

LEGAL DESCRIPTION:

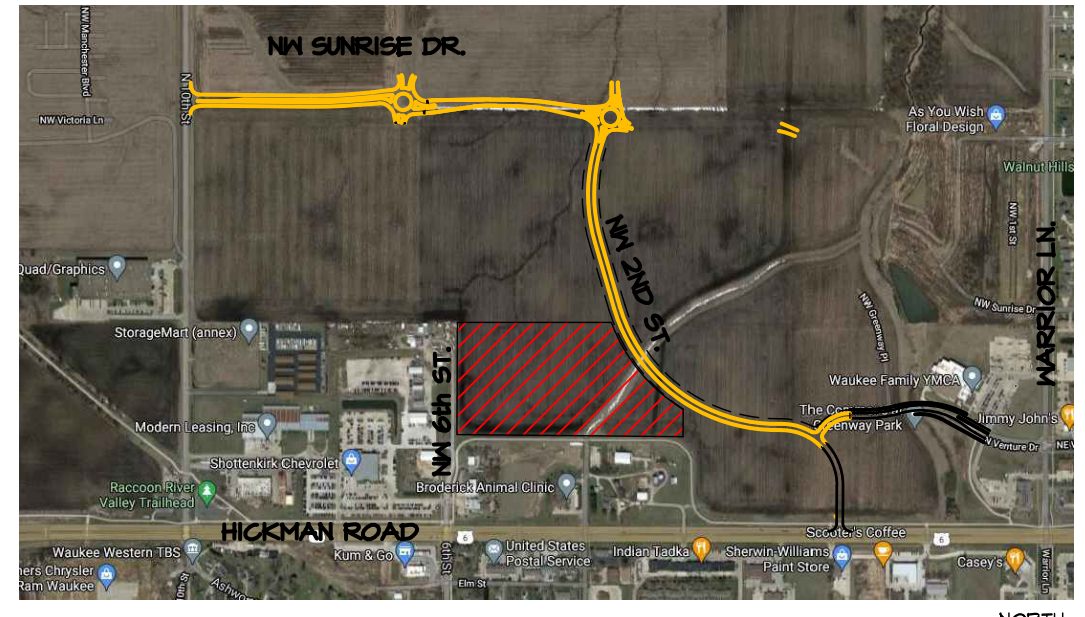
OUTLOT 'Y', WAUKEE CROSSING PLAT 2, AN OFFICIAL PLAT, CITY OF WAUKEE, DALLAS COUNTY, IOWA CONTAINING 23.11 ACRES

GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH 2020 EDITION OF CITY OF WAUKEE STANDARD SPECIFICATIONS AND 2022 EDITION OF S.U.D.A.S. STANDARD SPECIFICATIONS. CONTRACTOR SHALL ARRANGE FOR TESTING AND INSPECTION AND NOTIFY FOLLOWING AT LEAST ONE WEEK PRIOR TO BEGINNING CONSTRUCTION.
a. CITY OF WAUKEE PUBLIC WORKS DEPARTMENT.
b. APPLICANT
c. CIVIL ENGINEERING CONSULTANTS, INC.
d. IOWA ONE-CALL

PRELIMINARY PLAT & SITE PLAN (LOT 1)
1A WAUKEE NW 2ND /
WAUKEE CROSSING PLAT 5
WAUKEE, IOWA

Civil Drawings List Table
Drawing Number Drawing Title
1 COVER
2 S.U.D.A.S. DETAILS
3 DETAILS
4 GEOMETRIC PLAN
5 DIMENSION PLAN - EAST
6 DIMENSION PLAN - WEST
7 DIMENSION PLAN - ENLARGED PLANS
8 GRADING PLAN - OVERALL
9 GRADING PLAN - EAST
10 GRADING PLAN - WEST
11 GRADING DETAILS 1
12 GRADING DETAILS 2
13 GRADING DETAILS 3
14 GRADING DETAILS 4
15 UTILITY PLAN - EAST - SANITARY + WATER
16 UTILITY PLAN - WEST - SANITARY + WATER
17 UTILITY PLAN - EAST - STORM
18 UTILITY PLAN - WEST - STORM
19 UTILITY PLAN - NORTH - STORM
20 LANDSCAPING PLAN - EAST
21 LANDSCAPING PLAN - WEST
22 SEDIMENTATION & EROSION CONTROL PLAN
23 SEDIMENTATION & EROSION CONTROL PLAN
24 SEDIMENTATION & EROSION CONTROL DETAILS



VICINITY SKETCH

PROPERTY OWNER:
MIKE PIERSON
WAUKEE CROSSING, LLC
611 MONTICELLO DRIVE
EURLINGTON, IOWA 52601
(319)512-0125
EMAIL: MIKE.PIERSON@PIERSONCORP.CO

APPLICANT:
1A WAUKEE NW 2nd, LLC
201 RIVERPLACE, STE 400
GREENVILLE, SC 29601
ATTN: COLBY PRICE
(664) 263-5434
EMAIL: CPRICE@REALTYLINKDEV.COM

PROJECT MANAGER: EDWARD ARP
CIVIL ENGINEERING CONSULTANTS, INC
2400 - 26th STREET #12
DES MOINES, IA 50322
(515) 276-4884
EMAIL: ARP@CECLAC.COM
BENCHMARK:
BURY BOLT IN HYDRANT LOCATED SOUTH OF
N VENTURE DRIVE, SE OF YMCA BUILDING
NORTHING 584154.36 EASTING 1538314.92
ELEVATION-----1019.20

PROPOSED CONSTRUCTION SCHEDULE
START CONSTRUCTION: JULY 2022
FINISH CONSTRUCTION: DECEMBER 2023

ZONING
R-3 RENTAL MULTI-FAMILY RESIDENTIAL DISTRICT # PD-1 PLANNED DEVELOPMENT, REFERENCE BK, 2022, Pg 8365, ORDINANCE 3026

UNIT DENSITY
24 DU/AC

BULK REGULATIONS
FRONT YARD SETBACK: 30 FEET
REAR YARD SETBACK: 30 FEET
SIDE YARD SETBACK: 15 FEET(IF ADJACENT TO 'R' DISTRICT)
ACCESSORY BUILDING SETBACK: 30 FEET
INTERIOR SIDE YARD SETBACK: 0 FEET

UTILITY CONTACTS
SANITARY SEWER - WAUKEE PUBLIC WORKS DEPARTMENT (515-478-7420)
WATER MAIN - WAUKEE PUBLIC WORKS DEPARTMENT (515-478-7420)
STORM SEWER - WAUKEE PUBLIC WORKS DEPARTMENT (515-478-7420)
NATURAL GAS UTILITY - CITY OF WAUKEE (515-478-7420)
ELECTRIC - MID AMERICAN ENERGY (515-252-6547)

PARKING:
PARKING REQUIREMENTS: 1 STALL PER BEDROOM + 1 PER 5 UNITS.
BEDROOMS: 201 - 1 BEDROOM UNITS; 81 - 2 BEDROOM UNITS. TOTAL BEDROOMS = 363
282 UNITS / 5 = 56.4 VISITOR STALLS
TOTAL REQUIRED PARKING: 263 + 56.4 = 414.4
TOTAL PARKING PROVIDED = 451
STUDIO APARTMENTS ARE INCLUDED IN THE 1 BEDROOM COUNT.

BUFFERS:
BUFFER EAST - 25'
BUFFER SOUTH - 40'
BUFFER WEST - 40'
BUFFER NORTH - N/A

SPACE CALCULATIONS:
BUILDING HEIGHT: UPPERMOST PARAPET - 50'-0"
UNIT A1: 587 S.F. (31 UNITS; 1 BEDROOM EACH)
UNIT A2: 717 S.F. (146 UNITS; 1 BEDROOM EACH)
UNIT A3: 128 S.F. (4 UNITS; 1 BEDROOM EACH)
UNIT A4: 508 S.F. (20 UNITS; 1 BEDROOM EACH-STUDIO)
UNIT B1: 1020 S.F. (64 UNITS; 2 BEDROOM EACH)
UNIT B2: 1048 S.F. (4 UNITS; 2 BEDROOM EACH)
UNIT B3: 1161 S.F. (4 UNITS; 2 BEDROOM EACH)
UNIT B4: 1185 S.F. (4 UNITS; 2 BEDROOM EACH)

LOT 1 AREA: 518,966 S.F.
20% OPEN SPACE REQUIRED: 103,793 S.F.
OPEN SPACE PROVIDED: 234,554 S.F. (45.2%)
IMPERVIOUS SURFACE: 284,412 S.F.

GENERAL LEGEND
PROPOSED
PLAT BOUNDARY
SECTION LINE
LOT LINE
CENTERLINE
EASEMENT LINE
FLARED END SECTION
TYPE SW-501 STORM INTAKE
TYPE SW-502 STORM INTAKE
TYPE SW-503 STORM INTAKE
TYPE SW-504 STORM INTAKE
TYPE SW-505 STORM INTAKE
TYPE SW-506 STORM INTAKE
TYPE SW-511 STORM INTAKE
TYPE SW-512 STORM INTAKE
TYPE SW-513 STORM INTAKE
TYPE SW-401 STORM MANHOLE
TYPE SW-402 STORM MANHOLE
TYPE SW-403 STORM MANHOLE
TYPE SW-403 STORM MANHOLE
TYPE SW-301 SANITARY MANHOLE
TYPE SW-302 SANITARY MANHOLE
TYPE SW-304 SANITARY MANHOLE
STORM/SANITARY CLEANOUT
WATER VALVE
FIRE HYDRANT ASSEMBLY
BLOW-OFF HYDRANT
DETECTABLE WARNING PANEL
SANITARY SEWER WITH SIZE
SANITARY SERVICE
STORM SEWER WITH SIZE
STORM SERVICE
WATER SEWER WITH SIZE
WATER SERVICE
PROPOSED CONTOUR
SILT FENCE
RIP RAP
ADDRESS
B.S.L.
P.U.E.
M.O.E.
C.C.#
CRITICAL CROSSING LOCATION

FLOOD ZONE
ZONE 'X' ACCORDING TO FEMA FLOOD INSURANCE RATE MAPS, COMMUNITY-PANEL #19044C0335F MAP REVISED DECEMBER 7, 2018.
\*\*\*FEMA MAPS ARE SUBJECT TO CHANGES AND REVISIONS. PLEASE SEE FLOOD MAP SERVICE CENTER FOR CURRENT MAPS.\*\*\*

NPDES/SWPPP
1. APPLICANT AND/OR CONTRACTOR ARE REQUIRED TO OBTAIN NPDES PERMIT AND FOLLOW REQUIREMENTS OF ASSOCIATED STORM WATER POLLUTION PREVENTION PLAN PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
2. APPLICANT AND/OR CONTRACTOR ARE REQUIRED TO OBTAIN CITY OF WAUKEE COSESCO PERMIT.



CERTIFICATION

I HEREBY CERTIFY THAT THE PORTION OF THIS TECHNICAL SUBMISSION DESCRIBED BELOW WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF IOWA.
BY: \_\_\_\_\_ DATE: \_\_\_\_\_
EDWARD H. ARP, IOWA REG. NO. 250
MY LICENSE RENEVAL DATE IS: JUNE 30, 2024
PAGES OR SHEETS COVERED BY THIS SEAL:
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.
PRELIMINARY
CODY T. WEAVER, IOWA LIC. NO. 25085 DATE MY LICENSE RENEVAL DATE IS: DECEMBER 31, 2022
PAGES OR SHEETS COVERED BY THIS SEAL:
I HEREBY CERTIFY THAT THIS LAND SURVEYING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF IOWA.
August 2, 2022
JEFFREY A. GADDIS, IOWA LICENSE NO. 18381 DATE MY LICENSE RENEVAL DATE IS: DECEMBER 31, 2022

WATER NOTES

- 1. FOLLOW WAUKEE STANDARD SPECIFICATIONS FOR PIPE MATERIALS, FIRE HYDRANTS, CURB STOPS, VALVES AND INSTALLATION.
2. CONTRACTOR SHALL PROTECT AND BACKFILL AROUND ALL UTILITIES AND STRUCTURES. BACKFILL SHALL BE IN ACCORDANCE WITH WAUKEE STANDARD SPECIFICATIONS.
3. HYDRANTS, MANHOLE COVERS AND VALVE BOXES SHALL BE SET TO CONFORM TO FINISHED PAVEMENT ELEVATIONS.
4. HYDRANTS SHALL BE SET NOT MORE THAN 4 FEET FROM CENTER OF WATER MAIN U.N.O.
5. AN APPROVED SADDLE SHALL BE USED FOR ALL WATER SERVICE TAPS.
6. ALL SERVICE LINES SHALL BE TESTED WITH WATER MAIN.
7. WHERE SEWERS CROSS OVER OR UNDER WATER MAINS, THE SEWERS SHALL BE AT LEAST 18" BELOW WATER MAIN.
8. FOR STORM SEWERS FLEXIBLE O-RING-GASKET JOINTS RATED AT 13 PSI OR GREATER SHALL BE UTILIZED UNTIL NORMAL DISTANCE FROM SEWER TO WATER MAIN IS AT LEAST 10'.
9. ONE FULL LENGTH WATER MAIN SHALL BE LOCATED SO BOTH JOINTS ARE AS FAR AS POSSIBLE FROM SEWER.
10. SEWER MUST BE ADEQUATELY SUPPORTED.
11. LOW PERMEABLE SOIL SHALL BE USED FOR BACKFILL WITHIN 10' OF POINT OF CROSSING.
12. ALL HYDRANTS INCLUDING ANY RELOCATED HYDRANTS.
13. ALL STORM SEWER CROSSING ABOVE WATER MAIN WILL NEED TO INSTALL O-RING JOINT PIPE FOR 20' CENTERED OVER WATER MAIN. SEWER CROSSINGS MAY ALSO FOLLOW IDNR WATER SUPPLY ENGINEERING SECTION ALTERNATIVE SOLUTIONS TO MEETING REQUIREMENTS FOUND IN SUBPARAGRAPH 561 IAC 48.302 "A" (3)
14. CONTRACTOR TO DIRECTIONAL BORE UNDER STREET TO TEST FOR B' SERVICE.
15. CONTRACTOR TO MAKE WATER TAP. CONTACT CITY PUBLIC WORKS AS REQUIRED FOR INSPECTION AND OBSERVATION OF ALL ACTIVITIES RELATED TO CONNECTION OF SERVICES TO PUBLIC INFRASTRUCTURE.

GRADING NOTES

- 1. ONE WEEK PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY:
a. CITY OF WAUKEE - ENGINEERING DEPARTMENT
b. WAUKEE CROSSING, LLC
c. CIVIL ENGINEERING CONSULTANTS, INC. PHONE: 515.276.4884
d. IOWA ONE-CALL
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WAUKEE STANDARD SPECIFICATIONS, CODES, AND POLICIES, S.U.D.A.S., AND IN ACCORDANCE WITH GEOTECHNICAL REPORT PREPARED BY ALLENDER BUTZKE ENGINEERS PN.211573.
3. ALL SPOT ELEVATIONS ARE AT GUTTER U.N.O.
4. WAUKEE EROSION AND SEDIMENT CONTROL ORDINANCE IS APPLICABLE TO SITE.
5. LOCATIONS AND DIMENSIONS SHOWN ON PLANS FOR EXISTING UTILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. ENGINEER DOES NOT GUARANTEE ACCURACY OR INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. IT IS RESPONSIBILITY OF CONTRACTOR TO CONTACT ALL PUBLIC AND/OR PRIVATE UTILITIES SERVING AREA TO DETERMINE PRESENT EXTENT AND EXACT LOCATION OF FACILITIES BEFORE BEGINNING WORK.
6. CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT UTILITIES OR STRUCTURES AT SITE. IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO NOTIFY OWNERS OF UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK. CONTRACTOR SHALL NOTIFY PROPER UTILITY IMMEDIATELY UPON BREAKING OR DAMAGE TO ANY UTILITY LINE OF APPURTENANCE, OR INTERRUPTION OF SERVICE. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION CONTRACTOR SHALL NOTIFY ENGINEER SO THAT CONFLICT MAY BE RESOLVED.
7. STRIP TOPSOIL FROM ALL AREAS WHICH ARE TO RECEIVE STRUCTURAL FILL.
8. AREAS TO RECEIVE FILL TO BE BENCHED.
9. PREPARE BOTTOM OF BENCH FOR FILL BY DISCING TO DEPTH OF 6-INCHES AND COMPACT. ANY LOCALIZED AREAS WHICH CANNOT BE SATISFACTORILY COMPACTED OR WHICH SHOW EVIDENCE OF PUMPING ACTION SHALL BE UNDERCUT AND RECOMPACTED WITH ON-SITE FILL.
10. ALL SITE GRADING FILL SHALL BE COMPACTED TO DENSITY NOT LESS THAN 95% STANDARD PROCTOR.
11. ALL AREAS WHICH ARE TO RECEIVE PAVING SHALL HAVE TOP 12-INCHES DISCED AND RECOMPACTED TO 95% STANDARD PROCTOR DENSITY.
12. MOISTURE CONTENT OF FILL MATERIAL SHALL MATCH URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, BETWEEN 0% AND 4% OVER OPTIMUM MOISTURE.
13. MAINTAIN ALL CUT AND FILL AREAS FOR SURFACE DRAINAGE AT ALL TIMES.
14. ALL FINAL GRADING SHALL BE COMPACTED TO 95% STANDARD PROCTOR.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF GENERAL PERMIT #2 ARE MET.
16. BACKFILL TO TOP OF ALL CURBS.
17. ANY CONFLICTS BETWEEN THESE DRAWINGS AND GEOTECHNICAL REPORT, FOLLOW GEOTECHNICAL REPORT.

