APPLICANT

MOCERI COMPANIES 3005 UNIVERSITY DRIVE AUBURN HILLS, MI 48326 PHONE: (248) 340-9400

ENGINEER

GIFFELS WEBSTER MS. NANCY STANDISH, PE 1025 E. MAPLE, SUITE 100 BIRMINGHAM, MI 48009 PHONE: (248) 852-3100

SURVEYOR

GIFFELS WEBSTER MR. CHRIS ASIALA, PS 1025 E. MAPLE, SUITE 100 BIRMINGHAM, MI 48009 PHONE: (248) 852-3100

LANDSCAPE ARCHITECT **GIFFELS WEBSTER** MR. MARK HANSEN 1025 E. MAPLE, SUITE 100 BIRMINGHAM, MI 48009 PHONE: (248) 852-3100

GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE VILLAGE OF LAKE ORION, OAKLAND COUNTY WATER RESOURCES COMMISSIONER, AND THE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES AND ENERGY
- 2. ALL WORK WITHIN THE OAKLAND COUNTY ROAD COMMISSION OR MDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL PERMIT SPECIFICATIONS AND BY PERMIT ONLY
- 3. ALL PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR. ALL PERMIT FEES, BONDS, AND INSURANCE REQUIRED BY THE ISSUING AGENCIES SHALL BE PROVIDED BY THE CONTRACTOR, AND MUST BE KEPT CURRENT. THE CONTRACTOR IS RESPONSIBLE FOR ALL OTHER FEES, INSPECTION COSTS, ETC., AND SHALL ADHERE TO ALL REQUIREMENTS SET FORTH IN SAID PERMITS.
- 4. 72 HOURS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) FOR LOCATION OF UNDERGROUND AND CABLE FACILITIES, AND SHALL NOTIFY REPRESENTATIVES OF OTHER UTILITIES LOCATED IN THE VICINITY OF THE WORK.
- 5. UTILITY INFORMATION SHOWN ON THE PLANS WAS OBTAINED FROM UTILITY OWNERS AND MAY OR MAY NOT BE ACCURATE AND COMPLETE. CONTRACTOR SHALL VERIFY AND/OR OBTAIN ANY INFORMATION NECESSARY REGARDING THE PRESENCE OF UNDERGROUND UTILITIES WHICH MIGHT HAVE AN EFFECT ON THIS PROJECT, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN ON THE PLANS.
- 6. THE UTILITY POLES SHOWN ON THESE DRAWINGS ARE INTENDED TO SHOW ONLY THE LOCATION OF EXISTING POLES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUANTITY AND DIRECTION OF OVERHEAD LINES.
- 7. THE CONTRACTOR SHALL PROVIDE FOR CONTROLLED ACCESS TO THE SITE FOR USE BY THE VARIOUS WORK FORCES, EMERGENCY VEHICLES, OCCUPANTS, VISITORS, ETC. THROUGHOUT CONSTRUCTION, THIS ACCESS MUST PROVIDE FOR THE REMOVAL OF MUD FROM VEHICLES TIRES. ROADWAYS AND DRIVEWAYS SHALL BE MAINTAINED AND OPEN FOR EMERGENCY VEHICLES AT ALL TIMES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE RESIDENTS AND BUSINESSES, WHOSE DRIVEWAYS ARE AFFECTED BY HIS SCHEDULE, 24 HOURS IN ADVANCE. CONTRACTOR SHALL SCHEDULE CONSTRUCTION AT NON-PEAK USE HOURS AND SHALL MINIMIZE DRIVEWAY CLOSURE BY EXPEDITING CONSTRUCTION.
- 8. DURING CONSTRUCTION, CONTRACTOR MAY ENCOUNTER SPRINKLER HEADS, PIPING, LIGHTING, AND BURIED ELECTRICAL CABLE, MAILBOXES, FENCES, SIGNS, ETC. CONTRACTOR SHALL REPLACE AND/OR RESTORE ALL COMPONENTS OF SUCH SYSTEMS. THIS WORK SHALL BE INCIDENTAL TO THE PROJECT.
- 9. RIGHT-OF-WAYS AND FRONT OF LOTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED BY TOPSOIL, SEED AND MULCH.
- 10. THE CONTRACTOR IS REQUIRED TO CONFINE CONSTRUCTION ACTIVITIES TO THE LIMITS OF THE SITE AS SHOWN ON THE CONSTRUCTION PLANS. ANY DAMAGE OR DISRUPTION TO ADJACENT SITES IS THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECT IMMEDIATELY. NO OFF-SITE WORK SHALL BE PERFORMED OUTSIDE OF PUBLIC RIGHTS-0F-WAY OR DEDICATED EASEMENTS WITHOUT PRIOR WRITTEN APPROVAL OF THE PROPERTY OWNER.
- 11. GREAT CARE SHALL BE TAKEN TO AVOID DAMAGE TO VEGETATION OUTSIDE THE CLEARING AND GRUBBING LIMITS. NO DRIVING OR PARKING OF VEHICLES AND/OR STORAGE OF MATERIALS AND SUPPLIES SHALL BE PERMITTED OUTSIDE THE LIMITS OF CONSTRUCTION.
- 12. THE PROTECTION OF EXISTING TREES, AS REQUIRED, SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY.
- 13. FINAL CLEANUP AND RESTORATION SHALL CONSIST OF FINE GRADING OF CONSTRUCTION AREAS, REMOVAL OF CONSTRUCTION SIGNS, ETC. TOPSOIL SHALL BE SPREAD OVER ALL DISTURBED AREAS, FOLLOWED BY SEED, FERTILIZER AND EROSION MAT OR STRAW MULCH, OR AS FURTHER REQUIRED BY THE LANDSCAPING PLANS AND SPECIFICATIONS. ALL REQUIRED RESTORATION ITEMS NOT SPECIFICALLY IDENTIFIED AS A PAY ITEM SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 14. ALL RESTORATION SHALL BE SPECIFIED ON THE PLANS AND IN THE SPECIFICATIONS. NON PAY ITEMS SHALL BE INCIDENTAL TO THE PROJECT.
- 15. THE CONTRACTOR AND/OR HIS SUBCONTRACTORS SHALL NOTIFY THE VILLAGE OF LAKE ORION, ORION TOWNSHIP FIRE DEPARTMENT, THE ORION TOWNSHIP POLIC DEPARTMENT, MDOT AND THE OAKLAND COUNTY ROAD COMMISSION TWO (2) WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- 16. THE CONTRACTOR SHALL PROVIDE NECESSARY SIGNS, BARRICADES, AND LIGHTS TO PROTECT THE TRAFFIC AND THE WORK AS DIRECTED BY THE FIELD ENGINEER OR THE ROADWAY JURISDICTIONAL AGENCY. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD.)
- 17. ALL LOT MARKERS AND MONUMENT POINTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEWATERING REQUIRED TO CONSTRUCT THE PROPOSED UTILITIES AND SHALL BE DONE PER APPROVED DEWATERING PLAN. COST OF DEWATERING SHALL BE INCIDENTAL TO THE PROJECT.

