



UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS FOR SHOULD IT BE ASSUMED THAT THEY ARE THE EXACT UTILITIES IN THIS AREA.

NOTE: EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "UNKNOWN" WERE OBTAINED FROM AVAILABLE RECORDS OR MEASUREMENTS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO ANY CONNECTIONS.

TITLE INFORMATION

The Title Description and Schedule B items hereon are from Campbell Title Agency of Michigan, LLC, File No. 18.0356, dated December 10, 2018.

TITLE DESCRIPTION

The land referred to in this Commitment is described as follows:

Land situated in the City of Rochester Hills, County of Oakland, State of Michigan, to wit:

Part of the Southeast 1/4 of Section 3, Town 3 North, Range 11 East, Avon Township (now City of Rochester Hills), Oakland County, Michigan, described as: Beginning at a point that is North 89 degrees 00 minutes 00 seconds West along the South line of said Section 3 and the centerline of Tienken Road 1502.50 feet from the Southeast corner of said Section 3; thence North 89 degrees 10 minutes 00 seconds West 149.50 feet along the South line of Section 3; thence North 01 degrees 24 minutes 00 seconds East 524.22 feet; thence South 88 degrees 10 minutes 00 seconds East 149.49 feet; thence South 01 degrees 24 minutes 00 seconds West 521.61 feet to the Point of Beginning and excepting the rights of the public over the Southerly 60.00 feet for Tienken Road.

TOGETHER WITH AN UNDIVIDED ONE-HALF (1/2) INTEREST IN A ROADWAY 40.00 FEET IN WIDTH DESCRIBED AS FOLLOWS:

Part of the Southeast 1/4 of Section 3, Town 3 North, Range 11 East, Avon Township (now City of Rochester Hills), Oakland County, Michigan, described as: Beginning at a point that is North 89 degrees 10 minutes 00 seconds West along the South line of said Section 3 and the centerline of Tienken Road 1462.50 feet from the Southeast corner of said Section 3; thence North 89 degrees 10 minutes 00 seconds West 40.00 feet along the South line of Section 3; thence North 01 degrees 24 minutes 00 seconds East 526.61 feet; thence South 88 degrees 10 minutes 00 seconds East 40.00 feet; thence South 01 degrees 24 minutes 00 seconds West 525.92 feet to the point of beginning, and excepting the rights of the public over the Southerly 60.00 feet for Tienken Road, as recorded in Liber 8005, Page 694, Oakland County Records.

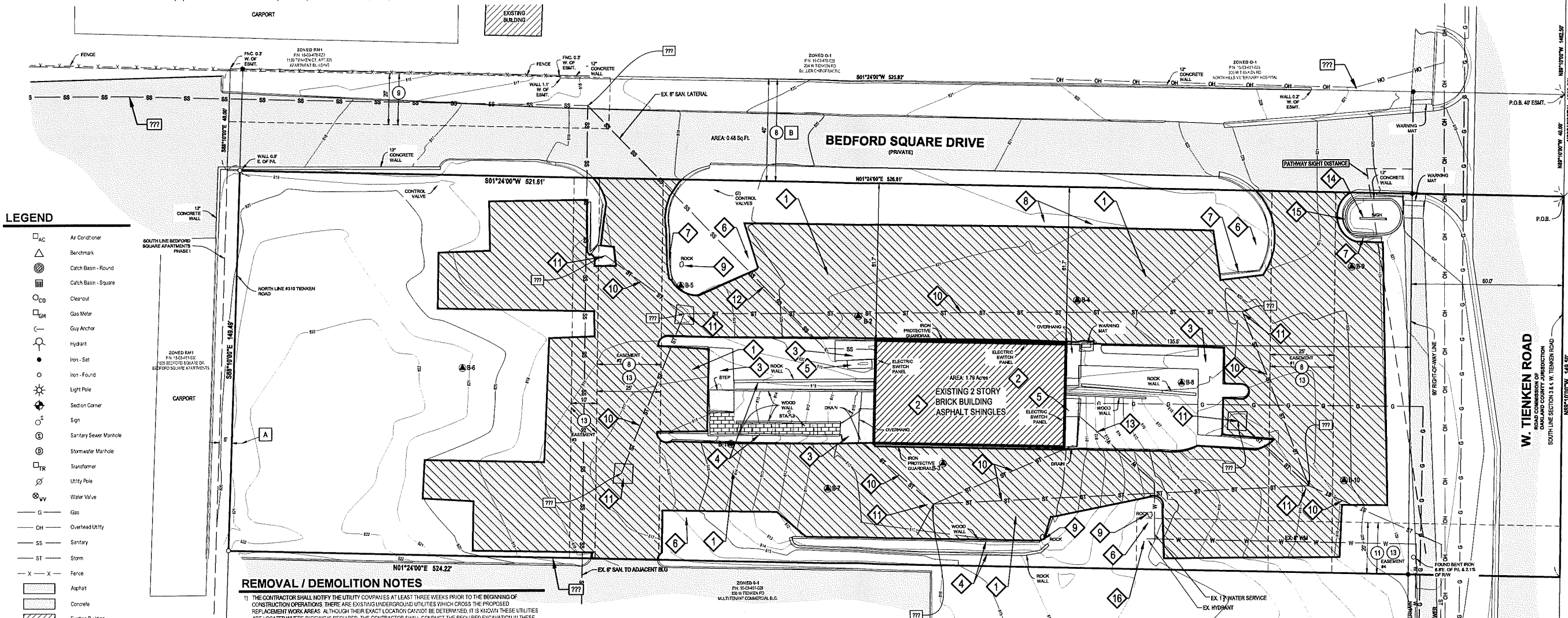
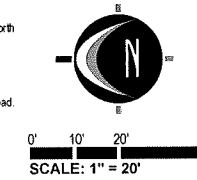
(copied Commitment 18.0356 Campbell Title, dated December 10, 2018)

SCHEDULE B - SECTION II NOTES

- 8 Declaration of Restrictions and Easements recorded in Liber 8005 on Page 694, Oakland County Records, but omitting any covenant or restriction based on race, color, religion, sex, handicap, familial status, or national origin. The easement described in this document is shown on this survey.
9 Grant of Easement for Utility Purposes recorded in Liber 4845 on Page 202, Oakland County Records. The easement described in this document is shown on this survey.
10 Area Maintenance Meter Agreement for water in favor of Charter Township of Avon recorded in Liber 8022 on Page 294, Oakland County Records. The easement described in this document is not shown on this survey. Location of easement is described as "Mechanical room on lower level".
11 Water Easement and Conveyance in favor of Charter Township of Avon recorded in Liber 8231 on Page 170, Oakland County Records. The easement described in this document is shown on this survey.
13 Roadway easements as disclosed in Warranty Deed recorded in Liber 7925 on Page 344, Oakland County Records. The easement described in this document is shown on this survey.

BENCHMARKS

- BENCHMARK #1 ELEV. = 814.89 (DATUM NAVD83) Chiseled "X" on the sanitary manhole on the East side of Bedford Square Drive, 525± North of Tienken Road.
BENCHMARK #2 ELEV. = 821.57 (DATUM NAVD83) MAG nail in the West face of the utility pole on the East Pl., 80± North of Tienken Road.
BENCHMARK #3 ELEV. = 819.45 (DATUM NAVD83) Chiseled Square on the East face of the concrete light pole base on the West Pl., 30± Northeast of the brick building, #330 Tienken Road.



LEGEND

- AC Air Conditioner
B Benchmark
CB Catch Basin - Round
CS Catch Basin - Square
CR Clearcut
GM Gas Meter
GA Guy Anchor
H Hydrant
IS Iron-Set
IF Iron-Found
LP Light Pole
SC Section Corner
S Sign
SM Sanitary Sewer Manhole
SMW Sanitary Sewer Manhole
TR Transformer
UP Utility Pole
WV Water Valve
G Gas
OH Overhead Utility
SS Sanitary
ST Storm
X-X Fence
A Asphalt
C Concrete
E Existing Building

REMOVAL / DEMOLITION NOTES

- 1) THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AT LEAST THREE WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION OPERATIONS. THERE ARE EXISTING UNDERGROUND UTILITIES WHICH CROSS THE PROPOSED REPLACEMENT WORK AREAS. ALTHOUGH THEIR EXACT LOCATION CANNOT BE DETERMINED, IT IS KNOWN THESE UTILITIES ARE LOCATED WHERE DIGGING IS REQUIRED. THE CONTRACTOR SHALL CONDUCT THE REQUIRED EXCAVATION IN THESE AREAS WITH EXTREME CAUTION.
2) ALL EXISTING UTILITY INFORMATION SHOWN IS TAKEN FROM EXISTING RECORDS, AND FIELD VERIFIED WHERE ACCESSIBLE. ONLY INFORMATION OBTAINED FROM EXISTING RECORDS MAY NOT BE COMPLETE OR ACCURATE. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR SHALL FIELD VERIFY FOR ACCURACY, LOCATION AND CONDITION.
3) BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY AND BY THE OWNER, REPRESENTATIVES OF THE CITY, THE OWNER AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE EXISTING SEWERS WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING UTILITIES AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS AND EXISTING VIDEO TAPES. RECORDS OF THE INSPECTIONS SHALL BE KEPT IN WRITING BY THE CONTRACTOR.
4) THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION WORK.
5) ALL EXISTING UTILITIES, SEWERS AND WATER LINES ARE TO REMAIN UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES, MUNICIPALITIES AND AGENCIES BEFORE COMMENCING ANY WORK.
6) THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES REGARDING REMOVAL OF EXISTING POLES, OVERHEAD WIRES, UNDERGROUND UTILITIES, GUY WIRES, GAS LINES, ETC. ALL ADJUSTMENT OR RECONSTRUCTION WORK EXCEPT FOR THOSE STRUCTURES OTHERWISE NOTED ON THE PLANS, SHALL BE PERFORMED BY THE CONTRACTOR. EXISTING APPURTENANCES SUCH AS UTILITY POLES AND VALVES BOSS SHALL NOT BE DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION.
7) THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJACENT PROPERTIES.
8) ALL DEBRIS SHALL BE REMOVED FROM THE SITE, AND NO STOCKPILING ON SITE SHALL BE ALLOWED UNLESS APPROVED BY THE OWNER OR THEIR REPRESENTATIVES.
9) THE CONTRACTOR SHALL LIMIT SAVICUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE REQUIRED OR AS SHOWN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT UNITS OR EXISTING JOINTS. IF ANY DAMAGES IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST TO AVOIDER, INCLUDING THE CITY OR OWNER.
10) ASPHALT AREAS SHOWN TO BE SAWCUT AND REMOVED FULL DEPTH ARE ACTUAL FACE OF PROPOSED CURBS. IT WILL BE NECESSARY TO MAKE OFF-SET SAVICUTS TO PROVIDE CLEARANCE FOR PROPOSED CURBS. THE CONTRACTOR SHALL DETERMINE THE AMOUNT OF OFF-SET NECESSARY TO CONSTRUCT THE PROPOSED CURBS. ADDITIONAL CUTS MAY BE DESIRED TO FACILITATE THE REMOVAL OF THE EXISTING PAVEMENT, BUT THERE WILL BE NO EXTRA PAYMENT FOR ADDITIONAL CUTS. PAVEMENT SHALL BE REMOVED WITHOUT DAMAGING OR UNDERMINING THE REMAINING PAVEMENT IF ADJACENT PAVEMENT IS DAMAGED. THE CONTRACTOR SHALL MAKE ADDITIONAL FULL DEPTH SAVICUTS AND REMOVE THE DAMAGE AREAS AS NECESSARY.
11) ALL PAVEMENT REMOVAL AREAS SHALL BE FULL PAVEMENT CROSS-SECTION REMOVAL DOWN TO NATIVE SOIL LAYER IN ACCORDANCE WITH THE GEOTECHNICAL REPORT DATED MONTH/DA/YEAR.
12) ALL VEGETATION WITHIN THE GRADING LIMITS SHALL BE REMOVED UNLESS OTHERWISE NOTED.
13) THERE ARE NO REGULATED TREES THAT WILL BE REMOVED AT THE SITE.