PAVING NOTES

- 1. ALL PAVING SHALL BE 6-INCH NON-REINFORCED P.C.C.
2. ALL SIDEWALKS & RAMPS SHALL BE 6-INCH NON REINFORCED P.C.C.
3. ALL DRIVES & PARKING SHALL HAVE 6-INCH CURBS U.N.O.
4. ALL PAVEMENT MARKINGS SHALL BE DURABLE, COLOR AS SELECTED.
5. PREPARED SUBGRADE TO BE COMPACTED TO 95% STANDARD PROCTOR, OR AS PRESCRIBED IN GEOTECHNICAL REPORT, WHICHEVER IS MORE STRINGENT.
6. ALL PAVED AREAS TO CONDUCT A PROOF-ROLL TEST IN PRESENCE OF GEOTECHNICAL ENGINEER, AS PRESCRIBED BY GEOTECHNICAL ENGINEER.

SANITARY NOTES

- 1. CASTING TYPES ARE FROM S.U.D.A.S. SPECS.
2. CONNECTIONS TO EXISTING MANHOLES ARE TO BE CORE DRILLED AND USE LINK SEAL.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT LOCATIONS OF ALL SANITARY SEWER SERVICES & PROVIDING INFORMATION TO ENGINEER.
4. CONTRACTOR SHALL CLEAN SANITARY SEWER AT PROCT COMPLETION.
5. ALL MANHOLES AND MANHOLE CASTINGS MUST BE ROTATED AS REQUIRED TO AVOID MANHOLE CONFLICTS WITH SIDEWALKS.
6. ALL SANITARY MANHOLES SHALL BE VACUUM TESTED.
7. ONE WEEK PRIOR TO SANITARY SEWER CONSTRUCTION, CONTRACTOR SHALL NOTIFY CITY OF WAUKEE.
8. PIPE MATERIALS PER WAUKEE STANDARD SPECIFICATIONS.

POND MAINTENANCE PLAN FROM ISWMM SECTION 9.11 PG. 44

Table with 2 columns: ACTIVITY and SCHEDULE. Activities include inspecting storm inlets, cleaning debris, monitoring vegetation, and repairing eroded areas.

THE PRESERVER NOTES

- 1. THE PRESERVER SHALL BE MAINTAINED AND INSPECTED IN ACCORDANCE WITH MOMENTUM ENVIRONMENTAL'S PRESERVER INSPECTION AND MAINTENANCE MANUAL. THE MANUAL CAN BE OBTAINED BY CONTACTING THE ENGINEER.
1.1 THE PRESERVER SHALL BE INSPECTED, AT A MINIMUM, TWICE ANNUALLY, IN THE SPRING AND FALL.
1.2.1 POLLUTANT DEPTHS - OIL/FLOATABLES, SEDIMENT/SETTLABLE SOLIDS
1.2.2 SITE CONDITIONS - STABILIZATION, CONSTRUCTION ACTIVITY, EQUIPMENT WASH-DOWN, EROSION, WINTER SANDING
1.2.3 MAINTENANCE/CLEANING PERFORMANCE
1.2.4 POLLUTANT COMPOSITION - HYDROCARBONS (OIL, GAS, GREASE), TRASH, ORGANICS
1.2.5 WATER LEVEL - BELOW OUTLET INVERT INDICATES LEAKING
1.2.6 STRUCTURAL CONDITION - CASTING CONDITION, CHIMNEY CONDITION (ADJUSTING RING DETERIORATION, LEAKING/PROPER SEAL), SPALLING CONCRETE, PRESERVER COMPONENTS (CONDITION, CONNECTIONS, DEBRIS ACCUMULATION)
1.3 MAINTENANCE FREQUENCY SHALL BE DETERMINED BASED OFF OF INSPECTIONS AND THE POLLUTANT STORAGE VOLUME (POLLUTANT STORAGE VOLUME SHALL BE DETERMINED IN ACCORDANCE WITH MOMENTUM ENVIRONMENTAL'S PRESERVER INSPECTION AND MAINTENANCE MANUAL.
1.3.1 TYPICAL STRUCTURE CLEANOUT SHALL INCLUDE VACUUMING OUT THE WATER AND DEBRIS CONTAINED IN THE STRUCTURE. WATER CAN BE SPRAYED TO DISLodge AND/OR MOVE DEBRIS FOR VACUUM COLLECTION. COLLECTED POLLUTANTS SHALL BE PROPERLY DISPOSED OF. CONTAINED SHALL ENTRY PROCEDURES SHALL BE FOLLOWED IF PHYSICAL ACCESS IS NECESSARY.
1.3.2 STRUCTURAL CONDITION SHALL BE DETERMINED AFTER CLEANOUT OF THE STRUCTURE. ANY NECESSARY REPAIRS SHALL OCCUR AS SOON AS POSSIBLE.

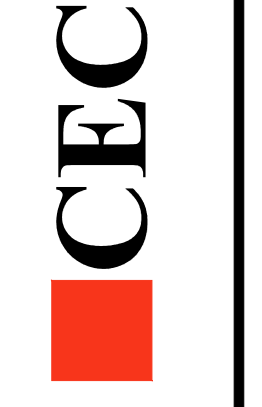
STORM NOTES

- 1. PROVIDE A 3' WIDE CLAY WATER STOP, APRON GUARDS & CONCRETE FOOTINGS ON ALL FLARED END SECTIONS. CONTRACTOR SHALL THE LAST THREE PIPE JOINTS AT FLARED END SECTION.
2. ALL STORM SEWER ARE TO BE CLEANED AND TELEVISIONED UPON COMPLETION.
3. PAVEMENT REINFORCEMENT IS REQUIRED WHERE EARTH COVER OVER STORM SEWERS IS LESS THAN 2 FEET.

FIRE SAFETY CONSTRUCTION NOTES:

- 1. APPROVED FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED WHEN CONSTRUCTION BEGINS.
2. IF PAVING IS NOT INSTALLED PRIOR TO BUILDING CONSTRUCTION AFTER FOOTING INSTALLATION, AN APPROVED ROUTE AROUND EXTERIOR OF BUILDING TO EXTEND TO WITHIN 100 FEET OF ALL PORTIONS OF EXTERIOR WALLS SHALL BE PROVIDED AND COMPLY WITH I.F.C. SECTION 503.2.

Civil Engineering Consultants, Inc.
2400 86th Street Unit 12 Des Moines, Iowa 50322
515.276.4884 mail@ceclac.com



DATE:
4TH SUBMIT - 2022-07-15
3RD SUBMIT - 2022-06-22
2ND SUBMIT - 2022-06-01
1ST SUBMIT - 2022-04-20
DATE OF SURVEY: 2021-05-14
DESIGNED BY: EHA
DRAWN BY: KRZ

1A WAUKEE NW 2ND / WAUKEE CROSSING PLAT 5
WAUKEE, IOWA
COVER

**FIGURE 301.01** CIRCULAR SANITARY SEWER MANHOLE

Manhole Diameter (inches)	Maximum Pipe Diameter (inches)
48	24
60	36
72	42
84	48
96	60

**FIGURE 401.01** CIRCULAR STORM SEWER MANHOLE

Manhole Diameter (inches)	Maximum Pipe Diameter (inches)
48	24
60	36
72	42
84	48
96	60

**FIGURE 501.01** SINGLE GRATE INTAKE

Location	Structure	Maximum Pipe Diameter (inches)
Top	Precast	12"
Base	Precast	12"
Walls	Precast	12"
Long Wall	Precast	12"

**FIGURE 7030.204** GENERAL FEATURES OF AN ACCESSIBLE SIDEWALK

Feature	Requirement
Curb Ramp <td>1. Maximum curb ramp slope 4.83% (5:1) at any constant slope</td>	1. Maximum curb ramp slope 4.83% (5:1) at any constant slope
Turning Space <td>1. Minimum length of 15'-0" at any constant slope</td>	1. Minimum length of 15'-0" at any constant slope
Detectable Warning <td>1. Space passing area at 200'-0" (max.) intervals (Required for new construction)</td>	1. Space passing area at 200'-0" (max.) intervals (Required for new construction)

**FIGURE 503.01** SINGLE GRATE INTAKE WITH MANHOLE

Location	Structure	Maximum Pipe Diameter (inches)
Top	Precast	12"
Base	Precast	12"
Walls	Precast	12"
Long Wall	Precast	12"

**FIGURE 503.02** SINGLE GRATE INTAKE WITH MANHOLE

Location	Structure	Maximum Pipe Diameter (inches)
Top	Precast	12"
Base	Precast	12"
Walls	Precast	12"
Long Wall	Precast	12"

**FIGURE 505.01** DOUBLE GRATE INTAKE

Location	Structure	Maximum Pipe Diameter (inches)
Top	Precast	12"
Base	Precast	12"
Walls	Precast	12"
Long Wall	Precast	12"

**FIGURE 505.02** DOUBLE GRATE INTAKE

Location	Structure	Maximum Pipe Diameter (inches)
Top	Precast	12"
Base	Precast	12"
Walls	Precast	12"
Long Wall	Precast	12"

**FIGURE 506.01** DOUBLE GRATE INTAKE WITH MANHOLE

Wall	Max. Dia.
1	30"
2	24"
3	36"
4	30"

**FIGURE 506.02** DOUBLE GRATE INTAKE WITH MANHOLE

Location	Structure	Maximum Pipe Diameter (inches)
Top	Precast	12"
Base	Precast	12"
Walls	Precast	12"
Long Wall	Precast	12"

**FIGURE 512.01** CIRCULAR AREA INTAKE

Location	Structure	Maximum Pipe Diameter (inches)
Top	Precast	12"
Base	Precast	12"
Walls	Precast	12"
Long Wall	Precast	12"

**FIGURE 513.01** SUBDRAIN CLEANOUTS

Type	Dimensions (inches)
Type A-1	45" Bend, 15"
Type A-2	45" Bend, 15"
Type B	45" Bend, 15"

**FIGURE 513.02** OPEN-SIDED AREA INTAKE

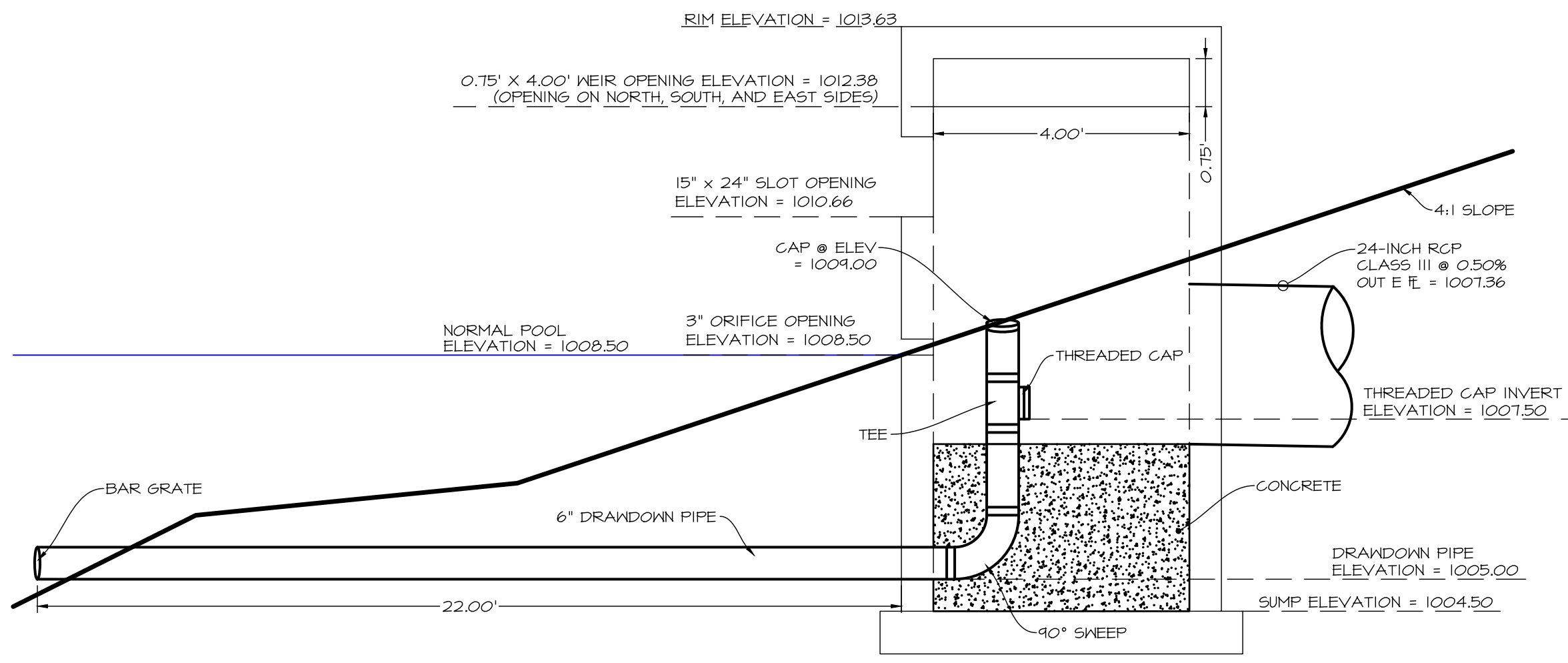
Location	Structure	Maximum Pipe Diameter (inches)
Top	Precast	12"
Base	Precast	12"
Walls	Precast	12"
Long Wall	Precast	12"

**FIGURE 4030.221** RCP APRON SECTION FOOTING

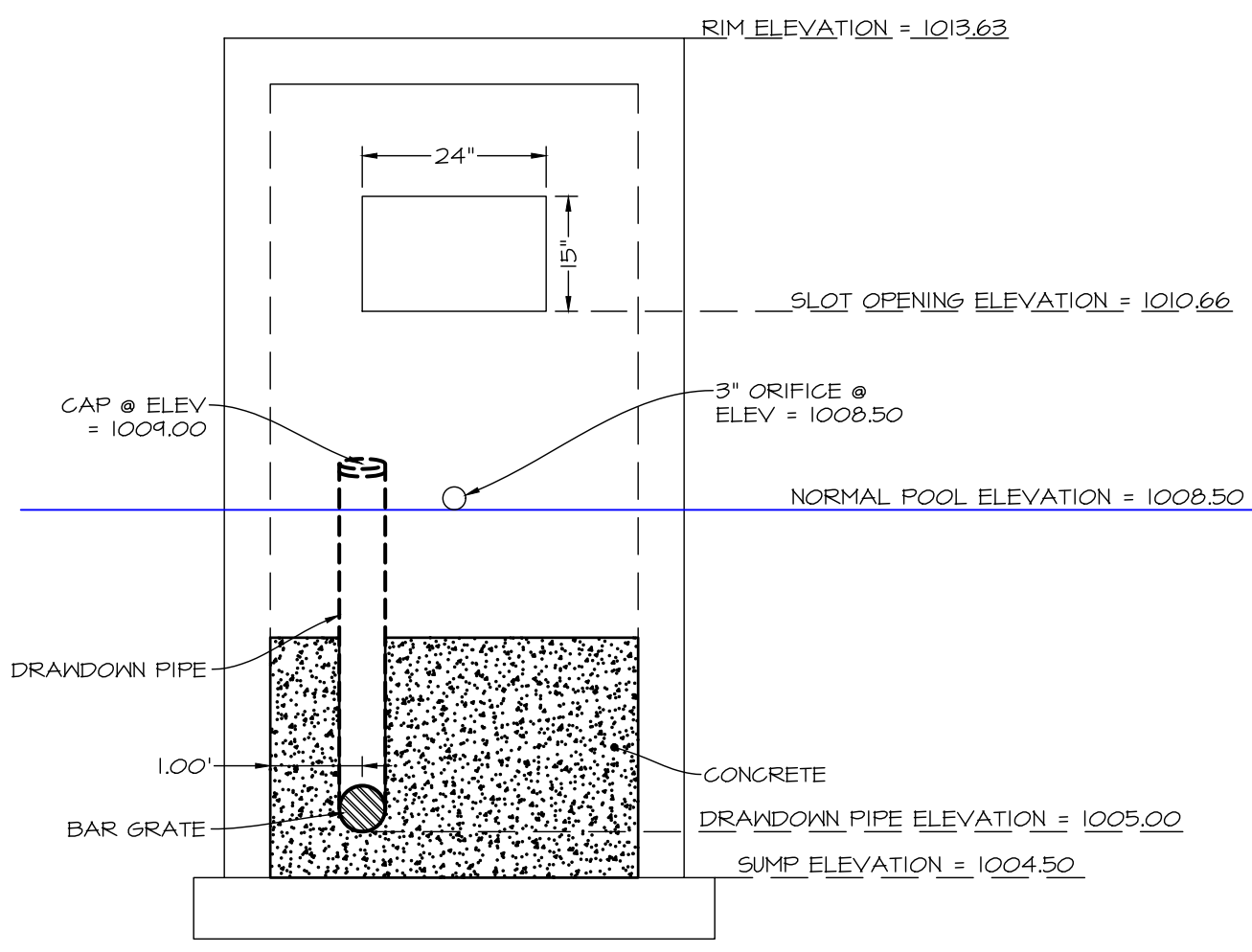
Location	Structure	Maximum Pipe Diameter (inches)
Top	Precast	12"
Base	Precast	12"
Walls	Precast	12"
Long Wall	Precast	12"

