

Thursday, February 5, 2026

Racine Wastewater Utility
c/o Nate Tillis, Wastewater Utility Director
City Hall Annex Room 227
800 Center Street
Racine, WI 53403

RE: Approval of Village of Caledonia Sanitary Sewer Extension – Audubon Arboretum

Dear Mr. Tillis:

The Village of Caledonia has received, reviewed, and will approve Sanitary Sewer plans for the Audubon Arboretum development. The Audubon Arboretum Sanitary Sewer Extension will serve 22 new residential lots located in the Southeast $\frac{1}{4}$ of Section 17 of Range 23 East, Town 4 North.

The proposed sanitary sewer extension is for 1,637.5' of 8" PVC.

The Village of Caledonia is hereby requesting approval from the Racine Wastewater Utility at their February 18, 2026 meeting for the 1,637.5' sanitary sewer extension for the Audubon Arboretum development.

If there are any questions about this request, please contact me directly at 262-835-6416 or abunkelman@caledonia-wi.gov

Sincerely,



Anthony A. Bunkelman P.E.
Public Services Director

Village of Caledonia
5043 Chester Lane
Caledonia, WI 53402

Racine Wastewater Commission Sewer Extension Worksheet

Sewer Extension Request Date:	February 5, 2026
Projected Project Start Date:	Spring 26, Summer 26
Applicant Community:	Caledonia
Community Approval Date:	March 4, 2026
Development Name:	Audubon Arboretum
Developer:	Bear Development

Project Map Attached	<input checked="" type="checkbox"/>
Flow Calculations Attached	<input checked="" type="checkbox"/>
w/Developer's Agreement	<input type="checkbox"/>
POE in Moritorium?	<input type="checkbox"/> No

Location	Nearest Intersection: Charles Street & Audubon Parkway
	Development Acreage: 12.58 Acres
	Total Possible Acreage: 69.21 Acres

Land use	# of Parcels in Development: 22 Lots
	<input checked="" type="checkbox"/> Residential <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial
	Development Acreage: 12.58 Acres
	Total Possible Acreage: 69.21 Acres

Technical	Pipe Material: SDR 35 - PVC
	Lenth of Extension: 1,637.5'
	Size of pipe: 8"

Sewershed	Sewershed Point of Entry Name: Cal East 4 1/2 Mile Road aka Central Lift Station
	Allocated Capacity at POE: 2.783 MGD Average Day, 13.074 MGD Peak Hour
	Current Average Flow at POE: 1.632 MGD (2025) 2.119 MGD (2024) Average Day
	Wet Weather Maximum at POE: 15.106 MGD (August 10, 2020)
	Anticipated Development Maximum Flow: 0.022 MGD
	Anticipated Development Daily Flow: 0.0055 MGD

Additional Information	Caledonia has been working on its wet weather mitigation plan for this connection point.
	The Central Lift Station Attenuation Basin (3.6 million gallons of wet weather storage) is
	in the final stages of approval before going out to Public Bid. Anticipated bid in Spring 2026.
	Caledonia has begun the owner purchase portion of the project for pumps, generators, automatic transfer switches, controls, vfd's, etc.

February 5, 2026

Audubon Arboretum Sanitary Sewer Anticipated Flow

22 Lots
2.5 residents per lot
100 gallons per day per capita

22 lots x 2.5 residents x 100 gallons per day

5500 gallons per day

0.0055 Anticipated Flow in MGD

Use peaking factor of 4

0.0220 Anticipated Maximum Flow in MGD

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF PINNACLE ENGINEERING GROUP, LLC

www.pinnacle-engr.com

ENGINEERING IMPROVEMENT PLANS

FOR

AUDUBON PHASE 1

CALEDONIA, WISCONSIN

PLANS PREPARED FOR

BEAR DEVELOPMENT

4011 80TH STREET
KENOSHA, WISCONSIN 53142



PROJECT LOCATION

LOCATION MAP
NOT TO SCALE

LEGEND	
	EXISTING PROPOSED
SANITARY SEWER MANHOLE	⊙ ⊙
STORM SEWER MANHOLE	⊗ ⊗
STORM SEWER CATCH BASIN (ROUND CASTING)	○ ●
STORM SEWER CATCH BASIN (RECTANGULAR CASTING)	□ ■
PRECAST FLARED END SECTION	△ ▲
VALVE BOX	⊗ ⊗
FIRE HYDRANT	⊗ ⊗
CLEANOUT	⊗ ⊗
SANITARY SEWER	— —
STORM SEWER	— —
WATER MAIN	— —
ELECTRICAL CABLE	— —
GAS MAIN	— —
TELEPHONE LINE	— —
UTILITY CROSSING	— —
LIGHT POLE	⊙ ⊙
ELECTRICAL TRANSFORMER OR PEDESTAL	⊙ ⊙
POWER POLE	⊙ ⊙
POWER POLE WITH LIGHT	⊙ ⊙
GUY WIRE	— —
STREET SIGN	— —
CONTOUR	749 749
SPOT ELEVATION	x(750.00) 750.00
WETLANDS	— —
FLOODWAY	— —
FLOODPLAIN	— —
HIGH WATER LEVEL (HWL)	— —
NORMAL WATER LEVEL (NWL)	— —
DIRECTION OF SURFACE FLOW	→ →
DITCH OR SWALE	— —
DIVERSION SWALE	→ →
OVERFLOW RELIEF ROUTING	→ →
TREE WITH TRUNK SIZE	⊙ ⊙
SOIL BORING	⊙ ⊙
TOPSOIL PROBE	⊙ ⊙
FENCE LINE, TEMPORARY SILT	— —
FENCE LINE, WIRE	— —
FENCE LINE, CHAIN LINK OR IRON	— —
FENCE LINE, WOOD OR PLASTIC	— —
CONCRETE SIDEWALK	— —
CURB AND GUTTER	— —
DEPRESSED CURB	— —
REVERSE PITCH CURB & GUTTER	— —
EASEMENT LINE	— —

INDEX OF SHEETS	
1	COVER SHEET
2	EXISTING CONDITIONS
3	SITE PLAN
4	MASTER GRADING PLAN
5	EROSION CONTROL PLAN
6 - 8	SANITARY SEWER PLAN & PROFILE
9 - 11	WATER MAIN PLAN & PROFILE
12- 16	STORM SEWER & PAVEMENT PLAN & PROFILE
17 - 18	CONSTRUCTION DETAILS & SPECIFICATIONS

PROJECT CONTACTS	
CIVIL ENGINEER AARON KOCH PINNACLE ENGINEERING GROUP 20725 WATERTOWN ROAD, SUITE 100 BROOKFIELD, WI 53186 MAIN: (262) 754-8888 EMAIL: aekoch@pinnacle-engr.com	APPLICANT: DAN SZCZAP BEAR DEVELOPMENT 4011 80TH STREET KENOSHA, WI 53142 CELL: (262) 949-3788 EMAIL: dszczap@beardevelopment.com
SURVEYOR JOHN KONOPACKI PINNACLE ENGINEERING GROUP 20725 WATERTOWN ROAD, SUITE 100 BROOKFIELD, WI 53186 MAIN: (262) 754-8888 EMAIL: john.konopacki@pinnacle-engr.com	

VERTICAL DATUM NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29)
HORIZONTAL DATUM WISCONSIN STATE PLAN COORDINATE SYSTEM, SOUTH ZONE (NAD 1983/2011)
REFERENCE BENCHMARK CONCRETE MONUMENT WITH BRASS CAP AT THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 SECTION 17, TOWN 4 NORTH, RANGE 23 EAST ELEVATION = 621.02

GENERAL NOTES	
1.	THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.
2.	NO GEOTECHNICAL REPORT FOR THE PROJECT SITE.
3.	THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.
4.	THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES LEARNED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.
5.	THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON ITS OWN COMPUTATIONS AND IN NO SUCH INSTANCE RELY ON THE ENGINEER'S ESTIMATE.
6.	QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.
7.	PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.
8.	COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT, WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS; ALL APPLICABLE PERMITS HAVE BEEN OBTAINED; AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
9.	SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
10.	THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
11.	THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND DIGGER'S HOTLINE IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS.
12.	SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE, INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
13.	CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL "GOOD HOUSEKEEPING."
14.	THE CONTRACTOR SHALL INDEMNIFY THE OWNER, ENGINEER, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.

