

PROFESSIONAL SERVICES AGREEMENT

MULTI-AERIAL IMAGERY

BETWEEN



COOK COUNTY GOVERNMENT

BUREAU OF TECHNOLOGY

AND

MERRICK & COMPANY

CONTRACT NO. 2050-18294

(PURCHASE ORDER NO. 70000170570)

PROFESSIONAL SERVICES AGREEMENT

TABLE OF CONTENTS

TERMS AND CONDITIONS	3
ARTICLE 1) INCORPORATION OF BACKGROUND	3
ARTICLE 2) DEFINITIONS	3
a) Definitions	3
b) Interpretation.....	4
c) Incorporation of Exhibits.....	5
ARTICLE 3) DUTIES AND RESPONSIBILITIES OF CONSULTANT.....	5
a) Scope of Services.....	5
b) Deliverables.....	5
c) Standard of Performance	6
d) Personnel.....	6
e) Minority and Women Owned Business Enterprises Commitment.....	7
f) Insurance.....	8
g) Indemnification.....	11
h) Confidentiality and Ownership of Documents	11
i) Patents, Copyrights and Licenses	11
j) Examination of Records and Audits.....	12
k) Subcontracting or Assignment of Contract or Contract Funds.....	13
ARTICLE 4) TERM OF PERFORMANCE.....	15
a) Term of Performance	15
b) Timeliness of Performance	15
c) Agreement Extension Option.....	15
ARTICLE 5) COMPENSATION	15
a) Basis of Payment.....	15
b) Method of Payment	15
c) Funding.....	16
d) Non-Appropriation.	17
e) Taxes.....	17
f) Price Reduction.....	17
g) Consultant Credits.....	17
ARTICLE 6) DISPUTES.....	17
ARTICLE 7) COOPERATION WITH INSPECTOR GENERAL AND COMPLIANCE.....	18
WITH ALL LAWS.....	18
ARTICLE 8) SPECIAL CONDITIONS.....	18
a) Warranties and Representations.....	18
b) Ethics.....	19
c) Joint and Several Liability	19
d) Business Documents.....	20
e) Conflicts of Interest	20
f) Non-Liability of Public Officials	21
ARTICLE 9) EVENTS OF DEFAULT, REMEDIES, TERMINATION, SUSPENSION.....	21
AND RIGHT TO OFFSET.....	21

a) Events of Default Defined 21
b) Remedies..... 22
c) Early Termination... 23
d) Suspension..... 24
e) Right to Offset..... 25
f) Delays..... 25
g) Prepaid Fees..... 25
ARTICLE 10) GENERAL CONDITIONS 25
a) Entire Agreement..... 25
b) Counterparts..... 26
c) Contract Amendments 27
d) Governing Law and Jurisdiction..... 27
e) Severability..... 27
f) Assigns..... 28
g) Cooperation..... 28
h) Waiver..... 28
i) Independent Consultant..... 28
j) Governmental Joint Purchasing Agreement..... 29
ARTICLE 11) NOTICES 33
ARTICLE 12) AUTHORITY 34

List of Exhibits

Exhibit 1 Statement of Work
Exhibit 2 Schedule of Compensation
Exhibit 3 Minority and Women Owned Business Enterprise Commitment
Exhibit 4 Evidence of Insurance
Exhibit 5 Certification for Consulting or Auditing Services
Exhibit 6 Cook County Travel and Business Expenses Policy and Procedures
Exhibit 7 Identification of Subcontractor/Supplier/Subconsultant Form
Exhibit 8 Board Authorization
Exhibit 9 Economic Disclosure Statement and Execution Document Index

AGREEMENT

This Agreement is made and entered into by and between the County of Cook, a public body corporate of the State of Illinois, on behalf of Office of the Chief Procurement Officer hereinafter referred to as "County" and Merrick & Company, doing business as a Corporation of the State of Colorado hereinafter referred to as "Consultant", pursuant to authorization by the Cook County Board of Commissioners on January 28, 2021, as evidenced by Board Authorization letter attached hereto as EXHIBIT 8.

BACKGROUND

The County of Cook issued a Request for Proposals "RFP" for Multi-Aerial Imagery. Proposals were evaluated in accordance with the evaluation criteria published in the RFP. The Consultant was selected based on the proposal submitted and evaluated by the County representatives.

Consultant represents that it has the professional experience and expertise to provide the necessary services and further warrants that it is ready, willing, and able to perform in accordance with the terms and conditions as set forth in this Agreement.

NOW, THEREFORE, the County and Consultant agree as follows:

TERMS AND CONDITIONS

ARTICLE 1) INCORPORATION OF BACKGROUND

The Background information set forth above is incorporated by reference as if fully set forth here.

ARTICLE 2) DEFINITIONS

a) Definitions

The following words and phrases have the following meanings for purposes of this Agreement:

"Additional Services" means those services which are within the general scope of Services of this Agreement, but beyond the description of services required under Article 3, and all services reasonably necessary to complete the Additional Services to the standards of performance required by this Agreement. Any Additional Services requested by the Using Agency require the approval of the Chief Procurement Officer in a written amendment to this Agreement before Consultant is obligated to perform those Additional Services and before the County becomes obligated to pay for those Additional Services.

"**Agreement**" means this Professional Services Agreement, including all exhibits attached to it and incorporated in it by reference, and all amendments, modifications or revisions made in accordance with its terms.

"**Chief Procurement Officer**" means the Chief Procurement Officer for the County of Cook and any representative duly authorized in writing to act on his behalf.

"**Services**" means, collectively, the services, duties and responsibilities described in Article 3 of this Agreement and any and all work necessary to complete them or carry them out fully and to the standard of performance required in this Agreement.

"**Subcontractor**" or "**Subconsultant**" means any person or entity with whom Consultant contracts to provide any part of the Services, of any tier, suppliers and materials providers, whether or not in privity with Consultant.

"**Using Agency**" shall mean the department of agency within Cook County including elected officials.

b) Interpretation

- i) The term "**include**" (in all its forms) means "include, without limitation" unless the context clearly states otherwise.
- ii) All references in this Agreement to Articles, Sections or Exhibits, unless otherwise expressed or indicated are to the Articles, Sections or Exhibits of this Agreement.
- iii) Words importing persons include firms, associations, partnerships, trusts, corporations and other legal entities, including public bodies, as well as natural persons.
- iv) Any headings preceding the text of the Articles and Sections of this Agreement, and any tables of contents or marginal notes appended to it are solely for convenience or reference and do not constitute a part of this Agreement, nor do they affect the meaning, construction or effect of this Agreement.
- v) Words importing the singular include the plural and vice versa. Words of the masculine gender include the correlative words of the feminine and neuter genders.
- vi) All references to a number of days mean calendar days, unless expressly indicated otherwise.

c) Incorporation of Exhibits

The Contract documents, which are comprised of this Professional Services Agreement and all of its Exhibits, are intended to be read as consistently as possible. However, in the event that there is a conflict between or among any of the documents specified in subsection c) Incorporation of Exhibits, the terms of the Professional Services Agreement shall control unless the text of another document explicitly provides that it applies notwithstanding the terms of the Professional Services Agreement.

This Contract shall be interpreted and construed based upon the following Order of Precedence. Such order of precedence shall govern to resolve all cases of conflict, ambiguity or inconsistency between Exhibits:

Exhibit 1	Statement of Work
Exhibit 2	Schedule of Compensation
Exhibit 3	Minority and Women Owned Business Enterprise Commitment
Exhibit 4	Evidence of Insurance
Exhibit 5	Certification for Consulting or Auditing Services
Exhibit 6	Cook County Travel and Business Expenses Policy and Procedures
Exhibit 7	Identification of Subcontractor/Supplier/Subconsultant Form
Exhibit 8	Board Authorization
Exhibit 9	Economic Disclosure Statement and Execution Document Index

ARTICLE 3) DUTIES AND RESPONSIBILITIES OF CONSULTANT

a) Scope of Services

This description of Services is intended to be general in nature and is neither a complete description of Consultant's Services nor a limitation on the Services that Consultant is to provide under this Agreement. Consultant must provide the Services in accordance with the standards of performance set forth in Section 3c. The Services that Consultant must provide include, but are not limited to, those described in Exhibit 1, Scope of Services and Time Limits for Performance, which is attached to this Agreement and incorporated by reference as if fully set forth here.

b) Deliverables

In carrying out its Services, Consultant must prepare or provide to the County various Deliverables. "**Deliverables**" include work product, such as written reviews, recommendations, reports and analyses, produced by Consultant for the County.

The County may reject Deliverables that do not include relevant information or data, or do not include all documents or other materials specified in this Agreement or reasonably

necessary for the purpose for which the County made this Agreement or for which the County intends to use the Deliverables. If the County determines that Consultant has failed to comply with the foregoing standards, it has 30 days from the discovery to notify Consultant of its failure. If Consultant does not correct the failure, if it is possible to do so, within 30 days after receipt of notice from the County specifying the failure, then the County, by written notice, may treat the failure as a default of this Agreement under Article 9.

Partial or incomplete Deliverables may be accepted for review only when required for a specific and well-defined purpose and when consented to in advance by the County. Such Deliverables will not be considered as satisfying the requirements of this Agreement and partial or incomplete Deliverables in no way relieve Consultant of its commitments under this Agreement.

c) Standard of Performance

Consultant must perform all Services required of it under this Agreement with that degree of skill, care and diligence normally shown by a consultant performing services of a scope and purpose and magnitude comparable with the nature of the Services to be provided under this Agreement. Consultant acknowledges that it is entrusted with or has access to valuable and confidential information and records of the County and with respect to that information, Consultant agrees to be held to the standard of care of a fiduciary.

Consultant must assure that all Services that require the exercise of professional skills or judgment are accomplished by professionals qualified and competent in the applicable discipline and appropriately licensed, if required by law. Consultant must provide copies of any such licenses. Consultant remains responsible for the professional and technical accuracy of all Services or Deliverables furnished, whether by Consultant or its Subconsultants or others on its behalf. All Deliverables must be prepared in a form and content satisfactory to the Using Agency and delivered in a timely manner consistent with the requirements of this Agreement.

If Consultant fails to comply with the foregoing standards, Consultant must perform again, at its own expense, all Services required to be re-performed as a direct or indirect result of that failure. Any review, approval, acceptance or payment for any of the Services by the County does not relieve Consultant of its responsibility for the professional skill and care and technical accuracy of its Services and Deliverables. This provision in no way limits the County's rights against Consultant either under this Agreement, at law or in equity.

d) Personnel

i) Adequate Staffing

Consultant must, upon receiving a fully executed copy of this Agreement, assign and maintain during the term of this Agreement and any extension of it an adequate staff of competent personnel that is fully equipped, licensed as appropriate, available as needed,

qualified and assigned exclusively to perform the Services. Consultant must include among its staff the Key Personnel and positions as identified below. The level of staffing may be revised from time to time by notice in writing from Consultant to the County and with written consent of the County, which consent the County will not withhold unreasonably. If the County fails to object to the revision within 14 days after receiving the notice, then the revision will be considered accepted by the County.

ii) **Key Personnel**

Consultant must not reassign or replace Key Personnel without the written consent of the County, which consent the County will not unreasonably withhold. "**Key Personnel**" means those job titles and the persons assigned to those positions in accordance with the provisions of this Section 3.d(ii). The Using Agency may at any time in writing notify Consultant that the County will no longer accept performance of Services under this Agreement by one or more Key Personnel listed. Upon that notice Consultant must immediately suspend the services of the key person or persons and must replace him or them in accordance with the terms of this Agreement. A list of Key Personnel is found in Exhibit 1, Scope of Services.

iii) **Salaries and Wages**

Consultant and Subconsultants must pay all salaries and wages due all employees performing Services under this Agreement unconditionally and at least once a month without deduction or rebate on any account, except only for those payroll deductions that are mandatory by law or are permitted under applicable law and regulations. If in the performance of this Agreement Consultant underpays any such salaries or wages, the Comptroller for the County may withhold, out of payments due to Consultant, an amount sufficient to pay to employees underpaid the difference between the salaries or wages required to be paid under this Agreement and the salaries or wages actually paid these employees for the total number of hours worked. The amounts withheld may be disbursed by the Comptroller for and on account of Consultant to the respective employees to whom they are due. The parties acknowledge that this Section 3.d(iii) is solely for the benefit of the County and that it does not grant any third party beneficiary rights.

e) **Minority and Women Owned Business Enterprises Commitment**

In the performance of this Agreement, including the procurement and lease of materials or equipment, Consultant must abide by the minority and women's business enterprise commitment requirements of the Cook County Ordinance, (Article IV, Section 34-267 through 272) except to the extent waived by the Compliance Director, which are set forth in Exhibit 3. Consultant's completed MBE/WBE Utilization Plan evidencing its compliance with this requirement are a part of this Agreement, in Form 1 of the MBE/WBE Utilization Plan, upon acceptance by the Compliance Director. Consultant must utilize minority and women's business enterprises at the greater of the amounts committed to by the Consultant for this Agreement in accordance with Form 1 of the MBE/WBE Utilization Plan.

f) Insurance Requirements

The Consultant, at its cost, shall secure and maintain at all times, unless specified otherwise, until completion of the term of this Contract the insurance specified below.

Nothing contained in these insurance requirements is to be construed as limiting the extent of the Consultant's responsibility for payment of damages to the extent caused by its operations under this Contract.

The Consultant shall require all Subcontractor to provide the insurance required in this Contract. All Subcontractors are subject to the same insurance requirements as Consultant except paragraph (e) Excess/Umbrella Liability or unless specified otherwise.

The Cook County Department of Risk Management maintains the right to modify, delete, alter or change these requirements upon consultation with Consultant and a mutually executed amendment to this Agreement.

Coverages

(a) Workers Compensation Insurance

Workers' Compensation shall be in accordance with the laws of the State of Illinois or any other applicable jurisdiction.

The Workers Compensation policy shall also include the following provisions:

Employers' Liability coverage with a limit of
\$1,000,000 each Accident
\$1,000,000 each Employee
\$1,000,000 Policy Limit for Disease

(b) Commercial General Liability Insurance

The Commercial General Liability shall be on an occurrence form basis (ISO Form CG 0001 or equivalent) to cover bodily injury, personal injury and property damage.

Each Occurrence	\$1,000,000
Personal and Advertising injury	\$1,000,000
General Aggregate	\$2,000,000
Completed Operations Aggregate	\$2,000,000

The General Liability policy shall include the following coverages:

- (1) All premises and operations;
- (2) Contractual Liability;
- (3) Products/Completed Operations;

- (4) Severability of interest/separation of insureds clause
- (5) Personal and Advertising injury liability

(c) **Aviation Liability Insurance**

Coverage must be in accordance with any applicable statutory or regulatory requirements. The Consultant shall maintain insurance against all claims for injuries to persons or damage to property which may arise from or in connection with the ownership, maintenance or use of any aircraft or unmanned aerial vehicle. Aircraft liability coverage providing liability insurance for property damage, personal injury to passengers, defense and third-party liability protection with limits listed below.

Each Occurrence Limit	\$1,000,000
Non-Owned Aircraft Liability Limit Any One Occurrence	\$1,000,000

(d) **Commercial Automobile Liability Insurance**

When any vehicles are used in the performance of this contract, Consultant shall secure Automobile Liability Insurance for bodily injury and property damage arising from the Ownership, maintenance or use of owned, hired and non-owned vehicles with a limit no less than \$1,000,000 per accident.

(e) **Excess/Umbrella Liability**

Such policy shall be excess over Commercial General Liability, Automobile Liability, and Employer's Liability with limits in the following amounts:

Each Occurrence:	\$5,000,000
------------------	-------------

(f) **Professional Liability (Errors & Omissions) and/or Consultants Pollution Liability**

The Consultant shall secure insurance appropriate to the Consultant's profession covering all claims arising out of the performance or nonperformance of professional services for the County under this Contract. This insurance shall remain in force for the life of the Consultant's obligations under this Contract and shall have a limit of liability of not less than \$1,000,000 per claim.

If any such policy is written on a claims-made form:

- (1) The retroactive coverage date shall be no later than the effective date of this contract.
- (2) If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date on or before this contract effective date, the Consultant must maintain "extended reporting" coverage for a minimum of three (3) year after completion of services.

(g) **Contractor's Equipment**

The Consultant is responsible for all tools, equipment, materials or supplies owned, rented or used.

Additional requirements

(a) **Additional Insured**

The required insurance policies, with the exception of Workers Compensation and Errors & Omissions, shall name Cook County, its officials, employees and agents as additional insureds with respect to operations performed on a primary and non-contributory basis. Any insurance or self-insurance maintained by Cook County shall be excess of the Consultant's insurance and shall not contribute with it.

(b) **Qualification of Insurers**

All insurance companies providing coverage shall be licensed or approved by the Department of Insurance, State of Illinois, and shall have a financial rating no lower than (A-) VII as listed in A.M. Best's Key Rating Guide, current edition or interim report. Companies with ratings lower than (A-) VII will be acceptable only upon consent of the Cook County Department of Risk Management. The insurance limits required herein may be satisfied by a combination of primary, umbrella and/or excess liability insurance policies.

(c) **Insurance Notices**

The Consultant shall provide the Office of the Chief Procurement Officer with thirty (30) days advance written notice in the event any required insurance will be cancelled, materially reduced or non-renewed. The Consultant shall secure replacement coverage to comply with the stated insurance requirements and provide new certificates of insurance to the Office of the Chief Procurement Officer.

Prior to the date on which the Consultant commences performance of its part of the work, the Consultant shall furnish to the Office of the Chief Procurement Officer certificates of insurance maintained by Consultant. The receipt of any certificate of insurance does not constitute Contract by the County that the insurance requirements have been fully met or that the insurance policies indicated on the certificate of insurance are in compliance with insurance required above.

In no event shall any failure of the County to receive certificates of insurance required hereof or to demand receipt of such Certificates of Insurance be construed as a waiver of the Consultant's obligations to obtain insurance pursuant to these insurance requirements.

(d) Waiver of Subrogation Endorsements

All insurance policies must contain a Waiver of Subrogation Endorsement in favor of Cook County.

g) Indemnification

The Consultant covenants and agrees to indemnify and save harmless the County and its commissioners, officials, employees, agents and representatives, and their respective heirs, successors and assigns, from and against any and all costs, expenses, attorney's fees, losses, damages and liabilities incurred or suffered directly or indirectly from or attributable to any claims arising out of or incident to the performance or nonperformance of the Contract by the Consultant, or the acts or omissions of the officers, agents, employees, Consultants, subconsultants, licensees or invitees of the Consultant. The Consultant expressly understands and agrees that any Performance Bond or insurance protection required of the Consultant, or otherwise provided by the Consultant, shall in no way limit the responsibility to indemnify the County as hereinabove provided.

h) Confidentiality and Ownership of Documents

Consultant acknowledges and agrees that information regarding this Contract is confidential and shall not be disclosed, directly, indirectly or by implication, or be used by Consultant in any way, whether during the term of this Contract or at any time thereafter, except solely as required in the course of Consultant's performance hereunder. Consultant shall comply with the applicable privacy laws and regulations affecting County and will not disclose any of County's records, materials, or other data to any third party. Consultant shall not have the right to compile and distribute statistical analyses and reports utilizing data derived from information or data obtained from County without the prior written approval of County. In the event such approval is given, any such reports published and distributed by Consultant shall be furnished to County without charge.

All documents, data, studies, reports, work product or product created as a result of the performance of the Contract (the "Documents") shall be included in the Deliverables and shall be the property of the County of Cook. It shall be a breach of this Contract for the Consultant to reproduce or use any documents, data, studies, reports, work product or product obtained from the County of Cook or any Documents created hereby, whether such reproduction or use is for Consultant's own purposes or for those of any third party. During the performance of the Contract Consultant shall be responsible of any loss or damage to the Documents while they are in Consultant's possession, and any such loss or damage shall be restored at the expense of the Consultant. The County and its designees shall be afforded full access to the Documents and the work at all times.

i) Patents, Copyrights and Licenses

If applicable, Consultant shall furnish the Chief Procurement Officer with all licenses required for the County to utilize any software, including firmware or middleware, provided

by Consultant as part of the Deliverables. Such licenses shall be clearly marked with a reference to the number of this County Contract. Consultant shall also furnish a copy of such licenses to the Chief Procurement Officer. Unless otherwise stated in these Contract documents, such licenses shall be perpetual and shall not limit the number of persons who may utilize the software on behalf of the County.

Consultant agrees to hold harmless and indemnify the County, its officers, agents, employees and affiliates from and defend, as permitted by Illinois law, at its own expense (including reasonable attorneys', accountants' and consultants' fees), any suit or proceeding brought against County based upon a claim that the ownership and/or use of equipment, hardware and software or any part thereof provided to the County or utilized in performing Consultant's services constitutes an infringement of any patent, copyright or license or any other property right.

In the event the use of any equipment, hardware or software or any part thereof is enjoined, Consultant with all reasonable speed and due diligence shall provide or otherwise secure for County, at the Consultant's election, one of the following: the right to continue use of the equipment, hardware or software; an equivalent system having the Specifications as provided in this Contract; or Consultant shall modify the system or its component parts so that they become non-infringing while performing in a substantially similar manner to the original system, meeting the requirements of this Contract.

j) Examination of Records and Audits

The Consultant agrees that the Cook County Auditor or any of its duly authorized representatives shall, until expiration of three (3) years after the final payment under the Contract, have access and the right to examine any books, documents, papers, canceled checks, bank statements, purveyor's and other invoices, and records of the Consultant related to the Contract, or to Consultant's compliance with any term, condition or provision thereof. The Consultant shall be responsible for establishing and maintaining records sufficient to document the costs associated with performance under the terms of this Contract.

The Consultant further agrees that it shall include in all of its subcontracts hereunder a provision to the effect that the Subcontractor agrees that the Cook County Auditor or any of its duly authorized representatives shall, until expiration of three (3) years after final payment under the subcontract, have access and the right to examine any books, documents, papers, canceled checks, bank statements, purveyor's and other invoices and records of such Subcontractor involving transactions relating to the subcontract, or to such Subcontractor compliance with any term, condition or provision thereunder or under the Contract.

In the event the Consultant receives payment under the Contract, reimbursement for which is later disallowed by the County, the Consultant shall promptly refund the disallowed amount to the County on request, or at the County's option, the County may credit the amount disallowed from the next payment due or to become due to the Consultant under any contract with the County.

To the extent this Contract pertains to Deliverables which may be reimbursable under the Medicaid or Medicare Programs, Consultant shall retain and make available upon request, for a period of four (4) years after furnishing services pursuant to this Agreement, the contract, books, documents and records which are necessary to certify the nature and extent of the costs of such services if requested by the Secretary of Health and Human Services or the Comptroller General of the United States or any of their duly authorized representatives.

If Consultant carries out any of its duties under the Agreement through a subcontract with a related organization involving a value of cost of \$10,000.00 or more over a 12 month period, Consultant will cause such subcontract to contain a clause to the effect that, until the expiration of four years after the furnishing of any service pursuant to said subcontract, the related organization will make available upon request of the Secretary of Health and Human Services or the Comptroller General of the United States or any of their duly authorized representatives, copies of said subcontract and any books, documents, records and other data of said related organization that are necessary to certify the nature and extent of such costs. This paragraph relating to the retention and production of documents is included because of possible application of Section 1861(v)(1)(I) of the Social Security Act to this Agreement; if this Section should be found to be inapplicable, then this paragraph shall be deemed inoperative and without force and effect.

k) Subcontracting or Assignment of Contract or Contract Funds

Once awarded, this Contract shall not be subcontracted or assigned, in whole or in part, without the advance written approval of the Chief Procurement Officer, which approval shall be granted or withheld at the sole discretion of the Chief Procurement Officer. In no case, however, shall such approval relieve the Consultant from its obligations or change the terms of the Contract. The Consultant shall not transfer or assign any Contract funds or any interest therein due or to become due without the advance written approval of the Chief Procurement Officer. The unauthorized subcontracting or assignment of the Contract, in whole or in part, or the unauthorized transfer or assignment of any Contract funds, either in whole or in part, or any interest therein, which shall be due or are to become due the Consultant shall have no effect on the County and are null and void.

Prior to the commencement of the Contract, the Consultant shall identify in writing to the Chief Procurement Officer the names of any and all Subcontractors it intends to use in the performance of the Contract by completing the Identification of Subcontractor/Supplier/Subconsultant Form (“ISF”). The Chief Procurement Officer shall have the right to disapprove any Subcontractor. All Subcontractors shall be subject to the terms of this Contract. Consultant shall incorporate into all subcontracts all of the provisions of the Contract which affect such subcontract. Copies of subcontracts shall be provided to the Chief Procurement Officer upon request.

The Consultant must disclose the name and business address of each Subcontractor, attorney, lobbyist, accountant, consultant and any other person or entity whom the Consultant has retained or expects to retain in connection with the Matter, as well as the nature of the

relationship, and the total amount of the fees paid or estimated to be paid. The Consultant is not required to disclose employees who are paid or estimated to be paid. The Consultant is not required to disclose employees who are paid solely through the Consultant's regular payroll. "Lobbyist" means any person or entity who undertakes to influence any legislation or administrative action on behalf of any person or entity other than: (1) a not-for-profit entity, on an unpaid basis, or (2), himself.

"Lobbyist" also means any person or entity any part of whose duties as an employee of another includes undertaking to influence any legislative or administrative action. If the Consultant is uncertain whether a disclosure is required under this Section, the Consultant must either ask the County, whether disclosure is required or make the disclosure.

The County reserves the right to prohibit any person from entering any County facility for any reason. All Consultants and Subcontractor of the Consultant shall be accountable to the Chief Procurement Officer or his designee while on any County property and shall abide by all rules and regulations imposed by the County.

l) Professional Social Services

In accordance with 34-146, of the Cook County Procurement Code, all Consultants or providers providing services under a Professional Social Service Contracts or Professional Social Services Agreements, shall submit an annual performance report to the Using Agency, i.e., the agency for whom the Consultant or provider is providing the professional social services, that includes but is not limited to relevant statistics, an empirical analysis where applicable, and a written narrative describing the goals and objectives of the contract or agreement and programmatic outcomes. The annual performance report shall be provided and reported to the Cook County Board of Commissioners by the applicable Using Agency within forty-five days of receipt. Failure of the Consultant or provider to provide an annual performance report will be considered a breach of contract or agreement by the Consultant or provider, and may result in termination of the Contract or agreement.

For purposes of this Section, a Professional Social Service Contract or Professional Social Service Agreement shall mean any contract or agreement with a social service provider, including other governmental agencies, nonprofit organizations, or for profit business enterprises engaged in the field of and providing social services, juvenile justice, mental health treatment, alternative sentencing, offender rehabilitation, recidivism reduction, foster care, substance abuse treatment, domestic violence services, community transitioning services, intervention, or such other similar services which provide mental, social or physical treatment and services to individuals. Said Professional Social Service Contracts or Professional Social Service Agreements do not include CCHHS managed care contracts that CCHHS may enter into with health care providers.

ARTICLE 4) TERM OF PERFORMANCE

a) **Term of Performance**

This Agreement takes effect when approved by the Cook County Board and its term shall begin on February 1, 2021 ("**Effective Date**") and continue until January 31, 2024 or until this Agreement is terminated in accordance with its terms, whichever occurs first.

b) **Timeliness of Performance**

- i) Consultant must provide the Services and Deliverables within the term and within the time limits required under this Agreement, pursuant to the provisions of Section 4.a and Exhibit 1. Further, Consultant acknowledges that TIME IS OF THE ESSENCE and that the failure of Consultant to comply with the time limits described in this Section 4.b may result in economic or other losses to the County.
- ii) Neither Consultant nor Consultant's agents, employees nor Subcontractors are entitled to any damages from the County, nor is any party entitled to be reimbursed by the County, for damages, charges or other losses or expenses incurred by Consultant by reason of delays or hindrances in the performance of the Services, whether or not caused by the County.

c) **Agreement Extension Option**

The Chief Procurement Officer may at any time before this Agreement expires elect to renew this Agreement for two (2) additional one-year periods under the same terms and conditions as this original Agreement, except as provided otherwise in this Agreement, by notice in writing to Consultant. After notification by the Chief Procurement Officer, this Agreement must be modified to reflect the time extension in accordance with the provisions of Section 10.c.

ARTICLE 5) COMPENSATION

a) **Basis of Payment**

The County will pay Consultant according to the Schedule of Compensation in the attached Exhibit 2 for the successful completion of services.

b) **Method of Payment**

All invoices submitted by the Consultant shall be in accordance with the cost provisions contained in the Agreement and shall contain a detailed description of the Deliverables, including the quantity of the Deliverables, for which payment is requested. All invoices for services shall include itemized entries indicating the date or time period in which the services were provided, the amount of time spent performing the services, and a detailed description of the services provided during the period of the invoice. All Contracts for

services that are procured as Sole Source must also contain a provision requiring the Contractor to submit itemized records indicating the dates that services were provided, a detailed description of the work performed on each such date, and the amount of time spent performing work on each such date. All invoices shall reflect the amounts invoiced by and the amounts paid to the Consultant as of the date of the invoice. Invoices for new charges shall not include "past due" amounts, if any, which amounts must be set forth on a separate invoice. Consultant shall not be entitled to invoice the County for any late fees or other penalties.

In accordance with Section 34-177 of the Cook County Procurement Code, the County shall have a right to set off and subtract from any invoice(s) or Contract price, a sum equal to any fines and penalties, including interest, for any tax or fee delinquency and any debt or obligation owed by the Consultant to the County.

