

SEAL NOT FOR CONSTRUCTION



PROJECT
Old Orion Court
Development

CLIENT
Mark Bismack
5319 23 Mile Road
Shelby Township, MI 48306

Care of:
Krieger Klatt Architects
Contact: Mr. Jeff Klatt, AIA
Phone: (248) 414-9270
Email: Jeff@kriegerklatt.com

PROJECT LOCATION
Part of the SE 1/4
of Section 3
T. 3N., R. 11E.
City of Rochester Hills,
Oakland County, Michigan

SHEET
Notes and Details (3 of 3)



Know what's below
Call before you dig.

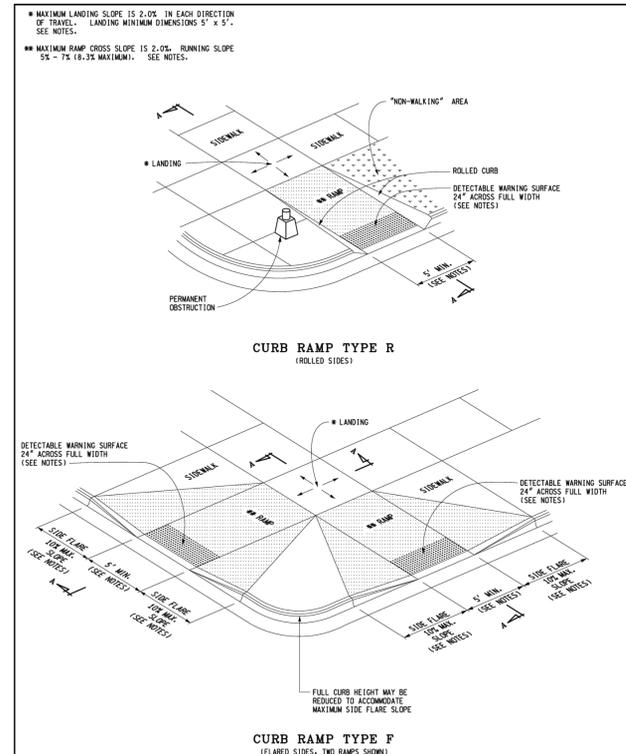
DATE	ISSUED/REVISED
04-24-24 SPA	
07-15-24 SPA REV 1	
11-14-24 OWNER REVIEW	
01-13-25 SPA REV 2	
04-04-25 SPA REV 3	

DRAWN BY:
J. Lawrey
DESIGNED BY:
P. Tulikang
APPROVED BY:
B. Buchholz

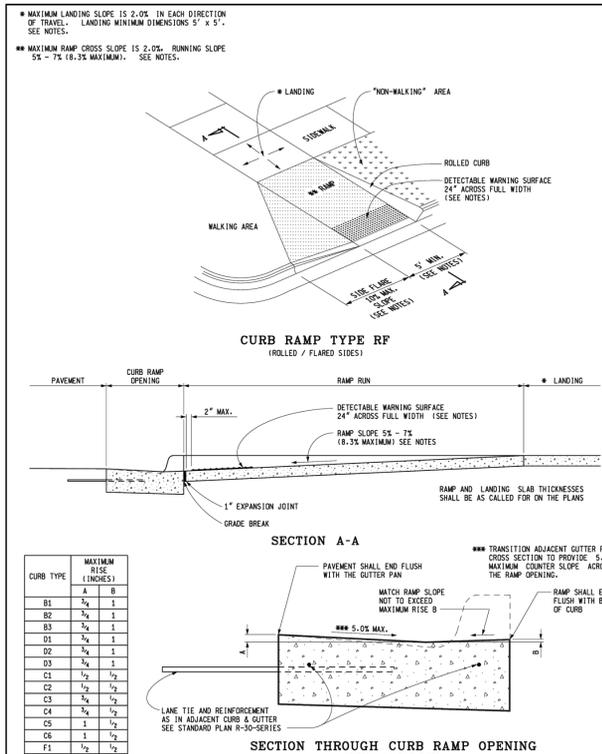
DATE:
January 9, 2024

SCALE: N.T.S.

NFE JOB NO. SHEET NO.
C176-01 C11

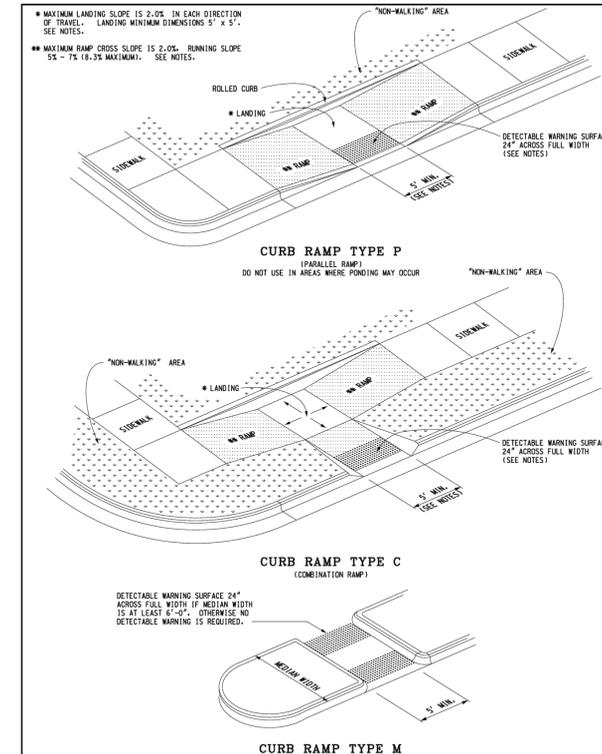


MDOT
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR
CURB RAMP AND DETECTABLE WARNING DETAILS
APPROVED BY: DIRECTOR, BUREAU OF FIELD SERVICES
APPROVED BY: DIRECTOR, BUREAU OF DEVELOPMENT
F.S.N.K.A. APPROVAL PLM DATE R-28-J SHEET 1 OF 7

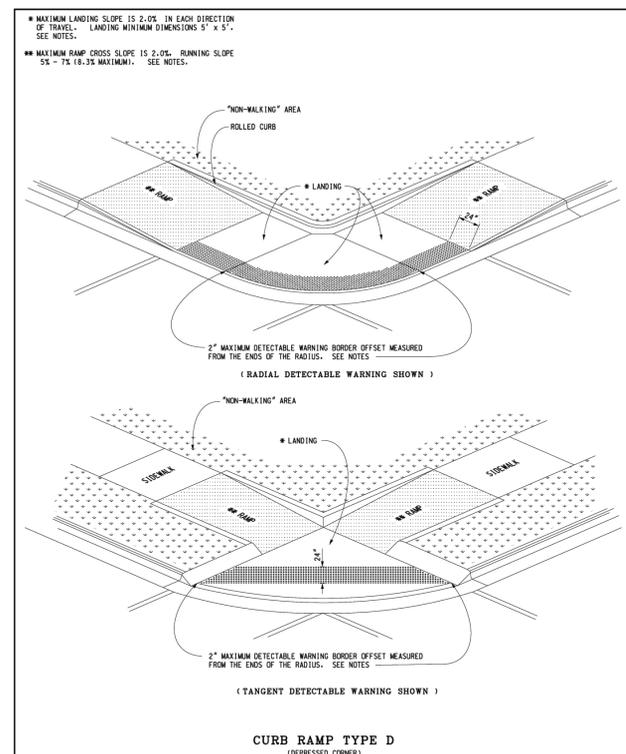


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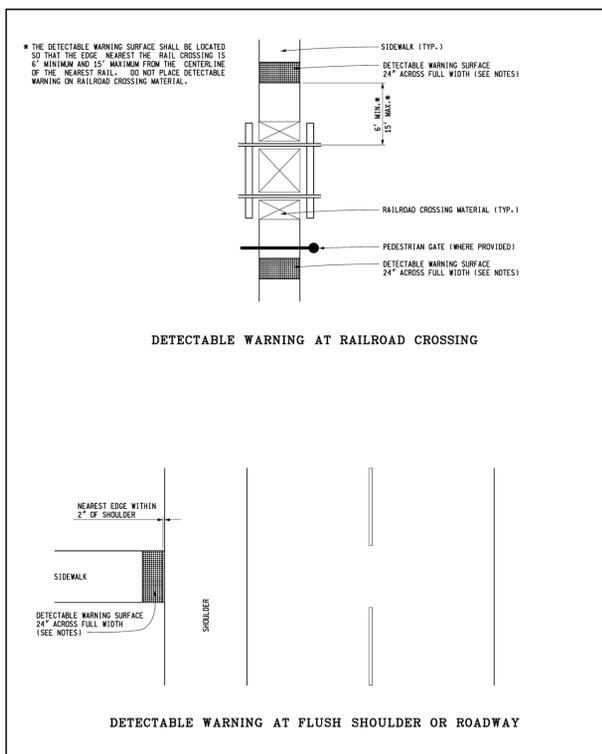
CURB TYPE	MAXIMUM RISE (INCHES)	
	A	B
B1	1/4	1
B2	3/8	1
B3	1/2	1
D1	1/4	1
D2	1/2	1
D3	3/4	1
C1	1/2	1/2
C2	1/2	1/2
C3	3/4	1/2
C4	1/2	1/2
C5	1	1/2
C6	1	1/2
F1	1/2	1/2
F2	1/2	1/2
F3	3/4	1/2
F4	3/4	1/2
F5	1	1/2
F6	1	1/2