ABBREVIATIONS			
BL	BASE LINE	MH	MANHOLE
BP	BOTTOM OF PIPE	NWL	NORMAL WATER LEVEL
C	LONG CHORD OF CURVE	PC	POINT OF CURVATURE
C & G	CURB AND GUTTER	PT	POINT OF TANGENCY
CB	CATCH BASIN	PVI	POINT OF VERTICAL INTERSECTION
CL	CENTERLINE	R	RADIUS
D	DEGREE OF CURVE	ROW	RIGHT-OF-WAY
EP	EDGE OF PAVEMENT	SAN	SANITARY SEWER
FES	FLARED END SECTION	ST	STORM SEWER
FF	FINISHED FLOOR	T	TANGENCY OF CURVE
FG	FINISHED GRADE	TB	TOP OF BANK
FL	FLOW LINE	TC	TOP OF CURB
FP	FLOODPLAIN	TF	TOP OF FOUNDATION
FR	FRAME	TP	TOP OF PIPE
FW	FLOODWAY	TS	TOP OF SIDEWALK
FYG	FINISHED YARD GRADE	TW	TOP OF FOUNDATION WALL
HWL	HIGH WATER LEVEL	WM	WATER MAIN
INV	INVERT	Δ	INTERSECTION ANGLE
L	LENGTH OF CURVE		

Toll Free (800) 242-8511
 Milwaukee Area (414) 259-1181
 Hearing Impaired TDD (800) 542-2289
 www.DiggersHotline.com

PINNACLE ENGINEERING GROUP, LLC
ENGINEER'S LIMITATION

PINNACLE ENGINEERING GROUP, LLC AND THEIR CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE DELIVERABLES HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY MISTAKES, OMISSIONS, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE DELIVERABLES, THE ENGINEER SHALL BE PROMPTLY NOTIFIED PRIOR TO BID SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH FAILURE. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT TO THE ENGINEER, OR IN CONTRADICTION TO THE ENGINEER'S DELIVERABLES OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION.

FURTHERMORE, PINNACLE ENGINEERING GROUP, LLC IS NOT RESPONSIBLE FOR CONSTRUCTION SAFETY OR THE MEANS AND METHODS OF CONSTRUCTION.

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
 20725 WATERTOWN ROAD, SUITE 100
 BROOKFIELD, WI 53186
 (262) 754-8888
 CHICAGO | MILWAUKEE | NATIONWIDE

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

AUDUBON PHASE 1

CALEDONIA, WISCONSIN

COVER SHEET

REVISIONS	
1	PER VILLAGE COMMENTS 10/14/25
2	PER VILLAGE COMMENTS 02/02/26
3	PER VILLAGE COMMENTS 02/05/26

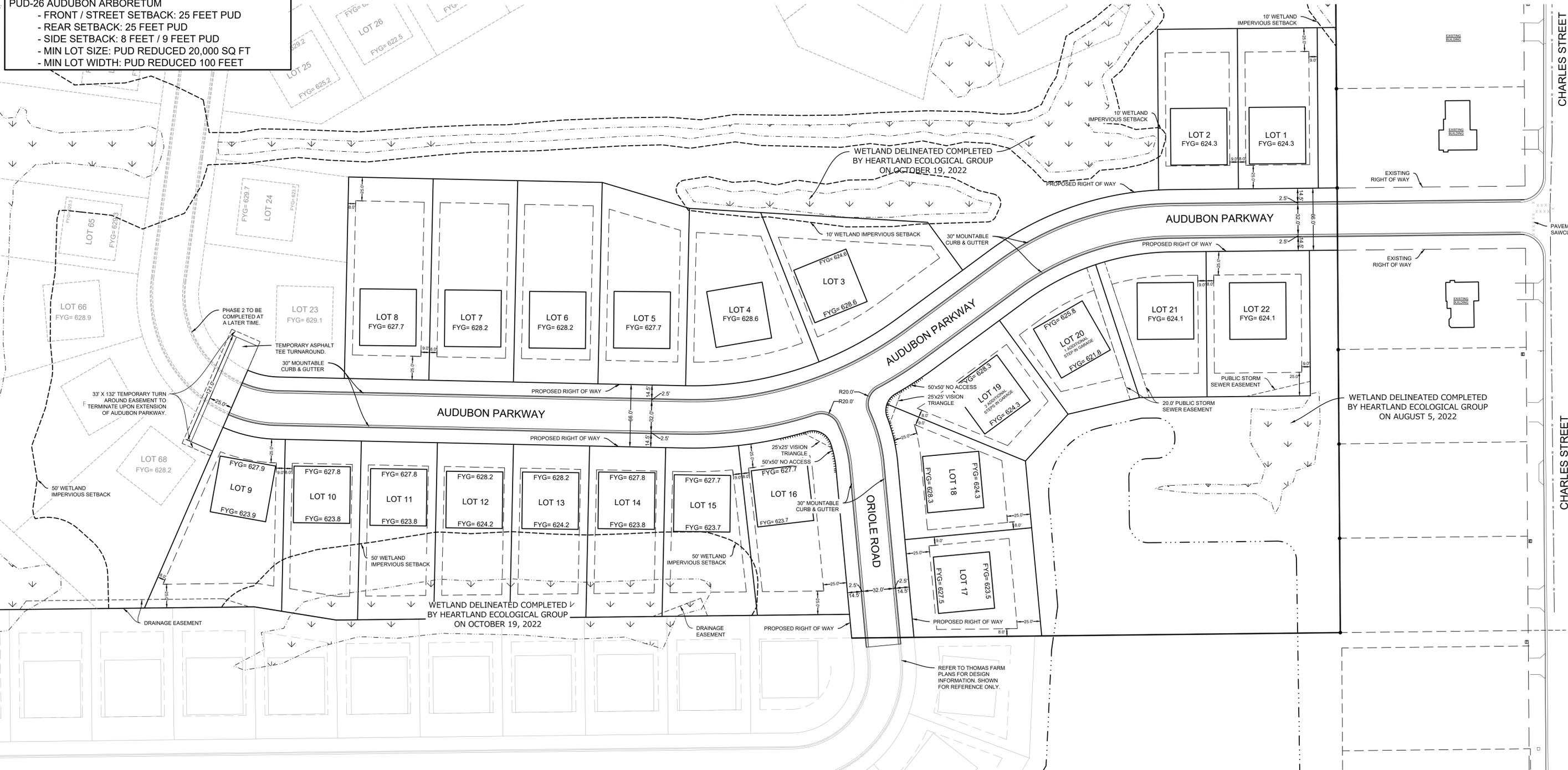
PEG JOB No. 957.10	A/E/K	START DATE 09/08/25	SCALE N.T.S.	SHEET 1 OF 18
--------------------	-------	---------------------	--------------	---------------

© 2025 PEGHZ 2023

THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF PINNACLE ENGINEERING GROUP, LLC.
 REVIEWED: AEK
 DESIGNED: BOP
 DRAFTED: BOP

www.pinnacle-engr.com

SITE DATA TABLE	
NUMBER OF LOTS:	22
TOTAL LENGTH OF ROADWAY:	- WITHIN SUBDIVISION: 1,650 LF
ZONING:	R-3 SINGLE FAMILY RESIDENTIAL DISTRICT PUD-26 AUDUBON ARBORETUM
- FRONT / STREET SETBACK:	25 FEET PUD
- REAR SETBACK:	25 FEET PUD
- SIDE SETBACK:	8 FEET / 9 FEET PUD
- MIN LOT SIZE:	PUD REDUCED 20,000 SQ FT
- MIN LOT WIDTH:	PUD REDUCED 100 FEET



GRAPHICAL SCALE (FEET)
 0 1" = 50' 100'

