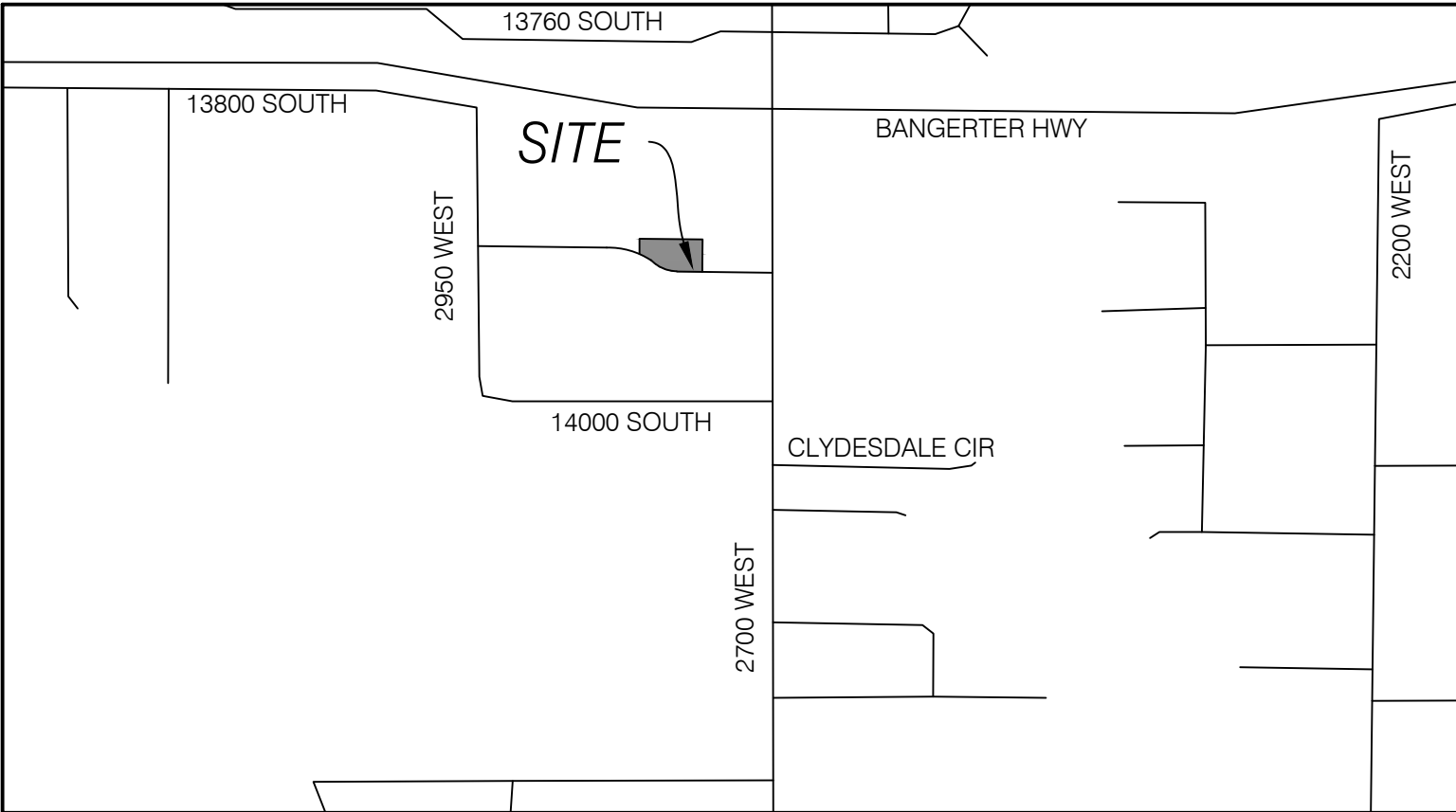
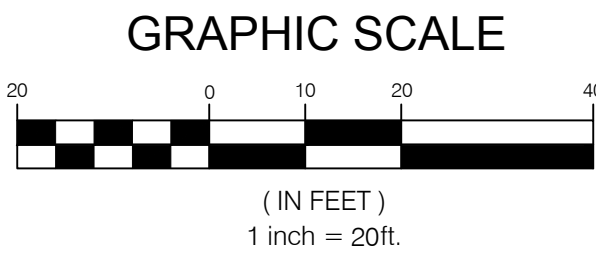
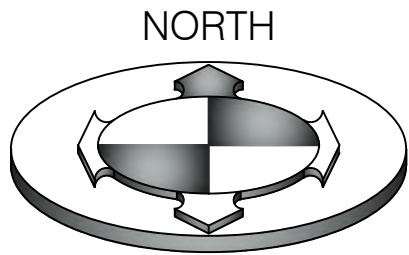


JEREMY BITNER LOT 3

LOCATED IN THE SOUTHWEST QUARTER OF SECTION 4,
TOWNSHIP 4 SOUTH, RANGE 1 WEST,
SALT LAKE BASE AND MERIDIAN
BLUFFDALE CITY, SALT LAKE COUNTY, UTAH



VICINITY MAP
N.T.S

OWNER/DEVELOPER:
IVY LEAGUE HOMES, INC.
JEREMY BITNER
2938 W. COUNTRY CLASSIC DR.
BLUFFDALE, UTAH 84065
JEREMYBITNER@HOTMAIL.COM

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CIVIL CONSTRUCTION PLANS

**BENCHMARK
ENGINEERING &
LAND SURVEYING**

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www.benchmarkcivil.com

JEREMY BITNER LOT 3 13930 S 2700 W BLUFFDALE CITY, UTAH			DRAFT GAP DATE: 08/04/2022	DESIGN AGA DATE: 08/04/2022	CHECK AGA DATE: 08/04/2022	PROJECT NO: 2002024
No.	DATE	DESCRIPTION				COVER
1	12/09/22	REVISED PER CITY COMMENTS				
2	01/19/23	REVISED PER CITY COMMENTS				
3	03/27/23	REVISED PER CITY COMMENTS				
4	08/16/23	REVISED PER CITY COMMENTS				
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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/she 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.

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.

**CALL BEFORE YOU DIG.
IT'S FREE & IT'S THE LAW**

BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER

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	GENERAL
	1. ALL MATERIALS AND CONSTRUCTION IN THE PUBLIC RIGHT OF WAY SHALL BE IN ACCORDANCE WITH RESPONSIBLE DISTRICT OR AGENCY.
SECTION CORNER (FOUND)	2. CONTRACTOR AND APPLICABLE SUBCONTRACTORS SHALL ATTEND ALL PRE-CONSTRUCTION CONFERENCES AND PERIODIC PROGRESS MEETINGS. PRIOR TO ANY WORK BEING PERFORMED, THE CONTRACTOR SHALL CONTACT RESPONSIBLE DISTRICT OR AGENCY FOR A PRE-CONSTRUCTION CONFERENCE. THE CONTRACTOR SHALL ALSO NOTIFY THE APPROPRIATE PROJECT CONTACTS (48 HOURS IN ADVANCE OF SIGHT MEETING.
SECTION CORNER (NOT FOUND)	
STREET MONUMENT (FOUND)	3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUBLIC SAFETY AND OSHA STANDARDS.
STREET MONUMENT (NOT FOUND)	
BRASS CAP MONUMENT	4. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS, THE GEOLOGY REPORTS AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR SHALL INSPECT THE SITE OF WORK PRIOR TO BIDDING TO SATISFY THEMSELVES BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS THEY MAY PREFER, OF THE LOCATION OF THE PROPOSED WORK AND OF THE ACTUAL CONDITIONS OF AND AT THE PROJECT SITE.
POWER POLE & OVERHEAD POWER	CONDITIONS WHICH APPEAR TO THEM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS. THEY SHALL CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING THEIR BID.
LIGHT POLE	SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT: IF AWARDED THE CONTRACT, THEY HAVE RELIED AND ARE RELYING ON THEIR OWN EXAMINATION OF: (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND ON THEIR OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT.
GUY WIRE	THE INFORMATION PROVIDED BY THE OWNER OR THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR, OR A SUPPLEMENT TO, THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT THEY HAVE NOT RELIED SOLELY UPON OWNER OR ENGINEER FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING THEIR BID.
TELEPHONE MANHOLE	
SANITARY SEWER MANHOLE	5. ALL WORK SHALL COMPLY WITH THE AMERICAN PUBLIC WORKS ASSOCIATION UTAH CHAPTER (APWA) MANUAL OF STANDARD SPECIFICATIONS 2017 EDITION AND THE MANUAL OF STANDARD PLANS 2017 EDITION. SAO STANDARD SPECIFICATIONS AND PLANS SHALL BE SUBSIDIARY TO MORE STRINGENT REQUIREMENTS BY APPLICABLE LOCAL JURISDICTION.
STORM DRAIN MANHOLE	
CATCH BASIN	
DIRECTION OF DRAINAGE	
WATER MANHOLE	6. THE CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PROJECT PLANS AND SPECIFICATIONS. THEREFORE, THE OWNER IS RELYING UPON THE EXPERIENCE AND EXPERTISE OF THE CONTRACTOR. IT SHALL BE EXPECTED THAT THE PRICES PROVIDED WITHIN THE CONTRACT DOCUMENTS SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE COMPLETION OF THE WORK AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE.
WATER VALVE	
WATER METER	THE CONTRACTOR SHALL BE COMPETENT, KNOWLEDGEABLE AND HAVE SPECIAL SKILLS ON THE NATURE, EXTENT AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN REGULAR AND IRREGULAR IN THE CONSTRUCTION OF THE PROJECTS WHICH MAY BE CREATED, DURING THE CONSTRUCTION PROGRAM, UNUSUAL, OR PECULIAR UNSAFE CONDITIONS, HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.
FIRE HYDRANT	
IRRIGATION VALVE	
GAS MANHOLE	
TREE	7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT, AND SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS AND CONDITIONS OF ALL PERMITS AND APPROVALS APPLICABLE TO THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT THE NECESSARY RIGHT-OF-WAY, EASEMENTS, AND/OR PERMITS ARE SECURED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL OBTAIN APPROPRIATE PERMITS WHERE APPLICABLE FOR ANY WORK DONE WITHIN RIGHT-OF-WAY OR EASEMENTS FROM THE CITY AND/OR UDOT. CONTRACTOR SHALL NOTIFY CITY, COUNTY, AND/OR STATE, 24 HOURS IN ADVANCE OF COMMUNICATING THE WORK, OR AS REQUIRED BY SAID PERMITS.
VIATIONS	
PVI POINT OF INTERSECTION	8. CONCRETE PLACEMENTS SHALL BE CONTINUOUS BETWEEN CONSTRUCTION JOINTS. CONSTRUCTION JOINTS SHALL BE PLACED FOR SLAB-ON-GRADE SUCH THAT THE MAXIMUM DISTANCE BETWEEN JOINTS IS 20 FEET IN EITHER DIRECTION FOR LIGHT DUTY TRAFFIC AND 12 FEET IN EITHER DIRECTION FOR HEAVY DUTY TRAFFIC.
PP POWER POLE	
PVT POINT OF TANGENCY	
PUE PUBLIC UTILITY EASEMENT	
R RADIUS OF CURVE	9. IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INTERPRETATION OF THE PLANS AND SPECIFICATIONS AND ANY DISCREPANCIES OR AMBIGUITIES WHICH MAY EXIST IN THE WORK OR SPECIFICATIONS. THE ENGINEERS INTERPRETATION THEREOF SHALL BE CONCLUSIVE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER AND/OR ENGINEER.
RR RAILROAD	
R/W RIGHT-OF-WAY	
RW RIGHT-OF-WAY	
RSW SEWER MANHOLE	10. ALL WORK OUTSIDE THE SCOPE OF THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RESPONSIBLE DESIGN. THESE PLANS DO NOT REPLACE ANY STRUCTURAL, ARCHITECTURAL, OR MECHANICAL PLANS. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ANY OTHER PLAN, THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT BOTH PARTIES TO DETERMINE WHAT SHOULD BE CONSTRUCTED.
SD STORM DRAIN	
SF SQUARE FEET	
TBC TOP BACK OF CURB	11. ALL STAIRS AND RAILINGS ARE DESIGNED BY OTHERS AND MUST COMPLY WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN. SAO STANDARD SPECIFICATIONS AND PLANS SHALL BE SUBSIDIARY TO MORE STRINGENT REQUIREMENTS BY APPLICABLE LOCAL JURISDICTION.
TMH TELEPHONE MANHOLE	
TOA TOP OF ASPHALT	
TOC TOP OF CONCRETE	12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND CORRECTION OF ALL TESTING AND CORRECTIONS. STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER. ALL RE-TESTING AND/OR REINSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.
TOF TOP OF FOOTING	
TOE TOE OF SLOPE	
TOG TOP OF GRATE	
TOS TOP OF SLOPE	
TOW TOP OF WALL	
TR TELEPHONE RISER	13. IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE, COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE FOR THE ITEMS REQUIRING REMOVAL OF EXISTING IMPROVEMENTS. ANYTHING THAT HAS ALREADY BEEN CONSTRUCTED, THERE WILL BE NO EXTRA COST DUE TO THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS. WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS AND SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTORS EXPENSE, AFTER PROPER BACKFILLING AND/OR CONSTRUCTION, WITH MATERIALS EQUAL TO, OR BETTER THAN, THE ORIGINALS. UNLESS OTHERWISE SPECIFIED, THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.
UG UNDERGROUND POWER	
VPC VERTICAL POINT OF CURVATURE	
VPI VERTICAL POINT OF INTERSECTION	14. THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL MECHANICAL, ELECTRICAL AND INSTRUMENTATION EQUIPMENT; PIPING AND CONDUITS; STRUCTURES AND OTHER FACILITIES. THE AS-BUILTS OF THE ELECTRICAL SYSTEM SHALL INCLUDE THE STREET LIGHT LAYOUT AND THE LOCATION OF ALL ELECTRICAL AND INSTRUMENTATION FACILITIES. CONNECTIONS TO SERVICES, PULLBOXES, AND WIRE SIZES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR.
VPT VERTICAL POINT OF TANGENCY	
WM WATER METER	
WW WATER VALVE	

15. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO ENGINEER, ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATION REDLINES AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.

UTILITIES

16. CONTRACTOR TO SPACE UTILITIES TO PROVIDE MINIMUM DISTANCES AS REQUIRED BY LOCAL, COUNTY, STATE, AND INDIVIDUAL UTILITY CODES.

17. ALL UTILITIES INSTALLED IN ACCORDANCE WITH THE RESPONSIBLE DISTRICTS OR AGENCIES STANDARDS AND SPECIFICATIONS.

18. COORDINATE ALL SERVICE LATERAL AND BUILDING CONNECTIONS WITH CORRESPONDING ARCHITECTURAL, MECHANICAL OR ELECTRICAL DRAWING FOR LOCATION AND ELEVATION. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE ENCOUNTERED.

19. ALL STORM DRAIN MANHOLES AND CATCH BASINS ARE TO BE PRECAST CONCRETE FROM APPROVED LOCAL MANUFACTURER UNLESS OTHERWISE NOTED. AND COMPLY WITH CITY/COUNTY STANDARD

20. ALL STORM WATER CONVEYANCE PIPING TO BE RCP - CLASS 3 OR ADS HDPE PIPE OR EQUAL UNLESS OTHERWISE NOTED.

21. ALL ELECTRICAL CONDUITS/LINES TO BE PVC SCH 40 OR BETTER.

22. ALL GAS LINES TO BE HDPE WITH COPPER TRACER WIRE AND DETECTA TAPE. TERMINATE TRACER WIRE AT APPROVED LOCATIONS.

23. ALL GAS LINE TAPS, VALVES AND CAPS TO BE FUSED USING ELECTRO - FUSION TECHNOLOGY.

24. ALL PHONE AND TV CONDUITS TO BE PVC SCH 40 OR BETTER.

25. NO GROUNDWATER OR DEBRIS TO BE ALLOWED TO ENTER THE NEW PIPE DURING CONSTRUCTION. THE OPEN END OF ALL PIPES IS TO BE COVERED AND EFFECTIVELY SEALED AT THE END OF EACH DAYS WORK.

26. THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 4' OR MORE AND SHALL COMPLY WITH INDUSTRIAL COMMISSION OF UTAH SAFETY ORDERS SECTION 68 - EXCAVATIONS, AND SECTION 69 - TRENCHES, ALONG WITH ANY LOCAL CODES OR ORDINANCES.

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27. PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS, I.E. SEWER WATER, FUEL, ELECTRIC, LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHETHER SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING; AND, WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION.

28. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL PIPE OF ADEQUATE CLASSIFICATION WITH SUFFICIENT BEDDING TO MEET ALL REQUIREMENTS AND RECOMMENDATIONS FOR H-20 LOAD REQUIREMENTS.

29. 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.

30. 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.

SEWER

31. ALL SEWER LINE TO BE FLUSHED, PRESSURE TESTED TO 5 PSI BEFORE INSPECTED AND OTHERWISE TESTED IN ACCORDANCE WITH DISTRICT STANDARDS PRIOR TO PLACING IN SERVICE.

32. ALL SEWER PIPES ARE TO BE 30R-35 PVC PIPE.

33. SEWER MANHOLES, LATERALS AND CLEANOUTS TO BE INSTALLED PER RESPONSIBLE DISTRICT OR AGENCY STANDARDS. THE UNIT COST OF THE SEWER LATERAL INCLUDES CONNECTION TO THE SEWER MAIN. THE CLEANOUT RISER FOR EACH SERVICE SHALL BE INSTALLED BY THE CONTRACTOR.

34. SEWER CLEANOUTS MUST BE INSTALLED AT A MINIMUM OF EVERY 50 L.F. FOR 4 INCH Ø LATERALS AND EVERY 100 L.F. FOR 6 INCH Ø LATERALS, OR PER THE RESPONSIBLE DISTRICT OR AGENCY STANDARDS, WHICHEVER IS MORE FREQUENT.

35. A SEWER CLEANOUT MUST BE INSTALLED S.L.F. TO 10 L.F. FROM ANY PROPOSED STRUCTURE, OR PER THE RESPONSIBLE DISTRICT OR AGENCY STANDARDS.

36. ALL SEWER LATERAL BENDS AND ANGLES TO BE INSTALLED AS SWEEPING BENDS WITH SEWER CLEANOUTS.

37. DURING CONSTRUCTION OF THE SEWERLINE, WYES NEED TO BE INSTALLED FOR THE LATERALS. LATERALS ARE AND NEED TO COME IN AT THE TOP OF THE PIPE WITH A SVEE (SEE RESPONSIBLE DISTRICT OR AGENCY STANDARDS)

38. IT IS THE INTENT ON THESE PLANS THAT ALL SEWER PIPES SHALL SLOPE TO AN EXISTING SEWER CONNECTION VIA GRAVITY FLOW. CONTRACTOR TO START AT THE LOW END OF GRAVITY UTILITY LINES AND VERIFY THAT ALL INVERT ELEVATIONS PROVE SLOPE TO EXISTING CONNECTION VIA GRAVITY. SLOPES MUST MEET OR EXCEED THE SEWER DISTRICTS MINIMUM STANDARD. NOTIFY ENGINEER IF THERE ARE DISCREPANCIES THAT WOULD CAUSE THE SEWER UTILITY NOT TO DRAIN VIA GRAVITY ON THE SITE.

