FINAL SITE PLAN FOR

HERITAGE SQUARE

SINGLE FAMILY

PHASES 2 & 3

LEGAL DESCRIPTION (AS PROVIDED)

**(PER TITLE AGENCY: ATA NATIONAL TITLE GROUP
TITLE COMMITMENT NO: 47-23889492-SCM,
EFFECTIVE DATE: SEPTEMBER 05,2023)**

PARCEL TAX NUMBER: 47-06-32-400-013

SITUATED IN THE TOWNSHIP OF HOWELL, COUNTY OF LIVINGSTON, STATE OF MICHIGAN

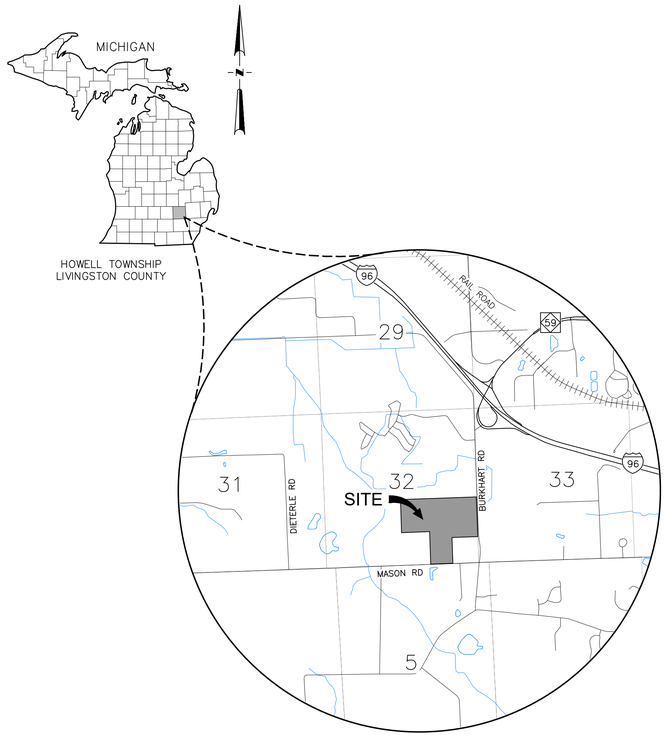
PART OF THE SOUTHEAST 1/4 OF SECTION 32 AND PART OF THE SOUTHWEST 1/4 OF SECTION 33, TOWN 3 NORTH, RANGE 4 EAST, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE SOUTH LINE OF SAID SECTION 32, SAID POINT BEING SOUTH 89 DEGREES 55 MINUTES 08 SECONDS WEST 903.41 FEET FROM THE SOUTHEAST CORNER OF SECTION 32; THENCE SOUTH 89 DEGREES 55 MINUTES 08 SECONDS WEST 769.27 FEET ALONG THE SOUTH SECTION LINE; THENCE NORTH 00 DEGREES 05 MINUTES 59 SECONDS EAST 1133.64 FEET; THENCE SOUTH 89 DEGREES 55 MINUTES 08 SECONDS WEST 980.63 FEET TO THE NORTH-SOUTH 1/4 LINE; THENCE NORTH 00 DEGREES 04 MINUTES 04 SECONDS EAST 1155.25 FEET ALONG THE NORTH-SOUTH 1/4 LINE; THENCE SOUTH 89 DEGREES 59 MINUTES 30 SECONDS EAST 2649.93 FEET TO THE EAST SECTION LINE; THENCE SOUTH 00 DEGREES WEST 1374.40 FEET ALONG THE EAST SECTION LINE; THENCE SOUTH 03 DEGREES 58 MINUTES 40 SECONDS EAST 10.20 FEET ALONG THE CENTERLINE OF BURKHART ROAD; THENCE SOUTH 89 DEGREES 55 MINUTES 08 SECONDS WEST 904.12 FEET; THENCE SOUTH 00 DEGREES WEST 900.16 FEET TO THE POINT OF BEGINNING.

LAND USE SUMMARY

	CHARACTERISTIC	EXISTING CONDITIONS	PROPOSED CONDITIONS
LAND USE DATA	TOTAL DEVELOPMENT AREA (AC)	95.02 AC	95.02 AC
	IMPERVIOUS AREA (AC)	0.00 AC	29.95 AC
	TOTAL PERVIOUS AREA (AC)	95.02 AC	65.07 AC
PERVIOUS AREA	PERVIOUS AREA BREAKDOWN BY COVER TYPE		
	MEADOW/FALLOW/NATURAL AREAS (NON-CULTIVATED)	19.07 AC	16.12 AC
	PREDOMINANT NRCS SOIL TYPE (A, B, C, OR D)	TYPE C	TYPE C
	IMPROVED AREAS (TURF GRASS, LANDSCAPE, ROW CROPS)	45.28 AC	38.68 AC
	PREDOMINANT NRCS SOIL TYPE (A, B, C, OR D)	TYPE B	TYPE B
	WOODED AREAS	30.67 AC	10.27 AC
	PREDOMINANT NRCS SOIL TYPE (A, B, C, OR D)	TYPE C	TYPE C
	CPVC VOLUME CALCULATED (CF)		174,380 CF
	CPVC VOLUME PROVIDED (CF) *		0 CF
	CPRC (EXTENDED DETENTION) VOLUME PROVIDED (CF)		254,863 CF

* NOTED CPVC VOLUME PROVIDED = 0 DUE TO LACK OF INFILTRATION CAUSED BY HIGH GROUND WATER.

THE PROFESSIONAL ENGINEER WHO SIGNS AND SEALS THIS SITE PLAN CERTIFIES THAT THE VALUES IN THIS TABLE REFLECT THE WRC STORMWATER CALCULATIONS REQUIRED FOR THIS DEVELOPMENT AND THAT GEOTECHNICAL INVESTIGATIONS WERE PERFORMED THAT PROVIDE CONCLUSIVE DOCUMENTATION THAT DEMONSTRATES WHETHER INFILTRATION (I.E. CPVC VOLUME CONTROL) IS PRACTICABLE.



LOCATION MAP

DESIGN ENGINEER/SURVEYOR

MONUMENT ENGINEERING GROUP ASSOCIATES, INC

INNOVATIVE GEOSPATIAL &
ENGINEERING SOLUTIONS

298 VETERANS DRIVE,
FOWLERVILLE, MI 48836
PHONE: 517-223-3512

SINGLE FAMILY DEVELOPER

M/I HOMES OF MICHIGAN, LLC

40950 WOODWARD AVE
SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
PHONE: 248-221-5011

ARCHITECT

FELINO PASCUAL ASSOCIATES
24333 Orchard Lake Road
Suite G
Farmington Hills, MI 48336
POC: Felino A. Pascual (Joel), RLA, CLARB Pas
PHONE: 248-557-5588

NOTE: BUILDING PERMITS (BUILDING, ELECTRICAL, PLUMBING, MECHANICAL, ETC.) ARE TRACKED SEPARATELY ON THE ARCHITECTURAL PLANS.

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

298 VETERANS DRIVE
FOWLERVILLE,
MICHIGAN 48836
(OFFICE) 517-223-3512
MONUMENTENGINEERING.COM

SERVICE DISABLED VETERAN OWNED SMALL BUSINESS (SDVOSB)

KEVIN C. MCDEVITT
ENGINEER
NO. 6201043260

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www.missdig.org
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO REPRESENTATION IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

M/I HOMES OF MICHIGAN, L.L.C.

40950 WOODWARD AVE
SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)-221-5011

COVER

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

SCALE: N/A
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

G-1.0

NOT FOR CONSTRUCTION

FILE:P:\Projects\2021\21-075 Heritage Square PUD\21-075C Heritage Square (Single-Family)\Dwg\Engineering\PH 2-3 FSP PLANS\21-075C_SF_PH2 FSP_G-1.0_Cover.dwg PLOT DATE:12/22/2025 11:49 AM

SHEET INDEX

		SITE PLAN SUBMITTAL 5/09/2024	PHASE 1 FINAL SITE PLAN SUBMITTAL 9/18/2024	MODIFIED COVERAGE CALCULATION 11/25/2024	REVISED PHASE 1 FINAL SITE PLAN 2/20/2025	PHASE 2&3 FINAL SITE PLAN SUBMITTAL 12/22/2025
		INCLUDED SHEETS				
	GENERAL					
SHEET G-1.0	COVER	●	●	●	●	●
SHEET G-1.1	SHEET INDEX	●	●	●	●	●
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SHEET C-1.6	DIMENSION AND PAVING PLAN – PHASE 5	●				
SHEET C-1.7	DIMENSION AND PAVING PLAN – PHASE 6	●				
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SHEET C-2.2	WETLAND IMPACTS – WETLAND D			●	●	●
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SHEET C-3.3	SANITARY SEWER AND WATERMAIN PLAN – PHASE 2	●				●
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SHEET C-3.5	SANITARY SEWER AND WATERMAIN PLAN – PHASE 4	●				
SHEET C-3.6	SANITARY SEWER AND WATERMAIN PLAN – PHASE 5	●				
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SHEET C-5.4	WATER MAIN PROFILES – SEDGEVIEW CIRCLE (EAST AND SOUTH)	●				
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SHEET C-5.8	WATER MAIN PROFILES – FORESTRY ROAD	●				
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		SITE PLAN SUBMITTAL 5/09/2024	PHASE 1 FINAL SITE PLAN SUBMITTAL 9/18/2024	MODIFIED COVERAGE CALCULATION 11/25/2024	REVISED PHASE 1 FINAL SITE PLAN 2/20/2025	PHASE 2&3 FINAL SITE PLAN SUBMITTAL 12/22/2025
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SHEET C-6.22	STORM SEWER AND ROAD PLAN & PROFILE – HIGHLANDER PARK DRIVE (S)	●				●
SHEET C-6.23	STORM SEWER AND ROAD PLAN & PROFILE – HIGHLANDER PARK DRIVE (N)	●				●
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SHEET C-6.25	STORM SEWER PROFILES	●				●
SHEET C-6.26	STORM SEWER PROFILES	●				●
SHEET C-6.27	STORM SEWER PROFILES	●				●
SHEET C-6.28	STORM SEWER PROFILES	●				●
SHEET C-6.29	STORM SEWER PROFILES	●				●
SHEET C-6.30	STORM SEWER PROFILES	●				●
SHEET C-6.31	STORM SEWER PROFILES	●				
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SHEET C-8.2	LCDC SESC NOTES AND DETAILS	●				
SHEET C-8.3	LCDC SESC DETAILS	●				
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SHEET C-9.2	EAST POND STORM SEWER CALCS	●				
SHEET C-9.3	EAST POND DETENTION BASIN CALCS	●				
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SHEET C-9.7	WEST POND DRAINAGE AREA CALCS	●				
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SHEET C-11.1	MDOT DETAILS				●	●
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SHEET LS-3	PLANTING DETAIL PLAN (SINGLE FAMILY)		●		●	●
SHEET LS-4	PLANTING DETAIL PLAN (DETENTION POND)		●		●	●
SHEET LS-5	PLANTING DETAIL PLAN (SOD AND SEEDING)		●		●	●
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HOWELL TOWNSHIP, MHOG, LIVINGSTON COUNTY STANDARD DETAILS

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

Monument Engineering Group Associates, Inc. ME GA

298 VETERANS DRIVE
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CLIENT :

M/I HOMES OF MICHIGAN, L.L.C.
40950 WOODWARD AVE
SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)-221-5011

SHEET INDEX

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
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ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

SCALE: N/A
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

G-1.1

NOT FOR CONSTRUCTION

FILE:P:\Projects\2021\21-075 Heritage Square PUD\21-075C Heritage Square (Single-Family)\Dwg\Engineering\PH 2-3 FSP PLANS\21-075C_SF_PH2 FSP_G-1.0_Cover.dwg PLOT DATE:12/22/2025 11:49 AM

WETLAND NOTE

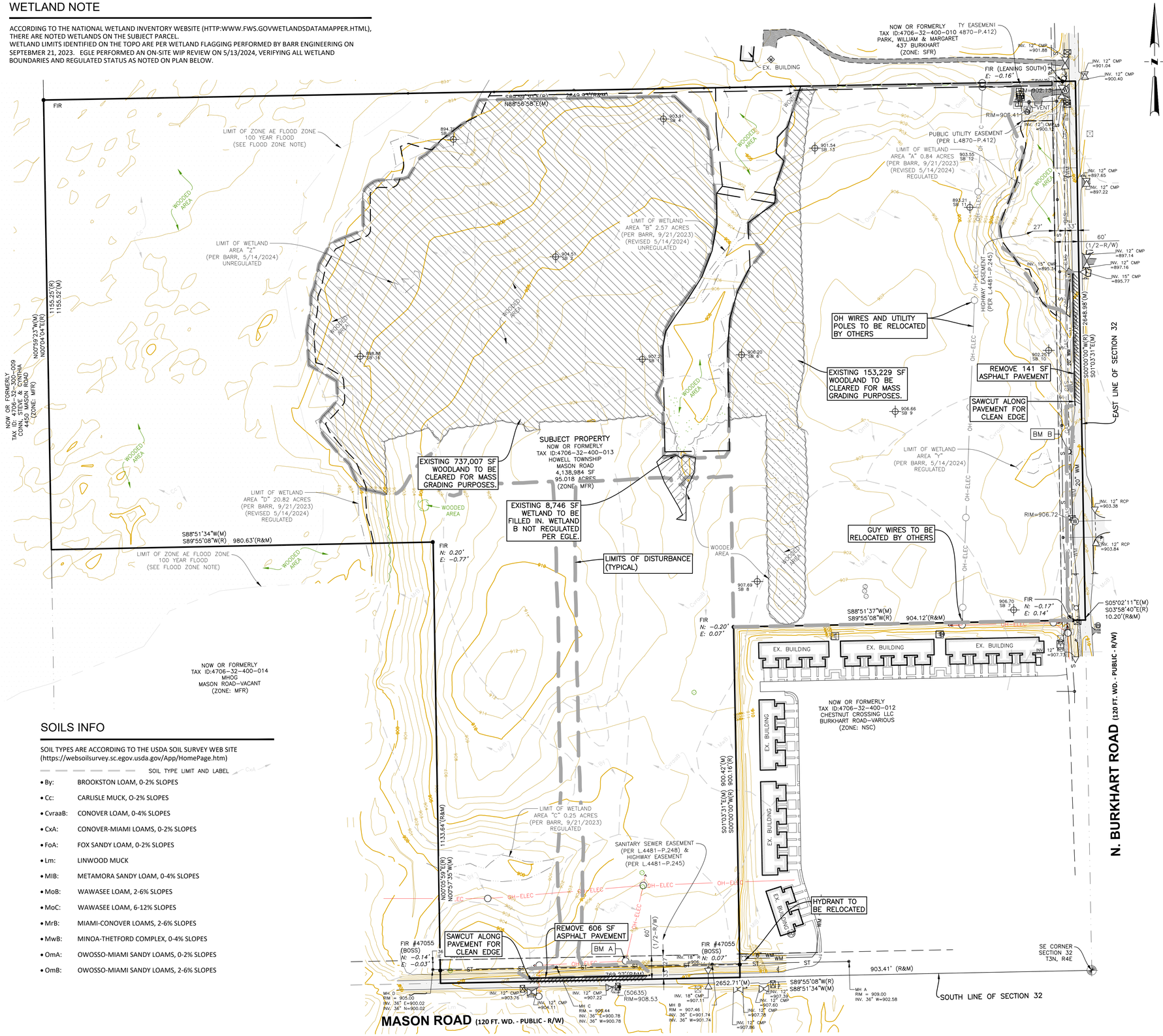
ACCORDING TO THE NATIONAL WETLAND INVENTORY WEBSITE (HTTP:WWW.FWS.GOVWETLANDSDATAMAPPER.HTML), THERE ARE NOTED WETLANDS ON THE SUBJECT PARCEL.
WETLAND LIMITS IDENTIFIED ON THE TOPO ARE PER WETLAND FLAGGING PERFORMED BY BARR ENGINEERING ON SEPTEBMER 21, 2023. EGLE PERFORMED AN ON-SITE WIP REVIEW ON 5/13/2024, VERIFYING ALL WETLAND BOUNDARIES AND REGULATED STATUS AS NOTED ON PLAN BELOW.

SOILS INFO

SOIL TYPES ARE ACCORDING TO THE USDA SOIL SURVEY WEB SITE (https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm)

SOIL TYPE LIMIT AND LABEL

- By: BROOKSTON LOAM, 0-2% SLOPES
- Cc: CARLISLE MUCK, O-2% SLOPES
- CvraaB: CONOVER LOAM, 0-4% SLOPES
- CxA: CONOVER-MIAMI LOAMS, 0-2% SLOPES
- FoA: FOX SANDY LOAM, 0-2% SLOPES
- Lm: LINWOOD MUCK
- MIB: METAMORA SANDY LOAM, 0-4% SLOPES
- MoB: WAWASEE LOAM, 2-6% SLOPES
- MoC: WAWASEE LOAM, 6-12% SLOPES
- MrB: MIAMI-CONOVER LOAMS, 2-6% SLOPES
- MwB: MINOA-THETFORD COMPLEX, 0-4% SLOPES
- OmA: OWOSSO-MIAMI SANDY LOAMS, 0-2% SLOPES
- OmB: OWOSSO-MIAMI SANDY LOAMS, 2-6% SLOPES



EXISTING LEGEND

DECIDUOUS TREE, CONIFEROUS TREE, SHRUB
TREE LINE/ CANOPY
DITCH/ DRAINING COURSE
UG TELE, MH, TELE PED, CABLE PED
UG FIBER, PED, LINE MARKER, VAULT
UG ELEC, MH, TRANSFORMER, AC UNIT, METER, BOX
OH ELEC, UTIL POLE, GUY WIRE
GROUND LIGHT, POLE, POLE W/ ARM LT
LIGHT MH, LT CTRL BOX, PARK. METER, CAR CHARGER
ELEC HAND HOLE, OUTLET, SIGNAL MH, SIGNAL BOX
UG GAS, MH, VALVE, LINE MARKER
GAS WELL, METER, VENT
WATER MAIN, MH, VALVE IN BOX, HYDRANT, FDC
WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
IRRIGATION CONTROL VALVE, SPRINKLER HEAD
STORM SEWER, MH, CB, INLET, YARD DRAIN, DOWN SPOUT
CULVERT/ END SECTION
SANITARY SEWER, MH, CLEAN OUT
COMBINED SEWER, MH
STEAM LINE, MH
MISC. MANHOLE, HAND HOLE, HAND BOX
PARKING BLOCK, SIGN, FLAG POLE, POST, ROCK, MAIL BOX
SECTION LINE, SECTION CORNER
FOUND IRON ROD (FIR), FD MON, FD PK
SET IRON ROD (SIR), SET PK, MAG NAIL
FINISH FLOOR ELEVATION, SPOT ELEVATION
CONTOUR
FENCE
GUARD RAIL
RAILROAD SIGNAL, SIGNAL BOX
SOIL BORING
EX. ASPHALT
EX. CONCRETE
EX. GRAVEL

REMOVAL LEGEND

WETLAND IMPACT
WOODLAND CLEARING

FLOOD ZONE

FEMA MAP SCALES DO NOT SUPPLY SUFFICIENT LEVEL OF DETAIL TO PLOT ACCURATELY. ZONES IF PLOTTED HEREIN ARE APPROXIMATE.

BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY, THE SUBJECT PROPERTY APPEARS TO LIE PARTIALLY IN ZONE (X) AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND ALSO PARTIALLY IN ZONE (AE) THE 1% ANNUAL CHANCE FLOOD (100 YEAR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZARD AREA IS THE AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD. AREAS OF SPECIAL FLOOD HAZARD MAY INCLUDE ZONES A, AE, AH, AO, A99, V AND VE. THE BASE FLOOD ELEVATION IS THE WATER-SURFACE ELEVATION OF THE 1% ANNUAL CHANCE FLOOD; BASED FLOOD ELEVATIONS DETERMINED ACCORDING TO THE FLOOD INSURANCE RATE MAP FOR THE COUNTY OF LIVINGSTON, COMMUNITY PANEL NO. (26093C0282D) & (26093C0301D), BOTH WITH EFFECTIVE DATE 9/17/2008.

UTILITY REFERENCES

WM: MARION, HOWELL, OCEOLA & GENOA TOWNSHIPS (MHOG)
RECEIVED: 8/16/21

SAN: MARION, HOWELL, OCEOLA & GENOA TOWNSHIPS (MHOG)
RECEIVED: 8/16/21

STORM: MARION, HOWELL, OCEOLA & GENOA TOWNSHIPS (MHOG)
RECEIVED: 8/16/21

GAS: CONSUMERS ENERGY
RECEIVED: N/A

ELEC: DETROIT EDISON
RECEIVED: N/A

PHONE/CABLE: AT&T ~ CHARTER ~ COMCAST
RECEIVED: N/A ~ N/A ~ N/A

UTILITY NOTES

1. MISS DIG WAS NOT PERFORMED AT TIME OF SURVEY.
2. ANY UTILITIES SHOWN ARE FROM ABOVE GROUND VISIBILITY AND ANY PLANS PROVIDED.
3. THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

BENCHMARKS

DATUM: NAVD88

BM A:
SET BENCH TIE IN S/SIDE OF UTILITY POLE ON NORTH SIDE OF MASON ROAD 290'± WEST OF EAST PROPERTY LINE.
ELEV = 909.83

BM B:
ARROW ON HYDRANT ON WEST SIDE OF BURKHART ROAD 430'± NORTH OF SOUTH PROPERTY LINE.
ELEV = 906.59

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POC: DAVID STRAUB
(248)-221-5011

TOPO SURVEY AND DEMO PLAN

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS (C.R. 127 & C.R. 155)
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

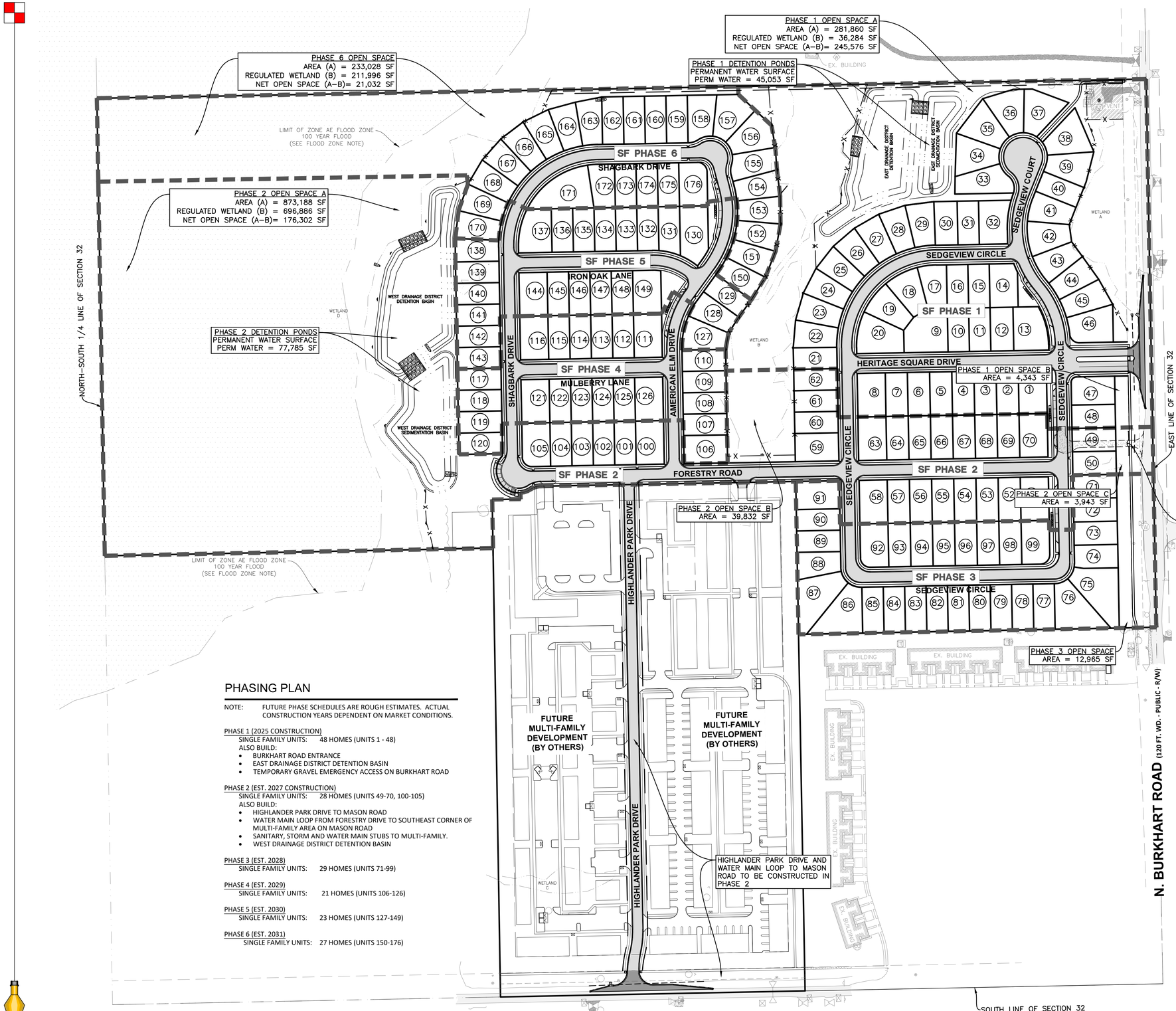
PROJECT NO: 21-075C

SCALE: 1" = 120'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

V-1.0

NOT FOR CONSTRUCTION



PHASING PLAN

NOTE: FUTURE PHASE SCHEDULES ARE ROUGH ESTIMATES. ACTUAL CONSTRUCTION YEARS DEPENDENT ON MARKET CONDITIONS.

PHASE 1 (2025 CONSTRUCTION)
SINGLE FAMILY UNITS: 48 HOMES (UNITS 1 - 48)
ALSO BUILD:
- BURKHART ROAD ENTRANCE
- EAST DRAINAGE DISTRICT DETENTION BASIN
- TEMPORARY GRAVEL EMERGENCY ACCESS ON BURKHART ROAD

PHASE 2 (EST. 2027 CONSTRUCTION)
SINGLE FAMILY UNITS: 28 HOMES (UNITS 49-70, 100-105)
ALSO BUILD:
- HIGHLANDER PARK DRIVE TO MASON ROAD
- WATER MAIN LOOP FROM FORESTRY DRIVE TO SOUTHEAST CORNER OF MULTI-FAMILY AREA ON MASON ROAD
- SANITARY, STORM AND WATER MAIN STUBS TO MULTI-FAMILY.
- WEST DRAINAGE DISTRICT DETENTION BASIN

PHASE 3 (EST. 2028)
SINGLE FAMILY UNITS: 29 HOMES (UNITS 71-99)

PHASE 4 (EST. 2029)
SINGLE FAMILY UNITS: 21 HOMES (UNITS 106-126)

PHASE 5 (EST. 2030)
SINGLE FAMILY UNITS: 23 HOMES (UNITS 127-149)

PHASE 6 (EST. 2031)
SINGLE FAMILY UNITS: 27 HOMES (UNITS 150-176)

DENSITY AND UNIT COUNT

TOTAL SITE AREA: 92 ACRES

NOTE: DENSITY CALCULATIONS FROM APPROVED PUD PLAN. MULTIFAMILY DEVELOPMENT AND SENIOR LIVING BY OTHERS. SEE UNDERLYING PUD PLAN FOR DETAILS.

AREA CURRENTLY ZONED SFR: 26.8 AC (24.0 AC UPLAND)
AREA CURRENTLY ZONED MFR: 65.2 AC (44.4 AC UPLAND)

OPEN SPACE REQUIRED (27.07.E)
10% OF TOTAL LAND AREA EXCLUSIVE OF WATER SURFACES
10% * (68.4 ACRES UPLAND) = 6.84 ACRES

OPEN SPACES PROVIDED = 8.48 ACRES (11.9% OF UPLAND AREA)

ALLOWED DENSITY (27.07.A)

UPLAND AREA SFR = 24.0 ACRES
REDUCED 10% FOR REQUIRED OPEN SPACE = 21.6 ACRES
SFR = 3.0 UNITS/ACRE x 1.25 = 3 x 21.6 x 1.25 = 81 UNITS

UPLAND AREA MFR = 44.44 ACRES
REDUCED 10% FOR REQUIRED OPEN SPACE = 40 ACRES
MFR = 12 UNITS/ACRE x 1.25 = 12 x 40 x 1.25 = 600 UNITS

TOTAL ALLOWED UNITS = 681

UNITS PROPOSED

SINGLE FAMILY UNITS: 176 PROPOSED

MULTI-FAMILY UNITS: 288 PROPOSED
- 55 - 3 BR / 2 BA - RANCH STYLE TOWNHOMES
- 81 - 2 BR/ 2.5 BA - 2-STORY TOWNHOMES
- 40 - 1 BR / 1 BA - GARDEN STYLE APARTMENTS
- 112 - 3 BR / 2.5 BA - 2 STORY TOWNHOMES W/ GARAGE

3 - STORY SENIOR LIVING BUILDING: APPROX. 90 PROPOSED

TOTAL: 554 RESIDENTIAL UNITS

OPEN SPACE CALCULATOINS - BY PHASE

TOTAL SINGLE FAMILY AREA	= 3,061,947 SF (70.29 ACRES)
TOTAL SINGLE FAMILY AREA (- REG. WETLAND)	= 2,116,782 SF (48.59 ACRES)
TOTAL SINGLE FAMILY OPEN SPACE	= 381,155 SF
(EXLUDES REGULATED WETLANDS AND PERMANENT WATER SURFACES)	
PHASE 1	
PHASE 1 AREA	= 749,909 SFT (17.22 ACRES)
PHASE 1 OPEN SPACE =	= 286,203 SFT
PERMANENT WATER AREA	= 45,053 SFT
REGULATED WETLAND AREA	= 36,284 SFT
NET OPEN SPACE (EXC. WATER & WL)	= 204,866 SFT
OPEN SPACE PERCENT	= 27.3 %
PHASE 2	
PHASE 2 AREA	= 1,208,468 SF (27.74 ACRES)
TOTAL AREA (PHASE 1-2)	= 1,958,377 SF (44.96 ACRES)
PHASE 2 OPEN SPACE	= 916,963 SF
PERMANENT WATER AREA	= 77,785 SF
REGULATED WETLAND AREA	= 696,886 SF
NET OPEN SPACE (EXC. WATER & WL)	= 142,292 SF
TOTAL NET OPEN SPACE (PHASE 1-2)	= 347,158 SF
OPEN SPACE PERCENT	= 17.7%
PHASE 3	
PHASE 3 AREA	= 259,260 SF (5.95 ACRES)
TOTAL DEVELOPED AREA	= 2,217,637 SF (50.91 ACRES)
PHASE 3 OPEN SPACE	= 12,965 SF
TOTAL NET OPEN SPACE (PHASE 1-3)	= 360,123 SF
OPEN SPACE PERCENT	= 16.2%
PHASE 4	
PHASE 4 AREA	= 182,324 SF (4.19 ACRES)
TOTAL DEVELOPED AREA	= 2,399,961 SF (55.10 ACRES)
NO ADDITIONAL OPEN SPACE	
TOTAL NET OPEN SPACE (PHASE 1-4)	= 360,123 SF
OPEN SPACE PERCENT	= 15.0%
PHASE 5	
PHASE 5 AREA	= 205,415 SF (4.72 ACRES)
TOTAL DEVELOPED AREA	= 2,605,376 SF (59.81 ACRES)
NO ADDITIONAL OPEN SPACE	
TOTAL NET OPEN SPACE (PHASE 1-5)	= 360,123 SF
OPEN SPACE PERCENT	= 13.8%
PHASE 6	
PHASE 6 AREA	= 456,572 SF (10.48 ACRES)
TOTAL DEVELOPED AREA	= 3,061,947 SF (70.29 ACRES)
PHASE 6 OPEN SPACE	= 233,028 SF
REGULATED WETLAND AREA	= 211,996 SF
NET OPEN SPACE (EXC. WATER & WL)	= 21,032 SFT
TOTAL NET OPEN SPACE (PHASE 1-6)	= 381,155 SF
OPEN SPACE PERCENT	= 12.4 %

TOWNSHIP PUD ORDINANCE REQUIRES 10% MINIMUM OPEN SPACE.

NOTE: AREAS DO NOT INCLUDE BURKHART ROAD RIGHT OF WAY.

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PHASING PLAN – OVERVIEW

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
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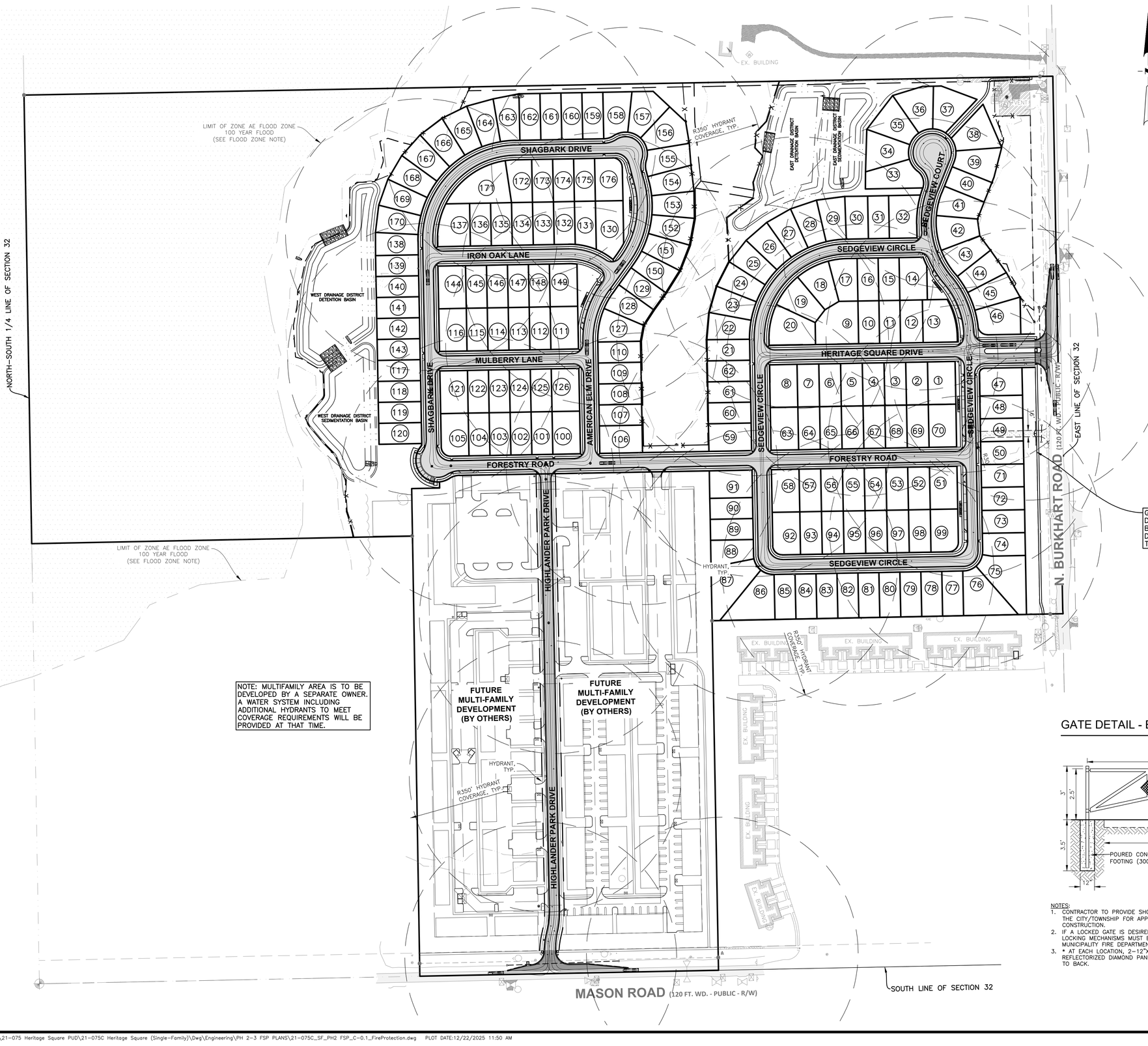
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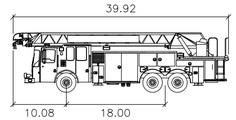
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EMERGENCY VEHICLE



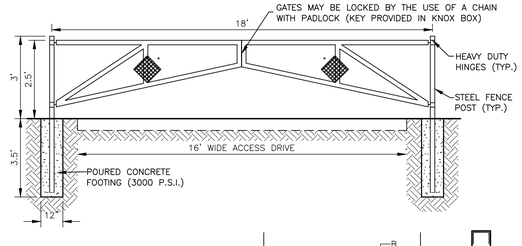
Smeal Aerial RM 100ft

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Width	: 8.33
Track	: 7.92
Lock to Lock Time	: 6.0
Steering Angle	: 45.0

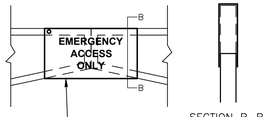
FIRE PROTECTION NOTES

1. PARKING SHALL ONLY BE ALLOWED ON ONE SIDE OF THE INTERNAL STREETS. EACH STREET SHALL HAVE 12"X18" R8-31 "NO PARKING FIRE LANE" SIGNS POSTED AT A MAXIMUM SPACING OF 100 FEET ON THE SIDE OF THE STREET ADJACENT TO HYDRANTS.
2. 12"X18" R8-31 "NO PARKING FIRE LANE" SIGNS SHALL BE POSTED ON BOTH SIDES OF THE TEMPORARY EMERGENCY ACCESS ROAD LOCATED THROUGH UNIT 50, OFF NORTH BURKHART ROAD. SIGNS SHALL BE PLACED FACING TRAFFIC AT BOTH ENDS.
3. EMERGENCY ACCESS DRIVE THROUGH UNIT 50 SHALL REMAIN IN SERVICE THROUGHOUT CONSTRUCTION OF PHASES 1 AND 2, UNTIL HIGHLANDER PARK DRIVE TO MASON ROAD HAS BEEN OPENED TO TRAFFIC.
4. NO OCCUPANCY SHALL BE ALLOWED FOR ANY UNITS BEYOND PHASE 1 UNTIL HIGHLANDER PARK DRIVE IS OPEN TO TRAFFIC. ONCE HIGHLANDER PARK DRIVE IS OPEN TO TRAFFIC, THE CONTRACTOR SHALL REMOVE THE EMERGENCY ACCESS DRIVE (EXCEPT FOR THE APPROACH AND CULVERT, WHICH SHALL REMAIN IN PLACE FOR MHOG AND FIRE AUTHORITY USE).
5. A EMERGENCY ALERT TORNADO SIREN SHALL BE INSTALLED WITHIN THE PARK AT THE INTERSECTION OF FORESTRY ROAD AND SHAGBARK DRIVE. LOCATION OF THE SIREN SHALL BE COORDINATED WITH THE FIRE MARSHAL AND HOWELL TOWNSHIP.
6. A KNOX BOX SHALL BE MOUNTED TO THE EMERGENCY ENTRANCE GATE.

GATE DETAIL - EMERGENCY - ACCESS



NOTES:
1. CONTRACTOR TO PROVIDE SHOP DRAWINGS TO THE CITY/TOWNSHIP FOR APPROVAL PRIOR TO CONSTRUCTION.
2. IF A LOCKED GATE IS DESIRED (OPTIONAL), LOCKING MECHANISMS MUST BE APPROVED BY MUNICIPALITY FIRE DEPARTMENT.
3. * AT EACH LOCATION, 2-12"X12" RED REFLECTORIZED DIAMOND PANELS, PLACED BACK TO BACK.



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FIRE PROTECTION PLAN

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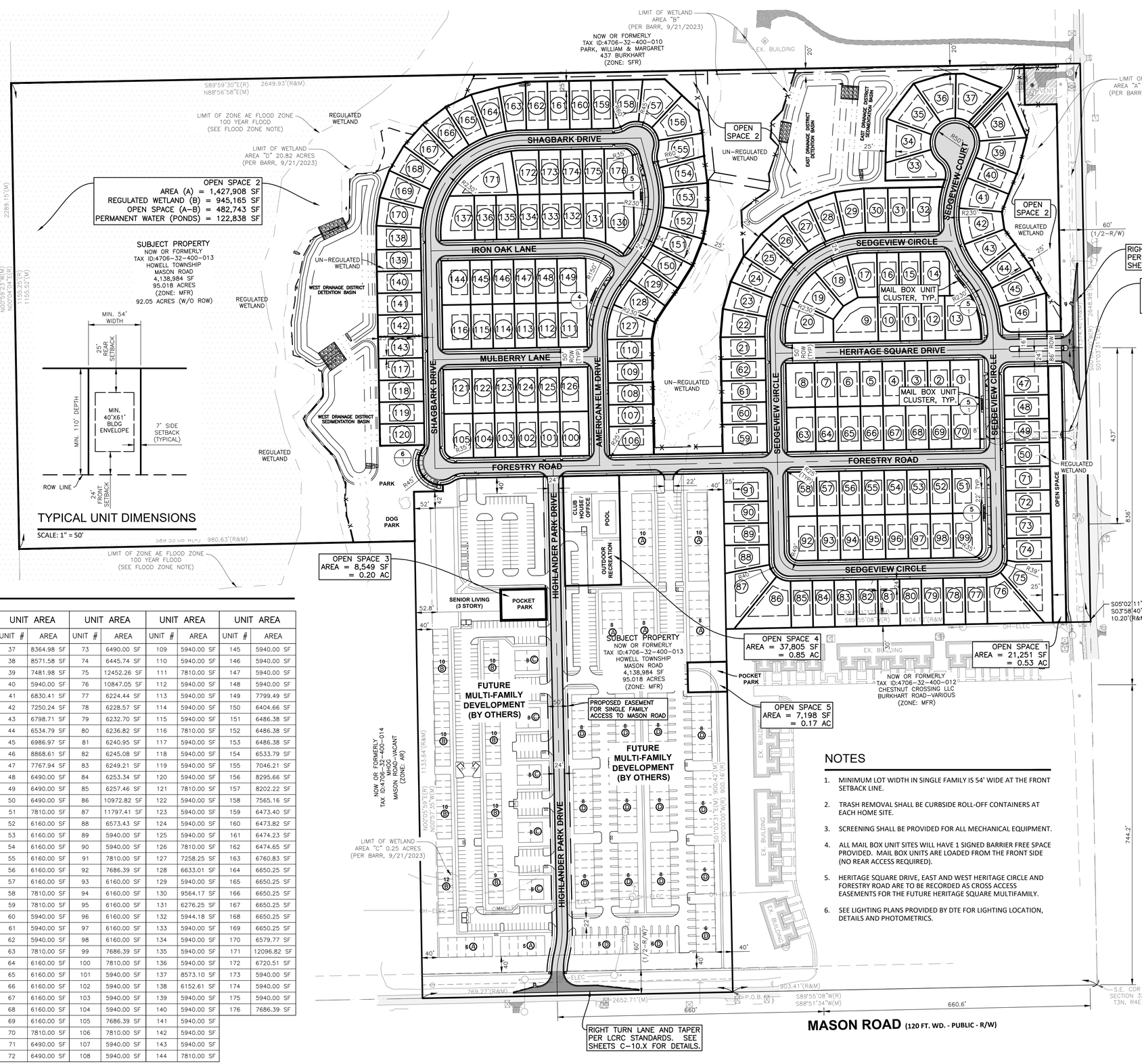
PROJECT NO: 21-075C

SCALE: 1" = 120'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
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PAVEMENT LEGEND

- EX. ASPHALT
- EX. CONCRETE
- EX. GRAVEL
- PR. STANDARD DUTY ASPHALT
- PR. CONCRETE
- STANDARD CURB AND GUTTER
- STRAIGHT CURB
- PROPOSED CLUSTER MAILBOX

PROVIDED SETBACKS

SINGLE FAMILY RESIDENTIAL

FRONT SETBACK:	24 FEET
SIDE SETBACK:	7 FEET (14 TOTAL)
REAR SETBACK:	25 FEET (INTERNAL)
	40 FEET (PERIMETER ADJACENT SFR)
	30 FEET (PERIMETER ADJACENT MFR)

OPEN SPACE

OPEN SPACE IN SINGLE FAMILY (OPEN SPACE 1 & 2)	= 503,994 SF
OPEN SPACE IN MULTI-FAMILY (OPEN SPACE 3, 4 & 5)	= 53,452 SF
TOTAL OPEN SPACE	= 557,446 SF
TOTAL PERMANENT WATER SURFACE IN OPEN SPACE	= 122,838 SF
PERMANENT WATER PERCENT OF TOTAL OPEN SPACE	= 22.0 %
PERMANENT WATER PERCENT ALLOWED	= 25.0 % MAX.
TOTAL OPEN SPACE EXCLUDING WATER = 434,608 SF	= 9.98 ACRES
PERCENT OPEN SPACE = 9.98 / 92.0 ACRES	= 10.8 %
PERCENT OPEN SPACE REQUIRED	= 10%

COVERAGE

NOTE: COVERAGE CALCULATION BELOW IS BASED ON THE LARGEST FLOOR PLAN OPTION, ON THE SMALLEST UNIT SIZE.

SINGLE FAMILY RESIDENTIAL

AVERAGE PAVED/BLDG AREA PER UNIT:	2371 SF
MAX. HOME FOOTPRINT : (JULIET W/BONUS ROOM & DECK)	1911 SF +/-
DRIVE (25' X 16') :	400 SF
CONNECTOR WALK (5' X 12'):	60 SF
MINIMUM LOT AREA :	5940 SF

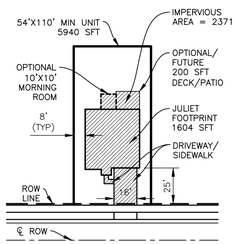
PROPOSED MAXIMUM COVERAGE = 40%
(COVERAGE ALLOWED PER SFR ZONING = 30%)

AMOUNT OF OPEN SPACE PER UNIT
OPEN SPACE IN SINGLE FAMILY (OPEN SPACE 1 AND OPEN SPACE 2)
21,251 SF + 434,451 SF = 455,702 SF

OPEN SPACE PER SINGLE FAMILY UNIT
455,702 SF / 176 UNITS = 2,589 SF

COVERAGE WITH OPEN SPACE INCLUDED
MIN LOT AREA + OPEN SPACE = 5940 SF + 2589 SF = 8,529 SF

COVERAGE (INCL. OPEN SPACE) = 2,371 SF / 8,529 SF = 28%



TYPICAL UNIT LAYOUT

SCALE: 1" = 50'

NOTE: LAYOUT MAY VARY BASED ON FLOOR PLAN AND OWNER SELECTED OPTIONS. TYPICAL UNIT LAYOUT BASED ON JULIET FLOOR PLAN (LARGEST OFFERED BY DEVELOPER). FOOTPRINT SIZE OF OTHER TYPICAL FLOORPLANS BY THIS DEVELOPER ARE AS FOLLOWS (MAX COVERAGE):

JULIET:	1604 SFT (39.9%)
PEYTON:	1508 SFT (38.3%)
AUBREY:	1472 SFT (37.7%)
BROOKLYN:	1419 SFT (36.8%)
SAWYER:	1330 SFT (35.3%)

UNIT AREAS

UNIT #	AREA	UNIT #	AREA	UNIT #	AREA	UNIT #	AREA	UNIT #	AREA
1	7810.00 SF	37	8364.98 SF	73	6490.00 SF	109	5940.00 SF	145	5940.00 SF
2	6160.00 SF	38	8571.58 SF	74	6445.74 SF	110	5940.00 SF	146	5940.00 SF
3	6160.00 SF	39	7481.98 SF	75	12452.26 SF	111	7810.00 SF	147	5940.00 SF
4	6160.00 SF	40	5940.00 SF	76	10847.05 SF	112	5940.00 SF	148	5940.00 SF
5	6160.00 SF	41	6830.41 SF	77	6224.44 SF	113	5940.00 SF	149	7799.49 SF
6	6160.00 SF	42	7250.24 SF	78	6228.57 SF	114	5940.00 SF	150	6404.66 SF
7	6160.00 SF	43	6798.71 SF	79	6232.70 SF	115	5940.00 SF	151	6486.38 SF
8	7810.00 SF	44	6534.79 SF	80	6236.82 SF	116	7810.00 SF	152	6486.38 SF
9	10872.09 SF	45	6986.97 SF	81	6240.95 SF	117	5940.00 SF	153	6486.38 SF
10	5940.00 SF	46	8868.61 SF	82	6245.08 SF	118	5940.00 SF	154	6533.79 SF
11	5940.00 SF	47	7767.94 SF	83	6249.21 SF	119	5940.00 SF	155	7046.21 SF
12	6380.00 SF	48	6490.00 SF	84	6253.34 SF	120	5940.00 SF	156	8295.66 SF
13	8953.35 SF	49	6490.00 SF	85	6257.46 SF	121	7810.00 SF	157	8202.22 SF
14	7708.24 SF	50	6490.00 SF	86	10972.82 SF	122	5940.00 SF	158	7565.16 SF
15	5940.00 SF	51	7810.00 SF	87	11797.41 SF	123	5940.00 SF	159	6473.40 SF
16	5940.00 SF	52	6160.00 SF	88	6573.43 SF	124	5940.00 SF	160	6473.82 SF
17	6740.01 SF	53	6160.00 SF	89	5940.00 SF	125	5940.00 SF	161	6474.23 SF
18	7246.25 SF	54	6160.00 SF	90	5940.00 SF	126	7810.00 SF	162	6474.65 SF
19	7303.38 SF	55	6160.00 SF	91	7810.00 SF	127	7258.25 SF	163	6760.83 SF
20	9574.50 SF	56	6160.00 SF	92	7686.39 SF	128	6633.01 SF	164	6650.25 SF
21	5964.21 SF	57	6160.00 SF	93	6160.00 SF	129	5940.00 SF	165	6650.25 SF
22	6512.90 SF	58	7810.00 SF	94	6160.00 SF	130	9564.17 SF	166	6650.25 SF
23	6512.90 SF	59	7810.00 SF	95	6160.00 SF	131	6276.25 SF	167	6650.25 SF
24	6512.90 SF	60	5940.00 SF	96	6160.00 SF	132	5944.18 SF	168	6650.25 SF
25	6512.90 SF	61	5940.00 SF	97	6160.00 SF	133	5940.00 SF	169	6650.25 SF
26	6512.90 SF	62	5940.00 SF	98	6160.00 SF	134	5940.00 SF	170	6579.77 SF
27	6512.90 SF	63	7810.00 SF	99	7686.39 SF	135	5940.00 SF	171	12096.82 SF
28	6512.90 SF	64	6160.00 SF	100	7810.00 SF	136	5940.00 SF	172	6720.51 SF
29	6832.77 SF	65	6160.00 SF	101	5940.00 SF	137	8573.10 SF	173	5940.00 SF
30	6372.18 SF	66	6160.00 SF	102	5940.00 SF	138	6152.61 SF	174	5940.00 SF
31	5940.00 SF	67	6160.00 SF	103	5940.00 SF	139	5940.00 SF	175	5940.00 SF
32	8114.74 SF	68	6160.00 SF	104	5940.00 SF	140	5940.00 SF	176	7686.39 SF
33	8404.92 SF	69	6160.00 SF	105	7686.39 SF	141	5940.00 SF		
34	8184.99 SF	70	7810.00 SF	106	7810.00 SF	142	5940.00 SF		
35	8184.99 SF	71	6490.00 SF	107	5940.00 SF	143	5940.00 SF		
36	8076.40 SF	72	6490.00 SF	108	5940.00 SF	144	7810.00 SF		

NOTES

1. MINIMUM LOT WIDTH IN SINGLE FAMILY IS 54' WIDE AT THE FRONT SETBACK LINE.
2. TRASH REMOVAL SHALL BE CURBSIDE ROLL-OFF CONTAINERS AT EACH HOME SITE.
3. SCREENING SHALL BE PROVIDED FOR ALL MECHANICAL EQUIPMENT.
4. ALL MAIL BOX UNIT SITES WILL HAVE 1 SIGNED BARRIER FREE SPACE PROVIDED. MAIL BOX UNITS ARE LOADED FROM THE FRONT SIDE (NO REAR ACCESS REQUIRED).
5. HERITAGE SQUARE DRIVE, EAST AND WEST HERITAGE CIRCLE AND FORESTRY ROAD ARE TO BE RECORDED AS CROSS ACCESS EASEMENTS FOR THE FUTURE HERITAGE SQUARE MULTIFAMILY.
6. SEE LIGHTING PLANS PROVIDED BY DTE FOR LIGHTING LOCATION, DETAILS AND PHOTOMETRICS.

NOTE: THIS OVERVIEW PLAN IDENTIFIES FEATURES TO BE CONSTRUCTED BY OTHERS WITHIN THE MULTIFAMILY PORTION OF THE PUD. THIS PLAN SET IS ONLY FOR CONSTRUCTION OF THE SINGLE FAMILY AREA, HIGHLANDER PARK DRIVE, AND THE WATER MAIN LOOP TO MASON ROAD ONLY, THESE PLANS ARE NOT TO BE USED FOR, OR IMPLY APPROVAL OF ANY OTHER CONSTRUCTION WITHIN THE MULTI–FAMILY AREAS.

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS
MONUMENT ENGINEERING GROUP ASSOCIATES, INC.
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(OFFICE) 517-223-3512
MONUMENTENGINEERING.COM
SERVICE DISABLED VETERAN OWNED SMALL BUSINESS (SDVOSB)

KEVIN C. MCDEVITT ENGINEER NO. 6201043260

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CLIENT :

M/I HOMES OF MICHIGAN, L.L.C.
40950 WOODWARD AVE
SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)–221–5011

SITE PLAN - PUD OVERVIEW

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

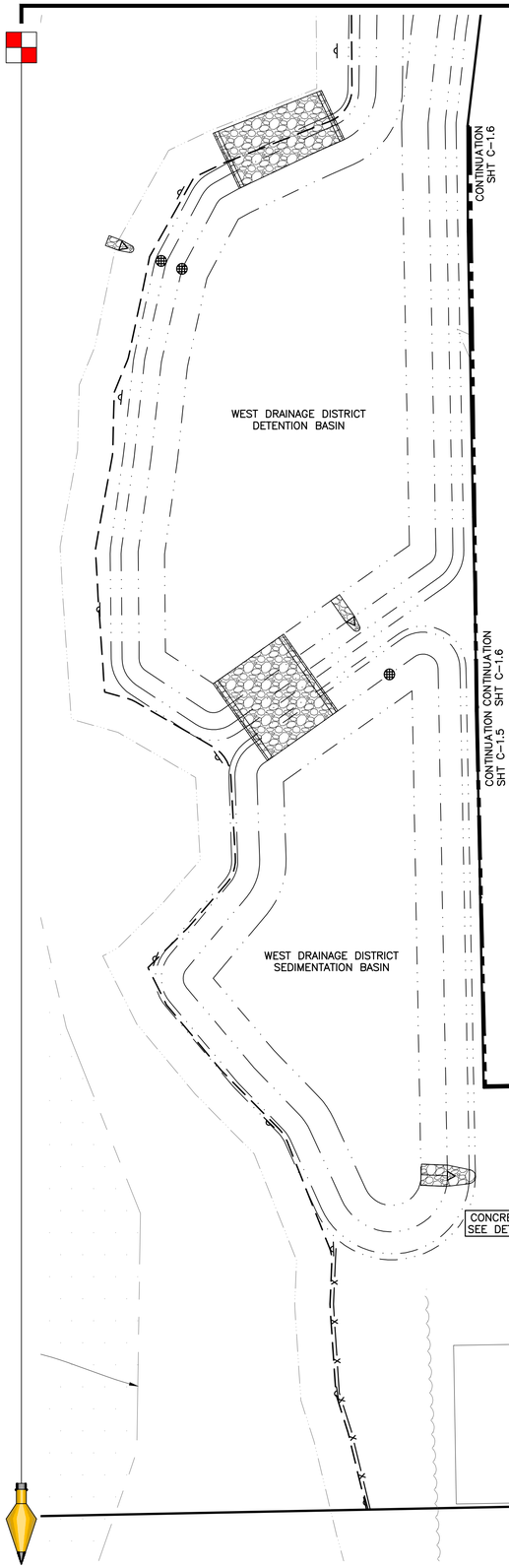
PROJECT NO: 21–075C

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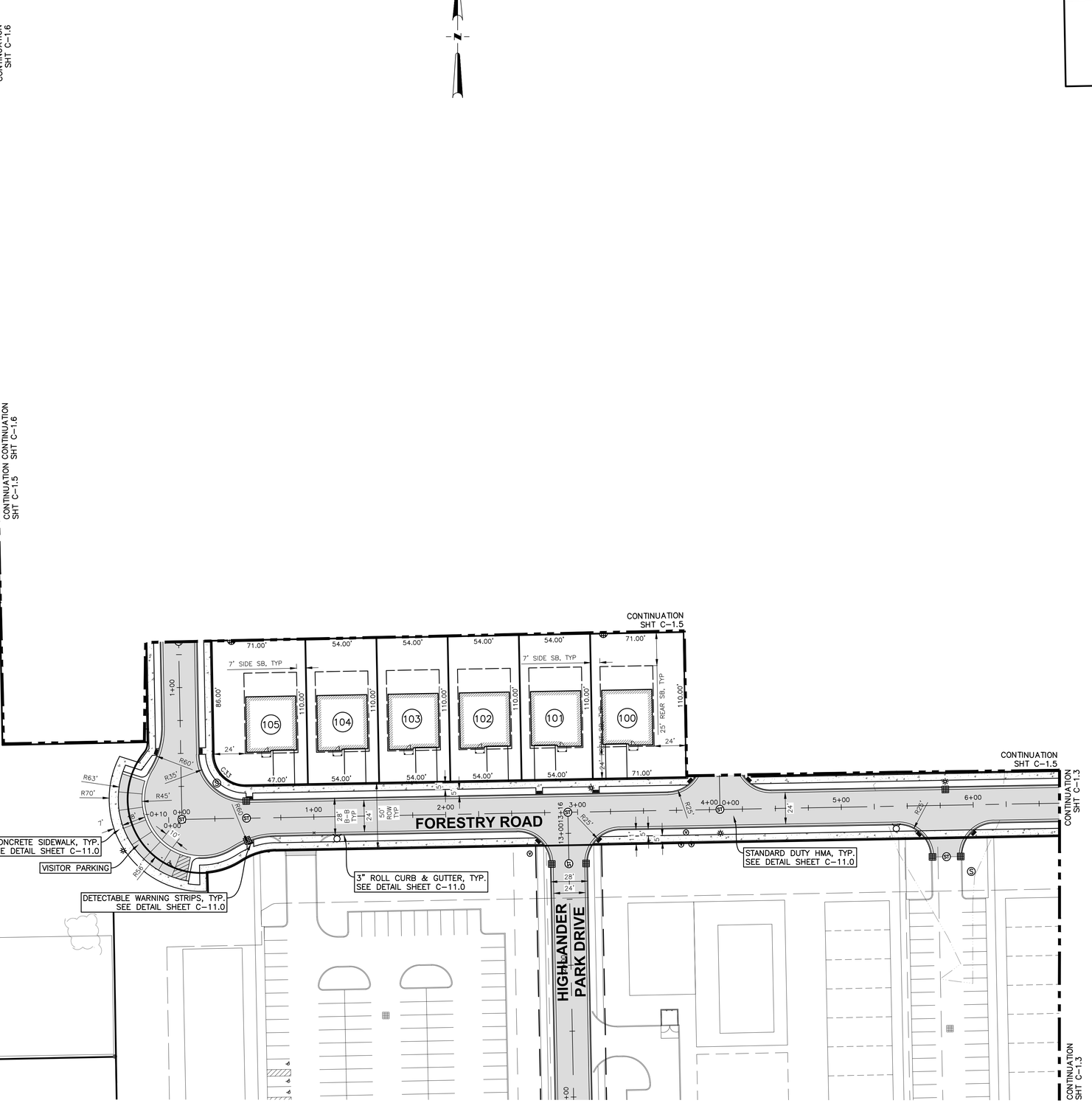
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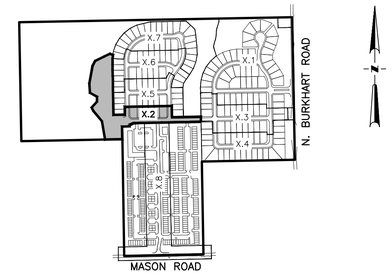
C-1.0







SHEET KEY



PAVEMENT LEGEND

- EX. ASPHALT
- EX. CONCRETE
- EX. GRAVEL
- PR. STANDARD DUTY ASPHALT
- PR. HEAVY DUTY ASPHALT
- PR. CONCRETE
- PR. GRAVEL
- STANDARD CURB AND GUTTER
- REVERSE CURB AND GUTTER

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD
C33	37.70'	24.00'	90°00'00"	N46°03'31"W 33.94'

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MEGA

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ENGINEER
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Kevin C. McDevitt

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DIMENSION AND PAVING PLAN PH2W

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

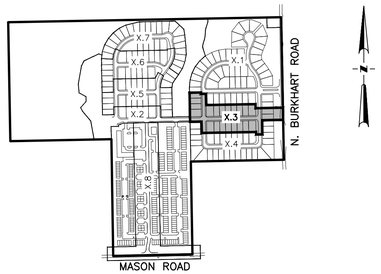
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C-1.2

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SHEET KEY



PAVEMENT LEGEND

- EX. ASPHALT
- EX. CONCRETE
- EX. GRAVEL
- PR. STANDARD DUTY ASPHALT
- PR. HEAVY DUTY ASPHALT
- PR. CONCRETE
- PR. GRAVEL
- STANDARD CURB AND GUTTER
- REVERSE CURB AND GUTTER

CONTINUATION SHT C–1.1

CONTINUATION SHT C–1.2

CONTINUATION SHT C–1.4

SEDGEVIEW CIRCLE

FORESTRY ROAD

N. BURKHART ROAD

OPEN SPACE

EAST LINE OF SECTION 32

CONCRETE SIDEWALK, TYP. SEE DETAIL SHEET C–11.0

STANDARD DUTY HMA, TYP. SEE DETAIL SHEET C–11.0

DETECTABLE WARNING STRIPS, TYP. SEE DETAIL SHEET C–11.0

3" ROLL CURB & GUTTER, TYP. SEE DETAIL SHEET C–11.0

MAILBOX PARKING

VISITOR PARKING

MAILBOX CLUSTER, TYP. SEE DETAIL SHEET C–11.0

END PHASE 1 PAVING @ STA 3+60

TEMPORARY GRAVEL DRIVE AND EMERGENCY ACCESS GATE TO BE CONSTRUCTED IN PHASE 1, AND REMOVED AFTER OPENING HIGHLANDER PARK DRIVE TO TRAFFIC IN PHASE 2.

