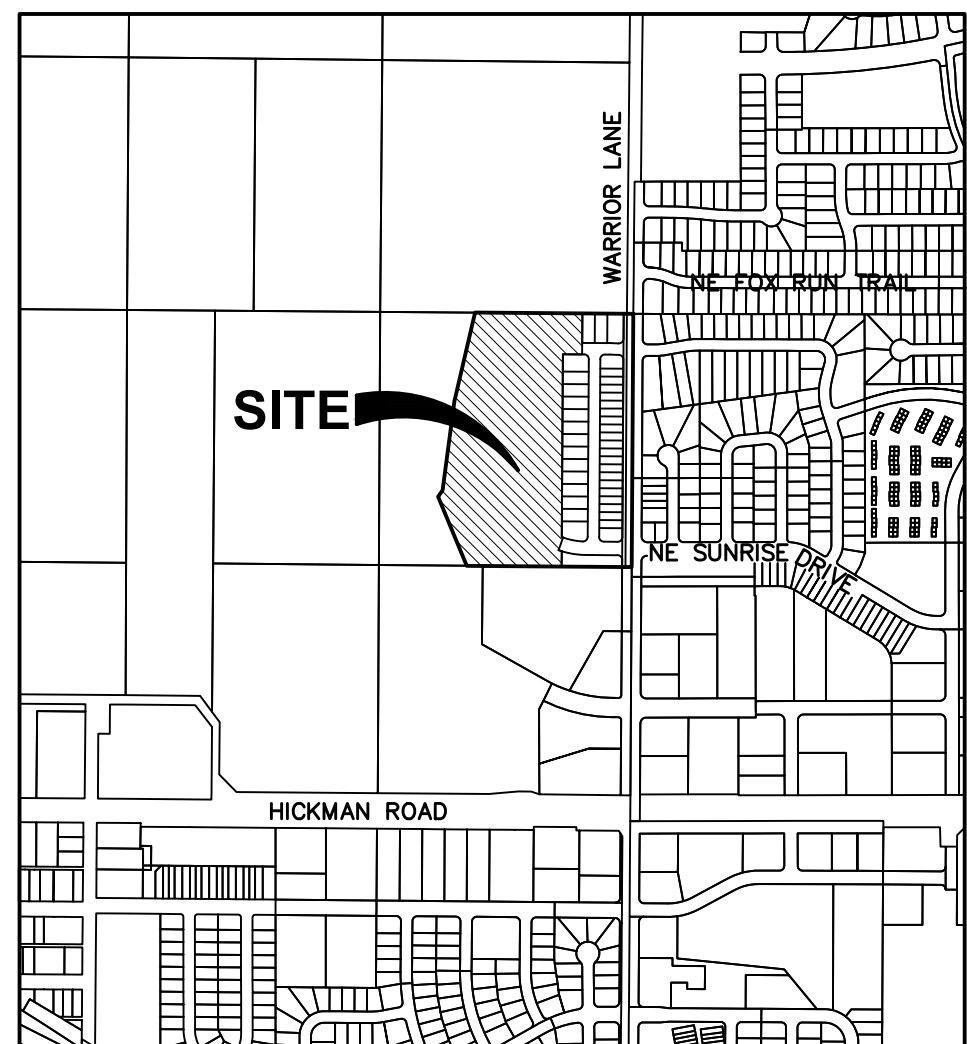


CONSTRUCTION PLANS FOR: INDI RUN PLAT 2

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

OWNER/DEVELOPER

INDI RUN, LLC
17389 BERKSHIRE PARKWAY
CLIVE, IOWA 50325
PH: 515-975-7441
CONTACT: ERIC GRUBB

PROJECT MANAGER

SOLID GROUND, LLC
17389 BERKSHIRE PARKWAY
CLIVE, IOWA 50325
PH: 515-975-7441
CONTACT: ERIC GRUBB

ENGINEER/ SURVEYOR

CIVIL DESIGN ADVANTAGE
CONTACT: JEFF NESVIK
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

BENCHMARKS

BURY BOLT ON HYDRANT @ SE CORNER OF
BADGER AND WARRIOR LANE.
ELEVATION=1014.03

BURY BOLT ON HYDRANT @ SE CORNER OF
DOUGLAS AND BADGER.
ELEVATION=999.60'

UTILITY NOTE

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

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2-3	TYPICAL SECTIONS AND DETAILS
4	CITY OF WAUKEE STANDARD DETAILS
5	QUANTITIES, REFERENCE NOTES AN GENERAL NOTES
6	HYDRANT COVERAGE PLAN
7	GRADING PLAN
8-12	PLAN AND PROFILE
13-15	STORM & SANITARY SEWER PLAN & PROFILE
16-20	WATERMAIN PLAN & PROFILE
21-22	INTERSECTION DETAILS

AS-BUILT DRAWINGS

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

GENERAL LEGEND

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

THIS PROJECT HAS AN EXISTING #31612-31327 IOWA NPDES PERMIT #2. THE CONTRACTOR SHALL BE
RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND
FEDERAL REQUIREMENTS.

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



CIVIL DESIGN ADVANTAGE

3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111

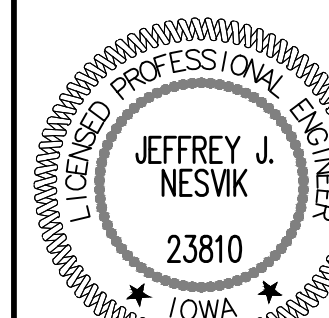
PH: (515) 369-4400 Fax: (515) 369-4410

PROJECT NO. 1801.008

IOWA
ONE CALL

1-800-292-8989

www.iowaonecall.com



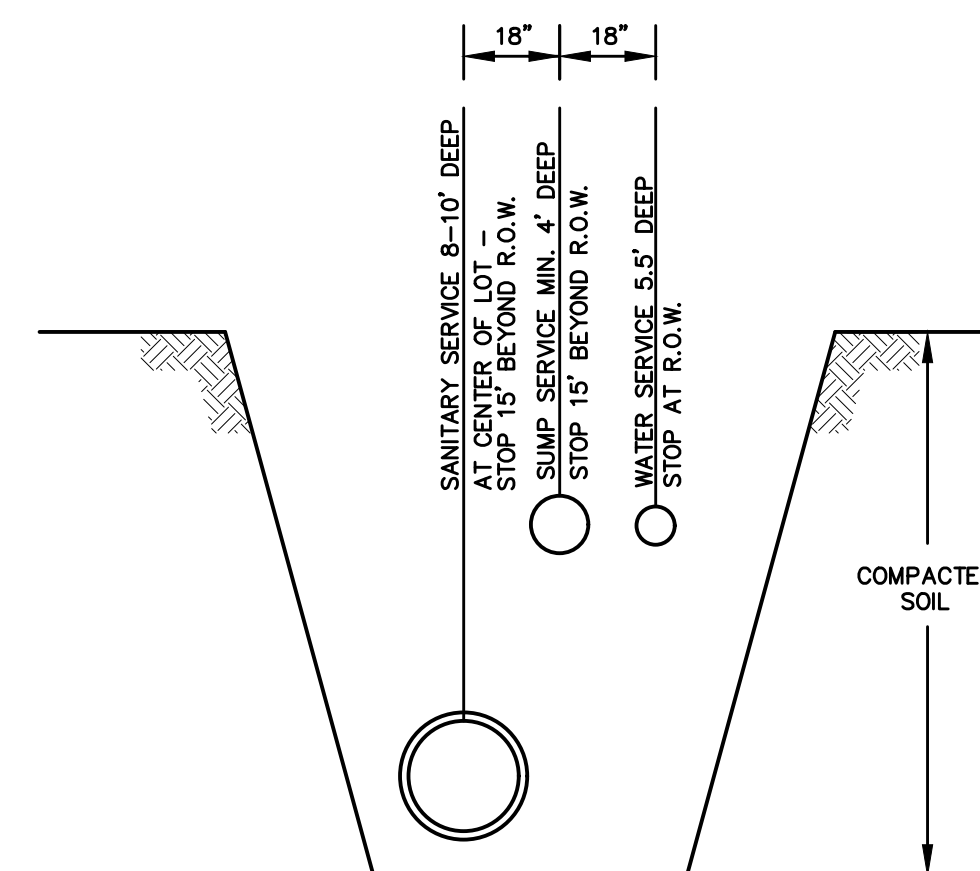
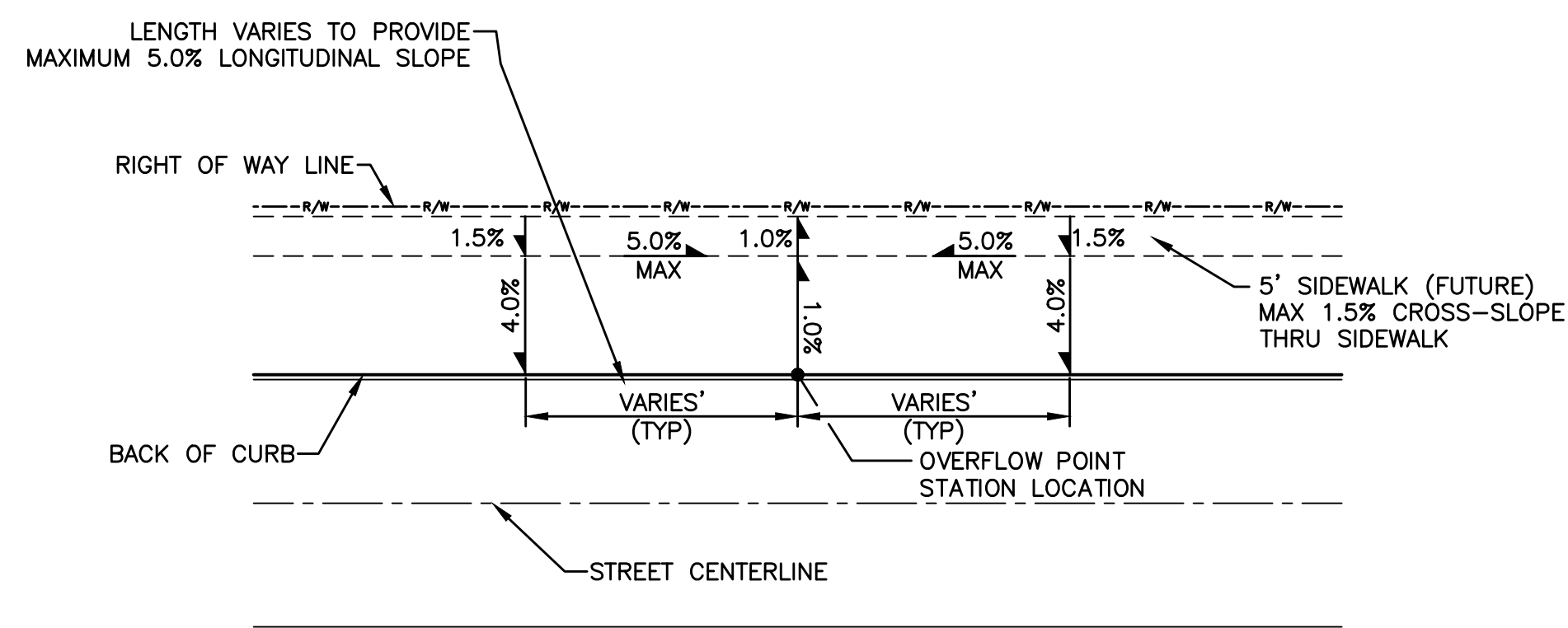
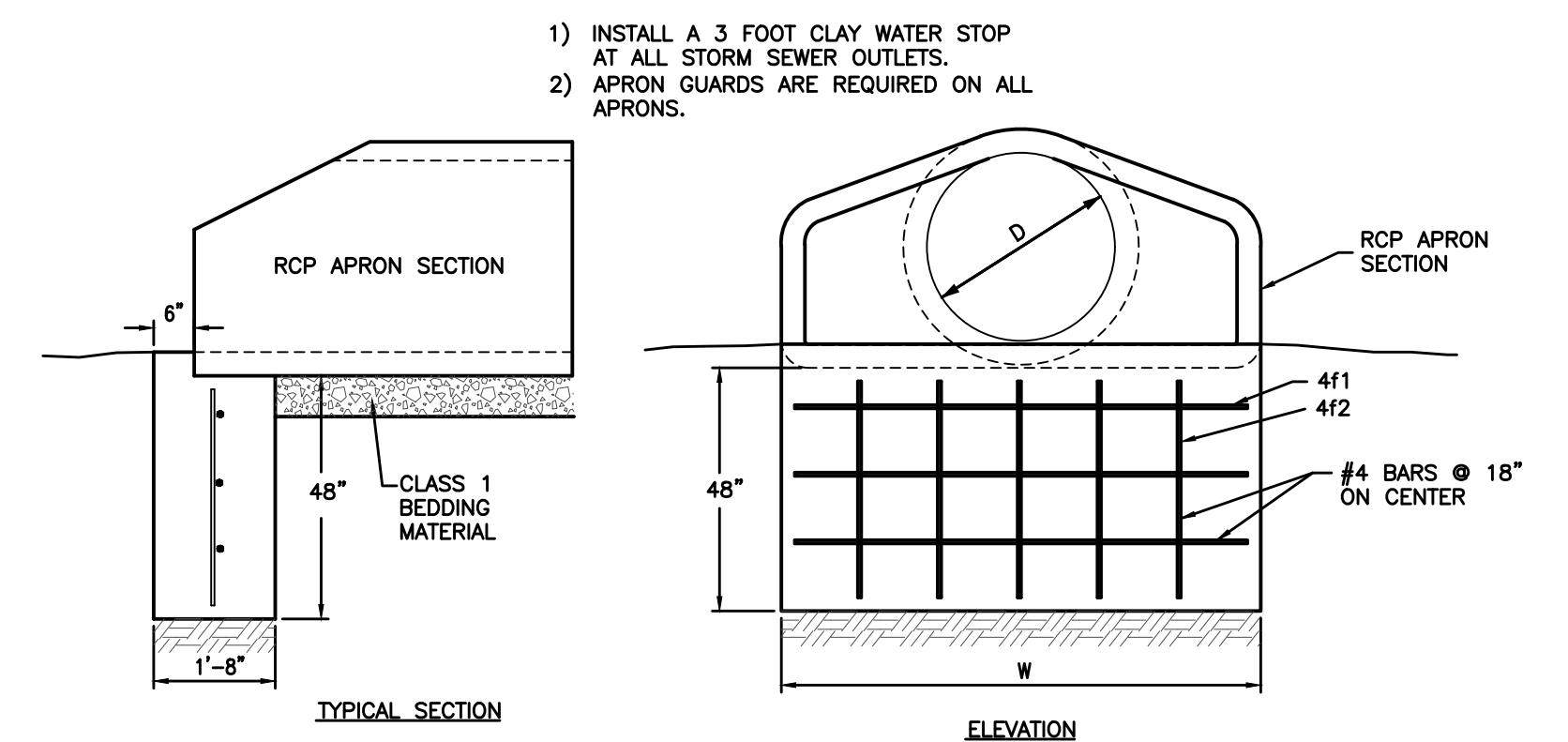
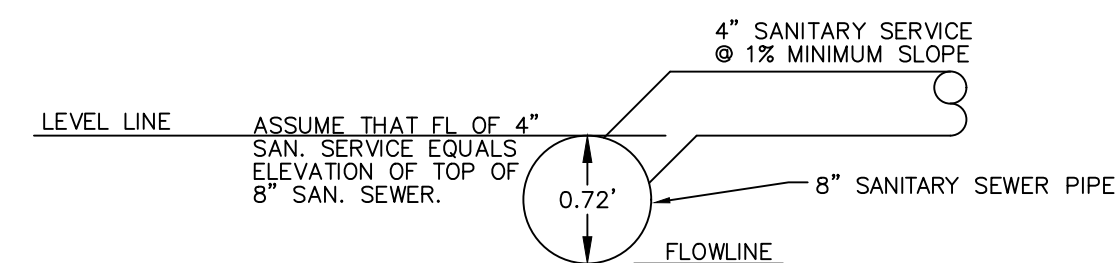
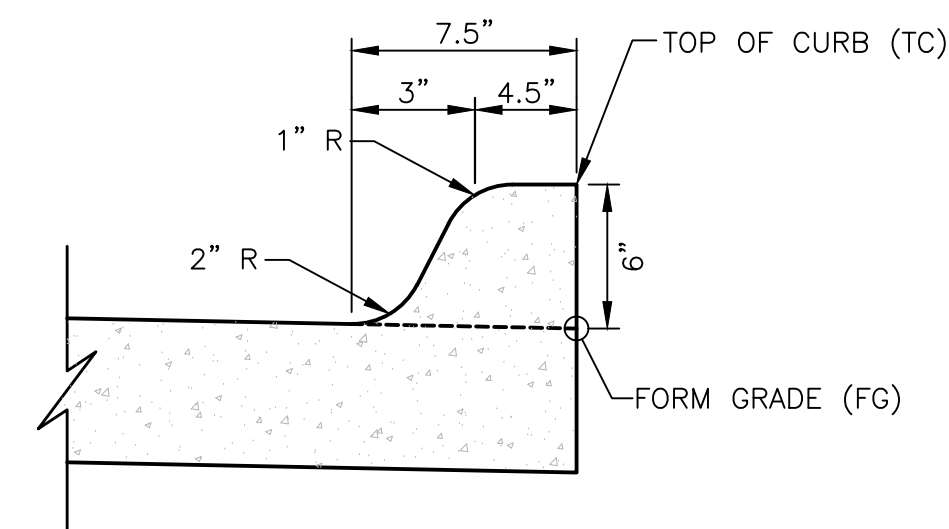
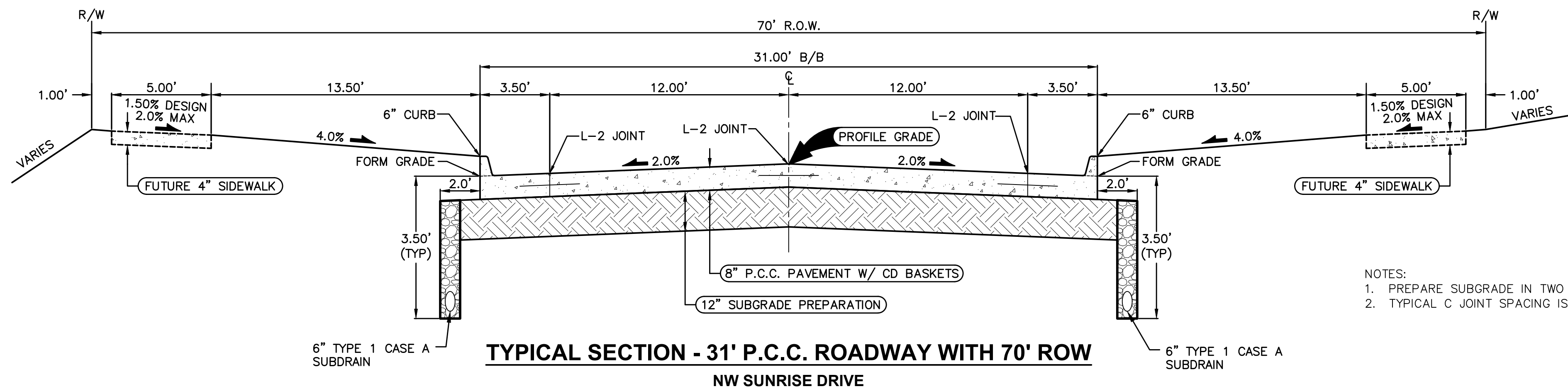
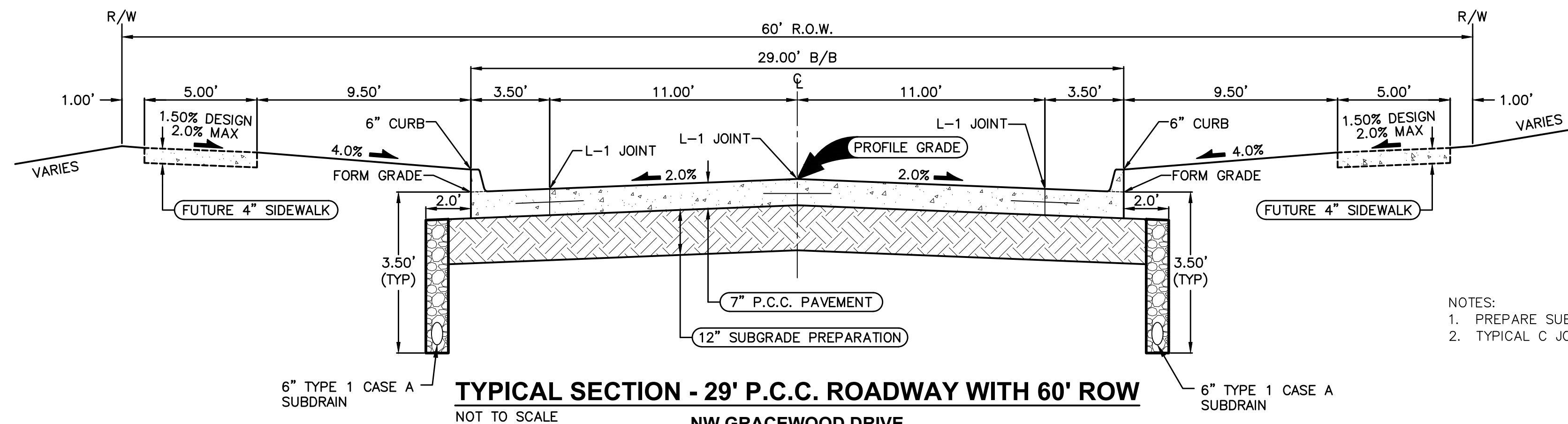
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS
PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER
UNDER THE LAWS OF THE STATE OF IOWA.

