



STATEMENT OF QUALIFICATIONS

Carolina Crossroads Phase 3 I-20/26/126 System Interchange Project ID: P039720



Submitted by:




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INTRODUCTION (RFQ 3.2)

Contracting Entity (RFO 3.2.1):

The *Archer-United-Blythe JV* (AUBJV) will be the contracting entity and combines three experienced design-build firms; Archer Western Construction, LLC (AWC), United Infrastructure Group, Inc. (UIG) and Blythe Development Co. (BDC). **Daniel P. Walsh, Jr., James E. Triplett, and Luther J. Blythe, Jr.** are authorized to sign all contracts on behalf of the JV (see Article 11, JV Teaming Agreement in [Appendix D](#)). Infrastructure Consulting & Engineering, PLLC (ICE), a trusted professional design services firm, will lead AUBJV’s design team from their office less than two miles from the Project.

CONTRACTING ENTITY CONTACT INFO.

Archer-United-Blythe JV
Andrew Douglas, PE
Email: adouglas@walshgroup.com
Mobile Phone: 703-863-0365
11000 Regency Parkway, Ste 100, Cary, NC 27518
PROJECT MANAGEMENT OFFICE
Design: 110 Midlands Court, W. Columbia, SC 29169
Construction: Onsite trailer or storefront near project

Proposer’s Point of Contact for Procurement (RFO 3.2.2):

<p>David Pupkiewicz, FDBIA 1021 Briargate Circle Columbia, SC 29210 (P) (404) 926-0757 dpupkiewicz@walshgroup.com</p>	<p>Mitchell Metts, PE 110 Midlands Court West Columbia, SC 29169 (P) (803) 206-8485 Mitchell.metts@ice-eng.com</p>
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Full Legal Name of Lead Contractor and Lead Designer (RFO 3.2.3):

- The full legal name of the Lead Contractor: **Archer-United-Blythe Joint Venture**
- The full legal name of the Lead Designer: **Infrastructure Consulting & Engineering, PLLC**

Unique Entity ID for Lead Contractor (RFO 3.2.4):

Archer Western Construction	LW9RN3RZ18Q5
United Infrastructure Group	NRMTAY2LZBP5
Blythe Development Co.	LJJBQKNZLSD1

Commitment Statement (RFO 3.2.5):

The Key Personnel in the organizational chart are committed to meeting SCDOT’s quality and schedule expectations and each person is available for the duration of Carolina Crossroads Phase 3.

 Andrew M. Douglas (AWC)

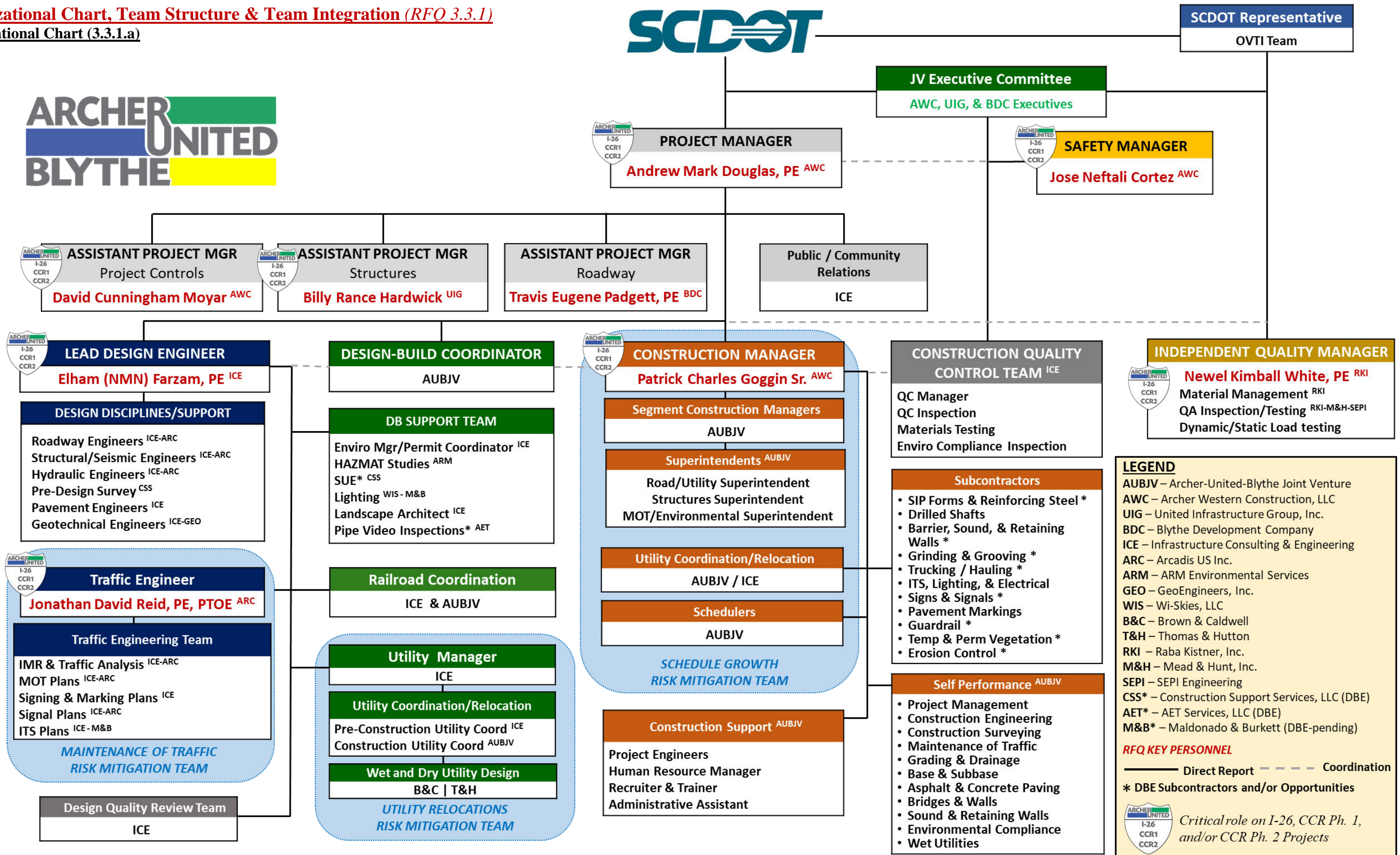
 Elham Farzam (ICE)

 James E. Triplett (UNITED)

 Luke J. Blythe, Jr. (BLYTHE)

TEAM STRUCTURE AND PROJECT EXECUTION (RFQ 3.3)

Organizational Chart, Team Structure & Team Integration (RFQ 3.3.1)
Organizational Chart (3.3.1.a)



Significant Functional Relationships & Working as an Integrated Design-Build Team | Our organization is structured to place the most qualified people in key positions while fostering a partnering atmosphere with SCDOT, FHWA, and the local community. Lines of communication flow down from our Project Manager through the Assistant Project Managers, and to the Lead Design Engineer, Design-Build Coordinator and Construction Manager. The JV Executive Committee comprised of AWC, UIG and BDC executives, provides further assurance to SCDOT that our project team meets its objectives of delivering a high-quality project, safely, and within our budget and schedule commitments.

Team Members’ Prior Working Relationship | The personal and professional relationships of the AUBJV Team date back 25 years and have resulted in the successful delivery of more SCDOT DB and DBB projects than any other team. The table below is an example of recent, major DOT (SC, NC, GA) projects in which the AWC, UIG, BDC, and/or ICE have teamed together along with key individual involvement.

Table 3.3.1.i – Firms/Key Individuals Prior Working Relationship															
Project Type (DB: Design-Build, DBB: Bid-Build, DBF: Financed) Project Owner & Project Name Project Duration	REF *	Firms				Key Individuals									
		AWC	UIG	BDC	ICE	Douglas	Moyar	Hardwick	Padgett	Farzam	Reid	Goggin	Cortez	White	
DB: SCDOT Carolina Crossroads Phase 2 2021-2025	1	■ ¹	■ ¹		■ ¹	■		■		■	■		■	■	
DB: SCDOT Carolina Crossroads Phase 1 2021-2025	2	■ ¹	■ ¹		■ ¹	■		■		■	■		■	■	
DB: SCDOT I-26 Widening (MM 85-101) 2019-2024	3	■ ¹	■ ¹		■ ¹	■	■			■	■	■			
DB: SCDOT SC 277 Bridge Replacement 2018-2020	4	■ ¹	■ ²		■ ¹	■	■			■					
DB: SCDOT I-77 Widening / Rehabilitation 2015-2018	5	■ ¹	■ ²		■ ¹	■	■			■					
DB: SCDOT Package D Bridge Replacements 2012-2014	6		■ ¹		■ ¹					■					
DB: SCDOT Package E Bridge Replacements 2015-2018	7		■ ¹	■ ²	■ ¹					■					
DB: SCDOT US 21 Bridge over Harbor River 2018-2021	8		■ ¹		■ ¹			■		■					
DB: SCDOT I-77 Panthers Interchange 2021-2023	9		■ ¹	■ ¹					■						
DBB: SCDOT I-85 Reconstruction (MM 69-77) 2017-2019	10	■ ¹			■ ³	■	■			■					
DB: NCDOT Monroe Bypass 2014-2018	11		■ ¹	■ ²	■ ²			■		■					
DB: NCDOT NC 540 Western Wake Freeway 2008-2013	12	■ ¹			■ ³		■		■	■	■				
DBF: GDOT Northwest Corridor Express Lanes 2013-2018	13	■ ¹			■ ³					■	■				
DB: GDOT I-285 Eastside Bridge Replacements 2021-2023	14	■ ¹			■ ¹					■					
DBF: GDOT I-285/I-20 East Interchange 2022-2026	15	■ ¹			■ ¹					■	■				

* References are provided in [Appendix H](#) ■ Indicates personnel experience while with a previous firm.
¹Lead Contractor / Designer ²Subcontractor/Subconsultant ³Quality Control/Design Reviews/Inspection/VE

As shown in the table above, AWC, UIG and ICE are currently the lead firms on the **I-26 Widening (MM 85-101), CCR 1 and CCR 2** Design-Build Projects. Inter-project coordination and knowledge gained from the work on these projects is described throughout this document and identified with the **interstate symbol shown on the left**.



I-26, CCR 1, and CCR 2 Staff attending CCR3 Coordination Meeting

Critical Risks (RFQ 3.3.2)

RISK 1

UTILITY RELOCATIONS



AUBJV has a highly experienced team dedicated to minimizing utility impacts as much as practical through timely identification, planning, and relocation of utilities throughout the Project's lifetime. This team has already gained valuable experience and built relationships with the same utility owners through our efforts on **I-26, CCR 1, and CCR 2**

[See Org Chart for Risk Mitigation Team](#)

Issue / Challenge: Archer-United-Blythe JV Team's Risk Mitigation or Elimination Strategies	Role of SCDOT & Other Agencies
<p><u>PROJECT-WIDE ISSUES AND CHALLENGES</u></p>	
<p>1. Utility Resources (Design, Construction, Material Availability/Shortages): Advance drainage design and early SUE (potholes) Level A to identify conflicts and relocation routes so final utility design can begin earlier. Team members, Thomas & Hutton and Brown & Caldwell will expedite wet utility design and approval process. Potential for AUBJV to purchase materials for utilities in advance of construction to cut down on lead times.</p>	<p>Secure project ROW as identified and provide status updates to unsecured parcels. Provide in-contract utility review and approval processes.</p>
<p>2. Coordination and schedule delays: AUBJV will rely on the combined knowledge and lessons-learned of Keith McLeod, Eric Lockamy and Matthew Cox who provided utility coordination on I-26, CCR 1, and CCR 2. To enhance the depth of the Utility Team, AUBJV will also depend on the 50+ years of SCDOT Utility Coordination expertise of Marion Leaphart.</p>	<p>Participate in joint utility progress meetings and Design Progress review meetings.</p>
<p>3. Limited Right-of-Way and Private Easement Acquisition Schedule: Maximize utility corridor in the congested urban areas for relocations while complying with clearance requirements for future access and maintenance. Minimize contractor designated ROW to allow for utilities to relocate earlier and allow private easement acquisition to begin ASAP.</p>	<p>Provide preferred and absolute minimum clearances. Provide avenue to review areas of violation with a variance request. Share all relevant ROW information and allow property owner interaction early.</p>
<p>4. Design Evolution creating unanticipated utility conflicts: Oversight by Design-Build Coordinator and Construction Team during Design Phase. Close reviews of plans during development to minimize changes after RFCs. Intentional relocation of utilities to areas that are least likely to have unanticipated conflict after-the-fact, with maximum buffers from planned disturbed areas.</p>	<p>Participate in joint utility progress meetings and Design Progress review meetings.</p>
<p>5. Interstate Utility Crossings & Construction Staging: Identify common areas for interstate utility crossings and provide joint bores to minimize number of crossings. Develop relocation plans that coincide with MOT while maintaining existing services. Eliminate or minimize need for temporary relocations.</p>	<p>Utility Agencies willing to participate in joint installation opportunities/criteria (Joint Poles, Joint Trench, Joint Bore).</p>
<p>6. Project Scope and Size for Utilities: Segment overall project that will allow utilities to focus on specific conflict areas that coincide with CPM / construction staging.</p>	<p>Allow early clearing operations for utility relocations.</p>
<p>7. Utility permitting: Relocate utilities within the current approved impacted area will help streamline and minimize separate utility permit reviews.</p>	<p>Share all permitting information and provide review schedules.</p>
<p><u>UTILITY AGENCY PROJECT-SPECIFIC CHALLENGES</u></p>	
<p>8. AT&T Relocations: AT&T has a tremendous amount of infrastructure within the project limits, specifically along, St. Andrews (29 cell duct bank), I-20 Bridge over RR (duct bank attachment), and Browning Rd (multiple direct buried facilities). Provide CAD files in ready-to-go / user friendly format, Segment into Project smaller work orders and assign priorities.</p>	<p>Provide preliminary relocation routes and tie-in points, cutover criteria, and estimated relocation durations. Consider using telecom consultants for design work due to ongoing workload.</p>
<p>9. Coordination with City of Columbia: Coordination with City of Columbia: Keith McLeod will provide knowledge gained through experience coordinating with the City on CCR 1 and CCR 2 and the AUBJV will use him to navigate through issues that may arise due to City's additional unique requirements.</p> <p>The AUBJV will also apply lessons learned from CCR 1 associated with working through the requirements prohibiting construction within 100' of the 30" force main.</p>	<p>SCDOT to provide continued support when addressing betterment requests by City of Columbia.</p> <p>SCDOT to assist in addressing design reviews by City's outside consultant when deemed overly burdensome and involves reviewers "personal preferences".</p>
<p>10. South Carolina Water Utilities (FKA Synergy/Palmetto) Gravity System Relocation: Gravity Sewer relocation design is constrained due to service pickups, slope requirements, and tie-in points. Advance drainage design for final conflict remediation and provide sufficient areas for manhole locations and access.</p>	<p>Provide design and separation criteria along with flow rates.</p>






RISK 2

SCHEDULE GROWTH

Managing schedule growth is founded on the development and use of an integrated schedule with realistic and achievable durations coupled with sound logic. In addition to discussion of the challenges below, AUBJV will institute the following tangible measures to mitigate schedule growth:

- Hold developmental workshop to review schedules from **I-26, CCR 1, and CCR 2** to understand what impacts those original schedules to forecast potential hurdles on CCR 3
- Utilize the same schedulers from **I-26, CCR 1, and CCR 2** to build upon lessons learned and create continuity
- Quarterly schedule workshops with SCDOT leadership focused on problem solving and potential acceleration associated with critical items to maintain/improve the schedule
- Augment our team with additional APMs, ACMs, and support staff to provide more preconstruction planning


[See Org Chart for Risk Mitigation Team](#)

Issue / Challenge: Archer-United-Blythe JV Team’s Risk Mitigation or Elimination Strategies	Role of SCDOT & Other Agencies
<p>1. Design Delays</p> <p> a) OVF / GEC Reviews (Multiple Design reviews and gray-area comments that require close participation from SCDOT to make judgement calls).</p> <p>b) Use OTS design meetings to resolve critical design issues (I-26, CCR 1, & CCR 2 approach).</p> <p>c) Design team experience and understanding of project challenges and resolutions through recent CCR 1 and CCR 2 efforts.</p>	<p>SCDOT to allow and participate in OTS meetings as on CCR 1 and CCR 2.</p> <p>Identify decision resolution procedure and corresponding SCDOT representatives.</p>
<p>2. Utility Delays</p> <p>a) Detailed discussion of mitigation efforts located in Risk #1.</p>	<p>See Risk #1.</p>
<p>3. Railroad Delays</p> <p> a) Based on lessons learned from CCR 1 AUBJV submittals will be CSXT compliant in the first submission.</p> <p>b) Design project to minimize encroachment upon CSXT ROW and construction activities that require flagging.</p> <p>c) Early identification and submission of ROW entry requests through CSX portal for any additional site data needs (geotechnical borings, survey, environmental studies, utility identification).</p>	<p>SCDOT to evaluate and adjust project schedule and costs to account for restrictions.</p> <p>SCDOT to participate in RR coordination meetings.</p>
<p>4. Right of Way (ROW) Acquisition Delays</p> <p>a) Avoid Contractor-designated ROW by optimizing design within already acquired parcels.</p> <p>b) AUBJV will identify schedule-critical properties for SCDOT to prioritize acquisition.</p>	<p>SCDOT to be flexible and work with AUBJV to adjust priorities of acquisitions</p>
<p>5. Potential Skilled Labor Availability:</p> <p> a) Utilize local resources as outlined in Figure 3.3.3.a and Figure 3.3.3.b</p> <p>b) Continued use of dedicated HR recruiting team on I-26, CCR 1, and CCR 2 projects.</p> <p>c) Transition of resources from I-26, CCR 1 and CCR 2. Timing of construction activities will allow transfer as construction ramps up on CCR 3.</p> <p>d) Addition of BDC bolsters the substantial local resources of AWC and UIG which will be available and dedicated to CCR 3 upon RFC plan approval.</p>	<p>SCDOT keep CCR Program prominent in media releases, community events, etc.</p> <p>Local workforce development agencies promote project and benefits of construction trades.</p>
<p>6. Subcontractors, Material Availability, and Supply Chain Constraints</p> <p> a) Leverage AUBJV’s existing vendor relationships and agreements from I-26, CCR 1 & CCR 2.</p> <p>b) Identify items subject to supply chain issues and expedite procurement.</p> <p>c) Utilize local staging to receive critical/long lead materials.</p> <p>d) Augment existing vendors with redundancy to allow for multiple work headings and prevent vendor overextension.</p>	<p>SCDOT continue to allow for stored materials and/or alternate (or equal) materials.</p>
<p>7. Permitting Delays</p> <p> a) DHEC Land Disturbance Permit (NOI) – Split job into multiple NOIs to facilitate early utility relocations and allow construction to begin in critical areas. Hold coordination/pre-application meetings with DHEC to determine appropriate geographic division, facilitate project understanding, and expedite review process.</p> <p>b) USACE 404 Permit – Only work within authorized areas; Team will comply with permit conditions and utilize templates, processes developed from CCR 1 and CCR 2; any permit modifications will be identified and coordinated in early project development to ensure adequate time for agency review.</p> <p>c) FEMA Flood Map Revisions – Drainage design will be optimized to minimize rise and impacts requiring a CLOMR or LOMR and strive for No Impact.</p>	<p>SCDOT to assist in permitting advocating for geographic division of multiple NOIs and participating in meetings to determine areas.</p>

RISK 3

MAINTENANCE OF TRAFFIC (MOT)

A successful MOT approach on a large-scale project such as CCR Phase 3 requires careful planning, design, and implementation of a comprehensive Transportation Management Plan (TMP). Our TMP will be developed to address the best combination of construction staging/phasing, project design, traffic operation strategies, and public involvement strategies. Work zone management strategies will be identified based on the project constraints, construction staging plan, type of work zone, and anticipated impacts. The Team will utilize a variety of work zone management tools including simulation models and queue analysis to predict delays, queues, and impacts of the construction.

<u>Issue / Challenge:</u> Archer-United-Blythe JV Team’s Risk Mitigation or Elimination Strategies	Role of SCDOT & Other Agencies
<p><u>1) Lack of viable detour and ramp closure opportunities as described below:</u></p> <ul style="list-style-type: none"> a) On the east side of Broad River Rd. (due to adjacent Broad River). b) Maintaining Access at St Andrews Rd especially from WB I-26 c) Maintain access to Browning Rd and interconnection to each side of I-20 d) Relocating I-20 EB to I-26 EB ramp while maintaining access to adjacent property owners e) Providing necessary detour route while rebuilding WB I-126 to EB I-26 flyover bridge f) Maintaining lanes on I-26 while replacing cross-drain pipe underneath interstate g) If able to retain existing structures, maintaining existing traffic on both St. Andrews and Bush River bridges during bridge re-decking. <p><u>Mitigation:</u> Design MOT to minimize road and ramp closures and avoid detour situations. Utilize Key Individuals’ depth of understanding of projects in highly traveled and congested corridors to conduct Lane Closure Analysis and develop efficient MOT phasing to minimize shifts and closures. Collect and evaluate data from sources such as INRIX, Streetlight etc. to develop advance detour routes. Optimize arterial signal operation plans for each MOT phase; monitor ramp traffic to ensure traffic does not back on interstate</p>	<p>SCDOT Public Relations (PR) office to facilitate public meetings with AUBJV provided materials.</p>
<p><u>2) Congestion during AM/PM Peak</u></p> <p>The presence of a work zone increases congestion, particularly during the AM/PM peak hours, resulting in longer delay times on roadway segments and ramps within the influence area of the interchange.</p> <p><u>Mitigation:</u> After thorough review of the Preferred Alternative design, several areas have been identified for improvements to accelerate construction of the interchange and allow for the ramps to function without reducing the number of lanes, weaving length, and storage. Develop and implement signal timing plans specifically for various peak periods for construction scenarios. Evaluate each stage of construction in TransModeler to ensure acceptable AM/PM operations during each MOT phase. Look for “early wins” to build ultimate ramp/intersection/lane capacity and open to traffic early. Minimize construction operations in critical areas during peak hours.</p>	<p>SCDOT to adapt the CCR website to contain material regarding construction activity, MOT phasing, temporary lane closures, and night-time detours.</p> <p>Fire/Police/EMS to coordinate with SCDOT and AUBJV regarding construction phases and duration, road closures, and overall Traffic Control Plan.</p>
<p><u>3) Safety risks</u></p> <p>Safety of pedestrians, transit riders, motorists, SCDOT personnel, and construction crews adjacent to the workzone</p> <p><u>Mitigation:</u> The Team’s comprehensive design & construction approach focuses on providing continuous mobility and access to all road users by using state-of-the art tools implementing Smart Work Zone ITS Plans including VMSs to provide real-time information, changeable lane assignments, and reversible lanes. Build project from outside in, so that traffic can be shifted, and barrier separated from active work zones as much as possible. Address existing pedestrian facilities during MOT design and maintain as appropriate per the MUTCD.</p>	<p>1) Provide support using the SHEP fleet during accidents and emergency responses;</p> <p>2) Provide support for additional traffic control for securing a perimeter for safety purposes, i.e. hazardous chemical leak, fires and other emergencies;</p> <p>3) Provide support during hurricane evacuation or snow/ice weather events.</p>
<div style="display: flex; align-items: flex-start;">  <p><u>4) Tie-in with CCR 1 and CCR 2 Projects</u></p> <p>Tie-in locations with CCR 1 and CCR 2 will be critical as there are locations that will be completed and open to the new traffic patterns as they approach the CCR 3 project area.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> • Perform traffic analysis for interim patterns between CCR 1 and CCR 2 and CCR3 • Deploy Smart Work Zone applications to alert drivers • Advance coordination between construction and design teams. • Extended transition lengths where lanes are being reduced. • Implement Variable speed limits through workzone. </div>	<p>SCDOT to publish the detour maps on the project website and/other public announcement platforms (social media)</p>

Project Resources, Strategies, and Execution (RFO 3.3.3)



Team’s Capacity and Available Personnel Resources | AUBJV offers a fully integrated Design Team led by

ICE whose extensive in-house design resources are bolstered by Arcadis as a major subconsultant and other specialty subconsultants as noted in the [Team Organizational Chart](#). The Design Team has spent a year becoming familiar with the scope of the Project and has analyzed numerous alternatives for the Project’s interchanges to preserve existing overpass structures and deliver a more constructible and resilient design. The Design Team has further evaluated the resources required to complete the final design and expects to complete all final design work in the first 24 months after the receipt of NTP. The design resources (in equivalent number of FTEs) for various design disciplines and the contributing design team members (ICE, Arcadis, and specialty subs) will provide the needed resources as shown in [Figure 3.3.3a](#).

With over 120 design personnel just in its SC offices (Greenville, Columbia, and Charleston) ICE is fully prepared to commit the resources for this Project and if needed, forgo other pursuits while the final design activities for the Project are underway. Arcadis is also committed to provide the required resources from its Raleigh, Atlanta, and soon-to-be Columbia offices. The AUBJV’s resources, understanding of CCR 3’s scope of work, and timely completion of the roadway and structures RFC packages for **CCR1 and CCR 2** within 12 months of NTP, allows our Team to begin construction within 12 months of NTP. The start of construction will depend on approval of key DHEC/USACE permits, clearance of utility conflicts, approval by CSX railroad and availability of right of way. ICE, with support from Arcadis, will self-perform all major design tasks. Specialty subconsultants will perform design for lighting, SUE services, HAZMAT studies, and pipe video inspections.

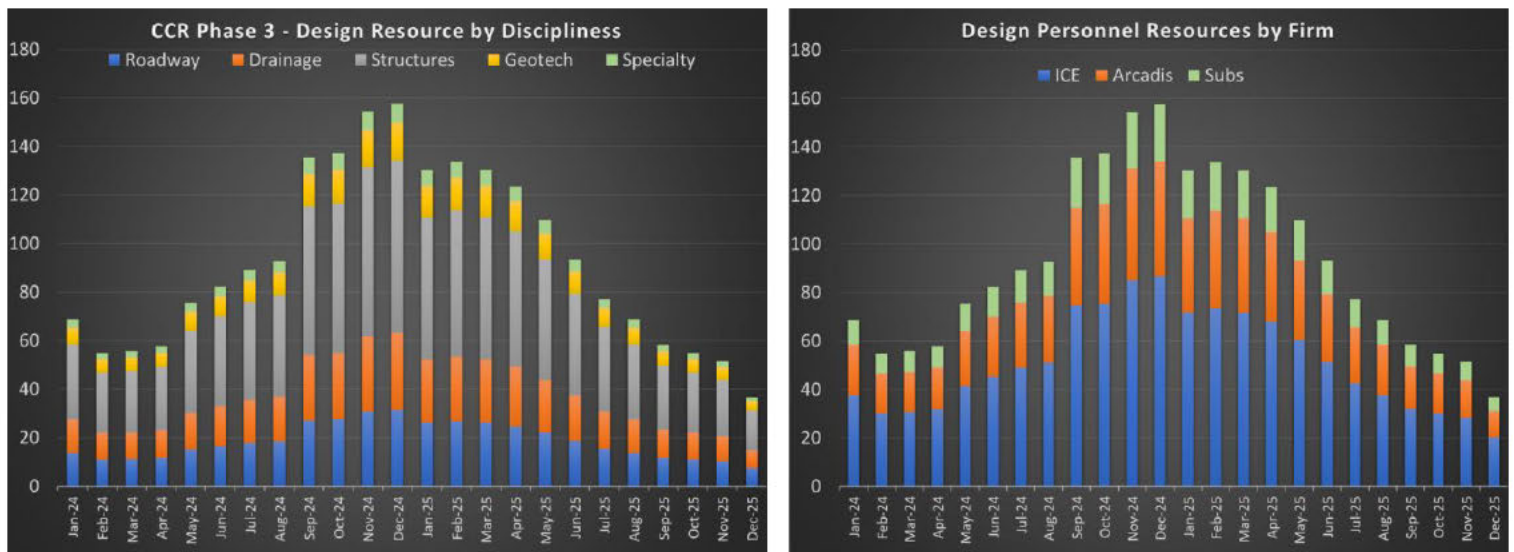


Figure 3.3.3a Design Resources Requirements for CCR Phase 3 Project



The AUBJV Team has been building upon its skilled labor pool since 2015 with the intent of ensuring local resources remain local. Significant resources are currently assigned to the **I-26, CCR 1, and CCR 2** projects and will be available to transition to CCR 3 when construction commences as illustrated in *Figure 3.3.3.b*. Most key personnel are in similar roles on **CCR 1 and CCR 2**. If we are awarded CCR 3, our staffing plan includes adding project management support and Assistant Construction Managers to support Andy Douglas (PM) and Patrick Goggin (CM). The AUBJV has ample additional resources (management, engineers, administrative, and craft) to fully staff and complete all aspects of the Project concurrently under a common and consistent leadership team. The chart below illustrates the schedule of available resources upon completion of the **I-26, CCR 1, and CCR 2** projects and supplemented by additional AUBJV’s management and craft employee resources from SC, NC and other southeast locations.

