

ARROWHEAD Meadow Subdivision Phase 1

CONSTRUCTION DOCUMENTS Weber County, Utah

TRAFFIC CONTROL & SAFETY NOTES

1. BARRICADING AND DETOURING SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE CURRENT STATE OF UTAH DEPARTMENT OF TRANSPORTATION MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES, AND THE CURRENT CITY STANDARD DRAWING, AND SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO ANY WORK.
2. NO STREET SHALL BE CLOSED TO TRAFFIC WITHOUT WRITTEN PERMISSION FROM THE CITY TRAFFIC ENGINEER, EXCEPT WHEN DIRECTED BY LAW ENFORCEMENT OR FIRE OFFICIALS.
3. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROVIDE FOR SMOOTH TRAFFIC FLOW AND SAFETY. ACCESS SHALL BE MAINTAINED FOR ALL PROPERTIES ADJACENT TO THE WORK.
4. DETOURING OPERATIONS FOR A PERIOD OF SIX CONSECUTIVE CALENDAR DAYS, OR MORE, REQUIRE THE INSTALLATION OF TEMPORARY STREET STRIPING AND REMOVAL OF INTERFERING STRIPING BY SANDBLASTING. THE DETOURING STRIPING PLAN OR CONSTRUCTION TRAFFIC CONTROL PLAN MUST BE SUBMITTED TO THE CITY TRAFFIC ENGINEER FOR REVIEW AND APPROVAL.
5. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE END OF THE WORK TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER
6. TRAFFIC CONTROL DEVICES (TCDs) SHALL REMAIN VISIBLE AND OPERATIONAL AT ALL TIMES.

UTILITY DISCLAIMER

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.

NOTICE TO CONTRACTOR

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS OF THE U.S. DEPARTMENT OF LABOR AND THE STATE OF UTAH DEPARTMENT OF INDUSTRIAL RELATIONS CONSTRUCTION SAFETY ORDERS". THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONTRACTORS AND SUBCONTRACTORS COMPLIANCE WITH SAID REGULATIONS AND ORDERS.

CONTRACTOR FURTHER AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB-SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE CIVIL 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 THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

SANITARY SEWER GENERAL NOTES

1. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN CONFORMANCE WITH CITY STANDARDS AND SPECIFICATIONS.
2. ALL GRAVITY SANITARY SEWER LINES SHALL BE SDR-35 PVC MATERIAL. SEWER LINE CONSTRUCTION AND MATERIALS SHALL CONFORM TO ASTM STANDARDS AND SPECIFICATIONS.
3. DISTANCES SHOWN ON PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT.
4. RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATION. PIPELINE CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS, GROUT AND STEEL SHIMS TO ADJUST THE MANHOLE FRAME TO THE REQUIRED FINAL GRADE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS. ALL FRAMES SHALL BE ADJUSTED TO FINAL GRADE.
5. ALL SANITARY SEWER MAIN TESTING SHALL BE IN ACCORDANCE WITH THE CITY STANDARDS AND SPECIFICATIONS. COPIES OF ALL TEST RESULTS SHALL BE PROVIDED TO THE PUBLIC WORKS SANITARY SEWER DEPARTMENT HEAD PRIOR TO FINAL ACCEPTANCE.
6. COMPACTION TESTING OF ALL TRENCHES WITH THE PROJECT SITE MUST BE ATTAINED AND RESULTS SUBMITTED TO THE CITY ENGINEER PRIOR TO FINAL ACCEPTANCE.
7. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING STRUCTURES AND IMPROVEMENTS DURING INSTALLATION OF SANITARY SEWER LINE.
8. WHERE CONNECTION TO EXISTING UTILITY IS PROPOSED, CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION AND NOTIFY OWNER/ENGINEER IF LOCATION AND ELEVATION OF EXISTING UTILITY VARIES FROM THE DESIGN.
9. CAMERA TESTING AND PRESSURE TESTING PER CITY STANDARD.

GENERAL NOTES

1. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION OF SITE IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH BY THE CITY ENGINEER, PLANNING, CODES AND SPECIFICATIONS AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT THE CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE DESIGNATED PUBLIC WORKS INSPECTOR AT LEAST 48 HOURS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY, OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS.
4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE CITY AND ALL UTILITY COMPANIES INVOLVED WITH REGARD TO RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITIES DURING CONSTRUCTION AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH A MINIMUM DISRUPTION OF SERVICE.
5. THE CONTRACTOR SHALL HAVE ONE (1) COPY OF APPROVED PLANS, AND ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB, ON SITE AT ALL TIMES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.
7. IF DURING THE CONSTRUCTION PROCESS CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR, HIS SUBCONTRACTORS, OR OTHER AFFECTED PARTIES, WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR DESIGNATED TO BE PROVIDED, INSTALLED, CONSTRUCTED, REMOVED AND RELOCATED UNLESS SPECIFICALLY NOTED OTHERWISE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT DRAWINGS ON A SET OF RECORD DRAWINGS KEPT AT THE CONSTRUCTION SITE, AND AVAILABLE TO THE CITY INSPECTOR AT ALL TIMES.
11. THE CONTRACTOR SHALL SEQUENCE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO MINIMIZE POTENTIAL UTILITY CONFLICTS. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION OF WATER LINES AND DRY UTILITIES.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL UTILITY RELOCATIONS CONSISTENT WITH THE CONTRACTORS SCHEDULE FOR THIS PROJECT, WHETHER SHOWN OR NOT SHOWN AS IT RELATES TO THE CONSTRUCTION ACTIVITIES CONTEMPLATED IN THESE PLANS.
13. ALL IMPROVEMENTS NEED TO BE EITHER INSTALLED OR ESCROWED FOR PRIOR TO RECORDING OF THE SUBDIVISION.

SWPPP GENERAL NOTES

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AS REQUIRED BY THE CITY AND STATE.
2. ALL STRUCTURAL EROSION MEASURES SHALL BE INSTALLED AS SHOWN ON THE SWPP PLAN, PRIOR TO ANY OTHER GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS ARE STABILIZED WITH HARD SURFACE OR LANDSCAPING.

STORM SEWER GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
A) OBTAIN ALL REQUIRED PERMITS FROM THE CITY OR REGULATORY AGENCIES, INCLUDING PERMITS TO WORK IN THE RIGHT-OF-WAY.
B) RESTORATION OF EXISTING IMPROVEMENTS INCLUDING BUT NOT LIMITED TO FENCES, SOD, LANDSCAPING, PAVEMENT, SPRINKLER SYSTEM.
C) VERIFICATION AND PROTECTION OF ALL EXISTING IMPROVEMENTS WITHIN THE LIMITS OF CONSTRUCTION.
D) PROVIDING AS-BUILT DRAWINGS TO THE CITY AND THE ENGINEER.
E) ALL PERMITTING, DEVELOPMENT, LOCATION, CONNECTION AND INSPECTION AND SCHEDULING FOR SUCH.
2. ALL STORM SEWER CONNECTIONS SHALL BE IN CONFORMANCE WITH CITY STANDARDS AND SPECIFICATIONS.
3. RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATION. PIPELINE CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS, GROUT, AND STEEL SHIMS TO ADJUST THE MANHOLE FRAME TO THE REQUIRED FINAL GRADE IN CONFORMANCE WITH CITY STANDARDS AND SPECIFICATIONS AND PLANS. ALL FRAMES SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACEMENT OF ASPHALT PAVING.
4. COMPACTION OF ALL TRENCHES WITHIN THE PROJECT SITE MUST BE ATTAINED AND COMPACTION RESULTS SUBMITTED TO THE ENGINEER AND THE CITY PRIOR TO FINAL ACCEPTANCE.
5. ALL STORM DRAIN PIPES IN THE CITY RIGHT-OF-WAY SHALL BE RCP CL III.
6. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH THE PAVEMENT AND SHALL HAVE TRAFFIC BEARING LIDS. ALL STORM SEWER LIDS SHALL BE LABELED "STORM DRAIN".
7. WHERE CONNECTION TO EXISTING UTILITY IS PROPOSED, CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION AND NOTIFY OWNER/ENGINEER IF LOCATION AND ELEVATION OF EXISTING UTILITY VARIES FROM THE DESIGN.

GENERAL GRADING NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APWA STANDARDS AND SPECIFICATION FOR PUBLIC WORKS AND THE CITY STANDARDS. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING FOUNDATIONS AND ENTRIES. FINISHED GRADE AT FOUNDATION FOR WOOD FRAMED STRUCTURES SHALL BE 8 INCHES BELOW TOP OF FOUNDATION AND DRAINAGE SHALL BE A MINIMUM OF 5% WITHIN 10 FEET FROM THE BUILDING.
2. MAXIMUM SLOPES SHALL BE 3:1 FOR CUT AND FILL UNLESS OTHERWISE NOTED.
3. COMPACTION REQUIREMENTS AND TESTING SHALL BE PERFORMED TO MEET THE CITY STANDARDS.
4. NO FILL SHALL BE PLACED UNTIL VEGETATION HAS BEEN REMOVED AND SUB-GRADE PREPARED PER THE SOILS REPORT.
5. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS.
6. CONTRACTOR SHALL COMPLY WITH STORM WATER POLLUTION PREVENTION PLAN BY INSTALLING BMP'S PRIOR TO COMMENCEMENT OF EXCAVATION ACTIVITIES. CONTACT THE CITY INSPECTOR FOR INSPECTION.
7. ALL RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ALL SUBSEQUENT REPORTS, ADDENDUM ETC. SHALL BE CONSIDERED A PART OF THIS GRADING PLAN AND SHALL BE COMPLIED WITH.
8. THE CONTRACTOR SHALL CONTACT BLUE STAKES FOR LOCATION MARKING PRIOR TO COMMENCING EXCAVATION ACTIVITIES.
9. CITY MAY REQUIRE A PRE-CONSTRUCTION MEETING BEFORE A PERMIT IS ISSUED.
10. STREETS ADJACENT TO THE PROJECT SHALL BE CLEAN AT ALL TIMES.
11. CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR ALL REQUIRED INSPECTIONS.
12. PRIOR TO TAKING WATER FROM A CITY FIRE HYDRANT, THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE WATER UTILITY TO OBTAIN A WATER METER.

CULINARY WATER GENERAL NOTES

1. ALL INSTALLATION AND MATERIALS SHALL CONFORM TO WATER UTILITY STANDARDS, SPECIFICATIONS AND PLANS.
2. THRUST BLOCKING IS REQUIRED AT ALL BENDS AND FITTINGS. THE RODS SHALL BE USED AT ALL BENDS AND FITTINGS WHERE THRUST BLOCKS DO NOT BEAR AGAINST UNDISTURBED SOIL.
3. ALL WATERLINES AT SEWER CROSSINGS SHALL BE LOCATED ABOVE AND HAVE AN 18-INCH VERTICAL SEPARATION FROM THE SEWER PIPE. IF THIS IS NOT PROVIDED, THE WATERLINE SHALL BE INSTALLED WITH 20 L.F. OF CONCRETE CASING CENTERED OVER THE SEWER PIPE.
4. DISINFECTION TESTS SHALL BE PERFORMED BY THE WATER UTILITY WITH COOPERATION FROM THE CONTRACTOR IN PERFORMING ANY NECESSARY EXCAVATION AND SUBSEQUENT BACKFILLING AT NO COST TO THE CITY.
5. CHLORINATION OF COMPLETED WATER LINE. THE NEW WATER LINES SHALL BE DISINFECTED BY CHLORINATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL RELATED COSTS AND FEES RELATED TO THE CHLORINATION OF THE COMPLETED WATER LINE. THIS TEST SHALL BE PERFORMED PRIOR TO CONNECTION OF THE NEW WATER LINES TO THE EXISTING WATER SYSTEM. THE CONTRACTOR SHALL NOTIFY THE WATER UTILITY AT LEAST 24 HOURS BEFORE THE CHLORINATION IS DESIRED.
6. A MINIMUM HORIZONTAL CLEARANCE OF 10 FEET SHALL BE MAINTAINED FROM SANITARY SEWER MAINS.
7. UNLESS OTHERWISE SPECIFIED, ALL WATERLINES SHALL BE AWWA C900 PVC CLASS 150, PER ASTM D2241.
8. CONTRACTOR SHALL LOCATE VALVES PRIOR TO CONNECTION WITH EXISTING SYSTEM, BUT SHALL NOT OPERATE ANY VALVE WITHOUT PERMISSION FROM THE WATER UTILITY.
9. ALL WATER MAINS, VALVES, FIRE HYDRANTS, SERVICES AND APPURTENANCES SHALL BE INSTALLED, TESTED, AND APPROVED PRIOR TO PAVING.
10. THERE SHALL BE A WATER SUPPLY TO THE DEVELOPMENT BEFORE ANY WOOD CONSTRUCTION STARTS.
11. THE WATER UTILITY REQUIRES THE USE OF CORROSION RESISTANT MATERIALS FOR ALL CULINARY WATER IMPROVEMENTS. SPECIFICALLY, ROMAC BLUE BOLTS OR STAINLESS STEEL BOLTS MUST BE USED ON ALL FITTINGS. FURTHER, ALL METAL FITTINGS SHALL BE POLY WRAPPED.
12. IF CULINARY WATER IS UNAVAILABLE, AN ALTERNATIVE MEANS OF FIRE PROTECTION MUST BE PROVIDED. DEVELOPER AGREES TO INSTALL FIRE SUPPRESSION SYSTEMS IN ALL HOMES/LIVING UNITS. IF CULINARY WATER IS BROUGHT IN THEN WEBER COUNTY WILL NEED TO REVISIT THE ISSUE OF FIRE HYDRANTS.
13. SEPARATE SUBMITTAL NOTICE: FIRE SUPPRESSION SYSTEMS AND FIRE ALARM SYSTEMS REQUIRE A SEPARATE SUBMITTAL. A PERMIT SHALL BE APPLIED FOR BEFORE ANY INSTALLATION OF EITHER FIRE SUPPRESSION SYSTEM OR FIRE ALARM SYSTEM. THE PERMIT SHALL BE ON THE JOB SITE AND BE AVAILABLE FOR REVIEW BY ANY INSPECTOR. THE APPROVED STAMPED SET OF PLANS SHALL ALSO BE ON THE JOB SITE AND AVAILABLE FOR REVIEW BY ANY INSPECTOR. IF THERE IS NO PERMIT AND/OR APPROVED STAMPED PLANS ON THE JOB SITE, THERE WILL BE A STOP WORK ORDER ISSUED UNTIL BOTH ARE ON THE JOB SITE. SUBMIT PLANS AT WEBER FIRE DISTRICT, 2023 W. 1300 N. FARR WEST. (SEE IFC SECTION 901.2 AND 907.1.1).
14. EXTERIOR NOTIFICATION DEVICE: THERE SHALL BE A WEATHERPROOF HORN/STROBE DEVICE LOCATED ON THE STREET SIDE OF THE BUILDING AS APPROVED BY THE FIRE PREVENTION DIVISION (COORDINATE WITH FIRE INSPECTOR REGARDING LOCATION). SUCH SPRINKLER WATERFLOW ALARM DEVICES SHALL BE ACTIVATED BY WATER FLOW EQUIVALENT TO THE FLOW OF A SINGLE SPRINKLER OF THE SMALLEST ORIFICE SIZE INSTALLED IN THE SYSTEM. (SEE IFC 903.4.2)
15. PROVIDE A TEMPORARY ADDRESS MARKER AT THE BUILDING SITE DURING CONSTRUCTION. THE ADDRESS NUMBERS, WHETHER ON THE BUILDING OR THE SIGN, SHALL BE LEGIBLE FONT. (SEE IFC 505.1) (SEE IFC 505.1)
16. FIRE ACCESS ROADS FOR THIS PROJECT SHALL BE COMPLETED AND APPROVED PRIOR TO ANY COMBUSTIBLE CONSTRUCTION. TEMPORARY ROADS SHALL MEET THE SAME REQUIREMENTS FOR HEIGHT, WIDTH, AND IMPOSED LOADS AS PERMANENT ROADS (SEE IFC SECTION 503.2.3; 3310; AND D102.1).
17. FIRE ACCESS TO BUILDINGS AND FACILITIES: FIRE ACCESS ROADS ARE REQUIRED FOR ALL FACILITIES, BUILDINGS, OR PORTIONS OF BUILDINGS. ACCESS ROADS SHALL EXTEND TO WITHIN 150 FEET OF ALL PORTIONS OF THE FACILITY AND ALL PORTIONS OF THE EXTERIOR WALLS OF THE FIRST STORY OF THE BUILDING AS MEASURED BY AN APPROVED ROUTE. (SEE IFC 503.1)
18. FLAG LOT ACCESS AND HYDRANT(S): FLAG LOTS POSE DIFFICULTIES FOR THE FIRE DEPARTMENT FOR BOTH ACCESS AND WATER SUPPLY. AS SUCH THEY SHALL COMPLY WITH:
A. ACCESS: FLAG LOTS MUST MEET THE ACCESS REQUIREMENTS FOR "FIRE ACCESS VIA DRIVEWAYS".
B. HYDRANT(S): HYDRANTS SHALL BE PROVIDED WITHIN 600 FEET OF THE HOME (MEASURED AS THE FIRE VEHICLE WOULD DRIVE- IFC 507.5.1- EXCEPTION 1).
I. WHERE WATERLINES CAPABLE OF SUPPORTING A HYDRANT ARE AVAILABLE TO CONNECT TO, A HYDRANT SHALL BE PROVIDED WITHIN 600 FEET OF THE BUILDING (MEASURED AS THE FIRE VEHICLE WOULD DRIVE).
II. IN CASES WHERE A HYDRANT CANNOT BE PROVIDED DUE TO A LACK OF SUPPORTING WATERLINES, THE OWNER/DEVELOPER MAY PROPOSE TO PROVIDE THE HOME WITH A RESIDENTIAL FIRE SUPPRESSION SYSTEM. THE OWNER/DEVELOPER SHALL REQUEST THIS EXCEPTION IN WRITING. THE REQUEST IS SUBJECT TO REVIEW AND APPROVAL BY THE FIRE MARSHAL. (SEE IFC 507.5.1- EXCEPTION 1 & 2).
19. FIRE ACCESS VIA DRIVEWAYS: DRIVEWAYS SERVING NO MORE THAN 5 RESIDENCES SHALL HAVE A MINIMUM CLEAR WIDTH OF 16 FEET WITH A MINIMUM OF 12 FEET OF DRIVE-ABLE SURFACE (MEASURED FROM FACE OF CURB TO FACE OF CURB) AND A VERTICAL CLEARANCE OF 13 FOOT 6 INCHES AND SHALL SUPPORT A 75,000-POUND LOAD. DRIVEWAYS MORE THAN 150 FEET SHALL BE PROVIDED WITH TURN-AROUNDS. DRIVEWAYS EXCEEDING 200 FEET IN LENGTH AND LESS THAN 20 FEET IN WIDTH SHALL BE PROVIDED WITH TURNOUTS IN ADDITION TO TURNAROUNDS. (SEE DRIVEWAYS- 2006 WILDLAND URBAN INTERFACE CODE USED AS A REFERENCE FOR RESIDENTIAL DRIVEWAY REQUIREMENTS EXCEEDING 150 FEET IN LENGTH). ROADS AND DRIVEWAYS SHALL ALSO COMPLY WITH CITY/COUNTY STANDARDS AS APPLICABLE. IN CASES OF DIFFERING REQUIREMENTS, CONTACT THE FIRE MARSHAL FOR CLARIFICATION.



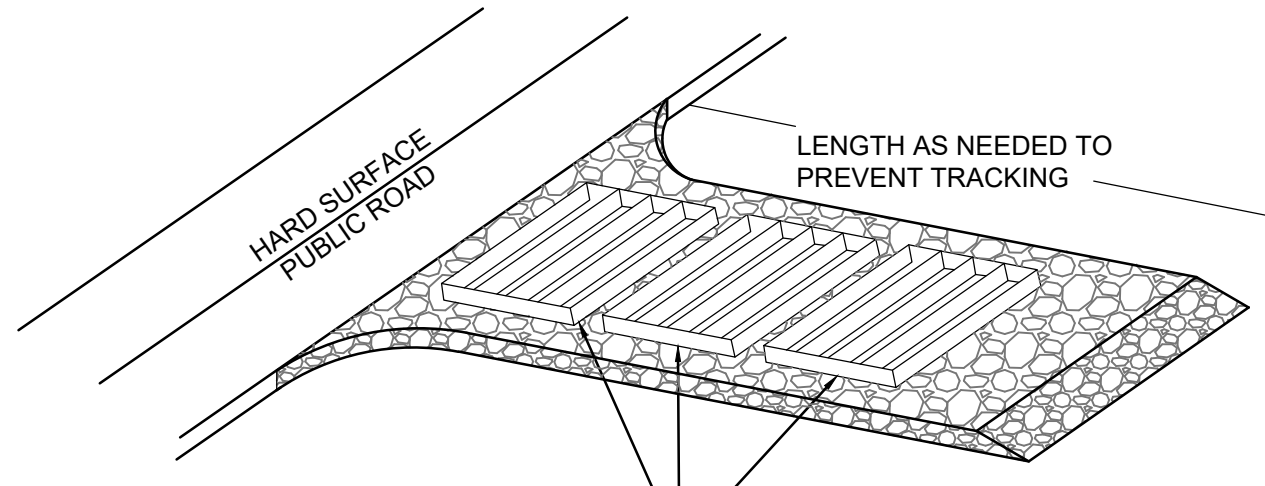
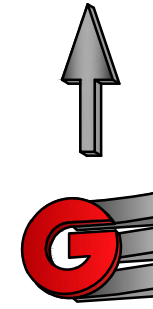
ALL IMPROVEMENTS TO CONFORM TO CURRENT CITY STANDARDS AND SPECIFICATIONS
CULINARY WATER IMPROVEMENTS TO CONFORM TO THE WATER UTILITY'S STANDARDS AND SPECIFICATIONS
SECONDARY WATER IMPROVEMENTS TO CONFORM TO THE SECONDARY WATER UTILITY'S STANDARDS AND SPECIFICATIONS

ARROWHEAD Meadow Subdivision Phase 1

CONSTRUCTION DOCUMENTS

EROSION CONTROL NOTES:

1. SANDBAGS WILL BE PLACED AT DISCHARGE LOCATIONS TO CONTAIN AND DIVERT STORM WATER THROUGH THE INLET PROTECTION.
2. AN EARTHEN BERM 6" HIGH WILL BE CONSTRUCTED TO CONTAIN THE STORM WATER AND DIVERT IT TO DISCHARGE AREAS.
3. STORM WATER WILL BE DISCHARGED INTO AN EXISTING DRAINAGE SYSTEM. EXISTING LINES SHALL BE INSPECTED PRIOR TO CERTIFICATE OF OCCUPANCY AND CLEANED IF NECESSARY.
4. THE STORM WATER POLLUTION PREVENTION PLAN SHALL CONFORM TO ALL STATE DIVISION OF ENVIRONMENTAL PROTECTION REGULATIONS.



A SERIES OF STEEL PLATES (3 OR MORE) WITH RUMBLE STRIPS OR MIN. 3" COARSE AGGREGATE.

ENTRANCE STABILIZATION NOTES:

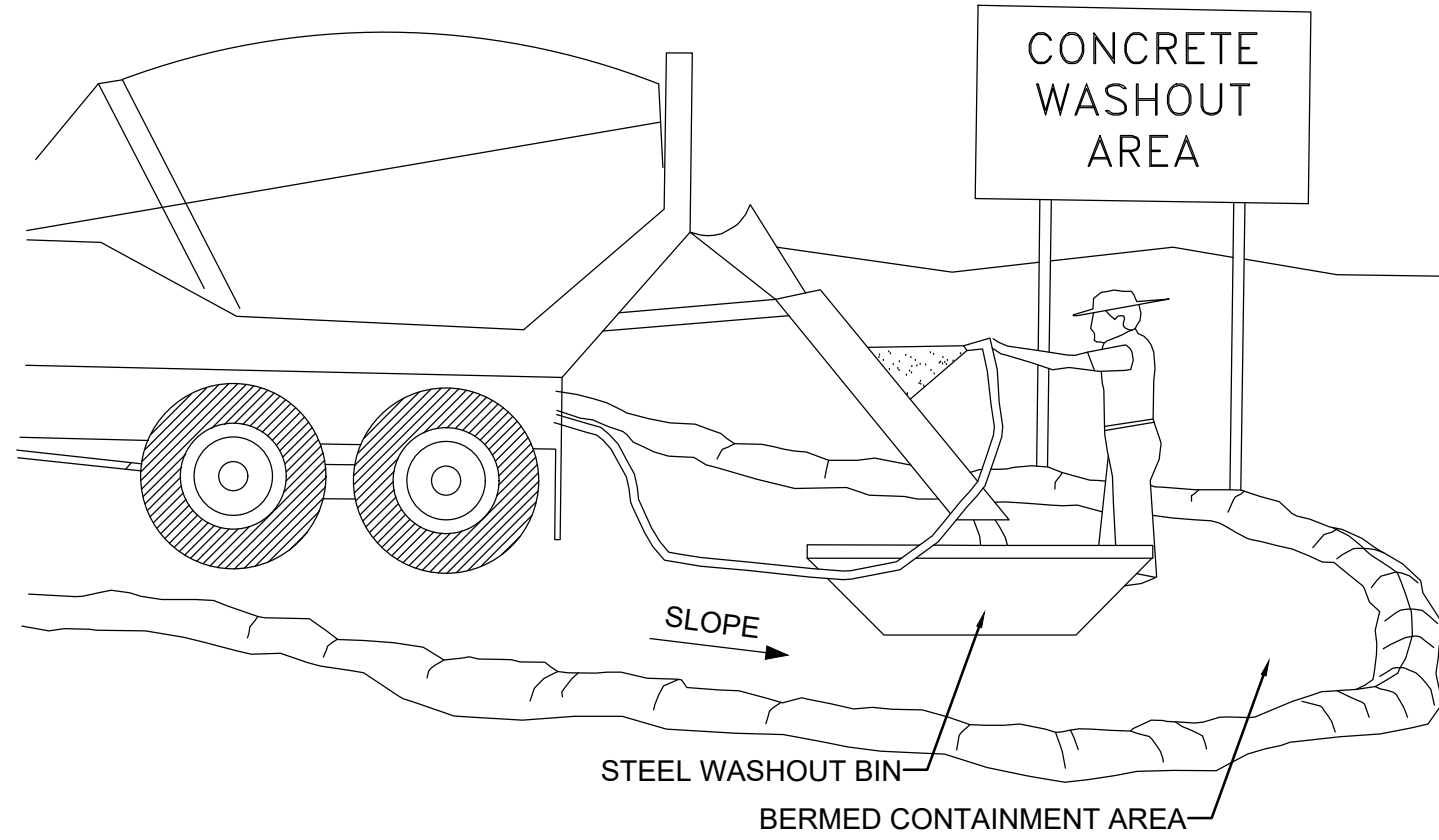
1. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS SHALL BE STABILIZED SO AS TO PREVENT SEDIMENTS FROM BEING DEPOSITED INTO THE STORM DRAIN SYSTEMS. DEPOSITIONS MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS INTO THE STORM DRAIN SYSTEM.
2. STABILIZED CONSTRUCTION ENTRANCE SHALL BE:
 - a. LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY AND SIDEWALK OR PARKING AREA.
 - b. A SERIES OF STEEL PLATES WITH "RUMBLE STRIPS", AND/OR MIN. 3" COARSE AGGREGATE WITH LENGTH, WIDTH AND THICKNESS AS NEEDED TO ADEQUATELY PREVENT ANY TRACKING ONTO PAVED SURFACES.
3. ADDING A WASH RACK WITH A SEDIMENT TRAP LARGE ENOUGH TO COLLECT ALL WASH WATER CAN GREATLY IMPROVE EFFICIENCY.
4. ALL VEHICLES ACCESSING THE CONSTRUCTION SITE SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE SITES.

STREET MAINTENANCE NOTES:

1. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS IMMEDIATELY.
2. SWEEP PAVED AREAS THAT RECEIVE CONSTRUCTION TRAFFIC WHENEVER SEDIMENT BECOMES VISIBLE.
3. PAVEMENT WASHING WITH WATER IS PROHIBITED IF IT RESULTS IN A DISCHARGE TO THE STORM DRAIN SYSTEM.

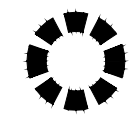
NOTE:

CONTRACTOR SHALL COMPLETE AND SUBMIT A STATE NOTICE OF INTENT (NOI) AND A STORM WATER POLLUTION PREVENTION PLAN BOOKLET

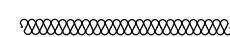


NOTES:

1. EXCESS AND WASTE CONCRETE SHALL BE DISPOSED OF OFF SITE OR AT DESIGNATED AREAS ONLY.
2. EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.
3. FOR WASHOUT OF CONCRETE AND MORTAR PRODUCTS ONSITE, A DESIGNATED CONTAINMENT FACILITY OF SUFFICIENT CAPACITY TO RETAIN LIQUID AND SOLID WASTE SHALL BE PROVIDED.
4. ONSITE CONCRETE WASHOUT CONTAINMENT FACILITY SHALL BE A STEEL BIN OR APPROVED ALTERNATE.
5. SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP AND DISPOSED OF PROPERLY.



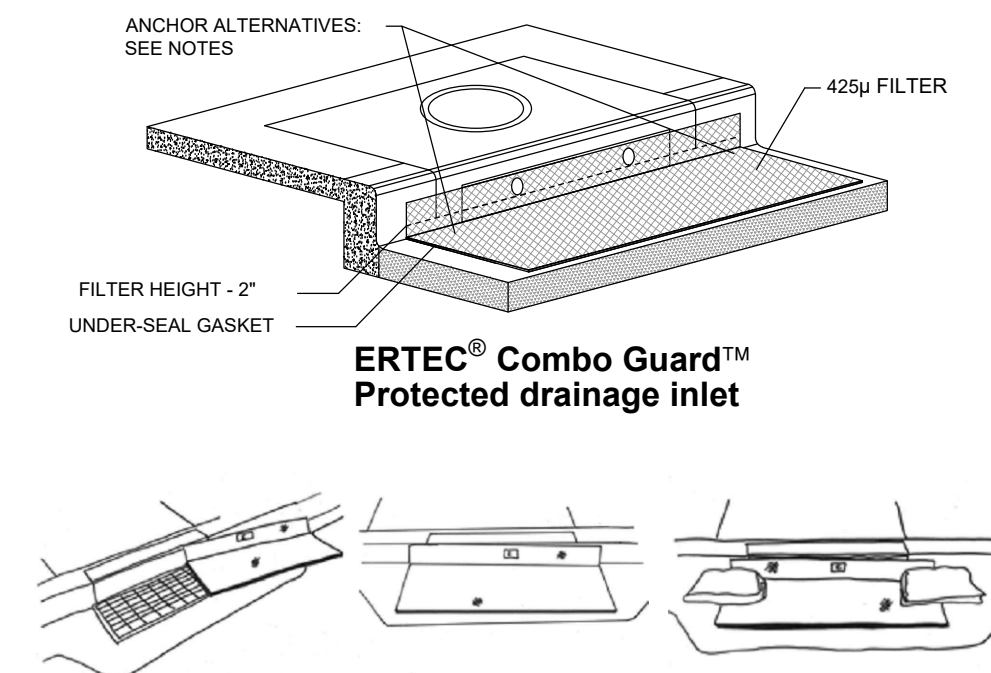
INLET PROTECTION (EITHER OPTION)



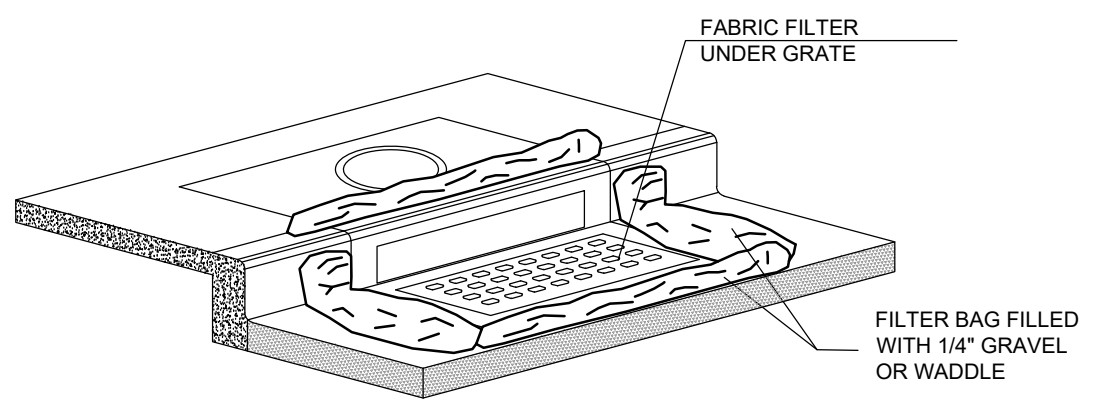
SILT FENCE

INSTALLATION NOTES

1. PLACEMENT: PLACE CG TIGHTLY AGAINST CURB OPENING AND COVER ENTIRE GRATE. CG SHOULD EXTEND AT LEAST 2 INCHES PAST GRATE TOWARDS STREET.
2. OVERLAP FOR LONG OPENINGS: OVERLAP CG UNITS AT LONGER OPENINGS.
3. ANCHOR: ANCHOR CG SO THAT WATER CANNOT FLOW BEHIND IT.
4. ALTERNATE ANCHOR METHODS: A) INSTALL GRAVEL BAGS AT EACH SIDE OF CG - HALF-ON AND HALF-OFF THE EDGES. USE HALF-FILLED GRAVEL BAGS (15 OR 20 LBS), ROUND ROCK IS RECOMMENDED. OR B) ATTACH WITH 16 GAUGE TIE-WIRE. CUT WIRE TO 18" LENGTH. AT EACH CORNER OF CG, FEED ONE END OF WIRE DOWN THROUGH CG, AROUND GRATE BAR, AND BACK UP THRU CG. ABOVE GROUND, TWIST WIRES SEVERAL TIMES, CUT-OFF EXCESS. OR C) FASTEN WITH CONCRETE ANCHORS/NAILS AT THE OUTSIDE EDGES OF CG.



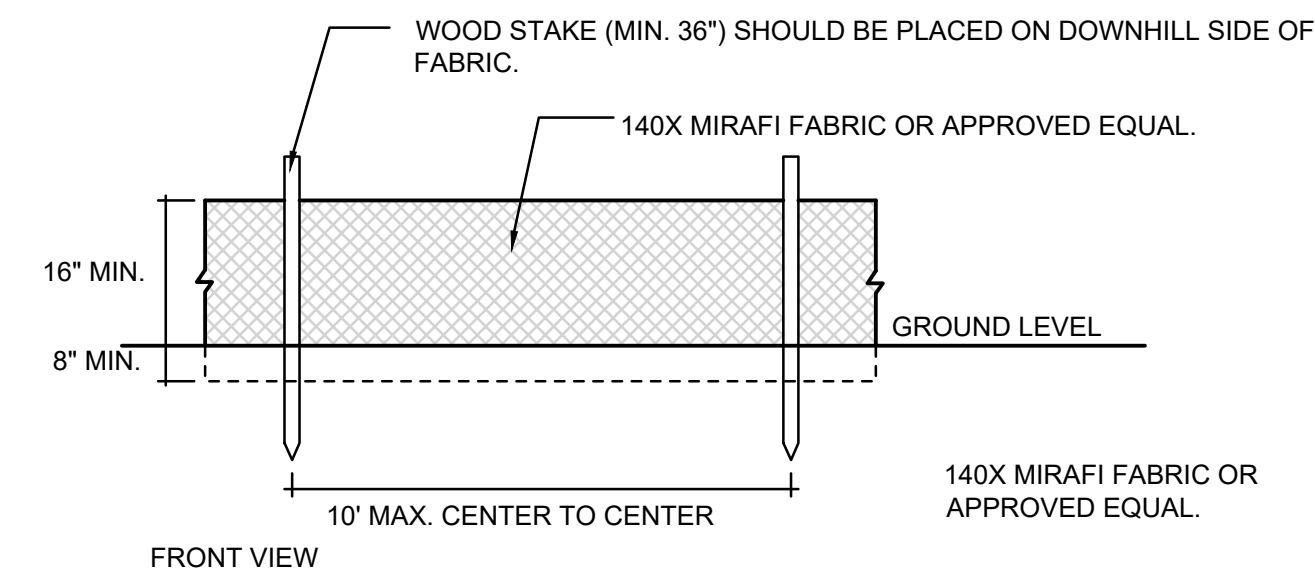
1A INLET PROTECTION - OPTION 1 Scale: NTS



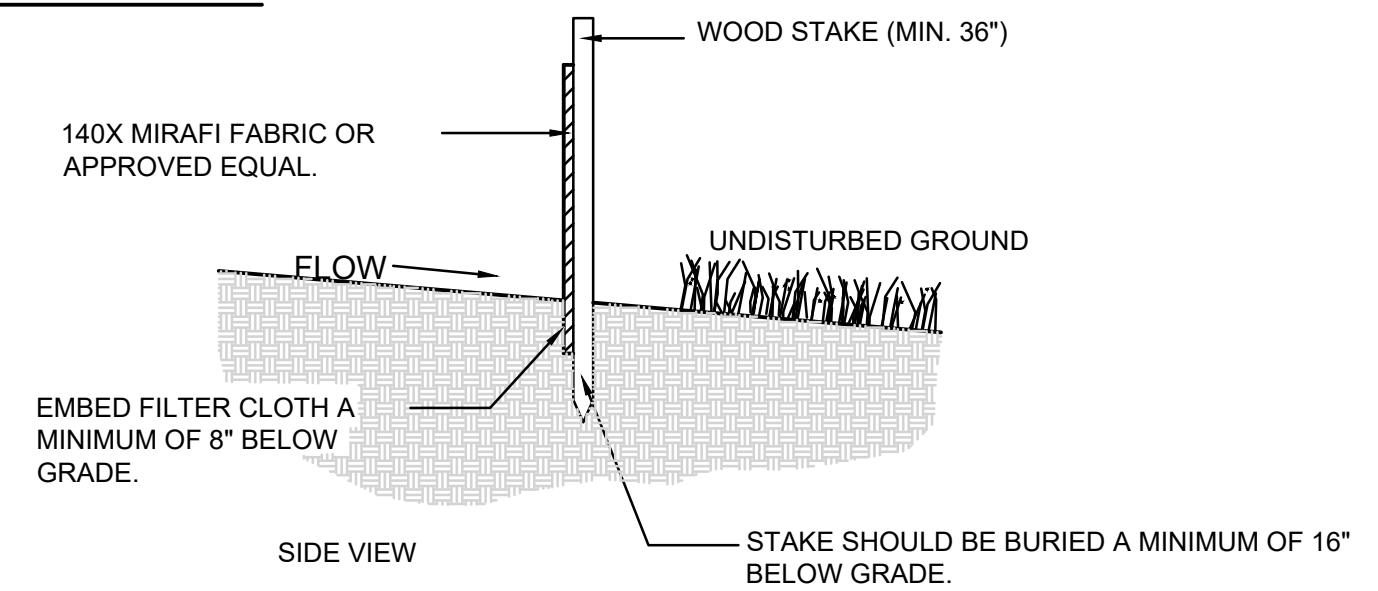
1B INLET PROTECTION - OPTION 2 Scale: NTS



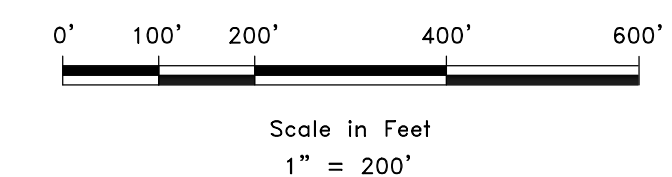
ROBYN G. CARBONELL ROBYN G. CARBONELL



2 SILT FENCE Scale: NTS

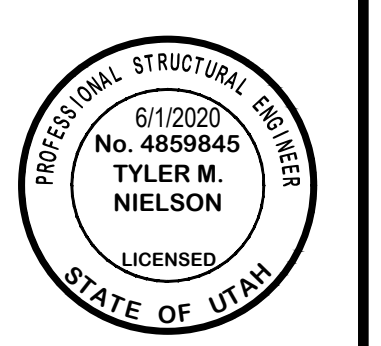


DEVELOPER:
B & H INVESTMENT
CURTIS HYGE
110 W. JENNINGS LANE
CENTERVILLE, UT 84014
801-540-8505



SCALE: 1" = 200'	DATE: 6/1/2020	DESIGN: TWINNIS	DRAWN: WJS	CHECKED: TIM
REVISIONS	DESCRIPTION			
DATE				

DWG: 819208 - B&H INVESTMENT, MONASTERY COVE PHASE 1



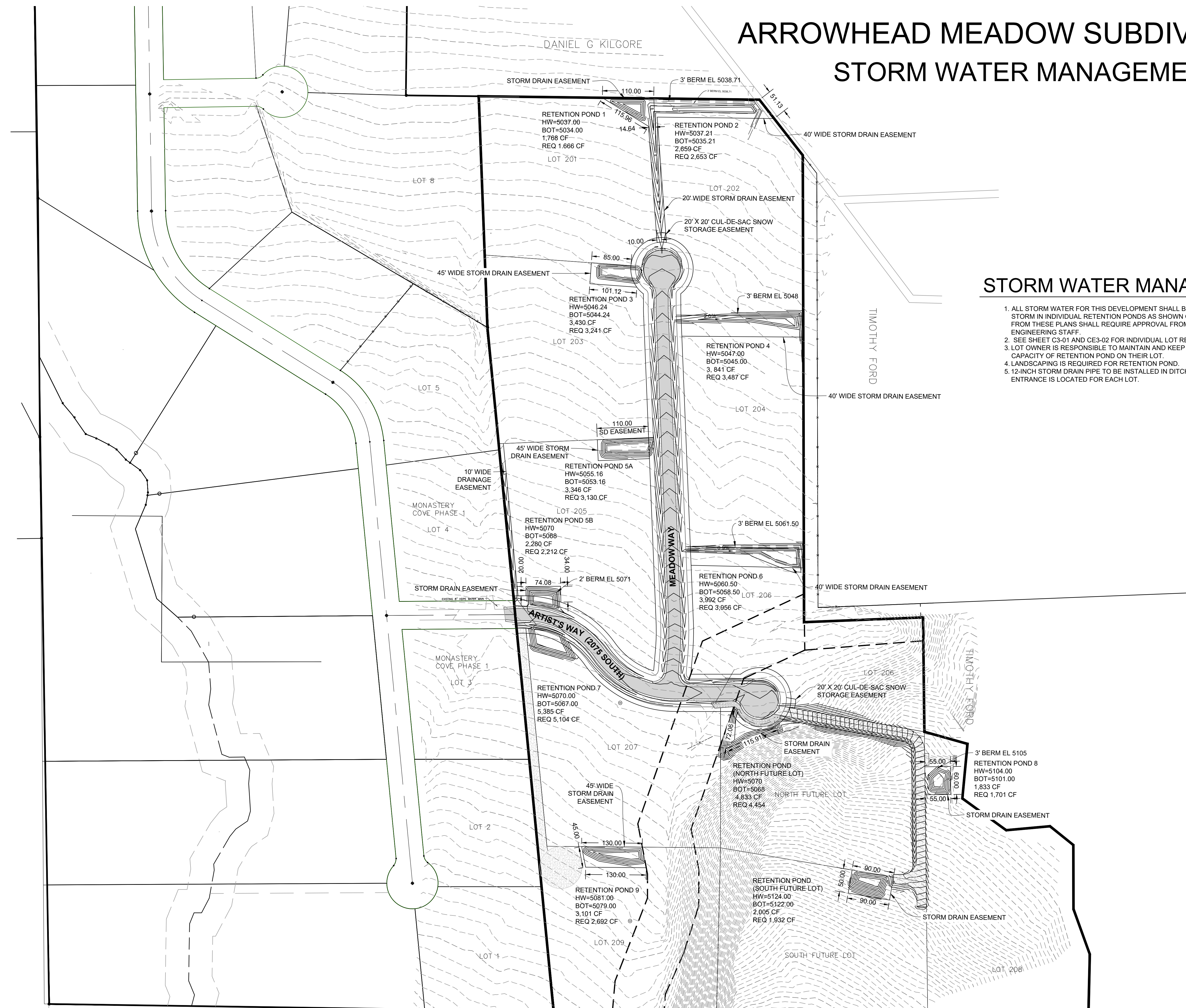
SWPPP
ARROWHEAD MEADOW SUBDIVISION PHASE 1
HUNTSVILLE CITY, WEBER COUNTY, UTAH

GARDNER ENGINEERING
CIVIL-LAND PLANNING
MUNICIPAL-LAND SURVEYING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801-476-0202 FAX: 801-476-0066

CE1-01

ARROWHEAD MEADOW SUBDIVISION PHASE 1

STORM WATER MANAGEMENT PLAN

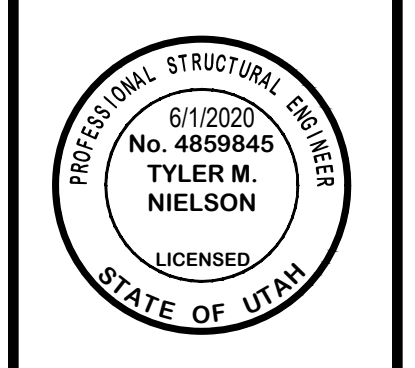


STORM WATER MANAGEMENT NOTES

1. ALL STORM WATER FOR THIS DEVELOPMENT SHALL BE RETAINED FOR THE 100 YEAR STORM IN INDIVIDUAL RETENTION PONDS AS SHOWN ON THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL REQUIRE APPROVAL FROM THE ENGINEER AND WEBER COUNTY ENGINEERING STAFF.
2. SEE SHEET C3-01 AND CE3-02 FOR INDIVIDUAL LOT RETENTION CALCULATIONS.
3. LOT OWNER IS RESPONSIBLE TO MAINTAIN AND KEEP IN PLACE AND NOT DIMINISH CAPACITY OF RETENTION POND ON THEIR LOT.
4. LANDSCAPING IS REQUIRED FOR RETENTION POND.
5. 12-INCH STORM DRAIN PIPE TO BE INSTALLED IN DITCH LOCATION WHERE DRIVEWAY ENTRANCE IS LOCATED FOR EACH LOT.

SCALE	1" = 100'
DATE	6/1/2020
DESIGN	TWINNIS
DRAWN	WJS
CHECKED	TIN

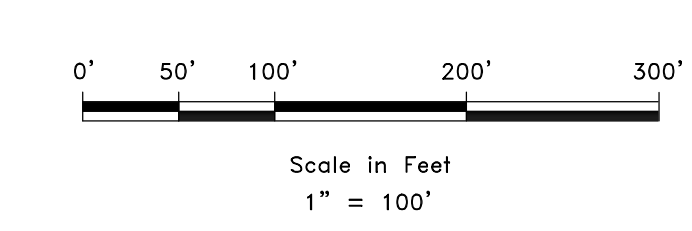
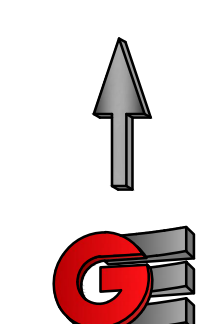
REVISIONS	DESCRIPTION
DATE	



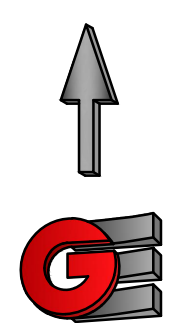
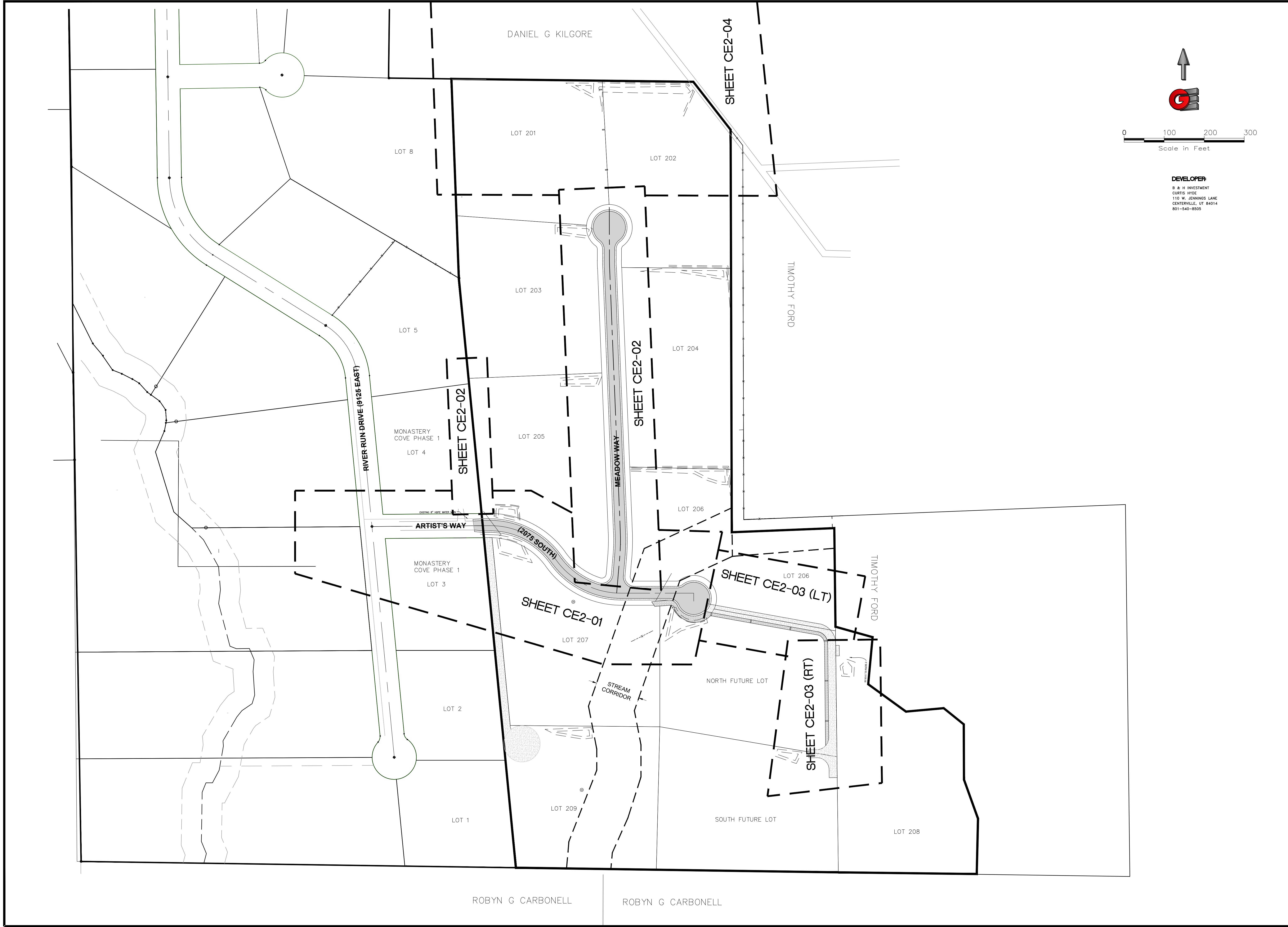
STORM WATER MANAGEMENT PLAN
 ARROWHEAD MEADOW SUBDIVISION PHASE 1
 HUNTSVILLE CITY, WEBER COUNTY, UTAH

GARDNER ENGINEERING
 CIVIL - LAND PLANNING
 MUNICIPAL - LAND SURVEYING
 5150 SOUTH 375 EAST OGDEN, UT
 OFFICE: 801.476.0202 FAX: 801.476.0066

DEVELOPER
 B & H INVESTMENT
 CURTIS HYDE
 110 W. JENNINGS LANE
 CENTERVILLE, UT 84014
 801-540-8505

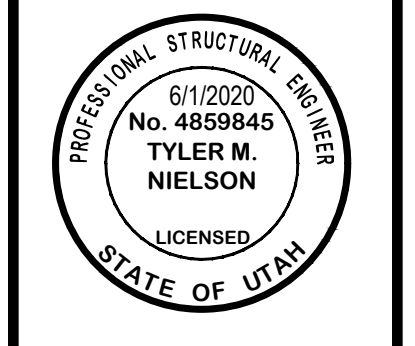


CE1-02



DEVELOPER
 B & H INVESTMENT
 CURTIS HYDE
 110 W. JENNINGS LANE
 CENTERVILLE, UT 84014
 801-540-8505

SCALE	1" = 100'
DATE	6/1/2020
DESIGN	TIMINUS
DRAWN	W.S
CHECKED	TIN
DWG. NO.	844 INVESTMENT MONASTERY COVE DESIGN DWG MONASTERY COVE PH2.DWG



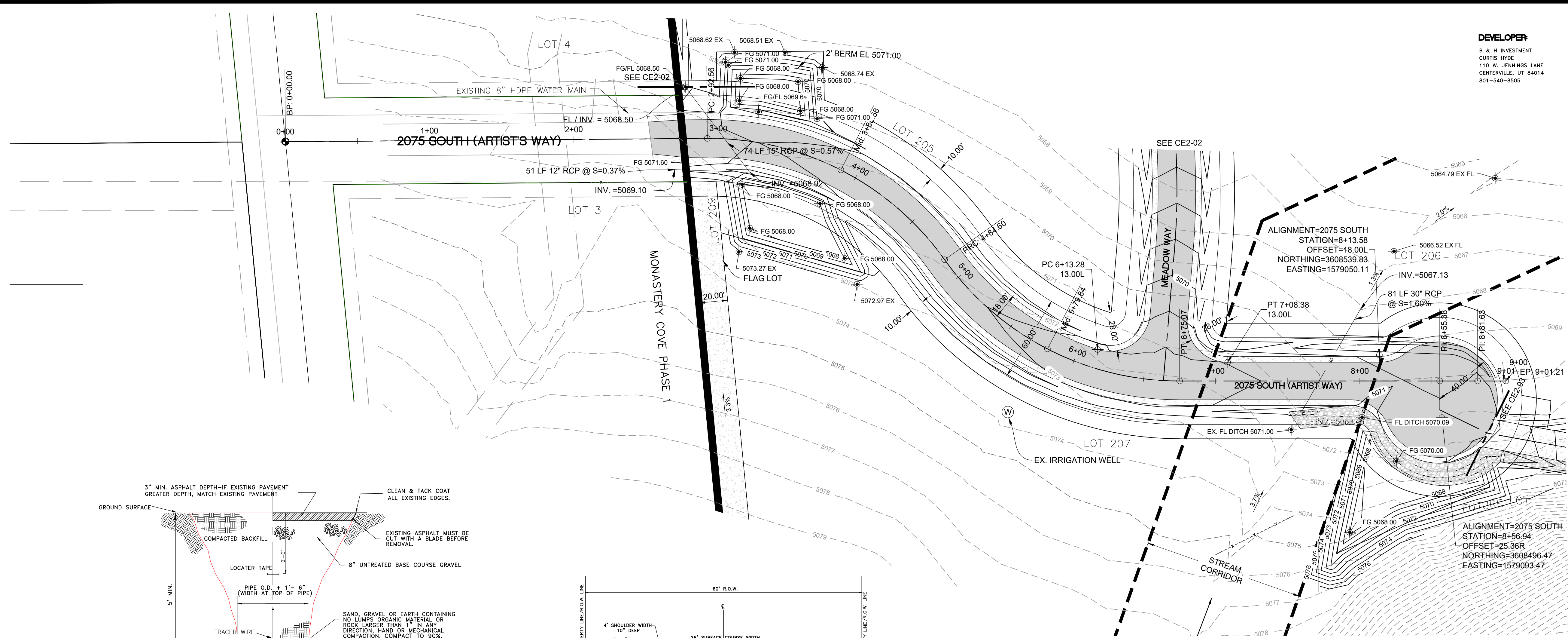
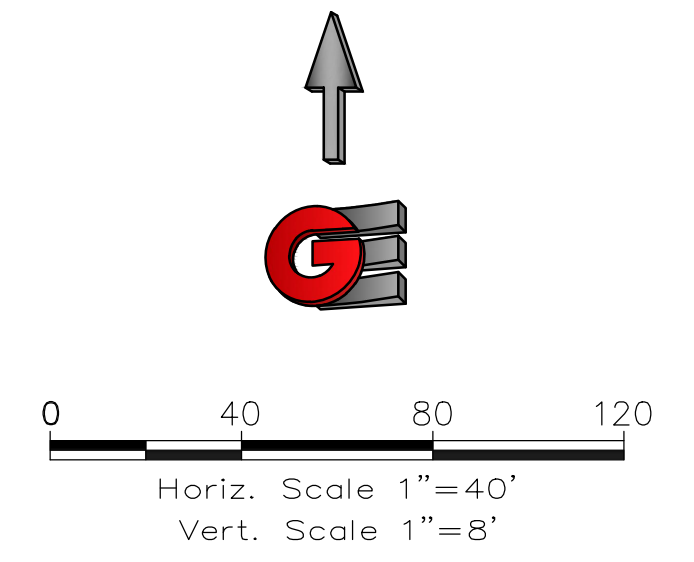
PLAN AND PROFILE KEY PLAN
ARROWHEAD MEADOW SUBDIVISION PHASE 1
 HUNTSVILLE CITY, WEBER COUNTY, UTAH

GARDNER ENGINEERING
 CIVIL - LAND PLANNING
 MUNICIPAL - LAND SURVEYING
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 OFFICE: 801.476.0202 FAX: 801.476.0066

CE2-00

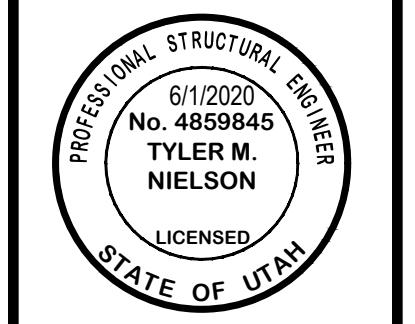
R:\2020 - B&H Investment\Monastery Cove\DESIGN\DWG\Monastery Cove PH2.dwg CE2-00 PLAN AND PROFILE KEY PLAN 6/2/2020 4:53 PM ARCHITECTURE.DWG X 3600 INCHES 1:1

DEVELOPER:
B & H INVESTMENT
CURTIS HYKE
110 W. JENNINGS LANE
CENTERTVILLE, UT 84014
801-540-8505

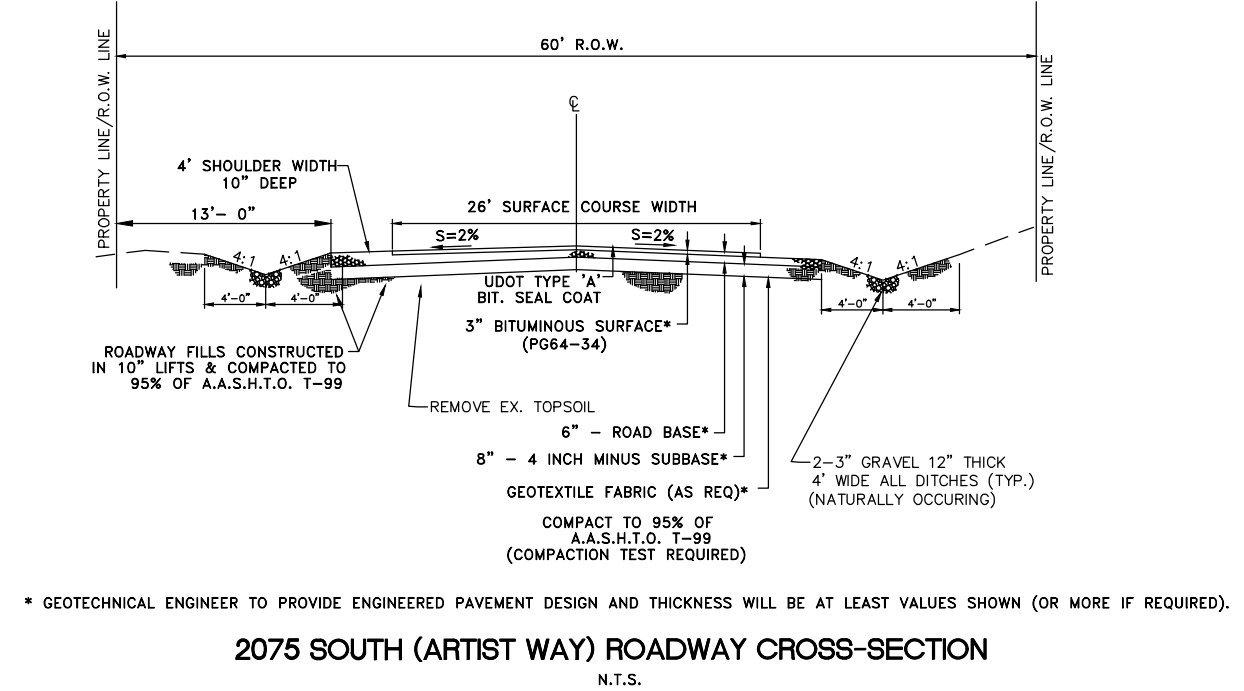
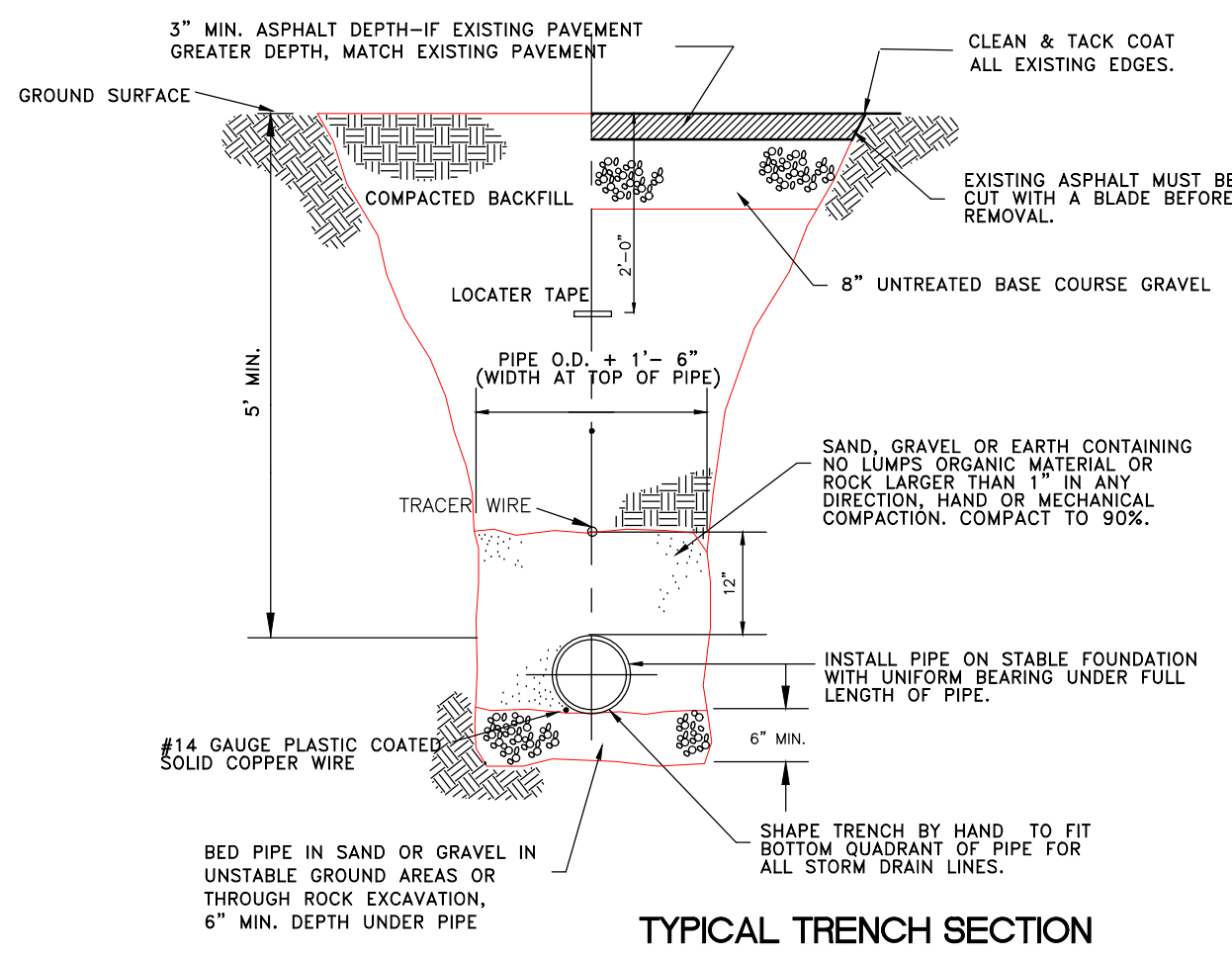


- WATERLINE CONSTRUCTION NOTES:
- NO WATER OR FIRE LINES ARE BEING INSTALLED WITHIN THE PUBLIC RIGHT OF WAY.
 - FUTURE BUILDING FIRE SUPPRESSION SYSTEMS TO BE CONSTRUCTED BY FUTURE LOT OWNER.
 - CULINARY WATER TO BE PROVIDED BY WELLS WHICH ARE TO BE DRILLED BY THE FUTURE LOT OWNER.

SCALE	1"=40'
DATE	6/1/2020
DESIGN	TWINNIS
DRAWN	WJS
CHECKED	TIN
REVISIONS	DESCRIPTION
DATE	

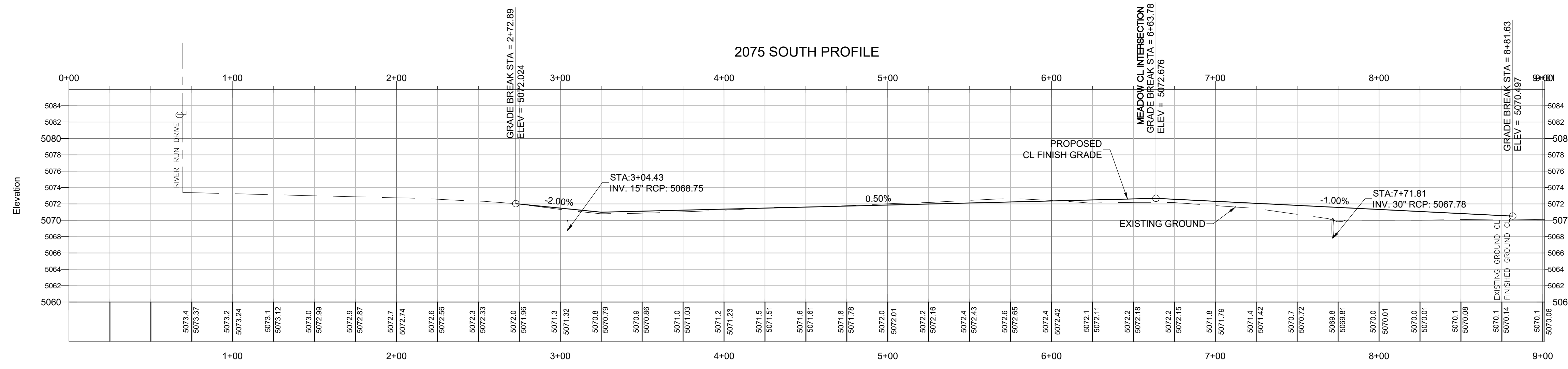


PLAN AND PROFILE
ARROWHEAD MEADOW SUBDIVISION PHASE 1
2075 SOUTH (ARTIST WAY)
HUNTSVILLE CITY, WEBER COUNTY, UTAH



Know what's below. **811**
Call 811 before you dig.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
www.bluestakes.org
1-800-662-4111

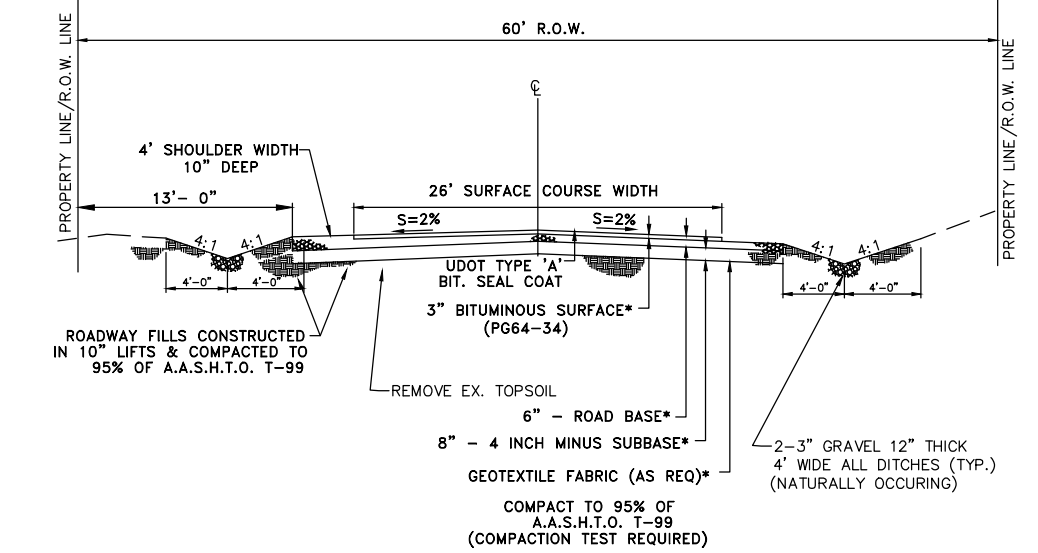
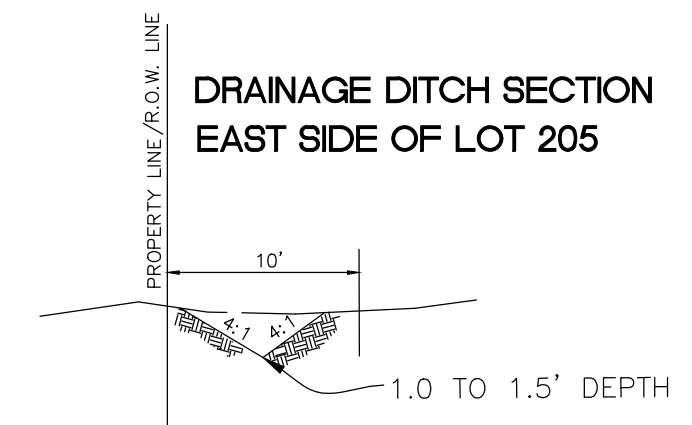
- LEGEND
- CENTERLINE
 - PROPERTY LINE
 - EASEMENT LINE
 - GROUND CONTOURS
 - ASPHALT PAVEMENT
 - 8" ROAD BASE
 - 12" 6-INCH DIA COBBLES



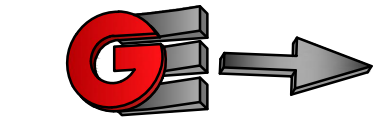
GARDNER ENGINEERING
CIVIL-LAND PLANNING
MUNICIPAL-LAND SURVEYING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801.476.0202 FAX: 801.476.0066

CE2-01

**DRAINAGE DITCH SECTION
EAST SIDE OF LOT 205**



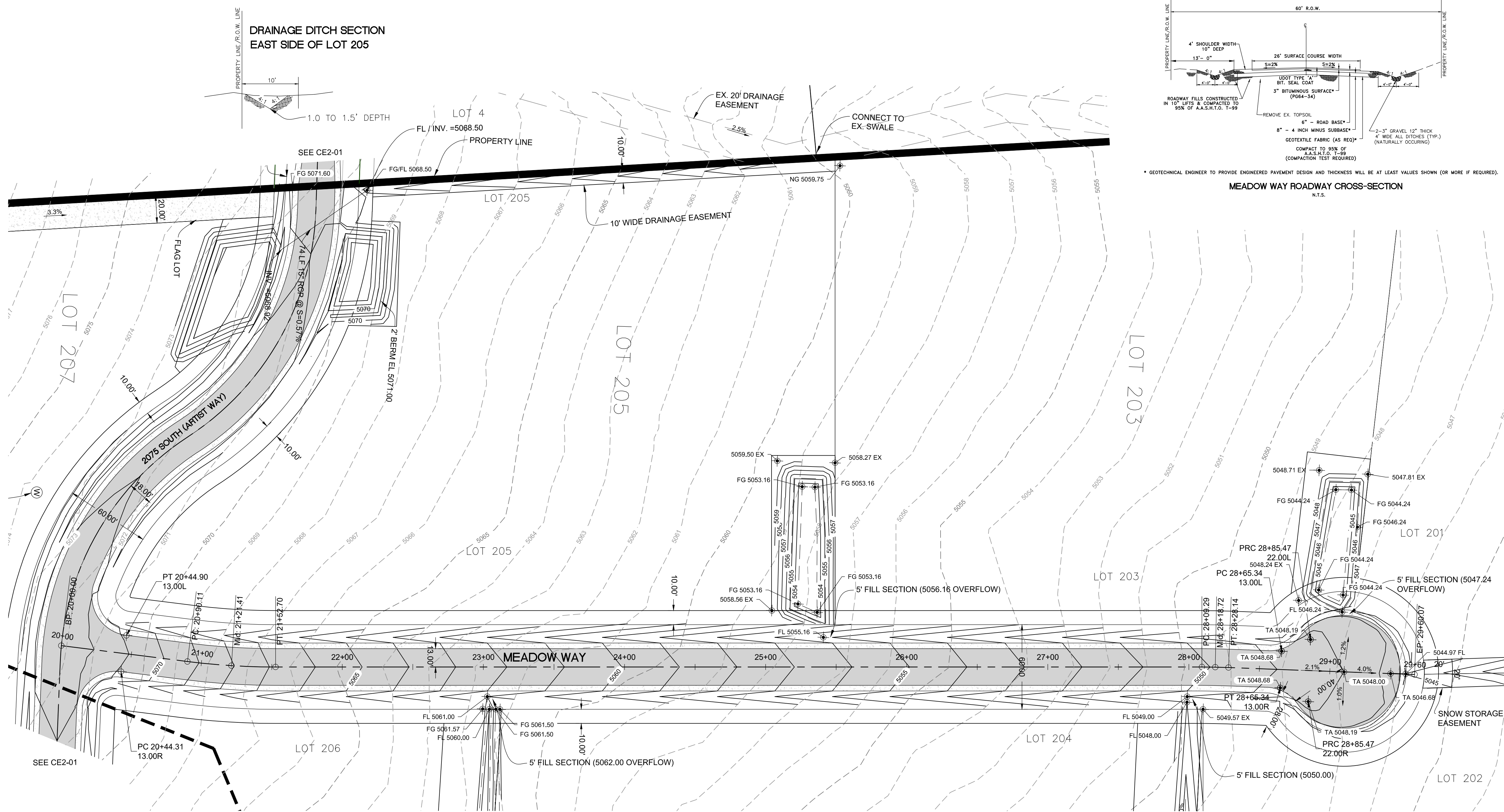
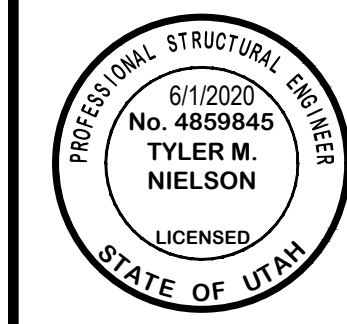
DEVELOPER:
B & H INVESTMENT
CURTIS WHEE
110 W. JENNINGS LANE
CENTERVILLE, UT 84014
801-540-8505



0 40 80 120
Horiz. Scale 1"=40'
Vert. Scale 1"=8'

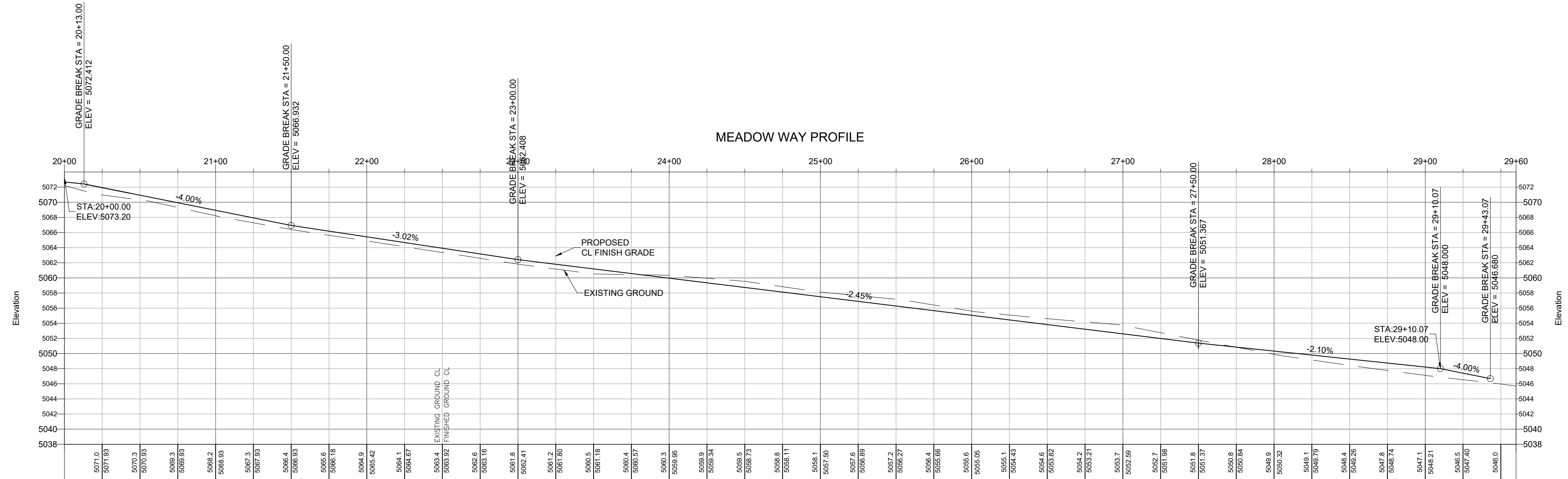
WATERLINE CONSTRUCTION NOTES:

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3. CULINARY WATER TO BE PROVIDED BY WELLS WHICH ARE TO BE DRILLED BY THE FUTURE LOT OWNER.



LEGEND

- CENTERLINE
- PROPERTY LINE
- - - EASEMENT LINE
- 5012 — GROUND CONTOURS
- ASPHALT PAVEMENT
- 8" ROAD BASE
- 12" 6-INCH DIA COBBLES

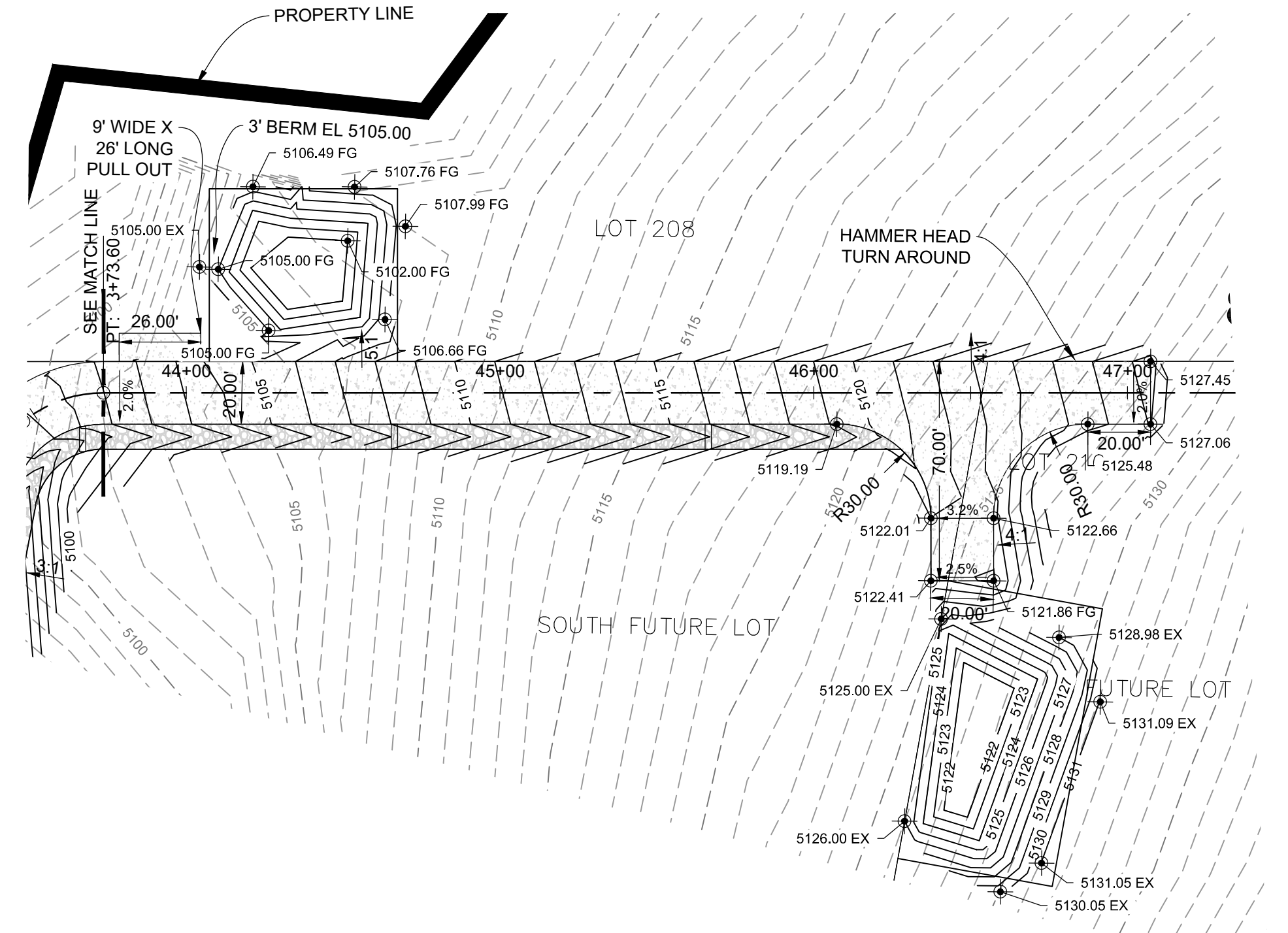
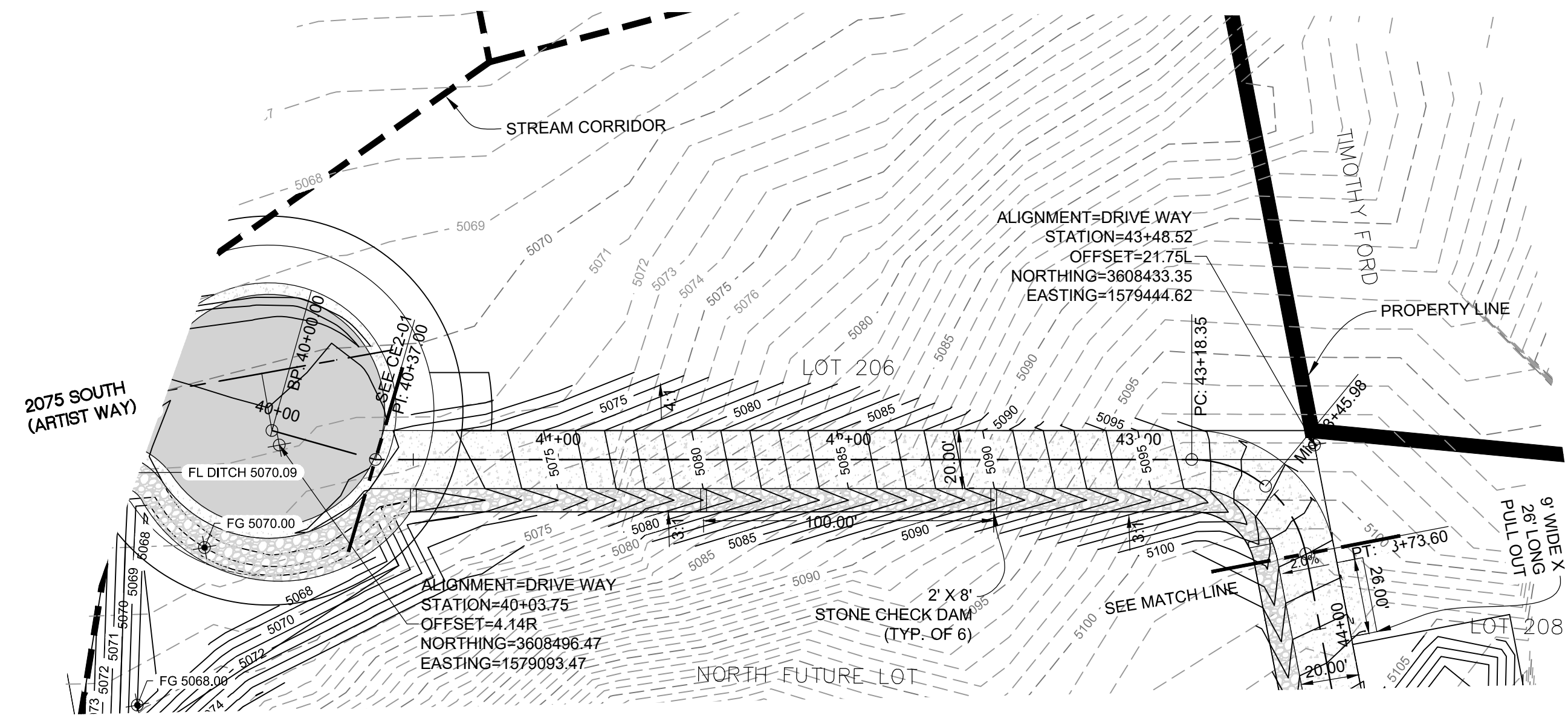
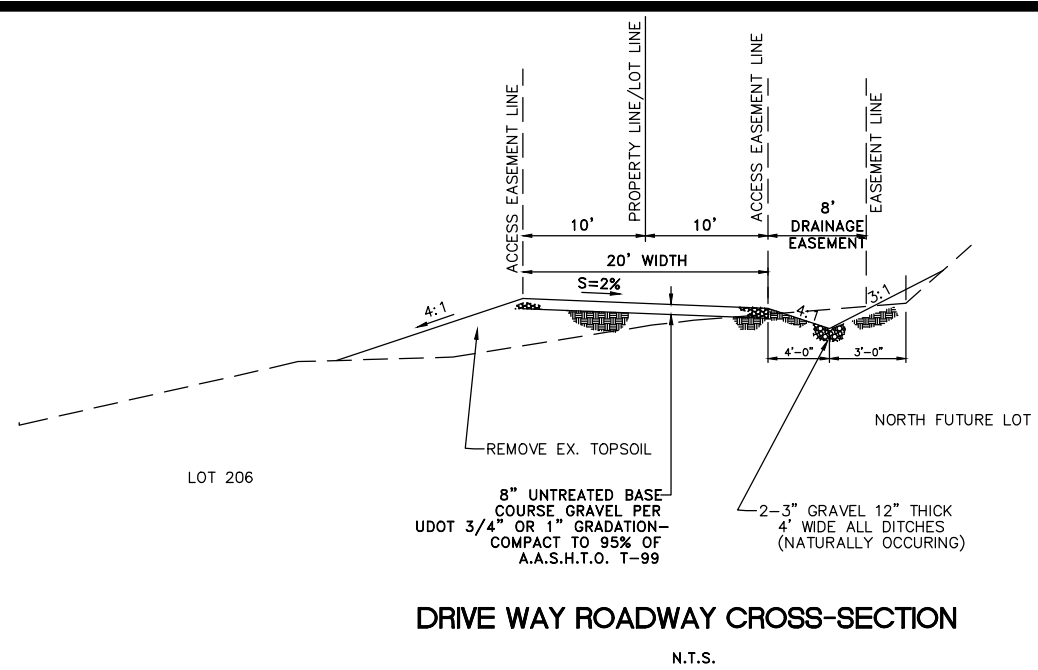


PLAN AND PROFILE
ARROWHEAD MEADOW SUBDIVISION PHASE 1
2075 SOUTH (ARTIST WAY)
HUNTSVILLE CITY, WEBER COUNTY, UTAH

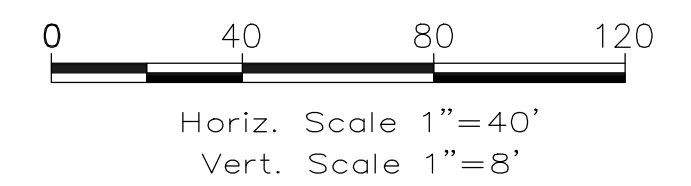
GARDNER ENGINEERING
CIVIL-LAND PLANNING
MUNICIPAL-LAND SURVEYING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801-476-0202 FAX: 801-476-0066

CE2-02

Know what's below. Call 811 before you dig.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
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- WATERLINE CONSTRUCTION NOTES:
1. NO WATER OR FIRE LINES ARE BEING INSTALLED WITHIN THE PUBLIC RIGHT OF WAY.
 2. FUTURE BUILDING FIRE SUPPRESSION SYSTEMS TO BE CONSTRUCTED BY FUTURE LOT OWNER.
 3. CULINARY WATER TO BE PROVIDED BY WELLS WHICH ARE TO BE DRILLED BY THE FUTURE LOT OWNER.

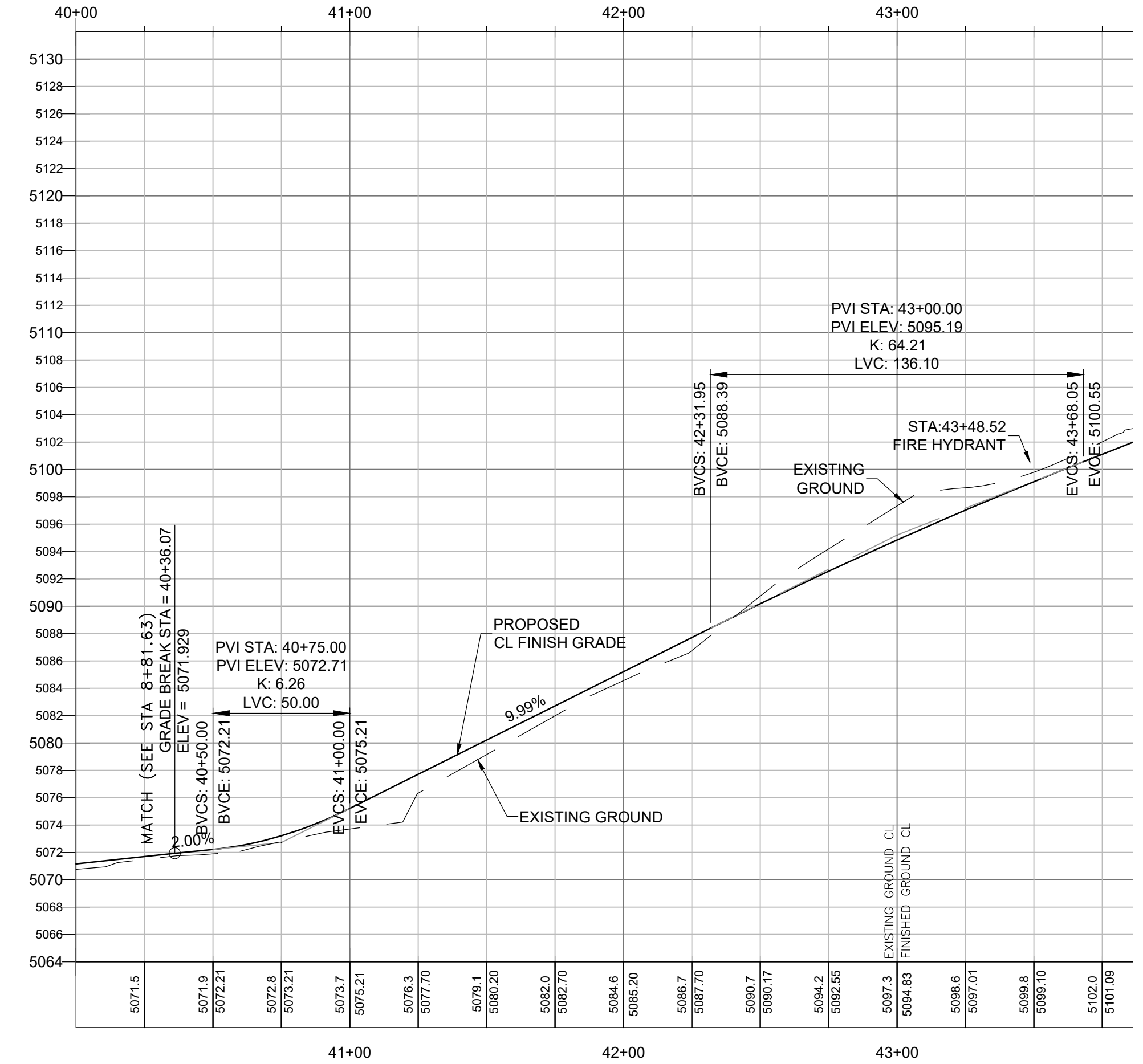


DEVELOPER:
B & H INVESTMENT
CURTIS HYDE
110 W. JENNINGS LANE
CENTREVILLE, UT 84014
801-540-8505

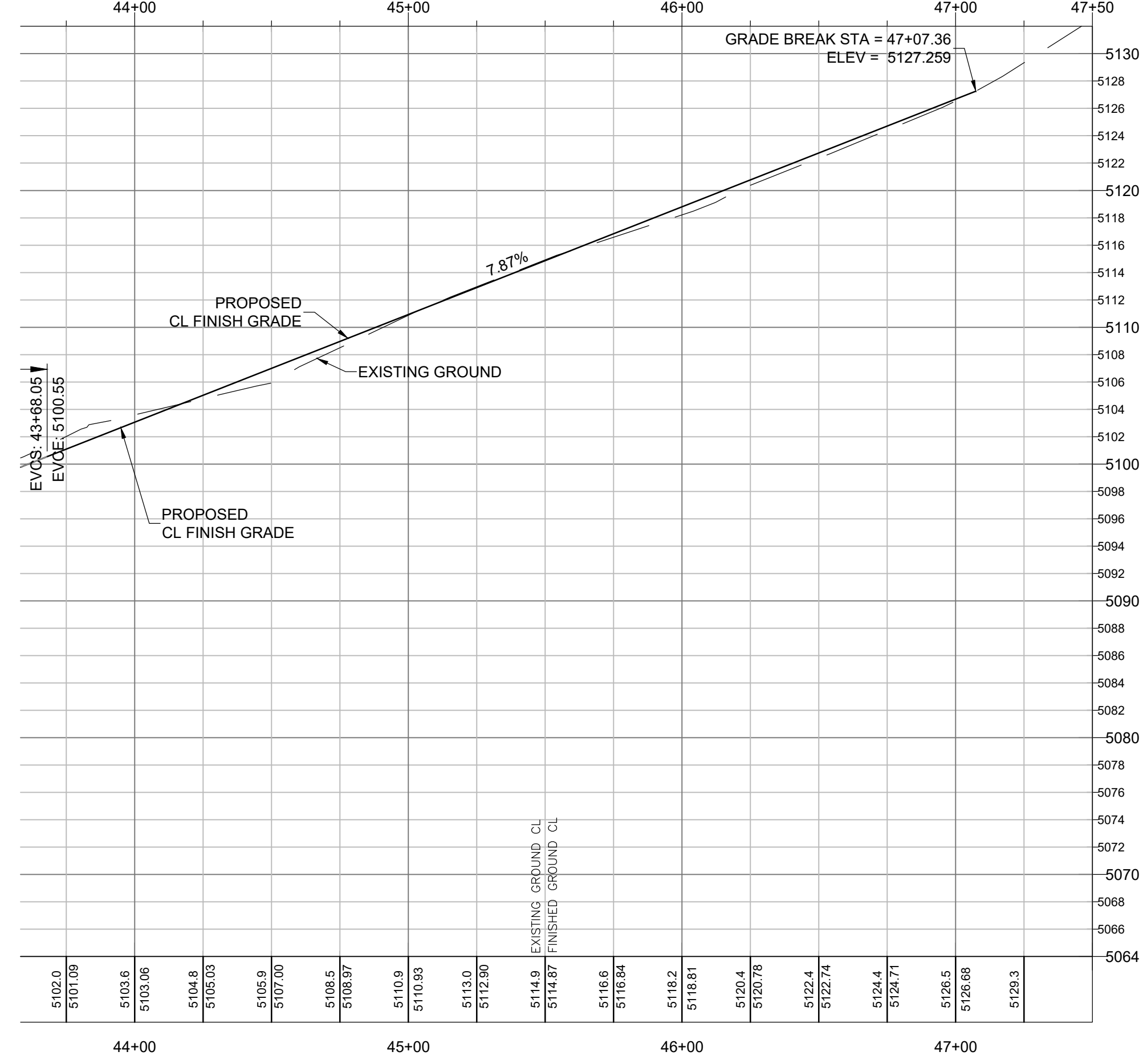
Know what's below. Call 811 before you dig.

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UTILITY NOTIFICATION CENTER, INC.
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DRIVE WAY PROFILE



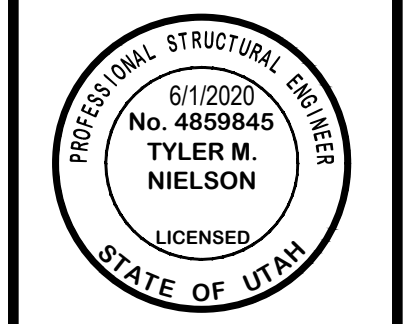
DRIVE WAY PROFILE



LEGEND

- CENTERLINE
- PROPERTY LINE
- EASEMENT LINE
- GROUND CONTOURS
- ASPHALT PAVEMENT
- 8" ROAD BASE
- 12" 6-INCH DIA COBBLES

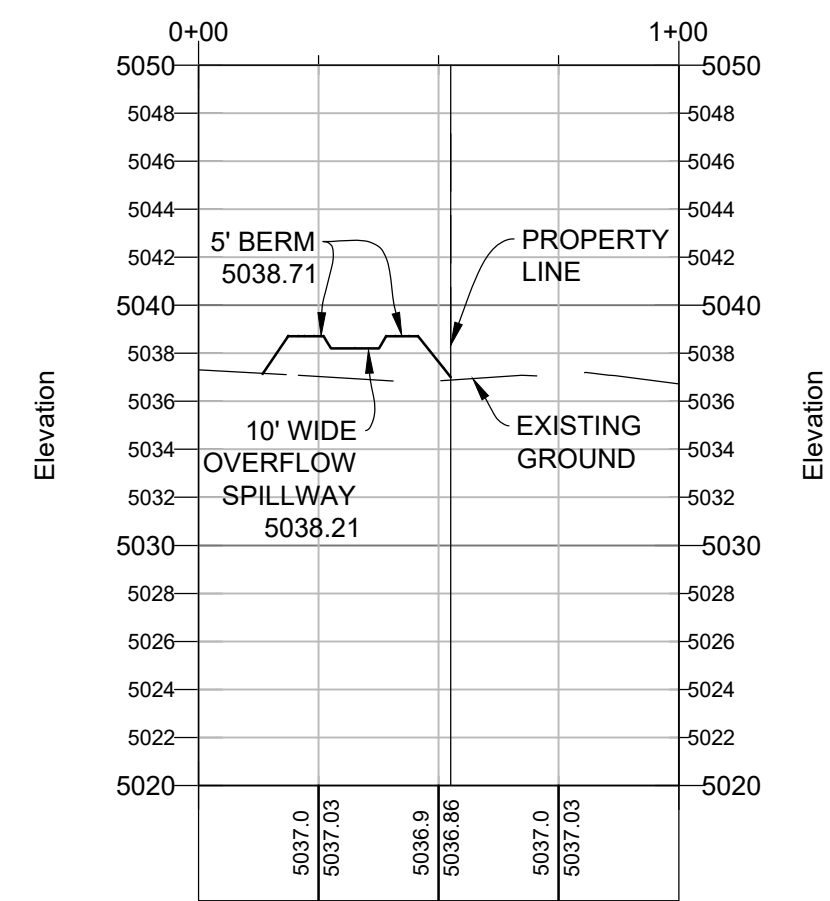
SCALE	1"=40'
DATE	6/1/2020
DESIGN	TWINNIS
DRAWN	WJS
CHECKED	TIN
REVISIONS	DESCRIPTION
DATE	



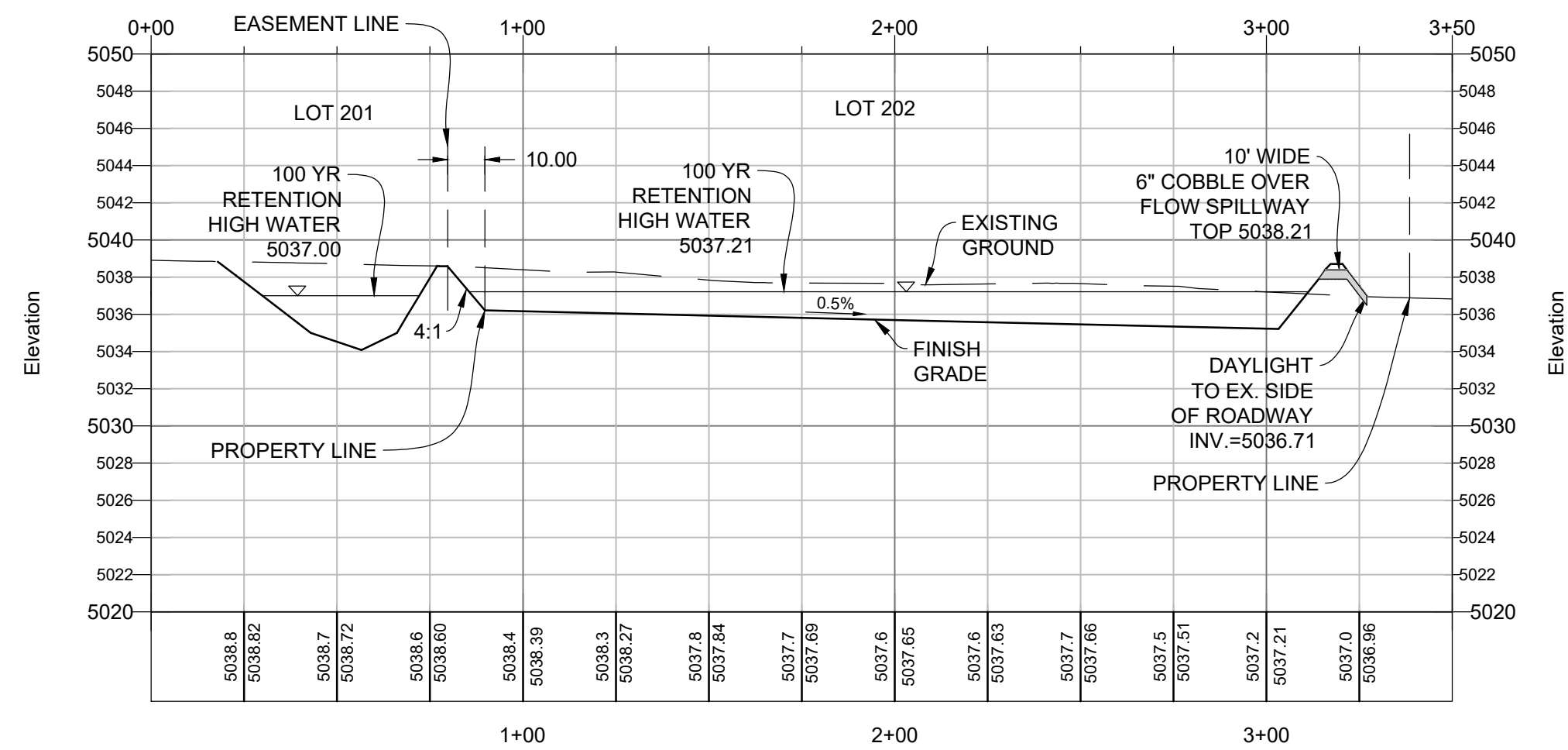
PLAN AND PROFILE
ARROWHEAD MEADOW SUBDIVISION PHASE 1
DRIVE WAY
HUNTSVILLE CITY, WEBER COUNTY, UTAH

GARDNER ENGINEERING
CIVIL-LAND PLANNING
MUNICIPAL-LAND SURVEYING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801-476-0202 FAX: 801-476-0066

POND SECTION A-A PROFILE

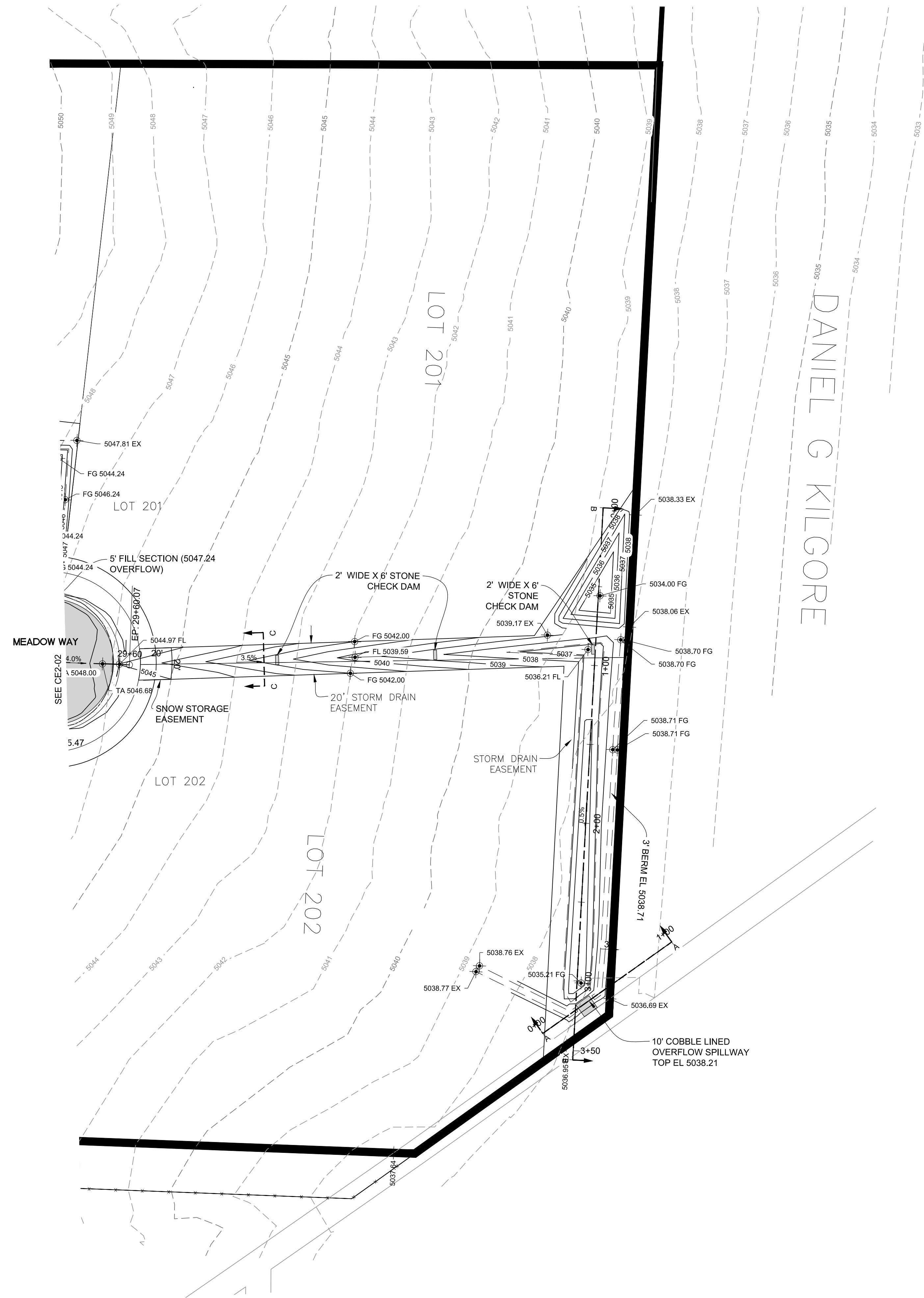


POND SECTION B-B PROFILE

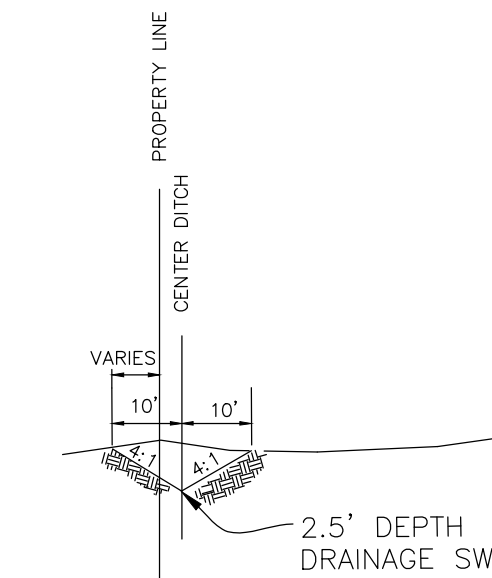
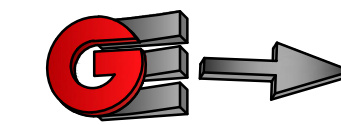


WATERLINE CONSTRUCTION NOTES:

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DEVELOPER:
B & H INVESTMENT
CURTIS WIDE
110 W. JENNINGS LANE
CENTERVILLE, UT 84014
801-540-8505



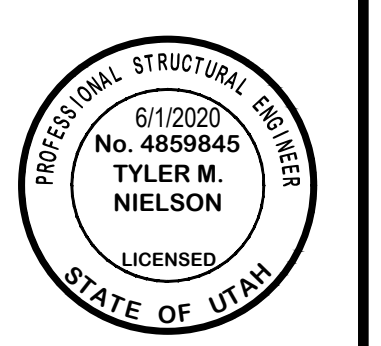
SECTION VIEW C-C
(BETWEEN LOTS 201 & 202)

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LEGEND

- CENTERLINE
- PROPERTY LINE
- EASEMENT LINE
- GROUND CONTOURS
- ASPHALT PAVEMENT
- 8" ROAD BASE
- 12" 6-INCH DIA COBBLES

REVISIONS	DATE	DESCRIPTION



RETENTION POND LOT 202
ARROWHEAD MEADOW SUBDIVISION PHASE 1
2075 SOUTH (ARTIST WAY)
HUNTSVILLE CITY, WEBER COUNTY, UTAH

GARDNER ENGINEERING
CIVIL-LAND PLANNING
MUNICIPAL-LAND SURVEYING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801.476.0202 FAX: 801.476.0066

CE2-04

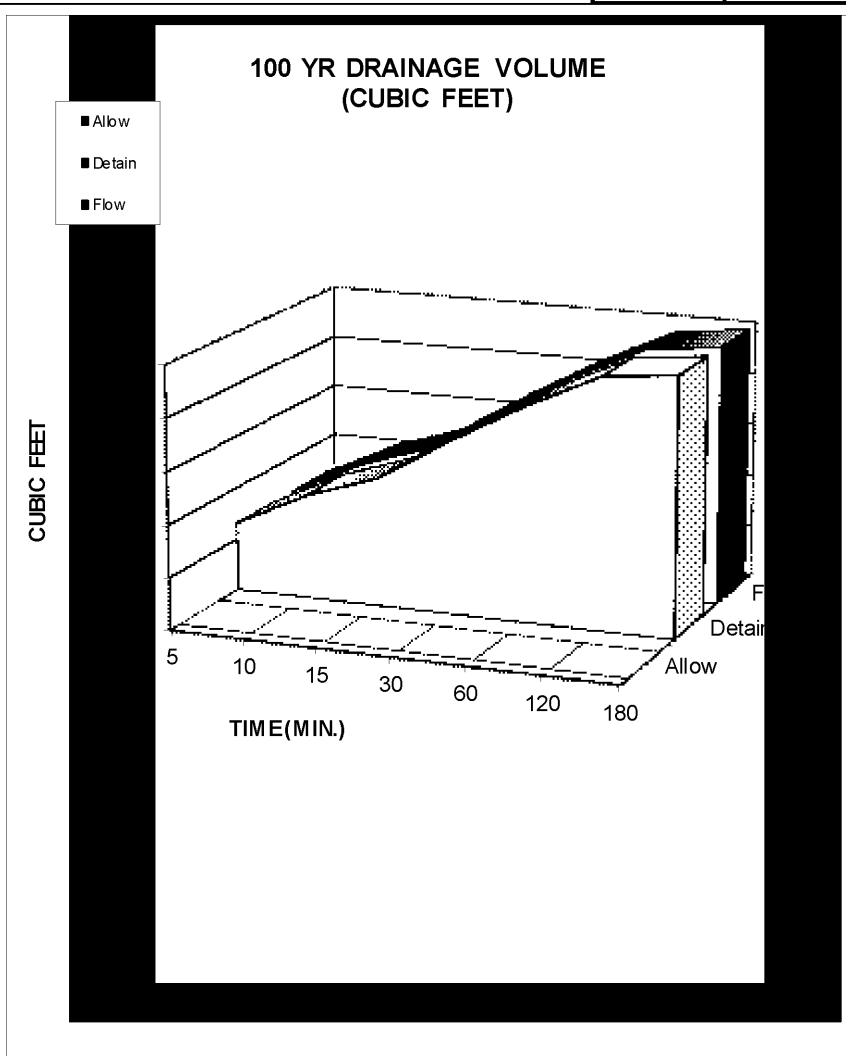
**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



Improved Areas		Total Site		(11 Lots)	
	Sq. Ft.	Acres	C		
Asphalt Surface	51,351	1.1789	0.85	Allow Release Rate (cfs/acre)	0.000 cfs/acre
Gravel Areas	54,064	1.2411	0.50	Q Allowable (cfs)	0.00
Building & Concrete	71,500	1.6414	0.85		0.00 cfs
Total/Weighted	176,915	4.0614	0.74		

	FEET	YARDS
100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED	39,632	1,468

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
5	0	7.22	6,537	6,537
10	0	5.5	9,959	9,959
15	0	4.54	12,331	12,331
30	0	3.06	16,622	16,622
60	0	1.89	20,533	20,533
120	0	1.1	23,901	23,901
180	0	0.757	24,672	24,672
360	0	0.425	27,703	27,703
720	0	0.264	34,417	34,417
1440	0	0.152	39,632	39,632



Orifice Calculation

H = 3	Maximum water height (ft)
Q = 0.00	Flowrate out of orifice (cfs)
Cc = 0.62	Coefficient of Contraction
Cv = 0.98	Coefficient of Velocity
Area = 0.000	Orifice Area (ft ²)
II = 3.14	
g = 32.17	Gravitational Constant
d = 0.00	Orifice Diameter (in)
d = 0	Orifice

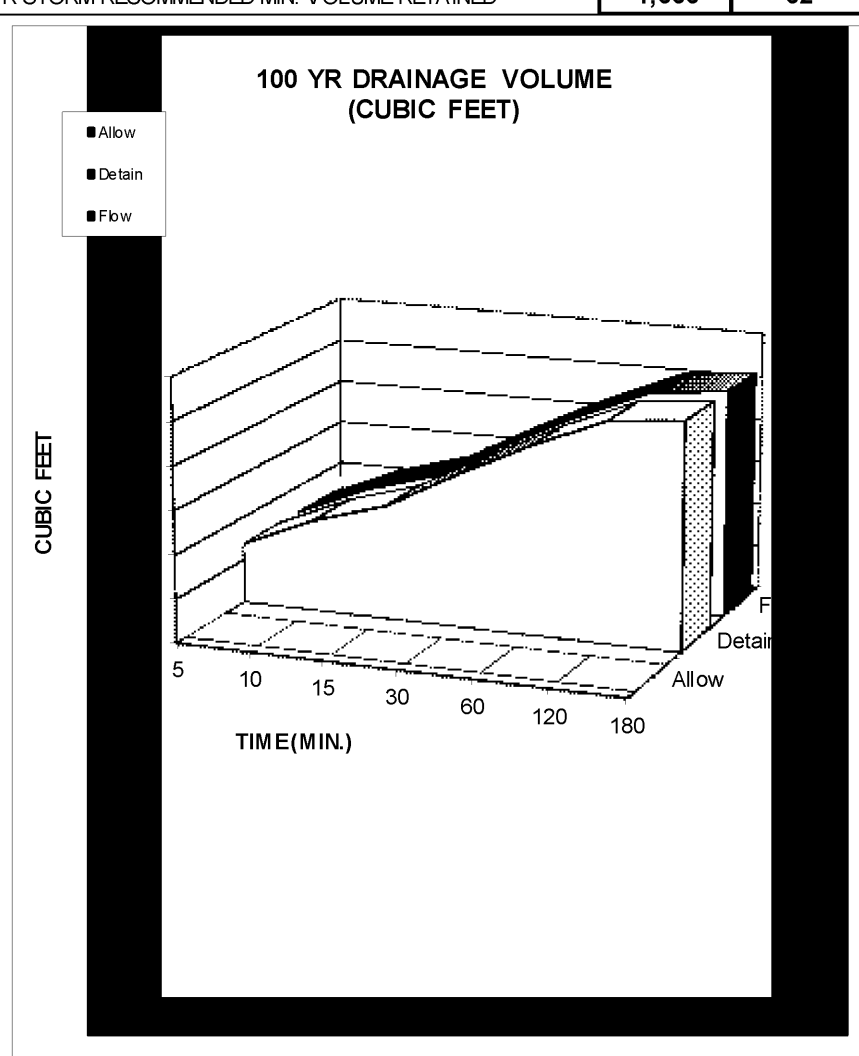
**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



Lot 201		Total Site		(11 Lots)	
	Sq. Ft.	Acres	C		
Asphalt Surface	0	0.0000	0.85	Allow Release Rate (cfs/acre)	0.000 cfs/acre
Gravel Areas	0	0.0000	0.50	Q Allowable (cfs)	0.00
Building & Concrete	6,500	0.1492	0.85		0.00 cfs
Total/Weighted	6,500	0.1492	0.85		

	FEET	YARDS
100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED	1,666	62

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
5	0	7.22	275	275
10	0	5.5	419	419
15	0	4.54	518	518
30	0	3.06	699	699
60	0	1.89	863	863
120	0	1.1	1,005	1,005
180	0	0.757	1,037	1,037
360	0	0.425	1,164	1,164
720	0	0.264	1,447	1,447
1440	0	0.152	1,666	1,666



Orifice Calculation

H = 3	Maximum water height (ft)
Q = 0.00	Flowrate out of orifice (cfs)
Cc = 0.62	Coefficient of Contraction
Cv = 0.98	Coefficient of Velocity
Area = 0.000	Orifice Area (ft ²)
II = 3.14	
g = 32.17	Gravitational Constant
d = 0.00	Orifice Diameter (in)
d = 0	Orifice

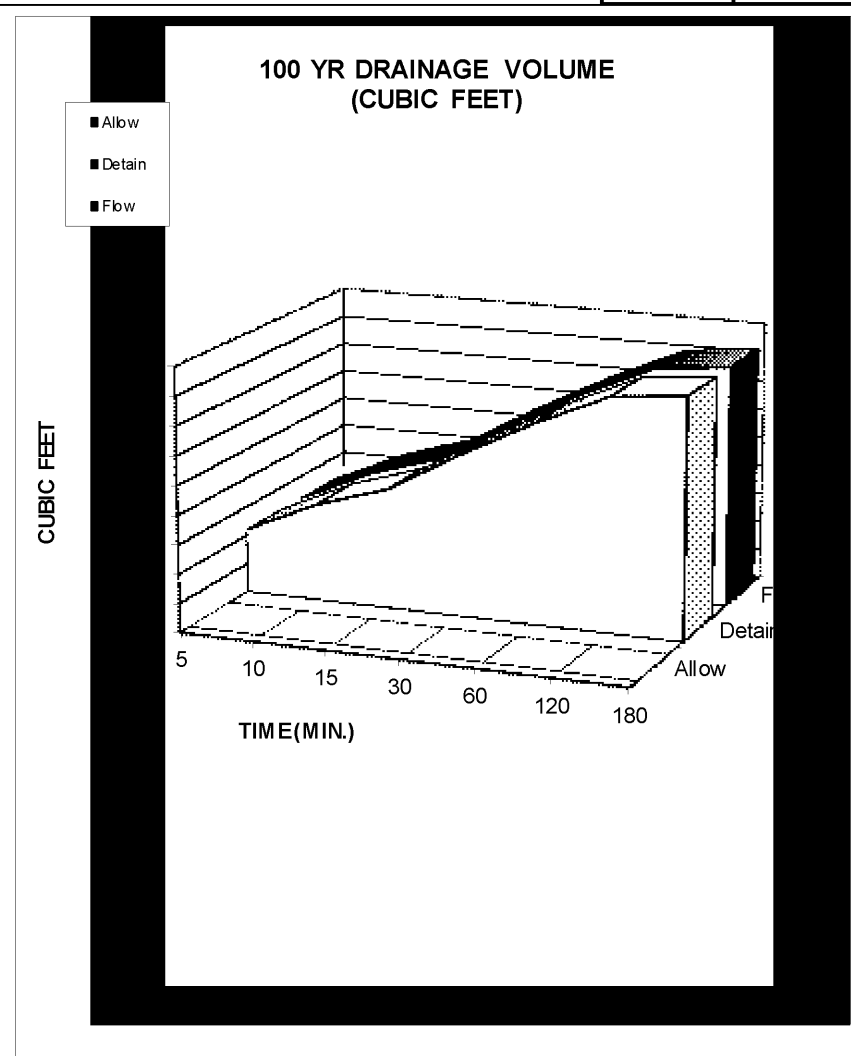
**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



Lot 202		Total Site		(11 Lots)	
	Sq. Ft.	Acres	C		
Asphalt Surface	3,355	0.0770	0.85	Allow Release Rate (cfs/acre)	0.000 cfs/acre
Gravel Areas	846	0.0194	0.50	Q Allowable (cfs)	0.00
Building & Concrete	6,500	0.1492	0.85		0.00 cfs
Total/Weighted	10,701	0.2457	0.82		

	FEET	YARDS
100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED	2,653	98

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
5	0	7.22	438	438
10	0	5.5	667	667
15	0	4.54	825	825
30	0	3.06	1,113	1,113
60	0	1.89	1,375	1,375
120	0	1.1	1,600	1,600
180	0	0.757	1,652	1,652
360	0	0.425	1,854	1,854
720	0	0.264	2,304	2,304
1440	0	0.152	2,653	2,653



Orifice Calculation

H = 3	Maximum water height (ft)
Q = 0.00	Flowrate out of orifice (cfs)
Cc = 0.62	Coefficient of Contraction
Cv = 0.98	Coefficient of Velocity
Area = 0.000	Orifice Area (ft ²)
II = 3.14	
g = 32.17	Gravitational Constant
d = 0.00	Orifice Diameter (in)
d = 0	Orifice

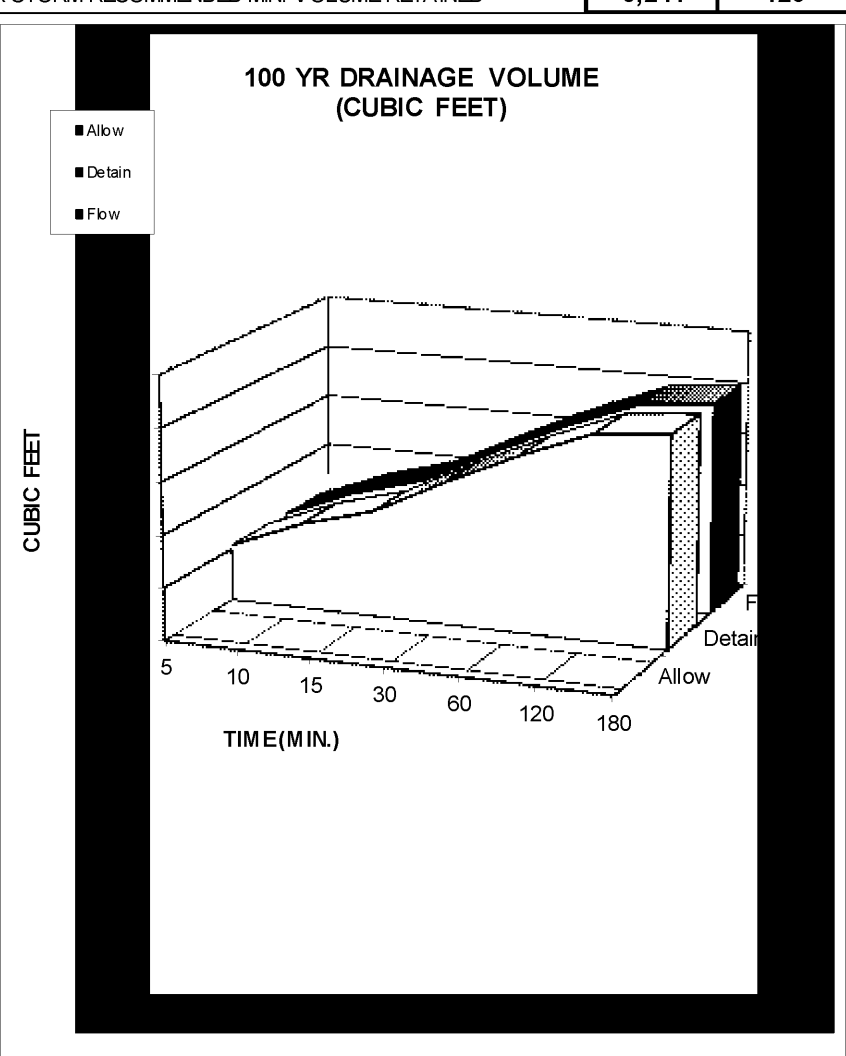
**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



Lot 203		Total Site		(11 Lots)	
	Sq. Ft.	Acres	C		
Asphalt Surface	5,276	0.1211	0.85	Allow Release Rate (cfs/acre)	0.000 cfs/acre
Gravel Areas	1,484	0.0341	0.50	Q Allowable (cfs)	0.00
Building & Concrete	6,500	0.1492	0.85		0.00 cfs
Total/Weighted	13,260	0.3044	0.81		

	FEET	YARDS
100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED	3,241	120

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
5	0	7.22	535	535
10	0	5.5	815	815
15	0	4.54	1,009	1,009
30	0	3.06	1,359	1,359
60	0	1.89	1,679	1,679
120	0	1.1	1,955	1,955
180	0	0.757	2,018	2,018
360	0	0.425	2,266	2,266
720	0	0.264	2,815	2,815
1440	0	0.152	3,241	3,241



Orifice Calculation

H = 3	Maximum water height (ft)
Q = 0.00	Flowrate out of orifice (cfs)
Cc = 0.62	Coefficient of Contraction
Cv = 0.98	Coefficient of Velocity
Area = 0.000	Orifice Area (ft ²)
II = 3.14	
g = 32.17	Gravitational Constant
d = 0.00	Orifice Diameter (in)
d = 0	Orifice

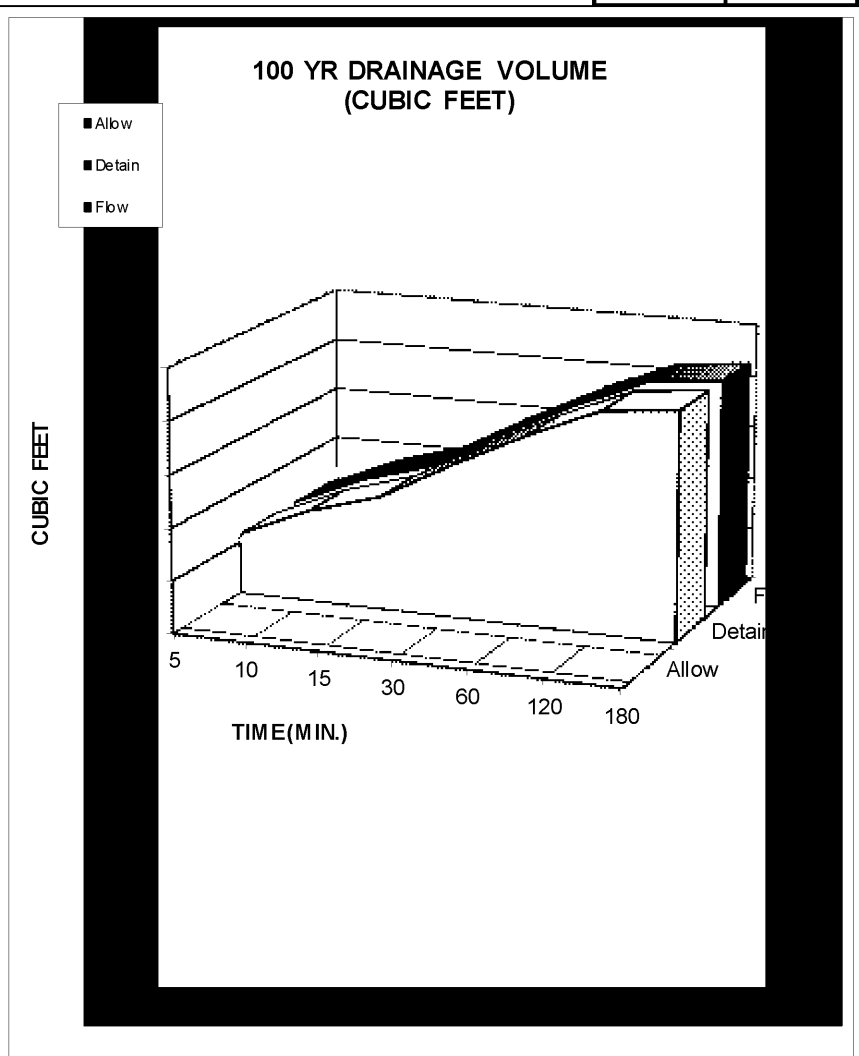
**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



Lot 204		Total Site		(11 Lots)	
	Sq. Ft.	Acres	C		
Asphalt Surface	6,465	0.1484	0.85	Allow Release Rate (cfs/acre)	0.000 cfs/acre
Gravel Areas	1,089	0.0250	0.50	Q Allowable (cfs)	0.00
Building & Concrete	6,500	0.1492	0.85		0.00 cfs
Total/Weighted	14,054	0.3226	0.82		

	FEET	YARDS
100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED	3,487	129

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
5	0	7.22	575	575
10	0	5.5	876	876
15	0	4.54	1,085	1,085
30	0	3.06	1,462	1,462
60	0	1.89	1,806	1,806
120	0	1.1	2,103	2,103
180	0	0.757	2,171	2,171
360	0	0.425	2,437	2,437
720	0	0.264	3,028	3,028
1440	0	0.152	3,487	3,487



Orifice Calculation

H = 3	Maximum water height (ft)
Q = 0.00	Flowrate out of orifice (cfs)
Cc = 0.62	Coefficient of Contraction
Cv = 0.98	Coefficient of Velocity
Area = 0.000	Orifice Area (ft ²)
II = 3.14	
g = 32.17	Gravitational Constant
d = 0.00	Orifice Diameter (in)
d = 0	Orifice

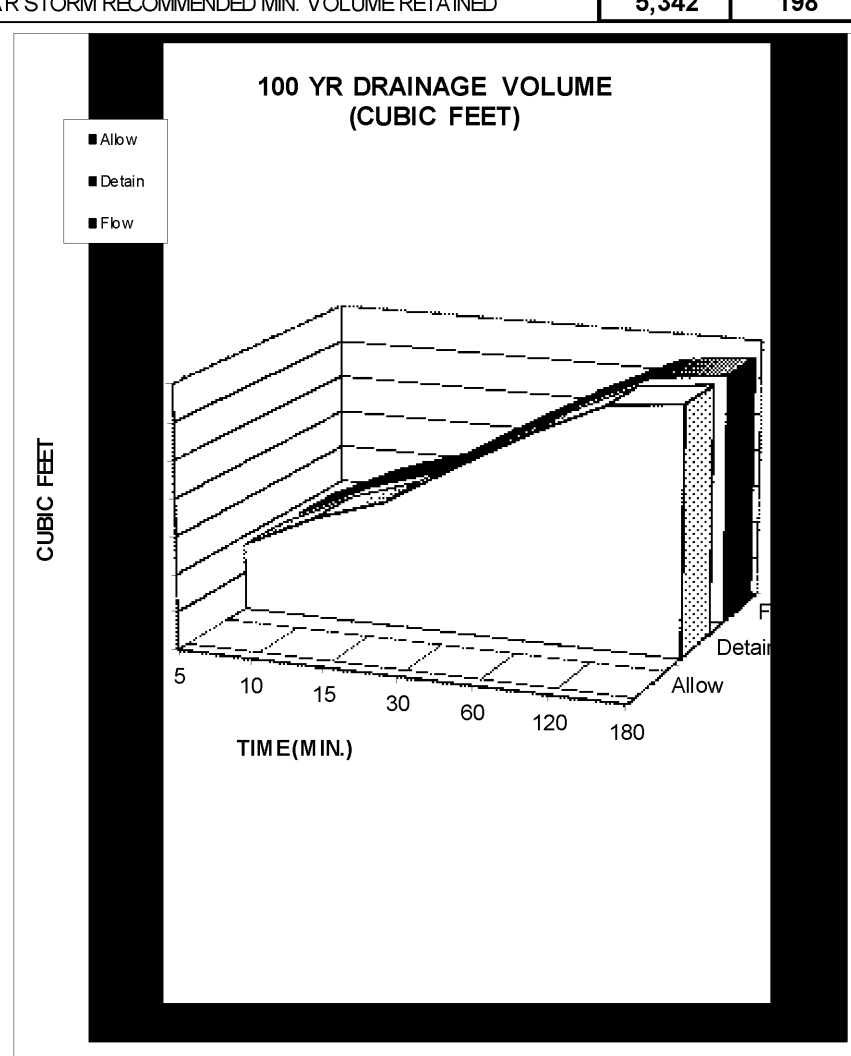
**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



Lot 205		Total Site		(11 Lots)	
	Sq. Ft.	Acres	C		
Asphalt Surface	12,244	0.2811	0.85	Allow Release Rate (cfs/acre)	0.000 cfs/acre
Gravel Areas	3,573	0.0820	0.50	Q Allowable (cfs)	0.00
Building & Concrete	6,500	0.1492	0.85		0.00 cfs
Total/Weighted	22,317	0.5123	0.79		

	FEET	YARDS
100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED	5,342	198

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
5	0	7.22	881	881
10	0	5.5	1,342	1,342
15	0	4.54	1,662	1,662
30	0	3.06	2,240	2,240
60	0	1.89	2,768	2,768
120	0	1.1	3,222	3,222
180	0	0.757	3,326	3,326
360	0	0.425	3,734	3,734
720	0	0.264	4,639	4,639
1440	0	0.152	5,342	5,342



Orifice Calculation

H = 3	Maximum water height (ft)
Q = 0.00	Flowrate out of orifice (cfs)
Cc = 0.62	Coefficient of Contraction
Cv = 0.98	Coefficient of Velocity
Area = 0.000	Orifice Area (ft ²)
II = 3.14	
g = 32.17	Gravitational Constant
d = 0.00	Orifice Diameter (in)
d = 0	Orifice

SCALE: 1" = 40'

DATE: 6/1/2020

DESIGN: TANNER

DRAWN: WJS

CHECKED: TMM

REVISIONS

DATE

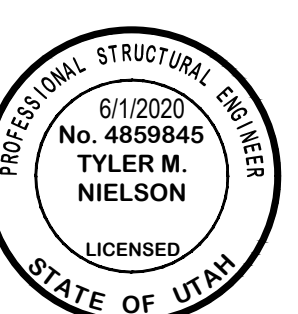
DESCRIPTION

DETENTION CALCS

ARROWHEAD MEADOW SUBDIVISION PHASE 1

2075 SOUTH (ARTIST WAY)

HUNTSVILLE CITY, WEBER COUNTY, UTAH



CE3-01

**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



Lot	Sq. Ft.	Acre	C
Asphalt Surface	7,709	0.1770	0.85
Gravel Areas	2,088	0.0479	0.50
Building & Concrete	6,500	0.1492	0.85

Allow Release Rate (cfs/acre)
 Q Allowable (cfs)

Total/Weighted

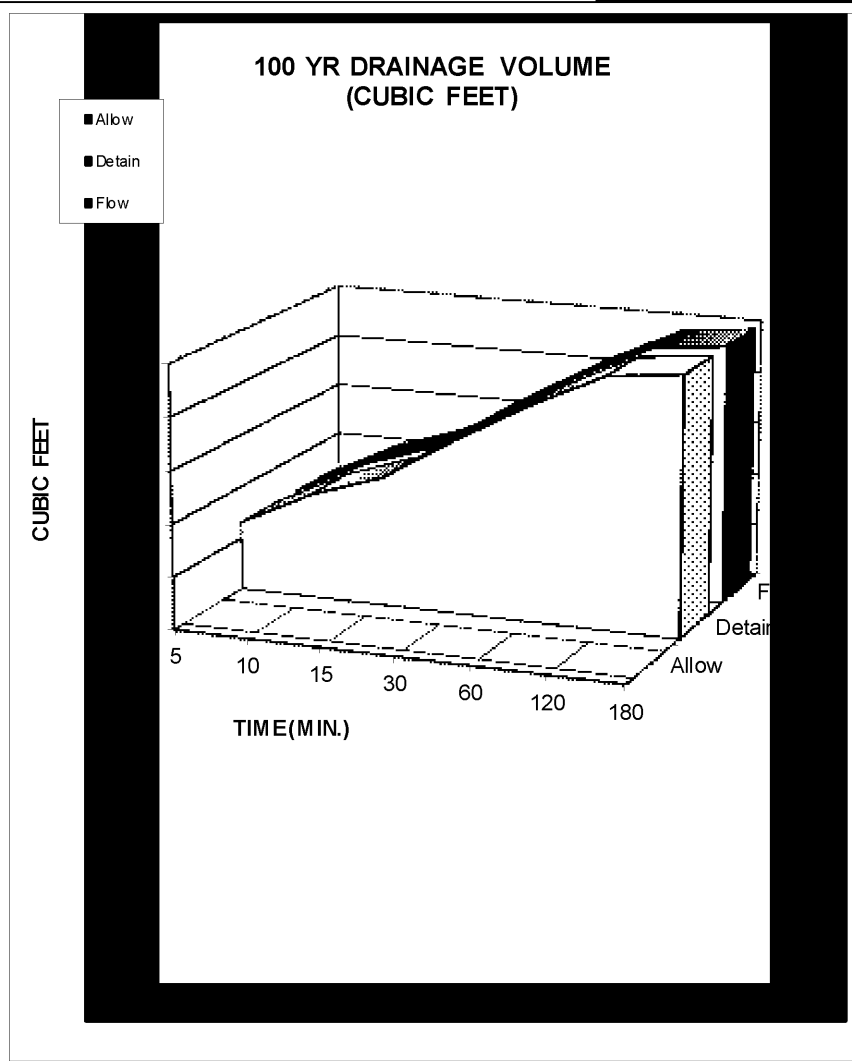
Total Allowed Release cfs

Effective Release Rate per Acre 0.00 cfs/Acre

100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
	Allowable	i100	100 YEAR	Difference
5	0	7.22	652	652
10	0	5.5	994	994
15	0	4.54	1,231	1,231
30	0	3.06	1,659	1,659
60	0	1.89	2,050	2,050
120	0	1.1	2,386	2,386
180	0	0.757	2,463	2,463
360	0	0.425	2,765	2,765
720	0	0.264	3,435	3,435
1440	0	0.152	3,956	3,956

NOAA - Atlas 14



Orifice Calculation

H = Maximum water height (ft)
 Q = 0.00 Flowrate out of orifice (cfs)
 Cc = 0.62 Coefficient of Contraction
 Cv = 0.98 Coefficient of Velocity
 Area = 0.000 Orifice Area (ft²)
 II = 3.14
 g = 32.17 Gravitational Constant
 d = 0.00 Orifice Diameter (in)
 d = Orifice

**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



Lot	Sq. Ft.	Acre	C
Asphalt Surface	6,722	0.1543	0.85
Gravel Areas	11,384	0.2613	0.50
Building & Concrete	6,500	0.1492	0.85

Allow Release Rate (cfs/acre)
 Q Allowable (cfs)

Total/Weighted

Total Allowed Release cfs

Effective Release Rate per Acre 0.00 cfs/Acre

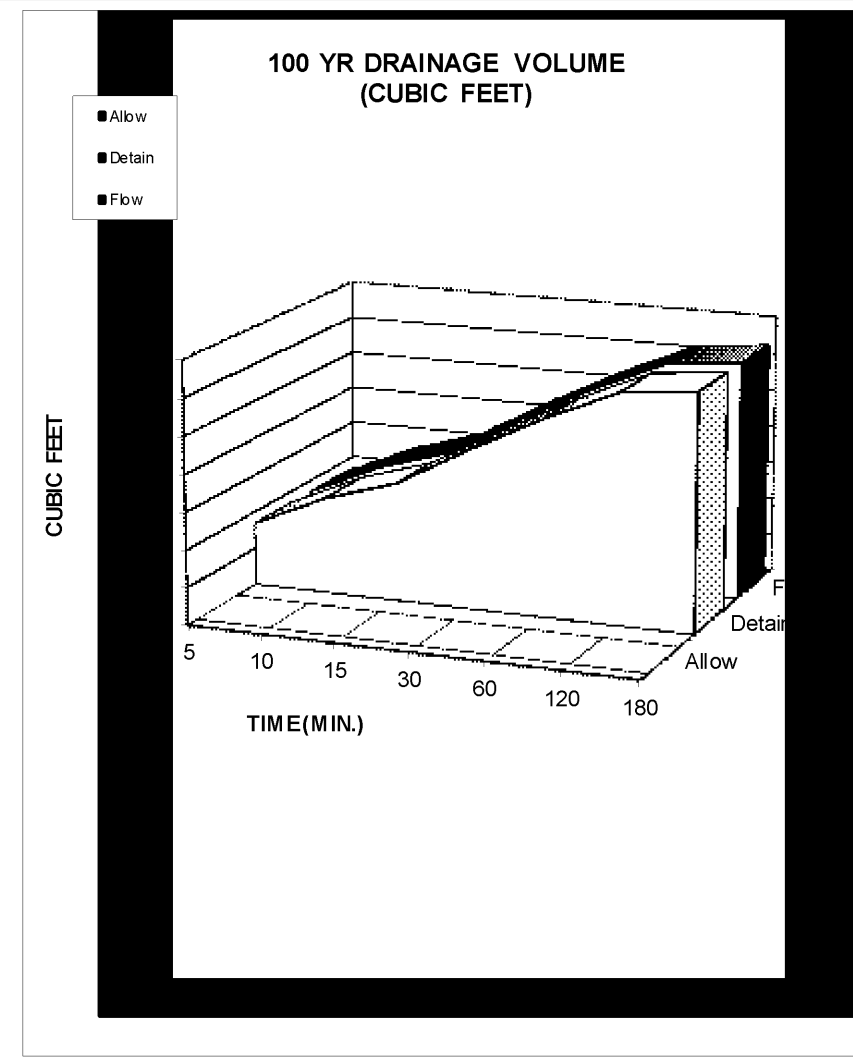
100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
	Allowable	i100	100 YEAR	Difference
5	0	7.22	842	842
10	0	5.5	1,283	1,283
15	0	4.54	1,588	1,588
30	0	3.06	2,141	2,141
60	0	1.89	2,645	2,645
120	0	1.1	3,078	3,078
180	0	0.757	3,178	3,178
360	0	0.425	3,568	3,568
720	0	0.264	4,433	4,433
1440	0	0.152	5,104	5,104

NOAA - Atlas 14

Orifice Calculation

H = Maximum water height (ft)
 Q = 0.00 Flowrate out of orifice (cfs)
 Cc = 0.62 Coefficient of Contraction
 Cv = 0.98 Coefficient of Velocity
 Area = 0.000 Orifice Area (ft²)
 II = 3.14
 g = 32.17 Gravitational Constant
 d = 0.00 Orifice Diameter (in)
 d = Orifice



**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



Lot	Sq. Ft.	Acre	C
Asphalt Surface	6,722	0.1543	0.85
Gravel Areas	11,384	0.2613	0.50
Building & Concrete	6,500	0.1492	0.85

Allow Release Rate (cfs/acre)
 Q Allowable (cfs)

Total/Weighted

Total Allowed Release cfs

Effective Release Rate per Acre 0.00 cfs/Acre

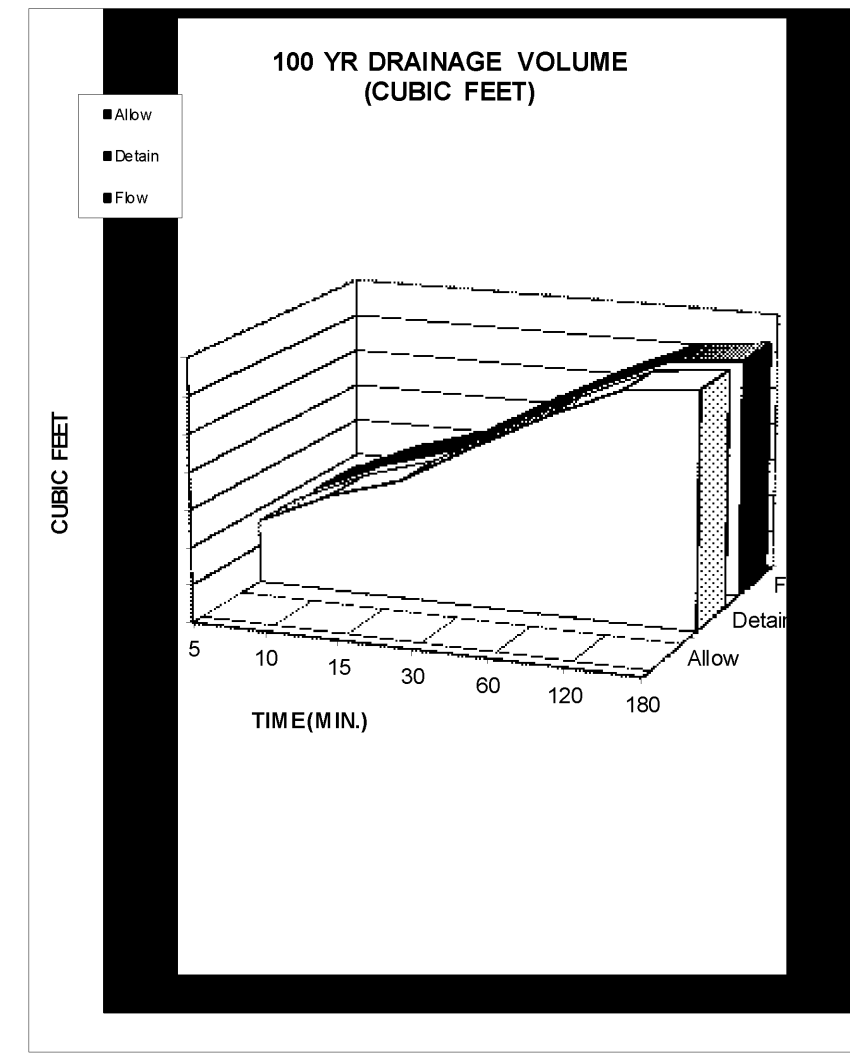
100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
	Allowable	i100	100 YEAR	Difference
5	0	7.22	842	842
10	0	5.5	1,283	1,283
15	0	4.54	1,588	1,588
30	0	3.06	2,141	2,141
60	0	1.89	2,645	2,645
120	0	1.1	3,078	3,078
180	0	0.757	3,178	3,178
360	0	0.425	3,568	3,568
720	0	0.264	4,433	4,433
1440	0	0.152	5,104	5,104

NOAA - Atlas 14

Orifice Calculation

H = Maximum water height (ft)
 Q = 0.00 Flowrate out of orifice (cfs)
 Cc = 0.62 Coefficient of Contraction
 Cv = 0.98 Coefficient of Velocity
 Area = 0.000 Orifice Area (ft²)
 II = 3.14
 g = 32.17 Gravitational Constant
 d = 0.00 Orifice Diameter (in)
 d = Orifice



**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



Lot	Sq. Ft.	Acre	C
Asphalt Surface	0	0.0000	0.85
Gravel Areas	6,811	0.1564	0.50
Building & Concrete	6,500	0.1492	0.85

Allow Release Rate (cfs/acre)
 Q Allowable (cfs)

Total/Weighted

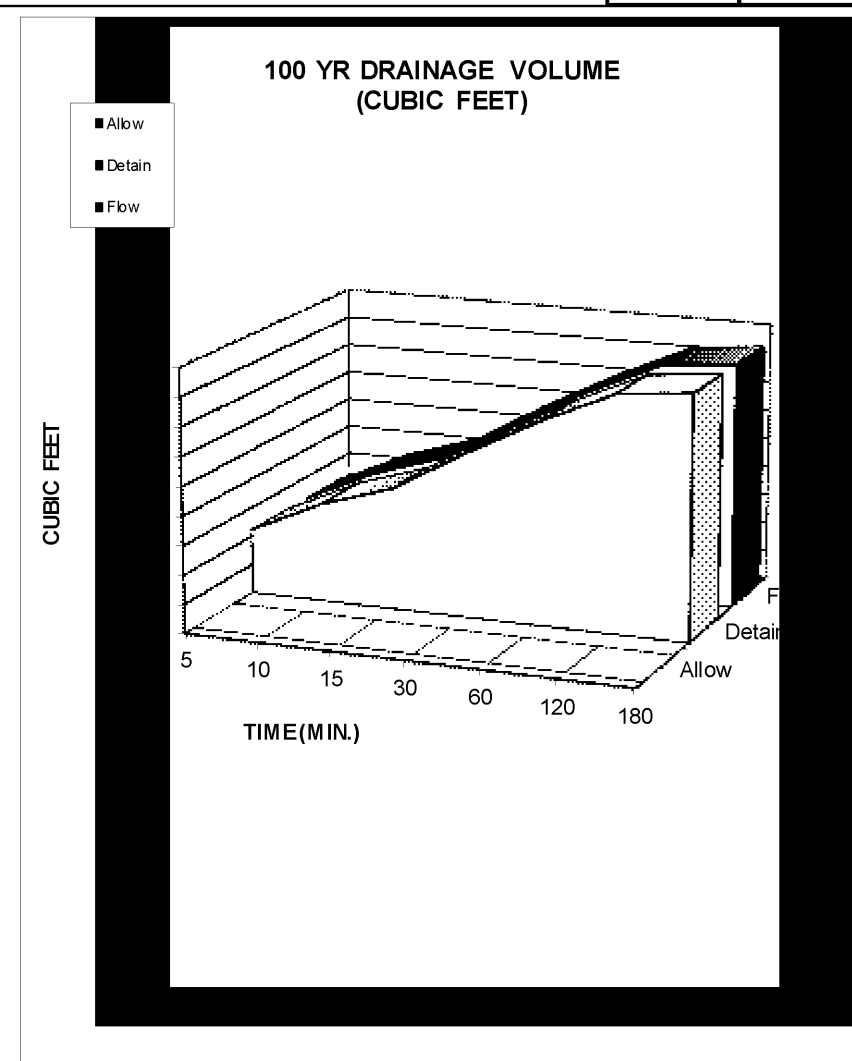
Total Allowed Release cfs

Effective Release Rate per Acre 0.00 cfs/Acre

100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
	Allowable	i100	100 YEAR	Difference
5	0	7.22	444	444
10	0	5.5	677	677
15	0	4.54	838	838
30	0	3.06	1,129	1,129
60	0	1.89	1,395	1,395
120	0	1.1	1,624	1,624
180	0	0.757	1,676	1,676
360	0	0.425	1,882	1,882
720	0	0.264	2,338	2,338
1440	0	0.152	2,692	2,692

NOAA - Atlas 14



Orifice Calculation

H = Maximum water height (ft)
 Q = 0.00 Flowrate out of orifice (cfs)
 Cc = 0.62 Coefficient of Contraction
 Cv = 0.98 Coefficient of Velocity
 Area = 0.000 Orifice Area (ft²)
 II = 3.14
 g = 32.17 Gravitational Constant
 d = 0.00 Orifice Diameter (in)
 d = Orifice

**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



South Future Lot	Sq. Ft.	Acre	C
Asphalt Surface	0	0.0000	0.85
Gravel Areas	1,768	0.0406	0.50
Building & Concrete	6,500	0.1492	0.85

Allow Release Rate (cfs/acre)
 Q Allowable (cfs)

Total/Weighted

Total Allowed Release cfs

Effective Release Rate per Acre 0.00 cfs/Acre

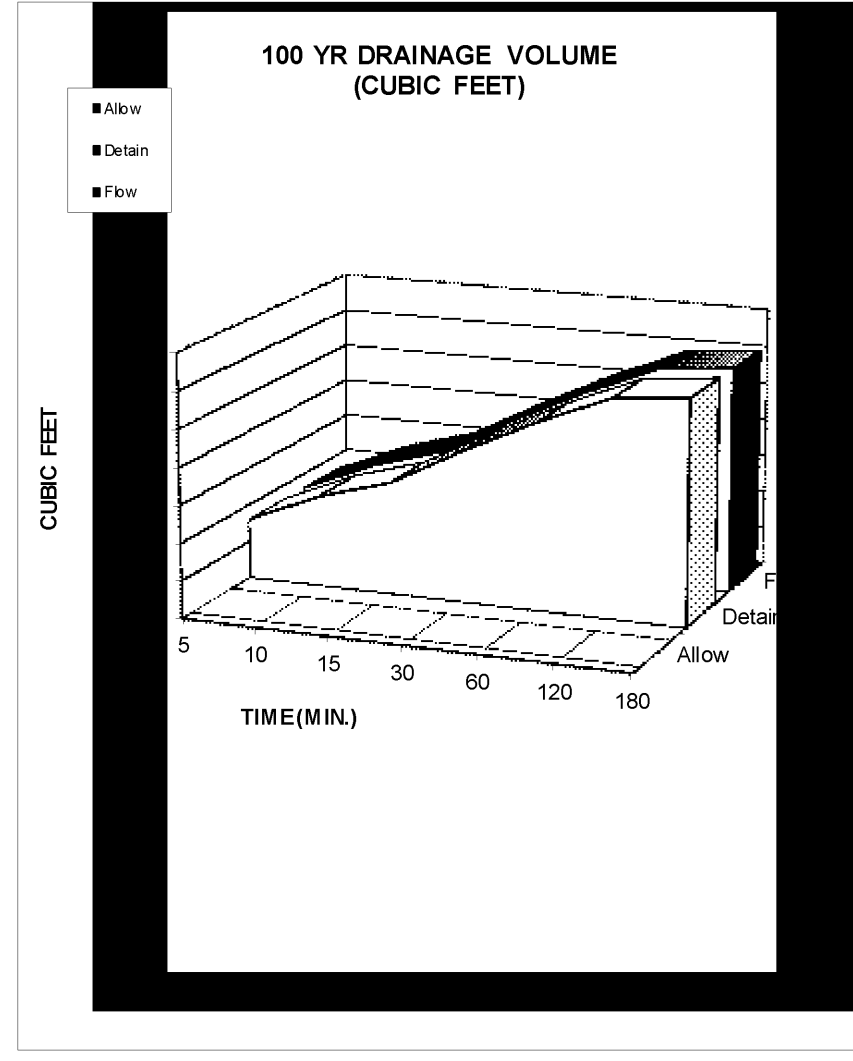
100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
	Allowable	i100	100 YEAR	Difference
5	0	7.22	319	319
10	0	5.5	486	486
15	0	4.54	601	601
30	0	3.06	810	810
60	0	1.89	1,001	1,001
120	0	1.1	1,165	1,165
180	0	0.757	1,203	1,203
360	0	0.425	1,351	1,351
720	0	0.264	1,678	1,678
1440	0	0.152	1,932	1,932

NOAA - Atlas 14

Orifice Calculation

H = Maximum water height (ft)
 Q = 0.00 Flowrate out of orifice (cfs)
 Cc = 0.62 Coefficient of Contraction
 Cv = 0.98 Coefficient of Velocity
 Area = 0.000 Orifice Area (ft²)
 II = 3.14
 g = 32.17 Gravitational Constant
 d = 0.00 Orifice Diameter (in)
 d = Orifice



**Arowhead Meadow Subdivision Phase 1
2075 South (Artist Way)
Huntsville, Weber County, Utah**



North Future Lot	Sq. Ft.	Acre	C
Asphalt Surface	2,858	0.0656	0.85
Gravel Areas	13,637	0.3131	0.50
Building & Concrete	6,500	0.1492	0.85

Allow Release Rate (cfs/acre)
 Q Allowable (cfs)

Total/Weighted

Total Allowed Release cfs

Effective Release Rate per Acre 0.00 cfs/Acre

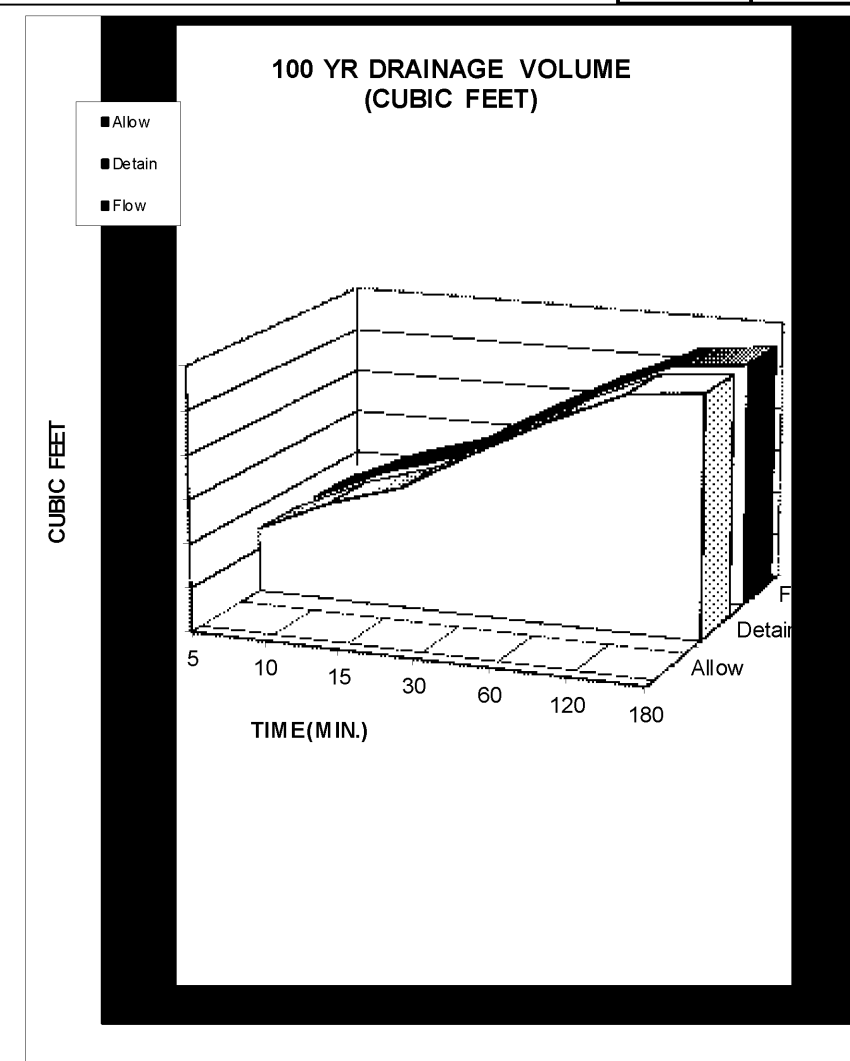
100 YEAR STORM RECOMMENDED MIN. VOLUME RETAINED

MIN	Runoff Vol (cf)	Inch / Hr	Total Vol (cf)	Retain Vol (cf)
	Allowable	i100	100 YEAR	Difference
5	0	7.22	735	735
10	0	5.5	1,119	1,119
15	0	4.54	1,386	1,386
30	0	3.06	1,868	1,868
60	0	1.89	2,307	2,307
120	0	1.1	2,686	2,686
180	0	0.757	2,773	2,773
360	0	0.425	3,113	3,113
720	0	0.264	3,868	3,868
1440	0	0.152	4,454	4,454

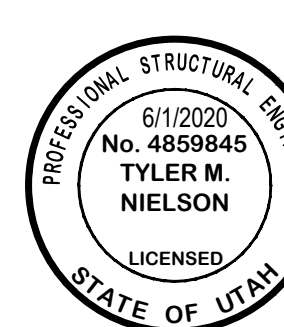
NOAA - Atlas 14

Orifice Calculation

H = Maximum water height (ft)
 Q = 0.00 Flowrate out of orifice (cfs)
 Cc = 0.62 Coefficient of Contraction
 Cv = 0.98 Coefficient of Velocity
 Area = 0.000 Orifice Area (ft²)
 II = 3.14
 g = 32.17 Gravitational Constant
 d = 0.00 Orifice Diameter (in)
 d = Orifice



REVISIONS	DESCRIPTION



DETECTION CALCS
 ARROWHEAD MEADOW SUBDIVISION PHASE 1
 2075 SOUTH (ARTIST WAY)
 HUNTSVILLE CITY, WEBER COUNTY, UTAH

GARDNER ENGINEERING
 CIVIL - LAND PLANNING
 MUNICIPAL - LAND SURVEYING
 5150 SOUTH 375 EAST OGDEN, UT
 OFFICE: 801-476-0202 FAX: 801-476-0066

CE3-02