

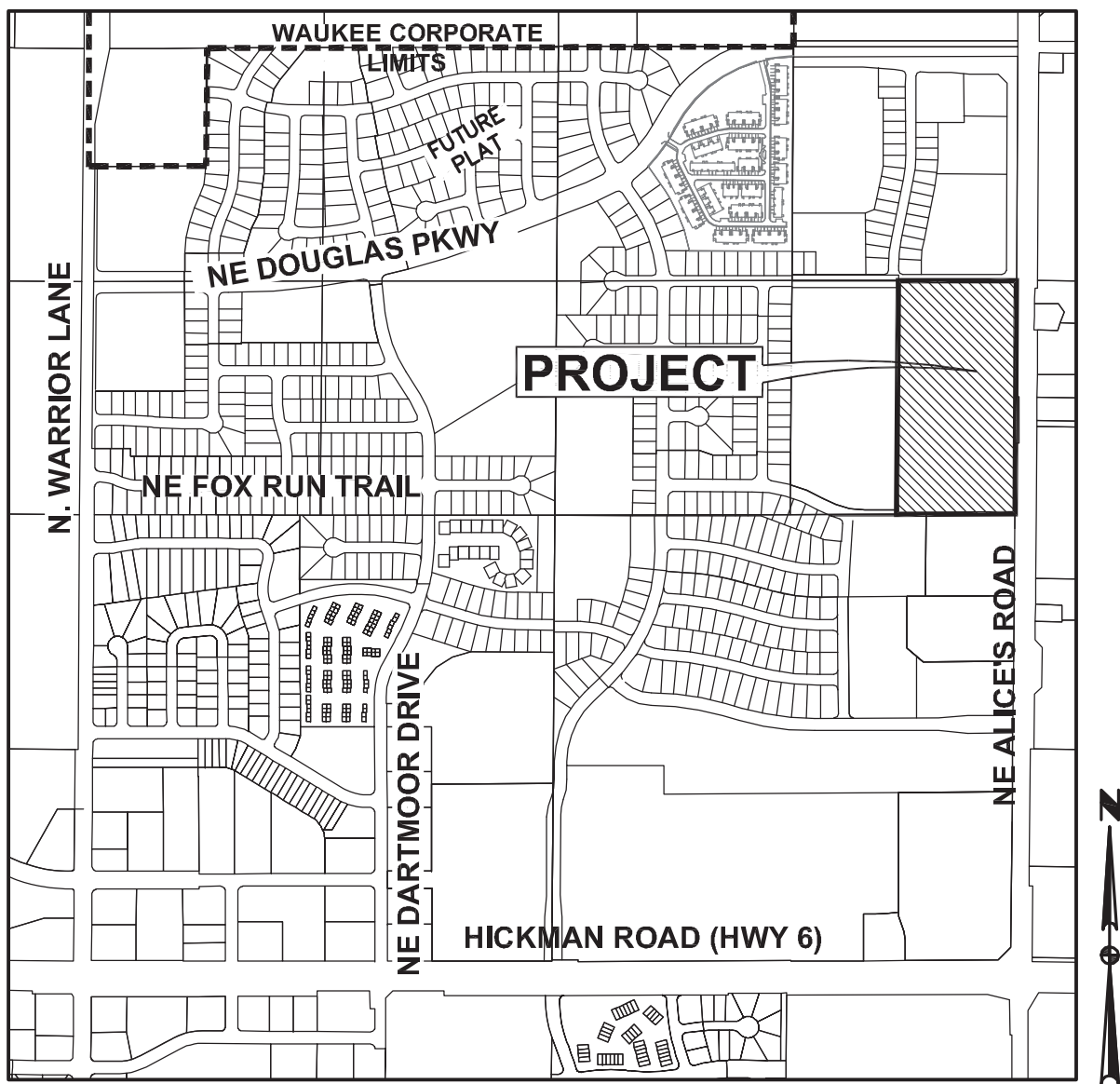
CONSTRUCTION PLANS FOR:

ALICE PATRICIA HOMES

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

OWNER / APPLICANT

SILVER OAK INC
10430 NEW YORK AVE SUITE C
URBANDALE, IA 50322

ENGINEER/ SURVEYOR

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

PROJECT MANAGER

JERRY'S HOMES
CONTACT: JAY COWAN
10430 NEW YORK AVE SUITE C
URBANDALE, IA 50322

NOTES

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

SUBMITTAL DATES

FIRST SUBMITTAL:	08/18/2015
SECOND SUBMITTAL:	10/13/2015
THIRD SUBMITTAL:	04/21/2016
FOURTH SUBMITTAL:	05/11/2016
FINAL SUBMITTAL:	06/08/2016
REVISED WATERMAIN:	07/25/2016
AS-BUILT SUBMITTAL:	12/15/2016

BENCH MARK:

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

DATE OF SURVEY:

FEBRUARY 3, 2015

LEGAL DESCRIPTION

PARCEL 'AA' AS SHOW ON THE OF SURVEY RECORDED IN BOOK 2013, PAGE 5655 IN THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 79 NORTH, RANGE 26 WEST OF THE FIFTH PRINCIPAL MERIDIAN, IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA THAT IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID PARCEL 'AA' AND THE EAST QUARTER CORNER OF SAID SECTION 27; THENCE SOUTH 89°36'27" WEST, 721.45 FEET TO THE SOUTH WEST CORNER OF SAID PARCEL 'AA'; THENCE NORTH 00°03'16" WEST, 1316.95 FEET TO THE NORTHWEST CORNER OF SAID PARCEL 'AA'; THENCE SOUTH 89°34'37" EAST, 721.46 FEET TO THE NORTHEAST CORNER OF SAID PARCEL 'AA'; THENCE SOUTH 00°03'16" EAST 1317.33 FEET TO THE POINT OF BEGINNING AND CONTAINING 21.81 ACRES.

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2-3	TYPICAL SECTIONS AND DETAILS
4	QUANTITIES AND REFERENCE NOTES
5	HYDRANT COVERAGE PLAN
6-7	GRADING PLAN
8-10	PLAN AND PROFILE
11-17	WATERMAIN PLAN AND PROFILE
18-20	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.

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.



CIVIL DESIGN ADVANTAGE
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PROJECT NO. 1411.577