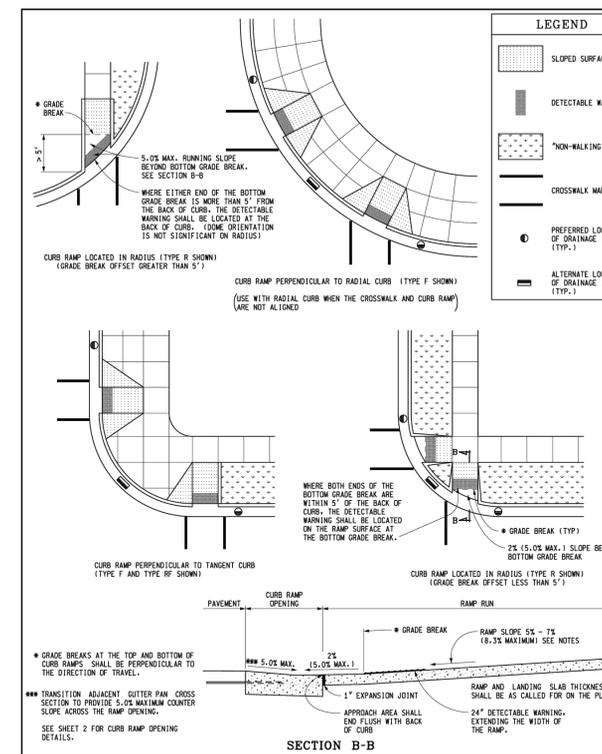
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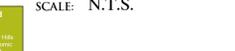
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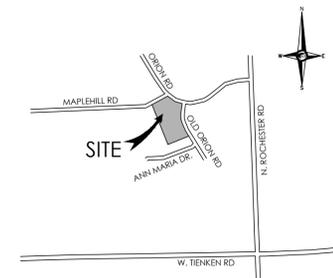


CITY OF ROCHESTER HILLS
CITY FILE #19-042.2, SEC. 03



NFE JOB NO. SHEET NO.
C176-01 C11

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LOCATION MAP
N.T.S.

TREE PRESERVATION SUMMARY:

TOTAL NUMBER OF TREES SURVEYED:	76
LESS NUMBER OF DEAD TREES:	1
LESS NUMBER OF R.O.W. TREES:	7
NET TREES ON-SITE:	68
TOTAL REGULATED TREES TO BE REMOVED:	30
TOTAL SPECIMEN TREES TO BE REMOVED:	5 (1 EXEMPT)
TOTAL TREES TO REMAIN:	33
MINIMUM PRESERVATION REQUIREMENT 68 TREES - 6 TREES IN BUILDING ENVELOPE = 62 X 40% =	25 TREES NEED TO BE PRESERVED 33 TREES PROPOSED TO BE SAVED
TREE REPLACEMENT TOTAL REMOVALS:	35 TREES
TOTAL REGULATED REPLACEMENT TREES REQUIRED:	30 TREES
TOTAL SPECIMEN REPLACEMENT TREES REQUIRED (109' x 50% = 54.5/2):	28 TREES
LESS SPECIMEN CREDITS:	-1 TREES
TOTAL REPLACEMENT TREES REQUIRED:	29 TREES
TOTAL REPLACEMENT TREES PROVIDED:	57 TREES MONIES FOR 57 TREES TO BE PAID INTO TREE FUND (\$334 X 57 = \$19,038)



GENERAL TREE PROTECTION NOTES

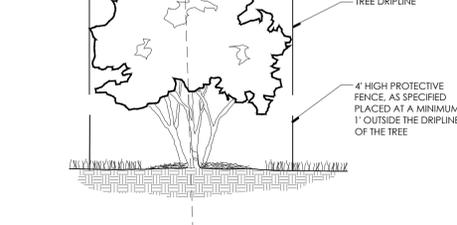
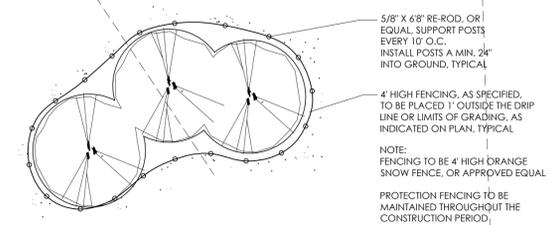
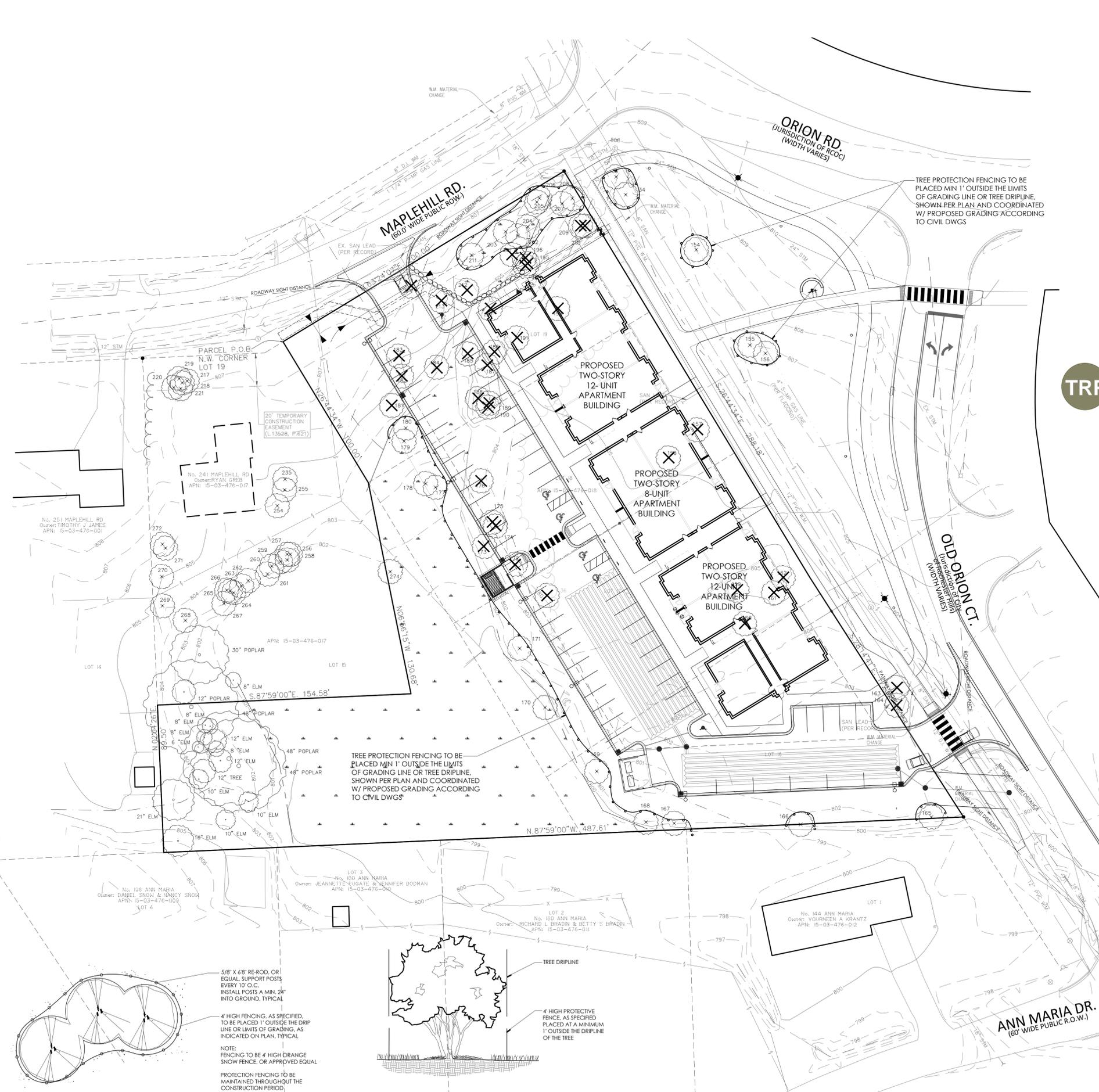
- APPROVED TREE PROTECTION SHALL BE ERRECTED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL THE IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
- ALL UNDERSTORY VEGETATION WITHIN THE LIMITS OF PROTECTIVE FENCING SHALL BE PRESERVED.
- NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN, INCLUDING BUT NOT LIMITED TO, PLACING SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN THE DRIP LINE.
- WHERE GROUPINGS OF TREES ARE TO REMAIN, TREE FENCING SHALL BE PLACED AT THE LIMITS OF GRADING LINE.
- DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY TREE SCHEDULED TO REMAIN.
- ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.
- SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINES OF PROTECTED TREES.
- TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
- ROOT ZONES OF PROTECTED TREES SHOULD BE SURROUNDED WITH RIGIDLY STAKED FENCING.
- THE PARKING OF IDLE AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIP LINE OF PROTECTED TREES.
- THE STRIPPING OF TOPSOIL FROM AROUND PROTECTED TREES SHALL BE PROHIBITED.
- ALL TREES TO BE REMOVED SHALL BE CUT AWAY FROM TREES TO REMAIN.
- THE GRUBBING OF UNDERSTORY VEGETATION WITHIN CONSTRUCTION AREAS SHOULD BE CLEARED BY CUTTING VEGETATION AT THE GROUND WITH A CHAIN SAW OR MINIMALLY WITH A HYDRO-AXE.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT PER ORDINANCE GUIDELINES, FOR THE DAMAGE OR REMOVAL OF ANY TREE DESIGNATED TO REMAIN.
- TREES TO BE REMOVED SHALL BE FIELD VERIFIED, EVALUATED AND FLAGGED FOR REMOVAL, BY THE LANDSCAPE ARCHITECT OR FORESTER, ONLY AS DIRECTED BY THE OWNER OR OWNERS REPRESENTATIVE.

