Wednesday, April 26, 2023
Development Review Committee

DEVELOPMENT REVIEW COMMITTEE AGENDA
PUBLIC NOTICE is hereby given that the Development Review Committee of Spanish Fork, Utah, will hold a regular meeting at the Spanish Fork City Council Chamber, 40 South Main Street, Spanish Fork, Utah, commencing at 10:00 a.m. This meeting is not available to attend virtually.

1. Approval of Minutes

A. April 19, 2023

2. Site Plan

A. UTAH COUNTY EMERGENCY MANAGEMENT BUILDING. The proposal would allow for the construction of a new building on Utah County's site located at 364 West 3200 North.

3. Preliminary Plat and Zone Change

A. TRAILS ON MAIN. This proposal involves changing the current zone from R-R to R-4 and to approve a Preliminary Plat for a Master Planned Development with 2 multi-family residential buildings on 15.53 acres located at approximately 1527 South Main Street.

4. Adjourn

Draft Minutes
Spanish Fork City Development Review Committee
40 South Main Street
Spanish Fork City
April 19, 2023

Staff Members Present: Chris Thompson, Public Works Director; Dave Anderson, Community Development Director; Brandon Snyder, Senior Planner; Kimberly Brenneman, Development Coordination Manager; Vaughn Pickell, City Attorney; Ana Burgi, Assistant City Attorney; John Little, Chief Building Official; Byron Haslam, Senior Engineer; Marcie Clark, Department Development Secretary; Jered Johnson, Engineering Division Manager; Zach Hendrickson, Outside Plant Manager; Jake Theurer, Power and Light Superintendent; Tom Cooper, Power and Light Senior Utility Planner; Bart Morrill, Parks Maintenance Supervisor; Jason Turner, Fire Marshall; Kasey Woodard, Division Secretary.

Citizens Present: Sam Drown, Tyler Horan, Gavin West, Julie Smith, John Bankhead, Jeff Grasso, Daniel Herzog, Joseph Browning, Ryan Hales, Jason Nageli.

Chris Thompson called the meeting to order at 10:00 a.m.

MINUTES

April 19, 2023

John Little moved to approve the minutes of April 19, 2023.

Jered Johnson seconded and the motion **passed** all in favor.

FINAL PLAT

RIVER RUN TOWNHOMES

Brandon Snyder stated this has been previously approved by the DRC but has since expired, so the applicant is seeking reapproval. He states there has not been any design changes. He then briefly discussed the remaining redlines that need to be addressed.

Chris Thompson asked if all the lots can be built without Volunteer Drive being in place first, and it was stated, yes, this was one of the prior conditions of approval.

There was a brief discussion regarding Volunteer Drive and the agreement with the landowner that allows the City to move forward with building the road. It was stated the City is currently waiting on UDOT to come back with an agreement on the traffic signal. It was stated the agreement to the land was for immediate occupancy.

Jered Johnson stated the City has not acquired the land, but that the City has an agreement that states they can occupy it with the road. He stated there was a previous Plat that was approved with the road included in the design.

Marcie Clark in engineering feels this is ready to begin construction, the applicant needs to bring the bond to the City office.

There was discussion if there needs to be an additional condition that the Plat needs to be recorded.

Kimberly Brenneman stated the plat has been delivered to the County office and is in process.

Vaughn stated that Plat A has been recorded that includes the right-of-way. He stated this is just an amending Plat A to adjust some of the legal descriptions.

Dave Anderson **moved** to approve the proposed River Run Townhomes Final Plat based on the following finding and conditions:

Finding:

1. That the application conforms to the City's General Plan Designation and Zoning Map.
2. That the application is consistent with the approved Preliminary Plat.

Conditions:

1. That the applicant meets the City's Zoning requirements and Construction Standards.
2. That the applicant addresses any red-lines.
3. That the applicant provides a second access per City Code and the connection to Main Street.

Vaughn Pickell **seconded** and the motion **passed** all in favor.

SITE PLAN

1000 NORTH 600 EAST WIDENING
Jered Johnson stated this was taken before the City Council, he stated he is aware of the concerns of the right of way but he would like to move forward with approval.

Dillon Muirbrook stated the church is seeking secondary appraisals and that is currently holding things up.

Chris Thompson asked if the City is able to obtain occupancy and it was stated no, the church will not grant the City occupancy.

Dillon Muirbrook stated this was initially to be broken up into two phases, and that construction can begin on the center phase and not touch the church property at this time.

Jered Johnson stated that if construction is started, he does not want to be forced to halt construction.

Vaughn Pickell asked what the timeline is and Jered Johnson stated that is unknown.

Dillon Muirbrook stated the church uses their own consultant and he is unaware of who that is currently.

Jered Johnson wants to move forward with approval and stated engineering will have a discussion with the church.

There was discussion about the overall design.

Dave Anderson asked about the traffic flow and Dillon Muirbrook stated they are only closing one lane at a time for a period of about a week at a time. He stated there should be two lanes open. He stated they do not expect full closure at any point unless there is a complication.

There was discussion about whether this can be done overnight to not impact the flow of traffic but it was decided that it is not optimal. It was then discussed if this project can wait until the following year and it was stated it was beneficial to not wait.

Chris Thompson asked if the design can run parallel to the sidewalk and Dillon Muirbrook stated there was a discussion with the designer regarding this and that they were unable to get the grading to work and so they need to move forward with the current design.

Jake Theurer **moved** to approve the proposed 1000 North 600 East Widening Site Plan based on the following finding and conditions:

Finding:

1. That the application conforms to the City's General Plan Designation and Zoning Map.

Conditions:

1. That the applicant meets the City's Zoning requirements and Construction Standards.
2. That the applicant addresses the redline comments.

Vaughn Pickell **seconded** and the motion **passed** all in favor.

DISC GOLF RESTROOMS

Matt Romero stated the original design was located in the flood zone and so the location was moved to a higher elevation.

Jered Johnson stated he likes the new location of the restrooms.

Matt Romero stated they plan to start infrastructure first and that will allow landscaping to be completed. He then described the utility plans and stated the storm drain is already built but stated they still need to hook into the sewer. He stated they still need funding. He stated this will not go to construction until the flood season has ended.

Vaughn Pickell **moved** to approve the proposed Disc Golf Restrooms Site Plan based on the following finding and conditions:

Finding:

1. That the application conforms to the City's General Plan Designation and Zoning Map.

Conditions:

1. That the applicant meets the City's Zoning requirements and Construction Standards.
2. That the applicant addresses the redline comments.

Jered Johnson **seconded** and the motion **passed** all in favor.

CONCEPT REVIEW

AMSOURCE DRIVE THROUGH ATM

The applicant has requested this discussion be continued until they can be present.

VESTA

John Bankhead gave a presentation of the concept that was brought to the DRC. He stated he has been having conversations with Dave Anderson and Michael Clark with regard to traffic. He presented a draft of the Site Plan using the Fingerhut road as the access to the site and stated it would be a public road and also the main access point to the development. He stated they looked at connecting the road to Powerhouse Road. He then expressed the concerns that have been presented to them and stated they need to be addressed. He discussed the concern of the quality of placing residential zoning so close to an industrial zone. He stated they are seeking feedback from the DRC and addressing some of the presented concerns with the location and design.

Brandon Snyder stated the Planning Commission has expressed the need for a secondary access for developments, and if the applicant does not have a secondary access, then the discussion would lean towards the city's code that does not allow for developments with more than 35 units to be on a permanent single access.

Jason Turner asked how many units are in the design and John Bankhead stated it is around 150 and Jason Turner stated that many units would be required to have a secondary access.

Chris Thompson stated there is a left turn concern from the area.

Jered Johnson stated an intersection located at US-6 and Canyon Road would be ideal.

John Bankhead asked if the DRC would require a lighted intersection and Chris Thompson stated yes as the highway speeds of Highway 6 are too fast and it would be a safety concern.

John Bankhead asked if the use were to remain industrial, would there be a requirement for the lighted intersection and Chris Thompson stated yes it will be required if there are more than 35 buildings.

Jered Johnson expressed concern for overloading the area with traffic.

Ryan Hales discussed the traffic queuing on Powerhouse road and US-6 and he suggested a traffic roundabout. He stated they conducted a traffic study and the roundabout seemed to work well at alleviating the traffic.

Chris Thompson stated this does not solve the secondary access issue.

John Bankhead acknowledged that and stated that this roundabout would help the backed-up traffic in the area. Ryan Hales stated this roundabout will probably not help much with the Christmas traffic but stated it would help overall day to day traffic.

Chris Thompson stated the City would have their traffic engineers conduct a traffic study.

John Bankhead stated they were trying to find a way to make the use of the area residential, but feels it may not work out and it may be best to keep the area industrial.

Chris Thompson stated the main concern is that this design does not have the required secondary access.

Jason Turner stated that every building there would need to have sprinklers and Dave Anderson stated he is still not comfortable with residential homes being there.

There was a discussion about the need for the secondary access and if it is just for emergency use, is it really necessary? And Jason Turner stated that fire engines cannot pull out fast enough to the flow of the 70-80 mph traffic of the highway and that is cause for concern.

Vaughn Pickell stated that saying this is strictly required for emergency access alone is false.

John Bankhead stated there is a similar design in Salt Lake County where residential is backed up to industrial. He understands the concerns the DRC has presented and stated they will go back and look at what can be done on the residential design and if that can't work, he stated they will move forward with an industrial design.

Dave Anderson stated the second access is going to be the major factor in this design.

John Bankhead appreciated the feedback of the DRC and stated they will revise their plans and come back to the DRC.

EAST MEADOWS ESTATES PLAT D

Julie Smith gave a brief description of what the property owner is wanting to do. She stated the property owner is seeking to bend the road up to the north to obtain the square footage that they need for the bottom 3 lots. She stated they are currently working with Michael Clark and will work with the irrigation company on realigning the ditch.

Chris Thompson asked if they are only developing the west side of the road and it was stated yes, that is the only property that is owned by the property owner.

There was discussion regarding the requirements of a Master Planned Development in an R-1-6 zoning and it was stated the minimum acreage is 2 contiguous acres.

Julie Smith stated they are asking if the road could be curved slightly and Chris Thompson stated he feels that moving a road one foot is not favorable.

There was discussion about the trail that is located along 750 West and that the applicant would be required to build and where the best location would be.

Julie Smith asked if the DRC is okay with the design concept.

Dave Anderson stated that before the Preliminary Plat can be submitted for approval, the East Meadows Plat C minor plat needs to be resolved.

Kimberly Brenneman stated the East Meadows Plat C expires June 29, 2023 and needs to be signed before expiration.

Julie Smith understands this and is happy with the feedback provided.

OTHER DISCUSSION

Residential concerns about traffic along 400 North and the future improvement plans.

GWC 40 annexation was discussed. It was stated the City Council accepted the resolution to accept it as an annexation.

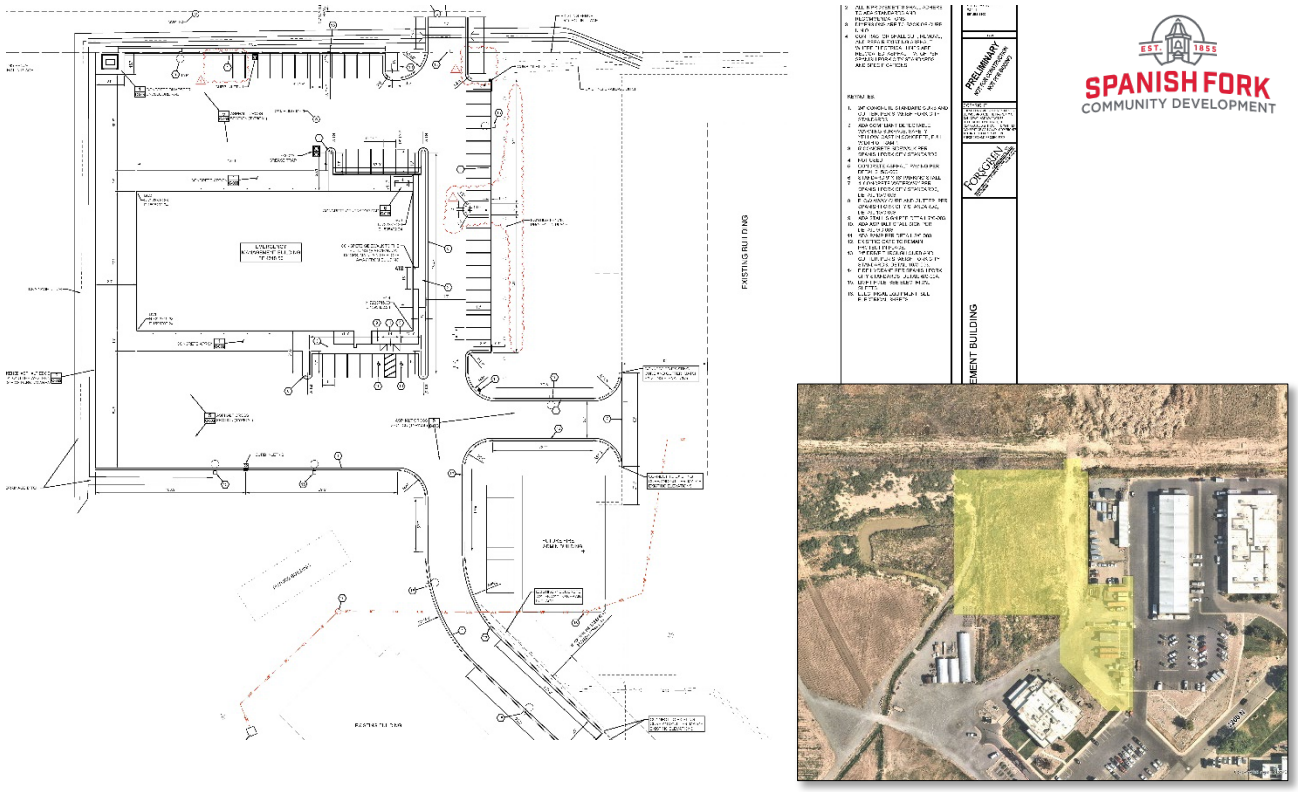
GWC 320 annexation feasibility study was discussed.

Fire Station project was discussed.

Dave Anderson moved to adjourn the meeting at 11:30 a.m.

Adopted:

Kasey Woodard
Community Development Division
Secretary



Utah County Emergency Management Building Site Plan Approval Request

April 26, 2023, Development Review Committee meeting.

Located at 364 West 3200 North, including 2.07 acres.

The subject property is zoned I-1.

The applicant has requested Site Plan approval.

