

# THE LANDING AT KETTLESTONE

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## PROPERTY DESCRIPTION:

PARCEL 18-57 (BOOK 2018 PAGE 15814)  
AN IRREGULAR SHAPED PORTION OF GOVERNMENT LOT 3 OF THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 78 N, RANGE 26 WEST OF THE 5TH P.M., WAUKEE, DALLAS COUNTY, IOWA, IS DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 3; THENCE N00°31'53"E ALONG THE WEST LINE OF SAID GOVERNMENT LOT 3 AND ALONG THE EAST LINE OF PARK VIEW CROSSING, AN OFFICIAL PLAT, WAUKEE, DALLAS COUNTY, IOWA, A DISTANCE OF 727.66 FEET; THENCE S89°46'43"E, A DISTANCE OF 30.60 FEET; THENCE SOUTHEASTERLY ALONG A 375.00 FOOT RADIUS CONCAVE SOUTHERLY, A DISTANCE OF 70.94 FEET, SAID CURVE HAVING A CHORD BEARING OF S84°21'33"E AND A CHORD LENGTH OF 70.83 FEET; THENCE N11°03'37"E, A DISTANCE OF 91.00 FEET; THENCE SOUTHEASTERLY ALONG A 466.00 FOOT RADIUS CURVE CONCAVE SOUTHWESTERLY, A DISTANCE OF 156.47 FEET, SAID CURVE HAVING A CHORD BEARING OF S 69°19'15"E AND A CHORD LENGTH OF 155.73 FEET; THENCE NORTHEASTERLY ALONG A 461.00 FOOT RADIUS CURVE CONCAVE SOUTHEASTERLY, A DISTANCE OF 265.64 FEET, SAID CURVE HAVING A CHORD BEARING OF N64°09'42"E AND A CHORD LENGTH OF 261.98 FEET; THENCE N80°40'09"E, A DISTANCE OF 112.67 FEET; THENCE NORTHEASTERLY ALONG A 529.00 FOOT RADIUS CURVE CONCAVE NORTHWESTERLY, A DISTANCE OF 165.63 FEET, SAID CURVE HAVING A CHORD BEARING OF N71°41'57"E AND A CHORD LENGTH OF 164.96 FEET; THENCE N53°26'26"E, A DISTANCE OF 161.00 FEET; THENCE SOUTHEASTERLY ALONG A 1101.00 FOOT RADIUS CURVE CONCAVE SOUTHWESTERLY, A DISTANCE OF 315.21 FEET, SAID CURVE HAVING A CHORD BEARING OF S28°21'28"E AND A CHORD LENGTH OF 314.13 FEET; THENCE NORTHEASTERLY ALONG A 1145.00 FOOT RADIUS CURVE CONCAVE SOUTHERLY, A DISTANCE OF 212.36 FEET, SAID CURVE HAVING A CHORD BEARING OF N85°29'36"E AND A CHORD LENGTH OF 212.05 FEET; THENCE S89°11'37"E, A DISTANCE OF 51.76 FEET TO THE EAST LINE OF SAID GOVERNMENT LOT 3; THENCE S00°33'20"W ALONG THE EAST LINE OF SAID GOVERNMENT LOT 3, A DISTANCE OF 632.58 FEET TO THE SOUTHEAST CORNER OF SAID GOVERNMENT LOT 3 AND TO THE NORTH LINE OF PARKVIEW CROSSING PLAT 9, AN OFFICIAL PLAT, WAUKEE, DALLAS COUNTY, IOWA; THENCE S83°48'58"W ALONG THE SOUTH LINE OF SAID GOVERNMENT LOT 3 AND THE NORTH LINE OF SAID PARKVIEW CROSSING PLAT 9 AND ALONG THE NORTH LINE OF PARKVIEW CROSSING PLAT 6 AN OFFICIAL PLAT, WAUKEE, DALLAS COUNTY, IOWA, A DISTANCE OF 1317.78 FEET TO THE POINT OF BEGINNING. SAID TRACT OF LAND BEING SUBJECT TO AND TOGETHER WITH ANY AND ALL EASEMENTS OF RECORD.

SAID TRACT OF LAND CONTAINS 23.17 ACRES.

## OWNER/PREPARED FOR:

KENYON HILLS RIDGE  
PAUL STENDER  
33741 BERNS SHORE DR  
ADEL, IOWA 50003

## PROJECT MANAGER:

SPRINGLAKE CONSTRUCTION  
DEAN QUIRK  
SPRINGLAKE@Q.COM

## ZONING:

PLANNED UNIT DEVELOPMENT (PUD) APPROVED ORDINANCE #2897  
UNDERLYING ZONING: R-2/PD-1 (ONE AND TWO FAMILY RESIDENTIAL)

## DEVIATIONS:

### 1. SETBACKS:

FRONT	25 FT
REAR	25 FT
SIDE	5 FT EACH SIDE

### 2. LOT AREA: MINIMUM LOT AREA 4500 SQ FT FOR ANY LOT WITH DEVELOPMENT

### 3. LOT WIDTH: 50 FEET AT SETBACK

### 4. LOT DEPTH: 90 FEET

### ADDITIONAL PROVISIONS:

- VINYL SIDING IS PROHIBITED
- HOUSE NEXT TO EACH OTHER CAN NOT BE THE SAME ELEVATION
- THREE TREES AND THREE SHURBS ARE PLANTED WITH EACH AS IT DEVELOPS
- A MINIMUM OF 25% BRICK OR STONE ON EACH FRONT FACADE

### A MINIMUM OF A TWO-CAR GARAGE

## BENCHMARK:

BASIS OF BEARING OBTAINED FROM GPS OBSERVATIONS  
DATUM = NAD 83, IOWA SOUTH  
BENCHMARK DATUM = CITY DATUM OR NAVD88, GEOID 12A)

## UTILITY NOTE:

THE LOCATION OF THE UTILITIES INDICATED ON THE PLANS HAVE BEEN TAKEN FROM THE FIELD SURVEY, EXISTING PUBLIC RECORDS, AND PLANS PROVIDED BY OTHERS. SURFACE UTILITY LOCATIONS HAVE BEEN FIELD LOCATED BY BISHOP ENGINEERING, UNLESS OTHERWISE NOTED. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE LOCATIONS ONLY. BISHOP ENGINEERING DOES NOT GUARANTEE THE UNDERGROUND LOCATION OF ANY UTILITIES SHOWN. IT SHALL BE THE DUTY OF THE CONTRACTOR TO DETERMINE THE LOCATION AND DEPTH OF ANY UNDERGROUND UTILITIES SHOWN AND IF ANY ADDITIONAL UTILITIES, OTHER THAN THOSE SHOWN ON THE PLANS, MAY BE PRESENT, A REQUEST WAS MADE TO IOWA ONE CALL FOR UTILITY PROVIDERS TO VERIFY, LOCATE, AND MARK THEIR UTILITIES IN THE FIELD.



## GENERAL NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND 2019 SUDAS STANDARD SPECIFICATIONS AND ANY AND ALL CITY/COUNTY SUPPLEMENTAL SPECIFICATIONS. THE CITY OF WAUKEE MUST BE NOTIFIED BY ALL CONTRACTORS 48 HOURS PRIOR TO COMMENCING WORK AND PRIOR TO ANY WEEKEND OR HOLIDAY WORK.
- IN EVENT OF A DISCREPANCY BETWEEN THE QUANTITY ESTIMATES AND THE DETAILED PLANS, THE DETAILED PLANS SHALL GOVERN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY DAMAGE TO SAID UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT O.S.H.A. CODES AND STANDARDS. NOTHING INDICATED ON THESE PLANS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE APPROPRIATE SAFETY REGULATIONS.
- ALL NECESSARY CONSTRUCTION SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES REQUIRED DURING CONSTRUCTION WILL BE FURNISHED BY THE CONTRACTOR. SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES MUST BE IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
- BISHOP ENGINEERING SHALL NOT BE LIABLE FOR ANY INJURIES THAT HAPPEN ON SITE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO TRENCH COLLAPSES FROM VARYING SOIL CONDITIONS OR INJURIES CAUSED BY UNDERGROUND UTILITIES INCLUDING UTILITIES THAT ARE NOT SHOWN ON PLAN.
- THE CONTRACTOR IS LIABLE FOR ALL DAMAGES TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN PROVIDING FOR STORM WATER FLOW DURING CONSTRUCTION. DO NOT RESTRICT FLOWS IN EXISTING DRAINAGE CHANNELS, STORM SEWER, OR FACILITIES.
- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A SCHEDULE FOR PERFORMANCE OF WORK ITEMS. THIS SCHEDULE SHALL BE PROVIDED BY THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. NO WORK SHALL BEGIN UNTIL A SCHEDULE HAS BEEN SUBMITTED AND ACCEPTED. THE CONTRACTOR SHALL THEN PERFORM WORK TO CONFORM TO THE ACCEPTED SCHEDULE.
- LABORATORY TESTS SHALL BE PERFORMED BY THE OWNER UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE SAMPLES OF MATERIAL REQUIRED FOR LABORATORY TESTS AND TESTING IN ACCORDANCE WITH THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- SOIL IMPORT OR EXPORT ON THIS PROJECT SHALL BE CONSIDERED INCIDENTAL AND WILL NOT BE MEASURED OR PAID FOR SEPARATELY.
- THE CONTRACTOR SHALL PROTECT ALL STRUCTURES NOT SHOWN AS REMOVALS ON THE PLANS.
- THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL WORK WITH OWNER OR OWNERS REPRESENTATIVE ON ALL REQUIRED STORM WATER DISCHARGE PERMITS FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES AND THE CITY OF WAUKEE.
- GRADING AND EROSION CONTROL SHALL BE DONE IN ACCORDANCE WITH THE APPROVED GRADING PLAN, COSECSO PERMIT, SWPPP, NPDES DOCUMENTS, AND IOWA DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.
- THE CONTRACTOR SHALL PICK UP ANY DEBRIS SPILLED ONTO THE ADJACENT RIGHT OF WAY OR ABUTTING PROPERTIES AS THE RESULT OF CONSTRUCTION, AT THE END OF EACH WORK DAY AND PRIOR TO A RAIN EVENT.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REMOVAL OF ALL MUD THAT HAS BEEN TRACKED OR WASHED UNTO ADJACENT PROPERTY OR RIGHT OF WAY UNTIL SUCH TIME THAT PERMANENT VEGETATION HAS BEEN ESTABLISHED.
- DISPOSE OF ALL EXCESS MATERIALS AND TRASH IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIALS NOT DESIRABLE FOR INCORPORATION INTO THE PROJECT.
- CONTRACTOR IS REQUIRED TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH WAUKEE PUBLIC WORKS DEPARTMENT ONE (1) WEEK PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
- ALL CONSTRUCTION STAKING IS TO BE COMPLETED UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER, INCLUDING ALL PEDESTRIAN FACILITIES.
- ALL SIDEWALKS AND PEDESTRIAN RAMPS ARE TO BE INSTALLED PER THE LATEST PROWAG AND ADA REQUIREMENTS.
- CONTRACTOR IS TO PROVIDE SUBMITTALS OF ALL CONSTRUCTION MATERIALS PRIOR TO CONSTRUCTION.
- ANY CHANGES TO THE PLAN SET DURING CONSTRUCTION ARE TO RECEIVE WRITTEN APPROVAL FROM THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO EXECUTING THE CHANGES. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES EXECUTED THAT HAVE NOT RECEIVED WRITTEN APPROVAL FROM THE WAUKEE ENGINEERING DEPARTMENT.
- CONTRACTOR IS TO BE MINDFUL OF MEANS AND METHODS TO MITIGATE FLOODING CONCERNS DURING CONSTRUCTION ACTIVITIES. FOR EXAMPLE BUT NOT LIMITED TO, CONTRACTOR SHALL NEVER HAVE INTERMEDIATE GRADING THAT PUSHES WATER ONTO THE NEIGHBORS WITHOUT GOING THROUGH AN OUTLET STRUCTURE.

## PAVING NOTES:

- THE PAVING/GRADING CONTRACTOR SHALL BACKFILL THE PAVING SLAB AND FINE GRADE THE RIGHT OF WAY AS SOON AFTER THE PAVING AS POSSIBLE. ALL AREAS SHALL BE SEEDED IN ACCORDANCE WITH CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE CURRENT VERSION OF SUDAS.
- SUBGRADE PREPARATION AND PAVEMENTS WILL BE CONSTRUCTED FOLLOWING RECOMMENDATIONS IN THE SOILS REPORT. APPROVED SOILS ENGINEER MUST SIGN OFF ON SUBASE PRIOR TO ANY PAVEMENT BEING PLACED.
- SEE DETAILS FOR ALL PAVEMENT THICKNESS.
- ALL PEDESTRIAN WALKWAYS THAT UNLOAD INTO A VEHICLES TRAVELED PATH MUST HAVE A D.A. DETECTABLE WARNING PANEL(S) AS PER A.D.A. REGULATIONS. PANEL TYPE & COLOR SHALL BE PER CITY STANDARD.
- ALL WALKS, PARKING LOTS, HANDICAP PARKING, RAMPS, ETC. SHALL COMPLY WITH ALL A.D.A. AND CITY CODES. HANDICAP PARKING SIGNAGE IS REQUIRED FOR ALL HANDICAP STALLS AND SHALL BE CONSIDERED INCIDENTAL. IN EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE A.D.A./CITY CODES THE A.D.A./CITY CODES SHALL GOVERN. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING A.D.A. CODES ARE MET.

## UTILITY NOTES:

- QUANTITY CALLOUTS ON PIPE LENGTHS ARE APPROXIMATE AND SHOULD BE USED FOR REFERENCE ONLY.
- THE CONTRACTOR SHALL PROVIDE AS-BUILTS OF ALL UTILITIES, INCLUDING DEPTH AND LOCATION OF ALL SERVICES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND ALL COSTS ASSOCIATED WITH AS-BUILT TOPO OF DETENTION POND & DETENTION POND STORM SEWER. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING BISHOP ENGINEERING (DAVID BENZ AT 515-276-0467) TO PERFORM SAID AS-BUILT SURVEY. IF DETENTION PONDS HAVE BEEN GRADED INCORRECTLY, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBSEQUENT AS-BUILT TOPO SURVEYS UNTIL ISSUES HAVE BEEN RECTIFIED.
- THE CONTRACTOR SHALL COORDINATE THE ADJUSTMENT OF ANY AND ALL EXISTING AND PROPOSED UTILITIES TO PROPOSED GRADES. EXISTING UTILITIES SHALL BE RAISED OR LOWERED IN ACCORDANCE WITH THE UTILITY OWNER REQUIREMENTS. ANY NECESSARY ADJUSTMENTS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- ACTIVE EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED, REROUTED, OR CONNECTED TO PUBLIC OR PRIVATE STORM SEWER TO REMAIN IN SERVICE AND BE NOTED ON THE AS BUILT DRAWINGS.
- ALL PROPOSED RCP STORM SEWER PIPE JOINTS SHALL BE FABRIC WRAPPED AND THE LAST 3 PIPE SECTIONS ON THE APRON SHALL BE TIED WITH RF-14 TYPE II CONNECTORS. ALL APRONS SHALL HAVE A STANDARD FOOTING AND TRASH GUARD.
- ALL RIP RAP CALLED OUT ON PLANS SHALL BE UNDERLAIN WITH ENGINEERING FABRIC.
- SANITARY SEWER SERVICE CONNECTIONS SHALL BE PLACED AT A SLOPE OF NO LESS THAN 2%. SERVICES SHALL MAINTAIN 18" OF VERTICAL SEPARATION FROM THE WATERMAIN WITH 18" OF COMPACTED LOW PERMEABILITY SOIL BETWEEN THE UTILITIES WITHIN 10' OF THE CROSSING.
- MANDREL AND PRESSURE TESTS SHALL BE REQUIRED FOR ALL PROPOSED SANITARY LINES. TELEVISION OF THE SANITARY SEWER SYSTEM SHALL BE COMPLETED PRIOR TO PAVING UNLESS OTHERWISE APPROVED BY JURISDICTION.
- WATERMANS SHALL BE C-900. SIZE OF WATERMAIN AS SHOWN ON PLANS.
- THRUST BLOCKS SHALL BE INSTALLED AS REQUIRED AND SHALL BE CONSIDERED INCIDENTAL TO WATERMAIN CONSTRUCTION.
- PROPOSED WATERMAIN SHALL BE PRESSURE TESTED, BACTERIA TESTED AND CHLORINATED. THE FILLING OF THE WATER MAIN SHALL BE DONE BY THE CITY OF WAUKEE.
- TRACER WIRE SHALL BE ADDED TO ALL WATER MAIN, AND BROUGHT TO THE SURFACE AT EVERY HYDRANT.
- ALL HYDRANTS WILL IMMEDIATELY BE COVERED WITH A BLACK PLASTIC BAG (OR EQUIVALENT) ONCE THE HYDRANT IS INSTALLED. THE CITY OF WAUKEE WILL NOTIFY THE CONTRACTOR WHEN THE BAGS CAN BE REMOVED. ALL HYDRANTS ARE TO HAVE 4-INCH STORZ FITTINGS
- THE MINIMUM HYDRANT LEAD SHALL BE 3.5 FEET.
- ALL UTILITIES ARE TO BE CONSTRUCTED TO THE REQUIREMENTS OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS
- ALL UTILITIES ARE TO BE TESTED TO THE REQUIREMENTS OF THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS. THE CITY TO WITNESS ALL TESTING AND OPERATE ALL VALVES.
- ALL SANITARY AND STORM SEWER IS TO BE CLEANED AND TELEVIEWED PRIOR TO PAVING.
- ALL SANITARY SEWER MANHOLES ARE TO BE VACUUM TESTED.
- ALL CONNECTIONS TO EXISTING MANHOLES ARE TO BE CORE DRILLED AND USE A LINK SEAL.

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## UTILITY CONFLICT NOTES:

- UTILITY CONFLICTS MAY EXIST ACROSS THE SITE WITH NEW UTILITIES, GRADING, PAVING ETC. MOST UTILITY CONFLICTS HAVE BEEN CALLED OUT FOR CONTRACTOR CONVENIENCE.
- CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONFLICTS THAT ARE EITHER CALLED OUT ON THE PLANS OR THAT CAN BE SEEN ON THE PLANS BETWEEN AN EXISTING UTILITY AND PROPOSED CONSTRUCTION

## WETLAND NOTES:

- BISHOP ENGINEERING DOES NOT PERFORM WETLAND STUDIES OR WETLAND MITIGATION. IT IS THE OWNER'S RESPONSIBILITY TO DETERMINE IF ANY WETLANDS ARE LOCATED ON THE PROJECT SITE AND PERFORM ANY NECESSARY MITIGATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

## SURVEY NOTES:

- SURVEY WORK WAS COMPLETED BY BISHOP ENGINEERING ON 06/2016. SEE SITE SURVEY PROVIDED AS PART OF THIS SET OF PLANS FOR EXISTING SITE CONDITIONS AND BOUNDARY INFORMATION.

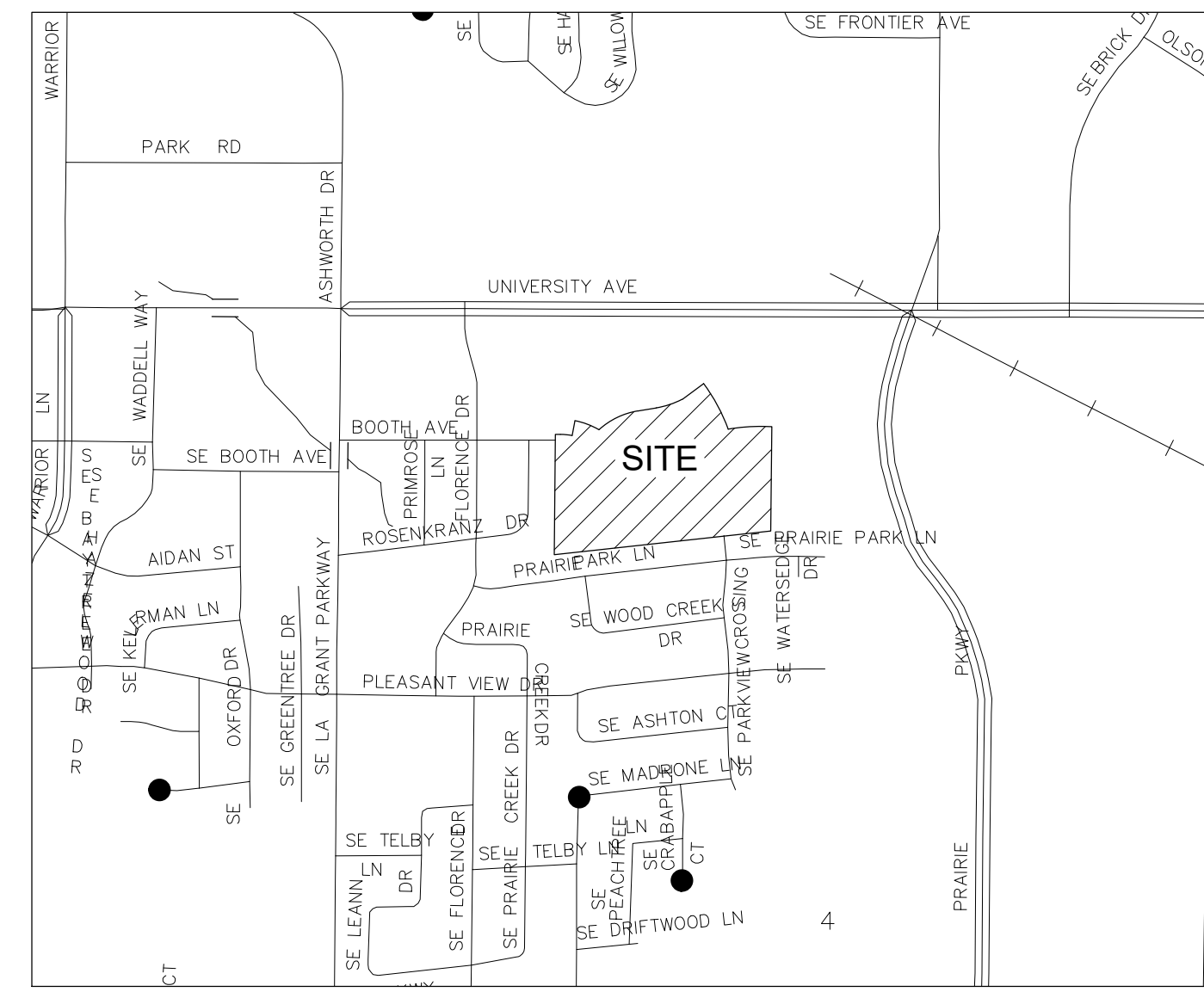
## TEMPORARY TURN AROUND:

- LOT 10 IS BEING USED AS A TEMPORARY TURN AROUND. THE LOT WILL BE UNBUILDABLE UNTIL SE BOOTH AVE IS EXTENDED TO THE EAST OR AN OFFSITE TURNAROUND EASEMENT IS SECURED. THE DEVELOPER IS RESPONSIBLE FOR MAINTAINING THE TURN AROUND

## QUANTITY ESTIMATE NOTES:

QUANTITIES ARE PROVIDED FOR ESTIMATE ONLY. DETAILED PLANS GOVERN.

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM	UNITS	QUANTITY
1	DEMOLITION	LS	1
2	STRIP & RE-SPREAD TOPSOIL ON SITE	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	CY	5,726
5	SANITARY SEWER GRAVITY MAIN, TRENCHED, 8"	LF	4,750
6	SANITARY SEWER SERVICE STUB, 4"	EA	107
7	STORM SEWER, TRENCHED, RCP, 18"	LF	930
8	STORM SEWER, TRENCHED, RCP, 18"	LF	1496
9	STORM SEWER, TRENCHED, RCP, 24"	LF	882
10	STORM SEWER, TRENCHED, RCP, 30"	LF	546
11	STORM SEWER, TRENCHED, RCP, 36"	LF	250
12	STORM SEWER, TRENCHED, SLOTTED N-12, 8"	LF	1972
13	STORM SEWER SERVICE STUB, 4"	EA	107
14	PIPE APRON W/ FOOTING & TRASH GUARD, RCP, 15"	EA	4
15	PIPE APRON W/ FOOTING & TRASH GUARD, RCP, 18"	EA	2
16	PIPE APRON W/ FOOTING & TRASH GUARD, RCP, 24"	EA	2
17	PIPE APRON W/ FOOTING & TRASH GUARD, RCP, 36"	EA	1
18	WATER MAIN, TRENCHED, C900, 8"	LF	4405
19	WATER SERVICE STUB, 1"	EA	107
20	FITTING, CROSS, 8"x8"	EA	3
21	FITTING, TEE 8"x8"	EA	1
22	FITTING, TEE 45° Bend	EA	6
23	VALVE, 8"	EA	16
24	FIRE HYDRANT ASSEMBLY, 6"	EA	15
25	BLOWOFF HYDRANT	EA	2
26	MANHOLE, SANITARY SEWER, SW-301, 48"	EA	26
27	MANHOLE, STORM SEWER, SW-401, 48"	EA	22
28	MANHOLE, STORM SEWER, SW-401, 60"	EA	1
29	MANHOLE, STORM SEWER, SW-401, 62"	EA	1
30	INTAKE, SW-501	EA	12
31	INTAKE, SW-503	EA	11
32	INTAKE, SW-505	EA	7
33	INTAKE, SW-505 W/ TYPE Q CASTING	EA	1
34	INTAKE, SW-508	EA	4
35	24" SW-512 WITH TYPE C CASTING	EA	3
36	30" SW-512 WITH TYPE C CASTING	EA	2
37	6" SUBDRAIN	LF	4929
38	SUBDRAIN CLEANOUT	EA	5
39	PAVEMENT, 8" PCC W/ CD BASKETS	SY	8341
40	PAVEMENT, 7" PCC	SY	6947
41	PAVEMENT, 6" PCC TRAIL	SY	214
42	PAVEMENT, 5" PCC MAILBOX PAD WALKWAY	SY	18
43	PAVEMENT, 5" PCC SIDEWALK	SY	471
44	PAVEMENT, CONCRETE FLUME	LF	578
45	DETECTABLE WARNING PANELS	SY	330
46	PERMANENT ROAD CLOSURE, URBAN, SI-182	EA	2
47	SEEDING	LS	1
48	EROSION CONTROL	LS	1
49	TRAFFIC CONTROL	LS	1
50	TESTING	LS	1



VICINITY MAP  
SCALE: 1' = 1,000'

## LEGEND:

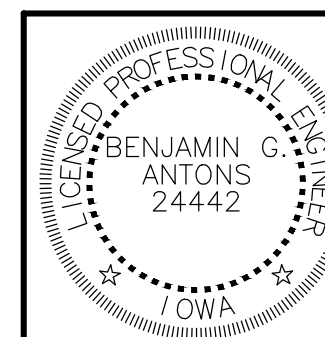
- SAN — SANITARY SEWER
- ST — STORM SEWER
- W — WATER LINE
- G — GAS LINE
- UE — UNDERGROUND ELECTRIC
- OIE — OVERHEAD ELECTRIC
- TELE — TELEPHONE LINE
- FIO — FIBER OPTIC
- CATV — CABLE TV
- ⊕ STORM MANHOLE
- ⊖ CURB INTAKE
- ⊙ SURFACE INTAKE
- ⊠ FLARED END SECTION
- ⊕ SANITARY MANHOLE
- CLEANOUT
- ⊕ FIRE HYDRANT
- ⊕ SPRINKLER
- ⊕ IRRIGATION CONTROL VALVE
- ⊕ WATER MANHOLE
- ⊕ WELL
- ⊕ WATER VALVE
- ⊕ WATER SHUT OFF
- ⊕ YARD HYDRANT
- ⊕ ELECTRIC MANHOLE
- ⊕ ELECTRIC METER
- ⊕ ELECTRIC RISER
- ⊕ ELECTRIC VAULT
- ⊕ POWER POLE
- ⊕ TRANSFORMER POLE
- ⊕ LIGHT POLE
- ⊕ ELECTRIC JUNCTION BOX
- ⊕ ELECTRIC PANEL
- ⊕ TRANSFORMER
- ⊕ GROUND LIGHT
- ⊕ GUY WIRE
- ⊕ CONCRETE HANDHOLE
- ⊕ GAS METER
- ⊕ EXISTING GAS VALVE
- ⊕ AIR CONDITIONING UNIT
- ⊕ TELEPHONE RISER
- ⊕ TELEPHONE VAULT
- ⊕ TELEPHONE MANHOLE
- ⊕ TRAFFIC SIGNAL MANHOLE
- ⊕ FIBER OPTIC RISER
- ⊕ FIBER OPTIC FAULT
- ⊕ CABLE TV RISER
- SIGN
- ⊕ DENOTES NUMBER OF PARKING STALLS
- ⊕ PROPERTY CORNER - FOUND AS NOTED
- ⊕ PROPERTY CORNER - PLACED 3/4" IRON PIPE WITH YELLOW PLASTIC CAP ID #14775
- ⊕ SECTION CORNER - FOUND AS NOTED

## ABBREVIATIONS:

- AC ACRES
- ASPH ASPHALT
- BOOK BOOK
- CONC CONCRETE
- D DEEDED DISTANCE
- EX EXISTING
- ENCL ENCLOSURE
- FF FINISHED FLOOR
- FL FLOW LINE
- FRAC FRACTIONAL
- M MEASURED DISTANCE
- MH MANHOLE
- OPC ORANGE PLASTIC CAP
- OFE OVERLAND FLOWAGE EASEMENT
- P PLATTED DISTANCE
- PG PAGE
- POB POINT OF BEGINNING
- POC POINT OF COMMENCEMENT
- PRA PREVIOUSLY RECORDED AS PUBLIC UTILITY EASEMENT
- ROW RIGHT OF WAY
- RPC RED PLASTIC CAP
- SF SQUARE FEET
- SAN SANITARY
- TYP TYPICAL
- YPC YELLOW PLASTIC CAP
- N NORTH
- S SOUTH
- E EAST
- W WEST

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.

SIGNED: *Benjamin G. Antons* DATE: 1-11-2021  
BENJAMIN G. ANTONS, P.E. 24442  
LICENSE RENEWAL DATE: DEC. 31, 2021  
PAGES OR SHEETS COVERED BY THIS SEAL: ALL



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Established 1959  
Civil Engineering & Land Surveying

LANDING AT KETTLESTONE  
WAUKEE, IOWA

COVER SHEET

REFERENCE NUMBER:  
150421

DRAWN BY:  
BA

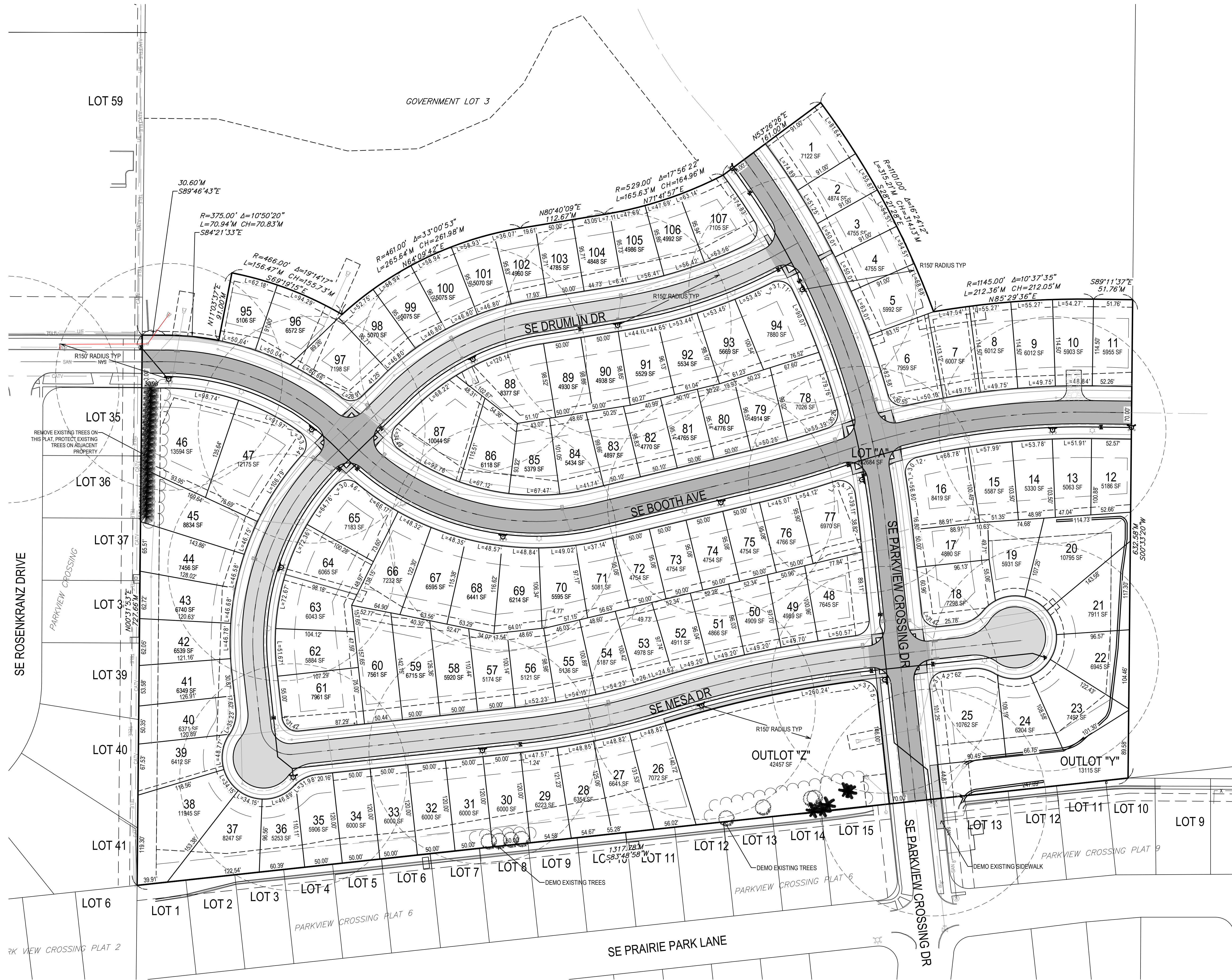
CHECKED BY:  
DB

REVISION DATE:  
12-21-18 1ST SUBMITTAL  
2-4-19 2ND SUBMITTAL  
3-12-19 3RD SUBMITTAL  
4-15-19 4TH SUBMITTAL  
4-23-19 5TH SUBMITTAL

PROJECT NUMBER:  
180168

SHEET NUMBER:  
C0.1

NOTE:  
5' SIDEWALK ADJACENT TO  
OUTLOT Y, OUTLOT Z AND  
DETENTION POND TO BE INSTALLED  
WITH THE PLAT IMPROVEMENTS



1/11/2021 10:00:54 AM M:\LAND PROJECTS 2018\180168\DWG\ABC1.1 HYDRANT COVERAGE.DWG

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Civil Engineering & Land Surveying Established 1959

**LANDING AT KETTLESTONE  
WAUKEE, IOWA**

**LAYOUT PLAN**

REFERENCE NUMBER: 150421
DRAWN BY: BA
CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C1.1

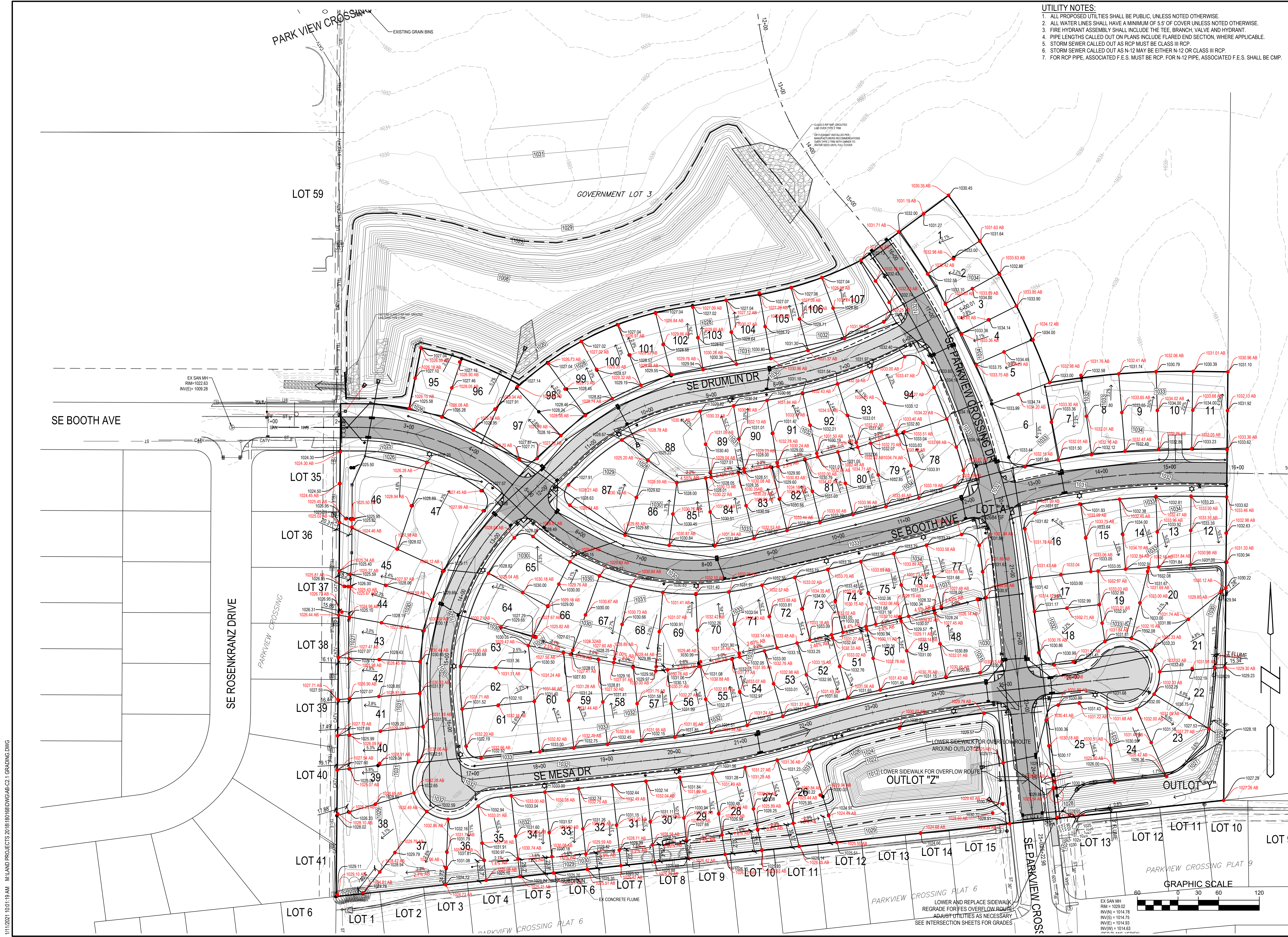
- UTILITY NOTES:**
1. ALL PROPOSED UTILITIES SHALL BE PUBLIC, UNLESS NOTED OTHERWISE.
  2. ALL WATER LINES SHALL HAVE A MINIMUM OF 5.5' OF COVER UNLESS NOTED OTHERWISE.
  3. FIRE HYDRANT ASSEMBLY SHALL INCLUDE THE TEE, BRANCH, VALVE AND HYDRANT.
  4. PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
  5. STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
  6. STORM SEWER CALLED OUT AS N-12 MAY BE EITHER N-12 OR CLASS III RCP.
  7. FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.

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 Established 1959

**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

**GRADING PLAN**

REFERENCE NUMBER: 150421
DRAWN BY: BA
CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C2.1



1/11/2021 10:01:19 AM M:\LAND PROJECTS 2018\180168\DWG\AB-C2.1 GRADING.DWG

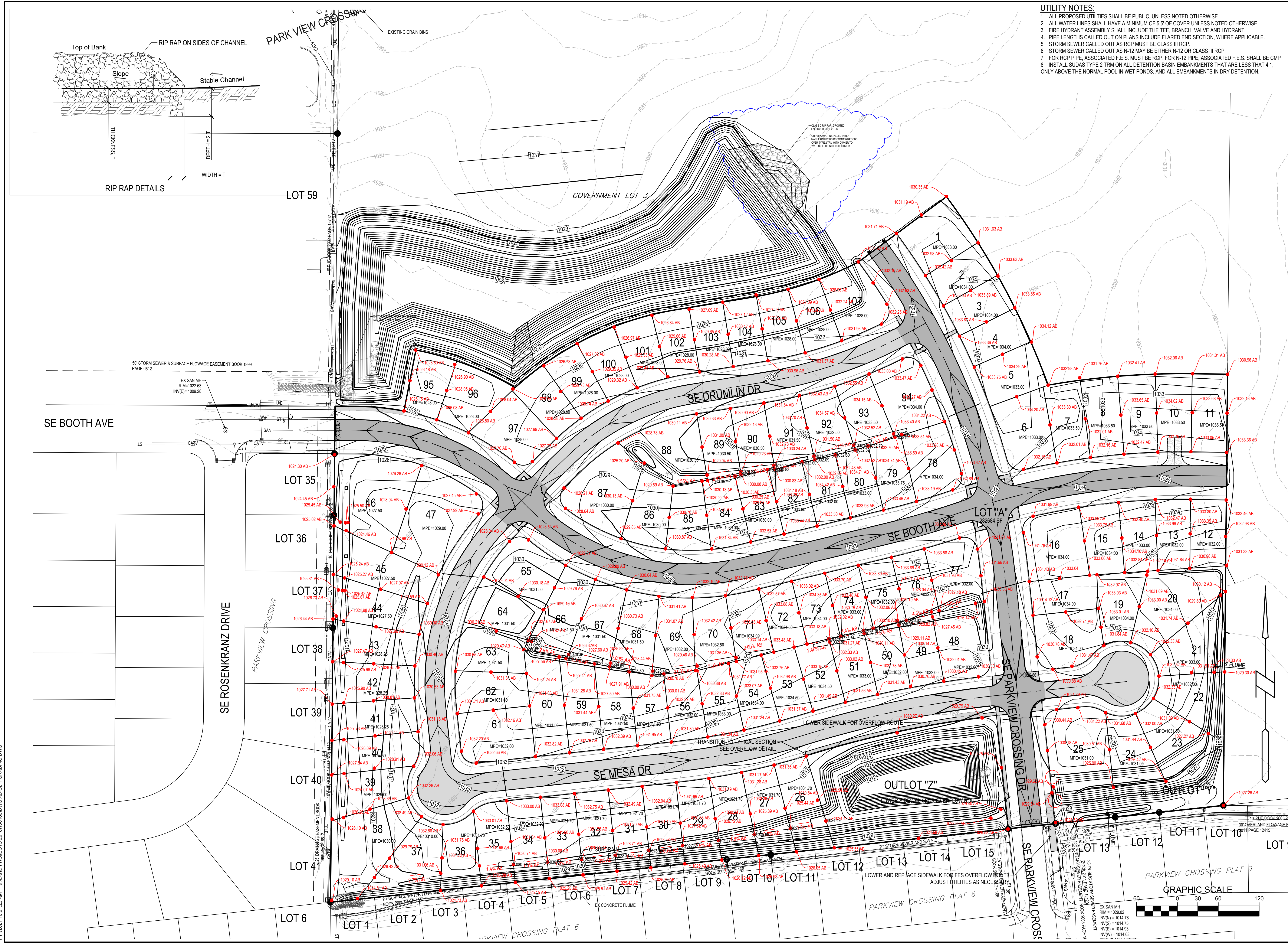
- UTILITY NOTES:**
1. ALL PROPOSED UTILITIES SHALL BE PUBLIC, UNLESS NOTED OTHERWISE.
  2. ALL WATER LINES SHALL HAVE A MINIMUM OF 5.5' OF COVER UNLESS NOTED OTHERWISE.
  3. FIRE HYDRANT ASSEMBLY SHALL INCLUDE THE TEE, BRANCH, VALVE AND HYDRANT.
  4. PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
  5. STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
  6. STORM SEWER CALLED OUT AS N-12 MAY BE EITHER N-12 OR CLASS III RCP.
  7. FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.
  8. INSTALL SUDAS TYPE 2 TRM ON ALL DETENTION BASIN EMBANKMENTS THAT ARE LESS THAN 4.1' ONLY ABOVE THE NORMAL POOL IN WET PONDS, AND ALL EMBANKMENTS IN DRY DETENTION.

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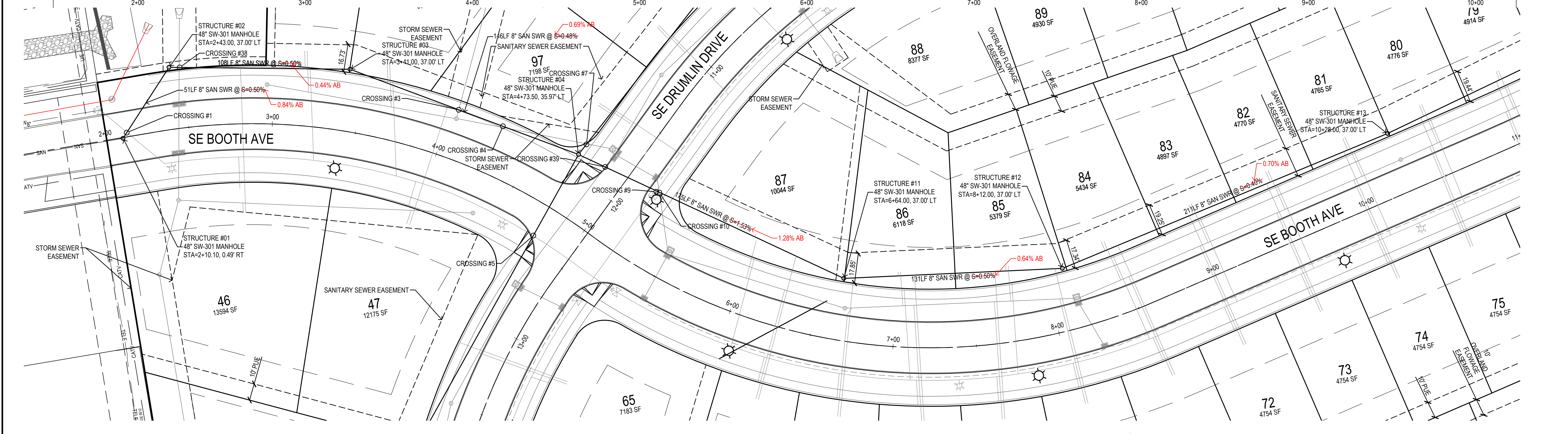
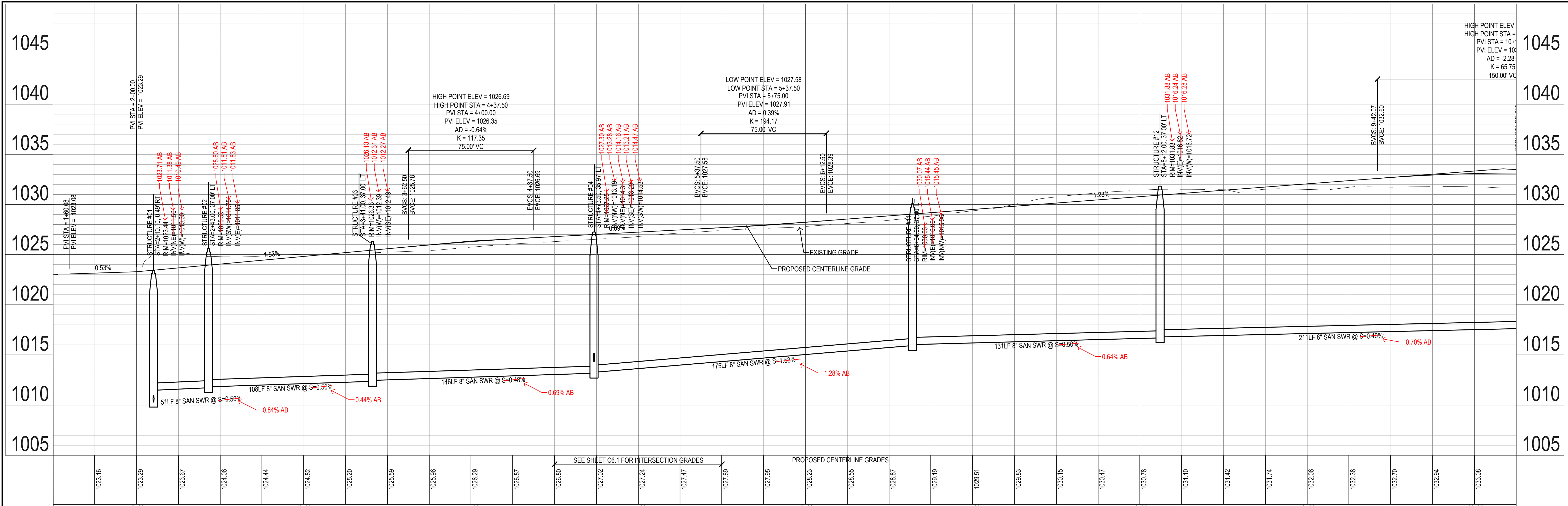
**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

**GRADING PLAN**

REFERENCE NUMBER: 150421
DRAWN BY: BA
CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C2.2

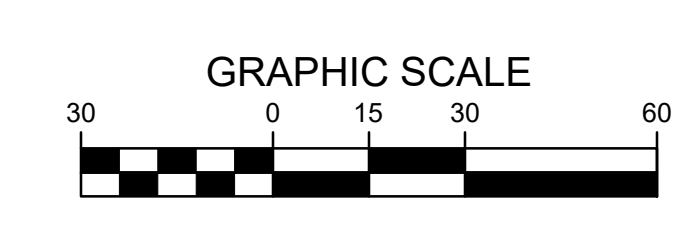


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**CROSSING LIST:**

1. BOTTOM OF WATER=1018.45 TOP OF SANITARY=1012.32	10. BOTTOM OF STORM=1022.68 TOP OF SANITARY=1014.75
4. BOTTOM OF STORM=1021.99 TOP OF SANITARY=1013.60	11. BOTTOM OF STORM=1026.51 TOP OF SANITARY=1019.15
5. BOTTOM OF WATER=1021.78 TOP OF SANITARY=1015.93	39. BOTTOM OF STORM=1022.51 TOP OF SANITARY=1014.25
6. BOTTOM OF STORM=1022.78 TOP OF WATER=1021.28	40. BOTTOM OF STORM=1025.72 TOP OF WATER=1024.22
8. BOTTOM OF STORM=1022.60 TOP OF WATER=1021.19	