PROTECTIVE FENCING NOTE:

TREE PROTECTION AND SILT FENCING, AS REVIEWED AND APPROVED BY CITY STAFF, SHALL BE INSTALLED PRIOR TO THE ISSUANCE OF THE LAND IMPROVEMENT PERMIT.

LEGEND:

- X TREES TO BE REMOVED
- 550 X TREES TO REMAIN
- TREE PROTECTION FENCING



TREE PROTECTION DETAIL-PLAN
N.T.S.

TREE PROTECTION DETAIL-SECTION
N.T.S.

SEAL



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PROJECT LOCATION
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of Section 3
T. 3N., R. 11E.
City of Rochester Hills,
Oakland County, Michigan

SHEET
Tree Preservation Plan



REVISIONS

04/24/24 SPA
07/15/24 SPA
11/06/24 REVISED PER CITY
01/13/25 SPA REV #2
04/04/25 SPA REV #3

DRAWN BY:
G. Ostrowski
DESIGNED BY:
G. Ostrowski
APPROVED BY:
G. Ostrowski

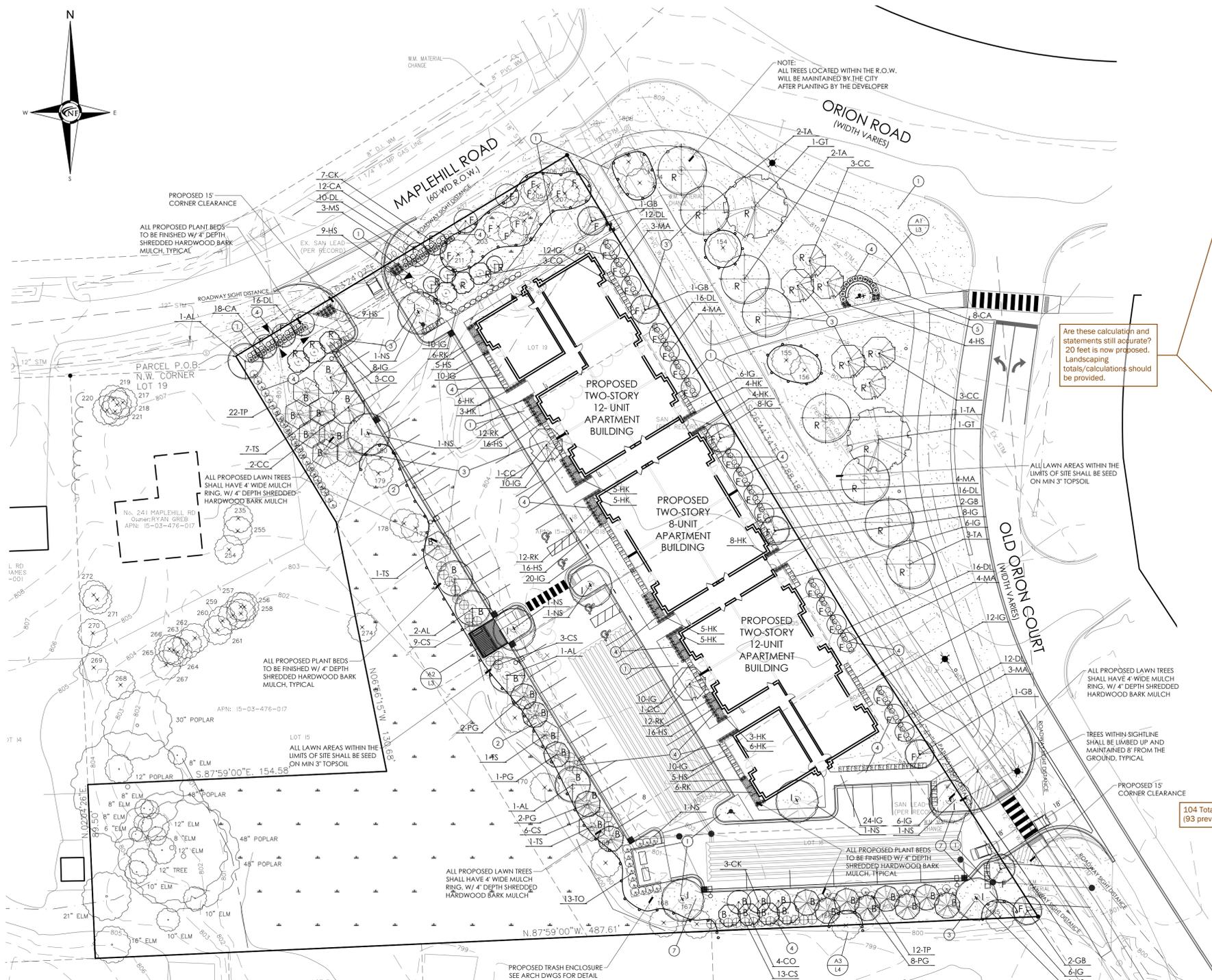
DATE:
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SCALE: 1" = 30'



NFE JOB NO. SHEET NO.
K176-01 L1





LANDSCAPE REQUIREMENTS

EXISTING SITE AREA: 90,529.37 S.F. OR 2.08 ACRES

FRONTAGE LANDSCAPE (F)
 2 DECIDUOUS TREES, 4 ORNAMENTAL TREES AND 12 SHRUBS PER 100 LF.
 MAPLEHILL: 172.98 LF.
 REQUIRED: 4 DECIDUOUS TREES, 7 ORNAMENTAL TREES AND 21 SHRUBS
 PROVIDED: 6 EXISTING TREES, 7 ORNAMENTAL TREES AND 26 SHRUBS, 30 GRASSES

ORION COURT: 461.16 LF.
 REQUIRED: 9 DECIDUOUS TREES, 18 ORNAMENTAL TREES, AND 55 SHRUBS
 PROVIDED: 7 DECIDUOUS TREES, 2 EXISTING, 18 ORNAMENTAL TREES, AND 60 SHRUBS

BUFFER REQUIREMENT (B)
 TYPE 'C' SOUTH PROPERTY LINE: 197 LF.
 2 DECIDUOUS TREES, 1.5 ORNAMENTAL TREES,
 4 EVERGREEN TREES AND 4 SHRUBS PER 100 LF.
 REQUIRED: 4 DECIDUOUS TREES, 3 ORNAMENTAL TREES, 8 EVERGREENS AND 12 SHRUBS
 PROVIDED: PROPOSED 48' HT SCREEN/RETAINING WALL, 4 EXISTING TREES, 6 DECIDUOUS TREES AND 32 SHRUBS

TYPE 'C' WEST PROPERTY LINE: 320.18 LF.
 2 DECIDUOUS TREES, 1.5 ORNAMENTAL TREES,
 4 EVERGREEN TREES AND 4 SHRUBS PER 100 LF.
 REQUIRED: 6 DECIDUOUS TREES, 5 ORNAMENTAL TREES, 13 EVERGREENS AND 19 SHRUBS
 PROVIDED: 7 EXISTING TREES, 13 EVERGREEN AND 5 ORNAMENTAL, 37 SHRUBS



NOWAK & FRAUS ENGINEERS
 46777 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257

IRRIGATION SYSTEM:

ALL LANDSCAPE AREAS, INCLUDING THOSE WITHIN THE R.O.W. SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. THE SYSTEM SHALL OPERATE IN COMPLIANCE WITH LOCAL STANDARDS AND SEASONAL RESTRICTIONS. SEPARATE ZONES SHALL BE PROVIDED FOR LAWN AREAS AND PLANTING BEDS. IRRIGATION SHALL BE DESIGNED IN THE MOST EFFICIENT MANNER NECESSARY TO FULLY IRRIGATE ALL PLANTING AREAS. OVERSPRAY ONTO CITY ROADS OR PATHWAYS IS PROHIBITED.

