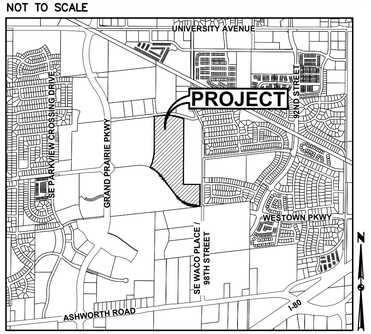
SITE PLAN FOR:

KETTLESTONE CENTRAL - GYMNASIUM

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

OWNER

DICKSON D & LUANN C JENSEN
4611 MORTENSEN ROAD STE 106
AMES, IA 50014

APPLICANT

JENSEN GROUP
CONTACT: DICKSON JENSEN
4611 MORTENSEN ROAD STE 106
AMES, IA 50014
PH: (515) 233-2752

ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
CONTACT: ERIN OLLENDIKE
EMAIL: ERINO@CDA-ENG.COM
PH. (515) 369-4400

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
CONTACT: CHARLIE MCGLOTHLEN
EMAIL: CHARLIEM@CDA-ENG.COM
PH. (515) 369-4400

DATE OF SURVEY

MARCH, 2022

BENCHMARKS

1. DALLAS COUNTY BM 120 (G120)
   5/8" DIA. X 6'-0" LONG ALUMINUM ROD WITH CAP STAMPED G120 & NGS STYLE ACCESS COVER 3" DEEP LOCATED ON EAST SIDE OF U PLACE ABOUT 150' SOUTH OF 200TH STREET. ELEVATION=1011.76

CONSTRUCTION SCHEDULE

ANTICIPATED START DATE = SEPTEMBER 2023
ANTICIPATED FINISH DATE = SEPTEMBER 2024

SUBMITTAL DATES

FIRST SUBMITTAL:	09/06/2022
SECOND SUBMITTAL:	07/18/2023
THIRD SUBMITTAL:	08/08/2023
FOURTH SUBMITTAL:	08/29/2023
FIFTH SUBMITTAL:	09/19/2023
SIXTH SUBMITTAL:	09/26/2023
FINAL SUBMITTAL:	10/17/2023
REVISED SUBMITTAL:	03/04/2025

NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN UPDATED SITE PLAN ILLUSTRATING ANY CHANGES MADE DURING CONSTRUCTION AND RECEIVE APPROVAL IN WRITING FROM THE CITY OF WAUKEE COMMUNITY DEVELOPMENT DEPARTMENT OF SAID CHANGES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES MADE WITHOUT WRITTEN APPROVAL.

PROJECT SITE ADDRESS

2045 SE GLACIER TRAIL

ZONING

K-RR: KETTLESTONE RETAIL REGIONAL DISTRICT

DEVELOPMENT SUMMARY

LOT 14 AREA: 14.16 ACRES (616,623 SF)

BULK REGULATIONS:

K-RR: KETTLESTONE RETAIL REGIONAL DISTRICT;

A. PRINCIPAL PERMITTED USES FOR THIS AREA SHALL INCLUDE RETAIL BUSINESSES, SERVICE ESTABLISHMENTS, AND OFFICE USES (SEE CITY CODE CHAPTER 169.25 FOR DETAILED USES).
B. MINIMUM LOT AREA: NO MINIMUM REQUIREMENT.
C. MINIMUM LOT WIDTH: NO MINIMUM REQUIREMENT.
D. FRONT YARD: NO MINIMUM FOR PRINCIPAL PERMITTED USES. 20 FEET MINIMUM FOR ACCESSORY STRUCTURES.
E. SIDE YARD: NO MINIMUM FOR PRINCIPAL PERMITTED USES UNLESS ADJACENT TO ADJOINING SINGLE-FAMILY, IN WHICH CASE THE MINIMUM SETBACK SHALL BE 50 FEET. 5 FEET FOR ACCESSORY STRUCTURES.
F. REAR YARD: NO MINIMUM FOR PRINCIPAL PERMITTED USES UNLESS ADJACENT TO ADJOINING SINGLE-FAMILY, IN WHICH CASE THE MINIMUM SETBACK SHALL BE 50 FEET. 5 FEET FOR ACCESSORY STRUCTURES
G. BUILDING SEPARATION: 25 FEET FOR PRINCIPAL USES. 25 FEET BETWEEN PRINCIPAL BUILDING AND ACCESSORY BUILDING.
H. MINIMUM BUILDING HEIGHT: NO MINIMUM REQUIREMENT.
I. MAXIMUM BUILDING HEIGHT: PRINCIPAL BUILDING - 8 STORIES. ACCESSORY BUILDING - 1 STORY.
J. MINIMUM FLOOR AREA RATIO: 0.35.
K. OFF-STREET PARKING AND LOADING: ONE SPACE PER 250 SF OF RETAIL AND OFFICE USES. SPACES FOR ALL OTHER USES SHALL BE PROVIDED IN ACCORDANCE WIT THE PROVISIONS OF CHAPTER 168 OF THE ZONING REGULATIONS.
L. MINIMUM OPEN SPACE: THE TOTAL LAND AREA DEVOTED TO OPEN SPACE AND LANDSCAPING SHALL NOT BE LESS THAN 20% OF THE GROSS LAND AREA INCLUDED IN THE BUILDING LOT. SUCH OPEN SPACE SHALL BE MAINTAINED AS GRASSED AND LANDSCAPED AREA AND SHALL NOT INCLUDE ACCESS DRIVES, PARKING AREAS, STRUCTURE, OR BUILDINGS, EXCEPT ORNAMENTAL STRUC

PARKING

PARKING REQUIRED	= 728 SPACES
(13 COURTS = 56 SPACES PER COURT)	
PARKING PROVIDED	= 808 SPACES
ADA PARKING REQUIRED	= 17 SPACES
(501-1,000) 2% OF TOTAL	
ADA PARKING PROVIDED	= 17 SPACES
BICYCLE PARKING REQUIRED	= 25 SPACES
(808 * 3%)	
BICYCLE PARKING PROVIDED	= 26 SPACES

IMPERVIOUS SURFACE AREA

TOTAL IMPERVIOUS AREA	= 468,423 SF
LOT AREA	= 616,623 SF
OPEN SPACE REQUIRED	= 20% (123,325 SF)
OPEN SPACE PROVIDED	= 24% (148,200 SF)

INDEX OF SHEETS

NO.	DESCRIPTION
C1.0	COVER SHEET
C2.0	DETAILS
C3.0-3.2	DIMENSION PLAN
C4.0-4.13	GRADING PLAN
C5.0-5.3	EROSION AND SEDIMENT CONTROL PLAN
C6.0-6.9	UTILITY PLAN
L1.0	LANDSCAPE PLAN

LEGAL DESCRIPTION

LOT 14, KETTLESTONE CENTRAL PLAT 1, AN OFFICIAL PLAT IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA AND CONTAINING 14.16 ACRES (616,623 SQUARE FEET). THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

GENERAL LEGEND

PROPOSED

PROPERTY BOUNDARY	
SECTION LINE	
CENTER LINE	
RIGHT OF WAY	R/W
BUILDING SETBACK	
PERMANENT EASEMENT	P/E
TEMPORARY EASEMENT	T/E
TYPE SW-501 STORM INTAKE	
TYPE SW-502 STORM INTAKE	
TYPE SW-503 STORM INTAKE	
TYPE SW-505 STORM INTAKE	
TYPE SW-506 STORM INTAKE	
TYPE SW-512 STORM INTAKE	ST
TYPE SW-513 STORM INTAKE	ST
TYPE SW-401 STORM MANHOLE	ST
TYPE SW-402 STORM MANHOLE	ST
FLARED END SECTION	
TYPE SW-301 SANITARY MANHOLE	S
STORM/SANITARY CLEANOUT	
WATER VALVE	
FIRE HYDRANT ASSEMBLY	
SIGN	
DETECTABLE WARNING PANEL	
WATER CURB STOP	
SANITARY SEWER	
SANITARY SERVICE	S S S
STORM SEWER	
STORM SERVICE	ST ST
WATERMAIN WITH SIZE	8"W
WATER SERVICE	W W
SAWCUT (FULL DEPTH)	
SILT FENCE	
USE AS CONSTRUCTED	(UAC)
MINIMUM PROTECTION ELEVATION	MPE

EXISTING

SANITARY MANHOLE	S
WATER VALVE BOX	W
FIRE HYDRANT	
WATER CURB STOP	CS
WELL	WELL
STORM SEWER MANHOLE	ST
STORM SEWER SINGLE INTAKE	
STORM SEWER DOUBLE INTAKE	
FLARED END SECTION	
DECIDUOUS TREE	
CONIFEROUS TREE	
DECIDUOUS SHRUB	
CONIFEROUS SHRUB	
ELECTRIC POWER POLE	
GUY ANCHOR	
STREET LIGHT	
POWER POLE W/ TRANSFORMER	
UTILITY POLE W/ LIGHT	
ELECTRIC BOX	E
ELECTRIC TRANSFORMER	E
ELECTRIC MANHOLE OR VAULT	E
TRAFFIC SIGN	
TELEPHONE JUNCTION BOX	T
TELEPHONE MANHOLE/VAULT	T
TELEPHONE POLE	
GAS VALVE BOX	G
CABLE TV JUNCTION BOX	TV
CABLE TV MANHOLE/VAULT	TV
MAIL BOX	M
BENCHMARK	BM
SOIL BORING	SB
UNDERGROUND TV CABLE	TV
GAS MAIN	G
FIBER OPTIC	FO
UNDERGROUND TELEPHONE	T
OVERHEAD ELECTRIC	OE
UNDERGROUND ELECTRIC	E
FIELD TILE	TILE
SANITARY SEWER W/ SIZE	8"S
STORM SEWER W/ SIZE	15"ST
WATER MAIN W/ SIZE	8"W

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE, URBANDALE, IOWA 50322
PH: (515) 369-4400
PROJECT NO. 2302.086

* * * N O T E * * *
THE BUILDINGS SHOWN IS FOR REFERENCE PURPOSES ONLY. FINAL BUILDING TYPE IS SUBJECT TO CHANGE. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
Know what's below. Call before you dig.

THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2 AND CITY OF WAUKEE COSESCO PERMIT. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

THE 2023 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

LICENSED PROFESSIONAL ENGINEER
ERIN K. OLLENDIKE
16926
IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

ERIN K. OLLENDIKE, P.E. — DATE

LICENSE NUMBER 16926
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS 1.0-6.9

FILE: H:\2023\2302086\DWG\2302086-SITE-CDV-DET-ONLINE.dwg
FILE DATE: 3/18/25
PLOTTED BY: DAVE ARNOLD
DATE PLOTTED: 3/18/2025 11:32 AM
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COMMENT:
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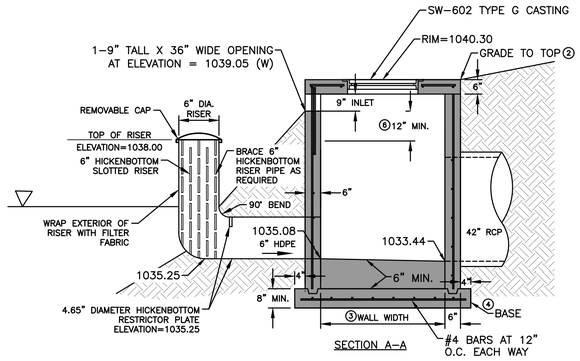
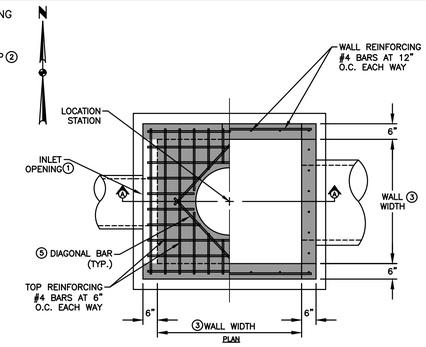




STRUCTURE MAY BE BUILT WITH OPENINGS ON ANY OR ALL SIDES. PROVIDE OPENINGS AND ORIENTATION AS SPECIFIED IN THE CONTRACT DOCUMENTS.

ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.

① CONSTRUCT INLET OPENINGS WITH 15-INCH #4 EPOXY-COATED BARS AT 6 INCHES ON CENTER. EMBED BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS. CONSTRUCT 1 INLET OPENING 9" TALL AND 36" WIDE.

② GRADE TO INLET ELEVATION ON OPEN SIDES. GRADE TO TOP ELEVATION ON CLOSED SIDES.

③ WALL WIDTHS VARY WITH PIPE DIA. PROVIDE 6 INCHES OF WALL WIDTH (MINIMUM) EACH SIDE OF PIPE OPENING. MINIMUM WALL WIDTH IS 36 INCHES. MAXIMUM WALL WIDTH IS 72 INCHES.

④ CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

⑤ INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.

⑥ 12" MINIMUM WALL HEIGHT ABOVE ALL PIPES.

⑦ CORNER PIER REQUIRED BETWEEN OPENINGS OF TWO ADJACENT WALLS. EXTEND WALL REINFORCING VERTICALLY THROUGH PIER. INSTALL ONE ADDITIONAL 15-INCH #4 BAR IN PIER.

NOTE: TO PROTECT THE STANDPIPES DURING CONSTRUCTION INSTALL FILTER FABRIC AROUND BOTTOM HALF OF STANDPIPE AND INSTALL TEMPORARY EROSION STONE AROUND PIPE. IN ORDER TO CONVERT SEDIMENT BASIN INTO A PERMANENT FINAL CONDITION, REMOVE THE FILTER FABRIC AND EROSION STONE AROUND THE STANDPIPE AND CLEAN OUT SEDIMENT AROUND PIPE. FOR LONG TERM & POST-CONSTRUCTION MAINTENANCE, REFER TO THE IOWA STORM WATER MANAGEMENT MANUAL, SECTION 9.11-4.

NOTE: ONCE LOTS 1-4, 14, AND KETTLESTONE CENTRAL APARTMENTS HAVE BEEN DEVELOPED, THE TEMPORARY SEDIMENT BASIN CAN BE REMOVED.

4' X 4' SW-513 INTAKE WITH PERMANENT STAND PIPE (ST-32)

NOT TO SCALE

① Parallel Curb Ramp: If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.

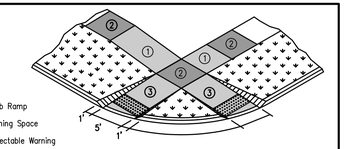
The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.

② Turning Space: Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. Minimum 5 feet by 5 feet.

③ Perpendicular Curb Ramp: Target running slope of 6.25% with maximum running slope of 8.3%.

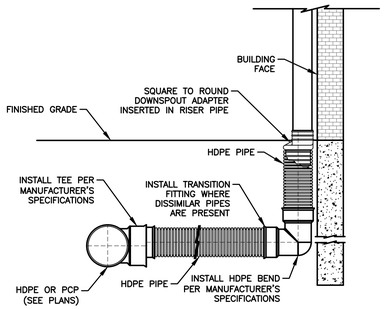
④ Target cross slope of 1.5% with a maximum cross slope of 2.0%

⑤ Match pedestrian street crossing cross slope or flatter



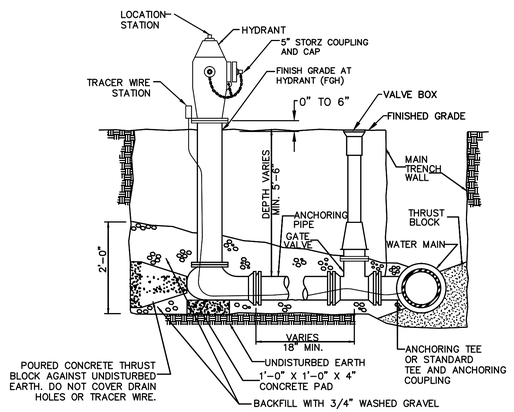
CURB RAMP FOR CLASS B OR C SIDEWALK

NOT TO SCALE



DOWNSPOUT CONNECTION WITH TEE

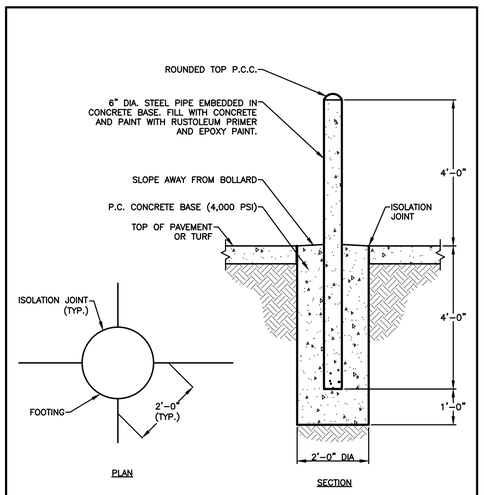
NOT TO SCALE



NOTES
1. MINIMUM SIZE FOR PIPING. VALVES AND FITTINGS FROM WATERMAIN TO HYDRANT INLET: 6".
2. PROVIDE TRACER WIRE AND TRACER WIRE STATION.
3. WRAP HYDRANT, PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT.

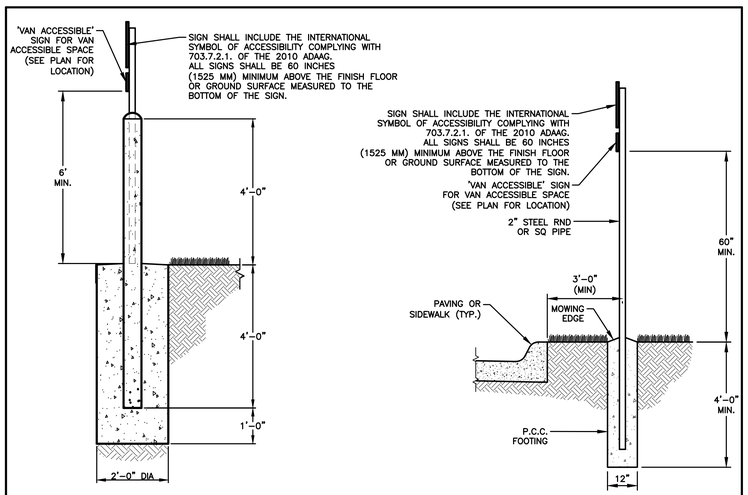
HYDRANT ASSEMBLY DETAIL

NOT TO SCALE



BOLLARD

NOT TO SCALE



SIGN ON BOLLARD

NOT TO SCALE

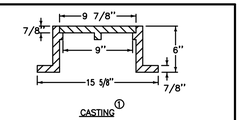
SIGN ON POST

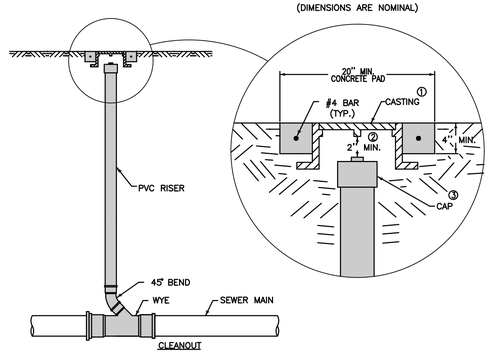
NOT TO SCALE

① STANDARD DUTY CASTING COMPLYING WITH AASHTO M 306. MARK LID WITH "SANITARY" OR "SANITARY C.O."

② DO NOT ALLOW CASTING TO BEAR ON TOP OF RISER PIPE.

③ THREADED PVC CAP OR IRON BODY FERRULE WITH BRASS SCREW PLUG





SW-203 SANITARY CLEANOUT

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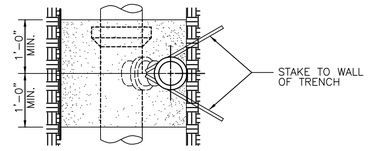
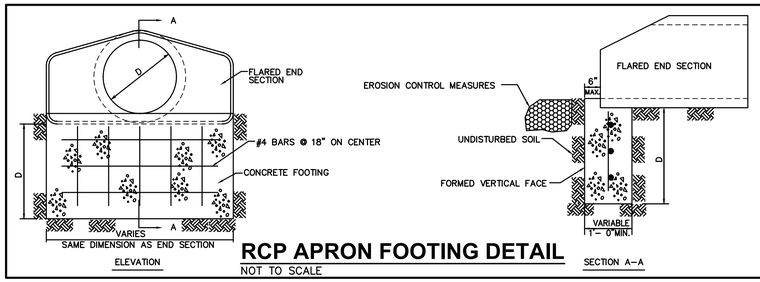


NOTES
1. INSTALL RISER TO BEAR FIRMLY AGAINST UNDISTURBED WALL OF TRENCH. STAKE RISER PIPE IN PLACE PRIOR TO BACK-FILLING TO PREVENT MOVEMENT OF PIPE
2. NOTCH WALL OF TRENCH TO RECEIVE PIPE WHERE POSSIBLE.

SANITARY SEWER SERVICE RISER

NOT TO SCALE



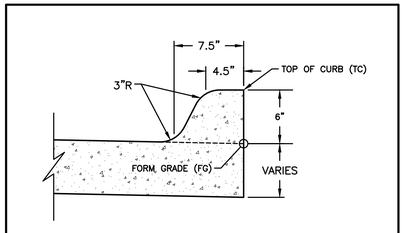
NOTES:
1. D=DIFFERENCE IN ELEVATION BETWEEN FLARED END INVERT AND DRAINAGE WAY CHANNEL FLOW LINE 300 FT DOWNSTREAM OF FLARED END; MINIMUM D=42"
2. INSTALL 3' WIDE CLAY WATERSTOP AT FLARED END SECTION PIPE JOINT.
3. TRASH GUARDS ARE NOT ALLOWED ON PIPES 48" OR LARGER.

REINFORCING BAR LIST

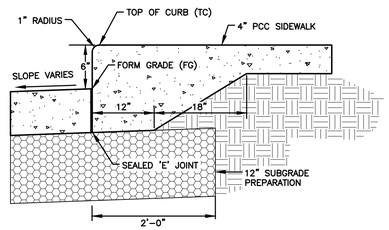
D	W	Mark	Size	Length	Count
12"	2'-4"	4f1	4	2'-0"	3
		4f2	4	3'-8"	2
15"	2'-10"	4f1	4	2'-6"	3
		4f2	4	3'-8"	2
18"	3'-5"	4f1	4	3'-1"	3
		4f2	4	3'-8"	3
24"	4'-6"	4f1	4	4'-2"	3
		4f2	4	3'-8"	3
30"	5'-7"	4f1	4	5'-3"	3
		4f2	4	3'-8"	4
36"	6'-8"	4f1	4	6'-4"	3
		4f2	4	3'-8"	5
42"	7'-3"	4f1	4	6'-11"	3
		4f2	4	3'-8"	5
48"	7'-10"	4f1	4	7'-6"	3
		4f2	4	3'-8"	6
54"	8'-5"	4f1	4	8'-1"	3
		4f2	4	3'-8"	6
60"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
66"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
72"	10'-0"	4f1	4	9'-8"	3
		4f2	4	3'-8"	7
78"	10'-7"	4f1	4	10'-3"	3
		4f2	4	3'-8"	7
84"	11'-1"	4f1	4	10'-9"	3
		4f2	4	3'-8"	8

RCP APRON FOOTING DETAIL

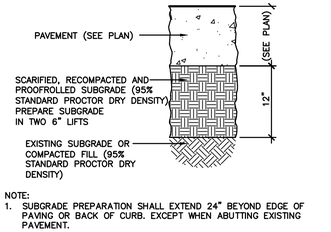
NOT TO SCALE



INTEGRAL 6" STANDARD CURB



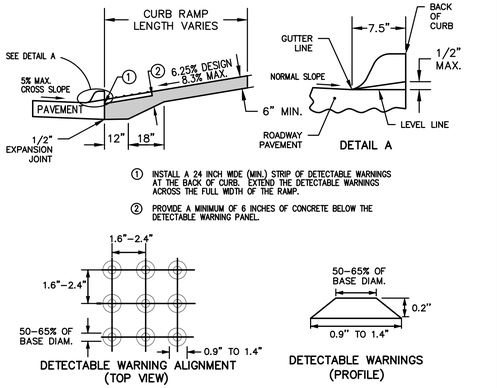
CLASS 'A' INTEGRAL CURB AND SIDEWALK



NOTE:
1. SUBGRADE PREPARATION SHALL EXTEND 24" BEYOND EDGE OF PAVING OR BACK OF CURB. EXCEPT WHEN ABUTTING EXISTING PAVEMENT.