PINNACLE ENGINEERING GROUP
 ENGINEERING | NATURAL RESOURCES | SURVEYING
 PLAN | DESIGN | DELIVER
 www.pinnacle-engr.com
 WISCONSIN OFFICE:
 20725 WATERTOWN ROAD, SUITE 100
 BROOKFIELD, WI 53186
 (262) 754-8888
 CHICAGO | MILWAUKEE | NATIONWIDE

AUDUBON PHASE 1

CALEDONIA, WISCONSIN

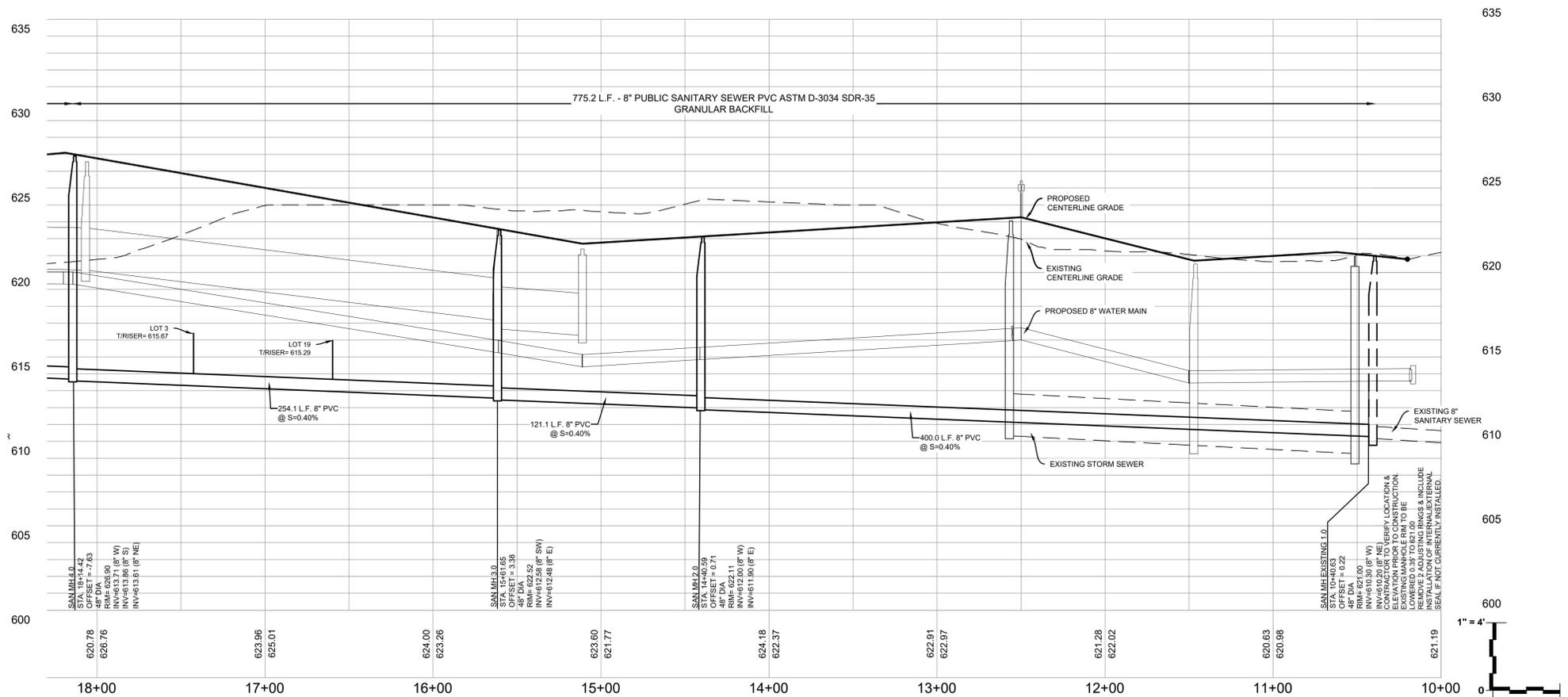
SITE PLAN

REVISIONS	
1	PER VILLAGE COMMENTS 10/14/25
2	PER VILLAGE COMMENTS 02/02/26
3	PER VILLAGE COMMENTS 02/05/26

SHEET
3
 OF
18
 PEG JOB No. 957.10
 A/E/K
 START DATE 09/08/25
 SCALE 1" = 50'
 © 2025 PEG

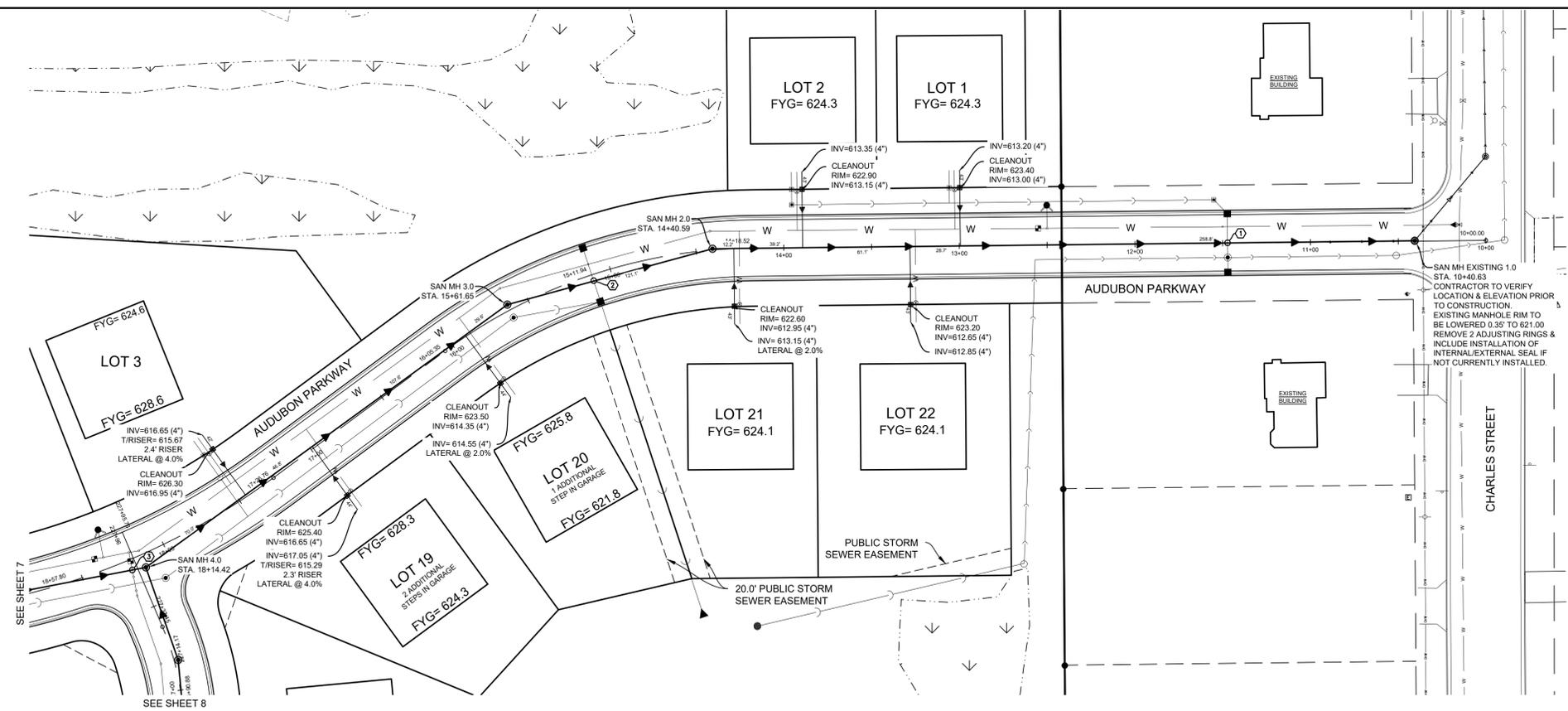
THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF PINNACLE ENGINEERING GROUP, LLC

DESIGNED: BOP
DRAFTED: BOP
REVIEWED: AEK



NOTE: The location and size of the underground structures and utilities shown hereon have been located to a reasonable degree of accuracy, but the Engineer and/or Surveyor does not guarantee their exact location or the location of others not shown.
Contact Diggers Hotline, Inc., Etc.