JEFFREY J. NESVIK, P.E.

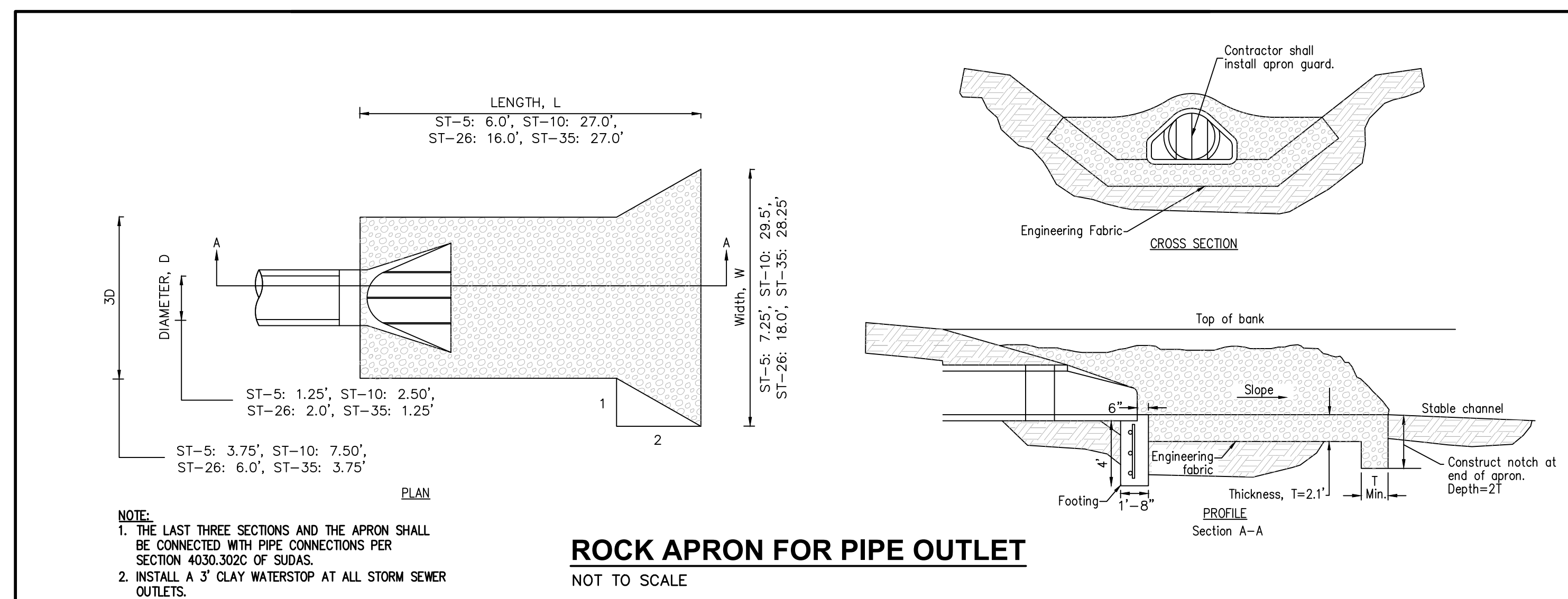
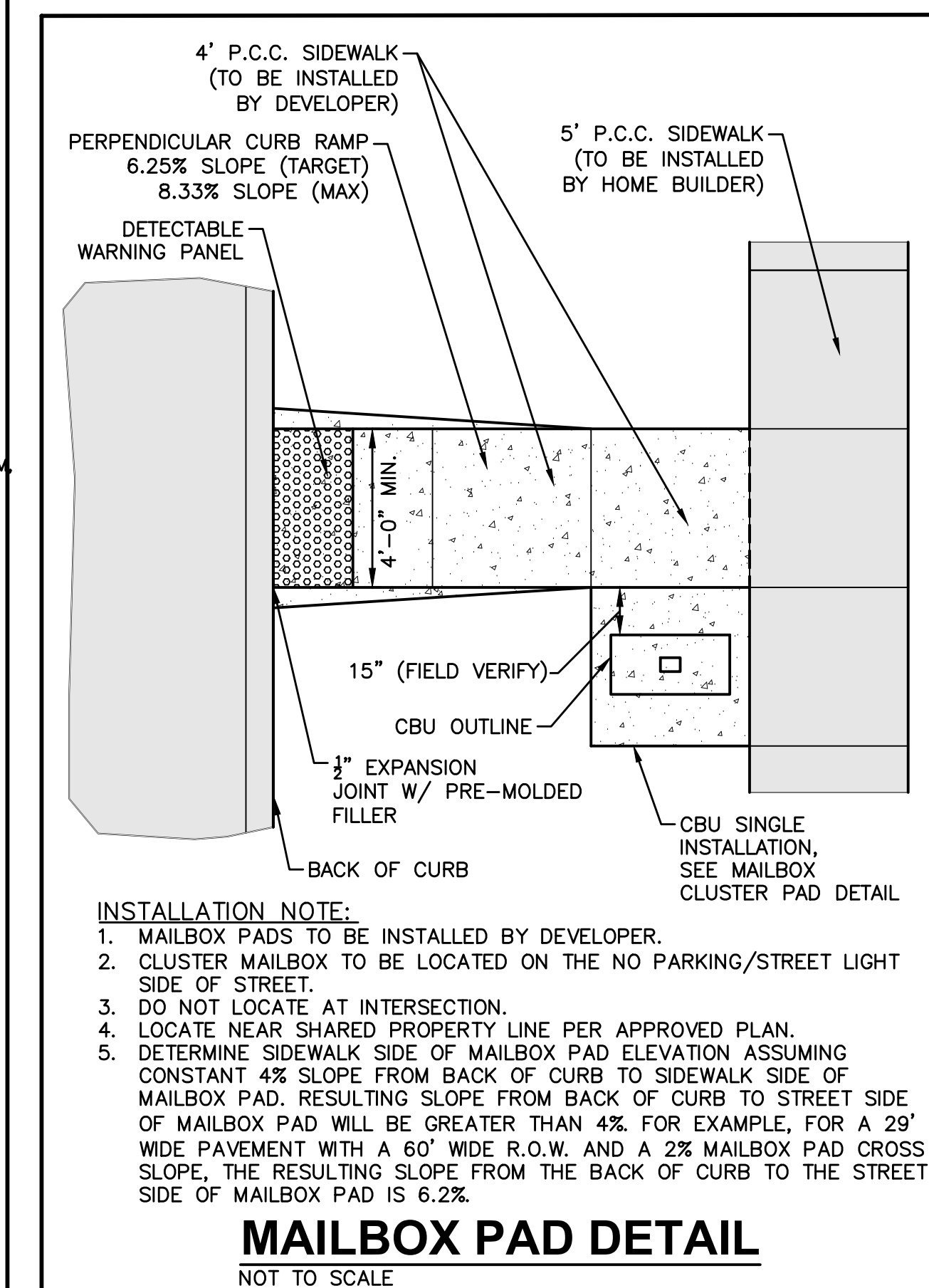
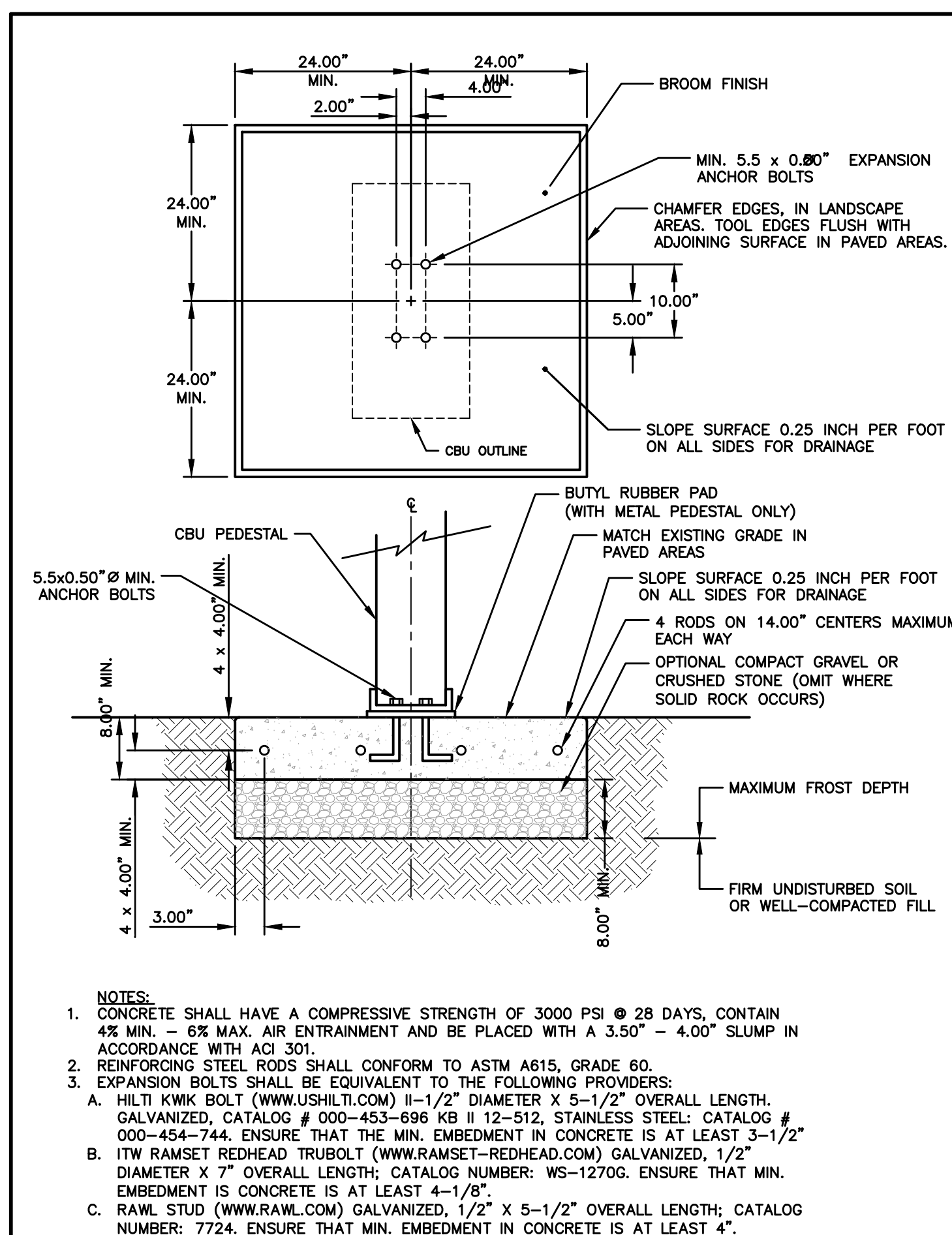