12" SUBGRADE PREPARATION

NOT TO SCALE



DETECTABLE WARNING DETAIL

NOT TO SCALE

REVISIONS	DATE
REVISED SUBMITTAL	03/04/2025
FINAL SUBMITTAL	10/17/2023
SIXTH SUBMITTAL	09/26/2023
FIFTH SUBMITTAL	09/19/2023
FOURTH SUBMITTAL	08/29/2023
THIRD SUBMITTAL	08/08/2023

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ENGINEER: EKO | ENGINEER: JWM TECH: MST
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

KETTLESTONE CENTRAL - GYMNASIUM

DETAILS

SHEET NUMBER:
C2.0
2302.086

FILE: I:\2023\2302086\DWG\2302086-SITE-CIVI-DET-DIM.DWG
FILE DATE: 3/18/25
PLOTTED BY: CADE HOWLAND
DATE PLOTTED: 3/18/2025 11:32 AM
COMMENT:
DISC:
TECH:

GENERAL NOTES

1. THE 2023 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS , IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
2. ALL WORK SHALL COMPLY WITH ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
3. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
4. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
5. ONE WEEK PRIOR TO CONSTRUCTION WITHIN CITY R.O.W. OR ANY CONNECTION TO PUBLIC UTILITIES CONTRACTOR SHALL NOTIFY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
6. ALL CONSTRUCTION WITHIN PUBLIC R.O.W./ EASEMENTS, AND/OR ANY CONNECTION TO PUBLIC SEWERS AND STREETS, SHALL COMPLY WITH THE 2023 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS.
7. ALL DIMENSIONS ARE TO BACK OF CURB, BUILDING FACE OR PROPERTY LINE UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO VERIFY BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
9. PLACE 3/4 INCH EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDING. PLACE 1/2 INCH EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C. PAVEMENT.
10. REMOVE ALL DEBRIS AND MUD SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
11. ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
12. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE RIGHT OF WAY.
13. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREAS WILL BE SUBJECT TO THE APPROVAL OF THE OWNER.
14. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING EQUIPMENT ON THE PAVEMENT OR SIDEWALK. ANY PAVEMENT REPLACEMENT SHALL COMPLY WITH THE 2023 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
15. THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY, AS DIRECTED BY THE ENGINEER OR THE CITY.
16. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT, INCLUDING STAGING OF CONSTRUCTION DETAILS.
17. ALL PERMITS AND ADDITIONAL FEES REQUIRED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE CONTRACT BID.
18. ALL STAKING, INCLUDING PEDESTRIAN FACILITIES, IS TO BE DONE UNDER THE DIRECTION OF A LICENSED ENGINEER OR SURVEYOR.
19. IT IS THE CONTRACTORS RESPONSIBILITY TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF WAUKEE COMMUNITY DEVELOPMENT DEPARTMENT AT LEAST ONE WEEK PRIOR TO CONSTRUCTION ACTIVITIES COMMENCING.
20. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY OF WAUKEE ENGINEERING DEPARTMENT 72 HOURS PRIOR TO ANY PLANNED WEEKEND OR HOLIDAY WORK.
21. APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED FOR THESE BUILDINGS OR PORTION OF A BUILDING AS SOON AS CONSTRUCTION COMMENCES. THE FIRE APPARATUS ACCESS ROAD SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 503.2 AND SHALL EXTEND TO WITHIN 100 FEET OF ALL EXTERIOR PORTIONS OF THE BUILDING AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING.
22. ALL STREETS TO BE PRIVATELY OWNED AND MAINTAINED.
23. CONTRACTOR IS RESPONSIBLE TO OBTAIN WRITTEN APPROVAL FOR ANY PLAN CHANGES DURING CONSTRUCTION FROM THE COMMUNITY DEVELOPMENT DEPARTMENT. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES THAT HAVE NOT RECEIVE WRITTEN APPROVAL FROM THE COMMUNITY DEVELOPMENT DEPARTMENT.

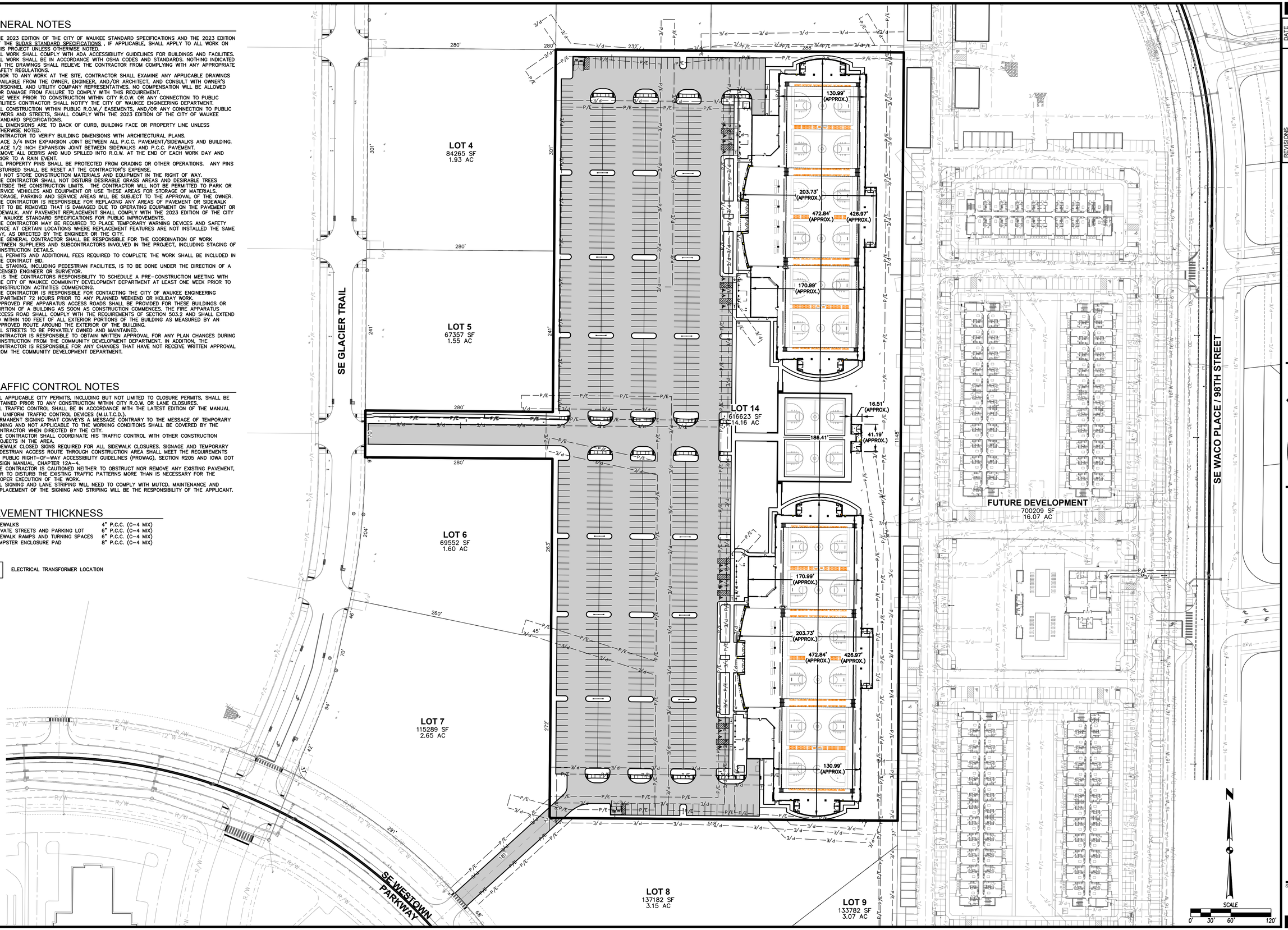
TRAFFIC CONTROL NOTES

1. ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
3. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
4. THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
5. SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES. SIGNAGE AND TEMPORARY PEDESTRIAN ACCESS ROUTE THROUGH CONSTRUCTION AREA SHALL MEET THE REQUIREMENTS OF PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG), SECTION R205 AND IOWA DOT DESIGN MANUAL, CHAPTER 12A-4.
6. THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
7. ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.

PAVEMENT THICKNESS

1. SIDEWALKS	4" P.C.C. (C-4 MIX)
2. PRIVATE STREETS AND PARKING LOT	6" P.C.C. (C-4 MIX)
3. SIDEWALK RAMPS AND TURNING SPACES	6" P.C.C. (C-4 MIX)
4. DUMPSTER ENCLOSURE PAD	8" P.C.C. (C-4 MIX)

T ELECTRICAL TRANSFORMER LOCATION



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4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: EKO | ENGINEER: JWM TECH: MST
CIVIL DESIGN ADVANTAGE

KETTLESTONE CENTRAL - GYMNASIUM

DIMENSION PLAN

WAUKEE, IOWA

SHEET NUMBER:
C3.0
2302.086

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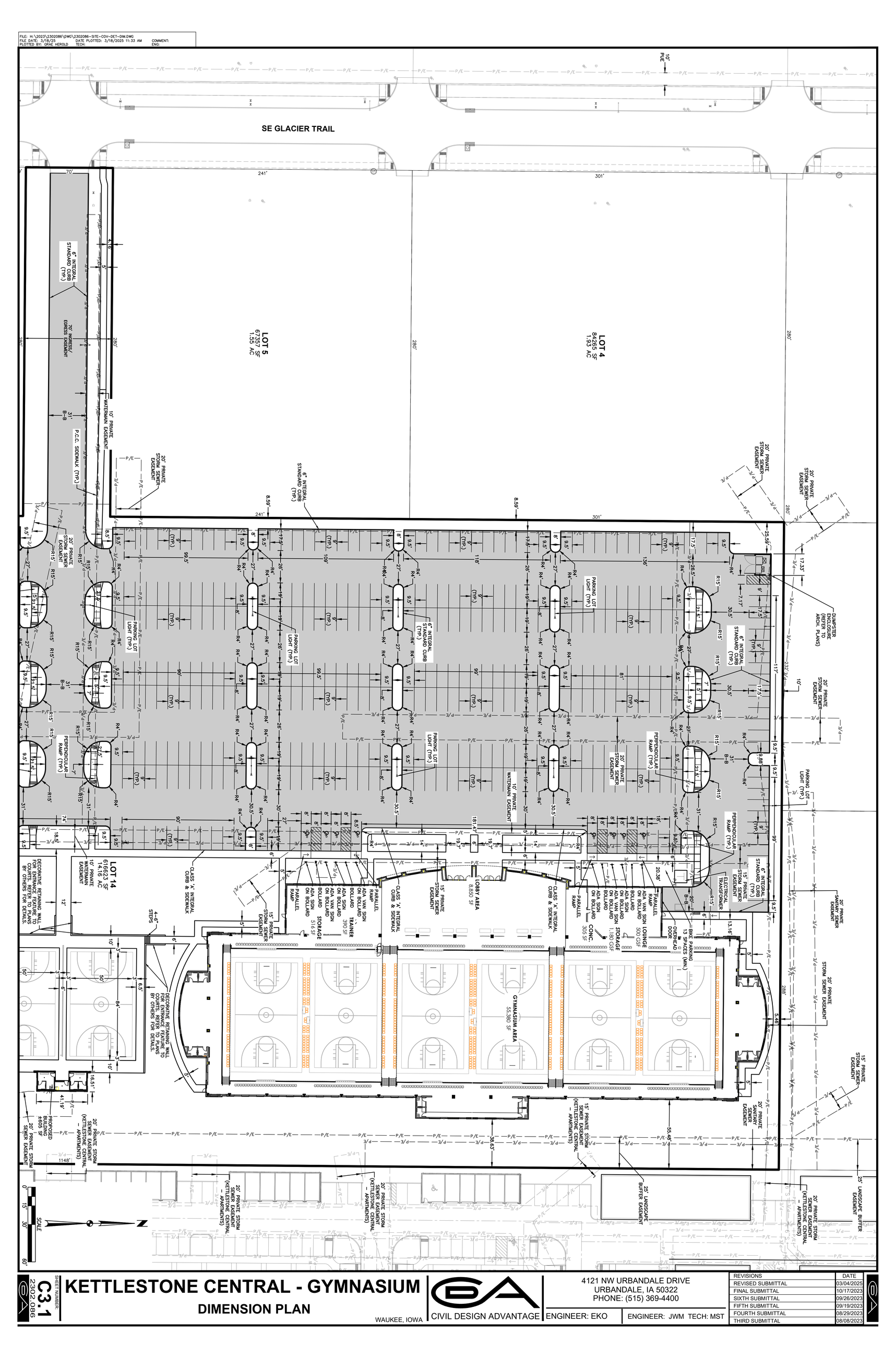

KETTLESTONE CENTRAL - GYMNASIUM

DIMENSION PLAN

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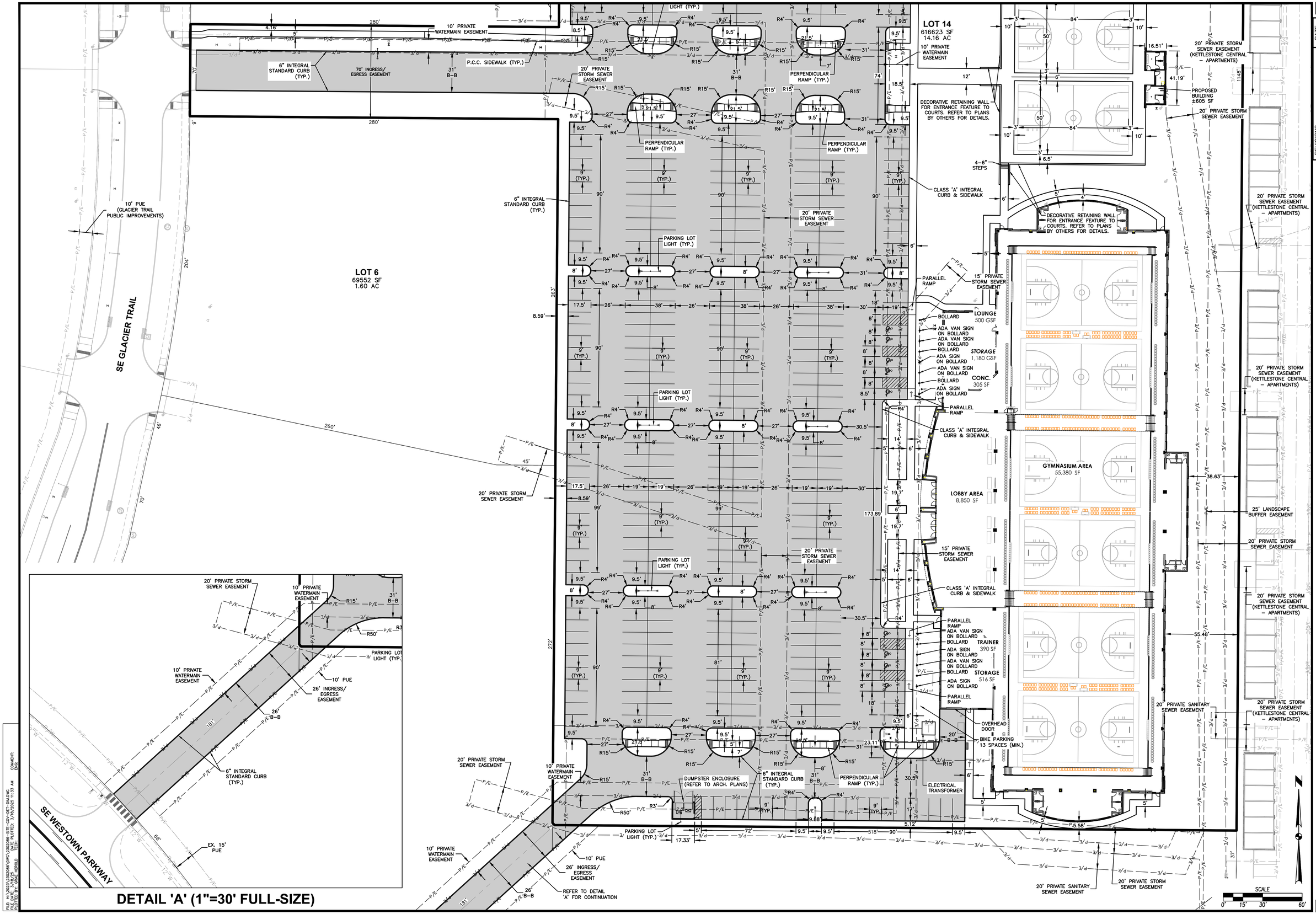

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CIVIL DESIGN ADVANTAGE

KETTLESTONE CENTRAL - GYMNASIUM

WAUKEE, IOWA

DIMENSION PLAN

SHEET NUMBER: C3.2

2302.086

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GRADING NOTES

1. THE COMPLETION AND APPROVAL OF THE COSESCO PERMIT SHALL BE PROVIDED TO THE CITY OF WAUKEE BUILDING DIVISION AND STORM WATER DEPARTMENT PRIOR TO ANY GRADING ACTIVITIES.
2. CONTRACTOR SHALL STRIP ALL DELETERIOUS MATERIAL. A MINIMUM OF 8" OF TOPSOIL IS TO BE STOCKPILED AND RESPREAD AFTER GRADING IS COMPLETE. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A SUITABLE TOPSOIL STOCKPILE SITE.
3. EXCAVATION SHALL BE IN ACCORDANCE WITH THE 2023 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, IF APPLICABLE.
4. MATCH EXISTING GRADES AT PROPERTY LINES AND/OR CONSTRUCTION LIMITS.
5. ALL SPOT ELEVATIONS ARE FORM GRADE (FG) OR TOP OF FINISHED SURFACES UNLESS OTHERWISE NOTED.
6. SITE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS.
7. SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
8. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE CONTROL TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
10. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN FOR DETAILS ON EROSION CONTROL.
11. FINAL FINISH GRADING TO BE APPROVED BY THE ARCHITECT AND CIVIL ENGINEER. MATCH EXISTING GRADES AT THE INTERFACE OF NEW AND EXISTING GRADES OR PAVING.
12. SIDEWALKS:
    MAINTAIN 0.8% MINIMUM AND 5% MAXIMUM LONGITUDINAL SLOPES ON ALL PAVED WALKWAYS. ALL WALKS TO HAVE 2.0% MAXIMUM TRANSVERSE SLOPE IN THE DIRECTION OF NATURAL DRAINAGE. SAW CUT JOINTS AS SOON AS CONCRETE HAS SET. SAW CUTS TO BE 1/8" TO 1/4" WIDE; DEPTH: LONGITUDINAL 1/3, TRANSVERSE 1/4.
15. CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWING SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE.

SE GLACIER TRAIL

SE WESTOWN PARKWAY

SE PLEASANT VIEW DRIVE

SE WACO PLACE / 98TH STREET

GRADING LIMITS (TYP.)

LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
LOT 9
LOT 10
LOT 11
LOT 12
LOT 13
LOT 14

FUTURE DEVELOPMENT
(REFER TO KETTLESTONE CENTRAL - APARTMENTS FOR DETAILS)

SCALE
0' 40' 80' 160'

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CIVIL DESIGN ADVANTAGE

KETTLESTONE CENTRAL - GYMNASIUM

WAUKEE, IOWA

GRADING PLAN

SHEET NUMBER:
C4.0
2302.086

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KETTLESTONE CENTRAL - GYMNASIUM

GRADING PLAN

WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: EKO

ENGINEER: JWM TECH: MST

SHEET NUMBER C4.1

2302.086

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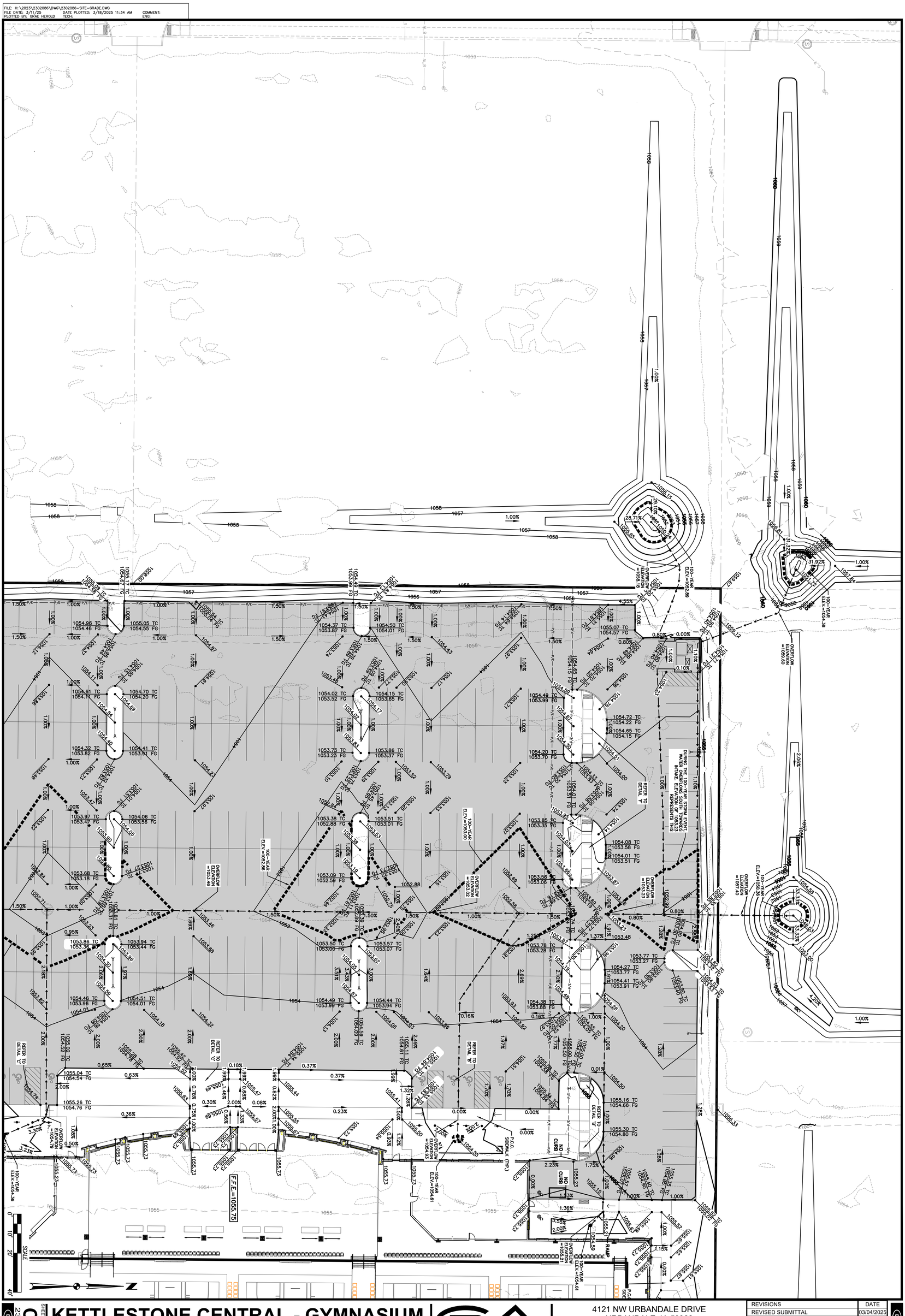

KETTLESTONE CENTRAL - GYMNASIUM

GRADING PLAN

WAUKEE, IOWA

SHEET NUMBER C4.2

2302.086

CIVIL DESIGN ADVANTAGE

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ENGINEER: JWM TECH: MST

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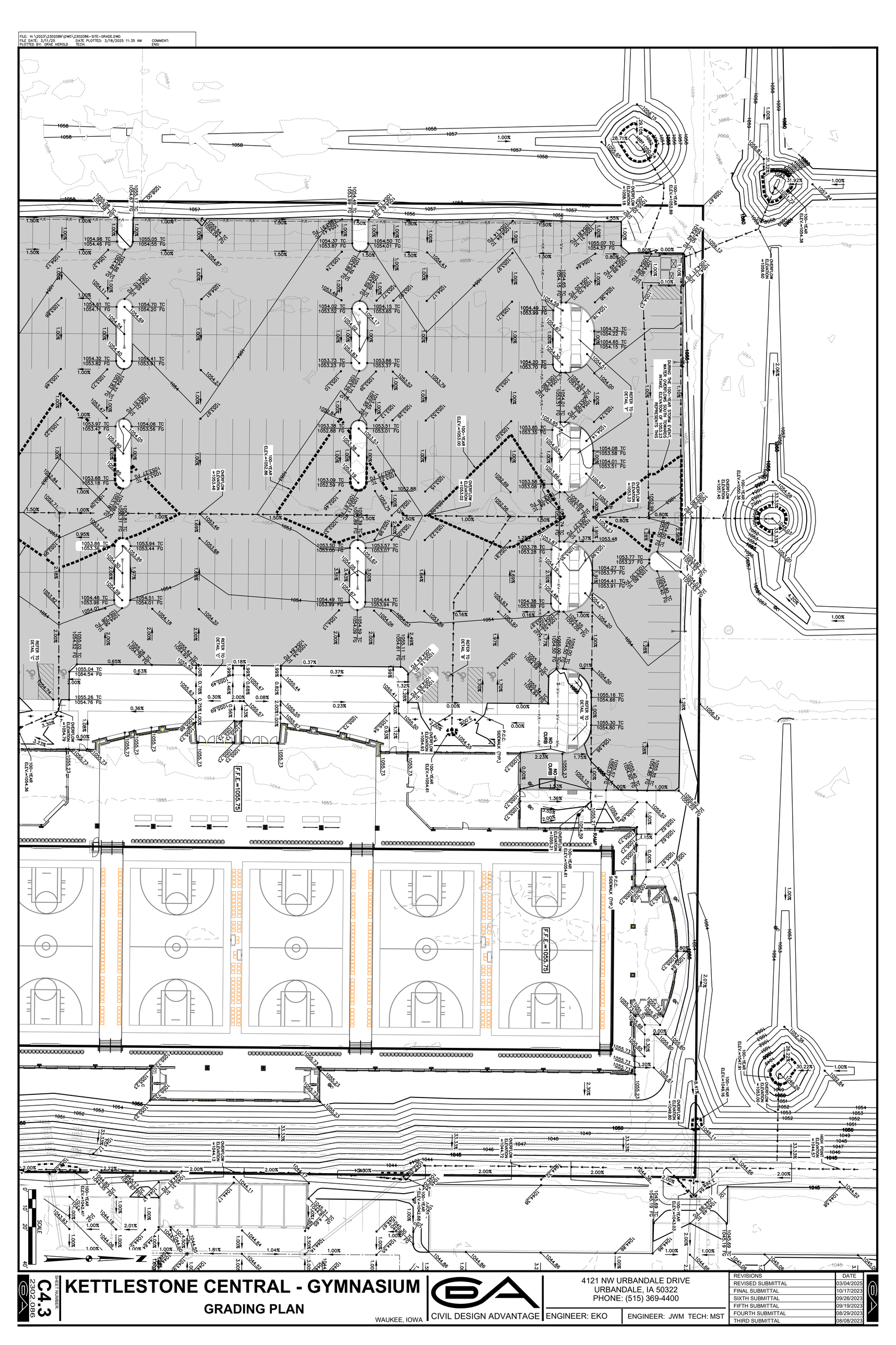