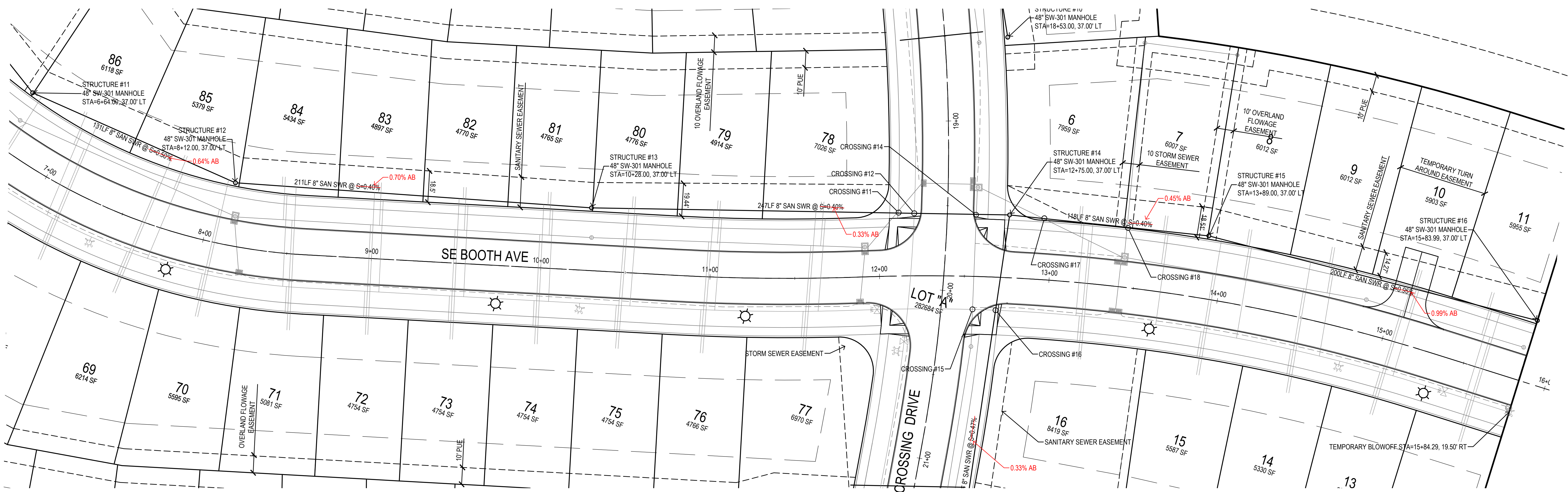
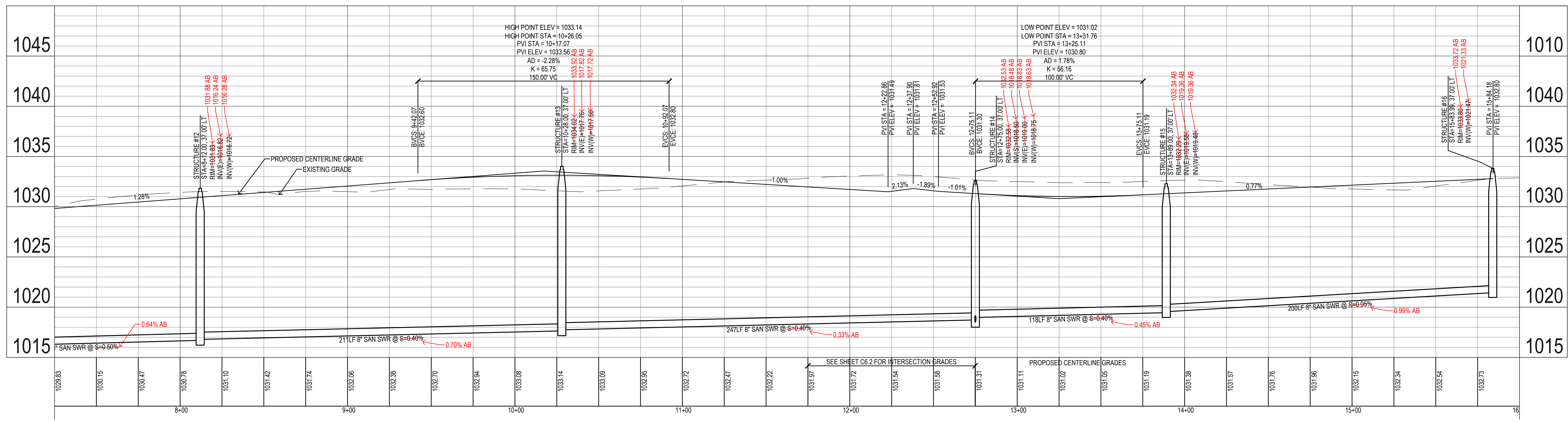
11/11/2021 10:03:12 AM M:\LAND PROJECTS\2018\180166\DWG\C3.1 SANITARY.DWG

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**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

**SANITARY PLAN & PROFILE**

REFERENCE NUMBER: 150421
DRAWN BY: BA
CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C3.1



**CROSSING LIST:**

12. BOTTOM OF WATER=1024.33 TOP OF SANITARY=1019.19
13. BOTTOM OF STORM=1026.53 TOP OF WATER = 1025.00
15. BOTTOM OF STORM=1024.83 TOP OF WATER=1023.33
17. BOTTOM OF STORM=1026.97 TOP OF SANITARY=1019.74
18. BOTTOM OF STORM=1027.02 TOP OF SANITARY=1019.94
19. BOTTOM OF WATER=1025.13 TOP OF SANITARY=1018.85

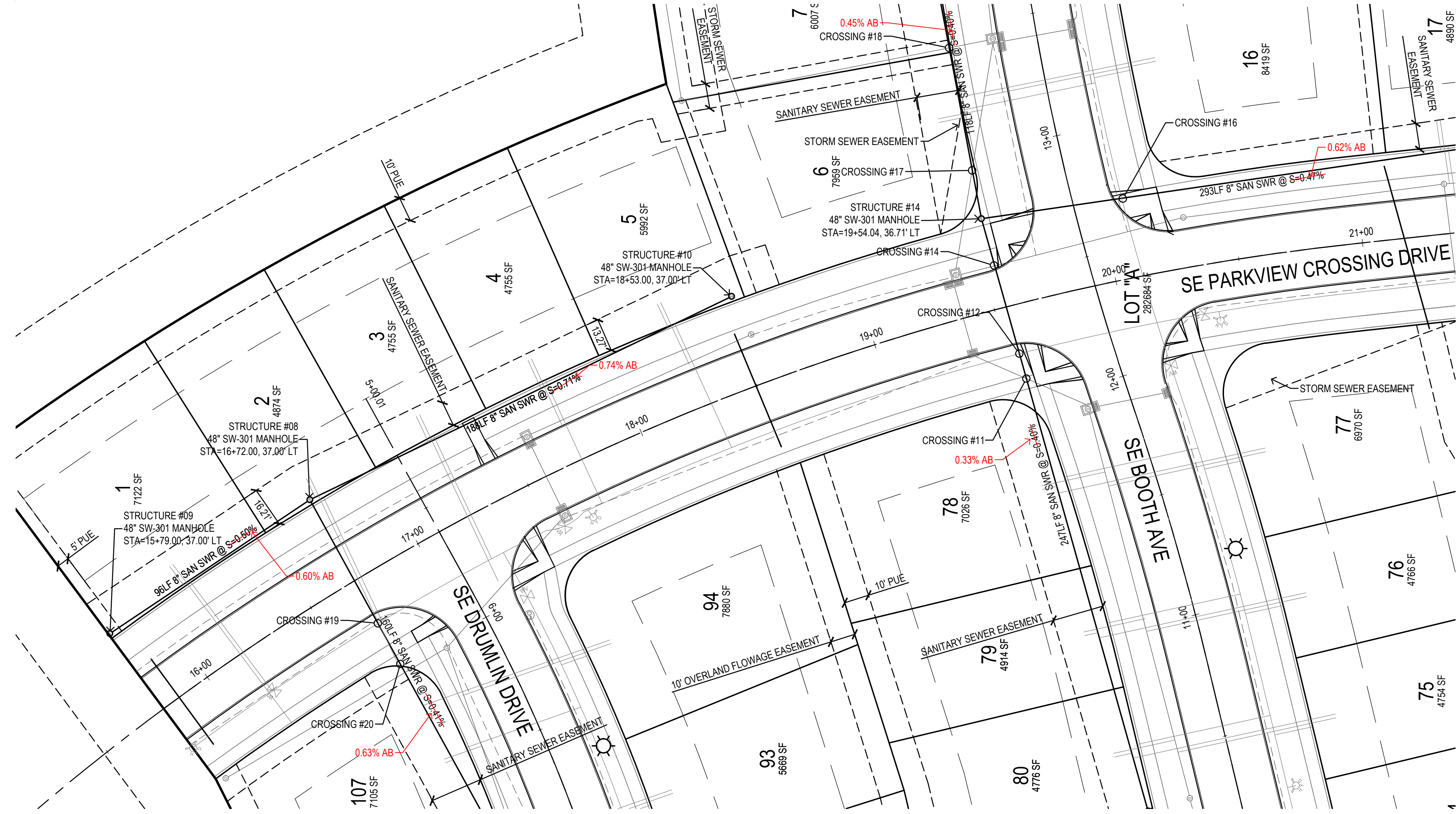
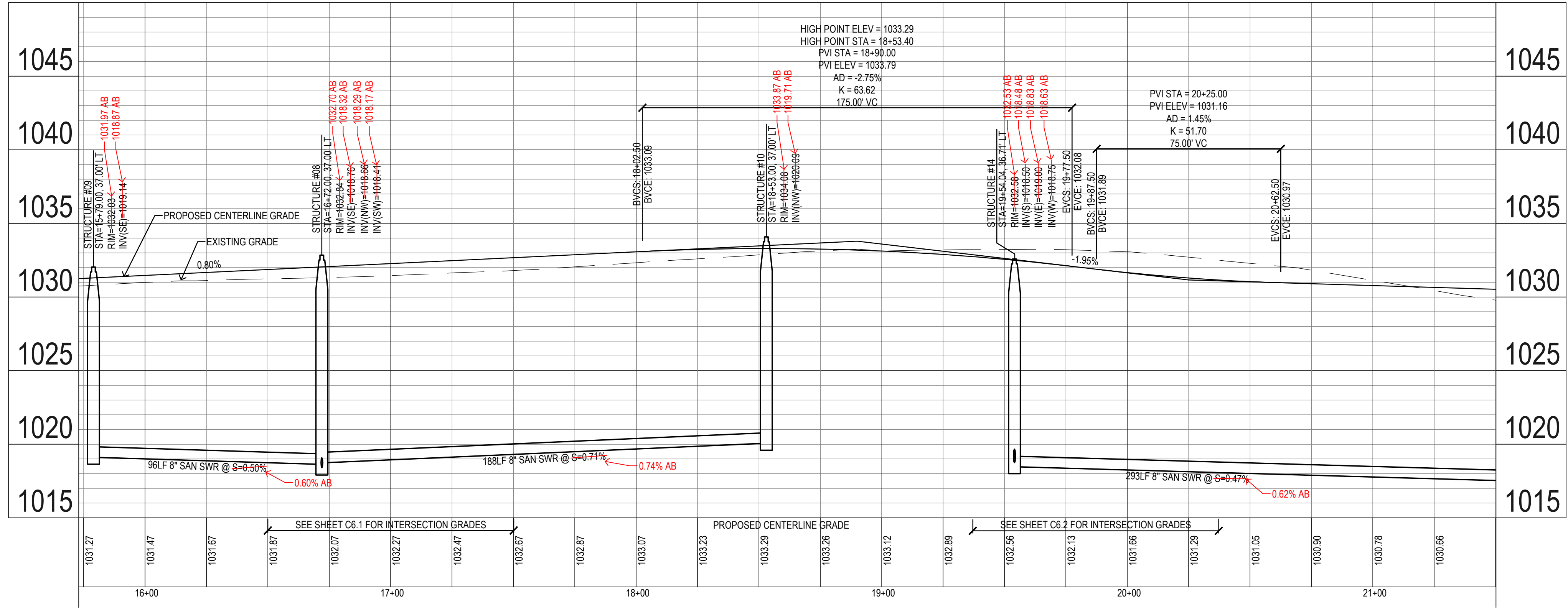
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**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

**SANITARY PLAN & PROFILE**

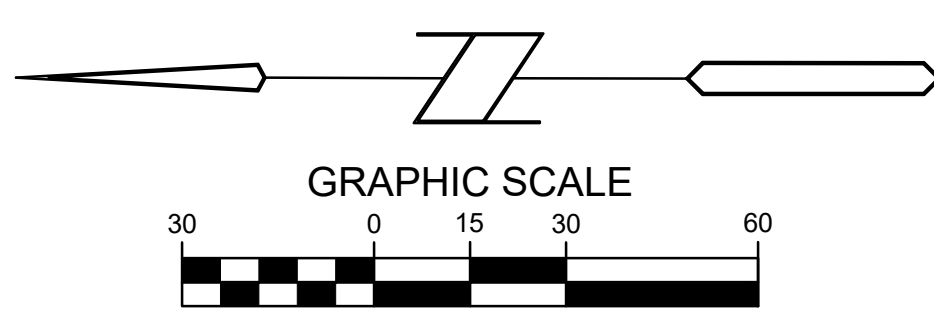
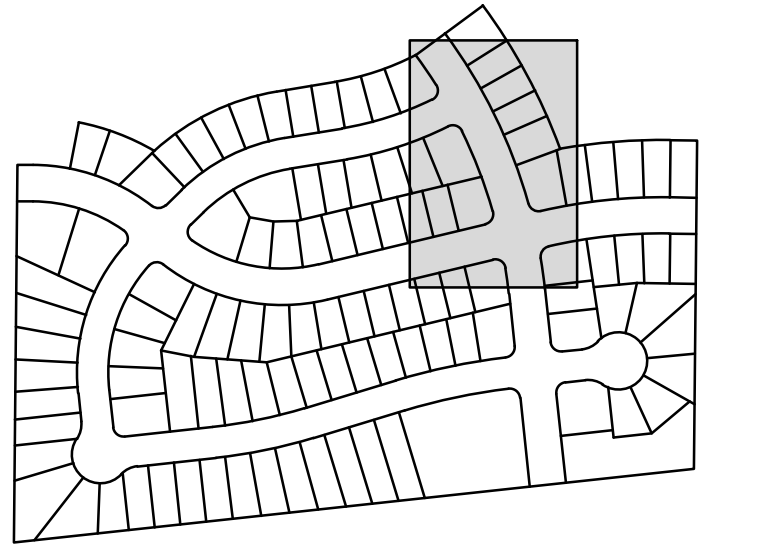
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CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C3.2

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**CROSSING LIST:**

- 12. BOTTOM OF WATER=1024.33  
TOP OF SANITARY=1019.19
- 13. BOTTOM OF STORM=1026.53  
TOP OF WATER=1025.00
- 14. BOTTOM OF STORM=1025.04  
TOP OF SANITARY=1019.34
- 15. BOTTOM OF STORM=1024.83  
TOP OF WATER=1023.33
- 16. BOTTOM OF WATER=1022.70  
TOP OF SANITARY=1018.57
- 17. BOTTOM OF STORM=1026.97  
TOP OF SANITARY=1019.74
- 18. BOTTOM OF STORM=1027.02  
TOP OF SANITARY=1019.94
- 19. BOTTOM OF WATER=1025.13  
TOP OF SANITARY=1018.85
- 20. BOTTOM STORM=1027.67  
TOP OF SANITARY=1018.77
- 21. BOTTOM STORM=1027.39  
TOP OF WATER=1025.89



**LANDING AT KETTLESTONE  
WAUKEE, IOWA**

REFERENCE NUMBER:  
150421

DRAWN BY:  
BA

CHECKED BY:  
DB

REVISION DATE:  
12-21-18 1ST SUBMITTAL  
2-4-19 2ND SUBMITTAL  
3-12-19 3RD SUBMITTAL  
4-15-19 4TH SUBMITTAL  
4-23-19 5TH SUBMITTAL

PROJECT NUMBER:  
180168

SHEET NUMBER:  
C3.3

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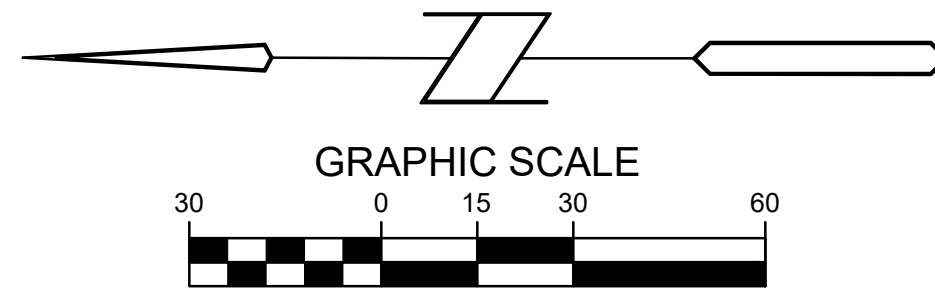
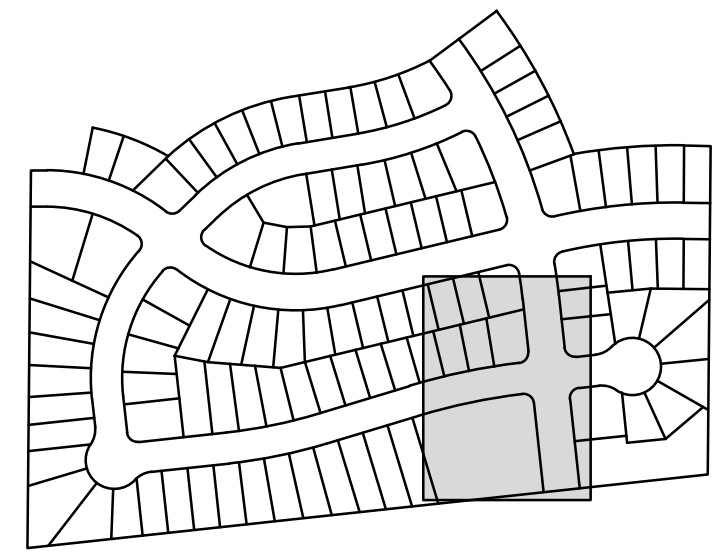
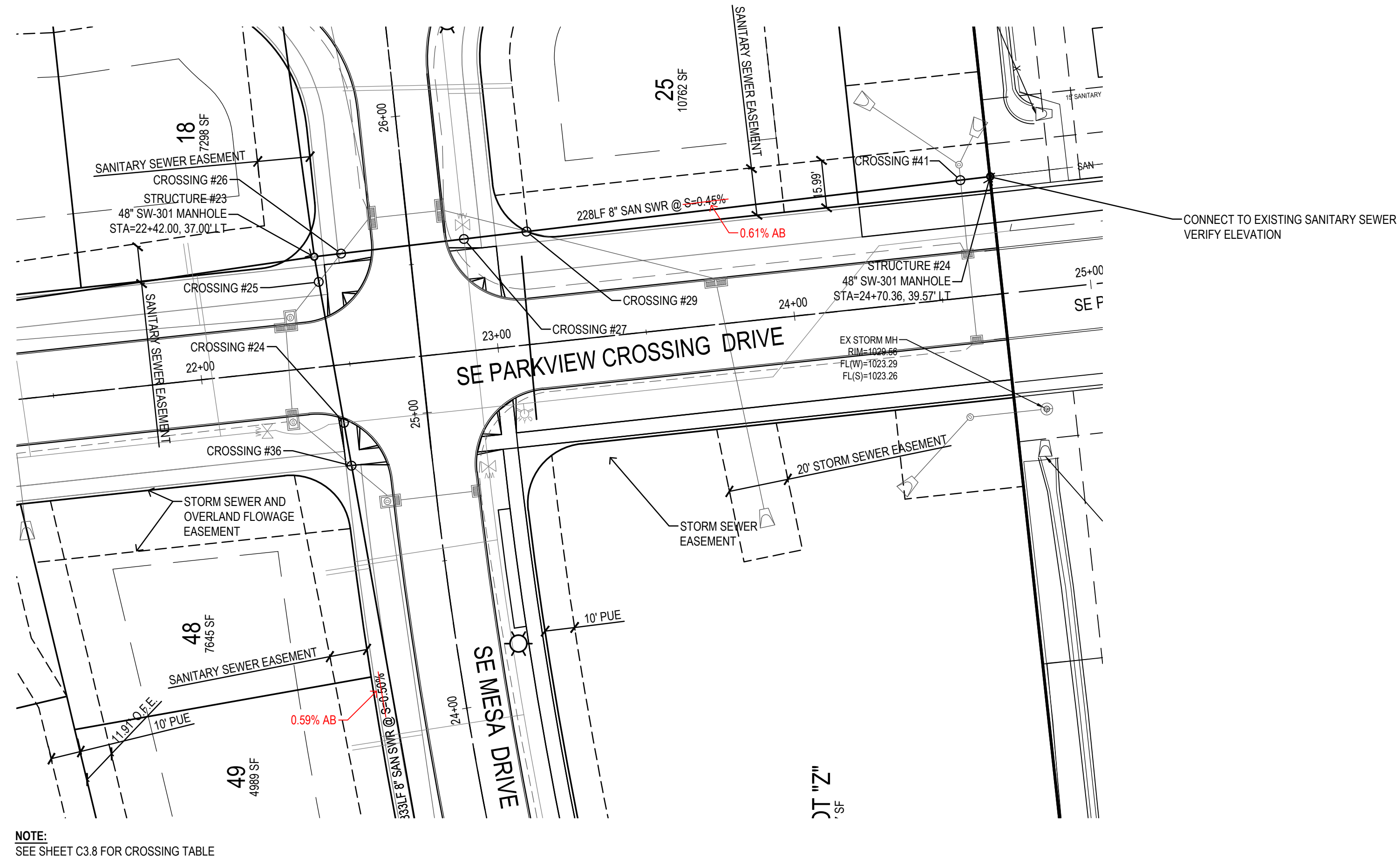
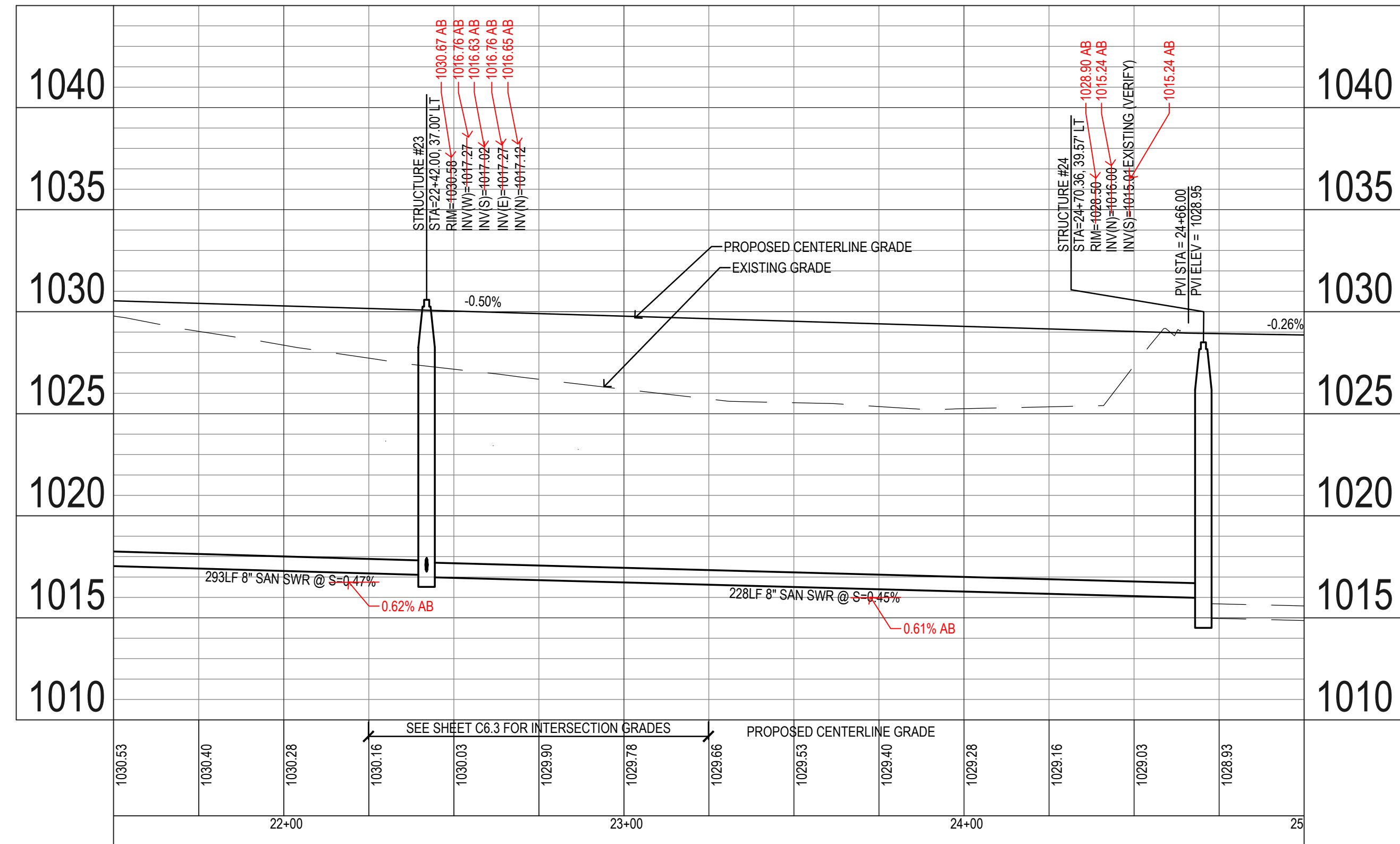
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Des Moines, Iowa 50322-3825  
Phone: (515)276-0467 Fax: (515)276-0217

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**SANITARY PLAN & PROFILE**

**CROSSING LIST:**

25. BOTTOM OF STORM=1023.62
TOP OF SANITARY=1017.97
26. BOTTOM OF STORM=1023.59
TOP OF SANITARY=1017.99
27. BOTTOM OF WATER=1021.07
TOP OF SANITARY=1017.49
28. BOTTOM OF STORM=1023.24
TOP OF WATER=1021.74
30. BOTTOM OF STORM=1022.65
TOP OF WATER=1021.15
37. BOTTOM OF STORM=1018.70
TOP OF WATER=1016.20



**LANDING AT KETTLESTONE  
WAUKEE, IOWA**

REFERENCE NUMBER:  
150421

DRAWN BY:  
BA

CHECKED BY:  
DB

REVISION DATE:  
12-21-18 1ST SUBMITTAL  
2-4-19 2ND SUBMITTAL  
3-12-19 3RD SUBMITTAL  
4-15-19 4TH SUBMITTAL  
4-23-19 5TH SUBMITTAL

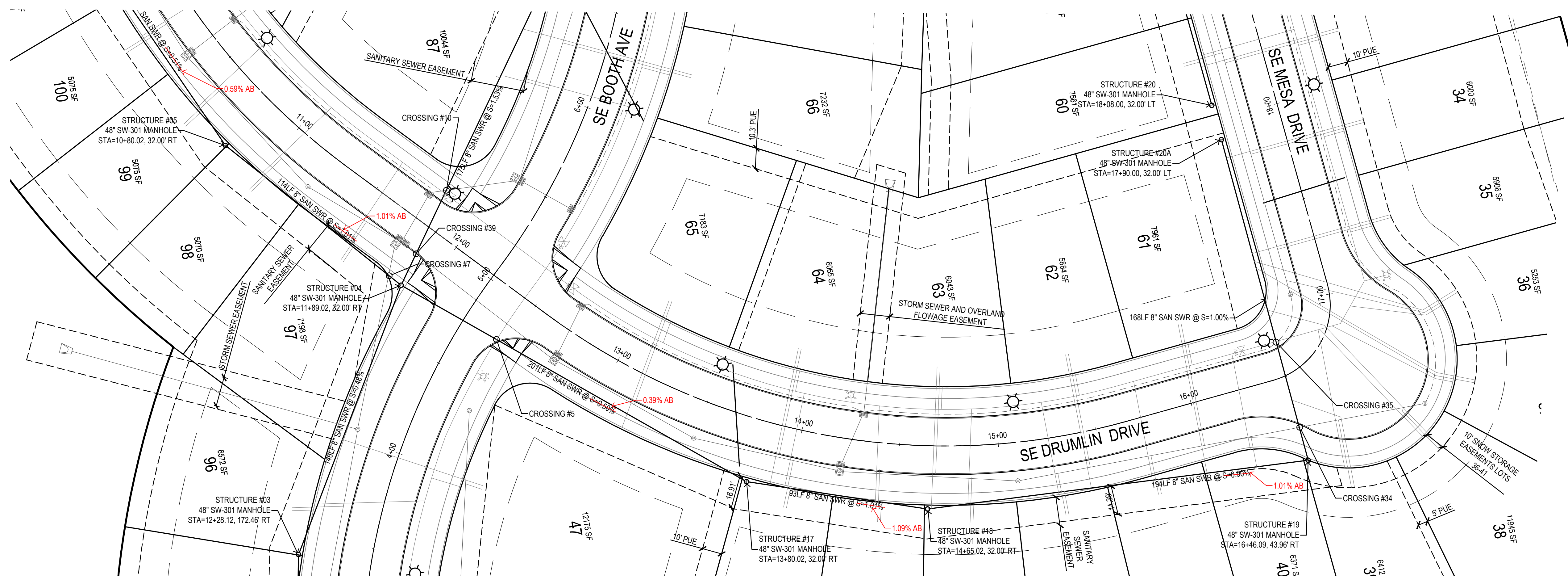
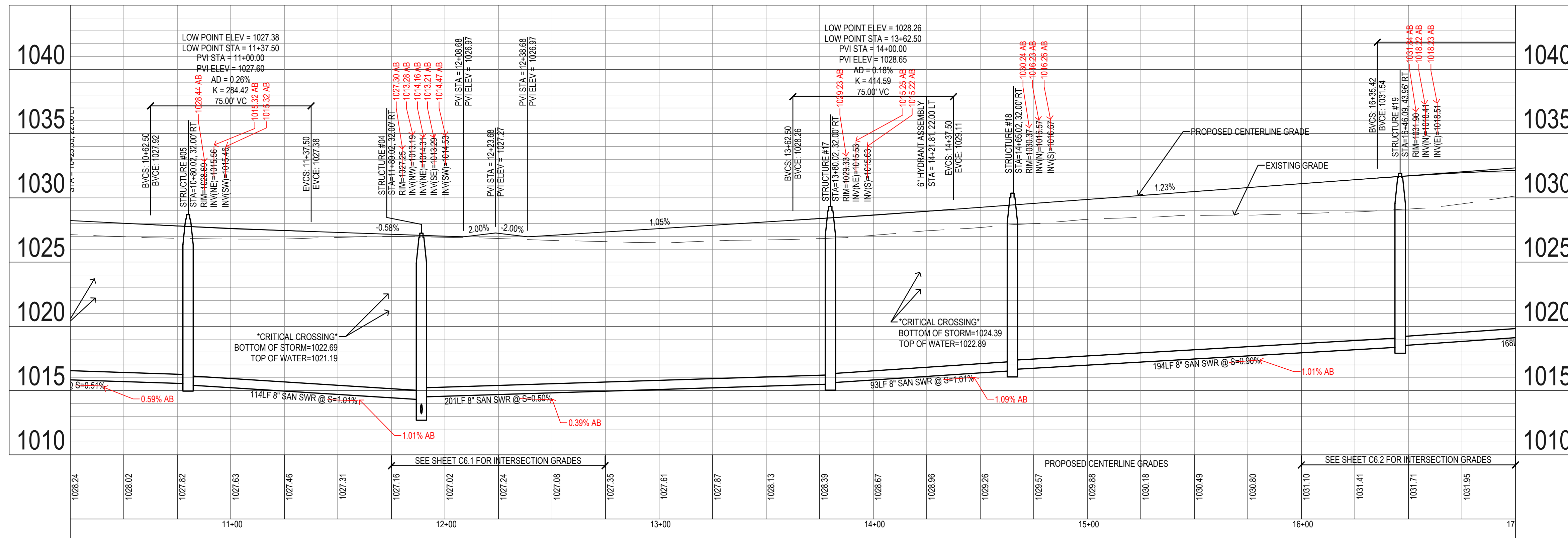
PROJECT NUMBER:  
180168

SHEET NUMBER:  
C3.4

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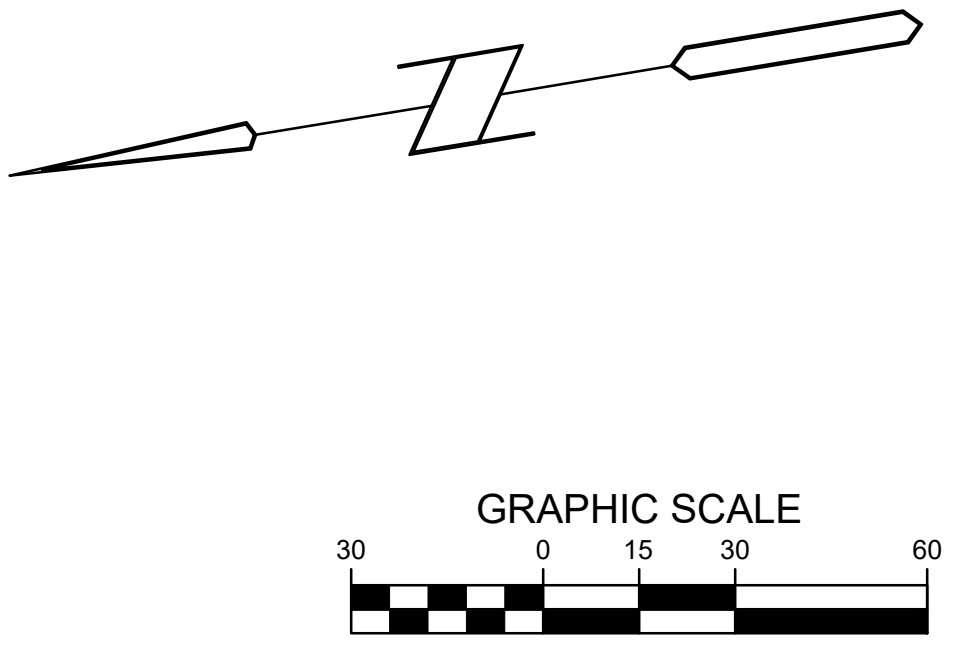
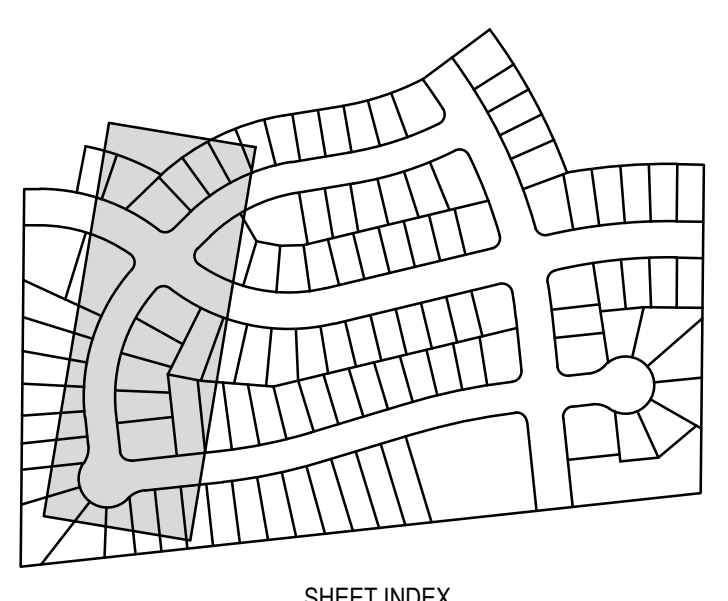
**SANITARY PLAN & PROFILE**





**CROSSING LIST:**

6	BOTTOM OF STORM=1022.78 TOP OF WATER=1021.28
8	BOTTOM OF STORM=1022.69 TOP OF WATER=1021.19
11	BOTTOM OF STORM=1028.51 TOP OF SANITARY=1019.15
35	BOTTOM OF WATER=1025.59 TOP OF SANITARY=1019.50
36	BOTTOM OF STORM=1025.01 TOP OF SANITARY=1018.69
40	BOTTOM OF STORM=1025.72 TOP OF WATER=1024.22



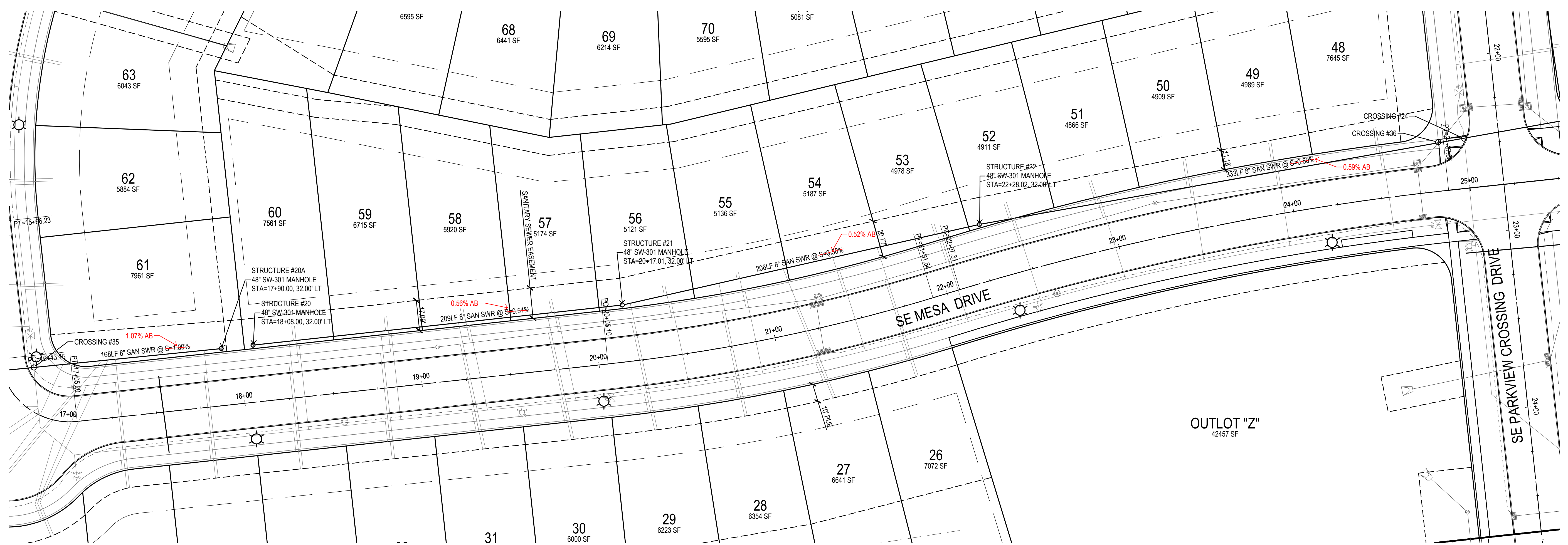
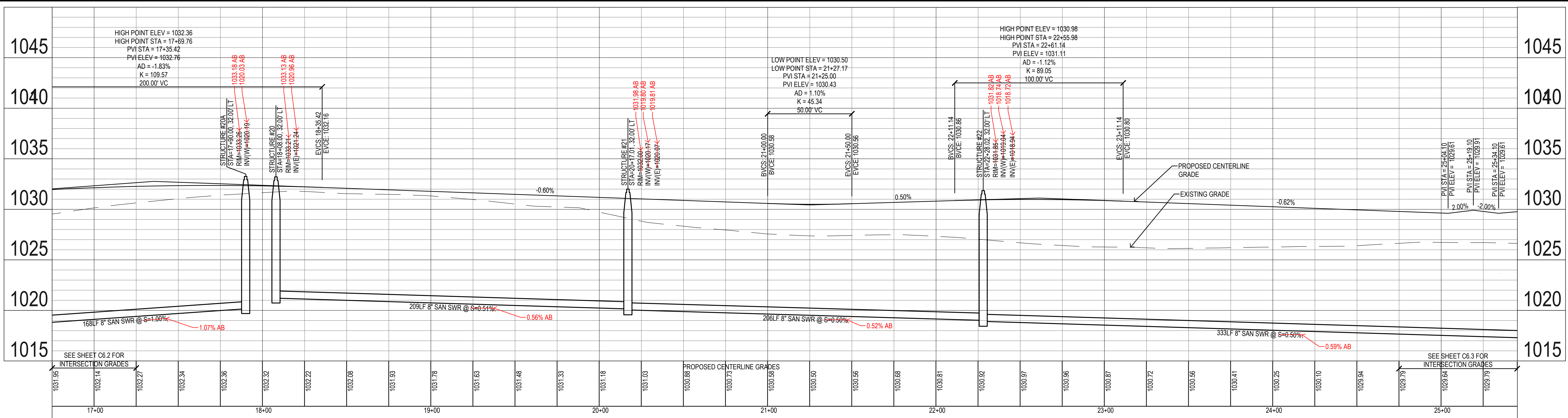
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**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

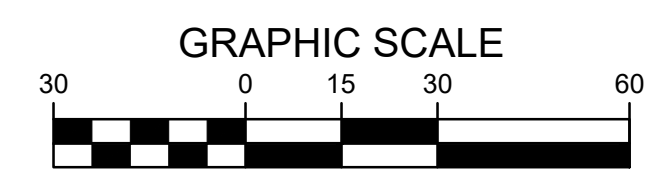
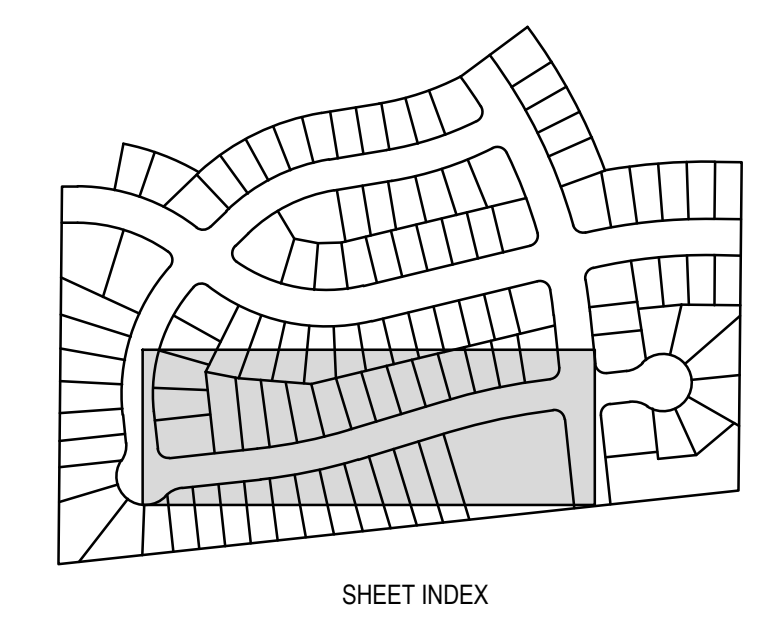
**SANITARY PLAN & PROFILE**

REFERENCE NUMBER: 150421
DRAWN BY: BA
CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C3.6



**CROSSING LIST:**

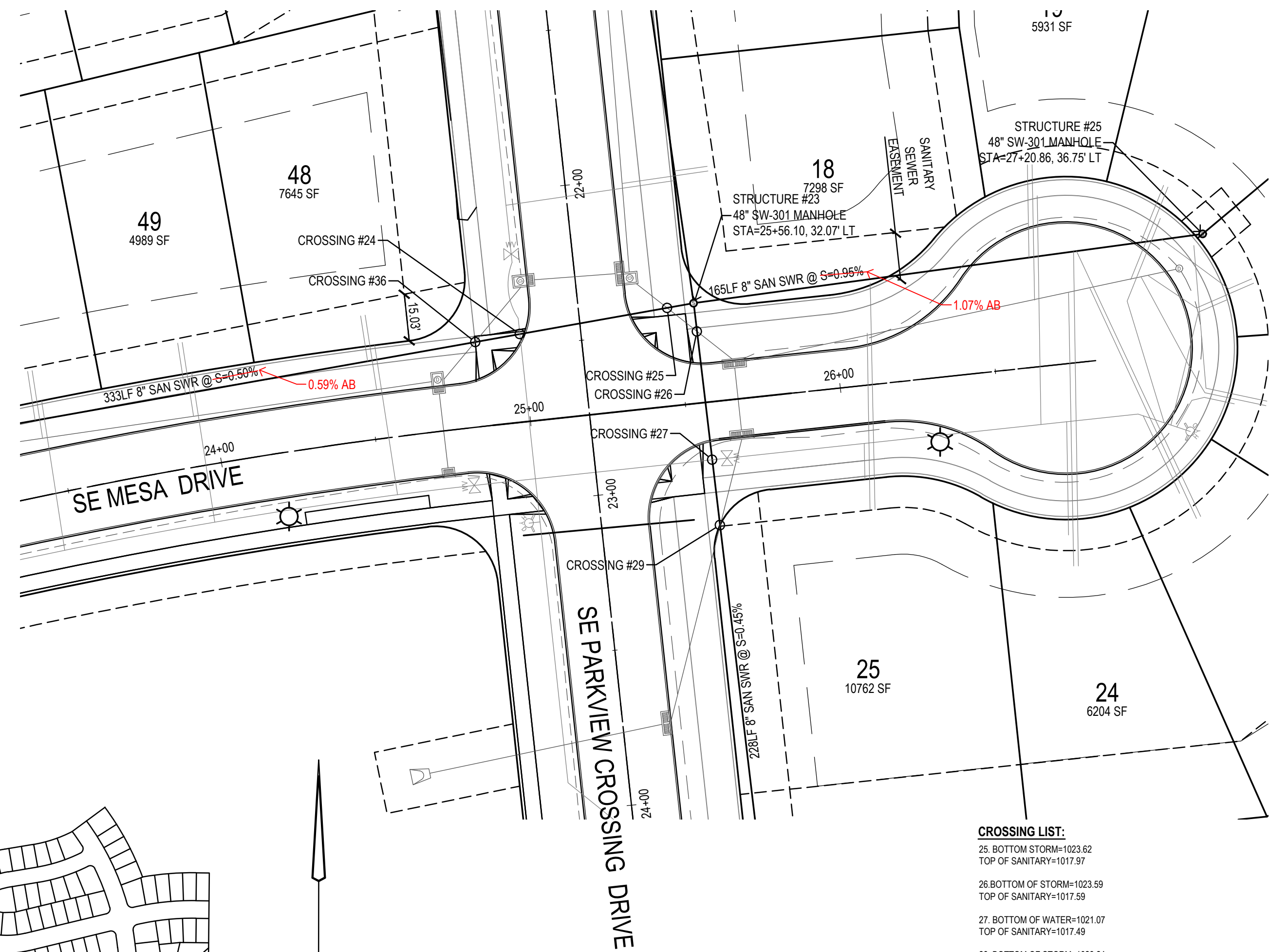
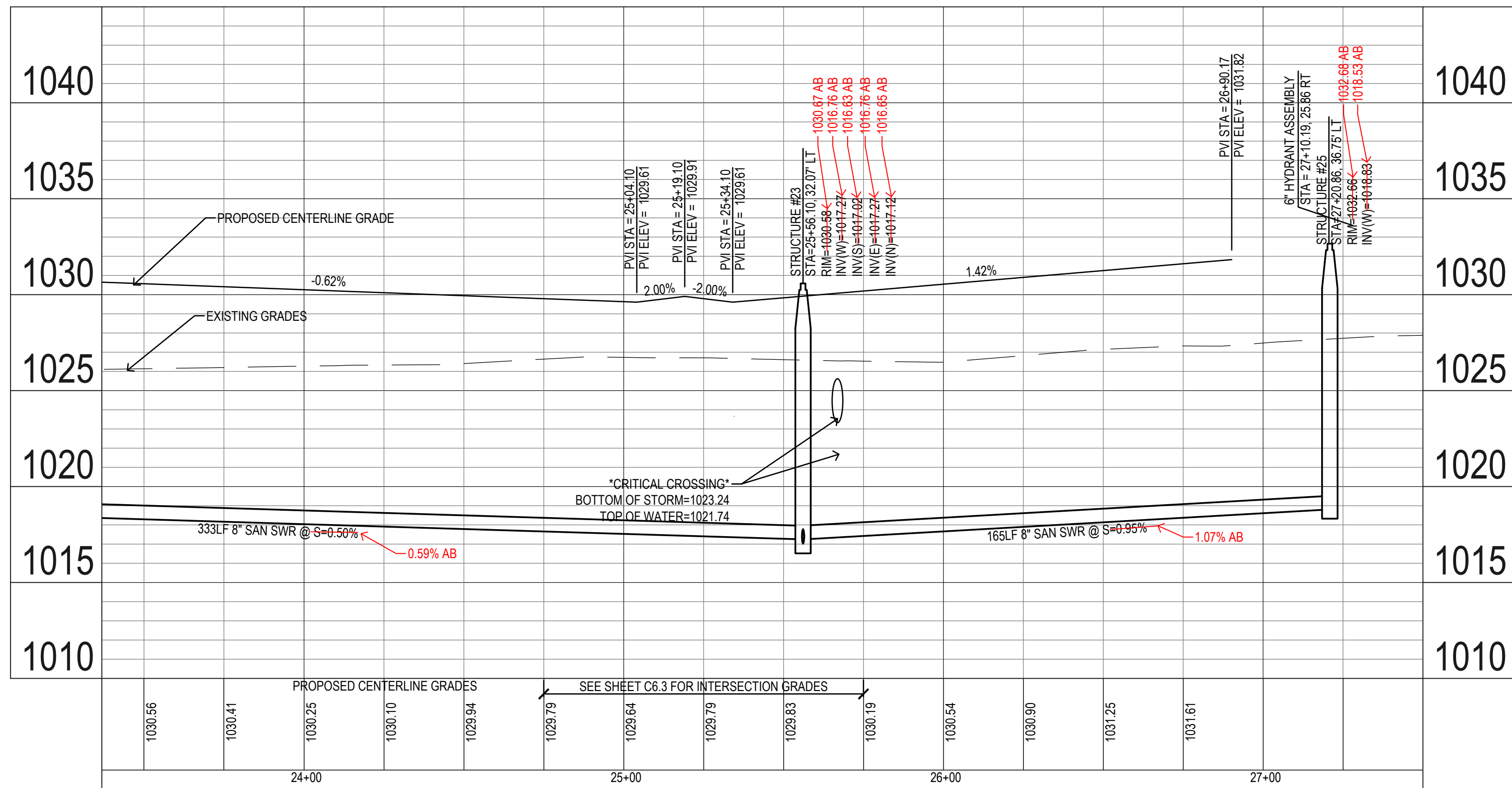
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	TOP OF SANITARY=1017.97
36	BOTTOM OF STORM=1025.01
	TOP OF SANITARY=1018.69
37	BOTTOM OF STORM=1018.70
	TOP OF WATER=1016.20



**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

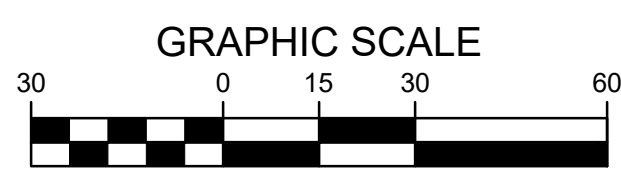
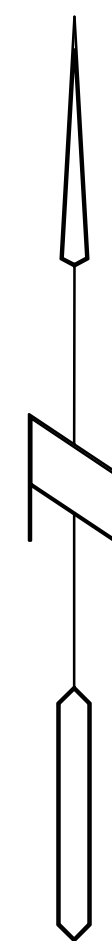
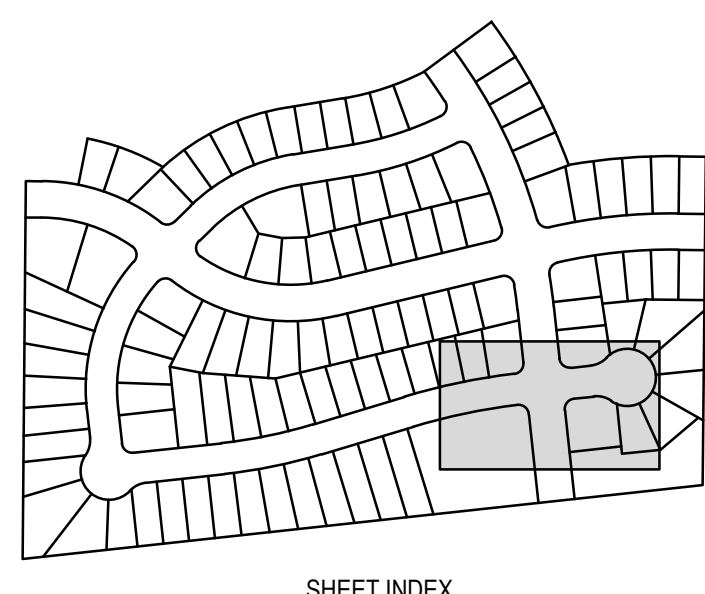
**SANITARY PLAN & PROFILE**

REFERENCE NUMBER: 150421
DRAWN BY: BA
CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C3.7



**CROSSING LIST:**

25	BOTTOM STORM=1023.62
	TOP OF SANITARY=1017.97
26	BOTTOM OF STORM=1023.59
	TOP OF SANITARY=1017.59
27	BOTTOM OF WATER=1021.07
	TOP OF SANITARY=1017.49
28	BOTTOM OF STORM=1023.24
	TOP OF WATER=1021.74
30	BOTTOM OF STORM=1022.65
	TOP OF WATER=1021.15
37	BOTTOM OF STORM=1018.70
	TOP OF WATER=1016.20