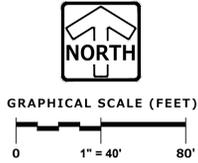
CALL DIGGERS HOTLINE
1-800-242-6511
TOLL FREE
VIS. STATUTE 382.07(9)(4)
REQUIRE MIN. 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE
MILW. AREA 259-1181



CROSSINGS	
1	12" STORM OVER 8" SANITARY 12" STM B/PIPE= 615.93 8" SAN T/PIPE= 611.04
2	15" STORM OVER 8" SANITARY 15" STM B/PIPE= 618.98 8" SAN T/PIPE= 612.96
3	8" WATER OVER 8" SANITARY 8" WM B/PIPE= 618.15 8" SAN T/PIPE= 614.42

SANITARY SEWER & LATERAL NOTES:

- ALL SANITARY SEWER LATERALS ARE 4" PVC & MINIMUM SLOPE FOR LATERALS SHALL BE $\frac{1}{4}$ " PER LINEAR FOOT.
- TRACER WIRE IS REQUIRED FOR SANITARY SEWER & SANITARY LATERALS.
- ALL LOT HAVE GRAVITY FED LATERALS UNLESS OTHERWISE NOTED.
- ALL SANITARY SEWER LATERALS SHALL BE INSTALLED PER CALEDONIA UTILITY DISTRICT SPECIFICATIONS.



PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

WISCONSIN OFFICE:
20725 WATERTOWN ROAD, SUITE 100
BROOKFIELD, WI 53186
(262) 754-8888
CHICAGO | MILWAUKEE | NATIONWIDE

AUDUBON PHASE 1
CALEDONIA, WISCONSIN

SANITARY SEWER PLAN & PROFILE- AUDUBON PARKWAY

REVISIONS	
1	PER VILLAGE COMMENTS 10/14/25
2	PER VILLAGE COMMENTS 02/02/26
3	PER VILLAGE COMMENTS 02/05/26

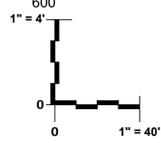
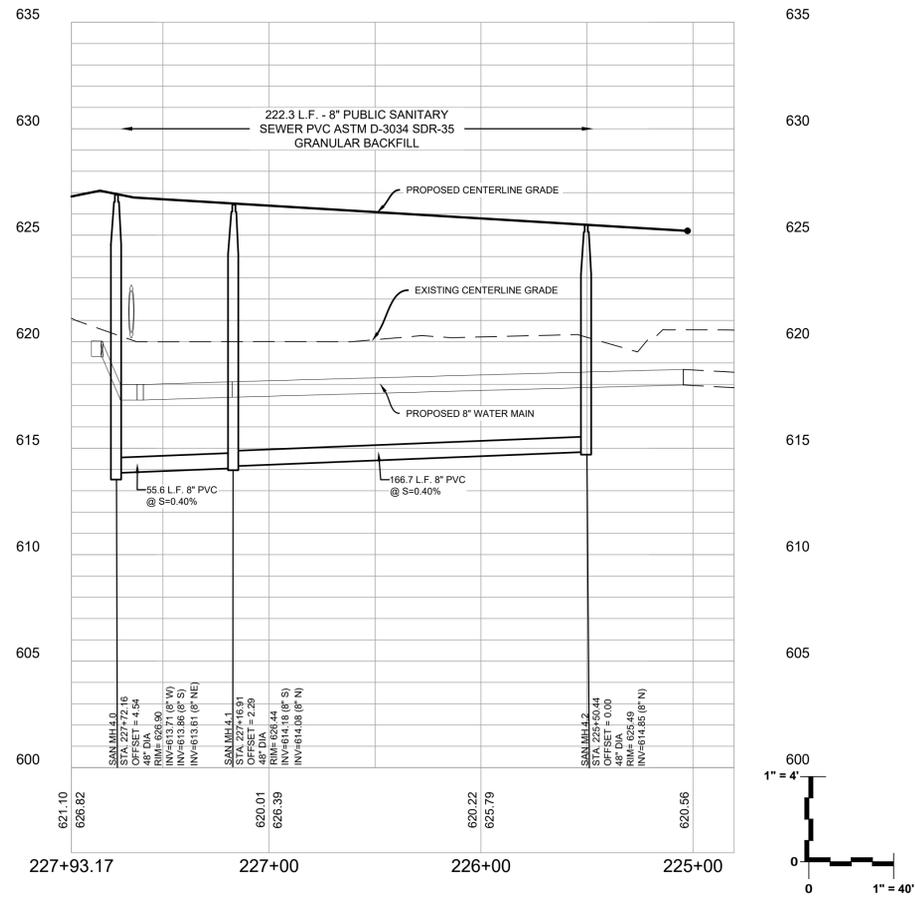
PEG JOB No. 957.10
PEG PM AEK
START DATE 09/08/25
SCALE 1" = 40'

SHEET
6
OF
18

© COPRIGHZ 2023

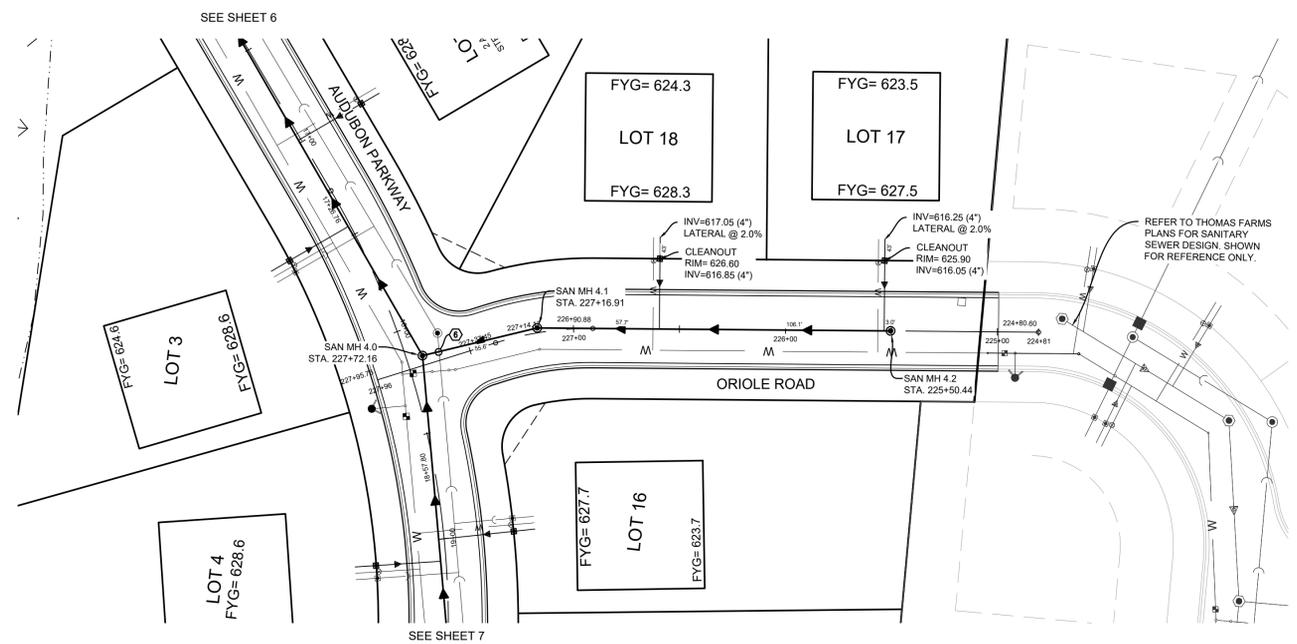
THESE PLANS AND DESIGNS ARE COPYRIGHT PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF PINNACLE ENGINEERING GROUP, LLC

DESIGNED: BOP
DRAFTED: BOP
REVIEWED: AEK



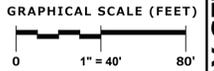
NOTE: The location and size of the underground structures and utilities shown hereon have been located to a reasonable degree of accuracy, but the Engineer and/or Surveyor does not guarantee their exact location or the location of others not shown.
Contact Diggers Hotline, Inc., etc.