SURVEYOR'S NOTES

- 1) Flood Zone Classification: An examination of the National Flood Insurance Program's Flood Insurance Rate Map for Community Number 260471, Panel Number 281250384F, with an Effective Date of September 29, 2006, shows this parcel to be located in Zone X. No field surveying was performed to determine this zone.
2) Source information from plans and markings has been combined with observed evidence of utilities to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary. These locations should not be interpreted to be exact locations nor should it be assumed that they are the only utilities in this area.
A) A gap exists between the South line of Bedford Square Apartments Phase 1 as described in Quit Claim Deed recorded in Liber 11045, Page 711, Oakland County Records and the North line of #310 Tienken Road as described in commitment provided by Campbell Title Agency of Michigan, LLC, File No. 18.0356, dated December 10, 2018.
B) 40' easement in commitment provided by Campbell Title Agency of Michigan, LLC, File No. 18.0356, dated December 10, 2018 described as "TOGETHER WITH AN UNDIVIDED ONE-HALF (1/2) INTEREST IN A ROADWAY 40.00 FEET IN WIDTH". It is unclear as to who owns the property under the roadway. Further deed research is recommended.
5) Basis of Bearing: South line of Section 3 as described in commitment provided by Campbell Title Agency of Michigan, LLC, File No. 18.0356, dated December 10, 2018.
6) NOTE TO CONTRACTORS: 3 (THREE) WORKING DAYS BEFORE YOU DIG, CALL MISS DIG AT TOLL FREE 1-800-482-7171 FOR UTILITY LOCATIONS ON THE GROUND.

SOIL BORINGS

Table with columns for Borehole ID, Depth, Soil Description, and Observations. Includes entries for B-1 through B-16.

NEDERVELD logo and contact information for Grand Rapids, Ann Arbor, Chicago, Columbus, Holland, Indianapolis, and St. Louis.

PREPARED FOR: NEWCO Design Build, LLC. Attention: Chris VanDoesel. 4131 Roger B Chaffee Memorial Blvd SE Grand Rapids, MI 49548 (616) 493-9360

REVISIONS table with columns for Title, Description, Checked SW, and Date. Lists 15 revisions.

Lake Michigan Credit Union logo and address: 310 W. Tienken Road, Rochester Hills, MI 48306. Part of the Southeast of Section 3 T3N, R11E, City of Rochester Hills, Oakland County, Michigan.

STAMP: STEVEN L WITTE, ENGINEER, No. 46769, State of Michigan Professional Engineer.

PROJECT NO: 19500016. SHEET NO: C-201. SHEET: 1 OF 7.

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

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NOTE: EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "UNKNOWN" WERE OBTAINED FROM AVAILABLE ASBESTHOSIS RECORDS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO ANY CONSTRUCTION.

BENCHMARKS

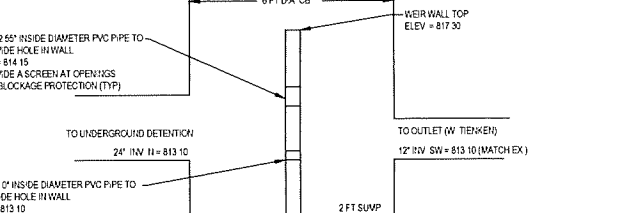
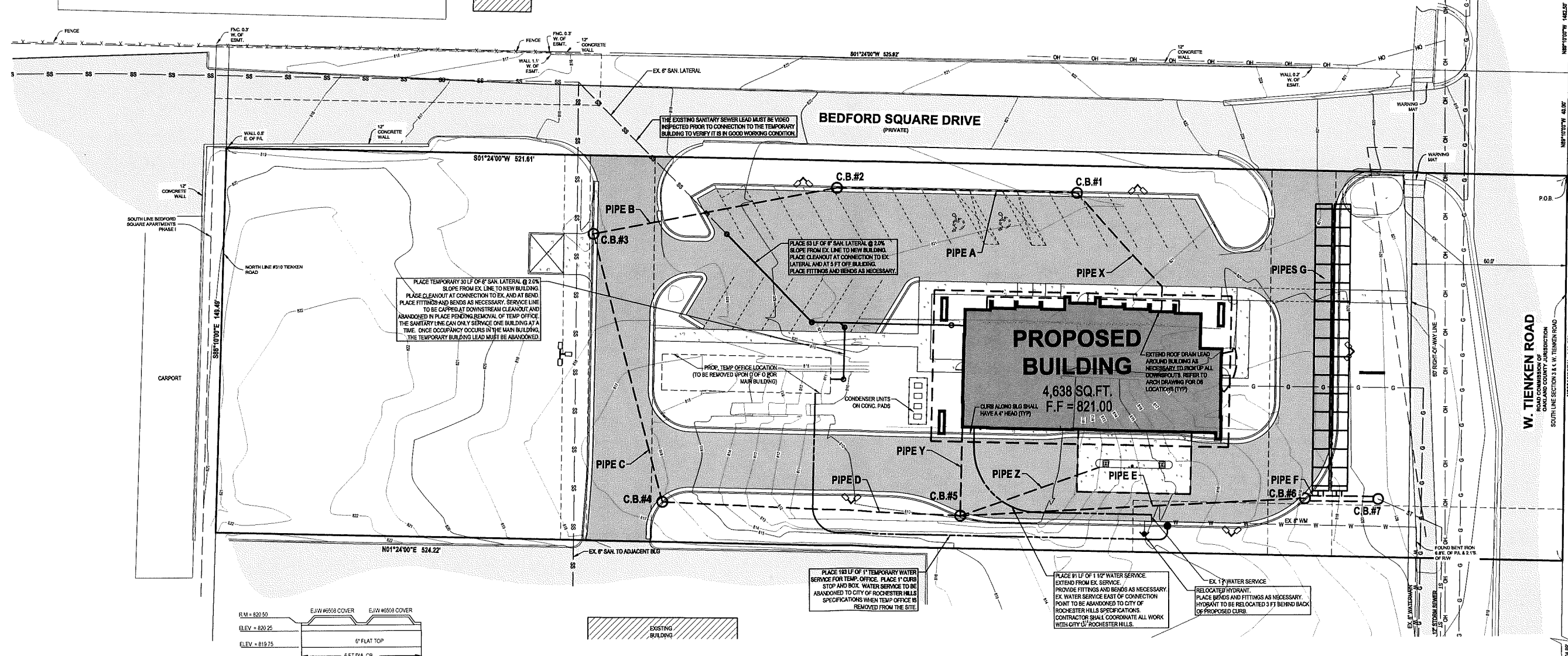
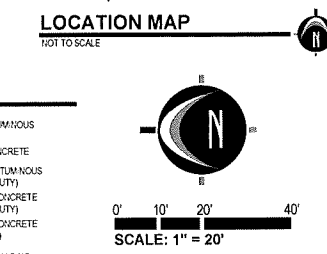
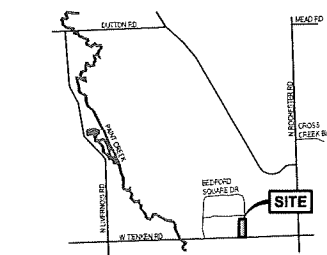
- BENCHMARK #1** ELEV. = 814.80 (DATUM NAVD88)
Chiseled "X" on the sanitary manhole on the East side of Bedford Square Drive, 525'± North of Tienken Road
- BENCHMARK #2** ELEV. = 821.57 (DATUM NAVD88)
MAG nail in the West face of the utility pole on the East PL, 80'± North of Tienken Road
- BENCHMARK #3** ELEV. = 819.45 (DATUM NAVD88)
Chiseled Square on the East face of the concrete light pole base on the West PL, 30'± Northeast of the brick building, #K30 Tienken Road.

CONSTRUCTION NOTES

- ALL CONSTRUCTION AND MATERIAL SPECIFICATIONS INCLUDED FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE MOST CURRENT AND MATERIAL SPECIFICATIONS (LATEST EDITION) AND THE ORDINANCES OF THE CITY. WHERE CONFLICTS OCCUR IN THE ABOVE, THE CITY SHALL BE THE GOVERNING AUTHORITY.
- SOIL BORINGS HAVE BEEN PERFORMED BY THE OWNER AND SHALL BE PROVIDED TO THE CONTRACTOR. VARIATION IN EXISTING SOIL CONDITIONS MAY IMPACT THE EARTHWORK QUANTITIES. UNDESIRABLE SOILS ARE INDICATED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO THE EXISTING WATER AND SEWERAGE SYSTEMS RESULTING FROM NON-COMFORMANCE WITH THE APPLICABLE STANDARDS OR THROUGH GENERAL NEGLIGENCE.
- ALL WORK INCLUDING INSPECTIONS AND TESTING COST REQUIRED FOR REMOVAL, RELOCATION OR NEW CONSTRUCTION FOR PRIVATE OR PUBLIC UTILITIES, WILL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR AND INCLUDED IN THE BID PRICE FOR THE WORKS TO BE PERFORMED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS FROM THE CITY AND COUNTY AND ANY OTHER AGENCY FOR ALL WORK DONE BY THE CONTRACTOR.
- ANY DEFECTS IN THE CONSTRUCTION, INCLUDING MATERIALS OR WORKMANSHIP, SHALL BE REPAIRED OR CORRECTED BY REMOVAL AND RECONSTRUCTION OR OTHER APPROVED METHODS PRIOR TO ACCEPTANCE BY THE CITY OR OWNER WITHOUT ANY ADDITIONAL COST TO THE CITY OR OWNER.
- ALL LAWN AREAS REMOVED OR DISTURBED SHALL BE REPLACED WITH TOPSOIL, AND SOIL WHERE KEPT AND SHALL BE RESEEDING AND MULCHED IF SATISFACTORY ESTABLISHMENT OF LAWN DOES NOT OCCUR.
- ALL PUNCHLIST AND DEFICIENCY WORK SHALL BE COMPLETED WITHIN 1 MONTH OF THE END OF CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN A STREET OPENING PERMIT FROM THE CITY BEFORE BEGINNING WORK WITH ANY PUBLIC STREET RIGHT-OF-WAY.
- THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES.
- THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRIC FIELD LAYOUT. DIMENSIONS SHOWN ARE FOR GRAPHIC PRESENTATION ONLY AND SHOULD NOT BE USED FOR LAYOUT. CONTACT THE ENGINEER IF ANY DISCREPANCIES BETWEEN THE PLAN AND ELECTRIC DATA ARE DISCOVERED.
- THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN, ETC. AS REQUIRED TO PROTECT THE REQUIRED WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES AS REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE SUCH ADDITIONAL TRAFFIC CONTROL DEVICES LOCATED OUTSIDE THE LIMITS OF CONSTRUCTION AS ARE REQUIRED ON THOSE STREETS WHICH ARE USED AS THROUGHWAYS. CLOSELY MONITOR AND BARRICADES AT THE POINT WHERE THE ROAD IS CLOSED TO THROUGH TRAFFIC.
- THE CONTRACTOR SHALL PROTECT LOCATION OF ALL PROPERTY PINS AND BENCHMARKS.
- ALL WORK CONTEMPLATED SHALL AT ALL TIMES BE SUBJECT TO THE DIRECT INSPECTION OF THE CITY, OWNER AND THEIR REPRESENTATIVES. THE CITY AND OWNER RESERVES THE RIGHT TO HALT ALL CONSTRUCTION ACTIVITY FOR NON-COMFORMANCE OF PLANS, SPECIFICATIONS AND OTHER APPLICABLE STANDARDS OR REGULATIONS.
- PROCESSED BITUMINOUS SHALL BE COMPACTED IN PLACE REGARDLESS OF SOIL OR ROCK CONDITIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL S.O.S. BARRICADES AND SAFETY FENCES TO DETOUR PEOPLE FROM BYSTANDING THE WORK AREA AND FOR MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROLS SHALL BE COORDINATED WITH THE POLICE DEPARTMENT AND THE CITY.