GENERAL LEGEND

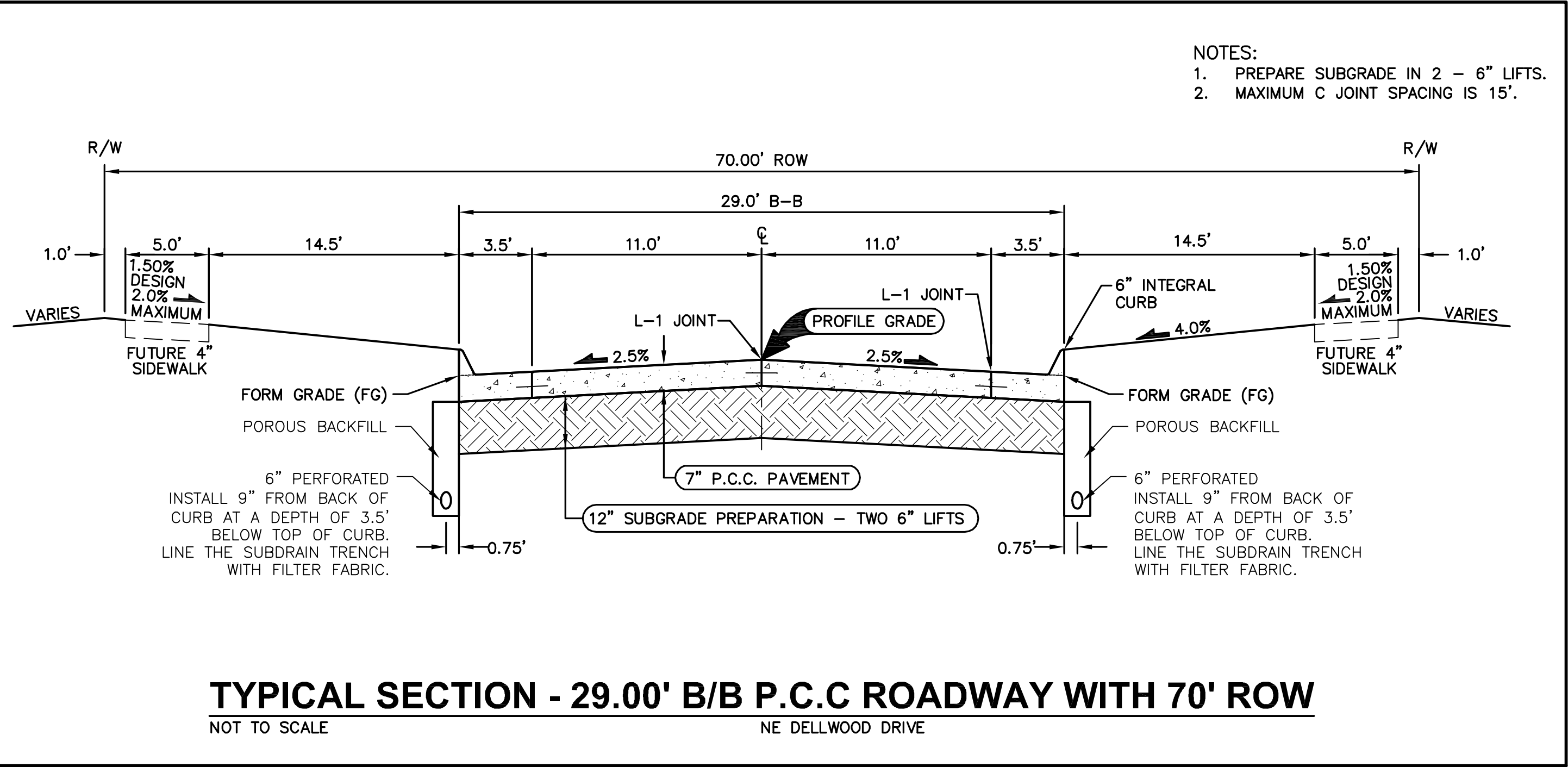
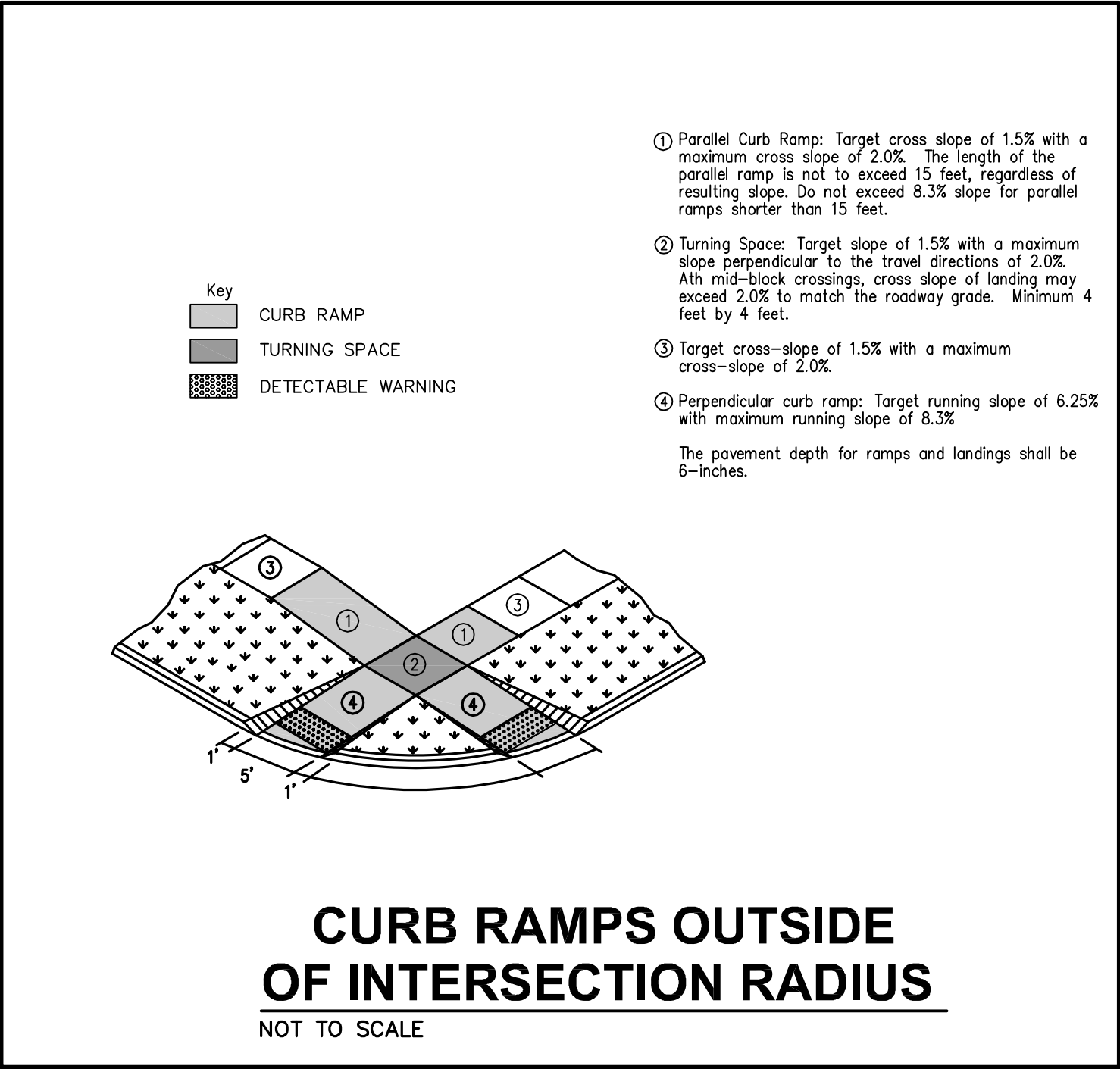
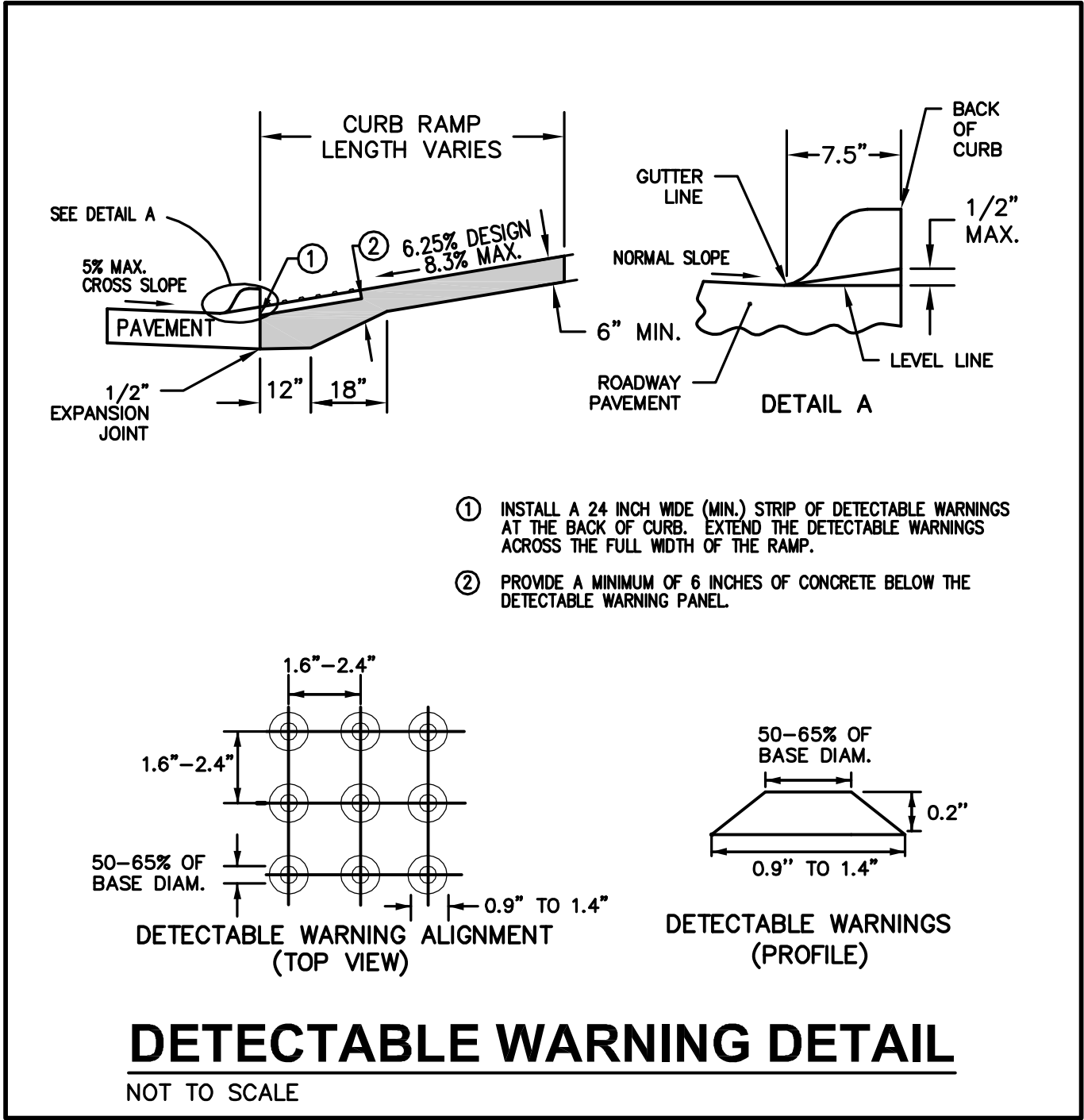
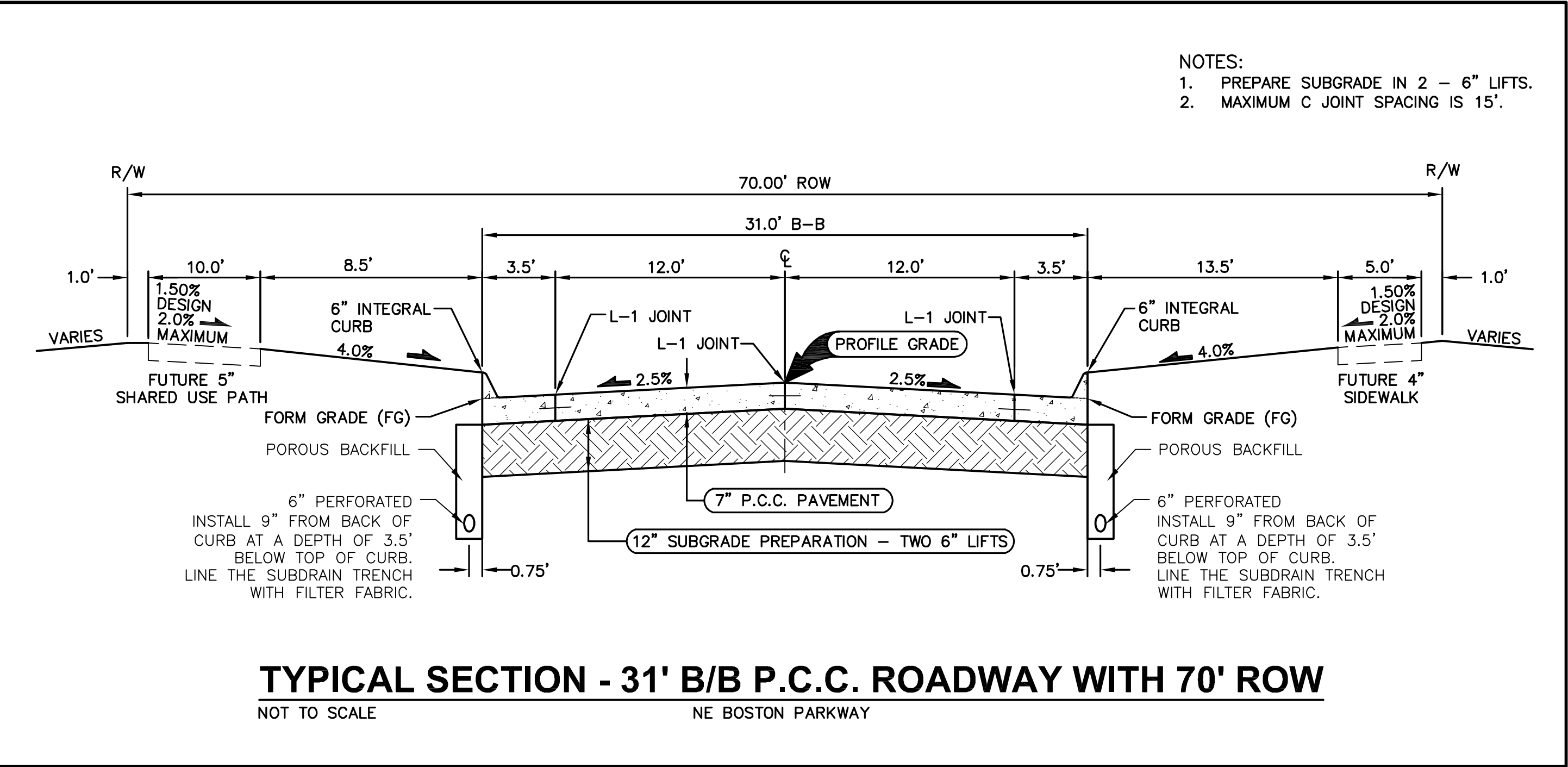
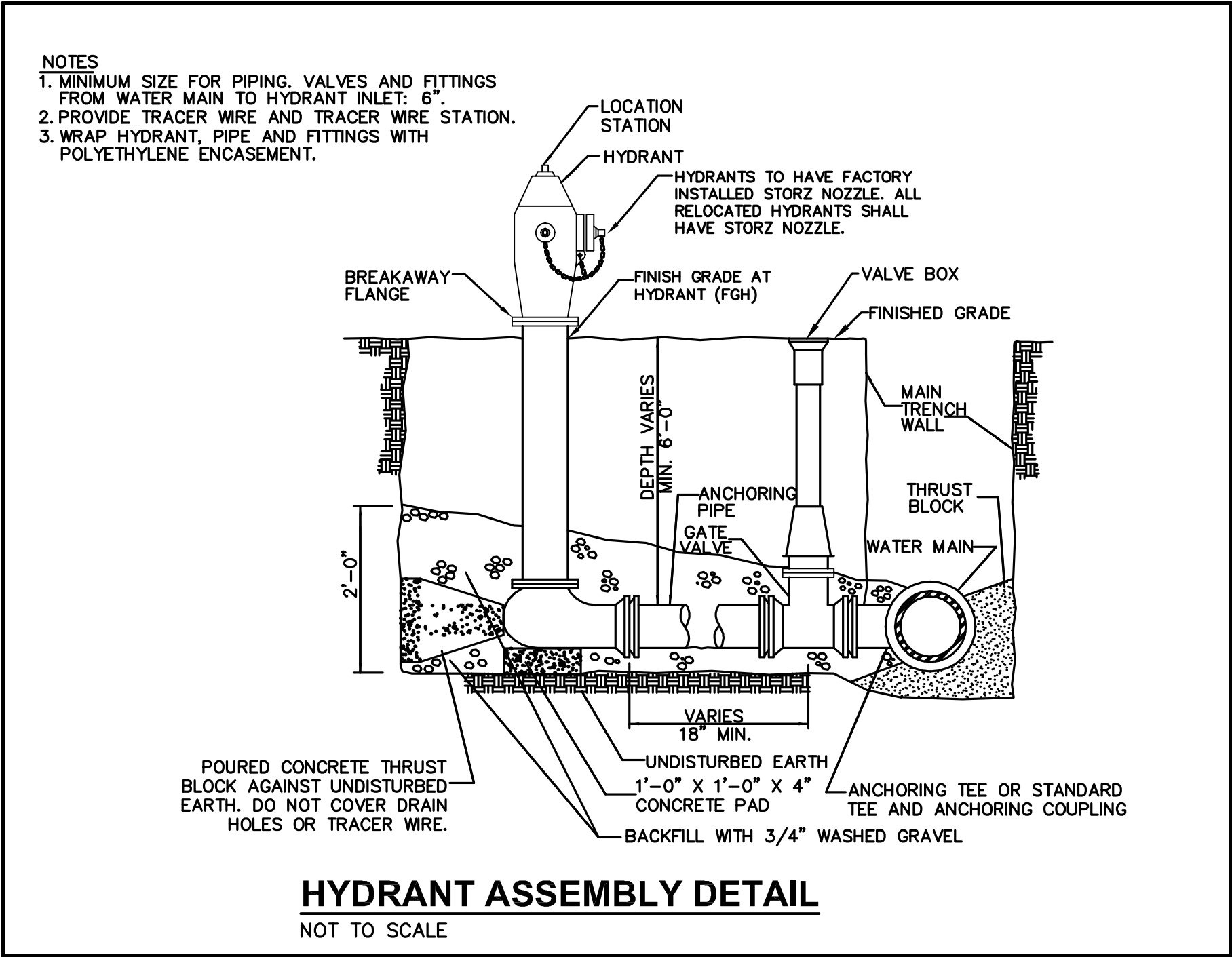
PROPOSED	EXISTING
SECTION LINE	SANITARY MANHOLE
CENTER LINE	WATER VALVE BOX
RIGHT OF WAY	FIRE HYDRANT
PERMANENT EASEMENT	WATER CURB STOP
TEMPORARY EASEMENT	WELL
TYPE SW-501 STORM INTAKE	STORM SEWER MANHOLE
TYPE SW-503 STORM INTAKE	STORM SEWER SINGLE INTAKE
TYPE SW-505 STORM INTAKE	STORM SEWER DOUBLE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

THIS PROJECT REQUIRES AN IOWA NPDES PERMIT #2. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

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

THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2016 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.