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2302.086

KETTLESTONE CENTRAL - GYMNASIUM

GRADING PLAN

WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
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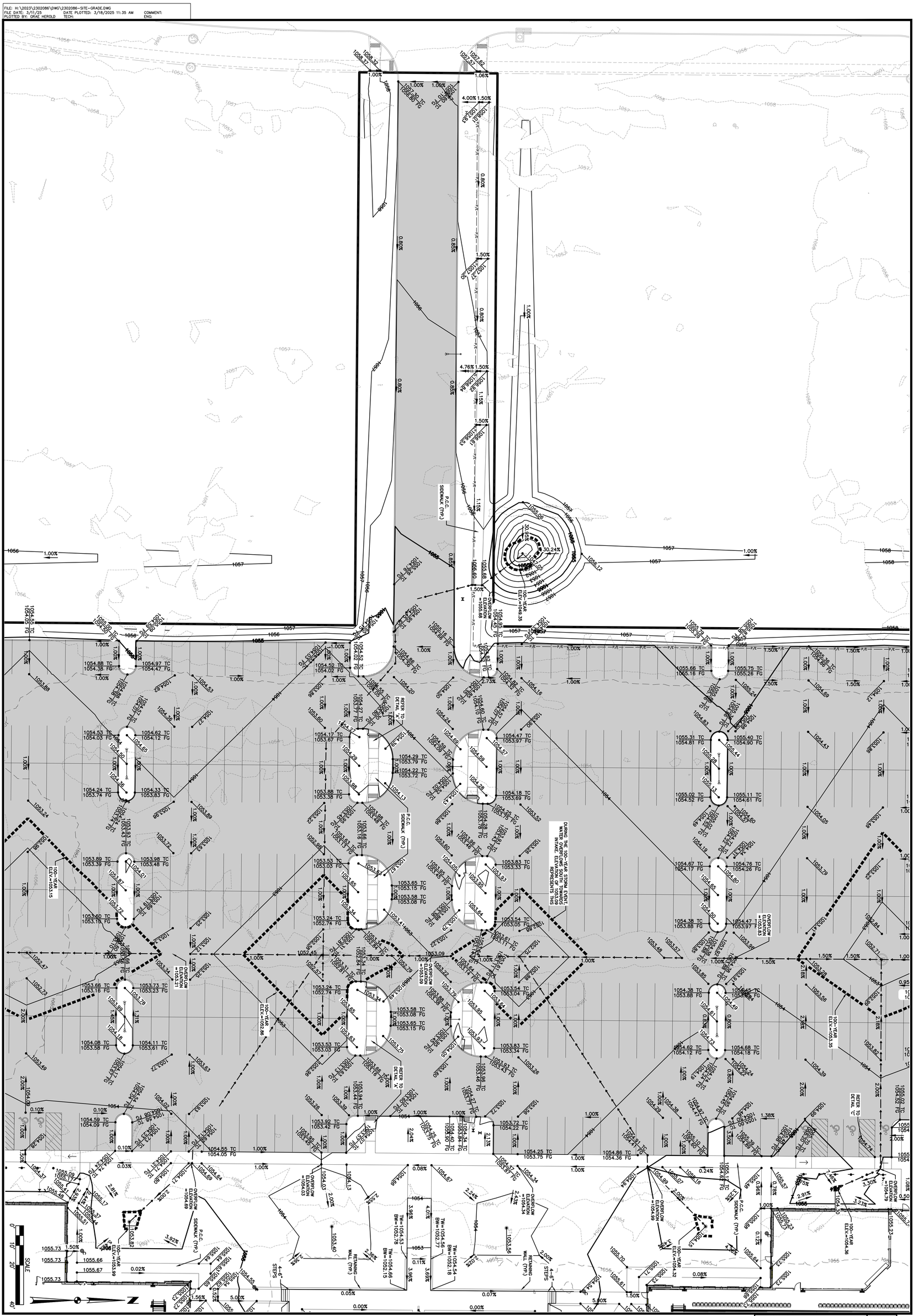

KETTLESTONE CENTRAL - GYMNASIUM

GRADING PLAN

WAUKEE, IOWA

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CIVIL DESIGN ADVANTAGE

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ENGINEER: EKO

ENGINEER: JWM TECH: MST

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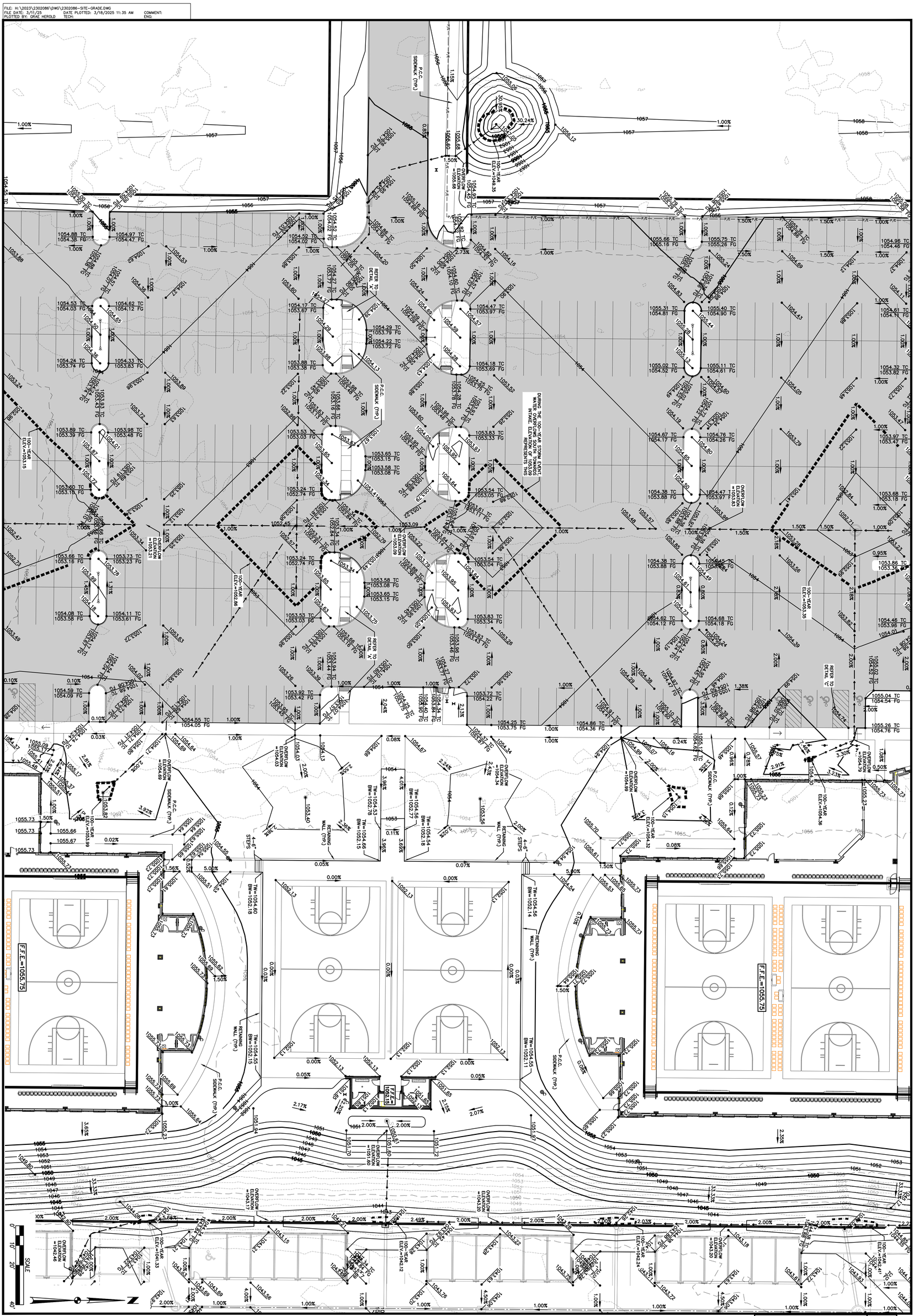

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KETTLESTONE CENTRAL - GYMNASIUM

GRADING PLAN

WAUKEE, IOWA

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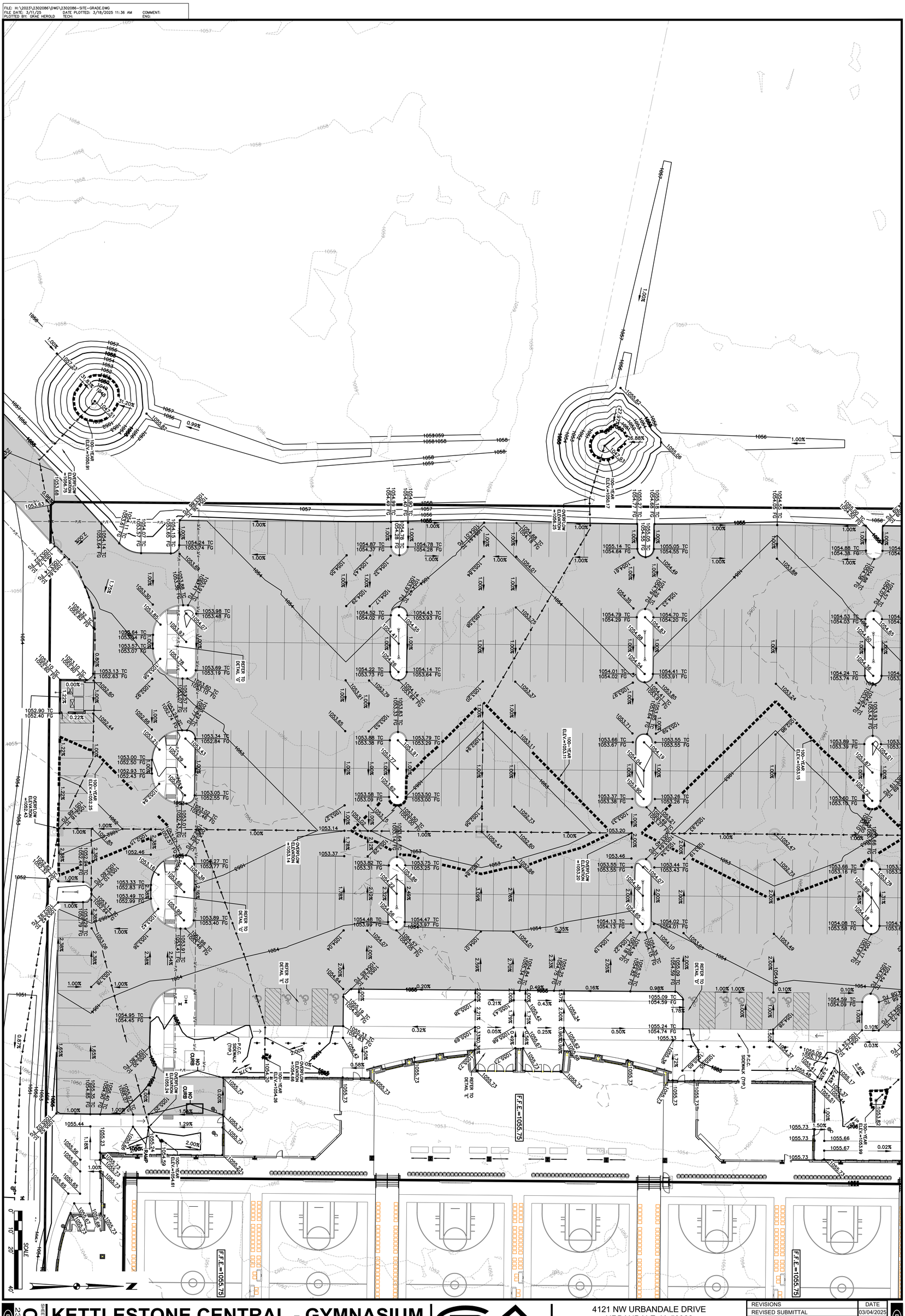

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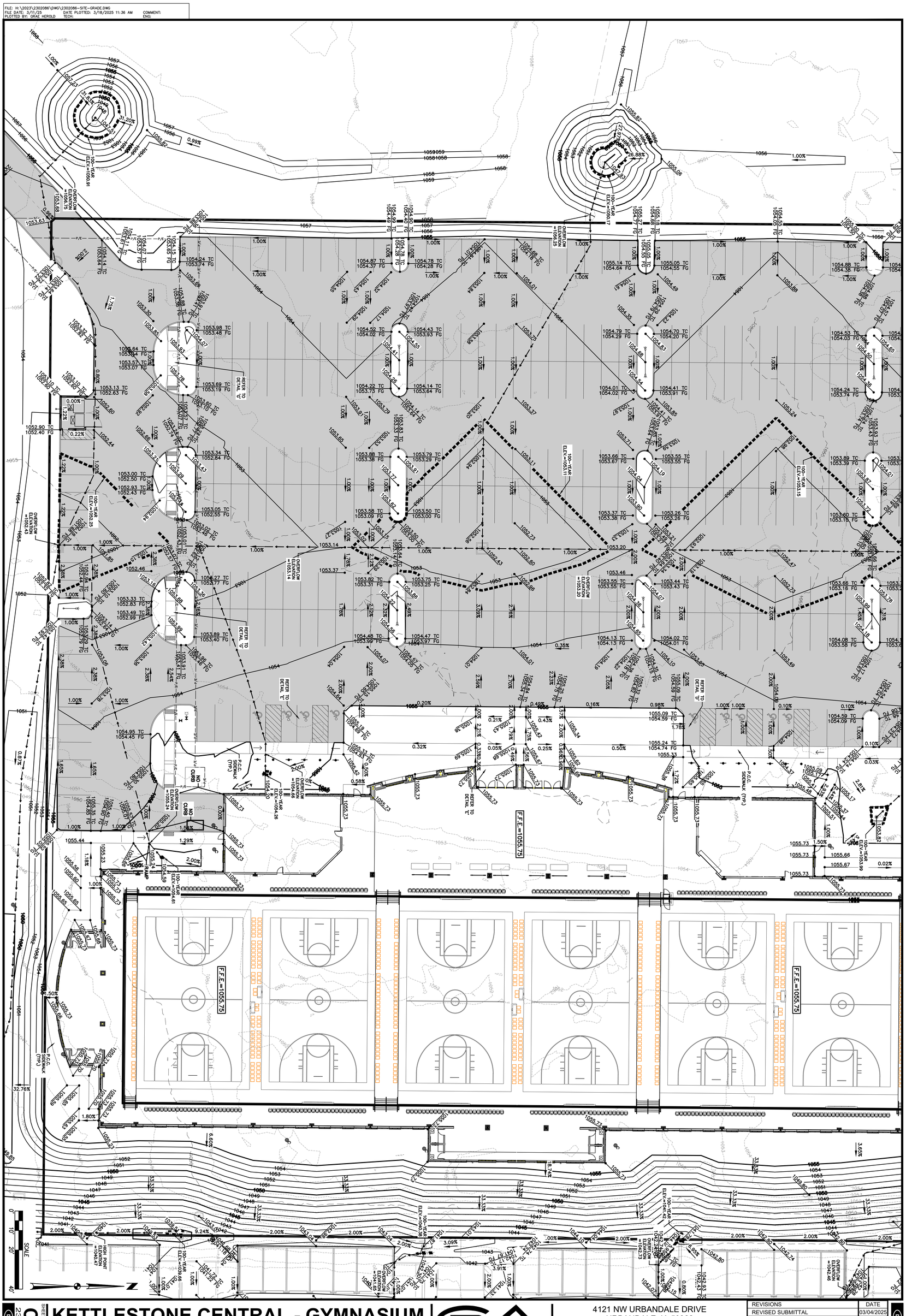

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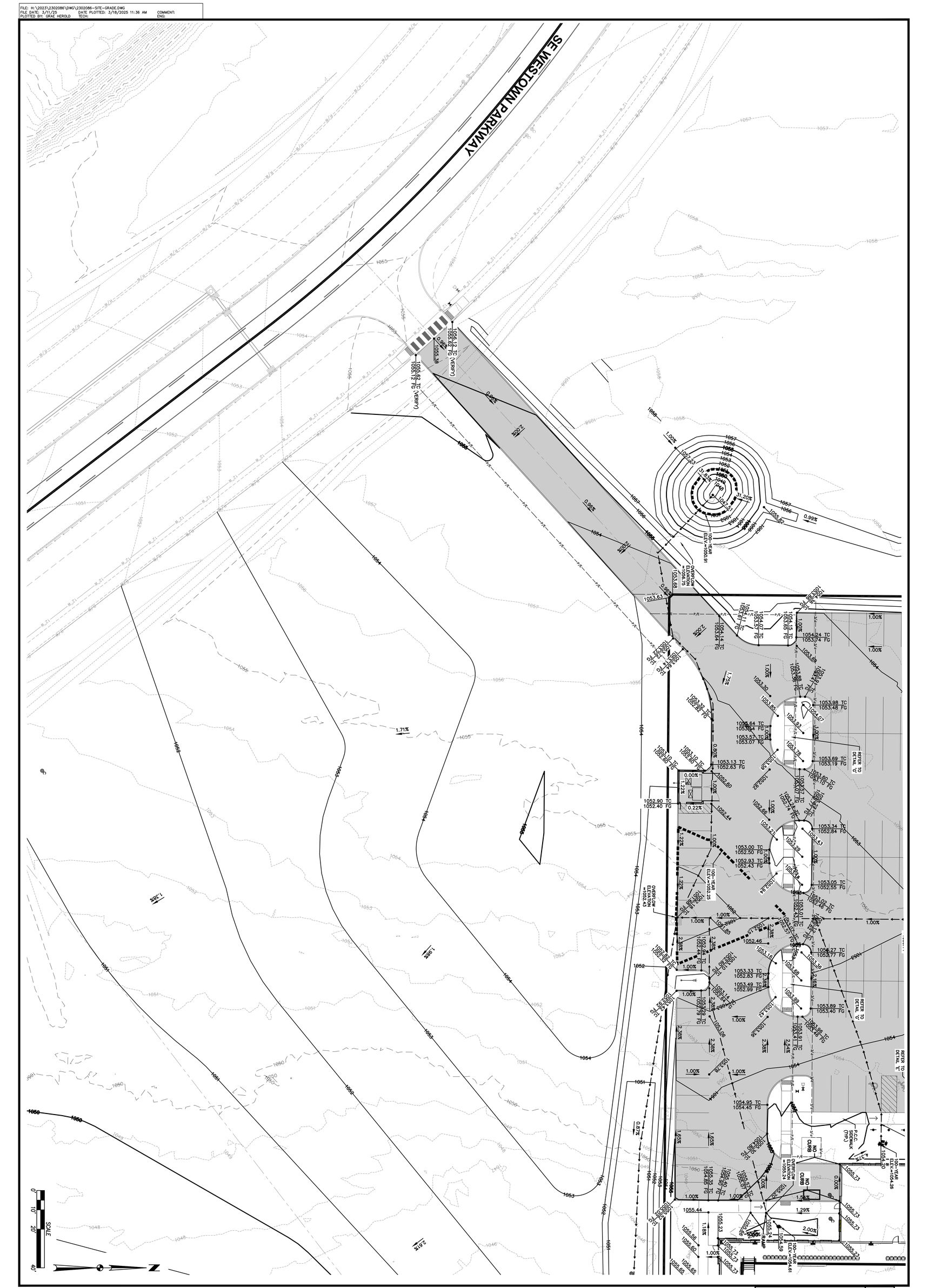

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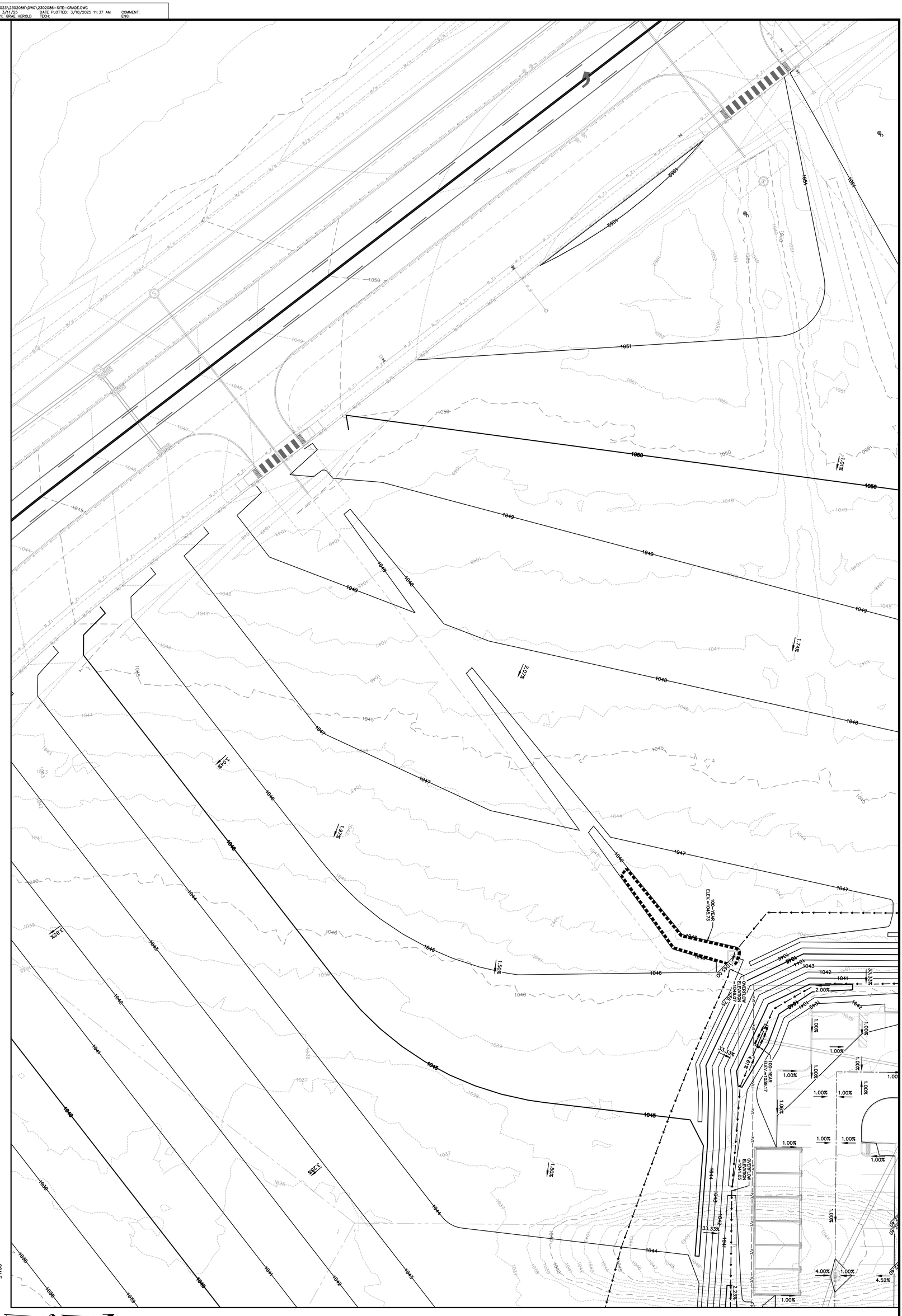

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KETTLESTONE CENTRAL - GYMNASIUM

GRADING PLAN

WAUKEE, IOWA

SHEET NUMBER C4.10

2302.086

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FOURTH SUBMITTAL	08/29/2023
THIRD SUBMITTAL	08/08/2023