WATER

39. WATERLINES TO BE PVC C-900. WATER LINES SHALL BE A MINIMUM OF 10' HORIZONTALLY FROM SEWER MAINS. CROSSING, PLACING TESTS, HEALTHY STANDARDS. MECHANICAL JOINTS REQUIRED WHEN LESS THAN 18" VERTICAL OR TEN FEET HORIZONTAL SEPARATION FROM SEWERLINE.

40. ALL WATERLINES SHALL BE 8" MINIMUM SIZE AND SERVICE LATERALS SHALL BE 1-1/2" MINIMUM UNLESS OTHERWISE NOTED.

41. WATER SERVICE LATERALS TO INCLUDE ALL BRASS SADDLE, CORP. STOP LATERAL, DOUBLE CHECK VALVE AND BACKFLOW PREVENTION DEVICE, AND SHUTOFF VALVE IN BOX NEAR BUILDING EDGE.

42. ALL WATERLINES SHALL BE 48" BELOW FINISH GROUND TO TOP OF PIPE. ALL VALVE BOXES AND MANHOLES SHALL BE RAISED OR LOWERED TO FINISH GRADE AND SHALL INCLUDE A CONCRETE COLLAR IN PAVED AREAS. ALL WATER LINES SHALL BE LOOPEO AROUND GRAVITY LINES OR HOPEO PER RESPONSIBLE DISTRICT OR AGENCY INSPECTOR.

43. CONTRACTOR TO NOTIFY RESPONSIBLE DISTRICT OR AGENCY FOR CHLORINE TEST PRIOR TO FLUSHING LINES. CHLORINE LET IN PIPE 24 HRS. MINIMUM WITH 25 PSI RESIDUAL. ALL TURNING OF MAINLINE VALVES, CHLORINATION, FLUSHING, ELEVATION, MATERIAL, ETC. CAN BE VERIFIED AND DOCUMENTED. THE COST ASSOCIATED TO REFORM THE UTILITY, ALL TESTS TO BE IN ACCORDANCE WITH RESPONSIBLE DISTRICT OR AGENCY.

44. BOTTOM FLANGE OF FIRE HYDRANTS TO BE SET TO APPROXIMATELY 4 INCHES ABOVE BACK OF CURB ELEVATION. HYDRANTS TO INCLUDE TIE, 6" LINE VALVE, AND HYDRANT COMPLETE TO MEET RESPONSIBLE DISTRICT OR AGENCY STANDARDS, UNLESS OTHERWISE NOTED ON PLANS.

EXISTING UTILITIES

45. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES SHOWN OR NOT SHOWN. THE INFORMATION SHOWN ON THE PLANS WITH REGARDS TO THE EXISTING UTILITIES AND/OR IMPROVEMENTS WAS DERIVED FROM FIELD INVESTIGATION AND/OR RECORD INFORMATION. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE FACILITIES SHOWN AND ANY OTHER FACILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. PRIOR TO CONSTRUCTION OR FABRICATION, IF SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY TO VERIFY ALL EXISTING IMPROVEMENT AND TO EXPOSE ALL EXISTING UNDERGROUND UTILITIES RELATED TO THE PROJECT. THE ENGINEER IN WRITING FOR NOTED, SEWER, STORM DRAIN, WATER IRRIGATION, GAS, ELECTRICAL, ETC. THAT SHALL EXIST PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.

46. PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE, IN THE FIELD, THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY BLUE STAKES 48 HOURS IN ADVANCE OF THE EXCAVATION WORK. THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.

47. ALL MANHOLE RIMS, LAMPHOLES, VALVE BOX COVERS, MONUMENT BOXES AND CATCH BASIN GRATES ARE TO BE ADJUSTED TO FIT THE FINISHED GRADE AFTER PAVING, UNLESS OTHERWISE NOTED. COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES FOR SAID FACILITIES.

48. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT ALL PIPES, WALLS, ETC. ARE ADEQUATELY BRACED DURING CONSTRUCTION.

CLEANING AND GRADING

49. CONTRACTOR SHALL PERFORM EARTHWORK IN ACCORDANCE WITH ARMA 2017 STANDARD (DRAINAGE AND

STANDARD SPECIFICATIONS AND THE RECOMMENDED EARTHWORK SPECIFICATION FOR THE PROFESSIONALLY PREPARED REPORT OF GEOTECHNICAL INVESTIGATION.

50. THE CONTRACTOR SHALL REMOVE ALL VEGETATION AND DELETERIOUS MATERIALS FROM THE SITE UNLESS NOTED OTHERWISE. ALL EXISTING WELLS AND SEPTIC TANKS SHALL BE REMOVED AND/OR ABANDONED PER THE REQUIREMENTS OF ALL LOCAL, STATE AND FEDERAL REGULATIONS. THE COST TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM CLEARING COST.

51. SUBSOL INVESTIGATIONS HAVE BEEN CONDUCTED AT THE SITE OF THE WORK. ALL FOOTING, FOUNDATION OR RETAINING WALL CONSTRUCTION MUST ADHERE TO THE RECOMMENDATIONS DETAILLED BY THE PROFESSIONAL REPORT OF THESE INVESTIGATIONS. CREATED BY APPLIED GEOTECH (AGEC).

52. SOLI INVESTIGATIONS WERE CONDUCTED BY (AGEC) FOR DESIGN PURPOSES ONLY, AND THE DATA SHOWN IN THEIR REPORTS ARE FOR SUBSURFACE CONDITIONS FOUND AT THE TIME OF THE INVESTIGATION. THE OWNER AND ENGINEER SHALL BE RESPONSIBLE FOR THE INTERPRETATION BY THE CONTRACTOR OF DATA, SUCH PROJECTION OR EXTRAPOLATION, FROM THE TEST HOLES TO OTHER LOCATIONS ON THE SITE OF THE WORK, SOIL BEARING VALUES AND PROFILES, SOIL STABILITY AND THE PRESENCE, LEVEL AND EXTENT OF UNDERGROUND WATER FOR SUBSURFACE CONDITIONS DURING CONSTRUCTION OPERATIONS.

53. ALL PROPOSED ELEVATIONS SHOWN ON THE GRADING PLAN ARE TO FINISHED SURFACE. THE CONTRACTOR IS RESPONSIBLE TO DEDUCT THE THICKNESS OF THE PAVEMENT STRUCTURE, SECTION FOR TOP OF SUB GRADE ELEVATIONS.

54. IF AT ANY TIME DURING CONSTRUCTION ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, WORK IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED FROM THE ENGINEER.

55. UNSUITABLE MATERIAL, SUCH AS TOP SOIL, WEATHERED BED ROCK, ETC., SHALL BE REMOVED AS REQUIRED BY THE SOILS ENGINEER (AND/OR ENGINEERING GEOLOGIST, WHERE EMPLOYED) FROM ALL AREAS TO RECEIVE COMPACTED FILL OR DRAINAGE STRUCTURES.

56. NO TREES SHALL BE REMOVED OR DAMAGED WITHOUT SPECIFIC WRITTEN AUTHORIZATION FROM PROPERTY OWNER.

57. THE EXISTING TOPOGRAPHY ON THESE PLANS IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY GEOTECHNICAL ENGINEERING AND LAND SURVEYING ON 12/15/2020 AND MAY HAVE BEEN MODIFIED SINCE THIS SURVEY WAS PERFORMED.

58. FILLS IN EXCESS OF 4 FEET IN THICKNESS AND BENEATH ALL FOUNDATIONS OR PAVEMENT SECTIONS SHALL BE COMPACTED TO 90 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D-1557 COMPACTION CRITERIA. ALL OTHER STRUCTURE FILL LESS THAN 4 FEET IN THICKNESS SHOULD BE COMPACTED TO AT LEAST 90 PERCENT OF THE ABOVE CRITERIA (AGEC).

59. COMPACTION TESTING WILL BE ACCOMPLISHED BY THE CONTRACTOR. THE CONTRACTOR WILL HAVE SUCH TESTING ACCOMPLISHED BY A SEPARATE CONTRACTOR. TEST RESULTS WILL BE SUBMITTED FOR REVIEW WITHIN 24 HOURS AFTER TEST.

60. CONTRACTOR TO SUBMIT PROCTOR AND/OR MARSHALL TEST DATA 24 HOURS PRIOR TO COMPACTION TESTS.

61. STRAIGHT GRADE SHALL BE MAINTAINED BETWEEN CONTOUR LINES AND SPOT ELEVATIONS UNLESS OTHERWISE SHOWN ON PLANS.

62. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL. ALL SLOPES IN ADJOINING STREETS, DRAINAGE CHANNELS, OR OTHER FACILITIES SHALL BE GRADED NO STEEPER THAN 2 TO 1 FOR CUT AND FILL.

63. GRADES WITHIN ASPHALT PARKING AREAS SHALL BE CONSTRUCTED TO WITHIN 0.10 FEET OF THE DESIGN GRADE. HOWEVER, THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN ALL PAVEMENT AREAS AND ALONG ALL CURBS. ALL CURBS SHALL BE BUILT IN ACCORDANCE TO THE PLAN, CURBS AND PAVEMENT AREAS WHICH ARE NOT INSTALLED PER PLAN MUST BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

64. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN STATEMENT OF EARTHWORK QUANTITIES.

65. WHERE NEW CURBS AND GUTTERS ARE BEING CONSTRUCTED ADJACENT TO EXISTING ASPHALT OR CONCRETE PAVEMENT, THE FOLLOWING SHALL APPLY: PRIOR TO PLACEMENT OF ANY CONCRETE THE CONTRACTOR SHALL HAVE A LICENSE SURVEYOR VERIFY THE ELEVATION AND LOCATION OF THE EXISTING HARDSCAPE TIE-INS AS WELL AS THE

CROSS SLOPE TO THE CURB AND GUTTER FORMS. PRIOR TO PLACEMENT OF ANY CONCRETE THE CONTRACTOR SHALL HAVE A LICENSE SURVEYOR VERIFY THE GRADE AND CROSS SLOPE OF THE CURB AND GUTTER FORMS. THE CONTRACTOR SHALL SUBMIT THE SLOPE AND GRADES TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF CONCRETE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SECTION WHICH DOES NOT CONFORM TO THE DESIGN OR TYPICAL CROSS SECTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CURB AND GUTTER POURS WITHOUT THE APPROVAL OF THE ENGINEER.

66. SITE WORK SHALL MEET OR EXCEED OWNERS SITE SPECIFICATIONS.

67. ALL SITE CONCRETE OR CONCRETE ELEMENT NOT SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS TO HAVE A MINIMUM OF 28 DAY COMPRESSION STRENGTH OF 4000 PSI.

68. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING THE GRADING PROJECT.

69. ALL DESIGN SLOPES AND TIE-IN SLOPES SHALL CONFORM TO THE FOLLOWING LIMITATIONS. CONTRACTOR SHALL NOTIFY CITY ENGINEER FOR REDESIGN IF ANY AREAS EXCEED THE FOLLOWING SLOPES PRIOR TO FORMING, POURING OR PAVING ANY HARDCAPE.

69.1. LANDSCAPING SHALL SLOPE AT A MINIMUM OF 2% AND MAXIMUM OF 50% IN ANY DIRECTION

69.2. DRIVEWAYS SHALL SLOPE AT A MINIMUM OF 1% AND MAXIMUM OF 25% IN ANY DIRECTION. SEE 68.6

69.3. CONCRETE FLATWAYS SHALL SLOPE AT A MINIMUM OF 1% AND MAXIMUM OF 5% IN ANY DIRECTION. SEE 68.6

69.4. CURB AND GUTTER SHALL SLOPE AT A MINIMUM OF 0.5% AND MAXIMUM OF 5% IN THE LONGITUDINAL DIRECTION.

69.5. ROADWAY CROSS SLOPES SHALL BE BETWEEN 2% AND 4%, OR WITHIN THE RESPONSIBLE DISTRICT OR AGENCY LIMITS

69.6. FINISHED GRADE SHALL SLOPE AWAY FROM ALL BUILDINGS FOR A MINIMUM OF 10 FEET WITH THE FOLLOWING SLOPES. LANDSCAPING AT A MINIMUM OF 3%, AND IMPERVIOUS SURFACES AT A MINIMUM OF 2%.

69.7. ALL ADA COMPONENTS SHALL MEET CURRENT ADA AND AWWA SLOPE REQUIREMENTS

DEWATERING

70. 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 SUCH 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 AND FOR THE CONSTRUCTION. THE WATER LEVEL SHALL BE DRAINED DOWN A MINIMUM OF 18 INCHES BELOW THE BOTTOM OF EXCAVATIONS TO MAINTAIN THE UNDISTURBED STATE OF NATURAL SOILS AND ALLOW THE PLACEMENT OF ANY FILL TO THE SPECIFIED DESIGN. THE CONTRACTOR SHALL HAVE ON HAND, PUMPING EQUIPMENT AND MATERIALS IN GOOD CONDITION FOR EMERGENCIES AND SHALL HAVE WORKMEN AVAILABLE FOR ITS OPERATION. THE DEWATERING SYSTEM SHALL OPERATE CONTINUOUSLY UNTIL BACKFILL HAS BEEN COMPLETED TO 1 FOOT ABOVE THE NORMAL STATIC GROUNDWATER LEVEL.

71. 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.

72. SLUMPS SHALL BE NO DEEPER THAN 5 FEET AND SHALL BE AT THE LOW POINT OF EXCAVATION. EXCAVATION SHALL BE GRADUED TO DRAIN TO THE SLUMPS.

73. THE CONTROL OF GROUNDWATER SHALL BE SUCH THAT SOFTENING OF THE BOTTOM OF EXCAVATIONS, OR FORMATION OF "QUICK" CONDITIONS OR "BOLS" SHOULD NOT OCCUR. DEWATERING SYSTEMS SHALL BE DESIGNED AND OPERATED SO AS TO PREVENT RELEASE OF NATURAL SOILS. THE RELEASE OF GROUNDWATER AT ITS STATIC LEVEL SHALL BE CONSIDERED TO BE A SOURCE OF CONTAMINATION. THE CONTRACTOR SHALL PREPARE A SURVEILLANCE FOUNDATION SOIL POREN DISTURBANCE OF COMPACTED BACKFILL, AND PREVENT FLATATION OR MOVEMENT OF STRUCTURES.

74. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM THE STATE OF CALIFORNIA FOR DISPOSAL OF WASTE WATER FROM CONSTRUCTION DEWATERING ACTIVITIES. IT SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO ANY DEWATERING ACTIVITIES.

75. ONE HUNDRED PERCENT STANDBY PUMPING CAPACITY SHALL BE AVAILABLE ON SITE AT ALL TIMES AND SHALL BE CONNECTED TO THE DEWATERING SYSTEM PRIME 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 EQUIPMENT 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

76. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS, AND THE SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. 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.

76. 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 TO CLEAN UP FROM THE FINAL PAYMENT.

E. THEY SHALL BE RESPONSIBLE FOR THEIR OWN SAFETY, CONTRACTOR, 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 OF 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.

1. 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.

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 ROUTING PLAN, IF PLAN IS REQUIRED. CONTRACTOR SHALL PROVIDE PLAN AND RECEIVED PROPER APPROVALS PRIOR TO BEGINNING CONSTRUCTION. WORK IN EASEMENT AND RIGHTS-OF-WAY IS SUBJECT TO THE APPROVAL AND ACCEPTANCE OF THE REGULATORY AGENCY RESPONSIBLE FOR OPERATION AND MAINTENANCE OF SAID AND/OR RIGHT-OF-WAY. ALL CONSTRUCTION WORK IN UDOT 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.

SURFACE IMPROVEMENTS:

73. SUBGRADE PREPARATION: SUBGRADE SHALL BE COMPACTED TO A 95% 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 DELICTERIOUS 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 34 UNTREATED 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 WILL BE PAID TO THE OWNER FOR THE INSTALLATION OF THE WORK COVERED BY THESE GENERAL NOTES, AND WHICH LIES OUTSIDE OF SAID AREAS, SHALL BE INCLUDED IN THE CONTRACTORS UNIT PRICE 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.

80. 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.

81. STRIPING AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH MUTCD & APWA 32 17.23.

82. DURING THE BIDDING PROCESS, CONTRACTOR TO REVIEW DESIGN SLOPES SHOWN FOR PAVEMENT AND NEIGHBORING PAVEMENT TO THE OWNER BASED UPON THE DESIGN SLOPES SHOWN HEREON. CONCERNING WITH SLOPES MUST BE BROUGHT DURING THE BIDDING PROCESS.

83. 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 SLOP ELEVATIONS AND NOTIFY ENGINEER IF THERE ARE DISCREPANCIES THAT WOULD CAUSE FLOODING ON THE SITE.

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

JEREMY BITNER LOT 3

13930 & 13912 S. 2700 W.

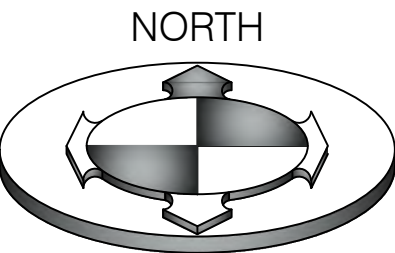
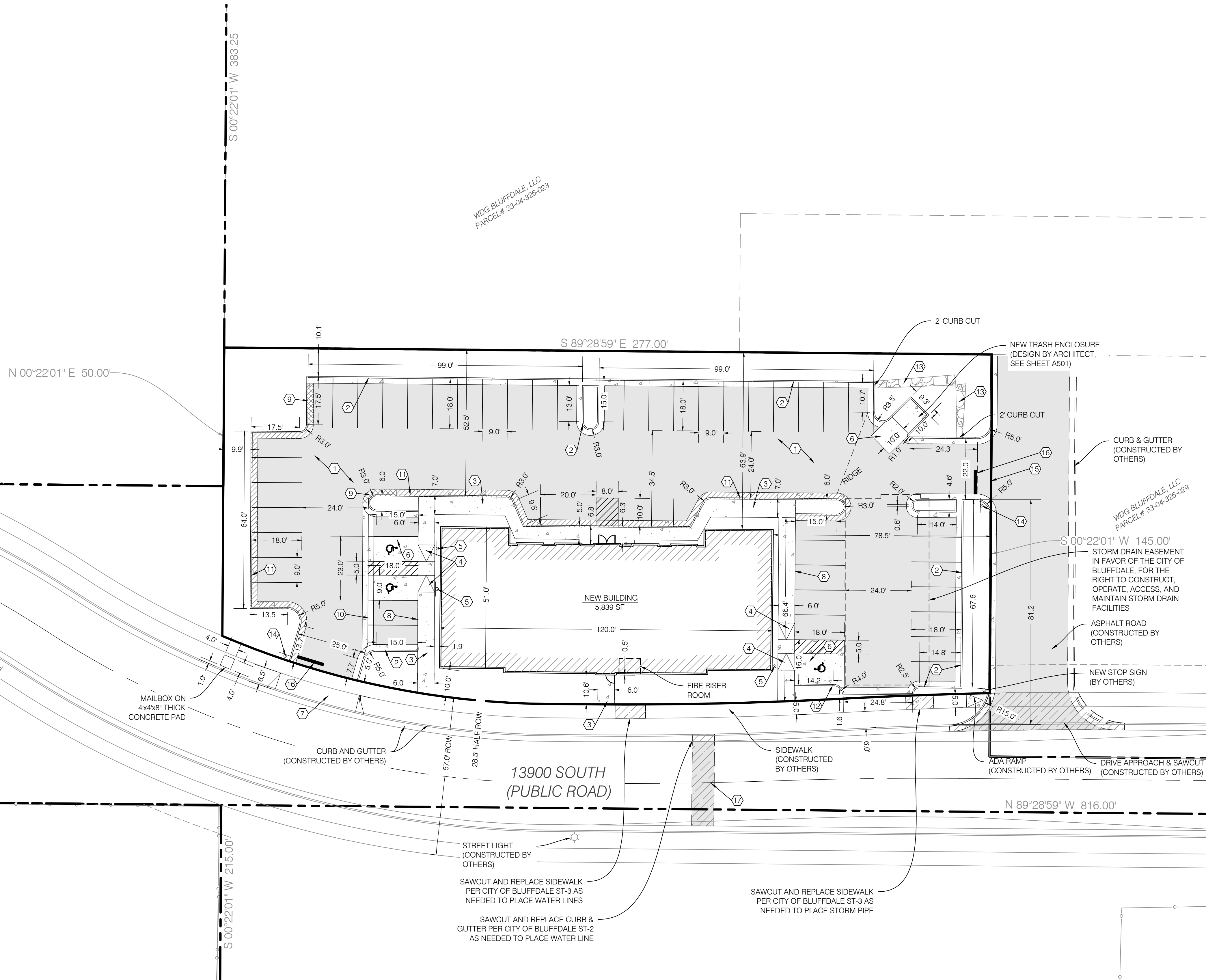
BLUFFDALE CITY, UTAH

PROJECT NO. 2002024

GEN. NOTES
LEGEND &
ABBREV.