SNUG HARBOR SITE AND CONSTRUCTION PERMIT PLANS PARCEL NO. 09-11-403-006 VILLAGE OF LAKE ORION, OAKLAND COUNTY, MICHIGAN



LOCATION MAP NOT TO SCALE

APPROVALS AND PERMITS

NAME	SUBMITTAL DATE	APPROVAL DATE	PERMIT NO.
SITE PLAN	02.29.2024	-	-
VILLAGE ENGINEERING APPROVAL	-	-	-
VILLAGE SANITARY APPROVAL	-	-	-
OAKLAND COUNTY SANITARY APPROVAL	-	-	-
VILLAGE WATERMAIN APPROVAL	-	-	-
OCWRC SESC PERMIT	-	-	-
RCOC UTILITY PERMIT	-	-	-
RCOC APPROACH PERMIT	-	-	-
EGLE WETLAND PERMIT	-	-	-



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Landscape Architects

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Know what's below.

APPROVAL

DATE: ISSUE

02.29.2024

Developed For:

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SUBMIT FOR SITE PLAN

Professional Seal:

SHEET INDEX

ENGINEERING PLANS COVER SHEET C1

- TOPOGRAPHIC AND BOUNDARY SURVEY C2
- C3 SITE AND PAVING PLAN
- GRADING AND UTILITY PLAN C4 C5 SITE NOTES AND DETAILS

LANDSCA	PE AND LIGHTING
L1	LANDSCAPE PLAN
L2	LANDSCAPE DETAILS

LIGHTING PLAN LI1

SHEETS BY OTHERS

ARCHITECTURAL BUILDING FLOOR PLANS AND ELEVATIONS 5 SHEETS

MUNICIPAL DETAILS

X SHEETS	SANITARY SEWER DETAILS AND NOTES
X SHEET	SOIL EROSION AND SEDIMENTATION CONTROL DETAILS
X SHEET	STORM DRAIN NOTES AND DETAILS
X SHEETS	WATER MAIN STANDARD DETAILS

PROPERTY DESCRIPTION

(PER TAX RECORD)

LOTS 22 & 23 OF THE CUTCHEON SUBDIVISION, LIBER 27, PAGE 8 OF PLATS, OAKLAND COUNTY RECORDS.

SNUG HARBOR

MOCERI COMPANIES

3500 UNIVERSITY DRIVE

AUBURN HILLS, MI

48326

248.340.9400

COVER SHEET

VILLAGE OF LAKE ORION OAKLAND COUNTY MICHIGAN

Date:	02.29.2024
Scale:	NA
Sheet:	C1
Project:	20107.40

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GATE VALVE

BEEHIVE CB RIM: 988,87

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BENCH MARK DATA

NAVD88 DATUM

BENCH MARK NO. 1

(OUT OF DRAWING SCOPE)

ARROW ON HYDRANT LOCATED EAST NORTHEAST ± 120 FEET FROM THE NORTHEAST CORNER OF BUILDING ADDRESS 440 S BROADWAY ELEVATION = 990.95'

BENCH MARK NO. 2 SET MAG NAIL IN SOUTH FACE OF A UTILITY POLE LOCATED EAST ±60 FEET FROM THE SOUTHEAST BUILDING CORNER OF ADDRESS 458 S BROADWAY AND NORTHWEST ±20 FROM THE NORTHWEST BUILDING CORNER OF 468 S BROADWAY. ELEVATION = 994.59' (OUT OF DRAWING SCOPE)

BENCH MARK NO. 3 SET MAG NAIL IN NORTH FACE OF A UTILITY POLE LOCATED \pm 45 FEET FROM THE SOUTHWEST CORNER OF ADDRESS 32 HEIGHTS ROAD. ELEVATION = 997.27'

(OUT OF DRAWING SCOPE)

BENCH MARK NO. 4 ARROW ON HYDRANT LOCATED ON THE SOUTH SIDE OF HEIGHTS ROAD AT HOUSE NO. 69 HEIGHTS RD. ELEVATION = 990.43'

(OUT OF DRAWING SCOPE)

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

(R) = UTILITY SHOWN FROM RECORDS OR PLANS, & FIELD LOCATED WHERE POSSIBLE.

PRIOR TO THE PLANNED BUILDING IMPROVEMENTS, AND/ OR CONSTRUCTION, THE RESPECTIVE UTILITY COMPANIES MUST BE NOTIFIED TO STAKE THE PRECISE LOCATION OF THEIR UTILITIES.

NOTES

- CABLE TV, WATER, AND SEWER UTILITY MAPS WERE NOT AVAILABLE AT TIME OF SURVEY.

- THIS PARCEL IS LOCATED WITHIN A FEDERALLY DESIGNATED FLOOD HAZARD AREA ZONE "AE" (THE FLOODWAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREAS THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANCE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL INCREASES IN FLOOD HEIGHTS) AND ZONE "X" (AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) IN ACCORDANCE WITH THE FEDERAL INSURANCE RATE MAP, PANEL NUMBER 238 OF 704, MAP NUMBER 26125C0238F, EFFECTIVE DATE SEPTEMBER 29, 2006.

GAS & WATER LEAD LOCATION SHOULD BE CONSIDERED AS APPROXIMATE.
 TREE SIZES AND SPECIES ARE THE BEST ESTIMATION OF THE FIELD SURVEYOR. SPECIFIC QUESTIONS REGARDING INDIVIDUAL TREES SHOULD BE DIRECTED TO A QUALIFIED FORESTER.

DEMOLITION NOTES:

- 1. WITH THE EXCEPTION OF AN AMOUNT OF EXCAVATED MATERIALS SUFFICIENT FOR BACKFILLING AND CONSTRUCTION OF FILLS AS CALLED FOR ON THE PLANS AND AS INDICATED BELOW, ALL BROKEN CONCRETE, STONE AND EXCESS EXCAVATED MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR.
- 2. THE CONTRACTOR WILL BE REQUIRED TO OBTAIN THEIR OWN DISPOSAL GROUND, AND WILL RECEIVE NO ADDITIONAL COMPENSATION FOR DISPOSING OF ANY OF THE EXCESS MATERIALS. MATERIALS ACCEPTABLE TO THE ENGINEER MAY BE DISPOSED OF ON-SITE AT THE CONTRACTORS EXPENSE IN A MANNER APPROVED IN ADVANCE BY THE ENGINEER.
- 3. EXISTING UTILITIES ON SITE WILL BE CAPPED OR BULK-HEADED AT THE MAIN IN ACCORDANCE WITH VILLAGE OF LAKE ORION AND SERVICE PROVIDER STANDARDS. ALL BULKHEADING AND/OR SEWER PIPE REMOVAL NECESSITATED BY THE REMOVAL OF DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE STRUCTURE REMOVAL.
- 4. THE CONTRACTOR SHALL COORDINATE WITH AFFECTED UTILITY COMPANIES FOR THE REMOVAL OR RELOCATION OF UTILITY AND LIGHT POLES.
- 5. STREET SIGNS IN THE WAY OF CONSTRUCTION WILL BE REMOVED AND RESET IMMEDIATELY IN A TEMPORARY LOCATION, AS APPROVED BY THE FIELD ENGINEER.
- 6. THE CONTRACTOR SHALL PROTECT ALL EXISTING SIGNS AND POSTS SCHEDULED TO REMAIN, AS DIRECTED BY THE FIELD ENGINEER.
- 7. ALL UNDERGROUND UTILITIES NOT INDICATED FOR REMOVAL SHALL BE PROTECTED THROUGHOUT CONSTRUCTION.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PRIVATE PROPERTY (INCLUDING BUILDINGS AND FOUNDATIONS) THROUGHOUT CONSTRUCTION AND SHALL MAINTAIN SAFE PEDESTRIAN ACCESS AT ALL TIMES.
- 9. EXISTING PAVEMENTS, SIDEWALKS, CURBS, DRIVEWAYS, GUTTERS, CROSSWALKS, AND OTHER BITUMINOUS OR CONCRETE SURFACES TO BE REMOVED, SHALL BE REMOVED TO THE LIMITS SHOWN, NEAREST JOINT OR AS REQUIRED BY THE FIELD ENGINEER. REMOVAL SHALL BE CAREFULLY DONE AND TO A NEAT LINE. CONCRETE SAWS OR OTHER MECHANICAL EQUIPMENT APPROVED BY THE FIELD ENGINEER SHALL BE USED ON THIS WORK.

SCALE: 1" = 10'



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DATE: ISSUE:

02.29.2024 SUBMIT FOR SITE PLAN APPROVAL

Developed For:

MOCERI COMPANIES

3500 UNIVERSITY DRIVE AUBURN HILLS, MI 48326

248.340.9400

TOPOGRAPHIC AND BOUNDARY SURVEY

SNUG HARBOR

VILLAGE OF LAKE ORION OAKLAND COUNTY MICHIGAN

Date:	02.29.2024
Scale:	1"=10'
Sheet:	C2
Project:	20107.40

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SITE PLAN NOTES:

SITE AREA: 12,878 ZONING: 15 RE ALLOWED DENSITY: 15 RESIDENCES / ACRE x 0.296 ACRES:

PROPOSED RESIDENCES:

TOWNHOMES STACKED FLATS TOTAL

PROPOSED BEDROOM BREAKDOWN: 2-BEDROOM RESIDENCES 3-BEDROOM RESIDENCES TOTAL

OPEN SPACE:

4,067

MAXIMUM COVERAGE:

PARKING: REQUIRED:

MULTI-FAMILY REQUIRE 2 SPACES PER UNIT 4 x 2 = 8 SPACES TOTAL REQUIRED: 8 SP

PROVIDED: GARAGE SPACES 6 SPACE DRIVEWAY SPACES TOTAL SPACES

6 SPACE 12 SPACE

NOTES:

1. SNUG HARBOR IS PROPOSED MULTI-F. 2. TRASH RECEPTACLES WILL BE STORE ON GARBAGE DAY.

PAVING NOTES:

1. THE PAVING CONTRACTOR SHALL BE REQUIF THE INSTALLATION OF GAS, ELECTRIC, PHON SPRINKLERS, ETC. IN SUCH A MANNER THAT THEIR PROPER INSTALLATION PRIOR TO PLACE MATERIALS. ENSURE THAT ALL REQUIRED PIF CABLES AND SLEEVES ARE PROPERLY PLACE TRENCHES ARE PROPERLY BACKFILLED AND

2. BUTT JOINTS SHALL BE PLACED AT ALL LOCATION EXISTING ASPHALT PAVEMENT SURFACE IS B REMOVALS AND/OR THE INSTALLATION OF NE PAVEMENT.

- 3. ALL PAVEMENT AREAS SHOULD BE CLEARED REMOVING SURFACE VEGETATION, TOPSOIL, DELETERIOUS MATERIALS.
- 4. PROPOSED AGGREGATE BASE SHALL EXTEN FOOT BEYOND THE PAVEMENT EDGE/BACK O
- 5. BARRIER FREE SIGNAGE SHALL BE PLACED IN DESIGNATED BARRIER FREE STALL. THE CON COORDINATE STANDARD AND VAN ACCESSIB INDICATED ON THE PLANS.
- 6. ALL BARRIER FREE RAMPS, WALK, LANDINGS BE A.D.A. COMPLIANT AND MEET MDOT STAN
- 7. DIMENSIONS ARE TO FACE OF CURB.

	AREA, HEIGHT, BU	LK AND PLA	CEMENT REGL	JLATIONS:	aiffels
8 SF, 0.296 ACRES MU, MIXED USE	SETBACKS				Webster
4.43 RESIDENCES	FRONT (MINIMUM) FRONT (MAXIMUM	P)	ROPOSED 10' 33.7'	REQUIRED 10' 25'	Engineers Surveyors
2 RESIDENCES 2 RESIDENCES 4 RESIDENCES	WATER SIDE MAX. LOT COVERA	GE	25' 2' 42%	25' 0' 50%	Planners Landscape Architects
2 RESIDENCES <u>2 RESIDENCES</u> 4 RESIDENCES 7 SF / 0.089 ACRES 31.5%	BUILDING HEIGHT: <u>EXISTING</u> TOTAL AREA - 12,8 IMPERVIOUS AREA PERVIOUS AREA - <u>PROPOSED</u> IMPERVIOUS TOTA IMPERVIOUS PAY IMPERVIOUS BUI PERVIOUS TOTAL	28' - 7 [%] 4" 78 SF A - 3,819.64 SI 9,058.36, 70.3 AL - 8,128 SF, VEMENT - 2,7 ILDING - 5,42 - 4,750 SF, 36	F, 29.7% 3% 63.1% 701 SF 7 SF 5.9%		1025 East Maple Road Suite 100 Birmingham, MI 48009 p (248) 852-3100 f (313) 962-5068 www.giffelswebster.com Executive: MP Manager: NS
PACES		1,100 01 , 00	,		Designer: NS Quality Control: MP Section: 11
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) AND GRUBBED BY , DEBRIS AND OTHER		PR STORM SE PR PERFORA PR CLEAN OU PR SANITARY PR SANITARY	Ewer Ted Underdraii JT MANHOLE SEWER	Ν	
ID A MINIMUM OF 1 DF CURB. N FRONT OF EVERY NTRACTOR SHALL	E ₩* GAS	PR UNDERGR PR LIGHT FIX PLAN FOR TY PR TRANSFOI PR UNDERGR PR UNDERGR	Cound Electric Ture (See Light Pe of Fixture) Rmer Cound Gas Serv Cound Telephoi	SERVICE TNG VICE NE	
BILITY SIGNAGE AS S AND CURBS SHALL IDARD PLAN R-28.	4 	SERVICE PR UTILITY CF PR CONTOUR PR CONTOUR PR SPOT ELE PR SWALE PR CURB AND	ROSSING MINOR (1') MAJOR (5') VATION O GUTTER		
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		PR CONCRET			Developed For:
	ай (1997) Ф. (1997)				MOCERI COMPANIES 3500 UNIVERSITY DRIVE AUBURN HILLS, MI 48326
					248.340.9400 SITE AND PAVING PLAN
				N	SNUG HARBOR

