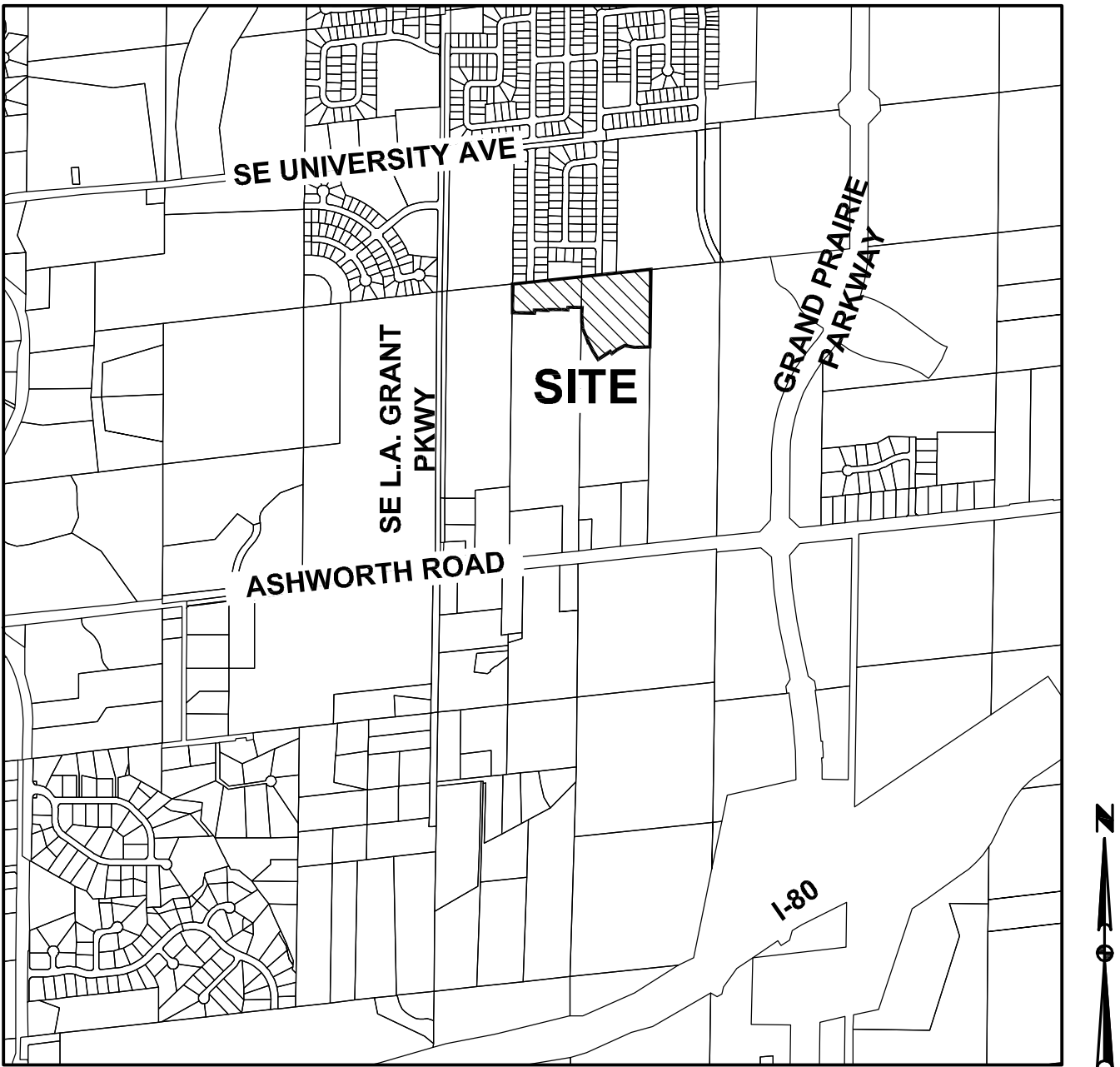


CONSTRUCTION PLANS FOR: KETTLESTONE RIDGE PLATS 1 & 2

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

OWNER/DEVELOPER

JERRY'S HOMES
CONTACT: CHIP CLASSON
10430 NEW YORK AVE., SUITE C
URBANDALE, IOWA 50322
PH: (515) 727-0356

ENGINEER/ SURVEYOR

CIVIL DESIGN ADVANTAGE
CONTACT: ERIN OLLENDIKE
3405 SE CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PH. (515) 369-4400
FX. (515) 369-4410

ZONING

R-2 ONE AND TWO FAMILY RESIDENTIAL DISTRICT

BULK REGULATIONS

- MIN. LOT AREA = 8,000 SF (SINGLE-FAMILY)
- 30' FRONT YARD SETBACK:
- 30' REAR SIDE YARD SETBACK:
- 15' SIDE YARD SETBACK
(TOTAL=15', MIN. SIDE=7')

SUBMITTAL DATES

FIRST SUBMITTAL: 07/15/2015
SECOND SUBMITTAL: 08/05/2015
THIRD SUBMITTAL: 08/28/2015
FOURTH SUBMITTAL: 09/10/2015
FINAL SUBMITTAL: 09/15/2015
AS-BUILT SUBMITTAL: 07/26/2016

BENCHMARKS

BM#1 DALLAS CO G120
ELEVATION=1011.76

BM#2 SE BURY BOLT ON HYDRANT 200 FEET +/-
EAST OF BLUESTEM AND SOUTH SIDE OF SE
TALLGRASS LN.
ELEVATION=1035.49

BM#3 BURY BOLT ON HYDRANT SE FLORENCE DR
& DEAD END.
ELEVATION=1037.32

NOTES

1. ANY CHANGES PROPOSED TO THE CONSTRUCTION DRAWINGS DURING CONSTRUCTION SHALL BE APPROVED IN WRITING BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
2. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES MADE DURING CONSTRUCTION THAT HAVE NOT BEEN GRANTED APPROVAL IN WRITING BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
3. THE RESULTS OF THE GEOTECHNICAL REPORT ARE TO BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT. THE CONSTRUCTION DRAWINGS ARE SUBJECT TO ANY CHANGES REQUESTED BY THE REPORT.

UTILITY NOTE

THE 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. A REQUEST WAS MADE TO IOWA ONE CALL FOR THE UTILITIES TO LOCATE THEIR UTILITIES IN THE FIELD.

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2-3	TYPICAL SECTIONS AND DETAILS
4	QUANTITIES AND REFERENCE NOTES
5	HYDRANT COVERAGE PLAN
6-7	GRADING PLAN
8-9	EROSION & SEDIMENT CONTROL PLAN
10-17	STORM AND SANITARY SEWER PLAN AND PROFILE
18-24	WATERMAIN PLAN AND PROFILE
25-27	INTERSECTION DETAILS

AS-BUILT DRAWINGS

AS-BUILT PLANS ARE BASED ON SURVEYED INVERT ELEVATIONS AND INFORMATION SUPPLIED BY THE CONTRACTOR. CIVIL DESIGN ADVANTAGE TAKES NO RESPONSIBILITY FOR UNAUTHORIZED CHANGES TO THE PLANS WITHOUT CITY/OWNER KNOWLEDGE. FIELD VERIFICATION OF UTILITIES OR OTHER PLAN ELEMENTS IS ALWAYS RECOMMENDED.

LEGAL DESCRIPTION

A PART OF THE EAST HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER AND A PART OF THE NORTH THREE-FOURTHS OF THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER, ALL IN SECTION 4, TOWNSHIP 78 NORTH, RANGE 26 WEST OF THE FIFTH PRINCIPAL MERIDIAN, IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF BLUESTEM PLAT 1, AN OFFICIAL PLAT IN SAID CITY OF WAUKEE; THENCE NORTH 86°05'27" EAST ALONG THE NORTH LINE OF SAID SOUTHWEST QUARTER, 9.60 FEET TO THE SOUTHWEST CORNER OF WESTOWN MEADOWS PLAT 1, AN OFFICIAL PLAT IN SAID CITY OF WAUKEE; THENCE NORTH 83°37'43" EAST CONTINUING ALONG SAID NORTH LINE, 1307.66 FEET TO THE NORTHEAST CORNER OF SAID WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER; THENCE SOUTH 0°12'06" WEST ALONG THE EAST LINE OF SAID WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER, 732.72 FEET; THENCE SOUTH 87°34'43" WEST, 139.69 FEET; THENCE NORTH 79°38'47" WEST, 102.66 FEET; THENCE SOUTH 60°15'10" WEST, 84.84 FEET; THENCE SOUTH 53°25'36" WEST, 60.00 FEET; THENCE NORTH 35°33'54" WEST, 25.69 FEET; THENCE SOUTH 55°26'36" WEST, 140.00 FEET; THENCE NORTH 31°55'22" WEST, 83.07 FEET; THENCE NORTH 28°13'52" WEST, 107.58 FEET; THENCE NORTH 22°36'03" WEST, 60.00 FEET; THENCE NORTH 21°58'19" WEST, 76.00 FEET; THENCE NORTH 7°40'46" WEST, 60.87 FEET; THENCE NORTH 1°18'25" WEST, 66.72 FEET; THENCE NORTH 0°12'53" EAST, 75.00 FEET; THENCE NORTH 89°47'07" WEST, 132.00 FEET; THENCE SOUTH 0°12'53" WEST, 23.07 FEET; THENCE NORTH 89°47'07" WEST, 188.64 FEET; THENCE SOUTH 0°12'53" WEST, 7.18 FEET; THENCE NORTH 89°47'07" WEST, 128.86 FEET; THENCE SOUTH 0°12'53" WEST, 25.96 FEET; THENCE NORTH 89°47'07" WEST, 209.30 FEET TO THE EAST LINE OF SAID BLUESTEM PLAT 1; THENCE NORTH 0°09'25" EAST ALONG SAID EAST LINE, 271.31 FEET TO THE POINT OF BEGINNING AND CONTAINING 14.90 AC (649,167 SQUARE FEET).

PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

GENERAL LEGEND

PROPOSED	EXISTING
SECTION LINE	SANITARY MANHOLE
CENTER LINE	WATER VALVE BOX
RIGHT OF WAY	FIRE HYDRANT
PERMANENT EASEMENT	WATER CURB STOP
TEMPORARY EASEMENT	WELL
TYPE SW-501 STORM INTAKE	STORM SEWER MANHOLE
TYPE SW-503 STORM INTAKE	STORM SEWER SINGLE INTAKE
TYPE SW-505 STORM INTAKE	STORM SEWER DOUBLE INTAKE
TYPE SW-506 STORM INTAKE	FLARED END SECTION
TYPE SW-513 STORM INTAKE	DECIDUOUS TREE
TYPE SW-401 STORM MANHOLE	CONIFEROUS TREE
TYPE SW-402 STORM MANHOLE	DECIDUOUS SHRUB
TYPE SW-301 SANITARY MANHOLE	CONIFEROUS SHRUB
STORM/SANITARY CLEANOUT	ELECTRIC POWER POLE
WATER VALVE	GUY ANCHOR
FIRE HYDRANT ASSEMBLY	STREET LIGHT
SIGN	POWER POLE W/ TRANSFORMER
DETECTABLE WARNING PANEL	UTILITY POLE W/ LIGHT
WATER CURB STOP	ELECTRIC BOX
STORM SEWER STRUCTURE NO.	ELECTRIC TRANSFORMER
STORM SEWER PIPE NO.	ELECTRIC MANHOLE OR VAULT
SANITARY SEWER STRUCTURE NO.	TRAFFIC SIGN
SANITARY SEWER PIPE NO.	TELEPHONE JUNCTION BOX
SANITARY SEWER WITH SIZE	TELEPHONE MANHOLE/VAULT
SANITARY SERVICE	TELEPHONE POLE
STORM SEWER	GAS VALVE BOX
STORM SERVICE	CABLE TV JUNCTION BOX
WATERMAIN WITH SIZE	CABLE TV MANHOLE/VAULT
WATER SERVICE	MAIL BOX
SAWCUT (FULL DEPTH)	BENCHMARK
SILT FENCE	SOIL BORING
USE AS CONSTRUCTED	UNDERGROUND TV CABLE
MINIMUM PROTECTION ELEVATION	GAS MAIN
TOP OF PROPOSED GROUND	FIBER OPTIC
MINIMUM OPENING ELEVATION	UNDERGROUND TELEPHONE
MINIMUM GRADE AT STRUCTURE	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	FIELD TILE
	SANITARY SEWER W/ SIZE
	STORM SEWER W/ SIZE
	WATER MAIN W/ SIZE

REFER TO THE KETTLESTONE RIDGE GEOTECHNICAL REPORT PREPARED BY GEOTECH, INC. (PN 02.15174.00) DATED AUGUST 20, 2015 FOR GEOTECHNICAL REQUIREMENTS.

THIS PROJECT REQUIRES AN IOWA NPDES PERMIT #2. 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.

THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2015 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.



CIVIL DESIGN ADVANTAGE
3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111
PH: (515) 369-4400 Fax: (515) 369-4410
PROJECT NO. 1412.603



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.

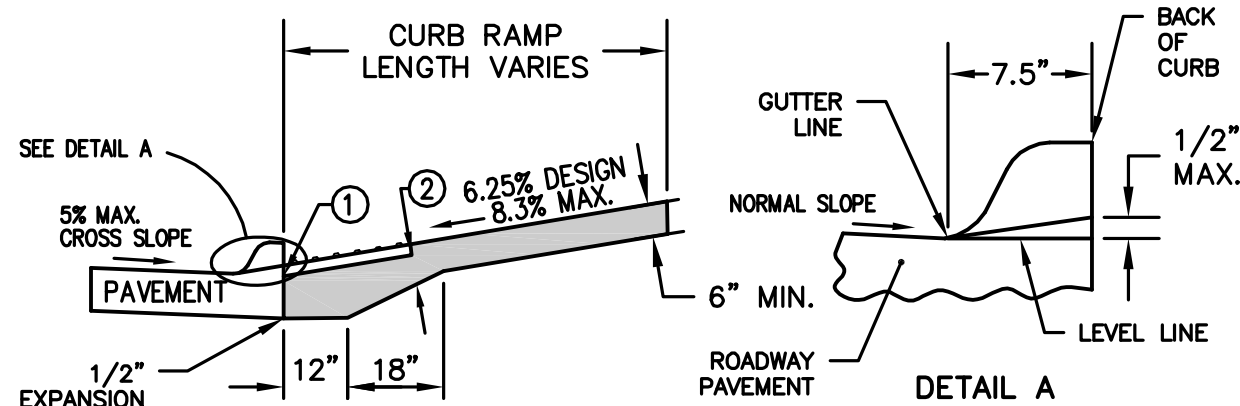
ERIN K. OLLENDIKE, P.E. DATE

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2017
PAGES OR SHEETS COVERED BY THIS SEAL:

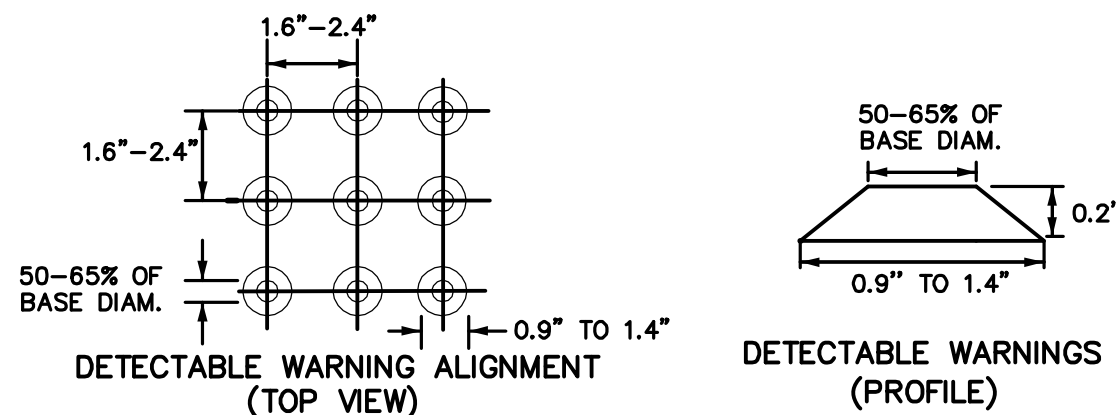
SHEETS 1-27

FILE: H:\2014\142603\DWG\142603-COVER-DET-142603.DWG
DATE PLOTTED: 7/26/2016 2:51 PM
PLOTTER: HP DesignJet T1200
PLOTTER BY: JARED MURRAY

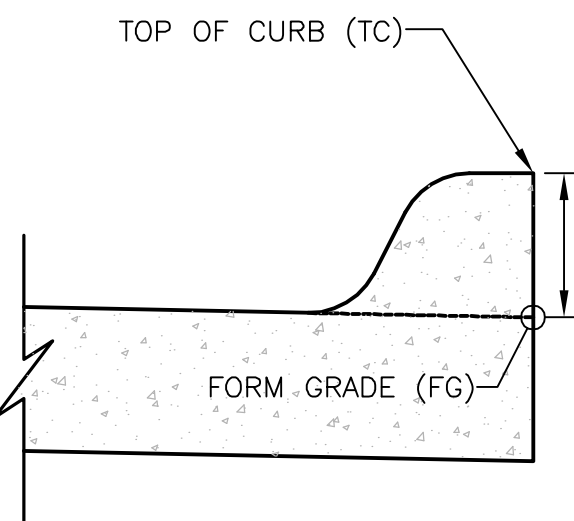
COMMENT:
END



1. INSTALL A 24 INCH WIDE (MIN.) STRIP OF DETECTABLE WARNINGS AT THE BACK OF CURB. EXTEND THE DETECTABLE WARNINGS ACROSS THE FULL WIDTH OF THE RAMP.
2. PROVIDE A MINIMUM OF 6 INCHES OF CONCRETE BELOW THE DETECTABLE WARNING PANEL.



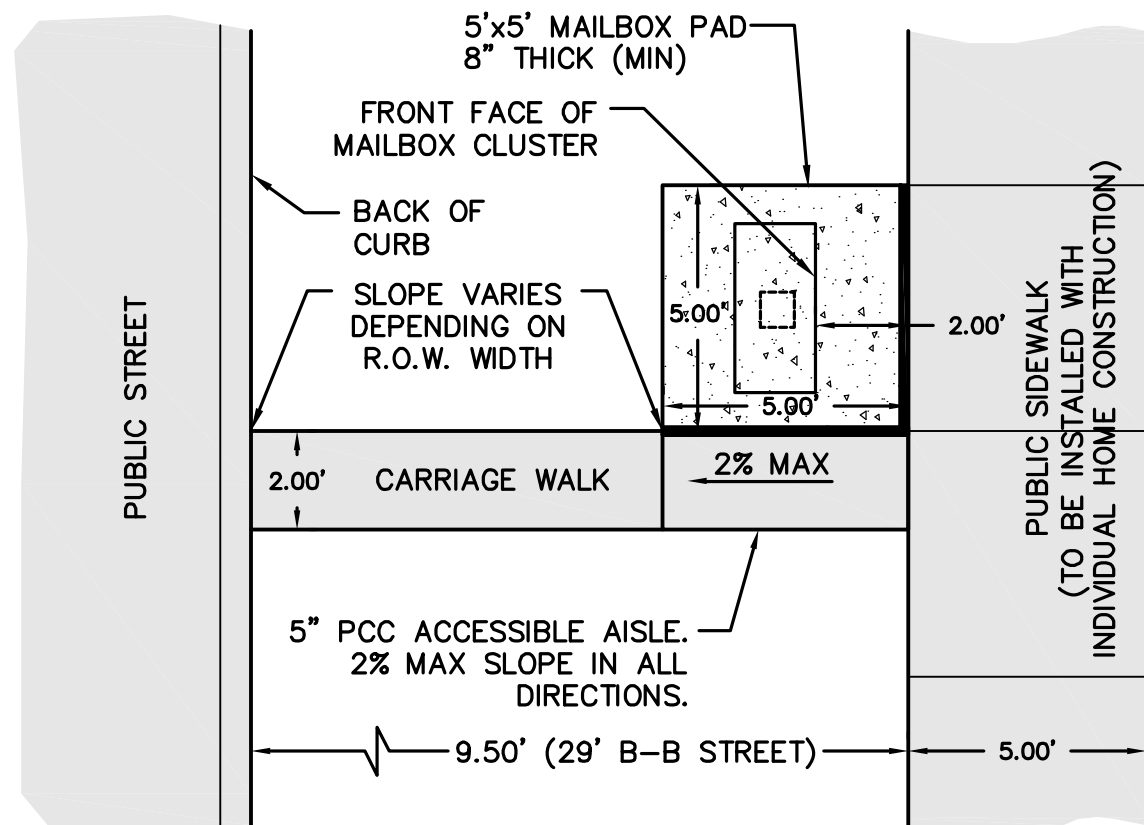
DETECTABLE WARNING DETAIL
NOT TO SCALE



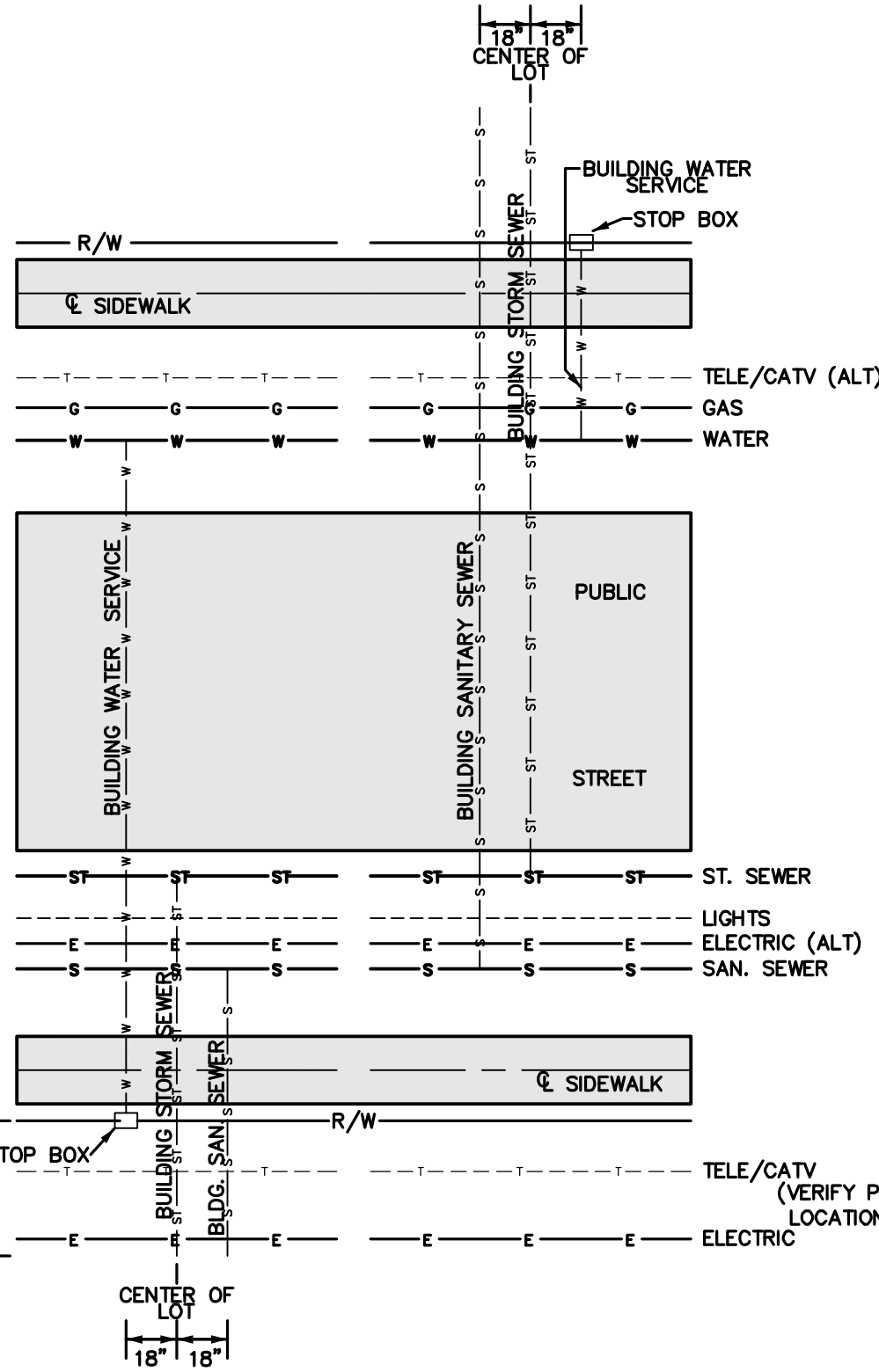
INTEGRAL 6" STANDARD SPOT ELEVATION REFERENCE DETAIL
NOT TO SCALE

INSTALLATION NOTE:

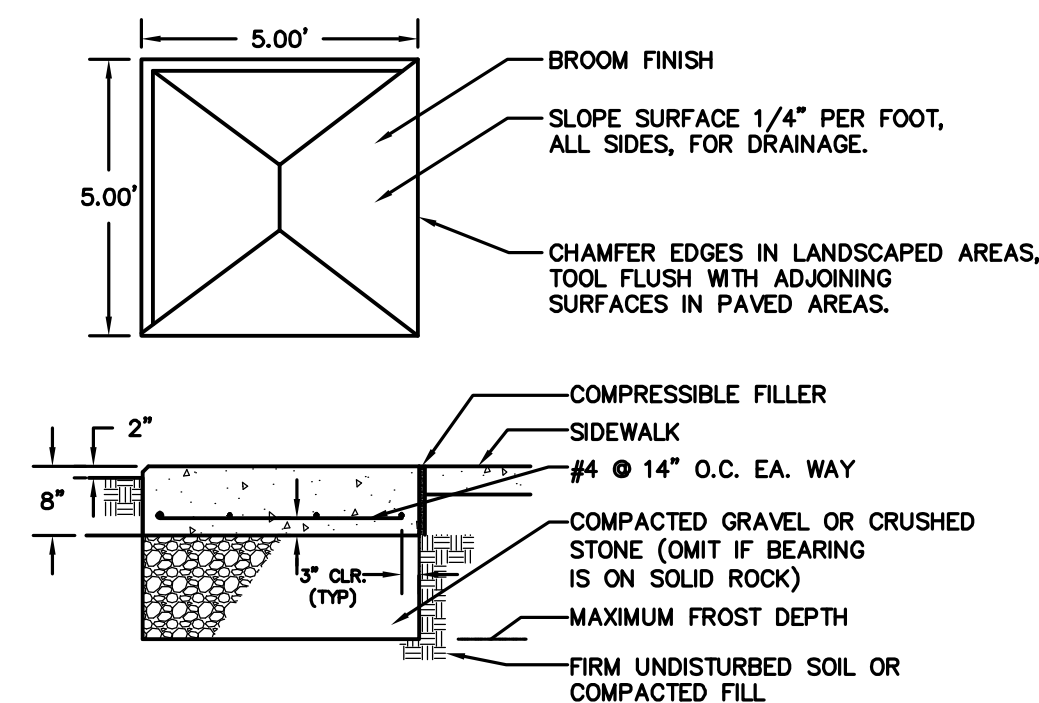
1. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.
2. CLUSTER MAILBOX TO BE LOCATED ON THE PARKING/STREET LIGHT SIDE OF STREET.
3. DO NOT LOCATE AT INTERSECTION.
4. LOCATE NEAR SHARED PROPERTY LINE PER APPROVED PLAN.
5. DETERMINE SIDEWALK SIDE OF MAILBOX PAD ELEVATION ASSUMING CONSTANT 4% SLOPE FROM BACK OF CURB TO SIDEWALK SIDE OF MAILBOX PAD. RESULTING SLOPE FROM BACK OF CURB TO STREET SIDE OF MAILBOX PAD WILL BE GREATER THAN 4%. FOR EXAMPLE, FOR A 29' WIDE PAVEMENT WITH A 60' WIDE R.O.W. AND A 2% MAILBOX PAD CROSS SLOPE, THE RESULTING SLOPE FROM THE BACK OF CURB TO THE STREET SIDE OF MAILBOX PAD IS 6.2%.



MAILBOX PAD DETAIL
NOT TO SCALE

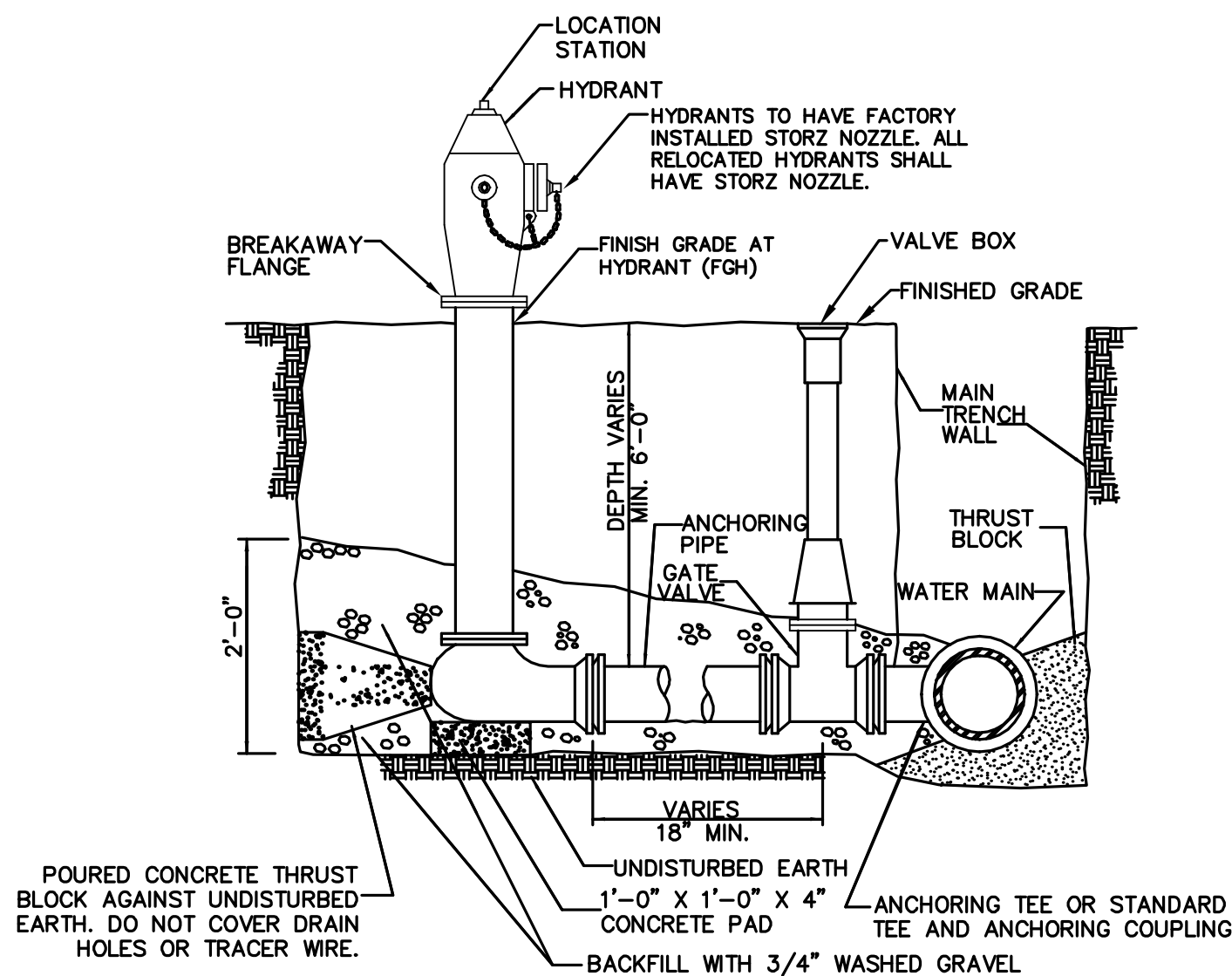


CITY OF WAUKEE UTILITY SERVICE LOCATIONS
NOT TO SCALE

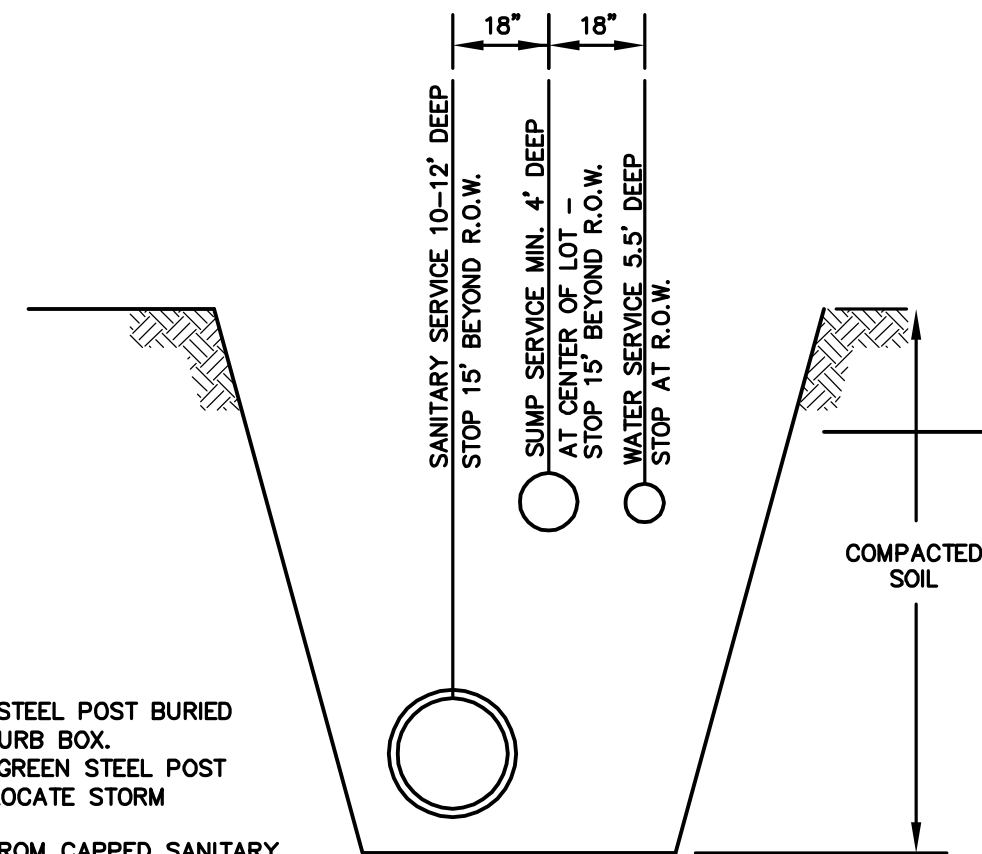


- GENERAL NOTES:**
1. CONCRETE: C4 MIX.
 2. REINFORCING STEEL: ASTM A615, GRADE 60.
 3. THIS BASE DETAIL CAN BE USED FOR NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NDCBU) CLUSTER BOXES AND PARCEL LOCKERS WITH 4"x10" BOLT PATTERN.
 4. REQUIRED EXPANSION BOLT CAPACITY, BASED ON CALCULATED DESIGN LOAD= 3100 LBS TENSION, 2000 LBS SHEAR.
 5. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.

MAILBOX PAD DETAIL
NOT TO SCALE

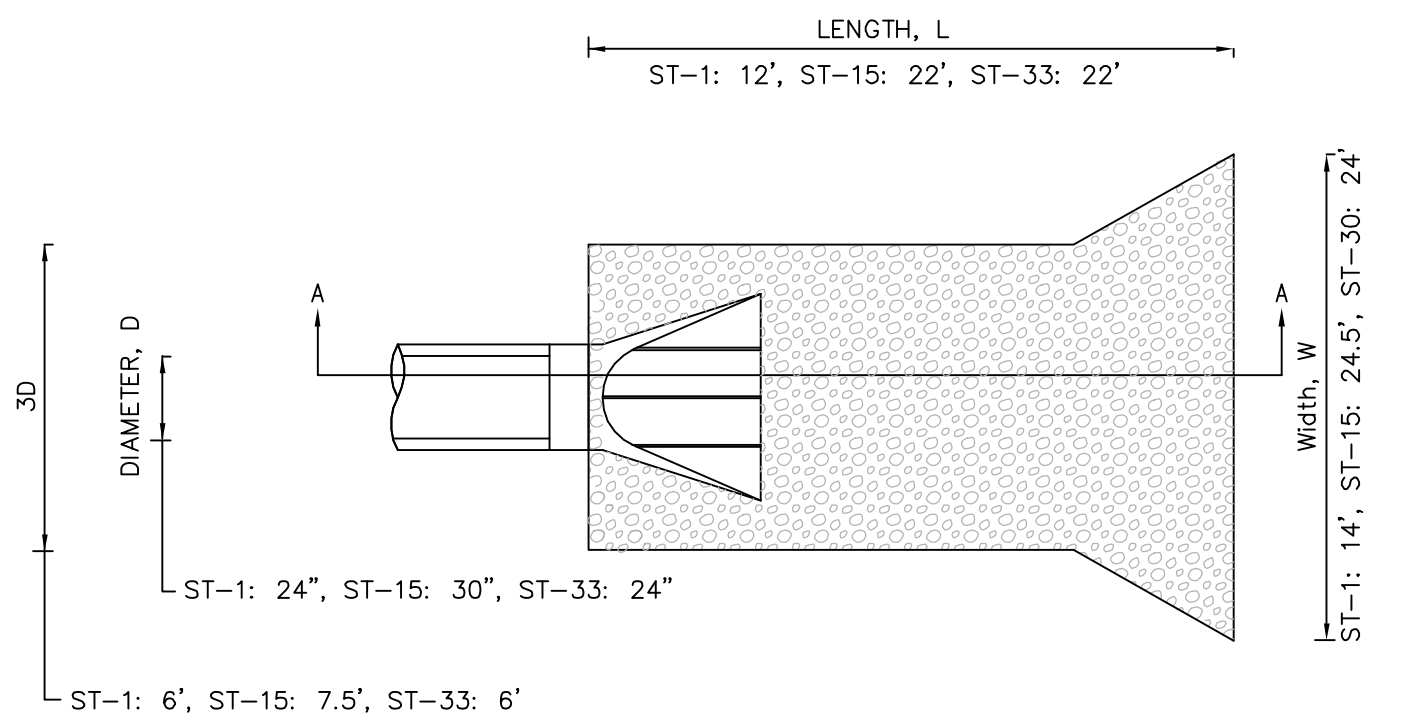


- NOTES:**
1. MINIMUM SIZE FOR PIPING, VALVES AND FITTINGS FROM WATER MAIN TO HYDRANT INLET: 6".
 2. PROVIDE TRACER WIRE AND TRACER WIRE STATION.
 3. WRAP HYDRANT, PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT.
- HYDRANT ASSEMBLY DETAIL**
NOT TO SCALE



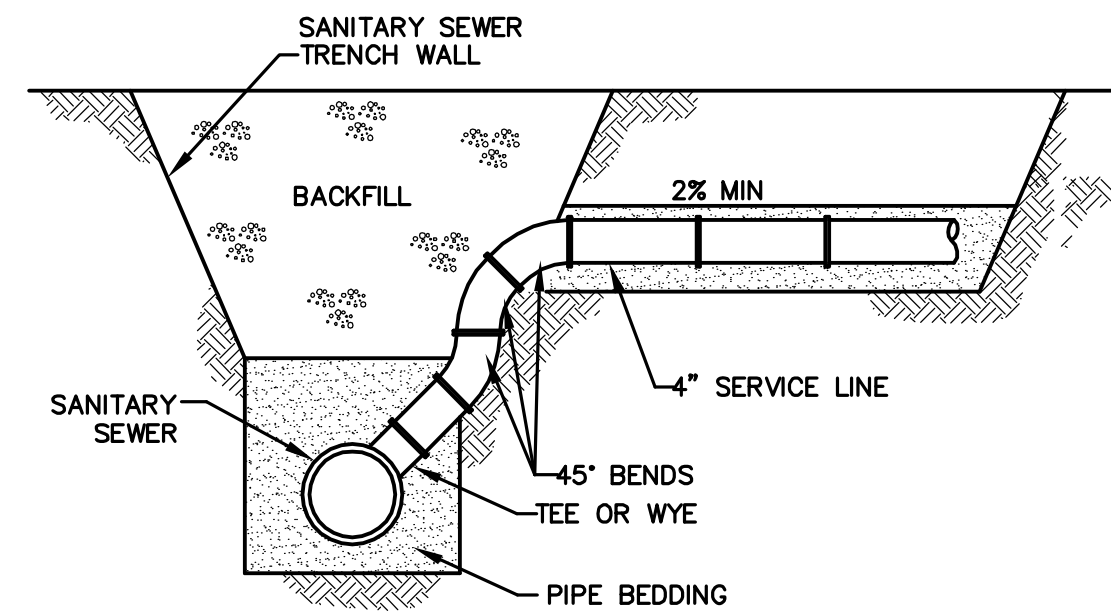
- NOTES:**
1. PLACE ONE 6" STEEL POST BURIED 3' AT WATER CURB BOX.
 2. PLACE ONE 6" GREEN STEEL POST BURIED 3' TO LOCATE STORM SERVICE.
 3. INSERT 2"x4" FROM CAPPED SANITARY SERVICE TO 2 FOOT ABOVE GRADE.

SERVICE LOCATION DETAIL
NOT TO SCALE



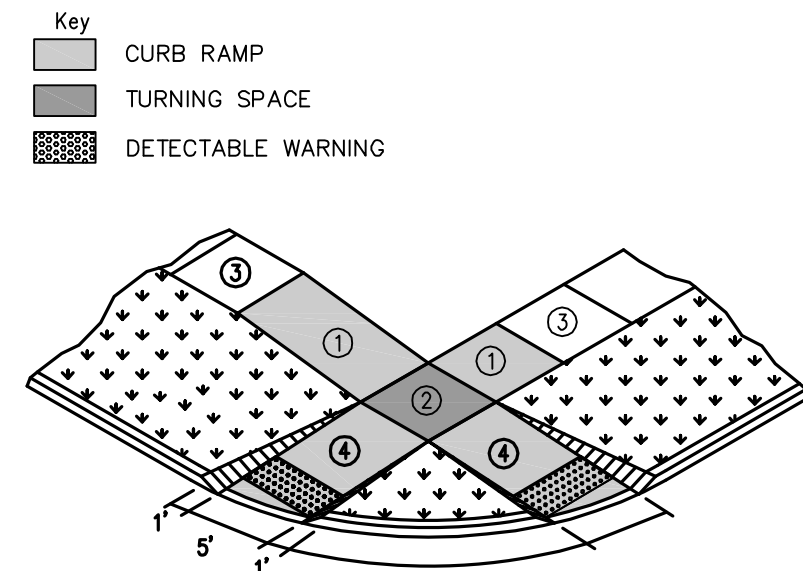
- NOTE:**
1. THE LAST THREE SECTIONS AND THE APRON SHALL BE CONNECTED WITH PIPE CONNECTIONS PER SECTION 4030.302C OF SDAS.
 2. INSTALL A 3" CLAY WATERSTOP AT ALL STORM SEWER OUTLETS.