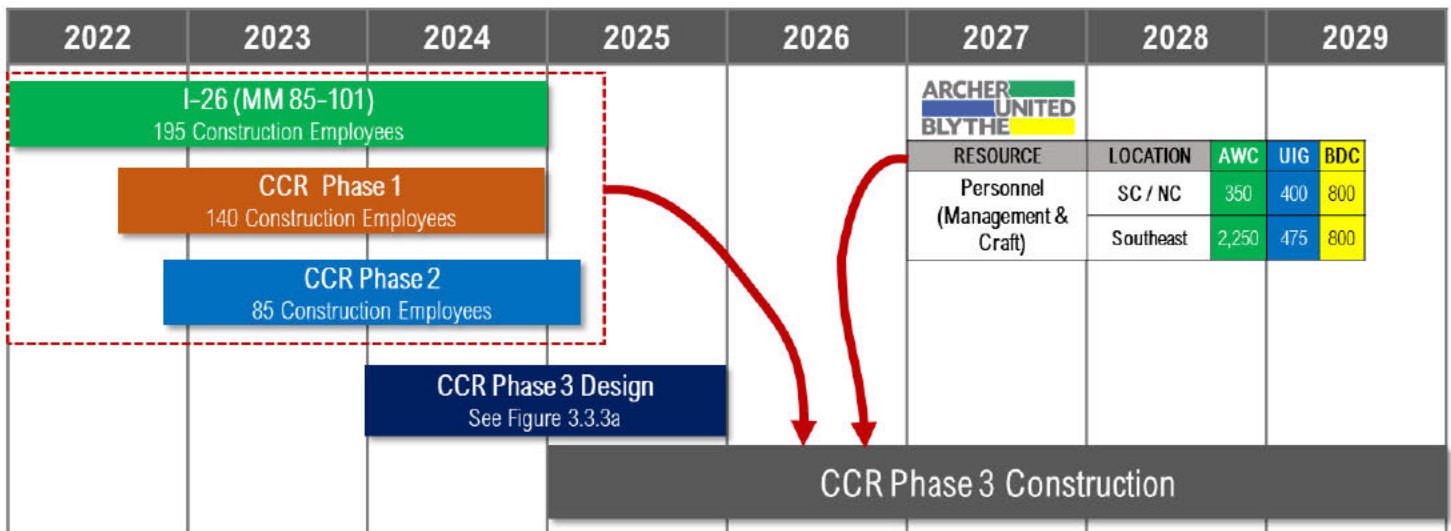


Figure 3.3.3b Construction Resources Transitioning to CCR Phase 3 Project

Strategy for Implementation of Resources & Tasks Team Members will Self-perform:



AUBJV is an integrated JV functioning as a single entity without division of work between the members (identical to the **I-26, CCR 1 and CCR 2** Projects):

AUBJV Self Performed Tasks:

- ✓ Project Management
- ✓ Construction Engineering
- ✓ Construction Surveying
- ✓ Maintenance of Traffic
- ✓ Grading & Drainage
- ✓ Base & Subbase
- ✓ Asphalt & Concrete Paving
- ✓ Bridges & Walls
- ✓ Sound & Retaining Walls
- ✓ Environmental Compliance
- ✓ Wet Utilities

Design Team Self Performed Tasks:

- ✓ Lead Design Engineer
- ✓ Structures and Roadway
- ✓ MOT Plans
- ✓ Hydro/Hydraulic
- ✓ Geotechnical
- ✓ Utility Coordination
- ✓ Railroad Coordination
- ✓ Quality Control
- ✓ Environmental Permitting & Compliance
- ✓ Public / Community Relations
- ✓ Contractor QC Inspections

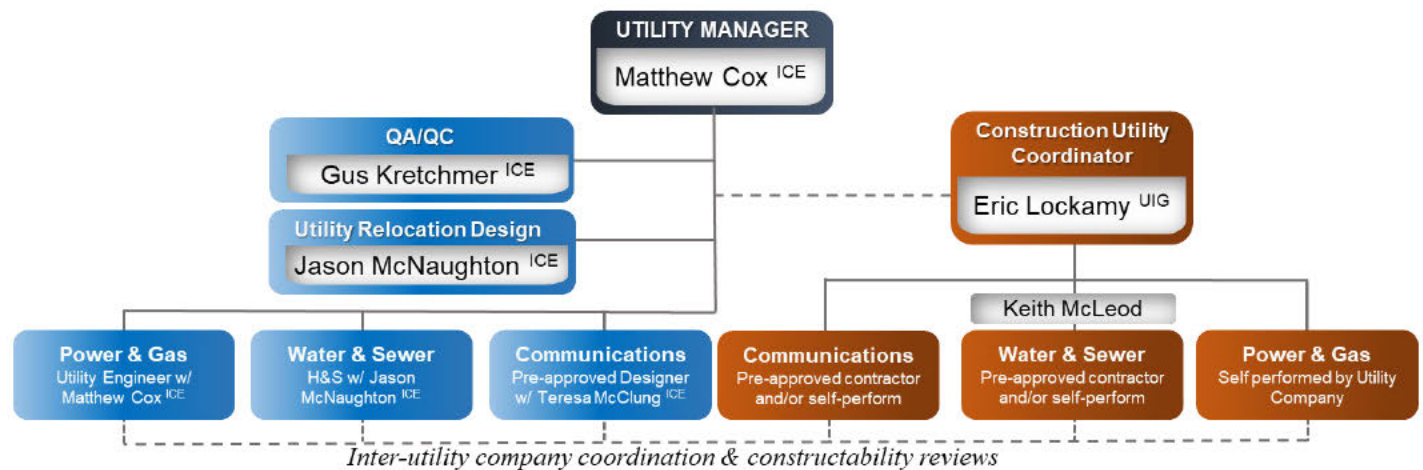
Approach to Environmental Coordination, Utilities, Public Relations, and Permitting:

➤ **Environmental Coordination and Approach to Honoring Environmental Commitments** | The AUBJV will provide a comprehensive review of all required environmental commitments and responsibilities. The environmental team led by Barrett Stone, Environmental Manager/Permit Coordinator, will be pro-actively engaged throughout the design and construction phases to ensure the implementation and compliance with all environmental commitments. This team has extensive experience with SCDOT environmental compliance and fully understands the importance of the program, along with the required processes, expectations, and preferences of the SCDOT. An Environmental Compliance Plan will be developed prior to construction to document the required commitments, contractor responsibilities, implementation, and strategies to track and document compliance. In addition, the AUBJV will include environmental compliance as agenda items in both internal and client coordination meetings to ensure timely implementation, compliance, and transparency. Ultimately, the AUBJV will utilize various staff resources with the experience and expertise to ensure the project is delivered above and beyond SCDOT expectations.

➤ **Utility Coordination & Approach to Efficient Management** | AUBJV has formed a team dedicated to avoiding utility conflicts as much as practical and the timely identification, planning, and relocation of utilities throughout the Project’s lifetime that cannot be avoided. Our team has already gained valuable experience and built relationships through our efforts on **I-26, CCR 1 and CCR 2**. The AUBJV Utility Coordination Team (UCT) will coordinate with the pre-approved utility agencies’ designers and contractors to keep them informed as our designs and schedules evolve. At the Utilities Kickoff Meeting with the SCDOT Utilities office, the UCT will present all potential utility issues and resolution options to ensure all parties agree when progressing with final relocation design. This guidance will be shared with the utility companies at the initial Joint Utility Kickoff Meeting and the recurring group/individual meetings thereafter. The UCT will utilize a dedicated SharePoint site to collaborate with SCDOT and the OVTI Team to share the latest files, schedules, and submittals and track progress



At the Utilities Kickoff Meeting with the SCDOT Utilities office, the UCT will present all potential utility issues and resolution options to ensure all parties agree when progressing with final relocation design. This guidance will be shared with the utility companies at the initial Joint Utility Kickoff Meeting and the recurring group/individual meetings thereafter. The UCT will utilize a dedicated SharePoint site to collaborate with SCDOT and the OVTI Team to share the latest files, schedules, and submittals and track progress



of each utility relocation, as well as provide recurring status updates. To facilitate expeditious reviews of utility submittals, AUBJV will offer to prepare all encroachment permits for the utilities to submit to ensure all required information is provided. This, combined with all the early and open communication with all parties, will help streamline the utility approvals process and minimize review periods.

➤ **Public Community Relations** | AUBJV will refine and adopt the *Contractor Community and*



PR Support Plan that was developed by the AUJV for **CCR 1 and CCR 2** and approved and implemented by SCDOT. The Team’s public involvement staff

including contractors and designers have been working with SCDOT’s Carolina Crossroads Public Relations Team on **CCR 1 and CCR 2**. Activities have included: resolution to community issues, content support for media releases, public meetings, project progress



ICE Engineer at CCR 2
Public Meeting

reports, displays and exhibits, traffic impacts, and stakeholder engagement. SCDOT can rely on the AUBJV’s Public Information Team to continue to effectively collaborate with the SCDOT PR team to assist in assuring timely and accurate flow of project information to the public.

➤ **Securing all Permits** | SCDOT has obtained a conditional 404/401 permit including a compensatory mitigation plan to cover the wetland and stream impacts. The environmental team will provide the required documentation to ensure compliance with the approved conditional permit, and/or identify all necessary USACE permit modification(s) early in the design process to minimize the number of modifications, reduce schedule risks, and maintain regulatory compliance. Routine coordination with SCDOT and the regulatory agencies will ensure permit modifications are submitted in advance of construction to allow adequate time for review and approval. The SCDHEC NOI will be coordinated similarly throughout design development and submitted upon signed RFC plans.

Approach to communication, issue resolution and project execution relative to the following:

➤ **SCDOT’s proposal to acquire all right-of-way in advance of the project** | AUBJV will develop the best-value technical solution that utilizes SCDOT’s acquired ROW. We will work with SCDOT’s ROW team during our design process on parcels yet to be acquired, including sharing our construction schedule, providing a preferred priority list, and being flexible with our construction sequence to mitigate challenges that may arise.

➤ **OVTI Process** | Building on the lessons learned from **CCR 1 and CCR 2**, our approach will fully integrate the OVTI into our quality program; keeping SCDOT informed of all construction activities and providing access to real-time Project quality information. Using our experience from **CCR 1 and CCR 2**, we anticipate a significantly reduced learning curve and start up time for Quality Program implementation on CCR 3.



Our approach will begin with the joint development of the Construction Quality Management Plan (CQMP) where our team will work closely with the OVTI to fine tune plans used during **CCR 1 and CCR 2**. The focal point for communication with the OVTI will be the Weekly Quality Meeting, where the Quality Team will report on all quality related items including outstanding project issues. Our approach includes utilizing quality staff from **CCR 1 and CCR 2** to leverage existing relationships and lines of communication to facilitate a smooth start up in CCR 3. The Independent Quality Firm (IQF) will deploy the Electronic Laboratory and Vital Information System (ELVIS) for quality documentation. The ELVIS system is already programmed to electronically transmit IQF test records to SCDOT’s Strata system which will greatly reduce the project quality start up effort for CCR 3. In short, the AUBJV quality team is uniquely positioned to “hit the ground running” with the OVTI for CCR 3.

- In-contract third party utility relocation | AUBJV will utilize pre-approved designers and contractors and/or self-perform, where possible, in-contract utility relocations. All in-contract utility relocations (both water/sewer and telecommunication) will be included in the design and construction schedules and submittals. These, plus the other “out-of-contract” relocations, will be constantly coordinated with each other and the overall project design.
- USACE permit modifications | Refer to [Section Securing all Permits](#) above for a detailed discussion.

Quality Assurance Program (RFO 3.3.4)

 The AUBJV Team is intimately familiar with Quality Assurance Program (QAP) for the Carolina Crossroads Project having worked with the SCDOT on the development of the Construction Quality Management Plans (CQMP) for **CCR 1 and CCR 2**. The AUBJV will use the approved CQMP plans as a starting point in developing the CCR 3 CQMP which will incorporate any new additions to the QAP as well as lessons learned during the implementation of the **CCR 1 and CCR 2** plans. Our team fully understands the QAP’s framework and major components and their independence from one another– quality control (QC), quality acceptance (QA) and owner verification (OV).

- Quality Control | AUBJV will refine our proven Quality Control (QC) plan with lessons learned from prior DB projects, including our current **I-26, CCR 1 and CCR 2** projects, with an emphasis on planning the work and working the plan to facilitate doing the work right the first time with clearly defined processes and procedures to achieve compliance with the Contract. ICE will serve as the QC firm for the Project and oversees the execution of the QC portions of the approved CQMP.

COMMUNICATING A TIMELY PRODUCTION SCHEDULE to both IQF and SCDOT	
SCHEDULING AND PARTICIPATING IN HOLD POINTS required in the QAP	
CONDUCTING PRE-ACTIVITY MEETINGS with production, SCDOT & IQF for new activities	
PROVIDING QC STAFF TRAINING including submission of QC reports & hold point process	
ASSISTING IN DEVELOPING QUALITY CHECKLISTS to be used at hold points.	

- Interaction of Quality Control Manager, IQF, and SCDOT | The Quality Management Plan (QMP) will establish formal requirements for regular Project communication and reporting for the quality program, which will include a weekly quality meeting with QCM and project management, the IQF, and SCDOT. This meeting will be used to discuss project issues, non-conformance reports, design changes, submittals, certifications, validation, and other quality-related items. A quarterly management review meeting with senior management from SCDOT and the AUBJV Executive Committee will be established to discuss the status of the quality program with the QCM and the Independent Quality Manager (IQM). In addition to the communication outlined in the QMP, our QCM will be co-located with the IQM and SCDOT oversight staff to facilitate daily interaction and communication.
- Document Control Strategies | All QC/QA documents will be loaded into the Electronic Laboratory and Vital Information System (ELVIS), RKI’s proven electronic data management system. ELVIS will provide SCDOT and the Team with real time access to inspections, tests, non-conformance reports, and all other QC/QA documents.
- Understanding of Hold Points | Our Team will work collaboratively with RKI and SCDOT to implement procedures that ensure all hold points are met. The QC team will work with the AUBJV production staff to identify and schedule the required hold points. In addition, the QC team will work with the IQF and SCDOT like **CCR 1 and CCR 2** on refining the Hold Point requirements to match project conditions.



- Quality Acceptance | Raba Kistner, Inc. (RKI) will serve as our IQF (with local staff from Mead & Hunt and SEPI) and is the market leader for providing quality services on large DB highway projects throughout the United States. RKI has an extensive and successful history executing the IQF role in accordance with approved QAPs like the SCDOT QAP and in accordance with FHWA requirements. The AUBJV quality team will work closely with SCDOT in developing an approved Construction Quality Management Plan (CQMP) for the project. As the IQM, Newel White, PE will lead the IQF efforts based on his 18 years of experience on large design build highway projects. His experience working with the **CCR 1 and CCR 2** projects will facilitate a timely and efficient project quality startup. He will be supported by a Materials Manager, QA Inspection and Testing team, and an SCDOT-approved Dynamic / Static Load Testing team. The entire Independent Quality Team has SCDOT CEI experience and fully understands all requirements for material and product acceptance.



- Role and Interaction of IQM, the Proposer’s Team and SCDOT | As shown in [Team Organization Chart](#), Newel will report jointly to SCDOT and AUBJV’s Executive Committee. He will lead the **weekly quality meetings** with AUBJV management (PM & CM), QCM, and SCDOT OVTI staff. Quarterly quality reports will be generated and presented at the Senior Management Review meeting. At Project startup, RKI will hold QAP training to ensure everyone understands their roles and responsibilities, including SCDOT, IQF, and OVTI staff. Supplemental training will be held when significant changes to the QMP are made.
- Engineering Judgement Use, Implementation and Coordination with SCDOT | During the QMP development, RKI will work with SCDOT to develop a procedure for use of Engineering Judgement (EJ) on the Project. A key element will be the list of delegated items for which RKI can use EJ. Examples of delegated EJ include a SCDOT-approved list of EJ work items; log of all instances the IQF has exercised EJ, an automated email notification when IQF exercises EJ, and regular review and coordination with SCDOT regarding the use of EJ.
- AASHTO Accredited Laboratory Capabilities | The IQF will count on the services of RKI’s laboratory located adjacent to the project on St. Andrews Road. The facility is currently in the AASHTO certification process and anticipates full accreditation by early November 2022. In addition, the IQF will use additional AASHTO accredited laboratories to perform specialty testing (e.g. rebar testing) and as overflow capacity.
- Anticipated Staffing Levels for SCDOT-certified Testing and Inspection | RKI will review AUBJV’s Project schedule to develop a base-level IQF Staffing Plan. During the development of the QMP, RKI will work with SCDOT to define the levels of inspection coverage for the anticipated work activities. Based on past IQF projects of similar size, Figure 3.3.4a reflects typical staffing levels required to perform the IQF role. Actual staffing will be based on the scope defined in the RFP, AUBJV’s schedule, and the approved QMP. During construction, the IQM will meet regularly with SCDOT and AUBJV to monitor the IQF staffing levels to ensure that adequate inspection coverage is maintained and to make necessary adjustments if the schedule requires.



Accredited AASHTO Laboratory



Figure 3.3.4a: IQF Staffing Levels

EXPERIENCE OF KEY INDIVIDUALS (RFQ 3.4)

Resumes demonstrating relevant experience of our Key Individuals, are included in [APPENDIX A](#).

Role Name	Featured Project Experience
 <p><u>Andy Douglas, PE (AWC) – Project Manager</u> Andy has more than 23 years of experience in all aspects of delivering transportation projects. He has experience managing entire regions performing \$300M/yr of construction projects. Andy is directly responsible for all aspects of operations, including establishment of management systems, close supervision over projects in progress, direct supervision of project management staff, preconstruction servicing and estimating, design management, value engineering, scheduling, and the preparation of quality control programs.</p>	<ul style="list-style-type: none"> • \$301M NC I-26 Reconstruction • \$127M SC CCR 1 • \$207M SC CCR 2 • \$465M SC I-26 (MM 85-101) • \$26M SC 277 Bridge Replacement • \$74M SC I-85 Pavement Reconstruction • \$91M SC I-77 Widening/Rehab (MM 15-27) 
 <p><u>David Movar (AWC) – Assistant Project Manager (Project Control)</u> Dave has more than 40 years of experience in delivering transportation projects with a focus on DB interstate highway and limited access facilities. Dave is responsible for overseeing all aspects of project control (schedule, budget, administration, quality, safety, etc), focusing on safety, ethics, monitoring construction activities and meeting customer expectations.</p>	<ul style="list-style-type: none"> • \$465M SC I-26 (MM 85-101) • \$468M NC 540 Western Wake Fwy. • \$74M SC I-85 Pavement Reconstr. • \$26M SC 277 Bridge Replacement • \$91M SC I-77 Widening/Rehab (MM 15-27) 
 <p><u>Billy Hardwick (UIG) – Assistant Project Manager (Structures)</u> With more than 4 decades in the heavy highway/bridge construction industry, Billy has an exceptional record of delivering large and complex projects on time, within budget, and in an environment of cooperation through hands-on experience, managerial know-how, and proven leadership skills.</p>	<ul style="list-style-type: none"> • \$207M SC CCR 2 • \$127M SC CCR 1 • \$472M Monroe Bypass • \$194M I-520 Palmetto Pkwy Ph. I & II • \$215M Greenville Southern Connector 
 <p><u>Travis Padgett, PE (BDC) – Assistant Project Manager (Roadway)</u> Travis has 28 years in the heavy civil construction industry. As an Assistant Project Manager, Travis oversees alternative delivery pursuits and as Project Manager he oversees day-to-day operations of major construction projects similar in scope, magnitude and complexity. He has exemplary experience managing grading, drainage, stone base and paving crews, material requirements, and asphalt plants</p>	<ul style="list-style-type: none"> • \$166M NC Winston Salem Outer Loop • \$48M SC I-77 Panthers Interchange • \$120M NC US 421/I40 BUS • \$76M NC I40 over Yadkin River
 <p><u>Elham Farzam, PE (ICE) - Lead Design Engineer</u> Elham has more than 38 years of experience in the pursuit and execution of DB project delivery with a combined value of over \$10 billion since 1995. His technical, “hands on” approach to project management allows him to lead the design engineering on the pre-construction phases of complex, urban, and interstate DB projects.</p>	<ul style="list-style-type: none"> • \$658M I-285/I-20 East Interchange • \$465M SC I-26 (MM 85-101) • \$207M SC CCR PH II • \$127M SC CCR PH I • \$91M SC I-77 Widening/Rehab (MM15-27) 
 <p><u>Jonathan Reid, PE, PTOE (ARC) – Traffic Engineer</u> With more than 21 years of experience, Jonathan is responsible for leading traffic engineering projects and pursuits for the Mid-Atlantic region. He has managed and led traffic operations, safety and design projects, and has developed innovative solutions for local, state and federal projects.</p>	<ul style="list-style-type: none"> • \$465M SC I-26 (MM 85-101) • \$207M SC CCR PH II • \$127M SC CCR PH I • \$860M GA I-75 Northwest Corr. EIS • \$2B FL Tampa Bay Express 
 <p><u>Pat Goggin (AWC) - Construction Manager</u> Pat has more than 42 years of experience in delivering some of the most complex transportation projects including several system-to-system interchanges across the Midwest and Southeastern US. Pat is responsible for the planning and execution of all construction operations, focusing on safety, ethics, quality, cost, monitoring construction activities and meeting customer expectations.</p>	<ul style="list-style-type: none"> • \$465M SC I-26 (MM 85-101) • \$894M KY ORB Downtown Crossing • \$238M FL I-95/I-295 N. Interchange • \$194M FL I-4/I-95 Interchange • \$75M WI I-94 Zoo Interchange Bridges 
 <p><u>Newel White, PE (RKD) - Independent Quality Manager</u> Newel has more than 18 years’ experience on highway projects, the past 12 of which have focused on managing quality programs for large design build highway projects. His roles included management of quality plans, inspection programs, materials testing, off site fabrication inspection, design review and construction engineering. His experience includes FHWA funded projects, multiple \$1B+ projects, interstate reconstruction, new freeway alignments and accelerated bridge construction.</p>	<ul style="list-style-type: none"> • \$207M SC CCR PH 2 • \$127M SC CCR PH 1 • \$600M UT West Davis Corridor • \$1.2B UT I-15 Core Reconstruction • \$1B AZ Loop 202, South Mountain Freeway 
 <p><u>Jose Cortez (AWC) – Safety Manager</u> Jose has over 22 years of experience in safety on some of the most complex transportation projects including mega DB transportation projects in the Southeastern US. As Safety Manager, Jose oversees the implementation of the Project Specific Safety program. He leads safety meetings with personnel, performs safety inspections and enforces compliance to industry standards. Jose is bilingual which eliminates communication issues caused by mistakes in translation.</p>	<ul style="list-style-type: none"> • \$127M SC CCR 1 • \$207M SC CCR 2 • \$471M DC South Cap Street Corridor • \$81M GA I-75/SR 404 Pavement Replacement 

PAST PERFORMANCE OF THE TEAM (RFQ 3.5)

Experience of the Proposer’s Team (RFQ 3.5.1): Completed *Work History and Quality Forms* are included in [APPENDIX B](#).

Contractor Work History	MAJOR PROJECT COMPONENTS SIMILAR TO CCR3							
	DB	INTCHG	MOT	WIDEN	BRIDGE	RR	DEMO	ROW
1. \$647M GDOT Northwest Corridor Express Lanes	■	■	■	■	■	■	■	■
2. \$894M KTC Ohio River Bridges Downtown Crossing	■	■	■	■	■	■	■	■
3. \$472M NCDOT Monroe Bypass	■	■	■	■	■	■	■	■
4. \$98M NCDOT I-85/I-485 Interchange	■	■	■	■	■	■	■	■
Design Work History	DB	INTCHG	MOT	WIDEN	BRIDGE	RR	DEMO	ROW
5. \$465M SCDOT I-26 Widening (MM85-101)	■	■	■	■	■	■	■	■
6. \$207M SCDOT CCR Phase1	■	■	■	■	■	■	■	■
7. \$127M SCDOT CCR Phase 2	■	■	■	■	■	■	■	■
8. \$550M SCDOT I-85 Widening (MM 80-96)	■	■	■	■	■	■	■	■



Quality of Past Performance (RFQ 3.5.2): *Work History and Quality Forms* are included in [APPENDIX C](#) for applicable projects. Neither AWC, UIG nor BDC have been suspended, debarred, disqualified from bidding, or declared ineligible for work by any entity within the last five years, nor are any such actions pending against them.

Quality Question	AWC	UIG	BDC	ICE
Has the Lead Contractor or any member of the joint venture been declared delinquent or placed in default on any Project?	No	No	No	N/A
Has the Lead Contractor or any member of the joint venture submitted a claim on a project that was litigated? If litigated, explain the results.	No	No	No	N/A
Have any projects involving the Lead Contractor or Lead Designer been delayed more than 30 days such that liquidated damages were assessed?	No	Yes	Yes	N/A
Has the Lead Contractor been cited by OSHA for violations deemed serious, willful, or repeated?	Yes	No	No	N/A
Have any projects under contract with the Lead Contractor or any member of the joint venture been subject to remediation actions, stop work orders, or project delays in excess of 30 days as a result of Section 404/Section 401 permit violations?	No	No	No	No
Has an owner, a Lead Contractor, or any member of a joint venture pursued compensation from the Lead Designer due to errors and omissions?	No	No	No	No
Has the Lead Designer filed legal proceedings against the Lead Contractor, or vice versa, on a design-build contract?	No	No	No	No

LEGAL AND FINANCIAL (RFQ 3.6)

Financial Capacity, Bonding Capability, and Organization Agreements (RFQ 3.6.1, 3.6.2, 3.6.3)

A notarized financial capacity/resources statement; a surety letter confirming capacity, describing bonding approach, and acknowledging formation of the JV; and AUBJV’s organizational agreement that includes all acknowledgments required in the RFQ are in [Appendix D](#).

APPENDIX A RESUMES



[Project Manager - Andy Douglas](#)

[Assistant Project Manager \(Project Controls\) - David Moyar](#)

[Assistant Project Manager \(Structures\) - Billy Hardwick](#)

[Assistant Project Manager \(Roadway\) - Travis Padgett](#)

[Lead Design Engineer - Elham Farzam](#)

[Traffic Engineer - Jonathan Reid](#)

[Construction Manager - Pat Goggin](#)

[IQM / Independent QC - Newel White](#)

[Safety Manager - Jose Cortez](#)

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Andrew Mark Douglas, P.E., Vice President



b. Role of Key Individual for this Project:
Project Manager

c. Name of Firm with which you are now associated:
Archer Western Construction, LLC



d. Years of Experience: With this Firm 6 Years With Other Firms 17 Years

Employment History:

Archer Western Construction, LLC | Vice President | Andy is directly responsible for all aspects of construction operations in North and South Carolina, including the establishment of management systems, close supervision over projects in progress, direct supervision of project management staff, preconstruction servicing and estimating, design management, value engineering, scheduling, and the preparation of quality control programs. Andy is currently managing more than \$1.2 billion in active projects and approximately \$300 million in work annually. He has extensive experience in alternate delivery projects, including three active design-build projects for SCDOT in Columbia, SC (I-26 Widening MM 85-101, Carolina Crossroads Phases 1 and 2) and one active CM at Risk project for Clemson University, the first roadway project in South Carolina to use the CM at Risk delivery method. 2016 – Present.