VILLAGE OF LAKE ORION OAKLAND COUNTY MICHIGAN

SCALE: 1" = 10'

Date:	02.29.2024
Scale:	1"=10'
Sheet:	C3
Project:	20107.40

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GRADING NOTES:

- EXCESS EXCAVATION SHALL BE DISPOSED OF BY THE CC COST OF DISPOSAL WILL BE INCIDENTAL TO THE PROJEC
- THE FINAL SUB-GRADE SHALL BE THOROUGHLY PROOF-ROLLED UNDER 2. THE OBSERVATION OF THE SOILS ENGINEER.
- NO FROZEN MATERIAL SHALL BE PERMITTED AS BACKFILL UNDER ANY ROADWAY, DRIVEWAY OR PARKING AREA.
- PRIOR TO THE START OF ANY FILLING, THE CONTRACTOR SHALL REMOVE ALL TOPSOIL AND ALL OTHER UNACCEPTABLE SOIL FROM THE FILL AREAS, AND PROPERLY BACKFILL WITH ACCEPTABLE SOIL
- GENERAL GRADING REQUIREMENTS ARE AS FOLLOWS: A. FINISH GRADE AT EXISTING BUILDING SHALL MATCH BRICK LEDGES,
- DOORWAYS OR BASEMENT WINDOWS
- B. MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING: 5% WITHIN THE FIRST 10' AND 2% AFTER.
- C. PAVEMENT SLOPES (1.0% MINIMUM, 4.0% MAXIMUM) UNIFORMLY **BETWEEN FINISH GRADE ON PLANS**
- D. LAWN AREAS ± 2% MINIMUM TO 33% MAXIMUM

PRIOR TO THE PLACEMENT OF ANY BASE ASPHALT OR LEVELING COURSE THE CURBS SHALL BE PARTIALLY BACKFILLED AND THE SUB-GRADE SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF THE SOILS ENGINEER.

ALL SIDEWALK AND PATHWAYS IN ANY PUBLIC R.O.W. SHALL BE INSPECTED BY THE AGENCY WITH JURISDICTION.

ABBREVIATIONS:

- **PW PERMANENT WATER ELEVATION** HW - HIGH WATER / 100 YEAR STORM
- ELEVATION
- WS WATER SURFACE ELEVATION
- **FB FREEBOARD ELEVATION** CD - CURB DROP FOR WALK
- T/C TOP OF CURB
- G GUTTER
- T/W TOP OF WALK B/W - BOTTOM OF WALK
- T/A TOP OF ASPHALT
- **BR BOTTOM OF RAMP**
- TR TOP OF RAMP
- R RAMP L - LANDING
- T/WALL TOP OF WALL **B/WALL - BOTTOM OF WALL**

UTILITY NOTES:

- 1. REFER TO ARCHITECTURAL PLANS TO COORDINATE ALL:
- A. WATER SUPPLY, METERING, SPRINKLER AND FDC PIPING, DESIGN AND COORDINATION B. BUILDING SEWER, BUILDING DRAIN DESIGN AND CONNECTIONS TO CLEAN OUTS AND
- ROOF CONNECTORS C. GAS, ELECTRIC AND COMMUNICATION SERVICES, AND LIGHTING DETAILS D. ALL BUILDING ACCESS WALKS AND ENTRY DETAILS, INCLUDING SUPPORTED SLABS
- E. ALL WORK TO CONSTRUCT THE BUILDING AND ALL ITEMS CONNECTED TO IT
- 2. ALL TRENCHES WITHIN A ONE ON ONE SLOPE OF PAVEMENT SHALL BE BACKFILLED WITH SAND (MDOT CLASS II MINIMUM) AND MECHANICALLY COMPACTED IN NOT MORE THAN 9" LAYER TO 95% MAXIMUM DRY DENSITY PER MODIFIED PROCTER COMPACTION TEST ASTM D-1557. COMPACTED SAND BACKFILL SHALL ALSO BE PROVIDED FOR ALL SEWER TRENCHES LOCATED UNDER, OR WITHIN, THREE FEET OF PAVEMENT.
- A MINIMUM VERTICAL CLEARANCE OF 18 INCHES IS REQUIRED AT UTILITY CROSSINGS (MEASURED FROM THE OUTSIDE OF PIPE TO THE OUTSIDE OF PIPE). POSITIVE PROVISIONS SHALL BE MADE TO ENSURE THAT ALL UTILITY TRENCHES ARE FREE DRAINING DURING ALL PHASES OF CONSTRUCTION.
- THE MINIMUM SLOPE FOR A BUILDING LEAD IS 1%. LEADS SHALL ONLY BE CONNECTED TO THE MAIN LINE WITH WYES.
- ALL STORM SEWER PIPE SHALL BE CONSTRUCTED WITH RUBBER GASKET (PREMIUM) JOINTS. UNLESS ALTERNATE APPROVED BY CITY ENGINEER.
- THE CONTRACTOR SHALL COORDINATE THE REMOVAL OF ALL UTILITY LINES AND STRUCTURES, AS OUTLINED ON THE DEMOLITION PLAN, WITH THE INSTALLATION OF UTILITY IMPROVEMENTS.
- CONTRACTOR SHALL BE REQUIRED TO COORDINATE THE INSTALLATION OF GAS, ELECTRIC, PHONE, CABLE, SPRINKLERS ETC., IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO PLACING THE PAVEMENT MATERIALS. ENSURE THAT ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED AND THAT THE TRENCHES ARE PROPERLY BACKFILLED AND COMPACTED.
- THE CONTRACTOR SHALL REMOVE UTILITIES, WHICH HAVE BEEN ABANDONED IN PLACE, AS REQUIRED TO COMPLETE INSTALLATION OF NEW UTILITIES. WHENEVER ABANDONED UTILITIES ARE CUT, CONTRACTOR SHALL COMPLETELY CAP BOTH ENDS TO PREVENT THE INFILTRATION OF SOILS.
- NO CONNECTION MAY BE MADE TO ANY EXISTING WATER MAIN UNTIL THE NEW MAIN HAS 9 PASSED ALL PRESSURE AND BACTERIOLOGICAL TESTING.
- ROADWAY, DRIVEWAY AND PARKING AREA CROSSINGS SHALL BE TEMPORARILY CONDITIONED IMMEDIATELY AFTER CROSSING BY PLACING 8" OF MDOT 22A GRAVEL OR SLAG AGGREGATE, AND SHALL BE MAINTAINED IN GOOD, DUST FREE CONDITION UNTIL PAVEMENT RESTORATION IS MADE.
- 11. WATERMAIN SHALL HAVE A MINIMUM OF 5.5 FEET OF COVER

NTRACTOR.	
ΞT.	