	I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.	
	<i>Erin K. Ollendike</i> ERIN K. OLLENDIKE, P.E.	12-22-16 DATE
	MY LICENSE RENEWAL DATE IS DECEMBER 31, 2017 PAGES OR SHEETS COVERED BY THIS SEAL: SHEETS 1-20	



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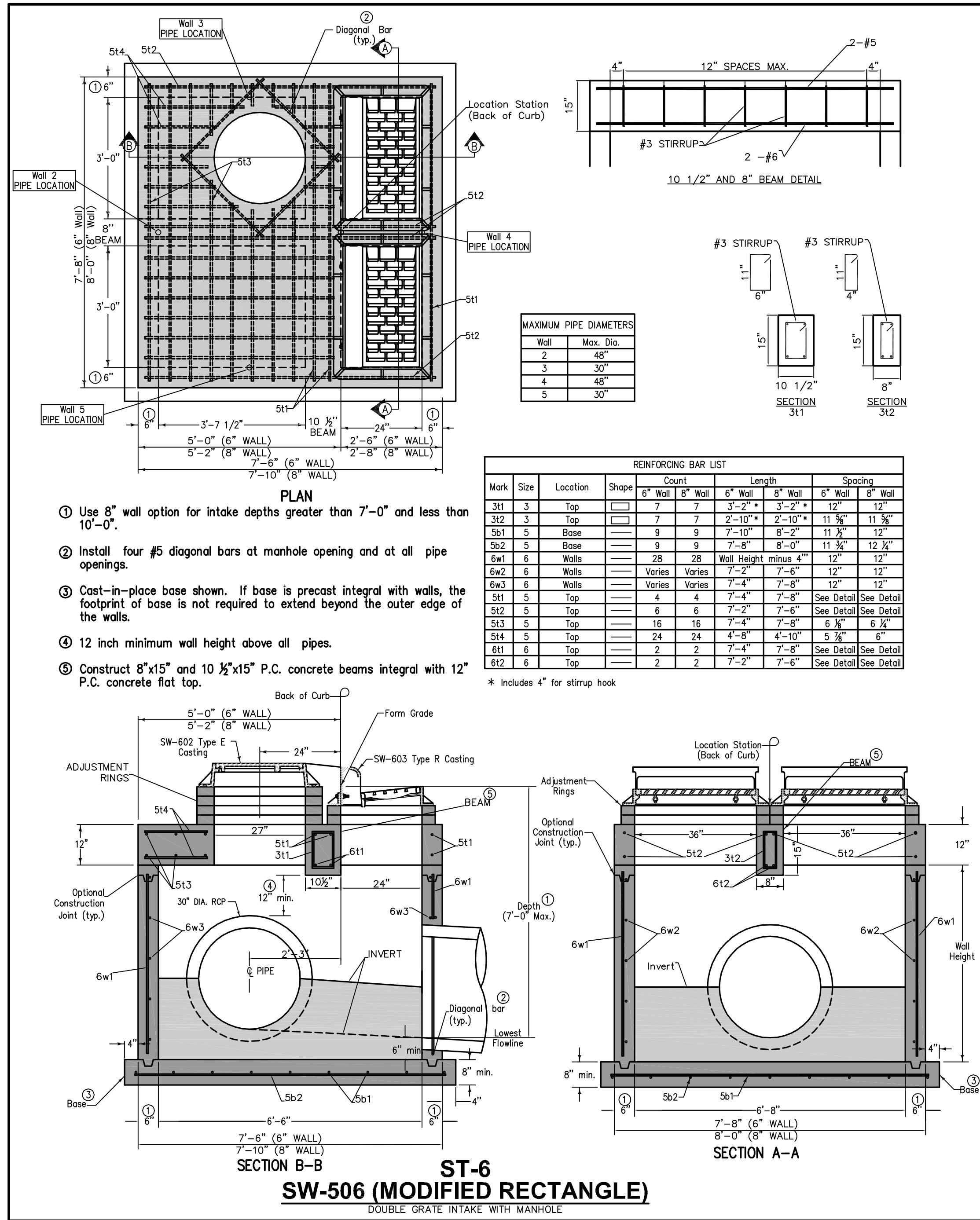
REVISIONS		DATE
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3405 S.E. CROSSROADS DRIVE, SUITE G
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PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
Ei: JMM

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

ALICE PATRICIA HOMES
TYPICAL SECTIONS AND DETAILS

2
20
1411.577



- ① PLACE PERFORATIONS DOWN FOR ALL INSTALLATIONS.
- ② ALL SUBDRAINS ARE TO BE TIED INTO STORM SEWER STRUCTURES AND THEIR LOCATIONS ARE TO BE INCLUDED IN THE AS-BUILTS FOR THE SUBDIVISION.
- ③ THE GEOTECHNICAL ENGINEER SHALL BE PRESENT ONSITE DURING SUBGRADE PREPARATION AND ROOF ROLL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE GEOTECHNICAL ENGINEER IS PRESENT ONSITE AND A COPY OF ALL REPORTS AND FINDINGS REQUIRING ALTERATION FROM THE APPROVED PLAN SET BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT FOR REVIEW AND DISCUSSION PRIOR TO COMMENCING WITH PAVING WITHIN THE PROJECT.
- ④ CORE DRILL ALL STORM SEWER AND PLACE NON-SHRINK GROUT COLLAR AT CONNECTION.
- ⑤ RODENT GUARDS ARE TO BE INSTALLED WHERE THE PIPE TIES INTO THE STRUCTURE.

MAXIMUM PIPE DIAMETERS	
Wall	Max. Dia.
2	48"
3	30"
4	48"
5	30"

REINFORCING BAR LIST											
Mark	Size	Location	Shape	Count		Length		Spacing			
				6" Wall	8" Wall	6" Wall	8" Wall	6" Wall	8" Wall	6" Wall	8" Wall
311	3	Top		7	7	3'-2"	3'-2"	12"	12"		
312	3	Top		7	7	2'-10"	2'-10"	11 1/2"	11 1/2"		
502	5	Base		9	9	7'-8"	8'-0"	11 1/2"	12 1/2"		
502	5	Base		9	9	7'-8"	8'-0"	11 1/2"	12 1/2"		
6w1	6	Walls		28	28	Wall Height minus 4"		12"	12"		
6w2	6	Walls		Varies	Varies	7'-2"	7'-6"	12"	12"		
6w3	6	Walls		Varies	Varies	7'-4"	7'-8"	12"	12"		
511	5	Top		4	4	7'-4"	7'-8"	See Detail	See Detail		
512	5	Top		6	6	7'-2"	7'-8"	See Detail	See Detail		
513	5	Top		16	16	7'-4"	7'-8"	6 1/2"	6 1/2"		
514	5	Top		24	24	4'-8"	4'-10"	5 1/2"	5 1/2"		
611	6	Top		2	2	7'-4"	7'-8"	See Detail	See Detail		
612	6	Top		2	2	7'-2"	7'-6"	See Detail	See Detail		

* Includes 4" for stirrup hook

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PLOTED: 12/19/2016 9:42 AM PLOTTED BY: MURRAY

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COMBINED CLEARING AND GRUBBING	AC	3.93
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	EXCAVATION, CLASS 10	LS	1
4	SUBGRADE PREPARATION, ROADWAY, 12 IN.	SY	6,433
5	SANITARY SEWER GRAVITY MAIN, PVC, 8 IN.	LF	30
6	SANITARY SEWER GRAVITY MAIN, PVC, 10 IN.	LF	288
7	STORM SEWER, TRENCHED, PERFORATED PVC, 6 IN.	LF	1734
8	STORM SEWER, TRENCHED, RCP, 15 IN.	LF	377
9	STORM SEWER, TRENCHED, RCP, 18 IN.	LF	371
10	STORM SEWER, TRENCHED, RCP, 24 IN.	LF	116
11	STORM SEWER, TRENCHED, RCP, 30 IN.	LF	281
12	STORM SEWER, TRENCHED, RCP, 36 IN.	LF	66
13	PIPE APRON W/ APRON GUARD AND FOOTING, RCP, 15 IN.	EA	6
14	PIPE APRON W/ APRON GUARD AND FOOTING, RCP, 24 IN.	EA	2
15	PIPE APRON W/ APRON GUARD AND FOOTING, RCP, 36 IN.	EA	1
16	WATER MAIN, TRENCHED, PVC, 6 IN.	LF	118
17	WATER MAIN, TRENCHED, PVC, 8 IN.	LF	800
18	WATER MAIN, TRENCHED, PVC, 12 IN.	LF	2,556
19	VALVE, 6 IN. DIA.	EA	2
20	VALVE, 8 IN. DIA.	EA	4
21	VALVE, 12 IN. DIA.	EA	5
22	FIRE HYDRANT ASSEMBLY	EA	10
23	TEMPORARY BLOW OFF HYDRANT	EA	3
24	TEMPORARY BLOW OFF HYDRANT (RELOCATED)	EA	2
25	MANHOLE, TYPE SW-301, 48 IN. DIA. (SANITARY SEWER)	EA	1
26	STORM SEWER CLEANOUT	EA	5
27	MANHOLE, TYPE SW-401, 48 IN. DIA. (STORM SEWER)	EA	2
28	INTAKE, TYPE SW-501	EA	3
29	INTAKE, TYPE SW-503	EA	1
30	INTAKE, TYPE SW-505	EA	1
31	INTAKE, TYPE SW-506	EA	2
32	INTAKE, TYPE SW-506 (MODIFIED)	EA	1
33	PAVEMENT, PCC, 9 IN.	SY	1,005
34	PAVEMENT, PCC, 7 IN.	SY	4,698
35	SIDEWALK, PCC, 6 IN.	SY	132
36	DETECTABLE WARNING PANELS	SF	60
37	CONVENTIONAL SEEDING, FERTILIZING AND MULCHING	AC	2.65
38	TRAFFIC CONTROL	LS	1
39	EROSION CONTROL	LS	1
40	ROAD CLOSURE SIGNS (REMOVE)	EA	10
41	ROCK OUTLET PROTECTION, CLASS 'E' RIP-RAP	TON	30
42	PAVEMENT MARKINGS	LS	1
43	REMOVALS	LS	1

GENERAL NOTES

1.

ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND TO THE 2016 EDITION OF SUDAS STANDARD SPECIFICATIONS. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IF ANY DISCREPANCIES.
2.

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

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

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

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

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

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

A. CITY OF WAUKEE ENGINEERING DEPARTMENT

B. APPROPRIATE UTILITY COMPANIES

C. OWNER

D. CIVIL DESIGN ADVANTAGE

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

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

ESTIMATE REFERENCE INFORMATION	
Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.	
ITEM NO.	DESCRIPTION
	THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2016 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 STORM SEWER AND FIELD FENCE. ALL MATERIAL THAT IS REMOVED FROM THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR. INCLUDES 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 LOCATION 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 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. TRENCHLESS SANITARY SEWER UNDER ROADWAYS SHOULD BE INSTALLED PER SUDAS 3020 PART 2.01B AND RESTRAINED JOINT PIPE SHALL BE USED. NO CASING PIPE.
5-12	REFER TO FIGURE 3010.101, 3010.102 AND 3010.103 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 TELEVISING REPORT TO CITY IN HARD COPY AND DISC FORMAT. TELEVISING SHALL BE CONSIDERED INCIDENTAL. ALL STORM SEWER PIPE THAT CROSSES OVER WATERMAIN SHALL HAVE O-RING GASKETS INSTALLED.
13-15	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.
16-21	REFER TO FIG. 3010.101 AND FIG. 3010.104 FOR TRENCH BEDDING AND BACKFILL ZONE DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG. 5010.101 FOR THRUST BLOCK DETAILS. REFER TO FIG. 5010.102 FOR TRACER SYSTEM DETAILS. ALL FITTINGS, POLYETHYLENE WRAP, THRUST BLOCKS, AND TRACER WIRE SYSTEM SHALL BE CONSIDERED INCIDENTAL.
22-24	REFER TO DETAIL ON SHEET 2 AND 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.
25	REFER TO FIG. 6010.301 - CIRCULAR SANITARY SEWER MANHOLE (SW-301) FOR CONSTRUCTION DETAILS. CASTINGS IN PAVEMENT SHALL BE TYPE B RING AND COVER. WHEN CASTINGS ARE NOT IN PAVEMENT, INSTALL MANHOLE CONE SECTION, MANHOLE STEPS, AND RING/COVER CASTING SUCH THAT SEPARATION IS MAINTAINED BETWEEN MANHOLE COVERS AND PAVED AREAS (BACK OF CURB, SIDEWALK PAVEMENT, SIDEWALK APPROACHES/RAMPS). ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.
26	REFER TO FIG. 4040.232 - SUBDRAIN CLEANOUTS FOR CONSTRUCTION DETAILS.
27	REFER TO FIG. 6010.401 - CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS.