STORM SEWER CHART

PROP. CB #1 4' DIA. CATCH-BASIN W/ E J/W #7500 COVER AND FLOATABLE INLET TRAP R.M. ELEV. = 819.30 12" IN. S = 815.30	PROP. CB #7 OUTLET CONTROL STRUCTURE SEE DETAIL THIS SHEET TO BE PLACED ON EX. STORM OUTLET LINE NOTE: ALL CATCHBASINS SHALL HAVE 3 FT SLUMPS (TYP) UNLESS OTHERWISE NOTED.	PIPE LENGTH K PLACE 581' F. OF 6" STIM SEWER (PVC) ROOF DRAIN LEAD @ 1.00%	PIPE LENGTH H PLACE 341' F. OF 6" STIM SEWER (PVC) ROOF DRAIN LEAD @ 1.00%	STORMTECH CHAMBERS ALL CHAMBERS, END CAPS, AND INSPECTION PORTS SHALL BE PLACED PER MANUFACTURER'S STANDARDS AND SPECIFICATIONS.
PROP. CB #2 4' DIA. CATCH-BASIN W/ E J/W #7500 COVER AND FLOATABLE INLET TRAP R.M. ELEV. = 819.25 12" IN. S = 815.00	PIPE LENGTH A PLACE 891' F. OF 12" STIM SEWER (PERF. SLOPP W/ SOCK) @ 0.20%	PIPE LENGTH I PLACE 341' F. OF 6" STIM SEWER (PVC) ROOF DRAIN LEAD @ 1.00%	PIPE LENGTH J PLACE 571' F. OF 3" STIM SEWER (PVC) ROOF DRAIN LEAD @ 2.00%	
PROP. CB #3 4' DIA. CATCH-BASIN W/ E J/W #7500 COVER AND FLOATABLE INLET TRAP R.M. ELEV. = 817.70 12" IN. W = 814.25 12" IN. S = 814.25	PIPE LENGTH C PLACE 1071' F. OF 12" STIM SEWER (PERF. SLOPP W/ SOCK) @ 0.20%	PIPE LENGTH L PLACE 191' F. OF 12" STIM SEWER (PERF. SLOPP W/ SOCK) @ 0.20%	PIPE LENGTH M PLACE 1341' F. OF 12" STIM SEWER (PERF. SLOPP W/ SOCK) @ 0.40%	
PROP. CB #4 4' DIA. CATCH-BASIN W/ E J/W #7500 COVER AND FLOATABLE INLET TRAP R.M. ELEV. = 816.80 12" IN. W = 813.91 12" IN. S = 813.91	PIPE LENGTH D PLACE 191' F. OF 12" STIM SEWER (PERF. SLOPP W/ SOCK) @ 0.20%	PIPE LENGTH N PLACE 201' F. OF 24" STIM SEWER (PERF. SLOPP W/ SOCK) @ 0.10%	PIPE LENGTH O PLACE 4.638 MC-3000 ENDCAPS CONNECT WITH 24" STIM SEWER (PERF. SLOPP W/ SOCK) TO DOWNSTREAM 24" HEADER PIPE. SLOPE OF CHAMBERS AND PIPE = 0.10%	
PROP. CB #5 4' DIA. CATCH-BASIN W/ E J/W #7500 COVER WITH FLOATABLE INLET TRAP R.M. ELEV. = 816.15 3" IN. W = 815.75 3" IN. S = 815.75	PIPE LENGTH E PLACE 303' F. OF 24" STIM SEWER (PERF. SLOPP W/ SOCK) @ 0.10%	PIPE LENGTH P PLACE 1.638 MC-3000 ENDCAPS CONNECT WITH 24" STIM SEWER (PERF. SLOPP W/ SOCK) TO DOWNSTREAM 24" HEADER PIPE. SLOPE OF CHAMBERS AND PIPE = 0.10%		
PROP. CB #6 - STORM WATER QUALITY UNIT ADS BARRICADE 54 UNIT W/ J/W #1000 TYPE M2 COVER R.M. ELEV. = 816.60 15" IN. W = 813.14 24" IN. S = 813.14				



SANITARY SEWER BASIS OF DESIGN

ROCHESTER HILLS BASIS OF DESIGN: 100 GPD/REU

QAIAND COUNTY UNIT ASSIGNMENT FACTOR:
FINANCIAL INSTITUTION/OFFICE: 0.40 REU PER 1,000 SF
(4,638 SF) x 0.40 REU / 1,000 SF = 1.86 REU

ROCHESTER HILLS PEAK FACTOR: 4.0

AVERAGE FLOW:
(100 GPD/REU) x 1.86 REU = 186 GPD (0.0003 CFS)

PEAK FLOW: AVERAGE FLOW * 4 =
(186 GPD) x 4 = 744 GPD (0.012 CFS)

6" LATERAL FLOW (1.00% SLOPE): 0.73 CFS
6" LATERAL VELOCITY (1.00% SLOPE): 3.72 FPS (WHEN FULL)

PREPARED FOR:
NEWCO Design Build, LLC
Attn: Chris VanDoeseelaar

4131 Roger B Chaffee Memorial Blvd SE
Grand Rapids, MI 49548
(616) 493-9360

REVISIONS:

Title Preliminary Site Plan	Drawn SW	Checked SW	Date 03/20/19
Title Site Plan	Drawn SW	Checked SW	Date 04/12/19
Title Site Plan Submittal	Drawn SW	Checked SW	Date 04/15/19
Title Mirror Building Department Modifications	Drawn SW	Checked SW	Date 05/09/19
Title Site Plan Resubmittal	Drawn SW	Checked SW	Date 05/23/19
Title Landscaping/Clear Vision	Drawn SW	Checked SW	Date 05/31/19
Title City Comments from 05/14/19	Drawn SW	Checked SW	Date 05/16/19
Title City Comments from 07/09/19	Drawn SW	Checked SW	Date 07/12/19
Title Bid and Permit Set - 07/09/19	Drawn SW	Checked SW	Date 07/26/19
Title Addendum #1 - 08/01/19	Drawn SW	Checked SW	Date 08/01/19
Title Per Water Service	Drawn SW	Checked SW	Date 08/09/19
Title Fire Planning Commission	Drawn SW	Checked SW	Date 09/20/19
Title Per Owner	Drawn SW	Checked SW	Date 09/10/19

Lake Michigan Credit Union

Utility Plan

310 W. Tienken Road, Rochester Hills, MI 48066
PART OF THE SOUTHEAST OF SECTION 3 T3N, R11E
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

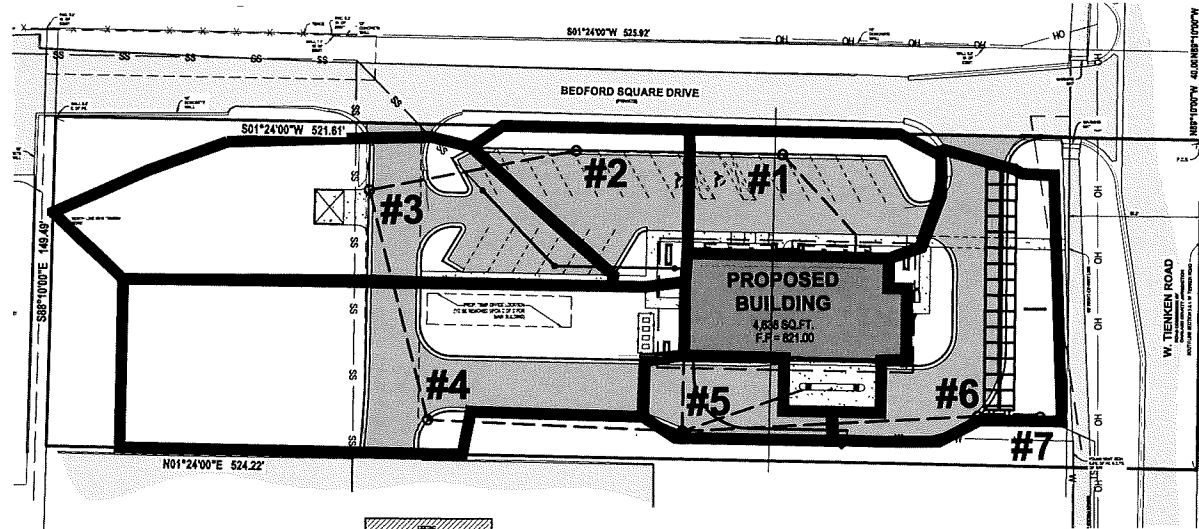
STAMP:

STATE OF MICHIGAN
SEVEN L. WITTE
ENGINEER
No. 46769
LICENSED PROFESSIONAL ENGINEER

PROJECT NO:
19500016

SHEET NO:
C-300

SHEET: 3 OF 7



DRAINAGE AREA MAP FOR STORM SIZING

Nederveld Associates, Inc.

Project: LMCU - Rochester
Project #: 19500016
Date: 9/10/2019

Storm Sewer Design
MODEL OF DEVELOPED AREAS

From	To	C**	Factored C, Value	Time (min)**	Area Increment	Total Area (acres)	I (in/hr)**	Q (cfs)	L (ft)	Pipe Size (in)	Type of Pipe	Full Flow HGL (%)	Actual Pipe Grade (%)	Full Flow Velocity (ft/s)
E1/2 Bldg	1	0.95	0.95	10.0	0.053	0.053	5.00	0.25	59	6	P	0.15	1.00	1.29
1	2	0.75	0.80	15.0	0.141	0.194	4.38	0.64	93	12	P	0.02	0.32	0.81
2	3	0.79	0.80	15.0	0.111	0.305	4.38	1.06	96	12	P	0.06	0.78	1.35
3	4	0.55	0.68	15.0	0.290	0.595	4.38	1.42	107	12	P	0.11	0.32	1.81
4	5	0.49	0.60	15.0	0.403	0.998	4.38	2.14	116	15	P	0.08	0.20	1.74
W1/2 Bldg	5	0.95	0.95	10.0	0.053	0.053	5.00	0.25	34	6	P	0.15	1.00	1.29
Canopy	5	0.95	0.95	10.0	0.024	0.024	5.00	0.11	57	3	P	1.20	2.00	2.33
5	6	0.95	0.64	15.0	0.059	1.134	4.38	4.72	134	15	P	0.38	0.40	3.84
6	Holding	0.67	0.65	15.0	0.198	1.333	4.38	3.91	28	24	P	0.02	0.10	1.24

Formulas and Constants

Rational Equation

Q = CA, where

Q = Flow (cfs)

C = Rational Coefficient

i = Rainfall Intensity (in/hr)

A = Tributary Area (ac)

Manning's Equation

Q = (1.486 n) x R^{2/3} x S^{1/2} x A

Q = Flow (cfs)

n = Manning's Roughness Coef.

R = Hydraulic Radius

S = Slope of Pipe (ft/ft)

A = Area of Flow (sq. ft)

Manning Roughness Coefficients

Concrete	C	0.013
Cor Metal	CM	0.024
Plastic	P	0.011

* A Time of Concentration was assumed to be 15 minutes for all sections of pipe.
** A Developed Runoff Coefficient was calculated for the individual drainage areas that had a combination of lawn and hard surface.
*** Intensity, I = 175 (T-25)



LOCATION MAP

NEDERVELD
www.nederveld.com
800.222.1868
GRAND RAPIDS
217 Grandville Ave., Suite 302
Grand Rapids, MI 49503
Phone 616.575.5190
ANN ARBOR
CHICAGO
COLUMBUS
HOLLAND
INDIANAPOLIS
ST. LOUIS

PREPARED FOR:
NEWCO Design Build, LLC
Allen: Chris VanDosselaar
4131 Roger B Chaffee Memorial Blvd SE
Grand Rapids, MI 49548
(616) 493-9360

REVISIONS:

Title	Checked SW	Date
Final Preliminary Site Plan	Checked SW	Date 03/20/19
Final Site Plan	Checked SW	Date 04/12/19
Final Site Plan Submittal	Checked SW	Date 04/12/19
Final Site Plan	Checked SW	Date 04/12/19
Final Minor Building Department Modifications	Checked SW	Date 05/09/19
Final Site Plan Resubmittal	Checked SW	Date 05/23/19
Final Landscaping/Clear Vision	Checked SW	Date 05/31/19
Final City Comments from 05/14/19	Checked SW	Date 05/18/19
Final City Comments from 07/25/19	Checked SW	Date 07/12/19
Final Bid and Permit Set - 07/29/19	Checked SW	Date 07/29/19
Final Addendum #1 - 08/01/19	Checked SW	Date 08/01/19
Final Per Water Service	Checked SW	Date 08/08/19
Final Fire Planning Commission	Checked SW	Date 08/28/19
Final Per Charter	Checked SW	Date 09/10/19

Nederveld Associates, Inc. Project: LMCU - Rochester Hills
Project #: 19500016
Date: 9/10/2019

Information For Determining Detention Requirements

C-DEVELOPED-ON SITE

A. Impervious Area (C=0.95)	Length (ft)	Width (ft)	Area (s.f.)	Quantity	Total Area (s.f.)	Area (Ac)
Asphalt/Concrete Area	1	1	26200	1	26200	0.60
Building Area	1	1	4638	1	4638	0.11
Total						0.71

B. 'Green' Area (C=0.30)

Total site area	69193 s.f.	1.59
Total impervious area		0.71
Change in impervious area		0.71
Total 'Green' area		0.88

C. Calculate C-dev = (95(area.95) + (area.3) total area) / total area
C-dev = 0.59

Nederveld Associates, Inc. Project: LMCU - Rochester Hills
Project #: 19500016
Date: 9/10/2019

Recharge and Infiltration Design

Volume of water to be captured and infiltrated: Rev = 1.815 (A x C)

A = Area of Site = 1.59 acres
C = Weighted Runoff Coefficient = 0.59
0.5" rainfall converted to cf = 1815
Rev = 1,700 cubic feet

Total Storage in Chamber System = 8,682 cf
Depth of Chambers = 3.75 ft
Approximate Depth to provide Required Rev Volume = 0.73 ft = 8.81 inches

Nederveld Associates, Inc. Project: LMCU - Rochester Hills
Project #: 19500016
Date: 9/10/2019

Detention Basin Sizing Calculations

A) Calculate maximum outflow per acre Qo = Qa/(acreage*runoff coefficient)

Qa = 0.32 cfs (based on 0.20" acreage)
Acreage = 1.59 acres
Runoff Coeff = 0.59
Qo = 0.339 cfs/acre

B) Calculate the storage time, T, in minutes, from the orifice outlet storage time equation.