BENCH MARK DATA

BENCH MARK NO. 1

Ø

MUD MAT (SP-9)

(SO-2)

RESTRICTED OUTLET STRUCTURE

ARROW ON HYDRANT LOCATED EAST NORTHEAST ±120 FEET FROM THE NORTHEAST CORNER OF BUILDING ADDRESS 440 S BROADWAY ELEVATION = 990.95'(OUT OF DRAWING SCOPE)

BENCH MARK NO. 2 SET MAG NAIL IN SOUTH FACE OF A UTILITY POLE LOCATED EAST ±60 FEET FROM THE SOUTHEAST BUILDING CORNER OF ADDRESS 458 S BROADWAY AND NORTHWEST ± 20 FROM THE NORTHWEST BUILDING CORNER OF 468 S BROADWAY. ELEVATION = 994.59'

(OUT OF DRAWING SCOPE) BENCH MARK NO. 3

SET MAG NAIL IN NORTH FACE OF A UTILITY POLE LOCATED ±45 FEET FROM THE SOUTHWEST CORNER OF ADDRESS 32 HEIGHTS ROAD. ELEVATION = 997.27'(OUT OF DRAWING SCOPE)

BENCH MARK NO. 4 ARROW ON HYDRANT LOCATED ON THE SOUTH SIDE OF HEIGHTS ROAD AT HOUSE NO. 69 HEIGHTS RD. ELEVATION = 990.43'

UTILITIES

(OUT OF DRAWING SCOPE)

CONNECT NOTE: CONNECT

CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT ALL PROPOSED CONNECTIONS AND CROSSINGS AND SUPPLY ELEVATIONS AND LOCATIONS TO THE DESIGN ENGINEER TO CONFIRM OR ADJUST DESIGN.

NOTES:

1. CGM - COMPACTED CL II GRANULAR MATERIAL



02.20.2024
1"=10'
C4
20107.40

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SCALE: 1" = 10'

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

1. CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE SOIL EROSION AND SEDIMENTATION CONTROL ACT OF THE STATE OF MICHIGAN, PART 91 OR ACT 451, OF THE PUBLIC ACTS OF 1994 AND THE REQUIREMENTS OF OAKLAND TOWNSHIP AND THE OAKLAND COUNTY WATER RESOURCE COMMISSION.

- 2. A SOIL EROSION AND SEDIMENTATION CONTROL PERMIT WILL BE REQUIRED FROM THE OAKLAND COUNTY WATER **RESOURCES COMMISSIONER'S OFFICE.** 3. THE CONTRACTOR SHALL CONDUCT OPERATIONS IN A MANNER THAT WILL REDUCE ACCELERATED EROSION TO THE
- PRACTICAL MINIMUM AND PREVENT DAMAGING SILTATION TO EXISTING SEWERS AND WATER COURSES LEADING FROM THE WORK SITE. 4. THE CONTRACTOR SHALL CONDUCT WORK IN SUCH A MANNER AS TO PREVENT THE ENTRY OF FUELS, OILS,
- BITUMINOUS MATERIALS, CHEMICALS, SEWERAGE OR OTHER HARMFUL MATERIALS INTO NEARBY LAKES AND STREAMS. 5. WASTE DISPOSAL AREAS SHALL BE SELECTED BY THE CONTRACTOR WITH FULL CONSIDERATION OF EROSION AND
- SEDIMENT CONTROL, SELECTION OF DISPOSAL SITE, AND CONTROL OF OPERATIONS, AND THE RESTORATION OF SAID AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. 6. EXCAVATION FROM THE RIGHT-OF-WAY, CHANNELS, OR OTHER MATERIAL SHALL NOT BE DEPOSITED IN OR NEAR
- RIVERS, STREAMS OR PONDS WHERE IT MAY ENTER THE WATERWAY. 7. AT THE COMPLETION OF EACH DAY'S CONSTRUCTION, CARE SHALL BE TAKEN TO ENSURE THAT MINIMAL EROSION
- WILL OCCUR IN TRENCHES AND TO STOCKPILED MATERIALS UNTIL RESUMPTION OF WORK. 8. CONTRACTOR SHALL CONFINE OPERATIONS TO THE MINIMUM AMOUNT OF WORKING SPACE PRACTICAL TO MINIMIZE
- SOIL EROSION. 9. THE PROJECT WILL BE CONTINUALLY INSPECTED BY THE ENGINEER FOR EROSION CONTROL COMPLIANCE. DEFICIENCIES WILL BE CORRECTED BY THE CONTRACTOR IMMEDIATELY UPON NOTICE OF SUCH DEFICIENCIES. FAILURE TO CORRECT THE DEFICIENCIES MAY RESULT IN THE ISSUANCE OF A STOP WORK ORDER AND THERE WILL BE NO CONTRACT TIME EXTENSION GRANTED FOR THIS TYPE OF STOPPAGE.
- 9. TEMPORARY SOIL EROSION CONTROL MEASURES CONSISTING OF SILT FENCE, INLET FILTERS, MULCHING, AND GEOTEXTILE AND STONE SHALL BE IMPLEMENTED THROUGHOUT THE ENTIRE CONSTRUCTION PHASE OF THE PROJECT, AND SHALL BE REMOVED BY THE CONTRACTOR AFTER THE PERMANENT SOIL EROSION MEASURES HAVE BEEN COMPLETED.
- 10. STRAW MULCH WITH NETTING TIE DOWN, HIGH VELOCITY MULCH BLANKET OR OTHER APPROVED MULCH SHALL BE PLACED ON DISTURBED SLOPES WHERE DIRECTED BY THE ENGINEER. 11. STREET SWEEPING OR MUD REMOVAL SHALL BE PERFORMED DAILY FOR MUD TRACKED ONTO PUBLIC STREETS.
- 12. SILT FENCE SHALL BE INSTALLED AND MAINTAINED ALONG THE DOWN-SLOPE SURFACE, PERPENDICULAR TO THE DIRECTION OF SHEET FLOW, FOR ALL OPEN-CUT SEWER INSTALLATION AREAS.
- 13. PERMANENT SOIL EROSION MEASURES CONSISTING OF STORM SEWER, BIOTREATMENT STRUCTURES, AND THE MIXTURE SEED AND MULCH BLANKET SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS OF FINAL GRADING. IN THE EVENT IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE THE AREA DUE TO SITE CONDITIONS AND/OR SEASONAL LIMITATIONS, THE TEMPORARY MEASURES SHALL REMAIN IN FORCE AND SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL SUCH TIME AS IT IS PRACTICAL TO COMPLETE THE PERMANENT SOIL EROSION CONTROL MEASURES.
- 14. THE ENGINEER SHALL HAVE FULL AUTHORITY TO TEMPORARILY SUSPEND WORK IN THE EVENT THAT ANY OF THE ABOVE REQUIREMENTS ARE NOT BEING MET BY THE CONTRACTOR, OR IF CONDITIONS INDICATE THAT ADDITIONAL TEMPORARY CONTROL MEASURES ARE WARRANTED, IN THE OPINION OF THE ENGINEER. 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SOIL EROSION CONTROL MEASURES
- WITHIN THE CONSTRUCTION AREA UNTIL FULL COMPLETION OF THE PROJECT.
- 16. THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY THE CONTRACTOR.
- 17. ACTIVITIES WITHIN WETLAND LIMITS AND CONSERVATION EASEMENT WILL REQUIRE PERMIT FROM MDEQ.