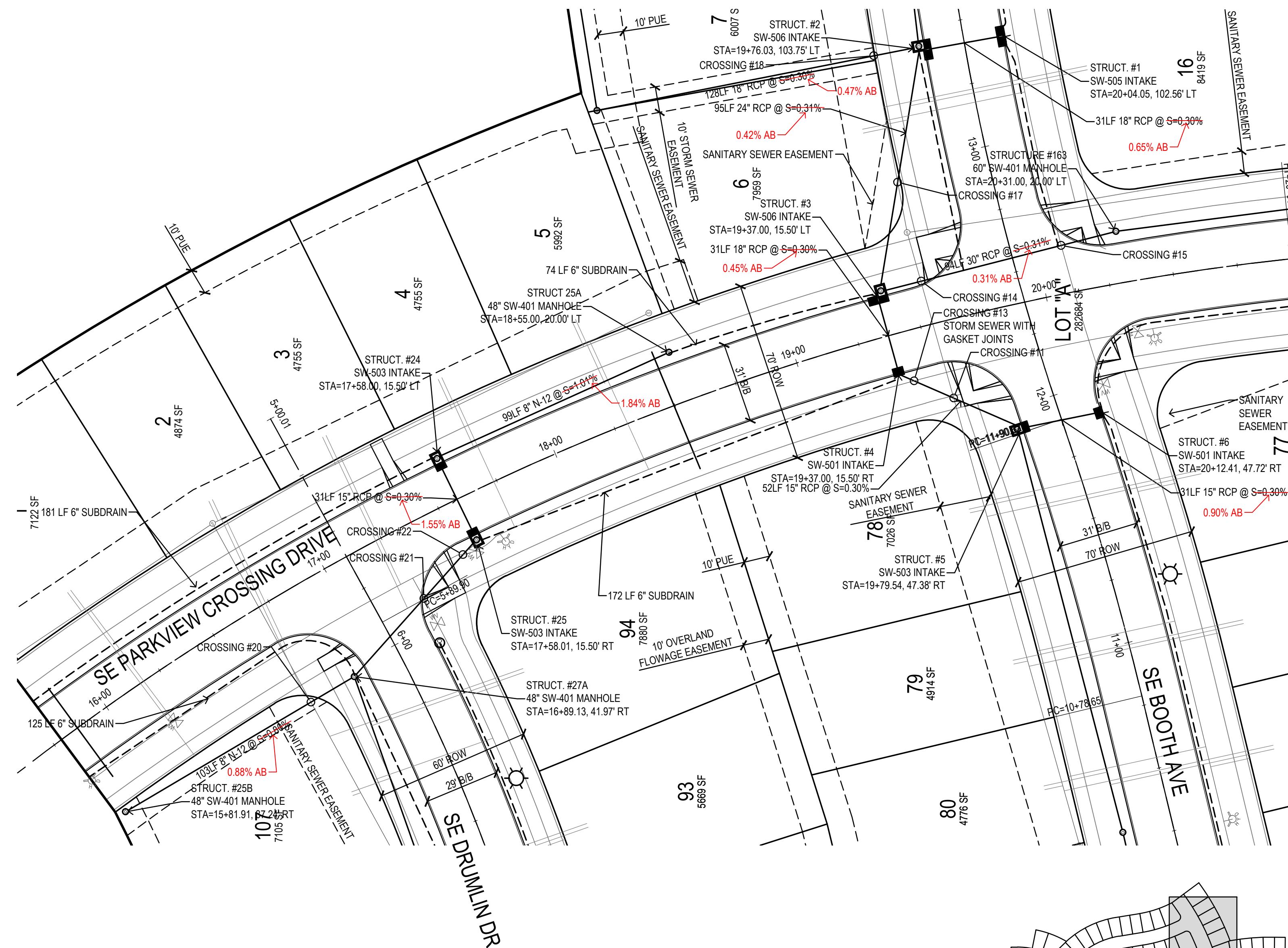
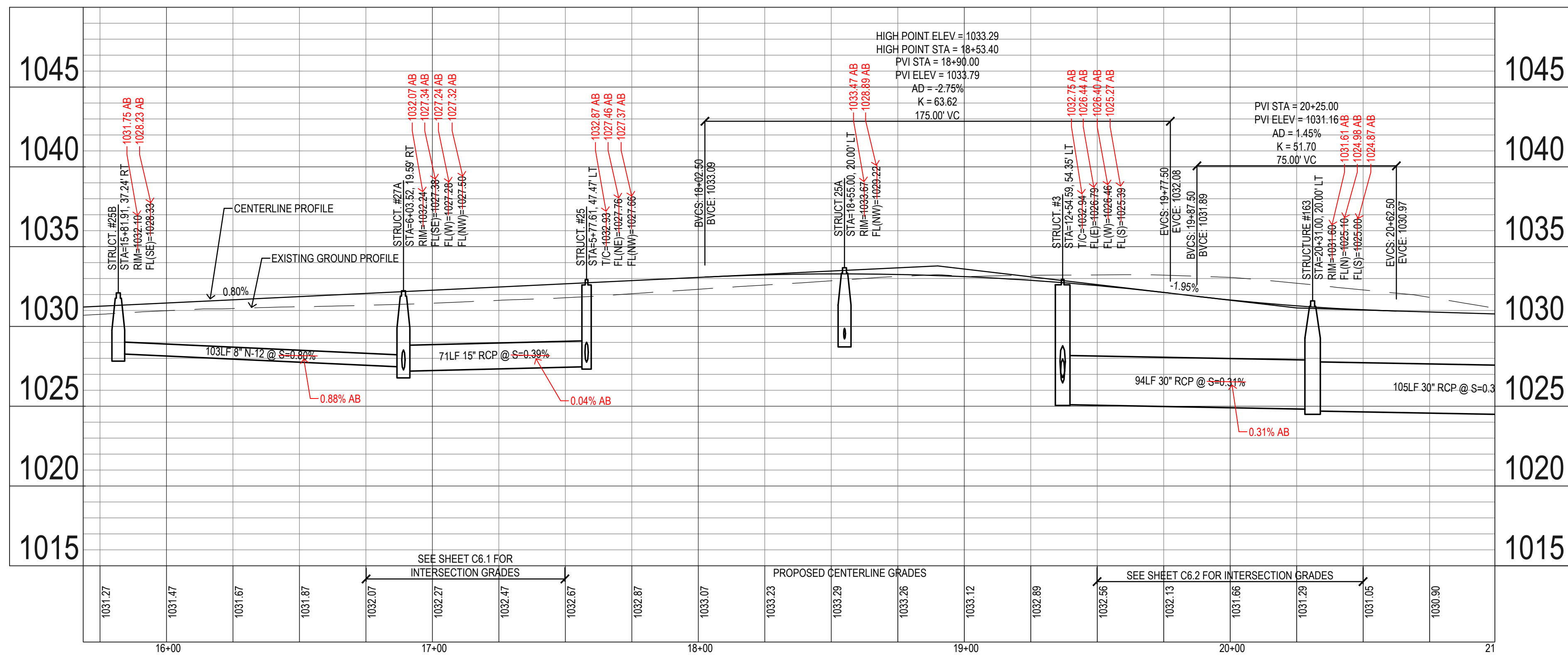
**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

**SANITARY PLAN & PROFILE**

REFERENCE NUMBER: 150421
DRAWN BY: BA
CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C3.8





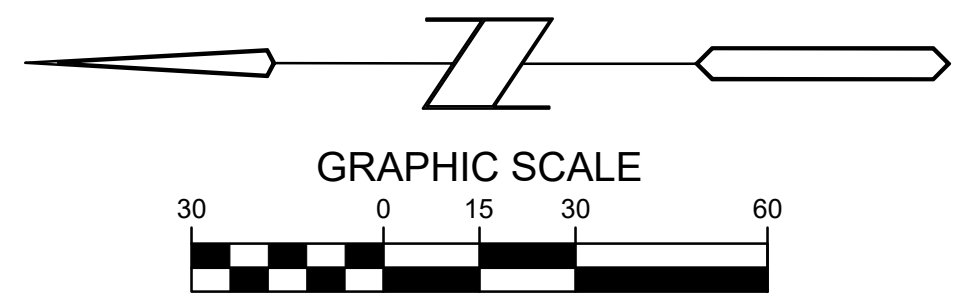
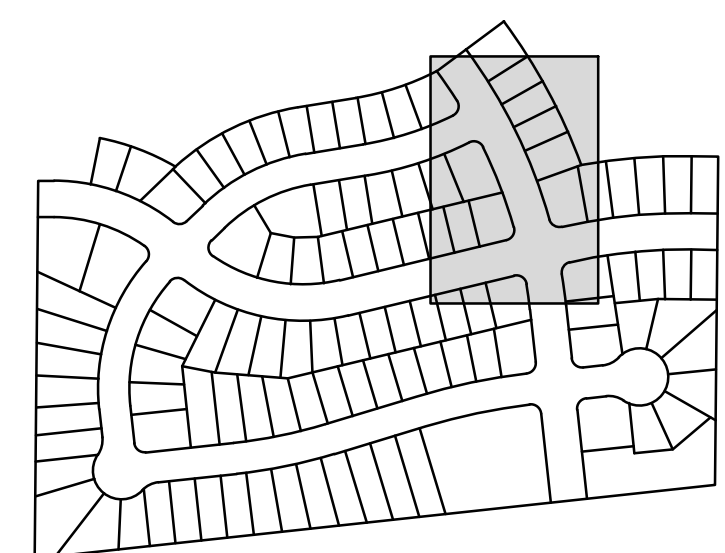


**CROSSING LIST:**

12. BOTTOM OF WATER=1024.33 TOP OF SANITARY=1019.19
14. BOTTOM OF STORM=1025.04 TOP OF SANITARY=1019.34
15. BOTTOM OF STORM=1024.83 TOP OF WATER=1023.33
16. BOTTOM OF WATER=1022.70 TOP OF SANITARY=1018.57
18. BOTTOM OF STORM=1027.02 TOP OF SANITARY=1019.94
19. BOTTOM OF WATER=1025.13 TOP OF SANITARY=1018.86
21. BOTTOM STORM=1027.39 TOP OF WATER=1025.99
22. BOTTOM OF STORM=1027.46 TOP OF WATER=1025.96
23. BOTTOM OF STORM=1025.06 TOP OF WATER=1023.56

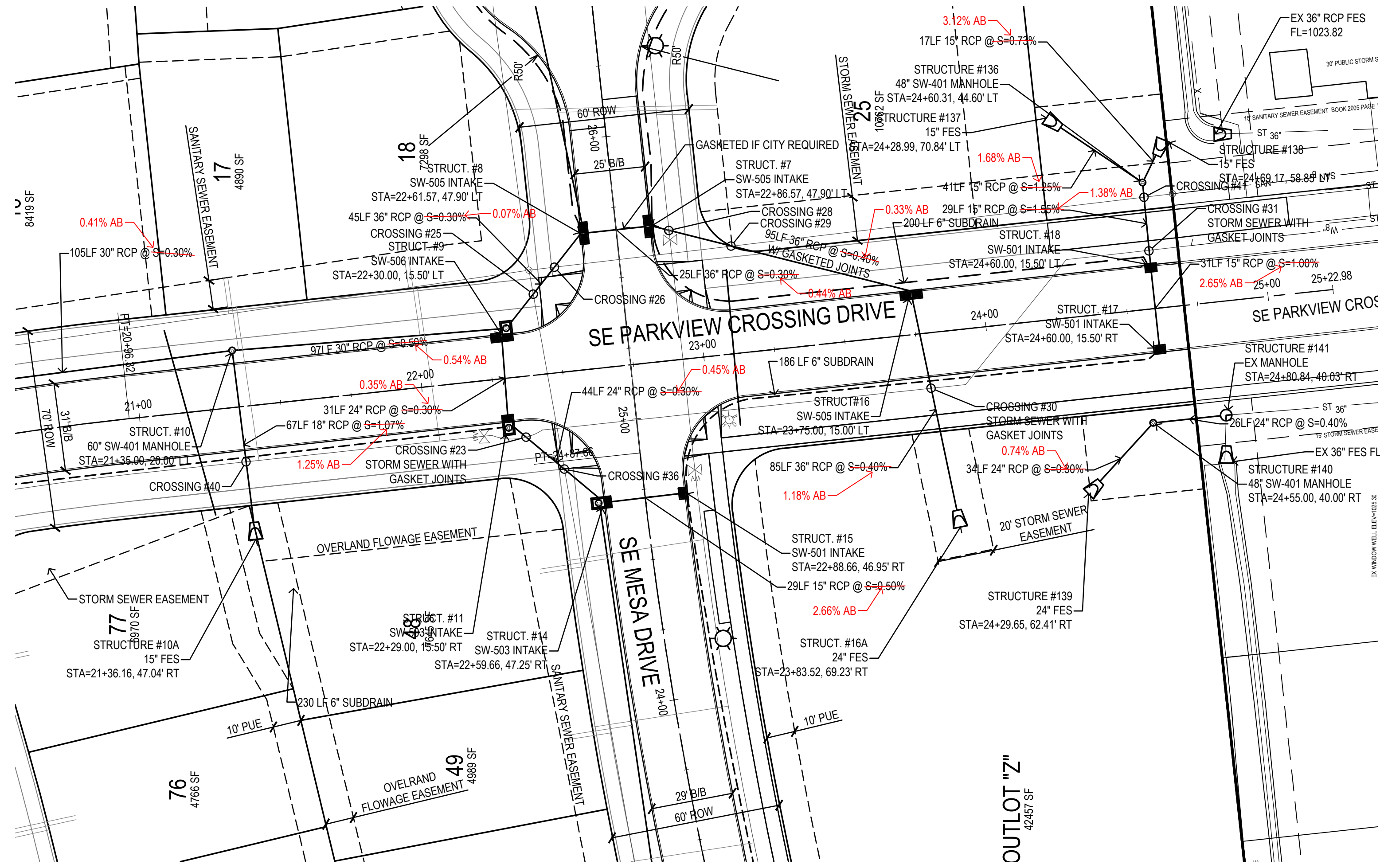
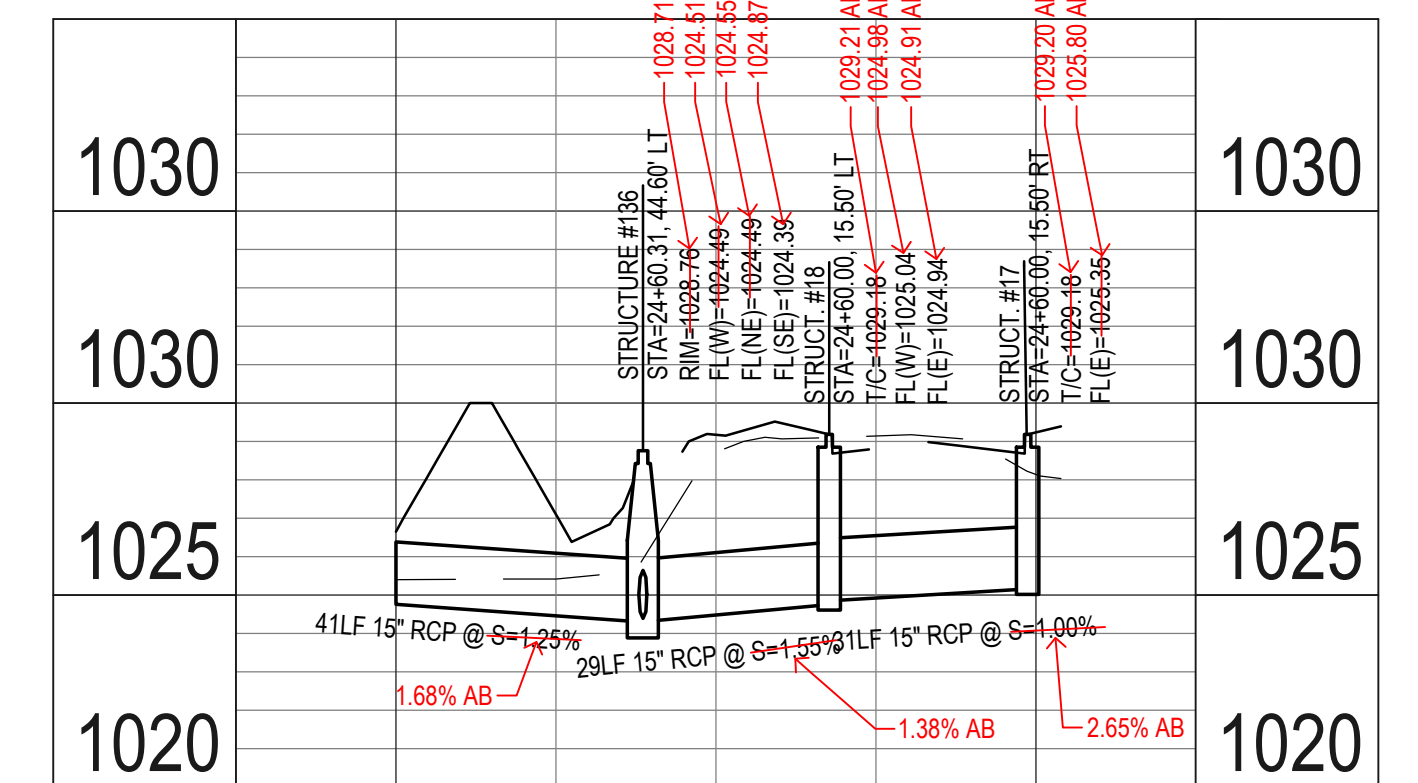
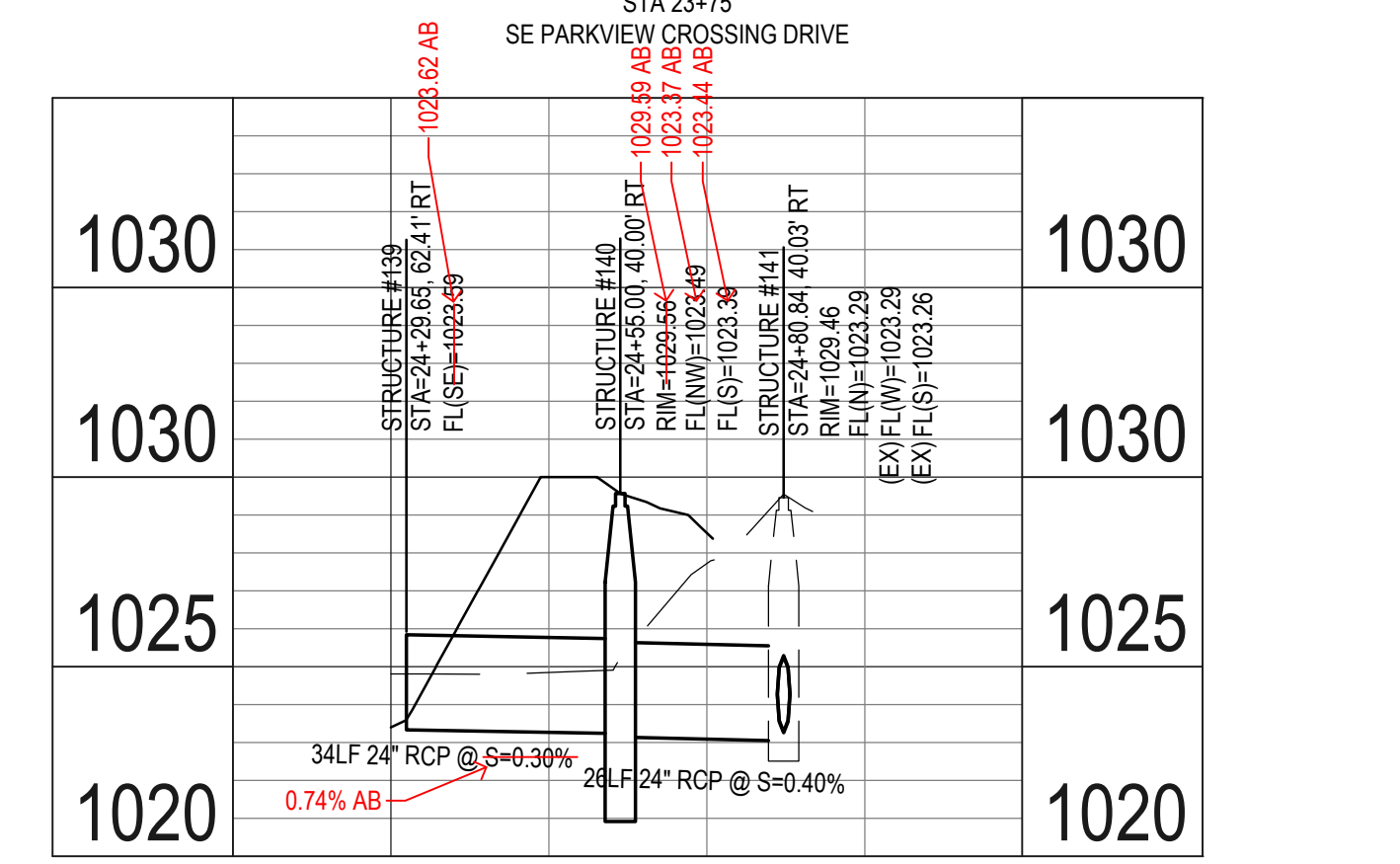
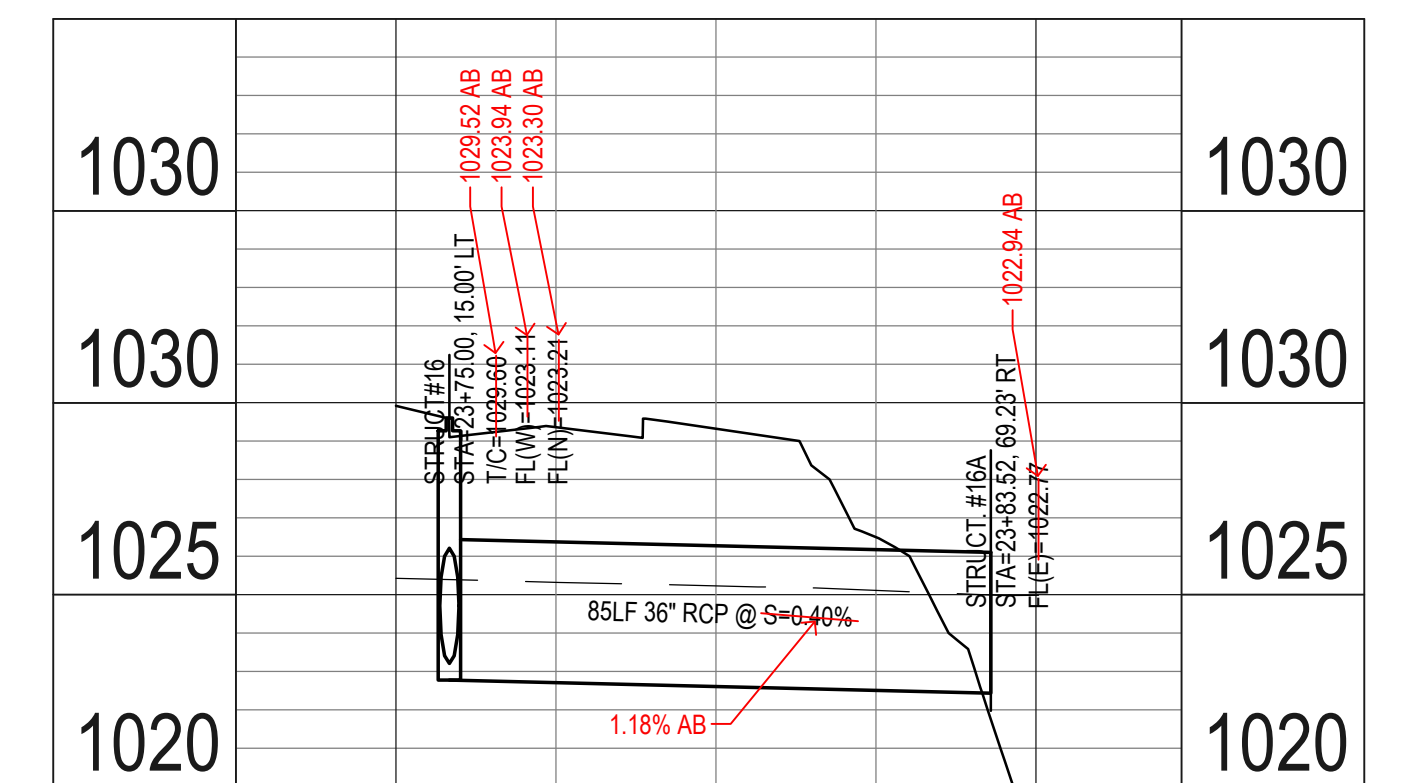
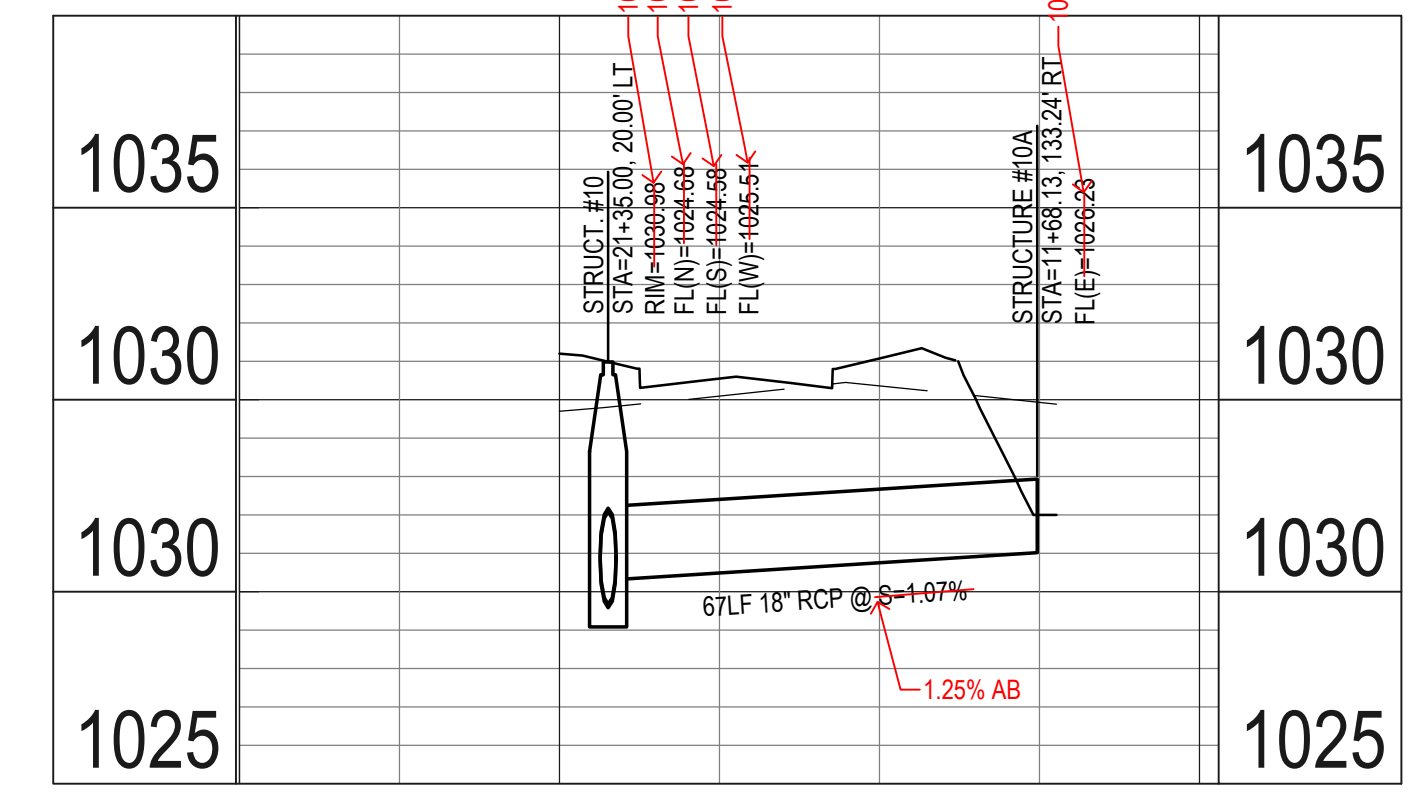
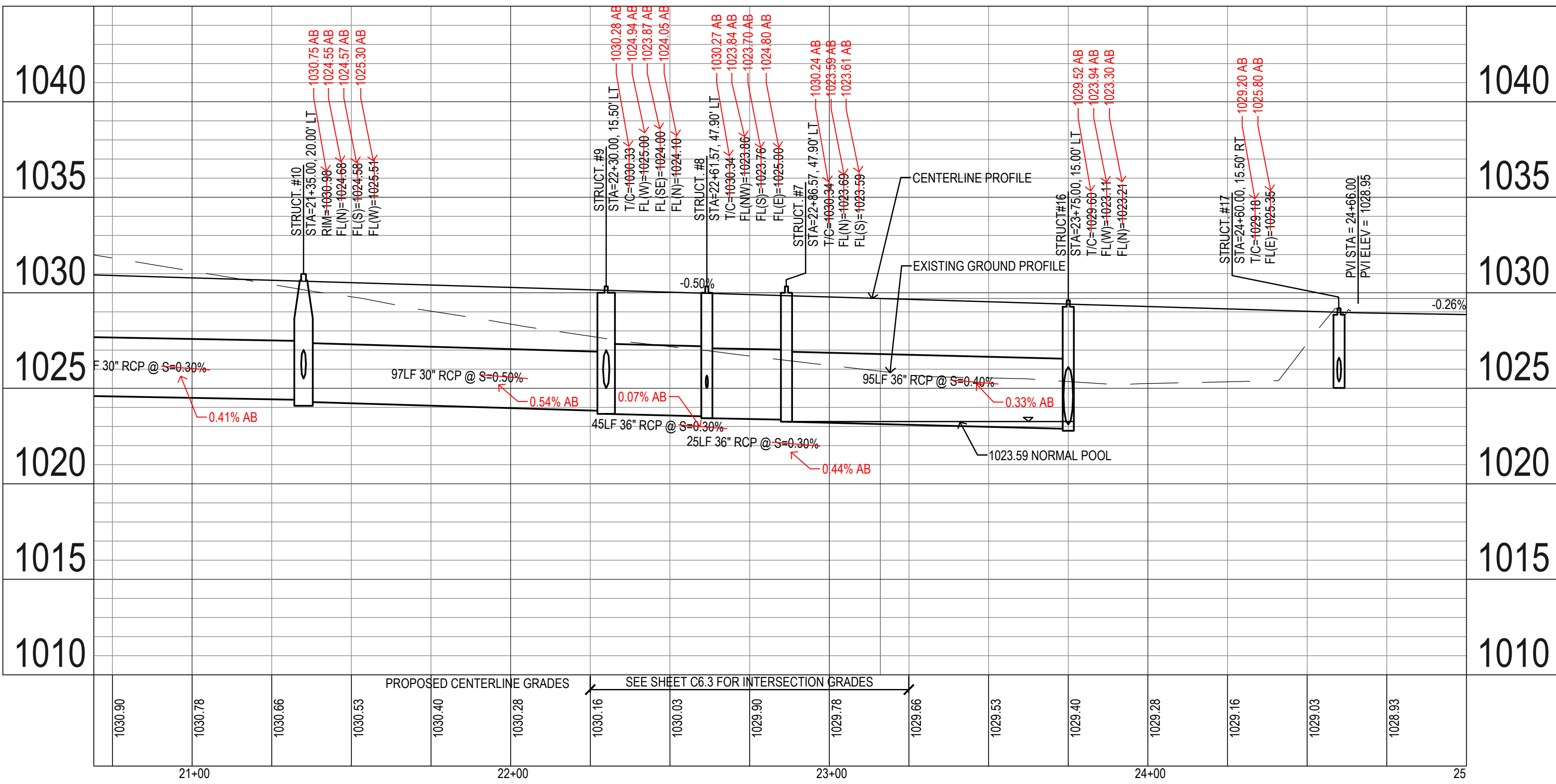
- UTILITY NOTES:**
- PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
  - STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
  - STORM SEWER CALLED OUT AS N-12 IS SLOTTED N-12
  - FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.

- PAVING NOTES:**
- 31" WIDE PAVEMENTS, 8" PCC W/ CD BASKETS
  - 29" WIDE PAVEMENTS, 7" PCC



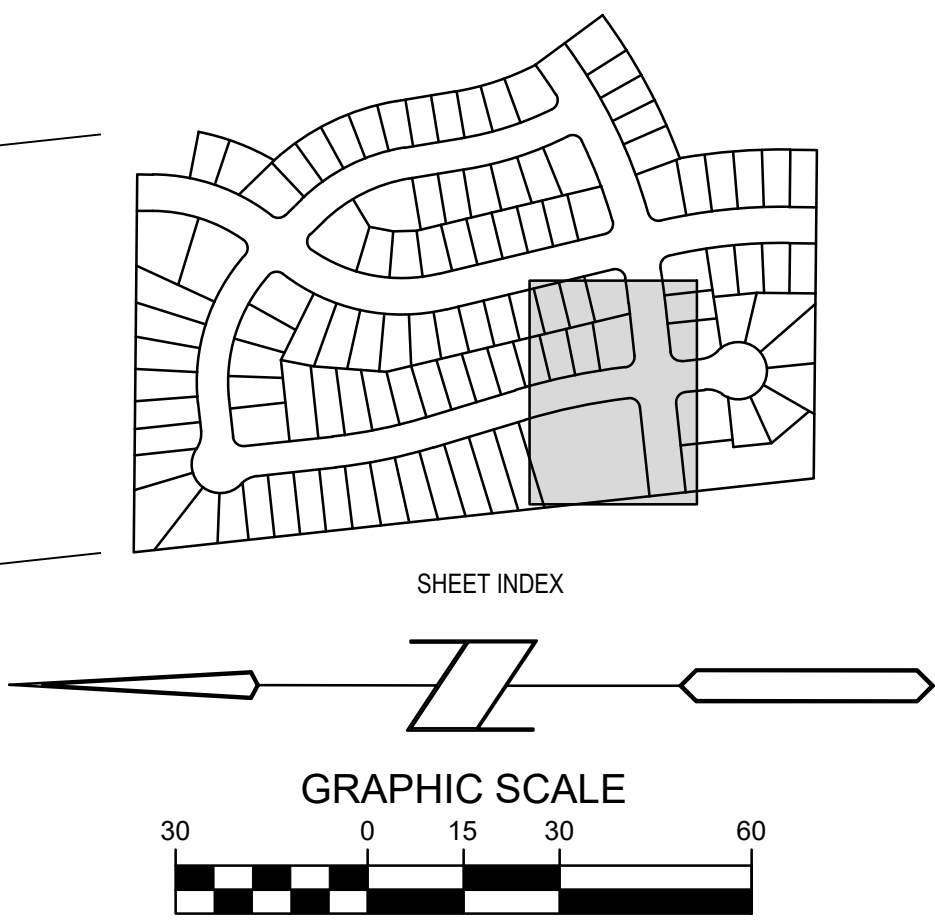
**LANDING AT KETTLESTONE  
 WAUKEE, IOWA  
 STORM AND PAVING**

REFERENCE NUMBER: 150421
DRAWN BY: BA
CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C4.3



**CROSSING LIST:**

- 24. BOTTOM OF WATER=1022.89  
TOP OF SANITARY=1018.61
- 26. BOTTOM OF STORM=1023.59  
TOP OF SANITARY=1017.59
- 27. BOTTOM OF WATER=1021.07  
TOP OF SANITARY=1017.49
- 29. BOTTOM OF STORM=1023.15  
TOP OF SANITARY=1017.41
- 30. BOTTOM OF STORM=1022.86  
TOP OF WATER=1021.15
- 31. BOTTOM OF STORM=1024.63  
TOP OF WATER=1023.13
- 32. BOTTOM OF STORM=1023.64  
TOP OF WATER=1022.14
- 37. BOTTOM OF STORM=1018.70  
TOP OF WATER=1016.20
- 41. BOTTOM OF STORM=1024.44  
TOP OF SANITARY=1016.77



**PAVING NOTES:**  
 1. 31\"/>

**UTILITY NOTES:**  
 1. PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.  
 2. STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.  
 3. STORM SEWER CALLED OUT AS N-12 IS SLOTTED N-12  
 4. FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.

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 3501 104th Street  
 Des Moines, Iowa 50322-3825  
 Phone: (515)276-0467 Fax: (515)276-0217  
 Civil Engineering & Land Surveying Established 1959

**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

REFERENCE NUMBER:  
**150421**

DRAWN BY:  
**BA**

CHECKED BY:  
**DB**

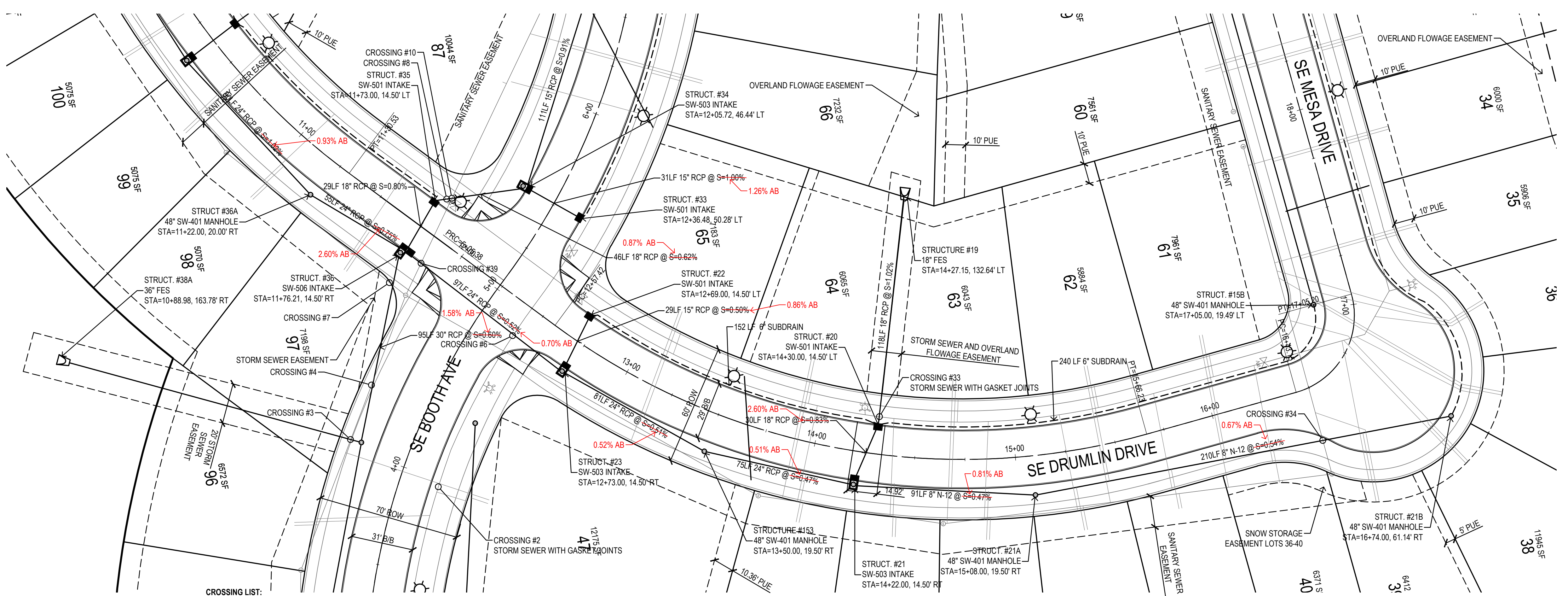
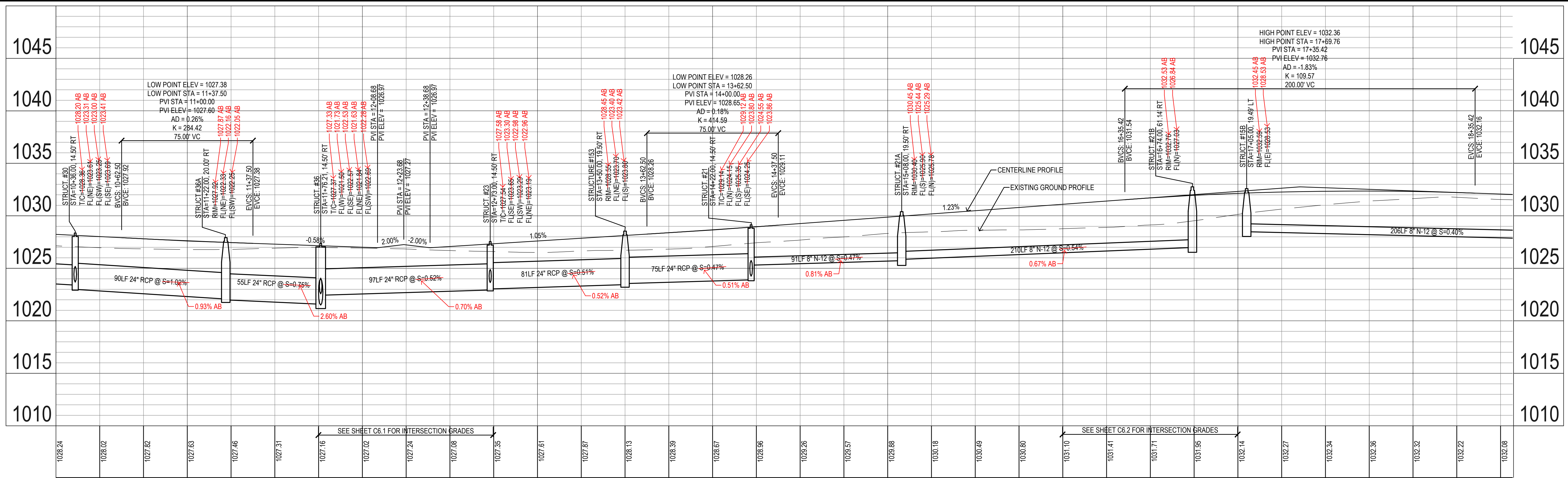
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 12-21-18 1ST SUBMITTAL  
 2-4-19 2ND SUBMITTAL  
 3-12-19 3RD SUBMITTAL  
 4-15-19 4TH SUBMITTAL  
 4-23-19 5TH SUBMITTAL

PROJECT NUMBER:  
**180168**

SHEET NUMBER:  
**C4.4**

**STORM AND PAVING**



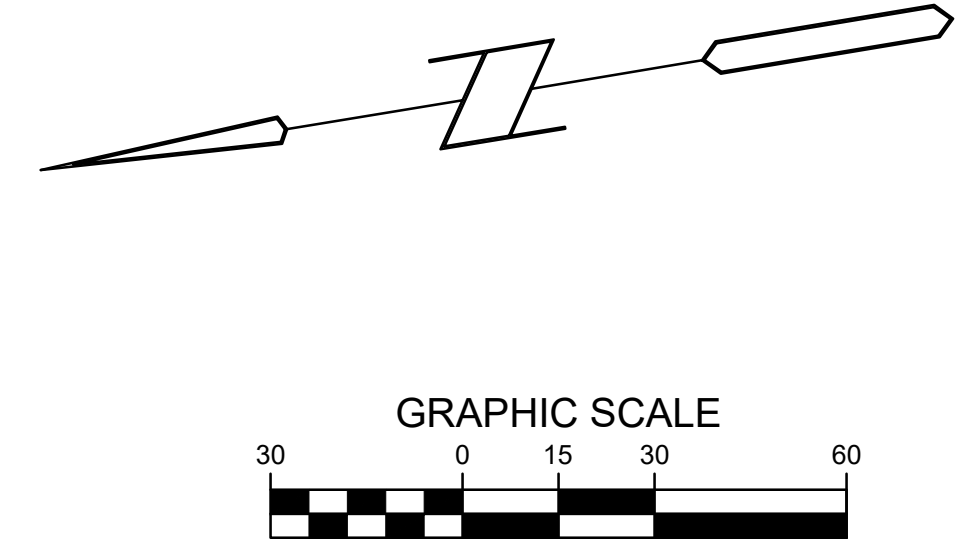
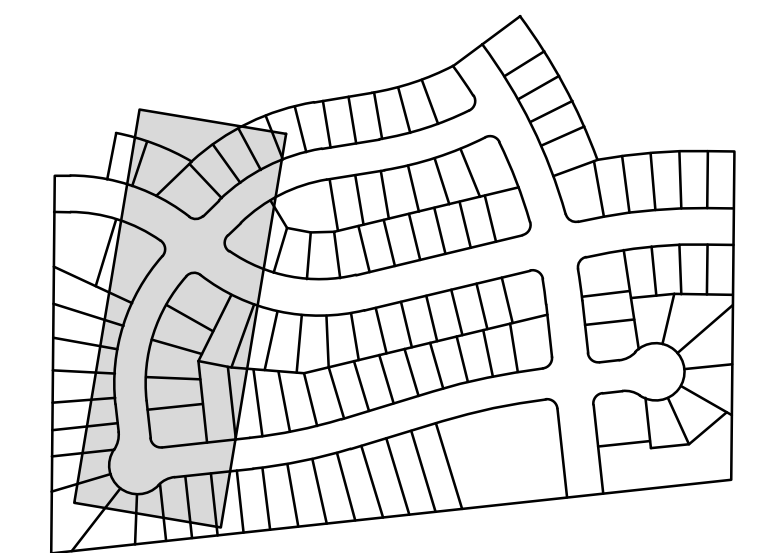


**CROSSING LIST:**

3. BOTTOM OF STORM=1020.23
TOP OF SANITARY=1013.48
4. BOTTOM OF STORM=1021.99
TOP OF SANITARY=1013.60
5. BOTTOM OF WATER=1021.78
TOP OF SANITARY=1015.93
7. BOTTOM OF STORM=1021.14
TOP OF SANITARY=1015.07
8. BOTTOM OF STORM=1022.69
TOP OF WATER=1021.19
9. BOTTOM OF WATER=1020.52
TOP OF SANITARY=1014.13
11. BOTTOM OF STORM=1026.51
TOP OF SANITARY=1015.15
34. BOTTOM OF STORM=1026.79
TOP OF SANITARY=1019.33
35. BOTTOM OF WATER=1025.59
TOP OF SANITARY=1019.80
40. BOTTOM OF STORM=1025.72
TOP OF WATER=1024.22

- UTILITY NOTES:**
- PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
  - STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
  - STORM SEWER CALLED OUT AS N-12 IS SLOTTED N-12
  - FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.

- PAVING NOTES:**
- 31" WIDE PAVEMENTS, 8" PCC W/ CD BASKETS
  - 29" WIDE PAVEMENTS, 7" PCC



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**LANDING AT KETTLESTONE  
 WAUKEE, IOWA  
 STORM AND PAVING**

REFERENCE NUMBER:  
150421

DRAWN BY:  
BA

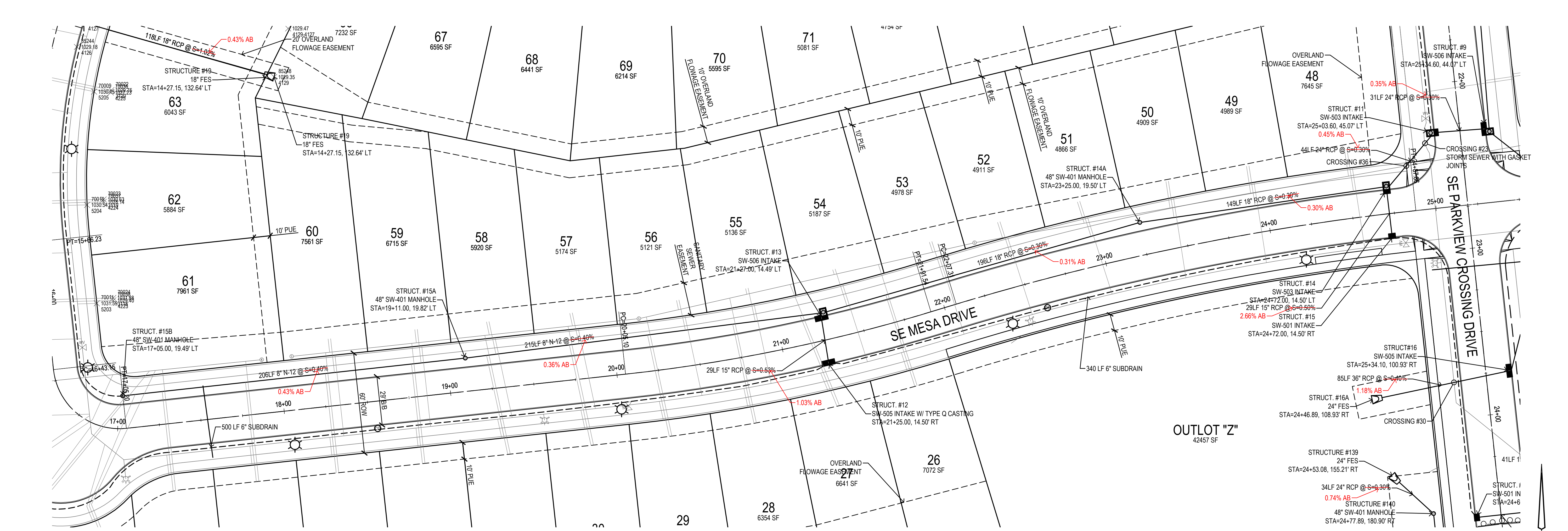
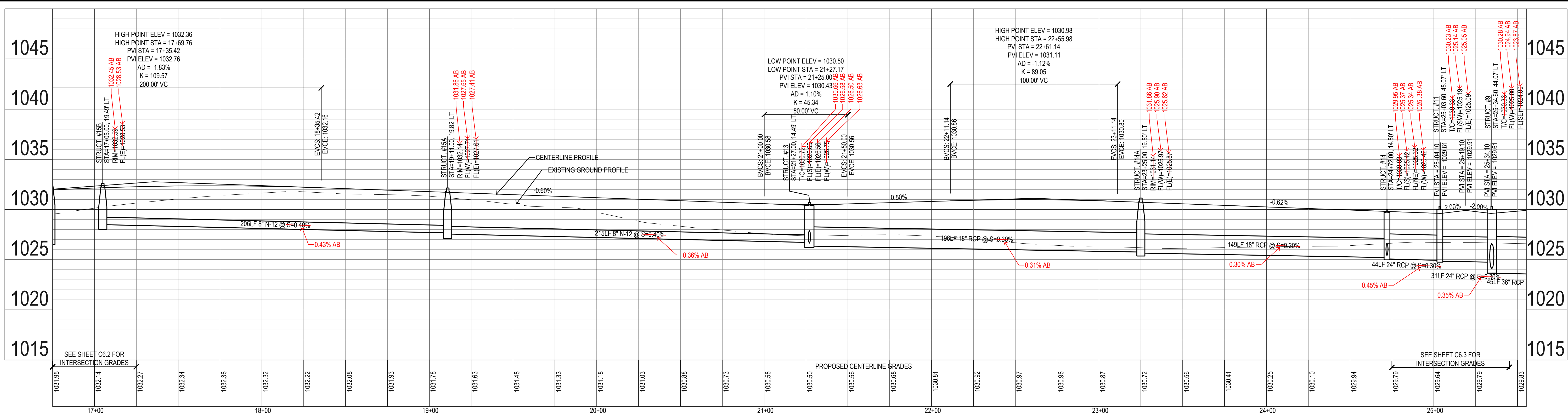
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REVISION DATE:  
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2-4-19 2ND SUBMITTAL  
3-12-19 3RD SUBMITTAL  
4-15-19 4TH SUBMITTAL  
4-23-19 5TH SUBMITTAL

PROJECT NUMBER:  
180168

SHEET NUMBER:  
C4.6

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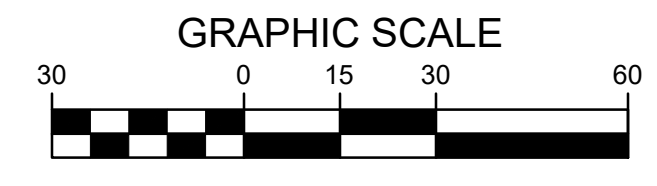


**CROSSING LIST:**

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	TOP OF SANITARY=1018.61
31	BOTTOM OF STORM=1024.63
	TOP OF WATER=1023.13
37	BOTTOM OF STORM=1016.70
	TOP OF WATER=1016.20

- UTILITY NOTES:**
- PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
  - STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
  - STORM SEWER CALLED OUT AS N-12 IS SLOTTED N-12
  - FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.