The Consultant acknowledges its duty to ensure the accuracy of all invoices submitted to the County for payment. By submitting the invoices, the Consultant certifies that all itemized entries set forth in the invoices are true and correct. The Consultant acknowledges that by submitting the invoices, it certifies that it has delivered the Deliverables, i.e., the goods, supplies, services or equipment set forth in the Agreement to the Using Agency, or that it has properly performed the services set forth in the Agreement. The invoice must also reflect the dates and amount of time expended in the provision of services under the Agreement. The Consultant acknowledges that any inaccurate statements or negligent or intentional misrepresentations in the invoices shall result in the County exercising all remedies available to it in law and equity including, but not limited to, a delay in payment or non-payment to the Consultant, and reporting the matter to the Cook County Office of the Independent Inspector General.

When a Consultant receives any payment from the County for any supplies, equipment, goods, or services, it has provided to the County pursuant to its Agreement, the Consultant must make payment to its Subcontractors within 15 days after receipt of payment from the County, provided that such Subcontractor has satisfactorily provided the supplies, equipment, goods or services in accordance with the Contract and provided the Consultant with all of the documents and information required of the Consultant. The Consultant may delay or postpone payment to a Subcontractor when the Subcontractor's supplies, equipment, goods, or services do not comply with the requirements of the Contract, the Consultant is acting in good faith, and not in retaliation for a Subcontractor exercising legal or contractual rights.

c) Funding

The source of funds for payments under this Agreement is identified in Exhibit 2, Schedule of Compensation. Payments under this Agreement must not exceed the dollar amount shown in Exhibit 2 without a written amendment in accordance with Section 10.c.

d) Non-Appropriation

If no funds or insufficient funds are appropriated and budgeted in any fiscal period of the County for payments to be made under this Agreement, then the County will notify Consultant in writing of that occurrence, and this Agreement will terminate on the earlier of the last day of the fiscal period for which sufficient appropriation was made or whenever the funds appropriated for payment under this Agreement are exhausted. Payments for Services completed to the date of notification will be made to Consultant. No payments will be made or due to Consultant and under this Agreement beyond those amounts appropriated and budgeted by the County to fund payments under this Agreement.

e) Taxes

Federal Excise Tax does not apply to materials purchased by the County by virtue of Exemption Certificate No. 36-75-0038K. Illinois Retailers' Occupation Tax, Use Tax and Municipal Retailers' Occupation Tax do not apply to deliverables, materials or services purchased by the County by virtue of statute. The price or prices quoted herein shall include any and all other federal and/or state, direct and/or indirect taxes which apply to this Contract. The County's State of Illinois Sales Tax Exemption Identification No. is E-9998-2013-07.

f) Price Reduction

If at any time after the contract award, Consultant makes a general price reduction in the price of any of the Deliverables, the equivalent price reduction based on similar quantities and/or considerations shall apply to this Contract for the duration of the Contract period. For purposes of this Section 5.f., Price Reduction, a general price reduction shall include reductions in the effective price charged by Consultant by reason of rebates, financial incentives, discounts, value points or other benefits with respect to the purchase of the Deliverables. Such price reductions shall be effective at the same time and in the same manner as the reduction Consultant makes in the price of the Deliverables to its prospective customers generally.

g) Consultant Credits

To the extent the Consultant gives credits toward future purchases of goods or services, financial incentives, discounts, value points or other benefits based on the purchase of the materials or services provided for under this Contract, such credits belong to the County and not any specific Using Agency. Consultant shall reflect any such credits on its invoices and in the amounts it invoices the County.

ARTICLE 6) DISPUTES

Any dispute arising under the Contract between the County and Consultant shall be decided by the Chief Procurement Officer. The complaining party shall submit a written statement detailing the dispute and specifying the specific relevant Contract provision(s) to the Chief Procurement Officer. Upon request of the Chief Procurement Officer, the party complained against shall respond to the

complaint in writing within five days of such request. The Chief Procurement Officer will reduce her decision to writing and mail or otherwise furnish a copy thereof to the Consultant. The decision of the Chief Procurement Officer will be final and binding. Dispute resolution as provided herein shall be a condition precedent to any other action at law or in equity. However, unless a notice is issued by the Chief Procurement Officer indicating that additional time is required to review a dispute, the parties may exercise their contractual remedies, if any, if no decision is made within sixty (60) days following notification to the Chief Procurement Officer of a dispute. No inference shall be drawn from the absence of a decision by the Chief Procurement Officer.

Notwithstanding a dispute, Consultant shall continue to discharge all its obligations, duties and responsibilities set forth in the Contract during any dispute resolution proceeding unless otherwise agreed to by the County in writing.

ARTICLE 7) COOPERATION WITH INSPECTOR GENERAL AND COMPLIANCE WITH ALL LAWS

The Consultant, Subcontractor, licensees, grantees or persons or businesses who have a County contract, grant, license, or certification of eligibility for County contracts shall abide by all of the applicable provisions of the Office of the Independent Inspector General Ordinance (Section 2-281 et. seq. of the Cook County Code of Ordinances). Failure to cooperate as required may result in monetary and/or other penalties.

The Consultant shall observe and comply with the laws, ordinances, regulations and codes of the Federal, State, County and other local government agencies which may in any manner affect the performance of the Contract including, but not limited to, those County Ordinances set forth in the Certifications attached hereto and incorporated herein. Assurance of compliance with this requirement by the Consultant's employees, agents or Subcontractor shall be the responsibility of the Consultant.

The Consultant shall secure and pay for all federal, state and local licenses, permits and fees required hereunder.

ARTICLE 8) SPECIAL CONDITIONS

a) Warranties and Representations

In connection with signing and carrying out this Agreement, Consultant:

- i) warrants that Consultant is appropriately licensed under Illinois law to perform the Services required under this Agreement and will perform no Services for which a professional license is required by law and for which Consultant is not appropriately licensed;
- ii) warrants it is financially solvent; it and each of its employees, agents and Subcontractors of any tier are competent to perform the Services required under this Agreement; and Consultant is legally authorized to execute and perform or

cause to be performed this Agreement under the terms and conditions stated in this Agreement;

- iii) warrants that it will not knowingly use the services of any ineligible consultant or Subcontractor for any purpose in the performance of its Services under this Agreement;
- iv) warrants that Consultant and its Subcontractors are not in default at the time this Agreement is signed, and has not been considered by the Chief Procurement Officer to have, within 5 years immediately preceding the date of this Agreement, been found to be in default on any contract awarded by the County;
- v) represents that it has carefully examined and analyzed the provisions and requirements of this Agreement; it understands the nature of the Services required; from its own analysis it has satisfied itself as to the nature of all things needed for the performance of this Agreement; this Agreement is feasible of performance in accordance with all of its provisions and requirements, and Consultant warrants it can and will perform, or cause to be performed, the Services in strict accordance with the provisions and requirements of this Agreement;
- vi) represents that Consultant and, to the best of its knowledge, its Subcontractors are not in violation of the provisions of the Illinois Criminal Code, 720 ILCS 5/33E as amended; and
- vii) acknowledges that any certification, affidavit or acknowledgment made under oath in connection with this Agreement is made under penalty of perjury and, if false, is also cause for termination under Sections 9.a and 9.c.

b) Ethics

- i) In addition to the foregoing warranties and representations, Consultant warrants:
 - (1) no officer, agent or employee of the County is employed by Consultant or has a financial interest directly or indirectly in this Agreement or the compensation to be paid under this Agreement except as may be permitted in writing by the Board of Ethics.
 - (2) no payment, gratuity or offer of employment will be made in connection with this Agreement by or on behalf of any Subcontractors to the prime Consultant or higher tier Subcontractors or anyone associated with them, as an inducement for the award of a subcontract or order.

c) Joint and Several Liability

If Consultant, or its successors or assigns, if any, is comprised of more than one individual or other legal entity (or a combination of them), then under this Agreement, each and

without limitation every obligation or undertaking in this Agreement to be fulfilled or performed by Consultant is the joint and several obligation or undertaking of each such individual or other legal entity.

d) Business Documents

At the request of the County, Consultant must provide copies of its latest articles of incorporation, by-laws and resolutions, or partnership or joint venture agreement, as applicable.

e) Conflicts of Interest

- i) No member of the governing body of the County or other unit of government and no other officer, employee or agent of the County or other unit of government who exercises any functions or responsibilities in connection with the Services to which this Agreement pertains is permitted to have any personal interest, direct or indirect, in this Agreement. No member of or delegate to the Congress of the United States or the Illinois General Assembly and no Commissioner of the Cook County Board or County employee is allowed to be admitted to any share or part of this Agreement or to any financial benefit to arise from it.
- ii) Consultant covenants that it, and to the best of its knowledge, its Subcontractors if any (collectively, "**Consulting Parties**"), presently have no direct or indirect interest and will not acquire any interest, direct or indirect, in any project or contract that would conflict in any manner or degree with the performance of its Services under this Agreement.
- iii) Upon the request of the County, Consultant must disclose to the County its past client list and the names of any clients with whom it has an ongoing relationship. Consultant is not permitted to perform any Services for the County on applications or other documents submitted to the County by any of Consultant's past or present clients. If Consultant becomes aware of a conflict, it must immediately stop work on the assignment causing the conflict and notify the County.
- iv) Without limiting the foregoing, if the Consulting Parties assist the County in determining the advisability or feasibility of a project or in recommending, researching, preparing, drafting or issuing a request for proposals or bid specifications for a project, the Consulting Parties must not participate, directly or indirectly, as a prime, Subcontractor or joint venturer in that project or in the preparation of a proposal or bid for that project during the term of this Agreement or afterwards. The Consulting Parties may, however, assist the County in reviewing the proposals or bids for the project if none of the Consulting Parties have a relationship with the persons or entities that submitted the proposals or bids for that project.
- v) The Consultant further covenants that, in the performance of this Agreement, no

person having any conflicting interest will be assigned to perform any Services or have access to any confidential information, as defined in Section 3.h of this Agreement. If the County, by the Chief Procurement Officer in his reasonable judgment, determines that any of Consultant's Services for others conflict with the Services Consultant is to render for the County under this Agreement, Consultant must terminate such other services immediately upon request of the County.

- vi) Furthermore, if any federal funds are to be used to compensate or reimburse Consultant under this Agreement, Consultant represents that it is and will remain in compliance with federal restrictions on lobbying set forth in Section 319 of the Department of the Interior and Related Agencies Appropriations Act for Fiscal year 1990, 31 U.S.C. § 1352, and related rules and regulations set forth at 54 Fed. Reg. 52,309 ff. (1989), as amended. If federal funds are to be used, Consultant must execute a Certification Regarding Lobbying, which will be attached as an exhibit and incorporated by reference as if fully set forth here.

f) Non-Liability of Public Officials

Consultant and any assignee or Subcontractor of Consultant must not charge any official, employee or agent of the County personally with any liability or expenses of defense or hold any official, employee or agent of the County personally liable to them under any term or provision of this Agreement or because of the County's execution, attempted execution or any breach of this Agreement.

ARTICLE 9) EVENTS OF DEFAULT, REMEDIES, TERMINATION, SUSPENSION AND RIGHT TO OFFSET

a) Events of Default Defined

The following constitute events of default:

- i) Any material misrepresentation, whether negligent or willful and whether in the inducement or in the performance, made by Consultant to the County.
- ii) Consultant's material failure to perform any of its obligations under this Agreement including the following:
 - (a) Failure due to a reason or circumstances within Consultant's reasonable control to perform the Services with sufficient personnel and equipment or with sufficient material to ensure the performance of the Services;
 - (b) Failure to perform the Services in a manner reasonably satisfactory to the Chief Procurement Officer or inability to perform the Services satisfactorily as a result of insolvency, filing for bankruptcy or assignment for the benefit of creditors;

- (c) Failure to promptly re-perform within a reasonable time Services that were rejected as erroneous or unsatisfactory;
 - (d) Discontinuance of the Services for reasons within Consultant's reasonable control; and
 - (e) Failure to comply with any other material term of this Agreement, including the provisions concerning insurance and nondiscrimination.
- iii) Any change in ownership or control of Consultant without the prior written approval of the Chief Procurement Officer, which approval the Chief Procurement Officer will not unreasonably withhold.
 - iv) Consultant's default under any other agreement it may presently have or may enter into with the County during the life of this Agreement. Consultant acknowledges and agrees that in the event of a default under this Agreement the County may also declare a default under any such other Agreements.
 - v) Failure to comply with Article 7 in the performance of the Agreement.
 - vi) Consultant's repeated or continued violations of County ordinances unrelated to performance under the Agreement that in the opinion of the Chief Procurement Officer indicate a willful or reckless disregard for County laws and regulations.

b) Remedies

The occurrence of any event of default permits the County, at the County's sole option, to declare Consultant in default. The Chief Procurement Officer may in his sole discretion give Consultant an opportunity to cure the default within a certain period of time, which period of time must not exceed 30 days, unless extended by the Chief Procurement Officer. Whether to declare Consultant in default is within the sole discretion of the Chief Procurement Officer and neither that decision nor the factual basis for it is subject to review or challenge under the Disputes provision of this Agreement.

The Chief Procurement Officer will give Consultant written notice of the default, either in the form of a cure notice ("**Cure Notice**"), or, if no opportunity to cure will be granted, a default notice ("**Default Notice**"). If the Chief Procurement Officer gives a Default Notice, he will also indicate any present intent he may have to terminate this Agreement, and the decision to terminate (but not the decision not to terminate) is final and effective upon giving the notice. The Chief Procurement Officer may give a Default Notice if Consultant fails to affect a cure within the cure period given in a Cure Notice. When a Default Notice with intent to terminate is given as provided in this Section 9.b and Article 11, Consultant must discontinue any Services, unless otherwise directed in the notice, and deliver all materials accumulated in the performance of this Agreement, whether completed or in the process, to the County. After giving a Default Notice, the County may invoke any or all of the following remedies:

- i) The right to take over and complete the Services, or any part of them, at Consultant's expense and as agent for Consultant, either directly or through others, and bill Consultant for the cost of the Services, and Consultant must pay the difference between the total amount of this bill and the amount the County would have paid Consultant under the terms and conditions of this Agreement for the Services that were assumed by the County as agent for the Consultant under this Section 9.b;
- ii) The right to terminate this Agreement as to any or all of the Services yet to be performed effective at a time specified by the County;
- iii) The right of specific performance, an injunction or any other appropriate equitable remedy;
- iv) The right to money damages;
- v) The right to withhold all or any part of Consultant's compensation under this Agreement;
- vi) The right to consider Consultant non-responsible in future contracts to be awarded by the County.

If the Chief Procurement Officer considers it to be in the County's best interests, he may elect not to declare default or to terminate this Agreement. The parties acknowledge that this provision is solely for the benefit of the County and that if the County permits Consultant to continue to provide the Services despite one or more events of default, Consultant is in no way relieved of any of its responsibilities, duties or obligations under this Agreement, nor does the County waive or relinquish any of its rights.

The remedies under the terms of this Agreement are not intended to be exclusive of any other remedies provided, but each and every such remedy is cumulative and is in addition to any other remedies, existing now or later, at law, in equity or by statute. No delay or omission to exercise any right or power accruing upon any event of default impairs any such right or power, nor is it a waiver of any event of default nor acquiescence in it, and every such right and power may be exercised from time to time and as often as the County considers expedient.

c) Early Termination

In addition to termination under Sections 9.a and 9.b of this Agreement, the County may terminate this Agreement, or all or any portion of the Services to be performed under it, at any time by a notice in writing from the County to Consultant. The County will give notice to Consultant in accordance with the provisions of Article 11. The effective date of termination will be the date the notice is received by Consultant or the date stated in the notice, whichever is later. If the County elects to terminate this Agreement in full, all

Services to be provided under it must cease and all materials that may have been accumulated in performing this Agreement, whether completed or in the process, must be delivered to the County effective 10 days after the date the notice is considered received as provided under Article 11 of this Agreement (if no date is given) or upon the effective date stated in the notice.

After the notice is received, Consultant must restrict its activities, and those of its Subcontractors, to winding down any reports, analyses, or other activities previously begun. No costs incurred after the effective date of the termination are allowed. Payment for any Services actually and satisfactorily performed before the effective date of the termination is on the same basis as set forth in Article 5, but if any compensation is described or provided for on the basis of a period longer than 10 days, then the compensation must be prorated accordingly. No amount of compensation, however, is permitted for anticipated profits on unperformed Services. The County and Consultant must attempt to agree on the amount of compensation to be paid to Consultant, but if not agreed on, the dispute must be settled in accordance with Article 6 of this Agreement. The payment so made to Consultant is in full settlement for all Services satisfactorily performed under this Agreement.

Consultant must include in its contracts with Subcontractors an early termination provision in form and substance equivalent to this early termination provision to prevent claims against the County arising from termination of subcontracts after the early termination. Consultant will not be entitled to make any early termination claims against the County resulting from any Subcontractor's claims against Consultant or the County to the extent inconsistent with this provision.

If the County's election to terminate this Agreement for default under Sections 9.a and 9.b is determined in a court of competent jurisdiction to have been wrongful, then in that case the termination is to be considered to be an early termination under this Section 9.c.

d) Suspension

The County may at any time request that Consultant suspend its Services, or any part of them, by giving 15 days prior written notice to Consultant or upon informal oral, or even no notice, in the event of emergency. No costs incurred after the effective date of such suspension are allowed. Consultant must promptly resume its performance of the Services under the same terms and conditions as stated in this Agreement upon written notice by the Chief Procurement Officer and such equitable extension of time as may be mutually agreed upon by the Chief Procurement Officer and Consultant when necessary for continuation or completion of Services. Any additional costs or expenses actually incurred by Consultant as a result of recommencing the Services must be treated in accordance with the compensation provisions under Article 5 of this Agreement.

No suspension of this Agreement is permitted in the aggregate to exceed a period of 45 days within any one year of this Agreement. If the total number of days of suspension

exceeds 45 days, Consultant by written notice may treat the suspension as an early termination of this Agreement under Section 9.c.

e) Right to Offset

In connection with performance under this Agreement, the County may offset any excess costs incurred:

- i) if the County terminates this Agreement for default or any other reason resulting from Consultant's performance or non-performance;
- ii) if the County exercises any of its remedies under Section 9.b of this Agreement;
or
- iii) if the County has any credits due or has made any overpayments under this Agreement.

The County may offset these excess costs by use of any payment due for Services completed before the County terminated this Agreement or before the County exercised any remedies. If the amount offset is insufficient to cover those excess costs, Consultant is liable for and must promptly remit to the County the balance upon written demand for it. This right to offset is in addition to and not a limitation of any other remedies available to the County.

f) Delays

Consultant agrees that no charges or claims for damages shall be made by Consultant for any delays or hindrances from any cause whatsoever during the progress of any portion of this Contract.

g) Prepaid Fees

In the event this Contract is terminated by either party, for cause or otherwise, and the County has prepaid for any Deliverables, Consultant shall refund to the County, on a prorated basis to the effective date of termination, all amounts prepaid for Deliverables not actually provided as of the effective date of the termination. The refund shall be made within fourteen (14) days of the effective date of termination.

ARTICLE 10) GENERAL CONDITIONS

a) Entire Agreement

i) General

This Agreement, and the exhibits attached to it and incorporated in it, constitute the entire agreement between the parties and no other warranties, inducements,

considerations, promises or interpretations are implied or impressed upon this Agreement that are not expressly addressed in this Agreement.

ii) **No Collateral Agreements**

Consultant acknowledges that, except only for those representations, statements or promises expressly contained in this Agreement and any exhibits attached to it and incorporated by reference in it, no representation, statement or promise, oral or in writing, of any kind whatsoever, by the County, its officials, agents or employees, has induced Consultant to enter into this Agreement or has been relied upon by Consultant, including any with reference to:

- (a) the meaning, correctness, suitability or completeness of any provisions or requirements of this Agreement;
- (b) the nature of the Services to be performed;
- (c) the nature, quantity, quality or volume of any materials, equipment, labor and other facilities needed for the performance of this Agreement;
- (d) the general conditions which may in any way affect this Agreement or its performance;
- (e) the compensation provisions of this Agreement; or
- (f) any other matters, whether similar to or different from those referred to in (a) through (e) immediately above, affecting or having any connection with this Agreement, its negotiation, any discussions of its performance or those employed or connected or concerned with it.

iii) **No Omissions**

Consultant acknowledges that Consultant was given an opportunity to review all documents forming this Agreement before signing this Agreement in order that it might request inclusion in this Agreement of any statement, representation, promise or provision that it desired or on that it wished to place reliance. Consultant did so review those documents, and either every such statement, representation, promise or provision has been included in this Agreement or else, if omitted, Consultant relinquishes the benefit of any such omitted statement, representation, promise or provision and is willing to perform this Agreement in its entirety without claiming reliance on it or making any other claim on account of its omission.

b) **Counterparts**

This Agreement is comprised of several identical counterparts, each to be fully signed by the parties and each to be considered an original having identical legal effect.

c) Contract Amendments

The parties may during the term of the Contract make amendments to the Contract but only as provided in this section. Such amendments shall only be made by mutual agreement in writing.

In the case of Contracts not approved by the Board, the Chief Procurement Officer may amend a contract provided that any such amendment does not extend the Contract by more than one (1) year, and further provided that the total cost of all such amendments does not increase the total amount of the Contract beyond \$150,000. Such action may only be made with the advance written approval of the Chief Procurement Officer. If the amendment extends the Contract beyond one (1) year or increases the total award amount beyond \$150,000, then Board approval will be required.

No Using Agency or employee thereof has authority to make any amendments to this Contract. Any amendments to this Contract made without the express written approval of the Chief Procurement Officer is void and unenforceable.

Consultant is hereby notified that, except for amendments which are made in accordance with this Section 10.c. Contract Amendments, no Using Agency or employee thereof has authority to make any amendment to this Contract.

d) Governing Law and Jurisdiction

This Contract shall be governed by and construed under the laws of the State of Illinois. The Consultant irrevocably agrees that, subject to the County's sole and absolute election to the contrary, any action or proceeding in any way, manner or respect arising out of the Contract, or arising from any dispute or controversy arising in connection with or related to the Contract, shall be litigated only in courts within the Circuit Court of Cook County, State of Illinois, and the Consultant consents and submits to the jurisdiction thereof. In accordance with these provisions, Consultant waives any right it may have to transfer or change the venue of any litigation brought against it by the County pursuant to this Contract.

e) Severability

If any provision of this Agreement is held or considered to be or is in fact invalid, illegal, inoperative or unenforceable as applied in any particular case in any jurisdiction or in all cases because it conflicts with any other provision or provisions of this Agreement or of any constitution, statute, ordinance, rule of law or public policy, or for any other reason, those circumstances do not have the effect of rendering the provision in question invalid, illegal, inoperative or unenforceable in any other case or circumstances, or of rendering any other provision or provisions in this Agreement invalid, illegal, inoperative or unenforceable to any extent whatsoever. The invalidity, illegality, inoperativeness or unenforceability of any one or more phrases, sentences, clauses or sections in this Agreement does not affect the remaining portions of this Agreement or any part of it.

f) Assigns

All of the terms and conditions of this Agreement are binding upon and inure to the benefit of the parties and their respective legal representatives, successors and assigns.

g) Cooperation

Consultant must at all times cooperate fully with the County and act in the County's best interests. If this Agreement is terminated for any reason, or if it is to expire on its own terms, Consultant must make every effort to assure an orderly transition to another provider of the Services, if any, orderly demobilization of its own operations in connection with the Services, uninterrupted provision of Services during any transition period and must otherwise comply with the reasonable requests and requirements of the Using Agency in connection with the termination or expiration.

h) Waiver

Nothing in this Agreement authorizes the waiver of a requirement or condition contrary to law or ordinance or that would result in or promote the violation of any federal, state or local law or ordinance.

Whenever under this Agreement the County by a proper authority waives Consultant's performance in any respect or waives a requirement or condition to either the County's or Consultant's performance, the waiver so granted, whether express or implied, only applies to the particular instance and is not a waiver forever or for subsequent instances of the performance, requirement or condition. No such waiver is a modification of this Agreement regardless of the number of times the County may have waived the performance, requirement or condition. Such waivers must be provided to Consultant in writing.

i) Independent Consultant

This Agreement is not intended to and will not constitute, create, give rise to, or otherwise recognize a joint venture, partnership, corporation or other formal business association or organization of any kind between Consultant and the County. The rights and the obligations of the parties are only those expressly set forth in this Agreement. Consultant must perform under this Agreement as an independent Consultant and not as a representative, employee, agent, or partner of the County.

This Agreement is between the County and an independent Consultant and, if Consultant is an individual, nothing provided for under this Agreement constitutes or implies an employer-employee relationship such that:

- i) The County will not be liable under or by reason of this Agreement for the payment of any compensation award or damages in connection with the Consultant performing the Services required under this Agreement.

- ii) Consultant is not entitled to membership in the County Pension Fund, Group Medical Insurance Program, Group Dental Program, Group Vision Care, Group Life Insurance Program, Deferred Income Program, vacation, sick leave, extended sick leave, or any other benefits ordinarily provided to individuals employed and paid through the regular payrolls of the County.
- iv) The County is not required to deduct or withhold any taxes, FICA or other deductions from any compensation provided to the Consultant.

j) Governmental Joint Purchasing Agreement

Pursuant to Section 4 of the Illinois Governmental Joint Purchasing Act (30 ILCS 525) and the Joint Purchase Agreement approved by the Cook County Board of Commissioners (April 9, 1965), other units of government may purchase goods or services under this contract.

In the event that other agencies participate in a joint procurement, the County reserves the right to renegotiate the price to accommodate the larger volume.

k) Comparable Government Procurement

As permitted by the County of Cook, other government entities, if authorized by law, may wish to purchase the goods, supplies, services or equipment under the same terms and conditions contained in this Contract (i.e., comparable government procurement). Each entity wishing to reference this Contract must have prior authorization from the County of Cook and the Consultant. If such participation is authorized, all purchase orders will be issued directly from and shipped directly to the entity requiring the goods, supplies, equipment or services supplies/services. The County shall not be held responsible for any orders placed, deliveries made or payment for the goods, supplies, equipment or services supplies/services ordered by these entities. Each entity reserves the right to determine the amount of goods, supplies, equipment or services it wishes to purchase under this Contract.

l) Force Majeure

Neither Consultant nor County shall be liable for failing to fulfill any obligation under this Contract if such failure is caused by an event beyond such party's reasonable control and which is not caused by such party's fault or negligence. Such events shall be limited to acts of God, acts of war, fires, lightning, floods, epidemics, or riots.

m) Federal Clauses

The following provisions apply to all Contracts which are funded in whole or in part with federal funds.

- i) Equal Opportunity

- a. During the performance of this contract, the contractor agrees as follows:
- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
 - (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
 - (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
 - (4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
 - (5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
 - (6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
 - (7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be

imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

- ii) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148)

- a. When required by Federal program legislation, all construction contracts awarded by the recipients and subrecipients of more than \$2000 shall include a provision for compliance with the Davis-Bacon Act ((40 U.S.C. 3141-3148) and as supplemented by Department of Labor regulations (29 CFR part 5, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction").
- b. Under this Act, contractors shall be required to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. In addition, contractors shall be required to pay wages not less than once a week. The recipient shall place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation and the award of a contract shall be conditioned upon the acceptance of the wage determination. The recipient shall report all suspected or reported violations to the Federal awarding agency.

iii) Copeland "Anti-Kickback" Act (40 U.S.C. 3145)

All contracts and subgrants in excess of \$2000 for construction or repair awarded by recipients and subrecipients shall include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled. The recipient shall report all suspected or reported violations to the Federal awarding agency.

iv) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)

Where applicable, all contracts awarded by recipients in excess of \$100,000 that involve the employment of mechanics or laborers shall include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR part 5). Under 40 U.S.C. 3702 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than 1 ½ times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

- v) Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended

Contracts and subgrants of amounts in excess of \$15000,000 shall contain a provision that requires the recipient to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

- vi) Debarment and Suspension (E.O.s 12549 and 12689)

No contract shall be made to parties listed on the General Services Administration's List of Parties Excluded from Federal Procurement or Nonprocurement Programs in accordance with E.O.s 12549 and 12689, "Debarment and Suspension." This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and contractors declared ineligible under statutory or regulatory authority other than E.O. 12549. Contractors with awards that exceed the small purchase threshold shall provide the required certification regarding its exclusion status and that of its principal employees.

- vii) Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

- viii) Rights to Inventions Made Under a Contract or Agreement

Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

ARTICLE 11) NOTICES

All notices required pursuant to this Contract shall be in writing and addressed to the parties at their respective addresses set forth below. All such notices shall be deemed duly given if

hand delivered or if deposited in the United States mail, postage prepaid, registered or certified, return receipt requested. Notice as provided herein does not waive service of summons or process.

If to the County: Cook County Bureau of Technology
69 W. Washington St.
Suite 2700
Chicago, Illinois 60602
Attention: Department Director

and

Cook County Chief Procurement Officer
118 North Clark Street. Room 1018
Chicago, Illinois 60602
(Include County Contract Number on all notices)

If to Consultant: Merrick & Company
5970 Greenwood Plaza Blvd.
Greenwood Village, CO 80111
Attention: Doug Jacoby

Changes in these addresses must be in writing and delivered in accordance with the provisions of this Article 11. Notices delivered by mail are considered received three days after mailing in accordance with this Article 11. Notices delivered personally are considered effective upon receipt. Refusal to accept delivery has the same effect as receipt.

ARTICLE 12) AUTHORITY

Execution of this Agreement by Consultant is authorized by a resolution of its Board of Directors, if a corporation, or similar governing document, and the signature(s) of each person signing on behalf of Consultant have been made with complete and full authority to commit Consultant to all terms and conditions of this Agreement, including each and every representation, certification and warranty contained in it, including the representations, certifications and warranties collectively incorporated by reference in it.

EXHIBIT 1

Statement of Work

PLAN OF ACTION, IMPLEMENTATION AND SOLUTION

The following outline provides a description of the significant technical procedures and milestones that will occur throughout the project.