TO OBTAIN LOCATIONS OF PARTICIPATING UNDERGROUND FACILITIES BEFORE YOU DIG OR VIBRATE
CALL DIGGERS HOTLINE
1-800-242-6511
TOLL FREE
VIA STATUTE 188.275(874)
REQUIRED MIN. 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE
MILW. AREA 259-1181



CROSSINGS	
6	24" STORM OVER 8" SANITARY 24" STM B/PIPE= 620.18 8" SAN T/PIPE= 614.57

- SANITARY SEWER & LATERAL NOTES:**
- ALL SANITARY SEWER LATERALS ARE 4" PVC & MINIMUM SLOPE FOR LATERALS SHALL BE $\frac{1}{4}$ " PER LINEAR FOOT.
 - TRACER WIRE IS REQUIRED FOR SANITARY SEWER & SANITARY LATERALS.
 - ALL LOT HAVE GRAVITY FED LATERALS UNLESS OTHERWISE NOTED.
 - ALL SANITARY SEWER LATERALS SHALL BE INSTALLED PER CALEDONIA UTILITY DISTRICT SPECIFICATIONS.



PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
20725 WATERTOWN ROAD, SUITE 100
BROOKFIELD, WI 53186
(262) 754-8888
CHICAGO | MILWAUKEE | NATIONWIDE

AUDUBON PHASE 1
CALEDONIA, WISCONSIN

SANITARY SEWER PLAN & PROFILE- ORIOLE ROAD

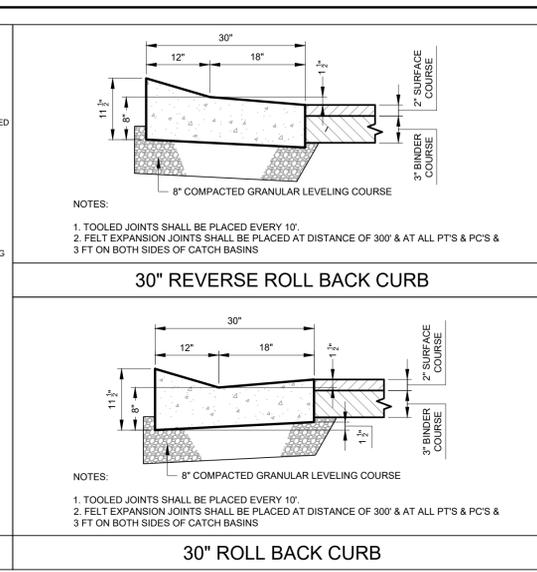
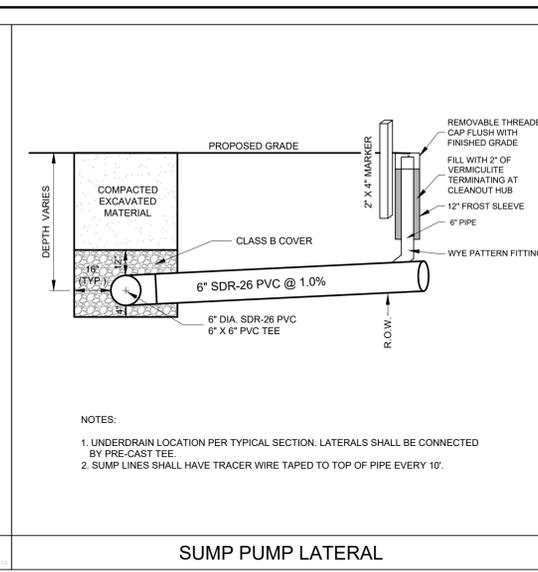
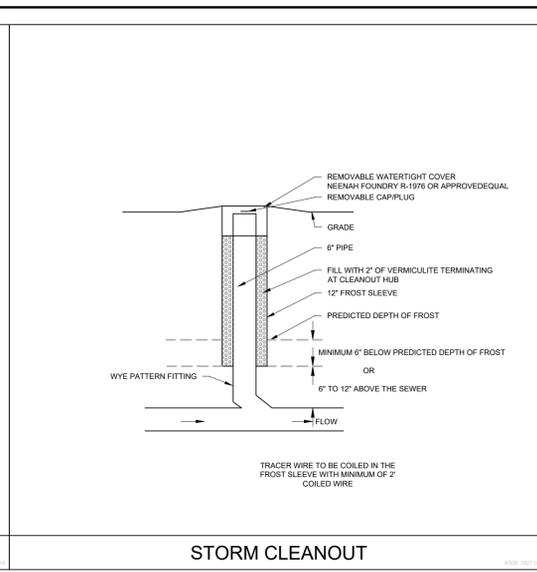
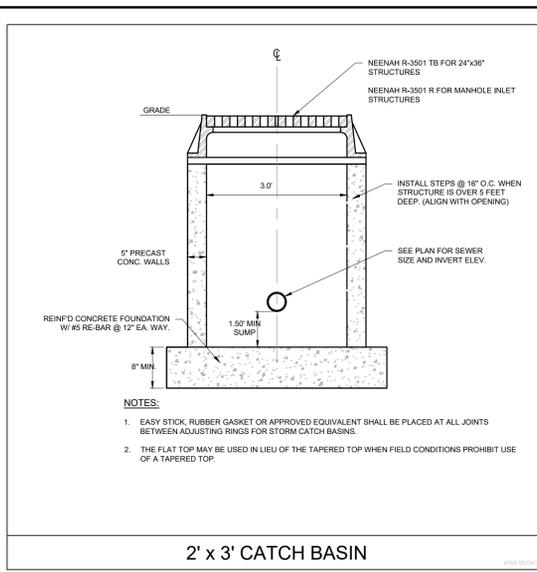
REVISIONS	
1	PER VILLAGE COMMENTS 10/14/25
2	PER VILLAGE COMMENTS 02/02/26
3	PER VILLAGE COMMENTS 02/05/26

REG. JOB NO. 957.10
REG. PM. AEK
START DATE 09/08/25
SCALE 1" = 40'

SHEET
8
OF
18

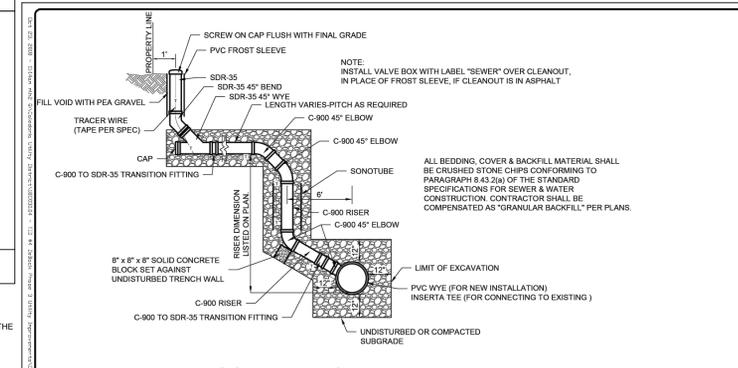
© COPYRIGHT 2025

THESE PLANS AND DESIGNS ARE COPYRIGHT-PROTECTED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF PINNACLE ENGINEERING GROUP, LLC



JOINT RESTRAINT LENGTHS

FITTING TYPE	6" PIPE	8" PIPE	12" PIPE
11.25° BEND	1'	2'	2'
22.50° BEND	2'	3'	4'
45° BEND	5'	6'	8'
DEAD END	30'	40'	56'



