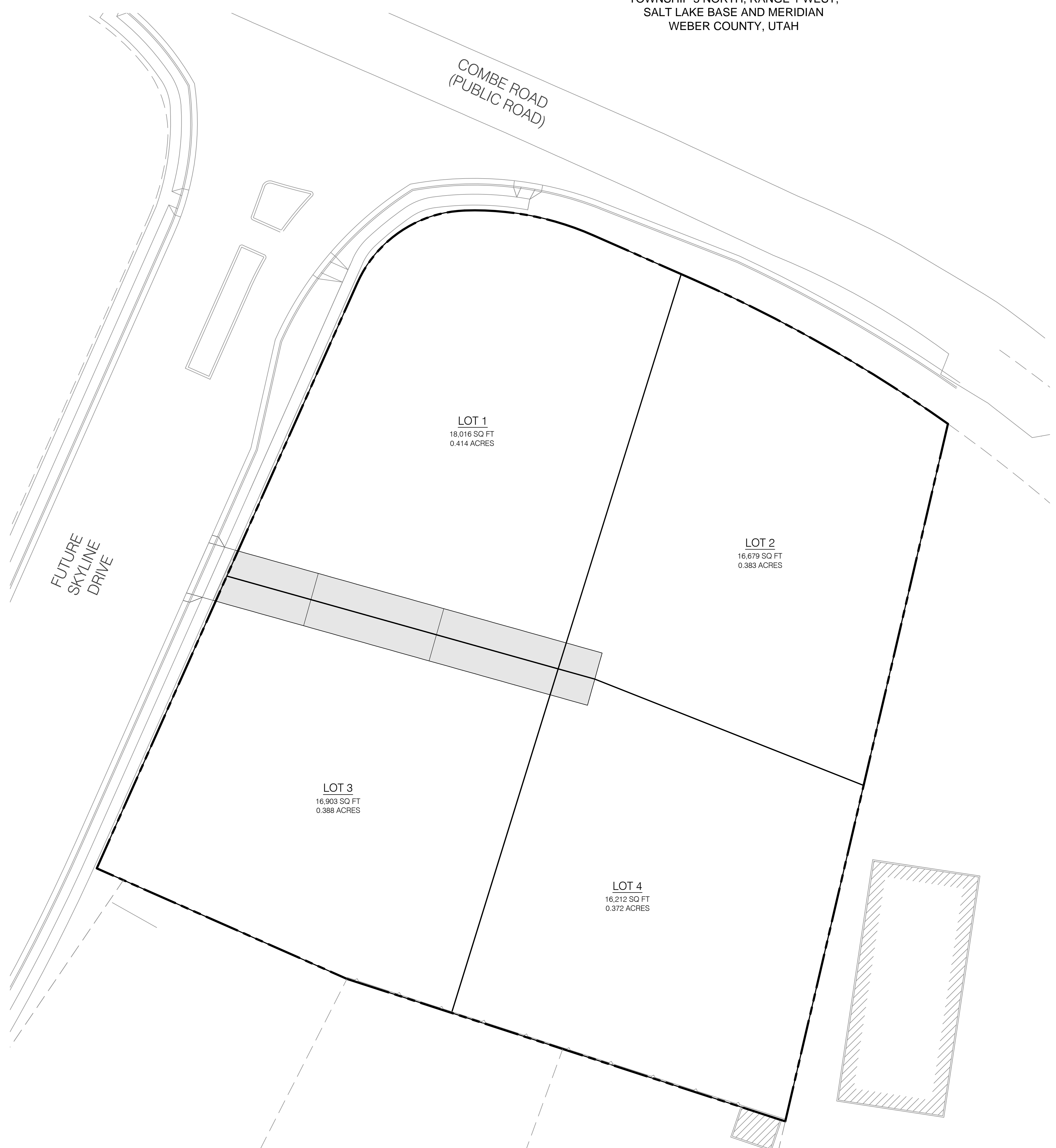
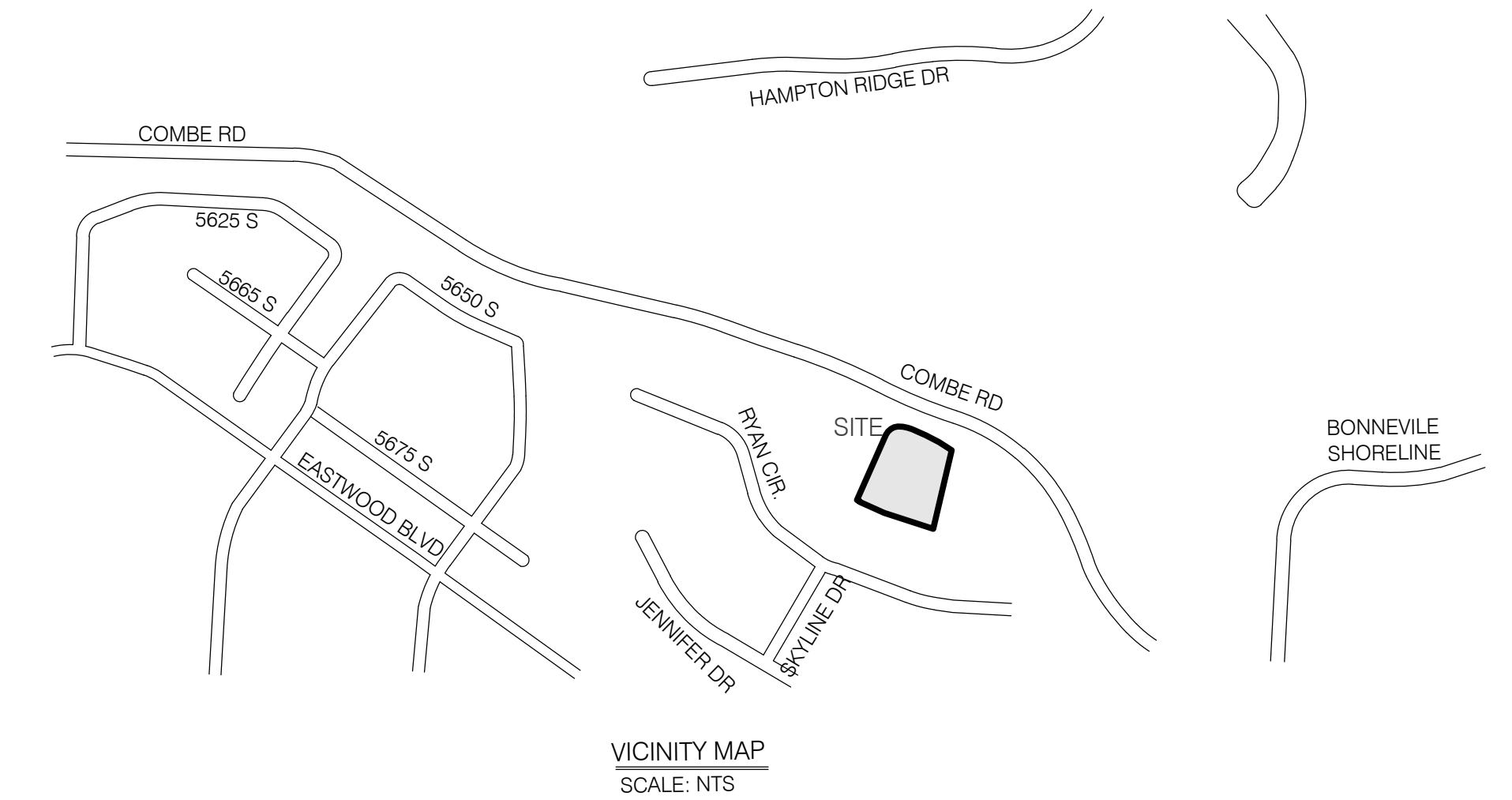
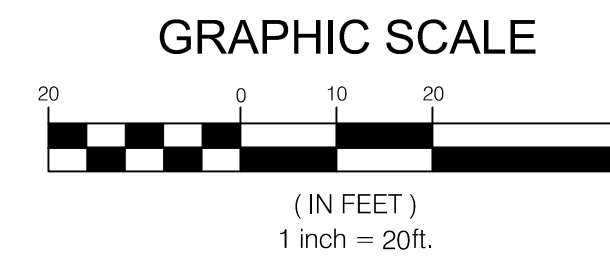
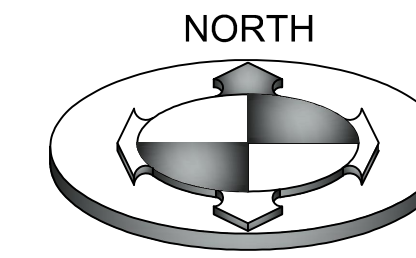


