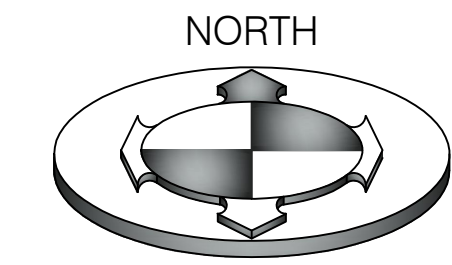
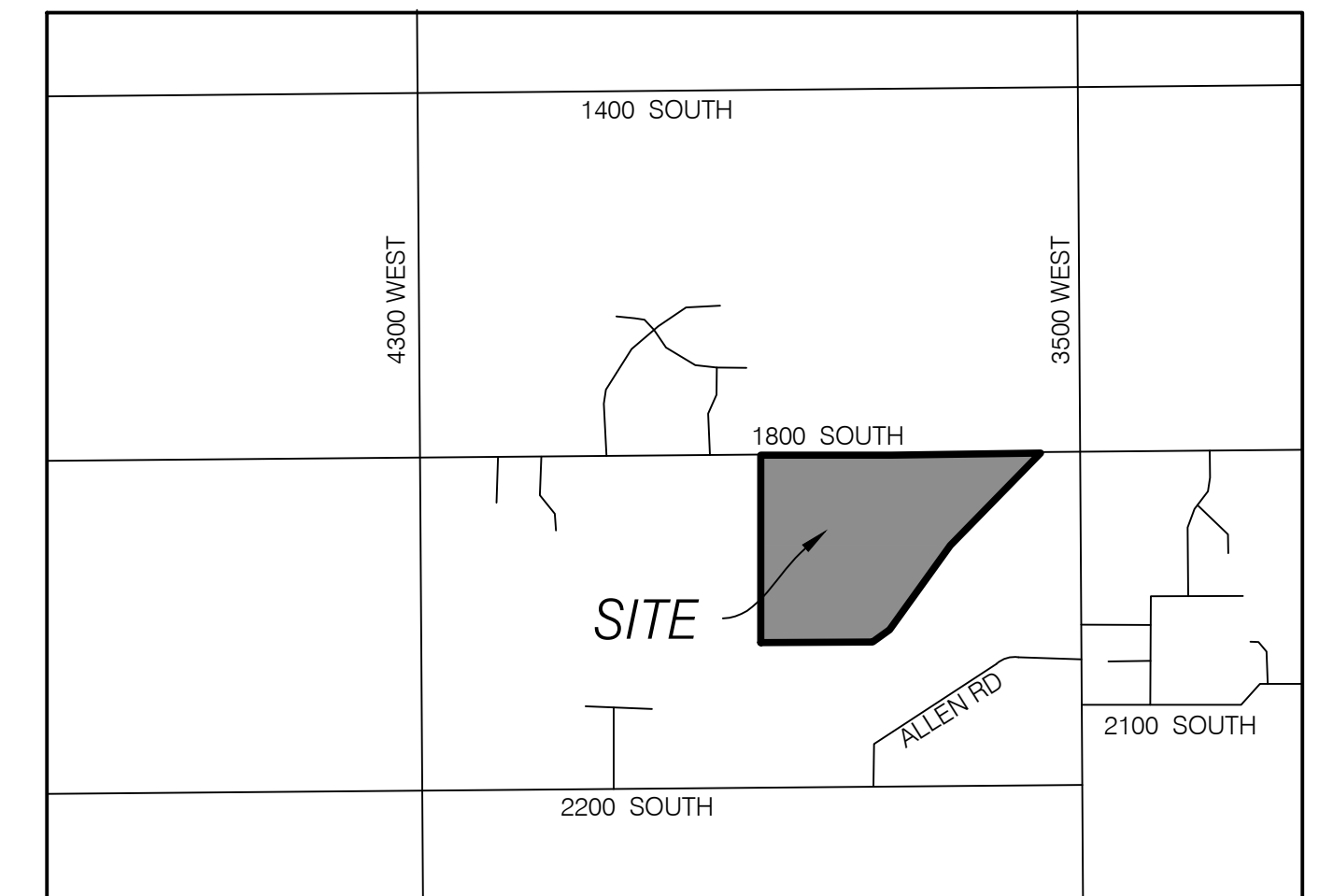
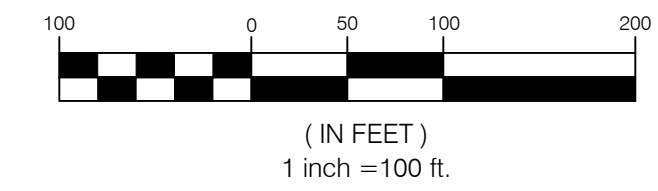


WINSTON PARK

LOCATED IN THE NORTHEAST QUARTER OF SECTION 28,
TOWNSHIP 6 NORTH NORTH, RANGE 2 WEST,
SALT LAKE BASE AND MERIDIAN
WEBER COUNTY, UTAH



GRAPHIC SCALE



VICINITY MAP
N.T.S.

PRELIMINARY DRAWING INDEX

COVER	COVER SHEET
CGN.01	GENERAL NOTES, LEGEND AND ABBREVIATION
CSP.01	SITE PLAN
CSP.02	SITE PLAN
CUP.01	UTILITY PLAN
CUP.01	UTILITY PLAN
CGD.01	GRADING & DRAINAGE PLAN
CGD.02	GRADING & DRAINAGE PLAN
CPP.01	ROADWAY PLAN & PROFILE
CPP.02	ROADWAY PLAN & PROFILE
CPP.03	ROADWAY PLAN & PROFILE
CPP.04	ROADWAY PLAN & PROFILE
CPP.05	ROADWAY PLAN & PROFILE
CPP.06	ROADWAY PLAN & PROFILE
CEP.01	EROSION CONTROL PLAN
CEP.02	EROSION CONTROL DETAILS
CDT.01	DETAILS & NOTES
CDT.02	DETAILS & NOTES
CDT.03	DETAILS & NOTES
CDT.04	DETAILS & NOTES
CDT.05	DETAILS & NOTES

PRELIMINARY CIVIL CONSTRUCTION PLANS

		BENCHMARK ENGINEERING & LAND SURVEYING 9138 SOUTH STATE STREET SUITE # 100 SANDY, UTAH 84070 (801) 542-7192 www.benchmarkcivil.com	
		PROJECT NO. 2006142	COVER
WINSTON PARK 3701 W 1800 S WEBER COUNTY, UTAH		DRAFT JHO DESIGN TJB CHECK AGA DATE 03/12/2021	PROJECT NO. 2006142
No. DATE DESCRIPTION	1 03/25/21 REVISED PER COUNTY, WATER & IRRIGATION COMMENTS		
1 OF 21			

OWNER: IGOR MAKSYMIW
EMAIL: igormaksymiw@aol.com



LINETYPES:

NEW EXISTING

Table of linetypes for various features like SECTION LINE, PROPERTY LINE, ADJACENT PL. OF LOT LINES, etc., with symbols for NEW and EXISTING.

SYMBOLS:

NEW EXISTING

Table of symbols for features like SECTION CORNER (FOUND), STREET CORNER (FOUND), BRASS CAP MONUMENT, etc.

ABBREVIATIONS

Table of abbreviations for features like BAR & CAP, RADIUS OF CURVE, SECTION CORNER, etc.

CONSTRUCTION NOTES

- 27. ACTUAL CONNECTIONS TO EXISTING WATER LINES WILL NOT BE PERMITTED PRIOR TO THE COMPLETION OF STERILIZATION AND TESTING OF NEW WATER MAINS. ALL EXISTING WATER VALVES TO BE OPERATED UNDER THE DIRECTION OF THE CITY/COUNTY PUBLIC WORKS DEPARTMENT PERSONNEL ONLY.
28. ALL UNDERGROUND UTILITIES SHALL BE IN PLACE, INSPECTED, TESTED, AND APPROVED BY AUTHORITIES HAVING JURISDICTION PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK, AND STREET PAVING.
29. CONSTRUCTION OF THE PRESSURIZED IRRIGATION SHALL BE IN ACCORDANCE WITH HOOPER IRRIGATION STANDARDS.
...
26. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO INSTALL PIPE OF ADEQUATE CLASSIFICATION WITH SUFFICIENT BEDDING TO MEET ALL REQUIREMENTS AND RECOMMENDATIONS FOR H-20 LOAD REQUIREMENTS.

ADJOINING PROPERTIES DURING THE GRADING PROJECT.

DEWATERING

- 62. THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE AND MAINTAIN ALL MACHINERY, APPLIANCES AND EQUIPMENT TO MAINTAIN ALL EXCAVATIONS FREE FROM WATER DURING CONSTRUCTION. THE CONTRACTOR SHALL DISPOSE OF THE WATER SO AS NOT TO CAUSE DAMAGE TO PUBLIC OR PRIVATE PROPERTY, OR TO CAUSE A NUISANCE OR MENACE TO THE PUBLIC OR VIOLATE THE LAW. THE DEWATERING SYSTEM SHALL BE INSTALLED AND OPERATED SO THAT THE GROUND LEVEL OUTSIDE THE EXCAVATION IS NOT REDUCED TO THE EXTENT WHICH WOULD CAUSE DAMAGE OR ENDANGER ADJACENT STRUCTURES OR PROPERTY. ALL COST FOR DEWATERING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ALL PIPE CONSTRUCTION. THE STATIC WATER LEVEL SHALL BE DRAWN DOWN A MINIMUM OF 1 FOOT BELOW THE BOTTOM OF EXCAVATIONS TO MAINTAIN THE UNDISTURBED STATE OF NATURAL SOILS AND ALLOW THE PLACEMENT OF ANY FILL TO THE SPECIFIED DENSITY. THE CONTRACTOR SHALL HAVE ON HAND, PUMPING EQUIPMENT AND MACHINERY IN GOOD CONDITION FOR EMERGENCIES AND SHALL HAVE WORKMEN AVAILABLE FOR ITS OPERATION. DEWATERING SYSTEM SHALL OPERATE CONTINUOUSLY UNTIL BACKFILL HAS BEEN COMPLETED TO 1 FOOT ABOVE THE NORMAL STATIC GROUNDWATER LEVEL.
63. THE CONTRACTOR SHALL CONTROL SURFACE WATER TO PREVENT ENTRY INTO EXCAVATIONS. AT EACH EXCAVATION, A SUFFICIENT NUMBER OF TEMPORARY OBSERVATION WELLS TO CONTINUOUSLY CHECK THE GROUNDWATER LEVEL SHALL BE PROVIDED.
64. BUMPS SHALL BE NO DEEPER THAN 6 FEET AND SHALL BE AT THE LOW POINT OF EXCAVATION. EXCAVATION SHALL BE GRADED TO DRAIN TO THE BUMPS.
65. THE CONTROL OF GROUNDWATER SHALL BE SUCH THAT SOFTENING OF THE BOTTOM OF EXCAVATIONS, OR FORMATION OF "QUICK" CONDITIONS OR "BOILS" DOES NOT OCCUR. DEWATERING SYSTEMS SHALL BE DESIGNED AND OPERATED SO AS TO PREVENT REMOVAL OF NATURAL SOILS. THE RELEASE OF GROUNDWATER AT ITS STATIC LEVEL SHALL BE PERFORMED IN SUCH A MANNER AS TO MAINTAIN THE UNDISTURBED STATE OF NATURAL FOUNDATION SOILS. PREVENT DISTURBANCE OF COMPACTED BACKFILL, AND PREVENT FLOTATION OR MOVEMENT OF STRUCTURES, FURNISHES AND SEWERS. IF A URESIS UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS REQUIRED FOR DISPOSAL OF WATER FROM CONSTRUCTION DEWATERING ACTIVITIES, IT SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO ANY DEWATERING ACTIVITIES.
66. ONE HUNDRED PERCENT STANDBY PUMPING CAPACITY SHALL BE AVAILABLE ON SITE AT ALL TIMES AND SHALL BE CONNECTED TO THE DEWATERING SYSTEM PIPING AS TO PERMIT IMMEDIATE USE. IN ADDITION STANDBY EQUIPMENT AND APPLIANCES FOR ALL ORDINARY EMERGENCIES, AND COMPETENT WORKMEN FOR OPERATION AND MAINTENANCE OF ALL DEWATERING SYSTEMS SHALL BE ON SITE AT ALL TIMES. STANDBY EQUIPMENT SHALL INCLUDE EMERGENCY POWER GENERATION AND AUTOMATIC SWITCH OVER TO THE EMERGENCY GENERATOR WHEN NORMAL POWER FAILS. DEWATERING SYSTEMS SHALL NOT BE SHUT DOWN BETWEEN SHIFTS, ON HOLIDAYS, ON WEEKENDS, OR DURING WORK STOPPAGES.

SITE SAFETY AND MAINTENANCE

- 67. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.
68. THE CONTRACTOR AGREES THAT:
A. THEY SHALL BE RESPONSIBLE TO CLEAN THE JOB SITE AT THE END OF EACH PHASE OF WORK.
B. THEY SHALL BE RESPONSIBLE TO REMOVE AND DISPOSE OF ALL TRASH, SCRAP AND UNUSED MATERIAL AT THEIR OWN EXPENSE IN A TIMELY MANNER.
C. THEY SHALL BE RESPONSIBLE TO MAINTAIN THE SITE IN A NEAT, SAFE AND ORDERLY MANNER AT ALL TIMES.
D. THEY SHALL BE RESPONSIBLE TO KEEP MATERIALS, EQUIPMENT, AND TRASH OUT OF THE WAY OF OTHER CONTRACTORS SO AS NOT TO DELAY THE JOB. FAILURE TO DO SO WILL RESULT IN A DEDUCTION FOR THE COST OF CLEAN UP FROM THE FINAL PAYMENT.
E. THEY SHALL BE RESPONSIBLE FOR THEIR OWN SAFETY, TRAFFIC CONTROL, PERMITS, RETESTING AND REINSPECTIONS AT THEIR OWN EXPENSE.
F. UNLESS OTHERWISE NOTED ALL EXCESS SOILS AND MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LAWFULLY DISPOSED OFF SITE AT THE CONTRACTORS EXPENSE.
G. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAGMEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.
H. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTORS USE DURING CONSTRUCTION.
I. ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROVED DISPOSAL SITES. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION OF MATERIAL TO AND FROM THE SITE.

SURFACE IMPROVEMENTS

- 72. FOR ALL WORK WITHIN PUBLIC RIGHTS-OF-WAY OR EASEMENTS, THE CONTRACTOR SHALL PRESERVE THE INTEGRITY AND LOCATION OF ANY AND ALL PUBLIC UTILITIES AND PROVIDE THE NECESSARY CONSTRUCTION TRAFFIC CONTROL. CONTRACTOR SHALL THROUGH THE ENCROACHMENT PERMIT PROCESS, VERIFY WITH THE NECESSARY REGULATORY AGENCIES, THE NEED FOR ANY TRAFFIC CONTROL PLANS. CONTRACTOR SHALL THROUGH THE PERMIT PROCESS PROVIDE PLAN AND RECEIVED PROPER APPROVAL PRIOR TO BEGINNING CONSTRUCTION. WORK IN EASEMENT AND/OR RIGHTS-OF-WAY IS SUBJECT TO THE APPROVAL AND ACCEPTANCE OF THE REGULATORY AGENCY RESPONSIBLE FOR OPERATION AND/OR MAINTENANCE OF SAID RIGHTS-OF-WAY. ALL CONSTRUCTION WORK IN A LOT RIGHT-OF-WAY SHALL BE SUBJECT TO INSPECTION BY THE STATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT INSPECTIONS TAKE PLACE WHERE AND WHEN REQUIRED, AND TO INSURE THAT ALL WORK IS COMPLETED TO UDOT STANDARDS.
73. SUBGRADE PREPARATION: SUBGRADE SHALL BE COMPACTED TO A 96% RELATIVE COMPACTION TO A MINIMUM DEPTH OF 6" FOR ALL ON-SITE DEVELOPMENT. ALL OFF-SITE IMPROVEMENTS ARE TO BE DONE PER APWA STANDARDS.
74. AGGREGATE SUB-BASE: AGGREGATE SUB-BASE SHALL BE GRANULAR BACKFILL BORROW. AGGREGATE SUB-BASE MATERIAL SHALL BE CLEAN AND FREE FROM VEGETABLE MATTER AND OTHER DELETERIOUS SUBSTANCE. AGGREGATE SHALL COMPLY WITH THE GUIDELINE REQUIREMENTS FOR PAVEMENTS FOUND IN THE PROFESSIONALLY PREPARED OF THE SOILS INVESTIGATIONS COMPLETED ON THIS SITE.
75. AGGREGATE BASE: AGGREGATE BASE SHALL BE GRADE 3/4 UNTRATED BASE COURSE, AND COMPLY PREPARED REPORT OF THE SOILS INVESTIGATION PREPARED ON THIS SITE.
76. ALL SIDEWALKS AND CROSSINGS TO MEET CURRENT ADA STANDARDS/ APWA STANDARDS.
77. PAYMENT FOR PAVEMENT WILL BE MADE ONLY FOR AREAS SHOWN ON PLANS. REPLACEMENT OF PAVEMENT WHICH IS BROKEN OR CUT DURING THE INSTALLATION OF THE WORK COVERED BY THESE GENERAL NOTES, AND WHICH LIES OUTSIDE OF SAVED AREAS, SHALL BE INCLUDED IN THE CONTRACTORS UNIT PRICES FOR PAVEMENT, AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR SUCH WORK.
78. INSTALLATION OF STREET LIGHTS SHALL BE IN ACCORDANCE WITH CITY STANDARDS.
79. PRIOR TO FINAL ACCEPTANCE OF THE IMPROVEMENTS BUILT BY THESE PLANS AND SPECIFICATIONS THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE OWNER, CITY, AND POWER COMPANY TO HAVE THE ELECTRICAL SYSTEM AND ALL STREET LIGHTS ENERGIZED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL STRIPING AND/OR PAVEMENT MARKINGS NECESSARY TO THE EXISTING STRIPING INTO FUTURE STRIPING. METHOD OF REMOVAL SHALL BE BY GRINDING OR SANDBLASTING.

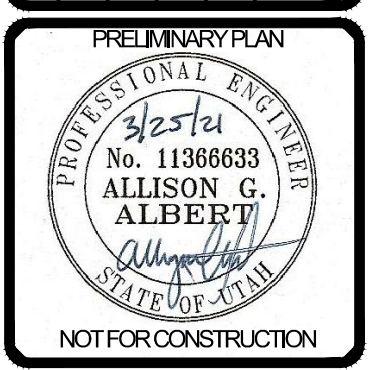
- 80. STRIPING AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH MUTCD & APWA 32 17.23.
81. DURING THE BIDDING PROCESS, CONTRACTOR TO REVIEW DESIGN SLOPES SHOWN FOR PAVEMENT AND WARRANTY THE PAVEMENT TO THE OWNER BASED UPON THE DESIGN SLOPES SHOWN HEREON. CONCERNING WITH SLOPES MUST BE BROUGHT DURING THE BIDDING PROCESS.
82. IT IS THE INTENT ON THESE PLANS THAT ALL PAVEMENT SLOPE TO A CATCH BASIN, INLET BOX OR OUT INTO A STREET. CONTRACTOR TO VERIFY FINISH SPOT ELEVATIONS AND NOTIFY ENGINEER IF THERE ARE DISCREPANCIES THAT WOULD CAUSE FLOODING ON THE SITE.



NOTE: IN THE EVENT THAT THE CONSTRUCTION NOTES CONFLICT WITH RESPONSIBLE DISTRICT OR AGENCY STANDARDS, NOTES AND SPECIFICATIONS, THE DISTRICT OR AGENCY STANDARD NOTES AND SPECIFICATIONS GOVERN.

CAUTION NOTICE TO CONTRACTORS THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO THE NORMAL WORKING HOURS, AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT. EXCEPTING FOR LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

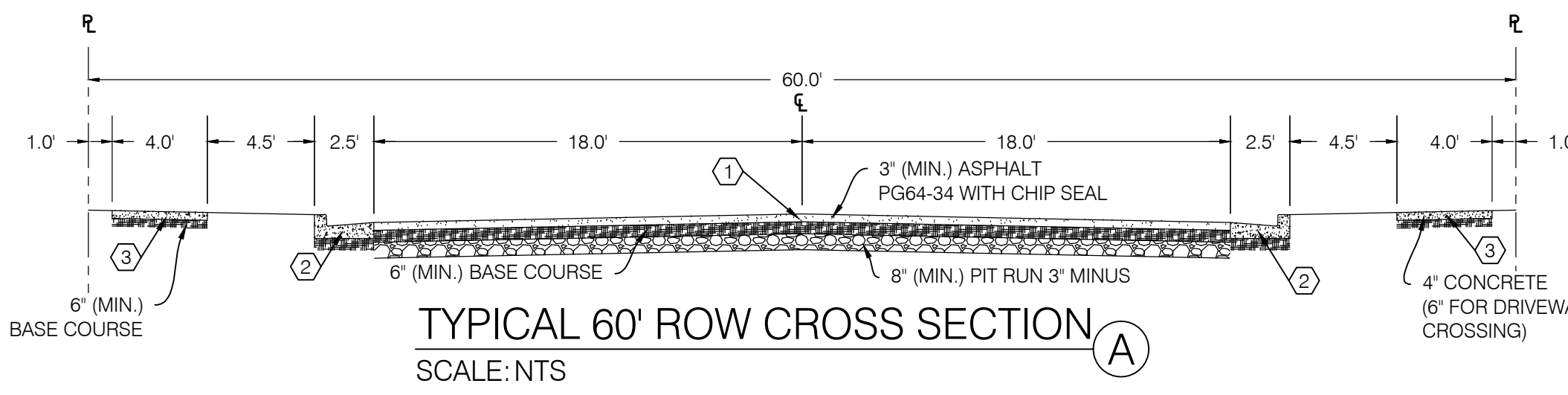
Table with columns: No., DATE, REVISION PER COUNTY, WATER & IRRIGATION, COMMENTS. Includes revision 1 dated 03/12/2021.



BENCHMARK ENGINEERING & LAND SURVEYING logo and address: 9188 SOUTH STATE STREET SUITE #100, SANDY, UTAH 84070 (801) 542-7192, www.benchmarkid.com

BENCHMARK CIVIL logo and address: WINSTON PARK, 3701 W 1800 S, WEBER COUNTY, UTAH

PROJECT NO. 2006142 GEN. NOTES LEGEND & ABBREV. CGN.01 2 OF 21



TYPICAL 60' ROW CROSS SECTION (A)
SCALE: NTS

Show on plat finished floor elevations

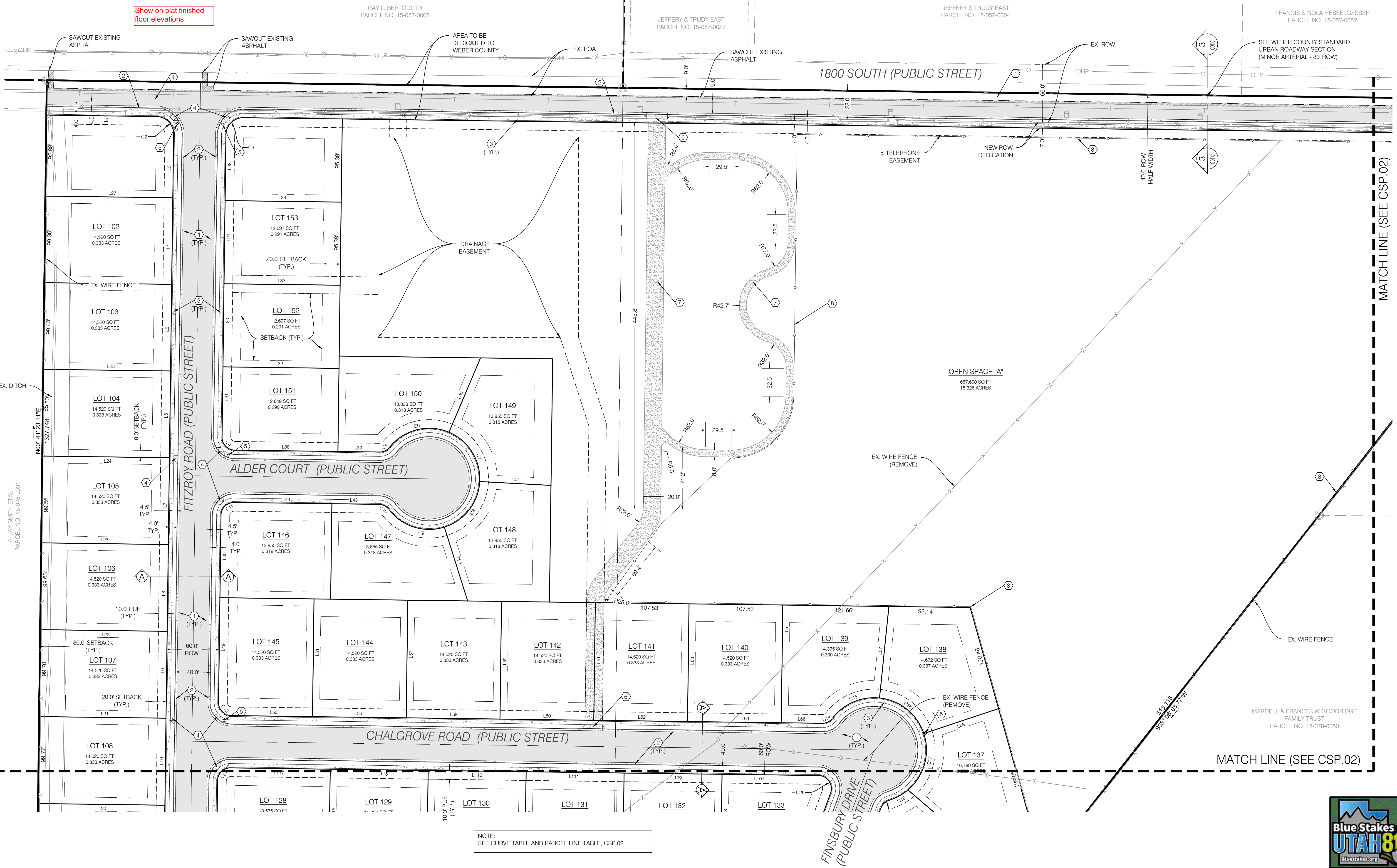
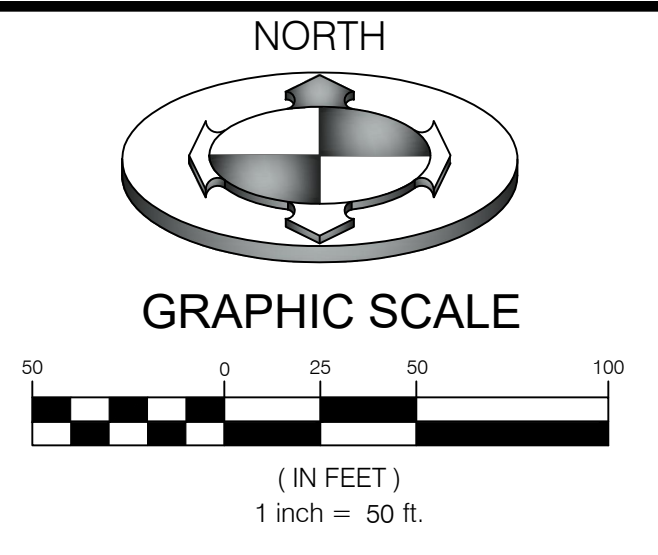
CONSTRUCTION KEY NOTE REFERENCE		
NO.	DESCRIPTION	DETAIL
1	ASPHALT PAVEMENT (PG64-34) WITH CHIP SEAL PER WEBER COUNTY PUBLIC STDS.	1/CDT.01
2	CONCRETE CURB AND GUTTER PER WEBER COUNTY PUBLIC STDS.	2/CDT.01
3	SIDEWALK PER WEBER COUNTY PUBLIC STDS.	2/CDT.01
4	ADA RAMP PER WEBER COUNTY PUBLIC STDS.	4/CDT.01
5	LIGHTPOLE (TO BE OWNED AND MAINTAINED BY HOA)	
6	"TYPE B" DRIVE APPROACH PER WEBER COUNTY PUBLIC STDS.	3/CDT.01
7	GRAVEL ACCESS ROAD/PATHWAY	1/CDT.01
8	NEW FENCE	

AREA TABLE		
PARTICULARS	S.F.	%
BUILDING*	162,000	9.5
HARDSCAPE*	237,126	13.8
LANDSCAPE	1,313,176	76.7
DEDICATED	301,208	N/A
TOTAL	1,712,302	100

*BUILDING AND HARDSCAPE AREAS ASSUME A BUILDING FOOTPRINT OF 3,000 S.F. AND A HARDSCAPE OF 500 S.F. PER LOT (54 LOTS).

NOTE: SAWCUT WIDTH, LOCATIONS AND TIE-IN ELEVATIONS IN EXISTING HARDSCAPE ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION AND EXTENT OF SAWCUTTING PRIOR TO CONSTRUCTION. NOTIFY CIVIL ENGINEER IF REVISIONS ARE REQUIRED. SEE NOTE 58 ON CGN.01 FOR FURTHER DETAIL.

NOTE: ALL WORK DONE IN PUBLIC ROADS TO BE DONE IN STRICT ACCORDANCE WITH WEBER COUNTY STANDARDS & SPECIFICATIONS.



RAY L. BERTOLDI, TR
PARCEL NO. 15-057-0006

JEFFERY & TRUDY EAST
PARCEL NO. 15-057-0027

JEFFERY & TRUDY EAST
PARCEL NO. 15-057-0004

FRANCIS & NOLA HESSELGESSER
PARCEL NO. 15-057-0032

SEE WEBER COUNTY STANDARD URBAN ROADWAY SECTION (MINOR ARTERIAL - 80' ROW)

MATCH LINE (SEE CSP.02)

MATCH LINE (SEE CSP.02)

NOTE: SEE CURVE TABLE AND PARCEL LINE TABLE, CSP.02.