EROSION CONTROL SPECIFICATIONS & REQUIREMENTS

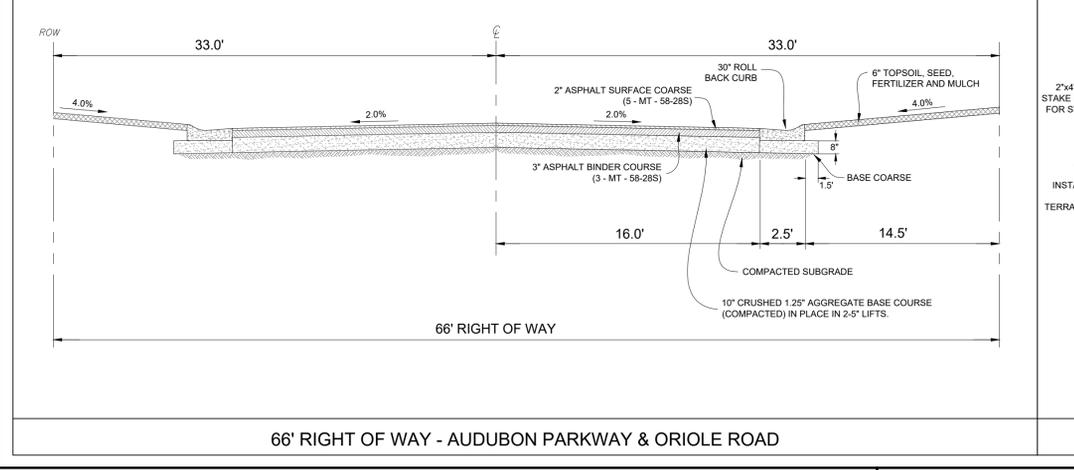
- ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT (WPDES PERMIT NO. WI-5067631-4) FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL TECHNICAL STANDARDS AND PROVISIONS IN EFFECT AT THE TIME OF CONSTRUCTION. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMPs). IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF AND UNDERSTAND THE BMPs PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
- QUALIFIED PERSONNEL (PROVIDED BY THE GENERAL/PRIME CONTRACTOR) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH OR MORE PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH THE GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
- POST WDNDR CERTIFICATE OF PERMIT COVERAGE ON SITE AND MAINTAIN UNTIL CONSTRUCTION ACTIVITIES HAVE CEASED. THE SITE IS STABILIZED AND A NOTICE OF TERMINATION IS FILED WITH WDNDR.
- KEEP COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
- MODIFICATIONS TO THE APPROVED SWAPP IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO BMPs. ALL MODIFICATIONS MUST BE APPROVED BY OWNER/ENGINEER/GOVERNING AGENCY PRIOR TO DEVIATION OF THE APPROVED PLAN.
- OWNER IS RESPONSIBLE FOR ROUTINE SITE INSPECTIONS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. KEEP INSPECTION REPORTS ON-SITE AND MAKE THEM AVAILABLE UPON REQUEST.
- INSPECT AND MAINTAIN ALL INSTALLED EROSION CONTROL PRACTICES UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- WHEN POSSIBLE, PRESERVE EXISTING VEGETATION (ESPECIALLY ADJACENT TO SURFACE WATERS), MINIMIZE LAND-DISTURBING CONSTRUCTION ACTIVITY ON SLOPES OF 20% OR MORE, MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL.
- REFER TO THE WDNDR STORMWATER CONSTRUCTION TECHNICAL STANDARDS.
- INSTALL PERIMETER EROSION CONTROLS AND ROCK TRACKING PAD CONSTRUCTION ENTRANCES PRIOR TO ANY LAND-DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRUBBING. USE WDNDR TECHNICAL STANDARD STORM TRACKING PAD AND TIRE WASHING #1067 FOR ROCK CONSTRUCTION ENTRANCES.
- INSTALL INLET PROTECTION PRIOR TO LAND-DISTURBING ACTIVITIES IN THE CONTRIBUTING DRAINAGE AREA AND/OR IMMEDIATELY UPON INLET INSTALLATION. COMPLY WITH WDNDR TECHNICAL STANDARD STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITES #1066.
- WHERE POSSIBLE, STAGE CONSTRUCTION GRADING ACTIVITIES TO MINIMIZE THE CUMULATIVE EXPOSED AREA. CONDUCT TEMPORARY GRADING FOR EROSION CONTROL PER WDNDR TECHNICAL STANDARD TEMPORARY GRADING PRACTICES FOR EROSION CONTROL #1067.
- NOTIFY OWNER & ENGINEER IF DEWATERING IS SCHEDULED TO OCCUR IN AREAS OF SOIL AND/OR GROUNDWATER CONTAMINATION OR IF DEWATERING WILL OCCUR FROM A HIGH CAPACITY WELL (70 GPM OR MORE). DEWATERING ONLY AFTER THE APPROPRIATE WDNDR DEWATERING DISCHARGE PERMIT HAS BEEN OBTAINED.
- PUMPS MAY BE USED AS BYPASS DEVICES IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS. PUMP DISCHARGE SHALL BE DIRECTED INTO APPROVED FILTER BAG OR APPROVED SETTLING DEVICE.
- PROVIDE ANTI-SCOUR PROTECTION AND MAINTAIN NON-EROSIVE FLOW DURING DEWATERING. LIMIT PUMPING TO EITHER (A) THE SEDIMENT BASIN/TRAP DESIGN DISCHARGE RATE, OR (B) THE BASIN DESIGN RELEASE RATE WITH THE CORRECTLY FITTED HOSE AND GEOTEXTILE FILTER BAG. PERFORM DEWATERING OF ACCUMULATED SURFACE RUNOFF IN ACCORDANCE WITH WDNDR TECHNICAL STANDARD DEWATERING #1061.
- COMPLETE AND STABILIZE SEDIMENT BASINS/TRAPS OR WET PONDS PRIOR TO MASS LAND DISTURBANCE TO CONTROL RUNOFF DURING CONSTRUCTION. REMOVE SEDIMENT AS NEEDED TO MAINTAIN 3 FEET OF DEPTH TO THE OUTLET, AND PROPERLY DISPOSE OF SEDIMENT REMOVED DURING MAINTENANCE (REFER TO NR 528). CONSTRUCT AND MAINTAIN THE SEDIMENT BASIN PER WDNDR TECHNICAL STANDARD SEDIMENT BASIN #1064 AND SEDIMENT TRAP #1063.
- CONSTRUCT AND PROTECT THE BIOFILTRATION BASIN AND VEGETATION FROM RUNOFF AND SEDIMENT DURING CONSTRUCTION. REFERENCE THE WDNDR TECHNICAL STANDARD BIOTENTION FOR INFILTRATION #1004. BIOFILTRATION MAY BE USED AS A SEDIMENT BASIN DURING CONSTRUCTION. DO NOT EXCAVATE FINAL 1' OR INSTALL STONE/ENGINEERED MEDIA UNTIL UPSTREAM AREA IS STABILIZED. WHEN THIS ACCOMPLISHED, REMOVE THE FINAL 1' PLUS ANY SOIL WHICH APPEARS TO BE IMPACTED BY SEDIMENT AND COMPLETE CONSTRUCTION OF BIOFILTRATION AREA.
- INSTALL AND MAINTAIN SILT FENCING PER WDNDR TECHNICAL STANDARD SILT FENCE #1056. REMOVE SEDIMENT FROM BEHIND SILT FENCES AND SEDIMENT BARRIERS BEFORE SEDIMENT REACHES A DEPTH THAT IS EQUAL TO ONE-HALF OF THE FENCE AND/OR BARRIER HEIGHT.
- REPAIR BREAKS AND GAPS IN SILT FENCES AND BARRIERS IMMEDIATELY. REPLACE DECOMPOSING STRAW BALES (TYPICAL BALE LIFE IS 3 MONTHS). LOCATE, INSTALL AND MAINTAIN STRAW BALES PER WDNDR TECHNICAL STANDARD DITCH CHECKS #1062.
- INSTALL AND MAINTAIN FILTER SOCK IN ACCORDANCE WITH WDNDR TECHNICAL STANDARD INTERM MANUFACTURED PERIMETER CONTROL AND SLOPE INTERRUPTION PRODUCTS #1017.
- IMMEDIATELY STABILIZE STOCKPILES AND SURROUND STOCKPILES AS NEEDED WITH SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILES WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.
- IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER. BETWEEN SEPTEMBER 15 AND OCTOBER 15: STABILIZE WITH MULCH, TACKIFIER AND A PERENNIAL SEED MIXED WITH WINTER WHEAT, ANNUAL OATS OR ANNUAL RYE, AS APPROPRIATE FOR REGION AND SOIL TYPE. OCTOBER 15 THROUGH COLD WEATHER: STABILIZE WITH A POLYMER AND DORMANT SEED MIX, AS APPROPRIATE FOR REGION AND SOIL TYPE.
- STABILIZE AREAS OF FINAL GRADING WITHIN 7 DAYS OF REACHING FINAL GRADE.
- SWEEP/CLEAN UP ALL SEDIMENT/TRASH THAT MOVES OFF-SITE DUE TO CONSTRUCTION ACTIVITY OR STORM EVENTS BEFORE THE END OF THE SAME WORKDAY OR AS DIRECTED BY THE MUNICIPALITY. SEPARATE SWEEP MATERIALS (SOILS AND TRASH) AND DISPOSE OF APPROPRIATELY.
- OWNER IS RESPONSIBLE FOR CONTROLLING DUST PER WDNDR TECHNICAL STANDARD DUST CONTROL ON CONSTRUCTION SITES #1068.
- PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTE OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO THE RECEIVING CHANNEL.
- COORDINATE WITH THE OWNER, ENGINEER AND DNR REPRESENTATIVE TO UPDATE THE LAND DISTURBANCE PERMIT TO INDICATE THE ANTICIPATED OR LIKELY DISPOSAL LOCATIONS FOR ANY EXCAVATED SOILS OR CONSTRUCTION DEBRIS THAT WILL BE HAULED OFF-SITE FOR DISPOSAL. THE DEPOSITED OR STOCKPILED MATERIAL NEEDS TO INCLUDE PERIMETER SEDIMENT CONTROL MEASURES (SUCH AS SILT FENCE, HAY BALES, FILTER SOCKS OR COMPACTED EARTHEN BERMS).
- FOR NON-CANALIZED FLOW ON DISTURBED OR CONSTRUCTED SLOPES, PROVIDE CLASS AND TYPE MATTING FOR THE SPECIFICATIONS UNLESS SPECIFIED OTHERWISE ON THE PLANS. SELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WDNDR'S WISDOT PRODUCT ACCEPTABILITY LIST (PAL). INSTALL AND MAINTAIN PER WDNDR TECHNICAL STANDARD NON-CANAL EROSION MAT #1052.
- FOR CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED SLOPES, PROVIDE CLASS AND TYPE MATTING FOR THE SPECIFICATIONS UNLESS SPECIFIED OTHERWISE ON THE PLANS. SELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WDNDR'S WISDOT PRODUCT ACCEPTABILITY LIST (PAL). INSTALL AND MAINTAIN PER WDNDR TECHNICAL STANDARD CHANNEL EROSION MAT #1053.
- MAKE PROVISIONS FOR WATERING DURING THE FIRST 8 WEEKS FOLLOWING SEEDING OR PLANTING OF DISTURBED AREAS WHENEVER MORE THAN 7 CONSECUTIVE DAYS OF DRY WEATHER OCCUR.
- INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES (SUCH AS TEMPORARY SEDIMENT BASIN, DITCH CHECKS, EROSION CONTROL MATTING, SILT FENCING, FILTER SOCKS, WATTLES, SWALES, ETC) OR AS DIRECTED BY OWNER, MUNICIPALITY, OR DNR REPRESENTATIVE.
- OWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE WDNDR REMEDIATION AND WASTE MANAGEMENT REQUIREMENTS FOR HANDLING AND DISPOSING OF CONTAMINATED MATERIALS. SITE-SPECIFIC INFORMATION FOR AREAS WITH KNOWN OR SUSPECTED SOIL AND/OR GROUNDWATER CONTAMINATION CAN BE FOUND ON WDNDR'S BUREAU OF REMEDIATION AND REDEVELOPMENT TRACKING SYSTEM PUBLIC DATABASE.
- MAINTAIN SOIL EROSION CONTROL DEVICE THROUGHOUT THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS ARE FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCE ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
- NOTIFY THE OWNER IMMEDIATELY IF THERE IS A DISCHARGE OF SEDIMENT AND/OR OTHER CONTAMINANTS.

