ALUMINUM REFLECTORS, CLEAR PATTERNED GLASS ENCLOSURE.	12	
B	GLEON AREA AND ROADWAY LUMINAIRE (2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location	32	

**STATISTICS**

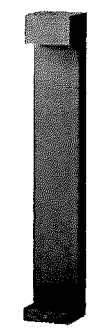
Description	Symbol	Min	Max/Min	Max	Avg/Min	Avg
Parking and Drive	+	0.1 fc	64.0:1	6.4 fc	27.0:1	2.7 fc
Property Line	+	0.0 fc	N/A	0.2 fc	N/A	0.0 fc
Site Walk	+	0.2 fc	50.0:1	10.0 fc	20.0:1	4.0 fc

**Luminaire Locations**

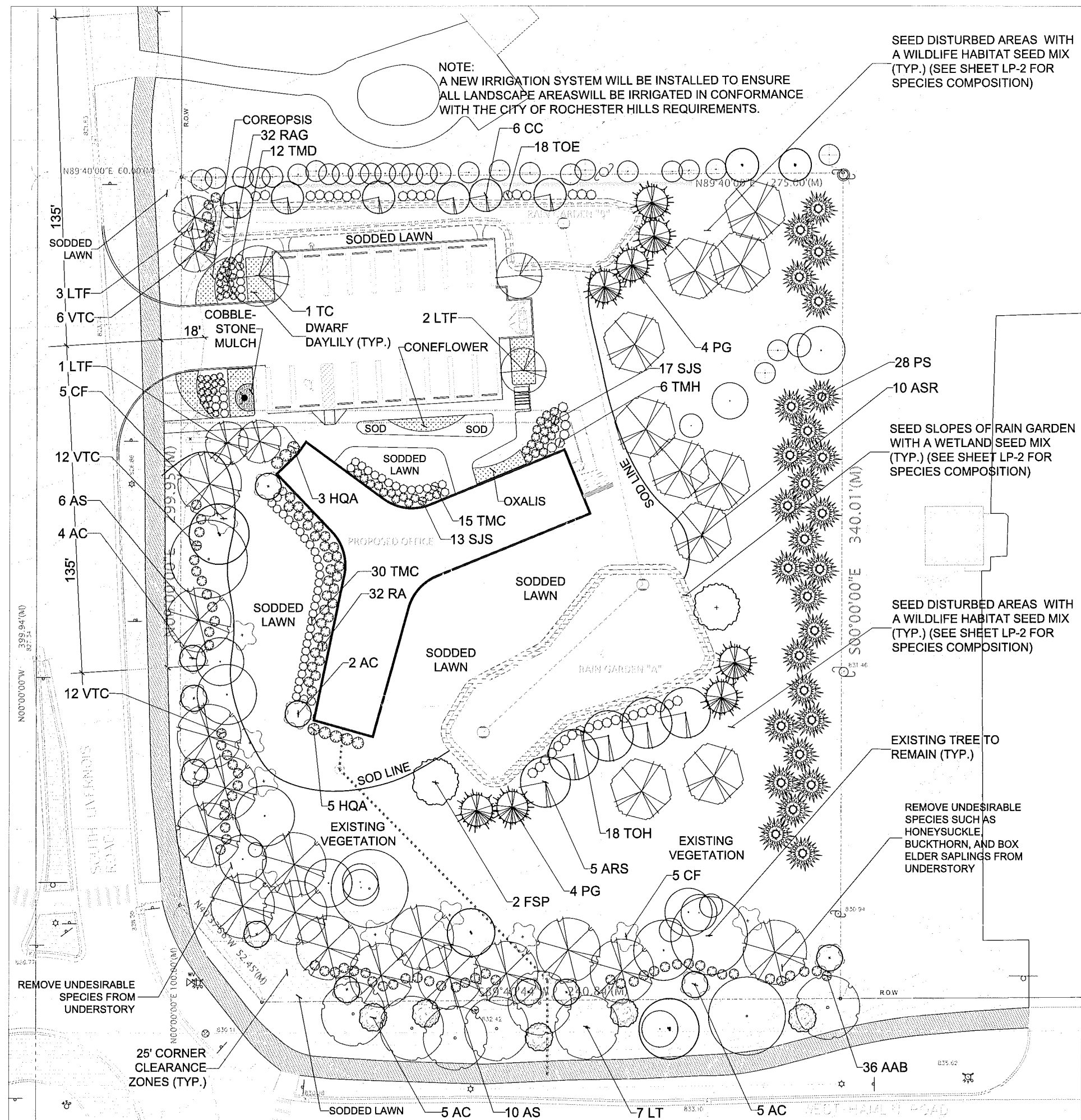
No.	Label	MH	Tilt
1	A	3.35	0.00
2	A	3.35	0.00
3	A	3.35	0.00
4	A	3.35	0.00
5	A	3.35	0.00
6	A	3.35	0.00
7	A	3.35	0.00
9	A	3.35	0.00
10	A	3.35	0.00
11	A	3.35	0.00
12	A	3.35	0.00
13	A	3.35	0.00
1	B	15.00	0.00
2	B	15.00	0.00
4	B	15.00	0.00

**Schedule**

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Light Loss Factor	Wattage
A	A	12	BEGA-US	88 659	CAST ALUMINUM HOUSING, FORMED SEMI-SPECULAR ALUMINUM REFLECTORS, CLEAR PATTERNED GLASS ENCLOSURE.	1	0.8	16
B	B	32	EATON-MCGRAW-EDISON	GLEON-AR-02-LED-EL-T4FT	GLEON AREA AND ROADWAY LUMINAIRE (2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location	32	0.85	113



Oakridge Dental  
Rochester Hills, MI  
Site Lighting Photometrics



NOTE:  
A NEW IRRIGATION SYSTEM WILL BE INSTALLED TO ENSURE ALL LANDSCAPE AREAS WILL BE IRRIGATED IN CONFORMANCE WITH THE CITY OF ROCHESTER HILLS REQUIREMENTS.