**FIGURE 4030.224** CONCRETE PIPE APRON GUARD

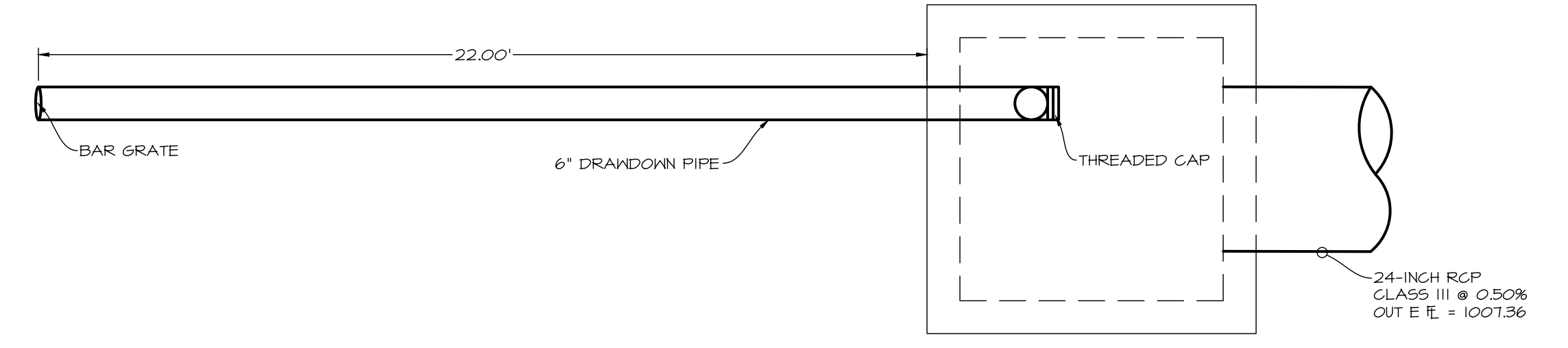
Location	Structure	Maximum Pipe Diameter (inches)
Top	Precast	12"
Base	Precast	12"
Walls	Precast	12"
Long Wall	Precast	12"



ST 602  
PROPOSED BASIN  
OUTLET STRUCTURE DETAIL  
(SECTION VIEW)  
NO SCALE



ST 602  
PROPOSED BASIN  
OUTLET STRUCTURE DETAIL  
(WEST ELEVATION)  
NO SCALE



ST 602  
PROPOSED BASIN  
OUTLET STRUCTURE DETAIL  
(PLAN VIEW)  
NO SCALE

**PLAN VIEW**

FOR NEW MANHOLE CONSTRUCTION, CONTRACTOR TO MINIMIZE PIPE PROTRUSION (L)

REFER TO MANHOLE SIZING CHART TO ENSURE PROJECT SPECIFIC DESIGN FEASIBILITY

STRUCTURE DIAMETER	MAXIMUM PIPE DIAMETER*		
	DISSIPATOR ONLY	SKIMMER ONLY	DISSIPATOR & SKIMMER
48"	27"	24"	15"
60"	36"	30"	24"
72"	48"	42"	30"
84"	48"	36"	36"
96"	48"	48"	48"

NOTE 1: THE PRESERVER™ ENERGY DISSIPATOR WAS DESIGNED AND TESTED TO FUNCTION WITH OR WITHOUT A SKIMMER. DISSIPATORS & SKIMMERS CAN BE UTILIZED IN TANDEM OR INDEPENDENTLY.

**CROSS SECTION AA**

PART NUMBER**	PIPE DIAMETER	ALLOWABLE PEAK FLOW
D15 / S15	0'-15"	20 CFS
D21 / S21	16'-21"	35 CFS
D27 / S27	22'-27"	60 CFS
D36 / S36	28'-36"	100 CFS
D48 / S48	37'-48"	175 CFS

\*\*10" = DISSIPATOR, PLACED AT INLET(S)  
\*\*S" = SKIMMER, PLACED AT OUTLET

NOTE 2: MINIMIZE ELEVATION DIFFERENCE BETWEEN INLET AND OUTLET INVERTS FOR THE PRESERVER™ TO FUNCTION AS DESIGNED.

NOTE 3: STOCK SKIMMERS HAVE A MINIMUM FREEBOARD DEPTH OF 1/2 D<sub>o</sub>. FOR GREATER FREEBOARD DEPTHS, DESIGNERS CAN UPSIZE THE SKIMMER, OR USE A CUSTOMIZED SKIMMER. FOR CUSTOM DESIGNS, AND/OR PROJECT SPECIFIC DETAILS, CONTACT MOMENTUM.

Not to Scale

**THE PRESERVER™ STANDARD INSTALL DETAIL**

ENERGY DISSIPATOR AND/OR SKIMMER

CONCEPTUAL PLAN DISCLAIMER: THIS GENERIC DETAIL DOES NOT ENCOMPASS THE SIZING, FIT, AND APPLICATION OF THE PRESERVER™ FOR THIS SPECIFIC PROJECT. IT IS THE LIMITED RESPONSIBILITY OF THE DESIGN ENGINEER TO ENSURE THAT THE STORMWATER SYSTEM DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS, INCLUDING ENVIRONMENTAL, LOCAL, STATE AND FEDERAL, SOUND, OR SYSTEM DESIGN. THE DESIGN ENGINEER IS RESPONSIBLE FOR ALL DESIGN DECISIONS.



DOG WASTE STATION:  
BY DOG WASTE DEPOT, SKU: DEPOT-006-B-GRN  
OR EQUIVALENT. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. ONE REQUIRED.

**CONCRETE DRIVEWAY, TYPE A**

**POST INSTALLATION**

**FENCE POST FOOTING DEPTH AND DIAMETER**

USE IN FENCE	FENCE HEIGHT	
	4'-0" and less	Over 4'-0" to 8'-0"
Line and Brace Posts	3'-0"	3'-0"
Terminal Post	1'-0"	1'-0"

**CHAIN LINK FENCE**

**ADA PARKING SIGNAGE**

RESERVED PARKING

12" X 18" SIGNAGE TO MEET ADA REQUIREMENTS

CENTER SIGNAGE AT HEAD OF EACH SPACE

2" GALV. STEEL PIPE PAINTED (COLOR BY OWNER)

STEEL TROWEL FINISH

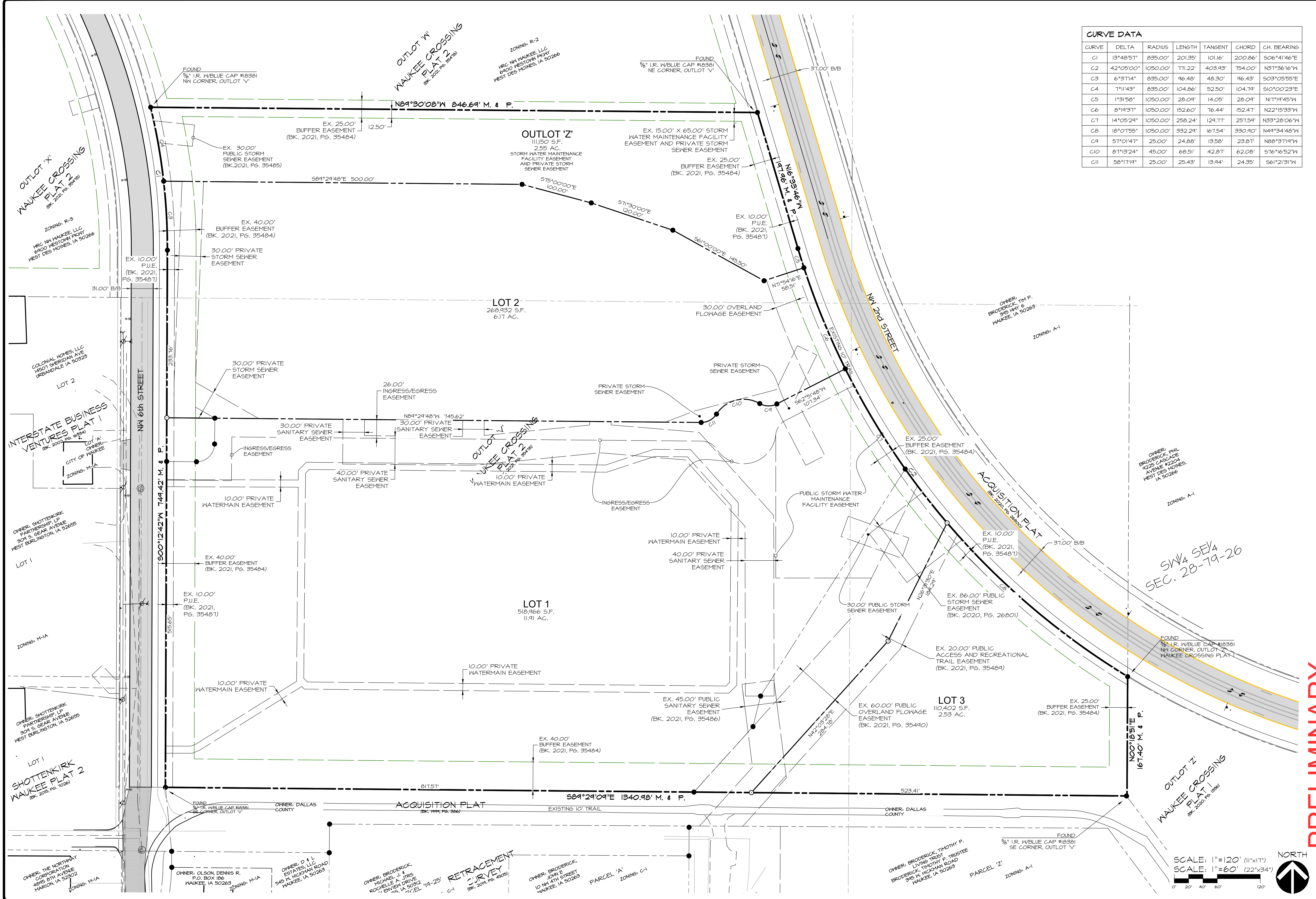
FINISH GRADE

ALL STEEL SHALL BE GALVANIZED

COORDINATE H.C. SIGNAGE W/ LOCAL REQUIREMENTS

SCALE: NO SCALE

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CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD	CH. BEARING
C1	13°48'57"	835.00'	201.35'	101.6'	200.86'	S06°41'46"E
C2	42°05'00"	1050.00'	771.22'	403.93'	754.00'	N31°36'16"W
C3	6°37'14"	835.00'	96.48'	48.30'	96.43'	S03°05'55"E
C4	7°11'43"	835.00'	104.86'	52.50'	104.74'	S10°00'23"E
C5	1°31'58"	1050.00'	28.04'	14.05'	28.04'	N17°19'45"W
C6	8°19'31"	1050.00'	152.60'	76.44'	152.41'	N22°15'33"W
C7	14°05'29"	1050.00'	258.24'	129.11'	251.54'	N33°28'06"W
C8	18°07'55"	1050.00'	332.29'	167.54'	330.90'	N49°34'48"W
C9	51°01'47"	25.00'	24.88'	13.58'	23.87'	N88°31'19"W
C10	87°13'24"	45.00'	68.51'	42.87'	62.08'	S76°16'52"W
C11	58°17'19"	25.00'	25.43'	13.94'	24.35'	S61°21'31"W

**PRELIMINARY**

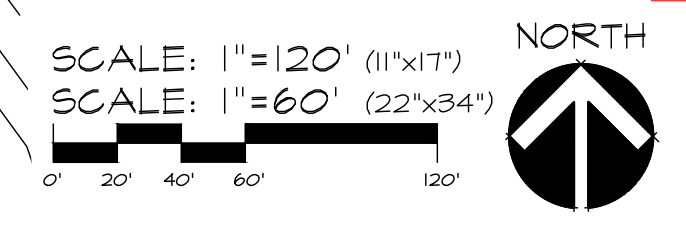
**IA WAUKEE NW 2ND / WAUKEE CROSSING PLAT 5**  
WAUKEE, IOWA  
**GEOMETRIC PLAN**

DATE: 4TH SUBMIT - 2022-07-15  
 3RD SUBMIT - 2022-06-22  
 2ND SUBMIT - 2022-06-01  
 1ST SUBMIT - 2022-04-20

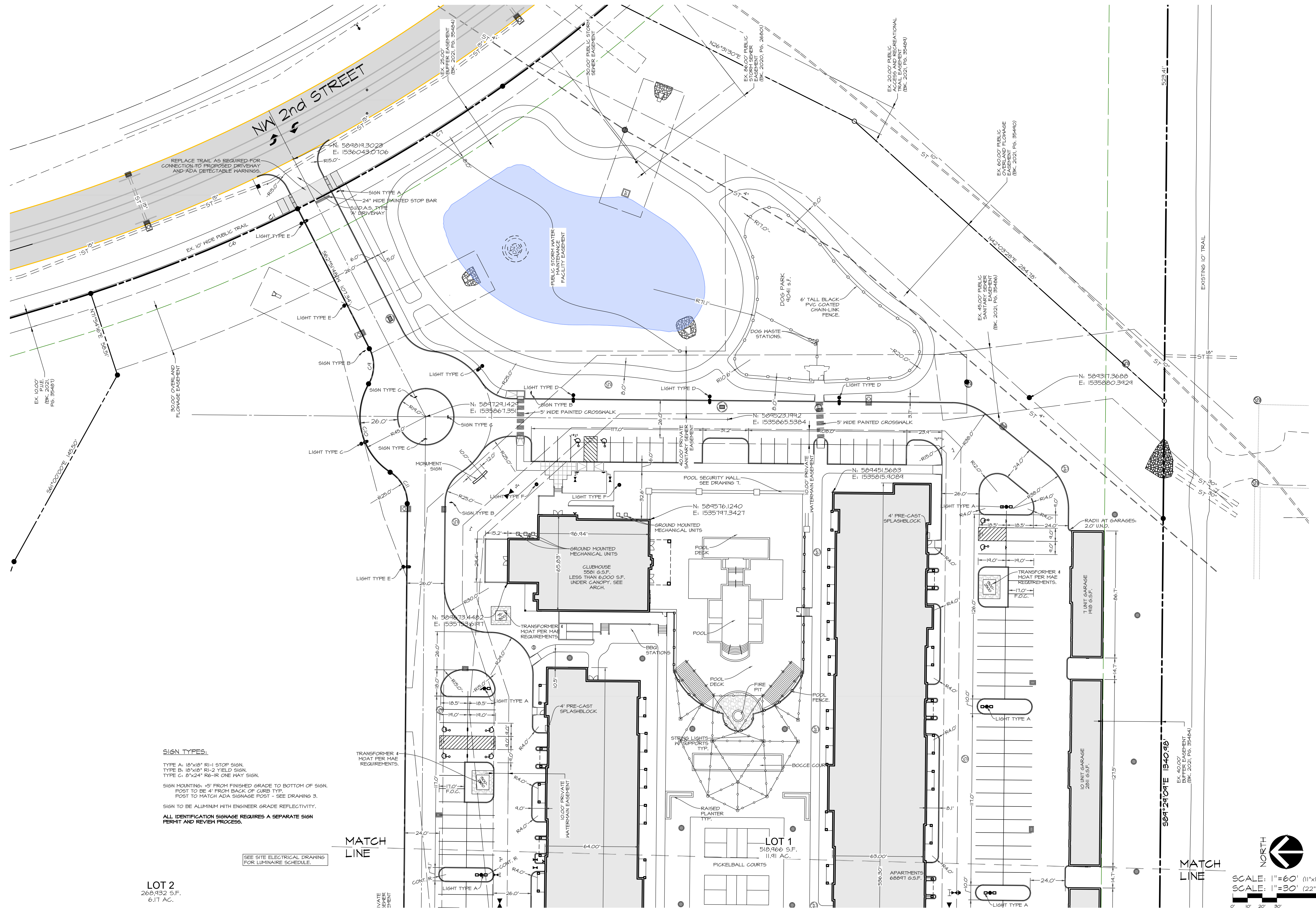
DESIGNED BY: EHA  
 DRAWN BY: KRZ

Civil Engineering Consultants, Inc.  
 2400 86th Street Unit 12 · Des Moines, Iowa 50322  
 515.276.8884 · mail@cecinc.com

SHEET 4 OF 24  
A-2146



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**SIGN TYPES:**  
 TYPE A: 18"x18" R1-1 STOP SIGN.  
 TYPE B: 18"x18" R1-2 YIELD SIGN.  
 TYPE C: 5"x24" R6-1R ONE WAY SIGN.  
 SIGN MOUNTING: +5' FROM FINISHED GRADE TO BOTTOM OF SIGN.  
 POST TO BE 4" FROM BACK OF CURB TYP.  
 POST TO MATCH ADA SIGNAGE POST - SEE DRAWING 3.  
 SIGN TO BE ALUMINUM WITH ENGINEER GRADE REFLECTIVITY.  
 ALL IDENTIFICATION SIGNAGE REQUIRES A SEPARATE SIGN PERMIT AND REVIEW PROCESS.