T = -25 + (2700 Qo)^{0.5}
T = 64.22 min.

C) Calculate the max volume of storage per acre impervious

Vs = (4320 * T * (T+25)) / 100 * Qo
Vs = 2.238 cf/acre impervious

D) Calculate the total volume of storage, Vt, required for the entire site.

Vt = Vs * (total area) * (runoff coefficient)
Vt = 2097 cf

E) Select an outflow pipe from the orifice formula that will yield the allowable outflow operating under the actual head to drain water dry in 24 hours

Volume = 2097 cf
Flow Rate Q to drain volume in 24 hours = 0.0243 cfs

Q = 0.62 * n * (2 * g * h)^{1.5}
Area = Q / (62 * (2 * g * h)^{1.5})

Q = 0.0243 cfs
g = 32.2 ft/sec²
h = 1.01 ft
Area = 0.0047824 sf
Diameter of Pipe = 0.0780332 ft = 0.94 inches
USE 0.90" DIAMETER OPENING

Manufactured Treatment Device (SWQU) Sizing

Flow to be treated = Q = C * I * A
C = 0.59
I = 2.16 in/hr (97 * (T+30) where T is 15 minutes)
A = 1.59 acres
Q = 2.02 cfs

Nederveld Associates, Inc. Project: LMCU - Rochester Hills
Project #: 19500016
Date: 9/10/2019

Detention Basin Sizing Calculations

A) Calculate maximum outflow per acre Qo = Qa/(acreage*runoff coefficient)

Qa = 0.32 cfs (based on 0.20" acreage)
Acreage = 1.59 acres
Runoff Coeff = 0.59
Qo = 0.339 cfs/acre

B) Calculate the storage time, T, in minutes, from the orifice outlet storage time equation.

T = -25 + (8062.5 Qo)^{0.5}
T = 129.18 min.

C) Calculate the max volume of storage per acre impervious

Vs = (12,900 * T * (T+25)) / 100 * Qo
Vs = 9.056 cf/acre impervious

D) Calculate the total volume of storage, Vt, required for the entire site.

Vt = Vs * (total area) * (runoff coefficient)
Vt = 8483 cf

E) Select an outflow pipe from the orifice formula that will yield the allowable outflow operating under the actual head.

Q = 0.62 * n * (2 * g * h)^{1.5}
Area = Q / (62 * (2 * g * h)^{1.5})

Q = 0.32 cfs
g = 32.2 ft/sec²
h = 3.11 ft
Area = 0.0362067 sf
Diameter of Pipe = 0.2147089 ft = 2.58 inches
USE 2.55" DIAMETER OPENING

TOTAL VOLUME PROVIDED = 8,556 cf
TOTAL VOLUME REQUIRED = 8,483 cf

Nederveld Project: LMCU - Rochester Hills
Project #: 19500016
Date: 9/10/2019

Detention Storage Calculations

StormTech SC-740 Chamber System

Volume Per Chamber = 71.9 cf
Number of Chambers = 0 chambers
Volume Provided = 0 cf

StormTech MC3500 Chamber System

Volume Per Chamber = 178.9 cf
Number of Chambers = 30 chambers
Volume Per End Cap = 14.90 cf
Number of End Caps = 4 endcaps
Volume = 5.427 cf

StormTech MC4500 Chamber System

Volume Per Chamber = 162.6 cf
Number of Chambers = 0 chambers

Volume in Storm Pipes:

Volume per Foot of 12" Storm Pipe = 0.79 cf per foot of pipe
Volume in stone void per ft of pipe = 3.29 cf (assumes 1 ft stone trench on top, bottom, and sides, 40% voids)
Total Volume per Foot of Pipe = 4.07 cf
Length of Pipe = 206 ft
Volume in Storm Pipes = 1,205 cf

Volume per Foot of 15" Storm Pipe = 1.23 cf per foot of pipe
Volume in stone void per ft of pipe = 3.73 cf (assumes 1 ft stone trench on top, bottom, and sides, 40% voids)
Total Volume per Foot of Pipe = 4.96 cf
Length of Pipe = 250 ft
Volume in Storm Pipes = 1,240 cf

Volume per Foot of 24" Storm Pipe = 3.14 cf per foot of pipe
Volume in stone void per ft of pipe = 5.14 cf (assumes 1 ft stone trench on top, bottom, and sides, 40% voids)
Total Volume per Foot of Pipe = 8.28 cf
Length of Pipe = 28 ft
Volume in Storm Pipes = 232 cf

Catchbasin Volumes

Number of catchbasins = 6
Vertical feet per catchbasin = 36 ft (assumes 6 ft per catchbasin)
Volume per Vertical Foot = 12.57 cf
Volume Provided in Catchbasins = 452 cf

TOTAL VOLUME PROVIDED = 8,556 cf
TOTAL VOLUME REQUIRED = 8,483 cf

Nederveld Associates, Inc. Project: LMCU - Rochester Hills
Project #: 19500016
Date: 9/10/2019

Information For Determining Storm Sewer Sizing

Drainage Area	Impervious area (C=0.95) =	Grass area (C=0.30) =	Drainage Area =	C-Developed =
Drainage Area 1	4260 sf = 0.10 acres	1890 sf = 0.04 acres	6150 sf = 0.14 acres	0.75
Drainage Area 2	3660 sf = 0.08 acres	1170 sf = 0.03 acres	4830 sf = 0.11 acres	0.79
Drainage Area 3	4890 sf = 0.11 acres	7830 sf = 0.18 acres	12630 sf = 0.29 acres	0.55
Drainage Area 4	5110 sf = 0.12 acres	12440 sf = 0.29 acres	17550 sf = 0.40 acres	0.49
Drainage Area 5	2580 sf = 0.06 acres	0 sf = 0.00 acres	2580 sf = 0.06 acres	0.95
Drainage Area 6	4920 sf = 0.11 acres	3710 sf = 0.09 acres	8630 sf = 0.20 acres	0.67

Nederveld Project: LMCU - Rochester Hills
Project #: 19500016
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Spillway Calculations

Emergency Spillway: I = 3.89 C(Dev) = 0.59 Tc (Dev) = 20.0 minutes Area = 1.59 acres

10-yr = C(Dev) I(10) A = 3.64 CFS

Weir Equat Q = C L H^{1.5}

C (weir coef) = 3.30
H (height over weir) = 0.35 ft

Rectangular Weir
Minimum Spillway Dimension Weir Base = 5.82 ft

Spillway Design Dimension Weir Base = 6.00 ft

Spillway Design Flow = 3.75 cfs

The water will be approximately 0.33 ft above the weir wall during an emergency situation

1 Year Volume = 2097 cf
25 Year Volume = 8483 cf

The 1 year volume is approximately 25% of the total volume provided.
The storage profile is from between the outlet elevation (813.10) and the elevation of the emergency spillway (elevation 817.30), which is slightly higher than the top of the highest chamber. Therefore, place the first low flow orifice at the outlet elevation (813.10). And place the second low flow orifice at elevation 814.15 (25% up the storage volume profile).

STAMP:
STATE OF MICHIGAN
STEVEN L WITTE
ENGINEER
No. 46769
LICENSED PROFESSIONAL ENGINEER

PROJECT NO:
19500016
SHEET NO:
C-400
SHEET: 5 OF 7

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

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS UNLESS SO INDICATED. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES AND SERVICE LINES PRIOR TO ANY CONSTRUCTION.

ADDITIONAL LANDSCAPING NOTES FROM THE CITY

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 FT FROM THE EDGE OF THE PUBLIC ROAD. (TREES MUST BE PLANTED AT LEAST 15 FT AWAY FROM CURB OR ROAD EDGE WHERE THE SPEED LIMIT IS MORE THAN 35 MPH). SHADE TREES AND SHRUBS MUST BE PLANTED AT LEAST 5 FT FROM THE EDGE OF THE PUBLIC WALKWAY. EVERGREEN AND ORNAMENTAL TREES MUST BE PLANTED AT LEAST 10 FT FROM THE EDGE OF THE PUBLIC WALKWAY. NO TREES OR SHRUBS MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY STREET RIGHT-OF-WAY AT A DISTANCE ALONG EACH LINE OF 25 FT 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 FT FROM THEIR POINT OF INTERSECTION. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10 FT FROM ANY FIRE HYDRANT. SHADE AND EVERGREEN TREES MUST BE PLANTED AT LEAST 10 FT AWAY FROM THE NEAREST OVERHEAD WIRE. TREES MUST BE PLANTED A MINIMUM OF 5 FT 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 UNIT 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. THE ABOVE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.

LANDSCAPE CALCULATIONS

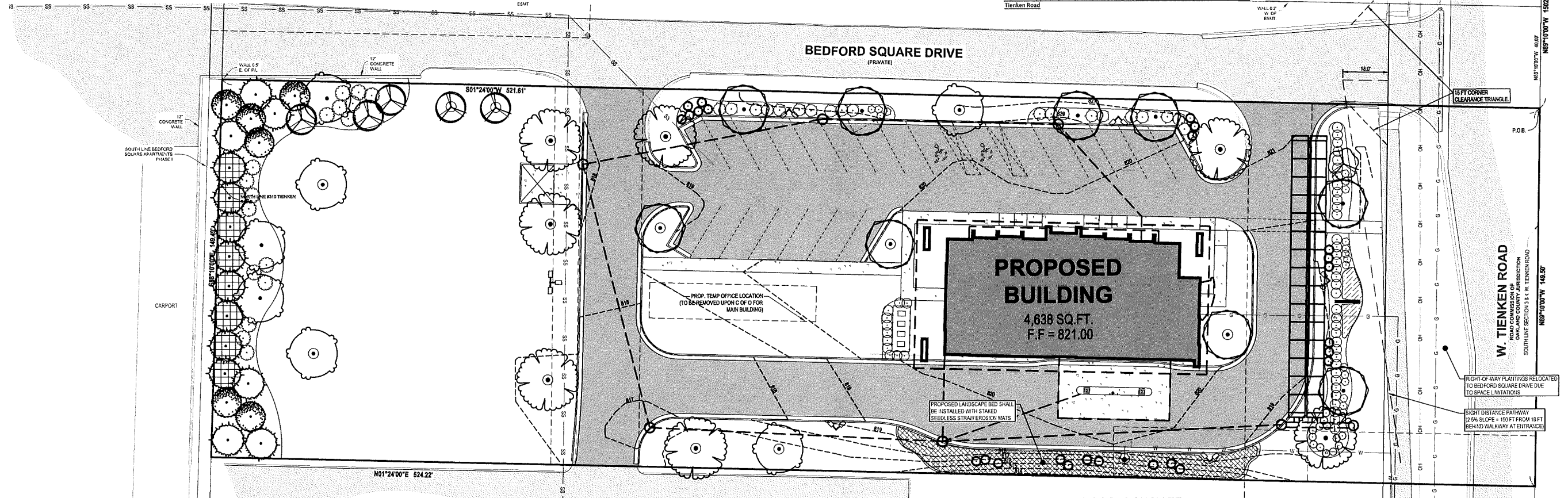
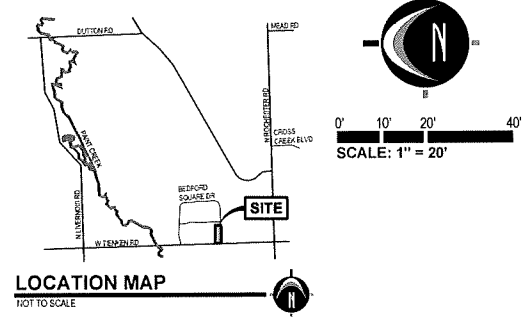
BUFFER LANDSCAPING:
Property adjoins RM-1 Zoning to the north and northeast property boundary requiring type C buffer.
Required: 275 x 2 Deciduous Trees = 5 Deciduous Trees
275 x 1.5 Ornamental Trees = 5 Ornamental Trees
275 x 4 Evergreen Trees = 11 Evergreen Trees + Solid Green Wall
275 x 6 Shrubs = 17 Shrubs
Provided: 6 Deciduous Trees, 5 Ornamental Trees, 20 Evergreen Trees (Solid Green Wall) and 28 Shrubs

