

SECOND AMENDMENT TO  
PROFESSIONAL CONSULTANT SERVICES AGREEMENT

GLENN A. RICK ENGINEERING AND DEVELOPMENT CO.,  
dba RICK ENGINEERING COMPANY

THIS SECOND AMENDMENT TO PROFESSIONAL CONSULTANT SERVICES AGREEMENT ("Second Amendment") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2021, by and between the CITY OF RIVERSIDE, a California charter city and municipal corporation ("City"), and GLENN A. RICK ENGINEERING AND DEVELOPMENT CO., a California corporation, dba RICK ENGINEERING COMPANY ("Consultant"), with respect to the following:

**RECITALS**

A. The City and Consultant entered into that certain Professional Consultant Services Agreement dated January 20, 2017 ("Agreement") for the Northside Specific Plan ("Project").

B. The City and Consultant entered into that certain First Amendment to Professional Consultant Services Agreement dated July 15, 2020 ("First Amendment") to extend the term of the Agreement for two years.

C. The City and Consultant desire to amend the Agreement to extend the term from June 30, 2021, to December 31, 2022, and to revise the Scope of Work.

NOW, THEREFORE, in consideration of the foregoing recitals which are incorporated herein by this reference, City and Consultant agree as follows:

1. Section 2 of the Agreement is hereby extended from June 30, 2021, to December 31, 2022.

2. The Scope of Work attached to the Agreement as Exhibit "A" is amended to add the additional Scope of Work for a hydrology analysis as shown on Exhibit "A-1," attached hereto and incorporated herein by reference.

3. All other terms and conditions of the Agreement and First Amendment between the parties which are not inconsistent with the terms of this Second Amendment shall remain in full force and effect as if fully set forth herein.

**[SIGNATURES ON FOLLOWING PAGE.]**

IN WITNESS WHEREOF, the parties hereto have caused this Second Amendment to Professional Consultant Services Agreement to be duly executed the day and year first above written.

CITY OF RIVERSIDE,  
a California charter city and municipal  
corporation

GLENN A. RICK ENGINEERING AND  
DEVELOPMENT CO., a California  
corporation, dba RICK ENGINEERING  
COMPANY

By: \_\_\_\_\_

City Manager

By: Brendan Hastie

Name: BRENDAN HASTIE

Its: VICE PRESIDENT

Attest: \_\_\_\_\_

Eva Arseo  
Interim City Clerk

By: Jennifer Craebe

Name: Jennifer Craebe

Its: Assist. Corp. Secretary

Approved as to Form:

By: Kristi J. Smith

Kristi J. Smith  
Interim City Attorney

**EXHIBIT "A-1"**  
**SCOPE OF WORK**



## **Scope of Work for Northside Master Drainage Plan (MDP)**

Date: 2/26/2021

### **Task 1: Project Management, Meetings, Coordination**

Consultant will attend a project kickoff meeting, up to 4 (1-hour) project check-in/coordination meetings with the City of Riverside (City) and/or the Riverside County Flood Control and Water Conservation District (District), one engagement meeting with Northside Improvement Association, and the preparation of meeting material, agendas, and meeting minutes. This task also includes as-needed coordination and monthly project updates, for an assumed project duration of 6 months.

Consultant will review the conceptual MDP for compliance with the planning concepts, goals and policies of the Specific Plan including the Land Use Element. This analysis will focus on the MDP's ability to implement the concepts approved by the City Council to create a natural like drainage system through the open space portion of the plan and allow for development in the targeted areas.

### **Task 2: Data Compilation and Existing Condition Assessment**

Consultant will identify, review, and compile pertinent information including studies, models, MDPs, ADPs, imagery, survey, LiDAR, and historical data from the District. Relevant existing data received as part of the Northside Specific Plan project will be utilized where applicable. Consultant will review data provided, and if necessary, provide a data request to the District to provide additional information that may be necessary for the completion of the project. Identify gaps in information from the above data and provide a plan to obtaining the necessary information (i.e., site visits or review of as-built plans).