SEED DISTURBED AREAS WITH A WILDLIFE HABITAT SEED MIX (TYP.) (SEE SHEET LP-2 FOR SPECIES COMPOSITION)

SEED SLOPES OF RAIN GARDEN WITH A WETLAND SEED MIX (TYP.) (SEE SHEET LP-2 FOR SPECIES COMPOSITION)

SEED DISTURBED AREAS WITH A WILDLIFE HABITAT SEED MIX (TYP.) (SEE SHEET LP-2 FOR SPECIES COMPOSITION)

EXISTING TREE TO REMAIN (TYP.)

REMOVE UNDESIRABLE SPECIES SUCH AS HONEYSUCKLE, BUCKTHORN, AND BOX ELDER SAPPLINGS FROM UNDERSTORY

**PLANT LIST**

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE
<b>PARKING LOT LANDSCAPING</b>				
LTF	2	<i>Liriodendron tulipifera</i> 'Fastigiata'	Fastigiate Tuliptree	3" cal. B&B
TC	1	<i>Tilia cordata</i> 'Greenspire'	Greenspire European Linden	3" cal. B&B
HHR	*	<i>Hamamelis</i> sp. 'Happy Returns'	Happy Returns Daylily	1 gal. pot, 24" o.c.
<b>PERIMETER LANDSCAPING ALONG SOUTH LIVERNOIS ROAD</b>				
AC	6	<i>Amelanchier canadensis</i>	Serviceberry	2" cal. B&B
AS	6	<i>Acer saccharum</i> 'Legacy'	Legacy Sugar Maple	3" cal. B&B
CF	5	<i>Cornus florida</i>	Flowering Dogwood	2" cal. B&B
LTF	4	<i>Liriodendron tulipifera</i> 'Fastigiata'	Fastigiate Tuliptree	3" cal. B&B
RA	32	<i>Rhus aromatica</i>	Fragrant Sumac	24" ht., 3 gal. pot
RAG	32	<i>Rhus aromatica</i> 'Gro-Low'	Gro-Low Fragrant Sumac	24" ht., 3 gal. pot
TMC	42	<i>Taxus x media</i> 'Chadwickii'	Chadwick Yew	24" ht., 3 gal. pot
VTC	30	<i>Viburnum trilobum</i> 'Compactum'	Dw. American Cranberrybush	24" ht., 3 gal. pot
CVM	*	<i>Coreopsis verticillata</i> 'Moonbeam'	Moonbeam Threadleaf Coreopsis	1 gal. pot, 24" o.c.
<b>PERIMETER LANDSCAPING ALONG WEST HAMLIN ROAD</b>				
AAB	36	<i>Aronia arbutifolia</i> 'Brilliantissima'	Brilliantissima Red Chokeberry	24" ht., 3 gal. pot
AC	5	<i>Amelanchier canadensis</i>	Serviceberry	2" cal. B&B
AS	10	<i>Acer saccharum</i> 'Legacy'	Legacy Sugar Maple	3" cal. B&B
CF	5	<i>Cornus florida</i>	Flowering Dogwood	2" cal. B&B
<b>RIGHT-OF-WAY LANDSCAPING - WEST HAMLIN ROAD</b>				
AC	5	<i>Amelanchier canadensis</i>	Serviceberry	2" cal. B&B
LT	7	<i>Liriodendron tulipifera</i>	Tuliptree	3" cal. B&B
<b>STORMWATER MANAGEMENT POND LANDSCAPING</b>				
<b>Rain Garden A</b>				
ARS	5	<i>Acer rubrum</i> 'Red Sunset'	Red Sunset Red Maple	3" cal. B&B
PG	4	<i>Picea glauca</i>	White Spruce	10" ht. B&B
TOH	18	<i>Thuja occidentalis</i> 'Hetz Midget'	Hetz Midget Arborvitae	30" ht., 5 gal. pot
<b>Rain Garden B</b>				
CC	5	<i>Carpinus caroliniana</i>	American Hornbeam	3" cal. B&B
PG	4	<i>Picea glauca</i>	White Spruce	10" ht. B&B
TOE	18	<i>Thuja occidentalis</i> 'Emerald'	Emerald Upright Arborvitae	4" ht. B&B
<b>GENERAL SITE LANDSCAPING</b>				
HQ	8	<i>Hydrangea quercifolia</i> 'Alice'	Alice Oakleaf Hydrangea	24" ht., 3 gal. pot
SJS	29	<i>Spiraea japonica</i> 'Shirobana'	Shibori Japanese Spirea	24" ht., 3 gal. pot
TMC	15	<i>Taxus x media</i> 'Chadwickii'	Chadwick Yew	24" ht., 3 gal. pot
TMH	6	<i>Taxus x media</i> 'Hicksii'	Hicks Yew	36" ht. B&B
EPM	*	<i>Echinacea purpurea</i> 'Pixie Meadowbrite'	Pixie Meadowbrite Coneflower	1 gal. pot, 24" o.c.
OCR	*	<i>Oxalis crassipes</i> 'Rosea'	Strawberry Shamrock	1 gal. pot, 24" o.c.
<b>REPLACEMENT TREES</b>				
ASR	10	<i>Acer saccharum</i> 'Legacy'	Legacy Sugar Maple	3" cal. B&B
FSP	2	<i>Fagus sylvatica</i> 'Purpurea Pendula'	Weeping Purple Eur. Beech	3" cal. B&B
PS	28	<i>Pinus strobus</i>	White Pine	8" ht. B&B

\* Landscape Contractor to determine the quantity in the field.