MOUNTAINS EDGE SUBDIVISION

LOCATED IN THE NORTHWEST QUARTER OF SECTION 23,
TOWNSHIP 5 NORTH, RANGE 1 WEST,
SALT LAKE BASE AND MERIDIAN
WEBER COUNTY, UTAH



DEVELOPER: BROCK LOOMIS
ADDRESS: 5809 SKYLINE DRIVE
SOUTH OGDEN, UT 84403
TELEPHONE: 801-814-1914
EMAIL: brock@benchmarkcivil.com

ENGINEER: BENCHMARK ENGINEERING & LAND SURVEYING
CONTACT: BROCK LOOMIS
ADDRESS: 9130 SOUTH STATE STREET, SUITE 101
SANDY, UT 84070
TELEPHONE: 801-814-1914
EMAIL: brock@benchmarkcivil.com

SURVEYOR: BENCHMARK ENGINEERING & LAND SURVEYING
CONTACT: KAGAN DIXON
ADDRESS: 9130 SOUTH STATE STREET, SUITE 101
SANDY, UT 84070
TELEPHONE: 801-542-7192
EMAIL: kagan@benchmarkcivil.com

DRAWING INDEX

COVER	COVER SHEET
CGN.01	GENERAL NOTES, LEGEND & ABBREVIATIONS
CSP.01	SITE PLAN
CUP.01	UTILITY PLAN
CGD.01	GRADING AND DRAINAGE PLAN
CEP.01	EROSION CONTROL PLAN
CEP.02	SWPP NOTES
CEP.03	BMP DETAILS
CEP.04	BMP DETAILS
CDT.01	DETAILS & NOTES

PRELIMINARY CIVIL CONSTRUCTION PLANS

	BENCHMARK ENGINEERING & LAND SURVEYING 9130 SOUTH STATE STREET SUITE # 100 SANDY, UTAH 84070 (801) 542-7192 www.benchmarkcivil.com			PROJECT NO. 1512208
	MOUNTAINS EDGE SUBDIVISION 2060 EAST RYAN CIRCLE WEBER COUNTY, UTAH		DRAFT BDL DATE: 02/01/2016 DESIGN BDL DATE: 02/01/2016 CHECK BDL DATE: 02/01/2016	COVER
No.	DATE	DESCRIPTION		

LINETYPES:

NEW	EXISTING	
		SECTION LINE
		PROPERTY LINE
		ADJACENT PL or LOT LINES
		RIGHT-OF-WAY LINE
		CENTERLINE OF ROAD
		EASEMENT LINE
		CURB & GUTTER
		EDGE OF ASPHALT
		FENCE / WALL, STONE
		FENCE, BLOCK
		FENCE, BRICK
		FENCE, CHAIN
		FENCE, IRON
		FENCE, VINYL
		FENCE, WIRE
		FENCE, WOOD
		INDEX CONTOUR LINE
		INTERMEDIATE CONTOUR LINE
		SPOT ELEVATION
		SANITARY SEWER LINE
		STORM DRAIN LINE
		WATER LINE
		IRRIGATION LINE
		OVERHEAD POWER LINE
		UNDERGROUND POWER LINE
		GAS LINE
		TELEPHONE LINE
		CABLE TELEVISION LINE
		DRAINAGE / DITCH CENTERLINE
		TREE LINE EDGE
		PROPOSED ASPHALT
		PROPOSED CONCRETE

SYMBOLS:

NEW	EXISTING	
		SECTION CORNER (FOUND)
		SECTION CORNER (NOT FOUND)
		STREET MONUMENT (FOUND)
		STREET MONUMENT (NOT FOUND)
		BRASS CAP MONUMENT
		POWER POLE & OVERHEAD POWER
		LIGHT POLE
		GUY WIRE
		TELEPHONE MANHOLE
		SANITARY SEWER MANHOLE
		STORM DRAIN MANHOLE
		CATCH BASIN
		DIRECTION OF DRAINAGE
		WATER MANHOLE
		WATER VALVE & WATER METER
		FIRE HYDRANT
		IRRIGATION VALVE
		GAS MANHOLE
		TREE

ABBREVIATIONS

BC	BAR & CAP	R	RADIUS OF CURVE
COR.	SECTION CORNER	RR	RAILROAD
CB	CATCH BASIN	ROW	RIGHT-OF-WAY
D	DELTA ANGLE	RW	RIGHT-OF-WAY
EOA	EDGE OF ASPHALT	SMH	SEWER MANHOLE
EOC	EDGE OF CONCRETE	SD	STORM DRAIN
FFE	FINISH FLOOR ELEVATION	TBC	TOP BACK OF CURB
FL	FIRE HYDRANT	TMA	TELEPHONE MANHOLE
FH	FLOW LINE	TOA	TOP OF ASPHALT
GB	GRADE BREAK	TOC	TOP OF CURB
GW	GUY WIRE	TOF	TOP OF FOOTING
HW	HEAD WALL	TOE	TOE OF SLOPE
I.E.	INVERT ELEVATION	TOG	TOP OF GRATE
L.P.	LENGTH OF CURVE	TOP	TOP OF SLOPE
L	LIP OF CURB	TOW	TOP OF WALL
LP	LOW POINT	TR	TELEPHONE RISER
M-M	MONUMENT TO MONUMENT	UG	UNDERGROUND POWER
MH	MANHOLE	VPC	VERTICAL POINT OF CURVATURE
MON.	SURVEY MONUMENT	VPI	VERTICAL POINT OF INTERSECTION
OHP	OVERHEAD POWER	VPT	VERTICAL POINT OF TANGENCY
PC	POINT OF CURVATURE	WM	WATER METER
PI	POINT OF INTERSECTION	WW	WATER VALVE
PP	POWER POLE		
PT	POINT OF TANGENCY		
PLUE	PUBLIC UTILITY EASEMENT		

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.

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 WEBER COUNTY 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.

8. CONSTRUCTION STAKING FOR GRADING, CURB, GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAIN, WATER, AND ELECTROLIERS SHALL BE DONE BY THE OWNERS SURVEYOR. THE CONTRACTOR SHALL NOTIFY THE SURVEYOR FORTY-EIGHT (48) HOURS IN ADVANCE OF THE NEED FOR STAKING. ANY STAKING REQUESTED BY THE CONTRACTOR OR THEIR SUBCONTRACTORS THAT IS ABOVE AND BEYOND STANDARD STAKING NEEDS, WILL BE SUBJECT TO AN EXTRA WORK BACK CHARGE TO THE CONTRACTOR. THE CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE.

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 NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES OR AMBIGUITIES WHICH MAY EXIST IN THE PLANS 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.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCIES 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.

11. 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. COSTS FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT OF EXISTING IMPROVEMENTS AND ANYTHING THAT HAS ALREADY BEEN CONSTRUCTED. THERE WILL BE NO EXTRA COST DUE TO THE CONTRACTOR FOR REPAIRING OR REPLACING EXISTING IMPROVEMENTS WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS. SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTORS EXPENSE. AFTER PROPER BACKLOGGING WITH MATERIALS EQUAL TO OR BETTER THAN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.

12. 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, PIPES AND CONDUITS, STRUCTURES AND OTHER FACILITIES. THE AS-BUILTS OF THE ELECTRICAL SYSTEM SHALL INCLUDE THE STREET LIGHT LAYOUT PLAN SHOWING LOCATION OF LIGHTS, CONDUITS, CONDUCTORS, POINTS OF CONNECTIONS TO SERVICES, HULLBOXES, 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.

13. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO ENGINEER ONE SET OF NEATLY MARKED AS-BUILT RECORDS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE

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

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

16. 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.

17. 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.

18. ALL STORM WATER CONVEYANCE PIPING TO BE RCP - CLASS 3 OR EQUAL UNLESS OTHERWISE NOTED.

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

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

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

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

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

24. THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FROM FALLS FROM 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.

25. 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, WHERE 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.

26. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO INSTALL PIPE OF ADEQUATE CLASSIFICATION WITH SUFFICIENT BEDDING TO MEET ALL REQUIREMENTS AND RECOMMENDATIONS FOR H20 LOAD REQUIREMENTS.

27. ACTUAL CONNECTIONS TO EXISTING WATER LINES WILL NOT BE PERMITTED PRIOR TO THE COMPLETION OF STRIPING AND SETTING OF 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 PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK, AND STREET PAVING.

29. ALL SEWER LINE TO BE FLUSHED, PRESSURE TESTED TO 5 PSY VIDEO INSPECTED AND OTHERWISE TESTED IN ACCORDANCE WITH DISTRICT STANDARDS PRIOR TO PLACING IN SERVICE.

30. ALL SEWER LINES SHOULD BE PVC C-900 SDR-18 AND LATERALS ARE TO BE SDR-35 PVC PIPE.

31. 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.

32. DURING CONSTRUCTION OF THE SEWERLINE, WYES NEED TO BE INSTALLED FOR THE LATERALS. LATERALS ARE 4" AND NEED TO COME IN AT THE TOP OF THE PIPE WITH A WYE. (SEE RESPONSIBLE DISTRICT OR AGENCY STANDARDS)

33. WATERLINES TO BE PVC C-900. WATER LINES SHALL BE A MINIMUM OF 10 HORIZONTALLY FROM SEWER MAINS CROSSINGS SHALL MEET STATE HEALTH STANDARDS. (MECHANICAL JOINTS REQUIRED WHEN LESS THAN 18" VERTICAL OR TEN FEET HORIZONTAL SEPARATION FROM SEWERLINE)

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

35. 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.

36. ALL WATERLINES SHALL BE MINIMUM 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 LOOPED AROUND GRAVITY LINES OR TO PROVIDE MINIMUM COVER PER APWA PLAN #543.

37. CONTRACTOR TO NOTIFY PUBLIC WORKS FOR CHLORINE TEST PRIOR TO FLUSHING LINES. CHLORINE LEFT IN 24 HRS. MINIMUM WITH RESIDUAL. ALL TURNING OF MAINS VALVES, CHLORINATION, FLUSHING, PRESSURE TESTING, BACTERIA TESTING, ETC. TO BE COORDINATED WITH RESPONSIBLE DISTRICT OR AGENCY. ALL TESTS TO BE IN ACCORDANCE WITH APWA STANDARDS.

38. BOTTOM FLANGE OF FIRE HYDRANTS TO BE SET TO APPROXIMATELY 4 INCHES ABOVE BACK OF CURB ELEVATION. HYDRANTS TO INCLUDE TEE, E LINE VALVE, AND HYDRANT COMPLETE TO MEET RESPONSIBLE DISTRICT OR AGENCY STANDARDS.

39. 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, IT SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY TO VERIFY ALL EXISTING IMPROVEMENTS AND TO EXPOSE ALL EXISTING UNDERGROUND UTILITIES RELATED TO THE PROJECT, INCLUDING BUT NOT LIMITED TO, SEWER, STORM DRAIN, WATER, IRRIGATION, GAS, ELECTRICAL, ETC. AND SHALL NOTIFY THE ENGINEER IN WRITING FORTY-EIGHT (48) HOURS IN ADVANCE OF EXPOSING THE UTILITIES SO, THAT THE EXACT LOCATION AND ELEVATION CAN BE VERIFIED AND DOCUMENTED. THE COST ASSOCIATED TO PERFORM THIS WORK SHALL BE INCLUDED IN EITHER THE LUMP SUM CLEARING COST OR IN THE VARIOUS ITEMS OF WORK. IF LOCATION AND/OR ELEVATION DIFFERS FROM THAT SHOWN ON THE DESIGN PLANS, PROVISIONS TO ACCOMMODATE NEW LOCATION BE MADE PRIOR TO CONSTRUCTION.

40. 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 PERFORMING ANY EXCAVATION WORK. THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL 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.

41. ALL UTILITY MANHOLE RIMS, CATCH BASIN GRATES AND VALVE BOX COVERS ARE TO BE ADJUSTED TO FIT THE FINISHED GRADE OF THE SITE.

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

43. CONTRACTOR SHALL PERFORM EARTHWORK IN ACCORDANCE WITH APWA 2012 STANDARD DRAWINGS AND STANDARD SPECIFICATIONS AND THE RECOMMENDED EARTHWORK SPECIFICATION FOUND IN THE PROFESSIONALLY PREPARED REPORT OF GEOTECHNICAL INVESTIGATION.

44. 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.

45. SUBSOIL INVESTIGATIONS HAVE BEEN CONDUCTED AT THE SITE OF THE WORK, BEFORE FOOTING, FOUNDATION OR STRUCTURAL WALL CONSTRUCTION CAN COMMENCE. A REVIEW OF THE PROFESSIONALLY PREPARED REPORT OF THESE INVESTIGATIONS, MUST BE REVIEWED.

SOIL INVESTIGATIONS WERE CONDUCTED FOR DESIGN PURPOSES ONLY, AND THE DATA SHOWN IN THE REPORTS ARE FOR SUBSURFACE CONDITIONS FOUND AT THE TIME OF THE INVESTIGATION. THE OWNER AND ENGINEER DISCLAIM RESPONSIBILITY 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.

46. ALL PROPOSED ELEVATIONS SHOWN ON THE GRADING PLAN ARE TO FINISHED SURFACE. THE CONTRACTOR IS RESPONSIBLE TO DEDUCT THE THICKNESS OF THE PLACEMENT STRUCTURAL SECTION FOR TOP OF SUB GRADE ELEVATIONS.

47. 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.

48. 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.

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

50. THE EXISTING TOPOGRAPHY ON THESE PLANS IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY BENCHMARK ENGINEERING AND LAND SURVEYING AND MAY HAVE BEEN MODIFIED SINCE THIS SURVEY WAS PERFORMED.

51. FILLS IN EXCESS OF 4 FEET IN THICKNESS AND BENEATH ALL FOUNDATIONS OR PAVEMENT SECTIONS SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D-1557 COMPACTION CRITERIA. ALL OTHER STRUCTURAL FILL LESS THAN 4 FEET IN THICKNESS SHOULD BE COMPACTED TO AT LEAST 90 PERCENT OF THE ABOVE CRITERIA.

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

53. CONTRACTOR TO SUBMIT PROCTOR AND/OR MARSHALL TEST DATA 24 HOURS PRIOR TO TEST.

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

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

56. 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 DO NOT PROVIDE PROPER DRAINAGE MUST BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

57. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN ESTIMATE OF EARTHWORK QUANTITIES.

58. WHERE NEW CURB AND GUTTER IS 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 GRADE AND CROSS SLOPE OF THE CURB AND GUTTER FORMS. THE CONTRACTOR SHALL SUBMIT THE SLOPE AND GRADINGS 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.

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

60. ALL CONCRETE TO HAVE A MINIMUM OF 28 DAY COMPRESSION STRENGTH OF 4000 PSI.

61. CUT SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL.

62. FILL SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL.

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

64. 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 TO 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.

65. 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.

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

67. 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, PIPELINES AND SEWERS. IF A LUPES (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.

68. 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 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.

69. 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.

70. CONTRACTOR SHALL INSTALL EROSION CONTROLS (SILT FENCES, STRAW BALES, ETC) AS REQUIRED BY REGULATORY AGENCIES. SALT 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 CONTRACTORS EXPENSE, TO MINIMIZE ANY DUST NUISANCE AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY.