Consultant will conduct an existing conditions assessment of Highgrove Channel, Spring Brook Wash, University Wash, and tributaries to the study limit at the upstream end of Lake Evans to gather information that will be used in developing the hydrologic and hydraulic model. The hydraulic model will be used to determine water surface elevations for applicable storm events. Structure elevations, channel geometry, and Manning's n-values will be determined with as-built information, topographic data, and aerial imagery. A site visit creek walk will be performed to observe the current conditions and potential causes of the split flow condition. The site visit will be used to gather photos, assess Manning's roughness coefficients (upstream and downstream of the sites), and visually verify structures included in the previously prepared hydraulic models. A written Existing Conditions Assessment Report will be prepared to summarize the topographic data, GIS data, and site visit.

#### **Deliverables:**

- Information request list for the District
- Overall Drainage Boundary of the Study Area
- Overview GIS-based Exhibit reflective of:
  - Topographic information
  - Survey data
  - GIS layers
  - Site visits
- GIS files

### **Task 3: Hydrologic Model Development**

Consultant will update the District provided FEMA hydrologic model for ultimate conditions both onsite (assuming Northside Specific Plan build-out) and offsite (assuming general plan land use). The hydrologic model will be developed using District approved hydrologic methodologies and NOAA Atlas 14 rainfall data to develop hydrographs necessary for storage and unsteady flow modeling. The updated hydrologic models will include the following:

- Spring Brook Wash down to Lake Evans
- University Wash to confluence with Spring Brook Wash
- Highgrove Channel down to Santa Ana River



The following storm events will be modeled:

- 10-year; 1, 3, 6, and 24-hour
- 100-year; 1, 3, 6, and 24-hour

**Deliverables:**

- Hydrologic model files (HEC-HMS)
- Runoff hydrographs
- GIS maps with the model results
  - Including node diagram of hydrology outputs

**Task 4: Hydraulic Model Development**

To improve the known and future flooding concerns within the study area, an ultimate condition hydraulic model will be developed using the ultimate condition hydrology models from Task 3. This model will be used to analyze the 100-year storm event for channels, culverts, and detention basins. The proposed MDP improvements shall contain/reduce the FEMA floodplains defined by the latest hydraulic model submitted to FEMA. The backbone systems to be analyzed will be accepted by the District prior to modeling and will include the following:

- Highgrove Channel improvements from Old Pellisier Road to confluence with Santa Ana River
  - including culvert improvements at Old Pellisier Road to remove split flow condition
- Spring Brook Wash channel improvements
  - Channel improvements from Orange Street to Garner Road
  - Regional detention Basin at AB Brown Sports Complex
    - Including surface area (acreage), volume (acre-feet), and outlet works design.
  - Culvert improvements at Garner Road
  - Channel improvements from Garner Road to Main Street
  - Channel/culvert improvements from Main Street to confluence with Lake Evans
- University Wash channel and culvert improvements from Orange Street to confluence with Spring Brook Wash

**Deliverables:**

- Runoff hydrographs and hydraulic model files for Highgrove Channel (HEC-RAS, 1D)
- Runoff hydrographs and hydraulic model files for Spring Brook Wash, University Wash (to Lake Evans) (HEC-RAS, 1D)
- GIS maps with the model results

**Task 5: Backbone Storm Drain Recommendations**

In addition to the regional backbone facilities associated with Highgrove Channel, Springbrook Wash, and University Wash; backbone storm drain infrastructure will be identified for potential alignments based on the proposed land use and specific plan. To support preliminary alignments of onsite backbone storm drain systems extending out into the future development areas, rational method hydrology will be estimated for each planning area, 10-year and 100-year peak flow rates estimated, and preliminary storm drain sizing identified using normal depth calculations and general slope characteristics within the proposed road alignments. It's assumed these systems will generally convey east-west from the development areas towards the main north-south alignment of the Springbrook Wash channel. Preliminary cost information will also be compiled for these systems as part of the Preliminary Cost Estimate task, in addition to the cost estimates focused on the regional channel and basin infrastructure costs.

**Deliverables:**

- Backup calculations for peak flow rates and recommended storm drain sizes

**Task 6: Schematic Plan and Opinion of Probable Construction Cost**

Schematic plans and profiles will be developed for recommended facilities. To support the development of potential construction costs, preliminary grading will be performed for channels and/or storage attenuation areas, such that earthwork



numbers can be determined, and applicable quantities developed for each alternative. These exhibits, along with the opinion of probable construction costs, will be incorporated into the H&H Report for the overall study.