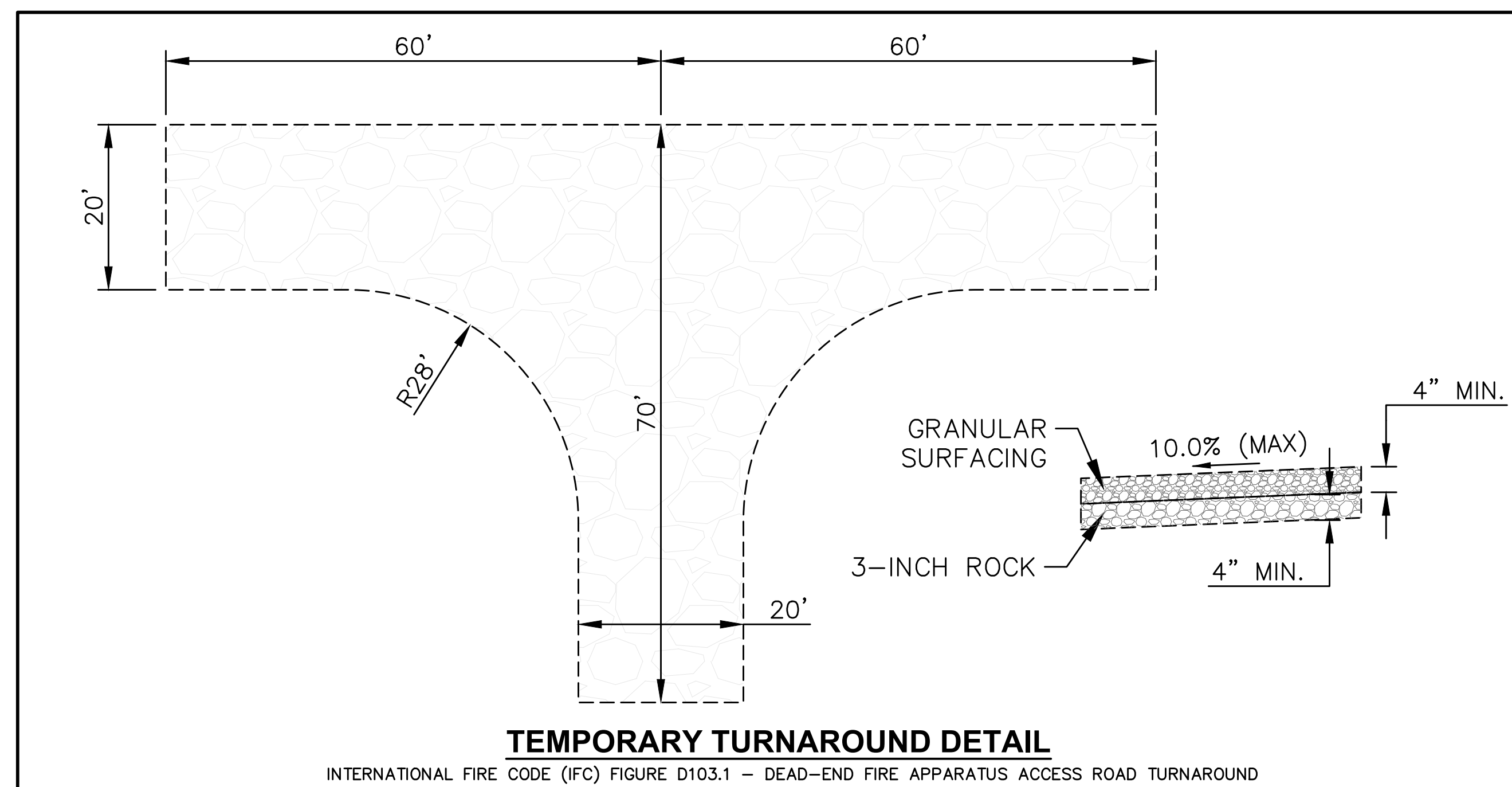
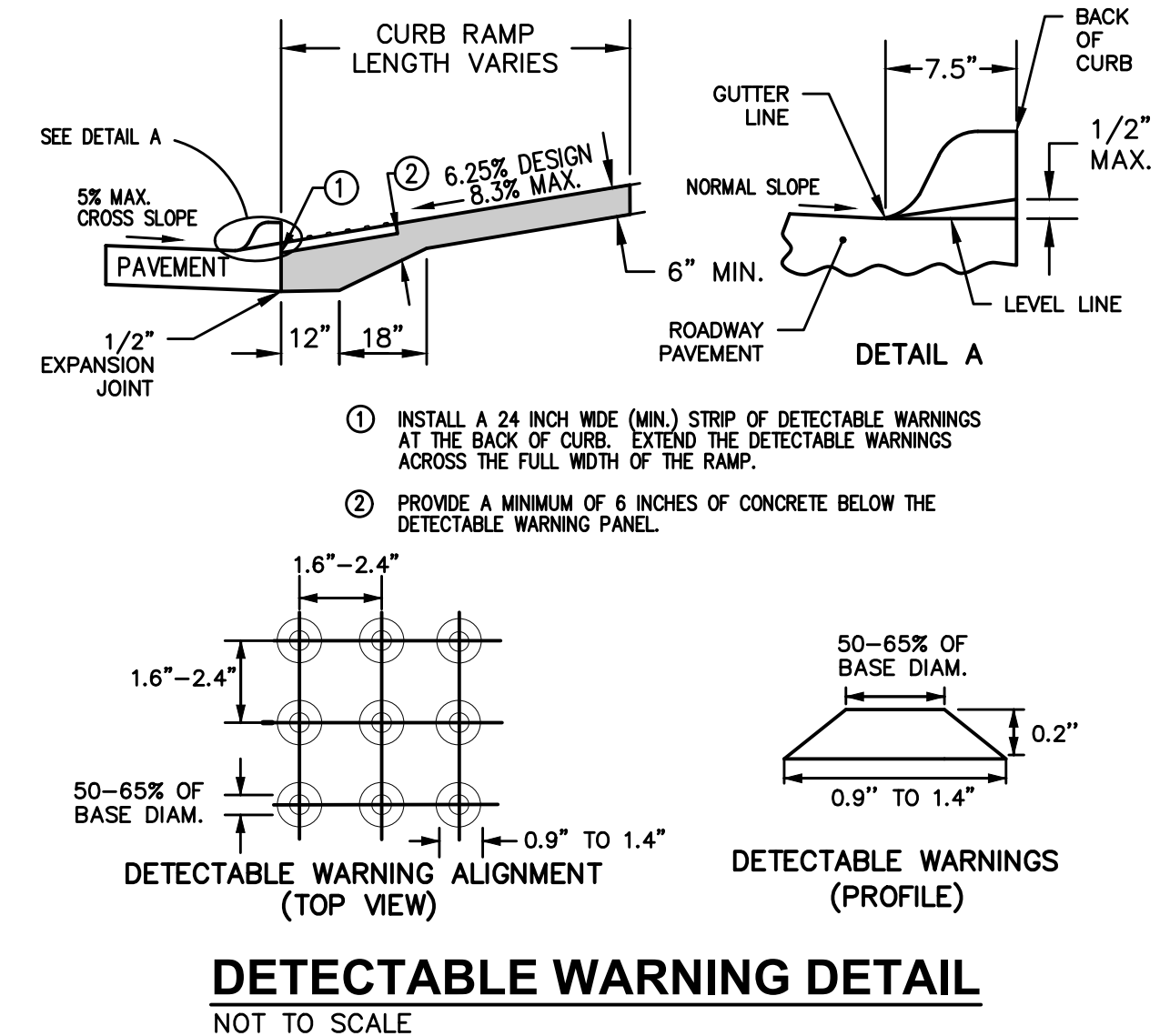
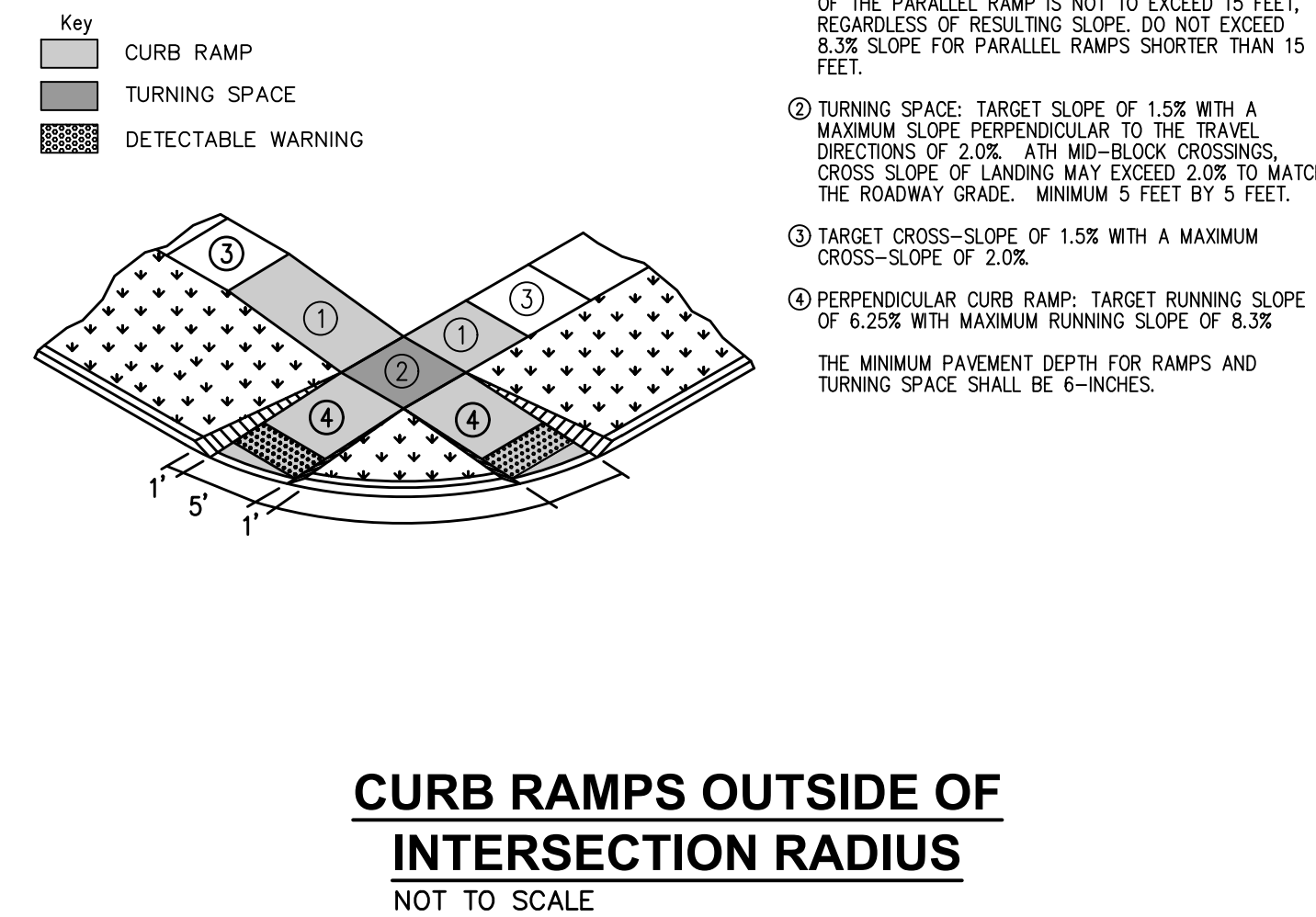
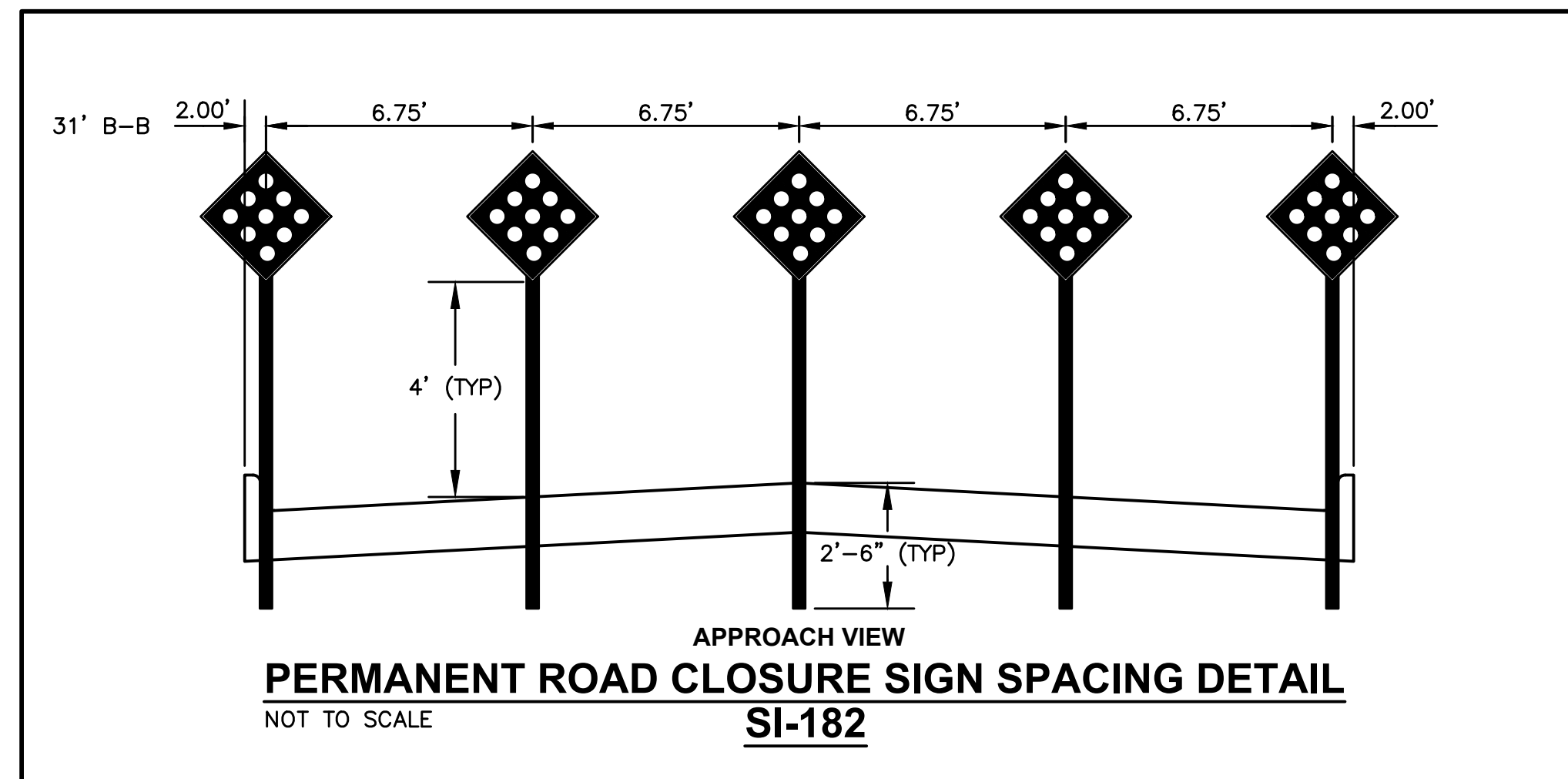
2/22/19
DATE