Following the technical section, there are also additional sections that outline Merrick's specific quality control procedures, project management philosophy, project deliverables, and client-provided products for this project

PROJECT IMPLEMENTATION

A project kick-off meeting will be held between County and Merrick to review all technical and administrative aspects of the project. We recommend that the format of this meeting be a "hands-on" workshop environment to facilitate the exchange of quality information.

- Prior to the kick-off meeting, the County will be provided an agenda for the meeting. The action items will include:
- Review the proposed flight and ground control scheme and modify as necessary to meet project requirements
- Brief Cook County on digital aerial imagery acquisition issues such as flight plan, safety, accuracy, etc.
- Discuss TRACON coordination plans
- Discuss/review tiling requirements
- Review accuracy requirements
- Review project control items such as projection, datums and units
- Review Merrick's QA/QC procedures
- Define the location of the pilot project area(s)
- Determine acceptance criteria for all deliverable products
- Identify points of contact and develop communication protocol
- Develop project status report requirements
- Review invoicing procedures (e.g., Voucher Form 29A)

Following the kick-off meeting, a detailed memorandum will be forwarded to the County project manager to clarify and document the decisions and discussion items of the kick-off meeting.

PROJECT SETUP

In order to prepare the initial start-up documentation, all of the items discussed during the kick-off meeting will be resolved.

Merrick's project manager will develop internal, project-specific documentation as a reference for the production staff. This project management plan (PMP) outlines the scope of work, project specifications, deliverables, project schedule, technical procedures, and the quality assurance plan.

An internal kick-off meeting with Merrick's project manager and key production staff is held to review all

aspects of the project.

Merrick prepares its production facility for the project. The primary tasks that are integrated in preparation of beginning the project are:

- Scheduling of resources (equipment and personnel)
- Customizing in-house software tools and procedures, as necessary
- Customizing QC checklists for each department specific to this project

A project of this magnitude requires a start-up period of approximately one week.

CONTROL SURVEY

American Surveying & Engineering, P.C. (ASE) of Chicago, IL will provide the ground surveying services for Merrick. ASE is a Minority Business Enterprise (MBE), and has supported Merrick on various geospatial and survey projects for over 20 years, including Cook County.

Merrick's lengthy history with supporting the County with their GIS and imagery needs has resulted in a significant amount of photo-identifiable (PID) control locations that is suitable for aerotriangulation and accuracy assessment. As a cost-savings, Merrick intends to take advantage of this former County investment, and utilize as much of this PID control we can, assuming it is recoverable and high quality. See **Figure 1** for an illustration of the current PID control location, which currently totals approximately 250.

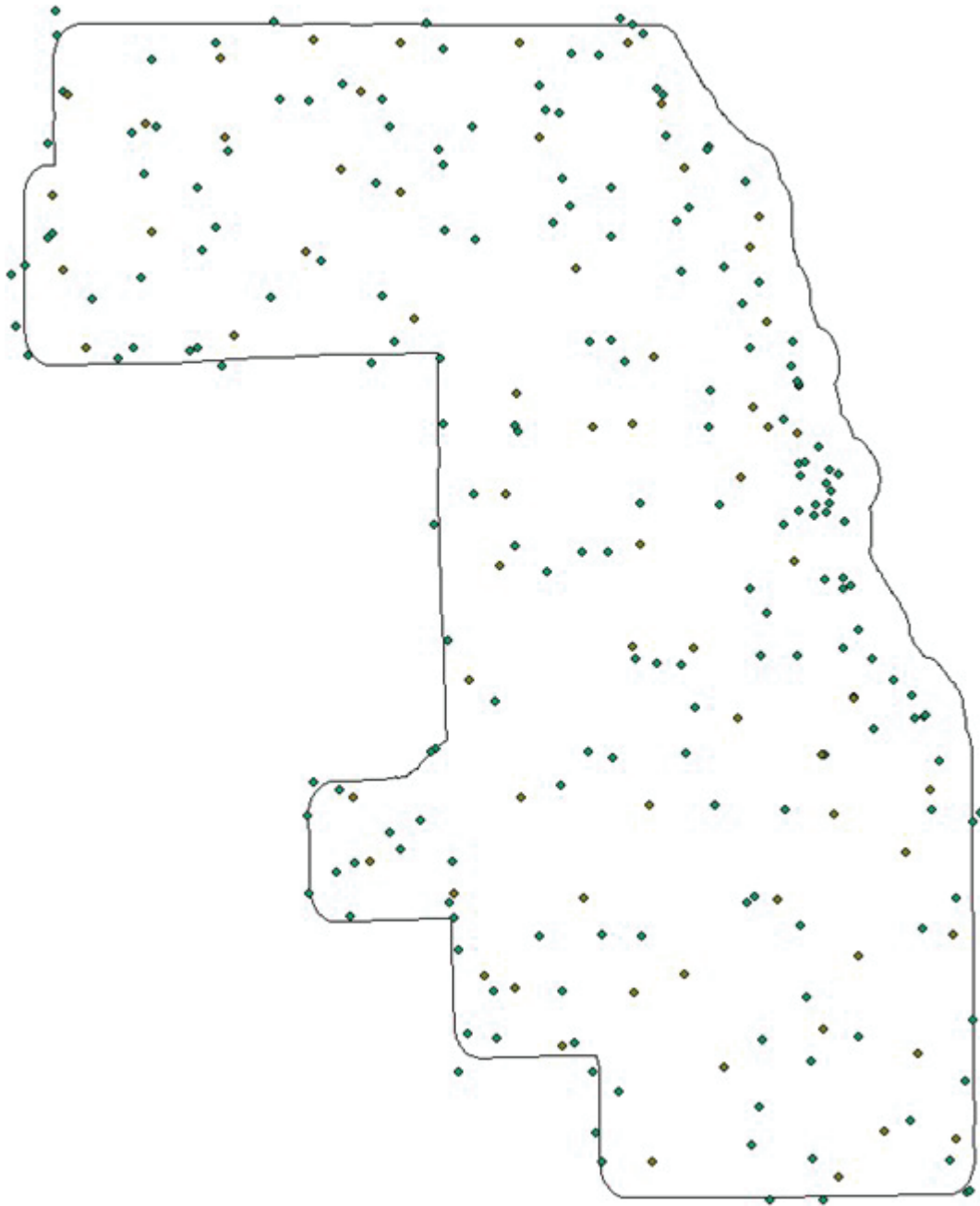


Figure 1: Current PID Control Location

As a reserve, Merrick will use ASE to recover or replace up to twenty PID control points (and/or checkpoints) annually to ensure a high-quality control network to support the imagery acquisition and post-processing.

To recap the PID approach, any new PID control points and/or checkpoints will be surveyed, "at ground" PID feature. Features that are selected are considered semi-permanent, unambiguous and can be directly observed without an offset from the point. Candidate features include corners of sidewalks or pads and corners of driveways (e.g., corner of walk, center of manhole lid, end of paint stripe, etc.). The final location of the PID control and checkpoints will be selected post-imagery acquisition. This approach will mitigate erroneous

measurements during the aerotriangulation task, and increase survey efficiencies in the field.

All past or new horizontal control will be referenced to the Illinois State Plane Coordinate System (SPCS), East Zone (Zone 3776). The horizontal datum is North American Datum of 1983, National Adjustment of 2011 (NAD 83/NA2011). The vertical datum will be North American Vertical Datum of 1988 (NAVD 88) using GEOID 18 for converting ellipsoid heights to orthometric elevations. All units will be in US Survey Feet.

The horizontal accuracy shall be Second Order, Class II, GPS. The vertical accuracy will meet Third Order specifications.

ASE will generate the "Control Report," which documents the results of the GPS survey. This report will include a brief narrative of all aspects of the GPS data collection process.

AERIAL IMAGERY ACQUISITION

Digital Sensor

The camera system that Merrick will be using for the County orthophoto and oblique imagery collection is specifically designed to meet all of the contract's requirements. The system is comprised of two synchronized Phase One iXU- RS1000 100 MP nadir digital cameras mounted side by side. One is designed to collect red, green, blue (RGB) "true color" imagery while the other is filtered specifically to collect near infrared (NIR) imagery. Software is used to process the simultaneously captured images from these two cameras to produce distortion free, co-registered 4-band stack images. Both cameras will have a 90mm lens to push the airplane's collection altitude to 10,100' mean sea level (MSL) while still achieving 6" resolution imagery. This places the county-wide acquisition above Cook County's $\leq 10,000'$ FAA Class B controlled airspace. This high altitude approach has proven extremely successful over the past few years as Merrick has been able to collect all of the imagery in just a few days rather than several weeks or even months of trying to get permission to fly within the Class B airspace. For example, 2020's county-wide collect took only two days using this high altitude method.



MultiCam Pod

This advanced camera system also has four 45 degree oblique cameras mounted in 90 degree rotations to each other to capture imagery in all four cardinal directions when flown north/south as our flight plan has been designed for. These four cameras are all Phase One iXM-RS150F 150 MP digital cameras with 110mm lenses each to obtain a center point oblique resolution of 5.8". All six cameras will be flown together and triggered simultaneously. The above picture is the camera system without its shell and upside down for display.

Merrick will be using the Applanix POS AV 610 system for the position (GNSS) and orientation (IMU) recordings of all sensors. This system is the highest accuracy POS on the market utilizing the state of the art GNSS and IMU technology. The GNSS aircraft antenna used will be the AV39 which offers full support for current and near-future GNSS signals including GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS, OmniSTAR, Trimble RTX and SBAS. This provides the highest accuracy possible to the POS AV 610. The system performance specifications are as follows:

- Position (m): 0.03
- Roll and Pitch (deg): 0.0025
- True Heading (deg): 0.005



Merrick's Cessna 402C

The aircraft that will be used for all airborne data acquisition will be Merrick's Cessna 402C.

Merrick has had very good success targeting the middle of March for image collection. This has been the right balance between complete snow melt and leaf off conditions. This is our proposed plan for this contract as well. Collection will occur during cloud and snow free conditions. Daily collection time will be limited to greater than 30 degree sun angle.

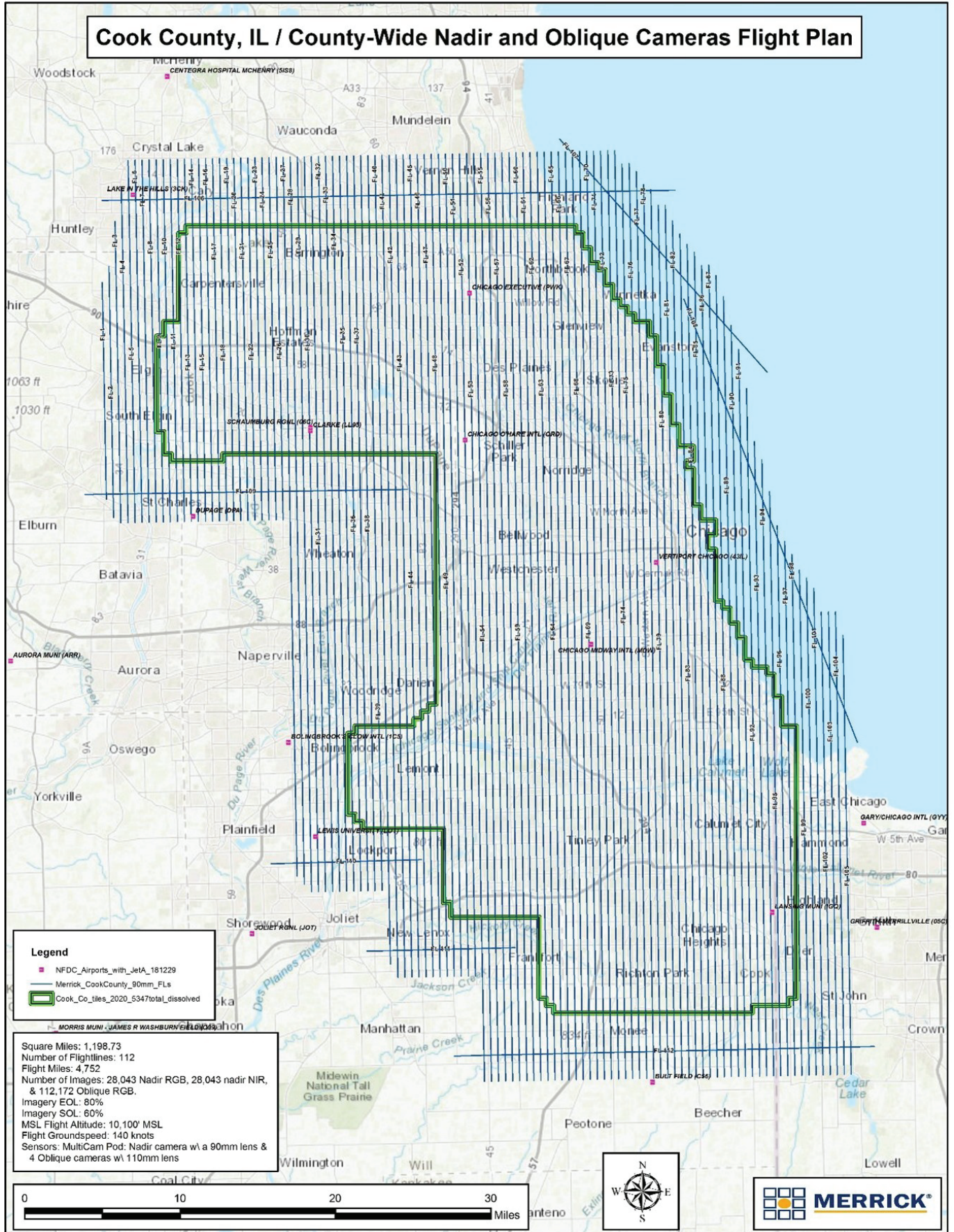
The highest density portion of the Central Business District (CBD) area will be collected separately for the purpose of building the best 3D model for true ortho processing. We have found that a model built upon the 6" pixel resolution countywide collection is not detailed enough to construct the necessary level of detail needed to create high quality true orthos in the highest density portion of the CBD area. For this reason, we will be collecting imagery at 3,500' MSL which is ATC's recommended low altitude flight level for daytime, downtown data acquisition. Experience has also taught us that it is ideal to run CBD flight lines down each north/south street to ensure the best look angles into the narrow urban canyons.

Also with regards to the CBD collect, we will be utilizing Merrick's Optech Galaxy LiDAR to collect high density 3D LiDAR for the purpose of improved building modelling and obtaining accurate 3D measurements down into the tight urban canyons. Imagery alone cannot model these occluded features. We have found that too much construction occurs from one year to the next to reuse LiDAR from previous collects. The use of LiDAR over the CBD area further improves the true ortho product.

Flight Plan

Flight plans begin on the following page. Note that all flight lines are extended, and lines added to the edges to account for the oblique cameras' look angles.

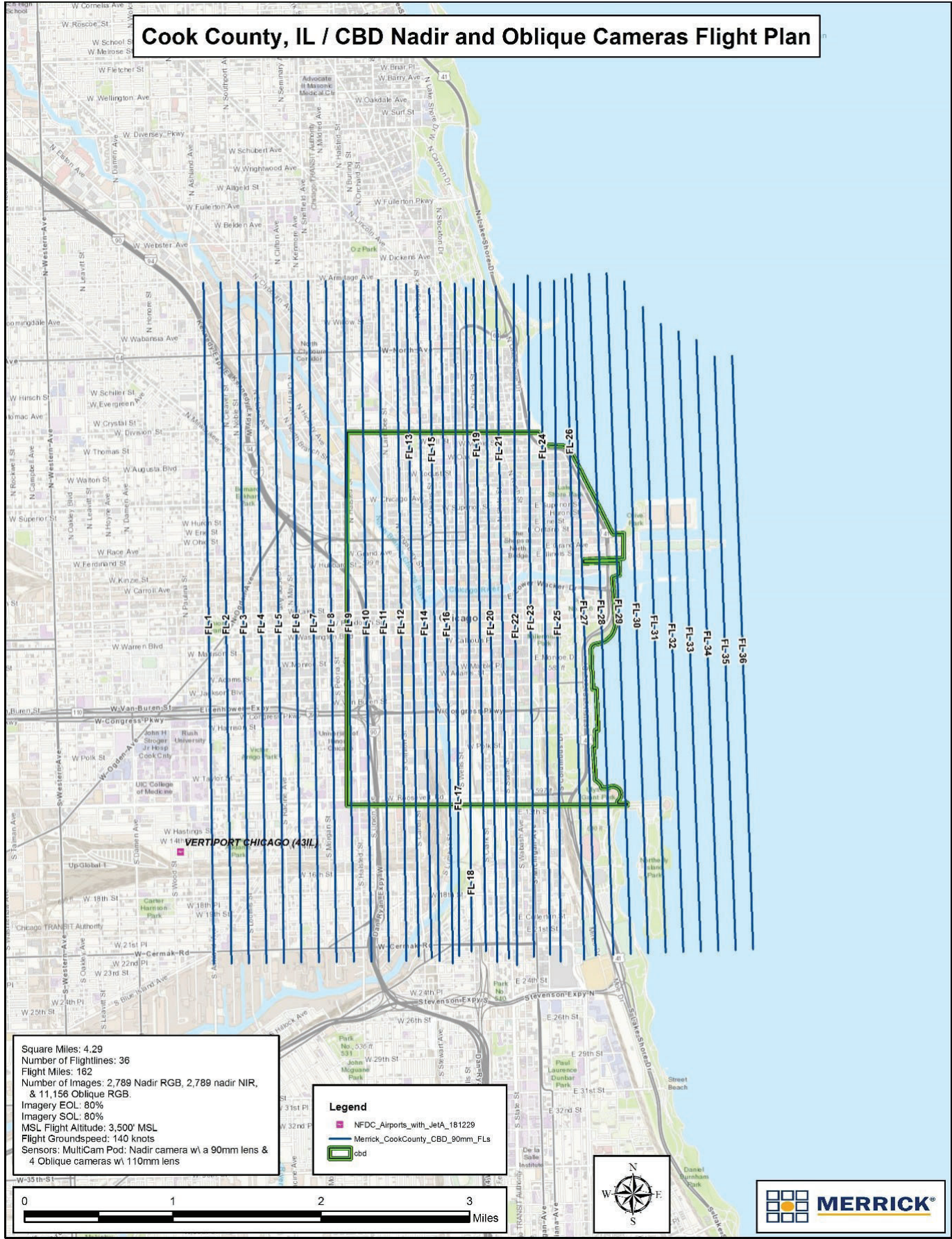
Cook County, IL / County-Wide Nadir and Oblique Cameras Flight Plan



Cook County, IL / County-Wide Nadir and Oblique Cameras Flight Plan



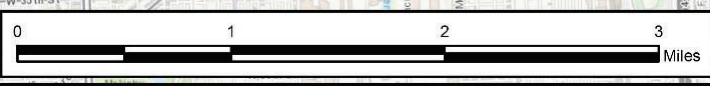
Cook County, IL / CBD Nadir and Oblique Cameras Flight Plan



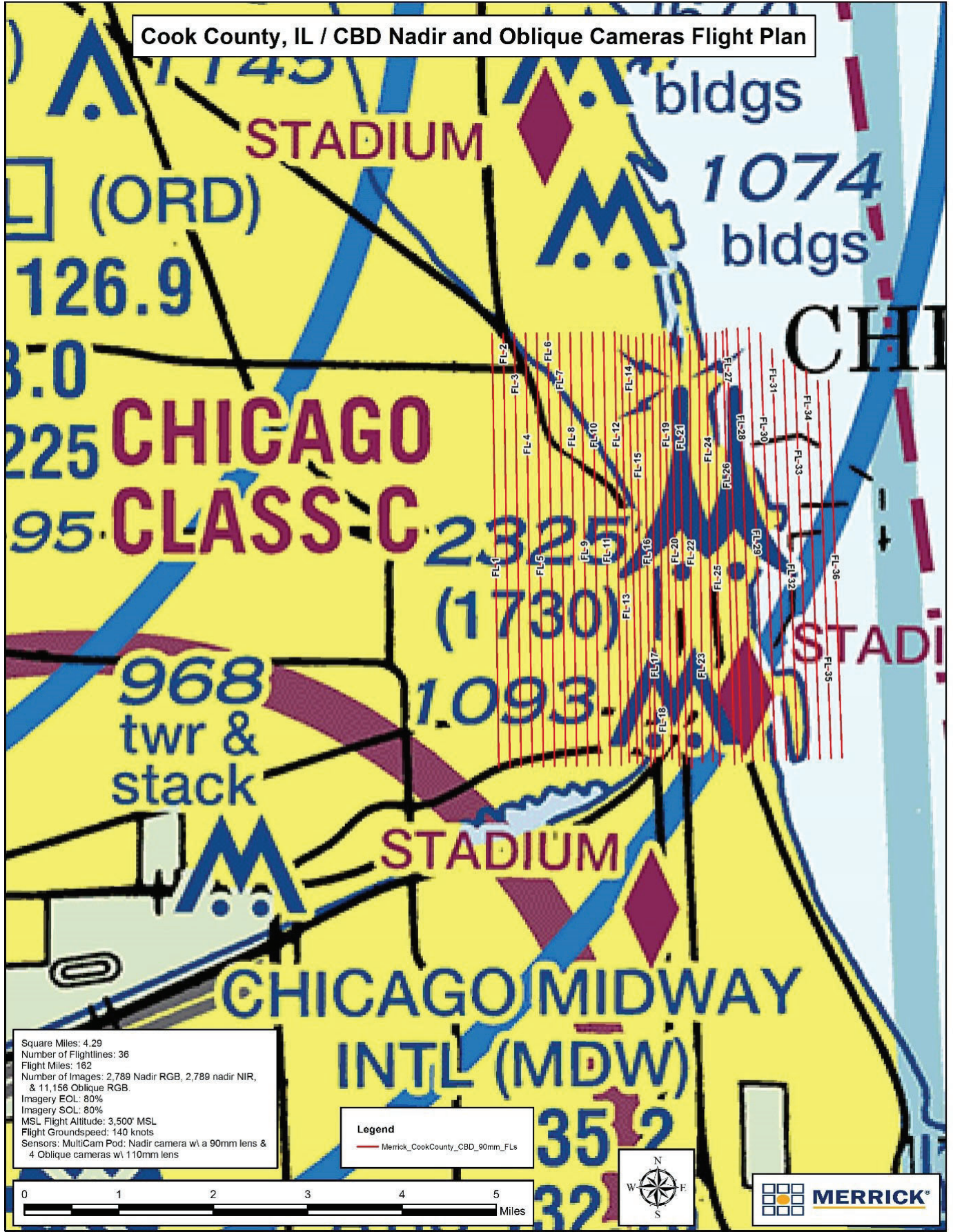
Square Miles: 4.29
 Number of Flightlines: 36
 Flight Miles: 162
 Number of Images: 2,789 Nadir RGB, 2,789 nadir NIR,
 & 11,156 Oblique RGB.
 Imagery EOL: 80%
 Imagery SOL: 80%
 MSL Flight Altitude: 3,500' MSL
 Flight Groundspeed: 140 knots
 Sensors: MultiCam Pod: Nadir camera w/ a 90mm lens &
 4 Oblique cameras w/ 110mm lens

Legend

- NFDC_Airports_with_Jet1_181229
- Merrick_CookCounty_CBD_80mm_FLs
- cbd



Cook County, IL / CBD Nadir and Oblique Cameras Flight Plan



Square Miles: 4.29
Number of Flightlines: 36
Flight Miles: 162
Number of Images: 2,789 Nadir RGB, 2,789 nadir NIR,
& 11,156 Oblique RGB.
Imagery EOL: 80%
Imagery SOL: 80%
MSL Flight Altitude: 3,500' MSL
Flight Groundspeed: 140 knots
Sensors: MultiCam Pod: Nadir camera w/ a 90mm lens &
4 Oblique cameras w/ 110mm lens

Legend
— Merrick_CookCounty_CBD_90mm_FLs



Flight Statistics

County-wide statistics:

- Number of Flight lines: 112
- Flight Miles: 4,752
- Number of Images:
 - 28,043 nadir RGB
 - 28,043 nadir NIR
 - 112,172 oblique RGB
- Imagery EOL: 80%
- Imagery SOL: 60%
- MSL Flight Altitude: 10,100' MSL
- Flight Groundspeed: 140 knots
- Total Flight Hours: 56.6
- Sensors:
 - GEO1's MultiCam Pod: nadir camera with a 90mm lens and 4 oblique cameras with 110mm lens

CBD statistics:

- Number of Flightlines: 36
- Flight Miles: 162
- Number of Images:
 - 2,789 nadir RGB
 - 2,789 nadir NIR
 - 11,156 oblique RGB
- Imagery EOL: 80%
- Imagery SOL: 80%
- MSL Flight Altitude: 3,500' MSL
- Flight Groundspeed: 140 knots
- Total Flight Hours: 5.3
- Sensors:
 - GEO1's MultiCam Pod: nadir camera with a 90mm lens and 4 oblique cameras with 110mm lens
 - Optech Galaxy Prime
 - LiDAR density: 20 ppsm

Camera Statistics

Oblique camera parameters are as follows.

County-wide:

Horizontal Pixels:

Vertical Pixels:

Lens Focal Length (mm):

AGL (m):

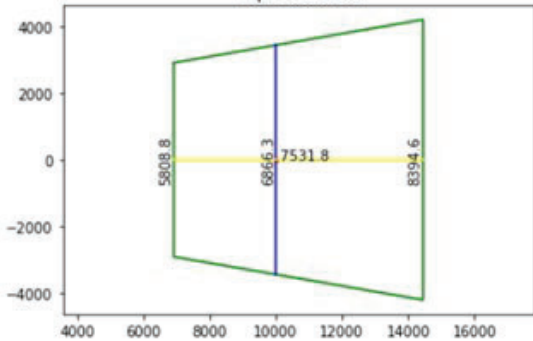
Lookdown Angle (°):

Run Interact

Lookdown Angle: 45.00°
 Sensor WxH: 53.41mm x 40.05mm
 Sensor Diagonal: 66.76mm
 Sensor Optical Format: 100.13mm, 3.94"
 IFOV: 34.18μrad
 FOV: 27.82° x 20.86°

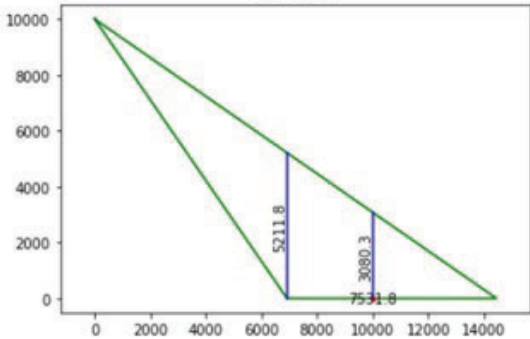
Width at Bottom Frame: 5808.8m
 Width at Mid Frame: 6866.3m
 Width at Top Frame: 8394.6m
 Front to Back Length: 7531.8m

Topdown View



Height at Bottom: 5211.8m
 Height at Center: 3080.3m
 Distance to Bottom: 12160.7m
 Distance to Center: 14142.2m
 Distance to Top: 17574.1m

Side View



CBD:

Horizontal Pixels:

Vertical Pixels:

Lens Focal Length (mm):

AGL (m):

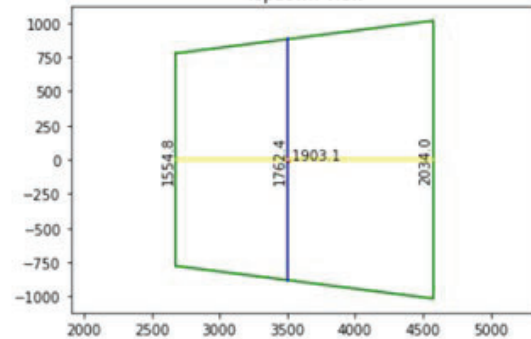
Lookdown Angle (°):

Run Interact

Lookdown Angle: 45.00°
 Sensor WxH: 53.41mm x 40.05mm
 Sensor Diagonal: 66.76mm
 Sensor Optical Format: 100.13mm, 3.94"
 IFOV: 25.07μrad
 FOV: 20.40° x 15.30°

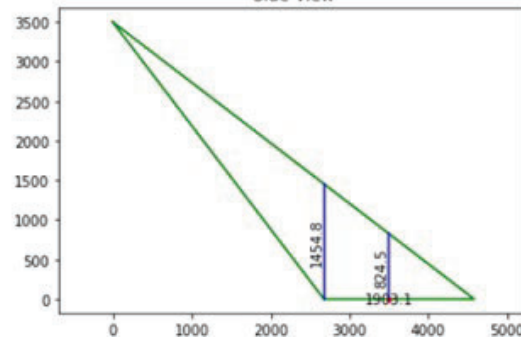
Width at Bottom Frame: 1554.8m
 Width at Mid Frame: 1762.4m
 Width at Top Frame: 2034.0m
 Front to Back Length: 1903.1m

Topdown View



Height at Bottom: 1454.8m
 Height at Center: 824.5m
 Distance to Bottom: 4405.6m
 Distance to Center: 4949.9m
 Distance to Top: 5763.2m

Side View



DATA QUALITY CHECKING

Quality checking is paramount in this process to ensure that cameras work properly, coverage is 100% as planned, and the image quality is ideal. Quality checks regarding lighting conditions, clouds, etc. are performed using full resolution images, but coverage checks are performed using reduced resolution versions of the images. We typically coverage check using 10% of full resolution. These smaller file sizes allow us to rapidly perform a coverage check, one camera at a time. We will assess each camera's intended overlap, sidelap, and boundary coverage ensuring all meet the flight planned requirements. This process will be completed before the plane leaves the project site.

The CBD LiDAR is initially quality checked in realtime while the data is collected. The LiDAR operator sees a realtime display of LiDAR as the data is being recorded. More robust checks are performed when the plane lands and automated LiDAR QC processes are run. This process and data review typically complete within 24-36 hours of flight.