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BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)–221–5011

DIMENSION AND PAVING PLAN PH2E

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
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REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21–075C

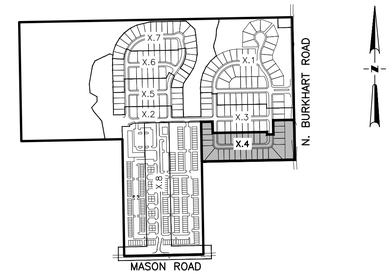
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FIELD:
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C–1.3

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SHEET KEY



PAVEMENT LEGEND

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- EX. GRAVEL
- PR. STANDARD DUTY ASPHALT
- PR. HEAVY DUTY ASPHALT
- PR. CONCRETE
- PR. GRAVEL
- STANDARD CURB AND GUTTER
- REVERSE CURB AND GUTTER

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD
C34	8.83'	50.00'	10°07'05"	N04°00'01"E 8.82'
C35	34.69'	50.00'	39°45'13"	N28°56'11"E 34.00'
C36	35.02'	50.00'	40°07'42"	N68°52'38"E 34.31'
C37	35.02'	50.00'	40°07'42"	S70°59'40"E 34.31'
C38	34.69'	50.00'	39°45'13"	S31°03'12"E 34.00'
C39	8.83'	50.00'	10°07'05"	S06°07'03"E 8.82'
C40	37.70'	24.00'	90°00'00"	N46°03'31"W 33.94'
C41	37.70'	24.00'	90°00'00"	S43°56'29"W 33.94'

CONTINUATION SHT C-1.3

SEDGEVIEW CIRCLE

3" ROLL CURB & GUTTER, TYP. SEE DETAIL SHEET C-11.0

CONCRETE SIDEWALK, TYP. SEE DETAIL SHEET C-11.0

STANDARD DUTY HMA, TYP. SEE DETAIL SHEET C-11.0

DETECTABLE WARNING STRIPS, TYP. SEE DETAIL SHEET C-11.0

VISITOR PARKING

OPEN SPACE

N. BURKHART ROAD

S05°02'11"E(M)
S03°58'40"E(R)
10.20'(R&M)

S88°01'37"W(M)
S88°03'08"W(R)
904.02'(R&M)

OH-ELEC

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SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)-221-5011

DIMENSION AND PAVING PLAN PH3

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

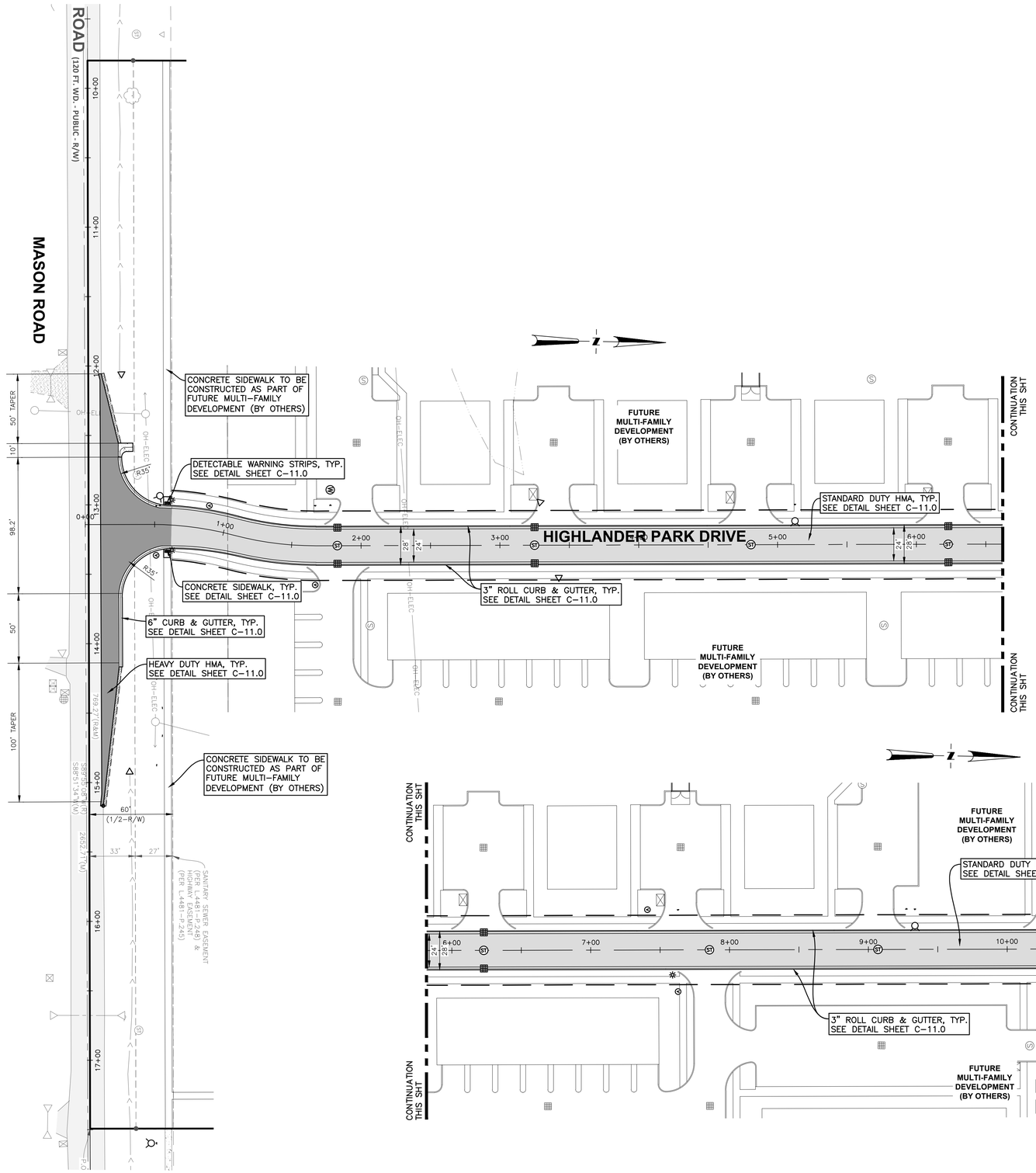
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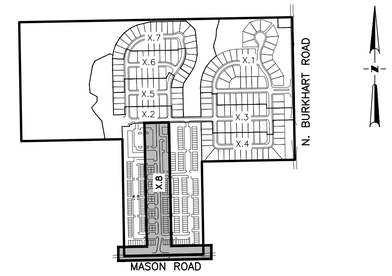
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C-1.4

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SHEET KEY



PAVEMENT LEGEND

- EX. ASPHALT
- EX. CONCRETE
- EX. GRAVEL
- PR. STANDARD DUTY ASPHALT
- PR. HEAVY DUTY ASPHALT
- PR. CONCRETE
- PR. GRAVEL
- STANDARD CURB AND GUTTER
- REVERSE CURB AND GUTTER

NOTE: IMPROVEMENTS ON THIS SHEET ARE TO BE CONSTRUCTED DURING PHASE 2.

CONSTRUCT IN PHASE 2

DIMENSION AND PAVING PLAN PH2

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

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PLAN SUBMITTALS/REVISIONS	DATE
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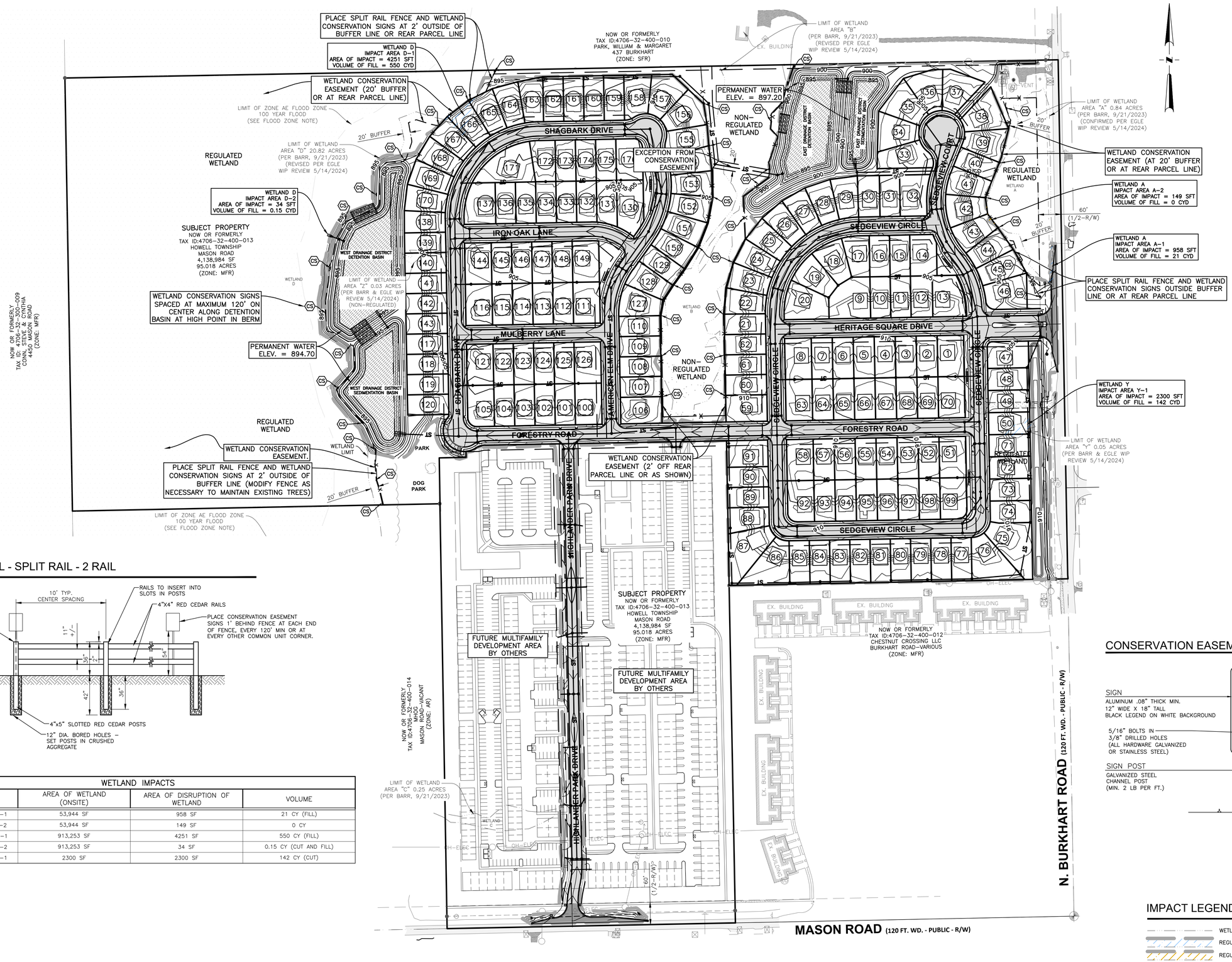
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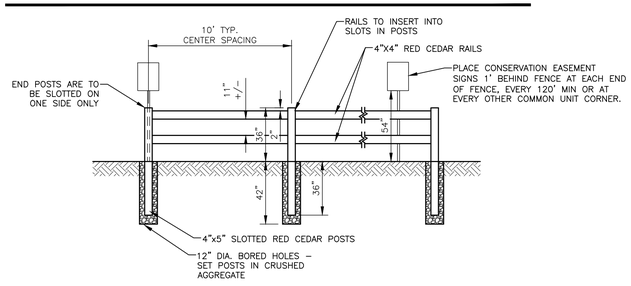
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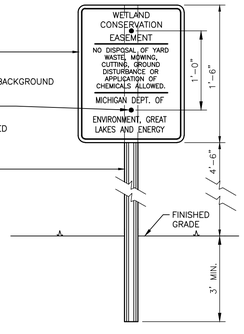


FENCE DETAIL - SPLIT RAIL - 2 RAIL



WETLAND IMPACTS			
WETLAND	AREA OF WETLAND (ONSITE)	AREA OF DISRUPTION OF WETLAND	VOLUME
WETLAND A – IMPACT A-1	53,944 SF	958 SF	21 CY (FILL)
WETLAND A – IMPACT A-2	53,944 SF	149 SF	0 CY
WETLAND D – IMPACT D-1	913,253 SF	4251 SF	550 CY (FILL)
WETLAND D – IMPACT D-2	913,253 SF	34 SF	0.15 CY (CUT AND FILL)
WETLAND Y – IMPACT Y-1	2300 SF	2300 SF	142 CY (CUT)

CONSERVATION EASEMENT SIGN DETAIL



IMPACT LEGEND

WETLAND LIMITS
REGULATED WETLAND FILL
REGULATED WETLAND IMPACT (NO FILL)
CONSERVATION EASEMENT SIGN

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WETLAND IMPACT PLAN - OVERALL

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2025
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

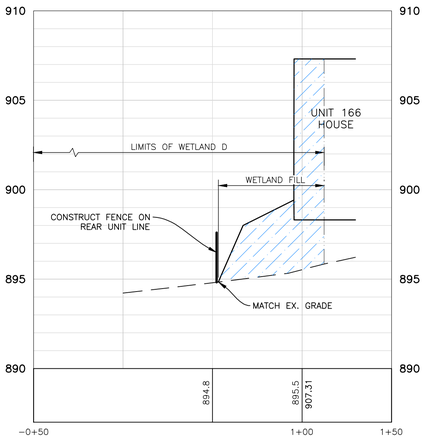
PROJECT NO: 21-075C

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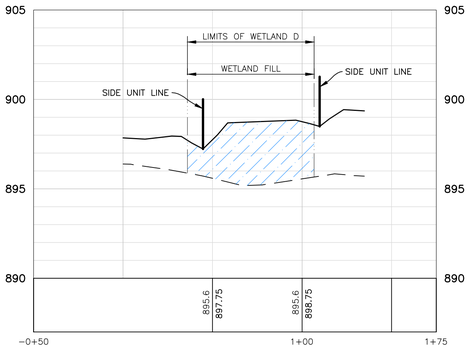
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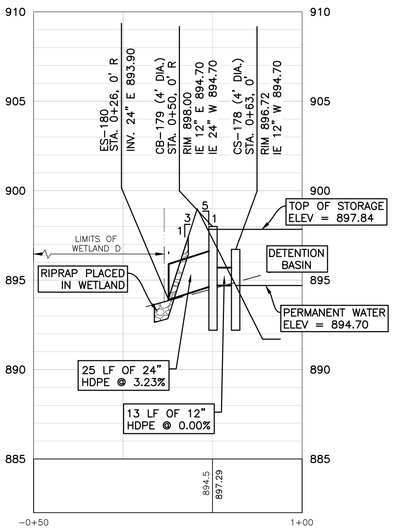
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SECTION D–D / C–2.2



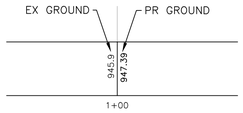
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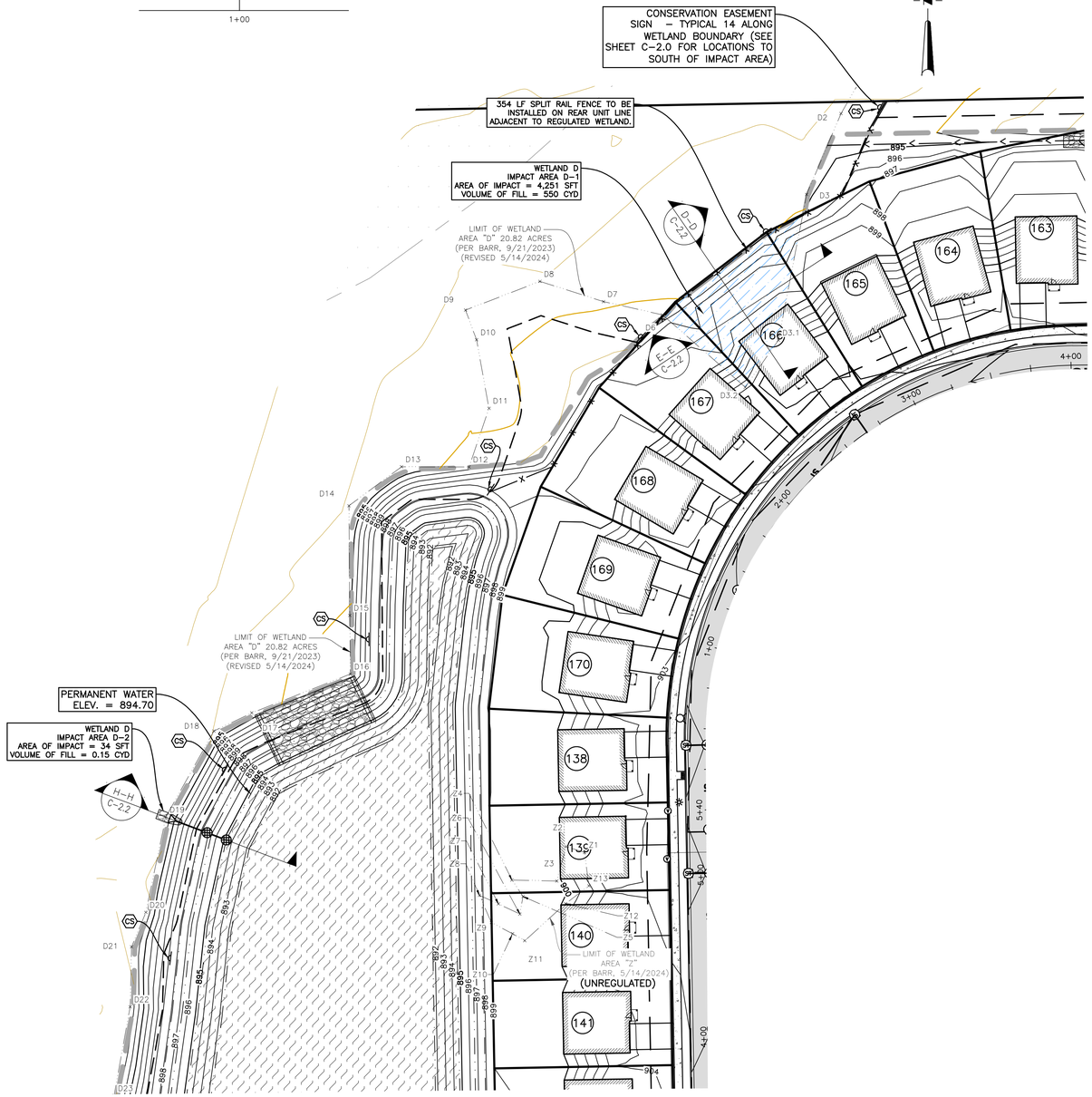


SECTION H–H / C–2.2

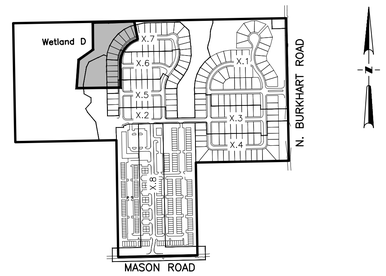
SECTION LEGEND

- WETLAND FILL
- EXISTING GROUND
- PROPOSED GROUND
- WETLAND LIMIT





SHEET KEY



TOPOGRAPHIC LEGEND

- 900 — EXISTING CONTOUR
- 900 — PROPOSED CONTOUR
- LIMITS OF DISTURBANCE

IMPACT LEGEND

- WETLAND LIMITS
- REGULATED WETLAND FILL
- REGULATED WETLAND IMPACT (NO FILL)
- CONSERVATION EASEMENT SIGN

BENCHMARKS

DATUM: NAVD88

BM A:
SET BENCH TIE IN S/SIDE OF UTILITY POLE ON NORTH SIDE OF MASON ROAD 290'± WEST OF EAST PROPERTY LINE.
ELEV = 909.83

BM B:
ARROW ON HYDRANT ON WEST SIDE OF BURKHART ROAD 430'± NORTH OF SOUTH PROPERTY LINE.
ELEV = 906.59

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40950 WOODWARD AVE
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BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)–221–5011

WETLAND IMPACTS - WETLAND D

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

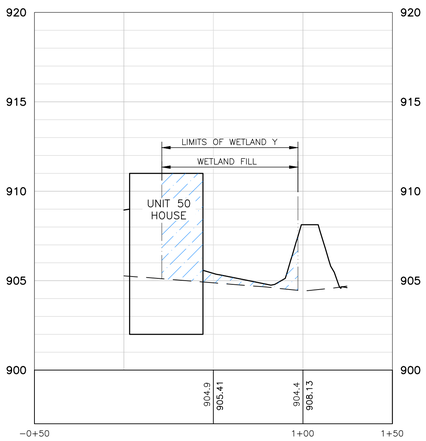
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

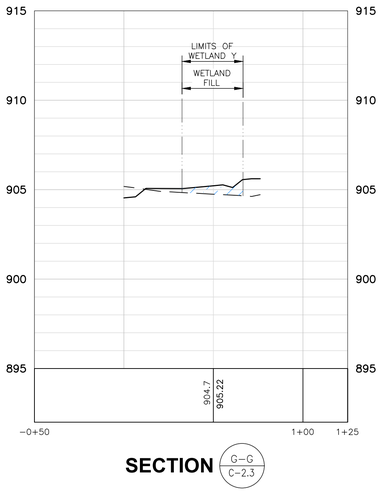
FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

C-2.2

NOT FOR CONSTRUCTION



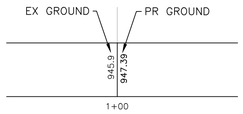
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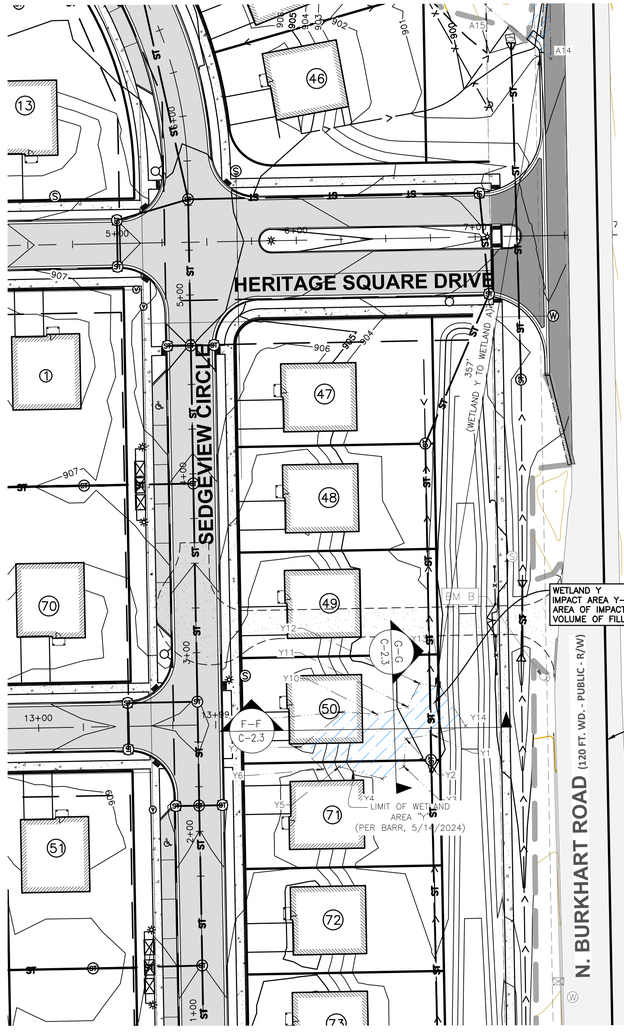


SECTION G-G C-2.3

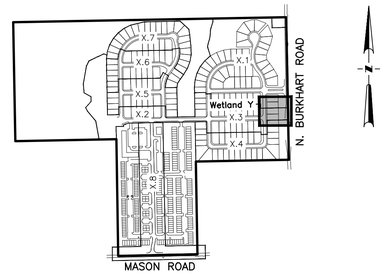
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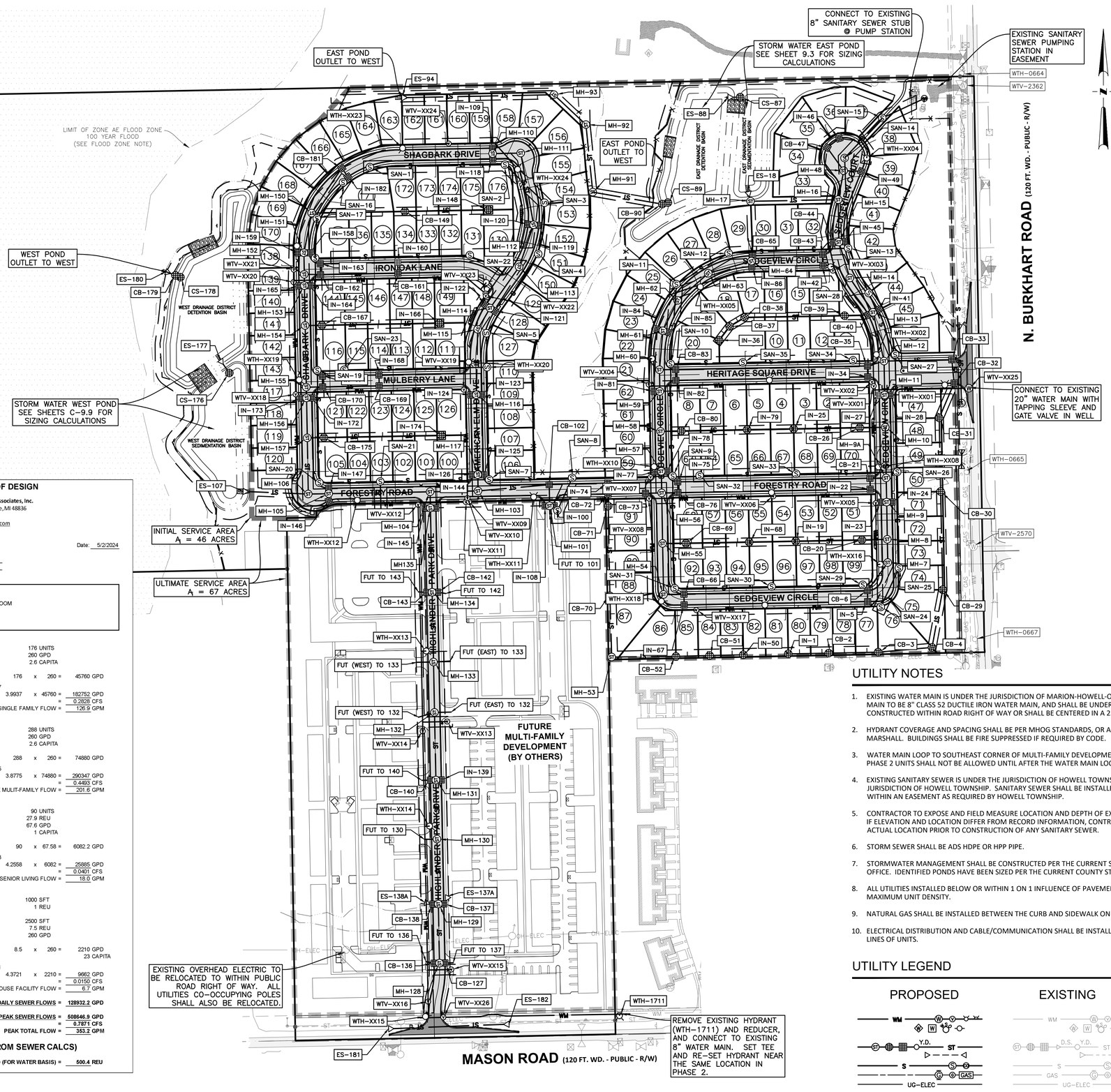
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

C-2.3

NOT FOR CONSTRUCTION



SANITARY SEWER BASIS OF DESIGN

Monument Engineering Group Associates, Inc.
298 Veterans Drive, Fowlerville, MI 48836
(517) 223-3512
monumentengineering.com

Date: 5/2/2024

PROJECT NAME: Heritage Square PUD
PROJECT LOCATION: Howell Township, Livingston County, Michigan
MEGA PROJECT NO.: 21-075C

METHODOLOGY UTILIZED IN THE FOLLOWING CALCULATIONS:
- 1 SINGLEFAMILY OR MUTIFAMILY UNIT = 1 REU
- SENIOR LIVING APARTMENT BUILDING EQUALS .31 REU PER BEDROOM
- CLUBHOUSE = OFFICE = 1 REU PER 1000 SFT (1000 SFT)
  + POOL = 3 PER 1000 SFT (2500 SFT)
- 1 REU = 260 GPD (2.6 PERSONS PER REU, 100 GPD PER CAPITA)

SINGLE FAMILY DEVELOPMENT

NUMBER OF SINGLE FAMILY UNITS =	176 UNITS			
ASSUMED FLOW PER REU (GALLONS PER DAY) =	260 GPD			
ASSUMED PEOPLE PER UNIT (FLOW/100 GPD)=	2.6 CAPITA			
AVERAGE DAILY FLOW = DEVELOPMENT UNITS x 260 GPD =	176	x	260 =	45760 GPD
PEAKING FACTOR = (18 + (P^0.5) / (4 + (P^0.5)) =	3.9937			
PEAK HOUR FLOW = PEAKING FACTOR x AVERAGE DAILY FLOW =	3.9937	x	45760 =	182752 GPD
			=	0.2828 CFS
SINGLE FAMILY FLOW =				126.9 GPM

MULTI-FAMILY DEVELOPMENT

NUMBER OF MULTI-FAMILY UNITS =	288 UNITS			
ASSUMED FLOW PER REU (GALLONS PER DAY) =	260 GPD			
ASSUMED PEOPLE PER UNIT (FLOW/100 GPD)=	2.6 CAPITA			
AVERAGE DAILY FLOW = DEVELOPMENT UNITS x 260 GPD =	288	x	260 =	74880 GPD
PEAKING FACTOR = (18 + (P^0.5) / (4 + (P^0.5)) =	3.8775			
PEAK HOUR FLOW = PEAKING FACTOR x AVERAGE DAILY FLOW =	3.8775	x	74880 =	290347 GPD
			=	0.4493 CFS
PEAK MULIT-FAMILY FLOW =				201.6 GPM

SENIOR LIVING BUILDING

NUMBER OF SENIOR LIVING APARTMENTS (1 BEDROOM) =	90 UNITS			
NUMBER OF REU'S (0.31 REU / BEDROOM) =	27.9 REU			
ASSUMED FLOW PER REU (GALLONS PER DAY) =	67.6 GPD			
ASSUMED PEOPLE PER UNIT (FLOW/100 GPD)=	1 CAPITA			
AVERAGE DAILY FLOW = DEVELOPMENT UNITS x 218 GPD =	90	x	67.58 =	6082.2 GPD
PEAKING FACTOR = (18 + (P^0.5) / (4 + (P^0.5)) =	4.2558			
PEAK HOUR FLOW = PEAKING FACTOR x AVERAGE DAILY FLOW =	4.2558	x	6082 =	25885 GPD
			=	0.0401 CFS
PEAK SENIOR LIVING FLOW =				18.0 GPM

CLUBHOUSE FACILITY

ESTIMATED OFFICE AREA	1000 SFT			
REU = 1 PER 1000 SQ FT =	1 REU			
ESTIMATED POOL BUILDING AREA	2500 SFT			
REU = 3 PER 1000 SQ FT =	7.5 REU			
FLOW PER REU =	260 GPD			
AVERAGE DAILY FLOW = REU x FLOW PER REU =	8.5	x	260 =	2210 GPD
EQUIVALENT POPULATION = ADF / 100 GPD PER CAPITA =				23 CAPITA
PEAKING FACTOR = (18 + (P^0.5) / (4 + (P^0.5)) =	4.3721			
PEAK HOUR FLOW = PEAKING FACTOR x AVERAGE DAILY FLOW =	4.3721	x	2210 =	9662 GPD
			=	0.0150 CFS
PEAK CLUBHOUSE FACILITY FLOW =				6.7 GPM
TOTAL ESTIMATED DAILY SEWER FLOWS =				**128932.2 GPD**
TOTAL ESTIMATED PEAK SEWER FLOWS =				**508646.9 GPD**
			=	**0.7871 CFS**
PEAK TOTAL FLOW =				**353.2 GPM**

WATER BASIS OF DESIGN (REU'S FROM SEWER CALCS)

TOTAL REU'S CALCULATED (FOR WATER BASIS) = 500.4 REU

SANITARY SEWER QUANTITIES (ALL PHASES)

QTY	UNIT	ITEM
7498	LF	8" PVC SDR 26
9009	LF	6" PVC SDR 23.5
36	EA	4' MANHOLE
2	EA	CLEANOUT

WATER MAIN QUANTITIES (ALL PHASES)

QTY	UNIT	ITEM
9993	LF	8" DI CL 52 WATER MAIN
173	LF	6" DI CL 52 WATER MAIN
9667	LF	1" TYPE K, COPPER WATER SERVICE
1	EA	8" CROSS
17	EA	8"x8"x8" TEE
24	EA	8"x8"x6" TEE
43	EA	8" 45° BEND
24	EA	8" 22.5° BEND
14	EA	8" 11.25° BEND
1	EA	8" TO 6" REDUCER
1	EA	20"x8" TSV&W
26	EA	8" GVB IN 2'X2' CONCRETE APRON
25	EA	STANDARD HYDRANT ASSEMBLY

UTILITY NOTES

1. EXISTING WATER MAIN IS UNDER THE JURISDICTION OF MARION-HOWELL-OCEOLA-GENOA WATER AUTHORITY (MHOG). PROPOSED WATER MAIN TO BE 8" CLASS 52 DUCTILE IRON WATER MAIN, AND SHALL BE UNDER THE JURISDICTION OF MHOG. WATER MAIN SHALL BE CONSTRUCTED WITHIN ROAD RIGHT OF WAY OR SHALL BE CENTERED IN A 25' WIDE EASEMENT AS REQUIRED BY MHOG.
2. HYDRANT COVERAGE AND SPACING SHALL BE PER MHOG STANDARDS, OR AS MODIFIED BY THE HOWELL AREA FIRE DEPARTMENT FIRE MARSHALL. BUILDINGS SHALL BE FIRE SUPPRESSED IF REQUIRED BY CODE.
3. WATER MAIN LOOP TO SOUTHEAST CORNER OF MULTI-FAMILY DEVELOPMENT TO BE CONSTRUCTED IN PHASE 2. HOME OCCUPATION OF PHASE 2 UNITS SHALL NOT BE ALLOWED UNTIL AFTER THE WATER MAIN LOOP IS PLACED INTO SERVICE.
4. EXISTING SANITARY SEWER IS UNDER THE JURISDICTION OF HOWELL TOWNSHIP. PROPOSED 8 INCH SANITARY SEWER SHALL BE UNDER THE JURISDICTION OF HOWELL TOWNSHIP. SANITARY SEWER SHALL BE INSTALLED WITHIN PROPOSED RIGHT OF WAY, OR SHALL BE PLACED WITHIN AN EASEMENT AS REQUIRED BY HOWELL TOWNSHIP.
5. CONTRACTOR TO EXPOSE AND FIELD MEASURE LOCATION AND DEPTH OF EXISTING 8" SANITARY STUB OUT OF THE EXISTING PUMP STATION. IF ELEVATION AND LOCATION DIFFER FROM RECORD INFORMATION, CONTRACTOR TO INFORM THE OWNER, TOWNSHIP AND MHOG OF ACTUAL LOCATION PRIOR TO CONSTRUCTION OF ANY SANITARY SEWER.
6. STORM SEWER SHALL BE ADS HDPE OR HPP PIPE.
7. STORMWATER MANAGEMENT SHALL BE CONSTRUCTED PER THE CURRENT STANDARDS OF THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IDENTIFIED PONDS HAVE BEEN SIZED PER THE CURRENT COUNTY STANDARDS.
8. ALL UTILITIES INSTALLED BELOW OR WITHIN 1 ON 1 INFLUENCE OF PAVEMENT SHALL BE BACKFILLED WITH CLASS II SAND COMPACTED TO 95% MAXIMUM UNIT DENSITY.
9. NATURAL GAS SHALL BE INSTALLED BETWEEN THE CURB AND SIDEWALK ON THE SAME SIDE OF THE ROAD AS THE WATER MAIN.
10. ELECTRICAL DISTRIBUTION AND CABLE/COMMUNICATION SHALL BE INSTALLED UNDERGROUND IN AN EASEMENT ALONG THE REAR PROPERTY LINES OF UNITS.

UTILITY LEGEND

PROPOSED	EXISTING	
WM	WM	WATER MAIN, MH, VALVE IN BOX, HYDRANT
W	W	WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
ST	ST	STORM SEWER, MH, CB, INLET, DOWN SPOUT, YARD DRAIN
Y.D.	Y.D. D.S. DS	CULVERT/ END SECTION
S	S	SANITARY SEWER, MH, CLEAN OUT
GAS	GAS	UG GAS, MH, VALVE, LINE MARKER
UG-ELEC	UG-ELEC	UG ELEC (ELEC, CABLE, FIBER)

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UTILITY PLAN

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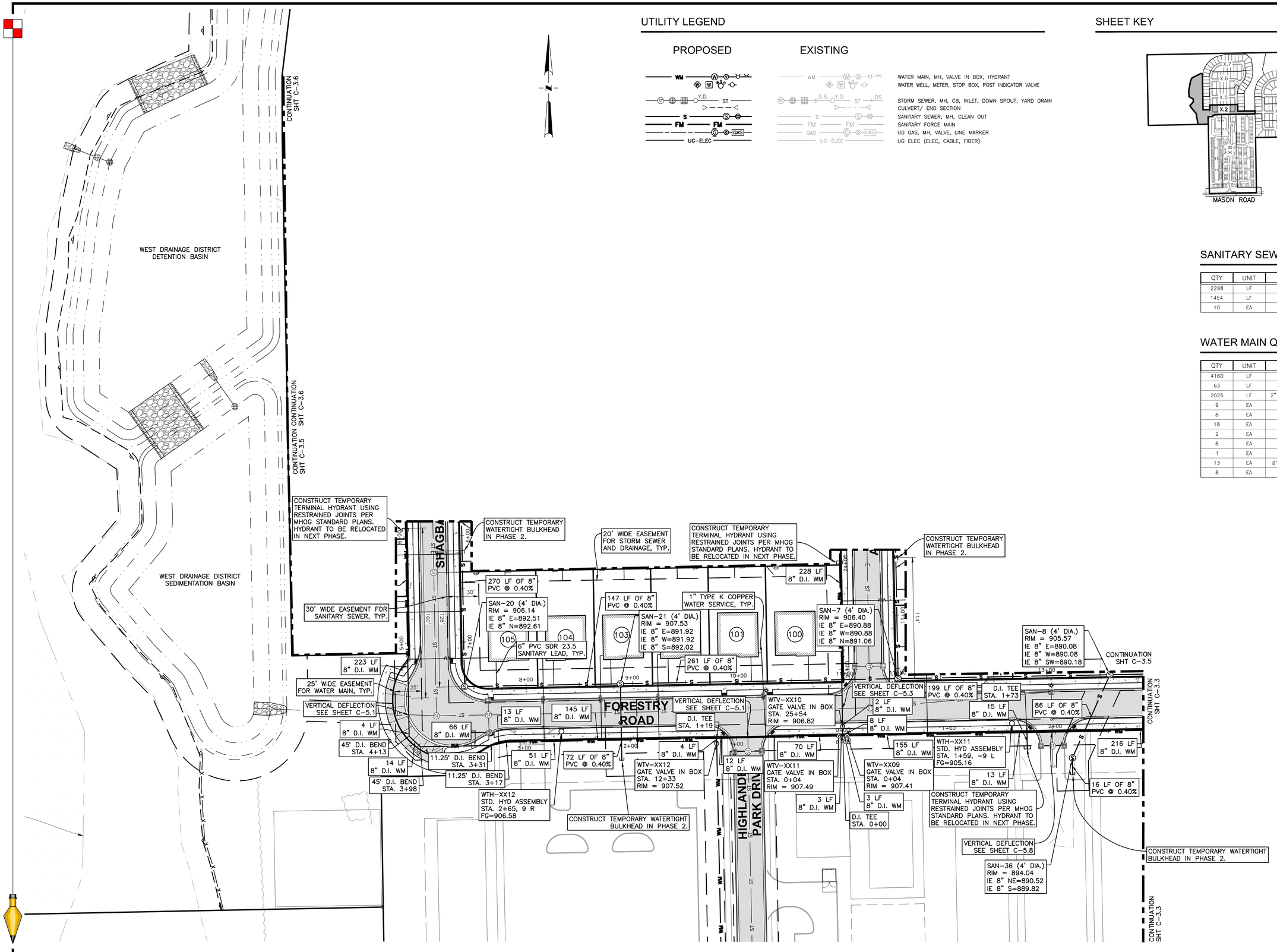
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C-3.0

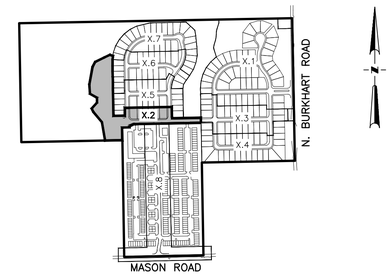
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W	W	WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
ST, Y.D., ST	ST, D.S., Y.D., ST, DS	STORM SEWER, MH, CB, INLET, DOWN SPOUT, YARD DRAIN
		CULVERT/ END SECTION
S	S	SANITARY SEWER, MH, CLEAN OUT
FM	FM	SANITARY FORCE MAIN
GAS	GAS	UG GAS, MH, VALVE, LINE MARKER
UG-ELEC	UG-ELEC	UG ELEC (ELEC, CABLE, FIBER)

SHEET KEY



SANITARY SEWER QUANTITIES

QTY	UNIT	ITEM
2298	LF	8" PVC SDR 26
1454	LF	6" PVC SDR 23.5
10	EA	4' MANHOLE

WATER MAIN QUANTITIES

QTY	UNIT	ITEM
4160	LF	8" DI CL 52 WATER MAIN
63	LF	6" DI CL 52 WATER MAIN
2025	LF	2" TYPE K, COPPER WATER SERVICE
9	EA	8"x8"x8" TEE
8	EA	8"x8"x6" TEE
18	EA	8" 45° BEND
2	EA	8" 22.5° BEND
8	EA	8" 11.25° BEND
1	EA	8" CROSS
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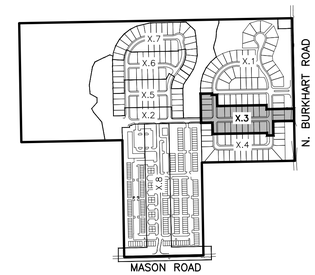
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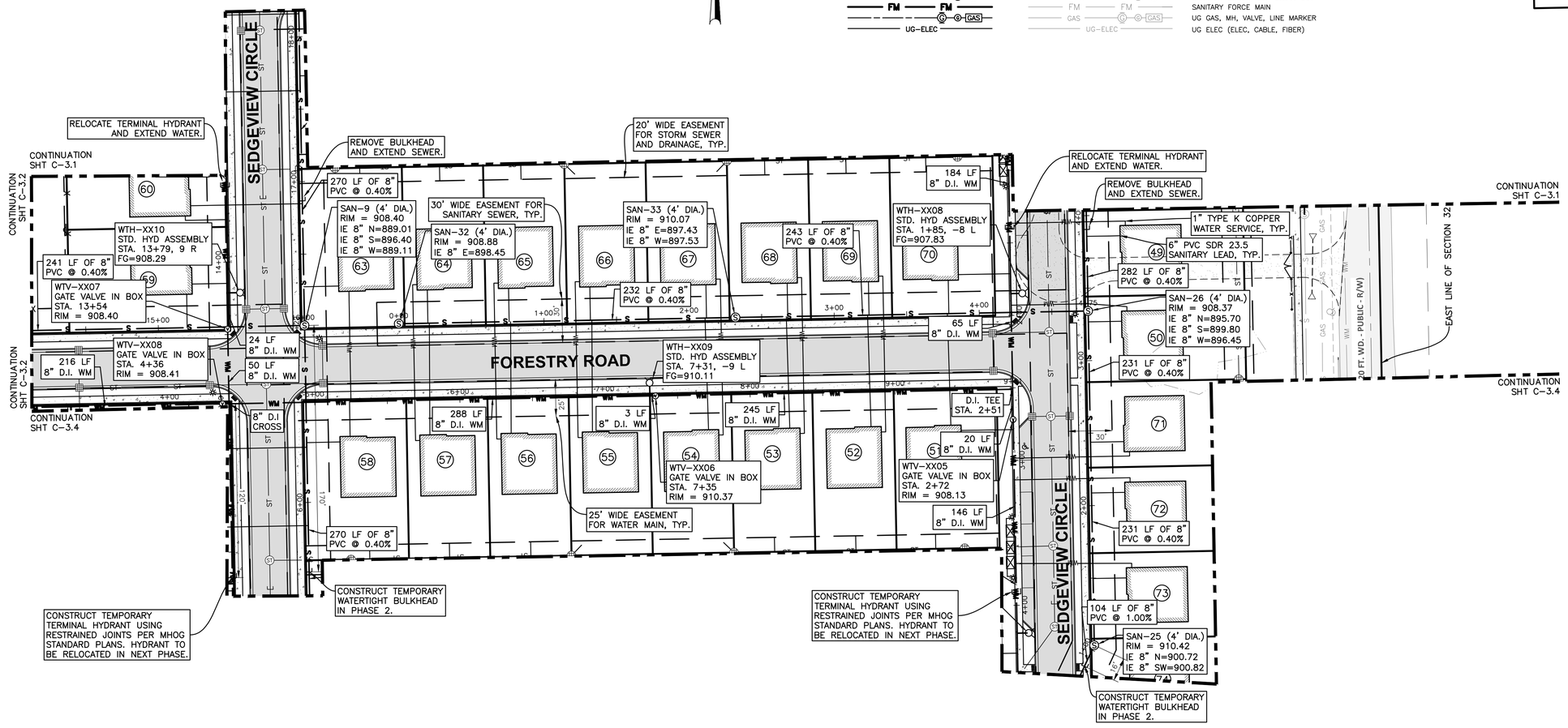
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KEVIN C. MCDEVITT
ENGINEER
NO. 6201043260

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CLIENT :

M/I HOMES OF MICHIGAN, L.L.C.

40950 WOODWARD AVE
SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)-221-5011

SANITARY SEWER AND WATERMAIN PLAN

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

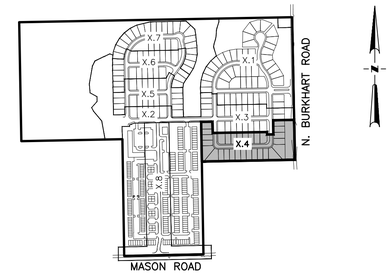
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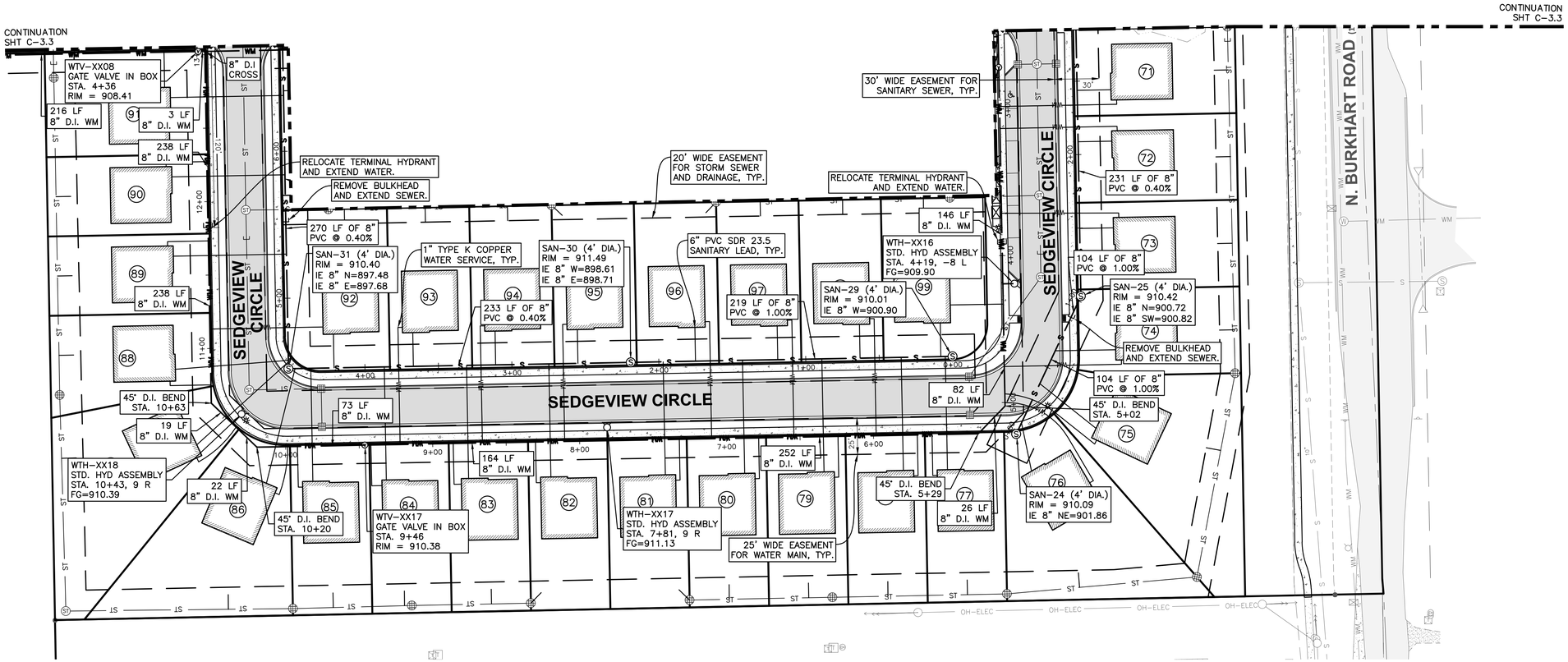
NOT FOR CONSTRUCTION

UTILITY LEGEND

PROPOSED	EXISTING	
WM	WM	WATER MAIN, MH, VALVE IN BOX, HYDRANT
W	W	WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
ST, Y.D., ST	ST, D.S., Y.D., ST, DS	STORM SEWER, MH, CB, INLET, DOWN SPOUT, YARD DRAIN
ST	ST	CULVERT/ END SECTION
S	S	SANITARY SEWER, MH, CLEAN OUT
FM	FM	SANITARY FORCE MAIN
GAS	GAS	UG GAS, MH, VALVE, LINE MARKER
UG-ELEC	UG-ELEC	UG ELEC (ELEC, CABLE, FIBER)

SHEET KEY





SANITARY SEWER QUANTITIES

QTY	UNIT	ITEM
640	LF	8" PVC SDR 26
1319	LF	6" PVC SDR 23.5
4	EA	4' MANHOLE

WATER MAIN QUANTITIES

QTY	UNIT	ITEM
783	LF	8" DI CL 52 WATER MAIN
21	LF	6" DI CL 52 WATER MAIN
1274	LF	2" TYPE K, COPPER WATER SERVICE
3	EA	8"x8"x6" TEE
4	EA	8" 45° BEND
1	EA	8" GVB IN 2'X2' CONCRETE APRON
3	EA	STANDARD HYDRANT ASSEMBLY

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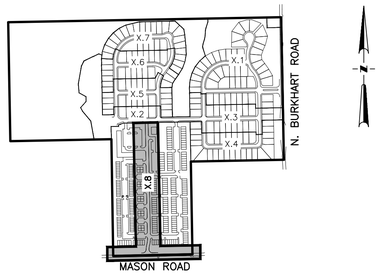
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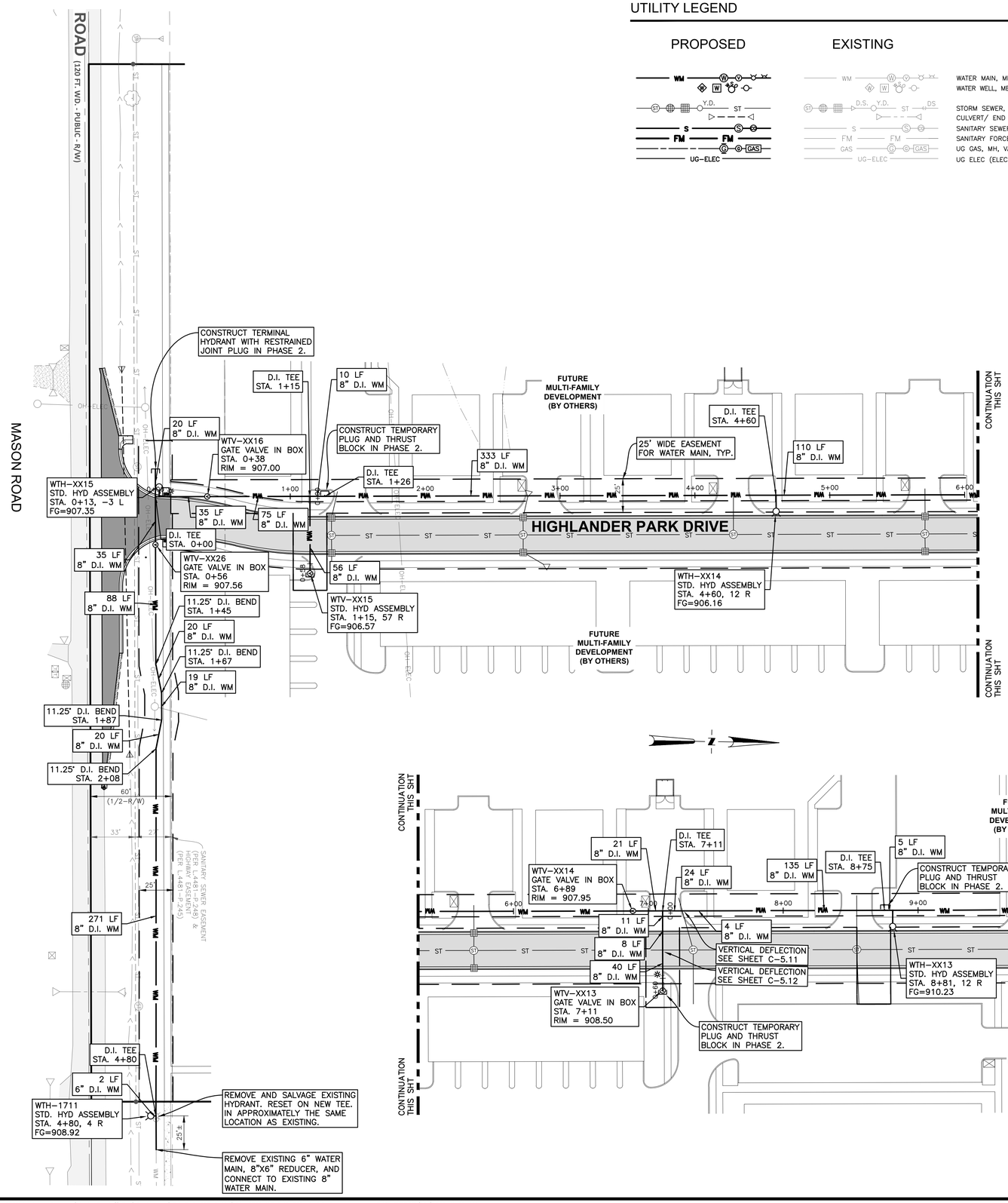
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UTILITY LEGEND

PROPOSED	EXISTING	
WM	WM	WATER MAIN, MH, VALVE IN BOX, HYDRANT
W	W	WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
ST, Y.D.	ST, D.S., Y.D., DS	STORM SEWER, MH, CB, INLET, DOWN SPOUT, YARD DRAIN
		CULVERT/ END SECTION
S	S	SANITARY SEWER, MH, CLEAN OUT
FM	FM	SANITARY FORCE MAIN
GAS	GAS	UG GAS, MH, VALVE, LINE MARKER
UG–ELEC	UG–ELEC	UG ELEC (ELEC, CABLE, FIBER)

SHEET KEY





CONSTRUCT IN PHASE 2

SANITARY SEWER AND WATERMAIN PLAN

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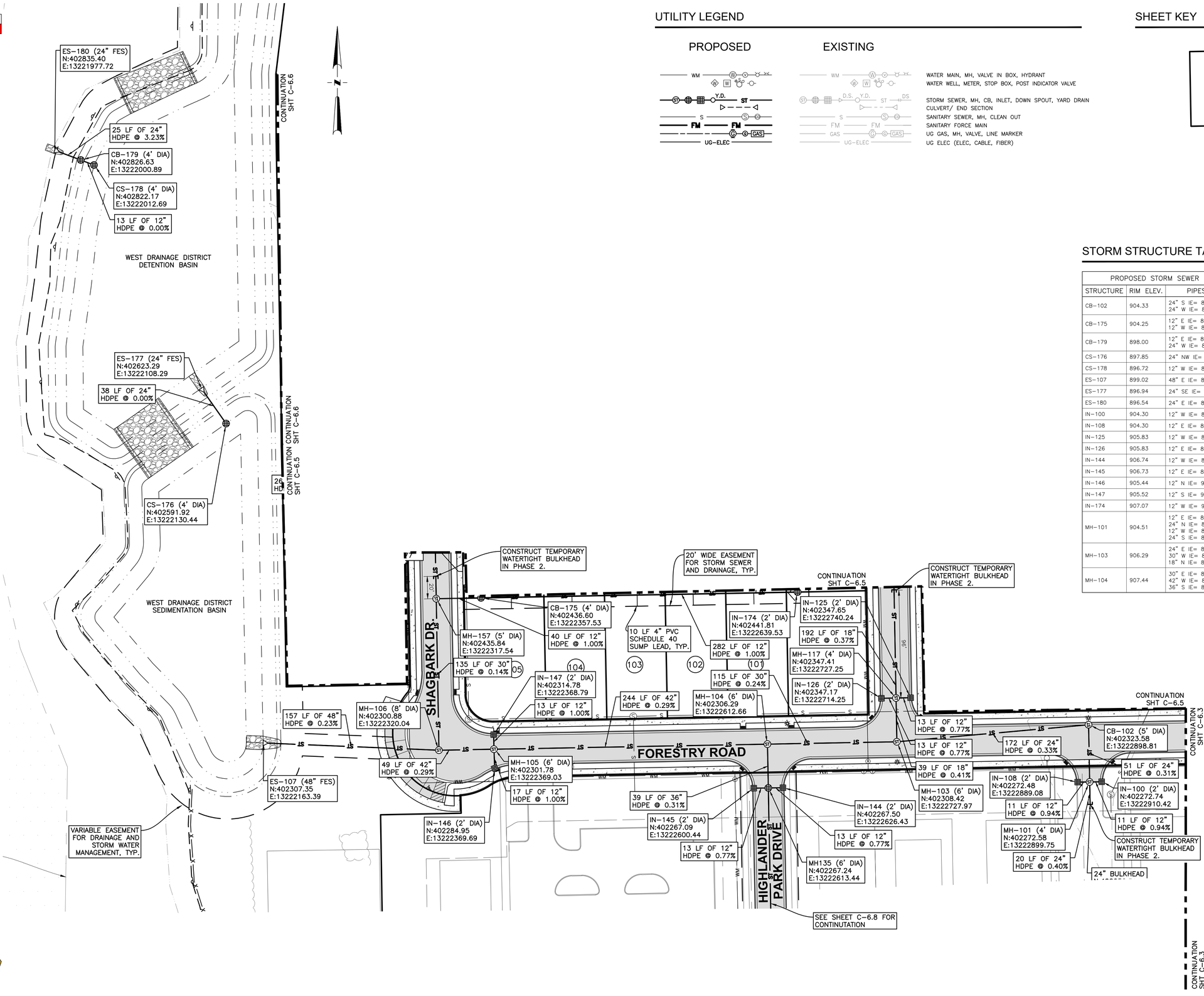
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C-3.8

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UTILITY LEGEND

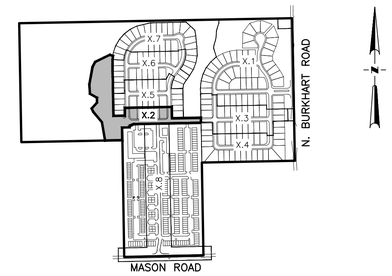
PROPOSED

EXISTING

WATER MAIN, MH, VALVE IN BOX, HYDRANT
WATER WELL, METER, STOP BOX, POST INDICATOR VALVE

STORM SEWER, MH, CB, INLET, DOWN SPOUT, YARD DRAIN
CULVERT/ END SECTION
SANITARY SEWER, MH, CLEAN OUT
SANITARY FORCE MAIN
UG GAS, MH, VALVE, LINE MARKER
UG ELEC (ELEC, CABLE, FIBER)

SHEET KEY



STORM STRUCTURE TABLE

PROPOSED STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
CB-102	904.33	24" S IE= 897.85 24" W IE= 897.75
CB-175	904.25	12" E IE= 898.60 12" W IE= 898.60
CB-179	898.00	12" E IE= 894.70 24" W IE= 894.70
CS-176	897.85	24" NW IE= 894.70
CS-178	896.72	12" W IE= 894.70
ES-107	899.02	48" E IE= 894.70
ES-177	896.94	24" SE IE= 894.70
ES-180	896.54	24" E IE= 893.90
IN-100	904.30	12" W IE= 898.91
IN-108	904.30	12" E IE= 898.91
IN-125	905.83	12" W IE= 899.70
IN-126	905.83	12" E IE= 899.70
IN-144	906.74	12" W IE= 898.23
IN-145	906.73	12" E IE= 898.23
IN-146	905.44	12" N IE= 901.34
IN-147	905.52	12" S IE= 901.30
IN-174	907.07	12" W IE= 901.42
MH-101	904.51	12" E IE= 898.81 24" N IE= 898.01 12" W IE= 898.81 24" S IE= 898.01
MH-103	906.29	24" E IE= 897.19 30" W IE= 896.94 18" N IE= 897.44
MH-104	907.44	30" E IE= 896.66 42" W IE= 896.16 36" S IE= 896.41

PROPOSED STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
MH-105	905.78	42" E IE= 895.45 42" W IE= 895.45 12" S IE= 901.17 12" N IE= 901.17
MH-106	906.27	42" E IE= 895.31 48" W IE= 895.06 30" N IE= 895.81
MH-117	906.09	18" N IE= 897.60 18" S IE= 897.60 12" E IE= 899.60 12" W IE= 899.60
MH-157	904.92	24" N IE= 896.25 30" S IE= 896.00 12" E IE= 898.20
MH135	907.00	12" E IE= 898.13 36" N IE= 896.53 36" S IE= 896.53 12" W IE= 898.13

STORM SEWER NOTES

1. YARD "IN" & "CB" STRUCTURES SHALL HAVE EJIW 1020 FRAME WITH TYPE O1 BEEHIVE COVER.
2. MOUNTABLE CURB "IN" & "CB" STRUCTURES SHALL HAVE EJIW 7060 FRAME WITH TYPE T1 BACK AND M1 GRATE.
3. STRAIGHT CURB "IN" & "CB" STRUCTURES SHALL HAVE EJIW 7010 FRAME WITH TYPE T1 BACK AND M1 GRATE.
4. STORM "MH" STRUCTURES SHALL HAVE EJIW 1040 FRAME WITH A TYPE A PERFORATED COVER.
5. END SECTIONS 18" AND LARGER SHALL HAVE ANIMAL GRATES.
6. THE PROPOSED DRAINAGE SYSTEMS ARE TO BE OWNED AND PROPERLY MAINTAINED BY THE SITE CONDOMINIUM PROPERTY OWNER'S ASSOCIATION.
7. ALL STORM SEWER OUTSIDE ROAD RIGHT OF WAY SHALL BE LOCATED IN A MINIMUM 20' WIDE STORM EASEMENT.

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STORM SEWER PLAN (PHASE 2)

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

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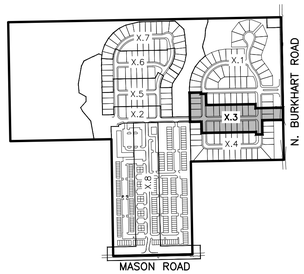
C-6.2

NOT FOR CONSTRUCTION

UTILITY LEGEND

PROPOSED	EXISTING	
WM	WM	WATER MAIN, MH, VALVE IN BOX, HYDRANT
W	W	WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
ST, Y.D., ST	ST, D.S., Y.D., ST, DS	STORM SEWER, MH, CB, INLET, DOWN SPOUT, YARD DRAIN
		CULVERT/ END SECTION
S	S	SANITARY SEWER, MH, CLEAN OUT
FM, FM	FM, FM	SANITARY FORCE MAIN
GAS	GAS	UG GAS, MH, VALVE, LINE MARKER
UG-ELEC	UG-ELEC	UG ELEC (ELEC, CABLE, FIBER)

SHEET KEY



NOTE:
SUMP LEADS FOR UNITS 59 TO 62 DAYLIGHT TO OPEN SPACE

SEE SHEET C-6.1 FOR PHASE 1 STORM SEWER CONSTRUCTION

SEDGEVIEW CIRCLE

FORESTRY ROAD

CONTINUATION SHT C-6.1

CONTINUATION SHT C-6.2

CONTINUATION SHT C-6.4

REMOVE BULKHEAD AND EXTEND SEWER.

10 LF 4" PVC SCHEDULE 40 SUMP LEAD, TYP.

20' WIDE EASEMENT FOR STORM SEWER AND DRAINAGE, TYP.

13 LF OF 12" HDPE @ 0.30%
60 96 LF OF 18" HDPE @ 0.57%
IN-77 (2' DIA) N:402355.32 E:13223155.12
IN-74 (2' DIA) N:402327.18 E:13223039.62
26 LF OF 12" HDPE @ 0.30%
CB-73 (4' DIA) N:402302.85 E:13223130.09
CB-72 (4' DIA) N:402301.18 E:13223040.10
90 LF OF 12" HDPE @ 0.30%
29 LF OF 12" HDPE @ 0.30%
39 LF OF 12" HDPE @ 0.30%
52 LF OF 18" HDPE @ 0.47%
CONSTRUCT TEMPORARY WATERTIGHT BULKHEAD IN PHASE 2.