NO.	DATE	DESCRIPTION
1	03/20/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

PRELIMINARY PLAN

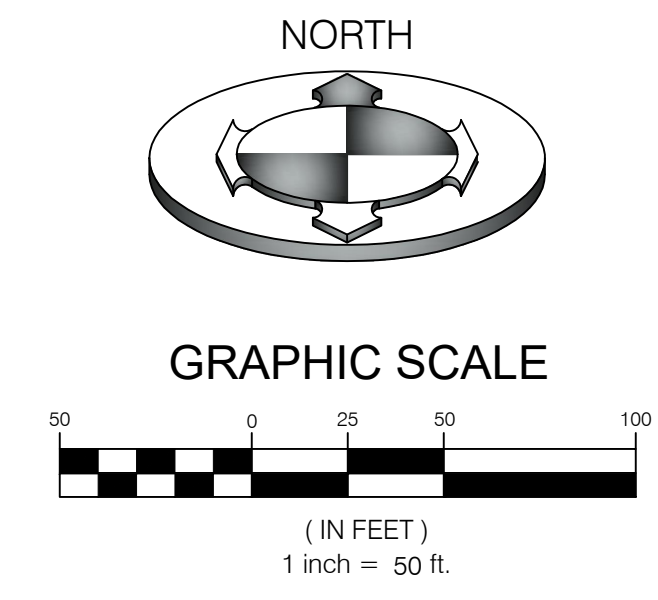
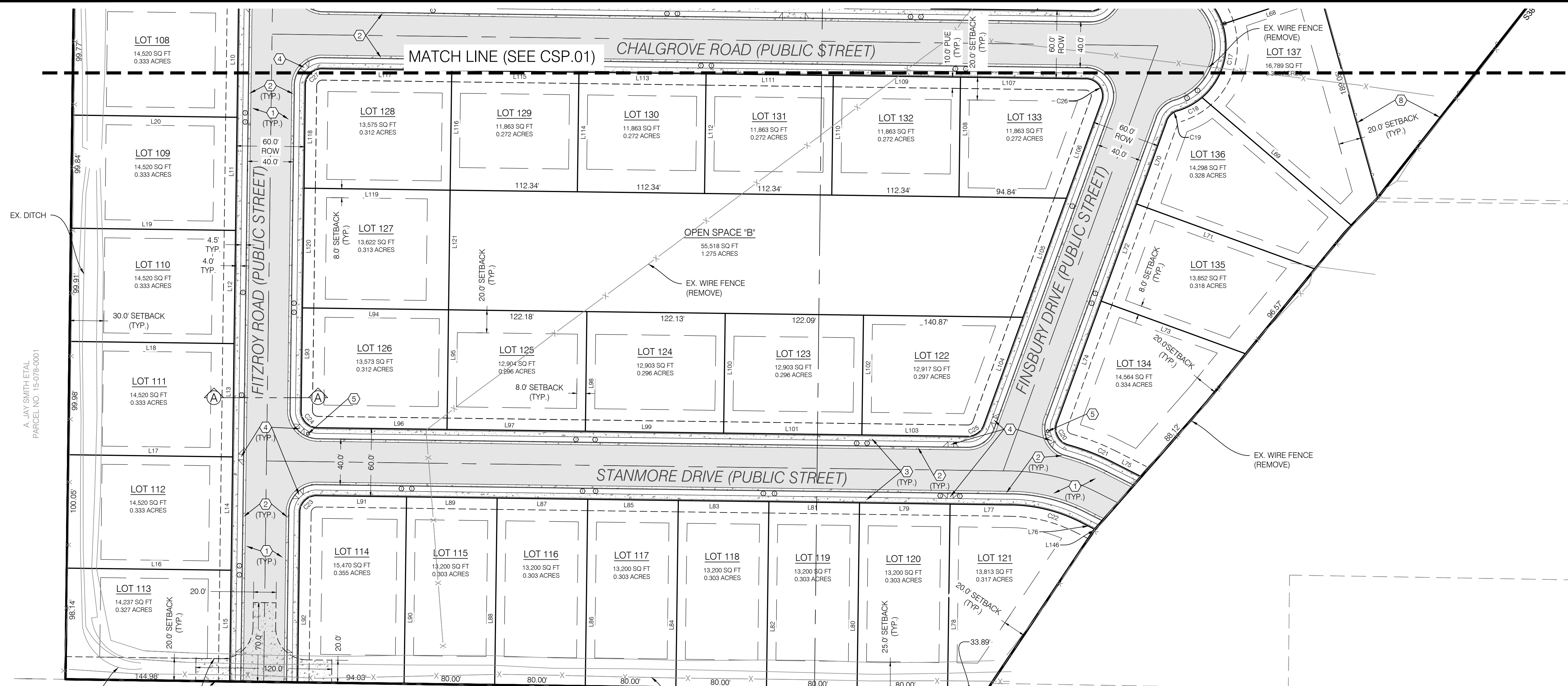
 NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
 9198 SOUTH STATE STREET SUITE #100
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WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

PROJECT NO. 2006142
SITE PLAN
CSP.01 3 OF 21





NOTE: SAWCUT WIDTH, LOCATIONS AND TIE-IN ELEVATIONS IN EXISTING HARDSCAPE ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION AND EXTENT OF SAWCUTTING PRIOR TO CONSTRUCTION. NOTIFY CIVIL ENGINEER IF REVISIONS ARE REQUIRED. SEE NOTE 58 ON CGN.01 FOR FURTHER DETAIL.

NOTE: ALL WORK DONE IN PUBLIC ROADS TO BE DONE IN STRICT ACCORDANCE WITH WEBER COUNTY STANDARDS & SPECIFICATIONS.

EX. DITCH
TEMPORARY VEHICULAR TURNAROUND EASEMENT IN FAVOR OF THE PUBLIC TO BE VACATED WHEN STREET CONTINUES SOUTH

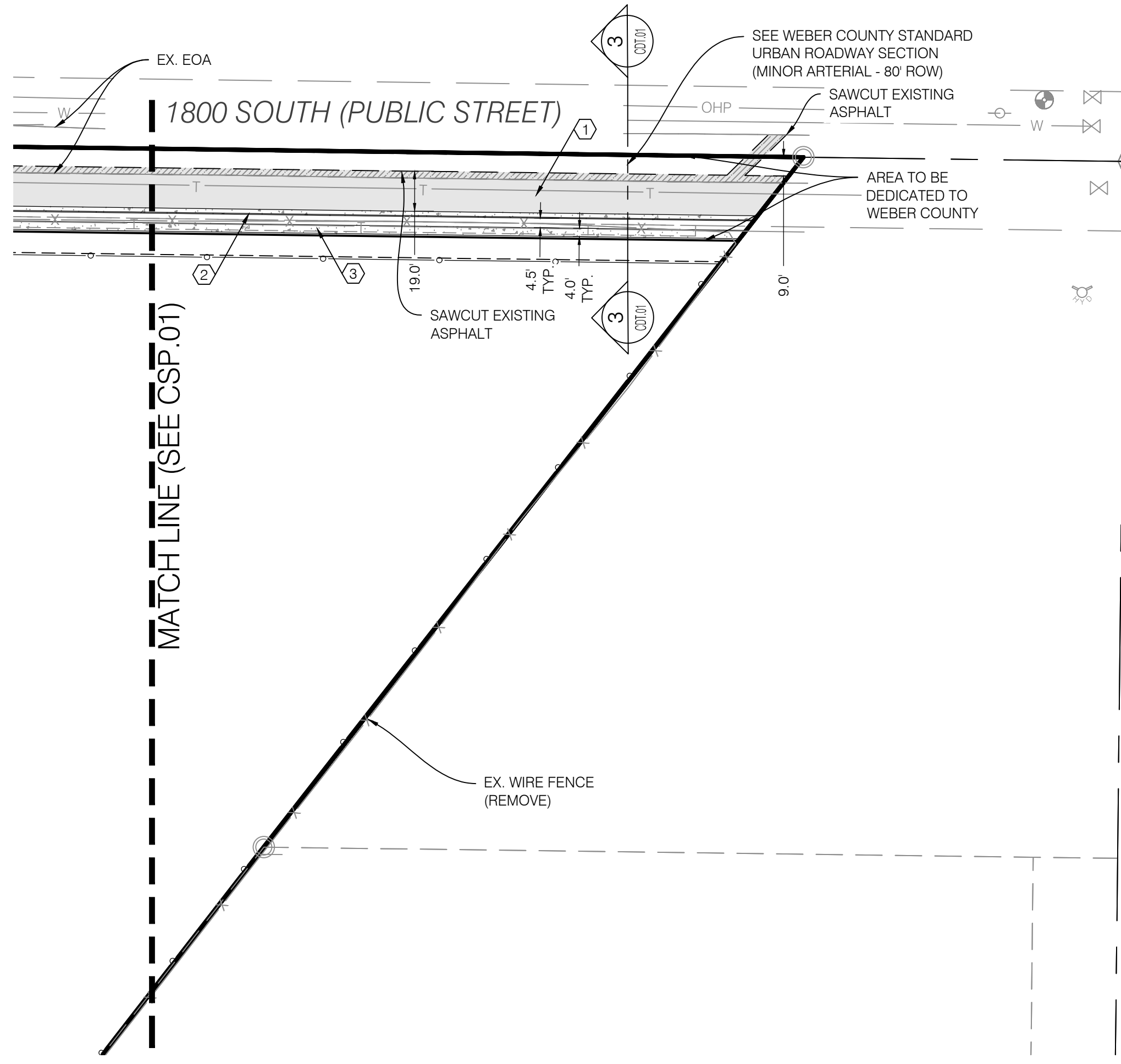
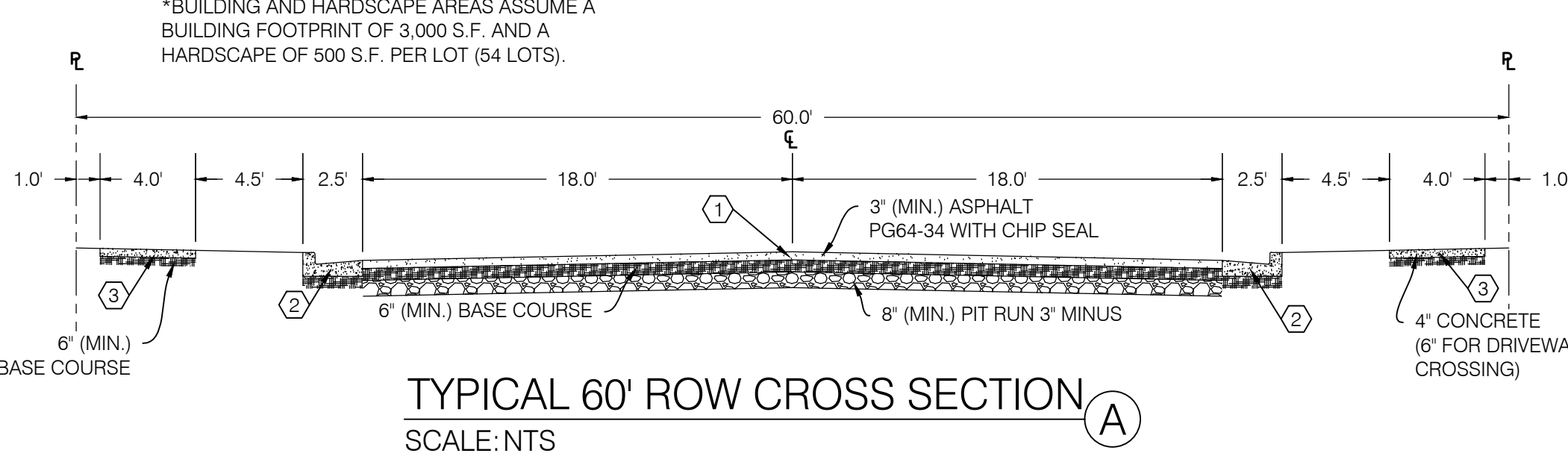
PJF CORP
PARCEL NO. 15-078-0006

EX. WIRE FENCE (REMOVE)

NO.	DESCRIPTION	DETAIL
(1)	ASPHALT PAVEMENT (PG64-34) WITH CHIP SEAL PER WEBER COUNTY PUBLIC STDS.	1/CDT.01
(2)	CONCRETE CURB AND GUTTER PER WEBER COUNTY PUBLIC STDS.	2/CDT.01
(3)	SIDEWALK PER WEBER COUNTY PUBLIC STDS.	2/CDT.01
(4)	ADA RAMP PER WEBER COUNTY PUBLIC STDS.	4/CDT.01
(5)	LIGHTPOLE (TO BE OWNED AND MAINTAINED BY HOA)	
(6)	TYPE 'B' DRIVE APPROACH PER WEBER COUNTY PUBLIC STDS.	3/CDT.01
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(8)	NEW FENCE	

PARTICULARS	S.F.	%
BUILDING*	162,000	9.5
HARDSCAPE*	237,126	13.8
LANDSCAPE	1,313,176	76.7
DEDICATED	301,208	N/A
TOTAL	1,712,302	100

APWA Plan 235.1
Example B, with truncated dome cast in place gray in color at intersections



CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD DISTANCE
C1	77.39'	170.00'	26°04'54"	N 76°11'45" W	76.72'
C2	31.42'	20.00'	90°00'00"	N 44°15'08" W	28.28'
C3	31.42'	20.00'	90°00'00"	S 45°44'52" W	28.28'
C4	23.56'	15.00'	90°00'00"	S 44°15'08" E	21.21'
C5	13.60'	15.00'	51°56'37"	N 64°46'33" E	13.14'
C6	75.07'	58.00'	74°09'36"	S 75°53'03" W	69.94'
C7	70.98'	58.00'	70°06'57"	N 31°58'41" W	66.63'
C8	70.33'	58.00'	69°28'26"	N 37°49'01" E	66.10'
C9	71.00'	58.00'	70°08'15"	S 72°22'39" E	66.65'
C10	13.60'	15.00'	51°56'37"	N 63°16'50" W	13.14'
C11	23.56'	15.00'	90°00'00"	S 45°44'52" W	21.21'
C12	287.38'	58.00'	283°53'13"	N 00°44'52" E	71.51'
C13	23.56'	15.00'	90°00'00"	S 44°15'08" E	21.21'
C14	13.91'	15.00'	53°07'48"	N 64°10'57" E	13.42'
C15	61.00'	60.00'	58°15'11"	S 66°44'39" W	58.41'
C16	68.77'	60.00'	65°40'01"	N 51°17'46" W	65.06'
C17	71.36'	60.00'	68°08'43"	N 15°36'37" E	67.23'
C18	24.58'	60.00'	23°28'25"	N 61°25'11" E	24.41'
C19	13.91'	15.00'	53°07'48"	S 46°35'29" W	13.42'
C20	24.81'	15.00'	94°46'35"	S 27°21'43" E	22.08'
C21	40.47'	200.00'	11°35'42"	N 68°57'09" W	40.41'
C22	63.73'	140.00'	26°04'54"	N 76°11'45" W	63.18'
C23	23.57'	15.00'	90°00'57"	S 45°45'20" W	21.22'
C24	23.56'	15.00'	89°59'03"	S 44°14'40" E	21.21'
C25	18.52'	15.00'	70°44'14"	N 55°23'42" E	17.37'
C26	28.61'	15.00'	109°16'43"	N 34°36'47" W	24.47'
C27	23.56'	15.00'	90°00'00"	S 45°44'52" W	21.21'
C28	225.71'	60.00'	215°32'20"	N 34°36'47" W	114.28'

LINE #	BEARING	DISTANCE
L1	S 63°09'18" E	22.14'
L2	S 89°15'08" E	126.28'
L3	S 00°44'52" W	72.88'
L4	S 00°44'52" W	99.36'
L5	S 00°44'52" W	99.43'
L6	S 00°44'52" W	99.50'
L7	S 00°44'52" W	99.56'
L8	S 00°44'52" W	99.63'
L9	S 00°44'52" W	99.70'
L10	S 00°44'52" W	99.77'
L11	S 00°44'52" W	99.84'
L12	S 00°44'52" W	99.91'
L13	S 00°44'52" W	99.98'
L14	S 00°44'52" W	100.05'
L15	S 00°44'52" W	98.18'
L16	N 89°15'08" W	145.08'
L17	S 89°15'08" E	145.18'
L18	N 89°15'08" W	145.28'
L19	S 89°15'08" E	145.38'
L20	N 89°15'08" W	145.48'
L21	S 89°15'08" E	145.58'
L22	N 89°15'08" W	145.68'
L23	S 89°15'08" E	145.79'
L24	N 89°15'08" W	145.89'
L25	S 89°15'08" E	145.99'
L26	N 89°15'08" W	146.09'
L27	S 89°15'08" E	146.19'
L28	S 00°44'52" W	75.38'
L29	S 00°44'52" W	95.38'
L30	S 00°44'52" W	95.38'
L31	S 00°44'52" W	80.38'
L32	S 89°15'08" E	133.13'
L33	S 89°15'08" E	133.13'
L34	S 89°15'08" E	133.13'
L35	S 00°44'52" W	95.38'
L36	S 00°44'52" W	95.38'
L37	S 00°44'52" W	109.50'
L38	S 89°15'08" E	118.13'
L39	S 89°15'08" E	47.61'
L40	N 22°57'51" E	92.69'

REVISIONS

NO.	DATE	DESCRIPTION
1	03/20/21	REVISED PER COUNTY WATER & IRRIGATION COMMENTS

DESIGNED BY: AGA
FIELD SUPERVISOR: SURVEY
DATE: 03/12/2021
DWG. FILE: 20042 SITE OPTION 1

SCALE MEASURES: HATCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

PROFESSIONAL ENGINEER
No. 113866833
ALLISON G. ALBERT
STATE OF UTAH

NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
9188 SOUTH STATE STREET SUITE #100
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WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

SITE PLAN
CSP.02
4 OF 21

CONSTRUCTION KEY NOTE REFERENCE		
NO	DESCRIPTION	DETAIL
1	8" PVC C-900 CULINARY WATER MAIN PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
2	1" POLY WATER SERVICE LINE & METER PER TAYLOR WEST WEBER WATER DISTRICT STDS.	3/CDT.05
3	12" BUTTERFLY VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
4	12" PVC C-900 DR18 CULINARY WATER MAIN PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
5	6" PVC C-900 FIRELINE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
6	FIRE HYDRANT PER TAYLOR WEST WEBER WATER DISTRICT STDS.	3/CDT.05
7	THRUST BLOCK PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
8	GATE VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
9	BLOW OFF VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	8/CDT.05
10	8" PVC SDR-35 SEWER MAIN PER WEBER COUNTY ENGINEERING STDS.	
11	4" PVC SDR-35 SEWER LATERAL (2% MIN SLOPE) PER WEBER COUNTY ENGINEERING STDS.	
12	4" SSMH PER WEBER COUNTY ENGINEERING STDS.	
13	5" SSMH PER WEBER COUNTY ENGINEERING STDS.	

CONSTRUCTION KEY NOTE REFERENCE		
NO	DESCRIPTION	DETAIL
14	12" PVC SDR-35 SEWER MAIN PER WEBER COUNTY ENGINEERING STDS.	
15	12" PVC C-900 PRESSURIZED IRRIGATION PIPE PER HOOPER IRRIGATION STDS.	3/CDT.02
16	8" PVC C-900 PRESSURIZED IRRIGATION PIPE PER HOOPER IRRIGATION STDS.	3/CDT.02
17	THRUST BLOCK PER HOOPER IRRIGATION STDS.	2/CDT.02
18	GATE VALVE PER HOOPER IRRIGATION STDS.	6/CDT.02
19	BLOW OFF VALVE PER HOOPER IRRIGATION STDS.	
20	1" POLY IRRIGATION SERVICE LINE & METER PER HOOPER IRRIGATION STDS.	5/CDT.02
21	8"x6" REDUCER	
22	8"x8"x8" TEE	
23	8"x8"x6" TEE	
24	8"x12" REDUCER	
25	8" 90° BEND	
26	12" 45° BEND	
27	STREET LIGHT PER WEBER COUNTY STDS.	

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION. NOTIFY ENGINEER FOR REDESIGN IF CONNECTION POINT IS HIGHER THAN SHOWN OR IF ANY UTILITY CONFLICTS OCCUR. GRAVITY CONNECTIONS MUST BE DONE PRIOR TO BUILDING FOOTINGS AND ROUGH PLUMBING ARE CONSTRUCTED.

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

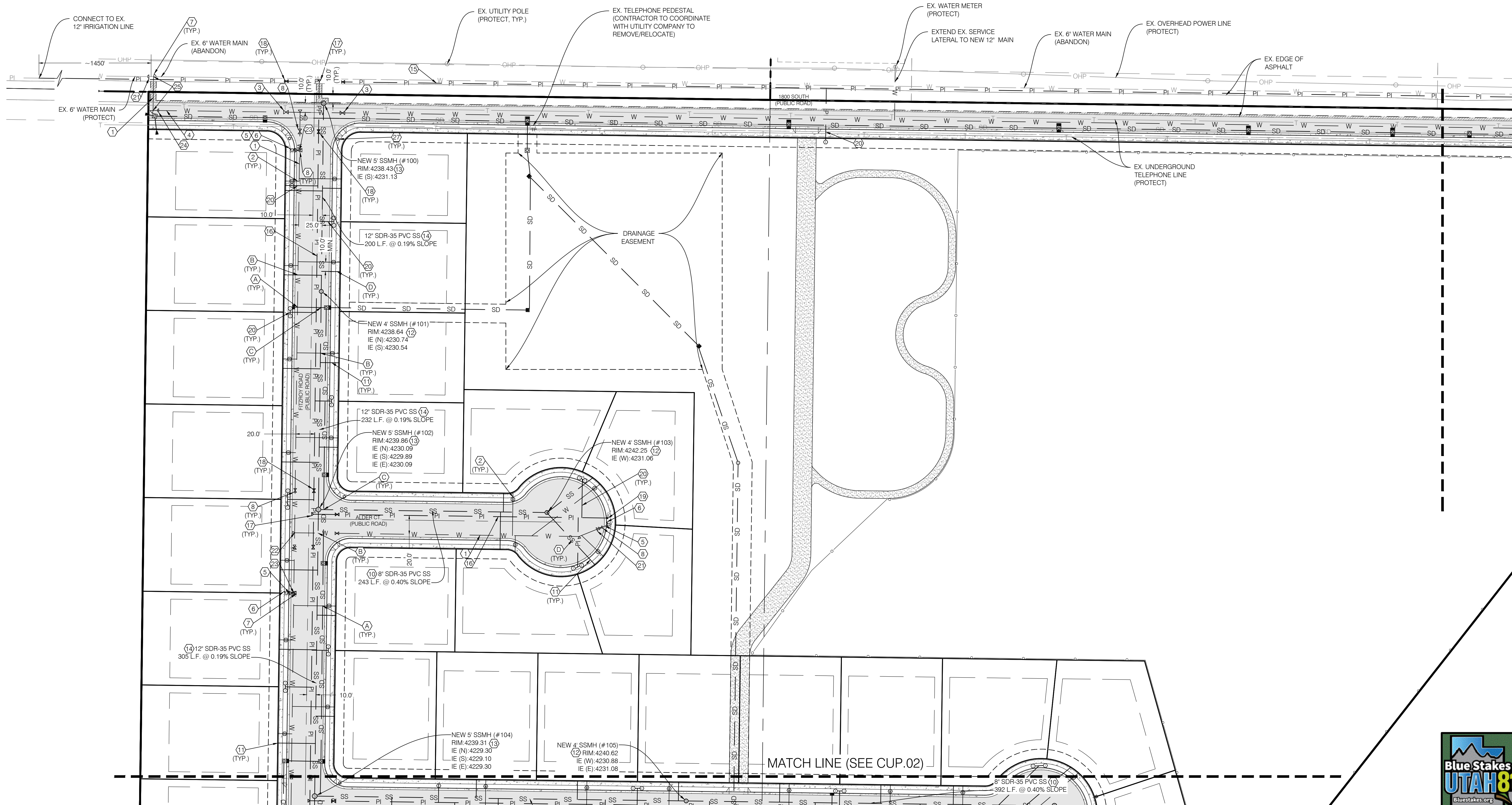
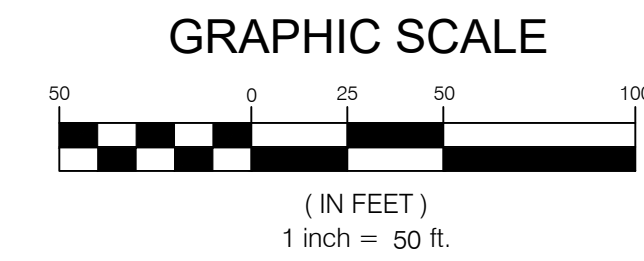
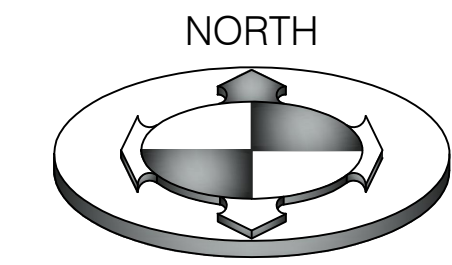
NOTE:
CONSTRUCTION OF THE PRESSURIZED IRRIGATION SHALL BE IN ACCORDANCE WITH HOOPER IRRIGATION STANDARDS.

NOTE A:
12" OF VERTICAL SEPERATION REQUIRED BETWEEN STORM AND WATER LINES. LOOP WATER MAIN IF IN CONFLICT.

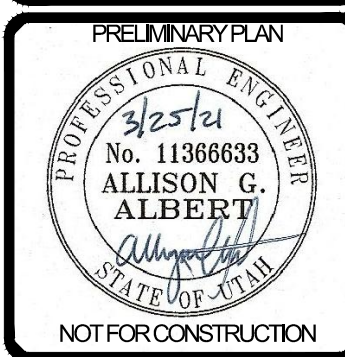
NOTE B:
18" OF VERTICAL SEPERATION REQUIRED BETWEEN SEWER AND WATER LINES. CONTACT ENGINEER FOR REDESIGN IF NECESSARY

NOTE C:
12" OF VERTICAL SEPERATION REQUIRED BETWEEN SEWER AND STORM. CONTACT ENGINEER FOR REDESIGN IF NECESSARY

NOTE D:
SEWER CLEANOUTS MUST BE PROVIDED EVERY 50' ON 4" SEWER LATERALS



DATE	03/2021
NO.	1
DESCRIPTION	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS
DESIGNED BY	AGA
CHECKED BY	AGA
DATE	03/12/2021
SCALE	AS SHOWN
SCALE	200% (2" = 40')

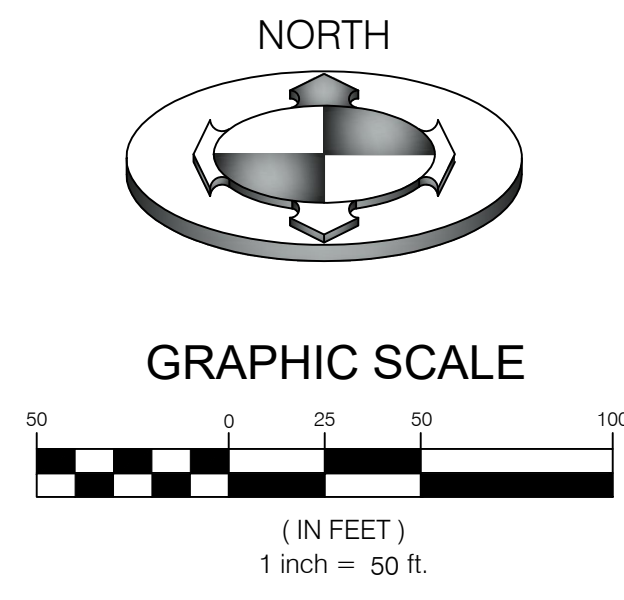
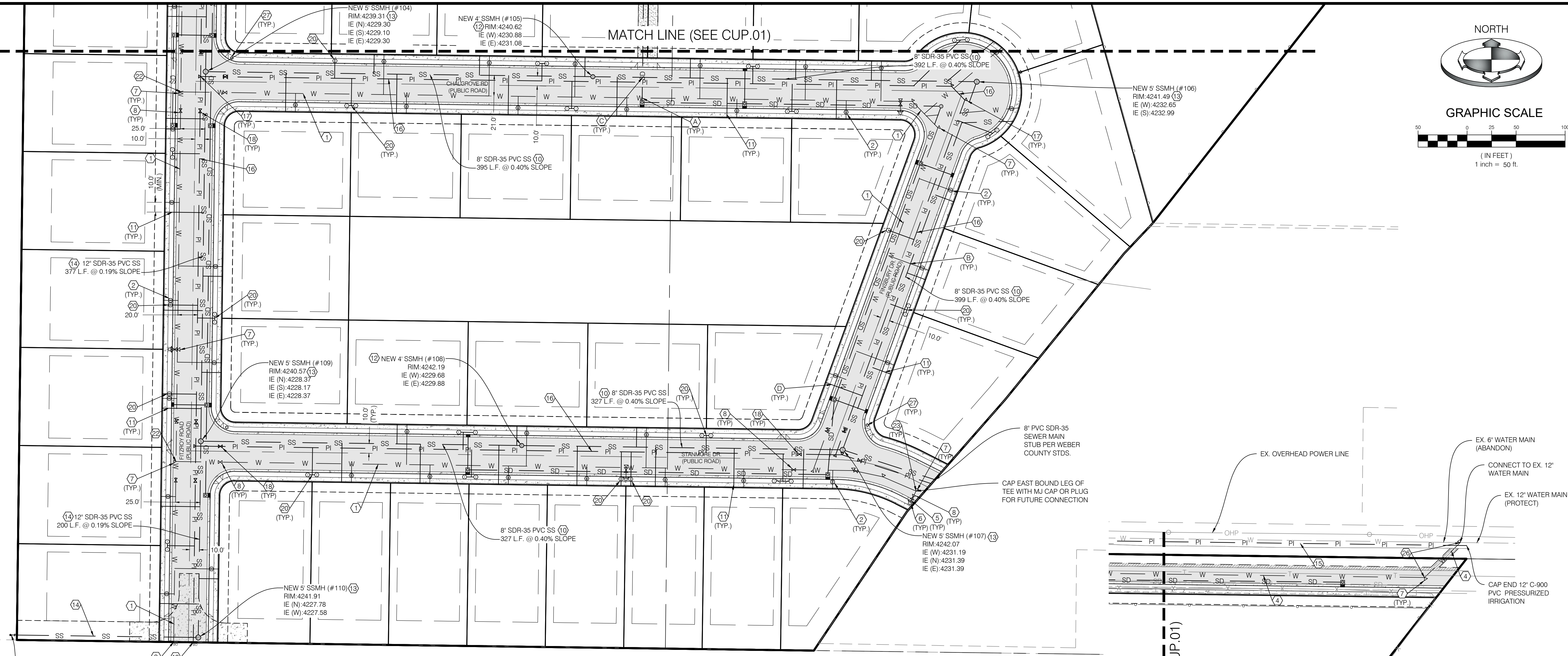


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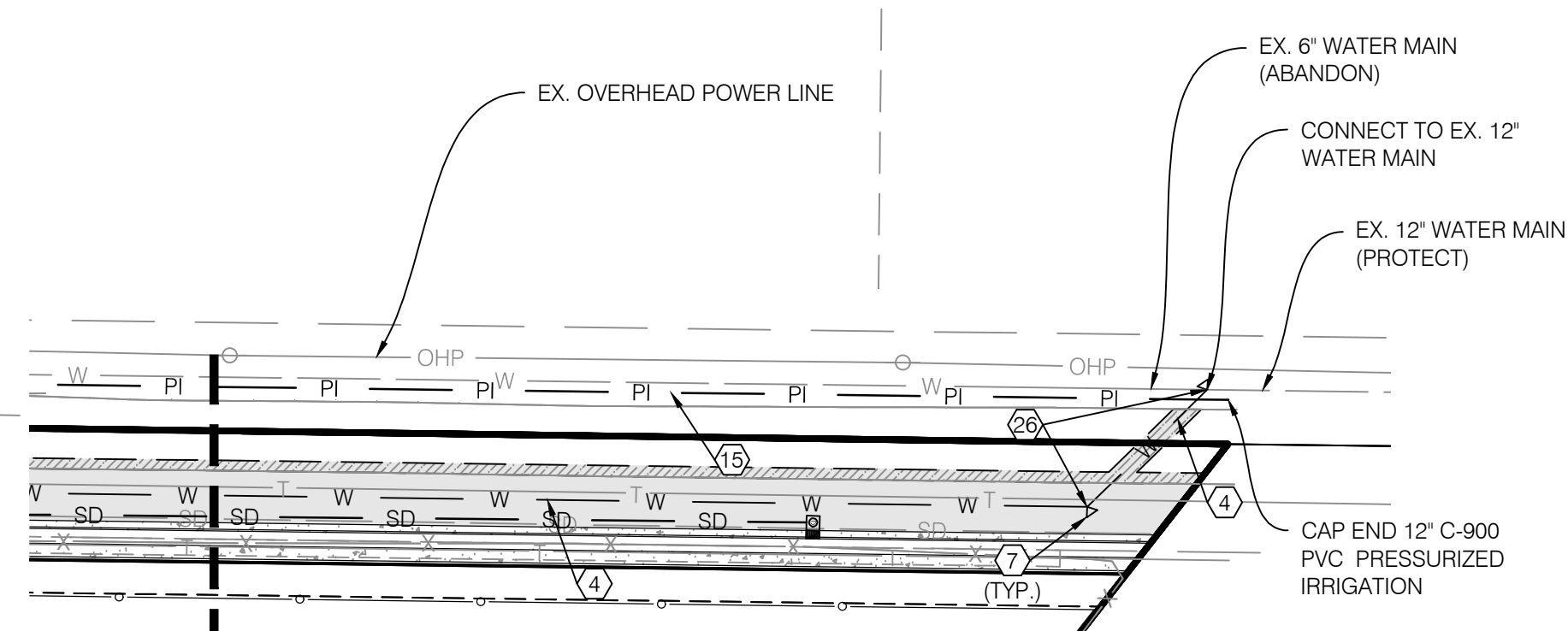
WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

PROJECT NO. 2006142
UTILITY PLAN
 CUP.01
 5 OF 21





SANITARY SEWER TO BE CONVEYED TO TAYLOR LIFT STATION



CONSTRUCTION KEY NOTE REFERENCE		
NO.	DESCRIPTION	DETAIL
1	8" PVC C-900 CULINARY WATER MAIN PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
2	1" POLY WATER SERVICE LINE & METER PER TAYLOR WEST WEBER WATER DISTRICT STDS.	3/CDT.05
3	12" BUTTERFLY VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
4	12" PVC C-900 DR18 CULINARY WATER MAIN PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
5	6" PVC C-900 FIRELINE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
6	FIRE HYDRANT PER TAYLOR WEST WEBER WATER DISTRICT STDS.	3/CDT.05
7	THRUST BLOCK PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
8	GATE VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
9	BLOW OFF VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	8/CDT.05
10	8" PVC SDR-35 SEWER MAIN PER WEBER COUNTY ENGINEERING STDS.	
11	4" PVC SDR-35 SEWER LATERAL (2% MIN SLOPE) PER WEBER COUNTY ENGINEERING STDS.	
12	4" SSMH PER WEBER COUNTY ENGINEERING STDS.	
13	5" SSMH PER WEBER COUNTY ENGINEERING STDS.	
14	12" PVC SDR-35 SEWER MAIN PER WEBER COUNTY ENGINEERING STDS.	
15	12" PVC C-900 PRESSURIZED IRRIGATION PIPE PER HOOPER IRRIGATION STDS.	3/CDT.02
16	8" PVC C-900 PRESSURIZED IRRIGATION PIPE PER HOOPER IRRIGATION STDS.	3/CDT.02
17	THRUST BLOCK PER HOOPER IRRIGATION STDS.	2/CDT.02
18	GATE VALVE PER HOOPER IRRIGATION STDS.	6/CDT.02
19	BLOW OFF VALVE PER HOOPER IRRIGATION STDS.	
20	1" POLY IRRIGATION SERVICE LINE & METER PER HOOPER IRRIGATION STDS.	5/CDT.02
21	8"X6" REDUCER	
22	8"X8"X8" TEE	
23	8"X8"X6" TEE	
24	8"X12" REDUCER	
25	8" 90° BEND	
26	12" 45° BEND	
27	STREET LIGHT PER WEBER COUNTY STDS.	

