DEVELOPMENT PLANS FOR **PROPOSED**

REDWOOD LIVING

RESIDENTIAL DEVELOPMENT EAST AVON ROAD & DEQUINDRE ROAD ROCHESTER HILLS, MICHIGAN

PROJECT CONTACTS

CIVIL ENGINEER

7050 W SAGINAW HWY PAUL FURTAW, P.E.

REDWOOD USA, LLC

INDEPENDENCE OH 44131 (216) 360-9441

UTILITY AND JURISDICTIONAL CONTACTS

1000 ROCHESTER HILLS DR KRISTEN KAPELANSKI, AICP

CITY OF ROCHESTER HILLS 1000 ROCHESTER HILLS DR PAUL DAVIS, PE

SOIL EROSION AND SEDIMENTATION OAKLAND COUNTY WATER RESOURCES

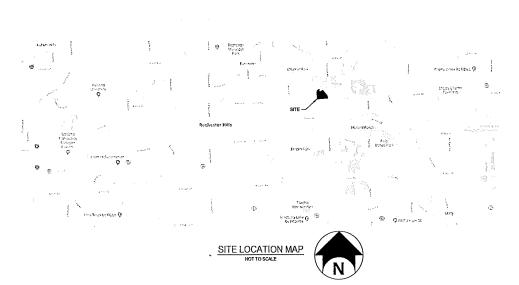
COMMISSIONER ONE PUBLIC WORKS DRIVE WATERFORD, MI 48328 (248) 858-5389

ROADS & ENTRANCE

OAKLAND COUNTY ROAD COMMISSION WATERFORD TOWNSHIP, MI 48328 (248) 858-4835

SANITARY SEWER

CITY OF ROCHESTER HILLS 1000 ROCHESTER HILLS DR ROCHESTER HILLS, MI 48309



DRAWING KEY

- ☐ NOT INCLUDED IN PLAN SET

C102 FIRE APPARATUS PLAN C121 SOUTHIYEST GRADE G PLAN C201 DEQUINORE ENTRANCE PLAN C500 SITE DETAILS C501 SITE DETAILS C607 V/ETLAND STORAGE PLAN BUILDING PLAN AND ELEVATIONS WALL SECTIONS ENTRY LANDSCAPE AND SIGN DETAILS LANDSCAPE NOTES & DETAILS

Sheet List Table

■ - TOPOGRAPHIC SURVEY

Sheet Title

REDWOOD **ROCHESTER HILLS**

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. 7050 West Saginaw Hwy. Suite 200 Lansing, MI 48917

www.bergmannpc.com

DATE	DESCRIPTION
11/15/2018	PUD REVIEW
02/04/2019	REV. PER CITY COMMENTS
03/21/2019	2NO REV. PER CITY COMMENTS
06/02/2019	3RD REV. PER CITY COMMENTS
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08/27/2019	STEP ONE PUD REVIEW



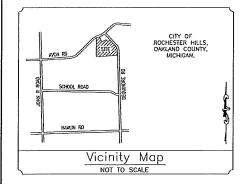
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Pojet Paraget	Desetty.
P. FURTAW, PE	P. FURTAW, PE
Designed By:	Down By
I. GRAHAM, PE	1. GRAHAM, PE
Date blood	Popul Nobec
NOVEMBER 9, 2018	12953.00

COVER SHEET

Name Hotel

C000



NOTES CORRESPONDING TO SCHEDULE B

(i) Eosement Agreement to Board of Water Commissioners of the City of Detroit os recorded in Liber 5552, Page 209, Oakland County Records and now held by the Oakland-Nacomb Interception Drain Drainago Oistrict, a Michigan statutary public conprovation as evidenced in Oult Claim Deed recorded in Liber 41635, Page 87, Oakland County Records and in Assignment of Rights of Way and Courements (Oakland) recorded in Liber 41635, Page 91, Oakland County Records that does cross or touch this procel and is shown hereous.

GENERAL NOTES

1) NO EVIDENCE OF EARTH MOVING OR BUILDING CONSTRUCTION/ADDITIONS WERE OBSERVED WHILE CONDUCTING THE FIELD WORK. (ITEM 18, TABLE A).

NO EMBENCE OF PROPOSED STREET RIGHT OF WAY LINE CHANGES WERE PROVIDED BY THE CONTROLLING JURISDICTION. (HEM. 17, TABLE A).

4) THIS PARCEL HAS DIRECT ACCESS TO AVON ROAD AND DEQUINDRY ROAD. 5) THIS SURVEY MAP CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF THE SURVEY.

7) THE BOUNDARY UNE DIMENSIONS AS SHOWN ON THIS SURVEY MAP FORM A MATHEMATICALLY CLOSEO FIGURE WITHIN +/-0.1 FOOT.

12) THE ADJOINING PARCEL TO THE WEST OVERLAPS ONTO THIS PARCEL AS SHOWN.

LEGEND



 Storm Manhole Storm Catchbasin Sign (As Noted (G) Well Head Coniferous Tree Sanitary Manhole

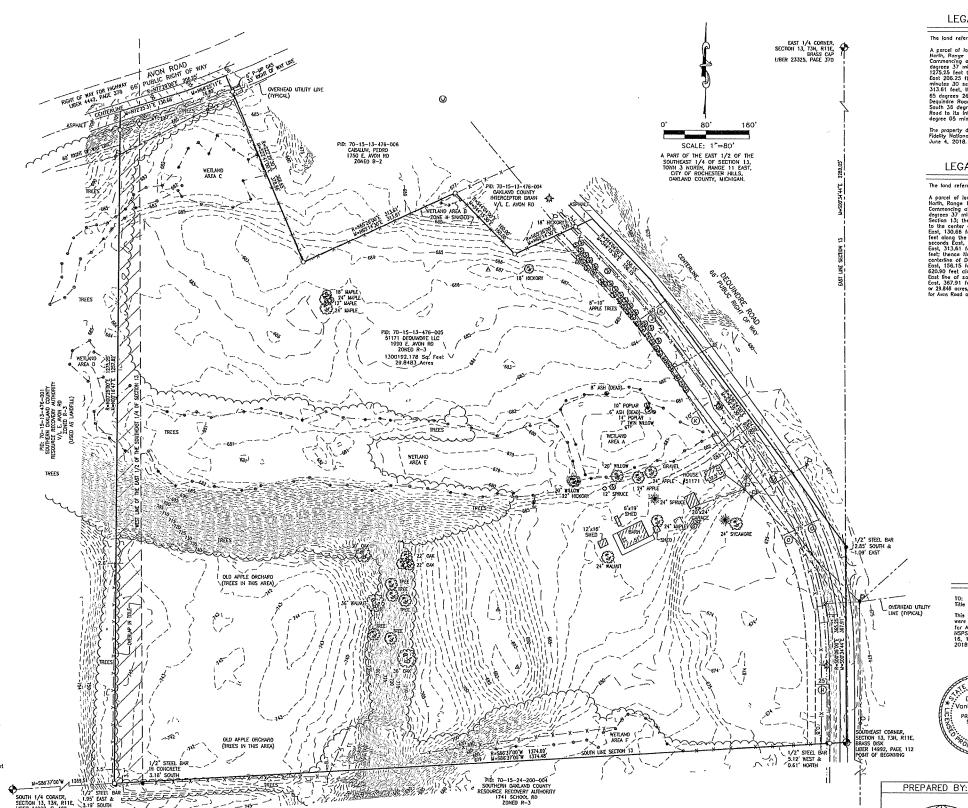
Satellite Dish Sanitary Clean Out Water Valve Gas Valve ← Fire Hydrant Gas Manhole Water Manhole

Gas Meter 9 Gas Marker Indicates Ha

Section Corner O Set 5/8" Bar & Cap Found Corner Monument (7) Monitoring Well

ABBREVIATIONS

R = RECORDED
M = MEASURED
C = CALCULATED
N = NORTH
E = EAST
S = SOUTH
W = WEST



BEARING BASIS

FLOOD NOTE

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONES X & X SHADED OF THE FLOOD INSURANCE RATE MAP HUMBER 26125C0411F WHICH ECARS AN EFFECTIVE DATE OF SEPTEMBER 29, 2008 AND IS PARTNALLY IN A SPECIAL FLOOD HAZARO AREA

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

A parcel of lond in the Scat 1/2 of the Southeast 1/4 of Section 13, Town 3 North, Range 11 East, described as:

North, Range 11 East, described as:

Commencing at the Southeast corner of soid Section 13, thence South 86 degrees 37 minutes West 1374.69 ft; thence North 0 degree 25 minutes East 1275.25 feet to the center of Aven Rood; thence North 77 degrees 29 minutes East 208.25 ft, olong the center of Avon Rood; thence South 22 degrees 20 minutes 301 saccards East 365.65 feet; thence North 53 degrees 26 minutes 301 saccards East 365.65 feet thence North 53 degrees 26 minutes Bost 100 feet; thence North 54 degrees 26 minutes South 24 degrees 04 minutes East 100 feet; thence North 50 degrees 26 minutes Cost 100 feet; thence North 50 degrees 26 minutes Cost 105.015 feet in More South 36 degrees 26 minutes East 105.015 feet and South 36 degrees 24 minutes East 624.20 feet doing the centerine of Dequindre Rood to its Interescolou with the East line of soid Section 13; thence South 0 degree 05 minutes East 365.25 feet to the point of beginning.

LEGAL DESCRIPTION (AS PROVIDED)

LEGAL DESCRIPTION (AS SURVEYED)

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

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

A porcel of land in the East 1/2 of the Southeast 1/4 of Section 13, Town 3 highly Range I Earl, described so 1/2 of the Southeast 1/4 of Section 13, Town 3 highly Range I Earl, described so 1/2 of Section 13, thence South B6 degrees 37 minutes 00 seconds West, 1374.48 feet along the South line of Section 13, thence North 0 degree 15 minutes 47 seconds East, 1252.82 feet to the center of Avon Road; thence North 72 degrees 25 minutes 31 seconds East, 130.66 feet and North 68 degrees 25 minutes 11 seconds East, 15.93 feet along the senter of Avon Road; thence South 22 degrees 41 minutes 00 feet; thence North 75 degrees 1/4 minutes 30 seconds East, 150.00 feet; thence North 65 degrees 14 minutes 30 seconds East, 150.15 feet; thence South 44 degrees 15 minutes 30 seconds East, 150.15 feet; thence South 16 degrees 35 minutes 30 seconds East, 150.15 feet; thence South 16 degrees 35 minutes 30 seconds East, 150.15 feet; thence South 16 degrees 35 minutes 30 seconds East, 150.30 feet clong the contentine of Deguinder Road to 18 intersection with the East 157 minutes 30 seconds East, 150.30 feet to the point of beginning. Containing 1,300,192.18 square feet or 23848 acces, mace or less. Subject to Right of the public over the North 33 feet for Avon Road and the Earlerly 33 feet for Dequinder Road on

SURVEYOR'S CERTIFICATION

This is to certify that this map ar plot and the survey on which it is bosed were made in occordance with the 2016 Minimum Standard Oetal Requirements for ALTA/NSPS Lend Title Surveys, jointly established and adopted by ALTA and MSPS. and includes Items 1, 2, 3, 4, 6, 6, 5, 7, 7, 17, 7, 6, 9, 10, 13, 14, 16, 17 and 20 of Table A thereof. The fieldwork was completed on Oct. 25, 2018.



"ALTA/NSPS LAND TITLE SURVEY"

This Survey has been prepared salely for the benefit of the porties set forth in this Surveyor's Cartification and may not be quoted or relied upon by, nor may copies be addivered to, any other party or used for any other purpose including, without limitation, the preparation of zoning reports or any other third party reports, without Geodetic Designs incorporated's prior written consent. Geodetic Designs Incorporated expressly disclaims any duty or obligation to prove the property of the

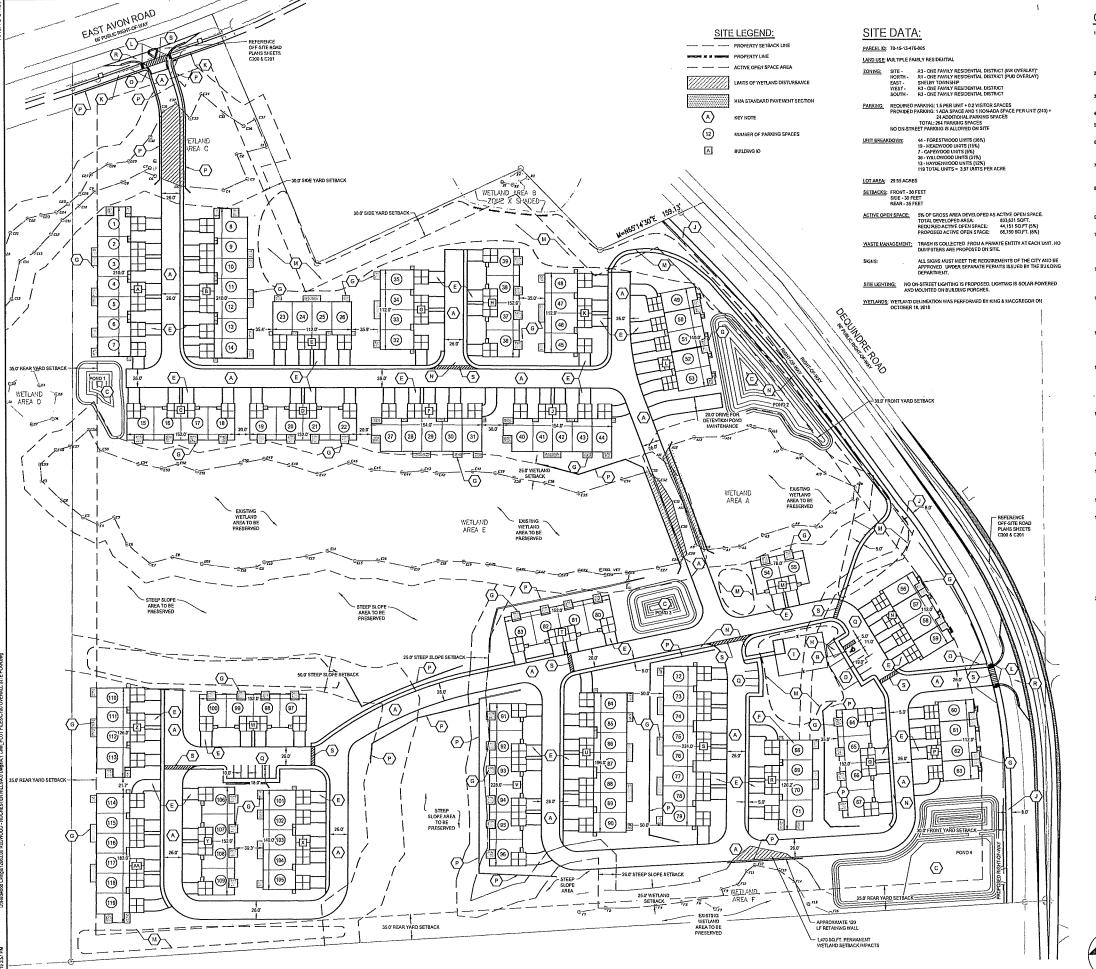
Please be advised that Geodetic Designs Incorporated will not include the providers of any third party reports in the Surveyar's Certification.

towards any porty that is not identified in the Surveyor's Certification.

GEODETIC DESIGNS, INC. 2300 N. GRAND RIVER AVE. LANSING, MI 48906 PHONE: (517) 908–0008 FAX: (517) 908–0009 WWW.GEODETICDESIGNS.COM **BERGMANN & ASSOCIATES**

REDWOOD SITE ROCHESTER HILLS, MI

SCALE: 1" = 80 DATE: OCTOBER 26, 2018 DRAWN BY; RW JOB NUMBER: \$220-2018



GENERAL NOTES:

- THE UNDERGROUND STRUCTURES AND UTILITIES SHOWN DITTESS FLAVIS INVESTIGATION FOR THE STRUCTURE SHOWN SHOWN THE STATE RECORD MAPS. THEY COUNTERTENDED IT IS THE CONTRACTORS RESPONSIBILITY TO VERIEV THE LOCATION AND EXTERT OF ALL UNDERGROUND STRUCTURES AND UTILITIES PRICED TO AND DEGREGOR CONSTRUCTION ASTRUCTURES AND UTILITIES.
- THE CONTRACTOR SHALL PERFORM ALL YYORK IN COMPLIANCE WITH TITLE 25 OF FEDERAL REGULATIONS, PART 1925, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (OSHA).
- ALL ROADS AND PRIVATE DRIVES SHALL BE KEPT CLEAN OF MUD, DEBRIS ETC AT ALL TIMES.
- REFER TO ARCHITECTURAL DRAWINGS FOR PRECISE BUILDING DIMENSI

- ALL EXISTING SURFACE APPURTEMANCES (I.E. WATER VALVES, CATCH BA FRAMES AND GRATES, MANHOLE COVERS) WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO FRISHED GRADE.
- AREAS DISTURBED OR DAVAGED AS PART OF THIS PROJECT'S CONSTRUCTION THAT ARE OUTSIDE OF THE PRIMARY WORK AREA SHALL BE RESTORED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE
- THE CONTRACTOR SHALL CALL 'MUSS DIG' AT LEAST 3 WORKING DAYS (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO CONSTRUCTION.
- 10. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE CODES, CROMANCES, DESIGN STANDARDS AND STANDARD SPECIFICATIONS OF THI AGENCIES WINCH HAVE THE RESPONSIBILITY OF REMINISTING PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF ALL ITEMS INCLUDED IN THESE
- THE CONTRACTOR YILL BE REQUIRED TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE COROMONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, NEULDINGS HE SENTY OF ALL PERSONS AND PROPERTY. THIS RECORDERING I SHALL BE MADE TO APPLY CONTRACOUSTY AND NOT BE LIMITED TO BROWNLY DROWING HOURS.
- 13. WHEN MY EXISTING UTILITY REQUIRES ADJUSTMENT OR RELOCATION, THE CONTRACTOR SHALL NOTEY THE PROPERTURILITY COMPANY AND CORROBATE HEWTON'S ACCORDINGLY. THESE SHALL BE NO CLAIM NADE BY THE CONTRACTOR FOR ANY COSTS CAUSED BY DELAYS BY CONSTRUCTION DUE TO THE AQUISTMENT OR RELOCATION OF UTILITIES.
- . THE CONTRACTOR IS TO VEREFY THAT THE PLANS AND SPECEFICATIONS THAT HE'SIGE IS BUILDING FROM ARE THE VERY LATEST PLANS AND SPECIFICATIONS THAT HAVE BEEN PROPROVED BY ALL APPLICABLE PERMIT-SISURION AGENCIES AND THE CONTRACTOR PRIOR TO RECEIVED THE THAT APPROVAD AND PERMITS HAVING TO BE ADJUSTED ON RE-DONE, SHALL BE DONE AT THE CONTRACTORS DEPOSES.
- 15. SHOULD THE CONTRACTOR DECONTRACT CONFECT SETTINGS THESE PLANS AND SECRECIA DECONTRACTOR CONTRACTOR CONTRAC
- ALL SIGNS AND TRAFFIC CONTROL MEASURES DURING CONSTRUCTION AND MANTENANCE ACTIVITIES SHALL BE CONSTRUCTED AND INSTALLED FER THE LATEST EDITION OF THE INCHIGANI MARIAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.R.U.T.C.D.).

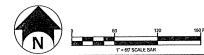
- STANDARDS OF THE ANALOGO COMMITTED COMMISSION.

 8. FRE CAMES SHALL BE CESSIONED BY THE FIRE CODE OFFICIAL AND SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LAWE. SHALE BECKINST, SONGED NOT MORE THAN 100 FEET APART, FIRE LAWE, SHORS SHALL BEAD TOS STOPPING, STANDON, APARMON, FIRE LAWE, AND SHALL CONFORM TO THE MCCHGAN LAWALL, OF LAMFORM TRAFFIC COMPING, DEPORTS OF THE MCCHGAN LAWALL, OF LAMFORM TRAFFIC COMPING, DEPORT OF THE MCCHGAN LAWALL, OF LAMFORM TRAFFIC COMPING, DEPORT OF THE MCCHGAN LAWALL, OF LAWFORM THE SHALL BE SAFEGUARDED IN ACCORDANCE WITH COMPING COMPINED THE SHALL BE BURNING OF THE SHALL BURNING FOR WARRIAND OF SHAND AND IOUS MATERIALS, OPEN BURNING FOR WARRIAND OF SHAND AND IOUS MATERIALS.

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

KEY NOTES:

- STANDARD CONCRETE PAYING SECTION (TYP.) SEE DETAIL ON SHEET
- BARRIER FREE SPACES WITH APPROPRIATE SKINAGE AND STRIPING PER APPLICABLE LOCAL, AND STATE OR FEDERAL REQUIREMENTS (TYP.)
- STORMWATER MANAGEMENT FACILITY
- STANDARD CONCRETE DRIVEWAY (TYP.) SEE DETAIL ON SHEET CS00. 16' X 22' URLESS OTHERWISE NOTED.
- F. MODEL UNIT
- AT-GRADE, NON-STRUCTURAL PATIC/PORCH (TYP.) REFER TO ARCH. PLANS.
- H. MAJL KJOSK
- 1 DOG PARK
- J. E WIDE ASPHALT PATH
- BARRIER FREE RAWP WITH CROSSWALK AND DETECTABLE WARNING SURFACE.
- M, ACTIVE OPEN SPACE AREAS
- N. 5 CONCRETE SIDEWALK
- D 25' CORNER O FARANCE
- P. RETAINING WALL (TYP.)
- Q. TYPICAL PARKING SPACES (10X18)
- R. CONCRETE ORIVE APPROACH WITH CONTROL JOINTS EVERY 8 FEET OR 8' X 8' PANELS (TYP.)
- S. PROPOSED CROSSWALK



REDWOOD **ROCHESTER HILLS**

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. 7050 West Sagnaw Hwy. Sulte 200 Lansing, MI 48917

office: 517.272.9835 fax: 517.272.9836

www.bergmannpc.com

DATE	DESCRIPTION	
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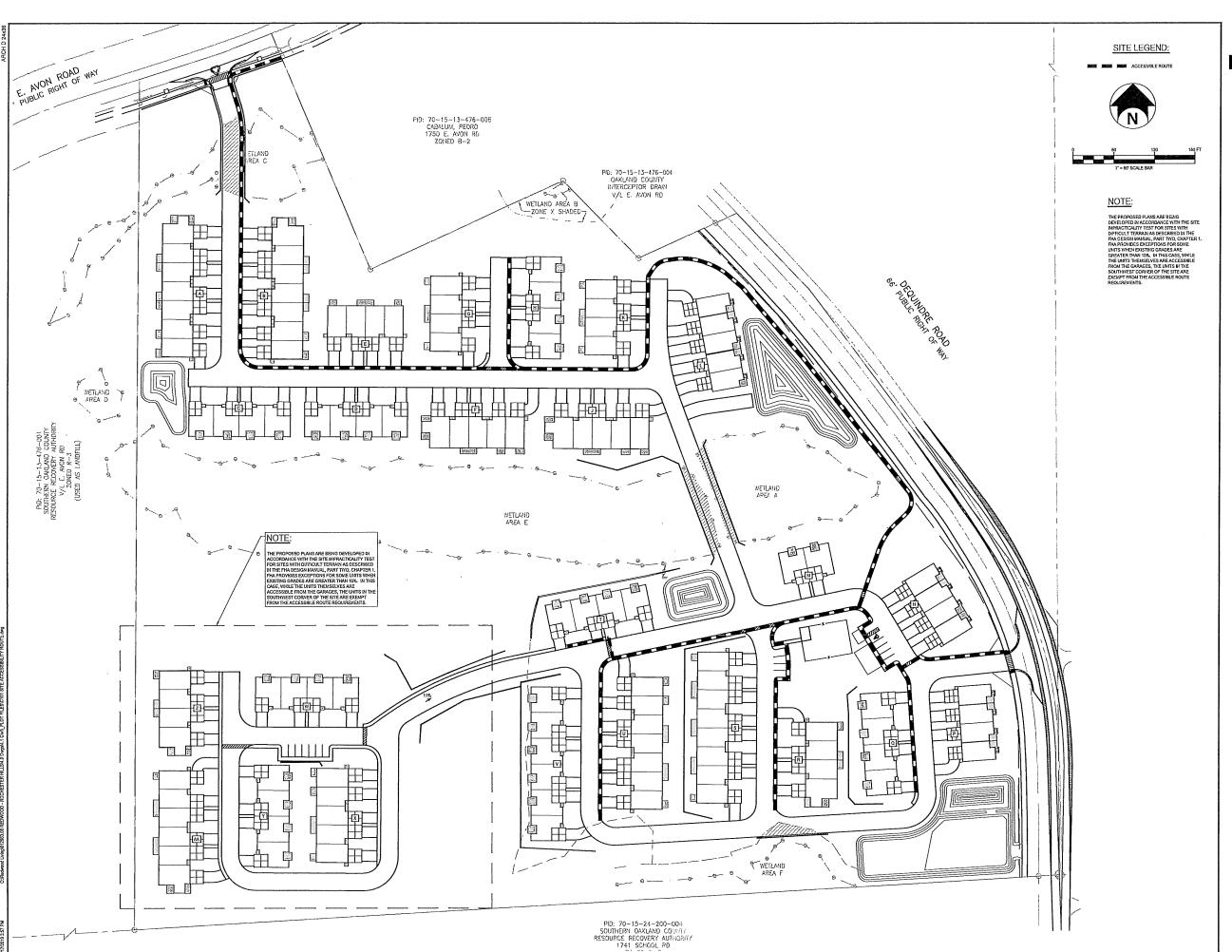


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P. FURTAW, PE P. FURTAW, PE NOVEMBER 9, 2018

OVERALL SITE PLAN

C100



E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



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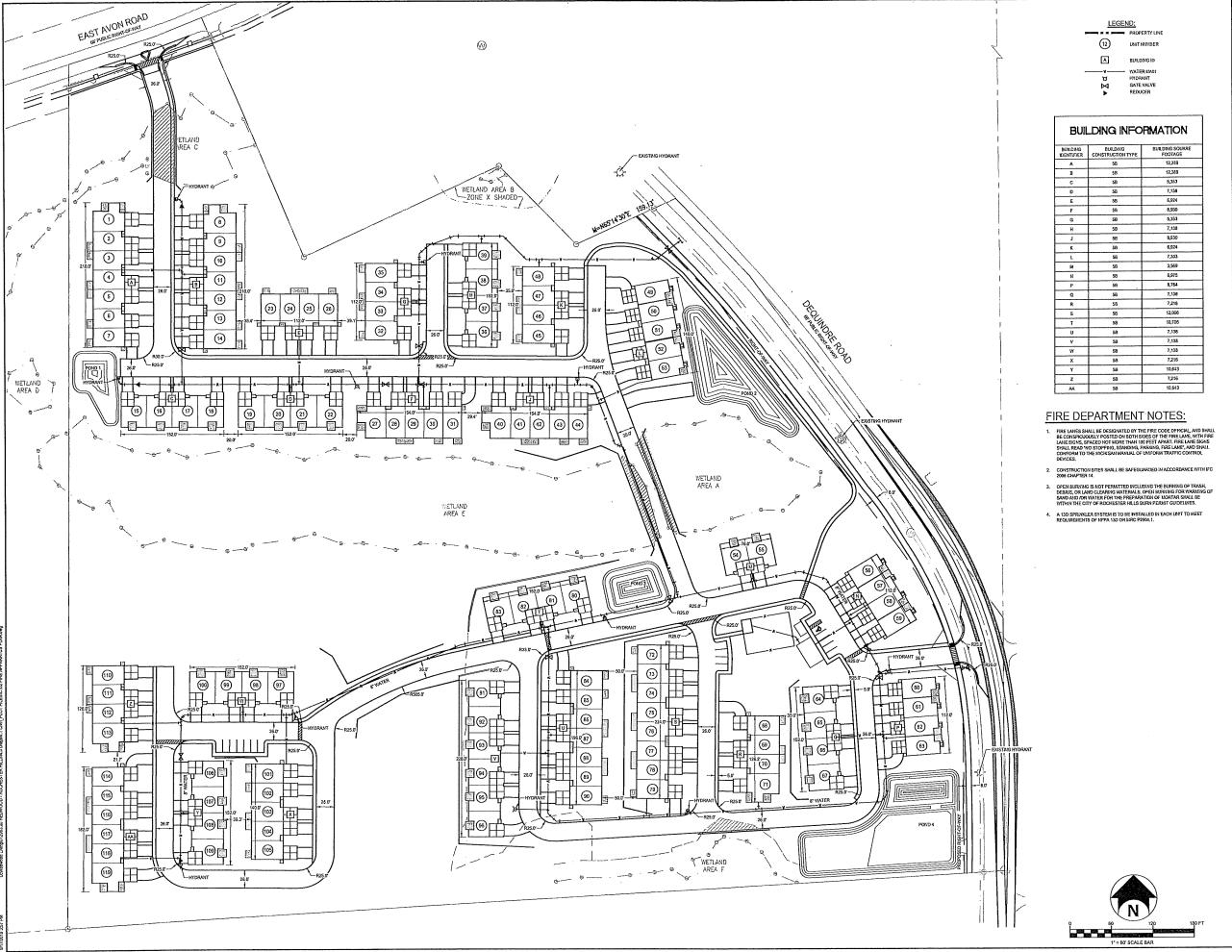


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Paul Sarte:	Ownile	
P. FURTAW, PE	P. FURTAW, PE	
Decrific	Destr	
I. GRAHAM, PE	I. GRAHAM, PE	
Deption	Poyd funder:	
MOVEMBER & 2018	12963.00	

SITE ACCESSIBILITY ROUTE

C101



E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. 7045 Vest Saginar Hwy. Suite 200 Lansing, MI 48917

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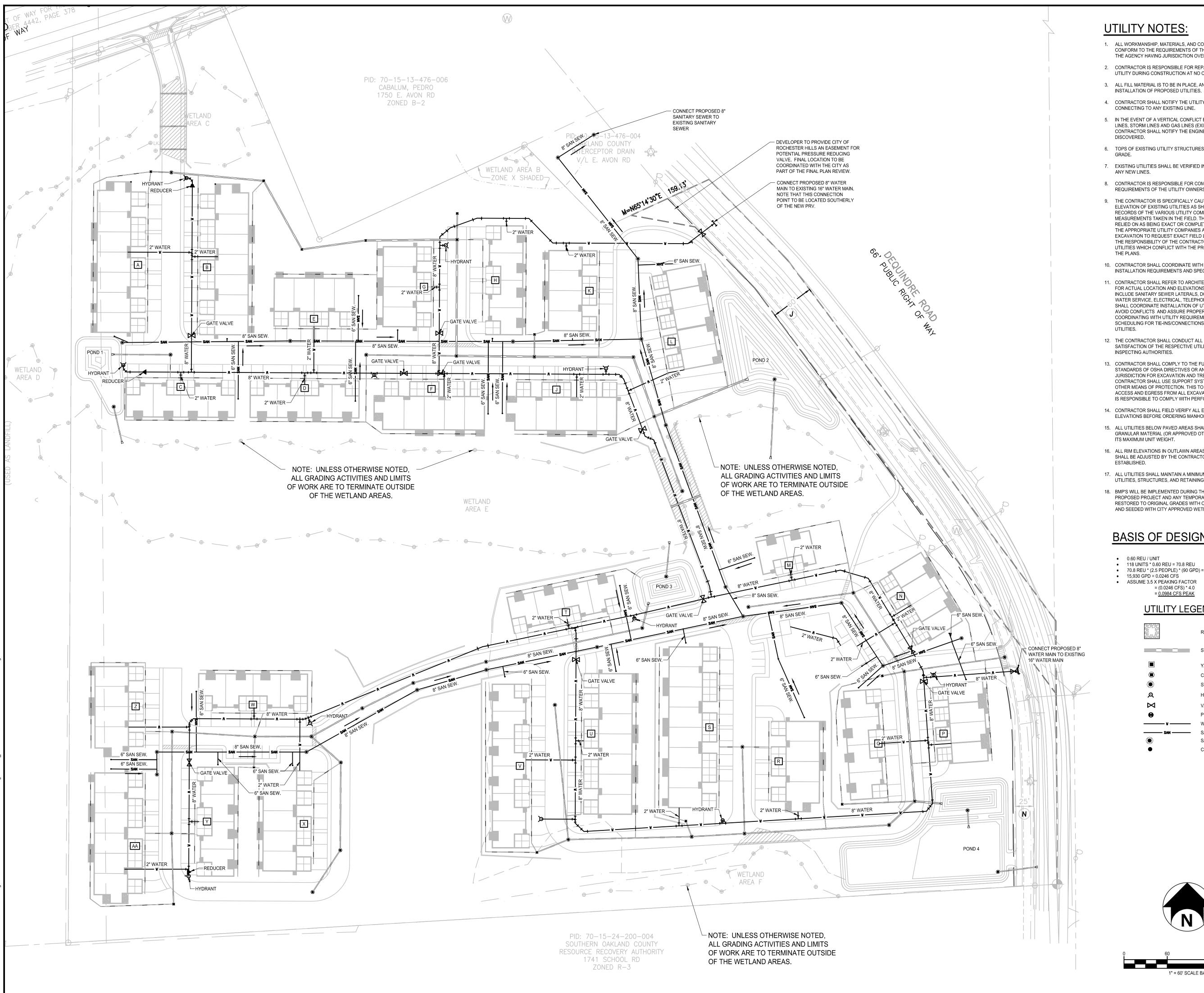
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Project Manager;	District.
P. FURTAW, PE	P. FURTAN, PE
Deget A:	Drawn By.
I, GRAHAM, PE	I. GRAHAM, PE
Comband	Payed Kirdec
KOVEMBER 9, 2018	12963.00

FIRE APPARATUS PLAN

Darie M. thes

C102



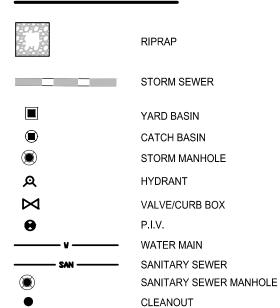
UTILITY NOTES:

- 1. ALL WORKMANSHIP, MATERIALS, AND CONSTRUCTION PRACTICES SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF ROCHESTER HILLS OR THE AGENCY HAVING JURISDICTION OVER THE APPLICABLE UTILITY.
 - 2. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITY DURING CONSTRUCTION AT NO COST TO THE OWNER.
 - 3. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE
 - 4. CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES 72 HOURS BEFORE
 - 5. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS THE CONFLICT IS
 - 6. TOPS OF EXISTING UTILITY STRUCTURES SHALL BE ADJUSTED TO FINISHED
 - 7. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
 - 8. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE CONSTRUCTION REQUIREMENTS OF THE UTILITY OWNERS.
 - 9. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE, THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
 - 10. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
 - 11. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION AND ELEVATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE, AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES, IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL. AS COORDINATING WITH UTILITY REQUIREMENTS AS TO LOCATION AND SCHEDULING FOR TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO EXISTING
 - 12. THE CONTRACTOR SHALL CONDUCT ALL REQUIRED TESTS TO THE SATISFACTION OF THE RESPECTIVE UTILITY COMPANIES AND THE OWNER'S INSPECTING AUTHORITIES.
 - 13. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES, THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS TO INCLUDE BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING, CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR OSHA.
 - 14. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPE SIZES AND INVERTS ELEVATIONS BEFORE ORDERING MANHOLE AND CATCH BASIN STRUCTURES.
 - 15. ALL UTILITIES BELOW PAVED AREAS SHALL BE BACKFILLED WITH 100% GRANULAR MATERIAL (OR APPROVED OTHER) AND COMPACTED TO 95% OF ITS MAXIMUM UNIT WEIGHT.
 - 16. ALL RIM ELEVATIONS IN OUTLAWN AREAS ARE APPROXIMATE ONLY AND SHALL BE ADJUSTED BY THE CONTRACTOR AFTER FINAL GRADES ARE ESTABLISHED.
 - 17. ALL UTILITIES SHALL MAINTAIN A MINIMUM OF 10' SEPARATION FROM OTHER UTILITIES, STRUCTURES, AND RETAINING WALLS.
 - 18. BMP'S WILL BE IMPLEMENTED DURING THE CONSTRUCTION PHASE OF THE PROPOSED PROJECT AND ANY TEMPORARY IMPACT AREAS WILL BE RESTORED TO ORIGINAL GRADES WITH ORIGINAL SOIL OR EQUIVALENT. SOILS AND SEEDED WITH CITY APPROVED WETLAND SEED.