MH-57 (4' DIA) N:402355.56 E:13223168.12
13 LF OF 12" HDPE @ 0.30%
IN-78 (2' DIA) N:402355.80 E:13223181.12
IN-75 (2' DIA) N:402330.28 E:13223207.60
26 LF OF 12" HDPE @ 0.31%
CB-76 (4' DIA) N:402304.29 E:13223208.08
MH-56 (4' DIA) N:402303.57 E:13223169.08
39 LF OF 12" HDPE @ 0.30%
121 LF OF 12" HDPE @ 0.75%
MH-55 (4' DIA) N:402182.10 E:13223171.33
CB-69 (4' DIA) N:402182.62 E:13223227.43
56 LF OF 12" HDPE @ 0.30%
123 LF OF 12" HDPE @ 0.40%
CONSTRUCT TEMPORARY WATERTIGHT BULKHEAD IN PHASE 2.

64 65 66 67 68 69 70

122 LF OF 18" HDPE @ 0.30%
39 LF OF 12" HDPE @ 0.30%
CB-21 (4' DIA) N:402338.82 E:13223669.51
26 LF OF 12" HDPE @ 0.30%
IN-22 (2' DIA) N:402312.82 E:13223670.00

56 55 54 53 52 51

152 LF OF 12" HDPE @ 1.00%
10 LF 4" PVC SCHEDULE 40 SUMP LEAD, TYP.
IN-68 (2' DIA) N:402185.43 E:13223379.30
159 LF OF 12" HDPE @ 1.00%
IN-19 (2' DIA) N:402187.50 E:13223491.28
MH-8 (4' DIA) N:402192.08 E:13223711.23
CB-20 (4' DIA) N:402190.44 E:13223650.25
56 LF OF 12" HDPE @ 0.30%
13 LF OF 12" HDPE @ 0.30%
IN-23 (2' DIA) N:402281.25 E:13223696.58
MH-9 (4' DIA) N:402281.49 E:13223709.58
89 LF OF 15" HDPE @ 0.28%

REMOVE BULKHEAD AND EXTEND SEWER.
10 LF 4" PVC SCHEDULE 40 SUMP LEAD, TYP.
49
177 LF OF 12" HDPE @ 0.30%
MH-9A (4' DIA) N:402339.54 E:13223708.51
58 LF OF 18" HDPE @ 0.31%
13 LF OF 12" HDPE @ 0.30%
IN-24 (2' DIA) N:402281.73 E:13223722.58
71
CONSTRUCT TEMPORARY WATERTIGHT BULKHEAD IN PHASE 2.

CB-30 (4' DIA) N:402306.95 E:13223839.13
236 LF OF 12" HDPE @ 0.30%
EAST LINE OF SECTION 32
437'
N. BURKHART ROAD (120 FT. WD. - PUBLIC - R/W)

STORM SEWER NOTES

1. YARD "IN" & "CB" STRUCTURES SHALL HAVE EJIW 1020 FRAME WITH TYPE O1 BEEHIVE COVER.
2. MOUNTABLE CURB "IN" & "CB" STRUCTURES SHALL HAVE EJIW 7060 FRAME WITH TYPE T1 BACK AND M1 GRATE.
3. STRAIGHT CURB "IN" & "CB" STRUCTURES SHALL HAVE EJIW 7010 FRAME WITH TYPE T1 BACK AND M1 GRATE.
4. STORM "MH" STRUCTURES SHALL HAVE EJIW 1040 FRAME WITH A TYPE A PERFORATED COVER.
5. END SECTIONS 18" AND LARGER SHALL HAVE ANIMAL GRATES.
6. THE PROPOSED DRAINAGE SYSTEMS ARE TO BE OWNED AND PROPERLY MAINTAINED BY THE SITE CONDOMINIUM PROPERTY OWNER'S ASSOCIATION.
7. ALL STORM SEWER OUTSIDE ROAD RIGHT OF WAY SHALL BE LOCATED IN A MINIMUM 20' WIDE STORM EASEMENT.

NOTE

SEE PROFILES ON SHEETS C-6.9 TO C-6.32 FOR SEWER AND STRUCTURE DETAILS

STORM STRUCTURE TABLE

PROPOSED STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
CB-20	907.15	12" W IE= 902.98 12" E IE= 902.98
CB-21	907.71	12" S IE= 902.81 12" E IE= 902.81
CB-30	904.92	12" S IE= 900.00 12" N IE= 900.00
CB-69	907.32	12" E IE= 902.64 12" W IE= 902.64
CB-72	905.94	12" S IE= 901.65 12" E IE= 901.65 12" N IE= 901.65
CB-73	907.55	12" W IE= 901.38 12" E IE= 901.38
CB-76	907.77	12" N IE= 901.68 12" W IE= 901.68
IN-19	908.74	12" E IE= 904.57 4" NW IE= 905.07 4" SW IE= 905.07
IN-22	907.71	12" N IE= 902.89
IN-23	907.66	12" E IE= 902.69
IN-24	907.66	12" W IE= 902.69
IN-68	908.74	12" W IE= 904.16 4" NE IE= 904.66 4" SE IE= 904.66
IN-74	905.94	12" S IE= 901.73
IN-75	907.77	12" S IE= 901.76
IN-77	907.79	12" E IE= 902.36
IN-78	907.79	12" W IE= 902.36
MH-8	909.01	12" S IE= 904.30 15" N IE= 902.60 12" W IE= 902.80
MH-9	907.92	15" S IE= 902.35 18" N IE= 902.15 12" W IE= 902.65 12" E IE= 902.65
MH-9A	908.03	18" S IE= 901.97 18" N IE= 901.97 12" W IE= 902.69
MH-55	909.52	12" S IE= 903.97 12" N IE= 902.47 12" E IE= 902.47

PROPOSED STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
MH-56	908.27	12" S IE= 901.56 18" N IE= 901.16 12" W IE= 901.26 12" E IE= 901.56
MH-57	908.05	18" S IE= 900.92 18" N IE= 900.92 12" W IE= 902.32 12" E IE= 902.32

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BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)-221-5011

STORM SEWER PLAN (PHASE 2)

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/16/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

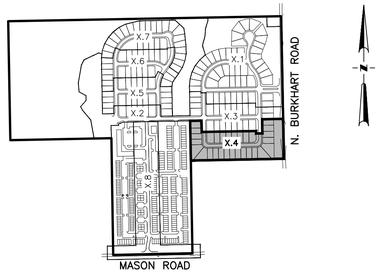
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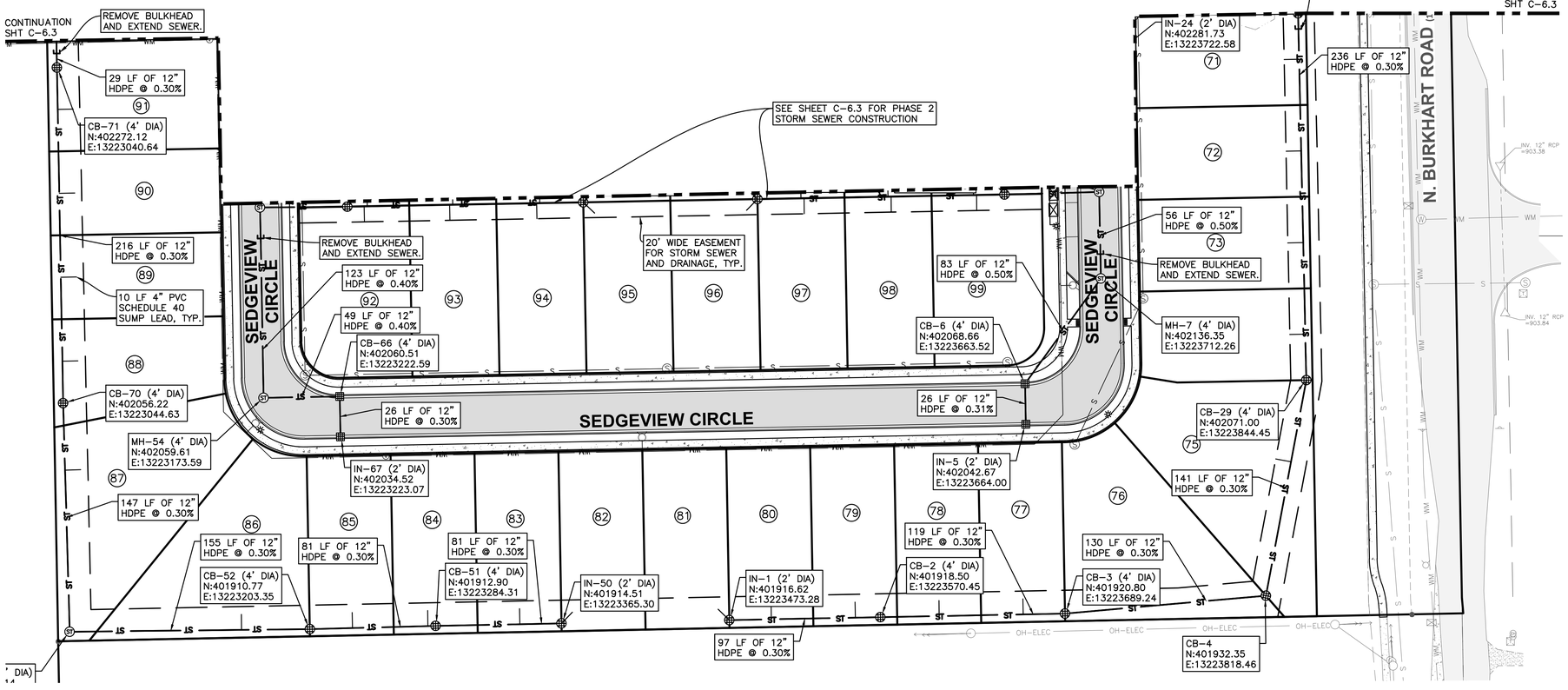
NOT FOR CONSTRUCTION

UTILITY LEGEND

PROPOSED	EXISTING	
WM	WM	WATER MAIN, MH, VALVE IN BOX, HYDRANT
W	W	WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
ST, Y.D., ST	ST, D.S., Y.D., ST, DS	STORM SEWER, MH, CB, INLET, DOWN SPOUT, YARD DRAIN
		CULVERT/ END SECTION
S	S	SANITARY SEWER, MH, CLEAN OUT
FM	FM	SANITARY FORCE MAIN
GAS	GAS	UG GAS, MH, VALVE, LINE MARKER
UG-ELEC	UG-ELEC	UG ELEC (ELEC, CABLE, FIBER)

SHEET KEY





STORM SEWER NOTES

1. YARD "IN" & "CB" STRUCTURES SHALL HAVE EJIW 1020 FRAME WITH TYPE O1 BEEHIVE COVER.
2. MOUNTABLE CURB "IN" & "CB" STRUCTURES SHALL HAVE EJIW 7060 FRAME WITH TYPE T1 BACK AND M1 GRATE.
3. STRAIGHT CURB "IN" & "CB" STRUCTURES SHALL HAVE EJIW 7010 FRAME WITH TYPE T1 BACK AND M1 GRATE.
4. STORM "MH" STRUCTURES SHALL HAVE EJIW 1040 FRAME WITH A TYPE A PERFORATED COVER.
5. END SECTIONS 18" AND LARGER SHALL HAVE ANIMAL GRATES.
6. THE PROPOSED DRAINAGE SYSTEMS ARE TO BE OWNED AND PROPERLY MAINTAINED BY THE SITE CONDOMINIUM PROPERTY OWNER'S ASSOCIATION.
7. ALL STORM SEWER OUTSIDE ROAD RIGHT OF WAY SHALL BE LOCATED IN A MINIMUM 20' WIDE STORM EASEMENT.

NOTE

SEE PROFILES ON SHEETS C-6.9 TO C-6.32 FOR SEWER AND STRUCTURE DETAILS

STORM STRUCTURE TABLE

PROPOSED STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
CB-2	905.60	12" W IE= 901.87 12" E IE= 901.87
CB-3	906.76	12" W IE= 901.52 12" E IE= 901.52
CB-4	906.69	12" N IE= 901.13 12" W IE= 901.13
CB-6	909.16	12" S IE= 905.00 12" NE IE= 905.00
CB-29	907.41	12" N IE= 900.70 12" S IE= 900.70
CB-51	906.30	12" E IE= 903.53 12" W IE= 903.53
CB-52	906.57	12" E IE= 903.29 12" W IE= 903.29
CB-66	909.57	12" S IE= 904.66 12" W IE= 904.66
CB-70	907.01	12" N IE= 902.38 12" S IE= 902.38
CB-71	906.47	12" S IE= 901.74 12" N IE= 901.74
IN-1	906.57	12" E IE= 902.16 4" NW IE= 903.11
IN-5	909.16	12" N IE= 905.08
IN-50	906.57	12" W IE= 903.78 4" NE IE= 904.25
IN-67	909.57	12" N IE= 904.74
MH-7	909.78	12" SW IE= 904.58 12" N IE= 904.58
MH-53	907.65	12" E IE= 902.83 12" N IE= 902.83
MH-54	910.02	12" E IE= 904.46 12" N IE= 904.46

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CLIENT :

M/I HOMES OF MICHIGAN, L.L.C.

40950 WOODWARD AVE
SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)-221-5011

STORM SEWER PLAN (PHASE 3)

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
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DESIGN BY: KM
CHECK BY: KM

C-6.4

NOT FOR CONSTRUCTION

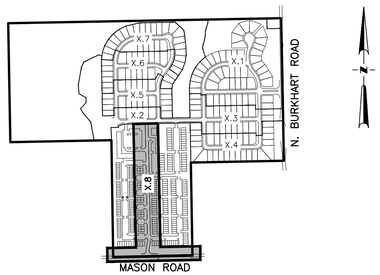
STORM STRUCTURE TABLE

PROPOSED STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
CB-127	905.54	12" W IE= 900.87 12" E IE= 900.87
CB-136	905.54	12" W IE= 900.87 12" E IE= 900.87
CB-137	904.37	12" W IE= 900.38 12" NE IE= 901.38
CB-138	904.37	12" W IE= 900.38 12" E IE= 900.38
CB-140	905.47	12" W IE= 899.47 12" E IE= 899.47
CB-142	908.69	12" E IE= 899.22 12" W IE= 899.22
CB-143	908.69	18" W IE= 898.36 18" E IE= 898.36
ES-137A	899.87	12" SW IE= 902.37
ES-138A	901.64	12" E IE= 900.44

PROPOSED STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
ES-181	904.17	18" E IE= 902.92
ES-182	905.74	18" W IE= 904.40
IN-139	905.47	12" W IE= 899.47
IN-144	906.74	12" W IE= 898.23
IN-145	906.73	12" E IE= 898.23
MH-128	905.80	12" E IE= 900.77 18" N IE= 900.37 12" W IE= 900.77
MH-129	904.63	18" S IE= 900.03 18" N IE= 900.03 12" W IE= 900.28 12" E IE= 900.28
MH-130	905.93	18" S IE= 899.19 24" N IE= 898.79 12" W IE= 899.59
MH-131	905.73	24" S IE= 898.57 24" N IE= 898.57 12" W IE= 899.37 12" E IE= 899.37

PROPOSED STORM SEWER		
STRUCTURE	RIM ELEV.	PIPES
MH-132	908.80	24" S IE= 898.18 30" N IE= 897.93 18" E IE= 898.73 12" W IE= 900.73
MH-133	910.22	30" S IE= 897.69 36" N IE= 897.44 24" W IE= 898.24 12" E IE= 899.04
MH-134	908.95	36" S IE= 897.12 36" N IE= 897.12 12" E IE= 899.12 18" W IE= 898.32
MH135	907.00	12" E IE= 898.13 36" N IE= 896.53 36" S IE= 896.53 12" W IE= 898.13

SHEET KEY

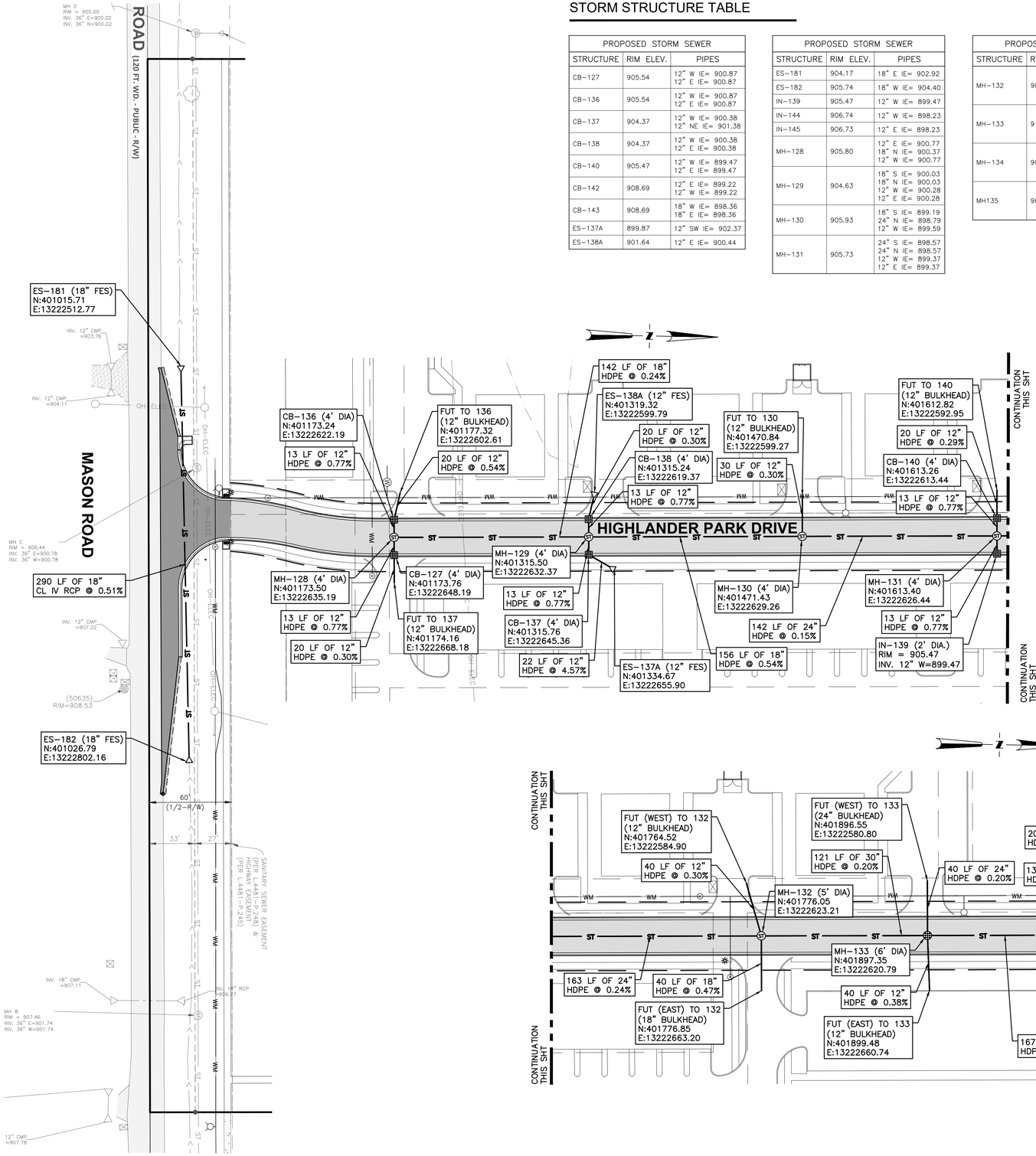


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UTILITY LEGEND

PROPOSED	EXISTING	
WM	WM	WATER MAIN, MH, VALVE IN BOX, HYDRANT
W	W	WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
ST	D.S. Y.D. ST DS	STORM SEWER, MH, CB, INLET, DOWN SPOUT, YARD DRAIN
Y.D.		CULVERT/ END SECTION
S	S	SANITARY SEWER, MH, CLEAN OUT
FM	FM	SANITARY FORCE MAIN
GAS	GAS	UG GAS, MH, VALVE, LINE MARKER
UG-ELEC	UG-ELEC	UG ELEC (ELEC, CABLE, FIBER)



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POC: DAVID STRAUB
(248)-221-5011

CONSTRUCT IN PHASE 2

STORM SEWER PLAN (OFFSITE)

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

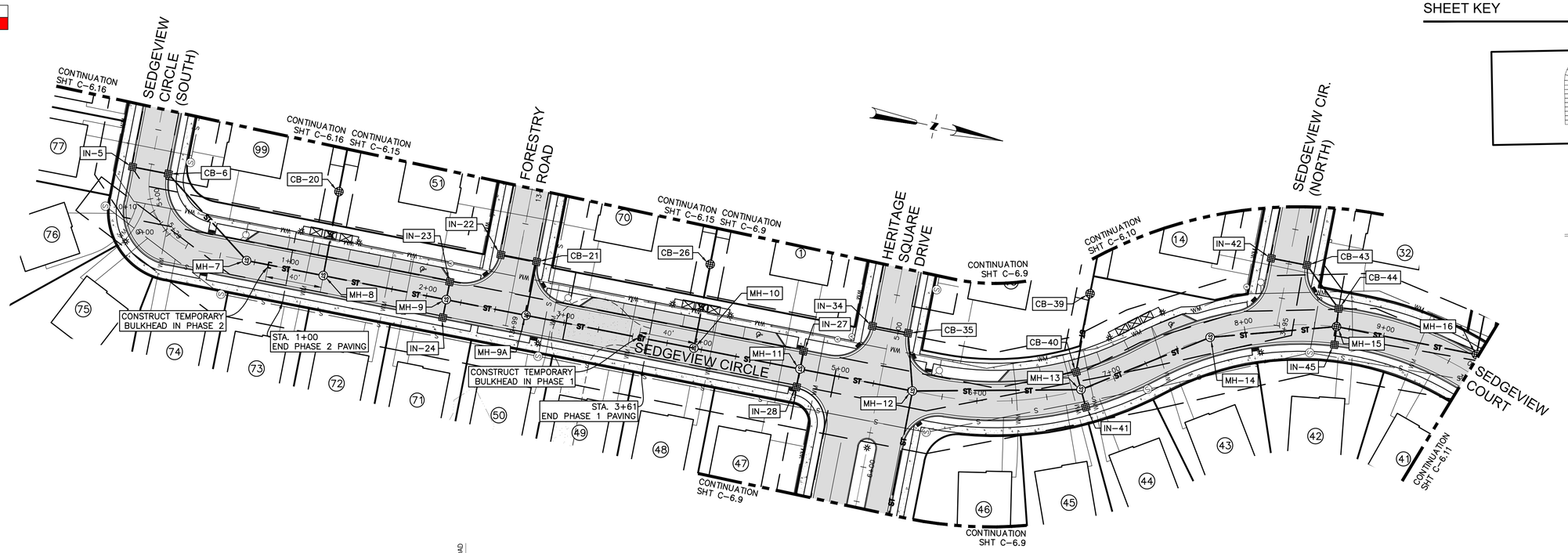
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DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

C-6.8

NOT FOR CONSTRUCTION

FILE:P:\Projects\2021\21-075 Heritage Square PUD\21-075C Heritage Square (Single-Family)\Dwg\Engineering\PH 2-3 FSP PLANS\21-075C_SF_PH2 FSP_C-6.1_Storm.dwg PLOT DATE:12/22/2025 11:57 AM

SHEET KEY



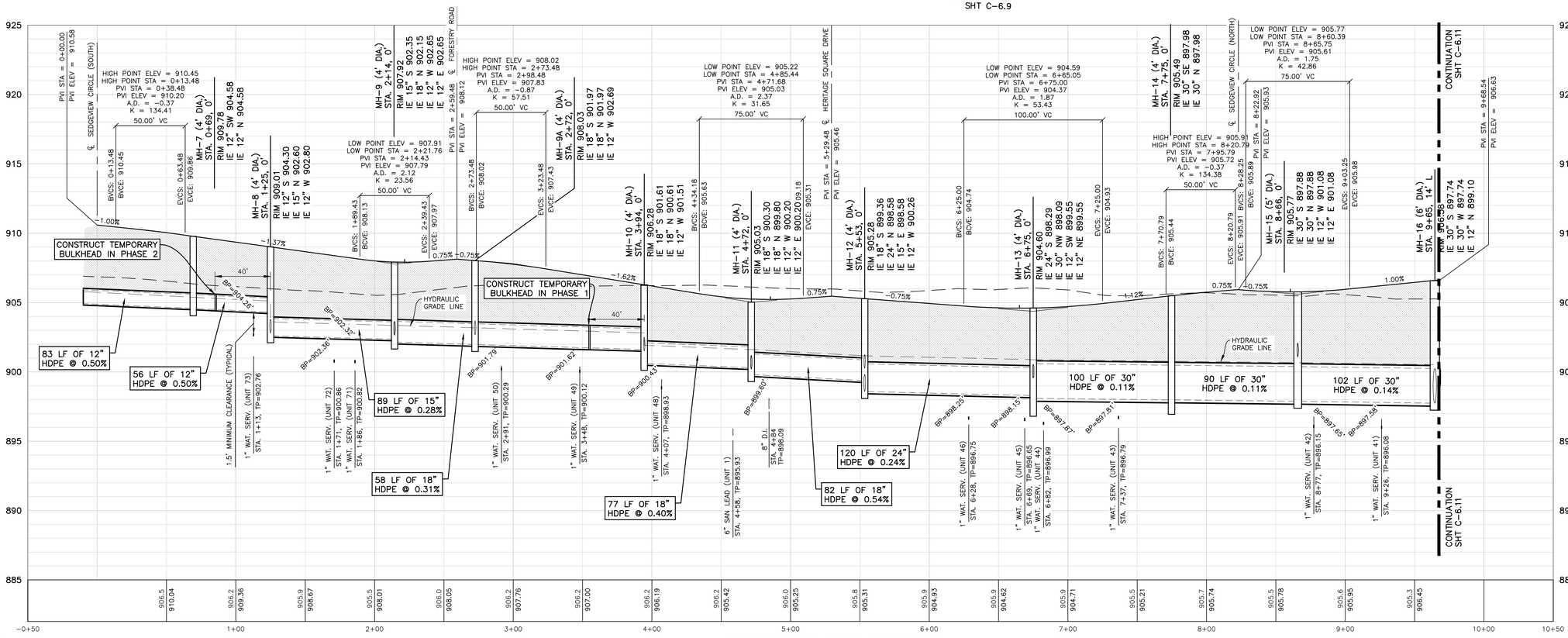
PROFILE LEGEND

- (x) UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE

EX GROUND — PR GROUND
945.9 947.39
1+00

NOTES

1. SAND BACKFILL AND BEDDING TO BE MDOT CL II.
2. MAINTAIN MINIMUM 18" VERTICAL CLEARANCE BETWEEN ALL UTILITIES.
3. ALL PIPES SHOWN TO OUTSIDE DIAMETER.



SEDGEVIEW CIRCLE (EAST)
STA. 0+00 TO 8+23

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

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ENGINEER
NO. 6201043260

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BLOOMFIELD HILLS, MI 48304
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STORM SEWER AND ROAD PLAN & PROFILE

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
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PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
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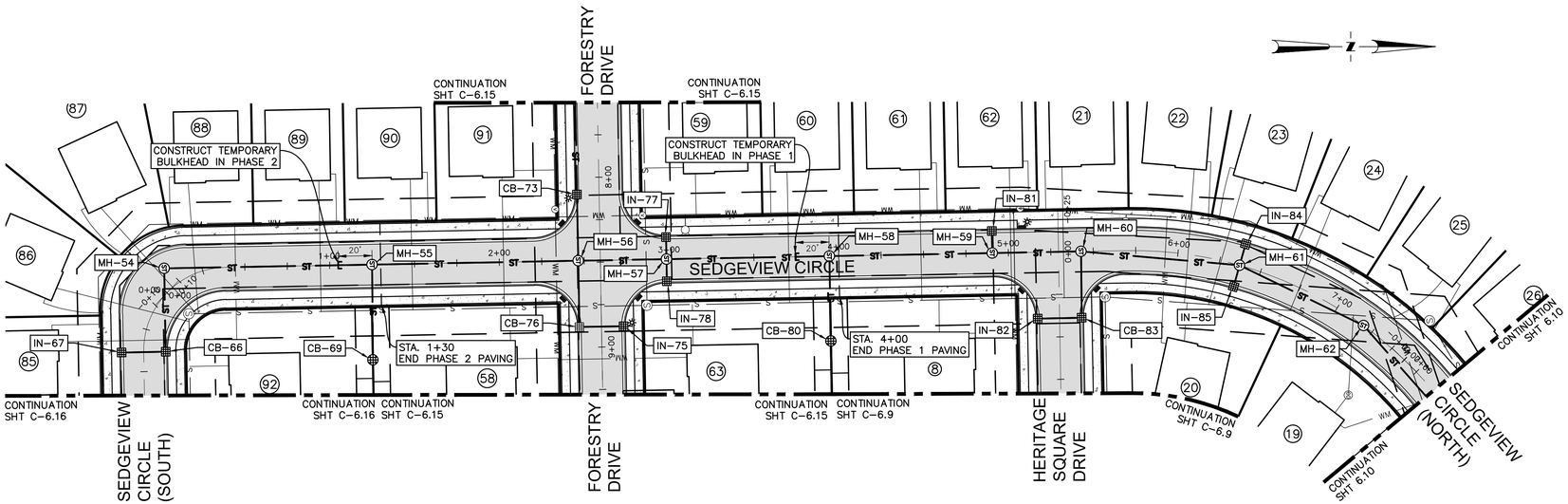
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

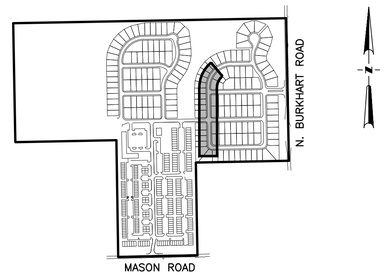
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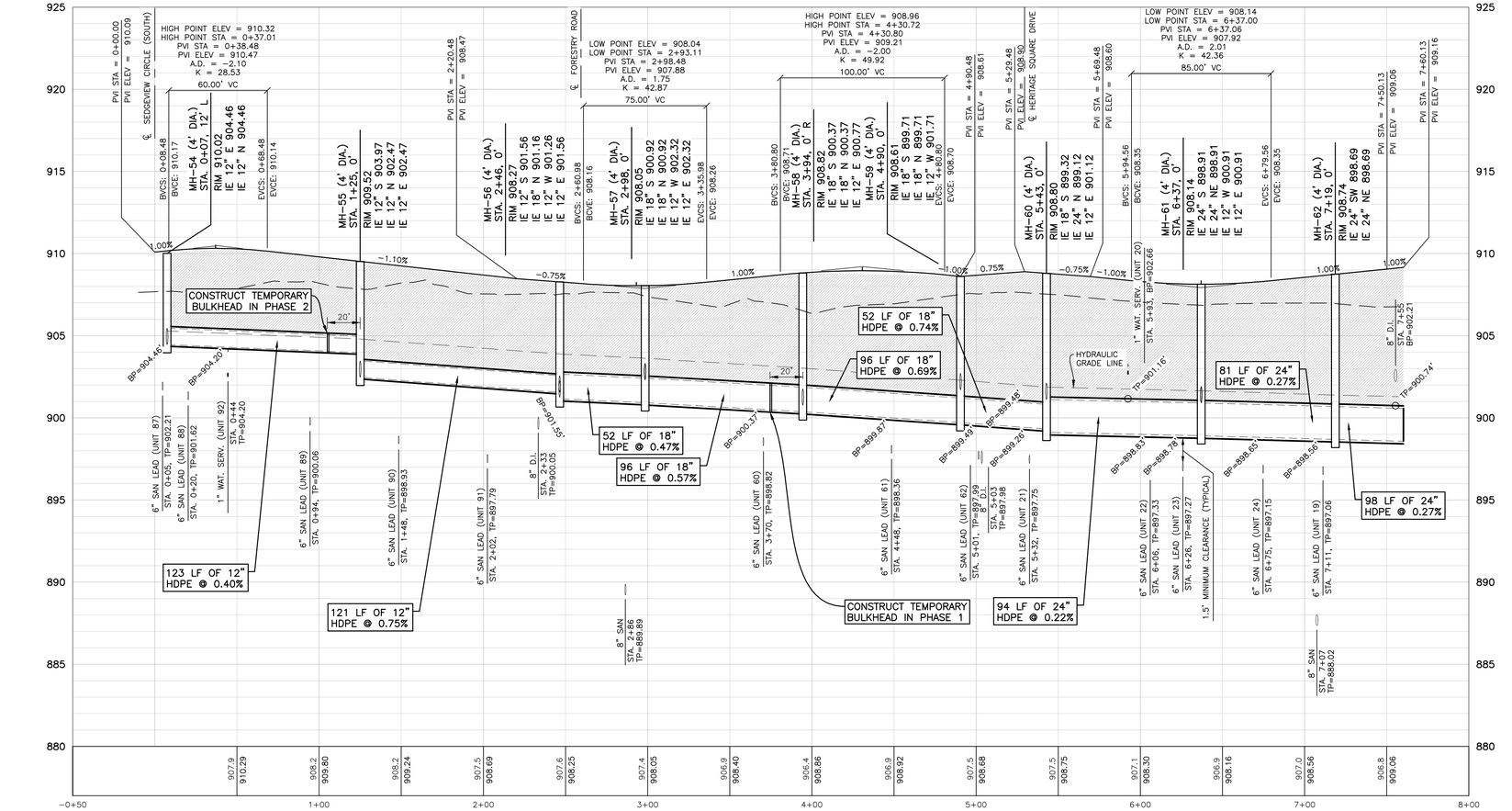
C-6.12

NOT FOR CONSTRUCTION



SHEET KEY



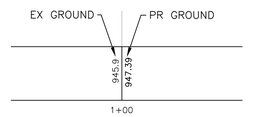


SEDGEVIEW CIRCLE (WEST)
STA. 0+00 TO 7+60

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE



NOTES

1. SAND BACKFILL AND BEDDING TO BE MDOT CL II.
2. MAINTAIN MINIMUM 18" VERTICAL CLEARANCE BETWEEN ALL UTILITIES.
3. ALL PIPES SHOWN TO OUTSIDE DIAMETER.

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STORM SEWER AND ROAD PLAN & PROFILE

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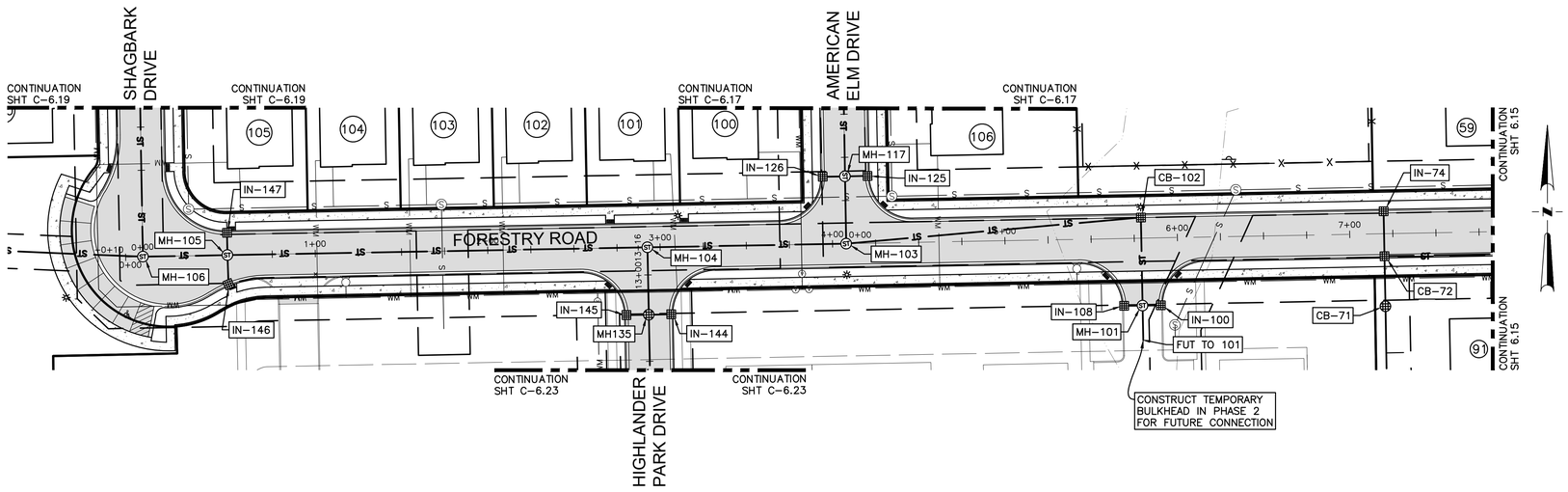
PROJECT NO: 21-075C

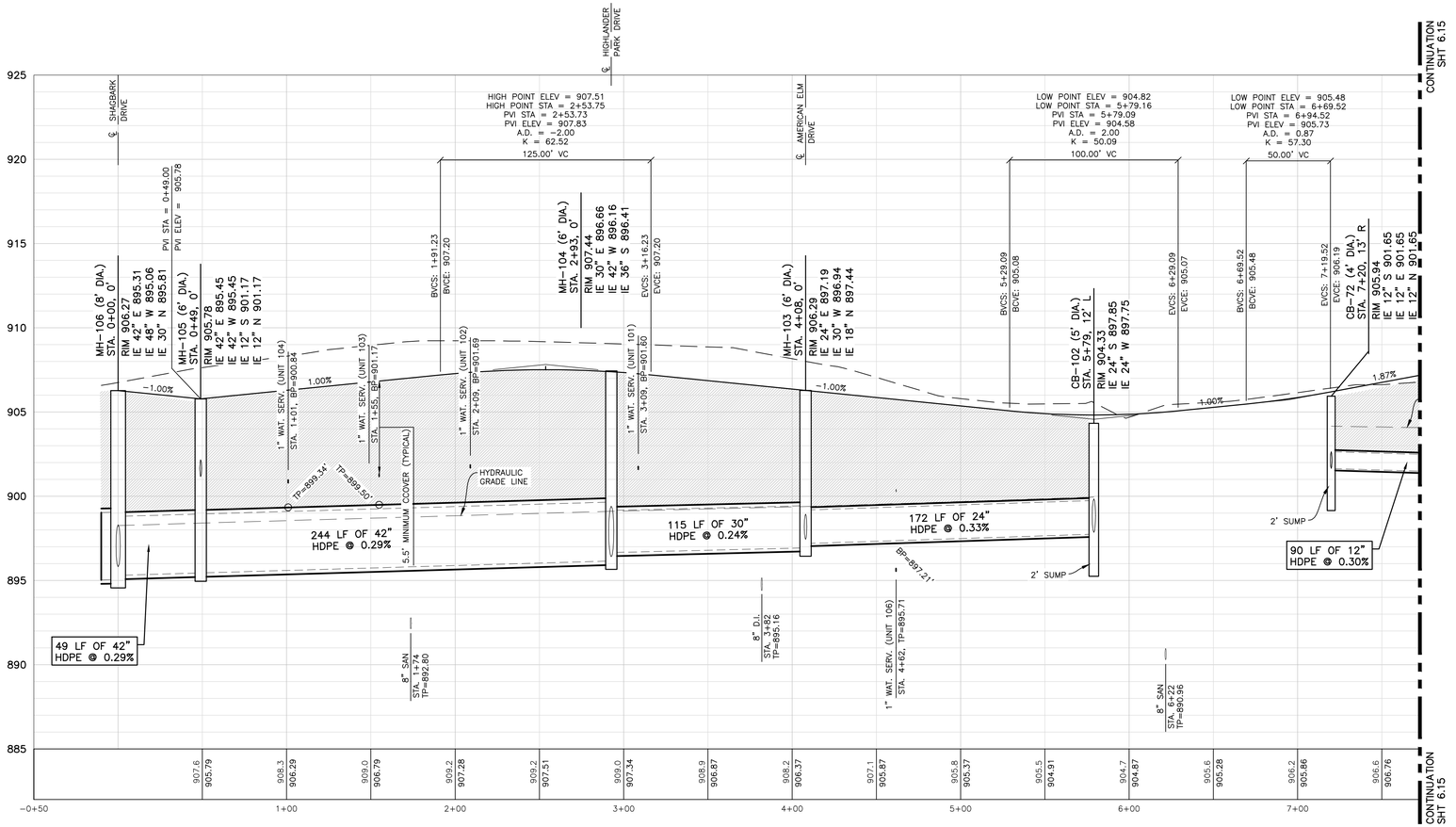
SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

C-6.13

NOT FOR CONSTRUCTION

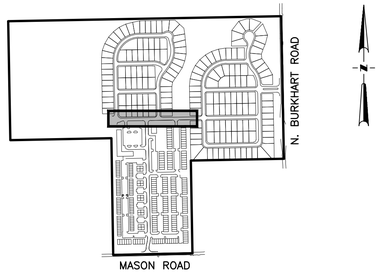




FORESTRY ROAD
STA. 0+00 TO 7+75

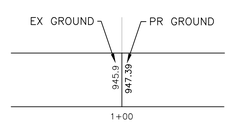
PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

SHEET KEY



PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE



NOTES

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HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

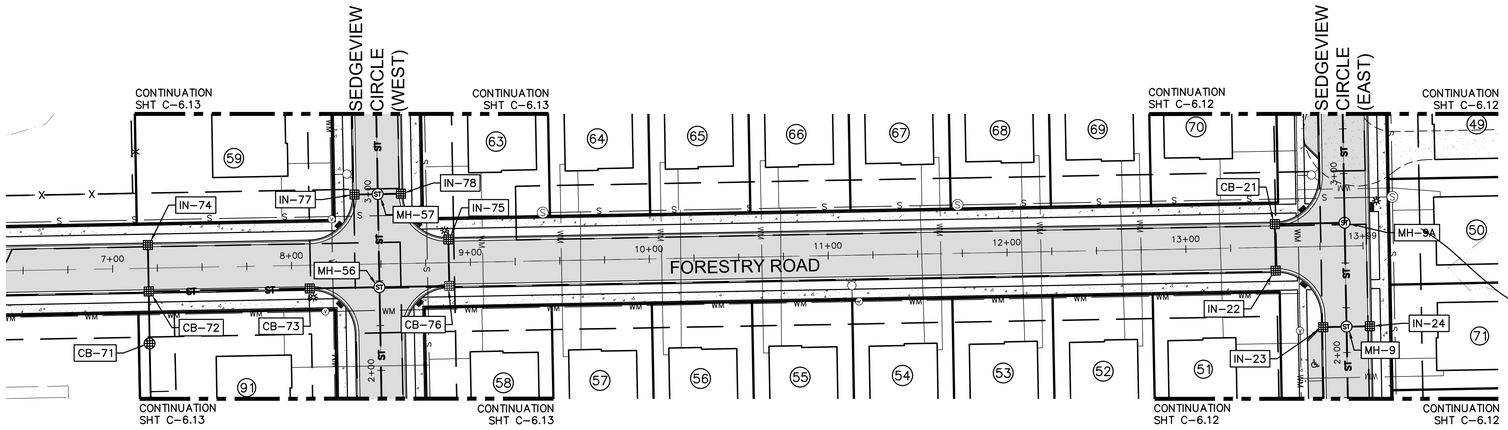
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DESIGN BY: KM
CHECK BY: KM

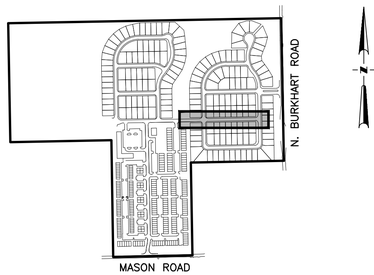
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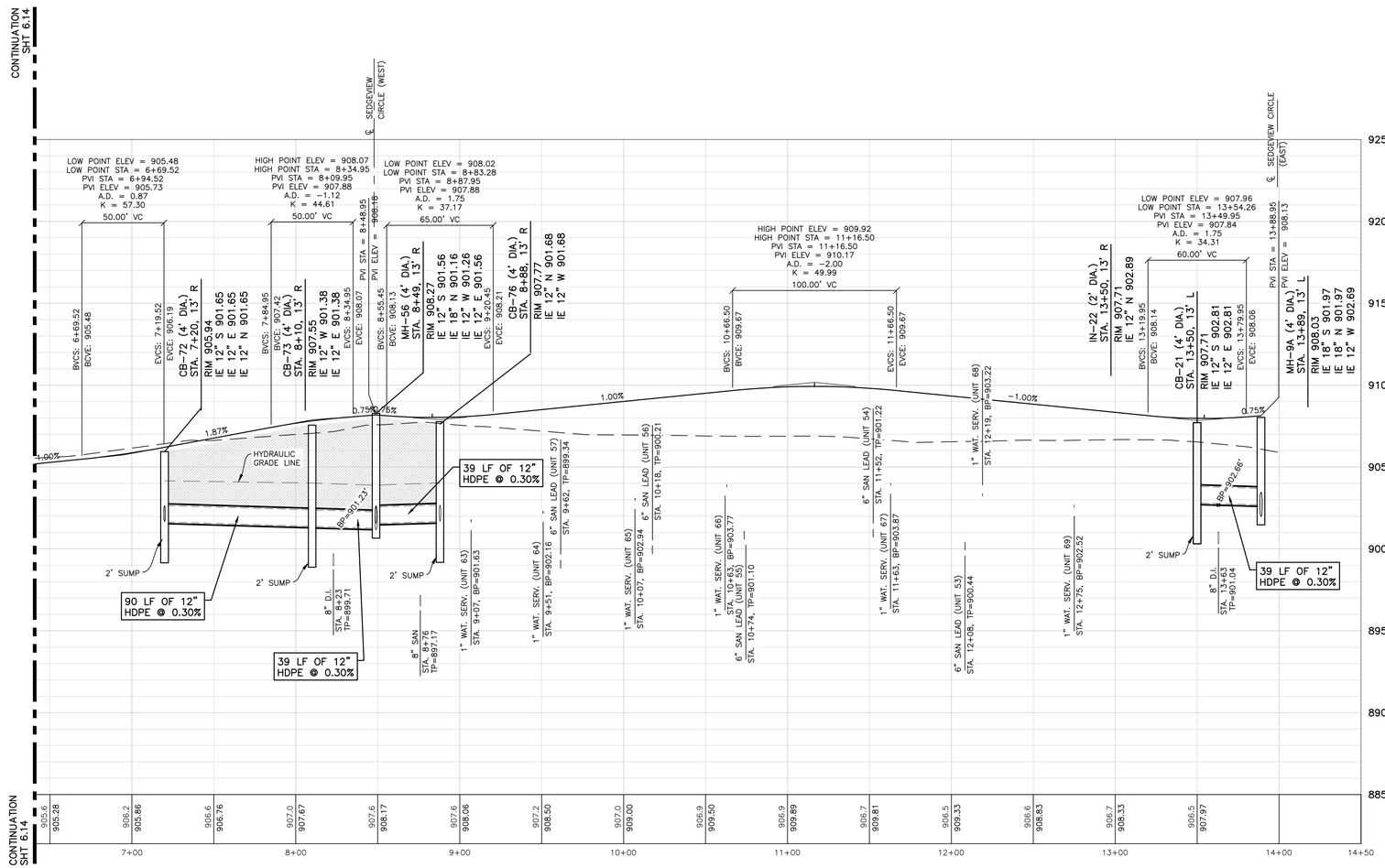
NOT FOR CONSTRUCTION

SHEET KEY



DURING PHASE 2 CONSTRUCTION, MAINTAIN TEMPORARY ACCESS DRIVE THROUGHOUT CONSTRUCTION UNTIL OPENING FORESTRY DRIVE AND HIGHLANDER PARK DRIVE TO TRAFFIC (MASON ROAD ACCESS).



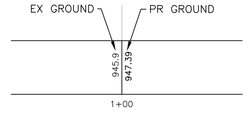


FORESTRY ROAD
STA. 7+75 TO 13+89

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE



NOTES

1. SAND BACKFILL AND BEDDING TO BE MDOT CL II.
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3. ALL PIPES SHOWN TO OUTSIDE DIAMETER.

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ENGINEER
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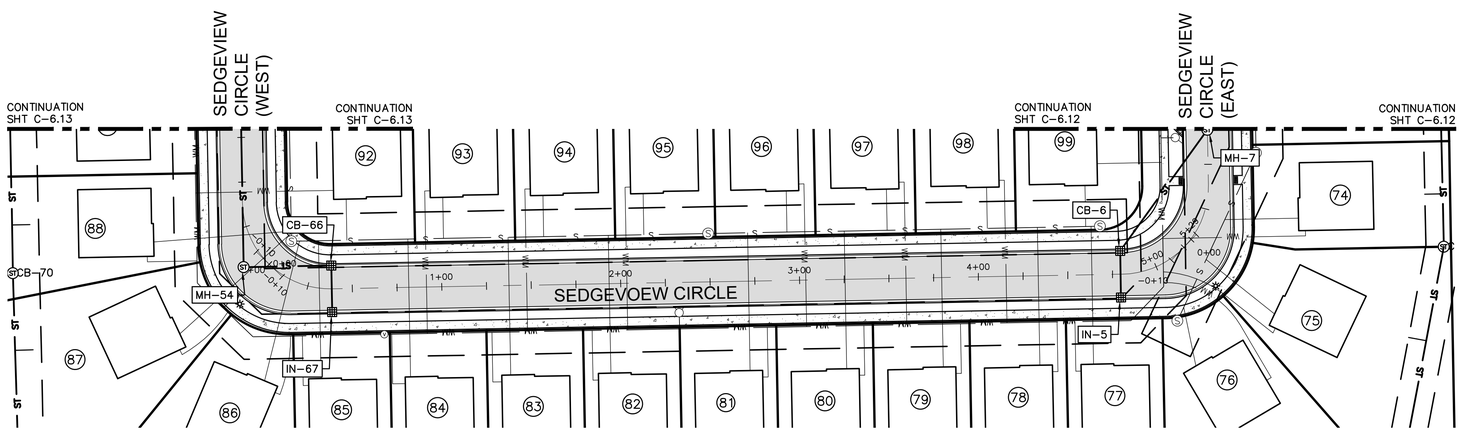
PROJECT NO: 21-075C

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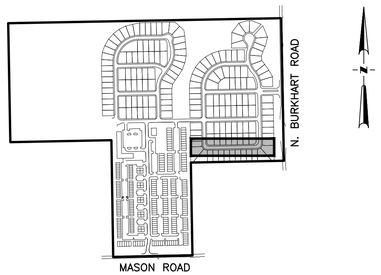
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DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

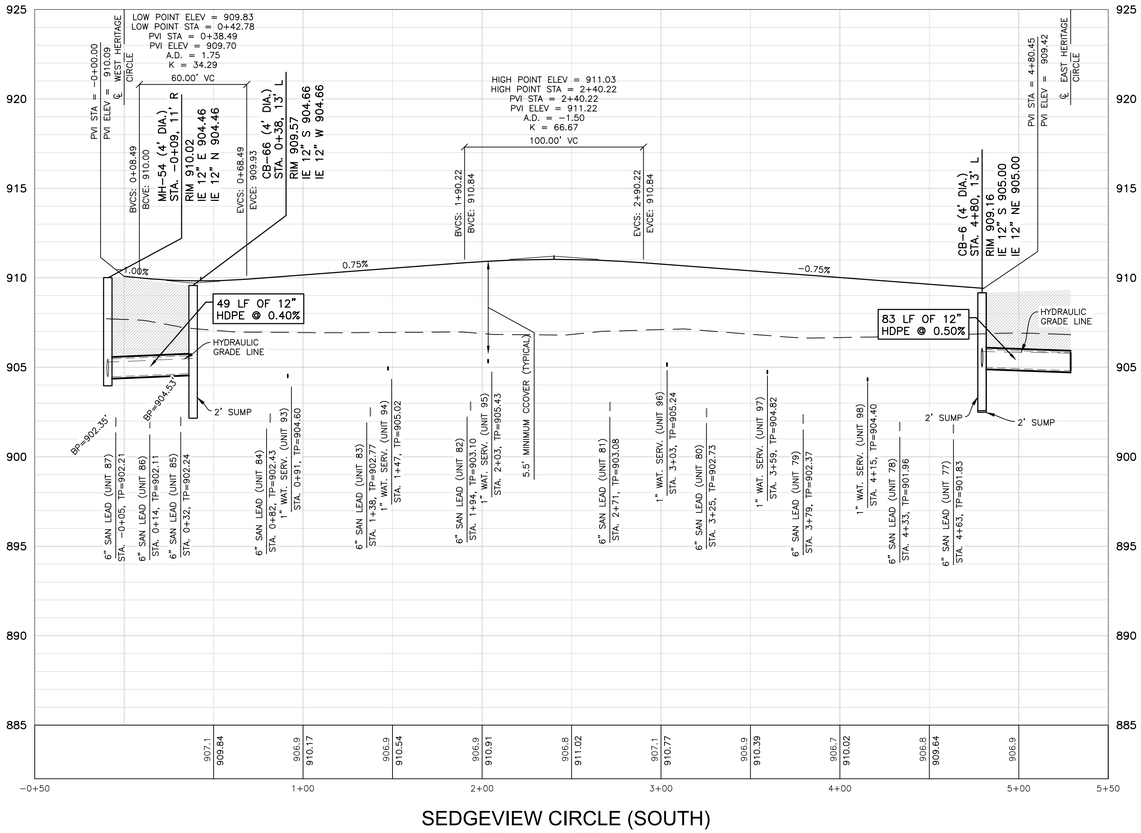
C-6.15

NOT FOR CONSTRUCTION



SHEET KEY



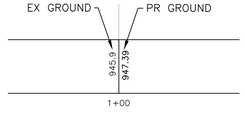


SEDGEVIEW CIRCLE (SOUTH)
STA. 0+00 TO 5+29

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE



NOTES

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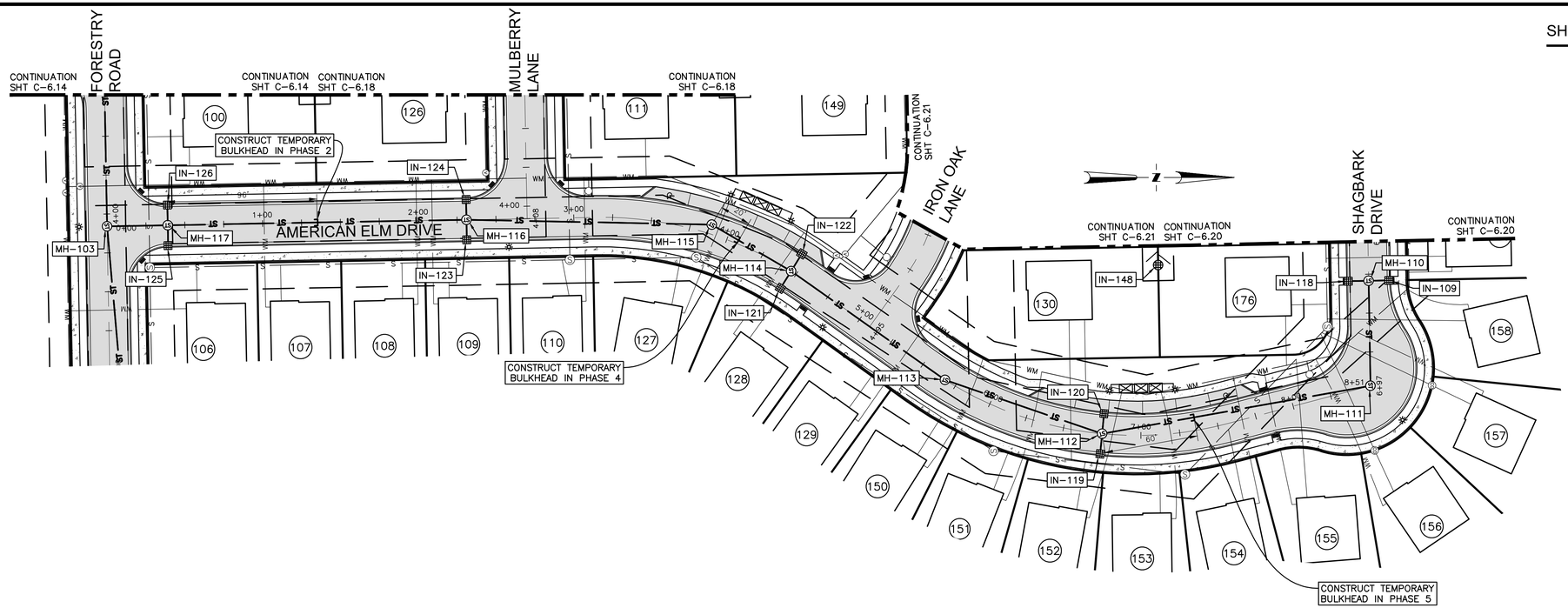
PROJECT NO: 21-075C

SCALE: 1" = 40'
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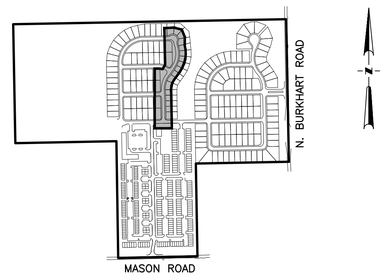
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CHECK BY: KM

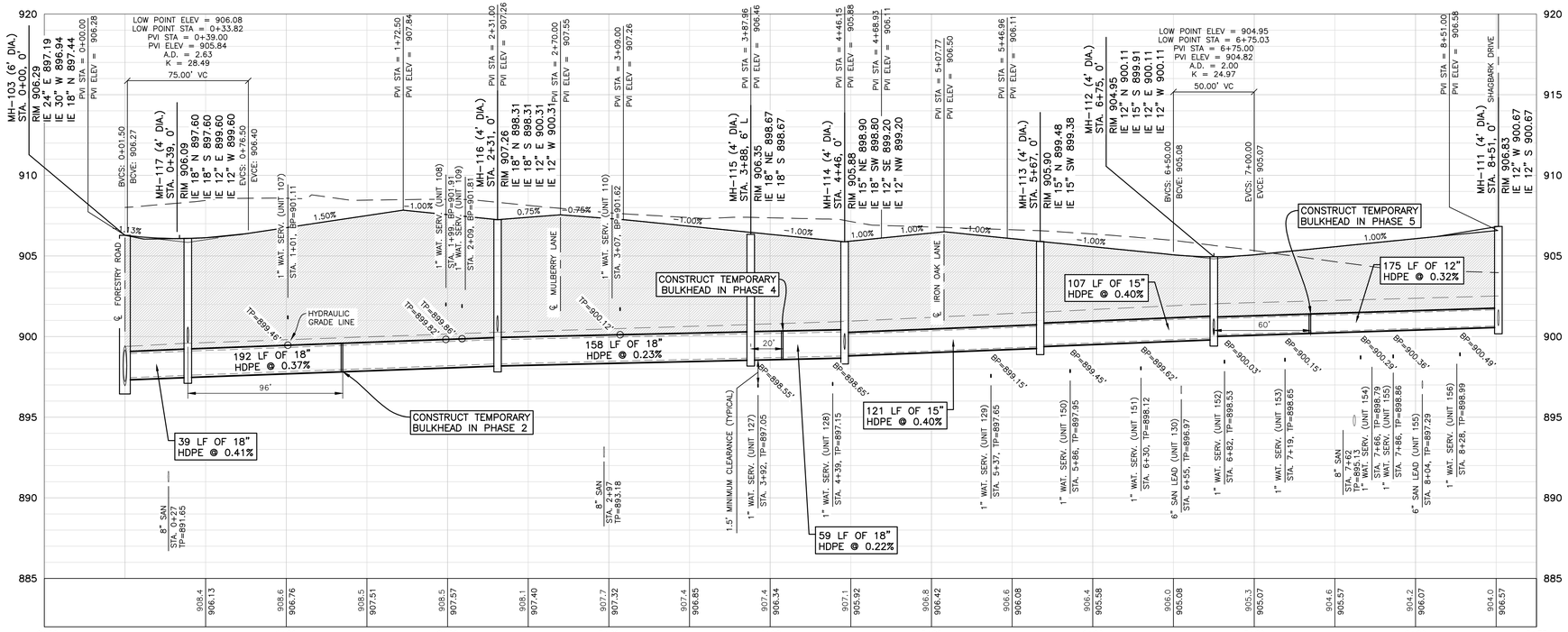
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NOT FOR CONSTRUCTION



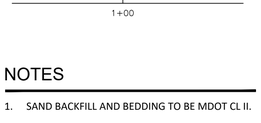
SHEET KEY





PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE



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AMERICAN ELM DRIVE
STA. 0+00 TO 8+51

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

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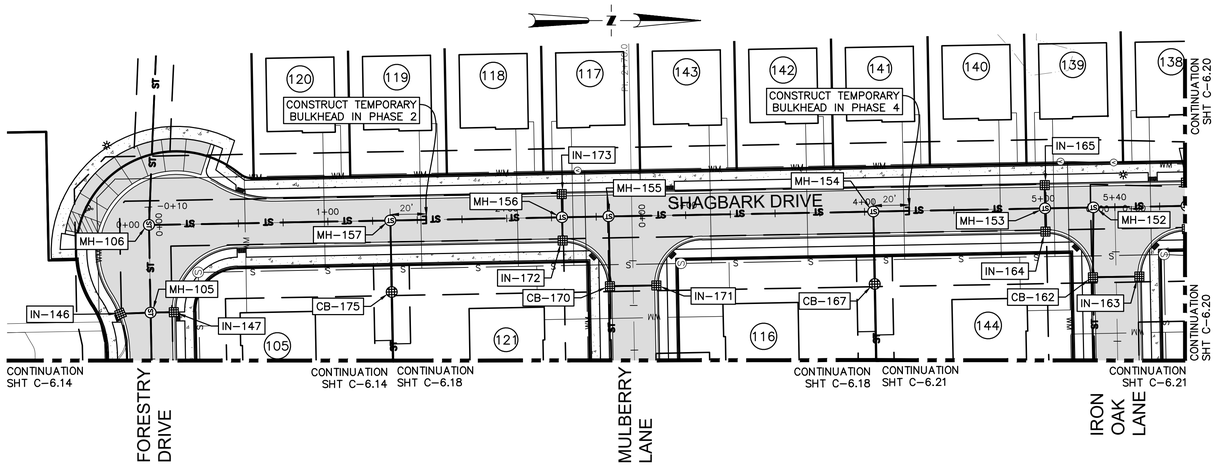
PROJECT NO: 21-075C

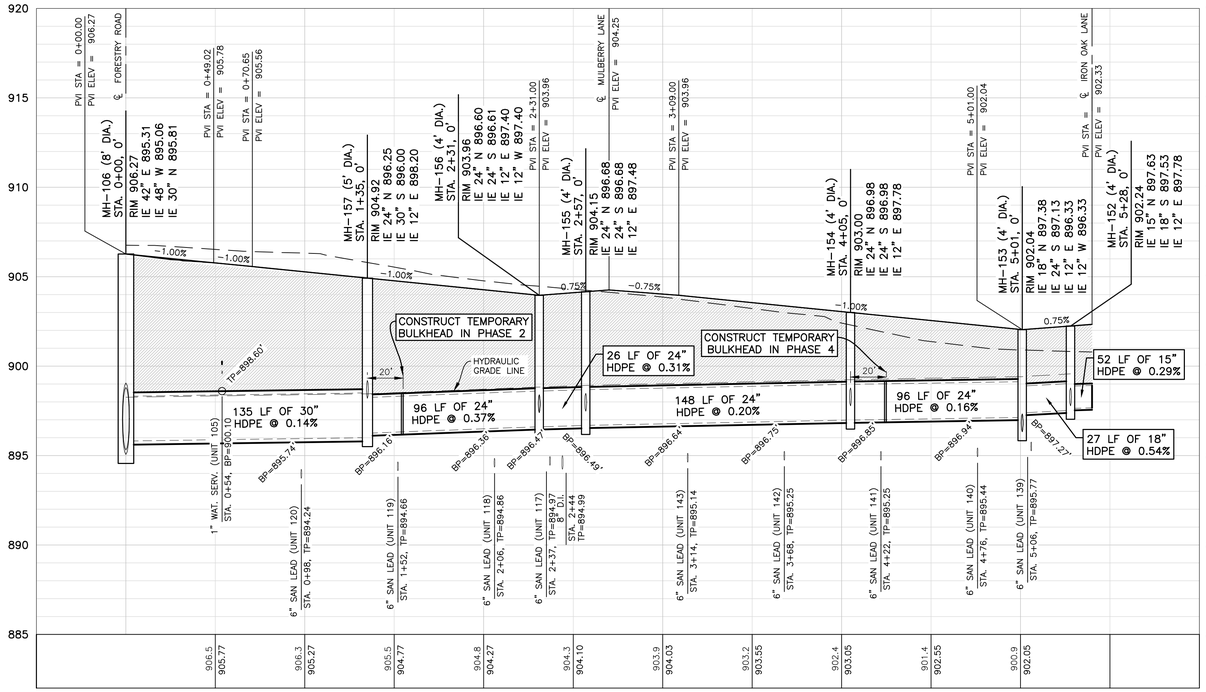
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DESIGN BY: KM
CHECK BY: KM