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION. NOTIFY ENGINEER FOR REDESIGN IF CONNECTION POINT IS HIGHER THAN SHOWN OR IF ANY UTILITY CONFLICTS OCCUR. GRAVITY CONNECTIONS MUST BE DONE PRIOR TO BUILDING FOOTINGS AND ROUGH PLUMBING ARE CONSTRUCTED.

NOTE A:
12" OF VERTICAL SEPERATION REQUIRED BETWEEN STORM AND WATER LINES. LOOP WATER MAIN IF IN CONFLICT.

NOTE B:
18" OF VERTICAL SEPERATION REQUIRED BETWEEN SEWER AND WATER LINES. CONTACT ENGINEER FOR REDESIGN IF NECESSARY

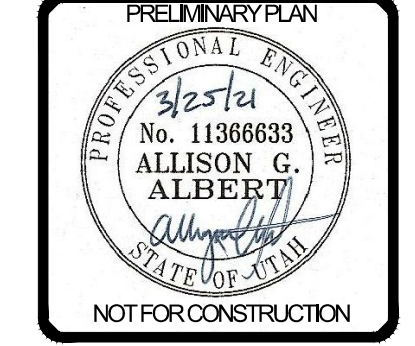
NOTE C:
12" OF VERTICAL SEPERATION REQUIRED BETWEEN SEWER AND STORM. CONTACT ENGINEER FOR REDESIGN IF NECESSARY

NOTE D:
SEWER CLEANOUTS MUST BE PROVIDED EVERY 50' ON 4" SEWER LATERALS

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE:
CONSTRUCTION OF THE PRESSURIZED IRRIGATION SHALL BE IN ACCORDANCE WITH HOOPER IRRIGATION STANDARDS.

PROJECT NO.	2006142
DATE	03/20/21
NO.	1
DESCRIPTION	REVISED PER COUNTY WATER & IRRIGATION COMMENTS
BY	JHO
CHECKED BY	AGA
FIELD DRAWN BY	SURVEY
DATE	03/12/2021
SCALE	AS SHOWN
SCALE	200% CUP OPTION 2
SCALE	0



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WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

UTILITY
 PLAN
 CUP.02
 6 OF 21



GRADING AND DRAINAGE KEY NOTE REFERENCE		
NO.	DESCRIPTION	DETAIL
1	GRADE SITE TO ELEVATIONS SHOWN ON PLAN	
2	8.5" ORIFICE PLATE	2/CDT.03
3	STORM DRAIN INLET BOX PER APWA #315.1	
4	STORM DRAIN CLEAN OUT	1/CDT.04
5	STORM DRAIN COMBO BOX PER APWA #316	
6	FLARED END SECTION	2/CDT.04
7	18" SNOUT	4/CDT.03
8	STORM DRAIN MAN-HOLE	

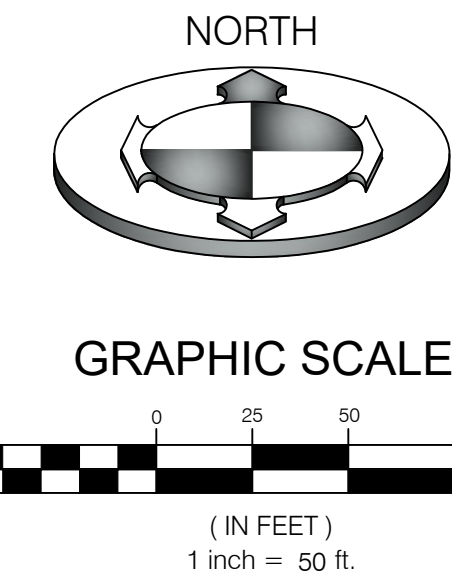
GRADING AND DRAINAGE KEY NOTE REFERENCE		
NO.	DESCRIPTION	DETAIL
9	15" Ø RCP CLASS III SD PIPE	
10	18" Ø RCP CLASS III SD PIPE	
11	21" Ø RCP CLASS III SD PIPE	
12	24" Ø RCP CLASS III SD PIPE	
13	12" Ø PERFORATED HDPE SD PIPE	3/CDT.04
14	3'X3' CATCH BASIN	1/CDT.03
15	SERIES 37 IN-LINE CHECK VALVE OR APPROVED EQUAL	3/CDT.03
16	15" Ø RCP CLASS III SD PIPE; 2-5 LF @ 0.50% (SEE NOTE A)	

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION. NOTIFY ENGINEER FOR REDESIGN IF CONNECTION POINT IS HIGHER THAN SHOWN OR IF ANY UTILITY CONFLICTS OCCUR. GRAVITY CONNECTIONS MUST BE DONE PRIOR TO BUILDING FOOTINGS AND ROUGH PLUMBING ARE CONSTRUCTED.

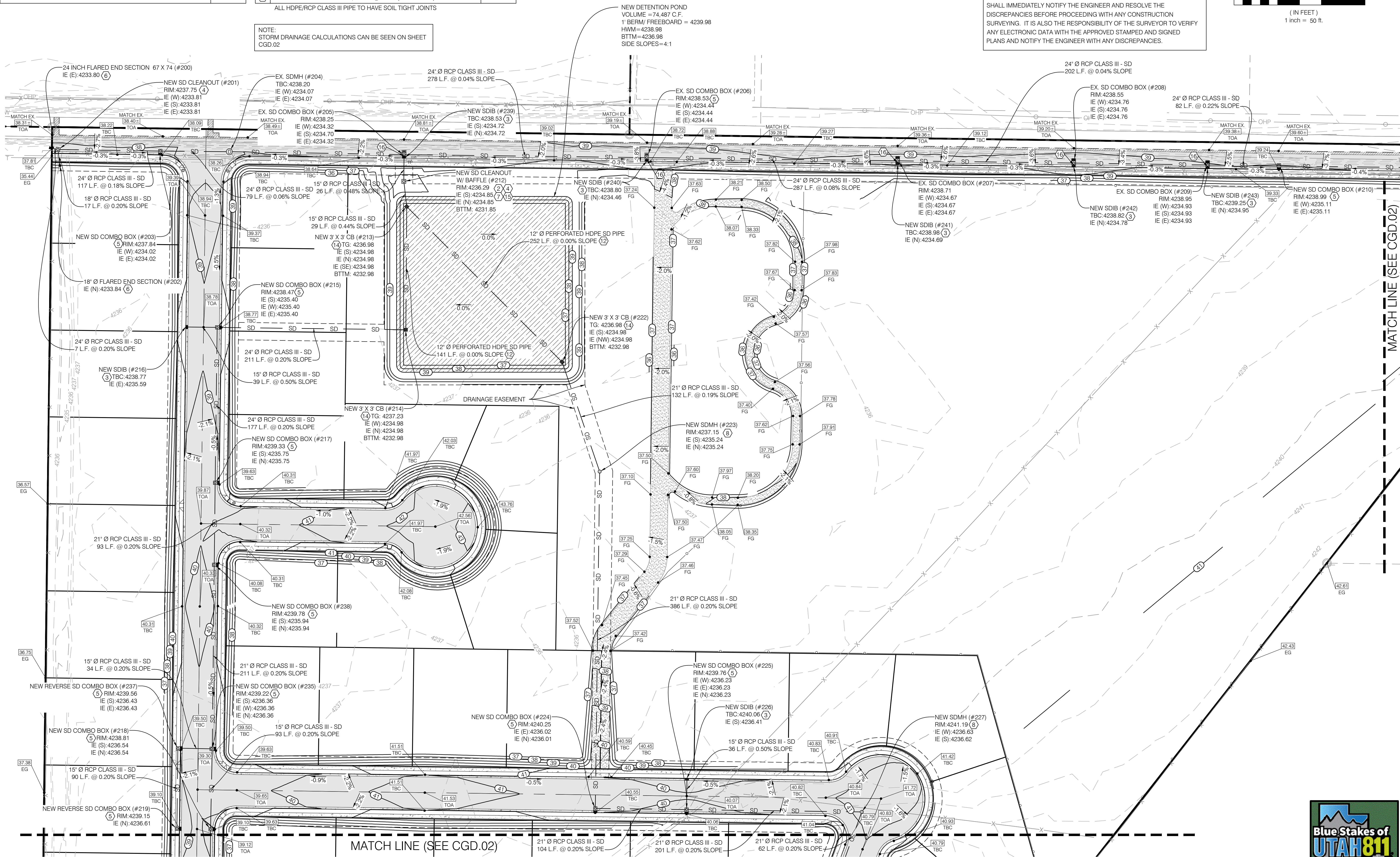
NOTE A:
CONTRACTOR TO FIELD VERIFY DISTANCE BETWEEN EXISTING SD COMBO BOX AND NEW SDIB PRIOR TO INSTALLATION OF 15" Ø CLASS III RCP. ADJUST EX. COMBO BOX LID TO GRADE AS NEEDED.

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

SURVEY CONTROL NOTE:
THE CONTRACTOR OR SURVEYOR PERFORMING THE CONSTRUCTION SURVEYING SHALL BE RESPONSIBLE TO PROVIDE CONSTRUCTION LAYOUT PER THE APPROVED PLANS ONLY. THE SURVEYOR SHALL ALSO BE RESPONSIBLE FOR VERIFYING HORIZONTAL CONTROL FROM THE SURVEY MONUMENTS AND FOR VERIFYING ANY ADDITIONAL CONTROL POINTS SHOWN ON THE SURVEY OR IMPROVEMENTS PLANS OR ON ELECTRONIC DATA PROVIDED BY BENCHMARK ENGINEERING AND LAND SURVEYING. THE SURVEYOR SHALL ALSO USE THE BENCHMARKS AS SHOWN ON THE PLAN, AND VERIFY THEM AGAINST NO LESS THAN THREE EXISTING HARD IMPROVEMENT ELEVATIONS INCLUDED ON THESE PLANS OR ON ELECTRONIC DATA PROVIDED BY BENCHMARK ENGINEERING AND LAND SURVEYING. IF ANY DISCREPANCIES ARE ENCOUNTERED, THE SURVEYOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND RESOLVE THE DISCREPANCIES BEFORE PROCEEDING WITH ANY CONSTRUCTION SURVEYING. IT IS ALSO THE RESPONSIBILITY OF THE SURVEYOR TO VERIFY ANY ELECTRONIC DATA WITH THE APPROVED STAMPED AND SIGNED PLANS AND NOTIFY THE ENGINEER WITH ANY DISCREPANCIES.



NOTE:
STORM DRAINAGE CALCULATIONS CAN BE SEEN ON SHEET CGD.02



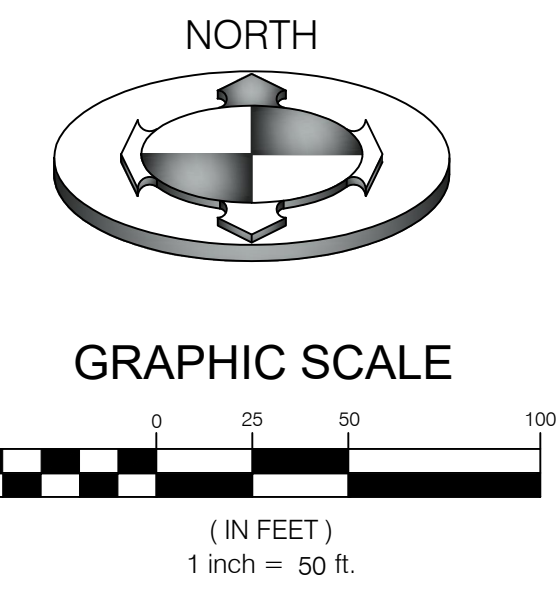
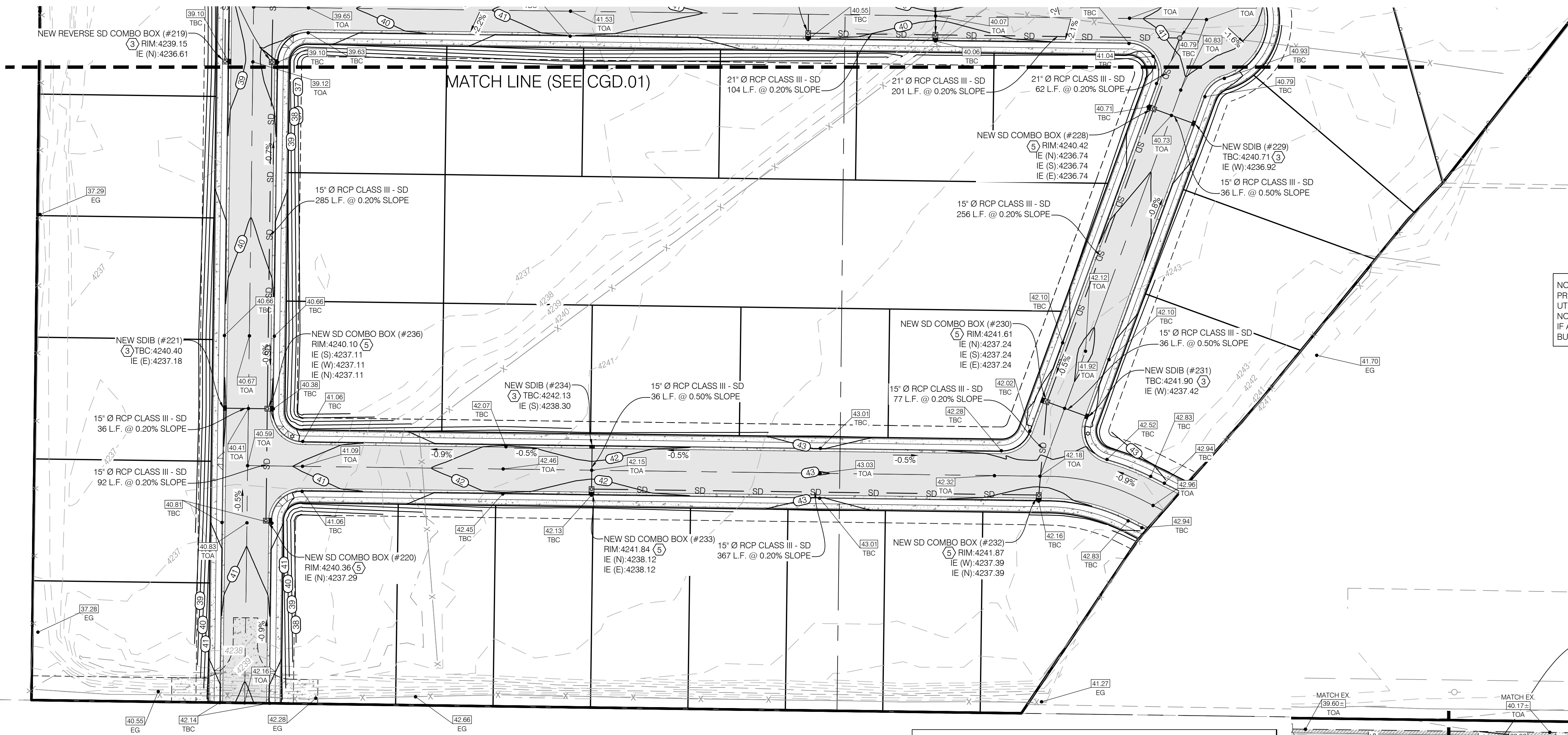
PROJECT NO.	2006142
PROJECT NAME	WINSTON PARK 3701 W 1800 S WEBER COUNTY, UTAH
DATE	03/20/21
REVISION	1
DESCRIPTION	REVISED PER COUNTY WATER & IRRIGATION COMMENTS
DESIGNED BY	AGA
CHECKED BY	SURVEY
DATE	03/12/2021
SCALE	AS SHOWN
SCALE MEASURES	HIGH ON FULL SIZE SHEETS ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

PROFESSIONAL ENGINEER
No. 1136883
ALLISON G. ALBERT
STATE OF UTAH
NOT FOR CONSTRUCTION

BENCHMARK
ENGINEERING &
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NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION. NOTIFY ENGINEER FOR REDESIGN IF CONNECTION POINT IS HIGHER THAN SHOWN OR IF ANY UTILITY CONFLICTS OCCUR. GRAVITY CONNECTIONS MUST BE DONE PRIOR TO BUILDING FOOTINGS AND ROUGH PLUMBING ARE CONSTRUCTED.

NOTE:
SAWCUT WIDTH, LOCATIONS AND TIE-IN ELEVATIONS IN EXISTING HARDSCAPE ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY LOCATION AND EXTENT OF SAWCUTTING PRIOR TO CONSTRUCTION. NOTIFY CIVIL ENGINEER IF REVISIONS ARE REQUIRED. SEE NOTE 58 ON CGN.01 FOR FURTHER DETAIL.

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NO.	DESCRIPTION	DETAIL
①	GRADE SITE TO ELEVATIONS SHOWN ON PLAN	
②	8.5" ORIFICE PLATE	2/CDT.03
③	STORM DRAIN INLET BOX PER APWA #315.1	
④	STORM DRAIN CLEAN OUT	1/CDT.04
⑤	STORM DRAIN COMBO BOX PER APWA #316	
⑥	FLARED END SECTION	2/CDT.04
⑦	18" SNOUT	4/CDT.03
⑧	STORM DRAIN MANHOLE	
⑨	15" Ø RCP CLASS III SD PIPE	
⑩	18" Ø RCP CLASS III SD PIPE	
⑪	21" Ø RCP CLASS III SD PIPE	
⑫	24" Ø RCP CLASS III SD PIPE	
⑬	12" Ø PERFORATED HDPE SD PIPE	3/CDT.04
⑭	3'X3' CATCH BASIN	1/CDT.03
⑮	SERIES 37 IN-LINE CHECK VALVE OR APPROVED EQUAL	3/CDT.03
⑯	15" Ø RCP CLASS III SD PIPE, 1-5 LF @ 0.50% (SEE NOTE A)	

ALL HDPE/RCP CLASS III PIPE TO HAVE SOIL TIGHT JOINTS

SURVEY CONTROL NOTE:
THE CONTRACTOR OR SURVEYOR PERFORMING THE CONSTRUCTION SURVEYING SHALL BE RESPONSIBLE TO PROVIDE CONSTRUCTION LAYOUT PER THE APPROVED PLANS ONLY. THE SURVEYOR SHALL ALSO BE RESPONSIBLE FOR VERIFYING HORIZONTAL CONTROL FROM THE SURVEY MONUMENTS AND FOR VERIFYING ANY ADDITIONAL CONTROL POINTS SHOWN ON THE SURVEY OR IMPROVEMENTS PLANS OR ON ELECTRONIC DATA PROVIDED BY BENCHMARK ENGINEERING AND LAND SURVEYING. THE SURVEYOR SHALL ALSO USE THE BENCHMARKS AS SHOWN ON THE PLAN, AND VERIFY THEM AGAINST NO LESS THAN THREE EXISTING HARD IMPROVEMENT ELEVATIONS INCLUDED ON THESE PLANS OR ON ELECTRONIC DATA PROVIDED BY BENCHMARK ENGINEERING AND LAND SURVEYING. IF ANY DISCREPANCIES ARE ENCOUNTERED, THE SURVEYOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND RESOLVE THE DISCREPANCIES BEFORE PROCEEDING WITH ANY CONSTRUCTION SURVEYING. IT IS ALSO THE RESPONSIBILITY OF THE SURVEYOR TO VERIFY ANY ELECTRONIC DATA WITH THE APPROVED STAMPED AND SIGNED PLANS AND NOTIFY THE ENGINEER WITH ANY DISCREPANCIES.

NOTE A:
CONTRACTOR TO FIELD VERIFY DISTANCE BETWEEN EXISTING SD COMBO BOX AND NEW SDIB PRIOR TO INSTALLATION OF 15" Ø CLASS III RCP. ADJUST EX. COMBO BOX LID TO GRADE AS NEEDED.

STORM DRAINAGE CALCULATIONS Rational Method (Q=CIA)

Area Identification (A)	Rational Coefficient (C)	C*A
Roof = 162,000	0.9	145800 S.F.
Pavement = 237,126	0.9	213413 S.F.
Landscaping = 1,313,176	0.2	262635 S.F.
Sum = 1712502 S.F.		Sum = 621848 S.F.

NOAA ATLAS 14 (100 YEAR STORM)			Allowable Discharge = 10cfs/acre	
Time (min)	Intensity (in/hr)	Rainfall Excess (cu.ft.)	Allowed Discharge (cu.ft.)	Volume to Detain (cu.ft.)
15	4.10	1,025	53116	49578
30	2.76	1,380	71513	64437
60	1.71	1,710	88613	74462
120	0.93	1,860	96387	68084
180	0.64	1,905	98718	56265
360	0.35	2,124	110067	25160
720	0.22	2,604	134941	0
1440	0.12	2,904	150487	0

Detention Calculations
Pond Volume
 Detention Pond Civil 3D = **74,487 cf**

Pipe Volume

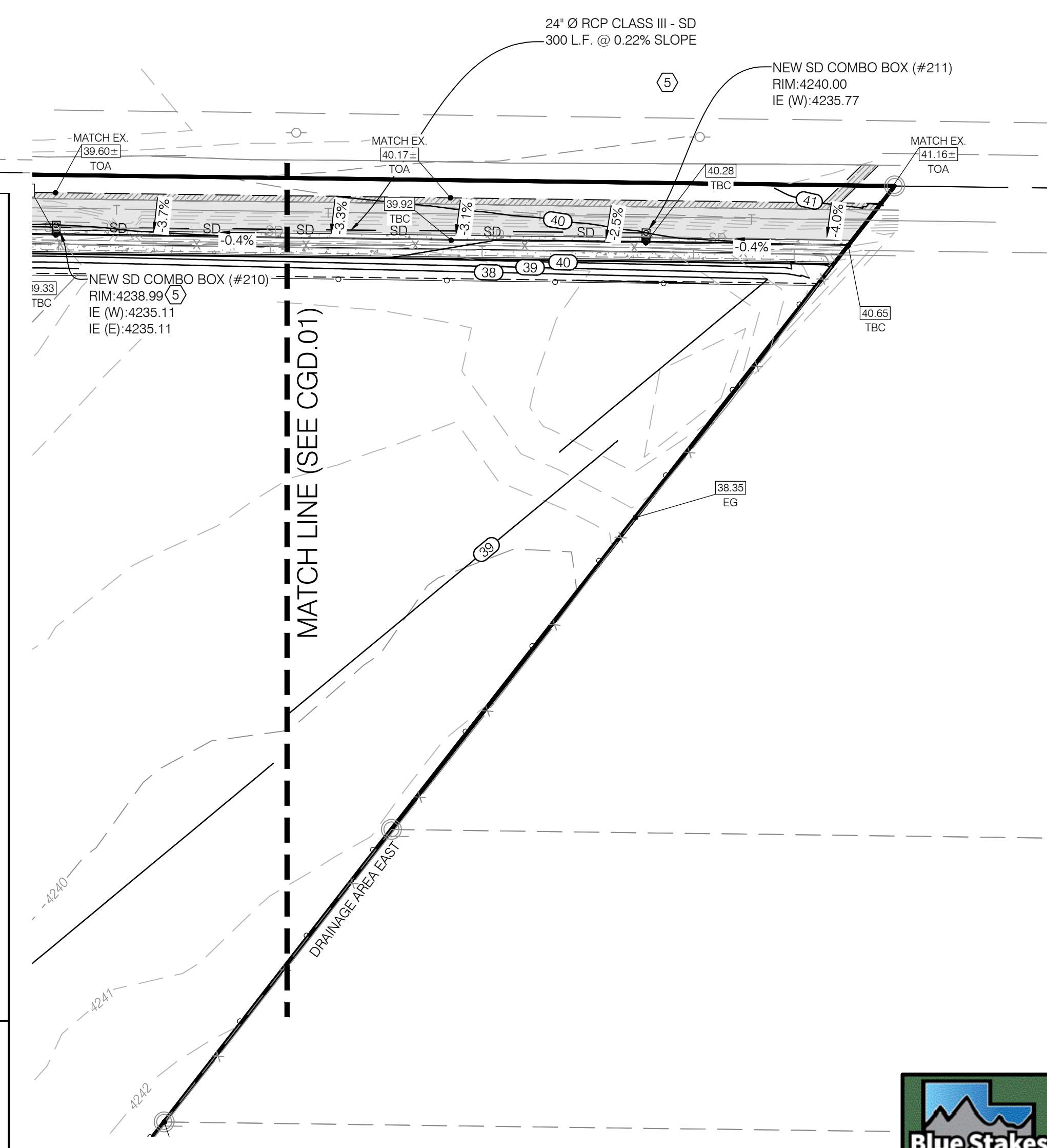
12 in. Pipe	Length = 393 lf	Volume = 309 cf
15 in. Pipe	Length = 1,513 lf	Volume = 1,857 cf
21 in. Pipe	Length = 1,189 lf	Volume = 2,860 cf
24 in. Pipe	Length = 388 lf	Volume = 1,219 cf

Is there adequate storage? Storage Provided = **80,731 cf**
 Req. Storage = **74,462 cf** **YES**

Orifice Design:
The storm runoff will be detained at 0.1 cfs/acre

$$Q = C_d A_0 \sqrt{2gh}$$

Total acreage of development:	39.31 acres
Allowable discharge:	0.1 cfs/acre
Max head:	4.13 ft
Design diameter for new orifice:	8.5 inch



NO.	DATE	DESCRIPTION
1	03/20/21	REVISED PER COUNTY WATER & IRRIGATION COMMENTS

PRELIMINARY PLAN
 PROFESSIONAL ENGINEER
 No. 11366833
ALLISON G. ALBERT
 STATE OF UTAH
 NOT FOR CONSTRUCTION

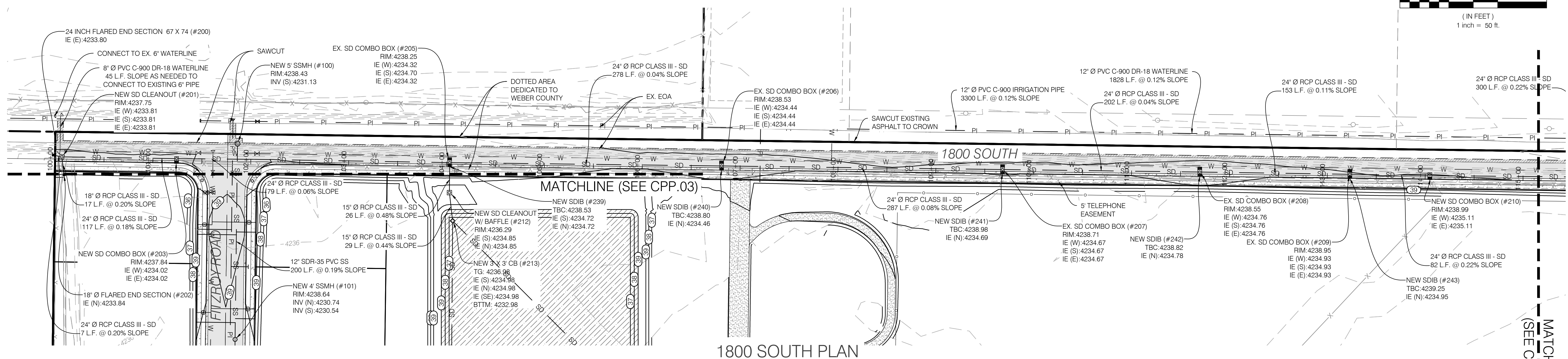
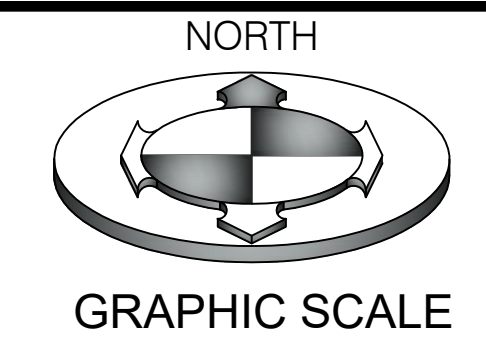
BENCHMARK ENGINEERING & LAND SURVEYING
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BENCHMARK CIVIL

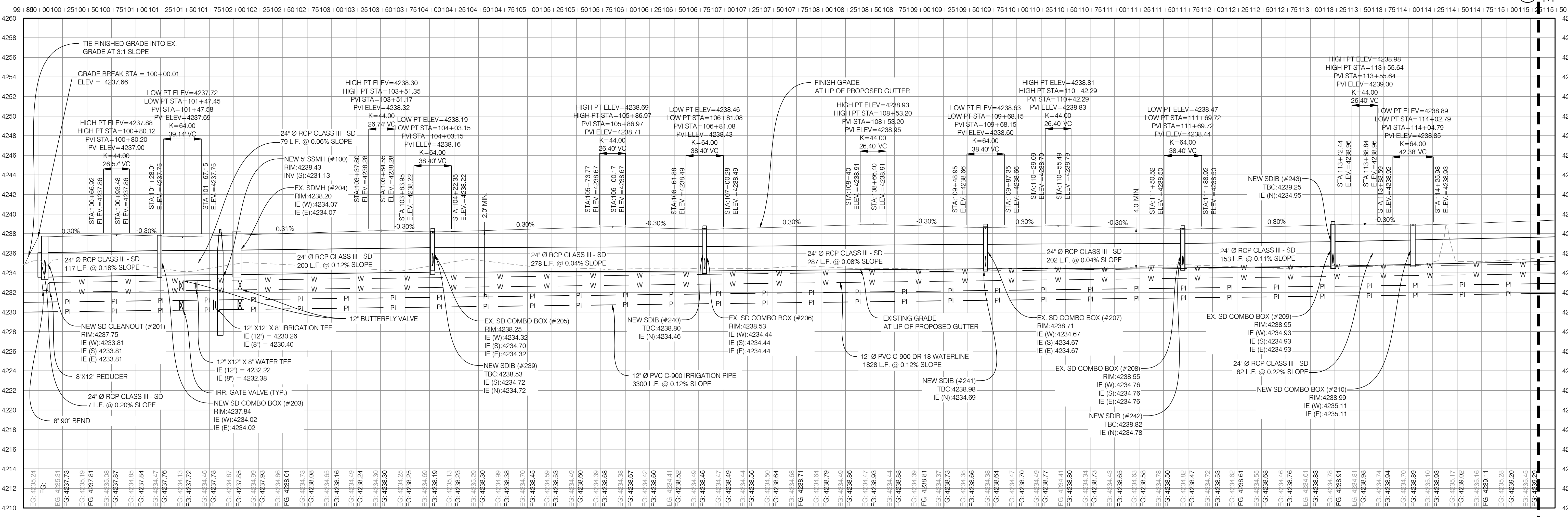
WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