KEY LEGEND

- 1 TYPICAL SEED LAWN AREAS, SOWN ON 3" TOPSOIL
- 2 RESTORE DISTURBED AREAS W/ ECO-TURF LOW MAINTENANCE MIX
- 3 4" DIA SPADE CUT EDGE W/ 3" SHREDDED BARK MULCH
- 4 4" DEPTH DOUBLE SHREDDED HARDWOOD BARK MULCH
- 5 PUBLIC PLAZA W/ 24" SEATWALL AND BIKE REPAIR STATION
- 6 5' LONG GROUND MOUNT PARK BENCH, 4 TOTAL
- 7 SNOW PILING AREA TO BE COORDINATED WITH SNOW REMOVAL CONTRACTOR

R.O.W. LANDSCAPE REQUIREMENTS (R)
 1 DECIDUOUS PER 35 LF. + ORNAMENTAL PER 60 LF.
 MAPLEHILL: 200 LF.
 200 LF. / 35 LF. = 5.7 OR 6 CANOPY TREES
 200 LF. / 60 LF. = 3.33 OR 3 ORNAMENTAL TREES
 PROVIDED: 6 CANOPY AND 3 ORNAMENTAL TREES PROVIDED ALONG PARKING ON-SITE DUE TO EXISTING DITCH AND UTILITIES

ORION COURT: 461.16 LF.
 461.16 LF. / 35 LF. = 13.18 OR 13 CANOPY TREES
 461.16 LF. / 60 LF. = 7.7 OR 8 ORNAMENTAL TREES
 PROVIDED: 3 EXISTING TREES, 10 CANOPY TREES, 2 EXISTING ORNAMENTAL TREES

PARKING INTERIOR LANDSCAPE (I)
 REQUIRED: 5% OF THE PARKING LOT SHALL BE LANDSCAPED WITH 1 TREE PER 150 S.F.
 REQUIRED AREA: 23,511.77 S.F. X 5% = 1,176 S.F.
 1,176 S.F. / 150 S.F. = 7.84 OR 8 TREES REQUIRED
 PROVIDED: 8 TREES

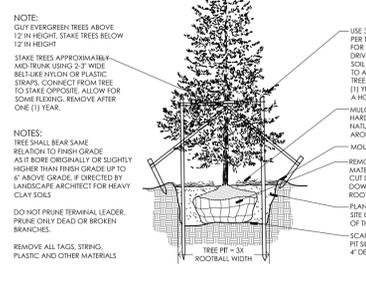
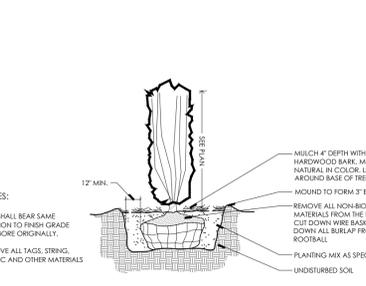
STORMWATER BASIN LANDSCAPE
 N/A WITH UNDERGROUND SYSTEM

NOTE:
 A PLANNING COMMISSION MODIFICATION IS REQUESTED FOR THE REQUIRED TYPE 'C' 2" WIDE BUFFER. THE BUFFER MODIFICATION IS REQUESTED TO ACCOMMODATE THE PROPOSED UNDERGROUND DETENTION SYSTEM AND REQUIRED PARKING. ON-SITE AND EXISTING GRADE DIFFERENTIAL IN THE 2" BUFFER REQUIREMENT BUFFER. A RETAINING IS PROPOSED WHICH WILL EXTEND 4' HIGH ABOVE THE TOP OF CURB ELEVATION. IN ORDER TO SCREEN HEADLIGHTS, IN ADDITION, THE AREA WILL BE HEAVILY PLANTED WITH EVERGREEN TREES AND NARROW CANOPY TREES TO FURTHER SCREEN THE SITE FROM NEIGHBORING PROPERTIES

GENERAL SEED NOTE:
 ALL LAWN AREAS DESIGNATED TO BE SEED, SHALL BE HYDRO-SEEDING WITH SPECIFIED BLENDS, AND STABILIZED WITH WOOD CELLULOSE FIBER MULCH (2,000 LBS PER ACRE) - IN AREAS SUBJECT TO EROSION, SEEDING LAWN SHALL BE FURTHER STABILIZED WHERE NECESSARY WITH BIODEGRADABLE EROSION BLANKET AND STAKED UNTIL ESTABLISHED. ALL SEED SHALL BE APPLIED OVER A MINIMUM 3" PREPARED TOPSOIL, AND SHALL BE KEPT MOIST AND WATERED DAILY UNTIL ESTABLISHED.
 SEEDING INSTALLATION SHALL OCCUR ONLY:
 SPRING: APRIL 15 TO JUNE 1
 FALL: AUGUST 15 TO OCTOBER 15

PLANT SCHEDULE

KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT	UNIT /TOTAL COST
TREES							
AL	5	Amelanchier laevis Allegheny Serviceberry	4-8 HT	SEE PLAN	B&B	CLUMP FORM, 3 CANES	\$275/\$1,375
CO	10	Cercis canadensis 'Princess Sentinel' Princess Sentinel Hackberry	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$325/\$3,250
CC	10	Cercis canadensis 'Forest Pansy' Forest Pansy Hackberry	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$325/\$3,250
CK	10	Cornus kousa chinensis Kousa Dogwood	2" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$275/\$2,750
GB	7	Ginkgo biloba 'Princeton Sentry' Princeton Sentry Ginkgo	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$325/\$2,275
GT	2	Gleditsia triacanthos 'Street Keeper' Street Keeper Honey Locust	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$325/\$650
MS	3	Magnolia stellata 'Royal Star' Royal Star Magnolia	2" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$275/\$825
MA	18	Malus 'Adirondack' Adirondack Crabapple	2" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$275/\$4,950
NS	8	Nyssa sylvatica 'Red Rover' Red Rover Black Tupelo	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$325/\$2,600
PG	13	Picea canadensis 'Black Hills Spruce' Black Hills Spruce	10' HT	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$350/\$4,550
TS	10	Thuja occidentalis 'Coburn Heritage' Coburn Heritage	10' HT	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$350/\$3,500
TA	8	Tilia americana 'McK'Sentry' American Sentry Linden	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	\$325/\$2,600
SHRUBS							
CS	31	Cornus sericea 'Arctic Fire' Arctic Fire Dogwood	30" HT	30" OC	CONT		\$50/\$1,550
DL	98	Dieris lonicera 'Michigan Sunset' Dwarf Broomed Honeysuckle	5 GAL	30" OC	CONT		\$50/\$4,900
IG	160	Ilex glabra 'Strongbox' Strongbox Holly	30" HT	30" OC	B&B		\$75/\$12,000
RK	48	Rosa 'Double Knockout' Double Knockout Red Rose	5 GAL	30" OC	CONT		\$50/\$2,400
TO	13	Thuja occidentalis 'DeGroot's Spiral' DeGroot's Spiral Arborvitae	5' HT	4' OC	B&B		\$75/\$975
TP	34	Thuja x plicatum 'Green Giant' Green Giant Arborvitae	6-8 HT	5' OC	B&B		\$75/\$2,550
GROUNDCOVERS/PERENNIALS							
CA	38	Colobragrostis a. Karl Foerster' Karl Foerster Feather Reed Grass	3 GAL	30" OC	CONT		\$30/\$1,140
HM	54	Hakonechloa macroa Japanese Forest Grass	2 GAL	30" OC	CONT		\$30/\$1,620
HS	80	Hemerocallis 'Happy Returns' Happy Returns Daylily	2 GAL	30" OC	CONT		\$15/\$1,200
GROUNDCOVERS/PERENNIALS							
SEED1	5,778	HYDROSEED AND MULCH	SF				\$423./21,156
SEED2	2,400	ECCO-TURF LOW MAINTENANCE SEED MIX	SF				\$65/\$156
IRR	1 LS	COMPLETE IRRIGATION SYSTEM, INSTALLED	LS				\$15,000
TOTAL COST							\$99,428.00