INTERIOR LANDSCAPING:
Total Vehicle Use Area: 30,600 sf
Required: 5% Internal Landscape Beds = 1,530 sf
Provided: 3,285 sf
Interior Tree Requirement: 1 deciduous for every 150 sf of required interior landscape beds
Required: 1,530/150 = 10 Deciduous Trees
Provided: 10 Deciduous Trees

For interior parking medians, 1 deciduous tree for every 25 ft of median as well as a continuous shrub hedge.
Required: Continuous shrub hedge to be required in the north and south parking median.
Provided: Trees Provided and Hedge Provided along Bedford Square Drive (East property line)

PERIMETER LANDSCAPING:
Applies to all parking lots facing and within 100' of a public right-of-way.
Perimeter parking lots are required to include 1 deciduous tree for every 25 ft and 1 ornamental tree for every 35 ft. If the parking is within 30 feet of Right-of-Way, a continuous shrub hedge is required.
Required: 107 linear feet / 25 = 5 Deciduous Trees
107 linear feet / 35 = 3 Ornamental Trees
Continuous evergreen or deciduous shrub hedge
Provided: 3 Deciduous Trees, 1 Ornamental Tree and shrub hedge (Required plantings are not met due to sight distance requirements for pathways - noted on plan)

RIGHT-OF-WAY LANDSCAPING:
1 deciduous tree for every 35 linear feet.
Required: 150 ft / 35 = 5 Deciduous Trees
150 ft / 60 = 3 Ornamental Trees
Provided: Right-of-Way plantings are provided along Bedford Square Drive due to space limitations along Tienken Road



PRELIMINARY LANDSCAPING COST ESTIMATE

IMPROVEMENT ITEMS	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1. Evergreen Tree	20	Each	\$ 200.00	\$ 4,000.00
2. Canopy Tree (3" caliper)	23	Each	\$ 200.00	\$ 4,600.00
3. Ornamental Tree (2" caliper)	6	Each	\$ 150.00	\$ 900.00
4. Shrub	111	Each	\$ 60.00	\$ 6,660.00
5. Grasses	29	Each	\$ 50.00	\$ 1,450.00
6. Annual Ground Cover	1	Each	Lump Sum	\$ 1,000.00
7. Edging	1	Each	Lump Sum	\$ 1,500.00
8. Mulch (and weed barrier)	1	Each	Lump Sum	\$ 1,000.00
9. Irrigation System	1	Each	Lump Sum	\$ 9,000.00
GRAND TOTAL				\$ 30,110.00

PLANT SCHEDULE

TREES	CODE	BOTAN./CAL. / COMMON NAME	SIZE	QTY	
	A2	Abies concolor / White Fir	10' ht. avg.	6	
	AF	Aesculus x carnea 'Fort Meador' / Red Horsechestnut	3' cal. min.	7	
	Ga	Ginkgo biloba 'Autumn Gold' TM / Maidenhair Tree	3' cal. min.	9	
	Ms	Malus sargentii / Sargent Apple	2' cal. min.	5	
	Mp	Malus x 'Pink Princess' / Pink Princess Crabapple	2' cal. min.	1	
	Pg	Picea glauca / White Spruce BAB	10' ht. avg.	6	
	PF	Pinus strobus 'Fastigata' / Pyramidal White Pine	10' ht. avg.	8	
	Tc	Tilia cordata / Littleleaf Linden BAB	3' cal. min.	7	
SHRUBS	CODE	BOTAN./CAL. / COMMON NAME	SIZE	QTY	
	MS2	Dieris spodiopoda 'El Madrigal' / Nightglow Dieris	#1	14	
	Mj	Miscanthus sinensis / Japanese Silver Grass	CON. 1	25	
	Pv	Panicum virgatum / Switch Grass	CON. 1	4	
	PF2	Potamogeton luteo-roseus / Bush Crapefoil	#1	13	
	Rc	Rhododendron catesbaei / Catawba Rhododendron	CON. 3	17	
	Sa	Spiraea x bumalda 'Anthony Waterer' / Anthony Waterer Spiraea Cont.	CON. 3	20	
	TT	Taxus x media 'Tautoni' / Tauton Yew	CON. 3	47	
GROUND COVERS	CODE	BOTAN./CAL. / COMMON NAME	CONT.	SPACING	QTY
	Lb	Leucanthemum x superbum 'Becky' / Shasta Daisy	Plug	18" o.c.	71
	Vc2	Vinca minor / Common Periwinkle	Plug	12" o.c.	1,169

LANDSCAPE NOTES

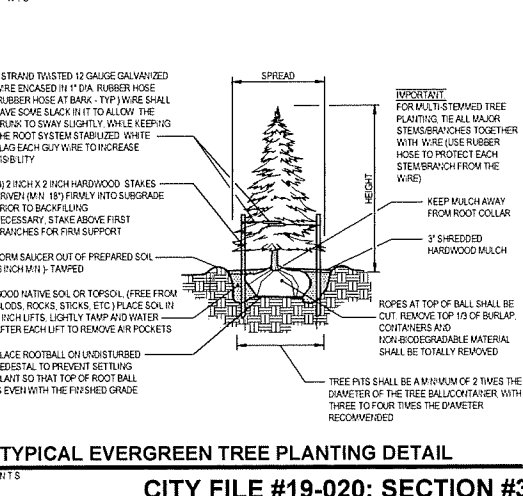
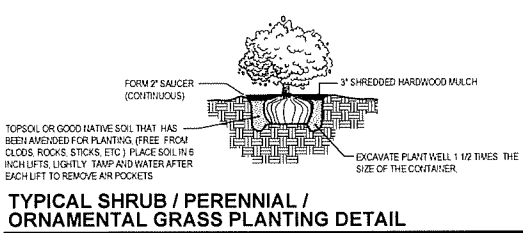
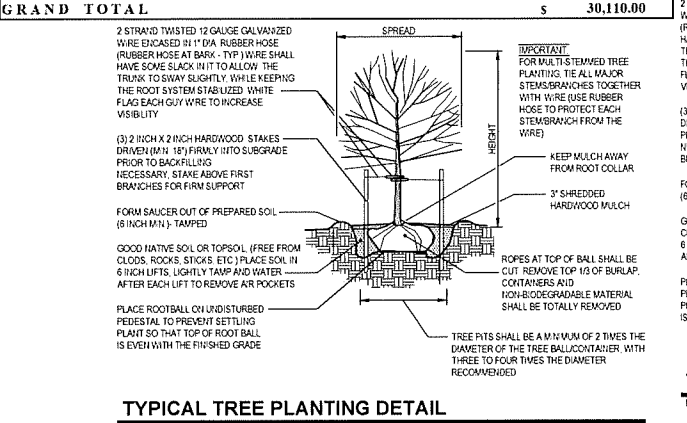
- PLANTING NOTES:**
- ALL PLANT MATERIAL SHALL BE LOCALLY NURSERY GROWN NO 1 GRADE AND INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES. ALL PLANT MATERIALS SHALL MEET CURRENT AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. DO NOT PLANT MATERIALS UNTIL DIRECTED BY OWNER, LANDSCAPE ARCHITECT, AND/OR CONSTRUCTION MANAGER. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL FOR ANY REASON BEFORE OR AFTER IT IS INSTALLED.
 - SIZES SPECIFIED ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE INSTALLED.
 - ANY PLANT SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
 - MAINTENANCE OF LANDSCAPING ITEMS, TREES, AND PLANTS SHALL BE PERFORMED BY THE PROPERTY OWNER OR A QUALIFIED PROFESSIONAL. ALL LANDSCAPING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE MUNICIPAL STANDARDS AND IN ACCORDANCE WITH CURRENT INDUSTRY STANDARDS IN A NEAT, HEALTHY AND WEED FREE CONDITION. ANY DEAD, DISEASED OR DAMAGED PLANT MATERIALS ARE TO BE REPLACED IMMEDIATELY AFTER NOTIFIED TO DO SO.
 - PLANT TREES AND SHRUBS IN ACCORDANCE WITH PLANTING DETAILS. DIG TRENCHES PER DETAILS. PLANT TREES AND SHRUBS AT THE SAME GRADE LEVEL AT WHICH THEY WERE GROWN AT THE NURSERY. IF HEAVY CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS HIGHER, APPROX. 1/4 OF THE ROOT BALL ABOVE GRADE AND BACKFILL TO TOP OF ROOT BALL.
 - REMOVE ALL TWINE, WIRE, NURSERY TREE GUARDS, TAGS AND INORGANIC MATERIAL FROM ROOT BALLS. REMOVE THE TOP 1/3 OF BURLAP FROM EARTH BALLS AND REMOVE BURLAP FROM AROUND TRUNK.
 - USE 3" SHREDDED HARDWOOD MULCH, NATURAL COLOR (NON-COLORED), IS REQUIRED FOR ALL PLANTINGS AND PLANTING BEDS. MULCH PER PLANTING DETAILS. MULCH IN PLANT BEDS SHALL BE 3" THICK AT TIME OF INSPECTION AND AFTER COMPACTED BY RAIN OR IRRIGATION. ALL PLANTING BEDS SHALL BE EDGED WITH 6" X 12 GAUGE STEEL LANDSCAPE EDGING.
 - LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES. IF A CONFLICT WITH UTILITIES EXISTS, NOTIFY OWNER/CONSTRUCTION MANAGER PRIOR TO PLANTING.
 - PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER PLANTING AND ACCEPTANCE.
 - PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPE PLANTINGS.

TOPSOIL AND TURF NOTES:

- WHenever graded into natural situations has been disturbed, approved landscaping or grass shall be fully installed, and established within a reasonable period of time, but no longer than one growing season (unless otherwise noted and approved).
- DURING EXCAVATION, GRADING, AND INSTALLATION OF REQUIRED LANDSCAPING, ALL SOIL EROSION AND SEDIMENTATION CONTROL REGULATIONS SHALL BE STRICTLY FOLLOWED AND COMPLIED WITH.
- ALL LAWN AREAS SHALL RECEIVE SOIL OR HYDROSEED. TURF SHALL BE INSTALLED ON TOPSOIL UNLESS APPROVED OTHERWISE. DO NOT PLANT UNTIL ACCEPTANCE OF FINISH GRADE.
- SOIL SHALL BE GROWN ON TOPSOIL UNLESS APPROVED OTHERWISE. SOIL SHALL BE 2 YEARS OLD AND STRONGLY ROOTED. PLACE SOIL TIGHTLY WITH NO GAPS AND WITH GRAIN IN SAME DIRECTION. SEAMS OF SOIL SHALL BE STAGGERED IN A RUNNING BOND PATTERN. SOIL SHALL BE WATERED IMMEDIATELY TO AVOID DRYING OUT. DO NOT INSTALL SOIL UNTIL ACCEPTANCE OF FINISH GRADE AND IRRIGATION SYSTEM IS OPERATING PROPERLY UNLESS DIRECTED BY WRITING TO DO OTHERWISE. FINISH ROLL SOIL WITH A WATER FILLED LAWN ROLLER. ROLL PERPENDICULAR TO LENGTH OF SOIL.
- TURF SHALL BE INSTALLED ON A MIN. OF 3" OF LIGHTLY COMPACTED APPROVED TOPSOIL. TOPSOIL SHALL BE FERTILE, SCREENED, FRABLE TOPSOIL, FREE OF STICKS 1/2" DIA. AND LARGER, ROOTS, STICKS OR OTHER EXTRANEIOUS MATERIAL, INCLUDING NONBIODGRADABLE PLANTS. FINISH WITH 0 AND 1/2" 5/8" DIA. PPM. ORGANIC COEFFICIENT 3% MIN. DO NOT INSTALL TOPSOIL UNTIL APPROVED BY OWNER. TOPSOIL SHALL BE FINE GRADED TO A SMOOTH FINISH, FREE OF LUMPS AND DEPRESSIONS.
- ALL LANDSCAPE ISLANDS WITHIN PARKING LOTS SHALL BE BACK FILLED WITH TOPSOIL TO A DEPTH OF 18" MIN.