CGN.01
2 OF 13

DRAWN BY	GAP	DATE	NO.	DESCRIPTION
CREATED BY	AGA	1/26/22	1	REVISED PER CITY COMMENTS
FIELD CREW	KOBTIBAL	01/19/23	2	REVISED PER CITY COMMENTS
DATE	08/04/2022	03/27/23	3	REVISED PER CITY COMMENTS
DWG. FILE	2002024_SITE	08/16/23	4	REVISED PER CITY COMMENTS
		0	0	
		0	0	
				SOME MEASUREMENTS ON FIELD SITE SHEETS DO NOT CORRESPOND TO PREPARED CITY SHEETS



GRAPHIC SCALE



(IN FEET)
1 inch = 20ft.

CONSTRUCTION KEY NOTE REFERENCE

NO.	DESCRIPTION	DETAIL
①	ASPHALT PAVEMENT WITH GRANULAR BASE	1/CDT.01
②	CONCRETE CURB AND GUTTER PER APWA #205 TYPE 'A'	5/CDT.03
③	SIDEWALK PER APWA #231	
④	ADA RAMP	2/CDT.02
⑤	ADA SIGN	3/CDT.02
⑥	CONCRETE PAVEMENT WITH GRANULAR BASE	
⑦	SAWCUT & CONSTRUCT DRIVE APPROACH PER CITY OF BLUFFDALE ST-3	2/CDT.04
⑧	INTEGRAL SIDEWALK & CURB	6/CDT.01
⑨	TRANSITION CURB AND GUTTER	
⑩	4' WATERWAY PER APWA #211	
⑪	RELEASE CURB	
⑫	6" CURB WALL PER APWA #209 'TYPE P'	2/CDT.01
⑬	RIP-RAP	B/CGD.01
⑭	STOP SIGN PER CITY OF BLUFFDALE ST-9	3/CDT.04
⑮	DRIVE APPROACH PER APWA #225	
⑯	STOP BAR LINE PER MUTCD 3B.16	
⑰	SAWCUT AND REPAIR PER APWA #255 IF NEEDED	

AREA TABLE

PARTICULARS	S.F.	%
BUILDING	5,839	17.1
HARDSCAPE	19992	58.6
LANDSCAPE (IRRIGABLE AREA)	8269	24.3
TOTAL	34,100	100

NOTE:
SLOPE ACROSS THE ACCESSIBLE PARKING STALLS & ACCESS ISLE SHALL NOT EXCEED A 1:48 (2.00%) SLOPE. THE MAX GRADE DIFFERENCE BETWEEN THE ASPHALT SURFACE, ACCESSIBLE RAMP, AND SIDEWALK SHALL NOT EXCEED 1/4 INCH VERTICAL OR 1/2 INCH WHEN BEVELED. THE ACCESSIBLE MEANS OF EGRESS INCLUDING THE DRIVEWAY PORTION SHALL NOT EXCEED A SLOPE OF 1:20 (5.0%) & A CROSS SLOPE OF 1:48 (2.0%). ALL EXTERIOR DOOR WAY ACCESS REQUIRE AN EXTERIOR LANDING 60 INCHES IN LENGTH WITH A SLOPE NOT EXCEEDING A 1:48 (2.0%) SLOPE

PARKING COUNT

PARTICULARS	PROVIDED	
	STANDARD	ADA
PARKING STALLS	46	3
TOTAL	49	

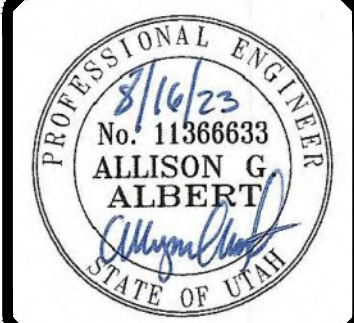
NOTE:
SAWCUT WIDTH, LOCATIONS AND TIE-IN ELEVATIONS TO EXISTING GRADE ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION, EXTENT OF SAWCUTTING, AND TIE-IN SLOPES TO EXISTING GRADE PRIOR TO CONSTRUCTION. IT IS THE INTENT ON THESE PLANS THAT ALL PAVEMENT SHALL TIE INTO EXISTING GRADE PER SLOPES LISTED ON CGN.01 NOTE 68. SEE NOTES 64, 68, & 83 ON CGN.01 FOR FURTHER DETAIL.

- NOTE:
1. ALL WORK IN THE PUBLIC WAY SHALL CONFORM TO APWA 2012 STANDARD PLANS & SPECIFICATIONS.
 2. CONTRACTOR SHALL PROTECT EXISTING STREET LIGHTS AND UNDERGROUND WIRES. COORDINATE STREET LIGHTING ISSUES WITH DAVID PEARSON AT PUBLIC UTILITIES (801) 483-6738.
 3. THE CURB AND GUTTER SHALL BE CONSTRUCTED AS PER APWA 205A, AND 251 OR 252.
 4. ALL UTILITY TRENCH WORK IN THE PUBLIC WAY SHALL BE CONSTRUCTED AS PER APWA 255.
 5. ALL SIDEWALK WORK DONE IN THE PUBLIC WAY SHALL BE CONSTRUCTED AS PER APWA 231.
 6. THE DRIVE APPROACH SHALL BE CONSTRUCTED AS PER APWA 225. (THE SIDEWALK THRU THE APPROACH MUST BE REMOVED AND REPLACED WITH 8" THICK CONCRETE.)
 7. PRIOR TO OCCUPANCY PERMIT BEING ISSUED, IT IS RECOMMENDED THAT ALL TRIP HAZARDS ON THE PUBLIC SIDEWALK BE REMOVED.
 8. PRIOR TO BEGINNING ANY WORK IN THE PUBLIC WAY, A LICENSED BONDED AND INSURED CONTRACTOR MUST FIRST OBTAIN A PUBLIC WAY PERMIT FROM THE SLC ENGINEERING PERMITS OFFICE, AND PERHAPS A TRAFFIC CONTROL PERMIT FROM SLC TRANSPORTATION.

NOTE:
CONTRACTOR MUST PROVIDE AS-BUILT DATA ACCORDING TO CITY OF BLUFFDALE.

DESCRIPTION	
NO.	DATE
1	12/2022
2	01/1923
3	03/2723
4	08/1623
5	08/04/2022
6	20/2024 SITE

SCALE MEASURES 1 INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS



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BENCHMARK CIVIL

JEREMY BITNER LOT 3

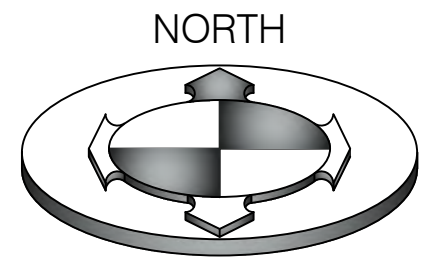
13930 & 13912 S. 2700 W.
BLUFFDALE CITY, UTAH

PROJECT NO. 2002024

SITE
PLAN

CSP.01
3 OF 13





GRAPHIC SCALE



(IN FEET)

1 inch = 20ft.

CONSTRUCTION KEY NOTE REFERENCE

NO.	DESCRIPTION	DETAIL
①	1" WATER LINE & RPZ BACKFLOW PREVENTER PER IRRIGATION PLANS	4/CDT.04
②	2" POLY WATER SERVICE LINE PER BLUFFDALE CITY STDS.	1/CDT.03
③	6" PVC SDR-35 SEWER LATERAL @ 1.0% MIN. SLOPE PER SVSD STDS.	2/CDT.03
④	SEWER CLEAN OUT	2/CDT.03
⑤	6" PVC C-900 FIRE LINE	
⑥	6" GATE VALVE WITH LID LABELED "FIRE"	
⑦	FIRE HYDRANT WITH VALVE PER CITY OF BLUFFDALE W-5	2/CDT.05
⑧	THRUST BLOCK PER CITY OF BLUFFDALE W-7	3/CDT.05

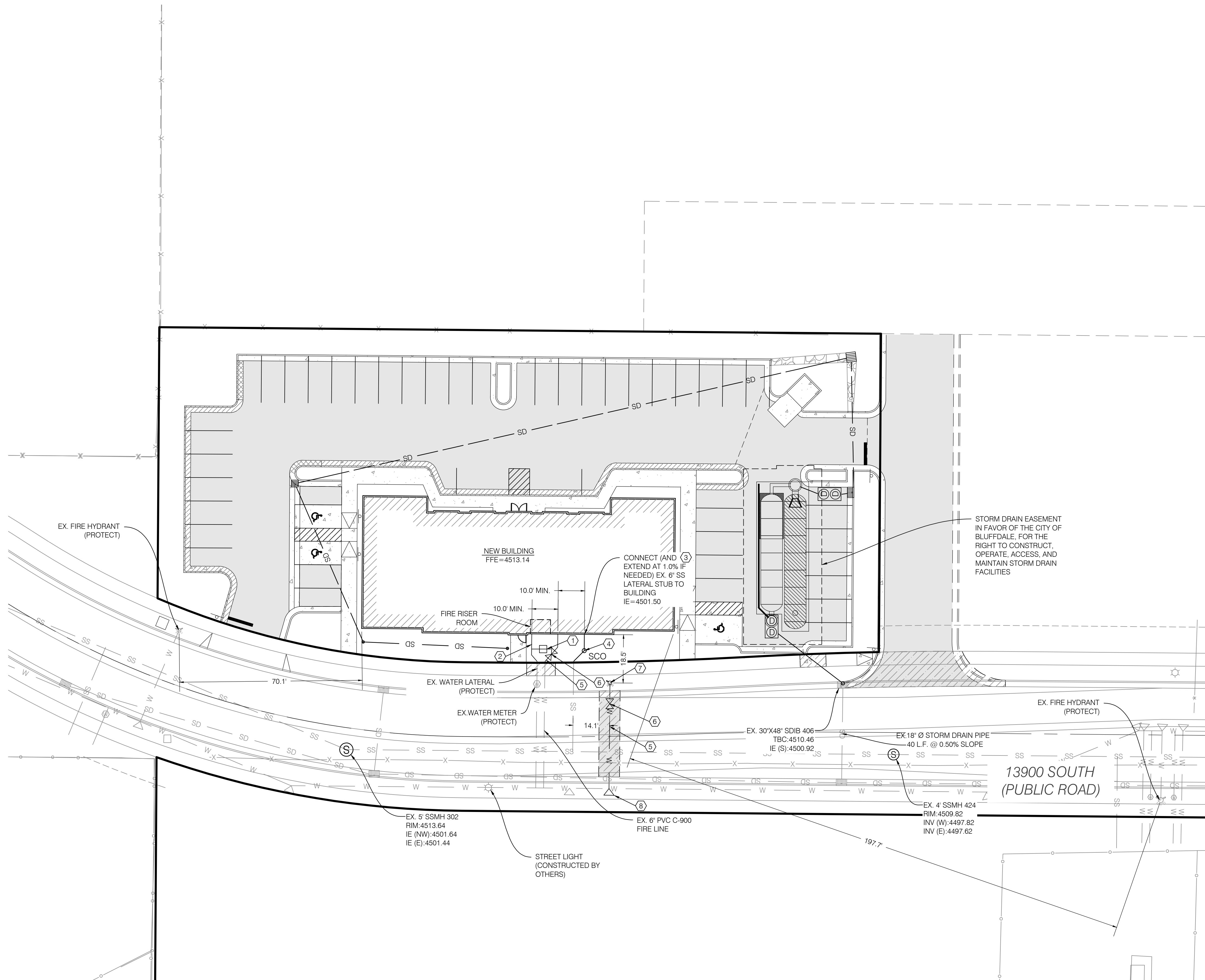
NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION. NOTIFY ENGINEER FOR REDESIGN IF CONNECTION POINT IS HIGHER THAN SHOWN OR IF ANY UTILITY CONFLICTS OCCUR. GRAVITY CONNECTIONS MUST BE DONE PRIOR TO 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:
A SEPARATE PERMIT FROM THE CITY OF BLUFFDALE FIRE DEPARTMENT IS REQUIRED.

SOUTH VALLEY SEWER DISTRICT NOTES:

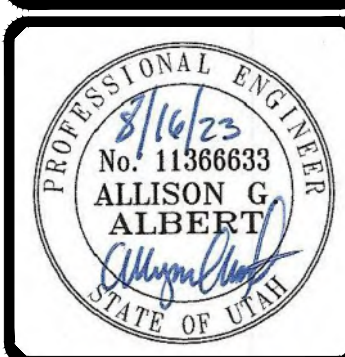
- A. ALL CONSTRUCTION SHALL COMPLY WITH SOUTH VALLEY SEWER DISTRICT'S DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS.
- B. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND INVERT ELEVATIONS OF EXISTING MANHOLES AND OTHER UTILITIES BEFORE STAKING OR CONSTRUCTING ANY NEW SEWER LINES.
- C. FOUR FEET OF COVER IS REQUIRED OVER ALL SEWER LINES.



NO.	DATE	DESCRIPTION
1	12/02/22	REVISED PER CITY COMMENTS
2	01/19/23	REVISED PER CITY COMMENTS
3	03/27/23	REVISED PER CITY COMMENTS
4	08/16/23	REVISED PER CITY COMMENTS

DRAWN BY	CAP	AG
CHECKED BY	AGA	KOB/TBAL
DATE	08/04/2022	115666833
DWG FILE	2020204 SITE	ALLISON G ALBERT

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST PROPORTIONS FOR REDUCED SIZE SHEETS



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PROJECT NO. 2002024

UTILITY
PLAN

CUP.01
4 OF 13



GRADING AND DRAINAGE KEY NOTE REFERENCE		
NO.	DESCRIPTION	DETAIL
①	GRADE SITE TO ELEVATIONS SHOWN ON PLAN	
②	18" DIAMETER HDPE ADS N-12 STORM DRAIN LINE	5/CDT.01
③	2X2' CATCH BASIN	7/CDT.01
④	15" DIAMETER CLASS III RCP STORM DRAIN LINE	5/CDT.01
⑤	0.5" CORE-DRILLED ORIFICE	3/CDT.01
⑥	OIL/WATER SEPARATOR (OLD CASTLE OR EQUAL)	3/CDT.03
⑦	UNDERGROUND STORMTECH MC-7200 SYSTEM	1/CDT.02
⑧	12" AREA DRAIN	4/CDT.01
⑨	4X6' CLEANOUT BOX WITH BAFFLE WALL	3/CDT.01
⑩	8" DIAMETER HDPE ADS N-12 STORM DRAIN LINE	5/CDT.01
⑪	RIP-RAP	B/CGD.01
⑫	STORM DRAIN INLET BOX	1/CDT.05
⑬	12" DIAMETER HDPE ADS N-12 STORM DRAIN LINE	5/CDT.01
⑭	3X3' CATCH BASIN	7/CDT.01
⑮	INSPECTION PORT PER MANUFACTURER RECOMMENDATIONS	1/CDT.02

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.