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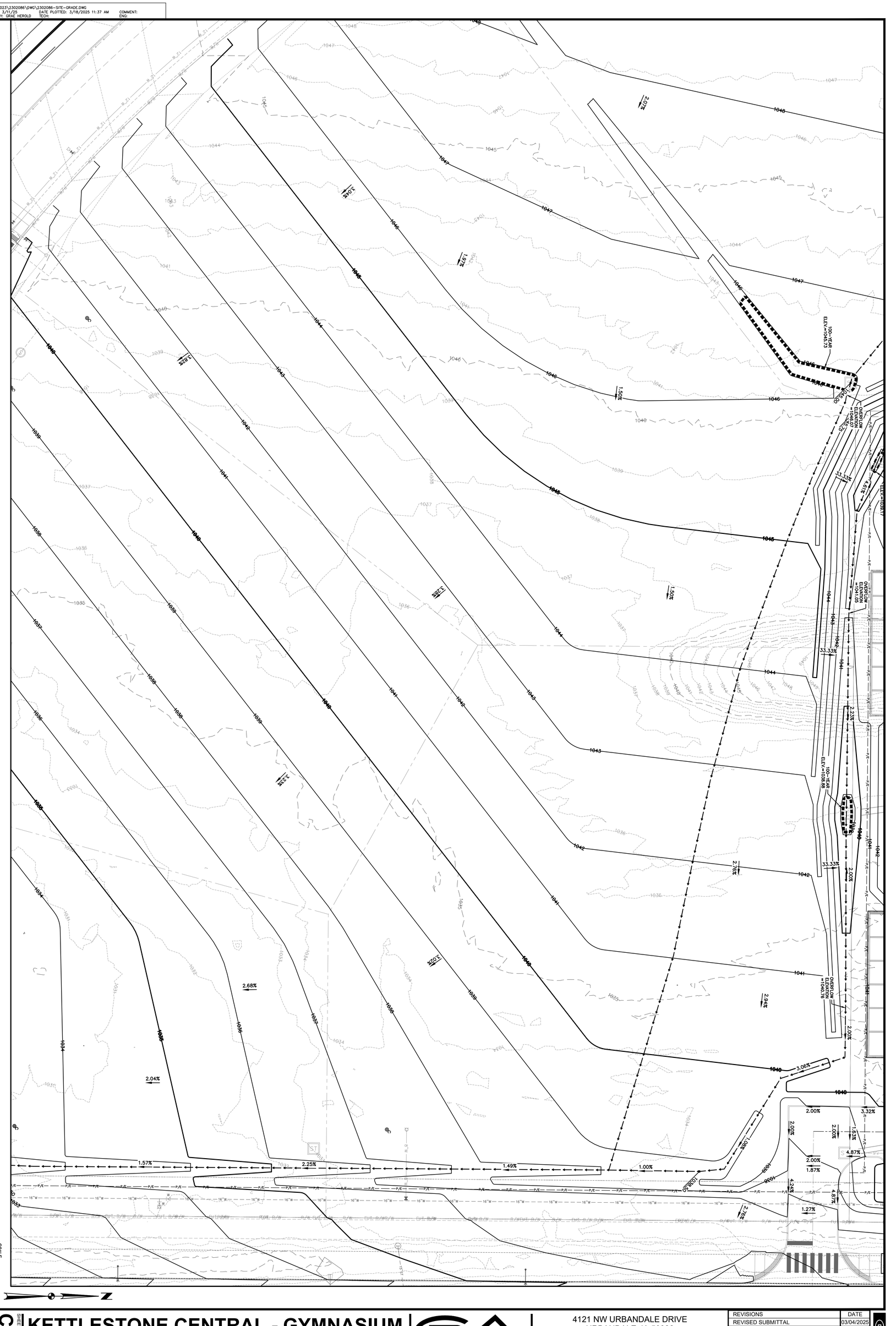

KETTLESTONE CENTRAL - GYMNASIUM

GRADING PLAN

WAUKEE, IOWA

SHEET NUMBER
C4.11
2302086

CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: EKO
ENGINEER: JWM TECH: MST

REVISIONS	DATE
REVISED SUBMITTAL	03/04/2025
FINAL SUBMITTAL	10/17/2023
SIXTH SUBMITTAL	09/26/2023
FIFTH SUBMITTAL	09/19/2023
FOURTH SUBMITTAL	08/29/2023
THIRD SUBMITTAL	08/08/2023

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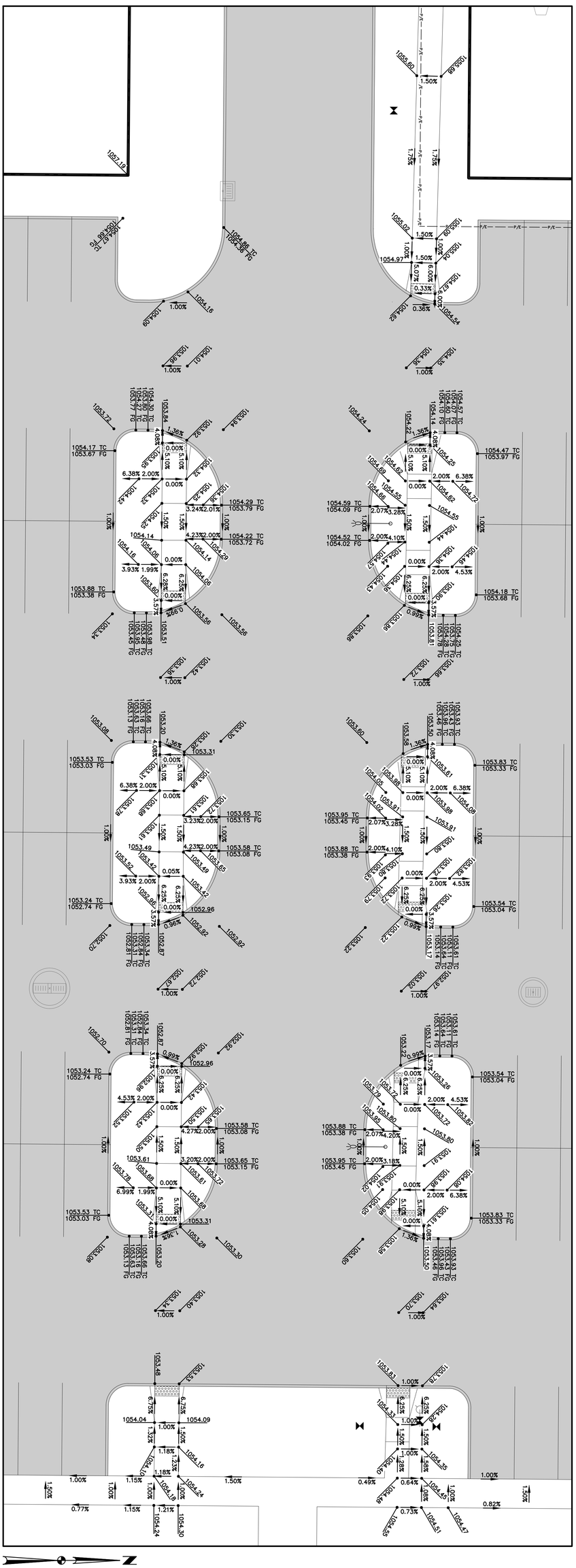

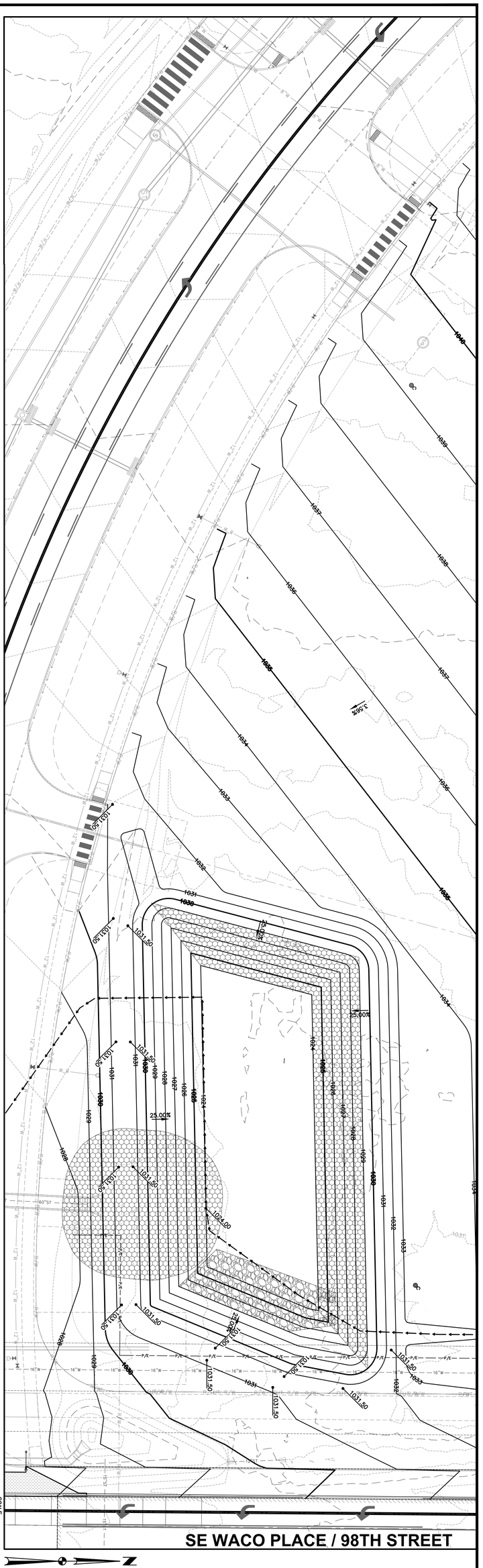

SCALE 0 5 10 20

SCALE 0 10 20 40

KETTLESTONE CENTRAL - GYMNASIUM

GRADING PLAN

WAUKEE, IOWA

SHEET NUMBER C4.12

2302.086

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: EKO
ENGINEER: JWM TECH: MST

REVISIONS	DATE
REVISED SUBMITTAL	03/04/2025
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FOURTH SUBMITTAL	08/29/2023
THIRD SUBMITTAL	08/08/2023

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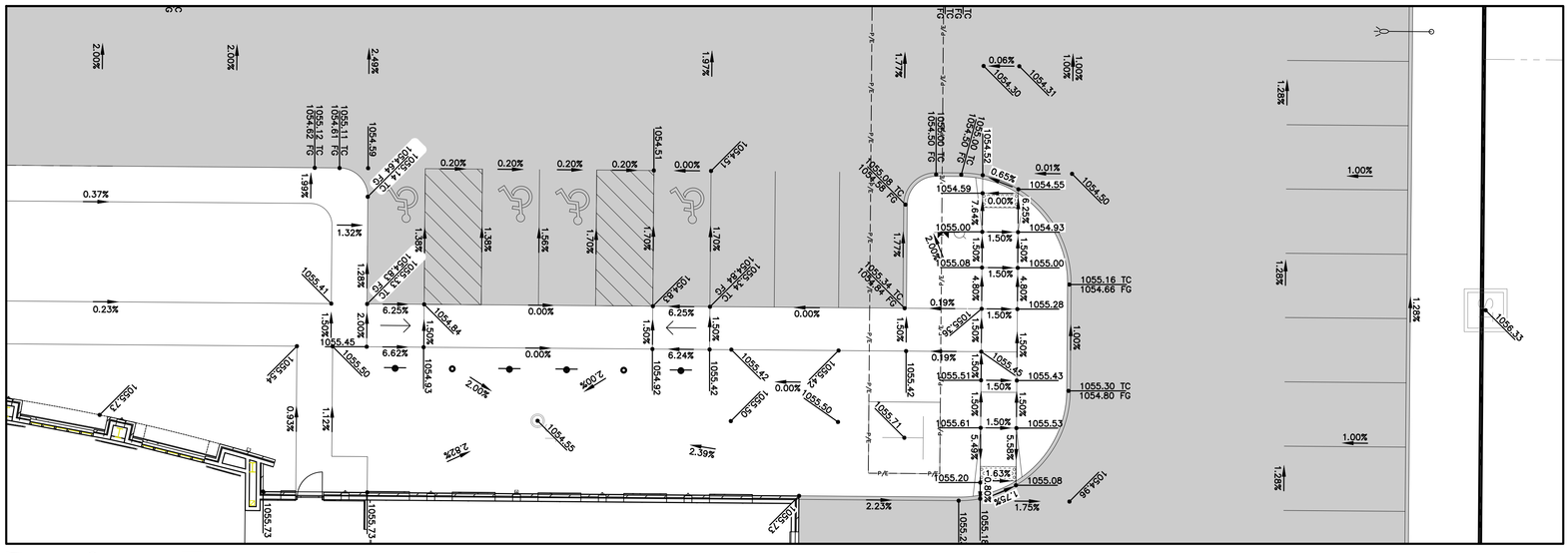

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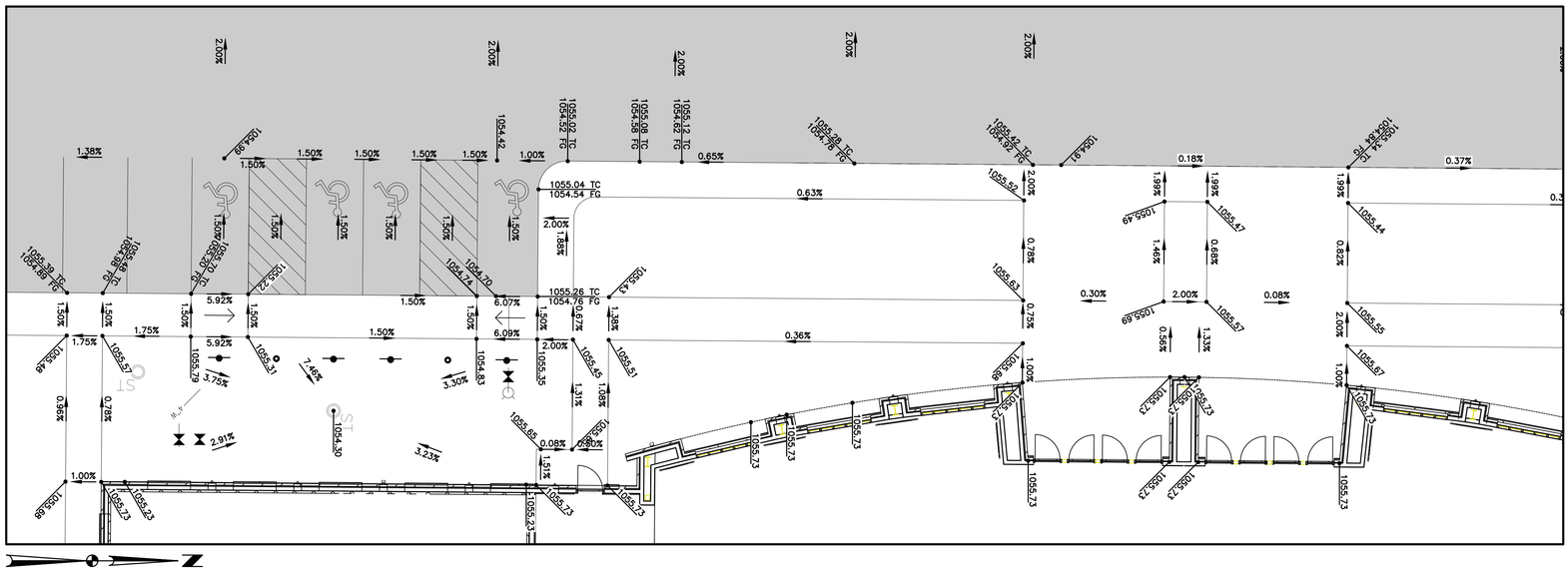

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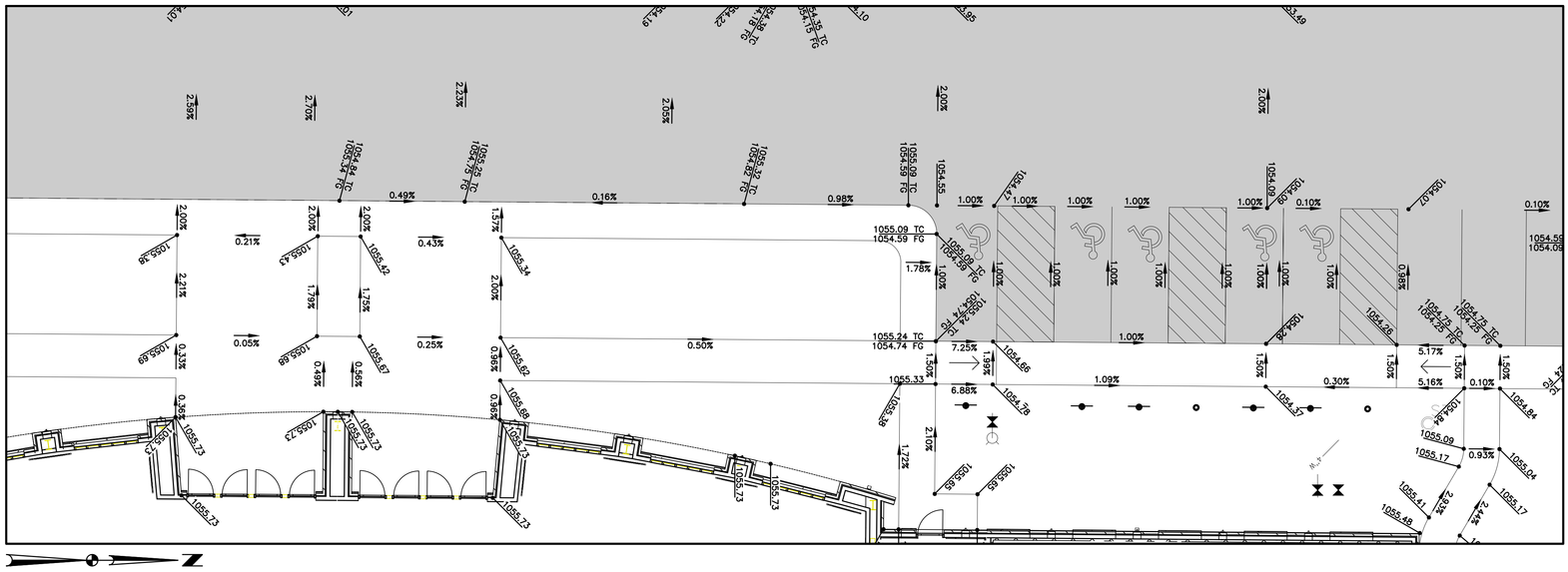

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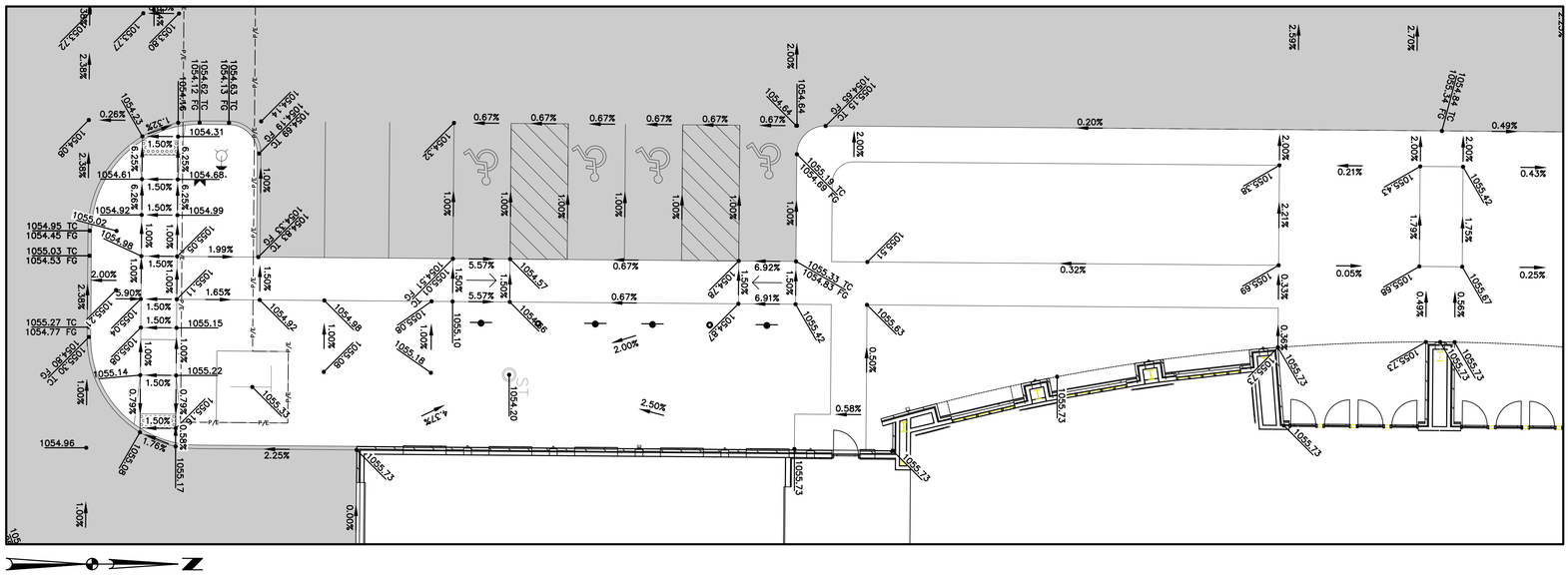

SHEET NUMBER
C4.13
2302.086

KETTLESTONE CENTRAL - GYMNASIUM

GRADING PLAN

WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: EKO
ENGINEER: JWM TECH: MST

REVISIONS	DATE
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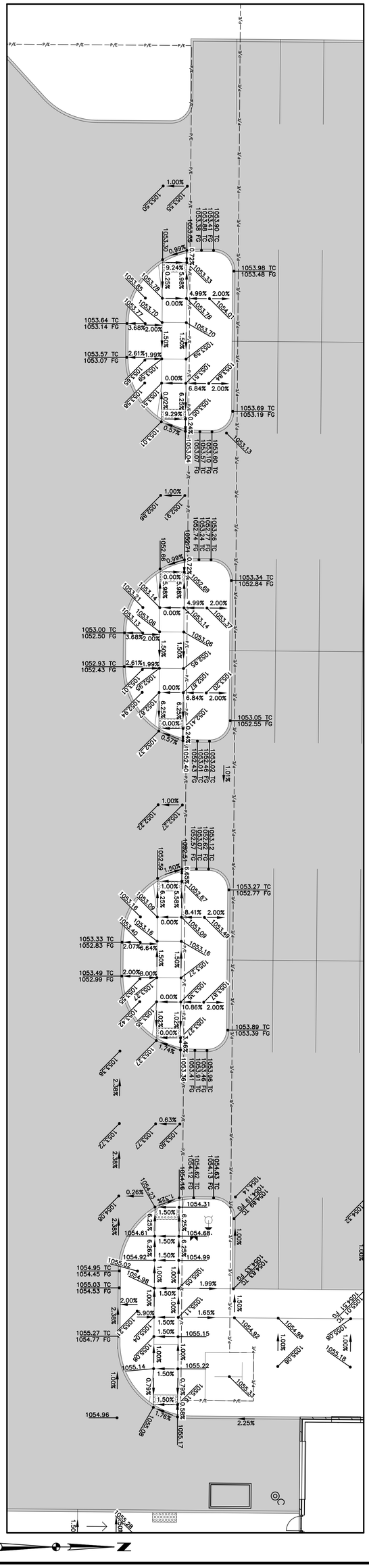

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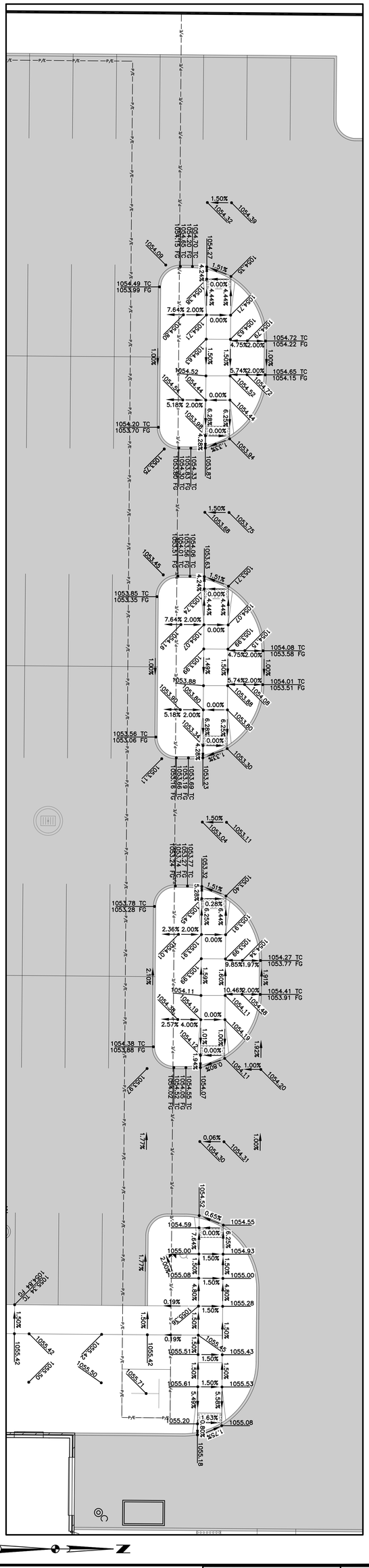

KETTLESTONE CENTRAL - GYMNASIUM

GRADING PLAN

WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: EKO
ENGINEER: JWM TECH: MST