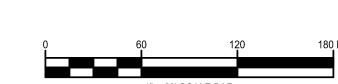
BASIS OF DESIGN:

- 0.60 REU / UNIT 118 UNITS * 0.60 REU = 70.8 REU
- 70.8 REU * (2.5 PEOPLE) * (90 GPD) = 15,930 GPD
- 15,930 GPD = 0.0246 CFS ASSUME 3.5 X PEAKING FACTOR
- = (0.0246 CFS) * 4.0 = <u>0.0984 CFS PEAK</u>

UTILITY LEGEND:







REDWOOD ROCHESTER HILLS

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



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10/04/2019	UPDATE PRV EASEMENT NOTE



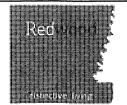
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Project Manager:	Checked By:
P. FURTAW, PE	P. FURTAW, PE
Designed By:	Drawn By:
I. GRAHAM, PE	I. GRAHAM, PE
Date Issued:	Project Number:
NOVEMBER 9, 2018	12963.00

OVERALL UTILITY PLAN

STORM STRUCTURE TABLE STORM STRUCTURE TABLE	LOCATION Drainage Area C Time of Rainfall Qcts Octs IE IE L Actual Size Manning's Suntharged Velocity Travel Time Rim Elevation of Hydraulic grade Hydraulic Grade
STRUCTURE NAME: RIM ELEVATION: PIPES: STRUCTURE NAME: RIM ELEVATION: PIPES:	from and to herement Accommodated Factor Concentration inchies increment granch Accommodated Up down it Stope inches Capacity (cfs) Capacity (cfs) tos minutes Upstream Structure up do Cover
3.10 RV NI = 650.55 12* HDPE INV INI = 650.55 21* HDPE INV INI = 650.55 12* HDPE INV INI = 650.55 21* HDPE INV INI = 650.5	31116310 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
RAM = 738.92 RV NOT = 671.85 RV OUT = 671.85 RV NOT = 671.	37\u036 016 1.97 062 1696 4.12 0.45 0.00 9.32 7\u0333.4 7\u0306 070 052 16\u0333 15 12.65 n/a 9.99 0.13 7\u033323 701.49 698.65 24.89 36\u0335 0.07 2.04 0.01 17.09 4.10 0.26 0.00 9.59 7\u0333.4 7\u0335 0.05 0.05 15 12.25 n/a 9.99 0.18 7\u0335 12.13 12.13 698.65 694.87 17.47 35\u0331 0.34 0.17 2.21 0.95 17.26 4.09 0.65 0.00 10.25 693.61 686.62 222 3.603 16 12.26 n/a 9.99 0.37 7\u03324 2.65 694.87 696.85 7\u0335 696.85 7\u0335 696.85 17.66 34\u0336 0.00 0.00 17.23 4.04 0.97 0.00 11.22 685.37 695.50 33 0.005 18 4.70 11.22 6.35 0.09 695.43 666.80 696.50 3.55
AM = 738.55 BN UN = 735.75 BN UN = 735.75 BN UN = 735.75 BN UUT = 734.05 N BN UUT =	3.1610.3.9 0.24 0.76 1.500 4.35 0.79 0.00 0.79 728.27 728.00 4.3 0.62% 12 2.61 n/a 3.57 0.20 73534 705.04 705.77 29.30
RM= 735-73 15' HDPE IN VII =725-60 S RIII =675-78 NN N = 672.75 15' HDPE IN VII =725-60 S NN N = 727.50 S NN N = 727.50 S NN N = 672.50 S NN N	3.1416.3.13 0.15 0.64 0.51 15.19 4.33 0.33 0.00 1.22 729.21 725.60 122 2.95% 15 11.11 na 9.06 0.72 722.27 708.20 704.59 25.70
RAI = 735.90 87.1 = 735.90 1.2 HDPE RW WI = 722.50 SVY N OUT = 723.20 1.3 HDPE RW OUT = 723.20 N N OUT = 723.20 N 1.3 HDPE RW OUT = 723.20 N 1.4 HDPE RW OUT = 723.20 N 1.5 HDPE RW OUT = 723.20 N 1.6 UNION OUT = 723.20 N 1.7 HDPE RW OUT = 723.20 N 1.7 HDPE RW OUT = 723.20 N 1.8 HDPE RW OUT =	4 0 0 6 4 0 0 6 1 5 4 5 4 5 1 5 4 5 1 5 1 5 1 5 1 5 1 5
3.15 RUM = 733.39 NY OUT = 730.81 12" HDPE NY OUT = 730.81 NE 4.17 RN N = 678.25 NY OUT = 6730.81 12" HDPE NY OUT = 6730.81 NY OUT = 6733.39 NY OUT = 6733.31 12" HDPE NY OUT	481047 005 090 000 1590 424 022 799 673.9 673.5 00 0604 15 6.13 799 651 0.51 554 676.59 673.90 3.43
RM = 734.31 6* HOPE UN N = 7323.77 W CNL = 673.15 N = 673.75 N = 673.77 W CNL = 673.75 N = 673.77 E N = 723.77 E N = 723.7	W 4/310-4/15 0 11 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3.2 RAY = 65.1.5 12: NDPE RY OUT = 65.0.0 N 4.19 RM = 675.48 BY OUT = 672.38 12' NDPE RY OUT = 61.0.0 N	4 12 16 46 0 37 0 65 0 67 15 78 4 25 1 .37 2 58 9 .36 671.85 671.57 159 0 16% 21 6.34 9 .46 3 93 0 .76 676 15 674.14 673.50 2 .65 4 19 10 4 12 0 25 0 56 0 74 15 67 4 55 0 50 0 0.00 1.73 672.31 671.86 1.41 0 52% 12 2.02 n/a 2 57 0 .92 672.55 674.59 674.54 1.00
RV W = 503.30 42 15" HDPE INV W = 555.67W 14" HDPE INV W = 555.67W 15" HDPE INV W = 555.67W	4.20 to 4.12 0.49 0.49 0.49 0.60 1.00 0.80 0.00 0.80 67.23 67.93 31 0.825 12 2.02 na 2.07 0.20 671.41 674.42 674.74 1.17
#N OUT = 653.31 4.20 NV NT = 07.23 12 HOPE NN OUT = 65 0.31 12 HOPE NN OUT = 65 0.31 12 HOPE NN OUT = 67 0.31 12 HOPE	31E 4.17 to 4.9 0.45 0.45 0.45 0.00 13.00 4.35 0.09 0.00 0.095 675,75 675,67 23 0.32% 12 2.02 0.73 2.57 0.15 25,74 0.75 0.00 0.00 0.00 13.
BN OUT = 693.61 D Nov = 671.50 SN N = 671.50 SN N = 671.50 SN N = 671.50 SN N = 716.52 SN N = 716.52 SN N = 716.55 SN N = 716.55 SN N N = 716.55 SN N N N N N N N N N N N N N N N N N	
RM = 726.35	
RM = 73.62 15' MOPE BY N = 725.42 SE 4.5 NY N = 671.51 12' HOPE BY N = 671.51 18' HOPE BY N	W S S S S S S S S S S S S S S S S S S S
RIA = 577.11 RIA = 777.02 RIA = 777.02 RIA = 772.25 IN RIA IN RIA = 772.25 IN RIA IN RIA = 772.25 IN RIA	
BM MI = 732.92 RN OUT = 725.79 15 HOPE NN OUT = 725.79 E 4.5 RN N = 674.20 12 HOPE NN N = 674.20 12 HOPE NN N = 674.20 12 HOPE NN N = 674.20 13 HOPE NN N = 67	w
4.10 BY N = 68.31.5 17 FUPE BY M 14-83.35 V RM = 68.269 17 FUPE BY M 14-31.35 N RM = 68.269 17 FUPE BY M 14-31.35 N RV N = 675.66 17 FUPE BY M 14-31.5 N RV N =	N I
4.1 RM = 777 12* HDPE INV RI = 671.06 W RN OUT = 675.65 IA. NO CENT ON THE	WETLAND
	AREA E
UTILITY LEGEND: DESCRIPTION STORM SERVER 0 50 100 150 FT VARO BASIN	INTERPRETATION AND A STEEL BASIS
CATCH BASIN STORIN MANCHOLE T = 50 SUALE BAX	
	271 19 19 19 19 19 19 19 19 19 19 19 19 19
	31 LT 12 HOFF 15 SEN. @ 4329 15 SEN.
115 LF (2* PDPE 75 SEW, @ 0.22% 79 LF 15* HDPE 51 SEW, @ 0.22% [33] ST SEW, @ 0.02% [33]	
	THE TOTAL PROPERTY OF THE PROP
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SS EST (NO DE SET MOPE) SS EST (NO DE SET MOPE)
	2015 12' HOPE 2015 12' HOPE 21 ST SEW, @ 0.0255 21 ST SEW, @ 0.025
	59 F # 100F 57 SEN! @ 445% 120 ST SEN! @ 145% 100F 57 SEN! @ 145% 100F 57 SEN! @ 945%
	WETLAND WETLAND
	AREA F OUTLET 4.1 DRAINS TO PASTING COUNTY DITCH.
	EXISTING COMPUTED VIOLEN OF THE SOUTH ANAPORT TO THE SOUTH ANAPORT TO THE SOUTH ANAPORT TO THE SOUTH ANAPORT TO THE SOUTH CROSSESS BEQUIRERE ECOSESS BEQUIRERE
	DISCHARGING TO THE CUNTON RIVER (SEE SHEET
	SOUTHERN OAKLAND COUNTY RESOURCE RECOVERY AUTHORITY

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



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08/22/2019	4TH REV. PER CITY COMMENTS
08/27/2019	STEP ONE PUD REVIEW



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Project Clarages	Desst Ip
P. FURTAW, PE	P. FURTAW, PE
Designed By:	Creen by
1. GRAHAM, PE	I. GRAHAM, PE
Der band	Payed Nurder:
NOVEMBER 9, 2018	12963.00

STORM SEWER MANAGEMENT
PLAN - SOUTH

Daving North

C111

STORM STRUCTURE TABLE		
STRUCTURE NAME:	RIM ELEVATION:	PIPES:
t.1	NAV PA = 681.80	12" HDPE INV IN =681.60 N
1.2	RIM = 682.46 INV OUT = 682.00	12" HDPE INV OUT =682,00 S
1.3	WW P4 = 682.00	12" HDPE INV IN =682.00 E
1.4	FUM = 681.69 DW IN = 682.75 DW OUT = 682.25	6" HDPE INV III =582.75 S 12" HDPE INV OUT =582.25 W
2.1	RIM = ??? DVV EN = 678.50	12" HOPE INV IN =678.50 N
2,10	RIM = 683.97 INV OUT = 680.74	18" HDPE INV IN ≃580.74 NW 18" HDPE INV OUT =550.74 E
2.11	RUM = 684.67 ENV BI = 650.96 ENV BI = 681.50 ENV OUT = 680.56	18" HDPE INV IN =650.96 W 6" HDPE INV IN =631.50 SW 18" HDPE INV OUT =680.96 SE
2.12	RIM = 685.12 RAV IN = 681.71 RAV OUT = 681.22	12' HDPE INV IN =681.71 W 16' HDPE INV OUT =681.22 E
2.13	RIM = 684.10 by by = 682.00 by by = 682.00 by OUT = 681.80	6" HDPE BYV BN =882.00 S 6" HDPE BYV BN =682.00 W 12" HDPE BYV OUT ≈681.60 E
2.14	RIM = 684,39 INV OUT = 680,54	12" HDPE INV OUT =680.54 N
2.15	RIM = 684.23 BV W = 680.90 BV W = 680.90 BV OUT = 680.60	6" HDPE 9W BI =650.90 W 6" HDPE INV IN =650.90 E 12" HDPE INV OUT =680.60 S
2.16	RUM = 685,00 (NY IN = 618.25 (NY OUT = 681,06	6" HOPE INV IN =618.25 S 12" HOPE INV OUT =681.06 E

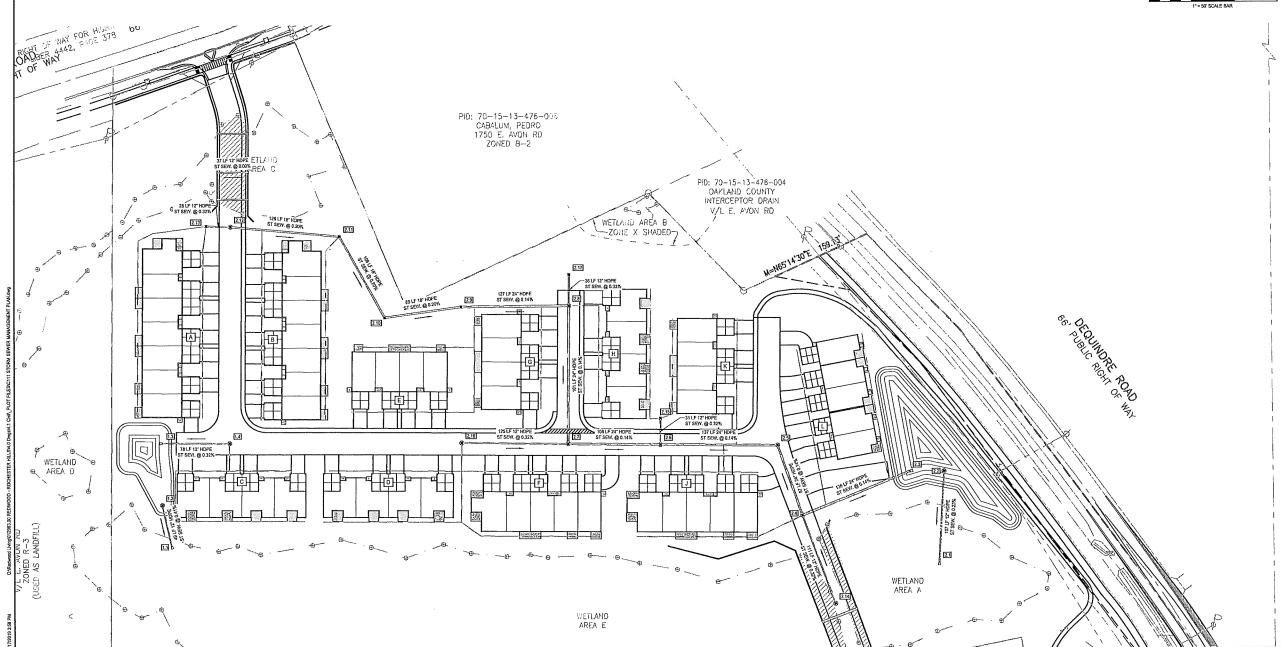
STORM STRUCTURE TABLE					
STRUCTURE NAME:	RIM ELEVATION:	PIPES:			
2.17	RIM = 684.06 INV OUT = 681.00	12" HOPE (NV OUT =681,00 S			
2.2	RUM = 681.50 BW OUT = 678.75	12" HOPE INV OUT =678.75 S			
2.3	pay eN ≈ 679.00	24" HDPE INV 94 =679.00 W			
2.4	RM = 681.92 RW IN = 675.19 RW IN = 680.19 RW IN = 680.60 PM OUT = 679.19	24" HDPE NV BI =679.19 N 12" HDPE NV IN =680.19 S 5" HDPE BV IN =680.60 SW 24" HDPE NV OUT =679.19 E			
2.5	RIM = 655.46 UN IN = 679.31 UN OUT = 679.31	24" HDPE INV IN =679.31 W 24" HDPE INV OUT =679.31 S			
2.6	RM = 685.49 BV IN = 650.50 BV IN = 679.50 BV OUT = 679.50	12" HDPE (NV IN =680.50 N 24" HDPE INV IN =679.50 W 24" HDPE INV OUT =679.50 E			
2.7	RM = 685.84 RV IN = 680.66 RV IN = 679.66 RV OUT = 679.65	12" HOPE NAV IN =680 66 W 24" HOPE IAV 21 =679.66 N 24" HOPE IAV OUT =579.65 E			
2.8	RM = 684.75 ENV IN = 679.69 ENV IN = 681.60 ENV EN = 680.68 ENV OUT = 679.69	24" HOPE INV IN =679.89 W 6" HDPE INV IN ≥681.60 E 12" HDPE INV IN =680.88 N 24" HOPE INV OUT ≈679.89 S			
2.9	RIM = 683.96 RN IN = 880.56 RN OUT = 680.07	18" HOPE INV IN = 580.56 W 24" HOPE INV OUT = 550.07 E			

LOCATION	Drainage	Area	C	Time of	Rainfall	Octs	Octs	Ccfs	ΙE	ΙE	Ļ	Actual	Size	Mannings	Surcharged	Velocity	Travel Time	Rom Elevation of	Hydraul	ic grade	Hydraulic Grade
from and to	ntremed	Accumulated	Factor	Concentration	nches	increment	Branch	Accumulated	щe	down	Ü	Slope	h:hes	Capacity (cfs)	Capacity (cls.)	<u>fos</u>	minutes	Upstream Structure	пb	<u>dn</u>	Cover
2 13 to 2 12	0.44	0.44	0.75	15 00	4 35	1.44	0.00	1.44	681.80	681.71	28	0.32%	12	2.02	n⁄a	2.57	0.18	63447	683.25	683.17	1.22
21210211	0.48	0.92	0.93	15.18	4 33	1,93	0.00	3.37	681.21	650.95	129	0.27%	18	470	n/a	2.66	0.81	635.12	683.17	682.91	1.96
211 to 210	0.25	1.17	0 60	15.99	4.23	0.63	0.00	4.00	680.95	680 74	109	0.25%	18	4.70	n/a	2.66	0.68	635 17	682.91	582.69	2.26
210 to 29	0.29	1.45	0.33	16.67	4.15	0.36	0.00	4.36	650,74	680 56	53	0.30%	18	470	n/a	2.66	0.56	685 11	682.69	682.51	2.42
29 to 28	0.52	1.96	G 73	17.23	4.09	1.55	0.00	591	680,06	679 88	127	0.14%	24	6 46	n/a	2.69	0.79	683 17	682.51	662.33	2.66
2 8 to 27	0.29	2.27	0.99	18.02	4.00	1.04	0.33	7.29	679.68	679 66	131	0 14%	24	8 46	n/a	2.69	1.00	684.75	682.33	662.11	2.42
27 to 26	0.00	2.27	0.93	19.01	3.90	0.00	3 29	10.58	679.66	679 50	103	0.14%	24	8 46	10.58	3.37	0.53	635 E4	681 80	661.65	3 95
26 to 25	0.52	2.79	0.66	19.55	3.85	1.72	0.83	13.13	679.50	679 31	137	0 14%	24	8.46	13 13	4.16	0.55	695.49	582.11	681.65	3.38
25to 24	0.50	3.09	0.79	20.09	3.80	0.90	0.00	14.03	679.31	679.19	57	0 14%	24	8.46	14 03	4.46	0.32	625.48	681.65	681.31	3.81
2 4 to 23	0.49	3.58	0.69	20.42	3 76	1.64	0.70	16,37	679.19	579 00	136	0 14%	24	6 46	16 37	5.21	0.43	684 92	581.31	650.60	3.61
217 to 26	0.25	0,25	0 30	1500	4 35	0.33	0.00	0.33	681.00	660.85	38	0.32%	12	2.02	n/a	2.57	0.23	684.06	682.45	682 33	1 61
2111020		0.22		,,,,,,	371		- 1,	5.55		7-71-7	-7		7.7	7.77							
2 16 to 27	0.67	0.87	0.87	15 00	4 35	3.29	0.00	3.29	681.06	660.66	125	0.32%	12	2.02	3.29	4 19	0.50	634.95	682.95	681 88	1.11
215 to 26	0.23	0.28	0.63	15 00	4.35	0.63	0.00	0.83	660 60	650.50	31	0.32%	12	202	n/a	2.57	0.20	694-05	682 21	682.11	1.65
214 to 24	0 17	0.17	0.95	15,00	4.35	0.70	0.00	0.70	660.55	680 19	111	0 32%	12	2.02	n'a	2.57	072	654.39	681.67	681.31	2.72
								-2-1													į.
1.4 to 1.3	0.71	0.71	0.65	15.00	4.35	266	0.00	2.66	652.25	682.00	75	0.32%	12	2.02	2.66	3 35	0.38	684 39	6B3 23	652.80	1.16



UTILITY LEGEND:

CATCH BASIN



REDWOOD ROCHESTER HILLS

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



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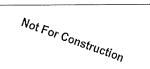


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-	11/16/2018	PUD REVIEW
	02/04/2019	REV. PER CITY COMMENTS
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	05/02/2019	3RD REV, PER CITY COMMENTS
	08/22/2019 08/27/2019	4TH REV. PER CITY COMMENTS STEP ONE PUID REVIEW

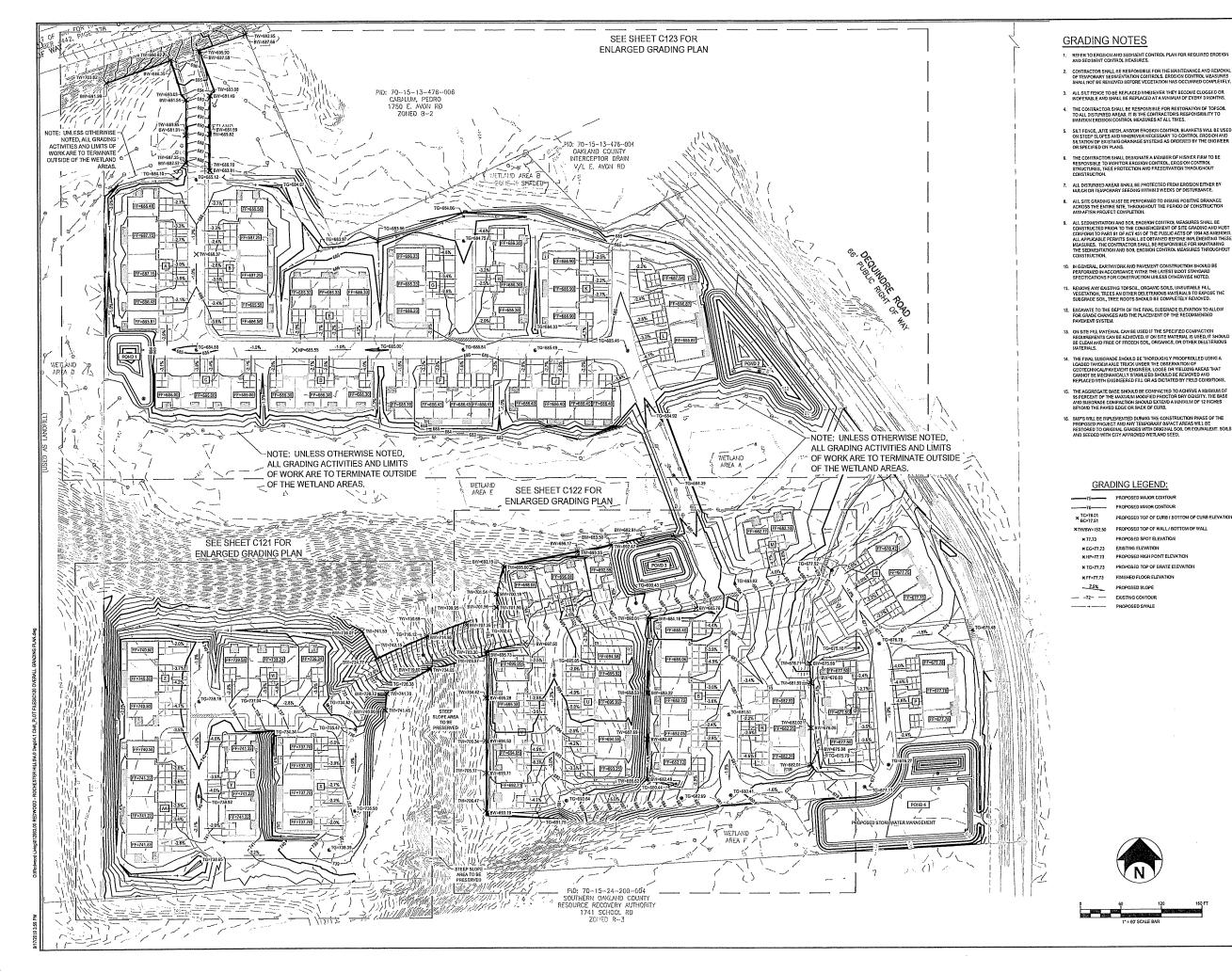


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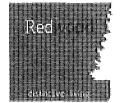
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P. FURTAW, PE	P. FURTAW, PE	
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L GRAHAM, PE	I, GRAHAM, PE	
Ca Les	Proportiones:	
NOVEMBER 9, 2018	12963.00	

STORM SEWER MANAGEMENT PLAN - NORTH

C112



E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



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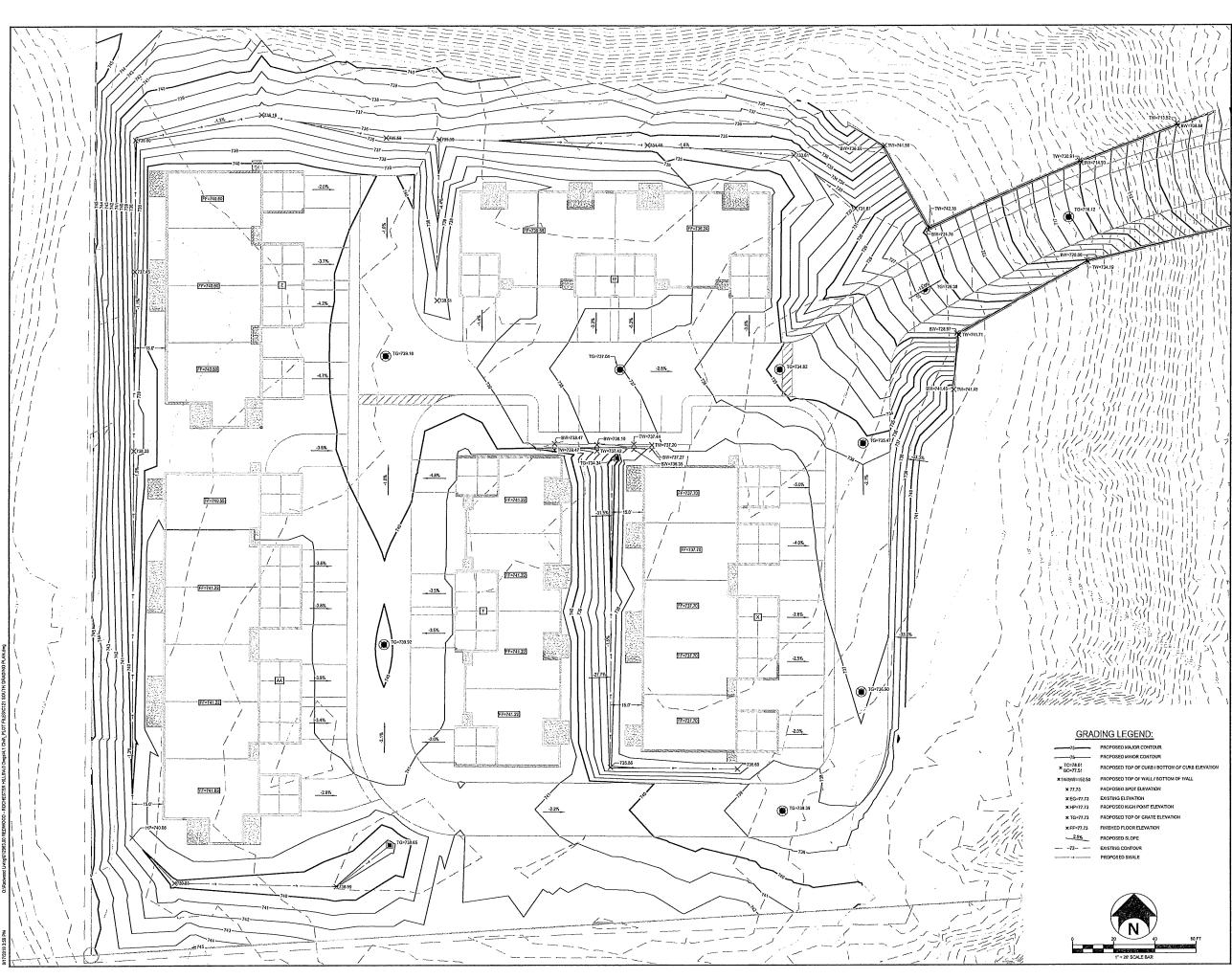
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DA/72/2019	4TH REV. PER CITY COMMENTS
08/27/2019	STEP ONE PUD REVIEW



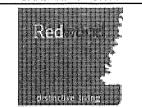
Proved Managers	Owdesty
P. FURTAW, PE	P. FURTAYY, PE
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I, GRAHAM, PE	I. GRAHAM, PE
Des based	Proper hurbons.
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OVERALL GRADING PLAN

C120



E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



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68/02/2019	3RD REV, PER CITY COMMENTS
Cd/22/2019	4TH REV. PER CITY COMMENTS
08/27/2019	STEP ONE PUD REVIEW



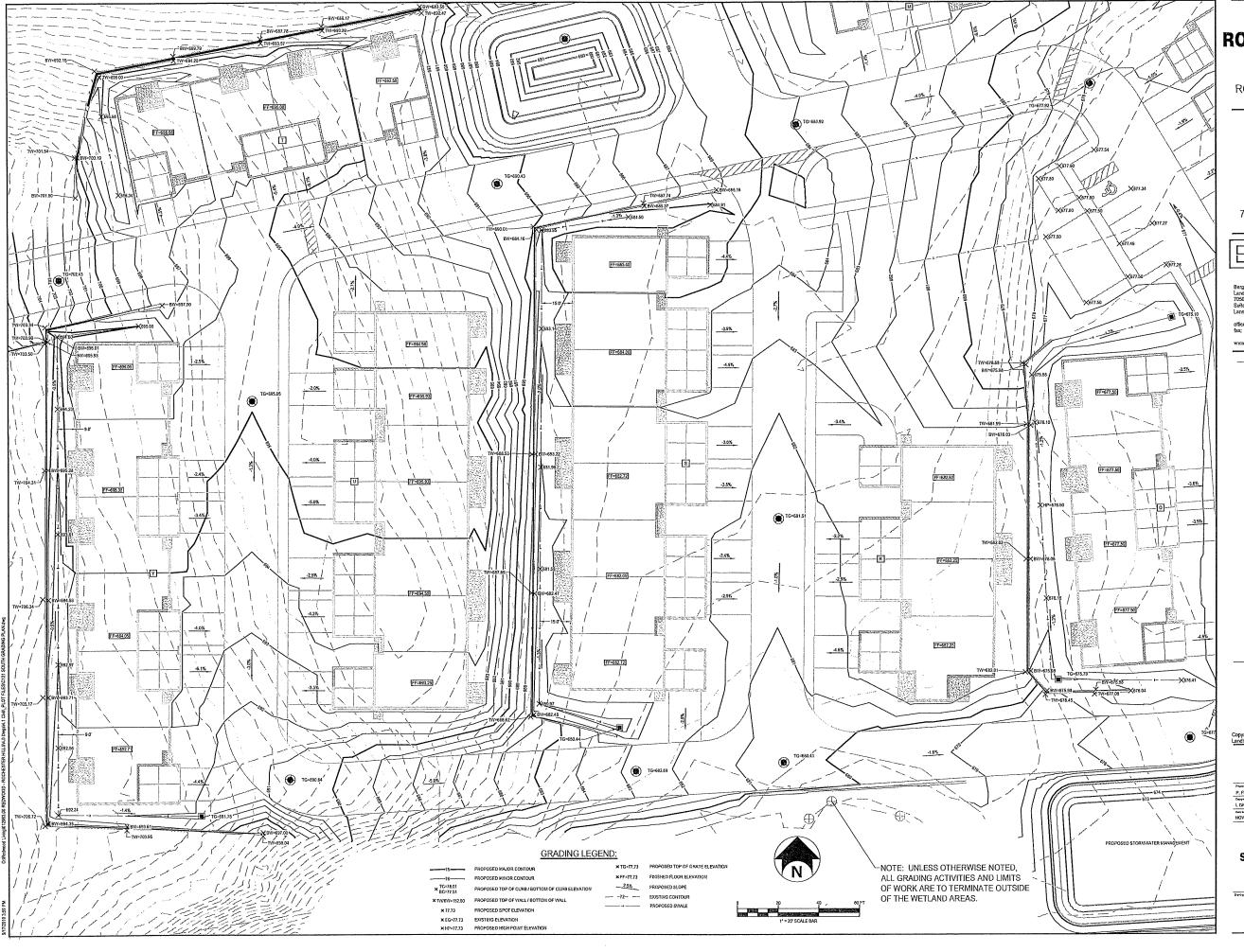
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Projet Namepet	Cramacily:
P. FURTAW, PE	P. FURTAYY, PE
Conspired By:	Dram by
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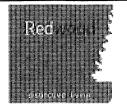
SOUTHWEST GRADING PLAN

Dairy Kriter

C121



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ce: 517.272.9835 517.272.9836

ax: 517.272.9836

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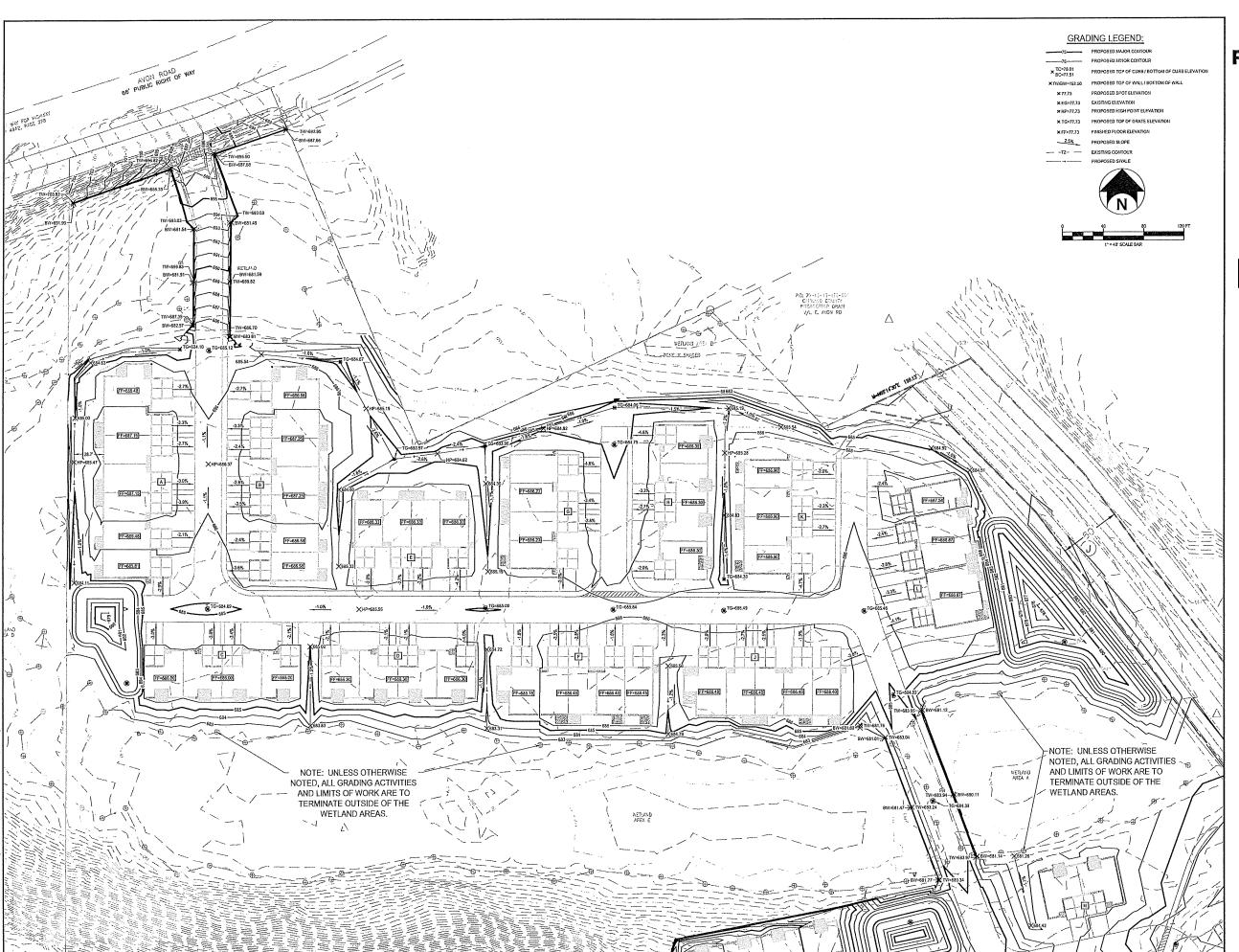


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er Lant	Poyd kintet		
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SOUTHEAST GRADING PLAN

C122



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03/22/2019	4TH REV, PER CITY COMMENTS
04/27/2019	STEP ONE PURI REVIEW



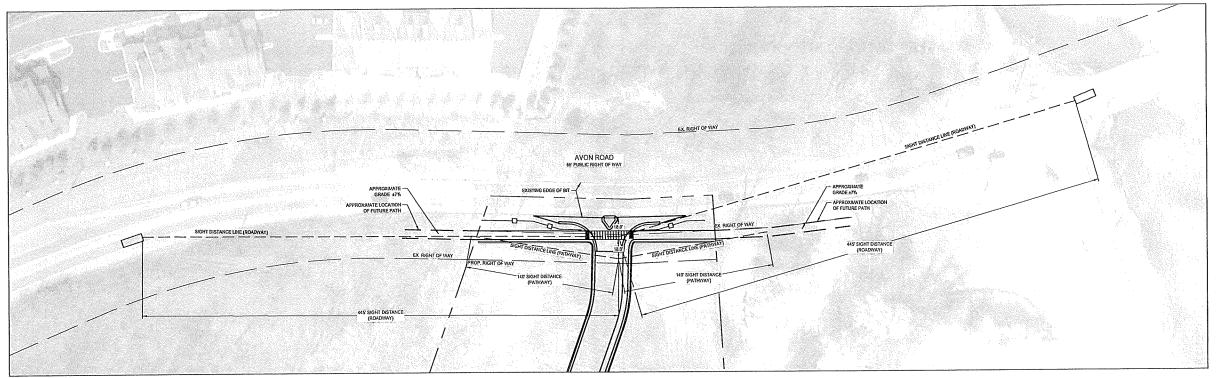
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Pojed Carages	Deart ly:
P. FURTAW, PE	P. FURTAW, PE
Dougrant By:	Drawn By
I, GRAHAM, PE	I. GRAHAM, PE
Oversident	Payed Number:
NOVEMBER 9, 2018	12963.00

NORTH GRADING PLAN

Drighter.