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
28-32	REFER TO FIG. 6010.514 - BOXOUTS FOR GRATE INTAKES. REFER TO FIG. 6010.603 - CASTINGS FOR GRATE INTAKES FOR TYPE R GRATE DETAILS AND FIG. 6010.602 - CASTINGS FOR STORM SEWER MANHOLES FOR TYPE E CASTING DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR INTAKE CASTINGS IS 6". THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12".
28	REFER TO FIG 6010.501 - SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.
29	REFER TO FIG 6010.503 - SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
30	REFER TO FIG 6010.505 - DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS.
31	REFER TO FIG 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
32	REFER TO DETAIL ON SHEET 3 FOR CONSTRUCTION DETAILS AND SHEET 10 FOR LOCATION OF STRUCTURE.
33-34	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C JOINT SPACING IS 15 FEET. FULL DEPTH SAWCUT OF 6 INCHES OF EXISTING EDGE OF NE ALICES ROAD AT PAVING TIE-INS IS REQUIRED.
35-36	REFER TO FIG. 7030.204 - GENERAL SIDEWALK AND ACCESSIBLE RAMP DETAILS AND FIG. 7030.208 - CURB RAMPS WITHIN INTERSECTION RADIUS FOR CLASS B OR C SIDEWALK FOR CONSTRUCTION DETAILS. DETECTABLE WARNING PANELS TO BE ARMOR TILE, ADA SOLUTIONS OR APPROVED EQUAL, BRICK RED IN COLOR. ACCESSIBLE CURB RAMPS INCLUDING TURNING SPACES SHALL BE 6" THICK P.C.C. GRINDING OF P.C.C. CURBS FOR THE CONSTRUCTION OF CURB RAMPS SHALL BE INCIDENTAL TO THIS ITEM. REFER TO SHEET 9 FOR LOCATIONS.
37	SUDAS TYPE 1 PERMANENT LAWN MIXTURE SEED SHALL BE USED WITHIN THE PROPOSED RIGHT-OF-WAY ON NE ALICE'S ROAD, NE BOSTON PARKWAY, NE DELLWOOD DRIVE AND DISTURBED AREA SOUTH OF NE BOSTON PARKWAY. THE REMAINDER OF SITE SHALL CONFORM TO THE SPECIFICATION FOR TYPE 4 URBAN TEMPORARY EROSION CONTROL SEED MIXTURE. ALL DISTURBED AREAS ARE TO BE HYDRO-MULCHED. SEEDING QUANTITIES -TYPE 1 PERMANENT LAWN MIXTURE = 2.20 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 0.45 AC
38	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. TRAFFIC ON SE ALICE'S ROAD WILL NEED TO BE MAINTAINED ON ALL EXISTING LANES DURING CONSTRUCTION.
39	REFER TO THE SITE PLAN FOR ALICE PATRICIA HOMES FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS.
40	REFER TO SHEETS 8 AND 9 FOR LOCATION.
41	ENGINEERING FABRIC UNDER ALL RIP-RAP SHALL BE CONSIDERED INCIDENTAL. REFER TO DETAIL ON SHEET 2 FOR DIMENSIONS.
42	REFER TO SHEET 10 FOR LOCATION OF MARKINGS ALONG NE BOSTON PARKWAY. MARKINGS SHALL BE DONE WITH DURABLE PAINT.
43	ITEM SHALL INCLUDE REMOVAL OF EXISTING GRAVEL TURNAROUND, RIP RAP AND FLARED END SECTIONS. REFER TO SHEETS 8 AND 9 FOR LOCATIONS.

24.

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

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

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

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

A GEOTECHNICAL ENGINEER SHALL BE ONSITE DURING CONSTRUCTION AND FOR PROOF ROLL TO INSPECT SOILS.
29.

THE CONTRACTOR SHALL COORDINATE ALL EXISTING PUBLIC UTILITY CONNECTIONS WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
30.

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.
31.

AS-BUILTS SHALL BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT INCLUDING ALL UTILITIES AND AS-BUILT GRADES FOR DRAINAGE WALES, OVERFLOWS, ACCESSIBLE RAMPS AND DETENTION FACILITIES. THE CONTRACTOR SHALL PROVIDE INFORMATION TO THE DESIGN ENGINEER FOR INCLUSION ON THE RECORD AS-BUILT DRAWINGS.
32.

THE CONTRACTOR IS RESPONSIBLE FOR CLEANING, TELEVISING AND VACUUM TESTING ALL STORM AND SANITARY SEWERS. ALL CLEANING, TELEVISING AND VACUUM TESTING SHALL BE APPROVED BY THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO PAVING. A COPY OF THE VIDEOS SHALL BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
33.

ALL FIRE HYDRANTS INCLUDING ANY RELOCATED HYDRANTS SHALL HAVE STORZ FITTINGS.
34.

ALL PROPOSED PEDESTRIAN CROSSINGS SHALL BE INSTALLED AS PART OF THE PLAT IMPROVEMENTS.
35.

ALL CONNECTIONS TO EXISTING MANHOLES ARE TO BE CORE DRILLED AND USE A LINK SEAL.
36.

ANY EXISTING ESTABLISHED YARDS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE SODDED AND WATERED UNTIL ESTABLISHED.

12/15/16

07/25/16

06/08/16

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04/21/16

10/13/15

08/18/15

DATE

AS-BUILT SUBMITTAL:

REVISED WATERMAIN:

FINAL SUBMITTAL:

FOURTH SUBMITTAL:

THIRD SUBMITTAL:

SECOND SUBMITTAL:

FIRST SUBMITTAL:

3405 S.E. CROSSROADS DRIVE, SUITE G

GRIMES, IOWA 50111

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

CIVIL DESIGN ADVANTAGE

Ei: JMM

ENGINEER: EKO

ALICE PATRICIA HOMES

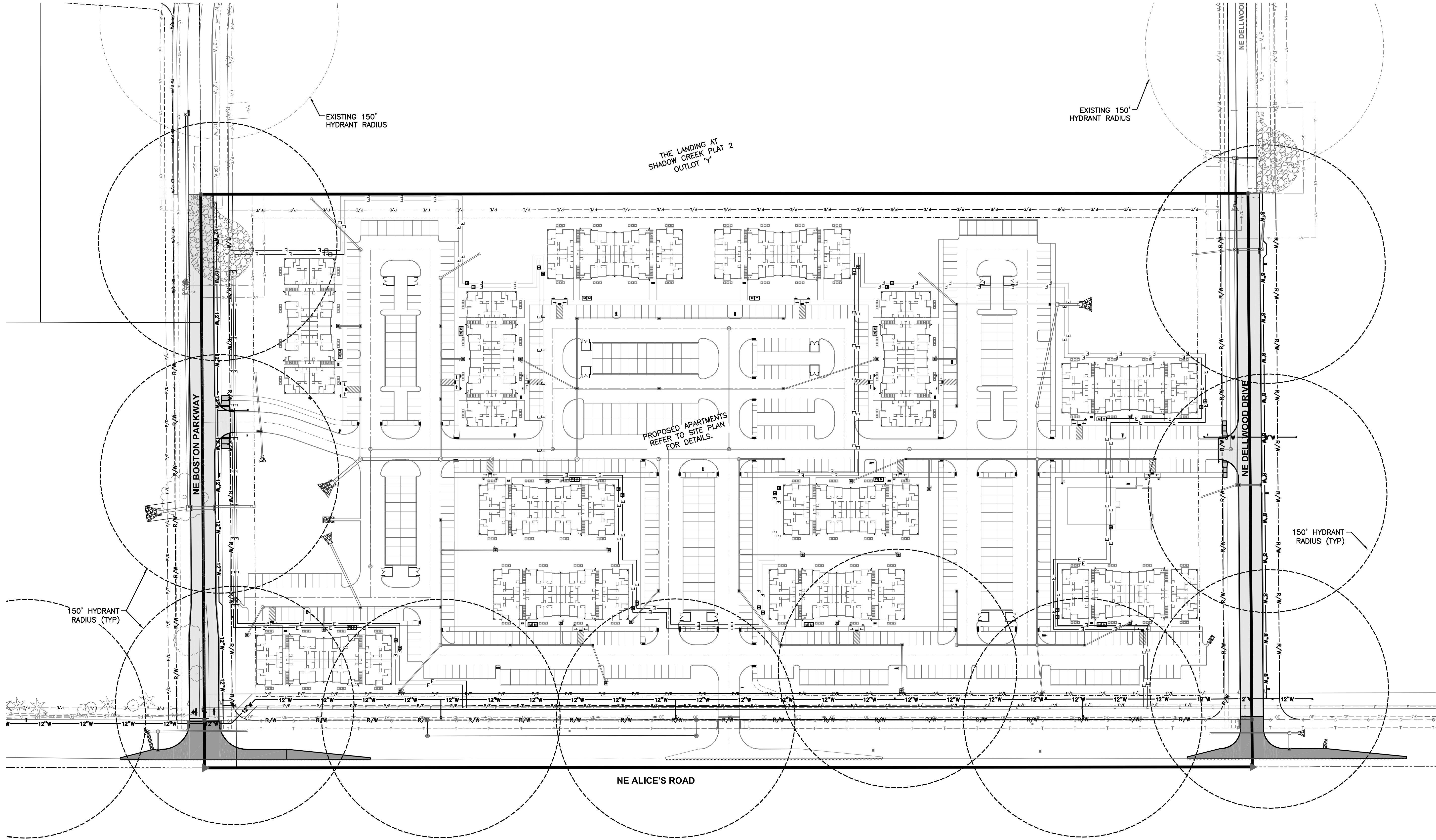
QUANTITIES AND REFERENCE NOTES

WAUKEE, IOWA

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CIVIL DESIGN ADVANTAGE	ENGINEER: EKO
WAUKEE, IOWA	EI: JMM

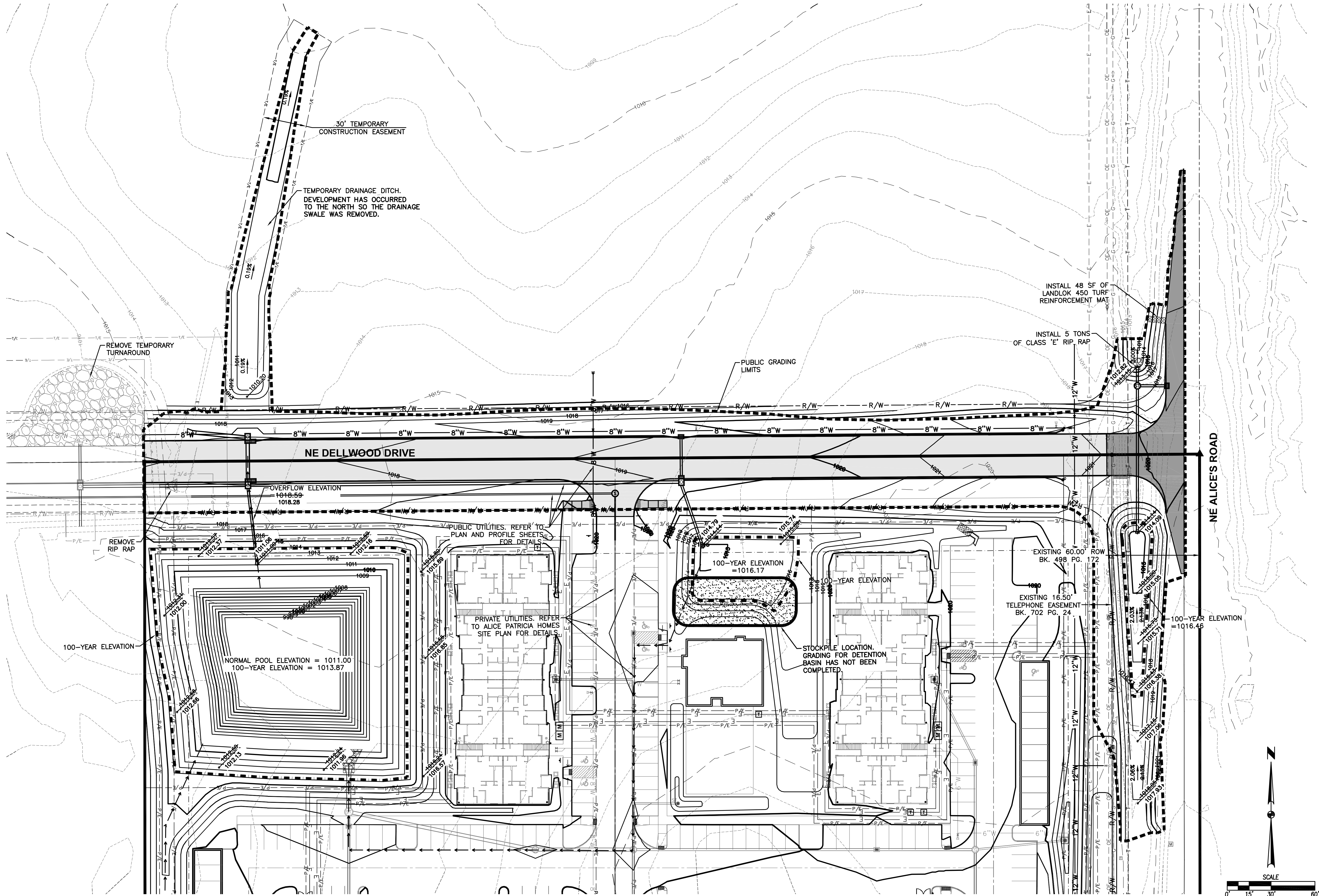
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HYDRANT COVERAGE PLAN