- PAVING NOTES:**
- 31" WIDE PAVEMENTS, 6" PCC W/ CD BASKETS
  - 29" WIDE PAVEMENTS, 7" PCC



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**LANDING AT KETTLESTONE  
 WAUKEE, IOWA  
 STORM AND PAVING**

REFERENCE NUMBER:  
150421

DRAWN BY:  
BA

CHECKED BY:  
DB

REVISION DATE:  
12-21-18 1ST SUBMITTAL  
2-4-19 2ND SUBMITTAL  
3-12-19 3RD SUBMITTAL  
4-15-19 4TH SUBMITTAL  
4-23-19 5TH SUBMITTAL

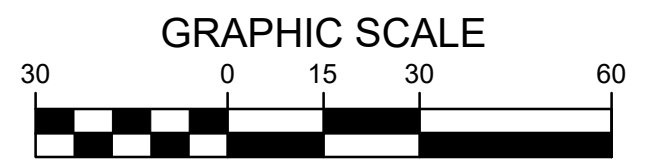
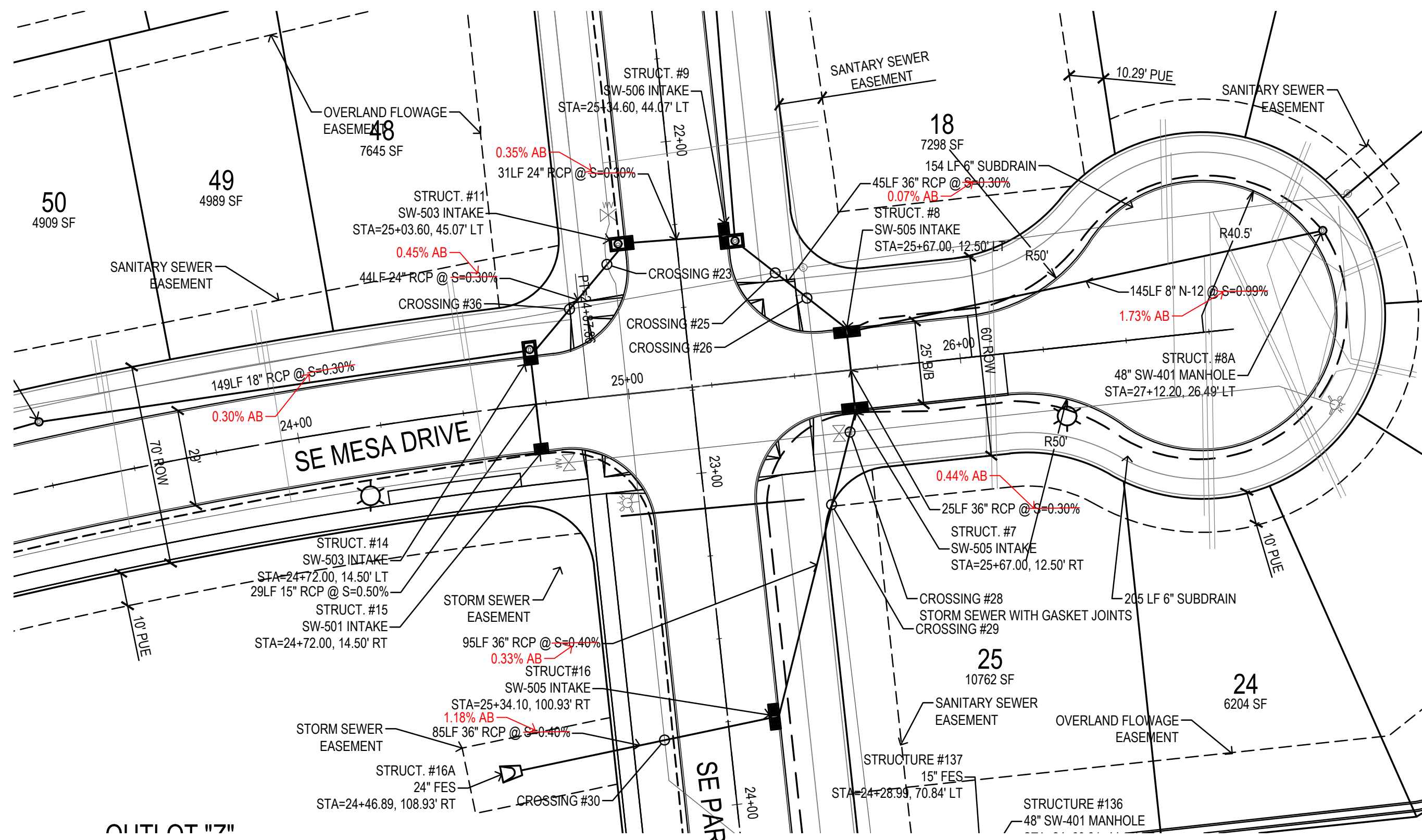
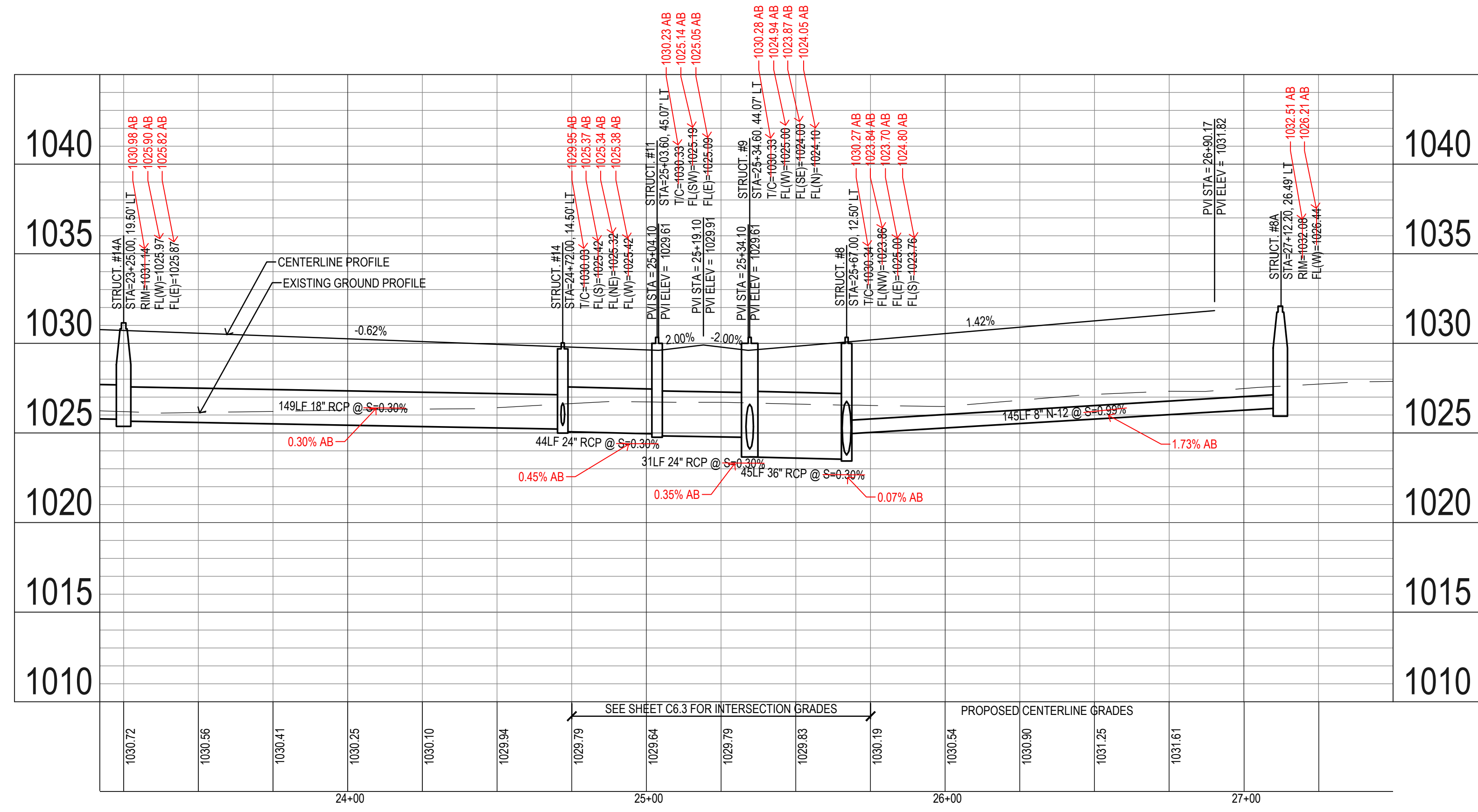
PROJECT NUMBER:  
180168

SHEET NUMBER:  
C4.7

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1/11/2021 10:14:32 AM M:\LAND PROJECTS 2018\180180\DWG\AB-C4.1 STORM & PAV.DWG

- UTILITY NOTES:**
- PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
  - STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
  - STORM SEWER CALLED OUT AS N-12 IS SLOTTED N-12
  - FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.
- PAVING NOTES:**
- 31' WIDE PAVEMENTS, 8" PCC W/ CD BASKETS
  - 29' WIDE PAVEMENTS, 7" PCC



**LANDING AT KETTLESTONE  
WAUKEE, IOWA**

REFERENCE NUMBER:  
**150421**

DRAWN BY:  
**BA**

CHECKED BY:  
**DB**

REVISION DATE:  
12-21-18 1ST SUBMITTAL  
2-4-19 2ND SUBMITTAL  
3-12-19 3RD SUBMITTAL  
4-15-19 4TH SUBMITTAL  
4-23-19 5TH SUBMITTAL

PROJECT NUMBER:  
**180168**

SHEET NUMBER:  
**C4.8**

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Established 1959

**STORM AND PAVING**

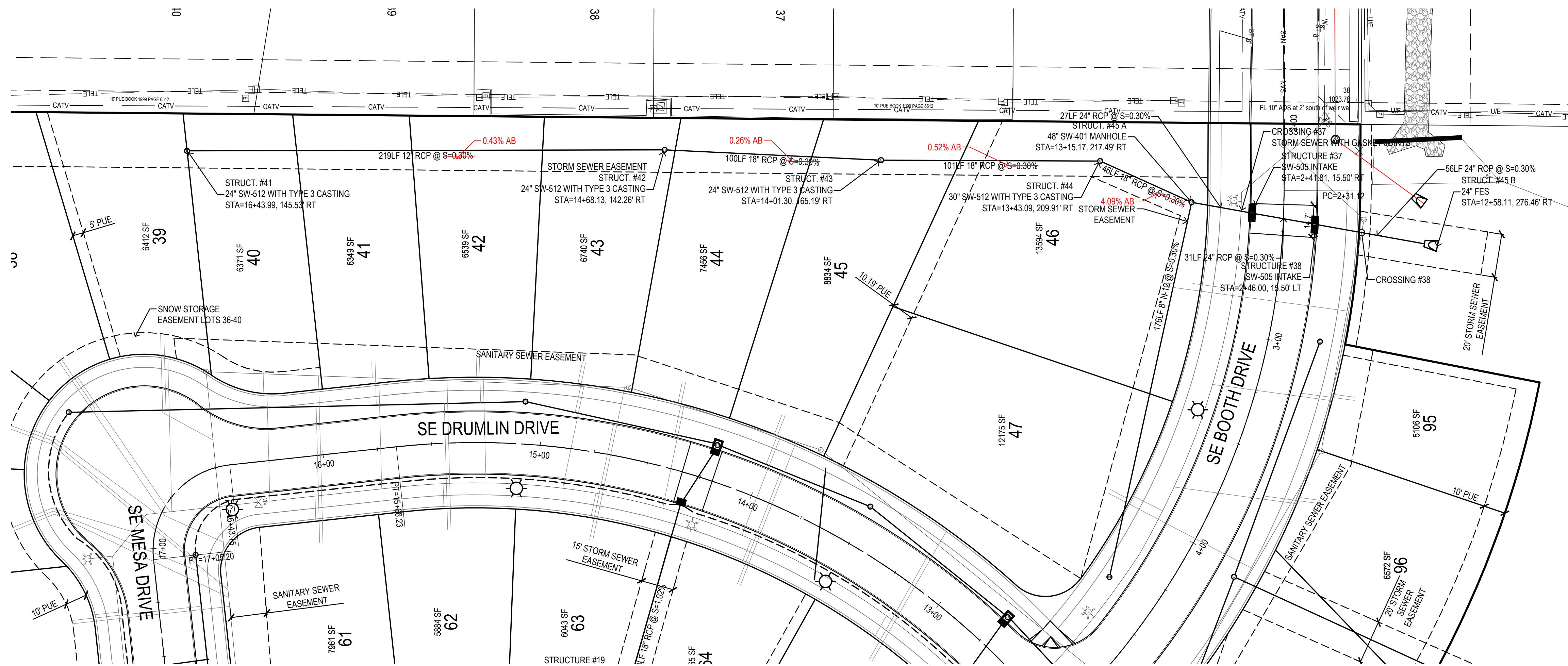
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**PAVING NOTES:**

- 31" WIDE PAVEMENTS, 8" PCC W/ CD BASKETS
- 29" WIDE PAVEMENTS, 7" PCC

**NOTE:**

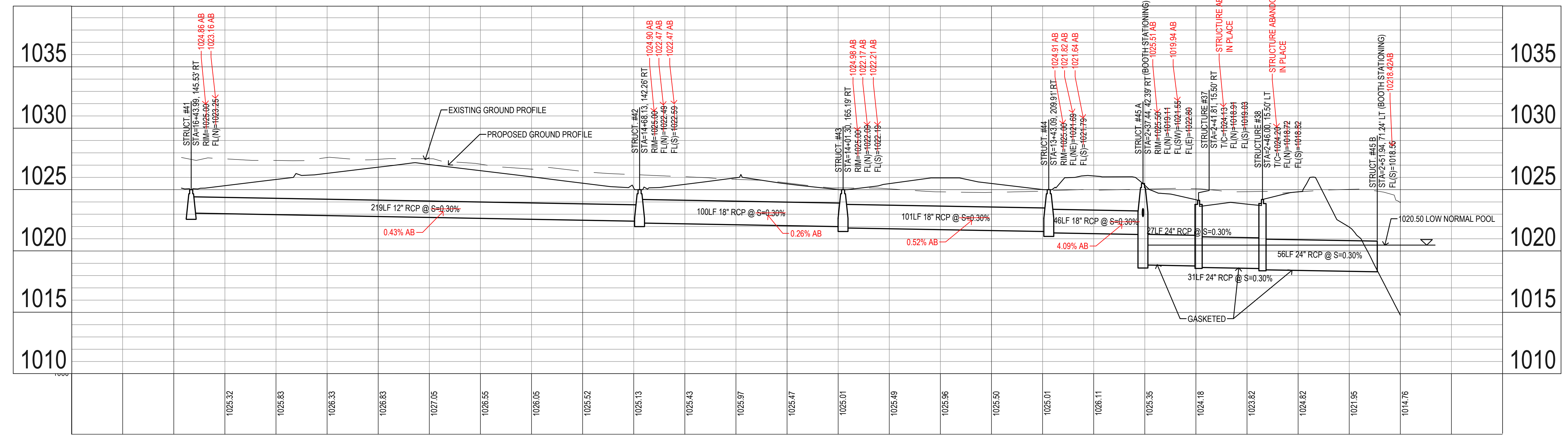
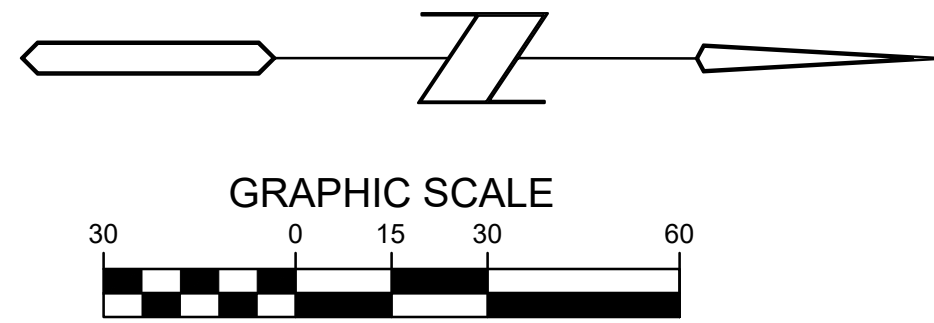
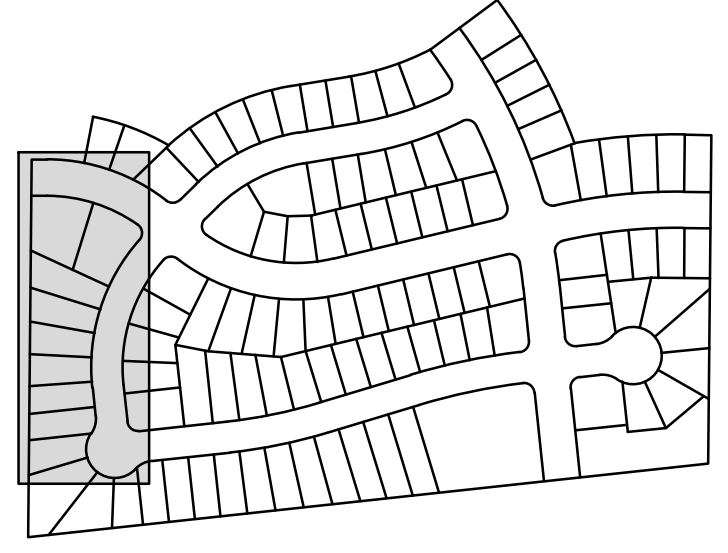
SEE SHEET C3.8 FOR CROSSING TABLE



**UTILITY NOTES:**

- PIPE LENGTHS CALLED OUT ON PLANS INCLUDE FLARED END SECTION, WHERE APPLICABLE.
- STORM SEWER CALLED OUT AS RCP MUST BE CLASS III RCP.
- STORM SEWER CALLED OUT AS N-12 IS SLOTTED N-12
- FOR RCP PIPE, ASSOCIATED F.E.S. MUST BE RCP. FOR N-12 PIPE, ASSOCIATED F.E.S. SHALL BE CMP.

**CROSSING LIST:**  
 39. BOTTOM OF STORM=1022.51  
 TOP OF SANITARY=1014.25



**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

REFERENCE NUMBER:  
 150421

DRAWN BY:  
 BA

CHECKED BY:  
 DB

REVISION DATE:  
 12-21-18 1ST SUBMITTAL  
 2-4-19 2ND SUBMITTAL  
 3-12-19 3RD SUBMITTAL  
 4-15-19 4TH SUBMITTAL  
 4-23-19 5TH SUBMITTAL

PROJECT NUMBER:  
 180168

SHEET NUMBER:  
**C4.9**

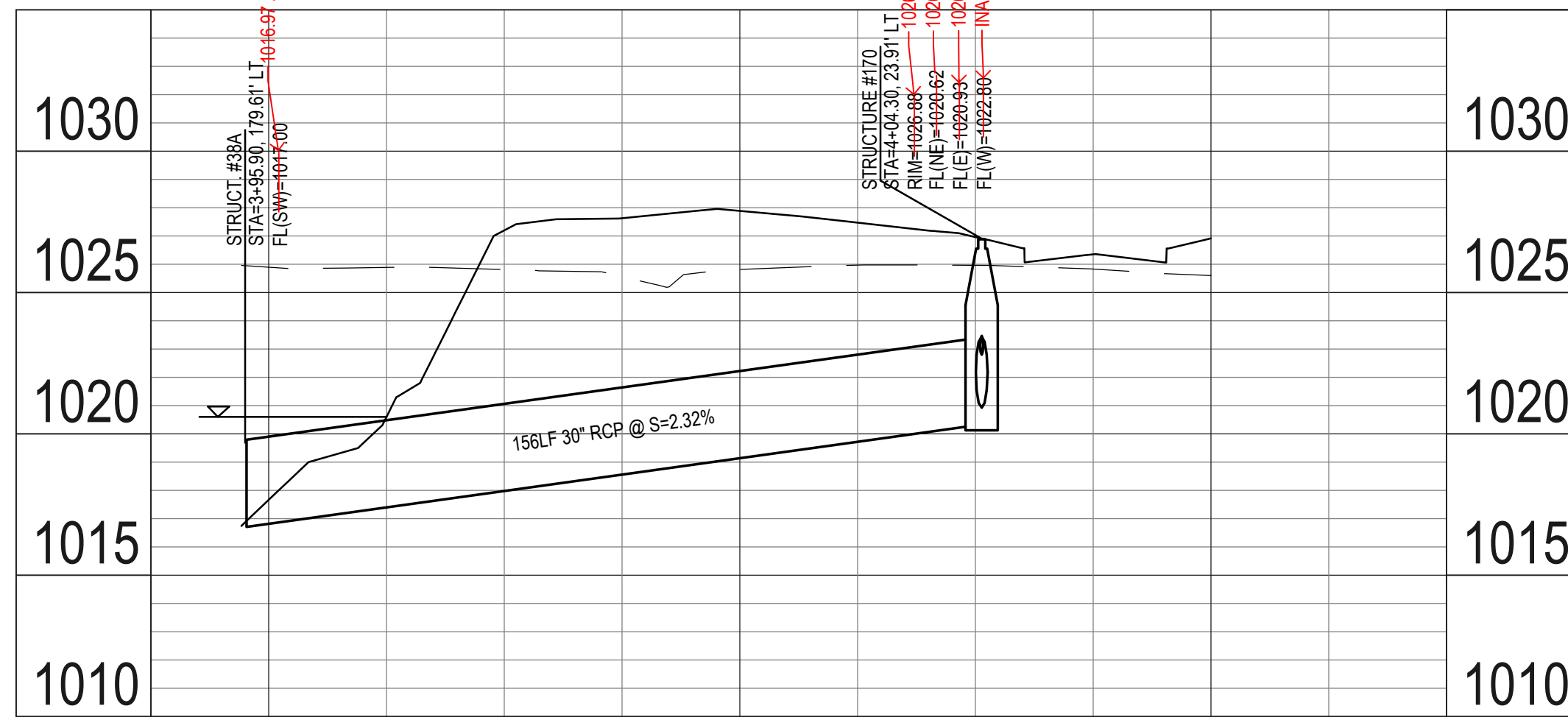
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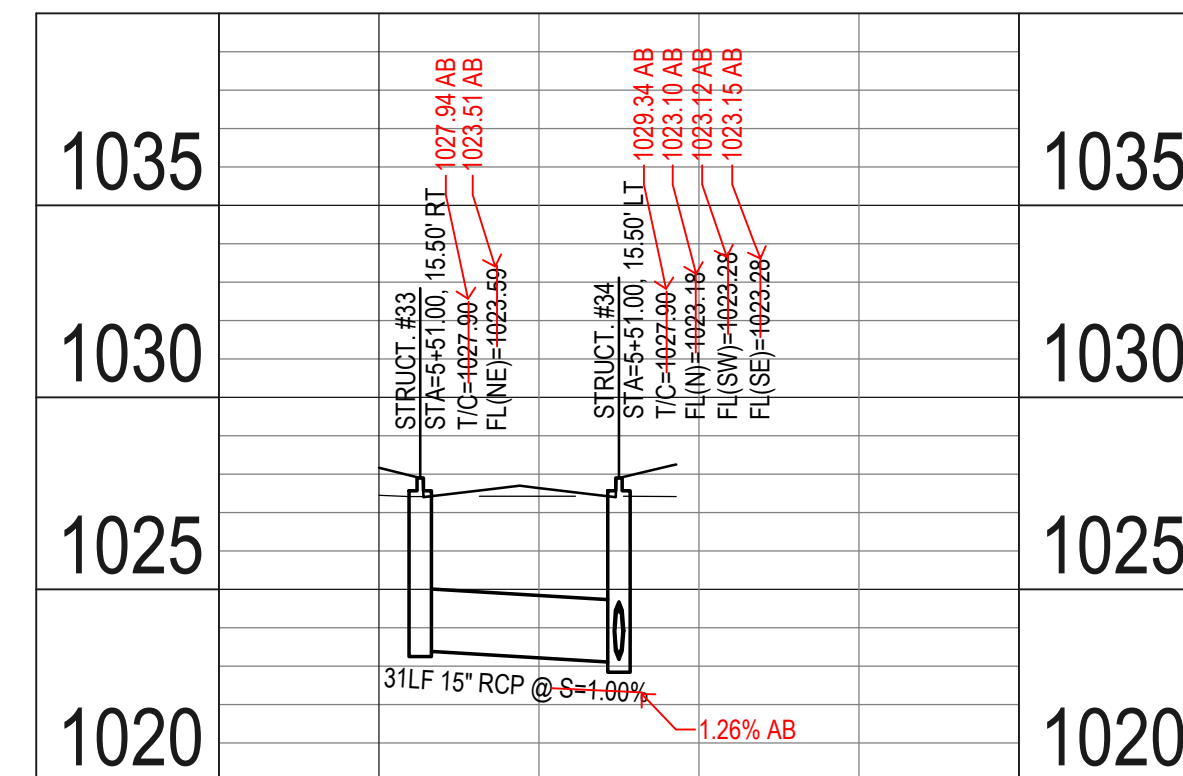
**STORM AND PAVING**



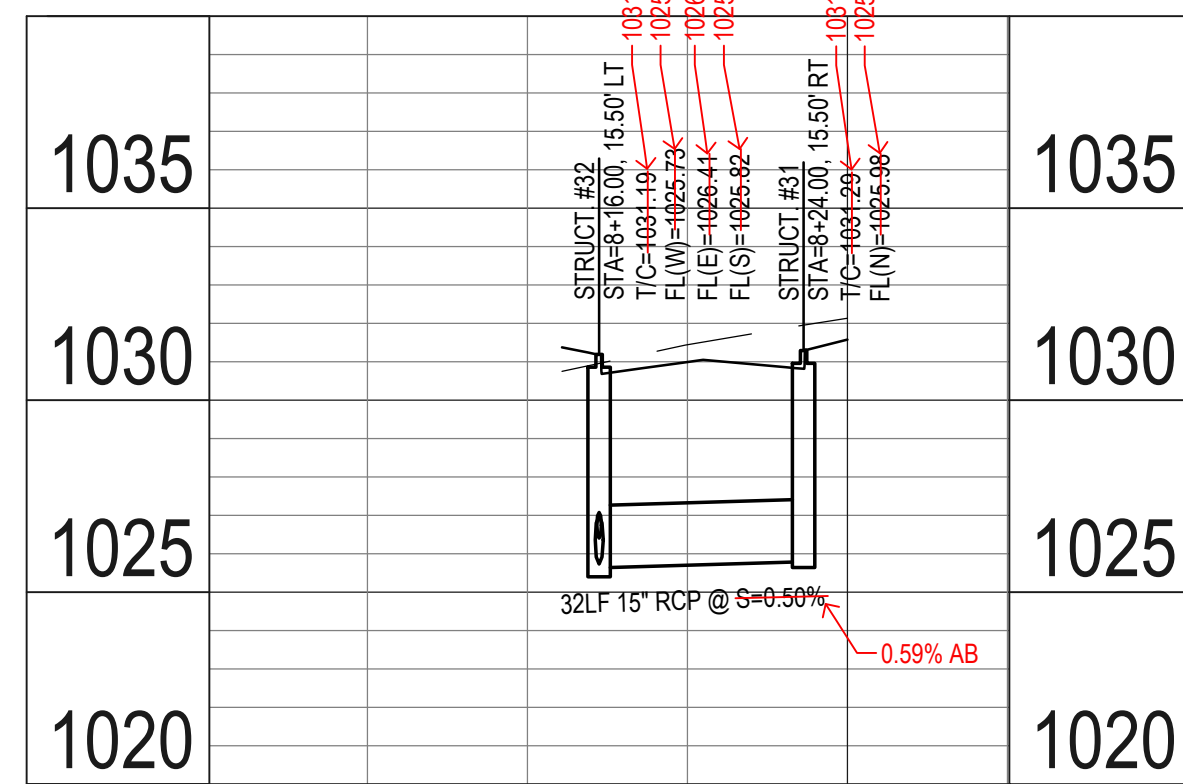
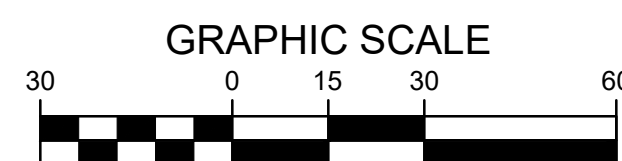
CROSS RUN DETAIL  
STA 2-46  
SE BOOTH AVE  
SEE SHEET C4.1



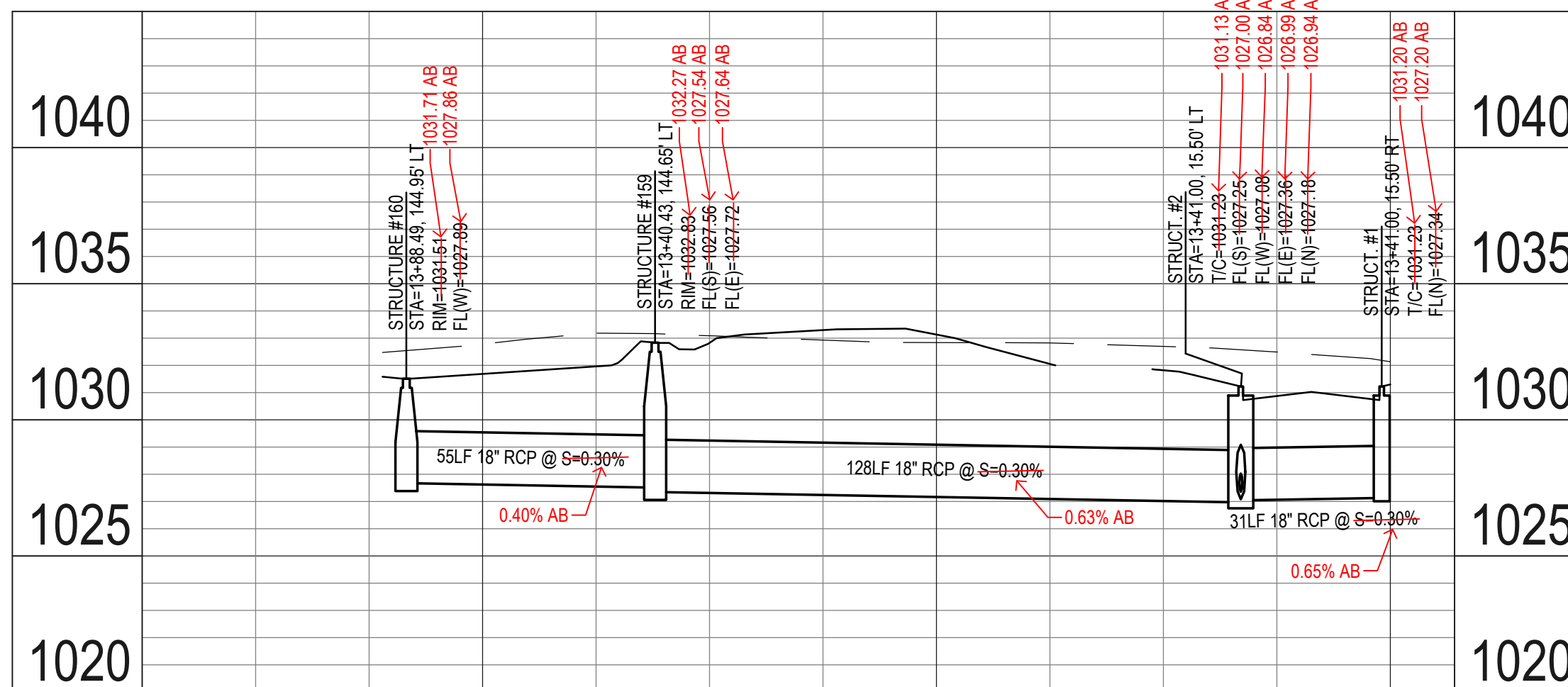
CROSS RUN DETAIL  
STA 4-45  
SE BOOTH AVE  
SEE SHEET C4.1



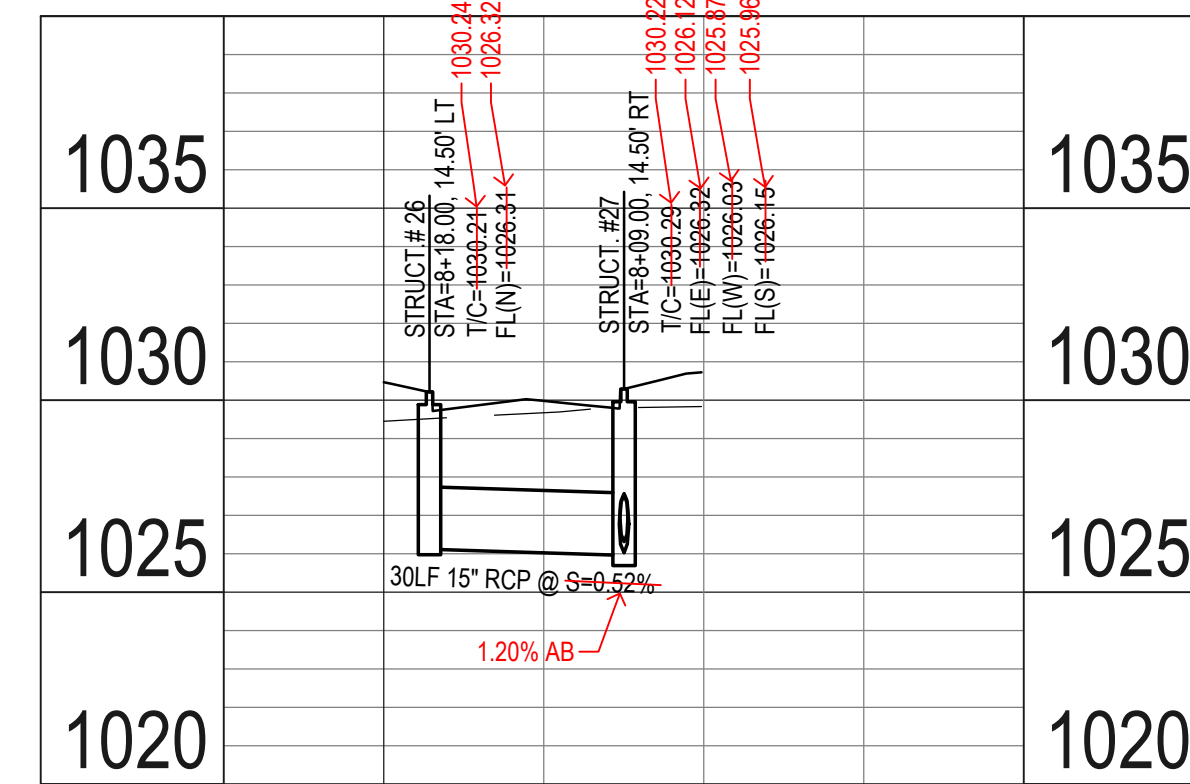
CROSS RUN DETAIL  
STA 5-50  
SE BOOTH AVE  
SEE SHEET C4.1



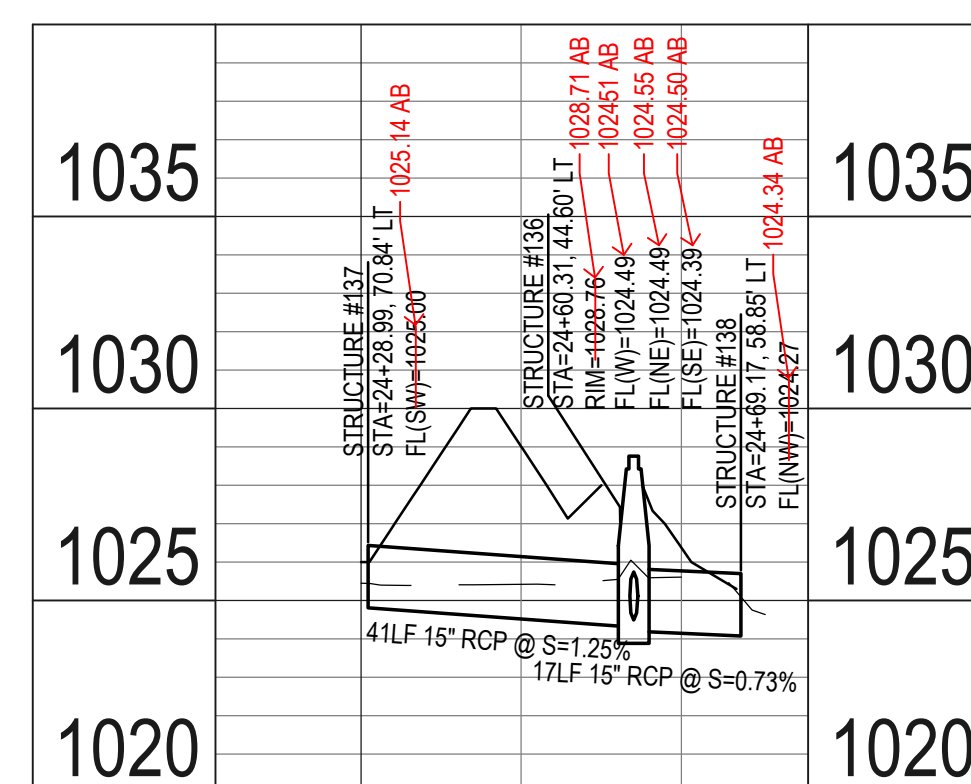
CROSS RUN DETAIL  
STA 8-10  
SE BOOTH AVE  
SEE SHEET C4.1



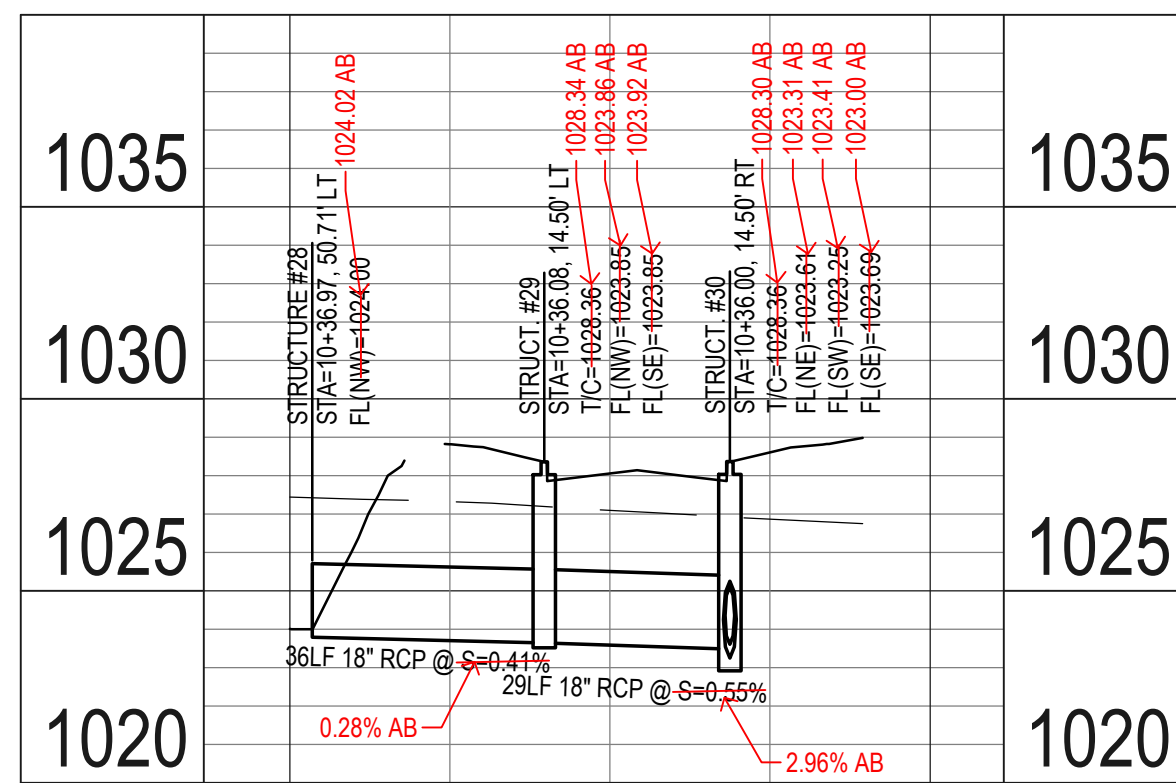
CROSS RUN DETAIL  
STA 13-33  
SE BOOTH AVE  
SEE SHEET C4.2



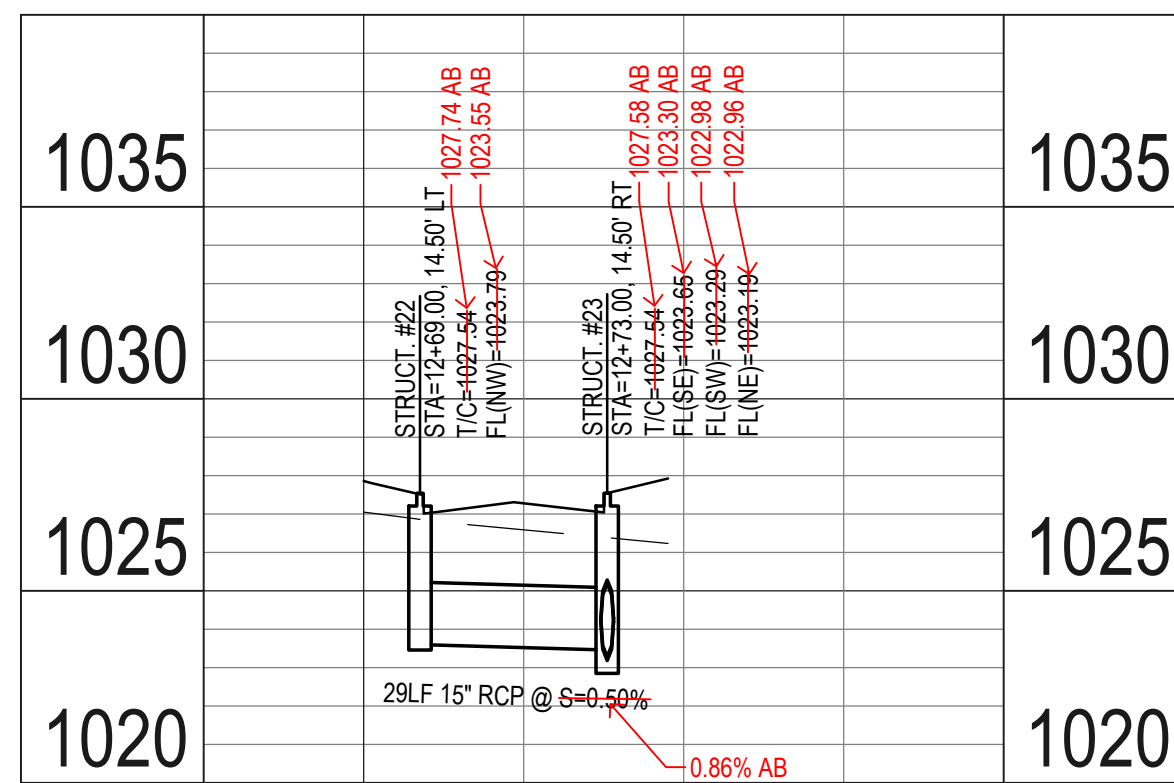
CROSS RUN DETAIL  
STA 8-16  
SE DRUMLIN DR  
SEE SHEET C4.5



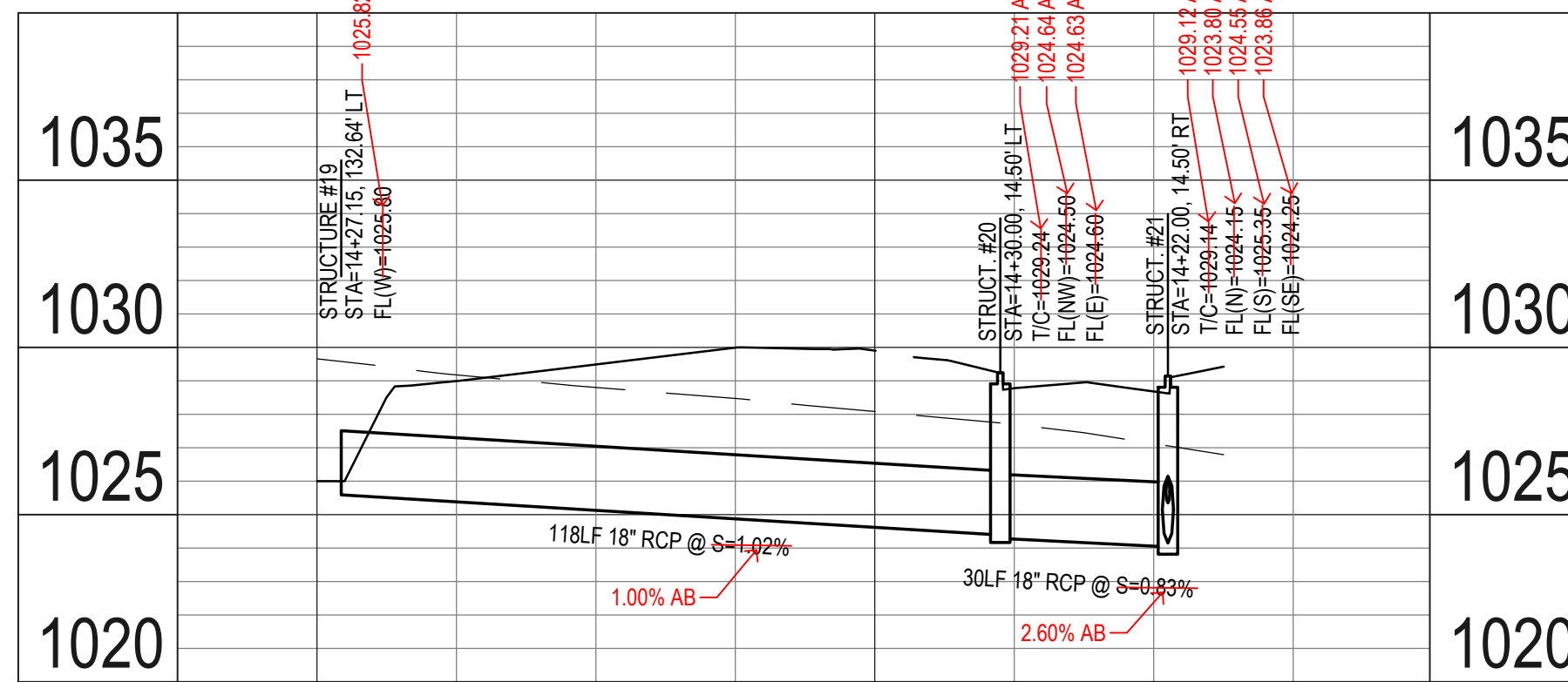
CROSS RUN DETAIL  
OUTLOT "Y"  
DETENTION OUTLET



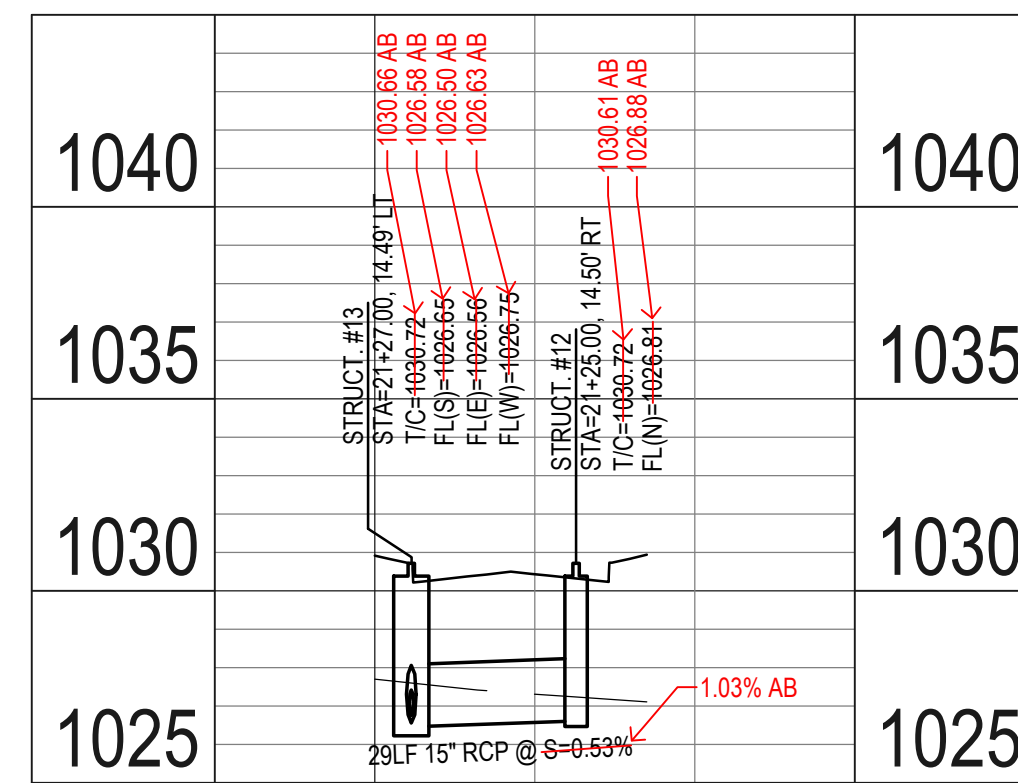
CROSS RUN DETAIL  
STA 10-36  
SE DRUMLIN DR  
SEE SHEET C4.5



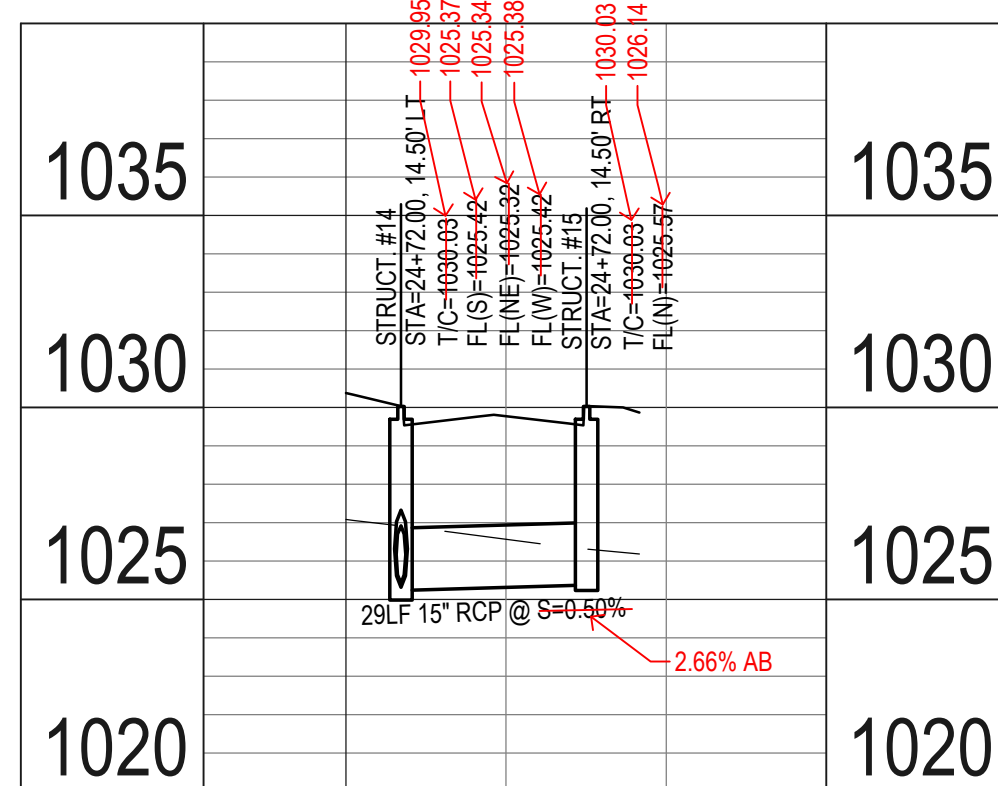
CROSS RUN DETAIL  
STA 12-71  
SE DRUMLIN DR  
SEE SHEET C4.5