Kiewit | Project Engineer - Vice President | Andy began his career serving as a project engineer on heavy civil transportation projects in the southeast. He was subsequently promoted to superintendent, project manager and finally vice president/area manager of the South Atlantic region and later the Mid Atlantic region. During his six-year tenure as vice president, Andy provided executive project management to many large heavy civil projects, including the Elizabeth River Crossing in Norfolk, VA (\$1.4 billion), the Dulles Corridor Metrorail Phase 2 Silver Line project in Dulles, VA (\$1.2 billion) and the Goethals Bridge Replacement in New York, NY (\$1.2 billion) and the Goethals Bridge Replacement in New York, NY (\$1.2 billion). 1999 – 2016.

e. Education:
 Clemson University / Clemson, SC / Bachelor of Science / 2001/ Civil Engineering

f. Active Registrations:
 2005 / FL / Professional Engineer / #70662

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. I-26 Widening (MM 85-101) – Columbia, SC

Key Personnel Role:	Project Executive
Experience with Current Firm:	Yes, Archer Western (Archer-United JV)
Project/Assignment Duration:	Project 2019-2024 Assigned 2019-Present
Owner Contact Information:	SCDOT Nick Waites waitesnt@scdot.org 803-737-1308
Design/Construction Value:	\$465 Million



Project Description: AWC is partnering with UIG on this design-build project designed by ICE which consists of 16 miles of widening and reconstruction on a heavily traveled section of I-26, three new interchanges, and eight overpasses west of Columbia and near the Carolina Crossroads Phase 3 project site. This project will reconstruct pavement, increase capacity, and upgrade interchanges and overpass bridges to meet state and federal design requirements. AUJV is constructing four new interchanges, improving three additional interchanges, and replacing seven existing overpass bridges over interstate roadway. Additional scopes of work include permit acquisition, bridge demolition, utility design and coordination, and noise wall construction in a geotechnically challenging and rocky environmental with seismic considerations. During design, AUJV segmented the project to allow for early works design packages to ensure portions of the project would be completed and opened to traffic early. AUJV collaborated with SCDOT to redesign the project’s MOT plan to reduce impacts to the traveling public and improve safety. AUJV also redesigned the Exit 91 interchange from a staged DDI to relocating the Columbia Avenue partial cloverleaf interchange. The new design is easier to construct and avoids local business relocations, saving SCDOT significant right-of-way costs. AUJV will provide quality control in conjunction while ICE will provide quality control inspection during construction. As Vice President, Andrew is a key decision maker at all phases of the project’s design and construction and participates in all Project Executive Committee and SCDOT Partnering meetings. He oversees all levels of the project management team and provides a direct line of communication for the Owner for the duration of the project.



Similarities to CCR3: Interchange improvement, bridge demolition and construction, bridges over interstate, retaining walls, culverts, drainage systems, new signage & lighting, phased MOT, utility relocations, noise walls, same JV partner (UIG), same lead designer (ICE)

2. I-26 Reconstruction – Asheville, NC

Key Personnel Role: Project Executive
Experience with Current Firm: Yes, Archer Western (Archer Wright JV)
Project/Assignment Duration: Project 2019-2024 | Assigned 2019-Present
Owner Contact Information: NCDOT | Michael Patton | mdpatton@ncdot.gov | 828-243-3244
Design/Construction Value: \$301 Million

Project Description: This bid-build project includes reconstruction and widening of an 8.6-mile portion of I-26 extending from US 64 west to the NC 280 interchange to enhance traffic flow in a geotechnically challenging environment. Scopes of work include utility coordination, noise wall construction, and demolition and reconstruction of ten overpass and in-line bridges, two over Blue Ridge Southern Railroad lines and four over water. Also included are changing the I-26 and US 25 interchange from a diamond to a diverging diamond and two new bridges over tributaries to the French Broad River. Early constructability reviews revealed critical project phasing issues with the temporary and permanent drainage design; AWC worked with NCDOT to redesign the drainage plan, preventing six months of delay on the project. Andrew is a key decision maker at all phases of the project's design and construction and participates in all Project Executive Committee and SCDOT Partnering meetings. He oversees all levels of the project management team and provides a direct line of communication for the Owner for the duration of the project.



Similarities to CCR3: Interstate highway construction and demolition, new interstate bridges over railroad line and water, utility relocations, interchange reconstruction, geotechnically challenging.

3. Carolina Crossroads Phase 1: Colonial Life Boulevard – Columbia, SC

Key Personnel Role: Project Executive
Experience with Current Firm: Yes, Archer Western (Archer-United JV)
Project/Assignment Duration: Project 2021-2025 | Assigned 2021-Present
Owner Contact Information: SCDOT | David Rister | ristergd@scdot.org | 803-201-9206
Design/Construction Value: \$207 Million



Project Description: AWC has partnered with UIG on this project designed by ICE which consists of widening on I-26 and I-126 for approximately 2.5 miles and includes reconfiguring frontage roads. Work includes bridge demolition and construction of a new interchange and two new bridges over the Saluda River and CSX Transportation railroad lines (26,900 square feet of new bridge structures). Roadwork scopes include permit acquisition, R/W coordination, utility design and coordination, stormwater management upgrades, guardrail replacement, barrier walls, and new lighting and ITS throughout the project. The AUJV is providing quality control oversight in conjunction with an independent quality firm. During design, the AUJV team proposed an alternate design concept using a semi-directional interchange to improve the project. Andrew is a key decision maker at all phases of the project's design and construction and participates in all Project Executive Committee and SCDOT Partnering meetings. He oversees all levels of the project management team and provides a direct line of communication for the Owner for the duration of the project.



Similarities to CCR3: Bridge/roadway construction and demolition, new interstate bridges over railroad line and water, utilities relocation, interchange construction, drainage, retaining walls, geotechnically challenging, phased MOT, same JV partner (UIG), same lead designer (ICE)

4. Carolina Crossroads Phase 2: Broad River Rd. at I-20 Interchange – Columbia, SC

Key Personnel Role: Project Executive
Experience with Current Firm: Yes, Archer Western (Archer-United JV)
Project/Assignment Duration: Project 2021-2025 | Assigned 2021-Present
Owner Contact Information: SCDOT | David Rister | ristergd@scdot.org | 803-201-9206
Design/Construction Value: \$127 Million



Project Description: AWC is partnering with UIG on this design-build project designed by ICE which consists of reconstructing the I-20/Broad River Road interchange and widening a portion of I-20 in an area with challenging geotechnical and seismic conditions near the CCR 3 site in Columbia, SC. The project includes demolition and construction of three new bridges over roadways. Scopes of work include R/W coordination, permit acquisition, utility design and relocation, noise wall construction and installation of approximately 5,600 linear feet of MSE and gravix walls on both the eastbound and westbound sides of I-20. Roadway work includes asphalt milling/resurfacing, drainage improvements, signage, and new lighting and ITS. Quality control oversight is being provided by AUJV in conjunction with an independent quality firm. AUJV proposed an alternate interchange design using a unique offset DDI concept to improve constructability and allow more time for utility relocation. Andrew is a key decision maker at all phases of the project's design and construction and participates in all Project Executive Committee and SCDOT Partnering meetings. He oversees all levels of the project management team and provides a direct line of communication for the Owner for the duration of the project.



Similarities to CCR3: Bridge/roadway construction and demolition, new interstate bridge, noise walls, utilities relocation, new signage, lighting & ITS, geotechnically challenging, drainage, phased MOT, same JV partner (UIG), same lead designer (ICE)

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

Andy is currently Project Executive for several large design-build projects in the Carolinas including the Carolina Crossroads Phases 1 and 2 projects and will be available to assume full project management responsibilities on the Carolina Crossroads Phase 3 project upon award. Andy's other regional operational responsibilities will be assigned to Program Manager Jeremy Haines upon award.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
David Cunningham Moyer, Jr. - Regional Operations Manager

b. Role of Key Individual for this Project:
Assistant Project Manager (Project Controls)

c. Name of Firm with which you are now associated:
Archer Western Construction, LLC



d. Years of Experience: With this Firm **18** Years With Other Firms **13** Years

Employment History:

Archer Western Construction, LLC | Regional Operations Manager | David is responsible for the planning and execution of construction projects, focusing on safety, ethics, quality, cost, monitoring construction activities, and meeting customer expectations. He is responsible for delivery of the projects in accordance with the contract requirements. 2004 – Present.

Martin K. Eby Construction | Field Engineer – Project Manager | Over David’s 13-year career he served in roles of Field Engineer, Project Engineer, Area Superintendent, Project Manager and Senior Project Manager. Throughout this career path he was responsible for all activities associated with the planning and execution of construction projects, focusing on safety, ethics, quality, cost, monitoring construction activities, and meeting customer expectations 1991 – 2004.

e. Education:
 University of Florida / Gainesville, FL / Bachelor of Science / 1991 / Building Construction

f. Active Registrations: NA

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. I-26 Widening (MM 85-101) – Columbia, SC

Key Personnel Role: Design-Build Project Manager
Experience with Current Firm: Yes, Archer Western (Archer-United JV)
Project/Assignment Duration: Project 2019 – Present | Assigned 2021 – Present
Owner Contact Information: SCDOT | Nick Waites | 803-737-1308 | waitesnt@scdot.org
Design/Construction Value: \$450 Million



Project Description: AWC is partnering with UIG on this design-build project designed by ICE which consists of 16 miles of widening and reconstruction on a heavily traveled section of I-26, three new interchanges, and eight overpasses west of Columbia and near the Carolina Crossroads Phase 3 project site. This project will reconstruct pavement, increase capacity, and upgrade interchanges and overpass bridges to meet state and federal design requirements. AUJV is constructing four new interchanges, improving three additional interchanges, and replacing seven existing overpass bridges over interstate roadway. Additional scopes include permit acquisition, bridge demolition, utility design and coordination, and noise wall construction in a geotechnically challenging and rocky environmental with seismic considerations. During design, AUJV segmented the project to allow for early works design packages to ensure portions of the project would be completed and opened to traffic early. AUJV collaborated with SCDOT to redesign the project’s MOT plan to reduce impacts to the traveling public and improve safety. AUJV also redesigned the Exit 91 interchange from a staged DDI to relocating the Columbia Avenue partial cloverleaf interchange. The new design is easier to construct and avoids local business relocations, saving SCDOT significant right-of-way costs. AUJV will provide quality control in conjunction while ICE will provide quality control inspection during construction. David served as DB coordinator and project manager, providing executive oversight of all construction operations.



Similarities to CCR3: Interchange improvement, bridge demolition and construction, bridges over interstate, retaining walls, culverts, drainage systems, new signage & lighting, phased MOT, utility relocations, noise walls, same JV partner (UIG), same lead designer (ICE)

2. I-77 Widening & Rehabilitation (MM 15-27) - Columbia, SC

Key Personnel Role: Operations Manager
Experience with Current Firm: Yes, Archer Western
Project/Assignment Duration: Project 2015-2018 | Assigned 2016-2018
Owner Contact Information: SCDOT | John Burns | 803-254-1007 | burnsjm@scdot.org
Design/Construction Value: \$90 Million



Project Description: AWC partnered with ICE on this design-build project consisting of widening northbound and southbound I-77 with one additional lane in each direction between SC 12 and I-20 and terminating near the S-52 interchange, approximately 6.5 miles. Ten bridges along the project site were rehabilitated and widened including five dual mainline bridges, two of which cross a stream or a lake. The project included 12 miles of rehabilitation on southbound I-77 from SC 12 to S-59 and on northbound I-77 from Percival Road to S-52. AWC was responsible for providing the quality control program for the project. Under David’s management, both north and southbound lanes of traffic were opened ahead of the project schedule. David was responsible for close supervision over project progress, value engineering, safety & quality control.



Similarities to CCR3: Interstate widening, bridges over water, bridge demolition, retaining walls, drainage systems, phased MOT, noise walls, same lead designer (ICE)

3. I-95 Overland Bridge Replacement – Jacksonville, FL

Key Personnel Role: Senior Project Manager
Experience with Current Firm: Yes, Archer Western
Project/Assignment Duration: Project 2012-2015 | Assigned 2013-2015
Owner Contact Information: FDOT | Carrie Stanbridge | 386-697-2979 | carrie.stanbridge@dot.state.fl.us
Design/Construction Value: \$176 Million



Project Description: This design-project consisted of the replacement of the Overland Bridge and 2.5 miles of widening I-95. Additional improvements within the project limits included the reconstruction of I-95, reconstruction of the southbound collector/distributor (CD) road, construction of a new northbound CD road, construction to convert a partial interchange to a full interchange providing all traffic movements between I-95, Atlantic Boulevard, and Philips Highway, and realignment of Atlantic Boulevard in the vicinity of I-95. The project also included the construction of 12 new bridges (including third-level flyovers) and three bridge widenings. The roadway reconstruction was made up of concrete pavement and included substantial MSE walls and complex multi-phase maintenance of traffic plan. David served as the senior project manager on this complex project which included a multi-phase MOT plan in a high-traffic urban corridor, utility coordination and relocation and interchange bridge work. David was responsible for developing and leading project management, coordinating with FDOT staff to resolve project challenges, and monitoring project progress.



Similarities to CCR3: Interstate widening, interchange reconstruction, bridge construction, MSE walls, phased MOT

4. NC-540 Western Wake Freeway – Raleigh, NC

Key Personnel Role: Senior Project Manager
Experience with Current Firm: Yes, Archer Western (Raleigh Roadbuilders)
Project/Assignment Duration: Project 2008-2013 | Assigned 2009-2013
Owner Contact Information: NCDOT | Ron Hancock, PE | 919-707-2400 | rhancock@ncdot.gov
Design/Construction Value: \$468 Million



Project Description: This design-build project which involved the design, permitting, and construction of a 12.6-mile, six-lane, median-divided toll road. The project ran through 72 environmentally sensitive wetland areas and required environmental permitting through multiple agencies. In addition to the new six-lanes of NC-540, roadway scopes included 14 crossroads, ramps, loops, auxiliary lanes, collector-distributors, and service roads. The services scope included R/W acquisition services and utility relocations with multiple companies. The project included five million cubic yards of earthwork, construction of 34 bridges at 24 different sites, three major interchanges, extensive reconstruction of 15 existing intersecting roadways, construction of a replacement railroad bridge for CSX, approximately 100 noteworthy utility relocations, drainage, SWM facilities, and MSE/sound walls. David served as senior project manager on this large, complex project for the duration of construction. David was responsible for managing the design phase, start-up and staffing on the project and development and management of the schedule from award through early completion. He coordinated with contractors from the QC firm, had daily interaction with the Owner's representatives and staff.



Similarities to CCR3: New roadway construction, interchange construction, bridge construction, railroad coordination, utility relocations, drainage systems, new signage & lighting, MSE and noise walls

5. Automated People Mover – Hartsfield-Jackson Atlanta International Airport, GA

Key Personnel Role: Senior Project Manager
Experience with Current Firm: Yes, Archer Western
Project/Assignment Duration: Project 2005-2009 | Assigned 2005-2009
Owner Contact Information: City of Atlanta | David Pino | 404-382-1286 | david.pino@atl.com
Design/Construction Value: \$248 Million



Project Description: This design-build project provided easy customer access to the new Consolidated Rental Car Facility (CONRAC) at Hartsfield-Jackson Atlanta International Airport. Operating on an elevated guideway, the system travels 1.5 miles from the airport to the new CONRAC facility, with an intermediate stop at the Georgia International Convention Center. Running on two parallel tracks, the APM travels over Interstate 85, to the CONRAC station. The project included construction of five bridge spans across I-85, a main terminal entrance road near the airport, and an elevated maintenance and storage facility. David served as senior project manager until the project was 80% completed. David was responsible for managing all aspects of the project, including the design phase, coordination of construction activities with the Owner and oversight of the project's subcontractors.



Similarities to CCR3: New bridge construction, bridge over interstate

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

David is currently serving in the role of Regional Operations Manager for AWC's Carolinas Transportation Group. Upon project award, he will be solely dedicated to serve as assistant project manager on the Carolina Crossroads Phase 3 project.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Billy Rance Hardwick, Project/Construction Manager

b. Role of Key Individual for this Project:
Assistant Project Manager (Structures)

c. Name of Firm with which you are now associated:
United Infrastructure Group, Inc.



d. Years of Experience: With this Firm **46** Years With Other Firms **0** Years

Employment History:

United Infrastructure Group, Inc.: Project/Construction Manager -Billy has earned the respect of clients and industry peers for an outstanding record of delivering large and complex projects on time, within budget and in an environment of cooperation and goodwill. Billy has managed transportation construction projects since 1976 as a Superintendent and Project Manager for United Infrastructure Group and our legacy firms, US Constructors and United Contractors. He has worked on traditional bid-build projects and also has extensive experience with Design-Build. Billy has delivered many large projects in his career, most notably the Greenville Southern Connector, South Carolina's first ever toll facility. Billy is highly knowledgeable in all facets of infrastructure construction and has been responsible for the oversight of many major projects for United.

1976 - Present

e. Education:
High School Diploma

f. Active Registrations:
OSHA 10 # 17-005140254, Excavation & Trench Safety OSHA #1926.650-652, SCDOT Traffic Control Supervisor #1620

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. Carolina Crossroads Phases 1: Colonial Life Blvd – Columbia, SC

Key Personnel Role: Project Manager
Experience with Current Firm: United Infrastructure Group, Inc. / AUJV
Project/Assignment Duration: Project: 2021-2025, Assigned: 2020-2023
Owner Contact Information: SCDOT | David Rister | ristergd@scdot.org | 803-201-9206
Design/Construction Value: \$207 Million



Project Description: This design-build project is the first phase of the Carolina Crossroads Project, consisting of reconstructing the Colonial Life Boulevard Interchange with I-26, and widening more than two miles of I-26. The AUJV is building three new bridges ranging from 386 to 3,280 feet in length with a total deck of more than 200,000 SF. Bridge construction includes two new bridges at the interchange and a new ramp bridge over CSX Transportation railroad lines and the environmentally sensitive Saluda River. Roadwork on this busy interstate corridor includes asphalt milling and resurfacing, stormwater management upgrades, signs, guardrail, barrier walls, drainage, utility relocations, lighting, signals, and ITS. Billy is responsible for managing the entire design-build team and meeting all project goals, as well as being the primary contact with SCDOT and managing all design, construction, and quality control activities.



Similarities to CCR PH 3: Interchange construction, major bridge construction, major bridge over waterway, bridge over interstate, bridge demolition, retaining walls, culverts, grading and drainage, paving, signing, lighting, signals, wet and dry utility relocations, and multi-phase MOT while maintaining traffic along major interstates.

2. Carolina Crossroads Phases 2: Broad River Rd. at I-20 Interchange – Columbia, SC

Key Personnel Role: Project manager
Experience with Current Firm: United Infrastructure Group, Inc. / AUJV
Project/Assignment Duration: Project: 2021-2025, Assigned: 2020-2023
Owner Contact Information: SCDOT | David Rister | ristergd@scdot.org | 803-201-9206
Design/Construction Value: \$127 Million



Project Description: This design-build project is the second phase of the Carolina Crossroads Project and consists of reconstructing the Broad River Road Interchange with I-20, and widening almost two miles of I-20. The AUJV is constructing three new bridges with more than 50,000 SF of deck area, two over I-20 and one over the ramp to I-26, along with 5,600 LF of MSE and Gravix walls, earthwork, and drainage. Additional scopes include asphalt milling/resurfacing, guardrail, barrier walls, utility relocations, signs, lighting, signals, and ITS. Billy is responsible for managing the entire design-build team and meeting all project goals, as well as being the primary contact with SCDOT and managing all design, construction, and quality control activities.



Similarities to CCR PH 3: Interchange construction, bridge over interstate, bridge demolition, retaining walls, culverts, grading and drainage, paving, signing, lighting, signals, wet and dry utility relocations, and multi-phase MOT while maintaining traffic along major interstates.

3. US 21 over Harbor River Bridge Replacement – Beaufort County, SC

Key Personnel Role: Project Manager
Experience with Current Firm: United Infrastructure Group, Inc
Project/Assignment Duration: Project 2018-2021, Assigned 2018-2021
Owner Contact Information: SCDOT | Daniel Burton | burtond@scdot.org | 843-688-6240
Design/Construction Value: \$55 Million



Project Description: Construction of a new high-level fixed-span bridge and removal of existing swing-span bridge with 3,340' long x 47.25' wide replacement bridge providing 90' horizontal and 65' vertical navigational Clearance. Billy was responsible for managing the entire design-build team, meeting all project goals, and delivering all project aspects per the contract, as well as being the primary contact with SCDOT and managing all design, construction, and quality control activities.



Similarities to CCR PH 3: Major bridge construction, bridge construction over major waterway, bridge demolition, grading and drainage, paving, utility relocations.

4. Monroe Bypass – Union County, NC

Key Personnel Role: Project Structures Manager
Experience with Current Firm: United Infrastructure Group, Inc
Project/Assignment Duration: Project 2014-2019, Assigned 2014-2018
Owner Contact Information: NCDOT/NCTA | Rick Baucom | rwbaucom@ncdot.gov | 704-983-4400
Design/Construction Value: \$472 Million



Project Description: Design, construction, and quality control of a 19.7 mile controlled-access toll road beginning east of US 74/I-485 Interchange to a new interchange with US 74 near Marshville. The project included 5M CY earthwork, 133K LF storm drainage, 99K LF water/sewer utilities, 37 bridges, 31 box culverts, 312K SF MSE Walls, 160K SF Sound Walls, open road tolling system, and enhanced aesthetics. As Project Structures Manager, Billy managed construction of all bridge, culvert, and wall structures including planning, scheduling, resource allocation, subcontractors, suppliers, etc.



Similarities to CCR PH 3: Interchange construction, major bridge construction, major bridge over ESAs, bridge over freeway, bridge demolition, retaining walls, culverts, grading and drainage, paving, signing, lighting, signals, wet and dry utility relocations, and multi-phase MOT while maintaining traffic along major freeway routes.

5. I-520 Palmetto Parkway Phases I & II – North Augusta, SC

Key Personnel Role: Project Construction Manager
Experience with Current Firm: United Infrastructure Group, Inc
Project/Assignment Duration: Project: 2004-2009, Assigned 2004-2009
Owner Contact Information: SCDOT | Leland Colvin | colvinld@scdot.org | 803-737-4034
Design/Construction Value: \$194 Million



Project Description: Phase I included 5-miles of grade-separated divided highway with 1.7M CY of excavation, 6 DB bridges totaling 3K LF, and 284K SF of steel and concrete beam bridges including crossings over the Savannah River and Norfolk Southern Railroad. Project was delivered ahead of schedule and under budget in just 22 months. Phase II included 5.5-mile grade-separated divided highway with 6 miles of side roads/ramps, 5 interchanges, 4.5M CY earthwork, 200K SY concrete pavement, 250K Tons asphalt pavement, 140K SF retaining walls, culverts, noise walls, and 12 interchange bridges totaling 2,280 LF with major woven interchange at I-20 and US 25. Project was delivered on schedule in just 36 months with no disputes.



Similarities to CCR PH 3: Interchange construction, major bridge construction, major bridge over waterway, bridge over interstate, bridge demolition, retaining walls, culverts, grading and drainage, paving, signing, lighting, signals, utility relocations, and multi-phase MOT while maintaining traffic along major interstates.

H. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. Billy is the Project Manager on CCR1 and CCR2 projects and is available at NTP for the Assistant Project Manager role for CCR3.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Travis Eugene Padgett, PE, Design-Build Manager

b. Role of Key Individual for this Project:
Assistant Project Manager (Roadway)

c. Name of Firm with which you are now associated:
Blythe Development Co.



d. Years of Experience: With this Firm 6 Years With Other Firms 28 Years

Employment History:

Blythe Development Co.: Design-Build Manger / Project Manager | Responsible for oversight of Blythe Development’s Alternative Delivery Pursuits. Project Manager on multiple projects within Blythe Development’s Public Division. (2016-Present)

Rogers Group, Inc.: Area Construction Manager and Asphalt Plants Manager Responsible for daily operations of over 100 employees performing grading, stone base, drainage and paving as well as managing the personnel and material requirements for 3 asphalt plants. Responsible for safety, resource allocation, quality, and profit and loss for the Western North Carolina Business Group for Rogers Group, Inc. (2009 to 2016)

Rea Contracting / Lane Construction: Public Contracts and Asphalt Plants Manager: As Public Contracts Manager oversaw approximately 150 employees for the Raleigh Division of Rea Contracting. This included all grading, drainage, stone base and paving crews. As Asphalt Plants Manager responsible for the operation of four asphalt plants in the Raleigh market with annual production up to 800,000 tons annually. (2004 to 2008)

CW Matthews Contracting Co: General Superintendent and Vice President of Asphalt Division: As General Superintendent managed 5 paving crews and 3 milling crews with production up to a million tons per year. The last three years served as Vice President of the asphalt division with full profit and loss responsibility for 6 paving crews, 3 milling crews, 13 asphalt plants and a quality control staff of over 20 members. The division produced over 2 million tons and placed over a million tons per year. (1993 to 2004)

Georgia Department of Transportation: Assistant Resident Engineer: A Completed GDOT’s 2-year training program and managed the construction projects in one county of a three-county area. My final year with GDOT I managed the maintenance activities for the entire 3 county area including both budget and operational responsibilities. (1988 – 2003)

e. Education:
 Georgia Institute of Technology / Atlanta, GA / Bachelor of Science / 1987 / Civil Engineering 1987

f. Active Registrations:
 1987 / Georgia / Professional Engineer / 020042

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. I-77 Panthers Interchange – York County, SC

Key Personnel Role: Project Manager
Experience with Current Firm: Yes
Project/Assignment Duration: Project 2020-2022, Assigned 2020-2022
Owner Contact Information: SCDOT | Jared Bragg | braggjk@scdot.org | 803-448-5876
Design/Construction Value: \$48.3 Million



Project Description: This project involves the construction of a new interchange (Exit 81) on I-77 and requires construction of a new ½ mile connecting road. The project included a 214 ft single-span steel girder bridge over I-77 and entrance and exit ramps on the north and south bound sides. Travis oversaw the design and construction phases as Project Manager as well as the overall profitability of the project.

Similarities to CCR3: *Interchange Construction, multiple structures, Earthwork, drainage, MSE Walls, paving and utility relocations.*



2. Winston Salem Outer loop DEF – Forsyth County, NC

Key Personnel Role: Deputy Design Build Manager
Experience with Current Firm: Yes
Project/Assignment Duration: Project 2018-2022, Assigned 2018-2022
Owner Contact Information: NCDOT | Marcus Kizer | mkkiser@ncdot.gov | 336-747-7950
Design/Construction Value: \$166 Million



Project Description: This project consisted of 7 miles of new location construction with over 4M cubic yards of excavation, 9 bridges, 300,000 tons of asphalt and 500,000 SF of sound wall. Travis was responsible for coordination of Design and Construction along with the allocation of resources. He also coordinated with NCDOT Design Build Unit through design, ROW Acquisition and the Construction unit during the construction phase of the project.

Similarities to CCR3: *Multiple Interchange Construction, 4.4 M CY of Earthwork, 9 bridges drainage, MSE Walls, over 500,000 SF of noise wall, paving and utility relocations.*

3. US 421 / I-40 BUS – Forsyth County, NC

Key Personnel Role: Deputy Design Build Manager
Experience with Current Firm: Yes
Project/Assignment Duration: Project 2017-2021, Assigned 2017-2021
Owner Contact Information: NCDOT | Mezak Tucker, PE | mtucker@ncdot.gov | 704-223-2766
Design/Construction Value: \$120 Million



Project Description: This project consisted of 1.2 miles of reconstruction on US 421 / I-40 BUS. It had an 18-month ICT that shut down the roadway for the reconstruction of US 421 / I-40 BUS through downtown Winston Salem. The reconstruction changed the grade as much as 40 feet and reconstructed 3 interchanges to allow for better traffic flow throughout the corridor. Travis served as Blythe's representative to the Joint Venture and coordinated resources within the joint venture. He also coordinated with NCDOT Design Build Unit through design, ROW Acquisition and the Construction unit during the construction phase of the project.

