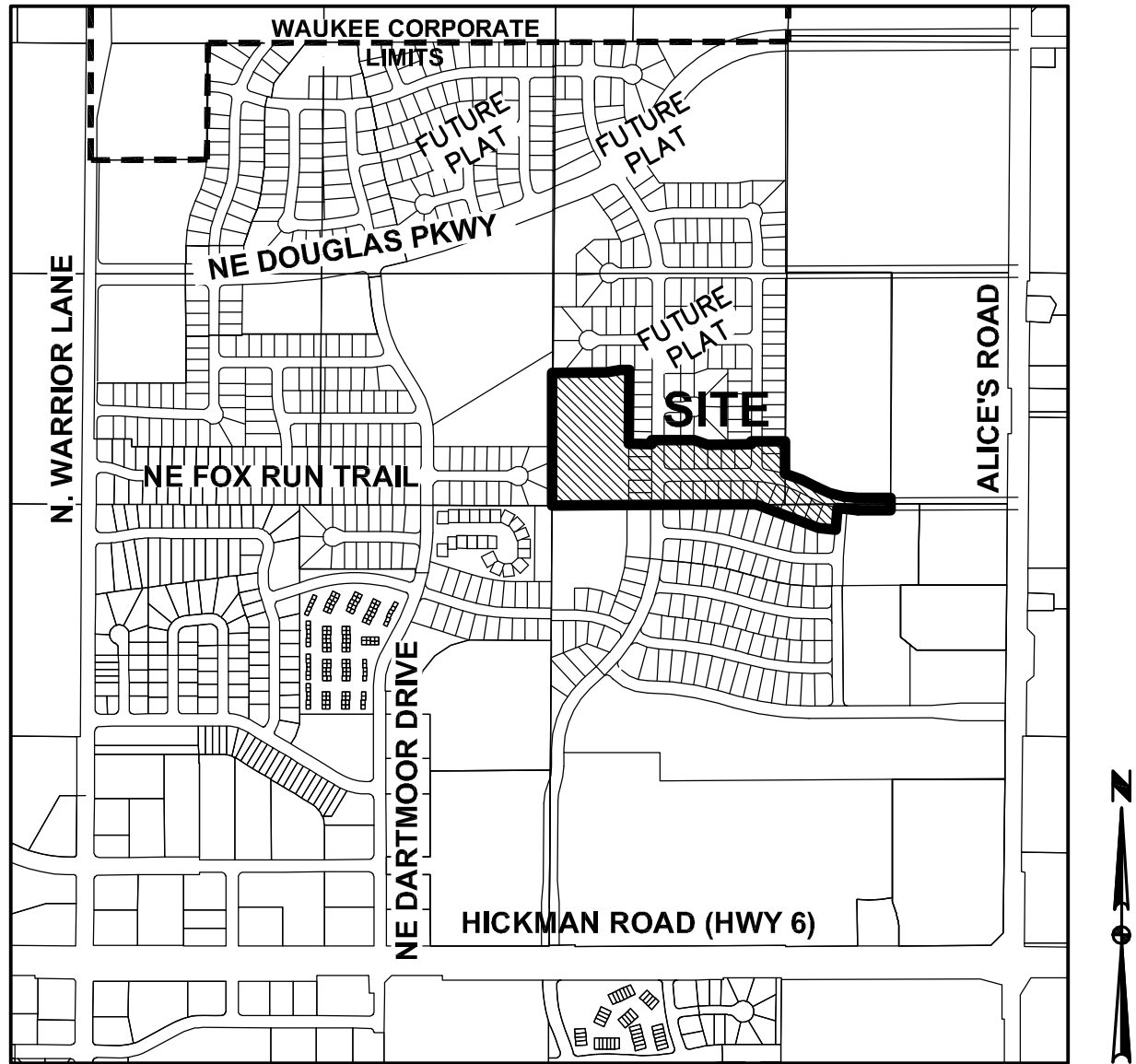


CONSTRUCTION PLANS FOR: THE LANDING AT SHADOW CREEK PLAT 1

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

OWNER/DEVELOPER

LANDING AT SHADOW CREEK, LLC
CONTACT: BILL SPENCER
3405 SE CROSSROADS DRIVE, SUITE E
GRIMES, IA 50111

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: 07/31/2014
SECOND SUBMITTAL: 08/28/2014
THIRD SUBMITTAL: 09/22/2014
FINAL SUBMITTAL: 10/01/2014
AS-BUILT SUBMITTAL: 05/27/2015

BENCHMARKS

1. STORM SEWER MANHOLE RIM LOCATED AT THE N.E. CORNER OF WARRIOR LANE AND FOX RUN TRAIL INTERSECTION. MANHOLE IS LOCATED 4' FROM THE EAST BACK OF CURB LINE OF WARRIOR LANE AND 46' NORTH OF FOX RUN TRAIL CENTERLINE. ELEVATION = 1014.23
2. SANITARY SEWER MANHOLE RIM LOCATED ON THE WEST SIDE OF NE DARTMOOR DRIVE, 121' +/- NORTH OF THE CENTERLINE OF NE BOWMAN DRIVE. MANHOLE IS LOCATED 9' FROM THE WEST BACK OF CURB LINE OF NE DARTMOOR DRIVE. ELEVATION = 1020.12

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 REQUIRED 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
10-15	STORM AND SANITARY SEWER PLAN AND PROFILE
16-20	WATERMAIN PLAN AND PROFILE
21-22	INTERSECTION DETAILS

LEGAL DESCRIPTION

A PART OF PARCEL 'BB', NE ¼ SECTION 27-79-26, AN OFFICIAL PLAT IN THE CITY OF WAUKEE AND A PART OF OUTLOT 'Z', PRAIRIE CROSSING PLAT 4, AN OFFICIAL PLAT IN THE CITY OF WAUKEE AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID PARCEL 'BB'; THENCE SOUTH 89°36'27" WEST ALONG THE SOUTHERLY LINE OF SAID PARCEL 'BB', 299.01 FEET; THENCE SOUTH 4°00'59" WEST, 145.41 FEET; THENCE NORTH 82°52'45" WEST, 98.43 FEET; THENCE NORTH 69°56'09" WEST, 378.01 FEET TO SAID SOUTHERLY LINE; THENCE SOUTH 89°36'27" WEST ALONG SAID SOUTHERLY LINE, 1156.11 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL 'BB'; THENCE NORTH 0°03'56" WEST ALONG THE WESTERLY LINE OF SAID PARCEL 'BB', 752.32 FEET; THENCE NORTH 89°34'37" EAST, 305.77 FEET; THENCE NORTH 79°00'13" EAST, 81.38 FEET; THENCE NORTH 89°56'04" EAST, 49.32 FEET; THENCE SOUTH 0°03'56" EAST, 420.00 FEET; THENCE NORTH 89°56'04" EAST, 130.00 FEET; THENCE NORTH 0°03'56" WEST, 20.21 FEET; THENCE NORTH 89°56'04" EAST, 70.00 FEET; THENCE NORTH 89°34'37" EAST, 170.21 FEET; THENCE SOUTH 72°27'20" EAST, 81.00 FEET; THENCE NORTH 89°34'37" EAST, 247.37 FEET; THENCE NORTH 0°03'35" WEST, 17.82 FEET; THENCE NORTH 89°56'25" EAST, 190.00 FEET; THENCE SOUTH 0°03'35" EAST, 182.95 FEET; THENCE EASTERLY ALONG A CURVE CONCAVE SOUTHERLY, WHOSE RADIUS IS 785.00 FEET, WHOSE ARC LENGTH IS 197.51 FEET AND WHOSE CHORD BEARS SOUTH 67°22'09" EAST, 196.99 FEET; THENCE EASTERLY ALONG A CURVE CONCAVE NORTHERLY, WHOSE RADIUS IS 465.00 FEET, WHOSE ARC LENGTH IS 245.35 FEET AND WHOSE CHORD BEARS SOUTH 75°16'36" EAST, 242.51 FEET; THENCE NORTH 89-36-27.217 EAST, 182.07 FEET TO THE EAST LINE OF SAID PARCEL 'BB', NE 1/4; THENCE SOUTH 0°03'16" EAST, 35.00 TO THE SOUTHEAST CORNER OF SAID PARCEL 'BB', NE 1/4 AND THE POINT OF BEGINNING AND CONTAINING 16.63 AC (724,438 SQUARE FEET).

PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

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.



CIVIL DESIGN ADVANTAGE

3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111

PH: (515) 369-4400 Fax: (515) 369-4410

PROJECT NO. 1406.314

GENERAL LEGEND

PROPOSED

SECTION LINE	----
CENTER LINE	----
RIGHT OF WAY	--- R/W ---
PERMANENT EASEMENT	--- P/E ---
TEMPORARY EASEMENT	--- T/E ---
TYPE SW-501 STORM INTAKE	
TYPE SW-503 STORM INTAKE	
TYPE SW-505 STORM INTAKE	
TYPE SW-506 STORM INTAKE	
TYPE SW-513 STORM INTAKE	
TYPE SW-401 STORM MANHOLE	
TYPE SW-402 STORM MANHOLE	
TYPE SW-301 SANITARY MANHOLE	
STORM/SANITARY CLEANOUT	
WATER VALVE	
FIRE HYDRANT ASSEMBLY	
SIGN	
DETECTABLE WARNING PANEL	
WATER CURB STOP	
STORM SEWER STRUCTURE NO.	
STORM SEWER PIPE NO.	
SANITARY SEWER STRUCTURE NO.	
SANITARY SEWER PIPE NO.	
SANITARY SEWER WITH SIZE	8"S
SANITARY SERVICE	S S S
STORM SEWER	ST ST
STORM SERVICE	ST ST
WATERMAIN WITH SIZE	8"W
WATER SERVICE	W W
SAWCUT (FULL DEPTH)	
SILT FENCE	
USE AS CONSTRUCTED	(UAC)
MINIMUM PROTECTION ELEVATION	MPE
TOP OF PROPOSED GROUND	TG
CURB STOP	

EXISTING

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

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 2014 EDITION OF SUDAS STANDARD SPECIFICATIONS AND THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.



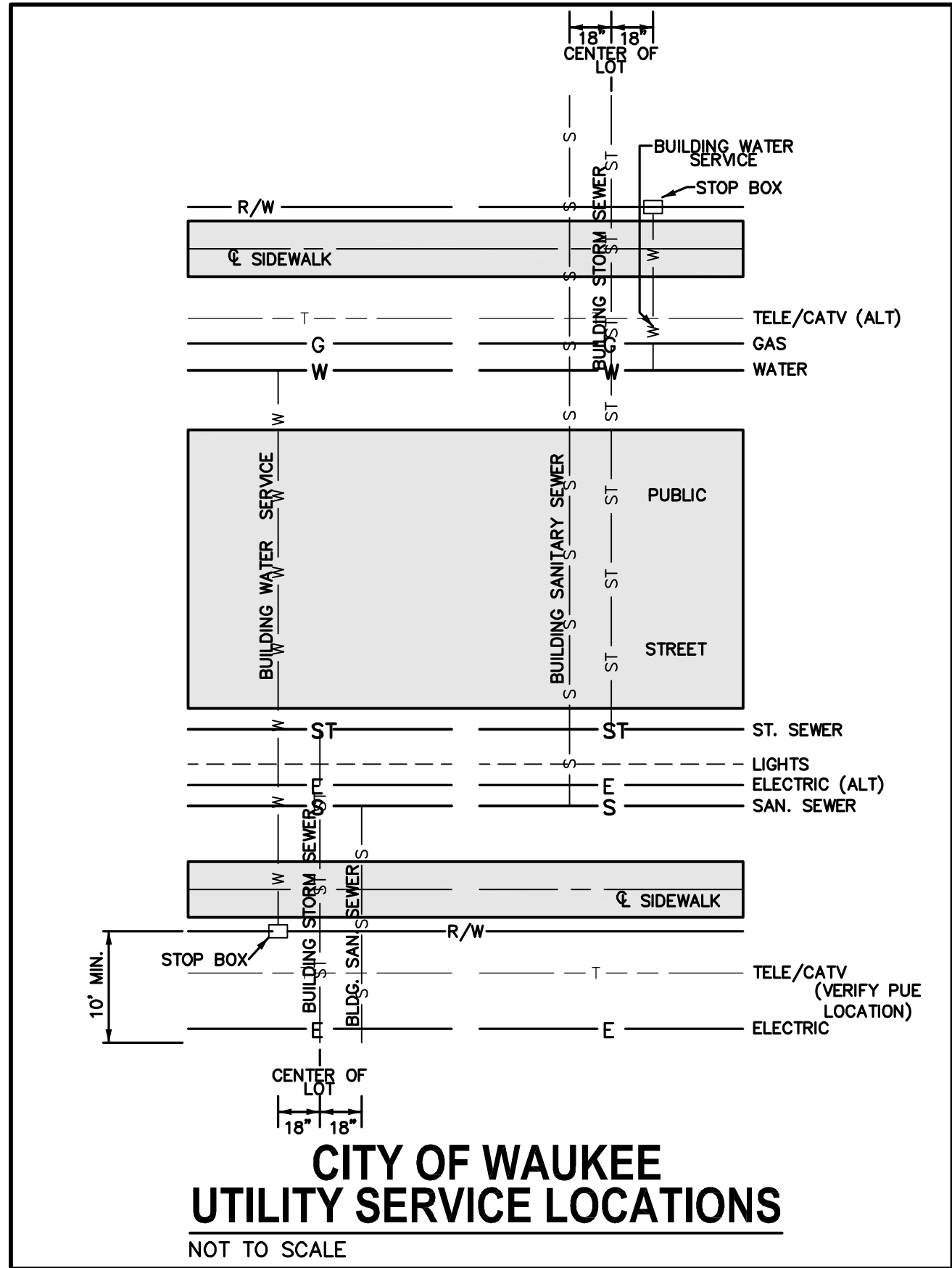
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

ERIN K. OLLENDIKE, P.E. DATE

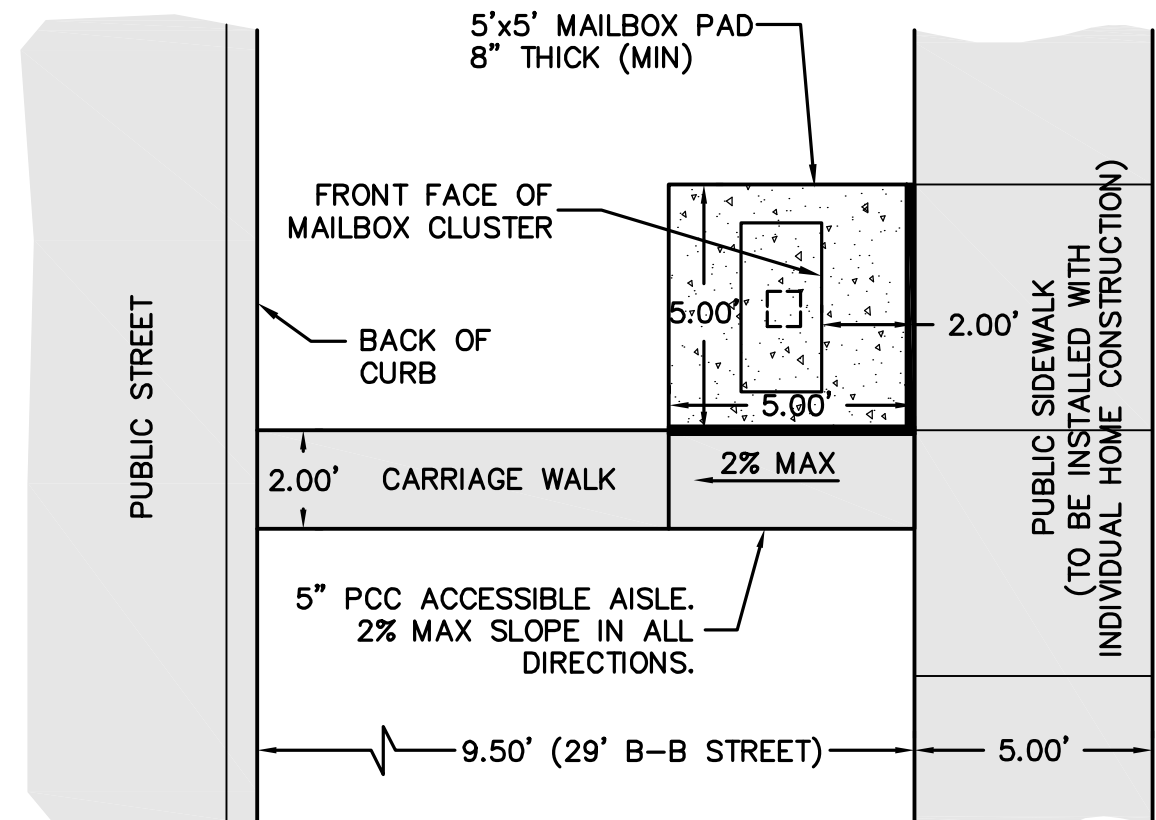
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SHEETS 1-22

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PLOT BY: JMM
PLOT DATE: 7/22/2016 5:21 PM

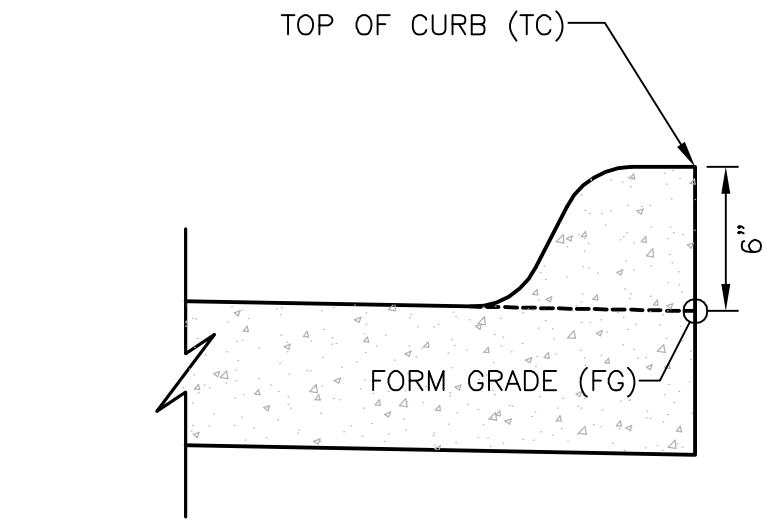


- INSTALLATION NOTE:**
1. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.
 2. CLUSTER MAILBOX TO BE LOCATED ON THE PARKING/STREET LIGHT SIDE OF STREET.
 3. DO NOT LOCATE AT INTERSECTION.
 4. LOCATE NEAR SHARED PROPERTY LINE PER APPROVED PLAN.
 5. DETERMINE SIDEWALK SIDE OF MAILBOX PAD ELEVATION ASSUMING CONSTANT 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%.