IMAGE PROCESSING

Image processing begins with adjusting color, contrast, brightness, etc. by mission. Geographical balancing will occur later in the process. Exporting the raw imagery to standardized, uncompressed TIF format follows. We never process using compressed imagery so that we preserve the highest image quality possible throughout the photogrammetric workflow.

The next step in the process is to perform the final processing of the POS data to produce the exterior orientation (EO) files for each camera per each mission. This generates text files that contain each camera's location (XYZ) and orientation (heading, pitch, roll) at the time of collection. One file is generated per mission, per camera. These files are imported into a database that also includes the exported tif's paths on our file server. This is the input into building the photogrammetric project.

Once this database is imported into the photogrammetric software (Skyline's PhotoMesh), the AT specialist can see the 3D locations of all imagery, a streaming image background for reference, and all imported control points. An initial preprocessing AT is run to help identify which images intersect with each control point. From this point, the AT technician "measures control" by marking where the PID control point is in each image that has line of sight to each control point. This process includes both nadir and oblique imagery. This process is aided by the fact that direct georeferencing typically places the imagery within about three pixels of the control point before they are measured or any AT is run. Any PID points that are different between the time of measurement and the image capture date are identified and excluded from the process.

Once all the control points are measured, the Aerotriangulation (AT) process is run. This uses the measured control points and automatically derived tie points to perform subtle adjustments from image to image to produce the best positional accuracy of each image in the processing block. All county-wide and CBD images, both nadir and oblique, are run in a single AT block to ensure proper universal fitment. The statistical results are reviewed by the AT technician. This process will highlight any blunders, human mistakes, or points that need to be excluded. Check points are also used at this stage to ensure acceptable accuracy in areas that were not control by measured PID points.

Once the AT is complete, the true ortho process begins by creating accurate, detailed 3D models of the entire project area, one processing tile at a time. This process is achieved by using structure from motion (SfM) technology to measure 3D points from the many different look angles contributed by the nadir and four oblique cameras and improved upon by their excessive endlap and sidelap. This processing is distributed across many LAN computers and scalable to AWS Cloud processing WAN computers.

LiDAR is used in the processing of the CBD to help form the 3D models in the tight urban canyons of downtown Chicago. Without up to date LiDAR, building occlusions can result in false bridges between buildings where the imagery could not find enough variable look angles to form an accurate 3D model.

4-band image texturing follows the 3D model generation. This process involves ray tracing the best 4-band color pixel from the image with the shortest and most direct look angle to texturize each portion of the 3D

model. The result of this process is a 3D model where building lean is mitigated, and colored pixels are correctly located in the entire 3D landscape preserving roads and sidewalks next to tall buildings. This texturing process also includes a blending algorithm to balance any color, contrast, tone, and brightness differences between images.

The last step in this process is to sheetcut to orthophoto image files in GeoTIFF format. These images are QC'ed by technicians looking for any issues or abnormalities. Corrections are made if needed then the processing ortho tiles are sheetcut to the final Cook County tiles shapefile. A panchromatic imagery set is then created using a weighting algorithm of the RGB pixels to produce a greyscale value for each panchromatic image pixel. At the end of the process, metadata is created and the geodatabase is generated containing all of the clients required

Image Characteristics

Merrick recognizes that the quality of ortho imagery can be subjective. Imagery that may look good to one person may not to someone else. For this reason, Merrick will work closely with the County during the start-up and prototype processes to develop imagery that is suitable for all users. Our philosophy is that we are working as a team with you to achieve the desired results for the intended applications.

The following outlines potential ortho imagery quality issues that may arise on any given project and Merrick's solutions to these issues.

Image Clarity

The clarity of the image can be significantly affected by atmospheric haze and dust. Thus, aerial photography will be taken in accordance with ASPRS Standards for Aerial Photography whereby the "photography shall not be secured when the ground is obscured by haze, snow, smoke, dust, flood waters, or environmental factors that may obscure ground detail." The aerial photography is thoroughly reviewed for compliance with this standard.

Brightness and Contrast

Brightness and contrast can be controlled during the initial digital imagery processing, and ortho imagery processing phases. The best way to achieve the proper brightness and contrast is through proper digital imagery selection and processing. Although these factors can be controlled somewhat during the ortho rectification phases, the extent to which they can be controlled is primarily dependent on the quality of the digital imagery. Merrick completes a histogram analysis of the imagery to analyze and adjust the dynamic range of gray scale values for brightness and contrast. Brightness and contrast can also be further adjusted on a project-wide basis during the mosaicking process.

We recognize that acceptable brightness and contrast of the ortho imagery is subjective and varies. In an effort to determine the optimum image quality parameters at the onset of the project, Merrick will review the contrast and brightness of a sample set of imagery during the prototype review meeting.

Shadows

The extent to which shadows impact the imagery is a direct result of the time of year and time of day that the photography was flown. Longer shadows will give an overall appearance of darker imagery in heavily shadowed areas even though a histogram analysis may show that the imagery is similar. Regardless of the time of year and day flown, you should be able to identify at least some, and preferably all, detail in shadow areas.

Mosaicking

Mosaicking is completed as a standard process to minimize the effect of inherent tonal variations from photo to photo. Our ortho technicians will review and modify seam lines so that they are placed in areas of consistent tonal balance and between buildings or bridges. A dynamic range adjustment is completed across the entire block of images to provide a tonally balanced product.

The mosaicking parameters can be carried from block to block to ensure the entire project area has consistent

tonal qualities.

Positional Accuracy

The best way to internally validate that the final ortho products meet the required accuracy standard is by measuring check points on the final ortho photos and comparing the values with the survey control coordinates.

The final ortho-rectified imagery deliverables shall meet or exceed a horizontal accuracy of 2.2' RMSE (3.8' at the 95% confidence level) as specified in the FDGC Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Accuracy (NSSDA).

Final Processing and Formatting

Once the imagery has been edited for aesthetics by the ortho technician and reviewed by the Matt Bethel, Director of Operations and Technology, a series of steps are completed to conclude the process.

- **Sizing:** The dataset is clipped to the project boundary and cut to existing client-defined 2,500' x 2,500' tiling scheme
- **Histogram stretch:** The imagery is processed through customizable OrthoVista process to enhance clarity and sharpness
- **Formatting:** Individual files are processed to the final format (e.g., GeoTIFF)

Final image quality and geometric fit is reviewed before translation to the client-specific file format. Once translation has occurred, the translated images are displayed to ensure no errors have occurred in translation. The images are then written to the specified media for delivery to the client, and are backed up with all related project data to assure data recovery for future operations.

For this project, we anticipate that all 4-band imagery will be output as uncompressed GeoTIFF files (.tif) with no internal tiling or overviews. This format is readable by ArcInfo and other GIS packages.

Panchromatic imagery will be derived from the final 4-band ortho imagery.

Each GeoTIFF file will contain the following tags and keys:

- ModelTiepointTag
- ModelPixelScaleTag
- GTModelTypeGeoKey
- GTRasterTypeGeoKey
- ProjectedCSTypeGeoKey
- PCSCitationGeoKey
- ProjLinearUnitsGeoKey

Acceptance Criteria

The County understands that the quality of ortho imagery is subjective to each user and quantifying the acceptability of ortho imagery, in specific terms, is not a goal of this project. Due to inherent anomalies in aerial photography, the County accepts that there will be minor variations in brightness, contrast and color tone in the ortho imagery throughout the project area. The following will be used as a guideline for acceptance of the digital orthophotography. These anomalies must be apparent when viewing at the intended mapping scale (i.e., 1"=100' [1:1,200]).

Contrast

- Accepted: Contrast is the same or very similar to the agreed upon prototype.

- Accepted with Rework: Contrast is significantly different than agreed to prototype.

Clarity

- Accepted: Image is clear and primarily free of blurred areas within the limitations of mosaicking and the source aerial photography. Pixel resolution is correct as per specifications. All image pixels exist.
- Accepted with Rework: Image is not clear or has numerous areas blurring that can be attributed to factors outside the source aerial photography. Pixel resolution is greater than defined by specifications. Image pixels have dropped out.

Warping/Stretching

- Accepted: Imagery is free of warped or stretched areas.
- Accepted with Rework: Image has warped or stretched area that cannot be attributed to extremely steep terrain.

Edge Matching

- Accepted: Ortho tiles edge match within the tolerances of accuracy requirements.
- Accepted with Rework: Ortho tiles do not edge match within accuracy specifications.

Positional Accuracy

- Accepted: Ortho imagery meets the tolerance of accuracy specifications. {+/- calculations on control and/or checkpoints} are within accuracy specifications.
- Accepted with Rework: Ortho imagery does not meet the tolerance of accuracy specifications. {+/- calculations on control and/or checkpoints} are not within accuracy specifications.

GEODATABASE DESIGN

Merrick will prepare an ArcGIS Version 10.8.1 file geodatabase design for use for this project. Feature classes will include the following:

- Control Survey (Point Feature Class)
- Flight Lines (Polyline Feature Class)
- Ortho Tile Scheme (Polygon Feature Class)

Merrick anticipates a similar document, structure, and content as developed for the products required for the previous year's Aerial Imagery project contracts. The final document will be mutually agreed upon by the County and Merrick.

METADATA

Metadata is data about your data. Merrick understands that complete, descriptive, well-formatted metadata adds significant value to your project's data. Merrick's standard database design includes feature level metadata for scale of photography, mapping standard the data exceeds, method of creation, and the source or producer of the data. For every metadata file for the project, each of the major categories; identification, data quality, spatial data organization, spatial reference, entity and attribute information, distribution information, and metadata reference will be attributed Merrick is well versed in providing metadata formatted to a variety of standards.

Merrick will provide the County with project level metadata that conforms to the Federal Geographic Data Committee's (FGDC) Content Standard.

Merrick will prepare each metadata record from relevant reports, samples of digital files, data dictionaries, and design documents.

For select fields in the metadata record, Merrick will contact County directly.

Once drafts of metadata records are prepared, they will be sent electronically to County for review of select fields, especially process steps, abstracts, and data dictionaries. Once returned, Merrick will compile comments, corrections, and updates into a final metadata record. If additional revision is needed, Merrick will accommodate that.

The final metadata record will be post-processed by software that checks for compliancy and formats metadata into a variety of formats suitable for posting on FGDC clearinghouses and storing within ArcGIS environments.

Metadata reports will be prepared for the following datasets:

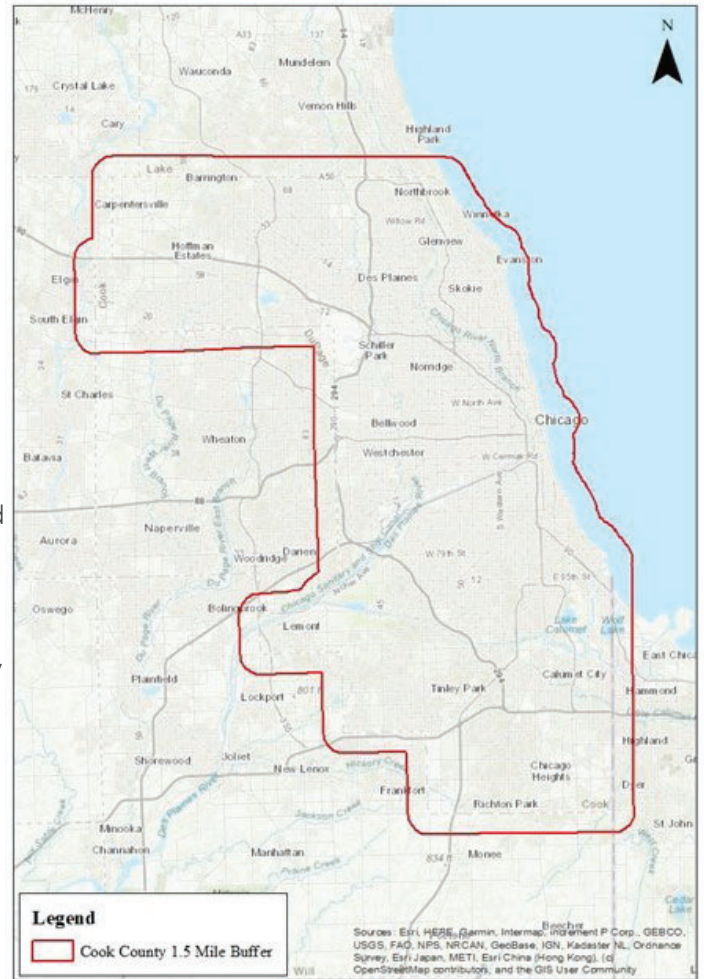
- Control Survey (Point Feature Class)
- MultiCam Aerial Imagery Flight Lines (Polyline Feature Class)
- 4-band Ortho-Imagery (Raster)
- Tile Scheme (Polygon Feature Class)

End users will be more confident using your data when it is accompanied by robust, detailed metadata. Merrick will work closely with the County to create meaningful and accurate metadata.

HYPERSPECTRAL IMAGERY

Galileo will utilize its own aircraft platform, most likely a Cessna 172 Skyhawk Pro with G1000 glass cockpit and full ADS-B in and out capabilities, for airborne collection operations independent from concurrent orthophoto and oblique collection by Merrick. An AISA EAGLE II VNIR Hyperspectral Imaging Sensor (400-1000 nm spectral range, 12-bit image depth) coupled with a high precision Oxford Solutions Survey+ 2nd Generation Airborne Global Positioning System (AGPS)/Inertial Navigation Unit (INU) will be utilized by Galileo for hyperspectral airborne collection operations. A total of 126 spectral bands with spectral resolution of approximately 4.6 nm will be collected. The native GSD of the final product will be 1.0 m. The maximum field of view (FOV) for the hyperspectral sensor will be less than 35 degrees. The hyperspectral imagery will be collected during a window of +/- 2 hours solar noon or when solar elevation angles are greater than or equal to 40 degrees, whichever is longest and/or possible given ambient meteorological conditions. During data collection, the signal will be optimized to ensure maximum attainable signal to noise ratio while minimizing data saturation of target materials. Imagery acquisition will be planned to reduce saturation and bidirectional reflectance. It is recognized that optimal weather conditions and solar windows will be sought for baseline ambient conditions to provide uniformity of illumination and suppression of artifacts like sun glint and shadows for consistency and maximization of data quality. Cloud cover and cloud shadow shall obscure no more than 5% of the hyperspectral imagery without prior written or email authorization from the County.

Cook County AOI



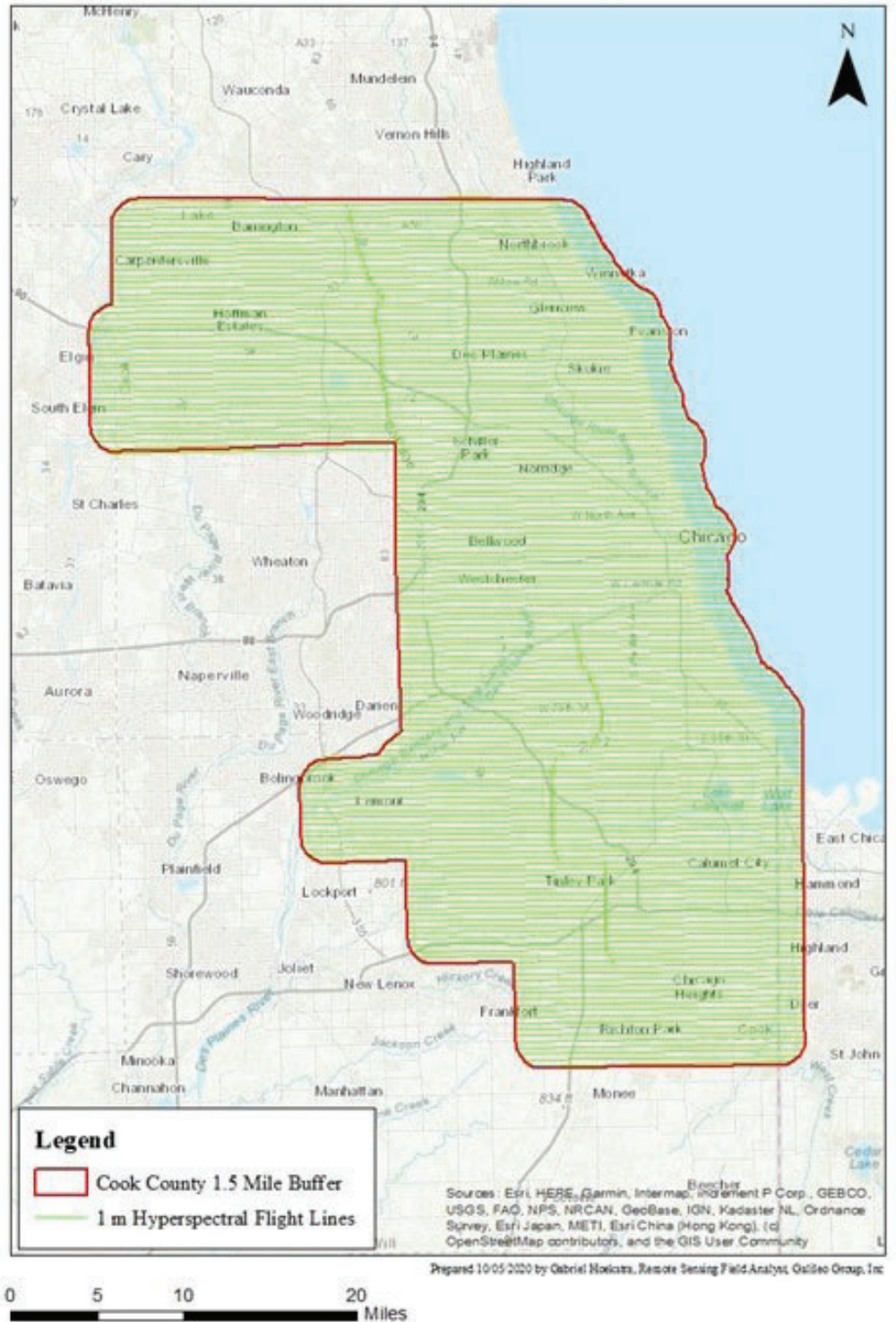
The height of the buildings in the downtown area of Chicago and the shadows they cast will present a unique challenge to the collection of quality hyperspectral data in

that region of the AOI. Some degree of shadow cover is unavoidable, especially during the spring leaf-off collection when solar angles are lower. However, Galileo is committed to delivering the highest quality product possible and will make every effort to collect airborne data in those areas during peak solar angles to minimize shadows in the imagery. If necessary, flight lines will be split, and those segments covering areas with tall buildings will be given priority for flight as close to solar noon as possible.

Terrain variation across the AOI is approximately 370 ft which falls well within pre-programmed terrain buffer tolerances of Galileo's flight planning software thereby removing the need for multiple acquisition altitudes.

All flight lines are planned with the following acquisition parameters:

- Ground Sampling Distance: 1.0 m/3.28 ft
- Flight Altitude Above Mean Terrain: 1361 m/4465 ft
- Swath Width: 869 m/1,782 ft
- Flight Line Sidelap: 40%
- Flight Speed: 100 Knots
- Frame Rate: 57 frames per second (FPS)



- Flight Lines per Collection: 241
- Flight Line Orientation: East – West
- Total Imaging Distance: 5650 km/3511 miles
- Approximate Raw Data Size: 1.5 Terabytes
- Solar Window: $40^\circ \geq$ or \pm 2 hours from solar noon
- Aircraft Pitch, Roll, Yaw: Captured at 100Hz by AGPS/INS

Galileo has extensive experience operating in the heavily trafficked airspace over Cook County. In 2013 the same Merrick-Galileo team completed a virtually identical airborne hyperspectral imaging project covering the entirety of Cook County. This project was completed on schedule and on budget and produced excellent imagery as well as detailed wetland analysis that successfully delineated over 18,000 wetlands across Cook County with an accuracy of over 90% as measured by ground truthing.

The image on the right shows an actual example of Galileo flight operations over downtown Chicago, IL. Additional flight operations have been conducted in some of the world's busiest airspaces including New York City, Miami, San Francisco, Atlanta, and Los Angeles along with remote operations in some of the most challenging mountain, jungle, and desert environments that Earth can offer. Galileo always puts safety first and we have never been involved in any aviation accident even while routinely contending with extreme terrain, weather, and traffic. Our aircraft come fully equipped with real time traffic information services (TIS) and ADS-B in and out which allow the pilot and sensor operator unparalleled operational awareness and traffic avoidance capabilities.

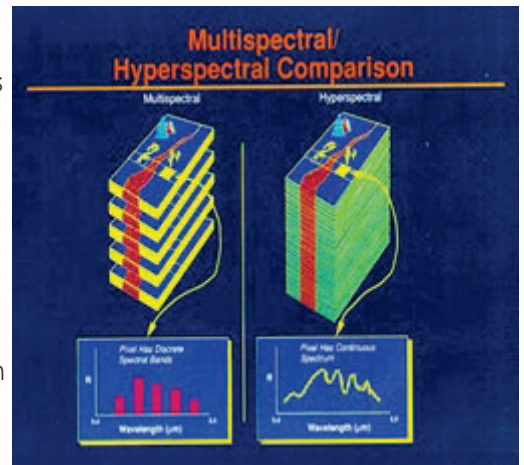


Aerial View from 2013 Hyperspectral Acquisition Flight

Galileo will also conduct a concurrent ground data collection campaign as close to the airborne acquisition as possible. An Analytical Spectral Devices (ASD) Field Spec Pro will be utilized to collect VNIR data of spectrally intransient features, such as asphalt, within the AOI. DGPS points and geo-tagged handheld digital imagery will also be collected at each spectrometer site for use in geo-location. At least one ground spectrometer site will be collected within the coverage of each collection day to ensure the end data is accurately corrected for each day's atmospheric conditions. This ground data will be used for atmospheric correction and for field validation of spectral quality and accuracy across the AOI.

Hyperspectral Imaging Sensor

The AISA Eagle II Hyperspectral sensor is an advanced instrument which collects detailed spectral information in order to identify various materials based on their unique spectral signature. This technology was originally developed for military and spaceborne applications but has since been commercialized. Powerful computer algorithms are used to analyze the data to map, display, and analyze a variety of features of interest. Hyperspectral imaging represents a generational scientific improvement of detail over multispectral imaging as shown in the figure to the right. It provides significantly greater number of bands, which are much narrower and more closely spaced together. Typical hyperspectral imagery contains hundreds of bands while multispectral offers less than a dozen. This enables measurement and differentiation of acute spectral details at high spatial resolution on targets which may appear virtually identical to the human eye or possess spectral similarity such as two species of deciduous trees.



Specim, Spectral Imaging Ltd (Specim) of Finland, the AISA Eagle II VNIR hyperspectral sensor offers an unparalleled combination of performance, portability, and economy. The Eagle's high signal to noise ratio, excellent spectral resolution, wide field of view, small form factor and proven field performance make it the ideal choice for airborne hyperspectral imaging.

Over the past two decades, Galileo and Specim have worked together to improve the design, delivery, and operational capabilities of the AISA series sensors. Through this process, Galileo has developed proprietary algorithms that have proven to facilitate data processing and analysis procedures. The result is a cost effective, end-to-end, airborne collection capability that acquires research-grade spectral imaging data for use in commercial remote sensing programs.

AisaEAGLE

OPTICAL CHARACTERISTICS		TYPICAL SPECIFICATIONS		
Spectrograph	High efficiency transmissive imaging spectrograph. Throughput practically independent of polarization. Smile and keystone < 2 microns.			
Numerical aperture	F/2.4			
Spectral range	400-970 nm			
Spectral resolution	3.3 nm			
FODIS (optional)	Diffuse down welling irradiance collector and fiber optic cable (5 m standard) with SMA connector			
Calibration	Sensor provided with wavelength and radiometric calibration file.			
FORE OPTICS				
Fore optics options	OLE23	OLE18,5	OLE9	
FOV	29.9 degrees	37.7 degrees	Wide FOV lens More specifications upon request	
IFOV	0.029 degrees	0.037 degrees		
Swath width	0.53 x altitude	0.68 x altitude		
Ground resolution @ 1000 m altitude	0.52 m	0.68 m		
ELECTRICAL CHARACTERISTICS				
Detector	Progressive scan CCD detector			
Spectral binning options	1x	2x	4x	8x
Number of spectral bands	488	244	122	60
Spectral sampling/band	1.25 nm	2.3nm	4.6nm	9.2nm
Frame rate, up to (frames/s)	30	59	100	160
Spatial pixels	Up to 1024, of which 70 - 80 FODIS pixels (optional)			
Output	12 bits digital			
SNR	1250:1 (maximum theoretical) More detailed SNR data in various conditions available from SPECIM.			
Integration time	Adjustable, independent of image rate			
Shutter	Electromechanical shutter for dark background registration, user-controllable by software.			
Operating modes	Hyperspectral and multispectral The operator can create application specific band configurations, and quickly change from one mode or configuration to others in flight operation.			
Power consumption				
Complete system with rack PC	350 W			
Complete system with lightweight PC	220 W			
ENVIRONMENTAL CHARACTERISTICS				
Storage	- 20 ... +50 °C			
Operating	+ 5 ... +40 °C, non-condensing			

Please note that while Galileo routinely offers the option to extend the spectral range to cover the Short-Wave Infrared (SWIR 1000-2500 nm) portion of the spectrum, it is our belief that this option adds significant cost and complexity to the equation without providing proportional value to the client's stated objectives. The VNIR portion of the spectrum covers the spectral features which are essential for spectral delineation in the following applications:

1. Wetland delineation
2. Invasive Species Detection
3. Tree Species classification
4. Vegetation Index Creation
5. Water Quality Assessment
6. Soil Moisture and Type
7. Impervious Surface Mapping
8. Roof Type Identification

While the SWIR spectrum does cover some related spectral features, this portion of the spectrum is best suited

for biochemical and geologic focused analysis geared towards high end agriscience or mining research. For example, vegetative chemical properties like sucrose and cellulose content, nitrogen levels, and protein properties are distinguishable using the SWIR spectrum, however these are not typically of interest to urban and environmental management applications.

Apart from the science related factors, SWIR also dramatically increases the power consumption and weight of the hyperspectral system which necessitates a larger more expensive aircraft to accommodate it. Data processing and analysis are also slowed down by this additional data. The addition of the SWIR spectrum more than doubles the files size of the already large VNIR-only data which results in unavoidably longer processing and analysis cycles. These factors substantially drive-up operational costs without providing additional value. Therefore, due to these technical and economic considerations, Galileo recommends a VNIR only approach for the hyperspectral system.



Advantages of Galileo's Airborne Hyperspectral Imagery:

- Superior spatial and spectral resolution compared to coarse satellite imagery
- Research grade atmospheric correction
- Highest geo-accuracy in the industry
- Spectral delineation and ID of a wide variety of targets
- Vegetation inventory and health assessment
- Urban structure mapping
- Water and quality assessment
- High resolution spectral data for change detection, historical trend analysis and long-term monitoring
- Direct output to custom automated reports and GIS databases
- Proven past performance for Cook County
- Timely, economical, and multi-use



**AISA EAGLE II Hyperspectral
Sensor Mounted within a Cessna
C-208 Caravan**

Proposed Data Pre-Processing Workflow

At the onset of every project, Galileo personnel initiate in-depth discussions with the client to fully understand the specific needs, potential hurdles to overcome, and a path to successful completion of the application. We then ensure the sensor configuration (including spectral and spatial resolution, solar angle, and signal dynamic range) is optimized for the specific application. After the sensor specification is determined, a detailed flight planning map will be sent to the customer for final coordination on data collection.

Airborne hyperspectral imaging consists of six critical steps: (1) flight planning, (2) data collection, (3) ground truthing, (4) image processing, (5) QA/QC, and (6) image analysis. The Galileo team has the necessary depth and resources to complete these steps for a wide variety of large-scale remote sensing projects.

Step 1 – Flight Planning

Flight planning is for high quality application orientated imaging. Galileo has developed its own flight planning software (TRAILBLAZE) specifically designed for the AISA hyperspectral sensor series. The TRAILBLAZE software loads the vector file of the AOI and automatically plots the flight lines (including altitude) based on the requirements of spectral and spatial resolution. It assures 100% coverage and improves planning efficiency to minimize unnecessary cost. Galileo has conducted extensive airborne operations in some of the

most challenging civilian and military airspaces in the world. Our team will pre-coordinate all flight operations with the appropriate FAA and military aviation authorities to ensure airspace access and rapidly complete airborne collection operations in a timely manner. For this project, Galileo selected 1.0m GSD as the optimal imaging resolution. Flight lines will be flown with 40% sidelap to ensure minimal distortion from edge effects.

Step 2 - Datacollection

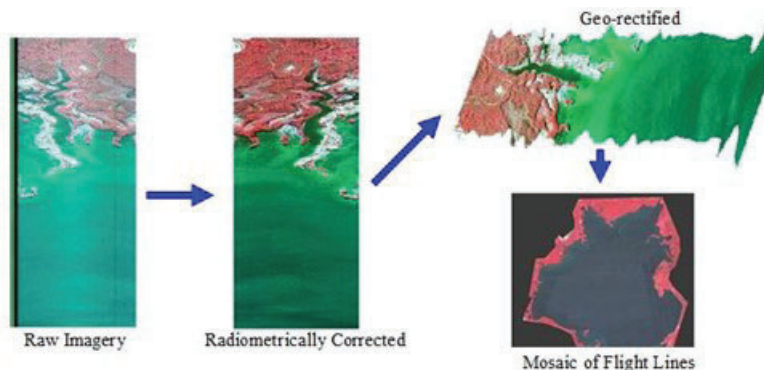
The sensor operator will make adjustments based on local weather conditions. For large scale projects, the total AOI is divided into several named zones to facilitate communication between pilot, sensor operator, project manager, and end client. For each flight mission, Galileo will also collect a few lines near the airport which will be used to calculate boresight parameters to ensure the highest geospatial accuracy. At the end of each day, a coverage shape file will be generated from the recorded AGPS/INU data and compared with planned flight lines to ensure accuracy. Galileo briefs internally on a twice daily basis and provides daily progress updates and quick look imagery to customers during data acquisition. Immediately after data collection, Galileo conducts complete quality assurance checks to insure full spatial coverage, no cloud or shadows in the imagery, minimal airplane vibration, proper exposure settings, signal level, and spectral quality.