NOTE:
 PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB ON THE PUBLIC RIGHT-OF-WAY. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC ROAD. (TREES MUST BE PLANTED AT LEAST 15' AWAY FROM CURB OR ROAD EDGE WHERE THE SPEED IS MORE THAN 35 MPH.) SHADE TREES AND SHRUBS MUST BE PLANTED AT LEAST 5' FROM THE EDGE OF THE PUBLIC WALKWAY. EVERGREEN AND ORNAMENTAL TREES MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC WALKWAY. NO TREES OR SHRUBS MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY STREET RIGHT-OF-WAY LINES AT A DISTANCE ALONG EACH LINE OF 25' FROM THEIR POINT OF INTERSECTION. NO TREES OR SHRUBS MAY BE PLANTED IN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY DRIVEWAY WITH A PUBLIC WALKWAY AT A DISTANCE ALONG EACH LINE OF 15' FROM THEIR POINT OF INTERSECTION. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 15' AWAY FROM ANY FIRE HYDRANT. SHADE AND EVERGREEN TREES MUST BE AT LEAST 15' AWAY FROM THE NEAREST OVERHEAD UTILITY. TREES MUST BE PLANTED A MINIMUM OF 5' FROM AN UNDERGROUND UTILITY, UNLESS THE CITY'S LANDSCAPE ARCHITECT REQUIRES A GREATER DISTANCE.

PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS FORESTRY DIVISION NEEDS TO INSPECT ALL TREES, EXISTING OR PLANTED, TO IDENTIFY ANY THAT POSE A HAZARD TO THE SAFE USE OF THE PUBLIC RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE, AND POSSIBLY REPLACE, ANY SUCH TREES.

THESE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.

CITY MAINTENANCE NOTES:

- LANDSCAPING SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION, FREE FROM DEBRIS AND REFUSE.
- PRUNING SHALL BE MINIMAL AT THE TIME OF INSTALLATION, ONLY TO REMOVE DEAD AND DISEASED BRANCHES. SUBSEQUENT PRUNING SHALL ASSUME PROPER MATURATION OF PLANTS TO ACHIEVE THEIR APPROVED PURPOSE.
- ALL DEAD, DISEASED PLANT MATERIAL SHALL BE REMOVED IMMEDIATELY AND REPLACED WITHIN SIX (6) MONTHS AFTER IT DIES, OR IN THE NEXT PLANTING SEASON, WHOEVER OCCURS FIRST. FOR PURPOSES OF THIS SECTION, THE PLANTING SEASON FOR DECIDUOUS PLANTS SHALL BE BETWEEN MARCH 1 AND JUNE 1. PLANT MATERIAL INSTALLED TO REPLACE DEAD OR DISEASED MATERIAL SHALL BE AS CLOSE AS PRACTICAL TO THE SIZE OF THE MATERIAL IT IS INTENDED TO REPLACE. THE CITY MAY NOTIFY PROPERTY OWNERS OF THE NEED TO REPLACE DEAD, DAMAGED, OR DISEASED MATERIAL.
- THE APPROVED LANDSCAPE PLAN SHALL BE CONSIDERED A PERMANENT RECORD AND INTEGRAL PART OF THE SITE PLAN APPROVAL, UNLESS OTHERWISE APPROVED IN ACCORDANCE WITH THE AFORESAID PROCEDURES. ANY REVISIONS TO, OR REMOVAL OF PLANT MATERIALS, NON-COMPLIANCE WITH THE MAINTENANCE REQUIREMENTS OF THIS SECTION 138-12.109 WILL PLACE THE PARCEL IN NON-COMPLIANCE WITH THE APPROVED LANDSCAPE PLAN AND BE A VIOLATION OF THIS ORDINANCE.
- IF PROTECTED TREES ARE DAMAGED, A FINE SHALL BE ISSUED ON AN INCH-BY-INCH BASIS AT A MONETARY RATE AS DEFINED BY THE FORESTRY DEPARTMENT.

NOTE:
 CUT DECIDUOUS TREES ABOVE 3" CALIPER. STAKE TREES BELOW 3" CALIPER.
 STAKE TREES BELOW 3" CALIPER USING 3" WIDE BELT-LIKE NYLON OR PLASTIC STRAPS, CONNECT FROM TREE TO STAKE OPPOSITE ALLOW FOR SOME FLEXING. REMOVE AFTER ONE (1) YEAR.
 4" DEPTH WITH SHREDDED HARDWOOD BARK MULCH SHALL BE NATURAL IN COLOR. LEAVE 3" CLEAR AROUND BASE OF TREE.
 MOUND TO FORM 3" EARTH SAUCER.
 REMOVE ALL NON-BIODEGRADABLE MATERIALS FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN ALL BURLAP FROM 1/2 OF ROOTBALL.
 PLANTING MIX TO BE AMENDED PER SITE CONDITIONS AND REQUIREMENTS OF THE PLANT MATERIAL.
 SCARRY SUBGRADE AND PLANTING PIT SIZES. RECOMPACT PIT BASE TO 4" DEPTH.
 DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
 REMOVE ALL TAGS, STRING, PLASTIC AND OTHER MATERIALS.

NOTE:
 CUT EVERGREEN TREES ABOVE 12" IN HEIGHT. STAKE TREES BELOW 12" IN HEIGHT.
 STAKE TREES APPROXIMATELY 1/2 INCH FROM TRUNK FOR UPRIGHT. IF AN ANGLED, DRIVE STAKES INTO UNDISTURBED SOIL 4" FROM TRUNK. CONNECT TO A DEPTH OF 18" BELOW TREE PIT. REMOVE AFTER ONE (1) YEAR. WIRE OR ROPE THROUGH A HOSE SHALL NOT BE ALLOWED.
 4" DEPTH WITH SHREDDED HARDWOOD BARK MULCH SHALL BE NATURAL IN COLOR. LEAVE 3" CLEAR AROUND BASE OF TREE.
 MOUND TO FORM 3" EARTH SAUCER.
 REMOVE ALL NON-BIODEGRADABLE MATERIALS FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN ALL BURLAP FROM 1/2 OF ROOTBALL.
 PLANTING MIX TO BE AMENDED PER SITE CONDITIONS AND REQUIREMENTS OF THE PLANT MATERIAL.
 SCARRY SUBGRADE AND PLANTING PIT SIZES. RECOMPACT PIT BASE TO 4" DEPTH.
 DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
 REMOVE ALL TAGS, STRING, PLASTIC AND OTHER MATERIALS.

NOTE:
 17" MIN. MULCH 4" DEPTH WITH SHREDDED HARDWOOD BARK MULCH SHALL BE NATURAL IN COLOR. LEAVE 3" CLEAR AROUND BASE OF TREE.
 MOUND TO FORM 3" EARTH SAUCER.
 REMOVE ALL NON-BIODEGRADABLE MATERIALS FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN ALL BURLAP FROM 1/2 OF ROOTBALL.
 PLANTING MIX TO BE AMENDED PER SITE CONDITIONS AND REQUIREMENTS OF THE PLANT MATERIAL.
 SCARRY SUBGRADE AND PLANTING PIT SIZES. RECOMPACT PIT BASE TO 4" DEPTH.
 DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
 REMOVE ALL TAGS, STRING, PLASTIC AND OTHER MATERIALS.