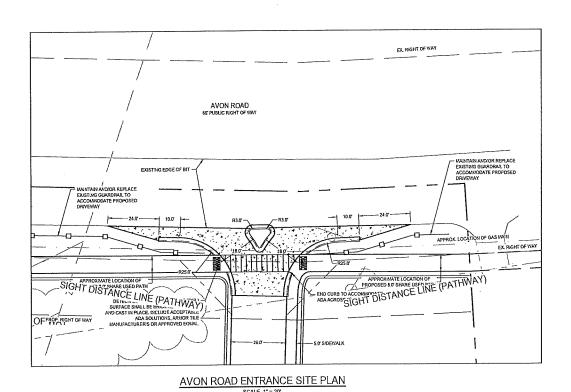
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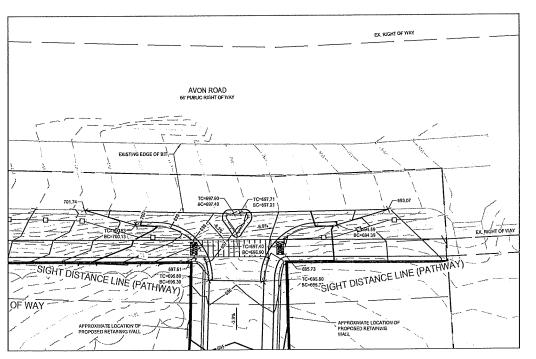


AVON ROAD SIGHT DISTANCE ENTRANCE PLAN

SCALE 1" = 40"







AVON ROAD ENTRANCE GRADING PLAN
SCALE 1"= 20"



REDWOOD ROCHESTER HILLS

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



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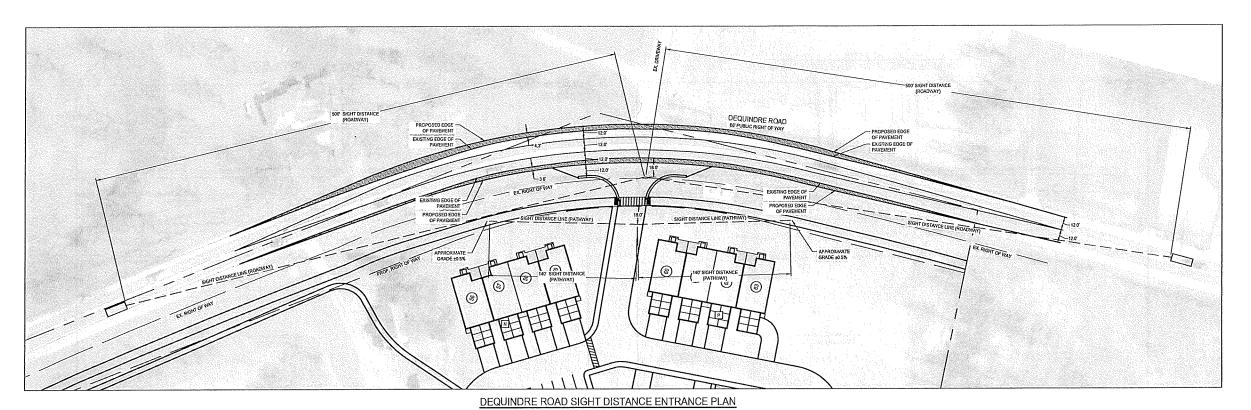
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AVON ROAD ENTRANCE PLAN

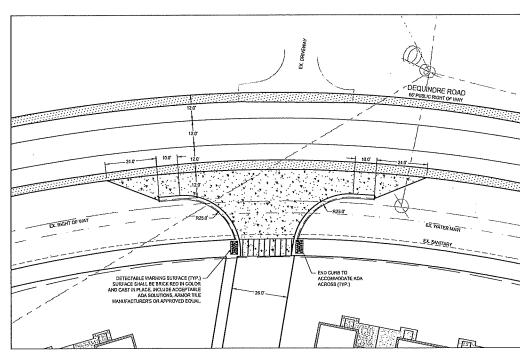
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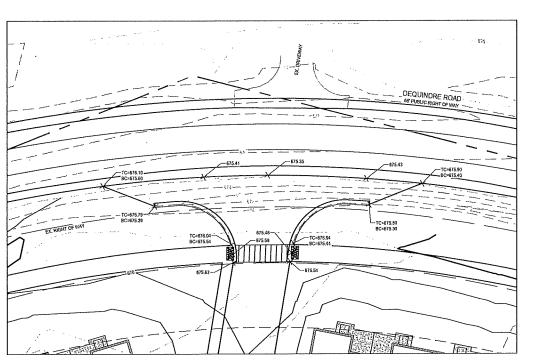
SITE LEGEND:

CONCRETE STAND



DEQUINDRE ROAD ENTRANCE SITE PLAN

SCALE 1"=20"



DEQUINDRE ROAD ENTRANCE GRADING PLAN

SCALE 1'= 20'



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office: 517.272.9835 fax: 517.272.9836

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	02/04/2019	REV. PER CITY COMMENTS
	03/21/2019	2ND REV. PER CITY COMMENT
	08/02/2019	3RD REY, PER CITY COMMENT
	0.072273019	4TH REV. PER CITY COMMENT



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P. FURTAW, PE	P. FURTAW, PE
Designed Ret	Comity
L GRAHAM, PE	L GRAHAM, PE
Otto haust.	Propia fundes:
NOVEMBER 9, 2018	12963.00

DEQUINDRE ENTRANCE PLAN

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E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. 7050 West Saghaw Hwy. Suite 200 Lansing, MI 48917

office: 517.272.9835 fax: 517.272.9836

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DESCRIPTION
PUD REVIEW
REV. PER CITY COMMENTS
2ND REV, PER CITY COMMENTS
3RD REV. PER CITY COMMENTS
4TH REY, PER CITY COMMENTS
STEP ONE PUD REVIEW



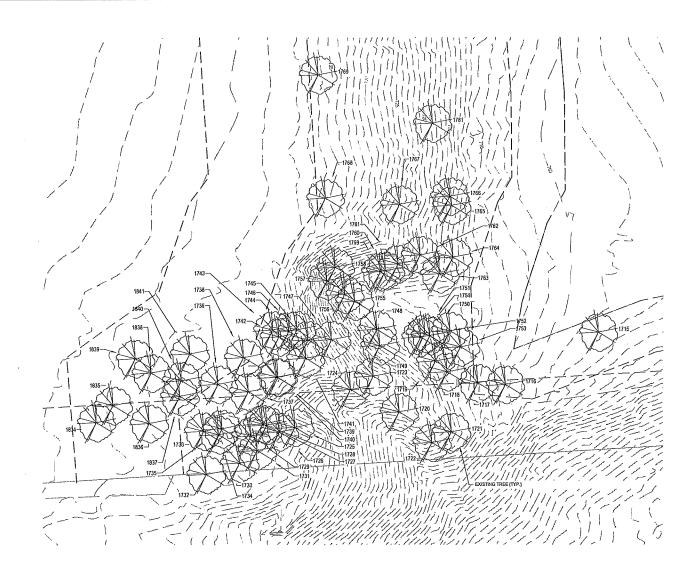
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Project Parkyar:	Owdat by:
P, FURTAW, PE	P. FURTAW, PE
Congress By:	David by .
I, GRAHAM, PE	I. GRAHAM, PE
DOTALAS	Payed Hunters
NOVEMBER 9, 2018	12953.00

TREE INVENTORY PLAN

Daning Krakut

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1702 1703 Sa 1704 Sa 1705 Sa 1706 Fraxi 1707 A 1708 1709 1710 U 1711	Juglans nigra cer saccharinum Carya ovata ilik amygdaloides lik amygdaloides lik amygdaloides lik amygdaloides inus pennsylvanica cer saccharinum Juglans nigra Juglans nigra Juglans nigra Juglans nigra	Black Walnut Silver Maple Shagbark Hickory Peachleaf Willow Peachleaf Willow Green Ash Silver Maple Black Walnut Black Walnut American Elm	12.8 13.8 6.9 10.9 12.1 8.8 10.0 13.8 7.3 6.0	Fair Fair Fair Fair Fair Fair Fair Fair
1702 1703 Sa 1704 Sa 1705 Sa 1706 Fraxi 1707 A 1708 1709 1710 U 1711	Carya ovata lix amygdaloides lix amygdaloides lix amygdaloides inus pennsylvanica cer saccharinum Juglans nigra Juglans nigra limus americana Juglans nigra	Shagbark Hickory Peachleaf Willow Peachleaf Willow Peachleaf Willow Green Ash Silver Maple Black Walnut American Elm	6.9 10.9 12.1 8.8 10.0 13.8 7.3 6.0	Foir Fair Fair Fair Fair Fair
1703 Sa 1704 Sa 1705 Sa 1706 Fraxi 1707 A 1708 1709 1710 U	Ilix amygdaloides Ilix amygdaloides Ilix amygdaloides Ilix amygdaloides inus pennsylvanica cer saccharinum Juglans nigra Ilmus americana Juglans nigra	Peachleaf Willow Peachleaf Willow Peachleaf Willow Green Ash Silver Maple Black Walnut Black Walnut American Elm	10.9 12.1 8.8 10.0 13.8 7.3 6.0	Fair Fair Fair Fair Fair
1704 Sa 1705 Sa 1706 Fraxi 1707 A 1708 1709 1710 U 1711	lix amygdaloides lix amygdaloides inus pennsylvanica cer saccharinum Juglans nigra Juglans nigra ilmus americana Juglans nigra	Peachleaf Willow Peachleaf Willow Green Ash Silver Maple Black Walnut Black Walnut American Elm	12.1 8.8 10.0 13.8 7.3 6.0	Fair Fair Fair Fair Fair
1705 Sa 1706 Fraxi 1707 A 1708 1709 1710 U 1711	ilix amygdaloides inus pennsylvanica cer saccharinum Juglans nigra Juglans nigra ilmus americana Juglans nigra	Peachleaf Willow Green Ash Sliver Maple Black Walnut Black Walnut American Elm	8.8 10.0 13.8 7.3 6.0	Fair Fair Fair Fair
1706 Fraxi 1707 A 1708 1709 1710 U 1711	inus pennsylvanica cer saccharinum Juglans nigra Juglans nigra Ilmus americana Juglans nigra	Green Ash Sliver Maple Black Walnut Black Walnut American Elm	10.0 13.8 7.3 6.0	Fair Fair Fair
1707 A 1708 1709 1710 U 1711	cer saccharinum Juglans nigra Juglans nigra Ilmus americana Juglans nigra	Silver Maple Black Walnut Black Walnut American Elm	13.8 7.3 6.0	Fair Fair
1708 1709 1710 U 1711	Juglans nigra Juglans nigra Ilmus americana Juglans nigra	Black Walnut Black Walnut American Elm	7.3 6.0	Fair
1709 1710 U 1711	Juglans nigra Ilmus americana Juglans nigra	Black Walnut American Elm	6.0	
1710 U 1711	lmus americana Juglans nigra	American Elm		Fair
1711	Juglans nigra		127	
		70 - d 117-1 - 4	12.1	Fair
		Black Walnut	20.5	Fair
1713	Juglans nigra	Black Walnut	14.9	Fair
1714	Juglans nigra	8lack Walnut	9.0	Fair
1715	Juglans nigra	Black Walnut	19.4	Fair
1716	Tilia americana	Basswood	9.5	Fair
1717	Tilia americana	Basswood	7.8	Falr
1718	Tilia americana	Basswood	7.8	Fair
1719	Tilia americana	Basswood	8.0	Fair
1720 Q	tuercus velutina	Black Oak	42.7	Poor
1721 Q	uercus velutina	Black Oak	20.9	Fair
1722 Q	uercus velutina	Black Oak	9.8	Fair
1723	Tilia americana	Basswood	7.3	Fair
1724	Tilia americana	Basswood	22.1	Fair
1725	Tilia americana	Basswood	10.2	Fair
1726 7	Tilia americana	Basswood	7.6	Fair
1727 1	Tilia americana	8asswood	7.7	Fair
1728 1	Tilia americana	Basswood	7.8	Fair
1729 1	Tilia americana	Basswood	7.5	Fair
1730 Q	uercus velutina	Black Oak	6.2	Fair
1731 Q	uercus velutina	Black Oak	27.0	Fair
1732 7	filia americana	Basswood	9.8	Fair
1733 7	Tilia americana	Basswood	8.6	Fair

]	Tag	Scientific Name	Common Name	DBH1	Condition
+	1734 1735	Tilia americana Tilia americana	Basswood Basswood	6.5 7.5	Fair Fair
7	1736 1737	Quercus velutina	Black Oak Black Oak	8.0 6.4	Fair Fair
	1738	Quercus velutina Tilja americana	Basswood	11.7	Fair
1	1739 1740	Juglans nigra Tilia americana	Black Walnut Basswood	7.6	Fair Fair
1	1741	Tilia americana	Basswood	8.9	Fair
1	1742 1743	Juglans nigra Tilia americana	Black Walnut Basswood	13.5 7.5	Fair Fair
1	1744	Tilia americana	Basswood	12.2	Fair
1	1745 1746	Tilia americana Juglans nigra	Basswood Black Walnut	8.0 13.4	Fair Fair
1	1747	Tilia americana	Basswood	14.1 12.4	Fair Fair
1	1748 1749	Populus deltoides Acer saccharum	Eastern Cottonwood Sugar Maple	6.3	Fair
-	1750 1751	Populus deltoides Tilia americana	Eastern Cottonwood Basswood	12.2 10.7	Fair Fair
1	1752	Tilia americana	Basswood	7.4	Fair
\cdot	1753 1754	Tilia americana Tilia americana	Basswood Basswood	9,1 6.6	Fair Fair
1	1755	Tilia americana	Basswood	8.3	Fair
1	1756 1757	Juglans nigra Juglans nigra	Black Walnut Black Walnut	10.0	Fair Fair
	1758	Juglans nigra	Black Walnut	7.9	Fair
1	1759 1760	Juglans nigra Juglans nigra	Black Walnut Black Walnut	7.9 12.8	Fair Fair
]	1761	Quercus velutina	Black Oak	11.3	Falr
1	1762 1763	Quercus velutina Tilia americana	Black Oak Basswood	9.1 8.6	Falr Falr
	1764	Moras alba	White Mulberry Black Walnut	9.4 7.5	Fair Fair
	1765 1766	Juglans nigra Juglans nigra	Black Walnut	10.0	Fair
	1767 1768	Jugians nigra Jugians nigra	Black Walnut Black Walnut	15.9 14.0	Fair Fair
	1769	Quercus macrocarpa	Bur Oak	22.6	Fair
,	1770 1771	Juglans nigra Quercus velutina	Black Walnut Black Oak	20.4	Fair Fair
•	1772	Juglans nigra	Black Wainut	26.2	Fair
	1773 1774	Juglans nigra Juglans nigra	Black Walnut Black Walnut	16,0 15.3	Fair Fair
	1775	Juglans nigra	Black Walnut	14.1	Fair
	1776 1777	Juglans nigra Quercus velutina	Black Walnut Black Oak	24.2 16.0	Fair Fair
	1778	Quercus velutina	Black Oak	14.8	Fair
	1779 1780	Quercus velutina Quercus velutina	Black Oak Black Oak	16.1 35.8	Fair Fair
	1781	Quercus velutina	Black Oak	14.0	Fair
	1782 1783	Juglans nigra Quercus velutina	Black Walnut Black Oak	31.2 14.5	Fair Fair
	1784	Quercus velutina	Black Oak	28.4	Fair
1	1785 1786	Quercus velutina Quercus velutina	Black Oak Black Oak	20.3 25.8	Fair Fair
	1787	Quercus velutina	Black Oak	22.6	Fair
	1788 1789	Quercus velutina Jugians nigra	Black Oak Black Walnut	21.6 27.9	Fair Fair
	1790 1791	Juglans cinerea	Butternut	8.0 9.0	Fair Fair
	1792	Malus pumila Picea pungens	Apple Blue Spruce	22.5	Fair
	1793 1794	Picea pungens Picea pungens	Blue Spruce Blue Spruce	30.8 19.2	Fair Fair
	1795	Platanus occidentalis	Sycamore	29.9	Fair
	1796 1797	Ulmus americana Picea pungens	American Elm Blue Spruce	7.2 23.8	Fair Fair
	1798	Magnolia soulangeana	Magnolia	13.7	Fair
	1799 1800	Magnolia soulangeana Salix amygdaloides	Magnolia Peachleaf Willow	11.0 9.4	Fair Fair
	1801	Populus deltoides	Eastern Cottonwood	14.3	Fair
	1802 1803	Populus deltoides Malus pumila	Eastern Cottonwood Apple	10.2 6.5	Fair Fair
	1804	Malus pumila	Apple	7.5	Fair
	1805 1806	Malus pumila Malus pumila	Apple Apple	8.6 7.0	Fair Fair
	1807	Malus pumila	Apple	6.4	Fair
	1808 1809	Malus pumila Malus pumila	Apple Apple	8.1 8.6	Fair Fair
	1810 1811	Malus pumila Malus pumila	Apple Apple	7.0 6.1	Fair Fair
- }	1812	Malus pumila	Apple	6.5	Fair
1	1813 1814	Malus pumila Malus pumila	Apple Apple	7.5 6.2	Fair Fair
}	1815	Malus pumila	Apple	7.6	Fair
1	1816 1817	Malus pumila Malus pumila	Apple Apple	6.8 6.1	Fair Fair
1	1818	Malus pumila	Apple	7.4	Fair
	1819 1820	Malus pumila Malus pumila	Apple Apple	7.3 7.5	Fair Fair
	1821	Malus pumila	Apple	6.7	Fair
	1822 1823	Carya ovata Acer saccharinum	Shagbark Hickory Silver Maple	23,8 21.8	Fair Fair
	1824 1825	Acer saccharinum Acer saccharinum	Silver Maple Silver Maple	14.4 35.4	Fair Fair
-	1826	Acer negundo	Boxelder Maple	10.5	Fair
1	1827 1828	Acer negundo Populus deltoides	Boxelder Maple Eastern Cottonwood	22.4 11.2	Fair Fair
Ì	1829	Juglans nigra	Black Walnut	10.6	Fair
1	1830 1831	Populus deltaides Quercus velutina	Eastern Cottonwood Black Oak	22.8 37.2	Fair Fair
	1832	Populus deltoides	Eastern Cottonwood	24.4	Fair
	1833 1834	Quercus velutina Quercus velutina	Black Oak Black Oak	33.5 13.7	Fair Fair
	1835	Quercus velutina	Black Oak	17.0	Fair
	1836 1837	Quercus velutina Quercus velutina	Black Oak Black Oak	13.8 8.3	Fair Fair
	1838	Quercus velutina	Błack Oak	19.7	Fair
	1839 1840	Quercus velutina Quercus velutina	Black Oak Black Oak	12.8 7.1	Fair Fair
	1841 1842	Quercus velutina Acer saccharinum	Black Oak Silver Maple	17.0 13.8	Fair Fair
	1044	Meet saccessman	L SAFET MADIC	23.0	, 011

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



BERGMANN ARCHITECTS ENGINEERS PLANNERS

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•	DATE	DESCRIPTION
	1/16/2018	PUD REVIEW
	22/04/2019	REV. PER CITY COMMENTS
	33/21/2019	2ND REV. PER CITY COMMENTS
	08/02/2019	380 REV, PER CITY COMMENTS
	08/22/2019 08/27/2019	4TH REV. PER CITY COMMENTS STEP ONE PUB REVIEW

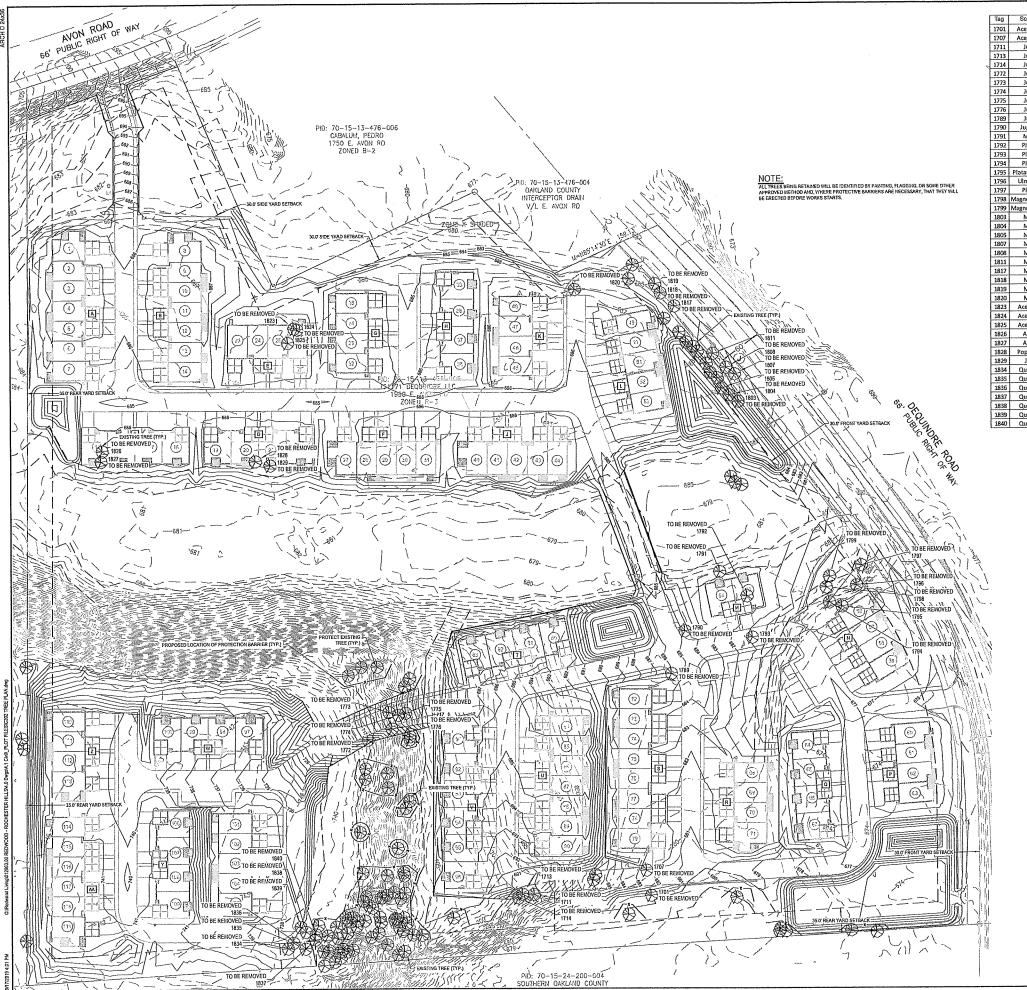


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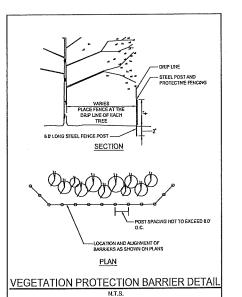
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P. FURTAW, PE	P. FURTAW, PE
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NOVEMBER 9, 2018	12963.00

TREE INVENTORY PLAN

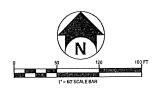
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1	Tag	Scientific Name	Common Name	DBH1	Condition	Notes	Replace Req'd
	1701	Acer saccharinum	Silver Maple	13.8	Fair	To Be Removed	X
- 1	1707	Acer saccharinum	Silver Maple	13.8	Fair	To Be Removed	X
	1711	Juglans nigra	Black Walnut	20.5	Fair	To Be Removed	X
	1713	Juglans nigra	Black Walnut	14.9	Fair	To Be Removed	X
	1714	Juglans nigra	Black Walnut	9.0	Fair	To Be Removed	X
	1772	Juglans nigra	Black Walnut	26.2	Fair	To Be Removed	X
	1773	Juglans nigra	Black Walnut	16.0	Fair	To Be Removed	X
	1774	Juglans nigra	Black Walnut	15.3	Fair	To Be Removed	X
	1775	Juglans nigra	Black Walnut	14.1	Fair	To Be Removed	X
	1776	Jugians nigra	Black Walnut	24.2	Fair	To Be Removed	X
	1789	Jugians nigra	Black Walnut	27.9	Fair	To Be Removed	Х
	1790	Juglans cinerea	Butternut	8.0	Fair	To Be Removed	X
1	1791	Malus pumila	Apple	9.0	Fair	To Be Removed	X
	1792	Picea pungens	Blue Spruce	22.5	Fair	To Be Removed	X
	1793	Picea pungens	Blue Spruce	30.8	Fair	To Be Removed	х
	1794	Picea pungens	Blue Spruce	19.2	Fair	To Be Removed	X
-	1795	Platanus occidentalis	Sycamore	29.9	Fair	To Be Removed	X
-	1796	Ulmus americana	American Elm	7.2	Fair	To Be Removed	X
	1797	Picea pungens	Blue Spruce	23.8	Fair	To Be Removed	×
	1798		Magnolia	13.7	Fair	To Be Removed	X
	1799		Magnolia	11.0	Fair	To Be Removed	X
	1803	Malus pumila	Apple	6.5	Fair	To Be Removed	X
	1804	Malus pumila	Apple	7.5	Fair	To Be Removed	X
	1805	Malus pumila	Apple	8.6	Fair	To Be Removed	X
i	1807	Malus pumila	Apple	6.4	Fair	To Be Removed	X
	1808	Malus pumila	Apple	8.1	Fair	To Be Removed	X
	1811	Malus pumila	Apple	6.1	Fair	To Be Removed	X
	1817	Malus pumila	Apple	6.1	Fair	To Be Removed	X
	1818	Malus pumila	Apple	7.4	Fair	To Be Removed	X
	1819	Malus pumila	Apple	7.3	Fair	To Be Removed	X
	1820	Malus pumila	Apple	7.5	Fair	To Be Removed	X
	1823	Acer saccharinum	Silver Maple	21.8	Fair	To Be Removed	X
i	1824	Acer saccharinum	Silver Maple	14.4	Fair	To Be Removed	X
	1825	Acer saccharinum	Silver Maple	35.4	Fair	To Be Removed	X
	1826	Acer negundo	Boxelder Maple	10.5	Fair	To Be Removed	X
	1827	Acer negundo	Boxelder Maple	22.4	Fair	To Be Removed	X
	1828	Populus deltoides	Eastern Cottonwood	11.2	Fair	To Be Removed	×
	1829	Juglans nigra	Black Walnut	10.5	Fair	To Be Removed	x
	1834	Quercus velutina	Black Oak	13.7	Fair	To Be Removed	X
	1835	Quercus velutina	Black Oak	17.0	Fair	To Be Removed	X
	1836	Quercus velutina	Black Oak	13.8	Fair	To Be Removed	X
	1837	Quercus velutina	Black Oak	8.3	Fair	To Be Removed	
	1838	Quercus velutina	Black Oak	19.7	Fair	To Be Removed	
	1839	Quercus velutina	Black Oak	12.8	Fair	To Be Removed	
	1840	Quercus velutina	Black Oak	7.1	Fair	To Be Removed	
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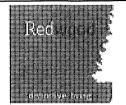


SITE LEGEND:



REDWOOD **ROCHESTER HILLS**

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



Bergmann Associales, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. 7050 West Saginaw Hwy. Suita 200 Lansing, MI 48917

office: 517.272.9835 fax: 517.272.9836

DATE	DESCRIPTION
11/16/2018	PUD REVIEW
02/04/2019	REV. PER CITY COMMENTS
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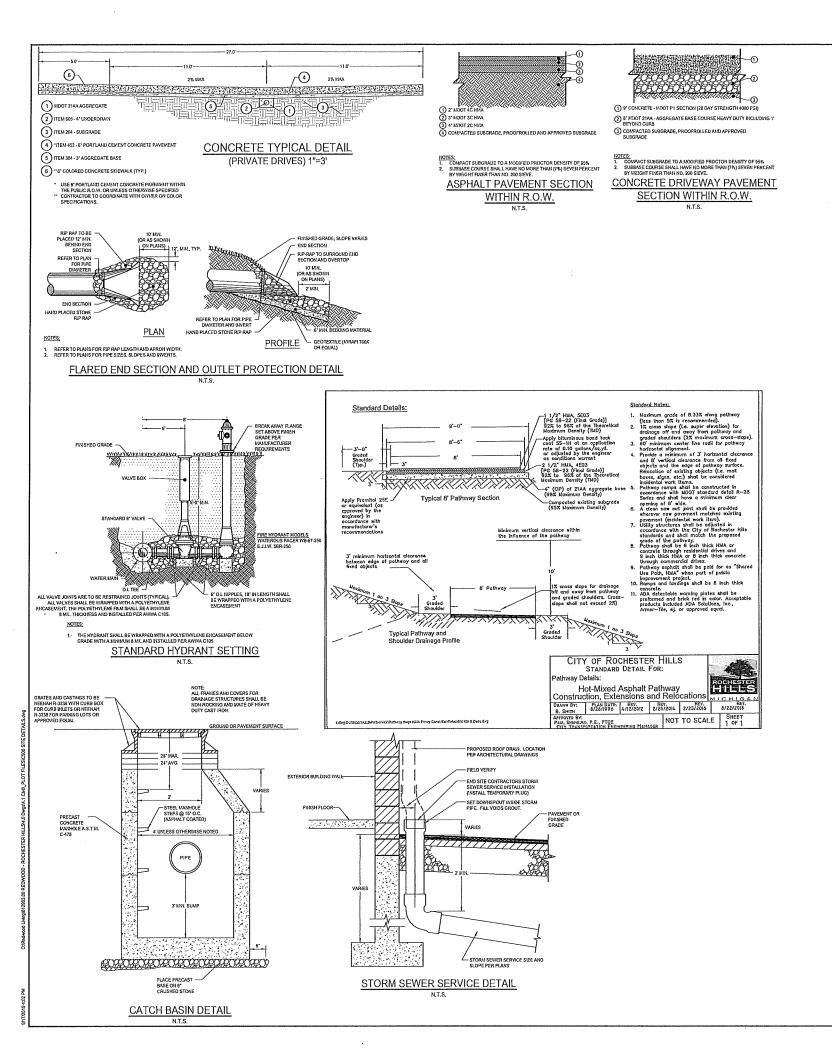


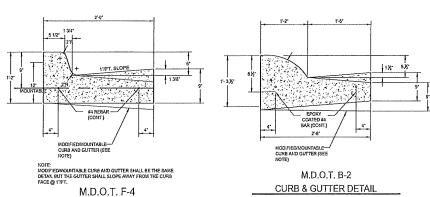
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NOVEMBER 9, 2018	12963.00

TREE PRESERVATION PLAN

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CURB & GUTTER DETAIL

REDWOOD ROCHESTER HILLS

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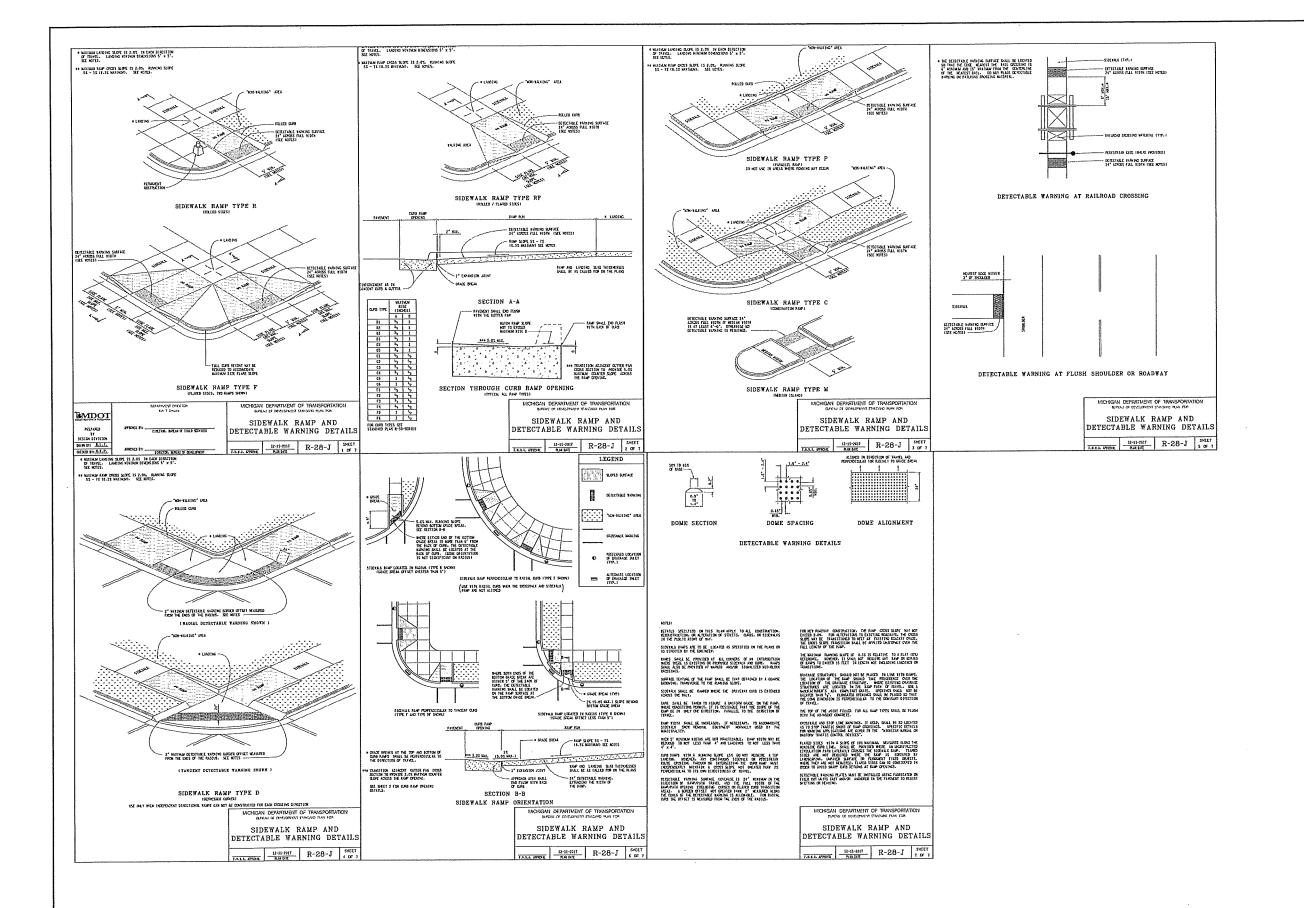
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Franci Narager	Owner by:
P. FURTAY, PE	P. FURTAY, PE
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I. GRAHAM, PE	I. GRAHAM, PE
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NOVEMBER 9, 2018	12963.00