**LOT 2**  
 260,932 S.F.  
 6.17 AC.

SEE SITE ELECTRICAL DRAWING FOR LUMINAIRE SCHEDULE.

MATCH LINE

**LOT 1**  
 510,366 S.F.  
 11.91 AC.

**LOT 2**  
 260,932 S.F.  
 6.17 AC.

SCALE: 1"=60' (11"x17")  
 SCALE: 1"=30' (22"x34")

**PRELIMINARY**

**IA WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5**  
 WAUKEE, IOWA  
 DIMENSION PLAN - EAST

DATE: 4TH SUBMIT - 2022-07-15  
 3RD SUBMIT - 2022-06-22  
 2ND SUBMIT - 2022-06-01  
 1ST SUBMIT - 2022-04-20

DESIGNED BY: EHA  
 DRAWN BY: KRZ

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 515.276.4884, mail@cecinc.com

SHEET 5 OF 24  
 A-2146

Q:\A-FILES\A-2100\A2146\_C3D Drawings\Construction Documents\Site Plan\A2146 dimension.dwg, 8/2/2022 11:42:14 AM, kzarley, 1:1

LOT 2  
268,432 S.F.  
6.17 AC.

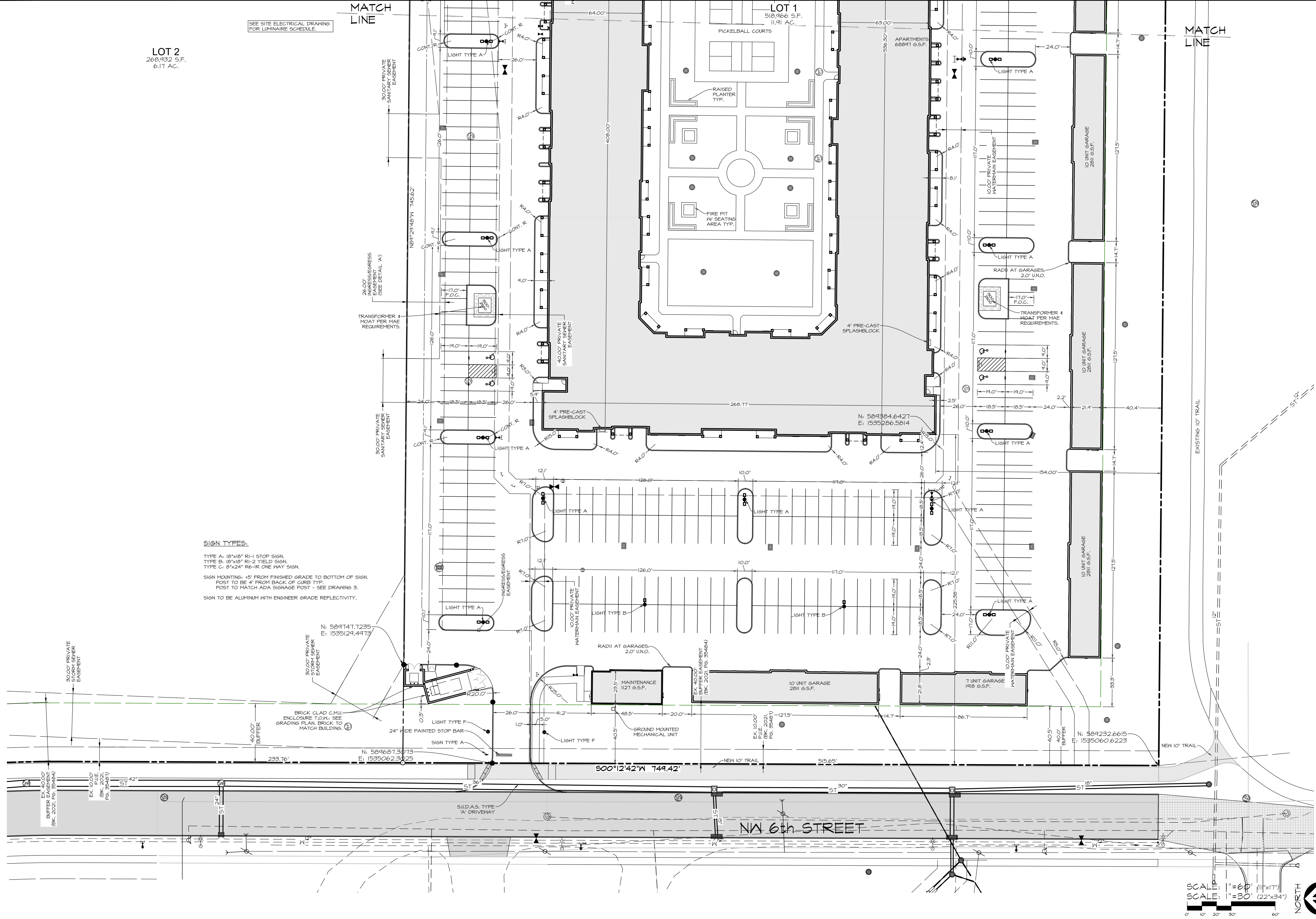
SEE SITE ELECTRICAL DRAWING  
FOR LUMINAIRE SCHEDULE.

MATCH  
LINE

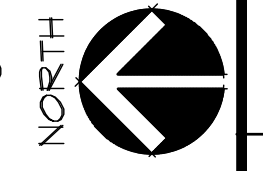
LOT 1  
518,906 S.F.  
11.91 AC.

MATCH  
LINE

**SIGN TYPES:**  
TYPE A: 10'x10" RI-1 STOP SIGN.  
TYPE B: 10'x10" RI-2 YIELD SIGN.  
TYPE C: 8'x24" R6-1R ONE WAY SIGN.  
  
SIGN MOUNTING: +5' FROM FINISHED GRADE TO BOTTOM OF SIGN.  
POST TO BE 4" FROM BACK OF CURB TYP.  
POST TO MATCH ADA SIGNAGE POST - SEE DRAWING 3.  
SIGN TO BE ALUMINUM WITH ENGINEER GRADE REFLECTIVITY.



SCALE: 1"=60' (11"x17")  
SCALE: 1"=30' (22"x34")

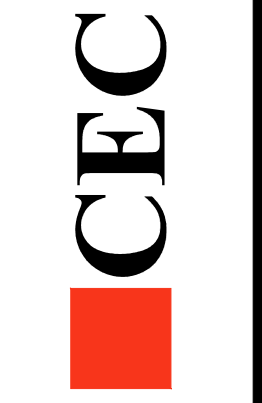


**PRELIMINARY**

**IA WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5**  
WAUKEE, IOWA  
**DIMENSION PLAN - WEST**

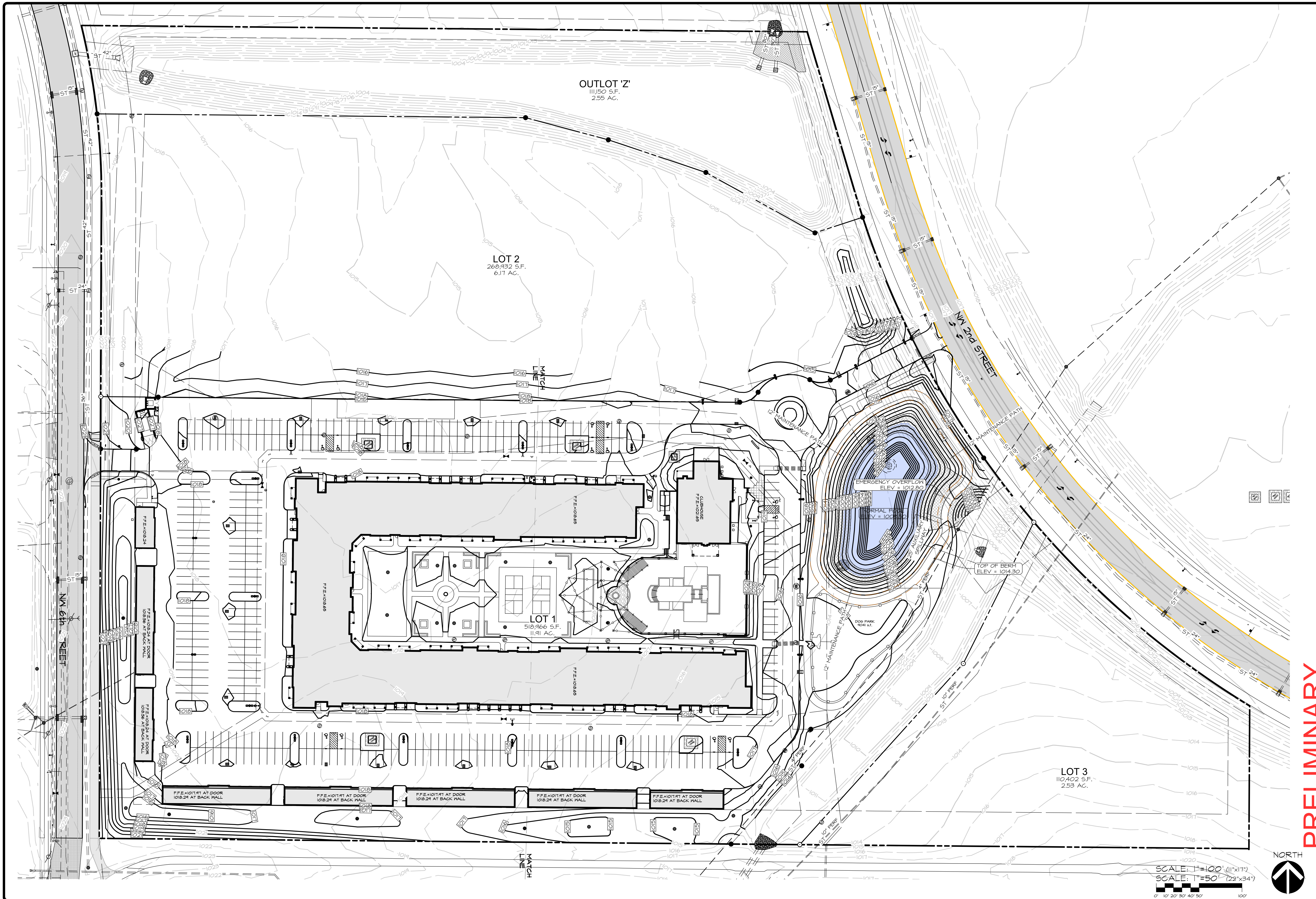
SHEET  
OF 24  
A-2146

DATE:  
4TH SUBMIT - 2022-07-15  
3RD SUBMIT - 2022-06-22  
2ND SUBMIT - 2022-06-01  
1ST SUBMIT - 2022-04-20  
DATE OF SURVEY: 2021-05-14  
DESIGNED BY: EHA  
DRAWN BY: KRSZ

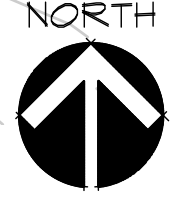


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SCALE: 1"=100' (11"x17")  
 SCALE: 1"=50' (22"x34")



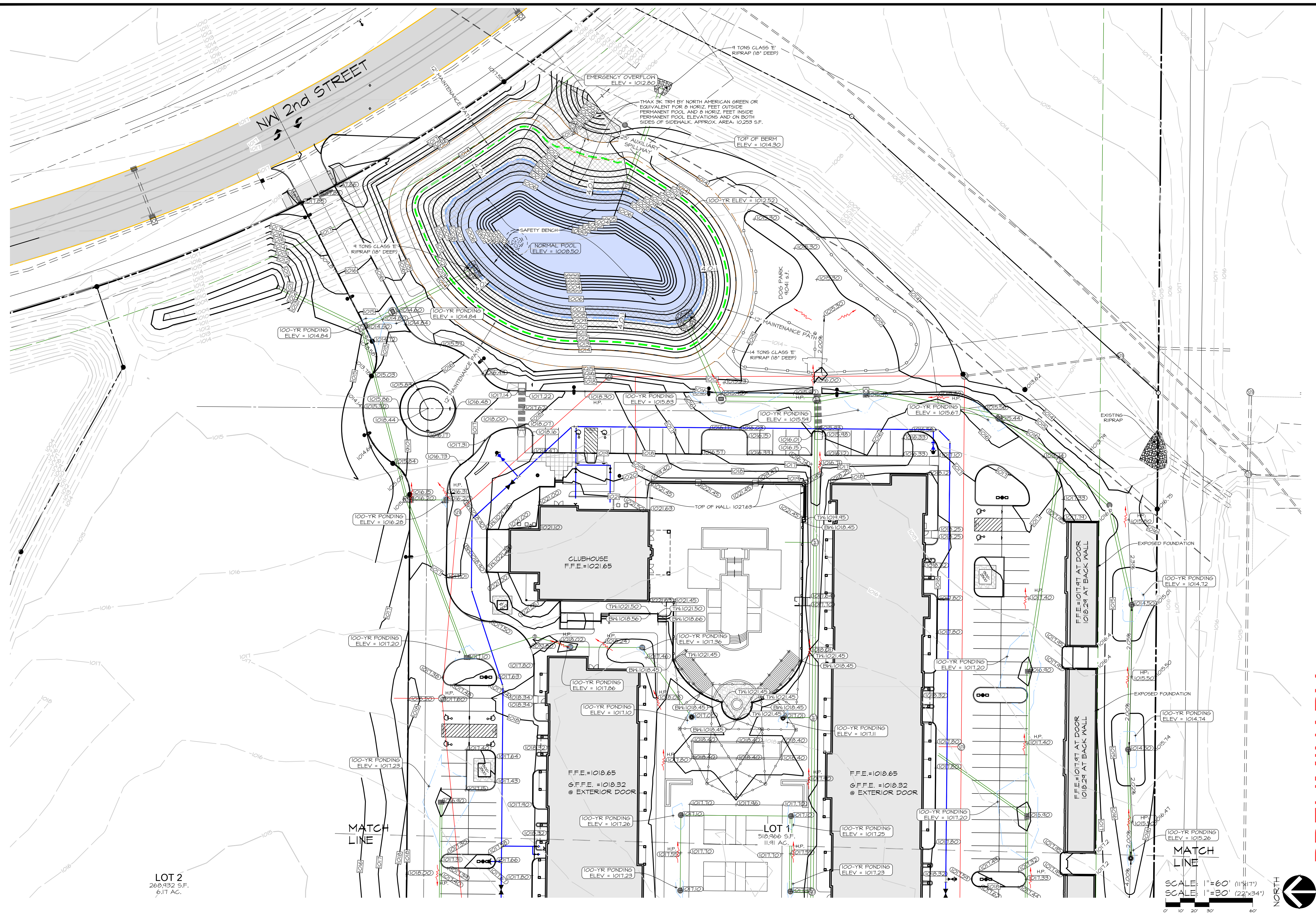
**PRELIMINARY**

**1A WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5**  
 WAUKEE, IOWA  
**GRADING PLAN - OVERALL**

SHEET  
 OF 24  
 A-2146

DATE:	4TH SUBMIT - 2022-07-15	DESIGNED BY:	EHA
	3RD SUBMIT - 2022-06-22	DRAWN BY:	KRSZ
	2ND SUBMIT - 2022-06-01		
	1ST SUBMIT - 2022-04-20		

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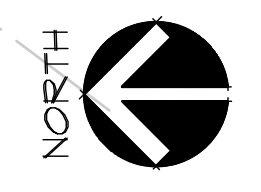


LOT 2  
268,932 S.F.  
6.11 AC.