**LANDSCAPE CALCULATIONS:**

**PARKING LOT LANDSCAPING (7,570 square feet)**  
 \* Interior landscaping areas equivalent to five percent (5%) of the vehicular use area  
 \* 8,135 sq. ft. times 0.05 equals 379 sq. ft. required  
 \* One (1) deciduous shade tree shall be required for each 150 sq. ft. of required interior landscape area - 379 divided by 150 equals 2.53 trees or 3 trees

**PERIMETER LANDSCAPING ALONG SOUTH LIVERNOIS ROAD (352 lineal feet)**  
 \* One (1) deciduous shade tree for each twenty-five lineal feet (25 l.f.) = 14 trees  
 \* One (1) ornamental tree for each thirty-five lineal feet (35 l.f.) = 10 trees  
 \* Fifteen (15) shrubs for each one-hundred lineal feet (100 l.f.) = 52.8 shrubs or 53 shrubs

**PERIMETER LANDSCAPING ALONG WEST HAMLIN ROAD (240 lineal feet)**  
 \* One (1) deciduous shade tree for each twenty-five lineal feet (25 l.f.) = 9.6 trees or 10 trees  
 \* One (1) ornamental tree for each thirty-five lineal feet (35 l.f.) = 6.86 trees or 7 trees  
 \* Fifteen (15) shrubs for each one-hundred lineal feet (100 l.f.) = 36 shrubs

**RIGHT-OF-WAY LANDSCAPING - WEST HAMLIN ROAD (240 lineal feet)**  
 \* One (1) deciduous shade tree for each thirty-five lineal feet (35 l.f.) = 6.86 trees or 7 trees  
 \* One (1) ornamental tree for each sixty lineal feet (60 l.f.) = 6.86 trees or 7 trees

**STORMWATER MANAGEMENT POND LANDSCAPING**  
**Rain Garden A (312 l.f.)**  
 \* One and one-half (1.5) deciduous shade tree for each one hundred lineal feet (100 l.f.) = 4.68 trees or 5 trees  
 \* One (1) evergreen tree for each one hundred lineal feet (100 l.f.) = 3.12 trees or 4 trees  
 \* Four (4) shrubs for each one-hundred lineal feet (100 l.f.) = 12.48 shrubs = 15 shrubs

**Rain Garden B (378 l.f.)**  
 \* One and one-half (1.5) deciduous shade tree for each one hundred lineal feet (100 l.f.) = 5.67 trees or 6 trees  
 \* One (1) evergreen tree for each one hundred lineal feet (100 l.f.) = 3.78 trees or 4 trees  
 \* Four (4) shrubs for each one-hundred lineal feet (100 l.f.) = 15.12 shrubs = 16 shrubs

**REPLACEMENT TREES**  
 \* Forty (40) replacement trees to be provided consisting of two inch (2") cal. deciduous tree and / or eight foot (8') ht. evergreen trees

**COST ESTIMATE**

**TOTAL MATERIALS SPECIFIED:**

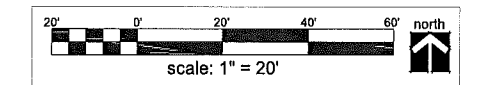
* Deciduous Trees	36	\$350	\$18,200.00
* Evergreen Trees	36	\$250	\$9,000.00
* Ornamental Trees	26	\$200	\$5,200.00
* Deciduous Shrubs	168	\$50	\$8,400.00
* Evergreen Shrubs	81	\$50	\$4,050.00
* Upright Evergreen Shrubs	18	\$90	\$1,620.00
* Perennials	350	\$7	\$2,450.00
* Sodded Lawn (square yards)	1,600	\$2.50	\$4,000.00
* Wetland Seed Mix			\$1,500.00
* Wildlife Habitat Seed Mix			\$2,000.00
* Underground Irrigation			\$7,000.00
* Planting Soil Mix	42 cu. yds.	\$40	\$1,680.00
* Shredded Hardwood Bark	55 cu. yds.	\$30	\$1,650.00
<b>TOTAL</b>			<b>\$66,750.00</b>

**NOTES:**  
 \* See Sheet LP - 2: LANDSCAPE NOTES & DETAILS for landscape development notes, landscape planting details, landscape construction details, and rain garden planting specifications.  
 \* See Sheet LP - 3: TREE PRESERVATION PLAN for proposed action for existing trees, tree inventory list, tree protection detail, and detail for proper pruning techniques.

date: June 5, 2017  
 revised:  
 07-05-2017 Revise for site plan changes & City rev. ltrs. dated June 28, 2017.



CITY OF ROCHESTER HILLS FILE NUMBER: 17-020

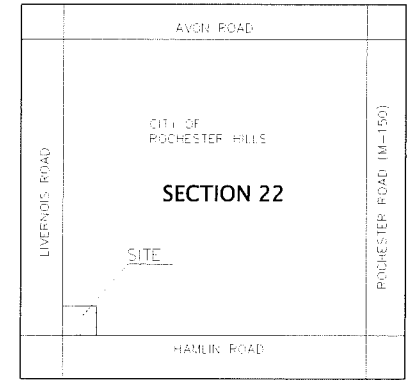


**LANDSCAPE PLAN FOR:** M1DTW, L.L.C.  
 1938 Franklin Street  
 Suite #204  
 Detroit, Michigan 48207  
 (313) 874-5936

**PROJECT LOCATION:** Oakridge Dental  
 N.E. Corner of Livernois Road  
 and West Hamlin Road  
 Rochester Hills, Michigan