IRRIGATION NOTES:

- ALL PLANTING AREAS, LAWN AREAS AND LANDSCAPE ISLANDS SHOWN ARE TO HAVE A COMPLETE IRRIGATION SYSTEM. THE GC SHALL BE RESPONSIBLE FOR RETAINING A QUALIFIED FIRM FOR THE DESIGN OF THE IRRIGATION SYSTEM. THE DESIGN MUST SHOW HOW THE SYSTEM TIES INTO THE BUILDING AND MUST SHOW ALL OF THE NECESSARY EQUIPMENT FOR A COMPLETE SYSTEM. THE GC SHALL SUBMIT THE IRRIGATION SYSTEM DESIGN TO THE ARCHITECT/OWNER FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.
- IRRIGATION SHALL ONLY OCCUR BETWEEN THE HOURS OF 12 AM AND 5 AM.
- IRRIGATION OVERSPRAY SHALL NOT BROADCAST ONTO THE CITY PATHWAY.



NEDERVELD
www.nederveld.com
800.222.1668
GRAND RAPIDS
217 Grandville Ave., Suite 302
Grand Rapids, MI 49503
Phone 616.975.5190

ANN ARBOR
CHICAGO
COLUMBUS
HOLLAND
INDIANAPOLIS
ST. LOUIS

PREPARED FOR:
NEWCO Design Build, LLC
Attn: Chris VanDoesselar
4131 Roger B Chaffee Memorial Blvd SE
Grand Rapids, MI 49548
(616) 493-9360

REVISIONS:

Title	Drawn SW	Checked SW	Date
Title Primary Site Plan			
Drawn SW	Checked SW	Date	03/20/19
Title Site Plan			
Drawn SW	Checked SW	Date	04/12/19
Title Site Plan Submittal			
Drawn SW	Checked SW	Date	04/15/19
Title Minor Building Department Modifications			
Drawn SW	Checked SW	Date	05/05/19
Title Site Plan Resubmittal			
Drawn SW	Checked SW	Date	05/23/19
Title Landscaping/Clear Vision			
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Title Per Water Service			
Drawn SW	Checked SW	Date	08/06/19
Title Per Planning Commission			
Drawn SW	Checked SW	Date	08/28/19
Title Per Owner			
Drawn SW	Checked SW	Date	09/10/19

Lake Michigan Credit Union
Landscape Plan
310 W. Tienken Road, Rochester Hills, MI 48306
PART OF THE SOUTHEAST OF SECTION 3, T3N, R14E
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

STAMP:
STATE OF MICHIGAN
JAMES C. WALTER, JR.
LANDSCAPE ARCHITECT
No. 1588
A-C-Walters

PROJECT NO:
19500016

SHEET NO:
L-201

SHEET: 6 OF 7

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

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

NOTE: EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "UNKNOWN" WERE OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO NEW CONSTRUCTION.

BENCHMARKS

BENCHMARK #1 ELEV. = 814.80 (DATUM NAVD83)
Chiseled "X" on the sanitary manhole on the East side of Bedford Square Drive, 525'± North of Tienken Road.

BENCHMARK #2 ELEV. = 821.57 (DATUM NAVD83)
MAG nail in the West face of the utility pole on the East P.L., 80'± North of Tienken Road.

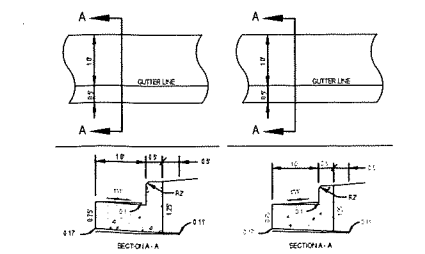
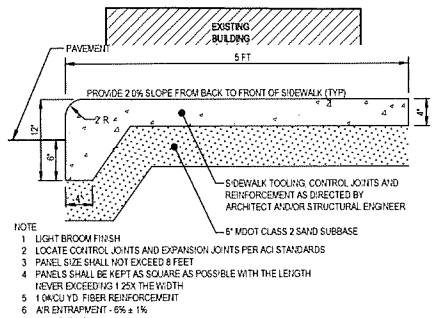
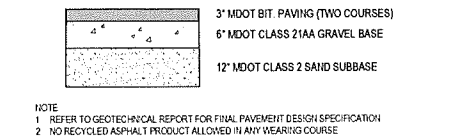
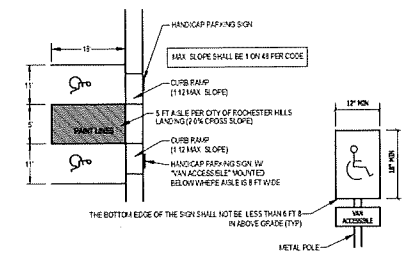
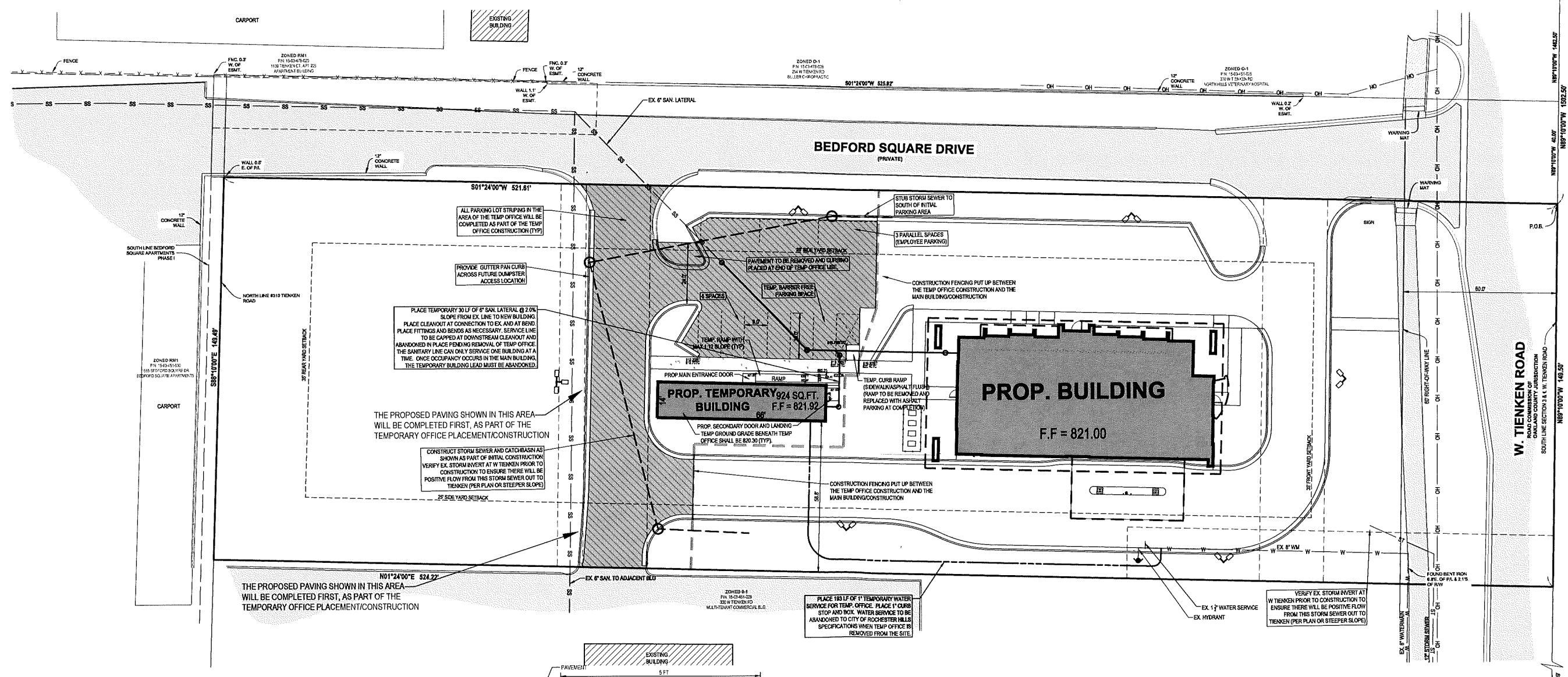
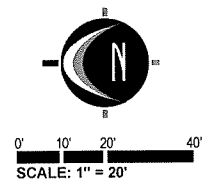
BENCHMARK #3 ELEV. = 819.45 (DATUM NAVD83)
Chiseled Square on the East face of the concrete light pole base on the West P.L., 30'± Northeast of the brick building, #330 Tienken Road.

TEMPORARY OFFICE GENERAL NOTES

- 1) THE TEMPORARY OFFICE WILL BE USED TO SERVICE THE BULKY NEEDS OF UACU MEMBERS WHILE THE SITE IS UNDER CONSTRUCTION.
- 2) THE TEMPORARY OFFICE WILL BE REMOVED FROM THE SITE PENDING THE OPENING OF THE NEW BUILDING. IT IS ANTICIPATED THAT THIS WILL BE WITHIN 12 MONTHS OF THE START OF CONSTRUCTION.
- 3) THE RAMP FOR THE TEMPORARY OFFICE SHALL MEET THE REQUIREMENTS OF ICC A117.1-2009, SECTION 4.05.
- 4) IT IS ANTICIPATED THAT THERE WILL BE APPROXIMATELY 4 EMPLOYEES WORKING OUT OF THE TEMPORARY OFFICE.
- 5) IT IS ANTICIPATED THAT A LIMITED AMOUNT OF MEMBERS WILL VISIT THE TEMPORARY OFFICE.
- 6) A TOTAL OF 9 PARKING SPACES ARE PROVIDED FOR THE TEMPORARY OFFICE.
- 7) CONSTRUCTION FENCINGS WILL BE CONSTRUCTED AND MAINTAINED BETWEEN THE TEMPORARY OFFICE AND THE MAIN CONSTRUCTION SITE.

LEGEND

- EXISTING BITUMINOUS
- EXISTING CONCRETE
- PROPOSED BITUMINOUS (STANDARD DUTY)
- PROPOSED CONCRETE (STANDARD DUTY)
- PROPOSED CONCRETE (HEAVY DUTY)
- PROPOSED BUILDING



NEDERVELD

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Grand Rapids, MI 49503
Phone: (616) 975-5100

ANN ARBOR
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HOLLAND
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ST. LOUIS

PREPARED FOR:
NEWCO Design Build, LLC
Allen: Chris VanDoeselaar

4131 Roger B Chaffee Memorial Blvd SE
Grand Rapids, MI 49548
(616) 493-9360

REVISIONS:

Title	Checked SW	Date
Title Preliminary Site Plan	Checked SW	Date 03/26/19
Title Site Plan	Checked SW	Date 04/12/19
Title Site Plan Submittal	Checked SW	Date 04/12/19
Title Minor Building Department Modifications	Checked SW	Date 05/09/19
Title Site Plan Resubmittal	Checked SW	Date 05/23/19
Title Landscaping/Clear View	Checked SW	Date 05/31/19
Title City Comments from 05/14/19	Checked SW	Date 06/18/19
Title City Comments from 07/09/19	Checked SW	Date 07/22/19
Title Bid and Permit Set - 07/29/19	Checked SW	Date 07/29/19
Title Addendum #1 - 08/01/19	Checked SW	Date 08/01/19
Title Fire Water Service	Checked SW	Date 08/08/19
Title Fire Planning Commission	Checked SW	Date 09/23/19
Title Per Owner	Checked SW	Date 09/10/19

Lake Michigan Credit Union

Temporary Office Plan

310 W. Tienken Road, Rochester Hills, MI 48066
PART OF THE SOUTHEAST OF SECTION 3 T3N, R11E
CITY OF ROCHESTER HILLS, OKLAHOMA COUNTY, MICHIGAN

STAMP:

STATE OF MICHIGAN
STEVEN L. WITTE
ENGINEER
No. 46769
LICENSED PROFESSIONAL ENGINEER

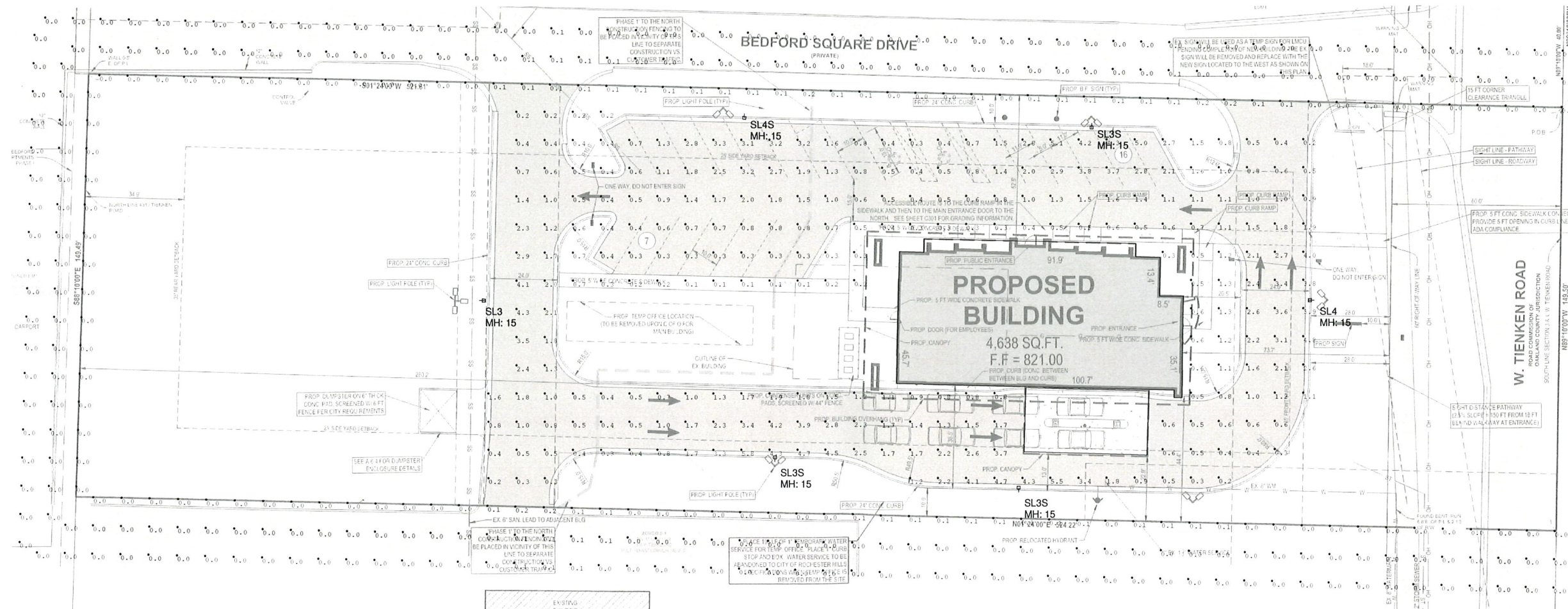
PROJECT NO:
19500016

SHEET NO:
C-500

SHEET: 7 OF 7

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
lot line	Illuminance	Fc	0.02	0.2	0.0	N.A.	N.A.
Parking lot	Illuminance	Fc	1.40	5.8	0.1	14.00	58.00

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	LLD	LDD	BF	[MANUFAC]	Description	Lum. Watts
	3	SL3S	SINGLE	0.960	0.950	1.000	EATON - LUMARK (FORMER COOPER LIGHTING)	FPPRV-1-A25-T3-15-HSS	87
	1	SL4S	SINGLE	0.960	0.950	1.000	EATON - LUMARK (FORMER COOPER LIGHTING)	FPPRV-1-A25-T4-15-HSS	87
	1	SL3	SINGLE	0.960	0.950	1.000	EATON - LUMARK (FORMER COOPER LIGHTING)	FPPRV-1-A25-T3-20	87
	1	SL4	SINGLE	0.960	0.950	1.000	EATON - LUMARK (FORMER COOPER LIGHTING)	FPPRV-1-A25-T4-20	87



PHOTOMETRIC PLAN

1"=20'

DISCLAIMER
 Illumination results shown on this lighting design are based on project parameters provided to Crites, Tidey & Assoc. used in conjunction with luminaire test procedures conducted under laboratory conditions. Actual project conditions differing from these design parameters may affect final results. The customer is responsible for providing accurate site information, including site photos, energy codes. Any changes to the room reflectance and/or obstructions not noted will alter the light levels. Please verify the date listed to assure the accuracy of the report. Values represent an approximation. Footcandle Levels are considered at the end of the life of the lamp and ballast.

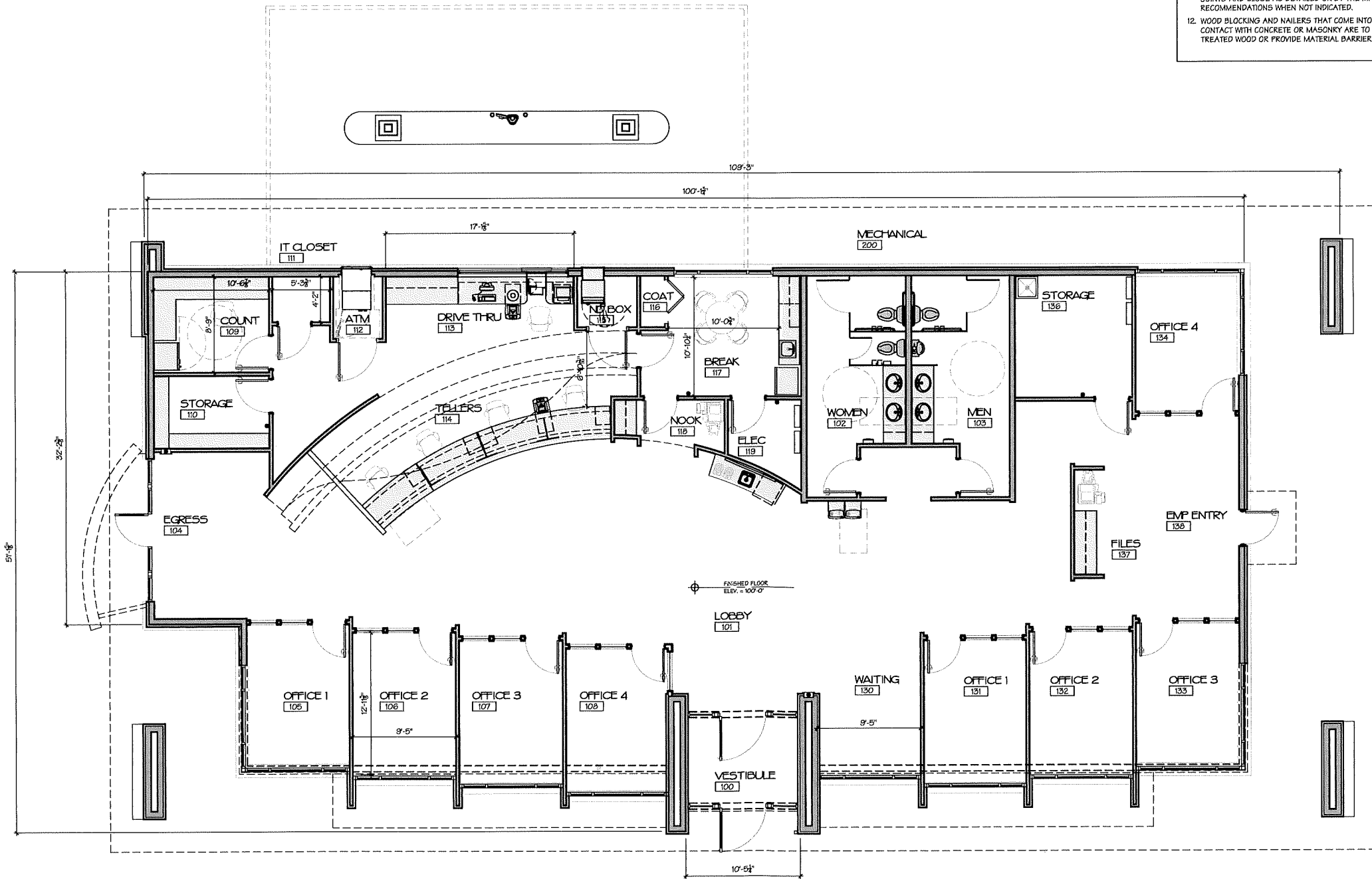
LMCU Rochester

Date
05.22.19

Revisions
06.18.19

Drawn by
Alan Searcy

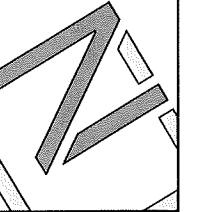
Sales



Arch'l. Plan Notes:

- FIELD MEASURE AND VERIFY OR REVISE DIMENSIONAL INFORMATION TO THE EXTENT REQUIRED TO EXECUTE WORK REQUIRED ON THE CONTRACT DOCUMENTS.
- COORDINATE TOLERANCES OF FRAMING AND SUBSTRATES TO FINISH MATERIAL REQUIREMENTS.
- MAIN FLOOR ELEVATIONS 100'-0". SEE CIVIL DRAWINGS FOR ACTUAL ELEVATIONS.
- ALL DIMENSIONS INDICATED ON DRAWINGS SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
- ACQUIRE AND MAINTAIN, ON SITE, MATERIAL MANUFACTURERS' WRITTEN RECOMMENDATIONS AND INSTRUCTIONS FOR INSTALLATION REQUIREMENTS.
- COMPLY WITH MANUFACTURERS' WRITTEN INSTRUCTIONS FOR TEMPERATURE AND RELATIVE HUMIDITY FOR PROPER INSTALLATION.
- EXTEND JAMB STUD FRAMING EACH SIDE OF DOOR OPENING AND ATTACH SECURELY TO STRUCTURE ABOVE.
- UNLESS INDICATED OTHERWISE, INTERIOR WALLS SHALL EXTEND TO AND FASTEN TO BOTTOM OF STRUCTURE.
- BRACE ALL STUD WALLS THAT DO NOT GO TO STRUCTURE ABOVE WITH MIN. 4" NOMINAL STUDS AT 45 DEG. DIAGONAL AND SECURED TO STRUCTURE ABOVE AT 48" O.C. MAXIMUM. COORDINATE WITH MECHANICAL AND ELECTRICAL EQUIPMENT REQUIREMENTS BEFORE INSTALLATION.
- WHERE FINISHED WALLS DO NOT CONTINUE FULL HEIGHT, EXTEND STUDS AS REQD. TO SECURE TO STRUCTURE. TERMINATE G.P.D.W. BOARDS AT 4" MIN. PAST LAY-IN ACOUSTICAL PANEL CEILINGS.
- DO NOT BRIDGE BUILDING EXPANSION AND CONTROL JOINTS. INDEPENDENTLY FRAME BOTH SIDES OF JOINTS AND CLOSE AS DETAILED OR BY THE MFR'S. RECOMMENDATIONS WHEN NOT INDICATED.
- WOOD BLOCKING AND NAILERS THAT COME INTO CONTACT WITH CONCRETE OR MASONRY ARE TO BE TREATED WOOD OR PROVIDE MATERIAL BARRIER.
- PROVIDE ISOLATION STRIP FOR METAL STUD FRAMING AT EXTERIOR WALLS, MASONRY, AND DISSIMILAR METALS. USE MINIMUM 15# ASPHALT FELT OR ADHESIVE BACKED CLOSED CELL FOAM IN WIDTHS TO SUIT STUD SIZES.
- MAKE JOINTS UNIFORM IN WIDTH. WHERE JOINTS IN EXPOSED WORK ARE NOT INDICATED, ARRANGE FOR THE BEST VISUAL EFFECT. FIT EXPOSED CONNECTIONS TOGETHER TO FORM HAIRLINE JOINTS.
- WHERE SOUND ATTENUATION BATT INSULATION IS SCHEDULED, INSTALL 3 1/2" BATT IN CAVITIES TO MINIMUM 3" ABOVE CEILING AND ADDITIONAL 48" ONTO CEILING EACH SIDE. SEAL ALL APPURTENANCE OPENINGS IN WALL AND OFFSET ONES INSTALLED BACK TO BACK BY ONE STUD CAVITY. APPLY SEALANT BEAD AT SILL PLATE OF WALLS AND AT TOP PLATES OF CEILINGS.
- REMOVE DEBRIS FROM CONCEALED SPACES BEFORE ENCLOSING.
- REPAIR OR REMOVE AND REPLACE DEFECTIVE CONSTRUCTION. REMOVE AND REPLACE DAMAGED SURFACES THAT ARE EXPOSED TO VIEW WHEN SURFACES CANNOT BE CORRECTED WITHOUT VISIBLE EVIDENCE OF REPAIR.
- REFER TO FINISHES SHEET NOTES FOR ADDITIONAL REQUIREMENTS.
- COORDINATE LOCATIONS OF BELOW SLAB UTILITIES AND SLAB REINFORCING PRIOR TO CONCRETE POUR.
- INFORMATION SHOWN IS BASED ON EXISTING REFERENCE RESOURCES PROVIDED TO NEWCO AND FROM SITE OBSERVATIONS. SOME CONDITIONS WHICH MAY AFFECT THE PLANS MAY BE UNKNOWN WITHOUT DESTRUCTIVE OR INVESTIGATIVE METHODS. GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- CONSTRUCTION SITE SAFETY IS TO BE MAINTAINED AT ALL TIMES. ALL SUBCONTRACTORS SHALL REVIEW AND FOLLOW ALL OSHA REGULATIONS. ITEMS OF PARTICULAR CONCERN INCLUDE, BUT ARE NOT LIMITED TO: FALL PREVENTION, LADDER SAFETY, SCAFFOLDING, ELECTRICAL HAZARDS, TRENCHING AND EXCAVATION, AND TRIP HAZARDS. ALL JOBSITES WILL REQUIRE COMPLIANCE WITH THE SILICA STANDARD, OSHA 29 CFR 1926.1153.