C-6.17

NOT FOR CONSTRUCTION

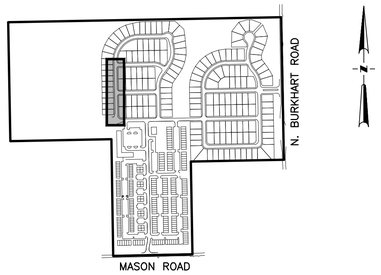




SHAGBARK DRIVE - SOUTH
STA. 0+00 TO 5+40

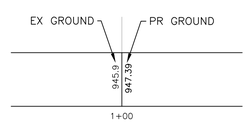
PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

SHEET KEY



PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
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- H.G. LINE



NOTES

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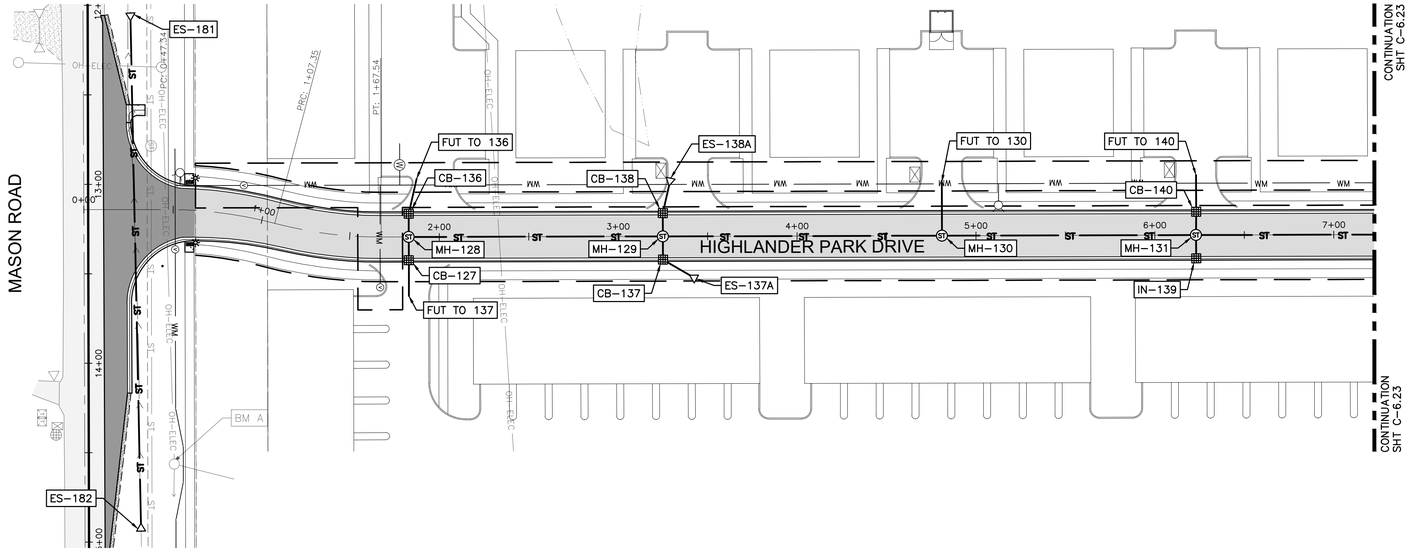
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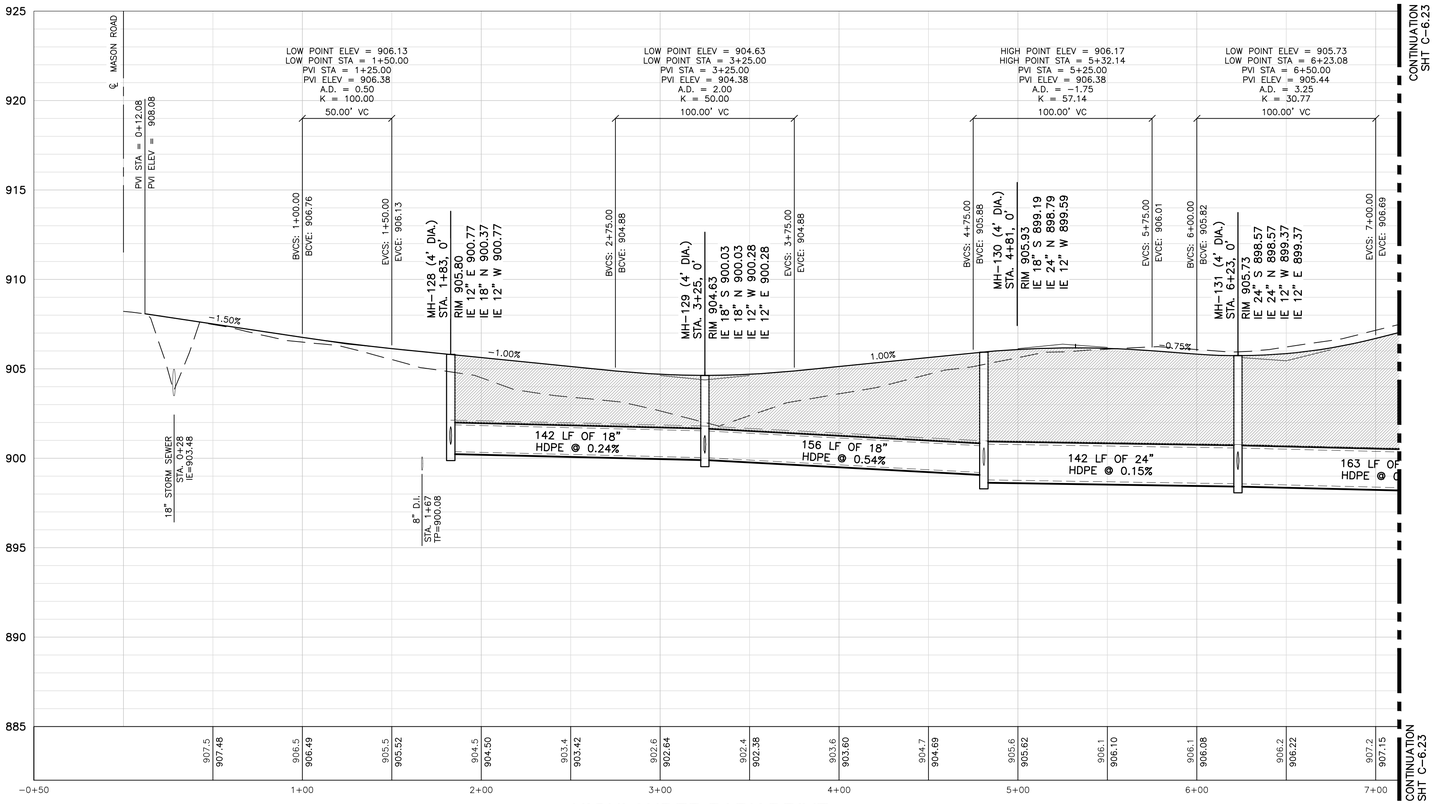
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DESIGN BY: KM
CHECK BY: KM

C-6.19

NOT FOR CONSTRUCTION

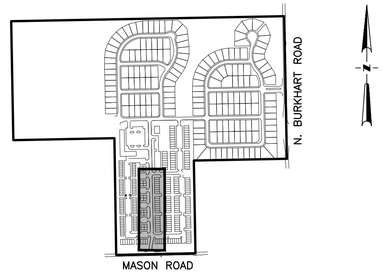




HIGHLANDER PARK DRIVE
STA. 0+00 TO 7+00

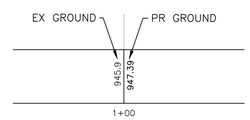
PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

SHEET KEY



PROFILE LEGEND

- (X) UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
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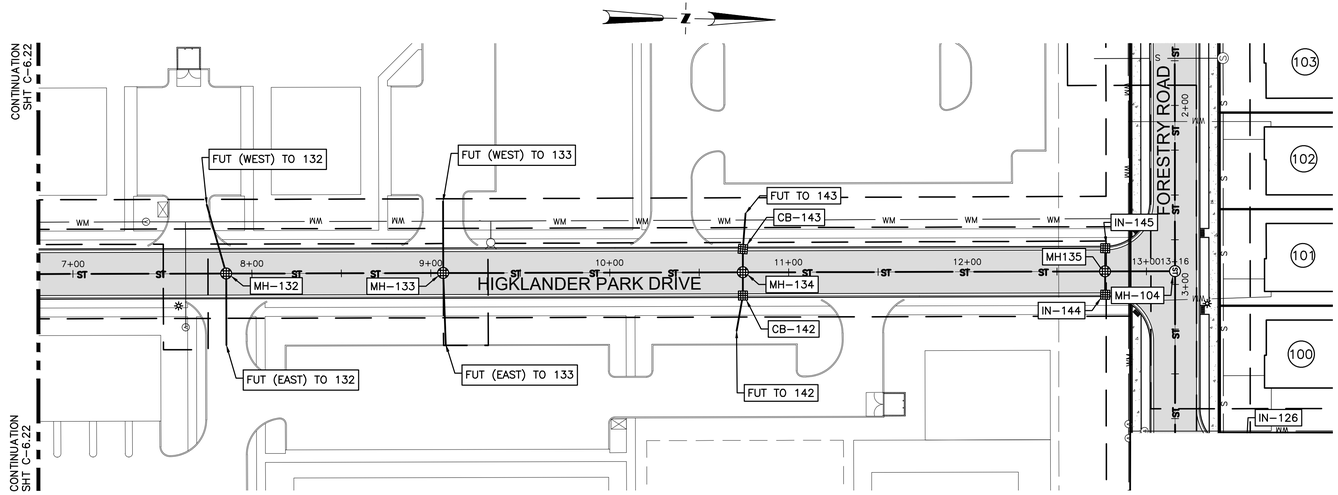
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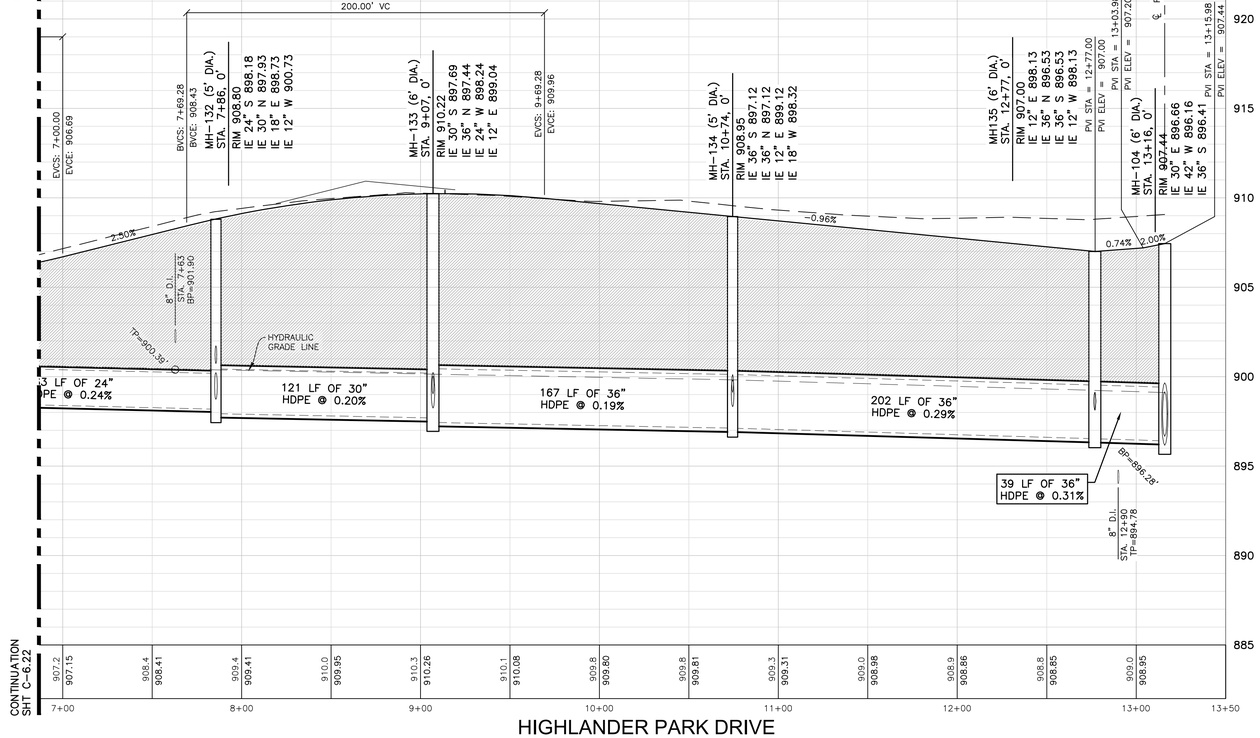
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DESIGN BY: KM
CHECK BY: KM

C-6.22

NOT FOR CONSTRUCTION

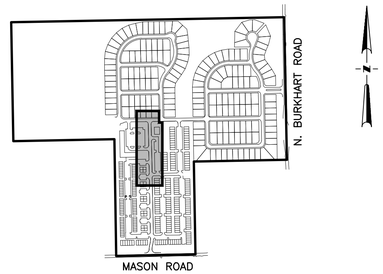




HIGHLANDER PARK DRIVE
STA. 7+00 TO 13+16

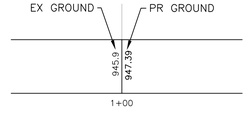
PROFILE SCALE
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VERT: 1"=4'

SHEET KEY



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- SAND BACKFILL (REFER TO TRENCH DETAILS)
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40950 WOODWARD AVE
SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)-221-5011

STORM SEWER AND ROAD PLAN & PROFILE

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/16/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

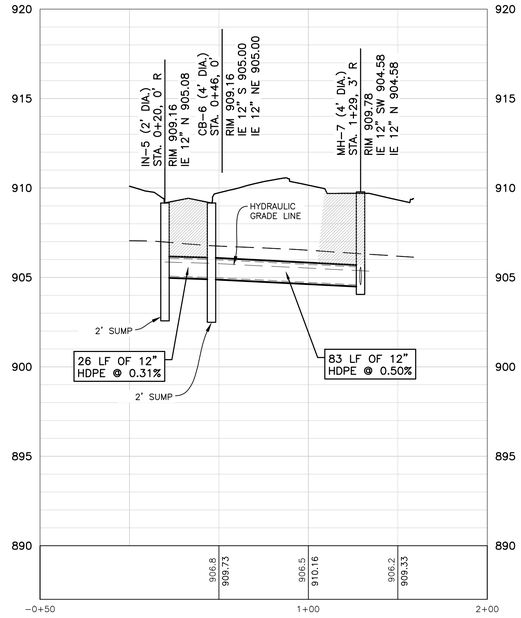
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

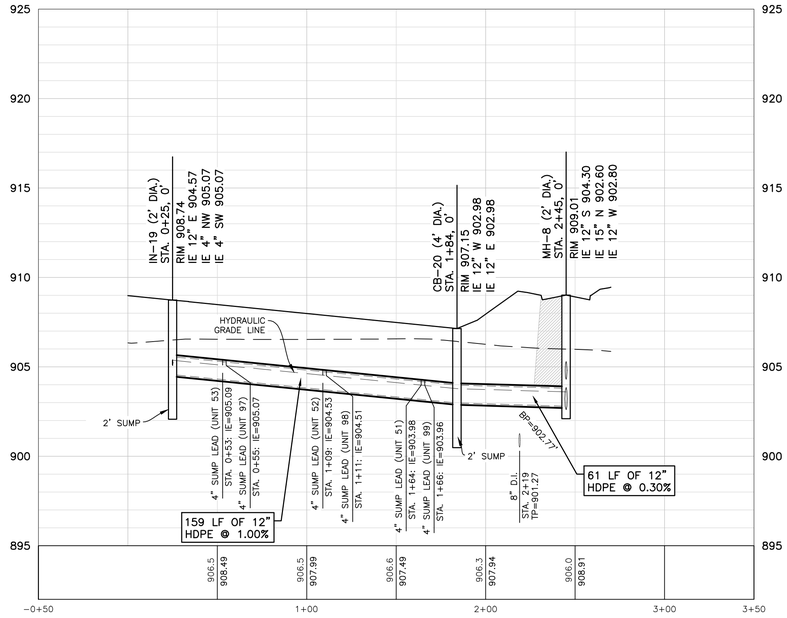
C-6.23

NOT FOR CONSTRUCTION



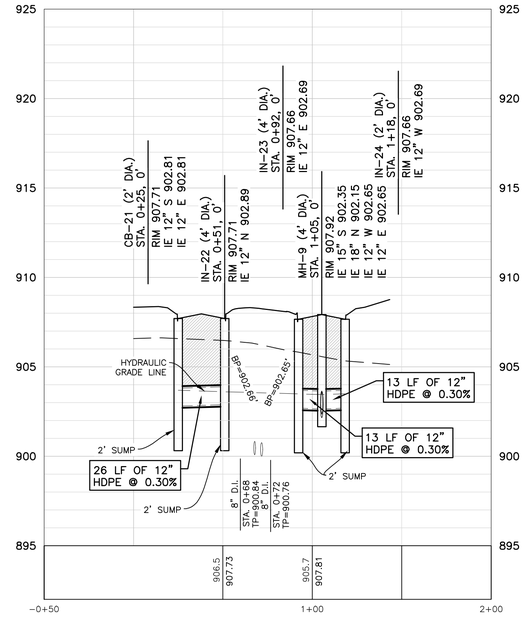
STORM PROFILE - IN-5 TO MH-7

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN19 TO MH8

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

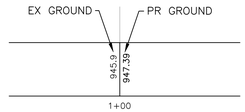


STORM PROFILE - IN-21 TO IN-24

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

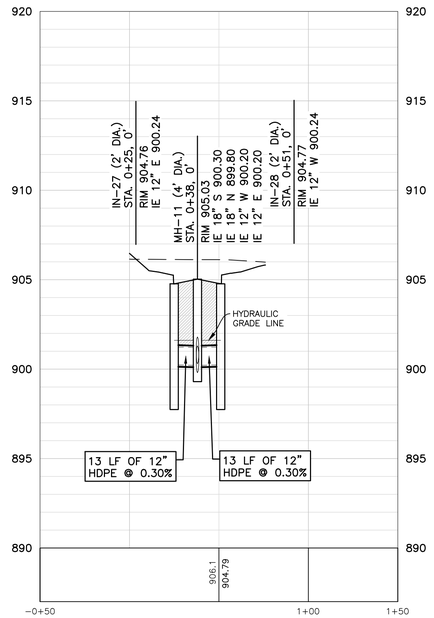
PROFILE LEGEND

- (X) UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE



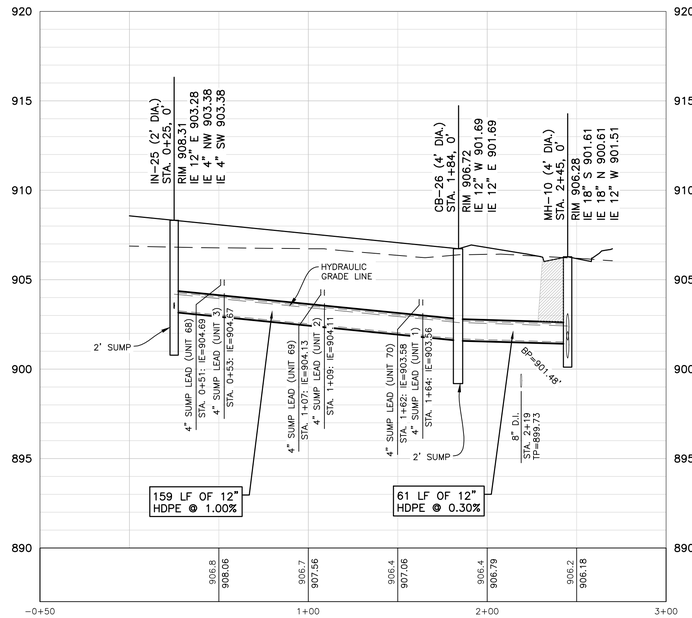
NOTES

1. SAND BACKFILL AND BEDDING TO BE MDOT CL II.
2. MAINTAIN MINIMUM 18" VERTICAL CLEARANCE BETWEEN ALL UTILITIES.
3. ALL PIPES SHOWN TO OUTSIDE DIAMETER.



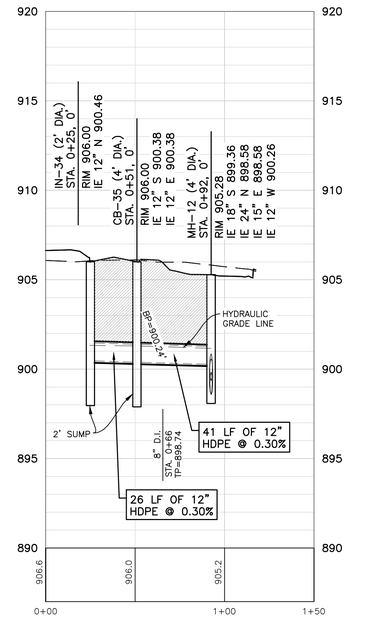
STORM PROFILE - IN-27 TO IN-28

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



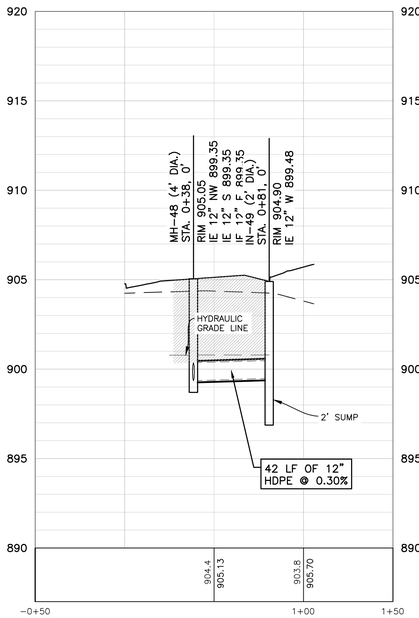
STORM PROFILE - IN-25 TO MH-10

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN-34 TO MH-12

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN-49 TO MH-48

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

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ENGINEER
NO. 6201043260

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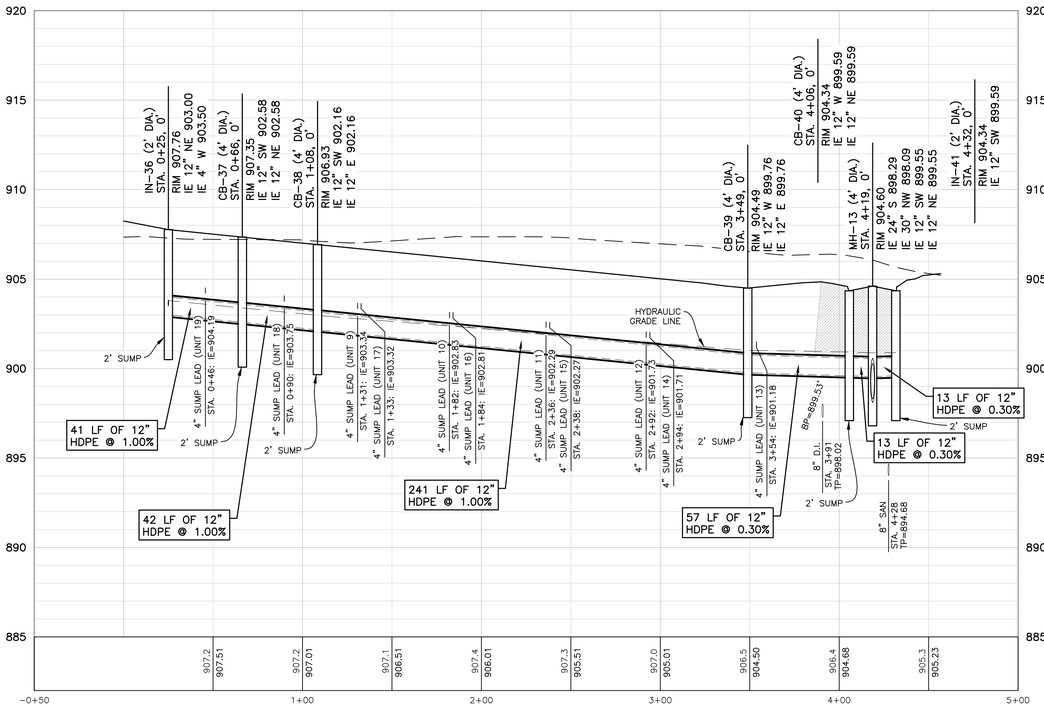
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

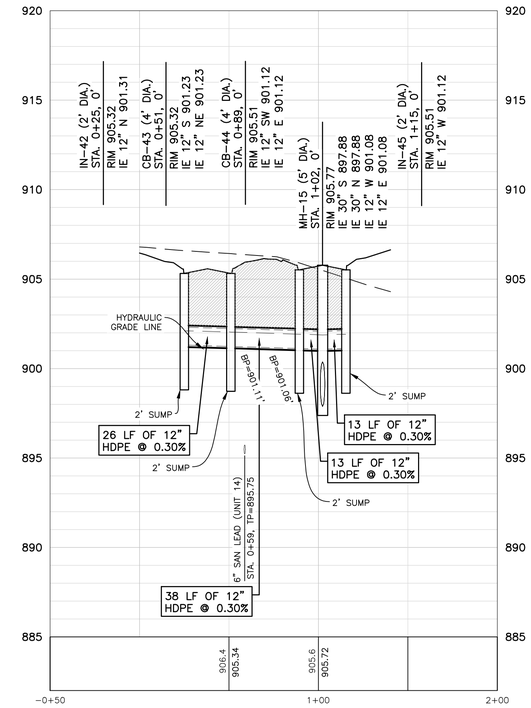
C-6.24

NOT FOR CONSTRUCTION



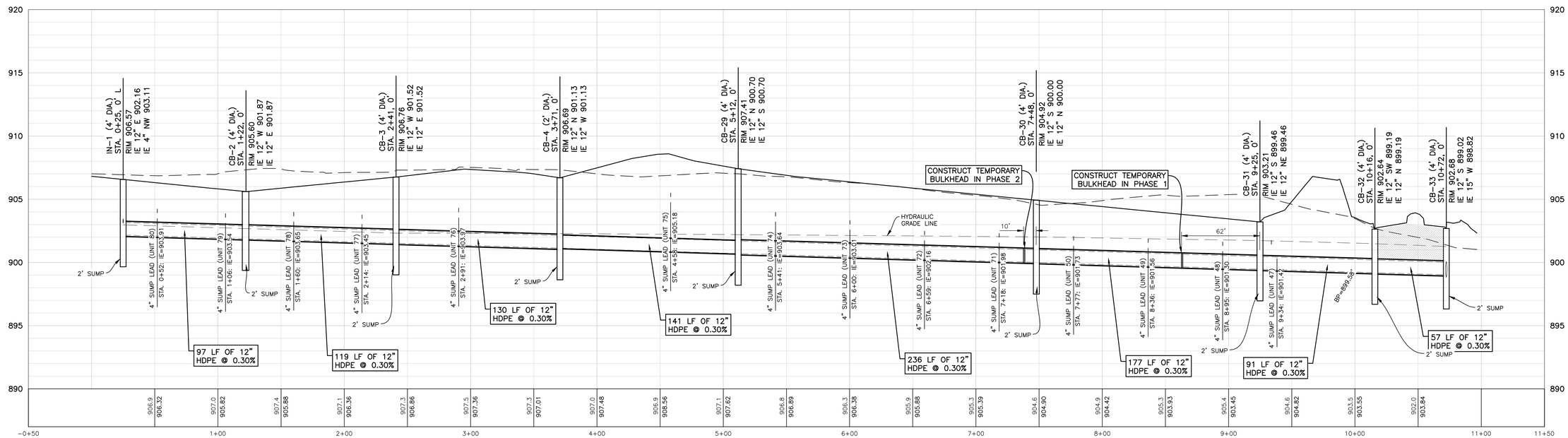
STORM PROFILE - IN-36 TO IN-41

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN-42 TO IN-45

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

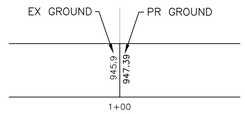


STORM PROFILE - IN-1 TO CB-33

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE



NOTES

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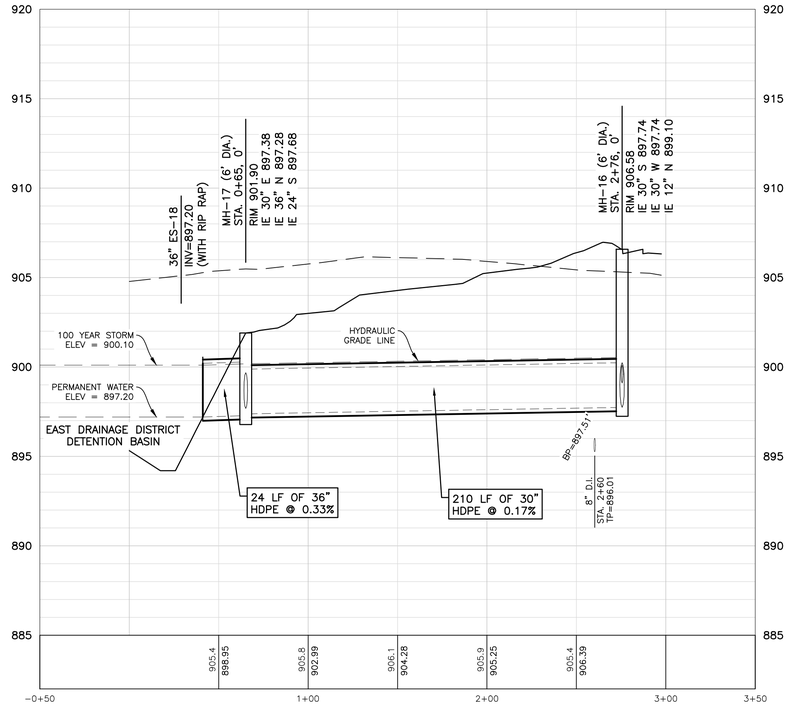
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

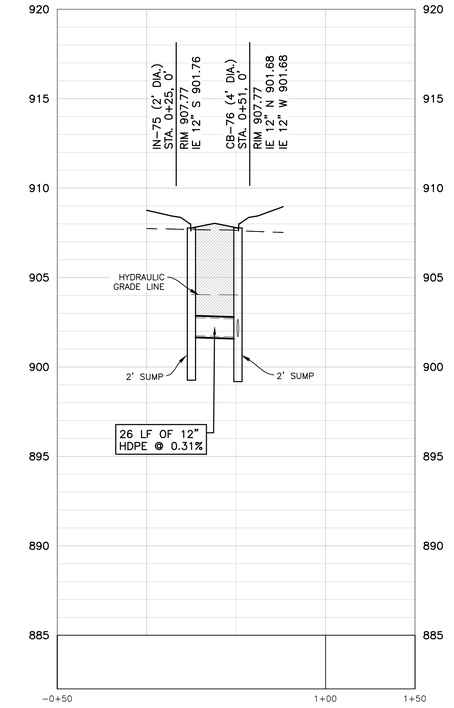
C-6.25

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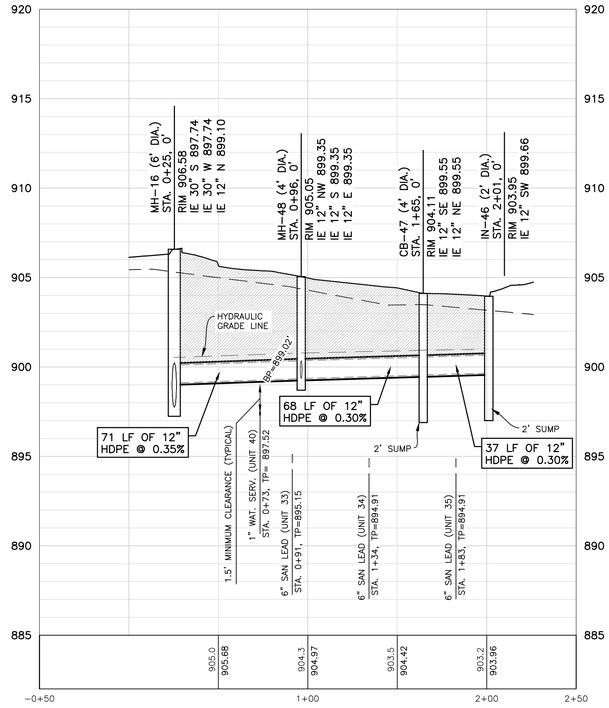
STORM PROFILE - ES-18 TO MH-16

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



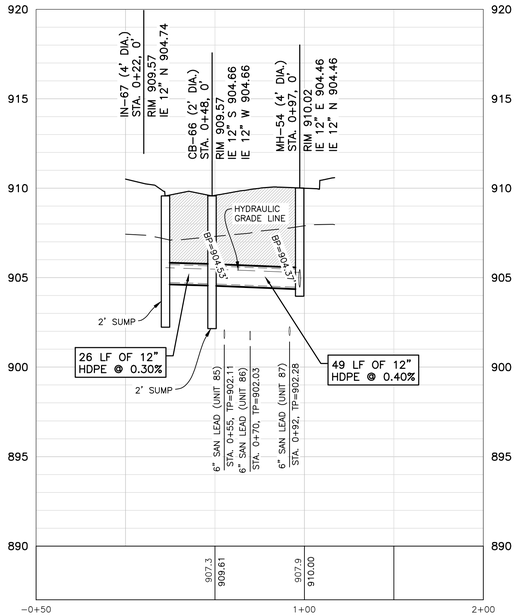
STORM PROFILE - IN-75 TO CB-76

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



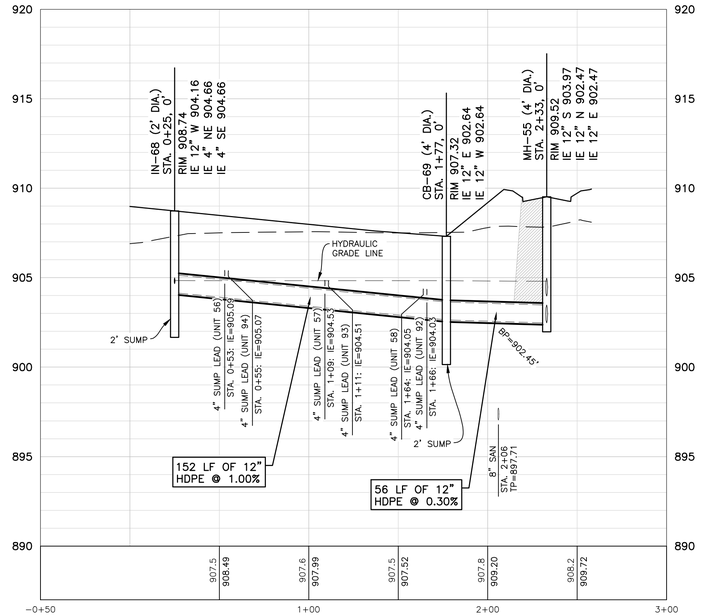
STORM PROFILE - MH-16 TO IN-46

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN-67 TO MH-54

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

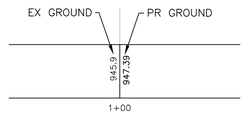


STORM PROFILE - IN-68 TO MH-55

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE



NOTES

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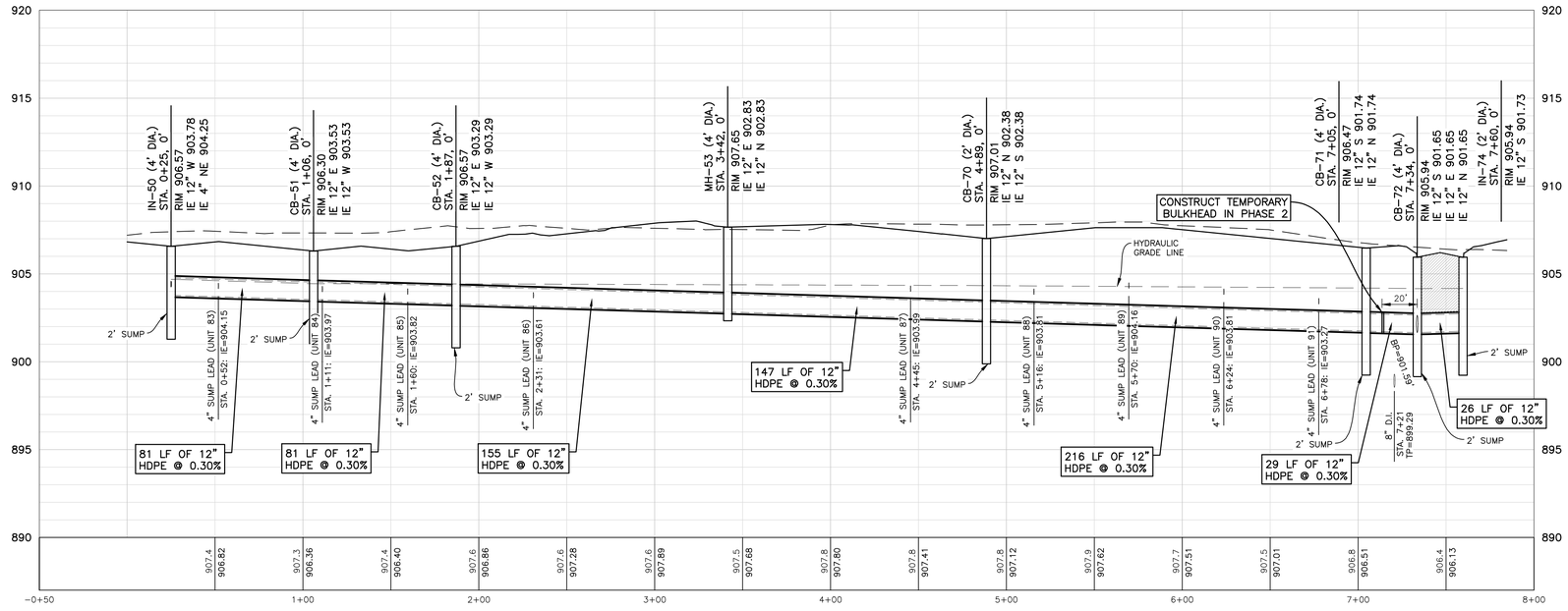
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

C-6.26

NOT FOR CONSTRUCTION

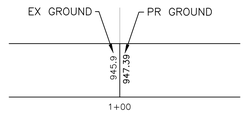


STORM PROFILE - IN-50 TO IN-74

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

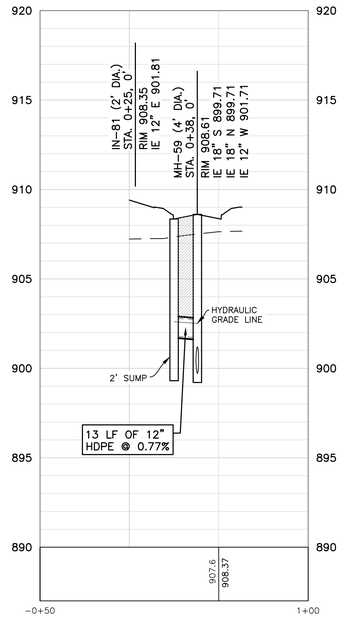
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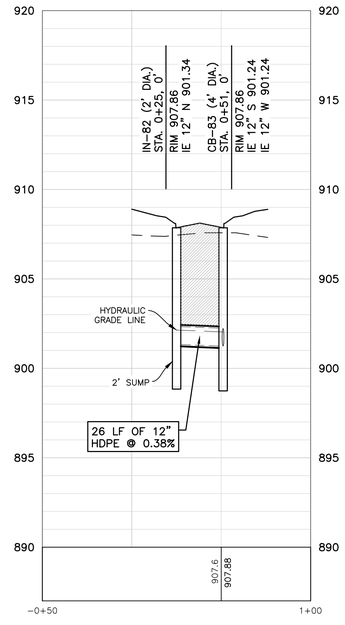
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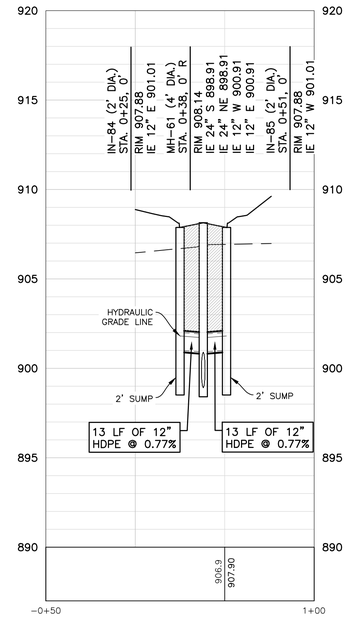
STORM PROFILE - IN-81 TO MH-59

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



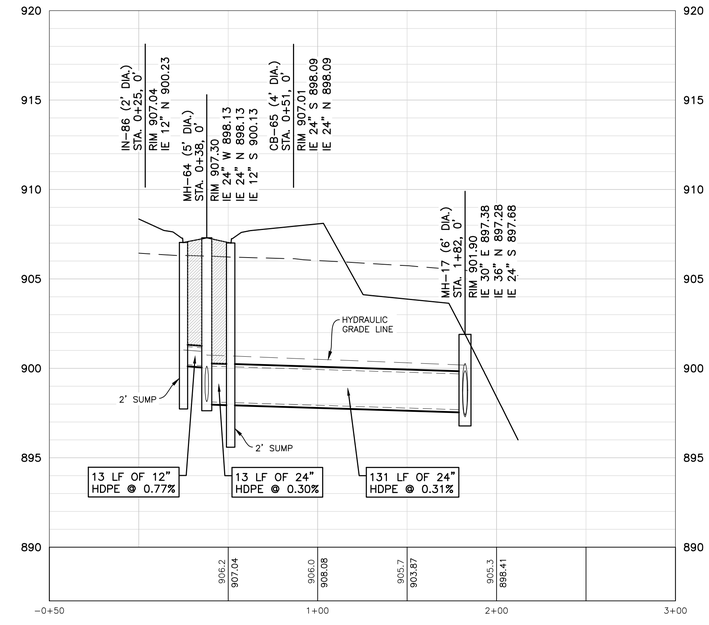
STORM PROFILE - IN-82 TO CB-83

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN -84 TO IN-85

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN-86 TO MH-17

PROFILE SCALE
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VERT: 1"=4'

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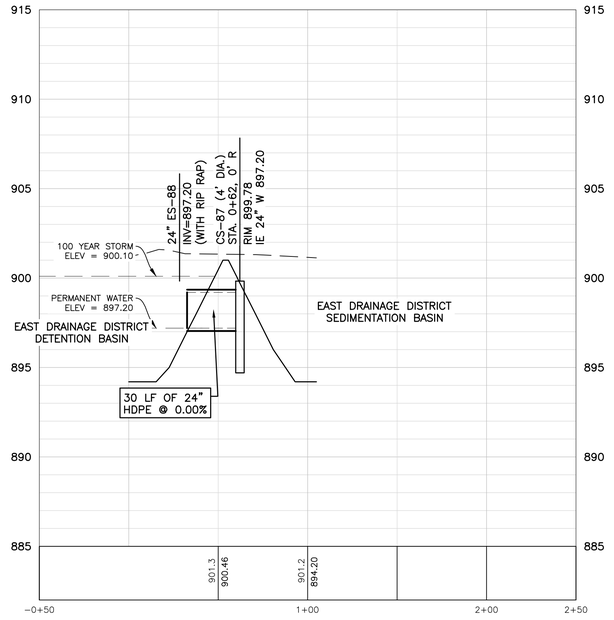
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
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DESIGN BY: KM
CHECK BY: KM

C-6.27

NOT FOR CONSTRUCTION

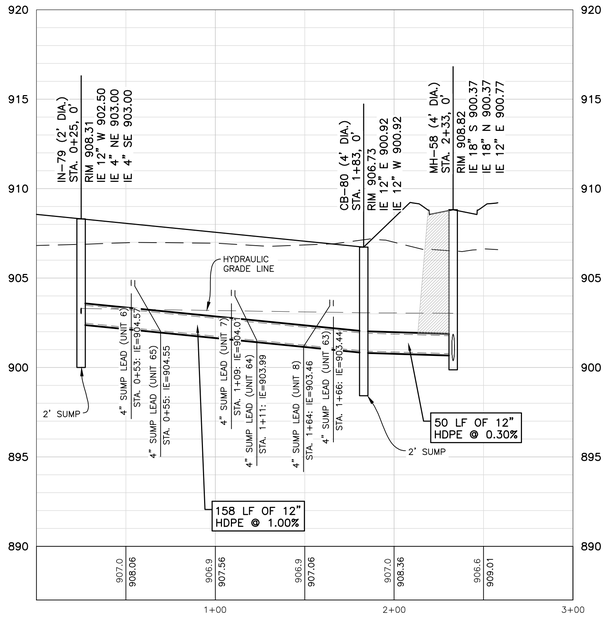


STORM PROFILE - IN-77 TO IN-78

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

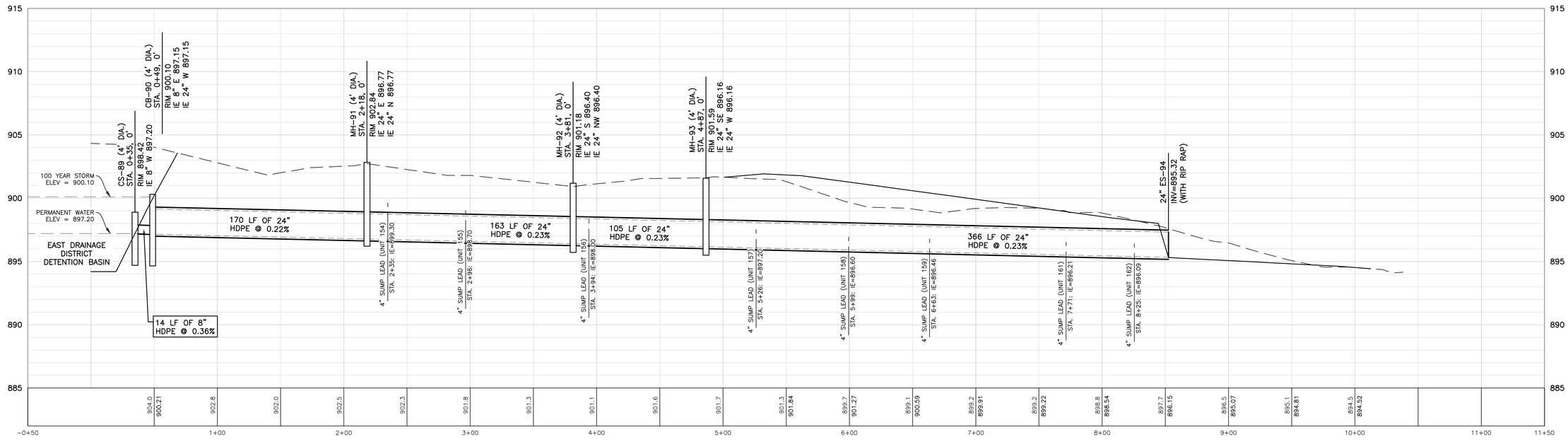
STORM PROFILE - CS-87 TO ES-88

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN-79 TO MH-58

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

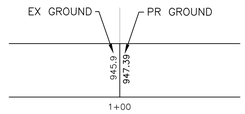


STORM PROFILE - CS-89 TO ES-94

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE



NOTES

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PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
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SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
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PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

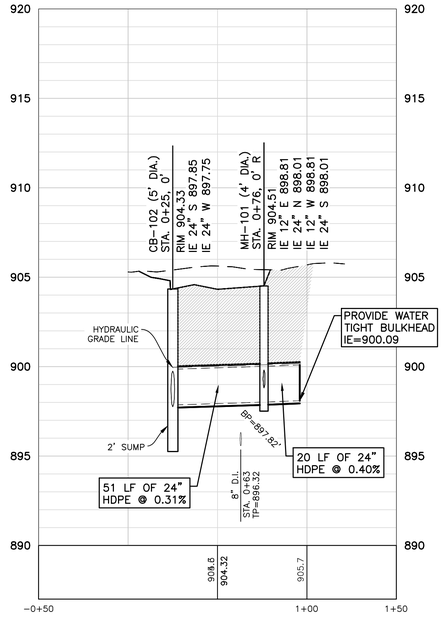
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

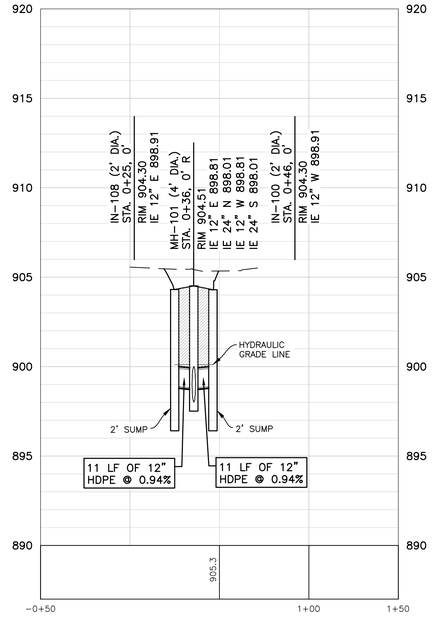
C-6.28

NOT FOR CONSTRUCTION



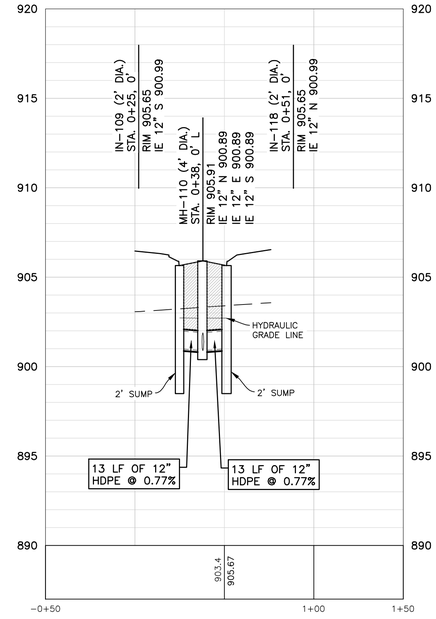
STORM PROFILE - CB-102 TO MH 101

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



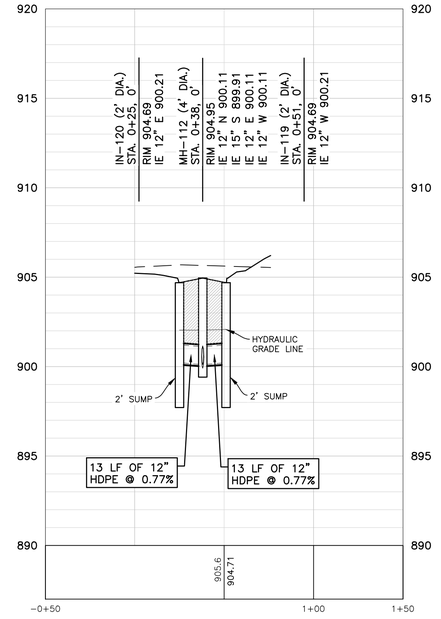
STORM PROFILE - IN-108 TO IN-100

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



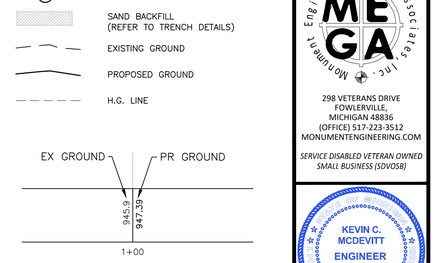
STORM PROFILE - IN-109 TO IN-118

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN-120 TO IN-119

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

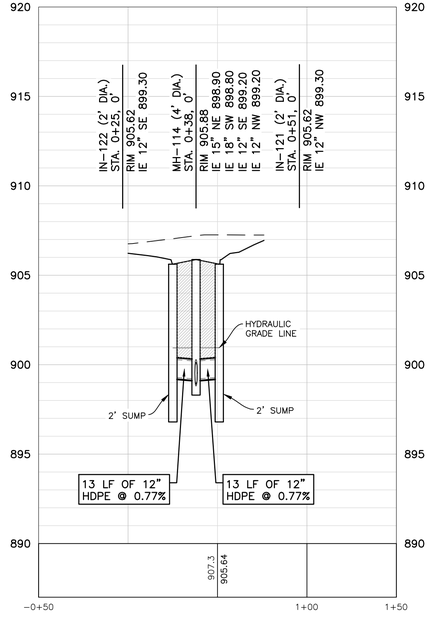


PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE

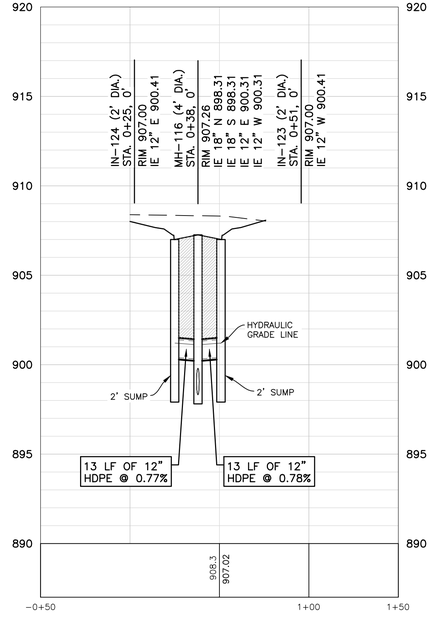
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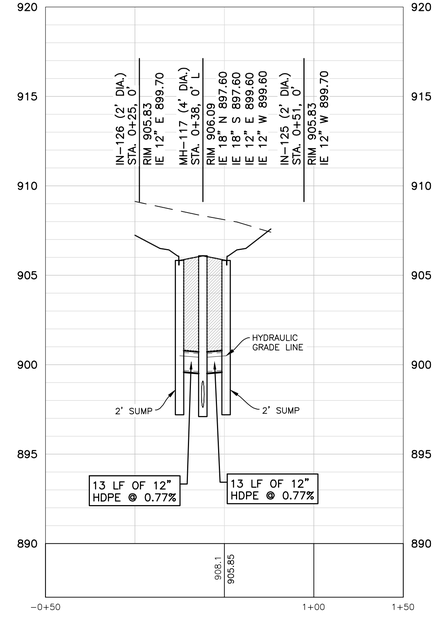
STORM PROFILE - IN-122 TO IN-121

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



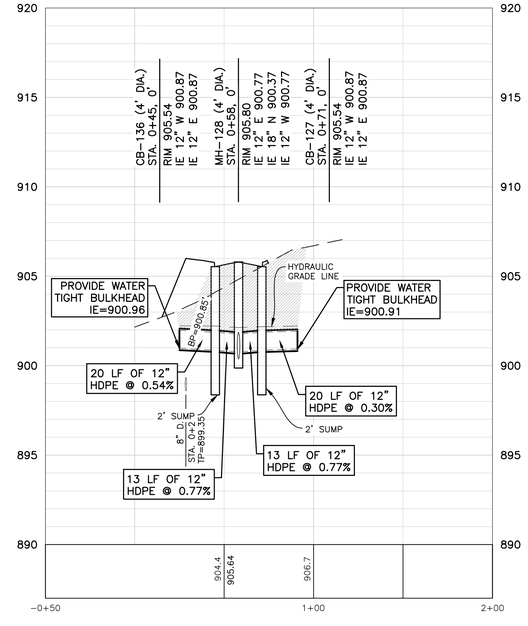
STORM PROFILE - IN124 TO IN123

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN-126 TO IN-125

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - CB-136 TO CB-127

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

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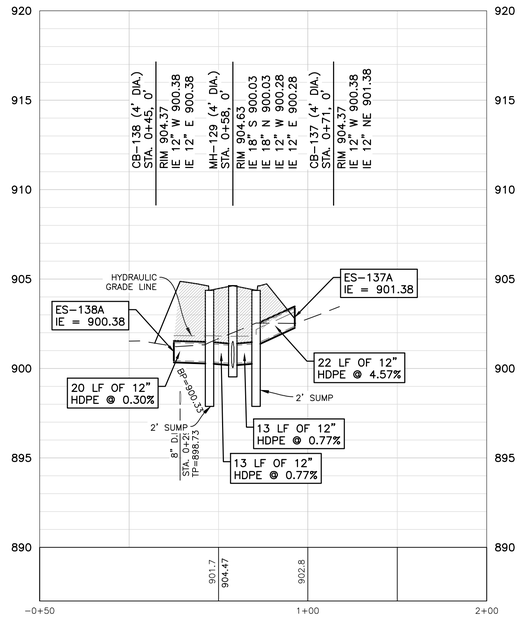
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

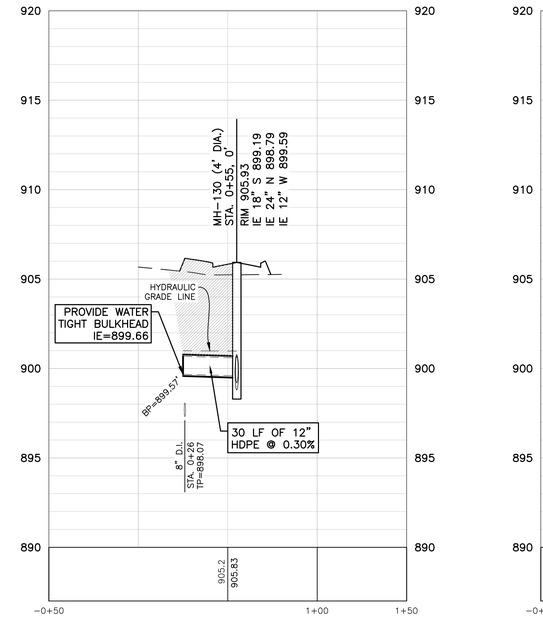
C-6.29

NOT FOR CONSTRUCTION



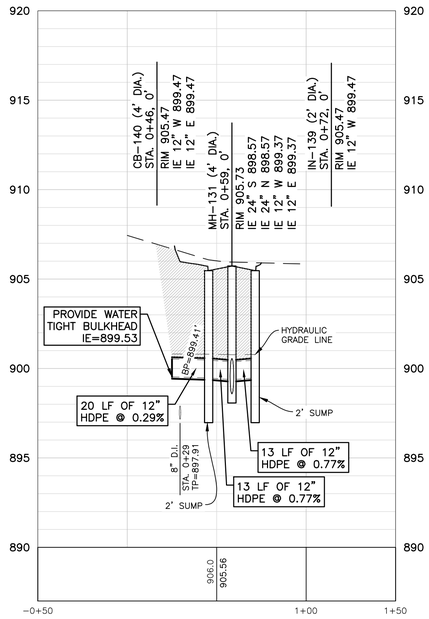
STORM PROFILE - CB-138 TO ES-137A

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



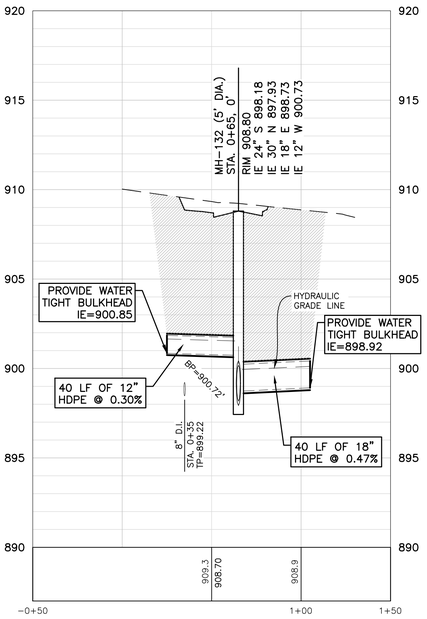
STORM PROFILE - FUTURE TO MH-130

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - CB-140 TO IN-139

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

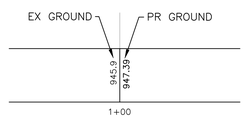


STORM PROFILE - FUTURE TO MH-132

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

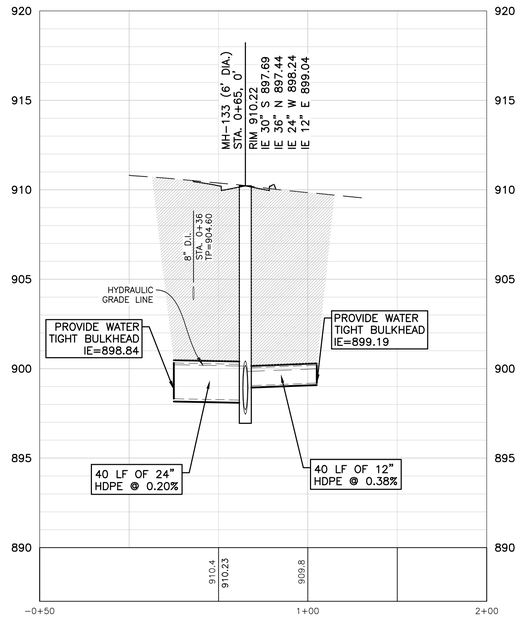
PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
- EXISTING GROUND
- PROPOSED GROUND
- H.G. LINE



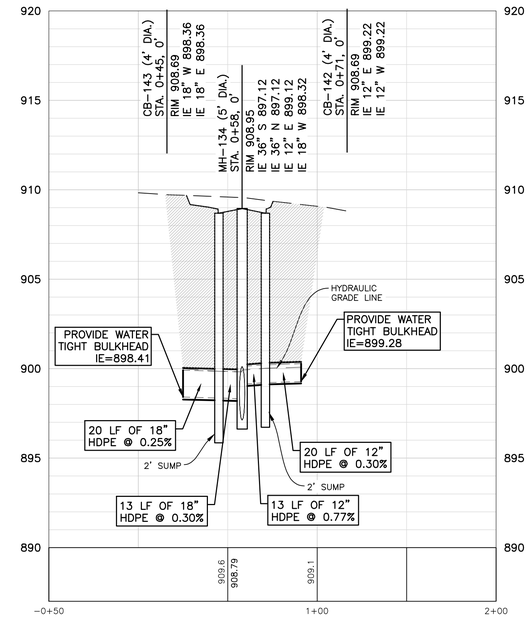
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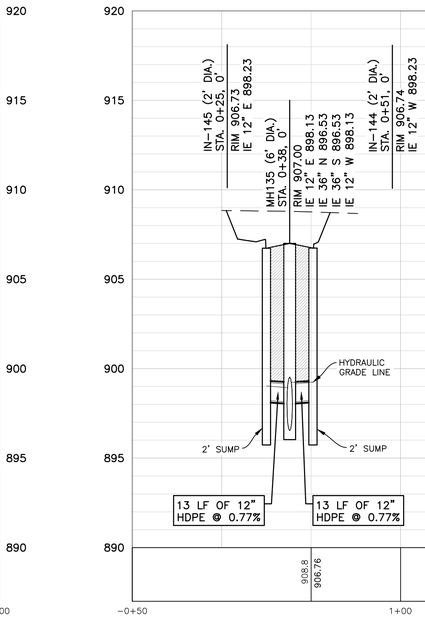
STORM PROFILE - FUTURE TO MH-133