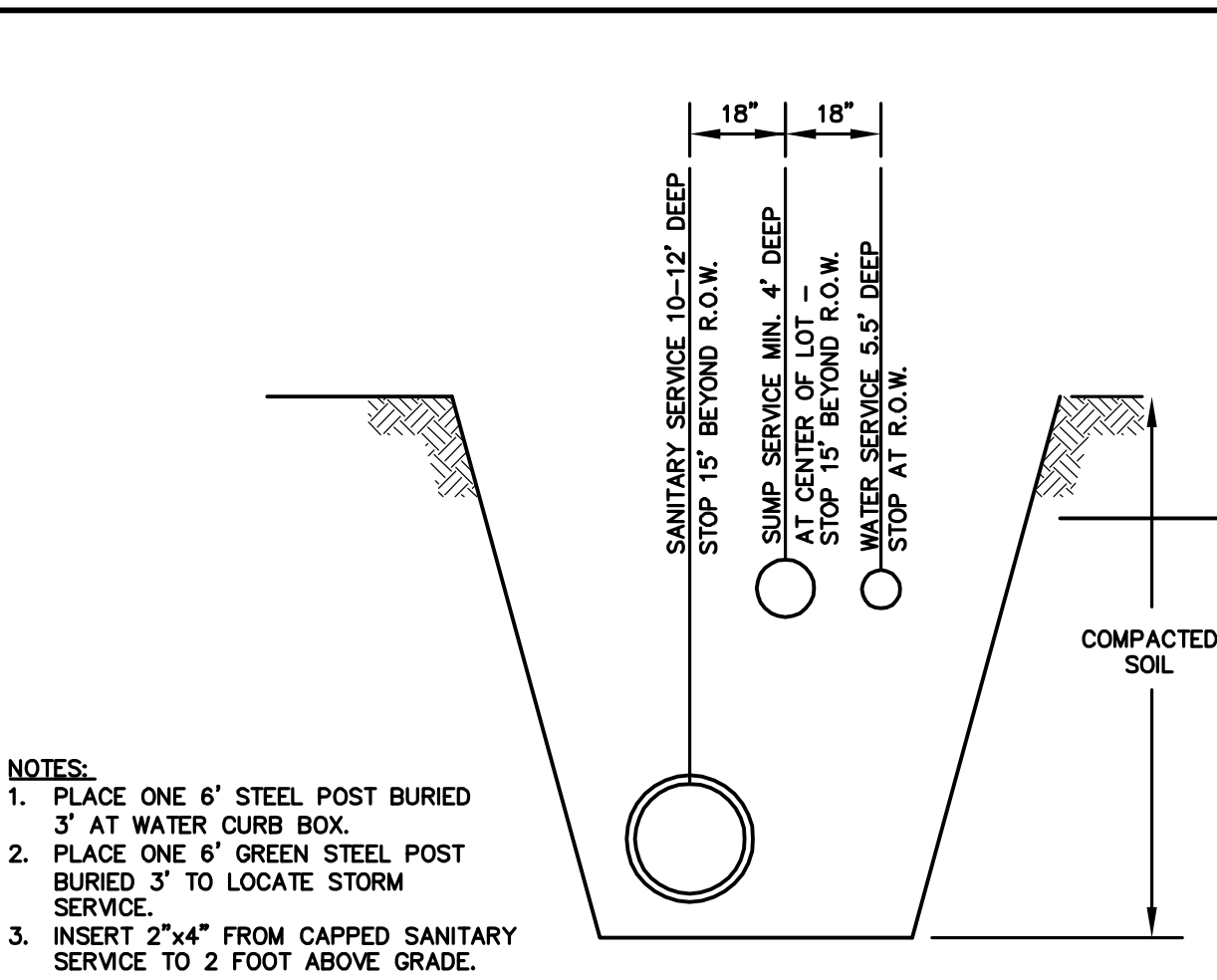
MAILBOX PAD DETAIL

NOT TO SCALE



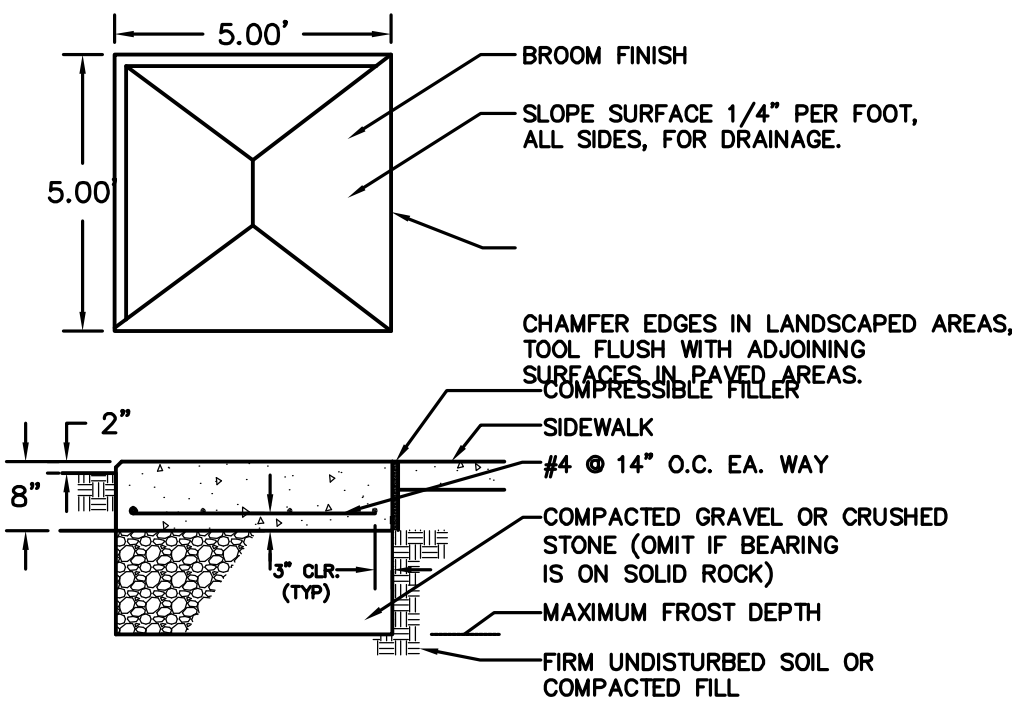
INTEGRAL 6" STANDARD SPOT ELEVATION REFERENCE DETAIL

NOT TO SCALE



SERVICE LOCATION DETAIL

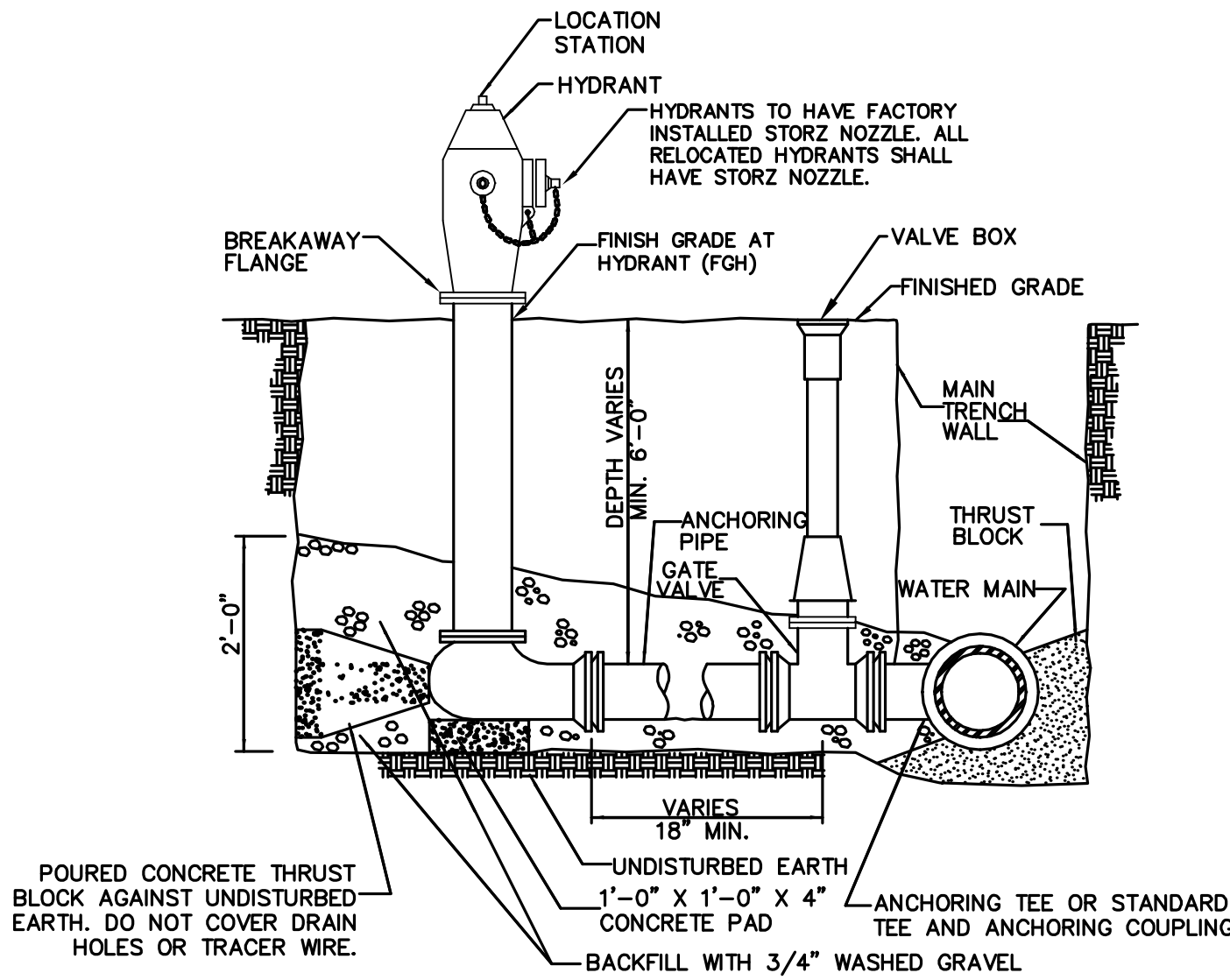
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- GENERAL NOTES:**
1. CONCRETE: 3000 PSI @ 28 DAYS, 6% AIR ENTRAINMENT 3" SLUMP, PLACE IN ACCORDANCE WITH ACI-301.
 2. REINFORCING STEEL: ASTM A615, GRADE 60.
 3. THIS BASE DETAIL CAN BE USED FOR NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NDCBU) 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

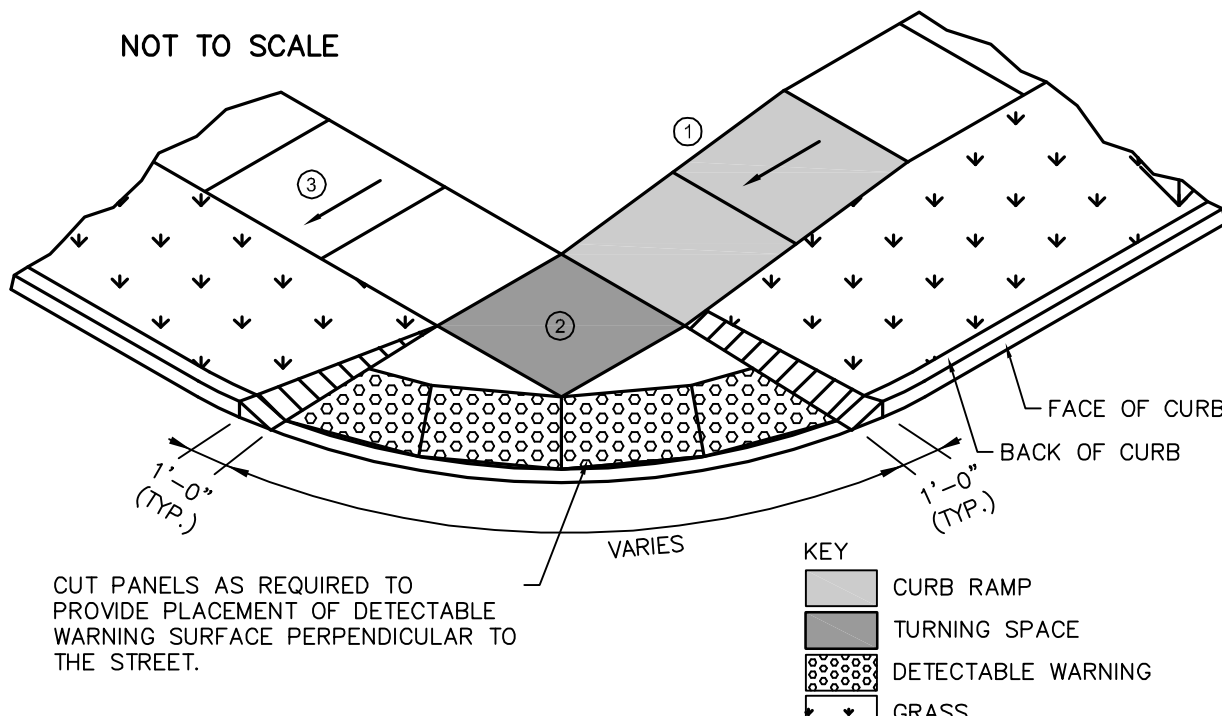
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- NOTES:**
1. MINIMUM SIZE FOR PIPING, VALVES AND FITTINGS FROM WATER MAIN TO HYDRANT INLET: 6\"/>

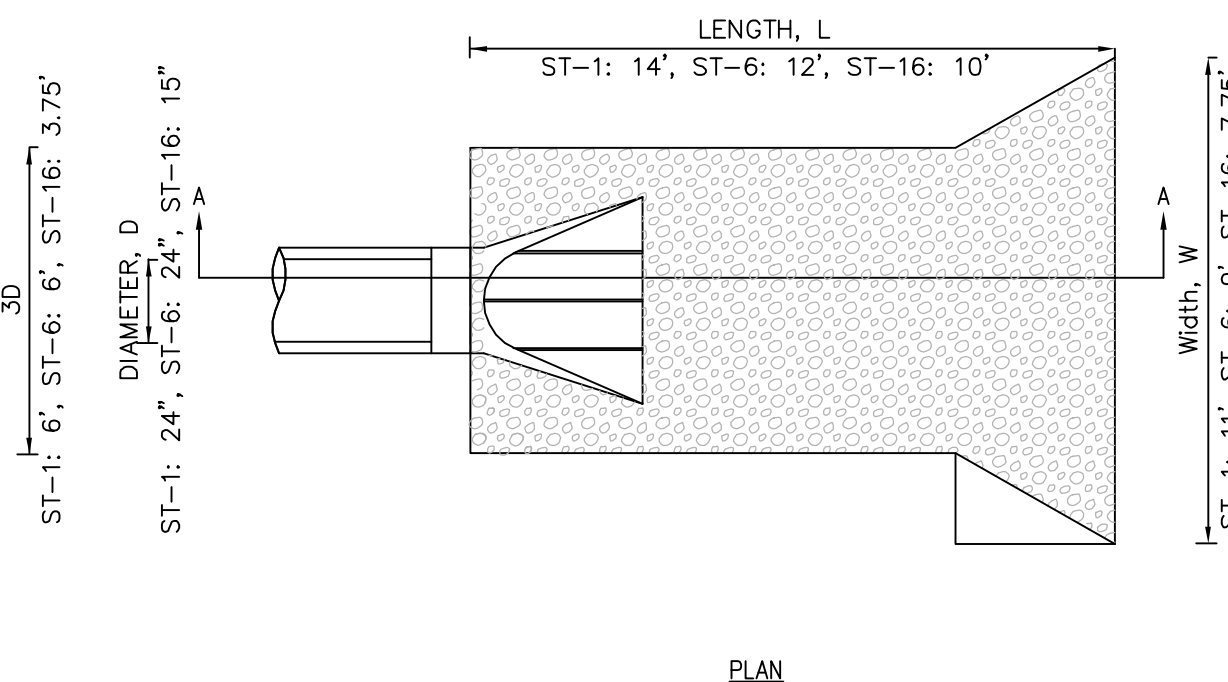
HYDRANT ASSEMBLY DETAIL

NOT TO SCALE



- PARALLEL CURB RAMP:** IF NORMAL SIDEWALK ELEVATION CANNOT BE ACHIEVED WITH THE PERPENDICULAR RAMP BETWEEN THE STREET AND LANDING DUE TO LIMITED RAMP LENGTH, PROVIDE A PARALLEL RAMP TO MAKE UP THE ELEVATION DIFFERENCE BETWEEN THE TURNING SPACE AND THE STANDARD SIDEWALK.
- ① THE LENGTH OF THE PARALLEL RAMP IS NOT REQUIRED TO EXCEED 15 FEET, REGARDLESS OF THE RESULTING SLOPE. DO NOT EXCEED 8.3% SLOPE FOR PARALLEL RAMPS SHORTER THAN 15 FEET.
 - ② TURNING SPACE: TARGET SLOPE OF 1.5% WITH A MAXIMUM SLOPE PERPENDICULAR TO THE DIRECTION OF TRAVEL OF 2.0% MINIMUM 5 FT BY 5 FT.
 - ③ TARGET CROSS SLOPE OF 1.5% WITH A MAXIMUM CROSS SLOPE OF 2.0%
- THE MINIMUM PAVEMENT DEPTH FOR RAMPS AND LANDINGS SHALL BE 6-INCHES.

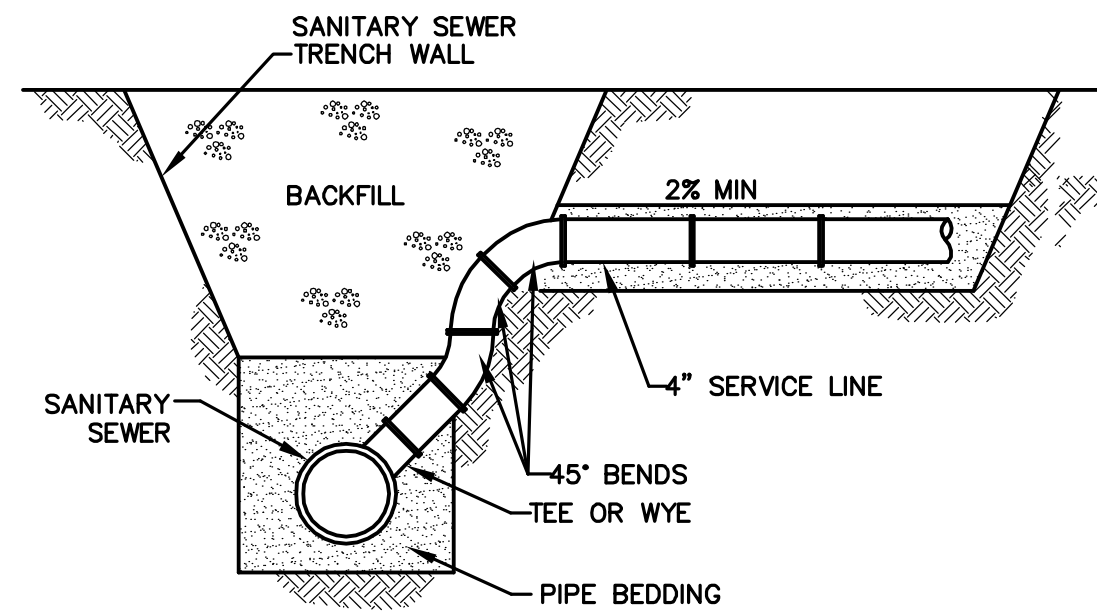
CURB RAMP DETAIL



- NOTES:**
1. THE LAST THREE SECTIONS AND THE APRON SHALL BE CONNECTED WITH PIPE CONNECTIONS PER SECTION 4030.3022 OF SDAS.
 2. THICKNESS (T) = 18 INCHES.