NEWCO
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(615) 493-9244 fax
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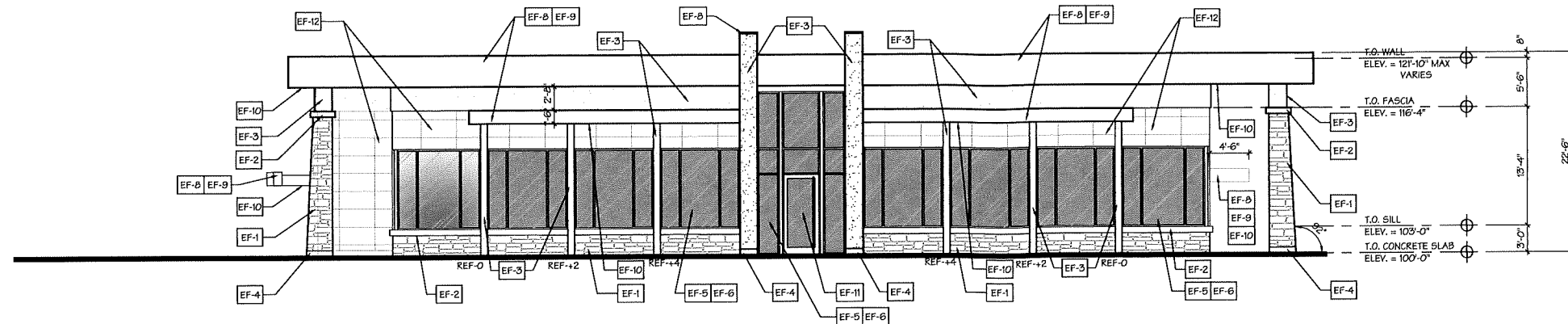


ARCHITECT: BRADFORD W. POTTER
PROJECT MANAGER: CHRIS VAN DOESLAER
PROJECT No.: 10-01331

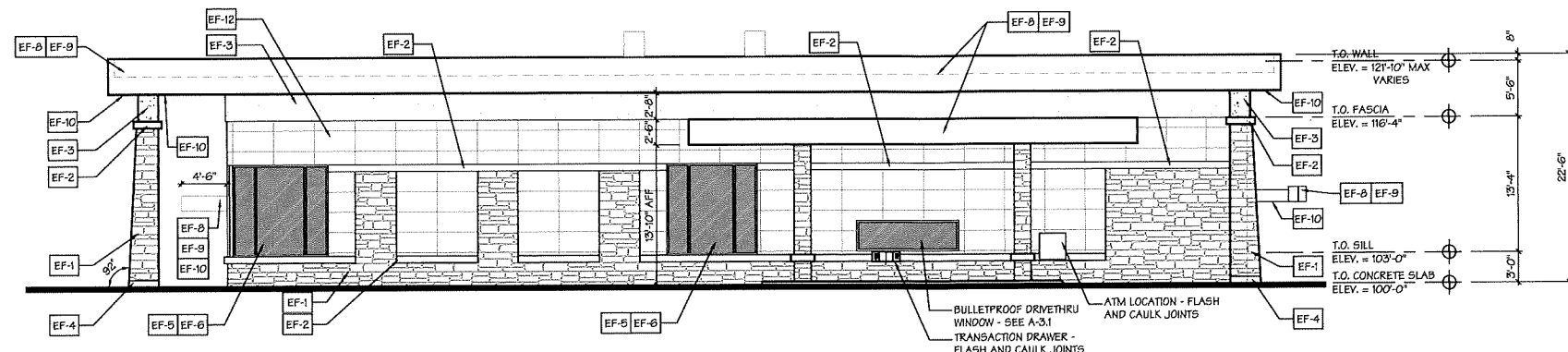
REVISIONS	DATE	ISSUED FOR	#
07/24/19			
06/19/19			
06/21/19			
04/29/19			
04/16/19			
04/09/19			
03/14/19			
02/21/19			
01/22/19			

PROJECT NAME: **LMCU ROCHESTER**
W. TIENKEN RD., ROCHESTER HILLS, MI
SHEET TITLE: **Main Floor Plan and Notes**

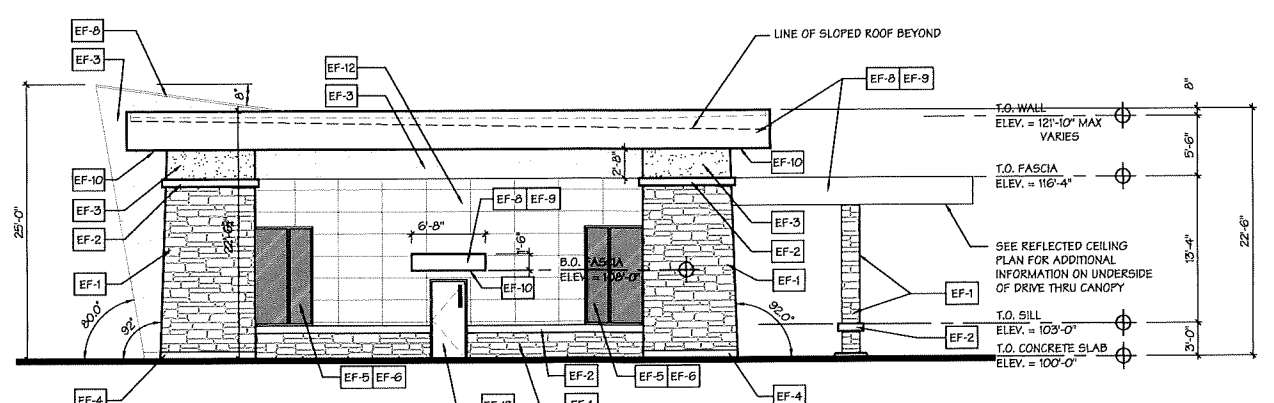
SHEET No.: CITY FILE #19-020 SECTION #3
A-1.1



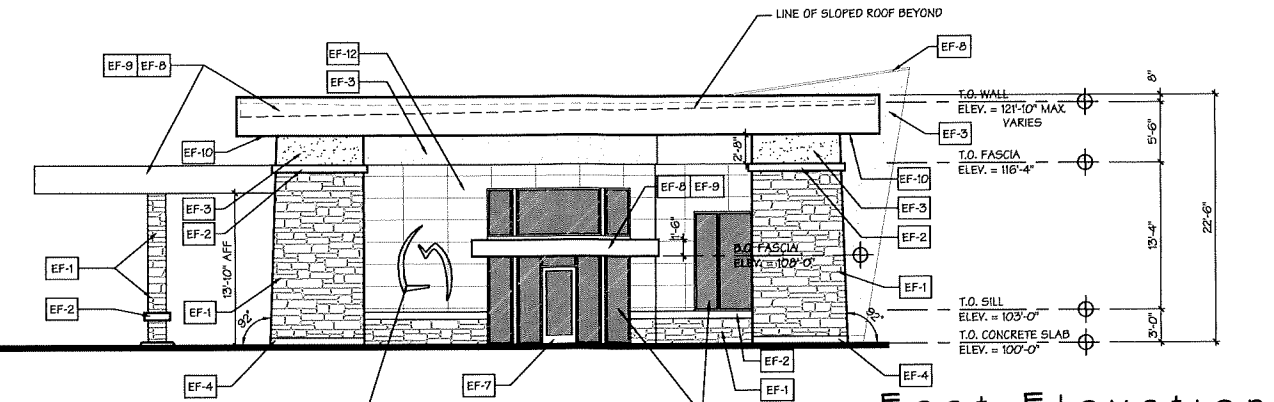
North Elevation
SCALE: 1/8" = 1'-0"



South Elevation
SCALE: 1/8" = 1'-0"



West Elevation
SCALE: 1/8" = 1'-0"



East Elevation
SCALE: 1/8" = 1'-0"

Exterior Elevation Notes:

1. MAIN FLOOR ELEVATIONS ARE 100'-0". REFER TO CIVIL DRAWINGS FOR CORRESPONDING ACTUAL ELEVATIONS.
2. REFER TO SHEET SERIES A-1 AND A-3 FOR DOOR AND WINDOW INFORMATION.
3. REFER TO ROOF PLAN AND BUILDING SECTIONS FOR EAVE DETAILS.
4. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL SHEETS FOR EXTERIOR ITEMS.
5. CONSTRUCTION SITE SAFETY IS TO BE MAINTAINED AT ALL TIMES. ALL SUBCONTRACTORS SHALL REVIEW AND FOLLOW ALL OSHA REGULATIONS. ITEMS OF PARTICULAR CONCERN INCLUDE, BUT ARE NOT LIMITED TO: FALL PREVENTION, LADDER SAFETY, SCAFFOLDING, ELECTRICAL HAZARDS, TRENCHING AND EXCAVATION, AND TRIP HAZARDS. ALL JOBSITES WILL REQUIRE COMPLIANCE WITH THE SILICA STANDARD, OSHA 29 CFR 1926.1153.

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www.NewcoDB.com

ARCHITECT:
BRADFORD W. POTTER

PROJECT MANAGER:
CHRIS VAN DOEBELAAR

PROJECT No.:
10-01331

REVISIONS	DATE	ISSUED FOR
07/24/19		
06/19/19		
05/21/19		
04/29/19		
04/16/19		
04/09/19		
03/14/19		
02/21/19		
01/28/19		
09/13/19		
08/13/19		
07/29/19		

Partial Exterior Finish Schedule

	Material	Finish
EF-1	STONE VENEER	BUECHEL - FOND DU LAC LEDGESTONE HERITAGE BLEND
EF-2	STONE SILLS	PRECAST SILL - SEE PROFILE ON DRAWINGS
EF-3	EIFS - 1	STOTHERM CLASSIC NEXT - TEXTURE - FINE LO COLOR - FRENCH VANILLA #10609
EF-4	STONE BASE	PRECAST BASE - SEE PROFILE ON DRAWINGS
EF-5	GLAZING	PPG SOLARBAN 60 (2) OPTIGRAY + CLEAR OR ARCHITECT APPROVED EQUAL MAX SHGC = 0.40
EF-6	STOREFRONT AND WINDOWS	TUBELITE 1400 UO THERMALLY BROKEN FRAMES GLAZING SET TO EXTERIOR SIDE OF FRAME COLOR - CLEAR ANODIZED OR EQUAL BY CRL
EF-7	ENTRANCE DOORS	TUBELITE - 3'-0" x 7'-0" EXTRUDED ALUMINUM - CLEAR ANODIZED OR EQUAL BY CRL SEE DOOR SCHEDULE FOR HARDWARE
EF-8	METAL COPING AND FASCIA	CUSTOM FORMED 22 GA. GALVALUME PLUS SHEET METAL COLOR - GALVALUME
EF-9	EPDM ROOFING	WHITE EPDM MEMBRANE ROOFING - FIRESTONE 60 MIL KUBBERGARD ECO WHITE OR ARCHITECT APPROVED EQUAL
EF-10	LINEAR METAL SOFFIT	CHICAGO METALLIC MACRO PLUS OR ARCHITECT APPROVED EQUAL COLOR - WHITE
EF-11	ENTRANCE DOORS	TUBELITE - 4'-0" x 9'-0" EXTRUDED ALUMINUM - CLEAR ANODIZED OR EQUAL BY CRL SEE DOOR SCHEDULE FOR HARDWARE
EF-12	METAL PANEL RAIN SCREEN SYSTEM	ALUMINUM COMPOSITE METAL PANEL - RAINSCREEN METAL PANEL WITH SMOOTH SKIN - COLOR TO BE SELECTED
EF-13	INSULATED METAL DOOR AND FRAME	PAINT TO MATCH EF-3

PROJECT NAME:
LMCU ROCHESTER
W. TIENKEN RD, ROCHESTER HILLS, MI

SHEET TITLE:
**Building Elevations, Notes,
and Details**

SHEET No.: **A-2.1** CITY FILE #19-020
SECTION #3