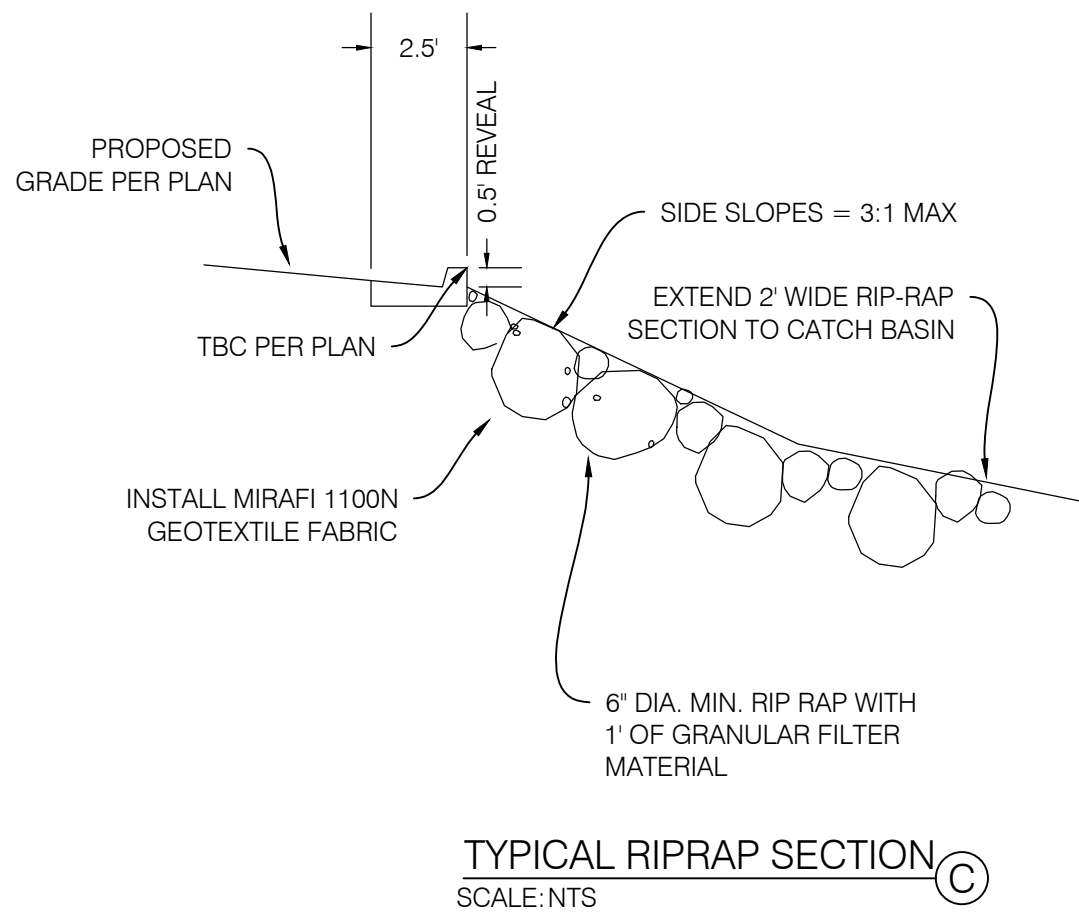
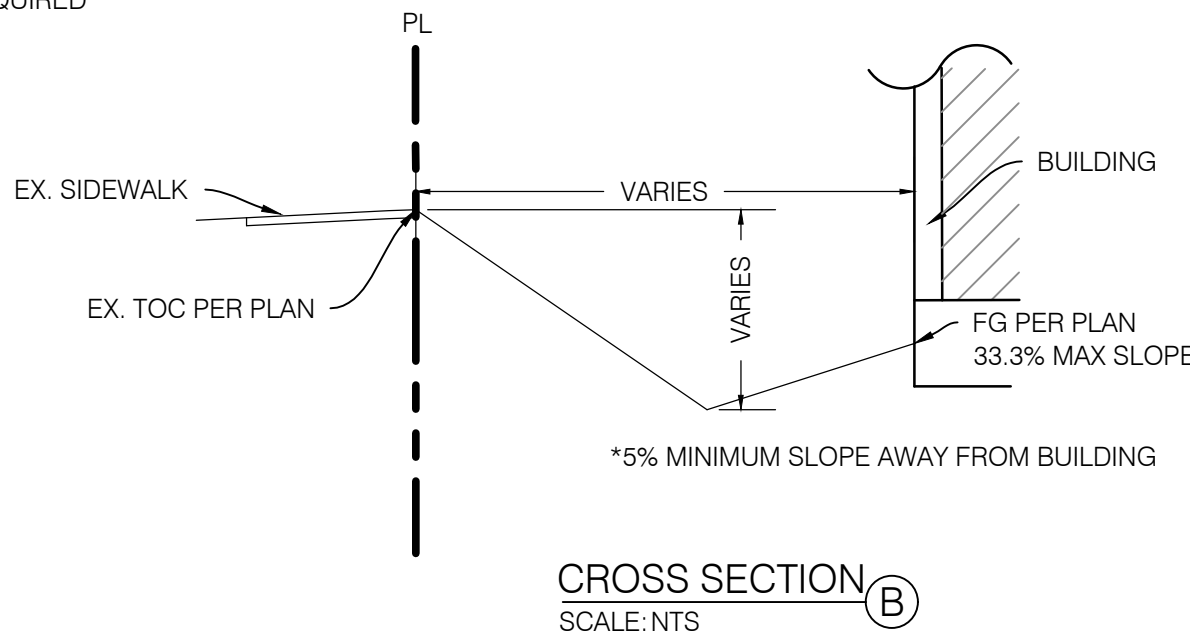
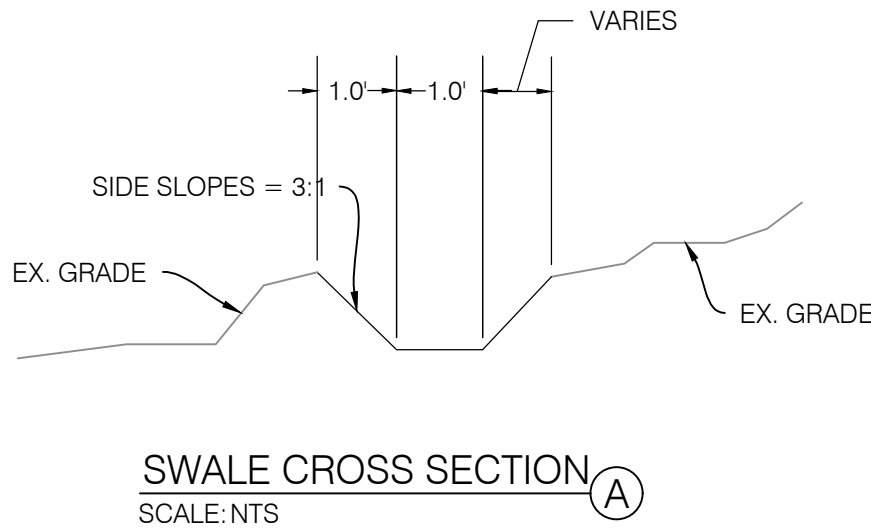
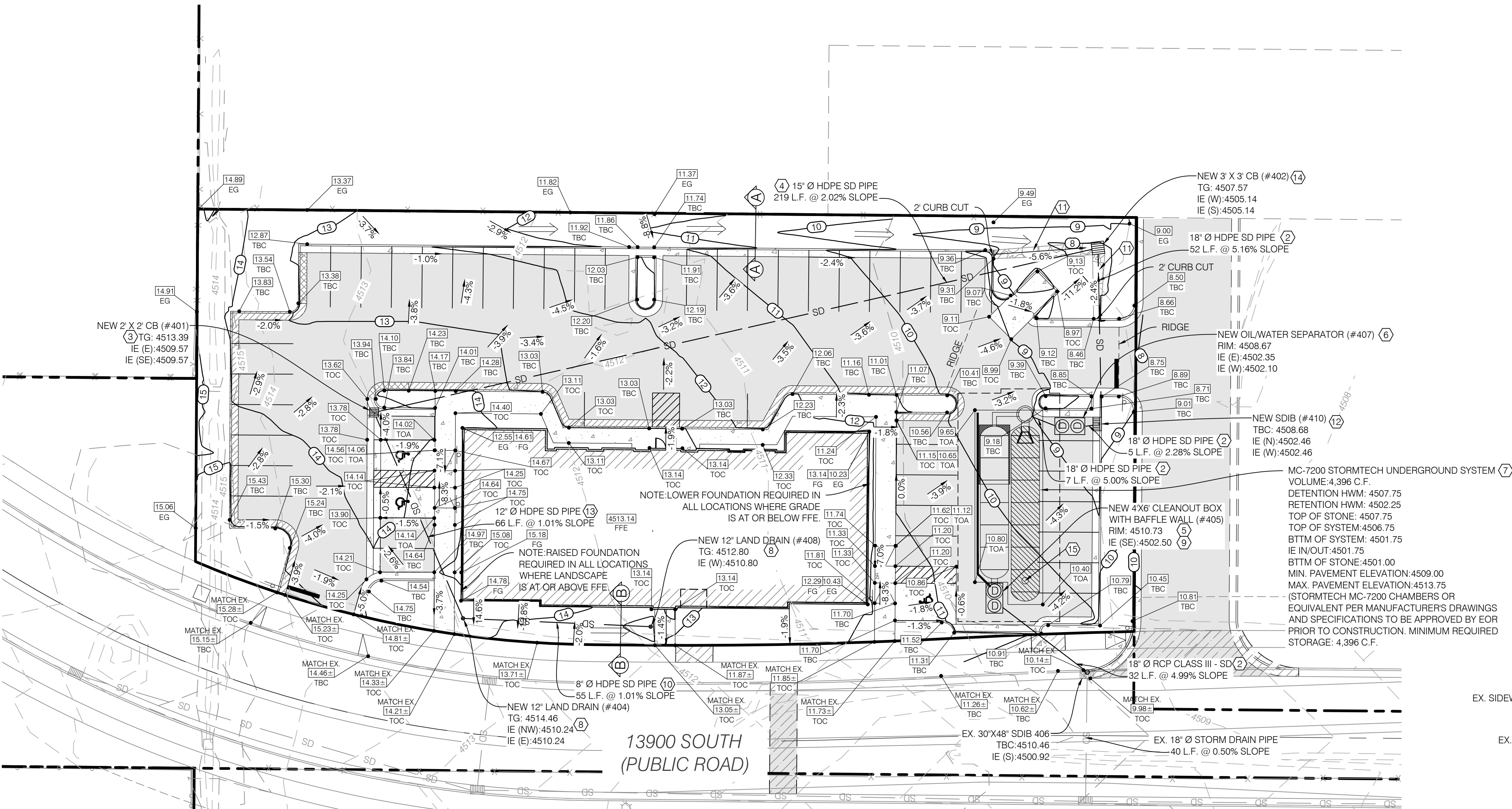
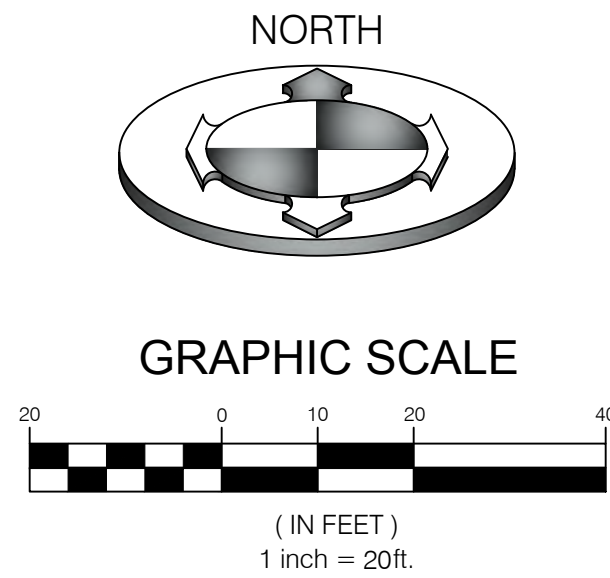
NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

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:
ALL STORM DRAIN PIPE SHALL BE CONCRETE OR PLASTIC PER BLUFFDALE CITY SD-1A OR SD-1B

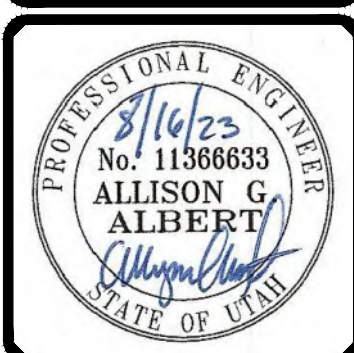
NOTE:
SAWCUT WIDTH, LOCATIONS AND TIE-IN ELEVATIONS TO EXISTING GRADE ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION, EXTENT OF SAWCUTTING, AND TIE-IN SLOPES TO EXISTING GRADE PRIOR TO CONSTRUCTION. IT IS THE INTENT ON THESE PLANS THAT ALL PAVEMENT SHALL TIE INTO EXISTING GRADE PER SLOPES LISTED ON CGN.01 NOTE 68. SEE NOTES 64, 68, & 83 ON CGN.01 FOR FURTHER DETAIL.

BENCHMARK:
CENTER QUARTER CORNER OF SECTION 4, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN.
ELEVATION = 4504.37 (NAV88, COUNTY TIE SHEET)



DRAWN BY		CHECKED BY		DATE		DESCRIPTION	
CAP		AGA		12/2022		REVISED PER CITY COMMENTS	
KOBITBAL		KOBITBAL		01/2023		REVISED PER CITY COMMENTS	
08/04/2022		08/04/2022		03/2023		REVISED PER CITY COMMENTS	
2020224 SITE		2020224 SITE		08/2023		REVISED PER CITY COMMENTS	

SCALE MEASURES - INCH ON FULL SIZE SHEET IS
ADJUST ACCORDING FOR REDUCED SIZE SHEETS



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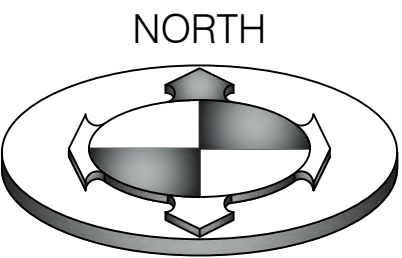
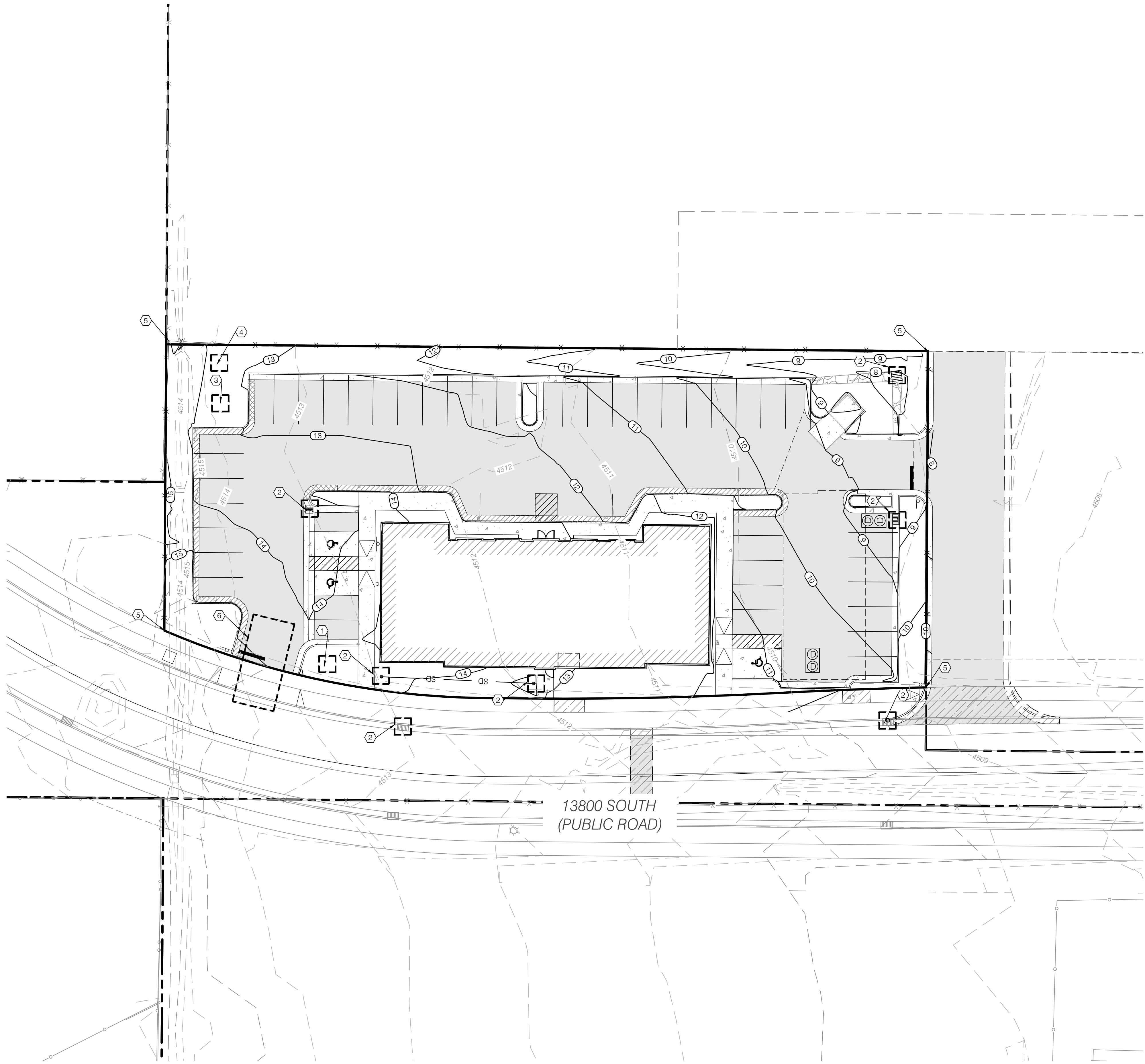
JEREMY BITNER LOT 3

13930 & 13912 S. 2700 W.
BLUFFDALE CITY, UTAH

PROJECT NO. 2002024

GRADING & DRAINAGE PLAN

CGD.01
5 OF 13



GRAPHIC SCALE



(IN FEET)
1 inch = 20ft.

SWPPP KEY NOTES REFERENCE

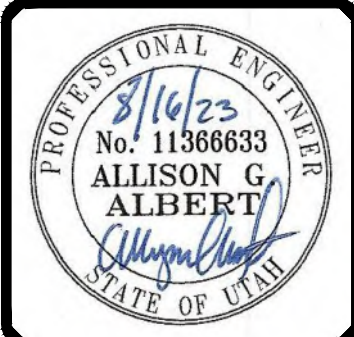
PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS.

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	2/CEP.03
⑥	TEMPORARY CONSTRUCTION ENTRANCE	3/CEP.03

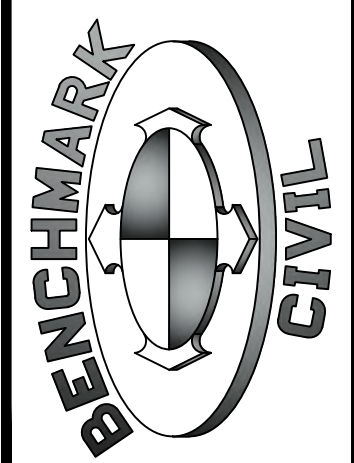
NOTE: CONTRACTOR SHALL INSTALL EROSION CONTROLS (SILT FENCES, STRAW BALES, ETC) AS REQUIRED BY REGULATORY AGENCIES. SAID CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH AGENCY STANDARDS AND FOLLOWING BEST MANAGEMENT PRACTICES FOR ACTUAL PLACEMENT ON SITE. STRAW BALES SHOWN ON THESE DRAWINGS ARE INTENDED 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	12/09/22	REVISED PER CITY COMMENTS
2	01/19/23	REVISED PER CITY COMMENTS
3	02/27/23	REVISED PER CITY COMMENTS
4	08/04/2022	REVISED PER CITY COMMENTS
5	08/16/23	REVISED PER CITY COMMENTS
6	20/02/24	SITE

SCALE MEASURES HING ON FULL SIZE SHEETS
ADJUST AS NECESSARY FOR REDUCED SIZE SHEETS



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BLUFFDALE CITY, UTAH

PROJECT NO. 2002024

**EROSION
CONTROL
PLAN**

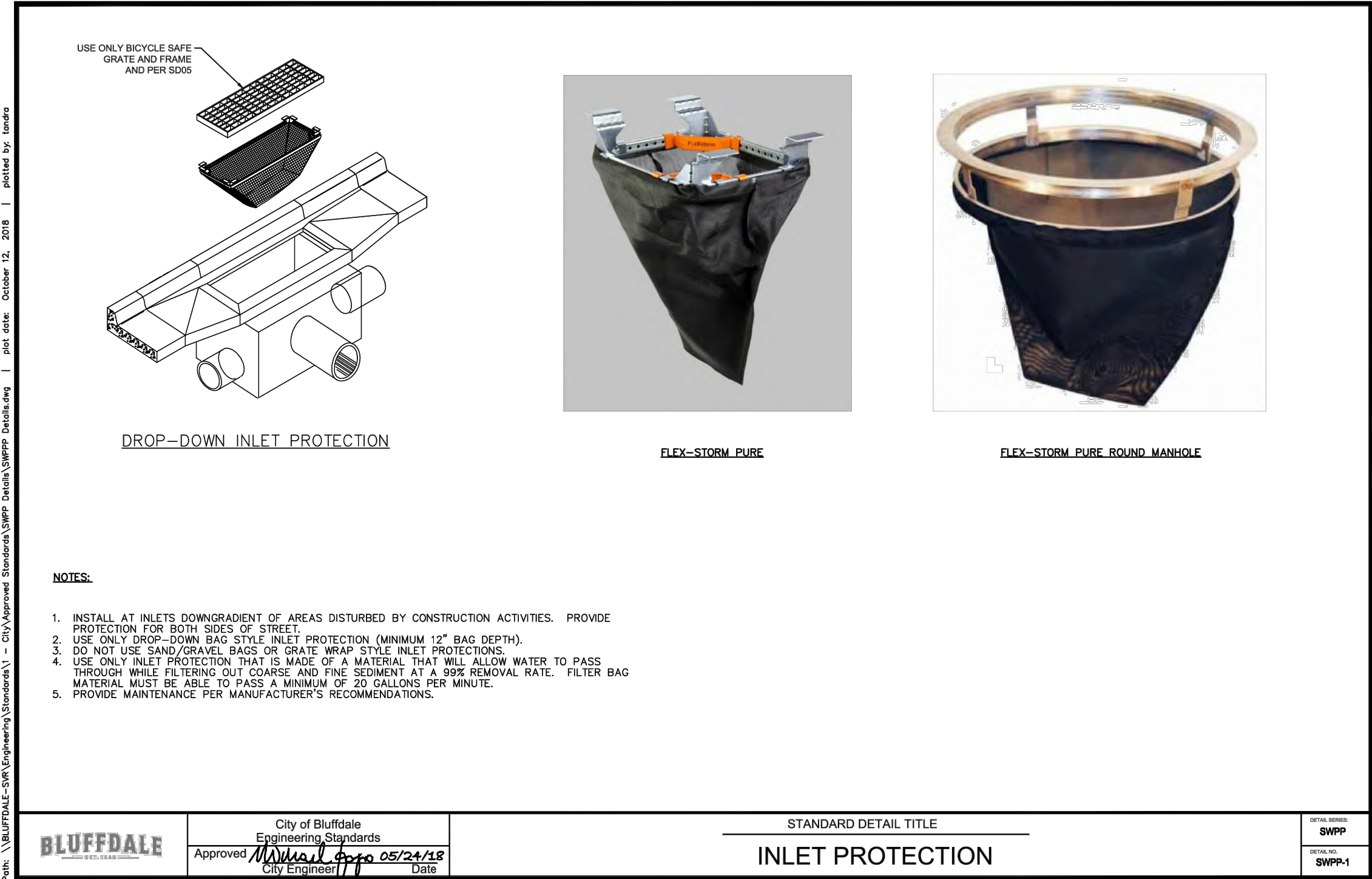
CEP.01
6 OF 13





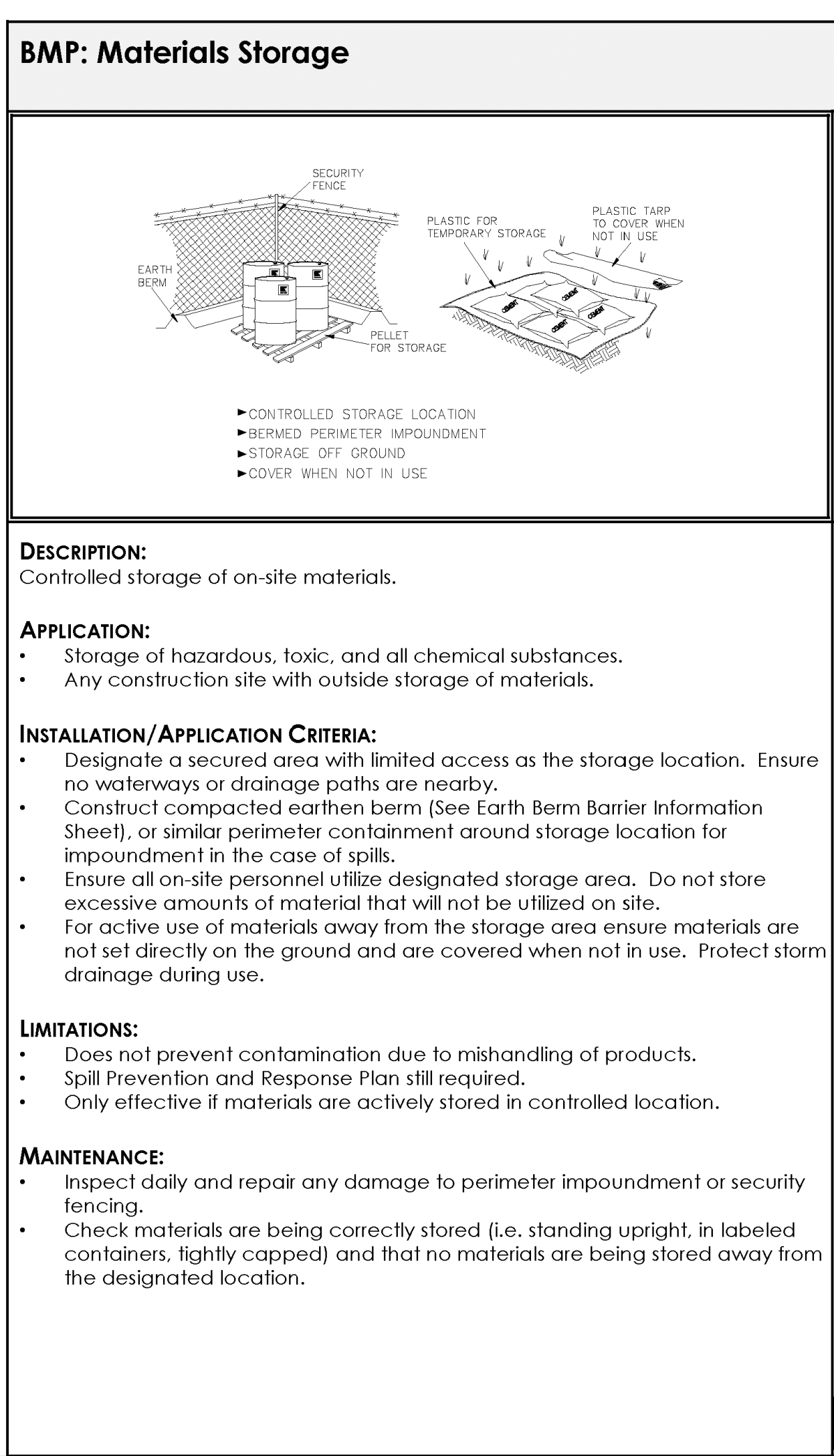
CONCRETE WASTE MANAGEMENT 1

SCALE: NTS



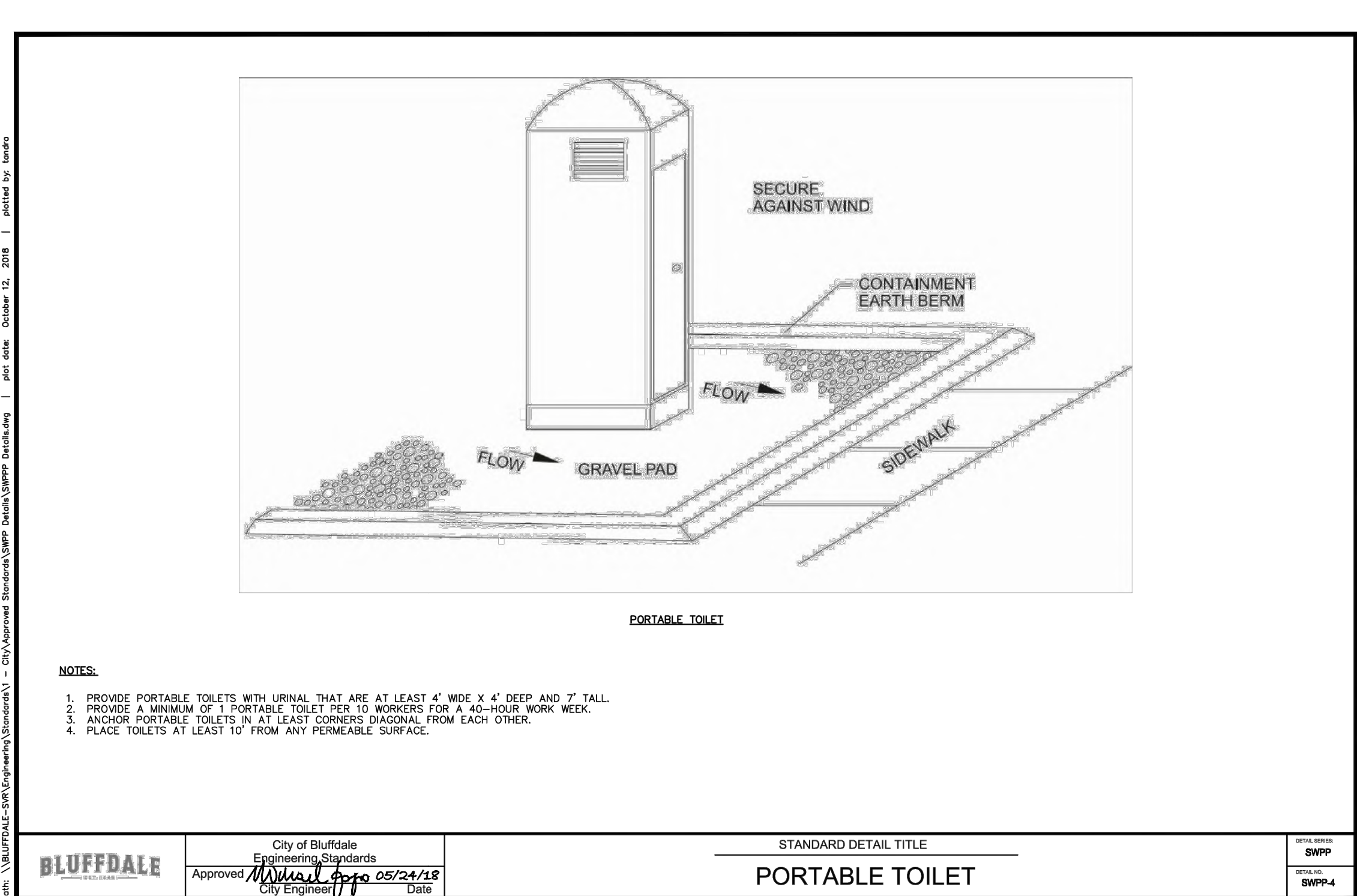
INLET PROTECTION 2

SCALE: NTS



MATERIALS STORAGE 3

SCALE: NTS



PORTABLE TOILETS 4

SCALE: NTS

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REVISIONS		DATE	DESCRIPTION
No.	DATE	DESCRIPTION	REVISIONS
1	12/09/22	REVISED PER CITY COMMENTS	
2	01/19/23	REVISED PER CITY COMMENTS	
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100	08/15/23	REVISED PER CITY COMMENTS	

PROFESSIONAL ENGINEER

8/16/23

No. 11368633

ALLISON G. ALBERT

STATE OF UTAH

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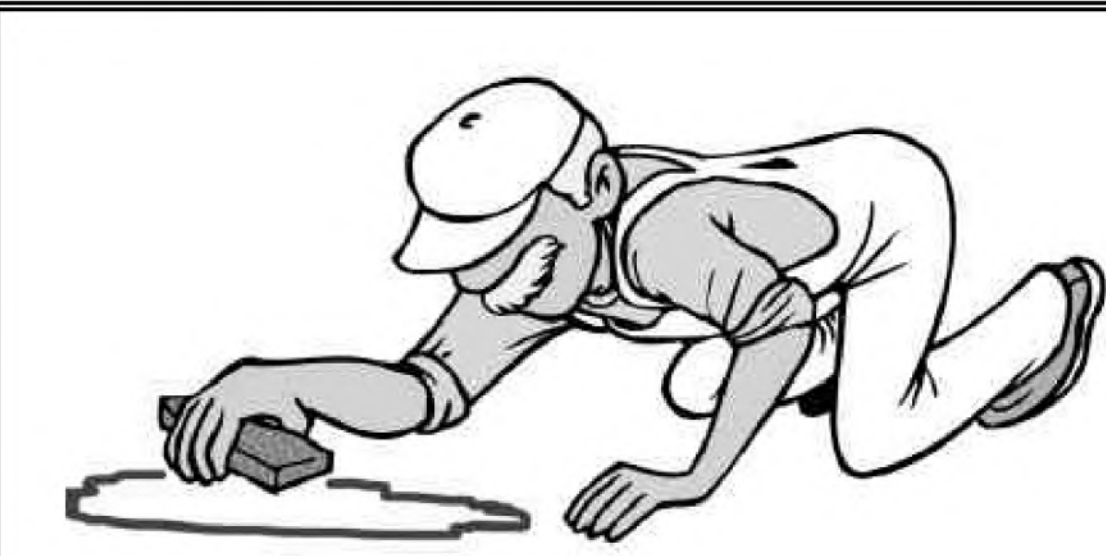
PROJECT NO. 2002024

EROSION CONTROL DETAILS

CEP.02

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BMP: Spill Clean-Up



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

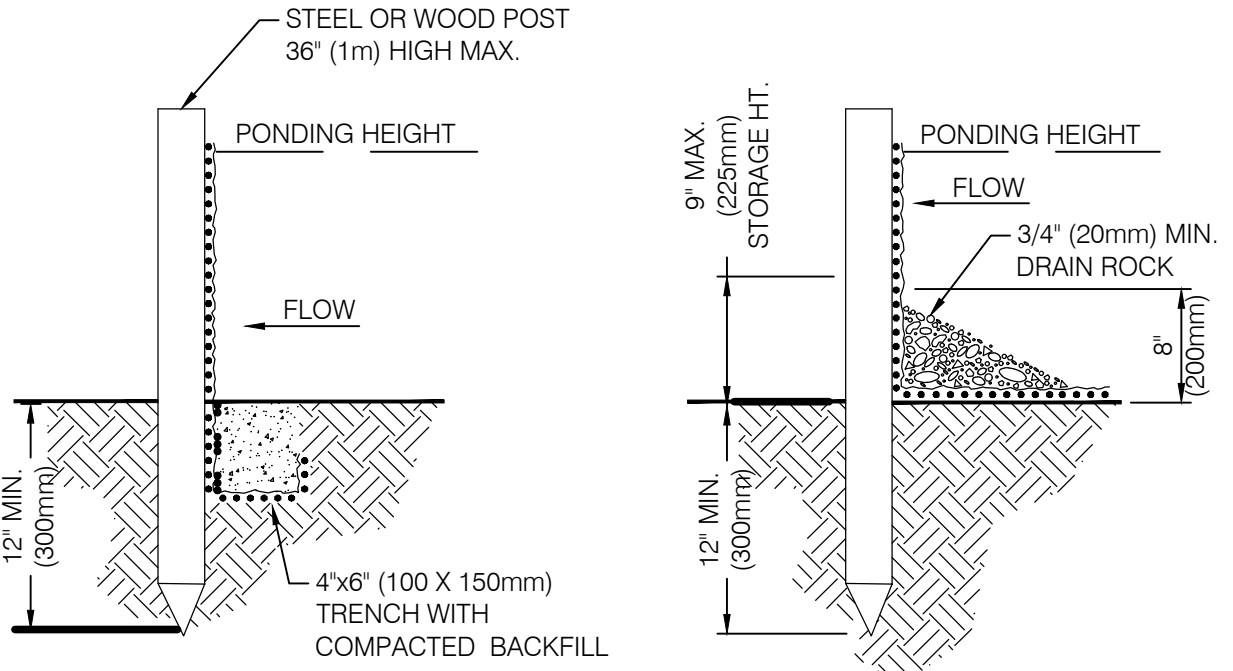
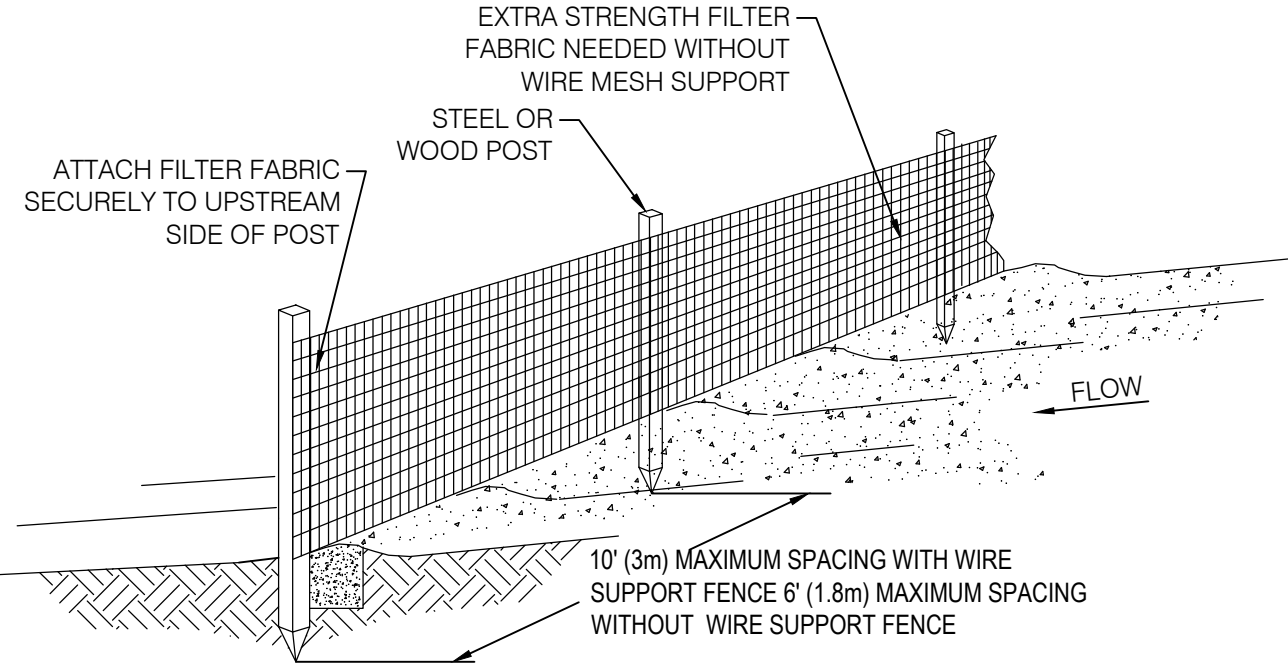
APPLICATION:
All sites

- 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.