ROCK APRON FOR PIPE OUTLET
NOT TO SCALE



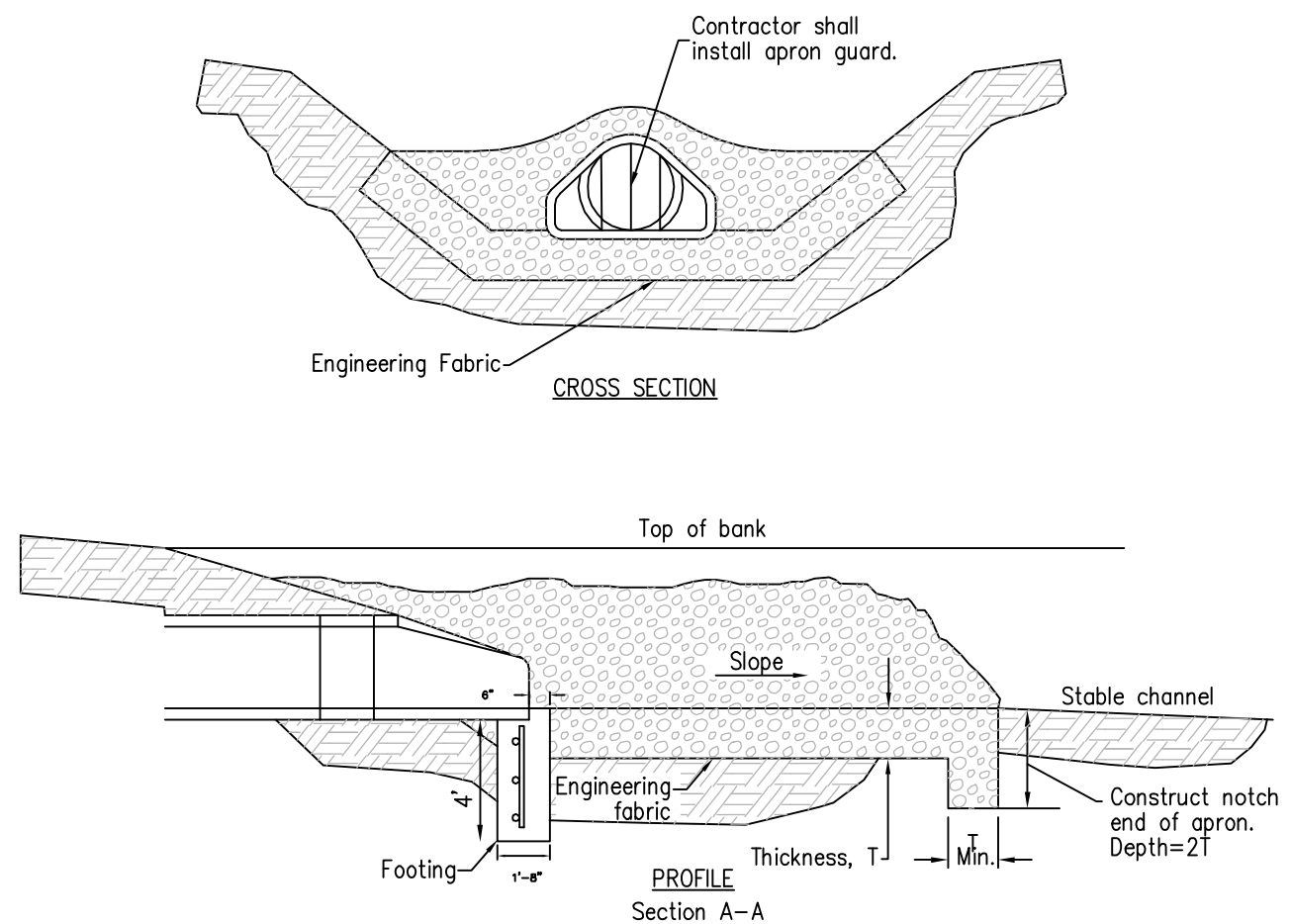
- NOTES:**
1. USE FOR SERVICE CONNECTION WHEN SANITARY SEWER DEPTH EXCEEDS 12.0'.

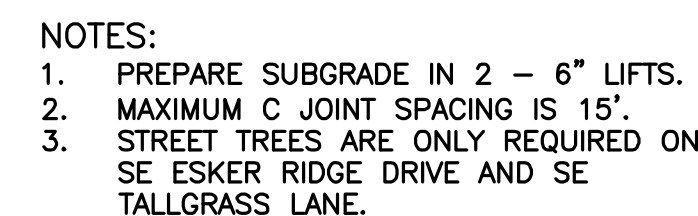
SANITARY SEWER SERVICE RISER
NOT TO SCALE



- Key:**
- CURB RAMP
 - TURNING SPACE
 - DETECTABLE WARNING
1. Parallel Curb Ramp: Target cross slope of 1.5% with a maximum cross slope of 2.0%. The length of the parallel ramp is not to exceed 15 feet, regardless of resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.
 2. Turning Space: Target slope of 1.5% with a maximum slope perpendicular to the travel directions of 2.0%. At mid-block crossings, cross slope of landing may exceed 2.0% to match the roadway grade. Minimum 5 feet by 5 feet.
 3. Target cross-slope of 1.5% with a maximum cross-slope of 2.0%.
 4. Perpendicular curb ramp: Target running slope of 6.25% with maximum running slope of 8.3%. The minimum pavement depth for ramps and landings shall be 6-inches.

CURB RAMPS OUTSIDE OF INTERSECTION RADIUS





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COMMENT: DESIGNED BY: JARED MURRAY
PLOTED BY: JARED MURRAY
DATE PLOTTED: 7/26/2016 2:51 PM
ENCL:

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT QUANTITY	
1	COMBINED CLEARING AND GRUBBING	AC	22.88
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	SY	11217
5	SANITARY SEWER GRAVITY MAIN, 8" DIA	LF	2242
6	SANITARY SEWER SERVICE STUB, 4" DIA	EA	34
7	FOOTING DRAIN SEWER COLLECTOR, 8" DIA PVC, PERFORATED	LF	916
8	STORM SEWER, 15" RCP	LF	759
9	STORM SEWER, 18" RCP	LF	709
10	STORM SEWER, 24" RCP	LF	438
11	STORM SEWER, 30" RCP	LF	218
12	STORM SEWER, 24" CMP	LF	40
13	STORM SEWER SERVICE STUB, 4" DIA	EA	34
14	STORM SEWER, 15" RCP APRON W/FOOTING & APRON GUARD	EA	3
15	STORM SEWER, 18" RCP APRON W/FOOTING & APRON GUARD	EA	2
16	STORM SEWER, 24" RCP APRON W/FOOTING & APRON GUARD	EA	2
17	STORM SEWER, TEMPORARY 30" RCP APRON W/ APRON GUARD	EA	1
18	STORM SEWER, TEMPORARY 24" CMP APRON W/ APRON GUARD	EA	1
19	WATER MAIN, 8" DIA	LF	3042
20	WATER SERVICE STUB, 1" DIA	EA	34
21	VALVE, 8" DIA	EA	14
22	FIRE HYDRANT ASSEMBLY	EA	9
23	TEMPORARY FIRE HYDRANT ASSEMBLY	EA	2
24	TEMPORARY FIRE HYDRANT ASSEMBLY (RELOCATE)	EA	3
25	MANHOLE, SW-301, 48" (SANITARY SEWER)	EA	10
26	MANHOLE, SW-401, 48" (STORM SEWER)	EA	6
27	MANHOLE, SW-401, 60" (STORM SEWER)	EA	2
28	MANHOLE, SW-401, 96" (STORM SEWER)	EA	1
29	INTAKE, SW-501	EA	1
30	INTAKE, SW-503	EA	1
31	INTAKE, SW-505	EA	6
32	INTAKE, SW-506	EA	6
33	PAVEMENT, 7" P.C.C.	SY	8641
34	PAVEMENT, 8" P.C.C. W/ CD BASKETS	SY	1305
35	PAVEMENT, 6" P.C.C. SIDEWALK RAMPS	SY	170
36	DETECTABLE WARNING PANELS	SF	296
37	SEEDING, FERTILIZING, AND MULCHING	AC	20.83
38	PERMANENT ROAD CLOSURE, URBAN, SI-182	EA	10
39	PERMANENT ROAD CLOSURE, URBAN, SI-182 (RELOCATE)	EA	15
40	TRAFFIC CONTROL	LS	1
41	EROSION CONTROL	LS	1
42	ROCK OUTLET PROTECTION, CLASS 'E' RIP RAP	TON	61
43	MAILBOX CLUSTER	EA	3
44	PAINTED PAVEMENT MARKING, STRIPING, DURABLE	STA	3.2
45	TURF REINFORCEMENT MATTING - TYPE I	SF	305

GENERAL NOTES

1.

ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND TO THE 2015 EDITION OF SUDAS STANDARD SPECIFICATIONS. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IF ANY DISCREPANCIES.
2.

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.
3.

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.
4.

THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING HIS EQUIPMENT ON THE PAVEMENT OR SIDEWALK.
5.

THE PROJECT MANAGER SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN ALL SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT. INCLUDING STAGING OF CONSTRUCTION DETAILS.
6.

THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE PROPOSED AND EXISTING RIGHT OF WAY, CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING:

A. CITY OF WAUKEE ENGINEERING DEPARTMENT

B. APPROPRIATE UTILITY COMPANIES

C. OWNER

D. CIVIL DESIGN ADVANTAGE

* 48 HOUR NOTICE SHALL BE GIVEN TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO WEEKEND AND HOLIDAY WORK.
8.

PRIOR TO CONSTRUCTION, THE PROJECT MANAGER SHALL CONTACT THE WAUKEE ENGINEERING DEPARTMENT AND SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST ONE WEEK PRIOR TO THE ANTICIPATED START OF CONSTRUCTION.

ESTIMATE REFERENCE INFORMATION	
Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.	
ITEM NO.	DESCRIPTION
	THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2015 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN. REFER TO THE KETTLESTONE RIDGE GEOTECHNICAL REPORT PREPARED BY GEOTECH, INC. (PN 02.15174.00) DATED AUGUST 20, 2015 FOR GEOTECHNICAL REQUIREMENTS. ALL REFERENCES TO SECTIONS AND FIGURES ARE TO THE SUDAS STANDARD SPECIFICATIONS. CITY OF WAUKEE STANDARD DETAILS SHALL GOVERN IF ANY DISCREPANCIES. CLEAR AND GRUB ALL AREAS AFFECTED BY GRADING OPERATIONS. THE CONTRACTOR SHALL FIELD VERIFY CLEARING AND GRUBBING NEEDS PRIOR TO BIDDING. INCLUDES REMOVAL OF ANY EXISTING FIELD FENCE. ALL MATERIAL THAT IS REMOVED FROM THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR. INCLUDED REMOVAL OF EXISTING CROPS FOR CONSTRUCTION OF TEMPORARY ACCESS. DO NOT DISTURB CROPS OUTSIDE OF THE PROJECT LIMITS.
1	
2	STRIP, SALVAGE AND RE-SPREAD THE TOP 6 INCHES OF TOPSOIL. RESPREAD TOPSOIL WITHIN THE RIGHT OF WAY, ON BACKSLOPES AND IN DEVELOPED AREAS A MINIMUM OF 4 INCHES THICK. RESPREAD TOPSOIL IN AREAS THAT ARE FARMED A MINIMUM OF 12 INCHES THICK. TOPSOIL TO BE RESPREAD SHALL BE FREE OF ROCK AND DEBRIS AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER. 4 INCH TOPSOIL QUANTITY = 12,305 CY
3	EXCAVATION INCLUDES ALL WORK NECESSARY TO ACHIEVE PROPER GRADES AS SHOWN IN THE PLANS. NO PAYMENT FOR OVERHAUL SHALL BE ALLOWED.
4	REFER TO SHEET 3 FOR TYPICAL LOCATIONS AND THICKNESS.
5	SANITARY SEWER FOR 8" SHALL BE PVC TRUSS PIPE. ANY CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG. 3010.101 AND 3010.103 FOR PIPE EMBEDMENT DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. EXISTING SANITARY SEWER WILL NEED TO BE RETESTED AFTER SADDLE WYE INSTALLATION.
8-12	REFER TO FIGURE 3010.102 FOR TRENCH BEDDING AND BACKFILL ZONE DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. CONNECTIONS TO EXISTING STORM SEWER PIPE AND STRUCTURES SHALL BE CONSIDERED INCIDENTAL. WRAP ALL PIPE JOINTS IN ENGINEERING FABRIC. CLEAN AND TELEVISE STORM SEWER PRIOR TO PAVING AND PROVIDE TELEVISING REPORT TO CITY IN HARD COPY AND DISC FORMAT. TELEVISING SHALL BE CONSIDERED INCIDENTAL. IF STORM SEWER CROSSES ABOVE A WATER MAIN OR CROSSES LESS THAN 18 INCHES BELOW A WATER MAIN THEN STORM SEWER SHALL BE CONSTRUCTED OF REINFORCED CONCRETE WITH A FLEXIBLE O-RING GASKET JOINT RATED AT 13 PSI OR GREATER. O-RING GASKET JOINTS SHALL BE INSTALLED ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATER TO THE SEWER IS AT LEAST TEN FEET.
6, 13, 20	REFER TO SHEET 2 FOR SERVICE LOCATION DETAIL. STORM SEWER SERVICES TYING INTO EXISTING RCP PIPE ARE TO BE CORE DRILLED.
14-18	THE LAST THREE SECTIONS AND APRON SHALL BE CONNECTED WITH PIPE CONNECTORS. REFER TO FIG. 4030.221 - RCP APRON SECTION FOOTING FOR FOOTING CONSTRUCTION DETAILS. APRON GUARD REQUIRED ON ALL APRONS. RCP APRON FOOTING, PIPE APRON GUARD AND PIPE CONNECTORS TO BE CONSIDERED INCIDENTAL. INSTALL CLAY WATERSTOPS AT ALL RCP APRONS, MIN. 3' LONG.
19-21	REFER TO FIG. 3010.101 AND FIG. 3010.104 FOR TRENCH BEDDING AND BACKFILL ZONE DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG. 5010.101 FOR THRUST BLOCK DETAILS. REFER TO FIG. 5010.102 FOR TRACER SYSTEM DETAILS. ALL FITTINGS, POLYETHYLENE WRAP, THRUST BLOCKS, AND TRACER WIRE SYSTEM SHALL BE CONSIDERED INCIDENTAL.
22	REFER TO FIG. 5020.201 - FIRE HYDRANT ASSEMBLY FOR FIRE HYDRANT CONSTRUCTION DETAILS. INCLUDES ANCHORING TEE, ANCHORING ELBOW, GATE VALVE, VALVE BOX, ANCHORING PIPE, ANCHORING COUPLING, ELBOWS, STORZ FITTINGS, POLYETHYLENE WRAP, THRUST BLOCK AND TRACER WIRE SYSTEM AND FIRE HYDRANT.
23-24	REFER TO WATERMAIN PLAN AND PROFILE SHEETS FOR LOCATIONS OF EXISTING FIRE HYDRANTS.
25	REFER TO FIG. 6010.301 - CIRCULAR SANITARY SEWER MANHOLE (SW-301) FOR CONSTRUCTION DETAILS. CASTINGS IN PAVEMENT SHALL BE TYPE B RING AND COVER. WHEN CASTINGS ARE NOT IN PAVEMENT, INSTALL MANHOLE CONE SECTION, MANHOLE STEPS, AND RING/COVER CASTING SUCH THAT SEPARATION IS MAINTAINED BETWEEN MANHOLE COVERS AND PAVED AREAS (BACK OF CURB, SIDEWALK PAVEMENT, SIDEWALK APPROACHES/RAMPS). ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.

ESTIMATE REFERENCE INFORMATION				
Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.				
ITEM NO.	DESCRIPTION			
26-28	REFER TO FIG. 6010.401 – CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.			
29-32	REFER TO FIG. 6010.514 – BOXOUTS FOR GRATE INTAKES. REFER TO FIG. 6010.603 – CASTINGS FOR GRATE INTAKES FOR TYPE R GRATE DETAILS AND FIG. 6010.602 – CASTINGS FOR STORM SEWER MANHOLES FOR TYPE E CASTING DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR INTAKE CASTINGS IS 6". THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12".			
29	REFER TO FIG 6010.501 – SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.			
30	REFER TO FIG 6010.503 – SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.			
31	REFER TO FIG 6010.505 – DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS.			
32	REFER TO FIG 6010.506 – DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.			
33-34	REFER TO FIG. 7010.101 – JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM CD AND C JOINT SPACING IS 15 FEET.			
35-36	REFER TO FIG. 7030.204 – GENERAL SIDEWALK AND ACCESSIBLE RAMP DETAILS AND FIG. 7030.208 – CURB RAMPS WITHIN INTERSECTION RADIUS FOR CLASS B OR C SIDEWALK FOR CONSTRUCTION DETAILS. DETECTABLE WARNING PANELS TO BE ARMOR TILE, ADA SOLUTIONS OR APPROVED EQUAL, BRICK RED IN COLOR. ACCESSIBLE CURB RAMPS INCLUDING TURNING SPACES SHALL BE 6" THICK P.C.C.			
37	THE SITE SEEDING SHALL CONFORM TO THE SPECIFICATION FOR TYPE (4) URBAN TEMPORARY EROSION CONTROL SEED MIXTURE. SEEDING QUANTITIES -TYPE 1 PERMANENT LAWN MIXTURE = 2.42 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 18.41 AC			
38-39	REFER TO PLAN AND PROFILE SHEETS FOR LOCATIONS.			
40	ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ROAD BARRICADES AT END OF EXISTING PAVEMENTS UNTIL THE PROJECT IS ACCEPTED..			
41	REFER TO SHEETS 8 AND 9 OF THE CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS. EROSION CONTROL QUANTITIES - 1 CONCRETE WASH PIT - 3553 LF OF SILT FENCE - 20.83 ACRES OF SEEDING, FERTILIZING AND MULCHING. - 14 INLET PROTECTION DEVICES - 50 LF OF FILTER SOCK			
42	INSTALL ENGINEERING FABRIC UNDER ALL RIP-RAP. ENGINEERING FABRIC SHALL BE CONSIDERED INCIDENTAL.			
43	REFER TO SHEET 2 FOR CONSTRUCTION DETAILS. MAILBOX CLUSTERS ARE LOCATED BETWEEN LOTS 2/3, 19/20 AND 27/28.			
44	ALL PAINTED PAVEMENT MARKINGS SHALL BE DURABLE PAINT AND MEET MUTCD SPECIFICATIONS. REFER TO SHEET 5 FOR LOCATIONS. MEASUREMENT AND PAYMENT IS BASED ON A SOLID 4 IN. LINE. BASE QUANTITY PAVEMENT MARKING TYPE PAY FACTOR LENGTH, LF QUANTITY, LF 24 IN. CROSSWALK BAR 6 320 1920			

9.

SPECIAL CARE SHALL BE TAKEN WHEN FORMING AT INTERSECTIONS SO THE PROFILES SHOWN ON THE PLANS AND THE ELEVATIONS SHOWN ON THE INTERSECTION DETAILS ARE OBTAINED. SHORT LENGTHS OF FORMS OR FLEXIBLE FORMS MAY BE NECESSARY AT THESE LOCATIONS.
10.

TO OBTAIN THE CORRECT FORM GRADES AT LOW POINTS WHERE INTAKES ARE LOCATED, THE CONTRACTOR MUST EXERCISE ADDITIONAL CARE WHEN PAVING FULL WIDTH PAVEMENTS. THIS MAY REQUIRE POURING ONE HALF OF THE PAVEMENT AT A TIME OR OTHER METHODS APPROVED BY THE ENGINEER.
11.

THE CONTRACTOR MAY BE REQUIRED AS DIRECTED BY THE ENGINEER OR THE CITY, TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY. THIS WILL BE INCIDENTAL TO THE BID ITEM TRAFFIC CONTROL. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ROAD BARRICADES AT END OF EXISTING PAVEMENTS UNTIL THE PROJECT IS ACCEPTED.
12.

PLAN AND PROFILE SHEETS INCLUDED IN THE PROJECT ARE FOR THE PURPOSE OF ALIGNMENT, LOCATION AND SPECIFIC DIRECTIONS FOR WORK TO BE PERFORMED UNDER THIS CONTRACT. IRRELEVANT DATA ON THESE SHEETS IS NOT TO BE CONSIDERED A PART OF THIS CONTRACT.
13.

THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
14.

THE CONTRACTOR IS REQUIRED TO BE FAMILIAR WITH AND COMPLY WITH OSHA STANDARDS. NOTHING WITHIN THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
15.

ALL MATERIAL TESTING SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.
16.

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.
17.

ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD)
18.

ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
19.

SIDEWALKS, ACCESSIBLE CURB RAMPS AND SIDEWALK RAMPS INCLUDING RAISED TRUNCATED DOME AND DETECTABLE WARNINGS AND WARNING PANELS SHALL BE DESIGNED AND INSTALLED TO THE LATEST P.R.O.W.A.G. AND A.D.A. REQUIREMENTS.
20.

PLACE 3/4" EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDINGS. PLACE 1/2" EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C PAVEMENT. THE PCC RAMP JOINT LOCATED AT THE BACK OF CURB AND ALL EXPANSION JOINTS SHALL BE SEALED.
21.

REMOVE DEBRIS AND MUD SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND BEFORE RAIN EVENTS.
22.

DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE R.O.W.

23.

ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
24.

IN THE EVENT OF A DISCREPANCY BETWEEN DETAILED PLANS AND QUANTITIES, THE DETAILED PLANS SHALL GOVERN.
25.

ALL FIELD TILES ENCOUNTERED SHALL BE REPAIRED AND CONNECTED TO STORM SEWERS WHERE POSSIBLE. LOCATIONS SHALL BE PROVIDED TO THE ENGINEER FOR NOTATION ON AS-BUILTS.
26.

ALL CONSTRUCTION STAKING TO BE COMPLETED UNDER THE DIRECTION OF A LICENSED ENGINEER OR LAND SURVEYOR. ALL CURB DROPS AND SIDEWALK/SHARED USE PATH SHALL ALSO BE STAKED UNDER THE DIRECTION OF A LICENSED ENGINEER OR LAND SURVEYOR
27.

THE CONTRACTOR SHALL SUBMIT A LIST OF CONSTRUCTION MATERIALS TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
28.

THE GENERAL PERMIT #2 HOLDER SHALL SUBMIT WRITTEN VERIFICATION THAT A MINIMUM TOPSOIL DEPTH OF 4" WAS SPREAD ACROSS ALL LOTS AND RIGHT-OF-WAYS WITHIN THE PLAT.
29.

A GEOTECHNICAL ENGINEER SHALL BE ONSITE DURING CONSTRUCTION AND FOR PROOF ROLLING TO INSPECT SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE GEOTECHNICAL ENGINEER IS PRESENT. A COPY OF ALL REPORTS AND FINDINGS REQUIRING ALTERATION FROM THE APPROVED PLAN SET IS TO BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT FOR REVIEW AND DISCUSSION PRIOR TO COMMENCING WITH PAVING WITHIN THE PROJECT.
30.

THE CONTRACTOR SHALL COORDINATE ALL EXISTING PUBLIC UTILITY CONNECTIONS WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
31.

ALL TESTING SHALL BE COMPLETED ACCORDING TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE WAUKEE ENGINEERING DEPARTMENT SHALL BE PRESENT TO WITNESS ALL TESTING.
32.