Step 3 – Ground Truthing

Adequate ground-truth data provides an important element for the calibration and spectral analysis of hyperspectral imagery. From riding in air boats through the swamps of South Carolina to hiking through the deserts of Africa, the Galileo team has a strong history of successfully working hand-in-hand with customers to coordinate ground truthing with aerial data collection. Additionally, the Galileo Group can deploy and use calibrated reflectance tarps when required, and document ground conditions in the field with geo-tagged ground-photography and GPS coordinates for use in image processing and analysis. We are also able to conduct ground truthing for image analysis and have completed ground truthing in different environments using our own full package of fieldwork instruments, including ASD FieldSpec, Beacon, Nikon digital camera, SATCOM for emergency communication, Trimble DGPS units, and all necessary software.

Step 4 –Image Processing

The imaging processing step, as shown below, illustrates the processing steps from raw data to radiance data, then geometric calibration to generate geo-referenced images, and cross track illumination correction for an image mosaic of multiple flight lines.



Radiometric Calibration: The first processing step is to calibrate AISA raw data to at-sensor radiances. Our team has developed proprietary algorithms based on manufacturer software to batch process the radiometric calibration using a dark noise subtraction and cross track correction algorithm. At the end of each flight line, the sensor automatically closes the shutter and collects five seconds of dark noise data which is then used for dark noise subtraction in the radiometric correction algorithm. Any bad pixel on the CCD is identified and corrected during this processing step. After dark noise subtraction, a proprietary cross track illumination correction algorithm is run on the radiometrically corrected data to eliminate cross-track illumination variation that is typical of line scanning sensors. The processed data is then thoroughly checked pixel by pixel to

ensure the highest spectral accuracy and quality.

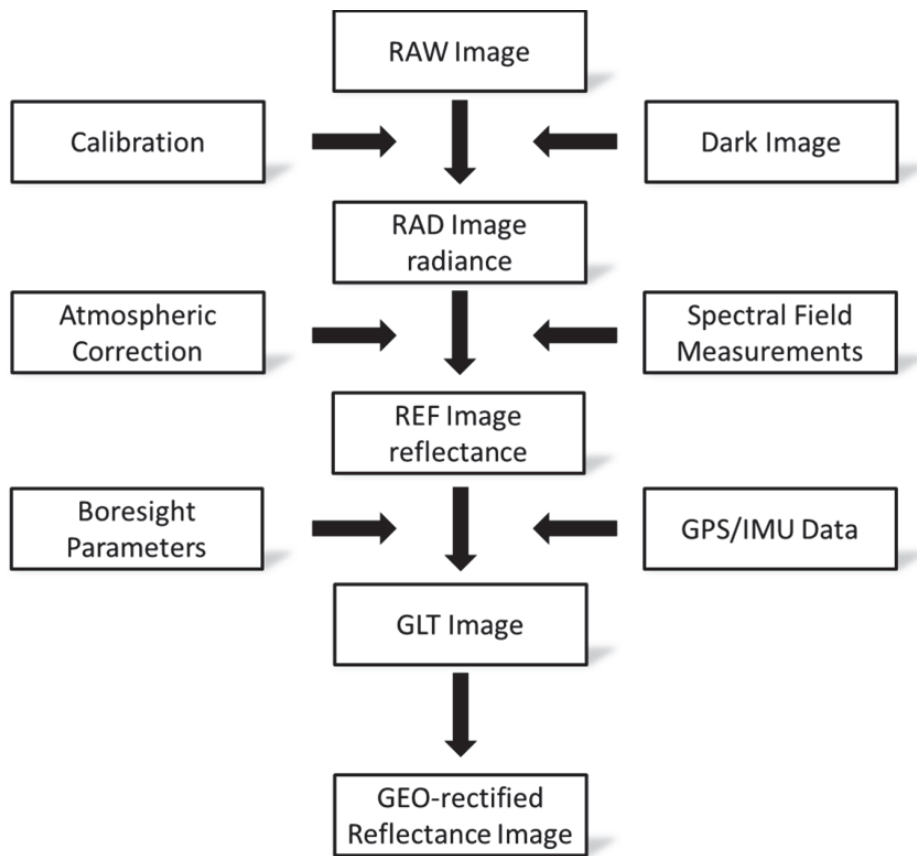
Atmospheric Correction: The radiometrically corrected data is then atmospherically corrected to reflectance data. This processing step is crucial when comparing multi-temporal datasets because atmospherically corrected reflectance data provides an absolute standard which allows for direct comparison of different datasets, whereas radiance data does provide only relative at sensor radiance that varies greatly from dataset to dataset. Galileo has the expertise to atmospherically correct radiance data with model-based software such as FLASH, ATCOR, and ACORN; with calibration tarps, spectrometer data, FODIS data; or other field data. For this project, Galileo is proposing to complete atmospheric correction using a combination of ground-based spectrometer data and the empirical model-based software ATCOR.

The ground spectrometer data provides a known surface reflectance signature without distortion from the air column between the lens of the airborne system and the ground. This known ground reflectance signature is then geo-located in the airborne hyperspectral imagery using ground DGPS and geo-tagged digital imagery data collected concurrently with the ground spectrometer data. Then, the radiometrically corrected data is converted to reflectance using the ground spectrometer data as the input for an empirical line correction and ATCOR atmospheric modeling software. The atmospheric distortion caused by imaging through the air column from the lens to the surface is removed and absolute reflectance of surface materials on a 0 to 1 scale (with 1 being 100% reflectance) is achieved. Direct comparison between the known ground reflectance spectrometer data and the same pixel in the airborne reflectance data is then conducted to spectrally validate all flight lines.

Geometric Calibration: Galileo uses a standardized two-step method to ensure high geospatial accuracy for geo-correction. First, an Oxford Solutions AGPS/INU unit is included in the AISA hyperspectral imaging system to record aircraft position and attitude information at 100Hz. A previous lever arm measurement is conducted every time the sensor system is installed and configured in the aircraft. The AGPS/INU recordings are then used to geo-reference each pixel and project the image to the customer specified projection and datum. To achieve the highest accuracy, boresight calibration flight lines will be used to estimate the sensor mounting geometric parameters. Galileo also utilizes the TERRASTAR real-time correction service for the AGPS/INU to ensure the highest geo-accuracy. This service corrects the navigation data stream in real time and removes the need for post-processing of the AGPS/INU data.

Digital elevation models (DEM) will be used for ortho-rectification to ensure elevation variation across the AOI is accurately corrected in the final orthorectified imagery. For this project, Galileo will utilize a LIDAR Bare Earth model from the most recently available LIDAR dataset of Cook County. For areas where the LIDAR data is unavailable, Galileo will use freely-available USGS 3DEP data for this process. As QA/QC and to ensure the highest spatial accuracy achievable, the orthorectified hyperspectral imagery will be compared to the newest ortho-photographic and ground control survey data from Merrick.

Final Imagery Product: After the completion of the above steps and prior to delivery of the final imagery product, the final data will be checked to ensure 100% spatial coverage with excellent geo-accuracy and research grade spectral quality before delivery to the client. Deliverables for this project include radiance and reflectance orthometrically corrected hyperspectral flight lines. A tiled full band mosaic image of the entire AOI will also be included in either ENVI standard (*.dat) or Tiff/GeoTIFF formats. Galileo will utilize the client's existing tiling scheme. Natural color (RGB) and color-infrared (CIR) mosaic images will also be delivered in GeoTIFF or ENVI standard format. Full metadata and a comprehensive report will be provided as final deliverables.



Step 5- Final QA/QC

The accuracy of the data acquired by the AISA sensors depends on various factors, including the accuracy of the individual sensors, such as the receiver accuracy of the AGPS/INU system, calibration quality of the hyperspectral sensor, and inter-sensor calibration. Any of these error sources translates to an error in the determined ground point coordinates. Galileo guarantees that systematic errors are removed by repeated, careful system calibration (both individual and inter-sensor calibration). All of Galileo's sensors are radiometrically calibrated every year, and the AGPS/INU is calibrated every two years. All data will be radiometrically, atmospherically, and orthometrically corrected and will pass a final comprehensive quality test.

Step 6 - Detection and Analysis Objectives

Although not currently required for this proposal, Galileo would like to address the analytical possibilities which can be derived from this dataset. Galileo has developed proprietary software to process and analyze large amounts of hyperspectral data in a timely manner, which can be a "bottleneck" for many other imaging firms. With our software and high-end computing facilities, our required turnaround time to delivery is minimal relative to other competitors, typically just days even for very large project areas, compared with weeks for most others. Extremely rapid processing and analysis is particularly important in certain applications such as emergency response, natural disasters, and environmental assessment as well as military and other scenarios where imagery must be provided without delay.

Galileo's personnel are highly skilled in the analysis of hyperspectral imagery and experienced in converting the analysis work into GIS maps and vector products based on customer requirements. This allows us to seamlessly incorporate our data and analysis results into customizable GIS routines and programs. Galileo's physicists, engineers, and remote sensing experts have developed unique, patented hyperspectral processing algorithms for target detection and band selection. Some of these such as BANDMAX, have been licensed and

incorporated into ENVI image processing software. Our company is a leader in advancing hyperspectral processing methods and continues to perform research and solutions in this area.

Similar past projects have benefitted from Galileo's expertise in urban and environmental management analytics. Tree species delineation, invasive species detection and acreage estimation, change detection from month to month, water quality analytics, vegetated stress identification, Emerald Ash Borer infestation estimation and a wide variety of other applications highlight some of the possibilities with Galileo Analytics.

Galileo employs a similar methodology for a different project which occurs annually in the Low Country of South Carolina. In this case, Galileo conducts concurrent airborne and airboat-based data collection on and over Lakes Moultrie and Marion for the purpose of invasive species mapping and acreage estimation, native species growth and acreage estimation, herbicide application effectiveness research, and annual change detection. Each year, Galileo collects airborne hyperspectral imagery covering over 400,000 acres and airboat-based GPS and geo-tagged imagery. This data is then analyzed by experienced Galileo scientists to delineate over 30 species of aquatic vegetation including floating leaf, Submersed Aquatic Vegetation (SAV), emergent, and tree species.

Galileo is also highly skilled at converting imagery and analysis work into GIS maps and customized raster and vector products based on customer requirements. This allows us to seamlessly incorporate our data and analysis results into customizable

GIS routines and programs. Dozens of vegetation management and monitoring programs have greatly benefited from the comprehensive perspective these products provide. Additional past project profiles are included below in Appendix A. Portfolio samples are contained in the Galileo Group General Presentation PowerPoint available to download: <https://galileo.egnyte.com/dl/rTDuovEei5>

SCHEDULE

To ensure leaf-off imagery acquisition, Merrick strongly recommends receiving Notice To Proceed (NTP) from the County no later than March 1, 2021. This NTP date will allow for the imagery acquisition to commence under leaf-off conditions assuming the weather and site conditions are permitting for such activities.

In addition to the above mentioned NTP, Merrick strongly recommends the County agrees to issue a Memorandum Of Understanding (MOU) authorizing Merrick to commence with the aerial imagery acquisition prior to issuing a formal Purchase Order and execution of Cook County's contract agreement.

Based on Merrick's longstanding, 22-years relationship with the County, it is assumed contract negotiations and execution should be without incident; however, the MOU should be written to guarantee Merrick payment for acquisition activities thus limiting Merrick's exposure and risk.

The following table outlines the proposed schedule for the Cook County 2021 Multi-Aerial Imagery project. The proposed schedule for the subsequent years (i.e., calendar years 2022 and 2023) will be similar to the 2021 program.

Task Name	Start	End
Ortho and Oblique Imagery	3/1/2021	10/1/2021
Simultaneous Nadir (Ortho) and Oblique Imagery Acquisition	3/1/2021	4/2/2021
Simultaneous Nadir (Ortho) and Oblique Imagery Post-processing	4/5/2021	4/30/2021
PID Control and Checkpoints	5/3/2021	5/14/2021
PhotoMesh Setup, PID Control Measurements, Aerial Triangulation	5/17/2021	5/28/2021
PhotoMesh Rectification, Mosaic, QC, and Edits	5/31/2021	7/30/2021
Deliverable Preparation Including GDB and Metadata	6/28/2021	8/27/2021
Pilot Project Delivery of Ortho and Oblique Imagery		7/9/2021

Project-wide Delivery of Ortho and Oblique Imagery		8/27/2021
Cook County Review of Ortho and Oblique Imagery	8/30/2021	10/1/2021
Airborne Hyperspectral Imagery	3/15/2021	11/12/2021
Spring (Leaf-off) Airborne Hyperspectral Imagery Acquisition	3/15/2021	4/26/2021
Post-process the Spring Airborne Hyperspectral Imagery	5/3/2021	6/4/2021
Preparation of Spring Hyperspectral Imagery Deliverables Including Metadata and Report	6/7/2021	6/18/2021
Project-wide Delivery of Spring Hyperspectral Imagery Deliverables		6/18/2021
Cook County Review of Spring Hyperspectral Imagery Deliverables	6/21/2021	7/16/2021
Summer (Leaf-on) Airborne Hyperspectral Imagery Acquisition	8/2/2021	8/27/2021
Post-process the Summer Airborne Hyperspectral Imagery	8/30/2021	10/1/2021
Preparation of Summer Hyperspectral Imagery Deliverables Including Metadata and Report	10/4/2021	10/15/2021
Project-wide Delivery of Summer Hyperspectral Imagery Deliverables		10/15/2021
Cook County Review of Summer Hyperspectral Imagery Deliverables	10/18/2021	11/12/2021

Please note that the timelines presented for "Acquisition" is an anticipated window, and includes planning, coordination, etc. Upon receiving contract award, Merrick and the County will schedule the kick-off meeting to occur as soon as both parties' schedules allow. Merrick will work closely with the County in negotiating and arriving at a mutually desirable detailed production schedule once the solicitation is awarded.

Pilot Project

Prior to commencing with the project-wide production, Merrick recommends a pilot project. This will allow the County to visualize all the deliverable products for a sample portion of the project. While the end products for this project remain the same as produced in the 2009-2020 campaigns, the use of different sensor technology suggests reintroducing a pilot project. Completing the pilot project ensures that both parties have a clear understanding of all project products and specifications, regardless of similarities and/or differences. Merrick believes we understand the complexity of this project; therefore, we do not anticipate major modifications in our procedures as a result of the pilot project.

Merrick proposes that a formal pilot project review meeting be held in person at the County's office. Due to the ongoing COVID pandemic, it may be required to switch to a virtual meeting. The best solution will be decided at the kick-off meeting.

The pilot project will be a representative sub-set of the entire project. It is important to obtain a large enough sample of the project to ensure most database situations and anomalies are reviewed. Merrick and County will mutually designate the pilot project area, and said area should encompass all unique project characteristics that may exist.

Once all pilot project issues have been resolved, the County would then provide Merrick authorization to proceed on project-wide production.

PROJECT CONTROL

In Merrick's company structure, project managers are responsible for cost control, scheduling, and project concept. For this contract, Merrick's project manager is Doug Jacoby. Mr. Jacoby is responsible for the project concept and quality assurance program, project scheduling, and cost control processes listed below.

Project Concept and Quality Assurance Program

There are a few key philosophies that Merrick applies to all projects:

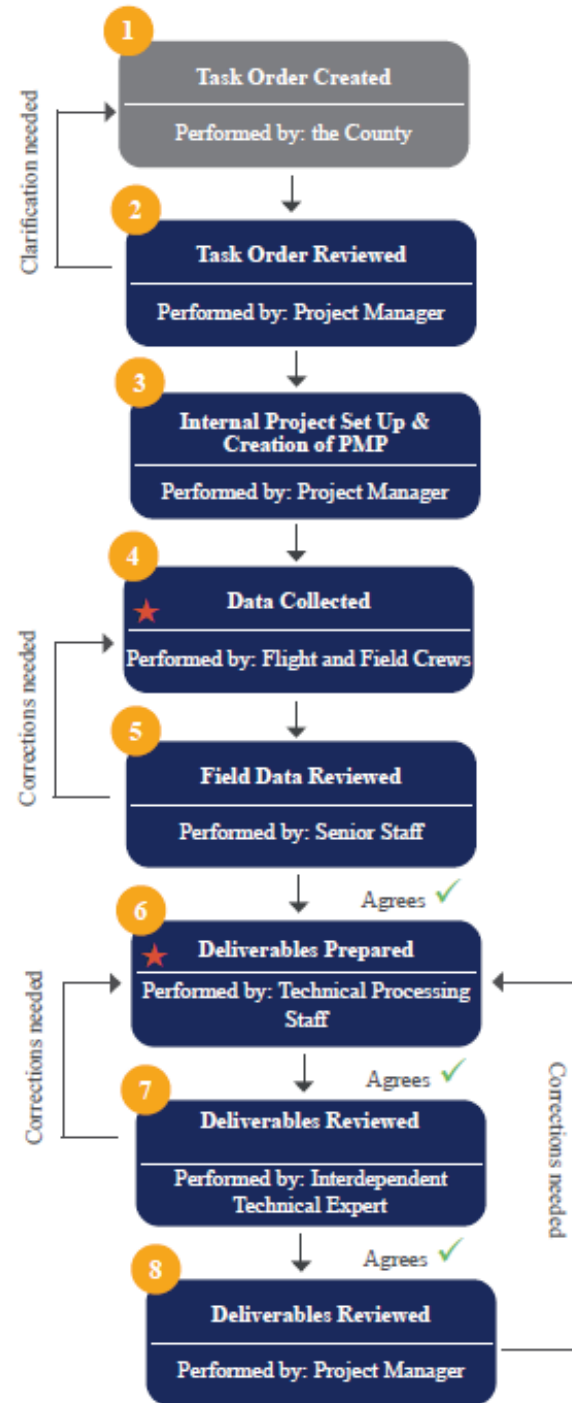
1. Appoint a strong, knowledgeable, and experienced project manager
2. Assign key technical personnel with the proper experience and qualifications required for the project
3. Develop a project plan and review it with the County before starting any work
4. Communicate on a regular basis regarding status of the project compared to plan
5. Maintain team continuity throughout the duration of the project
6. Always provide sample deliverables and discuss with the County
7. Review deliverables prior to final submittal

Merrick has a quality management system (QMS) that establishes quality control steps and aims to continually improve and document the effectiveness and efficiency of processes. The QMS is managed by our full-time corporate quality assurance manager, Greg Morris, who is a Lead Certified Assessor for ISO 9000 and a member of the American Society for Quality.

At the project level, the QMS requires creation of a project management plan (PMP) document. The PMP is designed to document the scope, roles, procedures, responsibilities, and documentation for every member of the project team. Merrick will provide the County a PMP for the projects assigned to ensure that each project will be delivered completely, accurately, on time, and on budget.

For each project, a series of reviews are conducted to ensure work orders, field work, and ultimately the deliverables meet or exceed quality standards. As work and field orders and deliverables are ready for review, the packages go through a QA/QC review cycle (as shown in image): comment, incorporation of comments, and corrections. These reviews ensure that Merrick's deliverable is technically correct and contains all necessary data.

For mapping projects, as a final QA/QC step, there is a final review by an independent technical expert who was not involved in the data processes. Merrick has a large team of experts, so there is always a LiDAR, imagery or survey expert available for independent review.



★ Corrections Made

Each Tuesday, Merrick project managers review all hours, their associated costs, and any charges to projects. This weekly review prevents project costs from getting high without the project manager realizing.

Project Scheduling

Every Monday, Merrick's project managers, senior geospatial staff members and all field crew personnel meet to discuss resources and staffing across the department. This meeting provides an overall picture of ongoing projects status and resource capacity. During this discussion, potential schedule delays or requests for additional information on projects are also examined.

In between the weekly meetings, the project manager will meet and discuss with the team leads any issues or problems that need to be resolved. For larger projects, a matrix identifying status schedules and responsible parties is created and used. We have found this process to be an effective tool for keeping meetings efficient and ensuring all important issues are addressed.

At least once a month, project managers evaluate the financial status of each task order to ensure Merrick is on budget and within schedule. If not, the project manager and the team leads establish a plan to get back on budget and/or schedule. Any schedule deviations and their solutions are shared with the client as soon as possible, to ensure that other project aspects are not negatively impacted.

Cost Control

Merrick is committed to meeting the County's budget requirements. Our project manager, Brian Holzworth is responsible for controlling the survey budget. All Merrick employees use BST Enterprise for daily timecards, and all captured time is coded with a project number. Accounting inputs all company hours and any other expenses to the Project Portal each Tuesday. The Project Portal is an in-house Merrick software that displays the full project value, all charges, and remaining budget. Each Tuesday, Merrick project managers review all hours, their associated costs and any charges to projects. This weekly review prevents project costs from getting high without the project manager realizing.

If Merrick's actual costs exceed the budget for reasons internal to Merrick, the project manager will correct the situation without affecting our service to the County (schedule, quality, communication, coordination, etc.). For items that are out-of-scope, Merrick will identify the item as soon as possible and bring it to the attention of the County project manager.

Communication

Communication with the County will be through the project manager. Merrick's project manager is Mr. Doug Jacoby, CMS, GISP. Mr. Jacoby will be the Point of Contact (POC) for all contractual issues and negotiations as well as all day-to-day project management duties. It is assumed that the County will designate the appropriate contract and/or technical project manager(s)

to this project. Efficient and accurate communications between the County and Merrick are critical to the success of this project. Merrick's communication protocol will be the procedure to document the results of discussions and the decisions made. E-mail regarding significant project issues will be forwarded to all affected parties by Merrick's project manager.

Status Reporting

A project status report will be used to formally communicate the overall project status and issues. The report will be provided by Merrick's project manager monthly, and will reflect project status as of the end of the period. The status report will be e-mailed to County and posted to a pre-established SharePoint site for future retrieval. At a minimum, reports will contain:

- Percent complete of major tasks
- Activities completed within the reporting period
- Activities planned for the next reporting period
- Summary of any technical issues
- Summary of administrative issues
- Meetings held, planned, or needed

- Cook County, Merrick, and subcontractor action items

Please note that daily status reports will be made available during the imagery acquisition phase.

Kick-Off Meeting(s)

Merrick believes client interaction early in the process is critical and necessary for a successful project implementation. Therefore, a meeting with Cook County will take place immediately after the contract is awarded. Merrick and the County will review all aspects of work to be performed in order to finalize project scope. The purpose of this meeting is to guarantee that all members of the County's project team and Merrick are in agreement regarding all project-specific tasks.

Pilot Project Evaluation Meeting

If necessary, a meeting will take place to critique products and assess procedures for all pilot project deliverables. The location of this meeting will be determined at the kick-off meeting.

Change Control

The County and Merrick recognize the dynamic nature of the project to be contracted. We believe it is the responsibility of both parties to fairly negotiate changes in scope that significantly impact costs, whether it is an increase or decrease. Merrick formally documents all changes in scope (regardless of whether or not there is a cost impact), to ensure that our clients receive products that meet their satisfaction. Our change control process will include:

- Identification of the change (requested by the County or proposed by Merrick)
- Formal documentation of the change by Merrick's project manager (Change Form)
- Fee negotiation (if necessary)
- Revise and document change procedures
- Change implementation

DELIVERABLES

Merrick understands that the following deliverables will be provided to the County for this project, and are that the County will maintain sole ownership of such:

Ground Control Products

- PDF of final signed control report including narrative, field notes, etc.
- ASCII Coordinate listing of the PID control and checkpoints
- Point feature class of the checkpoints
- FGDC compliant project level metadata in HTML, XML, and TXT formats

Aerial Imagery Products

- Flight line/control diagram in PDF format
- PDF of Sensor Calibration Certificate
- PDF of Airborne GNSS/IMU Report with statistical summary report
- Line feature class of the flight lines
- FGDC compliant project level metadata in HTML, XML and TXT formats

Aerotriangulation (AT) Products

- PDF of Aerotriangulation Statistical Report
- FGDC compliant project level metadata in HTML, XML, and TXT formats

Digital Ortho Imagery Products

- One set of half-foot (0.5'/six-inch 6") pixel resolution uncompressed 4-band stack (R,G,B,N), 32-bit digital orthophotography in GeoTIFF format (.tif)
- One set of half-foot (0.5'/six-inch 6") pixel resolution black and white (panchromatic) digital orthophotography in GeoTIFF format (.tif)
- Polygon feature class of the ortho tile scheme
- FGDC compliant project level metadata in HTML, XML, and TXT formats

Oblique Imagery Products

- Raw Oblique imagery in .tif format
- One set of photo center exposures in a geodatabase point feature class with exterior orientations for each image
- One set of flight lines in a geodatabase line feature class
- Camera calibration report
- FGDC compliant project level metadata in HTML, XML, and TXT formats

Hyperspectral Products

- Raw hyperspectral imagery in .raw format
- Raw AGPS/INS data in ASCII format
- Orthorectified full spectral band reflectance imagery for each flight line in ENVI .dat or GeoTIFF format
- Tiled mosaic of orthorectified full spectral band reflectance imagery in ENVI .dat or GeoTIFF format
- RGB and CIR tiled mosaic derived from full spectral band reflectance imagery in ENVI .dat or GeoTIFF format
- Ground spectrometer data in ASCII format
- DGPS data in shapefile or ESRI geodatabase format
- Geo-tagged digital imagery in .jpeg format with accompanying vector points in shapefile or ESRI geodatabase format
- Full FGDC compliant metadata for all data in .xml format
- Detailed weekly status reports to the client
- Sensor calibration report
- Final comprehensive project report

Geodatabase Design

- Geodatabase design documentation

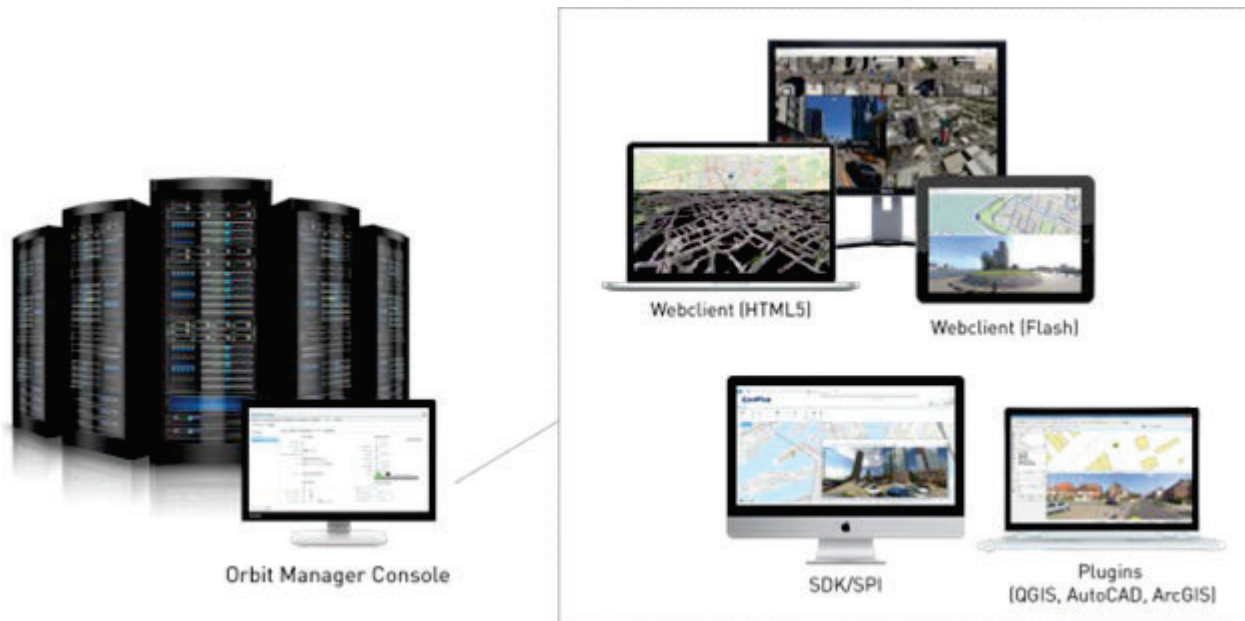
County Support, Assistance, and Responsibility

- Assistance with TRACON coordination (if necessary)
- Dedicating the appropriate project management resources to this project.

- Access to existing Cook County materials and/or data
- Assistance with Esri shapefiles of the project boundary(s) and various tile layouts with attributes
- Timely and thorough review, feedback, and acceptance of deliverable products

OBLIQUE IMAGERY VIEWING APPLICATION AND ESRI PLUG-IN

Merrick is proposing software packages produced by Orbit GT (<https://orbitgt.com/>) to meet the needs described in the RFP. Orbit GT (Geospatial Technologies) specializes in multi sensor data integration via their standalone software products, web mapping offerings, third party web mapping custom integration, or direct plugin



integration into ESRI ArcGIS Desktop, Pro, and ArcGIS Online.

Orbit GT is very unique in that its software products specialize in the single point access, organization, and dissemination of a variety of types of geospatial data. They allow for the viewing, interaction, and measuring of orthophotos, airborne oblique imagery, GIS vector layers, LiDAR data, time-based geospatial data, and even the image textured 3D mesh models that we create to later produce the true ortho products. These data interacting capabilities persist across all platforms (desktop, web client, ESRI plugin, etc.). Geospatial data is centrally hosted and served both privately and publicly as configured and controlled by the administrator.