PROJECT NO. 2006142
GRADING & DRAINAGE PLAN
 CGD.02
 8 OF 21



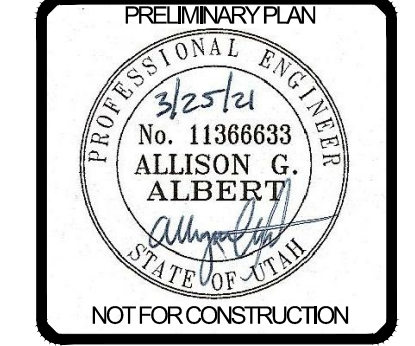


1800 SOUTH PLAN
STATION



1800 SOUTH PROFILE

NO.	1
DATE	03/20/21
REVISION	REVISED PER COUNTY WATER & IRRIGATION COMMENTS
BY	JHO
CHECKED BY	AGA
DESIGNED BY	SURVEY
DATE	03/12/2021
TITLE	200622 CPP-01

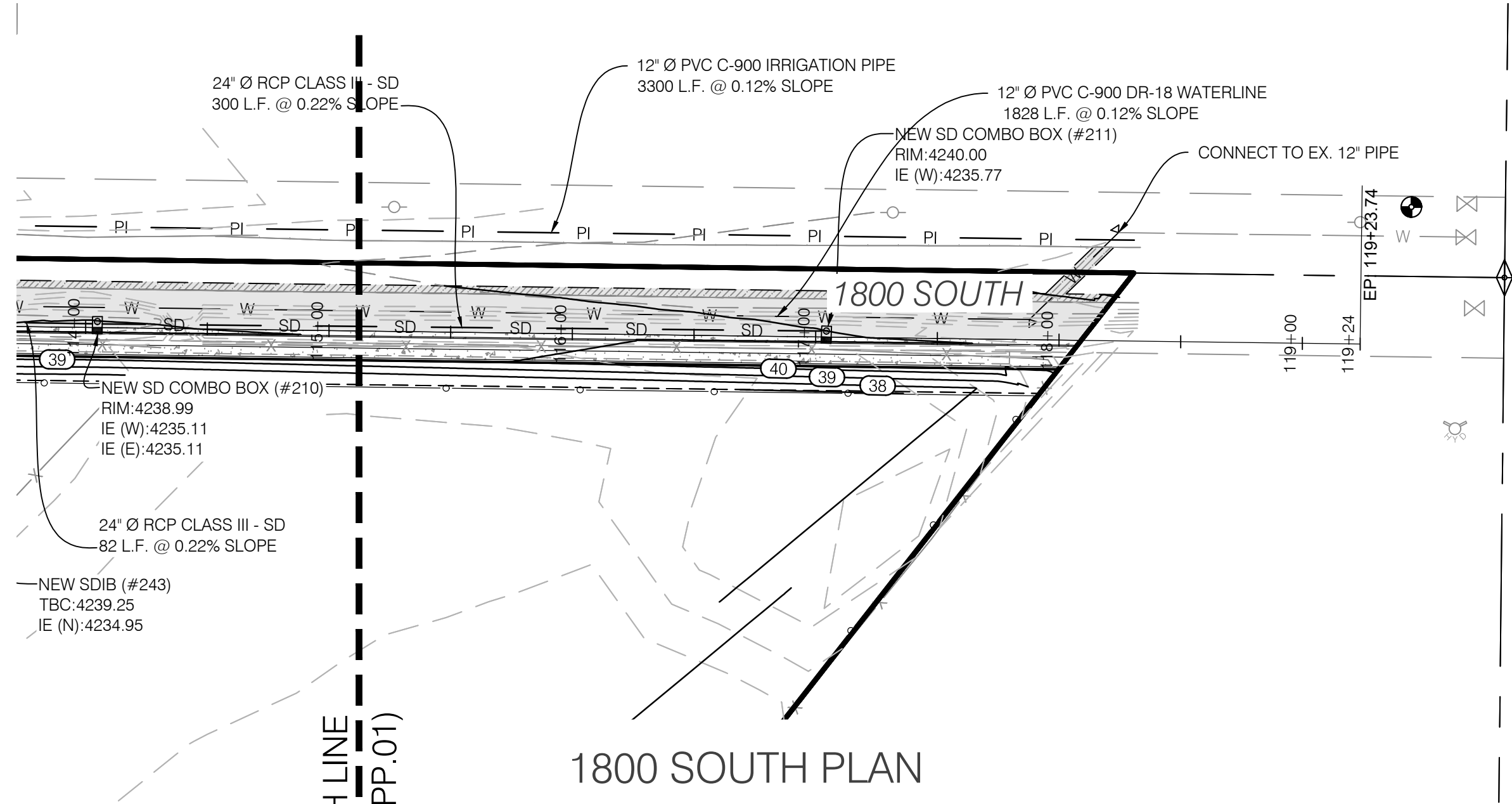
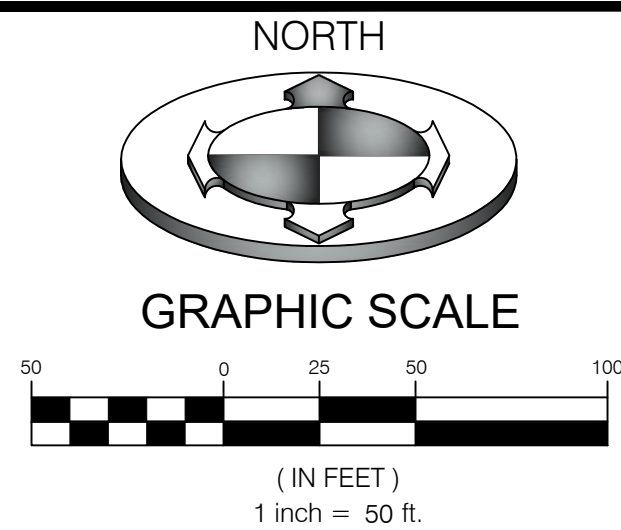


BENCHMARK ENGINEERING & LAND SURVEYING
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 SANDY, UTAH 84070 (801) 542-7192
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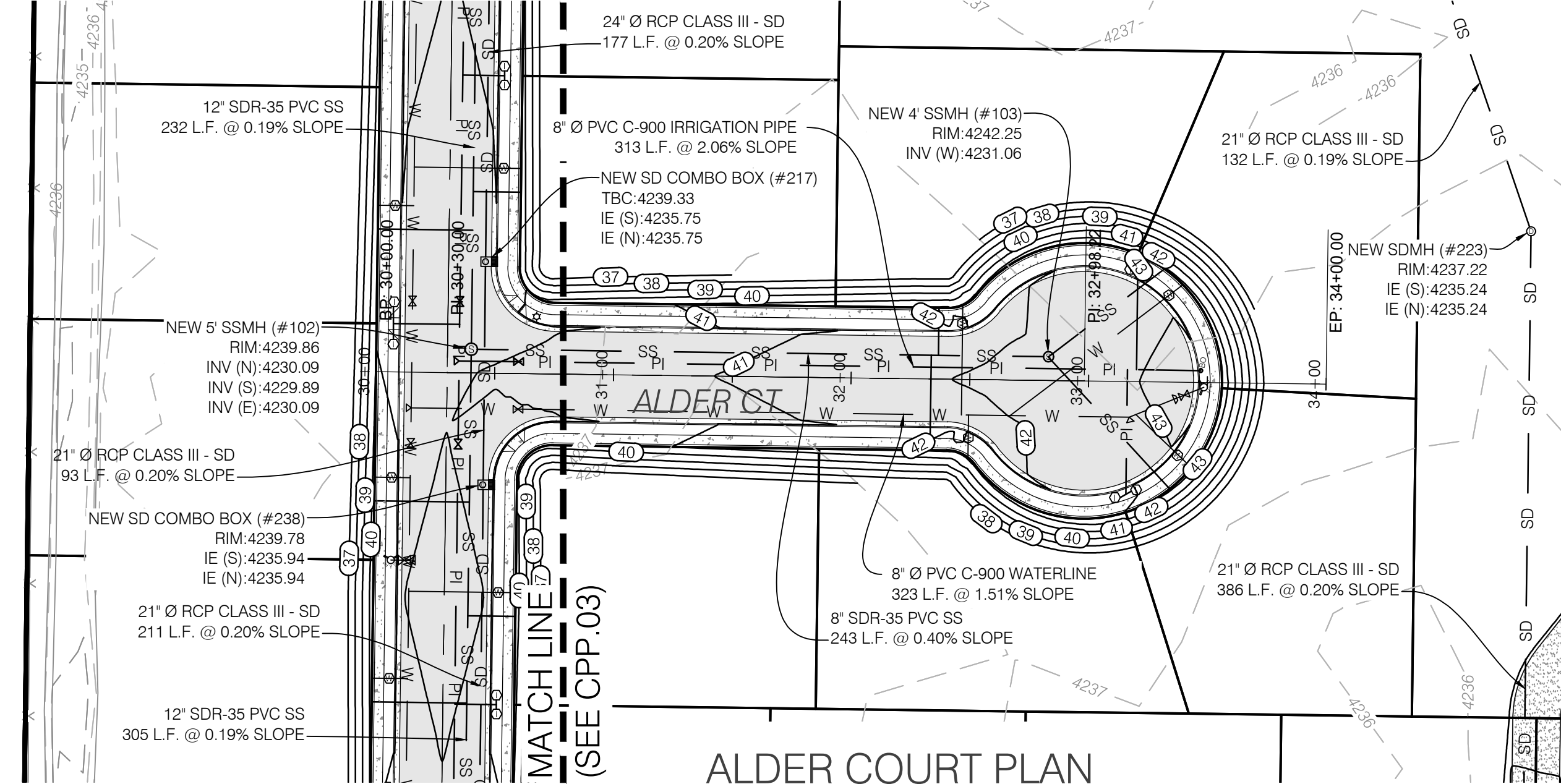
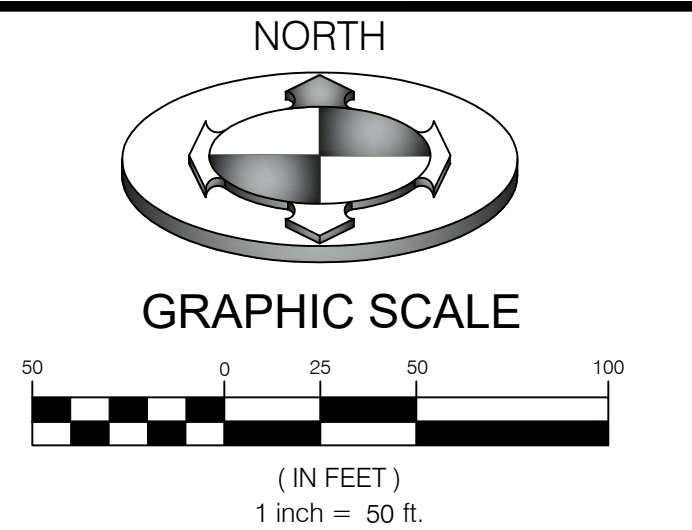
WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

PROJECT NO. 2006142
ROADWAY PLAN & PROFILE
 CPP.01
 9 OF 21

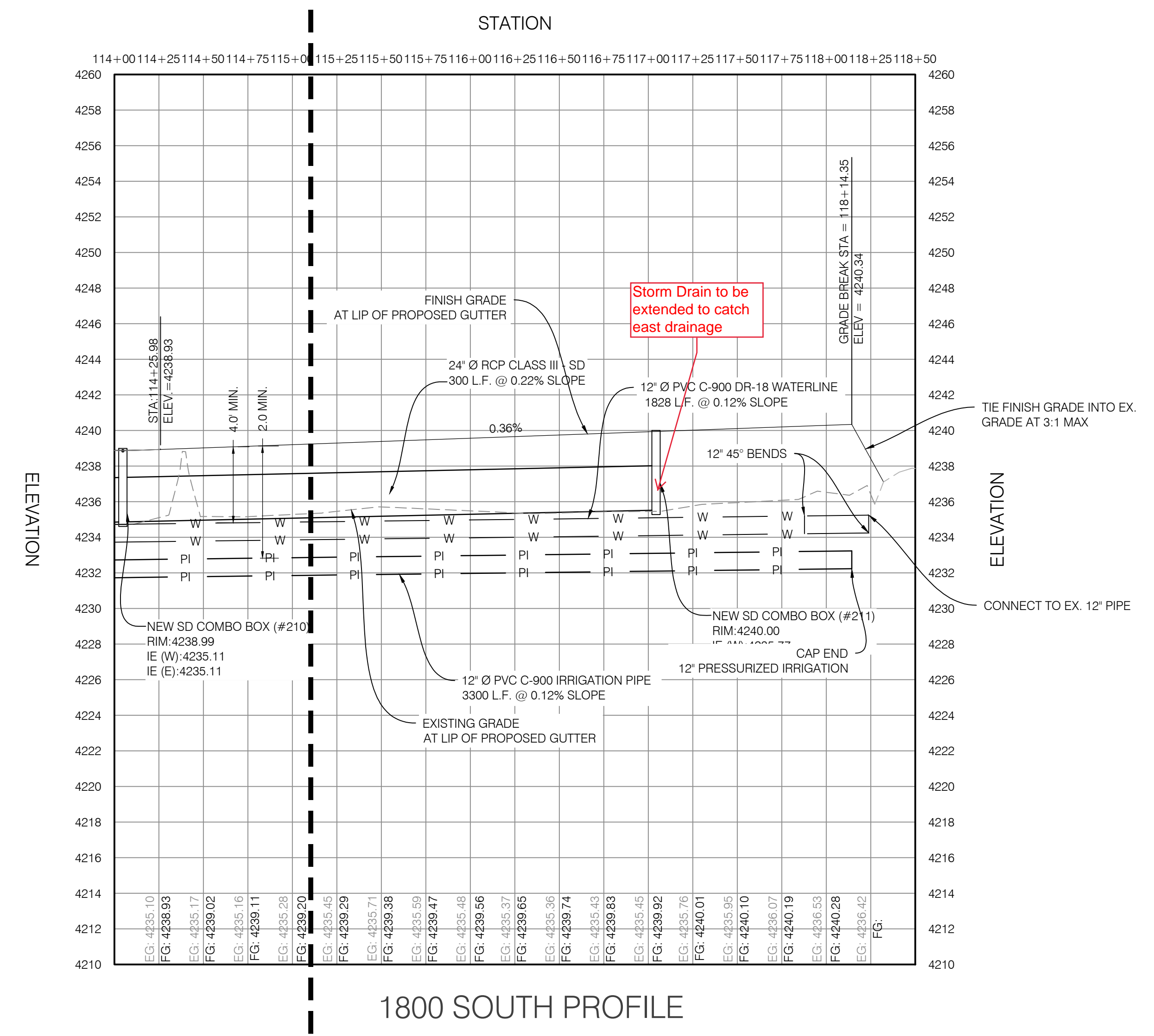




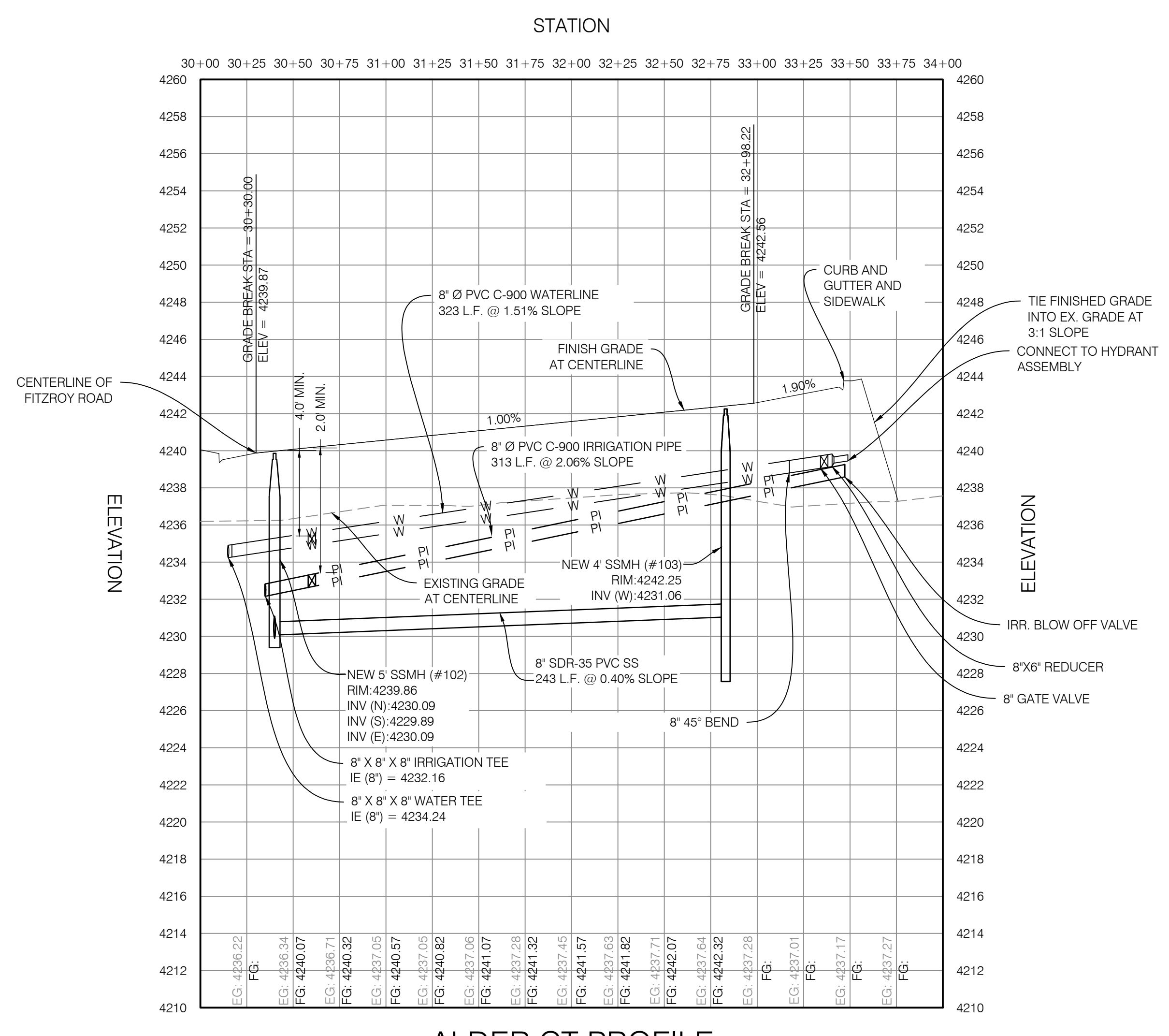
1800 SOUTH PLAN



ALDER COURT PLAN



1800 SOUTH PROFILE



ALDER CT PROFILE

NO.	DATE	DESCRIPTION
1	03/20/21	REVISED PER COUNTY WATER & IRRIGATION COMMENTS

DRAWN BY: JHO
 CHECKED BY: AGA
 FIELD OPER. SURVEY
 DATE: 03/12/2021
 DWG. FILE: 2006142_CPP_02.DWG

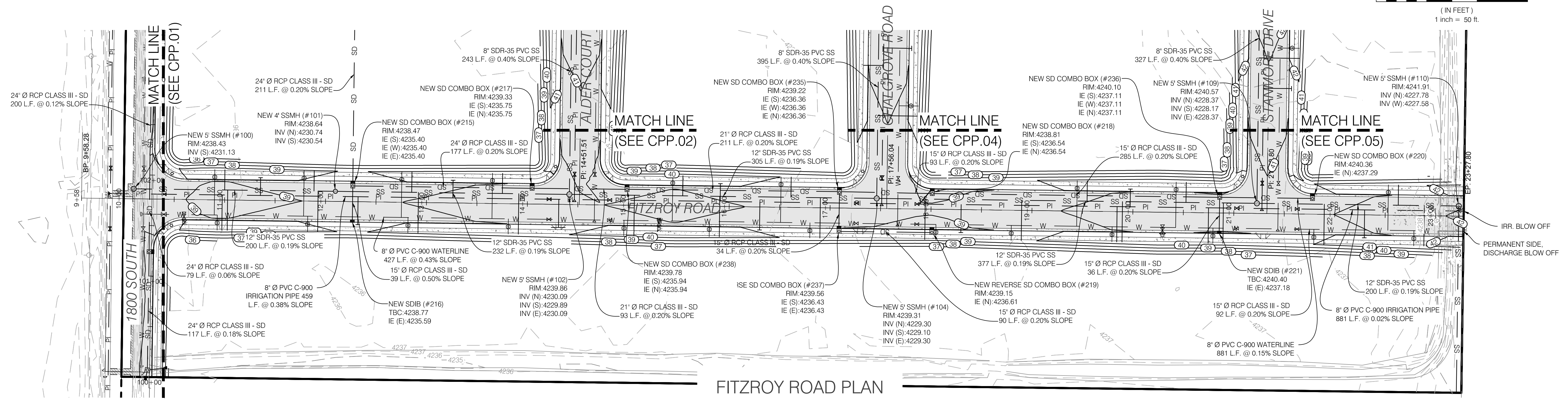
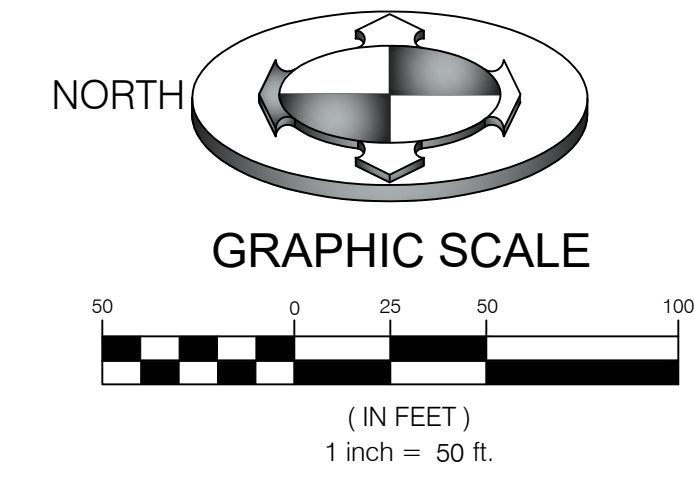
PROFESSIONAL ENGINEER
 No. 11366833
ALLISON G. ALBERT
 STATE OF UTAH
 NOT FOR CONSTRUCTION

BENCHMARK
ENGINEERING & LAND SURVEYING
 9188 SOUTH STATE STREET SUITE #100
 SANDY, UTAH 84070 (801) 542-7192
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WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

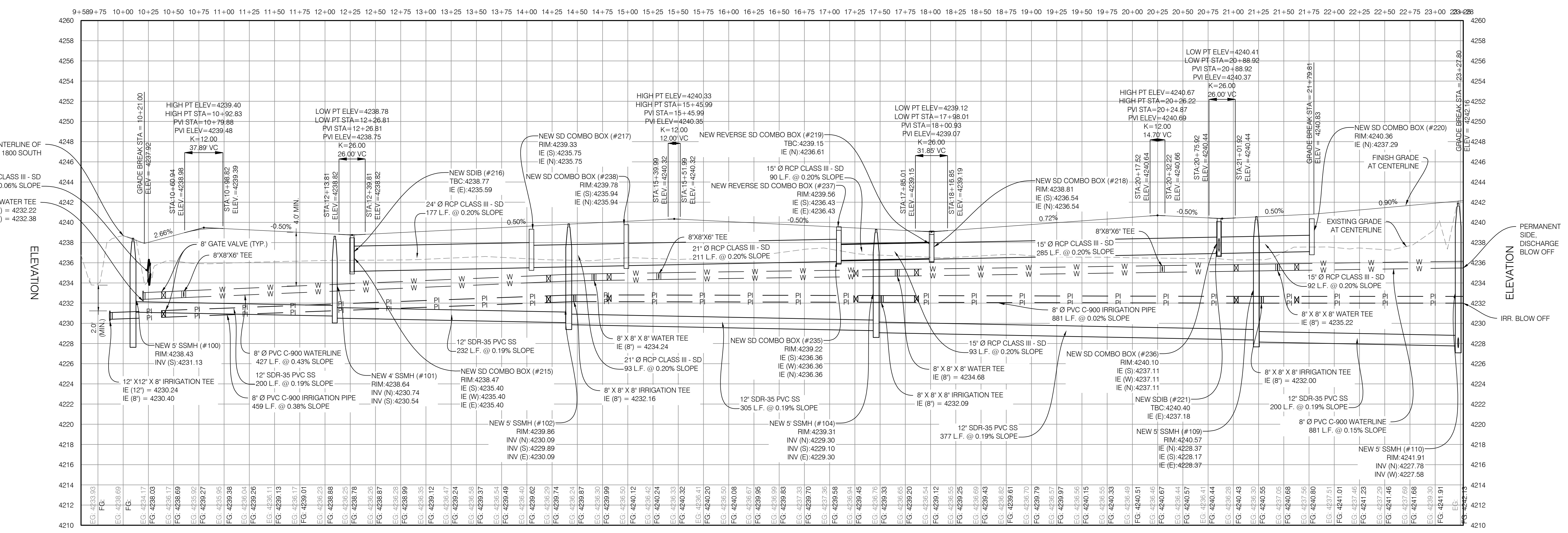
PROJECT NO. 2006142
ROADWAY PLAN & PROFILE
 CPP.02
 10 OF 21





FITZROY ROAD PLAN

STATION

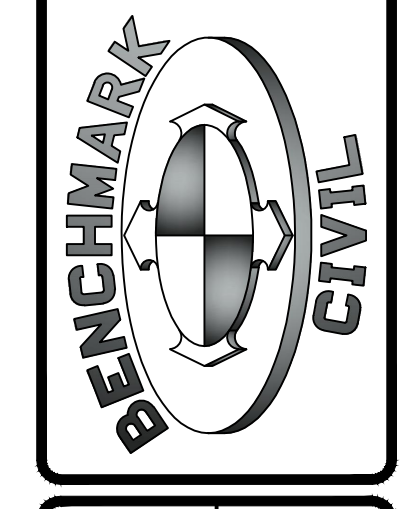


FITZROY ROAD PROFILE

NO.	DATE	DESCRIPTION
1	03/20/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

DRAWN BY: JHO
 CHECKED BY: AGA
 FIELD SUPERVISOR: SURVEY
 DATE: 03/12/2021
 DRAWING FILE: 2006142_CPP-03.DWG

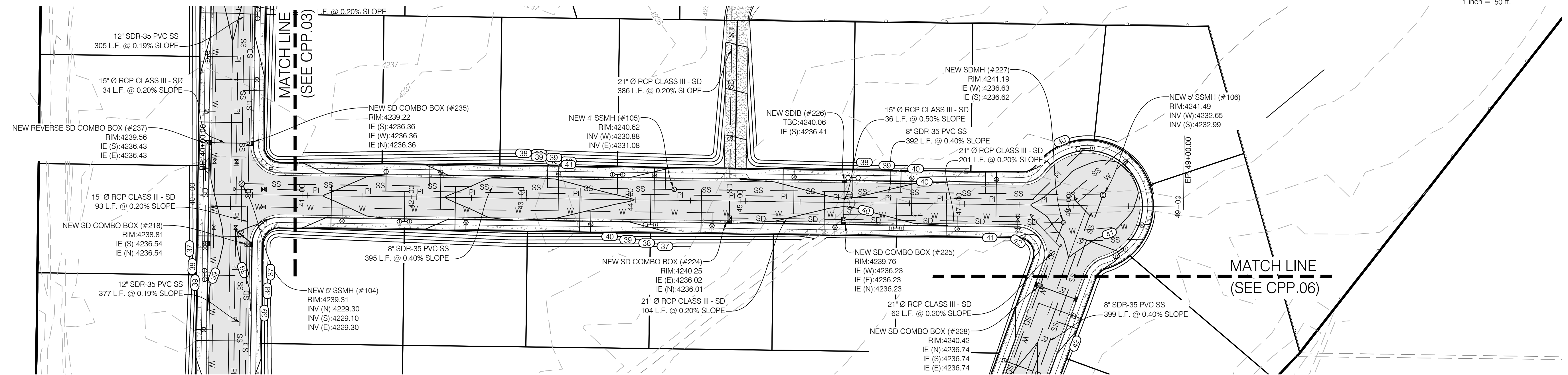
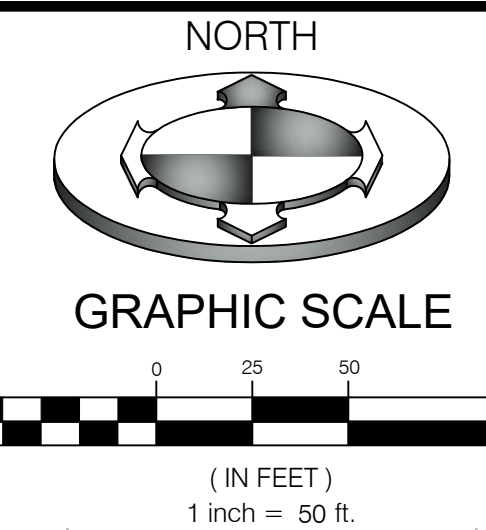
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WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

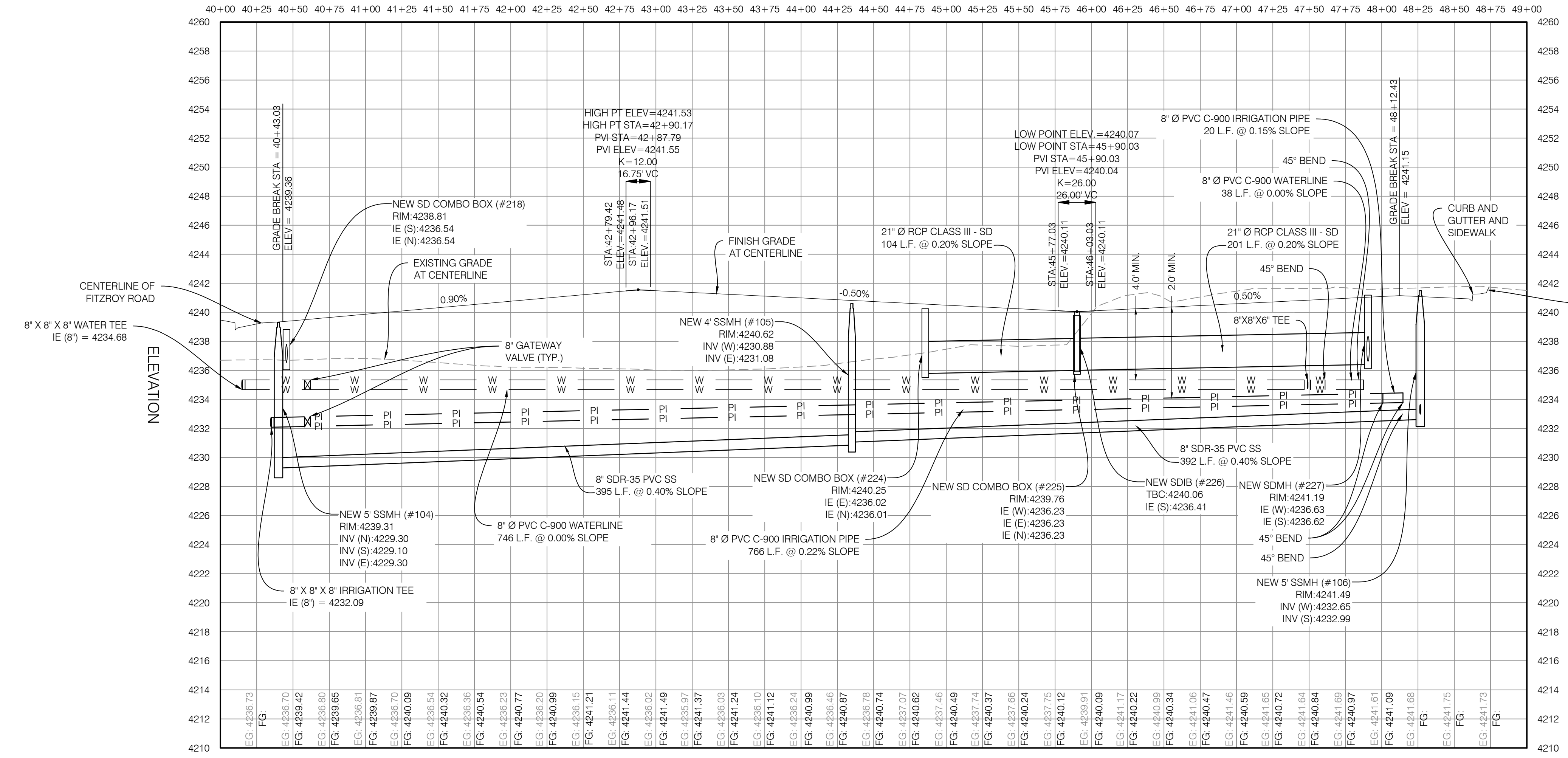
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ROADWAY PLAN & PROFILE
 CPP.03
 11 OF 21