ROCK APRON FOR PIPE OUTLET

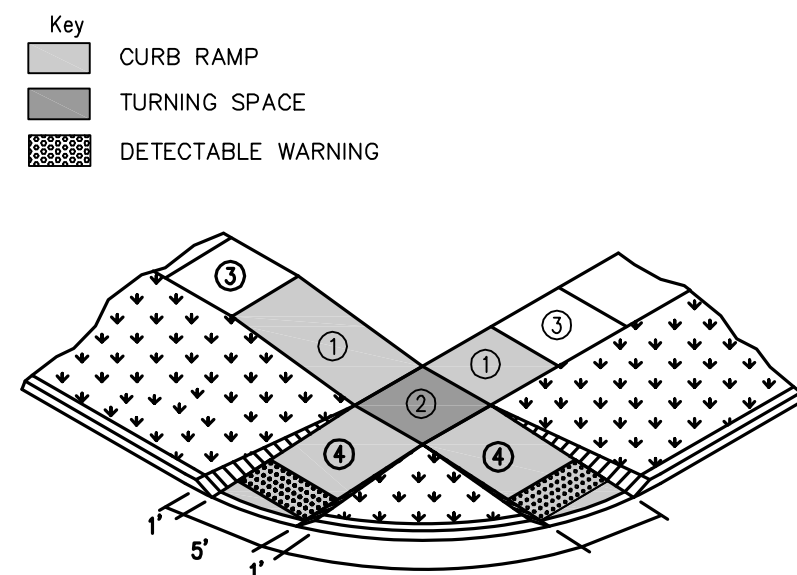
NOT TO SCALE



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

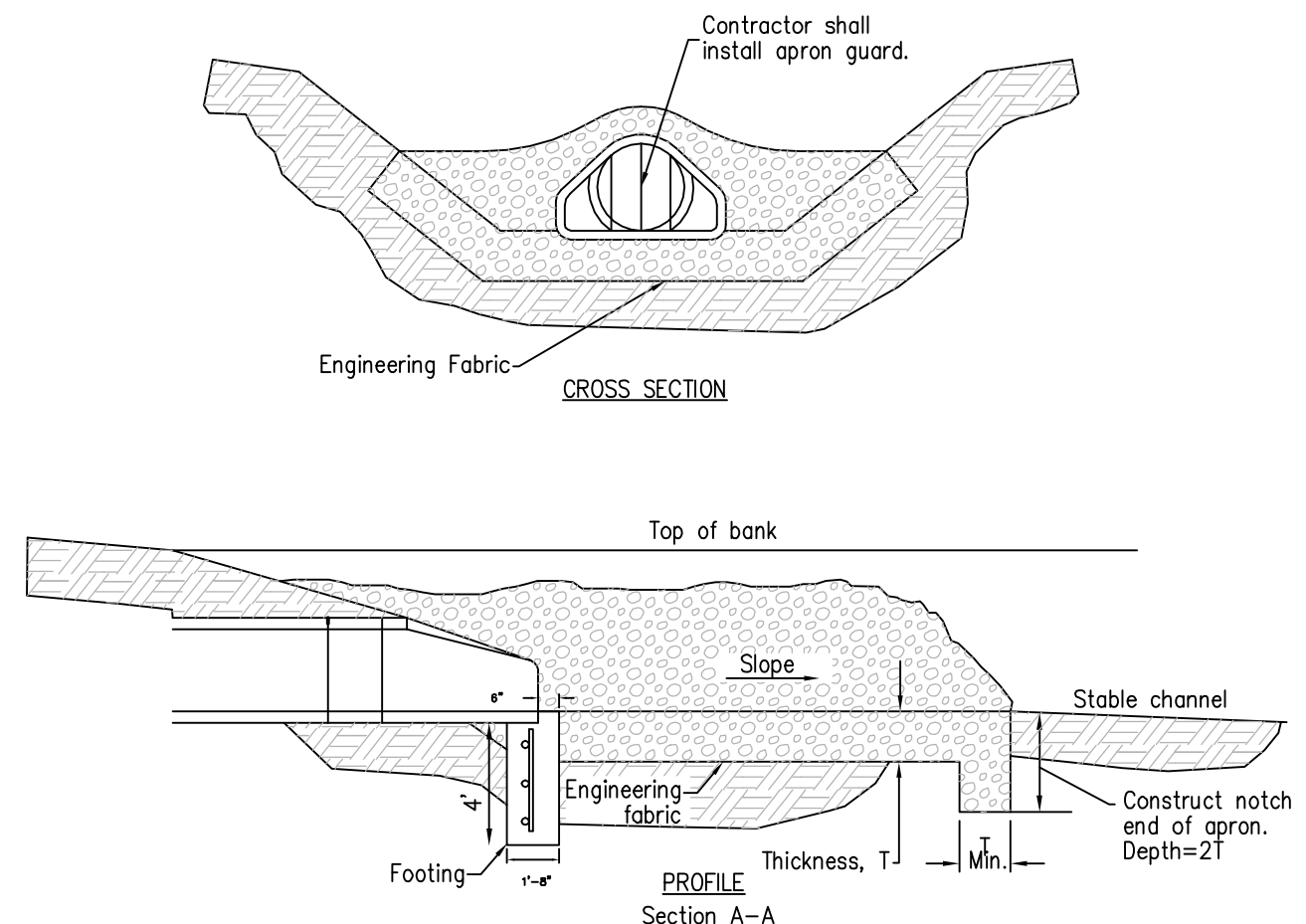
SANITARY SEWER SERVICE RISER

NOT TO SCALE



- 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%. All 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



THE LANDING AT SHADOW CREEK PLAT 1 TYPICAL SECTIONS AND DETAILS

2/22

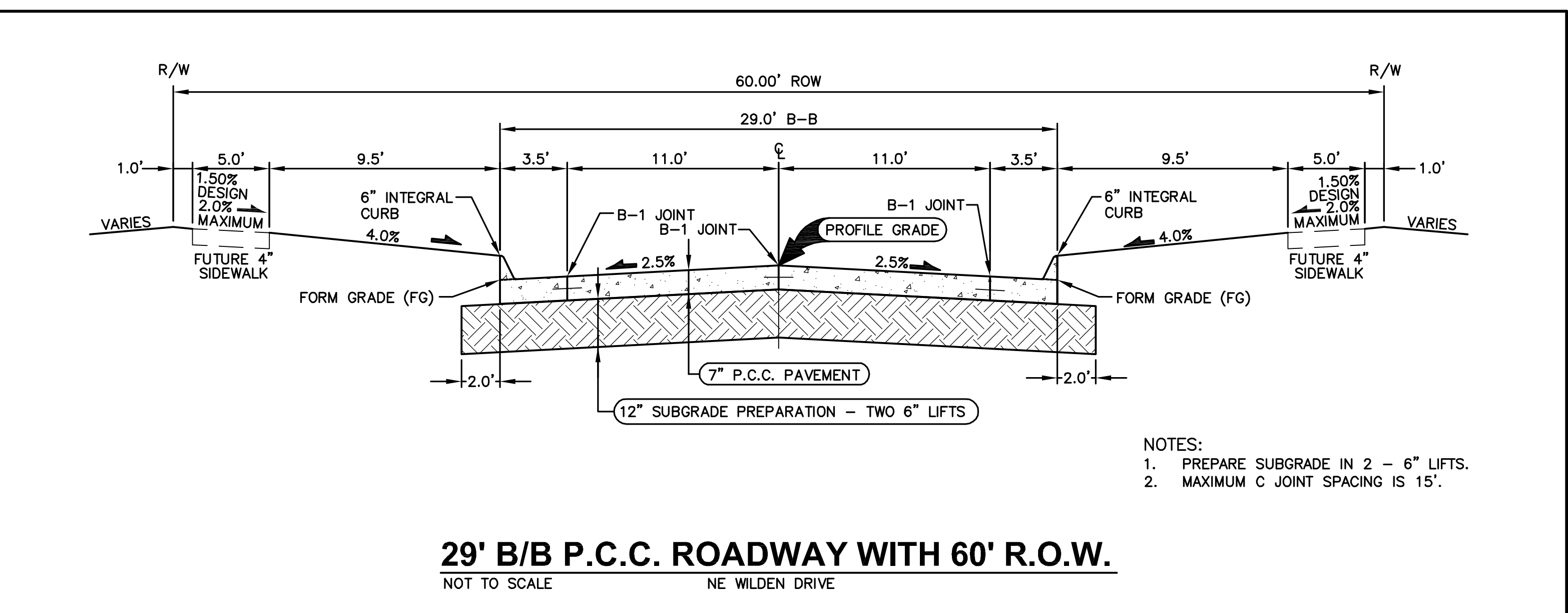
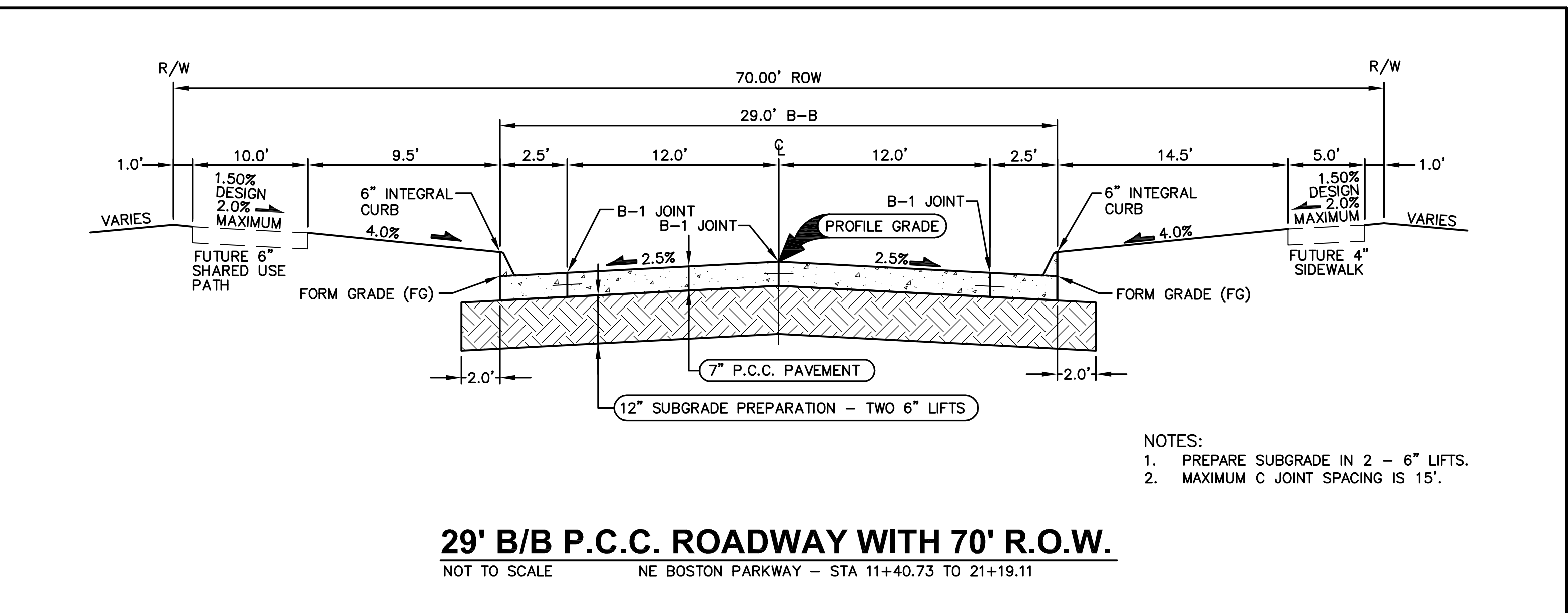
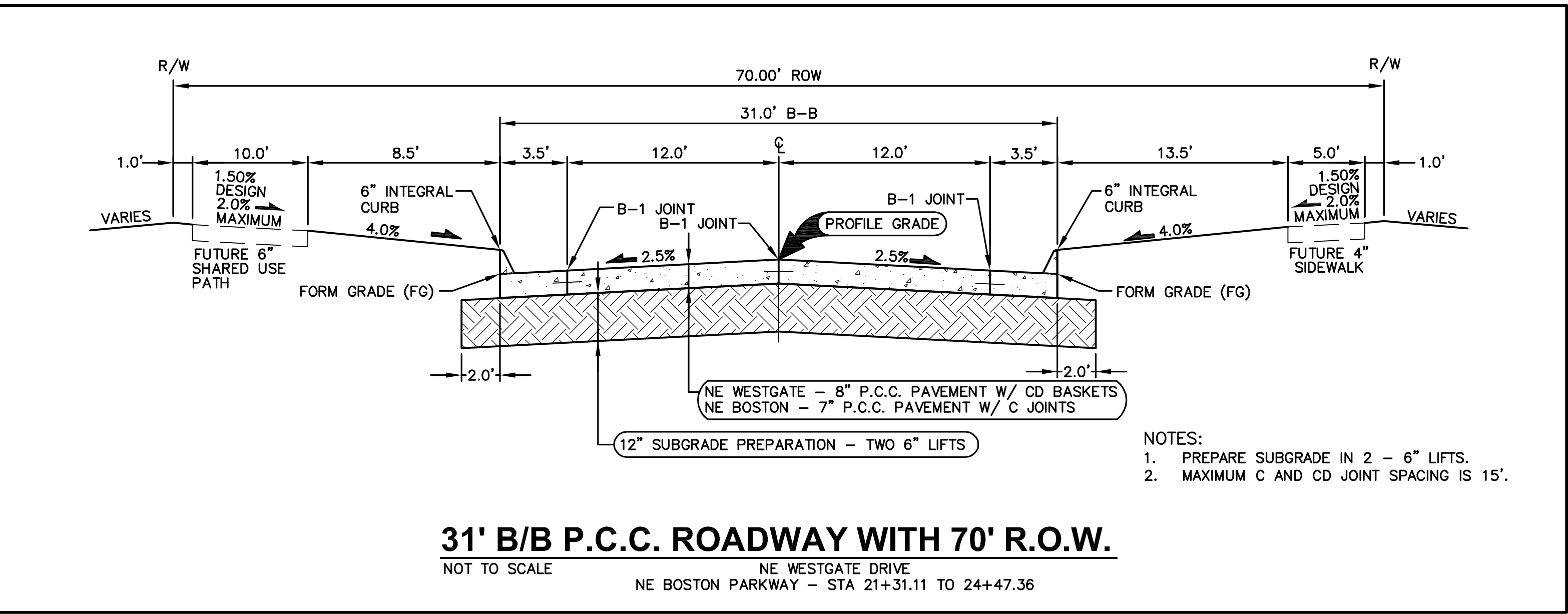
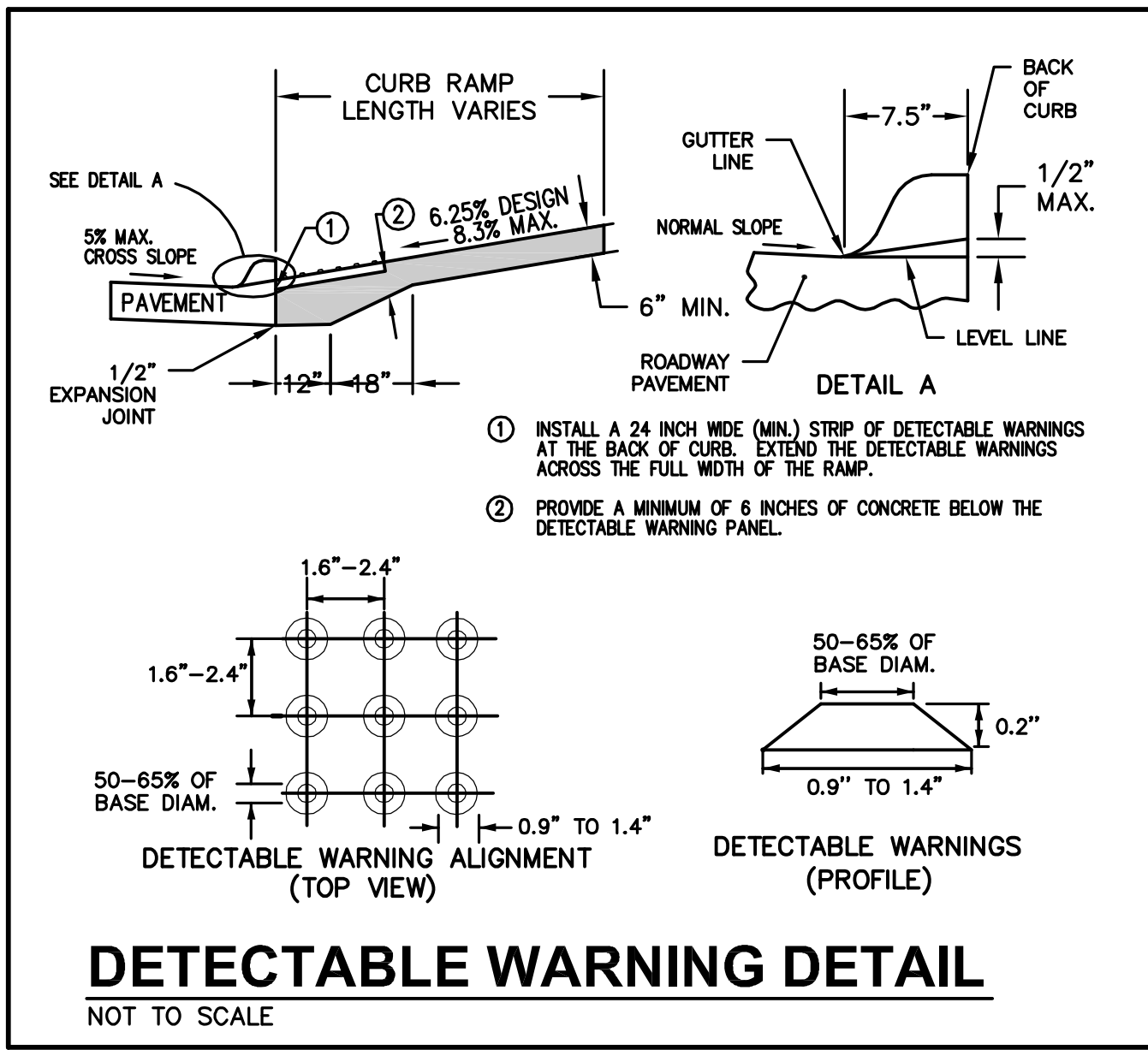
1406.314