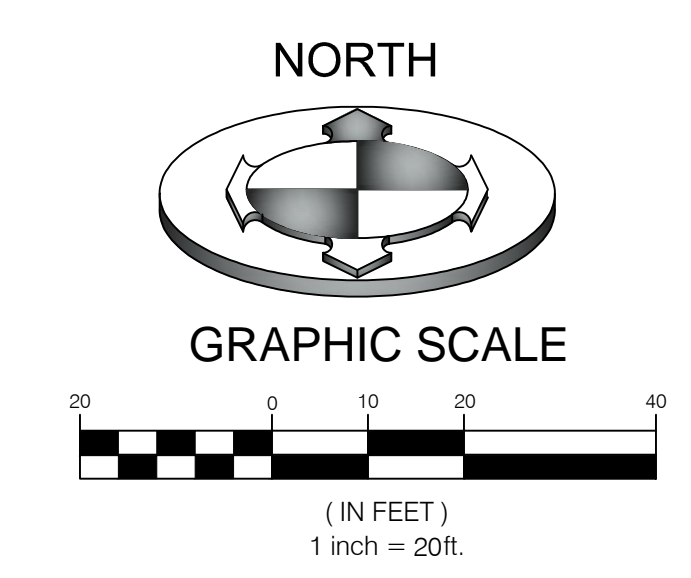
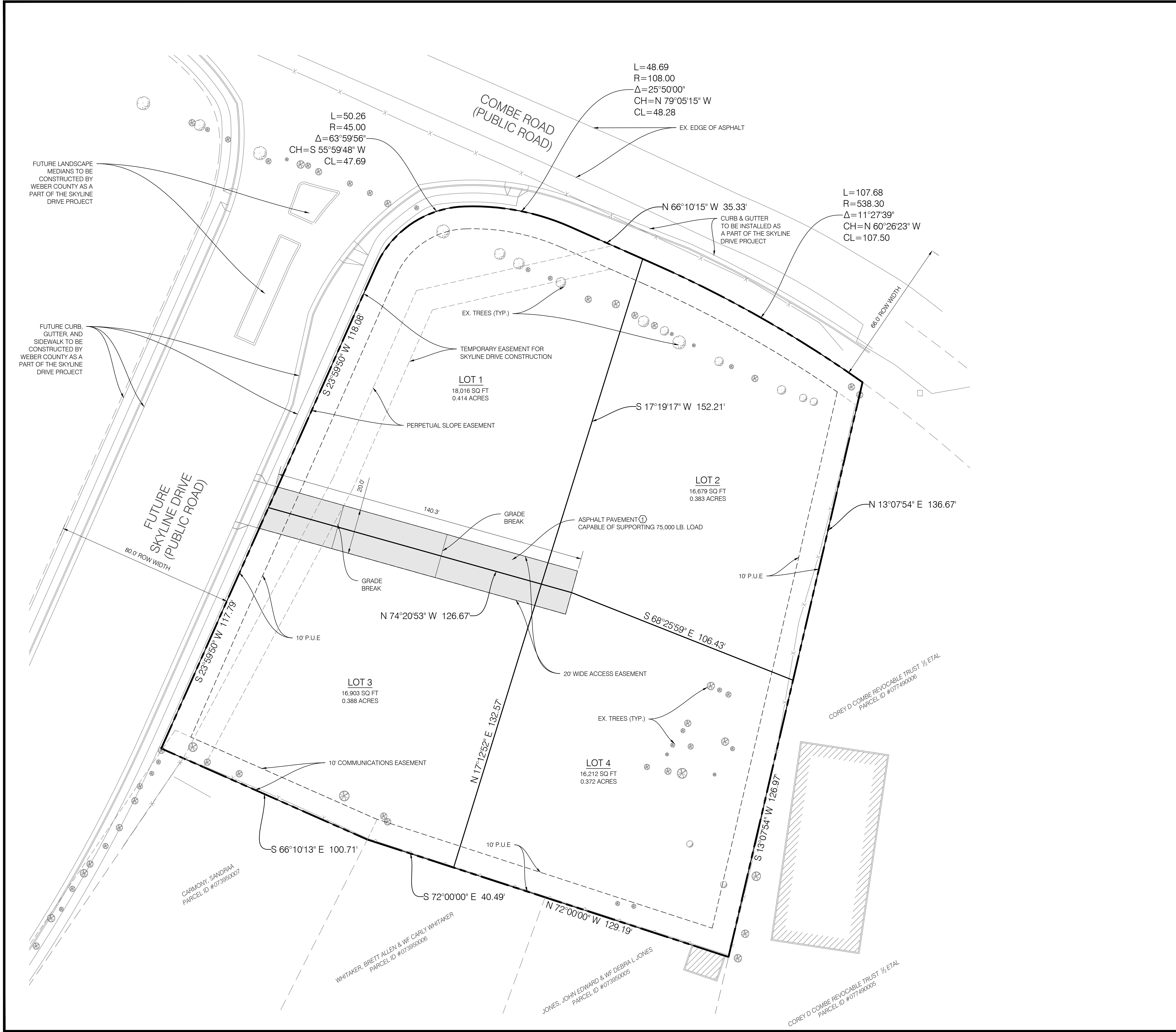
71. THE CONTRACTOR AGREES THAT:

- 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, RE-TESTING 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.
- 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.

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/OR RIGHTS-OF-WAY IS SUBJECT TO THE APPROVAL AND ACCEPTANCE OF THE REGULATORY AGENCY RESPONSIBLE FOR OPERATION AND/OR MAINTENANCE OF SAID AND/OR RIGHT-OF-WAY. ALL CONSTRUCTION WORK IN 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 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 DELETERIOUS SUBSTANCE. AGGREGATE SHALL COMPLY WITH THE GUIDELINE REQUIREMENTS FOR PAVEMENTS FOUND IN THE PROFESSIONALLY PREPARED OF THE SOILS INVESTIGATIONS COMPLETED ON THIS SITE.



CONSTRUCTION KEY NOTES REFERENCE

NO.	DESCRIPTION	DETAIL
①	ASPHALT PAVEMENT WITH GRANULAR BASE.	4/CDT.01

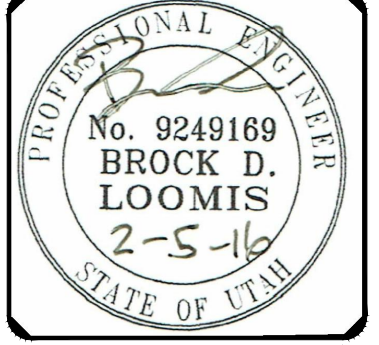
AREA TABLE

PARTICULARS	S.F.	%
BUILDING*	10,000	14.8
HARDSCAPE**	4,414	6.5
LANDSCAPE	53,396	78.7
TOTAL	67,810	100

*ASSUMED 2,500 SQ. FT. PER HOME
**ASSUMED 400 SQ. FT. PER DRIVEWAY

NO.	DATE	DESCRIPTION

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



BENCHMARK ENGINEERING & LAND SURVEYING

9130 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

MOUNTAINS EDGE SUBDIVISION

2060 EAST RYAN CIRCLE
WEBER COUNTY, UTAH

NOTES:
ALL WORK WITHIN PUBLIC ROADS TO BE DONE IN STRICT ACCORDANCE WITH WEBER COUNTY STANDARDS AND SPECIFICATIONS

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

BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER

1-800-662-4111
www.bluestakes.org

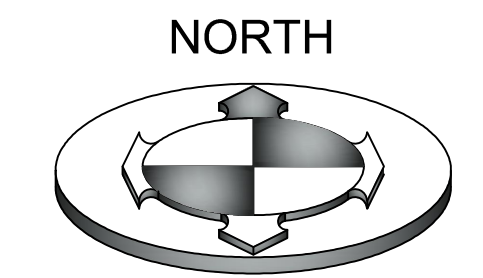
PROJECT NO. 1512209

SITE PLAN

CSP.01
3 OF 8

PRELIMINARY

NOTE:
CONTRACTOR TO START AT THE LOW END OF GRAVITY
UTILITY LINES TO VERIFY THE INVERT ELEVATION OF THE
CONNECTION POINT. NOTIFY ENGINEER IF THIS POINT IS
HIGHER THAN SHOWN ON THE PLANS FOR REDESIGN.