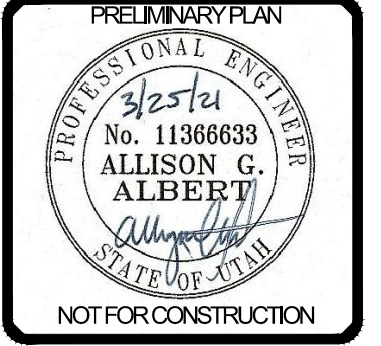
CHALGROVE DRIVE PLAN

STATION



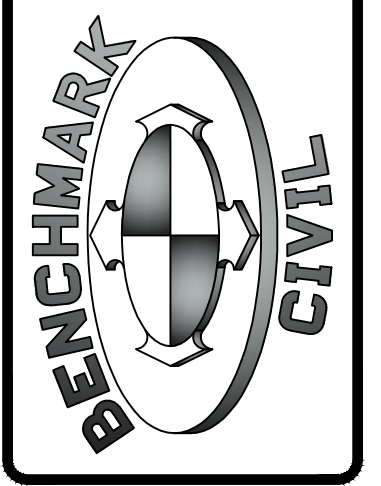
CHALGROVE RD PROFILE

PROJECT NO.	2006142
DATE	03/20/21
REVISIONS	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS
NO.	1
BY	JHO
CHECKED BY	AGA
FIELD OPER.	SURVEY
DATE	03/12/2021
DWG. FILE	2006142_CPP-04.DWG
SCALE	SCALE MEASURES: 1 INCH ON FULL SIZE SHEETS ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS



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 9188 SOUTH STATE STREET SUITE #100
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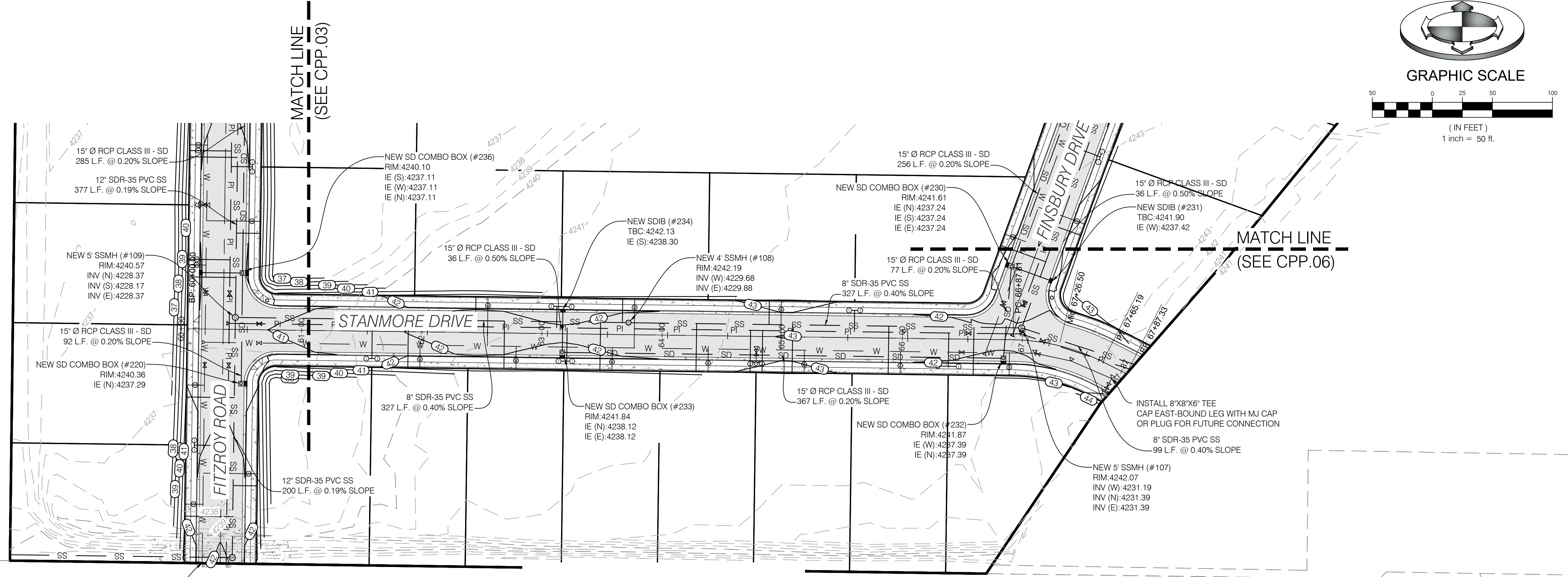
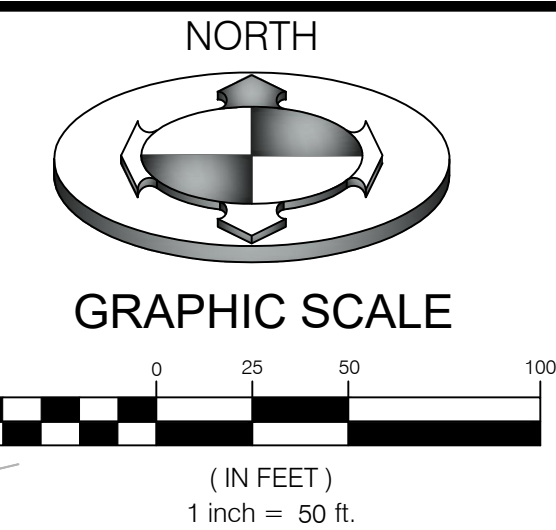
WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

PROJECT NO. 2006142

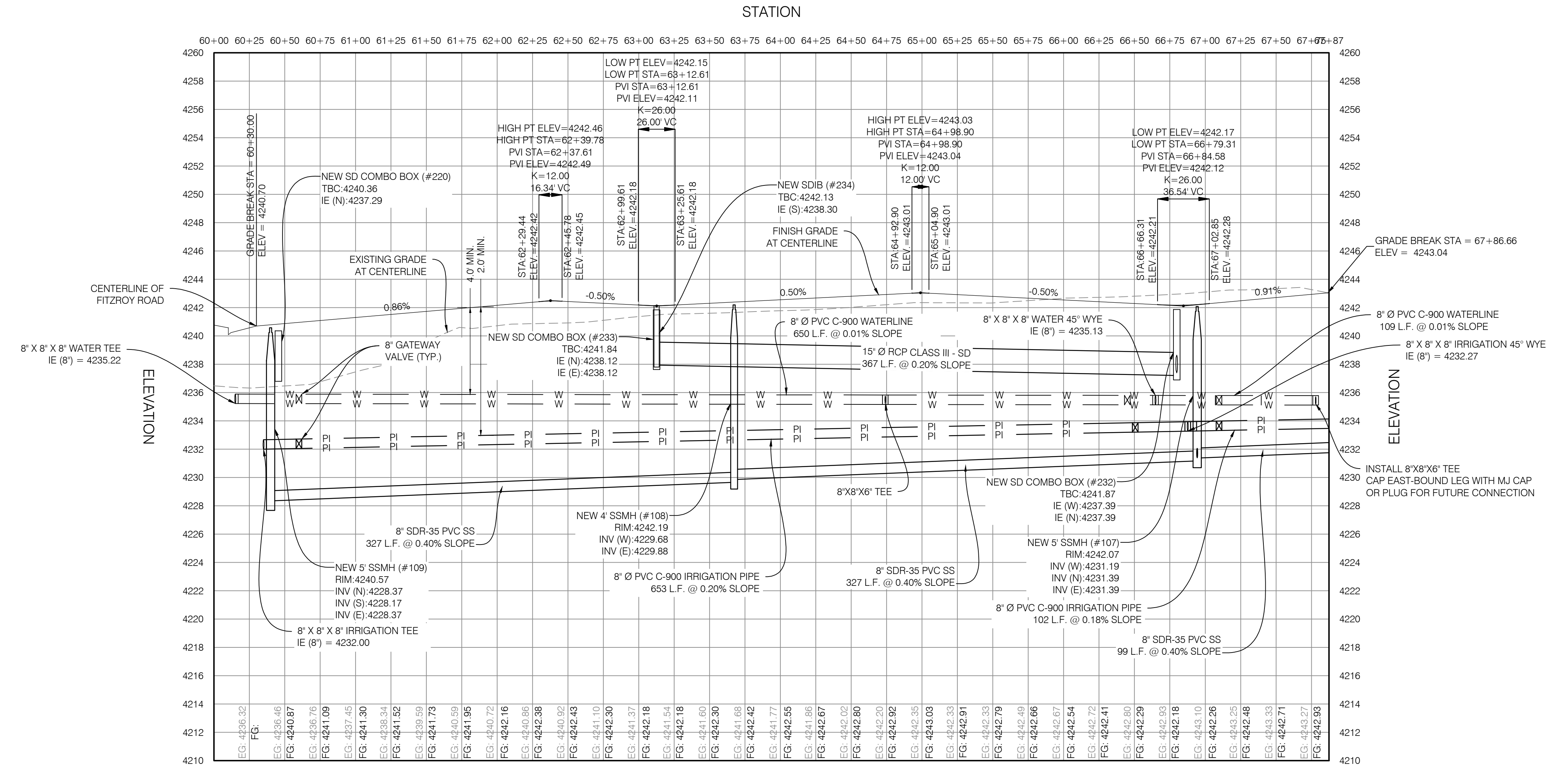
ROADWAY PLAN & PROFILE

CPP_04
 12 OF 21



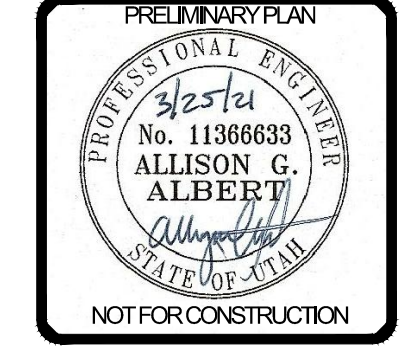


STANMORE DRIVE PLAN

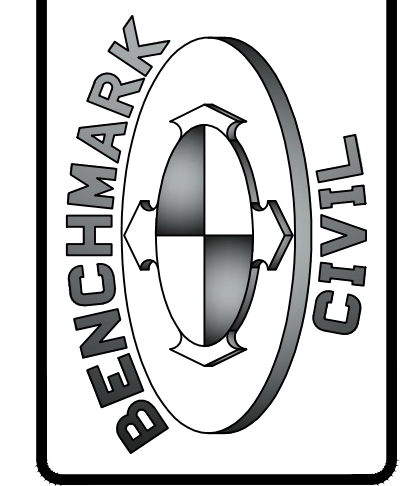


STANMORE DR PROFILE

NO.	1	DATE	03/20/21	DESCRIPTION	REVISED PER COUNTY WATER & IRRIGATION COMMENTS
DESIGNED BY	JHO	CHECKED BY	AGA	DATE	03/12/2021
DRAWN BY	AGA	DATE	03/12/2021	SCALE	AS SHOWN
FILE	20042_CPP_05.DWG	SCALE	AS SHOWN	SCALE MEASURES IN CH ON FULL SIZE SHEETS	ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS



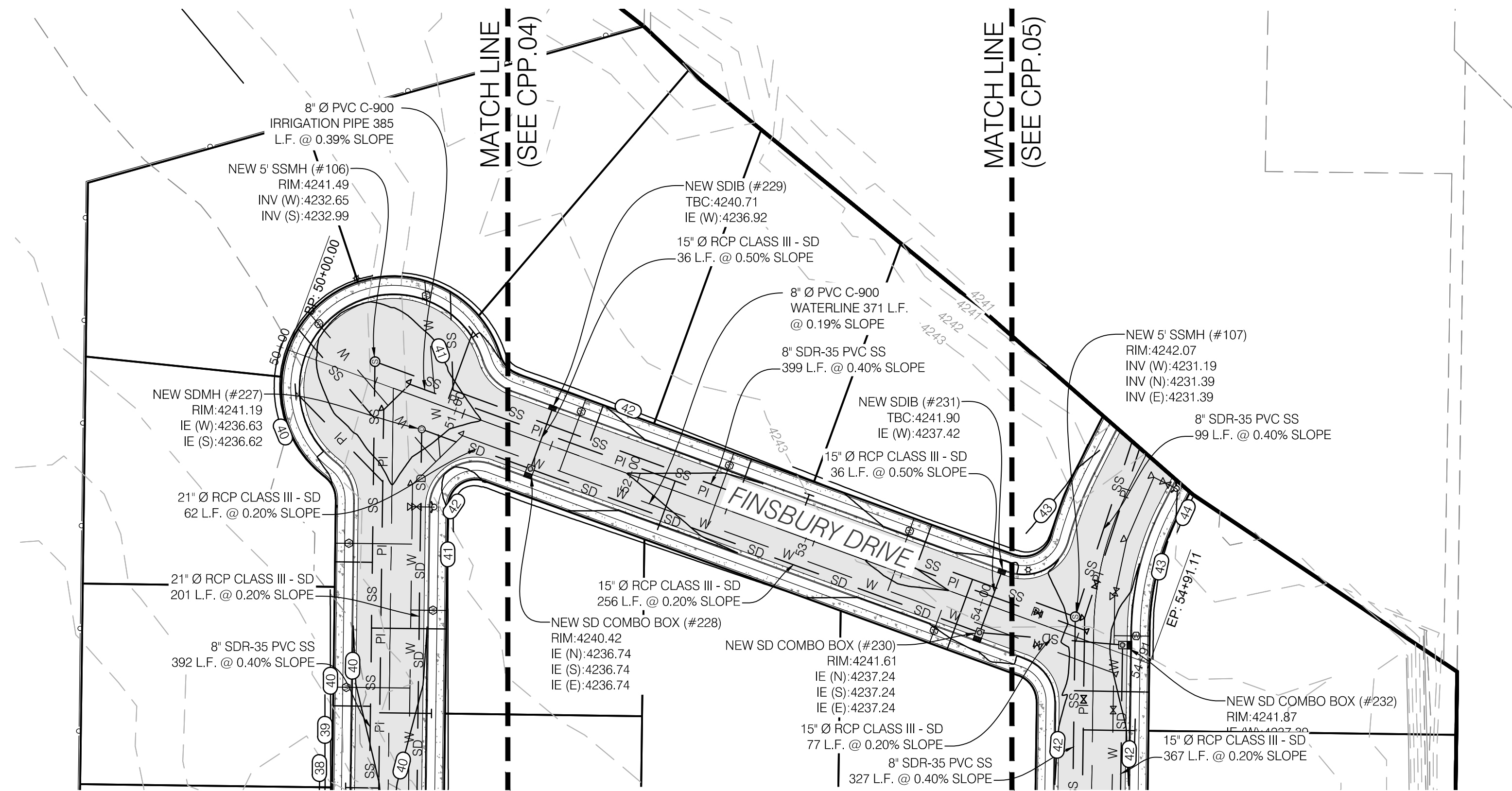
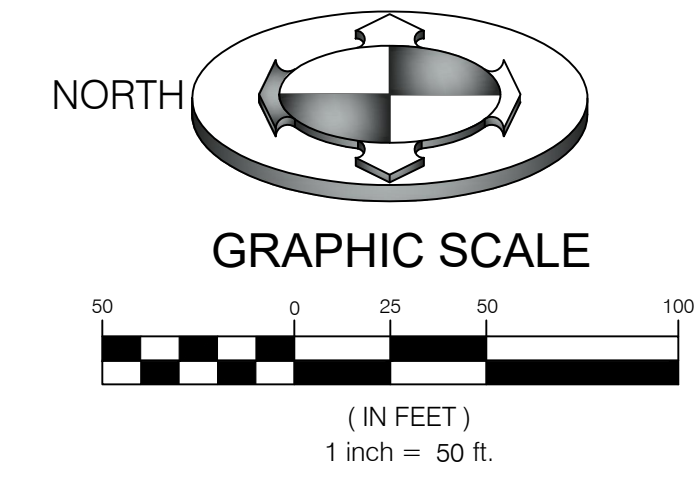
BENCHMARK ENGINEERING & LAND SURVEYING
 9188 SOUTH STATE STREET SUITE #100
 SANDY, UTAH 84070 (801) 542-7192
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WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

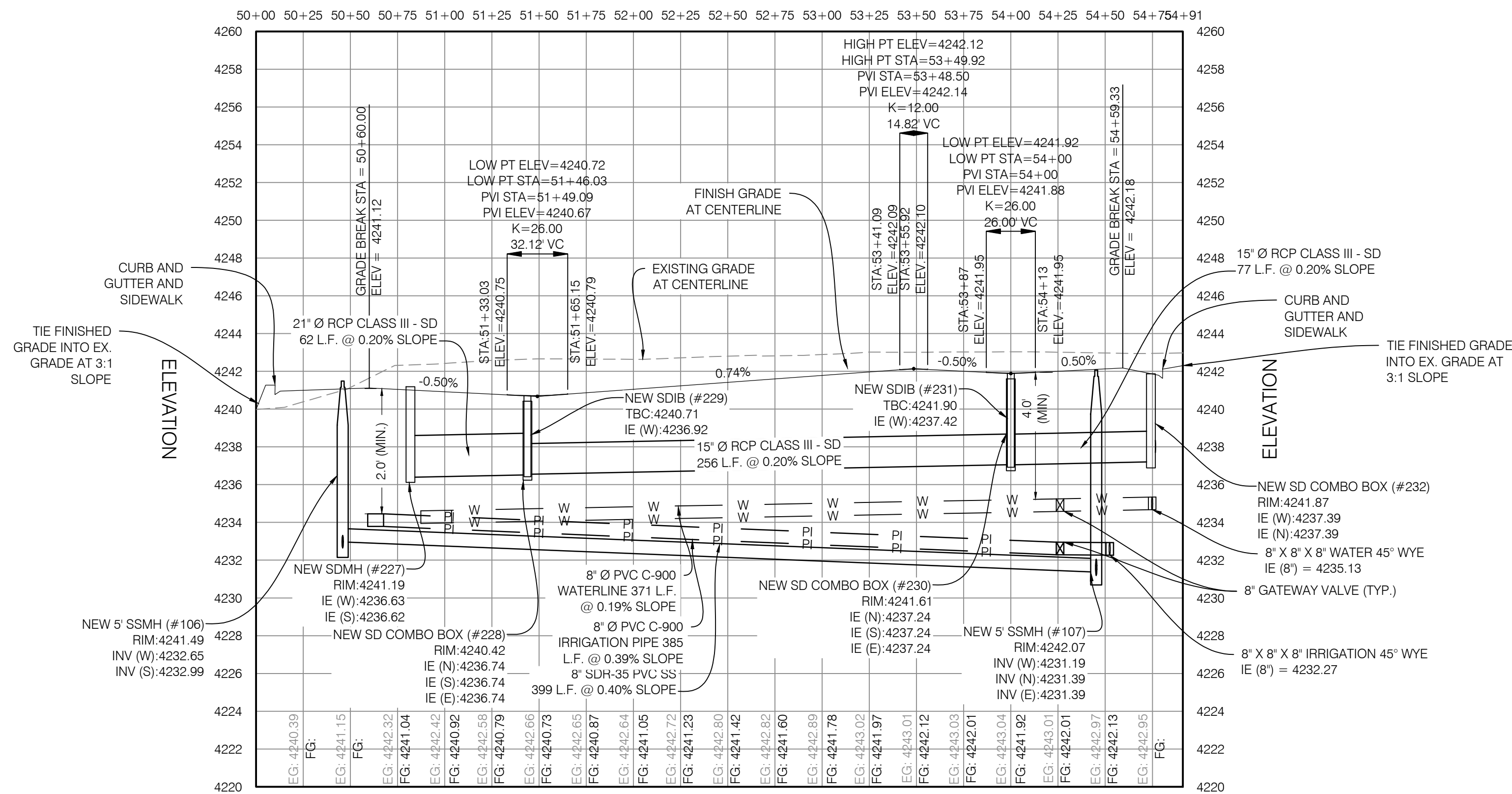
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ROADWAY PLAN & PROFILE
 CPP.05
 13 OF 21





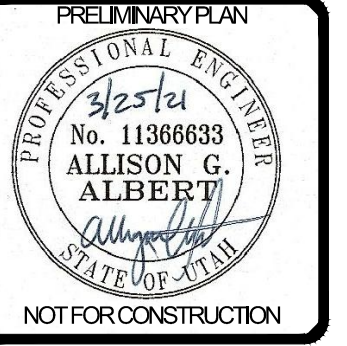
FINSBURY DRIVE PLAN

STATION



FINSBURY DR PROFILE

PROJECT NO.	2006142
DATE	03/20/21
NO.	1
DESCRIPTION	REVISED PER COUNTY WATER & IRRIGATION COMMENTS
SCALE	SCALE MEASURES IN CH ON FULL SIZE SHEETS. ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS.



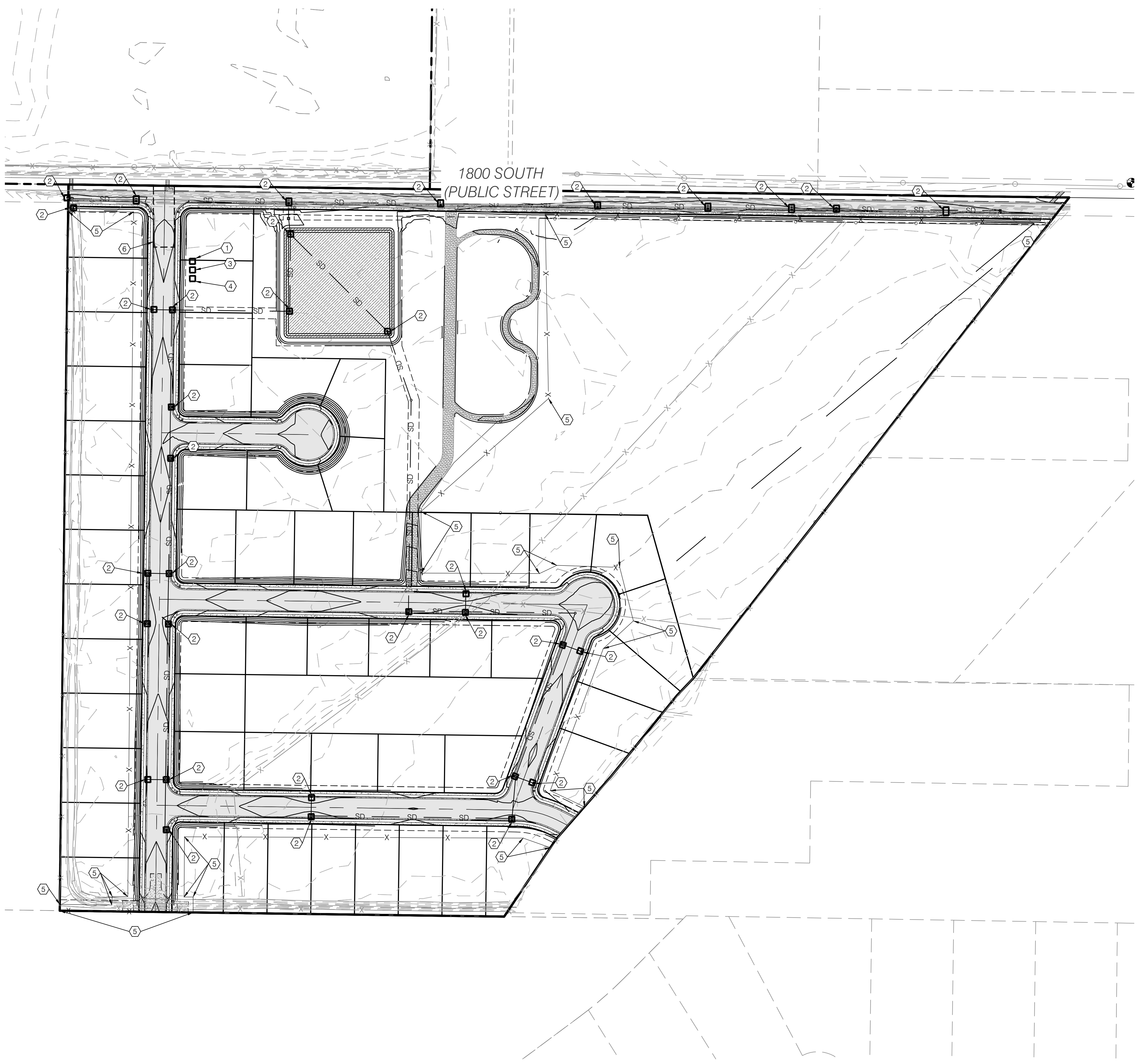
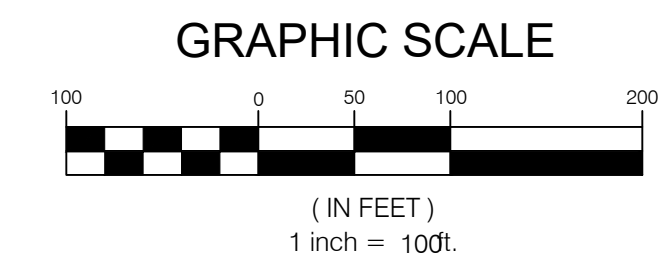
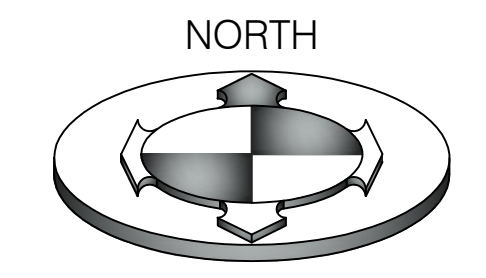
BENCHMARK ENGINEERING & LAND SURVEYING
 9188 SOUTH STATE STREET SUITE #100
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BENCHMARK CIVIL

WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

ROADWAY PLAN & PROFILE
 CPP.06
 14 OF 21





SWPPP KEY NOTES REFERENCE		
PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS.		
NO	DESCRIPTION	DETAIL
①	CONCRETE WASTE MANAGEMENT	1/CEP.02
②	INLET PROTECTION WATTLE	2/CEP.02
③	MATERIALS STORAGE	3/CEP.02
④	PORTABLE TOILETS	4/CEP.02
⑤	SILT FENCE	6/CEP.02
⑥	TEMPORARY CONSTRUCTION ENTRANCE	7/CEP.02

NOTE: CONTRACTOR SHALL INSTALL EROSION CONTROLS (SILT FENCES, STRAW BALES, ETC) AS REQUIRED BY REGULATORY AGENCIES. SAID CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH AGENCY STANDARDS AND FOLLOWING BEST MANAGEMENT PRACTICES FOR ACTUAL PLACEMENT ON SITE. STRAW BALES SHOWN ON THESE DRAWINGS ARE INTENDED AS A MINIMUM REQUIREMENT. ADDITIONAL CONTROLS REQUESTED BY AGENCY INSPECTORS SHALL BE REQUIRED. DUST CONTROL SHALL BE PROVIDED AT ALL TIMES, AT THE CONTRACTOR'S EXPENSE, TO MINIMIZE ANY DUST NUISANCE AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY.

NO	DATE	DESCRIPTION
1	02/2021	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

DRAWN BY: JHO
 CHECKED BY: AGA
 PREPARED BY: SURVEY
 DATE: 03/12/2021
 DRAWING FILE: 2006142_CEP.01

PROFESSIONAL ENGINEER
 No. 11366633
 ALLISON G. ALBERT
 STATE OF UTAH
 NOT FOR CONSTRUCTION

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LAND SURVEYING

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WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

PROJECT NO. 2006142
EROSION CONTROL PLAN
 CEP.01
 15 OF 21



BMP: Concrete Waste Management

DESCRIPTION:
Prevent or reduce the discharge of pollutants to storm water from concrete waste by conducting washout off-site, performing on-site washout in a designated area, and training employees and subcontractors.

APPLICATIONS:
This technique is applicable to all types of sites.

INSTALLATION/APPLICATION CRITERIA:

- Store dry and wet materials under cover, away from drainage areas.
- Avoid mixing excess amounts of fresh concrete or cement on-site.
- Perform washout of concrete trucks off-site or in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped on-site, except in designated areas.
- When washing concrete to remove fine particles and expose the aggregate, avoid creating runoff by draining the water within a bermed or level area. (See Earth Berm Barrier information sheet.)
- Train employees and subcontractors in proper concrete waste management.

LIMITATIONS:
• Off-site washout of concrete wastes may not always be possible.

MAINTENANCE:

- Inspect subcontractors to ensure that concrete wastes are being properly managed.
- If using a temporary pit, dispose hardened concrete on a regular basis.

BMP: Inlet Protection – Wattle

IP-W CONSTRUCTION

DESCRIPTION:
Sediment barrier erected around storm drain inlet.

APPLICATION:
Construct at storm drainage inlets located down-gradient of areas to be disturbed by construction.

INSTALLATION/APPLICATION CRITERIA:

- ◆ Provide up-gradient sediment controls, such as silt fence during construction of inlet
- ◆ When construction of curb and gutter and roadways is complete, install gravel filled wattles around perimeter of inlet

LIMITATIONS:

- ◆ Recommended maximum contributing drainage area of one acre
- ◆ Requires shallow slopes adjacent to inlet

MAINTENANCE:

- ◆ Inspect inlet protection following storm event and at a minimum of once every 14 days.
- ◆ Remove accumulated sediment when it reaches 4 inches in depth.
- ◆ Look for bypassing or undercutting and repair or realign as needed.

BMP: Materials Storage

DESCRIPTION:
Controlled storage of on-site materials.

APPLICATION:

- Storage of hazardous, toxic, and all chemical substances.
- Any construction site with outside storage of materials.

INSTALLATION/APPLICATION CRITERIA:

- Designate a secured area with limited access as the storage location. Ensure no waterways or drainage paths are nearby.
- Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around storage location for impoundment in the case of spills.
- Ensure all on-site personnel utilize designated storage area. Do not store excessive amounts of material that will not be utilized on site.
- For active use of materials away from the storage area ensure materials are not set directly on the ground and are covered when not in use. Protect storm drainage during use.

LIMITATIONS:

- Does not prevent contamination due to mishandling of products.
- Spill Prevention and Response Plan still required.
- Only effective if materials are actively stored in controlled location.

MAINTENANCE:

- Inspect daily and repair any damage to perimeter impoundment or security fencing.
- Check materials are being correctly stored (i.e. standing upright, in labeled containers, lightly capped) and that no materials are being stored away from the designated location.

BMP: Portable Toilets

DESCRIPTION:
Temporary on-site sanitary facilities for construction personnel.

APPLICATION:
All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

INSTALLATION/APPLICATION CRITERIA:

- Locate portable toilets in convenient locations throughout the site.
- Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel.
- Construct earth berm perimeter (See Earth Berm Barrier Information Sheet) control for spill/protection leak.

LIMITATIONS:
No limitations.

MAINTENANCE:

- Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.
- Regular waste collection should be arranged with licensed service.
- All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval.

BMP: Spill Clean-Up

DESCRIPTION:
Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

APPLICATION:
All sites

GENERAL:

- Store controlled materials within a storage area.
- Educate personnel on prevention and clean-up techniques.
- Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
- Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

METHODS:

- Clean-up spills/leaks immediately and remediate cause.
- Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
- Use rags or absorbent material for clean-up. Excavate contaminated soils.
- Dispose of clean-up material and soil as hazardous waste.
- Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #536-4100) for any spill of reportable quantity.