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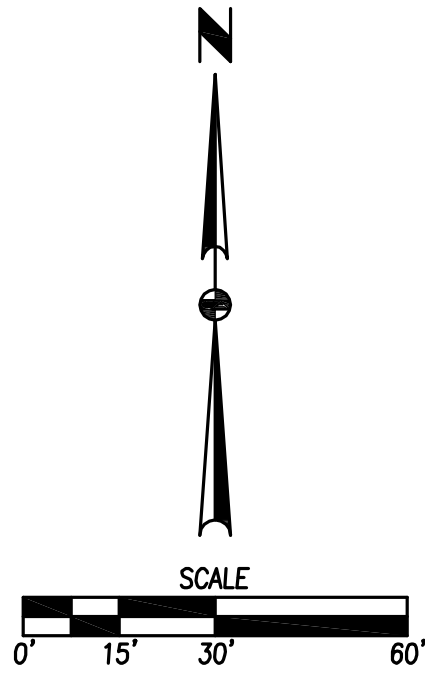
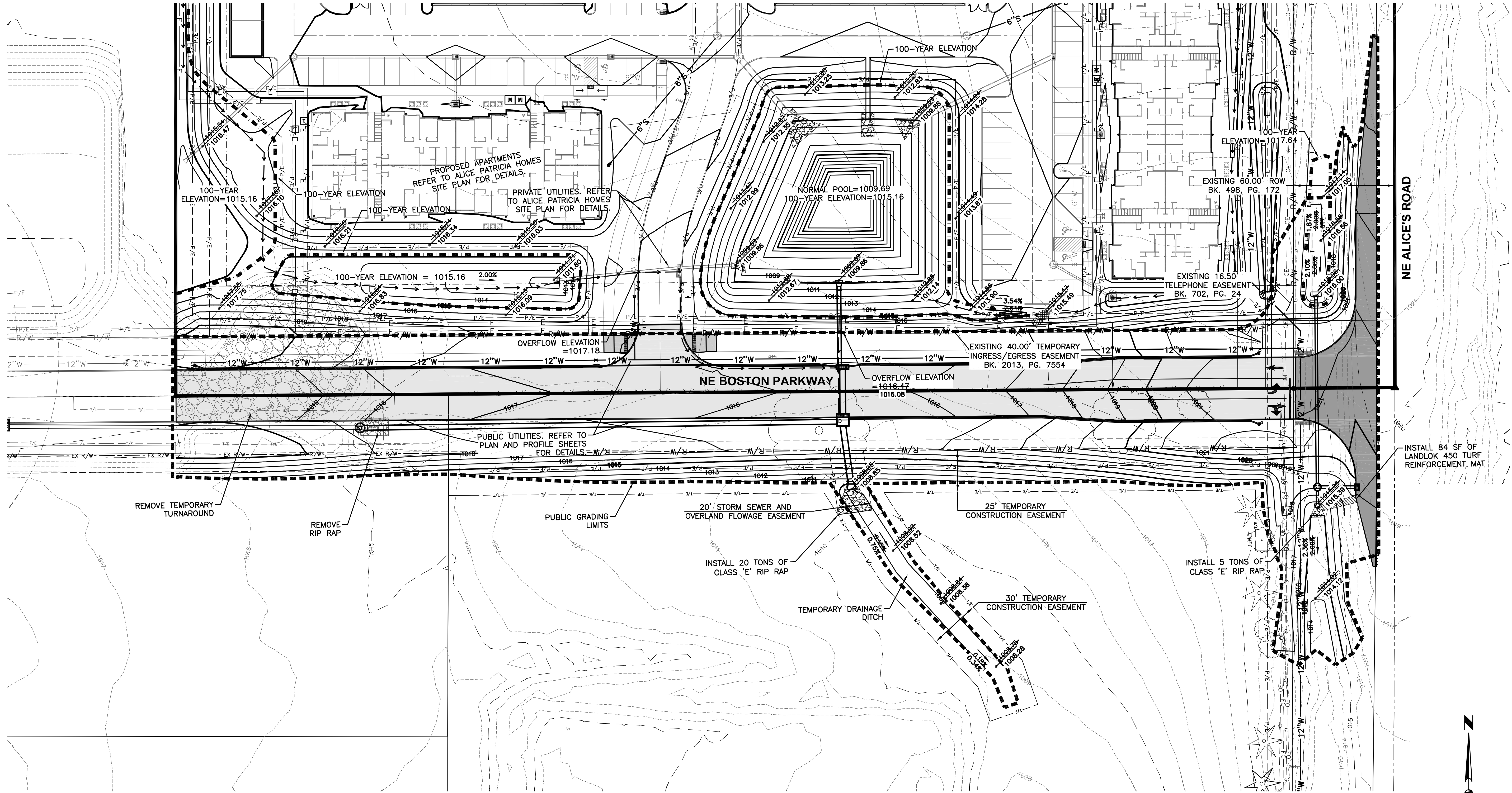
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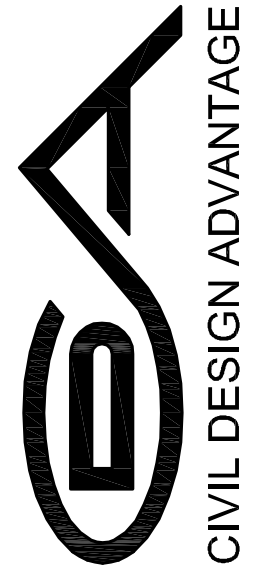
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WAUKEE, IOWA

ALICE PATRICIA HOMES
GRADING PLAN

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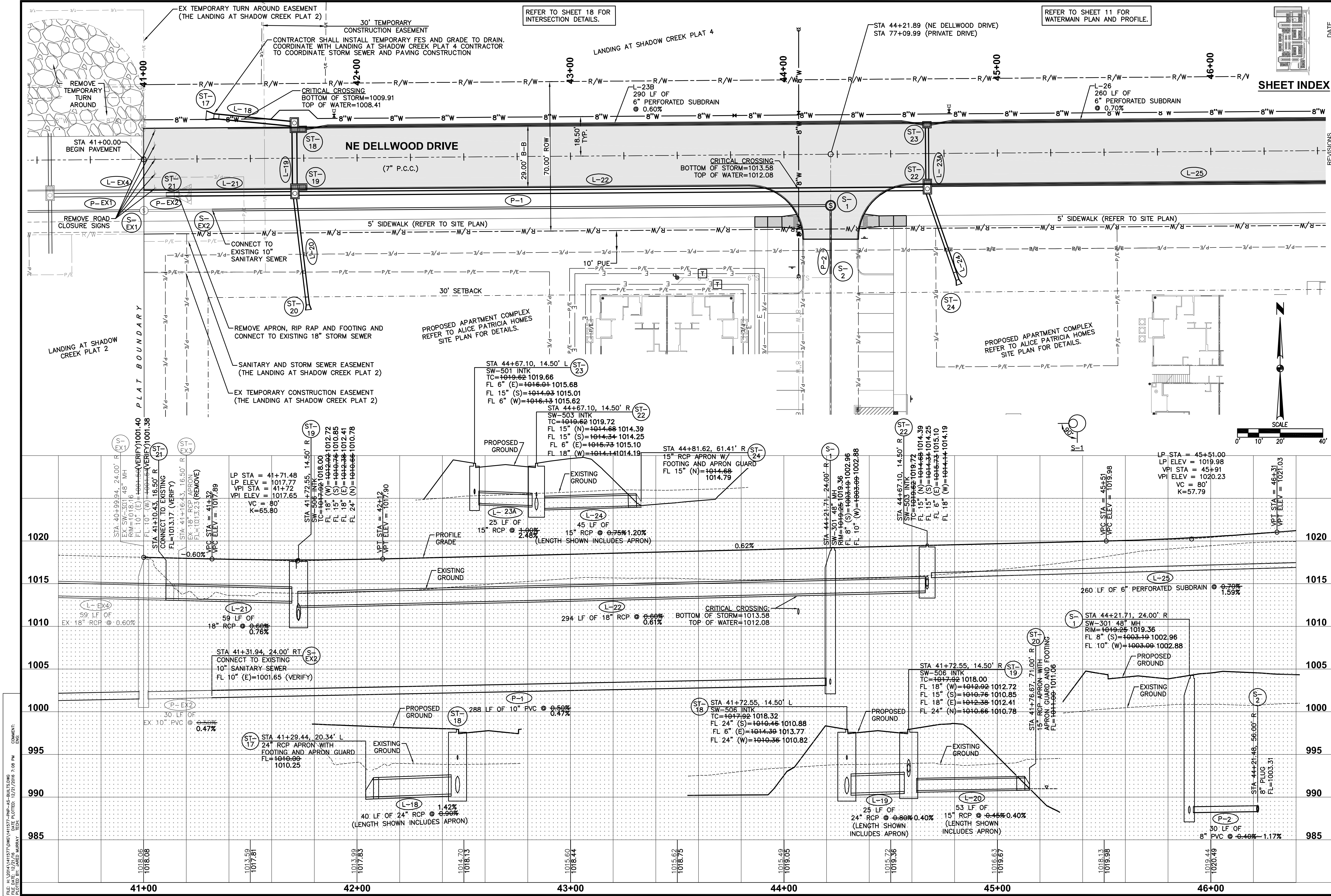


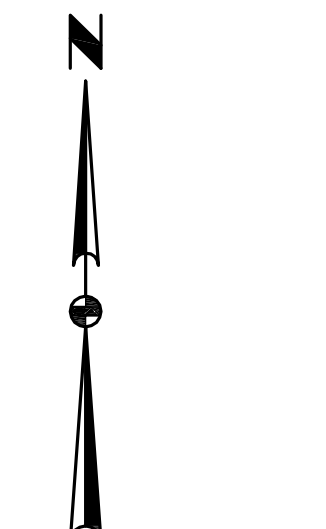
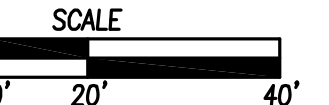
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GRADING PLAN

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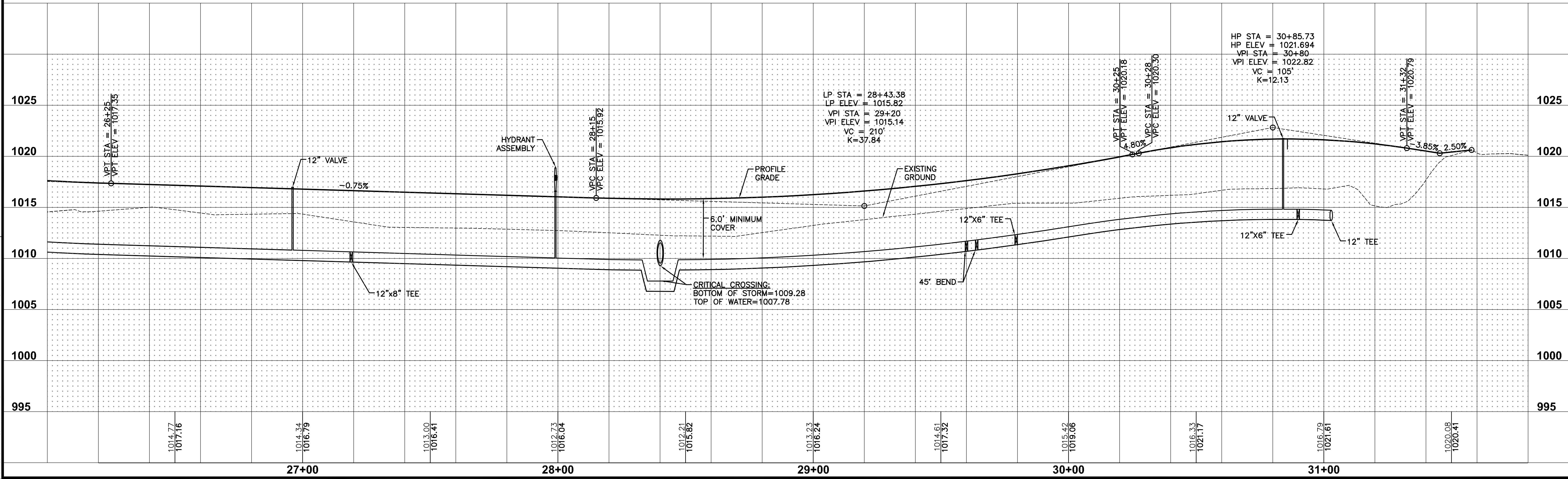
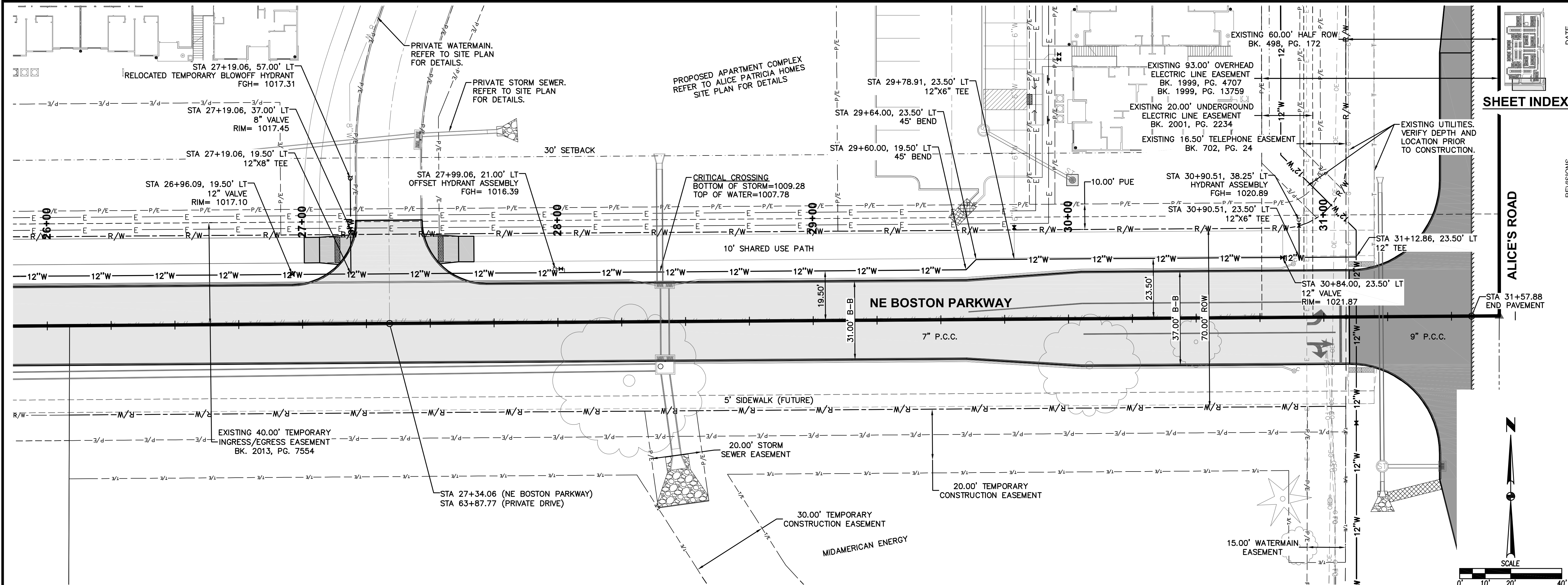