Similarities to CCR PH 3: *Interchange reconstruction, accelerated schedule, earthwork, drainage, MSE Walls, soil nail walls, noise walls, paving and utility relocations.*



4. I-40 over Yadkin River – Davie and Forsyth Counties, NC

Key Personnel Role: Deputy Design Build Manager
Experience with Current Firm: Yes
Project/Assignment Duration: Project 2017-2021, Assigned 2017-2021
Owner Contact Information: NCDOT | Lee Puckett | lpuckett@ncdot.gov | 336-747-7800
Design/Construction Value: \$76 Million



Project Description: This project consisted of the widening of 3.3 miles of I-40 from four to six lanes and the construction of a new 1100 ft bridge over the Yadkin River. As Deputy Design Build Manager Travis was involved in the coordination of the design and ROW acquisition with the NCDOT Design Build Unit and the Construction unit during the construction phase of the project. He also managed BDC's operational and staff resources on the project.

Similarities to CCR PH 3: *Interchange reconstruction, construction around interstate traffic, extensive MOT, earthwork, drainage, MSE Walls, noise walls, paving and utility relocations.*



H. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

Travis is the Project Manager on I-77 Panthers Interchange York County, SC with a scheduled Completion of May 2023

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Elham Farzam, PE, Sr. Project Manager (Major Projects)

b. Role of Key Individual for this Project:
Lead Design Engineer

c. Name of Firm with which you are now associated:
Infrastructure Consulting & Engineering, PLLC



d. Years of Experience: with this Firm **9.75** Years with Other Firms **30** Years

Employment History:

Infrastructure Consulting & Engineering, PLLC: Sr. Project Manager (Major Projects) – Elham is responsible for the overall execution of projects, leading the pursuit of major projects by taking active role and oversee the execution of the contracted services (Jan 2013 – Present).

United Infrastructure Group: VP - Project Development – Elham worked closely with internal engineering staff, outside engineering firms, estimating group and construction contractor partners, pursuing, executing and managing design-build and P3 projects throughout the Mid-Atlantic and Southeast US (Jan 2011 – Dec 2012)

The LPA Group Incorporated – Senior Vice President – Elham began as Project Engineer designing structures, highways, and aviation projects and rose through the ranks into project management, business line manager and ultimately as the senior vice president responsible for marketing, management and responsible for the pursuit and execution of design-build and P3 Projects ranging in size from \$2 Million to over \$1 Billion+ (June 1984 – Dec 2010).

e. Education:
NC State University / Raleigh, NC / Master of Science / May 1984 / Civil Engineering - Structures
NC State University / Raleigh, NC / Bachelor of Science / Dec 1981 / Civil Engineering

f. Active Registrations:
1985 / South Carolina / Professional Engineer / PE #10535

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. I-77 Widening & Rehabilitation (MM 15-27) – Richland County, SC

Key Personnel Role: Lead Design Engineer and Sr. Pavement Engineer
Experience with Current Firm: Yes, Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project June 2015 – Dec 2018, Assigned June 2015 – Dec 2018
Owner Contact Information: SCDOT, Tyke Redfearn, PE | RedfearnWT@scdot.org | 803-737-1430
Design/Construction Value: \$91 Million



Project Description: This project consists of widening NB and SB I-77 with an additional lane in each direction. All the mainline bridges (5 sites) were widened including several over highways and two over streams. A comprehensive Traffic Control Plan / MOT was developed by the design and construction team during the procurement phase and was further refined during final design phases. A comprehensive FWD program was used to assess the strength of the outside shoulder for use in the early phases of the MOT Plans. Elham served as the **Lead Design Engineer** and senior pavement engineer responsible for the pursuit design alternative strategies, ATCs and ultimate award of the Project. Elham served as the **Lead Design Engineer** and led all the preconstruction activities including final design, permitting and construction support of this major urban widening and pavement rehabilitation project in NE Columbia.



Similarities to CCR PH 3: Interstate widening, complex new and rehabilitation of the drainage system, bridge construction over interstate, rock foundation, multi-phase MOT while maintaining traffic, extensive temporary pavement design in support of the MOT Phasing, same contractor (AWC)

2. I-26 Widening (MM 85-101) – Columbia, SC

Key Personnel Role: Lead Design Engineer and Sr. Pavement Engineer
Experience with Current Firm: Yes, Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Project June 2018-Dec 2024 / Assigned June 2018 – Dec 2021
Owner Contact Information: SCDOT, Brad Reynolds, PE | ReynoldsBS@scdot.org | 803-737-1440
Design/Construction Value: \$445 Million



Project Description: This project consists of approximately 16 miles of widening and pavement reconstruction from MM 85 to 101 including three interchange upgrades (at Exit 85, 91 and 97). The widening of I-26 from four lanes to eight lanes will be from approximately Exit 101 (US 176) to Exit 97 (US 176) and from four lanes to six lanes from just west of Exit 97 (US 176) to just west of Exit 85 (SC 202) in Richland, Lexington, and Newberry Counties. Overpass bridges will be replaced at Koon Road, Shady Grove Road, Mt. Vernon Church Road, Old Hilton Road, Peak Street, Holy Trinity Church Road, and Parr Road. Elham served as the **Lead Design Engineer** and senior pavement engineer responsible for the pursuit design alternative strategies, ATCs and ultimate award of the Project to the Archer-United, JV. Additionally, Elham oversaw all the pursuit and preconstruction activities including final design, permitting, utility relocations and right-of-way acquisition of this challenging project.

Similarities to CCR PH 3: Interchange Modernization (3 each) while maintaining traffic, roadway widening and pavement rehabilitation / reconstruction, bridge demolition, construction of new bridge over interstate, retaining walls, culverts, complex drainage systems, commercial and residential impacts, “Wet” and “Dry” utility relocations, complex multi-phase MOT and extensive temporary pavement design in support of MOT phases, same contractor (AUJV)

3. Carolina Crossroads Phase 1: Colonial Life Boulevard – Columbia, SC & Carolina Crossroads Phase 2: Broad River Rd. at I-20 Interchange – Columbia, SC

Key Personnel Role: Lead Design Engineer
Experience with Current Firm: Yes, Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: CCR Phase 1 (July 2020-Present)
CCR Phase 2 (Oct 2020-Present)
Owner Contact Information: SCDOT | Chris Lacy, PE | lacycr@scdot.org | 803-737-1419
Design/Construction Value: CCR Phase 1 (Design \$12M / Const. \$195M)
CCR Phase 2 (Design \$ 7M / Const. \$120M)



Project Description:

CCR Phase 1 – The first phase of Carolina Crossroads consists of the construction of a new fully directional interchange for Colonial Life Boulevard at I-126 using the two existing Colonial Life Boulevard Ramp Bridges over I-126 and Arrowwood Road. The scope also included improvements on I-26 and I-126 with three new bridges (Bridges 34, 35 and 36). The two ramp bridges at Colonial Life Boulevard over I-26 and Arrowwood Road were originally scoped to be demolished, but they were successfully retained and rehabilitated by a proposed Alternative Technical Concept (ATC). Elham served as the **Lead Design Engineer** and led all the pre-construction activities for both the pursuit and final design activities.



CCR Phase 2 - The second phase of Carolina Crossroads consists of the re-design and construction of the interchange at I-20 and Broad River Road (US 176). ICE designed a highly innovative Offset Diverging Diamond Interchange (ODDI). The Team developed several unique approaches to address the purpose and goal and determined that an offset DDI was both safer and operationally more efficient than the original MSA concept of SPUI. Elham served as the **Lead Design Engineer** and led all the pre-construction activities for both the pursuit and final design activities.



Similarities to CCR PH 3: Interchange construction, bridge demolition, new bridge over interstate, retaining walls, culverts, drainage systems, signing, lighting, signalization, “wet” and “Dry” utility relocations, and multi-phase MOT while maintaining traffic along major interstates, same contractor (AUJV)

4. I-285 / I-20 East Interchange – Atlanta, GA

Key Personnel Role: Pursuit Manager / Sr. Pavement Engineer
Experience with Current Firm: Yes, Infrastructure Consulting & Engineering, PLLC
Project/Assignment Duration: Pursuit Jan 2021 – April 2022
Client Contact Information: Archer-Snell, JV (East Interchange Builders) | Greg Munna, PE | 404-391-9407
Design/Construction Value: \$658 Million
gmunna@walshgroup.com



Project Description: The Project includes the reconstructing I-285 and I-20 East Interchange ramps with more direct alignments and additional lanes, a new collector-distributor (CD) road along westbound I-20 and an additional lane in the eastbound I-20 CD road between the I-285/I-20 East Interchange, adding auxiliary lanes along I-20 and I-285, and widening of the I-285 northbound bridge over Snapfinger Road. Elham Led the pursuit and the development of numerous ATCs which resulted in the successful award of the Project to the Team in April 2022. The ICE’s Atlanta, GA office is currently finishing the final design of the Project.



Similarities to CCR PH 3: Interchange construction, bridge demolition, new bridge over interstate, retaining walls, drainage systems, signing, lighting, signalization, utility relocations, multi-phase MOT while maintaining traffic along major interstates, same lead contractor (AWC)

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

Not applicable for Lead Design Engineer. Elham’s only role is the construction support for CCR Phase 1 and Phase 2 Projects.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Jonathan David Reid, PE, PTOE – Transportation Business Practice and Technical Lead



b. Role of Key Individual for this Project:
Lead Traffic Engineer

c. Name of Firm with which you are now associated:
ARCADIS US, Inc.



d. Years of Experience: With this Firm 6 Years With Other Firms 21 Years

Employment History:

Arcadis US, Inc. | Transportation Business Practice and Technical Lead | Jonathan is responsible for leading traffic engineering projects and pursuits for the Mid-Atlantic region. He has managed and led traffic operations, safety and design projects, and has developed innovative solutions for local, state and federal projects. 2016 to Present.

Parsons Brinckerhoff: Regional Transportation group manager with responsibilities of managing staff, pursuit development and project delivery for a wide range of traffic and transportation projects across the southeast, including intersection, corridor and freeway projects and interstate analysis and IMR reports. 1997 to 2016.

e. Education:

North Carolina State University / Raleigh, NC / Master of Science / 1999 / Civil Engineering
 Lawrence Technological University / Southfield, MI / Bachelor of Science / 1994 / Civil Engineering

f. Active Registrations:

2019 / SC / Civil / #37192 2005 / US / Traffic Operations Engineer / #1588 2 018 / US / Road Safety Professional / #101

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. I-26 Widening (MM 85-101) – Columbia, SC

Key Personnel Role: Traffic Engineer
Experience with Current Firm: Yes, Arcadis
Project/Assignment Duration: Project 2019-2021 | Assigned 2019-2021
Owner Contact Information: GDOT | Darryl VanMeter | dvanmeter@dot.ga.gov | 404-631-1703
Design/Construction Value: \$860 Million



Project Description: This project consists of approximately 16 miles of widening and pavement reconstruction from MM 85 to 101 including three interchange upgrades (at Exit 85, 91 and 97). The widening of I-26 from four lanes to eight lanes will be from approximately Exit 101 (US 176) to Exit 97 (US 176) and from four lanes to six lanes from just west of Exit 97 (US 176) to just west of Exit 85 (SC 202) in Richland, Lexington, and Newberry Counties. Overpass bridges will be replaced at Koon Road, Shady Grove Road, Mt. Vernon Church Road, Old Hilton Road, Peak Street, Holy Trinity Church Road, and Parr Road. As a traffic engineer, Jonathan led the signal design and maintenance of traffic plan (MOT).



Similarities to CCR PH 3: Interchange Modernization (3 each) while maintaining traffic, roadway widening and pavement rehabilitation / reconstruction, bridge demolition, construction of new bridge over interstate, retaining walls, culverts, complex drainage systems, commercial and residential impacts, “Wet” and “Dry” utility relocations, and complex multi-phase MOT and extensive temporary pavement design in support of MOT phases, same lead contractor (AWC)

2. Carolina Crossroads Phase 1: Colonial Life Boulevard – Columbia, SC

Key Personnel Role: Traffic Engineer
Experience with Current Firm: Yes, Arcadis
Project/Assignment Duration: Project 2020-Present | Assigned 2020-Present
Owner Contact Information: SCDOT | Chris Lacy, PE | lacycr@scdot.org | 803-737-1419
Design/Construction Value: \$207M



Project Description: The first phase of Carolina Crossroads consists of the construction of a new fully directional interchange for Colonial Life Boulevard at I-126 using the two existing Colonial Life Boulevard Ramp Bridges over I-126 and Arrowwood Road. The scope also included improvements on I-26 and I-126 with three new bridges (Bridges 34, 35 and 36). The two ramp bridges at Colonial Life Boulevard over I-26 and Arrowwood Road were originally scoped to be demolished, but they were successfully retained and rehabilitated by a proposed Alternative Technical Concept (ATC). Jonathan served as the Traffic Engineer and led the development of the traffic management plan.



Similarities to CCR PH 3: Interchange construction, bridge demolition, new bridge over interstate, retaining walls, culverts, drainage systems, signing, lighting, signalization, “wet” and “Dry” utility relocations, and multi-phase MOT while maintaining traffic along major interstates, same lead contractor (AWC)

3. Carolina Crossroads Phase 2: Broad River Rd. at I-20 Interchange – Columbia, SC

Key Personnel Role: Traffic Engineer
Experience with Current Firm: Yes, Arcadis
Project/Assignment Duration: Project 2020-Present | Assigned 2020-Present
Owner Contact Information: SCDOT | Chris Lacy, PE | lacycr@scdot.org | 803-737-1419
Design/Construction Value: \$127M



Project Description:

The second phase of Carolina Crossroads consists of the re-design and construction of the interchange at I-20 and Broad River Road (US 176) with a highly innovative Offset Diverging Diamond Interchange (ODDI). The Team developed several unique approaches to address the purpose and goal and determined that an offset DDI was both safer and operationally more efficient than the original MSA concept of SPUI. Jonathan served as the Traffic Engineer and led the development of the traffic management plan (TMP) and noise studies.



Similarities to CCR PH 3: *Interchange construction, bridge demolition, new bridge over interstate, retaining walls, culverts, drainage systems, signing, lighting, signalization, “wet” and “Dry” utility relocations, and multi-phase MOT while maintaining traffic along major interstates.*

4. I-75 Northwest Corridor Draft Environmental Impact Study – Atlanta, GA

Key Personnel Role: Traffic Engineering Manager
Experience with Current Firm: No, Parsons Brinckerhoff
Project/Assignment Duration: Project 2004-2014 | Assigned 2004-2014
Owner Contact Information: GDOT | Darryl VanMeter | dvanmeter@dot.ga.gov | 404-631-1703
Design/Construction Value: \$860 Million



Project Description: Jonathan served as the Traffic Engineering Manager for this project to add a reversible express lane system on I-75 and I-575 corridors. Jonathan worked closely with Department staff and coordinated with FHWA in the development of a singular document that analyzed the entire study corridor, which included 29 miles on two interstates, three system-to-system interchanges, 11 service interchanges, and four new managed lane interchanges. The project also included analysis of the entire study area as one system using microsimulation (VISSIM). The resultant IMR/IJR document was the largest and most complex of its kind ever submitted to FHWA by the State. The FHWA Georgia Division office completed its review and comments and submitted the study to its headquarters in Washington. The FHWA returned a letter to the Department that it accepted the study met all requirements without any additional comments or responses required, and now serves as a unique “go by” for similar projects at his previous firm.



Similarities to CCR PH 3: *Interchange construction, bridge demolition, new bridge over interstate, retaining walls, culverts, drainage systems, signing, lighting, signalization, “wet” and “Dry” utility relocations, and multi-phase MOT while maintaining traffic along major interstates.*

5. Tampa Bay Express Downtown Interchange – Tampa, FL

Key Personnel Role: Concept Design Engineer
Experience with Current Firm: Yes, Arcadis US, Inc.
Project/Assignment Duration: Project 2016-Present | Assigned 2016-Present
Owner Contact Information: FDOT | MaryLou Godfrey | MaryLou.Godfrey@dot.state.fl.us | 813-975-6621
Design/Construction Value: \$2 Billion



Project Description: Jonathan is serving as the Concept Design Engineer for the development of multiple design concepts for this \$2 Billion interchange project to replace I-275 / I-4 interstate through downtown Tampa, FL. The new facility will provide a separate managed lane system with access to the downtown grid and a rebuilding of the existing general-purpose lanes from I-4 through the Hillsborough River Bridge crossing. The design concept lowered the baseline concept by one level at the I-275/I-4 interchange while reducing right-of-way and property impacts, for a potential cost savings of over \$200 Million.



Similarities to CCR PH 3: *Interchange construction, bridge demolition, new bridge over interstate, retaining walls, culverts, drainage systems, signing, lighting, signalization, “wet” and “Dry” utility relocations, and multi-phase MOT while maintaining traffic along major interstates.*

H. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

Jonathan Reid is not required to be on-site full-time for the duration of construction.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.		
a.	Name & Title: Patrick Charles Goggin, Sr., Project Executive	
b.	Role of Key Individual for this Project: Construction Manager	
c.	Name of Firm with which you are now associated: Archer Western Construction, LLC	
<div style="display: flex; justify-content: space-around; align-items: center;">  </div>		
d. Years of Experience: With this Firm <u>20</u> Years With Other Firms <u>21</u> Years		
Employment History:		
Archer Western Construction, LLC Project Executive As project executive, Pat is responsible for all aspects of construction operations, including the establishment of management systems, close supervision over projects in progress, direct supervision of project management staff, preconstruction services and estimating, design management, value engineering, scheduling, and the preparation of quality control programs. Pat interacts with project clients throughout the duration of projects. 2001 – Present Ganna Construction Senior Project Superintendent Pat continued to work in Illinois on heavy civil interstate and highway projects. As superintendent, his responsibilities were those of a project manager including oversight of operations and ensuring successful project delivery. 1997-2001 Bolander Construction Laborer – Senior Project Superintendent Pat began his career as a laborer on paving crews for heavy civil transportation projects in Illinois and was quickly promoted to project foreman while completing his degree. 1980-1997		
e. Education: University of South Florida / Tampa, FL / Bachelor of Science / 1983 / Civil Engineering		
f. Active Registrations: NA		
g. Document the extent and depth of your experience and qualifications relevant to the Project.		
1. I-26 Widening (MM 85-101) – Columbia, SC		
Key Personnel Role:	Design-Build Project Manager	
Experience with Current Firm:	Yes, Archer Western (Archer-United JV)	
Project/Assignment Duration:	Project 2019 – Present Assigned 2021 – Present	
Owner Contact Information:	SCDOT Nick Waites waitesnt@scdot.org 803-737-1308	
Design/Construction Value:	\$450 Million	
Project Description: AWC is partnering with UIG on this design-build project designed by ICE which consists of 16 miles of widening and reconstruction on a heavily traveled section of I-26, three new interchanges, and eight overpasses west of Columbia and near the Carolina Crossroads Phase 3 project site. This project will reconstruct pavement, increase capacity, and upgrade interchanges and overpass bridges to meet state and federal design requirements. AUJV is constructing four new interchanges, improving three additional interchanges, and replacing seven existing overpass bridges over interstate roadway. Additional scopes include permit acquisition, bridge demolition, utility design and coordination, and noise wall construction in a geotechnically challenging and rocky environmental with seismic considerations. During design, AUJV segmented the project to allow for early works design packages to ensure portions of the project would be completed and opened to traffic early. AUJV collaborated with SCDOT to redesign the project’s MOT plan to reduce impacts to the traveling public and improve safety. AUJV also redesigned the Exit 91 interchange from a staged DDI to relocating the Columbia Avenue partial cloverleaf interchange. The new design is easier to construct and avoids local business relocations, saving SCDOT significant right-of-way costs. AUJV will provide quality control in conjunction while ICE will provide quality control inspection during construction. Pat is providing executive oversight of all construction operations and staff on the project. <i>Similarities to CCR3: Interchange improvement, bridge demolition and construction, bridges over interstate, retaining walls, culverts, drainage systems, new signage & lighting, phased MOT, utility relocations, noise walls, same JC partner (UIG), same lead designer (ICE)</i>		
		
		
2. South Capitol Street Corridor – Washington, D.C.		
Key Personnel Role:	Construction Manager	
Experience with Current Firm:	South Capital Bridgebuilders (Archer Western)	
Project/Assignment Duration:	Project 2017-2021 Assigned 2020-2021	
Owner Contact Information:	DDOT Joseph D. Dorsey joseph.dorsey@dc.gov 202-210-4542	
Design/Construction Value:	\$471 Million	
Project Description: This design-build project includes the construction of the six-lane new Frederick Douglass Memorial Bridge (FDMB) with parallel alignment across the Anacostia River and tie-ins with adjacent roads in Washington, D.C. A new traffic oval was built on the west landing of the bridge to connect to South Capital and reconnect R Street and Q Street. On the east landing, a new traffic oval connects South Capitol to Anacostia Drive and Howard Road. Construction also includes two new I-295 bridges over Suitland Parkway and upgrades to the I-295 ramp as well as bikeway and pedestrian access to the FDMB. The project concluded with demolition of the existing bridge across the Anacostia River. As project executive, Pat was responsible for the oversight for 25 project management staff members and all project operations. Maintenance of traffic and ensuring a safety and secure jobsite was critical on this high-value, high-profile project located near the National Mall. <i>Similarities to CCR3: Bridge demolition and construction, bridge over interstate and water</i>		
		
		

3. Broward I-95 Express Lanes Design-Build – Dania Beach, FL

Key Personnel Role: Project Manager
Experience with Current Firm: Yes, Archer Western
Project/Assignment Duration: Project 2017-2024 | Assigned 2017-2018
Owner Contact Information: FDOT | Mark Moshier | mark.moshier@dot.state.fl.us | 954-958-7628
Design/Construction Value: \$470 Million



Project Description: This design-build project consisted of adding express lanes on I-95 and I-595, replacing the concrete road surface on northbound and southbound SR 9A/I-95 from NW 29 Street to NW 79 Street and removing, and reconstructing 284,000 square yards of concrete pavement. The project included construction of direct connections between northbound and southbound I-95 express lanes and I-595 and improvements to the I-95/SR-84 interchange including bridge replacements for westbound SR-84 over I-95 and the northbound I-95 on-ramp. Additional scopes included installation of new signage, lighting and ITS. This busy section of interstate carries more than 254,500 cars and trucks on an average day. With a constricted work area and limited work windows, it was imperative to have a well-vetted traffic management plan (TMP) for the project. Pat participated in task force meetings to help create the TMP that ultimately minimized impacts to the traveling public by limiting lane closures to nights and weekends. Pat also coordinated with FDOT, design, and construction teams during preconstruction, reviewing designs for constructability, scheduling work and the tracking job costs. He was also part of a multidisciplinary engineering focus group tasked with addressing clearance challenges between existing roadway alignments and planned flyover ramp structures.



Similarities to CCR3: Interstate widening, interchange improvements, new signage, lighting & ITS, phased MOT, design-build project.

4. Ohio River Bridges Downtown Crossing Design-Build – Louisville, KY

Key Personnel Role: Construction Manager
Experience with Current Firm: Yes (Archer Western)
Project/Assignment Duration: Project 2013-2017 | Assigned 2013-2015
Owner Contact Information: KTC | Gary Valentine | gvalentine@ky.gov | 502-764-0752
Design/Construction Value: \$894 Million



Project Description: This design-build project included roadway reconfiguration, rebuilding 45 structures including the Kennedy Interchange in downtown Louisville, KY, building a new cable-stayed I-65 bridge, repairing the existing bridge crossing, and constructing a new segment of northbound I-65 in Indiana. The project eliminated weaves, problematic merges, and tight curves on the interstate approaches to the bridge. It also created emergency lanes, enabled motorists to maintain an average speed of more than 45 miles per hour during rush hour, and created entrance and exit ramps on I-71 at Frankfort Avenue. During the design phase, Pat worked with the designer to develop the project approach for roadway, bridges, MOT, ITS, and stakeholder and community outreach. Pat oversaw all aspects of design and construction including schedule and cost control, safety and quality management, and owner and stakeholder coordination.



Similarities to CCR3: Roadway and interchange reconfiguration, new bridge over water, phased MOT

5. Dan Ryan Expressway Program – Chicago, IL

Key Personnel Role: Construction Manager
Experience with Current Firm: Yes (Archer Western)
Project/Assignment Duration: Project 2003-2007 | Assigned 2003-2007
Owner Contact Information: WSP | Gene Joynt | eugene.joynt@wsp.com | 312-914-9678
Design/Construction Value: \$724 Million

Project Description: The Dan Ryan Expressway Program was a collection of 12 projects in the busiest roadway corridor in Chicago. With an average daily traffic count of more than 300,000 vehicles, the site included 10 lanes of freeway over six miles that expanded to 16 lanes of freeway for four miles and almost two miles of an elevated bridge. The total project included 11.47 miles of interstate construction with retaining walls, frontage road and cross street bridge construction, and deep shafts to facilitate utility relocation. The project site had CTA rail line tracks to one side and the congested live traffic lanes to the other while the express lane work was underway. Pat worked with the project team to develop a unique ingress/egress solution to overcome the extremely constrained access conditions. The innovative approach provided six locations where sound wall segments were demolished and temporary ramps were constructed to connect the site directly to the local surface streets. This innovative method removed over approximately 1,400 trucks daily from the corridor and avoided major impacts to the traveling public.



Similarities to CCR3: Interstate widening, retaining walls, frontage roads, utility relocations, railroad coordination, phased MOT.

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

Pat is currently assigned to the I-26 Widening MM 85-101 project in Columbia, SC, very near the Carolina Crossroads Phase 3 site. He will be assigned to serve full-time as construction manager on-site upon completion of I-26 and commencement of construction on Crossroads Phase 3.

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Newel Kimball White, PE, Vice President



b. Role of Key Individual for this Project:
Independent Quality Manager (IQM)

c. Name of Firm with which you are now associated:
Raba Kistner, Inc. (RKI)



d. Years of Experience: With this Firm **13** Years With Other Firms **4** Years

Employment History:

Raba Kistner Infrastructure, Inc (2010-Present): Vice President/Quality Manager – Responsible for developing and managing quality programs for large design build highway projects across the United States.

PSI/Intertek (2008-2010): Engineering Department Manager – Responsible for managing geotechnical engineering projects including field exploration, construction inspection and design deliverables.

Ardaman & Associates (2004-2006): Project Manager – Responsible for geotechnical design projects and construction inspection programs.

e. Education:

University of South Florida / Tampa, Florida / Bachelor of Science Civil Engineering / 2004

University of South Florida / Tampa, Florida / Master of Science Civil Engineering – Geotechnical / 2004

Stanford University / Stanford, California / Master of Business Administration / 2008

f. Active Registrations:

2009 / SC / Professional Engineer / #40253

ASQ – Certified Manager of Quality/Organizational Excellence – No. 54698

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. Carolina Crossroads Phase 1: Colonial Life Boulevard – Columbia, SC

Key Personnel Role: Independent Quality Assistant
Experience with Current Firm: Yes, Raba Kistner Infrastructure
Project/Assignment Duration: Project 2020-Present | Assigned 2020-Present
Owner Contact Information: SCDOT | David Rister | ristergd@scdot.org | 803-201-9206
Design/Construction Value: \$207M



Project Description: The first phase of Carolina Crossroads consists of the construction of a new fully directional interchange for Colonial Life Boulevard at I-126 using the two existing Colonial Life Boulevard Ramp Bridges over I-126 and Arrowwood Road. The scope also included improvements on I-26 and I-126 with three new bridges (Bridges 34, 35 and 36). The two ramp bridges at Colonial Life Boulevard over I-26 and Arrowwood Road were originally scoped to be demolished, but they were successfully retained and rehabilitated by a proposed Alternative Technical Concept (ATC). Newel supported all independent quality services for this project.