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

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

DATE	REVISIONS
05/27/15	AS-BUILT SUBMITTAL
10/01/14	FINAL SUBMITTAL
09/22/14	THIRD SUBMITTAL
08/28/14	SECOND SUBMITTAL
07/31/14	FIRST SUBMITTAL

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PLOT BY: JMM
SCALE: 1/8" = 1'-0"



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PLOT BY: CEM GLENDKE

COMMENT:
THIS
DRAWING

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COMBINED CLEARING AND GRUBBING	AC	22.85
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	SY	7,111
5	SANITARY SEWER GRAVITY MAIN, 8" DIA	LF	1,767
6	SANITARY SEWER SERVICE STUB, 4" DIA	EA	25
7	FOOTING DRAIN SEWER COLLECTOR, 8" DIA PVC, PERFORATED	LF	1,155
8	STORM SEWER, 15" RCP	LF	422
9	STORM SEWER, 18" RCP	LF	333
10	STORM SEWER, 24" RCP	LF	535
11	STORM SEWER SERVICE STUB, 4" DIA	EA	25
12	STORM SEWER, 15" RCP APRON W/FOOTING & APRON GUARD	EA	2
13	STORM SEWER, 18" RCP APRON W/FOOTING & APRON GUARD	EA	1
14	STORM SEWER, 24" RCP APRON W/FOOTING & APRON GUARD	EA	3
15	WATER MAIN, 6" DIA	LF	80
16	WATER MAIN, 8" DIA	LF	269
17	WATER MAIN, 12" DIA	LF	1,749
18	WATER SERVICE STUB, 1" DIA	EA	25
19	VALVE, 8" DIA	EA	3
20	VALVE, 12" DIA	EA	6
21	FIRE HYDRANT ASSEMBLY	EA	8
22	TEMPORARY FIRE HYDRANT ASSEMBLY	EA	1
23	TEMPORARY FIRE HYDRANT ASSEMBLY (RELOCATED)	EA	2
24	MANHOLE, SW-301, 48" (SANITARY SEWER)	EA	8
25	MANHOLE, SW-401, 48" (STORM SEWER)	EA	4
26	MANHOLE, SW-401, 60" (STORM SEWER)	EA	2
27	INTAKE, SW-501	EA	1
28	INTAKE, SW-503	EA	1
29	INTAKE, SW-505	EA	3
30	INTAKE, SW-506	EA	3
31	PAVEMENT, 7" P.C.C.	SY	4,992
32	PAVEMENT, 8" P.C.C. W/ CD BASKETS	SY	1,373
33	PAVEMENT, 4" P.C.C. SIDEWALK	SY	135
34	PAVEMENT, 6" P.C.C. SIDEWALK RAMPS	SY	138
35	PAVEMENT, 5" P.C.C. MAILBOX WALKWAY	SY	7
36	PAVEMENT, 8" P.C.C. MAILBOX PAD	SY	6
37	DETECTABLE WARNING PANELS	SF	162
38	SEEDING, FERTILIZING, AND MULCHING	AC	21.50
39	ROCK OUTLET PROTECTION, CLASS E RIP RAP	TON	65
40	MAILBOX CLUSTER	EA	2
41	PERMANENT ROAD CLOSURE, URBAN, SI-182	EA	5
42	PERMANENT ROAD CLOSURE, URBAN, SI-182 (RELOCATED)	EA	10
43	TRAFFIC CONTROL	LS	1
44	EROSION CONTROL	LS	1

GENERAL NOTES

1.

ALL CONSTRUCTION SHALL CONFORM TO THE 2014 EDITION OF SUDAS STANDARD SPECIFICATIONS AND TO CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
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 GENERAL CONTRACTOR 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 2014 EDITION OF SUDAS STANDARD SPECIFICATIONS AND THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.
	ALL REFERENCES TO SECTIONS AND FIGURES ARE TO THE SUDAS STANDARD SPECIFICATIONS. CITY OF WAUKEE STANDARD DETAILS SHALL GOVERN IF ANY DISCREPANCIES.
1	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.
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 6 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. 6 INCH TOPSOIL QUANTITY = 18433 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 2 AND 3 FOR TYPICAL LOCATIONS AND THICKNESS.
5-6	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.
7-14	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 TELEWISE SANITARY AND STORM SEWER PRIOR TO PAVING AND PROVIDE TELEVISION REPORT TO CITY IN HARD COPY AND DISC FORMAT. TELEVISION SHALL BE CONSIDERED INCIDENTAL. ALL STORM SEWER PIPE THAT CROSSES OVER WATERMAIN SHALL HAVE O-RING GASKETS INSTALLED. ALL 8-INCH PERFORATED PIPE SHALL BE BACKFILLED WITH PEA ROCK.
6, 11, 18	REFER TO SHEET 2 FOR SERVICE LOCATION DETAIL. STORM SEWER SERVICES TYING INTO EXISTING RCP PIPE ARE TO BE CORE DRILLED.
12-14	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.
15-20	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.
21	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.
22-23	REFER TO WATERMAIN PLAN AND PROFILE SHEETS FOR LOCATIONS OF EXISTING FIRE HYDRANTS. ANY RELOCATED HYDRANTS ARE TO INCLUDE STORZ FITTINGS.
24	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).

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 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.

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
25-26	REFER TO FIG. 6010.401 - CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.
25-30	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. 8010.602 - CASTINGS FOR STORM SEWER MANHOLES FOR TYPE E CASTING DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12".
27	REFER TO FIG 6010.501 - SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.
28	REFER TO FIG 6010.503 - SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
29	REFER TO FIG 6010.505 - DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS.
30	REFER TO FIG 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
31-32	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM CD AND C JOINT SPACING IS 15 FEET.
33-37	REFER TO FIG. 7030.204 - GENERAL SIDEWALK AND ACCESSIBLE RAMP DETAILS AND FIG. 7030.208 - CURB RAMPS WITHIN INTERSECTION RADIUS FOR GLASS B OR C SIDEWALK FOR CONSTRUCTION DETAILS. DETECTABLE WARNING PANELS TO BE ARMOR TILE, ADA SOLUTIONS OR APPROVED EQUAL, RED IN COLOR. ACCESSIBLE CURB RAMPS INCLUDING TURNING SPACES SHALL BE 6" THICK P.C.C. SEEDING QUANTITIES -TYPE 1 PERMANENT LAWN MIXTURE = 7.67 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 13.83 AC
39	INSTALL ENGINEERING FABRIC UNDER ALL RIP-RAP. ENGINEERING FABRIC SHALL BE CONSIDERED INCIDENTAL.
40	REFER TO SHEET 2 FOR CONSTRUCTION DETAILS. - 16 UNIT BOXES BETWEEN LOTS 4/5 - 16 UNIT BOXES BETWEEN LOTS 11/12
41-42	REFER TO PLAN AND PROFILE SHEETS FOR LOCATIONS. REFER TO IDOT STANDARD ROAD PLAN SI-182 FOR CONSTRUCTION DETAILS.
43	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..
44	REFER TO SHEETS 8-9 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 - 4,873 LF OF SILT FENCE - 13.09 ACRES OF SEEDING, FERTILIZING AND MULCHING. - 8 INLET PROTECTION DEVICES - 350 LF OF DITCH CHECK

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 6" 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.
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 TELEVISIONING ALL STORM AND SANITARY SEWERS. ALL CLEANING AND TELEVISIONING SHALL BE APPROVED BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO PAVING. A COPY OF THE VIDEOS SHALL BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
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.

DATE

05/27/15

AS-BUILT SUBMITTAL

10/01/14

FINAL SUBMITTAL

09/22/14

THIRD SUBMITTAL

08/28/14

FIRST SUBMITTAL

07/31/14

REVISIONS

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

EI: JMM

THE LANDING AT SHADOW
CREEK PLAT 1

QUANTITIES AND REFERENCE NOTES

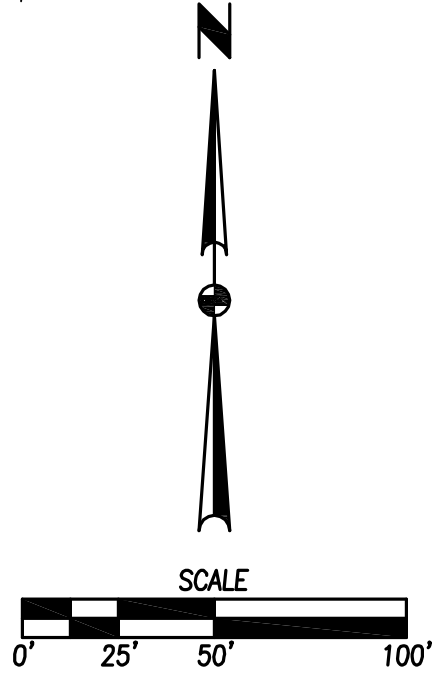
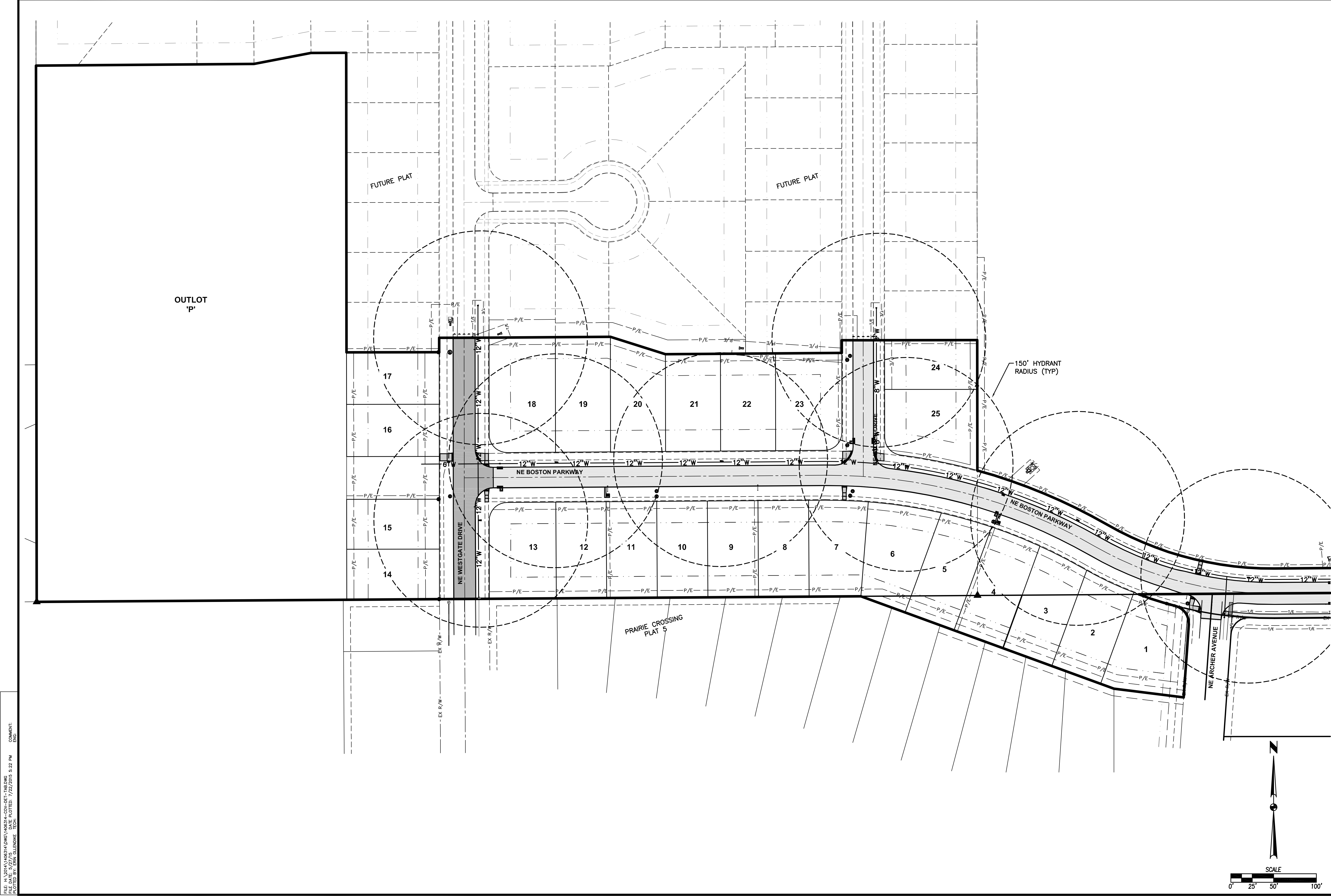
WAUKEE, IOWA

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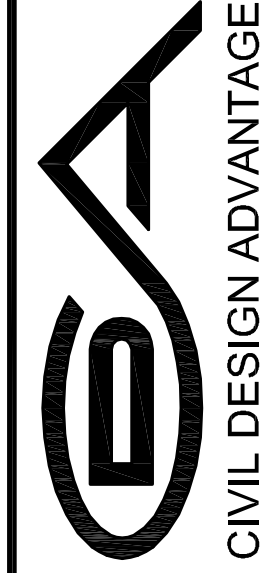
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**THE LANDING AT SHADOW
CREEK PLAT 1
HYDRANT COVERAGE PLAN**

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REVISIONS

DATE	REVISIONS
05/27/15	AS-BUILT SUBMITTAL
10/01/14	FINAL SUBMITTAL
09/22/14	THIRD SUBMITTAL
08/28/14	SECOND SUBMITTAL
07/31/14	FIRST SUBMITTAL



1. REFER TO SHEETS 8-9 OF THE CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS.
2. PROTECT ALL TREES OUTSIDE GRADING LIMITS AND NOTIFY OWNER OF LARGE TREES WITHIN GRADING LIMITS. REVIEW ALL TREE CLEARING WITH DEVELOPER ON SITE PRIOR TO CONSTRUCTION.
3. MINIMUM QUAIR ELEVATIONS WILL BE PROVIDED AS PART OF THE AS-BUILT DRAWINGS.
4. A CERTIFIED GRADING PLAN SHALL BE SUBMITTED TO THE CITY OF WAUKEE PRIOR TO ACCEPTANCE OF THE SUBDIVISION IMPROVEMENTS.
5. THE GENERAL PERMIT #2 APPLICANT IS TO PROVIDE THE CITY OF WAUKEE ENGINEERING DEPARTMENT WITH WRITTEN VERIFICATION OF COMPLIANCE WITH TOPSOIL REQUIREMENTS UPON COMPLETION OF THE PROJECT.

AREA OF DISTURBANCE = 17.95 AC

		DATE
REVISIONS		
AS-BUILT SUBMITTAL		05/27/15
FINAL SUBMITTAL		10/01/14
THIRD SUBMITTAL		09/22/14
SECOND SUBMITTAL		08/28/14
FIRST SUBMITTAL		07/31/14

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ENGINEER: EKO	EI: JMM
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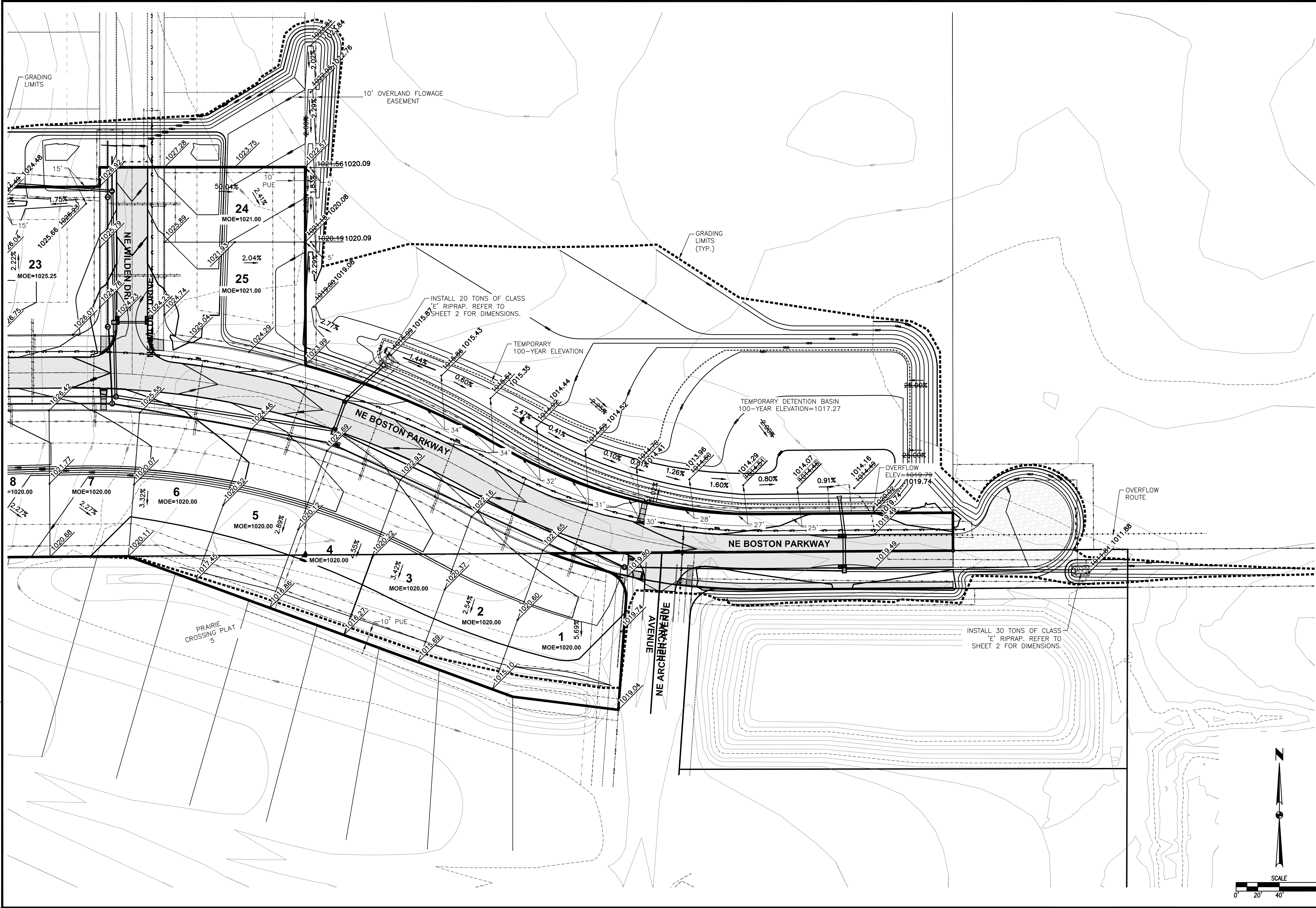


CIVIL DESIGN ADVANTAGE

THE LANDING AT SHADOW CREEK PLAT 1 GRADING PLAN

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THE LANDING AT SHADOW
CREEK PLAT 1
GRADING PLAN

WAUKEE, IOWA



ENGINEER: EKO

EI: JMM

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REVISIONS

DATE	REVISIONS
05/27/15	AS-BUILT SUBMITTAL
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09/22/14	THIRD SUBMITTAL
08/28/14	SECOND SUBMITTAL
07/31/14	FIRST SUBMITTAL