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2018
PAGES OR SHEETS COVERED BY THIS SEAL:

SHEETS 1-22



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



1. TERMINATE CURB STOP BOX ROD 1'-6"
BELOW FINISHED GRADE.

CITY OF WAUKEE
WATER SERVICE CONNECTION

- ## NOTES

CITY OF WAUKEE HYDRANT ASSEMBLY

- ## NOTES

CITY OF WAUKEE
SANITARY SEWER SERVICE RISER

CITY OF WAUKEE

UTILITY SERVICE LOCATIONS

NOTE

CORE DRILL ALL STORM SEWER AND PLACE
NON-SHRINK GROUT COLLAR AT CONNECTION.

- ## NOTES

CITY OF WAUKEE SUBDRAIN

NOT TO SCALE

NOTES

1. EXTEND CLASS B CONCRETE SUPPORT FOR MJ AND PE QUARTER BEND 8" ALL SIDES.
2. USE ANSI A21.50 DUCTILE IRON PIPE; MINIMUM THICKNESS CLASS 52; COAT WITH STANDARD COATING INSIDE AND OUT.
3. USE ANSI A21.50 MECHANICAL JOINT FITTINGS; 150 PSI PRESSURE RATING. COAT WITH STANDARD COATING INSIDE AND OUT.
4. GROUT PIPE IN BLOCKOUT WITH NON-SHRINK GROUT IF PRECAST MANHOLE SECTION IS USED.
5. DRIP CONDENSATE NOT PERMITTED ON 18" OR LARGER SEWER PIPE.

CITY OF WAUKEE
OUTSIDE DROP CONNECTION

NOT TO SCALE

FILE: H:\2018\180108\DWG\180108-COVER.DWG
DATE: 12/10/18
PLOT: 180108-PLAT 2
PLOTED BY: J. J. MANDERHART
COMMENTS: ENG.
REVISION: 1
PLOT DATE: 1/14/2019 1:12 PM

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	CLEARING AND GRUBBING	LS	1
2	TOPSOIL, ONSITE	LS	1
3	EXCAVATION, CLASS 10	LS	1
4	SUBGRADE PREPARATION	SY	7,084
5	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC, 8 IN. DIA.	LF	2,049
6	SANITARY SEWER DROP CONNECTION	EA	1
7	SANITARY SEWER SERVICE STUB, PVC, 4 IN. DIA.	EA	38
8	SUBDRAIN, PVC, 6 IN. DIA.	LF	1,850
9	FOOTING DRAIN COLLECTOR, PERFORATED PVC, 8 IN. DIA.	LF	886
10	STORM SEWER, TRENCHED, RCP, 15 IN. DIA.	LF	805
11	STORM SEWER, TRENCHED, RCP, 18 IN. DIA.	LF	319
12	STORM SEWER, TRENCHED, RCP, 24 IN. DIA.	LF	237
13	STORM SEWER, TRENCHED, RCP, 30 IN. DIA.	LF	345
14	STORM SEWER SERVICE STUB, PVC, 4 IN. DIA.	EA	38
15	STORM SEWER, 15 IN. RCP APRON W/ FOOTING & APRON GUARD	EA	2
16	STORM SEWER, 24 IN. RCP APRON W/ FOOTING & APRON GUARD	EA	1
17	STORM SEWER, 30 IN. RCP APRON W/ FOOTING & APRON GUARD	EA	1
18	WATER MAIN, TRENCHED, PVC, 8 IN. DIA.	LF	1,865
19	WATER SERVICE STUB, COPPER, 1 IN. DIA.	EA	38
20	VALVE, 8 IN. DIA.	EA	5
21	TAPPING VALVE ASSEMBLY, 8 IN. DIA. x 8 IN. DIA.	EA	2
22	FIRE HYDRANT ASSEMBLY	EA	9
23	TEMPORARY BLOW-OFF HYDRANT, REMOVAL	EA	2
24	SANITARY MANHOLE, TYPE SW-301, 48 IN. DIA	EA	12
25	STORM MANHOLE, TYPE SW-401, 48 IN. DIA	EA	1
26	STORM MANHOLE, TYPE SW-401, 60 IN. DIA	EA	2
27	INTAKE, TYPE SW-501	EA	2
28	INTAKE, TYPE SW-503	EA	2
29	INTAKE, TYPE SW-505	EA	3
30	INTAKE, TYPE SW-506	EA	4
31	INTAKE, TYPE SW-512, 30 IN. DIA	EA	1
32	FOOTING DRAIN CLEANOUT, TYPE A-1, 8 IN. DIA.	EA	3
33	PAVEMENT, P.C.C., 8 IN. W/ CD BASKETS	SY	2,618
34	PAVEMENT, P.C.C., 7 IN.	SY	3,651
35	SIDEWALK, P.C.C., 6 IN.	SY	276
36	SIDEWALK, P.C.C., 4 IN.	SY	96
37	DETECTABLE WARNING	SF	48
38	PERMANENT ROAD CLOSURE, URBAN, REMOVAL	EA	5
39	PERMANENT ROAD CLOSURE, URBAN, RELOCATE	EA	5
40	CONVENTIONAL SEEDING, SEEDING, FERTILIZING AND MULCHING	AC	1.47
41	TRAFFIC CONTROL	LS	1
42	EROSION CONTROL	LS	1
43	ROCK OUTLET PROTECTON, CLASS 'E' RIP-RAP	TON	130
44	MAILBOX PAD	EA	3
45	TEMPORARY TURNAROUND, 3 IN. DIA. ROCK, 4 IN. THICK	SY	267
46	TEMPORARY TURNAROUND, GRANULAR SURFACING, 4 IN. THICK	SY	267

GENERAL NOTES

1.

ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND TO THE 2018 EDITION OF SUDAS STANDARD SPECIFICATIONS. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IF ANY DISCREPANCIES.
2.

WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.
3.

THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
4.

THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING HIS EQUIPMENT ON THE PAVEMENT OR SIDEWALK. PAVEMENT REPLACEMENT SHALL COMPLY WITH THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
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. CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWING SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE. 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.
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.

ESTIMATE REFERENCE INFORMATION	
Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.	
ITEM NO.	DESCRIPTION
	THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2018 EDITION OF SUDAS STANDARD SPECIFICATIONS 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 TOPSOIL PER SECTION 2010 OF SUDAS STANDARD SPECIFICATIONS OR PROVIDE THE CITY WITH A TOPSOIL PRESERVATION PLAN. 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.
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 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 TEE INSTALLATION. ALL SANITARY SEWER PIPE THAT CROSSES OVER TOP OF WATERMAIN SHALL BE OF WATERMAIN GRADE MATERIAL.
10-13	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 JOINT RATED AT 13 PSI OR GREATER. O-RING GASKET JOINTS SHALL BE INSTALLED ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATER TO THE SEWER IS AT LEAST 10 FEET.
7,14,19	REFER TO PLAN AND PROFILE SHEETS FOR LOCATION AND DEPTH. STORM SEWER SERVICES TYING INTO EXISTING RCP PIPE ARE TO BE CORE DRILLED.
8	REFER TO FIG. 4040.231 CASE "A" FOR CONSTRUCTION DETAILS. REFER TO PLANS FOR LOCATIONS.
9	REFER TO FIG 4040.231 CASE "D" FOR CONSTRUCTION DETAILS. REFER TO SHEETS 11 AND 12 FOR LOCATIONS. INSTALL TRACER WIRE ON ALL SUMP COLLECTORS THAT ARE NOT STRAIGHT.
15-17	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.
18-22	REFER TO FIG. 3010.101 AND FIG. 3010.104 FOR TRENCH BEDDING AND BACKFILL ZONE DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG. 5010.101 FOR THRUST BLOCK DETAILS. REFER TO FIG. 5010.102 FOR TRACER SYSTEM DETAILS. ALL FITTINGS, POLYETHYLENE WRAP, THRUST BLOCKS, AND TRACER WIRE SYSTEM SHALL BE CONSIDERED INCIDENTAL.
22	REFER TO FIG. 5020.201 - FIRE HYDRANT ASSEMBLY FOR FIRE HYDRANT CONSTRUCTION DETAILS. INCLUDES ANCHORING TEE, ANCHORING ELBOW, GATE VALVE, VALVE BOX, ANCHORING PIPE, ANCHORING COUPLING, ELBOWS, STORZ FITTINGS, POLYETHYLENE WRAP, THRUST BLOCK AND TRACER WIRE SYSTEM AND FIRE HYDRANT.
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). ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.

ESTIMATE REFERENCE INFORMATION	
Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.	
ITEM NO.	DESCRIPTION
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.
27-30	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. 6010.602 - CASTINGS FOR STORM SEWER MANHOLES FOR TYPE E CASTING DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR INTAKE CASTINGS IS 6". THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12".
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	REFER TO FIG. 6010.512 - CIRCULAR AREA INTAKE (SW-512) FOR CONSTRUCTION DETAILS.
33-34	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C OR CD JOINT SPACING IS 15 FEET.
35-37	REFER TO FIG. 7030.204 - GENERAL SIDEWALK AND ACCESSIBLE RAMP DETAILS AND FIG. 7030.208 - CURB RAMPS WITHIN INTERSECTION RADIUS FOR CLASS B OR C SIDEWALK FOR CONSTRUCTION DETAILS. DETECTABLE WARNING PANELS TO BE ARMOR TILE, ADA SOLUTIONS OR APPROVED EQUAL, BRICK RED IN COLOR. ACCESSIBLE CURB RAMPS INCLUDING TURNING SPACES SHALL BE 6" THICK P.C.C.
38-39	REFER TO SHEET 3 FOR PERMANENT ROAD CLOSURE SIGN SPACING DETAILS AND PLAN AND PROFILE SHEETS FOR LOCATIONS.
40	THE SITE SEEDING SHALL CONFORM TO THE SPECIFICATION FOR TYPE (1) PERMANENT LAWN MIXTURE AND TYPE (4) URBAN TEMPORARY EROSION CONTROL SEED MIXTURE. SEEDING QUANTITIES -TYPE 1 PERMANENT LAWN MIXTURE = 1.41 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 0.06 AC
41	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. PORTABLE MESSAGE BOARDS ARE REQUIRED TO BE DEPLOYED A MINIMUM OF 7 DAYS PRIOR TO ANY LANE/ROAD CLOSURES.
42	REFER TO THE INDI RUN PLAT 1 CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS.
43	INSTALL ENGINEERING FABRIC UNDER ALL RIP RAP. ENGINEERING FABRIC SHALL BE CONSIDERED INCIDENTAL.

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. THE IS 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)
19.

ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
20.

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.
21.

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.
22.

REMOVE DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND BEFORE RAIN EVENTS.
23.

DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE R.O.W.
24.

ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
25.

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

26.

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.
27.

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
28.

THE CONTRACTOR SHALL SUBMIT A LIST OF CONSTRUCTION MATERIALS TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
29.