Similarities to CCR PH 3: Interchange construction, bridge demolition, new bridge over interstate, retaining walls, culverts, drainage systems, signing, lighting, signalization, “wet” and “Dry” utility relocations, and multi-phase MOT while maintaining traffic along major interstates, same lead contractor (AWC)

2. Carolina Crossroads Phase 2: Broad River Rd. at I-20 Interchange – Columbia, SC

Key Personnel Role: Independent Quality Assistant
Experience with Current Firm: Yes, Raba Kistner Infrastructure
Project/Assignment Duration: Project 2020-Present | Assigned 2020-Present
Owner Contact Information: SCDOT | David Rister | ristergd@scdot.org | 803-201-9206
Design/Construction Value: \$127M



Project Description: The second phase of Carolina Crossroads consists of the re-design and construction of the interchange at I-20 and Broad River Road (US 176) with a highly innovative Offset Diverging Diamond Interchange (ODDI). The Team developed several unique approaches to address the purpose and goal and determined that an offset DDI was both safer and operationally more efficient than the original MSA concept of SPUI. Newel supported all independent quality services for this project.



Similarities to CCR PH 3: Interchange construction, bridge demolition, new bridge over interstate, retaining walls, culverts, drainage systems, signing, lighting, signalization, “wet” and “Dry” utility relocations, and multi-phase MOT while maintaining traffic along major interstates.

3. West Davis Corridor – Davis County, UT

Key Personnel Role: Construction Quality Manager (CQM)
Experience with Current Firm: Yes, Raba Kistner Infrastructure
Project/Assignment Duration: Project 2020-Present, Assigned 2020-2022
Owner Contact Information: UDOT | Kelly Barrett | kbarrett@utah.gov | 801-620-1600
Design/Construction Value: \$600M Construction Value

Project Description: This project includes 20+ miles of mostly greenfield construction with 50+ new structures. As CQM Newel worked with the joint venture team and UDOT to develop the Construction Quality Plan. He is responsible for staffing and executing the quality assurance portion of the quality plan. In this role, he manages the day-to-day effort of the IQF firm's staff which includes 35+ engineers, administrative staff, inspection staff and materials technicians. He is responsible for evaluating the construction work for acceptance and documenting work that does not meet project requirements.
Similarities to CCR PH 3: *Interchange construction, interstate and overpass bridges, retaining walls, culverts, drainage systems, erosion control, signing, lighting, signalization, utility relocations including sewer and potable water, multi-phase MOT while maintaining traffic.*



4. Loop 202, South Mountain Freeway – Phoenix, AZ

Key Personnel Role: Construction IQF Manager (CIQM)
Experience with Current Firm: Yes, Raba Kistner Infrastructure
Project/Assignment Duration: Project 2016-2020, Assigned 2016-2018
Owner Contact Information: ADOT | Julie Gadsby | JGadsby@azdot.gov | 602-768-2167
Design/Construction Value: \$1 Billion Construction Value

Project Description: This project includes 22 miles of construction with 41 new bridges and 1.2M tons of HMAC paving in Phoenix, AZ. As CIQM, Newel's specific responsibilities included leading a staff of 60+ PE's, EIT's, inspectors and lab technicians to provide Quality Assurance oversight and construction materials testing. He also is tasked with reviewing / modifying the project's Construction Quality Management Plan as necessary and providing applicable training to IQF staff. He interpreted plans and specifications and provided guidance based on the findings. He authored Technical Bulletins as required which are used project wide when further clarification is needed within the Project Team regarding IQF's acceptance requirements, inspection methods, and QA procedures. Newel resolved disputes on behalf of the IQF for issues that rise to the top level of the Project Escalation Ladder. He provided guidance and mentored the PE's and EIT's on his staff.

Similarities to CCR PH 3: *Interchange construction, bridge demolition, interstate and overpass bridges, retaining walls, culverts, drainage systems, erosion control, signing, lighting, signalization, utility relocations including sewer and potable water, multi-phase MOT while maintaining traffic.*



5. I-15 CORE Reconstruction – Utah County, UT

Key Personnel Role: Materials Manager
Experience with Current Firm: Yes, Raba Kistner Infrastructure
Project/Assignment Duration: Project 2010-2013, Assigned 2010-2013
Owner Contact Information: UDOT | Robert Stewart | rstewart@utah.gov | 801-440-5746
Design/Construction Value: \$1.2B Million Construction Value

Project Description: The I-15 CORE Project is the largest Design-Build (DB) highway project ever constructed in the State of Utah, totaling 1.2 Billion dollars and consisting of reconstructing 26 miles of I-15 through Utah County. Newel oversaw the materials program for the project including the placement of over 2.5M CY of PCCP, 600,000 tons of HMA, 250,000 CY of structural concrete and 3M+ CY of embankment material. He managed a staff of 15+ engineers, materials technicians and inspectors. In addition, he performed statistical validation of contractor performed testing in accordance with FHWA requirements.

Similarities to CCR PH 3: *Major interstate reconstruction project, Bridge demolition, highway bridge construction, retaining walls, culverts, drainage systems, erosion control, signing, utility relocations, multi-phase MOT while maintaining traffic.*



h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

Newel White is currently assigned to a design-build project in Utah as the Project Director of Quality (End 2023). Newel White is currently assigned to CCR 1 and CCR 2 as a Materials Engineer (End in 2024) and will be available on-site during Project construction and available for weekly status meetings during the construction phase of CCR 3

KEY INDIVIDUAL RESUME FORM

Brief Resume of Key Individual anticipated for the Project.

a. Name & Title:
Jose Neftali Cortez, CHST, Senior Safety Manager

b. Role of Key Individual for this Project:
Safety Manager

c. Name of Firm with which you are now associated:
Archer Western Construction, LLC



d. Years of Experience: With this Firm **22** Years With Other Firms **0** Years

Employment History:

Archer Western Construction, LLC | Senior Safety Manager | During his 22-year period of employment with Archer Western, Jose has had increasing levels of responsibility in safety and risk management on a variety of heavy civil projects. His duties include implementation of the corporate health and safety program on complex projects, and development and implementation of training and inspection programs. He has worked closely with and served as technical advisor to project management team to support implementation of health and safety regulations. He conducts accident investigations, monitors all subcontractors' insurance compliance and general liability, and is responsible for Worker's Compensation relations. 2000-Present.

e. Education:

Georgia Institute of Technology / Atlanta, GA / Certificate / 2004 / Construction Safety and Health

f. Active Registrations: American Society of Safety Professionals, OSHA 10- and 30-Hour Instructor, Competent Person - Trench Excavation and Confined Spaces, Certified Competent Person - Fall Protection, Certified Competent Person – Cranes, Certified First Aid/CPR/A.E.D. Instructor, Aerial Lift/Forklift Instructor.

g. Document the extent and depth of your experience and qualifications relevant to the Project.

1. Carolina Crossroads Phase 1: Colonial Life Boulevard – Columbia, SC

Key Personnel Role: Senior Safety Manager
Experience with Current Firm: Yes, Archer Western (Archer-United JV)
Project/Assignment Duration: Project 2021-2025 | Assigned 2022-Present
Owner Contact Information: SCDOT | David Rister | ristergd@scdot.org | 803-201-9206
Construction Value: \$207 Million



Project Description: AWC is partnering with UIG on this design-build project designed by ICE which consists of widening on I-26 and I-126 for approximately 2.5 miles and includes reconfiguring frontage roads. Work includes reconfiguring portions of Colonial Life Boulevard, Arrowwood Road, and Morning Hill Road in an area with challenging geotechnical and seismic conditions near the Carolina Crossroads Phase 3 site in Columbia, SC. Work includes bridge demolition and construction of a new interchange and two new bridges over the environmentally sensitive Saluda River and CSX Transportation railroad lines, a total of 26,900 square feet of new bridge structures. Roadwork scopes include permit acquisition, R/W coordination, utility design and coordination, asphalt milling and resurfacing, stormwater management upgrades, guardrail replacement, barrier walls, and installation of new lighting and ITS throughout the project. The AUJV team proposed an alternate design concept using a semi-directional interchange to improve the safety, level of service, and constructability. In 2022, Jose assumed full-time, daily management of the safety program for the project. *Similarities to CCR3: Bridge/roadway construction and demolition, new interstate bridges over railroad line and water, utilities relocation, interchange construction, drainage, retaining walls, geotechnically challenging, phased MOT, same contractor (AWC), same lead designer (ICE)*



2. Carolina Crossroads Phase 2: Broad River Rd. at I-20 Interchange – Columbia, SC

Key Personnel Role: Senior Safety Manager
Experience with Current Firm: Yes, Archer Western (Archer-United JV)
Project/Assignment Duration: Project 2021-2025 | Assigned 2022-Present
Owner Contact Information: SCDOT | David Rister | ristergd@scdot.org | 803-201-9206
Construction Value: \$127 Million



Project Description: AWC is partnering with UIG on this design-build project designed by ICE which consists of reconstructing the I-20/Broad River Road interchange and widening a portion of I-20 in an area with challenging geotechnical and seismic conditions near the Carolina Crossroads Phase 3 site in Columbia, SC. The project includes bridge demolition and construction of three new bridges over roadways. Scopes of work include R/W coordination, permit acquisition, utility design and relocation, noise wall construction and installation of approximately 5,600 linear feet of MSE and gravix walls on both the eastbound and westbound sides of I-20. Roadway work includes asphalt milling/resurfacing, drainage improvements, Noise walls, signage, and new lighting and ITS. Quality control oversight is being provided by AUJV in conjunction with an independent quality firm. AUJV proposed an alternate interchange design using a unique offset DDI concept to improve constructability and allow more time for utility relocation from the existing bridge. In 2022, Jose assumed daily management of the safety program for the project.



Similarities to CCR3: Bridge/roadway construction and demolition, new interstate bridge, noise walls, utilities relocation, new signage, lighting & ITS, geotechnically challenging, drainage, phased MOT, same contractor (AWC), same lead designer (ICE)

3. South Capitol Street Corridor – Washington, D.C.

Key Personnel Role: Senior Safety Manager
Experience with Current Firm: Yes, Archer Western (South Capital Bridgebuilders)
Project/Assignment Duration: Project 2017-2021 | Assigned 2018-2021
Owner Contact Information: DDOT | Joseph D. Dorsey | joseph.dorsey@dc.gov | 202-210-4542
Design/Construction Value: \$471 Million



Project Description: This design-build project includes the construction of the six-lane new Frederick Douglass Memorial Bridge (FDMB) with parallel alignment across the Anacostia River and tie-ins with adjacent roads in Washington, D.C. A new traffic oval was built on the west landing of the bridge to connect to South Capital and reconnect R Street and Q Street. On the east landing, a new traffic oval connects South Capitol to Anacostia Drive and Howard Road. Construction also includes two new I-295 bridges over Suitland Parkway and upgrades to the I-295 ramp as well as bikeway and pedestrian access to the FDMB. The project concluded with demolition of the existing bridge across the Anacostia River. Maintenance of traffic and ensuring a safety and secure jobsite was critical on this high-value, high-profile project located near the National Mall. Under Jose's leadership, this project received the Walsh Family of Companies' 2021 National Project Safety Award for its outstanding safety performance record within its high-value project classification.



Similarities to CCR3: *Bridge demolition and construction, bridge over interstate and water*

4. Back River WWTP Enhance Nutrient Removal Phases 3 and 4 – Baltimore, MD

Key Personnel Role: Senior Safety Manager
Experience with Current Firm: Yes, Archer Western
Project/Assignment Duration: Project 2013-2019 | Assigned 2014-2018
Owner Contact Information: City of Baltimore | Mukesh Vasavada, CPPO | Mukesh.vasavada@baltimorecity.gov | 410-396-5711
Design/Construction Value: \$580 Million



Project Description: The Back River Wastewater Treatment Plant required upgrades to meet new permit limits regarding discharge of nitrogen and phosphorus and support the cleanliness of the Chesapeake Bay. This design-build project included a new denitrification structures and modifications to existing activated sludge plants. Site work included mass excavation, demolition of structures, and construction of two new electrical buildings. The scope of work also included construction of new plant infrastructure such as roads, control systems and utility areas. The project's two phases were run simultaneously on a 466-acre jobsite, required more than 20 cranes, and employed 400 people. Jose was responsible for managing the safety program for this large-scale, complex project and provided daily safety oversight of all project staff.



Similarities to CCR3: *High value, complex & multi-phase, concrete construction, large staff*

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

Jose is currently assigned full-time to the SCDOT Carolina Crossroads Phases 1 and 2 projects in the Columbia area. Upon award of the Carolina Crossroads Phase 3 project, he will be made 100% available as Safety Manager.



APPENDIX B

Work History Forms



[Contractor Work History Forms](#)

[Designer Work History Forms](#)



WORK HISTORY AND QUALITY FORM – CONTRACTOR

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify AWC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by AWC (in thousands)
Name: Northwest Corridor Express Lanes Location: Atlanta, GA	Name: Parsons Transportation Group	Name of Owner: GDOT Project Manager: Mr. John Hancock Phone: 678-784-7050 Email: jhancock@dot.ga.gov	Construction: 12/2018 Design: 03/2014	\$647,156	\$388,294

g. Narrative describing the work performed by AWC. If submitting work completed by an affiliated or subsidiary company of AWC, identify the full legal name of the affiliate or subsidiary and their role on the Project.

Project Description: This large-scale project was the largest design-build project ever undertaken by the Owner at the time, and the first public-private partnership. AWC was the managing member of the joint venture (Northwest Express Roadbuilders) that served as design-builder and prime contractor for this 29.7-mile project involved the addition of reversible managed express lanes along I-75 (17 miles) and I-575 (12 miles) in Atlanta, Georgia. The scope of work included ROW acquisition (property demolition), permitting, private and municipal utility relocation, and construction of all infrastructure including dynamic open-road tolling. The project includes 39 bridges (lengths range from 52 to 4,964 linear feet). The majority of bridges are precast concrete girders, though four bridges are made of curved steel plate girders with complex geometry. It included approximately 650,000 square feet of retaining walls, 1.4 million square feet of noise walls, 313,000 square yards of concrete paving, 140,000 linear feet of storm drainage, and 1.6 million cubic yards of earthwork. The project was divided into six segments with concurrent construction along the 29-mile corridor to meet the aggressive three-year construction schedule.

The project was recognized with the Design Build Institute of America's National Award of Merit (Transportation) for its work on this project.

Key Individual name/role/time on the project: Jonathan Reid (Arcadis): Traffic Engineer (2004-2014)

- SIMILARITIES to CCR PH 3:**
- ✓ Design-Build delivery
 - ✓ Overpass bridge construction/demolition
 - ✓ Interstate widening in urban setting
 - ✓ Noise Walls
 - ✓ Multiphase MOT while maintaining traffic
 - ✓ Erosion Control
 - ✓ Retaining Walls
 - ✓ Municipal and private utility relocations
 - ✓ ROW acquisition
 - ✓ Demolition of commercial and residential properties
 - ✓ Highway signing, lighting, signalization and ITS
 - ✓ Railroad Coordination



h. Self-Assessment. The information provided in this section should be a self-assessment of AWC's performance on the project to identify Lead Contractors/Major Subcontractors with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Contractors/Major Subcontractors that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

AWC delivered the project on-time, on-budget and without any claims. The project was segmented geographically, with each segment assigned its own supervisory staff (MOT supervisors, Structures Superintendents, and Roadway Superintendents), ensuring greater operations oversight and the ability to plan for, recognize, and react to potential issues. AWC self-performed all of the items of work that were on the critical path (concrete paving, bridge reconstruction/widening, storm drainage, concrete barrier wall), providing greater schedule and quality control contributing to the project's on-time delivery.

i. Quality Initiatives. Discuss AWC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

All design submittals went through comprehensive QC review by the design production squads and discipline leads. AWC's project management, design-build coordinator, and construction managers provided constructability reviews on all submittals prior to their submission to the GDOT and their CEI firm. AWC had an internal QC team that worked with the independent Construction Quality Assurance Manager and the senior inspectors coordinating the inspection process, ensuring that all testing requirements were met or exceeded. The entire QC team participated in all owner and project schedule meetings to verify correct inspection coverage, plans, and appropriate documentation were provided to the GDOT.

AWC used pre-activity planning meetings prior starting major activities. Meetings included GDOT, the QC and QA teams, and safety personnel, these meetings aided in successfully identifying risks related to quality, safety, and schedule prior to the start of work.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, AWC shall provide a detailed explanation below.

Not Applicable



WORK HISTORY AND QUALITY FORM – CONTRACTOR

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify Walsh's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by Walsh (in thousands)
Name: Ohio River Bridges Downtown Crossing Location: Louisville, KY	Name: Jacobs Engineering Group, Inc.	Name of Owner: Kentucky Transportation Cabinet Project Manager: Mr. Andy Barber Phone: (502) 564-4890 Email: andy.barber@ky.gov	Construction: 09/2017 Design: 01/2014	\$894,041	\$554,305

g. Narrative describing the work performed by Walsh. If submitting work completed by an affiliated or subsidiary company of Walsh, identify the full legal name of the affiliate or subsidiary and their role on the Project.

Project Description: This design-build project connects Louisville, Kentucky and Jeffersonville, Indiana. The project included reconfiguring the roadway and rebuilding 45 structures including the Kennedy Interchange in Downtown Louisville, building a new six-lane, 2,114-foot, cable-stayed I-65 bridge for northbound traffic, repairing the existing Kennedy Memorial Bridge crossing and reconfiguring it to carry six lanes of southbound traffic, and constructing a new segment of northbound I-65 on the Indiana side of the project. The I-65/I-64/I-71 Kennedy Interchange in downtown Louisville was reconstructed to include expanded approaches. The project eliminated weaves, problematic merges, and tight curves on the interstate approaches to the bridge. It also created emergency lanes, enabled motorists to maintain an average speed of more than 45 miles per hour during rush hour, and created entrance and exit ramps on I-71 at Frankfort Avenue. The project included over a mile of barrier wall, 700,000 cubic yards of earthwork, 500,000 linear feet of piling, 300,000 tons of asphalt and required extensive utility coordination and relocation.

This project, now called the Abraham Lincoln Bridge, was named the American Society of Highway Engineer's National Project of the Year Award in 2017 in the category of projects with values above \$20 million.

Completed by affiliate: This project was completed by Walsh Construction (AWC Affiliate). Walsh was the Design-Builder, Lead Contractor, and contracting entity. Walsh and AWC operate as the same company sharing the same executive leadership, management systems, and resources (people and equipment). Walsh operates in areas of the country that have union labor and AWC operates in open-shop regions.

Key Individual name/role/time on the project: Patrick Goggin (AWC): Project Manager (2013-2015)

- SIMILARITIES to CCR PH 3:**
- ✓ Design-Build delivery
 - ✓ System-to-system interchange reconstruction
 - ✓ Roadway reconfiguration
 - ✓ Riverine bridge
 - ✓ Highway bridges
 - ✓ Bridge over railroad
 - ✓ Interstate ramp construction
 - ✓ Multiphase MOT while maintaining traffic
 - ✓ Drainage/erosion Control
 - ✓ Noise barrier walls
 - ✓ Seismic considerations
 - ✓ Utility coordination/relocation
 - ✓ Retaining Walls
 - ✓ Interstate widening
 - ✓ Crossing routes
 - ✓ Frontage/side road construction
 - ✓ ROW acquisition
 - ✓ Stakeholder coordination
 - ✓ Highway signing, lighting, signalization, ITS



h. Self-Assessment. The information provided in this section should be a self-assessment of Walsh's performance on the project to identify Lead Contractors/Major Subcontractors with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Contractors/Major Subcontractors that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

Walsh self-performed 62% of the project. the design required innovations and alternate technical concepts (ATCs) to improve the project. A majority of the ATCs involved the downtown interchange of I-65, I-64, and I-71, including ground improvements in lieu of a settlement period, T-walls instead of cast-in-place walls, and gravity walls as an alternative to tie-back walls. These ATCs reduced days from the critical path. The team also used ATCs to mitigate the impacts of a utility conflict involving a 138kV transmission line and a physical conflict with the Louisville and Indiana Railroad. Walsh worked closely with the Department of Homeland Security throughout the project to ensure security of final structure and public safety. Also worked closely with USACE and the U.S. Coast Guard to ensure waterway remained navigable and a nearby dam 1/3 mile away was accessible for barges throughout the project.

i. Quality Initiatives. Discuss Walsh's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

The project was delivered on time, on budget without any claims. In the third year of the project, the Owner opted to replace all the stringers and girders on the existing bridge over the Ohio River. Walsh provided the additional scope to the owner while still completing the original project on time.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, Walsh shall provide a detailed explanation below.

Not Applicable.

WORK HISTORY AND QUALITY FORM – CONTRACTOR

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify United’s responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by United (in thousands)
Name: Monroe Bypass Location: Mecklenburg & Union Counties, NC	Name: RK&K Engineers	Name of Owner: NCDOT (NCTA) Division Engineer: Rick Baucom, PE Phone: 704-289-7905 Email: rwbaucom@ncdot.gov	Construction: 11/2018 Design: 06/2014	\$472,000	\$81,300

g. Narrative describing the work performed by United. If submitting work completed by an affiliated or subsidiary company of United, identify the full legal name of the affiliate or subsidiary and their role on the Project.

Project Description: United was the Manager and a 33.34% Member of this integrated joint venture with Boggs Contracting and Anderson Columbia Co. United provided 90% of the 33-person project management team and was completely responsible for managing and constructing the overall project. This new four-lane controlled-access toll road extends 20 miles from US 74 near I-485 in Mecklenburg County to US 74 near Marshville in Union County, NC and includes reconstruction of 1 mile of US 74 with an elevated 6-lane freeway in a suburban environment with 8 interchanges, extensive third-party, utility, and ROW coordination and challenges. At the project’s beginning at I-485, heavily travelled existing US 74 is in an expensive ROW industrial and suburban setting. Utilities of every description were in conflict. Nearly one third of the cost of 20-miles bypass was in this 1.5 mile section to create an interchange solution that accomplished ultimate design goals while minimally disrupting traffic. A three-bridge solution with an elevated mainline section supported by MSE walls between new multilane frontage roads is shown to right which also includes multiple entrance and exit ramps with MSE walls on both sides. Also, significant drainage upgrades were necessary, including a new double 10x12 box culvert which was successfully phased to cross six lanes of existing traffic. The project includes over 5M CY of excavation, extensive utilities, 160,000 SF of noise and screen walls in 4 locations, 312,000 SF decorative MSE walls in 24 locations, a pavement structure with lime treated subgrade and cement treated base and 760K tons of asphalt, 26 new bridges and 5 major box culverts, 7 toll gantries and ITS and camera systems interconnected with fiber lines, and a robust aesthetic treatments.

SIMILARITIES to CCR PH 3:

- ✓ Design-Build & Several Interchanges
- ✓ Suburban Environment
- ✓ Significant Utility, ROW, & 3rd Party Coordination
- ✓ Significant MOT Requirements
- ✓ Major Environmental Challenges
- ✓ Accelerated Construction

Key Individual name/role/time on project: Billy Hardwick (UIG): Structures Manager (2014-2018)

h. Self-Assessment. The information provided in this section should be a self-assessment of United’s performance on the project to identify United personnel that have successfully completed projects on time and on or under budget, and to identify United’s records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

United led MBC and worked integrally with NCDOT/NCTA to overcome numerous legal, political, and physical obstacles and finish this project on time and on budget. This is primarily attributable to a very transparent relationship with the owner and a commitment to meeting the schedule and budget expectations. Delays were mitigated with numerous acceleration strategies and strategic partnerships were maintained with subcontractors and suppliers to ensure an accelerated delivery once Construction NTP was available. The project experienced several environmental challenges, which ultimately delayed the start of the project by 3 years 5 months. The NCDOT and Design-Build Team worked integrally together to weather the challenges of the environmental delay and develop an open-book process to amend the original contract and proceed forward with the project while remaining within the original budget. The original substantial completion date of November 27, 2018 was achieved with no claims even though the ROW was provided to the team one year late. Despite this owner delay, the team earned the early completion bonus. Final completion/acceptance was September 2020 and the 3-year Warranty Period after Substantial Completion ended in November 2021.

i. Quality Initiatives. Discuss United’s quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

The success of this fast-paced project was attributed to extraordinary teamwork by the client, subcontractors, and suppliers involved. The newest technology was incorporated into plants and equipment and systems to accelerate the schedule and remain within budget, including 3D survey modelling for all roadway and structures. Traffic control plans were refined to minimized impact to the public and strategically planned detours were implemented to allow work to proceed 24 hours a day at times in major intersections and specific areas of the project. A Safety Leadership Team was implemented which required the participation of all subcontractors and in turn led to a very healthy safety culture on the project and resulted in no joint venture lost time incidents and only 1 for the entire project. Regardless of the accomplishments and accolades, the lessons learned include: a) providing more management and control over all environmental scopes to avoid any adverse issues, especially after the NCDOT litigated the environmental lawsuit; b) taking on more responsibility for ROW acquisition and dry utility relocations even though not part of the contract scope of services; c) being even more pro-active and engaged with our subcontractors and suppliers to abate adverse impacts related to their services/products, and d) remaining actively engaged in the Quality Control/Assurance Program even though this was not part of the contract scope.

j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, United shall provide a detailed explanation below.

Not Applicable



WORK HISTORY AND QUALITY FORM – CONTRACTOR

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design	c. Contact information of the Client & their Project Manager who can verify Blythe’s responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by Blythe (in thousands)
Name: I-85/I-485 Interchange Location: Mecklenburg County, NC	Name: STV	Name of Owner: NCDOT Project Manager: Rick Baucom, PE Phone: (704) 983-4400 Email: rbaucom@ncdot.gov	Construction: 06/2015 Design: 03/2011	\$98,000	\$17,000

g. Narrative describing the work performed by Blythe. If submitting work completed by an affiliated or subsidiary company of Blythe, identify the full legal name of the affiliate or subsidiary and their role on the Project.

Project Description: Blythe Development Co was the primary subcontractor for all roadway scopes of work to the Lead Contractor (Lane Construction) on this project. This Design Build Turbine interchange modified the existing interchange and improved the overall traffic flow for the interstate to interstate interchange of I-85 and I-485. The scopes of work performed by Blythe Development included new mainline construction and widening of existing facilities on both I-85 and I-485 as well as the mass grading for the many bridge approaches required to create the turbine interchange. Blythe Development performed all storm drain and grading activities for both the widening and new construction. Along with the operational portions of the work BDC was completely involved in the overall schedule and phasing to allow for seamless execution and the completion of the project on time and budget.

- SIMILARITIES to CCR PH 3:**
- ✓ Design-Build delivery
 - ✓ Overpass bridge construction/demolition
 - ✓ Turbine Design
 - ✓ Interstate to Interstate Interchange
 - ✓ Interstate widening in urban setting
 - ✓ Multiphase MOT while maintaining traffic
 - ✓ Erosion Control



Key Individual name/role/time on the project: Not Applicable

h. Self-Assessment. The information provided in this section should be a self-assessment of Blythe’s performance on the project to identify Blythe’s personnel that have successfully completed projects on time and on or under budget, and to identify Blythe’s records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

The I-85/I-485 interchange in Mecklenburg County, NC has given great insight and experience to Blythe Development Company concerning the Design Build Delivery method on large scale projects. Throughout the project, revisions to RFC plans created logistical challenges to both the schedule and efficiency of the construction process. These challenges were ultimately overcome thru experience and cooperation of BDC with the stakeholders involved. The efforts of BDC greatly improved the ability of the General Contractor to meet the goals set forth for this project. The overall project had a short duration for the amount of design and construction included in Blythe Development Company’s Scope of Work but through management’s effort and the buy-in by our crews Blythe Development was able to meet the needs and requirements of the overall schedule. Working in tight working areas in conjunction with high-volume traffic was a challenge from the beginning but being able to design ideal access points to allow for the most effective haul routes helped the overall schedule of the project. The high traffic volume and scopes of work have prepared Blythe Development Co for projects such as the Carolina Crossroads Phase II.


i. Quality Initiatives. Discuss Blythe’s quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

Blythe Development cooperated and coordinated with the Lead Contractor to follow the Team’s process of Quality Management specific to the project. The Team managed the phasing and traffic coordination to minimize impacts to both the schedule and traveling public. BDC’s efforts with the Lead Contracting Team resulted in an overall reduction in phasing and traffic shifts required.

j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, Blythe shall provide a detailed explanation below.