**LANDSCAPE PLAN BY:** Nagy Devlin Land Design  
 31736 West Chicago Ave.  
 Livonia, Michigan 48150  
 (734) 634-9208

*J. Brian Devlin*  
 J. BRIAN DEVLIN  
 NO 1260  
 LANDSCAPE ARCHITECT  
 ORIGINAL IN BLUE



LOCATION MAP not to scale

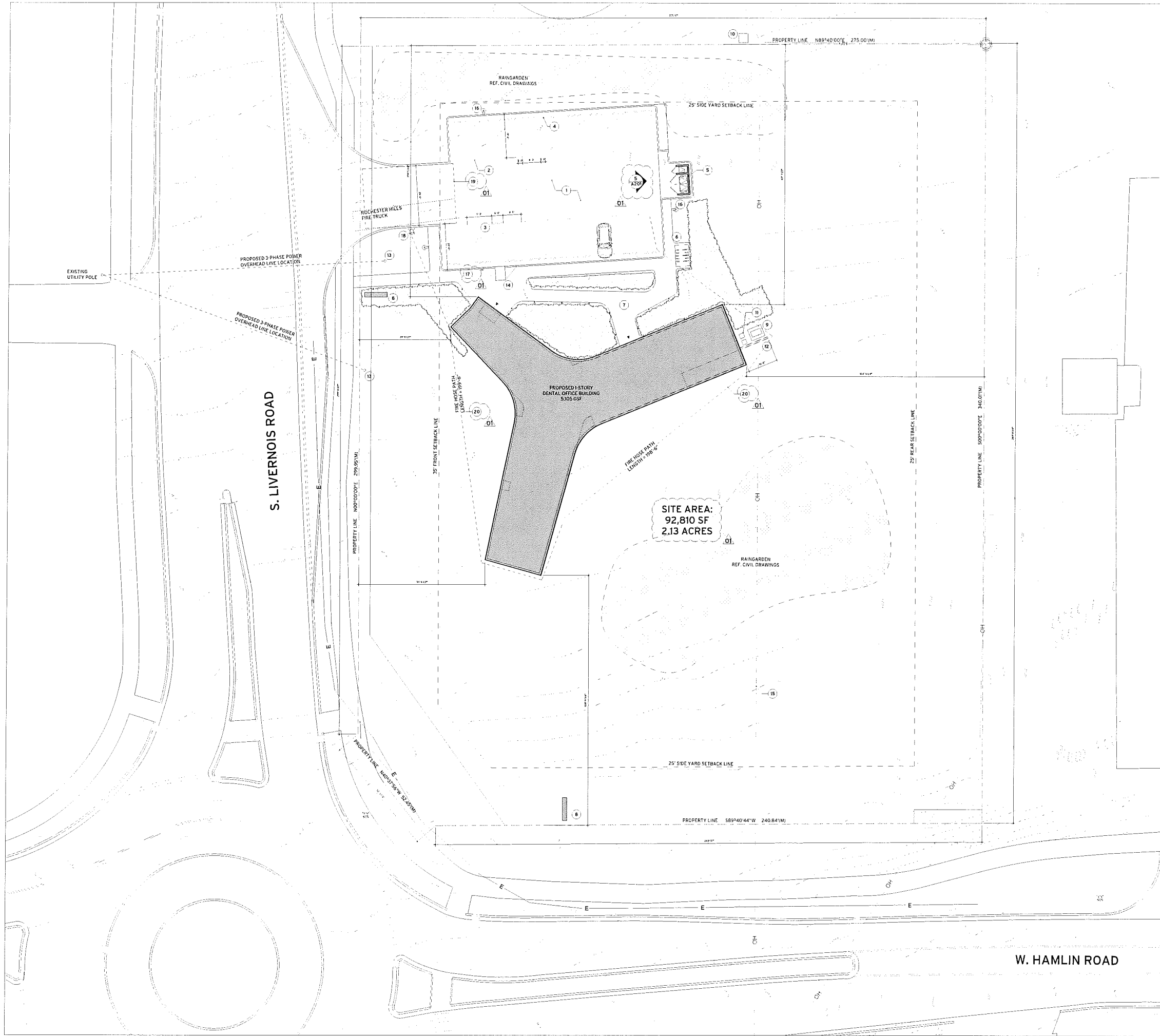
LANDSCAPE PLANTING PLAN scale: 1" = 20'

LP - 1: LANDSCAPING PLANTING PLAN  
 \* Base data provided by Engineering Services, Inc.









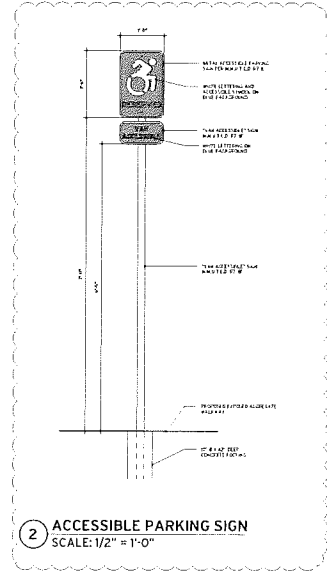
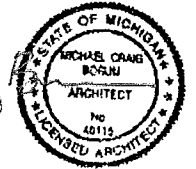
SITE AREA:  
92,810 SF  
2.13 ACRES

- GENERAL SITE PLAN NOTES**
- CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL PROPERTY LINES, EASEMENTS, SETBACKS, & UTILITIES PRIOR TO PERFORMING ANY WORK.
  - CONTRACTOR SHALL VERIFY THE EXISTENCE & LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK OR ANY TRENCHING. NOTICE OF PROPOSED WORK SHALL BE GIVEN TO THE APPLICABLE GAS, ELECTRICAL, TELEPHONE, SEWER, AND WATER AGENCIES.
  - REFERENCE TREE PRESERVATION PLAN AND LANDSCAPE PLAN FROM LANDSCAPE ARCHITECT.