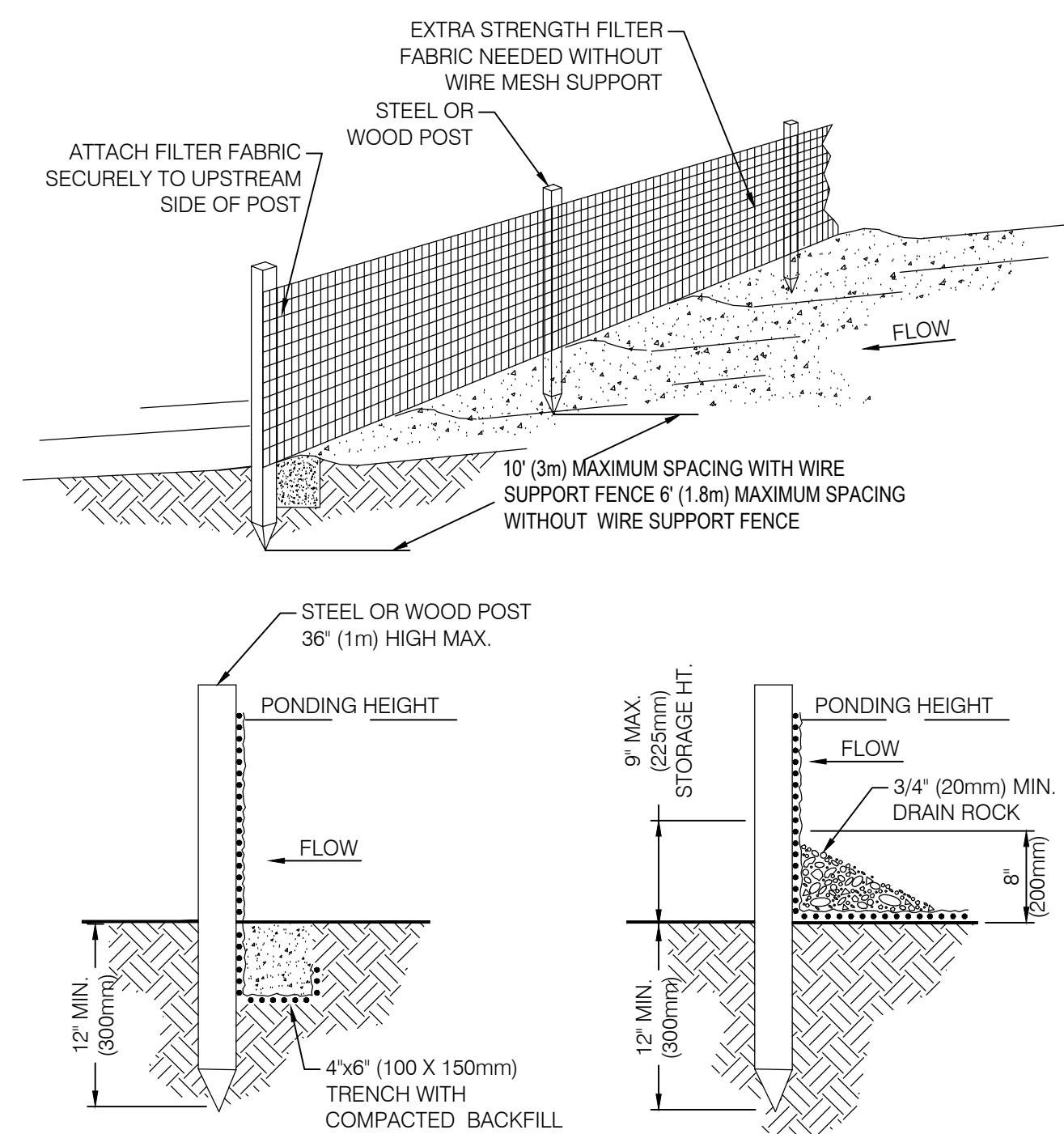
CONCRETE WASTE MANAGEMENT ①
SCALE: NTS

INLET PROTECTION WATTLE ②
SCALE: NTS

MATERIALS STORAGE ③
SCALE: NTS

PORTABLE TOILETS ④
SCALE: NTS

SPILL CLEAN UP ⑤
SCALE: NTS

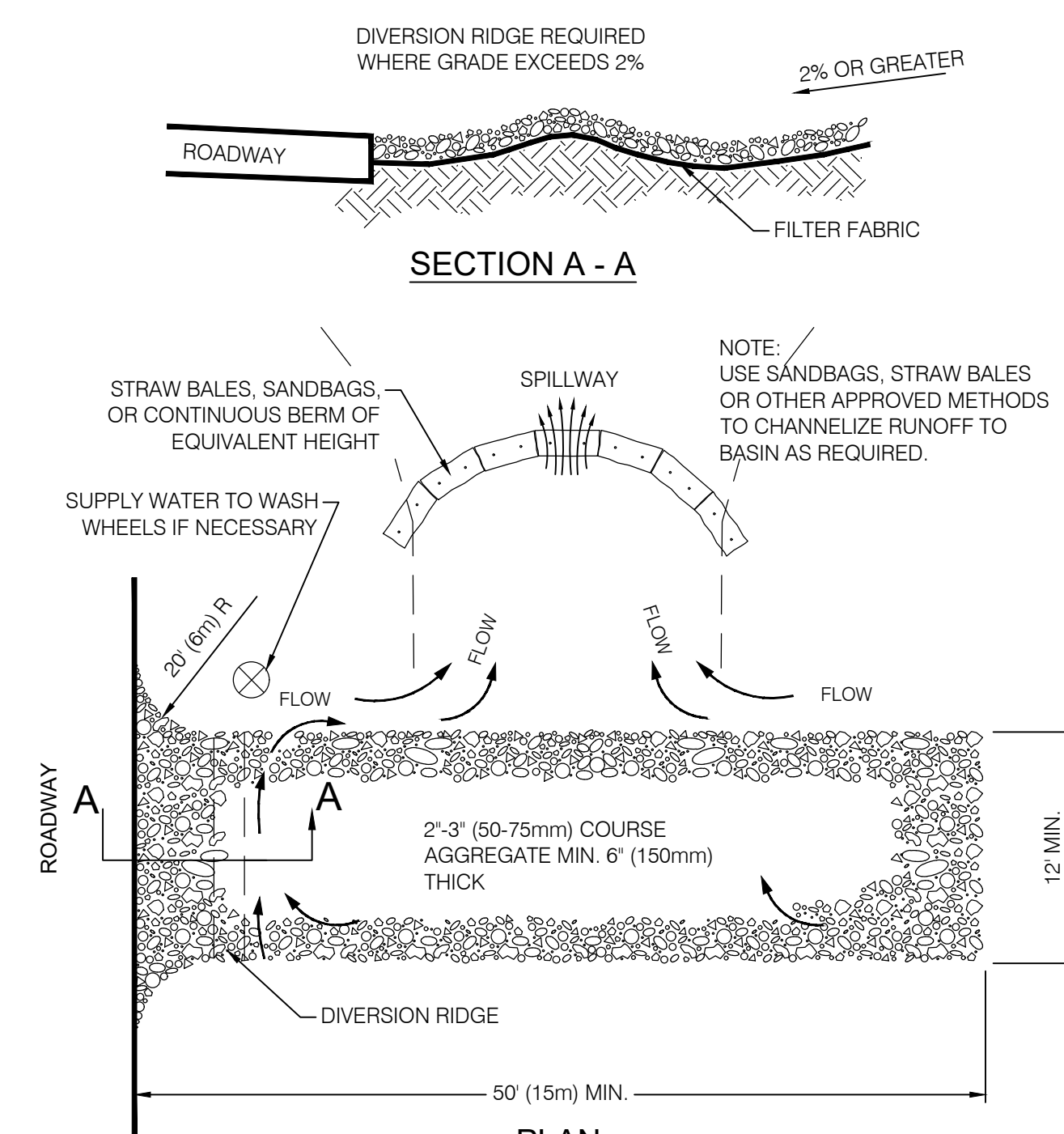


NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

REF. FROM 1994 JOHN McCULLAH

SILT FENCE ⑥
SCALE: NTS



NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

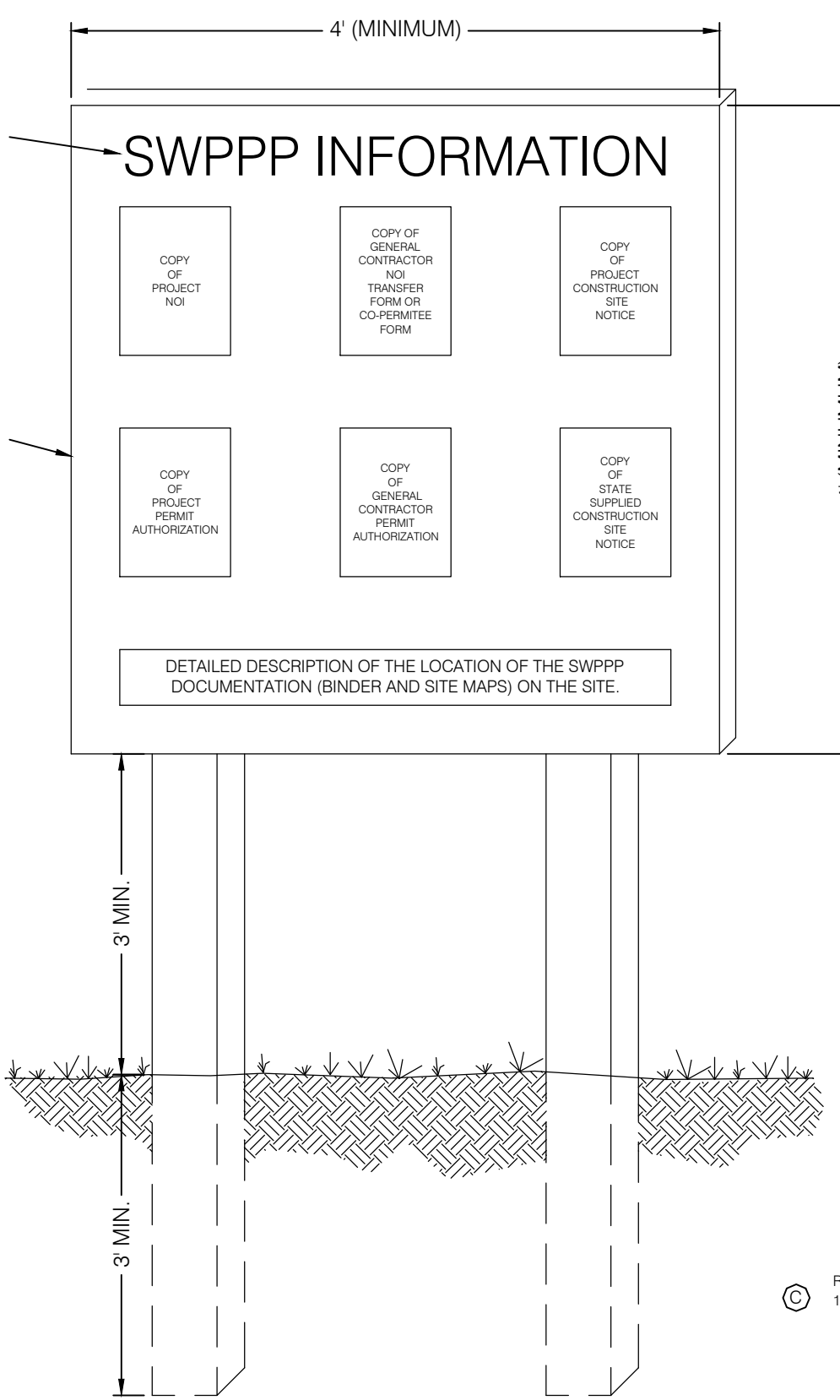
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT ⑦
SCALE: NTS

"SWPPP INFORMATION" MUST BE DISPLAYED PROMINENTLY ACROSS THE TOP OF THE SIGN, AS SHOWN IN THE DETAIL.

SIGN TO BE CONSTRUCTED OF A RIGID MATERIAL, SUCH AS PLYWOOD OR OUTDOOR SIGN BOARD. SIGN MUST BE CONSTRUCTED IN A MANNER TO PROTECT DOCUMENTS FROM DAMAGE DUE TO WEATHER (WIND, SUN, MOISTURE, ETC.)

NOTES:

- 1) THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
- 2) ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-TERMINATION (NOT) IS FILED FOR THE PERMIT.
- 3) CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
- 4) SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
- 5) CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY IF THE SWPPP INFORMATION SIGN.



SWPPP INFORMATION SIGN ⑧
SCALE: NTS

PROJECT NO. 2006142

DATE 03/12/2021

SCALE MEASURES: HATCH ON FULL SIZE SHEETS ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

PROFESSIONAL ENGINEER
No. 11366833
ALLISON G. ALBERT
STATE OF UTAH

NOT FOR CONSTRUCTION

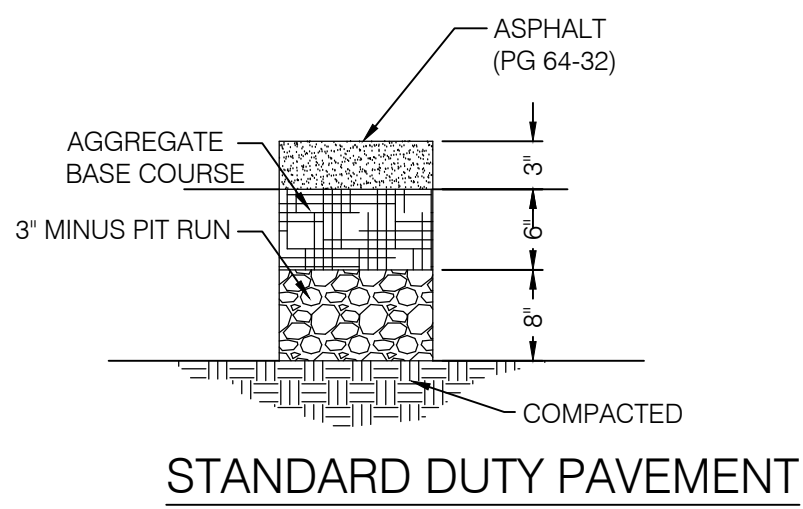
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9188 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
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WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

EROSION CONTROL DETAILS
CEP.02
16 OF 21



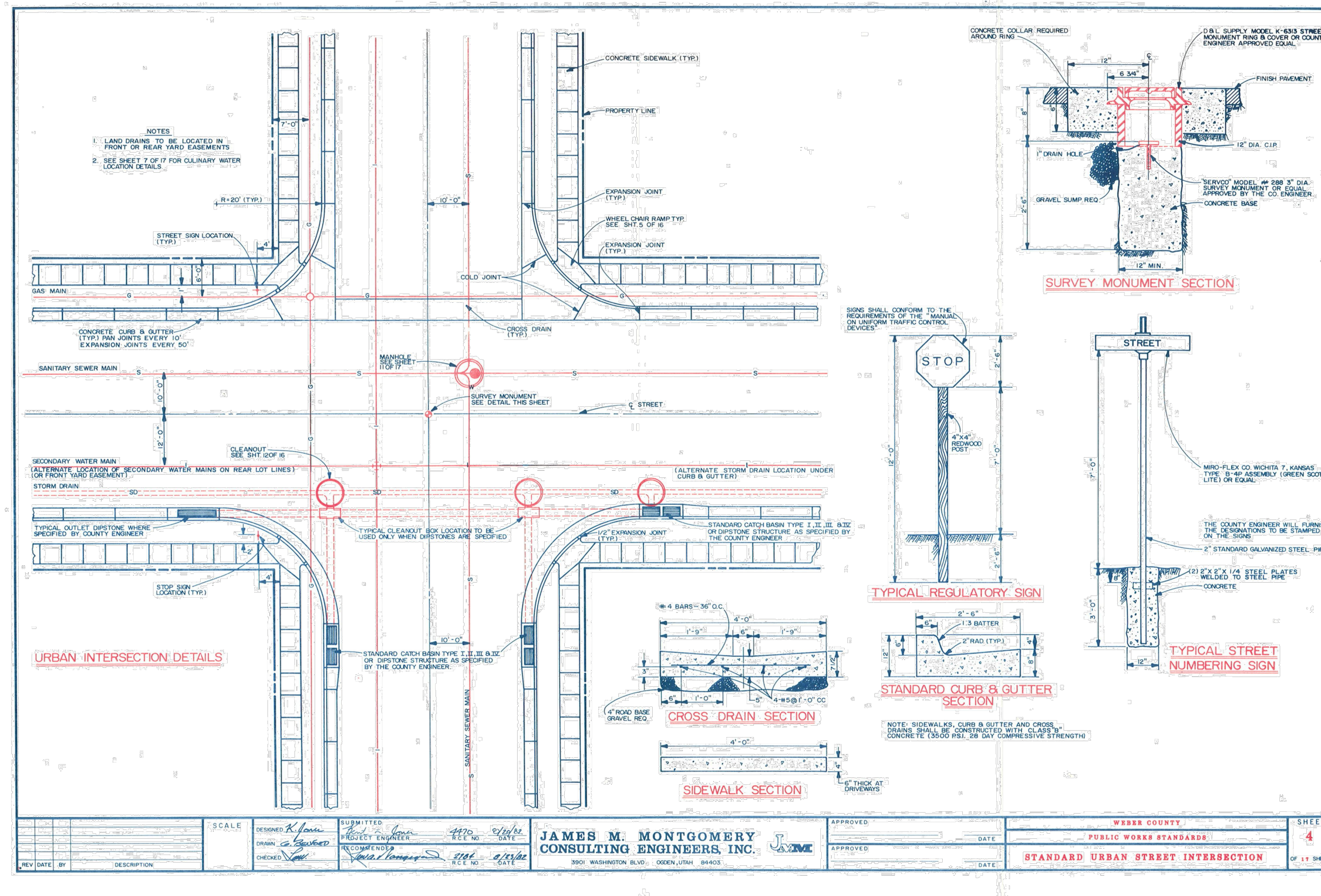
ALTERNATE: STANDARD
 CONCRETE GRAVEL BASE 5"
 GRAVEL BASE 8"



NOTE:
 1. FOR REINFORCEMENT DESIGN OF PCC PAVEMENT SECTIONS SEE STRUCTURAL ENGINEER
 2. FOR DOWEL DESIGN OF PCC PAVEMENT SECTIONS SEE GEOTECHNICAL ENGINEER
 3. REFER TO GEOTECHNICAL REPORT #1160708 PREPARED BY AGEC ON OCTOBER 12, 2016 FOR PAVEMENT DESIGN. DEFER TO GEOTECHNICAL REPORT OR COUNTY STANDARDS, WHICHEVER IS MORE CONSERVATIVE.
 4. COMPACTION TESTING REQUIRED FOR BOTH ROAD BASE AND SUB BASE PER WEBER COUNTY STANDARDS.

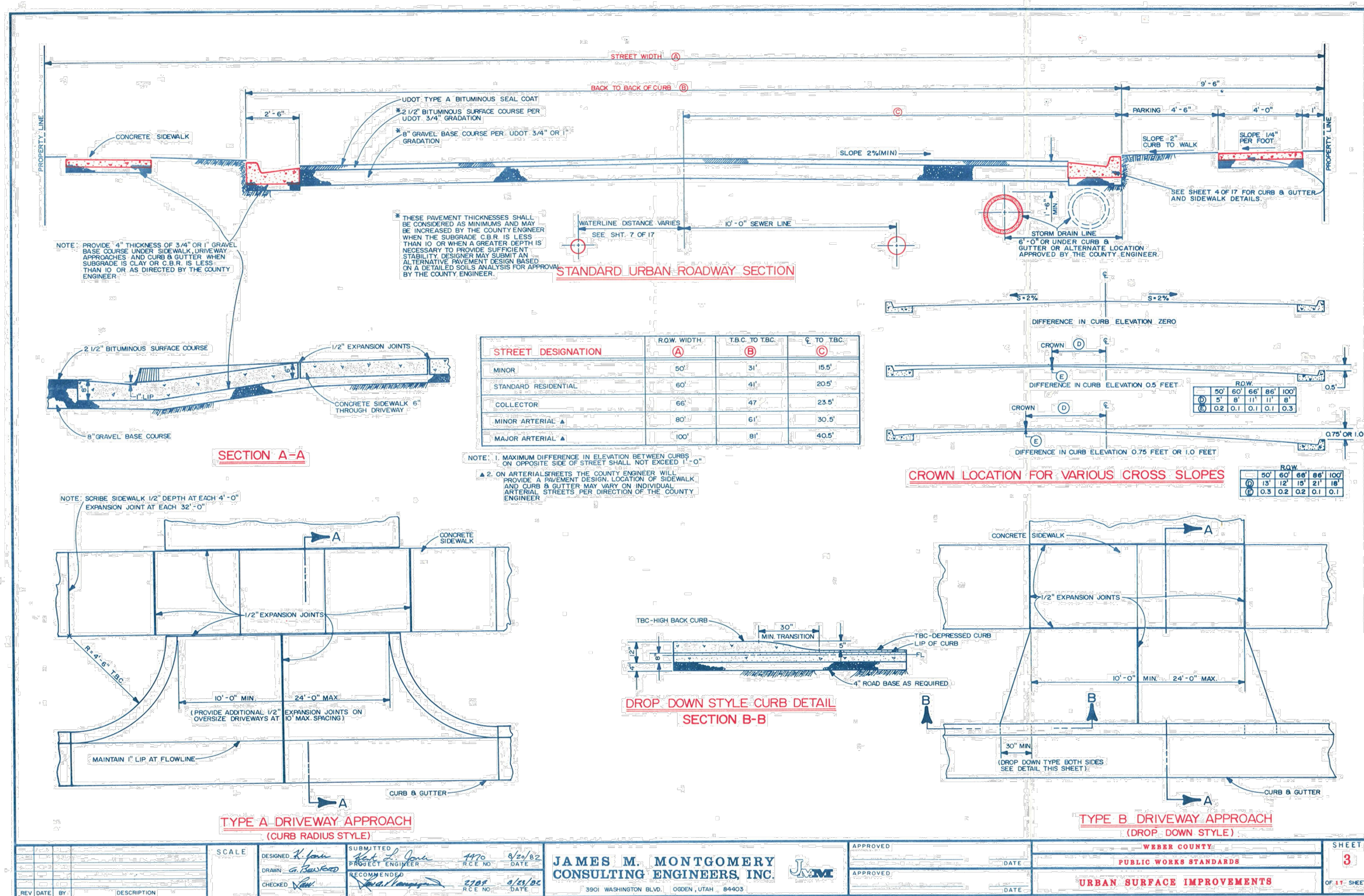
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SCALE: N.T.S.



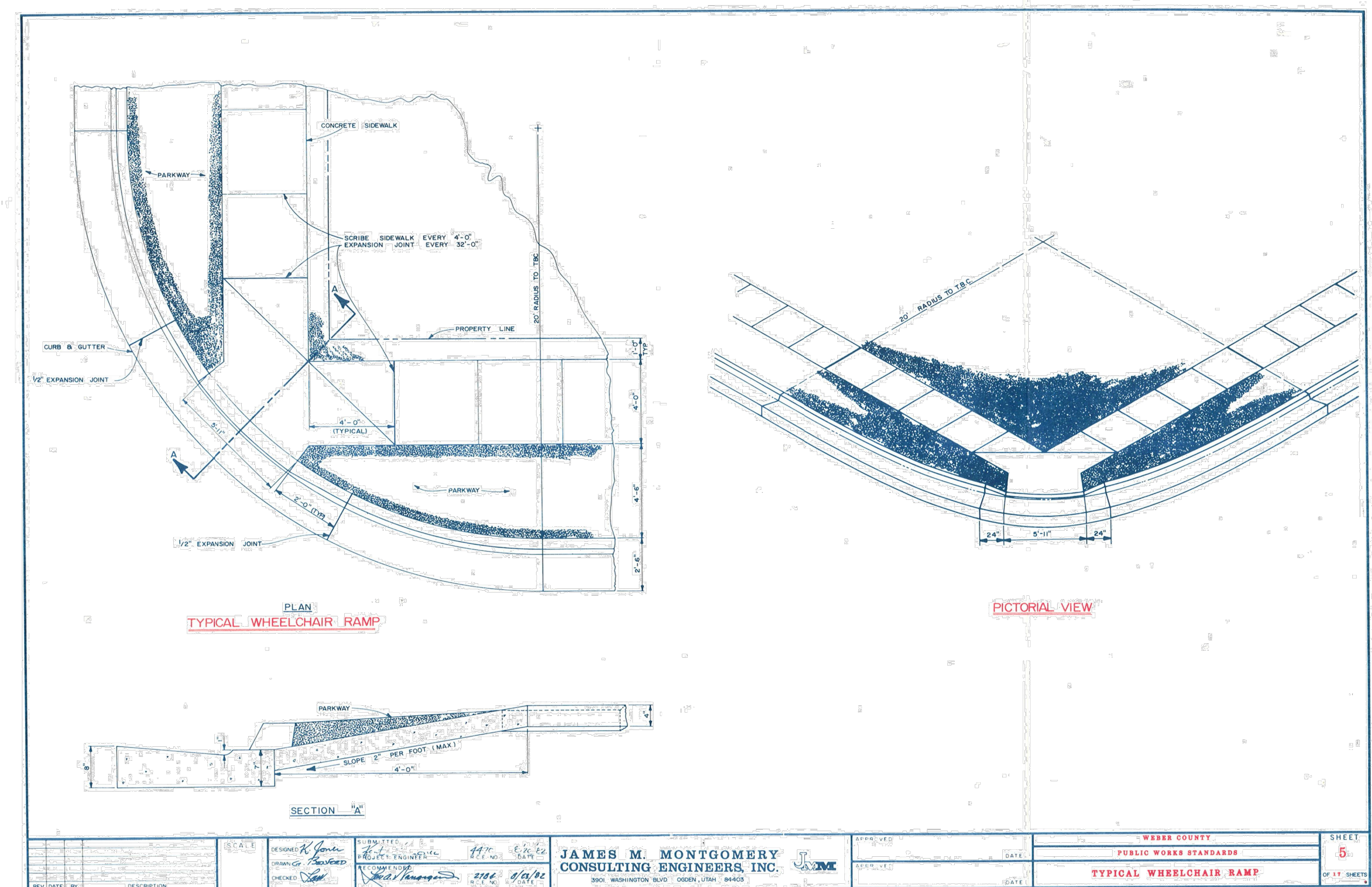
WEBER COUNTY INTERSECTION DETAILS 2

SCALE: N.T.S.



WEBER COUNTY SURFACE IMPROVEMENTS DETAILS 3

SCALE: N.T.S.



WEBER COUNTY WHEELCHAIR RAMP DETAILS 4

SCALE: N.T.S.

NO.	DATE	DESCRIPTION
1	03/20/21	REVISED PER COUNTY WATER & IRRIGATION COMMENTS

DESIGNED BY: JHO
 CHECKED BY: AGA
 PROJECT: SURVEY
 DATE: 03/12/2021
 DRAWN BY: 20042 SITE OPTION 2

SCALE: HORIZONTAL: FULL SIZE SHEETS
 VERTICAL: REDUCED SIZE SHEETS
 ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

PROFESSIONAL ENGINEER
 No. 11366833
 ALLISON G. ALBERT
 STATE OF UTAH

NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
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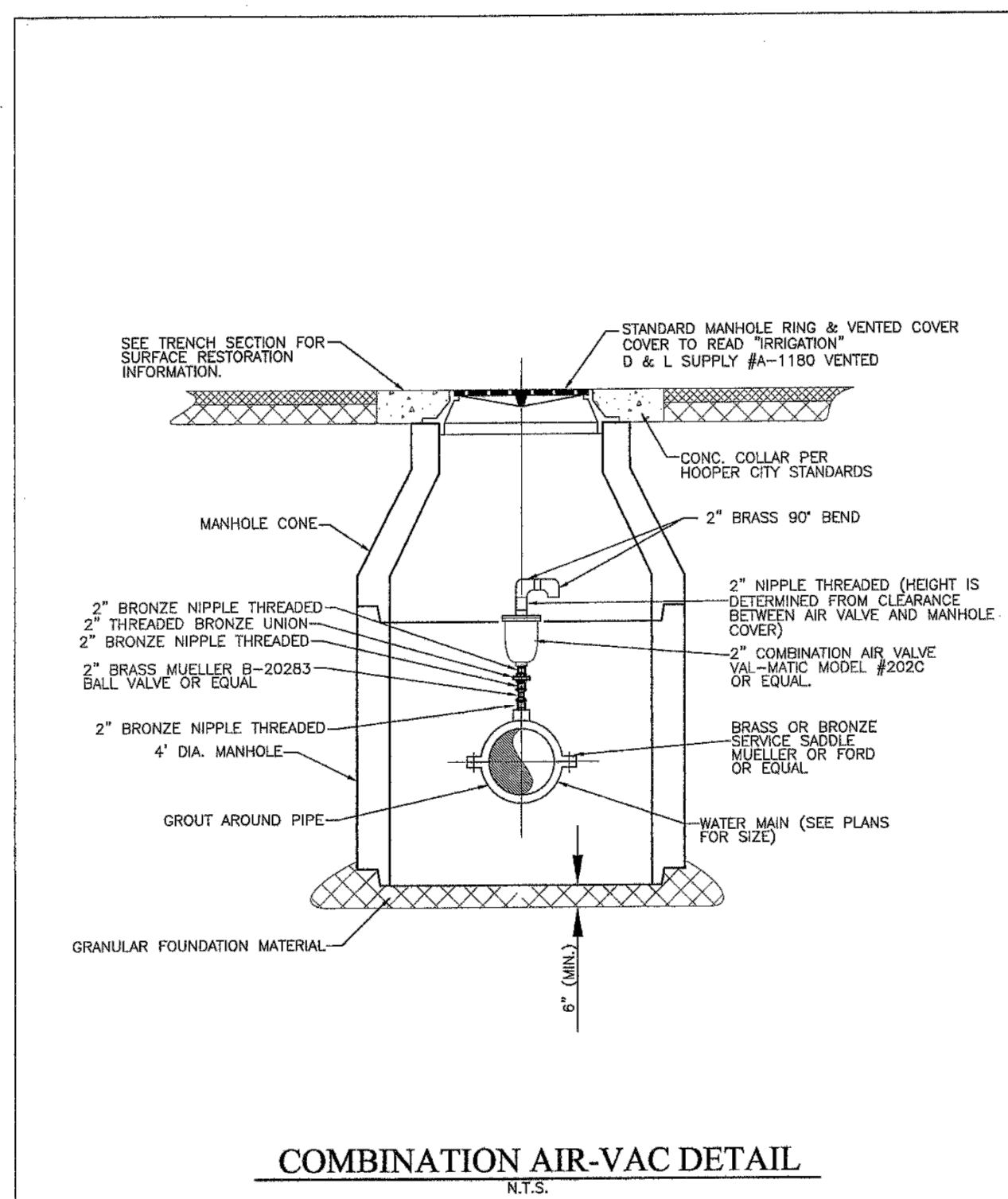
BENCHMARK CIVIL

WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

PROJECT NO. 2006142

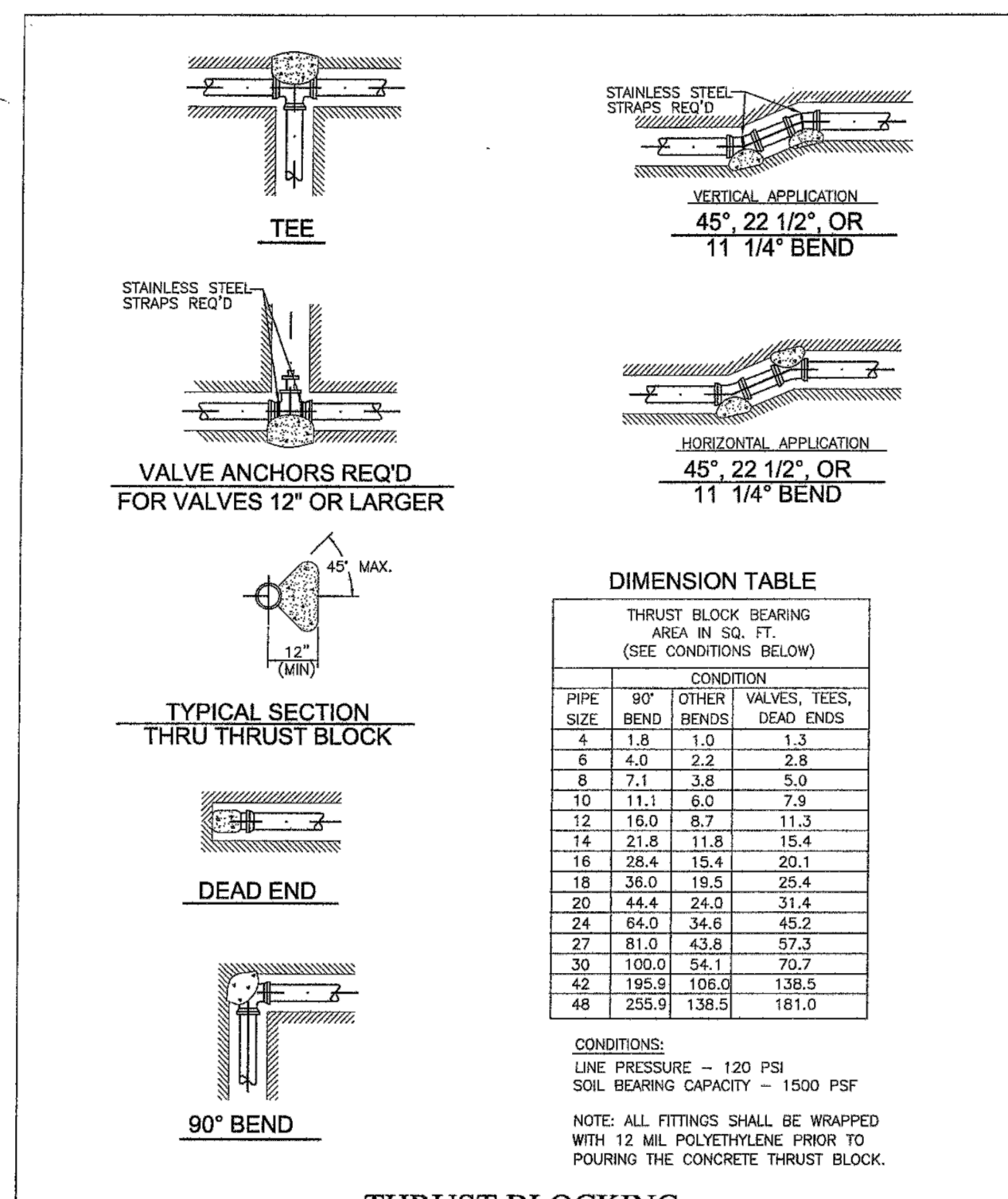
DETAILS & NOTES SHEET

CDT.01
 17 OF 21



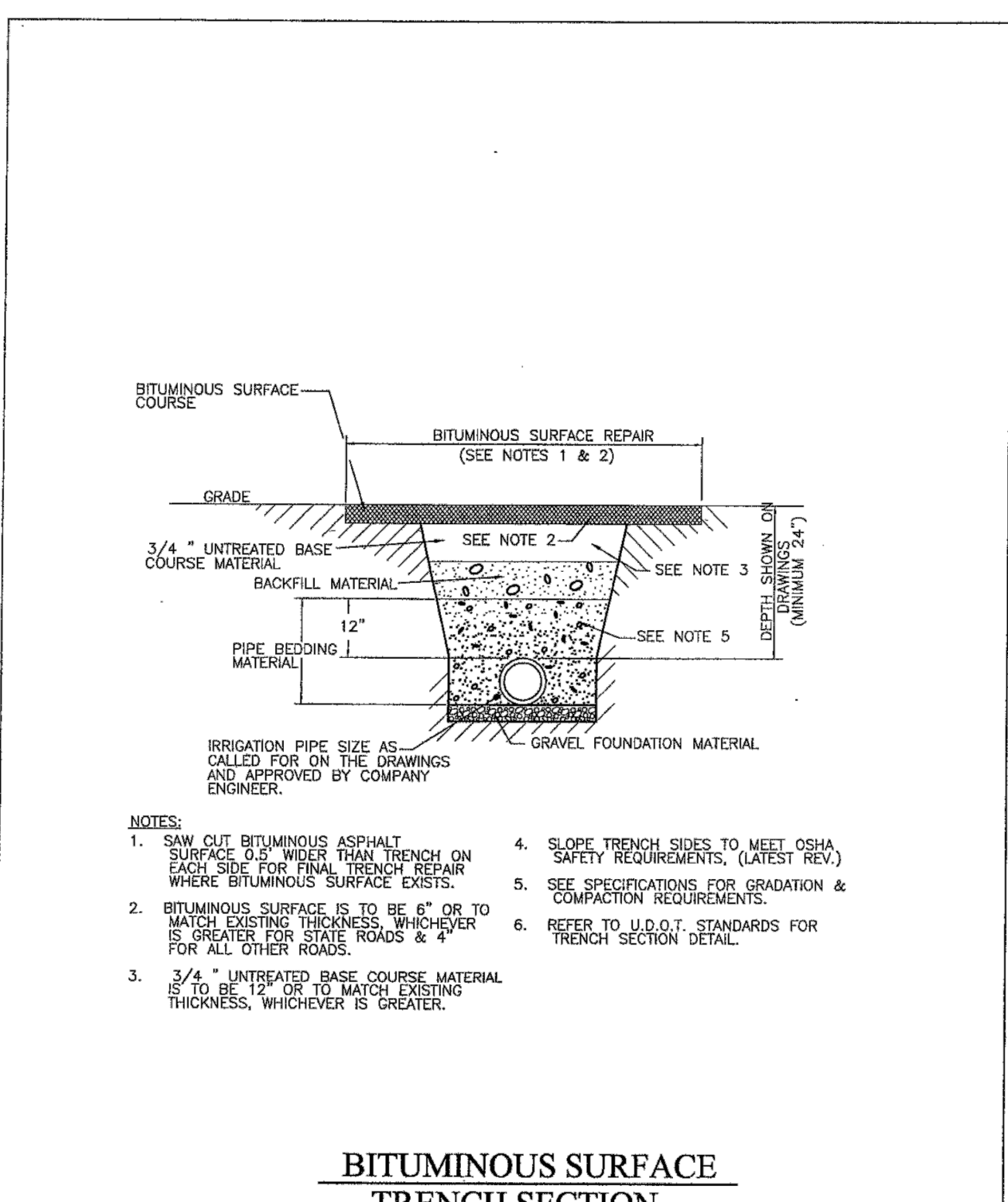
RELEASE OF RESPONSIBILITY I, the undersigned, hereby certify that the drawings and specifications herein were prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer in the State of Utah.	JUB Hooper Irrigation Company Pressure Irrigation Standards COMBINATION AIR-VAC DETAIL	SHEET PI-1 TOTAL SHEETS 1
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COMBINATION AIR-VAC DETAIL
HOOPER IRRIGATION STANDARDS ①
SCALE: N.T.S.



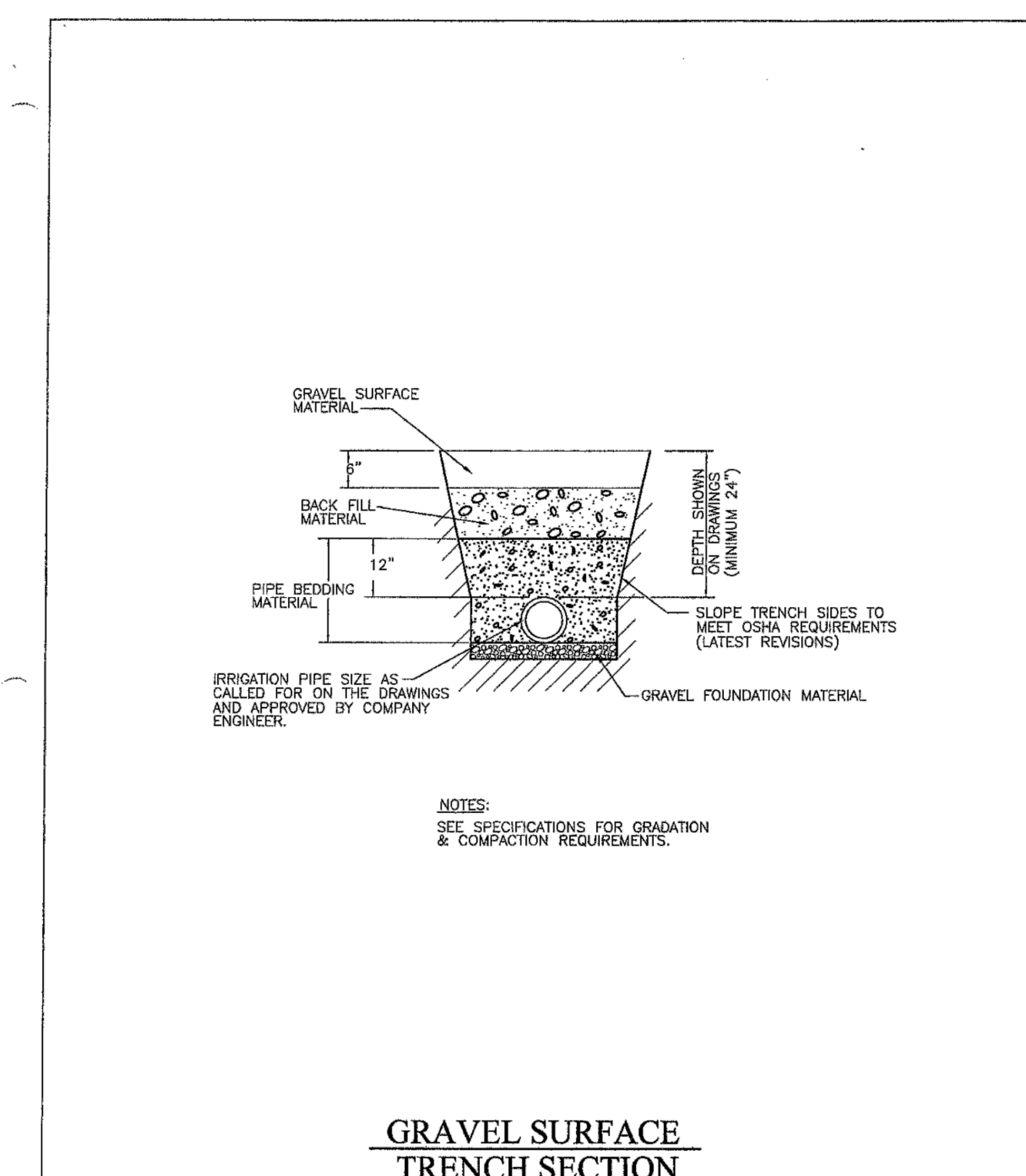
RELEASE OF RESPONSIBILITY I, the undersigned, hereby certify that the drawings and specifications herein were prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer in the State of Utah.	JUB Hooper Irrigation Company Pressure Irrigation Standards THRUST BLOCKING DETAILS	SHEET PI-3 TOTAL SHEETS 3
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THRUST BLOCKING DETAILS
HOOPER IRRIGATION STANDARDS ②
SCALE: N.T.S.



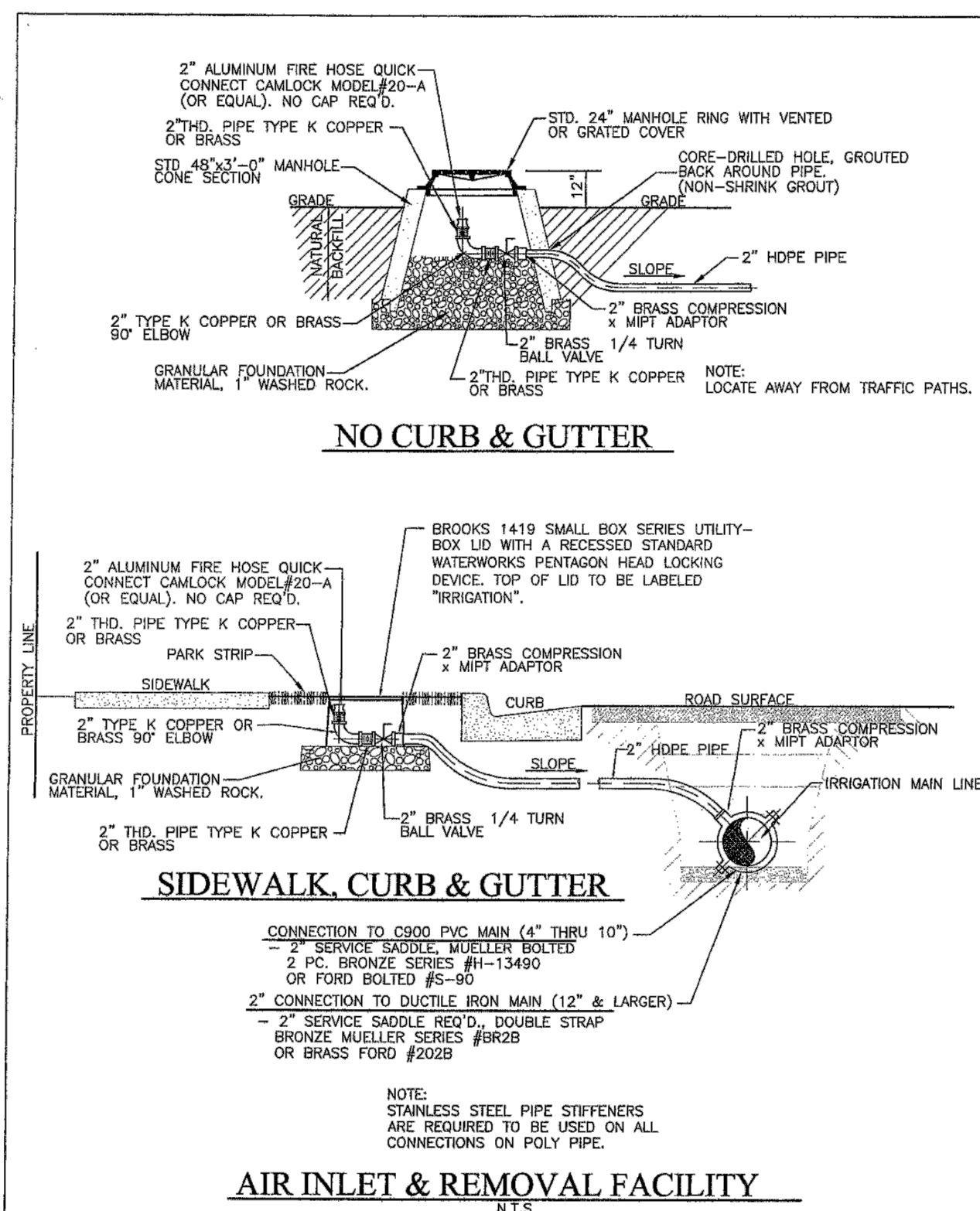
RELEASE OF RESPONSIBILITY I, the undersigned, hereby certify that the drawings and specifications herein were prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer in the State of Utah.	JUB Hooper Irrigation Company Pressure Irrigation Standards BITUMINOUS SURFACE TRENCH SECTION	SHEET PI-7 TOTAL SHEETS 7
--	---	---

TRENCH SECTIONS
HOOPER IRRIGATION STANDARDS ③
SCALE: N.T.S.



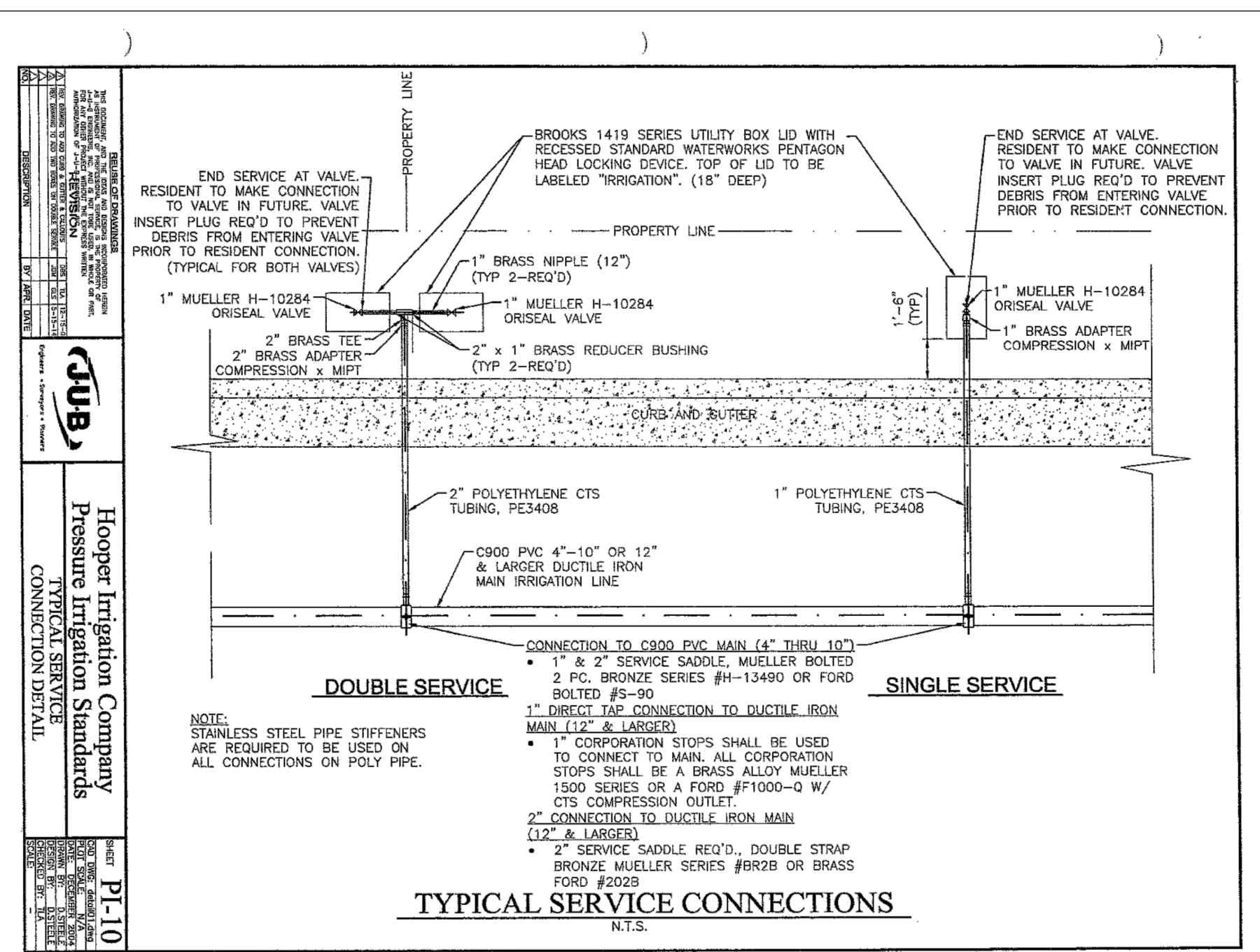
RELEASE OF RESPONSIBILITY I, the undersigned, hereby certify that the drawings and specifications herein were prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer in the State of Utah.	JUB Hooper Irrigation Company Pressure Irrigation Standards GRAVEL SURFACE TRENCH SECTION	SHEET PI-8 TOTAL SHEETS 8
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GRAVEL SURFACE TRENCH SECTION
HOOPER IRRIGATION STANDARDS ④
SCALE: N.T.S.



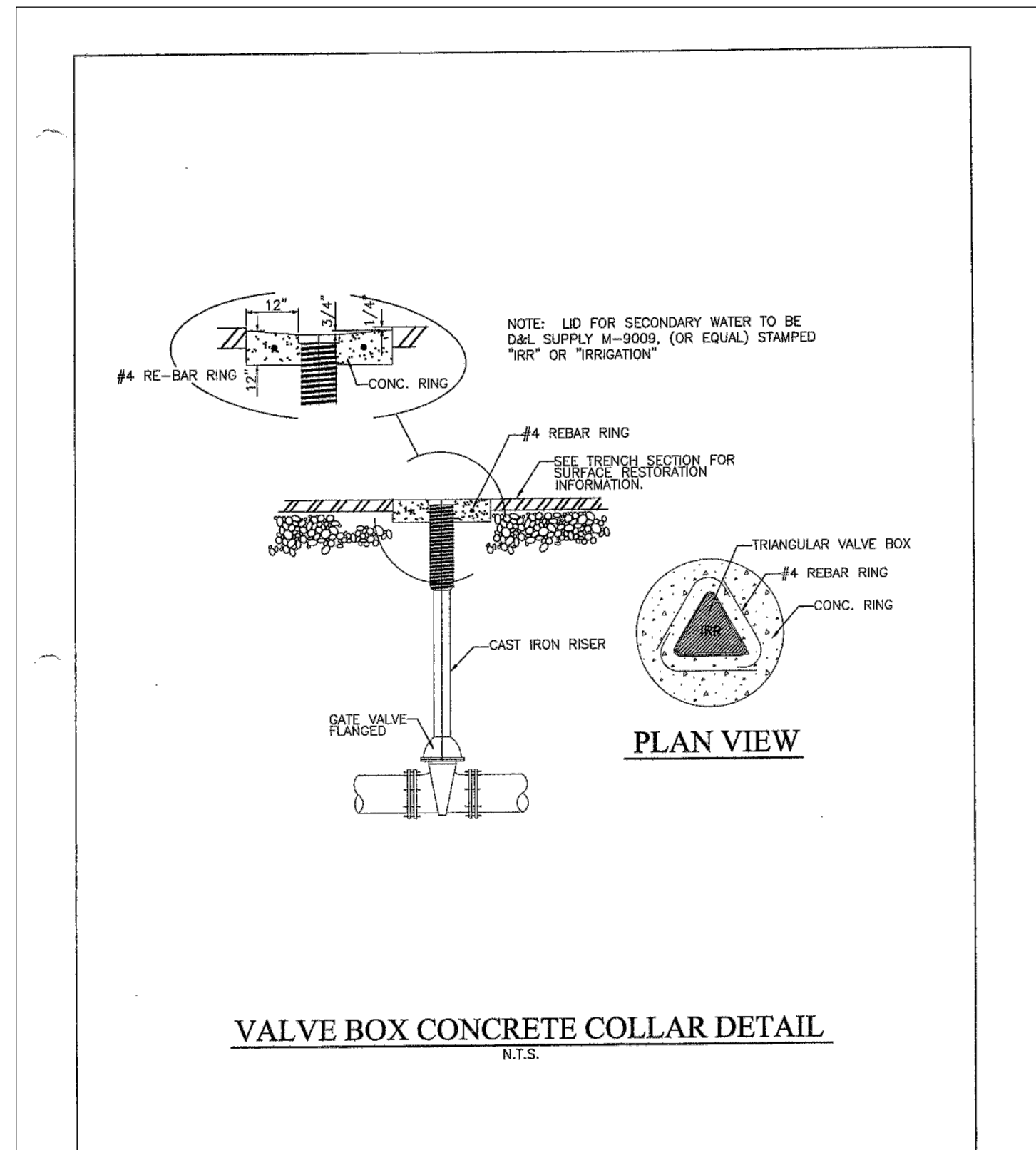
RELEASE OF RESPONSIBILITY I, the undersigned, hereby certify that the drawings and specifications herein were prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer in the State of Utah.	JUB Hooper Irrigation Company Pressure Irrigation Standards AIR INLET & REMOVAL FACILITY	SHEET PI-5 TOTAL SHEETS 5
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AIR INLET & REMOVAL FACILITY
HOOPER IRRIGATION STANDARD ④
SCALE: N.T.S.



RELEASE OF RESPONSIBILITY I, the undersigned, hereby certify that the drawings and specifications herein were prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer in the State of Utah.	JUB Hooper Irrigation Company Pressure Irrigation Standards TYPICAL SERVICE CONNECTIONS	SHEET PI-10 TOTAL SHEETS 10
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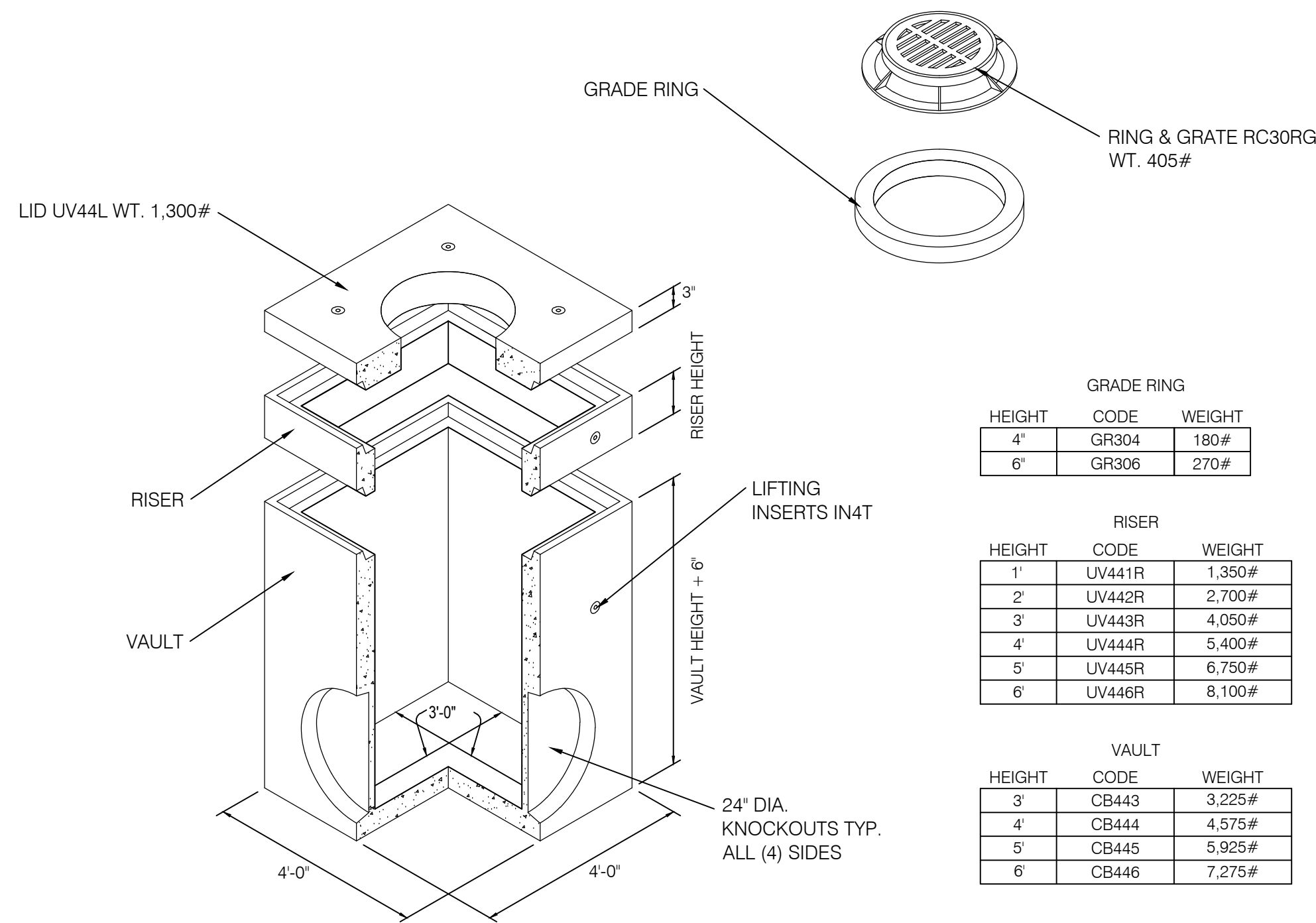
TYPICAL SERVICE CONNECTION DETAIL
HOOPER IRRIGATION STANDARDS ⑤
SCALE: N.T.S.



RELEASE OF RESPONSIBILITY I, the undersigned, hereby certify that the drawings and specifications herein were prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer in the State of Utah.	JUB Hooper Irrigation Company Pressure Irrigation Standards VALVE BOX CONCRETE COLLAR	SHEET PI-2 TOTAL SHEETS 2
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VALVE BOX CONCRETE COLLAR DETAIL
HOOPER IRRIGATION STANDARDS ⑥
SCALE: N.T.S.

PROJECT NO. 2006142
 DATE 03/20/21
 REVISION PER COUNTY WATER & IRRIGATION COMMENTS
 CHECKED BY AGA
 DRAWN BY JHO
 SCALE MEASURES 1/4" ON FULL SIZE SHEETS
 ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS
 NOT FOR CONSTRUCTION
 PROFESSIONAL ENGINEER
 No. 11366833
 ALLISON G. ALBERT
 STATE OF UTAH
 BENCHMARK ENGINEERING & LAND SURVEYING
 9138 SOUTH STATE STREET SUITE #100
 SANDY, UTAH 84070 (801) 542-1192
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 WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH
 DETAILS & NOTES SHEET
 CDT.02
 18 OF 21



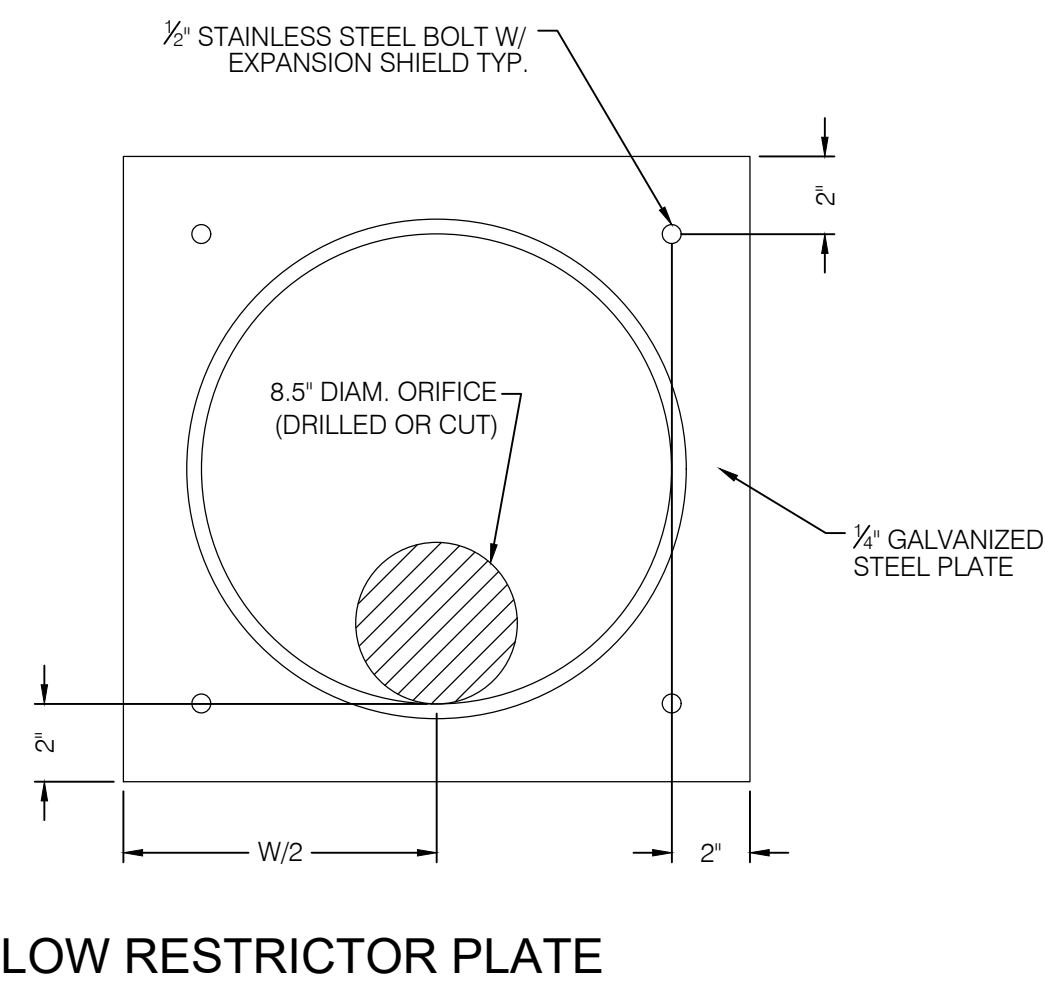
GRADE RING		
HEIGHT	CODE	WEIGHT
4"	GR304	180#
6"	GR306	270#

RISER		
HEIGHT	CODE	WEIGHT
1'	UV441R	1,350#
2'	UV442R	2,700#
3'	UV443R	4,050#
4'	UV444R	5,400#
5'	UV445R	6,750#
6'	UV446R	8,100#

VAULT		
HEIGHT	CODE	WEIGHT
3"	CB443	3,225#
4"	CB444	4,575#
5"	CB445	5,925#
6"	CB446	7,275#

3'x3' CATCH BASIN
SCALE: N.T.S.