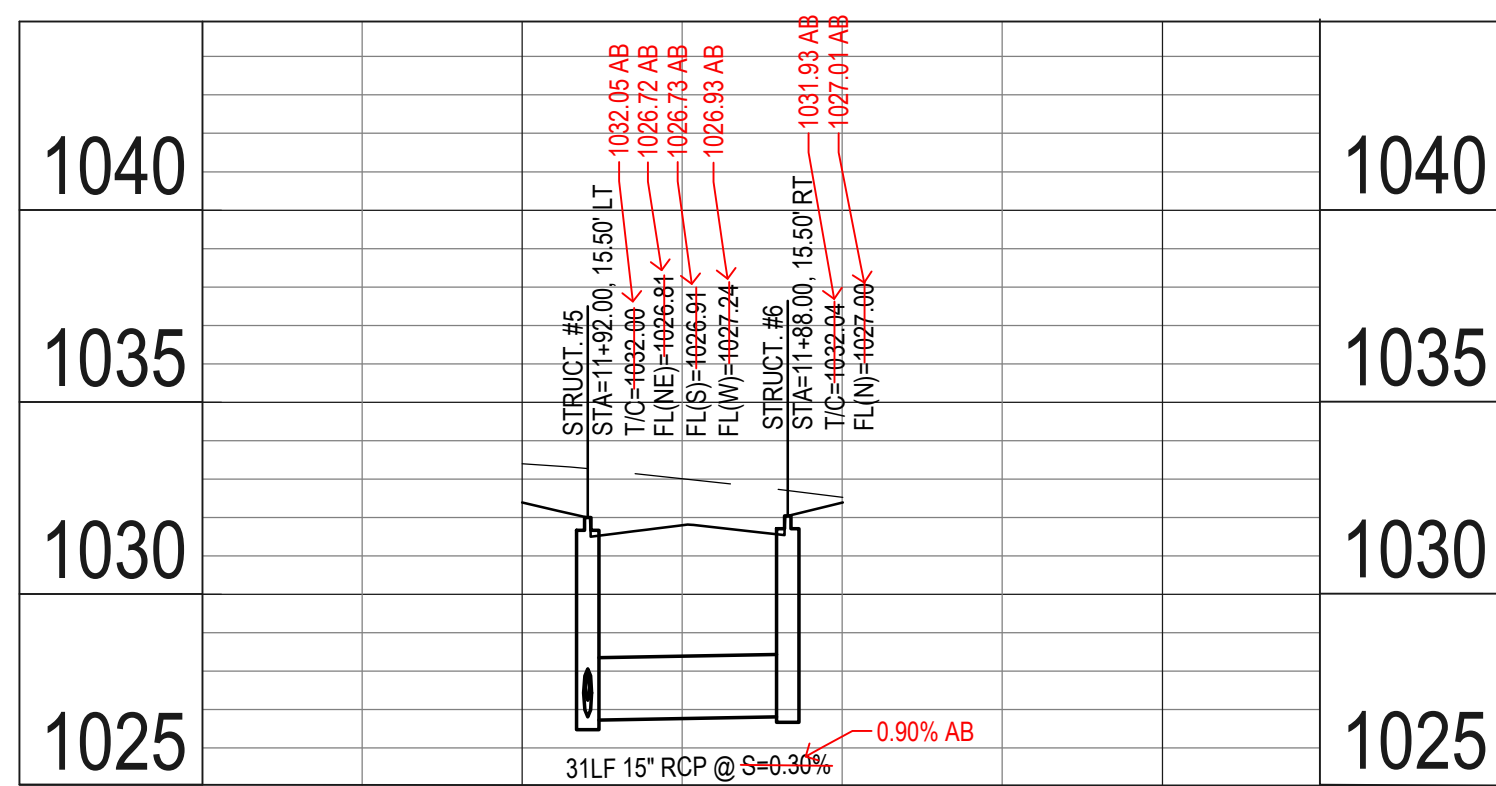
CROSS RUN DETAIL  
STA 14-22  
SE DRUMLIN DR  
SEE SHEET C4.6



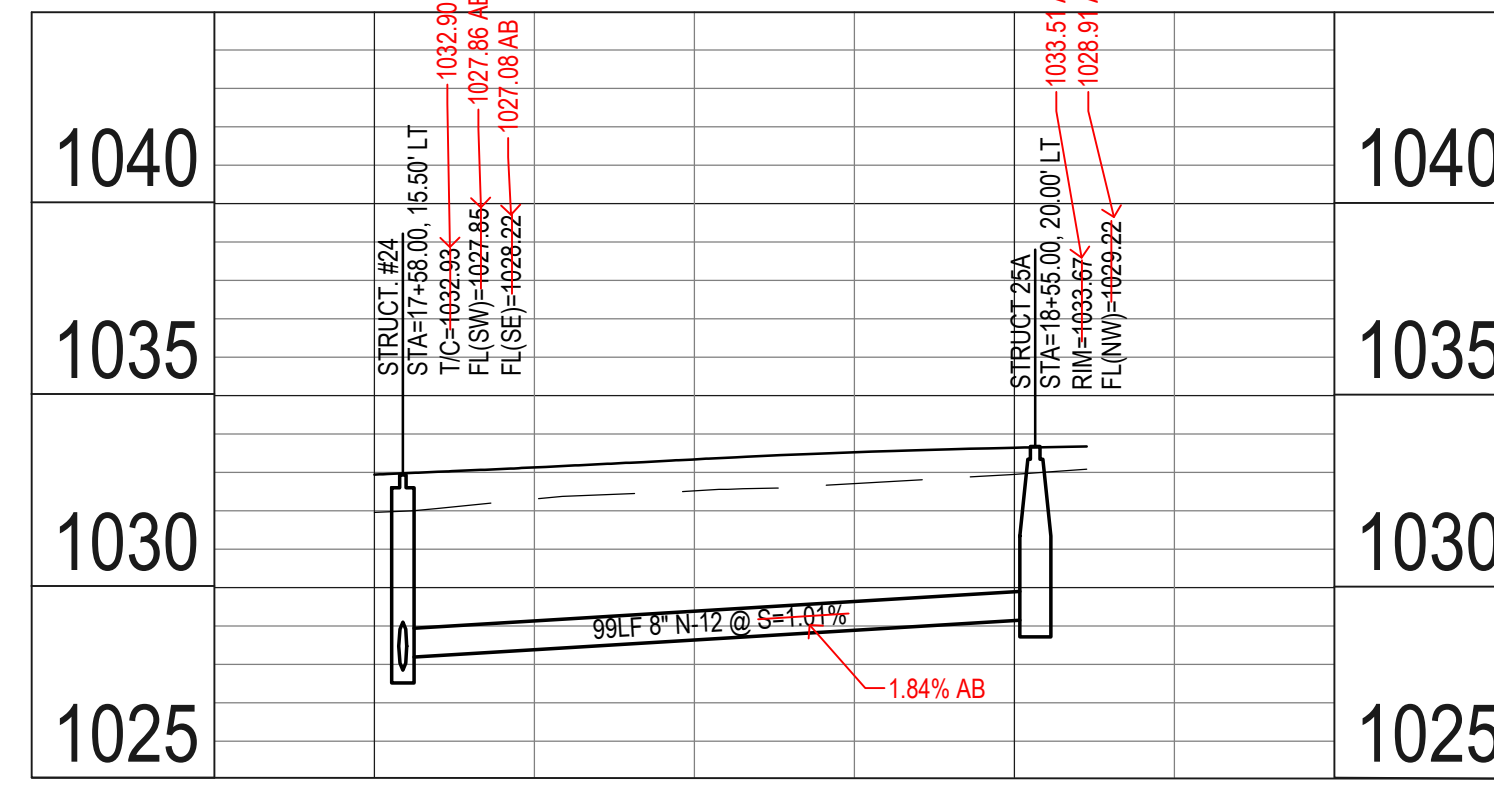
CROSS RUN DETAIL  
STA 21-30  
SE MESA DR  
SEE SHEET C4.7



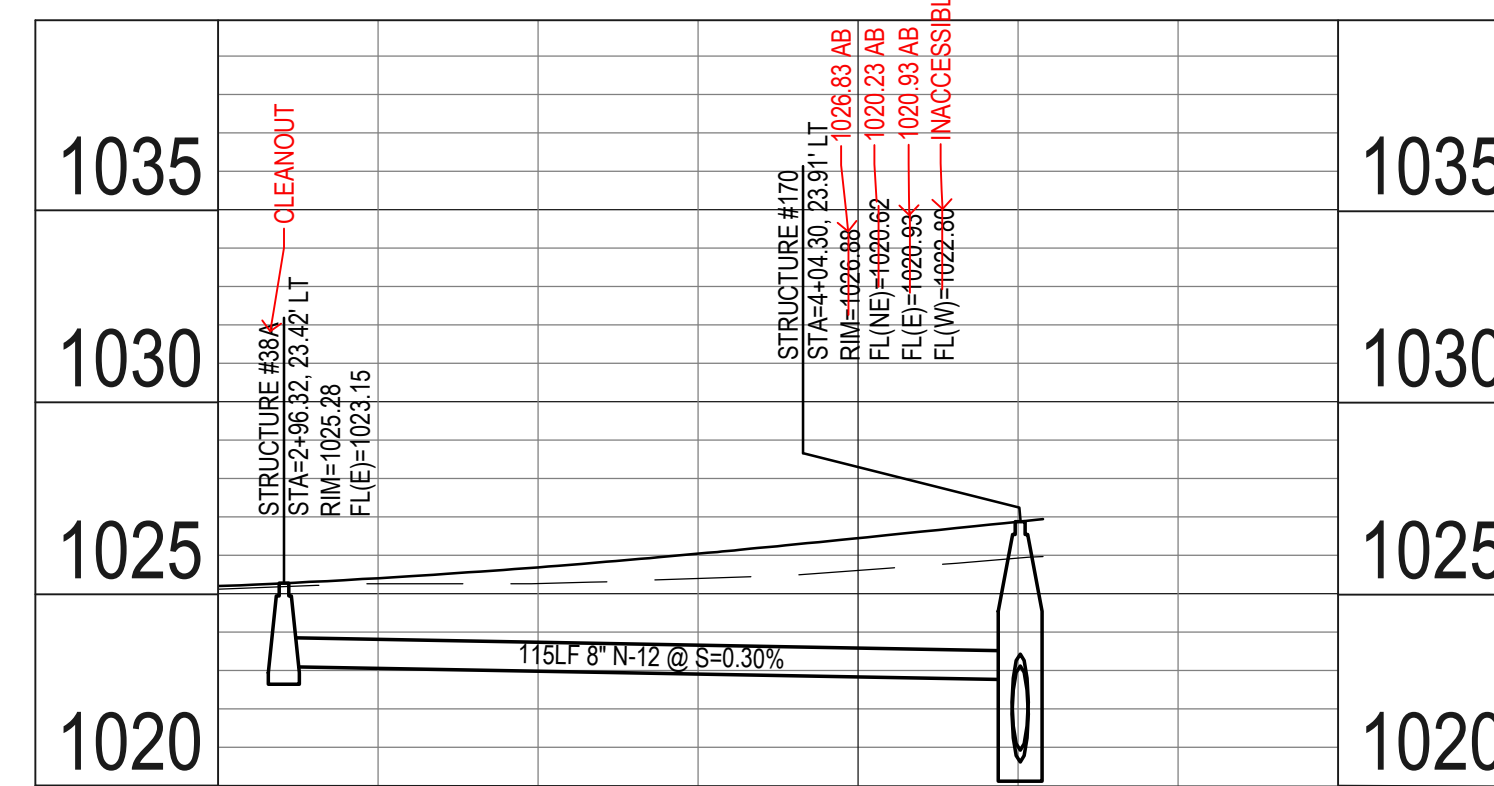
CROSS RUN DETAIL  
STA 24-67  
SE MESA DR  
SEE SHEET C4.8



CROSS RUN DETAIL  
STA 11-92  
SE BOOTH AVE  
SEE SHEET C4.3



CROSS RUN DETAIL  
STA 17-58  
SE PARKVIEW CROSSING DR  
SEE SHEET C4.5



CROSS RUN DETAIL  
BOOTH DRIVE  
SEE SHEET C4.1  
STA 3-00 TO 4-00

LANDING AT KETTLESTONE  
WAUKEE, IOWA

STORM AND PAVING

REFERENCE NUMBER:  
150421

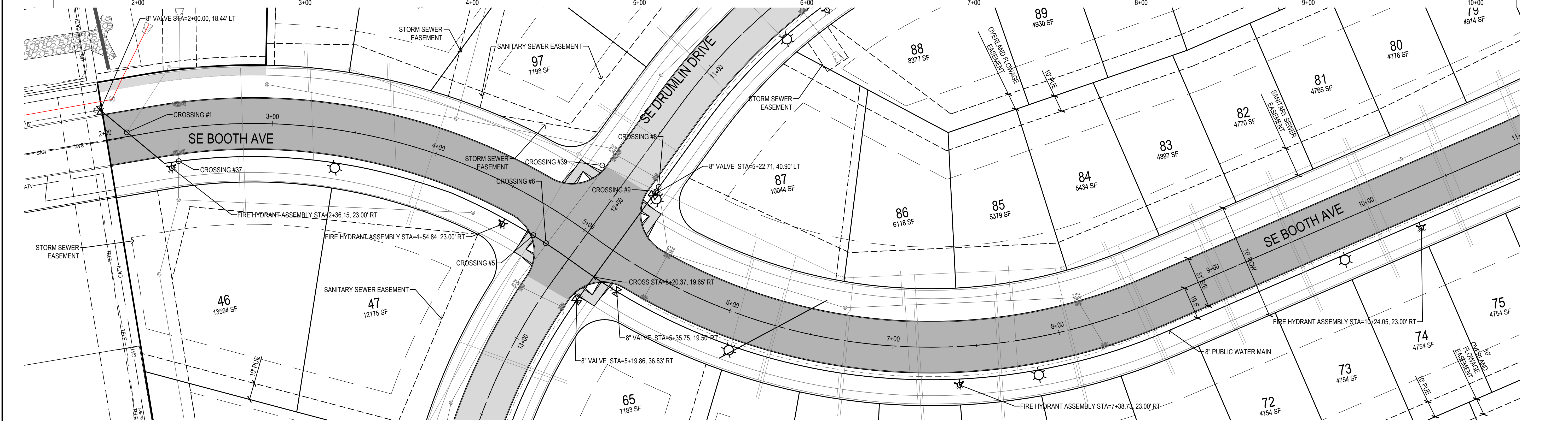
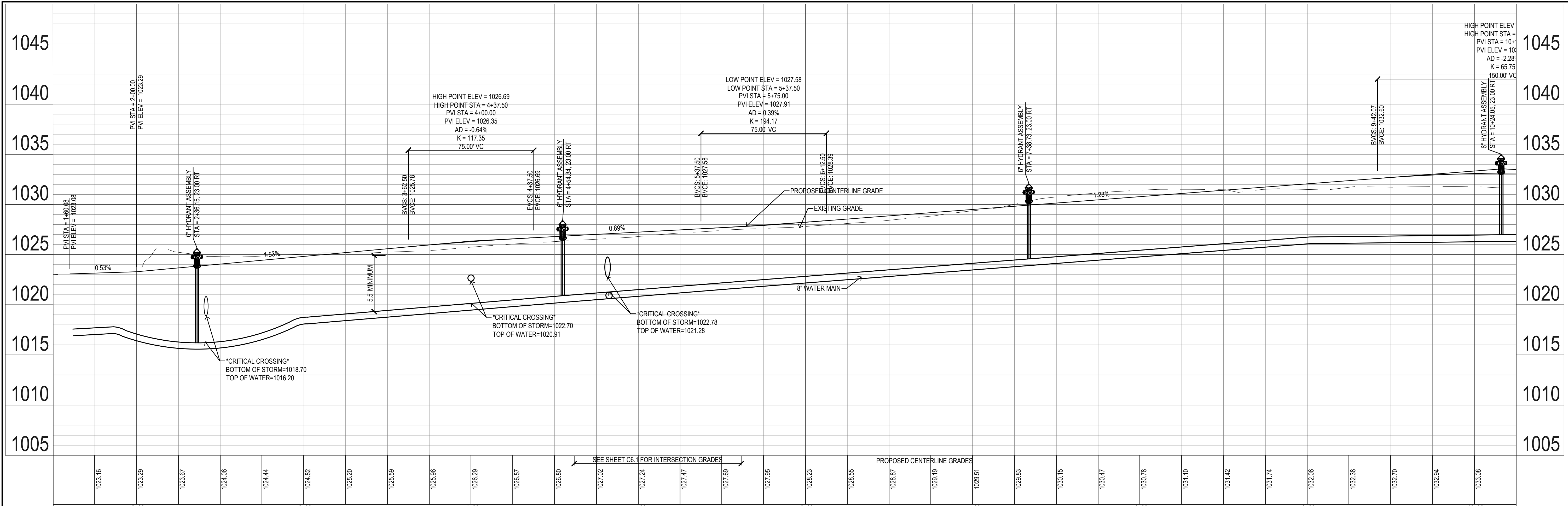
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CHECKED BY:  
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REVISION DATE:  
12-21-18 1ST SUBMITTAL  
2-4-19 2ND SUBMITTAL  
3-12-19 3RD SUBMITTAL  
4-15-19 4TH SUBMITTAL  
4-23-19 5TH SUBMITTAL

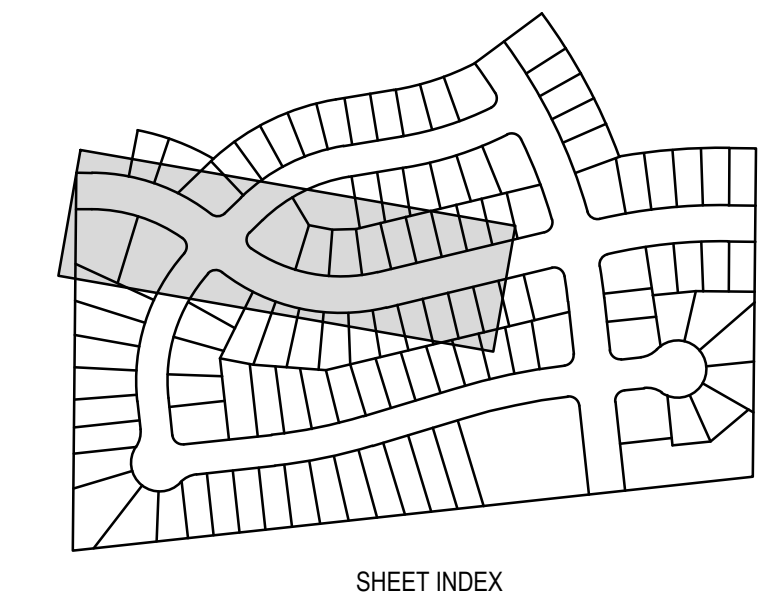
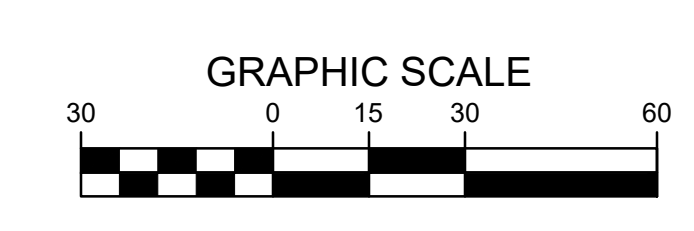
PROJECT NUMBER:  
180168

SHEET NUMBER:  
C4.10



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TOP OF SANITARY=1012.32
2. BOTTOM OF WATER=1020.23  
TOP OF SANITARY=1013.48
3. BOTTOM OF STORM=1022.78  
TOP OF WATER=1021.28
4. BOTTOM OF STORM=1021.14  
TOP OF SANITARY=1019.07
5. BOTTOM OF WATER=1020.52  
TOP OF SANITARY=1014.73
6. BOTTOM OF STORM=1022.68  
TOP OF SANITARY=1014.75
7. BOTTOM OF STORM=1018.40  
TOP OF SANITARY=1012.25



**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**  
**WATERMAIN PLAN & PROFILE**

REFERENCE NUMBER:  
150421

DRAWN BY:  
BA

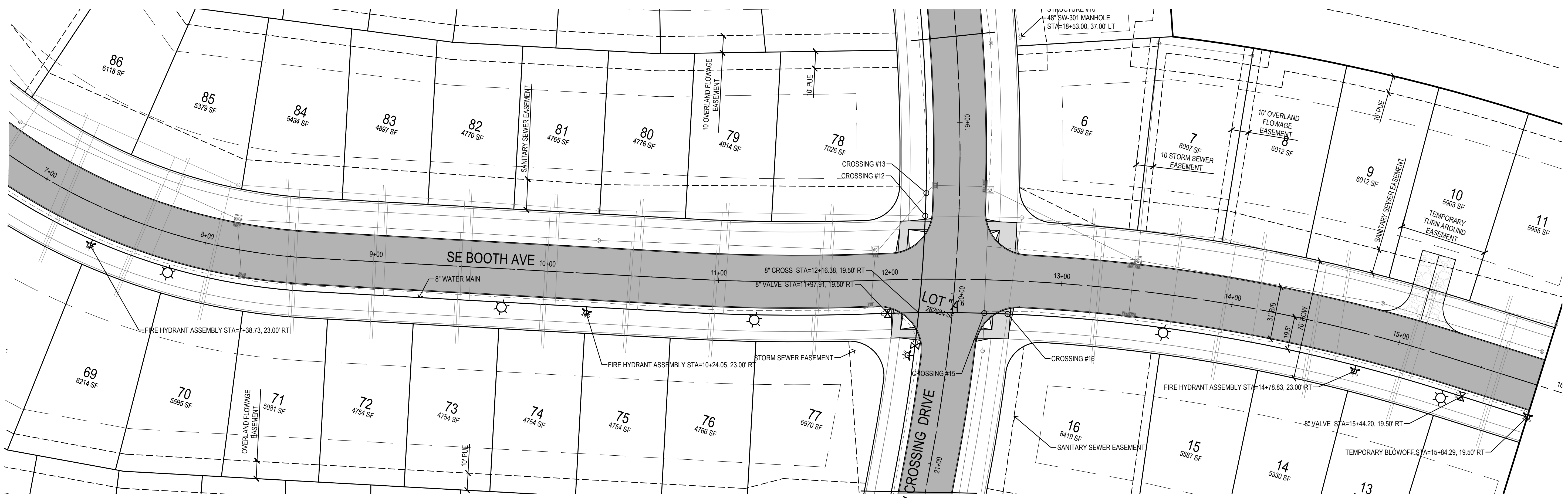
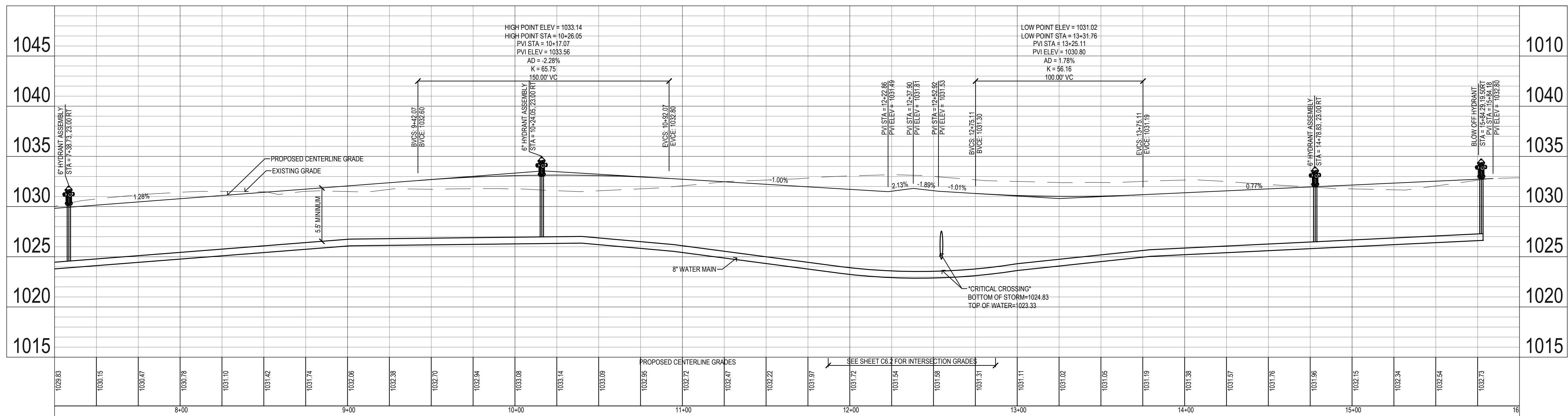
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REVISION DATE:  
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2-4-19 2ND SUBMITTAL  
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4-23-19 5TH SUBMITTAL

PROJECT NUMBER:  
180168

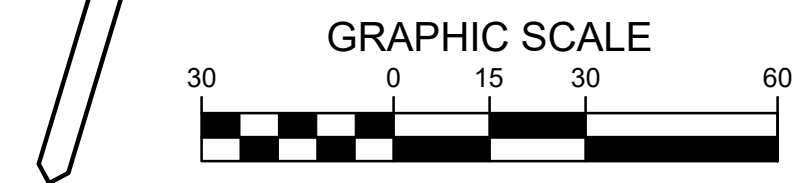
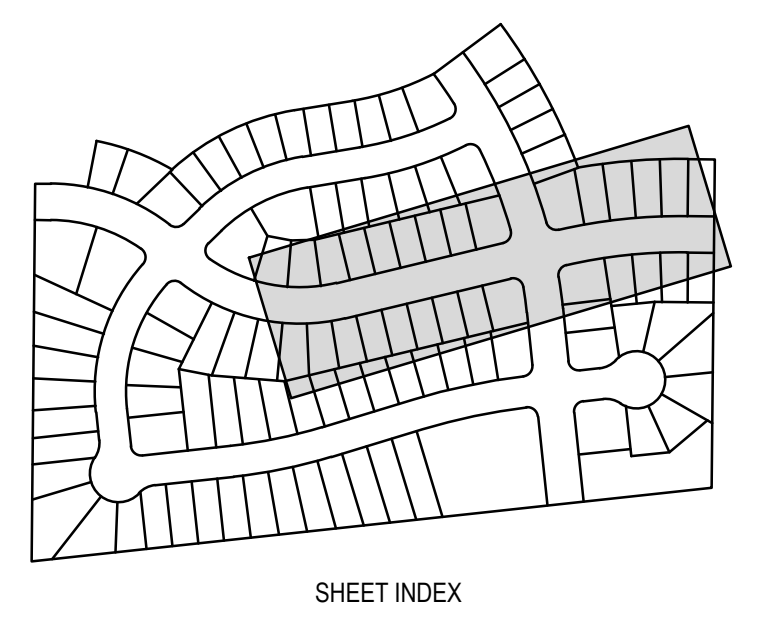
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C5.1

1/11/2021 10:18:20 AM M:\LAND PROJECTS\2018\180168\DWG\C5.1 WATER.DWG



**CROSSING LIST:**

13	BOTTOM OF STORM=1026.53	TOP OF WATER=1025.00
14	BOTTOM OF STORM=1025.04	TOP OF SANITARY=1019.34
16	BOTTOM OF WATER=1022.70	TOP OF SANITARY=1018.57
17	BOTTOM OF STORM=1026.97	TOP OF SANITARY=1019.74

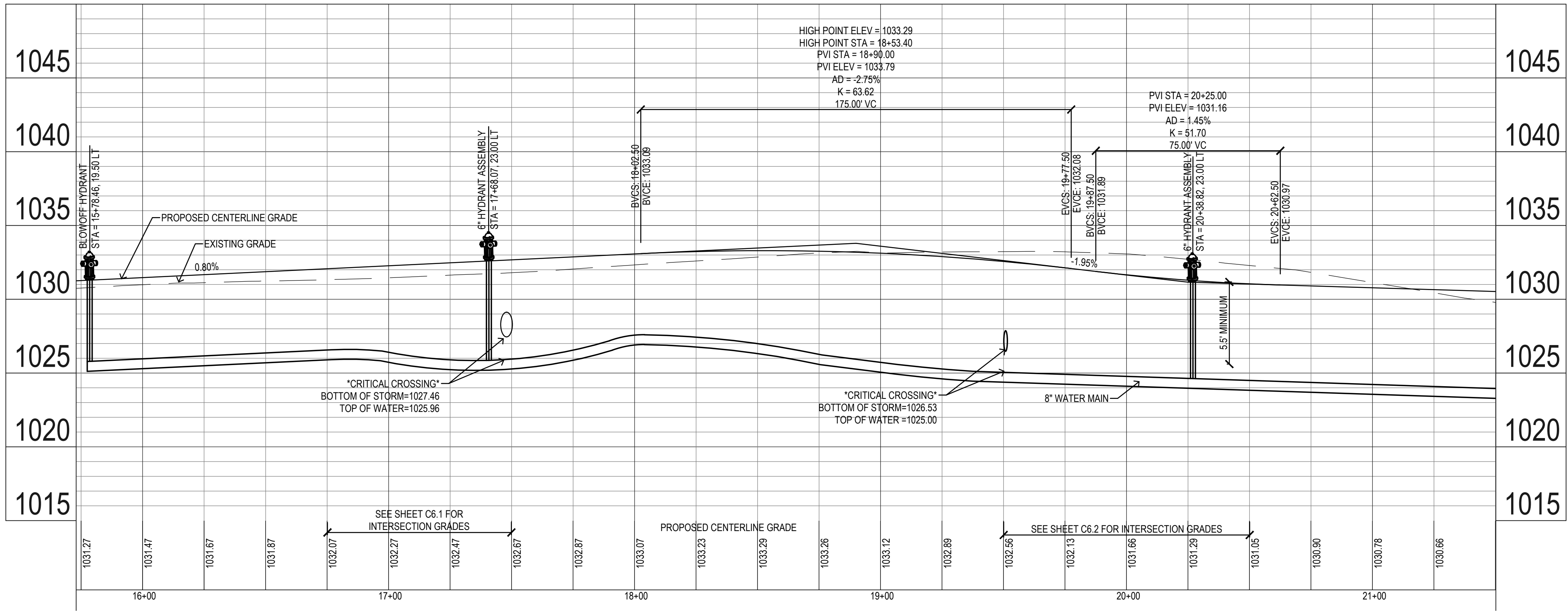


**LANDING AT KETTLESTONE  
WAUKEE, IOWA**

**WATERMAIN PLAN & PROFILE**

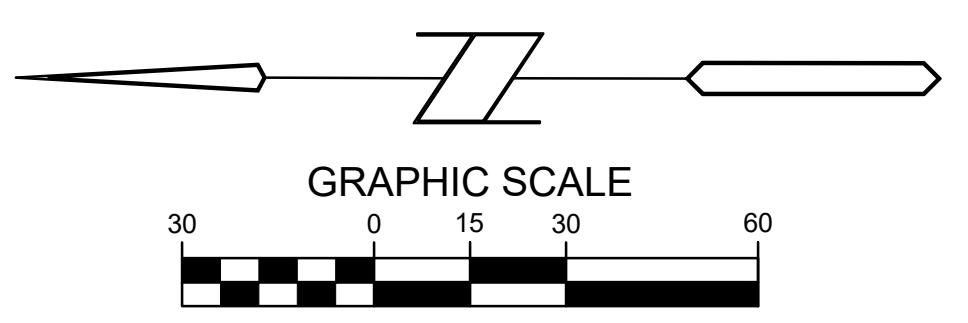
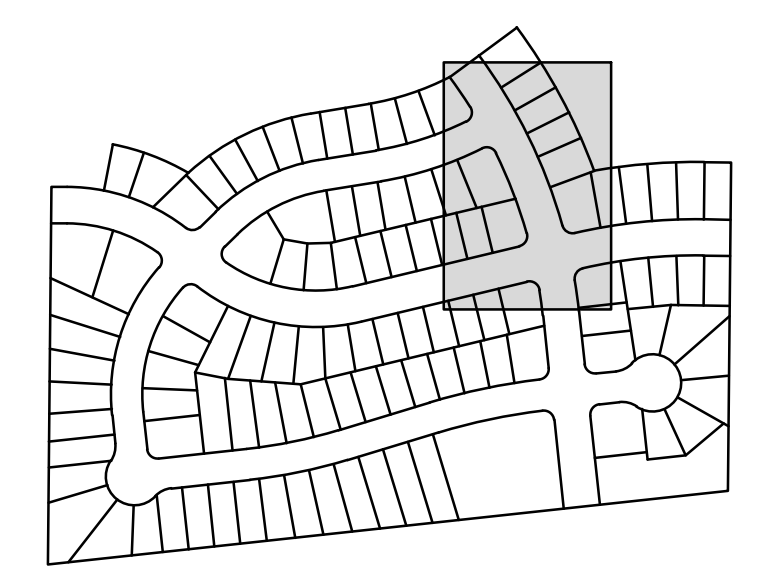
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PROJECT NUMBER: 180168
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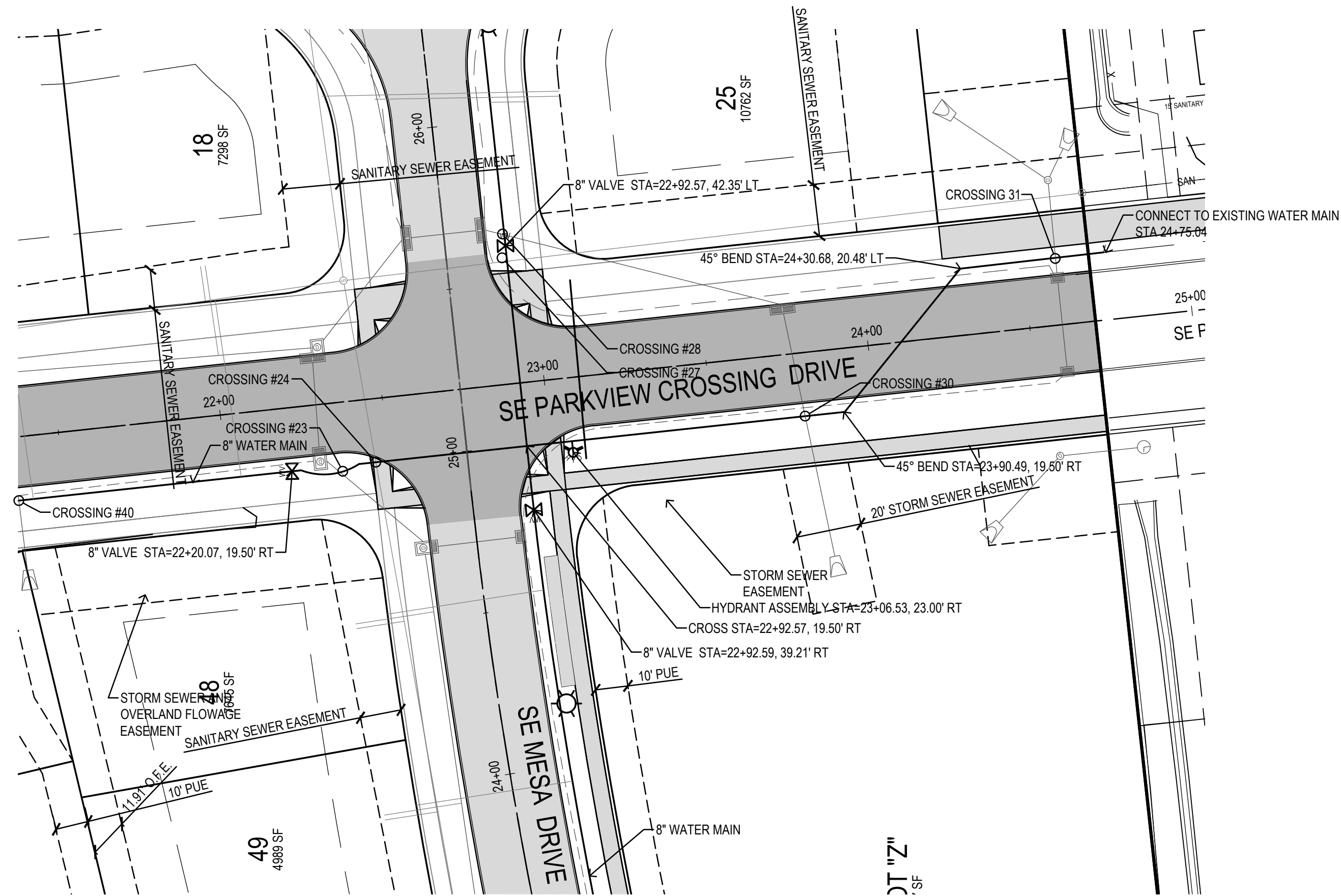
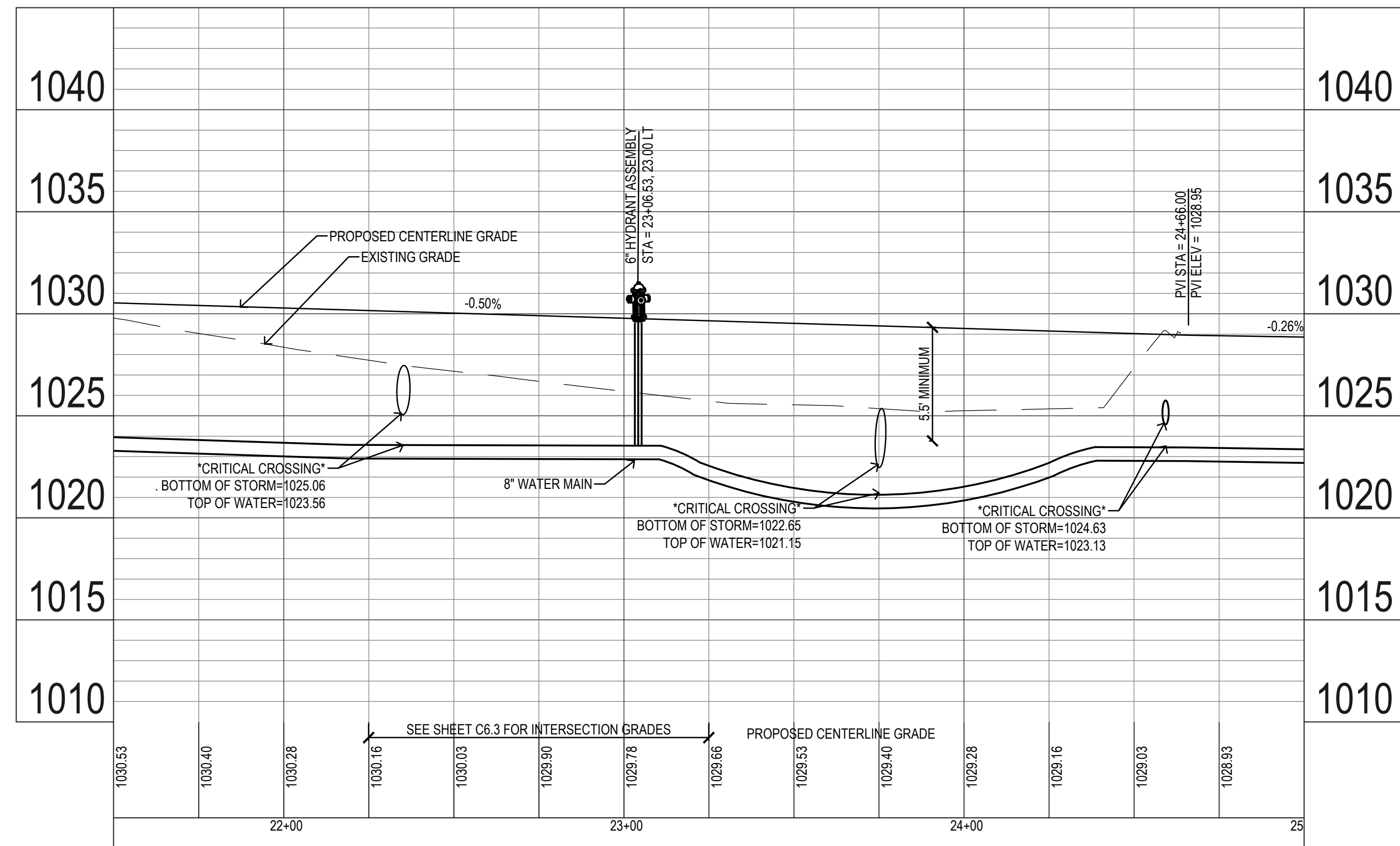
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14	BOTTOM OF STORM=1025.04	TOP OF SANITARY=1019.34
16	BOTTOM OF WATER=1022.70	TOP OF SANITARY=1018.57
17	BOTTOM OF STORM=1026.97	TOP OF SANITARY=1019.74
20	BOTTOM STORM=1027.67	TOP OF SANITARY=1018.77
22	BOTTOM OF STORM=1027.46	TOP OF WATER=1025.96
23	BOTTOM OF STORM=1025.06	TOP OF WATER=1023.55



**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

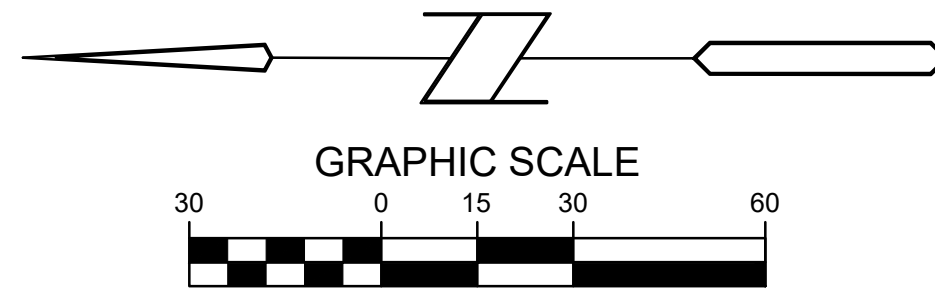
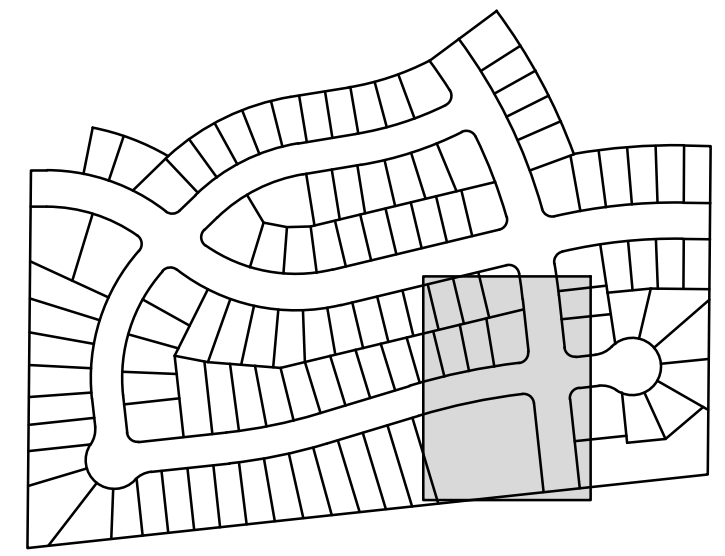
**WATERMAIN PLAN & PROFILE**

REFERENCE NUMBER: 150421
DRAWN BY: BA
CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C5.3



**CROSSING LIST:**

24	BOTTOM OF WATER=1022.89
	TOP OF SANITARY=1018.61
25	BOTTOM STORM=1023.62
	TOP OF SANITARY=1017.97
28	BOTTOM OF STORM=1023.24
	TOP OF WATER=1021.74
29	BOTTOM OF STORM=1023.15
	TOP OF SANITARY=1017.41
31	BOTTOM OF STORM=1024.63
	TOP OF WATER=1023.13
32	BOTTOM OF STORM=1023.64
	TOP OF WATER=1022.14
41	BOTTOM OF STORM=1024.44
	TOP OF SANITARY=1016.77



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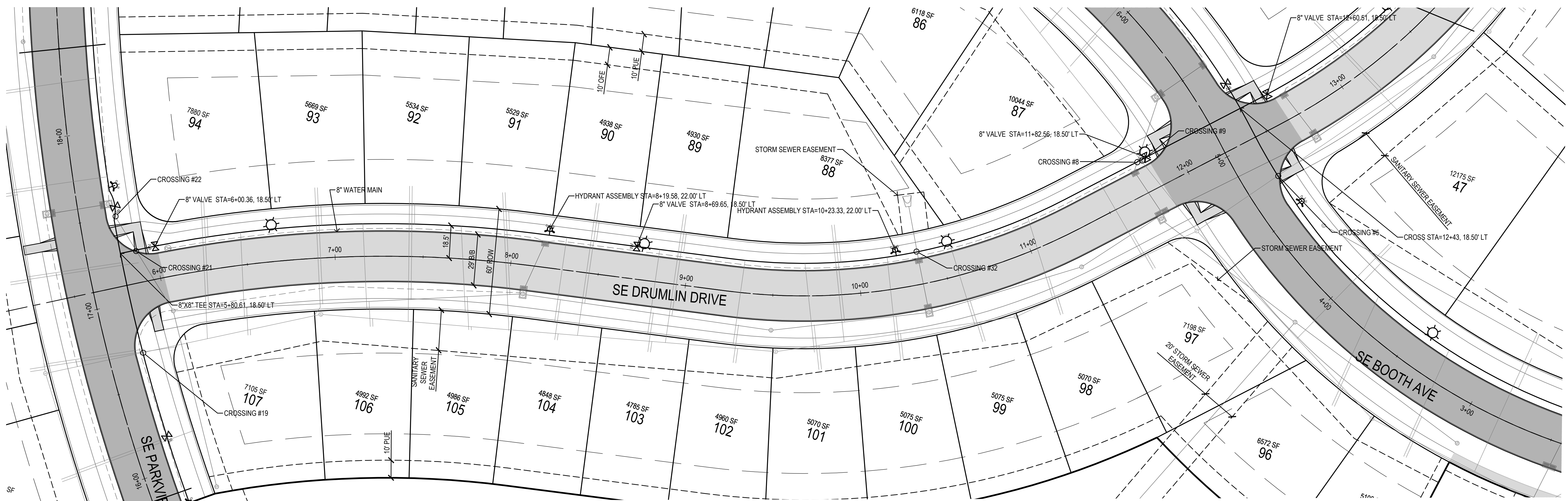
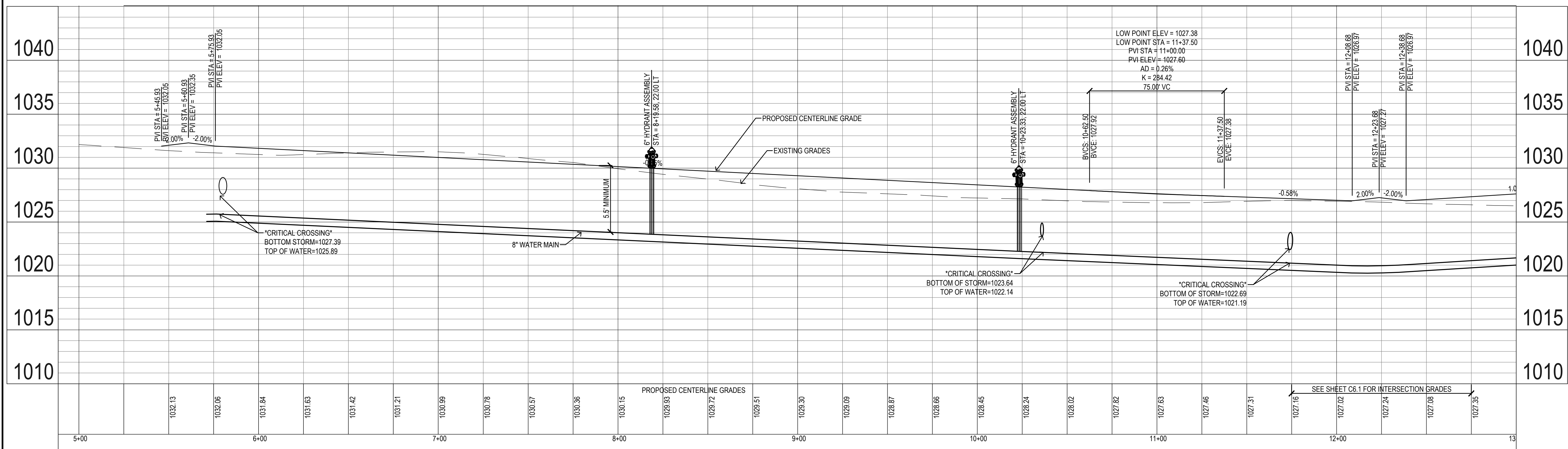
**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

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**WATERMAIN PLAN & PROFILE**

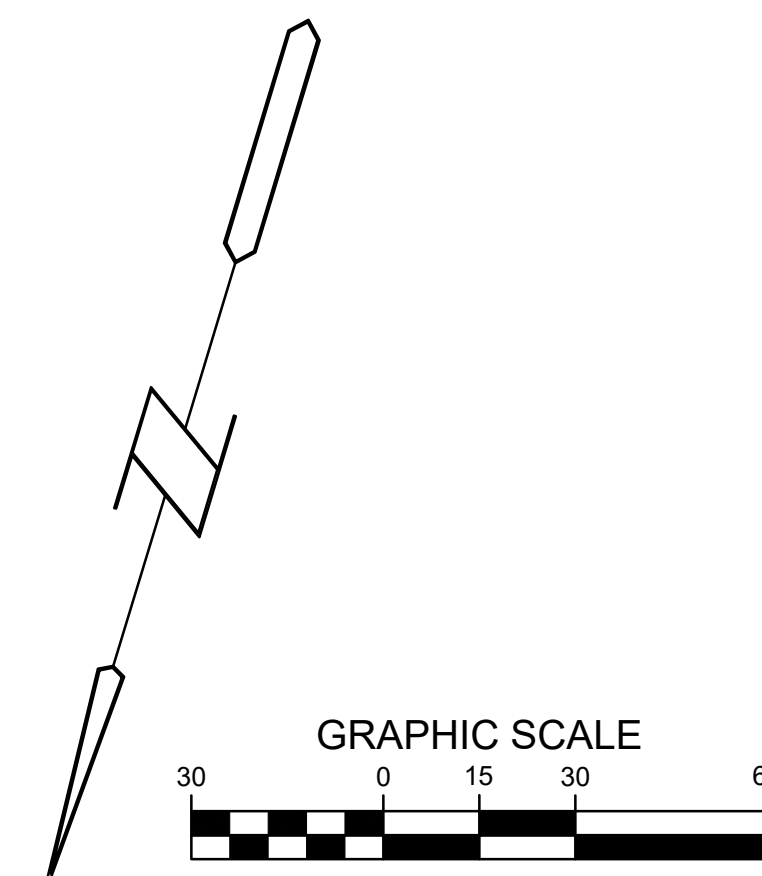
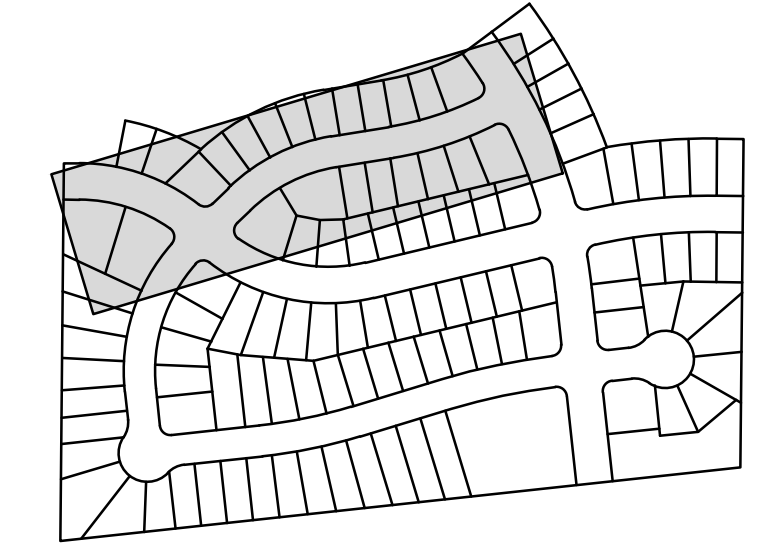
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PROJECT NUMBER: 180168
SHEET NUMBER: C5.4