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06/08/16

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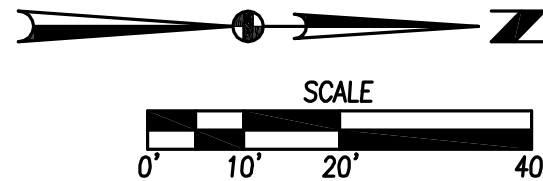
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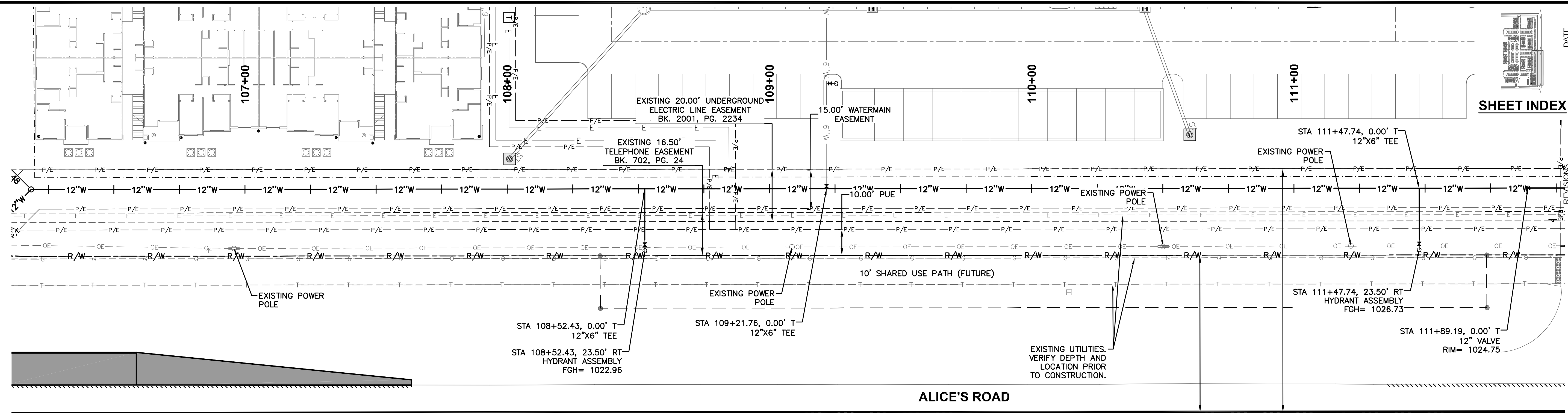
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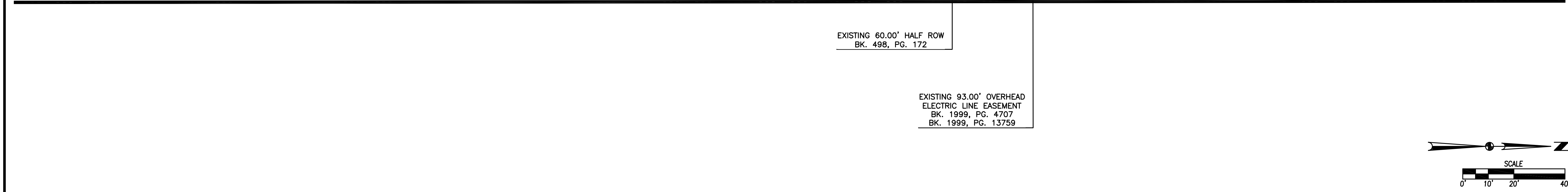
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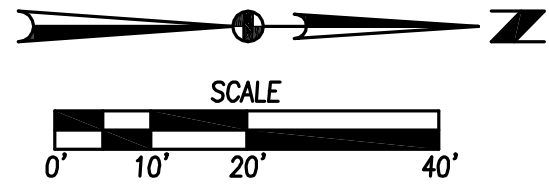
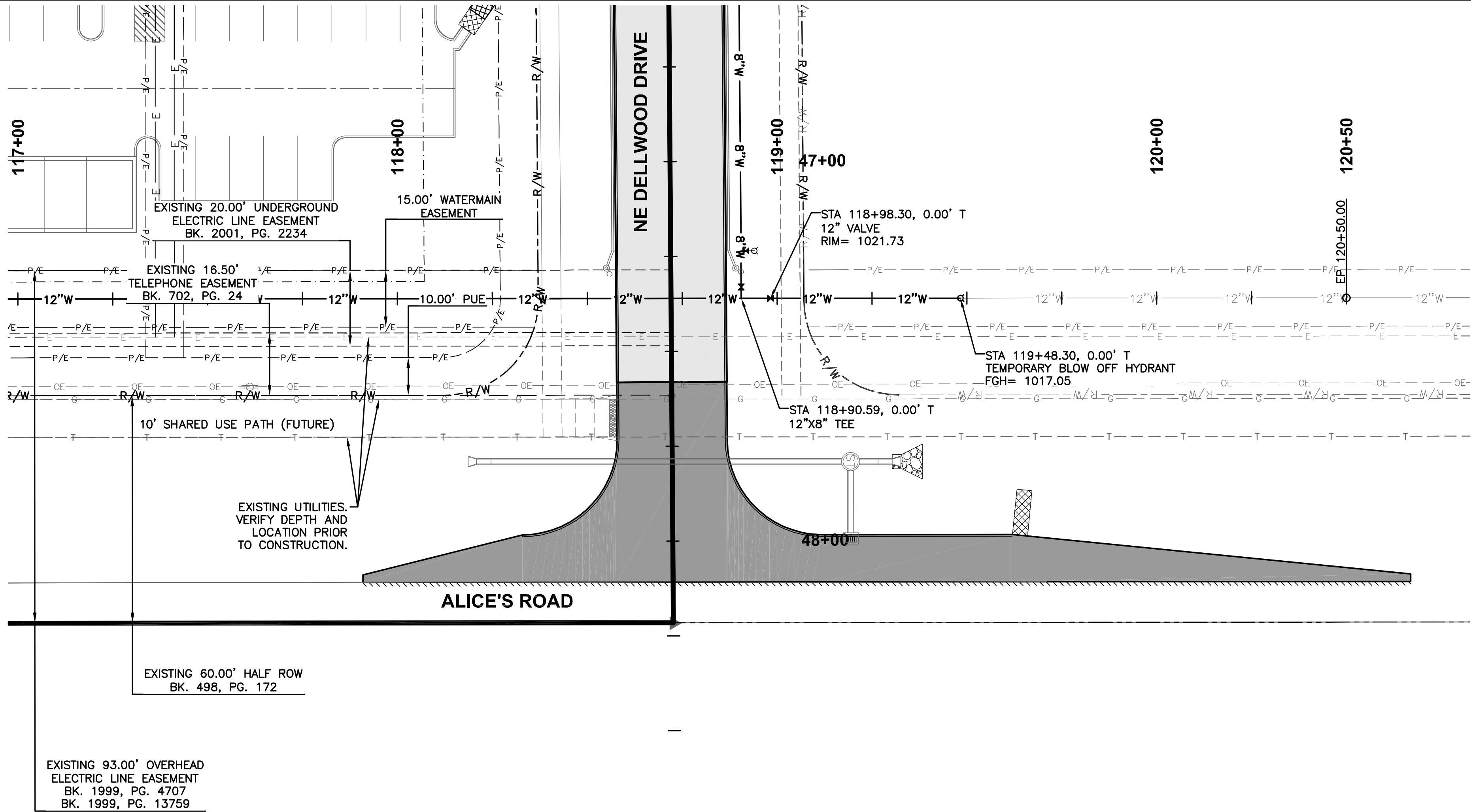
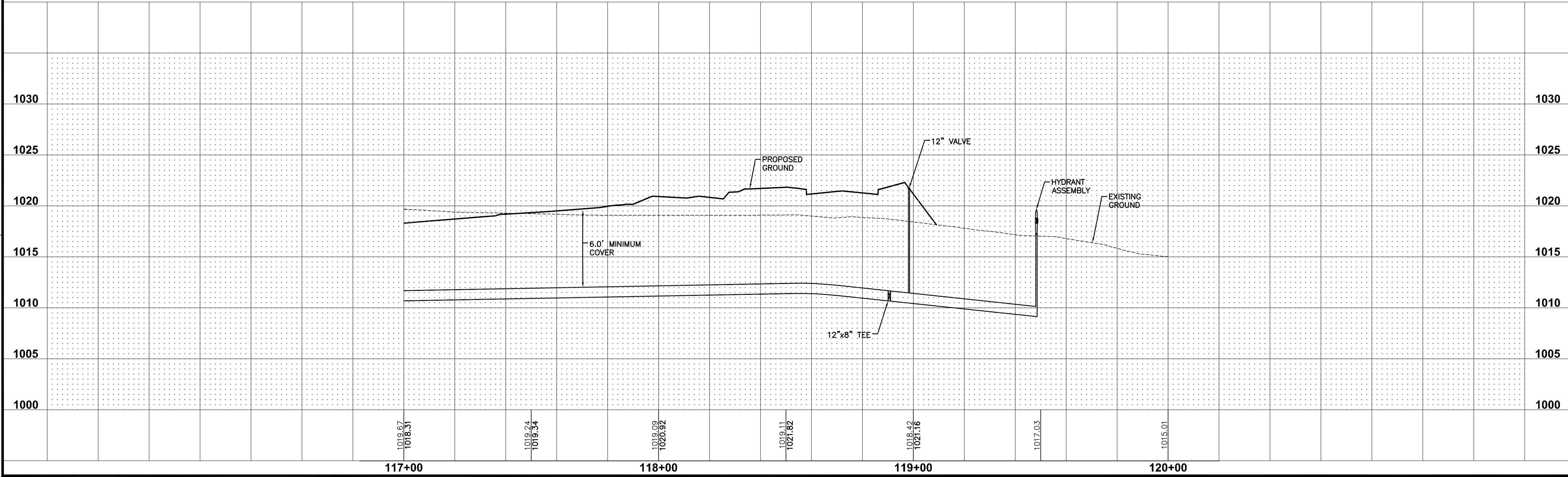
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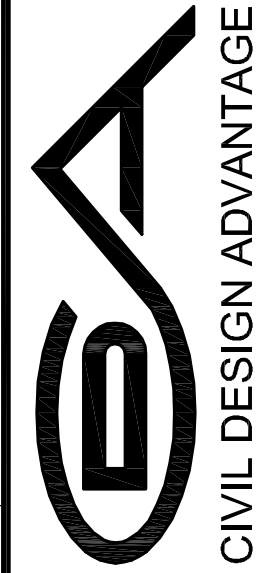