SITE DETAILS

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DS/02/2019	3RD REV. PER CITY COMMENT
08/22/2019	4TH REV. PER CITY COMMENTS
DE/27/2019	STEP ONE PUD REVIEW



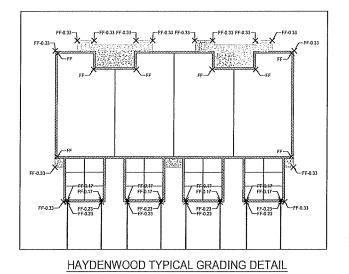
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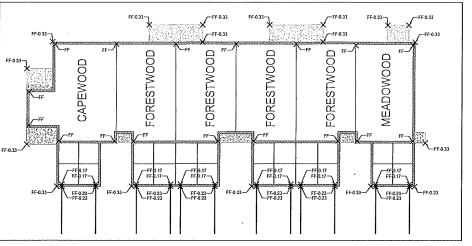
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P. FURTAW, PE	P. FURTAW, PE
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NOVEMBER 9, 2018	12953.00

SITE DETAILS

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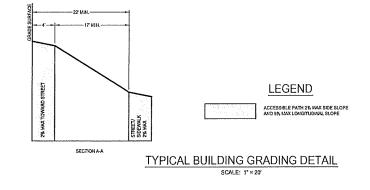




CAPEWOOD-FORESTWOOD-MEADOWWOOD TYPICAL GRADING DETAIL

FF-0.33 FF-0.3

WILLOWOOD TYPICAL GRADING DETAIL



REDWOOD ROCHESTER HILLS

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



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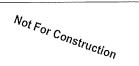


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office: 517.272.9835 fax: 517.272.9835

IAX. 317.2729030

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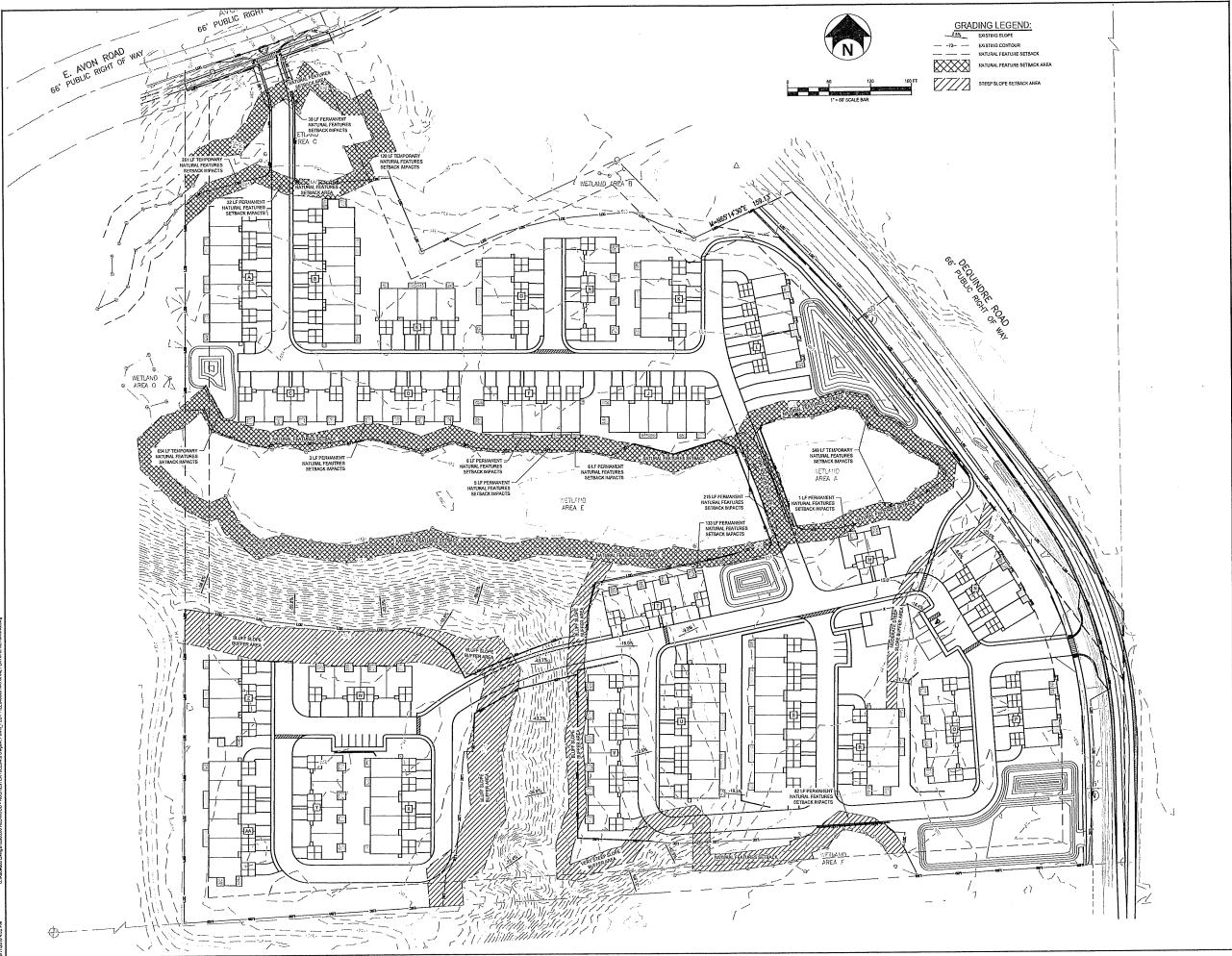
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Project Unitages	Charled By:
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I. GRAHAM, PE	I. GRAHAM, PE
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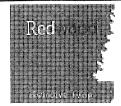
DRIVEWAY GRADING DETAILS

(Variety Number

C600



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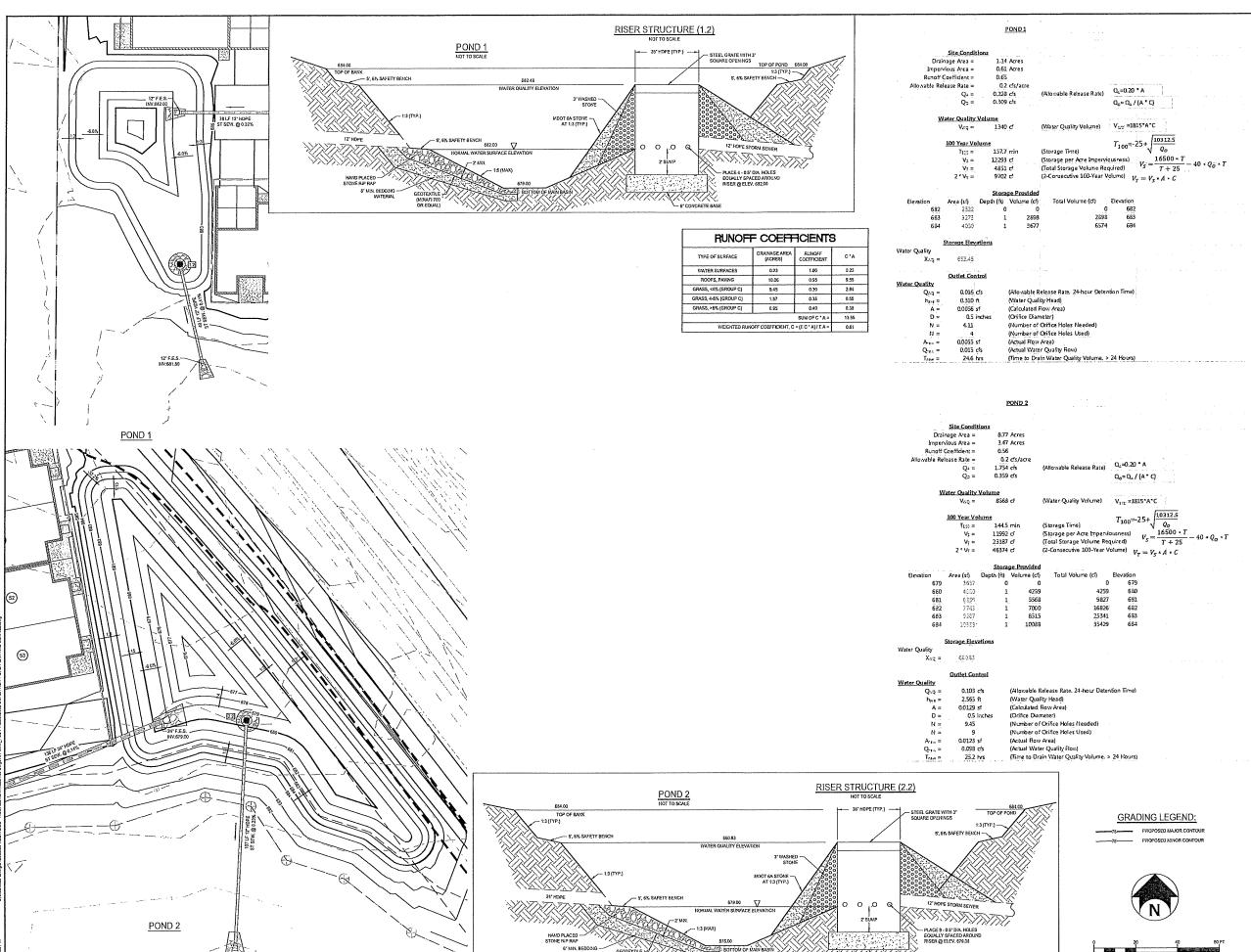
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03/21/2019	2ND REV. PER CITY COMMENTS
08/02/2019	3RD REV, PER CITY COMMENTS
08/22/2019 08/27/2019	4TH REV, PER CITY COMMENTS STEP ONE PUD REVIEW



Possi throught	Dwanty:
P, FURTAW, PE	P. FURTAW, PE
Description	Dreen \$4.
L GRAHAM, PE	I. GRAHAM, PE
Continued	Project Surdies;
NOVEMBER 9, 2018	12963.00

NATURAL FEATURE SETBACKS

C601



E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



BERGMANN ARCHITECTS ENGINEERS PLANNERS

Bergmann Associales, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. 7050 West Saginaw Hwy. Suita 200 Lansing, MI 48917

office: 517.272.9835 fax: 517.272.9836

fax: 517.272.983

DATE	DESCRIPTION
11/16/2018	PUO REVIEW
02/04/2019	REV. PER CITY COMMENTS
03/21/2019	2ND REV, PER CITY COMMENTS
08/02/2019	3RD REV. PER CITY COMMENTS
08/22/2019	4TH REV, PER CITY COMMENTS



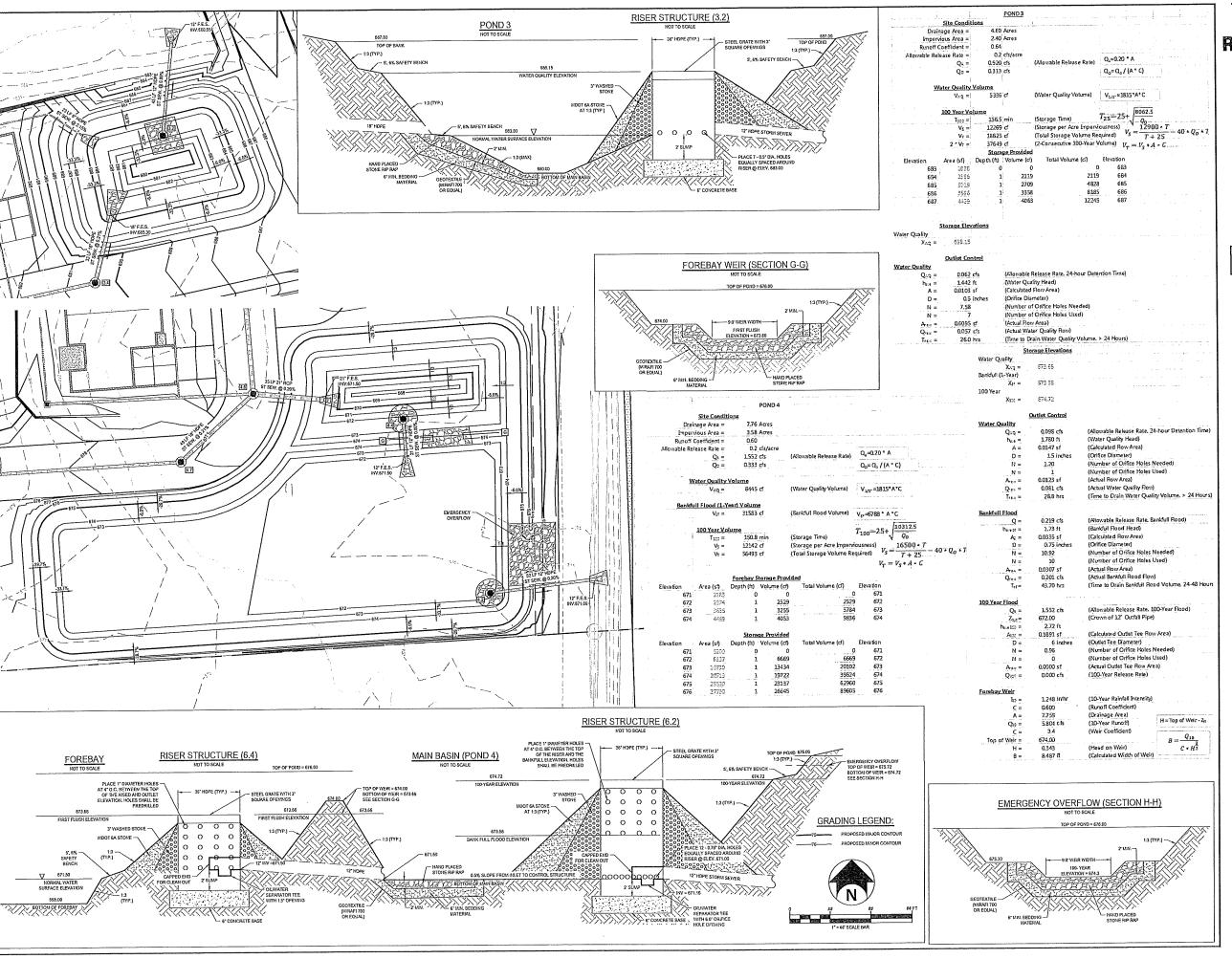
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I. GRAHAM, PE	I, GRAHAM, PE
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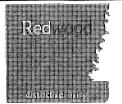
DETENTION POND PLAN AND DETAILS

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C602



E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



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02/04/2019	REV. PER CITY COMMENTS
03/21/2019	2ND REV. PER CITY COMMENTS
08/02/2019	3RD REV. PER CITY COMMENTS
08/22/2019	4TH REV. PER CITY COMMENTS
06/27/2019	STEP ONE PUD REVIEW

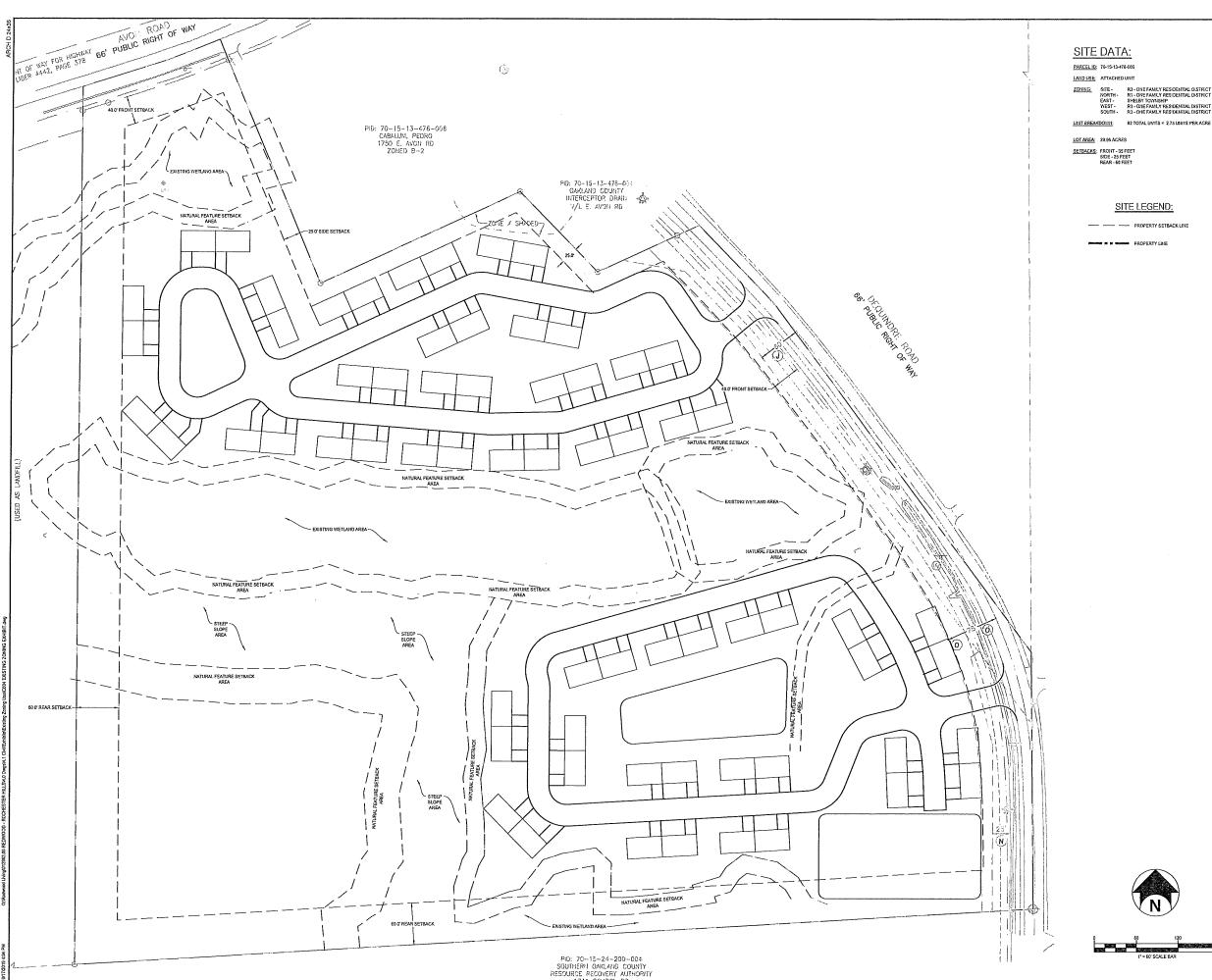


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Project Manager:	Crearify:
P, FURTAW, PE	P. FURTAW, PE
Description	Dia-ra Py
I, GRAHAM, PE	I, GRAHAM, PE
free hourt	Pripa Lines
NOVEMBER 9, 2018	12963.00

DETENTION POND PLAN AND DETAILS

C603



ZORING SITE- R3 - ONE FAMILY RESIDENTIAL DISTRICT (MR OVERLAY) R1 - ONE FAMILY RESIDENTIAL DISTRICT (MR OVERLAY) R1 - ONE FAMILY RESIDENTIAL DISTRICT FUND OVERLAY) WEST- R3 - ONE FAMILY RESIDENTIAL DISTRICT SOUTH R3 - ONE FAMILY RESIDENTIAL DISTRICT

SITE LEGEND:

---- PROPERTY SETBACK LINE

REDWOOD **ROCHESTER HILLS**

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



Bergmann Associales, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. 7050 West Saginaw Hwy. Suite 200 Lansing, M148917

office: 517.272.9835 fax: 517.272.9836

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DATE	DESCRIPTION
11/15/2018	PUD REVIEW
02/04/2019	REV. PER CITY COMMENTS
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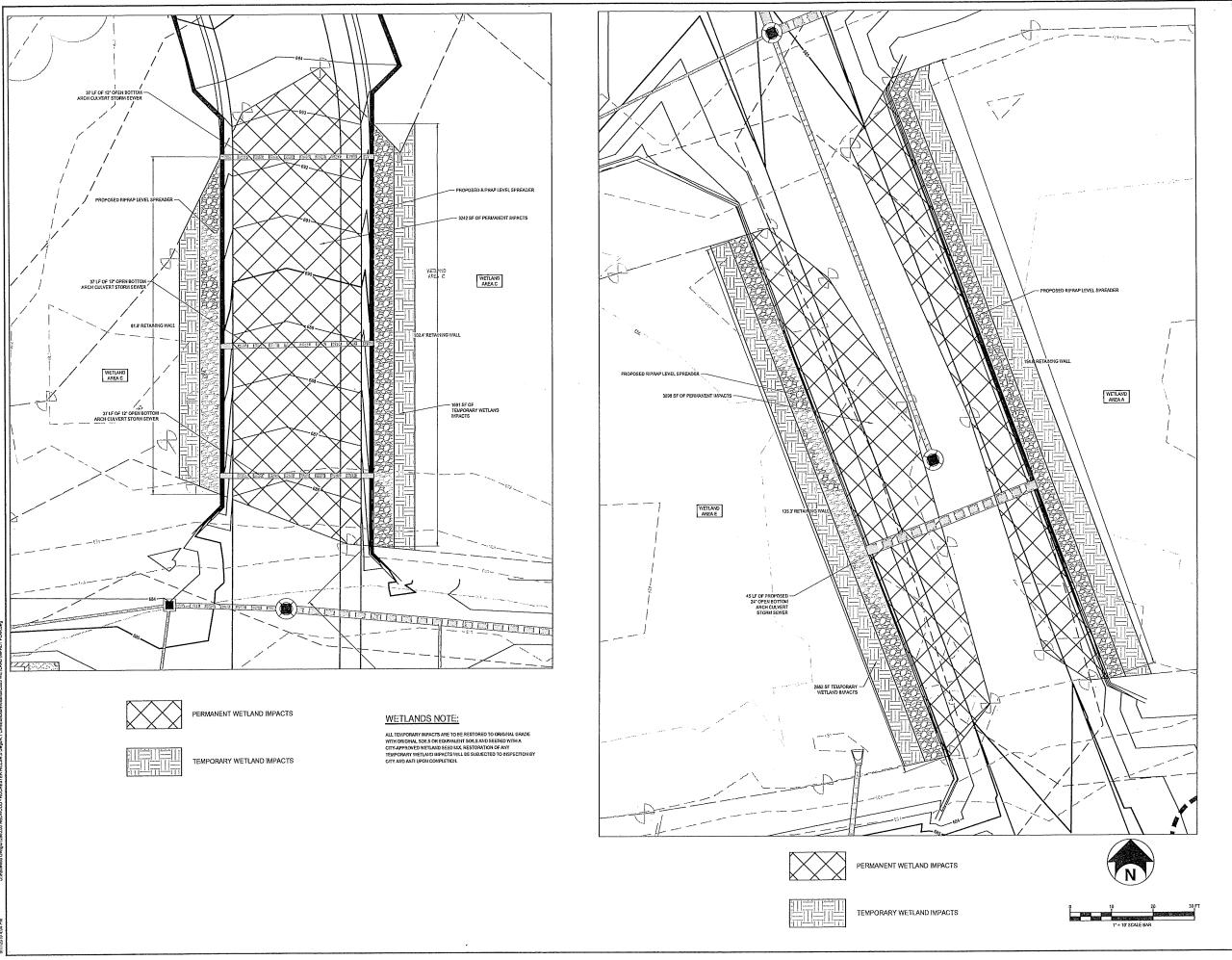


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P. FURTAW, PE	P. FURTAW, PE
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I. GRAHAM, PE	L GRAHAM, PE
Cuts haland	Projes hunden
NOVEMBER 9, 2018	12963.00

EXISTING ZONING EXHIBIT

C604



E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



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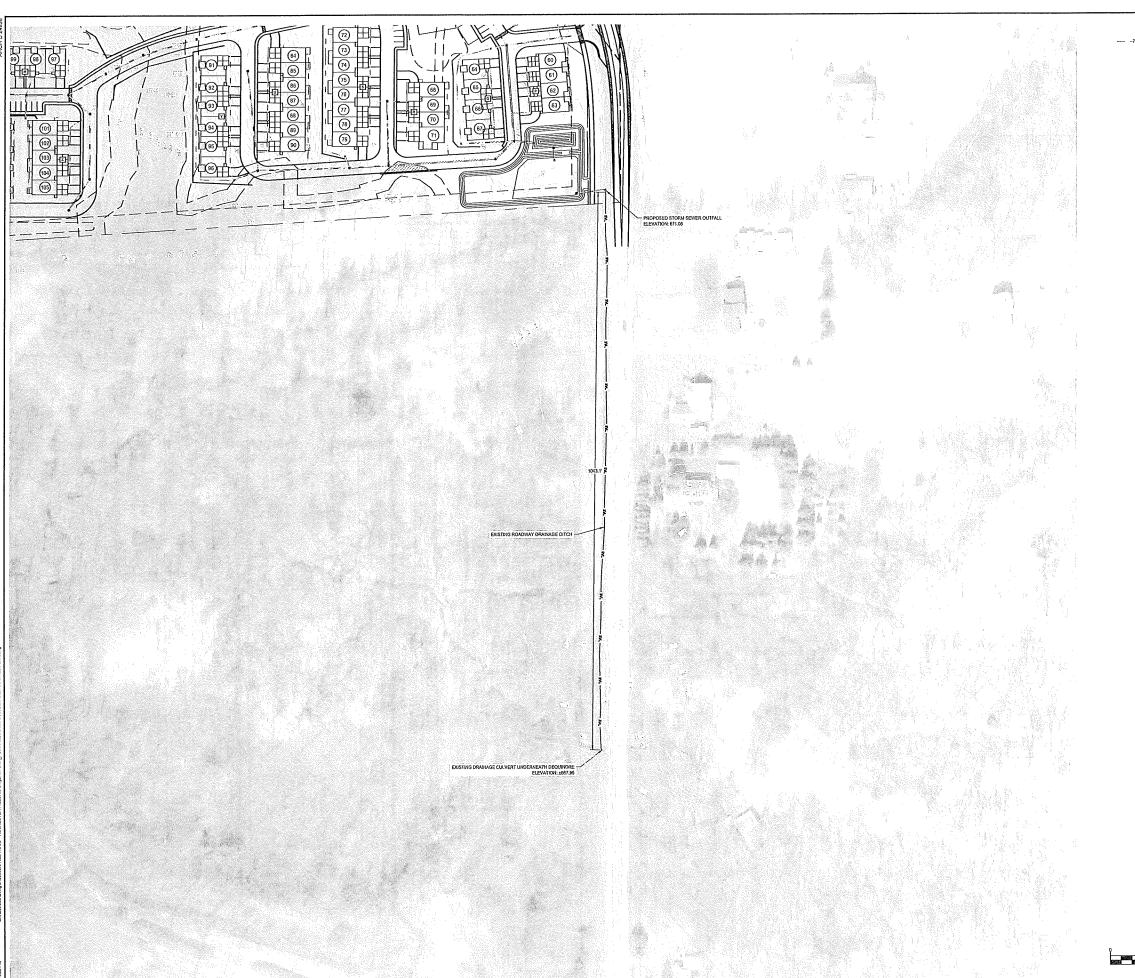
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05/02/2019	3RD REV. PER CITY COMMENTS
08/22/2019 08/27/2019	4TH REY, PER CITY COMMENTS STEP ONE PUD REVIEW



Proposition region	Denetly:
P. FURTAW, PE	P. FURTAYY, PE
Dagwelly	Drawn by
I. GRAHAM, PE	I. GRAHAM, PE
Des blued	Proof Nancet
NOVEMBER 9, 2018	12963.00

WETLAND IMPACT PLAN

C605



GRADING LEGEND:

- -72- EXISTING CONTOL

UTILITY LEGEND:

STORM SEW

CATCH BASIN

REDWOOD ROCHESTER HILLS

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



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office: 517.272.9835 fax: 517.272.9836

D. 517.2723030

DATE	DESCRIPTION
1 1/15/2018	PUD REVIEW
02/04/2019	REV. PER CITY COMMENTS
03/21/2019	2NO REV. PER CITY COMMENTS
08/07/2019	3RD REV. PER CITY COMMENTS
08/22/2019	4TH REV. PER CITY COSMENTS



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Proceedings	Dwarf by:
P. FURTAW, PE	P. FURTAW, PE
Designed By:	Don't By
(, GRAHAM, PE	I. GRAHAM, PE
Care based	Payed Number:
NOVEMBER 9, 2018	12963.00

STORMWATER OUTFALL PLAN

ry Nortice

C606

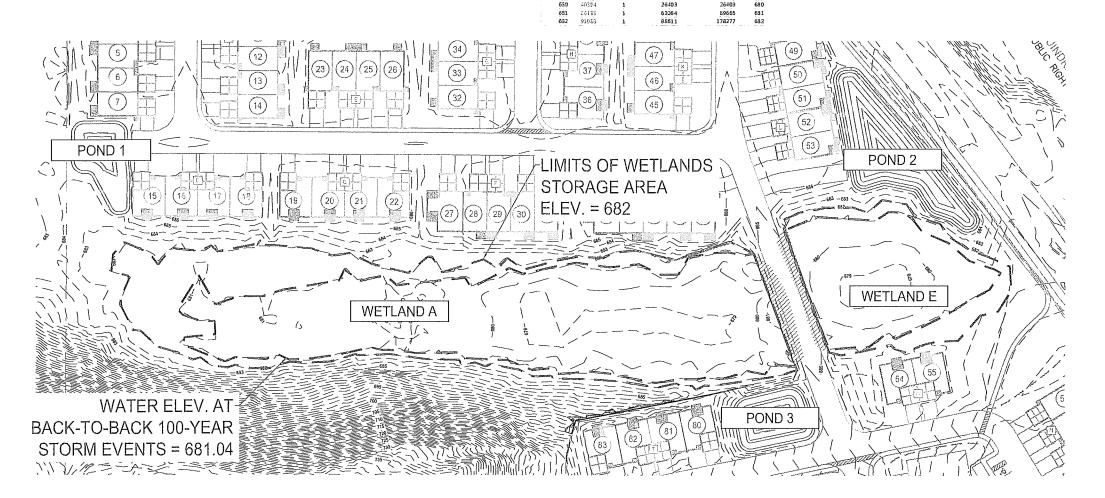
TOTAL VOLUME REQUIRED 2 - 100 YEAR EVENT, POND 1 VOLUME REQUIRED 2 - 100 YEAR EVENT, POND 2 VOLUME REQUIRED 46,314 CF 2 - 100 YEAR EVENT, POND 3 VOLUME REQUIRED 17,649 CF 101 YEAR EVENT, POND 3 VOLUME REQUIRED 101 YEAR EVENT VOLUME REQUIRED 102227 CF WETLAND A VOLUME FROVIDED 10,667 CF 10,667 CF

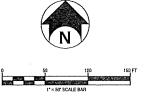
		Wetland A	Storage Provi	ded	
Elevation	Area (sf)	Depth (ft)	Volume (cf)	Total Volume (cf)	Elevation
679	9776	0	0	0	679
630	28437	1	19102	19102	680
631	75368	1	50598	69999	651
632	930031	1	82228	152227	632
532		Anti-			
632			Storage Provi		
Elevation	Area (sf)		Starage Provi Volume (cf)	ded Total Volume (ci)	Elevation
	Area (sf) 2635				Elevation 679
					Elevation 679 680

76	PROPOSED MINOR CONTOUR
X TC=78.01 BC=77.51	PROPOSED TOP OF CURB / BOTTOM OF CUR
XTVV/BW=152.50	PROPOSED TOP OF WALL I BOTTOM OF WALL
× 77.73	PROPOSED SPOT ELEVATION
¥ EG=77.73	EXISTING ELEVATION
× HP=77.73	PROPOSED HIGH POINT ELEVATION
× 1G=77.73	PROPOSED TOP OF GRATE ELEVATION
× FF=77.73	FINISHED FLOOR ELEVATION
2.5%	PROPOSEO SLOPE
72	EXISTING CONTOUR
	THOSE I NIT

GRADING LEGEND:

ÆD ≃ [152,227 CF		tievation	Area (s	it) LEPL	л(п) уо	iume (ct)	Lorei Acinus (i	J)	FIENSDOU
ED=	19,667 CF	1	679	2	635	0	D		0	675
ED =	178,277 CF		680	11	957	1	7301		7301	690
			681	. 12	765	1	12366		19667	68:
			! !		Wetland A	-E (Total	Volume Pr	ovided)		
			Elevation A		************				·	ation
			elevation . A	irea (sf)	Depth (ft)	Volum	ie (ci)	Total Volume (cf)	Field	acon
			679	12411	0		0		0	679
			650	10701			25102	24.0	no.	400





REDWOOD ROCHESTER HILLS

E. AVON ROAD ROCHESTER HILLS, MI 48307 OAKLAND COUNTY



7510 E. PLEASANT VALLEY RD INDEPENDENCE, OH 44131



Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C. 7050 West Saginaw Hhy. Suite 200 Lansing, MI 48917

office: 517.272.983 fax: 517.272.983

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Popul Hrape:	Owner to:
P. FURTAW, PE	P. FURTAW, PE
Despres By:	(Drawn By
I. GRAHAM, PE	l, Graham, Pe
Day bred	Projek harden
NOVEMBER 9, 2018	12953.00

WETLAND STORAGE PLAN

Daving Namber

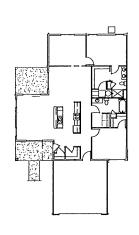
C607

REDWOOD ROCHESTER HILLS TOWNHOUSES

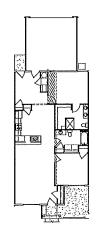
E. AVON ROAD ROCHESTER HILLS, MI PROJECT NO.: 6919











HAYDENWOOD

FORESTWOOD

MEADOWOOD

CAPEWOOD

THE VARIOUS DRAWINGS COMPRISING THIS SET OF DRAWINGS ARE INTERDEPENDENT AND MUST BE USED JOINTLY TO EXECUTE THE WORK. ALL STUD WALLS NOT BUILT TO DECK ABOVE SHALL BE BRACED AS REQUIRED FOR LATERAL SUPPORT.

REQUIRED FOR LATERAL SUPPORT.

A FIRE SUPPRESSION YSTEM IS REQUIRED WITHIN THE CODE DATA OF THIS PROJECT, THE FIRE SUPPRESSION COMTRACTOR SHALL DESIGN AND THE PROJECT OF THE SUPPRESSION SYSTEM. HO CONJUNCTION WITH THE FIRE HAZARD AND DCCUPANCY CLASSIFICATIONS OF THE STRUCTURE - PER MICHIGAN RESIDENTIAL CODE SECTION P290M AND THE RELEVANT SECTIONS OF HEPA 13D. THE SUPPRESSION CONTRACTOR SHALL SUBMITS HOP DRAWINGS OF THE SYSTEM DESIGNED BY AN MICHIGAN CERTIFIED SUPPRESSION CONTRACTOR SHALL SUBMITS HOP DRAWINGS OF THE SYSTEM DESIGNED BY AN MICHIGAN CERTIFIED SUPPRESSION OBSIGNED TO THE AUTHORITY HAVING JURISDICTION FOR APPROVAL. AND THE ARCHITECT FOR THEIR RECORDS - PRIOR TO PLACING AN ORDER OR INSTALLING ANY COMPONENTS. THIS SUBMISSION SHALL BE NO LATER THAN THE INITIAL FRAMING STAGE.

WILLOWOOD



ALL MATERIALS MUST BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS

BIDDING PRECAUTIONS

PRIOR TO SUBMITTING PROPOSALS, BIODERS SHALL EXAMINE DRAWINGS AND SPECIFICATIONS AND CONDUCT A PERSONAL EXAMINATION OF THE SITE AND BECOME AWARE OF ALL EXISTING CONDITIONS AND LIMITATIONS AFFECTING THE WORK AND THEIR DRAWINGS.

GENERAL NOTES

- TO BE CONSTRUCTED UNDER LOCAL BUILDING INSPECTION DEPT.
 MATERIALS AND CONSTRUCTION FOR SEWERAGE AND HIGHWAY.
 IMPROVEMENTS TO MEET LOCAL CODES, BUILDING MATERIALS AND
 CONSTRUCTION TO MEET LOCAL CODES, BUILDING MATERIALS AND
 CONSTRUCTION TO MEET LOCAL CODES AND THE INTERNATIONAL
 BUILDING CODE. ALL PROPER PERMITS MUST BE OBTAINED FOR ALL
 CONSTRUCTION WORK (WHICH HAS BEEN APPROVED BY PROPER
 DEPARTMENTS) PROCT TO SECOND WITHOUT CONNING AND FIRE
 SUPPRESSION MUST BE LIGENSED TO DO WORK WITHIN THE
 SOVERNING MUNICIPALISM.