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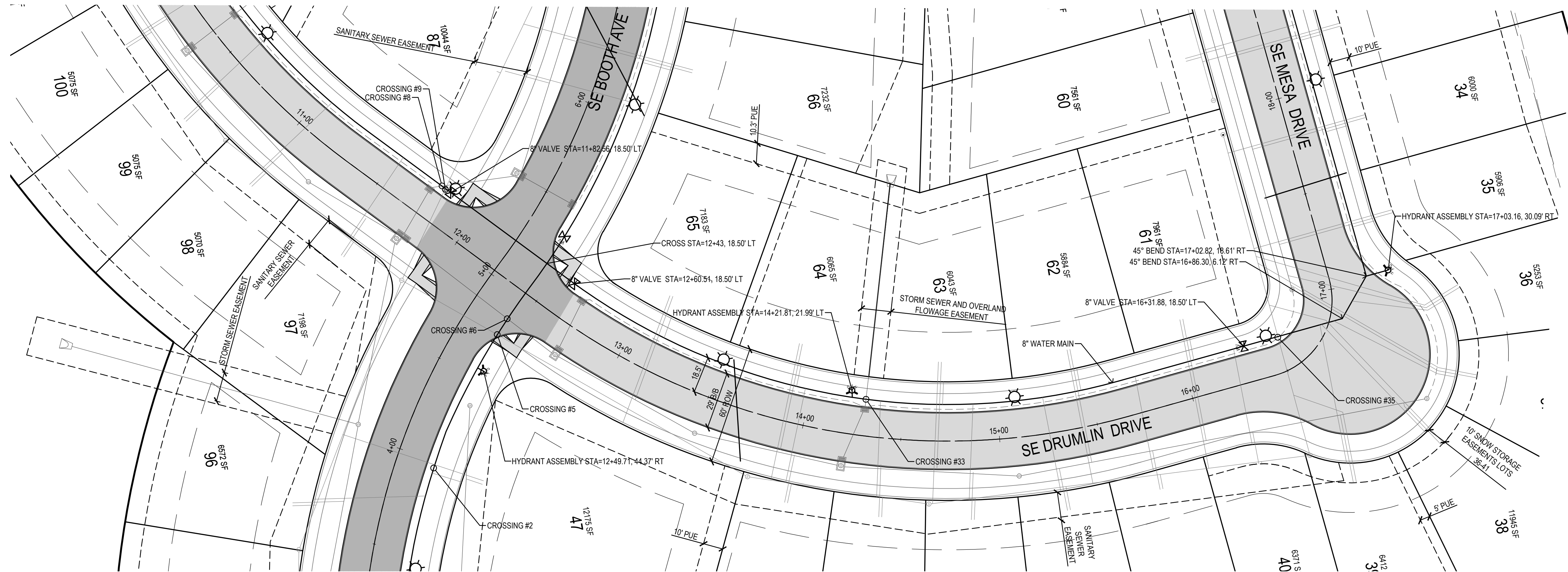
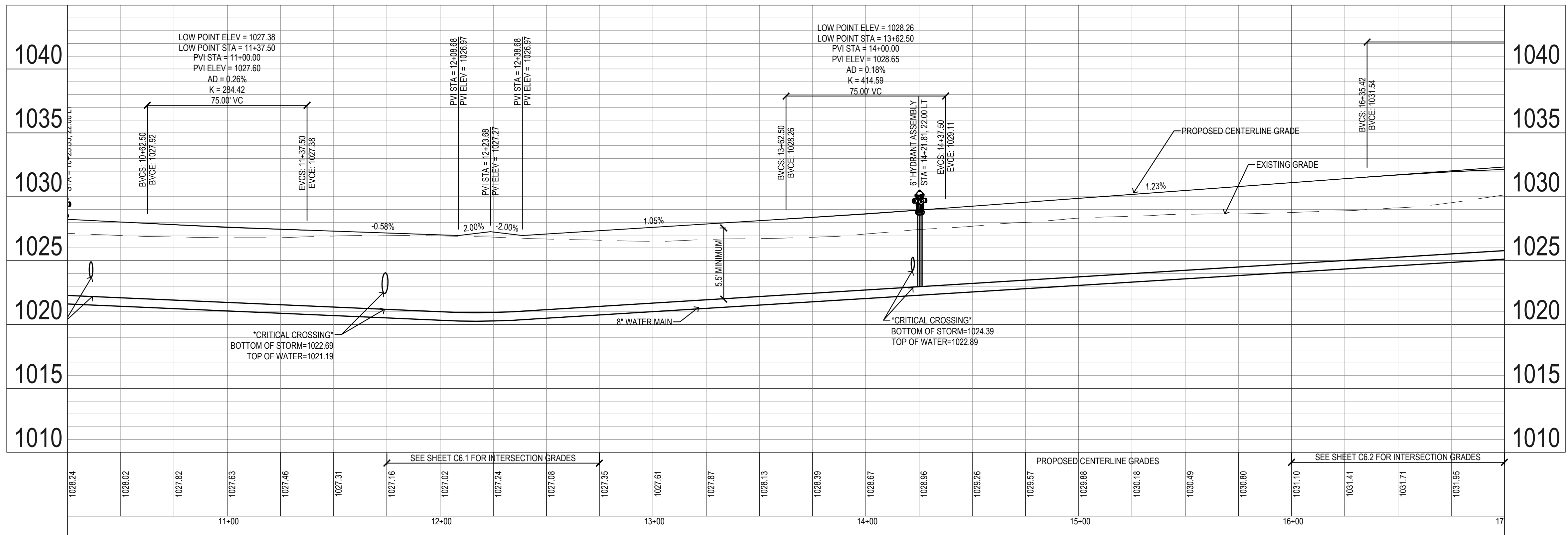
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	TOP OF WATER=1021.28
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10	BOTTOM OF STORM=1022.68
	TOP OF SANITARY=1014.75
20	BOTTOM STORM=1027.67
	TOP OF SANITARY=1018.17
22	BOTTOM OF STORM=1027.46
	TOP OF WATER=1025.96
23	BOTTOM OF STORM=1025.06
	TOP OF WATER=1023.56
33	BOTTOM OF STORM=1024.39
	TOP OF WATER=1022.89



**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**  
**WATERMAIN PLAN & PROFILE**

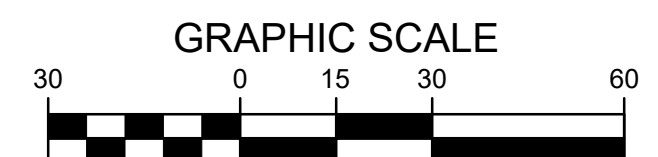
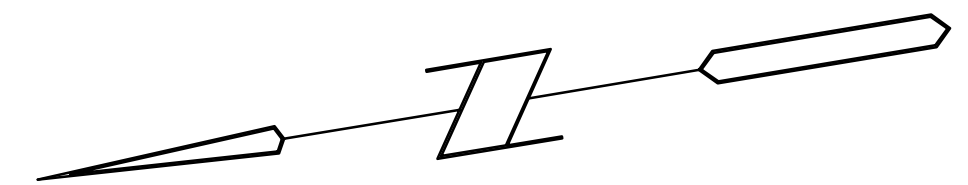
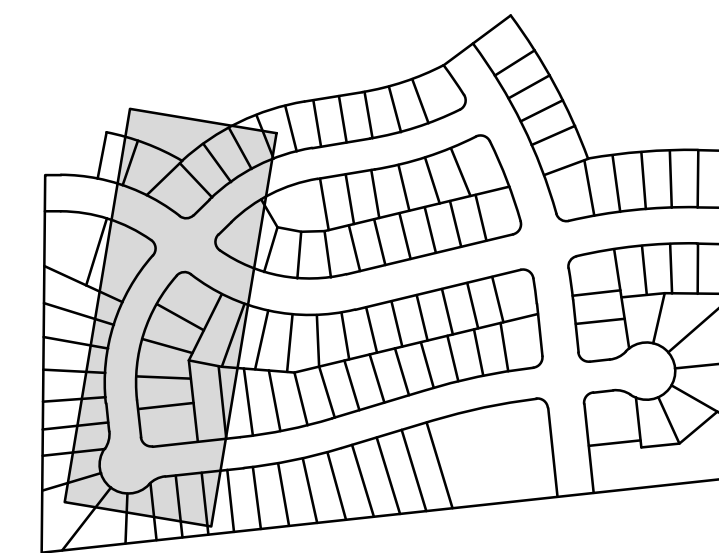
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PROJECT NUMBER: 180168
SHEET NUMBER: C5.5

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**CROSSING LIST:**

- 3. BOTTOM OF STORM=1020.23  
TOP OF SANITARY=1013.48
- 6. BOTTOM OF STORM=1022.78  
TOP OF WATER=1021.28
- 7. BOTTOM OF STORM=1021.14  
TOP OF SANITARY=1015.07
- 9. BOTTOM OF WATER=1020.52  
TOP OF SANITARY=1014.73
- 10. BOTTOM OF STORM=1022.68  
TOP OF SANITARY=1014.75
- 34. BOTTOM OF STORM=1026.79  
TOP OF SANITARY=1019.33
- 36. BOTTOM OF STORM=1025.01  
TOP OF SANITARY=1018.69



**LANDING AT KETTLESTONE  
WAUKEE, IOWA**

**WATERMAIN PLAN & PROFILE**

REFERENCE NUMBER:  
150421

DRAWN BY:  
BA

CHECKED BY:  
DB

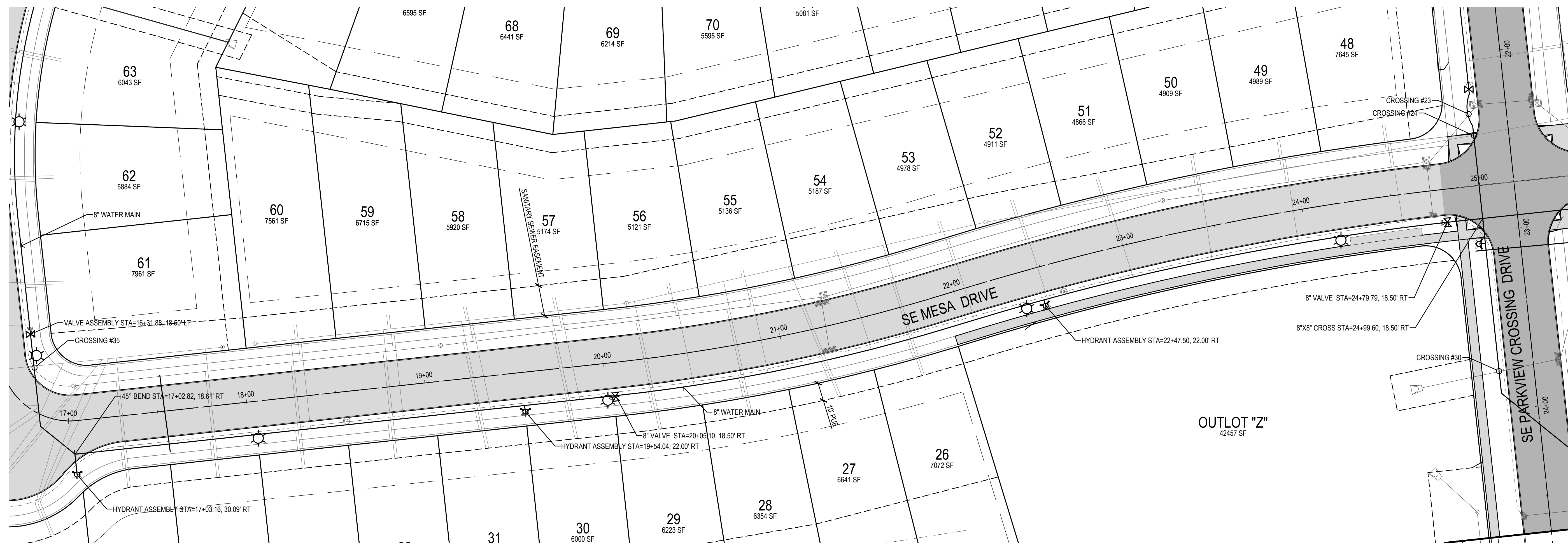
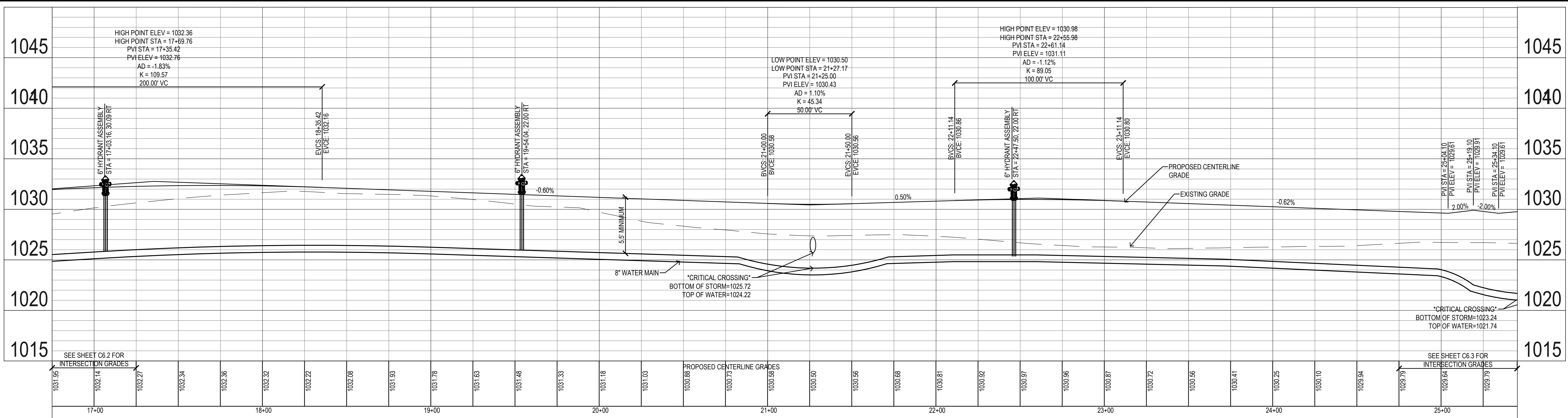
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2-4-19 2ND SUBMITTAL  
3-12-19 3RD SUBMITTAL  
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4-23-19 5TH SUBMITTAL

PROJECT NUMBER:  
180168

SHEET NUMBER:  
C5.6

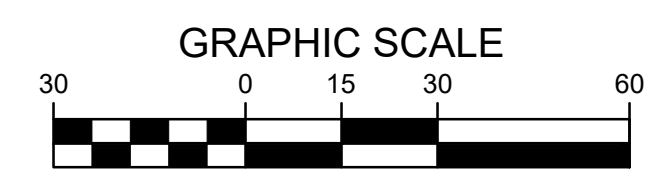
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Des Moines, Iowa 50322-3825  
Phone: (515)276-0467 Fax: (515)276-0217  
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**CROSSING LIST:**

24. BOTTOM OF WATER=1022.89	TOP OF SANITARY=1018.61
25. BOTTOM STORM=1023.62	TOP OF SANITARY=1017.97
31. BOTTOM OF STORM=1024.63	TOP OF WATER=1023.13
36. BOTTOM OF STORM=1025.01	TOP OF SANITARY=1018.69



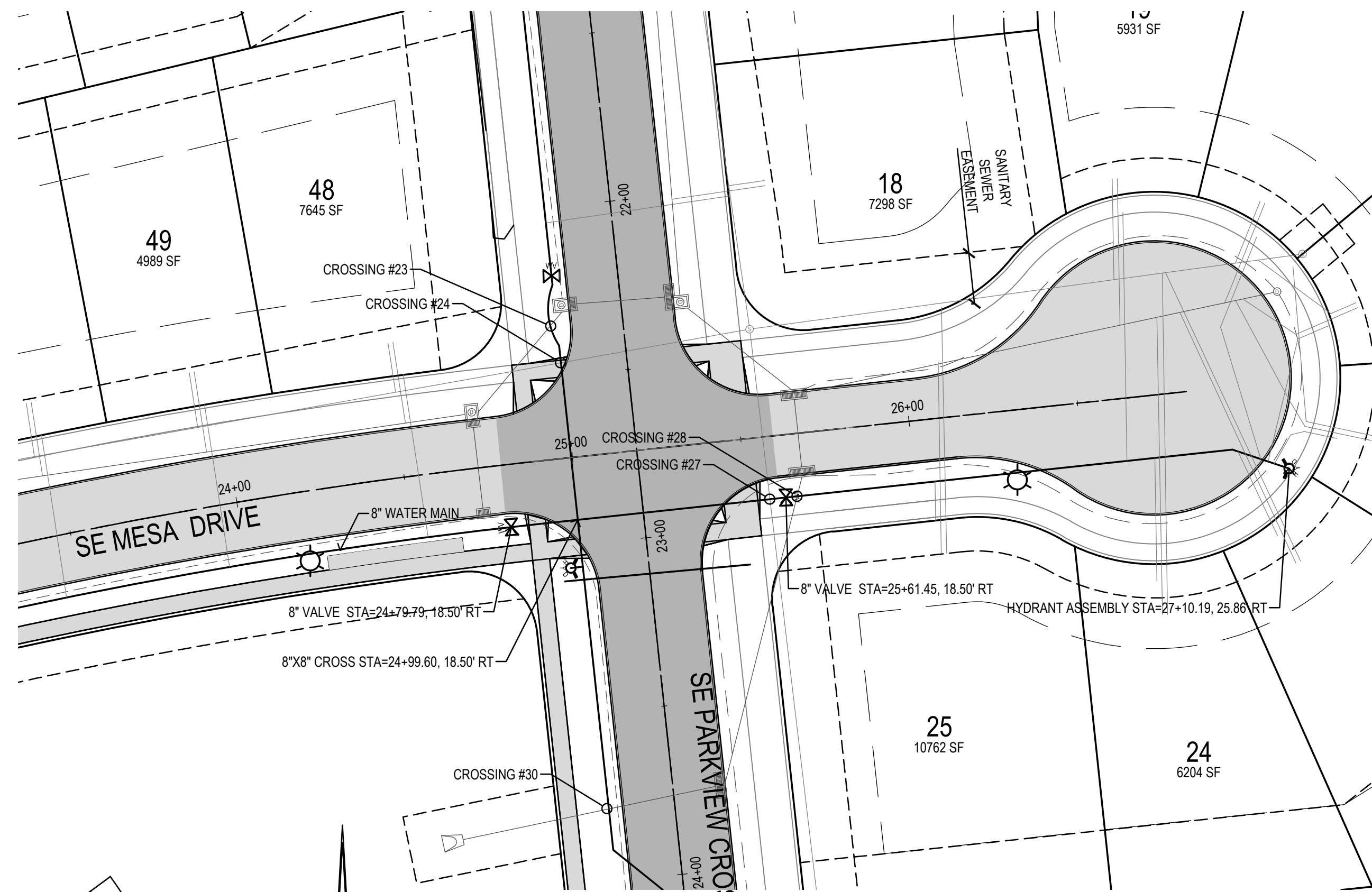
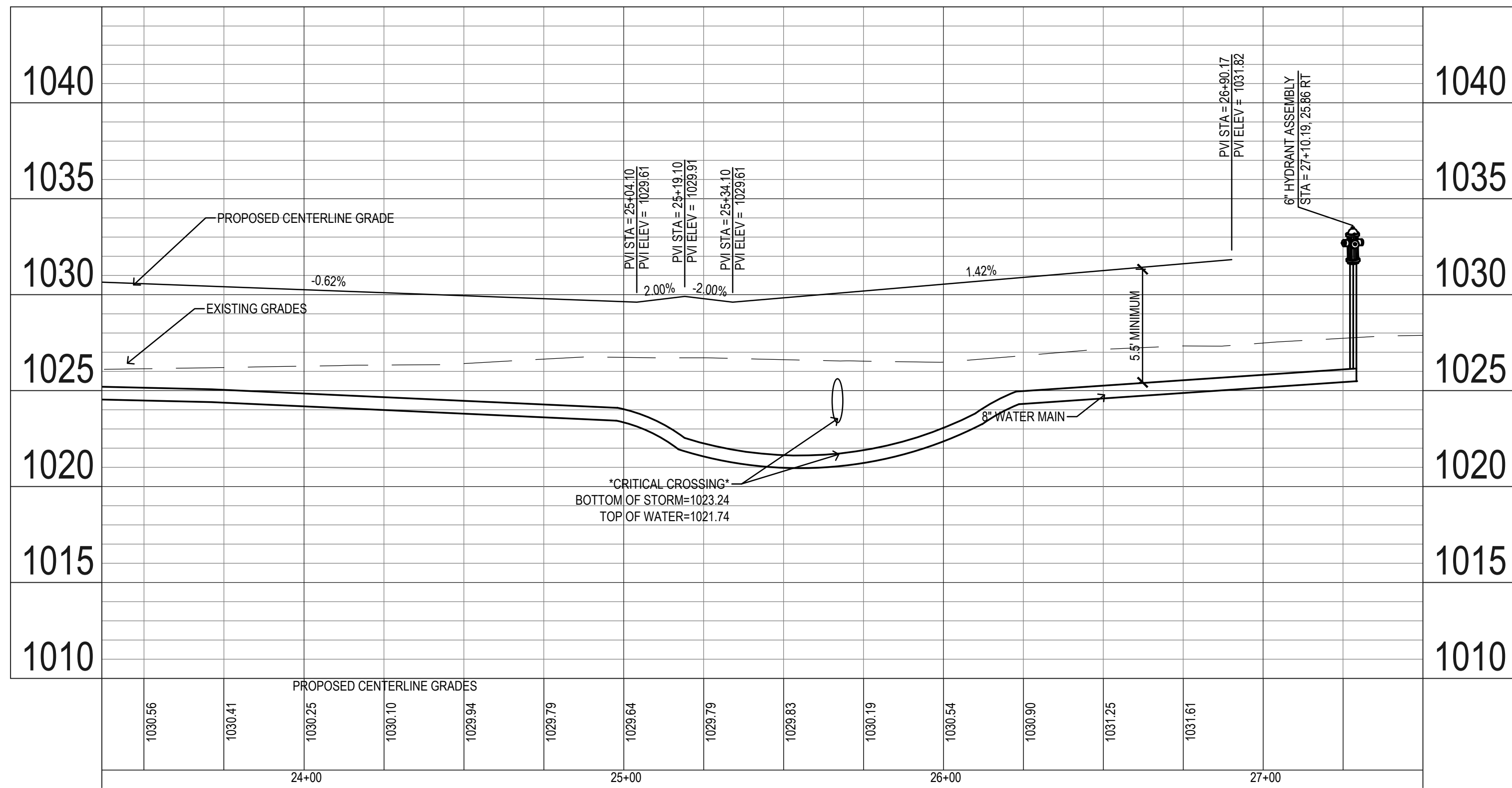
**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

**WATER MAIN PLAN & PROFILE**

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CHECKED BY: DB
REVISION DATE: 12-21-18 1ST SUBMITTAL 2-4-19 2ND SUBMITTAL 3-12-19 3RD SUBMITTAL 4-15-19 4TH SUBMITTAL 4-23-19 5TH SUBMITTAL
PROJECT NUMBER: 180168
SHEET NUMBER: C5.7

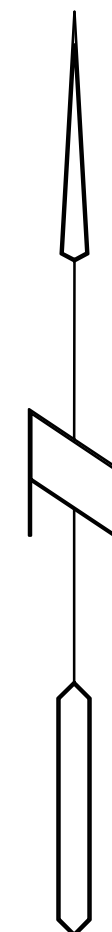
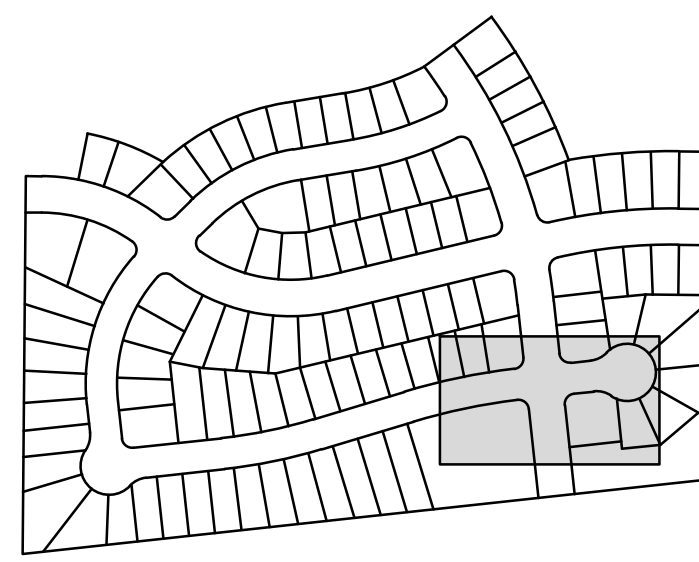
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**CROSSING LIST:**

24	BOTTOM OF WATER=1022.89
	TOP OF SANITARY=1018.61
25	BOTTOM STORM=1023.62
	TOP OF SANITARY=1017.97
28	BOTTOM OF STORM=1023.24
	TOP OF WATER=1021.74
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	TOP OF SANITARY=1017.41
31	BOTTOM OF STORM=1024.63
	TOP OF WATER=1023.13



**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

**WATERMAIN PLAN & PROFILE**

REFERENCE NUMBER:  
150421

DRAWN BY:  
BA

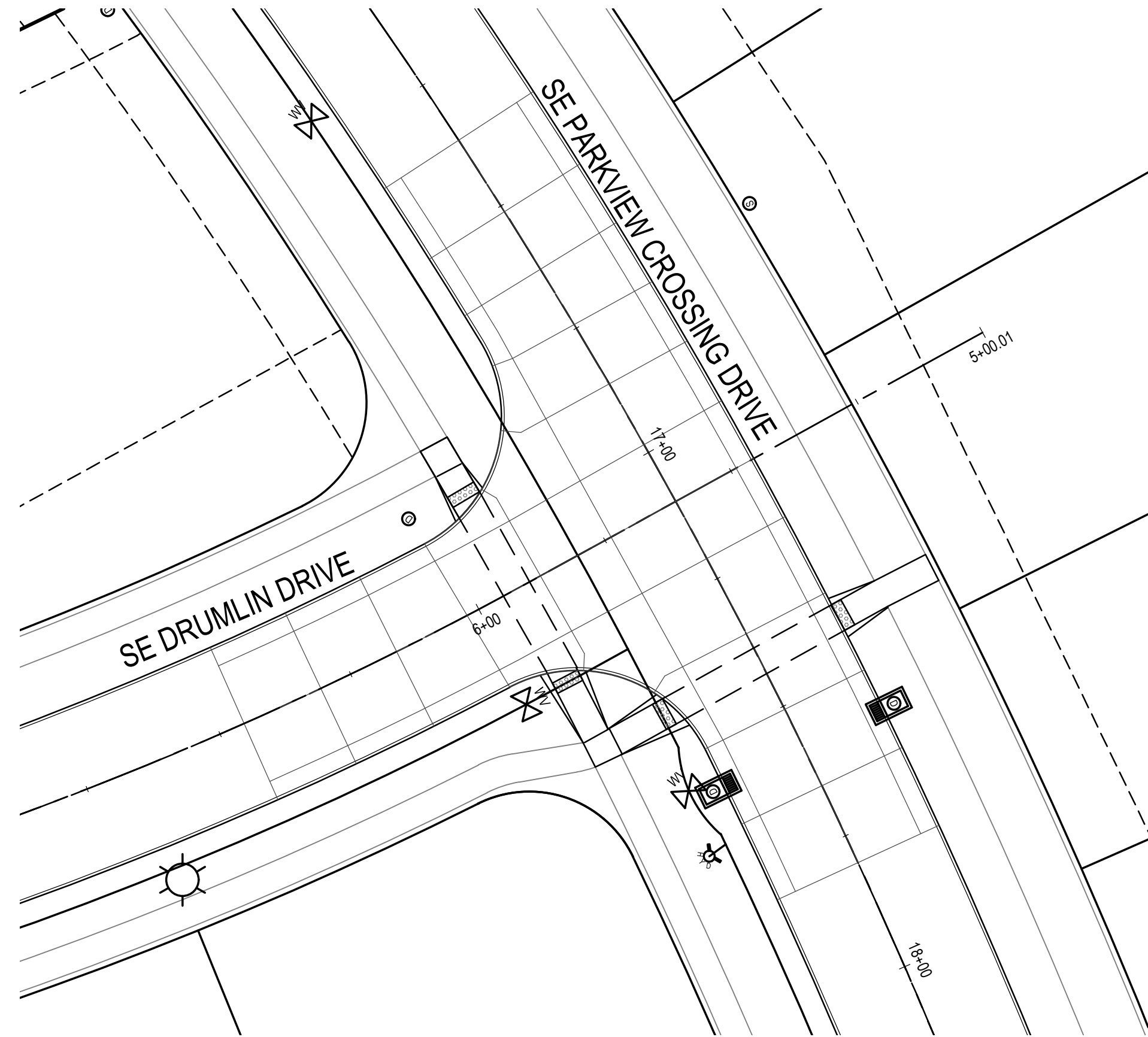
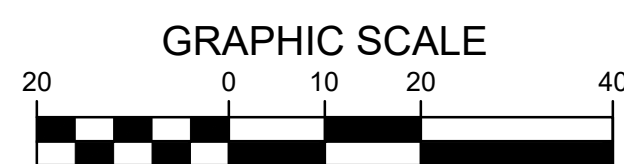
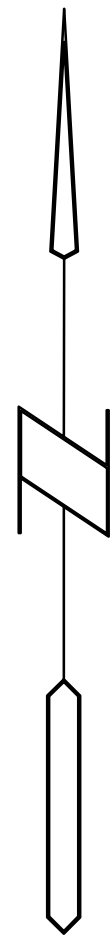
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12-21-18 1ST SUBMITTAL  
2-4-19 2ND SUBMITTAL  
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4-15-19 4TH SUBMITTAL  
4-23-19 5TH SUBMITTAL

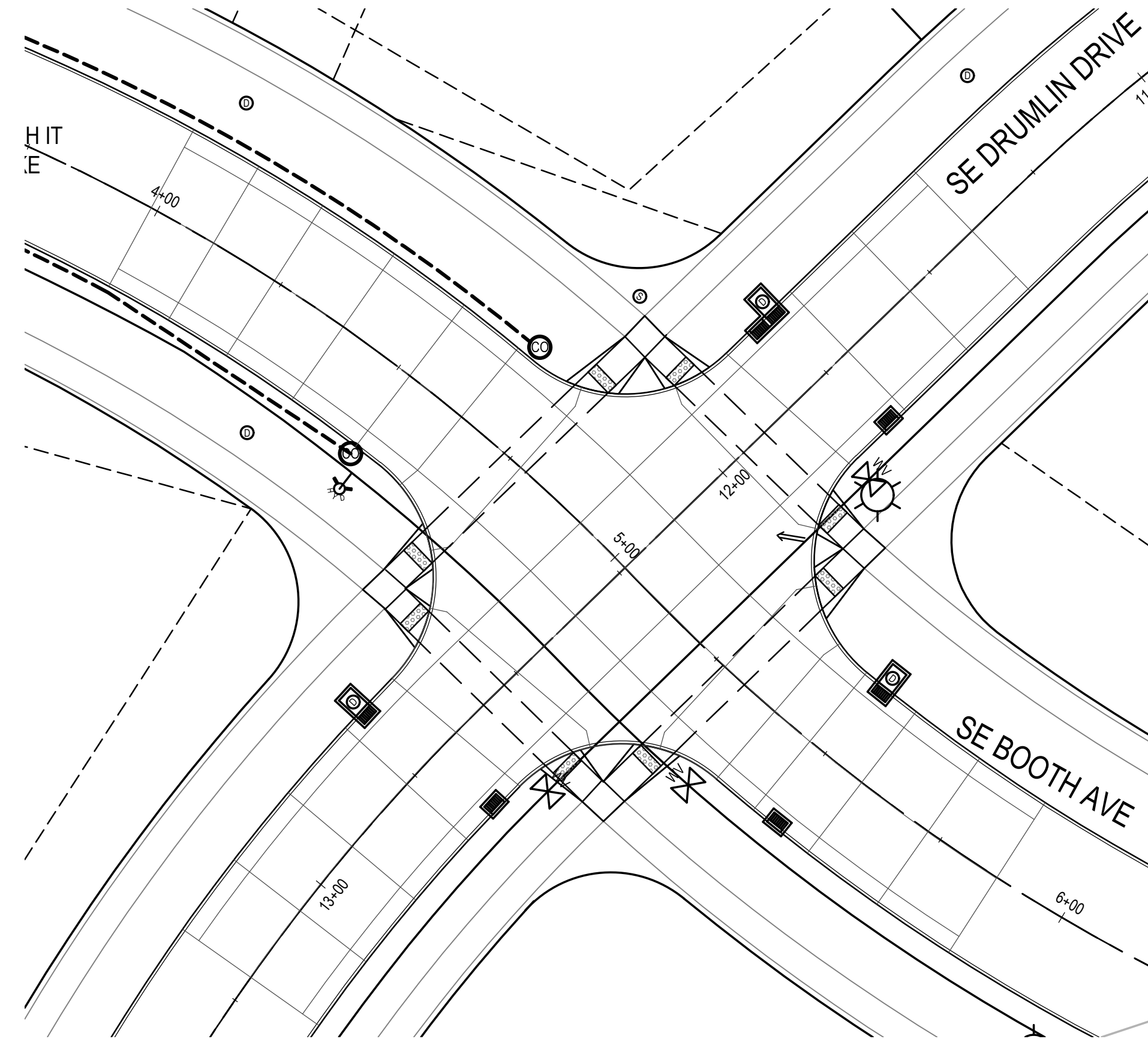
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SHEET NUMBER:  
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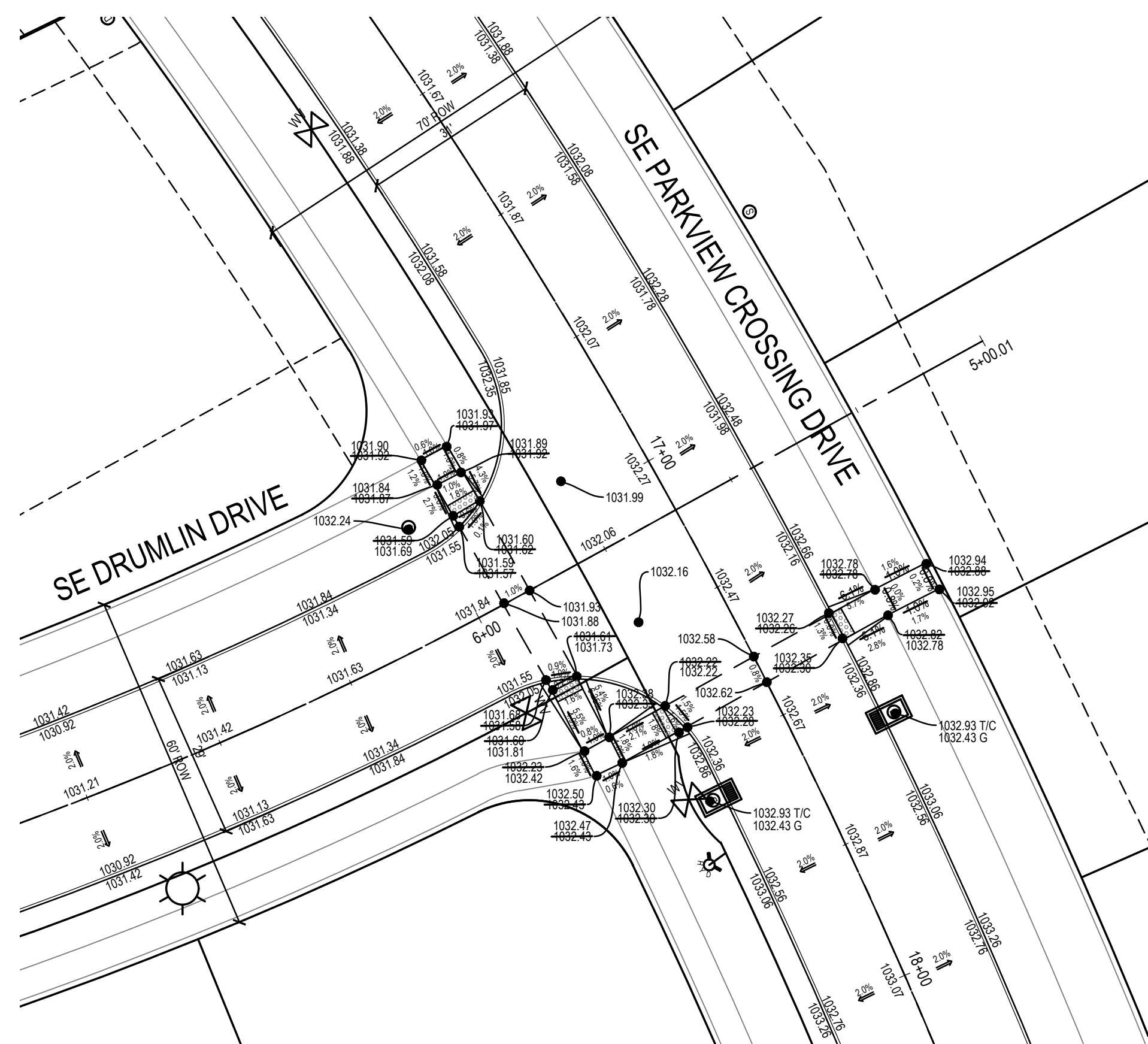
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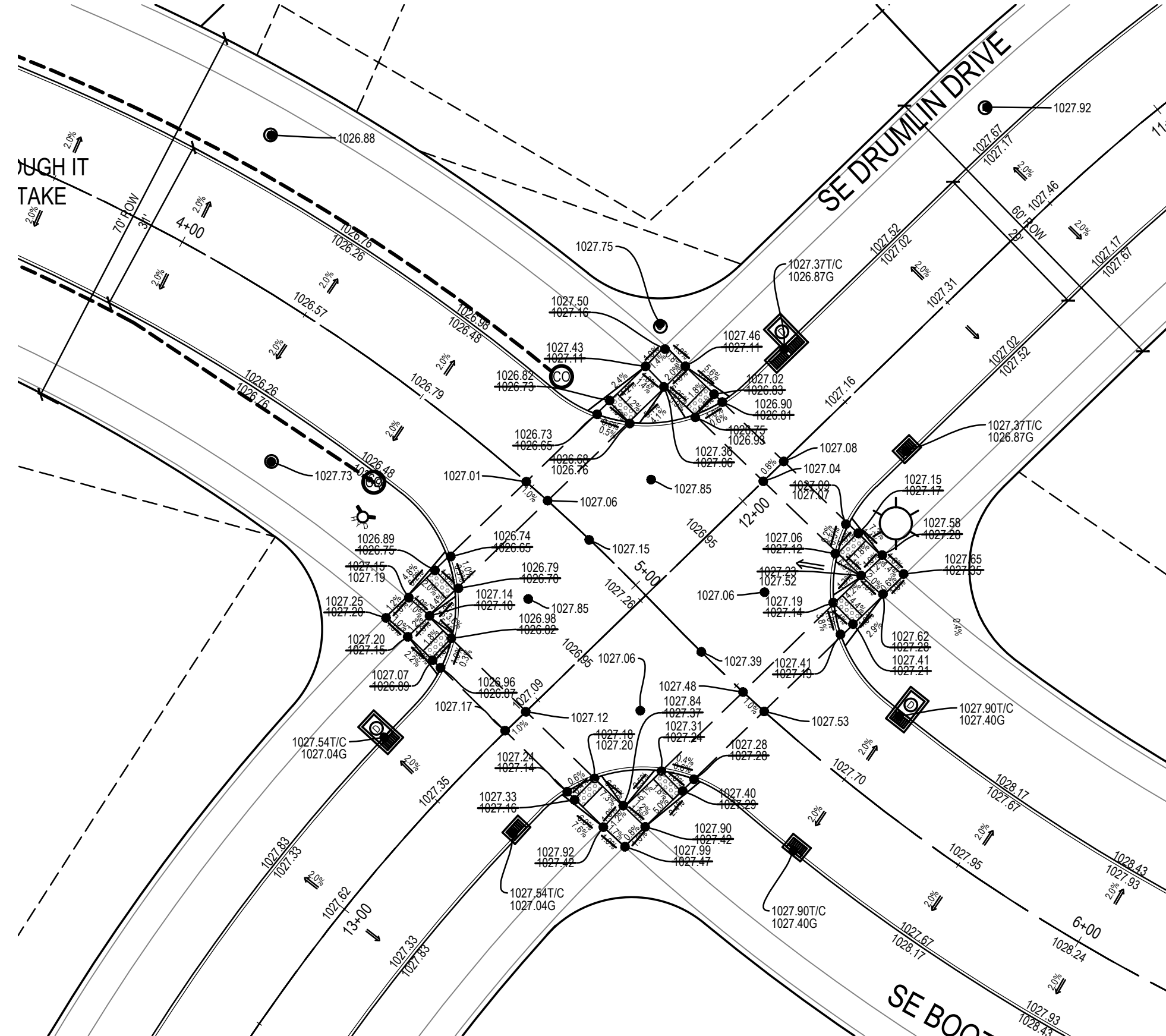
SE PARKVIEW CROSSING DR AND SE DRUMLIN DR JOINTING LAYOUT



SE BOOTH AVE AND SE DRUMLIN DR JOINTING LAYOUT



SE PARKVIEW CROSSING DR AND SE DRUMLIN DR GRADING



SE BOOTH AVE AND SE DRUMLIN DR GRADING

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LANDING AT KETTLESTONE  
WAUKEE, IOWA

INTERSECTION DETAILS

REFERENCE NUMBER:  
150421

DRAWN BY:  
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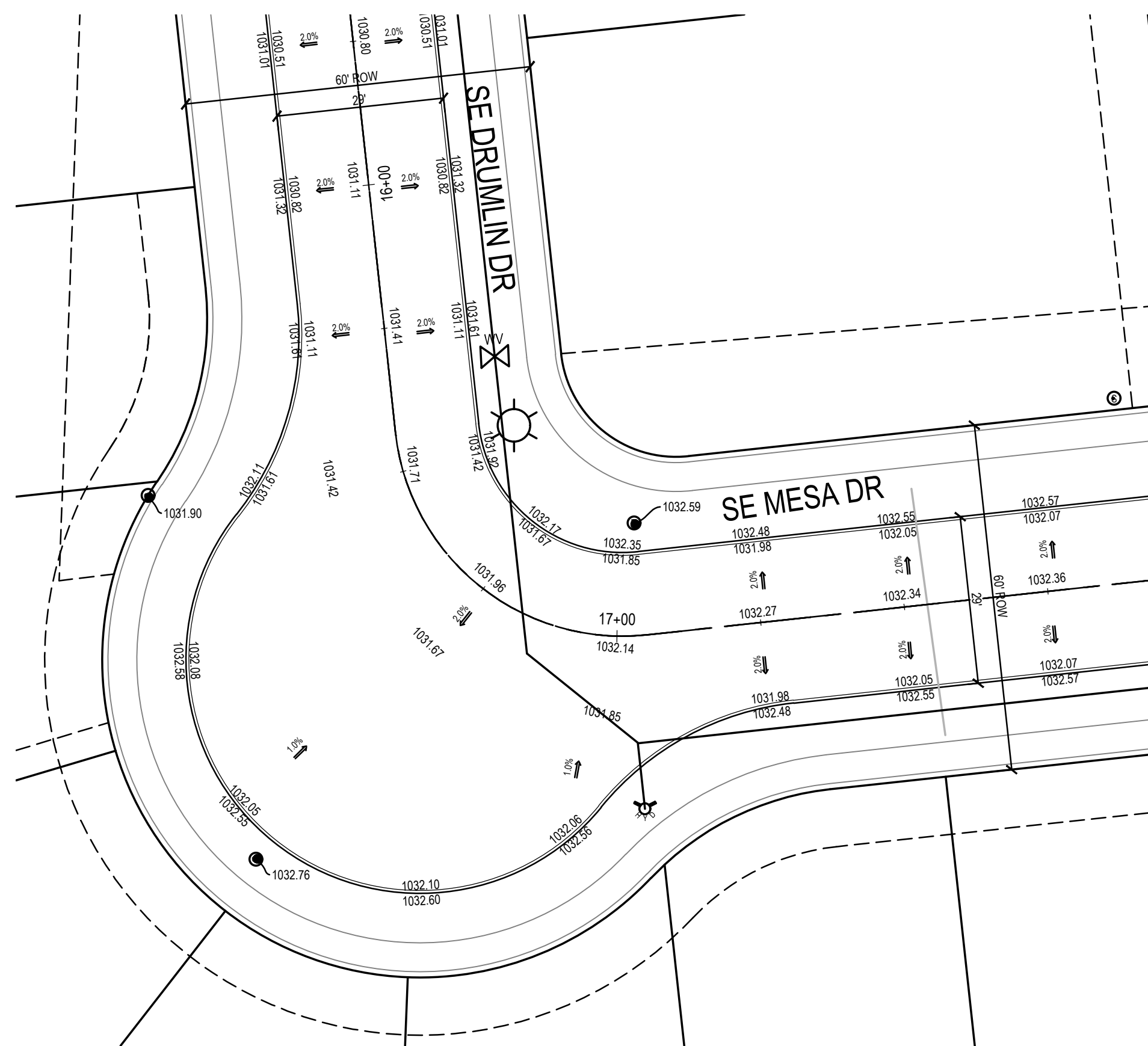
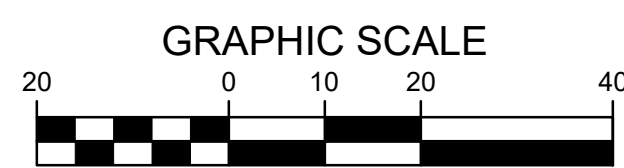
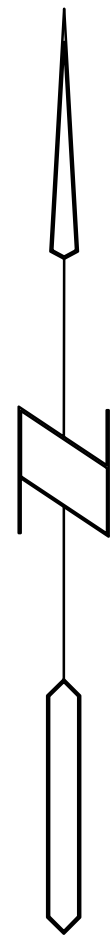
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REVISION DATE:  
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4-23-19 5TH SUBMITTAL

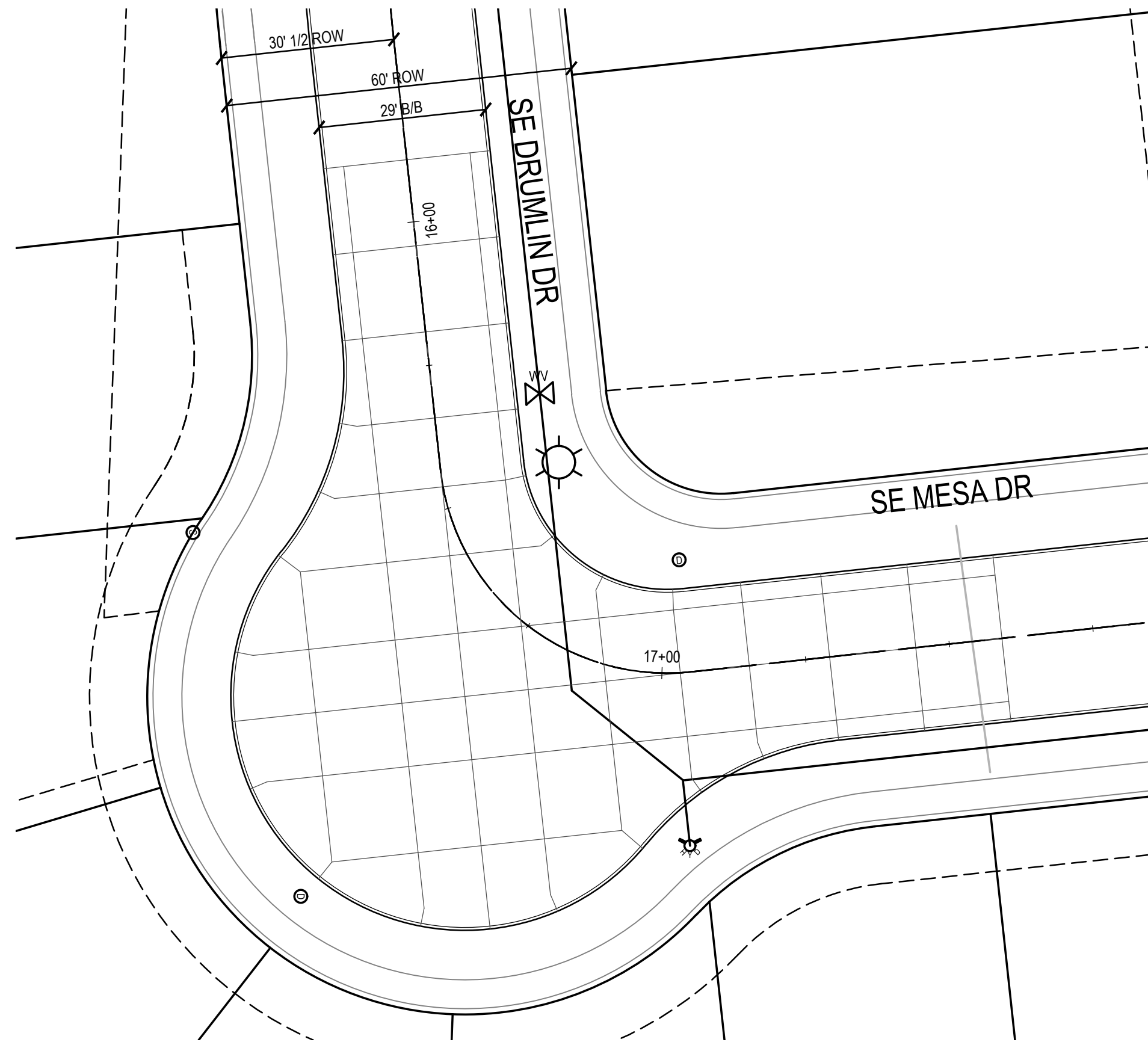
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180168

SHEET NUMBER:  
C6.1

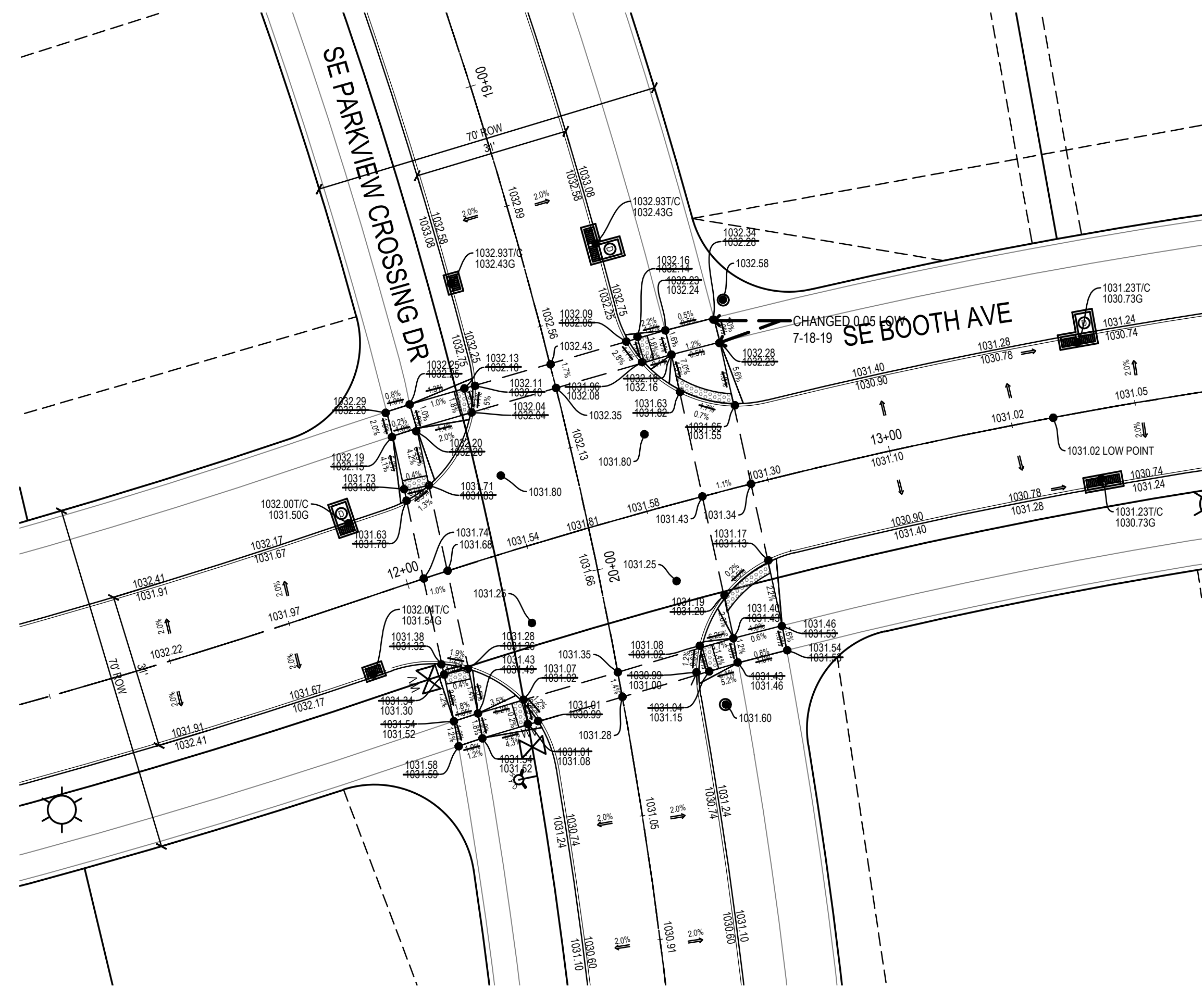
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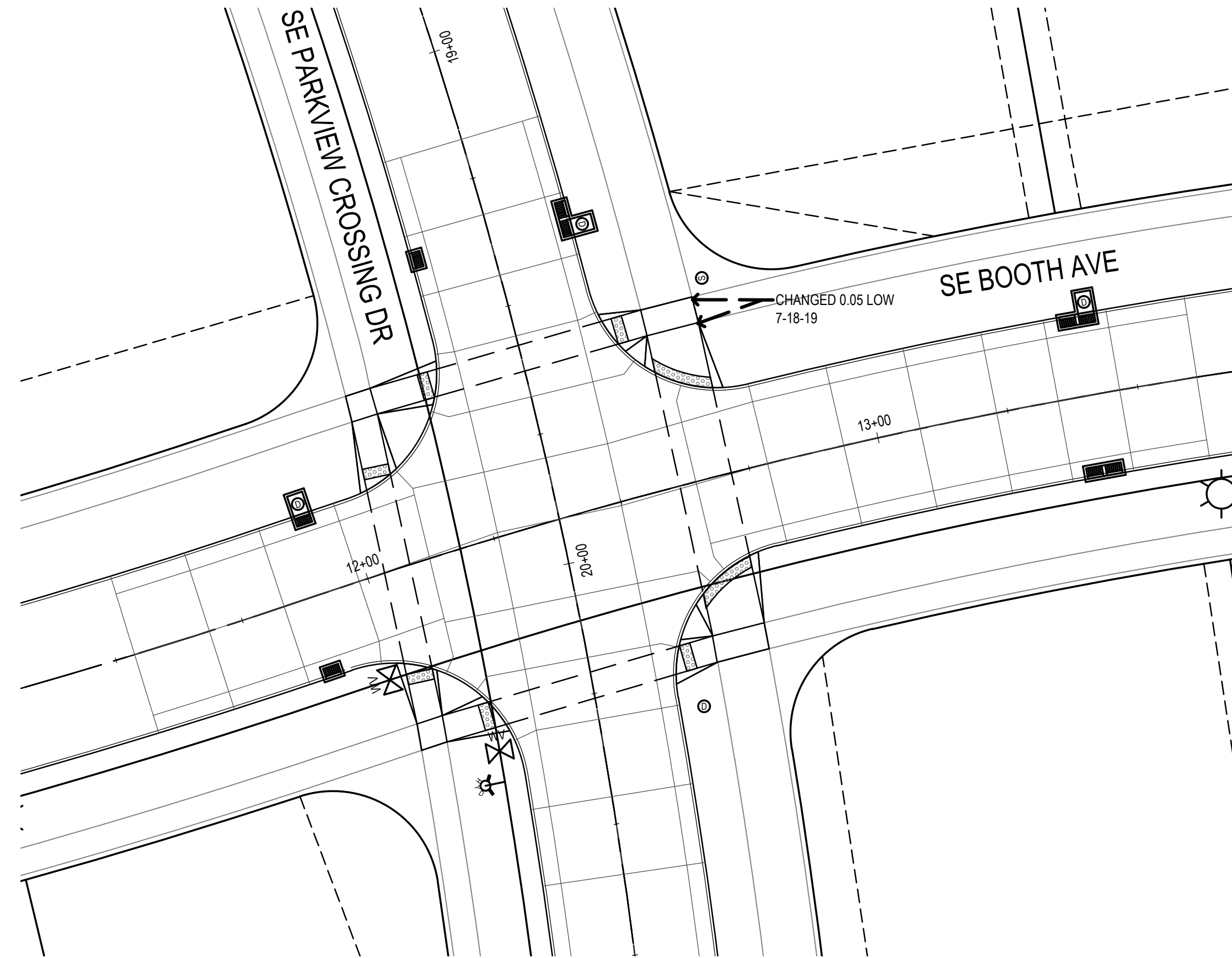
SE MESA DR AND SE DRUMLIN DR GRADING