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

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

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

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

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

ALL FIRE HYDRANTS INCLUDING ANY RELOCATED HYDRANTS SHALL HAVE 4" STORZ FITTINGS.
35.

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

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

ANY FIELD FENCE LOCATED WITHIN THE PROPERTY IS TO BE REMOVED.
38.

VERIFY THAT ALL EXISTING AND PROPOSED MANHOLES WITHIN THE PLAT BOUNDARY HAVE A MINIMUM OF ONE 4-INCH ADJUSTING RING TO ALLOW FOR FUTURE ADJUSTMENT.
39.

ANY CHANGES TO THE PLAN SET ARE TO BE APPROVED IN WRITING BY THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT PRIOR TO EXECUTION OF THE CHANGES. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES MADE TO THE PLAN SET DURING CONSTRUCTION THAT HAVE NOT RECEIVED WRITTEN APPROVAL FROM THE CITY OF WAUKEE DEVELOPMENT SERVICES DEPARTMENT.
40.

CONSTRUCTION OPERATIONS SHALL PROTECT STORM SEWERS AND DRAINAGE WAYS FROM ALLOWING SLURRY FROM CONCRETE OPERATIONS TO DISCHARGE OFFSITE.

INDI RUN PLAT 2

QUANTITIES, REFERENCE NOTES

AND GENERAL NOTES

5

22

1801.008

DATE

12/10/18

AS-BUILT SUBMITTED

6/20/18

FIFTH SUBMITTAL

5/25/18

FOURTH SUBMITTAL

3/9/18

THIRD SUBMITTAL

4/20/18

SECOND SUBMITTAL

3/21/18

3405 S.E. CROSSROADS DRIVE, SUITE G

GRIMES, IOWA 50111

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

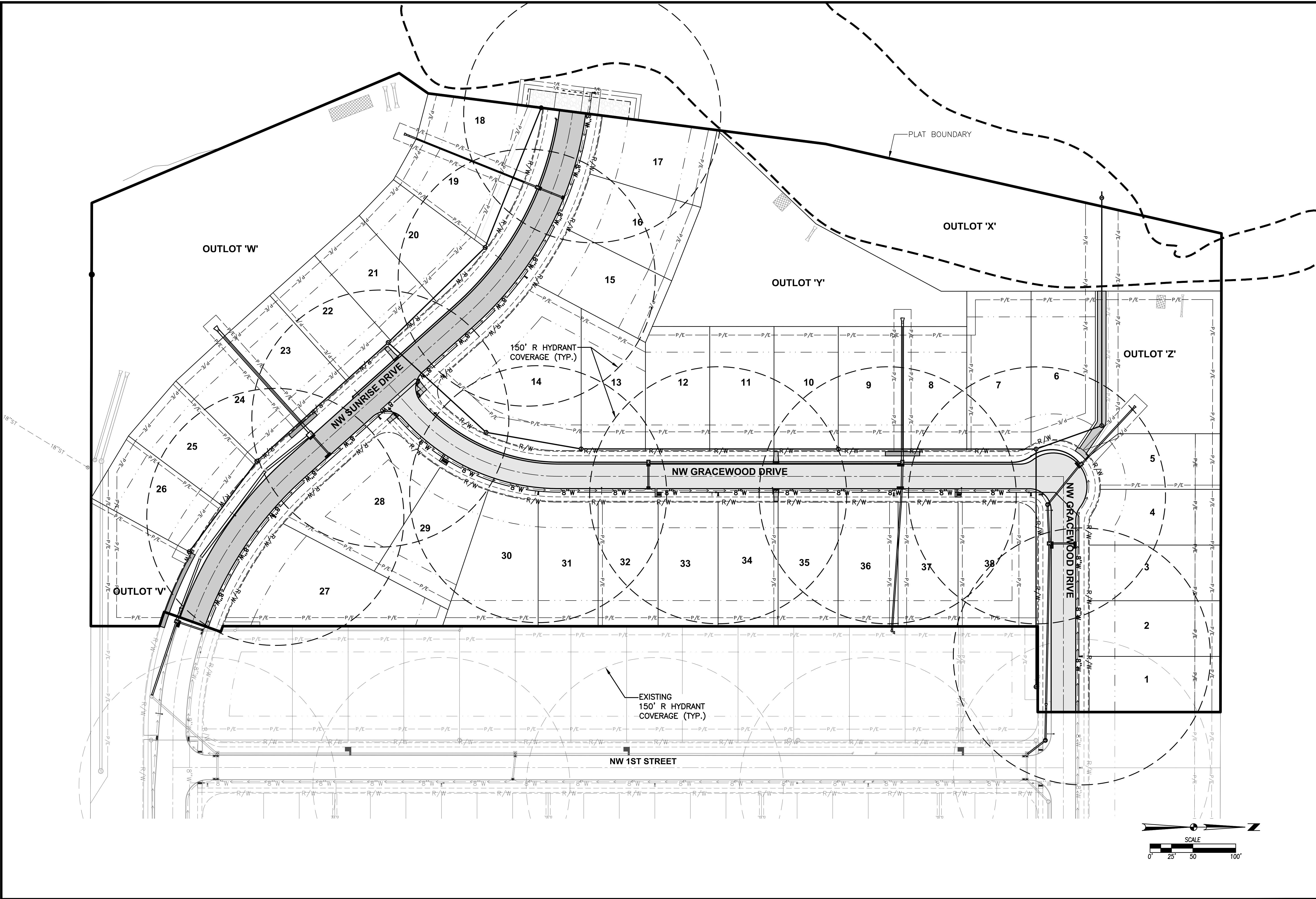
ENGINEER: JJN

TECH: DAM

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

FILE: H:\2018\1801008\INDI RUN PLAT 2 - COVER.DWG
DATE: 12/10/18
PLOT: 12/14/2018 1:12 PM
DRAWN BY: J. WANDERLAGE
CHECKED BY: J. WANDERLAGE
COMMENTS: ENG.



INDI RUN PLAT 2
HYDRANT COVERAGE PLAN

6
22
1801.008

WAUKEE, IOWA

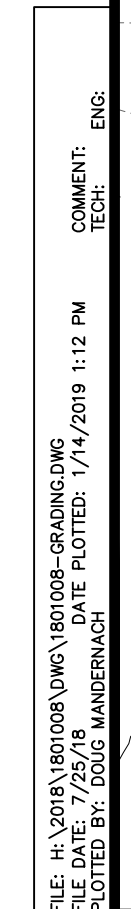
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

ENGINEER: JJN
TECH: DAM

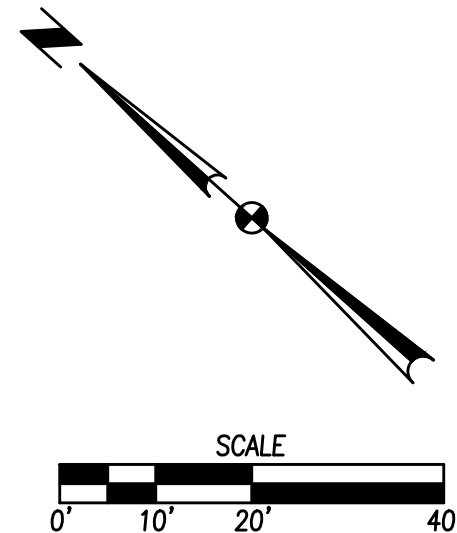
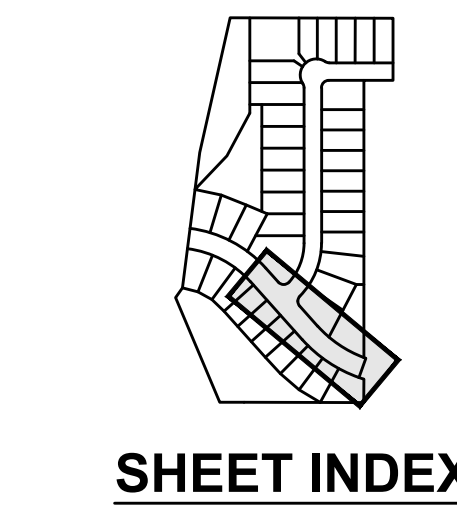
REVISIONS	DATE
AS-BUILT SUBMITTED	12/10/18
CU LOCATIONS	6/20/18
FIFTH SUBMITTAL	5/25/18
FOURTH SUBMITTAL	5/9/18
THIRD SUBMITTAL	4/20/18
SECOND SUBMITTAL	3/21/18



A north arrow pointing to the right, labeled 'N'. Below it is a graphic scale bar with markings at 0', 25', 50', and 100'.

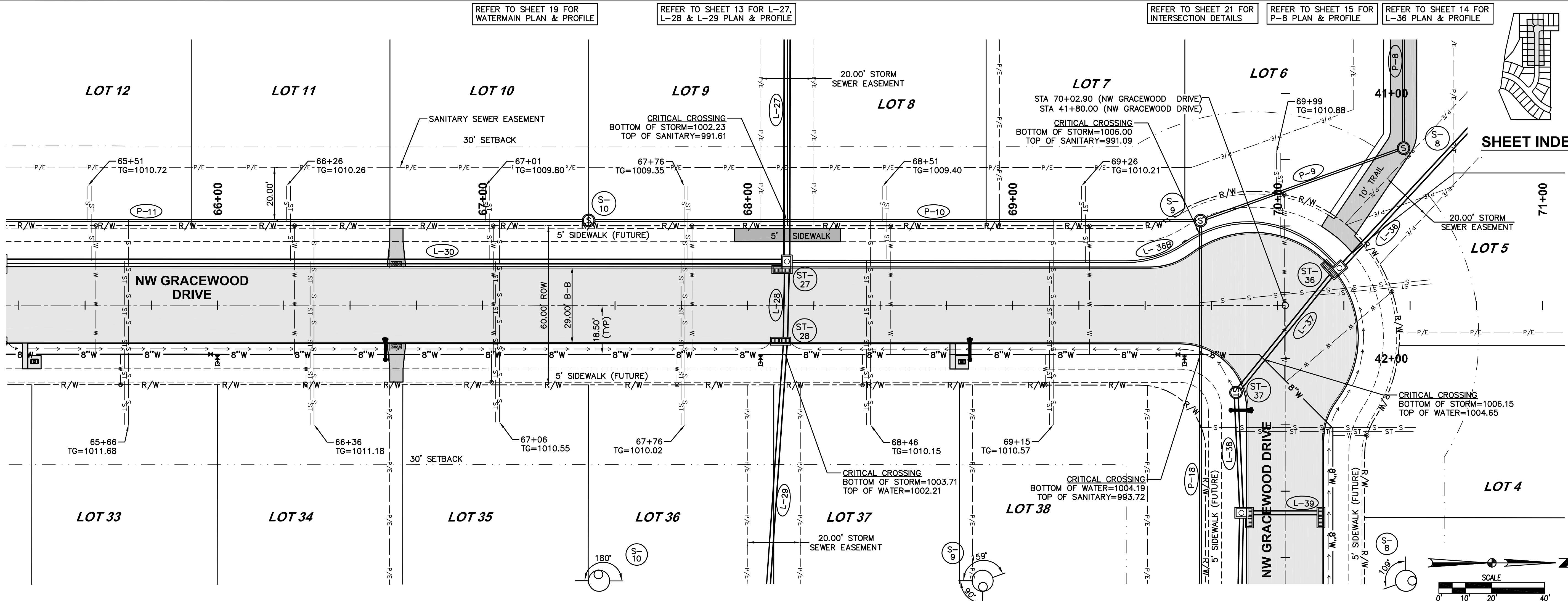
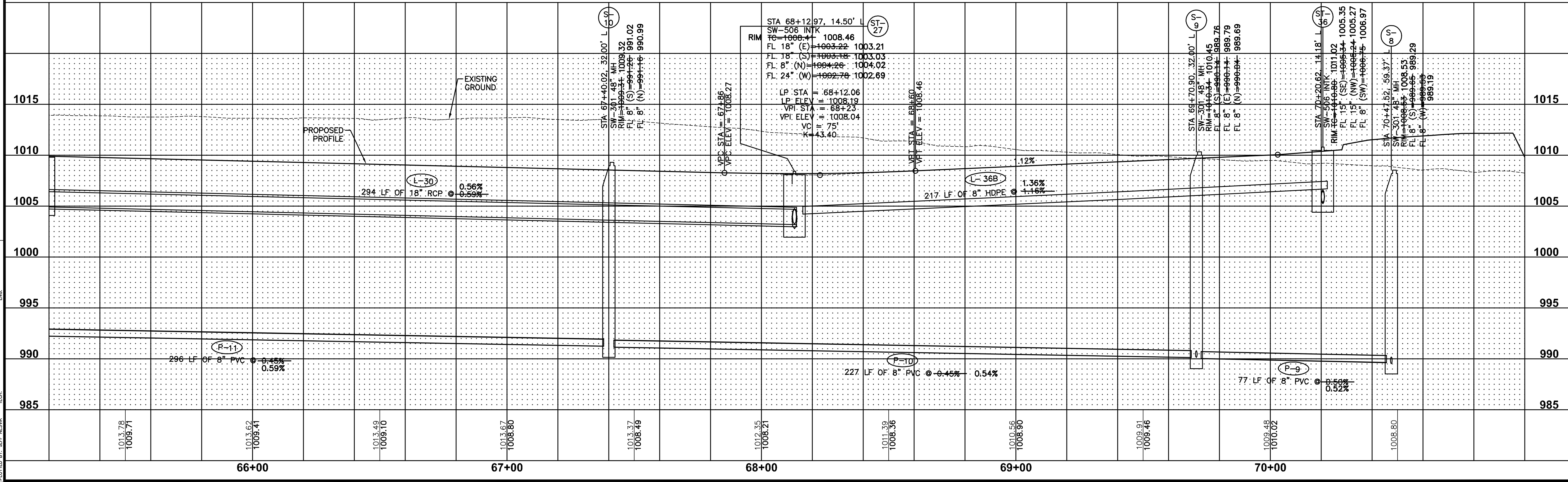
WAUKEE, IOWA

7/22
1801.008
GA

[illegible]

FILE: H:\2018\INDI RUN\INDI RUN-AS-BUILT.DWG
DATE: 12/10/18
PLOTTER: HP DesignJet T1200
PLOTTER: HP DesignJet T1200
PLOTTER: HP DesignJet T1200

COMMENTS:
END



SHEET INDEX

DATE	REVISIONS	TECH: DAM
12/10/18	AS-BUILT SUBMITTAL	ENGINEER: JJJ
6/20/18	CBU LOCATIONS	3405 S.E. CROSSROADS DRIVE, SUITE G
5/25/18	FIFTH SUBMITTAL	GRIMES, IOWA 50111
5/9/18	FOURTH SUBMITTAL	PHONE: (515) 369-4400 FAX: (515) 369-4410
4/20/18	THIRD SUBMITTAL	
3/21/18	SECOND SUBMITTAL	