PROJECT
 Old Orion Court
 Development

CLIENT
 Mark Bismack
 5319 23 Mile Road
 Shelby Township, MI 48306

Care of:
 Krieger Klatt Architects
 Contact: Mr. Jeff Klatt, AIA
 Phone: (248) 414-9270
 Email: Jeff@kriegerklatt.com

PROJECT LOCATION
 Part of the SE 1/4 of Section 3
 T. 3N., R. 11E.
 City of Rochester Hills,
 Oakland County, Michigan

SHEET
 Landscape Plan



REVISIONS

04/24/24 SPA
07/15/24 SPA
11/06/24 REVISION PER CITY
01/13/25 SPA REV #2
04/04/25 SPA REV #3

DRAWN BY:
 G. Ostrowski

DESIGNED BY:
 G. Ostrowski

APPROVED BY:
 G. Ostrowski

DATE:
 January 9, 2024

SCALE: 1" = 30'

NFE JOB NO. **SHEET NO.**
K176-01 **L2**



ECO-TURF LOW MAINTENANCE FESCUE MIX:

ALL LAWN AREAS DESIGNATED TO BE SEEDING SHALL BE DONE SO WITH LOW-GROW LAWN SEED MIX, AT A RATE OF 7 LBS/1,000 S.F. SEED AVAILABLE FROM:
 MICHIGAN WILDFLOWER FARM
 (7) 1-517-647-6010
 * MIX IS COMPOSED OF A MIX OF FIVE (5) FESCUE VARIETIES SUITABLE FOR SUN/SHADE



SEAL



PROJECT
Old Orion Court
Development

CLIENT
Mark Bismack
5319 23 Mile Road
Shelby Township, MI 48306

Care of:
Krieger Klatt Architects
Contact: Mr. Jeff Klatt, AIA
Phone: (248) 414-9270
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PROJECT LOCATION
Part of the SE 1/4
of Section 3
T. 3N., R. 11E.
City of Rochester Hills,
Oakland County, Michigan

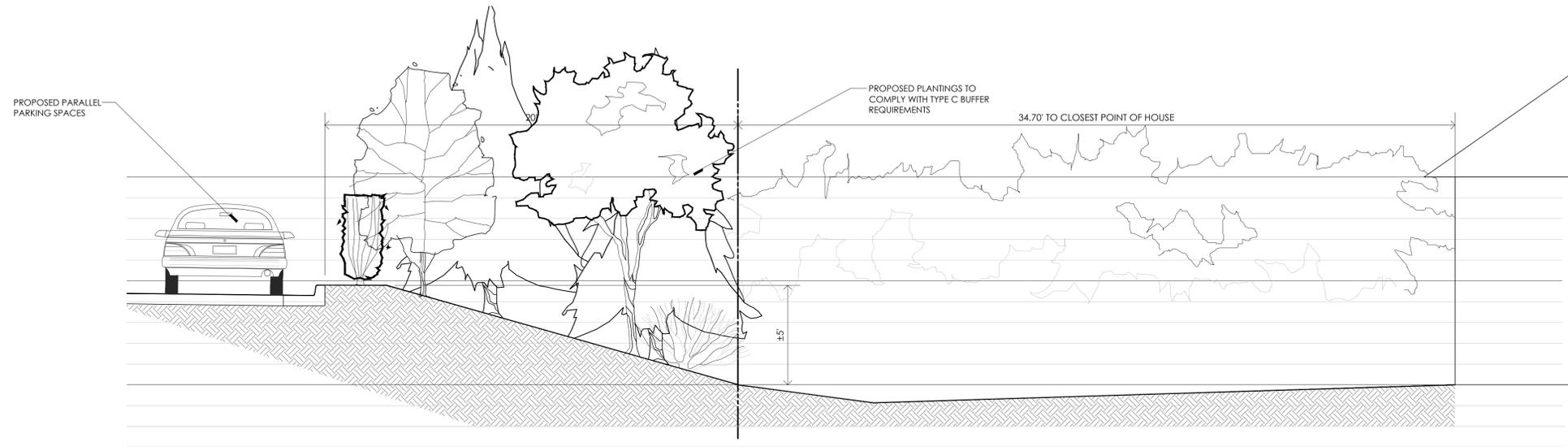
SHEET
Landscape Notes
and Details



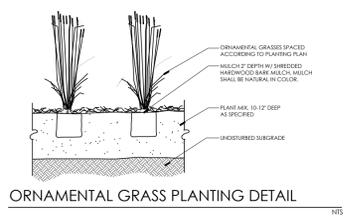
REVISIONS
04/24/24 SPA
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DRAWN BY:
G. Ostrowski
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G. Ostrowski
APPROVED BY:
G. Ostrowski
DATE:
January 9, 2024

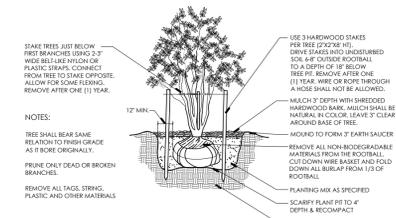
SCALE: VARIES
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NFE JOB NO. SHEET NO.
K176-01 L4



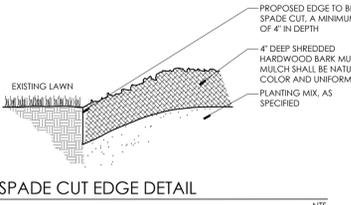
A3 PARTIAL SOUTH TYPE C BUFFER SECTION NTS



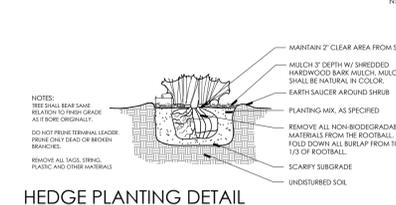
ORNAMENTAL GRASS PLANTING DETAIL NTS



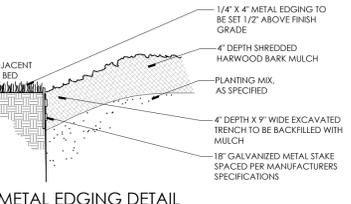
MULTI-STEM TREE PLANTING DETAIL NTS



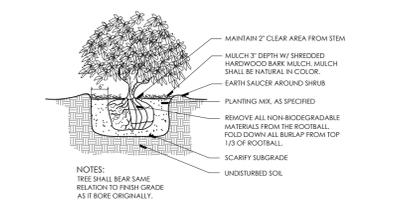
SPADE CUT EDGE DETAIL NTS



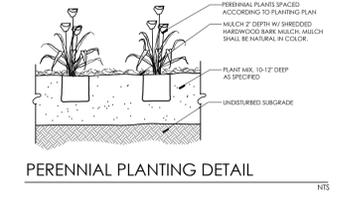
HEDGE PLANTING DETAIL NTS



METAL EDGING DETAIL NTS



SHRUB PLANTING DETAIL DECIDUOUS SHRUB NTS



PERENNIAL PLANTING DETAIL NTS

DEMOLITION NOTES:

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SURVEY INFORMATION INCLUDING THE UTILITY SYSTEMS BEFORE ANY DEMOLITION OR CONSTRUCTION WORK OCCURS. ANY DISCREPANCIES WITH THE SURVEY INFORMATION SHALL BE REPORTED TO THE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COST INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
- ALL EXISTING IMPROVEMENTS, MATERIALS AND PLANT MATERIAL TO REMAIN WITHIN THE NEW CONSTRUCTION AREA SHALL BE PROPERLY AND ADEQUATELY PROTECTED FROM DAMAGE DURING THE DEMOLITION OPERATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE TO THE ORIGINAL CONDITION ANY OF THESE EXISTING ITEMS THAT ARE DAMAGED OR DISTURBED IN ANY WAY.
- ALL MATERIALS TO BE REUSED OR SALVAGED SHALL BE STORED IN AN AREA DESIGNATED BY THE CITY ENGINEER FOR THAT PURPOSE. ALL SALVAGED MATERIALS SHALL REMAIN THE PROPERTY OF THE CITY ENGINEER.
- STREETS, SIDEWALKS AND ADJACENT PROPERTIES SHALL BE PROTECTED THROUGHOUT THE WORK AS REQUIRED BY LOCAL CODES AND REGULATIONS AND APPROVED BY THE OWNER.
- ALL MATERIAL SPECIFIED TO BE REMOVED SHALL BE DISPOSED OF OFF-SITE PER LOCAL CODES AND REGULATIONS. CONTRACTOR SHALL COORDINATE METHOD OF DISPOSAL WITH CITY ENGINEER PRIOR TO COMMENCEMENT OF WORK.
- MATERIALS TO BE REUSED OR SALVAGED SHALL BE STORED IN AN AREA DESIGNATED BY THE OWNERS REPRESENTATIVE FOR THAT PURPOSE. ALL SALVAGED MATERIALS SHALL REMAIN THE PROPERTY OF THE OWNER.
- DURING DEMOLITION OPERATIONS EVERY EFFORT SHALL BE MADE TO CONTROL DUST, PER CITY REQUIREMENTS.
- TREES AND SHRUBS TO BE REMOVED WITHIN THE LIMITS OF WORK SHALL BE CLEARLY IDENTIFIED WITH BRIGHTLY COLORED RIBBON.
- GRUBBING SHALL INCLUDE ALL WEEDS, SHRUBS, STUMPS AND ROOT SYSTEMS OF REMOVED PLANT MATERIAL, IRRIGATION PIPING AND ANY OTHER IRRIGATION MATERIALS WITHIN THE LIMITS OF DEMOLITION. GRUBBING SHALL BE TO THE DEPTHS BELOW PROPOSED IMPROVEMENTS INDICATED AS FOLLOWS: CONCRETE PAVING AND WALKWAYS-TOTAL DEPTH OF PAVING AND SUB-BASE; ASPHALT PAVING-TOTAL DEPTH OF PAVING AND SUB-BASE; LAWN AND OTHER PLANTINGS AREAS-REMOVE DEPTH REQUIRED OF STUMPS AND ROOTS OVER TWO (2) INCHES IN DIAMETER AND TURT.
- PROTECT EXISTING TREES TO REMAIN PER TYPICAL TREE PROTECTION DETAIL.
- STOCKPILED TOPSOIL SHALL BE STORED ON SITE AND REMAIN PROTECTED FROM CONTAMINATION PRIOR TO REDISTRIBUTION.
- SAWCUT AND REMOVE EXISTING ASPHALT AS REQUIRED TO INSTALL NEW SITE IMPROVEMENTS AND ADJUST GRADES WITHIN CITY STREETS. ALL WORK WITHIN CITY RIGHT OF WAY SHALL MEET CITY STANDARDS AND SPECIFICATIONS.
- ARRANGE FOR APPLICABLE UTILITY COMPANY TO RELOCATE EXISTING CABLES, WIRES, PHONE LINES, ETC. ALONG WITH EDISON POWER LINES AS REQUIRED.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL APPLICABLE PERMITS AND FEES NECESSARY FOR THE COMPLETE CONSTRUCTION OF THE PROJECT.