NOTE:

1. NO EROSION CONTROL MATTING IS PERMITTED IN THE WETLAND AREAS PER EGLE PERMIT. EROSION CONTROL BLANKETS WITHOUT PLASTIC ARE ALLOWED IN THE UPLAND.

SITE DATA:

AREA OF DISTURBA DISTANCE TO NEAF

SOIL TYPES:

TEMPORARY SOIL

PERMANENT SOIL

MAINTENANCE SCHEDULE:

DESIGNATED CONTRACTOR.

MEASURE

SILT FENCE

DUST CONTROL

VEGETATION (PERM)

MUD MAT

UTILITY PIPE MATERIALS:

LEADS: SL - SANITARY LEAD, 6" PVC SDR 23.5 OR APPROVED EQUAL FS - FIRE LEAD, COPPER TYPE 'K"



Sanitary Sewer Basis of Design Project Name Snug Harbor Project Number 20107.40

NMS

02.26.2024

Prepared By Working Date

H 103-105								
	Multi-Family	0.60	per unit	х	4	= 2.4		
					Total	= 2.4	REU	
	Population= 2	.44 people	per REU					
	=	2.4	REU	x	2.44	people per RE	EU	
	=	6	people					
	Average Flow=		Population x Pe	r Capita Capac	ity			
	=	6	people	x	100	gpcpd		
	=	600.00	gpd	=	0.0009	cfs		
	=	0.42	gpm					
	Peaking Factor=	18	+	\checkmark	6	people	1	1
	_	4	+		5.86	people	1	1
	=	4.43						
	Peak Flow= F	opulation x	Per Capita Cap	acity x Peaking	Factor			
	=	6	people	x	100	gpcpd	x	Z
	=	2,596.86	gpd	=	0.0040	cfs		
	=	1.80	gpm					

ANCE:	0.28 ACRES
REST LAKE OR STREAM:	LAKE ORION LOCATED ON THE PROPERTY
	59 - URBAN LAND, 60B,C - URBAN LAND-MARLETTE COMPLEX
EROSION MEASURES:	SILT FENCE, MUD MAT, MULCH BLANKET, DUST CONTROL
EROSION MEASURES:	TOPSOIL, SEED, & MULCH, NATIVE VEGETATION, RIP RAP

THE CONTRACTOR SHALL INSPECT SESC MEASURES WEEKLY UNDER NORMAL CONDITIONS, WITHIN 24 HOURS OF EACH RAIN EVENT, AND DAILY DURING A PROLONGED RAIN EVENT BY

MAINTENANCE SCHEDULE

INSTALL AT THE START OF CONSTRUCTION PER PLAN. REMOVE ACCUMULATED SEDIMENTS WHEN DEPTH REACHES $\frac{1}{3}$ TO $\frac{1}{2}$ THE HEIGHT OF THE FENCE. FABRIC SHALL BE REPLACED IF DAMAGED.

WATER SHALL BE APPLIED TO EXPOSED AREAS BY THE CONTRACTOR IN THE EVENT OF EXCESSIVE AIRBORNE DUST. DUST CONTROL SHALL BE APPLIED AS DIRECTED BY THE ENGINEER OR SOIL EROSION PERMITTING AGENCY.

SEED SHALL BE WATERED AND MULCH MAINTAINED UNTIL VIGOROUS TURF HAS BEEN ESTABLISHED.

> INSTALL AT THE START OF CONSTRUCTION PER PLAN. REMOVE ACCUMULATED SEDIMENTS, ADD STONE AS NEEDED AND REQUIRED BY THE ENGINEER, AND REPLACE GEOTEXTILE IF DAMAGED.

WS - WATER LEAD, SDR9 POLY BLUE PVC 200 PSI PIPE



CONSTRUCTION SEQUENCE:

1. MOBILIZATION 2. INSTALL SILT FENCE AND INLET FILTERS AT

- EXISTING CATCH BASINS PER PLAN 3. REMOVALS PER PLAN
- 4. EARTHWORK OPERATIONS
- 5. UTILITY INSTALLATION 6. PAVEMENT INSTALLATION
- RESTORATION
- 8. SITE CLEAN UP
- 9. REMOVE SESC MEASURES AFTER STABILIZATION

UNITED STATES POSTAL SERVICE **APPENDIX A – Cluster Box Unit Installation Single Unit** 24.00 MPI. 4.C0 2.00 CBU PEDESTAL -(5.5X.50% NIN.)--4X 4.00 MIN. ∟8.00 MIN. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3,000 PSI 28 DAYS, CONTAIN 4% MIN. — 6% MAX. AIR ENTRAINMENT AND BE PLACED WITH A 3,50-4.50 SLOWP IN ACCORDANCE WITH ACI 301 REINFORCING STEEL RODS SHALL CONFORM TO ASTM 4615, GRADE 60. EXPANSION BOLTS SHALL BE EQUIVALENT TO THE FOLLOWING PROVIDERS: a. HILTI KWIK BOLT (www.us.hilti.com) II-1/2" DIAMETER x 5-1/2" OVERALL LENGTH Galvanized, catalog #: 000-453-696 KB II 12-512, stainless steel; catalog #: 000-454-744 Ensure that the Min, embedment in concrete is at least 3-1/2". *{CLUSTER BOX UNIT (CBU) INSTALLATION -} SINGLE UNIT Page 12 of 15

WETLAND EDGE SEED MIX:	
SEDGES AND GRASSES: CAREX CRISTATELLA CAREX LURIDA CAREX VULPINOIDEA ELEOCHARIS PALUSTRIS ELYMUS VIRGINICUS GLYCERIA STRIATA LEERSIA ORYZOIDES SCIRPUS ATROVIRENS SCIRPUS CYPERNIUS SPARGANIUM EURYCARPUM	CRESTI BOTTLE FOX SE SPIKER VIRGINI FOWL I RICE C GREEN WOOLG BURRE
TEMPORARY GRASSESER: AVENA SATIVA LOLIUM MULTIFLORUM	COMMC
FORBS : ACORUS CALAMUS VERBESINA ALTERNIFOLIA ALISMA SPP. ASCLEPIAS INCARNATA ASTER PUNICEUS BIDENS SPP. HELENIUM AUTUMNALE IRIS VIRGINICA LOBELIA SIPHILITICA PELTANDRA VIRGINICA RUDBECKIA LACINIATA SAGITTARIA LATIFOLIA	SWEET WINGST WATER SWAMP BRISTL BEGGA SNEEZI BLUE F GREAT ARROW WILD G ARROW