GENERAL SPECIFICATIONS FOR CONSTRUCTION ACTIVITIES

- THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, THE STANDARD SPECIFICATIONS FOR SEWER & WATER IN WISCONSIN, AND WISCONSIN ADMINISTRATIVE CODE, SP5, SP6, 382-383, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR EXECUTION OF THE WORK. THE CONTRACTOR SHALL CONDUCT THEIR WORK ACCORDING TO THE REQUIREMENTS OF THE PERMITS.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE MUNICIPALITY FORTY- EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION.
- THE MUNICIPALITY SHALL HAVE THE RIGHT TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION OF THE PUBLIC PORTIONS OF THE WORK. THE OWNER SHALL HAVE THE RIGHT TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION OF ALL PRIVATE PORTIONS OF THE WORK.
- THE CONTRACTOR SHALL INDENTIFY THE OWNER, THE ENGINEER, AND THE MUNICIPALITY, THEIR AGENTS, ETC. FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING SOIL CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT MAY BE AVAILABLE FROM THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY INFORMATION SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL DIGGERS HOTLINE AT 1-800-242-8511 TO NOTIFY THE UTILITIES OF HIS INTENTIONS, AND TO REQUEST FIELD STAKING OF EXISTING UTILITIES.
- SILT FENCE AND OTHER SEWER CONTROL FACILITIES MUST BE INSTALLED PRIOR TO CONSTRUCTION OR ANY OTHER LAND DISTURBING ACTIVITY. FOLLOW THE SEQUENCE OF CONSTRUCTION ON THE EROSION CONTROL PLAN FOR EACH AND EVERY RAINFALL OF 0.5" OR MORE. REPAIRS SHALL BE MADE IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION CONTROL FACILITIES ONCE THE THREAT OF EROSION HAS PASSED WITH THE APPROVAL OF THE GOVERNING AGENCY.
- ANY ADJACENT PROPERTIES OR ROAD RIGHT-OF-WAYS WHICH ARE DAMAGED DURING CONSTRUCTION MUST BE RESTORED BY THE CONTRACTOR.
- TRASH AND DEBRIS SHALL BE NOT BE ALLOWED TO ACCUMULATE ON THIS SITE AND THE SITE SHALL BE CLEAN UPON COMPLETION OF WORK.
- THE OWNER SHALL HAVE THE RIGHT TO HAVE ALL MATERIALS USED IN CONSTRUCTION TESTED FOR COMPLIANCE WITH THESE SPECIFICATIONS.