THE LANDING AT SHADOW CREEK PLAT 1

EROSION AND SEDIMENT CONTROL PLAN

SWPPP LEGEND

DRAINAGE ARROW		AREA TO BE SEEDED	
GRADING LIMITS		STRAW MAT	
FILTER SOCK		UNDISTURBED AREA	
SILT FENCE		RIPRAP	
DITCH CHECK		GRAVEL ENTRANCE	
INLET PROTECTION		STAGING AREA	
PORTABLE RESTROOM		TEMPORARY SEDIMENT BASIN	
CONCRETE WASHOUT PIT			
TEMPORARY STANDPIPE			

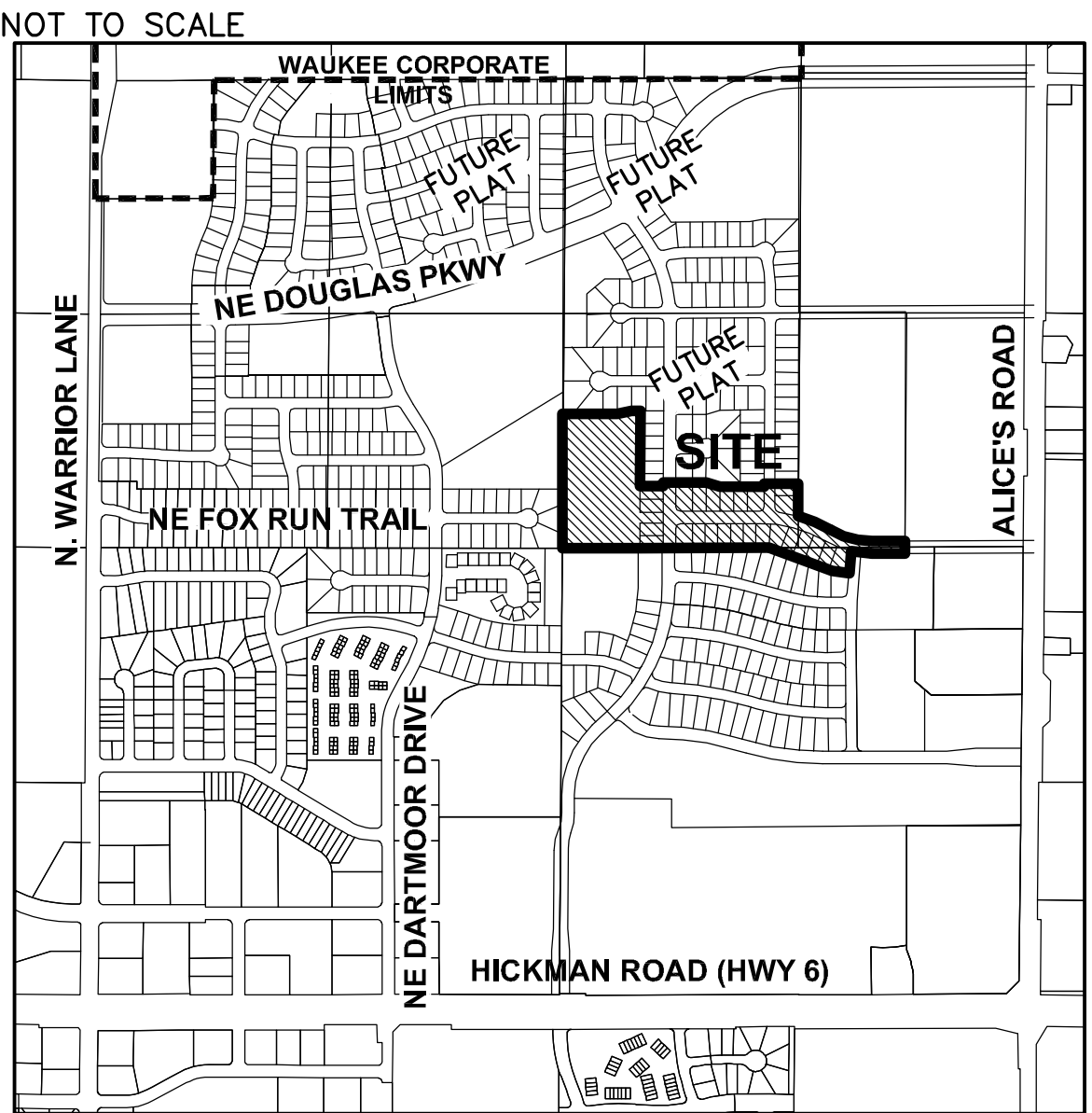
EXISTING GRADES SHALL BE MAINTAINED IN THIS AREA. CONTRACTOR SHALL ELIMINATE UNDESIRABLE VEGETATION AND RESEED WITH TYPE 1 SEED. PREPARE SEEDBED PER SUDAS SECTION 9010.

OUTLOT 'P'

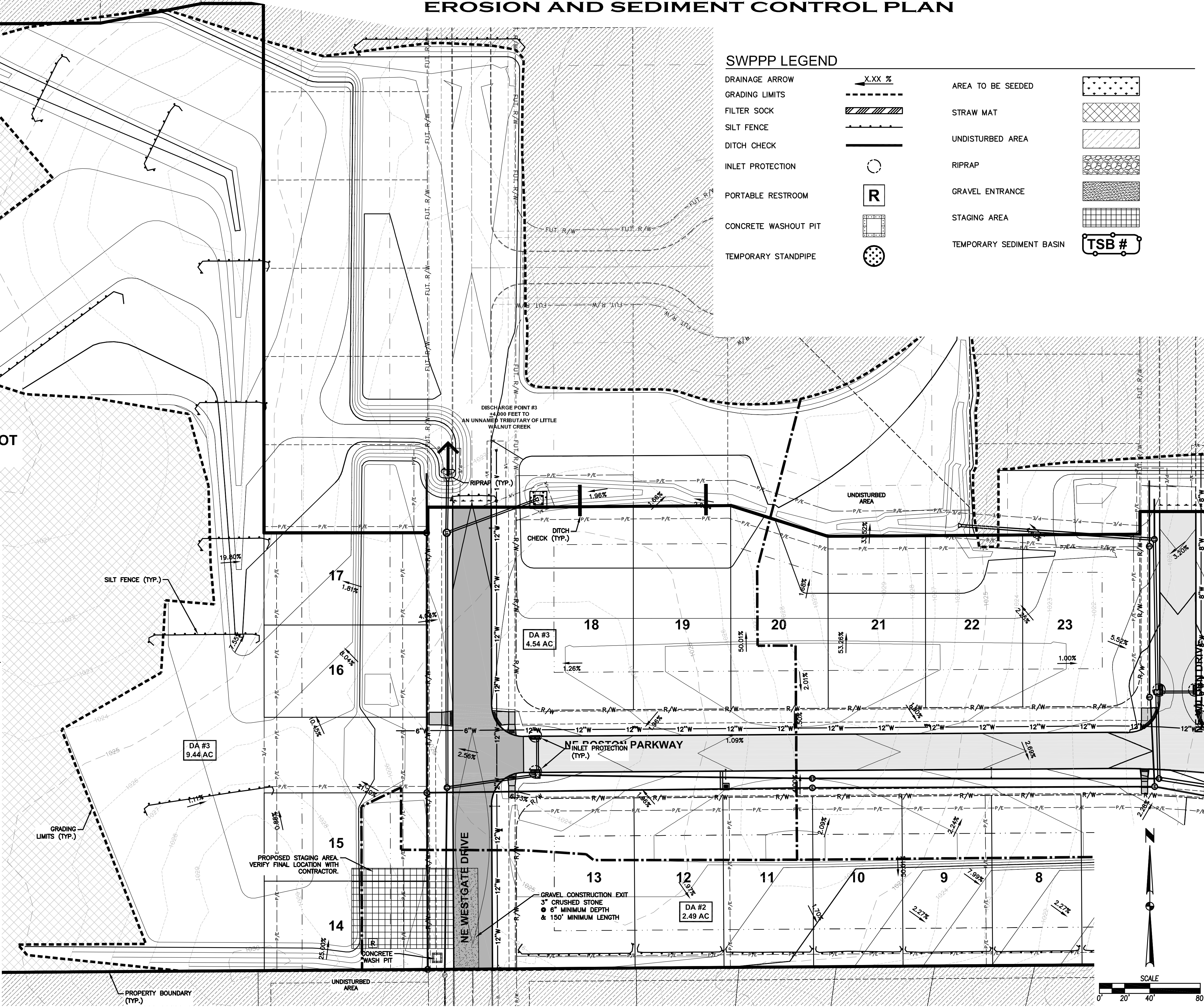
STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	4,873
2	DITCH CHECKS	LF	50
3	SEEDING, FERTILIZING, AND MULCHING	AC	21.50
4	INLET PROTECTION DEVICES	EA	8
5	CONCRETE WASHOUT PIT	EA	1
6	18" PVC TEMPORARY STANDPIPE	EA	1

VICINITY MAP



WAUKEE, IOWA



THE LANDING AT SHADOW
CREEK PLAT 1
EROSION AND SEDIMENT CONTROL PLAN

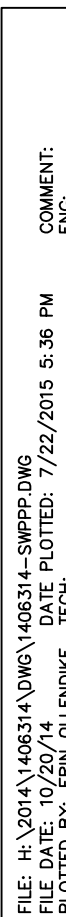
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ENGINEER: EKO
EI: JMM

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

DATE	REVISIONS
05/27/15	AS-BUILT SUBMITTAL
10/01/14	FINAL SUBMITTAL
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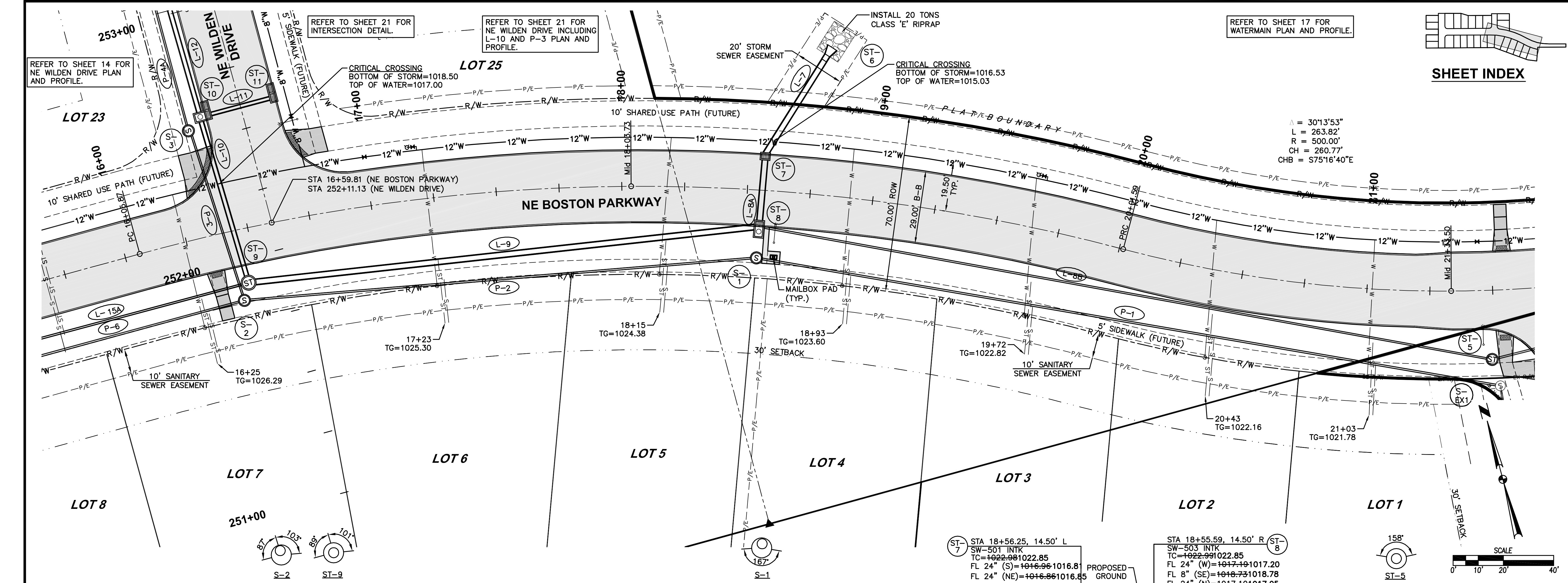
<u>DISCHARGE POINT #1 TO A TRIBUTARY TO LITTLE WALNUT CREEK ±1400 FT</u>	
TOTAL AREA DISTURBED TO DISCHARGE POINT	6.85 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	24,660 CU FT
VOLUME PROVIDED IN SILT FENCE @ 3:1/4:1 (950 LF @ 4.5 CU FT/LF OF FENCE)	4,275 CU FT
VOLUME PROVIDED IN TSB	45,440 CU FT
TOTAL VOLUME PROVIDED	50,675 CU FT
<u>DISCHARGE POINT #2 TO A TRIBUTARY TO LITTLE WALNUT CREEK ±1200 FT</u>	
TOTAL AREA DISTURBED TO DISCHARGE POINT	2.49 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	8,964 CU FT
VOLUME PROVIDED IN SILT FENCE (CALCULATED)	11,869 CU FT
TOTAL VOLUME PROVIDED	11,869 CU FT
<u>DISCHARGE POINT #3 TO A TRIBUTARY TO LITTLE WALNUT CREEK ±4000 FT</u>	
TOTAL AREA DISTURBED TO DISCHARGE POINT	9.44 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	33,984 CU FT
VOLUME PROVIDED IN SILT FENCE (CALCULATED)	34,261 CU FT
VOLUME PROVIDED IN DITCH CHECK @ 2-3% (50 LF @ 15 CU FT/LF)	750 CU FT
TOTAL VOLUME PROVIDED	35,011 CU FT

Diagram illustrating the connection of a riser pipe to a storm sewer. The riser pipe is 18" in diameter and has 8-3" DIA HOLES, 14" O.C. The connection is made using a 90° BEND and a 6" MIN. gap to the INLET PIPE. The riser pipe is wrapped with FILTER FABRIC and has a 42" MIN. height above the P.C. CONCRETE FOOTING. The riser pipe is to be fitted to the 24" STORM R.C.P. OR PROVIDE WATERTIGHT SEAL.

Labels and dimensions in the diagram include:

- TOP OF RISER ELEVATION=1017.25
- 8-3" DIA HOLES, 14" O.C.
- ELEVATION=1015.50
- 18" RISER DIAMETER
- BRACE CMP OR HDPE RISER PIPE AS REQUIRED
- 18" CMP OR HDPE RISER PIPE
- 90° BEND
- 6" MIN.
- INLET PIPE
- WRAP EXTERIOR OF RISER WITH FILTER FABRIC
- FL=1014.48
- 42" MIN.
- P.C. CONCRETE FOOTING
- CMP OR HDPE RISER PIPE O.D. TO FIT I.D. OF 24" STORM R.C.P. OR PROVIDE WATERTIGHT SEAL.

REVISIONS	DATE
AS-BUILT SUBMITTAL	05/27/15
FIRST SUBMITTAL	10/01/14
THIRD SUBMITTAL	09/22/14
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FIRST SUBMITTAL	07/31/14



REFER TO SHEET 17 FOR WATERMAIN PLAN AND PROFILE.

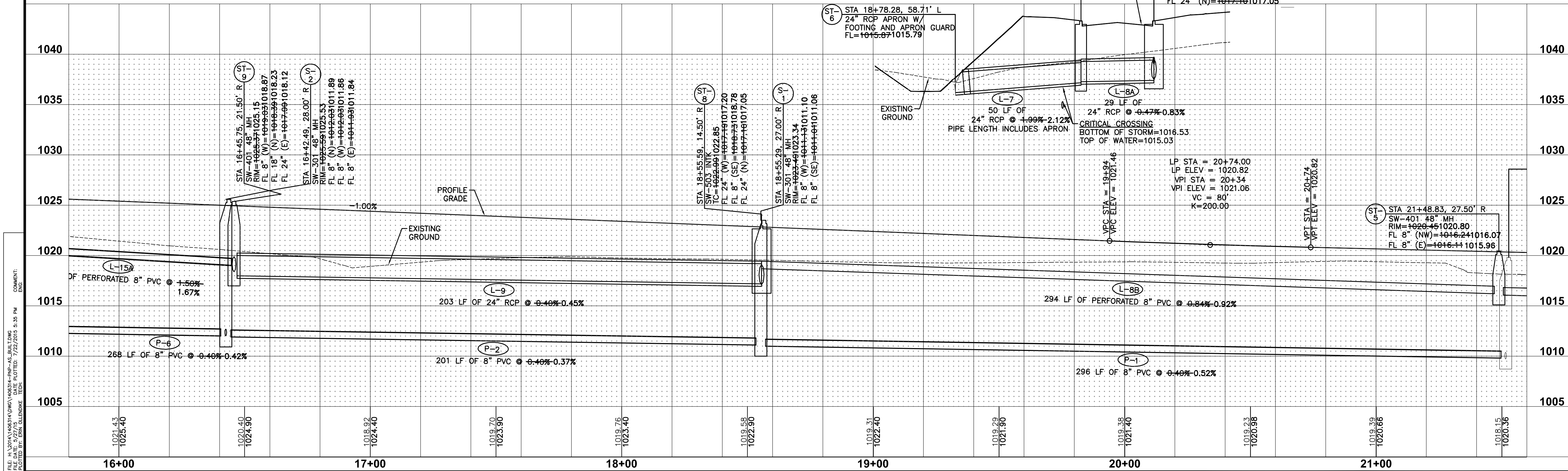
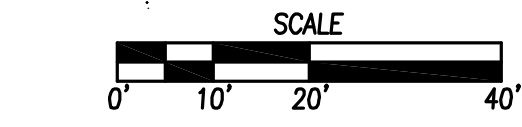
REFER TO SHEET 14 FOR NE WILDEN DRIVE PLAN AND PROFILE.

REFER TO SHEET 21 FOR NE WILDEN DRIVE INCLUDING L-10 AND P-3 PLAN AND PROFILE.

REFER TO SHEET 21 FOR INTERSECTION DETAIL.