ESRI integration examples:

Orbit 3D Mapping Plugin for ArcGIS Pro

Navigate through streetview, nadir, oblique images, LiDAR, DSM point clouds, meshes, etc

footprints, view direction/angle, image positions, ... overlaid

rotate oblique imagery in your preferred direction

Navigate

Orbit 3D Mapping Widget for ArcGIS Online

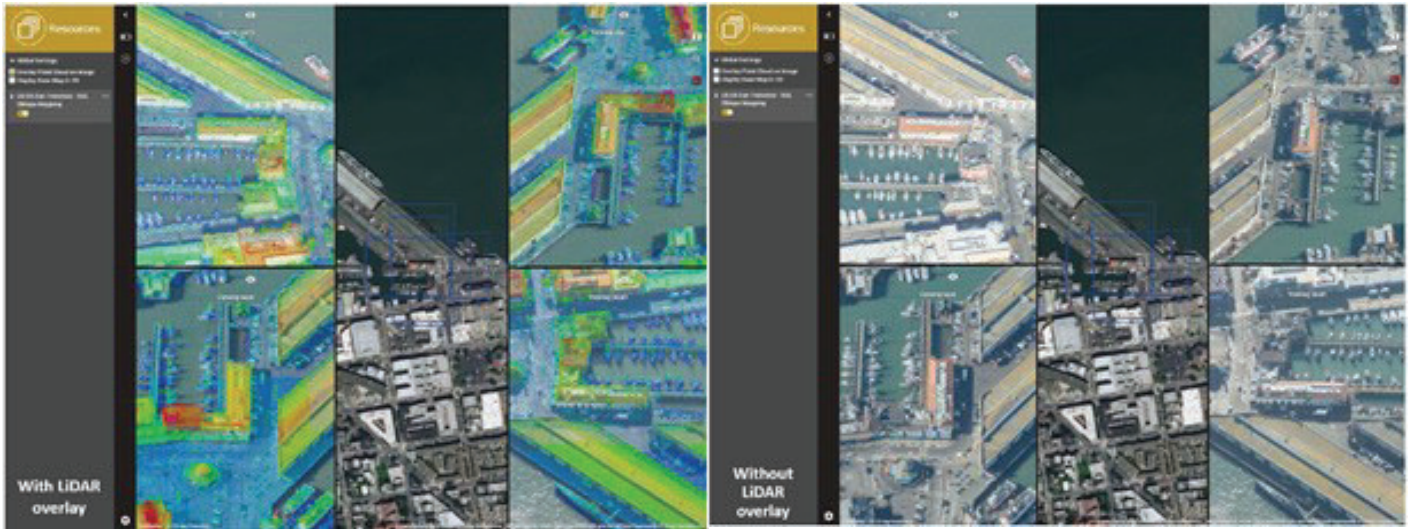
Oblique Mapping: 4 image directions and DSM point cloud

Textured Mesh

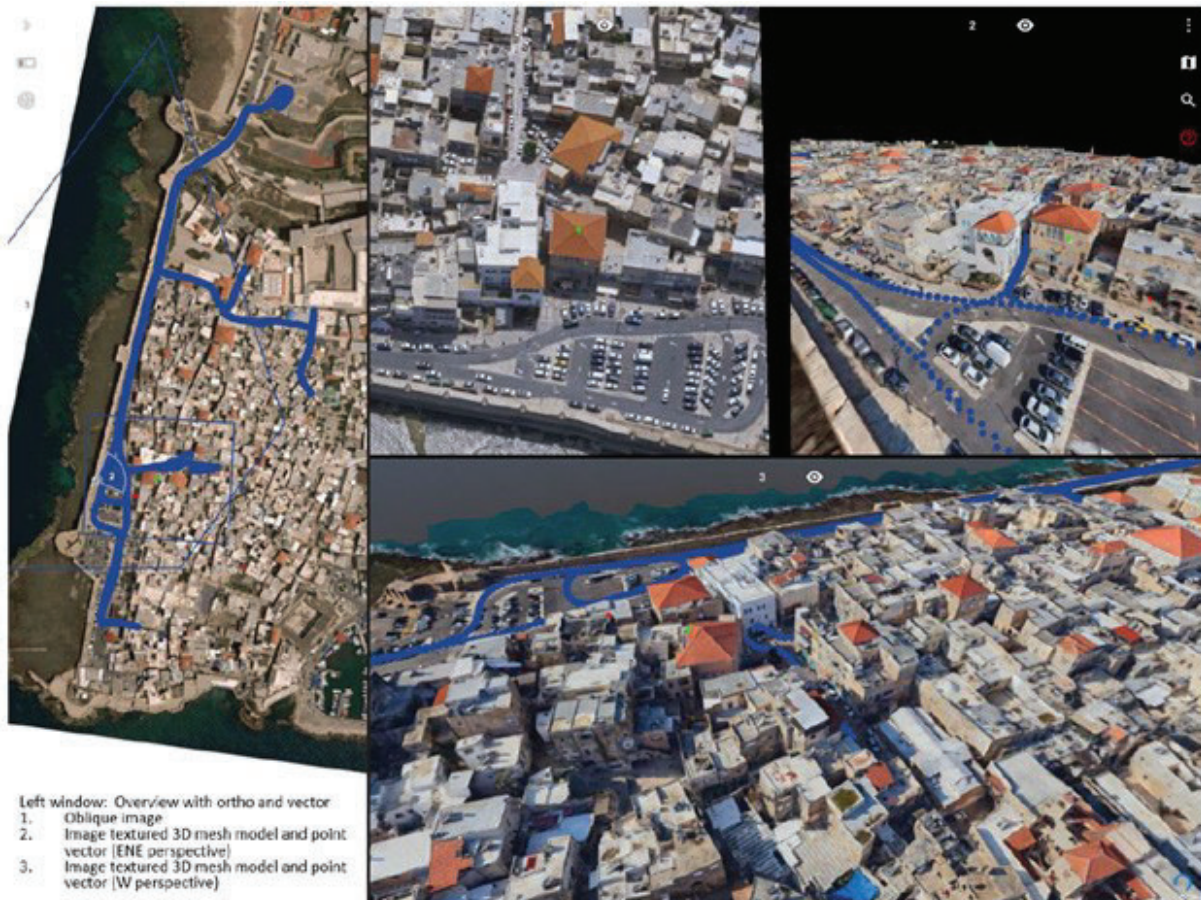
Mobile Mapping: streetview sphericals and LiDAR point cloud

Combine 3D Data

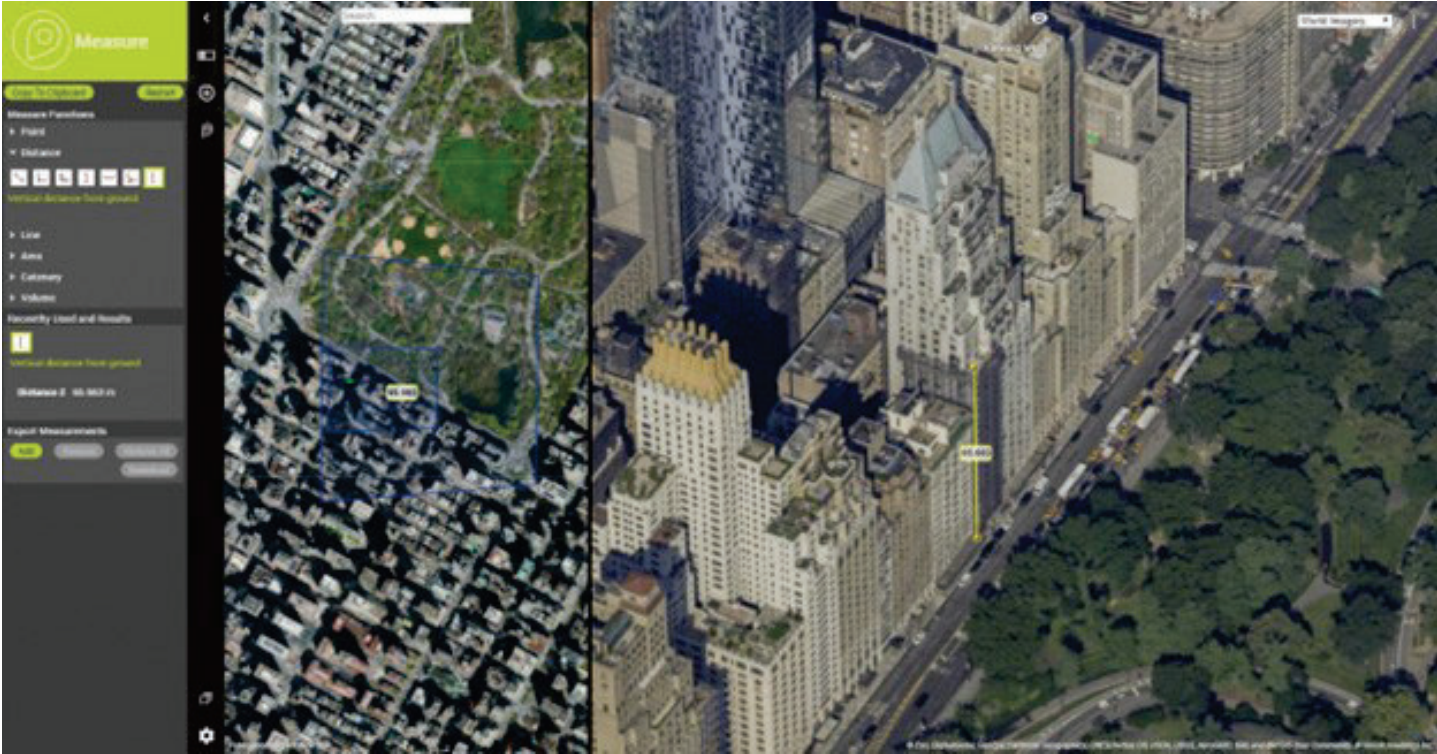
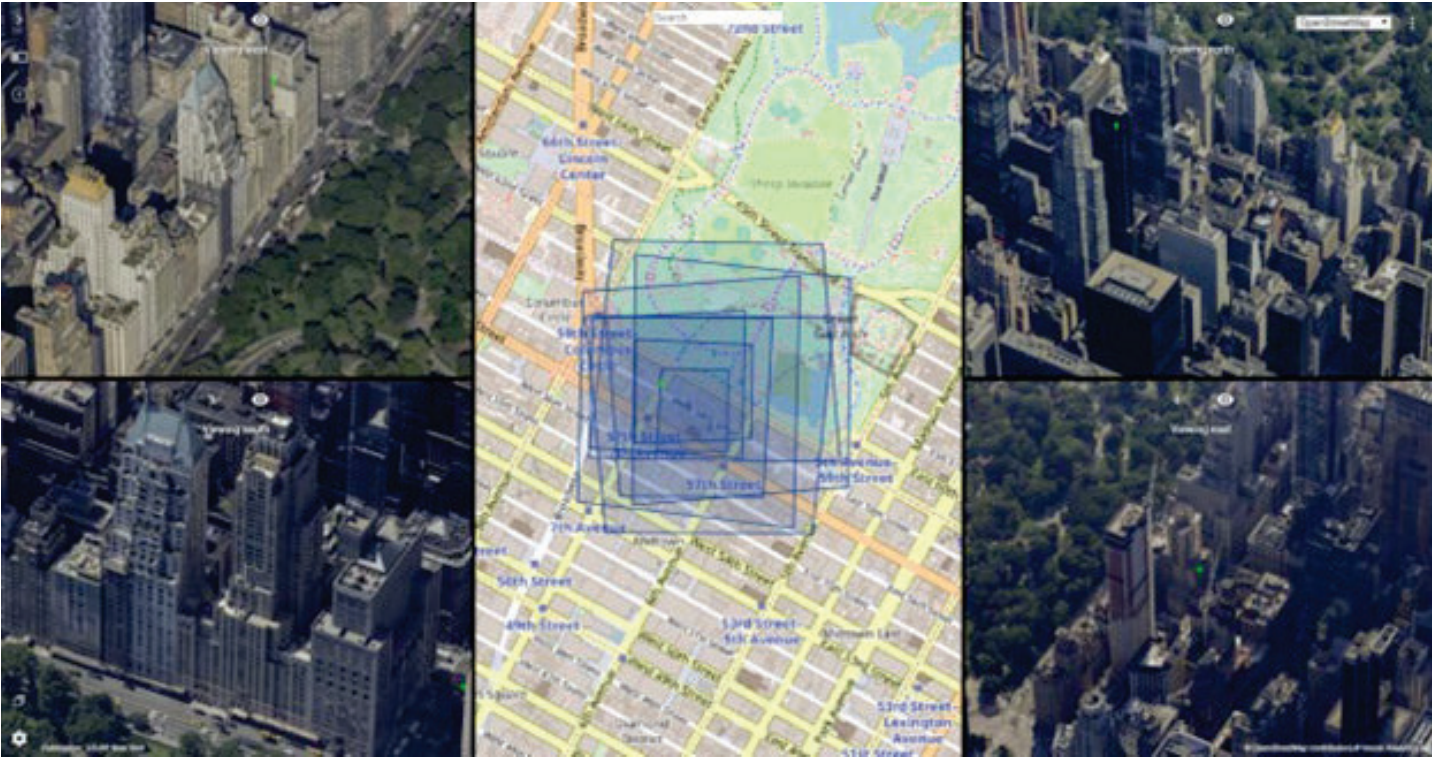
Sample web browser oblique viewer with and without LiDAR overlay:



Sample web browser 3D mesh model viewer:



Oblique viewer examples:



RFP 2050-18294 Multi-Aerial Imagery

Clarifications Request, Dated October 26, 2020

1. If SWIR is collected for the hyperspectral imagery, will the corrected SWIR images be included in the hyperspectral data cube or as a separate data set entirely?

Answer: The SWIR data would be binned into a single co-boresighted image with the VNIR data and delivered as a single dataset. The resulting imagery would be radiometrically, atmospherically, and orthometrically corrected and the spectral range would extend from 400-2500 nm. **Please note that Merrick's team has not included SWIR in our proposal due to the higher cost associated with it. In our experience, all of the client's science objectives are readily achievable with VNIR only and the inclusion of SWIR is not economically justifiable.**

2. Can your proposed solution for the oblique viewer support the County's historical imagery? How do you propose to incorporate several different sets of historical imagery? And what formats would be required if conversion is necessary for any historical images?

Answer: Merrick's proposed solution for the oblique viewer can support Cook County's historical imagery if the imagery is accessible in a non-proprietary image format and interior and exterior camera calibration information is available. JPG format is preferred but any other non-proprietary image format will work. Mild image compression will help with file storage sizes yet keep the quality of the imagery high. The proposed Orbit GT software solution provides timeline tools out of the box allowing image viewing results to be filtered by time or time ranges.

Merrick did not tailor our oblique viewer approach to include the ability to support the historical Pictometry imagery as it is in a proprietary format, and Cook County's answer to the question (No. 4) stated this need was not required (see below as derived from *RFP No. 2050-18294 Multi-Aerial Imagery, Cook County Responses to Vendor Inquiries, Addendum No. 2*).

Question:

In section 2.3 Oblique Imagery – a sentence reads: “The County also requires that historical oblique imagery from previous County missions be available for use within this application”. Is this imagery in proprietary ‘Pictometry format’ or non-proprietary imagery format? If the later, interior and exterior photogrammetric information needs to be provided for each image.

Response:

Historical Pictometry imagery is in a proprietary format, as such photogrammetric information may not be available and not required. New imagery collected as a part of this project is required to be in a non-proprietary format compatible with ESRI's suite of products.

3. What will the tile size be (in area) for the orthophotos and hyperspectral images?

Answer: Assuming Cook County will continue to use the historical (current) 2,500' x 2,500' orthophoto tile scheme, the area will be 6,250,000 square feet (~0.224 square mile) per tile. Merrick can produce orthophoto tiled imagery and hyperspectral tiled imagery in any tile size the County chooses should want an alternate format.

4. Can the spectral range of the hyperspectral images offered in the proposal be increased or decreased and can that be reflected in the cost if requested?

Answer: Merrick's proposal includes VNIR (400-1000 nm) data only. Bands can be easily removed (spectral resizing) but no additional spectral range can be added without the additional cost of an additional hyperspectral sensor, larger aircraft, longer processing time, etc. Custom spectral resizing of the hyperspectral dataset can be included as an additional deliverable at no extra cost. At no additional cost our team will happily provide 3 band true color (Red, Green, Blue) and Color Infrared (CIR) mosaics of the entire AOI for rapid integration into existing GIS databases. SWIR may be included for an additional significant cost.

5. With regards to the oblique photo viewer software recommended in the proposal, is the license for this software required to be purchased by Cook County or is it included in the price for the duration of the contract?

Answer: It is Merrick's recommendation that the license(s) should be purchased / procured directly by Cook County. This keeps software ownership, training, and annual software maintenance renewals "clean" (i.e., eliminates the Merrick team as an intermediary between Orbit GT and Cook County).

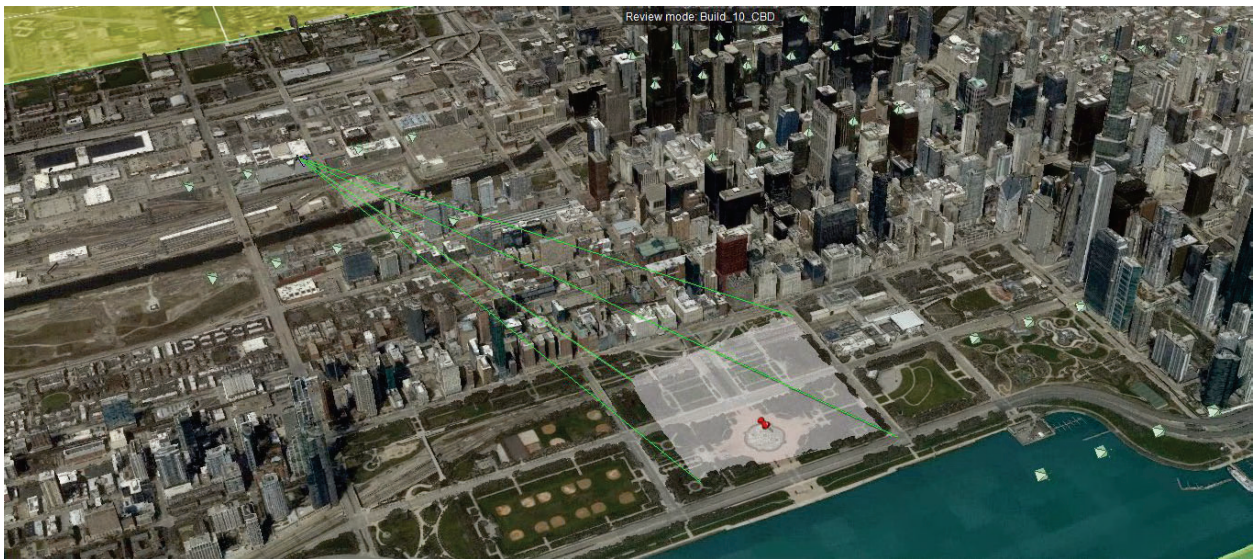
6. What level of detail is included in the oblique image metadata? Will it be possible to extract the image of a precise location from a collection WITHOUT oblique photo viewer software?

Answer: Oblique image metadata will contain the following for each image:

- Name
- Date of acquisition
- Time of acquisition
- X,Y,Z of camera at time of acquisition
- Omega, Phi, Kappa of camera at time of acquisition
- Camera calibration parameters

- Focal length of lens
- Pixel pitch (CCD or CMOS pixel size)
- Width and height of CCD or CMOS
- Principal point X and Y
- K1, K2, K3, P1, P2 lens distortion parameters

Without oblique photo viewing software, it is not possible to extract the image of a precise location because oblique images are not orthophotos and do not have world files. The metadata listed above must be used by oblique photo viewing software to calculate the frustum, or light cone (see below), from each camera position. Using this photogrammetric technique, images or portions of images can be extracted for a precise location.



7. Can capture dates be altered as designated by Cook County since optimal spring capture would be in mid-late March after all snow and ice has melted but before trees begin budding?

Answer: Yes, Merrick's team can flex to meet Cook County's optimal collection date. Weather and airspace access ultimately determine the exact date and location, but we will make every effort to collect according to the County's wishes. It is understood that snow free and leaf-off conditions are the driving factors for the Spring collections and full leaf-on conditions are required for the Summer collections. For the hyperspectral, our team has tentatively scheduled the collections for mid to late March and August.

8. Please expound on how your team is to perform ground truthing of the hyperspectral data, if none is to be performed, explain why?

Answer: Merrick's team will complete a thorough ground data collection campaign designed to test the spectral and spatial accuracy of the hyperspectral data. Our ground team will collect ground spectrometer, DGPS, and geo-tagged digital imagery at select

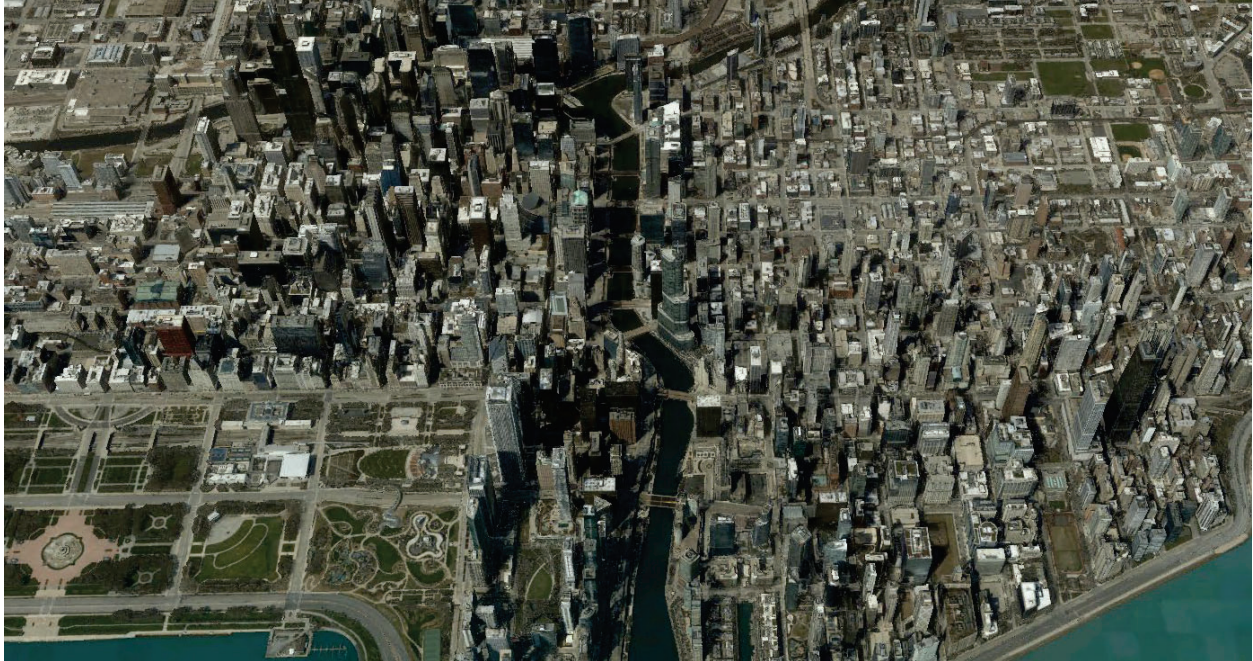
locations across the AOI. The coverage from each acquisition flight day will have at least one location where this data will be collected. An ASD FieldSpec Pro ground spectrometer will be used to collection spectral signatures of spectrally intransient targets such as asphalt and concrete. A high precision Trimble DGPS system will collect a point at each ground spectrometer site for geo-locating the site in the hyperspectral imagery and handheld geo-tagging camera will take imagery of the location for reference and geo-location.

This ground data gives us an exact location and known spectral reflectance signature at ground level which is used to inform the atmospheric correction algorithm, remove distortion in the air column between the sensor lens and ground (conversion from radiance data to absolute reflectance), and to test the spectral accuracy of the final data.

Regarding spatial accuracy, our team will use the ground survey control points collected for the Orthoimagery and obliques to test the geo-accuracy of the hyperspectral data. DGPS points collected in tandem with the ground spectrometer data will also be used to quantify spatial accuracy.

9. The collection of imagery in the central business district (CBD) is of special consideration for Cook County. Voids and building lean are unacceptable. How does your plan affectively deal with this?

Answer: For the 4-band (RGBN) imagery collected by nadir and multi-oblique cameras, the rapid firing 5-way multi look cameras acquire imagery from many directions ensuring enough varying perspectives that we can easily build detailed and accurate image textured 3D models. To ensure non-occluded image acquisition of the roads and sidewalks, this imagery will be collected up and down every single north/south road in the CBD. The high fidelity lidar collected in the CBD area (from our co-mounted lidar and camera system) will also assist in holding the model together in very narrow urban canyons. The result from 2020 looks like this:



For the hyperspectral data collect, a similar flight plan will be used to ensure data voids are mitigated and building lean is minimized. The pushbroom sensor configuration will also assist in keeping buildings upright as there is no building lean in the direction of flight since this is not a frame camera.

RFP 2050-18294 Multi-Aerial Imagery

Questions to Proposers, Dated November 2, 2020

1. Cook County is unable to purchase recommended software separately as a part of this contract due to procurement limitations. Please confirm that your company will provide the license acquisition for the oblique software (and subsequent cost) as required per the RFP.

Answer: Confirmed. Merrick can facilitate the purchasing, installation, licensing, training, and administration of the Orbit GT software with the assistance of the Orbit GT software distributor CompassData, Inc. Cook County will not need to purchase this software separately.

2. What is the cost for 100 concurrent ArcGIS Pro users to use your company's suggested oblique viewing plug-in (along with basic tools of panning, zooming, and measurement of features)?

Answer: While there is no additional charge for the ArcGIS Pro plug-in, the access to the data via the plug-in and/or the web application is licensed by tiers of concurrent users. For 100 concurrent (i.e., both internal and external combined) users, the total cost is recapped as follows*:

Category/Product	Specs/Users/Units	Price	Total Price
A Cost of software application(s)			
3DM Content Manager	Full option	\$14,490	3DM Content Manager is an indispensable tool for Data Collection teams, either Indoor/Outdoor Mobile, UAS, Oblique data, with many post-collection functionalities such as a catalog, trajectory adjustment, detect doubles / missing parts, (automated) point cloud ghost cleaning, positional accuracy control, post capture alignment, georeferencing, colorization of the point cloud, consolidation, delivery, export and upload to the cloud. Available features depend on the datatype. Also includes Blur& Erase QC tools* : process imagery, prepare real-time blurring, and process user feedback.
3DM Publisher – On Premises	Users.100	\$69,000	The Orbit 3DM Publisher for On-Premises is offered using a number of concurrent users. All Publisher licenses are ELA (Enterprise Licenses) thus unlimited throughout the organization, with a maximum of concurrent users, for internal use. The following list shows the Base Price up to a number of concurrent users : Price Scales by Concurrent Use Based on a 4-core server
B Cost of annual maintenance for years 2 and 3			
3DM Content Manager	Full option	\$4,347	Purchase includes 1 year Maintenance, the Software License is permanent, but Maintenance ends after 1 year. Yearly maintenance must be ordered before end of year 1.
3DM Publisher – On Premises	Users.100	\$20,700	Purchase includes 1 year Maintenance, the Software License is permanent, but Maintenance ends after 1 year. Yearly maintenance must be ordered before end of year 1.
C Cost of Training			
Training	80 hrs	\$18,400	
D System			
Install & Setup	16 hrs	\$3,680	Plus travel, lodging, meals, expenses
Ongoing Admin (per year)	96 hrs	\$16,560	This would cover the system admin for a year (estimated at 1 day a month). This would cover software updates and other admin tasks.
Total:		\$147,177	

*There is additional tier pricing for 500 and 1,000 users should 100 users prove inadequate, and there become a need to increase capacity.

Please note the abovementioned pricing table and content is in addition to the Microsoft Excel spreadsheet titled *BAFO - Pricing 2050-18294 Multi-Aerial Imagery* found under separate cover.

3. What is the cost to use your company's suggested oblique viewing software in order to serve out a web-based application installed on Cook County servers that would be available to the general public?

Answer: All pricing for the oblique viewing is in the table above. This covers the web-based application installed on Cook County servers that would be available to the general public.

4. For the Project Management for Orthoimagery & QA/QC for Orthoimagery portions of the proposal, can your company please justify or explain the need for so many expected hours for these two activities? Is it negotiable?

Answer: As clarified in Merrick's pricing proposal under the heading of 7.2.14. APPENDIX I PRICING PROPOSAL FORM, the "Hourly Rate" input column can be misleading for some of the line items as the cost for said line item may include non-labor factors such as subcontractor(s) and ODCs (other direct costs). ODC's may include aircraft fuel, per diem (lodging and M&IE), rental cars, gasoline, and other project expense items.

That said, the **Project Management for Orthoimagery** line item (i.e., Annual Cost) includes Project Manager, Project Controls and Project Administration hours as well as an estimated cost for a client / site visit when warranted (e.g., airfare, lodging, etc.). That is approximately 80 combined labor hours spread across a seven-month schedule inclusive of potential travel time and expense.

The **QA/QC for Orthoimagery** line item represents approximately 6-minutes per square mile (or approximately 1.35 minutes per 2,500' x 2,500' ortho tile) for final QA/QC of the final orthoimagery deliverables prior to submittal.

As with most pricing proposals, these items could bear further negotiations; however, they represent the necessary effort based on Merrick's level of experience in successfully providing these deliverable products to the County.

EXHIBIT 2

Schedule of Compensation

Consultant (Merrick) is committed to provide the County with the required services in response to the County's RFP No. 2050-18294 Multi-Aerial Imagery, and detailed under **EXHIBIT 1, Statement of Work** (above). It is important to note that the pricing is based on 100% domestic United States labor, and no work will be performed "off-shore" (i.e., outsourced). All prices listed should be considered Lump Sum (firm fixed fee).