AS-BUILTS SHALL BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT INCLUDING ALL UTILITIES AND AS-BUILT GRADES FOR DRAINAGE SWALES, OVERFLOWS, ACCESSIBLE RAMPS AND DETENTION FACILITIES. THE CONTRACTOR SHALL PROVIDE INFORMATION TO THE DESIGN ENGINEER FOR INCLUSION ON THE RECORD AS-BUILT DRAWINGS.
33.

THE CONTRACTOR IS RESPONSIBLE FOR CLEANING AND TELEVISING ALL STORM AND SANITARY SEWERS. ALL CLEANING AND TELEVISING SHALL BE APPROVED BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO PAVING. A COPY OF THE VIDEOS AND A HARD COPY OF THE INSPECTION REPORT SHALL BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT. ALL SANITARY MANHOLES SHALL BE VACUUM TESTED.
34.

ALL FIRE HYDRANTS INCLUDING ANY RELOCATED HYDRANTS SHALL HAVE STORZ FITTINGS.
35.

ALL PROPOSED PEDESTRIAN CROSSINGS SHALL BE INSTALLED AS PART OF THE PLAT IMPROVEMENTS.
36.

ALL CONNECTIONS TO EXISTING MANHOLES ARE TO BE CORE DRILLED AND USE A LINK SEAL.
37.

ANY FIELD FENCE LOCATED WITHIN THE PROPERTY IS TO BE REMOVED. ANY TREES OR BRUSH ALONG THE NORTH PROPERTY BOUNDARY IS ALSO TO BE REMOVED.

06/06/16

07/26/16

09/15/15

09/10/15

08/28/15

09/07/15

07/15/15

SECOND AS-BUILT SUBMITTAL

AS-BUILT SUBMITTAL

FINAL SUBMITTAL

FOURTH SUBMITTAL

THIRD SUBMITTAL

SECOND SUBMITTAL

FIRST SUBMITTAL

3405 S.E. CROSSROADS DRIVE, SUITE G

GRIMES, IOWA 50111

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EI: JMM

ENGINEER: EKO

KETTLESTONE RIDGE PLATS 1 & 2

QUANTITIES AND REFERENCE NOTES

4

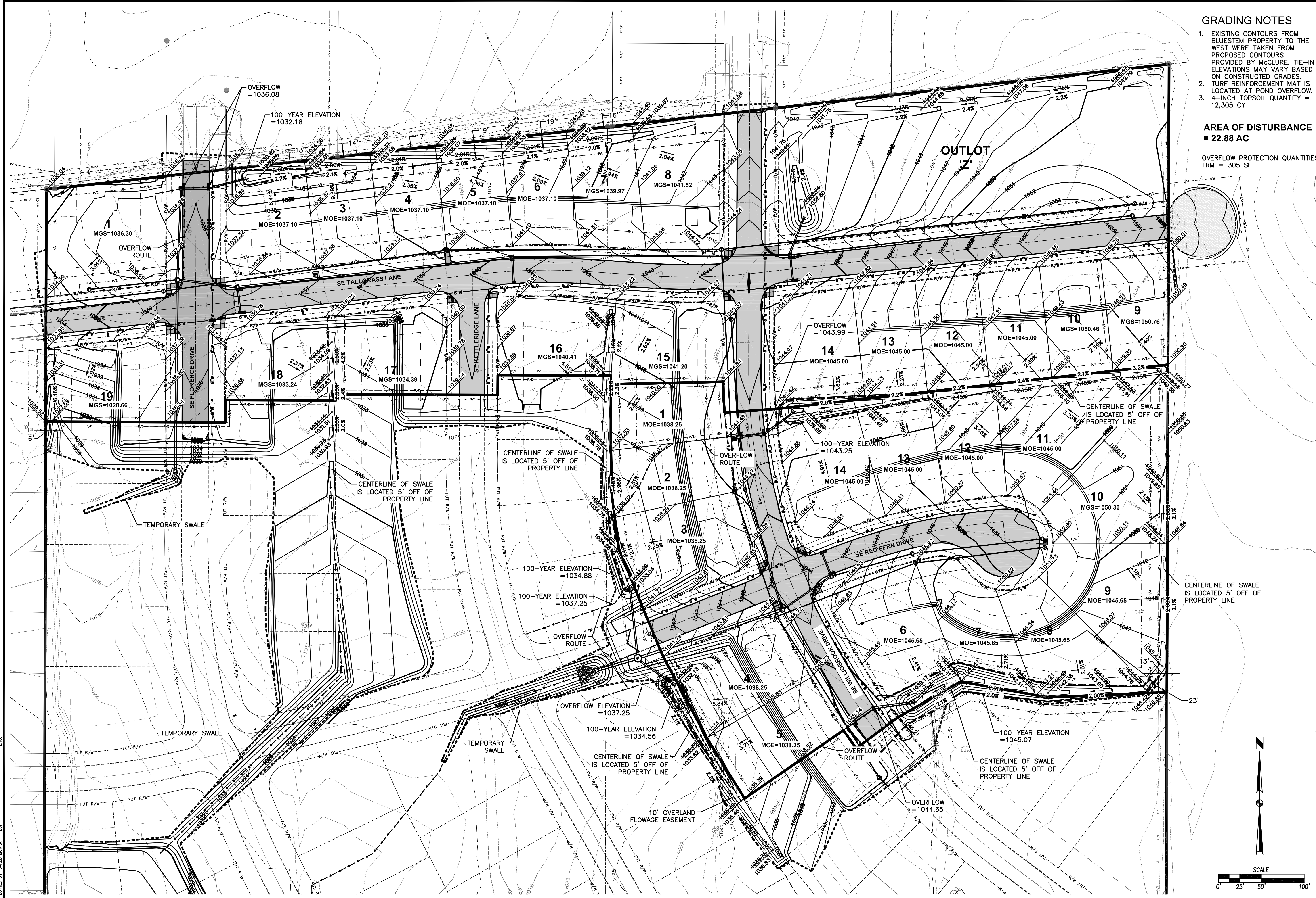
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WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE

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PLOT BY: JARED MURRAY



GRADING NOTES

1. EXISTING CONTOURS FROM BLUESTEM PROPERTY TO THE WEST WERE TAKEN FROM PROPOSED CONTOURS PROVIDED BY MCLURE. TIE-IN ELEVATIONS MAY VARY BASED ON CONSTRUCTED GRADES.
2. TURF REINFORCEMENT MAT IS LOCATED AT POND OVERFLOW.
3. 4-INCH TOPSOIL QUANTITY = 12,305 CY

AREA OF DISTURBANCE
= 22.88 AC

OVERFLOW PROTECTION QUANTITIES
TRM = 305 SF

DATE	REVISIONS	AS-BUILT SUBMITTAL	FINAL SUBMITTAL	FOURTH SUBMITTAL	THIRD SUBMITTAL	SECOND SUBMITTAL	FIRST SUBMITTAL
07/26/16							
09/15/15							
09/10/15							
08/28/15							
08/07/15							
07/15/15							

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E.I: JMM

6 **27**
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KETTLESTONE RIDGE PLATS 1 & 2
GRADING PLAN

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA





7/27

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KETTLESTONE RIDGE PLATS 1 & 2

GRADING PLAN



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REVISIONS

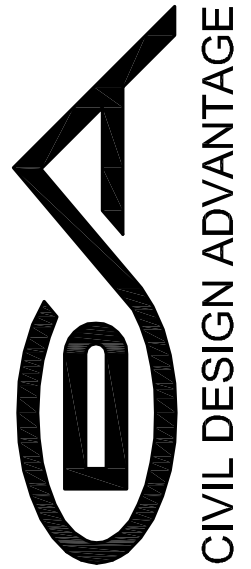
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FINAL SUBMITTAL	09/15/15
FOURTH SUBMITTAL	09/10/15
THIRD SUBMITTAL	08/28/15
SECOND SUBMITTAL	08/07/15
FIRST SUBMITTAL	07/15/15

DATE

07/28/16
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07/15/15

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31 & 2

KETTLSTONE RIDGE PLATS 1 & 2

GRADING PLAN

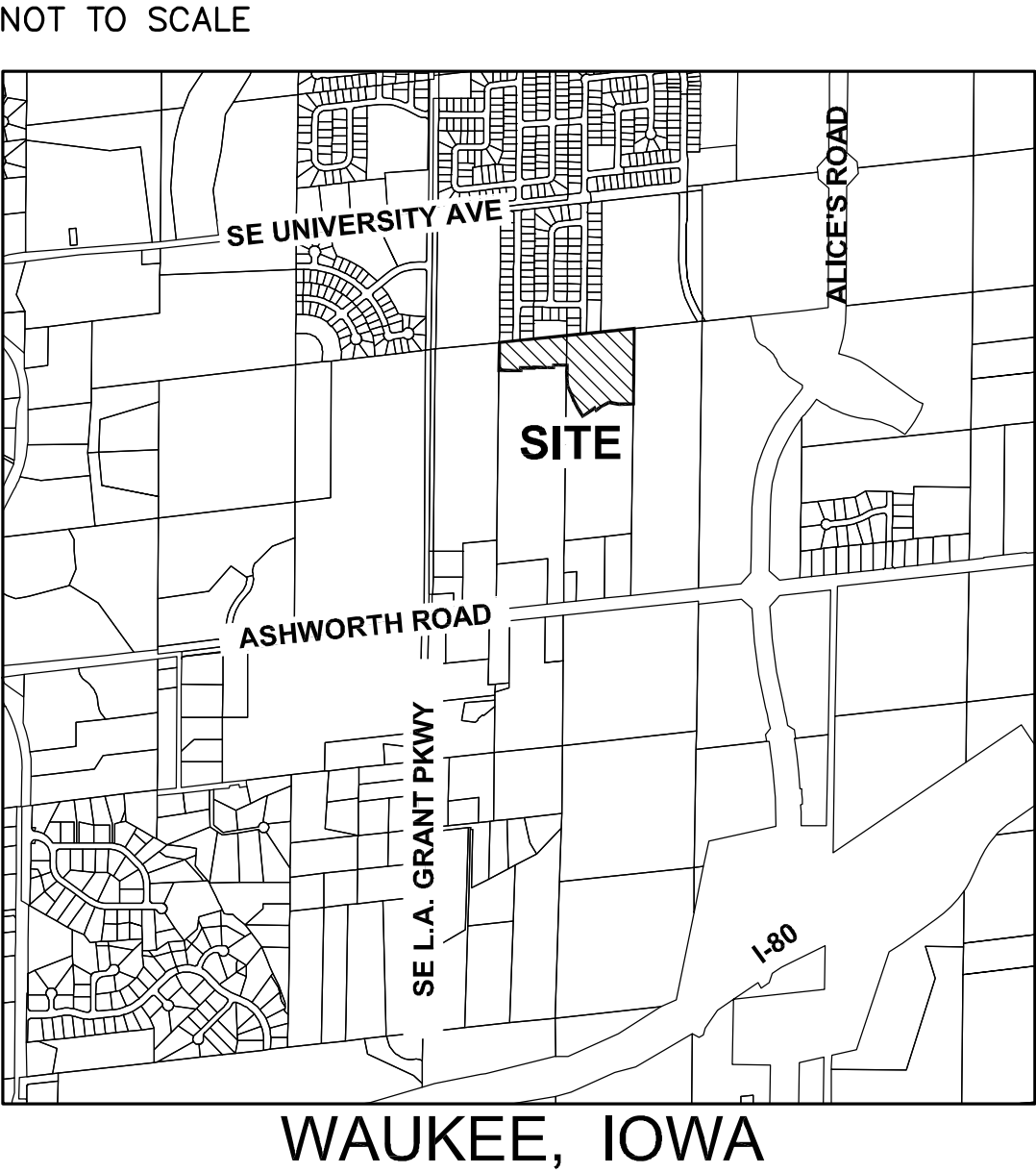
WAUKEE, IOWA

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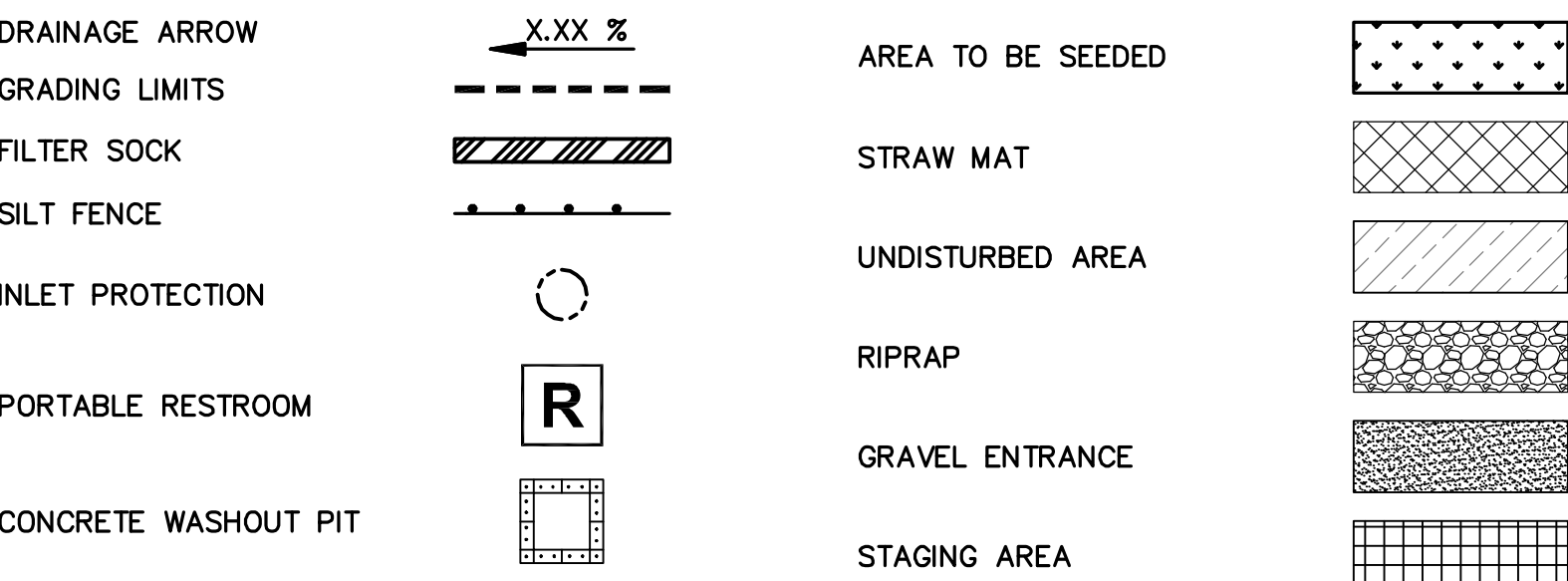
KETTLESTONE RIDGE PLAT 1

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP



SWPPP LEGEND

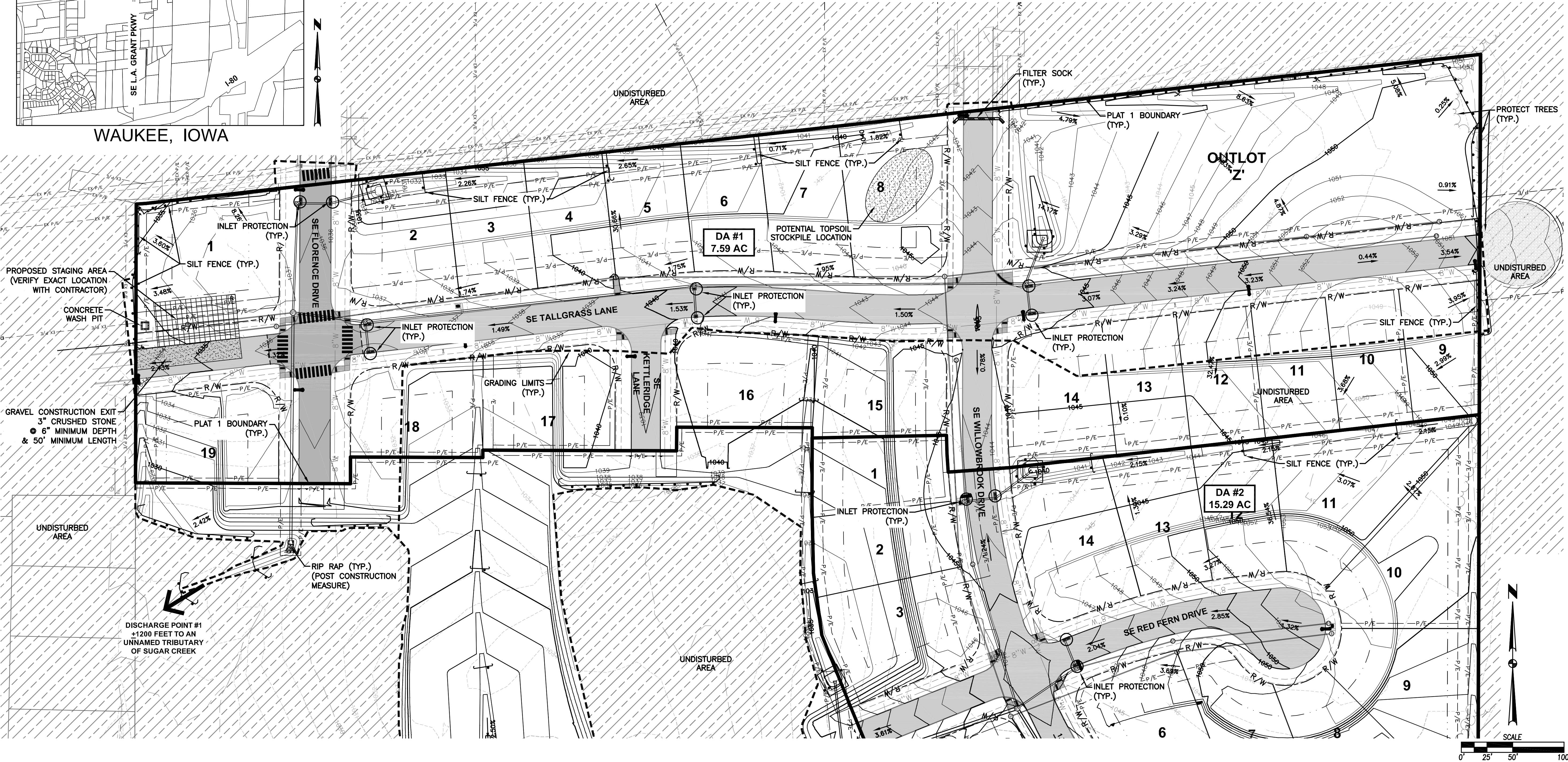


DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO UNNAMED TRIBUTARY OF SUGAR CREEK ±1200 FT	DISCHARGE POINT #2 TO AN UNNAMED TRIBUTARY OF SUGAR CREEK ±200 FT
TOTAL AREA DISTURBED TO DISCHARGE POINT	15.29 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	55,044 CU FT
VOLUME PROVIDED IN MISCELLANEOUS SILT FENCE (1,266 LF - CALCULATED)	VOLUME PROVIDED IN TEMPORARY SEDIMENT BASIN
VOLUME PROVIDED IN FILTER SOCK (50 LF @ 2.0 CU FT/LF)	VOLUME PROVIDED IN SILT FENCE (595 LF @ 4.5 CU FT/LF)
VOLUME PROVIDED IN SILT FENCE WITHIN SWALES (477 LF @ 15 CU FT/LF)	VOLUME PROVIDED IN SILT FENCE WITHIN SWALES (1,051 LF @ 15 CU FT/LF)
TOTAL VOLUME PROVIDED	72,717 CU FT

STABILIZATION QUANTITIES

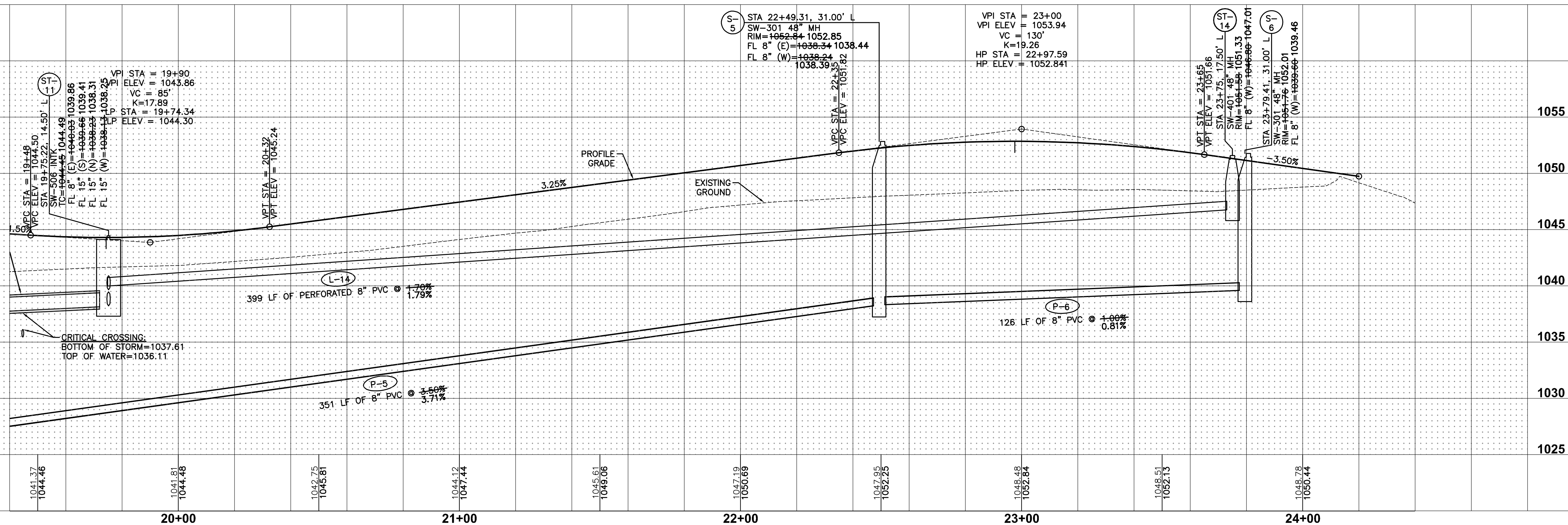
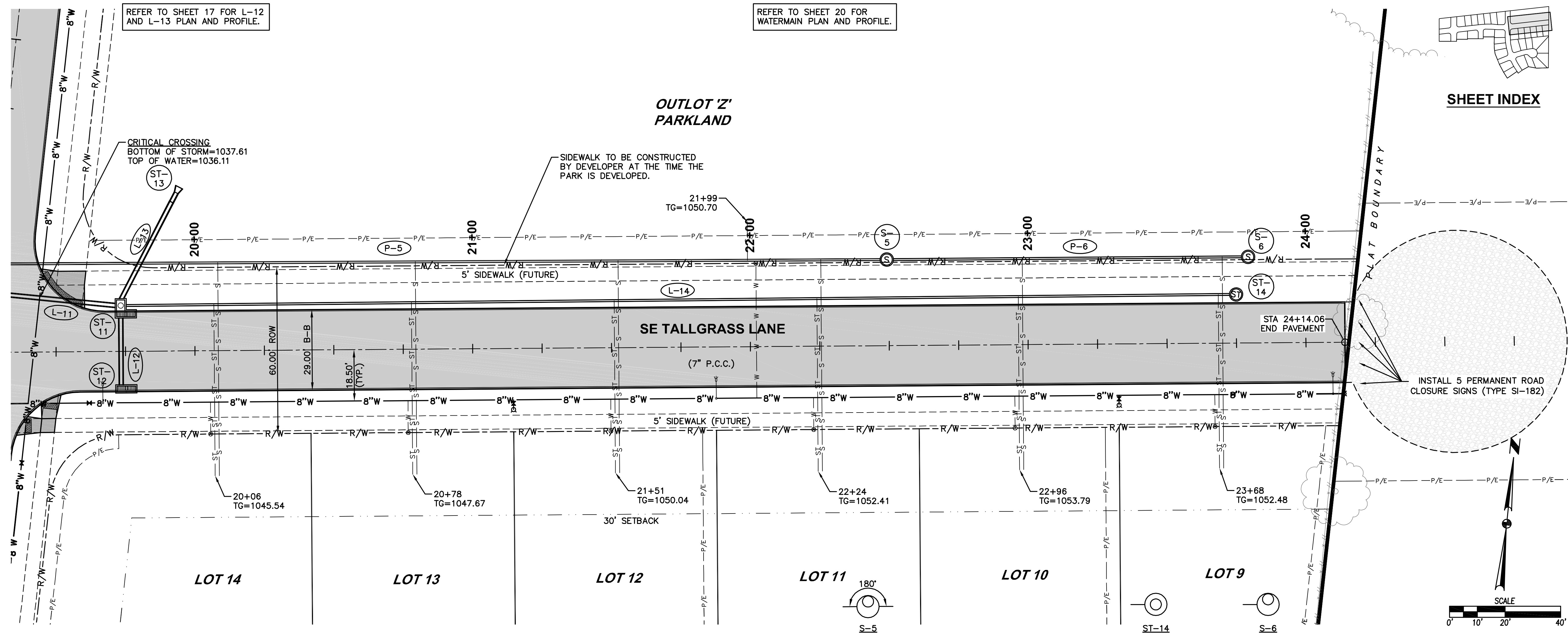
ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	3,389
2	FILTER SOCK	LF	50
3	SEEDING, FERTILIZING, AND MULCHING	AC	20.79
4	INLET PROTECTION DEVICES	EA	14
5	CONCRETE WASHOUT PIT	EA	1



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PLOT BY: JARED MURRAY

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PLOT BY: JARED MURRAY DESIGNED BY: EKO





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 PLOTTED BY: JARED MURRAY
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 DATE PLOTTED: 7/26/2016 3:20 PM
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REFER TO SHEET 17 FOR L-12
AND L-13 PLAN AND PROFILE.