Consultant will prepare an order of magnitude opinion of probable construction cost for each proposed storm drain line. The consultant will utilize the Districts Planning Unit Cost Sheet Template for the estimates. Each proposed system shall have its own probable construction cost. From an asset management perspective, this will help inform the City of Riverside of the probable capital costs needed for the Northside Specific Plan area for drainage infrastructure improvements.

Based on discussions with the City and District, and to aid in the "Potential Fee Assessment" task, summary tables of onsite and offsite developable areas tributary to each of the identified facility improvements will be developed.

**Deliverables:**

- Schematic plan and profile for each recommended facility
- Overall map of the drainage improvements with labels on Qs, facility type, and facility size
- Summary of probable construction costs using District's Planning Unit Cost Sheet for each proposed drainage line
- Summary table of onsite and offsite developable areas tributary to each of the identified facility improvements
- CAD and GIS files

**Task 7: Development of Hydrologic and Hydraulic Analysis Report**

Consultant will prepare a Hydrologic and Hydraulic Study Report detailing input data, assumptions, calculations, and results from the current, future, and proposed condition hydrologic and hydraulic modeling. The goal of this Master Drainage Plan is to identify deficiencies with the existing backbone storm drain facilities within the Northside Specific Plan area and provide recommended backbone storm drain facility sizes/dimensions (based on the future land use per the Northside Specific Plan) to help improve the potential flooding concern. This includes approximately 30 hours of an engineer's time to respond to comments and update the draft to create the final report.

**Deliverables:**

- Draft report for District and City review and feedback
- Final report integrating District and City comments

**Task 8: Potential Fee Options**

Based on the recommended infrastructure costs provided by the MDP the Consultant will work closely with the City and the District to assess potential funding strategies. In parallel with the MDP the consultant will work with the City to determine the best fit storm water funding source for the Northside Specific Plan area. This task is anticipated to be revised during the MDP to best fit the City's needs. Potential funding strategies to be assessed may include the following:

- Developer Impact Fee (DIF)
- Assessment District
- Other Special Districts

**Deliverables:**

- Draft memorandum for District and City review and feedback

**Optional Tasks:**

**Optional Task 1: Subsequent CEQA Document**

Based on a review and analysis of the MDP and concurrence that the program will be in substantial conformance with the concepts outlined in the Specific Plan and analyzed in the Program EIR the consultant will prepare an Addendum to the PEIR (PEIR) in accordance with section 15164 of the CEQA Guidelines, if required. The use of the Addendum is based on the understanding that the proposed MDP will be in substantial conformance with the past Hydrology studies completed for the PEIR and concepts that were utilized in the development of the Specific Plan.



**Deliverables:**

- Draft and Final Addendum to the PEIR prepared to conformance with the CEQA Guidelines Section 15164

**Optional Task 2: Development Impact Fee**

As a subsequent task to the Potential Fee Assessment above, the following will be completed.

- Collect and compile relevant project materials
- Analyze project improvements and document requisite information to support fee nexus findings
- Prepare and submit draft Nexus Study for review and comment
- Review comments and revise Nexus Study
- Prepare and submit final Nexus Study
- Prepare for and "attend" virtual project team meetings (3 assumed)

For scoping purposes, the development of a DIF has been selected as the desired funding strategy. Upon the completion of Task 8, the best fit storm water funding source for the Northside Specific Plan area will be discussed for City input.

**Deliverables:**

- Draft and Final Nexus Study

**Optional Task 3: Interim Condition with Highgrove Channel Overflow**

Typically, an MDP only looks at ultimate buildout condition however for this specific study area there is likely development going to occur during the interim condition so this assessment will provide data necessary to inform development during the interim condition prior to the construction of the Highgrove Channel improvements. This scenario was assumed and identified in the Northside Specific Plan and EIR, assuming approximately 1,000 cfs overflow from Highgrove into the study area heading south towards Springbrook Wash.