- KEY NOTES**
- ASPHALT PARKING SURFACE
  - 4" WIDE PAVEMENT DOUBLE STRIPING, TYP. PER SECTION 138-11.304
  - BARRIER FREE PARKING SPACE PER TABLE 15 / SECTION 138-11.300
  - PRECAST CONCRETE WHEELSTOP, TYP
  - BURNISHED BLOCK SURROUND WITH METAL FRAME & FIBER CEMENT SLAT DOORS
  - PROPOSED LOCATION OF BICYCLE PARKING RACKS
  - EXPOSED AGGREGATE CONCRETE WALKWAYS
  - EXTERIOR LANDSCAPE BUSINESS SIGN
- NOTE: ALL SIGNS MUST MEET CHAPTER 134 OF THE CITY CODE OF ORDINANCES AND BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING DEPARTMENT
- 3-PHASE, PAD MOUNTED TRANSFORMER AND CONCRETE PAD
  - SINGLE PHASE, PAD MOUNTED TRANSFORMER AND CONCRETE PAD TO FEED 1921 S. LIVERNOIS
  - EXTERIOR CONDENSERS
  - BOARD FORMED, STAINED CONCRETE LANDSCAPE SCREENING WALL
  - NEW DTE UTILITY POLE POTENTIAL LOCATION. 3-PHASE POWER FROM ACROSS SOUTH LIVERNOIS
  - ADA ACCESSIBLE CURB CUT ON ACCESSIBLE ROUTE FROM PARKING LOT TO BUILDING
  - EXISTING SINGLE-PHASE OVERHEAD POWER LINES TO BE REMOVED IN COORDINATION WITH DTE AND OWNER OF 1921 S. LIVERNOIS STREET
  - 13'-6" LIGHT POLE AND ARM MOUNTED LUMINAIRE, ON 24" Ø REINFORCED CONCRETE BASE, 15'-HIGH MAX.
  - ACCESSIBLE PARKING SPACE SIGN
  - PROPOSED ON-SITE FIRE HYDRANT LOCATION
  - DASHED LINE INDICATES 40' X 26' CLEAR SPACE AREA AT HYDRANT, TYP.
  - DASHED LINE INDICATES FIRE HOSE LENGTH TO REACH PERIMETER OF BUILDING. NOTE: EACH LENGTH IS UNDER 200'

**DELIVERY/LOADING ZONE NOTE:**

The proposed building and use as a dental office will only receive smaller deliveries from parcel delivery trucks.



- 2 ACCESSIBLE PARKING SIGN  
SCALE: 1/2" = 1'-0"
- 1 ARCHITECTURAL SITE PLAN  
SCALE: 1" = 20'-0"