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



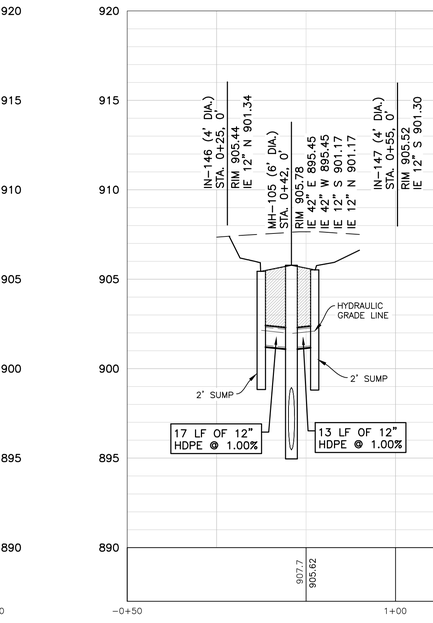
STORM PROFILE - CB-143 TO CB-142

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN-145 TO IN-144

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - IN-146 TO IN-147

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

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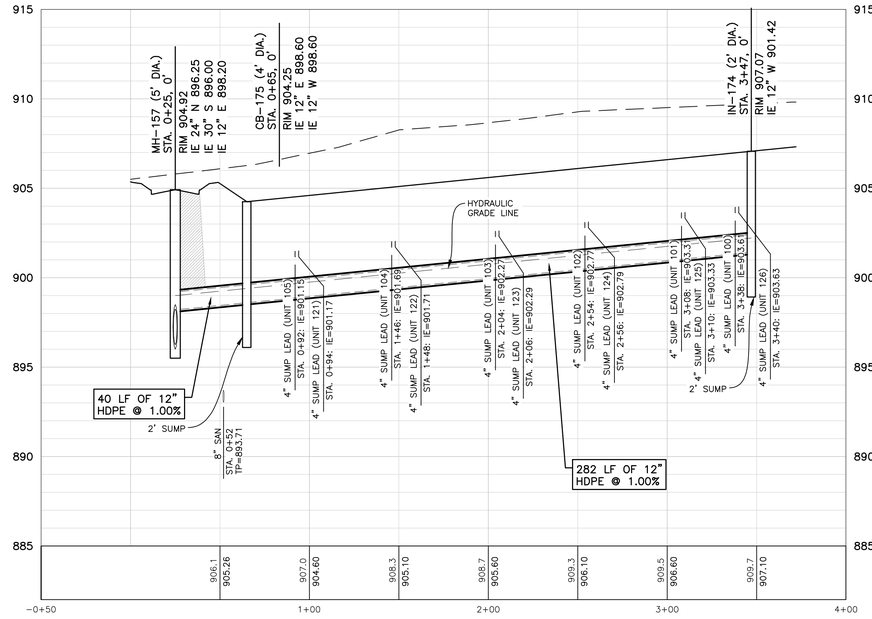
PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

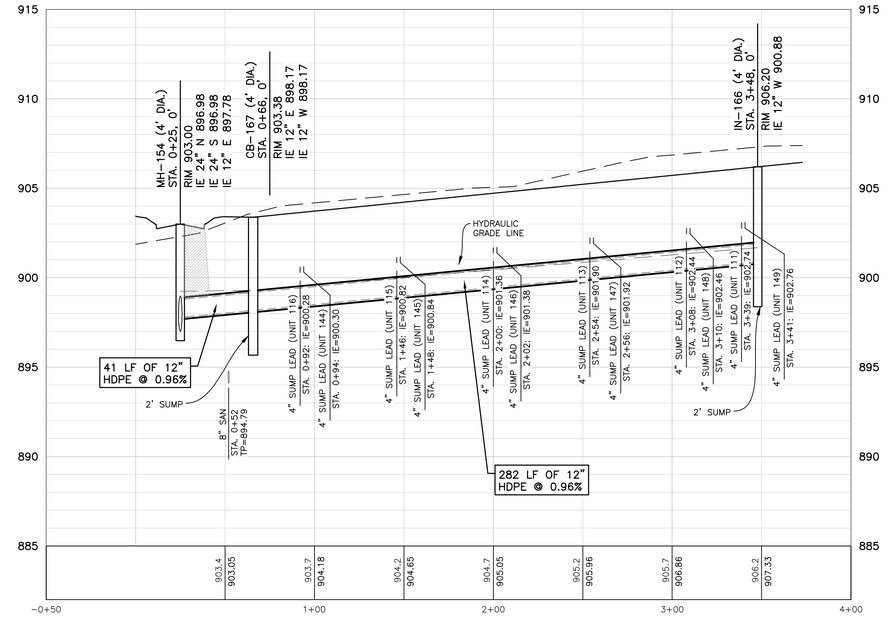
C-6.30

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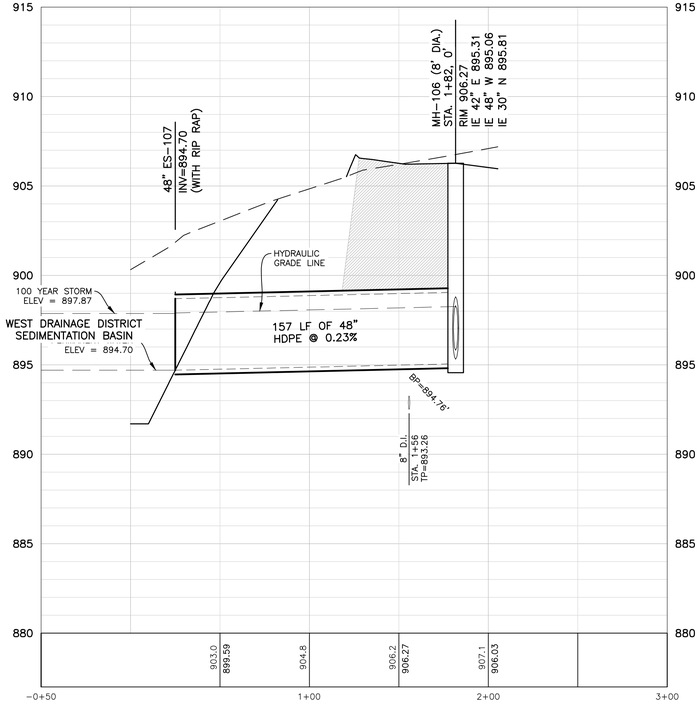
STORM PROFILE - MH-157 TO IN-174

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



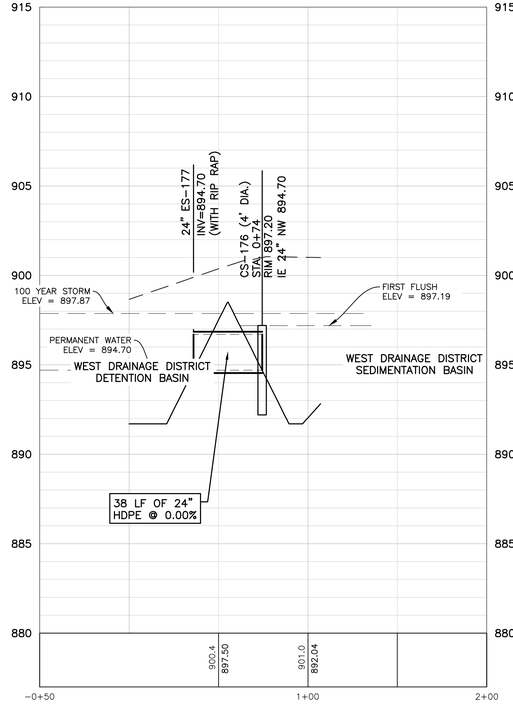
STORM PROFILE - MH-154 TO IN 166

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



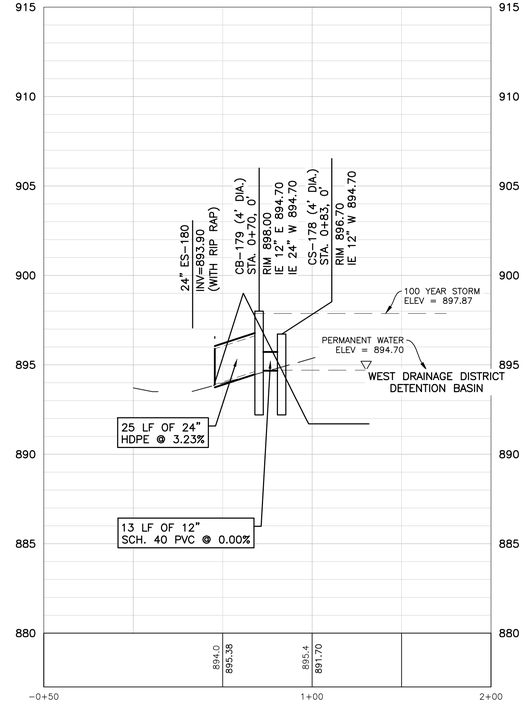
STORM PROFILE ES-107 TO MH-106

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



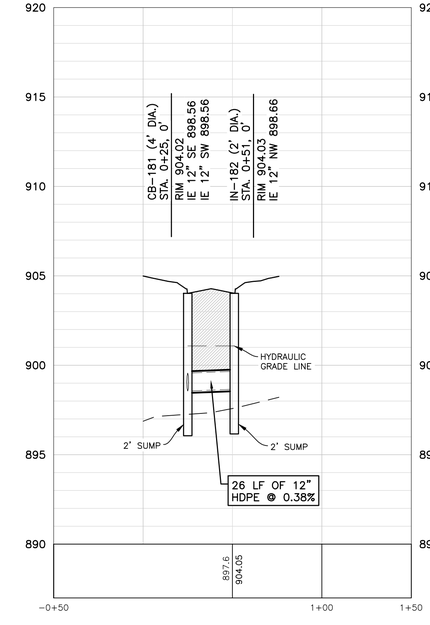
STORM PROFILE - ES-177 TO CS-176

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'



STORM PROFILE - ES-180 TO CS-178

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

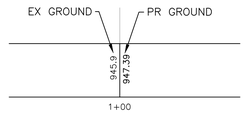


STORM PROFILE - CB-181 TO IN-180

PROFILE SCALE
HORIZ: 1"=40'
VERT: 1"=4'

PROFILE LEGEND

- UTILITY CROSSING
- SAND BACKFILL (REFER TO TRENCH DETAILS)
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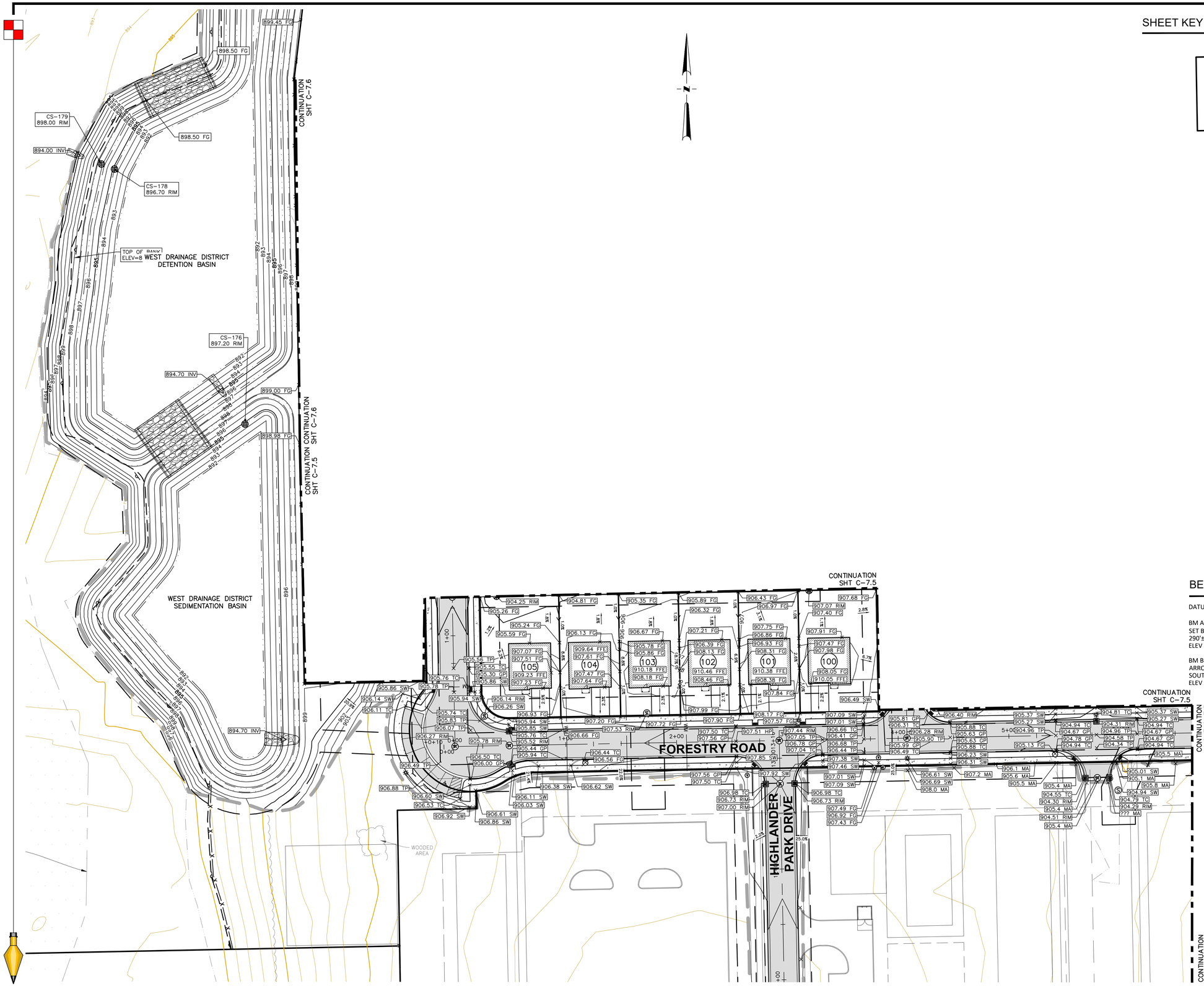
PROJECT NO: 21-075C

SCALE: 1" = 40'
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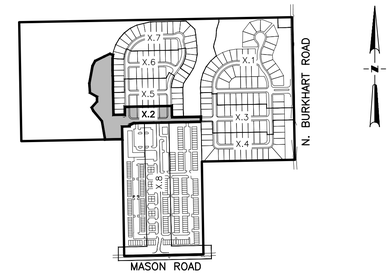
FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

C-6.32

NOT FOR CONSTRUCTION



SHEET KEY



GRADING LEGEND

940.00 TP	PROPOSED TOP OF PAVEMENT GRADE
940.00 SW	PROPOSED SIDEWALK GRADE
940.00 FG	PROPOSED FINISH GRADE
940.00 TC	PROPOSED TOP OF CURB GRADE
940.00 GP	PROPOSED GUTTER PAN GRADE
940.00 TW	PROPOSED TOP OF WALL GRADE
940.00 BW	PROPOSED BOTTOM OF WALL GRADE
940.0 MA	MATCH EXISTING GRADE
940.0 FFE	PROPOSED FINISH FLOOR GRADE
940.00 RIM	PROPOSED RIM GRADE
940.00 ADJ-RIM	ADJUSTED RIM GRADE
940.00 INV	PROPOSED INVERT GRADE
940.00 FFE	FIRST FLOOR ELEV (STANDARD GRADING)
940.00 FFE 931.37 WO	PROPOSED FIRST FLOOR ELEVATION AND BASEMENT FLOOR (WALKOUT)
940.00 FFE 935.04 DL	PROPOSED FIRST FLOOR ELEVATION AND LOWEST OPENING (DAYLIGHT)
R	ADA COMPLIANT SIDEWALK RAMP
L	ADA COMPLIANT SIDEWALK LANDING
900	EXISTING CONTOUR
900	PROPOSED CONTOUR
	LIMITS OF DISTURBANCE
	OVERFLOW ROUTE

BENCHMARKS

DATUM: NAVD88

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ELEV = 909.83

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ELEV = 906.59

GRADING NOTES

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PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

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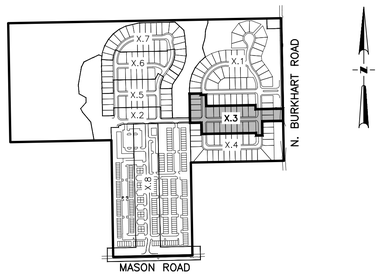
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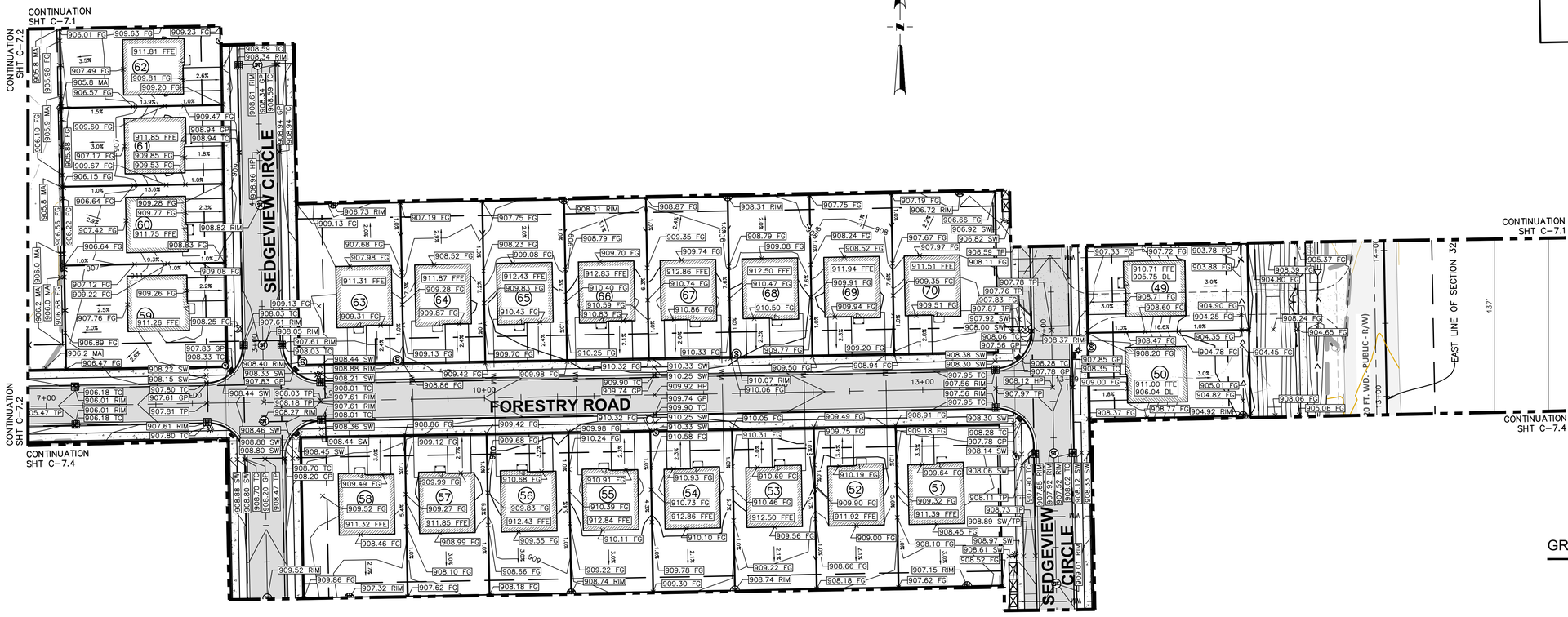
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DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

C-7.2

NOT FOR CONSTRUCTION

SHEET KEY





GRADING LEGEND

940.00 TP	PROPOSED TOP OF PAVEMENT GRADE
940.00 SW	PROPOSED SIDEWALK GRADE
940.00 FG	PROPOSED FINISH GRADE
940.00 TC	PROPOSED TOP OF CURB GRADE
940.00 GP	PROPOSED GUTTER PAN GRADE
940.00 TW	PROPOSED TOP OF WALL GRADE
940.00 BW	PROPOSED BOTTOM OF WALL GRADE
940.0 MA	MATCH EXISTING GRADE
940.0 FFE	PROPOSED FINISH FLOOR GRADE
940.00 RIM	PROPOSED RIM GRADE
940.00 ADJ-RIM	ADJUSTED RIM GRADE
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900	EXISTING CONTOUR
900	PROPOSED CONTOUR
	LIMITS OF DISTURBANCE
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ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

SCALE: 1" = 40'
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

C-7.3

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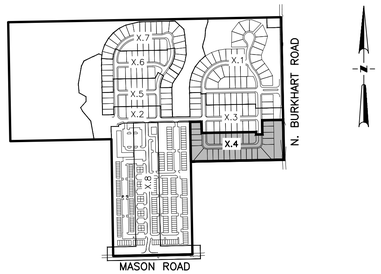
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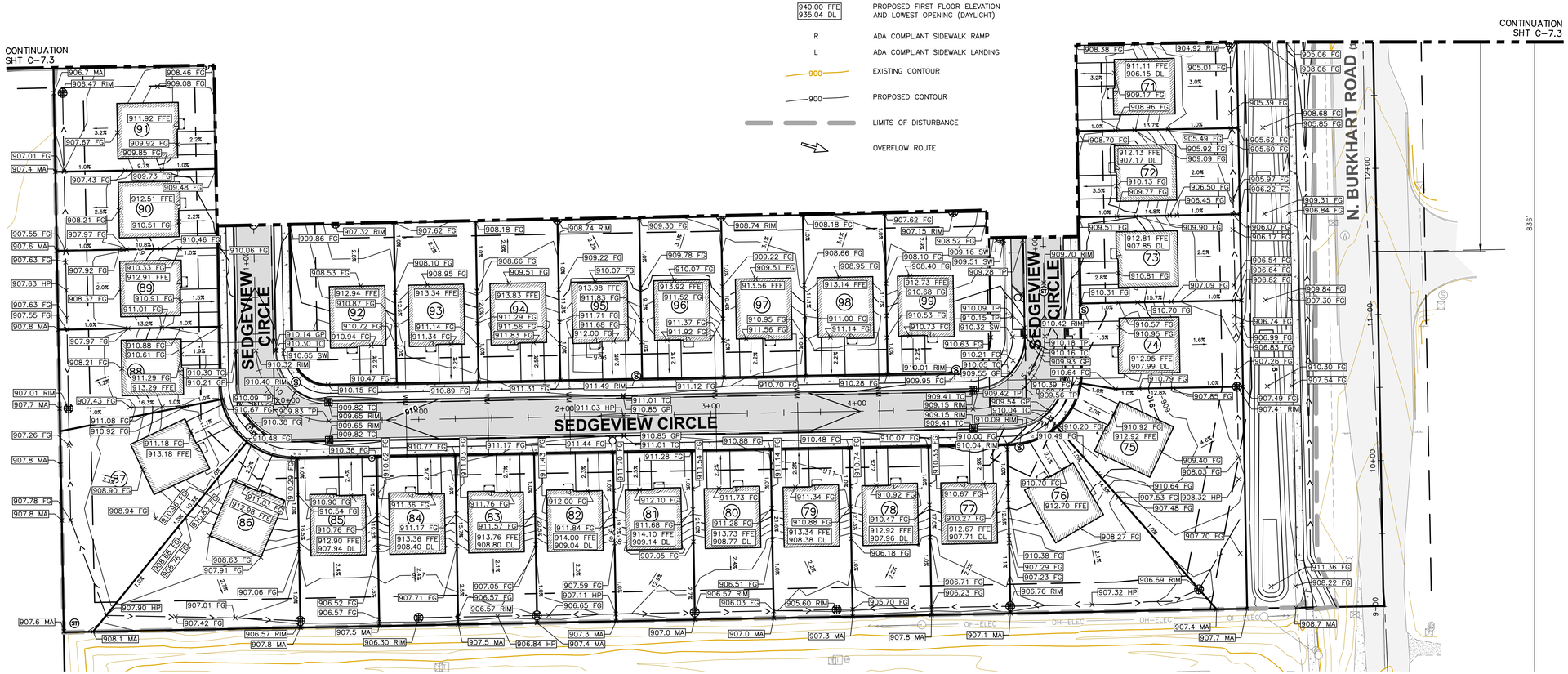
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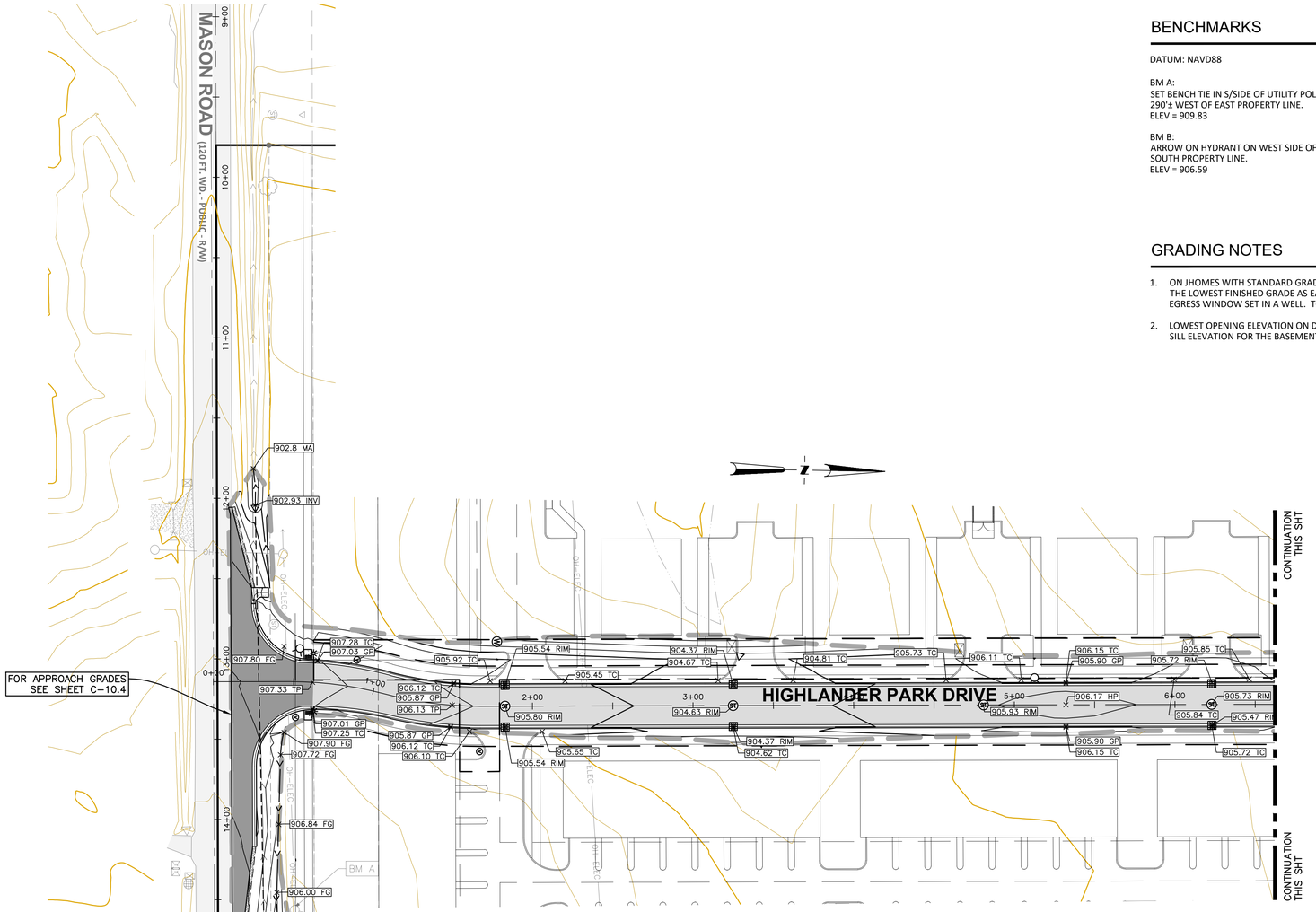
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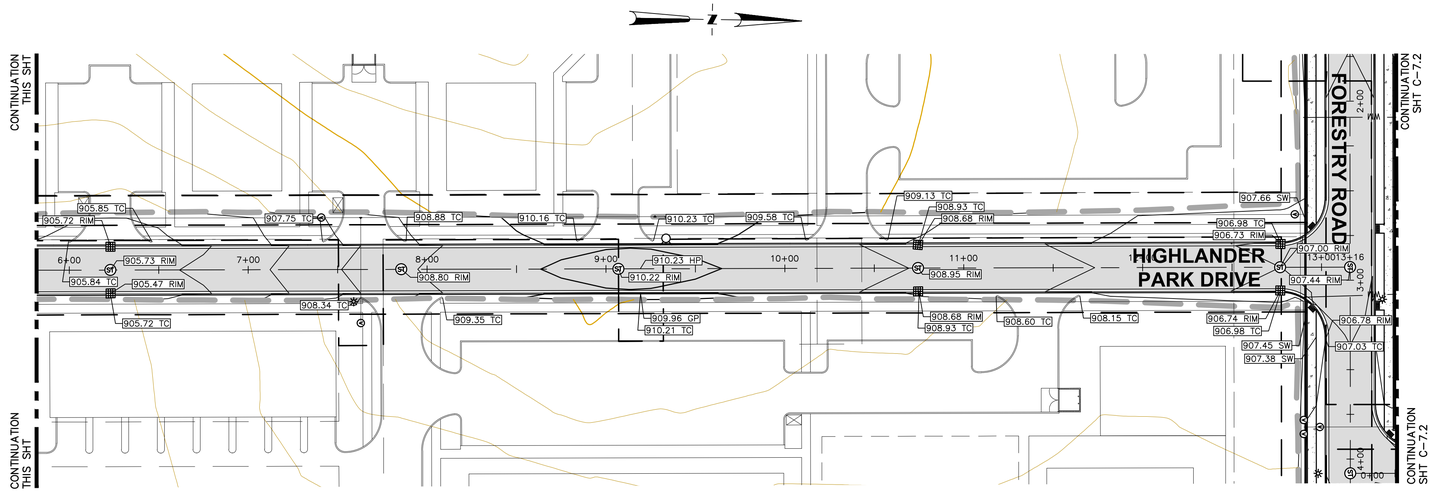
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0 1/2" 1"

FIELD:
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C-7.4

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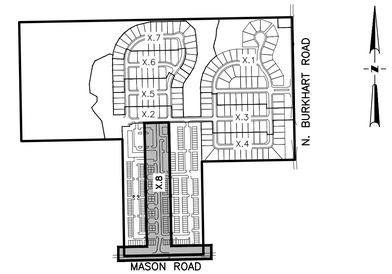
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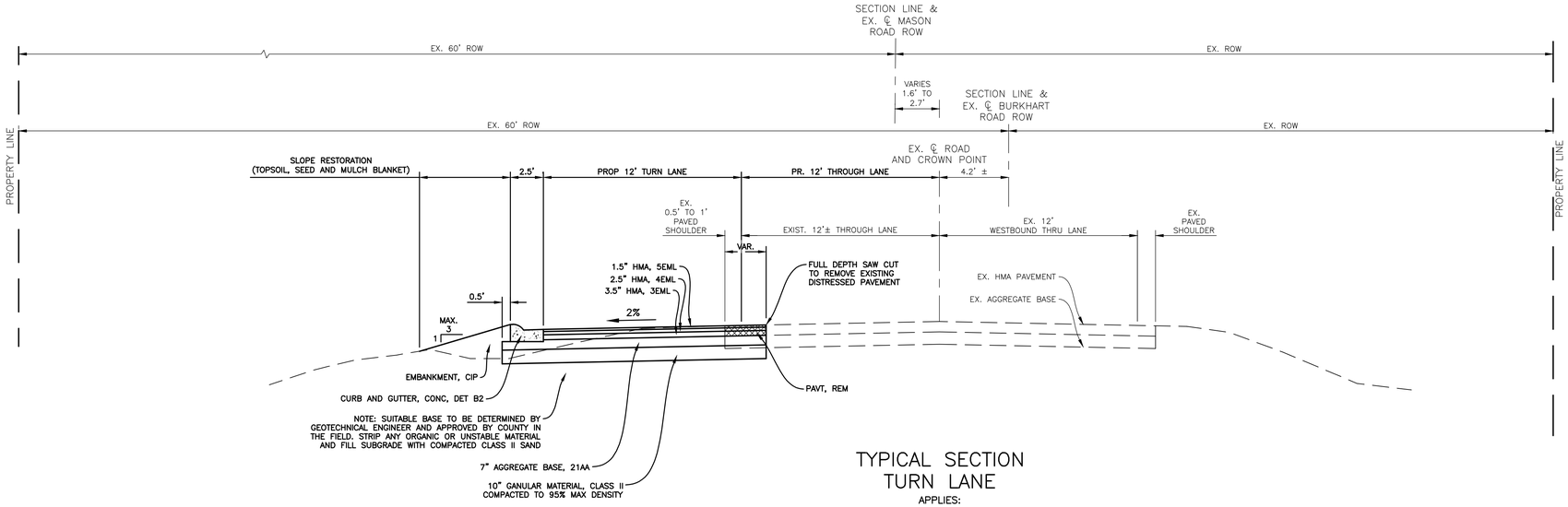
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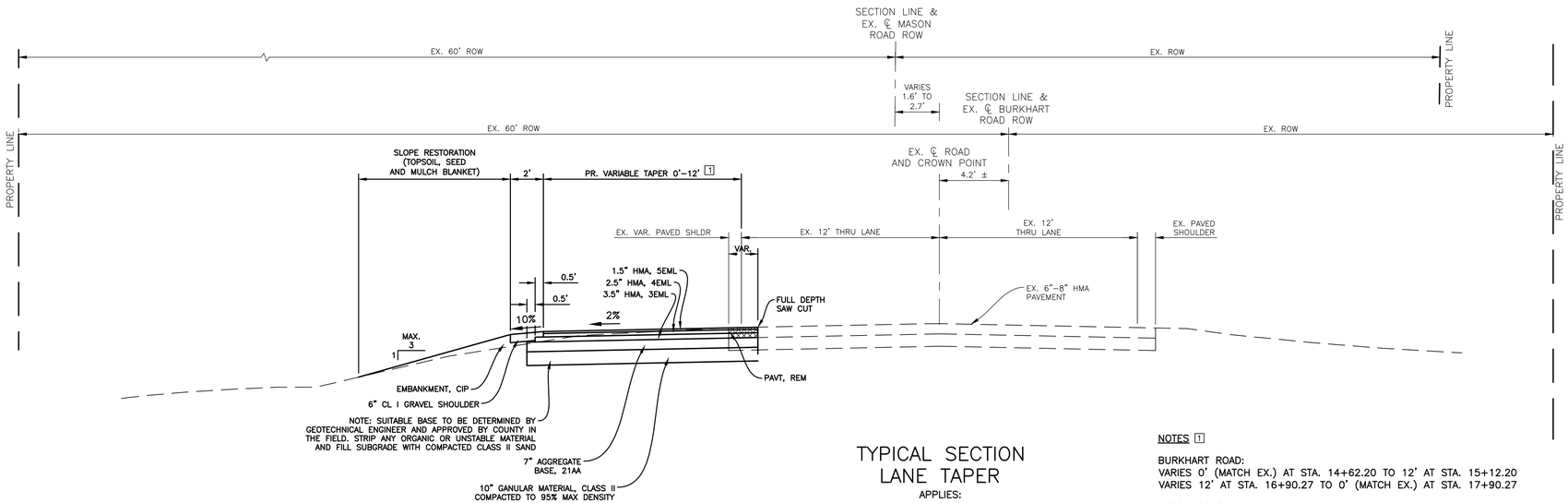
NOT FOR CONSTRUCTION

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TYPICAL SECTION
TURN LANE

APPLIES:
BURKHART ROAD STA. 15+02.20 TO STA. 16+90.27
MASON ROAD STA. 12+55.63 TO STA. 14+13.84



TYPICAL SECTION
LANE TAPER

APPLIES:
BURKHART ROAD POB STA. 14+52.20 TO STA. 15+02.20
BURKHART ROAD STA. 16+80.27 TO STA. 17+80.27
MASON ROAD POB STA. 12+07.51 TO STA. 12+57.51
MASON ROAD STA. 14+11.65 TO STA. 15+11.65

NOTES [1]

BURKHART ROAD:
VARIES 0' (MATCH EX.) AT STA. 14+62.20 TO 12' AT STA. 15+12.20
VARIES 12' AT STA. 16+90.27 TO 0' (MATCH EX.) AT STA. 17+90.27

MASON ROAD:
VARIES 0' (MATCH EX.) AT STA. 12+05.63 TO 12' AT STA. 12+55.63
VARIES 12' AT STA. 14+13.84 TO 0' (MATCH EX.) AT STA. 15+13.84

HMA APPLICATION TABLE

IDENTIFICATION NO.	ITEM	THICKNESS	RATE PER SYD	PERFORMANCE GRADE	COMMENTS
5EML	HMA, 5EML	1.5 INCHES	165 LBS	64-22	AWI 260
4EML	HMA, 4EML	2.5 INCHES	275 LBS	64-22	
3EML	HMA, 3EML	3.5 INCHES	385 LBS	58-22	
	BOND COAT		0.05 TO 0.15 GALLONS		SS-1h (FOR INFORMATION ONLY)

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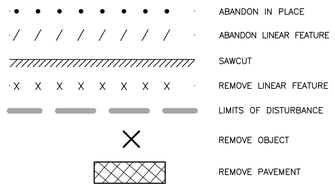
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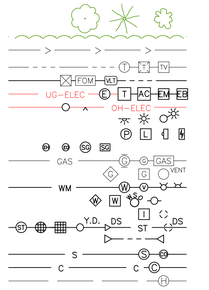
REMOVAL NOTES

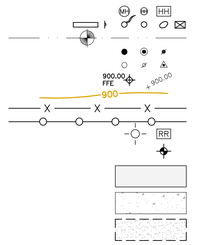
1. UTILITY OBJECTS SUCH AS GAS METER, TRANSFORMER, TELEPHONE PEDESTAL, UTILITY POLE & WIRES ARE TO BE REMOVED BY OTHERS.
2. ANY TREES NOT MARKED PER PLAN ARE TO BE PROTECTED & PRESERVED DURING CONSTRUCTION.
3. REMOVAL LIMITS SHOWN FOR UNDERGROUND CONSTRUCTION ARE APPROXIMATE ONLY. CONTRACTOR TO DETERMINE APPROPRIATE REMOVALS NEEDED FOR SAFE EXCAVATION PRACTICES AND TO COMPLY WITH APPLICABLE SAFETY STANDARDS.
4. AT LEAST THREE (3) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT MISS DIG (1-800-482-7171) TO VERIFY THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES AND SHALL NOTIFY REPRESENTATIVES OF OTHER UTILITIES IN THE VICINITY OF THE WORK.

REMOVAL LEGEND

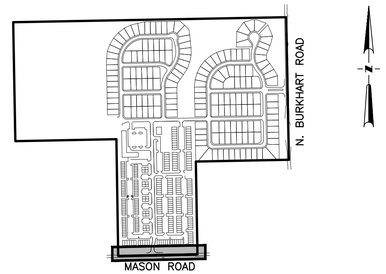


EXISTING LEGEND

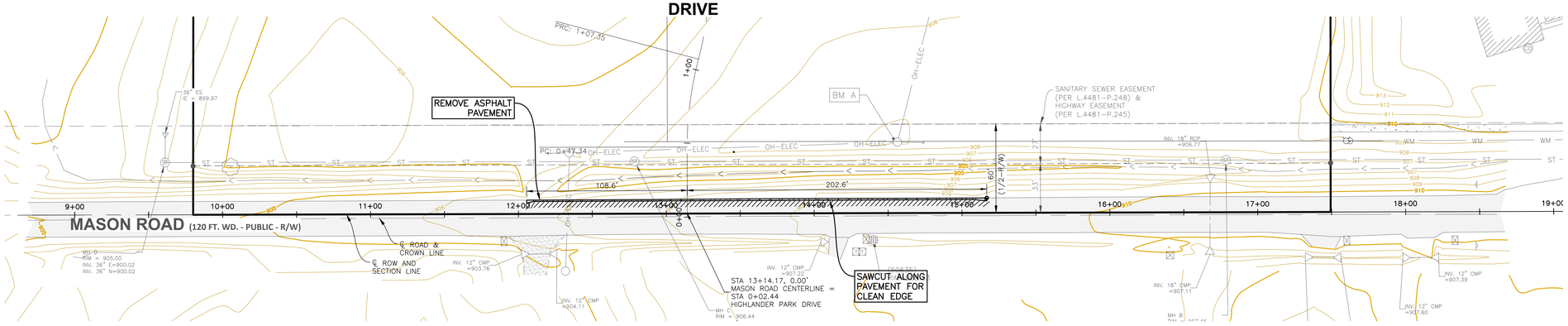




SHEET KEY

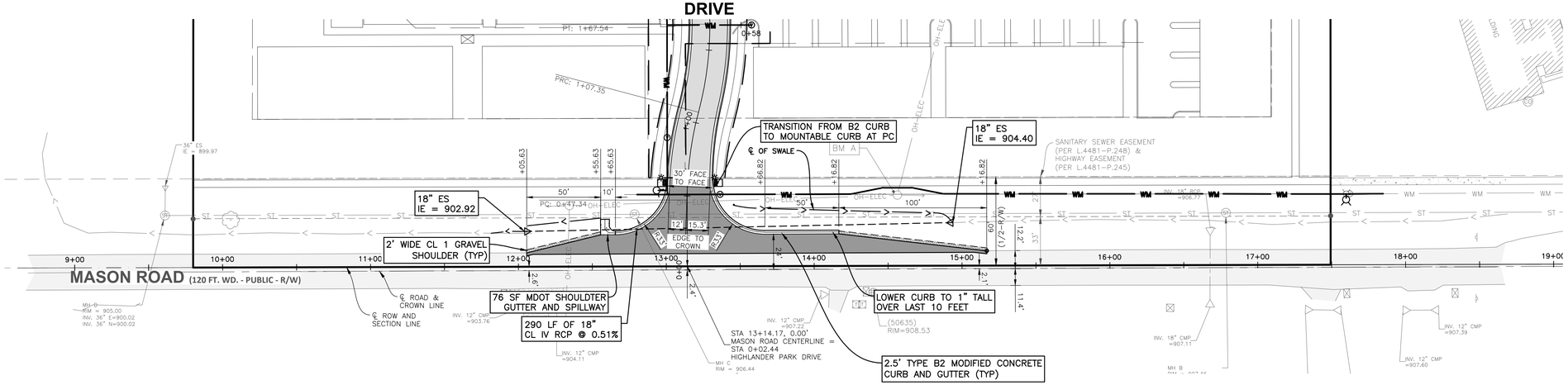


HIGHLANDER PARK DRIVE



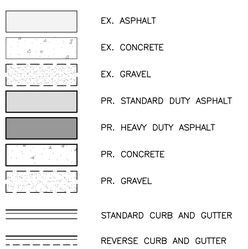
EXISTING CONDITIONS AND REMOVAL PLAN

HIGHLANDER PARK DRIVE



CONSTRUCTION PLAN

PAVEMENT LEGEND



INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

MEGA Monument Engineering Group Associates, Inc.

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MONUMENTENGINEERING.COM

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40950 WOODWARD AVE
SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)-221-5011

EX. CONDITIONS, REMOVAL & CONSTRUCTION PLAN

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

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MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

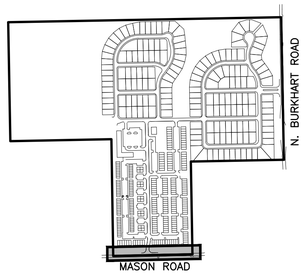
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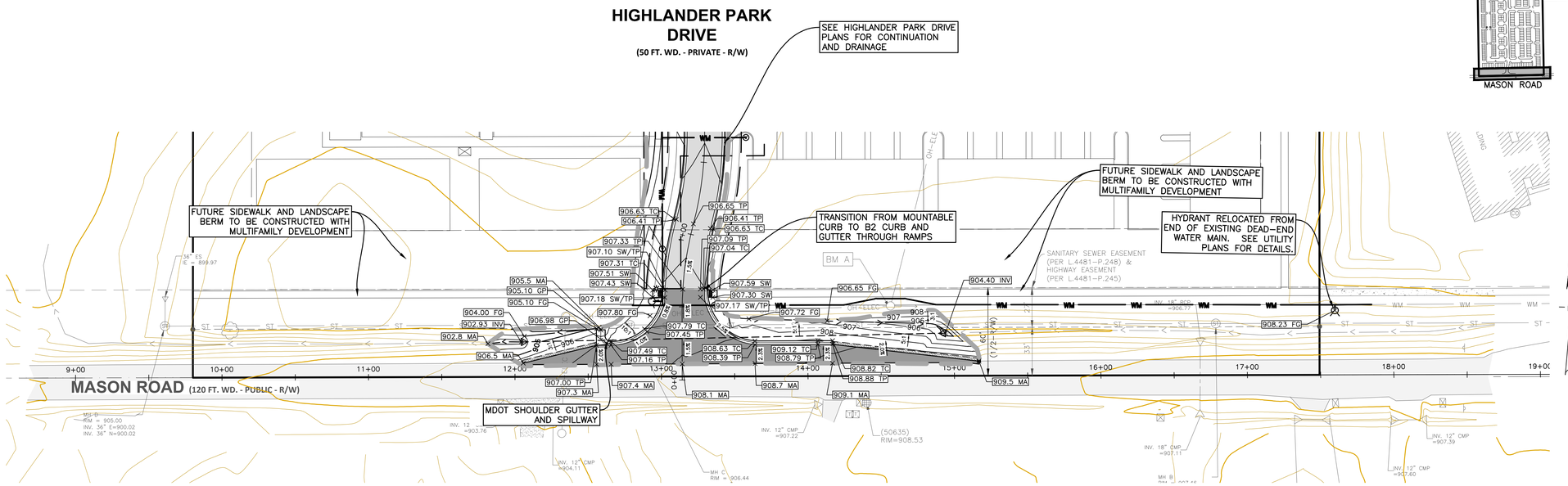
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DESIGN BY: KM
CHECK BY: KM

C-10.2

NOT FOR CONSTRUCTION

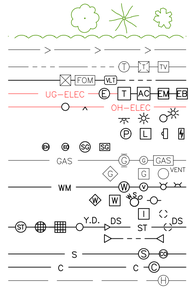
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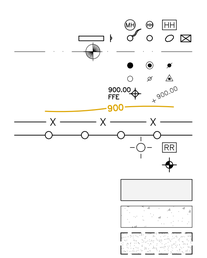


GRADING

EXISTING LEGEND



- DECIDUOUS TREE, CONIFEROUS TREE, SHRUB
- TREE LINE/ CANOPY
- DITCH/ DRAINING COURSE
- UG TELE, MH, TELE PED, CABLE PED
- UG FIBER, PED, LINE MARKER, VAULT
- UG ELEC, MH, TRANSFORMER, AC UNIT, METER, BOX
- OH ELEC, UTIL POLE, GUY WIRE
- GROUND LIGHT, POLE, POLE W/ ARM LT
- LIGHT MH, LT CTRL BOX, PARK. METER, CAR CHARGER
- ELEC HAND HOLE, OUTLET, SIGNAL MH, SIGNAL BOX
- UG GAS, MH, VALVE, LINE MARKER
- GAS WELL, METER, VENT
- WATER MAIN, MH, VALVE IN BOX, HYDRANT, FDC
- WATER WELL, METER, STOP BOX, POST INDICATOR VALVE
- IRRIGATION CONTROL VALVE, SPRINKLER HEAD
- STORM SEWER, MH, CB, INLET, YARD DRAIN, DOWN SPOUT
- CULVERT/ END SECTION
- SANITARY SEWER, MH, CLEAN OUT
- COMBINED SEWER, MH
- STEAM LINE, MH



- MISC. MANHOLE, HAND HOLE, HAND BOX
- PARKING BLOCK, SIGN, FLAG POLE, POST, ROCK, MAIL BOX
- SECTION LINE, SECTION CORNER
- FOUND IRON ROD (FIR), FD MON, FD PK
- SET IRON ROD (SIR), SET PK, MAG NAIL
- FINISH FLOOR ELEVATION, SPOT ELEVATION
- CONTOUR
- FENCE
- GUARD RAIL
- RAILROAD SIGNAL, SIGNAL BOX
- SOIL BORING
- EX. ASPHALT
- EX. CONCRETE
- EX. GRAVEL

GRADING LEGEND

- 940.00 TP — PROPOSED TOP OF PAVEMENT GRADE
- 940.00 SW — PROPOSED SIDEWALK GRADE
- 940.00 FG — PROPOSED FINISH GRADE
- 940.00 TC — PROPOSED TOP OF CURB GRADE
- 940.00 GP — PROPOSED GUTTER PAN GRADE
- 940.00 TW — PROPOSED TOP OF WALL GRADE
- 940.00 BW — PROPOSED BOTTOM OF WALL GRADE
- 940.0 MA — MATCH EXISTING GRADE
- 940.0 FFE — PROPOSED FINISH FLOOR GRADE
- 940.00 RIM — PROPOSED RIM GRADE
- 940.00 ADJ-RIM — ADJUSTED RIM GRADE
- 940.00 INV — PROPOSED INVERT GRADE
- R — ADA COMPLIANT SIDEWALK RAMP
- L — ADA COMPLIANT SIDEWALK LANDING
- 900 — EXISTING CONTOUR
- 900 — PROPOSED CONTOUR
- LIMITS OF DISTURBANCE
- OVERFLOW ROUTE

BENCHMARKS

DATUM: NAVD88

BM A:
SET BENCH TIE IN S/SIDE OF UTILITY POLE ON NORTH SIDE OF MASON ROAD 290'± WEST OF EAST PROPERTY LINE.
ELEV = 909.83

BM B:
ARROW ON HYDRANT ON WEST SIDE OF BURKHART ROAD 430'± NORTH OF SOUTH PROPERTY LINE.
ELEV = 906.59

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GRADING PLAN - MASON ROAD

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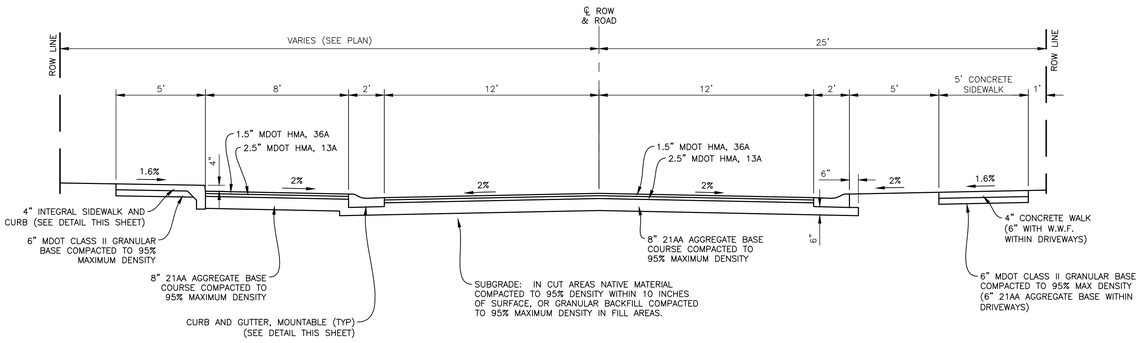
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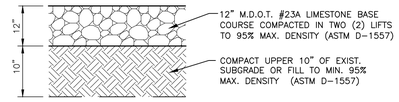
C-10.4

NOT FOR CONSTRUCTION

ON-SITE ROADWAY TYPICAL SECTION

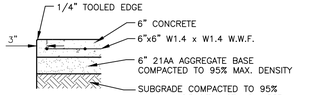


EMERGENCY ACCESS DRIVE GRAVEL PAVEMENT SECTION



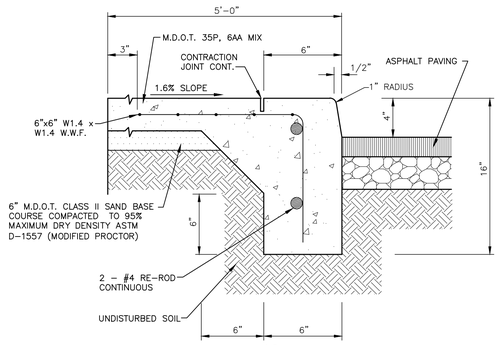
CONCRETE DRIVEWAY SECTION

Applies to: Driveways



NOTE:
PROVIDE 1.5" DEEP TOOLED OR SAW CUT (⅛" WIDE) CONTROL JOINTS AT MAXIMUM 10' SPACING.

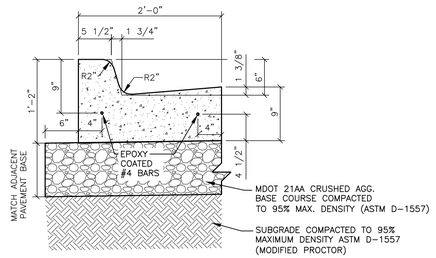
INTEGRAL SIDEWALK AND CURB DETAIL



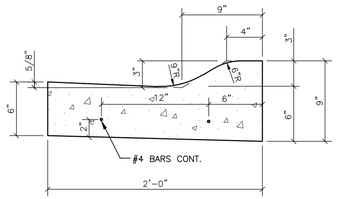
CONTRACTION JOINTS TO BE 2 1/2" DEEP, SPACED AT 5' INTERVALS (TOOLED). EXPANSION JOINTS TO BE 1/2" PREMOLDED FILLER, SPACED A MAXIMUM OF 30' APART.

BARRIER CURB AND GUTTER - CONCRETE

NOTE: TO BE USED ON HERITAGE SQUARE BOULEVARD FROM BURKHART ROAD TO SEDGEVIEW CIRCLE.

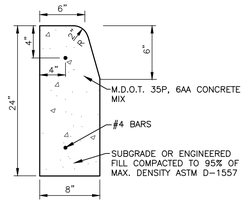


CURB & GUTTER DETAIL - MOUNTABLE - 24" W 3" H 9" D

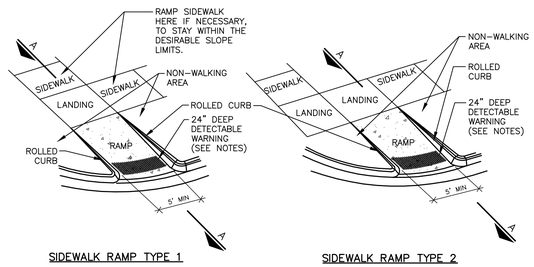


SEE BARRIER CIRB FOR BASE DETAIL.

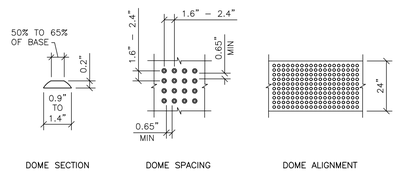
CURB DETAIL - CONCRETE - STRAIGHT - 6" HT 24" DEEP



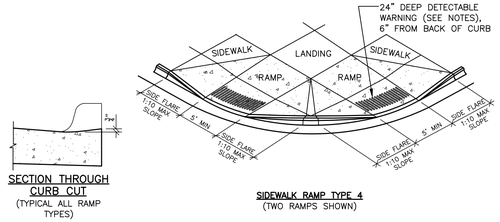
SIDEWALK RAMP DETAIL - WITH NOTES



SIDEWALK RAMP TYPE 1 | SIDEWALK RAMP TYPE 2

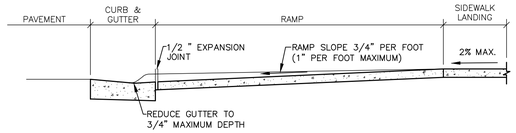


DETECTABLE WARNING DETAILS



SIDEWALK RAMP TYPE 4
(TWO RAMPS SHOWN)

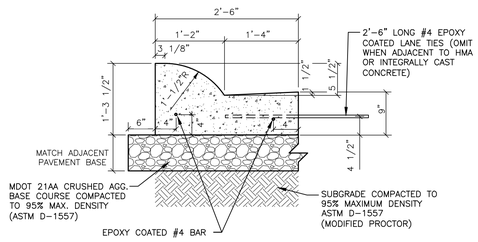
SECTION THROUGH CURB CUT
(TYPICAL ALL RAMP TYPES)



SECTION A-A
(TYPICAL ALL RAMP TYPES)

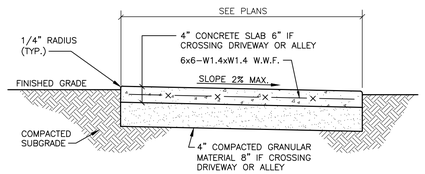
NOTES:
1. SIDEWALK RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
2. SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COURSE BROOMING, TRANSVERSE TO THE SLOPE OF RAMP.
3. CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, FREE OF SAGS AND SHORT GRADE CHANGES. WHERE CONDITIONS PERMIT, IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.
4. THE NORMAL GUTTER LINE PROFILE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
5. THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.
6. CROSSWALK AND STOP LINE MARKINGS, IF USED, SHALL BE LOCATED AS TO STOP TRAFFIC SHORT OF THE RAMP CROSSING. SPECIFIC DETAILS FOR MARKING APPLICATIONS ARE GIVEN IN THE "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
7. DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP. THEY SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6" TO 8" FROM THE CURB LINE.
8. FLARED SIDES WITH A SLOPE OF 1:10 MAXIMUM, MEASURED ALONG THE CURB LINE, SHALL BE PROVIDED WHERE A CIRCULATION PATH CROSSES THE SIDEWALK RAMP. FLARED SIDES ARE NOT REQUIRED WHERE THE EDGES OF A SIDEWALK RAMP ARE PROTECTED BY LANDSCAPING OR OTHER BARRIERS TO TRAVEL BY WHEELCHAIR USERS OR PEDESTRIANS ACROSS THE EDGE OF THE SIDEWALK RAMP.

CURB AND GUTTER DETAIL - MDOT - B2 - MODIFIED (USE IN COUNTY ROW)



NOTE
MDOT B2 MODIFIED CURB AND GUTTER IS TO BE USED ON COUNTY ROAD APPROACHES AND WIDENING LANES.

SIDEWALK DETAIL - CONCRETE



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MISCELLANEOUS DETAILS

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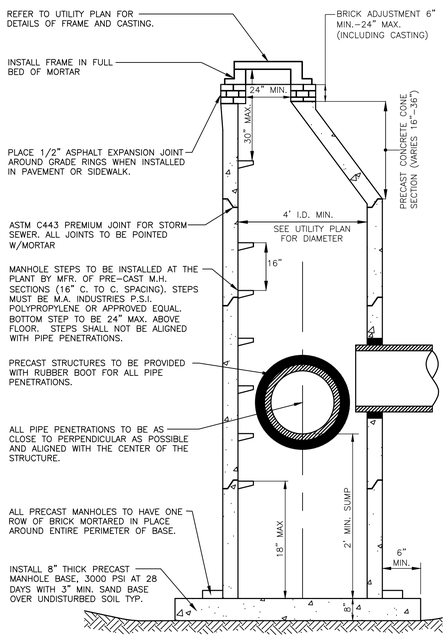
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DESIGN BY: KM
CHECK BY: KM

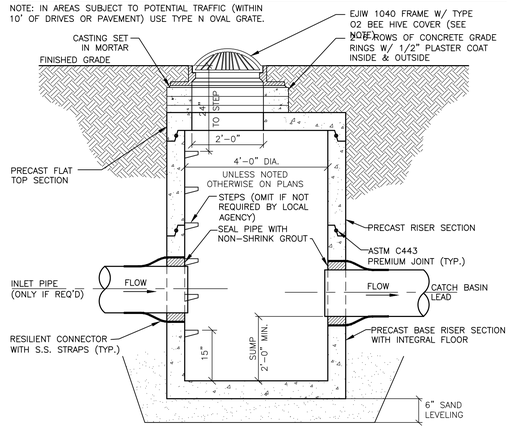
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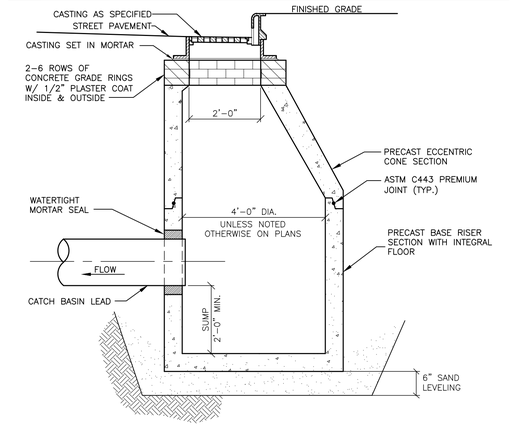
CATCH BASIN DETAIL - 4' DIA. - WITH SUMP - STANDARD



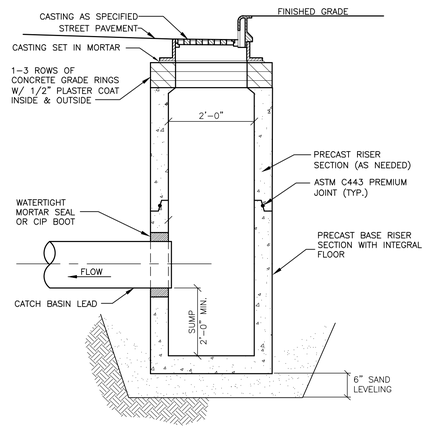
CATCH BASIN DETAIL - 4' DIA. - WITH SUMP - 2 PIPES - WITH BEE HIVE GRATE



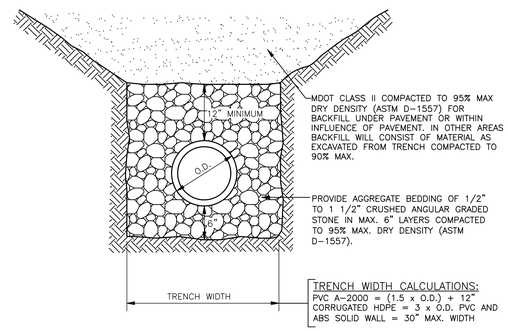
CATCH BASIN CURB DETAIL 4' DIA. - WITH SUMP - OFF-CENTERED



CATCH BASIN CURB DETAIL 2' DIA.

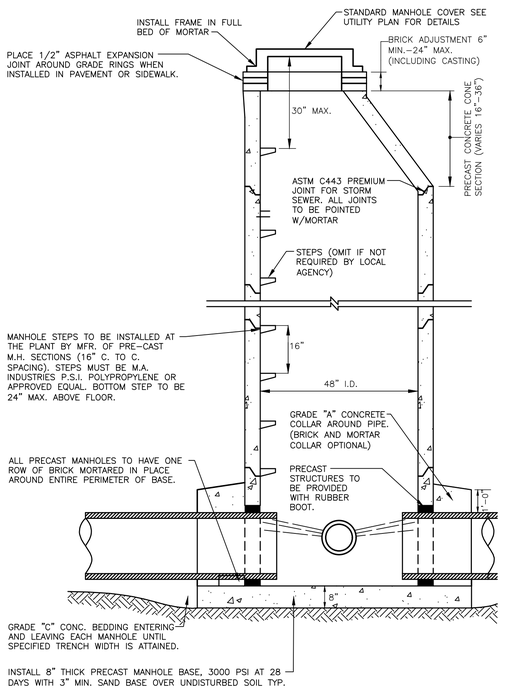


TRENCH PIPE BEDDING DETAIL - FOR FLEXIBLE PIPE



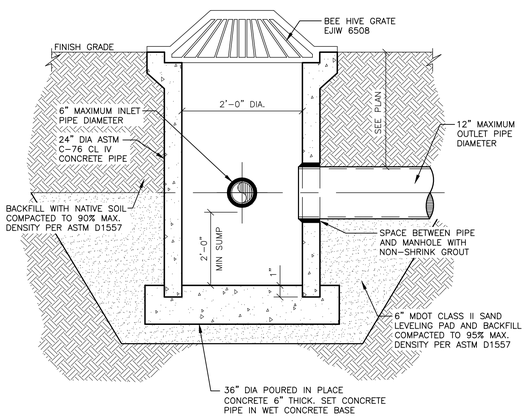
SAND BACKFILL NOTE:
ALL UTILITIES UNDER PAVEMENT OR WITHIN 5' OF THE EDGE OF PAVEMENT (OR WITHIN THE 45° LINE OF INFLUENCE OF PAVEMENT) SHALL HAVE M.D.O.T. CLASS II GRANULAR BACKFILL COMPACTED TO 95% MAX. DRY DENSITY (ASTM D–1557)

STORM MANHOLE DETAIL - 4' DIA. - STANDARD

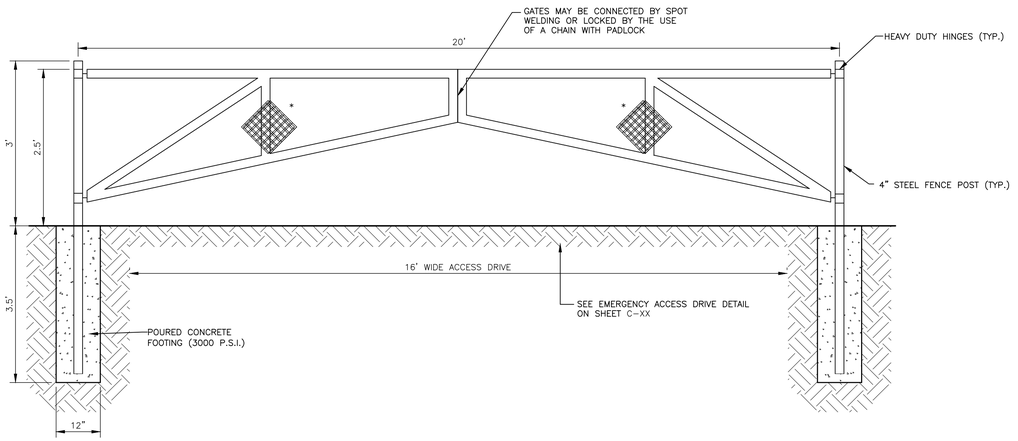


YARD BASIN DETAIL (2' DIA.) - WITH BEE HIVE GRATE

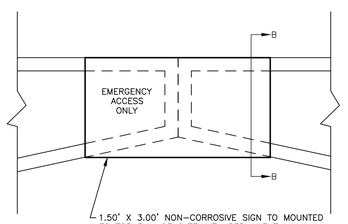
TO BE USED ONLY IN AREAS OUTSIDE PAVEMENT AND NOT SUBJECT TO TRAFFIC.