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 SUPPRESSION MUST BE LIGENSED TO DO WORK WITHIN THE
 GOVERNING MUNICIPALISM.
- CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, GRADES, ETC. PRIOR TO ANY CONSTRUCTION AND SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ARCHITECT FOR CLARIFICATION OR RESOLUTION.

- THESE DESIGNS AND ALL ITEMS DEPICTED HEREIN, WHETHER IN WRITING OR GRAPHICALLY, AS INSTRUMENTS OF PROFESSIONAL SERVICE, MAY NOT BE ALTERED OR CHANGED, IN ANY WAY, WITHOUT THE PRIOR KNOWLEDGE AND WRITTEN ONSENT OF THE ARCHITECT. ANY CHANGE MADE WITHOUT THE ARCHITECT'S WRITTEN APPROVAL WILL VIOLD ALL SUCH DOCUMENTS AND INSTRUMENTS AND THE ARCHITECT WILL NOT BE PERSONALLY LIABLE FOR ANY DAMAGE, HARM OR LOSS CAUSED THEREIN.

UNDER THE MICHIGAN RESIDENTIAL CODE PER

ALL UNITS ARE TOWNHOUSES AS DEFINED

PLANS EXAMINER NOTES

THE FOLLOWING PLANS ARE TO BE REVIEWED SECTION 101.2 (EXCEPTION) OF THE 2015 MICHIGAN BUILDING CODE.

PER MRC SECTION R202

UNIT TYPE FLOOR AREA

NOTE!:

BUILDING

THE MATERIALS NOTED.

BUILDING

UNIT TYPE:		LIVING AREA:	TOTAL AREA:
FORESTWOOD	-	1,294 SQ.FT.	1,714 SQ.FT.
MEADOWOOD	-	1,326 SQ.FT.	1,747 SQ.FT.
CAPEWOOD	-	1,620 SQ.FT.	2,040 SQ.FT.
HAYDENWOOD	-	1,346 SQ.FT.	1,744 SQ.FT.
WILLOWOOD	-	1,381 SQ.FT.	1,784 SQ.FT.

WILLOWOOD	- 1,381 SQ.FT. 1,784 SQ.FT.
CODE DATA	
APPLICABLE CODES:	M.B.C (MICHIGAN BUILDING CODE) 2015 M.R.C (MICHIGAN RESIDENTIAL CODE) 2015 ICC A117.1-2009 CITY OF ROCHESTER HILLS ZONING ORDINANC
USE GROUP:	R-3
CONSTRUCTION TYPE:	5B
SMOKE DETECTORS:	INSTALLED INSIDE AND OUTSIDE BEDROOMS
ACCESSIBLE UNITS:	ALL UNITS ARE TYPE 'B' UNITS PER MBC SECTION 1107.6.3
ACCESSIBLE ROUTE:	SEE CIVIL DRAWINGS FOR ROUTE INFO AND CURB RAMP LOCATIONS (IF REQUIRED)

FIRE SUPPRESSION NOTE

A 13D SPRINKLER SYSTEM IS TO BE INSTALLED IN EACH UNIT TO MEET REQUIREMENTS OF NFPA 13D OR MRC P2904.1

BUILDING INFORMATION

REQUIREMENTS TAKE PRECEDENCE OVER THE DRAWINGS AND

ALL MATERIALS AND/OR PRODUCTS SELECTED FOR THIS

PROJECT MUST BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS, DETAILS, AND REFERENCES, THESE

3 FIXT WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-482-7171

BUILDING

AUGUST 27, 2019

IDENTIFI		ADDRESS:	SQ.FT.:
Α	-	TO BE DETERMINED	12,389 SQ.FT.
В	-	TO BE DETERMINED	12,389 SQ.FT.
С	_	TO BE DETERMINED	7,138 SQ.FT.
D	-	TO BE DETERMINED	7,138 SQ.FT.
Ε	-	TO BE DETERMINED	6,924 SQ.FT.
F	-	TO BE DETERMINED	8,930 SQ.FT.
G	-	TO BE DETERMINED	6,924 SQ.FT.
Н	_	TO BE DETERMINED	7,138 SQ.FT.
J	-	TO BE DETERMINED	8,930 SQ.FT.
К	-	TO BE DETERMINED	6,924 SQ.FT.
L	-	TO BE DETERMINED	10,464 SQ.FT.
M	-	TO BE DETERMINED	5,353 SQ.FT.
N	-	TO BE DETERMINED	6,975 SQ.FT.
Р	-	TO BE DETERMINED	6,975 SQ.FT.
Q		TO BE DETERMINED	7,138 SQ.FT.
R	-	TO BE DETERMINED	7,216 SQ.FT.
s	-	TO BE DETERMINED	13,780 SQ.FT.
Т	-	TO BE DETERMINED	7,138 SQ.FT.
U	-	TO BE DETERMINED	12,066 SQ.FT.
V	-	TO BE DETERMINED	10,706 SQ.FT.
W	-	TO BE DETERMINED	7,138 SQ.FT.
Х	-	TO BE DETERMINED	8,637 SQ.FT.
Υ	-	TO BE DETERMINED	7,138 SQ.FT.
Z.	-	TO BE DETERMINED	7,216 SQ.FT.
AA	-	TO BE DETERMINED	10,643 SQ.FT.

OWNER/DEVELOPER

REDWOOD LIVING

7510 EAST PLEASANT VALLEY ROAD INDEPENDENCE, OHIO 44131

kmcivor@byRedwood.com CONTACT: KELLIE McIVOR

P.: 216.360.9441

ARCHITECT

MANN PARSONS GRAY ARCHITECTS

3660 EMBASSY PARKWAY FAIRLAWN, OHIO 44333 james@mpg-architects.com

CONTACT: JAMES KEYS

P. 330.666.5770

CONTRACTOR/CONSTRUCTION MANAGER

TO BE DETERMINED

CIVIL CONSULTANT

BERGMANN ASSOCIATES

7050 WEST SAGINAW HIGHWAY - SUITE 200 LANSING, MICHIGAN 48917

www.bergmannoc.com

CONTACT: PAUL FURTAW

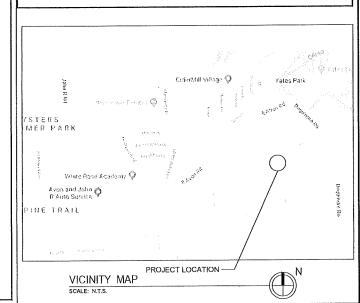
P.:517.272.9835

G INDEX

		DRAWING
1.0	-	TITLE SHEET
4.1	-	BUILDING PLAN AND ELEVATIONS
4.2	-	BUILDING PLAN AND ELEVATIONS
4.3	-	BUILDING PLAN AND ELEVATIONS
4.4	-	BUILDING PLAN AND ELEVATIONS
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4.12	-	BUILDING PLAN AND ELEVATIONS
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4.14	-	BUILDING PLAN AND ELEVATIONS
4.15		BLITLDING PLAN AND ELEVATIONS

A4.16 BUILDING PLAN AND ELEVATIONS BUILDING PLAN AND ELEVATIONS A4 17 BUILDING PLAN AND ELEVATIONS A4.18 BUILDING PLAN AND ELEVATIONS A4.19 BUILDING PLAN AND ELEVATIONS

A4.20 A5.1



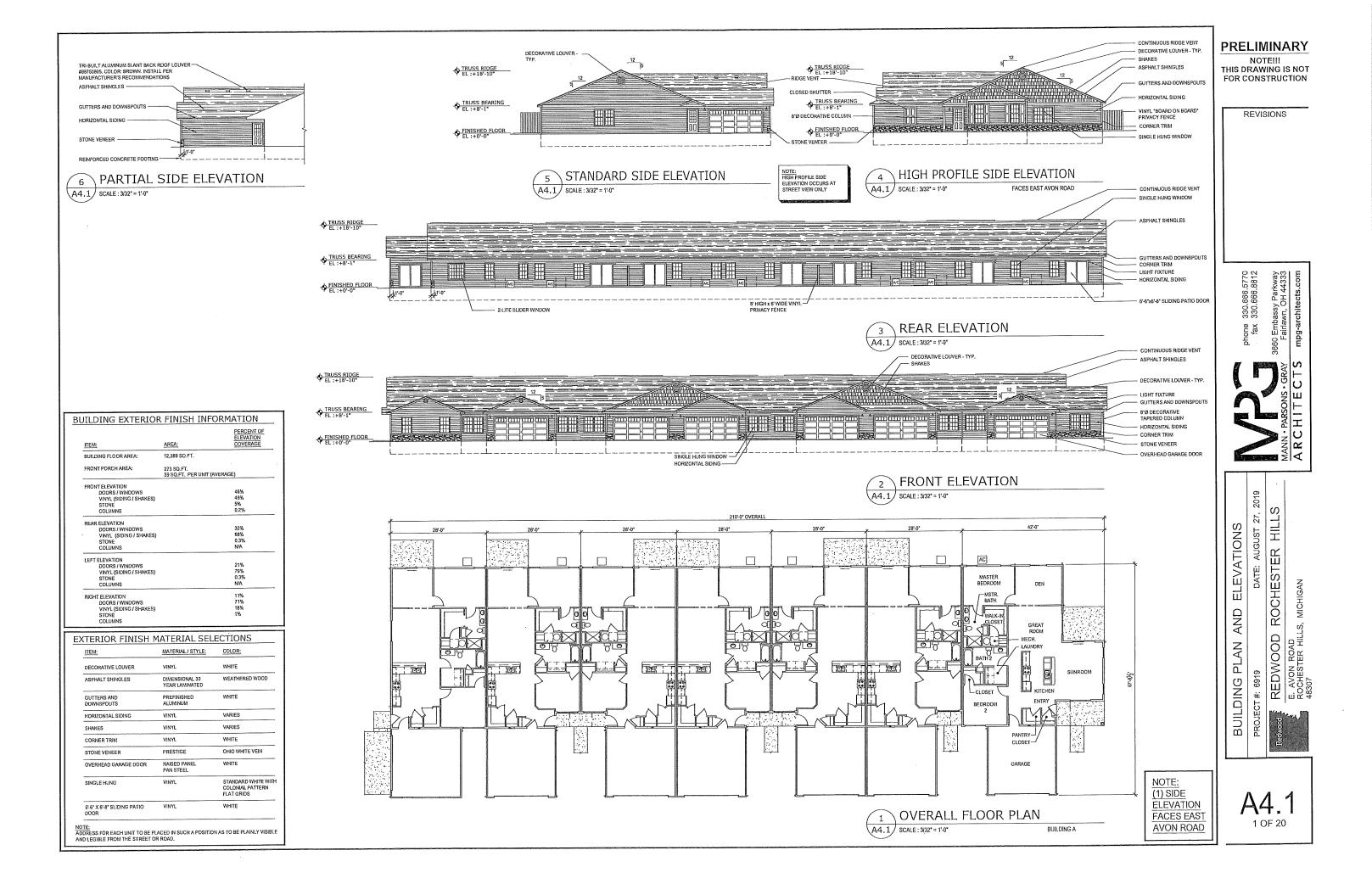
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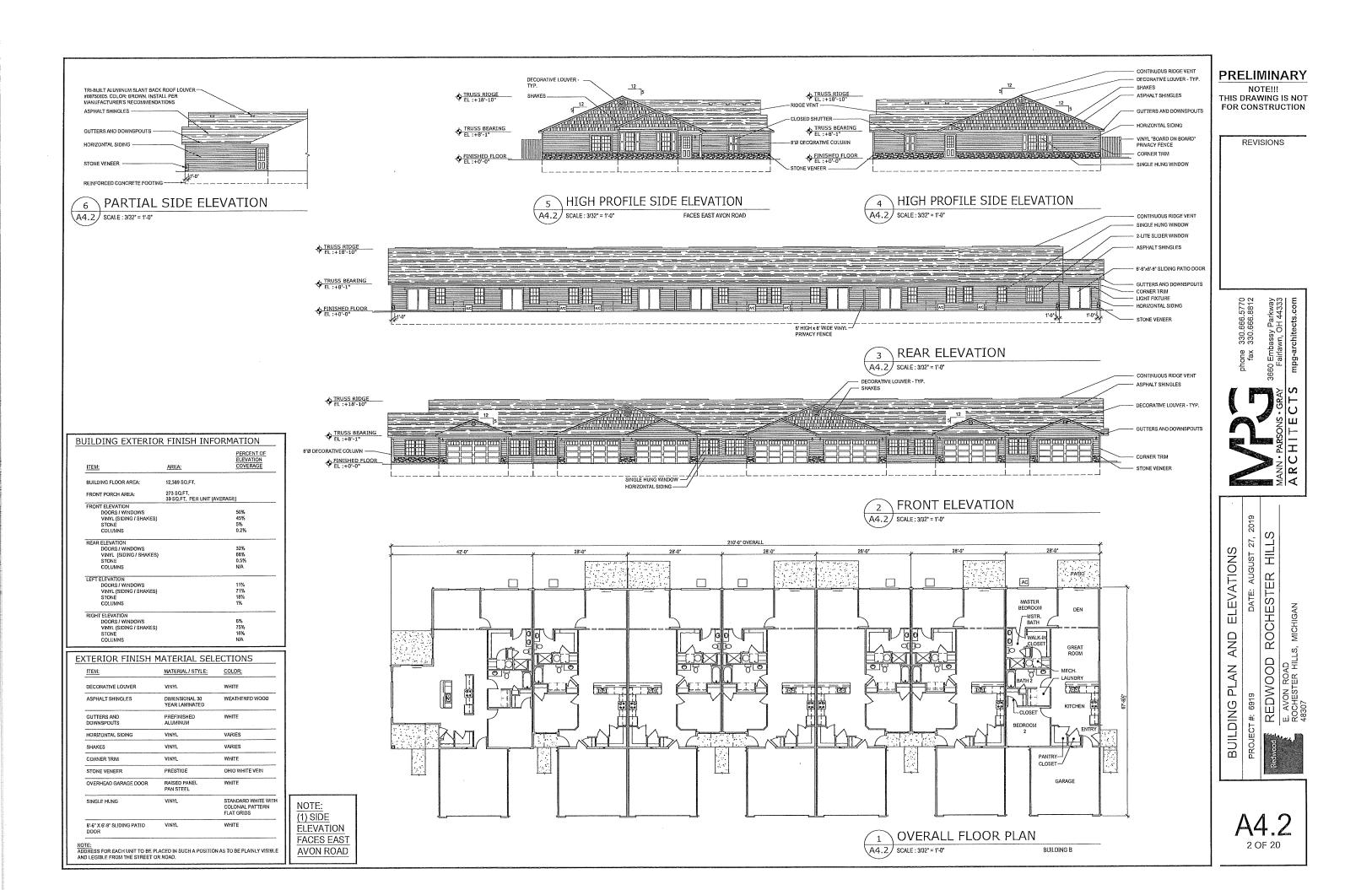
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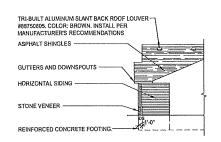
HILLS ROCHESTER

REDWOOD

G1.0 1 OF 1





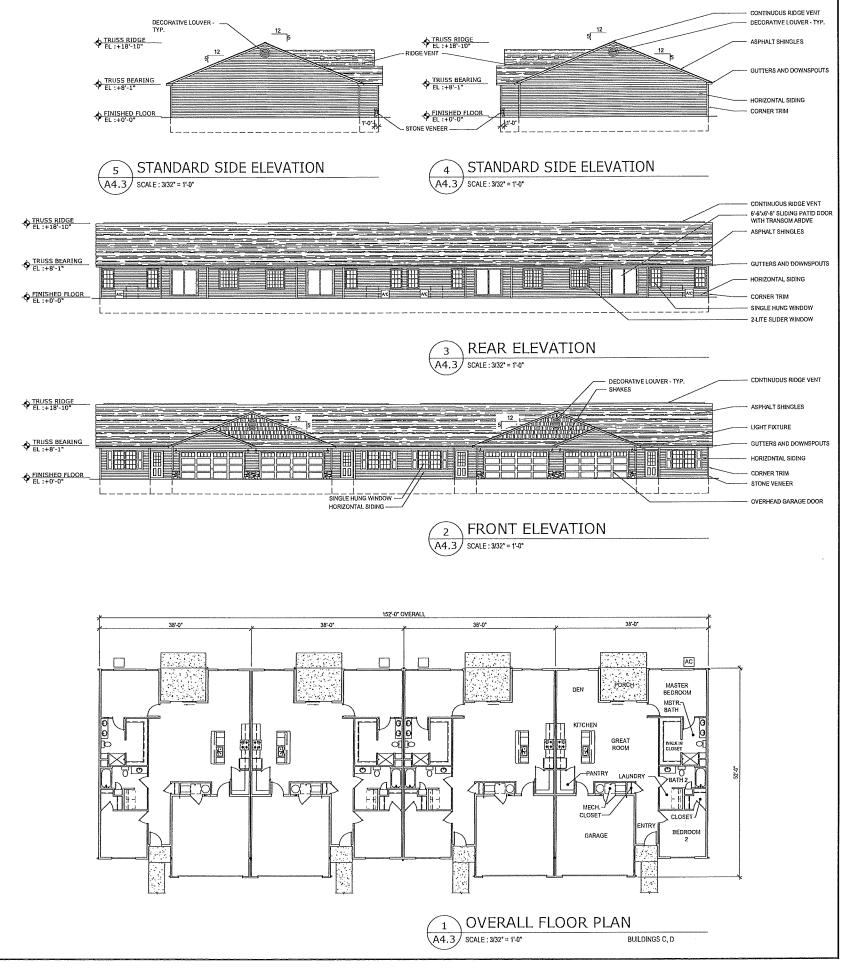


6 PARTIAL SIDE ELEVATION

A4.3 SCALE: 3/32* = 1'-0*

		PERCENT OF ELEVATION
ITEM:	AREA:	COVERAGE
BUILDING FLOOR AREA:	7,138 SQ.FT.	
FRONT PORCH AREA:	88 SO.FT. 22 SO.FT. PER UNIT	
FRONT ELEVATION		44%
Doors / Windows Vinyl (Siding / Shakes)		53%
STONE		3%
COLUMNS		N/A
REAR ELEVATION		
DOORS / WINDOWS		33%
VINYL (SIDING / SHAKES))	67%
STONE		N/A
COLUMNS		N/A
LEFT ELEVATION		
DOORS / WINDOWS		0% 99.7%
VINYL (SIDING / SHAKES)		99.7% 0.3%
STONE		N/A
COLUMNS		
RIGHT ELEVATION		0%
DODRS / WINDOWS		99.7%
VINYL (SIDING / SHAKES) STONE		0.3%
COLUMNS		N/A

ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIDNAL 30 YEAR LAMINATED	WEATHERED WOOD
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DOOR	VINYL	WHITE



PRELIMINARY

NOTE!!!
THIS DRAWING IS NOT FOR CONSTRUCTION

REVISIONS

BUILDING PLAN AND ELEVATIONS

PROJECT #: 6919

DATE: AUGUST 27, 2019

INCOMESTER HILLS

MANN PARSON

ARCHIT

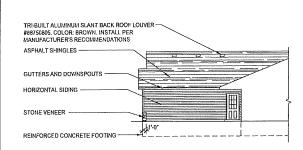
ARCHIT

3660 Embassy Parkway Fairlawn, OH 44333 mpg-architects.com

330.666.5770 330.666.8812

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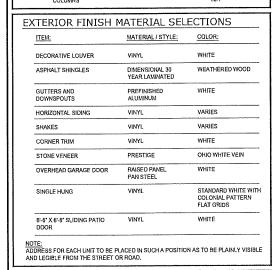
A4.3

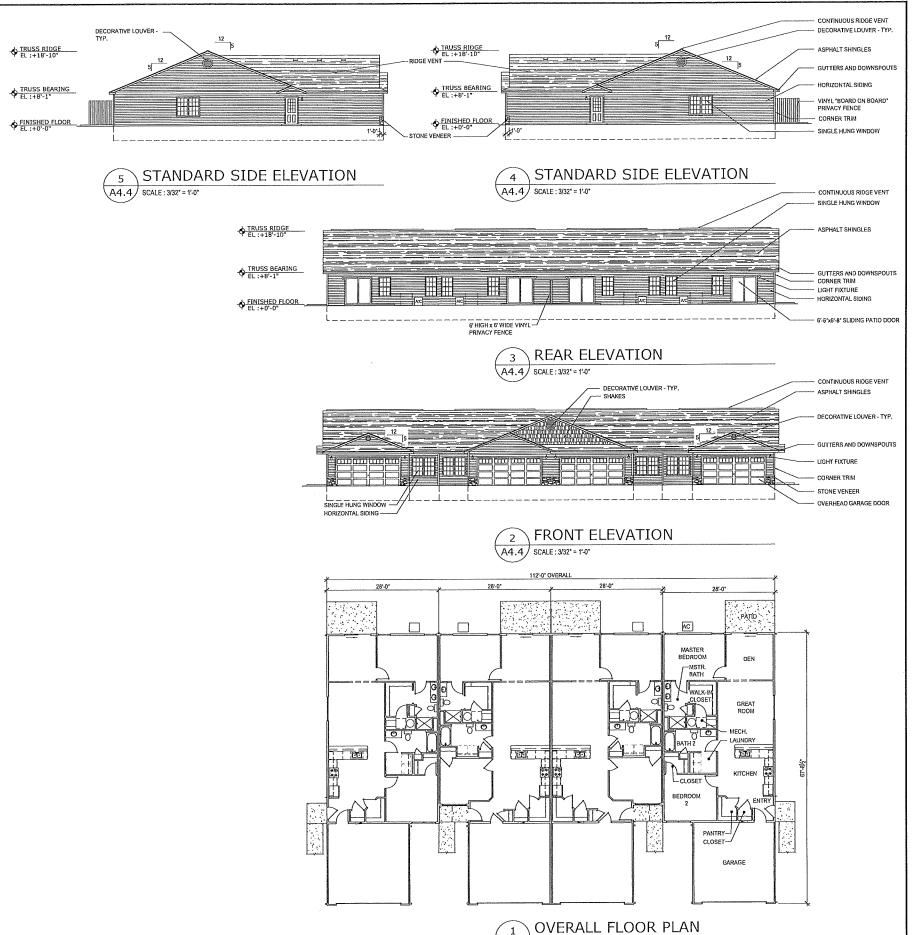


6 PARTIAL SIDE ELEVATION

A4.4 SCALE: 3/32" = 1'-0"

JILDING EXTERIOR	FINISH INFO	ORMATION
ITEM:	AREA:	PERCENT O ELEVATION COVERAGE
BUILDING FLOOR AREA:	6,924 SQ.FT.	
FRONT PORCH AREA:	108 SQ.FT. 27 SQ.FT. PER UNIT	(AVERAGE)
FRONT ELEVATION OOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		46% 47% 7% N/A
REAR ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		33% 67% 0.3% N/A
LEFT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		6% 93% 0.3% N/A
RIGHT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		6% 93% 0.3% N/A





A4.4 SCALE: 3/32" = 1'-0"

BUILDING E

PRELIMINARY

NOTE!!! THIS DRAWING IS NOT FOR CONSTRUCTION

REVISIONS

phone 330.666.5770 fax 330.666.8812 3660 Embassy Parkway Fairlawn, OH 44333 mpg-architects.com

MANN - PARSONS - GRAY ARCHITECTS

S

ELEVATIONS
DATE: AUGUST 27, 2019

AND

PLAN

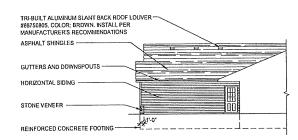
BUILDING

REDWOOD ROCHESTER
E. AVON ROAD
ROCHESTER HILLS, MICHIGAN
48307

edwood F RE A ROC

Redwoo

A4.4



PARTIAL SIDE ELEVATION

A4.5 SCALE: 3/32" = 1'-0"

BUILDING EXTERIOR FINISH INFORMATION AREA: ITEM: 8,930 SQ.FT. BUILDING FLOOR AREA: FRONT PORCH AREA: 215 SQ.FT. 43 SQ.FT. PER UNIT (AVARAGE) FRONT ELEVATION
DOORS / WINDOWS
VINYL (SIDING / SHAKES)
STONE
COLUMNS 51% 40% 9% 0.3% REAR ELEVATION 31% 69% 0.0% N/A DOORS / WINDOWS VINYL (SIDING / SHAKES) COLUMNS LEFT ELEVATION 21% 79% 0.3% N/A DOORS / WINDOWS
VINYL (SIDING / SHAKES)
STONE
COLUMNS RIGHT ELEVATION
DOORS / WINDOWS
VINYL (SIDING / SHAKES)
STONE
COLUMNS 11% 71% 18% 1%

	MATERIAL SEL	
ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOD
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
DVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DOOR	VINYL	WHITE



PRELIMINARY

NOTE!!! THIS DRAWING IS NOT FOR CONSTRUCTION

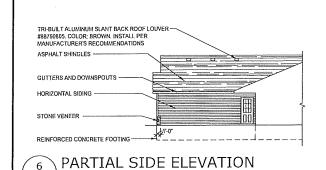
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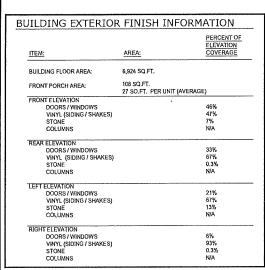
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BUILDING PLAN AND ELEVATIONS
PROJECT #: 6919
DATE: AUGUST 27, 2019
E. AVON ROAD
ROCHESTER HILLS
ROCHESTER HILLS, MICHIGAN
ARCHIT

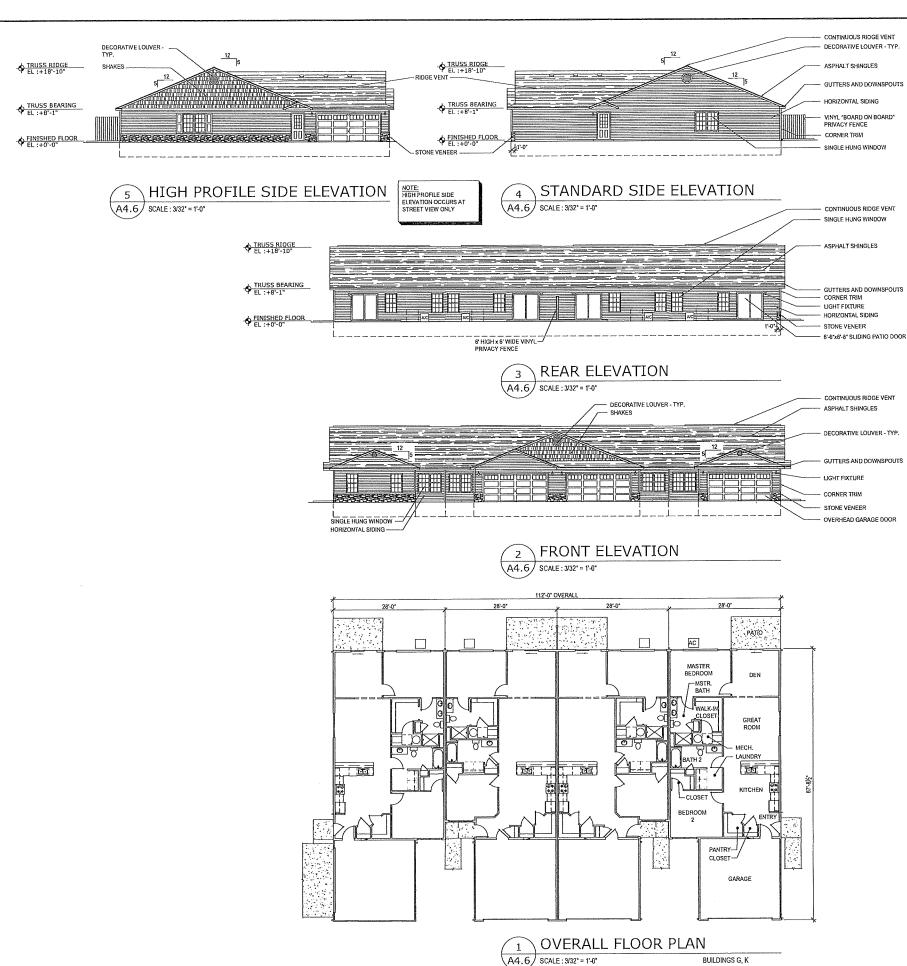
5 OF 20



A4.6 | SCALE : 3/32" = 1'-0"



ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOD
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEI. PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DOOR	AINAT	МНЦЕ



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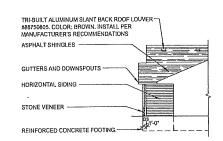
2019 DATE: AUGUST 27, 2 ROCHESTER HILLS ELEVATIONS

AND

BUILDING PLAN

REDWOOD

A4.6 6 OF 20

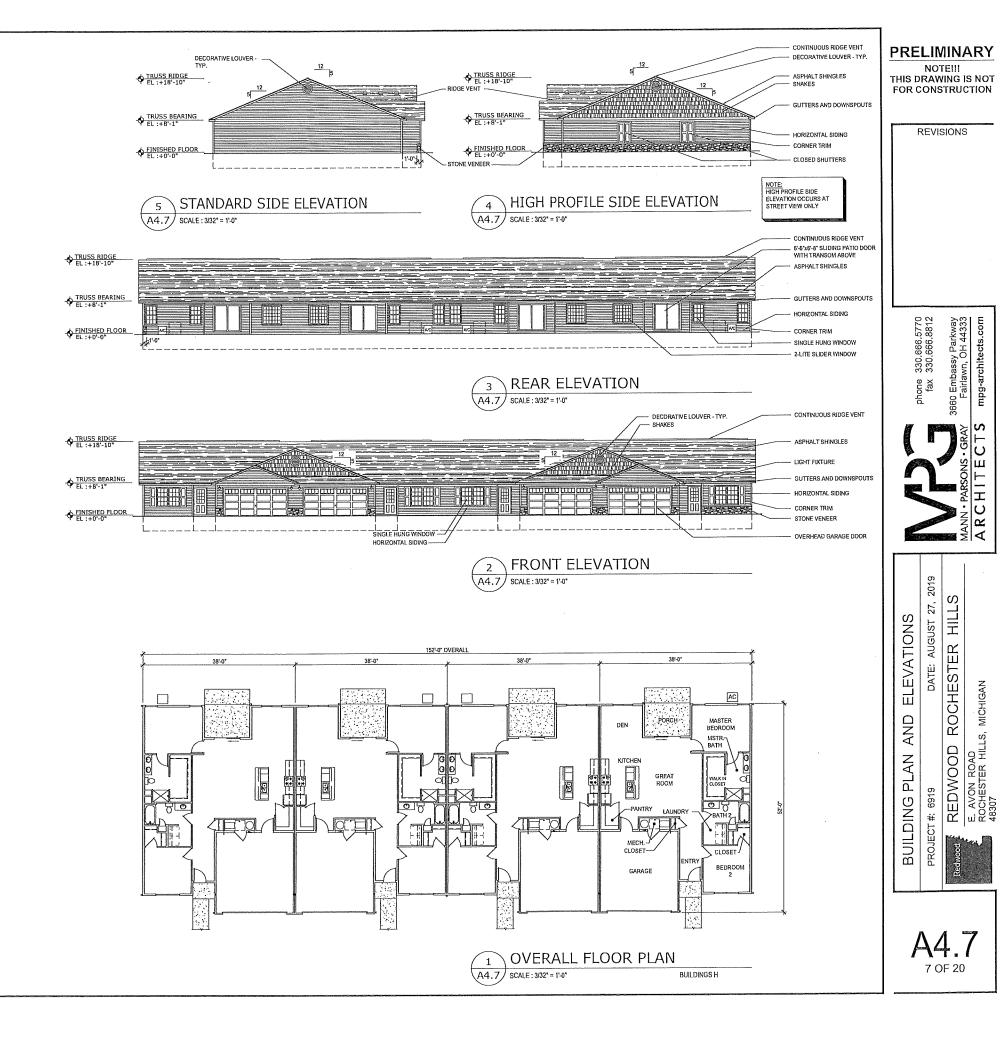


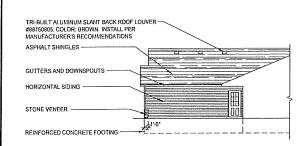
PARTIAL SIDE ELEVATION

A4.7 SCALE: 3/32" = 1"-0"

BUILDING EXTERIOR	FINISH INFOR	MATION
ITEM:	AREA:	PERCENT OF ELEVATION COVERAGE
BUILDING FLOOR AREA:	7,139 SQ.FT.	
FRONT PORCH AREA:	88 SQ.FT. 22 SO.FT. PER UNIT	
FRONT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		44% 51% 5% N/A
REAR ELEVATION DODRS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS	•	33% 67% 0.2% N/A
LEFT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		0% 87% 13% N/A
RIGHT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		0% 99.7% 0.3% N/A

CTERIOR FINISH		
ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 3D YEAR LAMINATED	WEATHERED WDOD
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITE COLONIAL PATTERN FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DOOR	VINYL	WHITE



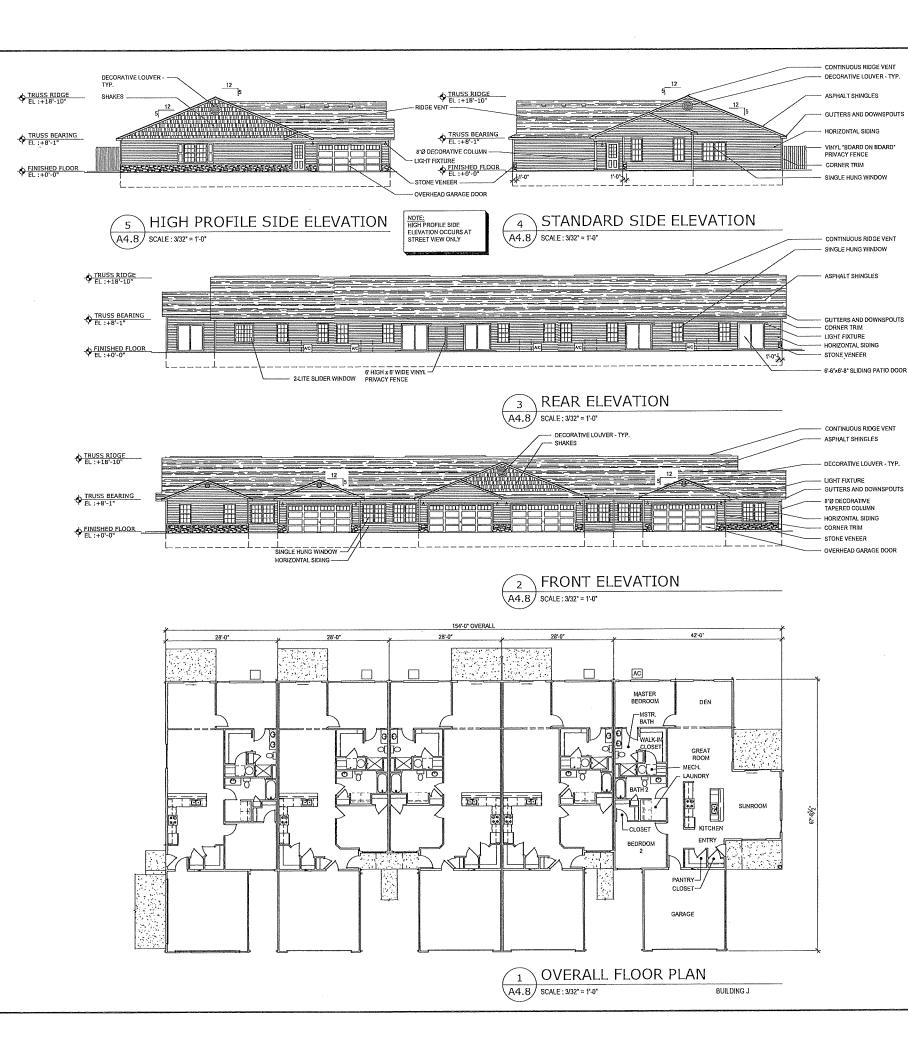


6 PARTIAL SIDE ELEVATION

A4.8 SCALE: 3/32" = 1'-0"

JILDING EXTERIOR	R FINISH INF	ORMATION
ITEM:	AREA:	PERCENT O ELEVATION COVERAGE
BUILDING FLOOR AREA:	8,930 SQ.FT.	
FRONT PORCH AREA:	215 SQ.FT. 43 SQ.FT. PER UNIT (AVARAGE)
FRONT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES)		51% 40%
STONE COLUMNS		9% 0.3%
REAR ELEVATION		
DOORS / WINDOWS		31% 68%
VINYL (SIDING/SHAKES) STONE		0.2%
COLUMNS		N/A
LEFT ELEVATION		
DOORS / WINDOWS		21%
VINYL (SIDING / SHAKES)		67% 13%
STONE COLUMNS		N/A
RIGHT ELEVATION		
DOORS / WINDOWS		11%
VINYL (SIDING / SHAKES)		88%
STONE		1% 1%
COLUMNS		172

ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOD
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS
6'-6' X 6'-8' SLIDING PATIO DOOR	VINYL	WHITE



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2019 DATE: AUGUST 27, 2 ROCHESTER HILLS ELEVATIONS

AND

PLAN

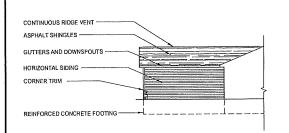
BUILDING

PROJECT #: 6919

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8 OF 20



PARTIAL SIDE ELEVATION

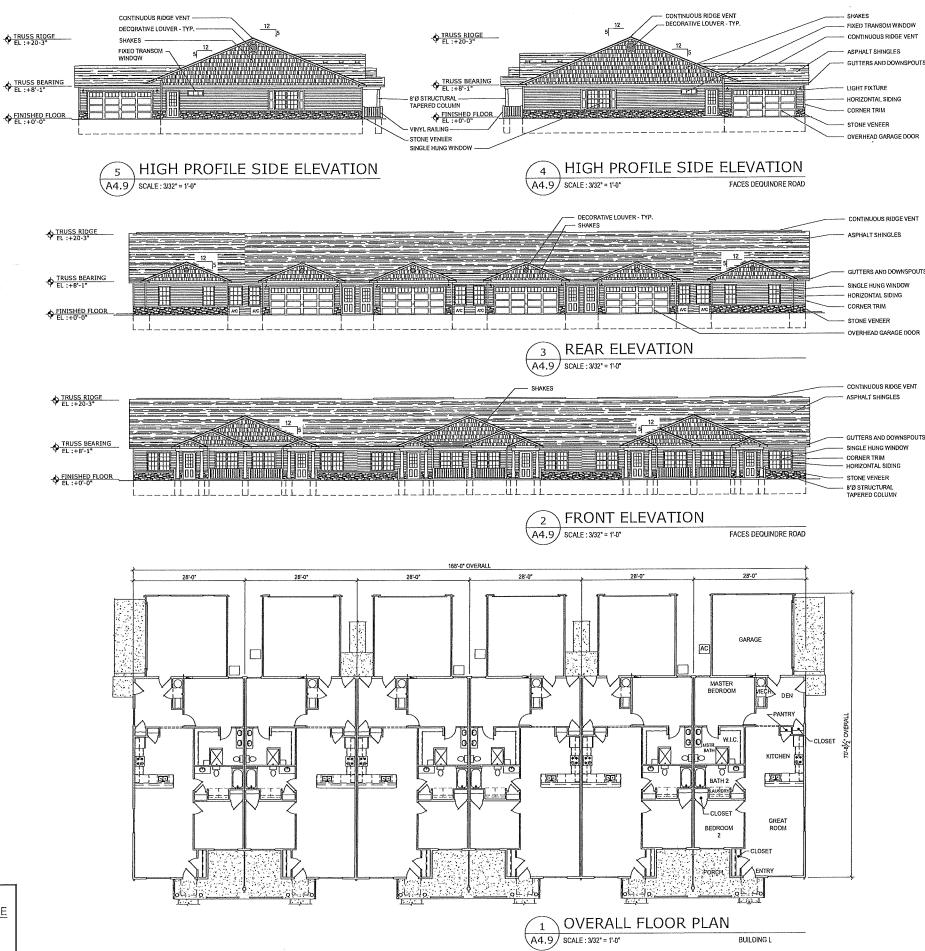
6 PARTIAL SIDE ELEVATION

SCALE: 3/32* = 1'-D*

IILDING EXTERIOR F		PERCENT O
ITEM:	AREA:	COVERAGE
BUILDING FLOOR AREA:	10,464 SQ.FT.	
FRONT PORCH AREA:	924 SQ.FT. 154 SQ.FT. PER	UNIT
FRONT ELEVATION		
DOORS / WINDOWS		29% 51%
VINYL (SIDING / SHAKES)		11%
STONE COLUMNS		3.6%
REAR ELEVATION		
DOORS / WINDOWS		41%
VINYL (SIDING / SHAKES)		51%
STONE COLUMNS		8% N/A
LEFT ELEVATION		
DODRS / WINDOWS		19%
VINYL (SIDING / SHAKES)		68% 13%
STONE		0.4%
COLUMNS		U.4 /s
RIGHT ELEVATION		19%
DOORS / WINDOWS VINYL (SIDING / SHAKES)		68%
STONE		13%
COLUMNS		0.4%

ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WDOO
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VìNYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DOOR	VINYL	WHITE

NOTE: FRONT AND (1) SIDE **ELEVATION FACE** DEQUINDRE ROAD



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ELEVATIONS

BUILDING PLAN AND

PROJECT #: 6919

DATE: AUGUST 27, 2

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REDWOOD ROCHESTER HILLS

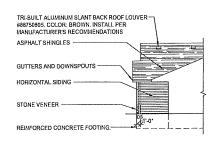
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ROCHESTER HILLS, MICHIGAN

48307

9 OF 20

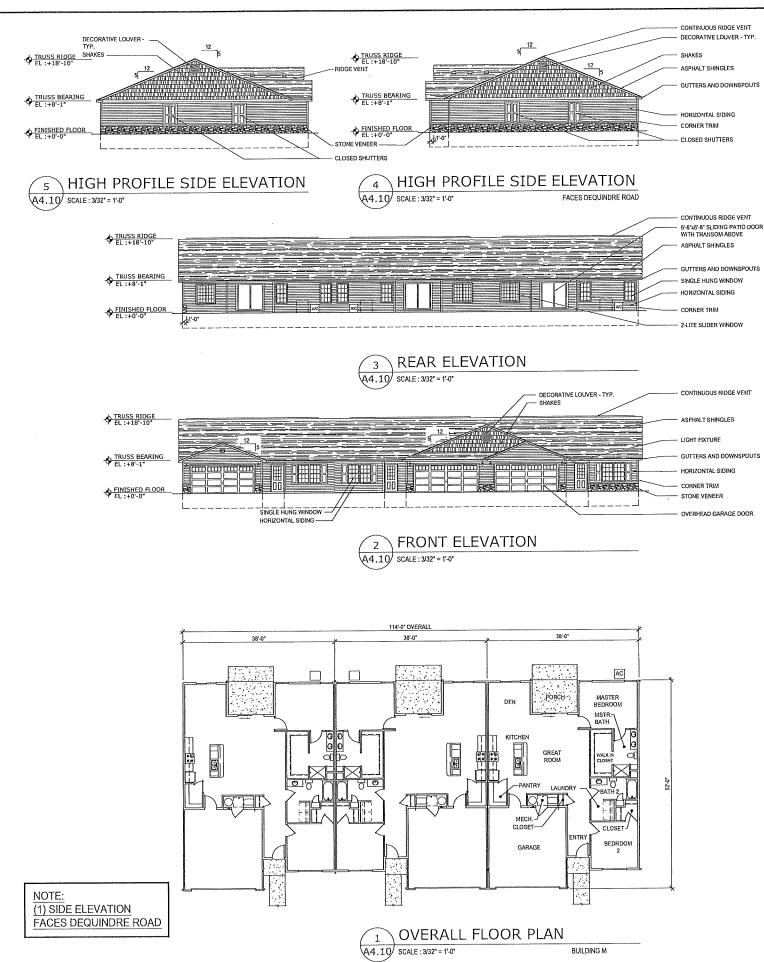
3660 Embassy Parkway Fairlawn, OH 44333



A4.10 SCALE: 3/32° = 1'-0"

BUILDING EXTERIOR	FINISH INFOR	RMATION
iTEM:	AREA:	PERCENT OF ELEVATION COVERAGE
BUILDING FLOOR AREA:	5,353 SQ.FT.	
FRONT PORCH AREA:	66 SQ.FT. 22 SO.FT. PER UNIT	
FRONT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		45% 50% 5% N/A
REAR ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		33% 67% 0.3% N/A
LEFT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		0% 87% 13% N/A
RIGHT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		0% 87% 13% N/A

ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOD
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WIT COLONIAL PATTERN FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DOOR	VINYL	WHITE



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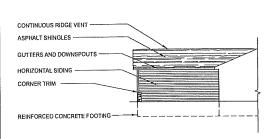
ELEVATIONS

BUILDING PLAN

PATE: AUGUST 27, 2019

E. AVON ROAD
ROCHESTER HILLS
ROCHESTER HILLS, MICHIGAN
48307 AND

A4.10 10 OF 20



DECORATIVE LOUVER - TYP.

A4.11 SCALE: 3/32" = 1'-0"

TRUSS RIDGE

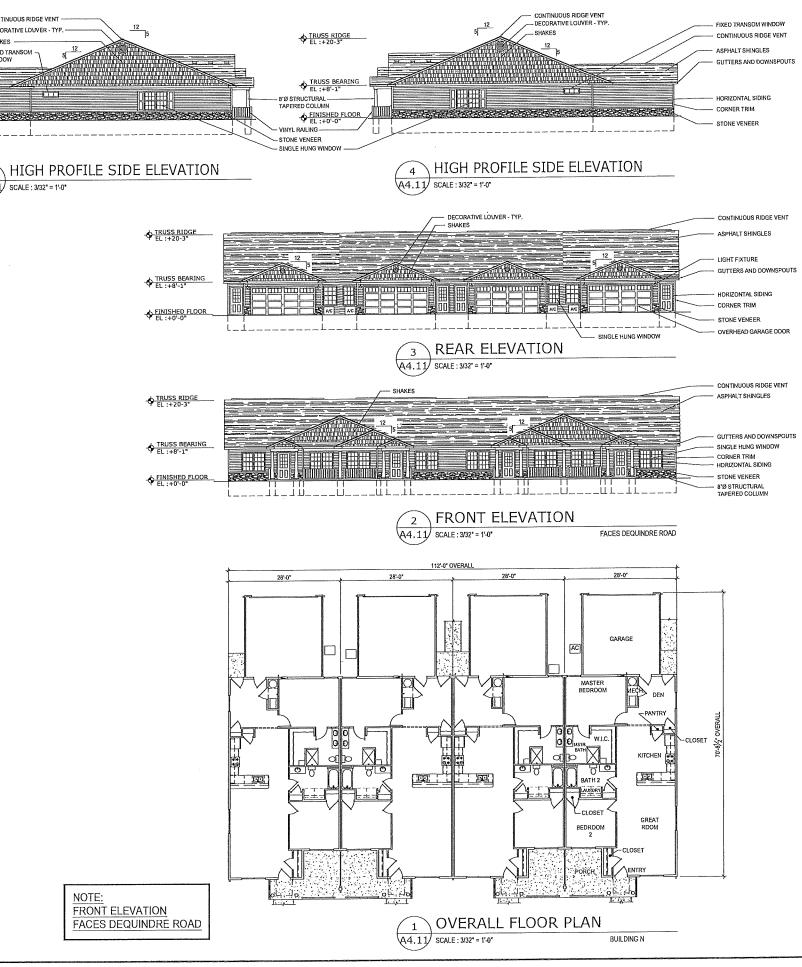
6 PARTIAL SIDE ELEVATION

A4.11 SCALE: 3/32" = 1'-0"

JILDING EXTERIO	R FINISH INFOR	MATION
MEN.	AREA:	PERCENT OF ELEVATION COVERAGE
ITEM:	ANCA	
BUILDING FLOOR AREA:	6,975 SQ.FT.	
FRONT PORCH AREA	616 SQ.FT. 154 SQ.FT. PER UNIT	
FRONT ELEVATION		
DOORS / WINDOWS		28%
VINYL (SIDING / SHAKES)		61% 11%
STONE COLUMNS		3.5%

REAR ELEVATION		53%
DOORS / WINDOWS		44%
VINYL (SIDING / SHAKES) STONE		3%
COLUMNS		N/A
LEFT ELEVATION DOORS / WINDOWS		4%
VINYL (SIDING / SHAKES)		80%
STONE		16%
COLUMNS		0.4%
RIGHT ELEVATION		4%
DODRS / WINDOWS		4% 80%
VINYL (SIDING / SHAKES)		16%
STONE		0.4%
COLUMNS		U.476

ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOD
GUTTERS AND DOWNSPOUTS	PREFINISHEO ALUMINUM	WHITE
HORIZONTAL SIDING	VINYI.	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS
5'-5" X 6'-8" SLIDING PATIO DODR	VINYL	WHITE



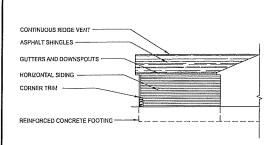
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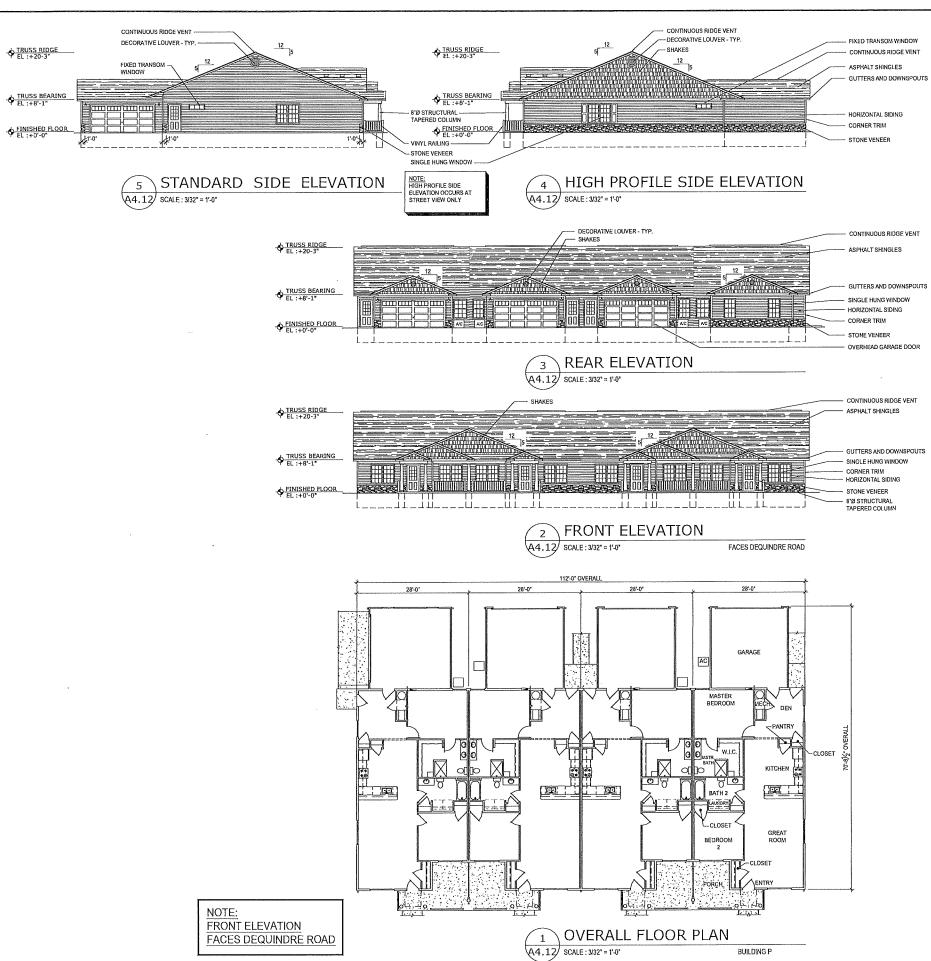
DATE: AUGUST 27, 2019 REDWOOD ROCHESTER HILLS
E. AVON ROAD
ROCHESTER HILLS, MICHIGAN ELEVATIONS BUILDING PLAN AND



A4.12 SCALE: 3/32" = 1'-0"

JILDING EXTERIOR FINISH INFORMATION		
		PERCENT OF ELEVATION
ITEM:	AREA:	COVERAGE
BUILDING FLOOR AREA:	6,975 SQ.FT.	
FRONT PORCH AREA:	616 SQ.FT. 154 SQ.FT. PER UNIT	
FRONT ELEVATION		
DOORS / WINDOWS		28%
VINYL (SIDING / SHAKES) STONE		61% 11%
		3.6%
COLUMNS		3.07s
REAR ELEVATION		
DOORS / WINDOWS		53%
VINYL (SIDING / SHAKES)		44%
STONE		3%
COLUMNS		N/A
LEFT ELEVATION		
DOORS / WINDOWS		17%
VINYL (SIDING / SHAKES)		83%
STONE		0.3%
COLUMNS		0.4%
RIGHT ELEVATION		4%
DOORS / WINDOWS		476 80%
VINYL (SIDING / SHAKES)		16%
STONE		1070

ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIDNAL 30 YEAR LAMINATED	WEATHERED WOO
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHID WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	МИПЕ
SINGLE HUNG	VįNYL	STANDARD WHITE COLONIAL PATTER FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DOOR	VINYL	WHITE



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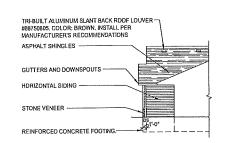
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ELEVATIONS

DATE: AUGUST 27, 2 ROCHESTER HILLS AND

BUILDING PLAN

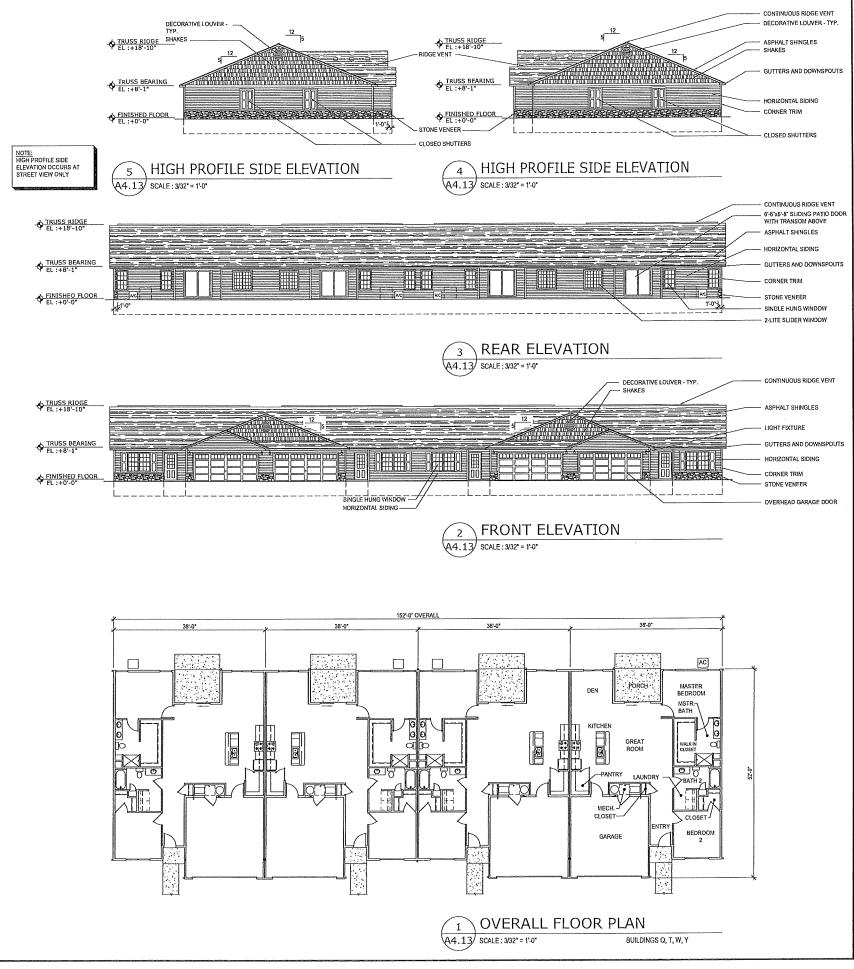
REDWOOD R(E. AVON ROAD ROCHESTER HILLS, M 48307



PARTIAL SIDE ELEVATION A4.13 SCALE: 3/32" = 1'-0"

UILDING EXTERIO	R FINISH INFO	RMATION
ITEM:	AREA:	PERCENT O ELEVATION COVERAGE
BUILDING FLOOR AREA:	7,138 SO.FT.	
FRONT PORCH AREA:	88 SQ.FT. 22 SQ.FT. PER UNIT	
FRONT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS)	44% 49% 7% NJA
REAR ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES STONE COLUMNS)	33% 66% 0.4% N/A
LEFT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS)	0% 87% 13% N/A
RIGHT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS)	0% 87% 13% N/A

XTERIOR FINISH	MATERIAL SEL	ECTIONS
ІТЕМ:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOD
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HDRIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARO WHITE WITH COLONIAL PATTERN FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DDOR	VINYL	WHITE



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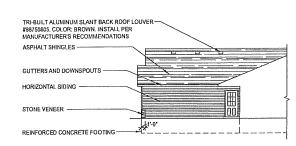
PATE: AUGUST 27, 2019

REDWOOD ROCHESTER HILLS

E. AVON ROAD

ROCHESTER HILLS, MICHIGAN
48307 ELEVATIONS AND BUILDING PLAN

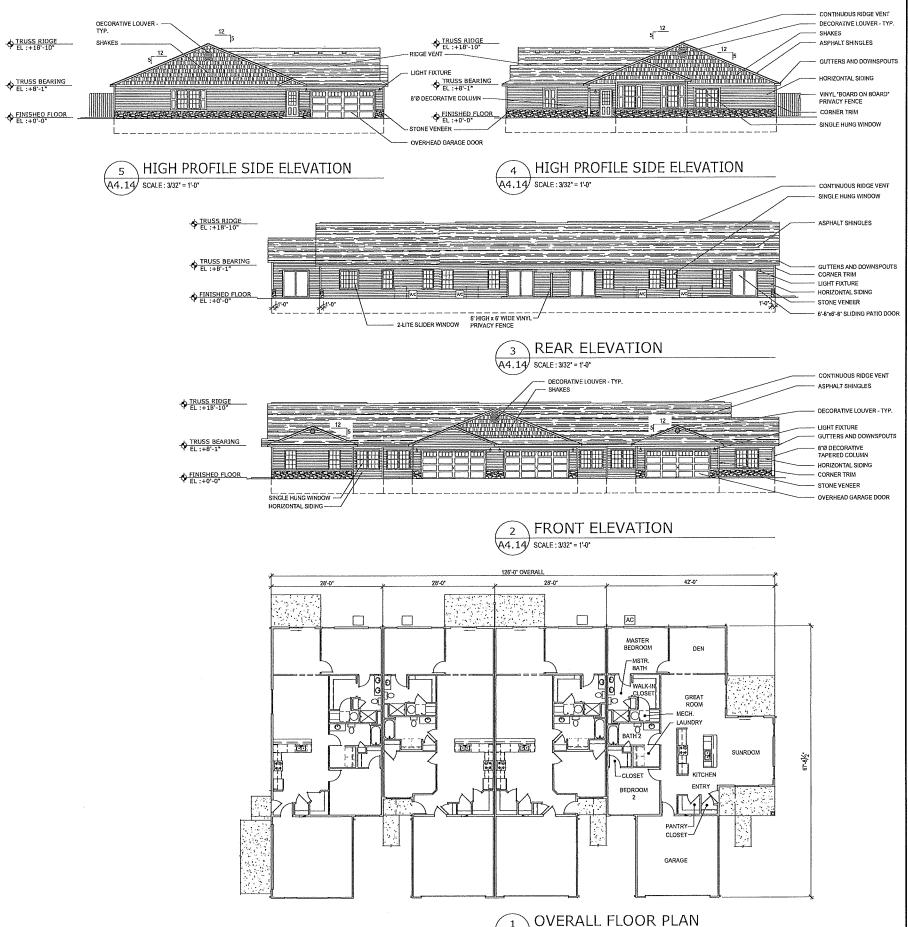
PROJECT #: 6919



A4.14 SCALE: 3/32" = 1'-0"

UILDING EXTERIO	R FINISH INFORM	IATION
		PERCENT OF ELEVATION COVERAGE
ITEM:	AREA:	COVERNOE
BUILDING FLOOR AREA:	7,216 SQ.FT.	
FRONT PORCH AREA:	184 SQ.FT. 45 SQ.FT. PER UNIT (AVERAGE	i)
FRONT ELEVATION	······································	
DOORS / WINDOWS		41%
VINYL (SIDING / SHAKES)		50% 9%
STONE		0.3%
COLUMNS		U.37a
REAR ELEVATION		
DOORS / WINDOWS		31%
VINYL (SIDING/SHAKES)		68%
STONE		0.8%
COLUMNS		N/A
LEFT ELEVATION		
DOORS / WINDOWS		21%
VINYL (SIDING / SHAKES)		67%
STONE		13%
COLUMNS		N/A
RIGHT ELEVATION		
DOORS / WINDOWS		11%
VINYL (SIDING / SHAKES)		71%
STONE		18%
COLUMNS		1%

ITEM:	MATERIAL / STYLE:	COLOR:
11400		
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOO
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	JYMIV	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS
5'-6" X 6'-8" SLIDING PATIO DOOR	VINYL	WHITE



A4.14 SCALE: 3/32" = 1'-0"

BUILDING R

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2019 DATE: AUGUST 27, 20 ROCHESTER HILLS ELEVATIONS

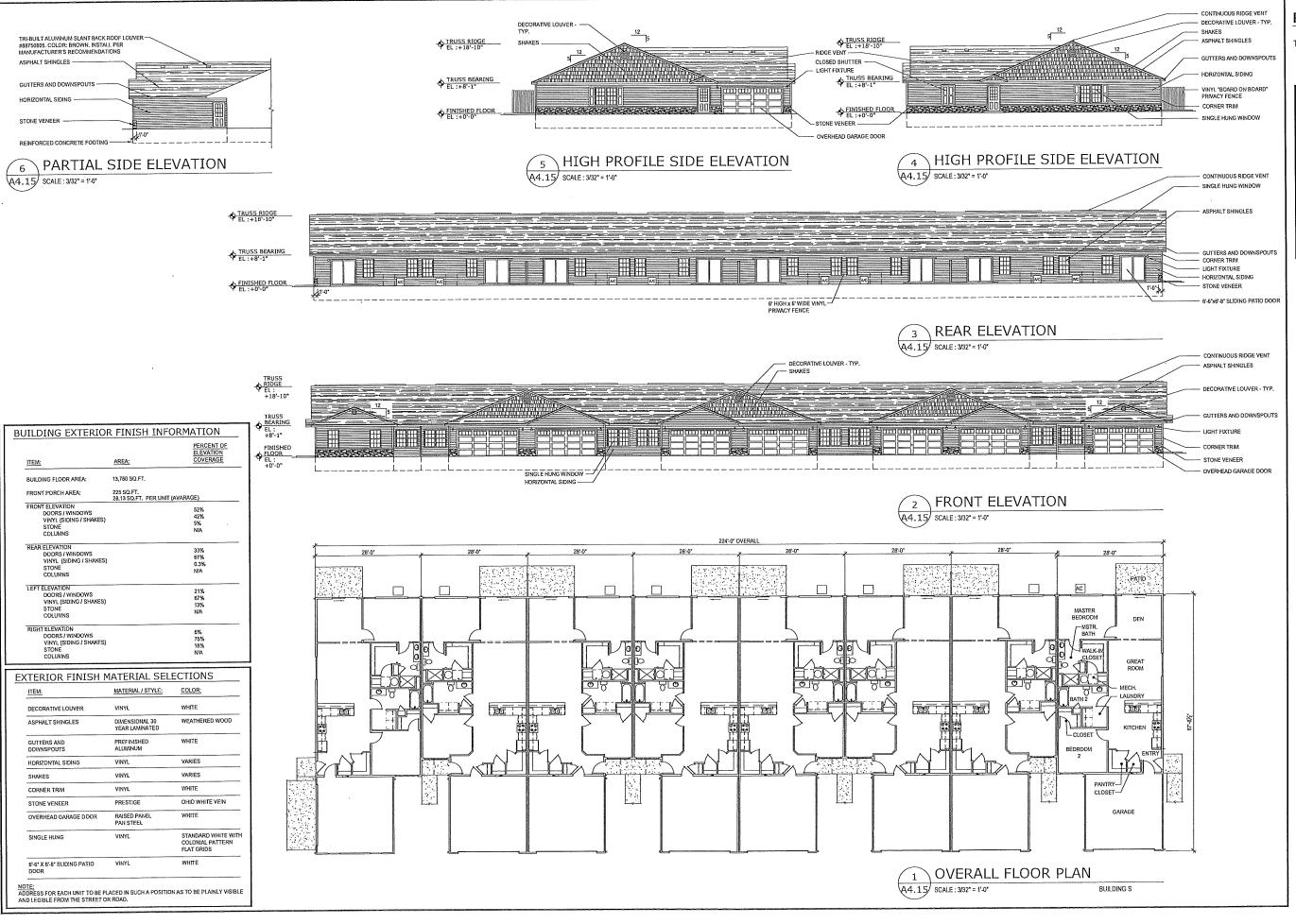
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PLAN

BUILDING

REDWOOD RC
E. AVON ROAD
ROCHESTER HILLS, M
48307

A4.14 14 OF 20



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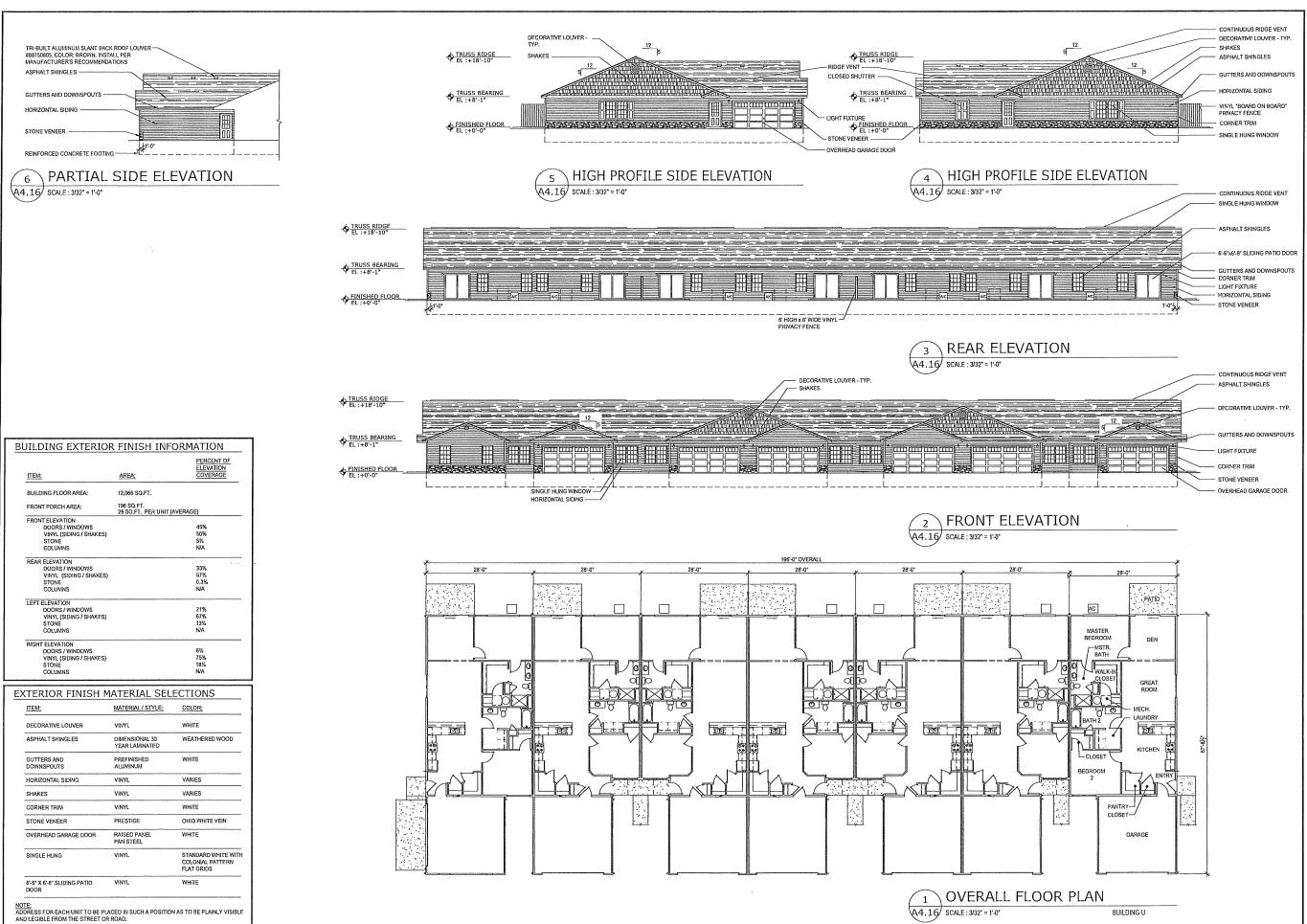
330.666.5770 330.666.8812

DATE: AUGUST 27, 2019 HESTER HILLS ELEVATIONS AND

BUILDING PLAN

ROCHESTER REDWOOD

E. AVON ROAD
ROCHESTER HILLS PROJECT #:



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HILLS ELEVATIONS

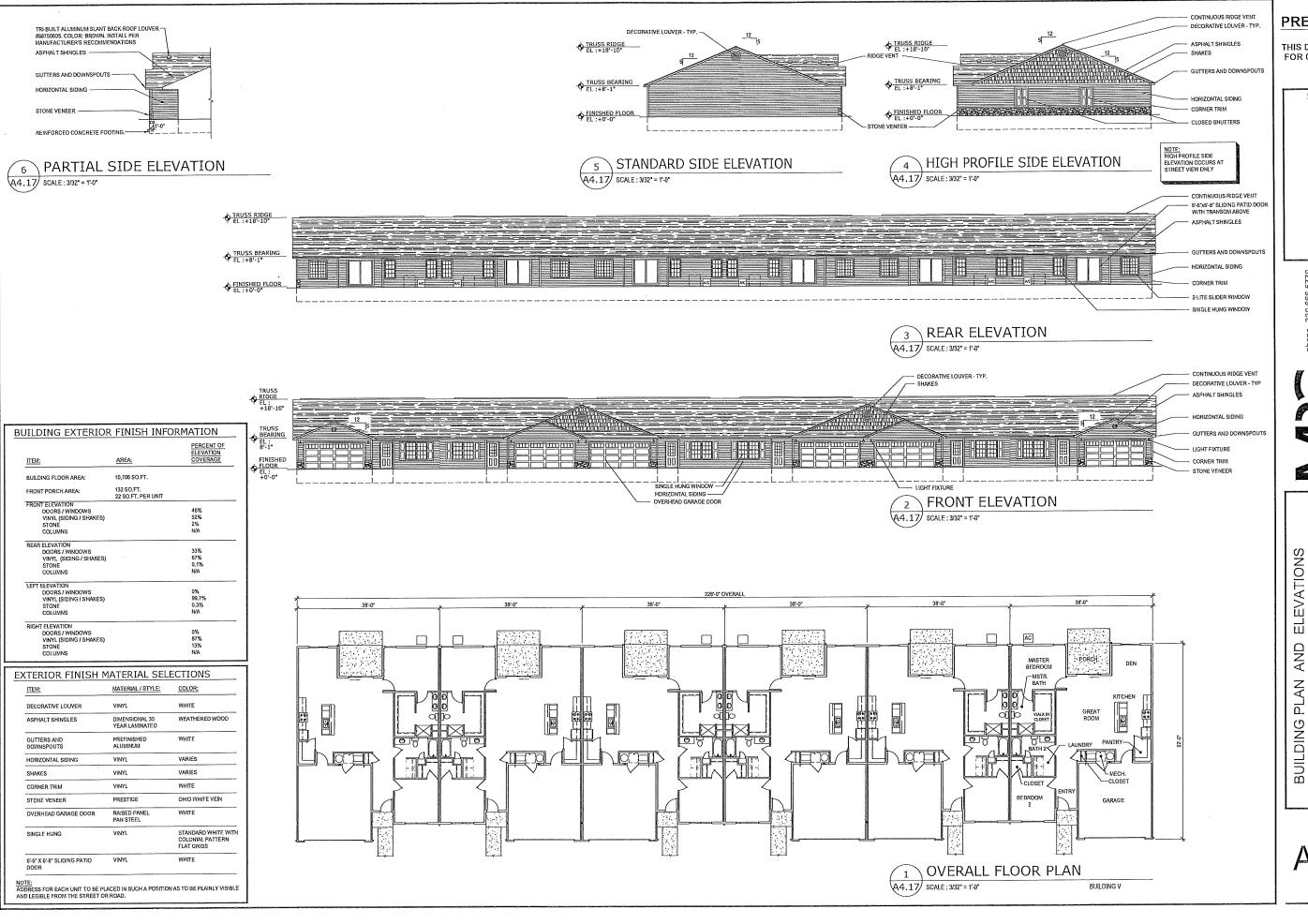
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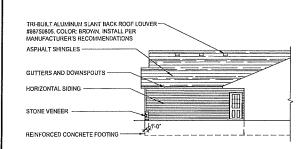
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E. AVON ROAD
ROCHESTER HILLS, MICHIGAN
48307 ELEVATIONS

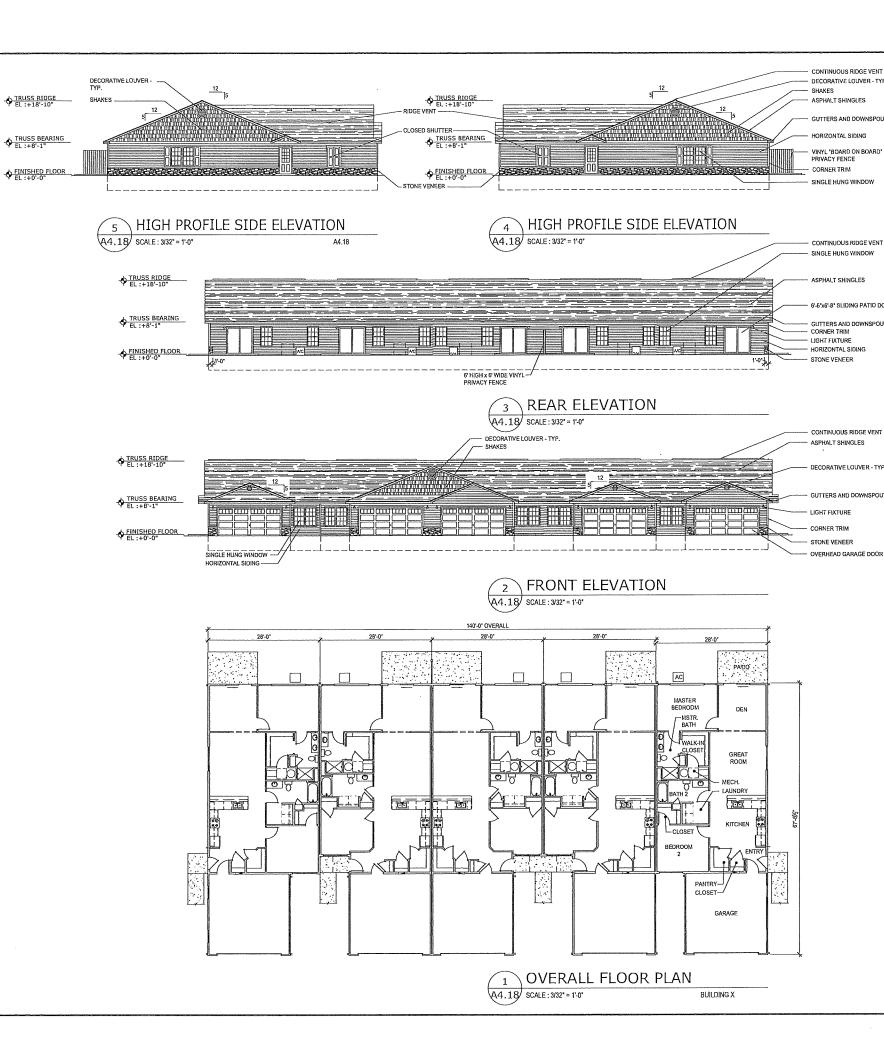
PROJECT #:



A4.18 SCALE: 3/32" = 1'-0"

JILDING EXTERIOR	CLTIATOU TIAL	
ІТЕМ:	AREA:	PERCENT OF ELEVATION COVERAGE
BUILDING FLOOR AREA:	8,637 SO.FT.	
FRONT PORCH AREA:	135 SO.FT. 27 SO.FT. PER UNIT ((AVERAGE)
FRONT ELEVATION		
DOORS / WINDOWS		53%
VINYL (SIDING / SHAKES)		42%
STONE		4%
COLUMNS		N/A
REAR ELEVATION		
DOORS / WINDOWS		33%
VINYL (SIDING / SHAKES)		67%
STONE		0.7%
COLUMNS		N/A
LEFT ELEVATION		
DOORS / WINDOWS		6%
VINYL (SIDING / SHAKES)		75%
STONE		18%
COLUMNS		N/A
RIGHT ELEVATION		
DOORS / WINDOWS		6%
Vinyl (SIDING / SHAKES)		75%
STONE		18%
COLUMNS		N/A

ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL, 30 YEAR LAMINATED	WEATHERED WOOO
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL -	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DOOR	VINYL	WHITE



PRELIMINARY

THIS DRAWING IS NOT FOR CONSTRUCTION

REVISIONS

3660 Embassy Parkway Fairlawn, OH 44333 mpg-architects.com 330.666.5770 330.666.8812 phone fax

MANN - PARSON A R C H I T I

AUGUST 27, 20 ER HILLS ELEVATIONS

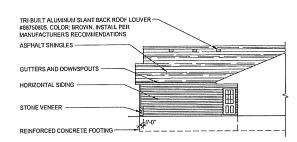
AND

PLAN

BUILDING

ROCHESTER PROJECT #: 6919

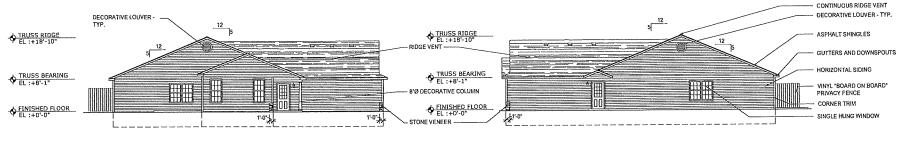
cedwood REDWOOD F

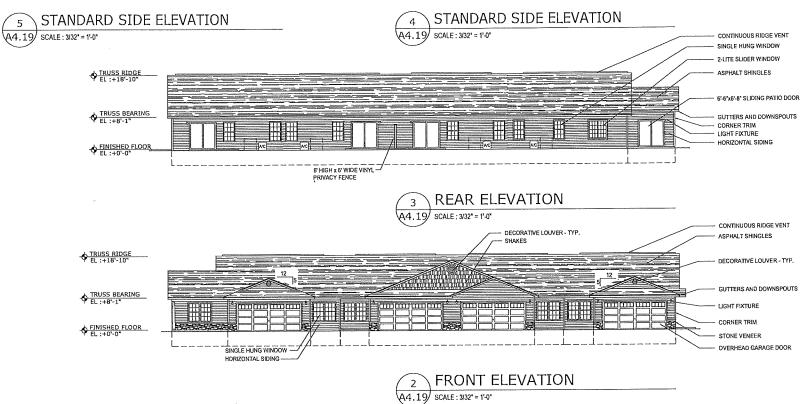


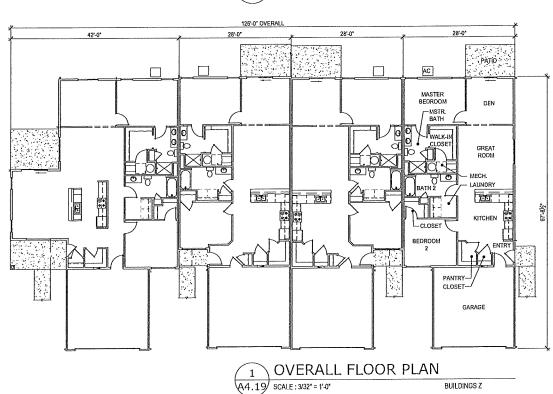
A4.19 SCALE: 3/32" = 1'-0"

BUILDING EXTERIOR FINISH INFORMATION					
ITEM:	AREA:	PERCENT OF ELEVATION COVERAGE			
BUILDING FLOOR AREA:	7,216 SO.FT.				
FRONT PORCH AREA:	184 SO.FT. 46 SO.FT. PER UNIT (AVERAG	Ē)			
FRONT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		48% 46% 6% 0.3%			
REAR ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		31% 68% 0.3% N/A			
LEFT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		11% 88% 1%			
RIGHT ELEVATION DOORS / WINDOWS VINYL (SIDING / SHAKES) STONE COLUMNS		6% 93% 0.3% N/A			

ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOD
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DOOR	VINYL	WHITE







PRELIMINARY

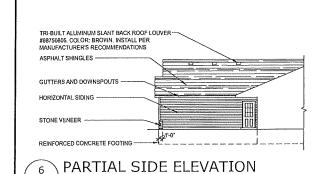
NOTE!!!
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REVISIONS

330.666.5770 330.666.8812

REDWOOD ROCHESTER HILLS
E. AVON ROAD
ROCHESTER HILLS, MICHIGAN
48307 BUILDING PLAN AND ELEVATIONS PROJECT#: 6919

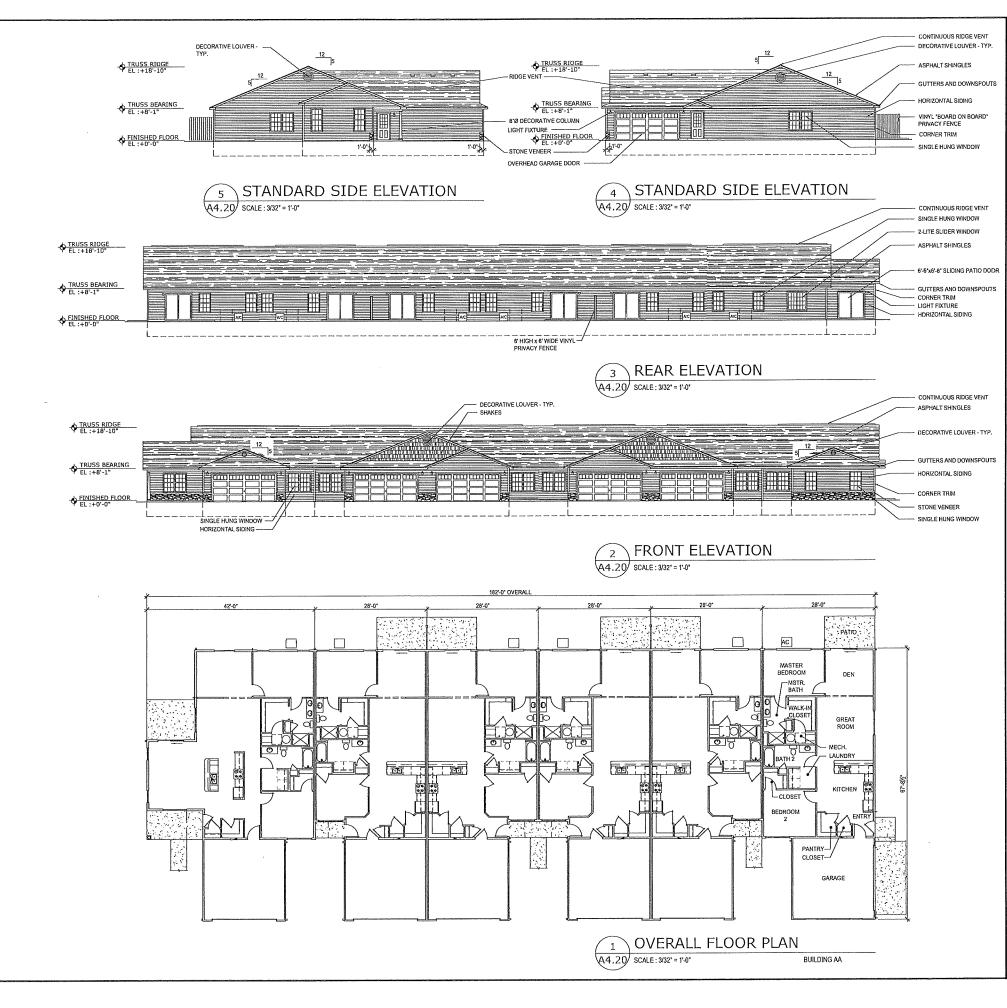
A4.19
19 OF 20



A4.20 SCALE: 3/32" = 1'-0"

ILDING EXTERIO	R FINISH INF	<u>ORMATION</u>
		PERCENT
		ELEVATION
ITEM:	AREA:	COVERAG
BUILDING FLOOR AREA:	10,643 SQ.FT.	
FRONT PORCH AREA:	243 SQ.FT.	
	40.47 SO.FT. PER UNIT	(AVERAGE)
FRONT ELEVATION DOORS / WINDOWS		42%
VINYL (SIDING / SHAKES)		52%
STONE		5%
COLUMNS		0.2%
REAR ELEVATION		
DOORS / WINDOWS		32%
VINYL (SIDING / SHAKES)		68%
STONE		0%
COLUMNS		N/A
LEFT ELEVATION		
DOORS / WINDOWS		11%
VINYL (SIDING / SHAKES)		88%
STONE		1%
COLUMNS		1%
RIGHT ELEVATION	,	248
DOORS / WINDOWS		21% 79%
VINYL (SIDING / SHAKES)		79% 0.3%
STONE		0.37s N/A
COLUMNS		INA

ITEM:	MATERIAL / STYLE:	COLOR:
DECORATIVE LOUVER	VINYL	WHITE
ASPHALT SHINGLES	DIMENSIONAL 30 YEAR LAMINATED	WEATHERED WOOD
GUTTERS AND DOWNSPOUTS	PREFINISHED ALUMINUM	WHITE
HORIZONTAL SIDING	VINYL	VARIES
SHAKES	VINYL	VARIES
CORNER TRIM	VINYL	WHITE
STONE VENEER	PRESTIGE	OHIO WHITE VEIN
OVERHEAD GARAGE DOOR	RAISED PANEL PAN STEEL	WHITE
SINGLE HUNG	VINYL	STANDARD WHITE WITH COLONIAL PATTERN FLAT GRIDS
6'-6" X 6'-8" SLIDING PATIO DOOR	VINYL	WHITE



PRELIMINARY

NOTE!!! THIS DRAWING IS NOT FOR CONSTRUCTION

REVISIONS

phone 330.666.5770 fax 330.666.8812 3660 Embassy Parkway Fairlawn, OH 44333 mpg-architects.com

MANN - PARSONS - GRAY
A R C H I T E C T S

ELEVATIONS

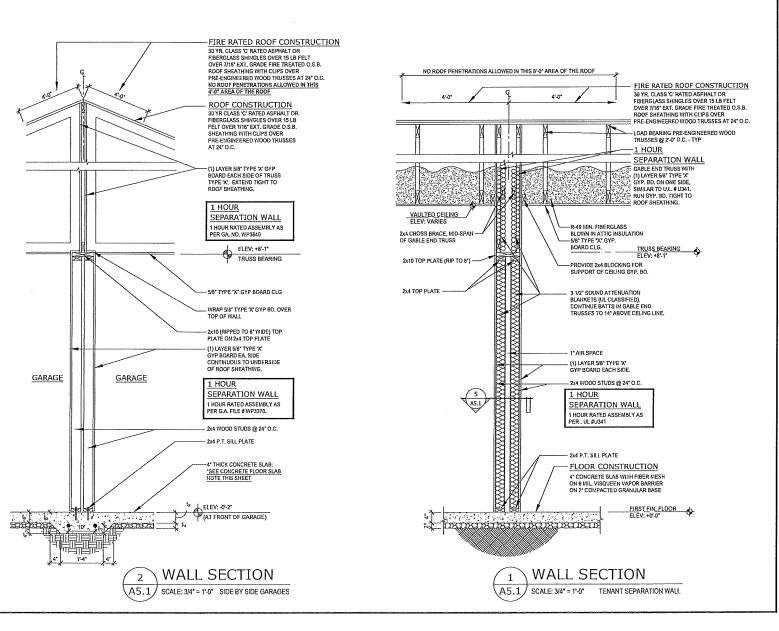
DATE: AUGUST 27, 2015
HESTER HILLS

OOD ROCHESTER

BUILDING PLAN AND
PROJECT #: 6919
INCOL

Redwood

A4.20





NOTE!!! THIS DRAWING IS NOT FOR CONSTRUCTION

REVISIONS

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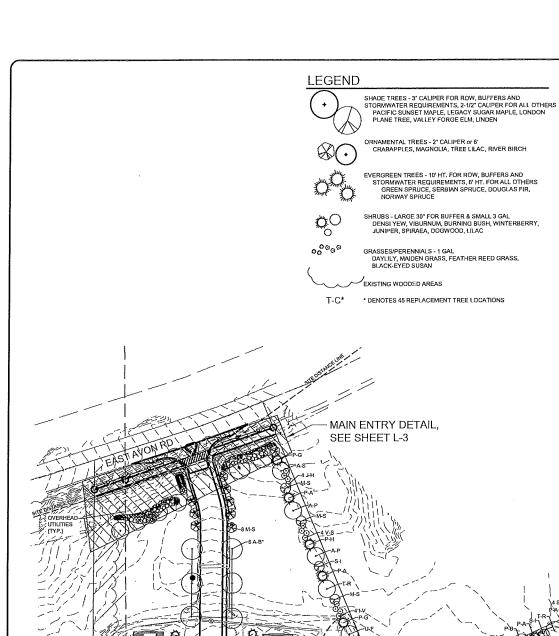
2019

DATE: AUGUST 27, 2
REDWOOD ROCHESTER HILLS
E. AVON ROAD
ROCHESTER HILLS, MICHIGAN
48307 PROJECT #: 6919

A5.1 1 OF 1

SECTIONS

WALL



NOTES:

- A LANDFORM BUFFER, 3' HT., 2' CROWN, 3:1 SLOPES MAX. WILL BE INSTALLED WHERE THERE IS NO CONFLICT WITH STORMWATER BASINS, OR TREES TO REMAIN. GRADES WILL BE COORDINATED WITH
- 2. ALL FENCES SHALL HAVE FINISHED APPEARANCES ON BOTH SIDES, ALL LANDSCAPE FENCING SHALL BE WHITE.
- 3. AREAS ADJACENT TO STRUCTURES WILL BE SODDED. REMAINING AREAS WILL BE SEEDED WITH A FIVE-WAY BLEND OF FESCUE
- 4. ALL LANDSCAPED AREAS WILL BE IRRIGATED. A FULL IRRIGATION PLAN WILL BE PROVIDED FOR REVIEW, WATERING WILL ONLY OCCUR BETWEEN THE HOURS OF 12AM AND 5AM SHOULD BE INCLUDED ON THE PLANS, IRRIGATION OVERSPRAY SHALL NOT BROADCAST ONTO THE CITY
- 5. PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS MUST INSPECT ALL LANDSCAPE PLANTINGS.
- THE LANDSCAPING PROVIDED WILL MEET OR EXCEED ORDINANCE REQUIREMENTS,

LANDSCAPE REQUIREMENTS

REQUIRED EVERGREEN TREES @ 2/100 LF. . . EVERGREEN TREES SHOWN

RIGHT OF WAY - EAST AVON RD
224 LF LESS 30 LF FOR DRIVE = 194 LF
REQUIRED TREES @ 1/35 LF
REQUIRED ORNAMENTAL TREES @ 1/60 LF 4 TREES ORNAMENTAL TREES SHOWN 4 TREES
NORTH PROPERTY LINE BUFFER B
NORTH PROPERTY LINE BUFFER B 978 LF - PROPERTY LINE LENGTH

RIGHT OF WAY - DEQUINDRE RD
1,090 LF LESS 30 LF FOR DRIVE = 1,020 LF
REQUIRED TREES @ 1/35 LF
REQUIRED ORNAMENTAL TREES @ 1/60 LF 17 TREES ORNAMENTAL TREES SHOWN
STORMWATER BASIN A
490 LF PERIMETER
REQUIRED TREES @ 1.5/100 LF 8 TREES TREES SHOWN
REQUIRED EVERGREEN @ 1/100 LF
REQUIRED SHRUBS @ 4/100 LF 20 SHRUBS SHRUBS SHOWN 20 SHRUBS
STORMWATER BASIN D
275 LF PERIMETER
REQUIRED TREES @ 1.5/100 LF 4 TREES TREES SHOWN

REQUIRED SHRUBS @ 4/100 LF. 11 SHRUBS SHRUBS SHOWN. 11 SHRUBS	
WEST PROPERTY LINE BUFFER C	
1,213 LF LESS 573 EXISTING TREES = 640 LF - PROPERTY LINE LENGTH	
REQUIRED SHADE TREES @ 2/100 LF	
REQUIRED ORNAMENTAL TREES @ 1.5/100 LF 10 TREES ORNAMENTAL TREES SHOWN 10 TREES	
REQUIRED EVERGREEN TREES @ 4/100 LF 25 TREES EVERGREEN TREES SHOWN	
REQUIRED SHRUBS @ 6/100 LF	

REQUIRED EVERGREEN @ 1/100 LF. 3 TREES TREES SHOWN. 3 TREES



	ш		
	PROJECT NO.		
	190346		
	DISCIPLINE		
	LANDSCAPE		
	SHEET NAME L-1		
	SHEET	OF	

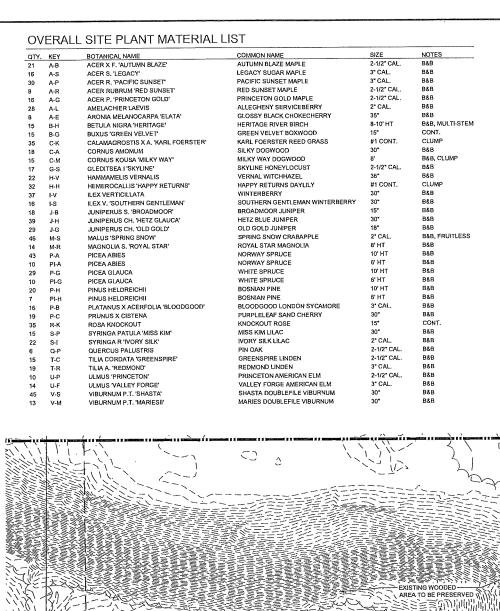
NORTH

PLAN

LANDSCAPE

SITE

MATCHLINE SITE LANDSCAPE PLAN



BUFFER C WEST

LANDSCAPE REQUIREMENTS

SOUTH PROPERTY LINE BUFFER C
1,317 LF LESS 687 EXISTING TREES = 630 LF - PROPERTY LINE LENGTH
REQUIRED SHADE TREES @ 2/100 LF 13 TREES SHADE TREES SHOWN
REQUIRED ORNAMENTAL TREES @ 1.5/100 LF 10 TREES ORNAMENTAL TREES SHOWN
REQUIRED EVERGREEN TREES @ 4/100 LF 26 TREES EVERGREEN TREES SHOWN 25 TREES
REQUIRED SHRUBS @ 6/100 LF

MATCHLINE

STORMWATER BASIN B	
490 LF PERIMETER	
REQUIRED TREES @ 1.5/100 LF	
REQUIRED EVERGREEN @ 1/100 LF	5 TREES 5 TREES
REQUIRED SHRUBS @ 4/100 LF	20 SHRUBS 20 TREES
STORMWATER BASIN E	
220 LF PERIMETER	
REQUIRED TREES @ 1.5/100 LF	3 TREES 3 TREES
REQUIRED EVERGREEN @ 1/100 LF TREES SHOWN	2 TREES 2 TREES

LEGEND

SHADE TREES - 3° CALIPER FOR ROW, BURFERS AND STORMWATER REQUIREMENTS, 2-1/2° CALIRER FOR ALL OTHERS PACIFIC SUNSET MAPLE, LEGACY SUGAR MAPLE, LONDON PLANE TREE, VALLEY FORGE ELM, LINDEN

ORNAMENTAL TREES - 2" CALIPER or 6' CRABAPPLES, MAGNOLIA, TREE LILAC, RIVER BIRCH

EVERGREEN TREES - 10' HT. FOR ROW, BUFFERS AND STORMWATER REQUIREMENTS, 6' HT. FOR ALL OTHERS GREEN SPRUCE, SERBIAN SPRUCE, DOUGLAS FIR, NORWAY SPRUCE

SHRUBS - LARGE 30" FOR BUFFER & SMALL 3 GAL DENSI YEW, VIBURNUM, BURNING BUSH, WINTERBERRY, JUNIPER, SPIRAEA, DOGWOOD, LILAC O GRASSES/PERENNIALS - 1 GAL DAYLILY, MAIDEN GRASS, FEATHER REED GRASS, BLACK-EYEO SUSAN

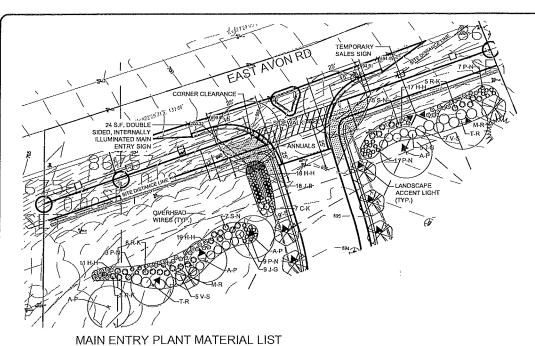
EXISTING WOODED AREAS

* DENOTES 45 REPLACEMENT TREE LOCATIONS



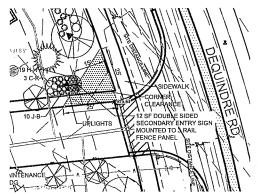
ΓRY ET L-3	R HILLS	LS, OAKLAND COUNTY, MI	SANT VALLEY ROAD OH 44131		PLAN - SOUTH		
	ISSUED FOR:	ISSUE DATE:	SCALE	DESIGNED BY:	DRAWN BY:	снескер вт:	
	ISSUED FOR: PRELIM SET	91/2/90	1" = 40"	RW	RW	99	
	ON	1	2	c			
n Inc.	REVISION	TWP CDMMENTS	REV. SITE PLAN	PC SUBMITTAL			

	MAICHLINE		
		3,45 0,44 1,44	TWP COMMENT REV. SITE PLAN PC SUBMITTAL
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		PARK HOSE	T Y WILL
	A B A B A B A B A B A B A B A B A B A B	NANCE BURGET BURGT BU	
		ARRIVATOR SHIPLE ALL STREET	HILL OAKLA NY VALL 144131
Mos 2P-G		3/s TR	TER R HILLS, PLEASS, PE PI
AS-PH-SHEET SHEET		315 315 315 315 315 315 315 315 315 315	EST EN CA
		PIG 2PB	ROCH IRD, ROCHE MOOD - 7510 INDEP
FFER C STORY OF THE STORY OF TH	THE PROPERTY OF THE PROPERTY O	SCR SJG	ST AVON REDW
AS P	3AP	SAE SCA AP SAE SCA AP SAE SAE SCA AP SAE SCA	U PROJECT NO.
12 PH 12 PH 12 PH 15 PH 12 PH 15 PH	Miles Control Existing Wooded Control	BUFFER C - SOUTH STORMMATER DETENTION BASIN B	190346 DISCIPLINE LANDSCAPE
AS APA BUFFER C - SOUTH		0 25 50 11 11 11 11 11 11 11 11 11 11 11 11 11	*= 50' NORTH SHEET OF 2 6



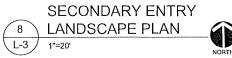
COMMON NAME NOTES RED SUNSET MAPLE B&B CALAMAGROSTIS X A. 'KARL FOERSTER' KARL FOERSTER REED GRASS HEMEROCALLIS 'HAPPY RETURNS' HAPPY RETURNS DAYLILY #1 CONT. CLUMP J-B JUNIPERUS S. 'BROADMOOR' OLD GOLD JUNIPER J-G M-R JUNIPERUS CH. 'OLD GOLD' 6' HT 2" CAL. B&B B&B, FRUITLESS ROYAL STAR MAGNOLIA SPRING SNOW CRABAPPLE MALUS 'SPRING SNOW' DWARE FOLINTAIN GRASS #1 CONT 15* CLUMP CONT. KNOCKOUT ROSE R-K ROSA KNOCKOUT SPIRAEA 'NEON FLASH' NEON ELASH SPIRAFA CONT REDMOND LINDEN 3" CAL. 88B 88B TILIA A. 'REDMOND' VIBURNUM P.T. 'SHASTA' SHASTA DOUBLEFILE VIBURNUM



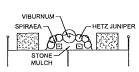


SECONDARY ENTRY PLANT MATERIAL LIST

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
3	C-K	CALAMAGROSTIS X A. 'KARL FOERSTER'	KARL FOERSTER REEO GRASS	#1 CONT.	CLUMP
19	H-H	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLLLY	#1 CONT.	CLUMP
10	J-B	JUNIPERUS S. 'BROADMOOR'	BROADMOOR JUNIPER	15"	B&B



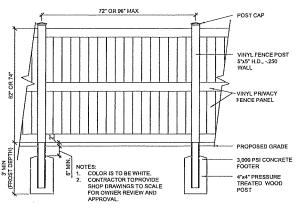




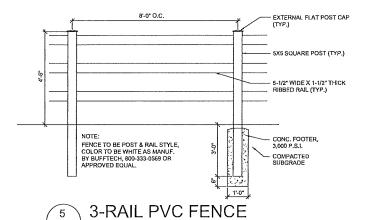
TYPICAL TRANSFORMER SCREENING

TYPICAL AC UNIT SCREENING

UTILITY SCREENING NOT TO SCALE



PVC PRIVACY FENCE



LIGHTING LEGEND (SEE SHEET L-1 & L-2 FOR LOCATIONS)

TREE UPLIGHT - ONE (1) EACH TREE - KICHLER #15753 BKT
- (60° Flood) - 12.4w - LED - #15701 BKTP SHORT SHROUT

- ONE (1) EACH FACE (2W X 4'H) - KICHLER #15741 BKT - (10° Spot) - 8.5w - LED - #15701 BKTP SHORT SHROUD

LIGHTING NOTES:

1/2"=1'-0"

- 1. LOCATE UPLIGHTS AS SHOWN ON THE PLAN. STAKE FINAL LOCATIONS OF LIGHTS FOR
- 2. LIGHT SYSTEM BY KICHLER OR OWNER-APPROVED EQUAL
- 3. LIGHTING SHALL BE INSTALLED WITH A REMOTE SWITCH CONTROL SYSTEM.
- 4. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND PER CURRENT ELECTRICAL CODE REQUIREMENTS.
- 5. CHOOSE TEMPORARY SIGN UPLIGHTING, ACCORDING TO SIGN TYPE USED. (EITHER $2\,\text{W}$ X $4\,\text{h},$ OR $4\,\text{W}$ X $8\,\text{h})$





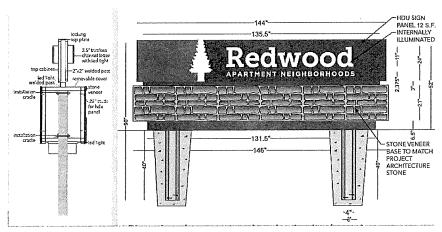
4 LANDSCAPE LIGHTING
L-3 NOT TO SCALE



SIGN SHALL BE A DOUBLE SIDED BLADE SIGN PANEL MOUNTED TO 3 RAIL VINYL FENCING POSTS, LOCATED PERPENDICULAR TO THE RIGHT OF WAY.

SECONDARY ENTRY SIGN

NOT TO SCALE



NOTES

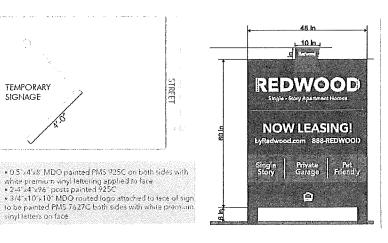
1. SIGN SHALL BE DOUBLE SIDED, INTERNALLY ILLUMINATED AND LOCATED PERPENDICULAR TO THE RIGHT OF WAY.

2. ALL SIGNS MUST MEET THE REQUIREMENTS OF THE CITY AND BE APPROVED UNDER SEPARATE PERMITS ISSUED BY THE BUILDING DEPARTMENT.

L-3

MAIN ENTRY SIGN

NOT TO SCALE



SIGN ELEVATION VIEW

SIGN PLAN VIEW



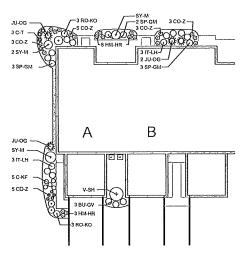
ENTRY 190346 LANDSCAPE L-3

OCHESTER HILLS,

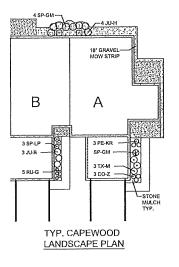
SIGN

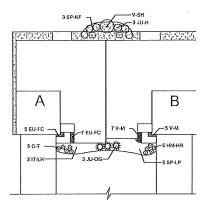
AND

LANDSCAPE

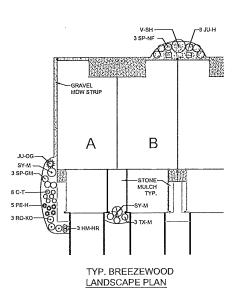


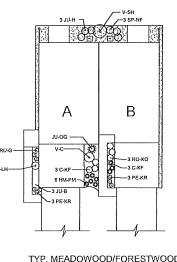
TYP. HAYDENWOOD LANDSCAPE PLAN





TYP. WILLOWOOD LANDSCAPE PLAN





TYP. MEADOWOOD/FORESTWOOD LANDSCAPE PLAN



MEADOWOOD / FORESTWOOD UNIT A PLANT MATERIAL LIST

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
3	C-KF	CALAMAGROSTIS X A. 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#1 CONT.	CLUMP, 18" O.C.
6	нм-Рм	HEMEROCALLIS 'PARDON ME'	PARDON ME DAYLILY	#1 CONT.	CLUMP, 18" O.C.
1	IT-LH	ITEA V. 'LITTLE HENRY'	LITTLE HENRY SWEETSPIRE	18" HT.	#3 CONT.
3	JU-H	JUNIPERUS SQ. 'HOLGER'	HOLGER JUNIPER	15° HT	B&B
3	JU-B	JUNIPERUS S. 'BROADMOOR'	BROADMOOR JUNIPER	15" HT	#3 CONT.
1	JU-OG	JUNIPERUS CH. 'OLD GOLD'	OLD GOLD JUNIPER	15" HT	#3 CONT.
3	PE-KR	PENNISETUM O, 'KARLEY ROSE'	KARLEY ROSE FOUNTAIN GRASS	#1 CONT.	2' O.C.
3	RU-G	RUDBECKIA HIRTA	BLACK-EYED SUSAN	#1 CONT.	18" O.C.
1	V-C	VIBURNUM O. 'COMPACTUM'	COMPACT EUROPEAN CRANBERRY	18*	#5 CONT.

MEADOWOOD / FORESTWOOD UNIT B PLANT MATERIAL LIST

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
3	C-KF	CALAMAGROSTIS X A. 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#1 CONT.	CLUMP, 18° O.C.
3	PE-KR	PENNISETUM O. 'KARLEY ROSE'	KARLEY ROSE FOUNTAIN GRASS	#1 CONT.	2' O.C.
3	RO-KO	ROSA 'KNOCK-OUT'	KNOCK OUT ROSE	18" HT.	#3 CONT.
3	SP-NF	SPIRAEA X 'NEON FLASH'	NEON FLASH SPIREA	18"	#3 CONT.
1	V-SH	VIBURNUM P.T. 'SHASTA'	SHASTA DOUBLEFILE VIBURNUM	24*	#3 CONT.

WILLOWOOD UNIT A PLANT MATERIAL LIST

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
5	C-T	CERASTIUM TOMENTOSUM	SNOW IN SUMMER	#2 CONT.	CLUMP, 18" O.C.
12	EU-FC	EUONYMUS FORTUNEI 'COLORATUS'	PURPLELEAF WINTERCREEPER	#1 CONT.	CLUMP, 18" O.C.
3	IT-LH	ITEA V. 'LITTLE HENRY'	LITTLE HENRY SWEETSPIRE	18" HT.	#3 CONT.
1	JU-OG	JUNIPERUS CH. 'OLD GOLD'	OLD GOLD JUNIPER	15" HT	#3 CONT.
3	SP-NF	SPIRAEA X 'NEON FLASH'	NEON FLASH SPIREA	18" HT.	#3 CONT.
1	V-SH	VIBURNUM P.T. 'SHASTA'	SHASTA DDUBLEFILE VIBURNUM	24"	#3 CONT.

WILLOWOOD UNIT B PLANT MATERIAL LIST

KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
HM-HR	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	#1 CONT.	CLUMP, 18" O.C.
JU-H	JUNIPERUS SQ. 'HDLGER'	HOLGER JUNIPER	15* HT	B&B
JU-OG	JUNIPERUS CH. 'OLD GOLD'	OLD GOLD JUNIPER	15" HT	#3 CONT.
SP-LP	SPIRAEA J'LITTLE PRINCESS'	LITTLE PRINCESS SPIREA	12° HT.	#3 CONT.
V-M	VIBURNUM P.T. 'MARIESII'	MARIES DOUBLEFILE VIBURNUM	30*	B&B
	HM-HR JU-H JU-OG SP-LP	HM-HR HEMEROCALLIS 'HAPPY RETURNS' JU-H JUNIPERUS SO, 'HOLGER' JU-OG JUNIPERUS CH, 'OLD GOLD' SP-LP SPIRAEA J 'LITTLE PRINCESS'	HM-HR HEMEROCALLIS 'HAPPY RETURNS' HAPPY RETURNS DAYLILY JU-H JUNIPERUS SO, 'HDLGER' HOLGER JUNIPER JU-OG JUNIPERUS CH, 'OLD GOLD' OLD GOLD JUNIPER SP-LP SPIRAEA J'LITTLE PRINCESS' LITTLE PRINCESS SPIREA	HM-HR HEMEROCALLIS 'HAPPY RETURNS' HAPPY RETURNS DAYLILY #1 CONT. JU-H JUNIPERUS SO. 'HDLGER' HOLGER JUNIPER 15' HT JU-OG JUNIPERUS CH. 'OLD GOLD' OLD GOLD JUNIPER 15' HT SPLP SPIRAEA J 'LITTLE PRINCESS' LITTLE PRINCESS SPIREA 12' HT.

CAPEWOOD UNIT A PLANT MATERIAL LIST

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
3	CO-Z	COREOPSIS 'ZAGREB'	ZAGREB COREOPSIS	#2 CONT.	CLUMP, 18" O.C.
3	PE-KR	PENNISETUM O. 'KARLEY ROSE'	KARLEY ROSE FOUNTAIN GRASS	#1 CONT.	2' O.C.
1	SP-GM	SPIRAEA X 'GOLD MOUND'	GOLD MOUND SPIREA	18* HT.	#3 CONT.
3	TX-M	TAXUS M. 'DENSIFORMUS'	DENSE YEW	24"	#3 CONT.
4	H-UL	JUNIPERUS SQ. 'HOLGER'	HOLGER JUNIPER	15" HT	B&B

HAYDENWOOD UNIT A PLANT MATERIAL LIST

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
5	C-KF	CALAMAGROSTIS X.A. 'KARL FOERSTER'	KARL FDERSTER FEATHER REED GRASS	#1 CONT.	CLUMP, 18" O.C
3	C-T	CERASTIUM TOMENTOSUM	SNOW IN SUMMER	#2 CONT.	CLUMP, 18" O.C.
13	CO-Z	COREOPSIS 'ZAGREB'	ZAGREB COREOPSIS	#2 CONT.	CLUMP, 18" O.C.
3	HM-HR	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	#1 CONT.	CLUMP, 18* O.C.
3	IT-LH	ITEA V. 'LITTLE HENRY'	LITTLE HENRY SWEETSPIRE	18° HT.	#3 CONT.
2	JU-OG	JUNIPERUS CH. 'OLD GOLD'	OLD GOLD JUNIPER	15" HT	#3 CONT.
5	RO-KO	ROSA 'KNOCK-OUT'	KNOCK OUT ROSE	18" HT.	#3 CONT.
4	SP-GM	SPIRAEA X 'GOLD MOUND'	GOLD MOUND SPIREA	18" HT.	#3 CONT.
3	SY-M	SYRINGA 'MEYERI'	PALABIN LILAC	18" HT.	#5 CONT.

HAYDENWOOD UNIT B PLANT MATERIAL LIST

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
3	BU-GV	BUXUS 'WINTERGREEN'	WINTERGREEN BOXWOOD	18° HT.	#3 CONT.
3	CO-Z	COREOPSIS 'ZAGREB'	ZAGREB COREOPSIS	#2 CONT.	CLUMP, 18" O.C.
3	HM-HR	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	#1 CONT.	CLUMP, 18" O.C
3	IT-LH	ITEA V. 'LITTLE HENRY'	LITTLE HENRY SWEETSPIRE	18" HT.	#3 CONT.
2	JU-OG	JUNIPERUS CH. 'OLD GOLD'	OLD GOLD JUNIPER	15" HT	#3 CONT.
4	SP-GM	SPIRAEA X 'GOLD MOUND'	GOLD MOUND SPIREA	18" HT.	#3 CONT.
1	SY-M	SYRINGA 'MEYERI'	PALABIN LILAC	18* HT.	#5 CONT.
1	V-SH	VIBURNUM P.T. 'SHASTA'	SHASTA DOUBLEFILE VIBURNUM	24*	#3 CONT.

CAPEWOOD UNIT B PLANT MATERIAL LIST

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
3	JU-B	JUNIPERUS S. 'BROADMOOR'	BROADMOOR JUNIPER	15" HT	#3 CONT.
5	RU-G	RUDBECKIA HIRTA	BLACK-EYED SUSAN	#1 CONT.	18" O.C.
4	SP-GM	SPIRAEA X 'GOLD MOUND'	GOLD MOUND SPIREA	18" HT.	#3 CONT.
3	SP-LP	SPIRAEA J'LITTLE PRINCESS'	LITTLE PRINCESS SPIREA	12* HT.	#3 CONT.



your frusted advisor
Consultants architects
planners

ROCHESTER HILLS EAST AVON RD, ROCHESTER HILLS, OAKLAND COUNTY, MI REDWOOD - 7510 EAST PLEASANT VALLEY ROAD INDEPENDENCE, OH 44131 OLINIT LANDSCAPE PLANS BROWN BY: RW DRAWN BY: RW	NO REVISION	08/7/19 1 TWP COMMENTS	AS NOTED 2 REV. SITE PLAN	RW 3 PCSUBMITTAL				
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ROCHESTER HILLS RAST AVON RD, ROCHESTER HILLS, OAKLAND COUNTY, MI REDWOOD - 7510 EAST PLEASANT VALLEY ROAD INDEPENDENCE, OH 44131 ONIT LANDSCAPE PLANS	OR: PRE		Ş	3.8%:	ž.			
PROJECTINO. 190346 DISCIPLINE LANDSCAPE SHEET NAME L-4 SHEET OF	ISSUED F	ISBUE DA	SCALE	DESIGNE	DRAWNB			
190346 DISCIPLINE LANDSCAPE SHEET NAME L-4 SHEET OF	ROCHESTER HILLS			UNIT LANDSCAPE PLANS				
SHEET NAME L-4 SHEET OF		1	90 DISCI	340 PLINE	5	_		
			SHEET			_		

SECTION 02900 - LANDSCAPING

DESCRIPTION:
 Work included: Planting required for this Work is indicated on the Drawings and, in general, includes the planting and other ground cover throughout the Work.

B. QUALITY ASSURANCE:

OULT IT ASSUMENCE.

DUBLEcations of whechmen: Provide at least one person who shall be present at all times during execution of this portion of the Volume and the shall be thoroughly familiar with the type of materials being installed and the best methods for their installation and who shall titled all work performed under this Section.

installation and who shall direct all work personned when the specifications of Federal, State and County laws requiring the sand planting material shall meet or exceed the Specifications of Federal, State and County laws requiring interaction for plant disease and insect control.

Inspection for plant disease and insect control.

O mailty and Sire (1) General: Outsily and size shall conform with the current edition of "Horiscultural Standards" for number one grade nursery stock as adopted by the American Association of Nurseryment, (2) Decidowour Trees: "The Will measure in must of average height in feet above the ground or of an average colleger at a point is finches above the ground, (3) Evergreen Trees: Trees will measure in units of any average height in feet above the ground. (4) Plant stock: Each bath strall be of soliditions take to list successful forces freely grots necessary to Insure accordant of the plant of the plant strategy of Insure accordant.

SUBNITTALS:

1. Malerial List Within 35 days after award of Contract, and before any planting malerials are delivered to the job site, solwhild to the Architect a complete Sat of nurserins where plants are to be obtained and other types proposed to be installed.

a. Include complete data on source, site and quality,

b. Demonstrate complete conformance with the requirements of this Section.

c. This shall in one any be construed as permitting substitutions for specific items described in the Drawings or these Specifications unless the substitution has been approved in advance by the Architect.

Certificates:
 All certificates required by law shall accompany shipments.
 Upon completion of the installation, deliver all certificates to the Architect.
 Approval of plants at source does not after right of rejection at project site.

Dervey:

a. Bailed and Burlapped Stock: Care should be taken at all times as to not damage the bank or branches. Plants shall be the dand handled from the bottom of the ball as much as possible in order to prevent damage to the plant.

b. Plant stock to be defirered in 8 L8 shall be moved with a compect natural ball of earth to ferrily variety that upon defirery the sold in the ball is still firm and compact about the small (seefing roots.)

I temporary Study and Protection or dying winds.

I temporary Study and Protection or dying winds.

I temporary Study and Protection or dying winds.

In this test cannot be planted immediately on delivery shall be kept in the shade, well protected with soil, wood chips, straw or other acceptable material, and shall be kept will watered.

Replacements: In the event of damage, immediately make all repairs and replacements necessary for the approval of the architect and an load additional separes to the Owner.

RELANDSCAPING SITE PREPARATION - BUILDING CONTRACTORISUES
Cat in for any utility locations as required and follow all approved safety practices.
Remove any construction debits from alle before grading. Property mark at lifty boxes, drains, or lirigation features before grading. These are to remain marked through completion of grading process. MARK UP A SITE DETAIL PLAN TO IDENTIFY KEY COMPONENTS.

Site should be graded to minute, 41 of final grade removing as much nocks and debris as possible. Concrete waits and diress can now be formed and power following byte grade adjustment. Following Install of concrete, clean up any concrete debris and construction materials in planting areas. VERIFY UNDERDRAINS ARE IN PLACE AND MARKED.

MARKED.

5. Remove as much of the remaining stabilization seeding plants and weed growth on lawn and planting areas as practical. Loosen existing subsol to a depth of 4".

6. Backfill exterior concreta and fishing goed per plans with a minimum of 4" of screened topsoid that has nock, wood and debris removed (Screened to 5" 17 Topsol will be added at 12" of depth to landscape planting beds. The topsoid will come either from oxities stocyties or and be provide when necessary. Markinal any distances present on a consecution of the stocyties or and be provided when necessary. Markinal any distances were stocyties of the provided in the provided in the stocyties of the stocyties of

TO PROTECT THE INSTANTAM AT INCREDIO THE POWNERHOM.

S. Subconization to be paid additional feet all softs have to be loaded and functed from one area of site to another. Per hour equipment charges are to be negotiated in advance with the Project Manager. PROVIDE A LOS TO ACCOUNT FOR TIME AND SIGN OF F8Y BOTH CONTRACTOR AND INMAGES.

9. Isrigation will be provided on a separate irrigation plan. Site irrigation needs to be instalted and working prior to learn instantial proper establishment.

lawnflandscape establishment.

10. Irrigation overspray shall not broadcast onto the city pathway.

11. Subcontractor will keep streets and walkways clean during and upon completion of work.

Clean up all debris created and dispose of in job site dumpster provided.
 Notify Red rood Landscape that site is being prepared and landscaper has been scheduled (Minimum of 5 business days)

SOIL AND SITE PREPARATION FOR SEEDED, HYDRO-SEEDED AND SODDED LAWINS - LANDSCAPE CONTIRACTOR
5. Soil testing by a regional agricultural extension office is suggested prior to establishment and should be done during the planning process to the stockpelled of transported proposi. Soil testing reveals the soil plan and amount of available nutrients such as phosphorus (P) and potasishm (K).
6. Call in for any utility locations as required and fothow all approved safety practices.

A. MATERIALS:

ANTERIALS:

(Topsad/Planing Mix:

a. Larm Areas: Use on-site stockpled topsod. If the quantity of on-site topsod stockpled is insufficient to complete the work, provide imported topsod.

b. Planting Beels: Use imported topsod.

Contractor to obtain rights and pay all costs for imported topsod material.

(1) Shall be free from admixture of subsod, heavy clay, coarse sand, stone, plants roots, sticks, and other foreign material.

Idental.

It be classified in the "Loam" portion of the U.S.D.A. Soil Textural Triangle. For topsoil to be classified as am", that fraction passing through a \$10 sieve stail meet the following mechanical analysis:

80 to 25% clay (less than 0.002 mm particle size).

80 to 35% soil (2.0 to 0.05 mm particle size).

80 to 55% soil (2.0 to 0.05 mm particle size).

80 to 50% six (0.05 mm to .002 mm particle size).

atter as determined by loss on ignition of samples Contain network less dual to \$5, not more dual aby, logate initiated as determined by loss on ignition or samples over-dried to consist height at \$12 degrees F. Have a pH level of between \$2 and \$8.

All topod shall be screened through a 1-14" screen.

Submit an analysis of proposed topsol. Topsol shall be acceptable to Landscape Architect and Solls Testing.

Suggested Seed or Equivalent
a, Where applicable, seed shall be: Perringion - Smart Seed Pro Allvide Field Mixture
b, Lamn Seed Mixt A mixture of Visiter Star Duslified Cubhars such as PERM RM, Rabel Xturme, Rebel XLR and PENN
ATTI-255 TITTES; plus Soprano PRS and Ridigidine KBG. The seed is breated with Myro Advantage and Prestricted
ring from sustainably mixture establishment. This mix is designed to provide a drutable playing starface for
fight use path satisfys, a wider range of tradiscape selfings, and home lemms. The Smart Seed from Alleler tradition
Rabure will be care a extracted primor of mixture programmers and perform of the structure of the common selfings of the selfings of specific programmers and performs
and the common selfings and performs provided begin branched selfings of the beautiful while the soil

C. Described based seed with Ann Ann and and a great seed and the seed of the

CHANGES.

SEED LABELS SHALL BE PROVIDED TO REDWOOD LANDSCAPING FOR VERIFICATION.

Makimum Seed Label Specifications:

Infrimum Seed Label Specifications:

Weed seed: any weed seed present is listed by percentage of weight. We really don't want any weed seeds in our seed container, but it is difficult and expensive to catch all weed seeds during the cleaning process. Acceptable firmits range from 0.3 to 0.5%.

Haubous weed: Your label should read: NONE FOUND.
Seed is to have been lasted elses than 12 months before planting data.

3. Sold
a. Sold shall be of a variety preapproved by Redwood Landscaping for each climatic region. Sold is to be cut no more
than 24 hrs, prior to install. Keep definered sod shaded and watered until it is laid. Time devirentes of sold so that no
material is on site more than 24 hrs. before it is installed. No sold has be laid on a Friday aftermoon or weekend
without Redwood Landscape's approval so as to coordinate irrigation Multi-trainer.
4. Introduced Landscape's approval so as to coordinate irrigation Multi-trainer.
5. Fertitizer For Lawns: Fertifizer shall be 224-15, uniform in composition, the flowing and suitable for application with
approved explument desirente to the site in base of other convenient consisters, each fully labeled, coordinaring to be
applicable State Fertifizer Law, and bearing the name, fixed name or trademark, and warranty of the producer.

Flants:

3. Trees, shrubs, and herbaceous plants:

1. All trees, shrubs and herbaceous plants, deciduous plants or evergreens shall be sound, healthy, vigorous, frast-class, fleasly due, quasery grown in a chinale shrifar to or more severe than Ohio.

2. All plant material shall be free of innects, their aggs, and diarve.

3. Plants shall be free of mechanical or collural injury by noderns, and free of noticeable after effects of insects.

(borers).

4) Plants shall be lave to scientific names. The names used are those of "Standardized Plant Names".

7. Soal Amendments: "Sal holds granulus soal moisturizer Polymer Product or equal, as manufactured and distributed by JRIA Chemical Inc., Clerefach (no.) (216-47-6488).

B. All buffer Steep Barting michs (given voices).

B. All buffer Steep Barting mich hast be kiple shredded, hardwood bark, dark brown is color.

B. All buffer Steep Barting mich hast be kiple shredded, hardwood bark, dark brown is color.

C. All indicase beds all project entires as well as lesses parted coloridas of landscape beds all have hardwood mutch.

d. All foundation planting adjacent to units shall be instated with washed rock mutch. Show mutch shall be 1' native gravet as supplied by DPN's bopp (214-84-9879) or approved expended with substantial substantial best 1' native gravet as supplied by DPN's bopp (214-84-9879) or approved expended soughted by DPN's project and substantial subs

equal. 13. Anti-Desicoant. Emulsion type, film-forming agent designed to permit transpiration but retard excessive loss of moisture

from plants. Deliver in manufacturer's hitly-identified containers and mix in accordance with manufacturer's instructions. 14. Helbickie: Round Up, or Kleenup or equal. 15. Wapping: Tree-may tape not less than four Inches (41) wide, designed to prevent bore damage and violet freezing. 15. States and Grys: Provide states and deardment of sound new hardwood, levaled softwood, or redwood, free of knot holes and other defects. Provide wise the sample of 2-4 stand, historia, prable galaximation wive not fabric than 12 ga. with zinc-coated turnbuckies. Provide not less than one-half inch (127) dismeter makers and state house, cut to gs. min zinc-coated tumbockes. Priowde not less than one-hall incit [12] d'ameler nubber or plastic hose, cut to required lengths and of uniform color, material and six te protect the tunks from damage by wire. 17. Soil Separator. Shall be non-moren, water-permetable polyester geolectile, manufactured as a landscaping product IR. Weed mit: Provide 4.1 oz., worm polypropylene, needle-punched black, were barrier.

A. SURFACE CONDITIONS:

OUTCHCE CONDITIONS:

1. Inspection: Prior to all work in this Section, carefully haspect the installed work of all other trades and verify that all such work it complete to the point where this installation may properly commence.

2. Oscrepancies.

Notrepances: 1. In the event of any discrepencies, immediately notify the Architect. 5. Do not proceed with the Installation in the areas of discrepancy until all such discrepancies have been fully resolved.

B. LAYOUT: Shrubs and trees shall be installed within 1'-0' and groundcover shall be installed within 6' of plant location shown

on plan.

C. SOIL AND SITE PREPARATION FOR SEEDED, HYDRO-SEEDED AND SODDED LAY/IIS - LANDSCAPE CONTRACTOR

1. Soil testing by a regional agricultural extension office is suggested prior to establishment and should be done during the planning process to the stockpled or transported bapool. Soil testing trevals the soil pit and amount of available notifients such as phospherus (9) and potestum (17).

2. Call in for any utility locations as required and tolows all approved statily process.

3. Call in for any utility locations as required and solows all approved statily process.

4. Coolar in Install with Redemocal Landscape 3.5 buriness days proof to months recent of work seach time a favon is Installed.

5. Schedule a preconstruction meeting with Redemocal Landscape and construction prior to install of first lawns on the construction prior to install of first lawns on the construction prior to install of first lawns on the construction prior to install of first lawns on the construction file.

5. Remaining perennial weeds and grasses on site need to be controlled prior to lawn seeding or sodding. Weed control options include using a systemic nonselective herbickled, deging by hand, or Efficiency accurate to the controlled prior to lawns and the process of the controlled prior to lawns and the controlled prior to the controlled prior to lawns and the controlled prior to the controlled prior to the controlled prior to lawns and the controlled prior to the controlled prior to lawns and the controlled prior to the controlled prior to lawns and the controlled prior to the controlled prior to lawns and the controlled prior to lawns and the controlled prior to the controlled prior to lawns and the controlled prior to l

9. Before seeding or sodding, it's important to thoroughly loosen the soil one last time and to remove any remaining store and debris.
10. Amend poor soils, such as heavy clay or straight sand, by edding organic matter. Sources include compost, composited organics, peat, and quality bepost. If major modifications are needed, it is easier to make thesis prior to establishing the lamin. Required soil amendments should be mixed at the recommend rates into the soil surface poler to lamin establishment, Apply any mannerments such as time as directed by earlier soil storing at this time.
11. Soil preparation should be done when the soil is not bordy or net as titing at these times will destiny soil structure, and the preparation should be done when the soil is not bordy or net as titing at these times will destiny soil structure, and the soil seed of the soil seed of the soil of the soil soil time of seadon/storic dearting. For the soil set time of seadon/storic dearting. For the soil is not seed mix or apply to soils at time of seadon/storic at recommended rates, Install ension control mats as specified in the landscaping specifications as required.
13. Provide initial infiguition of prepared site and schedule a follow up hist with Redwood landscape/maintenance within 15 days of install for an inspection with Kirough.
14. Landscape install contractor provides 90 days of follow up and maintenance recommendations and guarantees all work for that same period.

HYDRO-SEEDING PROTOCOL

HORUS-SELDING PKOTOCUL

Per Seed suppore recommendations and Redwood Landscaping's approval.

Ensisto Control, Steps Stopes and Low Maintenance areas.

Per ensiston mat supplier and seed supplier recommendations as well as Redwood Landscaping's approval.

Ensisto Control Maitting Recommendations: Vestem Excelsior's Excel SR-1 Ensiston Control Blanket (ECB) consists of a 100% confidence weed fire sutzwo maints atched to a radige net (Lop). Eveci SR-1 is available with photodegradable, synthetic netting (Ragidar); rapid photodegradable, synthetic netting (Ragid-Go) or all natural, biodegradable netting (All Mainteil).

neutral).

Variations, alternate products or exceptions are to be cleared through Redoxed Landscaping before any changes are made "Information anotine questions perfaining to Pennington seed or fertifizer products along with Western Excelsion! Wind, Vitater and Sol matting can be resourced through

E. Sod

1. Sod preparation should be done as per the specifications in the Soil and Site Preparation for Seeded, Hydro-seeded and Sodded Lawns - Landscape contractor section when he soil is not too day or net as Blage at these times will destroy soil.

2. Sod work can be performed from time ground is workable to be Fast froat.

3. Add states fertifier at liter recommended rate to be soil and Gilly take it in giro to laying soil.

4. Water the soil Eightly before laying sod. Soil should just be moist and water added incrementably in front of the sod laying.

process.

S. Slarl laying the sod on a straight edge such as a driveway. Lsy one piece of sod at a time laying each piece snug against with other. Work the seams tability together militout overlapping, Lay the sod like bricks in a staggered or stair step Pashion so end seams don't sneup. Out the sod to size as needed.

Use a water-filted roller to help level the sod. Rolling the sod also makes sure there's good contact between the sod and so list of some sold to the sold so it can not in properly.

so is on can not in properly.

"Water newly alid sod bishoughly each day (if there is no rainfall) for the first 14 days as per maintenance protocols. Showly cut back on the watering to encourage deep root growth ... Water will need to be maintained until weather conditions cool and sod is established and hithy rooted.

"Follow up in 6 weeks with an approved maintenance level fertifizer."

TREE, SHRUB, PERENNIAL AND ANNUAL PLANTINGS

1. Tree and shrub planting shall be done according to the International Society of Arboriculture (ISA) guidelines and Indicate programming a new or one according to the International Society of Autoriculture (ISA) guidelines and landscape pin spees.

2. ISA cutternes can be found here: https://www.isa-arbor.com/education/on/neresources/cadplanningspecifications PPlanting.

#Planting

3. Contractor is responsible for verifying plant quantities. If quantities fisted in Plant Material List do not correlate with plantings indicated on plan, the quantities indicated on the plan shall govern.

4. All planting operations shall be performed between the dates of March 1 and November 1. All plantings to be performed between the dates of June 1 and August 31 to be will provided with entitle-desiccant.

5. Perennials and small shrift bandscape plantings should be installed as follows:

a. Dig up the soll to setable. Revious compaction and remove any weeds. Then dig in some organic malter, such as well-rotted manute or compost.

b. Planting DepthMost perennialSidinubs Rounish when their remove are related at the composition.

a. Ung up use so to a ereat is, recover compaction and remove any weets. Then dig is some organic matter, such as well-rotted manual or composit.
b. Planting Depth.Most perioridas/etholar Bourish harbor have been palented at the same daption or slightly higher as some properties. The properties of the properties. The properties of the properties. The properties of the propertie

onnuals: Refer to Redwood Landscape Design Standards Handout for spring, summer and fall seasonal annual and built

reters to recovood Lainoscape cessy i seulandras nanovat no spring, summer and ret seasonal annual and upon varieties and planting layout.

All annual planting beds shall here a minimum of 10° of annual bed mix.

Annual bed mix shall be processed shredded (popol with organic compost and fine silica gravel for annuals, Mulch with 1° of compost mulch or treat soil with a granular pre-emergence herbicide suitable for annual plantings.

Pruning:

A. Prune all new trees and shrubs in accordance with acceptable standard practices. All cuts over one inch in diameter shall be treated with an approved tree paint. In the same manner, prune existing trees which are to remain if indicated on the landscape plain.

I. Production.

I. Production of the production

Maintenance During Installation

fusitionance During Installation.

Specific During Installation:

Specific Disagraph of the accomplishment of planning operations of any plant unit.

Specific Disagraph water, where required, during the evening after sundown or otherwise as disected. Keep all plannings is a healthy ground condition by eviderity, weeding, cultivating, purply, plannings and by performing any other a healthy ground condition by eviderity, weeding, cultivating, purply, plannings and the performing any other and planning that the performance of t

a healthy, graving condition by watering, weeding, cuthinating, promips, spraying, findings and by performing any other consessing operations of maintenance.

The Contractor shall be responsible for continued proper care of the term areas during the period when the grass is becoming established. The period of maintenance for all term area shall extend for suby (80) days with two (2) moreings required or as long as necessary to be statished nor the endire larm areas a uniform stand of grasses as specified, five of weeds and undestrated grasses. After the required maintenance period and upon acceptance of larm area by the Authick, the Owner will assume maintenance responsibility of moving exploration and the standard of the contraction of th

5. Referitions: Areas needing refertilization will be designated by the Architect at least fifteen (15) days prior to the time that the application is required. The fertilizer shall be distributed on the seeded area between August 15 and October 15, during a period when the grass is day. The fertilizer shall be 10-64 grade and shall be applied unformly at the rate of ten (10) pounds are one thousand (1,00) square. The Enthylescal consider, packaging and making of the fertilizer shall be as specified for original seeding.

Reseeding. A reas that require applied in the designated by the Architect at least fifteen (15) days prior to the period Reseeding. A reas that the prior and the seeding of the seeding of the seeding of the seeding of the period seed of the seeding of the se

completion of planting.

12.Maintein trees, shrubs and other plants by pruning, cultivating, watering and weeding as required for healthy growth

vertical position as required. Restore or replace damaged wrappings. Spray as required to beep trees and struits free of baseds and disease.

13. The owner of the property shall be responsible for all maintenance of sile landscaping, as follows:

13. The owner of the property shall be responsible for all maintenance of sile landscaping, as follows:

15. The number of the property shall be the responsible for all maintenance of sile landscaping, as follows:

16. Prinning shall be minimal at the time of installation, only to remove dead or diseased branches. Subsequent pruning shall assure proper maturation of plants to selvice their approved propose.

16. Ald dead, damaged, or diseased plant material shall be removed immediately and replaced within six months after if dises in the next planting season, whichever occurs first. For purposes of this section, the planting season for decideous plants shall be between first. For the property of the stallation of the size of the size of the section of the size of the material it is introduced to replace. The city may notly property owners of the need to replace that decidenance, and the size of the

ILEA/LIP

Lipon completion of the planking, all excess solt, stones and debrits which has not previously been cleaned up shall be removed from the site or disposed of as directed by the Architect.

Any solt, manure, peal, or entitary martical which has been trough to not paved areas by hauring operations or otherwise shall be removed promptly, keeping these areas clean at all times.

Protect landscape work and materials from diamage due to landscape operations, operations by other contractors, trades and bespassers. Maintain protection during locations and maintenance periods. Treat, repair or replace damaged interforcements as directed.

ACCEPTANCE

1. Final Inspection:
a. Inspection: the conclusion of the contract work, (exclusive of malintenance and replacement) one inspection will be made by the Architect. Written notice to the Architect requesting such an inspection shall be submitted by the Contractor at least lend age prior to the anticipated date.

b. The purpose of this inspection will be to determine whether or not the Contractor has completed all the work of the

contract.

The condition of the liernes and shrubs will be noted and a determination will be made by the Architect whether maintenance shall continue in any part as specified under Maintenance During Installation.

Anceptace in pactors and software any para as specially used in earlier than a remain management.
 Anceptace in papercoir.
 At the conclusion of the maintenance during installation period, an inspection will be made by the Architect. Whiten noise requesting the inspection hash be submitted by the Contractor at least 10 days prior to the anticipated date.
 The purpose of the inspection shall be for the acceptance of the contract work including maintenance during

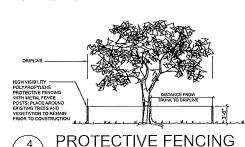
The purpose of this registerior listed are on the acceptance on the contact which causing statements contributed installation, but exclusive projection ends.
 After the integerists of the Architect, the Contribute of the Contribute of the Integerists of the work. If there are any deficiency is the thin acceptance, during installation, the Contribute will be notified of these deficiencies in writing by the Architect, and the work shall be subject to reinspection before acceptance.
 Africa to the release of the performance bond, the off off Rochester (Fall a must lampest at landscape plantings.

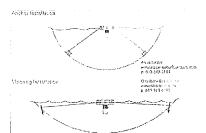
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date.

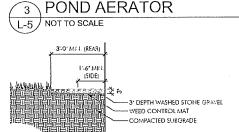
At the conclusion of the guarantee period, a final inspection of the work will be made to determine the condition of the plant material. All plant material not in a healthy or 40% delibated growing condition will be noted.

Remove the materials are noted from the sits at the direction of the Arthritical and replace during the following planting season with the materials of like kind and size, and in a manner specified for the original planting at no extra cost.





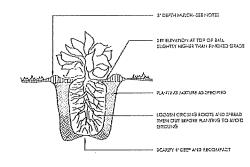
NOT TO SCALE





Perennial Planting

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ALL MULCH TO EE I' HATTYE GRAVRL
OR APPROVED ECUAL
DRY STONE SUPPLY
WWW.DRYSTONE SUPPLY, COM



Shrub Planting

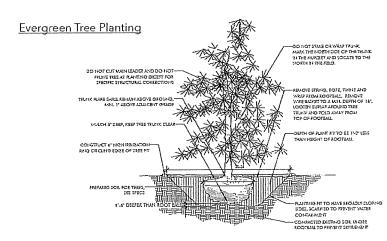
2. MEATURE POOTEAL AND SET IT HIS HER CHI HAT DO HOT DISTURE AREA UNDERHEATH POOTEALL

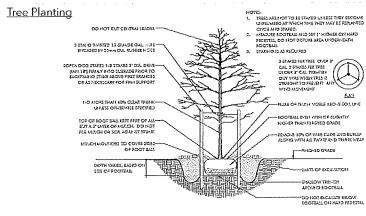
3 20 M LONG TO BE INVESTIGATION OF APPROVED FOUR

THE AMOUNT OF FRUNKIO SHALL SE SAVITED TO 1/2 GF THE

COL NOTIFE AS STREETS

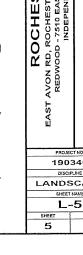
TOU NOTIFE AS STREETS SACONTE CHASON DE SCANDON

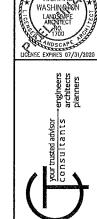




\ PLANTING DETAILS

L-5 NOT TO SCALE





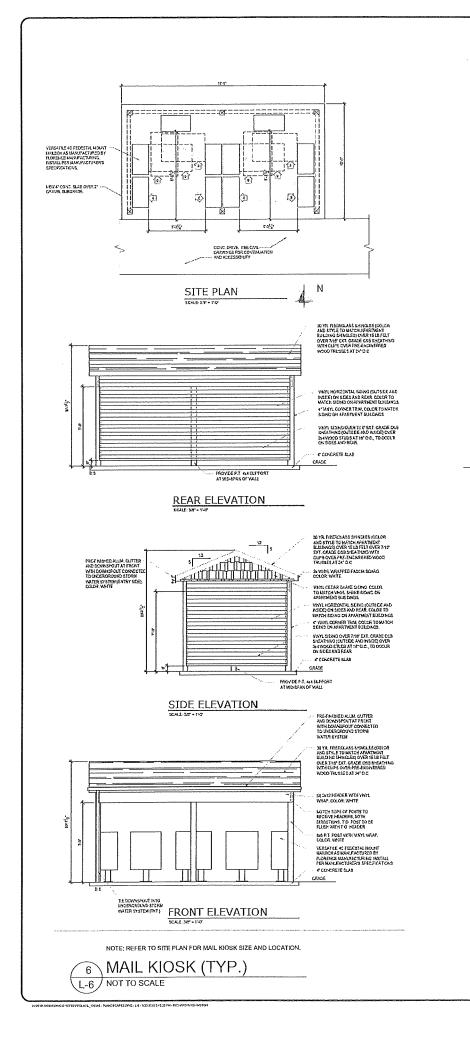


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BARK PARK NOTES:

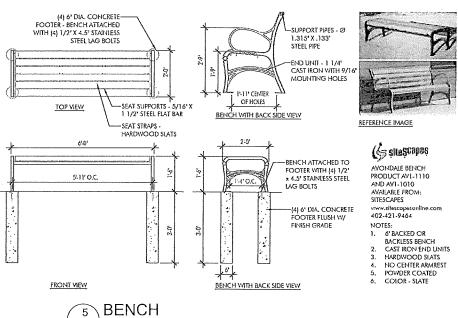
L-6 NOT TO SCALE

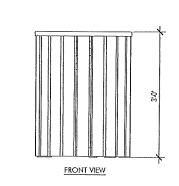
Park Surface

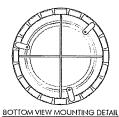
The surface will be either natural lawn or pea gravel (installed to a
depth of 6") throughout the fenced in dog park area. Consult with
Redwood on desired surface.

<u>Fencing</u>

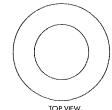
- Installed around the perimeter of the dog park.
- Standard construction (see detail 1, this page).
- Each dog park will have two (2) access points. These gates will be the same height as the surrounding fence. The access point for the dog park will consist of a double gate. The first, or outer gate will provide the user access to a sixteen (16) square foot leashing/unleashing vestibule. This area will serve as a buffer between the dog park and the entrance. A second access point will provide access for maintenance of the dog park, but will not be accessible by users. All gates will be lockable.
- All gates will be the same height as the surrounding fence and will be a minimum of 42" wide.







ISOMETRIC VIEW



TRASH RECEPTACLE

L-6 NOT TO SCALE



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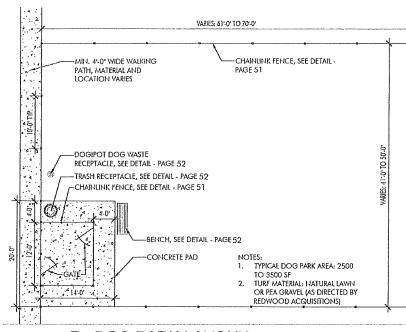
PRODUCT AV2-3000

AVAILABLE FROM:

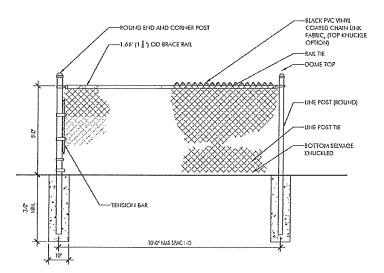
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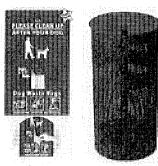
AVONDALE RECEPTACLE







DOG PARK FENCING
L-6 NOT TO SCALE



Notes: Pet Station Dispenser and Pet Station Can to be ordered from <u>zerowasteusa.com</u> and mounted on a 4x4 post with white vinyl sleeve and cap



1 PET STATION AND SIGN DETAILS
L-6 NOT TO SCALE



no Consultants and plan

CHESTER HILLS	SOCHESTER HILLS, OAKLAND COUNTY, MI ISSUEDATE OGEN	SCALE	DESIGNED BY;	URNISHINGS DETAILS	CHECKED 87;	
DN Li	05/7/19 1	2	RW 3	RW	22	
REVISION	1 TWP COMMENTS	AS NOTED 2 REV. SITE PLAN	3 PC SUBMITTAL			

SITE

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LANDSCAPE

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