# OAKRIDGE DENTAL

WEST HAMLIN & SOUTH LIVERNOIS, ROCHESTER HILLS, MI 48307

PROJECT 1631  
ALL WRITTEN MATERIALS AND DOCUMENTS HEREIN © 2017 MI/DTW, LLC

DATE: 03 JUL 2017

DATE SET  
05/31/17 SITE PLAN APPR.  
07/03/17 SITE PLAN APPR. REVISION 01

RECEIVED  
JULY 07, 2017

**PRELIMINARY**  
NOT FOR CONSTRUCTION

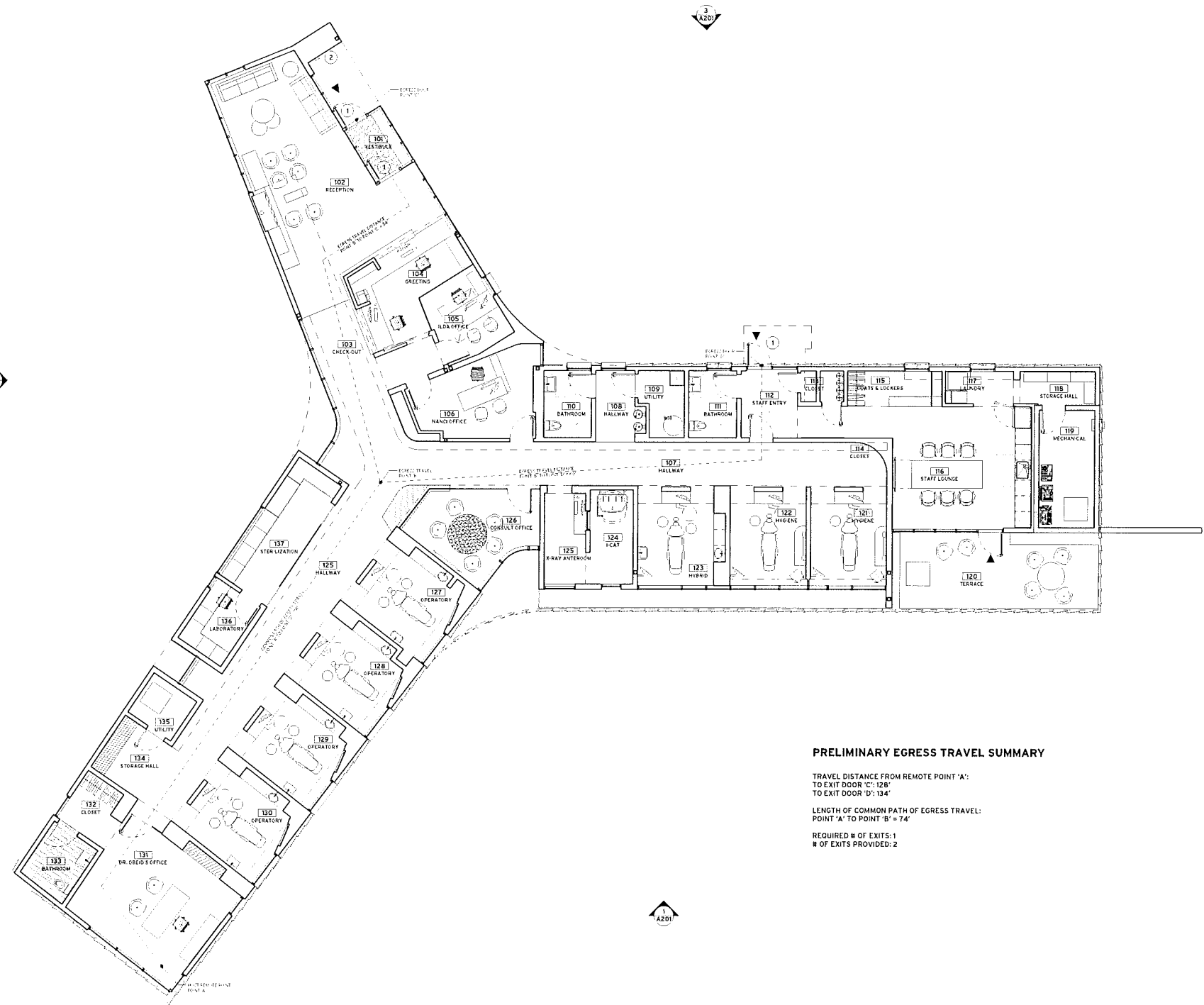
SCALE: AS NOTED

**ARCHITECTURAL SITE PLAN**

**AS101**

CITY FILE NO. #17-020

MI/DTW 1938 FRANKLIN STREET / #204 / DETROIT / MI / 48207 / USA / 313 874 5936 / 866 857 6421 FAX / MAIL@MIDTW.COM



- GENERAL FLOOR PLAN NOTES**
1. PROVIDE MICHIGAN BARRIER FREE LEVER TYPE DOOR HARDWARE WITH WALL MOUNTED DOOR STOPS (UNLESS NOTED OTHERWISE).
  2. NOTED DIMENSIONS ARE FROM FINISH WALL SURFACE UNLESS OTHERWISE NOTED. WALL AND CEILING SURFACES DRAWN AS ALIGNED ARE TO BE ALIGNED WHEN FINISH FACES ARE APPLIED.
  3. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO ANY WORK.
  4. PROVIDE APPROPRIATELY RATED BLOCKING AT ALL MOUNTING LOCATIONS FOR MILLWORK, FURNITURE, & ACCESSORIES BEHIND WALL AS REQUIRED.
  5. CONTRACTOR TO SUBMIT MILLWORK SHOP DRAWINGS TO M/DTW FOR REVIEW/APPROVAL.
  6. REFER TO INTERIOR ELEVATIONS FOR WALL CONSTRUCTION HEIGHTS

**GRAPHIC KEY**

— MILLWORK

- KEY NOTES**
- 1 36" WIDE EGRESS DOOR
  - 2 WALL MOUNTED KNOX BOX INSTALLED IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL.

**PRELIMINARY EGRESS TRAVEL SUMMARY**

TRAVEL DISTANCE FROM REMOTE POINT 'A':  
 TO EXIT DOOR 'C': 128'  
 TO EXIT DOOR 'D': 134'

LENGTH OF COMMON PATH OF EGRESS TRAVEL:  
 POINT 'A' TO POINT 'B' = 74'

REQUIRED # OF EXITS: 1  
 # OF EXITS PROVIDED: 2

1 FLOOR PLAN  
 SCALE: 1/8" = 1'-0"

# OAKRIDGE DENTAL

WEST HAMLIN & SOUTH LIVERNOIS, ROCHESTER HILLS, MI 48307

PROJECT 1631  
 ALL WRITTEN MATERIAL AND DOCUMENTS HEREIN © 2017 M/DTW, LLC

DATE: 03 JUL 2017

DATE SET  
 05/31/17 SITE PLAN APPR.  
 07/03/17 SITE PLAN APPR.  
 REVISION 01

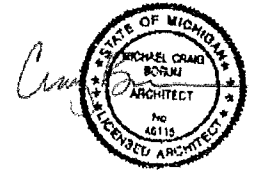
RECIEVED  
 JULY 07, 2017

**PRELIMINARY**  
 NOT FOR CONSTRUCTION

SCALE: AS NOTED

CITY FILE NO. #17-020

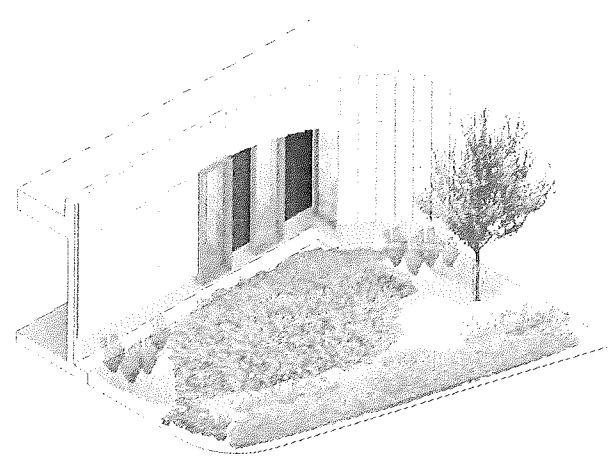
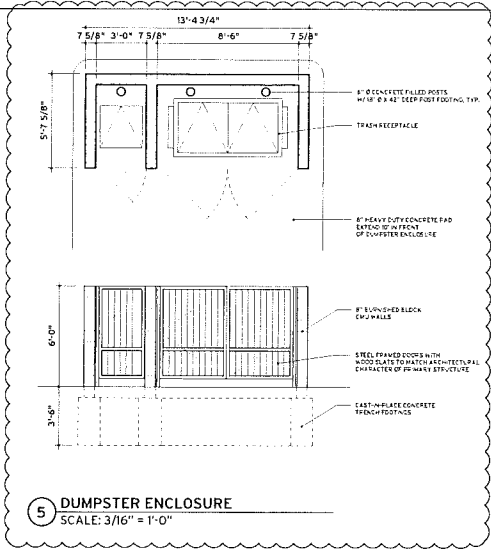
## FLOOR PLAN