SHEET NUMBER C4.14
2302.086

REVISIONS	DATE
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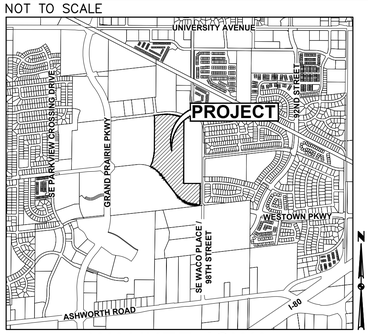
KETTLESTONE CENTRAL - GYMNASIUM

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	5,577
2	DITCH CHECKS	LF	823
3	TYPE 4 SEEDING, FERTILIZING, AND MULCHING	AC	25.90
4	INLET PROTECTION DEVICES	EA	10
5	CONCRETE WASHOUT PIT	EA	1
6	PERMANENT 6" HICKENBOTTOM STANDPIPE	EA	1
7	TEMPORARY 60" HDPE STANDPIPE	EA	1
8	SOD	SF	148,987
9	RIPRAP	TONS	105
10	TEMP. ROLLED EROSION CONTROL PRODUCT SHORT-TERM, TYPE 2C	SF	4,402
11	REMOVE TEMP. ROLLED EROSION CONTROL PRODUCT SHORT-TERM, TYPE 2C	SF	3,500

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO AN UNNAMED TRIBUTARY OF WALNUT CREEK ±3800 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	12.05 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	43,380 CU FT
VOLUME PROVIDED IN SILT FENCE (1,770 LF @ 10.0 CU FT/LF OF FENCE)	17,700 CU FT
VOLUME PROVIDED IN DITCH CHECK (357 LF @ 15.0 CU FT/LF)	5,355 CU FT
VOLUME PROVIDED IN TSB #1	116,039 CU FT
TOTAL VOLUME PROVIDED	139,094 CU FT

DISCHARGE POINT #2 TO AN UNNAMED TRIBUTARY OF FOX CREEK ±1800 FT

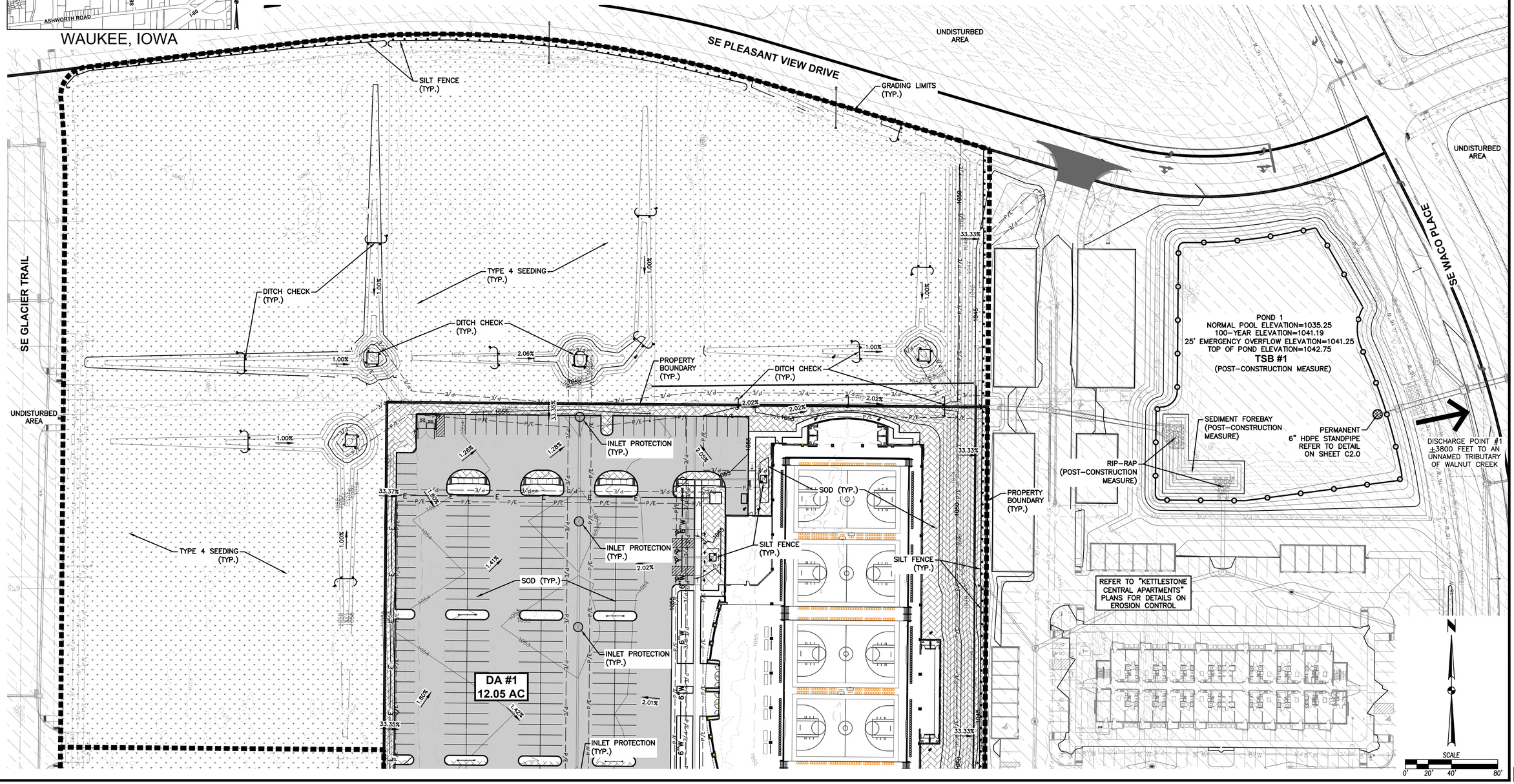
TOTAL AREA DISTURBED TO DISCHARGE POINT	28.12 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	101,232 CU FT
VOLUME PROVIDED IN SILT FENCE (5,256 LF @ 10.0 CU FT/LF OF FENCE)	52,560 CU FT
VOLUME PROVIDED IN DITCH CHECK (466 LF @ 15.0 CU FT/LF)	6,990 CU FT
VOLUME PROVIDED IN TSB #2	41,788 CU FT
TOTAL VOLUME PROVIDED	101,338 CU FT

NOTES:

1. IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
2. DISTURBED AREAS SHALL BE TEMPORARILY SEEDED (SUDAS TYPE 4 – TEMPORARY EROSION CONTROL MIXTURE) OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
3. ALL DISTURBED AREAS WITHIN THE GRADING LIMITS BUT OUTSIDE OF THE PROPERTY BOUNDARY SHALL BE SEEDED WITH SUDAS TYPE 4 SEED MIX. ALL DISTURBED AREAS WITHIN THE PROPERTY BOUNDARY SHALL BE SOD.
3. STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
4. WRAP PERMANENT STANDPIPE WITH FILTER FABRIC AND EROSION STONE DURING CONSTRUCTION. ONCE ALL LOTS AND ROADWAYS WITHIN KETTLESTONE CENTRAL HAVE BEEN DEVELOPED, THE TSB SHALL BE CONVERTED TO A PERMANENT DETENTION BASIN. REMOVE FABRIC AND EROSION STONE.

SWPPP LEGEND

DRAINAGE ARROW (X.XX %)
GRADING LIMITS
FILTER SOCK
SILT FENCE
INLET PROTECTION
PORTABLE RESTROOM (R)
AREA TO BE SEEDED
AREA TO BE SODDED
UNDISTURBED AREA
RIP–RAP
GRAVEL ENTRANCE
STAGING AREA
TEMPORARY SEDIMENT BASIN (TSB #)
CONCRETE WASHOUT PIT



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4121 NW URBANDALE DRIVE
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CIVIL DESIGN ADVANTAGE

KETTLESTONE CENTRAL - GYMNASIUM
EROSION AND SEDIMENT CONTROL PLAN
WAUKEE, IOWA

SHEET NUMBER:
C5.0
2302.086

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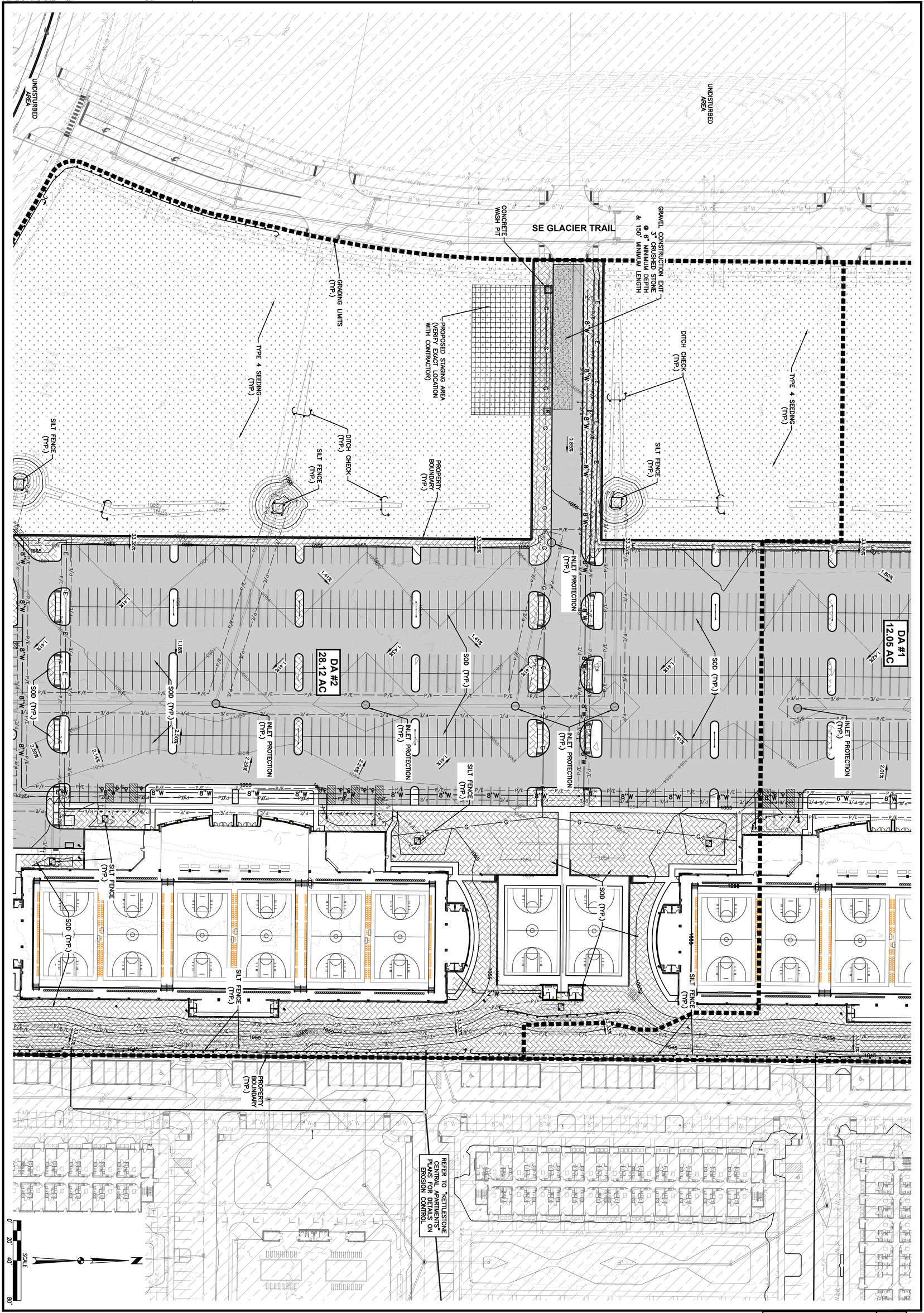

KETTLESTONE CENTRAL - GYMNASIUM

EROSION AND SEDIMENT CONTROL PLAN

WAUKEE, IOWA

SHEET NUMBER C5.1

2302.086

CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: EKO

ENGINEER: JWM TECH: MST

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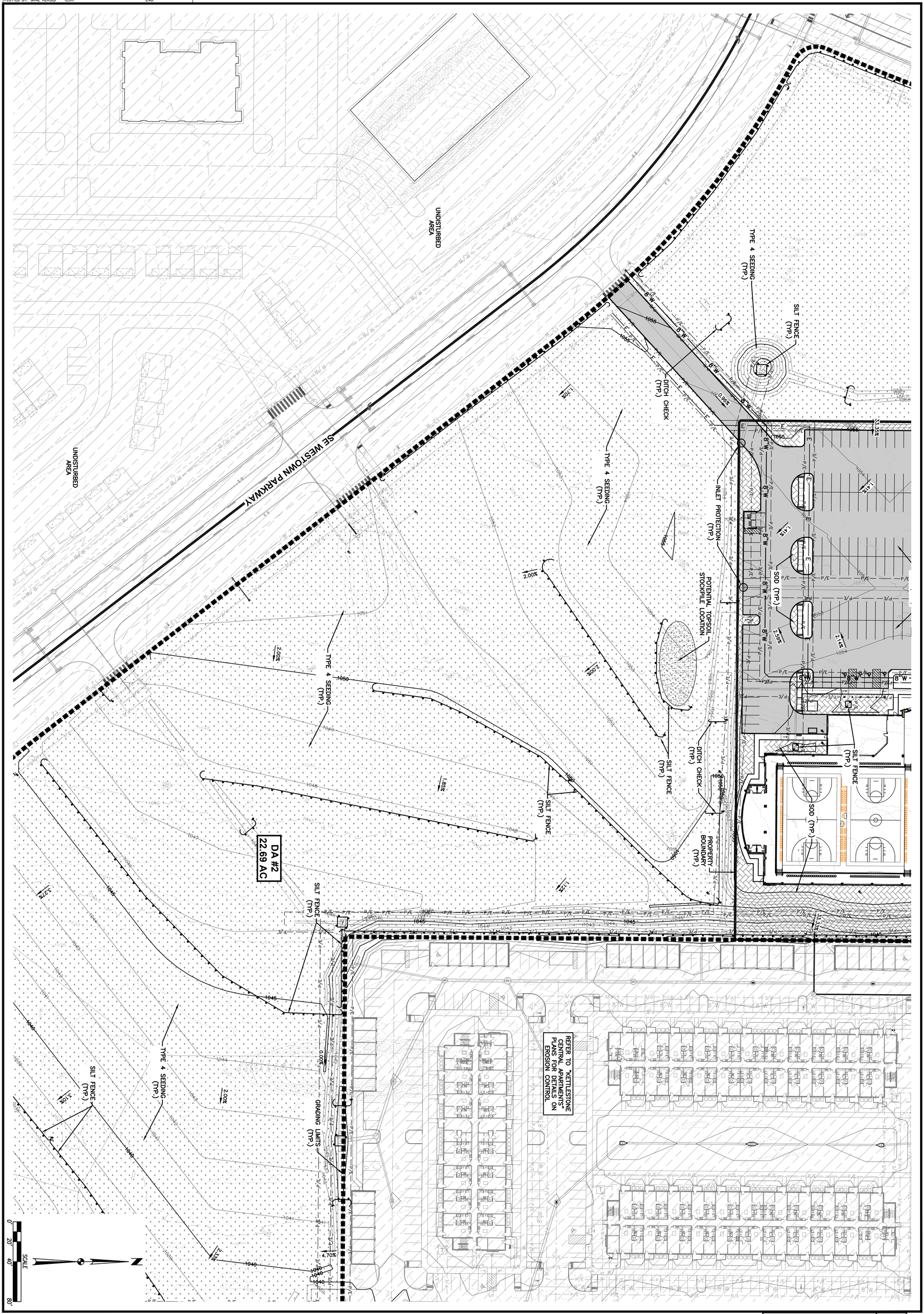

PROJECT NUMBER
2302.086

KETTLESTONE CENTRAL - GYMNASIUM

EROSION AND SEDIMENT CONTROL PLAN

WAUKEE, IOWA

C5.2

CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: EKO

ENGINEER: JWM TECH: MST

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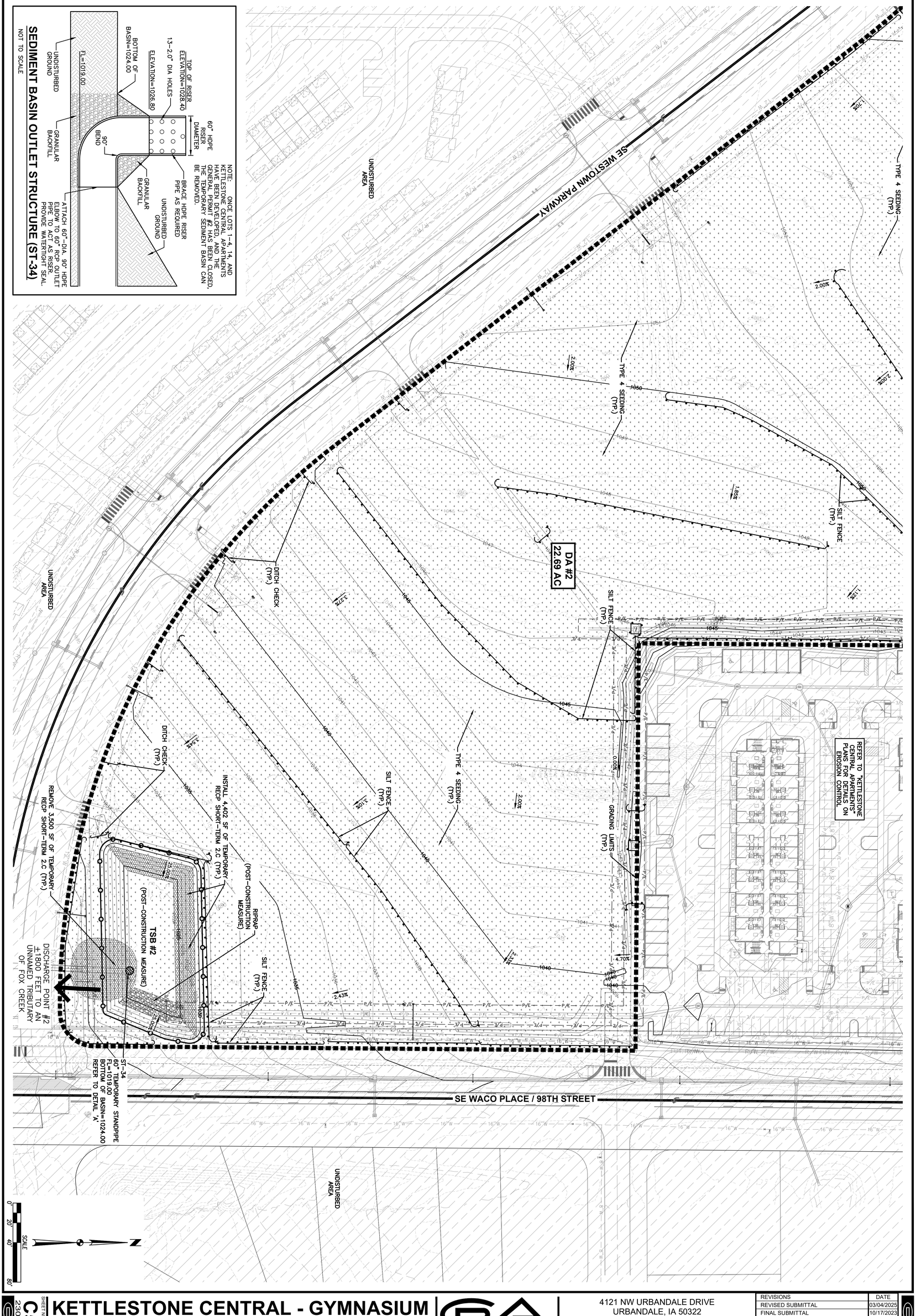

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: EKO
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KETTLESTONE CENTRAL - GYMNASIUM

EROSION AND SEDIMENT CONTROL PLAN

WAUKEE, IOWA

SHEET NUMBER
C5.3
2302.08

REVISIONS	DATE
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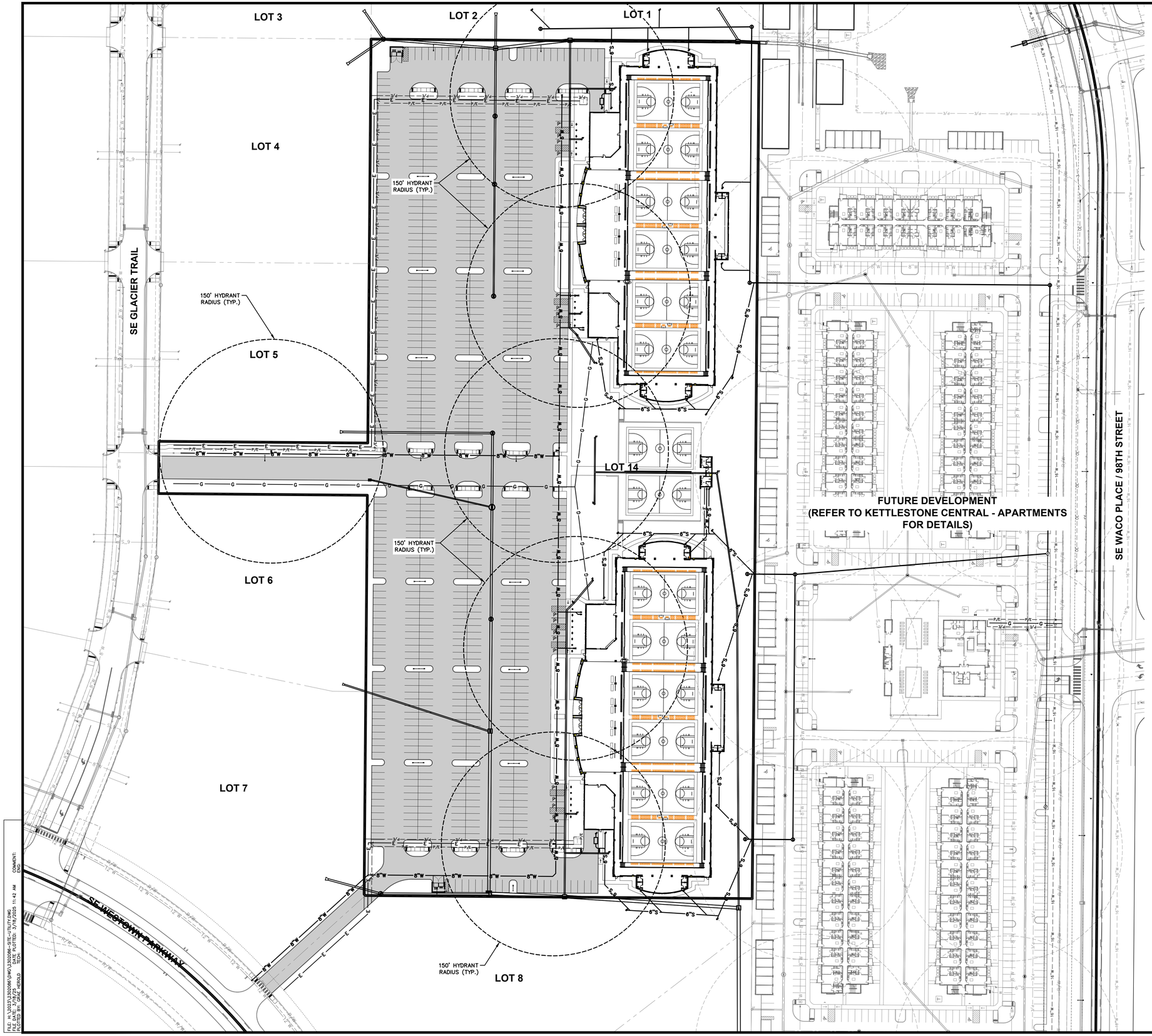

UTILITY NOTES

1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
2. FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
3. PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
4. BACKFILL ALL UTILITY TRENCHES ACCORDING TO THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND THE 2023 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS. MAINTAIN A MINIMUM OF 5.5' COVER OVER ALL WATERMAINS.
5. ALL UTILITIES SHALL BE STUBBED TO 5 FEET FROM BUILDINGS. REFER TO MEP PLANS FOR DESIGN FROM 5' OUTSIDE OF BUILDING FACE.
6. ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES. INSTALL CHIMNEY SEALS ON ANY ADJUSTED MANHOLES. ALL PROPOSED SANITARY MANHOLES ARE TO UTILIZE A TYPE 'A' CASTING WITH PRO-RINGS.
7. ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2023 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
8. 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. 18" MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAIN.
9. MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
10. WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
11. ALL WATERMAIN WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH THE 2023 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS.
12. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
13. PRIVATE UTILITIES TO BE INSTALLED PER THE 2023 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE LATEST VERSION OF THE UNIFORM PLUMBING CODE. CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS. ALL APPLICABLE UTILITY COMPANIES SHALL BE CONTACTED 48 HOURS PRIOR TO ANY WORK BEING STARTED.
14. OWNER IS RESPONSIBLE FOR MAINTENANCE OF PRIVATE DETENTION FACILITIES AND PRIVATE UTILITIES.
15. CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW AND EXISTING SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT NO COST TO THE OWNER. INSTALL SEDIMENT CONTROLS AT ALL PERMANENT STORM SEWER INLETS. DROP DOWN INLET PROTECTION IS REQUIRED FOR PUBLIC STREETS.
16. CONTRACTOR SHALL TEST AND INSPECT ALL PROPOSED STORM SEWER, WATERMAIN AND SANITARY SEWER. THE CITY OF WAUKEE ENGINEERING DEPARTMENT IS REQUIRED TO WITNESS TESTING. ALL TESTING SHALL BE COMPLETED MEETING CITY OF WAUKEE STANDARDS.
17. ALL UTILITY TIE-INS TO EXISTING PUBLIC UTILITIES SHOULD BE COORDINATED WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
18. ALL PRIVATE AND PUBLIC SANITARY SEWER AND STORM SEWER PIPES SHALL BE CLEANED OUT AND TELEVISED PRIOR TO PAVING. ALL SANITARY MANHOLES SHALL BE VACUUMED TESTED. A HARD COPY OF THE REPORT AND VIDEO SHALL BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
19. ALL CONNECTIONS TO EXISTING SANITARY SEWER MANHOLES SHALL BE CORE DRILLED AND A LINK SEAL SHALL BE USED FOR THE CONNECTION.
20. IT IS THE OWNER'S RESPONSIBILITY TO COORDINATE IRRIGATION AND METER PITS WITH THE WAUKEE PUBLIC WORKS DEPARTMENT.
21. ALL HYDRANTS SHALL HAVE 5-INCH STORZ FITTINGS.
22. COORDINATE INSTALLATION OF UTILITIES AND PAVING WITH SURROUNDING PROPERTIES.
23. ROOF DRAINS FROM THE WEST SIDE OF THE BUILDINGS SHALL BE CONNECTED INTO STORM SEWER. ROOF DRAINS FROM THE EAST SIDE OF THE SOUTH BUILDING SHALL BE CONNECTED INTO STORM SEWER. ROOF DRAINS FROM THE EAST SIDE OF THE NORTH BUILDING SHALL BE DAYLIGHTED TO GRADE.