SE MESA DR AND SE DRUMLIN DR JOINTING LAYOUT



SE PARKVIEW CROSSING DR AND SE BOOTH AVE GRADING



SE PARKVIEW CROSSING DR AND SE BOOTH AVE JOINTING LAYOUT

LANDING AT KETTLESTONE  
WAUKEE, IOWA

INTERSECTION DETAILS

REFERENCE NUMBER:  
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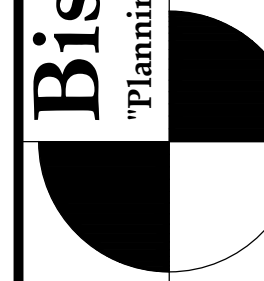
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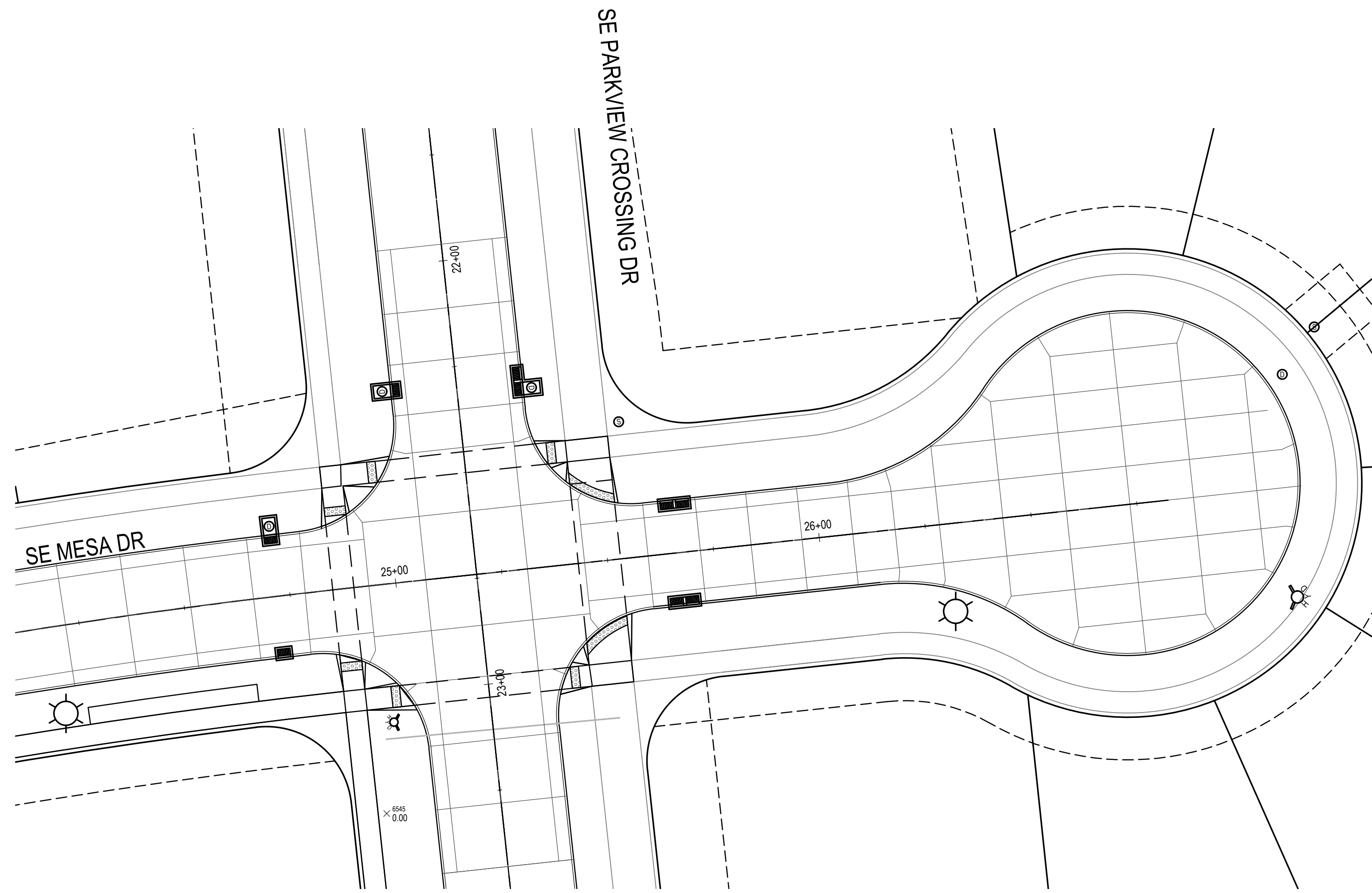
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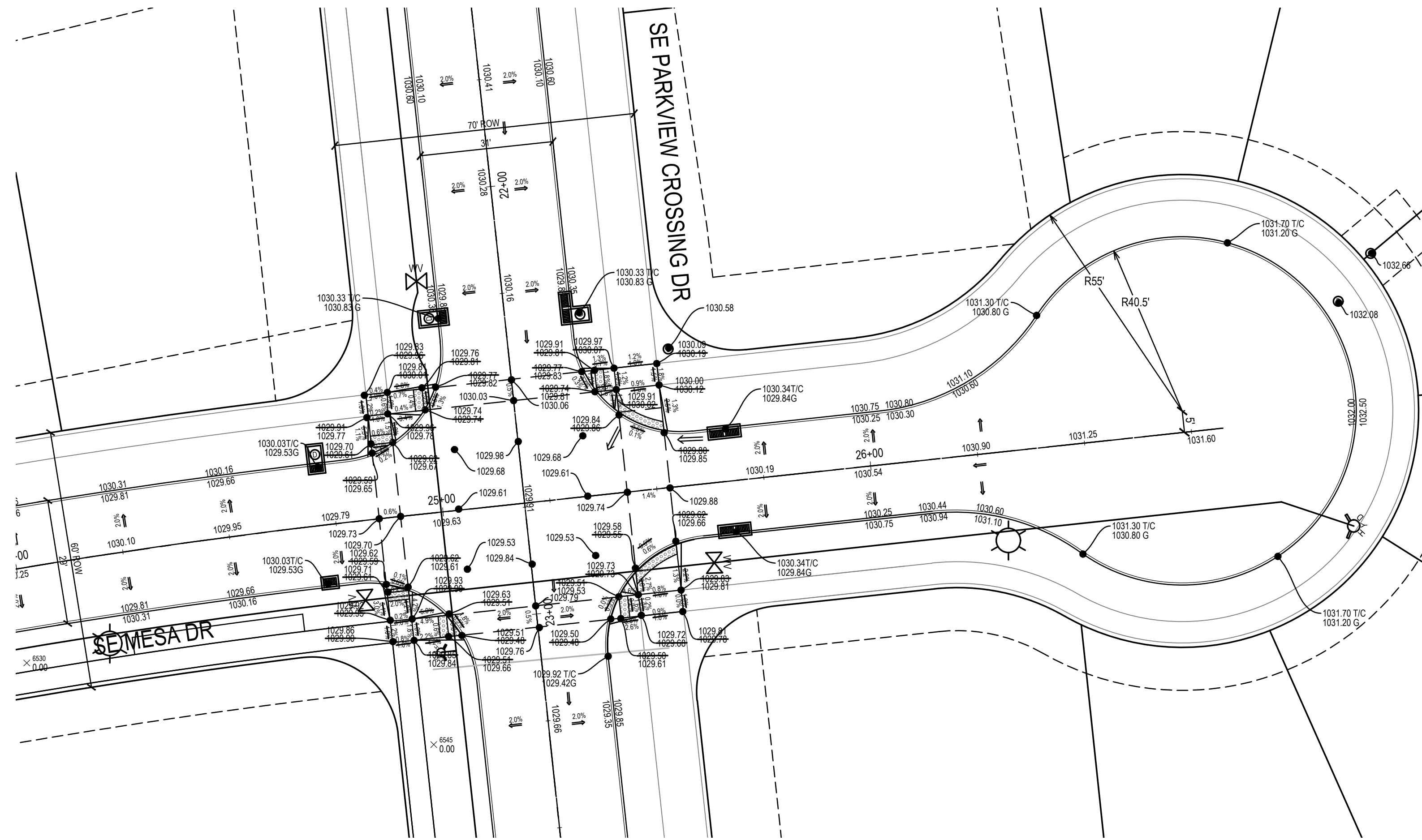
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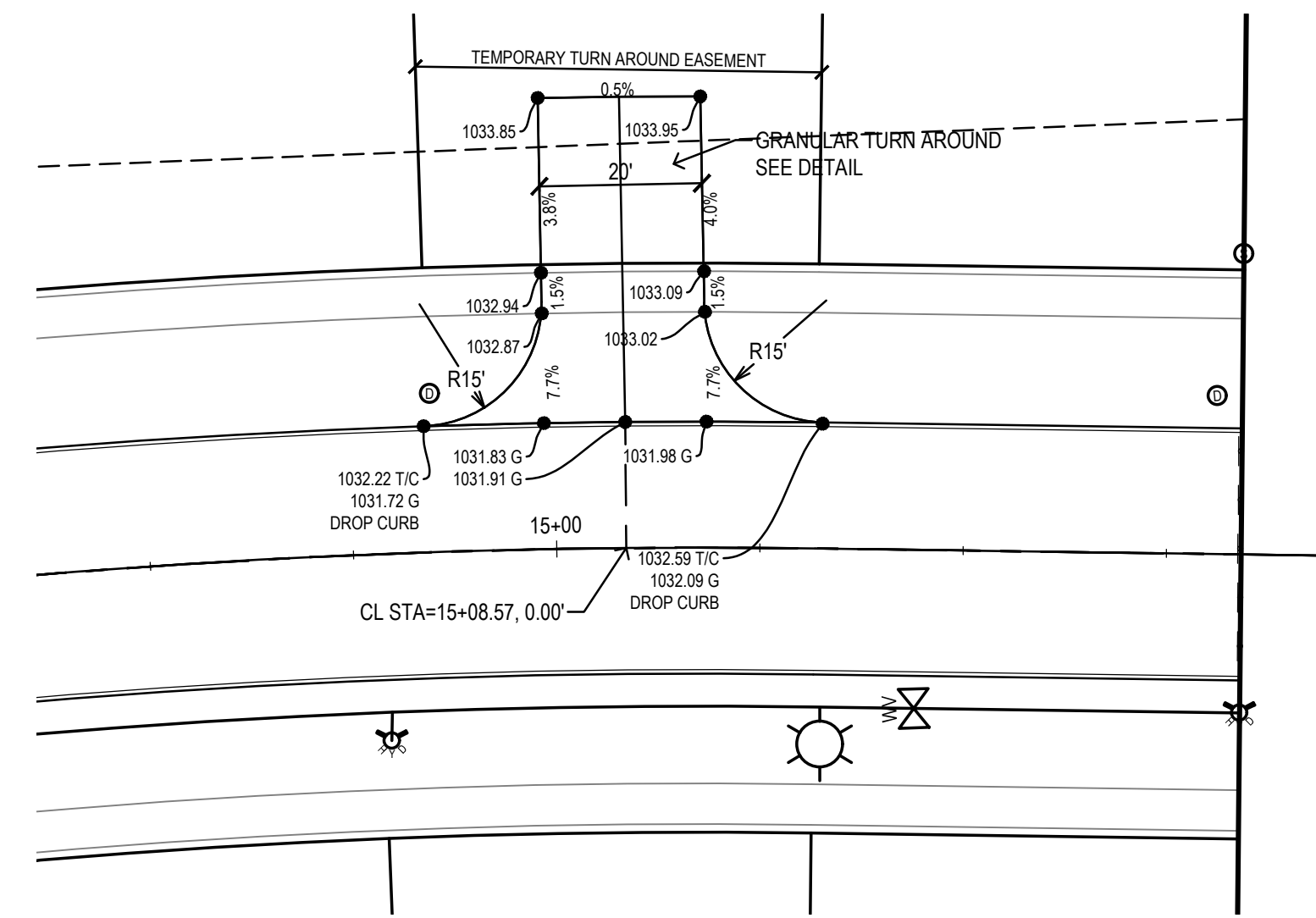




PARKVIEW AND MESA W/ CUL-DE-SAC JOINTING LAYOUT

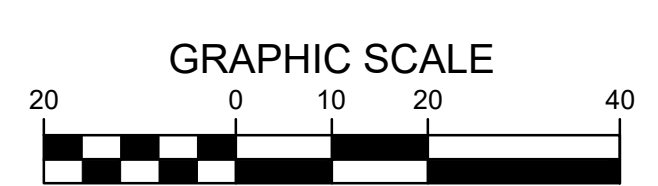
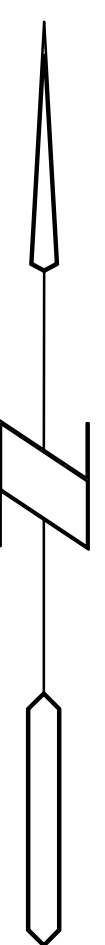


PARKVIEW AND MESA W/ CUL-DE-SAC GRADING



LOT 10 TEMPORARY TURN AROUND  
TEMPORARY TURN AROUND:

1. LOT 10 IS BEING USED AS A TEMPORARY TURN AROUND. THE LOT WILL BE UNBUILDABLE UNTIL SE BOOTH AVE IS EXTENDED TO THE EAST OR AN OFFSITE TURNAROUND EASEMENT IS SECURED. THE DEVELOPER IS RESPONSIBLE FOR MAINTAINING THE TURN AROUND

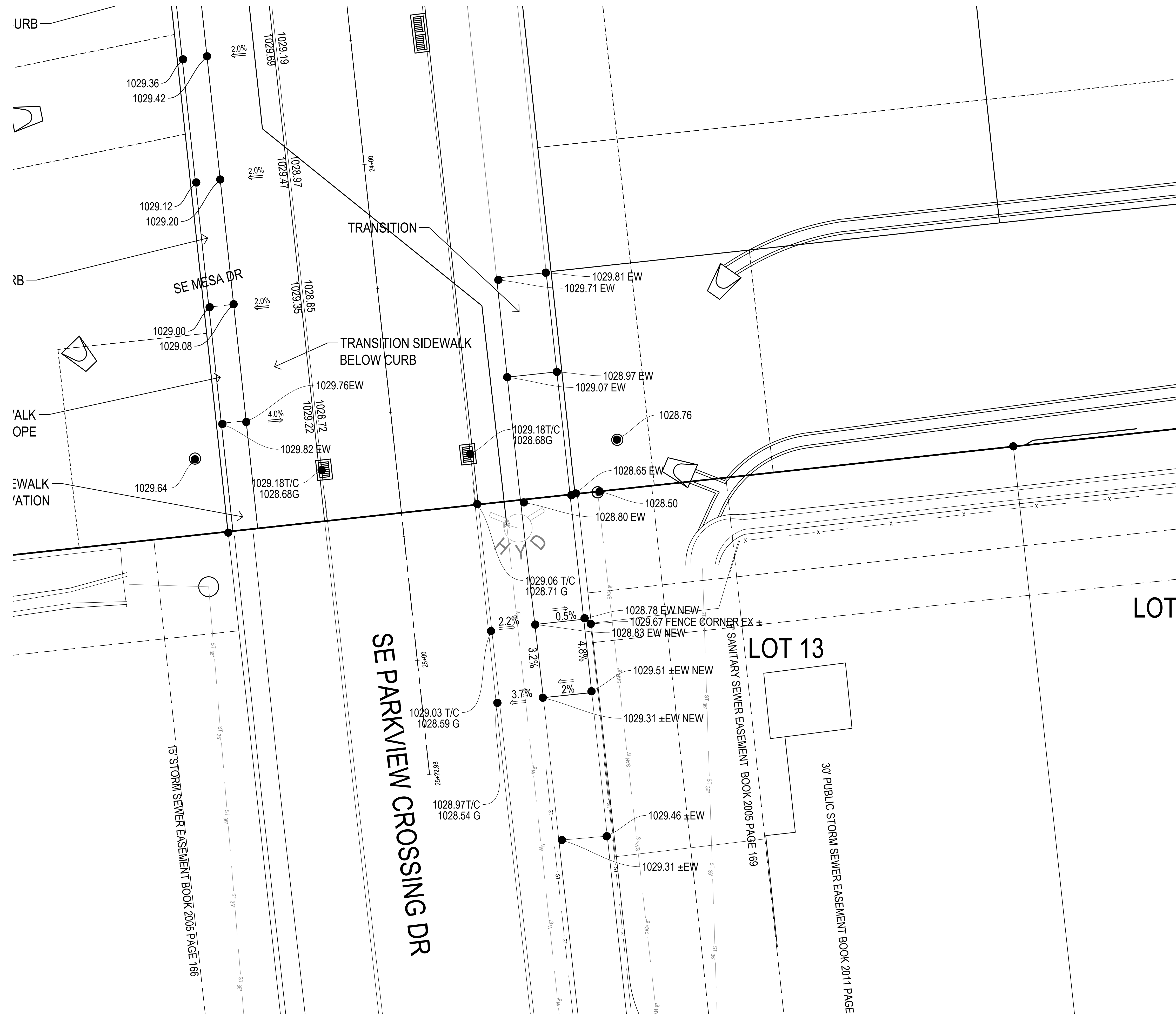
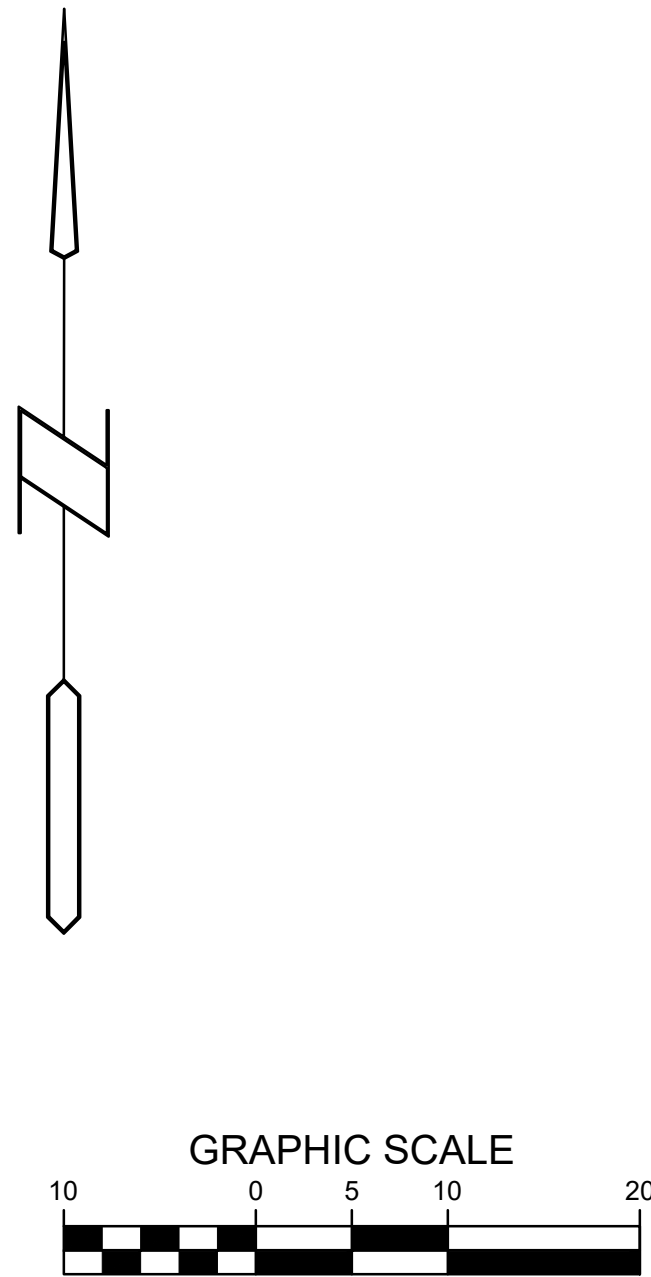


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**LANDING AT KETTLESTONE  
 WAUKEE, IOWA**

**INTERSECTION DETAILS**

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CHECKED BY: <b>DB</b>
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PROJECT NUMBER: <b>180168</b>
SHEET NUMBER: <b>C6.3</b>

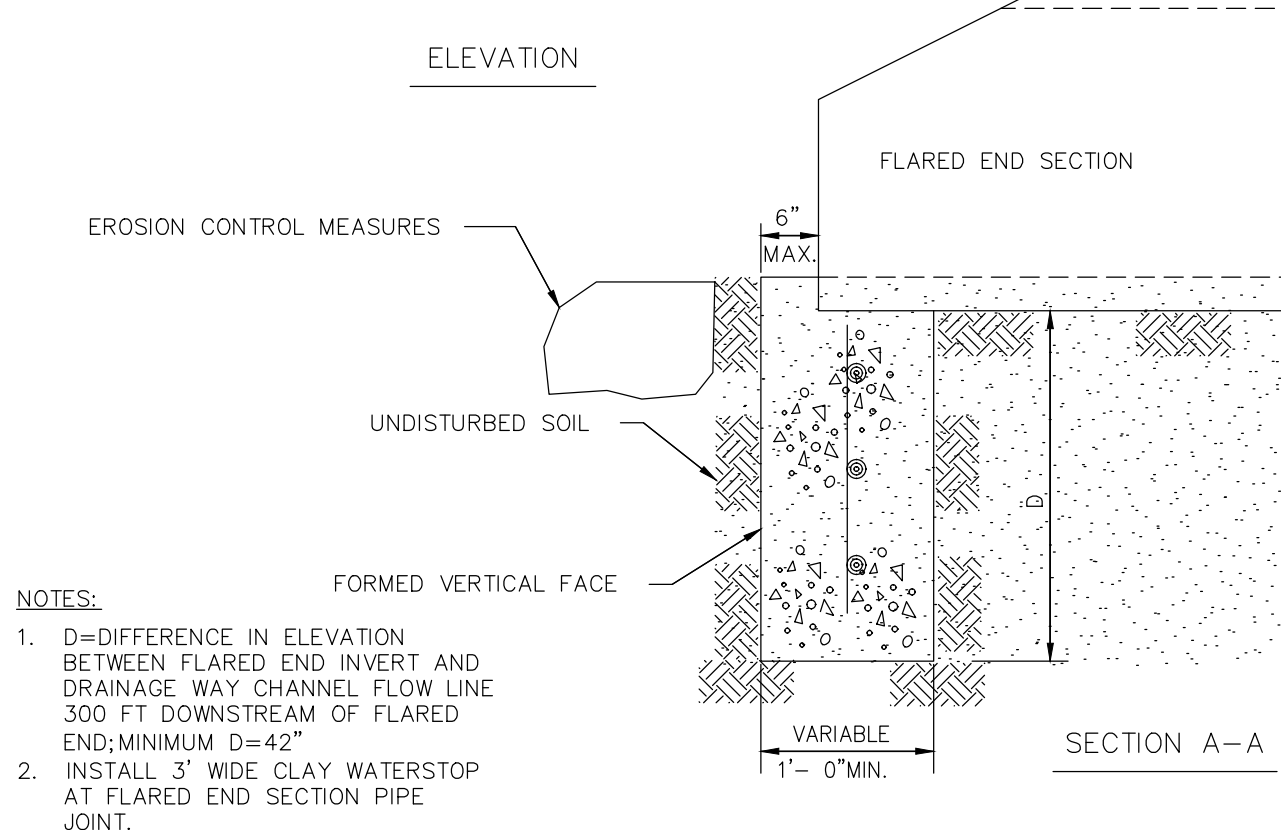
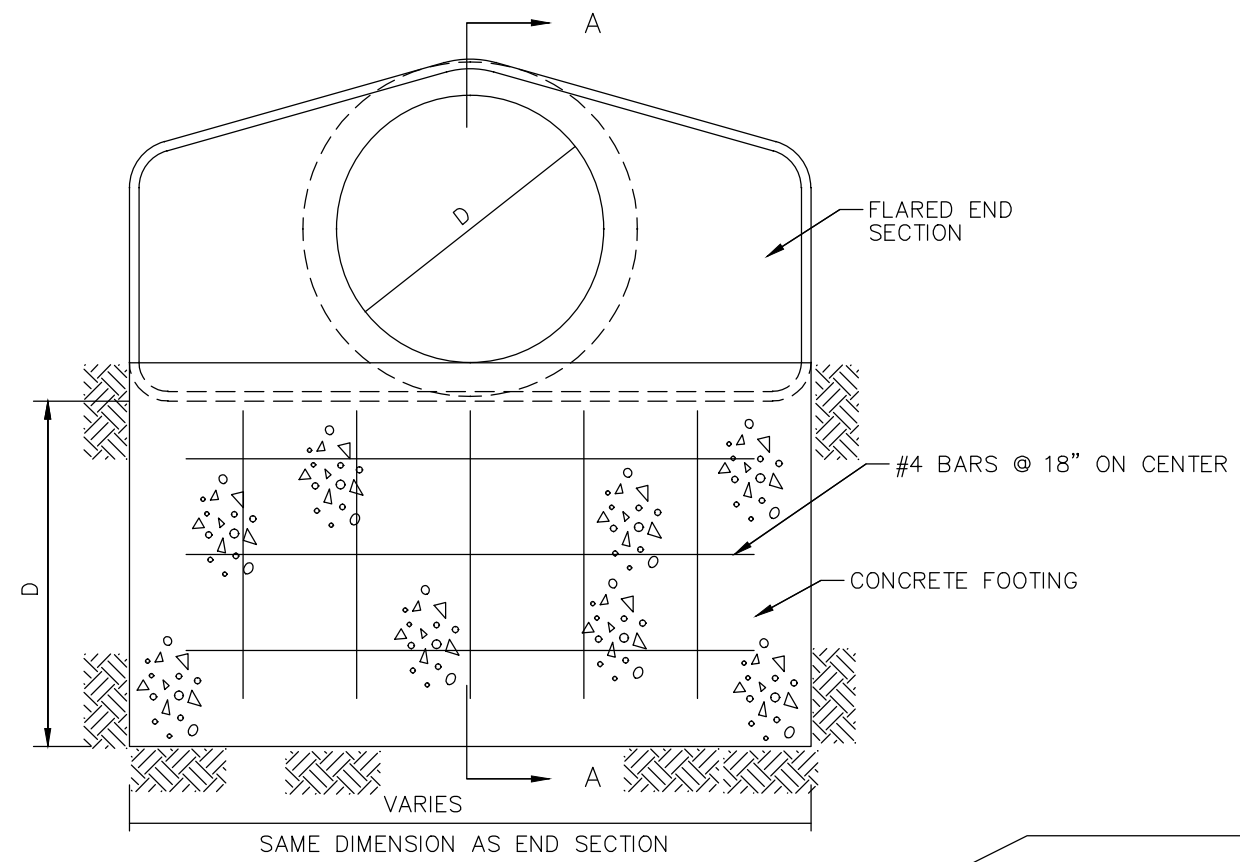


SE PARKVIEW CROSSING DRIVE OVERFLOW  
SOD ALL DISTURBED AREAS IN LOT 13

LANDING AT KETTLESTONE  
WAUKEE, IOWA  
**INTERSECTION DETAILS**

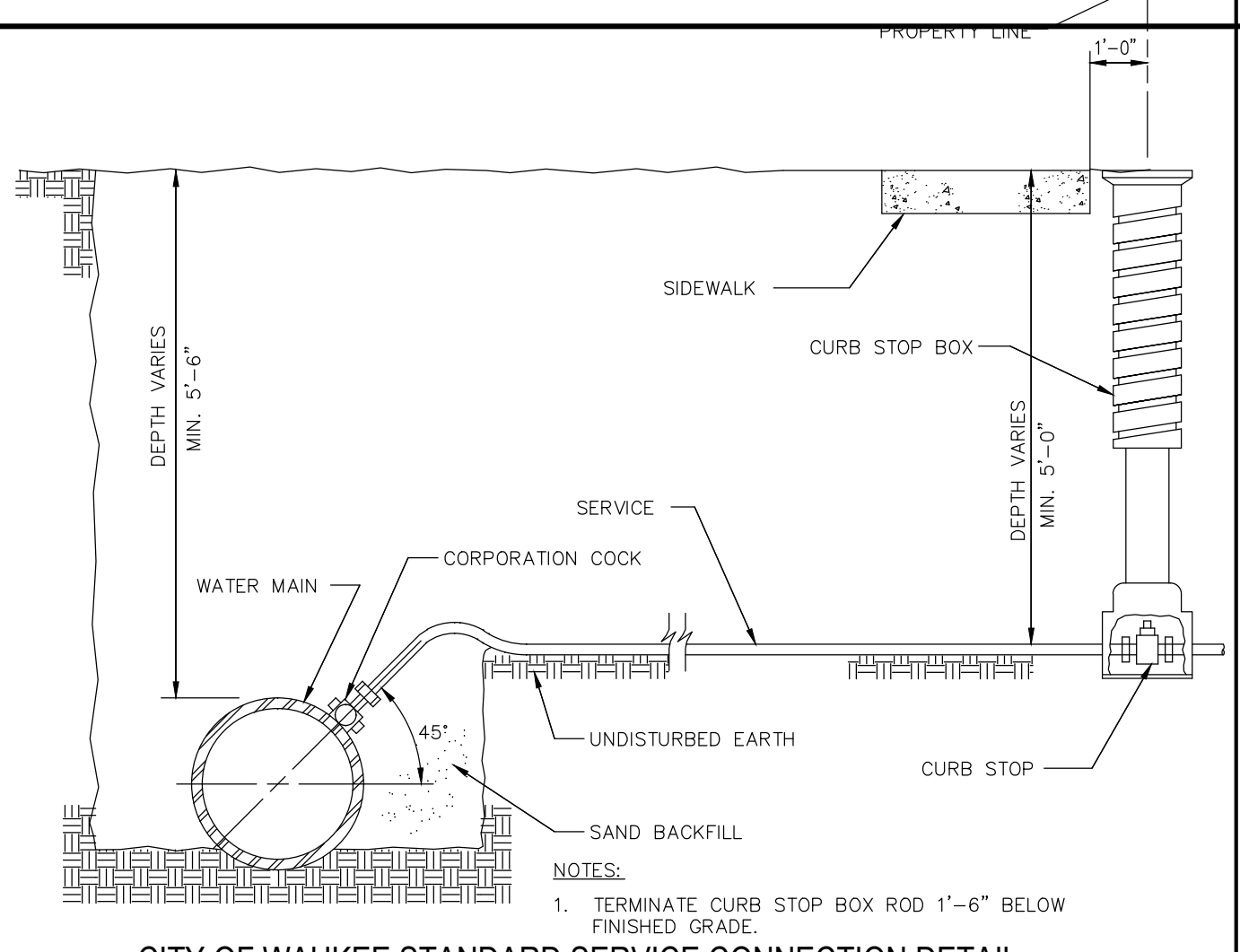
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PROJECT NUMBER: 180168
SHEET NUMBER: C6.4



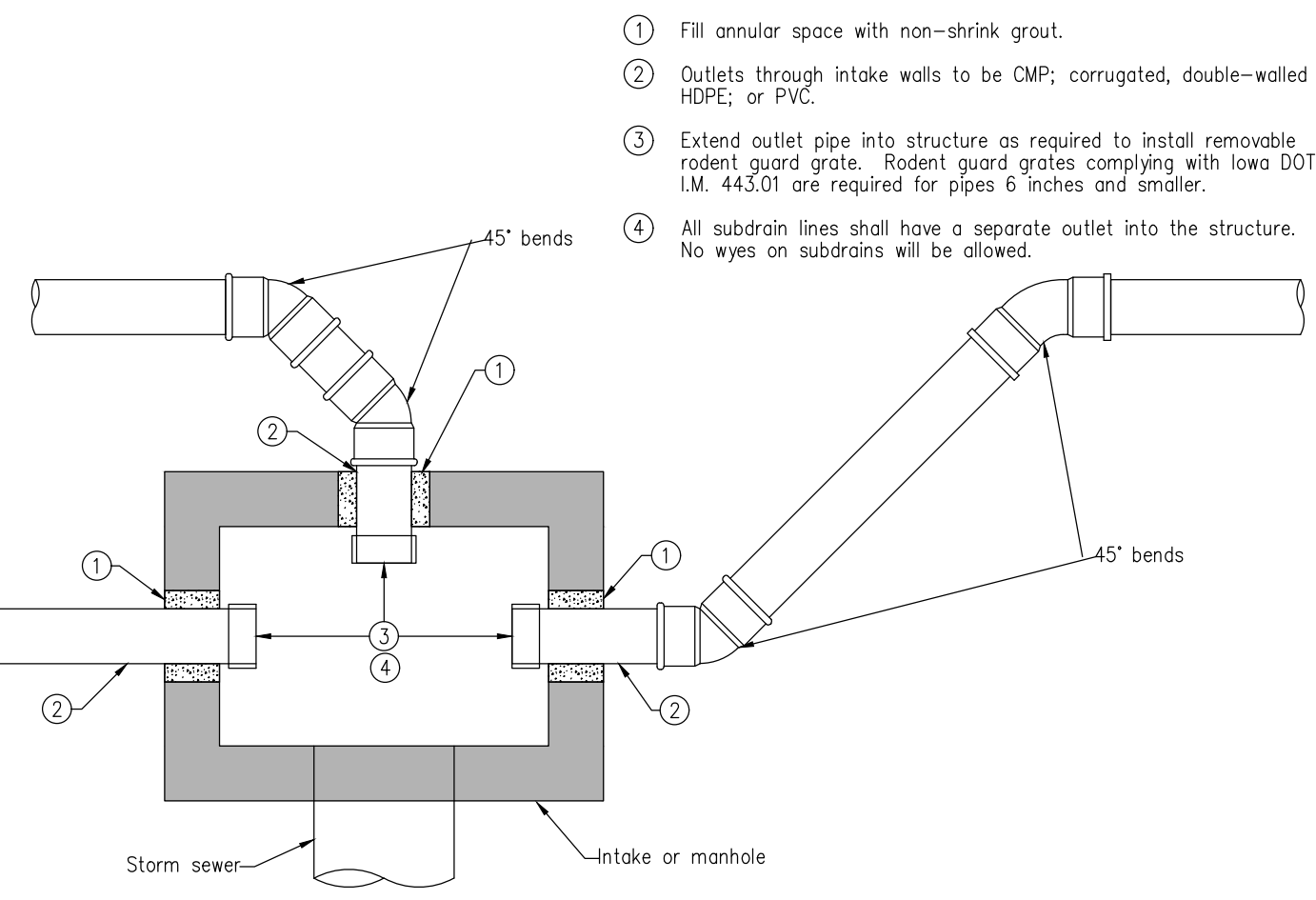


NOTES:  
 1. D=DIFFERENCE IN ELEVATION BETWEEN FLARED END INVERT AND DRAINAGE WAY CHANNEL FLOW LINE 300 FT DOWNSTREAM OF FLARED END-MINIMUM D=42"  
 2. INSTALL 3' WIDE CLAY WATERSTOP AT FLARED END SECTION PIPE JOINT.

CITY OF WAUKEE FLARED END SECTION DETAIL  
NOT TO SCALE

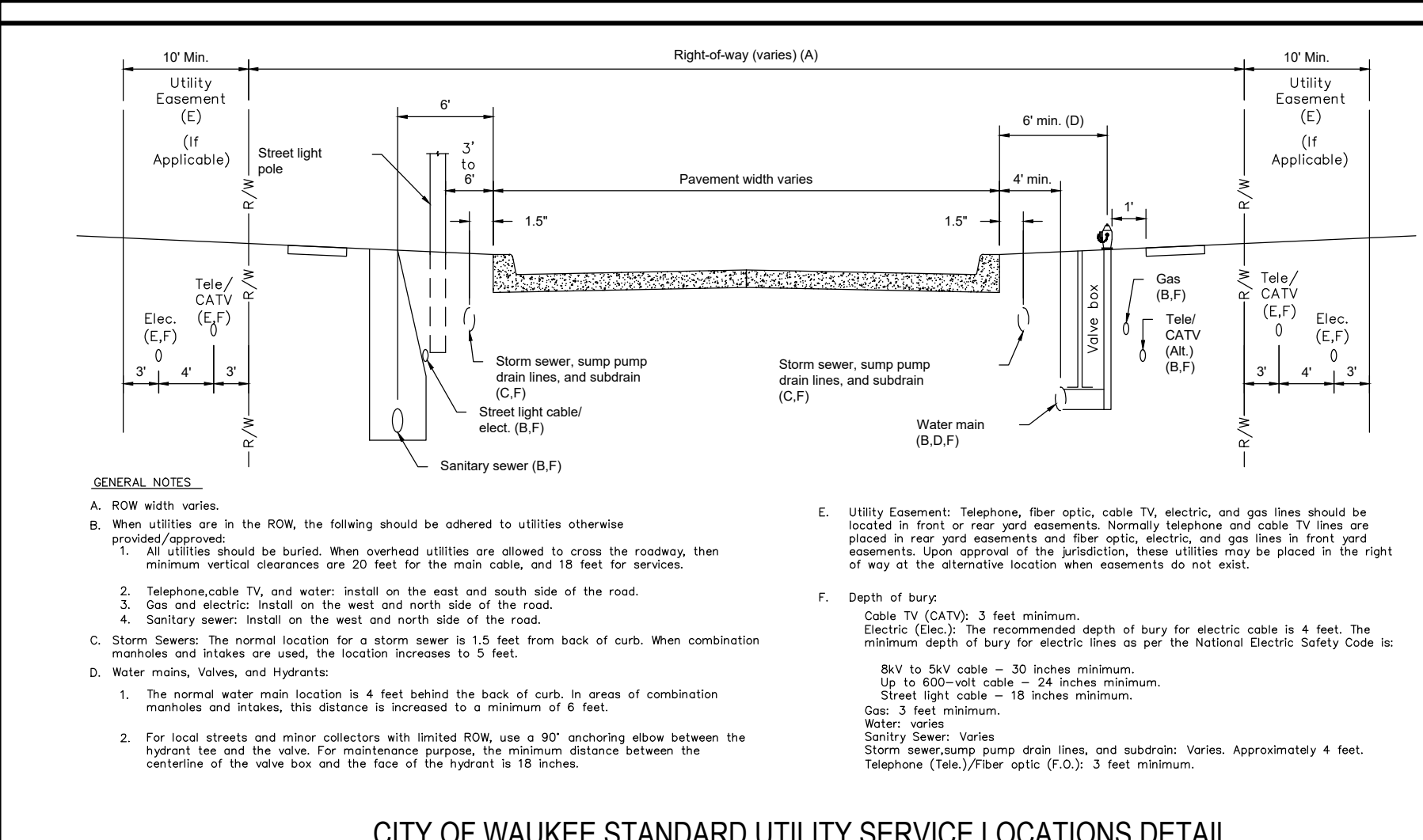


CITY OF WAUKEE STANDARD SERVICE CONNECTION DETAIL  
NOT TO SCALE



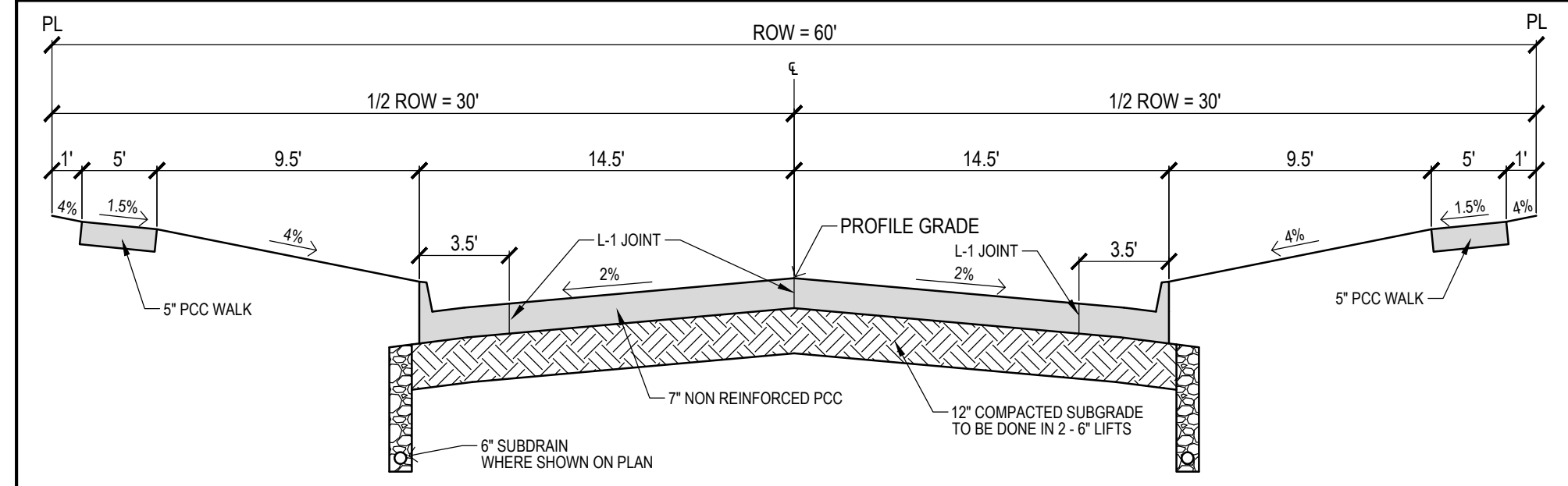
NOTES:  
 1. Fill annular space with non-shrink grout.  
 2. Outlets through intake walls to be CMP; corrugated, double-walled HDPE, or PVC.  
 3. Extend outlet pipe into structure as required to install removable rodent guard grate. Rodent guard grates complying with Iowa DOT (I.M. 44.50) are required for pipes 6 inches and smaller.  
 4. All subdrain lines shall have a separate outlet into the structure. No eyes on subdrains will be allowed.

SUBDRAIN OUTLET INTO INTAKE/MANHOLE DETAIL  
NOT TO SCALE

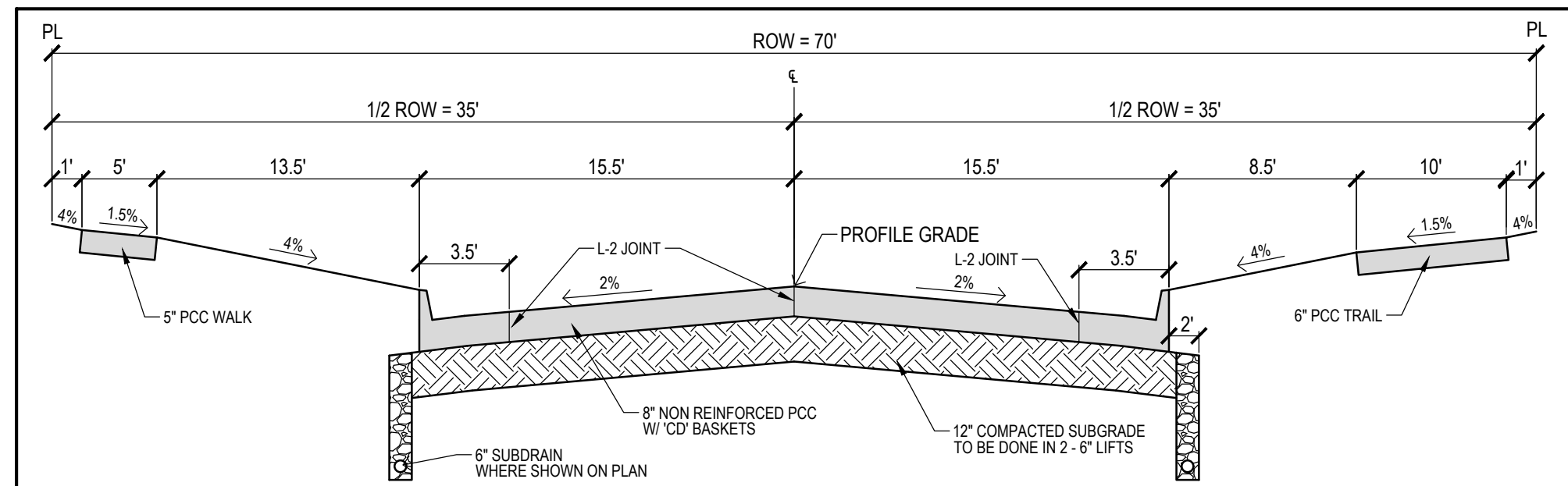


GENERAL NOTES:  
 A. ROW width varies.  
 B. When utilities are in the ROW, the following should be adhered to utilities otherwise graded/approved:  
 1. All utilities should be buried. When overhead utilities are allowed to cross the roadway, then minimum vertical clearances are 20 feet for the main cables, and 18 feet for services.  
 2. Telephone, cable TV, and water: install on the east and south side of the road.  
 3. Gas and electric: install on the west and north side of the road.  
 4. Sanitary sewer: install on the west and north side of the road.  
 C. Storm Sewer: The normal location for a storm sewer is 1.5 feet from back of curb. When combination manholes and inlets are used, the location increases to 5 feet.  
 D. Water mains, Valves, and Hydrants:  
 1. The normal water main location is 4 feet behind the back of curb. In areas of combination manholes and inlets, this distance is increased to a minimum of 6 feet.  
 2. For local streets and minor collectors with limited ROW, use a 90° anchoring angle between the hydrant tee and the valve. For maintenance purpose, the minimum distance between the centerline of the valve box and the face of the hydrant is 18 inches.  
 E. Utility Easement: Telephone, fiber optic, cable TV, electric, and gas lines should be located in front or rear yard easements. Normally telephone and cable TV lines are placed in rear yard easements and fiber optic, electric, and gas lines in front yard easements. Upon approval of the jurisdiction, these utilities may be placed in the right of way at the alternative location when easements do not exist.  
 F. Depth of bury:  
 Cable TV (CATV): 3 feet minimum.  
 Electric (Elec.): The recommended depth of bury for electric cable is 4 feet. The minimum depth of bury for electric lines as per the National Electric Safety Code is:  
 Up to 600-volt cable - 24 inches minimum.  
 60V to 50kV cable - 30 inches minimum.  
 Street light cable - 18 inches minimum.  
 Gas: 3 feet minimum.  
 Water: varies.  
 Sanitary Sewer: Varies.  
 Storm sewer, sump pump drain lines, and subdrain: Varies. Approximately 4 feet.  
 Telephone (Tele./Fiber optic (F.O.)): 3 feet minimum.