SHEET INDEX

Δ = 30°13'53"
L = 263.82'
R = 500.00'
CH = 260.77'
CHB = S75°16'40"E



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DATE
05/27/15
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09/22/14
08/28/14
07/31/14

REVISIONS
AS-BUILT SUBMITTAL
FINAL SUBMITTAL
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FIRST SUBMITTAL

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PHONE: (515) 369-4400 FAX: (515) 369-4410

ENGINEER: EKO

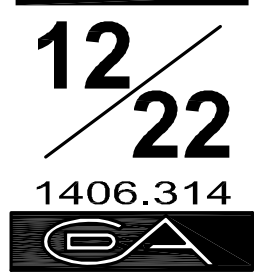
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THE LANDING AT SHADOW
CREEK PLAT 1
STORM AND SANITARY PLAN AND PROFILE

WAUKEE, IOWA

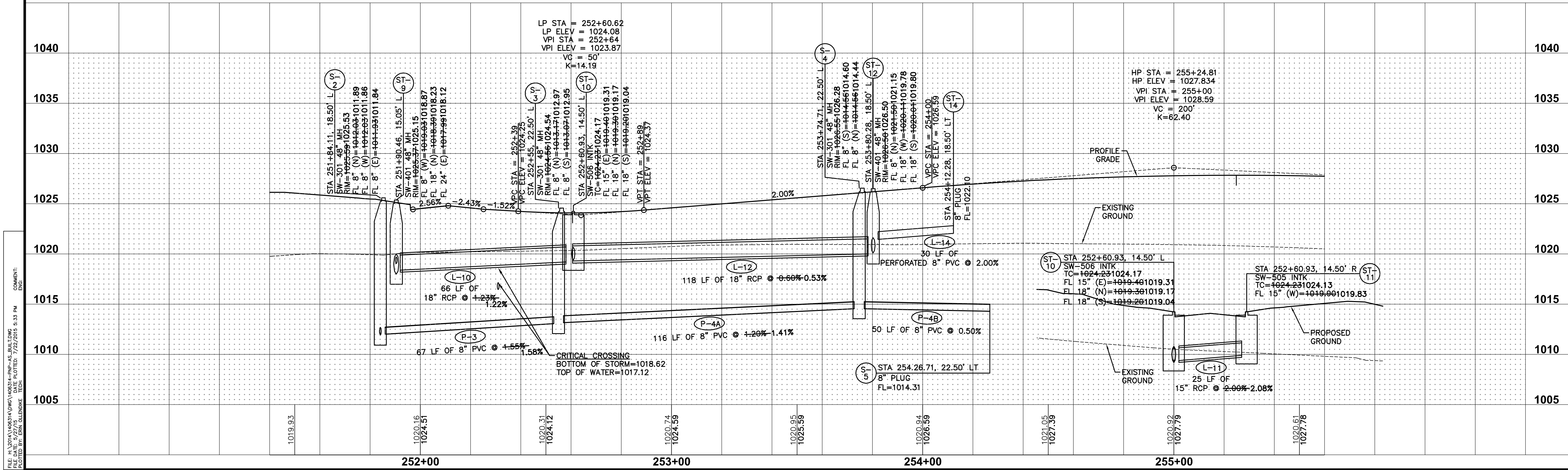
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PLOT BY: GEM GLENDE
EBC

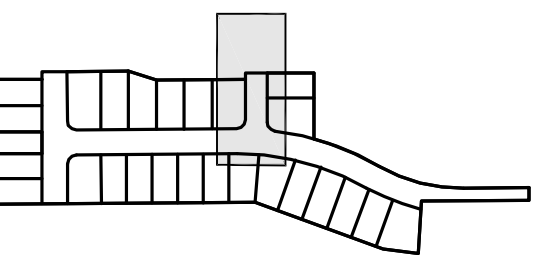


REFER TO SHEET 21 FOR
INTERSECTION DETAIL.

LOT 23

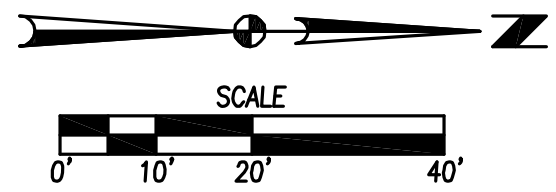
REFER TO SHEET 15 FOR
L-13 PLAN AND PROFILE.

REFER TO SHEET 20 FOR
WATERMAIN PLAN AND PROFILE.



SHEET INDEX

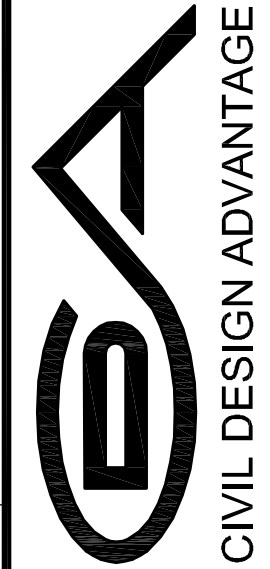
NOTE:
A TEMPORARY TURNAROUND SHALL BE
PLACED ON NE WILDEN DRIVE PER
CITY SPECIFICATIONS SHOULD MASS
GRADING NOT BE STARTED ON THE
LANDING AT SHADOW CREEK PLAT 2
BEFORE CITY ACCEPTANCE OF THIS
PLAT.



THE LANDING AT SHADOW
CREEK PLAT 1
STORM AND SANITARY PLAN AND PROFILE

14
22
1406.314

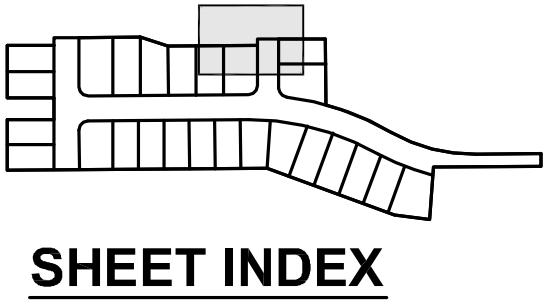
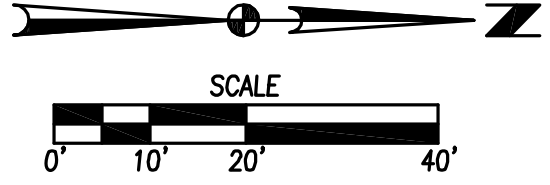
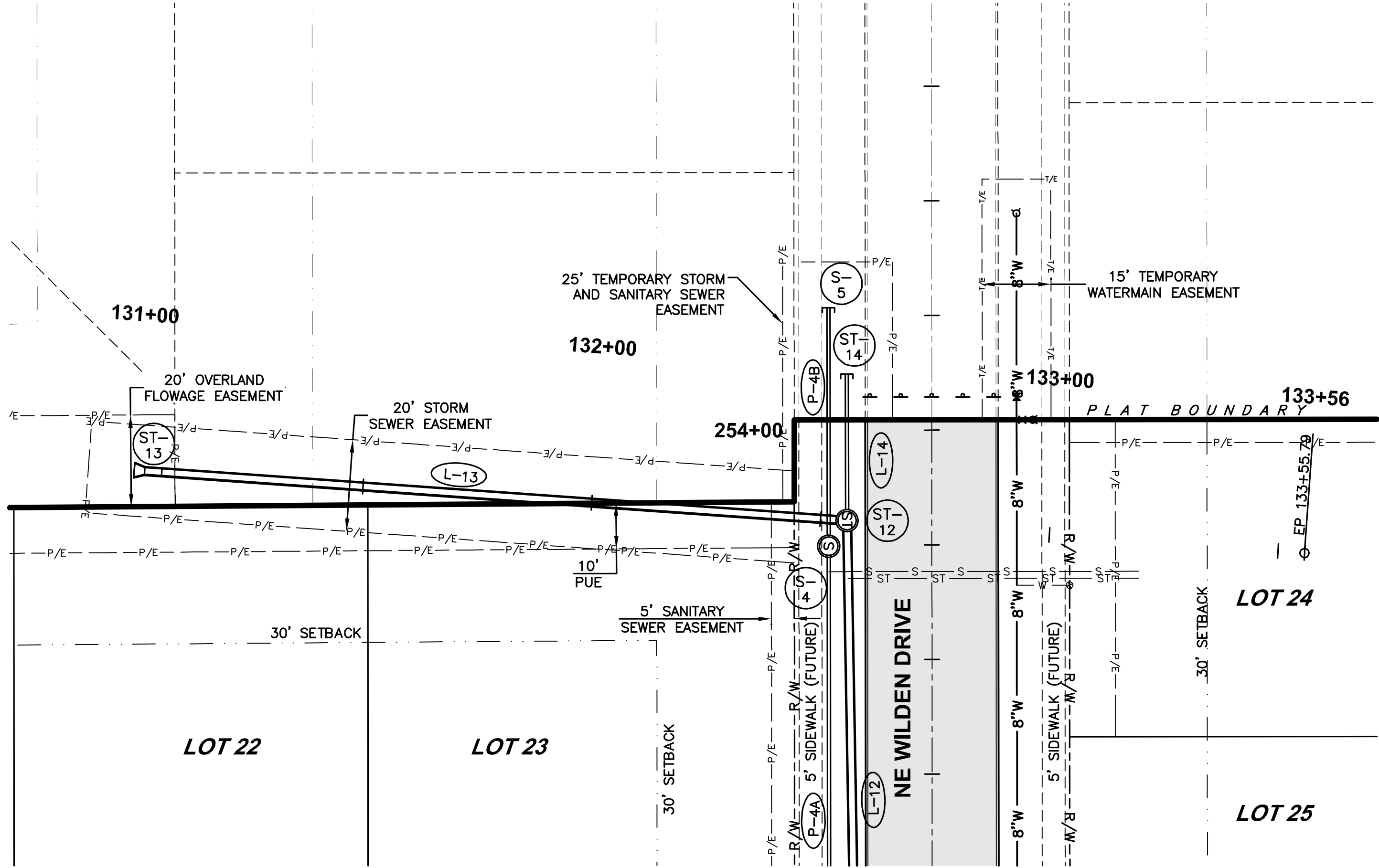
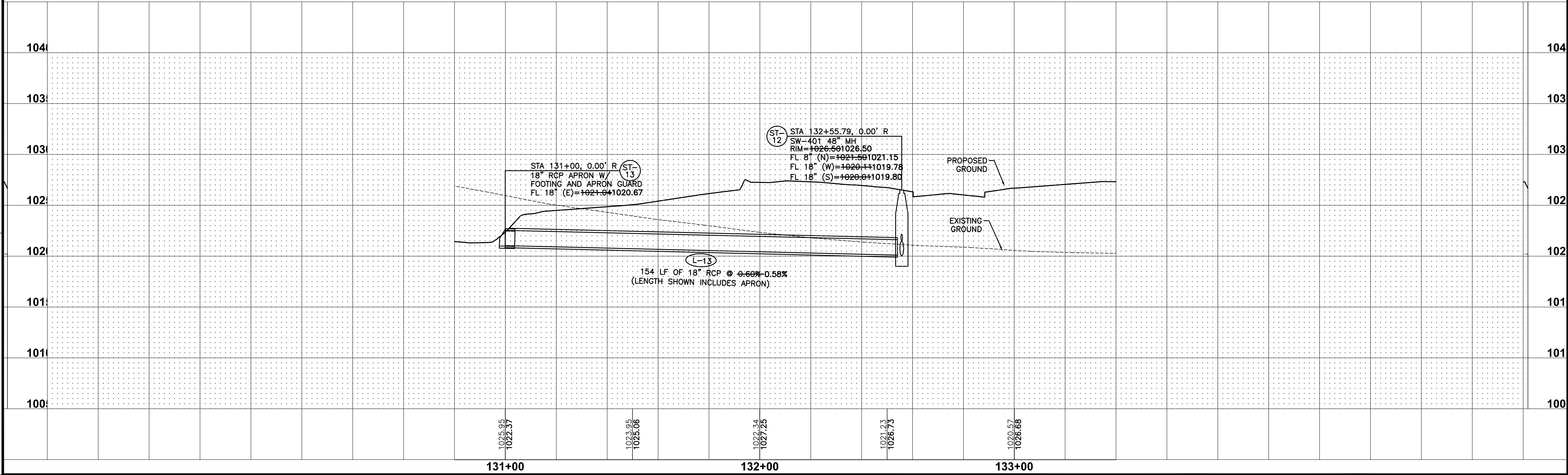
WAUKEE, IOWA



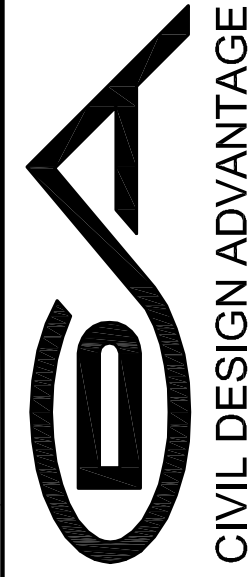
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO EI: JMM

REVISIONS	DATE
AS-BUILT SUBMITTAL	05/27/15
FINAL SUBMITTAL	10/01/14
THIRD SUBMITTAL	09/22/14
SECOND SUBMITTAL	08/28/14
FIRST SUBMITTAL	07/31/14

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PLOT DATE: 7/22/2015 5:31 PM
PLOT BY: ERM GLENDINE



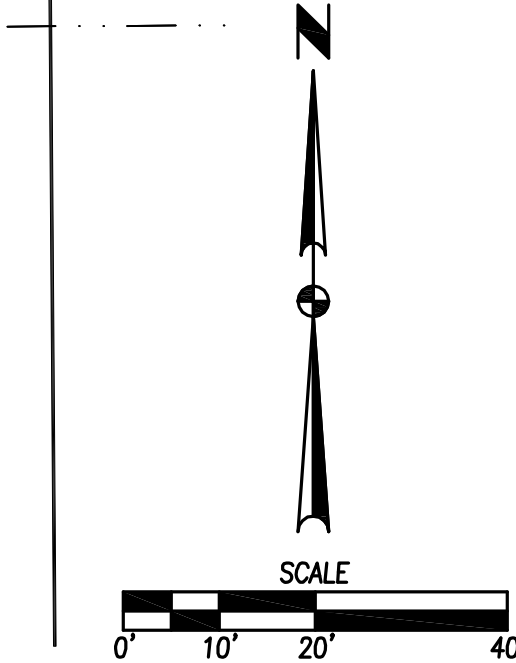
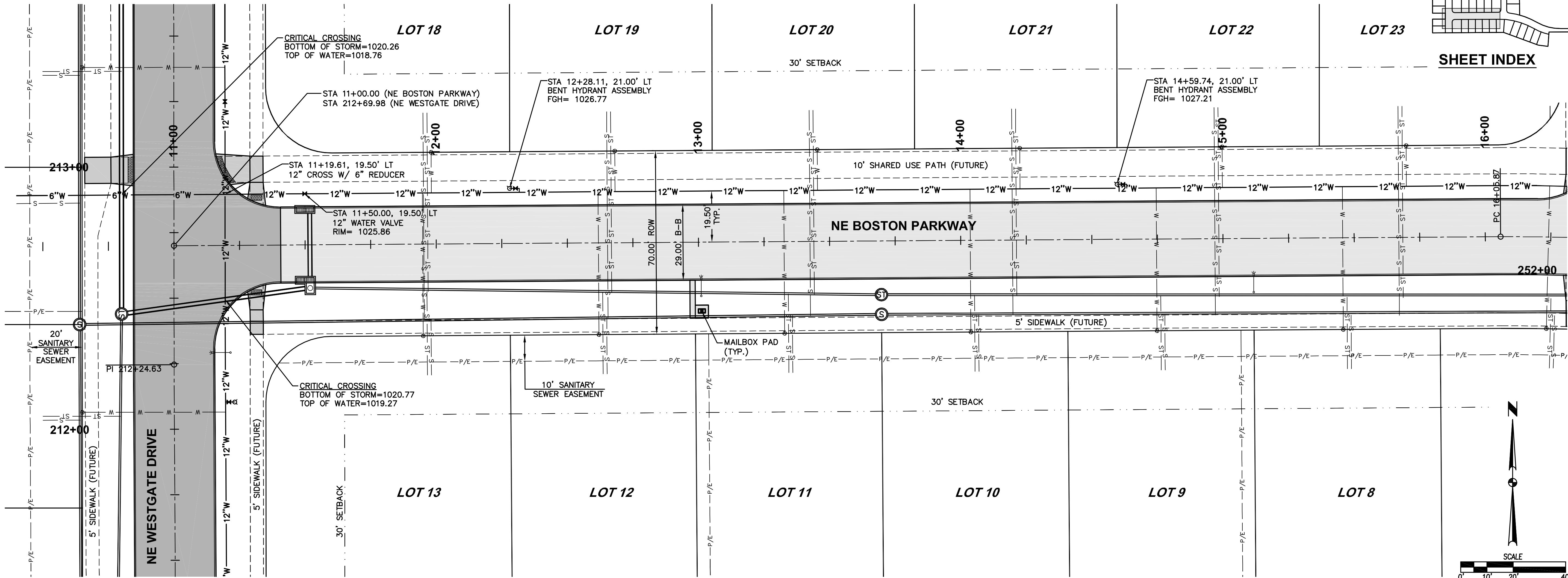
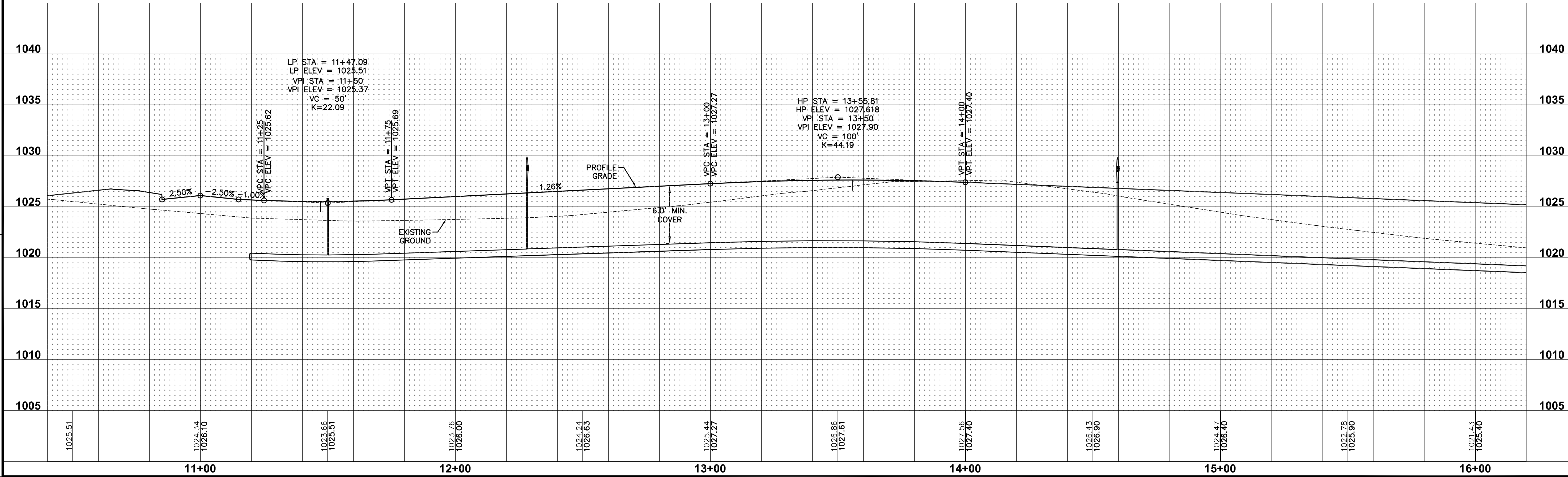
**THE LANDING AT SHADOW
CREEK PLAT 1**
STORM AND SANITARY PLAN AND PROFILE