GRADING NOTES:

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING SURVEY INFORMATION INCLUDING THE UTILITY SYSTEMS BEFORE ANY DEMOLITION OR CONSTRUCTION WORK OCCURS. ANY DISCREPANCIES WITH THE SURVEY INFORMATION SHALL BE REPORTED TO THE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COST INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
- CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING THE DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY ENGINEER. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO LACK OF SUCH NOTIFICATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH OPERATIONS.
- CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ANY EXISTING MATERIALS THAT ARE DAMAGED DURING CONSTRUCTION.
- NO CHANGE IN CONTRACT PRICE WILL BE ALLOWED FOR ACTUAL OR CLAIMED BETWEEN EXISTING GRADE AND THOSE SHOWN ON PLANS AFTER CONTRACTOR HAS ACCEPTED EXISTING GRADES AND MOVED ON TO THE SITE.
- ALL PROPOSED GRADES ARE TO MEET AND BLEND IN WITH THE EXISTING GRADE AT PROJECT LIMIT. PRECISE ELEVATIONS INDICATED ON THE PLANS TO BE VERIFIED IN FIELD TO AS-BUILT CONDITION.
- ALL GRADING AND PLACEMENT OF DRAINAGE STRUCTURES TO BE SUPERVISED IN THE FIELD BY THE OWNER'S REPRESENTATIVE.
- INSTALL 3" DEPTH TOPSOIL OVER ALL DISTURBED LAWN AREAS.
- SEED ALL PROPOSED OR DISTURBED LAWN AREAS.

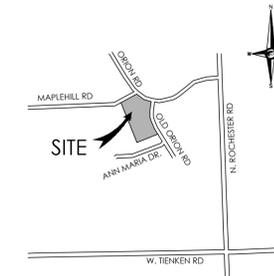
PLANTING NOTES:

- THE CONTRACTOR SHALL VERIFY ALL RIGHTS OF WAY, EASEMENTS, PROPERTY LINES AND LIMITS OF WORK, ETC. PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PERTINENT UTILITY COMPANIES 72 HOURS IN ADVANCE OF ANY DIGGING TO MAKE HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES.
- THE CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- ANY DISCREPANCIES BETWEEN DIMENSIONED LAYOUT AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT. FAILURE TO MAKE SUCH DISCREPANCIES KNOWN WILL RESULT IN CONTRACTOR'S RESPONSIBILITY AND LIABILITY FOR ANY CHANGES AND ASSOCIATED COST.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH CONSTRUCTION INSTALLATION OPERATIONS.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN POSITIVE SURFACE DRAINAGE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, AND/OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXISTING MATERIALS THAT ARE DAMAGED DURING CONSTRUCTION.
- SEE SPECIFICATIONS, PLANT LIST AND PLANTING DETAILS FOR PLANTING REQUIREMENTS, MATERIALS AND EXECUTION.
- ALL TREES TO HAVE CLAY LOAM OR CLAY BALLS - TREES WITH SAND BALLS SHALL NOT BE ACCEPTED.
- ALL TREES TO BE APPROVED BY OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT PRIOR TO DELIVERY TO THE SITE. ANY TREES DELIVERED TO THE SITE NOT PREVIOUSLY APPROVED MAY BE REJECTED AND ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR TO VERIFY PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION OF PLANT MATERIAL.
- THE CONTRACTOR SHALL PLACE 3" DEPTH OF SHREDDED BARK MULCH IN ALL PLANTING BEDS, UNLESS OTHERWISE INDICATED.



COORDINATE FINAL CONTROLLER LOCATION WITH OWNERS REP. PRIOR TO INSTALLATION. HARDWIRE CONTROLLER DIRECTLY TO NEAREST CIRCUIT PANEL. INSTALL ALL WIRES IN CONDUIT AND SECURELY FASTEN.

LOCATE AND CONNECT TO 1/2" SUPPLY LINE. TAP IMMEDIATELY AFTER THE DOMESTIC WATER METER. INSTALL SHUT OFF VALVE AND WINTERIZATION PORT. BRING NEW 1/2" IRRIGATION SUPPLY LINE TO THE OUTSIDE OF THE BLDG. CORE DRILL AND SEAL EXTERIOR WALL. SEE MECH. DRAWINGS. COORDINATE EXACT WATER SOURCE LOCATION WITH OWNERS REPRESENTATIVE PRIOR TO CONSTRUCTION. LOCATION SHOWN IS APPROXIMATE.



LOCATION MAP N.T.S.



NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

IRRIGATION NOTE:

ALL LANDSCAPE AREAS, INCLUDING THOSE WITHIN THE R.O.W. SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. THE SYSTEM SHALL OPERATE IN COMPLIANCE WITH LOCAL STANDARDS AND SEASONAL RESTRICTIONS. SEPARATE ZONES SHALL BE PROVIDED FOR LAWN AREAS AND PLANTING BEDS. IRRIGATION SHALL BE DESIGNED IN THE MOST EFFICIENT MANNER NECESSARY TO FULLY IRRIGATE ALL PLANTING AREAS. OVERSPRAY ONTO CITY ROADS OR PATHWAYS IS PROHIBITED.

SEAL



PROJECT
Old Orion Court
Development

CLIENT
Mark Bismack
5319 23 Mile Road
Shelby Township, MI 48306

Care of:
Krieger Klatt Architects
Contact: Mr. Jeff Klatt, AIA
Phone: (248) 414-9270
Email: Jeff@kriegerklatt.com

PROJECT LOCATION
Part of the SE 1/4
of Section 3
T. 3N., R. 11E.
City of Rochester Hills,
Oakland County, Michigan