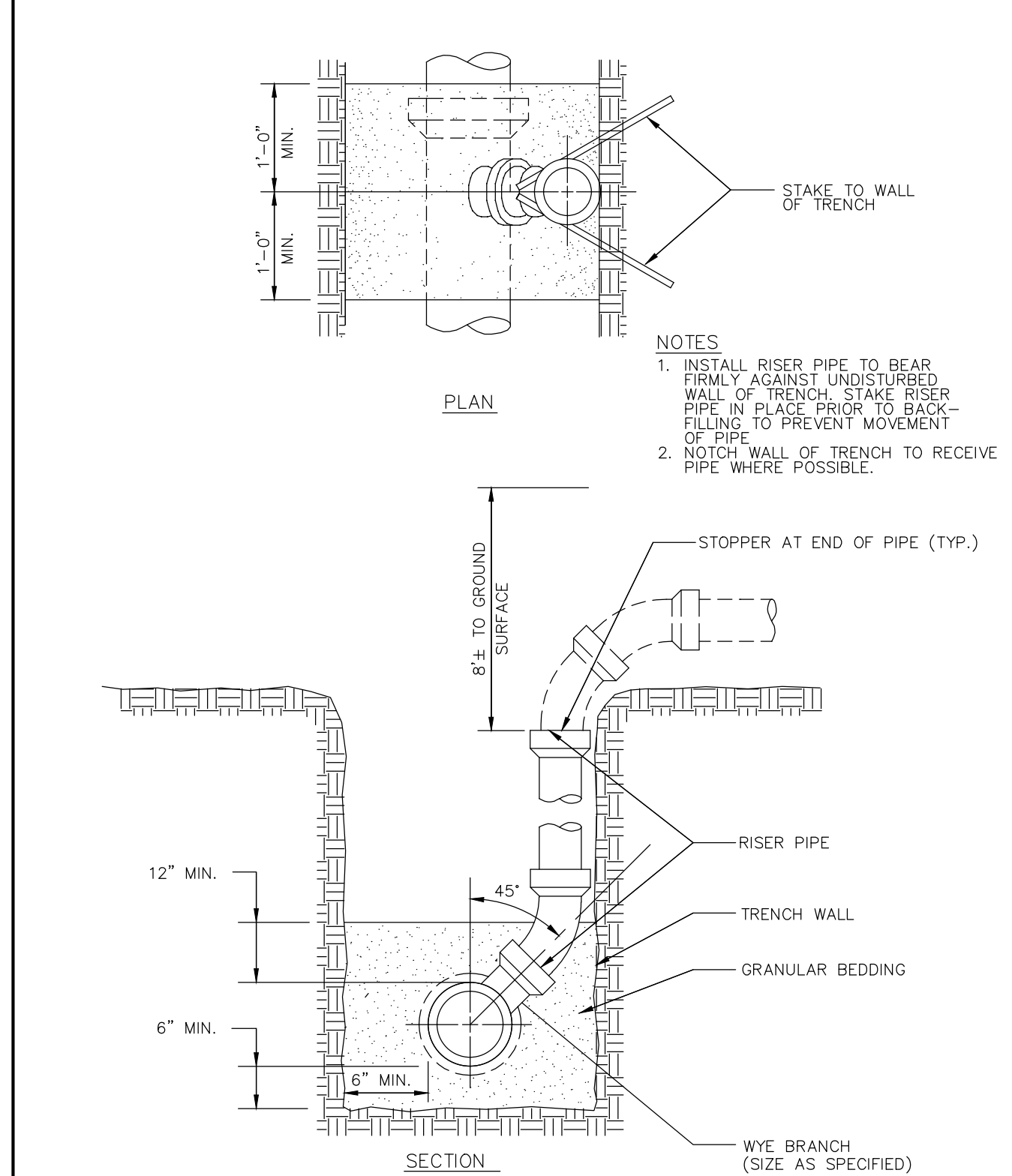
CITY OF WAUKEE STANDARD UTILITY SERVICE LOCATIONS DETAIL  
NOT TO SCALE



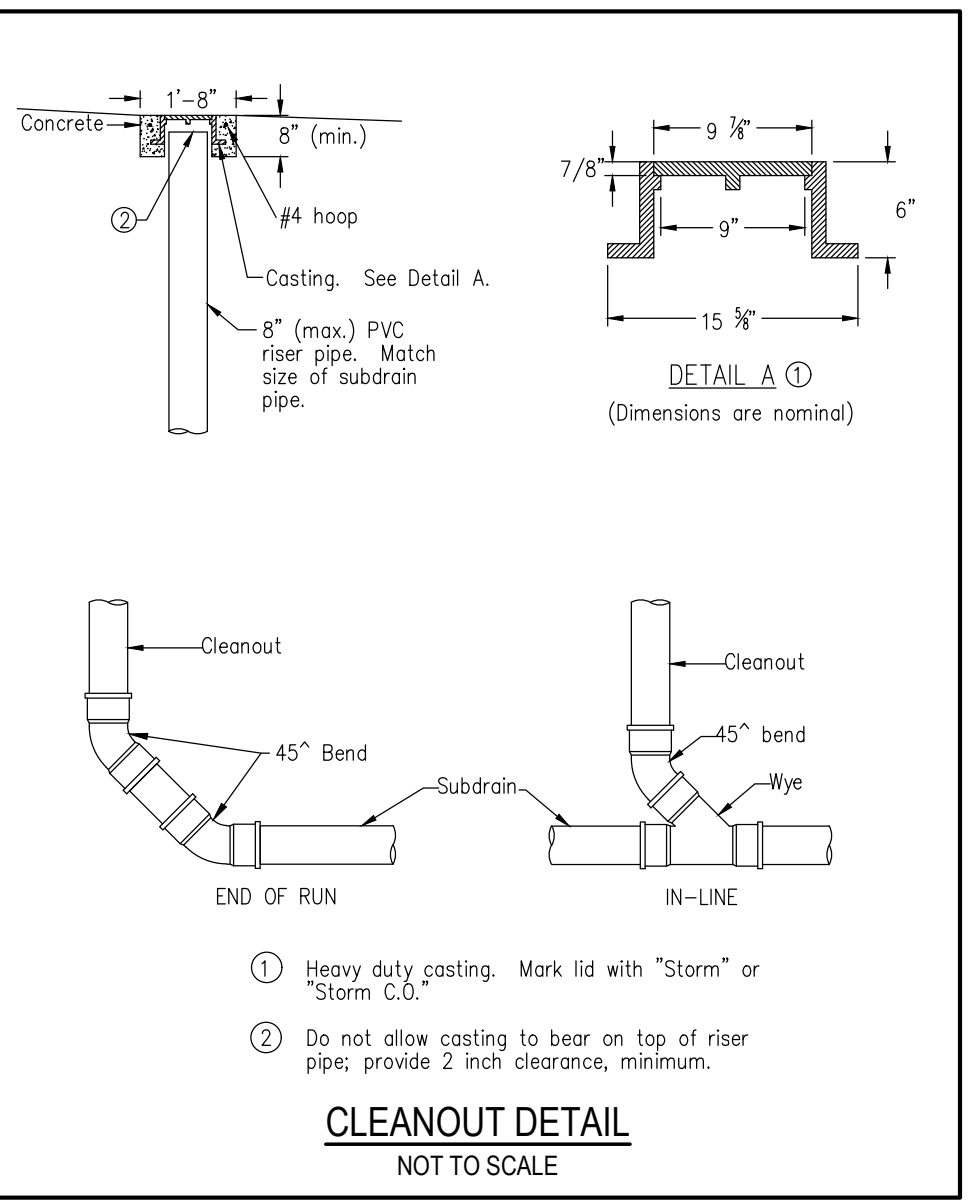
29' B/B PAVEMENT CROSS SECTION (7" PCC)  
NOT TO SCALE



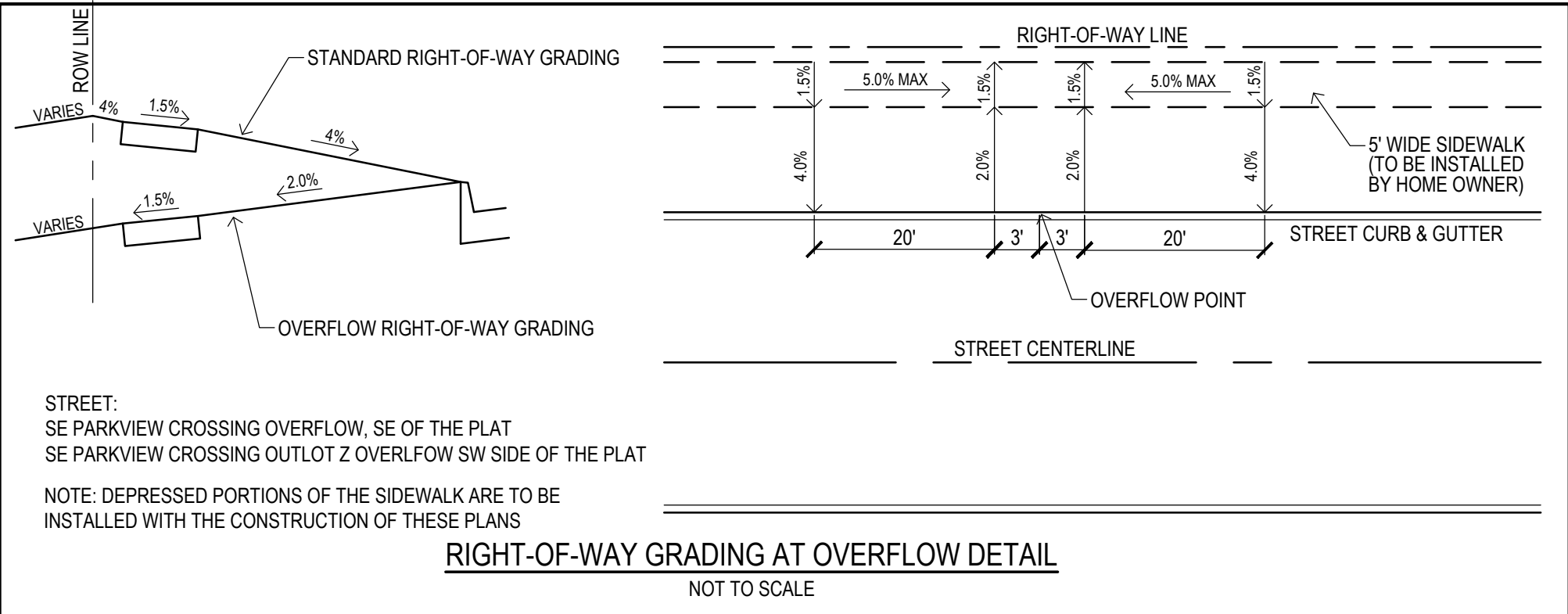
31' B/B PAVEMENT CROSS SECTION (8" PCC)  
NOT TO SCALE



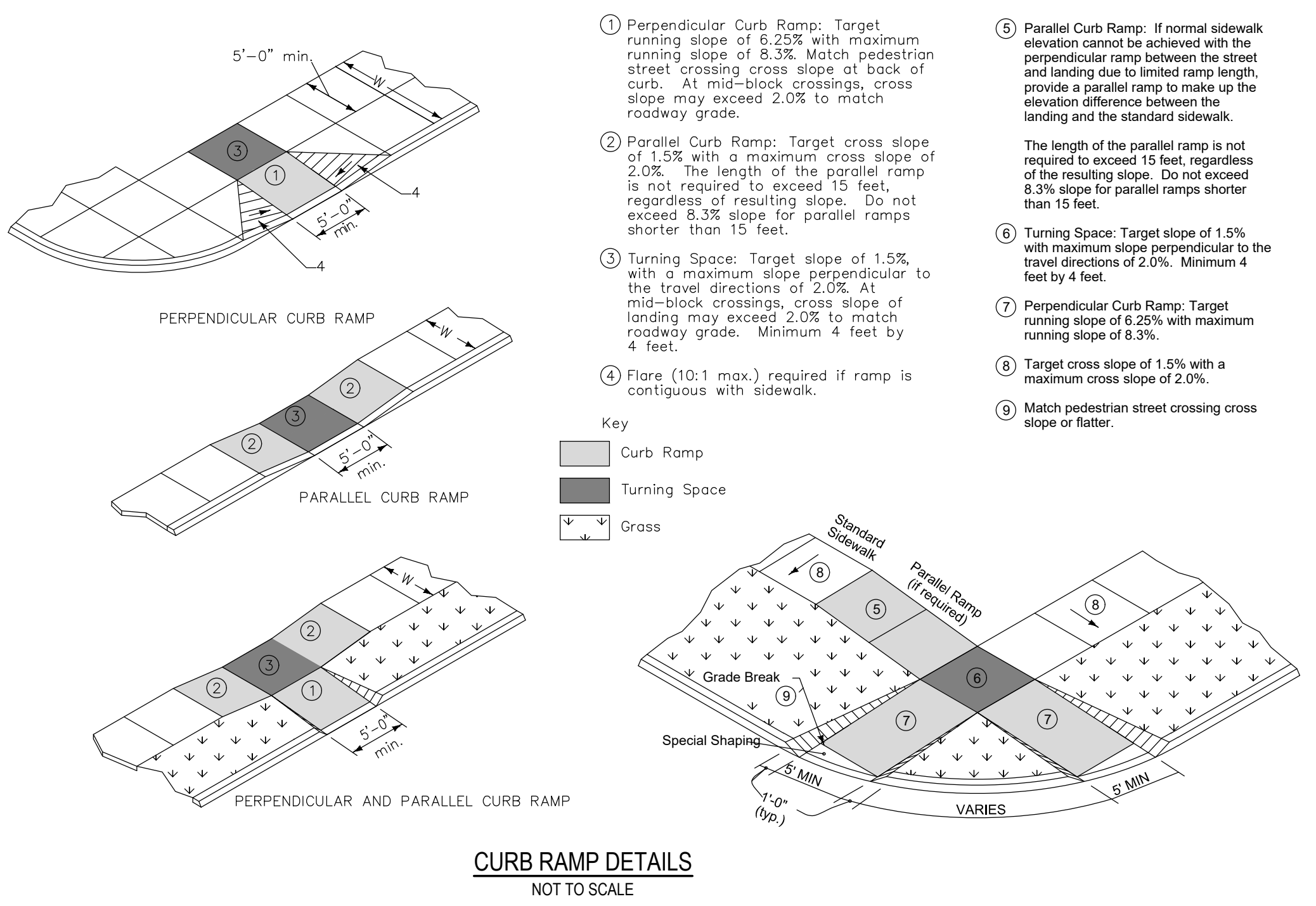
CITY OF WAUKEE RISER DETAIL  
NOT TO SCALE



CLEANOUT DETAIL  
NOT TO SCALE



RIGHT-OF-WAY GRADING AT OVERFLOW DETAIL  
NOT TO SCALE



CURB RAMP DETAILS  
NOT TO SCALE

MILAND PROJECTS 2018\180180\DWG\AB-C7.1 DETAILS.DWG 1/11/2021 10:24:51 AM

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LANDING AT KETTLESTONE  
 WAUKEE, IOWA

DETAILS SHEET

REFERENCE NUMBER:  
150421

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BA

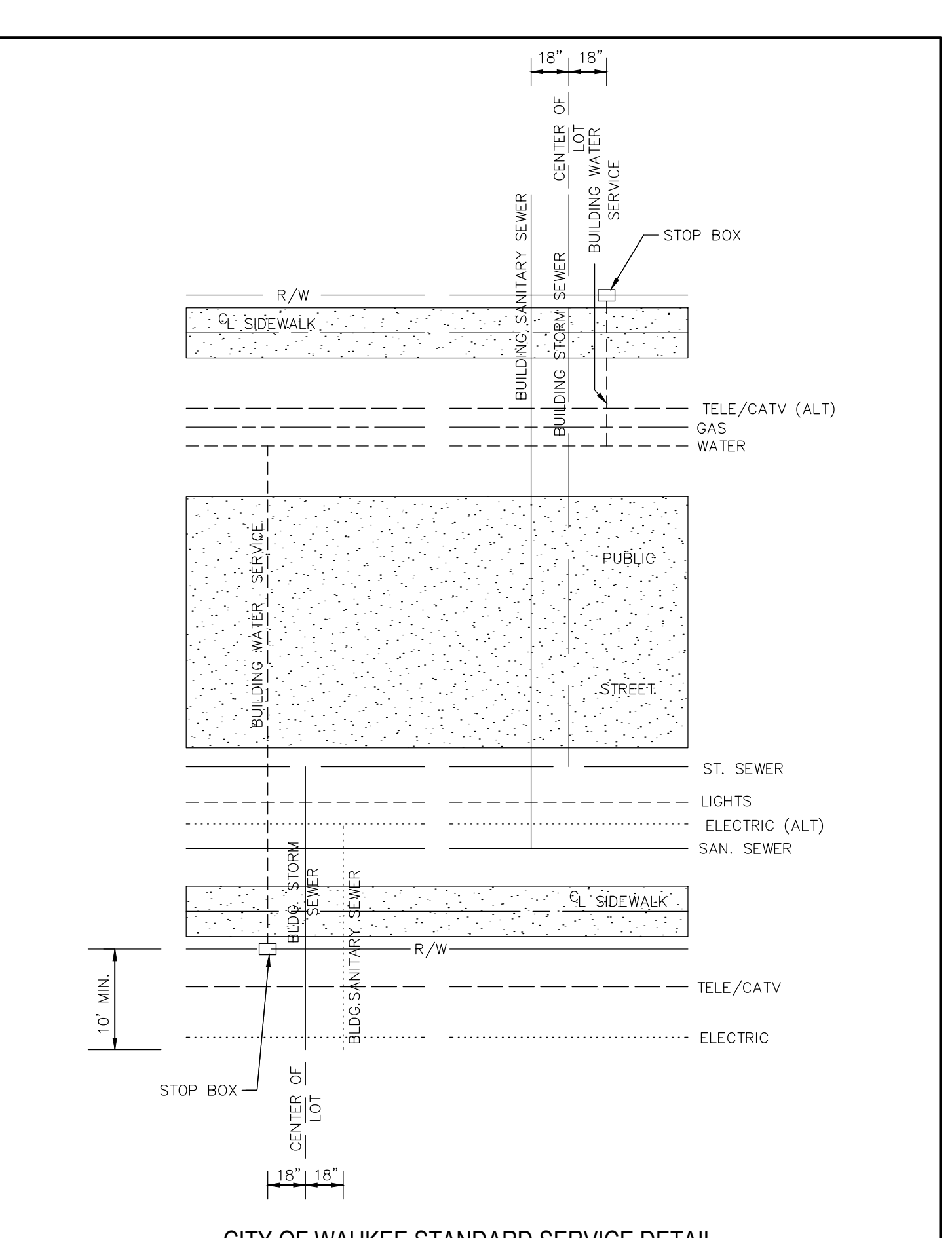
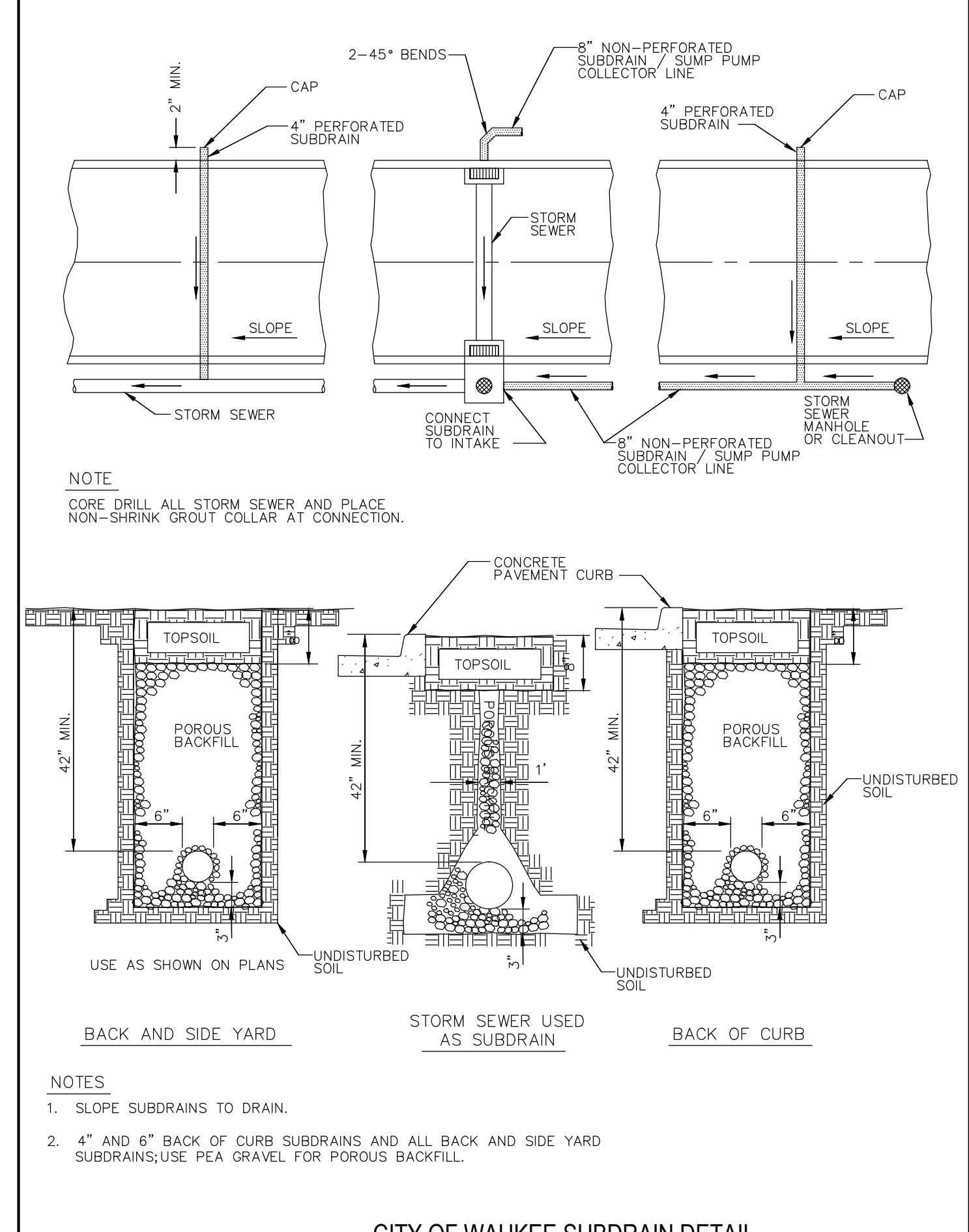
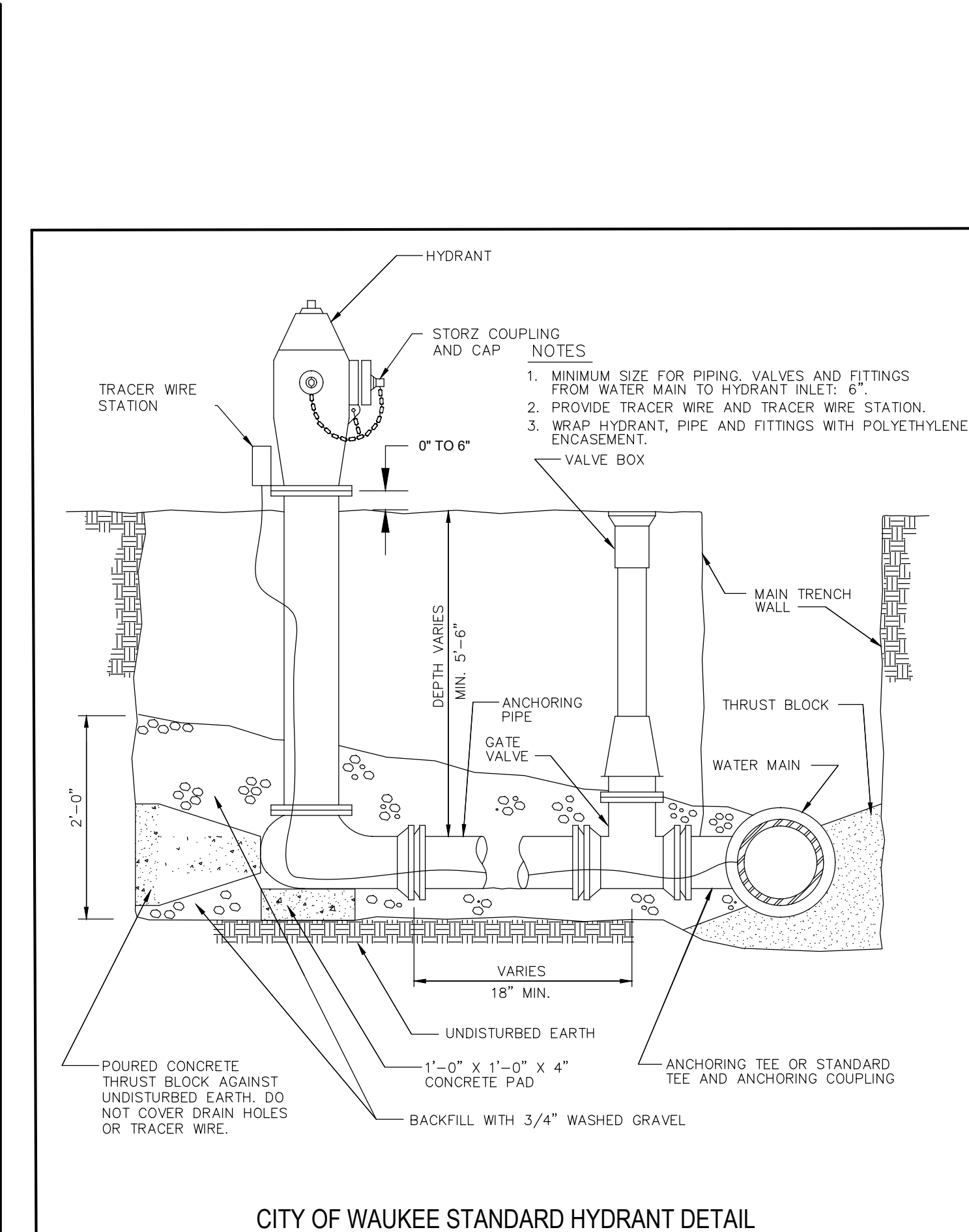
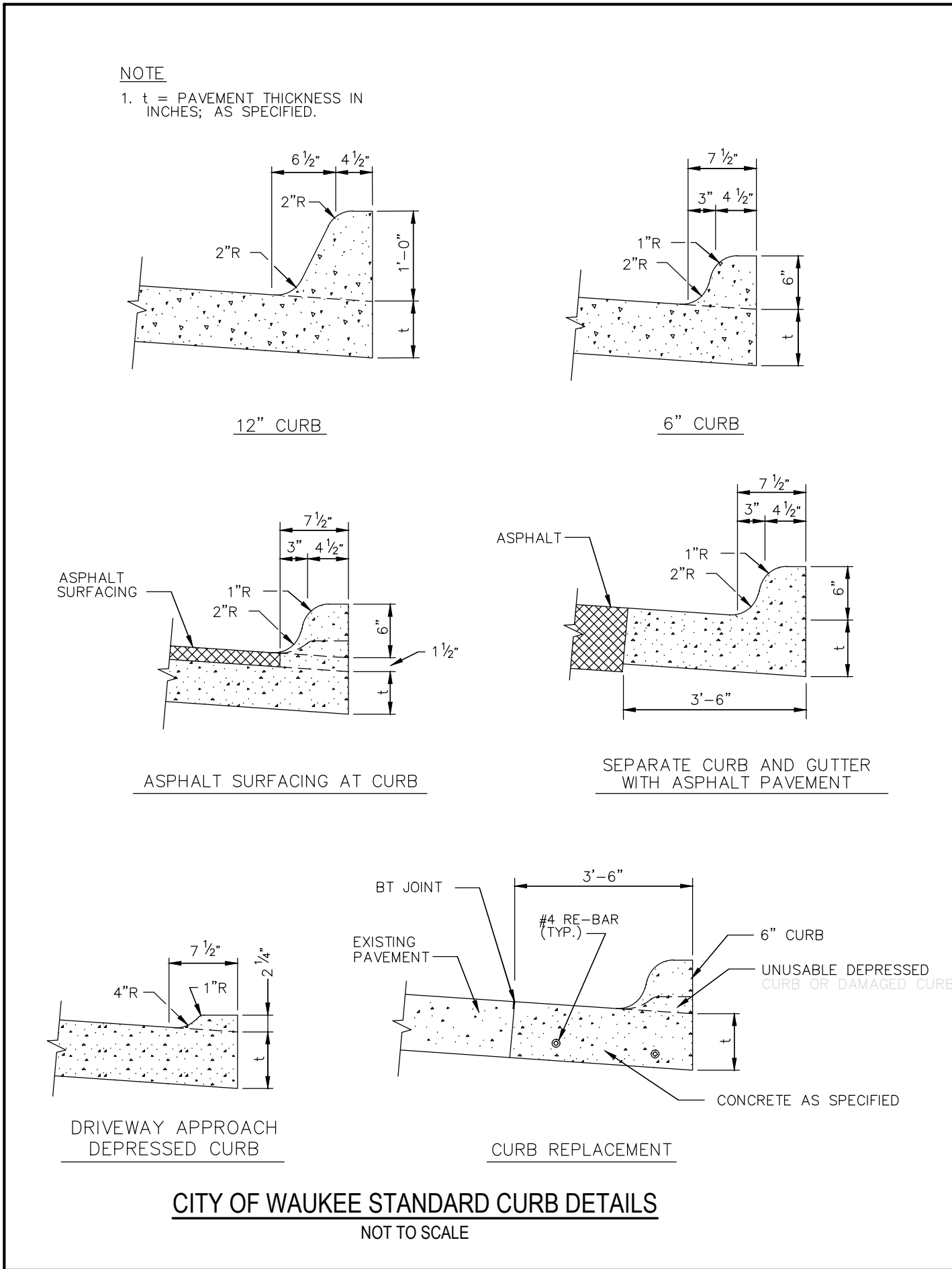
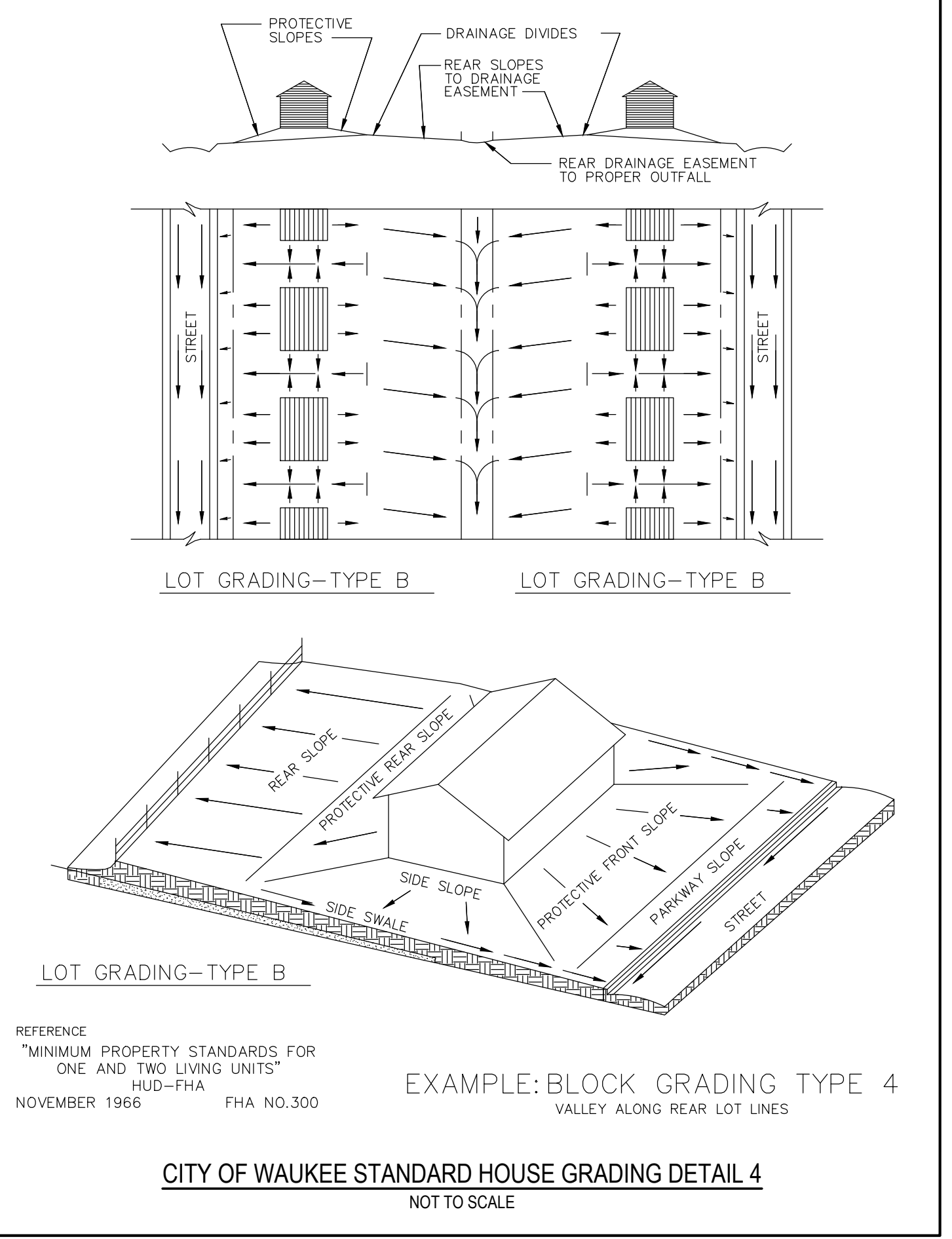
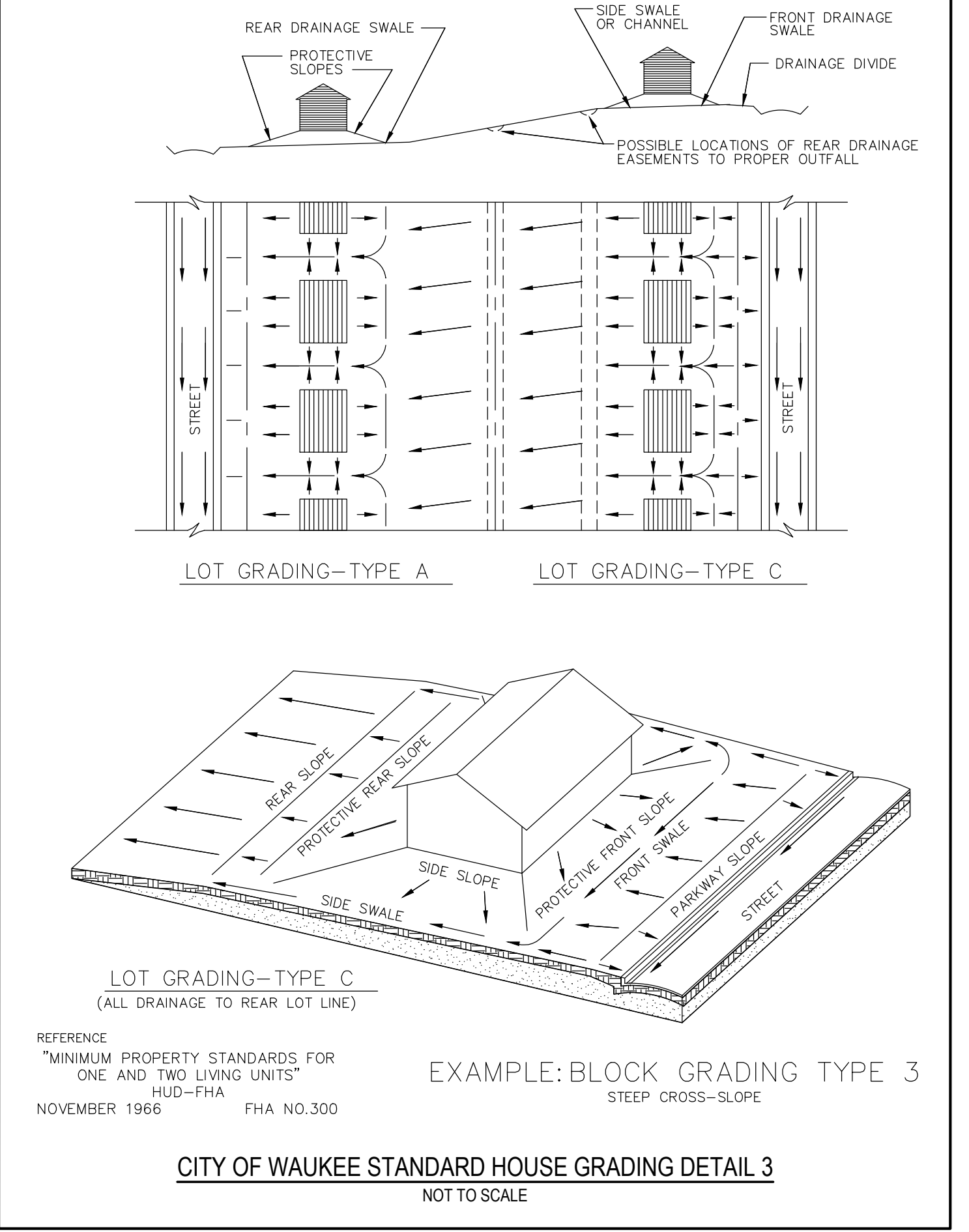
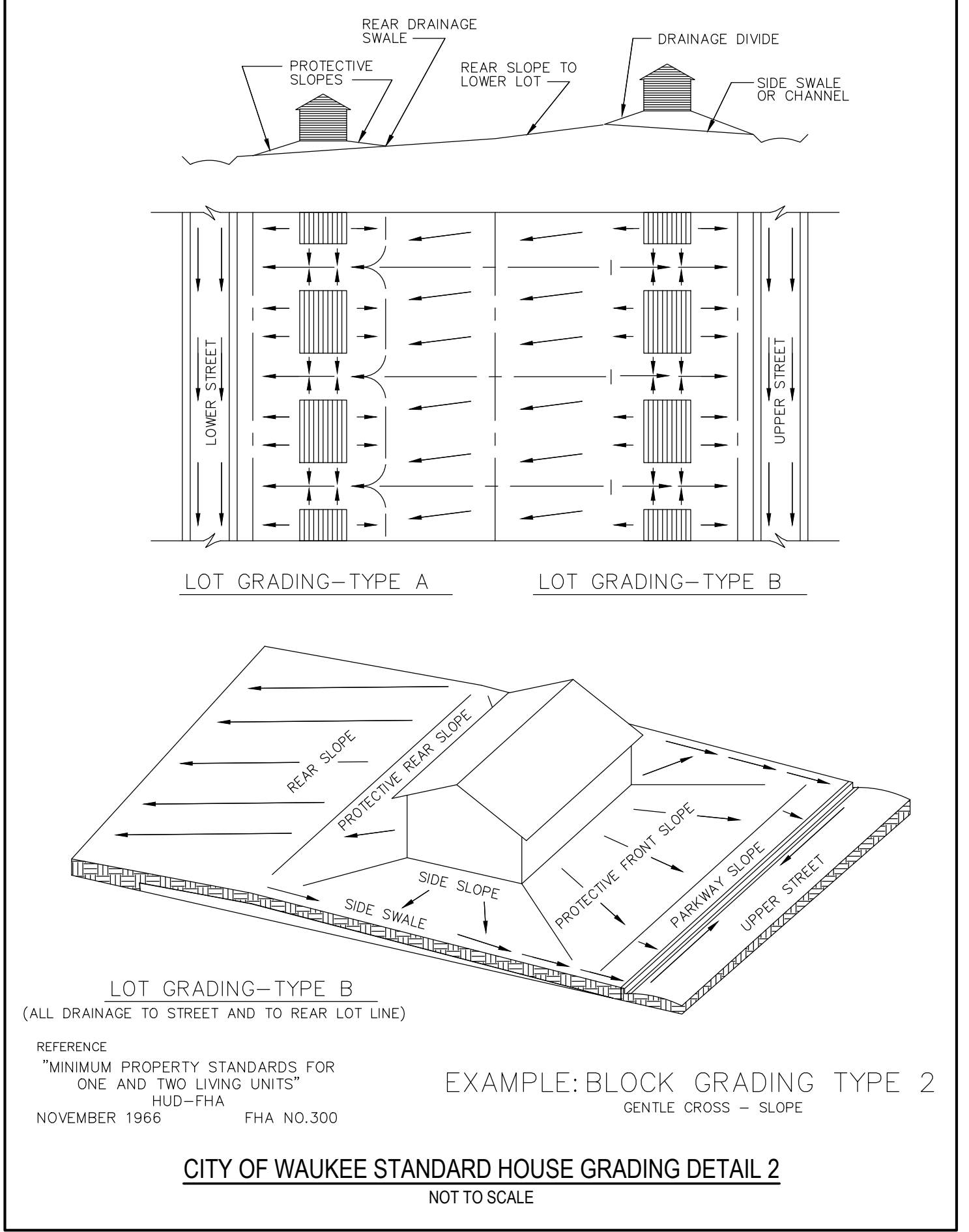
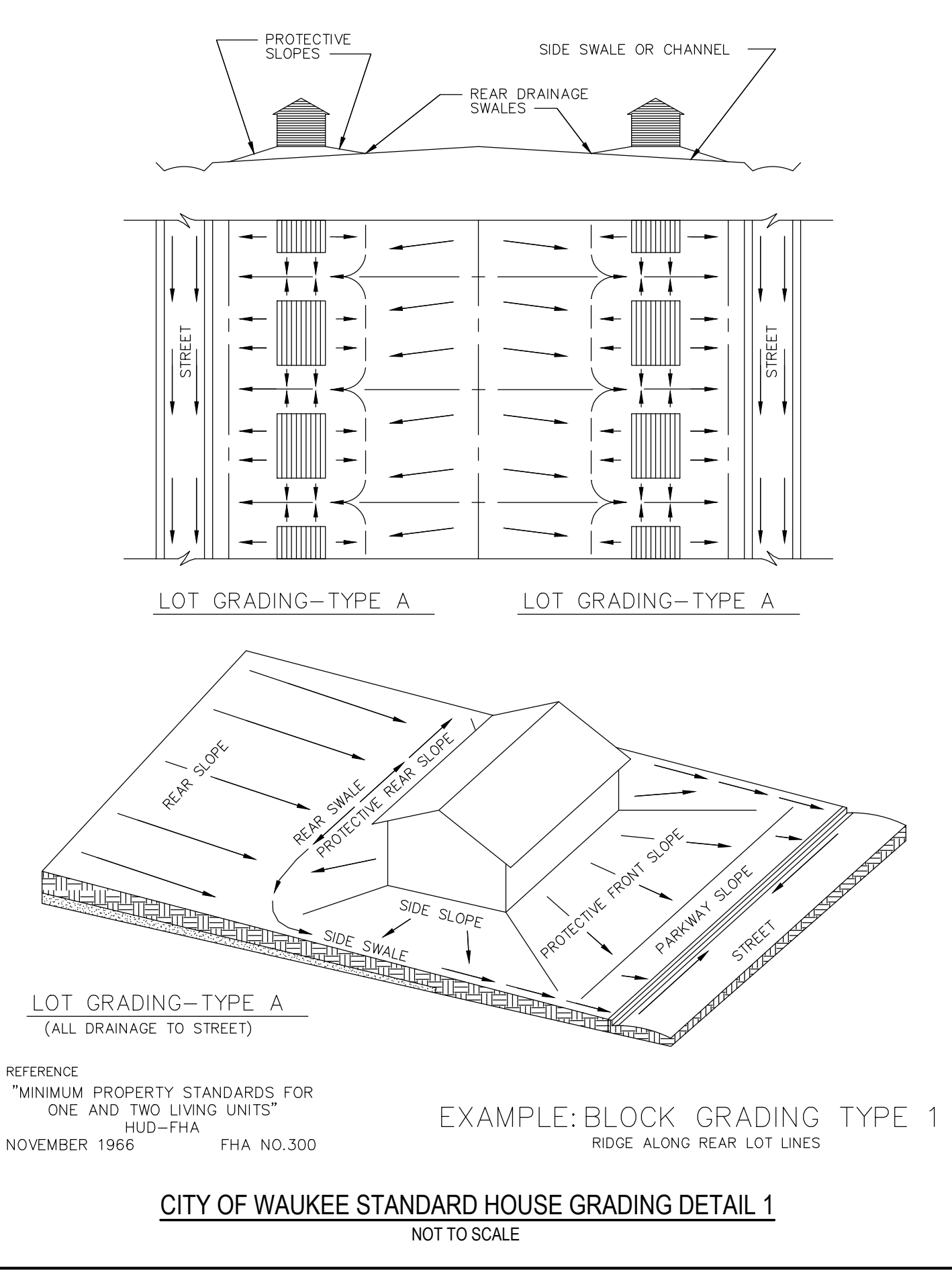
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REVISION DATE:  
12-21-18 1ST SUBMITTAL  
2-4-19 2ND SUBMITTAL  
3-12-19 3RD SUBMITTAL  
4-15-19 4TH SUBMITTAL  
4-23-19 5TH SUBMITTAL

PROJECT NUMBER:  
180168

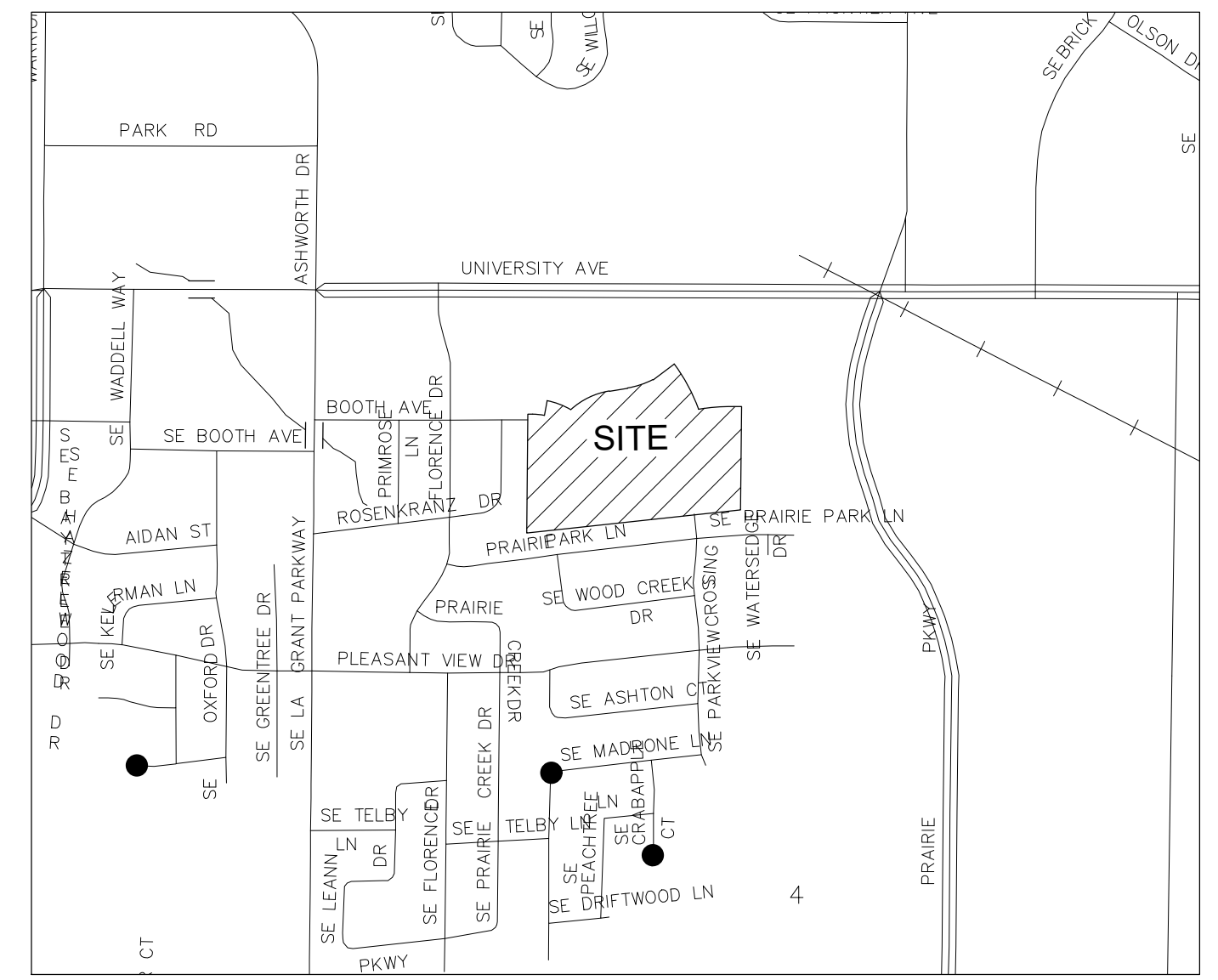
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C7.2

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PRELIMINARY - NOT FOR CONSTRUCTION

# STORM WATER POLLUTION PREVENTION PLAN



### EROSION CONTROL NOTES:

- SEE SUPPLEMENTAL DETAIL STORM WATER POLLUTION PLAN NARRATIVE FOR ALL EROSION CONTROL MEASURES, ADDITIONAL DETAILS AND NOTE. ADDITIONAL NOTES AND MEASURES IN NARRATIVE SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE ORIGINAL BID.
- SWPPP PLAN AND NARRATIVE ARE CONSIDERED A LIVING DOCUMENT AND WILL NEED PERIODIC UPDATES AND ADJUSTMENTS AS NECESSARY DEPENDING ON SITE CONDITIONS TO ASSURE COMPLIANCE WITH NPDES GENERAL PERMIT NO. 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UPDATE THE SWPPP AND IMPLEMENT ANY AND ALL MEASURES NECESSARY TO COMPLY WITH SAID PERMIT NO. 2.
- INSTALL PERIMETER SILT FENCE AS SHOWN ON PLANS PRIOR TO CONSTRUCTION.
- INSTALL INTAKE PROTECTION WITH SILT FENCE IMMEDIATELY AFTER STORM SEWER CONSTRUCTION.
- INSTALL FINISHED PAVING INLET PROTECTION IMMEDIATELY AFTER PAVING IS COMPLETED AROUND INTAKE.
- OTHER EROSION CONTROL TYPES MAY NOT BE SUBSTITUTED FOR SILT FENCE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING A CONCRETE WASHOUT IN ACCORDANCE WITH NPDES GENERAL PERMIT NO. 2 DURING ALL CONCRETE WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING TEMPORARY RESTROOM FACILITIES. SANITARY WASTE SHALL BE DISPOSED OF PER ALL FEDERAL, STATE AND LOCAL REGULATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL TOPSOIL REQUIREMENTS OF NPDES GENERAL PERMIT NO. 2 ARE MET.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING STORM SEWERS AND DRAINAGE WAYS FROM ANY SLURRY CREATED BY SAWCUTTING AND/OR CONCRETE GRINDING.
- INSTALL SUDAS TYPE 2 TRM ON ALL DETENTION BASIN EMBANKMENTS THAT ARE LESS THAN 4:1, ONLY ABOVE THE NORMAL POOL IN WET PONDS, AND ALL EMBANKMENTS IN DRY DETENTION.

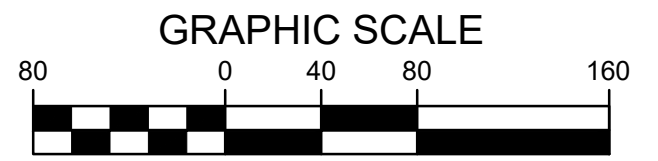
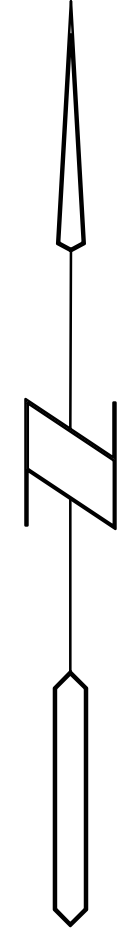
### EROSION CONTROL REMOVAL NOTES:

- AFTER FINAL STABILIZATION HAS OCCURRED, AS DEFINED IN NPDES GENERAL PERMIT NO. 2, CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY EROSION CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO: SILT FENCE, INLET PROTECTION, AND TEMPORARY STANDPIPES.

### EROSION CONTROL SCHEDULE:

SILT FENCE	7360 LF
INLET PROTECTION	40 EA
RIP RAP	3,500 TONS
TEMPORARY STABILIZATION	24.5 ACRES
SUDAS TYPE 2 TRM	5000 SY

- ### LEGEND:
- 120--- EXISTING CONTOUR
  - 120--- PROPOSED CONTOUR
  - SF--- SILT FENCE
  - SAN--- SANITARY SEWER
  - ST--- STORM SEWER
  - W--- WATER LINE
  - G--- GAS LINE
  - UE--- UNDERGROUND ELECTRIC
  - OE--- OVERHEAD ELECTRIC
  - TELE--- TELEPHONE LINE
  - F/O--- FIBER OPTIC
  - CATV--- CABLE TV
  - ⊙ STORM MANHOLE
  - ⊙ CURB INTAKE
  - ⊙ SURFACE INTAKE
  - ⊙ FLARED END SECTION
  - ⊙ SANITARY MANHOLE
  - ⊙ CLEANOUT
  - ⊙ FIRE HYDRANT
  - ⊙ SPRINKLER
  - ⊙ IRRIGATION CONTROL VALVE
  - ⊙ WATER MANHOLE
  - ⊙ WELL
  - ⊙ WATER VALVE
  - ⊙ WATER SHUT OFF
  - ⊙ YARD HYDRANT
  - ⊙ ELECTRIC MANHOLE
  - ⊙ ELECTRIC METER
  - ⊙ ELECTRIC RISER
  - ⊙ ELECTRIC VAULT
  - ⊙ POWER POLE
  - ⊙ TRANSFORMER POLE
  - ⊙ LIGHT POLE
  - ⊙ ELECTRIC JUNCTION BOX
  - ⊙ ELECTRIC PANEL
  - ⊙ TRANSFORMER
  - ⊙ GROUND LIGHT
  - ⊙ GUY WIRE
  - ⊙ ELECTRIC HANDHOLE
  - ⊙ GAS METER
  - ⊙ GAS VALVE
  - ⊙ AIR CONDITIONING UNIT
  - ⊙ TELEPHONE RISER
  - ⊙ TELEPHONE VAULT
  - ⊙ TELEPHONE MANHOLE
  - ⊙ TRAFFIC SIGNAL MANHOLE
  - ⊙ FIBER OPTIC RISER
  - ⊙ FIBER OPTIC FAULT
  - ⊙ CABLE TV RISER
  - ⊙ SIGN



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 Civil Engineering & Land Surveying  
 Established 1959

**LANDINGS AT KETTLESTONE  
 WAUKEE, IOWA**

**SWPPP**

REFERENCE NUMBER:	150421
DRAWN BY:	EAV
CHECKED BY:	DBB
REVISION DATE:	05-08-18 REZONE & DEV 05-23-18 2ND RZ & DEV 05-30-18 3RD RZ & DEV
PROJECT NUMBER:	180168
SHEET NUMBER:	C8.1

**IOWA ONE CALL**  
 1-800-292-9989  
 www.iowaonecall.com

**UTILITY NOTE:**  
 THE LOCATION OF THE UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS AND ARE APPROXIMATE LOCATIONS. THE EXACT LOCATIONS OF ALL UTILITIES MUST BE ASCERTAINED IN THE FIELD. IT SHALL BE THE DUTY OF THE CONTRACTOR TO DETERMINE WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.

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