CIVIL DESIGN ADVANTAGE

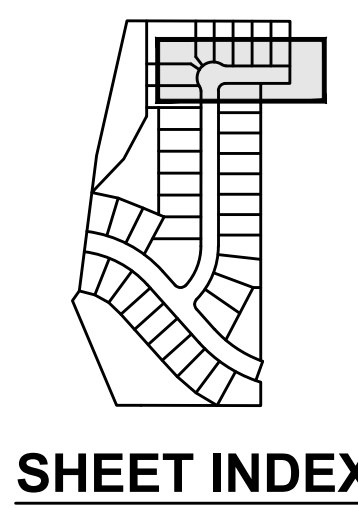
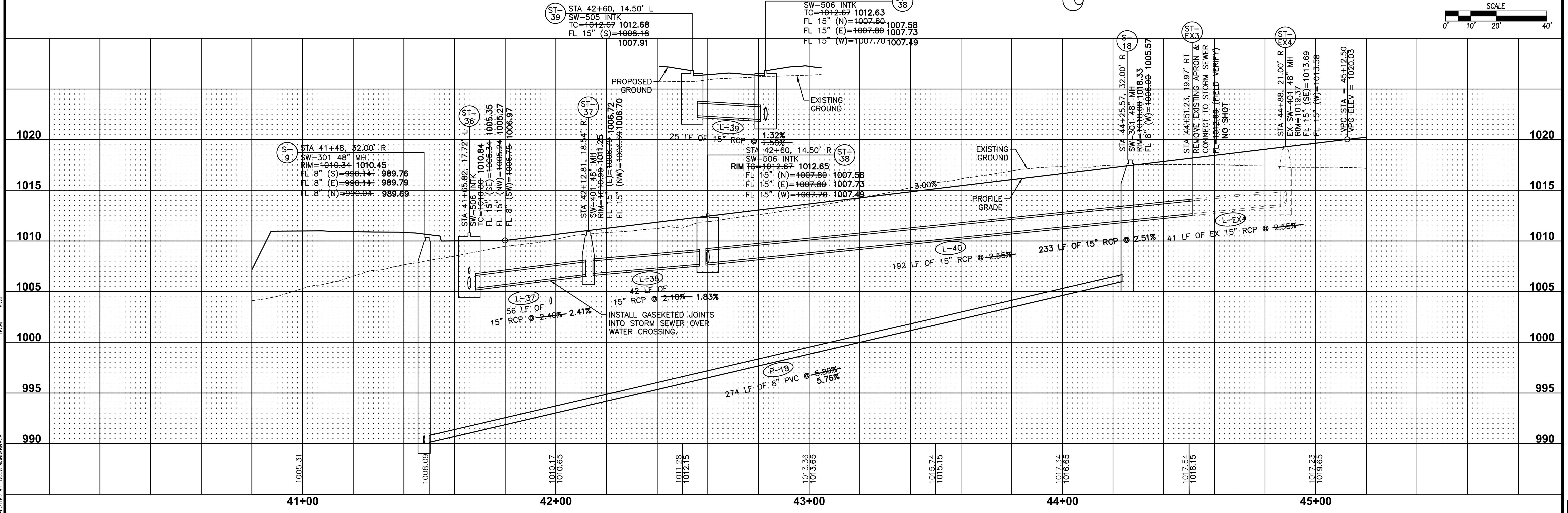
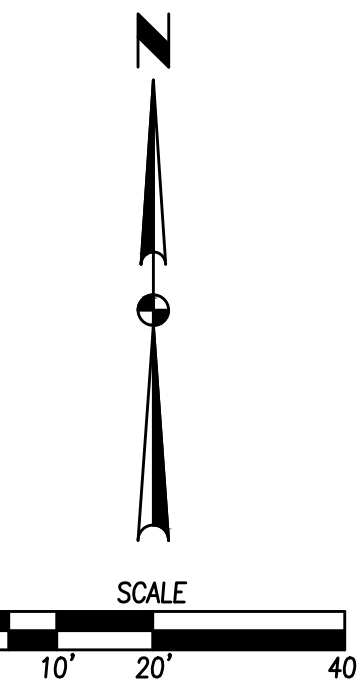
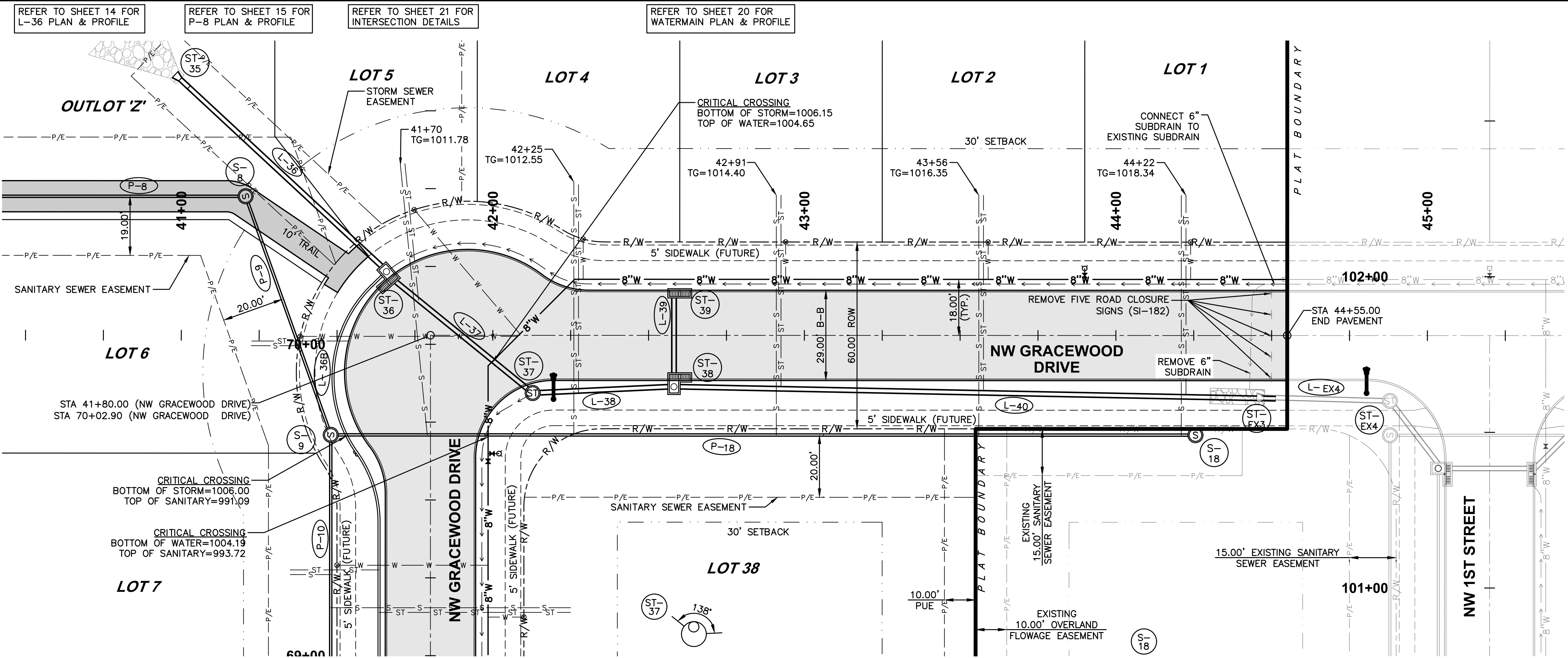
INDI RUN PLAT 2

PLAN AND PROFILE

11/22

1801.008

FILE: H:\2018\INDI RUN\INDI RUN-AS-BUILDING\INDI RUN-AS-BUILDING-PLAT 2.dwg
PLOT DATE: 1/14/2019 12:59 PM
COMMENTS: ENG.
REVISIONS: 1/14/2019



INDI RUN PLAT 2
PLAN AND PROFILE

12/22
1801.008

DATE
12/10/18
12/20/18
6/25/18
9/9/18
4/20/18
3/21/18

REVISIONS
AS-BUILT SUBMITTED
CBL LOCATIONS
FIFTH SUBMITTAL
FOURTH SUBMITTAL
THIRD SUBMITTAL
SECOND SUBMITTAL

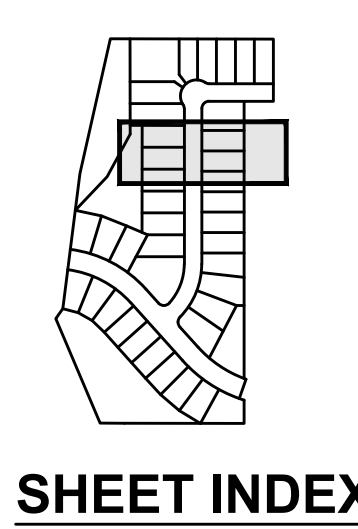
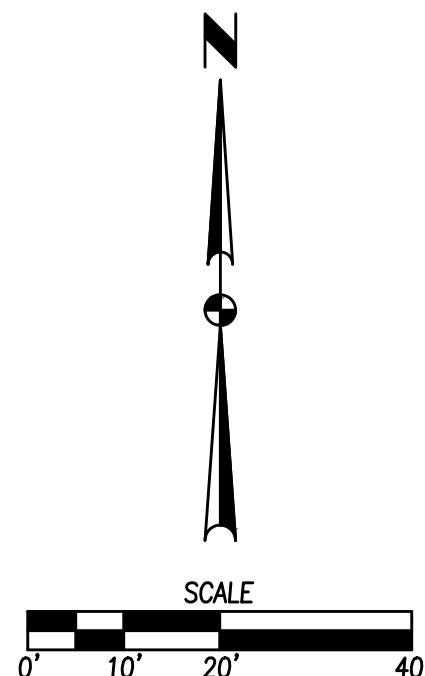
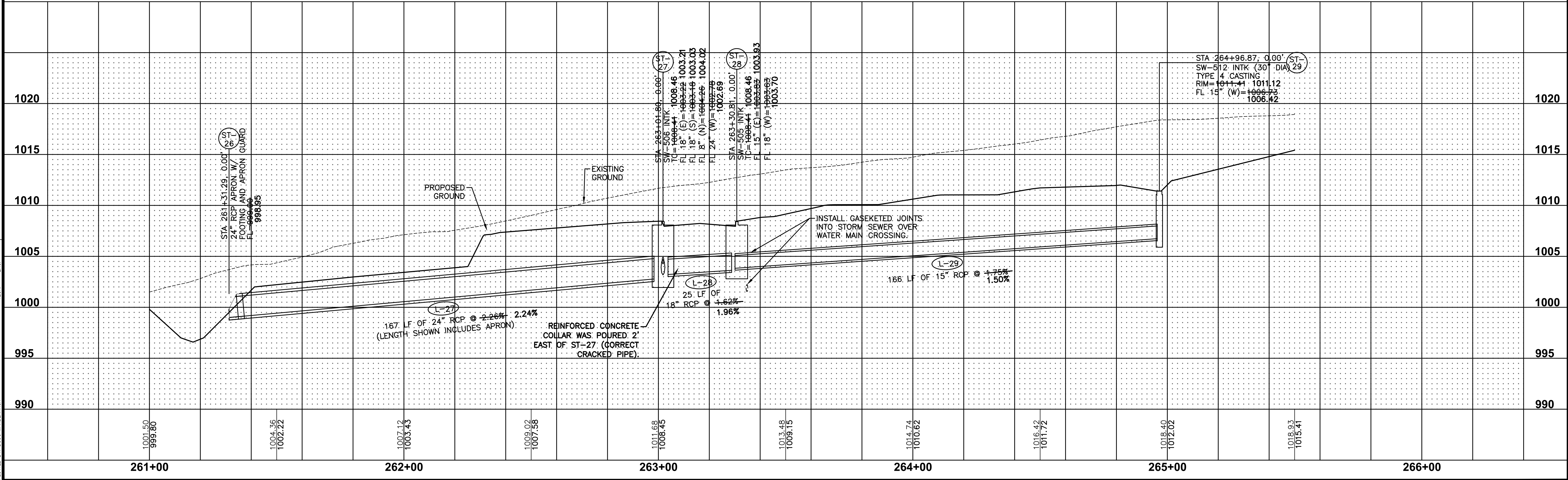
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

CIVIL DESIGN ADVANTAGE
ENGINEER: JJN
TECH: DAM

WAUKEE, IOWA

EA
CIVIL DESIGN ADVANTAGE

FILE: H:\2018\INDI RUN\INDI RUN-INDI RUN-AS-BUILT.DWG
PLOT: 1/14/2019 12:59 PM
COMMENT: ENG.
REVISIONS:



INDI RUN PLAT 2
STORM SEWER PLAN AND PROFILE

13/22
1801.008

EA
CIVIL DESIGN ADVANTAGE

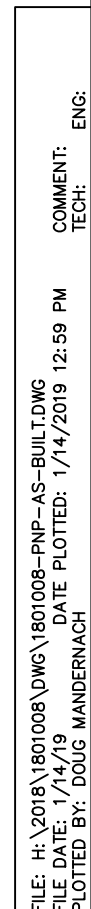
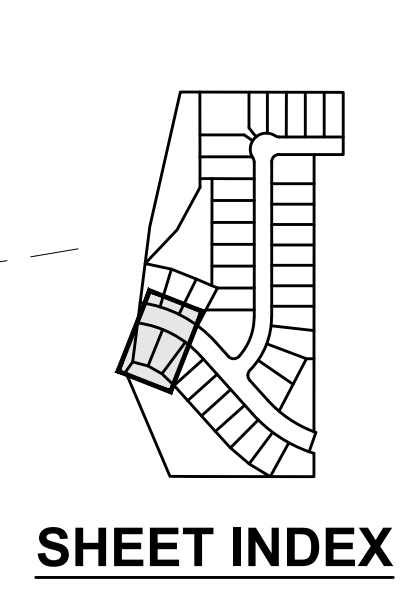
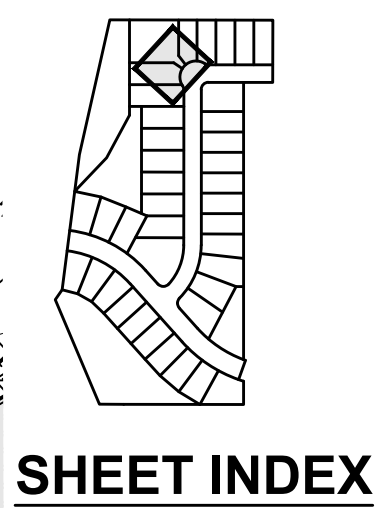
WAUKEE, IOWA