Not Applicable

WORK HISTORY AND QUALITY FORM – DESIGNER

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project construction	c. Contact information of the Client & their Project Manager who can verify ICE, PLLC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by ICE, PLLC (in thousands)
Name: I-26 MM 85 to 101 Location: Richland, Lexington, and Newberry Counties, SC	Name: Archer United, JV 	Name of Owner: SCDOT Project Manager: Brad Reynolds, PE Phone: 803-737-1440 Email: revnoldsbs@scdot.org	Construction: 12/2024 Final Design: 12/2021 MOT Revisions: 09/2022	\$465,000	\$23,186

g. Narrative describing the work performed by ICE, PLLC. Include the office location(s) where the design work was performed and whether ICE was the lead designer or a sub-consultant.

Project Description: This Design-Build project includes 16 miles of widening and reconstruction, three new interchanges, and eight overpasses north of Columbia from mile marker 85 to 101. ICE is the Lead Engineer and will provide all engineering services as well as quality control inspection during construction. This project will reconstruct pavement, increase capacity, and upgrade interchanges and overpass bridges to meet state and federal design requirements. SCDOT intends to widen I-26 from four lanes to eight lanes from approximately Exit 101 (US 176) to just west of Exit 97 (US 176) and from four lanes to six lanes from just west of Exit 97 (US 176) to just west of Exit 85 (SC 202) in Richland, Lexington, and Newberry Counties. Interchanges will be improved at Exit 97 (US 176), Exit 91 (S-48), and Exit 85 (SC 202). Overpass bridges will be replaced at Koon Road, Shady Grove Road, Mt. Vernon Church Road, Old Hilton Road, Peak Street, Holy Trinity Church Road, and Parr Road. The weigh station at mile marker 94 westbound will also be upgraded. The design/permitting phase will occur during 2019/2020. This project was separated into three segments. Segment 1 is 5.4 miles long and consists of an **8-lane mainline section with a DDI Interchange at US 176 - Broad River Road (Exit 97)** and **two crossroad structure replacements** at Shady Grove and Koon Road. Segment 3 is 5.93 miles long and consists of an **6-lane mainline section with an interchange improvement at SC 202 (Exit 85)** and **three crossroad structure replacements** at Parr Road, Holly Trinity Church Road and Peak Street.

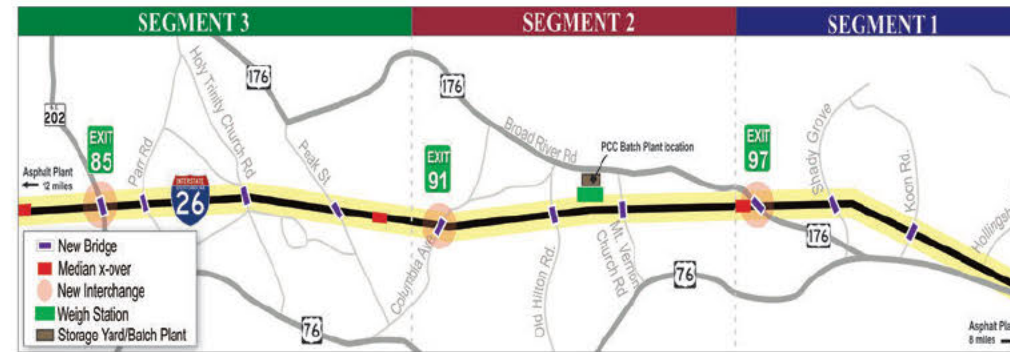
- SIMILARITIES to CCR PH 3:**
- ✓ Design-Build Contract (with AUJV)
 - ✓ Overpass bridge construction/demolition
 - ✓ Interstate widening in urban setting (Segment 1)
 - ✓ Multiphase MOT while maintaining traffic
 - ✓ Working adjacent to environmentally sensitive areas
 - ✓ IMR Revision and NEPA re-evaluation (ATC Driven)
 - ✓ Major "Wet" and "Dry" Utility Relocations
 - ✓ Noise Wall Design
 - ✓ Seismic Design
 - ✓ HAZMAT Studies / Compliance
 - ✓ Multitude of Temporary Pavement Design Features
 - ✓ Business / Residential Relocation Avoidance
 - ✓ Vibration Monitoring



DDI at Exit 97 (US 176)



PARCLO at Exit 91 (S-48)



Project Segmentation Plan

List of Services Provided by ICE: Project Management, Structural Design, Roadway Design, Drainage Design, Geotechnical Engineering, Environmental Permitting, Utility Coordination, ITS, and Quality Control Inspections

Office Location where the Work was Performed: Columbia, SC (ICE Corporate Office)

Key Individual name/role/time on the project: Elham Farzam, PE (ICE): Lead Design Engineer (2019-present) | Patrick Coggins (AWC): Project Manager (May 2022 – Present) | Andy Douglas (AWC): Project Executive (2019-present) | Dave Moyar (AWC): Project Manager (2019 – May 2022)

h. Self-Assessment. The information provided in this section should be a self-assessment of ICE, PLLC's performance on the project to identify with firms or personnel that have successfully completed projects on time and on or under budget, and to identify ICE's records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

ICE began all pre-construction planning and activities as soon as the determination of best value team in May 2019. ICE allocated proper resources to ensure the timely submission of all design, environmental, traffic planning and utility relocation submittals. ICE has met every one of its contract and submittal deliverables and in accordance with the approved CPM schedule by SCDOT.


i. Quality Initiatives. Discuss ICE, PLLC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

ICE implemented a comprehensive QC/QA program for all of the design, environmental, traffic planning and utility relocation submittals to SCDOT to assure timely and quality submittals. In addition to independent quality review by a separate QA Team, the construction JV also performed detailed "constructability" reviews in order to minimize RFI and construction issues during construction. Additionally, ICE developed Concept work zone traffic control plans which was submitted for the entire project (all 3 segments) to ensure continuity between adjacent segments. Pavement innovation included the re-use of synthetic CMRB with 3 to 4 inches of HMA to be used as temporary pavement and later be used as base course for the permanent PCC pavement. This adaptation allowed AUJV to save nearly \$10M of cost savings and provide additional variable scope items for enhanced value and innovation. Finally, AUJV/ICE developed a revised MOT plans to eliminate the "counterflow" traffic pattern in Segment 2 and Segment 3, for the construction of a safer and more efficient project.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, ICE, PLLC shall provide a detailed explanation below.

Not applicable

WORK HISTORY AND QUALITY FORM – DESIGNER

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify ICE, PLLC’s responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by ICE, PLLC (in thousands)
Name: Carolina Crossroads Phase 1 Location: Richland & Lexington Counties, SC	Name: Archer-United Joint Venture 	Name of Owner: SCDOT Project Manager: Chris Lacy, PE Phone: (803) 737-1419 Email: lacycr@scdot.org	Construction: 10/2024 Final Design: 11/2022	\$127,000	\$12,200

g. Narrative describing the work performed by ICE, PLLC. Include the office location(s) where the design work was performed and whether ICE, PLLC was the lead designer or a sub-consultant.

Project Description: This first phase of Carolina Crossroads consists of the re-design and construction of a new fully directional interchange for Colonial Life Boulevard at I-26 implementing the use of the two existing Colonial Life Boulevard Ramp Bridges over I-26 and Arrowwood Road. The scope also included improvements on I-26 and I-26 with three new bridges. ICE is the Lead Design Firm responsible for the overall design management and coordination. The two ramp bridges at Colonial Life Boulevard over I-26 and Arrowwood Road were originally scoped to be demolished, but they were successfully retained and rehabilitated by ICE’s design staff via the Design-Build Alternative Technical Concept (ATC) process. The Team developed several innovative and unique approaches to address the purpose and goal and determined that a semi-directional interchange concept is safer and operationally more efficient. Additionally, the Maintenance of Traffic (MOT) Plan was developed with the specific goal of minimizing traffic shifts and temporary lane closures, and it maintains a minimum of three lanes in the east and westbound directions while widening and median work is being performed. The plan also includes utilizing an “off-alignment” construction scheme to eliminate the closure of the existing ramps and minimize the number of traffic stages.



List of Services Provided by ICE: Design Management, Roadway Design, Drainage Design, Structures Design, Geotechnical and Bridge Foundation Design, Signal Design, Signing and Pavement Marking, MOT Plans, Public Relation Support, Construction Support and QC Inspection and Testing Services.

Office Location where the Work was Performed: ICE former Corporate Office and now CCR Construction Office (1021 Briargate Circle Columbia, SC) and ICE current Corporate Office (110 Midlands Court, West Columbia, SC)

Key Individual name/role/time on the project: Elham Farzam, PE (ICE): Lead Design Engineer (2020-present) | Billy Hardwick (UIG): DB Project Manager (2020-present) | Andy Douglas (AWC): Project Executive (2020-present) | Jose Cortez (AWC): Safety Manager (2021-present)

- SIMILARITIES to CCR PH 3:**
- ✓ Design-Build Contract (with AUJV)
 - ✓ Overpass bridge construction/demolition
 - ✓ Interstate widening in urban setting (Segment 1)
 - ✓ Multiphase MOT while maintaining traffic
 - ✓ Working adjacent to environmentally sensitive areas
 - ✓ IMR Revision and NEPA re-evaluation (ATC Driven)
 - ✓ Major “Wet” and “Dry” Utility Relocations
 - ✓ Seismic Design
 - ✓ HAZMAT Studies / Compliance
 - ✓ CSX Railroad Approval



h. Self-Assessment. The information provided in this section should be a self-assessment of ICE, PLLC’s performance on the project to identify Lead Designers/Major Sub-consultants with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Designers/Major Sub-consultants that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

ICE began all pre-construction planning and activities as soon as the determination of best value team in April 2021. ICE allocated proper resources to ensure the timely submission of all design, environmental, traffic planning and utility relocation submittals. ICE has met every one of its contract and submittal deliverables and in accordance with the approved CPM schedule by SCDOT. All critical final roadway/drainage and structures packages have been approved with the final RFC package for Signing and Signal Plans to be completed by end of October 2022. SCDOT and ICE implemented an “Over the Shoulder” (OTS) process from the beginning of the design phase which proved to be invaluable in resolving any outstanding design items on a weekly/bi-weekly basis.


i. Quality Initiatives. Discuss ICE, PLLC’s quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

The ICE Design Team submitted 15 Formal Alternate Technical Concepts (FATCs) that includes innovative design solutions to help save the Department time and money. Fourteen (14) FATCs were approved by SCDOT. The significant innovation was the layout of the interchange with its directional interchange coupled with a DDI style cross-over signal. The interchange Layout proved to be safer (\$14.7 Million of safety benefits for 2024-2060) and operationally more efficient (\$55.7 Million safety benefits for 2024-2060) than the MSA option of tight diamond. On the outset of the Project, AUJV submitted a comprehensive list of cost saving ideas of over \$10 million. A total cost saving of \$1.622 Million to SCDOT has been recorded as change orders through end of September 2022.

j. For each question in Section 3.5.2 of the RFQ for which a “Yes” answer was provided, ICE, PLLC shall provide a detailed explanation below.

Not Applicable

WORK HISTORY AND QUALITY FORM – DESIGNER

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project design or construction	c. Contact information of the Client & their Project Manager who can verify ICE, PLLC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by ICE, PLLC (in thousands)
Name: Carolina Crossroads Phase 2 Location: Richland County, SC	Name: Archer-United Joint Venture 	Name of Owner: SCDOT Project Manager: Chris Lacy, PE Phone: (803) 737-1419 Email: lacycr@scdot.org	Construction: 02/2025 Final Design: 11/2022	\$127,000	\$7,648

g. Narrative describing the work performed by ICE, PLLC. Include the office location(s) where the design work was performed and whether ICE, PLLC was the lead designer or a sub-consultant.

Project Description: This second phase of Carolina Crossroads consists of the re-design and construction of the interchange at I-20 and Broad River Road (US 176). As the Lead Design Firm on the AUJV Design Build Team, ICE designed a highly innovative **Offset Diverging Diamond Interchange (ODDI)**. ICE is responsible for the overall design management and coordination of the project. The Team developed several unique approaches to address the purpose and goal and determined that an offset DDI was both safer and operationally more efficient than the original MSA concept of SPUI. This new design is intended to reduce the number of accidents by enhancing the safety operations at the interchange and reducing long-term maintenance by decreasing the overall bridge area by 19,138 square feet. The Maintenance of Traffic Plan was developed with the specific goal of minimizing traffic shifts and temporary lane



closures, and limiting construction phases for I-20, US 176, and the surrounding roadway network. ICE's approach maintains all lanes along I-20 and US 176 while widening, median, and bridge work are being performed.

List of Services Provided by ICE: Design Management, Roadway Design, Drainage Design, Structures Design, Geotechnical and Bridge Foundation Design, Signal Design, Signing and Pavement Marking, MOT Plans, Public Relation Support, Construction Support and QC Inspection and Testing Services.

Office Location where the Work was Performed: ICE former Corporate Office and now CCR Construction Office (1021 BriarGate Circle, Columbia, SC) and ICE current Corporate Office (110 Midlands Court, West Columbia, SC)

Key Individual name/role/time on the project: Elham Farzam, PE (ICE): Lead Design Engineer (2020-present) | Billy Hardwick (UIG): Project Manager (2020-present) | Andy Douglas (AWC): Project Executive (2020-present) | Jose Cortez (AWC): Safety Manager (2021-present)

- SIMILARITIES to CCR PH 3:**
- ✓ Design-Build Contract
 - ✓ NEPA Re-evaluation
 - ✓ IMR Update
 - ✓ Interstate Widening
 - ✓ Innovative Interchange Design
 - ✓ Major "Wet" and "Dry" Utility Relocations
 - ✓ Extensive Traffic Analyses & Modeling
 - ✓ Complex Bridge Design
 - ✓ Overpass bridge demolition over traffic
 - ✓ Accelerated Design Schedule
 - ✓ Minimize ROW Impacts

h. Self-Assessment. The information provided in this section should be a self-assessment of ICE, PLLC's performance on the project to identify Lead Designers/Major Sub-consultants with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Designers/Major Sub-consultants that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

ICE began all pre-construction planning and activities as soon as the determination of best value team in August 2021. ICE allocated proper resources to ensure the timely submission of all design, environmental, traffic planning and utility relocation submittals. ICE has met every one of its contract and submittal deliverables and in accordance with the approved CPM schedule by SCDOT. All critical final roadway/drainage and structures packages have been approved with the final RFC package for Signing and Signal Plans to be completed by end of October 2022. SCDOT and ICE implemented an "Over the Shoulder" (OTS) process from the beginning of the design phase which proved to be invaluable in resolving any outstanding design items on a weekly/bi-weekly basis.

i. Quality Initiatives. Discuss ICE, PLLC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

The ICE Design Team submitted 10 Formal Alternate Technical Concepts (FATCs) which included innovative design solutions to help save the Department time and money. All Ten (10) FATCs were approved by SCDOT. The significant innovation was the layout of the interchange using the offset DDI and the elimination of the proposed underpass "tunnel" under US 176 - which was replaced with a braided ramp structure to the west of the US 176. The ODDI proved to be safer (\$36.8M safety benefits for 2024-206) and operationally more efficient (\$50.8 Million in User Delay Savings for 2024-2060) than the MSA SPUI option. On the outset of the Project, AUJV submitted a comprehensive list of cost saving ideas of over \$4 million. A total cost saving of \$1.061 Million to SCDOT has been recorded as change orders through end of September 2022.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, ICE, PLLC shall provide a detailed explanation below.

Not Applicable

WORK HISTORY AND QUALITY FORM – DESIGNER

a. Project Name & Location (City, State)	b. Name of lead responsible for the overall project construction	c. Contact information of the Client & their Project Manager who can verify ICE, PLLC's responsibilities	d. Actual or Estimated Construction & Professional Services Completion Date	e. Actual or Estimated Project Construction Cost (in thousands)	f. Dollar Value of Work Performed by ICE, PLLC (in thousands)
Name: I-85 Widening Project (MM 80 to 96) Location: Spartanburg and Cherokee Counties, SC	Name: Blythe/Zachry, Joint Venture	Name of Owner: SCDOT Project Manager: Mr. Brad Reynolds, PE Phone: 803.737.3081 Email: ReynoldsBS@scdot.org	Construction: 01/2024 Design: 12/2017 Design Reviews: 12/2021	\$550,000+/-	\$6,000 (DB Prep / Review)

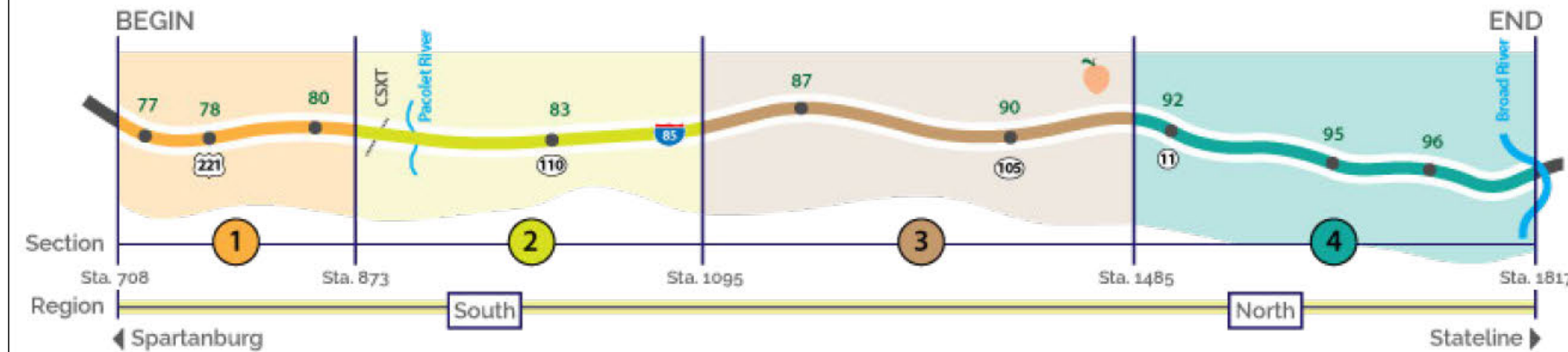
g. Narrative describing the work performed by ICE, PLLC. Include the office location(s) where the design work was performed and whether ICE, PLLC was the lead designer or a sub-consultant.

Project Description: As the Lead Design Firm, ICE was responsible for managing the engineering services necessary for development of the Environmental Assessment and Design-Build preparation for widening approximately 18 miles of interstate. ICE performed all of the services on this Project. Along the approximately 18-mile project area, interchanges at **Exit 83 – Battleground Road (SC 110)**, **Exit 87 – Green River Road (S-39)**, **Exit 95 – Pleasant School Road (S-82)**, and **Exit 96 – Shelby Highway (SC 18)** will be modified to bring them into compliance with state and federal design requirements. The project also included adding a travel lane in each direction, improving various interchanges and exit ramps, and replacement of overpass bridges. This project was separated into four sections.

List of Services Provided by ICE: Project Management (entire project), Environmental Documentation / NEPA / Public Involvement (Entire Project), Bridge/Structure Design (30% Level) – MM 90-96, Hydrology Design (50% Level) – MM 90-96, Roadway Design (R/W Plans 75%) – MM 90-96, and Utility Coordination / Preliminary Utility Report (Entire Project). The Project is currently under construction using a design-build contract with the final design and R/W completed and construction approximately 54% complete.

Office Location where the Work was Performed: Columbia, SC (ICE's Corporate Headquarters)

Key Individual name/role/time on the project: Not Applicable



- SIMILARITIES to CCR PH 2:**
- ✓ Design-Build
 - ✓ Environmental Document Prep
 - ✓ Interstate Widening
 - ✓ Interchange Design
 - ✓ Utility Coordination
 - ✓ Traffic Analysis
 - ✓ Bridge Design
 - ✓ Overpass bridge construction/ demolition
 - ✓ Railroad Coordination



h. Self-Assessment. The information provided in this section should be a self-assessment of ICE, PLLC's performance on the project to identify Lead Designers/Major Sub-consultants with firms or personnel that have successfully completed projects on time and on or under budget, and to identify Lead Designers/Major Sub-consultants that have records of managing contracts to minimize delays, claims, dispute proceedings, litigation, and arbitration.

ICE managed the work of nine subconsultants on this assignment, including three major subconsultants - Mead & Hunt, STV and Three Oaks. ICE Leadership committed to SCDOT the completion of the NEPA Document and DB RFP package in time for SCDOT's procurement in February 2016. The original professional services agreement included NEPA Document, Preliminary Design, and support during the Design-Build procurement phase for approximately \$6 Million. After 16 months of planning, environmental analysis, and completion of the Preliminary Plans, the contract budget was **decreased by \$1 Million**, which was the direct result of effective management and attention to details by ICE Management Team. All deliverables were submitted on time per the established schedule.

i. Quality Initiatives. Discuss ICE, PLLC's quality initiatives including, but not limited to, cost control, schedule management and adherence, avoidance of claims, and other pertinent initiatives enhancing quality on the project.

Quality Initiatives included: a) **Schedule and Cost Control** measures established early and monitored on a minimum of bi-weekly snap shots as well as weekly status meetings to ensure compliance with the project schedule and critical path activities were not impacted by indecision, b) **QA/QC of Design** - the EA was signed on October 19, 2015 (less than 12 months) allowing SCDOT to begin the DB procurement of the project. This was made possible by implementation of a robust QA/QC program for the deliverables including but not limited to NEPA document, alternative analysis, impact analysis, "preferred option" Preliminary Design plan preparations, Stormwater Management Report, and Conceptual Bridge Plans, and c) **SCDOT and Resource Agency Coordination** – The project team worked closely with SCDOT and resource agencies to meet this aggressive schedule for an 16-mile widening project with four interchanges. There are no claims and no litigation because of ICE services to date.

j. For each question in Section 3.5.2 of the RFQ for which a "Yes" answer was provided, ICE, PLLC shall provide a detailed explanation below.

Not Applicable

Appendix C

[Redacted]

[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]

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Appendix C

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Appendix C

WORK HISTORY

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
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APPENDIX D