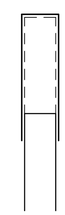


GATE DETAIL - EMERGENCY - ACCESS



NOTES:
1. CONTRACTOR TO PROVIDE SHOP DRAWINGS TO THE CITY/TOWNSHIP FOR APPROVAL PRIOR TO CONSTRUCTION.
2. IF A LOCKED GATE IS DESIRED (OPTIONAL), LOCKING MECHANISMS MUST BE APPROVED BY MUNICIPALITY FIRE DEPARTMENT.
3. * AT EACH LOCATION, 2–12"X12" RED REFLECTORIZED DIAMOND PANELS, PLACED BACK TO BACK.





SECTION B–B

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS
MEGA Monument Engineering Group Associates, Inc.
298 VETERANS DRIVE
FOWLERVILLE, MICHIGAN 48836
(OFFICE) 517-223-3512
MONUMENTENGINEERING.COM
SERVICE DISABLED VETERAN OWNED SMALL BUSINESS (SDVOSB)
KEVIN C. MCDEVITT ENGINEER NO. 6201043260

Call MISS DIG
3 full working days before you dig:
Michigan's One-Call — Utility Notification Organization
1-800-482-7171
www.missdig.org
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO REPRESENTATION IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT :

M/I HOMES OF MICHIGAN, L.L.C.
40950 WOODWARD AVE
SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)–221–5011

MISCELLANEOUS DETAILS

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

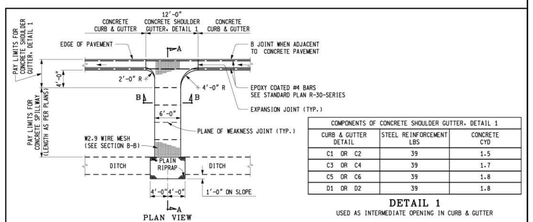
PROJECT NO: 21-075C

SCALE: N/A
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

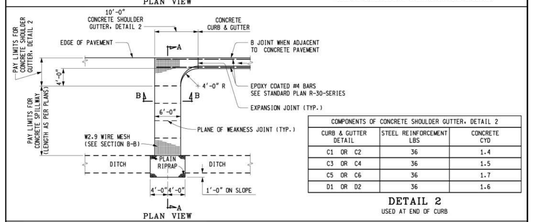
C-11.1

NOT FOR CONSTRUCTION



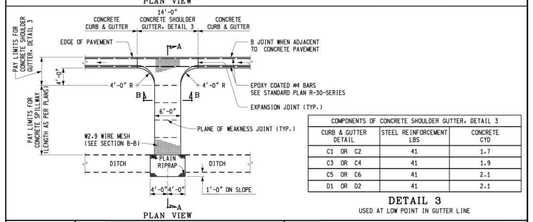
COMPONENTS OF CONCRETE SHOULDER GUTTER, DETAIL 1		
CURB & GUTTER DETAIL	STEEL REINFORCEMENT LBS	CONCRETE CYD
C1 OR C2	39	1.5
C3 OR C4	39	1.7
C5 OR C6	39	1.8
D1 OR D2	39	1.8

DETAIL 1
USED AS INTERMEDIATE OPENING IN CURB & GUTTER



COMPONENTS OF CONCRETE SHOULDER GUTTER, DETAIL 2		
CURB & GUTTER DETAIL	STEEL REINFORCEMENT LBS	CONCRETE CYD
C1 OR C2	36	1.4
C3 OR C4	36	1.5
C5 OR C6	36	1.7
D1 OR D2	36	1.6

DETAIL 2
USED AT END OF CURB



COMPONENTS OF CONCRETE SHOULDER GUTTER, DETAIL 3		
CURB & GUTTER DETAIL	STEEL REINFORCEMENT LBS	CONCRETE CYD
C1 OR C2	41	1.7
C3 OR C4	41	1.9
C5 OR C6	41	2.1
D1 OR D2	41	2.1

DETAIL 3
USED AT LOW POINT IN GUTTER LINE

MDOT — Michigan Department of Transportation

PREPARED BY DESIGN DIVISION
DRAWN BY: R.L.T.
CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Paul C. Ajegba

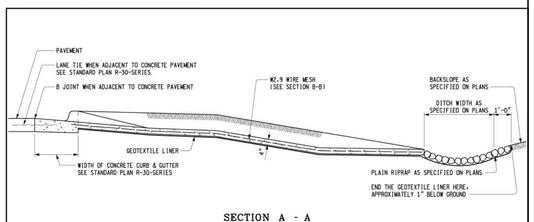
APPROVED BY: Gregg Brunner, P.E. Jul 24 2019 11:23 AM
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Bradley C. Wieferich Jul 3 2019 9:01 AM
DIRECTOR, BUREAU OF DEVELOPMENT

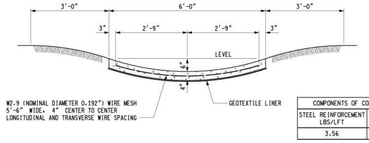
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

CONCRETE SHOULDER GUTTER AND SPILLWAY

5-18-2020 F.H.W.A. APPROVAL	7-30-2018 PLAN DATE	R-35-E	SHEET 1 OF 2



SECTION A - A



COMPONENTS OF CONCRETE SPILLWAY	
STEEL REINFORCEMENT LBS/LFT	CONCRETE CYD/LFT
3.56	0.074

SECTION B - B

NOTES:

A GRADUAL UNIFORM TRANSITION SHALL BE MADE FROM THE STANDARD CONCRETE CURB AND GUTTER TO THE CONCRETE SPILLWAY.

PLANE OF WEAKNESS JOINT SPACING SHALL BE AT UNIFORM INTERVALS OF APPROXIMATELY 4'-0".

THE SPILLWAY SHOULDERS AND FORESLOPES WILL BE UNDERLAID WITH GEOTEXTILE LINER FROM THE BACK SIDE OF CURB TO THE FAR END OF THE PLAIN RIPRAP INCLUDING THE ENTIRE FOOTPRINT OF THE PLAIN RIPRAP.

WHEN USING SPILLWAYS IN OTHER AREAS, SUCH AS BACKSLOPES, THE GEOTEXTILE LINER SHALL UNDERLAY THE FULL LENGTH OF THE SPILLWAY AND THE ENTIRE FOOTPRINT OF THE PLAIN RIPRAP. THE GEOTEXTILE LINER SHALL HAVE A MINIMUM WIDTH EQUAL TO THE WIDTH OF THE SPILLWAY.

THE SPILLWAY SHALL BE GIVEN A TRANSVERSE COARSE BROOM FINISH.

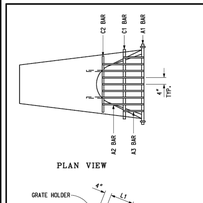
WHILE CONCRETE SPILLWAY IS SHOWN ON THE FORESLOPE, IT MAY BE USED ON THE BACKSLOPE, AS SPECIFIED ON THE PLANS. CONCRETE SHOULDER GUTTER WOULD BE CORRESPONDINGLY OMITTED.

THE CURB AND GUTTER SHALL BE ALIGNED WITH THE BEAM GUARDRAIL AS SPECIFIED ON STANDARD PLAN R-67-SERIES. THE LOCATION OF GUARDRAIL POSTS SHOULD BE DETERMINED PRIOR TO LOCATING THE SPILLWAY OR DOWNSPOUT HEADER.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

CONCRETE SHOULDER GUTTER AND SPILLWAY

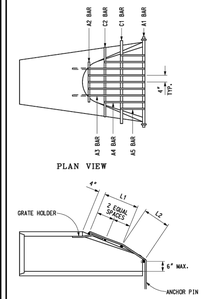
5-18-2020 F.H.W.A. APPROVAL	7-30-2018 PLAN DATE	R-35-E	SHEET 2 OF 2



STEEL REINFORCEMENT QUANTITIES									
DIAMETER		12"			15"			18"	
BAR	BAR SIZE	NUMBER REQUIRED	LENGTH	WEIGHT (LBS)	NUMBER REQUIRED	LENGTH	WEIGHT (LBS)	NUMBER REQUIRED	LENGTH	WEIGHT (LBS)
A1	#10	1	34"	12	1	40"	14	1	48"	17
A2	#6	5	24"	15	5	28"	17	7	28"	24
A3	#6			2	14"	3	2	14"	3	
C1	#10	1	36"	13	1	40"	14	1	44"	16
C2	#8	1	30"	6	1	34"	7	1	36"	8
ANCHOR PIN GRATE HOLDER	#6	2	36"	9	2	36"	9	2	36"	9
	#6	2	20"	5	2	20"	5	2	20"	5
TOTAL STEEL WEIGHT (LBS)				60			69			82

DIMENSIONS		
DIAMETER	L1	L2
12"	12"	12"
15"	14"	14"
18"	14"	14"

GRATE FOR 12" THROUGH 18" DIAMETER PIPE WITH CONCRETE END SECTION



STEEL REINFORCEMENT QUANTITIES				
DIAMETER		21"		
BAR	BAR SIZE	NUMBER REQUIRED	LENGTH	WEIGHT (LBS)
A1	#10	1	54"	19
A2	#8	1	24"	5
A3	#6	5	37"	23
A4	#6	2	26½"	7
A5	#6	2	16"	4
C1	#10	1	52"	18
C2	#8	1	44"	9
ANCHOR PIN GRATE HOLDER	#6	2	36"	9
	#6	2	20"	5
TOTAL STEEL WEIGHT (LBS)				99

DIMENSIONS		
DIAMETER	L1	L2
21"	21"	16"

GRATE FOR 21" DIAMETER PIPE WITH CONCRETE END SECTION

MDOT — Michigan Department of Transportation

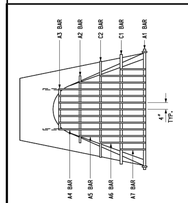
PREPARED BY DESIGN DIVISION
DRAWN BY: R.L.T.
CHECKED BY: W.K.P.

ENGINEER OF CONSTRUCTION & TECHNOLOGY — Brandon S. Kelly
ENGINEER OF MAINTENANCE — Corwin Roberts
ENGINEER OF TRAFFIC AND SAFETY — John P. Stemen
ENGINEER – ROAD DESIGN — Kevin J. Kline
ENGINEER OF DESIGN — Gregory J. Rosine
BY: Laura D. Dziuk
DEPARTMENT DIRECTOR
CHIEF ENGINEER/DEPUTY DIRECTOR
BUREAU OF HIGHWAY TECHNICAL SERVICES

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

STEEL GRATES FOR END SECTIONS

9-14-2001 F.H.W.A. APPROVAL	2-26-2001 PLAN DATE	R-92-C	SHEET 1 OF 6



STEEL REINFORCEMENT QUANTITIES									
DIAMETER		24"			27"			30"	
BAR	BAR SIZE	NUMBER REQUIRED	LENGTH	WEIGHT (LBS)	NUMBER REQUIRED	LENGTH	WEIGHT (LBS)	NUMBER REQUIRED	LENGTH	WEIGHT (LBS)
A1	#10	1	60"	21	1	66"	23	1	72"	25
A2	#8	1	32"	7	1	34"	7	1	40"	9
A3	#8	1	24"	5	1	24"	5	1	24"	5
A4	#6	7	45¼"	39	7	52½"	46	7	56½"	51
A5	#6	2	34¾"	9	2	40½"	10	2	45"	11
A6	#6	2	24½"	6	2	28½"	7	2	31½"	8
A7	#6			2	18½"	4	2	18½"	5	
C1	#10	1	60"	21	1	62"	22	1	68"	24
C2	#8	1	52"	11	1	54"	12	1	60"	13
ANCHOR PIN GRATE HOLDER	#6	2	36"	9	2	36"	9	2	36"	9
	#6	2	20"	5	2	20"	5	2	20"	5
TOTAL STEEL WEIGHT (LBS)				133			150			165

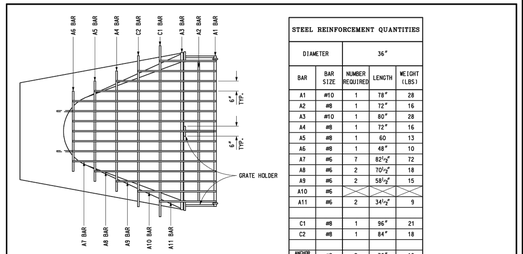
DIMENSIONS		
DIAMETER	L1	L2
24"	31½"	14"
27"	36"	16½"
30"	39½"	18½"

GRATE FOR 24" THROUGH 30" DIAMETER PIPE WITH CONCRETE END SECTION

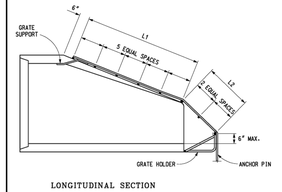
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

STEEL GRATES FOR END SECTIONS

9-14-2001 F.H.W.A. APPROVAL	2-26-2001 PLAN DATE	R-92-C	SHEET 2 OF 6



STEEL REINFORCEMENT QUANTITIES				
DIAMETER		36"		
BAR	BAR SIZE	NUMBER REQUIRED	LENGTH	WEIGHT (LBS)
A1	#10	1	78"	28
A2	#8	1	72"	16
A3	#10	1	80"	28
A4	#8	1	72"	16
A5	#8	1	60	13
A6	#8	1	48"	10
A7	#6	7	82½"	72
A8	#6	2	70½"	18
A9	#6	2	58½"	15
A10	#6			
A11	#6	2	34½"	9
C1	#8	1	96"	21
C2	#8	1	84"	18
ANCHOR PIN	#8	2	36"	16
GRATE HOLDER	#8	2	20"	9
GRATE SUPPORT	#8	3	48"	31
TOTAL STEEL WEIGHT (LBS)				320



STEEL REINFORCEMENT QUANTITIES							
DIAMETER		42"			48"		
BAR	BAR SIZE	NUMBER REQUIRED	LENGTH	WEIGHT (LBS)	NUMBER REQUIRED	LENGTH	WEIGHT (LBS)
A1	#10	1	84"	30	1	90"	32
A2	#8	1	72"	16	1	84"	18
A3	#10	1	86"	30	1	94"	33
A4	#8	1	72"	16	1	72"	16
A5	#8	1	60"	13	1	60"	13
A6	#8	1	48"	10	1	48"	10
A7	#6	7	86½"	75	7	97½"	85
A8	#6	2	74½"	19	2	83½"	21
A9	#6	2	62½"	16	2	69½"	17
A10	#6	2	50½"	13	2	55½"	14
A11	#6	2	38½"	10	2	41½"	10
C1	#8	1	96"	21	1	108"	23
C2	#8	1	96"	21	1	96"	21
ANCHOR PIN	#6	2	36"	9	2	36"	9
GRATE HOLDER	#6	2	20"	5	2	20"	5
GRATE SUPPORT	#8	3	48"	31	3	48"	31
TOTAL STEEL WEIGHT (LBS)				335			358

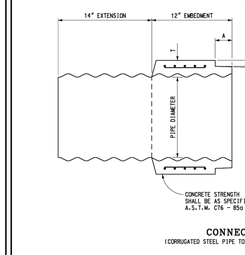
DIMENSIONS		
DIAMETER	L1	L2
36"	40"	22½"
42"	40"	26½"
48"	40"	27½"

GRATE FOR 36" THROUGH 48" DIAMETER PIPE WITH CONCRETE END SECTION

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

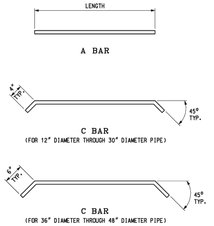
STEEL GRATES FOR END SECTIONS

9-14-2001 F.H.W.A. APPROVAL	2-26-2001 PLAN DATE	R-92-C	SHEET 3 OF 6



PIPE DIAMETER	DIMENSIONS		
	T	A	D
12"	2"	2½"	⅝"
15"	2½"	2½"	⅝"
18"	2½"	2½"	⅝"
21"	2½"	2½"	⅝"
24"	3"	3"	⅝"
27"	3½"	4"	⅝"
30"	3½"	4½"	1"
36"	4"	4½"	1"
42"	4½"	5"	2½"
48"	5"	5"	2½"

CONNECTING ADAPTOR
(CORRUGATED STEEL PIPE TO CONCRETE PIPE OR CONCRETE END SECTION)

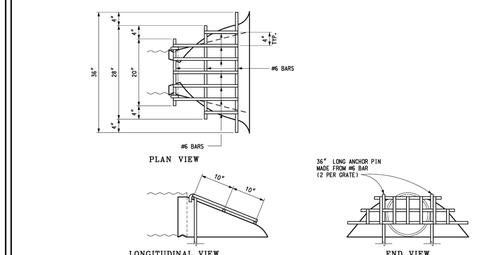


BAR DETAILS

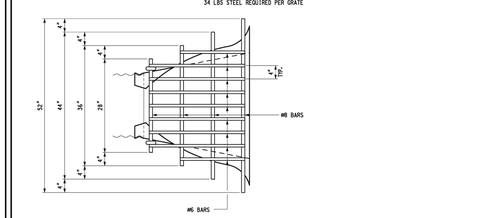
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

STEEL GRATES FOR END SECTIONS

9-14-2001 F.H.W.A. APPROVAL	2-26-2001 PLAN DATE	R-92-C	SHEET 4 OF 6



GRATE FOR 12" DIAMETER PIPE WITH STEEL END SECTION
34 LBS STEEL REQUIRED PER GRATE

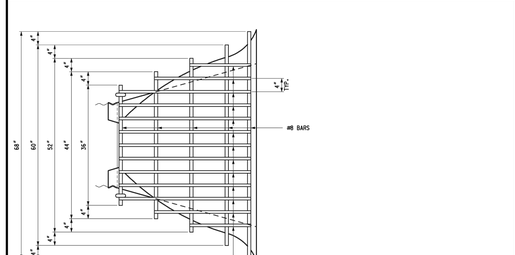


GRATE FOR 18" DIAMETER PIPE WITH STEEL END SECTION
76 LBS STEEL REQUIRED PER GRATE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

STEEL GRATES FOR END SECTIONS

9-14-2001 F.H.W.A. APPROVAL	2-26-2001 PLAN DATE	R-92-C	SHEET 5 OF 6



GRATE FOR 24" DIAMETER PIPE WITH STEEL END SECTION
137 LBS STEEL REQUIRED PER GRATE

NOTES:

ALL MATERIALS AND WORKMANSHIP SHALL BE ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS.

FABRICATION OF GRATE SHALL BE BY WELDING EACH BAR INTERSECTION.

SEE STANDARD PLAN R-86-SERIES FOR PRECAST CONCRETE END SECTIONS.

PRECAST CONCRETE END SECTIONS FROM DIFFERENT MANUFACTURERS VARY IN EXACT WIDTH AND SHAPE OF THE OPENING. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE GRATE WILL ADEQUATELY COVER THE OPENING.

SEE STANDARD PLAN R-88-SERIES FOR STEEL END SECTIONS.

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

STEEL GRATES FOR END SECTIONS

9-14-2001 F.H.W.A. APPROVAL	2-26-2001 PLAN DATE	R-92-C	SHEET 6 OF 6

INNOVATIVE GEOSPATIAL & ENGINEERING SOLUTIONS

MEGA — Mountain Engineering Group Associates, Inc.

298 VETERANS DRIVE
FOWLERVILLE,
MICHIGAN 48836
(OFFICE) 517-223-3512
MONUMENTENGINEERING.COM

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KEVIN C. MCDEVITT ENGINEER NO. 6201043260

Kevin C. McDevitt

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CLIENT :

M/I HOMES OF MICHIGAN, L.L.C.
40950 WOODWARD AVE
SUITE 203
BLOOMFIELD HILLS, MI 48304
POC: DAVID STRAUB
(248)-221-5011

MDOT DETAILS

HERITAGE SQUARE (SINGLE FAMILY)
95 AC. NW CORNER BURKHART & MASON ROADS
PART OF THE SE 1/4 OF SEC. 32, T3N, R4E,
HOWELL TWP, LIVINGSTON COUNTY, MICHIGAN

PLAN SUBMITTALS/REVISIONS	DATE
SITE PLAN SUBMITTAL	05/09/2024
PHASE 1 FINAL SITE PLAN SUBMITTAL	09/18/2024
MODIFIED COVERAGE CALCULATION	11/25/2024
REVISED PHASE 1 FINAL SITE PLAN	02/20/2025
PHASE 2&3 FINAL SITE PLAN SUBMITTAL	12/22/2025

ORIGINAL ISSUE DATE: 5/09/2024

PROJECT NO: 21-075C

SCALE: N/A
0 1/2" 1"

FIELD:
DRAWN BY: DC,MN,CK,DJ
DESIGN BY: KM
CHECK BY: KM

C-11.2

NOT FOR CONSTRUCTION

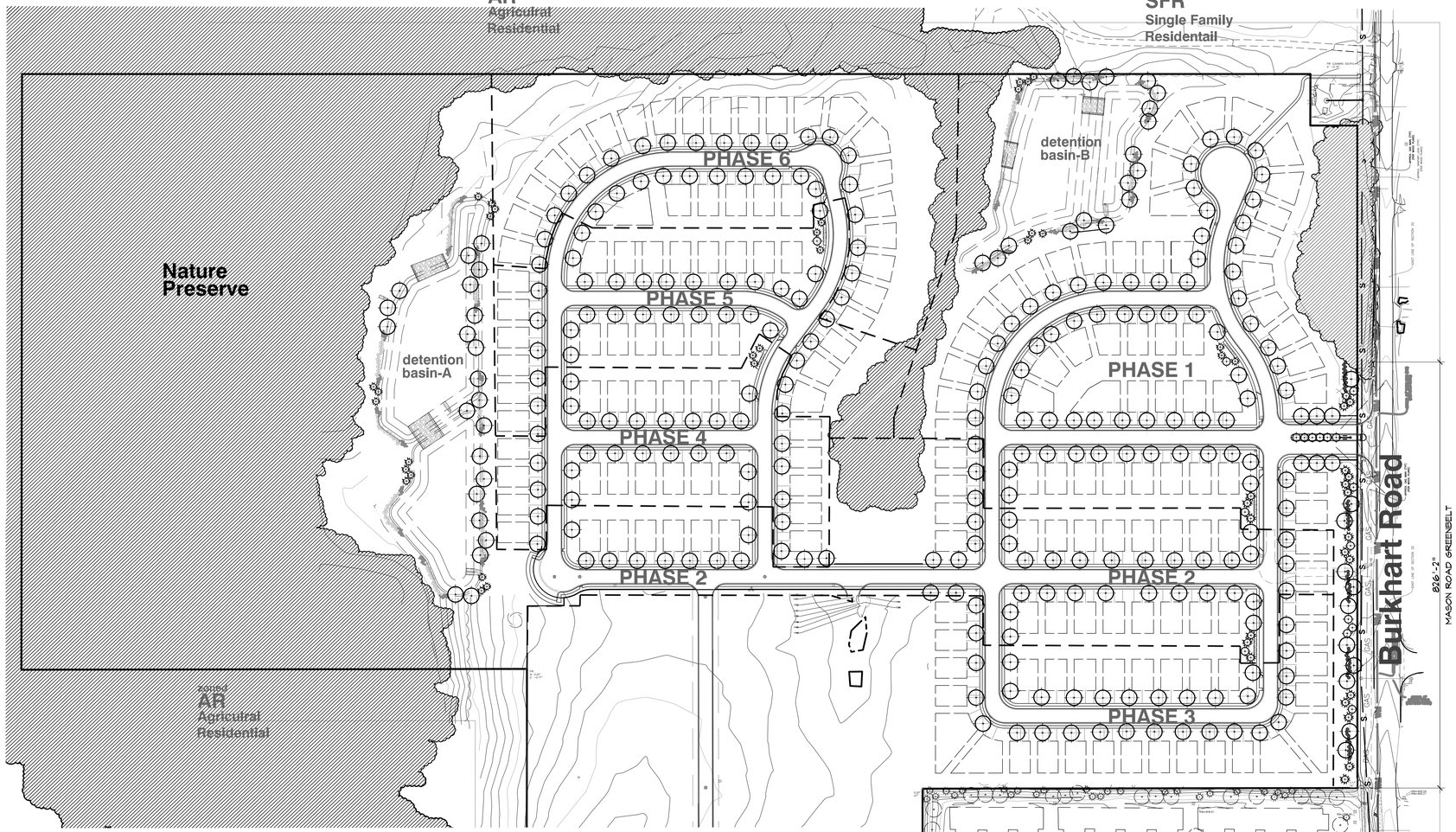
FILE:P:\Projects\2021\21-075 Heritage Square PUD\21-075C Heritage Square (Single-Family)\Dwg\Engineering\PH 2-3 FSP PLANS\21-075C_SF_PH2 FSP_C-11.0_Details.dwg PLOT DATE:12/22/2025 12:05 PM

landscape note:

1. LANDSCAPE CONTRACTOR SHALL VISIT THE SITE, INSPECT EXISITNG CONDITIONS, REVIEW PROPOSED PLANTINGS AND RELATED WORK. CONTACT THE OWNER AND/OR LANDSCAPE ARCHITECT WITH ANY CONCERNS OR DISCREPANCY BETWEEN THE PLAN, PLANT MATERIAL LIST, AND/OR SITE CONDITIONS.
2. PRIOR TO BEGINNING OF CONSTRUCTION ON ANY WORK, CONTRACTORS SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES. GAS, ELECTRIC, TELEPHONE, CABLE TO BE LOCATED BY CONTACTING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COORDINATE ALL RELATED WORK ACTIVITIES WITH OTHER TRADES AND REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER PRIOR TO COMMENCING
3. NUMERICAL VALUE ON THE LANDSCAPE QUANTITIES SPECIFIED ON THE PLAN TAKE PRECEDENCE OVER GRAPHIC REPRESENTATION. VERIFY ANY CONCERN-DISCREPANCY WITH LANDSCAPE ARCHITECT.
4. ALL CONSTRUCTION AND PLANT MATERIAL LOCATION TO BE ADJUSTED ON SITE IF NECESSARY
5. ALL SUBSTITUTIONS OR DEVIATIONS FROM THE LANDSCAPE PLAN MUST BE APPROVED BY HOWELL TOWNSHIP AND LANDSCAPE ARCHITECT
6. ALL LARGE TREES AND EVERGREENS TO BE STAKED, GUYED AND WRAPPED AS DETAILED, SHOWN ON PLAN.
7. PLANT BEDS TO BE DRESSED WITH MIN. 4" OF FINELY DOUBLE SHREDDED HARDBARK MULCH.
8. DIG SHRUB PITS 1' LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2' LARGER THAN ROOT BALL. BACK FILL WITH ONE PART TOP SOIL AND ONE PART SOIL FROM EXCAVATED PLANTING HOLE.
9. NATURAL COLOR, FINELY SHREDDED HARDWOOD BARK MULCH REQUIRED FOR ALL PLANTINGS.
10. REMOVE ALL TWINE, WIRE AND BURLAP FROM TREE AND SHRUB EARTH BALLS, AND FROM TREE TRUNKS. 4" THICK BARK MULCH FOR TREES IN 4' DIA. CIRCLE WITH 3" PULLED AWAY FROM TRUNK. 4" THICK BARK MULCH FOR SHRUBS AND 4" THICK BARK MULCH FOR PERENNIALS.
11. PLANT MATERIAL QUALITY & INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.
12. ALL NEW AND DISTURBED LAWN AREAS TO RECEIVE SEEDING UNLESS NOTED OTHERWISE.
13. ALL PLANTING AREAS TO BE PREPARED WITH APPROPRIATE SOIL MIXTURES AND FERTILIZER BEFORE PLANT INSTALLATION.
14. PLANT TREES AND SHRUBS GENERALLY NO CLOSER THAN THE FOLLOWING DISTANCES FROM SIDEWALKS, CURBS AND PARKING STALLS:
    a). SHADE TREES _____ 5 FT.
    b). ORNAMENTAL AND EVERGREEN TREES (CRABS, PINE, SPRUCE, ETC.)_____ 10 FT.
    c). SHRUBS THAT ARE LESS THAN 1 FOOT TALL AND WIDE AT MATURITY_____ 2 FT.
15. NO TREES OR EVERGREENS TO BE INSTALLED OVER ANY PROPOSED OR EXISTING UTILITY LINES AS SHOWN ON THE OVERALL LANDSCAPE PLAN. SEE ENGINEERING PLANS FOR LOCATION AND DETAILS.
16. ALL LAWN AREAS AND LANDSCAPE BEDS TO BE FULLY IRRIGATED WITH AN AUTOMATIC UNDERGROUND SYSTEM. IRRIGATION SYSTEM TO HAVE SEPARTE ZONES FOR LAWN AREAS, PARKING ISLANDS, AND SHRUB BEDS WITH DIFFERENT CONTROL MOISTURE LEVEL ADJUSTMENT PER ZONE AS REQUIRED
17. UNLESS NOTED OTHERWISE, LANDSCAPE BEDS ADJACENT TO LAWN TO RECIEVE EDGING. EDGING SHALL BE 4" X 1/8" METAL (FINISH BLACK OR GREEN) OR APPROVED EQUAL AND TO BE INSTALLED WITH HORIZONTAL METAL STAKES AT 32" O.C. OR PER MANUFACTERER'S SPECIFICATION.
18. ALL NEW PARKING ISLANDS AND LANDSCAPE BEDS ADJACENT AND NEXT TO BUILDING SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS A MIN. OF 16"-18" DEPTH. BACK FILL WITH GOOD, MEDIUM TEXTURED PLANTING SOILS. ADD A MIN. 4" OF TOPSOIL OVERFILL TO FINISH GRADE. PROVIDE POSITIVE DRAINAGE.
19. WATERING OF ALL PLANTS AND TREES TO BE PROVIDED IMMEDIATELY AND MULCHING WITHIN 24 HOURS AFTER INSTALLATION.
20. ALL TREE PITS TO BE TESTED FOR PROPER DRAINAGE PRIOR TO TREE PLANTING. PROVIDE APPROPRIATE DRAINAGE SYSTEM AS REQUIRED IF THE TREE PIT DOES NOT DRAIN SUFFICIENTLY.
21. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPE PLANT MATERIALS AND IRRIGATION INSTALLATION FOR A PERIOD OF TWO YEAR BEGINNING AFTER THE COMPLETION OF LANDSCAPE INSTALLTION DATE APPROVED BY THE CITY OR LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE DURING AND AT THE END OF THE GUARANTEE PERIOD, ANY DEAD OR UNACCEPTABLE PLANTS, AS DETERMINED BY THE TOWNSHIP OR LANDSCAPE ARCHITECT, WITHOUT COST TO THE OWNER.

sheet index

LS-1 OVERALL LANDSCAPE PLAN VIEW
LS-2 PLANTING DETAIL PLAN (SINGLE FAMILY)
LS-3 PLANTING DETAIL PLAN (SINGLE FAMILY)
LS-4 PLANTING DETAIL PLAN (DETENTION POND)
LS-5 PLANTING DETAIL PLAN (SOD AND SEEDING)



landscape requirement summary

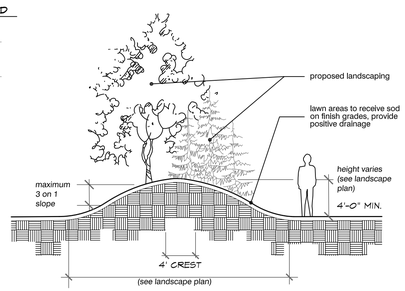
Burkhart Road Frontage Landscape	REQUIRED	PROVIDED
TOTAL LIN.FT. OF BURKART ROAD GREENBELT 746' ±		
(826 LIN.FT. OF BURKHART ROAD LESS 80' ACCESS ROAD)		
ONE (1) CANOPY OR EVERGREEN TREE PER 40' (746' / 40' PER TREE= 18.65 TREES)	19	26
ONE (1) ORNAMENTAL TREE PER 100' (746' / 100' PER TREE= 7.4 TREES)	7	7+
EIGHT (8) SHRUB PER 40' (746' / 40' PER 8-SHRUBS= 18.65 X 8=149.2 SHURBS)	149	208

blvd. island divider median	REQUIRED	PROVIDED
TOTAL LIN.FT. OF BLVD. ISLAND 146' ±		
ONE (1) CANOPY OR EVERGREEN TREE PER 30' (146' / 30' PER TREE= 4.86 TREES)	5	6

detention pond B	REQUIRED	PROVIDED
TOTAL LIN.FT. OF A POND 1,230' ±		
ONE (1) CANOPY OR EVERGREEN TREE PER 50' (1230' / 50' PER TREE= 24.6 TREES)	25	25
TEN (10) SHRUB PER 50' (1230' / 50' = 24.6 X 10= 246 SHURBS)	246	246

detention pond A	REQUIRED	PROVIDED
TOTAL LIN.FT. OF A POND 1793' ±		
ONE (1) CANOPY OR EVERGREEN TREE PER 50' (1793' / 50' PER TREE= 35.86 TREES)	36	36
TEN (10) SHRUB PER 50' (1793' / 50' = 35.86 X 10= 358.6 SHURBS)	358	358

open space landscape	REQUIRED	PROVIDED
TOTAL SQ.FT. OF OPEN AREA 261,796' ±		EXISTING TREES SAVE
ONE (1) CANOPY OR EVERGREEN TREE PER 3000 SQ.FT. (261,796' / 3000 SQ.FT PER TREE= 87.3 TREES)	87	



berm planting detail
no scale

landscape maintenance notes:

LANDSCAPE MAINTENANCE PROCEDURES AND FREQUENCIES TO BE FOLLOWED SHALL BE SPECIFIED ON THE LANDSCAPE PLAN, ALONG WITH THE MANNER IN WHICH THE EFFECTIVENESS, HEALTH AND INTENDED FUNCTIONS OF THE VARIOUS LANDSCAPE AREAS ON THE SITE WILL BE ENSURED.

1. LANDSCAPING SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION, FREE FROM DEBRIS AND REFUSE.

2. PRUNING SHALL BE MINIMAL AT THE TIME OF INSTALLATION, ONLY TO REMOVE DEAD OR DISEASED BRANCHES. SUBSEQUENT PRUNING SHALL ASSURE PROPER MATURATION OF PLANTS TO ACHIEVE THEIR APPROVED PURPOSE.

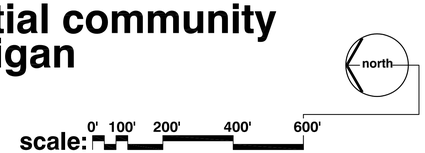
3. ALL DEAD OR DISEASED PLANT MATERIAL SHALL BE REMOVED AND REPLACED WITHIN SIX (6) MONTHS AFTER IT DIES OR IN THE NEXT PLANTING SEASON, WHICHEVER OCCURS FIRST. THE PLANTING SEASON FOR DECIDUOUS PLANTS SHALL BE BETWEEN MARCH 15 AND NOVEMBER 15 OR UNTIL THE PREPARED SOIL BECOMES FROZEN. THE PLANTING SEASON FOR EVERGREEN 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.

landscape plan for:

"Heritage Square"

a planned residential community
Howell Township, Michigan

note:
conceptual landscape plan for inspection purposes only and in no way official or approved for construction.



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fax. (248) 557-5416

seal:
FELINO A. PASCUAL LANDSCAPE ARCHITECT No. 4333 STATE OF MICHIGAN REGISTERED LANDSCAPE ARCHITECT

client:
BURKHART MASON COMMUNITY LLC.
29350 Woodward Avenue Royal Oak, Michigan

project:
HERITAGE SQUARE
A PLANNED RESIDENTIAL COMMUNITY

project location:
Howell Township, Michigan
Burkhart Road & Mason Road

sheet title:
OVERALL LANDSCAPE PLAN VIEW

job no./issue/revision date:

LS24.064.06	REVIEW	7-1-2024
LS24.064.09	SPA	9-19-2024
LS24.064.12	SPA	12-20-2024
LS26.054.04	TOWNSHIP COMMENTS	4-24-2026

drawn by: JP, DK
checked by: FP
date: 4-3-2026

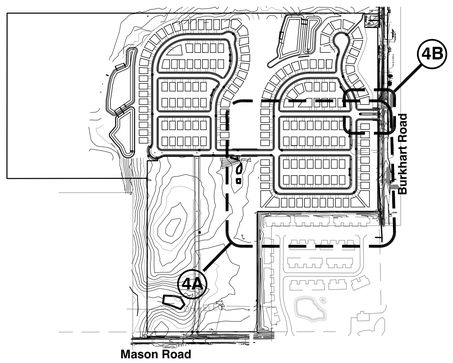
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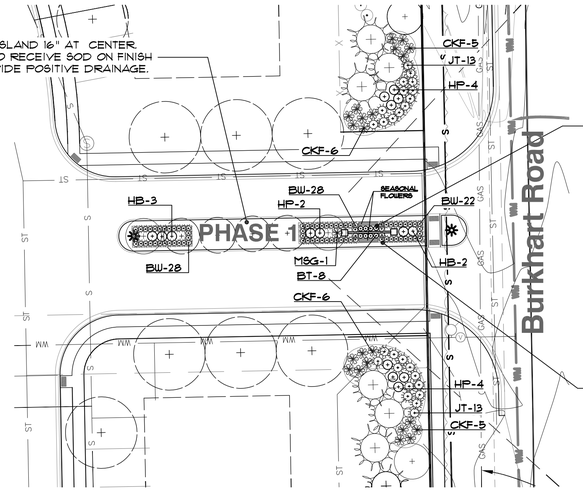
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project no: LS26.054.04

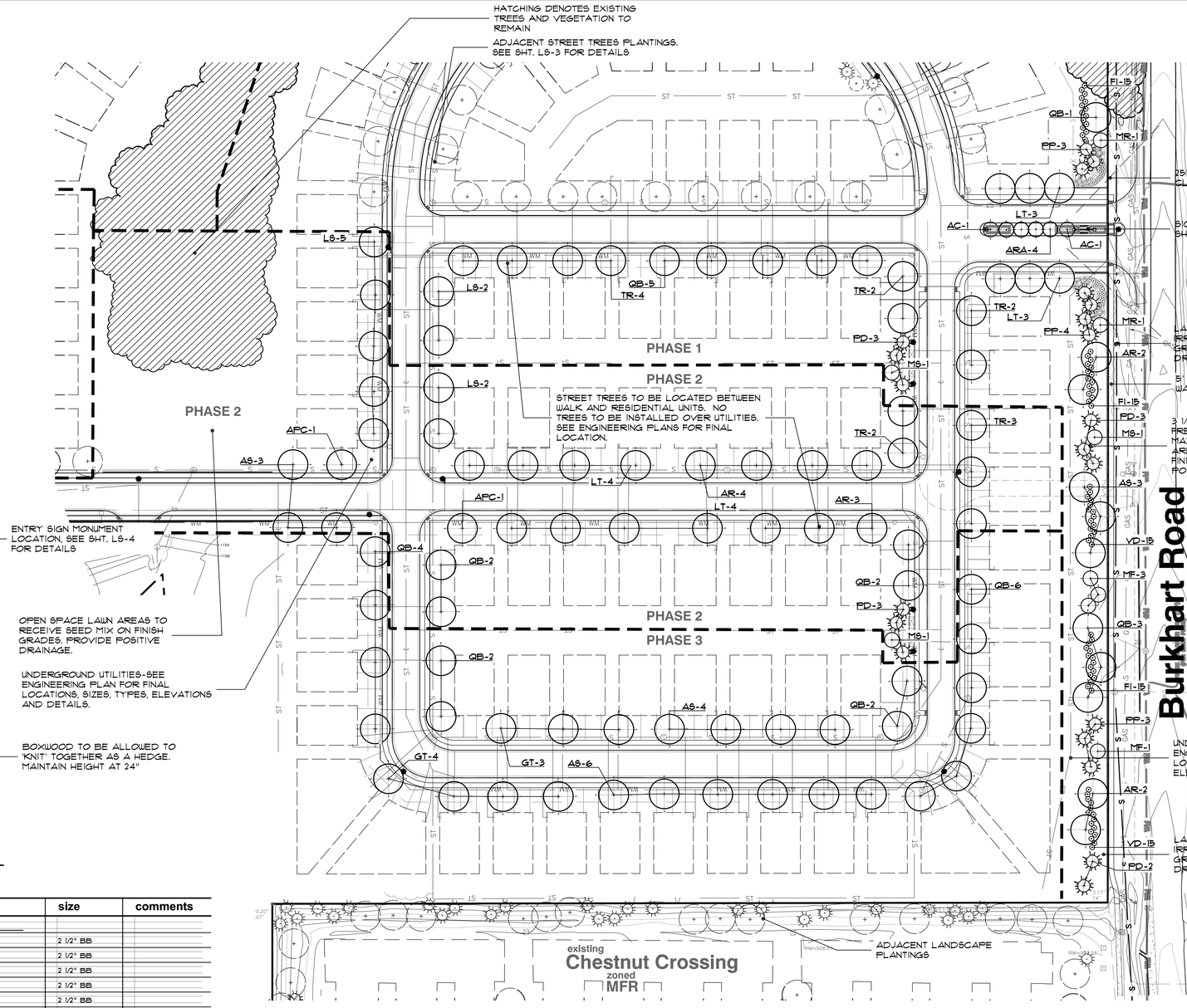
sheet no: **LS-1** of 5



key reference location map
NO SCALE



2B entrance landscape planting detail (PHASE-1)
SCALE: 1" = 30'-0"



2A landscape planting detail
SCALE: 1" = 60'-0"

plant material list

key	quant. 2A Phase 1	Phase 2	Phase 3	quant. 2B Phase 1	botanical name	common name	size	comments
					DECIDUOUS TREES			
GT	-	-	7	-	GLEDITSIA TRI. INERMIS 'SKYCOLE'	SKYLINE LOCUST	2 1/2" BB	
AS	3	3	10	-	ACER SACCHARUM	SUGAR MAPLE	2 1/2" BB	
AR	4	7	-	-	ACER RUBRUM	RED MAPLE	2 1/2" BB	
ARA	4	-	-	-	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	2 1/2" BB	
QB	9	4	14	-	QUERCUS BI-COLOR	WHITE SWAMP OAK	2 1/2" BB	
APC	-	2	-	-	ACER P. 'CRIMSON KING'	CRIMSON KING NORWAY MAPLE	2 1/2" BB	
LT	6	8	-	-	LIRIODENDRON TULIPIFERA	TULIPTREE	2 1/2" BB	
LS	2	7	-	-	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2 1/2" BB	
TR	8	5	-	-	TILIA AMERICANA 'REDMOND'	REDMOND LINDEN	2 1/2" BB	
AC	2	-	-	-	AMELANCHIER X 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	8' BB	MULTI-STEM
MF	4	-	-	-	MALUS FLORIBUNDA	JAPANESE FLOWERING CRABAPPLE	2" BB	
MS	1	1	-	-	MALUS SNOWDRIFT	SNOWDRIFT CRABAPPLE	2" BB	
MR	2	-	-	-	MALUS RED BARRON	RED BARRON CRABAPPLE	2" BB	
					EVERGREEN TREES			
PP	10	-	-	5	PICEA PUNGENS	COLORADO GREEN SPRUCE	8' BB	
PD	8	3	-	-	PICEA GLAUCA 'DENSATA'	BLACK HILL SPRUCE	8' BB	
					SHRUBS			
BW	-	-	-	78	BUXUS 'GREEN VELVET'	GREEN VELVET BOXWOOD	18" CONT.	24" O.C. SPACING
FI	45	45	-	-	FORSYTHIA INTERMEDIA	BORDER FORSYTHIA	3' CONT.	60" O.C. SPACING
VD	30	30	-	-	VIBURNAM DENTATUM 'SYNNESTVEDT'	CHICAGO LUSTRE ARROWWOOD VIBURNUM	3' CONT	60" O.C. SPACING
JT	-	-	-	26	JUNIPERUS S. 'TAMARISAFOLIA'	TAM'S JUNIPER	48" CONT	42" O.C. SPACING
HB	-	-	-	5	HYDRANGEA PANICULATA 'BOBO'	BOBO PANICLE HYDRANGEA	36" CONT	42" O.C. SPACING
HP	-	-	-	8	HYDRANGEA PANICULATA 'BULK'	QUICK FIRE HYDRANGEA	36" CONT	42" O.C. SPACING
BT	-	-	-	8	BERBERIS T. 'CRIMSON PYGMY'	CRIMSON PYGMY JAPANESE BARBERRY	18" CONT	24" O.C. SPACING
CKF	-	-	-	22	CALAMAGROTIS ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#3 CONT	36" O.C. SPACING
M8G	-	-	-	2	MISCANTHUS 'GRACILLIMUS'	MAIDEN GRASS	#5 CONT	48" O.C. SPACING

planting landscape notes:

GENERAL NOTES:

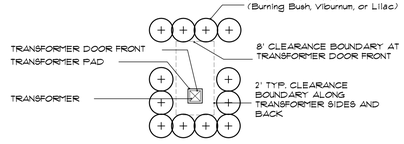
1. PLANT MATERIALS TO BE INSTALLED ACCORDING TO THE HOWELL TOWNSHIP AND CURRENT AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARDS.
2. PLANT MATERIALS TO BE GUARANTEED FOR 2 YEARS, REPLACE FALLING MATERIAL WITHIN 1 YEAR, OR THE NEXT APPROPRIATE PLANTING PERIOD.
3. PLANT MATERIALS TO BE OF PREMIUM QUALITY, NO. 1 GRADE NORTHERN NURSURY GROWN, IN HEALTHY CONDITION, FREE OF PESTS AND DISEASES.
4. MULCH IS TO BE NATURAL COLORED, FINELY SHREDDED HARDWOOD BARK OF 4" THICK BARK MULCH FOR TREES IN 4' DIA. CIRCLE W/3" PULLED AWAY FROM TRUNK, 3" THICK BARK MULCH FOR SHRUBS AND 2" THICK BARK MULCH FOR PERRENIALS.
5. CALL MISS DIG AT 1-800-482-7171 PRIOR TO ANY CONSTRUCTION.

DECIDUOUS & EVERGREEN TREE:

1. TREE SHALL BE INSTALLED SAME RELATIONSHIP TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 6" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.
2. DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
3. REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSLIGHTLY AND COULD CAUSE GIRDLING.
4. REMOVE TREE STAKES, GUY WIRES AND TREE WRAP AFTER ONE WINTER SEASON.
5. SHRUB SHALL BE INSTALLED SAME RELATIONSHIP TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 4" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.
6. DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
7. REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSLIGHTLY AND COULD CAUSE GIRDLING.

Burkhart Road Frontage Landscape

	REQUIRED	PROVIDED
TOTAL LIN.FT. OF BURKART ROAD GREENBELT	746' ±	
(826 LIN.FT. OF BURKHART ROAD LESS 80' ACCESS ROAD)		
ONE (1) CANOPY OR EVERGREEN TREE PER 40' (746' / 40' PER TREE= 18.65 TREES)	19	26
ONE (1) ORNAMENTAL TREE PER 100' (746' / 100' PER TREE= 7.4 TREES)	7	7+
EIGHT (8) SHRUB PER 40' (746' / 40' PER 8-SHRUBS= 18.65 X 8=149.2 SHURBS)	149	208



transformer pad planting detail
SCALE 1"=20'-0"

A MINIMUM OF 2' SEPARATION BETWEEN TRANSFORMER AND FULL GROWN SHRUBS AND TREES. GROUND COVERS ALLOWED UP TO TRANSFORMER PAD IF MAINTAINED BELOW 4' FULL GROWTH. IF TRANSFORMER FACES TOWARDS THE HOUSE, THEN THE SAME CONDITIONS EXIST. NO FULL GROWTH IN FRONT OF THE TRANSFORMER FOR AT LEAST A MINIMUM OF 8'. THERE ARE NO WAIVERS GRANTED TO THE ABOVE CONDITION. DETAIL PER THE DETROIT EDISON COMPANY-SERVICE PLANNING DEPARTMENT (9-17-98)

SEE ENGINEERING PLANS FOR PROPOSED LOCATIONS, TOTAL NUMBER OF TRANSFORMERS AND FINAL LOCATION PER DETROIT EDISON REQUIREMENTS.

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Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
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fax. (248) 557-5416

seal:



client:

BURKHART MASON COMMUNITY LLC.
29350 Woodward Avenue Royal Oak, Michigan

project:

HERITAGE SQUARE
A PLANNED RESIDENTIAL COMMUNITY

project location:
Howell Township, Michigan
Burkhart Road & Mason Road

sheet title:

CONCEPTUAL LANDSCAPE PLAN

job no./issue/revision date:

LS24.064.06	REVIEW	7-1-2024
LS24.064.09	SPA	9-19-2024
LS24.064.12	SPA	12-20-2024
LS26.054.04	TOWNSHIP COMMENTS	4-24-2026

drawn by: JP, DK
checked by: FP
date: 4-3-2026

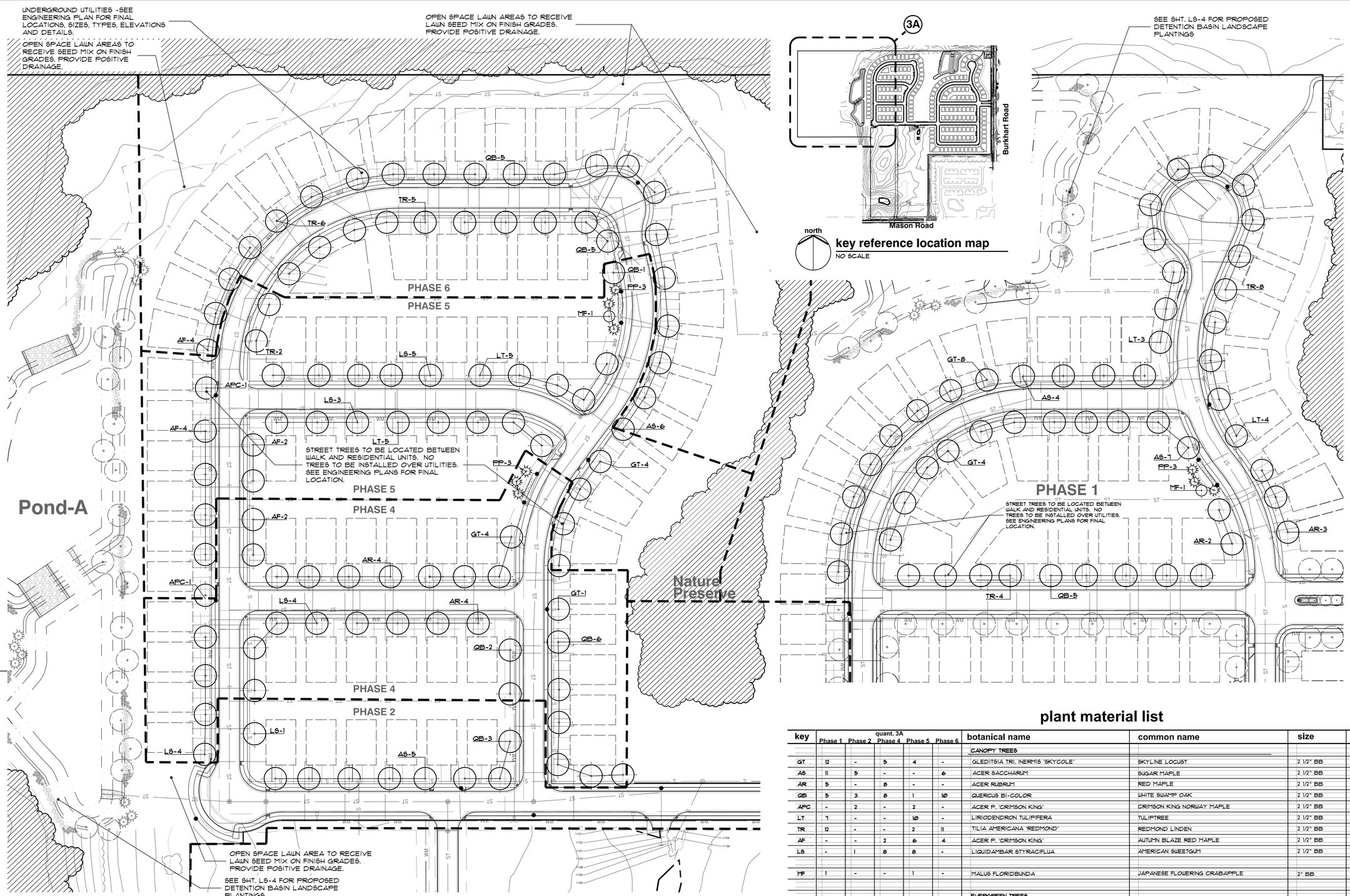
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project no: LS26.054.04

sheet no: **LS-2** of 5



key reference location map
NO SCALE

3A landscape planting detail
SCALE: 1" = 60'-0"

plant material list

key	quant. 3A Phase 1	Phase 2	Phase 4	Phase 5	Phase 6	botanical name	common name	size	comments
						CANOPY TREES			
GT	12	-	5	4	-	GLEDITSIA TRI. INERMIS 'SKYCOLE'	SKYLINE LOCUST	2 1/2" BB	
AS	11	5	-	-	6	ACER SACCHARUM	SUGAR MAPLE	2 1/2" BB	
AR	5	-	8	-	-	ACER RUBRUM	RED MAPLE	2 1/2" BB	
QB	5	3	8	1	10	QUERCUS BI-COLOR	WHITE SWAMP OAK	2 1/2" BB	
APC	-	2	-	2	-	ACER P. 'CRIMSON KING'	CRIMSON KING NORWAY MAPLE	2 1/2" BB	
LT	7	-	-	10	-	LIRIODENDRON TULIPIFERA	TULIPTREE	2 1/2" BB	
TR	12	-	-	2	11	TILIA AMERICANA 'REDMOND'	REDMOND LINDEN	2 1/2" BB	
AF	-	-	2	6	4	ACER P. 'CRIMSON KING'	AUTUMN BLAZE RED MAPLE	2 1/2" BB	
LS	-	1	8	8	-	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2 1/2" BB	
MF	1	-	-	1	-	MALUS FLORIDBUNDA	JAPANESE FLOWERING CRABAPPLE	2" BB	
						EVERGREEN TREES			
FP	3	-	3	3	-	PICEA PUNGENS	COLORADO GREEN SPRUCE	8' BB	

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seal:
STATE OF MICHIGAN
FELINO A. PASCUAL
LANDSCAPE ARCHITECT
No. 43...
REGISTERED LANDSCAPE ARCHITECT

client:
BURKHART MASON COMMUNITY LLC.
29350 Woodward Avenue Royal Oak, Michigan

project:
HERITAGE SQUARE
A PLANNED RESIDENTIAL COMMUNITY

project location:
Howell Township, Michigan
Burkhart Road & Mason Road

sheet title:
LANDSCAPE PLANTING DETAIL

job no./issue/revision date:

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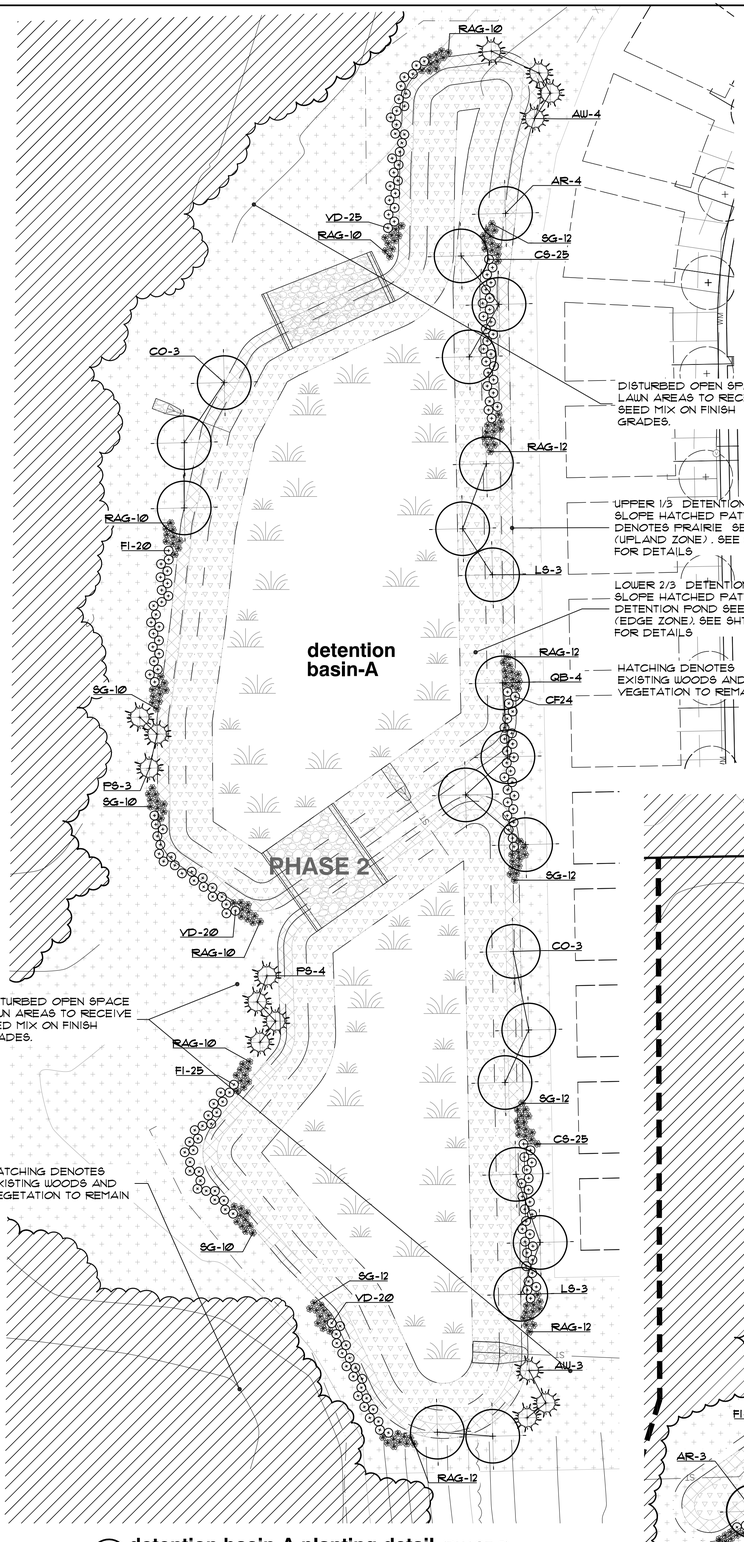
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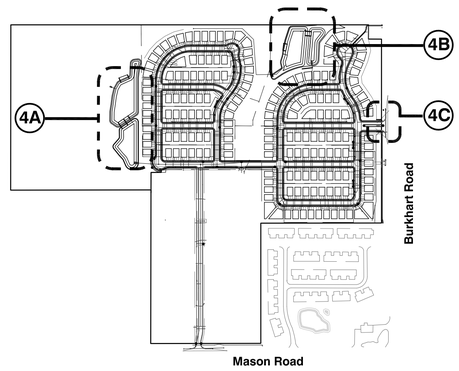
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project no: LS26.054.04

sheet no: LS-3 of 5



4A detention basin-A planting detail (PHASE-2)
SCALE: 1" = 40'-0"



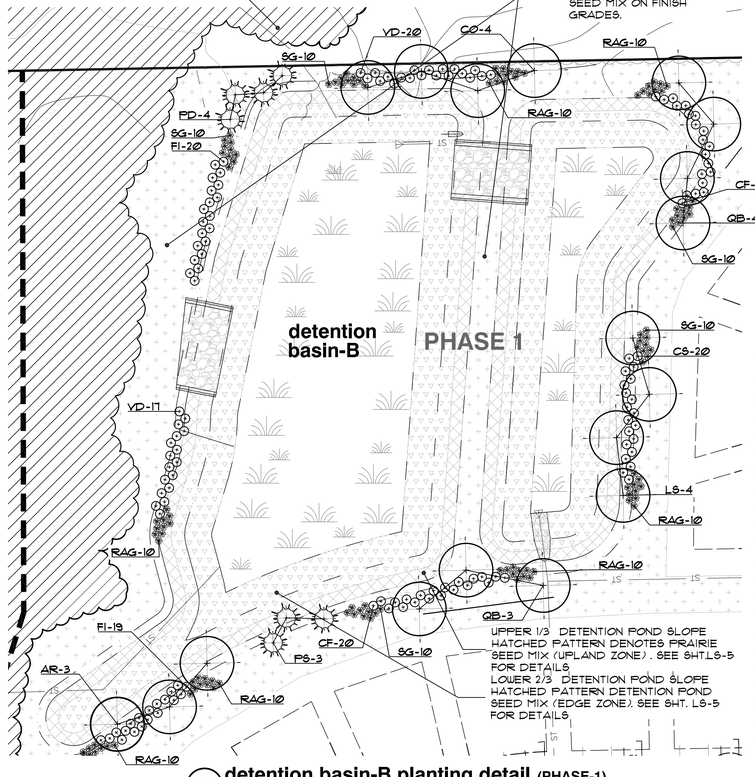
north

key reference location map
NO SCALE

detention landscape requirements

detention pond A	REQUIRED	PROVIDED
TOTAL LIN.FT. OF A POND	1793' ±	
ONE (1) CANOPY OR EVERGREEN TREE PER 50' (1793' / 50' PER TREE= 35.86 TREES)	36	36
TEN (10) SHRUB PER 50' (1793' / 50' = 35.86 X 10= 358.6 SHURBS)	358	358

detention pond B	REQUIRED	PROVIDED
TOTAL LIN.FT. OF A POND	1,230' ±	
ONE (1) CANOPY OR EVERGREEN TREE PER 50' (1230' / 50' PER TREE= 24.6 TREES)	25	25
TEN (10) SHRUB PER 50' (1230' / 50' = 24.6 X 10= 246 SHURBS)	246	246



4B detention basin-B planting detail (PHASE-1)
SCALE: 1" = 40'-0"

entry monument notes:

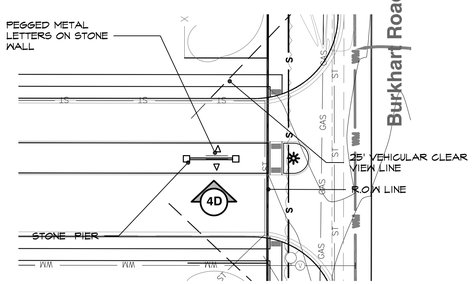
1. ALL INFORMATION CONTAINED HEREIN IS SUBJECT TO APPROVAL, AND PERMITS TO BE OBTAINED PRIOR TO CONSTRUCTION FROM ALL NECESSARY AGENCIES.
2. CONTRACTOR SHALL VISIT THE SITE, INSPECT EXISTING CONDITIONS, REVIEW PROPOSED PLANS AND RELATED WORK, CONTACT THE OWNER WITH ANY CONCERNS OR DISCREPANCY BETWEEN THE PLANS AND/OR SITE CONDITIONS.
3. PRIOR TO BEGINNING OF CONSTRUCTION ON ANY WORK, CONTRACTORS SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES. GAS, ELECTRIC, TELEPHONE, CABLE, ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COORDINATE ALL RELATED WORK ACTIVITIES WITH OTHER TRADES AND REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER PRIOR TO COMMENCING. CONTACT MISS DIG AT 811 OR 800 -482-7171 BEFORE YOU DIG
4. DO NOT SCALE DRAWING, USE FIGURED DIMENSIONS ONLY
5. VERIFY SOIL BEARING CAPACITY PRIOR TO ANY POST FOOTING CONSTRUCTION. IF SOIL BEARING CAPACITY FALLS BELOW STANDARD REQUIREMENTS, CONSULT STRUCTURAL ENGINEER FOR RECOMMENDATION OF FINAL POST FOOTING DESIGN.
6. GRADES BY OTHERS, FINAL GRADES TO PROVIDE POSITIVE DRAINAGE
7. FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED SOIL WITH AN ASSUMED SAFE BEARING CAPACITY OF 2000 P.S.I. IF SOIL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, FOOTINGS SHALL BE ENLARGED OR LOWERED AT THE DIRECTION OF THE ARCHITECT. VERIFY FOUNDATION SOIL BEARING PRESSURE IN FIELD BY SOILS ENGINEER.
8. PROVIDE NECESSARY SHEETING SHORING BRACING, ETC. AS REQUIRED DURING EXCAVATIONS TO PROTECT SIDES OF EXCAVATIONS.
9. MINIMUM CONCRETE STRENGTH TO BE 3000 P.S.I. @ 28 DAYS. U.O.N.: SLABS SHALL BE 3500 P.S.I. MIN. U.O.N.: EXPOSED CONCRETE SHALL BE 4000 P.S.I. WITH 6% ± 1% ENTRAINED AIR U.O.N.
10. ALL CONCRETE WORK AND PLACEMENT SHALL CONFORM TO THE LATEST RECOMMENDATIONS OF A.C.I.
11. PROVIDE DOWELS INTO FOUNDATION TO MATCH SIZE AND SPACING OF VERTICAL REINFORCEMENT AT ALL WALLS, UNLESS OTHERWISE NOTED.
12. PROVIDE MINIMUM 3" CONCRETE COVER FOR REINFORCEMENT BARS BELOW GRADE AND MINIMUM 2" CONCRETE COVER FOR REINFORCEMENT BARS ABOVE GRADE.
13. LOCATE AND STAKE ALL EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION. COORDINATE ANY ADJUSTMENTS WITH ARCHITECT.
14. ALL ENTRY WALL LIGHTING SHALL BE CONTROLLED WITH A 'PHOTO-EYE' SWITCH. ALL LIGHTING SHALL BE SHIELDED FROM PUBLIC R.O.W.'S AND ADJACENT PROPERTIES.
15. SIGN TEXT AND LOGO TO BE PAINTED METAL LOGO/LETTER ON LIMESTONE STONE, PERMITS TO BE OBTAINED PER CITY OF STERLING HIEGHTS REQUIREMENTS AND APPROVALS.

signage uplighting

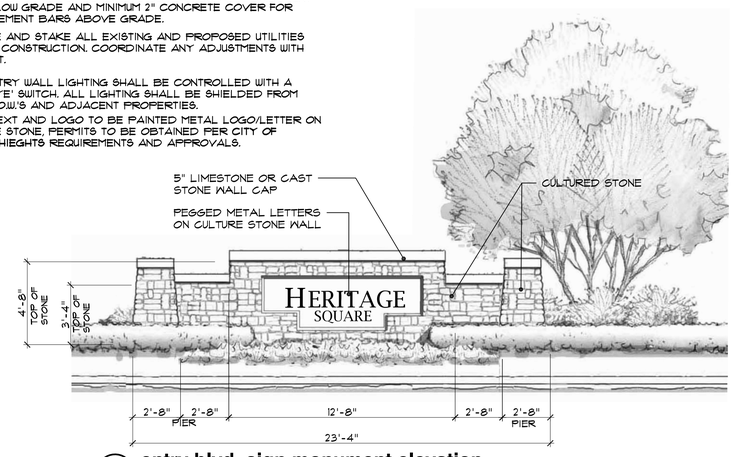
SIGNAGE UPLIGHTING MANUFACTURED BY HYDREL, MODEL NO. 4799
20660 NORDHOFF STREET, SUITE B
CHATSWORTH, CA 91311
WEB SITE : www.HYDREL.COM
PHONE: 866-533-9301
FAX: 866533-5291
FINISH SELECTION : BRONZE

NOTE:
LIGHT TO BE SHIELD FROM PUBLIC R.O.W. AND LAMPS SHALL NOT BE VISIBLE FROM NORMAL VIEWING ANGLES





4C conceptual entry site plan (PHASE-1)
SCALE: 1" = 30'-0"



4D entry blvd. sign monument elevation
SCALE: 1/4"=1'-0"

plant material list

key	quant. 4A Phase 2	quant. 4B Phase 1	botanical name	common name	size	comments
			TREES			
CO	6	4	CELTIS OCCIDENTALIS	HACKBERRY	2 1/2" BB	
AR	4	3	ACER R. 'FRANKSRED'	RED SUNSET RED MAPLE	2 1/2" BB	
LS	6	4	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2 1/2" BB	
QB	6	7	QUERCUS BI-COLOR	WHITE SWAMP OAK	2 1/2" BB	
AW	7	-	ABIES CONCOLOR	CONCOLOR WHITE FIR	8' BB	
PS	7	3	PINUS STROBUS	EASTERN WHITE PINE	8' BB	
PD	-	4	PICEA GLAUCA 'DENSATA'	BLACK HILL SPRUCE	8' BB	
			SHRUBS			
FI	45	39	FORSYTHIA X INTERMEDIA	BORDER FORSYTHIA	3' BB	60" O.C. SPACING
VD	65	37	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3' BB	48" O.C. SPACING
CF	24	40	CORNUS FLAVIRAMEA	YELLOWTWIG DOGWOOD	3' BB	60" O.C. SPACING
CS	50	20	CORNUS STOLONIFERA	REDTWIG DOGWOOD	3' BB	60" O.C. SPACING
RAG	96	60	RHUS AROMATIC 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	24" CONT	48" O.C. SPACING
SG	78	50	ARONIA ARBUTIFOLIA 'BRILLIANTISSIMA'	RED CHOKEBERRY	30" CONT	42" O.C. SPACING

FPA
FELINO A. PASCUAL and ASSOCIATES
Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
Farmington Hills, MI 48336
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fax. (248) 557-5416

seal:
STATE OF MICHIGAN
FELINO A. PASCUAL
LANDSCAPE ARCHITECT
No. 4333
REGISTERED LANDSCAPE ARCHITECT

client:
BURKHART MASON COMMUNITY LLC.
29350 Woodward Avenue Royal Oak, Michigan

project:
HERITAGE SQUARE
A PLANNED RESIDENTIAL COMMUNITY

project location:
Howell Township, Michigan
Burkhart Road & Mason Road

sheet title:
CONCEPTUAL BLDG FOUNDATION & ENTRANCE MONUMENT

job no./issue/revision date:

LS24.064.06	REVIEW	7-1-2024
LS24.064.09	SPA	9-19-2024
LS24.064.12	SPA	12-20-2024
LS26.054.04	TOWNSHIP COMMENTS	4-24-2026

drawn by: JP, DK
checked by: FP
date: 4-3-2026

notice:

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For free location of public utility lines

The location and elevations of existing underground utilities as shown on this drawing are only approximate, no guarantee is either expressed or implied as to the completeness of accuracy, contractor shall be exclusively responsible for determining the exact location and elevation prior to the start of construction

project no: LS26.054.04

sheet no: **LS-4 of 5**

economy prairie seed mix

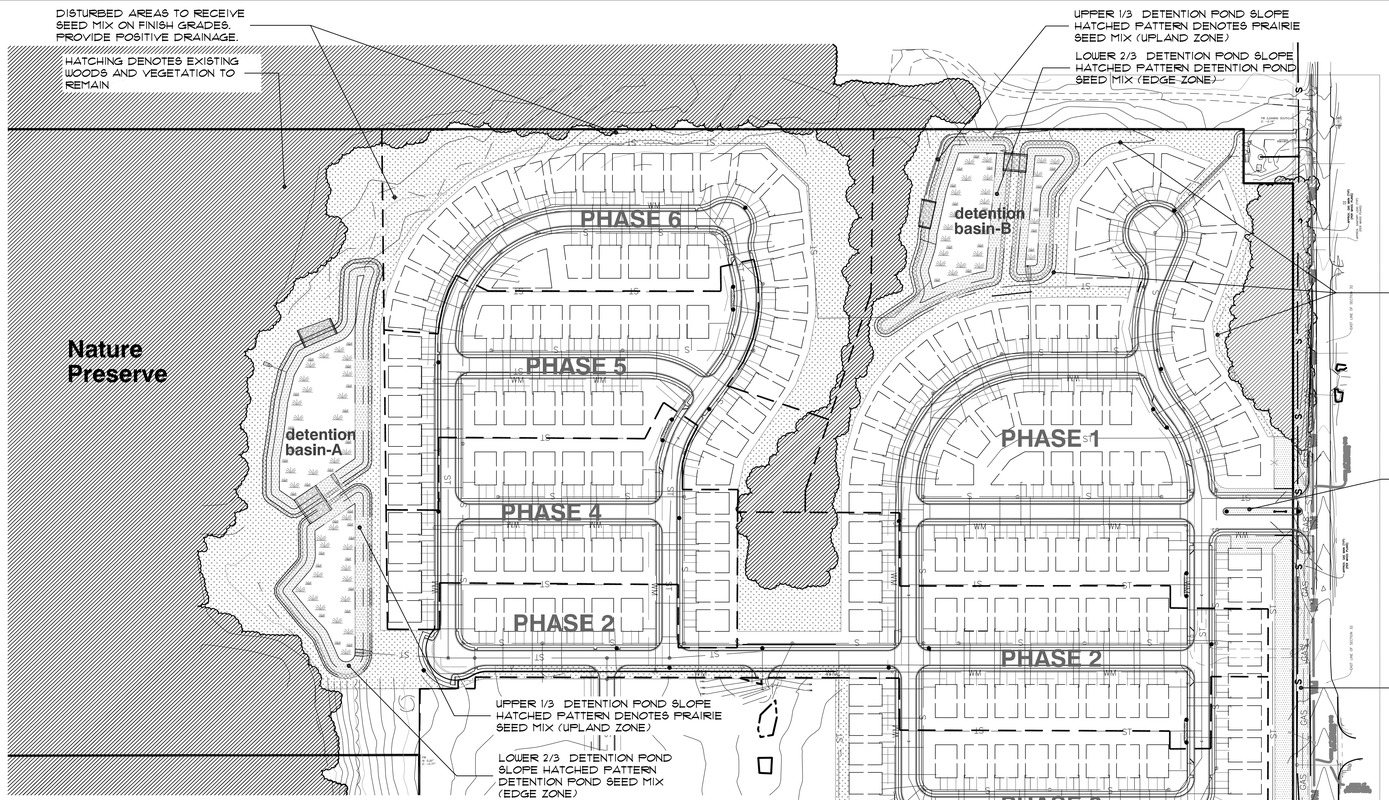
THIS PRAIRIE SEED MIX OFFERS AN ECONOMICAL WAY TO ESTABLISH A PRAIRIE. IN ADDITION TO NATIVE PRAIRIE GRASSES, FLOWERING SPECIES PROVIDE COLOR THROUGHOUT THE GROWING SEASON AND FOOD SOURCES FOR BIRDS AND BUTTERFLIES. ADDING SEED OR PLANT PLUGS AT A LATER DATE IS A WONDERFUL WAY TO INCREASE A PRAIRIE'S RICHNESS AND DIVERSITY. THIS SEED MIX INCLUDES AT LEAST 6 OF 7 NATIVE PERMANENT GRASS AND SEDGE SPECIES AND 10 OF 13 NATIVE FORB SPECIES. APPLY AT 40.95 PLS POUNDS PER ACRE.

BOTANICAL NAME	COMMON NAME	PLS OZ/ACRE
PERMANENT GRASSES/SEDGES		
ANDROPOGON GERARDII	BIG BLUESTEM	12.00
BOUTELOUA CURTIPENDULA	SIDE-OATS GRAMA	16.00
CAREX SPP.	PRAIRIE SEDGE SPECIES	3.00
ELYMUS CANADENSIS	CANADA WILD RYE	24.00
PANICUM VIRGATUM	SWITCH GRASS	2.50
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	32.00
SORGHASTRUM NUTANS	INDIAN GRASS	12.00
	TOTAL	101.50
TEMPORARY COVER		
AVENA SATIVA	COMMON OAT 512.00	
	TOTAL	512.00
FORBS		
ASCLEPIAS SYRIACA	COMMON MILKWEED	1.00
ASCLEPIAS TUBEROSA	BUTTERFLY WEED	1.00
CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	10.00
COREOPSIS LANCEOLATA	SAND COREOPSIS	6.00
ECHINACEA PURPUREA	BROAD-LEAVED PURPLE CONEFLOWER	8.00
HELIOPSIS HELIANTHOIDES	FALSE SUNFLOWER	0.25
MONARDA FISTULOSA	WILD BERGAMOT	0.50
PENSTEMON DIGITALIS	FOXGLOVE BEARD TONGUE	1.00
RATIBIDA PINNATA	YELLOW CONEFLOWER	4.00
RUDBECKIA HIRTA	BLACK-EYED SUSAN	8.00
SOLIDAGO SPECIOSA	SHOWY GOLDENROD	0.50
SYMPHYOTRICHUM LAEVE	SMOOTH BLUE ASTER	1.00
SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	0.50
	TOTAL	41.75

detention basin seed mix

A WETLAND SEED MIX FOR SATURATED SOILS IN A DETENTION POND OR FOR SEEDING A SATURATED BASIN, THIS MIX WILL TOLERATE HIGHLY FLUCTUATING WATER LEVELS AND POOR WATER QUALITY ASSOCIATED WITH URBAN STORMWATER WETLANDS AND PONDS. FOR DETENTION BASINS THAT EXPERIENCE LONG, DRY PERIODS, USE THE ECONOMY PRAIRIE SEED MIX IN THE UPPER THIRD TO HALF OF THE BASIN AREA IN COMBINATION WITH THIS MIX. THIS SEED MIX INCLUDES AT LEAST 10 OF 12 NATIVE PERMANENT GRASS AND SEDGE SPECIES AND 13 OF 17 NATIVE FORB SPECIES. APPLY AT 36.22 PLS POUNDS PER ACRE.

BOTANICAL NAME	COMMON NAME	PLS OZ/ACRE
PERMANENT GRASSES/SEDGES		
BOLBOSCHOENUS FLUVIATILIS	RIVER BULRUSH	1.00
CAREX CRISTATELLA	CRESTED OVAL SEDGE	0.50
CAREX LURIDA	BOTTLEBRUSH SEDGE	3.00
CAREX VULPINOIDEA	BROWN FOX SEDGE	2.00
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	24.00
GLYCERIA STRIATA	FOWL MANNA GRASS	1.00
JUNCUS EFFUSUS	COMMON RUSH	1.00
LEERSIA ORYZOIDES	RICE CUT GRASS	1.00
PANICUM VIRGATUM	SWITCH GRASS	2.00
SCHOENOPLECTUS TABERNAEMONTANI	GREAT BULRUSH	3.00
SCIRPUS ATROVIRENS	DARK GREEN RUSH	2.00
SCIRPUS CYPERINUS	WOOL GRASS	1.00
	TOTAL	41.50
TEMPORARY COVER		
AVENA SATIVA	COMMON OAT	512.00
	TOTAL	512.00
FORBS		
ALISMA SUBCORDATUM	COMMON WATER PLANTAIN	2.50
ASCLEPIAS INCARNATA	SWAMP MILKWEED	2.00
BIDENS SPP. BIDENS	SPECIES	2.00
EUPATORIUM PERFOLIATUM	COMMON BONESET	1.00
HELENIUM AUTUMNALE	SNEEZEWEED	2.00
IRIS VIRGINICA V. SHREVEI	BLUE FLAG	4.00
LYCOPUS AMERICANUS	COMMON WATER HOREHOUND	0.50
MIMULUS RINGENS	MONKEY FLOWER	1.00
PENTHORUM SEDOIDES	DITCH STONECROP	0.50
PERSICARIA SPP.	PINKWEED SPECIES	2.00
RUDBECKIA SUBTOMENTOSA	SWEET BLACK-EYED SUSAN	1.00
RUDBECKIA TRILOBA	BROWN-EYED SUSAN	1.50
SAGITTARIA LATIFOLIA	COMMON ARROWHEAD	1.00
SENNA HEBECARPA	WILD SENNA	2.00
SYMPHYOTRICHUM LANCEOLATUM	PANICLED ASTER	0.50
SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	0.50
THALICTRUM DASYCARPUM	PURPLE MEADOW RUE	2.00
	TOTAL	26.00



pond zone plant list (plugs and bare root)

Native Plants for Pond Zone (minimum 4 species)

Scientific Name	Common Name	Spacing (inches on center)	Scientific Name	Common Name	Spacing (inches on center)
Acorus calamus	Sweet flag	24	Polygonum amphibium	Water knotweed	36
Carex lacustris	Common lake sedge	24	Pontederia cordata	Pickerel weed	24
Cephalanthus occidentalis	Buttonbush	5 feet	Potamogeton natans	Common pondweed	36
Decodon verticillatus	Swamp Loosestrife	24	Potamogeton pectinatus	Sago pondweed	36
Elodea canadensis	Common waterweed	36	Sagittaria latifolia	Common arrowhead	24
Hibiscus laevis	Halberd-leaved rose mallow	24	Scirpus acutus	Hard-stemmed bulrush	18
Hibiscus palustris	Swamp rose mallow	24	Scirpus atrovirens	Dark green rush	18
Iris virginica shrevei	Blue flag iris	18	Scirpus cyperinus	Wool grass	24
Justicia americana	Water willow	5 feet	Scirpus fluviatilis	River bulrush	18
Nelumbo lutea	Lotus	48	Scirpus validus creber	Great bulrush	18
Nuphar advena	Yellow pond lily	36	Sparganium americanum	American bur reed	18
Nymphaea tuberosa	White water lily	36	Sparganium eurycarpum	Common bur reed	18
Peltandra virginica	Arrow arum	18	Vallisneria americana	Tape grass	36

Note: Plant species selected should cover 25% of the pond zone and should also cover the range of water depths within the pond zone(2ft to 3ft). (For example, 4 plant species may not all be placed at an 18ft water depth covering 25% of the pond zone.)

lawn area:

SOD LAWN AREAS SHALL BE KENTUCKY BLUE GRASS BLEND GRASS IN A SOD NURSERY ON LOAM SOIL. SOD TO BE INSTALLED ON MINIMUM 4" TOPSOIL.

SEEDED LAWN AREAS SHALL CONSIST OF THE FOLLOWING TYPES AND PROPORTIONS:

5% PERENNIAL RYE GRASS
10% RED FESCUE
25% CHEWING FESCUE
60% KENTUCKY BLUE GRASS

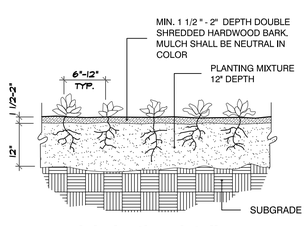
SEED MIX SHALL BE APPLIED AT A RATE OF 200 POUNDS PER ACRE AND WEED CONTENT SHALL NOT EXCEED 1% SEED. PROVIDE A MINIMUM 4" TOP SOIL ON ALL SEEDED LAWN AREA

5A sod, irrigation and seeding reference plan

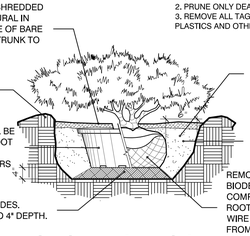
SCALE: 1" = 60'-0"

hatch pattern legend

- AREAS TO RECEIVE IRRIGATION AND SOD, MAINTAINED AND MOWED WEEKLY
- AREAS TO RECEIVE PRAIRIE SEED MIX. (NO MOWED AREA)
- AREAS TO RECEIVE LAWN SEEDING
- AREAS TO RECEIVE DETENTION POND SEED MIX

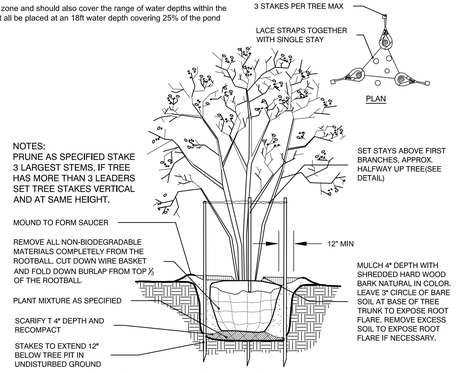


perennial planting detail
no scale

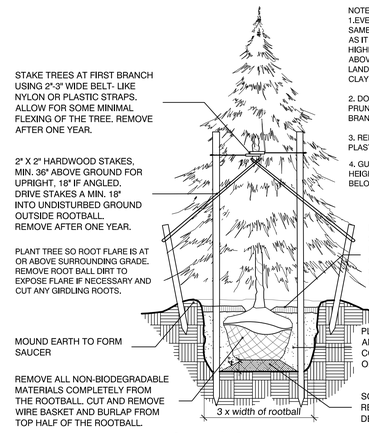


shrub planting detail
no scale

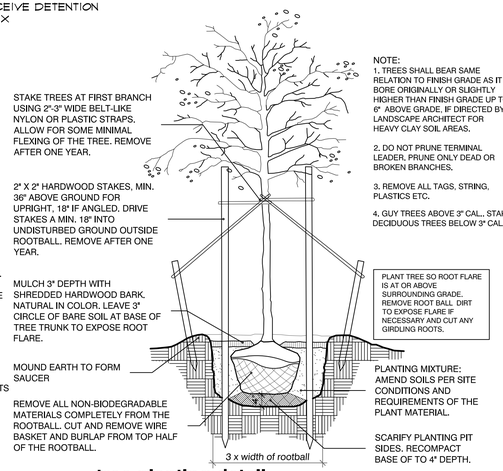
NOTE:
1. SHRUB SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 4" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.
2. PRUNE ONLY DEAD OR BROKEN BRANCHES.
3. REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS



multi-stem planting detail
no scale



evergreen planting detail
no scale



tree planting detail
no scale

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Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
Farmington Hills, MI 48336
ph. (248) 557-5588
fax. (248) 557-5416

seal:



client:

BURKHART MASON COMMUNITY LLC.
29350 Woodward Avenue Royal Oak, Michigan

project:

HERITAGE SQUARE
A PLANNED RESIDENTIAL COMMUNITY

project location:
Howell Township, Michigan
Burkhart Road & Mason Road

sheet title:

SOD AND SEEDING REFERENCE PLAN

job no./issue/revision date:

LS24.064.06	REVIEW	7-1-2024
LS24.064.09	SPA	9-19-2024
LS24.064.12	SPA	12-20-2024
LS26.054.04	TOWNSHIP COMMENTS	4-24-2026

drawn by: JP, DK
checked by: FP
date: 4-3-2026

notice:

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project no: LS26.054.04

sheet no: **LS-5** of 5



DENSITY AND UNIT COUNT

TOTAL SITE AREA: 92 ACRES

AREA CURRENTLY ZONED SFR: 26.8 AC (24.0 AC UPLAND)
AREA CURRENTLY ZONED MFR: 65.2 AC (44.4 AC UPLAND)

OPEN SPACE REQUIRED (27.07.E)
10% OF TOTAL LAND AREA EXCLUSIVE OF WATER SURFACES
10% * (68.4 ACRES UPLAND) = 6.84 ACRES

OPEN SPACES PROVIDED = 8.48 ACRES (11.9% OF UPLAND AREA)

ALLOWED DENSITY (27.07.A)

UPLAND AREA SFR = 24.0 ACRES
REDUCED 10% FOR REQUIRED OPEN SPACE = 21.6 ACRES
SFR = 3.0 UNITS/ACRE x 1.25 = 3 x 21.6 x 1.25 = 81 UNITS

UPLAND AREA MFR = 44.44 ACRES
REDUCED 10% FOR REQUIRED OPEN SPACE = 40 ACRES
MFR = 12 UNITS/ACRE x 1.25 = 12 x 40 x 1.25 = 600 UNITS

TOTAL ALLOWED UNITS = 681

UNITS PROPOSED

SINGLE FAMILY UNITS: 176 PROPOSED

MULTI-FAMILY UNITS: 288 PROPOSED
- (A) • 55 - 3 BR / 2 BA - RANCH STYLE TOWNHOMES
- (B) • 81 - 2 BR/ 2.5 BA - 2-STORY TOWNHOMES
- (C) • 40 - 1 BR / 1 BA - GARDEN STYLE APARTMENTS
- (D) • 112 - 3 BR / 2.5 BA - 2 STORY TOWNHOMES W/ GARAGE

3 - STORY SENIOR LIVING BUILDING - APPROX. 90 UNITS

TOTAL: 554 RESIDENTIAL UNITS

PHASING PLAN

SF PHASE 1 (2023)
SINGLE FAMILY UNITS: 46 HOMES

PHASE 2 (2024-2025)
SINGLE FAMILY UNITS: 30 HOMES

MF PHASE 2 (2024)
MULTI-FAMILY UNITS: 107 UNITS
- (A) 19 - 3 BR / 2 BA - RANCH STYLE TOWNHOMES
- (C) 40 - 1 BR / 1 BA - GARDEN STYLE APARTMENTS
- (D) 48 - 3 BR / 2.5 BA - 2 STORY TOWNHOMES W/ GARAGE

ALSO BUILD OUT CLUBHOUSE, MAIN ROADS, PARK, AND AMENITIES, AND SECOND WATER MAIN CONNECTION.

SF PHASE 3 (2026)
SINGLE FAMILY UNITS: 29 HOMES

MF PHASE 3 (2026)
MULTI-FAMILY UNITS: 100 UNITS
- (A) 36 - 3 BR / 2 BA - RANCH STYLE TOWNHOMES
- (D) 64 - 3 BR / 2.5 BA - 2 STORY TOWNHOMES W/ GARAGE

SF PHASE 4 (2027)
SINGLE FAMILY UNITS: 21 HOMES

MF PHASE 4 (2028)
MULTI-FAMILY UNITS: 81
- 81 - 2 BR/ 2.5 BA - 2-STORY TOWNHOMES

SF PHASE 5 (2028)(A)
SINGLE FAMILY UNITS: 23 HOMES

MF PHASE 5 (2026 - 2028) - ACTUAL BUILD YEAR TBD
3- STORY SENIOR LIVING BUILDING - APPROX. 90 UNITS

SF PHASE 6 (2029)
SINGLE FAMILY UNITS: 27 HOMES

DRAFT

PHASING PLAN – OVERVIEW

Site Plan_Pole Placements
Scale: 1 inch= 130 Ft.

DTE

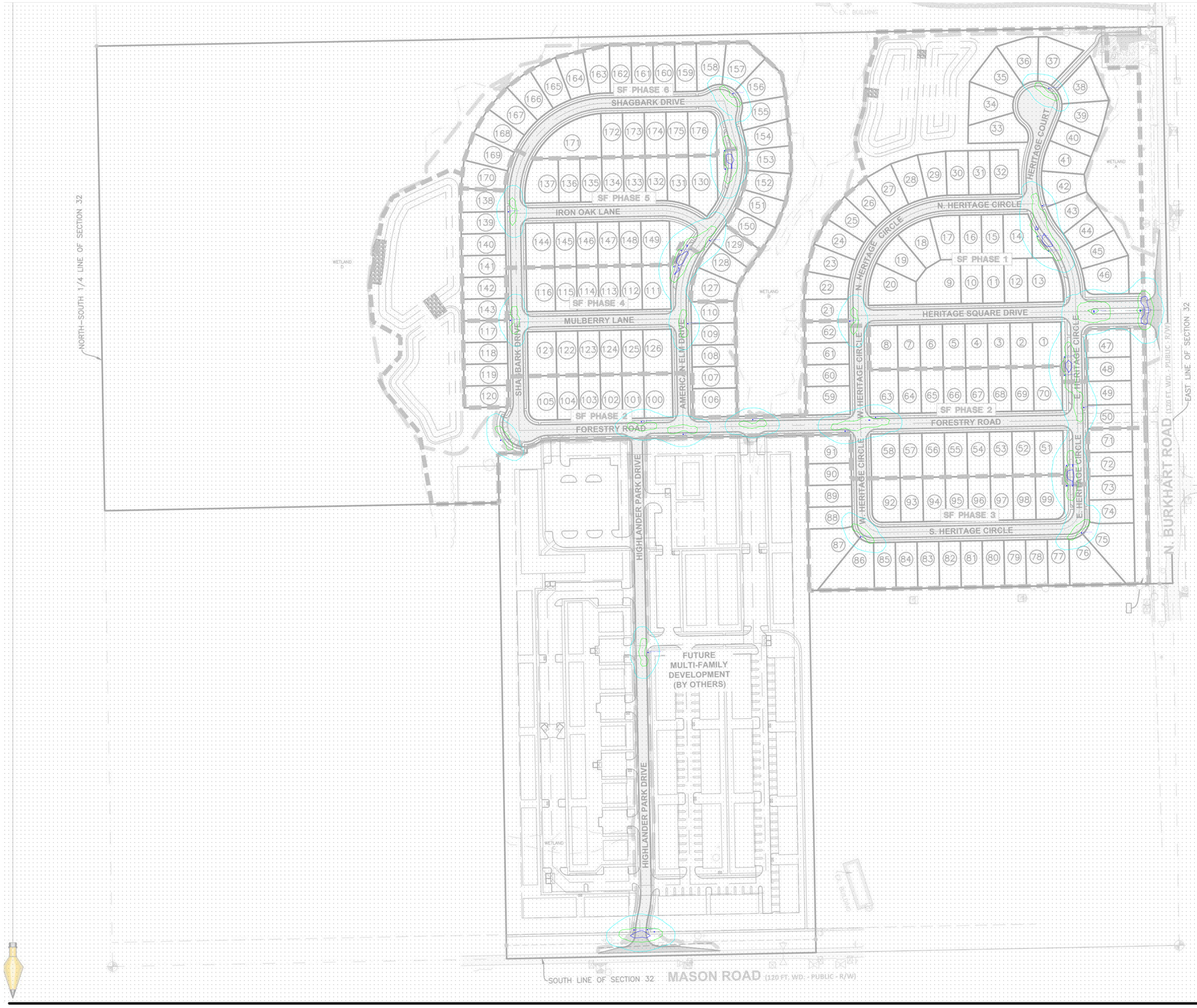
#	Date	Comments

Revisions

Drawn By: M. Valascho
Checked By:
Date: 9/16/2024
Scale:

Heritage Square Street Lighting Plan 4

DTE Community Lighting Group



DENSITY AND UNIT COUNT

TOTAL SITE AREA: 92 ACRES

AREA CURRENTLY ZONED SFR: 26.8 AC (24.0 AC UPLAND)
AREA CURRENTLY ZONED MFR: 65.2 AC (44.4 AC UPLAND)

OPEN SPACE REQUIRED (27.07.E)
10% OF TOTAL LAND AREA EXCLUSIVE OF WATER SURFACES
10% * (68.4 ACRES UPLAND) = 6.84 ACRES

OPEN SPACES PROVIDED = 8.48 ACRES (11.9% OF UPLAND AREA)

ALLOWED DENSITY (27.07.A)

UPLAND AREA SFR = 24.0 ACRES
REDUCED 10% FOR REQUIRED OPEN SPACE = 21.6 ACRES
SFR = 3.0 UNITS/ACRE x 1.25 = 3 x 21.6 x 1.25 = 81 UNITS

UPLAND AREA MFR = 44.44 ACRES
REDUCED 10% FOR REQUIRED OPEN SPACE = 40 ACRES
MFR = 12 UNITS/ACRE x 1.25 = 12 x 40 x 1.25 = 600 UNITS

TOTAL ALLOWED UNITS = 681

UNITS PROPOSED

SINGLE FAMILY UNITS: 176 PROPOSED

MULTI-FAMILY UNITS: 288 PROPOSED
- (A) • 55 - 3 BR / 2 BA - RANCH STYLE TOWNHOMES
- (B) • 81 - 2 BR/ 2.5 BA - 2-STORY TOWNHOMES
- (C) • 40 - 1 BR / 1 BA - GARDEN STYLE APARTMENTS
- (D) • 112 - 3 BR / 2.5 BA - 2 STORY TOWNHOMES W/ GARAGE

3 - STORY SENIOR LIVING BUILDING - APPROX. 90 UNITS

TOTAL: 554 RESIDENTIAL UNITS

PHASING PLAN

SF PHASE 1 (2023)
SINGLE FAMILY UNITS: 46 HOMES

PHASE 2 (2024-2025)
SINGLE FAMILY UNITS: 30 HOMES

MF PHASE 2 (2024)
MULTI-FAMILY UNITS: 107 UNITS
- (A) 19 - 3 BR / 2 BA - RANCH STYLE TOWNHOMES
- (C) 40 - 1 BR / 1 BA - GARDEN STYLE APARTMENTS
- (D) 48 - 3 BR / 2.5 BA - 2 STORY TOWNHOMES W/ GARAGE

ALSO BUILD OUT CLUBHOUSE, MAIN ROADS, PARK, AND AMENITIES, AND SECOND WATER MAIN CONNECTION.

SF PHASE 3 (2026)
SINGLE FAMILY UNITS: 29 HOMES

MF PHASE 3 (2026)
MULTI-FAMILY UNITS: 100 UNITS
- (A) 36 - 3 BR / 2 BA - RANCH STYLE TOWNHOMES
- (D) 64 - 3 BR / 2.5 BA - 2 STORY TOWNHOMES W/ GARAGE

SF PHASE 4 (2027)
SINGLE FAMILY UNITS: 21 HOMES

MF PHASE 4 (2028)
MULTI-FAMILY UNITS: 81
- 81 - 2 BR/ 2.5 BA - 2-STORY TOWNHOMES

SF PHASE 5 (2028 (A))
SINGLE FAMILY UNITS: 23 HOMES

MF PHASE 5 (2026 - 2028) - ACTUAL BUILD YEAR TBD
3- STORY SENIOR LIVING BUILDING - APPROX. 90 UNITS

SF PHASE 6 (2029)
SINGLE FAMILY UNITS: 27 HOMES

DRAFT

PHASING PLAN – OVERVIEW

Site Plan_Photometric Layout
Scale: 1 inch= 130 Ft.

DTE

#	Date	Comments

Revisions

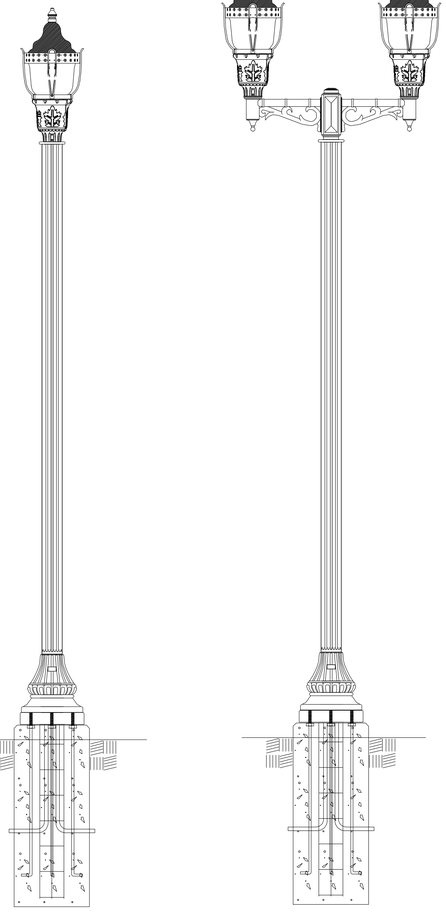
Drawn By: M. Valascho
Checked By:
Date: 9/16/2024
Scale:

Heritage Square Street Lighting Plan 4

DTE Community Lighting Group



Photometric Layout



Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Mounting Height
	1	39W LED_GVD3_FULL COVER_DUAL (0, 180)	Back-Back	14.9
	1	39W LED_GVD3_FULL COVER_DUAL (FWD)	Twin	14.9
	30	39W LED_GVD3_FULL COVER_SINGLE	Single	14

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall_Horizontal	Illuminance	Fc	0.01	1.7	0.0	N.A.	N.A.

Isoline Legend	
Illuminance (Fc)	
Color	Value
	0.1
	0.5
	1

DTE

Revisions

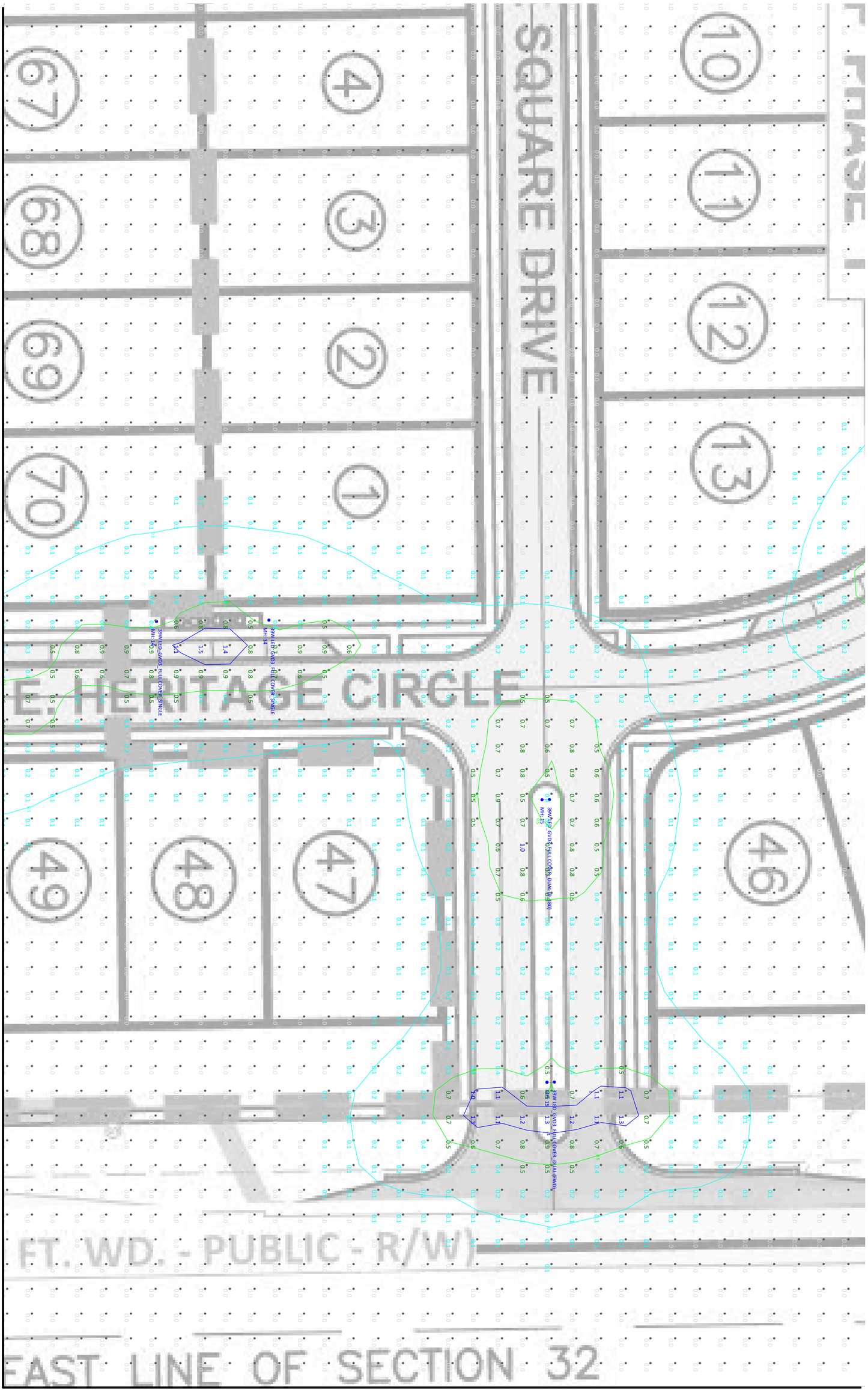
#	Date	Comments

Drawn By: M. Valascho
Checked By:
Date:9/16/2024
Scale:

Heritage Square Street Lighting Plan 4

DTE Community Lighting Group

Plan View 1



Heritage Square Street Lighting Plan 4	Drawn By: M. Valascho	Revisions	# / Date / Comments
	Checked By:		
DTE Community Lighting Group	Date:9/16/2024		
	Scale:		

Plan View 5

DTE

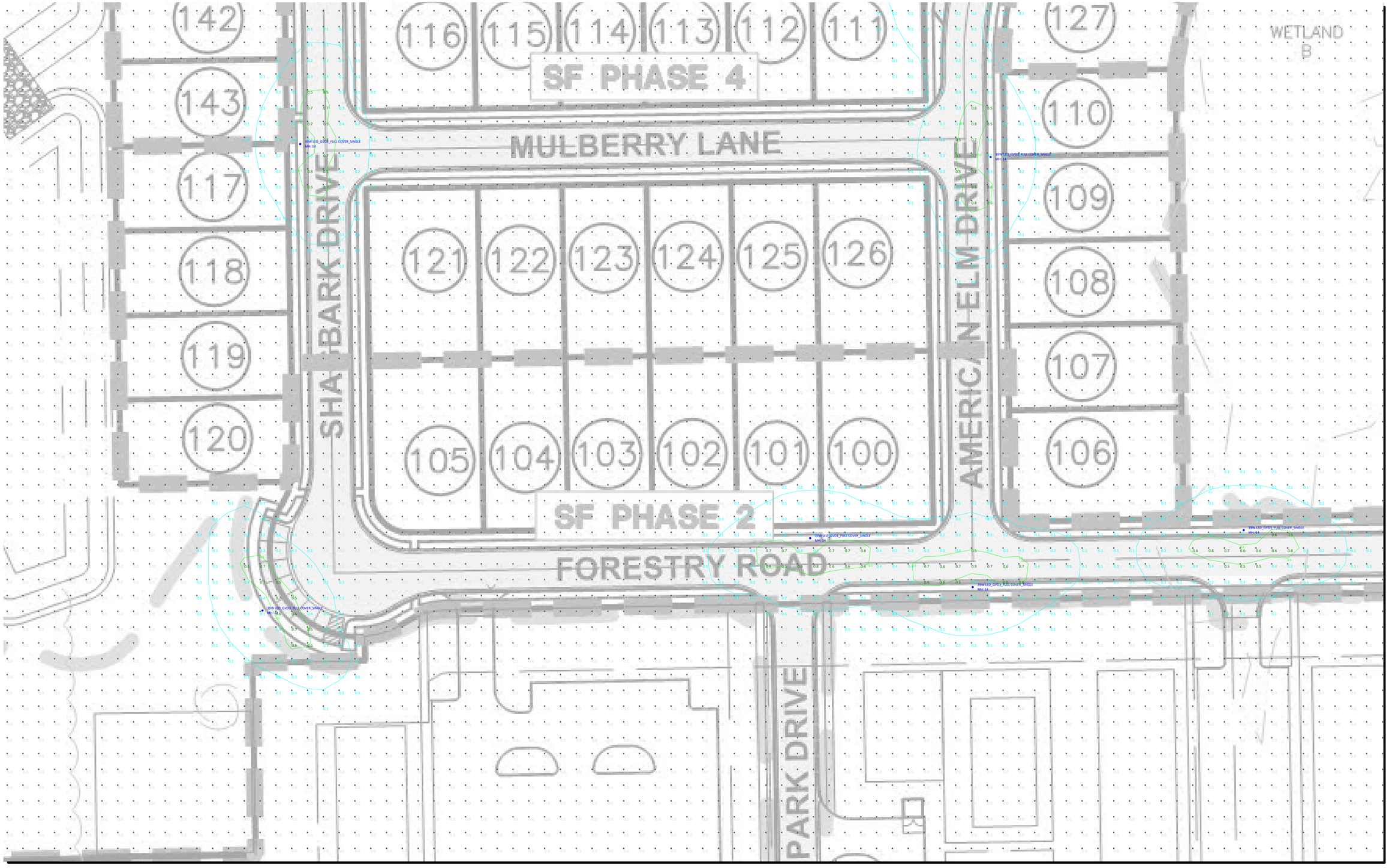
#	Date	Comments

Revisions

Drawn By: M. Valascho
Checked By:
Date:9/16/2024
Scale:

Heritage Square Street Lighting Plan 4

DTE Community Lighting Group



Plan View 6

DTE

#	Date	Comments

Revisions

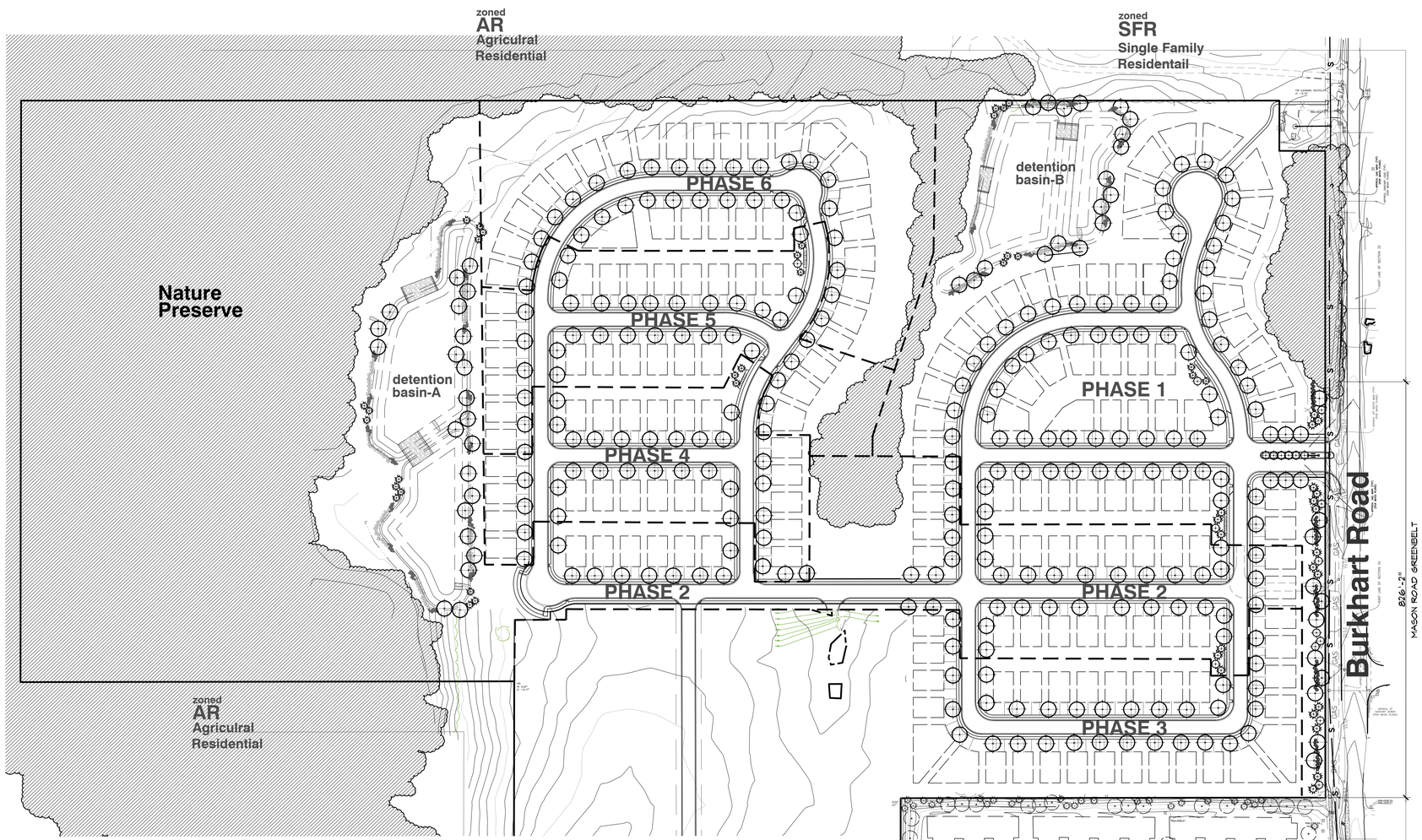
Drawn By: M. Valascho
Checked By:
Date:9/16/2024
Scale:

Heritage Square Street Lighting Plan 4

DTE Community Lighting Group

landscape note:

1. LANDSCAPE CONTRACTOR SHALL VISIT THE SITE, INSPECT EXISITNG CONDITIONS, REVIEW PROPOSED PLANTINGS AND RELATED WORK. CONTACT THE OWNER AND/OR LANDSCAPE ARCHITECT WITH ANY CONCERNS OR DISCREPANCY BETWEEN THE PLAN, PLANT MATERIAL LIST, AND/OR SITE CONDITIONS.
2. PRIOR TO BEGINNING OF CONSTRUCTION ON ANY WORK, CONTRACTORS SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES, GAS, ELECTRIC, TELEPHONE, CABLE TO BE LOCATED BY CONTACTING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COORDINATE ALL RELATED WORK ACTIVITIES WITH OTHER TRADES AND REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER PRIOR TO COMMENCING
3. NUMERICAL VALUE ON THE LANDSCAPE QUANTITIES SPECIFIED ON THE PLAN TAKE PRECEDENCE OVER GRAPHIC REPRESENTATION. VERIFY ANY CONCERN-DISCREPANCY WITH LANDSCAPE ARCHITECT.
4. ALL CONSTRUCTION AND PLANT MATERIAL LOCATION TO BE ADJUSTED ON SITE IF NECESSARY
5. ALL SUBSTITUTIONS OR DEVIATIONS FROM THE LANDSCAPE PLAN MUST BE APPROVED BY HOWELL TOWNSHIP AND LANDSCAPE ARCHITECT
6. ALL LARGE TREES AND EVERGREENS TO BE STAKED, GUYED AND WRAPPED AS DETAILED, SHOWN ON PLAN.
7. PLANT BEDS TO BE DRESSED WITH MIN. 4" OF FINELY DOUBLE SHREDDED HARDBARK MULCH.
8. DIG SHRUB PITS 1' LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2' LARGER THAN ROOT BALL. BACK FILL WITH ONE PART TOP SOIL AND ONE PART SOIL FROM EXCAVATED PLANTING HOLE.
9. NATURAL COLOR, FINELY SHREDDED HARDWOOD BARK MULCH REQUIRED FOR ALL PLANTINGS.
10. REMOVE ALL TWINE, WIRE AND BURLAP FROM TREE AND SHRUB EARTH BALLS, AND FROM TREE TRUNKS, 4" THICK BARK MULCH FOR TREES IN 4' DIA. CIRCLE WITH 3" PULLED AWAY FROM TRUNK, 4" THICK BARK MULCH FOR SHRUBS AND 4" THICK BARK MULCH FOR PERENNIALS.
11. PLANT MATERIAL QUALITY & INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.
12. ALL NEW AND DISTURBED LAWN AREAS TO RECEIVE SEEDING UNLESS NOTED OTHERWISE.
13. ALL PLANTING AREAS TO BE PREPARED WITH APPROPRIATE SOIL MIXTURES AND FERTILIZER BEFORE PLANT INSTALLATION.
14. PLANT TREES AND SHRUBS GENERALLY NO CLOSER THAN THE FOLLOWING DISTANCES FROM SIDEWALKS, CURBS AND PARKING STALLS:
    a). SHADE TREES _____ 5 FT.
    b). ORNAMENTAL AND EVERGREEN TREES (CRAB, PINE, SPRUCE, ETC.) _____ 10 FT.
    c). SHRUBS THAT ARE LESS THAN 1 FOOT TALL AND WIDE AT MATURITY _____ 2 FT.
15. NO TREES OR EVERGREENS TO BE INSTALLED OVER ANY PROPOSED OR EXISTING UTILITY LINES AS SHOWN ON THE OVERALL LANDSCAPE PLAN. SEE ENGINEERING PLANS FOR LOCATION AND DETAILS.
16. ALL LAWN AREAS AND LANDSCAPE BEDS TO BE FULLY IRRIGATED WITH AN AUTOMATIC UNDERGROUND SYSTEM. IRRIGATION SYSTEM TO HAVE SEPARTE ZONES FOR LAWN AREAS, PARKING ISLANDS, AND SHRUB BEDS WITH DIFFERENT CONTROL MOISTURE LEVEL ADJUSTMENT PER ZONE AS REQUIRED
17. UNLESS NOTED OTHERWISE, LANDSCAPE BEDS ADJACENT TO LAWN TO RECIEVE EDGING. EDGING SHALL BE 4" X 1/8" METAL (FINISH BLACK OR GREEN) OR APPROVED EQUAL AND TO BE INSTALLED WITH HORIZONTAL METAL STAKES AT 32" O.C. OR PER MANUFACTERER'S SPECIFICATION.
18. ALL NEW PARKING ISLANDS AND LANDSCAPE BEDS ADJACENT AND NEXT TO BUILDING SHALL BE EXCAVATED OF ALL BUILDING MATERIALS AND POOR SOILS A MIN. OF 16"-18" DEPTH. BACK FILL WITH GOOD, MEDIUM TEXTURED PLANTING SOILS, ADD A MIN. 4" OF TOPSOIL OVERFILL TO FINISH GRADE. PROVIDE POSITIVE DRAINAGE.
19. WATERING OF ALL PLANTS AND TREES TO BE PROVIDED IMMEDIATELY AND MULCHING WITHIN 24 HOURS AFTER INSTALLATION.
20. ALL TREE PITS TO BE TESTED FOR PROPER DRAINAGE PRIOR TO TREE PLANTING. PROVIDE APPROPRIATE DRAINAGE SYSTEM AS REQUIRED IF THE TREE PIT DOES NOT DRAIN SUFFICIENTLY.
21. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPE PLANT MATERIALS AND IRRIGATION INSTALLATION FOR A PERIOD OF TWO YEAR BEGINNING AFTER THE COMPLETION OF LANDSCAPE INSTALLTION DATE APPROVED BY THE CITY OR LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE DURING AND AT THE END OF THE GUARANTEE PERIOD, ANY DEAD OR UNACCEPTABLE PLANTS, AS DETERMINED BY THE TOWNSHIP OR LANDSCAPE ARCHITECT, WITHOUT COST TO THE OWNER.



sheet index

LS-1 OVERALL LANDSCAPE PLAN VIEW
LS-2 PLANTING DETAIL PLAN (SINGLE FAMILY)
LS-3 PLANTING DETAIL PLAN (SINGLE FAMILY)
LS-4 PLANTING DETAIL PLAN (DETENTION POND)
LS-5 PLANTING DETAIL PLAN (SOD AND SEEDING)

landscape requirement summary

Burkhart Road Frontage Landscape

	REQUIRED	PROVIDED
TOTAL LIN.FT. OF BURKART ROAD GREENBELT 746' ± (826 LIN.FT. OF BURKHART ROAD LESS 80' ACCESS ROAD)		
ONE (1) CANOPY OR EVERGREEN TREE PER 40' (746' / 40' PER TREE= 18.65 TREES)	19	26
ONE (1) ORNAMENTAL TREE PER 100' (746' / 100' PER TREE= 7.4 TREES)	8	8
EIGHT (8) SHRUB PER 40' (746' / 40' PER 8-SHRUBS= 18.65 X 8=149.2 SHURBS)	149	208

blvd. island divider median

	REQUIRED	PROVIDED
TOTAL LIN.FT. OF BLVD. ISLAND 146' ±		
ONE (1) CANOPY OR EVERGREEN TREE PER 30' (146' / 30' PER TREE= 4.86 TREES)	5	6

detention pond B

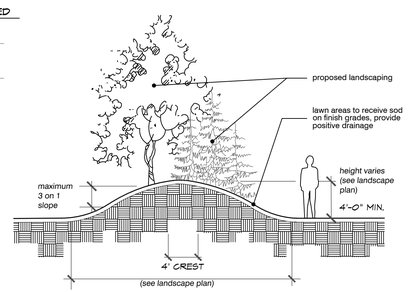
	REQUIRED	PROVIDED
TOTAL LIN.FT. OF A POND 1,230' ±		
ONE (1) CANOPY OR EVERGREEN TREE PER 50' (1230' / 50' PER TREE= 24.6 TREES)	25	25
TEN (10) SHRUB PER 50' (1230' / 50' = 24.6 X 10= 246 SHURBS)	246	246

detention pond A

	REQUIRED	PROVIDED
TOTAL LIN.FT. OF A POND 1793' ±		
ONE (1) CANOPY OR EVERGREEN TREE PER 50' (1793' / 50' PER TREE= 35.86 TREES)	36	36
TEN (10) SHRUB PER 50' (1793' / 50' = 35.86 X 10= 358.6 SHURBS)	359	359

open space landscape

	REQUIRED	PROVIDED
TOTAL SQ.FT. OF OPEN AREA 261,796' ±		EXISTING TREES SAVE
ONE (1) CANOPY OR EVERGREEN TREE PER 3000 SQ.FT (261,796' / 3000 SQ.FT PER TREE= 87.3 TREES)	87	



berm planting detail
no scale

landscape maintenance notes:

LANDSCAPE MAINTENANCE PROCEDURES AND FREQUENCIES TO BE FOLLOWED SHALL BE SPECIFIED ON THE LANDSCAPE PLAN, ALONG WITH THE MANNER IN WHICH THE EFFECTIVENESS, HEALTH AND INTENDED FUNCTIONS OF THE VARIOUS LANDSCAPE AREAS ON THE SITE WILL BE ENSURED.

1. LANDSCAPING SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION, FREE FROM DEBRIS AND REFUSE.

2. PRUNING SHALL BE MINIMAL AT THE TIME OF INSTALLATION, ONLY TO REMOVE DEAD OR DISEASED BRANCHES. SUBSEQUENT PRUNING SHALL ASSURE PROPER MATURATION OF PLANTS TO ACHIEVE THEIR APPROVED PURPOSE.