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

ENGINEER: JJN
TECH: DAM

REVISIONS

DATE	REVISIONS
12/10/18	AS-BUILT SUBMITTED
6/25/18	CRUI LOCATIONS
5/25/18	FIFTH SUBMITTAL
3/9/18	FOURTH SUBMITTAL
4/20/18	THIRD SUBMITTAL
3/21/18	SECOND SUBMITTAL





14
22
1801.008

INDI RUN PLAT 2

STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

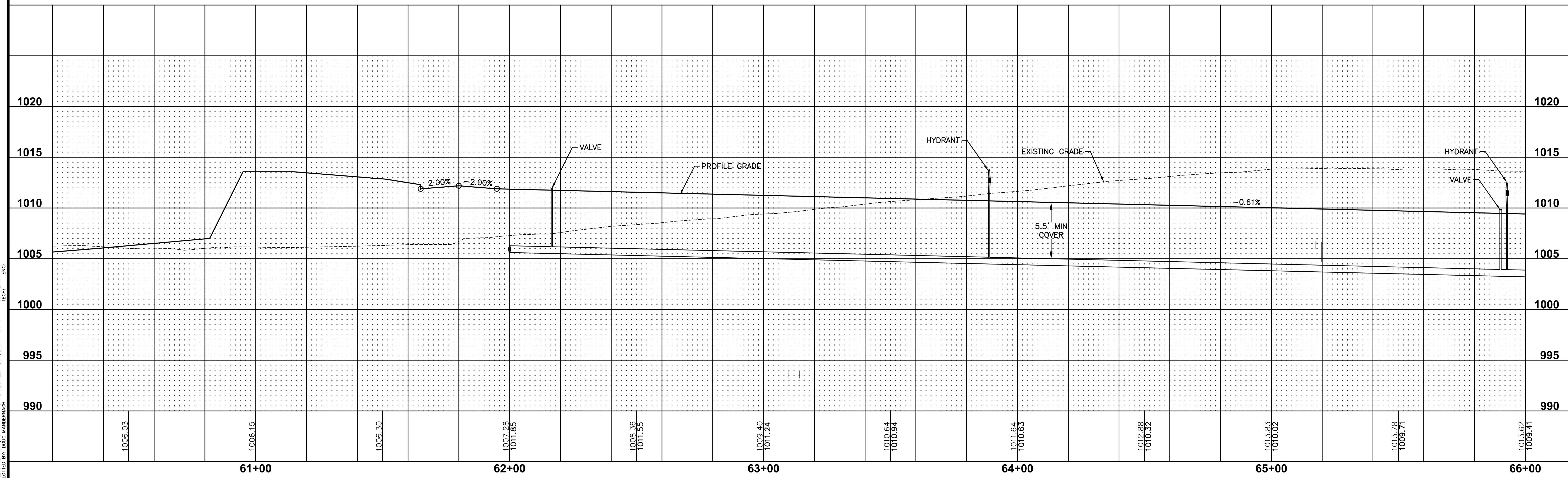
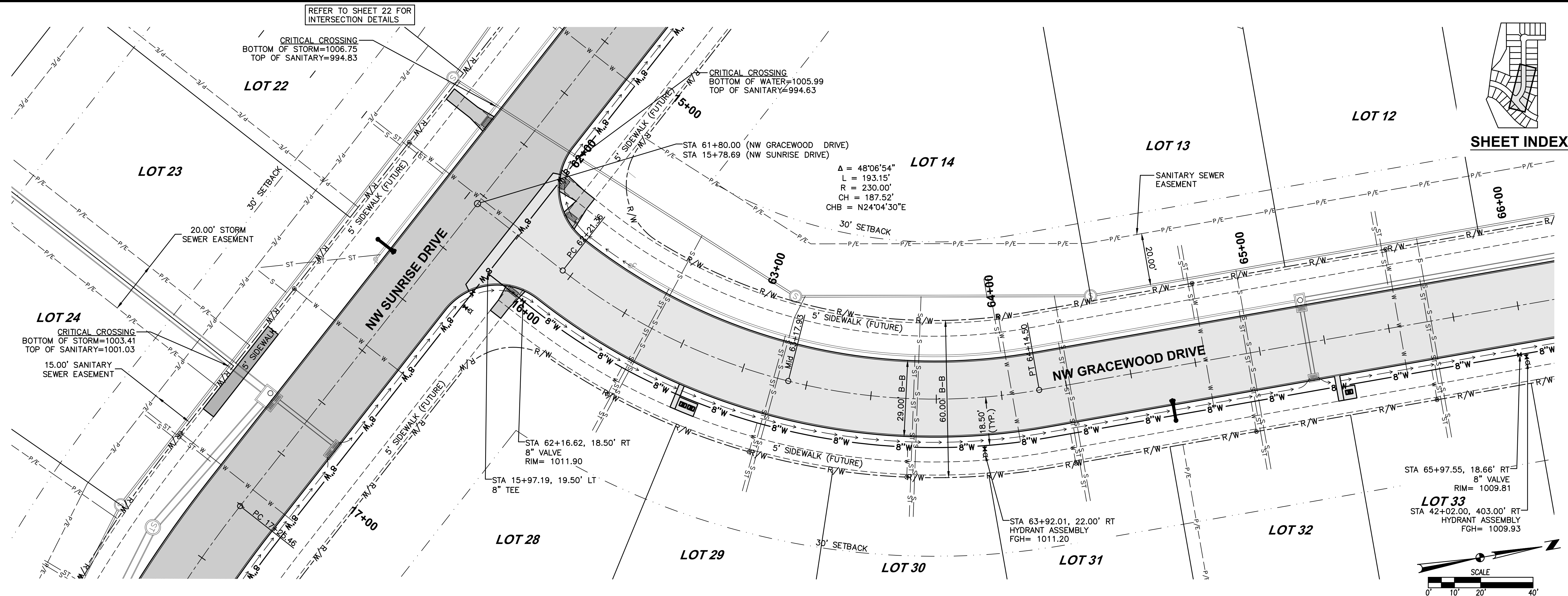


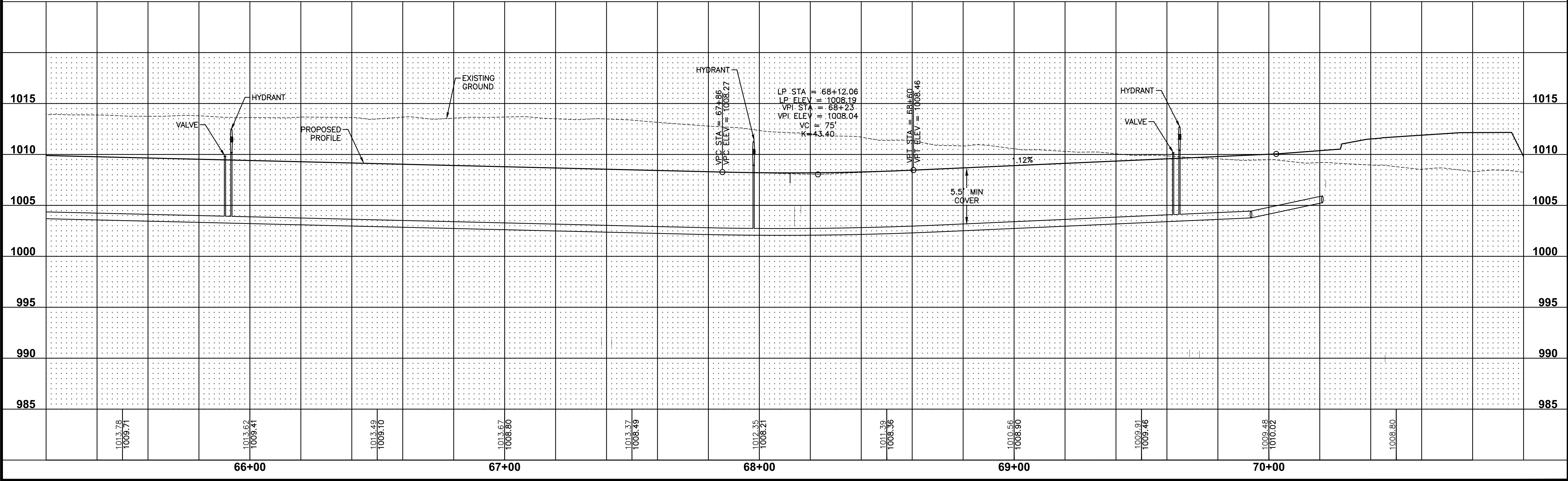
CIVIL DESIGN ADVANTAGE

3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50711
PHONE: (515) 369-4400 FAX: (515) 369-4410

ENGINEER: JUN TECH: DAM

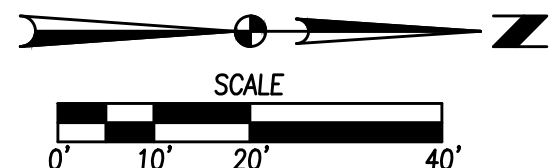
REVISIONS		DATE
AS-BUILT	SUBMITTED	12/10/18
CB LOCATIONS		6/20/18
FIFTH SUBMITTAL		5/25/18
FOURTH SUBMITTAL		5/9/18
THIRD SUBMITTAL		4/20/18
SECOND SUBMITTAL		3/21/18