Consultant shall submit invoices to County monthly with a summary of services performed in accordance with Consultant's standard invoicing practices. County shall notify Consultant of any objection within ten (10) business days of the invoice date, identifying the reasons there for in writing and timely paying that portion of the invoice not in dispute. Invoices will be considered acceptable to County if no such objections are made.

Unless otherwise provided in this Agreement, payment is due within thirty (30) calendar days of receipt and approval of invoice.

The pricing table located on the following page originated from the Consultant's **7.2.14. APPENDIX I PRICING PROPOSAL FORM**, and is represents the proposed three (3)-year contract (2021-2023) with two (2) one (1)-year renewal options (2024-2025):

Description of Services for Orthoimagery and Obliques Acquisition	Annual Cost Year One (1)	Annual Cost Year Two (2)	Annual Cost Year Three (3)	Total Three Year Contract
Project Management for Orthoimagery and Obliques	\$ 18,892.43	\$ 19,510.97	\$ 20,154.26	\$ 58,557.66
QA/QC for Orthoimagery and Obliques	\$ 17,943.71	\$ 16,989.07	\$ 17,068.42	\$ 51,999.20
Control for Orthoimagery and Obliques	\$ 10,339.88	\$ 10,650.21	\$ 10,970.01	\$ 31,960.10
Metadata for Orthoimagery and Obliques	\$ 6,579.35	\$ 6,842.53	\$ 7,116.23	\$ 20,538.11
Pilot for Orthoimagery and Obliques	\$ 20,507.10	\$ 19,416.08	\$ 19,506.76	\$ 59,429.94
Orthoimagery and Obliques Capture	\$ 242,887.92	\$ 231,295.84	\$ 232,259.35	\$ 706,443.11
TOTAL:	\$ 317,150.39	\$ 304,704.70	\$ 307,075.02	\$ 928,930.11
Description of Services for Hyperspectral Acquisition	Annual Cost Year One (1)	Annual Cost Year Two (2)	Annual Cost Year Three (3)	Total Three Year Contract
Project Management for Hyperspectral Imagery	\$ 19,521.90	\$ 20,283.18	\$ 21,074.92	\$ 60,880.00
QA/QC for Hyperspectral Imagery	\$ 9,537.17	\$ 9,901.71	\$ 10,280.84	\$ 29,719.72
Metadata for Hyperspectral Imagery	\$ 4,979.86	\$ 5,179.06	\$ 5,386.22	\$ 15,545.14
Pilot for Hyperspectral Imagery	\$ 67,642.11	\$ 71,008.43	\$ 74,479.95	\$ 213,130.49
Hyperspectral Imagery Capture	\$ 608,778.95	\$ 639,075.88	\$ 670,319.59	\$ 1,918,174.42
TOTAL:	\$ 710,459.99	\$ 745,448.26	\$ 781,541.52	\$ 2,237,450.77
Oblique Imagery Viewing Application and Esri Plug-in	Annual Cost Year One (1)	Annual Cost Year Two (2)	Annual Cost Year Three (3)	Total Three Year Contract
Orbit GT 3DM Content Manager (Full Option)	\$ 14,490.00	\$ -	\$ -	\$ 14,490.00
Orbit GT 3DM Publisher – On Premises (Users.100)	\$ 69,000.00	\$ -	\$ -	\$ 69,000.00
Orbit GT 3DM Content Manager (Full Option)	\$ -	\$ 4,347.00	\$ 4,347.00	\$ 8,694.00
Orbit GT 3DM Publisher – On Premises (Users.100)	\$ -	\$ 20,700.00	\$ 20,700.00	\$ 41,400.00
Training	\$ 18,400.00	\$ -	\$ -	\$ 18,400.00
Install & Setup	\$ 3,680.00	\$ -	\$ -	\$ 3,680.00
Ongoing Admin (per year)	\$ 16,560.00	\$ 16,560.00	\$ 16,560.00	\$ 49,680.00
TOTAL:	\$ 122,130.00	\$ 41,607.00	\$ 41,607.00	\$ 205,344.00
GRAND TOTAL:	\$ 1,149,740.38	\$ 1,091,759.97	\$ 1,130,223.54	\$ 3,371,723.89

EXHIBIT 3

Minority and Women Owned Business Enterprise Commitment



OFFICE OF CONTRACT COMPLIANCE

EDWARD H. OLIVIERI

DIRECTOR

118 N. Clark, County Building, Room 1020 • Chicago, Illinois 60602 • (312) 603-5502

TONI PRECKWINKLE

PRESIDENT

**Cook County Board
of Commissioners**

BRANDON JOHNSON

1st District

DENNIS DEER

2nd District

BILL LOWRY

3rd District

STANLEY MOORE

4th District

DEBORAH SIMS

5th District

DONNA MILLER

6th District

ALMA E. ANAYA

7th District

LUIS ARROYO, JR.

8th District

PETER N. SILVESTRI

9th District

BRIDGET GAINER

10th District

JOHN P. DALEY

11th District

BRIDGET DEGNEN

12th District

LARRY SUFFREDIN

13th District

SCOTT R. BRITTON

14th District

KEVIN B. MORRISON

15th District

FRANK AGUILAR

16th District

SEAN M. MORRISON

17th District

December 4, 2020

Mr. Raffi Sarrafian
Chief Procurement Officer
118 N. Clark Street
County Building-Room 1018
Chicago, IL 60602

Re: Contract No. 2050-18294
Multi-Imagery Collection
Bureau of Technology-GIS

Dear Mr. Sarrafian:

The Office of Contract Compliance is in receipt of the above-referenced contract and has determined a 0% MBE/WBE participation goal was recommended and does not require the Office of Contract Compliance to review for MBE/WBE compliance with the Minority- and Women- owned Business Enterprises (MBE/WBE) Ordinance.

Sincerely,

Edward H. Olivieri
Contract Compliance Director
EHO/ate

Cc: Halyna Shuruk, OCPO
Todd Schuble, GIS
Carlyn Augustave, BOT

I. POLICY AND GOALS

A. It is the policy of the County of Cook to prevent discrimination in the award of or participation in County Contracts and to eliminate arbitrary barriers for participation in such Contracts by local businesses certified as a Minority Business Enterprise (MBE) and Women-owned Business Enterprise (WBE) as both prime and sub-contractors. In furtherance of this policy, the Cook County Board of Commissioners has adopted a Minority- and Women-owned Business Enterprise Ordinance (the "Ordinance") which establishes annual goals for MBE and WBE participation as outlined below:

Contract Type	Goals	
	MBE	WBE
Goods and Services	25%	10%
Construction	24%	10%
Professional Services	35% Overall	

B. **The County shall set contract-specific goals, based on the availability of MBEs and WBEs that are certified to provide commodities or services specified in this solicitation document. The MBE/WBE participation goals for this Agreement is [zero (0%)].** A Bid, Quotation, or Proposal shall be rejected if the County determines that it fails to comply with this General Condition in any way, including but not limited to: (i) failing to state an enforceable commitment to achieve for this contract the identified MBE/WBE Contract goals; or (ii) failing to include a Petition for Reduction/Waiver, which states that the goals for MBE/WBE participation are not attainable despite the Bidder or Proposer Good Faith Efforts, and explains why. If a Bid, Quotation, or Proposal is rejected, then a new Bid, Quotation, or Proposal may be solicited if the public interest is served thereby.

C. To the extent that a Bid, Quotation, or Proposal includes a Petition for Reduction/Waiver that is approved by the Office of Contract Compliance, the Contract specific MBE and WBE participation goals may be achieved by the proposed Bidder or Proposer's status as an MBE or WBE; by the Bidder or Proposer's enforceable joint-venture agreement with one or more MBEs and/or WBEs; by the Bidder or Proposer entering into one or more enforceable subcontracting agreements with one or more MBE and WBE; by the Bidder or Proposer establishing and carrying out an enforceable mentor/protégé agreement with one or more MBE and WBE; by the Bidder or Proposer actively engaging the Indirect Participation of one or more MBE and WBE in other aspects of its business; or by any combination of the foregoing, so long as the Utilization Plan evidences a commitment to meet the MBE and WBE Contract goals set forth in (B) above, as approved by the Office of Contract Compliance.

D. A single Person, as defined in the Procurement Code, may not be utilized as both an MBE and a WBE on the same Contract, whether as a Consultant, Subcontractor or supplier.

E. Unless specifically waived in the Bid or Proposal Documents, this Exhibit; the Ordinance; and the policies and procedures promulgated thereunder shall govern. If there is a conflict

between this Exhibit and the Ordinance or the policies and procedures, the Ordinance shall control.

- F. A Consultant's failure to carry out its commitment regarding MBE and WBE participation in the course of the Contract's performance may constitute a material breach of the Contract. If such breach is not appropriately cured, it may result in withholding of payments under the Contract, contractual penalties, disqualification and any other remedy provided for in Division 4 of the Procurement Code at law or in equity.

II. REQUIRED BID OR PROPOSAL SUBMITTALS

A Bidder or Proposer shall document its commitment to meeting the Contract specific MBE and WBE participation goals by submitting a Utilization Plan with the Bid or Proposal. The Utilization Plan shall include (1) one or more Letter(s) of Intent from the relevant MBE and WBE firms; and (2) current Letters of Certification as an MBE or WBE. Alternatively, the Bidder or Proposer shall submit (1) a written Petition for Reduction/Waiver with the Bid, Quotation or Proposal, which documents its preceding Good Faith Efforts and an explanation of its inability to meet the goals for MBE and WBE participation. The Utilization Plan shall be submitted at the time that the bid or proposal is due. **Failure to include a Utilization Plan will render the submission not Responsive and shall be cause for the CPO to reject the Bid or Proposal.**

A. MBE/WBE Utilization Plan

Each Bid or Proposal shall include a complete Utilization Plan, as set forth on Form 1 of the M/WBE Compliance Forms. The Utilization Plan shall include the name(s), mailing address, email address, and telephone number of the principal contact person of the relevant MBE and WBE firms. If the Bidder or Proposer submits a Bid or Proposal, and any of their subconsultants, suppliers or consultants, are certified MBE or WBE firms, they shall be identified as an MBE or WBE within the Utilization Plan.

1. Letter(s) of Intent

Except as set forth below, a Bid or Proposal shall include, as part of the Utilization Plan, one or more Letter(s) of Intent, as set forth on Form 2 of the M/WBE Compliance Forms, executed by each MBE and WBE and the Bidder or Proposer. The Letter(s) of Intent will be used to confirm that each MBE and WBE shall perform work as a Subcontractor, supplier, joint venture, or consultant on the Contract. Each Letter of Intent shall indicate whether and the degree to which the MBE or WBE will provide goods or services directly or indirectly during the term of the Contract. The box for direct participation shall be marked if the proposed MBE or WBE will provide goods or services directly related to the scope of the Contract. The box for Indirect participation shall be marked if the proposed MBE or WBE will not be directly involved in the Contract but will be utilized by the Bidder or Proposer for other services not related to the Contract. Indirect Participation shall not be counted toward the participation goal. Each Letter of Intent shall accurately detail the work to be performed by the relevant MBE or WBE firm, the agreed dollar amount, the percentage of work, and the terms of payment.

Failure to include Letter(s) of Intent will render the submission not Responsive and shall be cause for the CPO to reject the Bid or Proposal.

All Bids and Proposals must conform to the commitments made in the corresponding Letter(s) of Intent, as may be amended through change orders.

The Contract Compliance Director may at any time request supplemental information regarding Letter(s) of Intent, and such information shall be furnished if the corresponding Bid or Proposal is to be deemed responsive.

2. Letter(s) of Certification

Only current Letter(s) of Certification from one of the following entities may be accepted as proof of certification for MBE/WBE status, provided that Cook County's requirements for certification are met:

- County of Cook
- City of Chicago

Persons that are currently certified by the City of Chicago in any area other than Construction/Public Works shall also complete and submit a MBE/WBE Reciprocal Certification Affidavit along with a current letter of certification from the City of Chicago. This Affidavit form can be downloaded from www.cookcountyil.gov/contractcompliance.

The Contract Compliance Director may reject the certification of any MBE or WBE on the ground that it does not meet the requirements of the Ordinance, or the policies and rules promulgated thereunder.

3. Joint Venture Affidavit

In the event a Bid or Proposal achieves MBE and/or WBE participation through a Joint Venture, the Bid or Proposal shall include the required Joint Venture Affidavit, which can be downloaded from www.cookcountyil.gov/contractcompliance. The Joint Venture Affidavit shall be submitted with the Bid or Proposal, along with current Letter(s) of Certification.

B. Petition for Reduction/Waiver

In the event a Bid or Proposal does not meet the Contract specific goals for MBE and WBE participation, the Bid or Proposal shall include a Petition for Reduction/Waiver, as set forth on Form 3. The Petition for Reduction/Waiver shall be supported by sufficient evidence and documentation to demonstrate the Bidder or Proposer's Good Faith Efforts in attempting to achieve the applicable MBE and WBE goals, and its inability to do so despite its Good Faith Efforts.

Failure to include Petition for Reduction/Waiver will render the submission not Responsive and shall be cause for the CPO to reject the Bid or Proposal.

III. REDUCTION/WAIVER OF MBE/WBE GOALS

A. Granting or Denying a Reduction/Waiver Request.

1. The adequacy of the Good Faith Efforts to utilize MBE and WBE firms in a Bid or Proposal will be evaluated by the CCD under such conditions as are set forth in the Ordinance, the policies and rules promulgated thereunder, and in the “Petition for Reduction/Waiver of MBE/WBE Participation Goals” – Form 3 of the M/WBE Compliance Forms.
2. With respect to a Petition for Reduction/Waiver, the sufficiency or insufficiency of a Bidder or Proposer’s Good Faith Efforts shall be evaluated by the CCD as of the date upon which the corresponding Bid or Proposal was due.
3. The Contract Compliance Director or his or her duly authorized Waiver Committee may grant or deny the Petition for Reduction/Waiver based upon factors including but not limited to: (a) whether sufficient qualified MBE and WBE firms are unavailable despite good faith efforts on the part of the Bidder or Proposer; (b) the degree to which specifications and the reasonable and necessary requirements for performing the Contract make it impossible or economically infeasible to divide the Contract into sufficiently small tasks or quantities so as to enable the Bidder or Proposer to utilize MBE and WBE firms in accordance with the applicable goals; (c) the degree to which the prices or prices required by any potential MBE or WBE are more than 10% above competitive levels; and (d) such other factors as are determined relevant by the Contract Compliance Director or the duly authorized Waiver Committee.
4. If the Contract Compliance Director or the duly authorized Waiver Committee determines that the Bidder or Proposer has not demonstrated sufficient Good Faith Efforts to meet the applicable MBE and WBE goals, the Contract Compliance Director or the duly authorized Waiver Committee may deny a Petition for Reduction/Waiver, declare the Bid or Proposal non-responsive, and recommend rejection of the Bid, Quotation, or Proposal.

IV. CHANGES IN CONSULTANT'S UTILIZATION PLAN

- A. A Consultant, during its performance of the Contract, may not change the original MBE or WBE commitments specified in the relevant Utilization Plan, including but not limited to, terminating a MBE or WBE Contract, reducing the scope of the work to be performed by a MBE/WBE, or decreasing the price to a MBE/WBE, except as otherwise provided by the Ordinance and according to the policies and procedures promulgated thereunder.

- B. Where a Person listed under the Contract was previously considered to be a MBE or WBE but is later found not to be, or work is found not to be creditable toward the MBE or WBE goals as stated in the Utilization Plan, the Consultant shall seek to discharge the disqualified enterprise, upon proper written notification to the Contract Compliance Director, and make every effort to identify and engage a qualified MBE or WBE as its replacement. Failure to obtain an MBE or WBE replacement within 30 business days of the Contract Compliance Director's written approval of the removal of a purported MBE or WBE may result in the termination of the Contract or the imposition of such remedy authorized by the Ordinance, unless a written Petition for Reduction/Waiver is granted allowing the Consultant to award the work to a Person that is not certified as an MBE or WBE.

V. NON-COMPLIANCE

If the CCD determines that the Consultant has failed to comply with its contractual commitments or any portion of the Ordinance, the policies and procedures promulgated thereunder, or this Exhibit, the Contract Compliance Director shall notify the Consultant of such determination and may take any and all appropriate actions as set forth in the Ordinance or the policies and procedures promulgated thereunder which includes but is not limited to disqualification, penalties, withholding of payments or other remedies in law or equity.

VI. REPORTING/RECORD-KEEPING REQUIREMENTS

The Consultant shall comply with the reporting and record-keeping requirements in the manner and time established by the Ordinance, the policies and procedure promulgated thereunder, and the Contract Compliance Director. Failure to comply with such reporting and record-keeping requirements may result in a declaration of Contract default. Upon award of a Contract, a Consultant shall acquire and utilize all Cook County reporting and record-keeping forms and methods which are made available by the Office of Contract Compliance. MBE and WBE firms shall be required to verify payments made by and received from the prime Consultant.

VII. EQUAL EMPLOYMENT OPPORTUNITY

Compliance with MBE and WBE requirements will not diminish or supplant other legal Equal Employment Opportunity and Civil Rights requirements that relate to Consultant and Subcontractor obligations.

Any questions regarding this section should be directed to:

Contract Compliance Director

Cook County

118 North Clark Street, Room 1020

Chicago, Illinois 60602

(312) 603-5502

EXHIBIT 4

Evidence of Insurance



ADDITIONAL REMARKS SCHEDULE

AGENCY MARSH USA INC. ◆		NAMED INSURED Merrick & Company ◆ 5970 Greenwood Plaza Blvd. ◆ Greenwood Village, CO 80111	
POLICY NUMBER		EFFECTIVE DATE:	
CARRIER	NAIC CODE		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
 FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

◆◆
 ◆◆
 ◆
 Certificate Holder(s) is/are included as additional insured for General Liability and Auto Liability where required by written contract with respect to operations of the Named Insured. ◆
 This insurance is primary and non-contributory over any existing insurance and limited to liability arising out of the operations of the named insured subject to policy terms and conditions. ◆
 Waiver of subrogation is applicable where required by written contract and subject to policy terms and conditions. ◆
 Notice of Cancellation is included per the attached endorsements. ◆◆

STARR

INSURANCE COMPANIES

3353 Peachtree Road NE, Suite 1000
Atlanta, GA 30326

Certificate of Insurance

Certificate Holder: COOK COUNTY
118 N. CLARK STREET, ROOM 1018
CHICAGO, IL 60602

Named Insured: MERRICK & COMPANY
5970 GREENWOOD PLAZA BLVD.
GREENWOOD VILLAGE, CO 80111

Policy Period: From: MARCH 01, 2020 To: MARCH 01, 2021

Policy Number: 1000239236-01

Issuing Company: STARR INDEMNITY & LIABILITY COMPANY

This is to certify that the policy(ies) listed herein have been issued providing coverage for the listed insured as further described. This certificate of insurance is not an insurance policy and does not amend, extend, or alter the coverage afforded by the policy(ies) listed herein. Notwithstanding any requirement, term or condition of any contract, or other document with respect to which this certificate of insurance may be concerned or may pertain, the Insurance afforded by the policy(ies) listed on this certificate is subject to all the terms, exclusions, and conditions of such policy(ies).

Year	Aircraft: Make and Model	Reg No.	Insured Value	Deductibles NIM / IM	Liability Limit	
N/A	NON-OWNED	NTBA	\$ N/A	\$ N/A / N/A	\$ 5,000,000.	CSL INCL PAX
			\$	\$	\$	
			\$	\$	\$	
			\$	\$	\$	
			\$	\$	\$	
			\$	\$	\$	

THIS CERTIFICATE FOR EVIDENCE OF COVERAGE ONLY

Certificate Number: 2.1
Issued By and Date: NOVEMBER 20, 2020 (RC)

Starr 10200 (6/06)

By



(Authorized Representative)

EXHIBIT 5

Certification for Consulting or Auditing Services

**COOK COUNTY
OFFICE OF THE CHIEF PROCUREMENT OFFICER
CERTIFICATION FOR CONSULTING OR AUDITING SERVICES**

This Certification is made and required pursuant to Section 34-193 of the Procurement Code, and must be completed by any Contractor providing Consulting or Auditing Services for Cook County or Elected Officials. For purposes of this Certification, the following definitions shall apply:

“Auditing” means the formal examination of accounting records or financial statements for compliance with financial accounting standards applicable to governmental entities, which functions are generally exclusively performed or supervised by Persons licensed and authorized to do business as public accounts in the State. Auditing shall also include any independent reports and management recommendations derived or resulting from the performance of auditing services and which reports and recommendations are included within the scope of the Contract for Auditing Services.

“Consulting” means the rendering of analysis and advice requiring specialized expertise in a particular subject area or field. Such expertise may have been gained by education or experience in the area or field. Consulting expressly excludes auditing services.

“Elected Official” means the President and Commissioners of the Cook County Board, Assessor, Board of Review, Chief Judge, Clerk of the Circuit Court, County Clerk, Recorder of Deeds, Sheriff, State’s Attorney, Treasurer and any other elected official included in the Cook County Appropriations Ordinance.

“County” shall mean the offices which are administered by the President of the County Board.

Please print or type responses clearly and legibly. Add additional pages if needed, being careful to identify each portion of the form to which each additional page refers to.

SECTION 1: CONTRACTOR’S INFORMATION

COMPANY NAME: Merrick & Company

ADDRESS: 5970 Greenwood Plaza Blvd, Greenwood Village, CO 80111

TELEPHONE: (303) 751-0741

CONTACT NAME: Doug Jacoby

CONTACT EMAIL: doug.jacoby@merrick.com

SECTION 2: AFFILIATE INFORMATION

If the Contractor has any “Affiliates” please provide the names, addresses and telephone numbers of each Affiliate below. For purposes of this Certification “Affiliates” shall mean any Person that directly or indirectly through one or more intermediaries Controls, is Controlled by, or is under Control with the Person specified. “Control” shall mean a Person that has the power to directly or indirectly affect the management or the policies of the other through ownership of voting securities or voting rights, by contract or otherwise. “Person” means any individual, corporation, partnership, Joint Venture, trust, association, Limited Liability Company, sole proprietorship or other legal entity.

SECTION 3: CONTRACT INFORMATION

- a. This Certification relates to the following Contract: 2050-18294
- b. The Contractor is providing the following type of Services: [] Auditing or [X] Consulting
- c. The Contractor is providing the Services under the Contract for the following Cook County Business Unit or Elected Official:
Bureau of Technology
- d. Is the Contractor or its Affiliates, if any, providing Consulting or Auditing Services, either directly, or as a subcontractor to the County or Elected Official under any other Contracts? [X] Yes or [] No.
If yes, please state the other Contract Number(s) and the Nature of Services.


Contract Number 1590-14847 Nature of Services: Mapping Services

THE CONTRACTOR ACKNOWLEDGES, UNDERSTANDS AND AGREES AS FOLLOWS:

- a. It has read Section 34-193 (a)-(b) of the Procurement Code, which provides as follows:

The County will not enter into any Contract for Auditing Services, nor shall it consent to a subcontract for such Auditing Services, with any Person, if such Person, or any Affiliate of such Person, has a Contract or subcontract for consulting services for or with the County. Additionally, the County will not enter into any Contract for Consulting Services, nor shall it consent to a subcontract for such Consulting Services, with any Person, if such Person, or any Affiliate of such Person, has a Contract or subcontract for Auditing Services for or with the County. For purposes of this provision, "County" shall refer only to offices which are administered by the President of the County Board and shall not refer to offices which are administered by Elected Officials. The County shall not enter into any Contract for Consulting Services on behalf of any Elected Official, nor shall it consent to a subcontract for such Consulting Services on behalf of an Elected Official with any Person, if such Person, or any Affiliate of such Person, has a Contract or subcontract to provide Auditing Services for the Elected Official.

- b. The Contractor's Services under the Contract shall not violate Section 34-193 of the Procurement Code.
- c. The information provided herein is a material inducement to the CPO's execution of the Contract, and the CPO may rely on the information provided herein. The Contractor warrants that the information contained herein is true and correct. If the CPO determines that any information provided herein is false, incomplete, or incorrect, the CPO may terminate the Contract.


Signature

Doug Jacoby

Name (Type or Print)

Vice President

Title

10/2/2020

Date



EXHIBIT 6

Cook County Travel and Business Expenses Policy and Procedures



Cook County Travel and Business Expenses Policy and Procedures

Adopted: FY 2017

Cook County Travel and Business Expenses Policy and Procedures

Contents

INTRODUCTION	1
APPLICABILITY.....	1
GENERAL PRINCIPLES AND REQUIREMENTS.....	1
LOCAL TRAVEL	2
Definitions.....	2
Authorized Modes of Transportation for Local Travel.....	2
Local Travel Requirements.....	3
Preferred Method of Travel	3
County-owned vehicles.....	3
Personally Owned Vehicles	3
Reimbursement for Local Travel by Public Transportation	3
Mass Transit and Metra	3
Taxicabs	4
Uber/Lyft, etc.....	4
Reimbursement for Local Travel by POV	4
Parking and Tolls	4
Local Travel Reimbursement.....	5
Approval and Submission of Local Transportation Expense Voucher.....	5
NON-LOCAL TRAVEL	6
Reasons for Non-Local Travel.....	6
Limits on Participants	7
Non-Local Travel Approval Procedure	7
Travel Outside the Continental United States (U.S.).....	8
Reimbursable Non-Local Travel Expenses	8
County-owned vehicles.....	8
Personal Vehicles.....	8
Car Rental	8
Common Carrier (Air, Train, Bus)	9
Ground Transportation (Taxis, Public Transportation, Livery Service).....	9

Cook County Travel and Business Expenses Policy and Procedures

Lodging.....	10
Meals and Incidental Expenses.....	10
Conference Registration Fees.....	10
Additional Reimbursable Expenses.....	11
Non-Reimbursable Non-Local Travel Expenses.....	11
Reimbursement for Non-Local Travel and Business Expenses.....	12
Non-Local Travel Reimbursement Voucher.....	12
Approval and Submission of Transportation Expense Vouchers.....	13
APPENDIX 1.....	15
Travel Expense Voucher.....	15
APPENDIX 2.....	16
Travel Request Form.....	16
APPENDIX 3.....	17
Travel Reimbursement Voucher.....	17

Cook County Travel and Business Expenses Policy and Procedures

INTRODUCTION

The County of Cook (“County”) has a fiduciary responsibility to ensure County resources are used responsibly and that individuals do not incur inappropriate or excessive expenses, or gain financially from the County. As such, all persons who travel on behalf of the County are fiscally responsible and accountable for all County expenditures.

The purpose of the County’s travel and business expense policy and procedures is to provide guidelines for payment of authorized travel expenses in an efficient, cost effective manner, and to enable County travelers to successfully execute their local and non-local travel requirements at the lowest reasonable costs, resulting in the best value for the County.

All official travel should be prudently planned so that the County’s best interests are served at the most reasonable cost. Anyone traveling on County business is expected to exercise the same economy that a practical person would exercise when traveling on personal business.

Excessive costs or unjustifiable costs are not acceptable and will not be reimbursed. The individual requesting reimbursement is responsible for insuring that his/her expense and related reimbursement request complies with all applicable policies, is properly authorized, and is supported with necessary receipts and documentation.

Supervisors and department heads are accountable for use of County funds and must verify that all travel is budgeted and expenditures are charged to the proper account(s).

These guidelines and procedures described in this policy may not cover every possible situation. Travelers should contact supervisors and/or department heads for clarification as needed.

APPLICABILITY

The Cook County Travel and Business Expense Policy and Procedures, and all associated requirements, applies to all County employees and all County officials, whether elected or appointed, who incur travel or business expenses while conducting official business on behalf of the County.

GENERAL PRINCIPLES AND REQUIREMENTS

The County reimburses authorized travelers for reasonable and necessary expenses incurred in connection with approved travel on its behalf.

A necessary expense is one for which there exists a clear business purpose and is within the County’s expense policy limitations. A clear business purpose contains all information necessary to substantiate the expenditure including a list of attendees, if appropriate, and their

Cook County Travel and Business Expenses Policy and Procedures

purpose for attending, business topics discussed, or how the expenditure benefited the County.

Each county bureau and department is charged with the responsibility for determining the necessity, available resources and justification for the need and the method of travel.

All employees and supervisory staff should keep the following key points in mind when planning and/or approving travel on behalf of the County:

- i. All official travel should be planned so that the best interests of the County are served at the most reasonable cost;
- ii. All official travel shall be by the most economical mode of transportation available considering travel time, cost and work requirements;
- iii. Most travel must be authorized in advance by the traveler's department head;
- iv. Each department head is responsible for ensuring that all travel on behalf of the County complies with all applicable travel regulations;
- v. Employees must be authorized to commit the County's resources, and are subject to disciplinary action up to and including the termination of employment if proper authorization is not obtained;
- vi. All travel authorizations must be documented by the process established within each bureau or department as to how prior authorization for travel will be documented, e.g., travel request form, email;
- vii. Under no circumstances should an individual approve his/her own expense report.
- viii. Travel related costs shall not be reimbursed from petty cash funds; and
- ix. The County will not reimburse personal expenses.

LOCAL TRAVEL

Definitions

"Local travel" means travel that is performed for official purposes in and around the employee's primary work location and does not entitle the traveler to lodging, meals or other travel related allowances.

"Primary work location" means the worksite to which the employee is assigned and reports to when not performing local travel.

Authorized Modes of Transportation for Local Travel

Authorized modes of local transportation for conducting local official County business in preferred order are:

- i. Public transportation, i.e., CTA, Pace, Metra
- ii. County-owned vehicles, i.e., Shared Fleet or ZipCar;
- iii. Taxicabs and ride sharing services; and
- iv. Personally owned vehicle.