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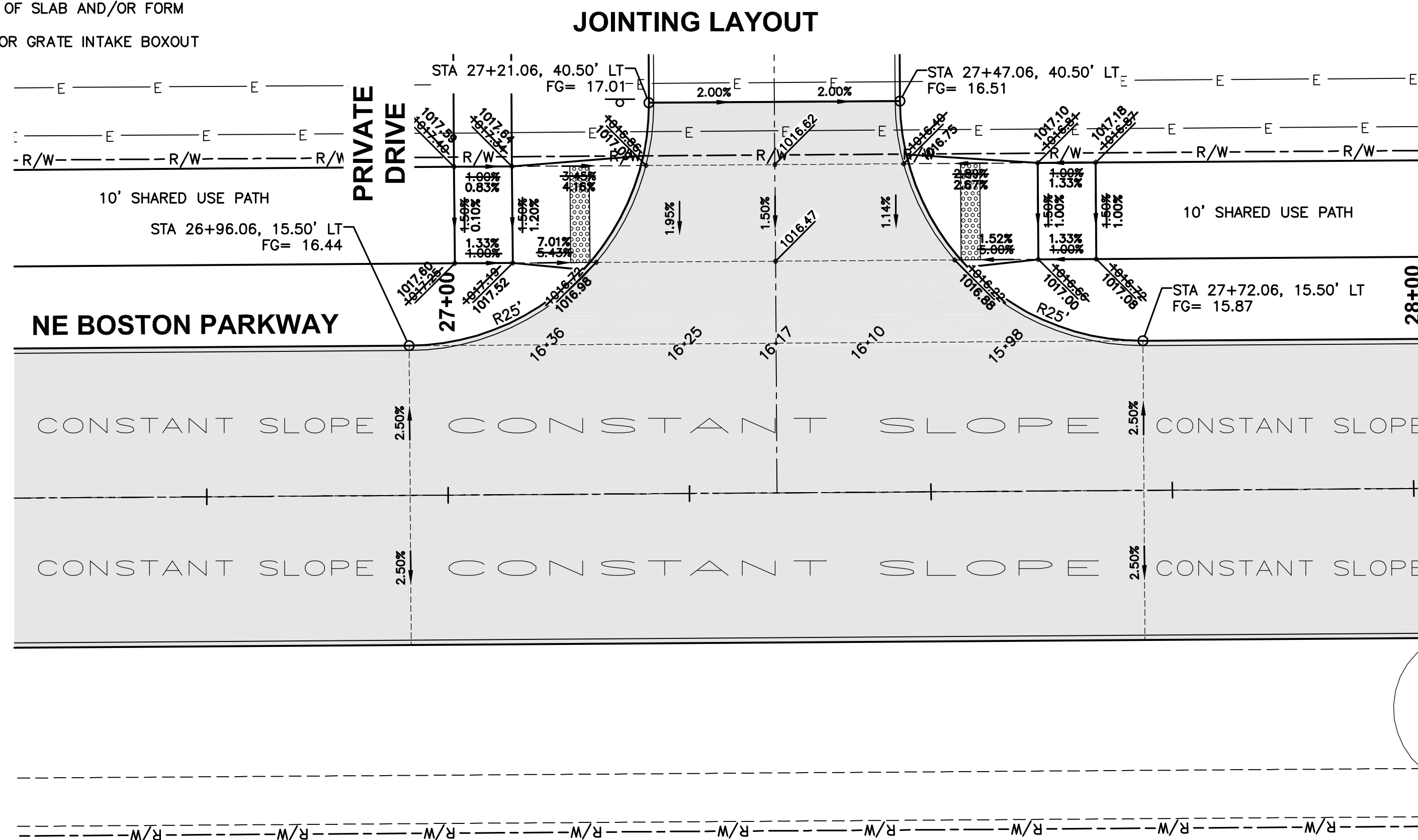
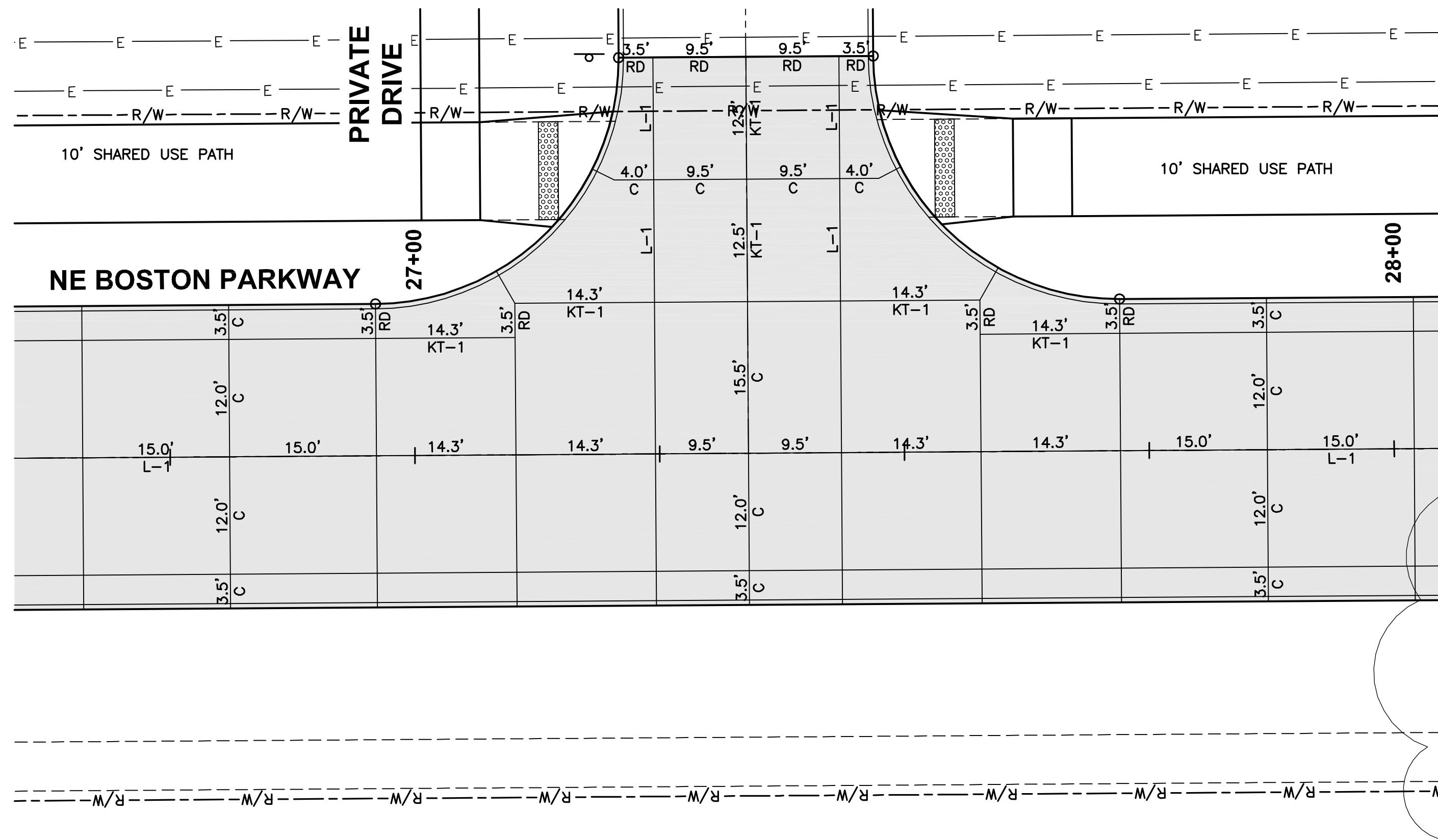
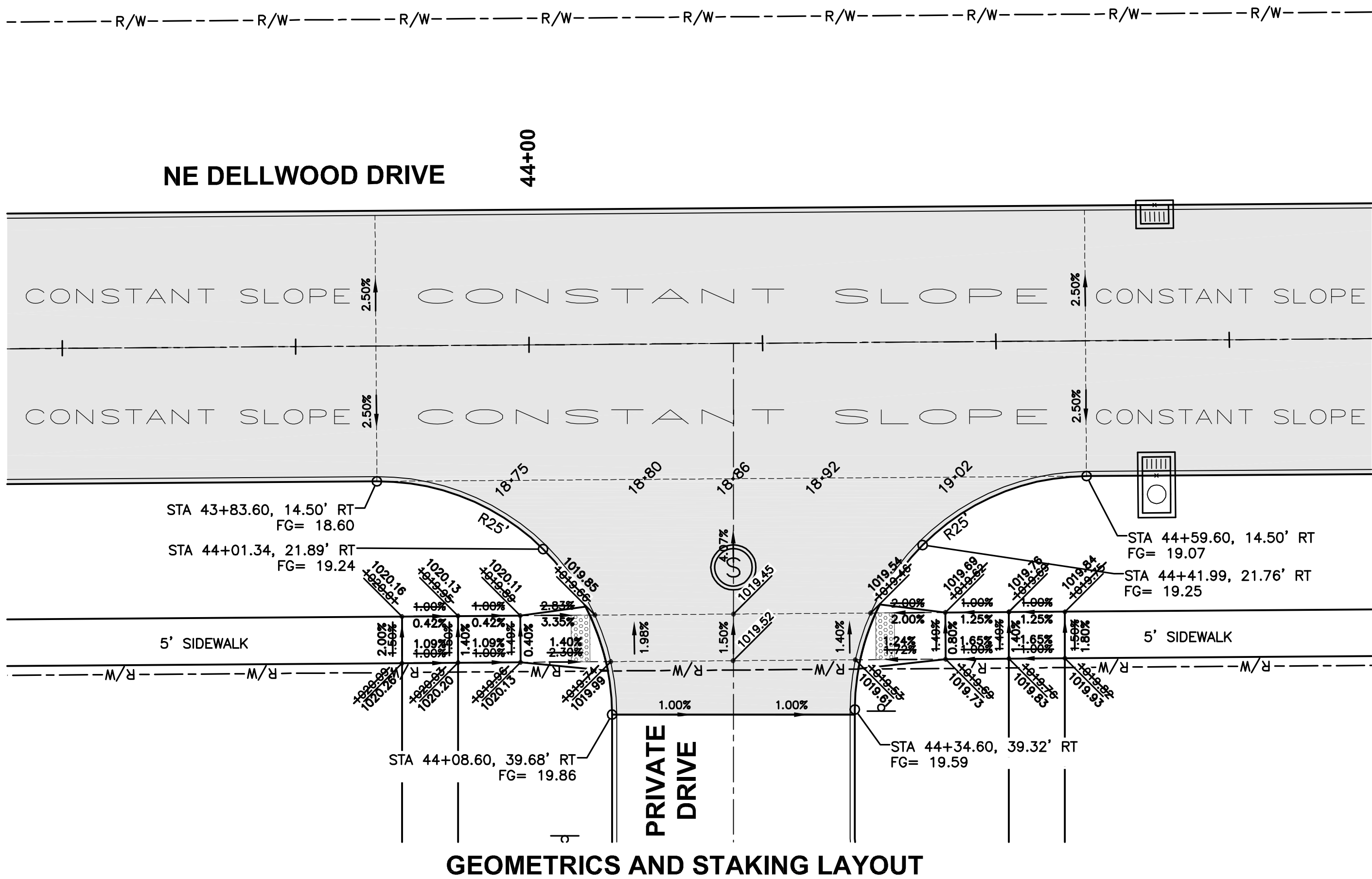
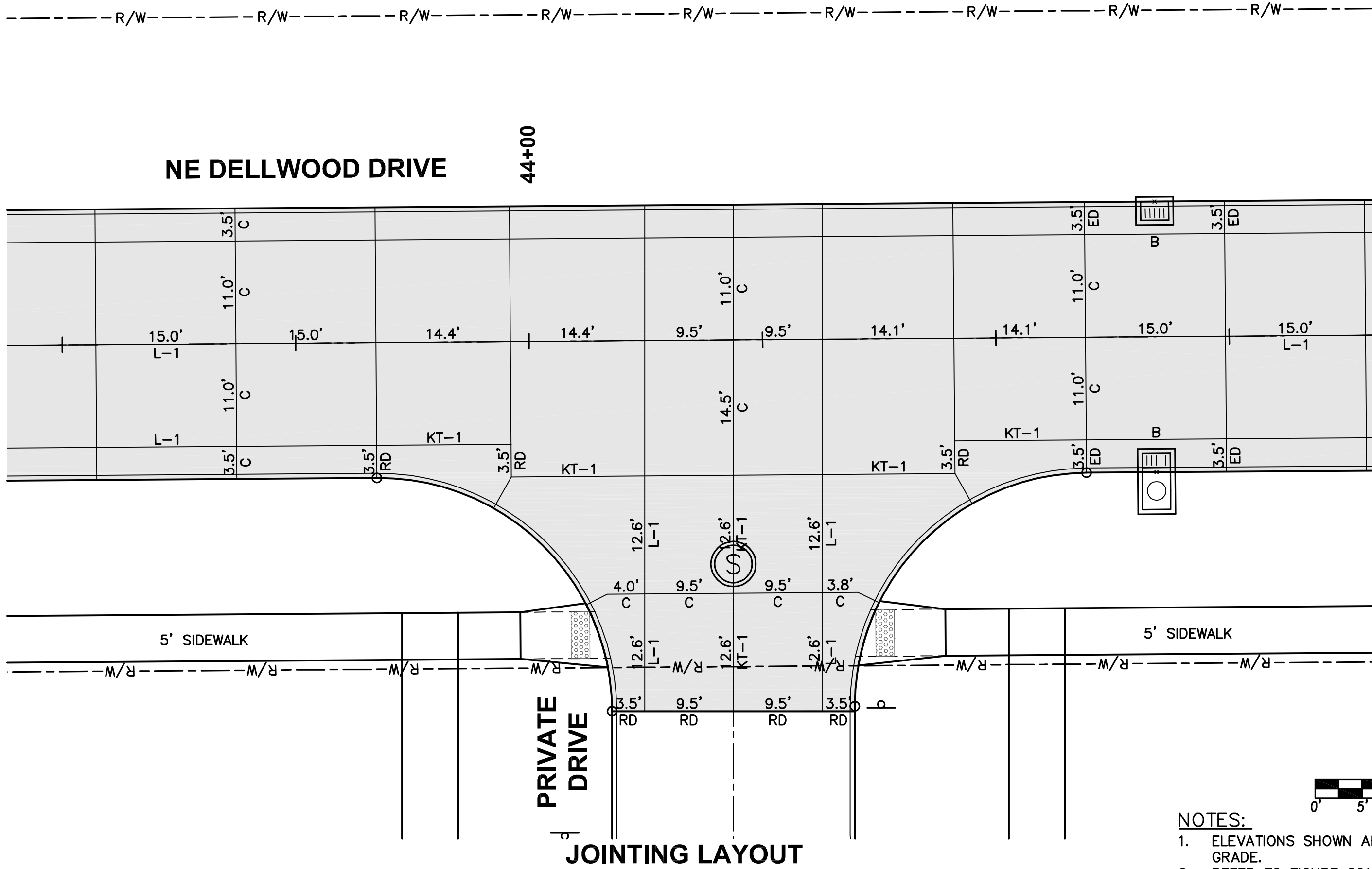
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Ei: JMM