Legal & Financial

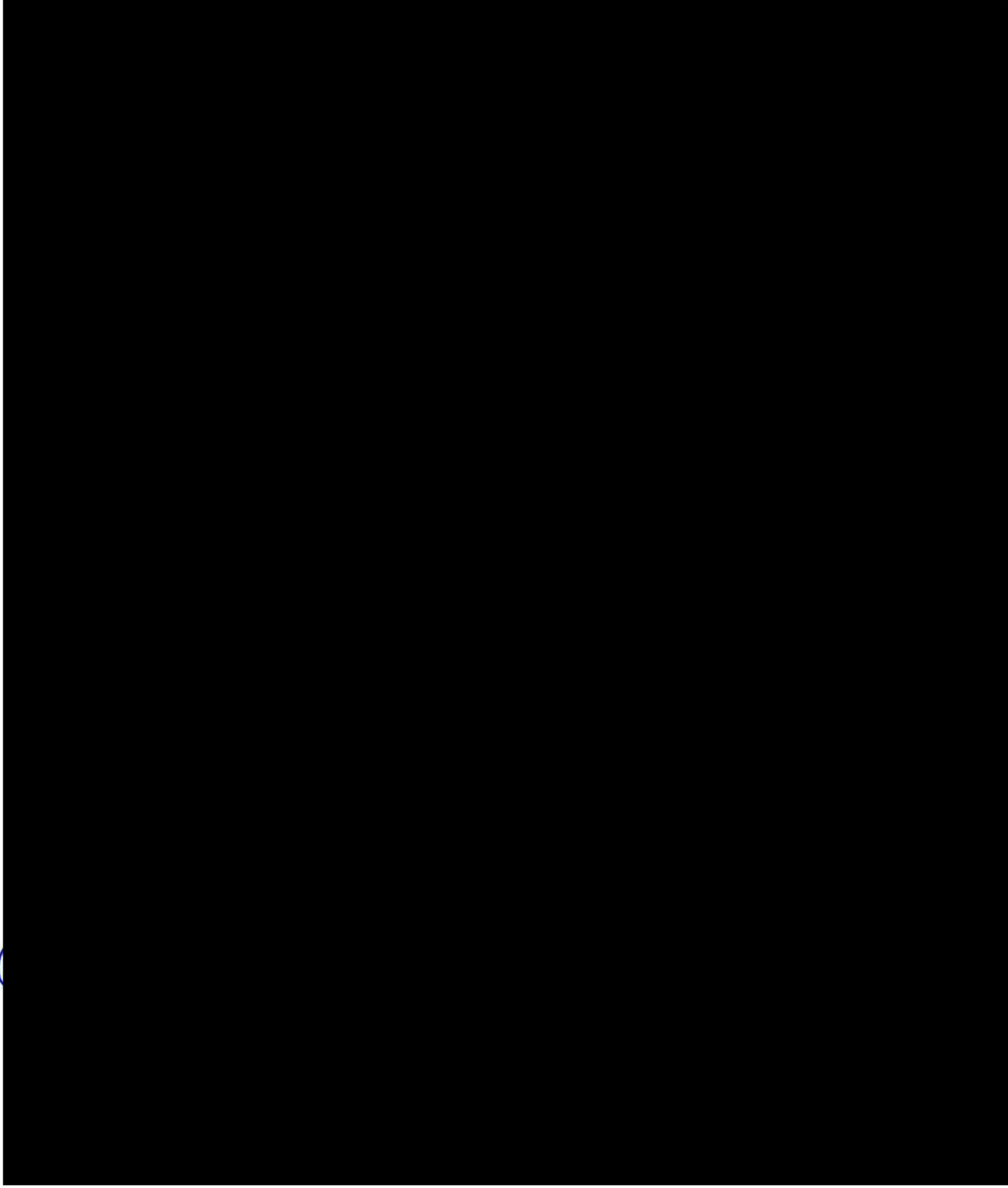


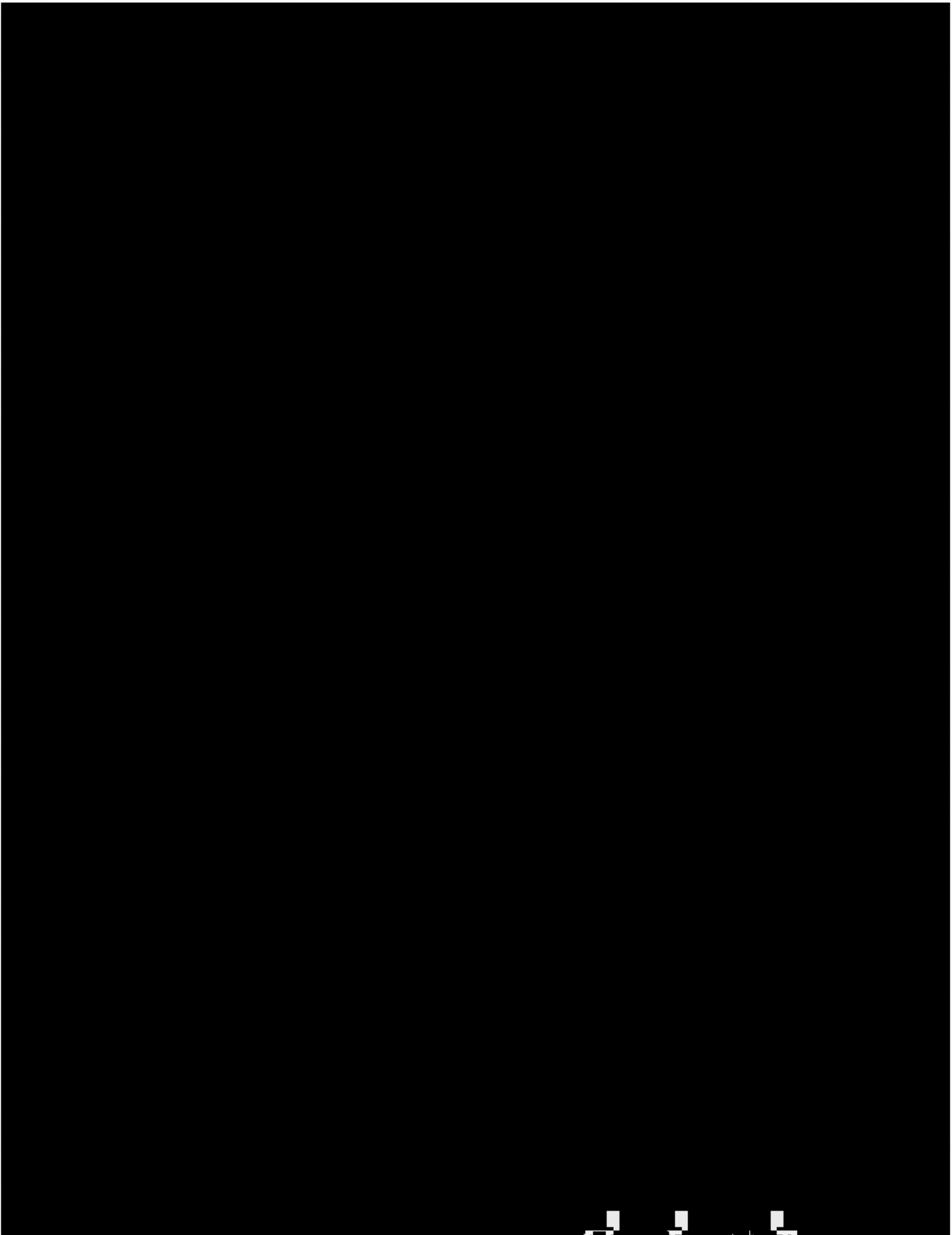
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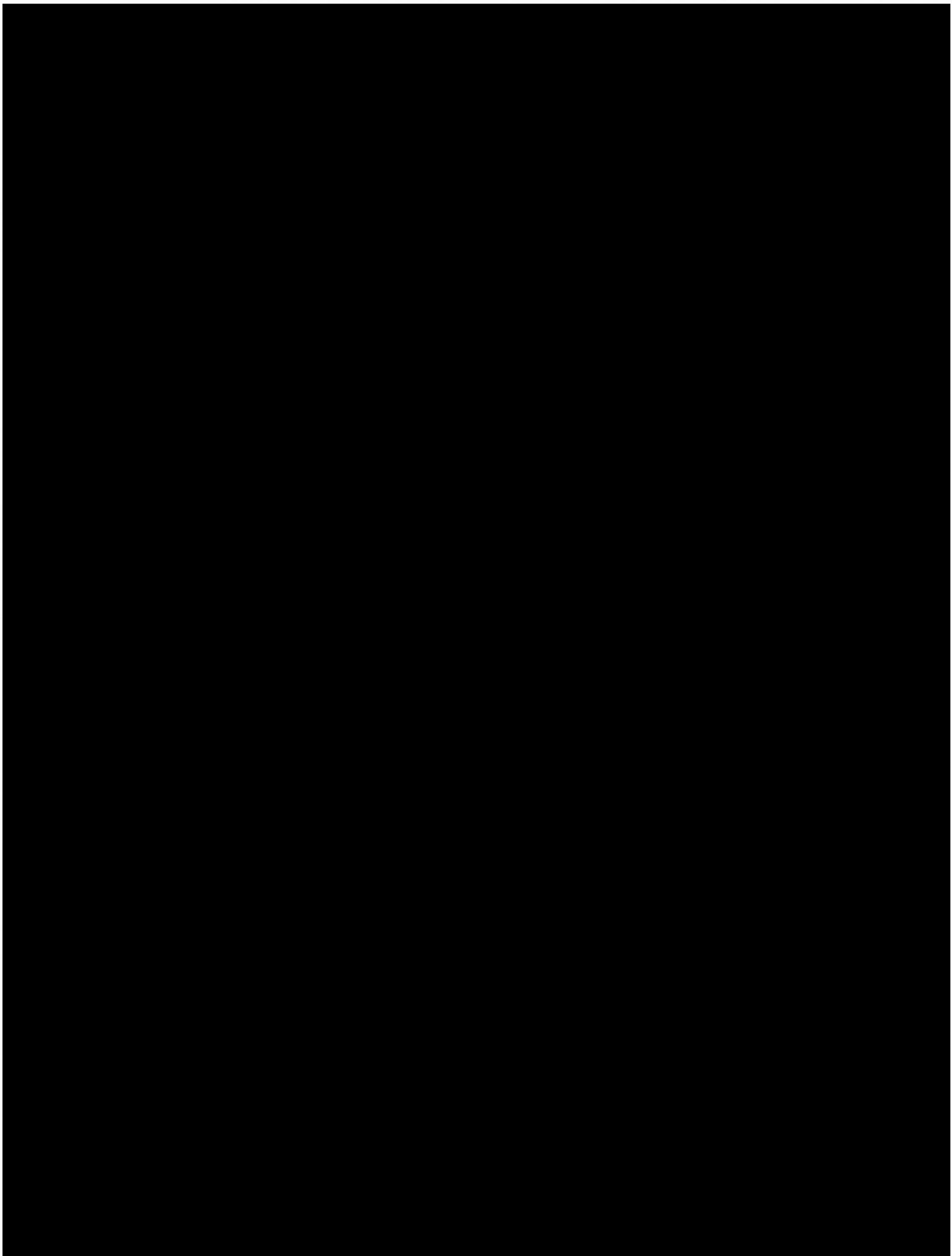
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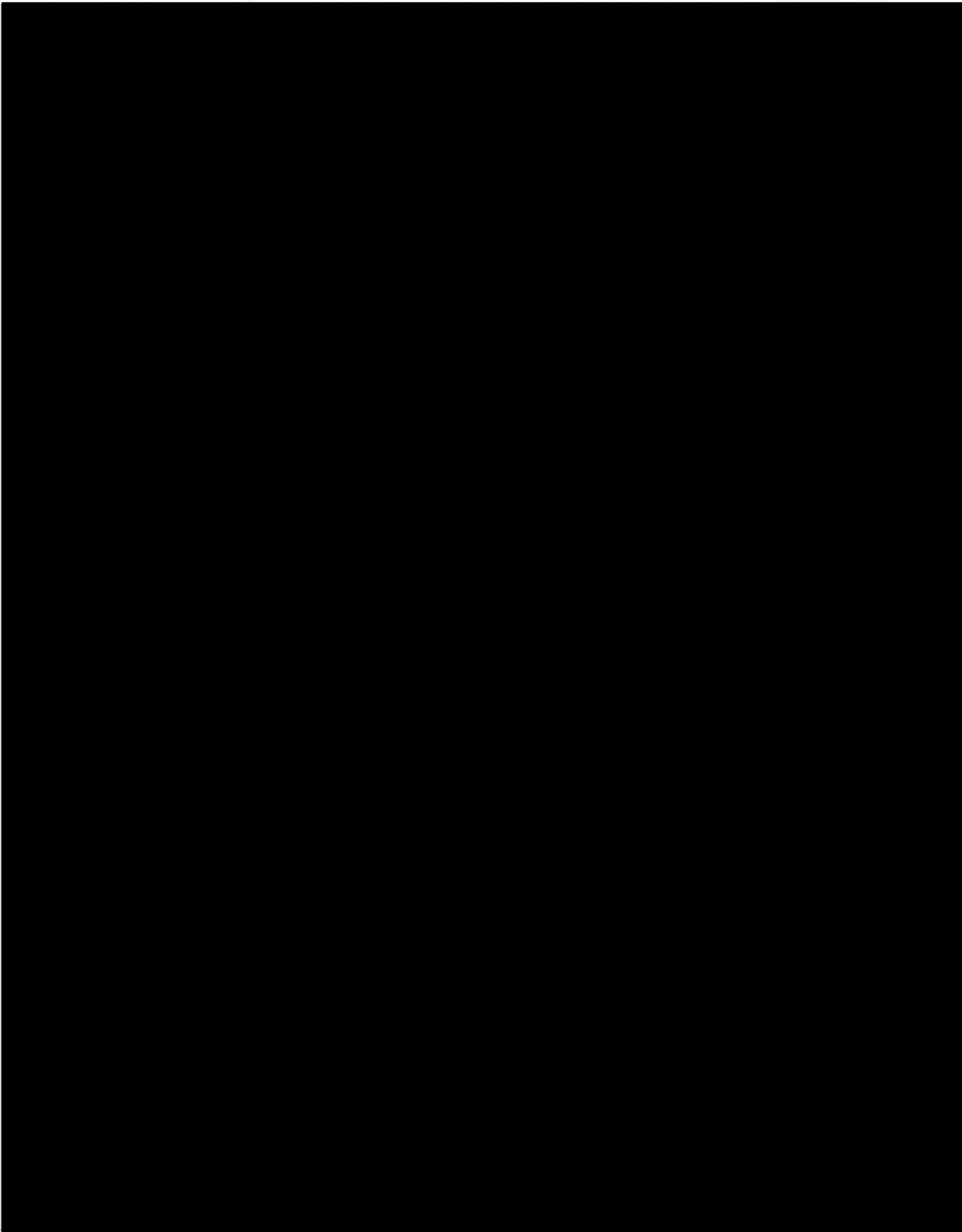
[Organizational Agreements](#)

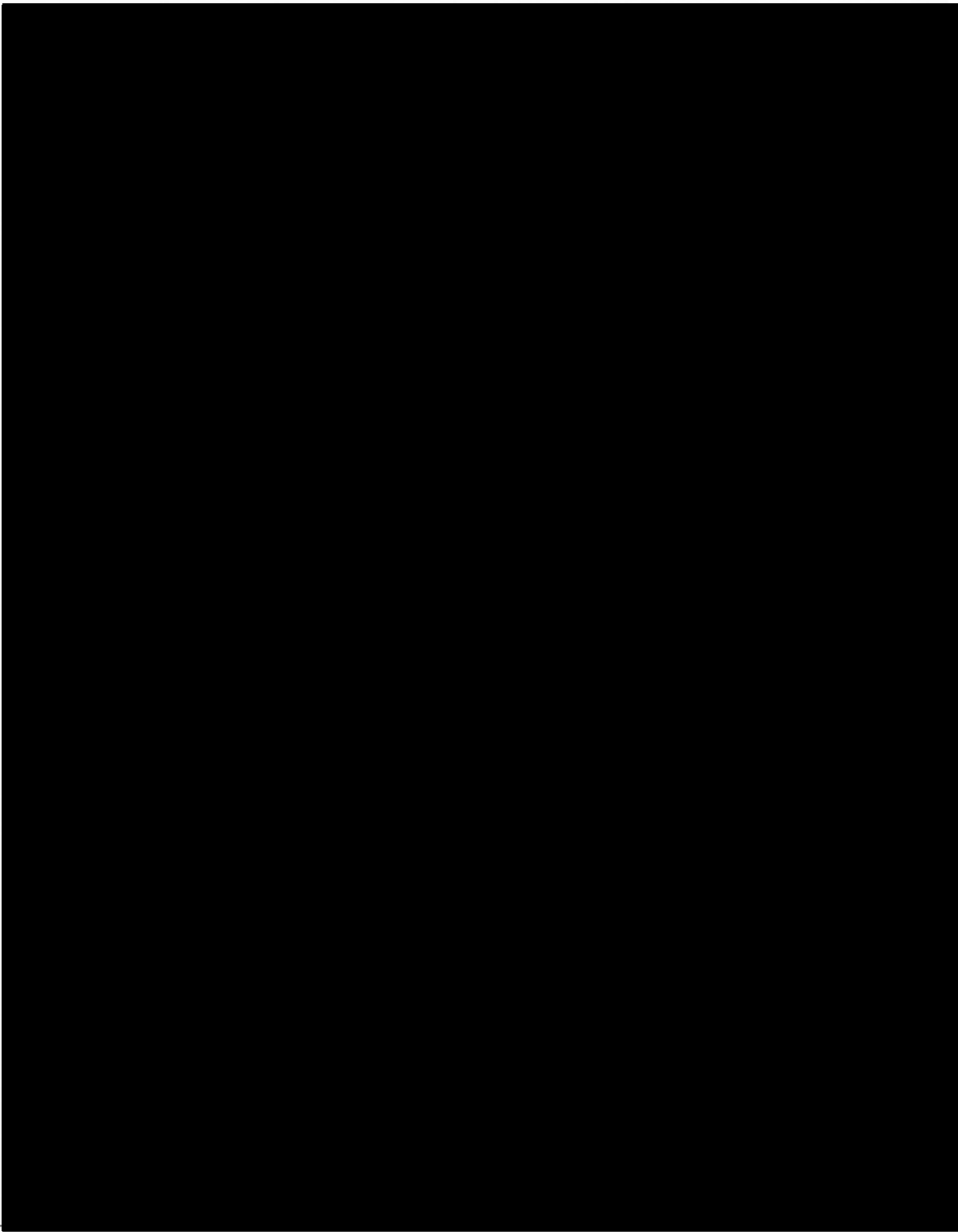
[Liability Statement](#)