REFER TO SHEET 21 FOR
INTERSECTION DETAILS

SHEET INDEX



INDI RUN PLAT 2
WATERMAIN PLAN AND PROFILE

19
22
1801.008

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

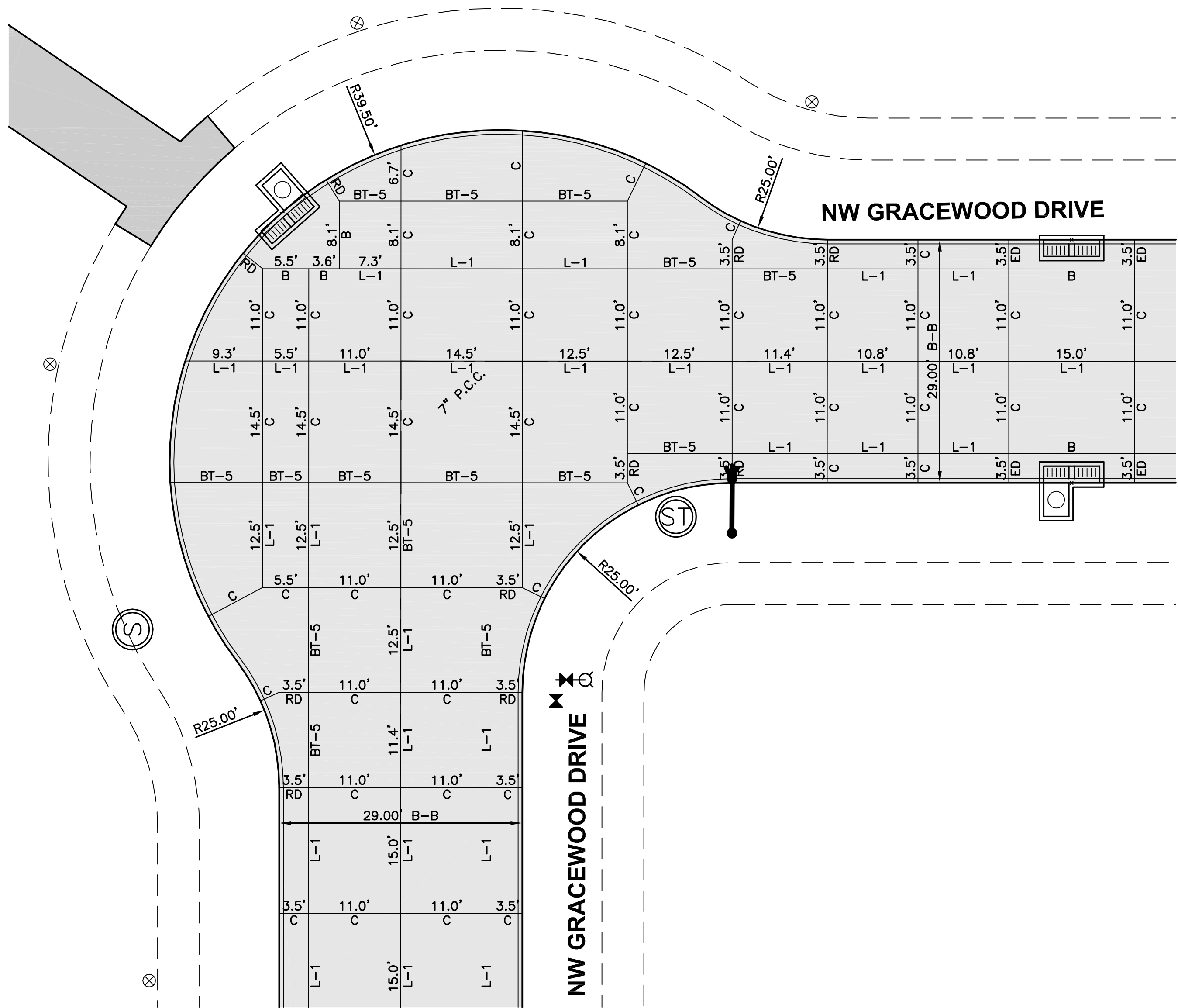
ENGINEER: JJN
TECH: DAM

DATE
12/10/18
6/25/18
5/25/18
5/9/18
4/20/18
3/21/18

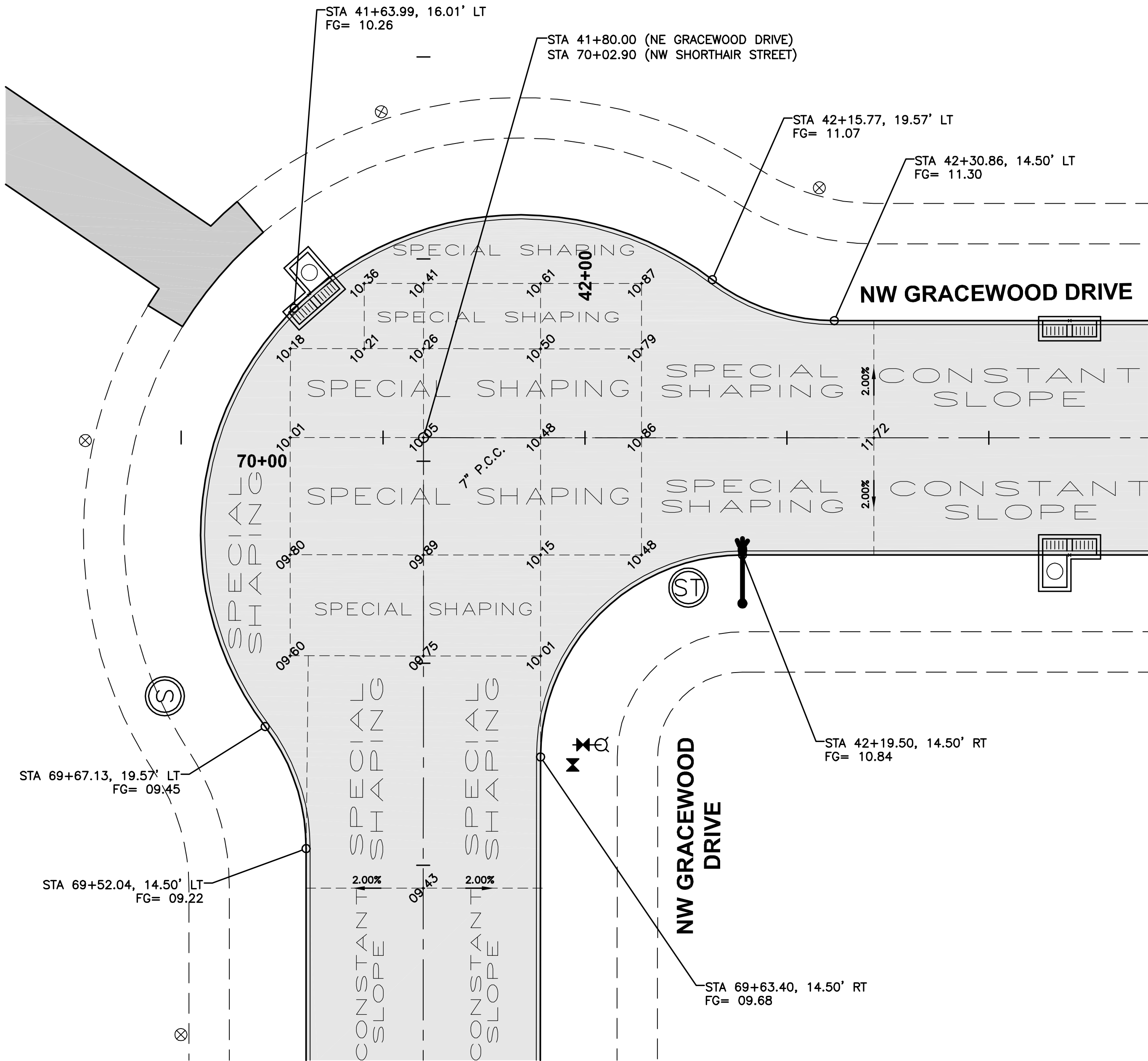
REVISIONS
AS-BUILT SUBMITTED
CUBI LOCATIONS
FIFTH SUBMITTAL
FOURTH SUBMITTAL
THIRD SUBMITTAL
SECOND SUBMITTAL

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA



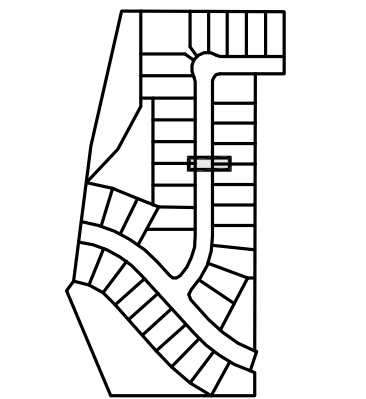
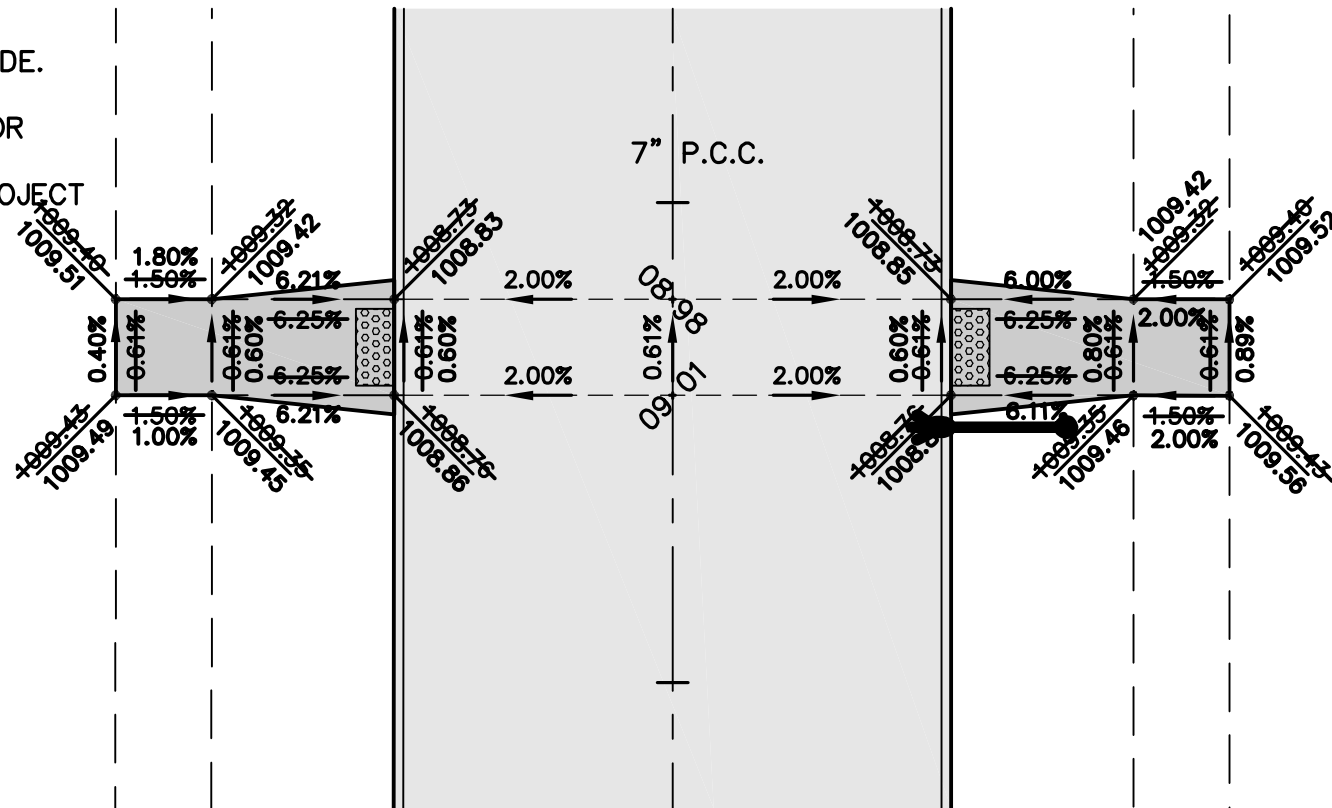
JOINTING LAYOUT



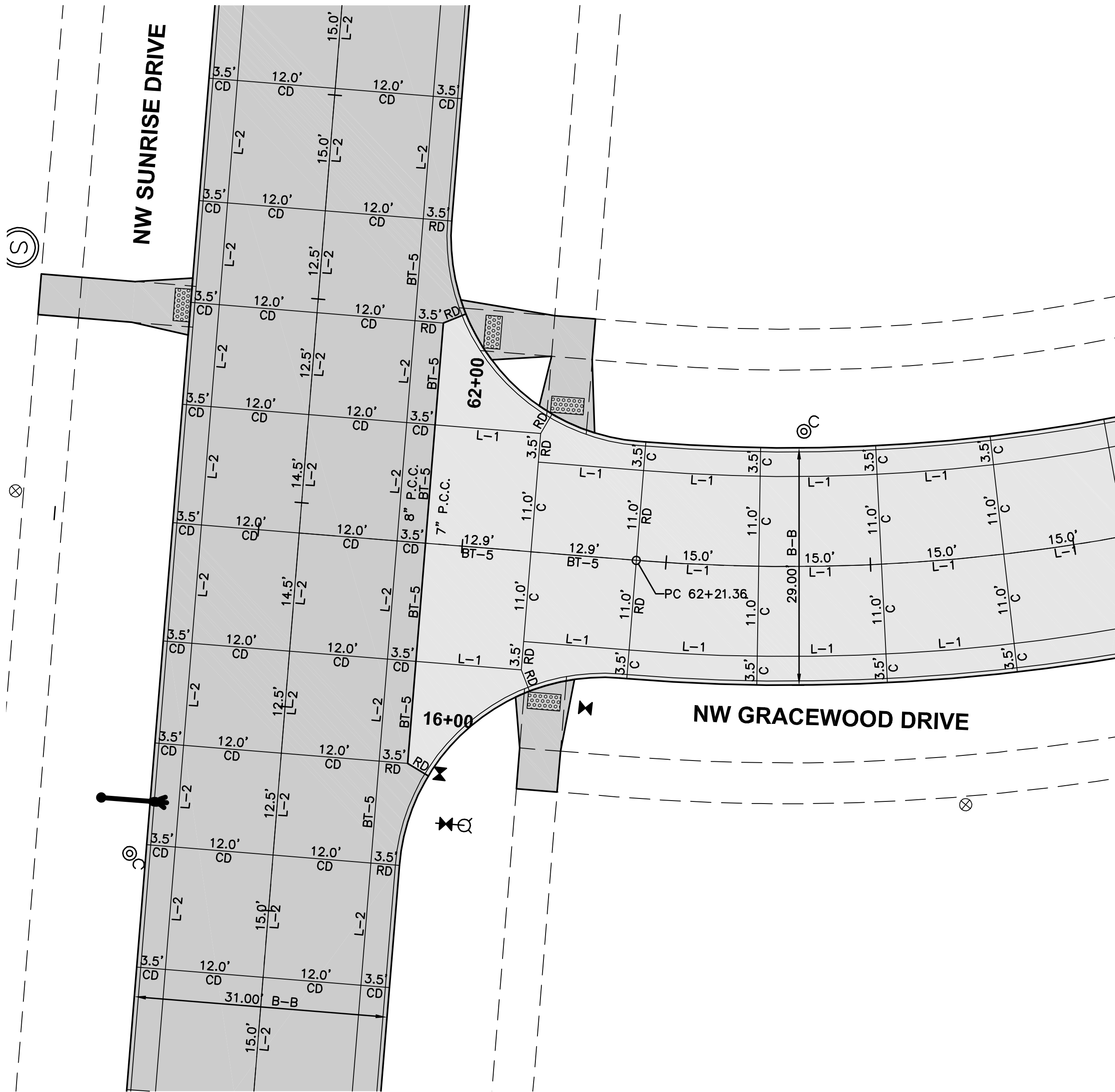
GEOMETRICS AND STAKING LAYOUT

NOTES:

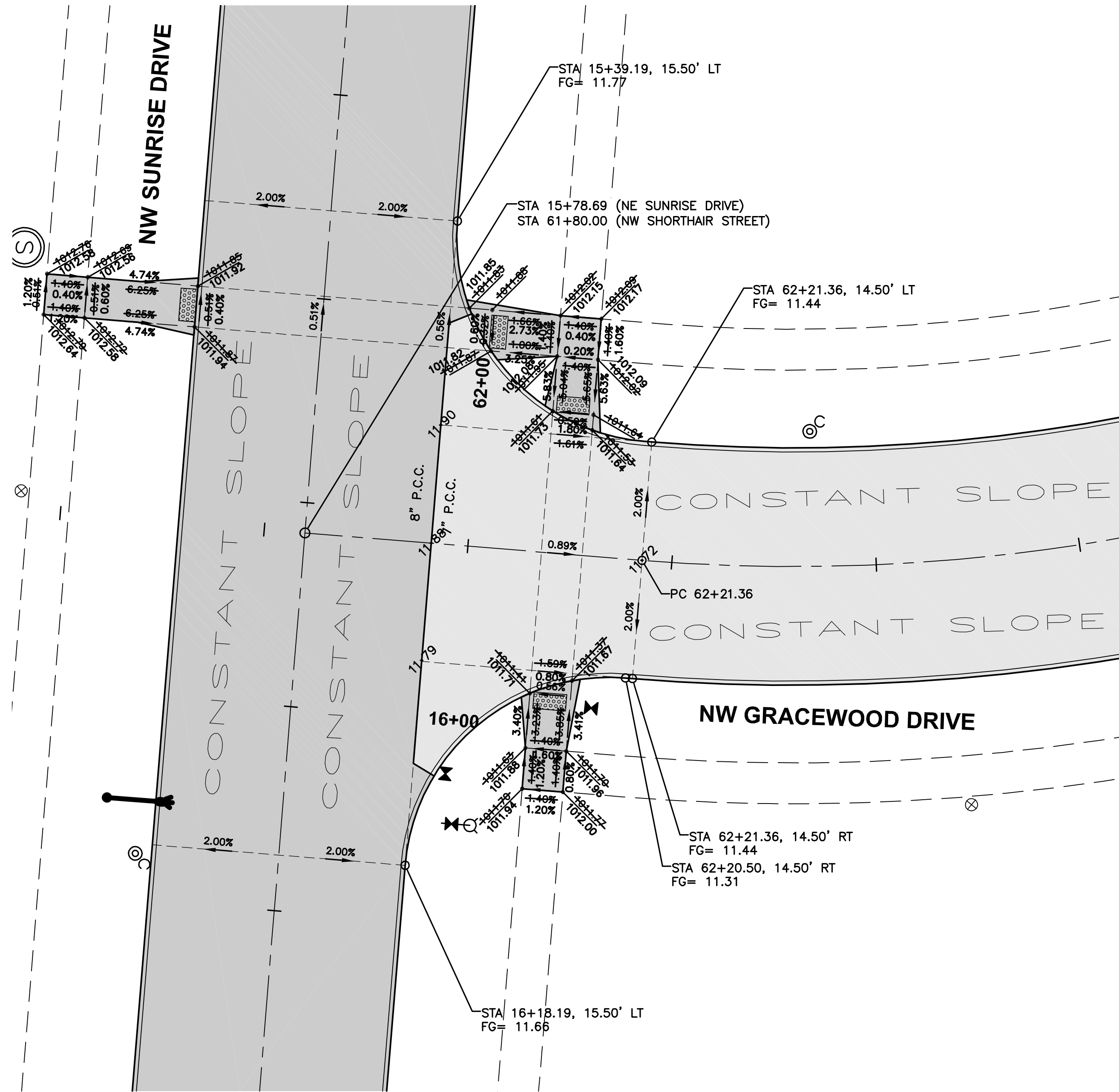
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
4. ADD 1000 TO FOUR DIGIT SPOT ELEVATIONS TO MATCH PROJECT DATUM.



SHEET INDEX



JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT

NOTES:

1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
4. ADD 1000 TO FOUR DIGIT SPOT ELEVATIONS TO MATCH PROJECT DATUM.