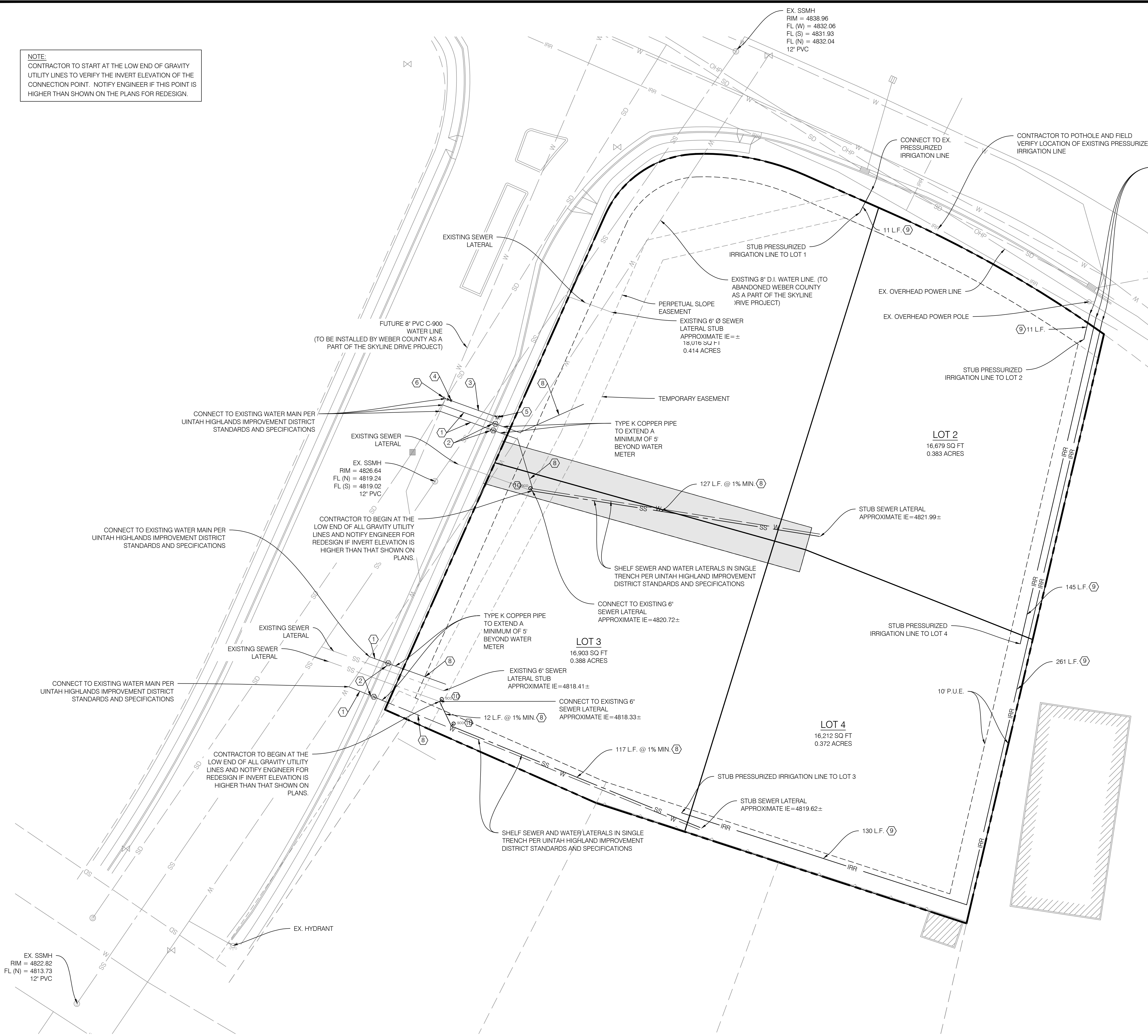
GRAPHIC SCALE
(IN FEET)
1 inch = 20ft.

UTILITIES KEY NOTES REFERENCE		
NO.	DESCRIPTION	DETAIL
①	1" Ø TYPE K COPPER WATER SERVICE LINE PER UHID STANDARDS AND SPECS.	3/CDT.01
②	1" WATER METER PER UHID STANDARDS AND SPECIFICATIONS	3/CDT.01
③	6" Ø DUCTILE IRON CLASS 52 FIRE LINE	2/CDT.01
④	GATE VALVE PER UHID STANDARDS AND SPECS.	2/CDT.01
⑤	FIRE HYDRANT PER UHID STANDARDS AND SPECIFICATIONS	2/CDT.01
⑥	THRUST BLOCK PER UHID STANDARDS AND SPECIFICATIONS	2/CDT.01
⑦	NEW 6" Ø PVC SDR-35 SEWER LATERAL @ 1% MINIMUM SLOPE	
⑧	1" Ø POLY WATER SERVICE LINE PER UHID STANDARDS AND SPECS.	
⑨	3/4" Ø POLY PRESSURIZED IRRIGATION SERVICE LINE	
⑩	SEWER CLEANOUT PER UHID STDS. AND SPECS.	

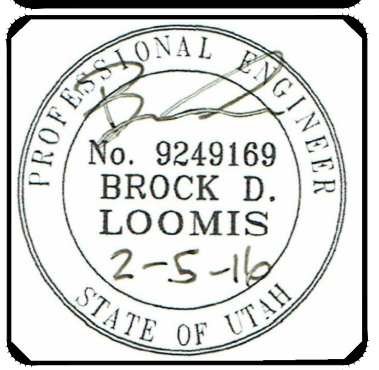
NOTE: CONTRACTOR IS TO BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND NOTIFY ENGINEER FOR REDESIGN IF INVERT ELEVATION IS HIGHER THAN THAT SHOWN ON PLANS.

NOTE:
CONTRACTOR IS RESPONSIBLE FOR POTHOLING TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE:
FOLLOW ALL UTAH HIGHLANDS IMPROVEMENT DISTRICT STANDARD PRACTICES FOR INSTALLATION & COMMISSIONING OF THE CULINARY SERVICE LINES AND HYDRANT.



NO.	DATE	DESCRIPTION
BY	DATE	DESCRIPTION
BY	DATE	DESCRIPTION
BY	DATE	DESCRIPTION
BY	DATE	DESCRIPTION



BENCHMARK ENGINEERING & LAND SURVEYING
930 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

MOUNTAINS EDGE SUBDIVISION
2060 EAST RYAN CIRCLE
WEBER COUNTY, UTAH

PROJECT NO. 1512209
UTILITY PLAN
CUP.01
4 OF 8

CALL BEFORE YOU DIG.
IT'S FREE & IT'S THE LAW.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org

PRELIMINARY

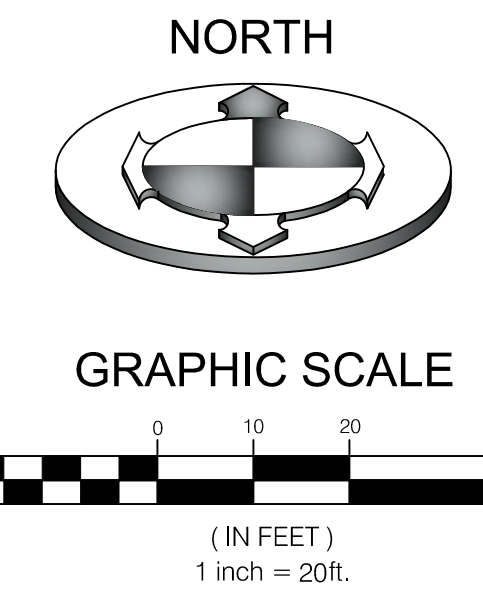
NORTHWEST CORNER OF SECTION 23,
TOWNSHIP 5 NORTH, RANGE 1 WEST,
SALT LAKE BASE AND MERIDIAN
FOUND BRASS CAP MONUMENT

PROPOSED CONTOURS SHOWN TIE IN TO THE BACK OF SIDEWALK
ELEVATIONS OF THE PROPOSED SKYLINE DRIVE PROJECT.
BACK OF SIDEWALK ELEVATION INFORMATION WAS PROVIDED BY JOB
ENGINEERS. IF ACTUAL ELEVATIONS ARE DIFFERENT THAN SHOWN
NOTIFY ENGINEER IMMEDIATELY FOR REDESIGN.