3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
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ENGINEER: EKO EI: JMM

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FIRST SUBMITTAL	07/31/14

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CONVENT: 1406314
PLOT: 7/22/2015 5:29 PM
PLOT BY: GLENDA
ENG: JMM



SHEET INDEX

THE LANDING AT SHADOW
CREEK PLAT 1
WATERMAIN PLAN AND PROFILE

16
22
1406.314

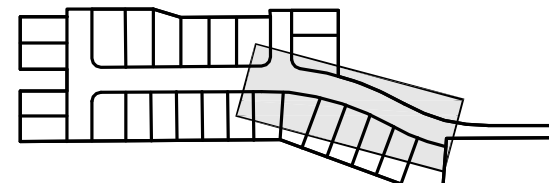
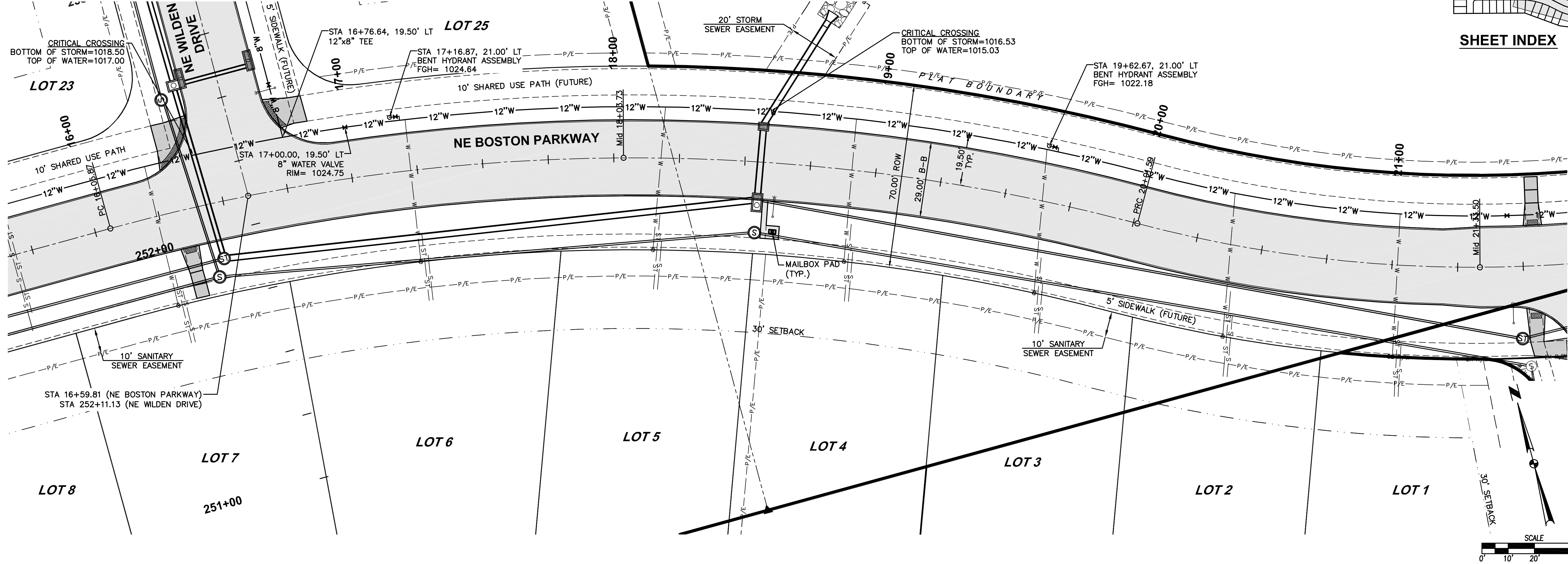
WAUKEE, IOWA



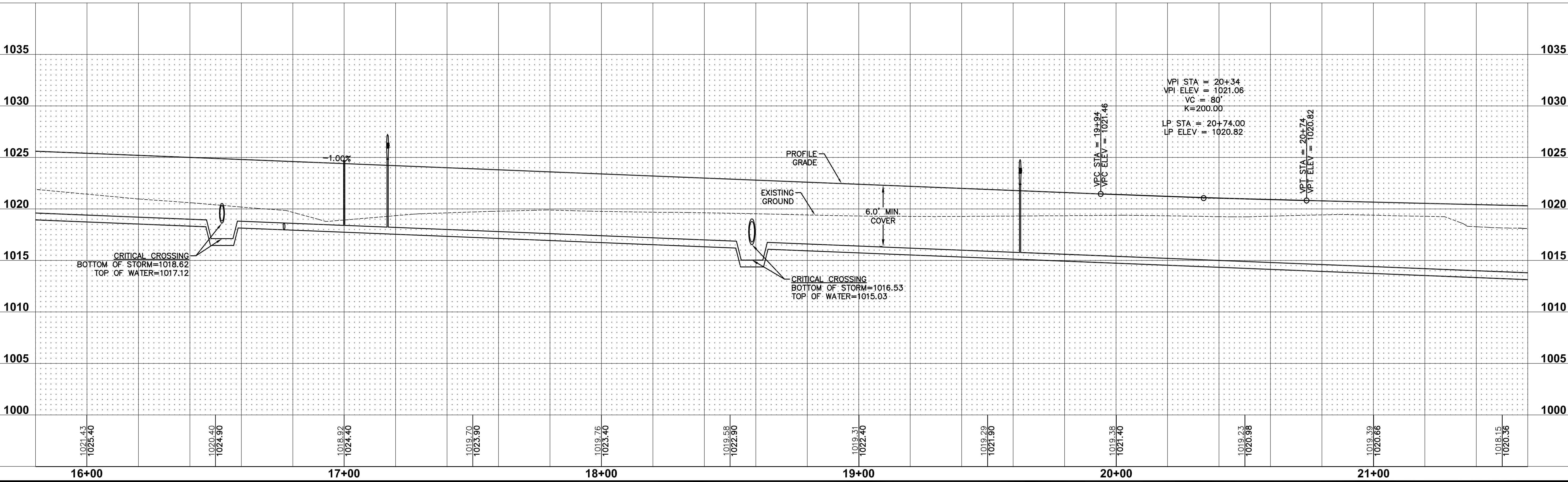
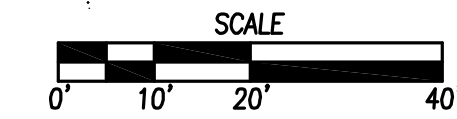
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: JMM

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FIRST SUBMITTAL	07/31/14

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PLOTTER: HP DesignJet 5000 PLOTTED BY: GLENDA HEDGECOCK



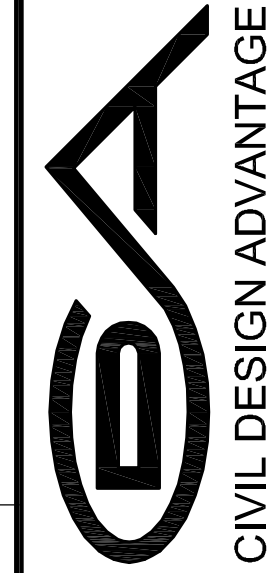
SHEET INDEX



THE LANDING AT SHADOW
CREEK PLAT 1
WATERMAIN PLAN AND PROFILE

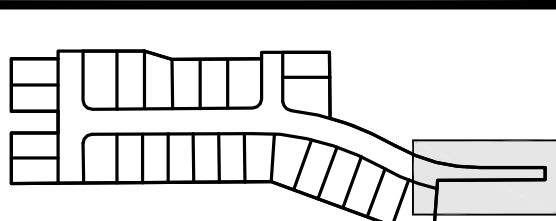
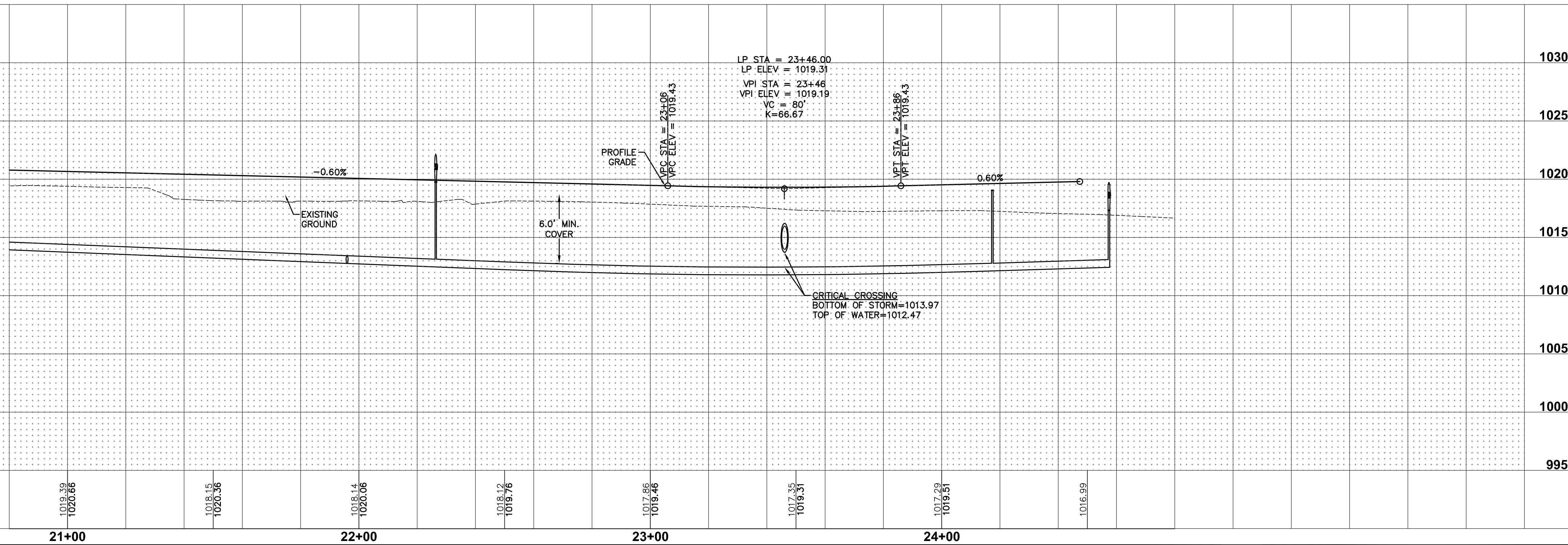
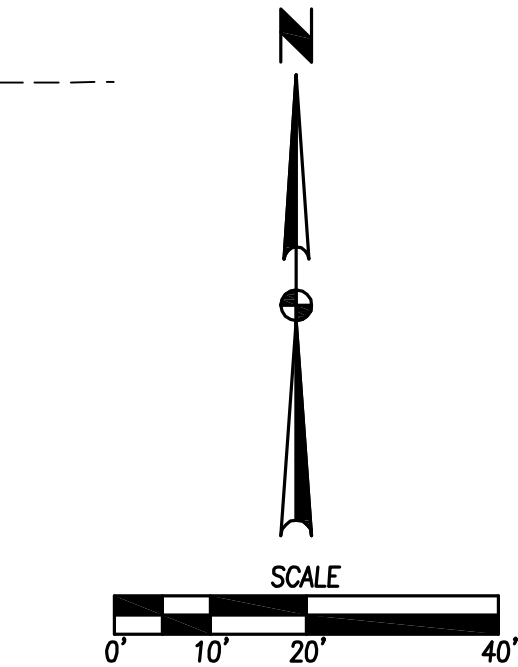
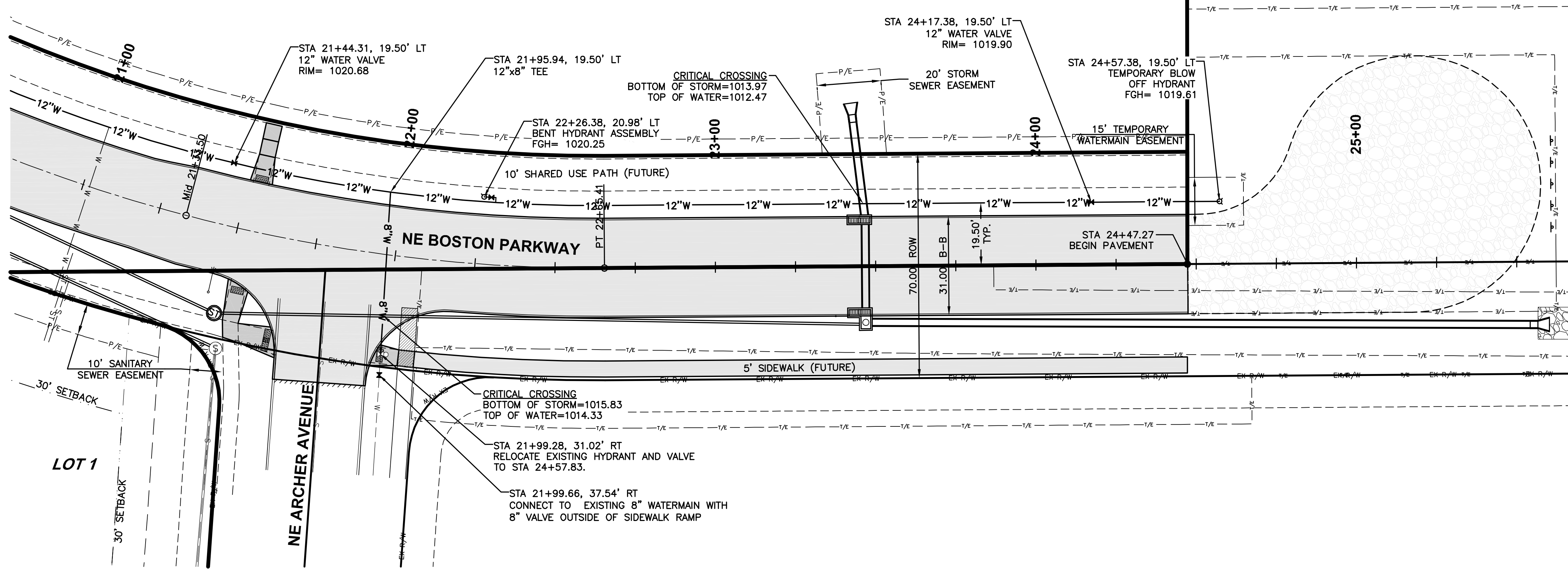
3405 S.E. CROSSROADS DRIVE, SUITE G
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FIRST SUBMITTAL	07/31/14

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PLOT BY: GEM GLENDING TECH



SHEET INDEX

REVISIONS	
DATE	DESCRIPTION
05/27/15	AS-BUILT SUBMITTAL
10/01/14	FINAL SUBMITTAL
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08/28/14	SECOND SUBMITTAL
07/31/14	FIRST SUBMITTAL

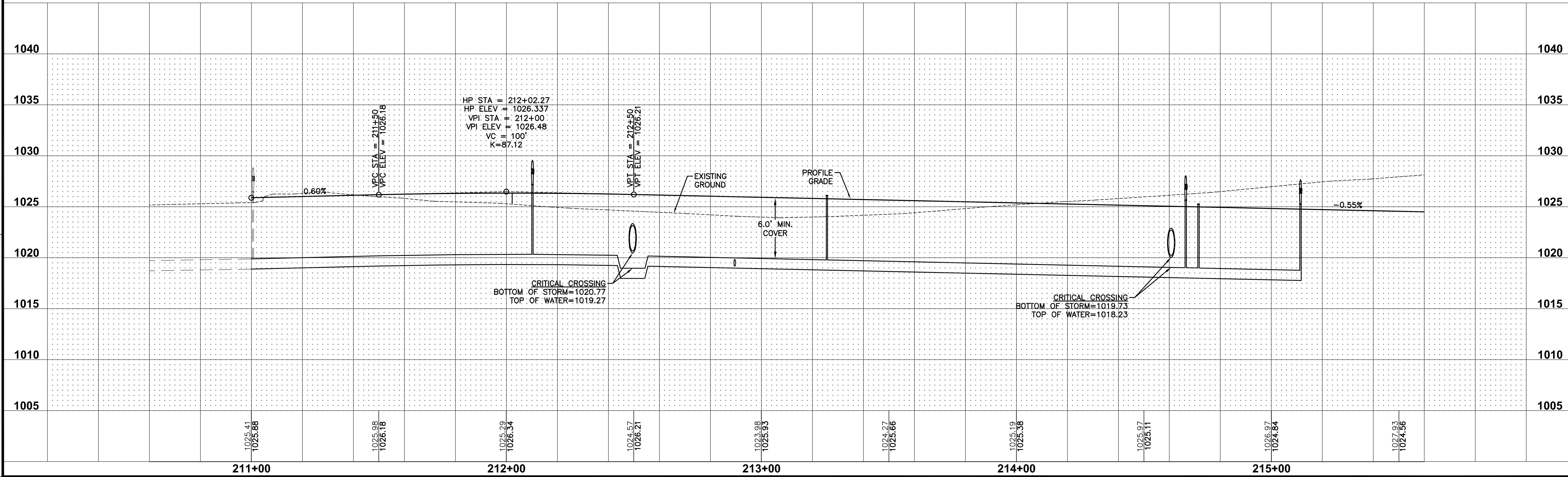
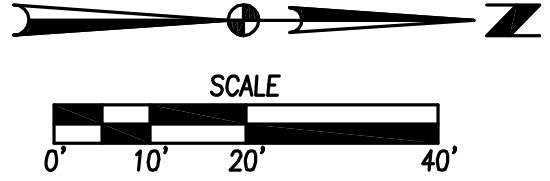
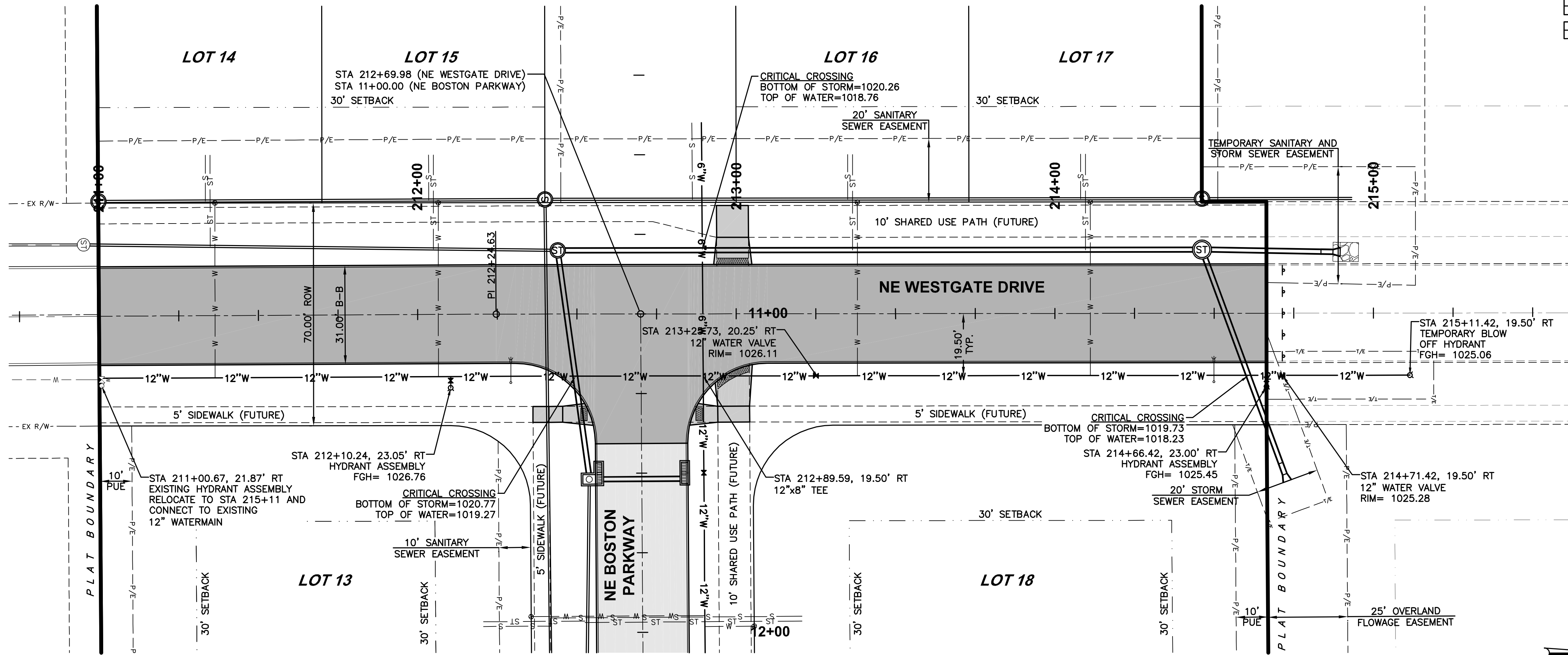
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
E.I: JMM