SHEET
Irrigation Plan



REVISIONS

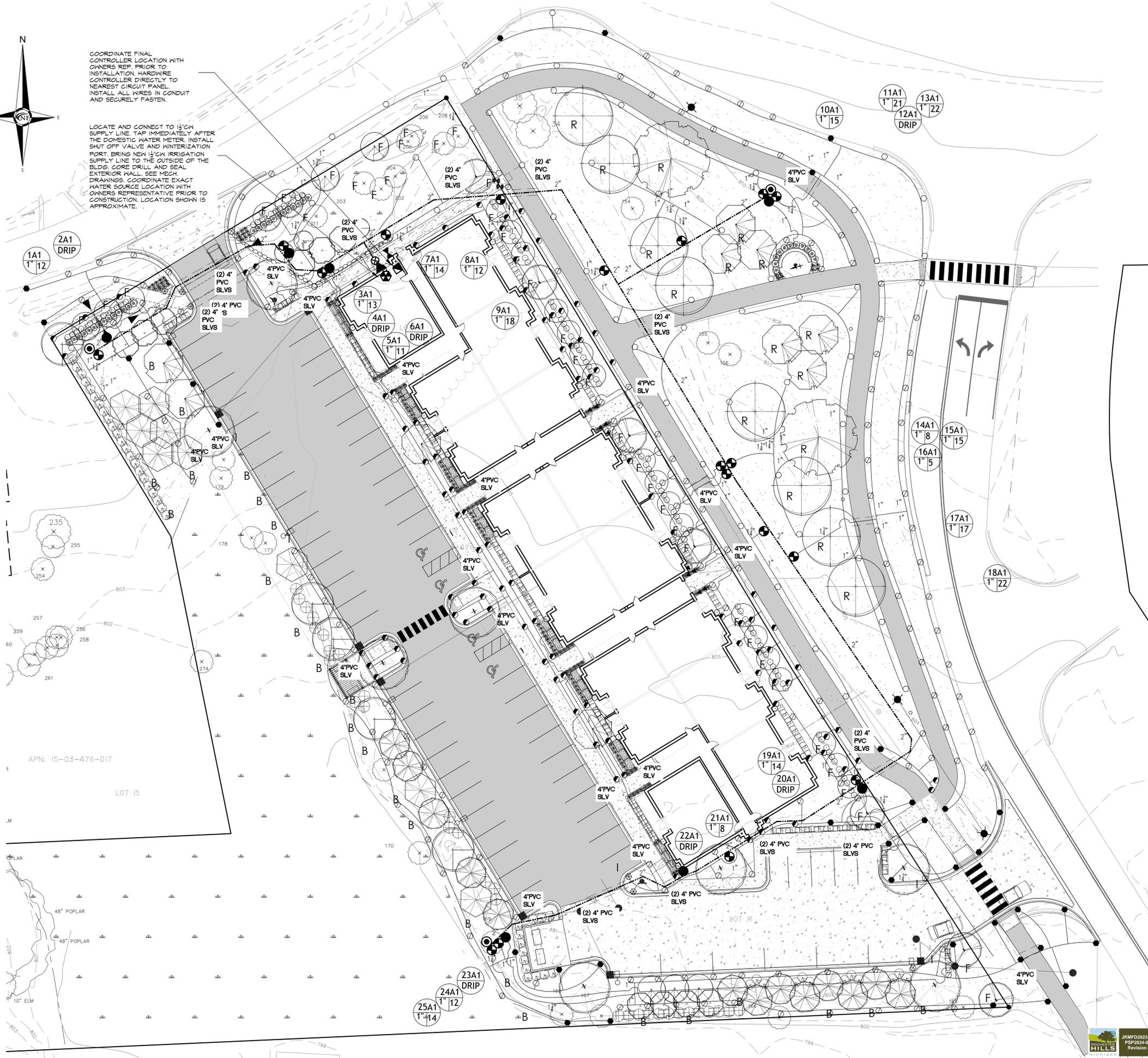
04/24/24 SPA
07/15/24 SPA
11/06/24 REVISED PER CITY
01/13/25 SPA REV #2
04/04/25 SPA REV #3



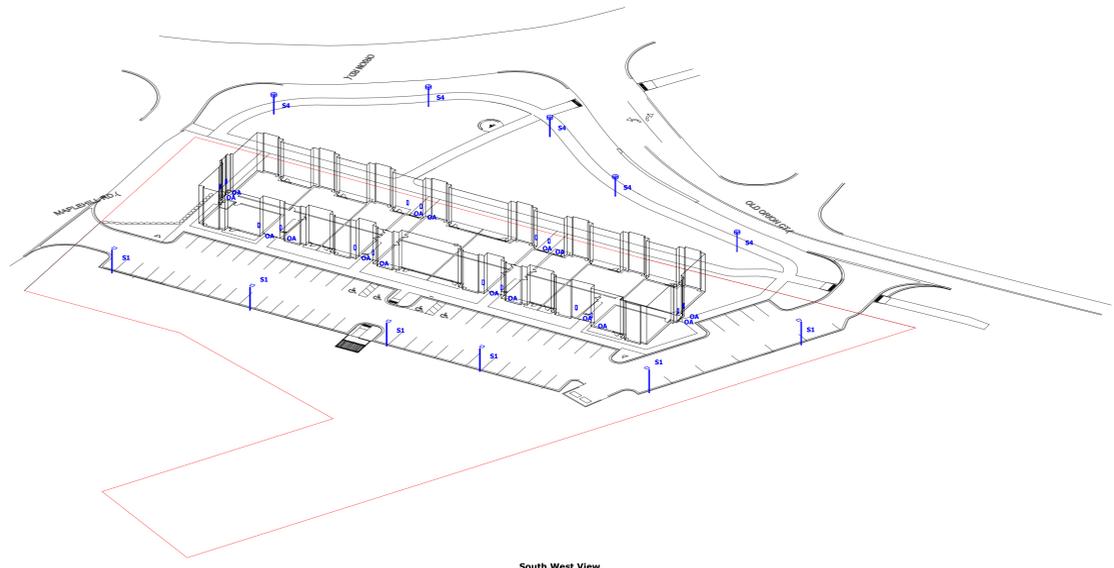
2428 Chippewa Trail
Hastings, Michigan 49058
Tel. (248) 789-0330
email: abarnes@lqassets.org
www.lqassets.org

DRAWN BY:
AJB
DESIGNED BY:
AJB
APPROVED BY:
G. Ostrowski
DATE:
July 15, 2024

SCALE: 1" = 30'
NFE JOB NO. **K176-01** SHEET NO. **IR1**



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D-Series Size 1 LED Area Luminaire

Specifications

- Length: 22 1/2"
- Width: 7 1/2"
- Height: 2 1/2"
- Weight: 10.5 lbs

Ordering Information

EXAMPLE: DSX1 LED 70CRI 7000K 15M MVOLT SPX RETAILED PERIM COORD

Symbol	Description	Quantity	Manufacturer	Catalog	Description	LLF	Mounting Height
OA	Aluminum housing, frosted lens enclosure, 3000K	16	Brownlee Lighting Inc	7115-15-H08-30K	Aluminum housing, frosted lens enclosure, 3000K	0.9	6'
S1	D-Series Size 1 Area Luminaire Performance Package 3000K CCT 70 CRI	6	Lithonia Lighting	DSX1 LED 30K 70CRI	D-Series Size 1 Area Luminaire Performance Package 3000K CCT 70 CRI	0.9	15'
S4	POST TOP Pedestrian, 3000K, From City Gateway and Streetscape Master Plan.	5	FORMS AND SURFACES	CRT2011160915-001,	POST TOP Pedestrian, 3000K, From City Gateway and Streetscape Master Plan.	0.9	12'

Forms + Surfaces

Introduction

The modern styling of the D-Series luminaire is a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy lighting luminaire.

The photometric performance results in close with excellent uniformity, greater pole spacing and lower power density. D-Series outdoor lighting luminaire adds in reducing the number of poles required in new lighting applications with typical energy savings of 10% and expected service life of over 100,000 hours.

Materials & Construction Details

INSTALLATION & MAINTENANCE

WARRANTY

5 YEAR WARRANTY

CAPSULE-SQ

7115 LED

CAPSULE-SQ is a wall location rated luminaire offered in two sizes. While intended for interior use, it is also suitable for exterior use in protected locations such as elevator shafts, hallways, and meeting rooms. Heavy duty stainless steel hardware, enclosed LED 120-277V LED components, all CAPSULE-SQ is available in two beam spread options (model # 7115 and square model # 7115).

FINISHES

Black, White, Bronze, Silver, Gold, Copper, Nickel, Chrome, Stainless Steel, Powder Coat, Custom Color

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Overall Site	+	0.62 fc	5.87 fc	0.00 fc	N/A	N/A
Parking Area	X	1.96 fc	5.87 fc	0.41 fc	14.3:1	4.8:1
Property Line @ 5'	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
Proposed Walkway	+	1.29 fc	6.03 fc	0.08 fc	75.4:1	16.1:1
Roadway Boundary @ 5'	+	0.12 fc	0.42 fc	0.02 fc	21.0:1	6.0:1

Schedule

Symbol	Label	QTY	Manufacturer	Catalog	Description	LLF	Mounting Height
OA	OA	16	Brownlee Lighting Inc	7115-15-H08-30K	Aluminum housing, frosted lens enclosure, 3000K	0.9	6'
S1	S1	6	Lithonia Lighting	DSX1 LED 30K 70CRI	D-Series Size 1 Area Luminaire Performance Package 3000K CCT 70 CRI	0.9	15'
S4	S4	5	FORMS AND SURFACES	CRT2011160915-001,	POST TOP Pedestrian, 3000K, From City Gateway and Streetscape Master Plan.	0.9	12'

General Note

- SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
- SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR.
- CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: 0' - 0" & 5' - 0"

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 DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION 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. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT CONTROLS@GASSERBUSH.COM OR 734-266-6705.

Alternates Note

THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

Ordering Note

FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

Drawing Note

THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

Mounting Height Note

MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