SCALE
0' 30' 60' 120'

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ENGINEER: EKO | ENGINEER: JWM TECH: MST
CIVIL DESIGN ADVANTAGE

KETTLESTONE CENTRAL - GYMNASIUM

WAUKEE, IOWA

UTILITY PLAN

SHEET NUMBER:
C6.0
2302.086

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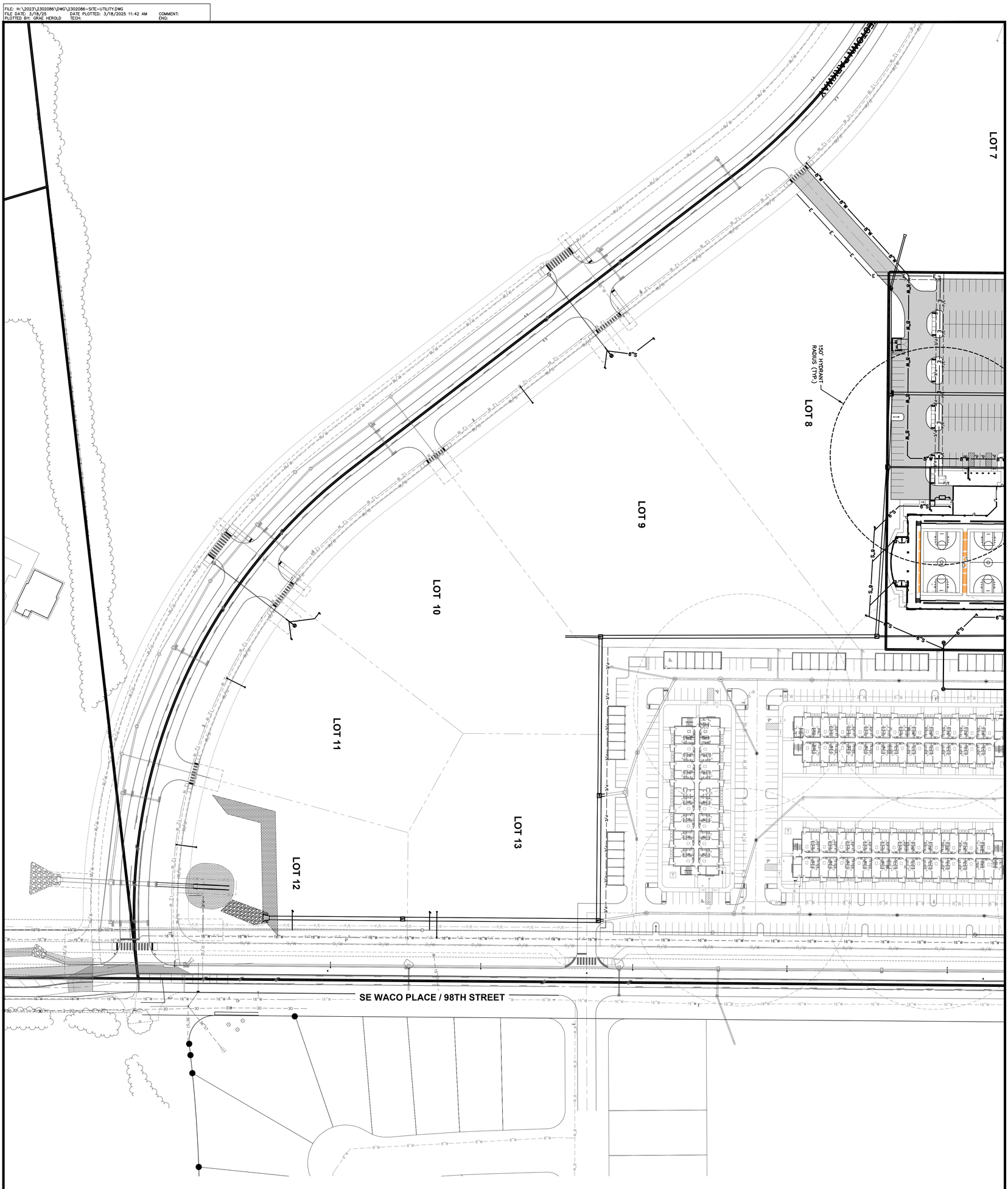

KETTLESTONE CENTRAL - GYMNASIUM

UTILITY PLAN

WAUKEE, IOWA

SHEET NUMBER C6.1

2302.086

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LOT 1

LOT 2

LOT 3

LOT 4

LOT 14

ST-8A
24" CMP APRON
W/ APRON GUARD
FL=1051.72

ST-8
SW-401 60" MH
RIM=1059.12
FL 24" (NW)=1051.45
FL 24" (SW)=1049.90
FL 30" (E)=1047.39

L-8A
45 LF OF
24" HDPE @ 0.60%
(LENGTH INCLUDES APRON)

L-8B
57 LF OF
24" HDPE @ 0.60%
(LENGTH INCLUDES APRON)

ST-8B
24" CMP APRON
W/ APRON GUARD
FL=1050.24

L-8
146 LF OF
30" HDPE
@ 0.80%

ST-4A
24" CMP APRON
W/ APRON GUARD
FL=1048.03

L-4A
45 LF OF
24" HDPE @ 1.00%
(LENGTH INCLUDES APRON)

SANITARY SERVICE RISER
FL 8"=1041.67
TOP OF RISER FL=1046.63

36 LF OF
6" SANITARY
SEWER @ 2.0%

SANITARY SEWER CLEANOUT
RIM=1057.33
FL=1047.33

S-4
SW-301 48" MH
RIM=1057.31
FL 8" (E)=1041.90

ST-2
SW-402 5'X5' MH
RIM=1056.33
FL 42" (W)=1045.10
FL 18" (S)=1046.12
FL 42" (E)=1045.00

SANITARY SERVICE RISER
FL 8"=1040.03
TOP OF RISER FL=1041.64

P-4
280 LF OF
8" PVC
@ 2.00%

SANITARY SERVICE RISER
FL 8"=1039.05
TOP OF RISER FL=1041.71

24 LF OF
6" SANITARY
SEWER @ 2.0%

SANITARY SERVICE RISER
FL 8"=1038.75
TOP OF RISER FL=1043.82

SANITARY SEWER CLEANOUT
RIM=1053.95
FL=1044.29

ST-1A
24" CMP APRON
W/ APRON GUARD
FL=1046.26

CRITICAL CROSSING
BOTTOM OF STORM=1046.03
TOP OF SANITARY=1037.56

SANITARY SERVICE RISER
FL 8"=1037.95
TOP OF RISER FL=1041.34

L-1A
51 LF OF
24" HDPE
@ 0.50%

S-3
SW-301 48" MH
RIM=1044.66
FL 8" (W)=1036.30
FL 8" (S)=1036.05

ST-EX1A
EX. SW-502 72" INTK W/
DEETER 2326 CASTING
RIM=1044.39
FL 42" (W)=1037.50
FL 18" (N)=1037.74
FL 15" (S)=1038.99
FL 42" (E)=1036.21
(FUTURE)

FUTURE 15"
STORM SEWER

ST-EX1
EX. 24" DIA. NYLOPLAST INTK
W/ DOME GRATE
RIM=1042.64
FL 42" (W)=1038.33
FL 42" (E)=1037.83

L-EX1
41 LF OF
EX 42" HDPE
@ 0.80%

L-2
220 LF OF
42" HDPE
@ 0.65%

30 LF OF
6" SANITARY
SEWER @ 2.0%

31 LF OF
6" SANITARY
SEWER @ 2.0%

L-4
96 LF OF
42" HDPE
@ 0.50%

CRITICAL CROSSING
BOTTOM OF STORM=1044.55
TOP OF SANITARY=1043.05

CRITICAL CROSSING
BOTTOM OF STORM=1044.23
TOP OF SANITARY=1042.73

CRITICAL CROSSING
BOTTOM OF STORM=1043.88
TOP OF SANITARY=1042.38

SANITARY SEWER CLEANOUT
RIM=1055.67
FL=1041.96

L-1
36 LF OF
42" HDPE
@ 0.80%

FUTURE 42"
STORM SEWER

SANITARY SEWER CLEANOUT
RIM=1055.67
FL=1042.31

ST-1
SW-513 5'X5' INTK W/
4-9"X36" OPENINGS (N,E,S,W)
@ ELEVATION=1049.05
RIM=1050.30
FL 24" (NW)=1046.00
FL 42" (W)=1043.57
FL 42" (E)=1038.62

IF KETTLESTONE CENTRAL GYMNASIUM
IS CONSTRUCTED PRIOR TO KETTLESTONE
CENTRAL APARTMENTS, INSTALL 42" CMP
APRON AT LOCATION OF ST-EX1
AND GRADE TO DRAIN TO POND
FL=1038.33
IF ST-EX1 IS INSTALLED, CONNECT L-1
INTO NYLOPLAST INTAKE.
FL=1038.33

CRITICAL CROSSING
BOTTOM OF STORM=1038.39
TOP OF SANITARY=1036.63

150' HYDRANT
RADIUS (TYP.)

L-5
86 LF OF
24" HDPE
@ 1.00%

ST-4
SW-402 5'X5' MH W/
SW-603 TYPE 'R' INTAKE CASTING
TC=1053.35
FL 24" (S)=1045.68
FL 30" (W)=1046.22
FL 24" (N)=1047.58
FL 42" (E)=1045.58

L-2A
63 LF OF
18" HDPE
@ 1.00%

L-2B
59 LF OF
18" HDPE
@ 3.50%

108 LF OF
6" SANITARY
SEWER @ 5.0%

ST-2A
18"X15" TEE
FL 18" (S)=1046.75
FL 15" (E)=1046.75
FL 18" (N)=1046.75

SANITARY SERVICE
FL 6"=1045.35
FL 6" (W)=1045.43

CRITICAL CROSSING
BOTTOM OF STORM=1048.65
TOP OF SANITARY=1045.65

ST-2B
18" DIA. NYLOPLAST
W/ DOME GRATE
RIM=1054.59
FL 15" (W)=1048.81

GREASE INTERCEPTOR
(SIZE PER WRA REQUIREMENTS)
(REFER TO MECHANICAL PLANS FOR DETAILS)

HYDRANT ASSEMBLY
FGH=1055.04

18 LF OF
6" SANITARY
SEWER @ 5.0%

ELECTRICAL
TRANSFORMER
FL 6"=1046.32

ELECTRIC SERVICE
(TYP.)

ST-5
SW-502 60" INTK W/
DEETER 2326 CASTING
RIM=1052.56
FL 24" (S)=1046.64
FL 24" (N)=1046.54

L-2C
67 LF OF
18" HDPE
@ 1.00%

SANITARY SEWER CLEANOUT
RIM=1055.14
FL=1047.02

5 LF OF
6" SANITARY
SEWER @ 5.0%

SANITARY SEWER CLEANOUT
RIM=1055.63
FL=1046.57

L-2D
16 LF OF
15" HDPE
@ 0.50%

ST-2D
18" DIA. NYLOPLAST
W/ DOME GRATE
RIM=1054.55
FL 15" (W)=1047.50

ST-2C
18"X15" TEE
FL 18" (S)=1047.42
FL 15" (E)=1047.42
FL 18" (N)=1047.42

L-6
87 LF OF
24" HDPE
@ 0.50%

FFE=1055.75

44 LF OF
6" SANITARY
SEWER @ 6.0%

SANITARY SERVICE RISER
FL 8"=1034.81
TOP OF RISER FL=1039.79

SANITARY SEWER CLEANOUT
RIM=1055.14
FL=1042.40

FUTURE 24"
STORM SEWER

P-3
339 LF OF
8" PVC
@ 0.60%

FUTURE 15"
STORM SEWER

150' HYDRANT
RADIUS (TYP.)

ST-6
SW-502 60" INTK W/
DEETER 2326 CASTING
RIM=1052.33
FL 18" (S)=1047.17
FL 24" (N)=1047.07

L-7
146 LF OF
18" HDPE
@ 0.70%

L-2E
233 LF OF
18" HDPE
@ 0.95%

SANITARY SEWER CLEANOUT
RIM=1055.12
FL=1042.19

SANITARY SERVICE RISER
FL 8"=1034.10
TOP OF RISER FL=1039.53

P-2
398 LF OF
8" PVC
@ 0.60%

44 LF OF
6" SANITARY
SEWER @ 6.0%

S-2
SW-301 48" MH
RIM=1045.17
FL 8" (N)=1034.02
FL 8" (E)=1033.92

SANITARY SERVICE RISER
FL 8"=1033.90
TOP OF RISER FL=1036.72

HYDRANT ASSEMBLY
FGH=1055.25

8"X6" TEE

L-2F
14 LF OF
15" HDPE
@ 0.50%

ST-2F
18" DIA. NYLOPLAST
W/ DOME GRATE
RIM=1054.30
FL 15" (W)=1049.70

ST-2E
18"X15" TEE
FL 18" (S)=1049.63
FL 15" (E)=1049.63
FL 18" (N)=1049.63

FUTURE 15"
STORM SEWER

SCALE
0' 10' 20' 40'

N

ST-7
SW-502 60" INTK W/
DEETER 2326 CASTING
RIM=1052.71
FL 18" (N)=1048.19

DATE	REVISIONS
03/04/2025	REVISED SUBMITTAL
10/17/2023	FINAL SUBMITTAL
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09/19/2023	FIFTH SUBMITTAL
08/29/2023	FOURTH SUBMITTAL
08/08/2023	THIRD SUBMITTAL

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: EKO | ENGINEER: JWM TECH: MST
CIVIL DESIGN ADVANTAGE

KETTLESTONE CENTRAL - GYMNASIUM

UTILITY PLAN

WAUKEE, IOWA

SHEET NUMBER:
C6.2
2302.086

FILE: M:\2023\2302086\DWG\2302086-SITE-UTILITY.DWG
FILE DATE: 3/18/25
PLOTTED BY: DAVE HERVOLD
DATE PLOTTED: 3/18/2025 11:42 AM
COMMENT:
ENG:

LOT 5

LOT 14

LOT 6

ST-7
SW-502 60" INTK W/ DEETER 2326 CASTING
RIM=1052.71
FL 18" (N)=1048.19

ST-2E
18"X15" TEE
FL 18" (S)=1049.63
FL 15" (E)=1049.63
FL 18" (N)=1049.63

L-3A
18 LF OF 18" HDPE @ 0.95%

CRITICAL CROSSING
BOTTOM OF STORM=1049.75
TOP OF WATER=1048.25

8"x6" TEE

ST-3A
45 DEG. BEND
FL 18" (SE)=1049.80

L-3
13 LF OF 18" HDPE @ 0.95%

HYDRANT ASSEMBLY
FGH=1055.25

L-2F
14 LF OF 15" HDPE @ 0.50%

ST-2F
18" DIA. NYLOPLAST W/ DOME GRATE
RIM=1054.30
FL 15" (W)=1049.70

6" FIRE SERVICE
RIM=1054.90

4" DOMESTIC SERVICE
RIM=1055.00

ST-3
18" DIA. NYLOPLAST W/ ROUND SOLID COVER
RIM=1055.33
FL 18" (SE)=1050.02
FL 18" (NW)=1049.92

FDC CONNECTION

SANITARY SEWER CLEANOUT
RIM=1055.69
FL=1044.76

L-3B
44 LF OF 18" HDPE @ 0.95%

ST-3B
18" DIA. NYLOPLAST W/ DOME GRATE
RIM=1054.15
FL 18" (NW)=1050.44

GAS SERVICE (TYP.)

FFE=1055.75

44 LF OF 6" SANITARY SEWER @ 6.0%

S-2
SW-301 48" MH
RIM=1045.17
FL 8" (N)=1034.02
FL 8" (E)=1033.92

SANITARY SERVICE RISER
FL 8"=1033.90
TOP OF RISER FL=1036.72

FUTURE 15" STORM SEWER

131 LF OF 6" SANITARY SEWER @ 2.0%

SANITARY SEWER CLEANOUT
RIM=1052.10
FL=1039.35

66 LF OF 6" SANITARY SEWER @ 2.0%

107 LF OF 6" SANITARY SEWER @ 2.0%

SANITARY SEWER CLEANOUT
RIM=1055.72
FL=1045.72

17 LF OF 6" SANITARY SEWER @ 2.0%

SANITARY SEWER CLEANOUT
RIM=1055.71
FL=1045.71

17 LF OF 6" SANITARY SEWER @ 2.0%

SANITARY SEWER CLEANOUT
RIM=1054.62
FL=1042.79

SANITARY SERVICE RISER
FL 6"=1041.81
TOP OF RISER FL=1045.38

121 LF OF 6" SANITARY SEWER @ 2.0%

SANITARY SERVICE RISER
FL 6"=1040.75
TOP OF RISER FL=1045.37

SANITARY SEWER CLEANOUT
RIM=1054.84
FL=1040.54

FUTURE 15" STORM SEWER

DECORATIVE RETAINING WALL FOR ENTRANCE FEATURE TO COURTS. REFER TO PLANS BY OTHERS FOR DETAILS.

FUTURE 150' HYDRANT RADIUS (TYP.)

ST-19
SW-512 18" DIA. INTK
RIM=1053.56
FL 15" (S)=1047.10

L-19
46 LF OF 15" HDPE @ 0.60%

DECORATIVE RETAINING WALL FOR ENTRANCE FEATURE TO COURTS. REFER TO PLANS BY OTHERS FOR DETAILS.

89 LF OF TRENCH DRAIN

FFE=1052.15

FL=1046.06

ST-17
24" DIA. NYLOPLAST W/DOME GRATE
RIM=1050.61
FL 15" (W)=1045.85
FL 15" (S)=1045.75

2" DOMESTIC SERVICE
RIM=1051.52

SANITARY SEWER CLEANOUT
RIM=1051.52
FL=1044.24

61 LF OF 6" SANITARY SEWER @ 5.0%

L-17
181 LF OF 15" HDPE @ 1.00%

L-18
163 LF OF 15" HDPE @ 0.60%

L-20
43 LF OF 15" HDPE @ 0.60%

ST-18
15" HDPE TEE
FL 15" (S)=1046.83
FL 15" (N)=1046.83
FL 15" (E)=1046.83

ST-20
SW-512 18" DIA. INTK
RIM=1053.40
FL 15" (N)=1047.09

APPROXIMATE LOCATION OF ELECTRICAL SERVICE

CRITICAL CROSSING
BOTTOM OF WATER=1049.45
TOP OF SANITARY=1041.28

SANITARY SERVICE RISER
FL 6"=1041.58
TOP OF RISER FL=1045.34

SANITARY SEWER CLEANOUT
RIM=1053.68
FL=1041.41

FL=1041.06

131 LF OF 6" SANITARY SEWER @ 2.0%

DECORATIVE RETAINING WALL FOR ENTRANCE FEATURE TO COURTS. REFER TO PLANS BY OTHERS FOR DETAILS.

SANITARY SEWER CLEANOUT
RIM=1054.65
FL=1043.67

19 LF OF 6" SANITARY SEWER @ 2.0%

SANITARY SERVICE RISER
FL 6"=1042.69
TOP OF RISER FL=1045.34

FL=1041.19

20 LF OF 6" SANITARY SEWER @ 2.0%

SANITARY SEWER CLEANOUT
RIM=1055.72
FL=1045.51

SANITARY SEWER CLEANOUT
RIM=1055.73
FL=1045.73

99 LF OF 6" SANITARY SEWER @ 2.0%

VERIFY EXACT LOCATION OF WATER SERVICE CONNECTION. WATER CONNECTION SHALL BE MADE AFTER THE WATER METER.

CRITICAL CROSSING
BOTTOM OF STORM=1044.73
TOP OF SANITARY=1039.92

82 LF OF 6" SANITARY SEWER @ 7.25%

SANITARY SERVICE RISER
FL 8"=1032.96
TOP OF RISER FL=1035.59

FUTURE 15" STORM SEWER

P-6
60 LF OF 8" PVC @ 0.93%

S-6
SW-301 48" MH
RIM=1044.08
FL 8" (E)=1033.03

SANITARY SERVICE RISER
FL 8"=1032.98
TOP OF RISER FL=1036.8

ST-30
24" CMP APRON W/ APRON GUARD
FL=1047.05

L-30
202 LF OF 24" HDPE @ 0.40%
(LENGTH INCLUDES APRON)

ST-29
SW-502 60" INTK W/ DEETER 2326 CASTING
RIM=1052.75
FL 24" (W)=1046.24
FL 30" (S)=1046.14

CRITICAL CROSSING
BOTTOM OF STORM=1045.99
TOP OF WATER=1044.49

HYDRANT ASSEMBLY
FGH=1054.33

8" VALVE
RIM=1055.98

8" VALVE
RIM=1054.34

8" TEE

8" VALVE
RIM=1054.46

L-29
94 LF OF 30" HDPE @ 0.30%

ST-28A
SW-501 INTK
TC=1054.95
FL 15" (E)=1049.28

150' HYDRANT RADIUS (TYP.)