REFER TO SHEET 20 FOR
WATERMAIN PLAN AND PROFILE.

OUTLOT 'Z'
PARKLAND

SHEET INDEX

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FOURTH SUBMITTAL	09/10/15
THIRD SUBMITTAL	08/28/15
SECOND SUBMITTAL	08/07/15
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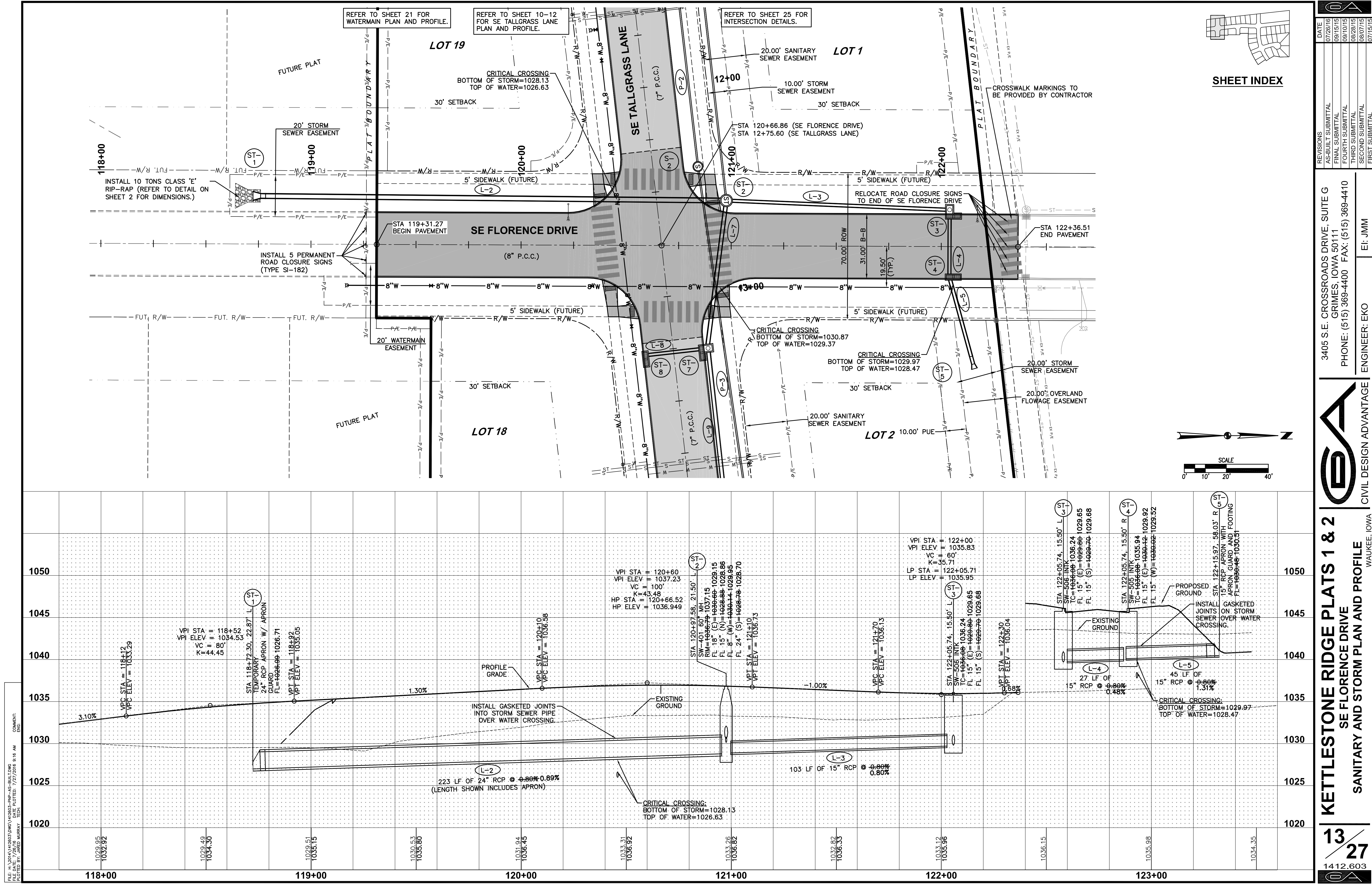
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ENGINEER: EKO	EI: JMM
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LITTLESTONE RIDGE PLATS 1 & 2
SE TALLGRASS LANE
SANITARY AND STORM PLAN AND PROFILE
WAUKEE, IOWA

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SHEET INDEX

DATE	REVISIONS
07/26/16	AS-BUILT SUBMITTAL
09/15/15	FINAL SUBMITTAL
09/10/15	FOURTH SUBMITTAL
08/28/15	THIRD SUBMITTAL
08/07/15	SECOND SUBMITTAL
07/15/15	FIRST SUBMITTAL

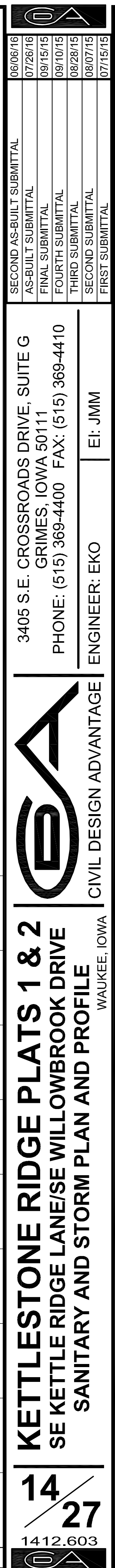
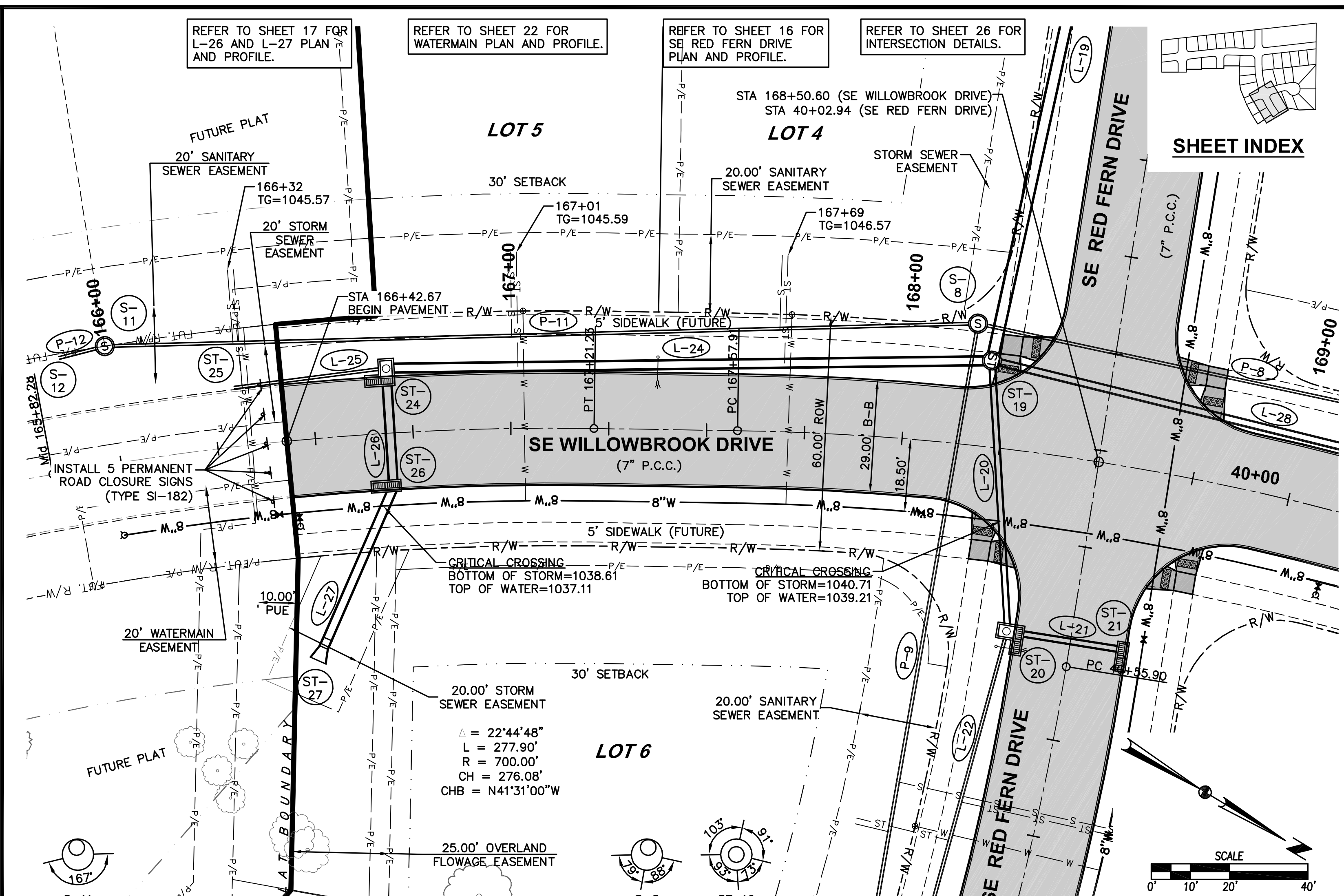
KETTLESTONE RIDGE PLATS 1 & 2
SE FLORENCE DRIVE
SANITARY AND STORM PLAN AND PROFILE

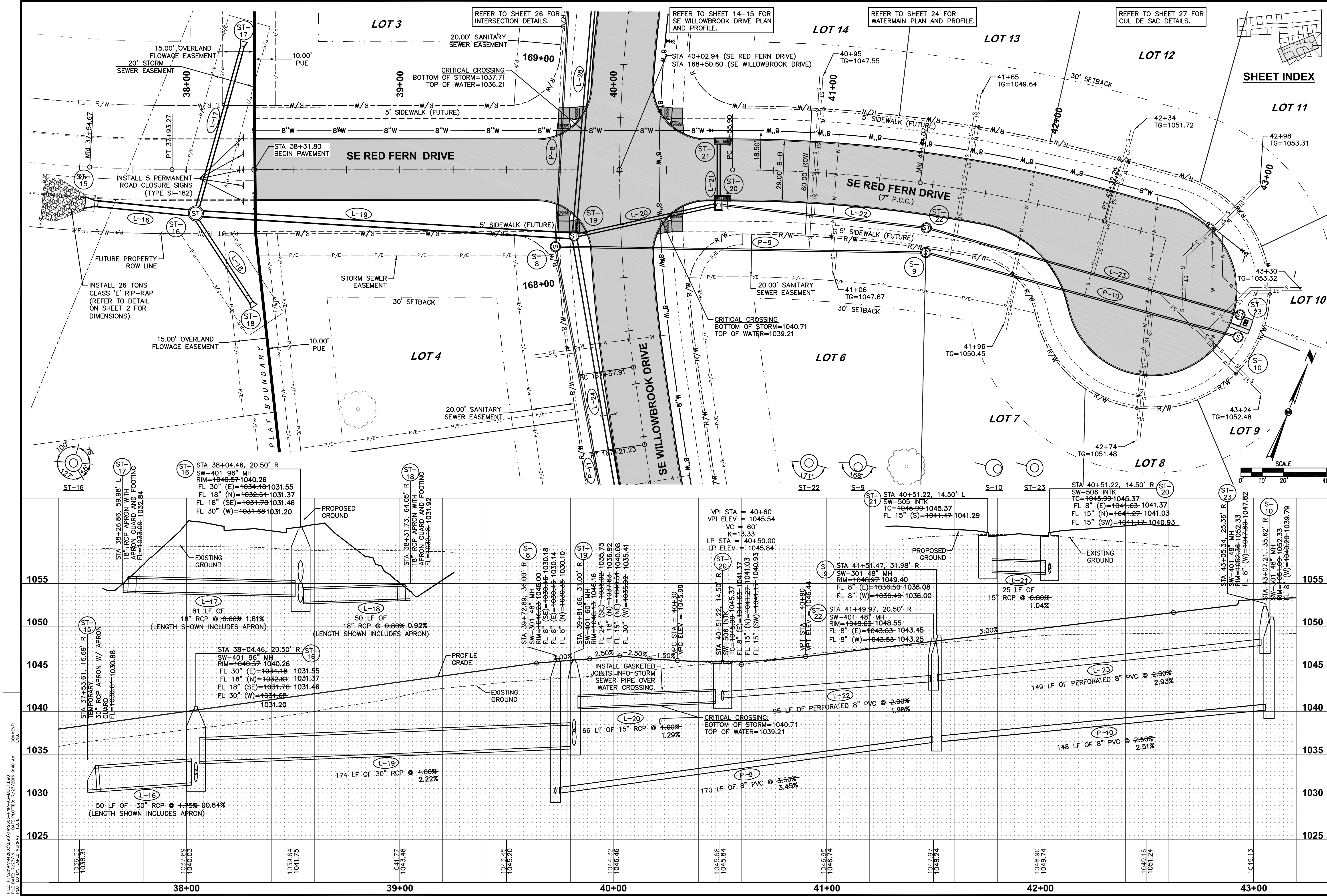
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CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA





DATE
07/26/16

AS-BUILT SUBMITTAL
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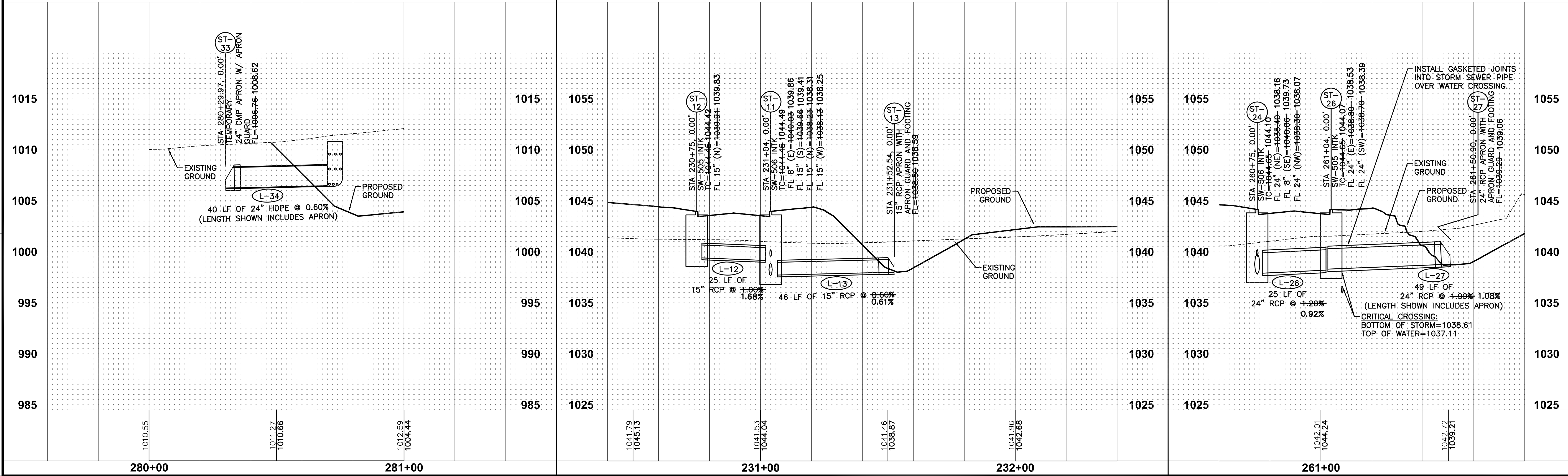
KETTLESTONE RIDGE PLATS 1 & 2

SE RED FERN COURT

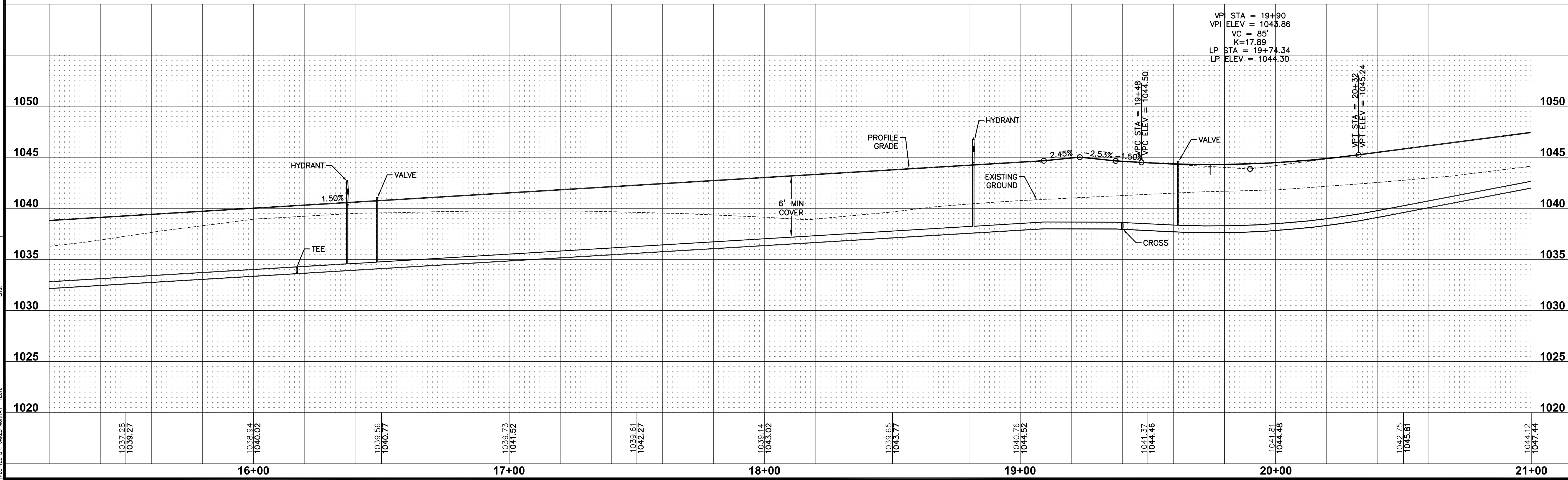
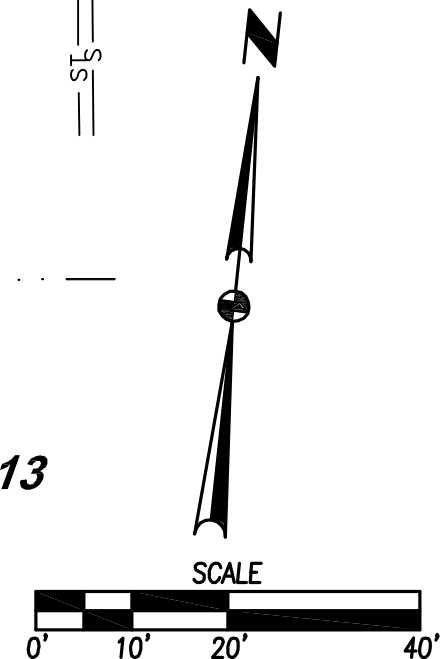
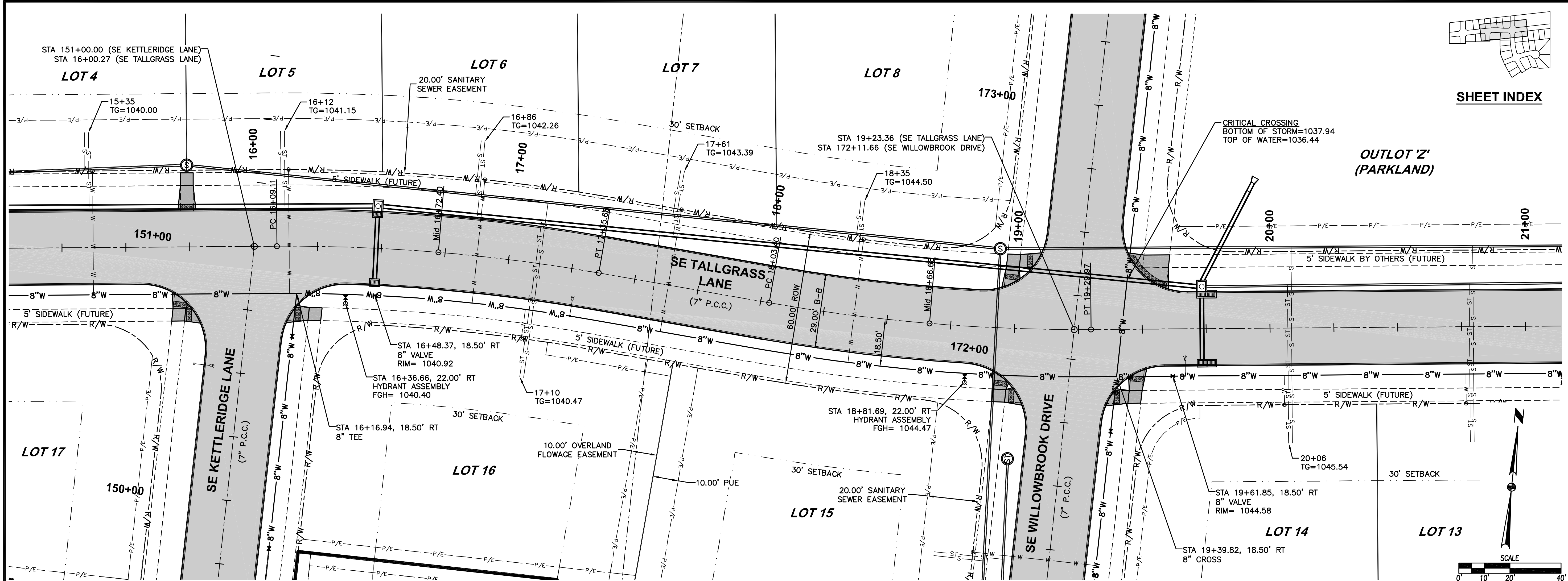
SANITARY AND STORM PLAN AND PROFILE