Recommendation

That the proposed Site Plan be approved based on the following finding and subject to the following conditions:

Finding

1. That the application conforms to the City's General Plan Designation and Zoning Map.

Conditions

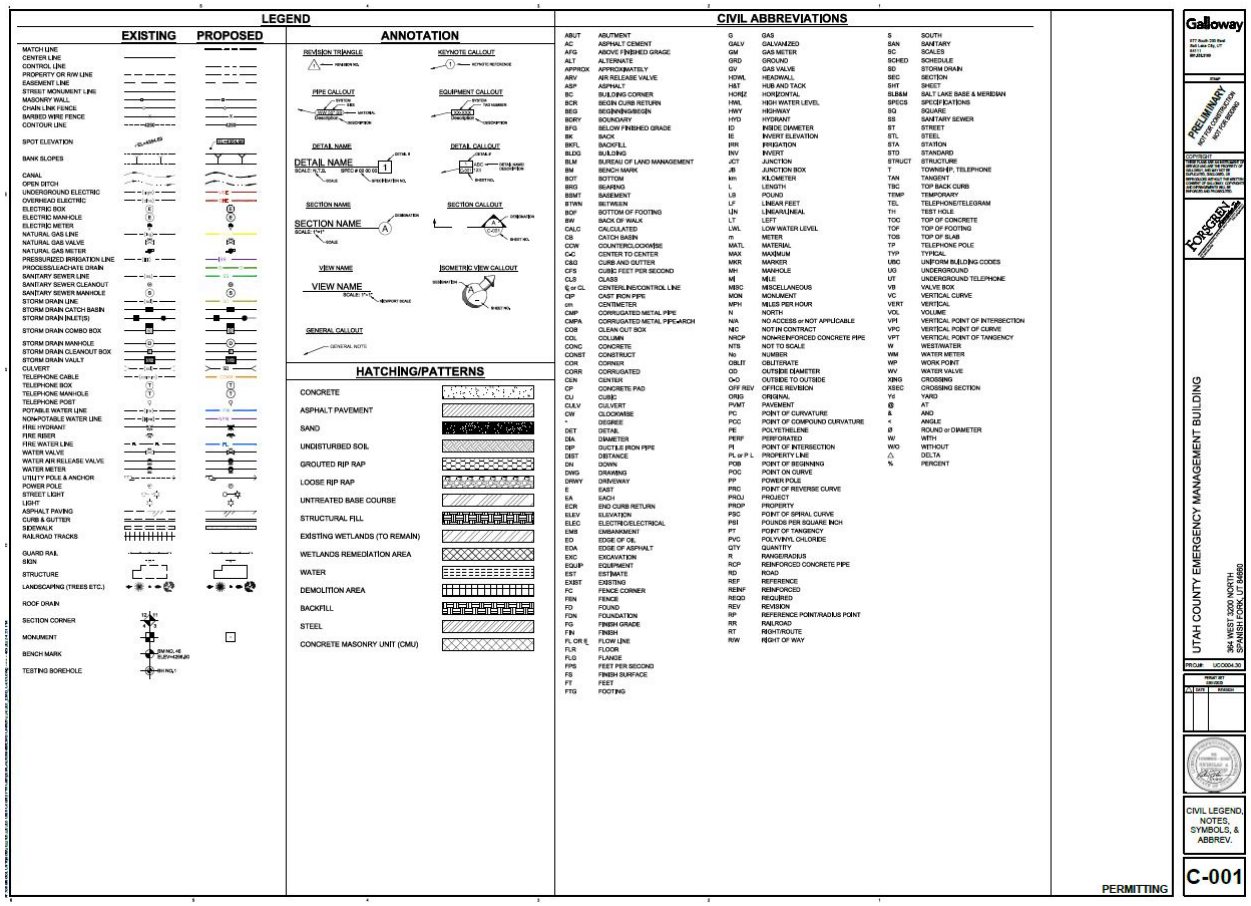
1. That the applicant meets the City's Zoning requirements and Construction Standards.
2. That the applicant addresses any red-lines.

Key Issues

1. Power.

Exhibits

1. Site Plan.
2. Landscaping.
3. Building Elevations.


LEGEND
EXISTING
PROPOSED
ANNOTATION
HATCHING/PATTERNS
CIVIL ABBREVIATIONS
ABUT ABUTMENT
AC ASPHALT CEMENT
AFG ABOVE FINISHED GRAGE
ALT ALTERNATE
APPROX APPROXIMATELY
ARV AIR RELEASE VALVE
ASP ASPHALT
BC BUILDING CORNER
BCR BCGN CURB RETURN
BEG BEGINNING/BEGIN
BDRY BOUNDARY
BFG BELOW FINISHED GRADE
BK BACK
BKFL BACKFILL
BLDG BUILDING
BLM BUREAU OF LAND MANAGEMENT
BM BENCH MARK
BOT BOTTOM
BRG BEARING
BSMT BASEMENT
BTWN BETWEEN
BOF BOTTOM OF FOOTING
BW BACK OF WALK
CALC CALCULATED
CB CATCH BASIN
CCW COUNTERCLOCKWISE
C-C CENTER TO CENTER
C&G CURB AND GUTTER
CFS CUBIC FEET PER SECOND
CLS CLASS
℄ or CL CENTERLINE/CONTROL LINE
CIP CAST IRON PIPE
cm CENTIMETER
CMP CORRUGATED METAL PIPE
CMPA CORRUGATED METAL PIPE-ARCH
COB CLEAN OUT BOX
COL COLUMN
CONC CONCRETE
CONST CONSTRUCT
COR CORNER
CORR CORRUGATED
CLN CENTER
CP CONCRETE PAD
CU CUBIC
CULV CULVERT
CW CLOCKWISE
° DEGREE
DET DETAIL
DIA DIAMETER
DIP DUCTILE IRON PIPE
DIST DISTANCE
DN DOWN
DWG DRAWING
DRWY DRIVEWAY
E EAST
EA EACH
ECR END CURB RETURN
ELEV ELEVATION
ELEC ELECTRIC/ELECTRICAL
EMB EMBANKMENT
ED EDGE OF OIL
EOA EDGE OF ASPHALT
EXC EXCAVATION
EQUIP EQUIPMENT
EST ESTIMATE
EXIST EXISTING
FC FENCE CORNER
FEN FENCE
FD FOUND
FDN FOUNDATION
FG FINISH GRADE
FIN FINISH
FL OR ℄ FLOW LINE
FLR FLOOR
FLG FLANGE
FPS FEET PER SECOND
FS FINISH SURFACE
FT FEET
FTG FOOTING
G GAS
GALV GALVANIZED
GM GAS METER
GRD GROUND
GV GAS VALVE
HDWL HEADWALL
HST HUB AND TACK
HORIZ HORIZONTAL
HWL HIGH WATER LEVEL
HWY HIGHWAY
HYD HYDRANT
ID INSIDE DIAMETER
IE INVERT ELEVATION
IRR IRRIGATION
INV INVERT
JCT JUNCTION
JB JUNCTION BOX
km KILOMETER
L LENGTH
LB POUND
LF LINEAR FEET
LIN LINEAR/LINEAL
LT LEFT
LWL LOW WATER LEVEL
m METER
MATL MATERIAL
MAX MAXIMUM
MKR MARKER
MH MANHOLE
MI MILE
MISC MISCELLANEOUS
MON MONUMENT
MPH MILES PER HOUR
N NORTH
N/A NO ACCESS or NOT APPLICABLE
NIC NOT IN CONTRACT
NRCP NONREINFORCED CONCRETE PIPE
NTS NOT TO SCALE
No NUMBER
OBLIT OBLITERATE
OD OUTSIDE DIAMETER
O-O OUTSIDE TO OUTSIDE
OFF REV OFFICE REVISION
ORIG ORIGINAL
PVMT PAVEMENT
PC POINT OF CURVATURE
PCC POINT OF COMPOUND CURVATURE
PE POLYETHELENE
PERF PERFORATED
PI POINT OF INTERSECTION
PL or P L PROPERTY LINE
POB POINT OF BEGINNING
POC POINT ON CURVE
PP POWER POLE
PRC POINT OF REVERSE CURVE
PROJ PROJECT
PROP PROPERTY
PSC POINT OF SPIRAL CURVE
PSI POUNDS PER SQUARE INCH
PT POINT OF TANGENCY
PVC POLYVINYL CHLORIDE
QTY QUANTITY
R RANGE/RADIUS
RCP REINFORCED CONCRETE PIPE
RD ROAD
REF REFERENCE
REINF REINFORCED
REQD REQUIRED
REV REVISION
RP REFERENCE POINT/RADIUS POINT
RR RAILROAD
RT RIGHT/ROUTE
R/W RIGHT OF WAY
S SOUTH
SAN SANITARY
SC SCALES
SCHED SCHEDULE
SD STORM DRAIN
SEC SECTION
SHT SHEET
SL B&M SALT LAKE BASE & MERIDIAN
SPECS SPECIFICATIONS
SQ SQUARE
SS SANITARY SEWER
ST STREET
STL STEEL
STA STATION
STD STANDARD
STRUCT STRUCTURE
T TOWNSHIP, TELEPHONE
TAN TANGENT
TBC TOP BACK CURB
TEMP TEMPORARY
TEL TELEPHONE/TELEGRAM
TH TEST HOLE
TOC TOP OF CONCRETE
TOF TOP OF FOOTING
TOS TOP OF SLAB
TP TELEPHONE POLE
TYP TYPICAL
UBC UNIFORM BUILDING CODES
UG UNDERGROUND
UT UNDERGROUND TELEPHONE
VB VALVE BOX
VC VERTICAL CURVE
VERT VERTICAL
VOL VOLUME
VPI VERTICAL POINT OF INTERSECTION
VPC VERTICAL POINT OF CURVE
VPT VERTICAL POINT OF TANGENCY
W WEST/WATER
WM WATER METER
WP WORK POINT
WV WATER VALVE
XING CROSSING
XSEC CROSSING SECTION
Yd YARD
@ AT
& AND
∠ ANGLE
Ø ROUND or DIAMETER
W/ WITH
W/O WITHOUT
△ DELTA
% PERCENT
PERMITTING
Galloway
PRELIMINARY
NOT FOR CONSTRUCTION
NOT FOR RECORDING
FORSGREN
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
3964 WEST 5200 NORTH
SPANISH FORK, UT 84660
PROJ#: UC004.50
CIVIL LEGEND, NOTES, SYMBOLS, & ABBREV.
C-001

GENERAL NOTES

1. ANY MODIFICATION TO THIS CONSTRUCTION PACKAGE SHALL BE APPROVED BY THE ENGINEER. PRIOR TO SAID APPROVAL, ALL IMPROVEMENT DRAWINGS SHALL BE UPDATED AT THE CONTRACTOR'S EXPENSE, RESUBMITTED, AND APPROVED BY THE ENGINEER UNLESS NOTED OTHERWISE.
2. PROJECT SHALL BE CONSTRUCTED TO SPANISH FORK CITY STDS, APWA STDS, AND TECHNICAL SPECIFICATIONS AND SPECIAL PROVISIONS IN THE PROJECT MANUAL. IN THE EVENT OF A CONFLICT, THE MOST STRINGENT SPECIFICATION WILL APPLY.
3. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER, ARCHITECT, ENGINEER, AND SUB-CONSULTANTS 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, ARCHITECT, ENGINEER, OR SUB-CONSULTANTS.
4. UTILITIES SHOWN ON THE PROJECT PLANS ARE APPROXIMATE. CONTRACTOR SHALL NOTIFY BLUE STAKES 48 HOURS IN ADVANCE OF ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL LOCATE, RETAIN AND PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE DIRECTED BY THE OWNER AND AS SHOWN ON THE PROJECT PLANS. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL UTILITY CONFLICTS UPON DISCOVERY.
6. CONTRACTOR IS RESPONSIBLE FOR REPAIR OR REPLACEMENTS OF ANY DAMAGE TO ADJACENT SURFACE IMPROVEMENTS IMPACTED BY CONSTRUCTION.
7. CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY TRENCH SETTLEMENT OR DAMAGE TO EXISTING UTILITIES.
8. EXISTING UTILITY SERVICE SHALL BE MAINTAINED THROUGH CONSTRUCTION PROCESS. IF A UTILITY SERVICE IS GOING TO BE INTERRUPTED, ALL AFFECTED PROPERTY OWNERS ARE TO BE NOTIFIED IN WRITING BY THE CONTRACTOR 72 HOURS BEFORE THE DISRUPTION.
9. RECORD DRAWINGS ARE TO BE PROVIDED TO THE OWNER IN ELECTRONIC AND PRINTED FORMATS PRIOR TO FINAL PAYMENT. AS PART OF THE RECORD DRAWINGS, THE CONTRACTOR SHALL USE A SURVEY GRADE GPS DEVICE TO RECORD THE LOCATION OF DISCOVERED AND INSTALLED UTILITY LINES. THE SURVEY SHALL BE PERFORMED AS LINES ARE FOUND AND LINES ARE INSTALLED AND SHALL BE DONE PRIOR TO THE LINE BEING COVERED. LINE NOT MEASURED WILL BE UNCOVERED, RE-BACKFILLED, AND RE-PAVED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. THE SURVEY INFORMATION SHALL INCLUDE ALL FOUND AND INSTALLED WATER LINE BENDS, ELBOWS, AND VALVES, SEWER MANHOLES, STORM DRAIN CATCH BASINS AND INLET BOXES, COMMUNICATION LINES, ELECTRICAL LINES, AND OTHER FOUND OR INSTALLED UTILITY LINES. THE SURVEY WILL SHOW THE ELEVATION AND DESCRIPTION OF THE UTILITY. THE SURVEY WILL BE TIED TO THE SITE HORIZONTAL AND VERTICAL CONTROL. LINES SHALL BE SURVEYED AS THEY ARE BEING BACKFILLED.
10. ALL WORK MUST BE SUBSTANTIALLY COMPLETE PRIOR TO THE DATE STATED IN THE CONTRACT. THE CONTRACTOR SHALL PROVIDE MULTIPLE CREWS, WORK MULTIPLE SHIFTS, ETC. AS NEEDED TO GET WORK SUBSTANTIALLY COMPLETE BY THE DEADLINE. SUBSTANTIALLY COMPLETE INCLUDES BUT IS NOT LIMITED TO ALL EXCAVATION, FILL, BACKFILL, PAVING, PAINTING, STRIPING, AND CONCRETE WORK COMPLETED AND READY FOR OWNER'S USE.
11. STOCKPILES SHALL BE GRADED TO MAINTAIN SLOPES NOT GREATER THAN 3:1 HORIZONTAL TO VERTICAL OR AS INDICATED IN THE GEOTECHNICAL REPORT PROVIDED FOR THIS PROJECT. PROVIDE EROSION CONTROL AS NEEDED TO PREVENT SEDIMENT TRANSPORT TO ADJACENT DRAINAGE WAYS.
12. INSTALL TRAFFIC WARNING DEVICES AS NEEDED IN ACCORDANCE WITH LOCAL STANDARDS TO REDIRECT TRAFFIC OUT OF THE CONSTRUCTION AREA. THE CONTRACTOR SHALL MAINTAIN AN ACCESS ROUTE THROUGH THE SITE FOR FIREFIGHTING AND OTHER EMERGENCY EQUIPMENT.
13. CONTRACTOR SHALL OBTAIN ALL PERMITS NECESSARY FOR CONSTRUCTION AND DEMOLITION FROM CITY, COUNTY, STATE AND/OR FEDERAL AGENCIES AS REQUIRED.
14. STREETS SHALL BE KEPT CLEAN TO THE SATISFACTION OF THE ENGINEER AND OWNER.

UTILITY NOTES

1. VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTING ANY NEW UTILITY LINES. NOTIFY OWNER AND CIVIL ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO ANY CONNECTIONS BEING MADE.
2. ALL CATCH BASIN AND INLET BOX GRATES ARE TO BE BICYCLE SAFE. INLET BOXES AND CATCH BASINS MAY BE CAST IN PLACE OR PRECAST. ALL INLET BOXES ARE TO ALIGN WITH THE ADJACENT CURB AND GUTTER. MISALIGNED OR OFFSET INLET BOXES ARE TO BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
3. REFER TO SITE ELECTRICAL PLANS FOR DETAIL AND LOCATION OF ELECTRICAL LINES, LIGHT POLES, SWITCHGEAR, TRANSFORMERS, AND OTHER ELECTRICAL EQUIPMENT.
4. GAS LINES, TELEPHONE LINES, AND COMMUNICATION LINES ARE NOT PART OF THESE PLANS [illegible]
5. WATER LINES, VALVES, FIRE HYDRANTS, FITTINGS, ETC. ARE TO BE CONSTRUCTED AS INDICATED. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ANY VERTICAL ADJUSTMENTS NECESSARY TO CLEAR SEWER, STORM DRAIN, CONDUIT, GAS LINES, COMMUNICATION LINES, WATER LINES, OR OTHER UTILITY LINES AS NECESSARY INCLUDING VALVE BOXES, AND HYDRANT SPOOLS TO FINISH GRADE.
6. TRACER WIRE AND MARKING TAPE ARE REQUIRED ON ALL PIPING MAINS AND LATERALS. TRACER WIRE SHALL BE INSTALLED DIRECTLY ABOVE THE PIPE.
7. PROVIDE THRUST BLOCKS FOR ALL WATER MAIN BENDS PER SPANISH FORK CITY STANDARD DRAWING [illegible]. ALL THRUST BLOCKS SHALL BE CAST AGAINST UNDISTURBED SOIL.
8. ALL PIPING TO BE INSTALLED PER MANUFACTURES RECOMMENDATIONS. REFER TO SPECIFICATIONS FOR MORE DETAILED INFORMATION.
9. ALL OPEN TRENCHES SHALL BE COVERED WITH REMOVABLE PLATES DURING NON WORKING HOURS.
10. CONTRACTOR SHALL MAINTAIN A MINIMUM 10 FOOT HORIZONTAL AND 18 INCH VERTICAL SEPARATION BETWEEN POTABLE WATER LINES AND NON POTABLE UTILITY PIPING.
11. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH UTILITY OWNER'S SPECIFICATIONS. CONTRACTOR SHALL COORDINATE ALL SUCH WORK WITH UTILITY OWNER.
12. CONTRACTOR SHALL NOT ALLOW ANY GROUNDWATER OR DEBRIS TO ENTER NEW PIPES DURING CONSTRUCTION.
13. CONTRACTOR SHALL PROVIDE DEWATERING OF GROUNDWATER. PROVIDE TRENCH SHORING AS NECESSARY. REFER TO SPECIFICATION 31 23 40 AND GEOTECHNICAL REPORT.

SITE NOTES

1. DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE. RADIUS DIMENSIONS ARE TO BACK OF CURB, UNLESS OTHERWISE NOTED.
2. ALL SIDEWALKS AND BACK OF CURB SHALL BE GRADED AT 2% CROSS SLOPE OR LESS.
3. CONCRETE SHALL BE 4000 PSI CONCRETE [illegible] RETAINING WALLS, AND CURB & GUTTER.
4. ASPHALT PAVING SHALL BE A MINIMUM OF 3 INCHES THICK UNLESS OTHERWISE NOTED. IF THICKER, THE PAVING SHALL BE DONE IN LIFTS OF UP TO 3 INCHES THICK AND AT LEAST 1.5 INCHES THICK. USE ASPHALT AND GRADATION SPECIFIED IN THE SPECIFICATIONS. COMPACT ASPHALT TO BETWEEN 92% AND 96% OF MAXIMUM DENSITY. AREAS COMPACTED TO MORE THAN 96% SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
5. PROOF ROLL SUBGRADE WITH FULLY LOADED WATER TRUCK OR OTHER SIMILARLY LOADED VEHICLE TO FIND SOFT SPOTS. PROOF ROLLING IS CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND NO ADDITIONAL PAYMENT FOR PROOF ROLLING WILL BE MADE TO THE CONTRACTOR. REMOVE AND REPLACE SOFT SPOTS TO NOT LESS THAN 12 INCHES BELOW SUBGRADE OR DEEPER AS DIRECTED BY THE OWNER AND AS SPECIFIED IN THE SPECIFICATIONS. REPLACE SOFT SPOTS WITH GRANULAR FILL COMPACTED TO NOT LESS THAN 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557. SOFT SPOT REMOVAL WILL BE PAID ACCORDING TO THE SPECIFICATIONS.
6. COMPACT ROAD BASE TO NOT LESS THAN 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.
7. ALL WORK IN CITY RIGHT OF WAY TO CONFORM [illegible]

DEMOLITION NOTES

1. DEMOLITION FOR THE CONTRACT IS TO INCLUDE ALL AREAS SHOWN WITHIN THE DEMOLITION LIMITS OR BY NOTE.
2. [illegible]
3. SAWCUT ASPHALT IN AREAS INDICATED. FIELD VERIFY SAWCUT LOCATIONS WITH OWNER PRIOR TO CUTTING ASPHALT. SAWCUT IN NEAT, STRAIGHT LINES PRIOR TO EXCAVATION.
4. RETAIN AND PROTECT EXISTING BUILDINGS TO REMAIN, INCLUDING ALL FOOTINGS, FOUNDATIONS, AWNINGS, AND OVERHANGS.
5. CLEAR AND GRUB TREES, AND OTHER VEGETATION, INCLUDING ROOT BALLS AND ROOTS [illegible] INSIDE THE DEMOLITION LIMITS UNLESS OTHERWISE NOTED.
6. DO NOT INTERRUPT THE SERVICES OR DISRUPT THE OPERATION OF ANY BUSINESS OR OWNER FUNCTIONS OUTSIDE OF THE DEMOLITION LIMITS.
7. REMOVE DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM THE DEMOLITION AND SITE CLEARING OPERATIONS FROM THE SITE AND DISPOSE OF IN A LEGAL MANNER UNLESS DIRECTED OTHERWISE IN THE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL WASTE MATERIAL. DISPOSAL SHALL BE AT AN APPROVED SITE FOR SUCH MATERIAL. BURNING OR BURYING OF WASTE MATERIAL ONSITE IS NOT PERMITTED.
8. [illegible] UNLESS ADDITIONAL EXCAVATION IS PART OF THE CONSTRUCTION PROJECT.
9. ALL STREET DEMOLITION AND CONSTRUCTION (OUTSIDE OF THE PROPERTY LINE) SHALL BE IN STRICT COMPLIANCE WITH CITY REQUIREMENTS. SITE DEMOLITION AND CONSTRUCTION INSIDE OF THE PROPERTY LINE SHALL BE IN STRICT COMPLIANCE WITH PROJECT MANUAL REQUIREMENTS.
10. NATIVE SOILS ARE NOT ACCEPTABLE FOR SITE FILL UNLESS NOTED OTHERWISE ON THE PROJECT PLANS AND THE GEOTECHNICAL REPORT.

GRADING NOTES

1. ALL WORK IN STREET SHALL BE IN ACCORDANCE WITH THE CITY STANDARDS.
2. ALL CUT AND FILL SLOPES SHALL BE ACCORDING TO OSHA REQUIREMENTS.
3. FILLS SHALL BE COMPACTED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT. THE REPORT IS TITLED "PROPOSED EMERGENCY MANAGEMENT BUILDING" BY KLEINFELDER.
4. AREAS TO RECEIVE FILL SHALL BE PROPERLY PREPARED AND APPROVED BY THE INSPECTOR AND GEOTECHNICAL ENGINEER PRIOR TO PLACING FILL.
5. FILLS SHALL BE BENCHED INTO COMPETENT MATERIAL AS PER THE SPECIFICATIONS AND GEOTECHNICAL REPORT.
6. ALL TRENCH BACKFILL SHALL BE TESTED AND CERTIFIED BY THE INSPECTOR.
7. THE CONTRACTOR SHALL COORDINATE INSPECTIONS & TESTING, AND SUBMIT A COMPLETE REPORT AND MAP UPON COMPLETION OF THE ROUGH GRADING. THE REPORT AND MAP SHALL SHOW AREAS WHERE COMPACTION TESTS HAVE BEEN TAKEN, AND COMPACTION RESULTS.
8. DUST SHALL BE CONTROLLED BY WATERING. DO NOT OVER WATER OR SOFTEN THE SUBGRADE OR CAUSE EROSION DUE TO WATERING.
9. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
10. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING DRAINAGE AREAS DURING THE CONSTRUCTION OF THE PROJECT. ALL PUBLIC ROADS MUST BE CLEANED DAILY OF ALL DIRT, MUD AND DEBRIS DEPOSITED AS A RESULT OF THE CONSTRUCTION. THE CLEANING IS TO BE DONE TO THE SATISFACTION OF THE PROJECT MANAGER, OWNER, AND CITY.
11. THE SITE SHALL BE CLEARED OF ALL VEGETATION AND DELETERIOUS MATTER PRIOR TO BEGINNING THE GRADING OPERATION.
12. THE CONTRACTOR SHALL PROVIDE SHORING IN ACCORDANCE WITH OSHA REQUIREMENTS FOR TRENCH WALLS.
13. AGGREGATE BASE AND SUBGRADE SHALL BE COMPACTED AND PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT FOR THIS PROJECT.
14. AS PART OF THE CONSTRUCTION DOCUMENTS, THE OWNER HAS PROVIDED THE CONTRACTOR WITH A TOPOGRAPHIC SURVEY PERFORMED BY MANUAL OR AERIAL MEANS. SAID SURVEY WAS PREPARED FOR PROJECT DESIGN PURPOSES AND IS PROVIDED TO THE CONTRACTOR AS A COURTESY. IT IS EXPRESSLY UNDERSTOOD THAT SUCH SURVEY MAY NOT ACCURATELY REFLECT EXISTING TOPOGRAPHICAL CONDITIONS.
15. EROSION CONTROL: PROTECT ALL INLET BOXES, CATCH BASINS, STORM DRAIN MANHOLES, DRAINAGE DITCHES, AND WATERWAYS WITH APPROVED [illegible]
16. THE CONTRACTOR SHALL COMPLETE A SWPPP BASED ON THE LATEST UTAH DEQ APPROVED TEMPLATE AND FILE FOR A NOTICE OF INTENT (NOI), PAY THE FEE FOR COVERAGE. AFTER CONSTRUCTION IS SUBSTANTIALLY COMPLETE, THE SITE HAS BEEN STABILIZED, AND POST CONSTRUCTION BMPS HAVE BEEN INSTALLED, THE CONTRACTOR SHALL FILE A NOTICE OF TERMINATION WITH UTAH DEQ PRIOR TO RECEIVING FINAL PAYMENT FOR THIS PROJECT.
17. CONTRACTOR SHALL MAINTAIN POSITIVE GRADING AND DRAINAGE AWAY FROM BUILDINGS, 2% MINIMUM SLOPE.

PROJECT CONTACTS

COORDINATE WITH CIVIL ENGINEER	
NICK PATTERSON	1-801-[illegible]
COORDINATE ANY UTILITY WORK WITH UTILITY COMPANY(S):	
DOMINION ENERGY	1-800-[illegible]
DOMINION ENERGY EMERGENCY	1-800-[illegible]
CENTURY LINK	1-877-[illegible]
ROCKY MOUNTAIN POWER	1-888-221-7070
ROCKY MOUNTAIN POWER EMERGENCY	1-877-508-5088
BLUE STAKES OF UTAH	1-800-662-4111

SURVEY DATUM

HORIZONTAL DATUM
UTAH STATE PLANE COORDINATES
NAD83 DATUM, UTAH CENTRAL ZONE, US FOOT

VERTICAL DATUM
NAVD88 DATUM

BASIS OF BEARING AND BENCHMARK
ELEV=XXXX.XX
N E

PERMITTING

Galloway

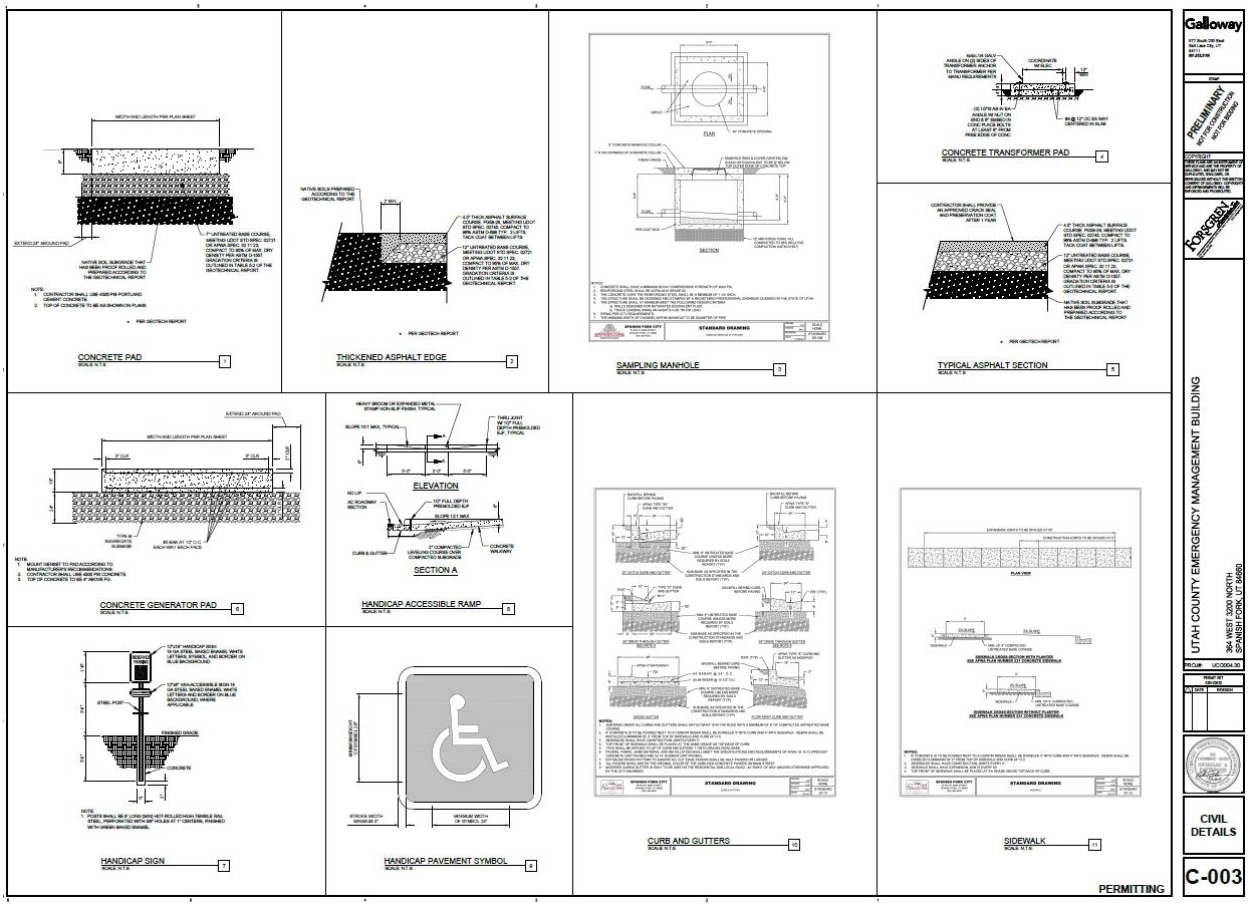
PRELIMINARY
NOT FOR CONSTRUCTION
NOT FOR BIDDING

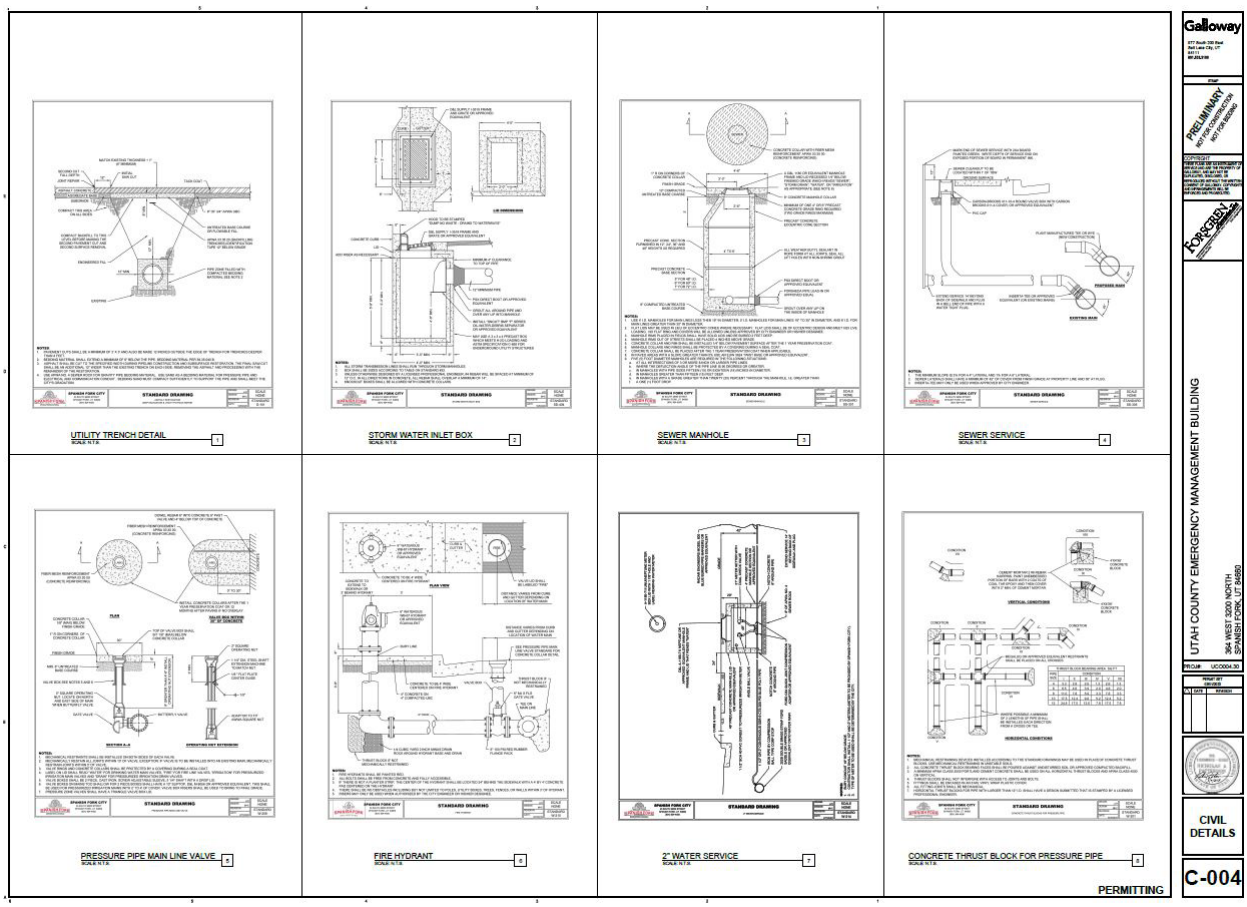
FORSGREN

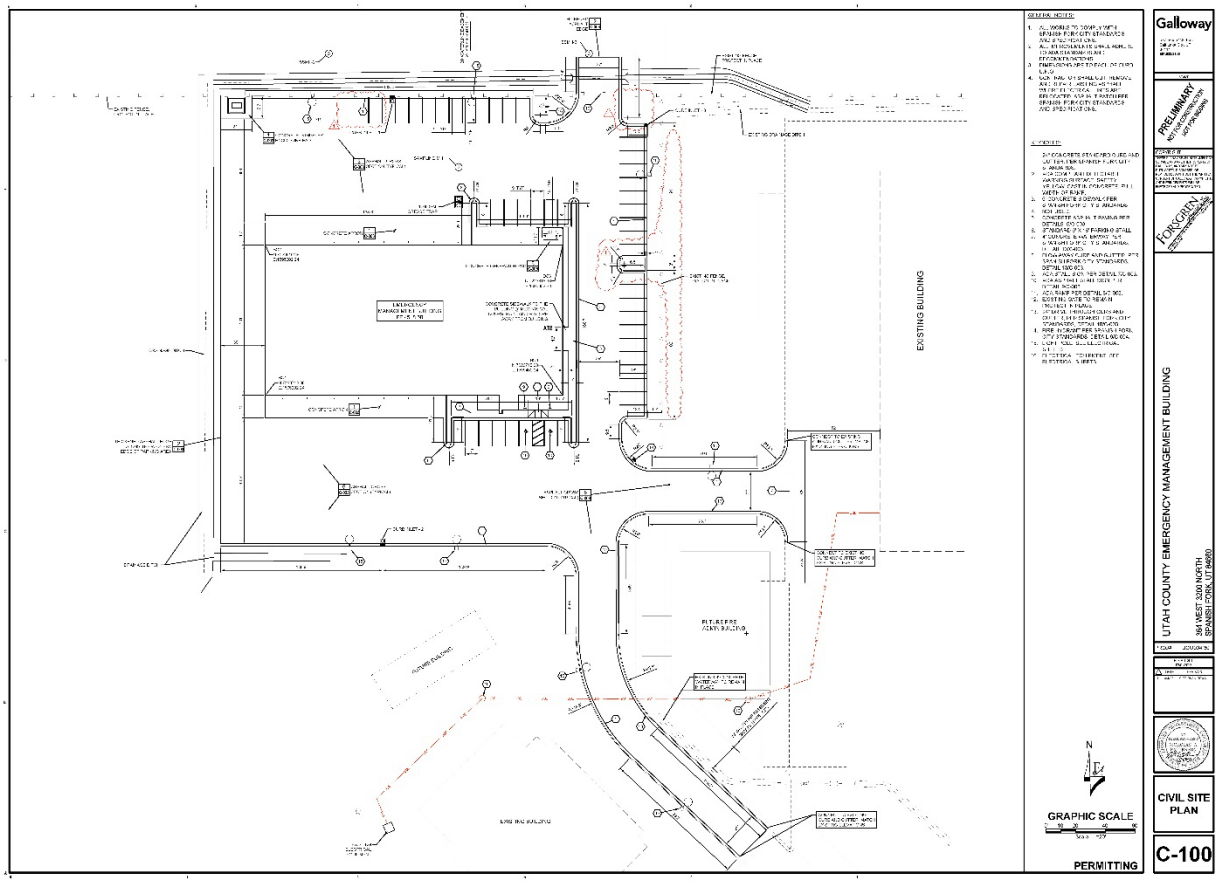
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
364 WEST 3200 NORTH
SPANISH FORK, UT 84660

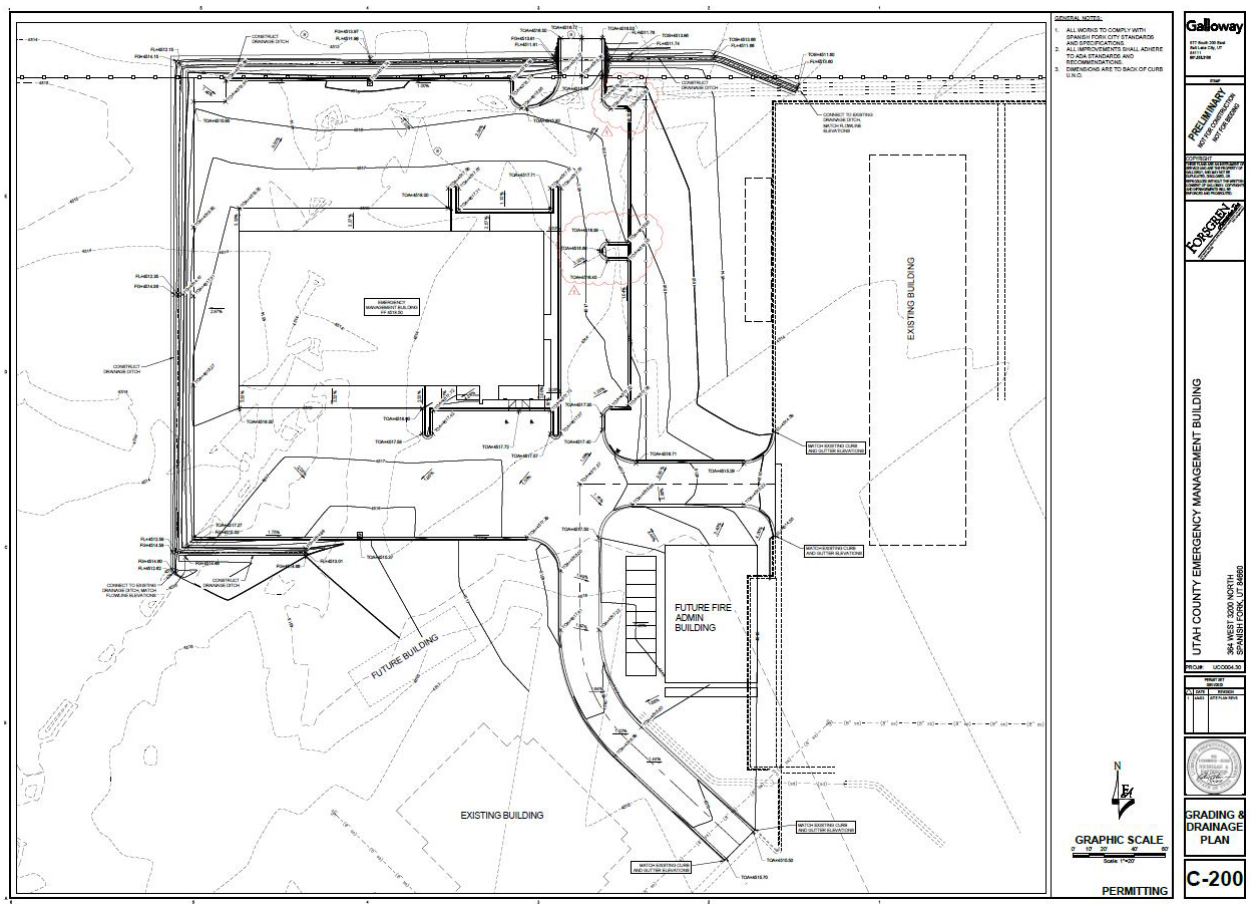
CIVIL GENERAL NOTES

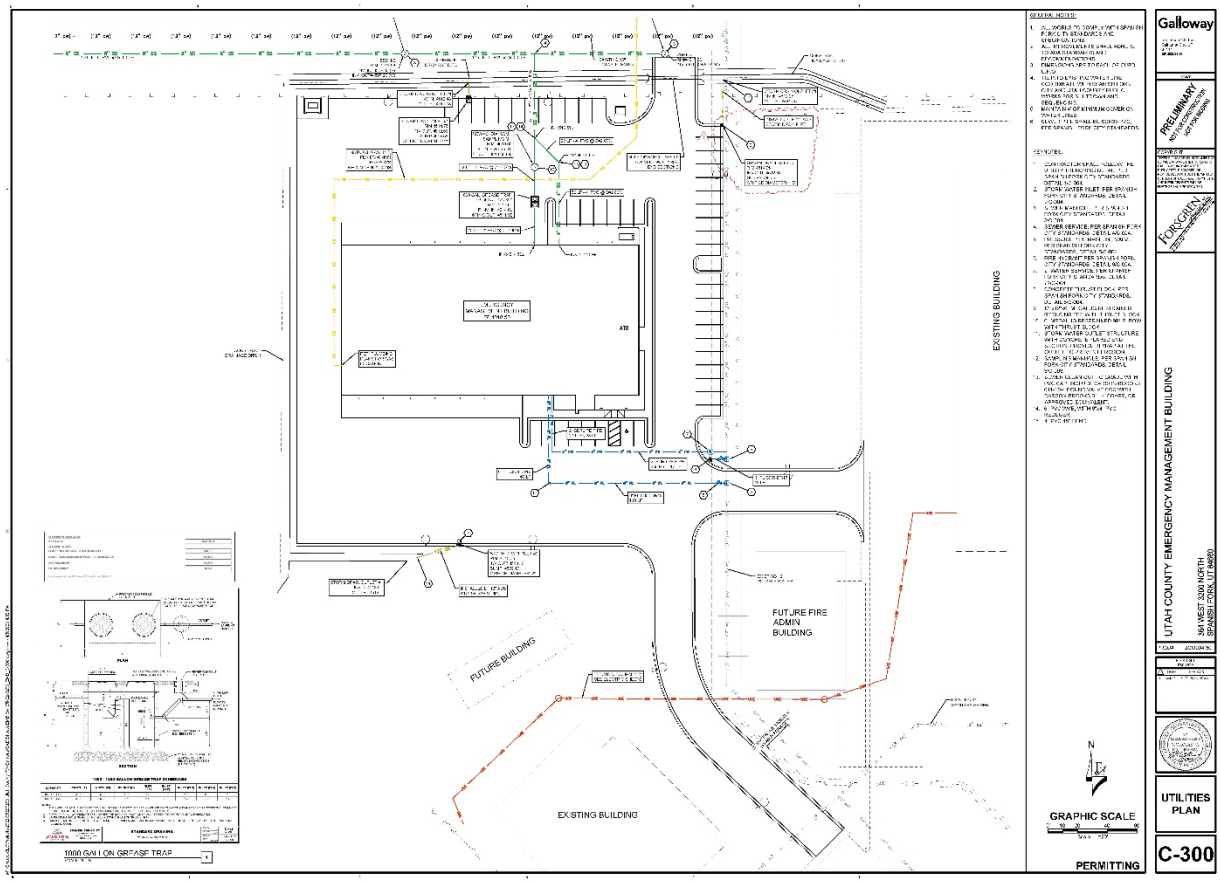
C-002


CONCRETE PAD
THICKENED ASPHALT EDGE
SAMPLING MANHOLE
CONCRETE TRANSFORMER PAD
TYPICAL ASPHALT SECTION
CONCRETE GENERATOR PAD
ELEVATION
SECTION A
HANDICAP ACCESSIBLE RAMP
HANDICAP SIGN
HANDICAP PAVEMENT SYMBOL
CURB AND GUTTERS
SIDEWALK
PERMITTING
Galloway
PRELIMINARY
FOREGREEN
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
364 WEST 3200 NORTH
SPANISH FORK, UT 84660
CIVIL DETAILS
C-003


UTILITY TRENCH DETAIL
STORM WATER INLET BOX
SEWER MANHOLE
SEWER SERVICE
PRESSURE PIPE MAIN LINE VALVE
FIRE HYDRANT
2" WATER SERVICE
CONCRETE THRUST BLOCK FOR PRESSURE PIPE
PERMITTING
Galloway
PRELIMINARY
NOT FOR CONSTRUCTION
NOT FOR RECORDING
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
364 WEST 3200 NORTH
SPANISH FORK, UT 84660
CIVIL DETAILS
C-004


EXISTING BUILDING
GRAPHIC SCALE
PERMITTING
Galloway
PRELIMINARY
NOT FOR CONSTRUCTION
FORCGREN
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
3841 WEST 3200 NORTH
SPANISH FORK, UT 84660
CIVIL SITE PLAN
C-100


GENERAL NOTES:
1. ALL WORKS TO COMPLY WITH SPANISH FORK CITY STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS SHALL ADHERE TO ADA STANDARDS AND RECOMMENDATIONS.
3. DIMENSIONS ARE TO BACK OF CURB U.N.O.
EXISTING BUILDING
FUTURE FIRE ADMIN BUILDING
FUTURE BUILDING
EXISTING BUILDING
GRAPHIC SCALE
PERMITTING
Galloway
PRELIMINARY
NOT FOR CONSTRUCTION
NOT FOR BIDDING
FOR SCREEN
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
964 WEST 3200 NORTH
SPANISH FORK, UT 84660
GRADING & DRAINAGE PLAN
C-200


Galloway
PRELIMINARY
FORGREN
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
UTILITIES PLAN
C-300
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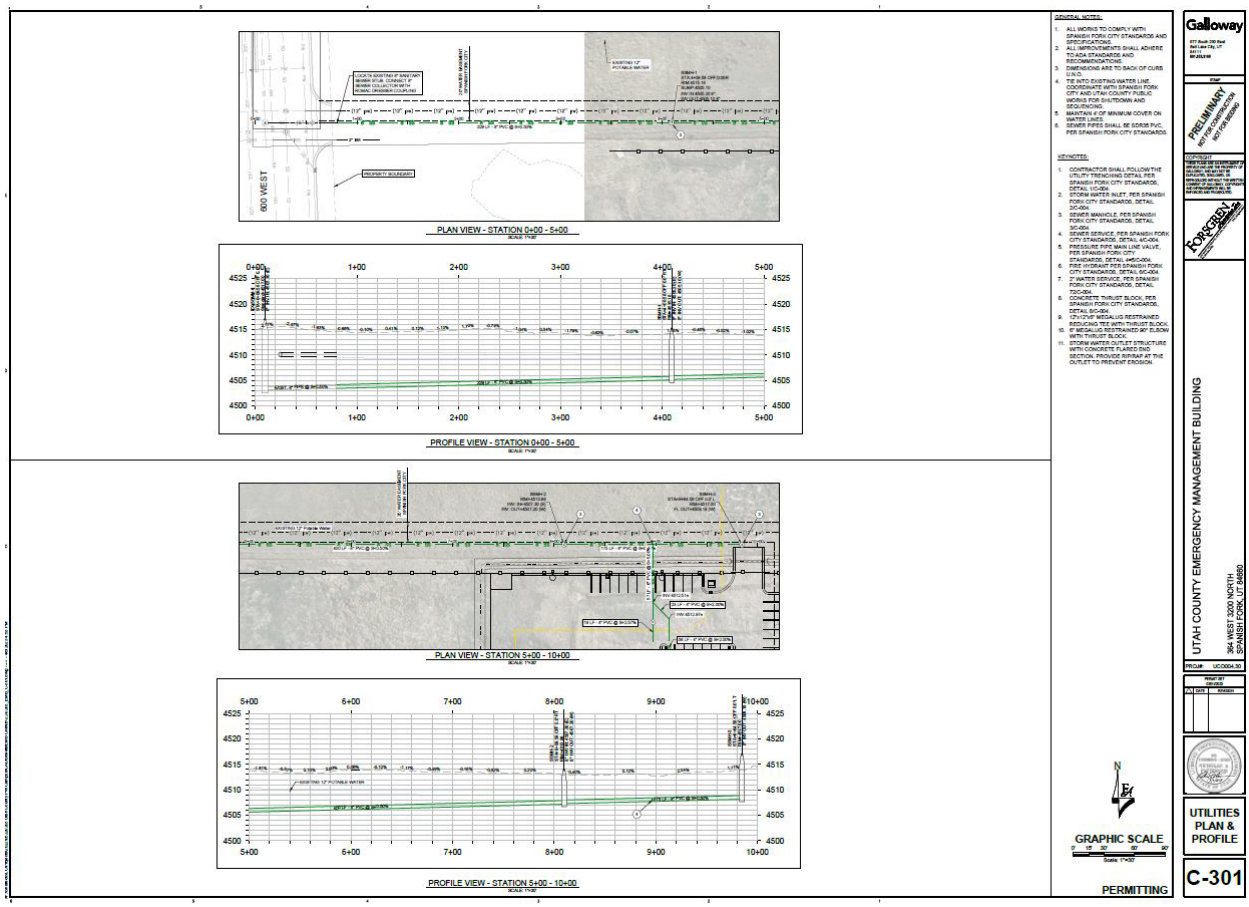
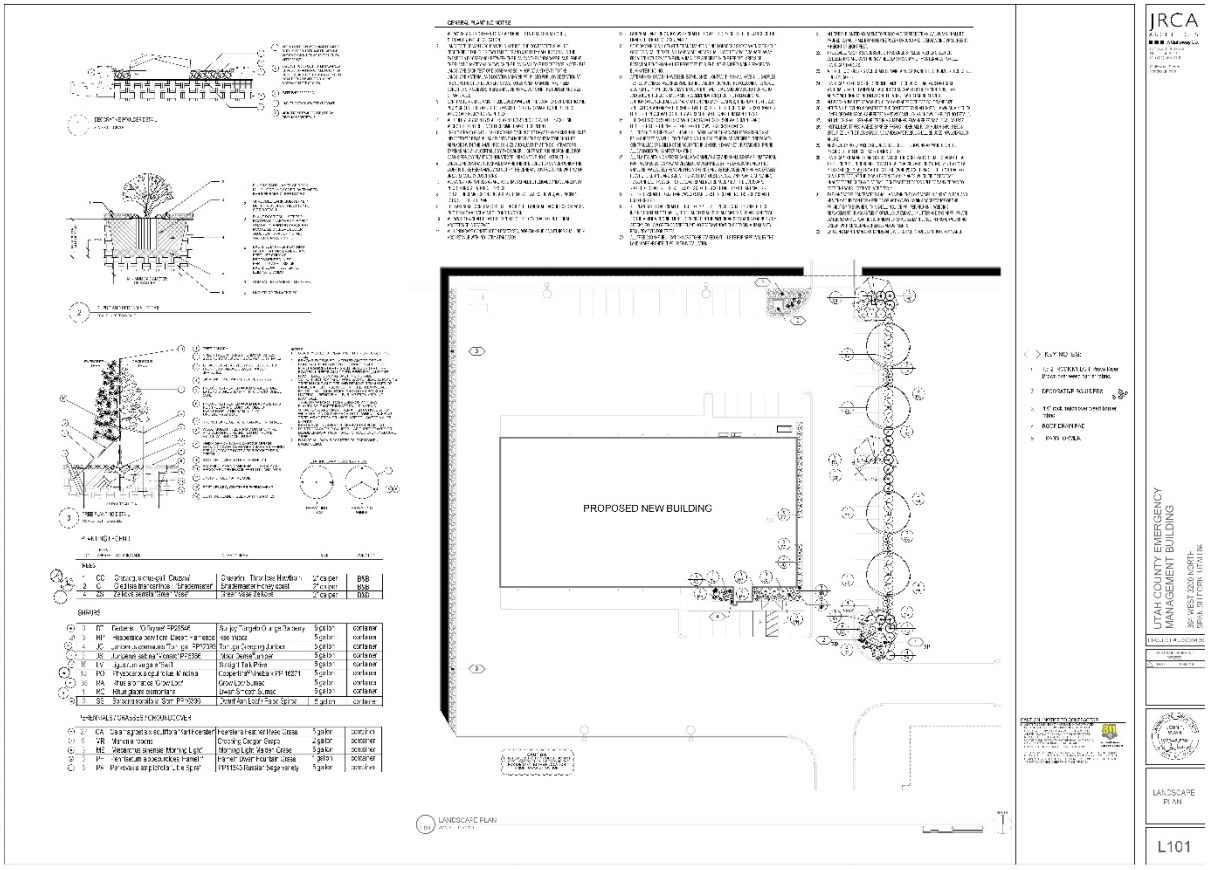
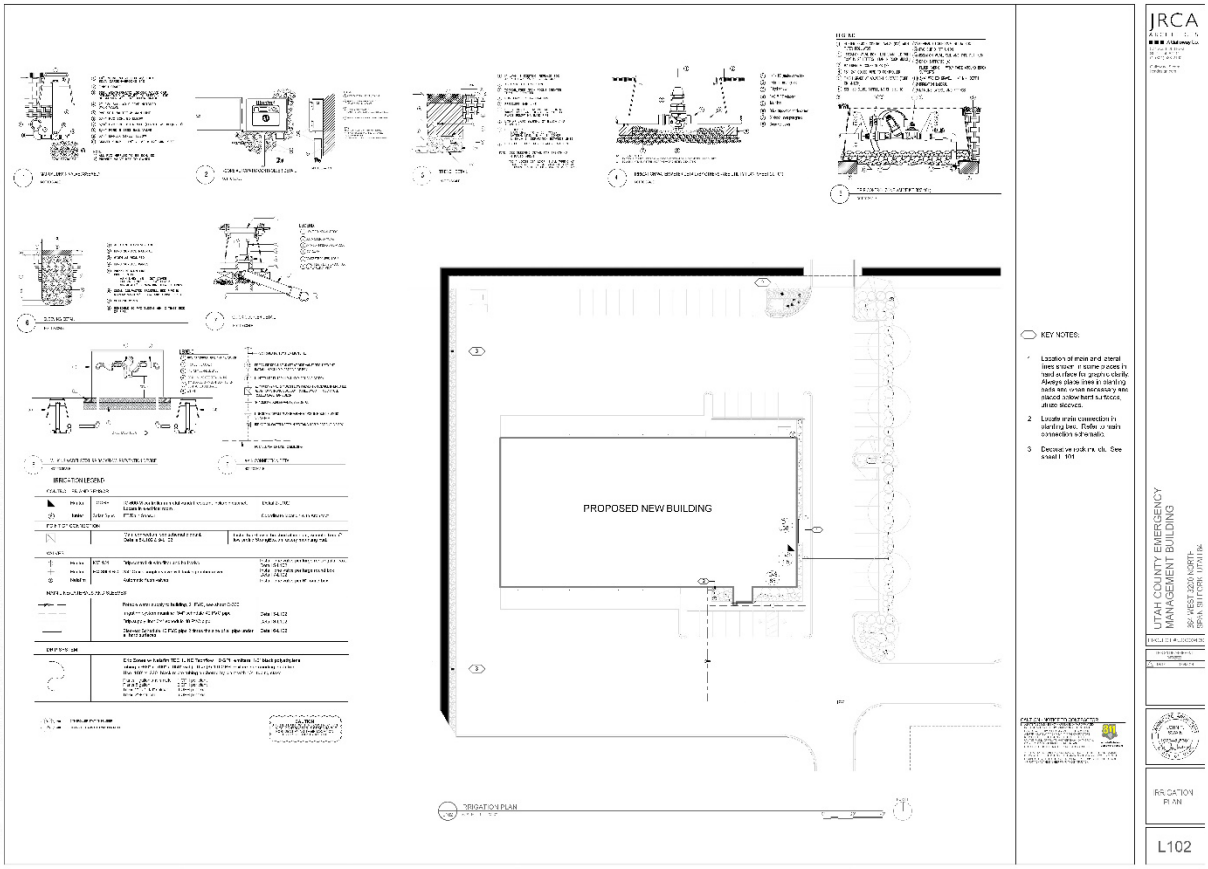
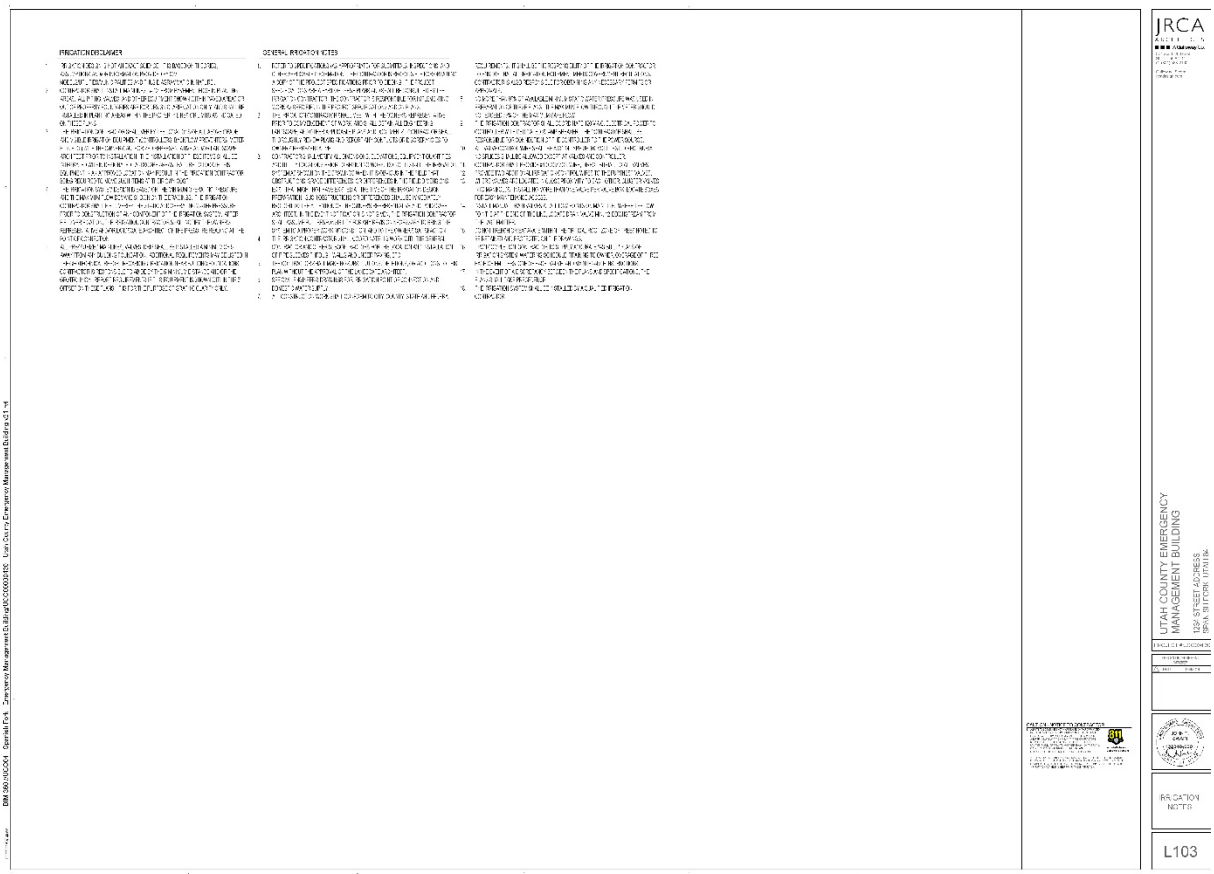
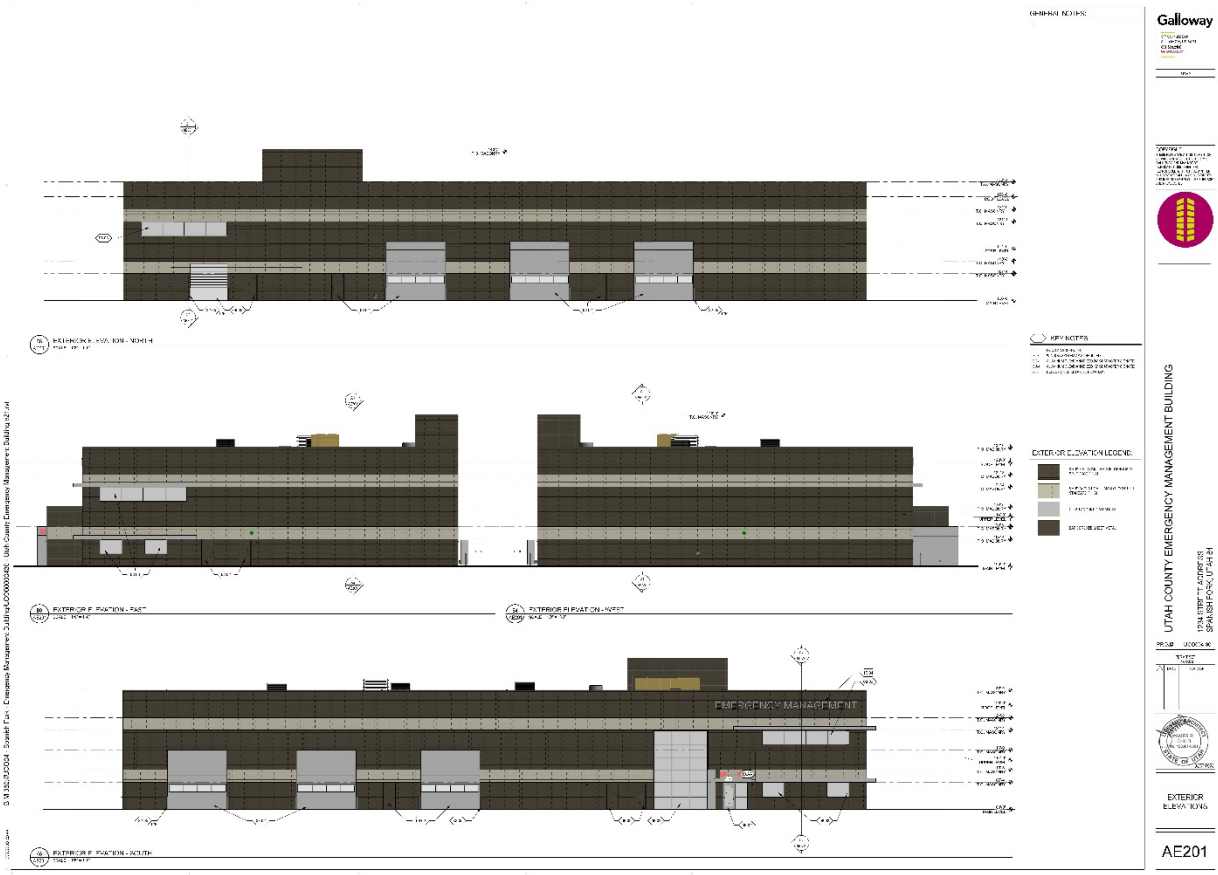
FUTURE FIRE ADMIN BUILDING
FUTURE BUILDING
EXISTING BUILDING
GRAPHIC SCALE
PERMITTING
1000 GALLON GREASE TRAP

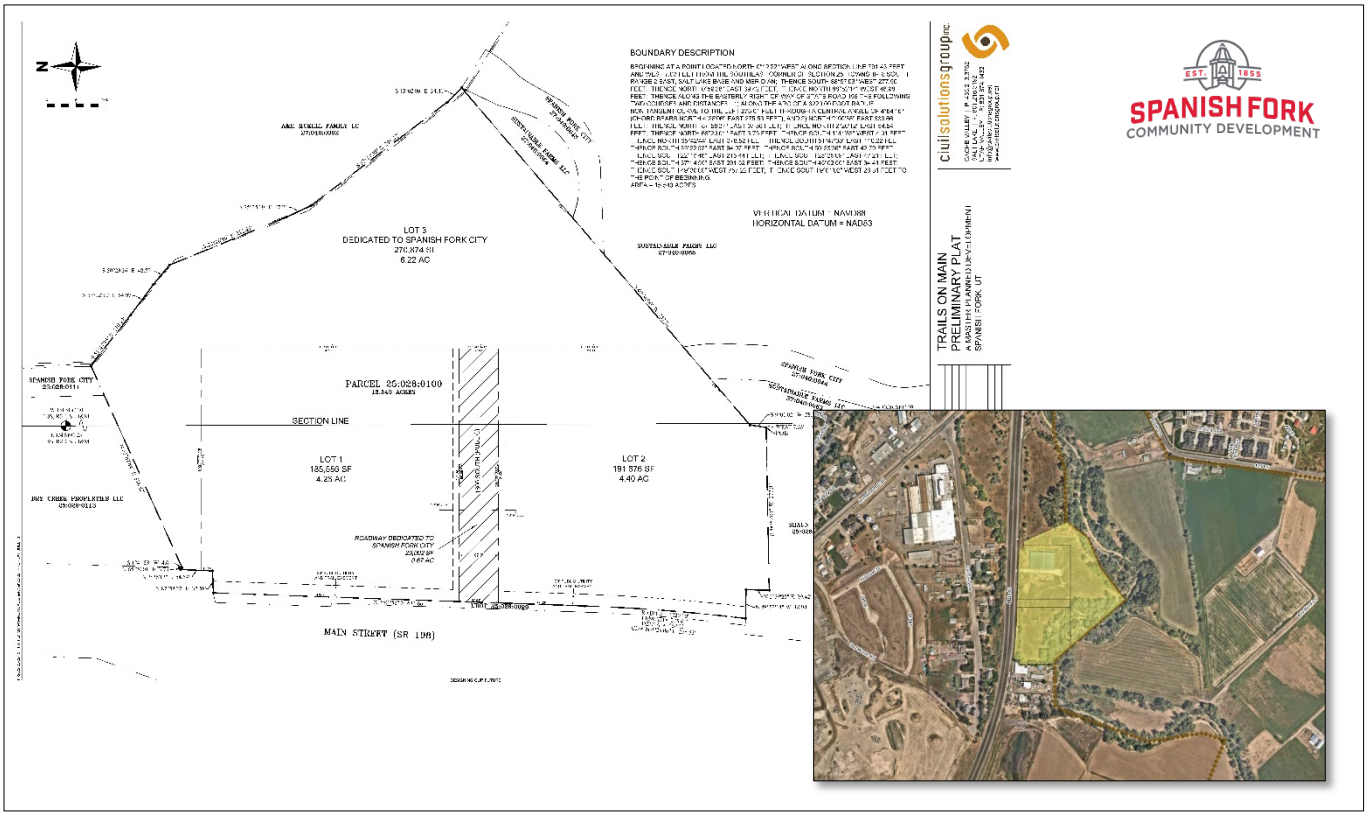

PLAN VIEW - STATION 0+00 - 5+00
PROFILE VIEW - STATION 0+00 - 5+00
PLAN VIEW - STATION 5+00 - 10+00
PROFILE VIEW - STATION 5+00 - 10+00
GRAPHIC SCALE
PERMITTING
Galloway
PRELIMINARY
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
364 WEST 3200 NORTH
SPANISH FORK, UT 84660
UTILITIES PLAN & PROFILE
C-301


GENERAL PLANTING NOTES
PROPOSED NEW BUILDING
LANDSCAPE PLAN
JRCA
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
LANDSCAPE PLAN
L101


JRCA
PROPOSED NEW BUILDING
KEY NOTES:
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
IRRIGATION PLAN
L102


IRRIGATION DISCLAIMER
GENERAL IRRIGATION NOTES
JRCA
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
1234 STREET ADDRESS
SPRINGSTOWN, UTAH 84
IRRIGATION NOTES
L103


Galloway
UTAH COUNTY EMERGENCY MANAGEMENT BUILDING
EXTERIOR ELEVATIONS
AE201
EMERGENCY MANAGEMENT



Trails on Main Preliminary Plat and Zone Change Approval Request

April 26, 2023, Development Review Committee meeting.

Located at 1527 South Main Street, including 15.53 acres.

The applicant has requested Preliminary Plat approval for a Master Planned Development that includes three (3) residential lots.

The subject property is zoned R-R and the applicant has requested a change to the R-4 zone.

Recommendation

That the proposed Preliminary Plat and Zone Change be denied based on the following findings:

Findings

1. That the proposal does not conform to the City's parking requirements.
2. That a plan to provide sanitary sewer service to the subject property has not finalized.
3. That City staff is not currently prepared to support a proposal that requires a modification of the floodplain.

Key Issues

1. Zoning.
2. Access.
3. Utilities.
4. Parking.
5. Floodplain.
6. Landscaping.
7. Amenities.
8. Density.

Exhibits

1. Preliminary Plat.
2. Landscaping.
3. Parking data.
4. Renderings.
5. Floodplain information.

TRAILS ON MAIN
PRELIMINARY PLAT
A MASTER PLANNED DEVELOPMENT

VICINITY MAP - NTS

Sheet Index	
Sheet Number	Sheet Title
1	COVER
2	EXISTING TOPO
3	SURVEY PLAN
4	SITE PLAN
5	UTILITY PLAN
6	OFFSITE SEWER
7	GRADING PLAN

LEGEND EXISTING

LEGEND PROPOSED

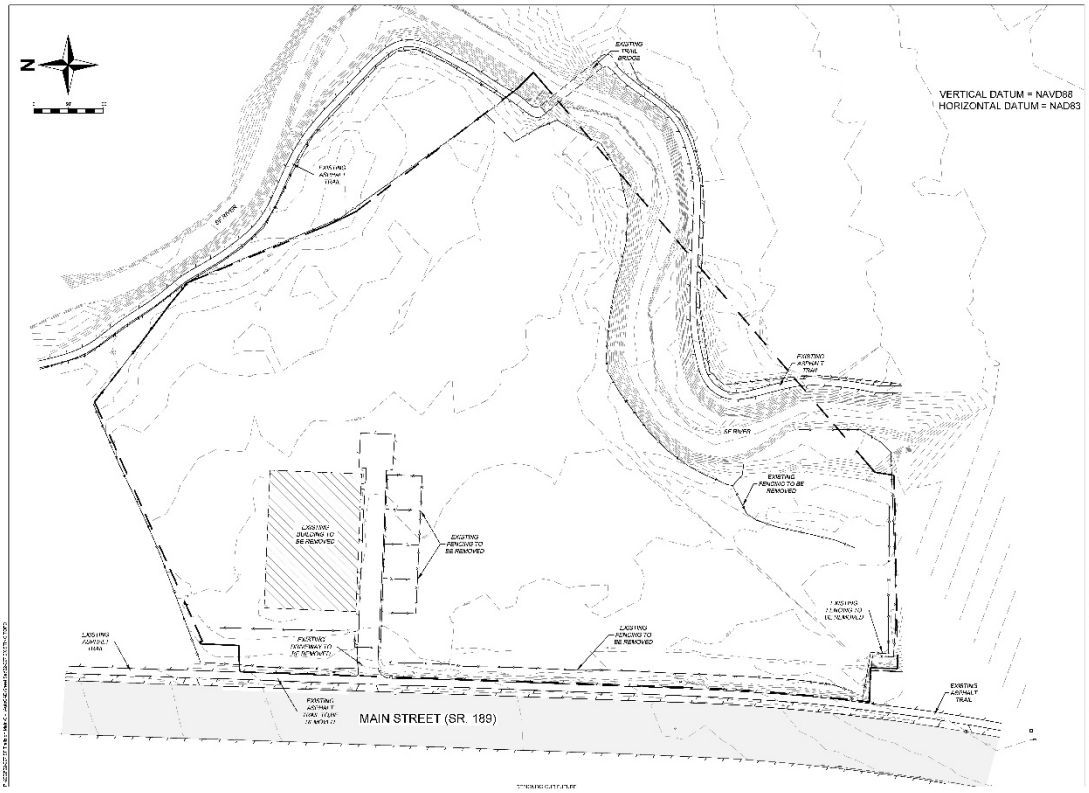
Know what's below. Call 811 before you dig.
BLUE STAKES OF UTAH
www.bluestakes.org
1-800-662-4111

civilsolutionsgroup inc.
CACHE VALLEY | T: 435.213.2752
SALT LAKE VALLEY | T: 801.810.1222
UTAH VALLEY | T: 801.671.1432
info@civil solutionsgroup.net
www.civil solutionsgroup.net

TRAILS ON MAIN
PRELIMINARY PLAT
A MASTER PLANNED DEVELOPMENT
SPANISH FORK, UT

COVER

1 OF 7



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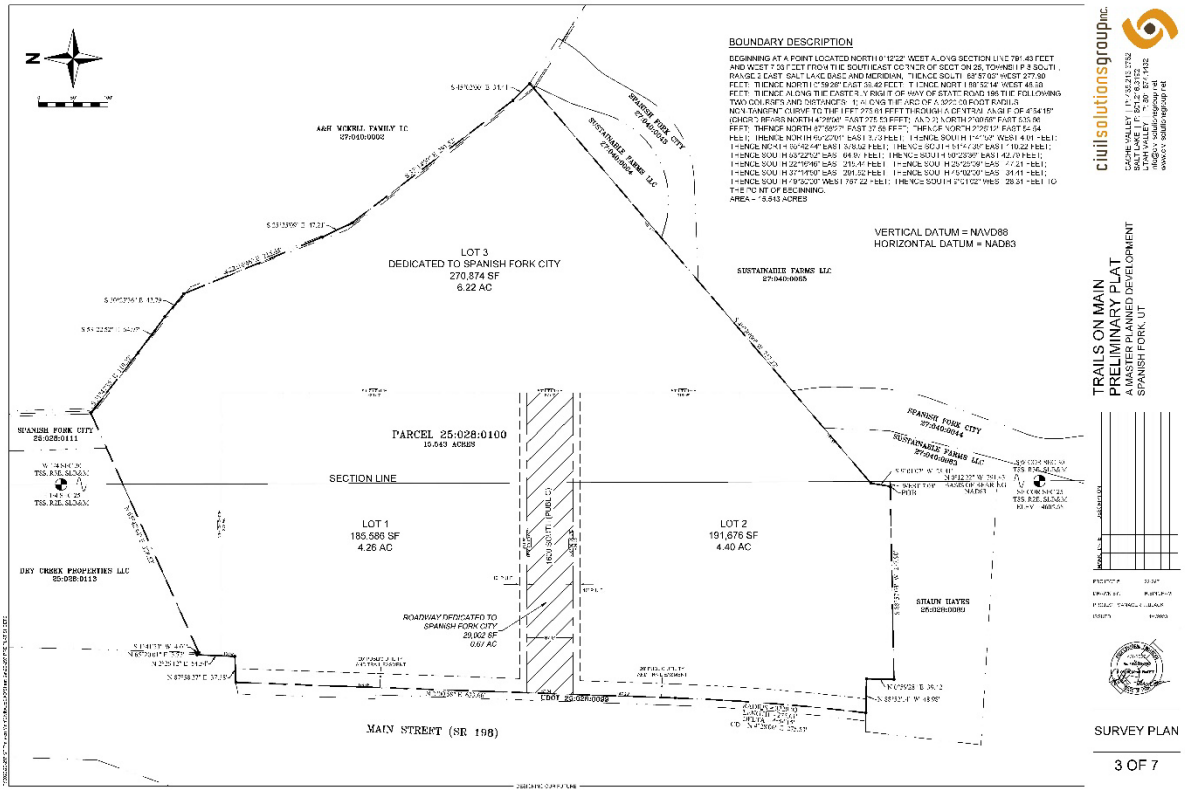
info@civil solutionsgroup.net
www.civil solutionsgroup.net

TRAILS ON MAIN
PRELIMINARY PLAT
A MASTER PLANNED DEVELOPMENT
SPANISH FORK, UT

EXISTING TOPOGRAPHY

2 OF 7



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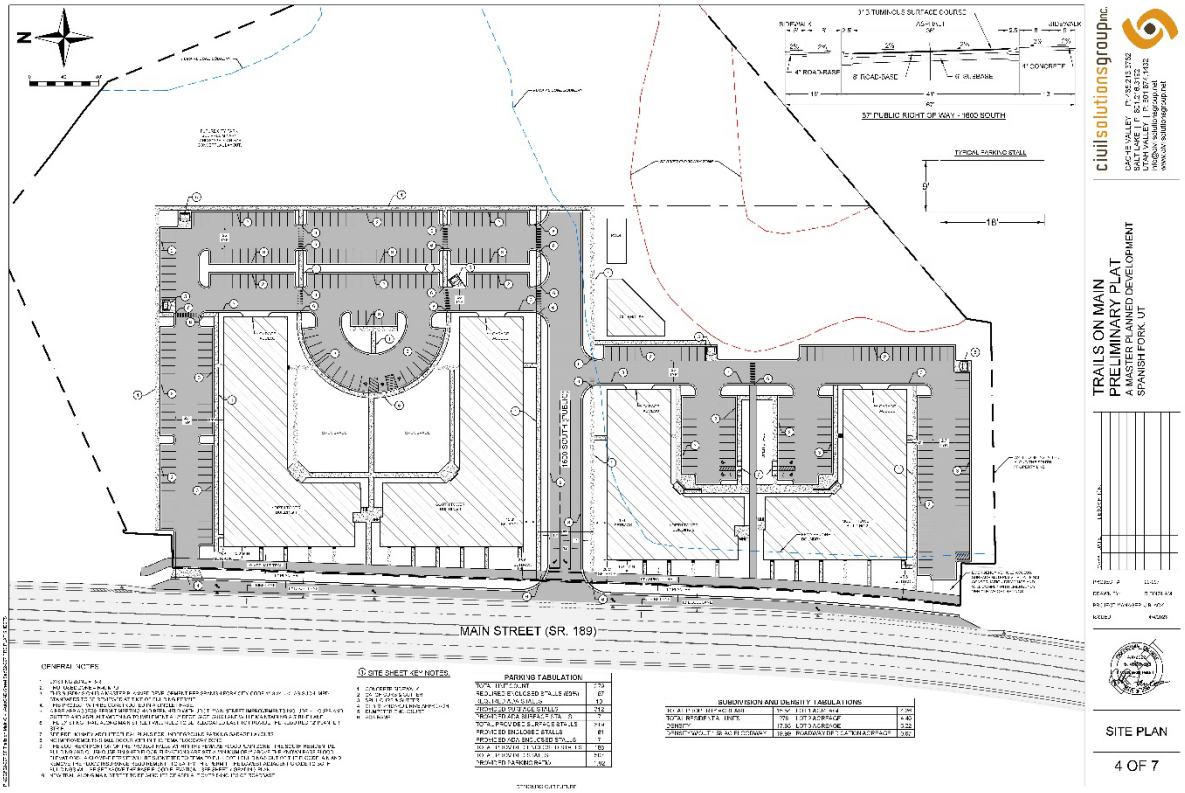
TRAILS ON MAIN
PRELIMINARY PLAT
A MASTER PLANNED DEVELOPMENT
SPANISH FORK, UT

SURVEY PLAN

3 OF 7



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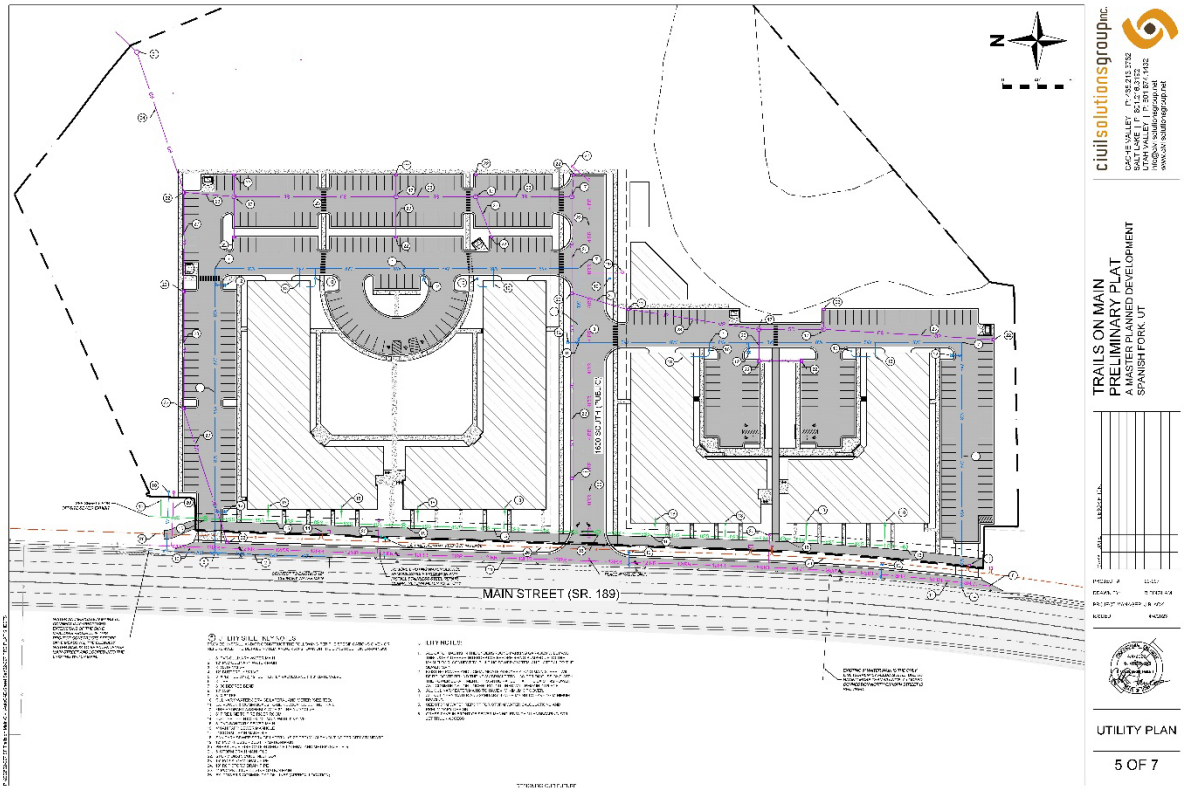
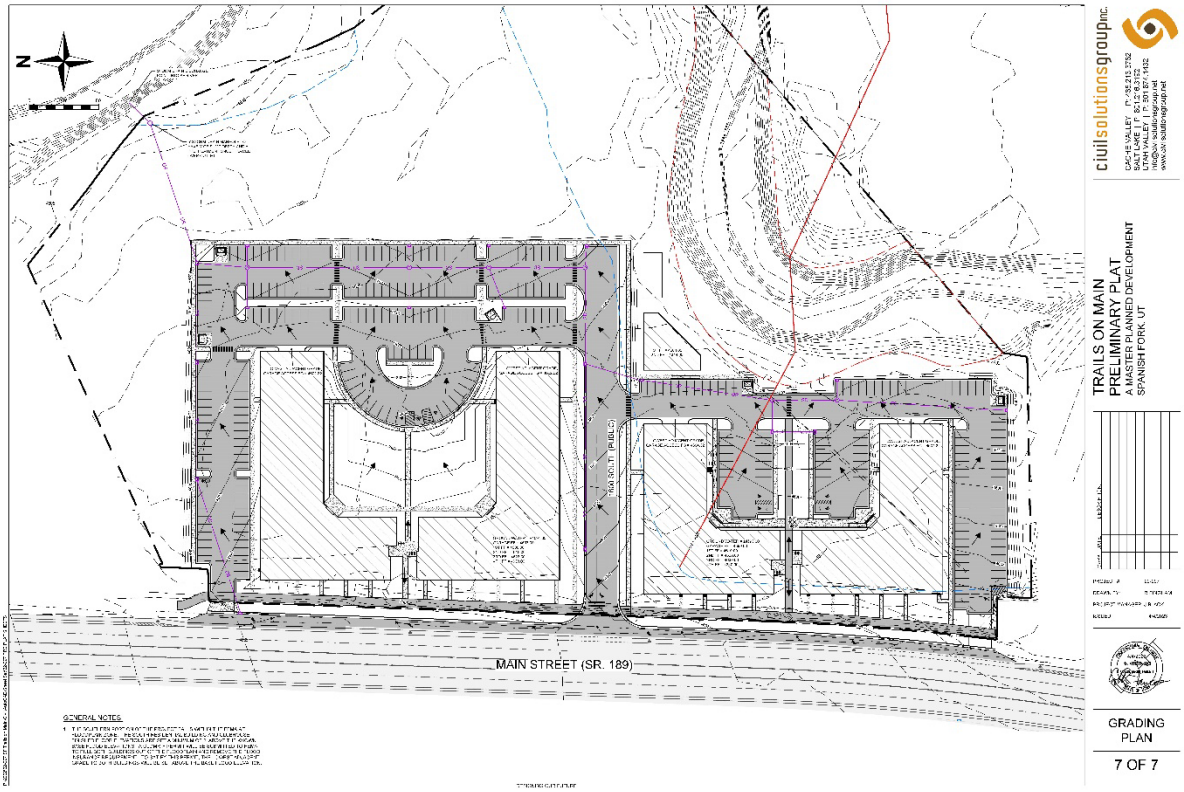
TRAILS ON MAIN
PRELIMINARY PLAT
A MASTER PLANNED DEVELOPMENT
SPANISH FORK, UT

SITE PLAN

4 OF 7


MAIN STREET (SR. 189)
1600 SOUTH (PUBLIC)
TRAILS ON MAIN
PRELIMINARY PLAT
A MASTER PLANNED DEVELOPMENT
SPANISH FORK, UT
UTILITY PLAN
5 OF 7

MAIN STREET (SR.189)
Spanish Fork
NOTE:
PRELIMINARY ANALYSIS INDICATES THAT BOTH OFFSITE SEWER OPTIONS CAN GRAVITY TO CONNECTION POINTS. THIS WILL BE CONFIRMED PRIOR TO THE FINAL PLAT AND CONSTRUCTION DRAWINGS STAGE.
BOTH OPTIONS WILL REQUIRED EASEMENTS ACROSS PRIVATE PROPERTY, WHICH MAY LIMIT THE FINAL ROUTE TO ONE OR THE OTHER OF THE OPTIONS.
COORDINATION AND PERMITTING FOR THE BORING OF MAIN STREET WILL BE ADDRESSED WITH UDOT IF OPTION 1 IS THE PREFERRED ROUTE.
COORDINATION AND PERMITTING FOR THE RIVER SIPHON WILL BE ADDRESSED WITH THE CITY AND OTHER REQUIRED ENTITIES IF OPTION 2 IS THE PREFERRED ROUTE.
TRAILS ON MAIN
PRELIMINARY PLAT
A MASTER PLANNED DEVELOPMENT
SPANISH FORK, UT
OFFSITE
SEWER
6 OF 7


N
MAIN STREET (SR. 189)
GENERAL NOTES
civilsolutionsgroup inc.
TRAILS ON MAIN
PRELIMINARY PLAT
A MASTER PLANNED DEVELOPMENT
SPANISH FORK, UT
GRADING PLAN
7 OF 7

TRAILS ON MAIN
RESIDENTIAL DEVELOPMENT
SPANISH FORK, UT
N
PRELIMINARY LANDSCAPE PLAN
L100

SPANISH FORK RIVER TRAIL CONNECTION
PROPOSED ½ MILE TRAIL LOOP (TO WEST)
SPANISH FORK RIVER TRAIL CONNECTION
AMENITY TRAIL CONNECTION
PROPOSED ½ MILE TRAIL LOOP (TO WEST)
MAIN STREET TRAIL
PROPOSED ½ MILE TRAIL LOOP (TO WEST)
MAIN STREET TRAIL
TRAILS ON MAIN
RESIDENTIAL DEVELOPMENT
SPANISH FORK, UT
N
TRAIL CONCEPT
L101

PARKING

IF THIS PROJECT WERE IN THESE SURROUNDING CITIES, THIS IS WHAT THEIR REQUIREMENTS WOULD BE.

CITY	TOTAL PARKING	TOTAL ENCLOSED	AVERAGE STALLS PER UNIT
LEHI	490	279	**1.76**
SPRINGVILLE	593	297	**2.13**
VINEYARD	556	0	**1.99**
PLEASANT GROVE	518	297	**1.86**
SARATOGA SPRINGS	433	297	**1.55**
SANTAQUIN	558	0	**2.00**
HERRIMAN	565	0	**2.03**
BLUFFDALE	567	0	**2.03**

LANDD

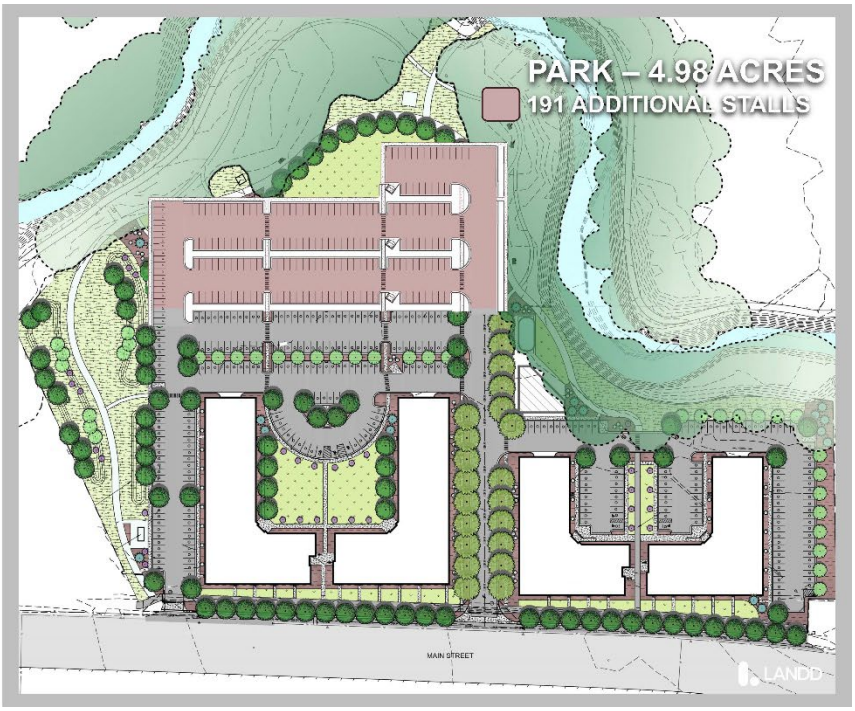
PARKING

2.5 STALLS PER UNIT
(CURRENT CITY STANDARD)

697.5 TOTAL STALLS REQUIRED

191 ADDITIONAL PARKING STALLS BEYOND PROPOSED

1.22 ADDITIONAL ACREAGE ELIMINATED FROM PARK



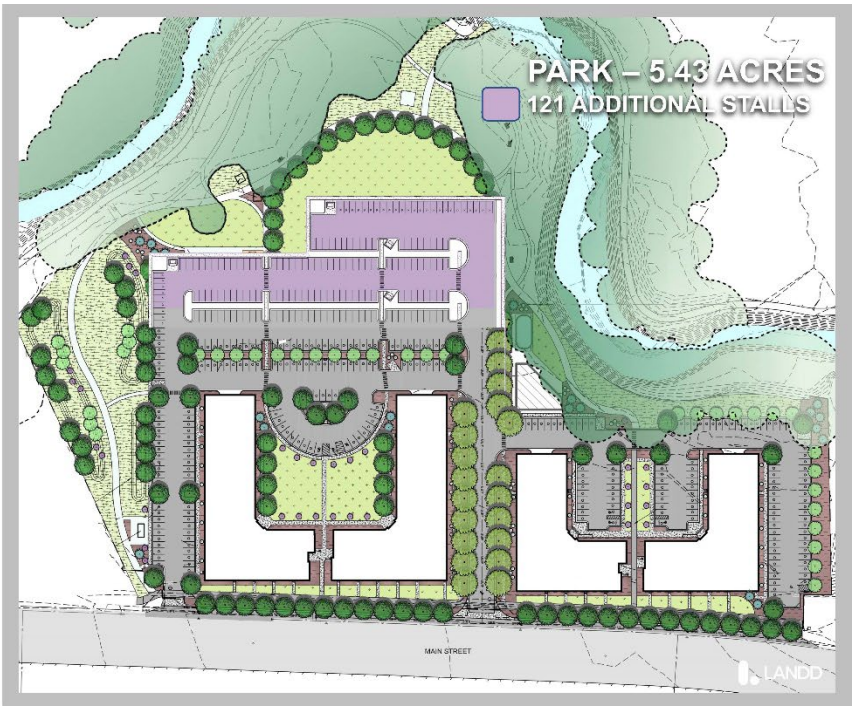
PARKING

2.25 STALLS PER UNIT

627.75 TOTAL STALLS REQUIRED

121 ADDITIONAL PARKING STALLS BEYOND PROPOSED

.77 ADDITIONAL ACREAGE ELIMINATED FROM PARK



PARKING

2 STALLS PER UNIT

558 TOTAL STALLS REQUIRED

51 ADDITIONAL PARKING STALLS BEYOND PROPOSED

.33 ADDITIONAL ACREAGE ELIMINATED FROM PARK

CURRENT PARKING

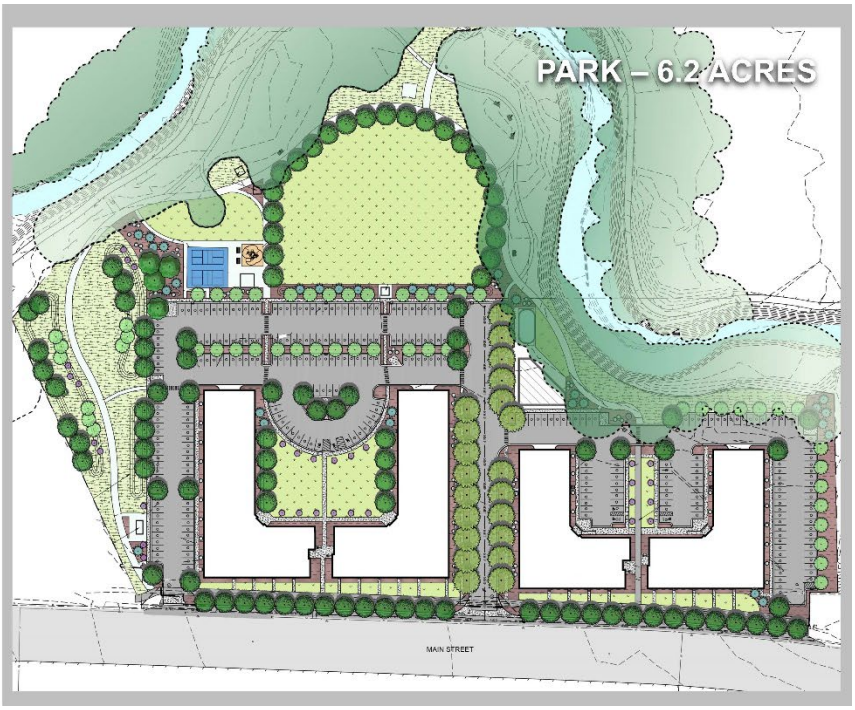
TOTAL UNITS ---------- 279

STALLS PROVIDED --- 507

STALLS PER UNIT ----- 1.82

ENCLOSED STALLS -- 188

PERCENT OF UNITS WITH ENCLOSED STALLS – 67%



civilsolutionsgroup inc.

February 22, 2023

RE: SF Trails on Main – Floodplain Impact Analysis

To whom it may concern,

Civil Solutions Group Inc. (CSG) is providing this document to quantify the impacts associated from the development of the floodplain on the southern perimeter of the SF Trails on Main project. The information and modeling contained within this document is based upon preliminary grading and site layout information associated with the official preliminary plat submittal.

The project as proposed includes the filling in of a small portion of the FEMA zone X and zone AE floodplain, as shown in Figure 1 below. It is proposed that approximately 3' of fill be placed in the red area shown in Figure 1. No fill is proposed to be placed in the designated floodway or on the east side of the river.

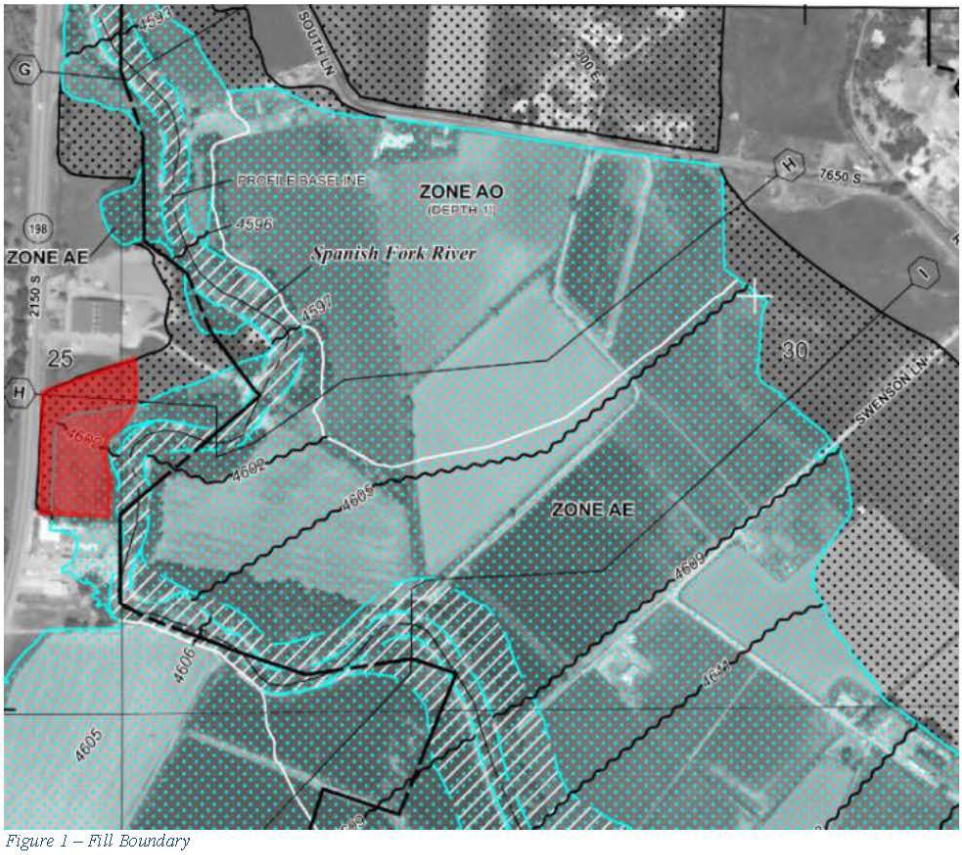


Figure 1 – Fill Boundary

civilsolutionsgroup inc.

CSG analyzed a cross section to model the effect of the fill in the floodplain. The cross section was analyzed using Mannings principles of open-channel flow analysis. CSG modeled the cross section through the extents of the floodplain as shown in green below. The calculations were calibrated to match the published BFE elevations shown on the official FEMA FIRM map, Figure 2.

The slope of the Spanish Fork River was calculated for this area based on field survey data, 0.37%. A known Q value of 3,750 cfm per the FIS was used to model the 1% flood event. Cross sectional data is based on data points obtained from the field survey done by others. A Mannings N-value of .035 was used for the upland fields, and a value of .07 was used for the Spanish Fork River.

Figure 2 – Cross Section on FIRM map

The existing conditions analysis of the cross section are shown in Figure 3 and Figure 4 below. Supporting datasets and calculations are maintained by CSG, though they are not expressly contained within this summary report.

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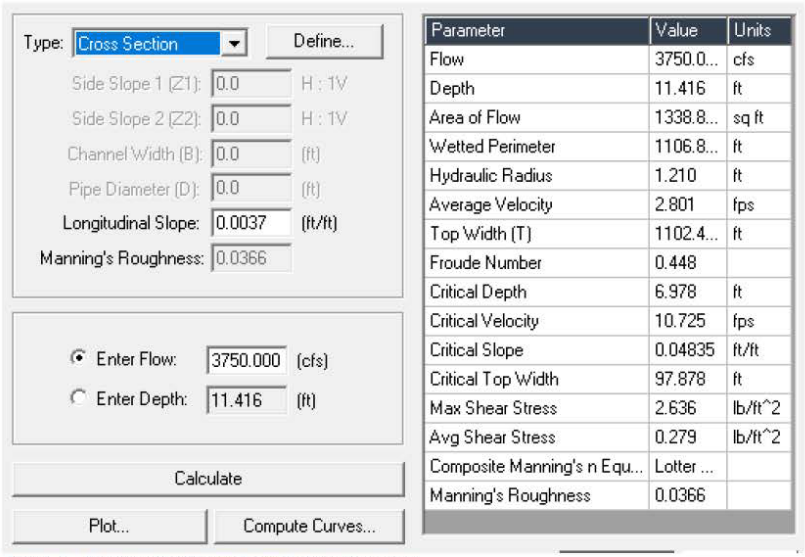

Parameter	Value	Units
Flow	3750.0...	cfs
Depth	11.416	ft
Area of Flow	1338.8...	sq ft
Wetted Perimeter	1106.8...	ft
Hydraulic Radius	1.210	ft
Average Velocity	2.801	fps
Top Width (T)	1102.4...	ft
Froude Number	0.448	
Critical Depth	6.978	ft
Critical Velocity	10.725	fps
Critical Slope	0.04835	ft/ft
Critical Top Width	97.878	ft
Max Shear Stress	2.636	lb/ft^2
Avg Shear Stress	0.279	lb/ft^2
Composite Manning's n Equ...	Lotter ...	
Manning's Roughness	0.0366	

Figure 3 – Existing Conditions Cross Section Properties

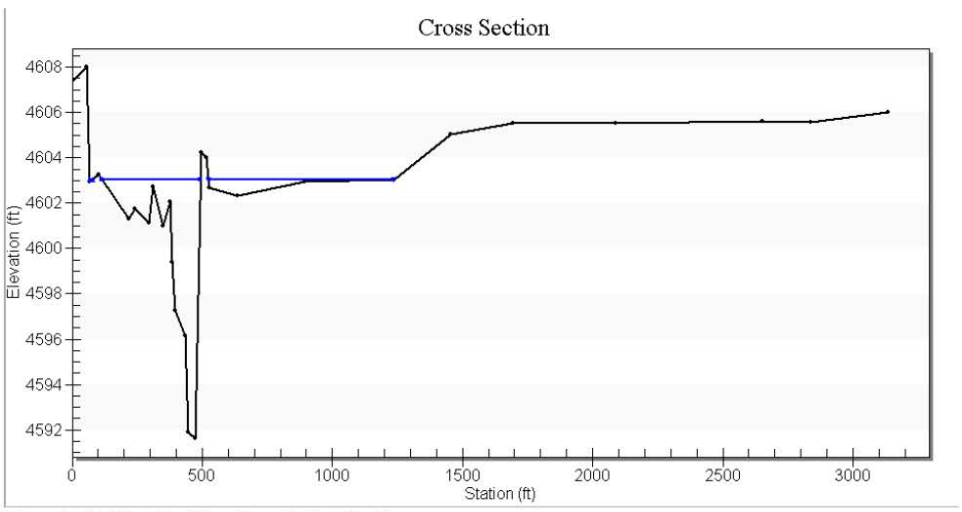

Figure 4 – Existing Conditions Cross Section Profile

The Base Flood Elevation for the existing condition at the modeled cross section is 4591.63' + 11.42' = 4603.05' which matches identically to what is shown on the official FEMA map, Figure 2.

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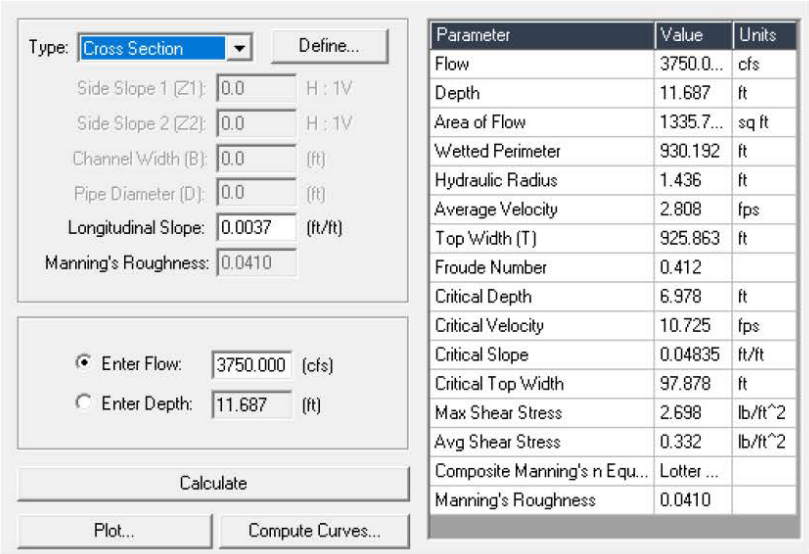
The proposed conditions analysis of the cross section are shown in Figure 5 and Figure 6 below. Supporting datasets and calculations are maintained by CSG, though they are not expressly contained within this summary report.



Parameter	Value	Units
Flow	3750.0...	cfs
Depth	11.687	ft
Area of Flow	1335.7...	sq ft
Wetted Perimeter	930.192	ft
Hydraulic Radius	1.436	ft
Average Velocity	2.808	fps
Top Width (T)	925.863	ft
Froude Number	0.412	
Critical Depth	6.978	ft
Critical Velocity	10.725	fps
Critical Slope	0.04835	ft/ft
Critical Top Width	97.878	ft
Max Shear Stress	2.698	lb/ft^2
Avg Shear Stress	0.332	lb/ft^2
Composite Manning's n Equ...	Lotter ...	
Manning's Roughness	0.0410	

Figure 5 - Proposed Conditions Cross Section Properties

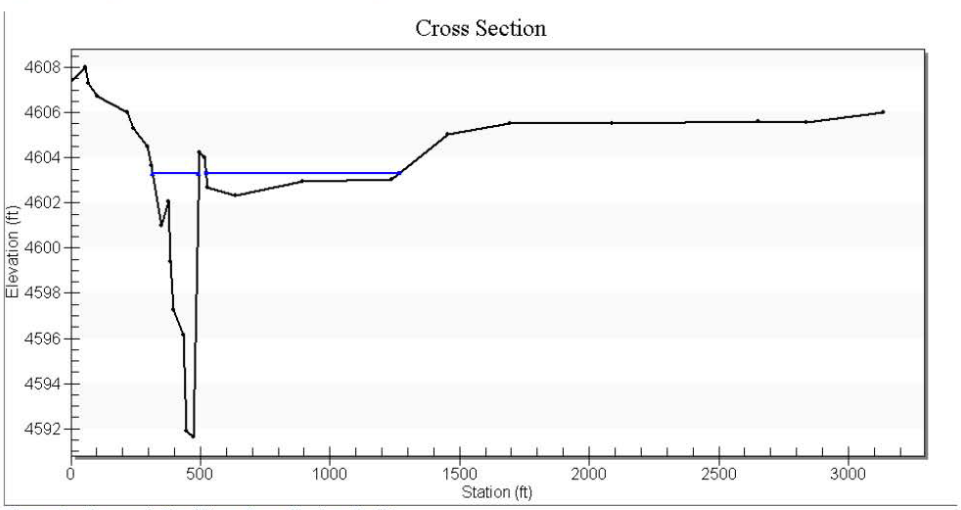


Figure 6 - Proposed Conditions Cross Section Profile

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The Base Flood Elevation for the proposed condition at the modeled cross section is 4591.63' + 11.69' = 4603.32'.

A comparison of the existing and proposed conditions BFE indicated that the floodplain through this section is expected to increase by 4603.32' – 4603.05' = **0.27**', or about 3 inches.

The document is being submitted as part of the Trails on Main Preliminary Plat application. The southern portion of the project falls within the FEMA AE floodplain zone. The south residential building and clubhouse finished floor elevations are set a minimum of 2' above the known base flood elevations. A CLOMR-F permit will be submitted to FEMA to pull both buildings out of the floodplain and remove the flood insurance requirement. To satisfy this permit, the lowest adjacent grade to both buildings will be set above the base flood elevation. See the civil preliminary plat plan set for elevation data.

Sincerely,

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