ST-28
SW-502 84" INTK W/ TWIN DEETER 2326 CASTINGS
RIM=1052.45
FL 30" (N)=1045.86
FL 15" (W)=1046.68
FL 30" (S)=1045.76

L-28A
163 LF OF 15" HDPE @ 1.60%

L-28
145 LF OF 30" HDPE @ 0.65%

ST-22
18" DIA. NYLOPLAST W/ ROUND SOLID COVER
RIM=1054.74
FL 18" (NE)=1048.73
FL 18" (SW)=1048.63

L-22
13 LF OF 18" HDPE @ 1.69%

ST-22A
45 DEG. BEND
FL 18" (NE)=1048.41

CRITICAL CROSSING
BOTTOM OF STORM=1048.32
TOP OF WATER=1046.82

ST-22B
18" DIA. NYLOPLAST W/ DOME GRATE
RIM=1053.82
FL 18" (SW)=1049.09

L-22B
38 LF OF 18" HDPE @ 0.95%

SANITARY SEWER CLEANOUT
RIM=1055.48
FL=1045.47

FDC CONNECTION

6" FIRE SERVICE
RIM=1054.98

4" DOMESTIC SERVICE
RIM=1054.98

8"x6" TEE

ST-27
SW-502 60" INTK W/ DEETER 2326 CASTING
RIM=1052.47
FL 30" (N)=1044.82
FL 36" (S)=1044.72

FFE=1055.75

CRITICAL CROSSING

SCALE
0' 10' 20' 40'

N

REVISIONS	DATE
REVISED SUBMITTAL	03/04/2025
FINAL SUBMITTAL	10/17/2023
SIXTH SUBMITTAL	09/26/2023
FIFTH SUBMITTAL	09/19/2023
FOURTH SUBMITTAL	08/29/2023
THIRD SUBMITTAL	08/08/2023

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: EKO | ENGINEER: JWM TECH: MST

CIVIL DESIGN ADVANTAGE

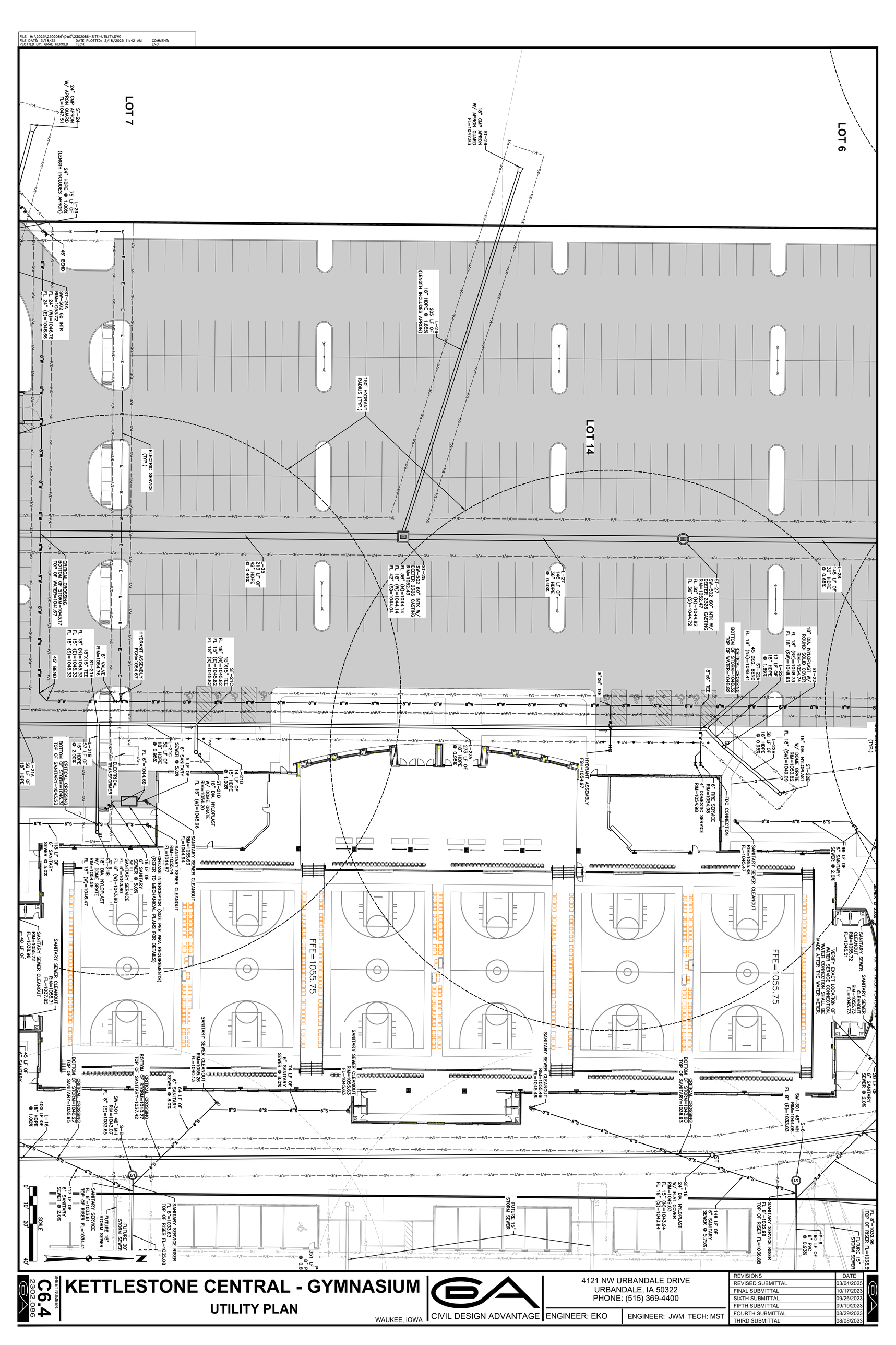
KETTLESTONE CENTRAL - GYMNASIUM

UTILITY PLAN

WAUKEE, IOWA

SHEET NUMBER:
C6.3
2302.086

FILE: M:\2023\2302086\DWG\2302086-SITE-UTILITY.DWG
FILE DATE: 3/18/25
PLOTTED BY: DAVE HERROLD
DATE PLOTTED: 3/18/2025 11:42 AM
TECH:
COMMENT:
ENG:



KETTLESTONE CENTRAL - GYMNASIUM

UTILITY PLAN

WAUKEE, IOWA

SHEET NUMBER C6.4

2302.086

CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: EKO | ENGINEER: JWM TECH: MST

REVISIONS	DATE
REVISED SUBMITTAL	03/04/2025
FINAL SUBMITTAL	10/17/2023
SIXTH SUBMITTAL	09/26/2023
FIFTH SUBMITTAL	09/19/2023
FOURTH SUBMITTAL	08/29/2023
THIRD SUBMITTAL	08/08/2023

LOT 7

LOT 8

LOT 9

L-24
75 LF OF
24" HDPE @ 1.00%
(LENGTH INCLUDES APRON)

ST-24
24" CMP APRON
W/ APRON GUARD
FL=1047.51

45° BEND

ST-24A
SW-502 60 INTK
RIM=1053.72
FL 24" (W)=1046.76
FL 24" (E)=1046.66

CRITICAL CROSSING
BOTTOM OF STORM=1047.02
TOP OF WATER=1045.52

L-24A
144 LF OF
24" HDPE
@ 1.10%

ELECTRIC SERVICE
(TYP.)

L-25
213 LF OF
42" HDPE
@ 0.40%

ST-21C
18"X15" TEE
FL 18" (N)=1045.82
FL 15" (E)=1045.82
FL 18" (S)=1045.82

ELECTRIC SERVICE
(TYP.)

HYDRANT ASSEMBLY
FGH=1054.67

8" VALVE
RIM=1054.76

ST-21A
18"X15" TEE
FL 18" (N)=1045.33
FL 15" (E)=1045.33
FL 18" (S)=1045.33

CRITICAL CROSSING
BOTTOM OF STORM=1043.17
TOP OF WATER=1041.67

45° BEND

L-21B
57 LF OF
15" HDPE
@ 2.00%

CRITICAL CROSSING
BOTTOM OF STORM=1046.31
TOP OF SANITARY=1043.53

L-21D
14 LF OF
15" HDPE
@ 1.00%

ST-21D
18" DIA. NYLOPLAST
W/ DOME GRATE
RIM=1054.20
FL 15" (W)=1045.96

5 LF OF
6" SANITARY
SEWER @ 5.0%

L-21C
52 LF OF
18" HDPE
@ 0.95%

FL 6"=1044.69

ELECTRICAL
TRANSFORMER

L-21A
56 LF OF
18" HDPE
@ 0.95%

L-23
96 LF OF
42" HDPE
@ 0.80%

ST-23
SW-506 INTK W/ TWIN
SW-603 TYPE 'R' INTAKE CASTING
TC=1052.18
FL 24" (W)=1045.08
FL 42" (N)=1043.19
FL 42" (E)=1043.09

ST-21
SW-402 5'X5' MH
RIM=1053.23
FL 42" (W)=1042.32
FL 18" (N)=1044.80
FL 42" (E)=1042.22

150' HYDRANT
RADIUS (TYP.)

L-21
229 LF OF
42" HDPE
@ 1.50%

SANITARY SEWER CLEANOUT
RIM=1055.63
FL=1044.94

SANITARY SEWER CLEANOUT
RIM=1055.14
FL=1044.67

GREASE INTERCEPTOR (SIZE PER WRA REQUIREMENTS)
(REFER TO MECHANICAL PLANS FOR DETAILS)

18 LF OF
6" SANITARY
SEWER @ 5.0%

SANITARY SERVICE
FL 6"=1043.80
FL 6" (W)=1043.80

ST-21B
18" DIA. NYLOPLAST
W/ DOME GRATE
RIM=1054.59
FL 15" (W)=1046.47

118 LF OF
6" SANITARY
SEWER @ 5.0%

SANITARY SEWER CLEANOUT
RIM=1055.72
FL=1038.96

40 LF OF
6" SANITARY
SEWER @ 2.0%

CRITICAL CROSSING
BOTTOM OF STORM=1040.39
TOP OF SANITARY=1038.53

CRITICAL CROSSING
BOTTOM OF STORM=1041.04
TOP OF SANITARY=1039.97

SANITARY SEWER CLEANOUT
RIM=1050.08
FL=1039.11

SANITARY SERVICE
FL 6"=1038.16

FL=1039.01

124 LF OF
6" SANITARY
SEWER @ 2.0%

SANITARY SERVICE
FL 6"=1036.95

SANITARY SEWER CLEANOUT
RIM=1049.83
FL=1036.74

CRITICAL CROSSING
BOTTOM OF STORM=1038.98
TOP OF SANITARY=1037.05

SANITARY SEWER CLEANOUT
RIM=1055.63
FL=1045.63

FFE=1055.75

74 LF OF
6" SANITARY
SEWER @ 8.0%

SANITARY SEWER CLEANOUT
RIM=1055.26
FL=1040.13

64 LF OF
6" SANITARY
SEWER @ 8.0%

CRITICAL CROSSING
BOTTOM OF STORM=1040.27
TOP OF SANITARY=1037.42

S-8
SW-301 48" MH
RIM=1043.07
FL 8" (E)=1033.65

CRITICAL CROSSING
BOTTOM OF STORM=1040.27
TOP OF SANITARY=1035.95

45 LF OF
6" SANITARY
SEWER @ 2.0%

CRITICAL CROSSING
BOTTOM OF STORM=1039.48
TOP OF SANITARY=1037.98

L-16
400 LF OF
18" HDPE
@ 1.00%

ST-15
SW-402 5.5'X5.5' MH
RIM=1044.73
FL 42" (W)=1038.79
FL 18" (N)=1039.84
FL 48" (S)=1038.69

L-15
376 LF OF
48" HDPE
@ 0.85%

P-7
351 LF OF
8" PVC
@ 0.60%

SANITARY SERVICE RISER
FL 8"=1033.63
TOP OF RISER FL=1035.08

P-8
60 LF OF
8" PVC
@ 0.60%

FUTURE 30"
STORM SEWER

FUTURE 15"
STORM SEWER

SANITARY SERVICE
FL 8"=1033.61
TOP OF RISER FL=1034.41

117 LF OF
6" SANITARY
SEWER @ 2.0%

FUTURE 15"
STORM SEWER

FUTURE 30"
STORM SEWER

FUTURE 15"
STORM SEWER

EX. 15.00'
PUE

REVISIONS	DATE
REVISED SUBMITTAL	03/04/2025
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4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: EKO | ENGINEER: JWM TECH: MST
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

KETTLESTONE CENTRAL - GYMNASIUM

UTILITY PLAN

SCALE
0' 10' 20' 40'

SHEET NUMBER:
C6.5
2302.086

FILE: H:\2023\2302086\DWG\2302086-SITE-UTILITY.DWG
FILE DATE: 3/18/25
PLOTTED BY: DALE HENDLEY
DATE PLOTTED: 3/18/2025 11:43 AM
COMMENT:
TECH:

LOT 7

LOT 14

LOT 8

LOT 9

LOT 13

LOT 10

LOT 11

LOT 12

FUTURE DEVELOPMENT
(REFER TO KETTLESTONE CENTRAL - APARTMENTS FOR DETAILS)

SE WESTOWN PARKWAY

SE WACO PLACE / 98TH STREET

L-24
75 LF OF
24" HDPE @ 1.00%
(LENGTH INCLUDES APRON)

ST-24A
SW-502 60 INTK
RIM=1053.72
FL 24" (W)=1046.76
FL 24" (E)=1046.66

CRITICAL CROSSING
BOTTOM OF STORM=1043.17
TOP OF WATER=1041.67

ST-21A
18"X15" TEE
FL 18" (N)=1045.33
FL 15" (E)=1045.33
FL 18" (S)=1045.33

FL 15" (W)=1045.96

SW-301 48" MH
RIM=1043.07
FL 8" (E)=1033.65

S-8

P-8
60 LF OF
8" PVC
@ 0.60%

L-16
400 LF OF
18" HDPE
@ 1.00%

ST-15
SW-402 5.5'X5.5' MH
RIM=1044.73
FL 42" (W)=1038.79
FL 18" (N)=1039.84
FL 48" (S)=1038.69

INSTALL 12"x8"
TAPPING VALVE
ASSEMBLY
RIM=1056.05

CRITICAL CROSSING
BOTTOM OF STORM=1047.02
TOP OF WATER=1045.52

L-24A
144 LF OF
24" HDPE
@ 1.10%

L-23
96 LF OF
42" HDPE
@ 0.80%

L-21
229 LF OF
42" HDPE
@ 1.50%

ST-23
SW-506 INTK W/ TWIN
SW-603 TYPE 'R' INTAKE CASTING
TC=1052.18
FL 24" (W)=1045.08
FL 42" (N)=1043.19
FL 42" (E)=1043.09

ST-21
SW-402 5'X5' MH
RIM=1053.23
FL 42" (W)=1042.32
FL 18" (N)=1044.80
FL 42" (E)=1042.22

L-15
376 LF OF
48" HDPE
@ 0.85%

SANITARY SEWER
CLEANOUT
RIM=1051.26
FL=1041.26

SANITARY SERVICE RISER
FL 8"=1037.98
TOP OF RISER FL=1039.85

EX. TEMPORARY
HYDRANT

EX. 8" VALVE

25 LF OF
6" SANITARY
SEWER @ 2.0%

S-9
SW-301 48" MH
RIM=1051.30
FL 8" (SW)=1038.04

P-9
13 LF OF
8" PVC
@ 1.00%

S-EX3
REMOVE EX. 8" PLUG AND
CONNECT TO SANITARY SEWER
RIM=1038.68
FL 8" (NE)=1037.91
FL 8" (SW)=1037.91

SANITARY SEWER
CLEANOUT
RIM=1051.48
FL=1041.48

25 LF OF
6" SANITARY
SEWER @ 2.0%

SANITARY SERVICE RISER
FL 8"=1037.96
TOP OF RISER FL=1041.00

TEMPORARY
HYDRANT
FGH=1051.47

P-EX3
124 LF OF
EX 8" PVC
@ 1.00%

INSTALL 12"x8"
TAPPING VALVE
ASSEMBLY
RIM=1051.79

ST-13
SW-513 5.5'X5.5' INTK W/
4 - 9" X 48" OPENINGS (N,E,S,W)
@ ELEVATION=1045.00
RIM=1046.25
FL 24" (S)=1037.00
FL 48" (N)=1035.49
FL 48" (E)=1035.39

L-13
214 LF OF
48" HDPE
@ 1.35%

ST-12A
36" PLUG
FL 36" (S)=1032.11

L-12A
5 LF OF
36" HDPE
@ 0.30%

ST-11A
30" PLUG
FL 30" (S)=1029.17

L-11A
5 LF OF
30" HDPE
@ 0.50%

ST-11
SW-402 6'X6' MH
RIM=1038.51
FL 30" (N)=1029.15
FL 60" (W)=1031.08
FL 60" (S)=1029.05

L-14
46 LF OF
24" HDPE
@ 0.50%

ST-14
24" PLUG
FL 24" (N)=1037.23

ST-12
SW-513 5'X5' INTK W/
4 - 9" X 48" OPENINGS (N,E,S,W)
@ ELEVATION=1038.78
RIM=1040.03
FL 48" (W)=1032.50
FL 36" (N)=1032.10
FL 60" (E)=1032.00

L-12
168 LF OF
60" HDPE
@ 0.55%

L-11
265 LF OF
60" HDPE
@ 0.70%

CRITICAL CROSSING
BOTTOM OF STORM=1027.44
TOP OF WATER=1025.39

TEMPORARY
HYDRANT
FGH=1037.42

CRITICAL CROSSING
BOTTOM OF STORM=1027.37
TOP OF SANITARY=1024.99

INSTALL 16"x8"
TAPPING VALVE
ASSEMBLY
RIM=1035.90

SANITARY SEWER
CLEANOUT
RIM=1037.35
FL=1024.70

ST-10
SW-402 6'X6' MH
RIM=1036.48
FL 60" (N)=1027.20
FL 60" (S)=1025.52

SANITARY SERVICE RISER
FL 15"=1022.18
TOP OF RISER FL=1024.20

L-10
190 LF OF
60" HDPE @ 0.80%
(LENGTH INCLUDES APRON)

25 LF OF
6" SANITARY
SEWER @ 2.0%

CRITICAL CROSSING
BOTTOM OF STORM=1024.24
TOP OF SANITARY=1022.50

27 LF OF
6" SANITARY
SEWER @ 2.0%

SANITARY SEWER
CLEANOUT
RIM=1033.15
FL=1022.21

SANITARY SERVICE RISER
FL 15"=1016.71
TOP OF RISER FL=1021.68

ST-9
60" CMP APRON
W/ APRON GUARD
FL=1024.00

INSTALL 105 TONS OF
CLASS 'E' RIPRAP

ST-34
30" STANDPIPE, REFER TO
SWPPP FOR DETAILS
BOTTOM OF BASIN=1024.00
FL 60" (S)=1019.00

L-34
49 LF OF
60" RCP
@ 1.20%

SANITARY SERVICE RISER
FL 8"=1026.23
TOP OF RISER FL=1029.91

SANITARY SEWER
CLEANOUT
RIM=1040.80
FL=1030.80

25 LF OF
6" SANITARY
SEWER @ 2.0%

EX. TEMPORARY
HYDRANT

EX. 8" VALVE

S-10
SW-301 48" MH
RIM=1039.59
FL 8" (SW)=1026.29

P-10
13 LF OF
8" PVC
@ 1.00%

SANITARY SEWER
CLEANOUT
RIM=1039.13
FL=1026.69

25 LF OF
6" SANITARY
SEWER @ 2.0%

P-EX4
124 LF OF
EX 8" PVC
@ 1.00%

SANITARY SERVICE
FL 8"=1026.21

TEMPORARY
HYDRANT
FGH=1036.00

S-EX4
REMOVE EX. 8" PLUG AND
CONNECT TO SANITARY SEWER
RIM=1028.93
FL 8" (NE)=1026.16
FL 8" (SW)=1026.16

INSTALL 12"x8"
TAPPING VALVE
ASSEMBLY
RIM=1035.41

TEMPORARY
HYDRANT
FGH=1029.80

ST-EX3
REMOVE EXISTING 60" APRON
AND CONNECT TO 60" PIPE
FL 60" (N)=1018.40
FL 60" (S)=1018.40

INSTALL 12"x8"
TAPPING VALVE
ASSEMBLY
RIM=1028.14

N

SCALE
0' 25' 50' 100'

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4121 NW URBANDALE DRIVE
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PHONE: (515) 369-4400

ENGINEER: EKO | ENGINEER: JWM TECH: MST

CIVIL DESIGN ADVANTAGE

KETTLESTONE CENTRAL - GYMNASIUM

UTILITY PLAN

WAUKEE, IOWA

SHEET NUMBER:
C6.6
2302.086

FILE: M:\2023\2302086\DWG\2302086-SITE-UTILITY.DWG
FILE DATE: 3/18/25
PLOTTED BY: DAVE HERROLD
DATE PLOTTED: 3/18/2025 11:43 AM
TECH:
COMMENT:
ENG:

LOT 3

LOT 2

LOT 1

SE PLEASANT VIEW DRIVE

INSTALL 12"x8" TAPPING VALVE ASSEMBLY RIM=1062.74

8" WATERMAIN

TEMPORARY HYDRANT FGH=1059.45

EX. 12" WATERMAIN

EX. 6" STORM SEWER

EX. 8" WATERMAIN

EX. 15" STORM SEWER

8" WATERMAIN

INSTALL 12"x8" TAPPING VALVE ASSEMBLY RIM=1051.66

TEMPORARY HYDRANT FGH=1052.72

SHEET INDEX

LOT 5

SE GLACIER TRAIL

EX. 8" WATERMAIN

EX. 15" STORM SEWER

EX. 8" VALVE

REMOVE TEMPORARY HYDRANT ASSEMBLY AND CONNECT TO 8" WATER MAIN

8" WATERMAIN

HYDRANT ASSEMBLY FGH=1056.71

ST-30
24" CMP APRON
W/ APRON GUARD
FL=1047.05

L-30
202 LF OF
24" HDPE @ 0.40%
(LENGTH INCLUDES APRON)

ST-29
SW-502 60" INTK W/
DEETER 2326 CASTING
RIM=1052.75
FL 24" (W)=1046.24
FL 30" (S)=1046.14

8" VALVE
RIM=1055.96

CRITICAL CROSSING
BOTTOM OF STORM=1045.99
TOP OF WATER=1044.49

L-29
94 LF OF
30" HDPE
@ 0.30%

ST-28A
SW-501 INTK
TC=1054.95
FL 15" (E)=1049.28

150' HYDRANT RADIUS (TYP.)

GAS SERVICE (TYP.)

ELECTRIC SERVICE (TYP.)

LOT 6

L-28A
163 LF OF
15" HDPE
@ 1.60%

ST-28
SW-502 84" INTK W/ TWIN
DEETER 2326 CASTINGS
RIM=1052.45
FL 30" (W)=1045.86
FL 15" (W)=1046.68
FL 30" (S)=1045.76

SHEET INDEX

LOT 7

ST-24
24" CMP APRON
W/ APRON GUARD
FL=1047.51

L-24
75 LF OF
24" HDPE @ 1.00%
(LENGTH INCLUDES APRON)

45° BEND

ST-24A
SW-502 60 INTK
RIM=1053.72
FL 24" (W)=1046.76
FL 24" (E)=1046.66

CRITICAL CROSSING
BOTTOM OF STORM=1043.17
TOP OF WATER=1041.67

FL 18" (N)=1045.33
FL 15" (E)=1045.33
FL 18" (S)=1045.33

45° BEND

15" HDPE
@ 2.00%

CRITICAL CROSSING
BOTTOM OF STORM=1046.31
TOP OF SANITARY=1043.53

118 LF OF
6" SANITARY
SEWER @ 5.0%

SANITARY SEWER CLEANOUT
RIM=1055.71
FL=1037.85

SANITARY SEWER CLEANOUT
RIM=1055.72
FL=1038.96

40 LF OF
6" SANITARY
SEWER @ 2.0%

CRITICAL CROSSING
BOTTOM OF STORM=1040.39
TOP OF SANITARY=1038.53

L-21A
56 LF OF
18" HDPE
@ 0.95%

CRITICAL CROSSING
BOTTOM OF STORM=1047.02
TOP OF WATER=1045.52

L-24A
144 LF OF
24" HDPE
@ 1.10%

L-23
96 LF OF
42" HDPE
@ 0.80%

CRITICAL CROSSING
BOTTOM OF STORM=1041.04
TOP OF SANITARY=1039.97

L-21
229 LF OF
42" HDPE
@ 1.50%

SANITARY SEWER CLEANOUT
RIM=1050.08
FL=1039.11

SANITARY SERVICE
FL 6"=1038.16

124 LF OF
6" SANITARY
SEWER @ 2.0%

FL=1039.01

ST-23
SW-506 INTK W/ TWIN
SW-603 TYPE 'R' INTAKE CASTING
TC=1052.18
FL 24" (W)=1045.08
FL 42" (N)=1043.19
FL 42" (E)=1043.09

ST-21
SW-402 5'X5' MH
RIM=1053.23
FL 42" (W)=1042.32
FL 18" (N)=1044.80
FL 42" (E)=1042.22

150' HYDRANT RADIUS (TYP.)

EX. 12" WATERMAIN

8" WATERMAIN

INSTALL 12"x8" TAPPING SLEEVE AND VALVE RIM=1056.04

ELECTRIC SERVICE (TYP.)