MATCH LINE

MATCH LINE

SCALE: 1"=60' (11 1/4")  
SCALE: 1"=30' (22 1/2 x 34")

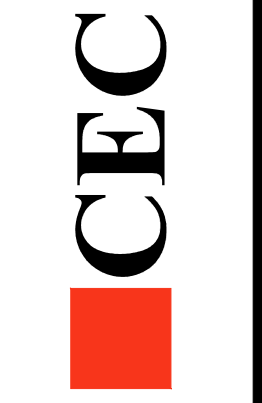


**PRELIMINARY**

IA WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5  
WAUKEE, IOWA  
GRADING PLAN - EAST

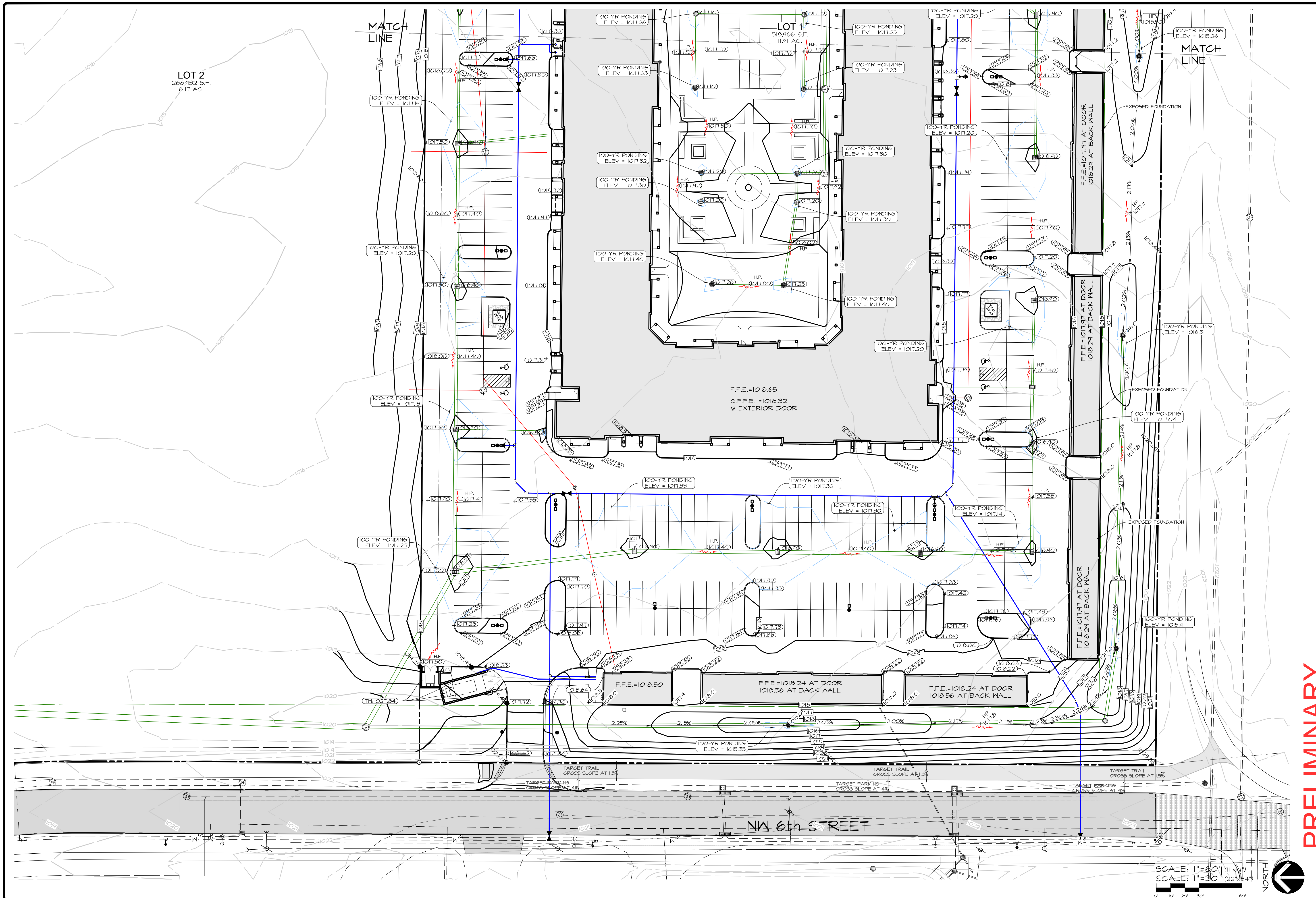
SHEET  
OF 24  
A-2146

DATE:  
4TH SUBMIT - 2022-07-15  
3RD SUBMIT - 2022-06-22  
2ND SUBMIT - 2022-06-01  
1ST SUBMIT - 2022-04-20  
DATE OF SURVEY: 2021-05-14  
DESIGNED BY: EHA  
DRAWN BY: KRS



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**PRELIMINARY**

**IA WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5**  
WAUKEE, IOWA  
**GRADING PLAN - WEST**

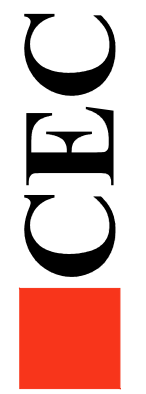
SHEET  
OF 24  
A-2146

DATE:  
 4TH SUBMIT - 2022-07-15  
 3RD SUBMIT - 2022-06-22  
 2ND SUBMIT - 2022-06-01  
 1ST SUBMIT - 2022-04-20

DATE OF SURVEY:  
 2021-05-14

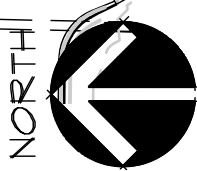
DESIGNED BY:  
 EHA

DRAWN BY:  
 KRZ



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SCALE: 1"=60' (11'-0")  
SCALE: 1"=30' (22'-0")





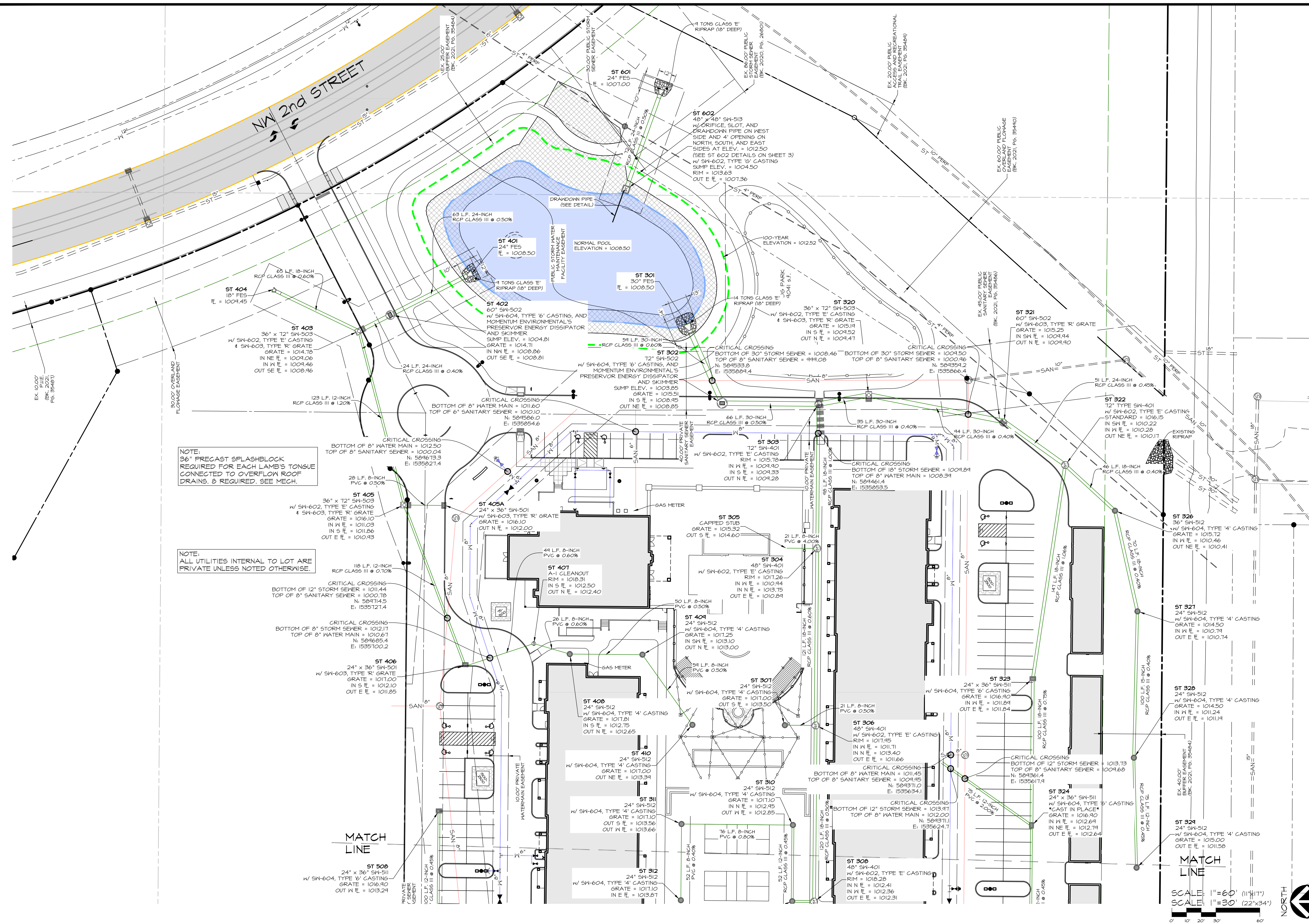












NOTE:  
36" PRECAST SPLASHBLOCK  
REQUIRED FOR EACH LAMB'S TONGUE  
CONNECTED TO OVERFLOW ROOF  
DRAINS. 8 REQUIRED. SEE MECH.

NOTE:  
ALL UTILITIES INTERNAL TO LOT ARE  
PRIVATE UNLESS NOTED OTHERWISE.

MATCH LINE

MATCH LINE

SCALE: 1"=60' (11 1/4" x 17")  
SCALE: 1"=30' (22" x 34")



**PRELIMINARY**

**IA WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5**  
WAUKEE, IOWA  
**UTILITY PLAN - EAST - STORM**

SHEET  
OF 24  
A-2146

DATE: 4TH SUBMIT - 2022-07-15  
3RD SUBMIT - 2022-06-22  
2ND SUBMIT - 2022-06-01  
1ST SUBMIT - 2022-04-20

DESIGNED BY: EHA  
DRAWN BY: RSZ

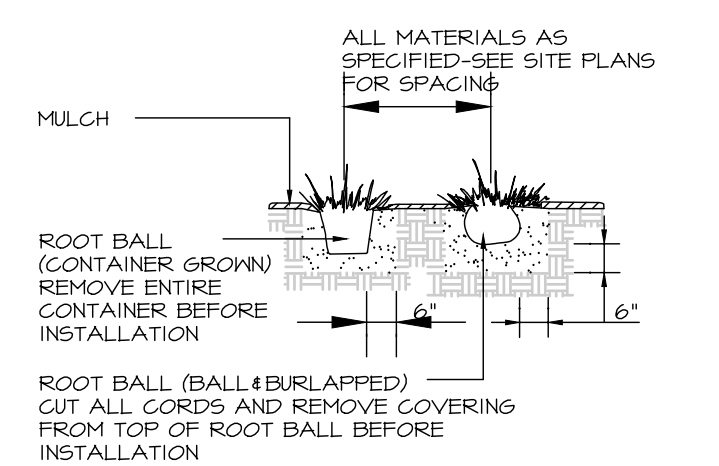
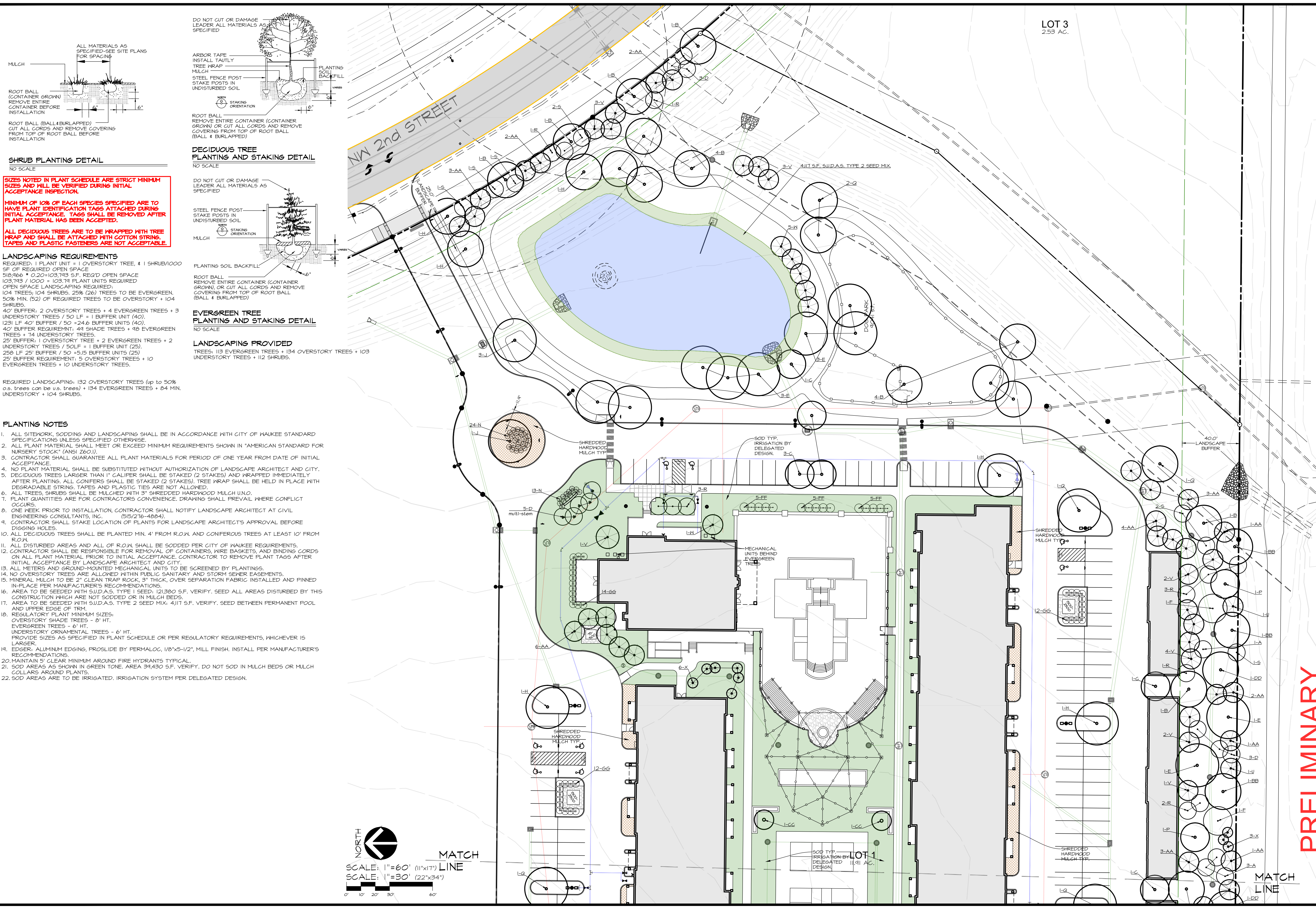
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**CEC**





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SHRUB PLANTING DETAIL  
NO SCALE

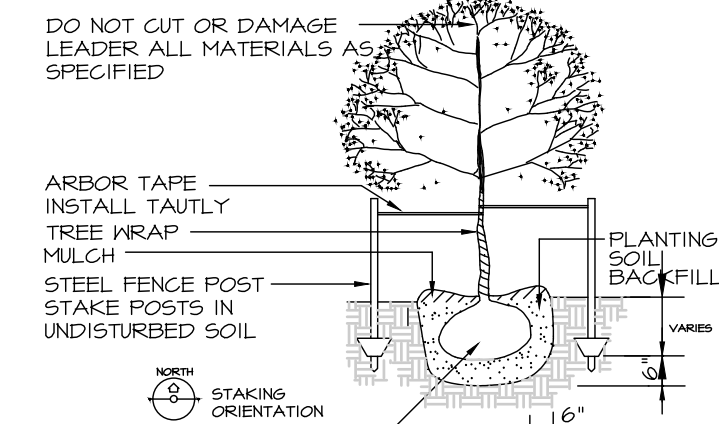
**SIZES NOTED IN PLANT SCHEDULE ARE STRICT MINIMUM SIZES AND WILL BE VERIFIED DURING INITIAL ACCEPTANCE INSPECTION.**  
**MINIMUM OF 10% OF EACH SPECIES SPECIFIED ARE TO HAVE PLANT IDENTIFICATION TAGS ATTACHED DURING INITIAL ACCEPTANCE. TAGS SHALL BE REMOVED AFTER PLANT MATERIAL HAS BEEN ACCEPTED.**  
**ALL DECIDUOUS TREES ARE TO BE WRAPPED WITH TREE WRAP AND SHALL BE ATTACHED WITH COTTON STRINGS. TAPES AND PLASTIC FASTENERS ARE NOT ACCEPTABLE.**

**LANDSCAPING REQUIREMENTS**  
REQUIRED: 1 PLANT UNIT = 1 OVERSTORY TREE, 4 SHRUB/1000 SF OF REQUIRED OPEN SPACE  
518,966 ÷ 0.20 = 103,743 SF. REQ'D OPEN SPACE  
103,743 ÷ 1000 = 103.74 PLANT UNITS REQUIRED  
OPEN SPACE LANDSCAPING REQUIRED:  
104 TREES; 104 SHRUBS. 25% (26) TREES TO BE EVERGREEN.  
50% MIN. (52) OF REQUIRED TREES TO BE OVERSTORY + 104 SHRUBS.  
40' BUFFER: 2 OVERSTORY TREES + 4 EVERGREEN TREES + 3 UNDERSTORY TREES / 50 LF = 1 BUFFER UNIT (40).  
1231 LF 40' BUFFER / 50 = 24.6 BUFFER UNITS (40).  
40' BUFFER REQUIREMENT: 44 SHADE TREES + 48 EVERGREEN TREES + 74 UNDERSTORY TREES  
25' BUFFER: 1 OVERSTORY TREE + 2 EVERGREEN TREES + 2 UNDERSTORY TREES / 50LF = 1 BUFFER UNIT (25).  
250 LF 25' BUFFER / 50 = 5.15 BUFFER UNITS (25)  
25' BUFFER REQUIREMENT: 5 OVERSTORY TREES + 10 EVERGREEN TREES + 10 UNDERSTORY TREES.