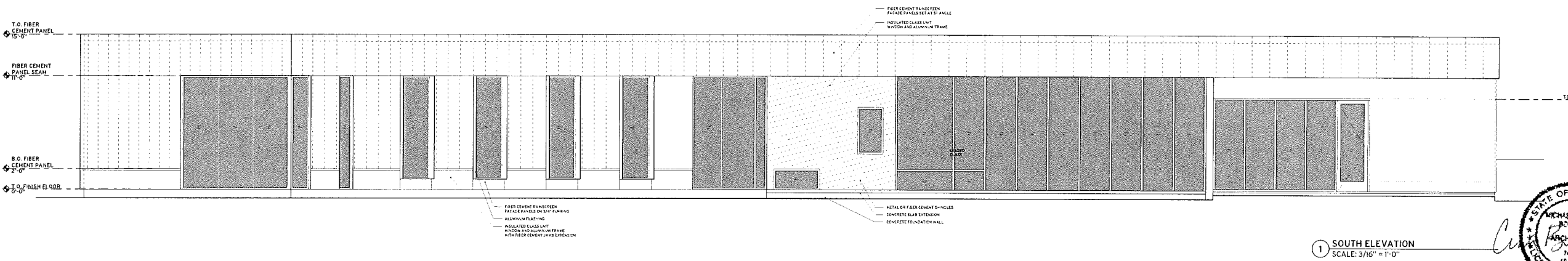
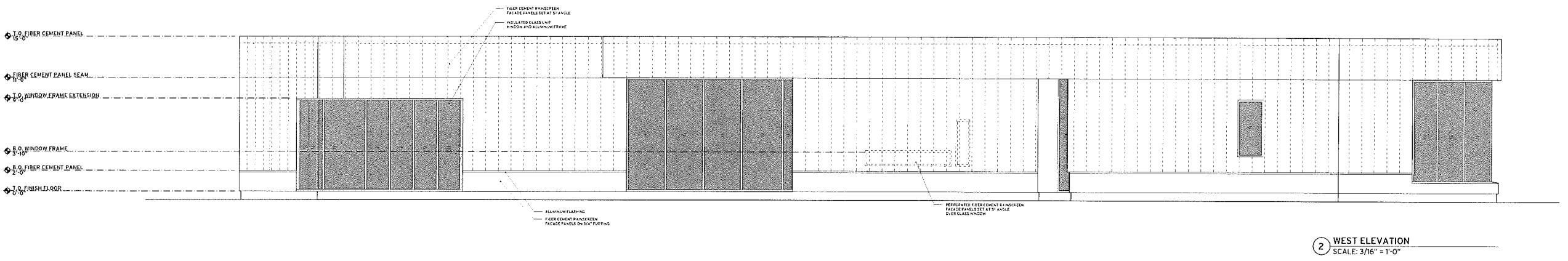
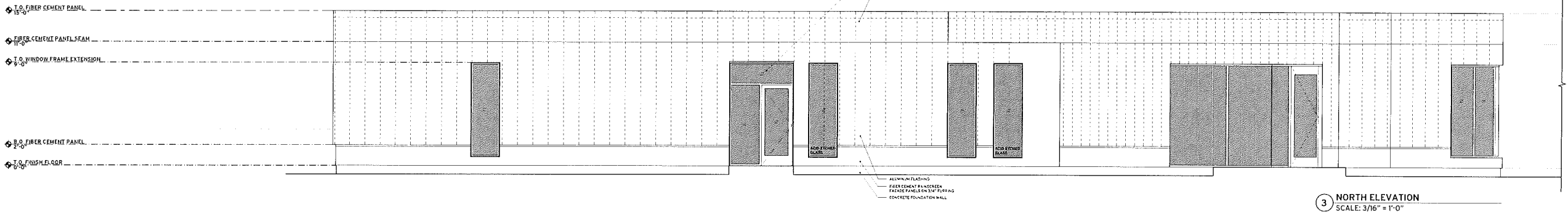
**A101**

1938 FRANKLIN STREET / #204 / DETROIT / MI / 48207 / USA / 313 874 5936 / 866 857 6421 FAX / MAIL@MIDTW.COM

M/DTW



4 AXON @ WEST ELEVATION  
SCALE: NTS



# OAKRIDGE DENTAL

WEST HAMLIN & SOUTH LIVERNOIS, ROCHESTER HILLS, MI 48307

PROJECT 1631  
ALL WRITTEN MATERIALS DOCUMENTS HEREIN © 2017 MI/DTW LLC

DATE: 03 JUL 2017

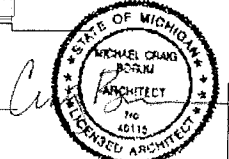
DATE SET  
05/31/17 SITE PLAN APPR.  
07/03/17 SITE PLAN APPR.  
REVISION 01

RECIEVED JULY 07, 2017

PRELIMINARY NOT FOR CONSTRUCTION

SCALE: AS NOTED

## EXTERIOR ELEVATIONS



A201

MI/DTW 1938 FRANKLIN STREET / #204 / DETROIT / MI / 48207 / USA / 313 874 5936 / 866 857 6421 FAX / MAIL@MIDTW.COM

CITY FILE NO. #17-020

**OAKRIDGE DENTAL CENTER**  
ARCHITECTURE DESIGN NARRATIVE

The design of the new home for Oakridge Dental Center strives to integrate the structure into its relatively large and wooded site in a meaningful way. Rather than a standard rectangular box, the shape that resulted from our work with the client provides receptive landscaped areas with several orientations, and create a welcoming forecourt at the entry.

The floor plan of the building consists of a unique, three-wing design which was derived from programmatic studies of our client's dental practice. The north wing contains the entry, reception area and business offices while the east wing contains staff areas and hygiene rooms, and the west wing contains the dental operator-ies and sterilization lab. The configuration of these spaces provide expansive and tranquil views of the site from within the patient rooms. The building's unique shape is counterbalanced by its uniform, and relatively low, building height. The building is designed to exude a sense of tranquility and calm while simultaneously producing dynamic effects through the play of light and shadow.

The building's exterior is clad predominantly with vertically-lapped, fiber cement panels in a ventilated facade configuration. The fiber cement panels provide the building with a durable and low maintenance cladding. The angled panels provide the facade with texture, depth, and a sense of poché, a character that sadly many contemporary buildings lack. Furthermore, the angled panels produce a dynamic play of shadow across the facade as the angle of the sun changes throughout the day and throughout the year. At times and from various approaches, the angled facade will appear very smooth, while other times will reveal the facade's full range of depth and texture.