PROPOSED CONTOURS SHOWN TIE IN
TO THE BACK OF SIDEWALK ELEVATIONS
OF THE PROPOSED SKYLINE DRIVE
PROJECT.
BACK OF SIDEWALK ELEVATION
INFORMATION PROVIDED WAS
PROVIDED BY JOB ENGINEERS. IF
ACTUAL ELEVATIONS ARE DIFFERENT
THAN SHOWN NOTIFY ENGINEER
IMMEDIATELY FOR REDESIGN.

BASIS OF BEARINGS
S00°40'20"W 2645.02' (MEAS) 2644.94' (R2)
1031.62'

WEST QUARTER OF SECTION 23,
TOWNSHIP 5 NORTH, RANGE 1 WEST,
SALT LAKE BASE AND MERIDIAN
FOUND BRASS CAP MONUMENT



NOTES:
1. GRADE SITE TO ELEVATIONS AND CONTOURS
SHOWN ON PLANS.

STORM DRAINAGE CALCULATIONS Rational Method (Q=CIA)

Area Identification (A)	Rational Coefficient (C)	C*A
*Roof = 10,000	0.9	9000 S.F.
**Pavement = 4,414	0.9	3972.6 S.F.
Landscaping = 53,396	0.2	10679 S.F.
Sum:		23652 S.F.

NOAA ATLAS 14 - 100 YEAR STORM						Allowable Discharge = .00cf/acre
Time (min)	Intensity (in/hr)	Rainfall (inches)	Rainfall Excess (cu.ft.)	Allowed (cu.ft.)	Volume to Detain (cu.ft.)	
1440	0.158	3.79	7474	0	7474	

* Assumed 2,500 sq. ft. per home
** Assumed 400 sq. ft. per driveway

STORMWATER RETENTION:

Retention Pond 1
Area 1 (A1)= 1861 s.f. Basin Depth (H): 1.00 ft
Area 2 (A2)= 841 s.f.
Frustum of Pyramid: $V = h/3 [A1 + A2 + (A1 * A2)^{1/2}]$ 1318 cf

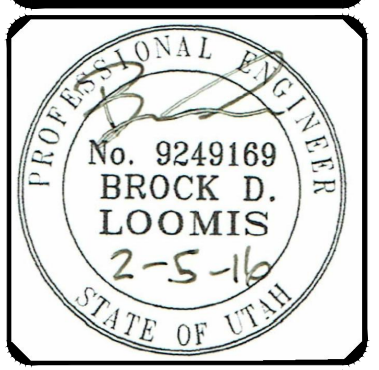
Retention Pond 2
Area 1 (A1)= 2365 s.f. Basin Depth (H): 1.25 ft
Area 2 (A2)= 1391 s.f.
Frustum of Pyramid: $V = h/3 [A1 + A2 + (A1 * A2)^{1/2}]$ 2321 cf

Retention Pond 3
Area 1 (A1)= 2909 s.f. Basin Depth (H): 1.00 ft
Area 2 (A2)= 1617 s.f.
Frustum of Pyramid: $V = h/3 [A1 + A2 + (A1 * A2)^{1/2}]$ 2232 cf

Retention Pond 4
Area 1 (A1)= 3053 s.f. Basin Depth (H): 1.00 ft
Area 2 (A2)= 1712 s.f.
Frustum of Pyramid: $V = h/3 [A1 + A2 + (A1 * A2)^{1/2}]$ 2380 cf

Total Retention Volume : 8,220 cf
Is there enough existing storm water storage? 7,474 cf YES

NO.	DATE	DESCRIPTION



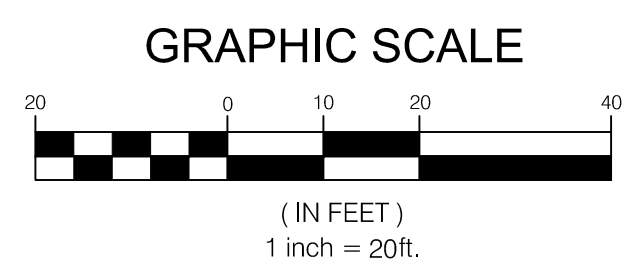
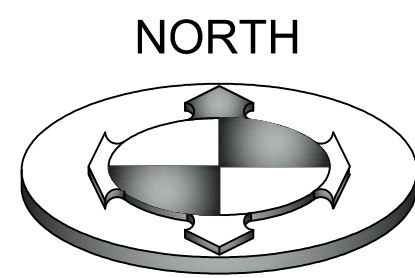
BENCHMARK ENGINEERING & LAND SURVEYING
910 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

MOUNTAINS EDGE SUBDIVISION
2060 EAST RYAN CIRCLE
WEBER COUNTY, UTAH

PROJECT NO. 1512209
GRADING & DRAINAGE PLAN
CGD.01
5 OF 8

CALL BEFORE YOU DIG.
IT'S FREE & IT'S THE LAW.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org