SAGITTARIA LATIFOLIA

THALICTRUM DASYCARPUM

CASSIA HEBECARPA

VERBENA HASTATA

NOTE: INSTALLED.

xx			
	BOTANICAL NAME	SIZE	SYMBOL
HT HIBISCUS REED GRASS UM MINT ASS	EQUISETUM HYEMALE IRIS ENSATA HIBISCUS STARRY STARRY NIGHT CALAMAGROSTIS X ACUTIFLORA OVERDAM LAMIUM MACULATUM ORCHID FROST PPAF11122 NEPETA FAASSENII 'PURRSIAN BLUE' MISCANTHUS SINENSIS 'ENCORE'	1 GAL. POT 1 GAL. POT 1 GAL. POT 3 GAL. POT 1 GAL. POT 2 GAL. POT 3 GAL. POT	HTG IRS HYB OFR LAM CAT MEG
	BOTANICAL NAME	SIZE	SYMBOL
) RS ID	RHAMNUS FRANGULA BUXUS MICROPHYLLA 'BULTHOUSE' PP25896 JUNIPERUS SCOPULORUM 'SKYROCKET' CEPHALANTHUS OCCIDENTALIS CORNUS STOLONIFERA PHYSOCARPUS OPULIFOLIUS ILEX VERTICILLATA	5-6' HT. B&B 30" DIA. B&B 4-5' HT. B&B 1 GAL. POT 1 GAL. POT 1 GAL. POT 1 GAL. POT	FLN BOX SKY BUT RED NIN WIN
	LIRIODENDRON TULIPIFERA 'ARNOLD'	SIZE 3" CAL. B&B	SYMBOL TU
	BE I ULA NIGRA	з" CAL. В&В	КВ

COMMON NAME

BLUEJOINT GRASS CRESTED OVAL SEDGE BOTTLEBRUSH SEDGE PRAIRIE SEDGE SPECIES COMMON FOX SEDGE

BROWN FOX SEDGE

FOWL MANNA GRASS COMMON RUSH PATH RUSH

COMMON WATER PLANTAIN

COMMON WATER HOREHOUND MONKEY FLOWER

COMMON MOUNTAIN MINT

BLACK-EYED SUSAN BROWN-EYED SUSAN GOLDEN ALEXANDERS

COMMON GRASS-LEAVED

BLUE FLAG SPECIES MARSH BLAZING STAR GREAT BLUE LOBELIA

CANADA WILD RYE VIRGINIA WILD RYE

COMMON OAT

1. NO EROSION CONTROL MATTING IS PERMITTED IN THE WETLAND AREAS PER EGLE PERMIT. EROSION CONTROL BLANKETS WITHOUT PLASTIC ARE ALLOWED IN THE UPLAND.

2. WATER'S EDGE SHRUBS PER EGLE PERMIT. ALTERNATE VARIETIES LISTED BELOW ARE ALLOWED IF NECESSARY DUE TO AVAILABILITY. QUANTITY OF SPECIMENS SHOULD BE THE SAME AND THERE SHOULD BE A MINIMUM OF THREE NATIVE SPECIES

Suite 100 Birmingham, MI 48009 p (248) 852-3100 f (313) 962-5068 www.giffelswebster.com MP Executive: NS Manager: NS Designer: MP Quality Control: 11 Section: T-04-N R-10-E Professional Seal: Know what's **below**. Call before you dig. DATE: ISSUE: SUBMIT FOR SITE PLAN 02.29.2024 APPROVAL Developed For: MOCERI COMPANIES 3500 UNIVERSITY DRIVE AUBURN HILLS, MI 48326 248.340.9400 LANDSCAPE PLAN SNUG HARBOR VILLAGE OF LAKE ORION OAKLAND COUNTY MICHIGAN 02.29.2024 Date: Scale: 1"=10'

L1

20107.40

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Sheet:

Project:

giffels

webster

Engineers

Surveyors

Planners

Landscape Architects

1025 East Maple Road

SCALE: 1" = 10'

PLANT NOTES:

- 1. Plant materials shall be sound, heathy vigorous, free from plant diseases and insects or their eggs, and shall have normal, healthy root systems. Caliper measurements shall be taken 6: above the ground level. All other measurements shall be in accordance with the latest edition of "American Standard for Nursery Stock" (ANSI Z-60.1 + A3002004.)
- 2. Planting bed soil for annuals shall be screened topsoil. To deter weed growth during the establishment of annual, & perennial bed, apply a pre-emergent ('Preen' or equal) after planting 2-3 times per growing season, at a rate per recommendation of product manufacturer.
- 3. Planting pockets shall be no deeper than the height of the root ball, saucer shall be made on the edges of the plant pocket. 4. All tree wrap shall be removed upon planting.
- 5. Mulch shall be shredded hardwood bark, free from deleterious materials and suitable as a top dressing of planting beds and individual tree plantings.
- 6. Trees shall be mulched with minimum of 3" deep hardwood bark mulch. 7. Grass seed shall be certified turf grass seed complying with A.S.P.A. specifications, and free of weed seeds and undesirable native grasses. Seeded areas shall not be permitted to dry out. All lawn areas shall be fertilized and watered as required during the first growing season to maintain a dense and vigorous growing lawn.
- 8. Plants shall be guaranteed for two complete growing seasons (24 months). Dead material shall be replaced as needed prior to the expiration of the guarantee period, in accordance with the local ordinance requirements.
- 9. Contractor shall provide in writing a list of recommended maintenance procedures for the first two (2) growing seasons.
- 10. Remove top $\frac{1}{3}$ of burlap on root ball or all if wrapped in plastic covering and/or nylon cord. 11. Plant materials shall be used in compliance with the provisions of the local ordinance and shall be nursery grown, free of pests and diseases, hardy in this county, in conformance with the standards of the American Association of Nurserymen, and shall have passed inspections required under state regulations. In addition, plant materials shall conform to the standard of the county cooperative extension service.

GENERAL NOTES:

- or approved equal is encouraged.
- two years.
- Plan installation.
- inspection is made.

LANDSCAPE CONTRACTOR'S "TWO-YEAR IRRIGATION REQUIREMENT PERIOD"

It shall be the responsibility of the landscape contractor to program and periodically adjust the irrigation system (provided by others) as required to ensure delivery of proper and adequate water supply to all plant material, and seeded lawn areas serviced by the same irrigation system, to ensure the establishment of healthy plant material and lawn for their first year of growth. Following the landscape contractor's two-year irrigation requirement period, the contractor shall provide the owner with suggested irrigation maintenance schedule for their use.