3. ALL DEAD OR DISEASED PLANT MATERIAL SHALL BE REMOVED AND REPLACED WITHIN SIX (6) MONTHS AFTER IT DIES OR IN THE NEXT PLANTING SEASON, WHICHEVER OCCURS FIRST. THE PLANTING SEASON FOR DECIDUOUS PLANTS SHALL BE BETWEEN MARCH 15 AND NOVEMBER 15 OR UNTIL THE PREPARED SOIL BECOMES FROZEN. THE PLANTING SEASON FOR EVERGREEN 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.

landscape plan for:

"Heritage Square"

a planned residential community
Howell Township, Michigan

note:
conceptual landscape plan for inspection purposes only and in no way official or approved for construction.

north

scale: 0' 100' 200' 400' 600'
1" = 200'- 0"

FELINO A. PASCUAL and ASSOCIATES
Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
Farmington Hills, MI 48336
ph. (248) 557-5388
fax. (248) 557-5416

seal:
STATE OF MICHIGAN — FELINO A. PASCUAL — LANDSCAPE ARCHITECT — No. 1433 — REGISTERED LANDSCAPE ARCHITECT

client:
BURKHART MASON COMMUNITY LLC.
29350 Woodward Avenue Royal Oak, Michigan

project:
HERITAGE SQUARE
A PLANNED RESIDENTIAL COMMUNITY

project location:
Howell Township, Michigan
Burkhart Road & Mason Road

sheet title:
OVERALL LANDSCAPE PLAN VIEW

job no./issue/revision date:

LS24.064.06	REVIEW	7-1-2024
LS24.064.09	SPA	9-19-2024
LS24.064.12	SPA	12-20-2024
LS26.054.04	TOWNSHIP COMMENTS	4-24-2026
LS26.054.05	TOWNSHIP COMMENTS	5-26-2026

drawn by: JP, DK
checked by: FP
date: 4-3-2026

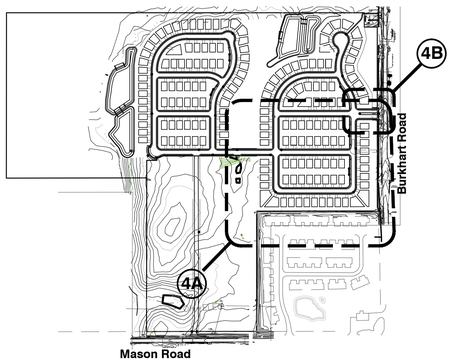
notice:

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3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171
For free location of public utility lines
The location and elevations of existing underground utilities as shown on this drawing are only approximate. no guarantee is either expressed or implied as to the completeness of accuracy. contractor shall be exclusively responsible for determining the exact location and elevation prior to the start of construction

project no: LS26.054.04

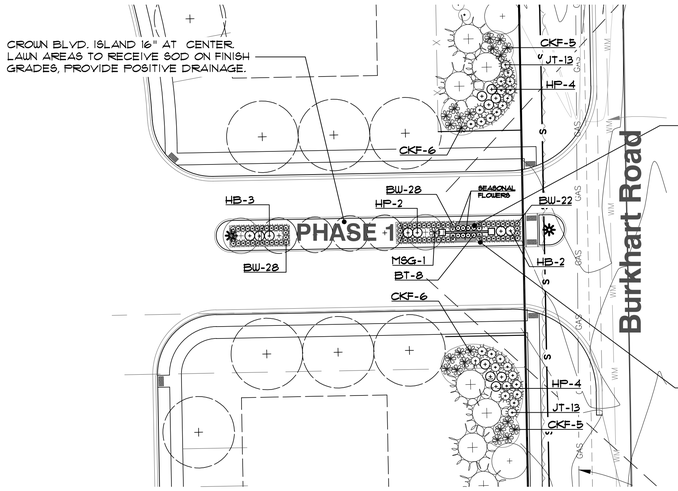
sheet no: **LS-1** of 5



north

key reference location map

NO SCALE

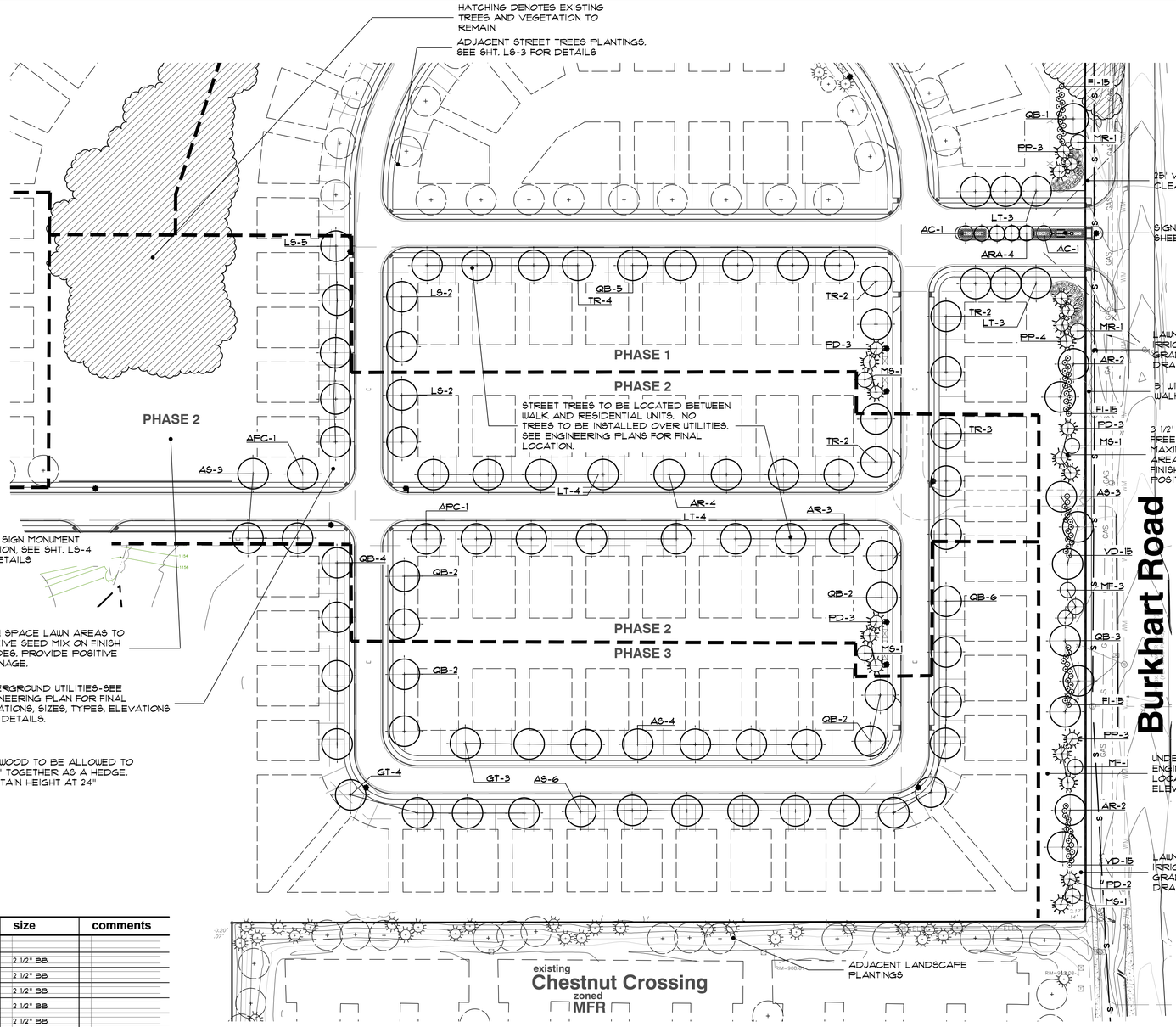


2B entrance landscape planting detail (PHASE-1)

SCALE: 1" = 30'-0"

plant material list

key	quant. 2A Phase 1	quant. 2A Phase 2	quant. 2A Phase 3	quant. 2B Phase 1	botanical name	common name	size	comments
					DECIDUOUS TREES			
GT	-	-	7	-	GLEDITSIA TRI. INERMIS 'SKYCOLE'	SKYLINE LOCUST	2 1/2" BB	
AS	3	3	10	-	ACER SACCHARUM	SUGAR MAPLE	2 1/2" BB	
AR	4	7	-	-	ACER RUBRUM	RED MAPLE	2 1/2" BB	
ARA	4	-	-	-	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	2 1/2" BB	
QB	9	4	14	-	QUERCUS BI-COLOR	WHITE SWAMP OAK	2 1/2" BB	
APC	-	2	-	-	ACER P. 'CRIMSON KING'	CRIMSON KING NORWAY MAPLE	2 1/2" BB	
LT	6	8	-	-	LIRIODENDRON TULIPIFERA	TULIPTREE	2 1/2" BB	
LS	2	7	-	-	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2 1/2" BB	
TR	8	5	-	-	TILIA AMERICANA 'REDMOND'	REDMOND LINDEN	2 1/2" BB	
AC	2	-	-	-	AMELANCHIER X 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	8' BB	MULTI-STEM
MF	4	-	-	-	MALUS FLORIBUNDA	JAPANESE FLOWERING CRABAPPLE	2" BB	
MB	1	1	1	-	MALUS SNOWDRIFT	SNOWDRIFT CRABAPPLE	2" BB	
MR	2	-	-	-	MALUS RED BARRON	RED BARRON CRABAPPLE	2" BB	
					EVERGREEN TREES			
PP	10	-	-	5	PICEA PUNGENS	COLORADO GREEN SPRUCE	8' BB	
PD	8	3	-	-	PICEA GLAUCA 'DENSATA'	BLACK HILL SPRUCE	8' BB	
					SHRUBS			
BW	-	-	-	78	BUXUS 'GREEN VELVET'	GREEN VELVET BOXWOOD	18" CONT.	24" O.C. SPACING
FI	45	45	-	-	FORSYTHIA INTERMEDIA	BORDER FORSYTHIA	3' CONT.	60" O.C. SPACING
VD	30	30	-	-	VIBURNAM DENTATUM 'SYNNESTVEDT'	CHICAGO LUSTRE ARROWWOOD VIBURNUM	3' CONT	60" O.C. SPACING
JT	-	-	-	26	JUNIPERUS S. 'TAMARISAFOLIA'	TAM'S JUNIPER	48" CONT	42" O.C. SPACING
HB	-	-	-	5	HYDRANGEA PANICULATA 'BOBO'	BOBO PANICLE HYDRANGEA	36" CONT	42" O.C. SPACING
HP	-	-	-	8	HYDRANGEA PANICULATA 'BULK'	QUICK FIRE HYDRANGEA	36" CONT	42" O.C. SPACING
BT	-	-	-	8	BERBERIS T. 'CRIMSON PYGMY'	CRIMSON PYGMY JAPANESE BARBERRY	18" CONT	24" O.C. SPACING
CKF	-	-	-	22	CALAMAGROTIS ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	#3 CONT	36" O.C. SPACING
MSG	-	-	-	2	MISCANTHUS 'GRACILLIMUS'	MAIDEN GRASS	#5 CONT	48" O.C. SPACING



2A landscape planting detail

SCALE: 1" = 60'-0"

planting landscape notes:

GENERAL NOTES:

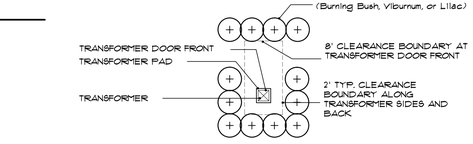
1. PLANT MATERIALS TO BE INSTALLED ACCORDING TO THE HOWELL TOWNSHIP AND CURRENT AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARDS.
2. PLANT MATERIALS TO BE GUARANTEED FOR 2 YEARS. REPLACE FALLING MATERIAL WITHIN 1 YEAR, OR THE NEXT APPROPRIATE PLANTING PERIOD.
3. PLANT MATERIALS TO BE OF PREMIUM QUALITY, NO. 1 GRADE NORTHERN NURSURY GROWN, IN HEALTHY CONDITION, FREE OF PESTS AND DISEASES.
4. MULCH IS TO BE NATURAL COLORED, FINELY SHREDDED HARDWOOD BARK OF 4" THICK BARK MULCH FOR TREES IN 4' DIA. CIRCLE W/3" PULLED AWAY FROM TRUNK, 3" THICK BARK MULCH FOR SHRUBS AND 2" THICK BARK MULCH FOR PERRENIALS.
5. CALL MISS DIG AT 1-800-482-7171 PRIOR TO ANY CONSTRUCTION.

DECIDUOUS & EVERGREEN TREE:

1. TREE SHALL BE INSTALLED SAME RELATIONSHIP TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 6" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.
2. DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
3. REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSLIGHTLY AND COULD CAUSE GIRDLING.
4. REMOVE TREE STAKES, GUY WIRES AND TREE WRAP AFTER ONE WINTER SEASON.
5. SHRUB SHALL BE INSTALLED SAME RELATIONSHIP TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 4" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.
6. DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.
7. REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSLIGHTLY AND COULD CAUSE GIRDLING.

Burkhart Road Frontage Landscape

	REQUIRED	PROVIDED
TOTAL LIN.FT. OF BURKART ROAD GREENBELT 746' ±		
(826 LIN.FT. OF BURKHART ROAD LESS 80' ACCESS ROAD)		
ONE (1) CANOPY OR EVERGREEN TREE PER 40' (746' / 40' PER TREE= 18.65 TREES)	19	26
ONE (1) ORNAMENTAL TREE PER 100' (746' / 100' PER TREE= 7.4 TREES)	8	8
EIGHT (8) SHRUB PER 40' (746' / 40' PER 8-SHRUBS= 18.65 X 8=149.2 SHURBS)	149	208



transformer pad planting detail

SCALE 1"=20'-0"

A MINIMUM OF 2' SEPARATION BETWEEN TRANSFORMER AND FULL GROWN SHRUBS AND TREES. GROUND COVERS ALLOWED UP TO TRANSFORMER PAD IF MAINTAINED BELOW 4" FULL GROWTH. IF TRANSFORMER FACES TOWARDS THE HOUSE, THEN THE SAME CONDITIONS EXIST. NO FULL GROWTH IN FRONT OF THE TRANSFORMER FOR AT LEAST A MINIMUM OF 8'. THERE ARE NO WAIVERS GRANTED TO THE ABOVE CONDITION. DETAIL PER THE DETROIT EDISON COMPANY-SERVICE PLANNING DEPARTMENT (9-17-98)

SEE ENGINEERING PLANS FOR PROPOSED LOCATIONS, TOTAL NUMBER OF TRANSFORMERS AND FINAL LOCATION PER DETROIT EDISON REQUIREMENTS.

FPA
FELINO A. PASCUAL and ASSOCIATES
Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
Farmington Hills, MI 48336
ph. (248) 557-5588
fax. (248) 557-5416

seal:

STATE OF MICHIGAN — FELINO A. PASCUAL — LANDSCAPE ARCHITECT — No. 4331 — REGISTERED LANDSCAPE ARCHITECT

client:

BURKHART MASON COMMUNITY LLC.
29350 Woodward Avenue Royal Oak, Michigan

project:

HERITAGE SQUARE
A PLANNED RESIDENTIAL COMMUNITY

project location:
Howell Township, Michigan
Burkhart Road & Mason Road

sheet title:

CONCEPTUAL LANDSCAPE PLAN

job no./issue/revision date:

LS24.064.06	REVIEW	7-1-2024
LS24.064.09	SPA	9-19-2024
LS24.064.12	SPA	12-20-2024
LS26.054.04	TOWNSHIP COMMENTS	4-24-2026
LS26.054.05	TOWNSHIP COMMENTS	5-26-2026

drawn by: JP, DK

checked by: FP

date: 4-3-2026

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project no: LS26.054.04

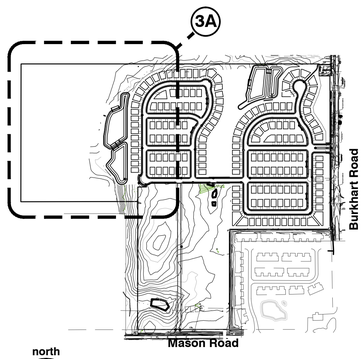
sheet no: **LS-2** of 5

UNDERGROUND UTILITIES -SEE ENGINEERING PLAN FOR FINAL LOCATIONS, SIZES, TYPES, ELEVATIONS AND DETAILS.

OPEN SPACE LAWN AREAS TO RECEIVE SEED MIX ON FINISH GRADES. PROVIDE POSITIVE DRAINAGE.

OPEN SPACE LAWN AREAS TO RECEIVE LAWN SEED MIX ON FINISH GRADES. PROVIDE POSITIVE DRAINAGE.

SEE SHT. LS-4 FOR PROPOSED DETENTION BASIN LANDSCAPE PLANTINGS



north

key reference location map

NO SCALE

Pond-A

PHASE 6

PHASE 5

PHASE 4

PHASE 2

PHASE 1

STREET TREES TO BE LOCATED BETWEEN WALK AND RESIDENTIAL UNITS. NO TREES TO BE INSTALLED OVER UTILITIES. SEE ENGINEERING PLANS FOR FINAL LOCATION.

Nature Preserve

OPEN SPACE LAWN AREA TO RECEIVE LAWN SEED MIX ON FINISH GRADES. PROVIDE POSITIVE DRAINAGE.

SEE SHT. LS-4 FOR PROPOSED DETENTION BASIN LANDSCAPE PLANTINGS

3A landscape planting detail

SCALE: 1" = 60'-0"

plant material list

key	quant. 3A Phase 1	Phase 2	Phase 4	Phase 5	Phase 6	botanical name	common name	size	comments
						CANOPY TREES			
GT	12	-	5	4	-	GLEDITSIA TRI. INERMIS 'SKYCOLE'	SKYLINE LOCUST	2 1/2" BB	
AS	11	5	-	-	6	ACER SACCHARUM	SUGAR MAPLE	2 1/2" BB	
AR	5	-	8	-	-	ACER RUBRUM	RED MAPLE	2 1/2" BB	
QB	5	3	8	1	10	QUERCUS BI-COLOR	WHITE SWAMP OAK	2 1/2" BB	
APC	-	2	-	2	-	ACER P. 'CRIMSON KING'	CRIMSON KING NORWAY MAPLE	2 1/2" BB	
LT	7	-	-	10	-	LIRIODENDRON TULIPIFERA	TULIPTREE	2 1/2" BB	
TR	12	-	-	2	11	TILIA AMERICANA 'REDMOND'	REDMOND LINDEN	2 1/2" BB	
AF	-	-	2	6	4	ACER P. 'CRIMSON KING'	AUTUMN BLAZE RED MAPLE	2 1/2" BB	
LS	-	1	8	8	-	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2 1/2" BB	
MF	1	-	-	1	-	MALUS FLORIDBUNDA	JAPANESE FLOWERING CRABAPPLE	2" BB	
						EVERGREEN TREES			
PP	3	-	3	3	-	PICEA PUNGENS	COLORADO GREEN SPRUCE	8' BB	

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Community Land Planner and registered Landscape Architect

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Farmington Hills, MI 48336
ph. (248) 557-5588
fax. (248) 557-5416

seal:

STATE OF MICHIGAN — FELINO A. PASCUAL — LANDSCAPE ARCHITECT — No. 4337 — REGISTERED LANDSCAPE ARCHITECT

client:

BURKHART MASON COMMUNITY LLC.
29350 Woodward Avenue Royal Oak, Michigan

project:

HERITAGE SQUARE
A PLANNED RESIDENTIAL COMMUNITY

project location:
Howell Township, Michigan
Burkhart Road & Mason Road

sheet title:

LANDSCAPE PLANTING DETAIL

job no./issue/revision date:

LS24.064.06	REVIEW	7-1-2024
LS24.064.09	SPA	9-19-2024
LS24.064.12	SPA	12-20-2024
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drawn by: JP, DK

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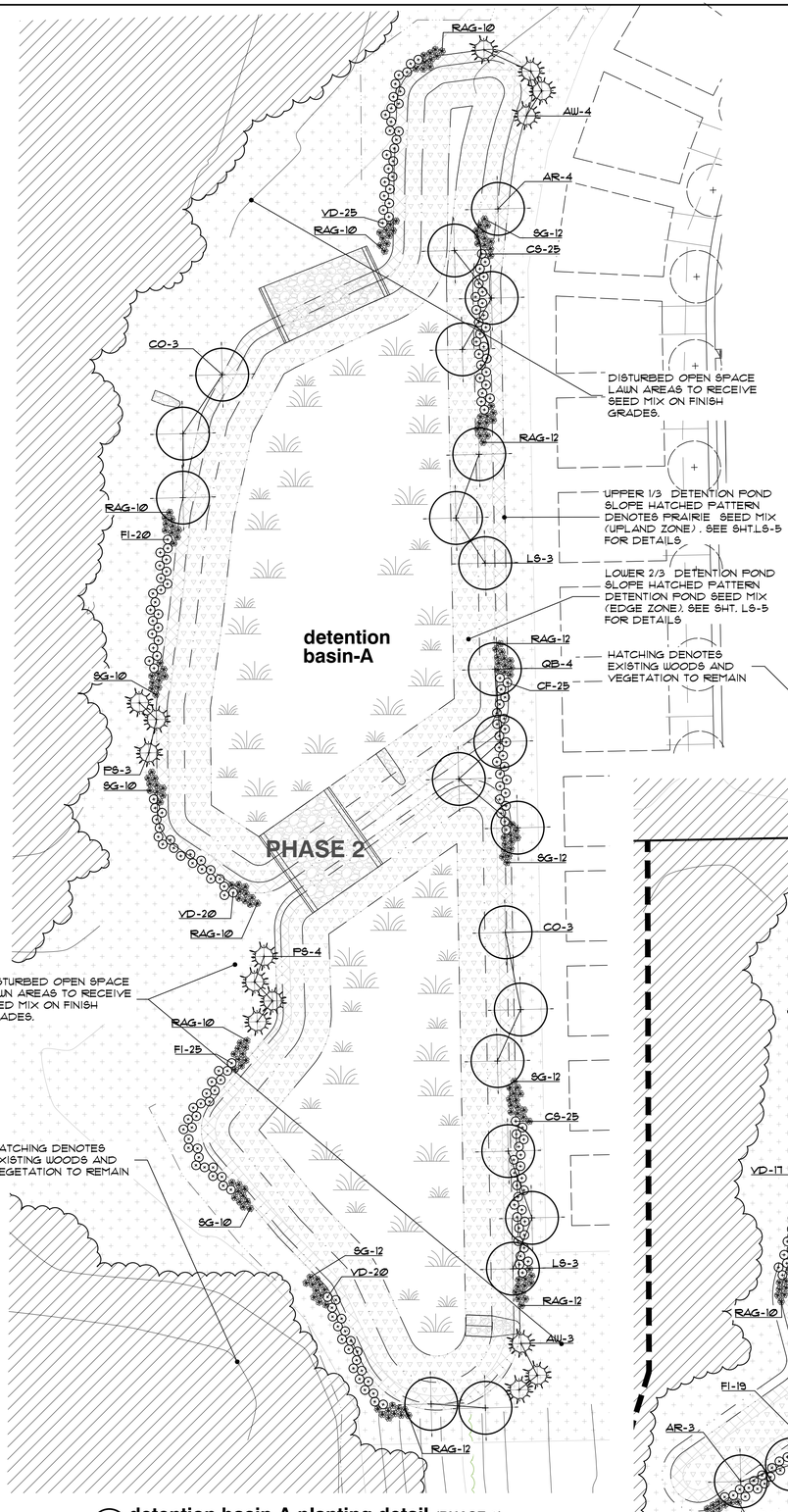
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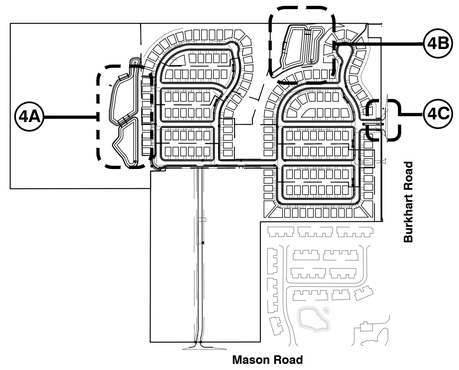
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project no: LS26.054.04

sheet no: **LS-3** of 5



4A **detention basin-A planting detail** (PHASE-2)
SCALE: 1" = 40'-0"



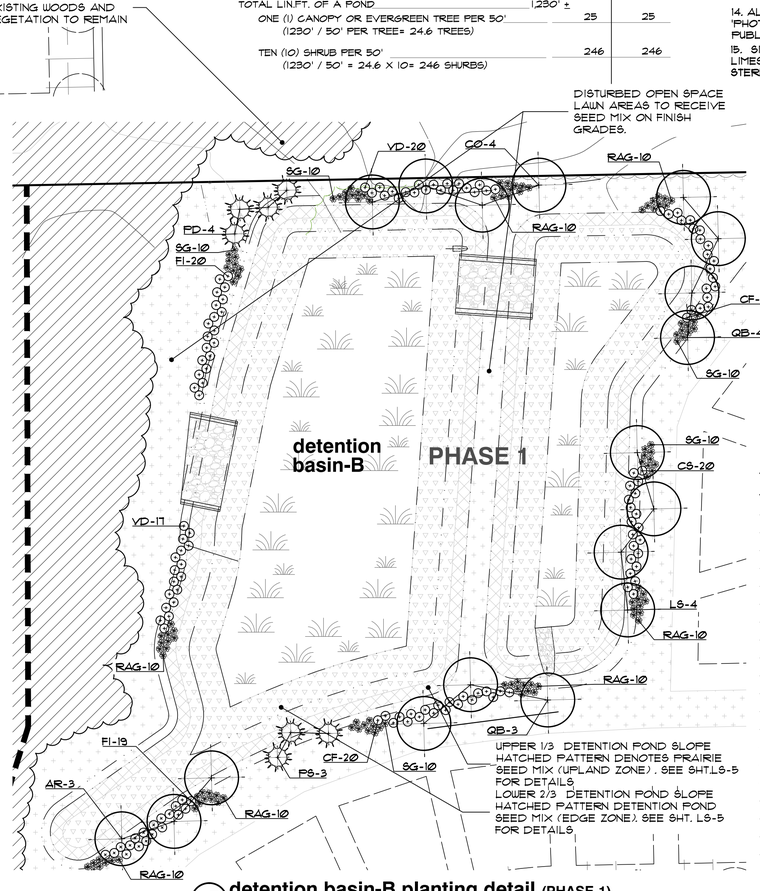
north

key reference location map
NO SCALE

detention landscape requirements

detention pond A	REQUIRED	PROVIDED
TOTAL LIN.FT. OF A POND 1793' ±		
ONE (1) CANOPY OR EVERGREEN TREE PER 50' (1793' / 50' PER TREE= 35.86 TREES)	36	36
TEN (10) SHRUB PER 50' (1793' / 50' = 35.86 X 10= 358.6 SHURBS)	359	359

detention pond B	REQUIRED	PROVIDED
TOTAL LIN.FT. OF A POND 1,230' ±		
ONE (1) CANOPY OR EVERGREEN TREE PER 50' (1230' / 50' PER TREE= 24.6 TREES)	25	25
TEN (10) SHRUB PER 50' (1230' / 50' = 24.6 X 10= 246 SHURBS)	246	246



4B **detention basin-B planting detail** (PHASE-1)
SCALE: 1" = 40'-0"

entry monument notes:

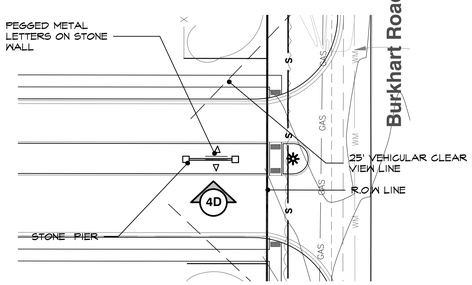
1. ALL INFORMATION CONTAINED HEREIN IS SUBJECT TO APPROVAL, AND PERMITS TO BE OBTAINED PRIOR TO CONSTRUCTION FROM ALL NECESSARY AGENCIES.
2. CONTRACTOR SHALL VISIT THE SITE, INSPECT EXISTING CONDITIONS, REVIEW PROPOSED PLANS AND RELATED WORK , CONTACT THE OWNER WITH ANY CONCERNS OR DISCREPANCY BETWEEN THE PLANS AND/OR SITE CONDITIONS.
3. PRIOR TO BEGINNING OF CONSTRUCTION ON ANY WORK, CONTRACTORS SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES. GAS, ELECTRIC, TELEPHONE, CABLE , ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR . COORDINATE ALL RELATED WORK ACTIVITIES WITH OTHER TRADES AND REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER PRIOR TO COMMENCING. CONTACT MISS DIG AT 811 OR 800 -482-7171 BEFORE YOU DIG
4. DO NOT SCALE DRAWING. USE FIGURED DIMENSIONS ONLY
5. VERIFY SOIL BEARING CAPACITY PRIOR TO ANY POST FOOTING CONSTRUCTION. IF SOIL BEARING CAPACITY FALLS BELOW STANDARD REQUIREMENTS, CONSULT STRUCTURAL ENGINEER FOR RECOMMENDATION OF FINAL POST FOOTING DESIGN.
6. GRADES BY OTHERS, FINAL GRADES TO PROVIDE POSITIVE DRAINAGE
7. FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED SOIL WITH AN ASSUMED SAFE BEARING CAPACITY OF 2000 P.S.I. IF SOIL OF THIS CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, FOOTINGS SHALL BE ENLARGED OR LOWERED AT THE DIRECTION OF THE ARCHITECT. VERIFY FOUNDATION SOIL BEARING PRESSURE IN FIELD BY SOILS ENGINEER.
8. PROVIDE NECESSARY SHEETING SHORING BRACING, ETC. AS REQUIRED DURING EXCAVATIONS TO PROTECT SIDES OF EXCAVATIONS.
9. MINIMUM CONCRETE STRENGTH TO BE 3000 P.S.I. @ 28 DAYS. U.O.N.: SLABS SHALL BE 3500 P.S.I. MIN. U.O.N.: EXPOSED CONCRETE SHALL BE 4000 P.S.I. WITH 6% ± 1% ENTRAINED AIR U.O.N.
10. ALL CONCRETE WORK AND PLACEMENT SHALL CONFORM TO THE LATEST RECOMMENDATIONS OF A.C.I.
11. PROVIDE DOWELS INTO FOUNDATION TO MATCH SIZE AND SPACING OF VERTICAL REINFORCEMENT AT ALL WALLS, UNLESS OTHERWISE NOTED.
12. PROVIDE MINIMUM 3" CONCRETE COVER FOR REINFORCEMENT BARS BELOW GRADE AND MINIMUM 2" CONCRETE COVER FOR REINFORCEMENT BARS ABOVE GRADE.
13. LOCATE AND STAKE ALL EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION. COORDINATE ANY ADJUSTMENTS WITH ARCHITECT.
14. ALL ENTRY WALL LIGHTING SHALL BE CONTROLLED WITH A 'PHOTO-EYE' SWITCH. ALL LIGHTING SHALL BE SHIELDED FROM PUBLIC R.O.W.'S AND ADJACENT PROPERTIES.
15. SIGN TEXT AND LOGO TO BE PAINTED METAL LOGO/LETTER ON LIMESTONE STONE, PERMITS TO BE OBTAINED PER CITY OF STERLING HIEGHTS REQUIREMENTS AND APPROVALS.

signage uplighting

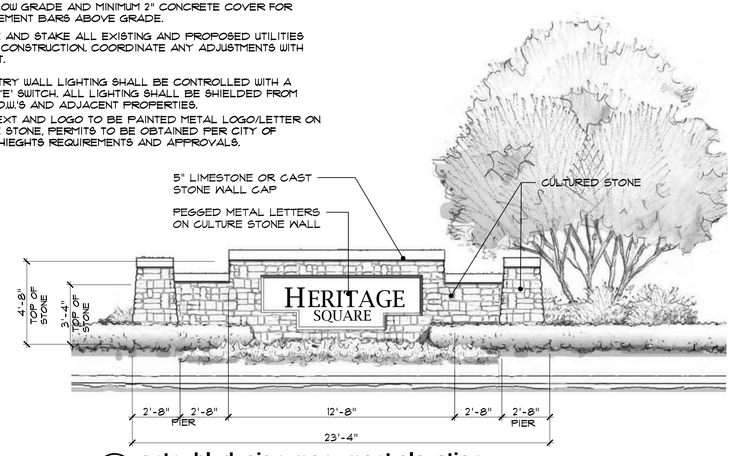
SIGNAGE UPLIGHTING MANUFACTURED BY HYDREL , MODEL NO. 4799
20660 NORDHOFF STREET, SUITE B
CHATSWORTH, CA 91311
WEB SITE : www.HYDREL.COM
PHONE: 866-533-9901
FAX: 866533-5291
FINISH SELECTION : BRONZE

NOTE:
LIGHT TO BE SHIELD FROM PUBLIC R.O.W. AND LAMPS SHALL NOT BE VISIBLE FROM NORMAL VIEWING ANGLES





4C **conceptual entry site plan** (PHASE-1)
SCALE: 1" = 30'-0"



4D **entry blvd. sign monument elevation**
SCALE: 1/4"=1'-0"

plant material list

key	quant. 4A Phase 2	quant. 4B Phase 1	botanical name	common name	size	comments
			TREES			
CO	6	4	CELTIS OCCIDENTALIS	HACKBERRY	2 1/2" BB	
AR	4	3	ACER R. 'FRANKSRED'	RED SUNSET RED MAPLE	2 1/2" BB	
LS	6	4	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	2 1/2" BB	
QB	6	7	QUERCUS BI-COLOR	WHITE SWAMP OAK	2 1/2" BB	
AW	7	-	ABIES CONCOLOR	CONCOLOR WHITE FIR	8' BB	
PS	7	3	PINUS STROBUS	EASTERN WHITE PINE	8' BB	
PD	-	4	PICEA GLAUCA 'DENSATA'	BLACK HILL SPRUCE	8' BB	
			SHRUBS			
FI	45	39	FORSYTHIA X INTERMEDIA	BORDER FORSYTHIA	3' BB	60" O.C. SPACING
VD	65	37	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3' BB	48" O.C. SPACING
CF	25	40	CORNUS FLAVIRAMEA	YELLOWTWIG DOGWOOD	3' BB	60" O.C. SPACING
CS	50	20	CORNUS STOLONIFERA	REDTWIG DOGWOOD	3' BB	60" O.C. SPACING
RAG	96	60	RHUS AROMATIC 'GRO-LOW'	'GRO-LOW' FRAGRANT SUMAC	24" CONT	48" O.C. SPACING
SG	78	50	ARONIA ARBUTIFOLIA 'BRILLIANTISSIMA'	RED CHOKEBERRY	30" CONT	42" O.C. SPACING

FELINO A. PASCUAL and ASSOCIATES
Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
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seal:



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29350 Woodward Avenue Royal Oak, Michigan

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HERITAGE SQUARE
A PLANNED RESIDENTIAL COMMUNITY

project location:
Howell Township, Michigan
Burkhart Road & Mason Road

sheet title:
CONCEPTUAL BLDG FOUNDATION & ENTRANCE MONUMENT

job no./issue/revision date:

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drawn by:
JP, DK
checked by:
FP
date:
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project no:
LS26.054.04

sheet no:
LS-4 of 5

economy prairie seed mix

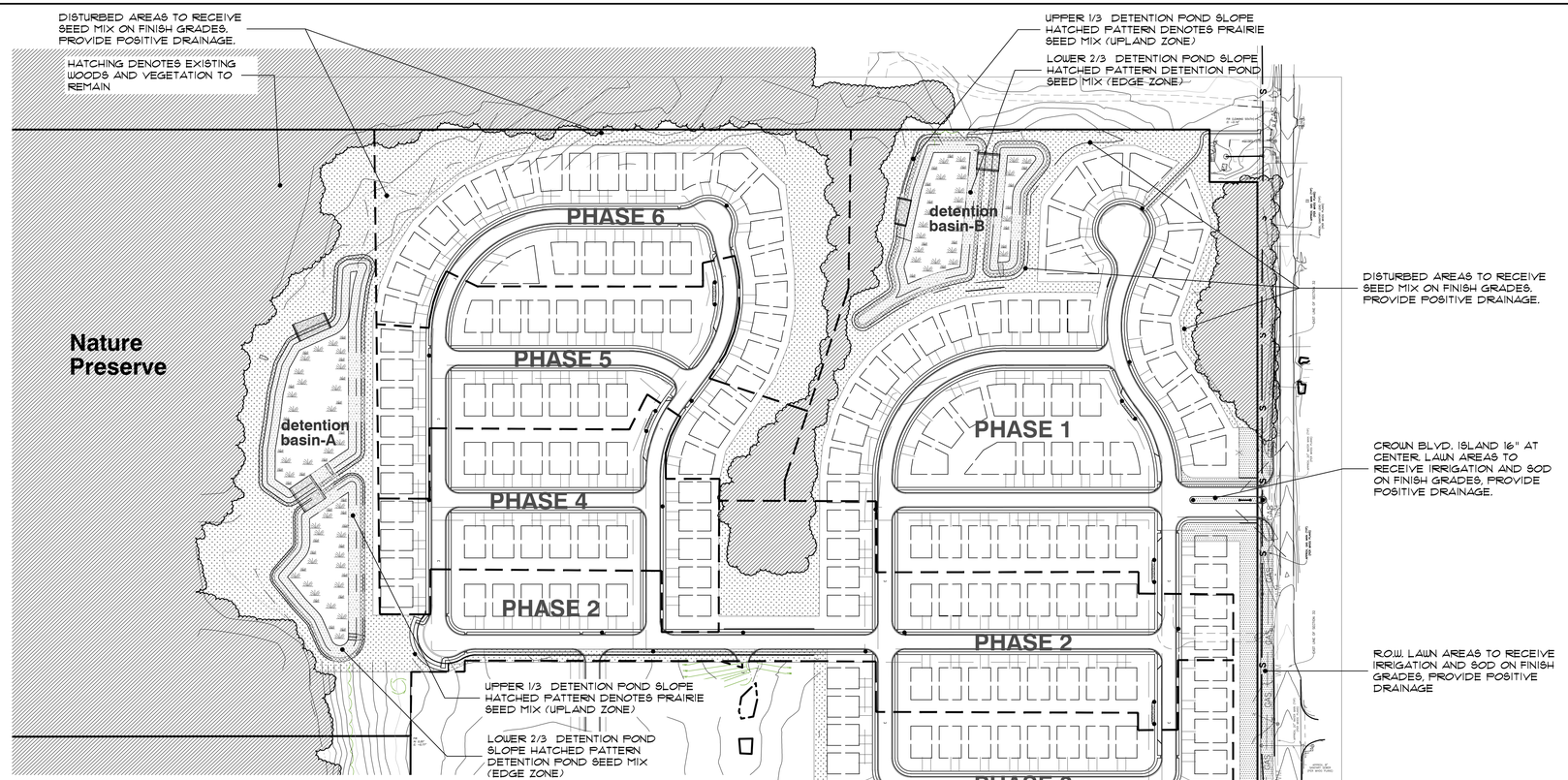
THIS PRAIRIE SEED MIX OFFERS AN ECONOMICAL WAY TO ESTABLISH A PRAIRIE. IN ADDITION TO NATIVE PRAIRIE GRASSES, FLOWERING SPECIES PROVIDE COLOR THROUGHOUT THE GROWING SEASON AND FOOD SOURCES FOR BIRDS AND BUTTERFLIES. ADDING SEED OR PLANT PLUGS AT A LATER DATE IS A WONDERFUL WAY TO INCREASE A PRAIRIE'S RICHNESS AND DIVERSITY. THIS SEED MIX INCLUDES AT LEAST 6 OF 7 NATIVE PERMANENT GRASS AND SEDGE SPECIES AND 10 OF 13 NATIVE FORB SPECIES. APPLY AT 40.95 PLS POUNDS PER ACRE.

BOTANICAL NAME	COMMON NAME	PLS OZ/ACRE
PERMANENT GRASSES/SEDGES		
ANDROPOGON GERARDII	BIG BLUESTEM	12.00
BOUTELOUA CURTIPENDULA	SIDE-OATS GRAMA	16.00
CAREX SPP.	PRAIRIE SEDGE SPECIES	3.00
ELYMUS CANADENSIS	CANADA WILD RYE	24.00
PANICUM VIRGATUM	SWITCH GRASS	2.50
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	32.00
SORGHASTRUM NUTANS	INDIAN GRASS	12.00
	TOTAL	101.50
TEMPORARY COVER		
AVENA SATIVA	COMMON OAT 512.00	
	TOTAL	512.00
FORBS		
ASCLEPIAS SYRIACA	COMMON MILKWEED	1.00
ASCLEPIAS TUBEROSA	BUTTERFLY WEED	1.00
CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	10.00
COREOPSIS LANCEOLATA	SAND COREOPSIS	6.00
ECHINACEA PURPUREA	BROAD-LEAVED PURPLE CONEFLOWER	8.00
HELIOPSIS HELIANTHOIDES	FALSE SUNFLOWER	0.25
MONARDA FISTULOSA	WILD BERGAMOT	0.50
PENSTEMON DIGITALIS	FOXGLOVE BEARD TONGUE	1.00
RATIBIDA PINNATA	YELLOW CONEFLOWER	4.00
RUDBECKIA HIRTA	BLACK-EYED SUSAN	8.00
SOLIDAGO SPECIOSA	SHOWY GOLDENROD	0.50
SYMPHYOTRICHUM LAEVE	SMOOTH BLUE ASTER	1.00
SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	0.50
	TOTAL	41.75

detention basin seed mix

A WETLAND SEED MIX FOR SATURATED SOILS IN A DETENTION POND OR FOR SEEDING A SATURATED BASIN, THIS MIX WILL TOLERATE HIGHLY FLUCTUATING WATER LEVELS AND POOR WATER QUALITY ASSOCIATED WITH URBAN STORMWATER WETLANDS AND PONDS. FOR DETENTION BASINS THAT EXPERIENCE LONG, DRY PERIODS, USE THE ECONOMY PRAIRIE SEED MIX IN THE UPPER THIRD TO HALF OF THE BASIN AREA IN COMBINATION WITH THIS MIX. THIS SEED MIX INCLUDES AT LEAST 10 OF 12 NATIVE PERMANENT GRASS AND SEDGE SPECIES AND 13 OF 17 NATIVE FORB SPECIES. APPLY AT 36.22 PLS POUNDS PER ACRE.

BOTANICAL NAME	COMMON NAME	PLS OZ/ACRE
PERMANENT GRASSES/SEDGES		
BOLBOSCHOENUS FLUVIATILIS	RIVER BULRUSH	1.00
CAREX CRISTATELLA	CRESTED OVAL SEDGE	0.50
CAREX LURIDA	BOTTLEBRUSH SEDGE	3.00
CAREX VULPINOIDEA	BROWN FOX SEDGE	2.00
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	24.00
GLYCERIA STRIATA	FOWL MANNA GRASS	1.00
JUNCUS EFFUSUS	COMMON RUSH	1.00
LEERSIA ORYZOIDES	RICE CUT GRASS	1.00
PANICUM VIRGATUM	SWITCH GRASS	2.00
SCHOENOPLECTUS TABERNAEMONTANI	GREAT BULRUSH	3.00
SCIRPUS ATROVIRENS	DARK GREEN RUSH	2.00
SCIRPUS CYPERINUS	WOOL GRASS	1.00
	TOTAL	41.50
TEMPORARY COVER		
AVENA SATIVA	COMMON OAT	512.00
	TOTAL	512.00
FORBS		
ALISMA SUBCORDATUM	COMMON WATER PLANTAIN	2.50
ASCLEPIAS INCARNATA	SWAMP MILKWEED	2.00
BIDENS SPP. BIDENS	SPECIES	2.00
EUPATORIUM PERFOLIATUM	COMMON BONESET	1.00
HELENIUM AUTUMNALE	SNEEZEWEED	2.00
IRIS VIRGINICA V. SHREVEI	BLUE FLAG	4.00
LYCOPUS AMERICANUS	COMMON WATER HOREHOUND	0.50
MIMULUS RINGENS	MONKEY FLOWER	1.00
PENTHORUM SEDOIDES	DITCH STONECROP	0.50
PERSICARIA SPP.	PINKWEED SPECIES	2.00
RUDBECKIA SUBTOMENTOSA	SWEET BLACK-EYED SUSAN	1.00
RUDBECKIA TRILOBA	BROWN-EYED SUSAN	1.50
SAGITTARIA LATIFOLIA	COMMON ARROWHEAD	1.00
SENNA HEBECARPA	WILD SENNA	2.00
SYMPHYOTRICHUM LANCEOLATUM	PANICLED ASTER	0.50
SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	0.50
THALICTRUM DASYCARPUM	PURPLE MEADOW RUE	2.00
	TOTAL	26.00



pond zone plant list (plugs and bare root)

Native Plants for Pond Zone (minimum 4 species)

Scientific Name	Common Name	Spacing (inches on center)	Scientific Name	Common Name	Spacing (inches on center)
Acorus calamus	Sweet flag	24	Polygonum amphibium	Water knotweed	36
Carex lacustris	Common lake sedge	24	Pontederia cordata	Pickerel weed	24
Cephalanthus occidentalis	Buttonbush	5 feet	Potamogeton natans	Common pondweed	36
Decodon verticillatus	Swamp Loosestrife	24	Potamogeton pectinatus	Sago pondweed	36
Elodea canadensis	Common waterweed	36	Sagittaria latifolia	Common arrowhead	24
Hibiscus laevis	Halberd-leaved rose mallow	24	Scirpus acutus	Hard-stemmed bulrush	18
Hibiscus palustris	Swamp rose mallow	24	Scirpus atrovirens	Dark green rush	18
Iris virginica shrevei	Blue flag iris	18	Scirpus cyperinus	Wool grass	24
Justicia americana	Water willow	5 feet	Scirpus fluviatilis	River bulrush	18
Nelumbo lutea	Lotus	48	Scirpus validus creber	Great bulrush	18
Nuphar advena	Yellow pond lily	36	Sparganium americanum	American bur reed	18
Nymphaea tuberosa	White water lily	36	Sparganium eurycarpum	Common bur reed	18
Peltandra virginica	Arrow arum	18	Vallisneria americana	Tape grass	36

Note: Plant species selected should cover 25% of the pond zone and should also cover the range of water depths within the pond zone(2ft to 3ft). (For example, 4 plant species may not all be placed at an 18ft water depth covering 25% of the pond zone.)

lawn area:

SOD LAWN AREAS SHALL BE KENTUCKY BLUE GRASS BLEND GRASS IN A SOD NURSERY ON LOAM SOIL. SOD TO BE INSTALLED ON MINIMUM 4" TOPSOIL.

SEEDED LAWN AREAS SHALL CONSIST OF THE FOLLOWING TYPES AND PROPORTIONS:

- 5% PERENNIAL RYE GRASS
- 10% RED FESCUE
- 25% CHEWING FESCUE
- 60% KENTUCKY BLUE GRASS

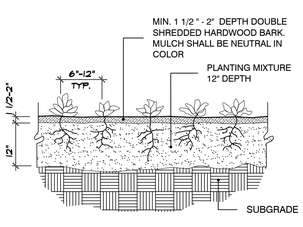
SEED MIX SHALL BE APPLIED AT A RATE OF 200 POUNDS PER ACRE AND WEED CONTENT SHALL NOT EXCEED 1% SEED. PROVIDE A MINIMUM 4" TOP SOIL ON ALL SEEDED LAWN AREA

5A sod, irrigation and seeding reference plan

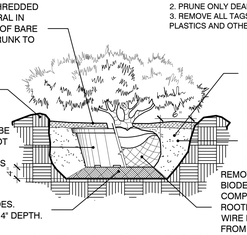
SCALE: 1" = 60'-0"

hatch pattern legend

- AREAS TO RECEIVE IRRIGATION AND SOD, MAINTAINED AND MOWED WEEKLY
- AREAS TO RECEIVE PRAIRIE SEED MIX. (NO MOWED AREA)
- AREAS TO RECEIVE LAWN SEEDING
- AREAS TO RECEIVE DETENTION POND SEED MIX

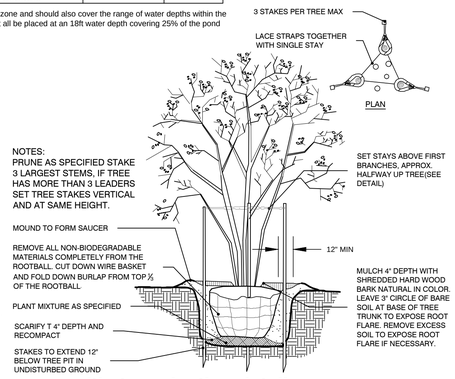


perennial planting detail
no scale

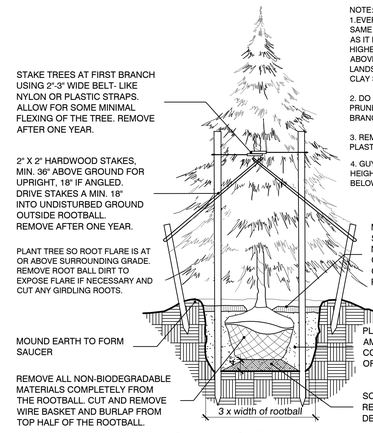


shrub planting detail
no scale

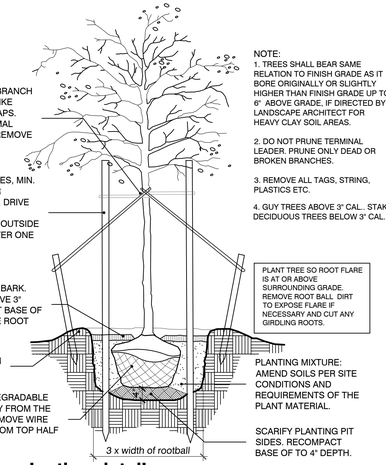
NOTE:
1. SHRUB SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 4" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.
2. PRUNE ONLY DEAD OR BROKEN BRANCHES.
3. REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS



multi-stem planting detail
no scale



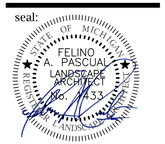
evergreen planting detail
no scale



tree planting detail
no scale

FELINO A. PASCUAL and ASSOCIATES
Community Land Planner and registered Landscape Architect
24333 Orchard Lake Rd, Suite G
Farmington Hills, MI 48336
ph. (248) 557-5588
fax. (248) 557-5416

seal:



client:

BURKHART MASON COMMUNITY LLC.
29350 Woodward Avenue Royal Oak, Michigan

project:

HERITAGE SQUARE
A PLANNED RESIDENTIAL COMMUNITY

project location:
Howell Township, Michigan
Burkhart Road & Mason Road

sheet title:

SOD AND SEEDING REFERENCE PLAN

job no./issue/revision date:

LS24.064.06	REVIEW	7-1-2024
LS24.064.09	SPA	9-19-2024
LS24.064.12	SPA	12-20-2024
LS26.054.04	TOWNSHIP COMMENTS	4-24-2026
LS26.054.05	TOWNSHIP COMMENTS	5-26-2026

drawn by: JP, DK

checked by: FP

date: 4-3-2026

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Do Not scale drawings. Use figured dimensions only

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171
For free location of public utility lines

The location and elevations of existing underground utilities as shown on this drawing are only approximate, no guarantee is either expressed or implied as to the completeness of accuracy. contractor shall be exclusively responsible for determining the exact location and elevation prior to the start of construction

project no: LS26.054.04

sheet no: **LS-5** of 5



DENSITY AND UNIT COUNT

TOTAL SITE AREA: 92 ACRES

AREA CURRENTLY ZONED SFR: 26.8 AC (24.0 AC UPLAND)
AREA CURRENTLY ZONED MFR: 65.2 AC (44.4 AC UPLAND)

OPEN SPACE REQUIRED (27.07.E)
10% OF TOTAL LAND AREA EXCLUSIVE OF WATER SURFACES
10% * (68.4 ACRES UPLAND) = 6.84 ACRES

OPEN SPACES PROVIDED = 8.48 ACRES (11.9% OF UPLAND AREA)

ALLOWED DENSITY (27.07.A)

UPLAND AREA SFR = 24.0 ACRES
REDUCED 10% FOR REQUIRED OPEN SPACE = 21.6 ACRES
SFR = 3.0 UNITS/ACRE x 1.25 = 3 x 21.6 x 1.25 = 81 UNITS

UPLAND AREA MFR = 44.44 ACRES
REDUCED 10% FOR REQUIRED OPEN SPACE = 40 ACRES
MFR = 12 UNITS/ACRE x 1.25 = 12 x 40 x 1.25 = 600 UNITS

TOTAL ALLOWED UNITS = 681

UNITS PROPOSED

SINGLE FAMILY UNITS: 176 PROPOSED

MULTI-FAMILY UNITS: 288 PROPOSED
- (A) • 55 - 3 BR / 2 BA - RANCH STYLE TOWNHOMES
- (B) • 81 - 2 BR/ 2.5 BA - 2-STORY TOWNHOMES
- (C) • 40 - 1 BR / 1 BA - GARDEN STYLE APARTMENTS
- (D) • 112 - 3 BR / 2.5 BA - 2 STORY TOWNHOMES W/ GARAGE

3 - STORY SENIOR LIVING BUILDING - APPROX. 90 UNITS

TOTAL: 554 RESIDENTIAL UNITS

PHASING PLAN

SF PHASE 1 (2023)
SINGLE FAMILY UNITS: 46 HOMES

PHASE 2 (2024-2025)
SINGLE FAMILY UNITS: 30 HOMES

MF PHASE 2 (2024)
MULTI-FAMILY UNITS: 107 UNITS
- (A) 19 - 3 BR / 2 BA - RANCH STYLE TOWNHOMES
- (C) 40 - 1 BR / 1 BA - GARDEN STYLE APARTMENTS
- (D) 48 - 3 BR / 2.5 BA - 2 STORY TOWNHOMES W/ GARAGE

ALSO BUILD OUT CLUBHOUSE, MAIN ROADS, PARK, AND AMENITIES, AND SECOND WATER MAIN CONNECTION.

SF PHASE 3 (2026)
SINGLE FAMILY UNITS: 29 HOMES

MF PHASE 3 (2026)
MULTI-FAMILY UNITS: 100 UNITS
- (A) 36 - 3 BR / 2 BA - RANCH STYLE TOWNHOMES
- (D) 64 - 3 BR / 2.5 BA - 2 STORY TOWNHOMES W/ GARAGE

SF PHASE 4 (2027)
SINGLE FAMILY UNITS: 21 HOMES

MF PHASE 4 (2028)
MULTI-FAMILY UNITS: 81
- 81 - 2 BR/ 2.5 BA - 2-STORY TOWNHOMES

SF PHASE 5 (2028 (A))
SINGLE FAMILY UNITS: 23 HOMES

MF PHASE 5 (2026 - 2028) - ACTUAL BUILD YEAR TBD
3- STORY SENIOR LIVING BUILDING - APPROX. 90 UNITS

SF PHASE 6 (2029)
SINGLE FAMILY UNITS: 27 HOMES

DRAFT

PHASING PLAN – OVERVIEW

Site Plan_Pole Placements
Scale: 1 inch= 130 Ft.

DTE

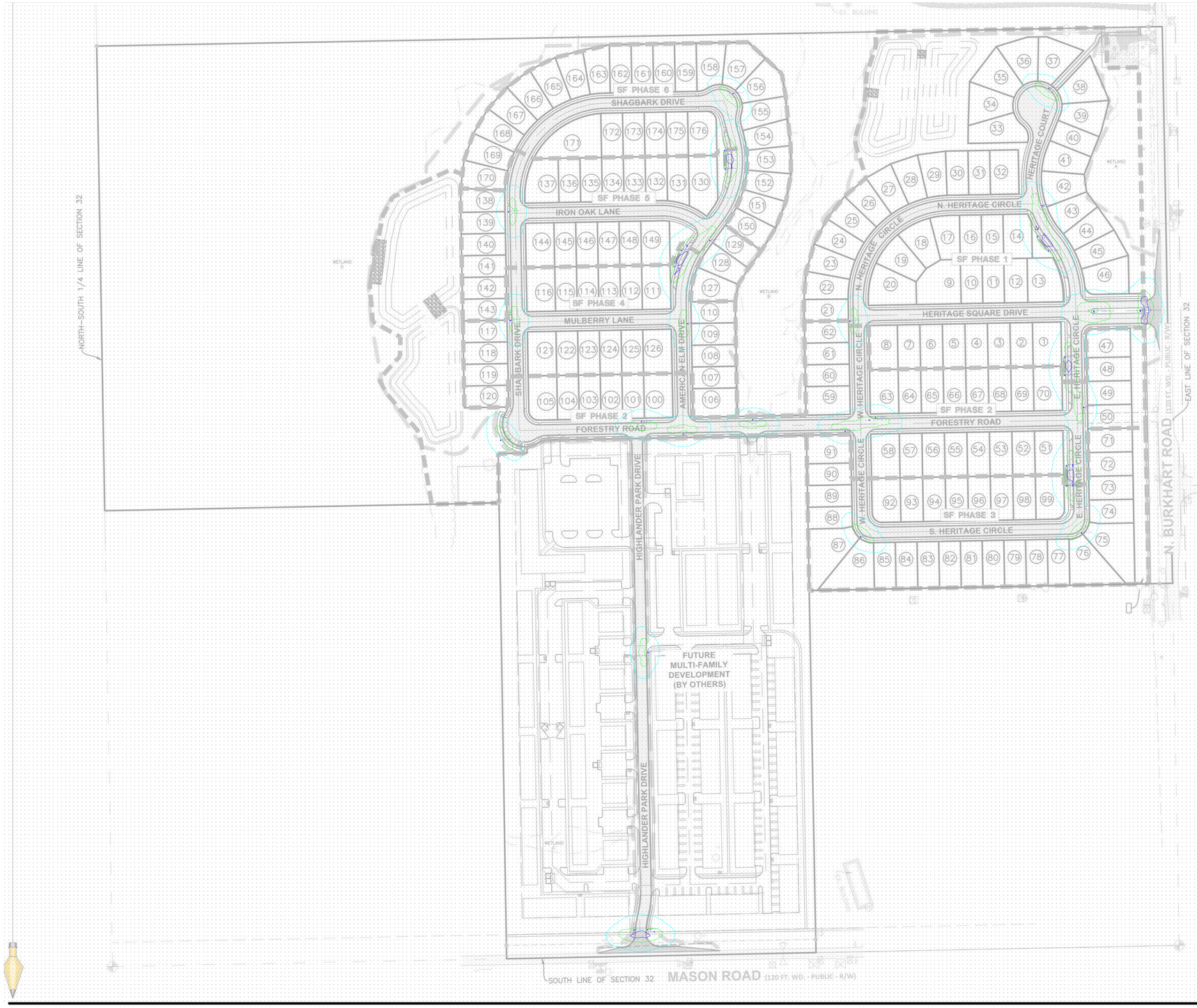
#	Date	Comments

Revisions

Drawn By: M. Valascho
Checked By:
Date: 9/16/2024
Scale:

Heritage Square Street Lighting Plan 4

DTE Community Lighting Group



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DRAFT

PHASING PLAN – OVERVIEW

Site Plan_Photometric Layout
Scale: 1 inch= 130 Ft.

DTE

#	Date	Comments

Revisions

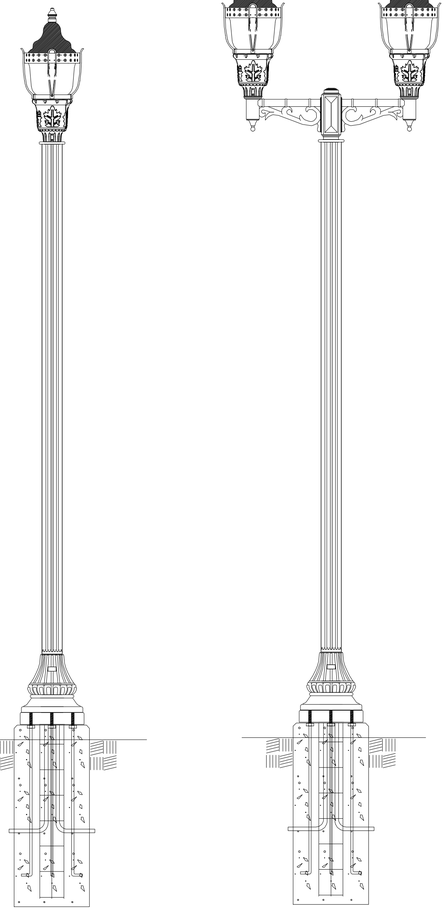
Drawn By: M. Valascho
Checked By:
Date: 9/16/2024
Scale:

Heritage Square Street Lighting Plan 4

DTE Community Lighting Group



Photometric Layout



Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Mounting Height
	1	39W LED_GVD3_FULL COVER_DUAL (0, 180)	Back-Back	14.9
	1	39W LED_GVD3_FULL COVER_DUAL (FWD)	Twin	14.9
	30	39W LED_GVD3_FULL COVER_SINGLE	Single	14

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall_Horizontal	Illuminance	Fc	0.01	1.7	0.0	N.A.	N.A.

Isoline Legend	
Illuminance (Fc)	
Color	Value
	0.1
	0.5
	1

DTE

Revisions

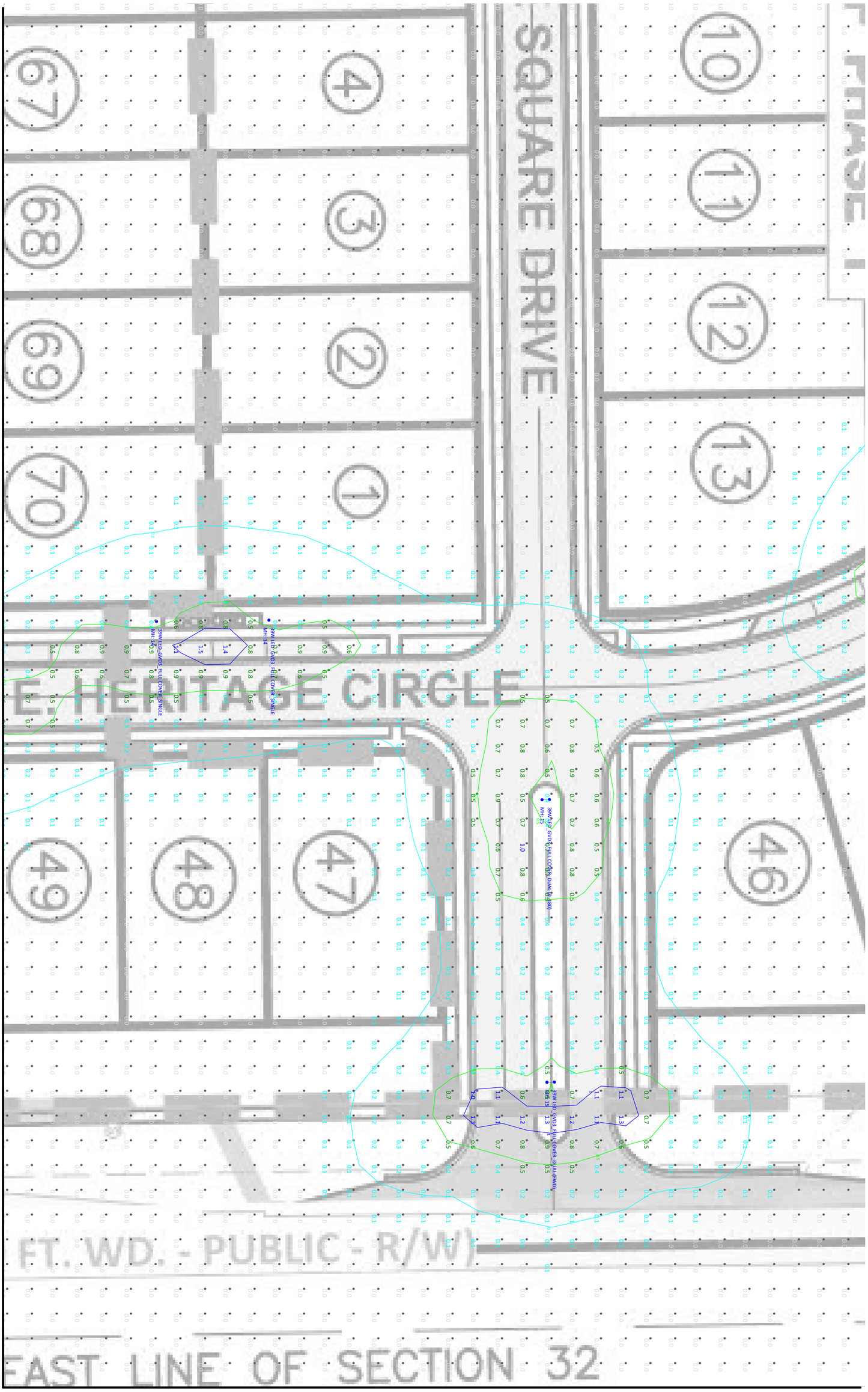
#	Date	Comments

Drawn By: M. Valascho
Checked By:
Date:9/16/2024
Scale:

Heritage Square Street Lighting Plan 4

DTE Community Lighting Group

Plan View 1



Heritage Square Street Lighting Plan 4	Drawn By: M. Valascho	Revisions	# / Date / Comments
	Checked By:		
DTE Community Lighting Group	Date:9/16/2024		
	Scale:		

Plan View 5

DTE

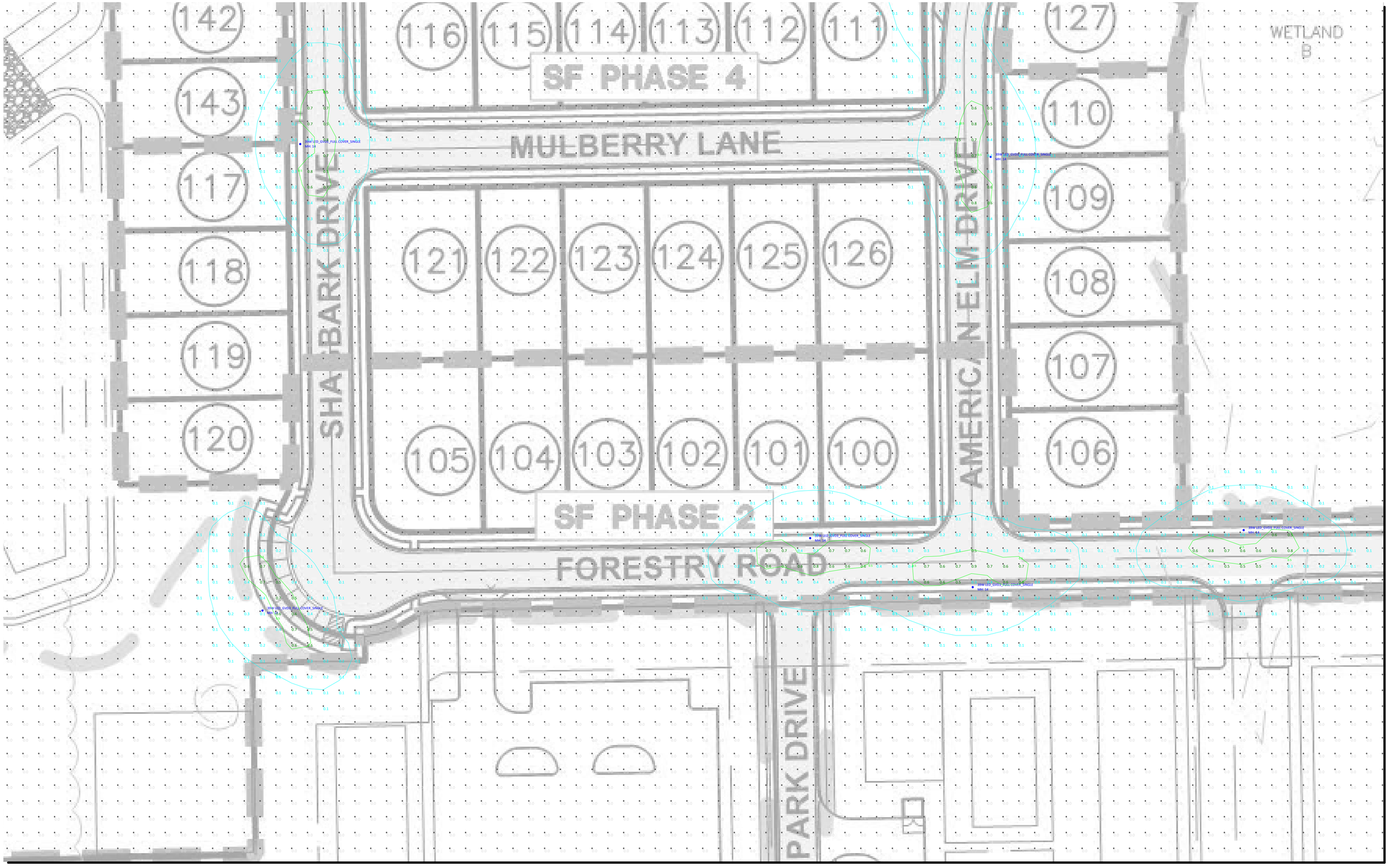
#	Date	Comments

Revisions

Drawn By: M. Valascho
Checked By:
Date:9/16/2024
Scale:

Heritage Square Street Lighting Plan 4

DTE Community Lighting Group



Plan View 6

DTE

#	Date	Comments

Revisions

Drawn By: M. Valascho
Checked By:
Date:9/16/2024
Scale:

Heritage Square Street Lighting Plan 4

DTE Community Lighting Group

Brandon Guest

From: Felino Pascual [redacted]
Sent: Wednesday, May 27, 2026 1:00 PM
To: Brandon Guest
Subject: Re: Fw: Heritage Square Landscaping and lighting plan review
Attachments: HERITAGE SQUARE LANDSCAPE PLAN (5-26-2026).pdf

EXTERNAL EMAIL: Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Brandon,

Updated landscape plan for Heritage Square is attached, per township comments.

- Added 1-MS (Snowdrift Crabapple) on Phase-3
- Added 1-CF (Yellowtwig Dogwood) on basin-A phase-2.

Let me know if you have any questions.

Regards,
Felino (Joel)

Felino A. Pascual (Joel), PLA, ASLA
Principal

COMMUNITY PLANNERS
& LANDSCAPE ARCHITECTS
24333 Orchard Lake Road, Suite G
Farmington Hills, Michigan 48336
ph: [redacted]