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA



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EI: JMM

KETTLESTONE RIDGE PLATS 1 & 2

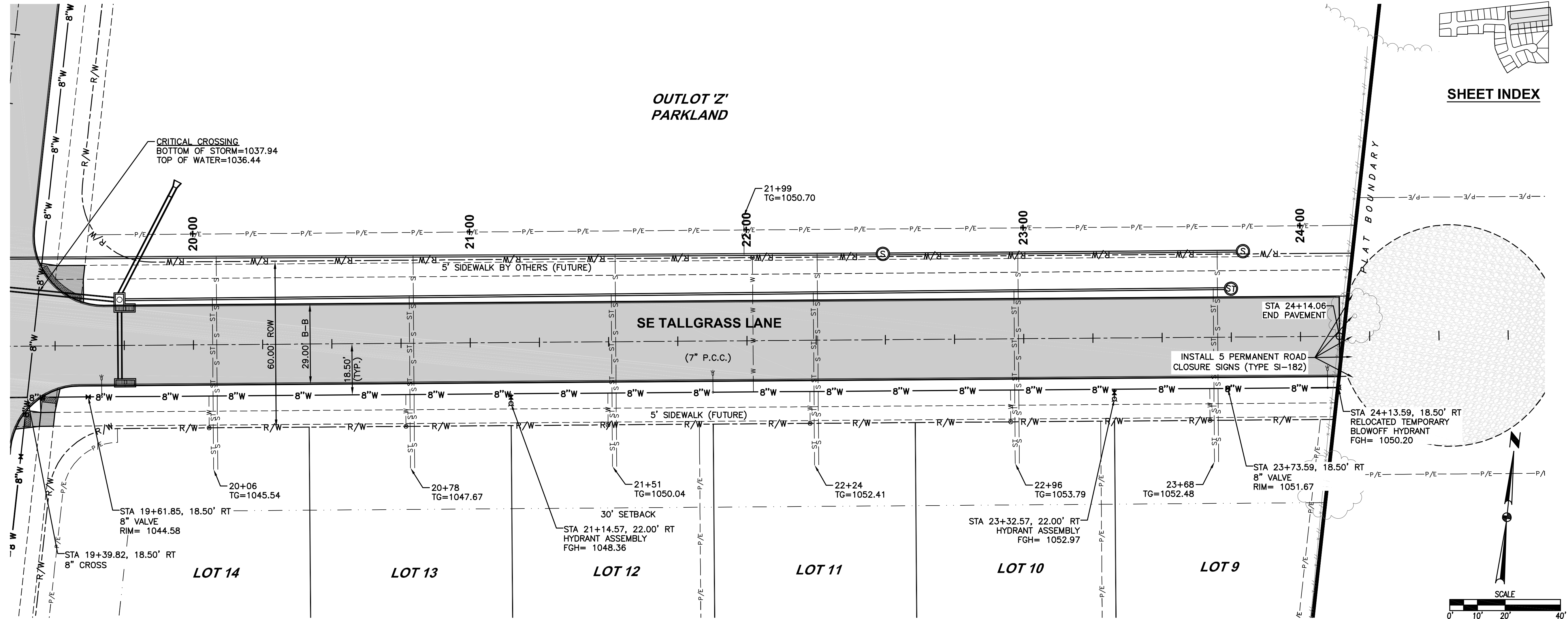
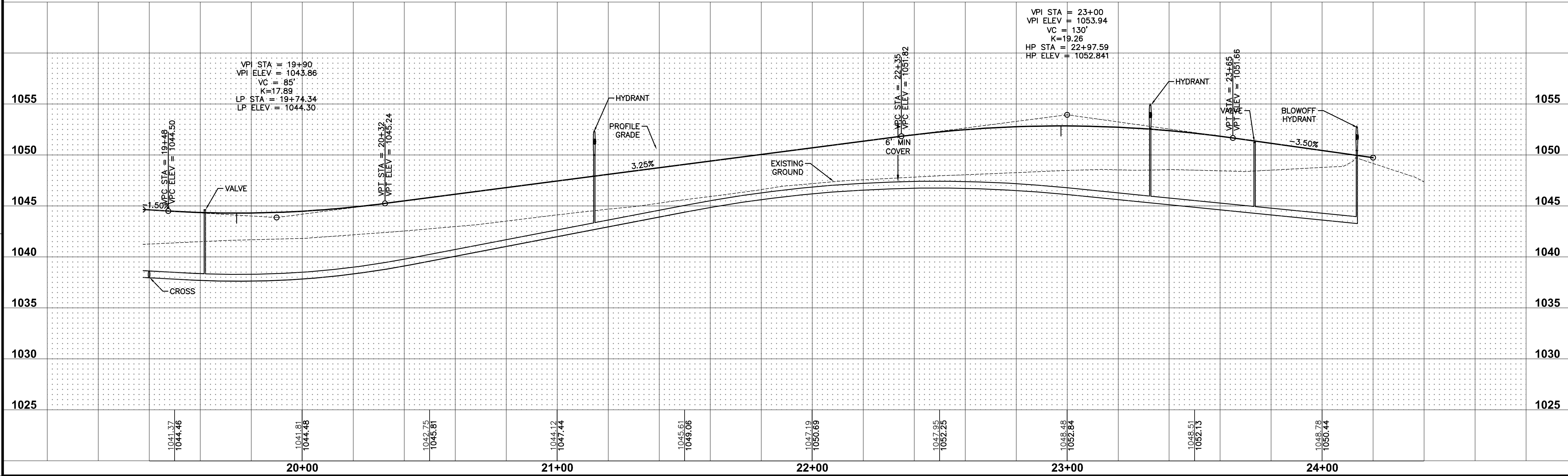
SE TALLGRASS LANE

WATERMAIN PLAN AND PROFILE

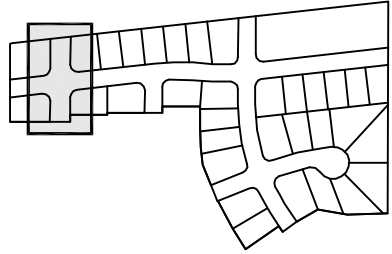
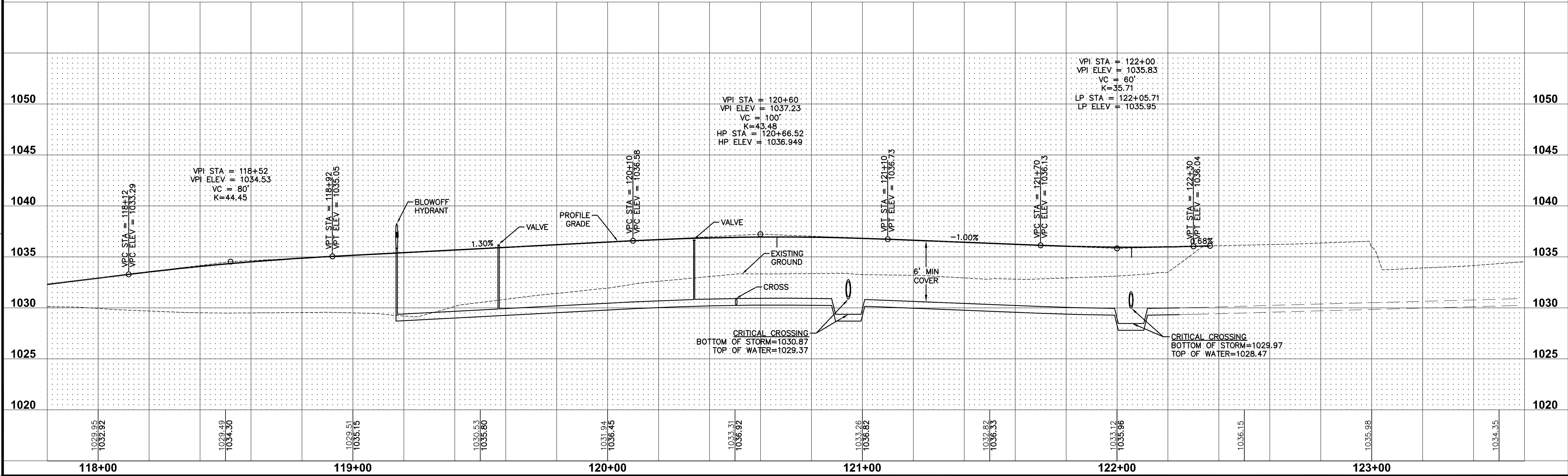
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PLOT BY: JARED MURRAY



SHEET INDEX

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SECOND AS-BUILT SUBMITTAL
AS-BUILT SUBMITTAL
FINAL SUBMITTAL
FOURTH SUBMITTAL
THIRD SUBMITTAL
SECOND SUBMITTAL
FIRST SUBMITTAL

3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

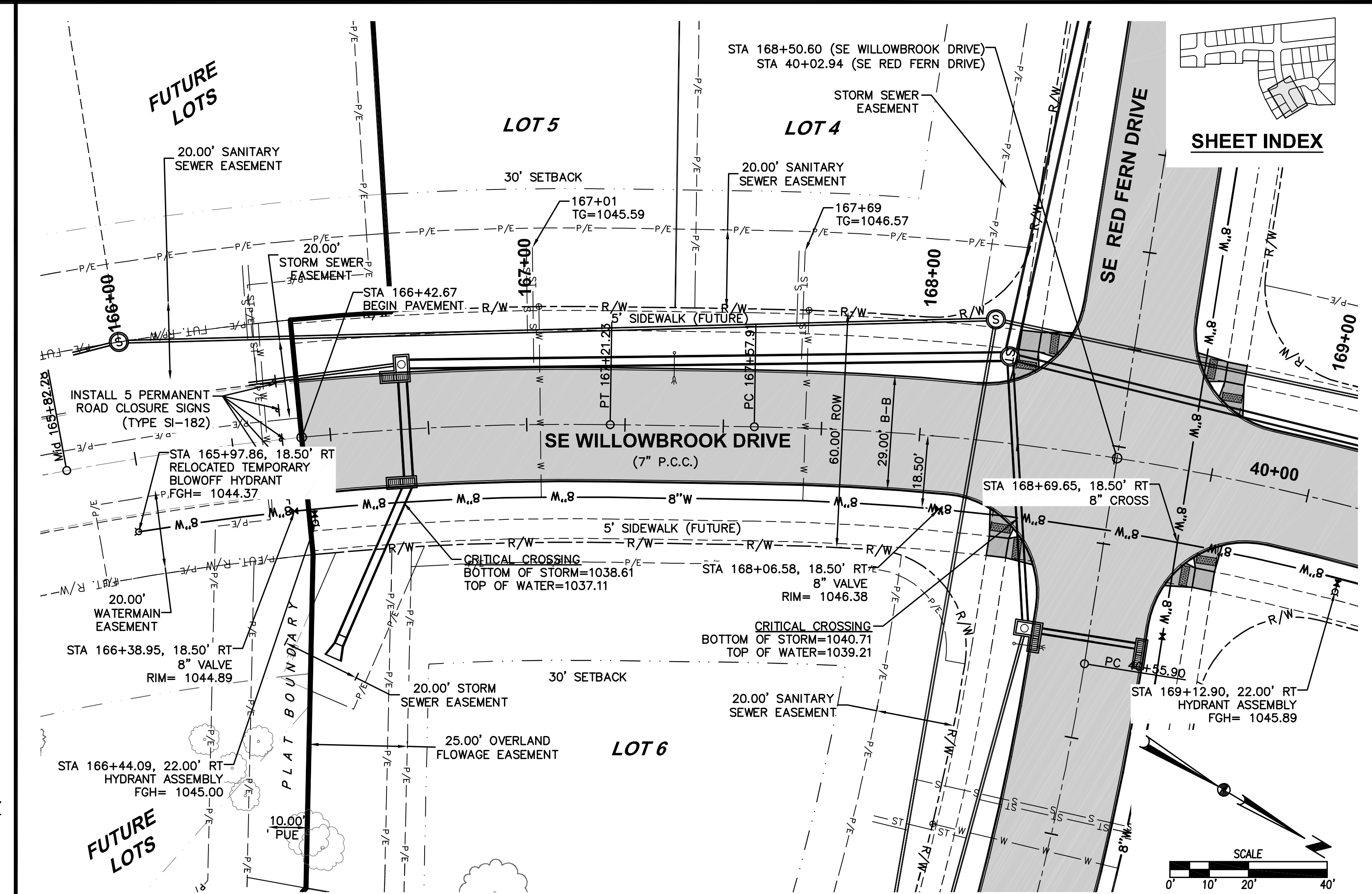
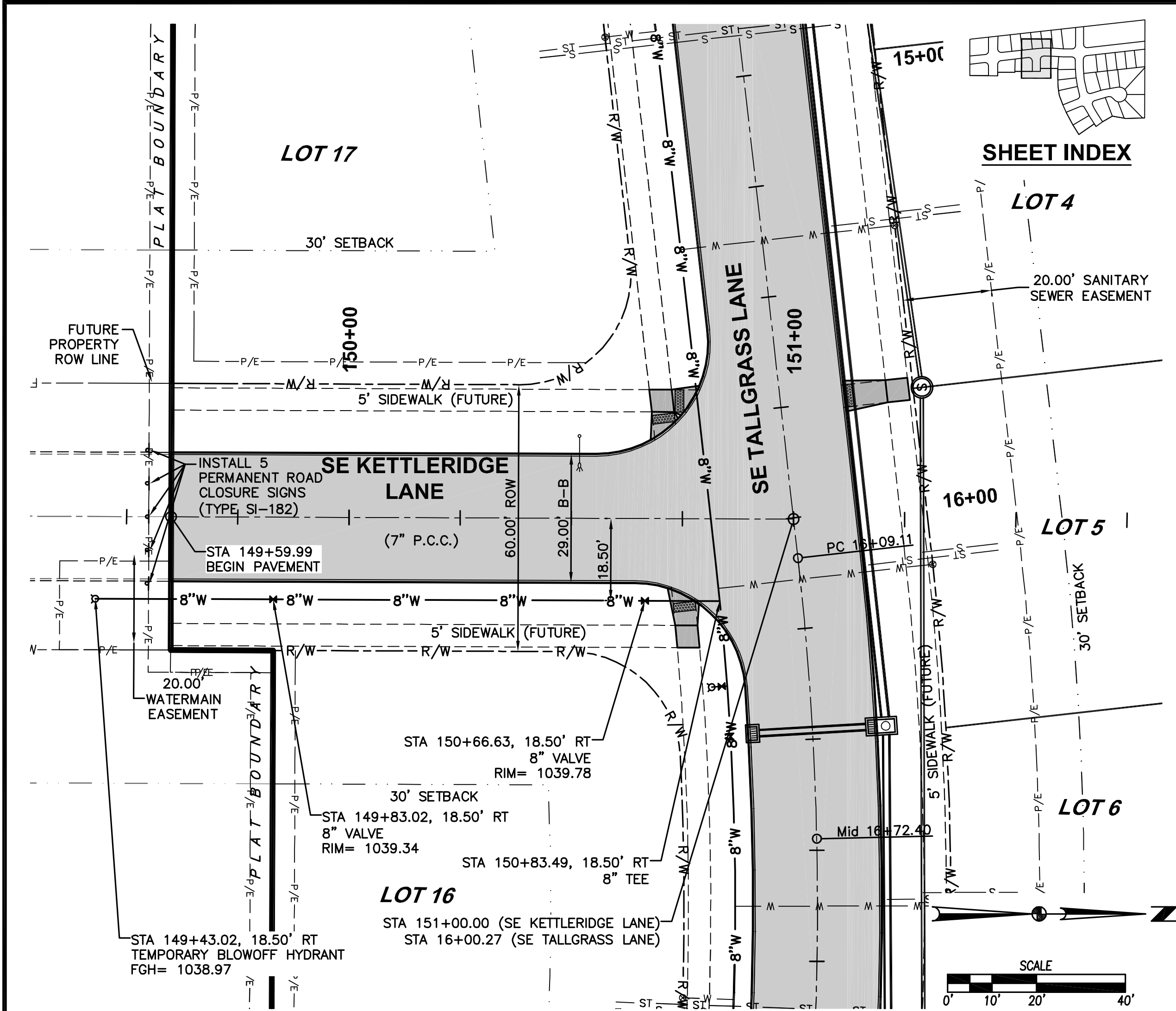
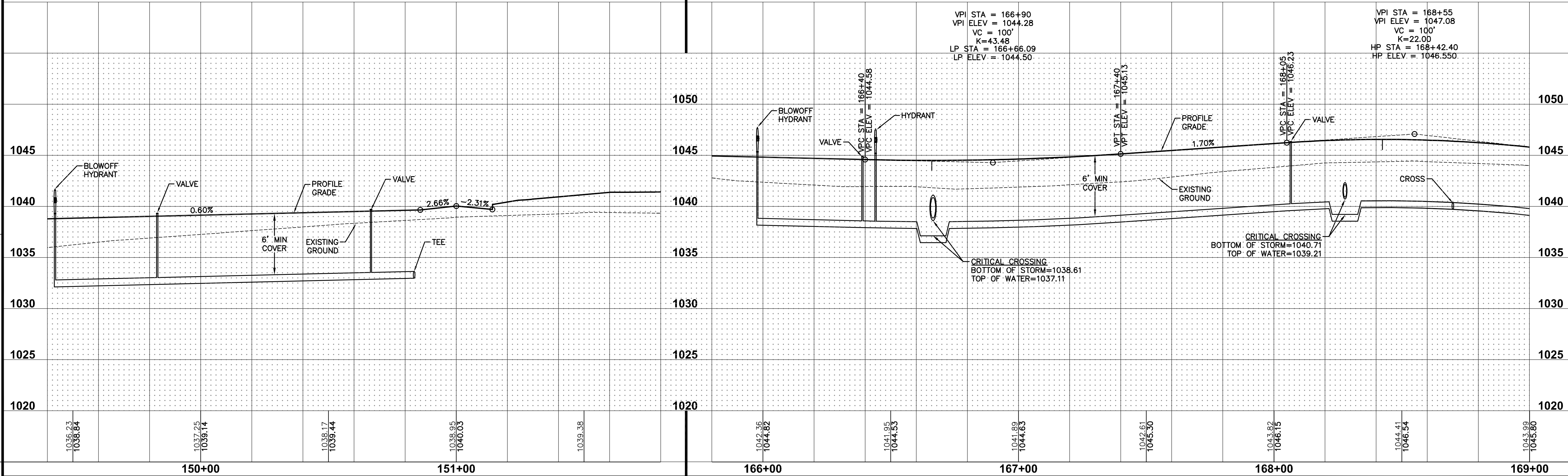
ENGINEER: EKO
Ei: JMM

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KETTLESTONE RIDGE PLATS 1 & 2
SE FLORENCE DRIVE
WATERMAIN PLAN AND PROFILE
WAUKEE, IOWA

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PLOT: 142603-PWP-WATERMAIN.DWG



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GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