**A) Hydrologic Model:**

To assess the interim condition, the Consultant will use the Districts FEMA models for existing condition offsite and update the hydrologic models for specific plan condition onsite. The hydrologic models will be developed using District approved hydrologic methodologies and NOAA Atlas 14 rainfall data to develop hydrographs necessary for storage and unsteady flow modeling. The updated hydrologic models will include the following:

- Spring Brook Wash down to Lake Evans (Existing land use offsite, specific plan land use onsite, and Highgrove overflow)
- University Wash to confluence with Spring Brook Wash (Existing land use offsite and specific plan land use onsite)

**B) Hydraulic Model:**

To determine the interim condition floodplain extents, the Consultant will update the hydraulic models to assess the hydrologic conditions stated above. These models will route the overflow from Highgrove Channel through Spring Brook Wash to inform development during the interim condition.

**Deliverables:**

- Hydrologic model files (HEC-HMS)
- Runoff hydrographs and hydraulic model files for Spring Brook Wash, University Wash (to Lake Evans) (HEC-RAS, 2D)
- GIS maps with the model results



**Project Cost:**

<b>TASK:</b>	<b>COST</b>
<b>Task 1: Project Management, Meetings, Coordination</b>	\$15,000
<b>Task 2: Data Compilation &amp; Existing Condition Assessment</b>	\$7,500
<b>Task 3: Hydrologic Model Development</b>	\$15,000
<b>Task 4: Hydraulic Model Development</b>	\$25,000
<b>Task 5: Backbone Storm Drain Recommendations</b>	\$15,000
<b>Task 6: Schematic Plan &amp; Opinion of Probable Construction Cost</b>	\$20,000
<b>Task 7: Development of Hydrologic and Hydraulic Analysis Report</b>	\$12,500
<b>Task 8: Potential Fee Options</b>	\$10,000
<b>TASKS TOTAL:</b>	<b>\$120,000</b>

**Optional Tasks**

- Optional Task 1 – Subsequent CEQA document (\$15,000)
- Optional Task 2 – Development of DIF (\$15,000)
- Optional Task 3 – Interim Condition with Highgrove Channel Overflow (\$10,000)

**Study Boundary**

- The limits of study for the Northside MDP is based on the attached exhibit of Northside Specific Plan Project Boundary. It's our understanding that a 100-foot buffer extending beyond the project boundary shall be considered as work limits for the MDP efforts described above, as drainage infrastructure may be slightly outside the specific plan limits, if applicable.