ALICE PATRICIA HOMES
WATERMAIN PLAN AND PROFILE
WAUKEE, IOWA

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Ei: JMM

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

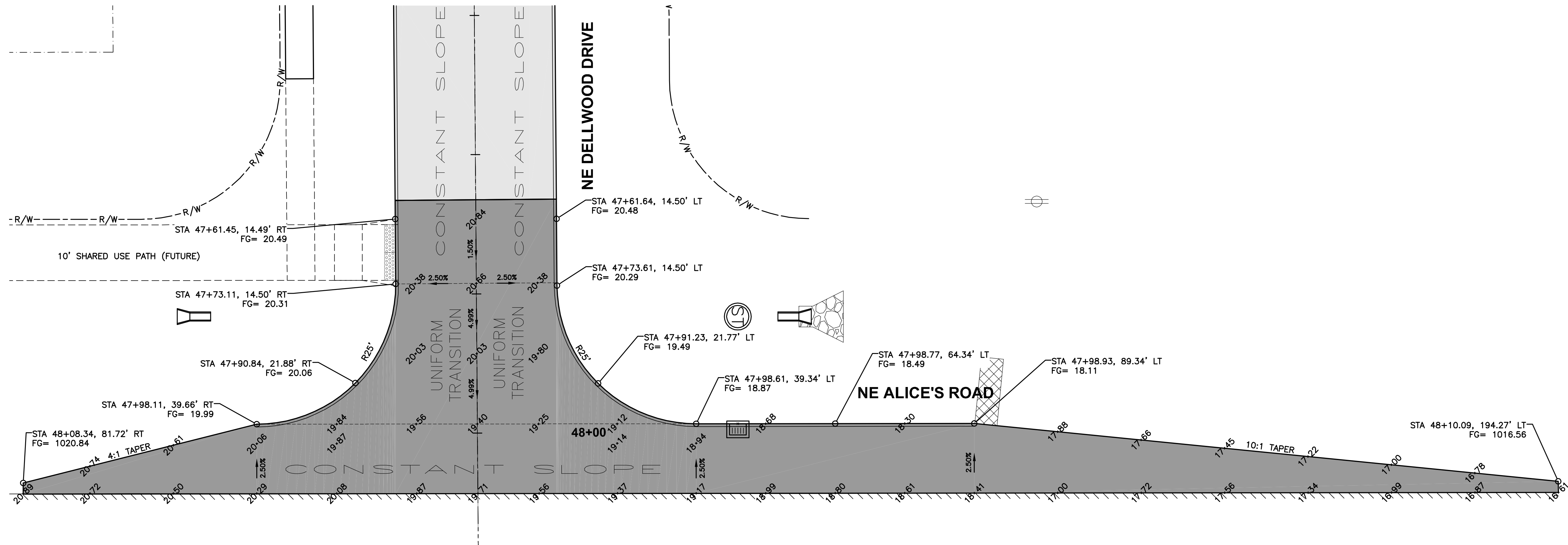
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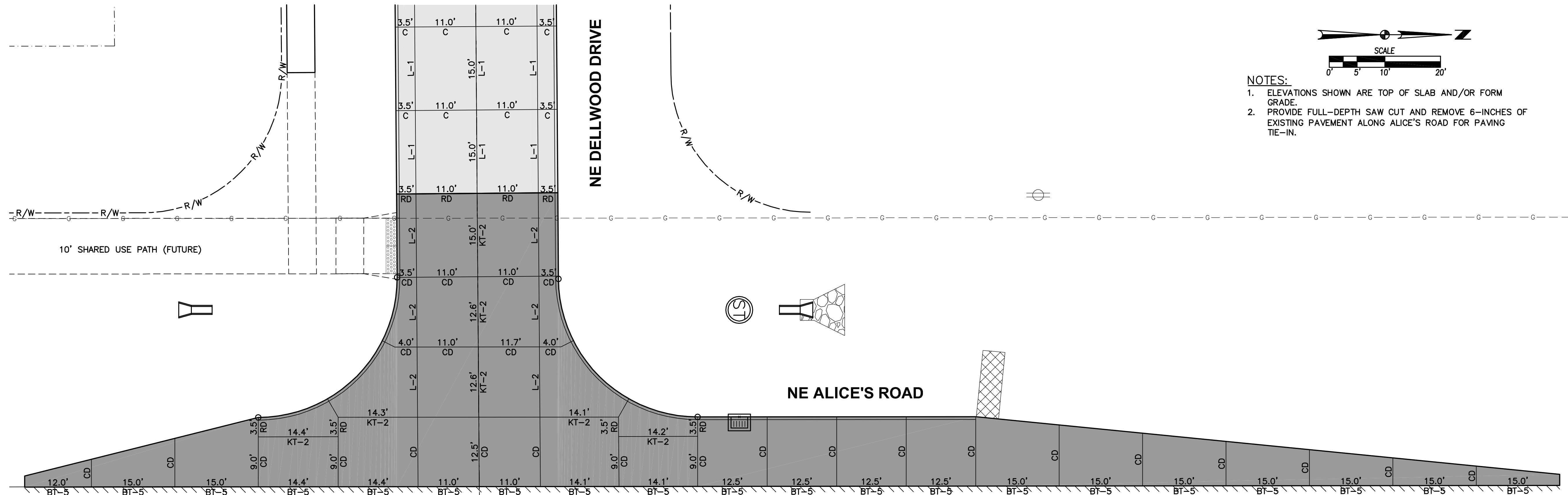
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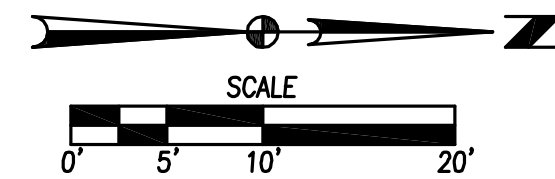
GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT

NOTES:

- ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
- PROVIDE FULL-DEPTH SAW CUT AND REMOVE 6-INCHES OF EXISTING PAVEMENT ALONG ALICE'S ROAD FOR PAVING TIE-IN.



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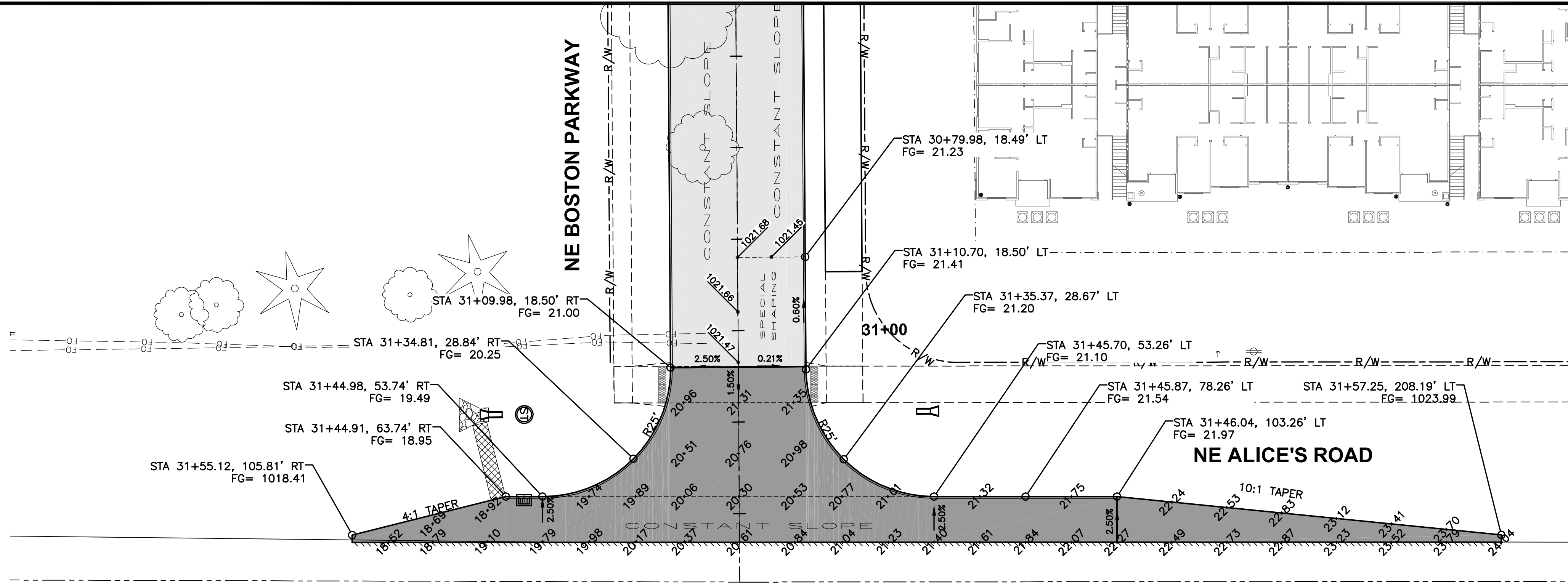
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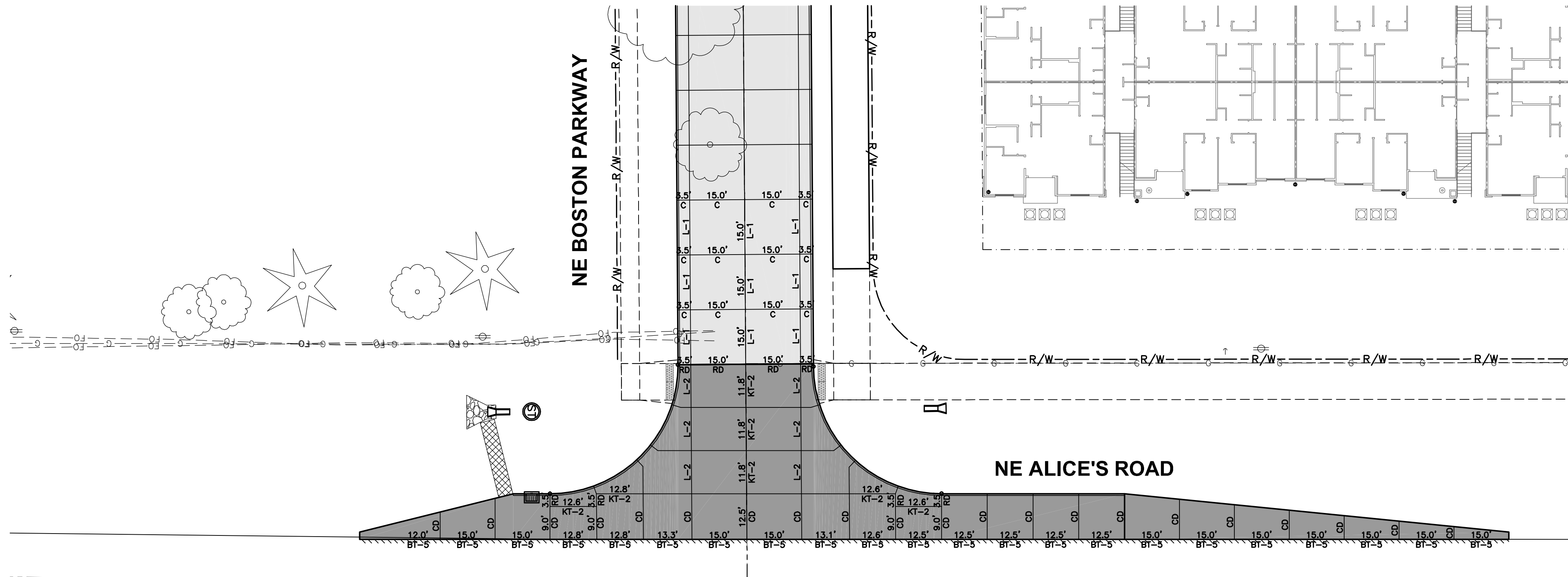
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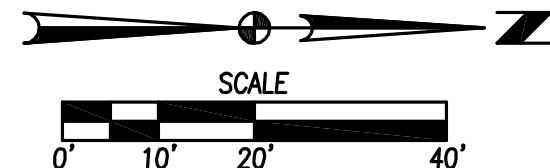
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GEOMETRICS AND STAKING LAYOUT



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