CIVIL DESIGN ADVANTAGE

ENGINEER: EKO

EI: JMM

KETTLESTONE RIDGE PLATS 1 & 2

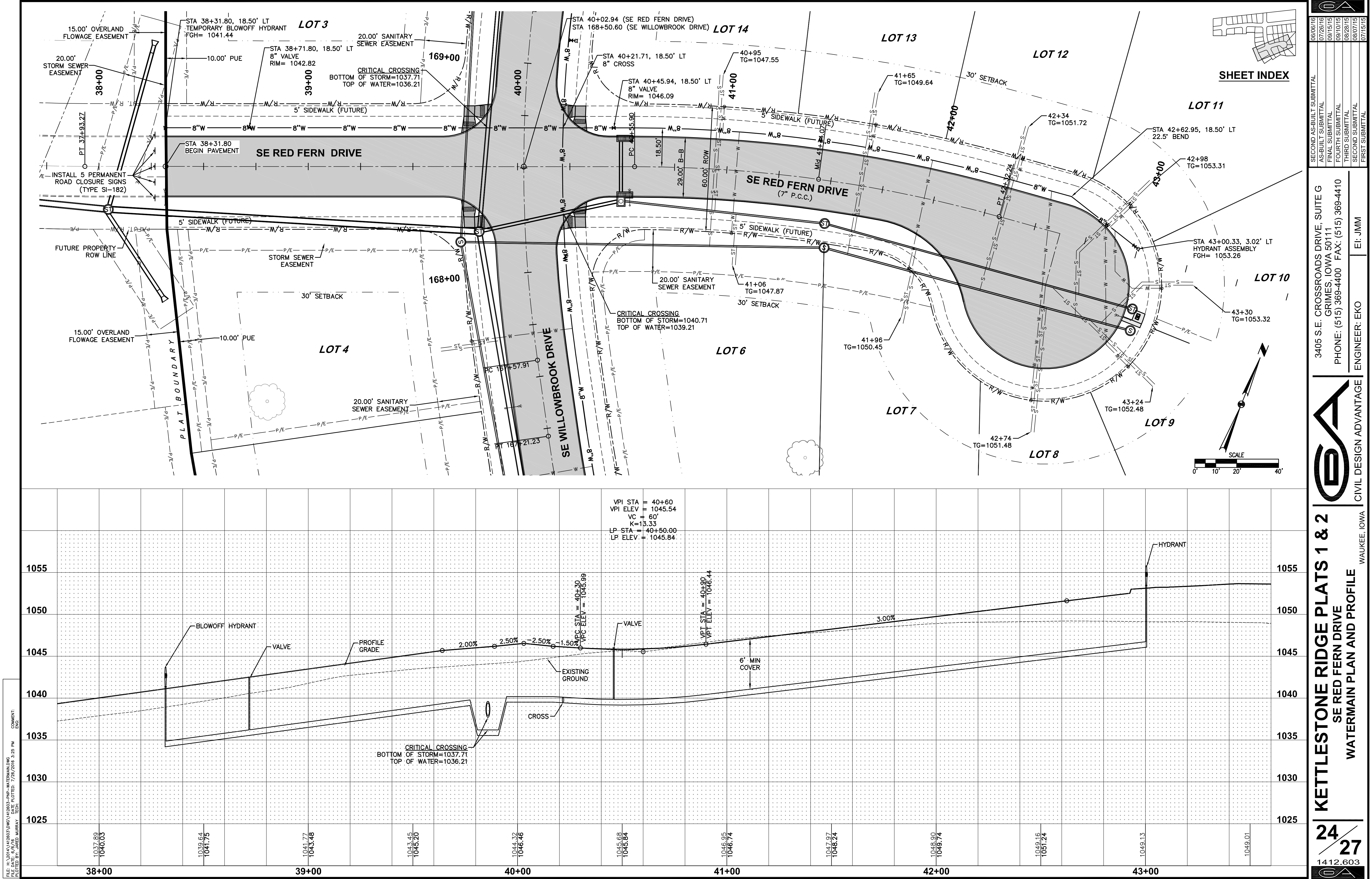
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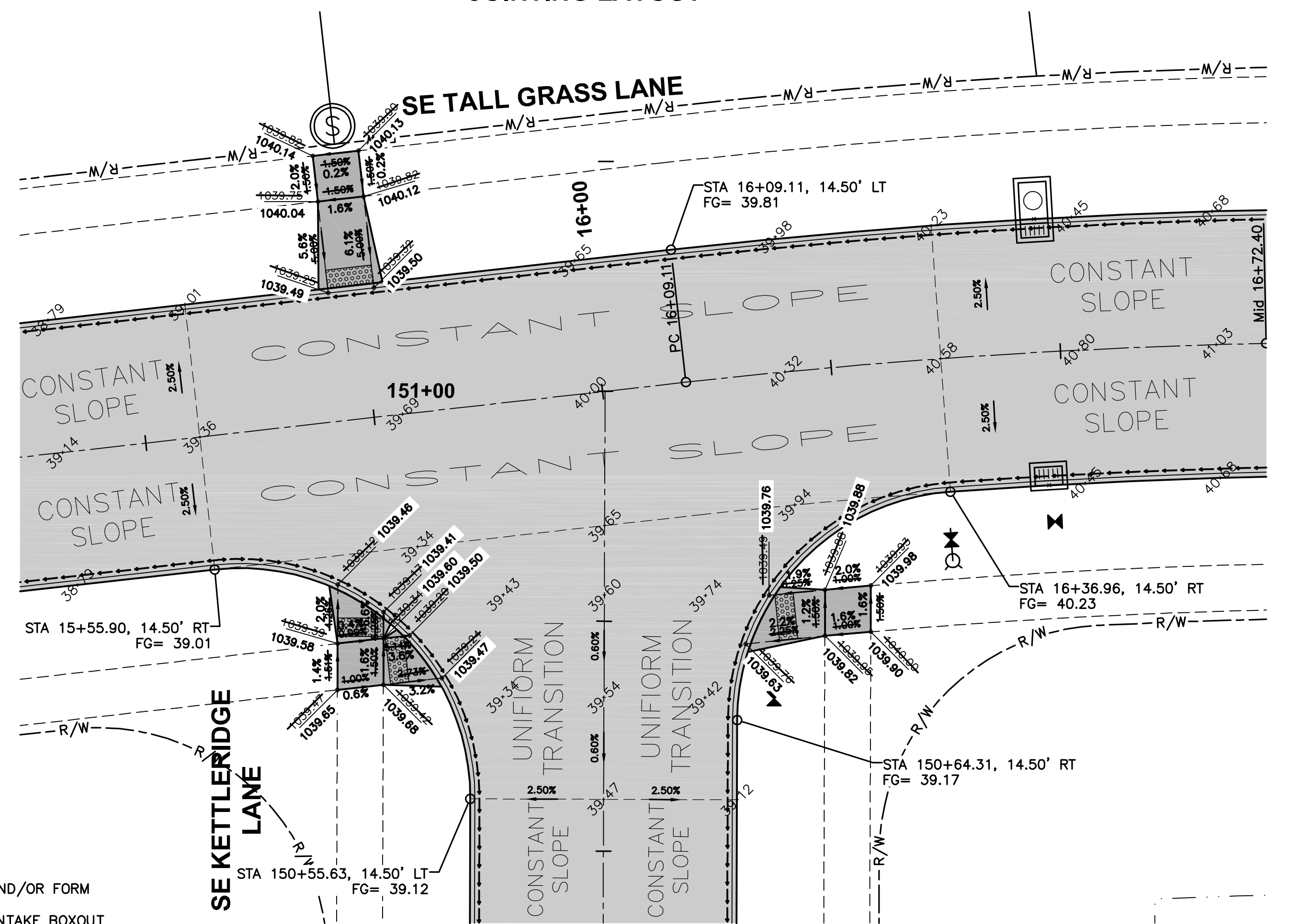
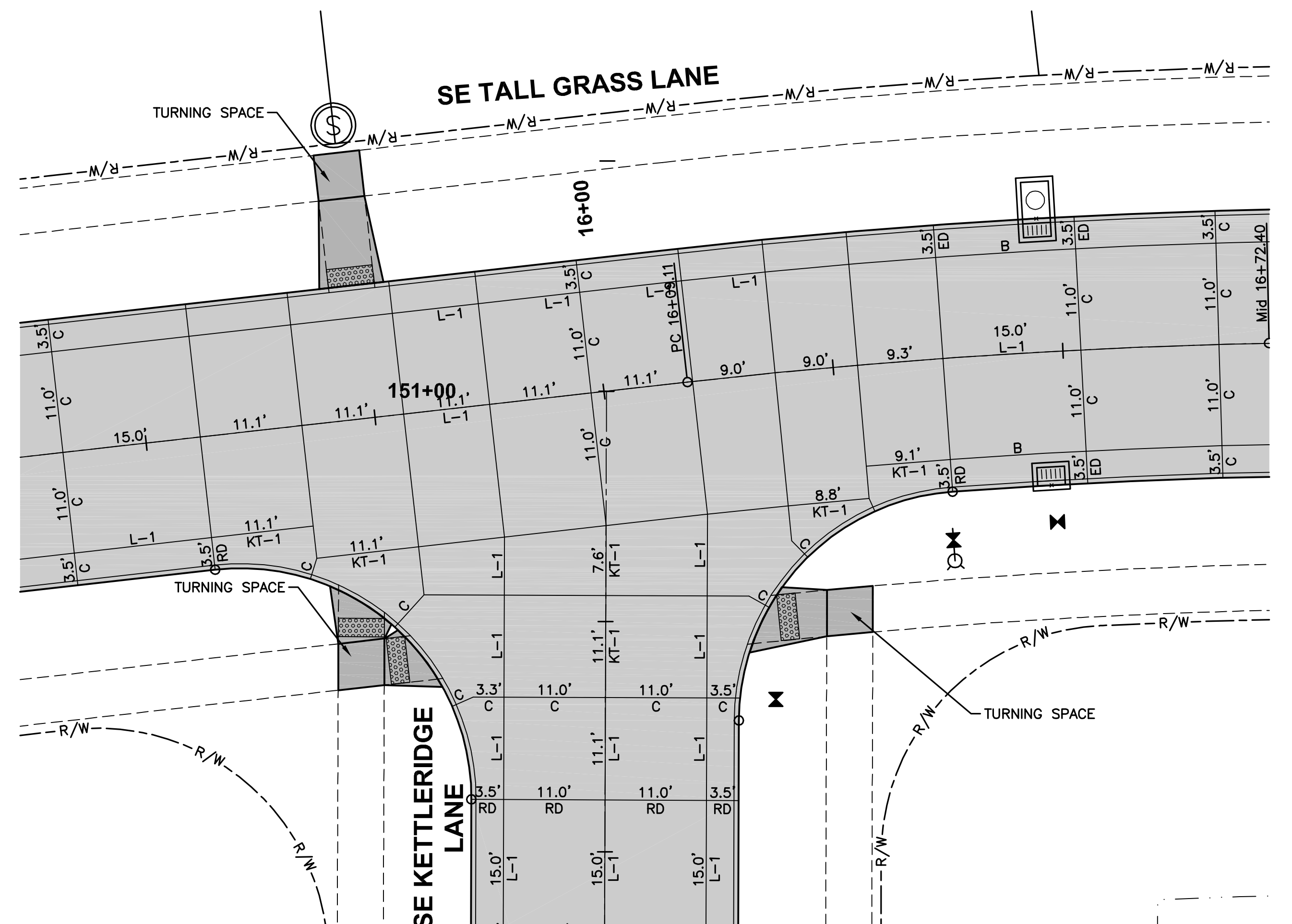
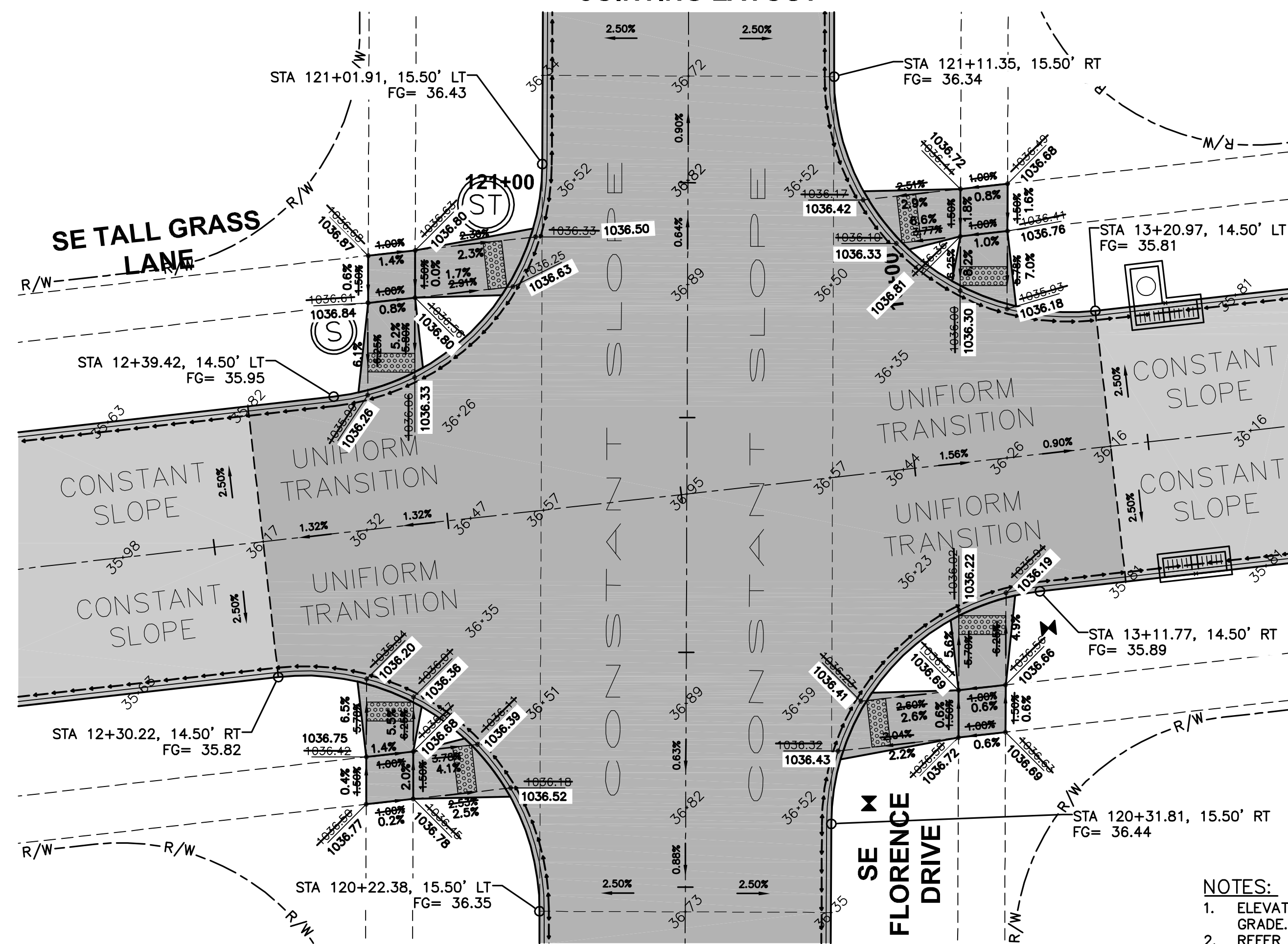
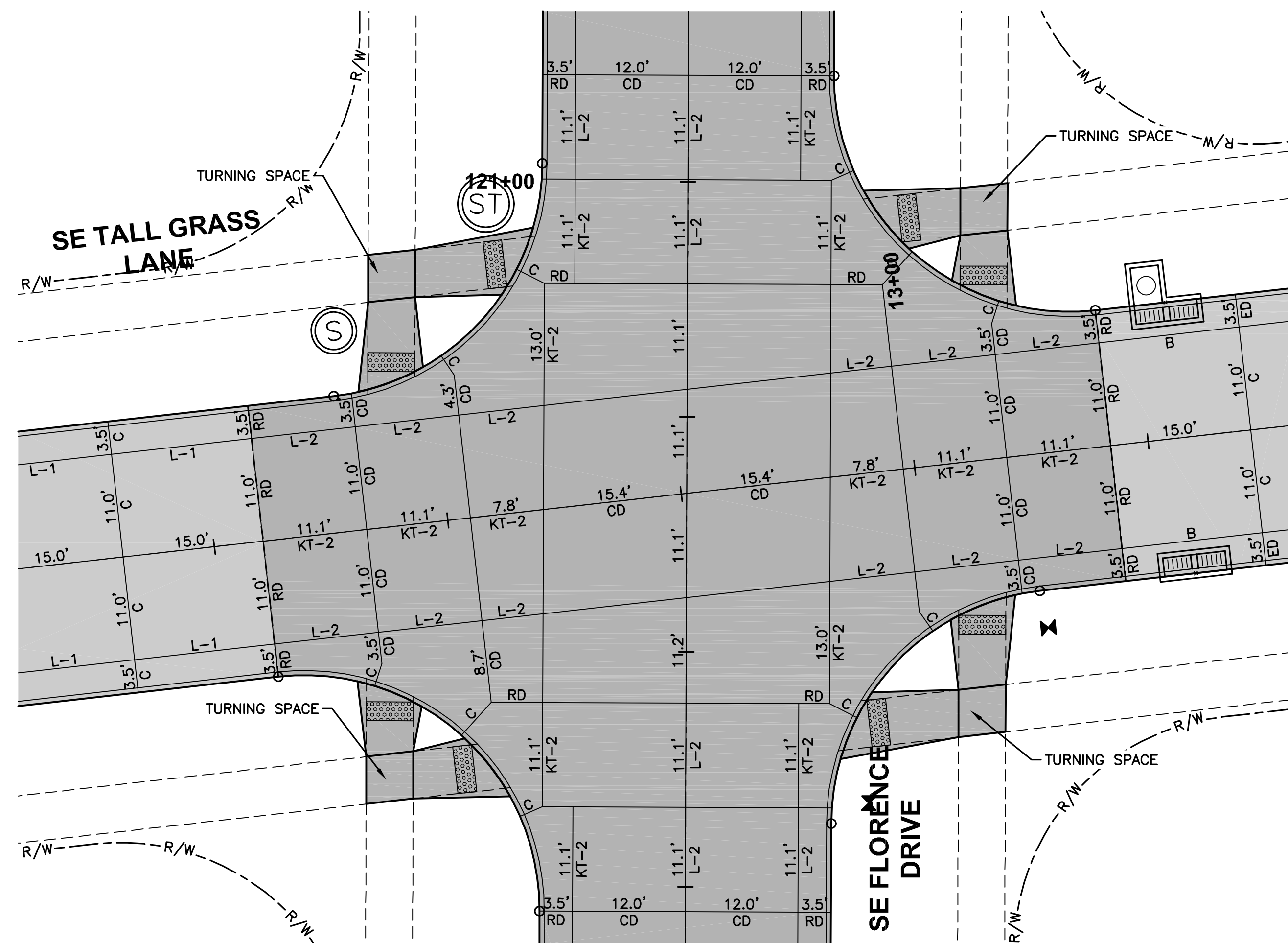
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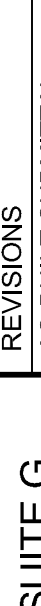
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FILE DATE: 7/26/16
PLOT BY: JARED MURRAY
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1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.