SPECIFICATIONS FOR GRADING & EROSION CONTROL

- THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATIONS OF ALL GRADING AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO COMPLETE THE PROJECT. CONTRACTOR SHALL NOTIFY OWNER OF THE NEED TO IMPORT OR HAUL OFF SOIL. ON-SITE LOCATIONS SUITABLE FOR BORROW OR FILL MAY BE PRESENT. COORDINATE WITH OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SOIL CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT MAY BE AVAILABLE FROM THE OWNER.
- SITE SHALL BE CLEARED TO THE LIMITS SHOWN ON THE PLANS. REMOVE VEGETATION FROM THE SITE. BURNING IS NOT PERMITTED. PROTECT TREES AND OTHER FEATURES FROM DAMAGE WITH FENCING. STOCKPILES SHALL NOT BE LOCATED CLOSER THAN 25' TO A DRAINAGE STRUCTURE OR FEATURE AND SHALL BE SURROUNDED WITH SILT FENCE.
- THE GEOTECHNICAL ENGINEER IS RESPONSIBLE FOR VERIFYING COMPACTION AND FILL PLACEMENT IN THE FIELD. THE GEOTECHNICAL ENGINEER MAY SUPERSEDE THESE SPECIFICATIONS IF THERE IS GOOD CAUSE TO DO SO. AN EXPLANATION MUST BE SUBMITTED TO THE ENGINEER IN WRITING BEFORE ANY DEVIATIONS ARE MADE.
- IF NO GEOTECHNICAL RECOMMENDATION IS AVAILABLE, THEN THE FOLLOWING SPECIFICATIONS SHALL APPLY. ALL FILL SHALL BE CONSIDERED STRUCTURAL FILL AND SHALL BE PLACED IN ACCORDANCE WITH THE FOLLOWING: THE COMPACTED FILL SUBGRADE SHALL CONSIST OF AND SHALL BE UNDERLAIN BY SUITABLE BEARING MATERIALS, FREE OF ALL ORGANIC, FROZEN OR OTHER DELETERIOUS MATERIAL, AND INSPECTED AND APPROVED BY THE RESIDENT GEOTECHNICAL ENGINEER. PREPARATION OF THE SUBGRADE, AFTER STRIPPING, SHALL CONSIST OF PROOF-ROLLING TO DETECT UNSTABLE AREAS THAT MIGHT BE UNDERCUT, AND COMPACTING THE SCARIFIED SURFACE TO THE SAME MINIMUM DENSITY INDICATED BELOW. THE COMPACTED FILL MATERIALS SHALL BE FREE OF ANY DELETERIOUS ORGANIC OR FROZEN MATTER AND SHALL HAVE A MAXIMUM LIQUID LIMIT (ASTM-D-423) AND PLASTICITY INDEX (ASTM D-424) IF 30 AND 10 RESPECTFULLY, UNLESS SPECIFICALLY TESTED AND FOUND TO HAVE LOW EXPANSIVE PROPERTIES AND APPROVED BY AN EXPERIENCED SOILS ENGINEER. THE TOP TWELVE (12") INCHES OF COMPACTED FILL SHOULD HAVE A MAXIMUM THREE (3") INCH PARTICLE DIAMETER AND ALL UNDERLYING COMPACTED FILL A MAXIMUM SIX (6") INCH PARTICLE DIAMETER UNLESS SPECIFICALLY APPROVED BY AN EXPERIENCED SOILS ENGINEER. ALL FILL MATERIAL MUST BE TESTED AND APPROVED UNDER THE DIRECTION AND SUPERVISION OF AN EXPERIENCED SOILS ENGINEER PRIOR TO PLACEMENT. IF THE FILL IS TO PROVIDE NON-FROST SUSCEPTIBLE CHARACTERISTICS, IT MUST BE CLASSIFIED AS A CLEAN GW, GP, SW, OR SP PER UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D-2487) FOR STRUCTURAL FILL. THE DENSITY OF THE STRUCTURAL COMPACTED FILL AND SCARIFIED SUBGRADE AND GRADES SHALL NOT BE LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR (ASTM D-698) WITH THE EXCEPTION TO THE TOP 12 INCHES OF PAVEMENT SUBGRADE WHICH SHALL A MINIMUM IN-SITU DENSITY OF 100 PERCENT OF THE MAXIMUM DRY DENSITY, OR 5 PERCENT HIGHER THAN UNDERLYING FILL MATERIALS. THE MOISTURE CONTENT OF COHESIVE SOIL SHALL NOT VARY BY MORE THAN +1 TO +3 PERCENT OF OPTIMUM WHEN PLACED AND COMPACTED OR RECOMPACTED. UNLESS SPECIFICALLY APPROVED BY THE SOILS ENGINEER TAKING INTO CONSIDERATION THE TYPE OF MATERIALS AND COMPACTION EQUIPMENT BEING USED, THE COMPACTION EQUIPMENT SHOULD CONSIST OF SUITABLE MECHANICAL EQUIPMENT SPECIFICALLY DESIGNED FOR SOIL COMPACTION. BULLDOZERS OR SIMILAR TRACKED VEHICLES ARE TYPICALLY NOT SUITABLE FOR COMPACTION. MATERIAL THAT IS TOO WET TO PERMIT PROPER COMPACTION MAY BE SPREAD ON THE FILL AND PERMITTED TO DRY. DISING, HARROWING OR PULVERIZING MAY BE NECESSARY TO REDUCE THE MOISTURE CONTENT TO A SATISFACTORY VALUE. AFTER WHICH IT SHALL BE COMPACTED. THE FINISHED SUBGRADE AREA OF THE SITE SHALL BE COMPACTED TO 100 PERCENT OF THE STANDARD PROCTOR (ASTM D-98) MAXIMUM DENSITY.
- NO FILL SHALL BE PLACED ON A WET OR SOFT SUBGRADE. THE SUBGRADE SHALL BE PROOF-ROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER BEFORE ANY MATERIAL IS PLACED.
- SUBGRADE TOLERANCES ARE +/- 1" FOR LANDSCAPE AREAS AND +/- 1/2" FOR ALL PAVEMENT AND BUILDING AREAS.
- TOPSOIL SHALL BE FREE OF DELETERIOUS MATERIALS, ROOTS, OLD VEGETATION, ROCKS OVER 2" DIAMETER AND SHALL NOT BE EXCESSIVELY CLAYEY IN NATURE. NO CLAY LARGER THAN 4" ARE ACCEPTABLE. TOPSOIL MAY BE AMENDED AS NEEDED WITH SAND OR COMPOST TO BE LOOSE WHEN SPREAD.
- THE CONTRACTOR SHALL MAINTAIN SITE DRAINAGE THROUGHOUT CONSTRUCTION. THIS MAY INCLUDE THE EXCAVATION OF TEMPORARY DITCHES OR PUMPING TO ALLEVIATE WATER PONDING. ANY DEWATERING SHALL NOT GO DIRECTLY TO STREAMS, CREEKS, WETLANDS OR OTHER ENVIRONMENTALLY SENSITIVE AREAS WITHOUT BEING TREATED FIRST. A DIRT BAG OR OTHER DEWATERING TREATMENT DEVICE MAY BE USED TO CAPTURE SEDIMENT FROM THE PUMPED WATER.
- CONTRACTOR IS ADVISED THAT ALL MUD AND DEBRIS MUST NOT BE DEPOSITED ONTO THE ADJACENT ROADWAYS PER THE REQUIREMENT OF THE MUNICIPALITY OR OTHER APPROPRIATE GOVERNMENT AGENCIES. IN THE EVENT THIS OCCURS, THE ROADWAYS SHALL BE POWER SWEEPED IMMEDIATELY AND ALL SEDIMENT REMOVED FROM DOWNSTREAM FACILITIES.



DESIGNED: BOP
DRAWN: BOP
REVIEWED: A&K

PLAN | DESIGN | DELIVER
www.pinnacle-engr.com

PINNACLE ENGINEERING GROUP
ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:
20725 WATERTOWN ROAD, SUITE 100
BROOKFIELD, WI 53186
(262) 754-8888
CHICAGO | MILWAUKEE | NATIONWIDE

AUDUBON PHASE 1
CALEDONIA, WISCONSIN

CONSTRUCTION DETAILS & SPECIFICATIONS

REVISIONS

NO.	DESCRIPTION	DATE
1	PER VILLAGE COMMENTS	10/14/25
2	PER VILLAGE COMMENTS	02/02/26
3	PER VILLAGE COMMENTS	02/05/26

PEC JOB No.: 957.10
PEG PM: A&K
START DATE: 09/08/25
SCALE: N.T.S.

SHEET 18 OF 18
© COPYRIGHT 2023

CONSTRUCTION DETAILS & SPECIFICATIONS

REVISIONS

NO.	DESCRIPTION	DATE
1	PER VILLAGE COMMENTS	10/14/25
2	PER VILLAGE COMMENTS	02/02/26
3	PER VILLAGE COMMENTS	02/05/26

PEC JOB No.: 957.10
PEG PM: A&K
START DATE: 09/08/25
SCALE: N.T.S.

SHEET 18 OF 18
© COPYRIGHT 2023