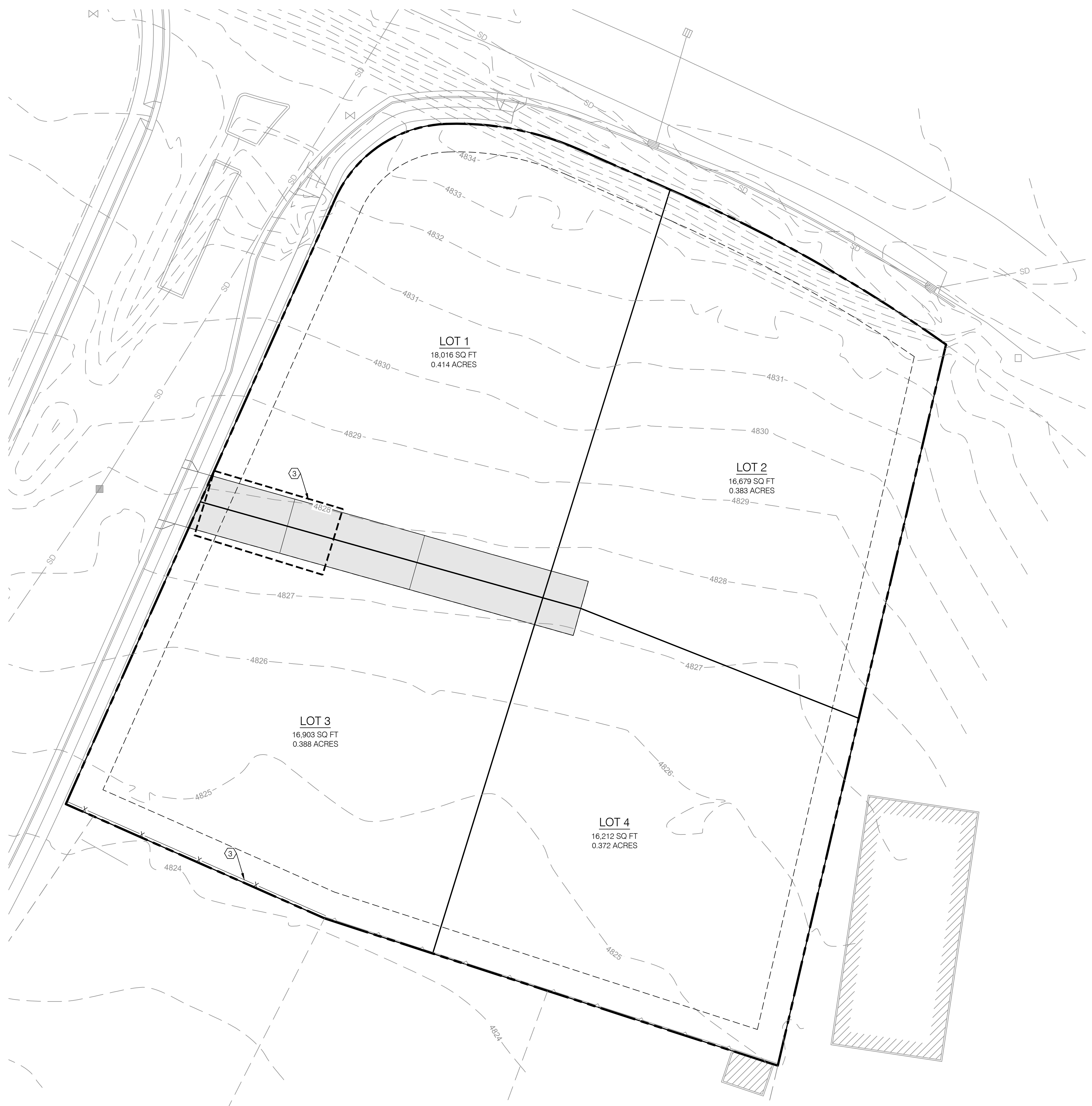
PRELIMINARY



SWPP KEY NOTES REFERENCE

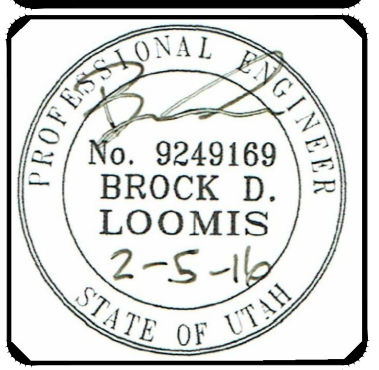
PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS.

NO.	DESCRIPTION	DETAIL
①	SEDIMENT BARRIER	3/CDT.03
②	TEMPORARY CONSTRUCTION ENTRANCE	2/CDT.03
③	SILT FENCE	1/CDT.03



NO.	DATE	DESCRIPTION

DRAWN BY: BDL
 CHECKED BY: SUREY
 FIELD CREW: SUREY
 DATE: 02/02/2016
 PWS FILE: 1512209SIB



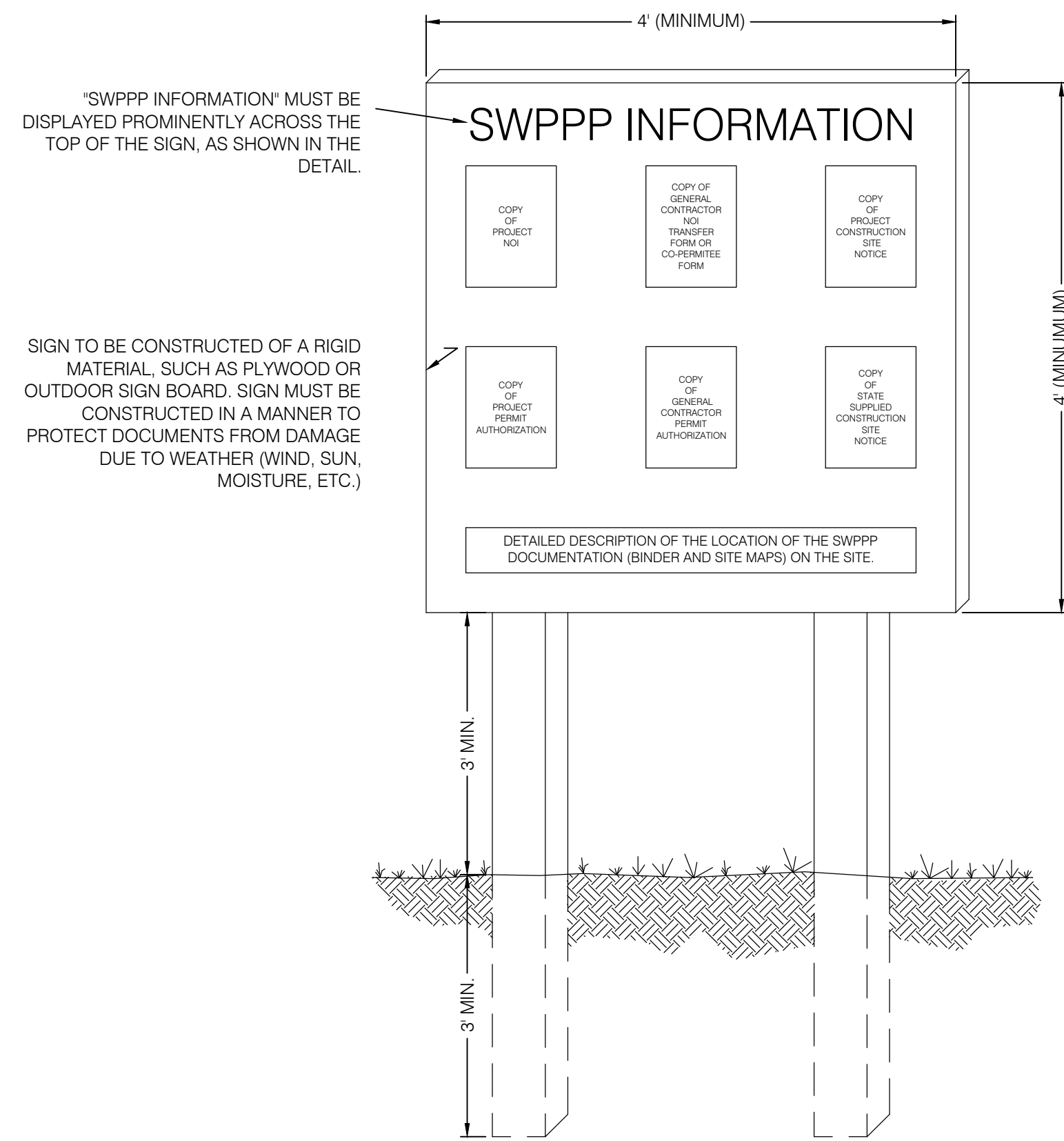
BENCHMARK ENGINEERING & LAND SURVEYING
 9130 SOUTH STATE STREET SUITE # 100
 SANDY, UTAH 84070 (801) 542-7192
 www.benchmarkcivil.com

MOUNTAINS EDGE SUBDIVISION
 2060 EAST RYAN CIRCLE
 WEBER COUNTY, UTAH

PROJECT NO. 1512209
EROSION CONTROL PLAN
 CEP.01
 6 OF 8

CALL BEFORE YOU DIG.
 IT'S FREE & IT'S THE LAW.
 BLUE STAKES OF UTAH
 UTILITY NOTIFICATION CENTER
 1-800-662-4111
 www.bluestakes.org

PRELIMINARY

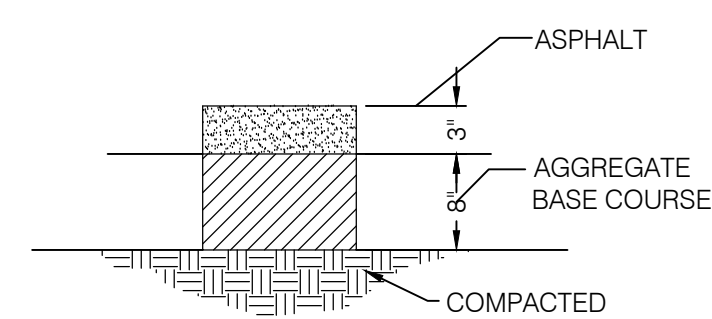


- NOTES:
- 1) THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
 - 2) ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-TO-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

(NOT TO SCALE)