SPILL CLEAN UP
SCALE: NTS

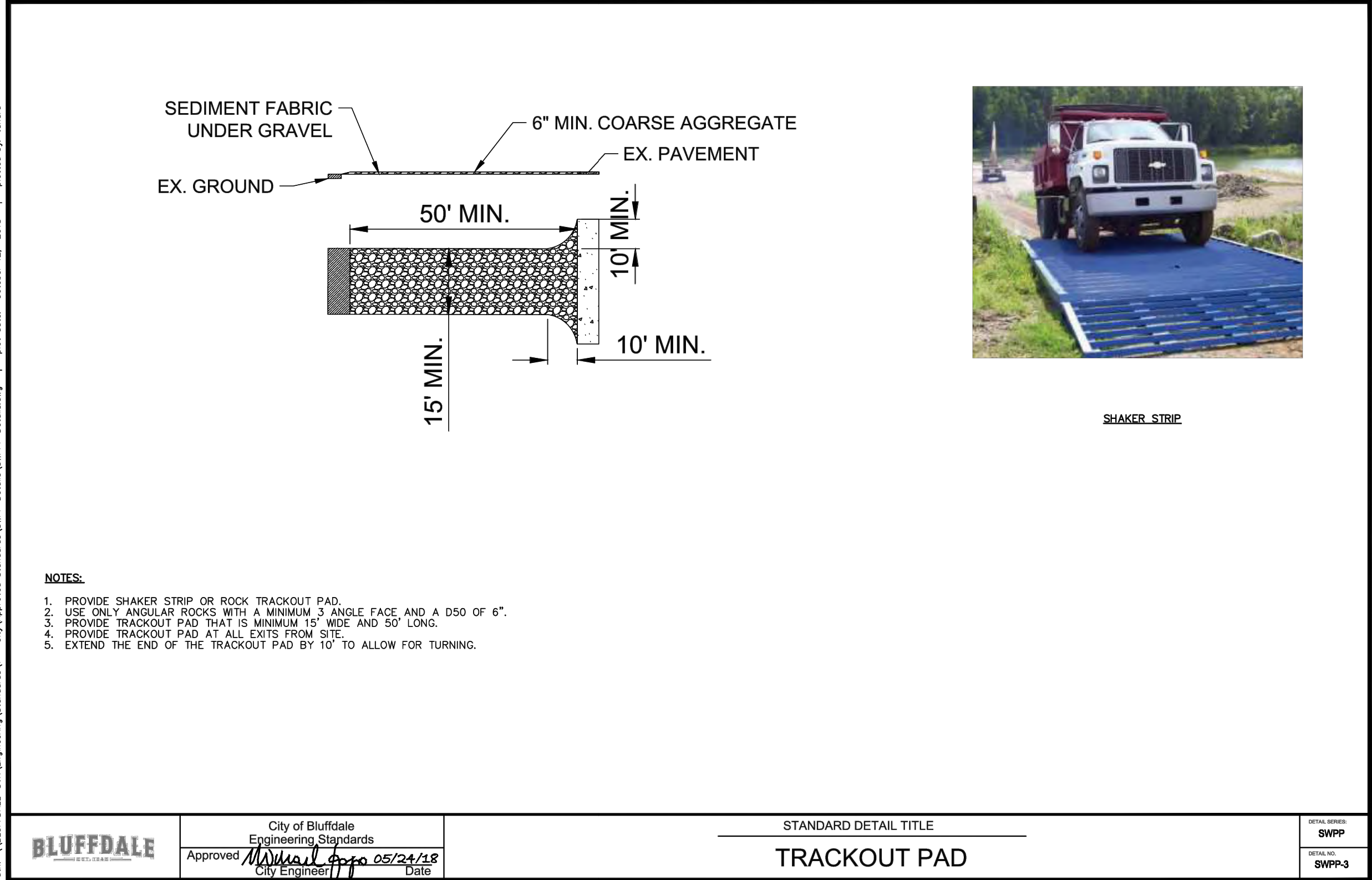
1



- 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.

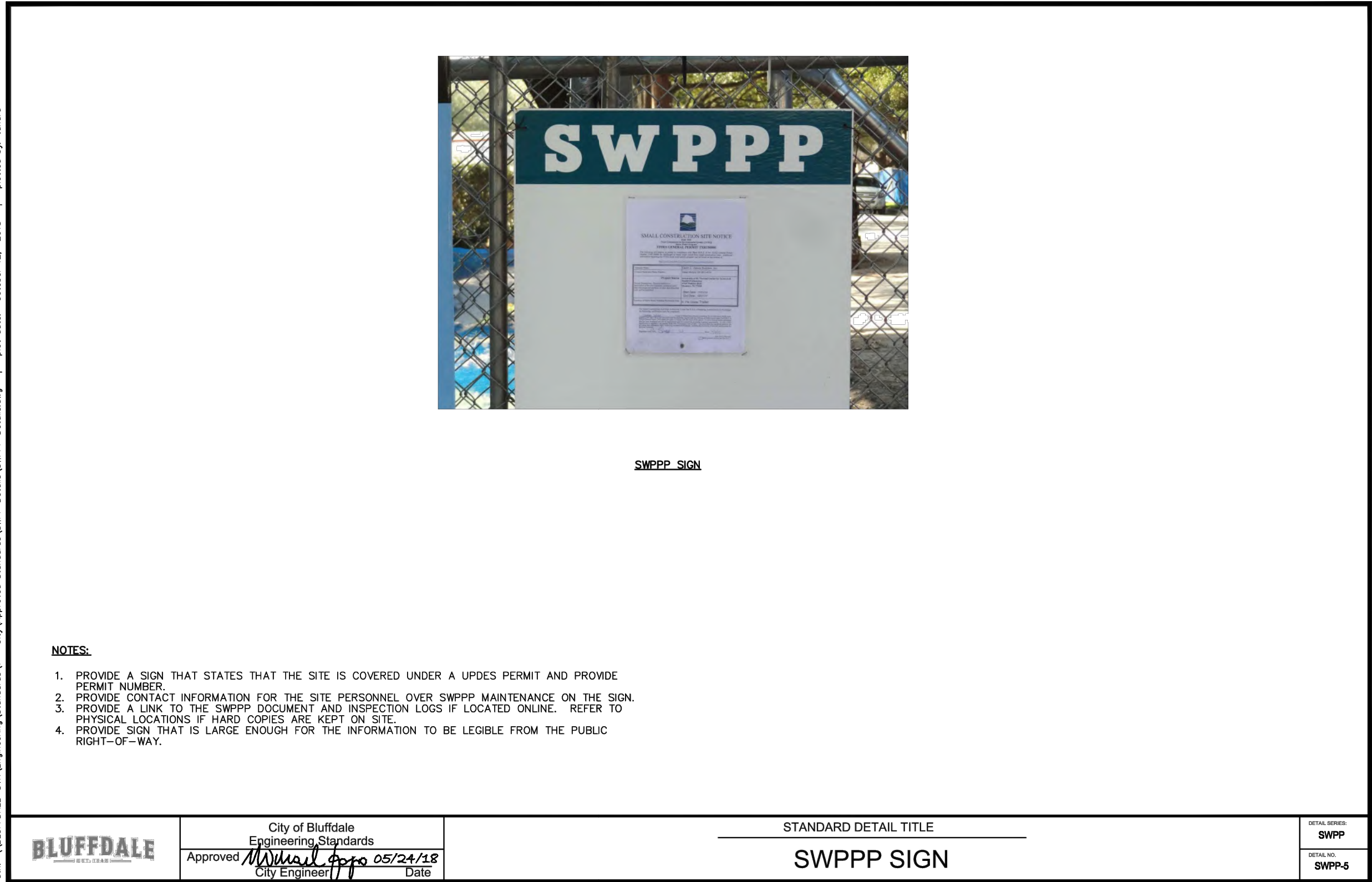
SILT FENCE
SCALE: NTS

2



TEMPORARY CONSTRUCTION ENTRANCE/EXIT
SCALE: NTS

3



SWPPP INFORMATION SIGN
SCALE: NTS

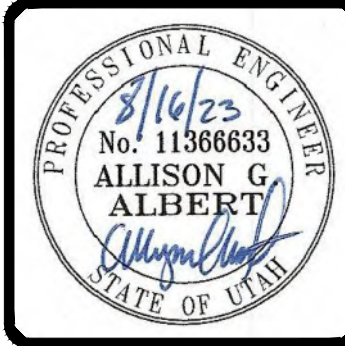
4

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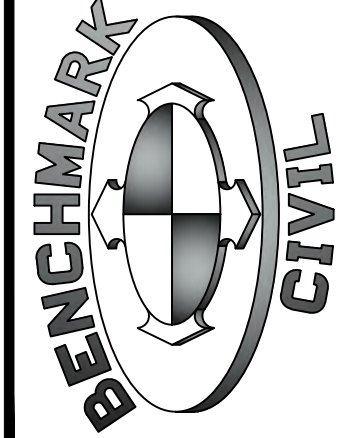
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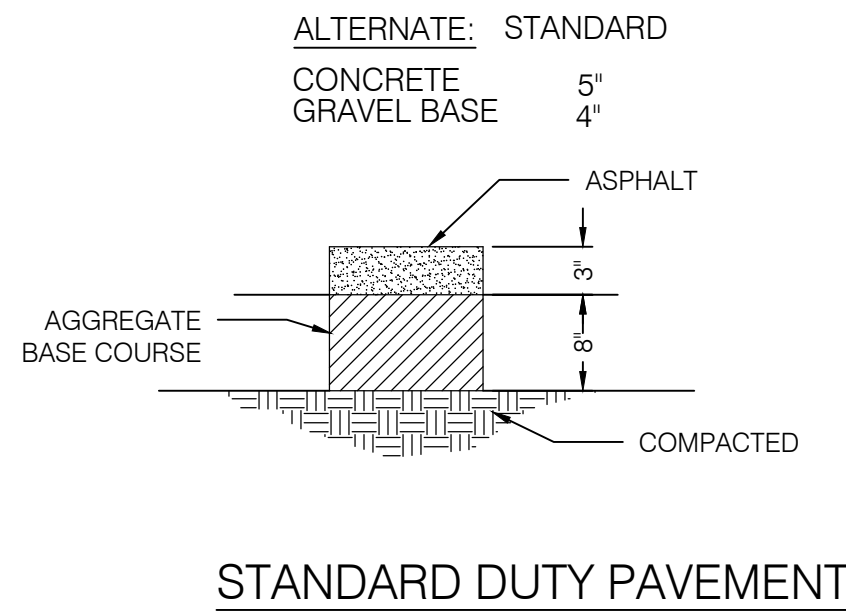


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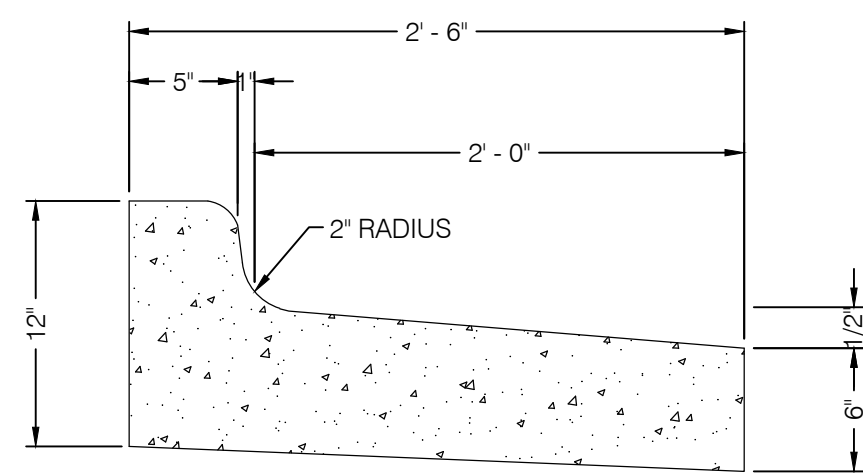
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13930 & 13912 S. 2700 W.
BLUFFDALE CITY, UTAH

PROJECT NO. 2002024
EROSION CONTROL DETAILS
CEP.03
8 OF 13

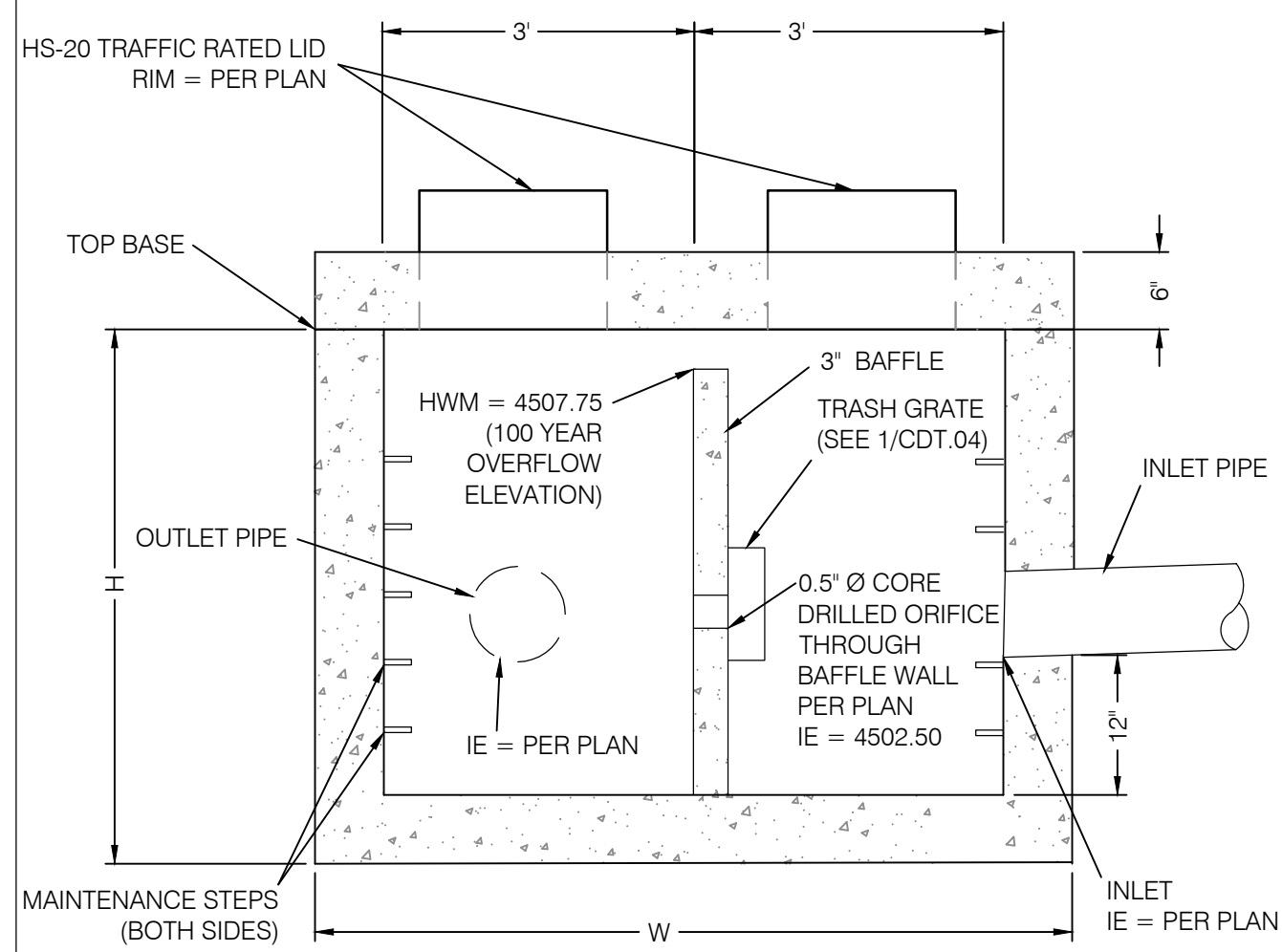


PAVEMENT SECTIONS ①
SCALE: NTS

NOTE: 6" MIN. OF UNTREATED BASE COURSE REQ'D UNDER CURB AND GUTTER. COMPACT TO 95% ASSHTO T-180 - METHOD D.