- NOTES:
 1. CATCH BASINS ARE DESIGNED TO MEET ASTM C858 WITH AASHTO HS-20 LOADING.
 2. OPENINGS MAY BE SIZED AND LOCATED AS REQUIRED.
 3. OPTIONAL GRATING OR COVER MATERIAL MAY BE CAST IN AS REQUIRED.
 4. CHECK HARDWARE SECTION FOR OPTIONAL ACCESSORIES.



FLOW RESTRICTOR PLATE

8.5" ORIFICE RESTRICTOR

SCALE: N.T.S.

- STEEL: ASTM A 36 STEEL
- BOLTS: USE 1/2" STAINLESS STEEL BOLTS AND 1/2" STAINLESS WASHERS.
- COATING: COAT ALL METAL PARTS WITH ASPHALTUM PAINT.

Series 37

- Installs between pipe flanges, eliminating valve body.
- Offers minimal face-to-face dimension—only the thickness of the flange.
- Features unique, maintenance-free, one-piece elastomer check sleeve design.
- Eliminates chatter—silent, non-slaming.
- Closes on entrapped solids.

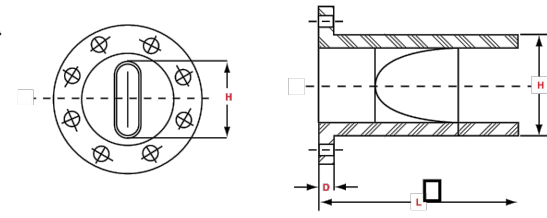


Materials of Construction

- Valves are available in pure gum rubber, neoprene, Hypalon®, Buna-N, Viton® and EPDM.
- ANSI Class 125 Flanges, DIN PN6, PN10, PN16.
- Special coating available.

Tideflex® Technologies' Series 37 Flanged In-Line Check Valve is a simple, reliable, cost-effective solution to backflow problems. Designed to be installed between twomating flanges, the Series 37 eliminates the need for a valve body.

The pressure drop of the Series 37 is increased because of the smaller I.D. required to fit the check valve in the line.



With only one moving part, the maintenance-free rubber check sleeve, the Series 37 In-Line Check Valve is simple in design. Sliding, rotating, swinging and spring parts are eliminated. There are no seats to corrode or packing to maintain. In addition, the Series 37 is a passive design, requiring no external source of air or electricity to operate. The result is reduced operating costs.

The Series 37 In-Line Check Valve can be ordered in a variety of elastomers. Flanges conform to ANSI B16.1 Class 125 specifications. Special custom designs or metric flanged models are also available. When ordering, specify line pressure, backpressure and whether an SST is required.

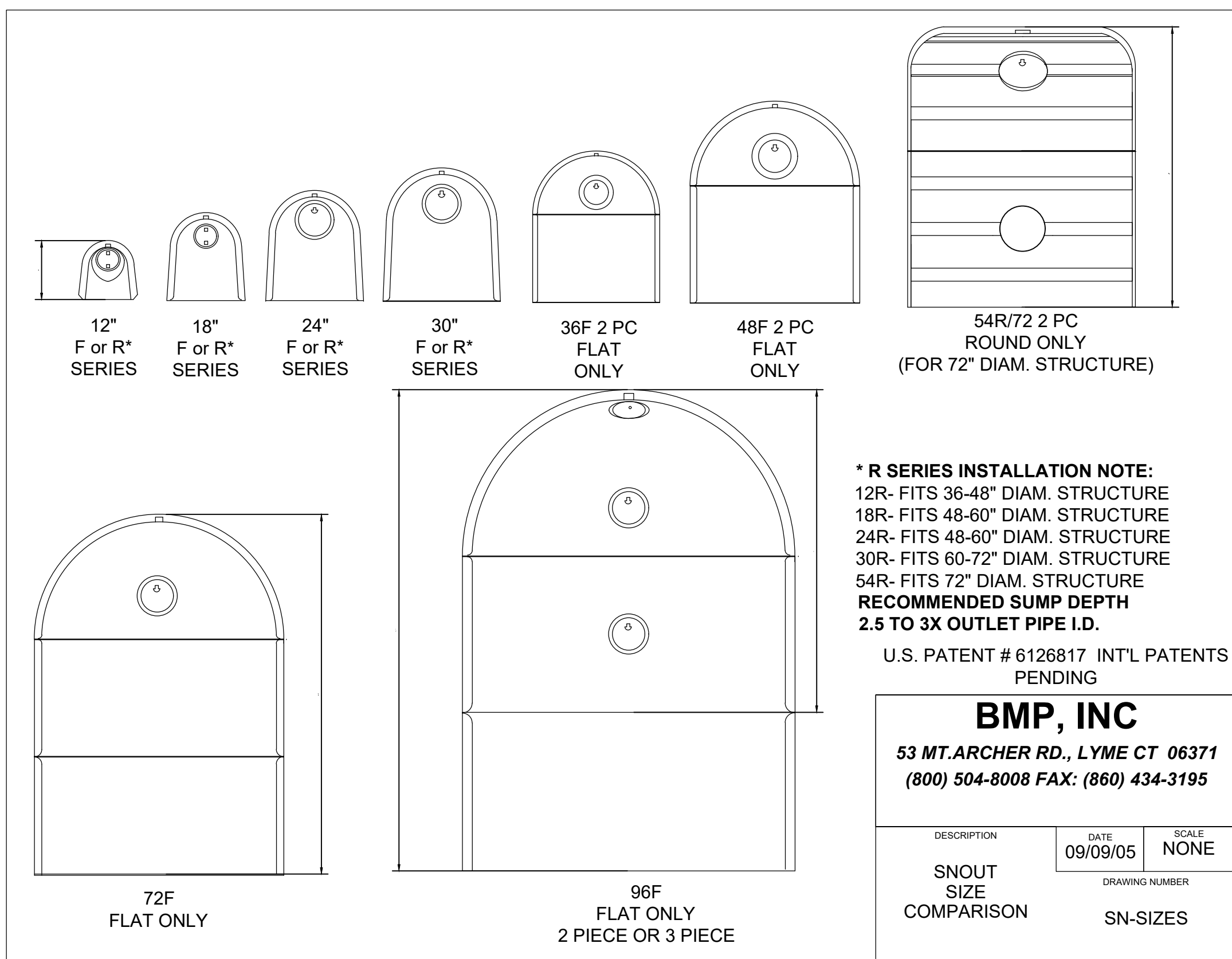
Dimensions Series 37 Flanged In-Line Check Valve

Nominal Size* (Pipe I.D.)	Length	Height of Bolt	Flange Thickness	Max. Backpressure (psi)
2	5	1 7/8	3/8	150
3	5 1/2	2 7/8	3/8	100
4	7	3 7/8	3/8	75
6	11	5 7/8	3/8	75
8	12 1/2	7 7/8	1/2	60
10	15 1/2	9 7/8	1/2	45
12	18 1/2	11 7/8	1/2	35
14	22	13 3/4	5/8	25
16	23	15 3/4	3/4	20
18	24	17 3/4	1	15
20	32	19 3/4	1	10
24	37	23 3/4	1	10
30	41	29 3/4	1 1/2	8
36	47	35 3/4	1 1/2	8
42	49	41 1/2	1 3/4	5
48	52	47 1/2	1 3/4	5
54	57	53 1/2	2	5
60	64	59 1/2	2	5
72	73	71 1/2	2	5

Numbers indicate maximum dimensions in inches.
 * Larger sizes available upon request.

CHECK VALVE DETAIL

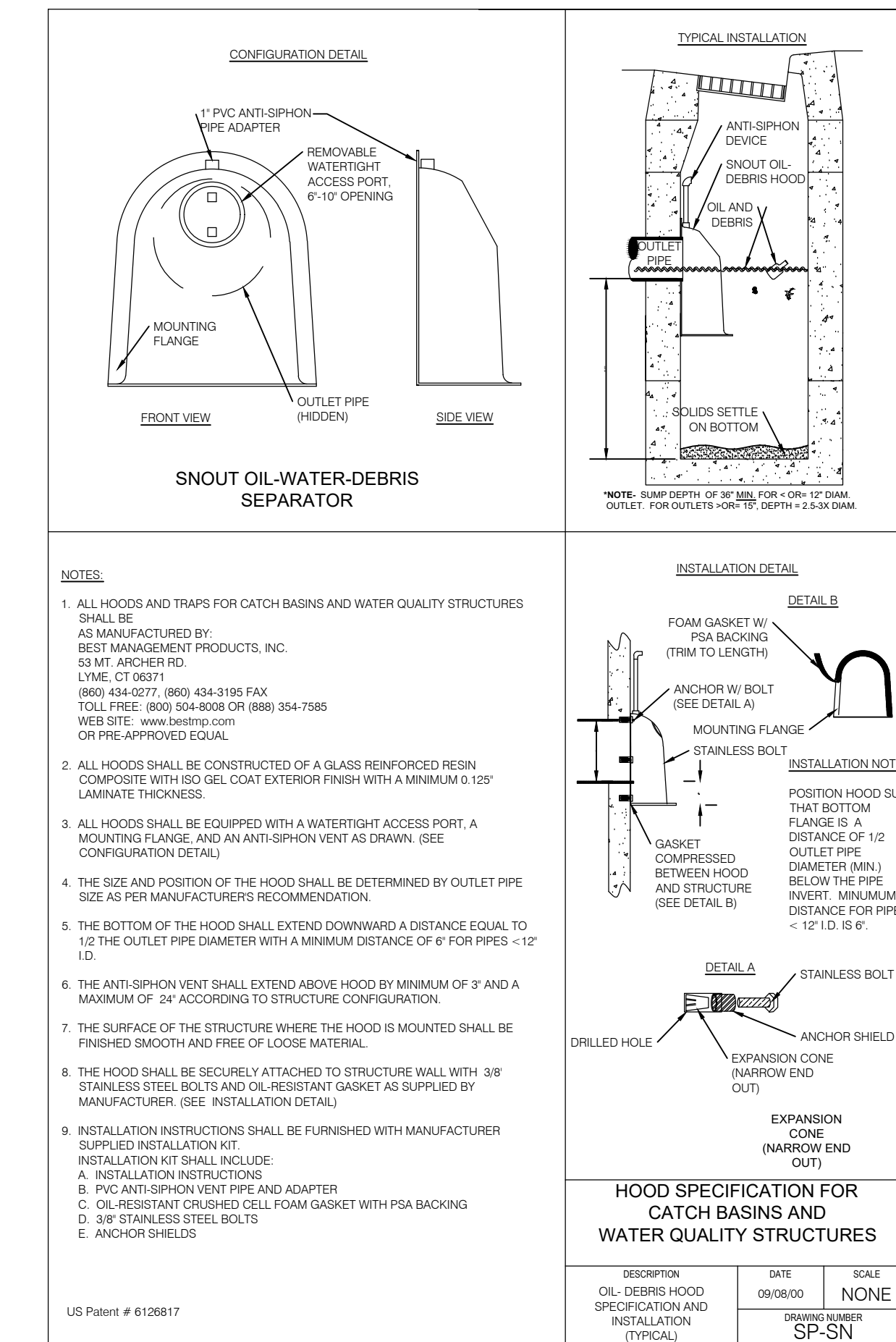
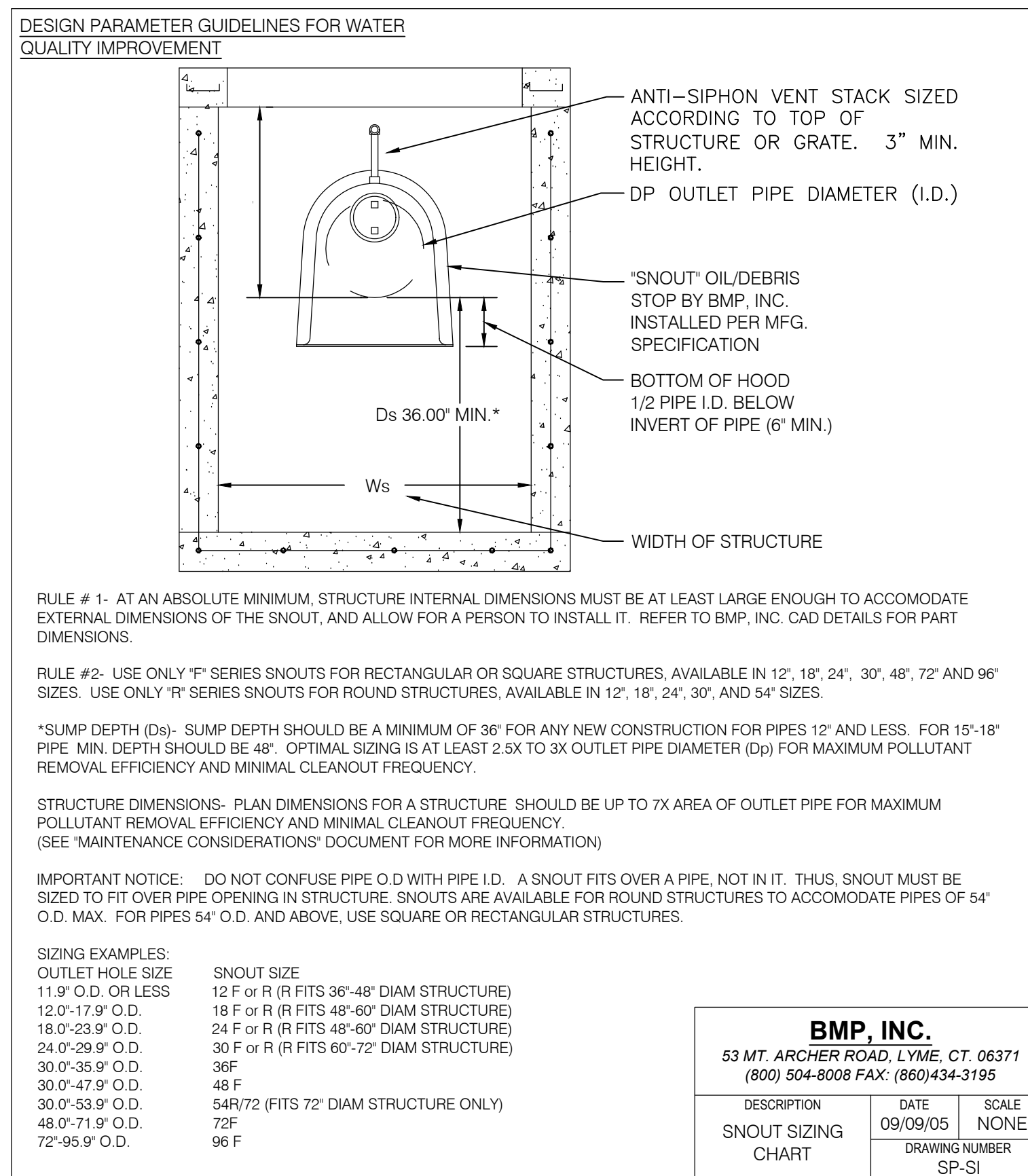
SCALE: N.T.S.



*** R SERIES INSTALLATION NOTE:**
 12R- FITS 36-48" DIAM. STRUCTURE
 18R- FITS 48-60" DIAM. STRUCTURE
 24R- FITS 48-60" DIAM. STRUCTURE
 30R- FITS 60-72" DIAM. STRUCTURE
 54R- FITS 72" DIAM. STRUCTURE
RECOMMENDED SUMP DEPTH 2.5 TO 3X OUTLET PIPE I.D.
 U.S. PATENT # 6126817 INT'L PATENTS PENDING

BMP, INC
 53 MT. ARCHER RD., LYME CT 06371
 (800) 504-8008 FAX: (860) 434-3195

DESCRIPTION	DATE	SCALE
SNOUT SIZE COMPARISON	09/09/05	NONE
DRAWING NUMBER		SN-SIZES

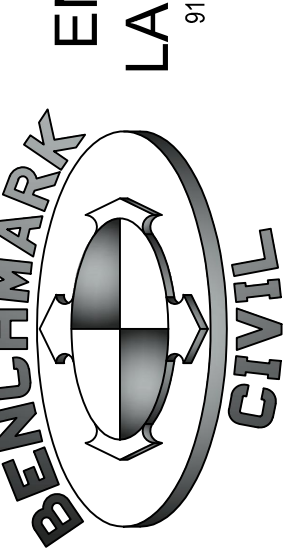


18F SNOUT DETAILS
SCALE: N.T.S.

NO.	DATE	DESCRIPTION
1	03/20/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

BY	DATE	SCALE
JHO	03/12/2021	0.1

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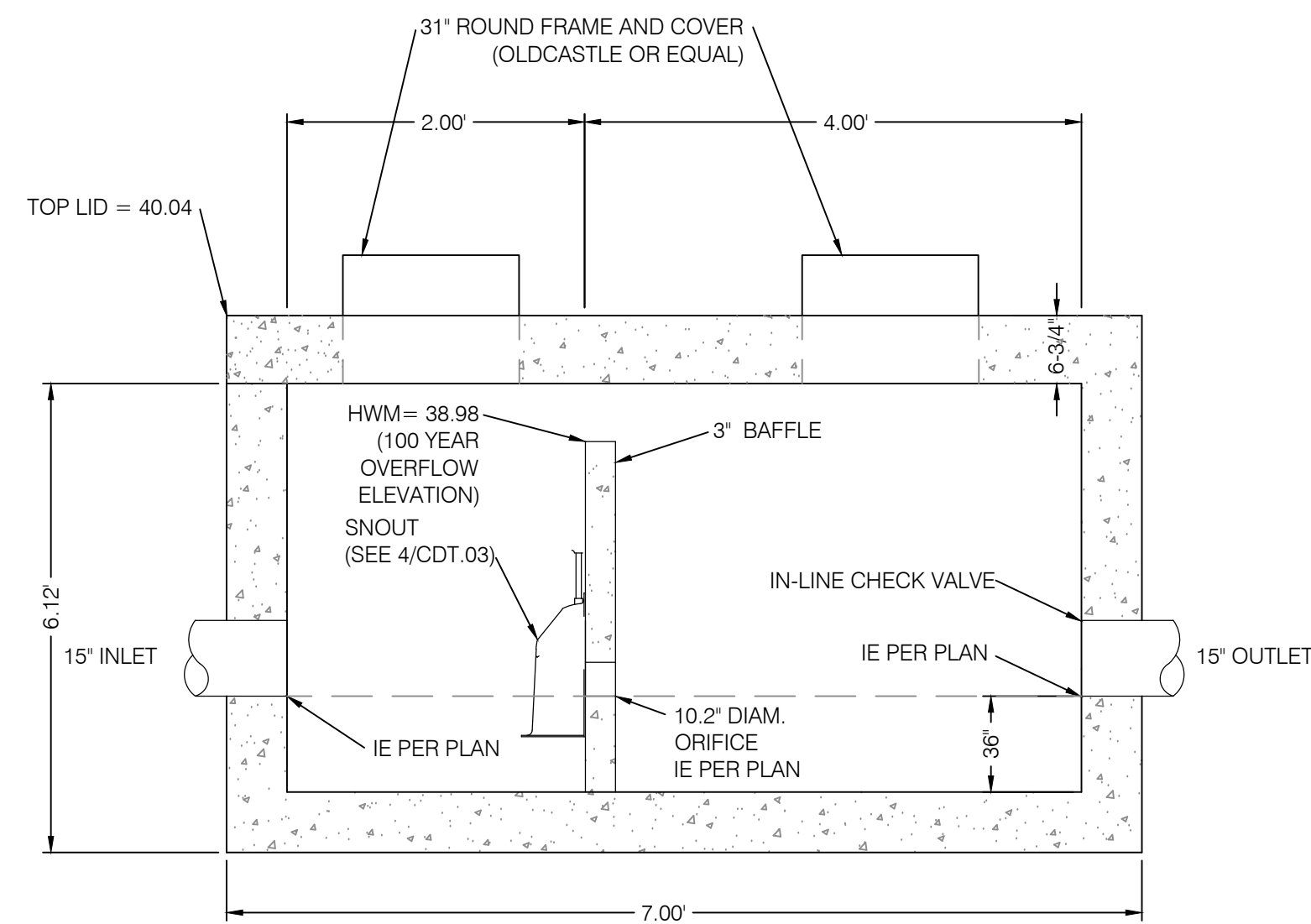


WINSTON PARK
 3701 W 1800 S
 WEBER COUNTY, UTAH

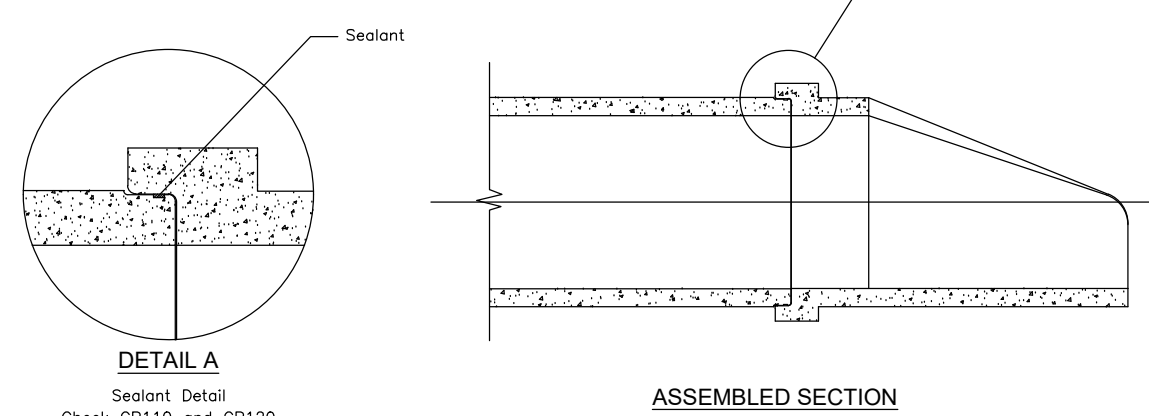
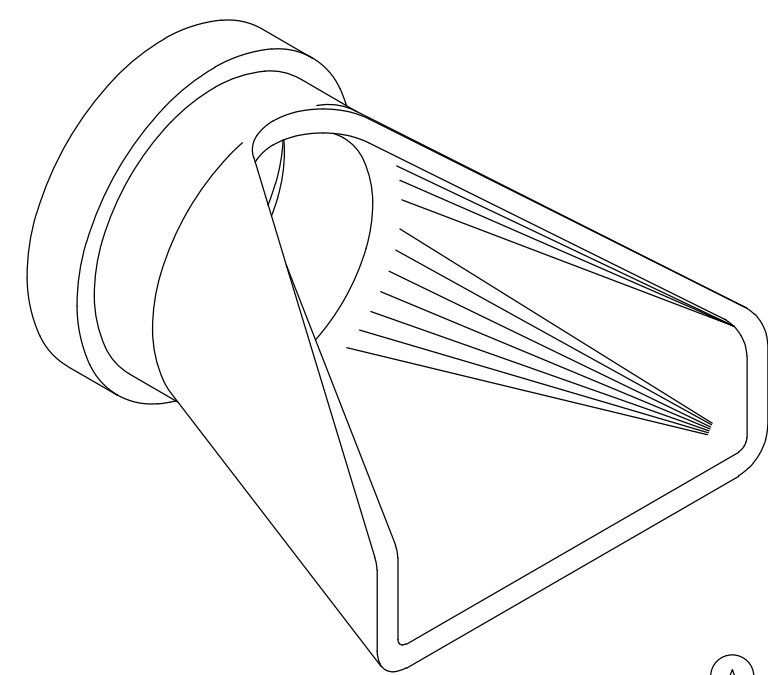
PROJECT NO. 2006142

DETAILS & NOTES SHEET

CDT.03
19 OF 21

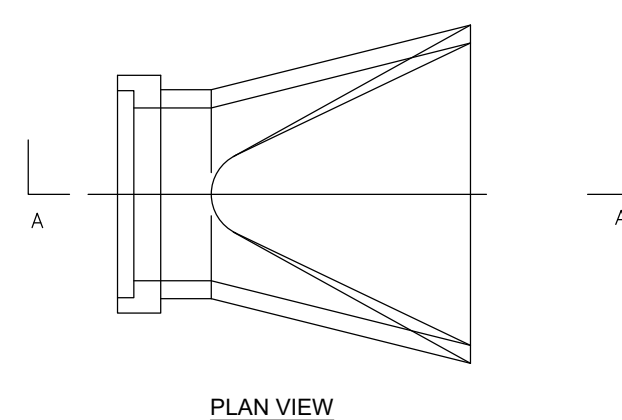


4'X6' CLEANOUT BOX WITH BAFFLE ①
SCALE: N.T.S.

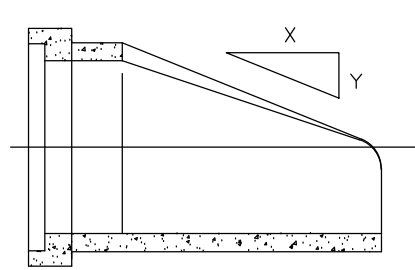


DETAIL A
Sealant Detail
Check CP110 and CP120
for Specific Joint Details

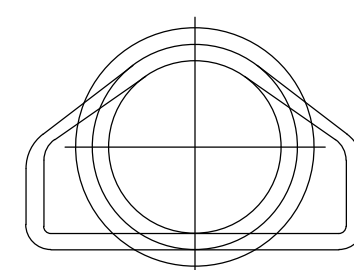
Diameter	Code	Weight
12"	FES12B	535#
15"	FES15B	740#
18"	FES18B	994#
24"	FES24B	1,540#
30"	FES30B	2,100#
36"	FES36B	4,100#
42"	FES42B	5,380#
48"	FES48B	6,550#



PLAN VIEW



SECTION A-A



END VIEW

Diag.	Slope X : Y	A	B	C	E	F	G
12"	2.4 : 1	4"	24"	49"	72"	24"	2"
15"	2.4 : 1	6"	27"	46"	73"	30"	2"
18"	2.5 : 1	9"	23"	40"	73"	36"	2"
24"	2.5 : 1	9"	43"	50"	73"	48"	3"
30"	2.5 : 1	12"	54"	61"	73"	60"	3"
36"	2.5 : 1	15"	63"	72"	73"	72"	4"
42"	2.5 : 1	21"	63"	72"	73"	78"	4"
48"	2.5 : 1	24"	72"	80"	73"	84"	5"

Oldcastle Precast
801 West 12th Street, Ogden, Utah 84403
Phone: 801-399-1171 Fax: 801-392-7668

Flared End
FILE NAME: 2102PERFORLARS
RELEASE DATE: 5/08
www.oldcastleprecast.com

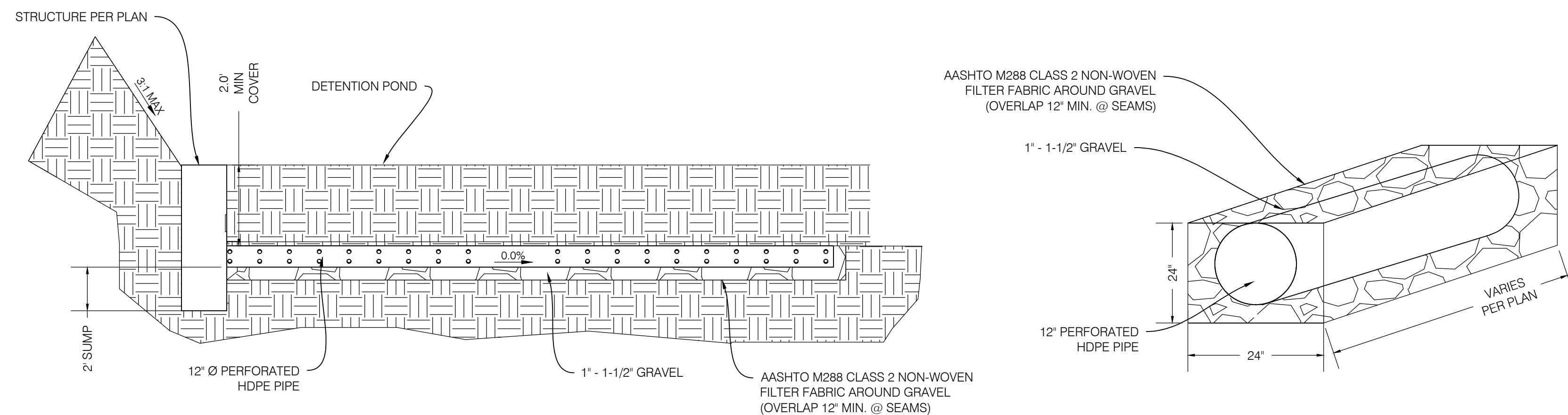
Flared End Section for Round Pipe
Copyright © 2008

Oldcastle Precast
801 West 12th Street, Ogden, Utah 84403
Phone: 801-399-1171 Fax: 801-392-7668

Flared End
FILE NAME: 2102PERFORLARS
RELEASE DATE: 5/08
www.oldcastleprecast.com

Flared End Section for Round Pipe
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FLARED END SECTION WITH TRASH GATE ②
SCALE: N.T.S.

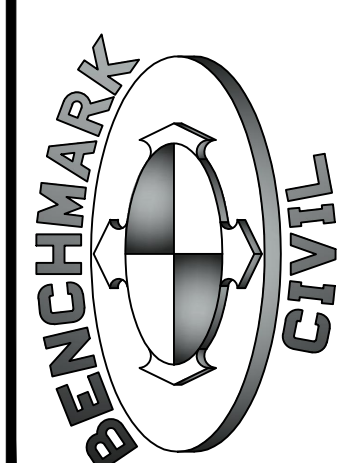


PERFORATED PIPE DETAIL ③
SCALE: N.T.S.

No.	DATE	DESCRIPTION
1	03/20/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

DESIGNED BY: JHO
CHECKED BY: AGA
PROJECT: SURVEY
DATE: 03/12/2021
SCALE: 0.1
SCALE MEASURES - INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

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PROJECT NO. 2008142
DETAILS & NOTES SHEET
CDT.04
20 OF 21

TABLE OF BEARING AREAS IN SQ. FT. FOR CONCRETE THRUST BLOCKINGS

PIPE SIZE	DEPTH	12" DIA.	18" DIA.	24" DIA.	30" DIA.	36" DIA.	42" DIA.	48" DIA.	54" DIA.	60" DIA.	72" DIA.	84" DIA.	96" DIA.
8"	12"	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0
10"	12"	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0	9.0
12"	12"	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0
14"	12"	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0
16"	12"	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
18"	12"	3.5	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0
20"	12"	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0
24"	12"	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0
30"	12"	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
36"	12"	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0
42"	12"	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
48"	12"	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0
54"	12"	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0
60"	12"	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0
72"	12"	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0
84"	12"	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
96"	12"	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0
108"	12"	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0
120"	12"	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0

1 TYPICAL VALVE DETAIL

3A TYPICAL TRENCH SECTION

4 TYPICAL WATER CONNECTION/RE-CONNECTION

6 COMBINATION AIR/VAC VALVE DETAILS

THRUST BLOCK AND VALVE DETAILS
TAYLOR-WEST WEBER WATER DISTRICT STDs.
SCALE: N.T.S.

TRENCH DETAILS
TAYLOR-WEST WEBER WATER DISTRICT STDs.
SCALE: N.T.S.

TYP. CONNECTION AND FIRE HYDRANT DETAILS
TAYLOR-WEST WEBER WATER DISTRICT STDs.
SCALE: N.T.S.

COMBO AIR-VAC DETAIL
TAYLOR-WEST WEBER WATER DISTRICT STDs.
SCALE: N.T.S.

7 TYPICAL SEWER CROSSING DETAIL

10 1 1/2" WATER METER DETAIL

14A LATERAL BLOW OFF DETAIL

14B END LINE BLOW OFF DETAIL

TYPICAL SEWER CROSSING DETAIL
TAYLOR-WEST WEBER WATER DISTRICT STDs.
SCALE: N.T.S.

METER DETAIL
TAYLOR-WEST WEBER WATER DISTRICT STDs.
SCALE: N.T.S.

LATERAL BLOW OFF DETAIL
TAYLOR-WEST WEBER WATER DISTRICT STDs.
SCALE: N.T.S.

END LINE BLOW OFF DETAIL
TAYLOR-WEST WEBER WATER DISTRICT STDs.
SCALE: N.T.S.

PROJECT NO. 2006142

DATE 03/20/21

SCALE: HORIZONTAL: 1" = 40' VERTICAL: 1" = 4'

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Winston Park
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WEBER COUNTY, UTAH

DETAILS & NOTES SHEET
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