THE LANDING AT SHADOW CREEK PLAT 1
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

18/22
1406.314

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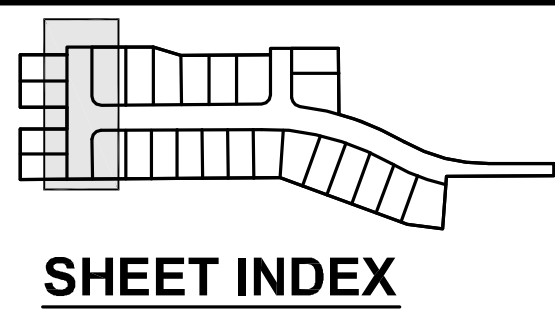
THE LANDING AT SHADOW
CREEK PLAT 1
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

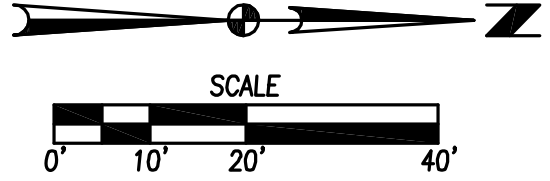
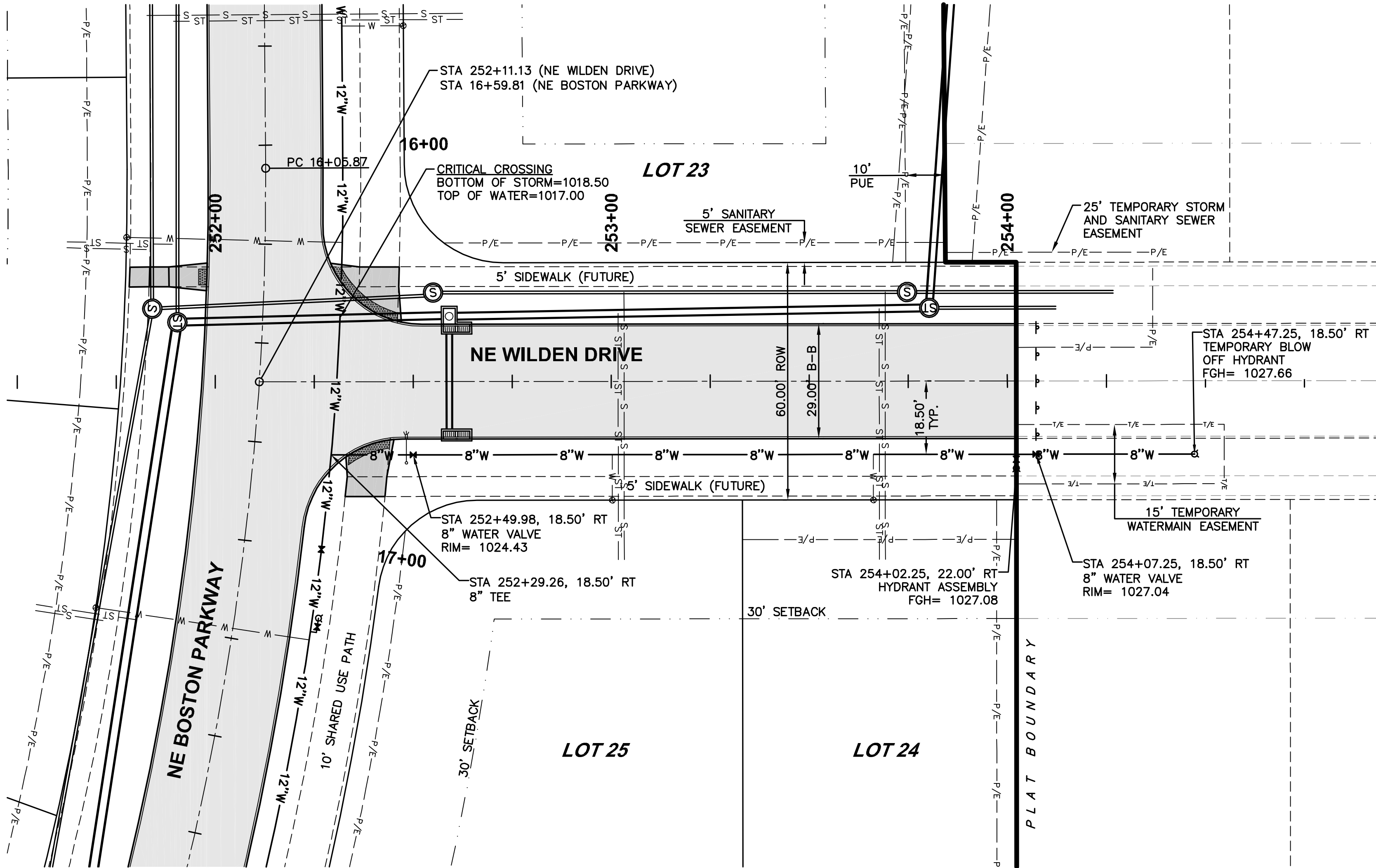
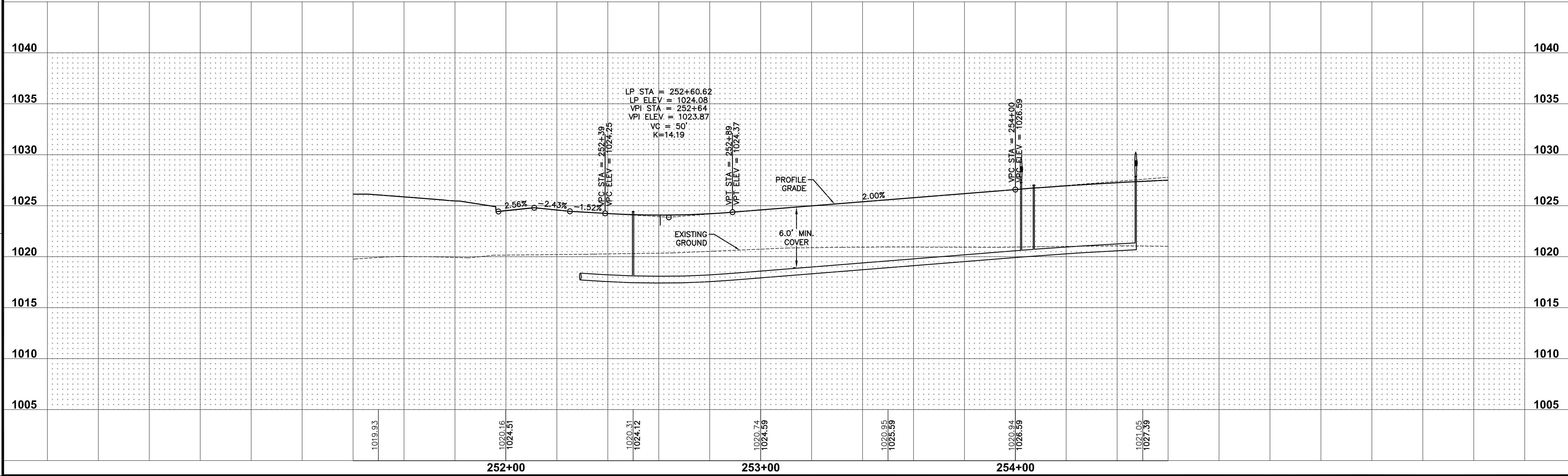


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PHONE: (515) 369-4400 FAX: (515) 369-4410
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E.I: JMM

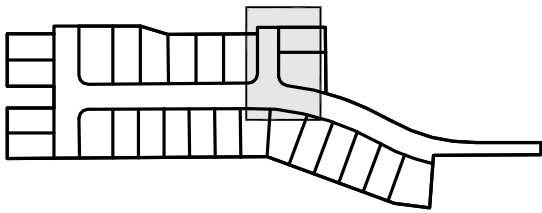
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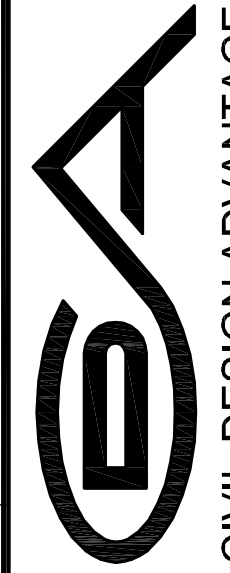
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SHEET INDEX



THE LANDING AT SHADOW
CREEK PLAT 1
WATERMAIN PLAN AND PROFILE

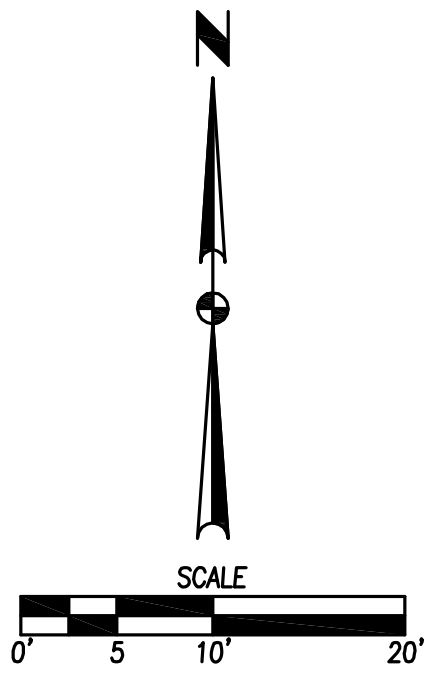


WAUKEE, IOWA

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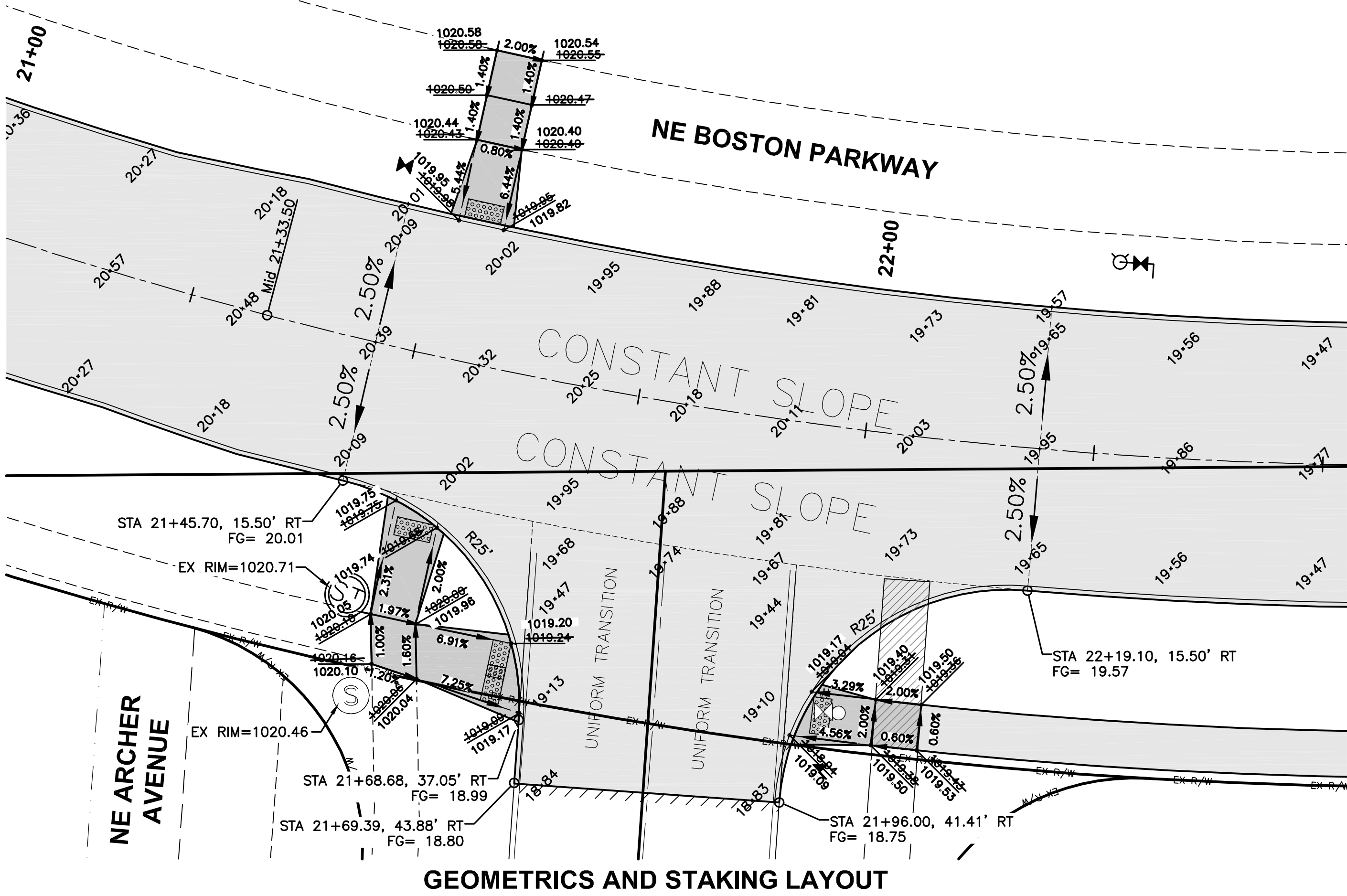
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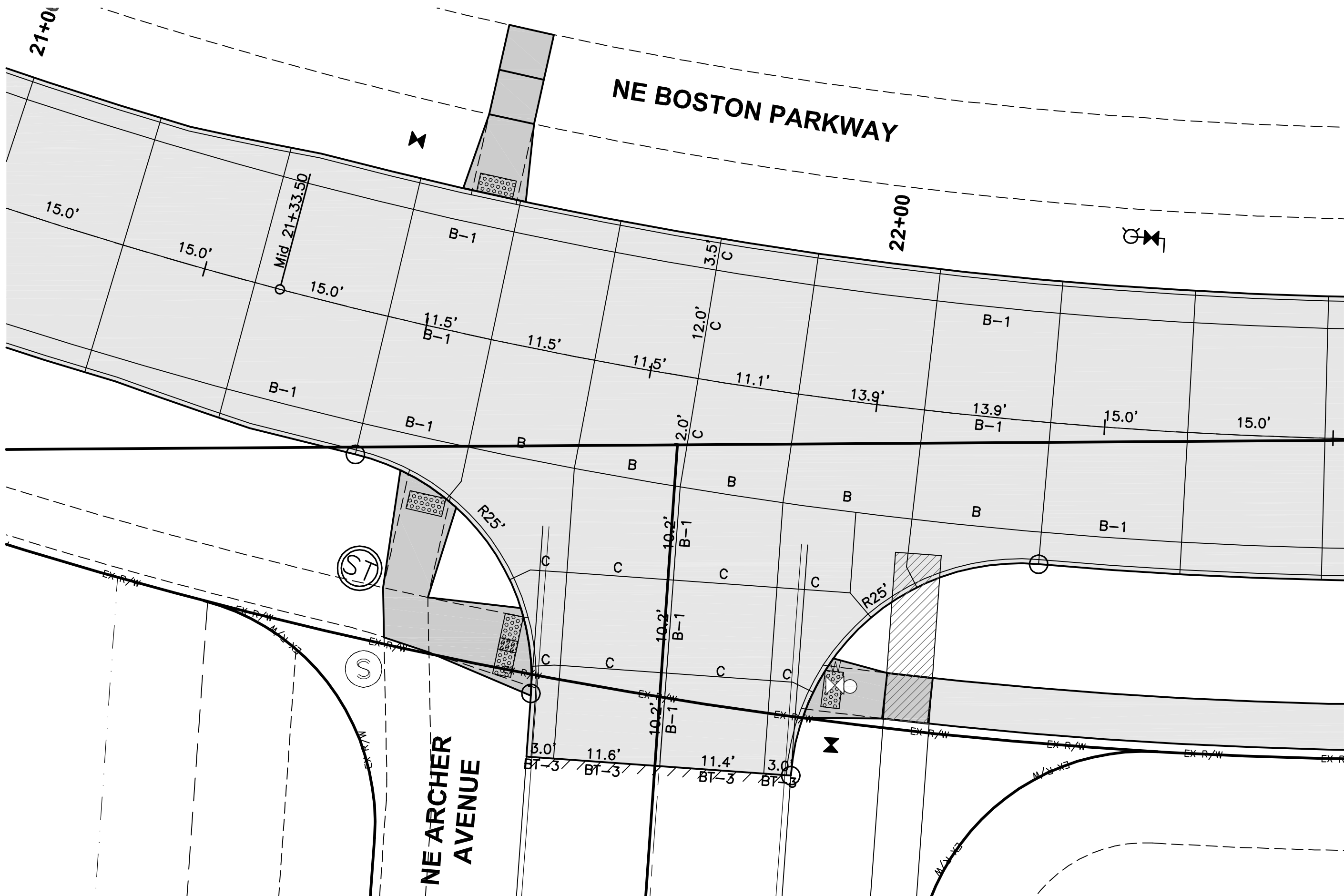


NOTES:

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.



JOINTING LAYOUT



THE LANDING AT SHADOW
CREEK PLAT 1
INTERSECTION DETAILS



WAUKEE, IOWA

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