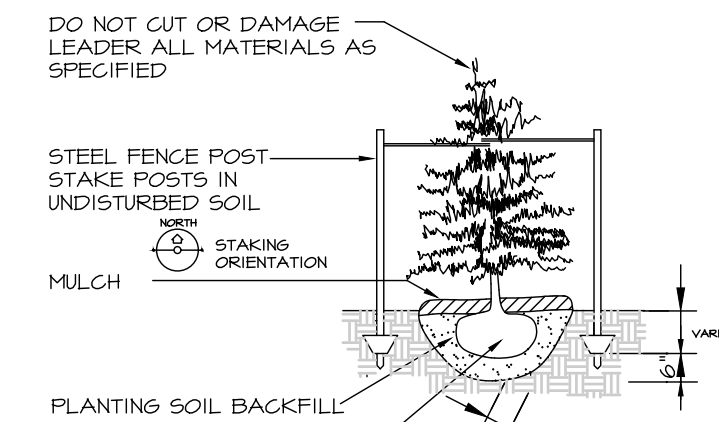
REQUIRED LANDSCAPING: 132 OVERSTORY TREES (up to 50% o.s. trees can be u.s. trees) + 134 EVERGREEN TREES + 84 MIN. UNDERSTORY + 104 SHRUBS.

**PLANTING NOTES**

1. ALL SITEMARK, SODDING AND LANDSCAPING SHALL BE IN ACCORDANCE WITH CITY OF WAUKEE STANDARD SPECIFICATIONS UNLESS SPECIFIED OTHERWISE.
2. ALL PLANT MATERIAL SHALL MEET OR EXCEED MINIMUM REQUIREMENTS SHOWN IN "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z601).
3. CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR PERIOD OF ONE YEAR FROM DATE OF INITIAL ACCEPTANCE.
4. NO PLANT MATERIAL SHALL BE SUBSTITUTED WITHOUT AUTHORIZATION OF LANDSCAPE ARCHITECT AND CITY.
5. DECIDUOUS TREES LARGER THAN 1" CALIPER SHALL BE STAKED (2 STAKES) AND WRAPPED IMMEDIATELY AFTER PLANTING. ALL CONIFERS SHALL BE STAKED (2 STAKES). TREE WRAP SHALL BE HELD IN PLACE WITH DEGRADABLE STRINGS. TAPES AND PLASTIC TIES ARE NOT ALLOWED.
6. ALL TREES, SHRUBS SHALL BE MULCHED WITH 3" SHREDDED HARDWOOD MULCH UNO.
7. PLANT QUANTITIES ARE FOR CONTRACTORS CONVENIENCE. DRAWING SHALL PREVAIL WHERE CONFLICT OCCURS.
8. ONE WEEK PRIOR TO INSTALLATION, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AT CIVIL ENGINEERING CONSULTANTS, INC. (515/276-4884).
9. CONTRACTOR SHALL STAKE LOCATION OF PLANTS FOR LANDSCAPE ARCHITECT'S APPROVAL BEFORE DIGGING HOLES.
10. ALL DECIDUOUS TREES SHALL BE PLANTED MIN. 4' FROM R.O.W. AND CONIFEROUS TREES AT LEAST 10' FROM R.O.W.
11. ALL DISTURBED AREAS AND ALL OF R.O.W. SHALL BE SODDED PER CITY OF WAUKEE REQUIREMENTS.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF CONTAINERS, WIRE BASKETS, AND BINDING CORDS ON ALL PLANT MATERIAL PRIOR TO INITIAL ACCEPTANCE. CONTRACTOR TO REMOVE PLANT TAGS AFTER INITIAL ACCEPTANCE BY LANDSCAPE ARCHITECT AND CITY.
13. ALL METERS AND GROUND-MOUNTED MECHANICAL UNITS TO BE SCREENED BY PLANTINGS.
14. NO OVERSTORY TREES ARE ALLOWED WITHIN PUBLIC SANITARY AND STORM SEWER EASEMENTS.
15. MINERAL MULCH TO BE 2" CLEAN TRAP ROCK, 3" THICK, OVER SEPARATION FABRIC INSTALLED AND PINNED IN-PLACE PER MANUFACTURER'S RECOMMENDATIONS.
16. AREA TO BE SEEDDED WITH S.J.D.A.S. TYPE 1 SEED. 121,300 S.F. VERIFY. SEED ALL AREAS DISTURBED BY THIS CONSTRUCTION WHICH ARE NOT SODDED OR IN MULCH BEDS.
17. AREA TO BE SEEDDED WITH S.J.D.A.S. TYPE 2 SEED MIX. 4111 S.F. VERIFY. SEED BETWEEN PERMANENT POOL AND UPPER EDGE OF TRM.
18. REGULATORY PLANT MINIMUM SIZES:  
OVERSTORY SHADE TREES - 8' HT.  
EVERGREEN TREES - 6' HT.  
UNDERSTORY ORNAMENTAL TREES - 6' HT.  
PROVIDE SIZES AS SPECIFIED IN PLANT SCHEDULE OR PER REGULATORY REQUIREMENTS, WHICHEVER IS LARGER.
19. EDGER: ALUMINUM EDGING, PROSLIDE BY PERMALOC, 1/8"x5-1/2", MILL FINISH. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
20. MAINTAIN 5' CLEAR MINIMUM AROUND FIRE HYDRANTS TYPICAL.
21. SOD AREAS AS SHOWN IN GREEN TONE. AREA 31,430 S.F. VERIFY. DO NOT SOD IN MULCH BEDS OR MULCH COLLARS AROUND PLANTS.
22. SOD AREAS ARE TO BE IRRIGATED. IRRIGATION SYSTEM PER DELEGATED DESIGN.

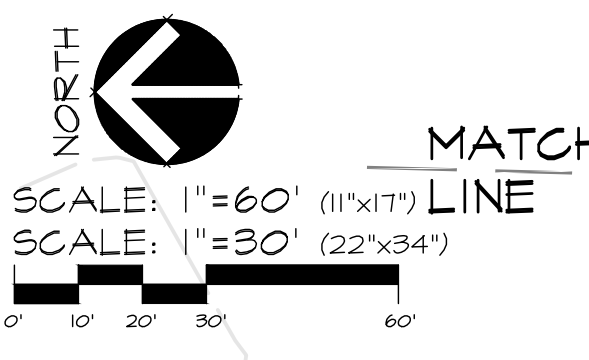


DECIDUOUS TREE PLANTING AND STAKING DETAIL  
NO SCALE



EVERGREEN TREE PLANTING AND STAKING DETAIL  
NO SCALE

**LANDSCAPING PROVIDED**  
TREES: 113 EVERGREEN TREES + 134 OVERSTORY TREES + 103 UNDERSTORY TREES + 112 SHRUBS.



LOT 3  
2.53 AC.

**PRELIMINARY**

**IA WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5**  
WAUKEE, IOWA  
**LANDSCAPING PLAN - EAST**

SHEET  
**20**  
OF 24  
A-2146

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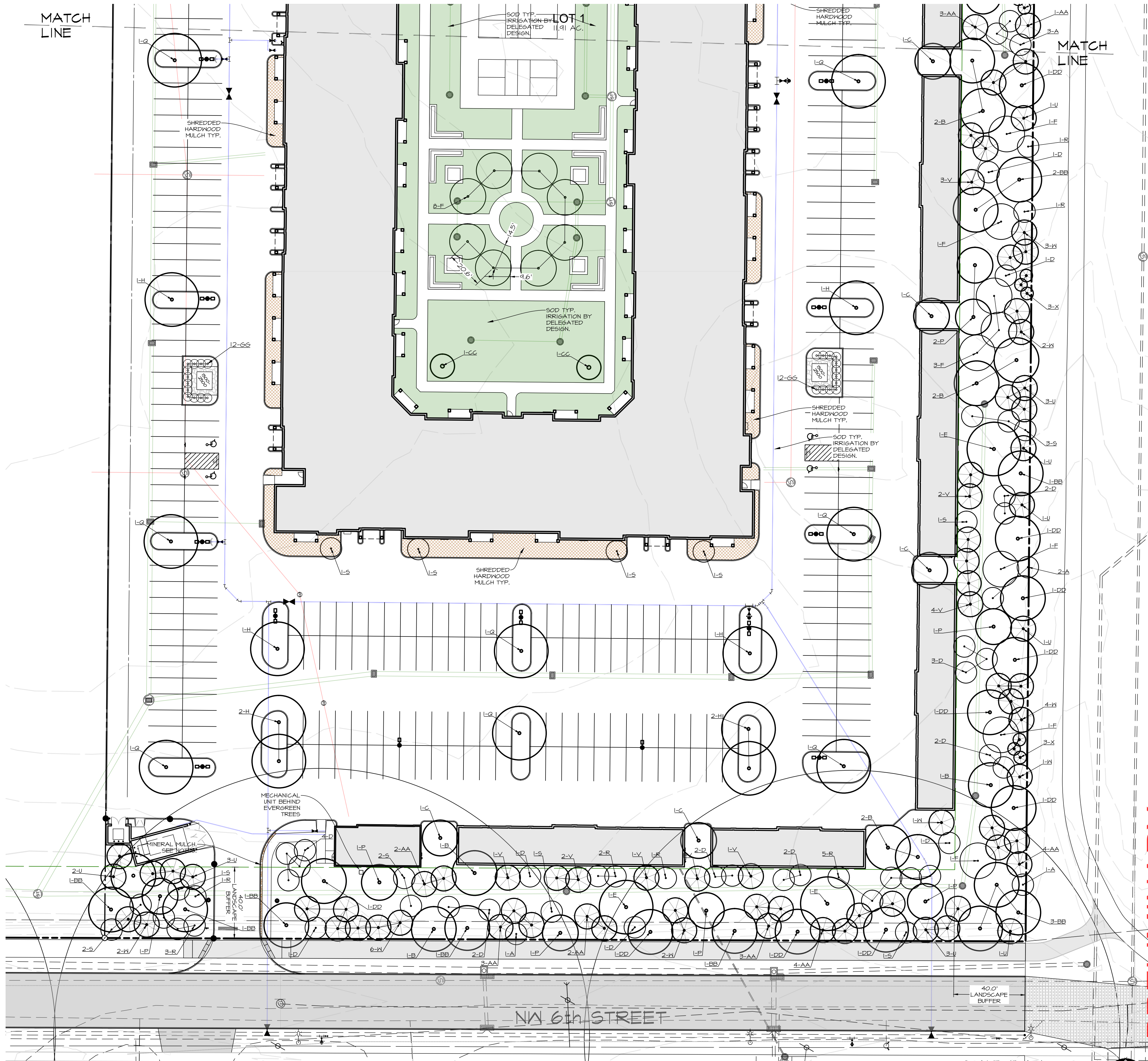
**CEC**

DATE: 4TH SUBMIT - 2022-07-15  
3RD SUBMIT - 2022-06-22  
2ND SUBMIT - 2022-06-01  
1ST SUBMIT - 2022-04-20

DATE OF SURVEY: 2021-05-14  
DESIGNED BY: EHA  
DRAWN BY: KRZ

PLANT SCHEDULE

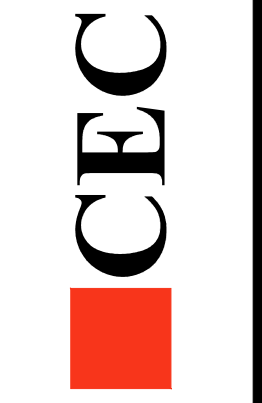
MARK	Botanical name COMMON NAME	QUAN.	SIZE	ROOT TYPE	REMARKS
A	<i>Acer griseum</i> PAPERBARK MAPLE	8	1" CAL.		MATCHED, SPECIMEN
B	<i>Acer saccharum</i> subsp. <i>Nigrum</i> "Green Column" GREEN COLUMN BLACK MAPLE	23	1.5" CAL.	B&B	MATCHED, SPECIMEN
C	<i>Acer truncatum</i> SHANTUNG MAPLE	10	1.5" CAL.	B&B	MATCHED, SPECIMEN
D	<i>Amelanchier arborea</i> SERVICEBERRY	34	7" HT.	CONT.	MATCHED, SPECIMEN, TREE FORM U.N.O. 9" OC
E	<i>Betula nigra</i> "Cully" HERITAGE RIVER BIRCH	11	1.5" CAL.	B&B	MATCHED, SPECIMEN, 3 STEM MINIMUM 22" OC
F	<i>Cercis canadensis</i> EASTERN REDBUD	18	1" CAL.	CONT.	MATCHED, SPECIMEN, TREE FORM
H	<i>Gleditsia triacanthos inermis</i> "Skycole" SKYLINE HONEYLOCUST	14	1.5" CAL.	B&B	MATCHED, SPECIMEN
J	<i>Gymnocladus dioica</i> "Espresso" ESPRESSO KENTUCKY COFFEETREE	4	3" CAL.	B&B	MATCHED, SPECIMEN
N	<i>Juniperus horizontalis</i> "Blue Forest" BLUE FOREST JUNIPER	37	2" SPD.	CONT.	MATCHED, SPECIMEN, MULCH BED 3" OC, ROWS 3' APART
P	<i>Liquidambar styraciflua</i> "Rotundiloba" ROUND LOBED SWEET GUM	10	1.5" CAL.	B&B	MATCHED, SPECIMEN
Q	<i>Liriodendron tulipifera</i> "JFS-02" EMERALD CITY TULIP TREE	13	1.5" CAL.	B&B	MATCHED, SPECIMEN
R	<i>Malus "Hozam"</i> HOLIDAY GOLD CRABAPPLE	25	1" CAL.	CONT.	MATCHED, SPECIMEN, 10" OC
S	<i>Malus "Sutyazm"</i> SUGAR TYME CRABAPPLE	23	1" CAL.	CONT.	MATCHED, SPECIMEN, 12" OC
U	<i>Picea glauca</i> "Densata" BLACK HILLS SPRUCE	18	7" HT.	B&B	MATCHED, SPECIMEN
V	<i>Picea omorika</i> SERBIAN SPRUCE	31	7" HT.	B&B	MATCHED, SPECIMEN
W	<i>Picea pungens</i> COLORADO SPRUCE	27	7" HT.	B&B	MATCHED, SPECIMEN
X	<i>Pinus strobus</i> "Fastigiata" COLUMNAR WHITE PINE	15	7" HT.	B&B	MATCHED, SPECIMEN, 7" OC
AA	<i>Pseudotsuga menziesii</i> var. <i>glauca</i> DOUGLASFIR	46	7" HT.	B&B	MATCHED, SPECIMEN, 12" OC
BB	<i>Quercus macrocarpa</i> "JFS-KW3" URBAN PINNACLE OAK	14	1.5" CAL.	B&B	MATCHED, SPECIMEN
CC	<i>Acer saccharum</i> "Goldspire" GOLDSPIRE SUGAR MAPLE	4	1.5" CAL.	B&B	MATCHED, SPECIMEN
DD	<i>Ulmus "Morton"</i> ACCOLADE ELM	11	1.5" CAL.	B&B	MATCHED, SPECIMEN
FF	<i>Viburnum opulus</i> var. <i>americanum</i> "Hahs" AMERICAN CRANBERRYBUSH VIBURNUM	15	3" HT.	CONT.	MATCHED, SPECIMEN, MULCH BED 5" OC
GG	<i>Weigela florida</i> "Polka" POLKA WEIGELA	62	2" HT.	CONT.	MATCHED, SPECIMEN, MULCH BED 3.67" OC, 1.7" FROM YOGA PLATFORM



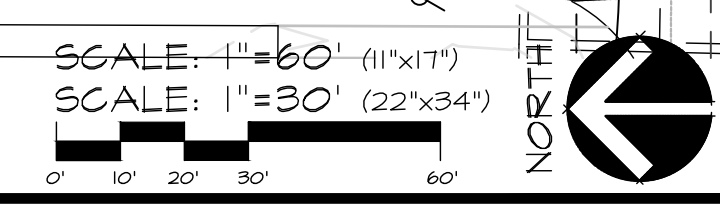
PRELIMINARY

IA WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5  
WAUKEE, IOWA  
LANDSCAPING PLAN - WEST

DATE: 4TH SUBMIT - 2022-07-15  
3RD SUBMIT - 2022-06-22  
2ND SUBMIT - 2022-06-01  
1ST SUBMIT - 2022-04-20  
DATE OF SURVEY: 2021-05-14  
DESIGNED BY: EHA  
DRAWN BY: KRSZ



Civil Engineering Consultants, Inc.  
2400 86th Street Unit 12 · Des Moines, Iowa 50322  
515.276.4884 · mail@cecinc.com



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**STORM WATER POLLUTION PREVENTION PLAN**