1

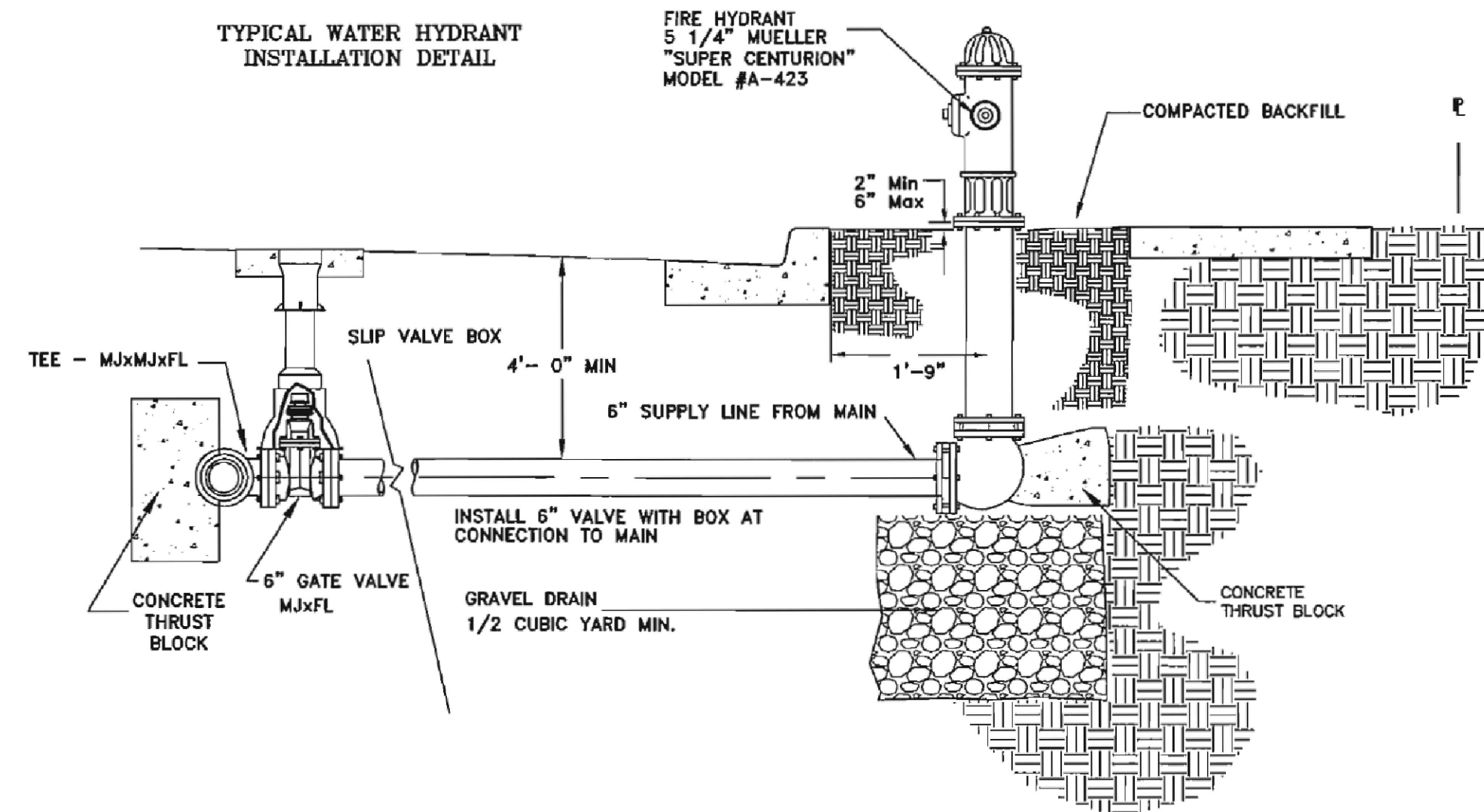


STANDARD DUTY PAVEMENT

PAVEMENT SECTIONS

SCALE: N.T.S.

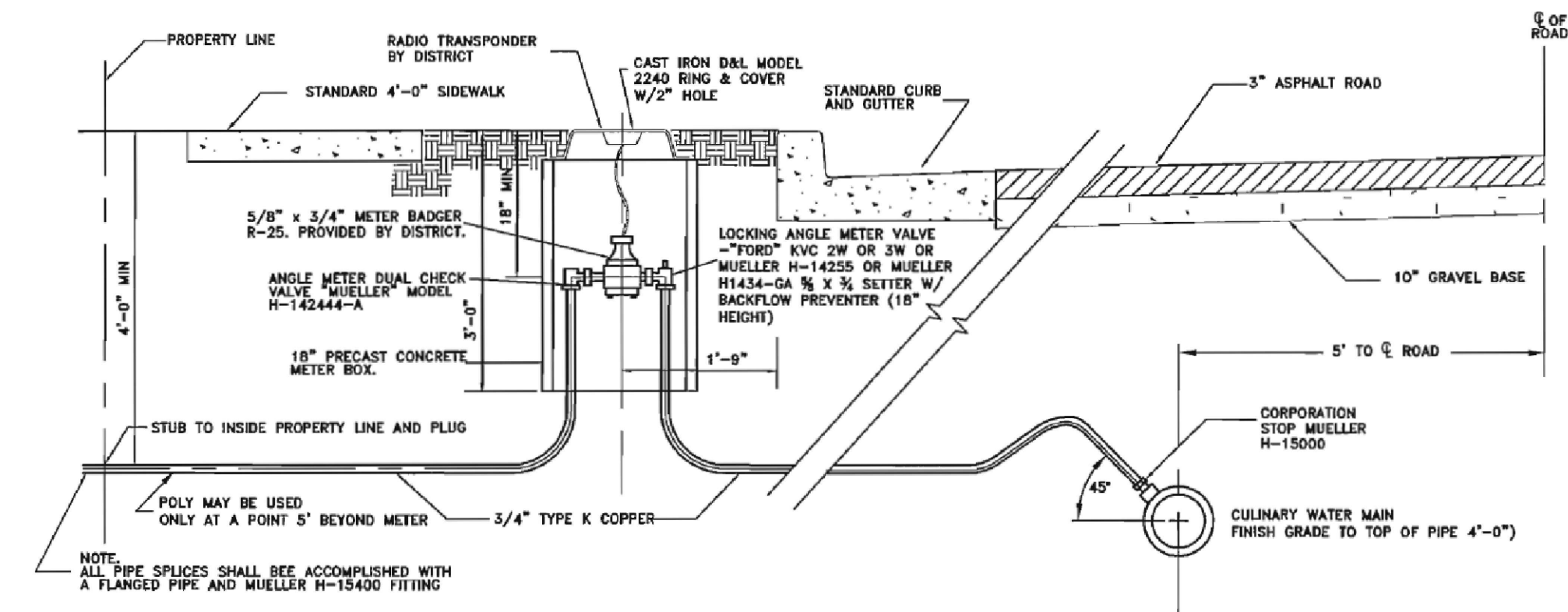
4



TYPICAL FIRE HYDRANT CONNECTION

SCALE: N.T.S.

2

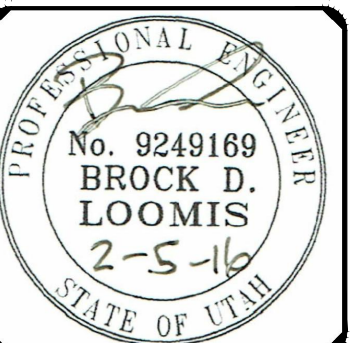


TYPICAL WATER CONNECTION

SCALE: N.T.S.

3

DESCRIPTION	NO.	DATE
BY: BDL		
CHECKED BY: BDL		
DESIGNED BY: SUREY		
DATE: 02/02/2016		
DWG. FILE: 1512209SIB		



BENCHMARK ENGINEERING & LAND SURVEYING
 910 SOUTH STATE STREET SUITE #100
 SANDY, UTAH 84070 (801) 542-7192
 www.benchmarkcivil.com

MOUNTAINS EDGE SUBDIVISION
 2060 EAST RYAN CIRCLE
 WEBER COUNTY, UTAH

PRELIMINARY PROJECT NO. 1512209
DETAILS AND NOTES
 CDT.01
 8 OF 8

PRELIMINARY

SCALE: MEASURES IN CHAIN ON FULL SIZE SHEETS
 ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS