



# CITY OF NORTH SALT LAKE

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## CITY COUNCIL MEETING

### NOTICE & AGENDA

OCTOBER 19, 2021

Work Session: 6:30 pm – Regular Session 7:00 pm

*\*2<sup>nd</sup> AMENDED\**

Posted October 18, 2021

Notice is given that the City Council of the City of North Salt Lake will hold a regular meeting on **OCTOBER 19, 2021** at City Hall, 10 East Center Street, North Salt Lake, Utah. A work session will be held at 6:30 pm in the Council Chambers followed by the regular session at 7:00 pm. Some members may participate electronically.

*Note: The City Council will be convened as the Local Building Authority at 6:00 pm. See separate agenda.*

The following items of business will be discussed; the order of business may be changed as time permits.

### WORK SESSION –6:30 p.m.

1. Department Update – City Manager Report
2. Approval of City Council Minutes of October 5, 2021
3. Action Items
4. Council Reports
5. Adjourn

### REGULAR SESSION - 7:00 p.m.

1. Introduction by Mayor Len Arave
2. Invocation and Pledge of Allegiance ~ Council Member Brian Horrocks
3. Citizen Comment
4. *\*Consideration of Mayor Arave's appointment of Ron Jibson to the Golf Course Oversight Committee*
5. Consideration of **Resolution 2021-41R**: A Resolution Approving the Issuance of the Local Building Authority of the City of North Salt Lake, Utah, Lease Revenue Bonds, Series 2022
6. *\*Consideration of Bid Award for Phases 1 and 2 of the Environmental and Design Work Related to the 1100 North Bridge Project, Horrocks Engineers, in the amount of \$3,497,610.81*
7. Consideration of **Ordinance 2021-08**: An Ordinance Amending Title 10-7-8 of the City Code Pertaining to Flag Lots
8. Mayor's Report

9. City Attorney Report
10. City Manager Report
11. Adjourn

**CLOSED SESSION**

1. Possible closed session for the purpose of discussing pending or reasonably imminent litigation; to discuss the character professional competence, or physical or mental health of an individual; to discuss collective bargaining; or to discuss the purchase, exchange, sale, or lease of real property. *Utah Code 52-4-205*

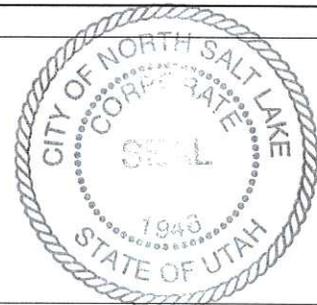
**The public is invited to attend all City Council meetings. If you need special accommodations to participate in the City Council meeting, please call the City office at 801-335-8709. Please provide at least 24 hours notice for adequate arrangements to be made.**

**Notice of Posting:**

I, the duly appointed City Recorder for the City of North Salt Lake, hereby certify that the foregoing agenda was posted on the Utah Public Notice website, at city hall, and sent to the required newspapers this 18th day of October 2021.

Dated this 18th day of October 2021.





1 CITY OF NORTH SALT LAKE  
2 CITY COUNCIL MEETING-WORK SESSION  
3 OCTOBER 5, 2021  
4

5 **DRAFT**  
6

7 Mayor Arave called the meeting to order at 6:09 p.m.  
8

9 PRESENT: Mayor Len Arave  
10 Council Member Lisa Watts Baskin  
11 Council Member Natalie Gordon  
12 Council Member Brian Horrocks  
13 Council Member Ryan Mumford  
14 Council Member Stan Porter  
15

16 STAFF PRESENT: Ken Leetham, City Manager; Paul Ottoson, City Engineer; David Frandsen,  
17 Public Works Director; Craig Black, Police Chief; Dane Stone, Fire Chief; Jayme Blakesley,  
18 City Attorney; Tyler Abegglen, Golf Course General Manager; Sherrie Pace, Community  
19 Development Director; Linda Horrocks, City Recorder.  
20

21 OTHERS PRESENT: Dee Lalliss, resident.  
22

23 1. DEPARTMENT UPDATE: SOUTH DAVIS METRO FIRE AGENCY (SDMFA)  
24

25 Dane Stone reported on the department, budget, and some of the major calls in 2021 in the City.  
26 He said they currently have 99 full-time staff members with 91 operational, including the seven  
27 recruits in the fire academy. He explained that the fire academy was in conjunction with Salt  
28 Lake City and was 16 weeks long. Chief Stone said there were currently eight administrative  
29 staff members with a request in the budget for two more daytime captains. The new captains  
30 would be over logistics/equipment and training.  
31

32 Chief Stone reviewed the fire stations including Station 81 in Bountiful with a paramedic engine,  
33 ambulance, and brush truck (for wild or brush fires). He said Station 82 in the City was staffed  
34 with a paramedic engine, ambulance, and brush truck and that Station 83, the newest station, in  
35 Centerville was the technical rescue station and included a paramedic engine. He said that  
36 Station 84, in Bountiful, had a wild urban interface engine as well as a bariatric ambulance and  
37 that Station 85, in the City, was the hazmat station due to the proximity of the refineries and  
38 hazardous material companies. Chief Stone said Station 85 had the new ladder truck, ambulance,  
39 brush truck, and HAZMAT unit and then spoke on additional services the SDMFA provides such  
40 as CERT training, fire safety, CPR trainings, plan reviews, and open houses.  
41

42 Chief Stone spoke on calls for service in 2020 at 7,200 with 5,500 in 2021 to date. He said the  
43 trend was an additional 300-500 calls each year. The total calls for the City were 1,174 in 2020

44 and 961 in 2021. The breakdown for the City related calls to October 1, 2021 were 650 EMS and  
45 300 fire related calls. This included fires related to structures, cars, refineries, or dumpster, etc.  
46 He then focused on the budget for 2021-2022 and said the property tax increase was his  
47 recommendation. He said this year's budget was \$15.1 million with \$6.6 million contributed  
48 from the cities, including \$1.5 million from the City of North Salt Lake. Chief Stone said that in  
49 this year's budget, the Board decided to include funding for all three paramedic units in the  
50 property tax increase.

51  
52 Chief Stone reported on some of the calls received in 2021 including an insulation truck that  
53 caught on fire near the gravel pits and the difficulty accessing the area. He then reviewed an  
54 electrical fire in the Edgecrest area.

55  
56 Chief Stone showed the new engine at Station 82 and the traditional push-in ceremony. He said  
57 this station serviced the Eaglewood area. He shared another incident that occurred with a  
58 bulldozer that backed over a cliff into the Lakeview Rock Product's pit. The bulldozer operator  
59 was hoisted out and taken by Life Flight to the hospital. He said this was a joint effort with the  
60 City's police department.

61  
62 Chief Stone spoke on the 9/11 memorial at the Bountiful station for the 20<sup>th</sup> anniversary. He said  
63 they placed 411 flags for the 343 firefighters and 71 police officers who died on that day.

64  
65 Mayor Arave asked about recruiting for the fire district and mentioned the difficulties the police  
66 departments were having. Dane Stone replied that there was still interest and a wait list. He said  
67 there were usually 50 applicants, which was reduced to around 20 individuals after the interview  
68 process, written exam, and physical agility test.

69  
70 Council Member Baskin asked if the paramedics had different training than the ambulance  
71 drivers. Chief Stone responded that the firefighters went through paramedic school through  
72 Weber State University. He said this was an additional nine months of schooling. Chief Stone  
73 explained that all of the firefighters were advanced Emergency Medical Technicians and not just  
74 basic EMTs.

75  
76 Council Member Baskin commented that \$2.6 million was raised in ambulance revenues per  
77 Chief Stone's presentation. She asked if this included the fire trucks that treated individuals with  
78 injuries. Chief Stone said that in the event of a cardiac arrest, the fire engine would accompany  
79 the ambulance on the call and the paramedics would help to transport the patient via ambulance  
80 if necessary. He explained that this allowed for more advanced care.

81  
82 **2. APPROVAL OF CITY COUNCIL MINUTES**

83  
84 The City Council minutes of September 21, 2021 were reviewed and amended.

85

86 **Council Member Porter moved to approve the minutes as modified and reviewed for the**  
87 **September 21 City Council meeting. Council Member Horrocks seconded the motion. The**  
88 **motion was approved by Council Members Baskin, Gordon, Horrocks, Mumford and**  
89 **Porter.**

90

91 3. ACTION ITEMS

92

93 The action items list was reviewed. Completed items were removed from the list.

94

95 Council Member Gordon requested that staff research using ARPA fund to help with rent or  
96 utility assistance both for renters and those who owned rental properties. Ken Leetham replied  
97 that the State of Utah had a program for renters and that staff would further research this request.

98

99 4. COUNCIL REPORTS

100

101 Council Member Gordon reported that the Youth City Council (YCC) enjoyed meeting with  
102 Chief Stone earlier that day. She said the YCC would continue with the mobile food bank in two  
103 weeks at Camelot and said they also had an event planned with Davis County Commissioner  
104 Kamalu for December.

105

106 Council Member Mumford reported that the NSL Reads event would be held Thursday October  
107 7<sup>th</sup> with the winners of the photo and essay contest to be announced then. A local author, Charlie  
108 Holmberg, as well as an origami instructor would also be at the event. He added that the board is  
109 working on the October 30<sup>th</sup> Monster Mash drive-thru event at Hatch Park.

110

111 Council Member Mumford also said that the Parks and Arts Board had received and reviewed  
112 the preliminary site plans from the consultant for the Hatch Park redesign.

113

114 Mayor Arave asked about the feedback from the Board on the plans for Hatch Park. Council  
115 Member Mumford replied that there were three preliminary plans and that all three plans  
116 included the South Davis Recreation District's proposal. He said the Board's discussion included  
117 favorable thoughts about including the Rec District's facility as well as thoughts about the  
118 location of the building, flow of the park, etc. He said these suggestions would be passed along  
119 to the design consultant.

120

121 Council Member Porter reported on the Utah League of Cities and Towns conference and said he  
122 enjoyed one of the classes on Question, Persuade, and Refer (QPR), which was anti-suicide  
123 training. Council Member Porter said there were several recent suicides in the City and that  
124 males were more likely than females to commit suicide. He suggested that this could be an  
125 assignment for the new Health and Wellness Committee.

126

127 Chief Stone commented that the SDMFA had a peer support group through the local union as  
128 well as several other avenues for firefighters.

129

130 Council Member Gordon said that the Davis County Health Department had QPR presenters and  
131 met with the YCC several weeks ago.

132

133 Council Member Baskin commented that she would miss Council Member Mumford's  
134 enthusiasm for the work he did for the City. She spoke on the Planning Commission meeting  
135 held on September 28, and the input related to the potential annexation. She said that it seemed  
136 the residents in the County area were less adamant about opposing the annexation.

137

138 Council Member Baskin asked if the City was involved in helping the Afghan refugees to  
139 relocate in the area. Ken Leetham replied that staff could reach out to the State, but that those  
140 types of programs were usually administered at the State level.

141

142 Council Member Porter suggested the GE building as temporary housing for the refugees. Chief  
143 Black responded that the building was currently undergoing environmental certification for a GE  
144 purpose or use and would not be a good solution for temporary refugee housing.

145

146 Council Member Baskin reported on the Meet the Candidates night that was held via Zoom. She  
147 said it was hard to know who attended and that this format did not have the synergy of an in-  
148 person meeting. Sherrie Pace commented that approximately 43 people attended the meeting.

149

## 150 5. ADJOURN

151

152 Mayor Arave adjourned the meeting at 6:54 p.m. to begin the regular session.

153

CITY OF NORTH SALT LAKE  
CITY COUNCIL MEETING-WORK SESSION  
OCTOBER 5, 2021

**DRAFT**

Mayor Arave called the meeting to order at 7:05 p.m. Council Member Natalie Gordon offered the invocation and led those present in the Pledge of Allegiance.

PRESENT: Mayor Len Arave  
Council Member Lisa Watts Baskin  
Council Member Natalie Gordon  
Council Member Brian Horrocks  
Council Member Ryan Mumford  
Council Member Stan Porter

STAFF PRESENT: Ken Leetham, City Manager; Paul Ottoson, City Engineer; David Frandsen, Public Works Director; Craig Black, Police Chief; Dane Stone, Fire Chief; Jayme Blakesley, City Attorney; Tyler Abegglen, Golf Course General Manager; Sherrie Pace, Community Development Director; Linda Horrocks, City Recorder.

OTHERS PRESENT: Dee Lalliss, Tammy Clayton, Rachel Butterfield, Alisa Van Langeveld, residents.

1. CITIZEN COMMENT

There were no citizen comments.

2. CONSIDERATION OF RESOLUTION 2021-33R: A RESOLUTION APPROVING AGREEMENT 2021-29A BETWEEN THE CITY OF NORTH SALT LAKE AND HIVE DESIGN GROUP FOR ARCHITECT'S SERVICES RELATED TO THE EAGLEWOOD GOLF COURSE CLUBHOUSE REMODEL

Tyler Abegglen reported that this would be the final design for the Eaglewood Golf Course clubhouse remodel. He explained that staff had been through several iterations and changes with JZW Architects and had decided on the overall concept and design of the building. Hive Design Group would now provide the final detailed drawings, code compliance, fire compliance, acoustical separations, ceiling/lighting design, material selections, and plans in preparation for an RFP on building construction. Mr. Abegglen said the timeline provided by Hive Design Group was considerably quicker and the cost was lower than all the other architect firms that were contacted. Hive Design was also highly recommended by other contractors. He commented that the goal was to have all completed plans and submittals ready by mid-November.

196 Tyler Abegglen explained that the \$75,000 would cover full set plans including all structural,  
197 mechanical, electrical, and plumbing changes.

198  
199 Council Member Mumford asked if this was a different process than the normal procedure of  
200 sending out an RFP, acquiring three separate bids, and then selecting a design firm. Ken Leetham  
201 replied that there was not a formal process but that staff had worked with three separate  
202 architectural firms. Hive Design was chosen, as the project was under a tight timeframe and staff  
203 felt the selection process was in compliance with the purchasing policy. He said this was the  
204 right price and the best firm to complete the work.

205  
206 Mayor Arave asked if staff checked references for Hive Design. Tyler Abegglen replied that he  
207 called references and viewed completed commercial and government buildings.

208  
209 Council Member Porter asked if this would include any construction management. Tyler  
210 Abegglen responded that Hive would assist with the RFP and working with the contractors  
211 selected on any design changes. Ken Leetham said this contract would not cover construction  
212 management services.

213  
214 Council Member Gordon commented that her son was recently hired by JZW Architects but did  
215 not feel this would affect her decision.

216  
217 Jayme Blakesley stated that there were a few revisions and edits for the agreement that he would  
218 provide to staff. He said in the dispute resolution clause provision there was an arbitration  
219 requirement that he would like stricken. He also said on the limitation of liability there was an  
220 aggregate limit to the architect's liability that should be defaulted to the State's rule, which was  
221 the government immunity's act. Mr. Blakesley said it was \$10,000, or the architect's fee, which  
222 he felt was artificially low. Council Member Baskin commented that she was in agreement.

223  
224 **Council Member Baskin moved that the City Council approve Resolution 2021-33R: A**  
225 **Resolution approving an agreement (2021-29A) for Architect Services for design remodel**  
226 **of the Eaglewood Clubhouse to Hive Design Group with amendments to the contract as**  
227 **emphasized by the City attorney. Council Member Horrocks seconded the motion. The**  
228 **motion was approved by Council Members Baskin, Gordon, Horrocks, Mumford and**  
229 **Porter.**

230  
231 3. CONSIDERATION OF ORDINANCE 2021-05: AN ORDINANCE OF THE CITY OF  
232 NORTH SALT LAKE AMENDING TITLE 8, CHAPTER 1 OF THE CITY CODE  
233 RELATED TO ADOPTION OF REGULATIONS ASSOCIATED WITH SECONDARY  
234 WATER SERVICE

235  
236 Paul Ottoson reported that as the City expanded the secondary water service in the foothills that  
237 City staff recommended a change in the City code to require property owners to connect to the

238 secondary water system if that system was within 300 feet of their property. He said that in order  
239 to ensure that both the culinary and secondary water systems in the area will function properly  
240 and effectively that the connection must be compulsory for all residents there. He said the  
241 ordinance would also make it unlawful for residents to use culinary water in these areas for  
242 outdoor watering. Mr. Ottoson said there was one small change to the ordinance in section 8-1-  
243 16a on the third line down where it currently states “of lawns or plants whose property lie within  
244 300 feet” to be changed to “of lawns or plants whose properties lie adjacent to a secondary water  
245 system”.

246  
247 Mayor Arave asked if laterals would be provided by the City to residents. Paul Ottoson replied  
248 that the City would be providing the connection in this case and that this would require they tie  
249 into the system.

250  
251 Ken Leetham said he expected that the City would always bear the cost burden of connecting  
252 those residents. Mr. Leetham explained that they did not want to include that in the code as it  
253 would bind the City, but it was helpful to let residents know it was compulsory.

254  
255 Mayor Arave asked if there would be connection fees. Ken Leetham clarified that there would  
256 not be connection fees with this project. He said this would help to ensure compliance and said  
257 that the residents had been notified and the majority were cooperating. Mr. Leetham said  
258 requiring secondary water was the right policy and water policy in general would become more  
259 restrictive in the State.

260  
261 Council Member Baskin asked about non-residential buildings such as a pump house and  
262 secondary water connections. Ken Leetham replied that the intent was for existing residential  
263 buildings. He said there were ordinances and policies in place that required new construction to  
264 install secondary water.

265  
266 Council Member Baskin then pointed a minor grammatical error in the ordinance.

267  
268 Council Member Porter asked if thought had been given to allowing the use of culinary water at  
269 a higher-use rate. Ken Leetham said that the problem with that was some residents would not  
270 care about an increased cost or using more culinary water. He explained that the most effective  
271 way to run utilities was to ensure that everyone who had access to secondary water was using it.

272  
273 Council Member Gordon commented on the water study and said she thought this was something  
274 that should be addressed in the water rates instead. Ken Leetham replied that staff was expecting  
275 a new water rate schedule that would discourage water waste and encourage conservation  
276 through a rate structure.

277  
278 Council Member Mumford asked for clarification of the process including cutting the old line  
279 and attaching it to the new line. Paul Ottoson responded that the existing culinary water meters

280 would be changed to secondary water lines. He said new meters would be hooked up to the  
281 secondary water lines. Residents would not be required to do anything except sign a Right to  
282 Enter agreement to allow the contractor to access their property and install the hookup.

283  
284 Council Member Mumford asked how long the project would take. Paul Ottoson replied that the  
285 project just started the previous week and now that the City was out of irrigation season there  
286 should not be damage to residential landscaping.

287  
288 Council Member Baskin spoke on the allocation of 800 acre-feet of water from Weber Basin and  
289 asked if there was a way to obtain more water. She asked who set the amount the City received.  
290 Paul Ottoson replied that South Davis Water District sold the City some extra shares, of the  
291 original 800 acre-feet, through Weber Basin. He said he was unsure of whether Weber Basin  
292 even had extra water, and added that another option may include potentially obtaining water  
293 from the Jordan River.

294  
295 Ken Leetham said that part of the water study being performed would include the City's needs  
296 and modeling needs for sources. He said the City could approach Weber Basin about more shares  
297 but was unsure how the 800 acre-feet was determined.

298  
299 Council Member Horrocks commented that although the City had the right to pay for 800 acre-  
300 feet, Weber Basin did not always provide that amount. He expressed concern about penalties for  
301 culinary water use if Weber Basin cut off water to Foxboro mid-August, for example, when  
302 residents still needed to water their gardens.

303  
304 Ken Leetham spoke on the state of water along the Wasatch Front and penalties. He said the City  
305 had not really had to enforce restrictions, but noted the willingness of residents to conserve and  
306 change watering habits. Mr. Leetham commented that this year residents cut water usage by  
307 almost one-third without a formal program. He said that while penalties had a place he preferred  
308 other methods.

309  
310 Council Member Baskin commented that there were different perspectives including those who  
311 would not care and it would take collective action. She said water would be the most critical  
312 issue in the next 20 years from a policy perspective.

313  
314 Council Member Mumford asked about the different secondary water systems in the City, as  
315 Foxboro was part of a different water system, there was the 800 acre-feet for the hillside, and a  
316 subset in the central part of the City that was unmetered with a fixed fee. Paul Ottoson replied  
317 that new legislation had been passed that all secondary water companies would have to be  
318 metered. He said the City did not control the secondary water provided by South Davis Water to  
319 the central area.

320

321 Ken Leetham commented that metering water was key to conservation and better usage. He said  
322 there was a date set by the Legislature which all secondary water would be metered throughout  
323 the State.

324  
325 Mayor Arave spoke about new subdivisions and encouraging xeriscaped park strips. Ken  
326 Leetham said as part of the water study a conservation program would be recommended.

327  
328 Mayor Arave asked about Big West moving from the City's water system and what this would  
329 mean. Ken Leetham replied that staff would be meeting with Big West the following day. He  
330 said he did not believe Big West would leave the City's water system, as they would not be able  
331 to provide enough water for their operations from their wells. Mr. Leetham said the City may  
332 need to invest in some technology to measure the exact amount of water that Big West used as  
333 they had six or seven water meters.

334  
335 Council Member Porter asked about the potential for Big West Oil to use the Jordan River as a  
336 water source. Mayor Arave replied that Big West would not be able to use secondary water for  
337 their processes.

338  
339 Council Member Gordon commented that she was hooked up to secondary water in the Foxboro  
340 area, but that her hoses were not.

341  
342 Council Member Mumford spoke on watering violations and unintended consequences. He  
343 suggested setting a concise policy.

344  
345 Council Member Horrocks gave an example of shower graywater being reused in a garden and  
346 how under this ordinance that may be illegal.

347  
348 Council Member Porter also spoke on exceptions such as the need to water new vegetation  
349 during the day if Weber Basin shutoff the water early.

350  
351 Ken Leetham commented that those were good questions related to section 8-1-17 and suggested  
352 adoption of the resolution excluding that section. Staff would then make clarifications to that  
353 section for adoption later.

354  
355 Council Member Baskin spoke on conservation in other countries and that culinary water rates in  
356 Utah were some of the lowest in the nation. She said things would change and the rates would  
357 increase.

358  
359 Ken Leetham recommended adoption of the ordinance now particularly the segment related to  
360 the connection to secondary water as the City was working on the secondary water project. He  
361 said section 8-1-17 could be clarified and presented in a separate ordinance.

362

363 Council Member Horrocks asked if the wording of “may” in the penalties portion of the  
364 ordinance would provide enough support for the City. Jayme Blakesley suggested a revision to  
365 8-1-7 to say “outside irrigation of lawns or plants” that would allow a resident to use hose water  
366 or hand watering.

367  
368 Council Member Baskin also suggested a definition section to define “irrigation” versus  
369 “watering.”

370  
371 **Council Member Baskin moved that the City Council adopt Ordinance 2021-05: an**  
372 **ordinance of the City of North Salt Lake amending Title 8, Chapter 1 of the City code**  
373 **related to adoption of regulations associated with secondary water service with the**  
374 **amendment made to subsection 8-1-16 in subsection C and in 8-1-17 the first sentence shall**  
375 **read “It shall be unlawful for any person or entity to use culinary water for irrigation of**  
376 **lawns or plants if the property is connected to a secondary water system...”. There will be**  
377 **a definition section of what “irrigation” means. Council Member Porter seconded the**  
378 **motion.**

379  
380 Council Member Mumford commented that Paul Ottoson suggested modifications to section 8-1-  
381 16 and asked if the motion included those changes. Council Member Baskin replied  
382 affirmatively.

383  
384 **The motion was approved by Council Members Baskin, Gordon, Horrocks, Mumford and**  
385 **Porter.**

386  
387 4. CONSIDERATION OF BID AWARD FOR THE PURCHASE OF EAGLEWOOD  
388 GOLF COURSE IRRIGATION CONTROLLERS TO TURF EQUIPMENT &  
389 IRRIGATION INC.

390  
391 Tyler Abegglen reported on the replacement of all of the current golf course irrigation controllers  
392 to a single head control. He said that purchasing the controllers all at the same time would  
393 significantly lower the cost versus doing seven or eight per year over the next several years and  
394 would also reduce the future cost of irrigation replacement. This project was anticipated in the  
395 recently approved bond, and the proceeds of that transaction would be used for this purchase.

396  
397 Council Member Mumford commented that several years ago the Council was told that the  
398 irrigation system would need to be repaired at the cost of approximately \$5 million. He asked if  
399 there were changes to the plan or if the City would need to pay an additional \$4 million in the  
400 future. Tyler Abegglen replied that after a recent review of the system, they found that the lateral  
401 and main lines were in good condition and the \$5 million would have been for a total  
402 replacement, if necessary. He said there were some issues such as outdated controllers,  
403 replacement of green surround heads, big gate valves, and pump house replacements. Mr.

404 Abegglen said it may be \$5 million in repairs but could be spread out over 15-20 years. He said  
405 the new controllers would help to extend the life of the lines as well.

406

407 **Council Member Horrocks moved the City Council award the bid for Eaglewood Golf**  
408 **Course irrigation controllers to Turf Equipment & Irrigation Inc. in the amount of**  
409 **\$170,977.40. Council Member Porter seconded the motion.**

410

411 Council Member Mumford asked if this was a sole source provider. Ken Leetham replied  
412 affirmatively.

413

414 Mayor Arave asked how much of the funding for this project would come from the bond. Tyler  
415 Abegglen replied it would be 100% or \$170,977.

416

417 **The motion was approved by Council Members Baskin, Gordon, Horrocks, Mumford and**  
418 **Porter.**

419

420 5. CONSIDERATION OF RESOLUTION 2021-40R: A RESOLUTION APPROVING AN  
421 EQUIPMENT LEASE AGREEMENT 2021-28A WITH VANTAGE TAG SYSTEMS  
422 FOR GPS EQUIPMENT FOR GOLF CARTS AT EAGLEWOOD GOLF COURSE

423

424 Tyler Abegglen replied that this referred to the GPS units that were discussed during the  
425 previous City Council meeting. He spoke to Vantage about making the proposed changes to the  
426 lease agreement including excluding arbitration and including the opportunity to change over to  
427 their newest technology if and when that occurred.

428

429 Council Member Porter expressed concern with the cost and asked if Mr. Abegglen felt that the  
430 new GPS units would pay for themselves in increased rounds. Tyler Abegglen replied that he  
431 was unsure if the new units would generate more rounds, but would allow for increased cart fees.  
432 He said the cost could be offset per tournaments and advertising. There would be other  
433 advantages such as pace of play, minimizing damage, and monitoring the carts.

434

435 Council Member Baskin asked about vandalism or damage to the GPS units. Tyler Abegglen  
436 replied that there were warranties and said the screens were the most likely to break but had a  
437 replacement cost of \$150.

438

439 Council Member Porter asked if it made more sense to purchase the GPS units versus leasing  
440 them. Tyler Abegglen responded that Vantage only had a leasing option.

441

442 The Council asked about connectivity of the GPS system. Tyler Abegglen replied that the system  
443 worked off Wi-Fi and that additional connections were not needed. He said that one cart was  
444 currently setup to Vantage's internal system to allow for testing.

445

446 **Council Member Horrocks moved the City Council approve Resolution 2021-40R the**  
447 **“Eaglewood Golf Course Cart GPS” lease to authorize the implementation of the Vantage**  
448 **GPS systems in the amount of \$2,688 per month over 60 months. Council Member Gordon**  
449 **seconded the motion. The motion was approved by Council Members Baskin, Gordon,**  
450 **Horrocks, Mumford and Porter.**

451

452 6. CONSIDERATION OF RESOLUTION 2021-39R: A RESOLUTION APPROVING  
453 AGREEMENT 2021-33A, AN INTERLOCAL COOPERATION AGREEMENT  
454 BETWEEN DAVIS COUNTY CITIES AND DAVIS COUNTY FOR UPDES  
455 GENERAL PERMIT

456

457 David Frandsen reported that this was the same resolution that was adopted every five years. He  
458 said the City, together with all 14 cities in Davis County operated a storm water system that was  
459 permitted under the Utah Pollutant Discharge Elimination System (UPDES). Davis County also  
460 had a UPDES permit for its storm water discharge. All holders of permits were required to  
461 maintain minimum standards and to implement storm water activities (shared facilities, training,  
462 construction, etc.) under the guidelines of the State and Federal departments of environmental  
463 quality. This agreement created a “Coalition” representing each party to the Agreement and  
464 provided a structure and a mutual obligation to coordinate storm water activities. This  
465 Agreement was representative of the type of cooperation that should and would exist between  
466 local governments within Davis County.

467

468 **Council Member Mumford moved that the City Council approve Resolution 2021-39R: a**  
469 **resolution approving an interlocal cooperation agreement between Davis County cities and**  
470 **Davis County for UPDES general permit. Council Member Porter seconded the motion.**  
471 **The motion was approved by Council Members Baskin, Gordon, Horrocks, Mumford and**  
472 **Porter.**

473

474 7. CONSIDERATION OF BID AWARD FOR THE OVERLAND TRAIL SIDEWALK  
475 PROJECT FROM 1000 NORTH TO 1100 NORTH TO ACME CONSTRUCTION

476

477 Paul Ottoson reported that the City received a CDBG grant through Davis County for the  
478 completion of this project. The north half of the project would be adjacent to the curb and gutter  
479 due to space restrictions while the south half would be parallel to the existing concrete wall. Staff  
480 received four bids, with ACME Construction as the low bidder at \$46,923.60. The total amount  
481 of the grant was \$66,624.00 with the County share of \$49,968.00 and the City share of  
482 \$15,656.00.

483

484 Mr. Ottoson said that no City funds had been set aside for this project, so a budget adjustment  
485 would have to be made in the future; however, if there were no change orders, the grant money  
486 would pay for the whole project and a budget adjustment would not be necessary.

487

488 **Council Member Mumford moved to award the Overland Drive Sidewalk (1000 North to**  
489 **1100 North) Project to ACME Construction for the price of \$46,923.60. Council Member**  
490 **Baskin seconded the motion. The motion was approved by Council Members Baskin,**  
491 **Gordon, Horrocks, Mumford and Porter.**

492

493 8. MAYOR'S REPORT

494

495 Mayor Arave had nothing to report.

496

497 9. CITY ATTORNEY'S REPORT

498

499 Jayme Blakesley had nothing to report.

500

501 10. CITY MANAGER'S REPORT

502

503 Paul Ottoson provided a construction project update on Center Street and 350 North. He said the  
504 contractor was working on the concrete flatwork, which should be completed the following  
505 week. Staker Parson would then mill the area on Monday October 18<sup>th</sup> followed by paving on  
506 October 25<sup>th</sup>. He said this project would extend through November and residents would be  
507 notified of road closures.

508

509 Mr. Ottoson then reported on the Eaglewood Loop project. He said the water line work had been  
510 completed on Rockwood and Tanglewood. Millwork was now being completed and the  
511 contractor would like to asphalt the area on Tuesday October 12<sup>th</sup>. A crew was also working on  
512 the secondary changeovers on Rockwood and Woodbriar.

513

514 Council Member Porter asked how inclement weather would affect the project. Paul Ottoson  
515 replied that the asphalt plants historically remained open until Thanksgiving, and that he was  
516 optimistic the projects could be completed this year.

517

518 Sherrie Pace provided an update on the annexation public hearing held on September 28th. She  
519 presented a list of the pros and cons that were made during the hearing. Some of the concerns  
520 included truck traffic (current and the potential increase), that the new students would be in a  
521 different school district than the existing students in the area, the proposal for a charter school,  
522 new residents may feel separate from existing residents due to isolation from the river, road cross  
523 sections with portions of road owned by City and Salt Lake, density, air quality, water supply,  
524 and health affects near I-215. Some of the benefits would be water and sewer provided to Cross  
525 E Ranch and existing residents, help to preserve agricultural history, City to control zoning, open  
526 space funding, and that EMS response time would be decreased. Ms. Pace said this item was on  
527 the Planning Commission agenda for October 12<sup>th</sup>.

528

529 Ken Leetham clarified that the Planning Commission was reviewing the City's entire Annexation  
530 Policy Plan and not just the west side annexation proposal.

531  
532 Council Member Mumford asked about CERT training and an initiative to obtain more CERT  
533 certified individuals in the community. He suggested that the City could subsidize the fee for the  
534 training.

535  
536 Mayor Arave asked if any applications for the Health and Wellness Committee had been  
537 received. Linda Horrocks replied that she had received three or four applications.

538  
539 11. ADJOURN

540  
541 Mayor Arave adjourned the meeting at 8:31 p.m.

542  
543 *The foregoing was approved by the City Council of the City of North Salt Lake on Tuesday*  
544 *October 19, 2021 by unanimous vote of all members present.*

545  
546  
547  
548 \_\_\_\_\_  
*Linda Horrocks, City Recorder*

### Action Items for October 19, 2021

Item	Staff	Description
<b><u>New</u></b>		
1	Ken	Staff to research if ARPA funds could be used to assist renters and landlords with rent payments.
2	Ken	Health and Wellness Committee to review Question, Persuade, and Refer (QPR) anti-suicide training.
3	Ken	Staff to reach out to the State regarding Afghan refugees and the potential to relocate into the City.
4	Sherrie	Mayor Arave asked staff to reach out to new developments (Toll Brothers) about xeriscaping park strips.
5	Ken	Council Member Mumford suggested subsidizing the CERT training for residents. He suggested this could be reviewed by the new Health and Wellness Committee.
<b><u>Current</u></b>		
1	Paul	Staff to assess the road conditions of Woodbriar Way. <i>Paul will re-evaluate.</i>
2	Paul, Ken	Staff to research ABNR project with Sewer District to obtain excess water for the golf course.
3	Ken	Staff to review liability insurance for proposed dog park.
4	Sherrie, Janice, Ken	Staff to research ways/programs to assist seniors or others who were disadvantaged in relation to the proposed property tax increase. (use of CDBG or other funds for a city run program, Circuit Breaker program via the State, etc.) <i>Staff will continue to look at options.</i>
5	Tyler, Ken	Council Member Porter asked about golf course damage that occurs at Gary Way near the golf course and adopting official policy related to this.
6	Tyler	Staff to research changing the golf path or other means to help with the issue of homes being hit with golf balls near hole 7 at the golf course. <i>Tyler and his staff will review options for reducing potential damage from stray golf balls, including planting trees or adjusting fairway.</i>
7	Sherrie	Review Stericycle zoning and permitting to determine if Stericycle has a land use entitlement to operate a drop-off and sorting facility for medical waste at their current location. Basically, can they continue to operate their facility there after the incineration operations cease. <i>Sherrie has researched history and is preparing a report.</i>
8	Paul, David	Public Safety Committee to evaluate the need for a traffic light at the intersection of 1100 North and 400 West. <i>Ken has met with WX City Manager. Traffic does not warrant a traffic signal; however, Woods Cross will consider their official position and respond back.</i>
9	Linda	Staff to evaluate and propose a new solution for front facing monitors for the City Council chambers. <i>Staff is reviewing options.</i>
10	Sherrie, Paul	Staff to evaluate current codes related to permissible improvements in public park strips. Staff to also perform a legal review of whether or not a land owner can replace the grass in the park strips adjacent to their property. <i>Staff to review and prepare report.</i>
11	Sherrie	Mayor asked staff to see if there was an ordinance related to truck restrictions in Village Station. If not, look at formal restrictions that would be enforceable. <i>Staff has completed this review, met with Lakeview Rock Products and will be reviewing their proposal for access.</i>
12	David	Repair work to the trail leading to Tunnel Springs Park (off Eaglepointe) as well as the Bonneville Shoreline Trail. (a resident had contacted Natalie about it)
13	Ken	Staff to review whether power lines could be buried along Redwood Road. <i>Ken to report.</i>
14	Paul	Staff to research solutions for maintaining commuter trail along the frontage road to SLC.

15	Sherrie	Assignment to amend the Park and Recreation Element of the City's General Plan so that it includes Hatch Park, Tunnel Springs Expansion and Capital Projects and repairs. <i>An RFP is being prepared to complete the amendment.</i>
16	Paul, Tyler	With the re-routing of storm water near the 14 <sup>th</sup> hole on the golf course, Staff to look into using the storm water in a water feature at the Eaglewood Sign. <i>Paul met with contractor regarding a design for the storm drain and water feature (may need a budget adjustment). Possibly include in the golf course bond?</i>
17	Ken	Staff to prepare policy (or review current policy) related to tree removal particularly when related to sidewalk damage. <i>Staff is working on a follow-up report to the City Council.</i>
18	Ken	Staff would prepare a proposal related to small insurance claims and a fund to pay for these types of items in-house rather than submitting them through insurance.
19	Ken, Linda	CM Porter asked for recognition/formalization of the City's History Committee on a future agenda. <i>Staff reviewing history committees of other cities and will draft resolution.</i>



## CITY OF NORTH SALT LAKE ADMINISTRATION

10 East Center Street, North Salt Lake, Utah 84054  
(801) 335-8700 • (801) 335-8719 Fax

### Application Eaglewood Golf Course Oversight Committee

The Eaglewood Golf Course Oversight Committee is a citizen board appointed by the City Council to serve as an oversight and advisory committee on matters related to the Eaglewood Golf Course and its associated business activities. Interested persons can assist the City Council in selecting committee members by filling out this application and generally describing their interest, experience and skills that they possess that will be important to committee service.

Name: RON JIBSON Date: 2/21/2020  
Address: 417 AERIE CIR., NSL Email: RON.JIBSON@gmail.com  
Phone (home): \_\_\_\_\_ (mobile): 801-201-0594  
Occupation: RETIRED QUESTAR CEO Education: B.S. CIVIL ENGINEERING, USU  
MBA - WESTMINSTER

1) Please describe your business and professional experience, including areas of expertise:

I AM A PROFESSIONAL ENGINEER AND WORKED IN THE FOLLOWING TITLES WHILE AT QUESTAR/DOMINION ENERGY.  
DIR. OF ENG.  
GENERAL MANAGER, OPERATIONS  
EXEC. V.P.  
CHAIRMAN OF BOARD, PRESIDENT AND CEO.

2) Please describe why you would like to serve on the Eaglewood Golf Course Oversight Committee.

I HAVE ENJOYED LIVING ON THE GOLF COURSE AND FEEL IT IS ONE OF THE MOST SCENIC AND BEAUTIFUL COURSES IN THE STATE. I LOVE TO PLAY GOLF AND HAVE A PASSION FOR THE SPORT AND WANT TO DO ALL I CAN TO PRESERVE THE BEAUTY OF AND EXPERIENCE OF EAGLEWOOD GOLF.

3) Please describe what you believe is the most important contribution you can make as a member of the Committee.

MY CONTRIBUTION WOULD BE TO CONTRIBUTE MY TIME AND RESOURCES TO THE CITY. MY BACKGROUND OF ENGINEERING, BUSINESS AND BEING CEO OF A FORTUNE 500 COMPANY WOULD PROVIDE A PERSPECTIVE THAT I WOULD HOPE WOULD BE OF VALUE TO NSL AND EAGLEWOOD G.C.

2/10/2020

- 4) Please describe your opinions, if any, regarding the current golf course operations or any other matters related to Eaglewood Golf Course that you want to share.

EAGLEWOOD HAS BEEN WELL MAINTAINED AND TAKEN CARE OF. I BELIEVE THERE ARE PROGRAMS THAT COULD BE INTRODUCED TO PROMOTE GOLF AND PROVIDE RECREATIONAL OPPORTUNITIES FOR THE CITIZENS OF N.S.L.

Please submit completed form, optional résumé, and any other documents you wish to be considered to the City Recorder at the City Offices, 10 East Center Street, North Salt Lake or by email at [lindah@nslcity.org](mailto:lindah@nslcity.org)

**Ronald W. Jibson**  
**Retired, Chairman, President and CEO**  
**Questar Corporation (now Dominion Energy)**

Mr. Jibson served as Questar Corporation's President and CEO and as a director from June 2010 to October 2016. He was appointed chairman of the board July 1, 2012. Mr. Jibson was also president and CEO of Questar subsidiaries Wexpro Company and Questar Gas Company, and as chairman of Questar Pipeline Company. During his 36 year career at Questar, Mr. Jibson held various other Questar positions such as executive vice president, vice president of operations, general manager of operations and director of engineering.

Mr. Jibson has significant industry involvement, having served as chairman of the board of directors of both the American Gas Association and the Western Energy Institute. He has also served on the board of the Gas Technology Institute. Ron is the past chairman of the Utah State University board of Trustees and currently serves on the Utah Board of Regents. Past board involvement includes past chair of the Economic Development Corporation of Utah, Junior Achievement of Utah, and a board member of Women's Leadership Institute, Utah Symphony Opera, United Way of Salt Lake, Utah Shakespearean Festival and as Chair of the Salt Lake Chamber Board of Governor's.

He serves as a member of the board of directors of Dominion Energy, Richmond Virginia and IDACORP/Idaho Power Company, Boise Idaho. He previously served on the board of directors of National Fuel Gas Company in Buffalo, New York.

Ron graduated from Utah State University in civil engineering and later received a Masters of Business Administration from Westminster College.

Ron, and his wife, Janet, have three sons and ten grandchildren. His hobbies include golf, fly fishing, biking, pickleball and spending time with family at their mountain ranch.



# CITY OF NORTH SALT LAKE

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10 East Center Street  
North Salt Lake, Utah 84054  
(801) 335-8700  
(801) 335-8719 Fax

Len Arave  
Mayor

Ken Leetham  
City Manager

## MEMORANDUM

**TO:** Honorable Mayor and City Council

**FROM:** Ken Leetham, City Manager

**DATE:** October 19, 2021

**SUBJECT:** Consideration of Resolution No 2021-41R: A Resolution Approving the Issuance of the Local Building Authority of the City of North Salt Lake, Utah, Lease Revenue Bonds, Series 2022.

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### RECOMMENDATION

I recommend approval of the Resolution No 2021-41R: A Resolution Approving the Issuance of the Local Building Authority of the City of North Salt Lake, Utah, Lease Revenue Bonds, Series 2022.

### BACKGROUND

Several meetings ago, the City Council asked the staff to investigate and pursue the possibilities of relocating and building a new public works facility. This is a needed project and though it is a large and long-range project, now is an excellent time to seek funding for this initiative. The attached resolution is the first step in issuing debt for this purpose. You may recall that a parameters resolution only allows for the Local Building Authority (LBA) to declare its intent to issue debt, schedule a public hearing and put a plan together for the LBA to consider in the future for the project. Adoption of this resolution does not obligate the City or LBA to issue this debt in any way, but does allow us to carefully consider doing so if we believe that is in the best interest of the City in the future.

Very preliminary estimates for the project are as follows:

Land cost: \$6.5 million  
Improvement costs: \$6 million  
Credit for existing property: \$3 million

The proposed resolution includes bonding up to \$10 million for this purpose. Following approval of the parameters resolution, staff will embark on a process of trying to determine with more accuracy a plan to move forward, together with associated costs. In addition, during a closed meeting, we will share the proposed location and status of negotiations thus far in our discussion with the landowner.

**PROPOSED MOTION**

I move that the City Council approve Resolution No 2021-41R: A Resolution Approving the Issuance of the Local Building Authority of the City of North Salt Lake, Utah, Lease Revenue Bonds, Series 2022.

**RESOLUTION NO. 2021-41R**

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NORTH SALT LAKE, UTAH, APPROVING THE ISSUANCE OF THE LOCAL BUILDING AUTHORITY OF THE CITY OF NORTH SALT LAKE, UTAH, LEASE REVENUE BONDS, SERIES 2022.

WHEREAS, the Local Building Authority of the City of North Salt Lake, Utah (the “*Issuer*”) has been duly organized as a Utah nonprofit corporation by the City of North Salt Lake, Utah (the “*City*”) solely for the purpose of (a) accomplishing the public purposes for which the City exist by acquiring, improving or extending any improvements, facilities or properties (whether real or personal) and appurtenances to them which the City is authorized or permitted by law to acquire, including, but not limited to, public buildings or other structures of every nature or any joint or partial interest in the same, and (b) financing the costs of such projects on behalf of the City in accordance with the procedures and subject to the limitations of the Local Building Authority Act, Title 17D, Chapter 2 of the Utah Code Annotated 1953, as amended (the “*Act*”) and other applicable Utah law; and

WHEREAS, the Act provides that the Issuer may issue and sell its bonds for the purpose of paying the costs of acquiring, improving or extending a project (as such term is defined in the Act), and such bonds shall be secured by a pledge and assignment of the revenues received by the Issuer under the leasing contract (as such term is defined in the Act) with respect to the project financed or refinanced with the proceeds of the sale of such bonds and may be secured by (a) a mortgage (as defined in the Act) covering all or any part of such project, (b) a pledge and assignment of the leasing contract for that project, (c) amounts held in reserve funds or (d) such other security devices with respect to the project as may be deemed most advantageous by the Issuer; and

WHEREAS, the City Council of the City (the “*Council*”) desires the Issuer to undertake the construction of a certain project pursuant to the Act consisting of the acquisition, construction and improvement of a public works facility (the “*Project*”) on certain real property described in *Exhibit A* hereto (the “*Property*”); and

WHEREAS, the Issuer and the City will enter into that certain Master Lease Agreement (the “*Lease*”), the form of which is attached hereto as *Exhibit B*, pursuant to which the Issuer has agreed (a) to Acquire or to cause the Acquisition (as such terms are defined in the Lease) of the Project and (b) to lease the Property to the City, all on the terms and conditions set forth in the Lease; and

WHEREAS, the Council has heretofore reviewed and approved the plans and specifications for the Project in satisfaction of the requirements of Section 17A-3-904 of the Act; and

WHEREAS, pursuant to and in accordance with the provisions of the Act and the Indenture, the Issuer has determined that it is in the best interest of the Issuer and the City (a) to issue its Local Building Authority of the City of North Salt Lake, Utah Lease Revenue Bonds, Series 2022 (the “*Series 2022 Bonds*”) pursuant to this Resolution and an Indenture of Trust (the “*Indenture*”),

between the Issuer and U.S. Bank National Association, as trustee (the “*Trustee*”), the form of which is attached hereto as *Exhibit C*, to provide funds for the purpose of (i) paying a portion of the costs of constructing the Project as provided in the Lease and (ii) paying costs of issuance relating to the issuance, sale and delivery of the Series 2022 Bonds, (b) to lease the Leased Property (as defined in the Lease) to the City in consideration of certain Base Rentals (as defined in the Lease) and Additional Rentals (as defined in the Lease) to be paid as provided in the Lease, which will be sufficient (so long as the City extends the term of the Lease for each successive one-year renewal term) to pay the principal of, and premium, if any, and interest on, the Series 2022 Bonds and certain other costs and expenses as provided in the Lease; and

WHEREAS, the Issuer desires to secure its payment obligations under the Indenture by executing and delivering one or more Leasehold Deed of Trust, Assignment of Rents and Security Agreement (the “*Deed of Trust*”), attached hereto as *Exhibit D*, for the benefit of the holders of the Series 2022 Bonds; and

WHEREAS, in the opinion of the Council, it is in the best interest of the City and the Issuer to negotiate for the sale of the Series 2022 Bonds to a purchaser (the “*Purchaser*”) and to enter into a Bond Purchase Agreement (the “*Bond Purchase Agreement*”), a form of which is attached hereto as *Exhibit E*; and

WHEREAS, there has presented to the Council at this meeting the proposed form of each of the following agreements: (a) the Indenture; (b) the Lease, (c) the Deed of Trust, and (d) the Bond Purchase Agreement (collectively, the “*Operative Agreements*”), in connection with the issuance of the Series 2022 Bonds and the financing of the Project; and

WHEREAS, the Issuer proposes to adopt a Bond Resolution dated as of the date of this Resolution for the Issuance of its Series 2022 Bonds (the “*Bond Resolution*”), attached hereto as *Exhibit F*.

NOW, THEREFORE, BE IT AND IT IS HEREBY RESOLVED by the City Council of the City of North Salt Lake, Utah, as follows:

*Section 1. Approval of Issuance of Series 2022 Bonds.* For the purposes enumerated in the preamble to this Resolution and paying the costs and expenses incidental thereto and to the issuance of the Series 2022 Bonds hereinafter described, the Council hereby approves the issuance of the Series 2022 Bonds by the Issuer pursuant to the Act and in accordance with and subject to the terms, conditions and limitations established in the Indenture and in the Bond Resolution and in accordance with and subject to the terms, conditions and limitations established in the Indenture.

*Section 2. Terms of the Series 2022 Bonds.* (a) The Series 2022 Bonds shall be dated as of their date of original issuance and delivery (the “*Dated Date*”), shall mature on the dates and in the principal amounts, and shall bear interest from the Dated Date, payable at the interest rates provided in the Certificate of Determination (as defined in the Bond Resolution). The Series 2022 Bonds shall be issued in authorized denominations and shall be executed and payable as provided in the Indenture.

(b) There is hereby delegated to the Designated Officer of the Issuer (as defined in the Bond Resolution), subject to the limitations contained in this Resolution, the power to determine and effectuate the following with respect to the Series 2022 Bonds and the Designated Officer is hereby authorized to make such determinations and effectuations:

(i) the aggregate principal amount of the Series 2022 Bonds; *provided* that the aggregate principal amount of the Series 2022 Bonds shall not exceed \$10,000,000;

(ii) the maturity date or dates and principal amount of each maturity of the Series 2022 Bonds to be issued; *provided, however*, that the final maturity of all Bonds shall not be later than 31 years from their date or dates;

(iii) the interest rate or rates of the Series 2022 Bonds, *provided, however*, that the interest rate or rates to be borne by any Bond shall not exceed five percent (5.00%) per annum;

(iv) the sale of the Series 2022 Bonds to the Purchaser of the Series 2022 Bonds and the purchase price to be paid by the Purchaser for the Series 2022 Bonds; *provided, however*, that the discount from par of the Series 2022 Bonds shall not exceed two percent (2.00%) (expressed as a percentage of the principal amount);

(v) the Series 2022 Bonds, if any, to be retired from mandatory sinking fund redemption payments and the dates and the amounts thereof;

(vi) the optional redemption date of the Series 2022 Bonds, if any;

(vii) the use and deposit of the proceeds of the Series 2022 Bonds; and

(viii) any other provisions deemed advisable by the Designated Officer not materially in conflict with the provisions of this Resolution.

The Authorized Officer shall make such determinations as provided above and shall execute the Certificate of Determination containing such terms and provisions of the Series 2022 Bonds, which execution shall be conclusive evidence of the actions or determinations of the Authorized Officer as to the matters stated therein.

(c) The Series 2022 Bonds shall be subject to redemption prior to maturity as provided in the Indenture.

(d) The Series 2022 Bonds and the Trustee's certificate of authentication to be endorsed thereon shall be in substantially the forms set forth in the Indenture, which forms are hereby incorporated herein by this reference, and the provisions for the signatures, authentication, payment, places of payment, medium of payment, transfer, exchange, registration, number and other provisions thereof, to the extent not provided herein, shall be as set forth in the Indenture as finally executed and are hereby approved and hereby incorporated herein by this reference. The form of the Series 2022 Bonds, submitted to this meeting as part of the recitals to the Indenture be,

and the same hereby is, approved, and when the same shall be executed on behalf of the Issuer in the manner contemplated by the Indenture and this Resolution in the aggregate principal amount herein provided, they shall represent the approved form of the Series 2022 Bonds of the Issuer.

(e) Upon the occurrence of an Event of Nonappropriation (as such term is defined in the Lease) or an Event of Default under the Lease or the Indenture, the Trustee shall be entitled to exercise such rights and remedies (including but not limited to the appointment of a receiver) as are provided in the Indenture or as are otherwise provided to the Issuer under the Act or other applicable law; *provided, however*, that no deficiency judgment upon foreclosure of the lien of the Indenture may be entered against the Issuer, the City, the State of Utah or any political subdivision of the State of Utah, except as otherwise expressly provided in the Indenture and as permitted by the Act.

*Section 3. Limited Obligations.* The Series 2022 Bonds, together with the interest and premium, if any, thereon, are not general obligations of the Issuer but are limited obligations and, except for the security provided by the Indenture, pursuant to Section 17A-3-911 of the Act, are payable solely out of Base Rentals received by the Trustee under the Lease and certain other amounts received under the Indenture. Nothing in this Resolution, the Indenture or the Series 2022 Bonds shall be construed as requiring the State of Utah or any political subdivision of the State of Utah to pay any of the Series 2022 Bonds or to pay any of the premium (if any) or interest thereon or to appropriate any money to pay the same. Pursuant to Section 17A-3-911 of the Act and the Indenture, the Series 2022 Bonds shall be secured by the Trust Estate, which is specifically pledged, mortgaged, hypothecated, assigned and otherwise secured in the Indenture, subject to Permitted Encumbrances, for the equal and ratable payment of the Series 2022 Bonds and any bonds hereafter issued on a parity with the Series 2022 Bonds under the Indenture and shall be used for no other purpose than to pay the principal of, and premium, if any, and interest on, the Series 2022 Bonds and such additional parity bonds, except as may be otherwise expressly authorized in the Indenture. Neither the full faith and credit nor the taxing powers of the State of Utah or any political subdivision of such State is pledged to the payment of the principal of, or premium, if any, or interest on, the Series 2022 Bonds or other costs appertaining thereto. The Series 2022 Bonds and the interest and premium, if any, thereon do not now and shall never constitute an indebtedness of the Issuer, the City, the State of Utah or any political subdivision of such State within the meaning of any State constitutional provision or limitation nor give rise to or be a general obligation or liability of nor a charge against the general credit or taxing powers of the State of Utah or any political subdivision of the State of Utah. No breach of any covenant or agreement in the Indenture or the Lease shall impose any general obligation or liability upon, nor a charge against, the City or the general credit or taxing power of the State of Utah or any of its political subdivisions. THE OBLIGATION OF THE CITY TO PAY BASE RENTALS AND OTHER AMOUNTS UNDER THE LEASE IS ANNUALLY RENEWABLE AS PROVIDED THEREIN. THE OBLIGATION OF THE CITY TO MAKE SUCH PAYMENTS WILL NOT CONSTITUTE A DEBT OF THE CITY, THE STATE OF UTAH OR ANY POLITICAL SUBDIVISION THEREOF. NEITHER THE ISSUANCE OF THE SERIES 2022 BONDS NOR THE EXECUTION AND DELIVERY OF THE LEASE DIRECTLY OR CONTINGENTLY OBLIGATE THE CITY TO APPROPRIATE ANY MONEY TO PAY ANY RENTALS UNDER THE LEASE OR TO PAY ANY RENTALS BEYOND THOSE APPROPRIATED FOR THE CITY'S THEN CURRENT FISCAL YEAR OR OBLIGATE THE STATE OF UTAH OR ANY POLITICAL SUBDIVISION THEREOF (OTHER THAN THE CITY TO THE EXTENT PROVIDED IN THE LEASE) TO PAY ANY RENTALS DUE TO THE ISSUER UNDER THE TERMS OF THE

LEASE. NO PERSON EXECUTING THE SERIES 2022 BONDS OR THE LEASE SHALL BE SUBJECT TO PERSONAL LIABILITY OR ACCOUNTABILITY BY REASON OF THE ISSUANCE OF THE SERIES 2022 BONDS OR THE EXECUTION OF THE LEASE.

*Section 4. Authorization to Execute and Deliver Operative Agreements.* The forms, terms and provisions of each of the Operative Agreements are each hereby approved in substantially the forms presented at this meeting and attached hereto, with such insertions, omissions and changes as shall be approved by the Issuer as provided in the Bond Resolution and, to the extent that the City is a party to any such document, the Mayor of the City (the “*Mayor*”), the execution of such documents by the Issuer and Mayor being conclusive evidence of such approval. The appropriate officers of the Issuer are hereby authorized and directed to execute, attest and countersign, the Indenture and each of the other Operative Agreements to which the Issuer is a party and to affix or imprint the seal of the Issuer thereon. The Mayor is hereby authorized and directed to execute and the City Recorder of the City (the “*City Recorder*”) to attest and countersign the Lease and each of the other Operative Agreements to which the City is a party.

*Section 5. Approval of Bond Purchase Agreement and Sale of the Bonds.* (a) The Bonds are hereby authorized to be sold to the Purchaser, on the terms and conditions set forth in the Certificate of Determination and the Bond Purchase Agreement and upon the basis of the representations therein set forth; *provided* that such terms shall not exceed the limitations set forth in Section 2 herein. The Bond Purchase Agreement, in substantially the form attached hereto as *Exhibit E*, is hereby authorized and approved. To evidence the acceptance of the Bond Purchase Agreement, the Mayor is hereby authorized to execute and deliver, in substantially the form attached hereto as *Exhibit E*, with such insertions, deletions, changes, omissions and variations as the Mayor may deem appropriate (such approval of the Mayor of any such changes shall be conclusively established by the execution of the Bond Purchase Agreement).

(b) The Bonds shall be delivered to the Purchaser and the proceeds of sale thereof applied as provided in the Certificate of Determination.

(c) The Mayor is hereby authorized to do or perform all such acts and to execute all such certificates, documents and other instruments as may be necessary or advisable to provide for the issuance, sale and delivery of the Bonds, and the City Recorder is hereby authorized, empowered and directed to attest such execution and to countersign.

*Section 6. Other Actions with Respect to the Series 2022 Bonds and the Indenture and Lease.* The officers and employees of the City shall take all action necessary in conformity with the Act to carry out the issuance of the Series 2022 Bonds and the execution and delivery of the Operative Agreements, including, without limitation, the execution and delivery of any closing and other documents required to be delivered in connection with the sale and delivery of the Series 2022 Bonds and the execution and delivery of the Indenture. If the Mayor or the City Recorder shall be unavailable to execute, countersign or attest (as applicable), any of the Operative Agreements and/or the other documents that they are hereby authorized to execute, countersign and attest, the same may be executed, countersigned and attested (as applicable) by the Mayor Pro Tem or by the Deputy City Recorder, respectively.

*Section 7. Approval of Appointment of Trustee.* The City hereby approves the appointment of U.S. Bank National Association as Trustee, Bond Registrar and Paying Agent under the Indenture.

*Section 8. Filing of Resolution.* The City Recorder, as Secretary of the Issuer, is hereby authorized and directed to file a certified copy of this Resolution in the records of the Issuer promptly following the adoption hereof.

*Section 9. Resolution Irrepealable.* After any of the Series 2022 Bonds are delivered by the Trustee to the Purchaser upon receipt of payment therefor, this Resolution shall be and remain irrepealable until the Series 2022 Bonds and interest thereon shall have been fully paid, canceled and discharged.

*Section 10. Severability.* If any section, paragraph, clause or provision of this Resolution shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such section, paragraph, clause or provision shall not affect any of the remaining provisions of this Resolution; *provided, however*, that nothing in this Section shall be construed to amend or modify the limitations provided in Section 4 hereof.

*Section 11. Conflicting Resolutions.* All resolutions or parts thereof in conflict herewith are, to the extent of such conflict, hereby repealed.

*Section 12. Effective Date.* This Resolution shall be effective immediately upon its approval and adoption.

APPROVED AND ADOPTED this October 19, 2021.

By \_\_\_\_\_  
Mayor

COUNTERSIGN AND ATTEST:

By \_\_\_\_\_  
City Recorder

**EXHIBIT A**

**DESCRIPTION OF PROPERTY**

**EXHIBIT B**

MASTER LEASE AGREEMENT

**EXHIBIT C**

INDENTURE OF TRUST

**EXHIBIT D**

DEED OF TRUST

**EXHIBIT E**

**BOND PURCHASE AGREEMENT**

**EXHIBIT F**

**BOND RESOLUTION OF THE ISSUER**



# CITY OF NORTH SALT LAKE

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10 East Center Street  
North Salt Lake, Utah 84054  
(801) 335-8700  
(801) 335-8719 Fax

Len Arave  
Mayor

Ken Leetham  
City Manager

## MEMORANDUM

**TO:** Honorable Mayor and City Council

**FROM:** Ken Leetham, City Manager

**DATE:** October 19, 2021

**SUBJECT:** Consideration of Bid Award for Phases 1 and 2 of the environmental and design work related to the 1100 North Bridge Project – CORRECTED VERSION.

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### **RECOMMENDATION**

I recommend approval of the bid award to Horrocks Engineers for Phases 1 and 2 of the environmental and design work related to the proposed 1100 North Bridge Project in the amount of \$3,497,610.81.

### **BACKGROUND**

The City has been working to make progress on the next phases of the proposed 1100 North Bridge Project. We have also enlisted the assistance of UDOT Region 1 staff in this process and they have been extremely helpful in identifying needed tasks and next steps. Based upon their input, the attached proposals are presented as the critical next steps in the process. Phase 1 is a proposal to take the project through its environmental clearance. The proposed cost of this task is \$2,232,961.49. Phase 2 is the final design phase that will get the project to a point where the Union Pacific Rail Road will be able to review and approve the project for construction. The proposed cost of Phase 2 is \$1,264,649.32. The combined total cost of these projects is \$3,497,610.81.

You'll remember that the City has three specific funding sources for this project. First, there is a legislative allocation for design work of \$3 million. We believe that this will be the source of funding for these two phases. Second, Davis County has awarded the City \$1 million from its 3<sup>rd</sup> quarter cent sales tax fund. Third, we are required to match Davis County's contribution with roadway impact fees. You will also see in the attached proposals, that there is a future Phase 3 and 4 for this project. We believe we have sufficient funds (\$5 million) to complete these future phases in order to get this project to a construction-ready status including the likely purchase of at least some of the right-of-way that will be required.

The City solicited for bids for this project and used the list of UDOT consultants as the pool of potential consultants for the project. Horrocks Engineers was the only firm that submitted a response. Horrocks is

also the principal design engineer for the I-15 reconstruction project and so they will be very familiar with all of the changes that will be happening on the 2600 South interchange, if any and on the I-15 reconstruction as a whole.

This project will take a significant amount of time to complete. Phase 1 will be completed in September of 2022 and Phase 2 will take approximately one additional year and is expected to be completed in October, 2023.

**PROPOSED MOTION**

I move that the City Council approve the bid award to Horrocks Engineers for Phases 1 and 2 of the environmental and design work related to the proposed 1100 North Bridge Project in the amount of \$3,497,610.81.

Client  
Project Name

North Salt Lake City  
1100 N Grade Separation Project-Ph 1 (SES, F Horrocks PM:

Client PM:

Paul Ottoson  
Cory Pope

## HORROCKS ENGINEERS COST PROPOSAL

Original Estimate

DIRECT LABOR EXPENSES				
Name	Position	Hours	Pay Rate (\$/hr)	Total Amount
Cory Pope	Project Manager	164	\$88.32	\$14,484.48
Domenic Lupo	Quality Manager	61	\$91.79	\$5,599.19
Kathy Wickam	Design Manager	127	\$66.28	\$8,417.56
Jacob Jensen	Support Services Lead	350	\$83.85	\$29,347.50
Shawn Shuler	Dry Utility Coordination	514	\$58.82	\$30,233.48
Tanner Sweat	Dry Utility Coordination	552	\$39.22	\$21,649.44
Brandie Rich	Utility Coordinator	134	\$28.38	\$3,802.92
Marie Woodin	ROW Design	25	\$62.02	\$1,550.50
Dale Harris	ROW Design QC	4	\$64.00	\$256.00
Austin Pack	ROW Design Tech	20	\$44.41	\$888.20
Scott Pounder	ROW Design Tech	20	\$39.69	\$793.80
Matt Loveridge	ROW CADD	0	\$38.60	\$0.00
David Simmons	Structures Lead	268	\$64.50	\$17,286.00
Raul Uribe	Structures Design	330	\$41.67	\$13,751.10
Patrick Fisher	Structures Design	100	\$33.74	\$3,374.00
Lee Misdom	Structures CAD	152	\$44.16	\$6,712.32
Chuck Easton	Environmental Lead	166	\$68.47	\$11,366.02
Doug Jacobson	Environmental Analysis	195	\$35.09	\$6,842.55
Haylie Ferguson	Environmental Analysis	144	\$38.71	\$5,574.24
Nathan Clarke	Wetlands	24	\$37.35	\$896.40
Marley Madsen	Wildlife/T&E	10	\$38.18	\$381.80
Aaron Woods	Cultural/Historic	16	\$39.14	\$626.24
Ben Pearson	Cultural/Historic	30	\$33.59	\$1,007.70
Brianne Murdock	Cultural/Historic	30	\$19.61	\$588.30
Judy Imlay	Air Quality	26	\$52.25	\$1,358.50
Ashley Dowell	ATMS	16	\$57.55	\$920.80
Kim Hill	CAD	16	\$40.68	\$650.88
Lisa Blackwelder	Technical Editor	22	\$38.08	\$837.76
Sarah Wilson	Graphics	0	\$32.35	\$0.00
Derrick Sharp	GIS	117	\$60.03	\$7,023.51
Anne Williams	Public Involvement Manager	158	\$49.54	\$7,827.32
Katie Williams	PI Lead	299	\$33.07	\$9,887.93
Alyssa Canaviri	PI Support	216	\$23.74	\$5,127.84
Aaron Thorup	Graphic Design	40	\$32.35	\$1,294.00
Zach Starkey	GIS Support	22	\$43.91	\$966.02
Sharel Copley	Administration	3	\$26.05	\$78.15
Wendy Hansen	Lead ROW Agent	19	\$65.48	\$1,244.12
Melissa Ahlers	Accounting	20	\$33.16	\$663.20
Cathy Laycock	Clerical	10	\$33.48	\$334.80
Tony Curtis	Sharepoint	40	\$57.06	\$2,282.40
Michael Heaps	Traffic Manager	44	\$66.48	\$2,925.12
Ron Mortimer	Ron Mortimer	6	\$96.25	\$577.50
Total Hours		4,510		
		Labor Subtotal		\$229,429.59
		Overhead	152.52%	\$ 349,926.01
		Subtotal		\$579,355.60
		Fixed Fee	11.50%	\$ 66,625.89
		<b>Total Labor</b>		<b>\$645,981.49</b>

DIRECT EXPENSES				
DESCRIPTION		QUANTITY	RATE	\$ AMOUNT
Mileage (Personal Vehicle)		2,000	\$0.560	\$1,120.00
Test holes		50	\$1,400.00	\$70,000.00
SUE-Wet Utilities (gravity) (ft)		14,200	\$1.50	\$21,300.00
SUE-Dry Utilities (non-gravity) (ft)		67,000	\$1.25	\$83,750.00
SUE-Overhead Utilities (ft)		13,700	\$0.75	\$10,275.00
SUE - Camera Existing Pipes		1,000	\$2.25	\$2,250.00
Survey		1	\$40,000.00	\$40,000.00
PI Boards, Materials, Etc.		1	\$4,000.00	\$4,000.00
<b>Direct Expenses</b>				<b>\$232,695.00</b>
SUBCONSULTANT(S) EXPENSE				
			CRS - Railroad	\$323,685.00
			JUB-Roadway, Traffic, QC	\$968,000.00
			RB&G - Geotechnical	\$62,600.00
<b>Total Subconsultant</b>				<b>\$1,354,285.00</b>
<b>TOTAL PROJECT COST</b>				<b>\$ 2,232,961.49</b>









Client  
Project Name

North Salt Lake City  
1100 N Grade Separation Project, Phase 2 (P&H Horrocks PM:

Client PM: Paul Ottoson  
Cory Pope

## HORROCKS ENGINEERS COST PROPOSAL

Original Estimate

DIRECT LABOR EXPENSES				
Name	Position	Hours	Pay Rate (\$/hr)	Total Amount
Cory Pope	Project Manager	149	\$89.82	\$13,383.18
Domenic Lupo	Quality Manager	139	\$93.35	\$12,975.65
Kathy Wickam	Design Manager	93	\$67.41	\$6,269.13
Jacob Jensen	Support Services Lead	220	\$85.28	\$18,761.60
Shawn Shuler	Dry Utility Coordination	289	\$59.83	\$17,290.87
Tanner Sweat	Dry Utility Coordination	278	\$39.88	\$11,086.64
Brandie Rich	Utility Coordinator	116	\$28.86	\$3,347.76
Marie Woodin	ROW Design	40	\$63.08	\$2,523.20
Dale Harris	ROW Design QC	16	\$65.10	\$1,041.60
Austin Pack	ROW Design Tech	46	\$50.45	\$2,320.70
Scott Pounder	ROW Design Tech	26	\$40.37	\$1,049.62
Matt Loveridge	ROW CADD	35	\$39.26	\$1,374.10
David Simmons	Structures Lead	323	\$65.60	\$21,188.80
Raul Uribe	Structures Design	452	\$42.38	\$19,155.76
Patrick Fisher	Structures Design	320	\$34.31	\$10,979.20
Lee Misdom	Structures CAD	384	\$44.91	\$17,245.44
Chuck Easton	Environmental Lead	15	\$69.64	\$1,044.60
Doug Jacobson	Environmental Analysis	8	\$35.69	\$285.52
Ashley Dowell	ATMS	75	\$58.54	\$4,390.50
Kim Hill	CAD	45	\$41.38	\$1,862.10
Lisa Blackwelder	Technical Editor	3	\$38.73	\$116.19
Anne Williams	Public Involvement Manager	20	\$50.38	\$1,007.60
Katie Williams	PI Lead	32	\$33.63	\$1,076.16
Alyssa Canaviri	PI Support	12	\$24.14	\$289.68
Zach Starkey	GIS Support	16	\$44.66	\$714.56
Wendy Hansen	Lead ROW Agent	19	\$66.60	\$1,265.40
Melissa Ahlers	Accounting	18	\$33.72	\$606.96
Cathy Laycock	Clerical	20	\$34.05	\$681.00
Lynda Seckletstewa	Specifications Lead	16	\$39.11	\$625.76
Ron Mortimer	Ron Mortimer	16	\$97.90	\$1,566.40
Michael Heaps	Traffic Manager	4	\$67.62	\$270.48
Total Hours		3,245		
Labor Subtotal				\$175,796.16
Overhead				152.52% \$ 268,124.30
Subtotal				\$443,920.46
Fixed Fee				11.50% \$ 51,050.85
Total Labor				<b>\$494,971.32</b>
DIRECT EXPENSES				
DESCRIPTION	QUANTITY	RATE	\$ AMOUNT	
Mileage (Personal Vehicle)	2,000	\$0.560	\$1,120.00	
<b>Direct Expenses</b>			<b>\$1,120.00</b>	
SUBCONSULTANT(S) EXPENSE				
			CRS - Railroad	\$309,572
			JUB-Roadway, Traffic, QC	\$434,900
			RB&G - Geotechnical	\$24,086
			<b>Total Subconsultant</b>	<b>\$768,558.00</b>
<b>TOTAL PROJECT COST</b>				<b>\$ 1,264,649.32</b>









## **NORTH SALT LAKE**

### **1100 N GRADE SEPARATION PROJECT**

#### **Environmental and Preliminary Engineering and Final Design**

## **Scope of Work**

### **EXECUTIVE SUMMARY**

#### **Brief Description:**

Currently, there are two railroad crossings along the 1100 North roadway in NSL. The Union Pacific Railroad (UPRR)/Utah Transit Authority (UTA) crossing east of Main Street and the Woods Cross Industrial Lead (WCIL) crossing west of Main Street. The rail crossings have contributed to safety and traffic congestion concerns along 1100 North for many years. A study was commissioned to identify feasible grade separation alternatives to reduce congestion and safety concerns within this section of 1100 North, and a feasibility study was later completed to provide additional data and present grade-separation alternatives with construction estimates.

The City intends to complete a State Environmental Study (SES) Type A to evaluate a new grade separated crossing at 1100 North and the UTA/UPRR Railroad tracks, in Davis County. The document will evaluate improvements in and around the existing at-grade railroad crossing.

The Consultant will be responsible for coordination with the Utah Department of Transportation (UDOT) for their review. The project will be phased with environmental clearance as Phase 1, taking the design to PIH, and then final design to be completed with Phase 2. Consultant will accomplish all work tasks related to the environmental clearance and preparation of the preliminary plans, cost estimate and specifications for construction. This contract can also be modified to include final design and construction oversight at the discretion of the City.

The environmental document will address the transportation and safety needs of the project using the alternatives shown in the Feasibility Study with some refinements. The potential impacts to the natural and built environment associated with the solutions will be analyzed with the environmental study. Several planning efforts, traffic analyses and studies have previously taken place in this area. The environmental document should utilize existing information when possible and appropriate.

The Consultant will also provide preliminary engineering and final design for the project, coordinating with UPRR for the grade separated crossing and the at-grade crossing improvements.

### Project Team:

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Horrocks Team members include Horrocks Engineers (project management, environmental studies and document, structural design, coordination, public involvement, right of way design and utility design), J-U-B Engineers (roadway design, traffic modeling and traffic signal and interconnect design, wet utility design, landscaping and aesthetic design, maintenance of traffic, and specifications), CRS (railroad coordination and track design), and RB&G Engineering, Inc. (geotechnical Engineering and pavement design)

### Assumptions/Unknowns:

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Horrocks Engineers will facilitate coordination meetings with the Utah Department of Transportation (UDOT) for review of the environmental document. A State Environmental Study Type A will be prepared to evaluate potential environmental impacts.

It is assumed the railroad at grade intersection will be included with the project, with the spur line relocation as shown in Alternative 2 of the Feasibility Study. The design will include two (2) concept options, one (1) selected for final design; one (1) on-site meeting with the industry and one (1) on-site meeting with Union Pacific Railroad (UPRR). Design for other infrastructure such as piping, mechanical, electrical, spill containment, fall protection, loading, or unloading systems used by the industry to load/unload commodities are not included in the scope of work. UPRR has recently incorporated a clause in crossing agreements with UDOT and municipalities that requires them to pay UPRR for annual maintenance of crossings in perpetuity if they are modified or widened. The Utah State Legislature recently modified state regulations that requires to UPRR to pay for maintenance. Because of this, UPRR has slowed their reviews of at-grade crossings unless municipalities agree to pay for the maintenance. The project schedule may vary depending on the City's or UDOT's willingness or ability to accept responsibility for payment of UPRR maintenance at this crossing.

Traffic data, engineering and modeling, methods and assumptions memo, travel demand modeling, traffic modeling, safety evaluations for the environmental documentation, and MOT will be completed by JUB. Turning movement counts will be conducted and adjustment factors will be applied if needed. A VISSIM model will be prepared. Forecasting will be conducted for the year 2050. Traffic models from the I-16, 600 N to Farmington EIS and the most recent base year, 2050 Wasatch Front Regional Council (WFRC) travel demand (CUBE) model will be provided by UDOT.

This is not a digital delivery project. Microstation ORD will be used. Microstation Storm and Sanitary (SS10) will be considered for the design of the storm drain facilities as appropriate.

Project Meetings will be held virtual with the following meetings assumed:

- Team Meetings with the City (bi-weekly through PS&E, monthly thereafter): 1 hour meetings, total of 40 assumed.
- UPRR/UTA Monthly Coordination Meetings: 1 hour meetings, total of 36 meetings assumed (16 in Phase 1, 20 in Phase 2).

Phase 1:

- Kickoff Meeting: 3 hours assumed
- Scoping Meeting: 3 hours assumed
- Geometry Review Meeting: 3 hours assumed
- Plan in Hand Review Meeting: 3 hours assumed
- Right-of-Way Strategy Meeting: 3 hours assumed

## 1100 N Grade Separation Project, North Salt Lake City

- Risk Workshop: 1/2 day workshop

### Phase 2:

- PS&E Review Meeting: 3 hours assumed
- Comment Resolution Review Meeting: 3 hours assumed
- Value Engineering Study assumed City to hire facilitator: ½ day workshop
- Constructability Review to be conducted with PIH review meeting

Phase 1 and 2 do not include right of way acquisition, but do include approximately 12 meetings with stakeholders/property owners for early discussions.

Public Hearing will be virtual and in-person.

### Schedule/Phasing:

The Project will be phased as follows

Phase 1 will include SES, Geometry and PIH Submittals, starting with the Notice to Proceed in November 2021, and extend through August 1, 2022 with 30% design submittals to UPRR along with coordination and response to comments overlapping Phase 2 until September 30, 2022.

Phase 2 will include PS&E submittal and review along with 100% design submittals and coordination with UPRR and will extend until October 1, 2023.

Future Phases will include Phase 3 for the UPRR agreements, preparation of the advertisement package, right of way acquisition and Phase 4 for design support during construction.

### 1100 North RR Overpass - Schedule

Task	Start Date	End Date	Duration (Days)	Duration (Weeks)	Months
<b>PHASE 1</b>					
NTP (Nov. 15, 2021)	11/15/2021	11/15/2021	1	0	Milestone
Survey/SUE	11/20/2021	2/25/2022	97	14	3
Environmental	12/1/2021	9/30/2022	303	43	10
Roadway (Alternative Refinement - Geometry, PIH Packages)	12/1/2021	8/1/2022	243	35	8
Structures (Alternative Refinement - Geometry, PIH Packages)	12/1/2021	8/1/2022	243	35	8
RR Spur Realignment Concept - Design, Industry Review, UPRR Review	12/15/2021	7/30/2022	227	32	7
RR At-Grade Concept - Design, UPRR Review	1/1/2022	9/30/2022	272	39	9
RR Overpass Concept - Design, UPRR/UDOT Reviews	12/15/2021	7/1/2022	198	28	7
RR Spur Realignment 30% - Design, Industry Review, UPRR Review Submittal	8/1/2022	9/30/2022	60	9	2
RR At-Grade 30% - Design, UPRR Review Submittal		9/30/2022			Milestone
RR Overpass 30% - Design, UPRR/UDOT Reviews Submittal	7/1/2022	9/30/2022	91	13	3
<b>PHASE 2</b>					
NTP (Aug. 1, 2022)	8/1/2022	8/1/2022	1	0	Milestone
Roadway (Final Design - PS&E)	8/1/2022	12/1/2022	122	17	4
Structures (Final Design - PS&E)	8/1/2022	12/1/2022	122	17	4
Railroad - 30 % Reviews-Coordination	9/30/2022	3/1/2023	152	22	5
Railroad - Design Submittals (100% Packages)	3/1/2023	10/1/2023	214	31	7
<b>PHASE 3</b>					
Railroad - Agreement	10/1/2023	8/1/2024	305	44	10
ROW Engineering, Appraisals, Acquisition & Certification, Relocations	10/1/2022	3/1/2025	882	126	29
Utility Certification		8/1/2024			
Advertisement Package	8/1/2024	9/1/2024	31	4	1
<b>PHASE 4</b>					
Construction	3/1/2025	11/1/2026	610	87	20

**Fee Type:**

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The fee type for this project will be cost plus fixed fee.

## SPECIFIC WORK ACTIVITIES

### PHASE 1

## Project Management (Z)

### Activity 5Z1 – Project Management

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**Overview:** Covers Project Management for the environmental and preliminary design phase including team meetings, internal design meetings, and milestone review meetings.

**Assumptions:**

- Project Dashboard lifecycle assumed from NTP through completion of Phase 2, with setup in Phase 1 and ongoing support estimated at 1 hour per week for 10 months for Phase 1.
- Setup and Configure Project Dashboards (includes initial access invitations for team members).
- Most meetings will be held virtually via video conferencing on Microsoft Teams.

**Tasks:**

1. Project management & invoicing
2. Coordination between disciplines
3. Monthly updates to MS Project Schedule
4. Dashboard setup and maintenance
5. GIS setup and maintenance - includes monthly design updates to the GIS map
6. Team Update Meetings (Bi-weekly) - 20 meetings of 60-minute duration. Meetings will be held virtually.
7. Internal Consultant Coordination Meetings - 20 meetings of 60-minute duration. Meetings will be held virtually through the life of the project.
8. UPRR/UTA Coordination Meetings - Includes Cory and Darren through August 2024. Support from Structures as needed-16 meetings of 60-minute duration assumed for Phase 1.
9. Kickoff Meeting (3 hours)
10. Scoping Meeting (3 hours)
11. Geometry Review Meeting (3 hours)
12. Plan-in-Hand Review Meeting (3 hours)
13. Right of Way Strategy Meeting (3 hours)
14. Risk Workshop Meeting (1/2 day)

**Deliverables:** a) Project invoices, b) schedule updates in MS Project, c) Project Dashboard, d) GIS project map updates, e) meeting agendas/minutes

## Aesthetics/Landscaping (A) (J-U-B)

### Activity 1A1 – Assess Project Aesthetics and Landscaping

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**Overview:** Determine the level of aesthetics and landscaping to be incorporated into the project based on the project type and its physical and social setting.

**Assumptions:** None

**Tasks:**

1. Perform site inventory of existing landscaping
2. Perform analysis to assess existing landscaping
3. Produce Landscape Preliminary Recommendations Memorandum
  - a. 5 Page (max)

**Deliverables:** a) Landscape preliminary recommendations memorandum

### Activity 2A1 – Develop Aesthetics and Landscape Conceptual Design

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**Overview:** Create the overall project aesthetics and landscape conceptual design. Coordinate with other disciplines to incorporate features that enhance the project aesthetics.

**Assumptions:** None

**Tasks:**

1. Address and incorporate comments from 1A1 review
2. Develop initial Landscape layout
3. Produce initial Landscape Illustrious Concept Design

**Deliverables:** a) Landscape design – scroll plot

### Activity 3A1 – Complete Aesthetics and Landscaping Design

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**Overview:** Create the overall project aesthetics and landscape PS&E design. Coordinate with other disciplines to incorporate features that enhance the project aesthetics.

**Assumptions:** None

**Tasks:**

1. Address and incorporate comments from 2A1
2. Produce Landscaping Plans
3. Produce Landscape construction cost

**Deliverables:** a) Landscape Plans, b) Landscape Estimate

## Survey/Mapping (B) (Horrocks)

### Activity 1B1 – Develop Base Mapping/Existing Surface

---

**Overview:** Obtain base mapping and topography for the entire project area.

**Assumptions:** Survey will include 500' each direction on the UPRR/UTA main railroad crossing; 1000' each direction on the spur line and at-grade crossing; 1100 N roadway from the I-15 ramp intersection on the east side, west to 500' west of the at-grade railroad crossing (WCIL); and approximately 1000' each direction along Main Street and the proposed realigned Main Street.

### Tasks:

1. Field Survey for Mobile LiDAR and Aerial Flight
2. Traditional Supplemental Survey
3. Coordination with UTA and UPRR
4. Process Survey and Scan Data
5. Linework Extraction and CAD surface file

**Deliverables:** a) Extopo file

## ITS (ATMS)(C) (Horrocks)

### Activity 1C1– Assess ITS (ATMS) Needs

---

**Overview:** Review the existing conditions, ITS Strategic Plan, and project objectives to develop recommendations to meet ITS needs.

**Assumptions:** ATMS will be limited to new Main Street/1100 N Signal back to I-15.

### Tasks:

1. Develop Concept/ Project ITS Summary

**Deliverables:** a) Project ITS Summary

### Activity 3C1– Develop ITS (ATMS) Components Design

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**Overview:** Identify the ITS device locations and prepare a preliminary ITS Cost Estimate.

**Assumptions:** ATMS will be limited to new Main Street/1100 N Signal back to I-15.

### Tasks:

2. Prepare Preliminary ITS (AT) Plan Sheets
3. Prepare ITS cost estimate.

**Deliverables:** a) Preliminary ITS (AT) Plan Sheets, b) ITS Cost Estimate

## Environmental (E) (Horrocks)

### Activity 2E1 Analyze Environmental Resources

---

**Overview:** Provide environmental resource locations to the roadway designers for consideration during design.

**Assumptions:** State Environmental Study Type A project procedures (UDOT Environmental MOI, 3-38) will be followed. UDOT will provide the Class of Action letter, which is not included in this scope of work. A wetland delineation is not anticipated. Section 4(f) analysis assumes adverse impacts to historic properties with no other Section 4(f) resources present within project area.

### Tasks:

Document environmental resource locations, provide environmental resource information and prepare resource impact analyses, clearance request memos, and obtain environmental clearances.

- a. Public Involvement (see Activity 2P1 and 3P1)
- b. Cultural resources
  - i. Prepare and submit Fieldwork Authorization
  - ii. Historic structures survey and reporting
  - iii. Archaeological resources survey and reporting
  - iv. Obtain cultural resources clearance
- c. Threatened and Endangered Species analysis
- d. Waters of the United States investigation
  - i. Prepare and submit Fieldwork Authorization
  - ii. Conduct wetland investigation/delineation
  - iii. Prepare wetland report
  - iv. Obtain waters of the United States clearance
- e. Noise
  - i. Prepare and submit Fieldwork authorization.
  - ii. Identify noise sensitive areas and conduct field visit to verify land use activities.
  - iii. Prepare Noise Monitoring Location Memo and obtain approval from UDOT.
  - iv. Perform field noise measurements to obtain existing Leq noise levels at noise sensitive locations (assume 3 locations).
  - v. Build and calibrate the TNM 2.5 model for existing conditions to determine existing worst case noise levels.
  - vi. Determine the future worst case noise levels for the build alternative using TNM 2.5.
  - vii. Determine traffic noise impacts
  - viii. Examine and evaluate traffic noise abatement measures for those receptors that qualify for noise mitigation based on UDOT's current noise policy.
  - ix. Identify and evaluate the potential for construction noise.
- f. Air Quality
  - i. Determine current attainment/non-attainment status for all criteria pollutants
  - ii. Provide information on current NAAQS standards
  - iii. Describe existing conditions in the study area (climate and data from appropriate monitoring stations)
  - iv. Include status of State Implement Plan (SIP) for study area.
  - v. Regional Analysis: Determine whether the project as proposed is in conformity with the SIP.
  - vi. Project-Level Analysis: For PM10 and PM2.5, determine whether the project qualifies as a "project of air quality concern" that would require a hot-spot analysis
- g. Hazardous Materials and Hazardous Waste Sites

- i. Review available online databases (EPA Enviromapper, DEQ Utah Environmental Interactive Map) to determine existing hazardous waste sites within the study area.
- h. Section 4(f)
  - i. Prepare Individual Section 4(f) analysis due to full use of historic properties.

**Deliverables:** a) Environmental Resource Reports

### 3E1 Prepare State Environmental Study

---

**Overview:** Prepare State Environmental Study Type A.

**Assumptions:** State Environmental Study Type A project procedures (UDOT Environmental MOI, 3-38) will be followed. UDOT will provide the Class of Action letter, which is not included in this scope of work.

**Tasks:** Compile environmental data and correspondence into the environmental document (State Study Type A) and submit the draft document to UDOT for review and revision. Revise draft based on UDOT comments and submit final document.

**Deliverables:** a) Draft Environmental Document, b) Final Environmental Document

## Geotechnical (G) (RB&G Engineering, Inc.)

### Activity 1G1 – Conduct Preliminary Geotechnical Investigation

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**Overview:** Complete preliminary review of available geotechnical and geologic data and site conditions to identify potential issues that may affect the design and construction of the Project. Develop a geotechnical subsurface exploration plan.

**Assumptions:** None

**Tasks:**

1. Review surficial geologic map.
2. Review 2018 boring log, test results, and preliminary analyses.
3. Conduct a site visit to identify proposed boring and CPT locations.

**Deliverables:** a) Geotechnical Subsurface Exploration Plan, including proposed test hole locations and estimated depths.

### Activity 3G1 – Conduct Geotechnical Investigation

---

**Overview:** Conduct a subsurface exploration for the proposed bridge foundations, retaining walls, and roadway pavement. One boring has already been drilled to a depth of 90 feet near the northeast corner of the proposed bridge. In accordance with the UDOT Geotechnical Manual of Instruction, which requires two borings at each support when substructures are expected to be longer than 70 feet, we propose to extend two Cone Penetration Test (CPT) investigations to maximum depths of 150 feet near two corners of the proposed bridge and drill one boring to an estimated depth of 125 feet at the

remaining corner. We also propose to complete 4 borings and 2 CPTs along proposed retaining wall alignments, with the depths of these investigations ranging from about 20 to 80 feet and averaging approximately 40 feet. Two shallow borings (est. 10 ft deep) are proposed to evaluate shallow subsurface conditions for pavement design near the locations where the project roadway profile will tie into existing grade.

**Assumptions:** Any required permit fees will be waived by City.

**Tasks:**

1. Coordinate with City and Design Team to finalize exploration plan.
2. Identify boring locations in the field.
3. Coordinate with Blue Stakes and utility locators and adjust locations as necessary to avoid identified conflicts.
4. Mobilize drill rig, crew, and geologist/engineer to the site, and demobilize when complete.
5. Collect bulk (5-gallon bucket) samples of anticipated shallow pavement subgrade materials near each end of the project for classification, Proctor, and CBR tests.
6. Conduct subsurface exploration and soil sampling to provide geotechnical design analyses and recommendations, primarily those related to bridge foundations, embankments, retaining walls, and roadway subgrade considerations.
7. Number of samples collected in borings will be determined in the field based on the soil types encountered, but sampling will typically occur at 3-foot to 5-foot depth intervals.
8. Boring locations will depend on site accessibility, among other conditions and constraints.
9. Provide a drill rig mounted on a two-ton truck, 2-person drill crew, and all drilling supplies and tooling.
10. Subcontract with a CPT contractor for CPT investigations, with shear wave velocity testing performed in at least one hole to inform selection of seismic site class for design.
11. Geotechnical engineer or geologist will prepare field subsurface exploration logs during drilling and field testing.

**Deliverables:** a) Samples for Testing (to laboratory only-no physical deliverable to Owner), b) Field subsurface exploration logs (to lab)

### Activity 3G2 – Conduct Geotechnical Testing

---

**Overview:** Conduct laboratory soil testing and prepare the soil test summary.

**Assumptions:** Assumed Number of Tests

- Actual number of each type of test will depend on materials encountered.
  - Sieve Analysis (Soil Gradation/Classification) 30
  - Atterberg Limits (Soil Plasticity/Classification) 24
  - Hydrometer (Size Distribution of Finer Soil Particles) 10
  - pH, Resistivity, Sulfate, Chloride, Soluble Salts (corrosion/deterioration) 3
  - Unconsolidated Undrained (UU) Triaxial Compression (soil strength) 12
  - Consolidation (soil compressibility and collapse/swell potential) 12

- Direct Shear (soil strength) 2
- Consolidated Undrained (CU) Triaxial Compression (soil strength) 1
- Moisture-Density Relation (Proctor) 2
- California Bearing Ratio (CBR) 2

### Tasks:

1. Identify planned testing on a lab testing schedule.
2. Prepare samples for testing in accordance with applicable AASHTO/ASTM standards.
3. Conduct laboratory testing in accordance with applicable AASHTO/ASTM standards.
4. Prepare individual test plots (as applicable) and summaries of test data.
5. Add test results to boring logs and finalize boring logs with updated classifications and descriptions as necessary.
6. Perform QC review of final boring logs.

**Deliverables:** a) Lab testing schedule (to lab), b) Individual soil test results (to be included in Geotechnical Report appendix), c) Soil test summary (Geotechnical Report appendix), d) QC Documentation for soil testing summary and final boring logs.

## Activity 3G3 – Complete Foundation Type Memo

---

**Overview:** Prepare structure foundation type memo for the structure design engineer.

**Assumptions:** None

### Tasks:

1. Prepare a brief preliminary summary of subsurface conditions encountered.
2. List possible foundation types with their respective advantages and disadvantages and a recommendation as to the preferred foundation type(s) for the project.
3. Perform QC Review.
4. Submit Structure Foundation Recommendations Memo.

**Deliverables:** a) Structure Foundation Recommendations memo, b)QC Documentation.

## ROW Design (J) (Horrocks)

### Activity 1J1 – Identify Existing Right-of-Way

---

**Overview:** Identify existing Right-of-Way (ROW) along the project and adjacent ownerships

**Assumptions:** Documents from the Davis County Recorder's will be used to verify existing ROW.

### Tasks:

1. Research and verify 1100 North Street right of way, UTA, UPRR, WCIL and adjoining parcels within the project area.
2. Create an existing ROW Base Map.

**Deliverables:** a) Right of Way base map

## Materials (M) (RB&G Engineering, Inc.)

### Activity 2M1 – Develop Pavement Design and Report

---

**Overview:** Evaluate the existing pavement conditions to assess the level of pavement design needed if a concept pavement design is not available. Develop recommended pavement sections for pavement tie-ins to existing pavement and for pavement to be placed on new embankment.

**Assumptions:** None

**Tasks:**

1. Develop pavement design.
2. Prepare Pavement Design Memorandum

**Deliverables:** a) Pavement Design Memorandum, b) QC Documentation.

## Public Involvement (P) (Horrocks)

### Activity 1P1 - Develop Initial Public Involvement (PI) Plan

---

**Overview:** Provide project management for PI services.

**Assumptions:** None

**Tasks:**

1. Prepare for and participate in Horrocks in-house team meetings. Regular internal coordination meetings with various Horrocks team members. Assume 10 meetings with two to three people.
2. Prepare for and participate in study team meetings. Assume six meetings with one person.
3. Create and distribute PI reports.
  - a. Produce final environmental PI report.

**Deliverables:** a) Final design PI report.

### Activity 2P1 – Develop Initial Public Involvement Plan

**Overview:** With input from North Salt Lake, consultant shall develop a PI plan that outlines strategies and procedures to educate and inform stakeholders about the study and the associated impacts. Stakeholders may include adjacent residents, business and property owners, roadway users, emergency services, the trucking industry, the recreation industry, the tourism industry and any other interested agencies or organizations. The plan will include key target dates and messages.

### Tasks:

1. Develop PI plan that includes a schedule of PI activities and an outline of methods to be used in providing information to and obtaining information from the public.
2. Develop study key messaging and update as needed.

**Deliverables:** a) Public involvement plan, b) Key messaging.

## Activity 3P1 – Implement Public Involvement Plan

**Overview:** Implement PI Plan together with North Salt Lake and study team during design.

### Tasks:

1. **Develop study identity or brand.**
  - a. Develop logo and branding.
  - b. Develop branded study collateral templates (business card, postcard, flier, PowerPoint, door hanger, signage, etc.)
2. **Provide project email account for stakeholder interaction.**
  - a. Set up study-specific email account
  - b. Monitor account regularly and respond to all stakeholder inquires in a timely manner. Assume two hours per month.
  - c. Troubleshoot and coordinate stakeholder issues related to study activities with help from the study team.
  - d. Create and coordinate e-newsletter content. Assume three emails.
3. **Develop and maintain study content on North Salt Lake website. The study site will be advertised through all study outreach materials.**
  - a. Develop website content to include study information and contact information for the PI team.
  - b. Update study website to be Section 508 compliant.
  - c. Coordinate with city web master to coordinate and post study information on North Salt Lake website.
  - d. Edit and update content throughout the duration of the study. Assume six updates.
4. **Develop and maintain GIS stakeholder database.**
  - a. Develop GIS database.
  - b. Compile all stakeholder interaction and contact information in a GIS database and update throughout the study.
5. **Obtain City Engineer and Study Teams pre-approval of all materials prepared for the public. Coordinate and update North Salt Lake regularly through phone calls and or email.**
6. **Implement strategic outreach efforts with key stakeholders.**
  - a. Coordinate with North Salt Lake and Woods Cross and elected officials regularly throughout study. Assume two meetings with two people.
  - b. Coordinate study information with nearby businesses such as Conoco, Colonial Woods Mobile Home Park, Thomas Petroleum, General Electric, Pioneer Storage, Intermountain Healthcare, PSC Industrial Outsourcing and related agencies. Assume 12 stakeholder and up to 5 agency meetings with two people.
  - c. Coordinate with EMS regularly throughout the study. Assume one meeting with two people.
  - d. Prepare and produce flyers to distribute to stakeholders regarding the status of the study. Assume two unique flyers with 250 copies of each version.

- e. Prepare and produce door hangers to distribute to stakeholders regarding the status of the study. Assume two unique door hangers with 70 printed door hangers each version.
- f. Create and coordinate e-newsletter content. Assume three emails.
- g. Distribute collateral to key stakeholders in the study area. Assume two people canvassing the study area two times.

### **Online Public Hearing**

- a. Pre-event coordination to include online platform set-up, preparation meetings, and technical coordination.
- b. Prepare outreach materials, including social media content, geo-targeted social ads and website copy.
- c. Prepare presentation materials, including presentation, polling capabilities and agendas.
- d. Participate in online public meeting and debrief meeting. Assume three people will participate in two meetings.
- e. Create summary report of online public meeting.

### **In-Person Public Hearing**

- a. Pre-hearing coordination to include venue reservation, preparation meetings, logistic and technical planning and material organization.
- b. Participate in one preparation meeting. Assume three people will participate in preparation meeting.
- c. Prepare and distribute hearing mailer to nearby properties (assume 500 mailers).
- d. Develop promotional outreach materials including press release, invitations, social media content and online/print ads.
- e. Draft and distribute press release and pitch local media.
- f. Individualized outreach to adjacent property owners, agencies and businesses.
- g. Prepare presentation materials (both electronic and printed), including information boards, presentation, agenda, handouts, sign-in sheets, comment forms and directional signs.
- h. Prepare and publish legal notices.
- i. Schedule and coordinate with court reporter for verbal comment documentation.
- j. Execute online and in-person public hearing. Assume three people in attendance.
- k. Document sign-in sheets and public comments in GIS.
- l. Create summary report of public hearing.
- m. Coordinate social media updates with North Salt Lake and study partners for launch and follow-up of 30-day comment period. Assume two social media posts.
- n. Develop, secure and run online geo-targeted social media ads to local stakeholders for launch and follow-up of 30-day public scoping comment period.

**Deliverables:** a) Study logo and branding, b) Branded collateral templates, c) E-newsletter content, d) Website updates, e) GIS stakeholder database, f) Key messaging, g) Social media content for North Salt Lake and study partners, h) Geo-targeted ads, i) Study door hanger, j) Press release, k) Public meeting sign-in sheets, l) Public meeting information boards, m) Comment forms, n) In-person public hearing, online public meeting and public hearing summary reports, o) Online public meeting presentation, p) Study mailer, q) Study handouts.

## Roadway Hydraulics (Q) (J-U-B)

### Activity 1Q1 – Assess Existing Drainage Conditions

---

**Overview:** Review existing conditions and develop recommendations for improvements.

**Assumptions:** Drainage Design Criteria (DDC) to conform to UDOT Drainage Manual of Design guidance.

**Tasks:**

1. Perform on-site visit to assess existing drainage features
2. Attend Maintenance/Preconstruction site visit
3. Obtain existing / as-built storm drain information
4. Coordinate with SUE survey
5. Develop Drainage Design Criteria

**Deliverables:** a) Drainage Design Criteria b) Existing storm drain CADD file (horizontal)

### Activity 2Q1 – Develop Initial Drainage Design

---

**Overview:** Develop preliminary drainage design.

**Assumptions:** Drainage design to conform to current UDOT standards, specifications, and UDOT Drainage Manual of Instruction guidance.

**Tasks:**

1. Develop initial drainage layout
2. Identify potential BMP's for stormwater quality treatment
3. Size storm drain pipes
4. Identify potential utility conflicts
  - a. Coordinate requested test hole locations
5. Identify storm water retention / detention needs and locations

**Deliverables:** a) Drainage design-scroll plot

### Activity 3Q1 – Complete Drainage Design

---

**Overview:** Complete design of the roadway drainage and open channel drainage features.

**Assumptions:** None.

**Tasks:**

1. Finalize drainage design
2. Address and incorporate comments from 2Q1 review
3. Produce drainage memorandum
  - a. 5 Page (max)
  - b. Hydraulic calculations
  - c. Stormwater quality calculations

- d. Relevant appendices
4. Produce drainage cost estimate
5. Produce drainage plan and profile sheets

**Deliverables:** a) Drainage Plan & Profile Sheets, b) Drainage Memorandum, c) Drainage Design Criteria, d) Drainage cost estimate.

## Roadway (R) (J-U-B)

### Activity 1R1 – Develop Roadway Scope

---

**Overview:** Determine the preliminary project footprint.

**Assumptions:**

- Up to 5 design exceptions, design waivers, or deviation from standards will be required
- Design model and signing and striping will be prepared base on Alternative 2 in the 2018 Feasibility Study
- Lighting design outside of the signal will not be included

**Tasks:**

1. Conduct maintenance site visit and document meeting
2. Determine recommended alignments
3. Prepare initial scoping exhibit
4. Initial cost estimate

**Deliverables:** a) Initial scoping exhibit b) initial cost estimate

### Activity 2R1 – Model Initial Roadway Design

---

**Overview:** Determine the recommended horizontal and vertical alignments by developing the initial roadway model.

**Assumptions:**

- Up to 5 design exceptions, design waivers, or deviation from standards will be required
- Design model and signing and striping will be prepared base on Alternative 2 in the 2018 Feasibility Study

**Tasks:**

1. Address scoping review comments
2. Conduct maintenance site visit and document meeting
3. Determine recommended alignments, signal location and striping plans
4. Prepare preliminary plans
5. Update cost estimate

**Deliverables:** a) Roadway comment resolution summary, b) Scroll plot, c) horizontal and vertical alignments, striping, d) cost estimate, e) QC reviews

### Activity 3R1 – Complete Roadway Design

---

**Overview:** Finalize the roadway model and design to the Plan in Hand stage. Modify the design based on reviewer comments and continued coordination with project team members. Modify the design as necessary to include other discipline needs like drainage facilities, utilities, signal, and signs. Create preliminary roadway plan sheets.

**Assumptions:**

- Prepare Project Design Criteria, design exceptions, waivers and deviations from standards forms.
- Complete the signing and striping design and prepare plans in accordance with the sheet index in this scope of work.
- No retaining walls are anticipated for the roadway design
- Landscape restoration items (sod, seeding and sprinkler restoration by contractor) will be in L&A plans

**Tasks:**

1. Address comments from 2R1
2. Complete roadway plan and profile design
3. Develop preliminary roadway plan and profile sheets
4. Develop typical sections
5. Update cost estimate
6. Provide support to environmental documentation

**Deliverables:** a) Project design criteria, exceptions, waivers, deviation forms, b) preliminary plan and profile sheets, c) cost estimate, d) roadway comment resolution summary, and e) QC reviews

### Activity 3R2 – Complete Signing and Striping Design

---

**Overview:** Using the roadway model as a guide, develop the signing and striping design for the project. Locate appropriate sites for placement of overhead sign structures (if applicable). Develop Maintenance of Traffic (MOT) design. Develop preliminary signing, striping and MOT plan sheets.

**Assumptions:** No overhead sign structures included with the design.

**Tasks:**

1. Address scoping review comments.

**Deliverables:** a) Signing and Striping Plans b) MOT plans c) QC Documentation

### Activity 3R3 – Complete Signal and Lighting Layout Designs

---

**Overview:** Complete the signal layout design. Create preliminary signal plan sheets. Develop the lighting design according to the AASHTO Roadway Lighting Design Guide. Create preliminary plan sheets.

**Assumptions:** Lighting design limited to traffic signal at Main Street and 1100 N only.

**Tasks:**

1. Finalize Maintenance-of-Traffic design to PIH
2. Finalize Signing and Striping Design to PIH
3. Produce Signing and Striping Plans
4. Produce Maintenance-of-Traffic Plans
5. Produce Signing and Striping estimate

**Deliverables:** a) Signing and Striping Plans, b) MOT plans c) Signing and Striping estimate

## Rail Design (RR) (CRS)

### Activity 1RR1 – Rail Design Scope (DevCon Submission)

---

**Overview:** The City desires to relocate the Ergon Asphalt & Emulsions rail spur on the southwest quadrant of 1100 North and the Woods Cross Industrial Lead so it connects from the south rather than from the north as it currently exists. The purpose of this is to eliminate or reduce train switching across 1100 North when UPRR services the industry.

**Assumptions:** Two conceptual horizontal designs will be prepared for the existing spur to determine if a track relocation is possible with respect to track geometry. The conceptual plan options will include a spur parallel to the Woods Cross Industrial Lead and a spur perpendicular to it. Only one of the options will be selected prior to progressing to further design levels.

One meeting will be held on-site with the industry to gauge their input. One meeting will be held virtually with UPRR's Industrial Development department and Public Projects group to begin their review process. After initial discussions are held, a development concept (DevCon) drawing will be submitted to UPRR for review and approval through their rail access review process. UPRR will review the DevCon, which is similar to a 10% design, with various departments including: Industrial Development, Engineering, Operating, Network Planning, and Marketing & Sales departments for their feedback.

Only horizontal track design is included in this phase. Design for other infrastructure such as piping, mechanical, electrical, spill containment, fall protection, loading, or unloading systems are not included in the scope of work. It is anticipated that the industry will subcontract with a firm(s) at a later date to relocate all of the non-track infrastructure needed to maintain the industry's operations.

It is currently unknown if moving the switch to the south side of the facility will eliminate or reduce switching over the at-grade crossing due to operations and signal infrastructure constraints. This will be investigated with UPRR during their preliminary review process.

Design includes horizontal placement of lights and gates, concrete and track panels, signal house, signage and striping between W10-1 signs. Signal design of the lights and gates will be provided by UPRR.

UPRR has recently incorporated a clause in crossing agreements with UDOT and municipalities that requires them to pay UP for annual maintenance of crossings in perpetuity if they are modified or widened. The Utah State Legislature recently modified state regulations that requires to UP to pay for maintenance. Because of this, UP has slowed their reviews of at-grade crossings unless municipalities agree to pay for the maintenance. The project schedule may vary depending on the City's or UDOT's willingness or ability to accept responsibility for payment of UPRR maintenance at this crossing.

Design for utility protection or relocation is not included in the scope of work. Approval for track relocation will be needed from the industry and UPRR prior to progressing to the next phase of work, 2R1.

It is assumed the Woods Cross industrial lead will need to be raised by two feet from the existing crossing. The vertical grade change to accommodate this two-foot (maximum) track raise will be evaluated, along with the vertical sag and summit curves. This grade change assumes that UPRR will accept the track raising with only a ballast lift and not require earthwork import or a shoofly. Updated vertical design(s) will be provided for industry spurs within 1,000-feet of the at-grade crossing. This vertical crossing change (increase) may require optioning design exemption(s) from UPRR, it is assumed that UPRR will approve the design exemption(s).

### Tasks:

1. Spur DevCon submission to UPRR
2. At-grade crossing DevCon submission to UPRR

**Deliverables:** a) DevCon submission for the Spur b) DevCon submission for at-grade crossing c) UPRR design exemption

## Activity 2RR1 – Model Rail Design (30% Submission to UPRR)

---

**Overview:** Progress the design to 30% for the spur and at-grade crossing. A 30% plan milestone will include track plan, profile, typical cross sections, detailed cross sections every 100' along the track, grading and drainage for the industry spur.

**Assumptions:** Does not include any profile modifications for the Woods Cross Industrial Lead. At grade crossing design includes horizontal placement of lights and gates, signal house, widening of concrete panels, signage and striping within the W10-1 signs.

### Tasks:

1. Spur 30% submission to UPRR
2. At-grade crossing 30% submission to UPRR

**Deliverables:** a) DevCon submission for the Spur b) DevCon submission for at-grade crossing c) UPRR design exemption (continued development)

## Structure (S) (Horrocks)

### Activity 1S1 – Identify Preliminary Structure Type

---

**Overview:** Review the existing conditions and determine the physical requirements for structures work. Develop a range of alternative structure types to fulfill the requirements. Coordinate with the environmental design team.

**Assumptions:** General Structure Assumptions:

- UDOT specifications will dictate the structure construction.
- UDOT Structures Design and Detailing Manual will govern design and detailing for all bridge and retaining wall tasks.
- UDOT Structures will be notified of this work. Additional coordination with UDOT Structures will be minimal.
- Structure submittals to UPRR and UTA will follow the Union Pacific Guidelines for Railroad Grade Separation Projects.

**Tasks:**

1. Coordinate with Environmental design team
2. Environmental bridge layouts
3. Review environmental retaining wall layouts
4. Environmental structure estimates
5. Meet with UDOT Structures Project Engineer
6. Coordinate with Railroad Companies and develop railroad concept submittal
7. Perform QC

**Deliverables:** a) Railroad Concept Submittal, b) Preliminary Structures cost estimate

### Activity 3S1 – Develop Structure TSR and Seismic Design Strategy Report

---

**Overview:** Determine bridge layout and geometry for new bridge design. Finalize the Structure Type Selection Report and develop the Seismic Design Strategy Report (Preliminary).

**Assumptions:** One single span bridge over the railroad only. Steel and concrete superstructure alternatives on deep foundations will be considered. Under options will not be considered.

**Tasks:**

1. Develop structure design criteria
2. Develop structure cross-section
3. Finalize type selection report
4. Coordinate with railroad companies and develop railroad submittals
5. Develop preliminary cost estimate
6. Develop preliminary seismic design strategy report (SDSR)
7. Document structural design criteria deviations (as applicable)
8. Perform QC

**Deliverables:** a) Structure Type Selection Report (SDSR), b) Preliminary SDSR, c) Railroad 30% submittal.

### Activity 3S4 – Develop Situation and Layout (S&L) for Retaining Walls

---

**Overview:** Develop the S&L plan sheets for each wall, fully coordinating with the roadway, grading, and geotechnical requirements. (Refer to the SDDM for plan content and organization.)

**Assumptions:** Retaining walls will support the embankment approaching the bridge from east to west. Any raising of Main Street and the WCIL track can be accomplished with traditional slopes.

#### Tasks:

1. Request structure number
2. Develop S&L plan sheets
3. Complete S&L checklist
4. Perform QC

**Deliverables:** a) S&L Checklist, b) S&L Plan Sheets.

### Activity 3S5 – Develop Situation and Layout (S&L) for Bridge

---

**Overview:** Develop the S&L plan sheets to ensure the compatibility between the structures and roadway design.

**Assumptions:** S&Ls for one bridge

#### Tasks:

1. Request structure number
2. Develop S&L plan sheets
3. Complete S&L checklist
4. Perform QC

**Deliverables:** a) S&L Checklist, b) S&L plan sheet.

## Traffic and Safety (T) (J-U-B)

### Activity 1T1 – 1 Assess Capacity and Safety Needs

---

**Overview:** Determine the existing traffic volumes, and forecast future volumes or, if available, review data from environmental documents or other studies. Develop or review alternatives to accommodate existing, incremental, and future traffic volumes. Obtain the current safety needs and develop a strategy to address the project area's safety issues.

#### Assumptions:

- AM and PM peak period traffic counts (including ped/bike and heavy vehicles) will be conducted at 3 intersections including 1100 N/Redwood Rd, 1100N/Main Street and 1100 N/800 West/I-15 SB On-Ramp.

- 12-Hour turning movement counts for 1100 N/Main Street (For signal warrants)
- Travel time runs will be conducted between Redwood Road and 800 West (stop bar to stop bar).
- Queues will be documented at the three intersections using video.
- Signal timing plans will be obtained from UDOT for 1100 N/Redwood Rd, and 1100 N/800 West/I-15 SB On-Ramp intersections.
- The 2018 1100 N Feasibility Study will be used as a basis for this project.
- Travel demand modeling for opening year, and horizon year of 2050.
- Provide up to three (3) iterations of travel demand modeling for 3 alternatives for Alternative 2 to support the environmental document as needed.
- Opening day and 2050 volumes will be included in the final traffic report.

### Tasks:

1. Review I-15, 600 N to Farmington EIS traffic study and Methods and Assumptions for the I-15 EIS.
2. Review prior traffic models and travel demand model and coordinate with the City and UDOT
3. Review AM and PM peak period traffic counts
4. Determine existing AM and PM peak hour traffic volumes and adjustment factors (if needed)
5. Review and run Base year, Interim year and 2050 WFRC travel demand (CUBE) model
6. Develop forecast methodology
7. Coordinate with the City's and UDOT's traffic and safety to identify any safety issues
8. Review the 1100N **Project Safety Analysis (PSA)** if available from UDOT. Identify additional safety evaluations and conduct analysis.
9. Coordinate with the City and UDOT for any traffic data from recent traffic impact studies within the project area.

**Deliverables:** a) Safety evaluation memo, b) AM and PM peak hour traffic volumes for existing conditions, c) Base year and 2050 travel demand modeling results

### Activity 2T1 – Develop Initial Capacity Analysis

**Overview:** Provide the draft traffic analysis report outlining specific recommendations for improving existing capacity. Develop the travel demand model to forecast future volumes and develop alternatives to accommodate the existing, incremental, and future traffic volumes. Develop an operations analysis model and develop alternatives to accommodate the existing, incremental, and future traffic volumes. Provide a methods and assumptions (M&A) memo that integrates with the M&A memo from the I-15, 600 N to Farmington EIS.

### Assumptions:

- Develop annual growth rates using the WFRC travel demand model
- Assumes up to three (3) additional TDM scenario/alternatives for horizon year 2050
- Linear growth rates and growth factors will be endorsed by the City and UDOT prior to developing the opening year and 2050 forecasts
- VISSIM models will only include three (3) intersections aforementioned.

- VISSIM models will be calibrated using data collected for volume, queues, travel times, and signal timing.
- Synchro models will be developed to conduct signal timing optimizations.
- Up to two (2) additional scenarios for the 2050 build conditions will be evaluated with minor changes to geometry.

### Tasks:

1. Develop TDM model and coordinate with the City, UDOT and WFRC.
2. Develop the AM and PM peak hour VISSIM model for existing conditions for the three (3) intersections identified in 1T1.
3. Conduct opening year and 2050 forecasting using travel demand modeling.
4. Develop 2050 TDM modeling for up to two (2) additional scenarios/alternatives and provide a memo with travel demand modeling recommendations to the environmental team.
5. Develop AM and PM peak hour VISSIM models for opening year and 2050
6. Identify deficiencies at intersections, evaluate up to two (2) additional scenarios and modified geometry and make recommendations for improving intersection operations.
7. Develop initial capacity and operational analyses summary.
8. Prepare preliminary capacity recommendations.
9. Turn lane storage recommendations will be evaluated and provided to the roadway design team.
10. Signal warrants analysis for 1100 N/Main Street.
11. Provide data and support the environmental documentation.
12. Provide a methods and assumptions memo.

**Deliverables:** a) Draft Traffic Analysis Report, b) Draft signal warrant analysis report, c) Draft Methods and Assumptions Memo

### Activity 3T1 – Finalize Capacity Analysis

---

**Overview:** Provide the final traffic analysis report and outline specific recommendations for improving existing and future capacity.

### Assumptions:

- Finalize annual growth rates using TDM
- VISSIM models will only include three (3) intersections identified in 2T1
- Synchro models developed in 2T1 will be used to conduct signal timing optimizations.

### Tasks:

1. Finalize TDM model
2. Finalize AM and PM peak hour VISSIM modeling for the three (3) intersections identified in 2T1
3. Develop final capacity and operational analyses summary
4. Finalize capacity recommendations
5. Finalize turn lane storage recommendations and provide to the design team
6. Finalize signal warrants memo at 1100 N/Main Street

7. Continue to support the environmental documentation

**Deliverables:** a) Final tech memo for TDM analyses, b) Final traffic analysis report, c) Final signal warrant analysis for one intersection (1100 N/Main Street), d) Final Methods and Assumptions Memo

## Utilities (U)

### Activity 2U1 – Utility and Railroad Identification

---

**Overview:** Begin this activity as soon as possible. Early utility and railroad identification and coordination are critical to the success of the project. Identify all utility and railroad companies and complete an accurate depiction of existing utility facilities within the project limits.

**Assumptions:**

Review of existing utilities crossing UPRR/UTA corridor and within project footprint; meetings as noted in the tasks, to review key framework of UPRR/UTA agreement with UPRR/UTA with City (and UDOT, if needed) and with third party utilities.

- Existing utility file (SUE Quality Level B, C and D), in DGN format, will be prepared as part of this task.
- Camera work of existing storm drainage pipe
  - Is assumed to be 1,000 linear feet
  - Does not include:
    - Cleaning of existing pipes; this can be completed, for an additional fee
    - NASSCO inspection of existing drainage structures; this can be completed, for an additional fee
- Utility Scoping Meetings will not be held as part of this project.
- Relocation of the City's well site is assumed to be 150' or less than its existing location.

**Tasks:**

1. Review of Existing Utilities crossing UPRR/UTA
2. UPRR/UTA Agreement Meetings (2)
3. City/UDOT Agreement Meetings (2)
4. Coordinate with project team
5. Develop a Utility Companies and Railroad Contacts List, which includes each contact's name, phone number, address, and email.
6. Contact utility companies and request mapping information
7. Depiction of Utility Facilities/Subsurface Utility Engineering (SUE) Level B, C, and D within the project limits (DGN format).
8. Camera existing storm drainage pipes within the project footprint.
9. Prepare Project Notification Letters and send out to utility companies within the project limits.
10. Perform QC.

**Deliverables:** a) Utility Companies Contact List, b) Depiction of Utility Facilities/SUE Level B, C and D (DGN format), c) Project Notification Letters, d) Meeting notes, e) QC documentation

### Activity 3U1 – Identify Potential Utility Conflicts

---

**Overview:** Identify potential utility conflicts through coordination with utility owners and designers. Obtain preliminary relocation costs from utility owners.

**Assumptions:**

1. One Utility Kick-Off/ Informational Meeting will be held (all utility companies will be invited)
  - a. Utility Kick-Off/Informational Meeting will take place via Teams.
2. All dry utility companies will prepare their own design plans/cost estimates/schedules for the project. This includes CenturyLink, Comcast, Dominion Energy, Phillips 66, Rocky Mountain Power (distribution and transmission), MCI/Verizon.
3. Wet utility companies within the Project limits are City of North Salt Lake, South Davis Sewer District, Woods Cross City and Weber Basin Water Conservancy District. One virtual meeting will be held with each wet utility company and one field meeting.
4. Utility Conflict Matrix will be prepared/kept as a Microsoft Excel spreadsheet.
5. Support to the Environmental Document will be provided as part of Task 3U1

**Tasks:**

1. Coordinate with project team members
2. Support preparation of the Environmental Document (tasks, meetings, etc. not already outlined in this scope of work)
3. Hold Utility Kick-off/Informational Meeting with all utility companies (prepare and distribute meeting minutes and attendee list)
4. Prepare preliminary Utility Conflict Matrix
5. Horrocks will prepare existing utility DTM surface (based on SUE Level B, C and D mapping and assumed wet and dry utility depths)
6. Prepare Initial Utility Company Cost Estimates (Rough Order of Magnitude) for wet utilities (based on per foot lengths based on concept level design layouts)
7. Prepare Initial Utility Company Cost Estimates (Rough Order of Magnitude) for all dry utility companies after preparation of the Initial Utility Conflict Matrix
8. Perform QC

**Deliverables:** a) Preliminary Utility Conflict Matrix, b) Initial Utility Company Cost Estimates, c) Existing utility DTM surface, d) QC Documentation

### Activity 3U2 – Initial Design Utility Coordination

---

**Overview:** Conduct a utility design meeting to facilitate relocation solutions. Facilitate the development of utility owner relocation plans.

**Assumptions:**

1. Coordination meetings will be held with the utility companies referenced in 3U1

- a. Six (6) dry utility companies and four (4) wet utility companies
  - i. Five (5) meetings with each company during 3U tasks, each meeting is one (1) hour.
2. Utility coordination meetings will take place via Teams

### Tasks:

1. Coordinate with project team members
2. Revise/update Utility Conflict Matrix
3. Hold individual coordination meetings with utility companies (throughout the 3U tasks)
  - a. Prepare and distribute meeting minutes and attendee list
4. Hold coordination meetings with the City of North Salt Lake's City Engineer (throughout the 3U tasks)
  - a. Up to a total of five (5) meetings, each 1 hour in length
5. Prepare 30% (horizontal layouts only) wet and dry utility relocation concepts (UR sheets) and City's well site relocation plans
6. Hold Over the Shoulder (OTS) review meetings with all wet and dry utility companies to review/discuss 30% relocation concepts.
7. Coordinate with all dry utility company to obtain relocation plans, schedules, and cost estimates
8. Update utility design linework in Project base files:
9. Prepare initial wet utility relocation cost estimates
10. Betterment reviews
11. Perform QC

**Deliverables:** a) Revised/updated Utility Conflict Matrix, b) 30% wet and dry utility relocation concepts, c) Initial dry utility company relocation plans/estimates/schedules (as provided by utility companies), d) Initial wet utility relocation plans and estimates, e) documentation of betterment requests and project disposition, f) meeting minutes, g) QC Documentation

### Activity 3U3 – Identify Utility Depth (SUE Level A)

---

**Overview:** Use the Utility Conflict Matrix Summary to determine specific locations where vertical information could be used to avoid existing utility facility conflicts or assist utility companies design relocation plans.

### Assumptions:

1. A total of 50 test holes will be completed

### Tasks:

1. Coordinate with project team members to determine locations for SUE Level A explorations
2. Perform SUE Level A exploration of existing utilities (test holes)
3. Review and update SUE Level A Microstation File
4. Update existing utility DTM surface with SUE Level A data
5. Prepare SUE Level A table and plan sheet(s)

### 6. Perform QC Review

**Deliverables:** a) SUE Level A Mapping, b) SUE Mapping File Certification, c) Updated existing utility DTM surface

## Activity 3U4 – Complete Utility and Railroad Designs

---

**Overview:** Complete utility relocation designs for all utility relocations for which UDOT is responsible. Develop preliminary utility relocation plan sheets and cost estimate. Develop at grade railroad crossing plans and verify Diagnostic Report and railroad company guidelines compliance.

### Assumptions:

1. Italicized callouts for major aspects of the wet and dry utility work will be added as part of this task
  - a. Final/detailed callouts for all utility relocation work will not be added to the UR sheets until after Plan in Hand Review meeting (as part of Task 4U3).
  - b. Separate UR sheets for wet and dry utility work will be prepared
2. Wet utility relocation designs will be included in the overall Project design package- there will be no separate early utility relocation package(s).

### Tasks:

1. Coordinate with project team members
2. Prepare 60% (horizontal layouts with initial profile design) wet utility relocation plans as well as dry utility plans (UR sheets) based on comments received during 30% OTS review meetings.
  - a. Dry utility work will be shown on one set of UR sheets and wet utility work will be shown on another set of UR sheets.
  - b. Dry utility work will be shown in plan view only.
3. Prepare project UT sheets to identify existing utilities, SUE Level designation, material, size, etc.
4. Request updated dry utility company relocation plans, schedules, and cost estimates
5. Revise dry utility linework (based on updated plans) in the project base files
6. Prepare updated wet utility relocation cost estimates
7. Perform QC

**Deliverables:** a) Updated Utility Conflict Matrix, b) Preliminary Utility Relocation Plan Sheets (60% level for wet and dry utilities), c) Updated dry utility company relocation plans/estimates/schedules (as provided by utility companies), d) Updated wet and dry utility relocation estimates, e) QC Documentation

## Design Leader (Y)

### Activity 1Y1 – Develop Project Design Criteria (PDC)

---

**Overview:** Develop the PDC using current City of North Salt Lake and UDOT design standards. Perform a quality control review.

**Assumptions:** None

**Tasks:**

1. Prepare Project Design Criteria document (PDC)

**Deliverables:** a) PDC Document

### Activity 1Y2 – Prepare/Compile Scoping Review Package

---

**Overview:** Prepare and compile all discipline review materials to produce the Scoping Review Package.

**Assumptions:** None

**Tasks:**

1. Perform on-site visit with maintenance crews.
2. Develop Project Definition Document

**Deliverables:** a) Scoping Review Package b) Maintenance/Preconstruction Site Visit Certification Form c) Maintenance/Preconstruction Site Visit Comment Resolution Form (if used) d) Project Definition Document (PDD) e) QC Documentation

### Activity 2Y1 – Prepare/Compile Geometry Review Package

---

**Overview:** Compile project cost estimate and all discipline deliverables into one Geometry Review Package.

**Assumptions:** Geometry review package will utilize a scroll plot in lieu of plan sheets.

**Tasks:**

1. Prepare Geometry Review package

**Deliverables:** a) Geometry Review Package b) QC Documentation

### Activity 3Y1 – Prepare/Compile Plan-In-Hand Review Package

---

**Overview:** Compile comment resolutions, project cost estimate, and all discipline review materials to produce the Plan-in-Hand review package. Distribute the Plan-in-Hand review package to UDOT, the City of North Salt Lake, and FHWA 14 calendar days prior to the meeting.

**Assumptions:** None

**Tasks:**

1. Verify 2Y1 comments have been incorporated / addressed
2. Prepare Plan-in-Hand review package
3. Prepare Engineer's Estimate

**Deliverables:** a) Final Disposition Review Comment Resolution Form b) Plan-in-Hand Review Package

## PHASE 2

### Project Management (Z)

#### Activity 5Z1 – Project Management

---

**Overview:** Covers Project Management for final design phase including team meetings, internal design meetings, and milestone review meetings.

**Assumptions:**

- Ongoing Project Dashboard Support (estimated 1 hour per week for 16 months).
- Most meetings will be held virtually via video conferencing on Microsoft Teams.

**Tasks:**

1. Project management & invoicing
2. Coordination between disciplines
3. Monthly updates to MS Project Schedule
4. Dashboard setup and maintenance
5. GIS setup and maintenance - includes monthly design updates to the GIS map
6. Team Update Meetings (Bi-weekly) - 20 meetings of 60-minute duration. Meetings will be held virtually.
7. Internal Consultant Coordination Meetings - 20 meetings of 60-minute duration. Meetings will be held virtually through the life of the project.
8. UPRR/UTA Coordination Meetings - Includes Cory and Darren through December 2023. Support from Structures as needed-total of 20 meetings of 60-minute duration.
9. PS&E Review Meeting
10. Comment Resolution Review Meeting
11. Value Engineering (VE) Study - assemble team, provide information, conduct study, prepare VE Study report, team evaluation of VE recommendations. 1/2 day workshop.
12. Constructability Review - performed after PIH milestone review. Evaluate construction phasing, staging areas, equipment placement, shoring needs, traffic control, resource availability, construction methods, partnering, and work integration. Discussion and evaluation of reviews will take place during Team Meetings.

**Deliverables:** a) Project invoices, b) schedule updates in MS Project, c) Project Dashboard, d) GIS project map updates, e) meeting agendas/minutes.

## Aesthetics/Landscaping (A) (J-U-B)

### Activity 4A1 – Complete Erosion and Sediment Control Plans and Documents

---

**Overview:** Develop the project erosion and sediment control design, plans, and summaries. Prepare and assemble erosion and sediment control project documents including plans, special provisions, and Engineer's Estimate in Master Works.

**Assumptions:** None

**Tasks:**

1. Complete Erosion and Sediment Control Plans and Documents

**Deliverables:** a) Erosion and Sediment Control Plans, b) QC Documentation

### Activity 4A2 – Complete Aesthetics/Landscape/Irrigation Site Plans & Document

---

**Overview:** Revise design based on Plan-in-Hand review comments. Complete landscape and irrigation site plans and documents. Finalize the aesthetic and landscaping cost estimates.

**Assumptions:** None

**Tasks:**

1. Complete landscape design
2. Complete irrigation design
3. Complete LA series plan set (PS&E)

**Deliverables:** a) LA series plan set, b) QC Documentations

## ITS (ATMS) (Horrocks)

### Activity 4C1 – Complete ITS (ATMS) Plans and Documents

---

**Overview:** Complete the ITS plans and project documents and finalize the ITS (ATMS) cost estimates.

**Assumptions:** None

**Tasks:**

1. Finalize ITS plans
2. Finalize ITS (ATMS) cost estimates
3. QC

**Deliverables:** a) ITS (AT) Plans b) ITS Cost Estimate c) QC Documentation

## Geotechnical (G) (RB&G Engineering, Inc.)

### Activity 4G1 – Complete Geotechnical Design and Draft Report

---

**Overview:** Perform geotechnical analysis of the subsurface data to provide recommendations regarding pavement subgrade characteristics, pavement design section, bridge foundations, embankment placement, retaining wall details, settlement, and slope stability. Prepare draft geotechnical report summarizing the subsurface conditions encountered, presenting a summary of potential geotechnical hazards, and providing geotechnical design recommendations. Submit draft report.

**Assumptions:** None

**Tasks:**

1. Conduct geotechnical analysis according to UDOT Geotechnical Manual of Instruction.
2. Develop geotechnical foundation and earthwork recommendations.
3. Prepare draft report.
4. Perform QC review of draft report, calculations, and analyses.
5. Submit draft report to Design Team for review.

**Deliverables:** a) Draft Geotechnical Report, b) QC Documentation

### Activity 4G2 – Develop Geotechnical Project Documents

---

**Overview:** Develop geotechnical plan sheets, special provisions, and other documents required for advertisement of the project.

**Assumptions:** None

**Tasks:**

1. Develop instrumentation plan for construction and long-term monitoring as applicable.
2. Prepare soil data sheets from final test hole logs.
3. Prepare geotechnical detail sheets as applicable.
4. Develop/adapt geotechnical special provisions as applicable.
5. Perform QC of geotechnical project documents.

**Deliverables:** a) Geotechnical Soil Data Sheets, b) Geotechnical Detail Sheets, c) Geotechnical Special Provisions, d) QC Documentation

### Activity 4G3 – Finalize Geotechnical Report

---

**Overview:** Discuss and incorporate review comments with reviewers and the project team. Produce the final geotechnical report.

**Assumptions:** None

**Tasks:**

1. Meet with reviewers and project team to discuss and agree upon resolution to review comments.
2. Provide final responses and resolution in a Comment Resolution Form.
3. Incorporate revisions into final geotechnical report and confirm with reviewers that comments have been addressed satisfactorily.
4. Conduct QC of final report.
5. Sign, seal, and submit final report.

**Deliverables:** a) Geotechnical Comment Resolution Form, b) Final Geotechnical Report c) QC Documentation.

## ROW Design (J) (Horrocks)

### Activity 4J1 – Identify Right-of-Way Needs

---

**Overview:** Coordinate with the project team to identify all ROW acquisitions and update the Property Owner Spreadsheet with projected dates for delivery to begin acquisition.

**Assumptions:** 22 parcels assumed within design area

**Tasks:**

1. Provide management of right of way activities and coordination between ROW design and Public Involvement efforts. Includes communication with the project team on progress, strategy, and priorities for the ROW delivery schedule.
2. Develop ROW and easement limits with project team.

**Deliverables:** Priority Summary list

### Activity 4J2 – Develop Right-of-Way Plans and Documents

---

**Overview:** Develop ROW plans and documents. Repeat this activity for each partial, final, and supplemental summary.

**Assumptions:** Assume 16 parcels in 2 summary packages consisting of up to a maximum of 10 parcels per summary. No Record of Survey will be prepared and no ROW monuments to be set.

**Tasks:**

1. Develop summaries for each partial, final, and supplemental submittal. Each summary will include RW-53 Summary, RW-51 Ownership Record, copy of recorded vesting documents, parcel deed and easement signature documents, deed plots, ePM summary, and ROW maps including RWTT sheets and RW sheets. Deliver reports, correspondence and documents relating to ROW acquisition to the Department in electronic format. Conduct QC/QA of ROW design and of ROW plans and documents. Make corrections as needed
2. Develop a final stamped ROW plan set with the final summary submittal.

**Deliverables:** a) ROW Documents for up to 16 parcels, b) Final ROW Plan Set.

## Public Involvement (P) (Horrocks)

### Activity 4P1 – Conduct Ongoing Public Involvement Outreach

---

**Overview:** Continue to follow up with stakeholders to update them throughout the process.

**Tasks:**

1. Develop content for stakeholder interaction.
  - a. Develop content to provide to update stakeholders following the public comment period throughout the second phase.
  - b. Create and coordinate e-newsletter content for city newsletters. . Assume one for North Salt Lake and one for Woods Cross.
2. Conduct ongoing follow up with stakeholders.
  - a. Monitor email account regularly and respond to all stakeholder inquires in a timely manner. Assume eight emails.
  - b. Troubleshoot and coordinate stakeholder issues related to study activities with help from the study team.
  - c. Draft and distribute press release for final PS&E and pitch local media.
  - d. Conduct individualized follow up with stakeholders identified in phase one. Assume 5 stakeholder interactions.

## Roadway Hydraulics (Q) (J-U-B)

### Activity 4Q1 – Complete Drainage Plan Sheets and Documents

---

**Overview:** Revise the drainage design based on the plan-in-hand review. Complete drainage plan set and documents. Finalize the drainage report.

**Assumptions:** None

**Tasks:**

1. Respond to comments
2. Complete drainage plan & profile sheets
3. Complete drainage cost estimate and bid item list

**Deliverables:** a) Final Drainage Design Plan & Profile Sheets, b) Drainage cost estimate, c) QC Documentation.

## Roadway (R) (J-U-B)

### Activity 4R1 – Complete Roadway Plans and Documents

---

**Overview:** Follow UDOT Plan Sheet Development Standards, complete the roadway plan and profile sheets and MOT plan, and create roadway plan summaries, details, and additional plan sheets. Prepare and assemble roadway project documents. Finalize roadway cost estimate.

**Assumptions:** None

### Tasks:

1. Complete roadway design
2. Complete roadway and MOT plans (PS&E)
3. Update cost estimate

**Deliverables:** a) Roadway Plan and Profile Sheets, Detail Sheets and MOT plans, b) updated cost estimate, c) QC Documentation

### Activity 4R2 – Complete Signing and Striping Plans and Documents

---

**Overview:** Following UDOT CADD Standards and UDOT Plan Sheet Development Standards, finalize the signing and striping plan set and create summary sheets. Finalize the Maintenance-of-Traffic (MOT) design and plans. Prepare and assemble the signing, striping, and MOT project documents, including measurement and payment, special provisions, A&D, and final cost estimate.

**Assumptions:** None

### Tasks:

1. Complete signing and striping design
2. Complete signing and striping plans
3. Finalize cost estimate and M&P
4. Prepare special provisions

**Deliverables:** a) Signing and Striping plans, and MOT Plans b) Signing and Striping estimate c) Signing and Striping specifications, d) QC Documentation

### Activity 4R3 – Complete Signal and Lighting Plans and Documents

---

**Overview:** Following UDOT CADD Standards and UDOT Plan Sheet Development Standards and using templates found on the UDOT Signal and Lighting Design website, complete the signal and lighting plan sheets.

**Assumptions:** Lighting only at traffic signal at 1100 N/Main Street intersection.

### Tasks:

1. Complete signal and lighting design.
2. Complete signal and lighting plans.
3. Update cost estimate for signal and lighting.
4. Prepare signal and lighting specifications.

**Deliverables:** a) Signal and lighting plans b) Signal and lighting estimate c) Signal and lighting specifications, d) QC Documentation

### Activity 3RR1 – Complete Rail Design (100% Submission to UPRR)

---

**Overview:** Progression of the industry spur and the at-grade separated plans to 100% levels.

**Assumptions:** 100% plans will include the same items as 30% plans but with greater detail such as construction notes, detail sheets, etc. If it is needed, UPRR will provide in-house design services for signals controlling the turnout. Power service for the turnout (if power is needed) will be provided by others.

**Tasks:**

1. Spur 100% submission to UPRR
2. At-grade crossing 100% submission to UPRR

**Deliverables:** a) 100% submission for the Spur b) 100% submission for at-grade crossing c) UPRR design exemption (continued development)

### Activity 4RR1 – Complete Rail Plans and Documents (Exhibit A drawings)

---

**Overview:** After final construction plans have been approved by UPRR for the industry spur relocation, Exhibit A drawings will be prepared that will be incorporated into the industry's track agreement with UPRR. This includes depicting horizontal track geometry such as stationing, curve radii, location of turnouts and derails, labeling of clearances and right of way.

**Assumptions:** Negotiation of any track agreement language will be performed by the industry and UPRR.

**Tasks:**

1. Spur 100% Exhibit A

**Deliverables:** a) Spur – Exhibit A

## Structure (S) (Horrocks)

### Activity 4SA – Design and Detail Bridge

---

**Overview:** Design and detail new bridge according to the approved S&L and structural design criteria. Check deliverables according to the approved S&Ls and structural design criteria following the UDOT Structures QC/QA Procedures. Incorporate design requirements and the preliminary information from the draft geotechnical report.

**Assumptions:** None

**Tasks:**

1. Superstructure design
2. Superstructure plans
3. Substructure design
4. Substructure plans
5. Finalize seismic design strategy report (SDSR)
6. Perform load rating
7. Coordinate with railroad companies and develop railroad submittals

### 8. Perform QC

**Deliverables:** a) Structure calculations, b) Plan Sheets, c) SDSR, d) Load rating package, e) Railroad Final submittal.

## Activity 4S3 – Design and Detail Retaining Walls

---

**Overview:** Design, detail, and check the retaining walls based on the approved S&Ls and the structural design criteria. Incorporate design requirements and the preliminary information for the draft geotechnical report.

**Assumptions:** None

### Tasks:

1. Coordinate with roadway and geotechnical engineers
2. Design wall
3. Design wall plans
4. Complete S&L checklist
5. Perform QC

**Deliverables:** a) Calculations, b) Plan Sheets.

## Activity 4S4 – Complete Structure Project Documents

---

**Overview:** Finalize the special provisions, measurement and payment, and estimate.

**Assumptions:** UDOT specifications will dictate structure construction.

### Tasks:

1. Finalize structure engineer's estimate
2. Coordinate specs and plan sheets
3. Develop special provisions and specifications
4. Develop measurement and payment
5. Perform QC

**Deliverables:** a) Engineer's estimate, b) Structure project documents.

## Utilities/Railroad (U)

### Activity 3U4 – Complete Railroad Designs

---

**Overview:** Coordinate at grade railroad crossing plans and verify Diagnostic Report and railroad company guidelines compliance, where needed. Submit the grade separated milestones to UPRR/UTA for comments and review.

**Assumptions:** Utility relocation plans provided by third party will be provided for review and submission to UPRR/UTA.

### Tasks:

1. Review of RR crossing Utility Design and/or betterments (if any) – QC comments
2. UPRR/UTA Grade Separation Milestone Submissions
  - a. UPRR/UTA submit concept report, coordinate comments
  - b. UPRR/UTA submitted 30% grade separate design for review, coordinate comments
  - c. UPRR/UTA: submitted 100% grade separated design to for review, coordinate comments

**Deliverables:** a) UPRR/UTA submittals per the above tasks b) Review comments (QC) of utility designs

### Activity 4U1 – Final Design Utility Coordination

---

**Overview:** Final coordination with utility owners and railroad, provide guidance and information to complete utility relocation plans. Hold a meeting to resolve any remaining conflicts and prepare for the construction stage.

### Assumptions:

- Coordination meetings will be held with the utility companies referenced in 3U1
  - a. Six (6) dry utility companies and four (4) wet utility companies
    - i. Five (5) meetings with each company during 4U tasks, each meeting is one (1) hour.
- Utility coordination meetings will take place via Teams

### Tasks:

1. Coordinate with project team members.
2. Revise/update Utility Conflict Matrix.
3. Hold coordination meetings with the City of North Salt Lake's City Engineer (throughout the 4U tasks).
  - a. Total of five (5) meetings, each 1.5 hours in length
4. Hold individual coordination meetings with utility companies (throughout the 4U tasks).
  - a. Prepare and distribute meeting minutes and attendee list.
5. Request final dry utility company relocation plans, schedules, and cost estimates.
6. Revise dry utility linework (based on updated plans) in the project base files.
7. Review design plans of third-party utility designs & betterments.
8. Utility conflict resolution meeting.
9. Final design negotiation support & final conformance check with written project agreements.

**Deliverables:** a) Updated Utility Conflict Matrix, b) final dry utility company relocation plans/estimates/schedules (as provided by utility companies), c) UPRR/UTA submittals, d)QC

### Activity 4U2 – Prepare and Obtain Utility and Railroad Agreements and Permits

---

**Overview:** Prepare and obtain Individual Utility Agreements, Cooperative Agreements, Construction and Maintenance Agreement, and Permits required for project advertisement and construction. Prepare and submit UPRR and UTA Grade separation agreement; at-grade agreement for project

**Assumptions:**

- Relocation agreements will be modeled after UDOT relocation agreements but will reflect City franchise agreements/ordinances.
- UPRR/UTA grade separated agreement will be prepared from standard UDOT/UPRR and UDOT/UTA agreements. City reviews, modifications and legal negotiations are not included in these hours.

**Tasks:**

1. Coordinate with all project team members
2. Prepare utility relocation agreements
3. UPRR/UTA Grade separated agreement
4. UPRR/UTA At-Grade Crossing
5. Wireline crossing agreements for third-party utilities (3)

**Deliverables:** a) Utility relocation agreements, b) Grade separated agreement ready for submission to UPRR and UTA c) Documentation needed for At-Grade crossings for industry spurs d) Wireline and utility crossing agreements for utilities (3)

### Activity 4U3 – Complete Utility and Railroad Plans and Documents

---

**Overview:** Complete utility plans and documents. ~~Obtain the UDOT Chief Railroad Engineer's and Railroad Company approval for the crossing modification or construction plans. Finalize railroad crossing plan sheets and develop all railroad project documents including Railroad Company required special provisions. Obtain executed construction and maintenance agreements from the Railroad Company.~~

**Assumptions:**

- Italicized callouts for wet and dry utility work will be added to the UR sheets as part of Task 4U3.
- Wet utility relocation designs will be included in the overall Project package- there will be no separate early utility relocation package(s)
- Railroad agreements will be future phase (Phase 3).

**Tasks:**

1. Coordinate with project team members
2. Finalize Utility Conflict Matrix
3. Address Plan in Hand review comments on UT and UR sheets
4. Complete design of wet utility relocation plans (UR sheets) and UT sheets to PS&E review level (plan and profile)

5. Finalize wet and dry utility UR sheets
6. Complete Utility Relocation Summary Sheets (wet utilities only)
7. Prepare final wet utility relocation cost estimates
8. Develop utility relocation project documents
9. Address PS&E review comments on UT and UR sheets
10. Perform QC

**Deliverables:** a) final Utility Conflict Matrix, b) final wet utility relocation plans, c) Utility Relocation Summary Sheets, d) final wet utility relocation cost estimates

### Activity 4Y1 – Prepare/Compile PS&E Review Package

---

**Overview:** Compile Plan-in-Hand comment resolution form, project cost estimate, and all discipline deliverables into PS&E review package.

**Assumptions:** None

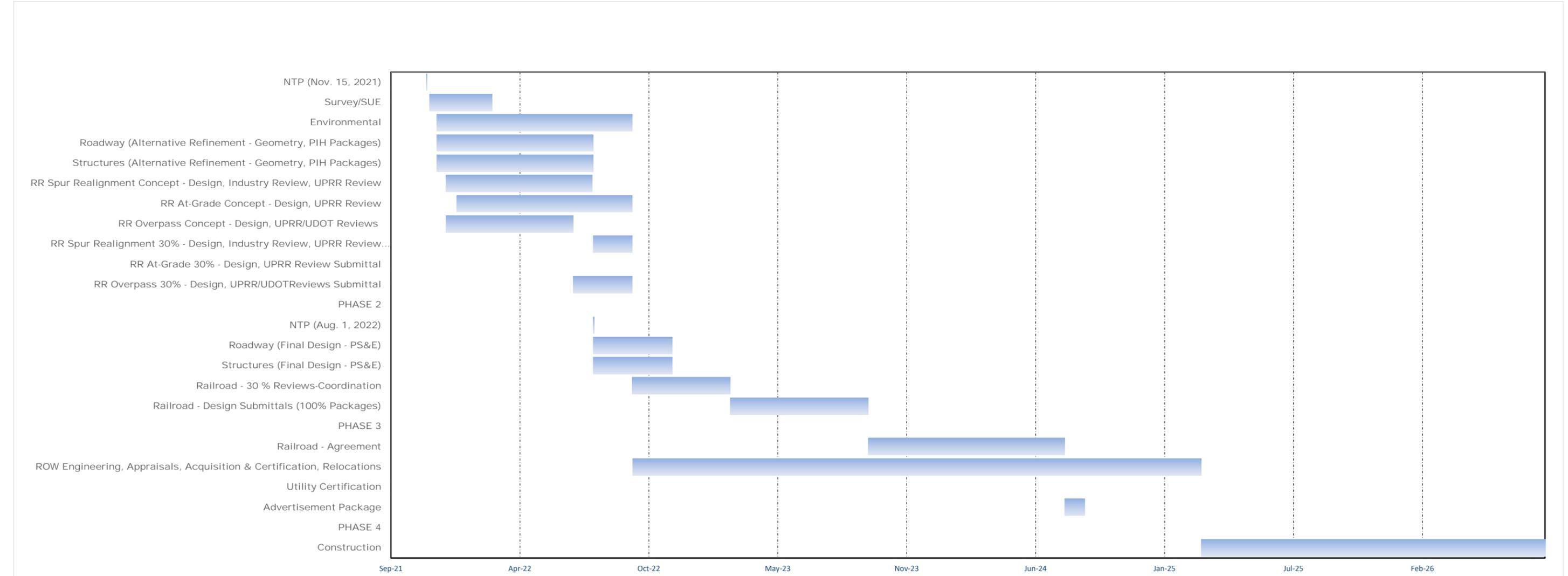
**Tasks:**

1. Compile Plan-in-Hand CRF
2. Complete project cost estimate
3. Compile all discipline deliverables into PS&E review package

**Deliverables:** a) PIH CRF b) PS&E project cost estimate c) PS&E review package

**1100 North RR Overpass - Schedule**

Task	Start Date	End Date	Duration (Days)	Duration (Weeks)	Months
<b>PHASE 1</b>					
NTP (Nov. 15, 2021)	11/15/2021	11/15/2021	1	0	Milestone
Survey/SUE	11/20/2021	2/25/2022	97	14	3
Environmental	12/1/2021	9/30/2022	303	43	10
Roadway (Alternative Refinement - Geometry, PIH Packages)	12/1/2021	8/1/2022	243	35	8
Structures (Alternative Refinement - Geometry, PIH Packages)	12/1/2021	8/1/2022	243	35	8
RR Spur Realignment Concept - Design, Industry Review, UPRR Review	12/15/2021	7/30/2022	227	32	7
RR At-Grade Concept - Design, UPRR Review	1/1/2022	9/30/2022	272	39	9
RR Overpass Concept - Design, UPRR/UDOT Reviews	12/15/2021	7/1/2022	198	28	7
RR Spur Realignment 30% - Design, Industry Review, UPRR Review Submittal	8/1/2022	9/30/2022	60	9	2
RR At-Grade 30% - Design, UPRR Review Submittal		9/30/2022			Milestone
RR Overpass 30% - Design, UPRR/UDOTReviews Submittal	7/1/2022	9/30/2022	91	13	3
<b>PHASE 2</b>					
NTP (Aug. 1, 2022)	8/1/2022	8/1/2022	1	0	Milestone
Roadway (Final Design - PS&E)	8/1/2022	12/1/2022	122	17	4
Structures (Final Design - PS&E)	8/1/2022	12/1/2022	122	17	4
Railroad - 30 % Reviews-Coordination	9/30/2022	3/1/2023	152	22	5
Railroad - Design Submittals (100% Packages)	3/1/2023	10/1/2023	214	31	7
<b>PHASE 3</b>					
Railroad - Agreement	10/1/2023	8/1/2024	305	44	10
ROW Engineering, Appraisals, Acquisition & Certification, Relocations	10/1/2022	3/1/2025	882	126	29
Utility Certification		8/1/2024			
Advertisement Package	8/1/2024	9/1/2024	31	4	1
<b>PHASE 4</b>					
Construction	3/1/2025	11/1/2026	610	87	20





# CITY OF NORTH SALT LAKE COMMUNITY & ECONOMIC DEVELOPMENT

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10 East Center Street, North Salt Lake, Utah 84054  
(801) 335-8700  
(801) 335-8719 Fax

## MEMORANDUM

**TO:** Honorable Mayor and City Council  
**FROM:** Sherrie Pace, Community Development Director  
**DATE:** October 19, 2021  
**SUBJECT:** Consideration of ORD 2021-08 amending the Land Use Ordinance Section 10-7-8 pertaining to Flag Lots.

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The Development Review Committee (DRC) recommends approval of the proposed code amendments with the following findings:

1. The proposed amendment is in accord with the comprehensive general plan, goals and policies of the city.
2. Changed or changing conditions make the proposed amendment reasonably necessary to carry out the "purposes" stated in this title.

### **BACKGROUND**

It was brought to the City's attention that the existing flag lot code contained regulations that exceeded standards required within the International Fire Code (IFC). Current City Code, Section 10-7-8 provides regulations for the approval of flag lots as conditional uses, and requires flag lots to meet all of the following fire protection standards:

1. Access road/driveway:
  - a. Asphalt or concrete and able to support fire apparatus;
  - b. Minimum paved width 20', except 26' adjacent to fire hydrant;
  - c. A turnaround approved by Fire Marshal; and
  - d. Marked with a sign stating "Fire Lane-no parking"
2. Fire hydrant:
  - a. Installation of a fire hydrant and 6" water line;
  - b. Installation of crash protection around hydrant; and
  - c. Be located in a public utility easement of 20'
3. Installation of a pressurized fire sprinkling system

The IFC requirements allow for any combination of 1 or more of the above noted 3 requirements depending on the evaluation by the Fire Marshal of the individual lot and building construction. In essence under the IFC if the home was equipped with pressurized fire suppression, the IFC would not require the 6" water line and fire hydrant. The City Code requires all 3, for every flag lot, which is a significant cost to homeowners of flag lots.

## **PROPOSED AMENDMENT**

The proposed amendment will utilize the specialized regulations already in place within the IFC, as those regulations have been written to more adequately address the varied solutions that can be utilized to address fire protection. As part of the amendment the DRC is recommended additional amendments to the language to comply with state code and conditional use permit conditions, which must be specifically stated in the code. The proposed amendments are summarized as follows:

1. Address identification at the street and format;
2. Fire lane signage;
3. Establishment of the IFC fire suppression requirements to be imposed by conditional use permit, and recommended by the Fire Marshal;
4. Establishment of specific conditions that may be imposed on the conditional use permit to mitigate impacts of a flag lot, such as fencing, landscaping, grading limitations, building envelopes, dwelling height, etc.
5. Amendment to the requirement that a home be oriented to the street in favor of orientation to the front property line, as orientation to the street may be difficult and may not be feasible given the topography of most flag lots;
6. Setting the maximum slope of a flag lot driveway to 10%, and providing that the Fire Marshal could recommend to the Commission a less steep slope to the driveway maximum grade allowed, depending on individual lot characteristics; and
7. Establishing the minimum driveway width for shared driveways as well as provisions for cross access easements and maintenance agreements.

The Planning Commission held a public hearing on October 12, 2021. Public comment was received in support of the amendment, stating it would benefit home owners to design the best solution in the most cost efficient manner to provide fire protection for their home. The Commission recommended the proposed amendment to the City Council for consideration.

## **POSSIBLE MOTION**

I move that the City Council approve Ordinance 2021-08: An ordinance amending the Land Use Code Section 10-7-8 pertaining to flag lots with the following findings:

1. The proposed amendment is in accord with the comprehensive general plan, goals and policies of the City; and,
2. Changed or changing conditions make the proposed amendment reasonably necessary to carry out the "purposes" stated in the title.

## **Attachments**

- 1) Ordinance 2021-08
- 2) Exhibit A: Section 10-7-8

**ORDINANCE NO. 2021-08**

**AN ORDINANCE OF THE CITY OF NORTH SALT LAKE  
AMENDING TITLE 10, CHAPTER 7, SECTION 8 OF THE CITY  
CODE RELATED TO THE REGULATION OF FLAG LOTS**

**WHEREAS**, the City of North Salt Lake is an incorporated city in Davis County Utah;  
and

**WHEREAS**, the City Council of North Salt Lake finds it necessary to update the ordinance  
in relation to fire protection of flag lots to conform in accord with the International Fire Code;

**WHEREAS**, the City Council of North Salt Lake finds it necessary to amend the city code  
to define conditions of approval for flag lots to conform to Utah State Code; and

**WHEREAS**, the City Council finds that it is in the public interest that the North Salt Lake City  
Code, Title 10, Chapter 7, Section 8 be amended at this time.

**NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of North  
Salt Lake as follows:**

**Section 1. Code Amendment.** Pursuant to Utah Code 10-9a-502, Title 10, Chapter 7,  
Section 8 of the City Code is hereby amended as attached in Exhibit A.

**Section 2. Severability.** If any section, part or provision of this Ordinance is held  
invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of  
this Ordinance, and all sections, parts and provisions of this Ordinance shall be severable.

**Section 3. Effective Date.** This Ordinance shall become effective upon publication or  
posting.

**APPROVED AND ADOPTED by the City Council of the City of North Salt Lake, Utah, on this 19<sup>th</sup> day of October, 2021.**

**CITY OF NORTH SALT LAKE**

By:

\_\_\_\_\_  
Len Arave, Mayor

**ATTEST:**

\_\_\_\_\_  
Linda Horrocks, City Recorder

City Council Vote as Recorded:

<u>Name</u>	<u>Vote</u>
Council Member Baskin	_____
Council Member Gordon	_____
Council Member Horrocks	_____
Council Member Mumford	_____
Council Member Porter	_____

## EXHIBIT A

### **10-7-8: FLAG LOTS<sup>2</sup>:**

In older areas of the city, certain properties have evolved over time with irregular shapes and sizes, some with deep rear lots. As the city continues to see these lots subdivided, there may exist a need to develop these deeper lots. Flag lots are one alternative to such development. However, many problems can result from the misuse of flag lots, including increased points of traffic access on busy or narrow streets, large paved areas created to access rear units, a mass of new units incompatible with an existing neighborhood, and the compromising of adequate and safe fire protection to rear units. These problems threaten the character and stability of existing neighborhoods. For these reasons, the following restrictions and prohibitions are established to better control increasing residential density in predominantly single-family neighborhoods through the use of flag lots:

A. Circumstances Permitting: The city discourages and restricts the creation of flag lots. A flag lot should be permitted only under certain limited circumstances. Flag lots are prohibited except:

1. Where necessary to reduce access onto major streets and thoroughfares;
2. To reasonably utilize irregularly shaped land;
3. To reasonably utilize land with severe topography;
4. To provide for the protection of significant natural or environmentally sensitive areas; or
5. To allow a property owner reasonable use and benefit of a parcel of land not otherwise developable.

B. Prohibited Flag Lots: Flag lots are expressly prohibited where:

1. The creation of the flag lot will increase the number of access points onto a major thoroughfare;
2. The density created by the flag lot would exceed the average existing density in the immediately adjacent developed residential area; or
3. The proposed flag lot would resubdivide an existing lot or lots in a recorded subdivision plat.

C. Conditional Use: Flag lots are conditional uses and must receive planning commission approval prior to being taken through a subdivision review and approval process. The applicant proposing a flag lot must have demonstrated to the planning commission that because of topographical features and/or unique situations as set forth in subsection A of this section, creation of a flag lot should be allowed.

D. Design Requirements For Flag Lot:

1. A flag or L-shaped lot shall be comprised of a staff portion contiguous with the flag portion thereof.

Notes

<sup>1</sup> 1. See also subsection [10-7-1B1f](#) of this chapter.

2. The staff portion of said lot shall front on and be contiguous to a dedicated public street. The minimum width of the staff portion of each flag lot shall be thirty feet (30'). Two (2) staffs may be placed side by side and be a minimum width of twenty five feet (25') each. The staff shall not be longer than one hundred fifty feet (150').
3. The flag portion of the lot shall meet the minimum lot size requirement for the zone in which it is located. The staff portion shall not count as part of the land area needed to meet the lot area requirement.
4. Flag lots must be similar in shape of the buildable area (i.e., rectangular or pie shaped if on a cul-de-sac) to the majority of the lots in the immediately adjacent developed residential area.
5. The front side of the flag portion of the lot shall be deemed to be that side nearest to the dedicated public street upon which the staff portion fronts. The staff portion shall be deemed to end and the flag portion shall be deemed to begin at the extension of the front lot line.
6. Flag lot units located away from the street shall ~~maintain a presence to the street,~~ be oriented to the street or front property line, ~~and be visible from the street. A larger building for the flag lot unit in relation to a unit in front of the flag lot unit is not acceptable as a means to meet the street presence requirement. .~~

#### 7. Identification Signs:

a. Address identification: All new and existing structures shall be provided with approved address identification that is legible and visible from the street fronting the property. Address characters shall be Arabic numbers (shall not be spelled out) or alphabetical letters not less than four (4") high with a minimum stroke width of ½ inch (IFC 505.1).

b. The building address for the structure shall be posted conspicuously at the driveway entrance via sign, monument, mailbox, and be maintained in good condition and in a visible location not obstructed by vegetation, landscaping features, walls, or fences, or other obstruction.

c. Any lighting provided for address identification shall be provided in a manner where the sign is either backlit, illuminated by street light or driveway light or if directly lit shall be in a manner that the lighting will not shine directly into the yard or window of an adjacent residence, and shall not be a hazard for street traffic.

d. A fire lane sign shall be posted near the entrance of all access roadways and driveways reading "No Parking-Fire Department Access RoadFire Lane". The sign shall be a minimum of twelve inches by eighteen inches (12" x 18")with four inch (4") block letter with one-half inch ( ½") stroke and have red letters on a white reflective ~~on a contrasting background~~ (IFC D103.6).

e. Access driveways and private roadways shall not be named or posted in a manner similar to approved street signs (color or design). All private roadway signs shall be approved by the public works department prior to placement at the intersection of a city street and private driveway.

8. All minimum required setbacks for the zone in which the flag lot is located shall apply. Orientation, setbacks and private yards shall conform to the following criteria:

a. All units shall orient to the street;

b. Each unit shall have both a "front" and "rear" yard on opposite sides of the ~~unit~~lot; ~~and~~ (Ord. 07-12, 6-5-2007)

~~c. To protect the privacy of yard areas on neighboring properties, large windows and decks on the second floor shall not orient to adjacent, surrounding properties. (Ord. 07-12, 6-5-2007; amd. 2012 Code)~~

89. An access driveway with a minimum paved width of twenty feet (20') shall be provided with landscaping on each side and a maximum slope of 10% (IFC D103.2). The access driveway shall be asphalt or concrete with adequate drainage and shall be properly maintained on a continuous basis. Where two (2) flag lots are adjacent to each other, a common driveway for both units is encouraged; multiple driveways are discouraged. Shared driveways shall have a platted cross easement access and maintenance agreement. The minimum width of the shared driveway shall be 20 feet unless additional width is required by the International Fire Code (IFC).

10. The access road or driveway shall be maintained by the property owner or possessor of the premises in good condition and repair and with adequate snow removal so as to provide free and uninhibited access by emergency service vehicles.

11. Emergency Access Easements. The property owner/developer shall grant unto the City an access easement and public utility easement along the full width of the stem portion of the lot, permitting access to the City for emergency and service vehicles as well as inspection personnel.

12. Fire protection for flag lot units. All flag lots must be reviewed by the local fire protection agency for compliance with the International Fire Code (IFC), for emergency vehicle access requirements prior to subdivision approval and the issuance of a building permit. Each proposal to construct a unit on a flag lot more than one hundred fifty feet (150') from a public street must first be reviewed and approved by the fire marshal and all other criteria listed below prior to receiving a building permit. No primary residential structure may be located on a flag lot more than five hundred feet (500') from a public street. All measurements shall be taken from the edge of the public right of way along the centerline of the driveway or private access driveway to the nearest point of the primary structure.

Upon recommendation of the Fire Marshal and in conformance to the International Fire Code, as adopted, the Planning commission may require one or more -All of the following conditions to must be met before as a condition for a building permit may be approved approval:

a. An access road or driveway ~~shall be provided~~ which meets the following standards:

(1) An asphalt or concrete surface capable of supporting the imposed load of fire apparatus weighing up to 75,000 pounds (IFC D102.1) ~~shall be provided and~~ extended to within one hundred fifty feet (150') of all portions of the exterior walls of the first story of any building (IFC 503.1.1). If constructed of asphalt, the access road or driveway shall be a minimum of two and one-half inches (2<sup>1</sup>/<sub>2</sub>" ) of asphalt over a minimum of six inches (6") of compacted road base. If constructed of concrete, the access road or driveway shall have a minimum of five inches (5") of concrete over a compacted road base. ~~The access road or driveway shall be maintained by the property owner or possessor of the premises in good condition and repair and with adequate snow removal so as to provide free and uninhibited access by emergency service vehicles.~~

(2) ~~The access road or driveway shall be a minimum of twenty feet (20') wide.~~ Where such ~~access roadway road or driveway~~ is adjacent to required fire hydrants, the width shall be ~~a~~ increased to a minimum of twenty six feet (26') (IFC D103.1) ~~within twenty feet (20') in either direction from the hydrant~~. Such required widths shall be unobstructed, including parking of vehicles, and shall have a minimum vertical clearance of thirteen and one-half feet (13<sup>1</sup>/<sub>2</sub>') (IFC 503.1.1).

(3) Reduction of the ~~The~~ maximum grade allowed by this section for any access road or driveway ~~shall be fifteen percent (15%) at any point measured along the centerline of the access road or driveway.~~

(~~34~~) ~~A~~ The construction of a turnaround approved by the fire marshal ~~shall be provided at a~~ location recommended by the fire marshal (IFC 503.2.4) ~~the end of the access road or driveway.~~

(~~45~~) Each access road or driveway shall be identified and marked by the property owner to the satisfaction and approval of the fire marshal (IFC 503.3) ~~Signs shall be posted near the entrances of access roadways and driveways. Signs shall be a minimum of twelve inches by eighteen inches (12" x 18") in two and one-half inch (2<sup>1</sup>/<sub>2</sub>" ) block lettering with one-half inch (<sup>1</sup>/<sub>2</sub>" ) stroke on a contrasting background. Signs shall read "No Parking – Fire Department Access Road".~~

b. Water Line & Hydrants:

(1) Installation of one or more ~~A~~ fire hydrants ~~shall be installed by the city~~ at the expense of the property owner and ~~shall be~~ connected by a ~~six inch (6")~~ water line from the water main sized to meet the minimum fire flow requirements required by the IFC (IFC 507.1). The hydrant(s) shall be located to the satisfaction and approval of the fire marshal and city engineer. Required ~~f~~Fire hydrant(s) shall be located on all ~~required~~ access roads or driveways ~~and shall be located~~ within five feet (5') of the paved surface ~~required access road or driveway.~~

(2) If, in the opinion of the fire marshal, fire hydrants are vulnerable to vehicular damage, appropriate ~~crash posts~~impact protection shall be required (IFC 507.5.6). No obstruction shall exist within a three foot (3') working area of each fire hydrant (IFC 507.5.5). ~~Required crash posts shall be four inch (4") concrete filled pipe, having a minimum of three feet (3') in height above grade, with two feet (2') of pipe below grade set in concrete.~~

~~(3) Hydrant shutoff valves shall be located no closer than five feet (5') from the hydrant and no further than twenty feet (20') as per city spec.~~

(3) The fire hydrant, water line and access road or driveway shall be located within a public utility easement of at least twenty feet (20') in width such that emergency and utility service vehicles and personnel have unimpeded access to the improvements.

c. ~~The installation~~ All dwelling structures shall have installed at the time of construction, and keep continuously maintained, a pressurized ~~interior fire protection sprinkling fire suppression~~ system that complies with the minimum standards of the ~~international~~ international ~~fire~~ fire ~~code~~ code and ~~is~~ approved by the fire marshal.

d. Other conditions as warranted and in conformance to the International Fire Code or Urban Wildland Interface, wherever adopted and applicable.

~~d. All of the required improvements shall be installed at the property owner's expense. (Ord. 07-12, 6-5-2007)13.~~ In addition to the above minimum requirements, the Planning commission may, as part of the conditional use permit or preliminary or final subdivision plat approval, impose additional conditions to mitigate impacts of the flag lot(s), such conditions include including the following:

a. Fencing and screening requirements, including location, height, materials, colors, and landscaping;

b. Limitations on lot grading, cuts and fills, drainage, retaining wall construction, including location, materials, vegetation, and height;

c. Building envelope or setback restrictions;

d. Dwelling height; and

e. Vegetation and landscape requirements or restrictions; and

f. Other conditions, as warranted and permitted by law.

## EXHIBIT A

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5. To allow a property owner reasonable use and benefit of a parcel of land not otherwise developable.

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2. The density created by the flag lot would exceed the average existing density in the immediately adjacent developed residential area; or
3. The proposed flag lot would resubdivide an existing lot or lots in a recorded subdivision plat.

C. Conditional Use: Flag lots are conditional uses and must receive planning commission approval prior to being taken through a subdivision review and approval process. The applicant proposing a flag lot must have demonstrated to the planning commission that because of topographical features and/or unique situations as set forth in subsection A of this section, creation of a flag lot should be allowed.

D. Design Requirements For Flag Lot:

1. A flag or L-shaped lot shall be comprised of a staff portion contiguous with the flag portion thereof.

Notes

<sup>1</sup> 1. See also subsection [10-7-1](#) of this chapter.

2. The staff portion of said lot shall front on and be contiguous to a dedicated public street. The minimum width of the staff portion of each flag lot shall be thirty feet (30'). Two (2) staffs may be placed side by side and be a minimum width of twenty five feet (25') each. The staff shall not be longer than one hundred fifty feet (150').

3. The flag portion of the lot shall meet the minimum lot size requirement for the zone in which it is located. The staff portion shall not count as part of the land area needed to meet the lot area requirement.

4. Flag lots must be similar in shape of the buildable area (i.e., rectangular or pie shaped if on a cul-de-sac) to the majority of the lots in the immediately adjacent developed residential area.

5. The front side of the flag portion of the lot shall be deemed to be that side nearest to the dedicated public street upon which the staff portion fronts. The staff portion shall be deemed to end and the flag portion shall be deemed to begin at the extension of the front lot line.

6. Flag lot units located away from the street shall be oriented to the street or front property line. .

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a. Address identification: All new and existing structures shall be provided with approved address identification that is legible and visible from the street fronting the property. Address characters shall be Arabic numbers (shall not be spelled out) or alphabetical letters not less than four (4") high with a minimum stroke width of ½ inch (IFC 505.1).

b. The building address for the structure shall be posted conspicuously at the driveway entrance via sign, monument, mailbox, and be maintained in good condition and in a visible location not obstructed by vegetation, landscaping features, walls, or fences, or other obstruction.

c. Any lighting provided for address identification shall be provided in a manner where the sign is either backlit, illuminated by street light or driveway light or if directly lit shall be in a manner that the lighting will not shine directly into the yard or window of an adjacent residence, and shall not be a hazard for street traffic.

d. A fire lane sign shall be posted near the entrance of all access roadways and driveways reading "No Parking-Fire Lane". The sign shall be a minimum of twelve inches by eighteen inches (12" x 18") with four inch (4") block letter with one-half inch ( ½") stroke and have red letters on a white reflective background (IFC D103.6).

e. Access driveways and private roadways shall not be named or posted in a manner similar to approved street signs (color or design). All private roadway signs shall be approved by the public works department prior to placement at the intersection of a city street and private driveway.

8. All minimum required setbacks for the zone in which the flag lot is located shall apply. Orientation, setbacks and private yards shall conform to the following criteria:

a. All units shall orient to the street;

b. Each unit shall have both a "front" and "rear" yard on opposite sides of the lot; (Ord. 07-12, 6-5-2007)

9. An access driveway with a minimum paved width of twenty feet (20') shall be provided with landscaping on each side and a maximum slope of 10% (IFC D103.2). The access driveway shall be asphalt or concrete with adequate drainage and shall be properly maintained on a continuous basis. Where two (2) flag lots are adjacent to each other, a common driveway for both units is encouraged; multiple driveways are discouraged. Shared driveways shall have a platted cross easement access and maintenance agreement. The minimum width of the shared driveway shall be 20 feet unless additional width is required by the International Fire Code (IFC).

10. The access road or driveway shall be maintained by the property owner or possessor of the premises in good condition and repair and with adequate snow removal so as to provide free and uninhibited access by emergency service vehicles.

11. Emergency Access Easements. The property owner/developer shall grant unto the City an access easement and public utility easement along the full width of the stem portion of the lot, permitting access to the City for emergency and service vehicles as well as inspection personnel.

12. Fire protection for flag lot units. All flag lots must be reviewed by the local fire protection agency for compliance with the International Fire Code (IFC), for emergency vehicle access requirements prior to subdivision approval and the issuance of a building permit. No primary residential structure may be located on a flag lot more than five hundred feet (500') from a public street. All measurements shall be taken from the edge of the public right of way along the centerline of the driveway or private access driveway to the nearest point of the primary structure.

Upon recommendation of the Fire Marshal and in conformance to the International Fire Code, as adopted, the Planning commission may require one or more of the following conditions to be met as a condition for building permit approval:

a. An access road or driveway which meets the following standards:

(1) An asphalt or concrete surface capable of supporting the imposed load of fire apparatus weighing up to 75,000 pounds (IFC D102.1) extended to within one hundred fifty feet (150') of all portions of the exterior walls of the first story of any building (IFC 503.1.1). If constructed of asphalt, the access road or driveway shall be a minimum of two and one-half inches (2<sup>1</sup>/<sub>2</sub>" ) of asphalt over a minimum of six inches (6") of compacted road base. If constructed of concrete, the access road or driveway shall have a minimum of five inches (5") of concrete over a compacted road base.

(2) Where such access road or driveway is adjacent to required fire hydrants, the width shall be increased to a minimum of twenty six feet (26')(IFC D103.1). Such required widths shall

be unobstructed, including parking of vehicles, and shall have a minimum vertical clearance of thirteen and one-half feet (13<sup>1</sup>/<sub>2</sub>')(IFC 503.1.1).

(3) Reduction of the maximum grade allowed by this section for any access road or driveway.

(4) The construction of a turnaround approved by the fire marshal at a location recommended by the fire marshal (IFC 503.2.4).

(5) Each access road or driveway shall be identified and marked by the property owner to the satisfaction and approval of the fire marshal (IFC 503.3)

b. Water Line & Hydrants:

(1) Installation of one or more fire hydrants at the expense of the property owner and connected by a water line from the water main sized to meet the minimum fire flow requirements required by the IFC (IFC 507.1). The hydrant(s) shall be located to the satisfaction and approval of the fire marshal and city engineer. Required fire hydrant(s) shall be located on all access roads or driveways within five feet (5') of the paved surface.

(2) If, in the opinion of the fire marshal, fire hydrants are vulnerable to vehicular damage, appropriate impact protection shall be required (IFC 507.5.6). No obstruction shall exist within a three foot (3') working area of each fire hydrant (IFC 507.5.5).

(3) Hydrant shutoff valves shall be located as per city spec.

(3) The fire hydrant, water line and access road or driveway shall be located within a public utility easement of at least twenty feet (20') in width such that emergency and utility service vehicles and personnel have unimpeded access to the improvements.

c. The installation at the time of construction, and keep continuously maintained, a pressurized fire suppression system that complies with the minimum standards of the International Fire Code and approved by the fire marshal.

d. Other conditions as warranted and in conformance to the International Fire Code or Urban Wildland Interface, where adopted and applicable.

13. In addition to the above minimum requirements, the Planning commission may, as part of the conditional use permit or preliminary or final subdivision plat approval, impose additional conditions to mitigate impacts of the flag lot(s), such conditions include the following:

a. Fencing and screening requirements, including location, height, materials, colors, and landscaping;

b. Limitations on lot grading, cuts and fills, drainage, retaining wall construction, including location, materials, vegetation, and height;

- c. Building envelope or setback restrictions;
- d. Dwelling height; and
- e. Vegetation and landscape requirements or restrictions; and
- f. Other conditions, as warranted and permitted by law.