**1. SITE DESCRIPTION/APPLICANT/SCHEDULE**

- OWNER/APPLICANT: IA WAUKEE NW 2ND, L.L.C., 201 RIVERPLACE, STE 400 GREENVILLE, SC 29601 CONTACT: COLBY PRICE, PHONE: (864) 263-5439
- LOCATION: A PARCEL OF LAND IN THE SE ¼ AND SW ¼ OF SECTION 28, T19N, R26W
- NATURE OF CONSTRUCTION ACTIVITY: GRADING AND CONSTRUCTION FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENT
- AREAS: TOTAL SITE AREA = 17.1 ACRES
- SITE AREA AFFECTED = 13.9 ACRES
- RUNOFF COEFFICIENT = 0.85 (RATIONAL METHOD)
- APPROXIMATE SLOPES ANTICIPATED: 3:1 OR FLATTER
- 100 YEAR RUNOFF: APPROX. 106 CFS
- RUNOFF FROM THIS PROJECT WILL FLOW INTO STORM SEWER TO LITTLE WALNUT CREEK TO WALNUT CREEK
- SOILS:
  - CANISTEO CLAY LOAM, BEMIS MORAINNE WITH SLOPES BETWEEN 0% TO 2%
  - NICOLLET LOAM WITH SLOPES BETWEEN 1% TO 3%
  - CLARION LOAM, BEMIS MORAINNE WITH SLOPES BETWEEN 2% TO 6%
- ESTIMATED DATE WORK IS TO COMMENCE: JULY 2022
- ESTIMATED DATE WORK IS TO BE COMPLETED: MAY 2023

**2. CONTROLS (ALL SEDIMENT AND EROSION CONTROLS TO BE INSTALLED, MAINTAINED AND REPLACED PER SUDAS SECTION 1040)**

- EROSION AND SEDIMENT CONTROLS
- STABILIZATION PRACTICES
- EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND STABILIZE DISTURBED AREAS.
- PERMANENT SEEDING AND/OR SODDING AFTER CONSTRUCTION.
- VEGETATIVE BUFFER STRIPS THROUGHOUT PROJECT.
- PROTECTION OF TREES AND PRESERVATION OF MATURE VEGETATION WHEREVER POSSIBLE.
- STRUCTURAL PRACTICES
- SILT FENCES - TEMPORARY DEVICE TO REMOVE SEDIMENT FROM RUNOFF
- TEMPORARY SEDIMENTATION BASIN - TEMPORARY STRUCTURE TO DETAIN RUNOFF AND ALLOW SEDIMENTATION TO SETTLE OUT
- RIP RAP - PLACED AT OUTLET OF STORM SEWER TO PREVENT DOWNSTREAM EROSION
- DRAINAGE SWALES - STABILIZES SURFACE FROM EROSION WHILE CARRYING SURFACE RUNOFF
- INLET PROTECTION - FILTERS SEDIMENT FROM RUNOFF PRIOR TO ENTERING STORM SEWER SYSTEM
- STORM WATER MANAGEMENT
- FLOW ATTENUATION BY USE OF OPEN VEGETATED SWALES AND NATURAL DEPRESSIONS.
- INFILTRATION OF RUNOFF ON SITE
- VELOCITY DISSIPATION DEVICES AT DISCHARGE LOCATIONS TO PROVIDE NON-EROSIVE VELOCITY FLOWS.
- WASTE DISPOSAL
- ALL MATERIAL WASTES MUST BE REMOVED FROM SITE.
- OFF-SITE VEHICLE TRACKING OF SEDIMENTS SHALL BE MINIMIZED.
- STABILIZE ENTRANCE WITH 8-INCHES OF LIMESTONE IN ORDER TO PREVENT MUD FROM TRACKING OUT ONTO ROADWAY
- TOTAL COMPLIANCE WITH APPLICABLE STATE/LOCAL WASTE DISPOSAL REGULATIONS.
- CONTROLS MUST BE IN GOOD OPERATING CONDITION UNTIL CONSTRUCTION ACTIVITY IS COMPLETE AND FINAL STABILIZATION HAS BEEN REACHED.

**3. CONTRACTORS**  
GENERAL CONTRACTOR SHALL HAVE PRIMARY RESPONSIBILITY OF IMPLEMENTING MEASURES CONTAINED IN PLAN.

- ALL CONTRACTORS AND SUBCONTRACTORS SHALL SIGN A CERTIFICATION STATEMENT BEFORE CONDUCTING ANY PROFESSIONAL SERVICE AT SITE RELATING TO NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. SEE CERTIFICATION THIS SHEET.
- PERSONS ACCOMPLISHING WORK UNDER THIS PERMIT:

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

**4. IMPLEMENTATION / MAINTENANCE**

- MAINTAIN EFFECTIVE OPERATING CONDITIONS OF ALL PROTECTIVE MEASURES IDENTIFIED IN PLAN.
- CURB CUT SHALL BE ONE OF THE FIRST ITEMS OF CONSTRUCTION IN ORDER TO ACCESS SITE. "JUMPING THE CURB" IS NOT ALLOWED.
- PRIOR TO INITIAL GRADING, INSTALL PERIMETER SILT FENCE TO PROTECT UNDISTURBED AREAS.
- DO NOT DISTURB AN AREA UNTIL IT IS NECESSARY FOR CONSTRUCTION TO PROCEED.
- AFTER INITIAL GRADING PRIOR TO UTILITY CONSTRUCTION, ALL DISTURBED AREAS OUTSIDE PROPOSED RIGHT-OF-WAYS ARE TO HAVE TEMPORARY SEEDING AND MULCHING. CONTRACTORS AND SUBS ARE TO MINIMIZE DISTURBANCE TO THESE SEEDING AREAS THROUGH USE OF SPECIFIC ACCESS ROUTES WITHIN SITE.
- INSTALL ADDITIONAL CONTROLS AS CONSTRUCTION COMMENCES. PROVIDE SILT FENCE, INTAKE BASKETS, ETC. AS SOON AS POSSIBLE DURING CONSTRUCTION.
- TEMPORARY EARTH PILES SHALL HAVE DOWNSLOPE SILT FENCE PROTECTION.
- ALL INTAKES AND MANHOLES TO HAVE SILT FENCE AROUND THEM PRIOR TO PAVING AND INLET FILTERS AFTER PAVING. INLET FILTERS SHALL REMAIN IN PLACE UNTIL SITE HAS PERENNIAL GROUND COVER.
- ALL INTAKES SHALL BE COVERED DURING CONSTRUCTION TO PREVENT SEDIMENTATION DEPOSITS WITHIN STORM SEWER. INTAKE BASKETS SHALL BE PLACED IN STRUCTURE ONCE CASTINGS ARE IN PLACE.
- ANY SOIL OR SPILL, WASHED, TRACKED OR DROPPED ON TO ADJOINING RIGHT-OF-WAYS AND PROPERTY SHALL BE CLEANED UP BY CONTRACTOR IMMEDIATELY. EARTH RAMPS SHALL NOT BE CONSTRUCTED IN STREET GUTTER.
- MATERIAL OR EQUIPMENT STORAGE AREAS MUST BE WITHIN LIMITS OF SOIL DISTURBING ACTIVITY. THESE AREAS SHALL BE INSPECTED FOR POTENTIAL POLLUTANTS ENTERING SYSTEM.
- DURING CONSTRUCTION IF IT BECOMES EVIDENT THAT DISTURBED AREA WILL NOT BE DISTURBED FOR PERIOD EXCEEDING 14 DAYS, STABILIZATION OF THE DISTURBED AREAS SHALL INITIATE IMMEDIATELY.
- PERMANENT SEEDING AND MULCHING TO BE DONE IMMEDIATELY AFTER FINAL GRADING.
- ANY FAILED AREA OF SEEDING SHALL BE RESEEDING - IN THE EVENT THAT SEEDING/MULCHING DOES NOT OCCUR PRIOR TO WINTER, ALL DISTURBED AREAS SHALL BE MULCHED.
- SILT FENCING SHALL BE CLEANED WHEN THEY HAVE LOST 50% OF THEIR CAPACITY.
- DRAINAGE SWALES REMAIN UNDISTURBED.
- ROCK OUTLET PROTECTION SHALL REMAIN INTACT.
- PERMANENT FINAL PLANT COVERINGS OR STRUCTURES SHALL BE INSTALLED IMMEDIATELY AFTER FINAL GRADING IS COMPLETED. REPLANTING MAY BE REQUIRED TO ENSURE ADEQUATE VEGETATIVE COVER IS ESTABLISHED. ADEQUATE VEGETATIVE COVER IS CONSIDERED TO BE 70% MIN. COVERAGE OF SOIL SURFACE BY INTENDED SPECIES. IF NATIVE LANDSCAPE IS USED, THEN 70% COVERAGE BY COVER CROP IS REQUIRED.
- SOIL SHALL BE WATERED DURING DRY, WINDY CONDITIONS TO MINIMIZE EROSION.
- WORK REQUIRING ENTERING AND LEAVING SITE OVER COUNTY ROADWAYS INCLUDING MATERIAL DELIVERY AND MOVEMENT OF EQUIPMENT SHALL NOT BE PERMITTED DURING PERIODS WHEN GROUND IS EXCEPTIONALLY SOFT AND WET AND EROSION BY VEHICLE IS CERTAIN.
- SOIL STOCKPILES SHALL BE STABILIZED WITH VEGETATION OR COVERED. MOWING MAY BE REQUIRED IF VEGETATION BECOMES A NUISANCE.
- EROSION CONTROL CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL MEASURES ONCE SITE HAS BEEN PERMANENTLY ESTABLISHED WITH GROUND COVER.
- CONCRETE WASHOUT AREA SHALL BE DESIGNED AND CONSTRUCTED PER SUDAS SECTION 11.050 AND SHALL HAVE AN IMPERMEABLE LINER TO CONTAIN ALL WASTE CONCRETE MATERIALS. WHEN CONTAINER IS ¾ FULL (AVOID SPILLOVER) PCC WASTE SHALL BE DISPOSED OF PROPERLY (SENT TO AN APPROPRIATE RECYCLING FACILITY). PCC WASTE SHALL NOT BE BURIED ON SITE.
- TRASH SHALL BE CLEANED UP DAILY OR PUT INTO COVERED DUMPSTER.

**5. INSPECTIONS**

- CONTRACTOR SHALL KEEP A COPY OF SWPPP ON SITE
- QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- INSPECT SITE FOR EVIDENCE OF, OR POTENTIAL OF, POLLUTANTS ENTERING DRAINAGE SYSTEM FROM STORED MATERIALS.
- OBSERVE EROSION AND SEDIMENT CONTROL MEASURES TO ENSURE THAT THEY ARE OPERATING CORRECTLY. REPAIR AND REPLACE AS NECESSARY.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.
- INSPECT DISCHARGE LOCATIONS TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS.
- ANY MODIFICATIONS TO PLAN AS RESULT OF AN INSPECTION SHALL BE IMPLEMENTED WITHIN 7 CALENDAR DAYS OF INSPECTION. IF IT IS DETERMINED TO BE IMPRACTICABLE TO MAKE THESE CHANGES WITHIN 72 HOURS OF INSPECTION, REASONING AND AN ESTIMATED DATE OF WHEN CHANGES WILL BE MADE SHALL BE DOCUMENTED IN PLANS.
- AN INSPECTION REPORT SHALL BE PREPARED AND RETAINED AS PART OF PREVENTION PLAN UNTIL PROJECT TERMINATION. THIS REPORT WILL CONTAIN THE FOLLOWING:
  - SUMMARY OF SITE OF INSPECTION
  - QUALIFICATIONS OF PERSONNEL MAKING INSPECTION.
  - MAJOR OBSERVATIONS RELATING TO IMPLEMENTATION OF PREVENTION PLAN.
  - ANY ACTIONS TAKEN
  - SIGNATURE
- REPORTS SHALL CONFORM TO STANDARDS SET BY IOWA DNR. COPIES OF THESE REPORTS SHALL BE FORWARDED TO OWNER.
- CONTRACTOR IS TO TAKE NECESSARY ACTIONS TO CORRECT DEFICIENCIES FOUND DURING INSPECTIONS AS SOON AS PRACTICABLE BUT IN NO CASE LATER THAN SEVEN (7) DAYS AFTER INSPECTION. IF IT IS DETERMINED THAT IT IS IMPRACTICABLE TO MAKE THESE CHANGES WITHIN 72 HOURS OF INSPECTION, REASONING AND AN ESTIMATED DATE OF WHEN CHANGES WILL BE MADE SHALL BE DOCUMENTED IN PLANS.
- SWPPP RECORDS SHALL BE RETAINED FOR AT LEAST THREE YEARS AFTER NOTICE OF DISCONTINUATION HAS BEEN FILED.

**6. NON-STORM WATER DISCHARGES**

- WATER MAIN FLUSHING
  - FLUSHED WATER WILL BE DISCHARGED INTO THE STORM SEWER SYSTEM WHERE, WHEN DISCHARGED, IT WILL UNDERGO EROSION AND SEDIMENT CONTROLS CONSISTING OF:
    - SILTATION BASIN
    - ROCK OUTLET PROTECTION (RIPRAP)
    - SILT FENCING
    - EXISTING VEGETATION
  - FLUSHED WATER CONTAINING CHEMICALS (I.E. CHLORINE AND/OR DETERGENTS) NEED TO BE NEUTRALIZED PRIOR TO DISCHARGE TO THE CONTROLS LISTED.
  - PETROLEUM STORAGE INCLUDING BUT NOT LIMITED TO FUEL, GEAR OIL, ENGINE OIL, HYDRAULIC OIL, WASTE OIL SHALL NOT BE STORED ON SITE.
  - CONCRETE WASHOUT AREAS SHALL BE DESIGNED IN COMPLIANCE WITH SUDAS SPECIFICATION 11.050.
  - PORTABLE TOILETS SHALL BE SECURED FROM OVERTURNING AND SHALL HAVE DOWNSLOPE SILT FENCE PROTECTION. HOLDING TANK WILL BE PUMPED OUT AS NEEDED AND DISPOSED OF OFF-SITE.
  - CONTRACTOR SHALL CONTAIN AND PROPERLY DISPOSE OF ALL CONCRETE SAWCUTTINGS AND GRINDING.
  - DISCHARGES FROM DEWATERING ACTIVITIES, INCLUDING DISCHARGES FROM DEWATERING OF TRENCHES AND EXCAVATIONS, ARE PROHIBITED UNLESS MANAGED BY APPROPRIATE CONTROLS SUCH AS DEWATERING BAGS OR EQUAL.
  - FOLLOWING DISCHARGES ARE PROHIBITED:
    - WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO
    - PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS
    - FUEL OILS AND POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE
    - SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING
    - DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER AND OTHER WASH WATERS SHALL BE MINIMIZED. WASH WATERS SHALL BE TREATED IN SEDIMENT BASIN OR EQUAL CONTROL.
    - EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER PRESENT MATERIALS TO PRECIPITATION AND STORM WATER SHALL BE MINIMIZED.
    - DISCHARGE OF POLLUTANTS FROM SPILLS AND LEAKS SHALL BE MINIMIZED.
- REPORT ANY HAZARDOUS CONDITIONS CONDITION AND UPDATE PLAN
  - IOWA LAW REQUIRES THAT HAZARDOUS CONDITION OR SPILL IS REPORTED NOT MORE THAN SIX HOURS AFTER ONSET OF SAID CONDITION OR SPILL. IDNR AND LOCAL OR COUNTY SHERIFF'S OFFICE SHALL BE NOTIFIED.
  - MODIFY SWPPP WITHIN 5 CALENDAR DAYS OF HAZARDOUS CONDITION. PLAN UPDATE SHALL INCLUDE RELEASE AND CIRCUMSTANCES OF RELEASE AND PLANS TO PREVENT FUTURE REOCCURRENCE OF SUCH RELEASES.

**8. NOTICE OF DISCONTINUATION (NOD)**

- WITHIN 30 DAYS OF FINAL SITE STABILIZATION OWNER OR GENERAL CONTRACTOR MUST SUBMIT NOTICE OF DISCONTINUATION TO IDNR. NOD SHALL INCLUDE:
  - NAME OF THE OWNER OR OPERATOR TO WHICH COVERAGE UNDER GENERAL PERMIT WAS ISSUED
  - GENERAL PERMIT NUMBER AND PERMIT AUTHORIZATION NUMBER
  - DATE CONSTRUCTION SITE REACHED FINAL STABILIZATION
  - SIGNED CERTIFICATION
- NOD SHALL BE MAILED TO:
  - STORM WATER COORDINATOR
  - IOWA DEPARTMENT OF NATURAL RESOURCES
  - 502 E. 9TH STREET
  - DES MOINES, IOWA 50319-0034

**SEQUENCE OF MAJOR ACTIVITIES**

1. **PRE-CONSTRUCTION:** SOIL STABILIZATION AND EROSION CONTROL MEASURES WILL BE PLACED BY CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION OPERATIONS. VEGETATION IN AREAS NOT NEEDED FOR CONSTRUCTION SHALL BE PRESERVED. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ACHIEVED.
2. INSTALL UPSTREAM DIVERSIONS, DOWN SLOPE AND SIDE SLOPE PERIMETER CONTROLS BEFORE COMMENCING LAND DISTURBING ACTIVITIES.
3. DO NOT DISTURB AN AREA UNLESS IT IS NECESSARY FOR CONSTRUCTION TO PROCEED.
4. COVER OR STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE.
5. TIME CONSTRUCTION ACTIVITIES TO LIMIT IMPACT ON SEASONAL WEATHER CHANGES.
6. IF INFILTRATION METHODS ARE USED, INSTALL THEM AFTER UPSTREAM IS STABILIZED.
7. DO NOT REMOVE PERIMETER CONTROLS UNTIL UPSTREAM AREAS ARE STABILIZED.
8. DISTURBED AREAS SHALL BE SEEDING, FERTILIZED AND MULCHED AS SOON AS POSSIBLE.
9. NOTICE OF DISCONTINUATION WILL BE FILED ONCE SITE IS STABILIZED.