**Exclusions**

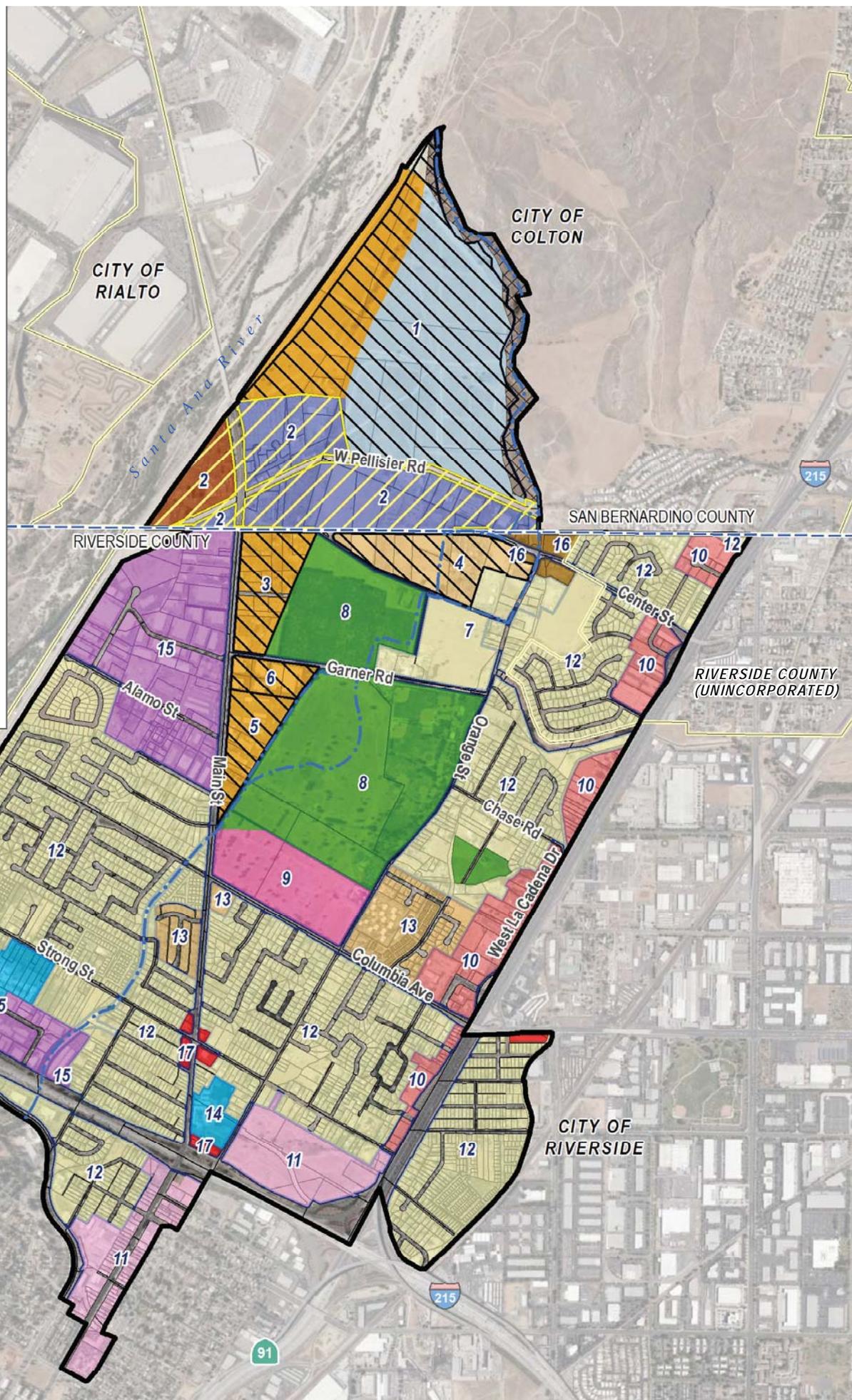
- LIDAR collection and/or post-processing
- Prioritization of the recommended storm drain facilities
- Storm water quality modeling



**Project Schedule:**

<b>TASK:</b>	<b>Schedule (NTP + )</b>
<b>Task 1: Project Management, Meetings, Coordination</b>	Ongoing
<b>Task 2: Data Compilation &amp; Existing Condition Assessment</b>	2 weeks
<b>Task 3: Hydrologic Model Development</b>	6 weeks
<b>Task 4: Hydraulic Model Development</b>	12 weeks
<b>Task 5: Onsite Backbone Storm Drain Recommendations</b>	16 weeks
<b>Task 6: Schematic Plan &amp; Opinion of Probable Construction Cost</b>	20 weeks
<b>Task 7: Development of Hydrologic and Hydraulic Analysis Report</b>	
Draft report for District and City review and feedback	22 weeks
District and City provide review and feedback	26 weeks
Final report integrating District and City comments	30 weeks
<b>Task 8: Potential Fee Options</b>	32 weeks

-  Northside Specific Plan Boundary
-  Subareas
-  Counties
-  Cities
-  Parcels
-  Springbrook Arroyo
- Zone Overlay**
-  Colton Residential Overlay (R-O) Zone
-  Transition Zone Overlay (TZO)
- City of Colton Land Use**
-  Agricultural Buffer (AB)
-  General Commercial (C-2)
-  High Density Residential (HDR)
-  Industrial Research Park (IRP)
-  Light Industrial (M-1)
-  Outdoor Commercial Recreation (OCR)
- City of Riverside Land Use**
-  Business/Office Park (B/OP)
-  Commercial (C)
-  Freeway Mixed-Use (FMU)
-  High Density Residential (HDR)
-  Medium Density Residential (MDR)
-  Medium High Density Residential (MHDR)
-  Mixed-Use Neighborhoods (MN)
-  Northside Village Center (NVP)
-  Open Space, Parks, & Trails (OS)
-  Public Facilities (P-F)
-  Trujillo Adobe Heritage Village (TAHV)



CITY OF RIALTO

CITY OF COLTON

RIVERSIDE COUNTY

SAN BERNARDINO COUNTY

RIVERSIDE COUNTY (UNINCORPORATED)

CITY OF JURUPA VALLEY

CITY OF RIVERSIDE