KETTLESTONE RIDGE PLATS 1 & 2

INTERSECTION DETAILS

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1412.603

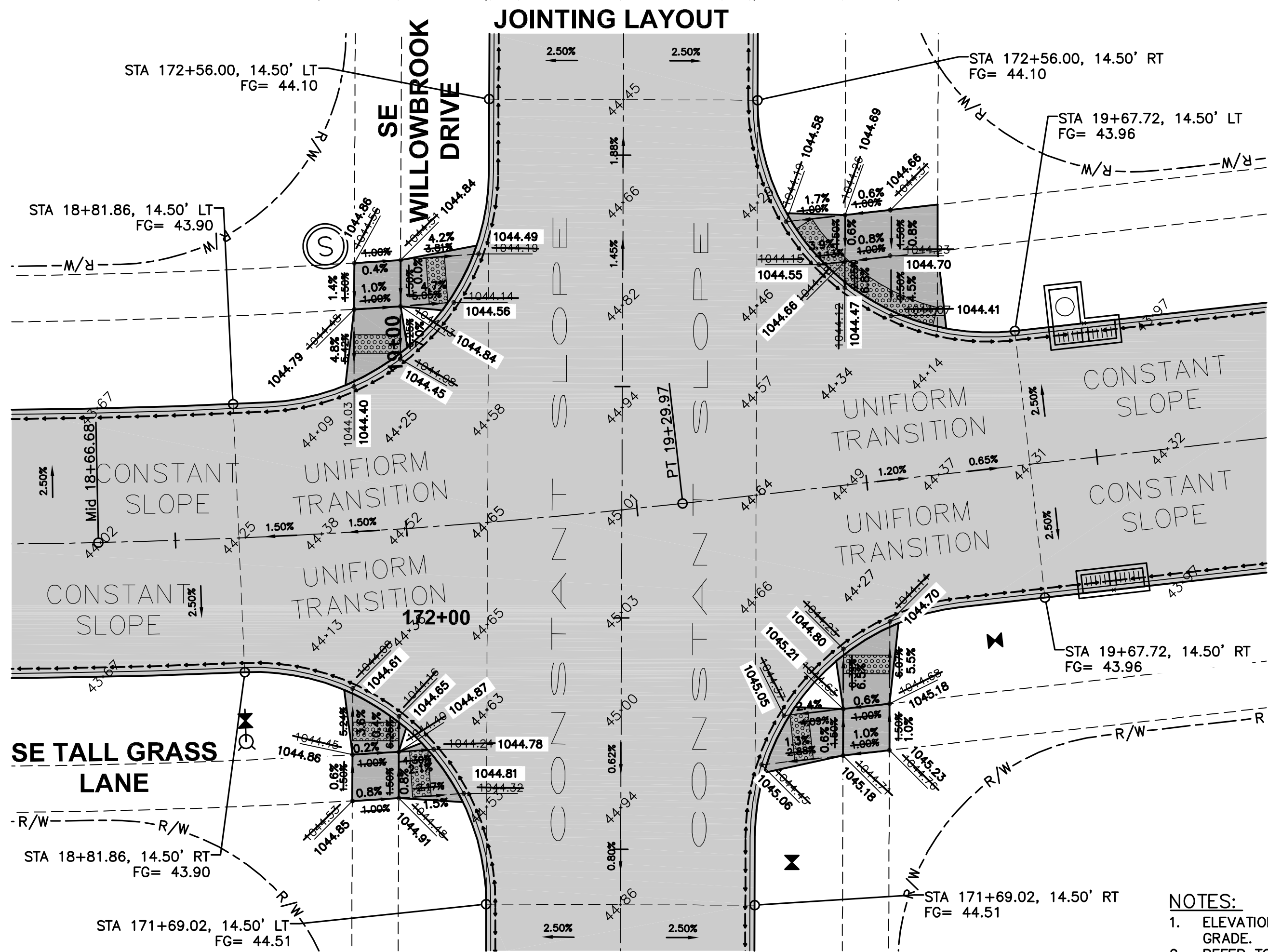
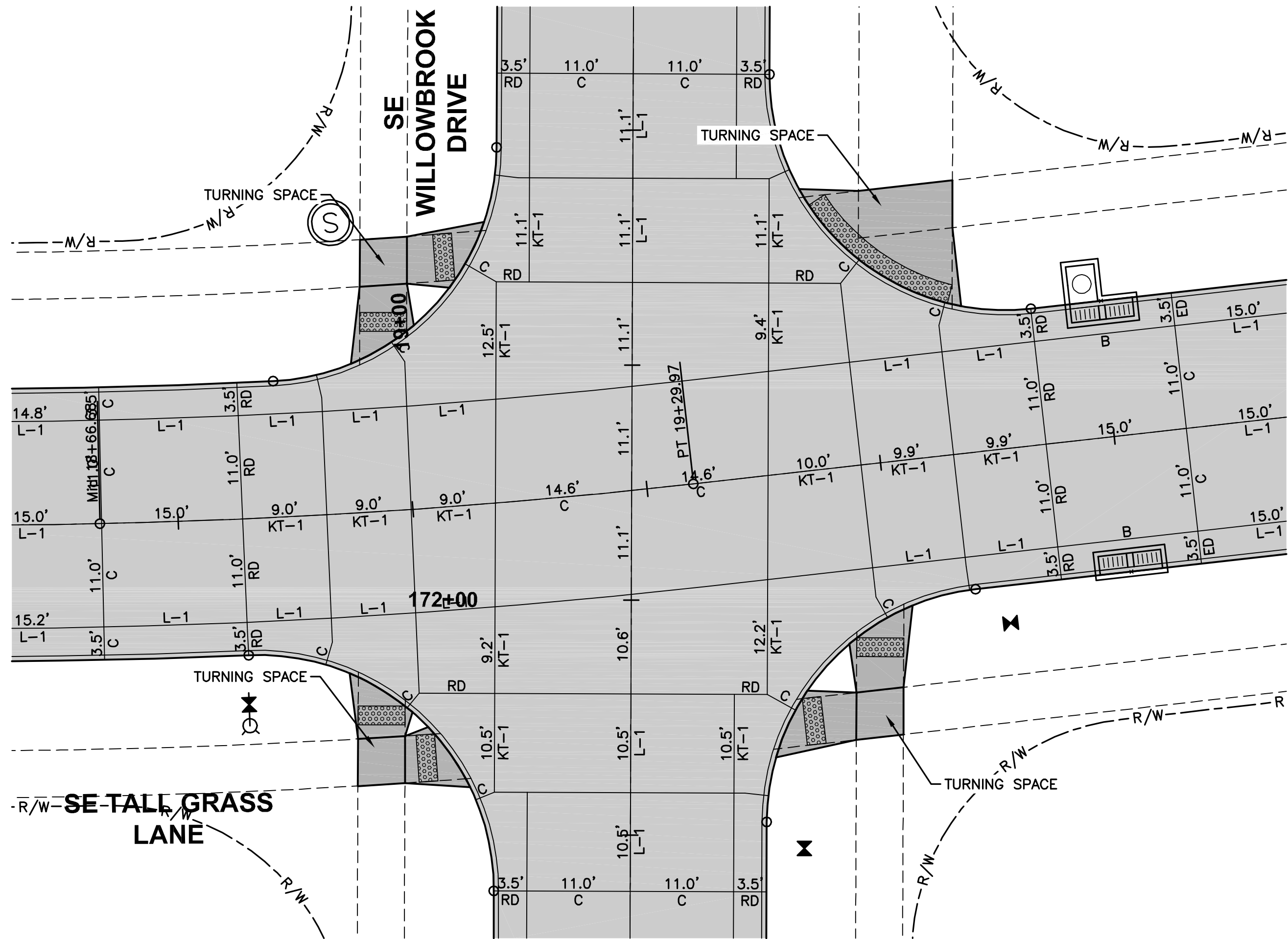
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

ENGINEER: EKO

EIT: JMM

REVISONS	DATE
AS-BUILT SUBMITTAL	07/26/16
FINAL SUBMITTAL	09/15/15
FOURTH SUBMITTAL	09/10/15
THIRD SUBMITTAL	08/28/15
SECOND SUBMITTAL	08/07/15
FIRST SUBMITTAL	07/15/15

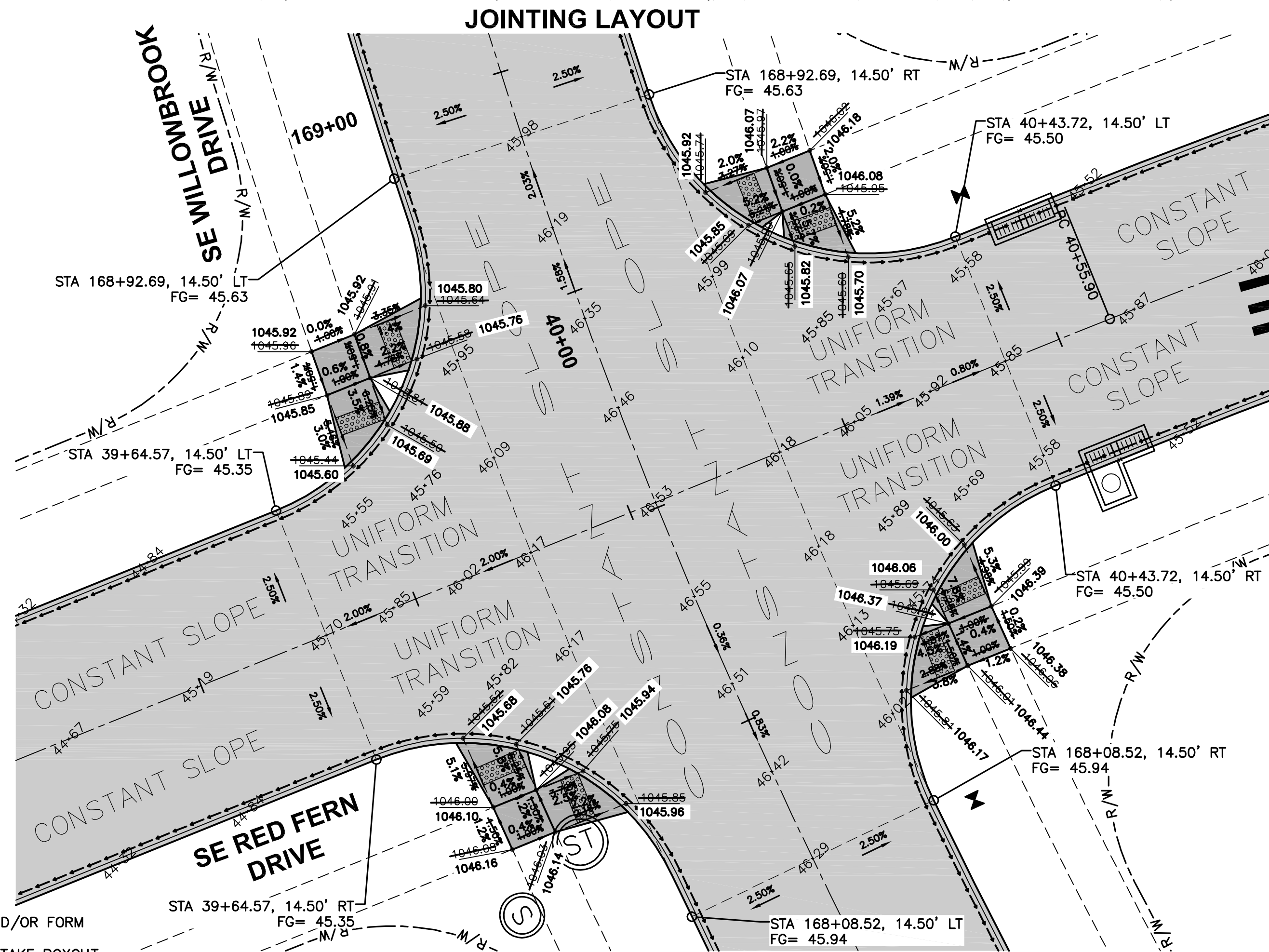
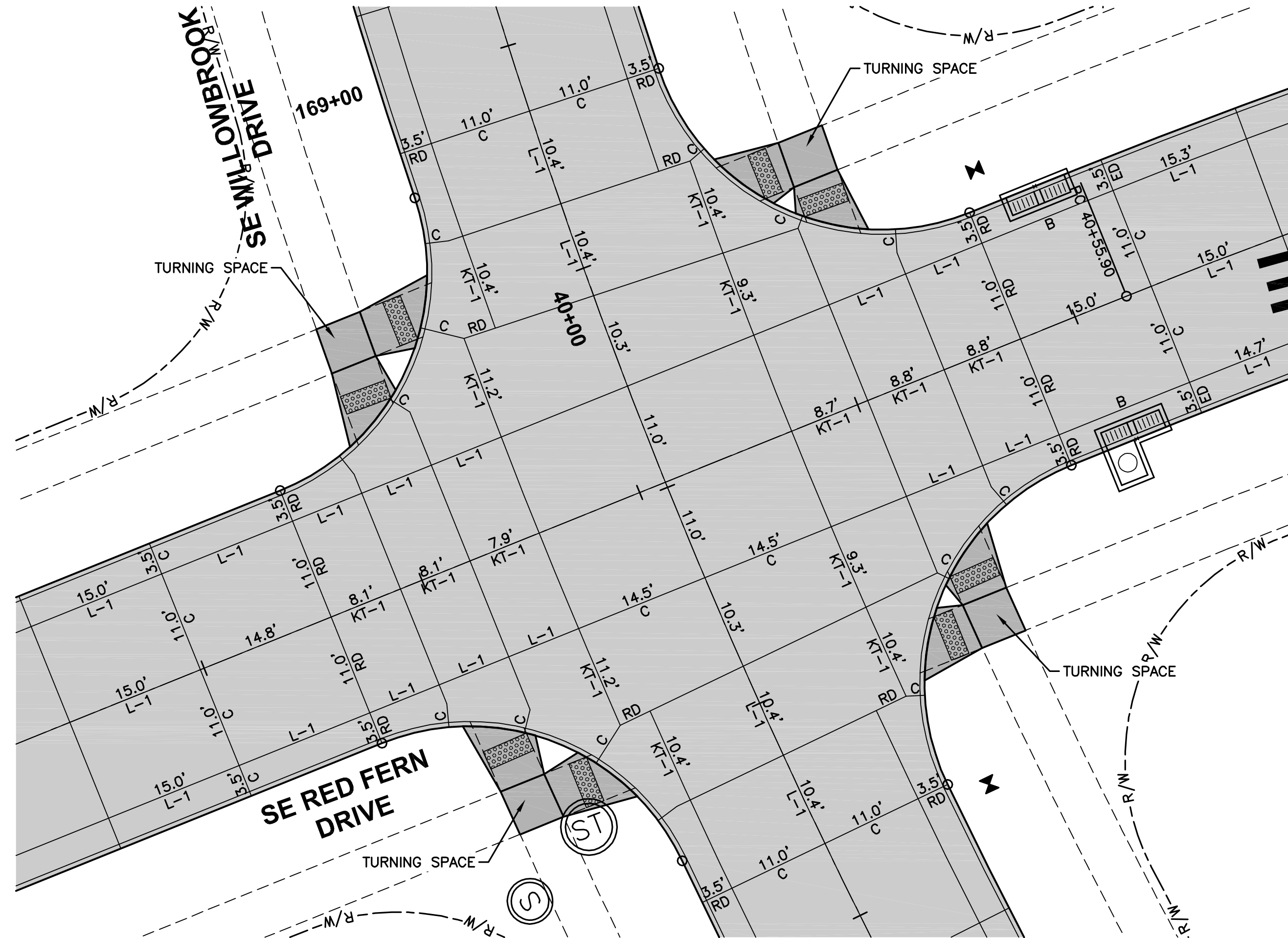
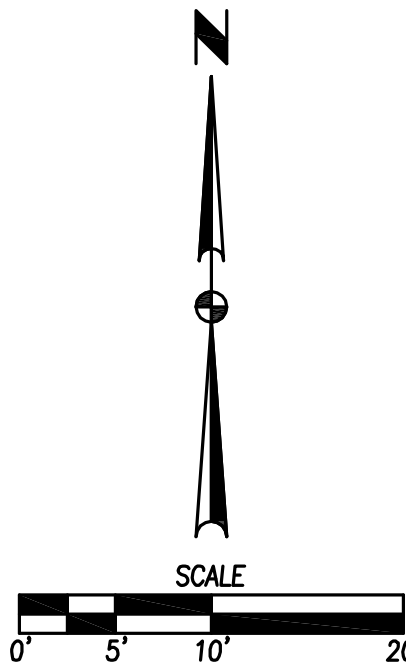
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PLOT BY: JARED MURRAY
DATE: 07/26/16



GEOMETRICS AND STAKING LAYOUT

NOTES:

- ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
- REFER TO FIGURE 6010.514 FOR GRADE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.



GEOMETRICS AND STAKING LAYOUT

REVISIONS	
DATE	DESCRIPTION
07/26/16	AS-BUILT SUBMITTAL
09/15/15	FINAL SUBMITTAL
09/10/15	FOURTH SUBMITTAL
08/28/15	THIRD SUBMITTAL
08/07/15	SECOND SUBMITTAL
07/15/15	FIRST SUBMITTAL

3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410	ENGINEER: EKO Ei: JMM
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CIVIL DESIGN ADVANTAGE

KETTLESTONE RIDGE PLATS 1 & 2

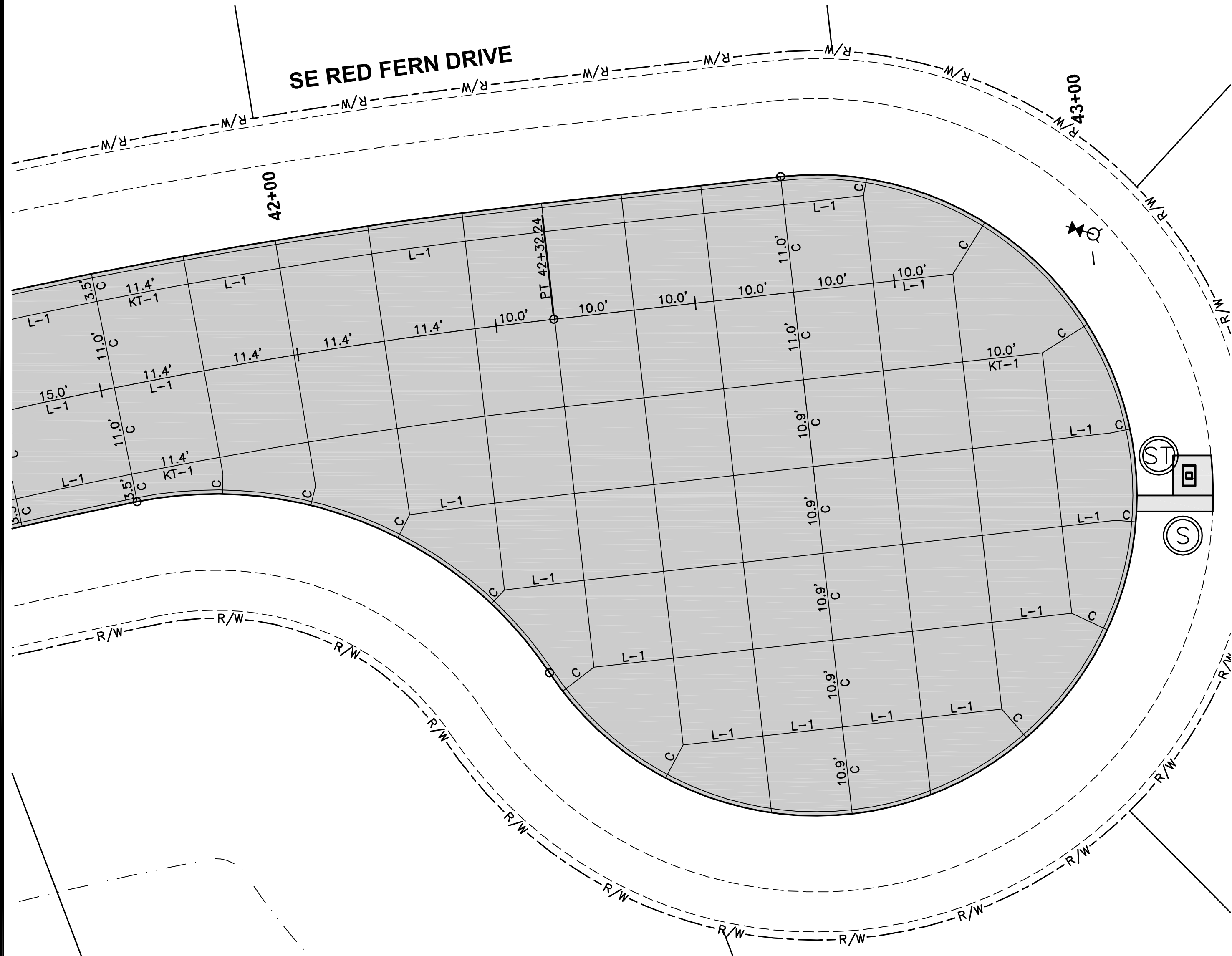
INTERSECTION DETAILS

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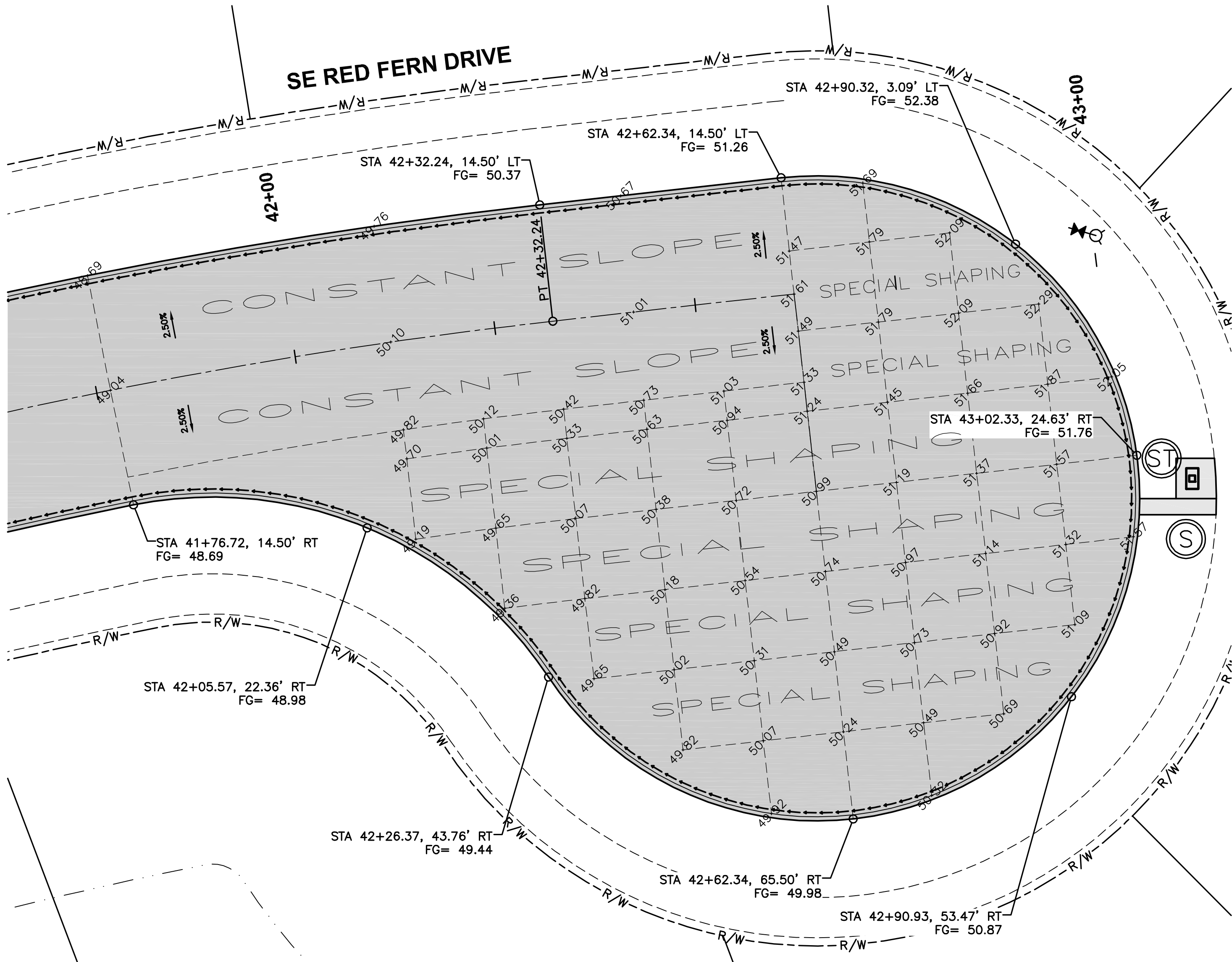
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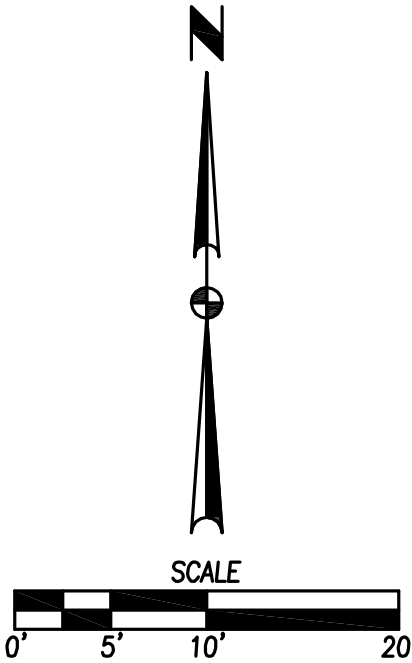
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PLOTTER: JARED MURRAY
CONVENT: ENU



JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT



- NOTES:
- ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
 - REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.

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	EI: JMM

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

KETTLESTONE RIDGE PLATS 1 & 2
INTERSECTION DETAILS

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