VICINITY SKETCH



**OWNER'S CERTIFICATION**

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE AS PART OF THIS CERTIFICATION. FURTHER, BY MY SIGNATURE, I UNDERSTAND THAT I AM BECOMING A CO-PERMITTEE ALONG WITH THE CONTRACTOR AND SUBCONTRACTORS SIGNING SUCH CERTIFICATIONS, TO THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2 FOR "STORM WATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY FOR CONSTRUCTION ACTIVITIES" AT THE IDENTIFIED SITE. AS A CO-PERMITTEE, I UNDERSTAND THAT I, AND MY ORGANIZATION, ARE LEGALLY REQUIRED UNDER THE CLEAN WATER ACT AND THE CODE OF IOWA, TO ENSURE COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN DEVELOPED UNDER THIS NPDES PERMIT AND THE TERMS OF THIS NPDES PERMIT.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED, BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

NAME / TITLE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_  
TELEPHONE NUMBER: \_\_\_\_\_

**CONTRACTOR CERTIFICATION**

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE AS PART OF THIS CERTIFICATION. FURTHER, BY MY SIGNATURE, I UNDERSTAND THAT I AM BECOMING A CO-PERMITTEE ALONG WITH THE OWNER(S) AND OTHER CONTRACTORS AND SUBCONTRACTORS SIGNING SUCH CERTIFICATIONS, TO THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2 FOR "STORM WATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY FOR CONSTRUCTION ACTIVITIES" AT THE IDENTIFIED SITE. AS A CO-PERMITTEE, I UNDERSTAND THAT I AND MY COMPANY ARE LEGALLY REQUIRED UNDER THE CLEAN WATER ACT AND THE CODE OF IOWA, TO ENSURE COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN DEVELOPED UNDER THIS NPDES PERMIT AND THE TERMS OF THIS NPDES PERMIT.

**GENERAL CONTRACTOR**  
NAME / TITLE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_  
TELEPHONE NUMBER: \_\_\_\_\_

**SUBCONTRACTOR**  
NAME / TITLE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

**SUBCONTRACTOR**  
NAME / TITLE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

**SUBCONTRACTOR**  
NAME / TITLE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

**QUANTITIES**

- 6,389 LF SILT FENCE
- 13.0 ACRES SEEDING - TYPE 2 (PERMANENT)
- 13.6 ACRES SEEDING - TYPE 4 (TEMPORARY AS NEEDED)
- 0.9 ACRES SOD
- 24 EA INTAKE FILTER BASKETS
- 1 EA CONSTRUCTION ENTRANCE

**AREA OF DISTURBANCE**

13.6 ACRES

DATE: 4TH SUBMIT - 2022-07-15  
3RD SUBMIT - 2022-06-22  
2ND SUBMIT - 2022-06-01  
1ST SUBMIT - 2022-04-20  
DATE OF SURVEY: 2021-05-14  
DESIGNED BY: EHA  
DRAWN BY: KRZ

DATE: 4TH SUBMIT - 2022-07-15  
3RD SUBMIT - 2022-06-22  
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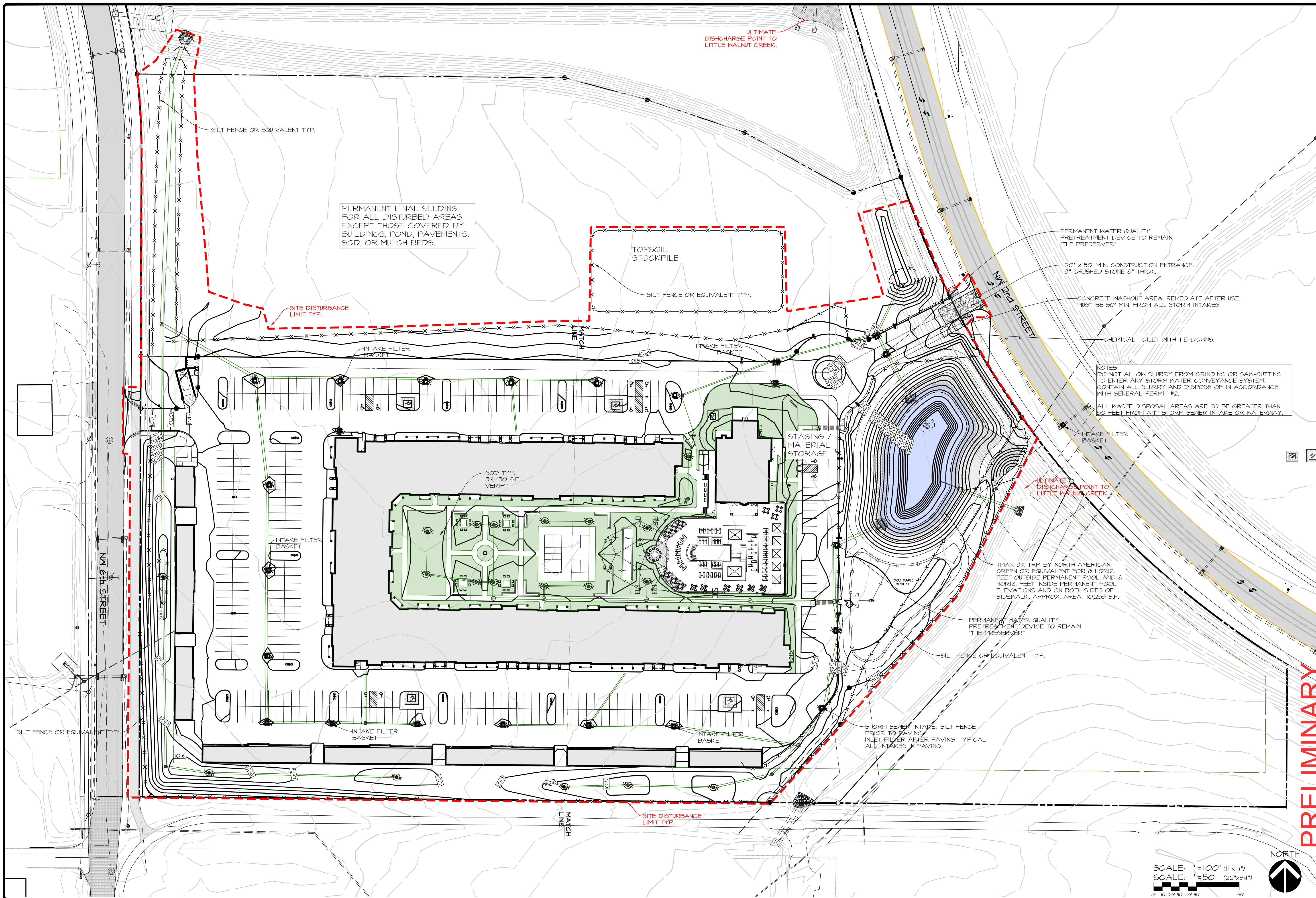
**PRELIMINARY**

**IA WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5**

**WAUKEE, IOWA**

**SEDIMENTATION & EROSION CONTROL NOTES**

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PERMANENT FINAL SEEDING FOR ALL DISTURBED AREAS EXCEPT THOSE COVERED BY BUILDINGS, POND, PAVEMENTS, SOD, OR MULCH BEDS.

TOPSOIL STOCKPILE  
SILT FENCE OR EQUIVALENT TYP.

SITE DISTURBANCE LIMIT TYP.

PERMANENT WATER QUALITY PRETREATMENT DEVICE TO REMAIN "THE PRESERVER"

20' x 50' MIN. CONSTRUCTION ENTRANCE, 3" CRUSHED STONE 8" THICK.

CONCRETE WASHOUT AREA. REMEDIATE AFTER USE. MUST BE 50' MIN. FROM ALL STORM INTAKES.

NOTES:  
DO NOT ALLOW SLURRY FROM GRINDING OR SAW-CUTTING TO ENTER ANY STORM WATER CONVEYANCE SYSTEM. CONTAIN ALL SLURRY AND DISPOSE OF IN ACCORDANCE WITH GENERAL PERMIT #2.  
ALL WASTE DISPOSAL AREAS ARE TO BE GREATER THAN 50 FEET FROM ANY STORM SEWER INTAKE OR WATERWAY.

SOD TYP. 39,430 S.F. VERIFY

STAGING / MATERIAL STORAGE

ULTIMATE DISCHARGE POINT TO LITTLE WANNAN CREEK.

THAX 3K TRM BY NORTH AMERICAN GREEN OR EQUIVALENT FOR 8' HORIZ. FEET OUTSIDE PERMANENT POOL AND 8' HORIZ. FEET INSIDE PERMANENT POOL ELEVATIONS AND ON BOTH SIDES OF SIDEWALK. APPROX. AREA: 10,253 S.F.

PERMANENT WATER QUALITY PRETREATMENT DEVICE TO REMAIN "THE PRESERVER"

SILT FENCE OR EQUIVALENT TYP.

STORM SEWER INTAKE: SILT FENCE PRIOR TO PAVING. INLET FILTER AFTER PAVING. TYPICAL ALL INTAKES IN PAVING.

SCALE: 1"=100' (11"x17")  
SCALE: 1"=50' (22"x34")



PRELIMINARY

IA WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5  
WAUKEE, IOWA  
SEDIMENTATION & EROSION CONTROL PLAN

SHEET 23 OF 24  
A-2146

DATE: 4TH SUBMIT - 2022-07-15  
3RD SUBMIT - 2022-06-22  
2ND SUBMIT - 2022-06-01  
1ST SUBMIT - 2022-04-20  
DATE OF SURVEY: 2021-05-14  
DESIGNED BY: EHA  
DRAWN BY: RSR  
N.P.D.E.S. GENERAL PERMIT #2 DISCHARGE AUTHORIZATION NUMBER: 41122-40748

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① Entrance length: 50 foot minimum (30 foot for single family residential), or as specified in the contract documents. Length of entrance may be increased if sediment track-out occurs.

Thickness as specified (6" min.)

10'-0" min.

Length

20'-0" minimum

**SUDAS** 9040.120

SUDAS Standard Specifications

STABILIZED CONSTRUCTION ENTRANCE

Anchor Trench

Edge Lap

End Splice

① Secure blanket to ground according to manufacturer's recommended anchoring pattern and minimum shown in Table 1.

Max. slope	Min. anchors
≤ 3:1	1.5yd <sup>2</sup>
2:1	2/yd <sup>2</sup>
1:1	2.5yd <sup>2</sup>

**SUDAS** 9040.103

SUDAS Standard Specifications

ROLLED EROSION CONTROL PRODUCT (RECP) INSTALLATION ON SLOPES

### FLEXSTORM CATCH-IT FILTERS FOR TEMPORARY INLET PROTECTION

#### PRODUCT SELECTION AND SPECIFICATION DRAWING

① 1/2 GA GALVANIZED STEEL SUSPENSION SYSTEM

LIFT HANDLES

STANDARD 1/2" OVERLAP AREA

REAR CURB GUARD FLAP WITH MAGNETIC TIE BOWS

REPLACABLE SEDIMENT BAG WITH REVERSIBLE FILTER FABRIC

STAINLESS STEEL CLAMPING BAND

TYPICAL ROUND INLET FILTER

TYPICAL RECTANGULAR INLET FILTER

COMBINATION INLET FILTER FOR CURB HOOKS

STAINLESS STEEL ROUND INLET FILTERS BY MANUFACTURER'S SPECIFICATIONS

NOTES:

- ALL FRAMING IS CONSTRUCTED OF CORROSION RESISTANT STEEL (ZINC PLATED OR GALVANIZED) FOR 7 YEAR MINIMUM SERVICE LIFE.
- UPON ORDERING CONFIRMATION OF THE DOT CALLOUT, PRECAST OR CASTING MAKE AND MODEL OR DETAILED DIMENSIONAL FORMS MUST BE PROVIDED TO CONFIGURE AND ASSEMBLE YOUR CUSTOMIZED FLEXSTORM INLET FILTER. PART NUMBER ALONE IS NOT SUFFICIENT.
- FOR WRITTEN SPECIFICATIONS AND MAINTENANCE GUIDELINES VISIT [WWW.INLETFILTERS.COM](http://WWW.INLETFILTERS.COM)

STYLE	FRAME STYLE AND SIZE	Frame P/N:
ROUND	Small Round (up to 20" dia grates (A) only)	62SRD
	Med Round (20.1" - 25.0" dia grates (A) up to 25" dia openings (B))	62MRD
	Large Round (25.1" - 32.0" dia grates (A) up to 30" dia openings (B))	62LRD
RECT. SQUARE	XL Round (32.1" dia - 36" dia grates (A) up to 37" dia openings (B))	62XLRD
	Small Rect / Square (up to 24" (B) x 24" (D) openings or 96" perimeter)	62MSQ
	Med Rect / Square (up to 24" (B) x 24" (D) openings or 96" perimeter)	62MSQ
COMBO INLETS	Large Rect / Square (up to 36" (B) x 24" (D) openings or 120" perimeter)	62LSQ
	XL Rect / Square (side by side 2-pc ask to fit up to 48" (B) x 36" (D) openings)	62XLSQ
	Small Rect / Square (ref Rest string, shipped with Magnetic Curb Flaps)	62SCR
INTEGRATED	Med Rect / Square (ref Rest string, shipped with Magnetic Curb Flaps)	62MCR
	Large Rect / Square (ref Rest string, shipped with Magnetic Curb Flaps)	62LCR
	XL Rect / Square (ref Rest string, shipped with Magnetic Curb Flaps)	62XLCR
NYLOPLAST	12" diameter Nyloplast castings (Stainless Steel Framing standard)	6212NY
	15" diameter Nyloplast castings (Stainless Steel Framing standard)	6215NY
	18" diameter Nyloplast castings (Stainless Steel Framing standard)	6218NY
	24" diameter Nyloplast castings (Stainless Steel Framing standard)	6224NY
	30" diameter Nyloplast castings (Stainless Steel Framing standard)	6230NY

FLEXSTORM FILTER BAGS	(12" depth)	(12" depth)	Clean Water Flow Rate (GPM/Sec)	Min A.O.S. (1/8" sieve)
FX Standard Woven Bag	FX	FX-S	200	40
IL-IDOT Non-Woven Bag	IL	IL-S	145	70

Frame P/N from Step 1.	Filter Bag P/N from Step 2.
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Nominal Bag Size	Solids Storage (Cu Ft)	FX (Woven)	IL (Non-Woven)
Small	1.6	1.2	0.9
Medium	2.1	1.7	1.3
Large	3.8	2.7	1.9
XL	4.2	3.6	2.6

**FLEXSTORM** INLET FILTERS

**CATCH IT**

ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC A DIVISION OF ADS, INC. [WWW.INLETFILTERS.COM](http://WWW.INLETFILTERS.COM) (866) 287-8655 PH (630) 353-3477 FX INFO@INLETFILTERS.COM

SIZE: FLEXSTORM\_CATCH\_IT

SCALE: SHEET 1 OF 2

Variable (20'-0" for a normal 10'-0" wide ditch)

Post Spacing (5'-0" max.)

Post Spacing (5'-0" max.)

2" min.

20" min.

Fore Slope

Back Slope

① Insert 12 inches of fabric a minimum of 6 inches deep (fabric may be folded below the ground line).

TYPICAL SILT FENCE DITCH CHECK

Attachment to Post

Wire or Cable Ties

Fabric

Post

**SUDAS** 9040.119

SUDAS Standard Specifications

SILT FENCE

Install parallel to ground contour.

Install "J-hook" at each end of an individual section of silt fence.

Ground Contour

200'-0" max. length per section (600'-0" if slope is flatter than 5%)

TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES (Plan View)

8'-0" Spacing

36"

24"

DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES

See plans for spacing.

Ground line

Fabric

Flow

1" Steel Fence Post 4'-0" min.

TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES (Profile View)

**SUDAS** 9040.119

SUDAS Standard Specifications

SILT FENCE

DATE: 4TH SUBMIT - 2022-07-15  
3RD SUBMIT - 2022-06-22  
2ND SUBMIT - 2022-06-01  
1ST SUBMIT - 2022-04-20

DATE OF SURVEY: 2021-05-14  
DESIGNED BY: EHA  
DRAWN BY: KRZ

N.P.D.E.S. GENERAL PERMIT #2 DISCHARGE AUTHORIZATION NUMBER: 41122-40748

IA WAUKEE NW 2ND / WAUKEE CROSSING FLAT 5  
WAUKEE, IOWA  
SEDIMENTATION & EROSION CONTROL DETAILS

PRELIMINARY

**SUDAS** 9040.119

SUDAS Standard Specifications

SILT FENCE

SHEET 24 OF 24  
A-2146