1. All Construction shall conform to the current standards and specifications of local ordinances. 2. All areas not built, landscaped, or paved upon shall be seeded or sodded. Terra seed system 3. Contractor to provide tree gaters, one per tree as shown on plan, to convey water for the first

4. Two (2) year guarantee period begins at Final Inspection of landscape material by the City's representative, a landscape architect or nurseryman, and prior to the authorization of the occupancy permit. This is the first of two (1 of 2) required City inspections of the Landscape

5. Building Department will not release construction bonds until City approved landscape architect or nurseryman has inspected the site and approved the installation of landscape plans. Final bond will not be released until the two (2) year guarantee expires and final

6. Owner is then responsible for care and maintenance of all plants upon return of bonds. All plant material is to be maintained for the natural life of the plant. No removal of any plants material is permitted without replacement.

6" DEEP CUT AT A 60% ANGLE -----

TOPSOIL SOIL & CANADIAN PEAT AND ROOT STIMULATOR BACKFILL. WATER UPON PLANTING. UNDISTURBED EART NOTE: •PLANT SO THAT TO BALL IS 1/3 ABOVE FINISHED GRADE PLANT AT TRUNK

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	Engineers Surveyors Planners Landscape Architects
	1025 East Maple Road Suite 100 Birmingham, MI 48009 p (248) 852-3100 f (313) 962-5068 www.giffelswebster.com
AT A 60% ANGLE	Executive:MPManager:NSDesigner:NSQuality Control:MPSection:11T-04-NR-10-E
IADIAN PEAT TOR BACKFILL. NG.	Professional Seal:
UNDISTURBED EARTH	<u>E</u>
NO SCALE	Know what's below. Call before you dig. DATE: ISSUE: 02.29.2024 SUBMIT FOR SITE PLAN APPROVAL
NOTE: •PLANT SO THAT TOP OF ROOT BALL IS 1/3 ABOVE THE FINISHED GRADE	
PLANT AT TRUNK FLARE FORM SAUCER WITH 3'' CONTINUOUS RIM	
INDIGENOUS SOIL BACKFILL. WATER & TAMP TO REMOVE AIR POCKETS UNDISTURBED EARTH PICKETS UNDISTURBED EARTH TIME OF INSTALLATION TREE / SHRIB PI ANT DIAPER DETAIL	Developed For:
NO SCALE	MOCERI COMPANIES 3500 UNIVERSITY DRIVE AUBURN HILLS, MI 48326 248.340.9400
30% PERENNIAL RYGRASS 20% PARK KENTUCKY BLUEGRASS 45% CREEPING RED FESCUE 5% ANNUAL RYEGRASS 4*/1000 S.E. SEEDING RATE	LANDSCAPE DETAILS
	SNUG HARBOR VILLAGE OF LAKE ORION OAKLAND COUNTY MICHIGAN
0 10' 20' SCALE: 1'' = 10'	Date: 02.29.2024 Scale: NA Sheet: L2 Project: 20107.40 Copyright © 2024 Giffels Webster.

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hedule	2							
mbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Wattage	Plot
	A]	14	Lithonia Lighting	OLCS 8 DDB	OUTDOOR CAST SCONCE W/DR3 FROSTED LENS; BROWN	8.93	Max: 166cd
\bigcirc	в		4	Lithonia Lighting	CLF1 (40A19)	6" LENSED DOWNLIGHT WITH FLUSH OPAL PLASTIC LENS.	40	Max: 54cd

Engineers Surveyors Planners Landscape Architects

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T-04-N R-10-E

Professional Seal:

Know what's below. Call before you dig.

DATE:	ISSUE:
02.29.2024	SUBMIT FOR SITE PLAN APPROVAL

Developed For:

MOCERI COMPANIES

3500 UNIVERSITY DRIVE AUBURN HILLS, MI 48326

248.340.9400

LIGHTING PLAN

SNUG HARBOR

VILLAGE OF LAKE ORION OAKLAND COUNTY MICHIGAN

08.05.2022 Date: Scale: LI-1 Sheet: Project: 20107.40

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Statistics			
Description	Symbol	Avg	Max
Property Line	+	0.1 fc	0.5 fc
Within Property Boundary	+	0.1 fc	0.9 fc
Boundary		0.1 10	0.910

Mounting Height Note

Mounting height is measured from grade to face of fixture. Pole height chould be calculated as the mounting height less base height.

General Note

The Engineer and/or Architect must determine applicability of the layout to existing/future field conditions. This lighting layout represents illumination levels calculated from laboratory date taken under controlled conditions in accordance with illuminating engineering society approved methods. Actual performance of any manufacturer's luminaire may vary due to cariation in electrical voltage, tolerance in lamps, and other variable field conditions. Mounting heights indicated are from grade and/or floor up.

These lighting calculations are not a substitute for independent engineering analysis of lighting system suitability and safety. The Engineer and/or Architect is responsible to review for Michigan Energy Code and Lighting Quality Compliance.

Unless exempt, project must comply with lighting controls requirements defined in ASHRAE 90.1 2013.

Drawing Note only. Layout to be verified in field by others. Site to comply with all lighting requirements.

-STORY
<u>om</u>
OOTAGE
) SQUARE FEET 1 SQUARE FEET
JARE FEET

UNIT #3 I-STORY <u>2 BEDROOM</u> <u>SQUARE FOOTAGE</u> IST FLOOR = 1806 SQUARE FEET

UNIT #4 2ND STORY <u>3 BEDROOM</u> <u>SQUARE FOOTAGE</u> IST FLOOR = 95 SQUARE FEET 2ND FLOOR = 2268 SQUARE FEET TOTAL = 2363 SQUARE FEET

_	l,
-	NOTE: ALL FIRST FLOOR CEILING HEIGHTS TO BE 10'-1 1/8" HIGH UNLESS NOTED OTHERWISE.
-	1

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MOCERI CUSTOM HOMES SNUG HARBOR 4-UNIT BUILDING

Review Set: 02/27/24
Permit:
Final Set:
Revisions:
Drwn: B.H.
Chkd: X.X.
Job No. 24010
Sheet No. 1 OF 5

STRUCTURE • INTEGRITY • TRADITION® DOMINIC ₹ MOCERI CUSTOM HOMES SNUG HARBOR 4-UNIT BUILDING Review Set: 02/27/24 Permit: Permit: Final Set: Revisions:

MOCERI

Drwn:	B.H.	
Chkd:	X.X.	
Job No.	24010	
Sheet No	2 0= 5	

LIFESTYLE BY DESIGN

NOTE: ALL SECOND FLOOR CEILING HEIGHTS TO BE 9'-I 1/8" HIGH UNLESS NOTED OTHERWISE.

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Final Set: Revisions:		

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