The facade also contains a variety of tonal variation and materials including lighter fiber cement, darker fiber cement, tinted glass, acid-etched glass, black anodized aluminum, and zinc shingles. The exterior material palette is deliberately restrained and neutral in order to highlight its relationship to the surrounding site. The building will provide a cleansing palette backdrop to the continually changing colors and textures of the landscape throughout the seasonal cycle. Warm interior finishes, elements, and lighting is visible from outside, further enhancing the depth and experience of the site.

The facade is further articulated through varying sizes and configurations of glazing. Some window elements are small punched windows allowing limited views of the site while maintaining privacy, while other larger areas of glazing attempt to pull the landscape into the building and create welcoming spaces for patients and visitors with a high degree of transparency from the exterior. Additionally, there are moments where the limits of the facade pull away from the floor plate, creating overhangs at the staff lounge and hygiene rooms, and recessed pockets where the landscape are brought into close proximity with the interior. All these techniques produce a varied, textured, and dynamic building while maintaining the overall tranquility of the building on the site.

**M1/DTW**  
PREVIOUS WORK



**ONE CARE OFFICES - 2015**  
Troy, Michigan  
17,000 SF  
"Commercial Design Office" 1st place, Detroit Home Design Awards, 2017



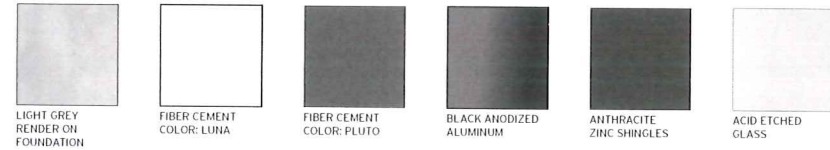
**6 SALON - 2014**  
Birmingham, Michigan  
4,200 SF  
"Interiors Award" AIA Michigan Design and Honor Awards, 2015  
"Retail Interior Design" 1st place, Detroit Home Design Awards, 2015  
"2014 Salon of the Year" Salon Today Magazine



**MILLS - 2012**  
Birmingham, Michigan  
10,000 SF  
"Building Award" AIA Michigan Design and Honor Awards, 2015  
"Commercial Building" 1st place, Detroit Home Design Awards, 2015  
"Retail Interior Design" 2nd place, Detroit Home Design Awards, 2015



**WATER STREET COFFEE DRIVE-THRU - 2017**  
Kalamazoo, Michigan  
Under Construction  
1000 SF



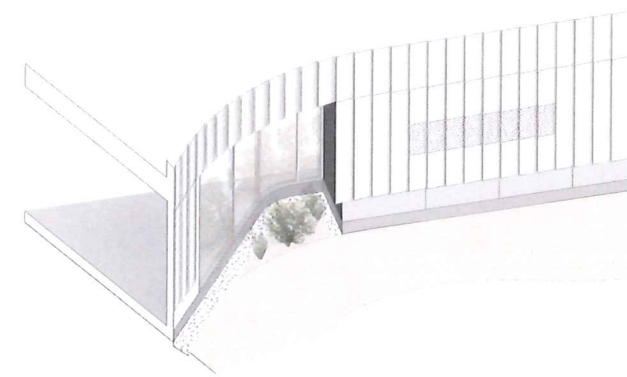
**PROPOSED PROJECT MATERIAL PALETTE**



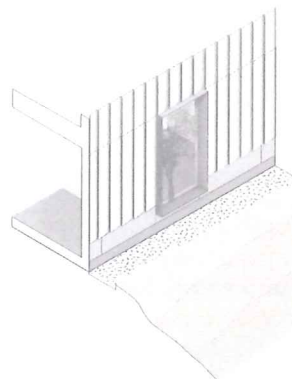
**VIEW FROM NORTHEAST**



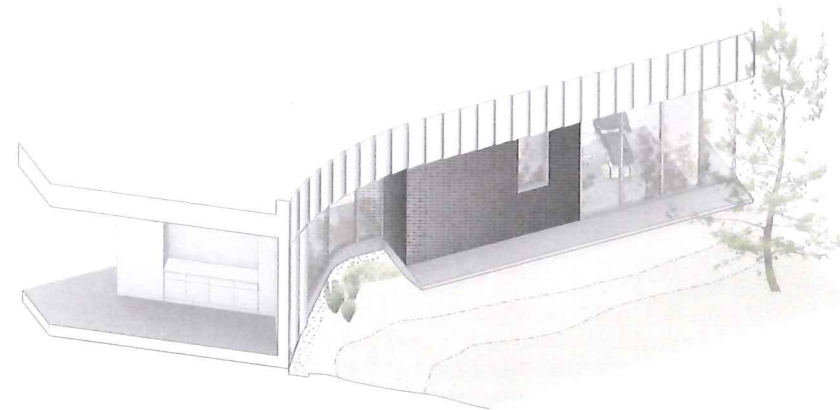
**A NORTH FACING FACADE**  
OFFICE WINDOW



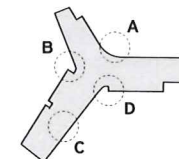
**B NORTHWEST FACING FACADE**  
RECEPTION WINDOW



**C SOUTHEAST FACING FACADE**  
OPERATOR WINDOW



**D SOUTH FACING FACADE**  
X-RAY ROOM



# OAKRIDGE DENTAL

WEST HAMLIN & SOUTH LIVERNOIS, ROCHESTER HILLS, MI 48307

**PROJECT 1631**  
ALL WRITTEN MATERIAL AND DOCUMENTS PERFORMED BY M1/DTW, LLC

DATE: 03 JUL 2017

DATE SET

05/31/17 SITE PLAN APPR.  
07/03/17 SITE PLAN APPR. REVISION 01

RECIEVED  
JULY 07, 2017

**PRELIMINARY**  
NOT FOR CONSTRUCTION

SCALE: AS NOTED

CITY FILE NO. #17-020

**EXTERIOR VIGNETTES**

**A202**