LOT 8

SHEET INDEX

N

SCALE
0' 10' 20' 40'

REVISIONS	DATE
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4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

ENGINEER: EKO | ENGINEER: JWM TECH: MST

CIVIL DESIGN ADVANTAGE

KETTLESTONE CENTRAL - GYMNASIUM

UTILITY PLAN

WAUKEE, IOWA

SHEET NUMBER:
C6.7
2302.086

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DATE PLOTTED: 3/18/2025 11:43 AM
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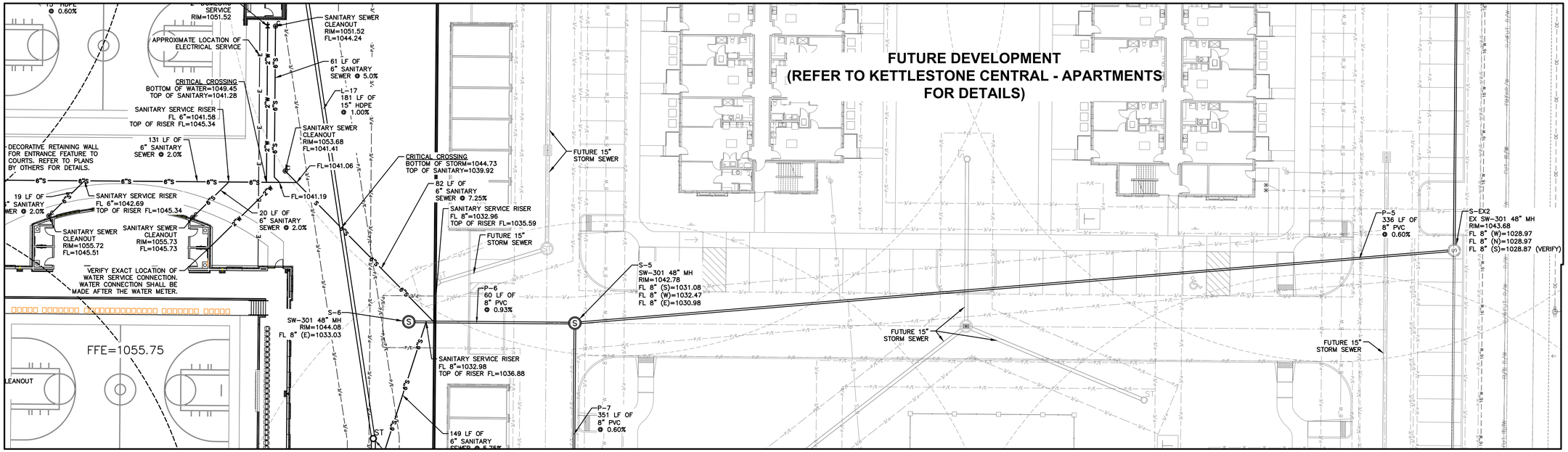
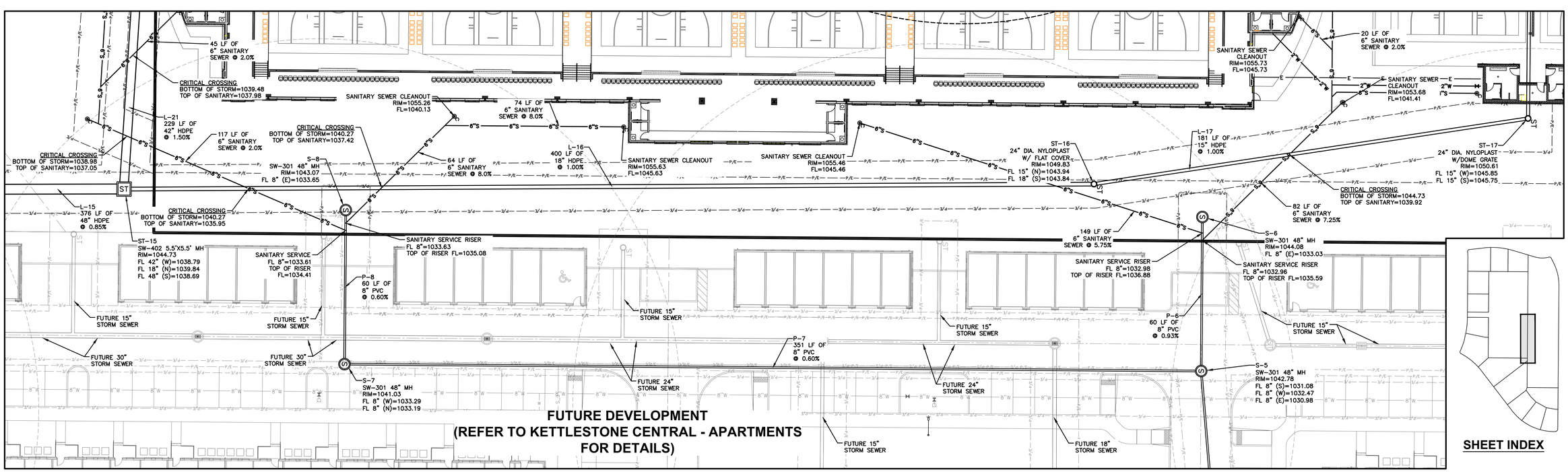


SHEET INDEX



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URBANDALE, IA 50322
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CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

KETTLESTONE CENTRAL - GYMNASIUM

UTILITY PLAN

SHEET NUMBER:
C6.8
2302.086

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DATE PLOTTED: 3/18/2025 11:44 AM
COMMENT: ENG
TECH:

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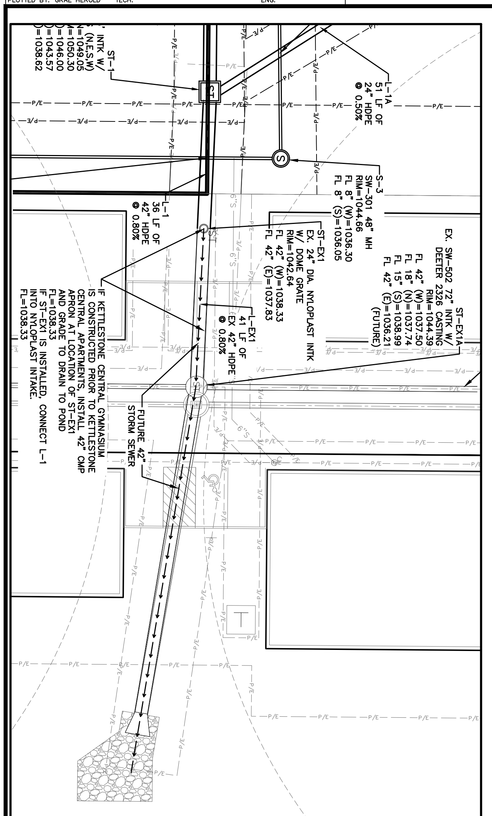

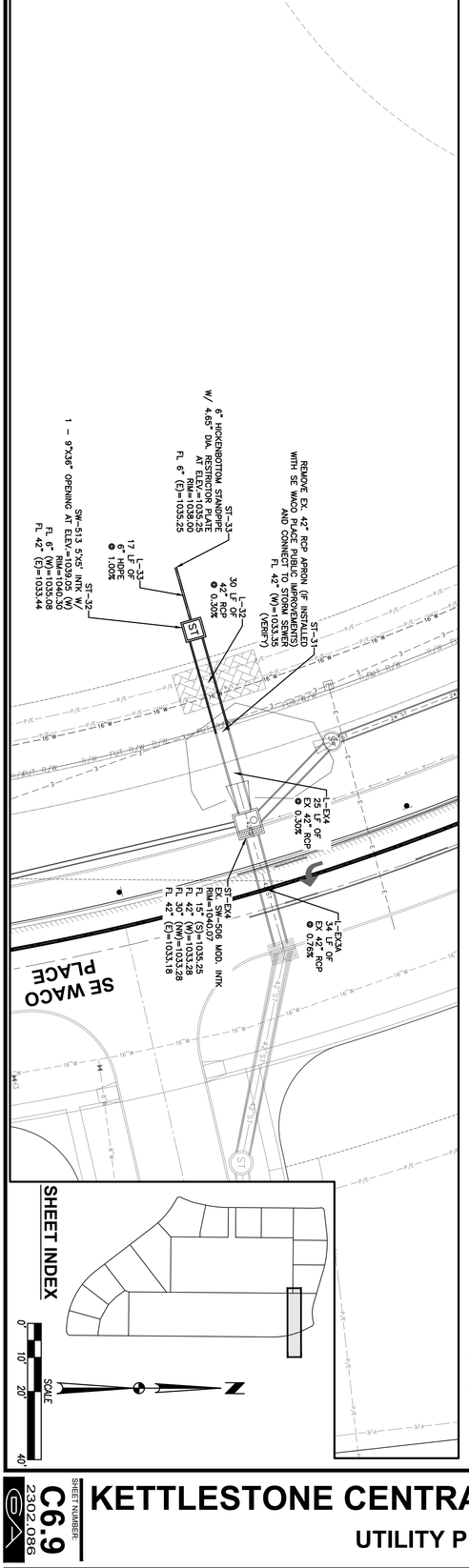

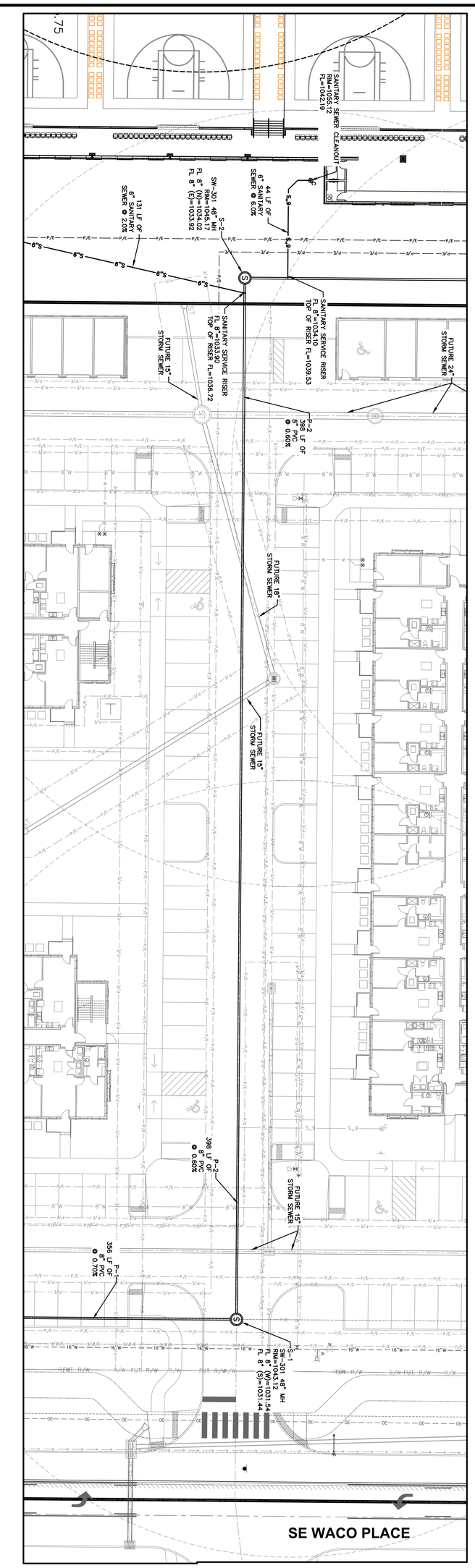

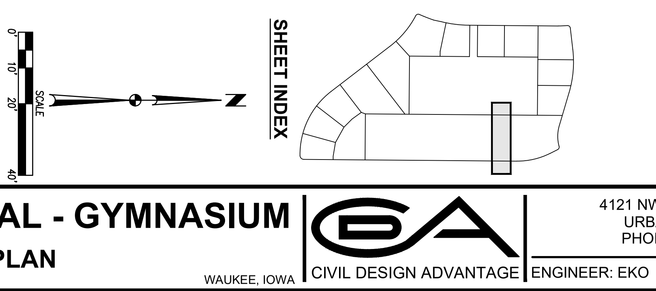

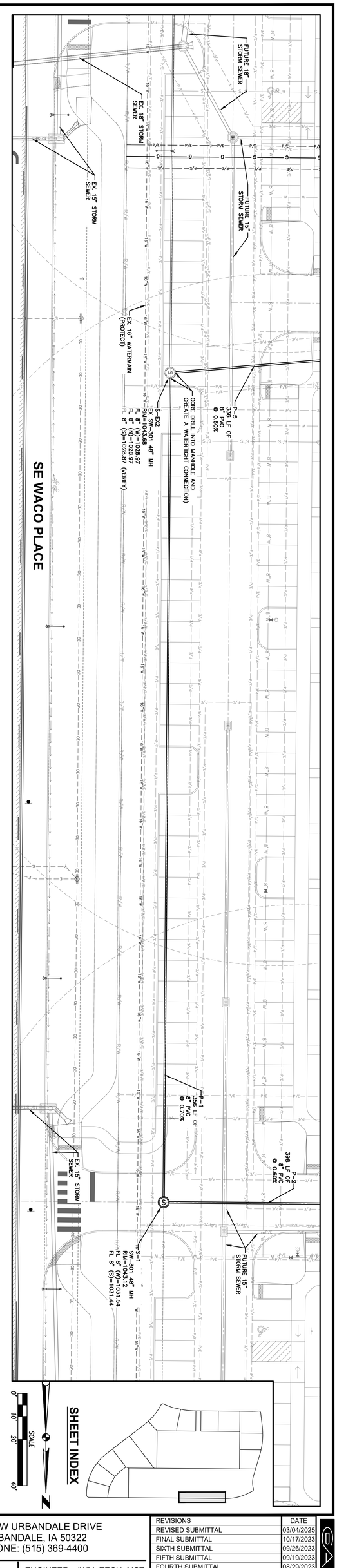

SHEET NUMBER C6.9

KETTLESTONE CENTRAL - GYMNASIUM

UTILITY PLAN

WAUKEE, IOWA

2302.086

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: EKO
ENGINEER: JWM TECH: MST

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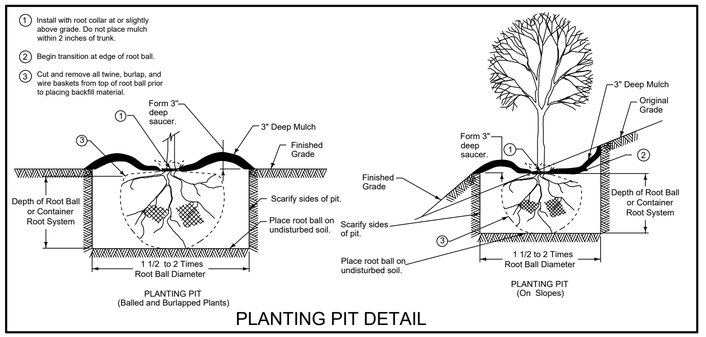


PLANTING PIT DETAIL

LANDSCAPE NOTES

1. LOCATE ALL UTILITIES BEFORE ANY PLANTING BEGINS.
2. THE 2023 EDITION OF THE SUDAS STANDARD SPECIFICATIONS AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.
3. TYPE, SIZE, AND QUALITY OF PLANT MATERIAL SHALL CONFORM TO THE MOST CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1
4. ALL PLANT MATERIAL SHALL BE HEALTHY SPECIMENS WITHOUT DEFORMITIES, VOIDS AND OPEN SPACES, WITH WELL DEVELOPED BRANCH AND ROOT SYSTEMS; TRUE TO HEIGHT, SHAPE AND CHARACTER OF GROWTH OF THE SPECIES OR VARIETY.
5. ALL DISTURBED AREAS WITHIN THE GRADING LIMITS BUT OUTSIDE OF THE PROPERTY BOUNDARY SHALL BE SEEDED WITH SUDAS TYPE 4 SEED MIX. ALL DISTURBED AREAS WITHIN THE PROPERTY BOUNDARY SHALL BE SOD.
6. BACKFILL TO TOP OF CURB. (MINUS 1 1/2" FOR SOD, IF REQ.)
7. WEED PREVENTER (PRE-EMERGENT) SHALL BE SPREAD OVER SOIL AFTER PLANTING AND BEFORE MULCHING IN ALL PLANTING BEDS PER MANUFACTURER'S RECOMMENDATIONS.
8. SHREDDED HARDWOOD MULCH SHALL BE PLACED AROUND ALL TREES, SHRUBS AND IN ALL LANTING BEDS TO A (MIN) DEPTH OF 3".
9. ALL EDGING SHALL BE SPADE CUT EDGE.
10. PLANT QUANTITIES ARE SHOWN FOR INFORMATION ONLY, THE DRAWING SHALL PREVAIL IF ANY CONFLICTS ARISE.
11. ALL DEBRIS SPILLED IN THE PUBLIC R.O.W. SHALL BE PICKED UP BY THE CONTRACTOR AT THE END OF EACH WORK DAY.
12. CONTRACTOR SHALL WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF INSTALLATION.
13. CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN TO OWNER, IF REQUESTED, FOR APPROVAL.

OPEN SPACE LANDSCAPE REQUIREMENTS

LOT AREA	=616,623 SF
OPEN SPACE REQUIRED	=20% (123,325 SF)
OPEN SPACE PROVIDED	=24% (158,200 SF)

1.5 OVERSTORY TREES, 0.5 UNDERSTORY TREES AND 2 SHRUBS PER 1,000 SF OF OPEN SPACE REQUIRED

OS TREES REQUIRED	= 92
US TREES REQUIRED	= 92
SHRUBS REQUIRED	= 247

MINIMUM PLANTING REQUIREMENTS

1. MINIMUM SIZE: THE MINIMUM SIZE FOR REQUIRED PLANTINGS, OTHER THAN THOSE IN REQUIRED BUFFERS, SHALL BE AS FOLLOWS:
   - A. DECIDUOUS OVERSTORY TREES SHALL BE A MINIMUM OF EIGHT (8) FEET IN HEIGHT.
   - B. EVERGREEN TREES SHALL BE A MINIMUM OF SIX (6) FEET IN HEIGHT.
   - C. DECIDUOUS ORNAMENTAL TREES SHALL BE A MINIMUM OF SIX (6) FEET IN HEIGHT.
2. MINIMUM QUANTITY: THE MINIMUM NUMBER OF PLANTINGS PER SITE SHALL BE AS FOLLOWS:
   - A. A MINIMUM OF FIFTY PERCENT (50%) OF ALL REQUIRED TREES SHALL BE OVERSTORY SHADE TREES.
   - B. FOR ALL USES EXCEPT SINGLE-FAMILY ATTACHED AND DETACHED RESIDENTIAL DWELLINGS, A MINIMUM OF TWENTY FIVE PERCENT (25%) OF ALL REQUIRED TREES SHALL BE EVERGREEN TREES.

25' BUFFER REQUIREMENTS (EAST)

1.5 OVERSTORY, 2.5 EVERGREEN AND 2.5 ORNAMENTAL TREES AND 15 SHRUBS PER 50 LINEAR FEET.

1,148 L.F. OF BUFFER

REQUIRED

OVERSTORY TREES	= 23
EVERGREEN TREES	= 92
SHRUBS	= 0

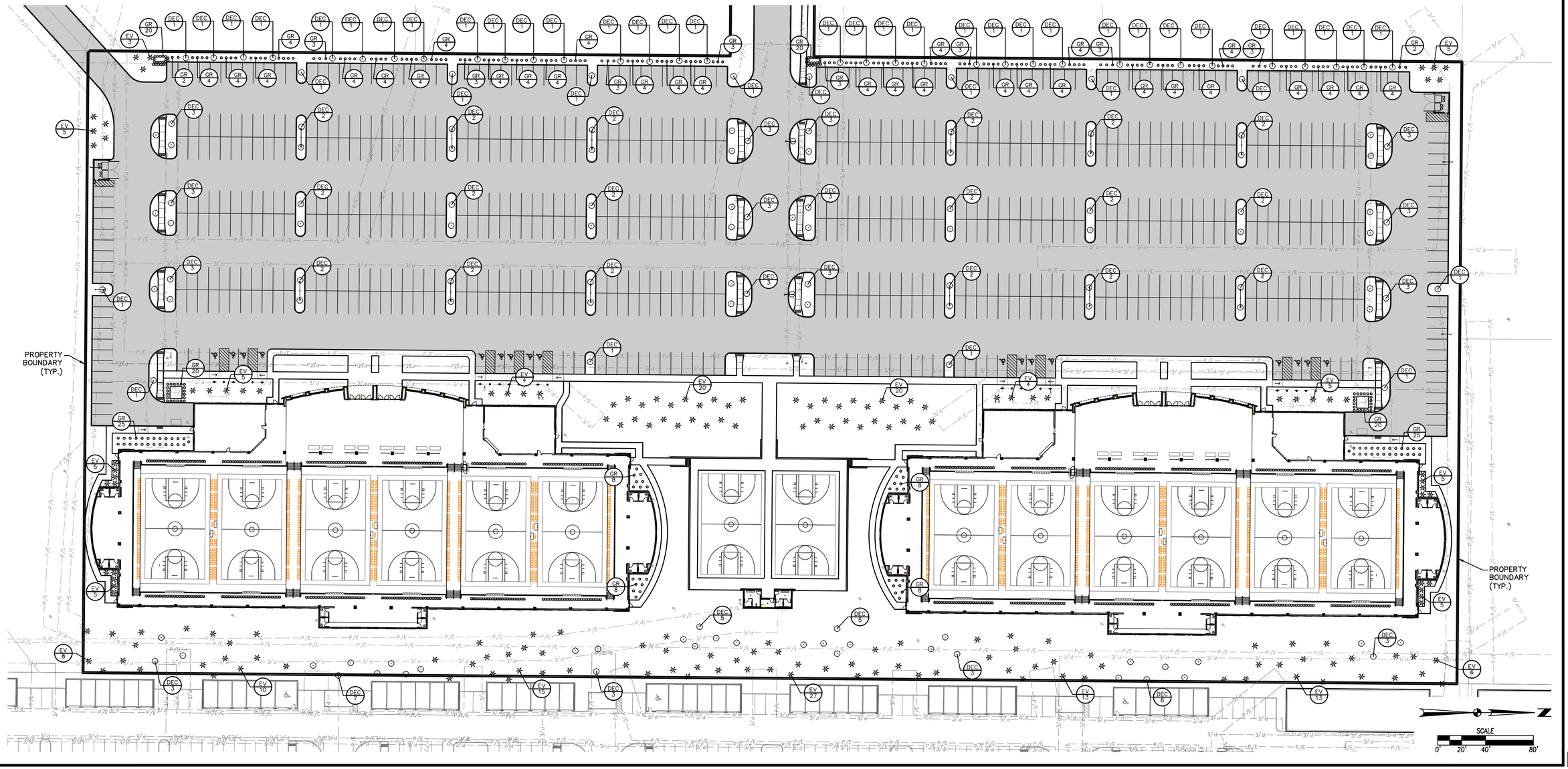
OFF-STREET PARKING AREAS

ALL OF THE FOLLOWING REQUIREMENTS SHALL APPLY TO OFF-STREET PARKING AREAS EXCEPT FOR SINGLE-FAMILY ATTACHED AND DETACHED PARKING IN DRIVEWAYS AS FOLLOWS:

1. ALL ROWS OF PARKING SPACES SHALL BE PROVIDED A TERMINAL LANDSCAPED ISLAND, WITH A MINIMUM WIDTH OF TEN FEET AND A MINIMUM LENGTH OF 17 FEET FOR SINGLE PARKING ROWS AND 34 FEET FOR DUAL PARKING ROWS, TO PROTECT PARKED VEHICLES, PROVIDE VISIBILITY, CONFINE MOVING TRAFFIC TO DRIVEWAYS, AND PROVIDE SPACE FOR LANDSCAPING.
2. THERE SHALL BE PROVIDED WITHIN EACH ROW OF PARKING SPACES, LANDSCAPED ISLANDS, WITH A MINIMUM WIDTH OF 6 FEET AND A MINIMUM LENGTH OF 17 FEET FOR SINGLE PARKING ROWS AND 34 FEET FOR DUAL PARKING ROWS, LOCATED SO AS TO PREVENT MORE THAN 15 VEHICLES FROM BEING PARKED SIDE BY SIDE IN AN ABUTTING CONFIGURATION.
3. ALL LANDSCAPED ISLANDS REQUIRED IN SUBSECTIONS 1 AND 2 OF THIS SECTION SHALL BE PLANTED WITH AT LEAST ONE ORNAMENTAL OR ONE DECIDUOUS OVERSTORY TREE. A MINIMUM OF 50 PERCENT OF THE LANDSCAPED ISLANDS SHALL BE PROVIDED WITH A DECIDUOUS OVERSTORY TREE. THE ENTIRE LANDSCAPED ISLAND AREA SHALL BE COVERED WITH PLANT MATERIALS, LAWN, OR MULCHES.
4. THE SETBACK BETWEEN THE PARKING AREA AND THE PUBLIC RIGHT-OF-WAY SHALL BE LANDSCAPED WITH A MINIMUM OF ONE OVERSTORY DECIDUOUS TREE PER 40 LINEAR FEET OF FRONTAGE. THE FRONTAGE CALCULATION SHALL BE EXCLUSIVE OF THE DRIVEWAYS. THE PLANTINGS MAY BE PLANTED INDIVIDUALLY OR IN CLUSTERS. THIS REQUIREMENT SHALL BE INCLUDED IN THE MINIMUM NUMBER OF TREES REQUIRED FOR THE SITE AND IS NOT IN ADDITION TO.
5. TO ENCOURAGE THE USE OF ALTERNATIVE DESIGN PRACTICES AND GREEN INFRASTRUCTURE, THE CITY COUNCIL UPON A RECOMMENDATION OF THE PLANNING AND ZONING COMMISSION, MAY ACCEPT ALTERNATIVE LANDSCAPE COVERS AND/OR DESIGNS FOR PARKING LOT ISLANDS, IF DESIGNED APPROPRIATELY AND IN CONCERT WITH SURROUNDING DEVELOPMENT.

PROPOSED LANDSCAPE QUANTITIES

ITEM	UNIT	TOTAL
EVERGREEN TREES (EV)	EA	183
DECIDUOUS TREES (DEC)	EA	154
GRASSES (GR) (FEATHER REED)	EA	314



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FILE DATE: 3/2/25
PLOTTED BY: ISAAC HENDRIX
PLOT DATE: 3/19/2025 11:45 AM
TECH:
COMMENT:
DWG:

REVISIONS	DATE
REVISED SUBMITTAL	03/04/2025
FINAL SUBMITTAL	10/17/2023
SIXTH SUBMITTAL	09/26/2023
FIFTH SUBMITTAL	09/19/2023
FOURTH SUBMITTAL	08/29/2023
THIRD SUBMITTAL	08/08/2023

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400
ENGINEER: EKO | ENGINEER: JWM TECH: MST
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

KETTLESTONE CENTRAL - GYMNASIUM

LANDSCAPE PLAN

SHEET NUMBER: L1.0
2302.086