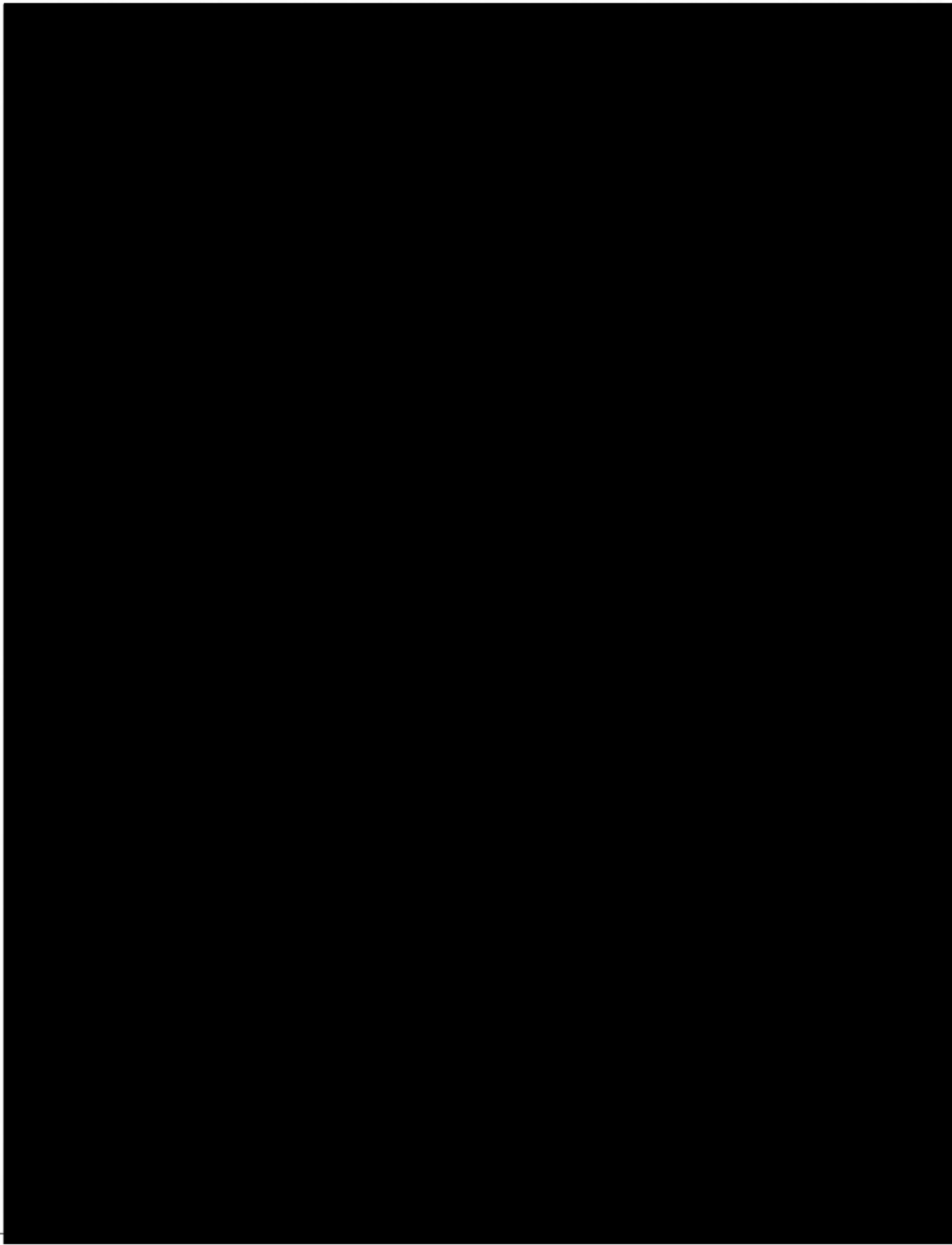


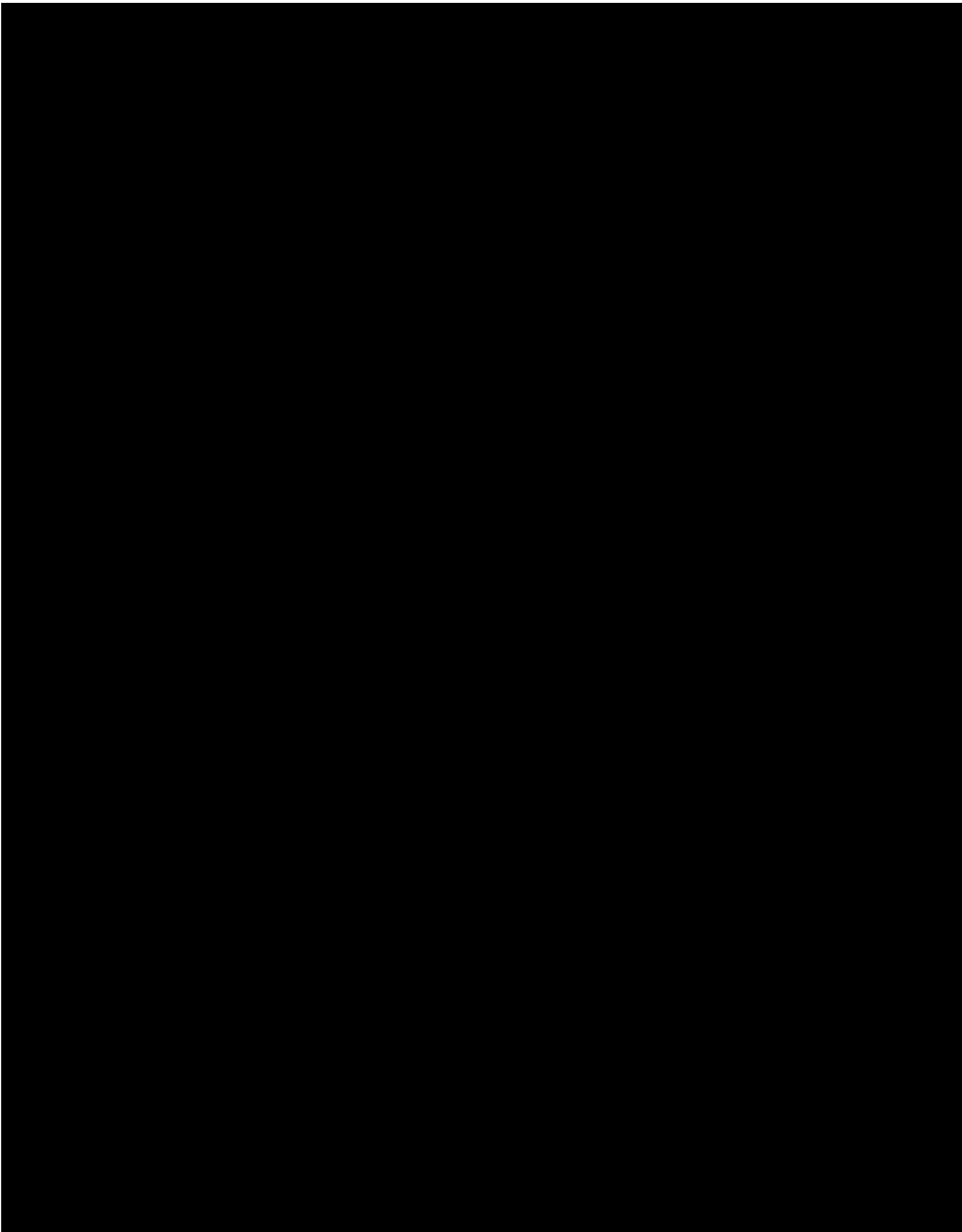


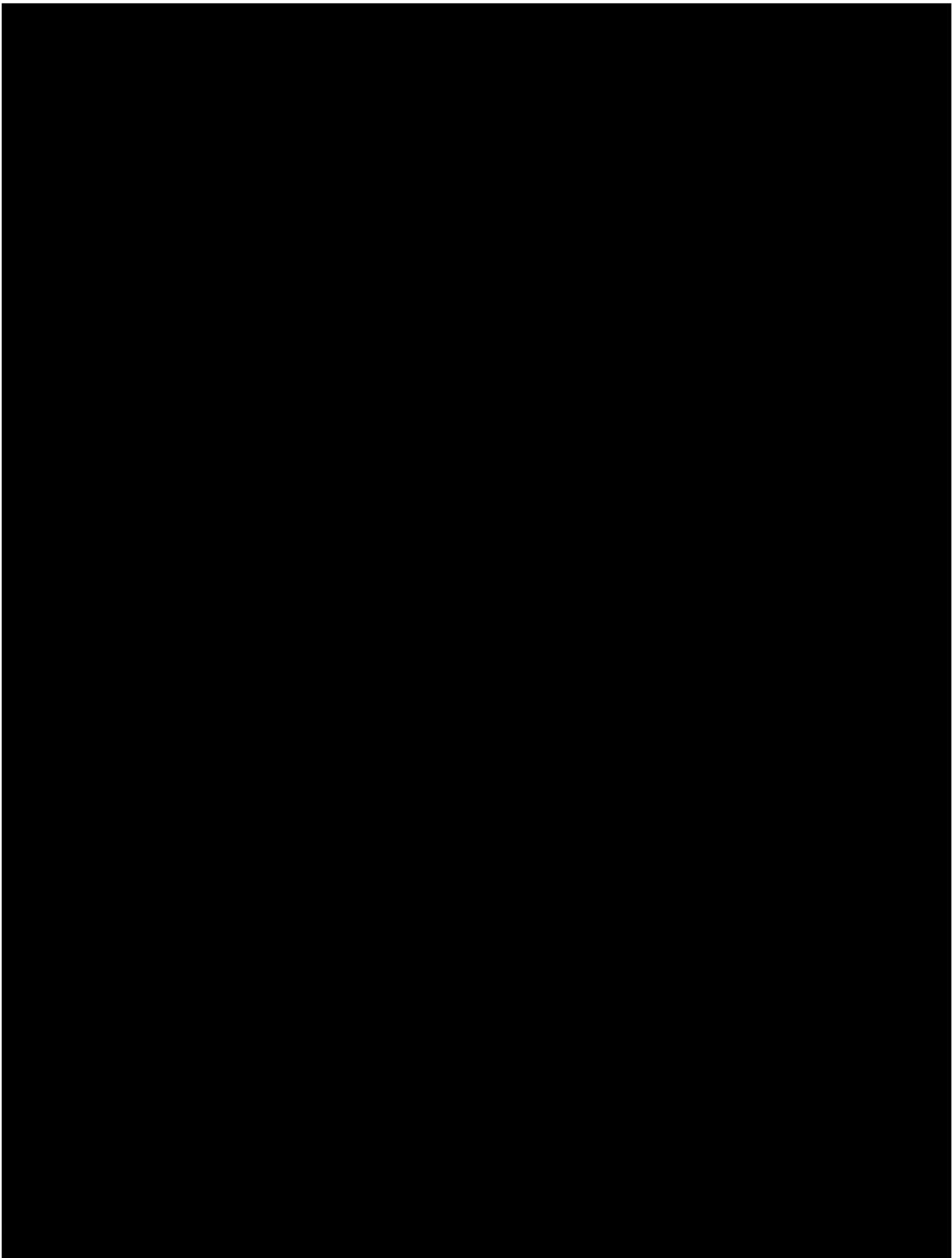


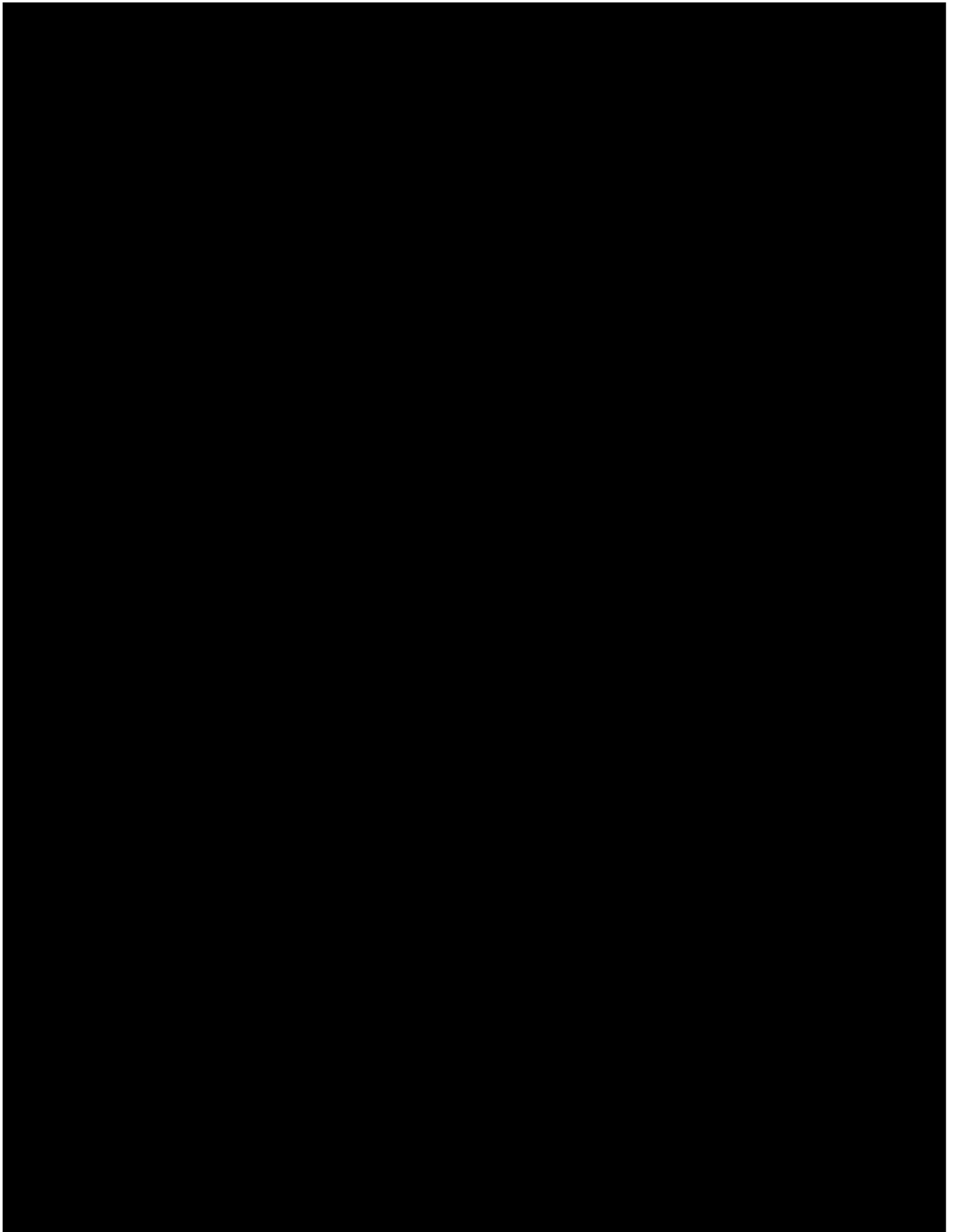


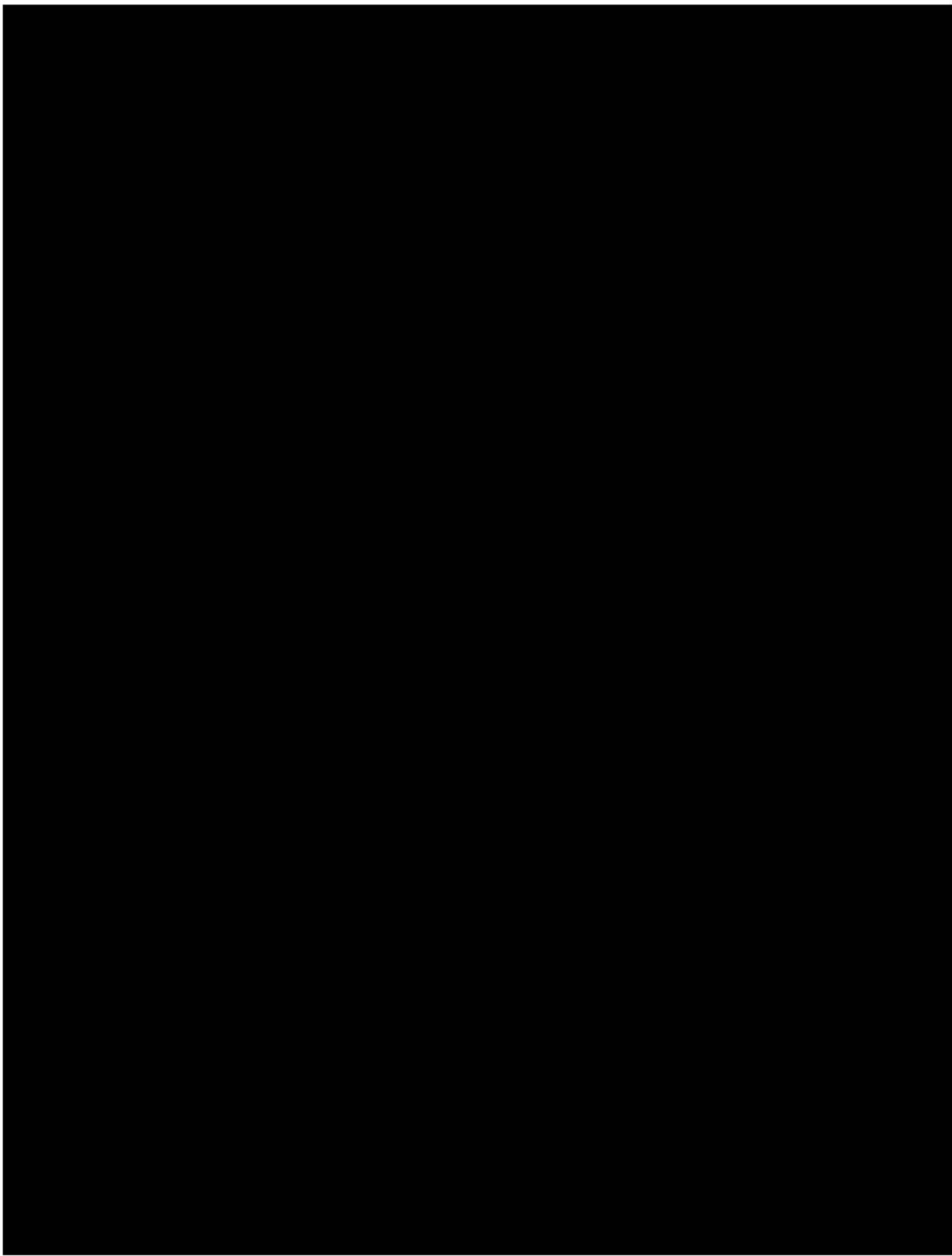


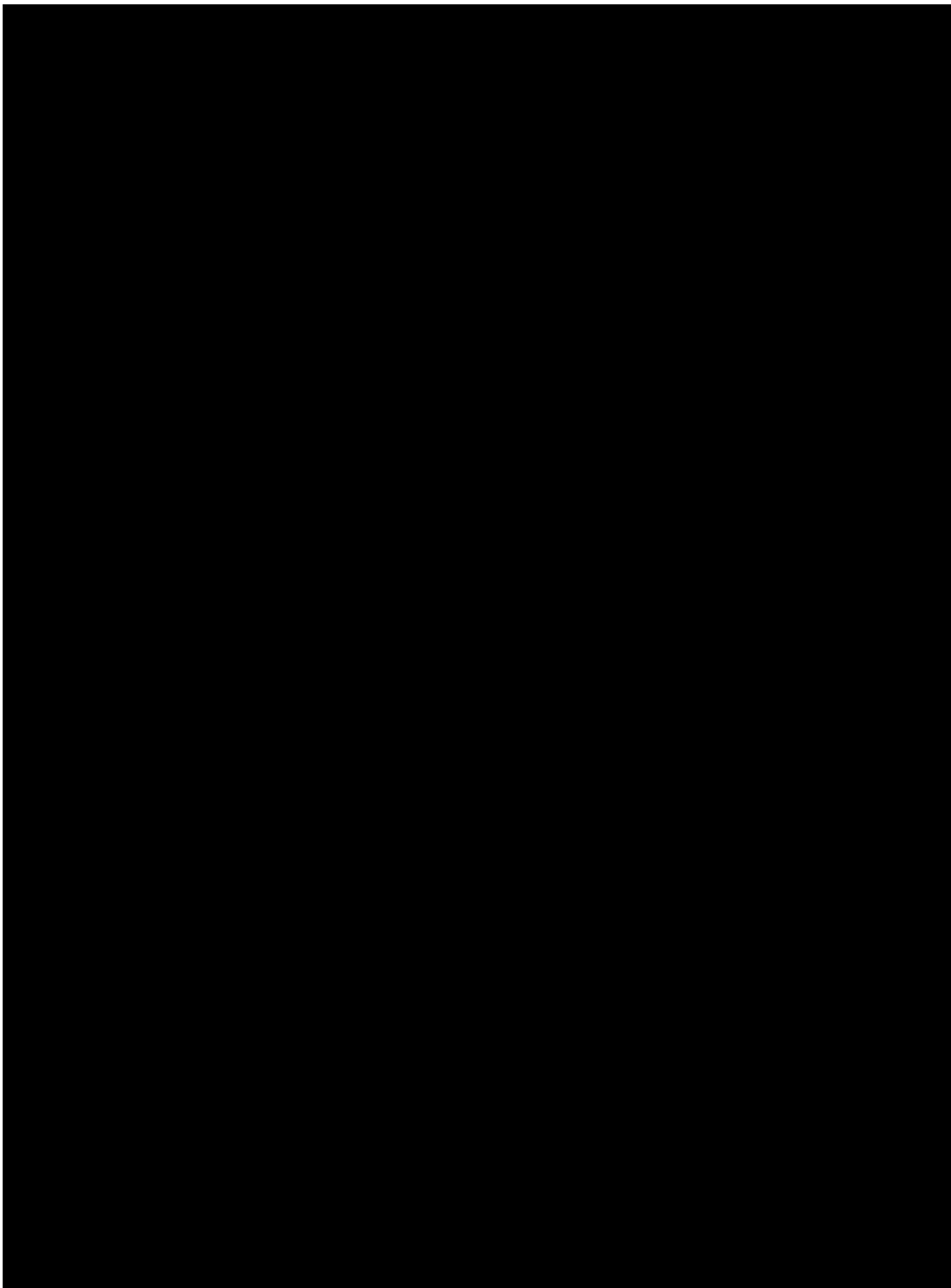




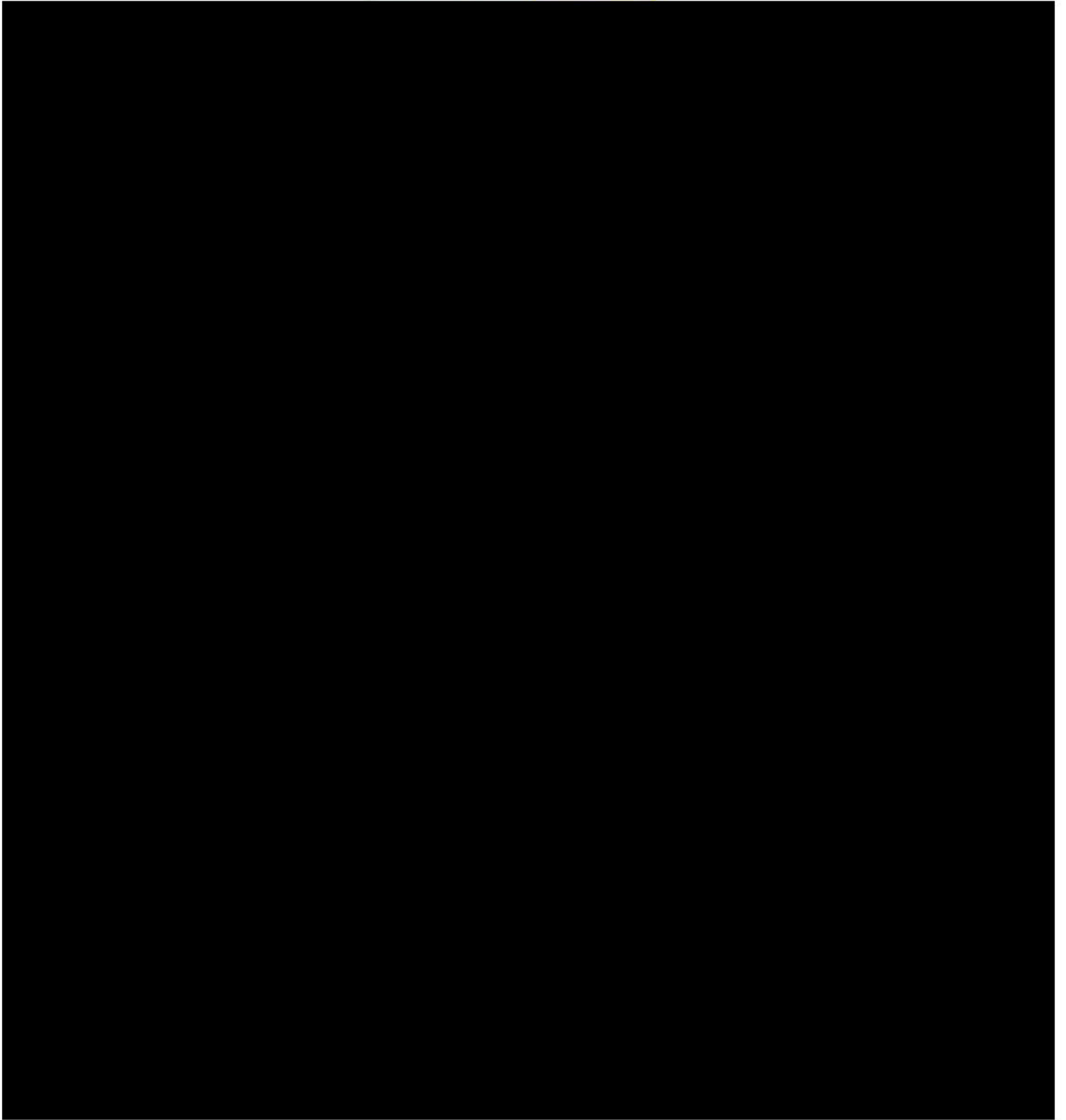














APPENDIX E

Organizational Conflicts of Interest



[AWC Signed Certification](#)

[UIG Signed Certification](#)

[BDC Signed Certification](#)

DISCLOSURE OF POTENTIAL CONFLICT OF INTEREST CERTIFICATION

PROPOSER hereby indicates that it has, to the best of its knowledge and belief has:

Determined that no potential organizational conflict of interest exists.

Determined a potential organizational conflict of interest as follows:

Attach additional sheets as necessary.

1. Describe nature of the potential conflict(s):

2. Describe measures proposed to mitigate the potential conflict(s):



Signature

10/14/2022

Date

Daniel P. Walsh

Print Name

Archer Western Construction, LLC

Company

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure certification with Department of Transportation contract personnel.

Name

Phone

Company

DISCLOSURE OF POTENTIAL CONFLICT OF INTEREST CERTIFICATION

PROPOSER hereby indicates that it has, to the best of its knowledge and belief has:

- Determined that no potential organizational conflict of interest exists.
 Determined a potential organizational conflict of interest as follows:

Attach additional sheets as necessary.

1. Describe nature of the potential conflict(s):

2. Describe measures proposed to mitigate the potential conflict(s):



Signature

10/14/2022

Date

James E. Triplett

Print Name

United Infrastructure Group, Inc.

Company

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure certification with Department of Transportation contract personnel.

Name

Phone

Company

DISCLOSURE OF POTENTIAL CONFLICT OF INTEREST CERTIFICATION

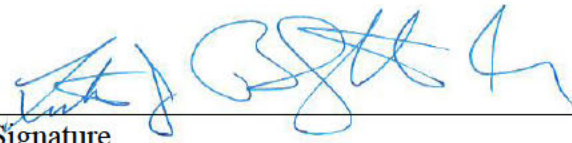
PROPOSER hereby indicates that it has, to the best of its knowledge and belief has:

- Determined that no potential organizational conflict of interest exists.
 Determined a potential organizational conflict of interest as follows:

Attach additional sheets as necessary.

1. Describe nature of the potential conflict(s):

2. Describe measures proposed to mitigate the potential conflict(s):



Signature

10/14/2022

Date

Luther J. Blythe, Jr.

Print Name

Blythe Development Co.

Company

If a potential conflict has been identified, please provide name and phone number for a contact person authorized to discuss this disclosure certification with Department of Transportation contract personnel.

Name

Phone

Company



APPENDIX F

Confidential or Proprietary Information Summary List





APPENDIX F

Confidential or Proprietary Information Summary List

The following sections of this SOQ are considered confidential and should not be disclosed under the South Carolina Freedom of Information Act.

Table of Questions..... Cover Page

Appendix C – Quality of Past Performance

Table of Questions Appendix C, Cover Sheet

Quality of Past Performance Forms PDF Pages 47-53

Appendix D – Legal & Financial

AUBJV Signed Affidavit PDF Page 55

JV Bond Letter PDF Pages 56-60

JV Teaming Agreement PDF Pages 61-66

JV Liability Statement PDF Pages 67



APPENDIX G

Addendum Receipt Forms



Addendum 1 - Notice of Receipt Form

NOTICE OF RECEIPT

**Carolina Crossroads Phase 3 – I-20/26/126 System Interchanges Design-Build Project
Design-Build – Project ID P039720
Richland and Lexington Counties**

Addendum 1

The information in this addendum shall be made part of the contract documents. PROPOSERS are instructed to incorporate the information into the previously provided RFQ documents.

PROPOSERS are required to sign this document and enclose it with their Statement of Qualifications. Receipt of this signed document by The South Carolina Department of Transportation serves as confirmation that the PROPOSER has received and incorporated this Addendum into the contract documents.

Confirmation Statement:

I, the PROPOSER confirm that I have received this addendum package and have incorporated the information provided in the addendum into the contract documents.



PROPOSER's Signature

10/17/2022

Date

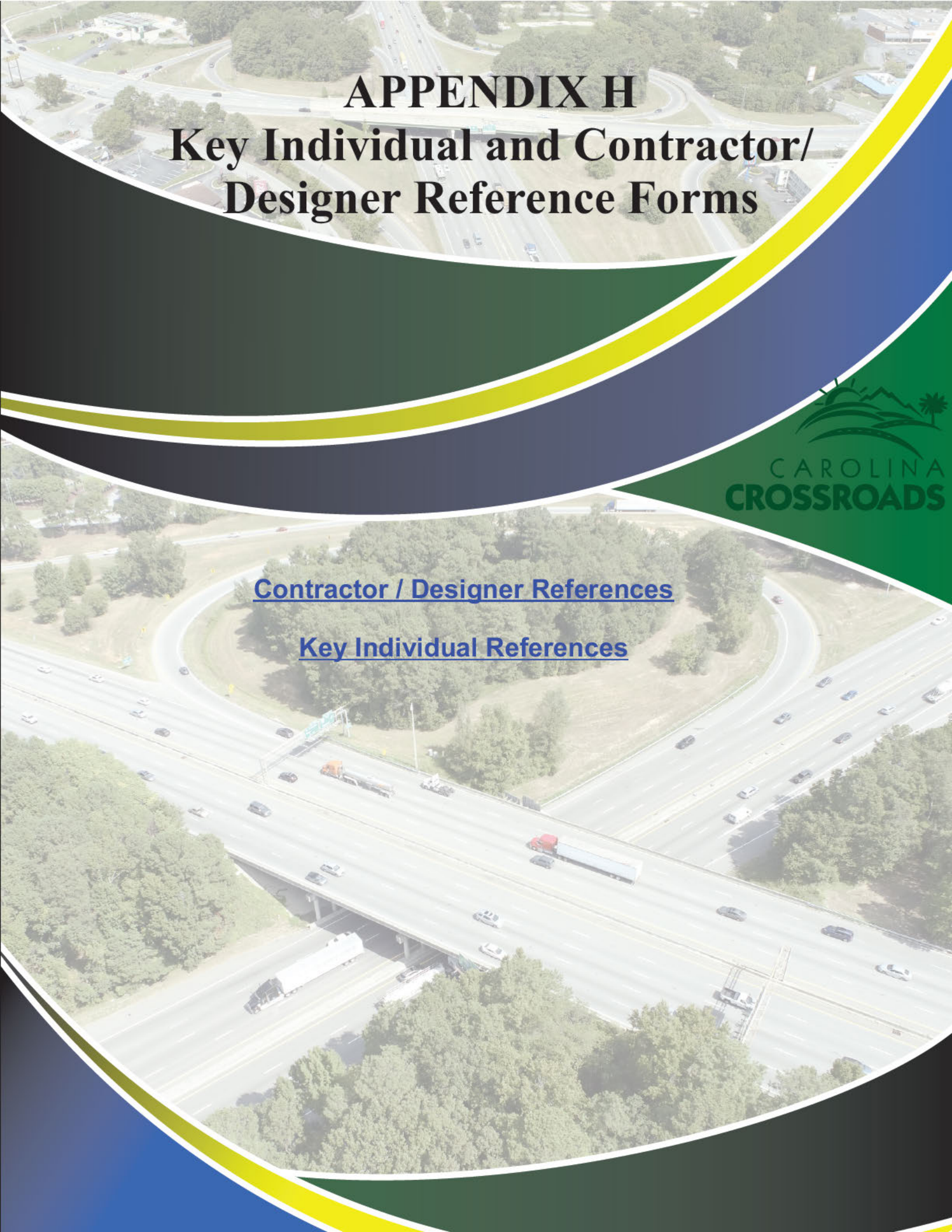
Andrew M. Douglas (Archer Western)

Printed Name

For: Archer-United-Blythe Joint Venture

Design-Build Team Name





APPENDIX H

Key Individual and Contractor/ Designer Reference Forms



[Contractor / Designer References](#)

[Key Individual References](#)

References from Previous Working Relationships Table

Email	First Name	Last Name	Company Name	Project Name	Team
lacycr@scdot.org	Chris	Lacy	SCDOT	SCDOT Carolina Crossroads Phase 2	ICE / Archer United, JV
lacycr@scdot.org	Chris	Lacy	SCDOT	SCDOT Carolina Crossroads Phase 1	ICE / Archer United, JV
reynoldsbs@scdot.org	Brad	Reynolds	SCDOT	I-26 Widening (MM 85-101)	United / ICE
burnsjm@scdot.org	John	Burns	SCDOT	SC 277 Bridge Replacement over I-77	AWC / United / ICE
redfearnwt@scdot.org	Tyke	Redfearn	SCDOT	I-77 Widening / Rehabilitation	AWC / United / ICE
greenfk@scdot.org	Keith	Green	SCDOT	Package D Bridge Replacements	United / ICE / Banks
parrissl@scdot.org	Shane	Parris	SCDOT	Package E Bridge Replacements	United / ICE
redfearnwt@scdot.org	Tyke	Redfearn	SCDOT	US 21 Bridge over Harbor River	United / ICE
braggik@scdot.org	Jared	Bragg	SCDOT	I-77 Panthers Interchange	United / Blythe Development
fowlerjm@scdot.org	Joseph	Fowler	SCDOT	I-85 Reconstruction (MM 69-77)	AWC / ICE
rwbaucom@ncdot.gov	Rick	Baucom	NCDOT / NCTA	Monroe Bypass	United / ICE
cbarclay@ncdot.gov	Carl	Barclay	NCDOT	NC 540 Western Wake Freeway	AWC / ICE
dvanmeter@dot.ga.gov	Darryl	VanMeter	GDOT	Northwest Corridor Express Lanes	AWC / ICE
ro'hara@dot.ga.gov	Richard	O'Hara	GDOT	Eastside Bridge Replacements	AWC / ICE
gmunna@washgroup.com	Greg	Munna	GDOT	I-285/I-20 East Interchange	AWC / Archer-Snell, JV / ICE

References from Work History Forms

Email	First Name	Last Name	Company Name	Project Name	Team
jhancock@dot.ga.gov	John	Hancock	GDOT	Northwest Corridor Express Lanes	AWC / Parsons
andy.barber@ky.gov	Andy	Barber	Kentucky Transportation Cabinet	Ohio River Bridges Downtown Crossing	AWC / Jacobs
rwbaucom@ncdot.gov	Rick	Baucom	NCDOT / NCTA	Monroe Bypass	United / RK&K
rwbaucom@ncdot.gov	Rick	Baucom	NCDOT / NCTA	I-85/I-485 Interchange	STV / Blythe Development
reynoldsbs@scdot.org	Brad	Reynolds	SCDOT	I-26 MM 85 to 101 (SEGMENTS 1 & 3)	ICE / Archer United, JV
lacycr@scdot.org	Chris	Lacy	SCDOT	Carolina Crossroads Phase 1	ICE / Archer United, JV
lacycr@scdot.org	Chris	Lacy	SCDOT	Carolina Crossroads Phase 2	ICE / Archer United, JV
reynoldsbs@scdot.org	Brad	Reynolds	SCDOT	I-85 Widening Project (MM 80 to 96)	ICE



Email	First Name	Last Name	Key Individual Name	Project Name	Role of Key Individual	Team
waitesnt@scdot.org	Nick	Waites	Andy Douglas	I-26 Widening (MM 85-101)	Project Executive	AWC / UIG
mdpatton@ncdot.gov	Michael	Patton	Andy Douglas	I-26 Reconstruction	Project Executive	AWC
ristergd@scdot.org	David	Rister	Andy Douglas	Carolina Crossroads Phase 1: Colonial Life Boulevard	Project Executive	AWC / UIG
ristergd@scdot.org	David	Rister	Andy Douglas	Carolina Crossroads Phase 2: Broad River Rd at I-20 Interchange	Project Executive	AWC / UIG
waitesnt@scdot.org	Nick	Waites	Dave Moyar	I-26 Widening (MM 85-101)	Design-Build Project Manager	AWC / UIG
burnsjm@scdot.org	John	Burns	Dave Moyar	I-77 Widening & Rehabilitation (MM 15-27)	Operations Manager	AWC / ICE
carrie.stanbridge@dot.state.fl.us	Carrie	Stanbridge	Dave Moyar	I-95 Overland Bridge Replacement	Senior Project Manager	AWC
rhancock@ncdot.gov	Ron	Hancock	Dave Moyar	NC-540 Western Wake Expressway	Senior Project Manager	AWC
david.pino@atl.com	David	Pino	Dave Moyar	Automated People Mover	Senior Project Manager	AWC
ristergd@scdot.org	David	Rister	Billy Hardwick	Carolina Crossroads Phase 1: Colonial Life Boulevard	Project Manager	Archer / United
ristergd@scdot.org	David	Rister	Billy Hardwick	Carolina Crossroads Phase 2: Broad River Rd at I-20 Interchange	Project Manager	Archer / United
burtond@scdot.org	Daniel	Burton	Billy Hardwick	US 21 over Harbor River Bridge Replacement	Project Manager	United / ICE
rwbaucom@ncdot.gov	Rick	Baucom	Billy Hardwick	Monroe Bypass	Project Structures Manager	United
colvinld@scdot.org	Leland	Colvin	Billy Hardwick	I-520 Palmetto Parkway Phases I & II	Project Construction Manager	United / ICE
braggjk@scdot.org	Jared	Bragg	Travis Padgett	I-77 Panthers Interchange	Project Manager	Blythe
mkkiser@ncdot.org	Marcus	Kizer	Travis Padgett	Winston Salem Outer Loop DEF	Deputy Design Build Manager	Blythe
mtucker@ncdot.org	Mezak	Tucker	Travis Padgett	US 421 / I-40 BUS	Deputy Design Build Manager	Blythe
lpuckett@ncdot.org	Lee	Puckett	Travis Padgett	I-40 over Yadkin River	Deputy Design Build Manager	Blythe
RedfearnWT@scdot.org	Tyke	Redfearn	Elham Farzam	I-77 Widening & Rehabilitation (MM 15-27)	Lead Design Engineer and Sr. Pavement Engineer	ICE / United / AWC
ReynoldsBS@scdot.org	Brad	Reynolds	Elham Farzam	I-26 Widening (MM 85-101)	Lead Design Engineer and Sr. Pavement Engineer	ICE / United / AWC
lacycr@scdot.org	Chris	Lacy	Elham Farzam	Carolina Crossroads Phase 1: Colonial Life Boulevard & Carolina Crossroads Phase 2: Broad River Rd. at I-20 Interchange	Lead Design Engineer	Archer United, JV / ICE
gmunna@walshgroup.com	Greg	Munna	Elham Farzam	I-285 / I-20 East Interchange	Pursuit Manager / Sr. Pavement Engineer	AWC / Archer-Snell, JV / ICE
dvanmeter@dot.ga.gov	Darryl	VanMeter	Jonathan Reid	I-26 Widening (MM 85-101)	Traffic Engineer	Arcadis
lacycr@scdot.org	Chris	Lacy	Jonathan Reid	Carolina Crossroads Phase 1	Traffic Engineer	Arcadis
lacycr@scdot.org	Chris	Lacy	Jonathan Reid	Carolina Crossroads Phase 2	Traffic Engineer	Arcadis
dvanmeter@dot.ga.gov	Darryl	VanMeter	Jonathan Reid	I-75 Northwest Corridor Draft Environmental Impact Study	Traffic Engineering Manager	Arcadis
marylou.godfrey@dot.state.fl.us	MaryLou	Godfrey	Jonathan Reid	Tampa Bay Express Downtown Interchange	Concept Design Engineer	
waitesnt@scdot.org	Nick	Waites	Patrick Goggin	I-26 Widening (MM 85-101)	Design Build Project Manager	AWC / UIG
joseph.dorsey@dc.gov	Joseph	Dorsey	Patrick Goggin	South Capitol Street Corridor	Construction Manager	AWC
mark.moshier@dot.state.fl.us	Mark	Moshier	Patrick Goggin	Broward I-95 Express Lanes Design-Build	Project Manager	AWC
gvalentine@ky.gov	Gary	Valentine	Patrick Goggin	Ohio River Bridges Downtown Crossing Design-Build	Construction Manager	AWC
eugene.joynt@wsp.com	Gene	Joynt	Patrick Goggin	Dan Ryan Expressway Program	Construction Manager	AWC
ristergd@scdot.org	David	Rister	Jose Cortez	Carolina Crossroads Phase 1: Colonial Life Boulevard	Sr. Safety Manager	AWC / UIG
ristergd@scdot.org	David	Rister	Jose Cortez	Carolina Crossroads Phase 2: Broad River Rd at I-20 Interchange	Sr. Safety Manager	AWC / UIG
joseph.dorsey@dc.gov	Joseph	Dorsey	Jose Cortez	South Capitol Street Corridor	Sr. Safety Manager	AWC
mukesh.vasavada@baltimorecity.gov	Mukesh	Vasavada	Jose Cortez	Back River WWTP Enhance Nutrient Removal Phase 3 & 4	Sr. Safety Manager	AWC
ristergd@scdot.org	David	Rister	Newel White	Carolina Crossroads Phase 1: Colonial Life Boulevard	Independent Quality Assistant	RKI
ristergd@scdot.org	David	Rister	Newel White	Carolina Crossroads Phase 2: Broad River Rd. at I-20 Interchange	Independent Quality Assistant	RKI
kbarrett@utah.gov	Kelly	Barrett	Newel White	West Davis Corridor	Construction Quality Manager	RKI
JGadsby@azdot.gov	Julie	Gadsby	Newel White	Loop 202, South Mountain Freeway	Construction IQF Manager	RKI
rstewart@utah.gov	Robert	Stewart	Newel White	I-15 CORE Reconstruction	Materials Manager	RKI