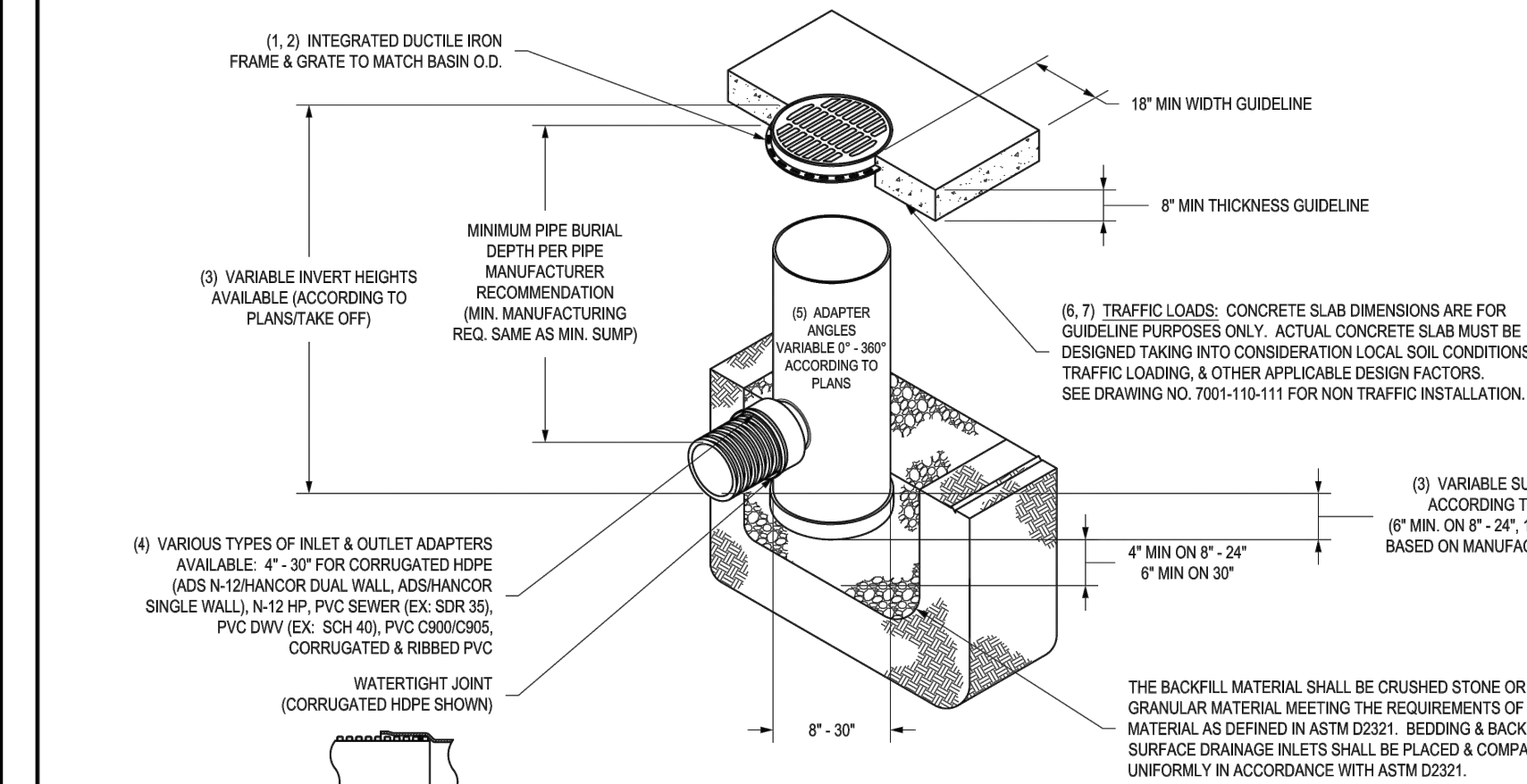


TYPICAL RELEASE CURB & GUTTER ②
SCALE: NTS

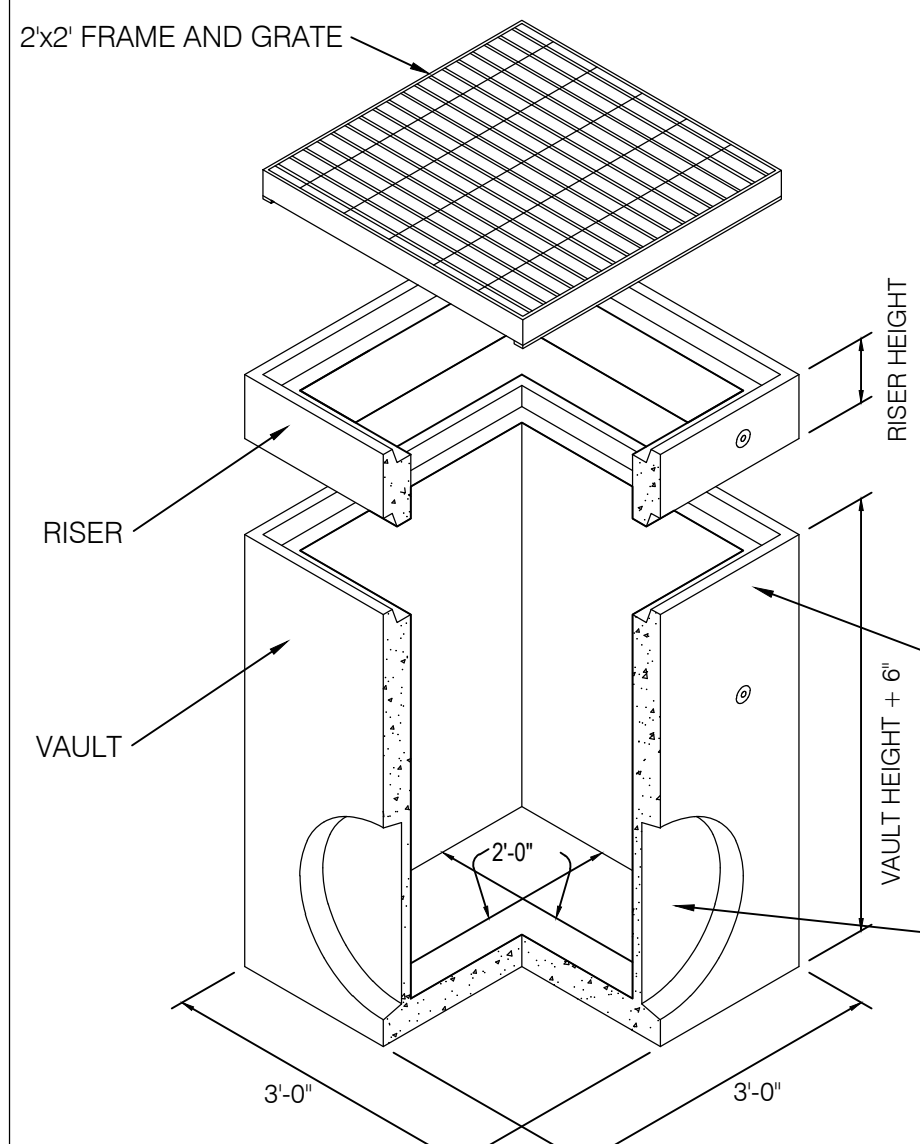


4' X 6' CLEANOUT BOX W/ BAFFLE ③
SCALE: NTS

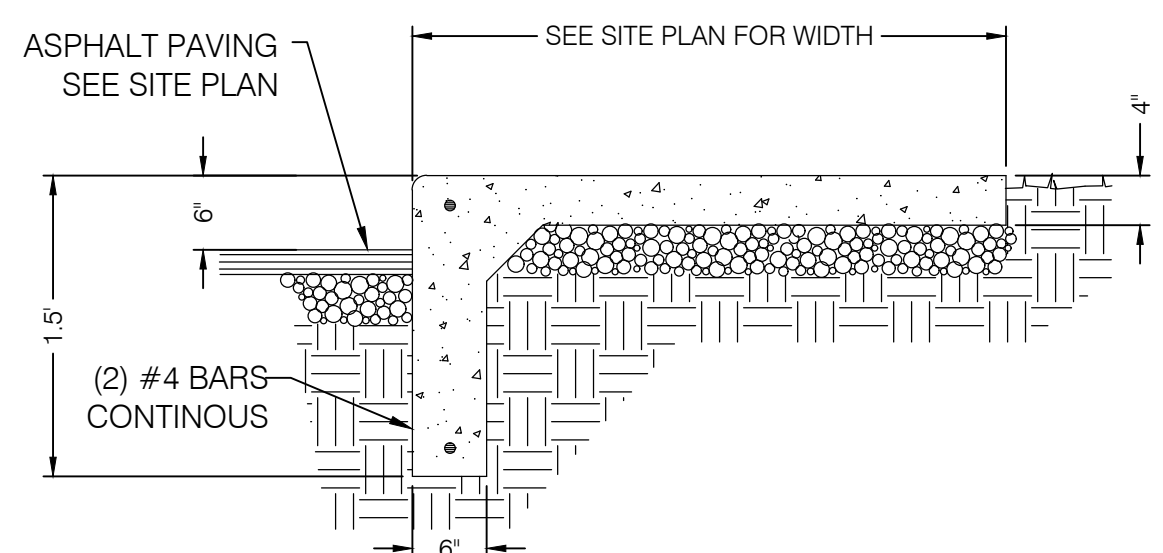
NYLOPLAST DRAIN BASIN WITH STANDARD GRATE



12" NYLOPLAST AREA DRAIN ④
SCALE: NTS (NYLOPLAST)



2x2' CATCH BASIN ⑦
SCALE: NTS



INTEGRAL SIDEWALK & CURB ⑥
SCALE: NTS

TABLE 1: NON-REINFORCED CONCRETE CIRCULAR PIPE MAX FILL HEIGHT

PIPE DIA. INCH	PIPE CLASSES		
	1	2	3
18	15	22	24
21	14	21	25
24	13	20	25
27	12	19	23
30	12	18	21
33	11	17	19
36	10	15	17

TABLE 2: REINFORCED CONCRETE CIRCULAR PIPE MAX FILL HEIGHT

PIPE DIA. INCH	PIPE CLASSES				
	II	III	IV	V	
18	16	22	34	52	
21	16	22	34	52	
24	16	22	34	52	
27	16	22	34	52	
30	15	22	34	52	
33	15	22	34	52	
36	15	22	33	51	
42	15	22	33	51	
48	15	22	33	51	
54	15	21	33	51	
60	14	21	32	51	
66	14	21	32	50	
72	14	20	32	50	

TABLE 3: REINFORCED CONCRETE ELLIPTICAL PIPE MAX FILL HEIGHT

PIPE DIA. INCH X RISE	PIPE CLASSES				
	II	III	IV	V	
14 x 23	-	12	20	30	
19 x 30	-	13	21	30	
22 x 34	-	14	21	30	
24 x 38	9	14	21	30	
27 x 42	9	14	21	30	
29 x 45	9	14	21	30	
32 x 49	10	14	21	30	
34 x 53	10	14	21	30	
38 x 60	10	14	21	30	
43 x 68	10	14	21	30	
48 x 78	10	14	21	30	
53 x 83	10	14	21	30	
58 x 91	10	15	21	30	

City of Bluffdale
Engineering Standards
Approved: *Michael J. Papp* 02/16/18
City Engineer Date

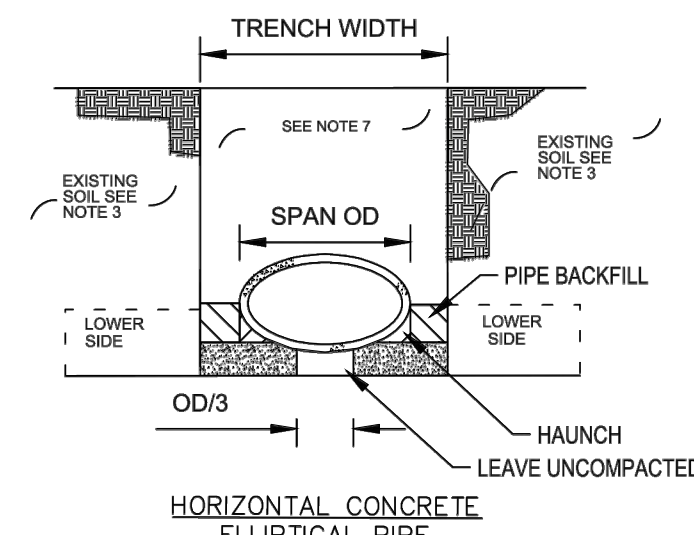
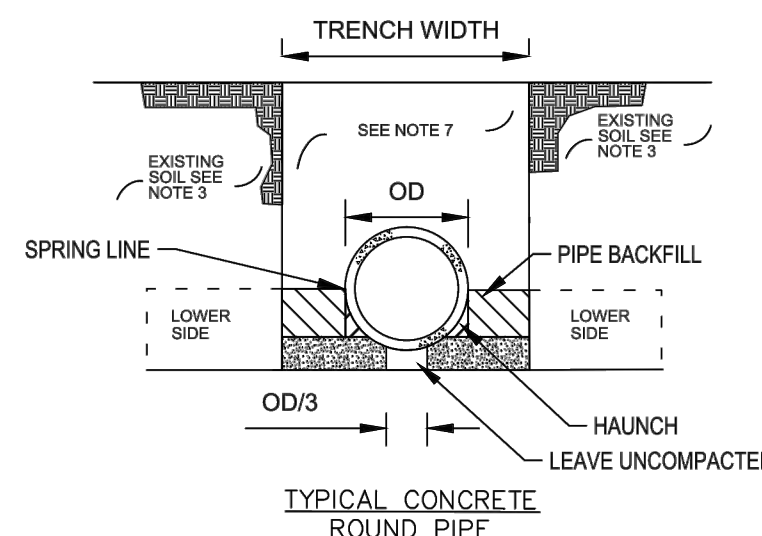


TABLE 4: MINIMUM TRENCH WIDTH

PIPE DIA. INCH	TRENCH WIDTH FT
18	3.9
24	4.5
30	5.1
36	5.7
42	6.3
48	6.8
54	7.4
60	8.0

INSIDE DIAMETERS

TABLE 5: SOILS AND MINIMUM COMPACTION REQUIREMENTS

PIPE FOUNDATION OVER	BEDDING THICKNESS	MINIMUM COMPACTION	BACKFILL TYPE
SOIL ROCK	OD/24 IN. - 3 IN. MIN. OD/12 IN. - 6 IN. MIN.	98% 96%	A1A3-SW A1A3-SW

- NOTES:
- DO NOT INSTALL PIPES THAT ARE DAMAGED.
 - COMPACT BACKFILL ACCORDING TO AASHTO T 99 AND TABLE 5. REMOVE BOULDERS OR ROCKS WITHIN BEDDING AREA.
 - INCREASE THE TRENCH WIDTH TO 2 FT MINIMUM ON EACH SIDE OF THE PIPE WHEN THE NATIVE SOIL IS UNSUITABLE OR IS NOT AS STIFF (FIRM) AS THE BACKFILL.
 - OVER-EXCAVATE UNSUITABLE PIPE FOUNDATION MATERIAL AS DIRECTED BY THE ENGINEER. REPLACE WITH PIPE BACKFILL.
 - DO NOT DISTURB THE INSTALLED PIPE OR EMBEDMENT OR LEAVE VOIDS WHEN USING TRENCH BOXES AND SHIELDS.
 - SEAL EXPOSED OPEN SECTIONS OF PIPE AND DRAINAGE STRUCTURES IF THEY WILL SET INCOMPLETE FOR 4 HOURS OR MORE.
 - REFER TO THE PROJECT PLANS FOR MATERIAL OUTSIDE OF PIPE BACKFILL AREA.
 - PROTECT PIPE DURING CONSTRUCTION. DO NOT EXCEED DESIGN STRENGTH. PROVIDE AT LEAST 1-FOOT OF COVER DURING CONSTRUCTION.
 - MEASURE MAXIMUM FILL HEIGHT FROM TOP OF PIPE TO TOP OF PAVEMENT SURFACE AT HIGHEST FILL SECTION.
 - ENGINEER TO VERIFY DESIGN FOR PIPES LARGER THAN 42-INCH IN DIAMETER.
 - VIDEO ALL STORM DRAIN LINE INSTALLED. USE MANDREL TO VERIFY ANY DEFORMATION.
 - REPAIR ALL DAMAGED PIPES TO THE SATISFACTION OF THE ENGINEER.
 - PROVIDE "T TOP" TRENCH COVER ACCORDING TO CITY REQUIREMENTS. REPLACE PAVEMENT ACCORDING TO CITY STANDARDS.
 - FOLLOW THE MOST CURRENT OSHA AND UOSH REQUIREMENTS FOR SAFETY.
 - CONCRETE PIPE: RECESS THE BEDDING TO RECEIVE PIPE JOINTS WHERE APPLICABLE.
 - CONCRETE PIPE: DO NOT INSTALL PIPES THAT HAVE CRACKS LARGER THAN 0.01 INCHES.
 - THERMOPLASTIC PIPE: PROVIDE PIPES THAT MEET OR EXCEED AASHTO M294 AND/OR ASTM F2306. SUBMIT A CERTIFICATION TO THE CITY PRIOR TO INSTALLATION OF ANY PIPES. SUBMIT ADDITIONAL CERTIFICATION THAT THE PIPES MEET OR EXCEED LRFD SECTION 12 FOR FILL HEIGHTS.
 - METAL PIPE: USE ONLY PIPES CERTIFIED FOR MIN. 100 YEARS LIFE AND AT LEAST ALUMINIZED TYPE 2 OR STEEL POLYMER COATED 14 GAUGE MINIMUM THICKNESS AND FOR ABRASION LEVEL 2. SUBMIT ALL THE CERTIFICATIONS BEFORE INSTALLING ANY PIPES.

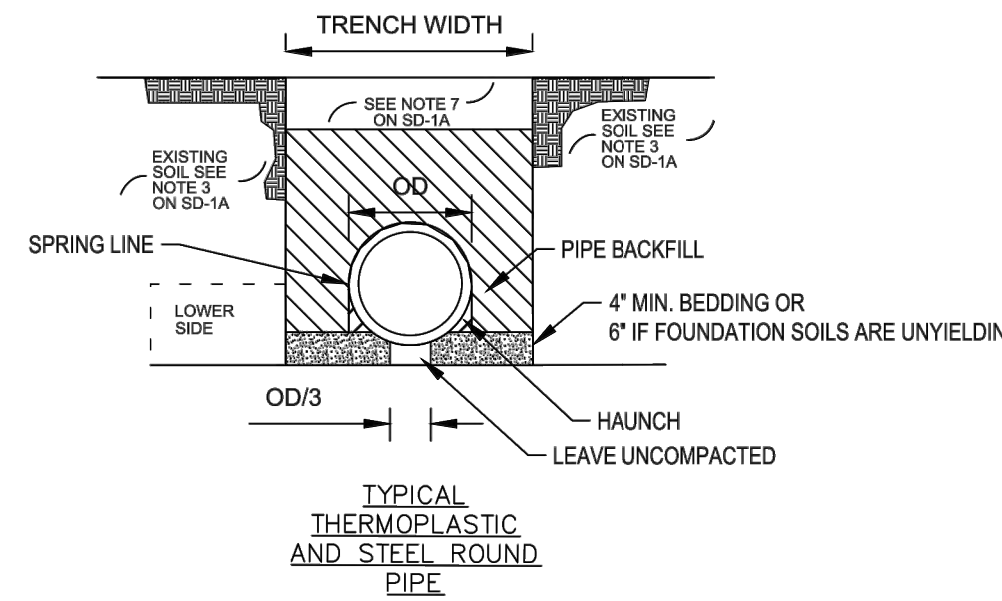


TABLE 1: THERMOPLASTIC PIPE MAX FILL HEIGHT

PIPE DIA. INCH	HDPE CORRUG. SMOOTH LINED (AASHTO M294)	PIPE MATERIAL			
		SMOOTH WALL (SOLID) WALL THICKNESS INCH			
		0.6	0.85	0.92	1.15
15	18				
18	17		46		
21					24
24	15		34		25
30	14			34	23
36	12				22
42	12				
48	11				
54	11				
60	11				

MAXIMUM FILL HEIGHT (FT)

TABLE 2: CORRUGATED STEEL PIPE MAX FILL HEIGHT ACCORDING TO PIPE CORRUGATIONS

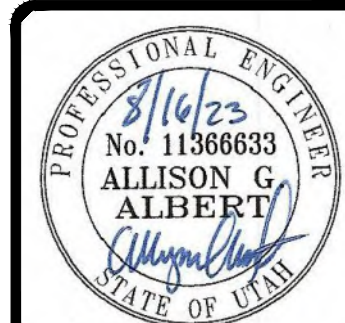
PIPE DIA. INCH	CORRUGATIONS IN INCHES		
	3 x 1 FT	5 x 1 FT	2.75 x 0.5 FT
12-18	-	-	181
24	-	-	136
30	-	-	108
36	-	-	90
42	-	-	77
48	78	69	67
60	17	17	17

INSIDE DIAMETERS

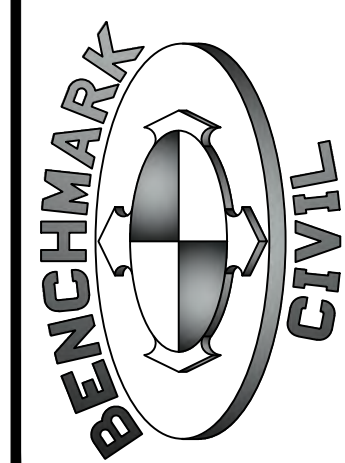
City of Bluffdale
Engineering Standards
Approved: *Michael J. Papp* 02/16/18
City Engineer Date

STANDARD DETAIL
STORM DRAIN PIPE STANDARDS

PIPE INSTALLATION DETAIL ⑤
SCALE: NTS



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DETAIL
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CDT.01
9 OF 13

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STORM TECH MC-7200 STAGE STORAGE
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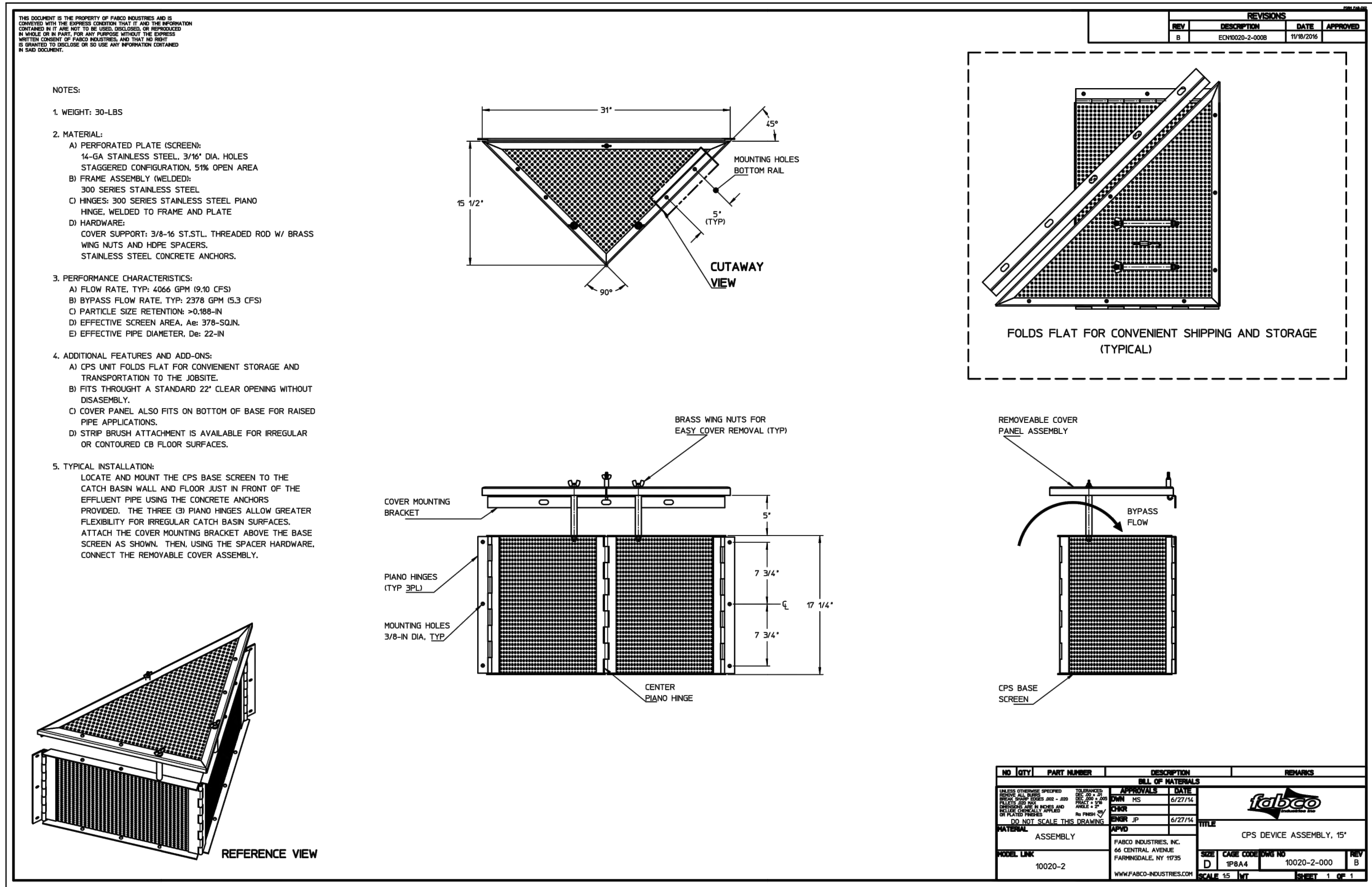
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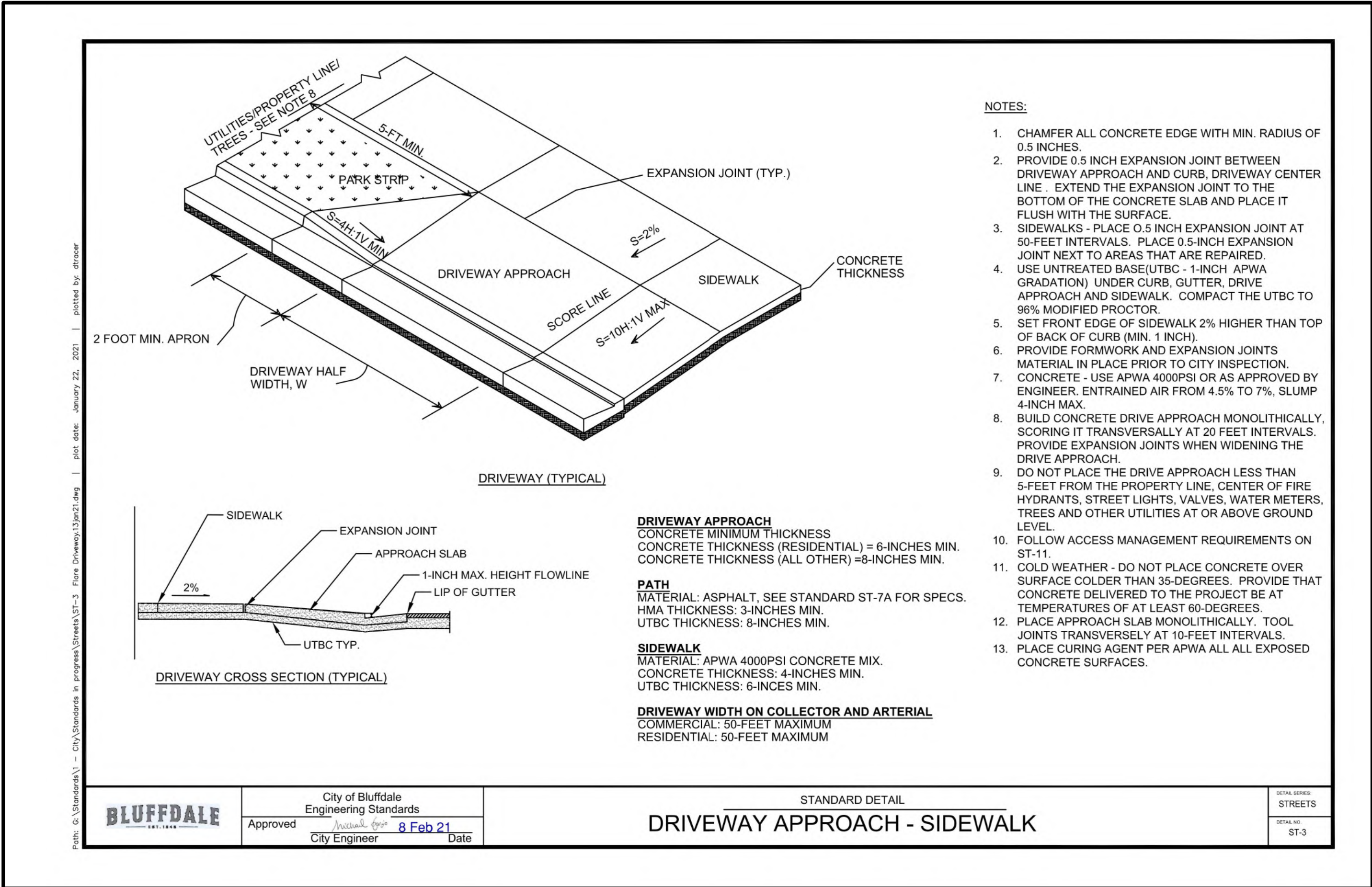
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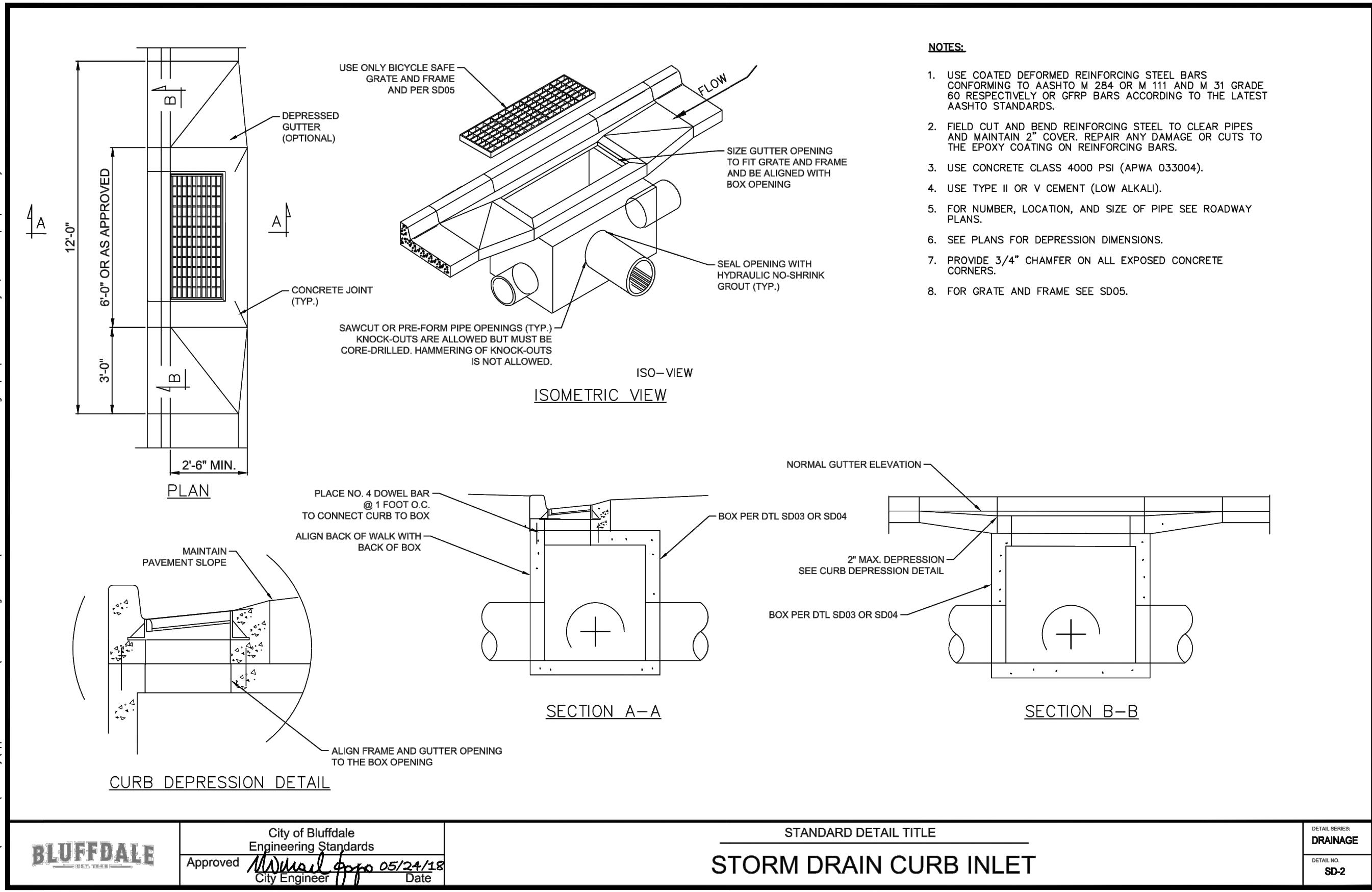
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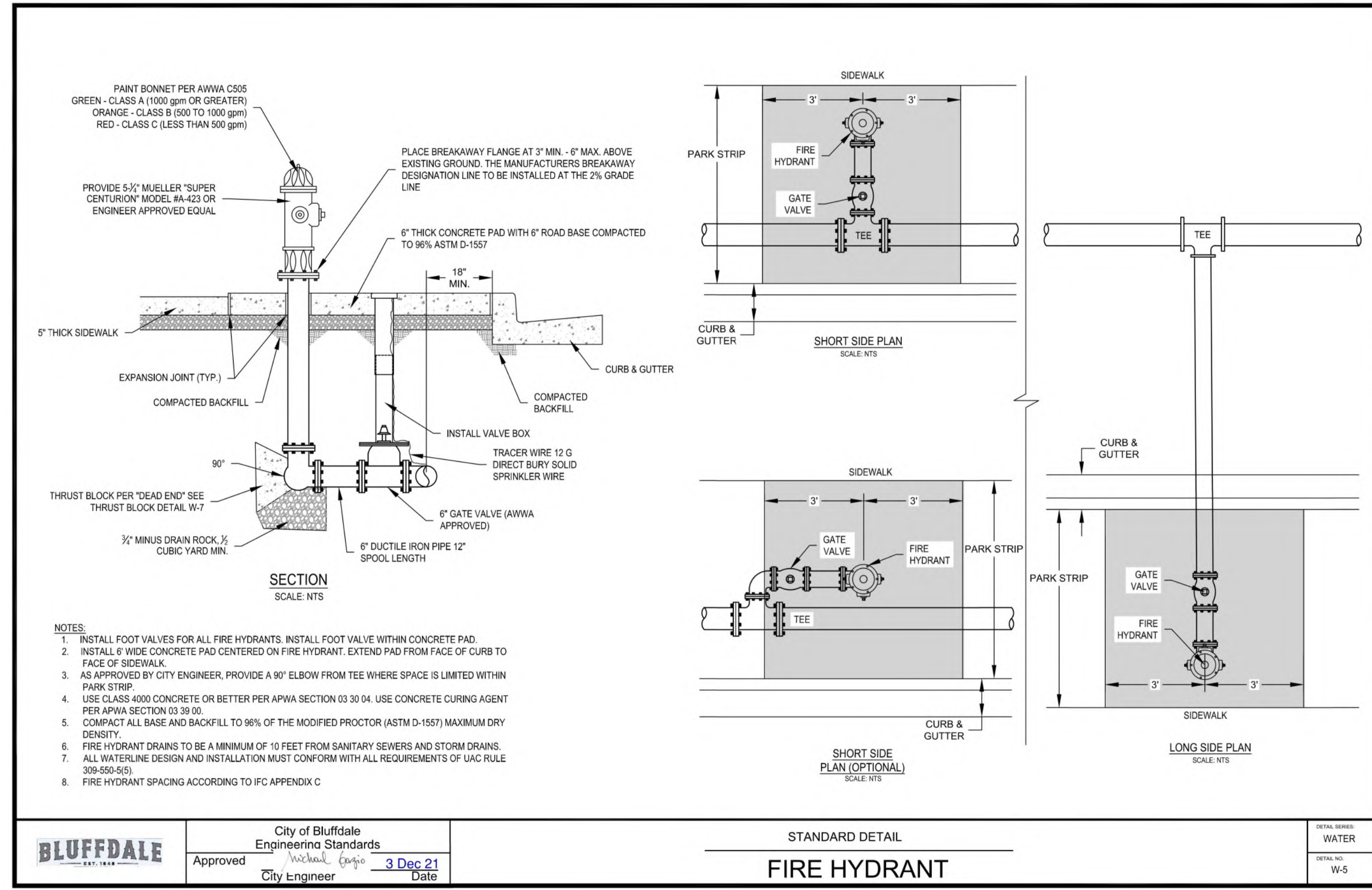
TRASH GRATE
SCALE: NTS



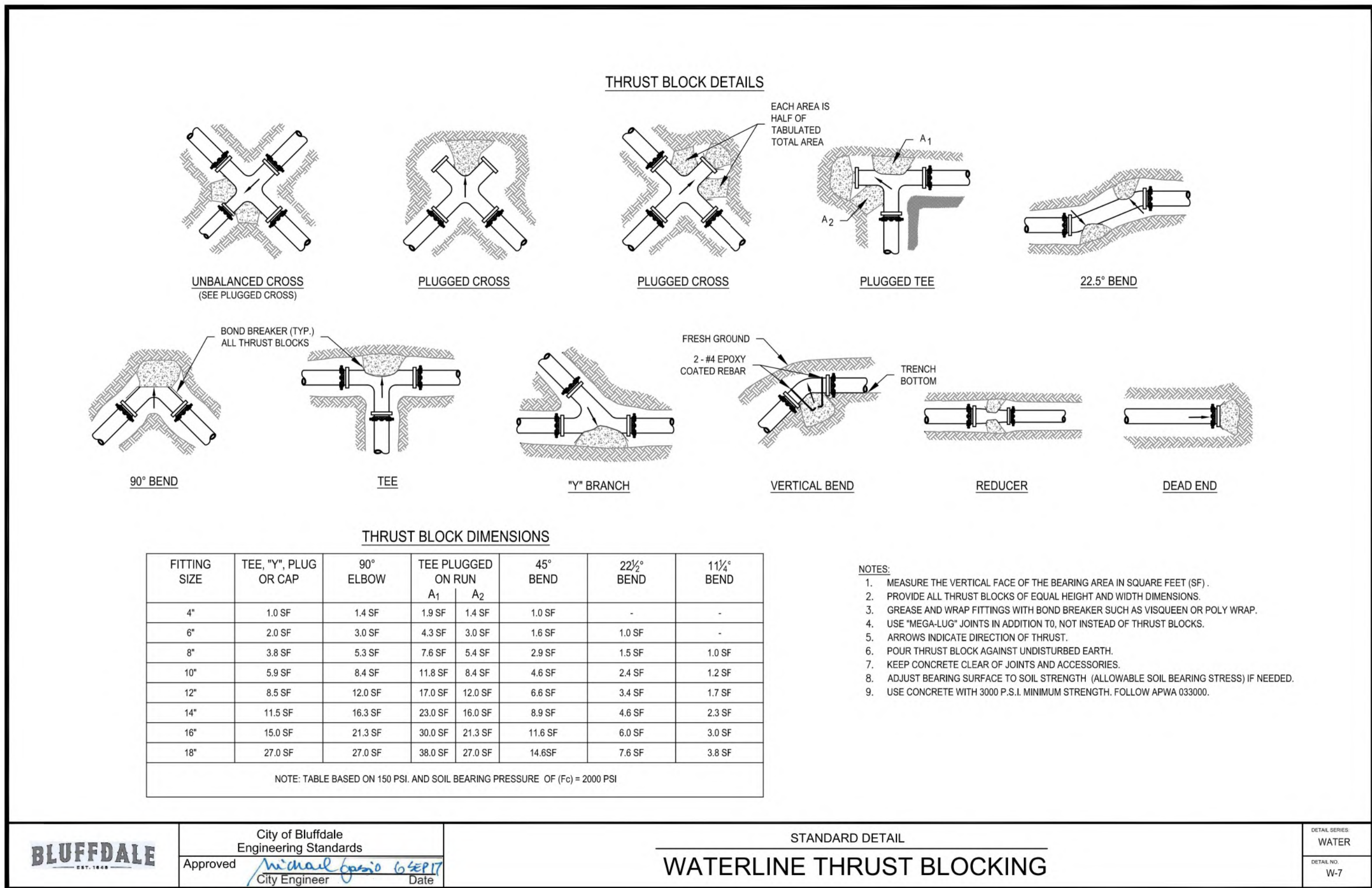
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STORM DRAIN CURB INLET ①
SCALE: NTS



FIRE HYDRANT ②
SCALE: NTS

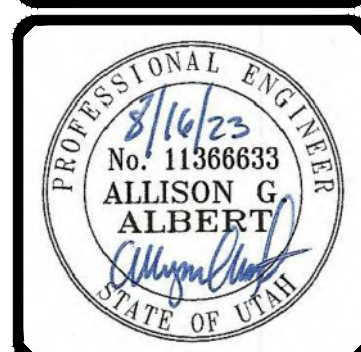


THRUST BLOCK ③
SCALE: NTS

NO.	DATE	DESCRIPTION
1	12/02/21	REVISED PER CITY COMMENTS
2	01/19/22	REVISED PER CITY COMMENTS
3	03/27/22	REVISED PER CITY COMMENTS
4	08/16/22	REVISED PER CITY COMMENTS

PROJECT NO. 2002024

SCALE MEASURES 1/4"=1' ON FULL SIZE SHEETS
ADJUST ACCORDING FOR REDUCED SIZE SHEETS



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DETAIL SHEET

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