Cook County Travel and Business Expenses Policy and Procedures

Local Travel Requirements

Preferred Method of Travel

Public transportation is the preferred method of local travel. However, it is recognized that there are times when this mode of transportation may not be feasible due to location, timing, equipment/materials, and/or security reasons. In such cases, the use of a County-owned or personally owned vehicle (“POV”) for local travel may be approved by a department head. Use of a POV for local travel may not be approved solely to accommodate the traveler’s personal comfort or convenience.

County-owned vehicles

The following requirements apply to local travel by means of a County-owned vehicle:

- i. The department head has determined public transportation is not feasible or practical.
- ii. County owned vehicles are to be used only for County business. The use of County-owned vehicles for personal use is prohibited.
- iii. Employees must follow the Vehicle Policy Ordinance, and any other rules, regulations or other applicable requirements adopted by the Cook County Board of Commissioners or the Vehicle Steering Committee.

Personally Owned Vehicles

The following requirements apply to the use of a POV for local travel:

- i. County employees, with the prior written permission of their department head, may use their POV to conduct official County business. Department heads shall only approve the use of POV for County business when it is in the best interest of the County to do so.
- ii. POV use is in the County’s best interest when it is the least expensive option or the employee’s department head determines in writing that a less expensive mode of transportation is clearly not feasible or practical.
- iii. Each bureau (or equivalent operating unit) is responsible for developing a process for approving and documenting the use of a POV for official travel.

A copy of the department head’s written approval for each instance of POV use must accompany each request for POV mileage reimbursement and related expenses.

Reimbursement for Local Travel by Public Transportation

Mass Transit and Metra

Local official travel via mass transit, e.g., CTA, PACE, Metra, may be reimbursed as a transportation expense. A receipt is required for reimbursement.

Cook County Travel and Business Expenses Policy and Procedures

Taxicabs

Employees may utilize a taxicab if advantageous to the County and necessary for urgent business. Reimbursement is limited to the metered fare. Tipping is at the traveler's expense and not reimbursable. A receipt is required for reimbursement.

Uber/Lyft, etc.

Employees may utilize Uber or a similar service if advantageous to the County and necessary for urgent business. In such cases, an employee may only use the service's lowest-cost option, e.g., Uber X. Reimbursement for Uber and similar ride services is limited to the actual cost of the trip. A receipt is required for reimbursement.

Reimbursement for Local Travel by POV

Reimbursement for POV mileage shall be subject to the following terms and conditions:

- i. An employee shall not be reimbursed for commuting mileage, i.e., the distance between the employee's residence and the employee's primary work location.
- ii. When approved local travel starts and terminates at the employee's primary work location, only the most direct route mileage (using the TEVS mileage calculator) from the primary work location to the site(s) visited and back to the primary work location will be reimbursed. In the event the employee's work day ends at a site, the mileage from the last site to residence shall not be reimbursed.
- iii. An employee driving a POV may start and terminate the field assignment at her/his home or official workstation, at the discretion of the department head, provided that where the assignment starts and/or terminates at the employee's home, mileage from residence to first location and last location to residence is deemed commuting mileage and shall not be reimbursed.
- iv. The number of County business miles driven per month will be compensated at the standard IRS deduction rate for business related transportation currently in effect and authorized by the Bureau of Administration. IRS mileage rates adjusted midyear will not be made retroactive. The IRS per-mile rate covers the total cost of operating a POV for local travel or transportation away from home, including such items as gasoline, oil, maintenance, repairs, etc.
- v. Any travel voucher for POV reimbursement that does not include a copy of the prior authorization for POV travel shall not be processed for payment.

Parking and Tolls

Employees can be reimbursed for parking and toll expenses when using a County owned vehicle or POV for County business. Parking and tolls shall be allowed for reimbursement if items are

Cook County Travel and Business Expenses Policy and Procedures

supported by receipts.

Local Travel Reimbursement

Local travel expenses are reimbursed by means of a Travel Expense Voucher (TEV) on the Transportation Expense Voucher System (TEVS). A sample TEV is attached at Appendix 1.

All requests for local travel reimbursement must be generated from the TEVS. The Comptroller's Office will not accept handwritten vouchers.

Employees are required to utilize the TEVS for all mileage reimbursement and other transportation expenses associated with local travel including tolls and parking. TEVS automatically calculates the distance for the most direct route between the two points of travel.

All TEV expenses for parking, tolls, taxi, and public transportation costs shall be supported by receipts for all items, individually.

TEVs prepared through the TEVS must be prepared and signed by the employee who has incurred the expense and signed by his/her department head (or a designated representative). The original local travel voucher shall be submitted to the Comptroller's Office and a copy should be retained by the employee and by the department. Falsification of a TEV is considered a major cause infraction subject to disciplinary action up to and including discharge.

The traveler submitting the TEV is personally responsible for its accuracy and propriety. Local travel trip details are to be entered immediately following travel to eliminate possibility of errors. The TEV must be completed in its entirety.

Approval and Submission of Local Transportation Expense Voucher

In order to be eligible for local travel reimbursement, the employee must submit the TEV by no later than the 20th day of the month following the month in which the travel expense was incurred, unless the failure to submit a voucher within the 20 day period is due to extraordinary circumstances.

The local transportation expense voucher shall then be reviewed and approved by the traveler's department head (or a designated representative), or bureau chief (or equivalent) in the case of a department head, whose signature will represent his or her representation that he or she has reviewed the voucher and that the information contained on the voucher is complete and accurate.

Upon approving a TEV, a supervisor and department head (or a designated representative) are certifying:

- i. Appropriateness of the expenditure and reasonableness of the amount;
- ii. Availability of funds;
- iii. Compliance with applicable reimbursement policies; and

Cook County Travel and Business Expenses Policy and Procedures

iv. Completeness and accuracy of documentation.

A department must submit the TEV to the Comptroller's Office via TEVS by no later than the 60th day after the end of the month in which the travel expense was incurred. An employee who submits a voucher within the 20-day submission period will not be denied reimbursement for failure of his/her department to timely submit the voucher to the Comptroller's office. A copy of the TEV shall be retained by the department.

Any TEV not prepared in accordance with these regulations, including the proper signatures, will be returned to the originator for corrections.

A request for reimbursement of an expense that does not comply with these guidelines may be denied and treated as a personal expense to the traveler and shall be deducted from the reimbursement due the traveler.

NON-LOCAL TRAVEL

The following is not intended to cover routine local travel related to the performance of regular job duties and applies only to official travel that requires an overnight stay.

Before planning non-local travel to attend conferences, meetings, seminars or training sessions, every effort should be made to identify local options for comparable conferences, meetings, seminars or training sessions.

Travelers must verify that planned travel is eligible for reimbursement before making travel arrangements.

Non-local travel connected to and/or funded by a grant (or contract) must be made in accordance with the funding agency's travel requirements. Reimbursement is made at whichever rate is lower, the County's rate or the rate set out in the grant (or contract).

Reasons for Non-Local Travel

The County recognizes the following activities as appropriate for non-local travel purposes:

- i. Delivery of legislative testimony:
- ii. As a stipulation or condition of grant funding or otherwise required for County or federal certification.
- iii. Presentation on behalf of the County at a conference or seminar.
- iv. Financial or tax audit.
- v. Site visits or operational evaluations related to departmental improvement efforts.
- vi. Court proceedings or case preparation.
- vii. Law enforcement related investigations.
- viii. Attendance at conferences, meetings, seminars or training sessions for which: the topic is of critical interest to the County; representation at the event is in the best interest of the County, and the topic is related to an employee's

Cook County Travel and Business Expenses Policy and Procedures

professional development.

Non-local travel for any other purpose(s) requires the prior written approval of the traveler's bureau chief (or equivalent).

Limits on Participants

Attendance at conferences, meetings, seminars or training sessions held outside the Chicago Metropolitan Area is limited to two employees unless otherwise approved by the travelers' bureau chief (or equivalent). (The Chicago Metropolitan Area is comprised of Cook County, DuPage County, Kane County, Kendall County, Lake County, McHenry County and Will County.)

Non-Local Travel Approval Procedure

If the County has contracted with a travel management company, all travel arrangements are required to be secured through the County's designated travel management company.

If the County has not contracted with a travel management company, travel arrangements are the responsibility of the traveler(s). In such cases, all travel should be by means of the most direct route and the least costly alternative consistent with the itinerary.

All travel outside the Chicago Metropolitan Area requires bureau chief (or equivalent) approval. A completed Travel Request Form ("TRF") must be approved by the traveler's department head and submitted to the bureau chief (or equivalent) as far in advance as possible, but no later than ten (10) business days prior to the date of non-local travel. A sample TRF is attached at Appendix 2.

Supporting documentation should be attached to the TRF. Supporting documentation includes, but is not limited to:

- a. A cover memo from the department head justifying the benefit to the County that will result in the employee attending the conference, meeting, or training, etc.;
- b. An agenda; and
- c. The estimated travel cost (obtained either from the travel management company or prepared by the traveler, as the case may be).

The County is not obligated to reimburse employees for non-local travel expenses that do not comply with the applicable travel requirements or those not previously approved by the traveler's bureau chief (or equivalent).

All expenses incurred during non-local travel are to be charged to the 190 account.

Non-local travel paid by a third party must adhere to these travel guidelines and the County's Ethic's rules.

Non-local travel shall not be reimbursed from petty cash funds.

Cook County Travel and Business Expenses Policy and Procedures

Travel Outside the Continental United States (U.S.)

All requests for travel outside the continental U.S. must be submitted to the traveler's executive department head, i.e., the chief administrative officer responsible for the policy and administration of the traveler's department, as far in advance as possible, but not later than fifteen (15) business days prior to travel. The executive department head will seek approval from the President's chief of staff or the chief of staff of the elected official for whom the employee works, as the case may be, and will notify the department of approval or denial.

Travelers should convert all foreign expenses to U.S. currency prior to submitting a Travel Reimbursement Voucher. Official documentation of the exchange rate at the time of travel (i.e., bank receipt) must accompany all original receipts.

Reimbursable Non-Local Travel Expenses

County-owned vehicles.

Employees traveling on County business in a County-owned vehicle are entitled to reimbursement for any out of pocket gas expenditures, parking and toll expenses but not mileage reimbursement. Original receipts must be provided for all expenses.

Employees are responsible for all fines related to parking or moving violations issued while traveling on County business.

Personal Vehicles

Employees may use personal automobiles for non-local business travel within a 300-mile radius of Chicago.

Employees will be reimbursed at the IRS mileage rate, but in no event will the reimbursement exceed the cost of lowest available round trip coach airfare.

Mileage reimbursement includes full reimbursement for the cost of gas and general maintenance.

Parking and toll expenses will be reimbursed separately with original receipts.

Employee must carry liability and property damage insurance for business use of his or her vehicle and submit a copy of these insurance policies to the appropriate personnel within his or her department. The employee's personal insurance is primary in the event of an accident.

Employees are responsible for all fines related to parking or moving violations issued while traveling on County business. Absolutely no exceptions will be made.

Note: Travelers are advised to refer to the County Vehicle Policy Ordinance for other rules and regulations regarding the use of county-owned and personal vehicles.

Car Rental

Car rental will not be approved for travel within the Chicago Metropolitan Area. County Shared Fleet or ZipCar programs should be reserved for such travel.

Cook County Travel and Business Expenses Policy and Procedures

Car rental is a reimbursable expense only when transportation by common carrier cannot be utilized or is impractical.

Car rental will be reimbursed at the compact car rate unless the need for a larger car can be justified.

Daily rental rates, taxes, surcharges, gas and car rental insurance are all considered reimbursable items.

Only one car rental will be allowed per trip. This includes trips with multiple travelers unless previously authorized by the traveler's bureau chief (or equivalent).

Employees are responsible for all fines related to parking or moving violations issued while traveling on County business. Absolutely no exceptions will be made.

Original receipts are required for reimbursement.

Common Carrier (Air, Train, Bus)

Reservations and ticket purchases should be made as far in advance as possible to take advantage of any available discount fares and/or government rates.

Tickets are to be booked at the most economical fare available that meets the requirement of the traveler's agenda.

No traveler may select tickets on a specific carrier or airport for any reason while on County business, unless it is the most economical fare.

First-class and business upgrades are prohibited.

Electronic tickets are the only acceptable delivery method of tickets unless this option is not available.

Any charges incurred as a result of changes to an original airline reservation made prior to or during travel are subject to the prior written approval of the traveler's bureau chief (or equivalent).

Original receipts are required for reimbursement.

Ground Transportation (Taxis, Public Transportation, Livery Service)

Transportation to and from the airport is included in the ground transportation allowance in the reimbursement rate.

Shuttle service or public transportation is encouraged.

Limousine or livery service charges to and from airports and railroad stations are reimbursable, where such costs do not exceed the comparable taxi fare.

Uber, Lyft and other similar transportation services are permitted options, and may include

Cook County Travel and Business Expenses Policy and Procedures

surcharges and fees. Surcharges and fees may be reimbursable if the total cost is comparable to other ground transportation options, and must be clearly documented to substantiate reimbursement.

Livery service may be used if the cost is less than the cost of a taxi service or other means of transportation.

Gratuity for ground transportation is the sole responsibility of the traveler.

Original receipts are required for reimbursement.

Lodging

Government rates should be requested.

Lodging costs will be reimbursed at the lesser of actual costs or the current federal travel allowance published by the General Services Administration Lodging Rates at: <http://www.gsa.gov/portal/category/104711>.

Hotel lodging within the Chicago metropolitan area is not a reimbursable expense.

Lodging costs greater than the published GSA rate require the prior written approval of the bureau chief (or equivalent).

All personal expenses must be paid for separately or deducted from the lodging bill before it is submitted for reimbursement.

Original receipts are required for reimbursement.

Meals and Incidental Expenses

Employees shall receive the lesser of actual costs or the allowance for meals and incidental expenses allowance published by the General Services Administration at <http://www.gsa.gov/portal/content/101518>.

Employees will only receive 75% of the lesser of actual costs or applicable meals and incidentals expenses rate for the first and last day of the trip and 100% for the other days.

There will be no reimbursement for meals and incidental expenses beyond the above rates.

The value of any meal(s) included in registration fees shall, be deducted from the employee's reimbursement.

Original receipts are required for reimbursement.

Conference Registration Fees

Every effort should be made to take advantage of early registration or group rate discounts.

Cook County Travel and Business Expenses Policy and Procedures

Additional Reimbursable Expenses

Business-Related Expenses. Business-related expenses incurred while on County travel may be reimbursed at the discretion of the department head. Original receipts must be provided for reimbursement. Examples of acceptable reimbursable business expenses are:

- i. Internet connections
- ii. Sending or receiving faxes
- iii. Photocopying
- iv. Express mail services

Laundry. Employees traveling on County business for three or more consecutive days are entitled to reimbursement for laundry expenses up to a maximum of \$10 per three-day period beginning with the fourth day. Original receipts are required for reimbursement.

Telephone Calls.

- i. If the employee has a County-issued cell phone, that phone should be used for all business calls (unless there is no service).
- ii. When possible, employees should avoid surcharges by using cell.
- iii. For approved international travel, the traveler should contact the Bureau of Technology so that the traveler's calling plan may be temporarily changed to the appropriate calling plan. Business calls may be reimbursed at the discretion of the department head.
- iv. Original receipts are required for reimbursement for business calls made on a personal cell or other phone.

Incidentals. Reimbursement for other incidental expenses will be approved at the discretion of the department head. Original receipts are required to reimbursement traveler for incidentals not listed above.

Non-Reimbursable Non-Local Travel Expenses

Non-reimbursable expenses include, but are not limited to, the following:

- i. Additional hotel charges for upgrades, special "club" floors, late checkout or early check-in;
- ii. Airline convenience fees (e.g., early check-in, seat upgrades, TSA pre-check)
- iii. Alcoholic beverages;
- iv. Amenities such as movies, health clubs, or in-room bars;
- v. Cancellation charges (unless justified);

Cook County Travel and Business Expenses Policy and Procedures

- vi. Child care, baby-sitting, house sitting, or pet sitting costs;
- vii. Cost differential on premium and luxury car rentals or first or business class airline tickets;
- viii. Entertainment, including, but not limited to, exercise facilities, movie rental, videos, games, or other non-business related items;
- ix. Excess baggage fees;
- x. Flight Insurance or other supplemental travel insurance, unless required for international travel and approved by the department head;
- xi. Gasoline costs if mileage reimbursement is used;
- xii. Laundry for trips less than three or more consecutive days;
- xiii. Local transportation charges incurred for personal reasons;
- xiv. Lost or stolen cash or personal property;
- xv. Magazines, books, or other reading materials;
- xvi. Meals included in the cost of registration fees and airfare;
- xvii. Modifications to travel arrangements;
- xviii. Personal items (e.g., toiletries, luggage, clothing, medications, etc.);
- xix. Personal portions of a trip combined with business travel;
- xx. Personal telephone calls;
- xxi. Repairs, towing service, etc. for personal vehicle;
- xxii. Snacks, beverages, etc. outside of a meal;
- xxiii. Spouse, family member(s), and guest travel costs; and
- xxiv. Traffic citations, parking tickets, and other fines.

Reimbursement for Non-Local Travel and Business Expenses

Non-Local Travel Reimbursement Voucher

All claims for reimbursement of non-local travel expenses shall be submitted on the Travel Reimbursement Voucher (“TRV”) and shall be itemized in accordance with these regulations. A sample TRV is attached at Appendix 3.

The TRV shall show the purpose of travel, the dates of travel, the points of departure and destination, mode of transportation, and the cost of the transportation secured or mileage allowance if automobile is used.

Cook County Travel and Business Expenses Policy and Procedures

The TRV shall be supported by receipts in all instances for railroad and airplane transportation, for lodging, meals and incidental expense items, and all other items. With respect to travel to conferences, the conference program must be attached to the voucher.

The TRV shall be prepared and signed by the employee who has incurred the expenses.

The employee submitting the TRV is personally responsible for accuracy and propriety. Falsification of a TRV is considered a major cause infraction subject to disciplinary action up to and including discharge.

Any TRV that does not include a copy of the traveler's approved TRF shall not be processed for payment.

Employees shall be reimbursed for airline, hotel, and conference registrations costs after expense is incurred. Airline and conference costs are reimbursable prior to flying or attending the conference as long as the employee shows those costs were paid. Lodging costs will be reimbursed after payment by the employee is made to the hotel.

Employees shall be reimbursed for approved travel related expenses once the trip is complete and the voucher is submitted.

The County will reimburse employees for travel related costs incurred by the employee on their paycheck following the submittal and approval of the TRV.

Approval and Submission of Transportation Expense Vouchers

In order to be eligible for reimbursement, the employee must submit the TRV by no later than the 20th day of the month following the month in which the travel expense was incurred, unless the failure to submit a voucher within the 20 day period is due to extraordinary circumstances.

The TRV shall then be reviewed and approved by the traveler's department head (or a designated representative), whose signature will represent his or her representation that he or she has reviewed the voucher and that the information contained on the voucher is complete and accurate.

Upon approving a TRV, a department head (or a designated representative) and supervisors are certifying:

- v. Appropriateness of the expenditure and reasonableness of the amount;
- vi. Availability of funds;
- vii. Compliance with applicable reimbursement policies; and
- viii. Completeness and accuracy of documentation.

A department must submit the TRV to the Comptroller's Office by no later than the 60th day after the end of the month in which the travel expense was incurred. An employee who submits a voucher within the 20-day submission period will not be denied reimbursement for failure of his/her department to timely submit the voucher to the Comptroller's office. A copy of the

Cook County Travel and Business Expenses Policy and Procedures

TRV shall be retained by the department.

Any TRV not prepared in accordance with these regulations, including the proper signatures, will be returned to the originator for corrections.

A request for reimbursement of an expense that does not comply with these guidelines may be denied and treated as a personal expense to the traveler and shall be deducted from the reimbursement due the traveler.

Cook County Travel and Business Expenses Policy and Procedures

APPENDIX 1

Travel Expense Voucher

Cook County Travel and Business Expenses Policy and Procedures

APPENDIX 2

Travel Request Form

Cook County Travel and Business Expenses Policy and Procedures

APPENDIX 3

Travel Reimbursement Voucher

EXHIBIT 7

Identification of Subcontractor/Supplier/Subconsultant Form

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY:
<input type="radio"/> Disqualification
<input type="radio"/> Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.: 2050-18294	Date: 11/18/2020
Total Bid or Proposal Amount: \$ 3,371,723.90	Contract Title: Multi-Aerial Imagery
Contractor: Merrick & Company	Subcontractor/Supplier/ Subconsultant to be added or substitute: American Surveying & Engineering, P.C.
Authorized Contact for Contractor: Doug Jacoby	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Coventine Fidis, President/CEO
Email Address (Contractor): doug.jacoby@merrick.com	Email Address (Subcontractor): c.fidis@americansurvey.com
Company Address (Contractor): 5970 Greenwood Plaza Blvd.	Company Address (Subcontractor): 30 N. LaSalle St. Suite 3440
City, State and Zip (Contractor): Greenwood Village, CO 80111	City, State and Zip (Subcontractor): Chicago, IL 60602
Telephone and Fax (Contractor) T: 303-353-3903 F: 303-751-2581	Telephone and Fax (Subcontractor) T: 312.277.2000; F: 312.277.2002
Estimated Start and Completion Dates (Contractor) 2021-2023	Estimated Start and Completion Dates (Subcontractor) 2021-2023

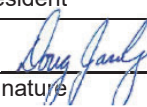
Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

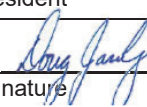
<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Surveying Services	\$30,381.00

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor Doug Jacoby

Name Vice President

Title 

Prime Contractor Signature  Date 11/18/2020

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY: <input type="radio"/> Disqualification <input type="radio"/> Check Complete

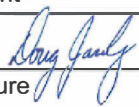
The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.: 2050-18294	Date: 11/18/2020
Total Bid or Proposal Amount: \$ 3,371,723.90	Contract Title: Multi-Aerial Imagery
Contractor: Merrick & Company	Subcontractor/Supplier/ Subconsultant to be added or substitute: Galileo Group Inc.
Authorized Contact for Contractor: Doug Jacoby	Authorized Contact for Subcontractor/Supplier/ Subconsultant: John Merrill
Email Address (Contractor): doug.jacoby@merrick.com	Email Address (Subcontractor): jmerrill@galileo-gp.com
Company Address (Contractor): 5970 Greenwood Plaza Blvd.	Company Address (Subcontractor): 100 Rialto Place Suite 737
City, State and Zip (Contractor): Greenwood Village, CO 80111	City, State and Zip (Subcontractor): Melbourne, FL 32901
Telephone and Fax (Contractor) T: 303-353-3903 F: 303-751-2581	Telephone and Fax (Subcontractor) 321.733.0960
Estimated Start and Completion Dates 2021-2023 (Contractor)	Estimated Start and Completion Dates 2021-2023 (Subcontractor)

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Hyperspectral imaging services	\$2,026,000.00

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor
 Name Doug Jacoby
 Title Vice President
 Title  11/18/2020
 Prime Contractor Signature Date

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

<p>OCPO ONLY: <input type="radio"/> Disqualification <input type="radio"/> Check Complete</p>
--

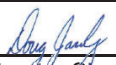
The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.: 2050-18294	Date: 11/18/2020
Total Bid or Proposal Amount: \$ 3,371,723.90	Contract Title: Multi-Aerial Imagery
Contractor: Merrick & Company	Subcontractor/Supplier/ Subconsultant to be added or substitute: GEO1
Authorized Contact for Contractor: Doug Jacoby	Authorized Contact for Subcontractor/Supplier/ Subconsultant: RON CHAPPLE
Email Address (Contractor): doug.jacoby@merrick.com	Email Address (Subcontractor): RON@GEO1.com
Company Address (Contractor): 5970 Greenwood Plaza Blvd.	Company Address (Subcontractor): 3750 West 120th Street
City, State and Zip (Contractor): Greenwood Village, CO 80111	City, State and Zip (Subcontractor): Hawthorne, CA 90250
Telephone and Fax (Contractor): T: 303-353-3903 F: 303-751-2581	Telephone and Fax (Subcontractor): 808.281.1921
Estimated Start and Completion Dates (Contractor): 2021-2023	Estimated Start and Completion Dates (Subcontractor): 2021-2023

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Imagery Acquisition	\$327,599

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor
 Name Doug Jacoby
 Title Vice President
 Prime Contractor Signature  Date 11/18/2020

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY:
• Disqualification
• Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Bid/RFP/RFQ No.: 2050-18294	Date: 11/18/2020
Total Bid or Proposal Amount: \$ 3,371,723.90	Contract Title: Multi-Aerial Imagery
Contractor: Merrick & Company	Subcontractor/Supplier/ Subconsultant to be added or substitute: CompassData, Inc.
Authorized Contact for Contractor: Doug Jacoby	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Hayden Howard
Email Address (Contractor): doug.jacoby@merrick.com	Email Address (Subcontractor): haydenh@compassdatainc.com
Company Address (Contractor): 5970 Greenwood Plaza Blvd	Company Address (Subcontractor): 7900 East Union Ave. Ste 550
City, State and Zip (Contractor): Greenwood Village, CO 80111	City, State and Zip (Subcontractor): Denver, CO 80237
Telephone and Fax (Contractor): T:303-353-3903 F: 303-751-2581	Telephone and Fax (Subcontractor): 303-627-4058
Estimated Start and Completion Dates (Contractor): 2021-2023	Estimated Start and Completion Dates (Subcontractor): 2021-2023

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
Oblique Software Vendor	\$156,780

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor Doug Jacoby

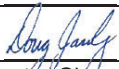
Name	Vice President
Title	
Prime Contractor Signature	11/20/2020
	Date

EXHIBIT 8

Board Authorization



Board of Commissioners of Cook County

118 North Clark Street
Chicago, IL

Legislation Details (With Text)

File #: 21-0267 **Version:** 1 **Name:** Merrick & Company, Greenwood Village, Colorado
Type: Contract (Technology) **Status:** Approved
File created: 11/30/2020 **In control:** Technology and Innovation Committee
On agenda: 12/17/2020 **Final action:** 1/28/2021
Title: PROPOSED CONTRACT (TECHNOLOGY)

Department(s): Bureau of Technology

Vendor: Merrick & Company, Greenwood Village, Colorado

Request: Authorization for the Chief Procurement Officer to enter into and execute contract

Good(s) or Service(s): Multi-Aerial Imaging

Contract Value: \$3,371,723.90

Contract period: 2/1/2021 - 1/31/2024 and two (2) one-year renewal options

Potential Fiscal Year Budget Impact: FY 2021 \$1,149,740.38, FY 2022 \$1,091,759.97, FY 2023 \$1,130,223.54

Accounts: 11249.1009.21110.560225

Contract Number(s): 2050-18294

Concurrence(s):

The contract-specific goal set on this contract was zero.

The Chief Procurement Officer concurs.

Summary: The acquisition of multi-aerial imagery is vital to various Cook County agencies, municipalities, and the general public. This contract will provide for multi-aerial imagery of the entire County. This allows users to detect changes in the landscape, complete property assessment, evaluate disaster or crime scenes, conduct urban and regional planning, monitor environmental conditions, and inventory the built environment.

This contract is awarded through Request for Proposals (RFP) procedures in accordance with Cook County Procurement Code. Merrick was selected based on established evaluation criteria.

Sponsors:

Indexes: F. THOMAS LYNCH, Chief Information Officer, Bureau of Technology

Code sections:

Attachments:

Date	Ver.	Action By	Action	Result
1/28/2021	1	Board of Commissioners	approve	Pass
1/27/2021	1	Technology and Innovation Committee	recommend for approval	Pass

12/17/2020 1 Board of Commissioners refer Pass

PROPOSED CONTRACT (TECHNOLOGY)

Department(s): Bureau of Technology

Vendor: Merrick & Company, Greenwood Village, Colorado

Request: Authorization for the Chief Procurement Officer to enter into and execute contract

Good(s) or Service(s): Multi-Aerial Imaging

Contract Value: \$3,371,723.90

Contract period: 2/1/2021 - 1/31/2024 and two (2) one-year renewal options

Potential Fiscal Year Budget Impact: FY 2021 \$1,149,740.38, FY 2022 \$1,091,759.97, FY 2023 \$1,130,223.54

Accounts: 11249.1009.21110.560225

Contract Number(s): 2050-18294

Concurrence(s):

The contract-specific goal set on this contract was zero.

The Chief Procurement Officer concurs.

Summary: The acquisition of multi-aerial imagery is vital to various Cook County agencies, municipalities, and the general public. This contract will provide for multi-aerial imagery of the entire County. This allows users to detect changes in the landscape, complete property assessment, evaluate disaster or crime scenes, conduct urban and regional planning, monitor environmental conditions, and inventory the built environment.

This contract is awarded through Request for Proposals (RFP) procedures in accordance with Cook County Procurement Code. Merrick was selected based on established evaluation criteria.

EXHIBIT 9

Economic Disclosure Statement and Execution Document Index

**COOK COUNTY
ECONOMIC DISCLOSURE STATEMENT
AND EXECUTION DOCUMENT
INDEX**

Section	Description	Pages
1	Instructions for Completion of EDS	EDS i - ii
2	Certifications	EDS 1- 2
3	Economic and Other Disclosures, Affidavit of Child Support Obligations, Disclosure of Ownership Interest and Familial Relationship Disclosure Form	EDS 3 – 12
4	Cook County Affidavit for Wage Theft Ordinance	EDS 13-14
5	Contract and EDS Execution Page	EDS 15
6	Cook County Signature Page	EDS 16

SECTION 1
INSTRUCTIONS FOR COMPLETION OF
ECONOMIC DISCLOSURE STATEMENT AND EXECUTION DOCUMENT

This Economic Disclosure Statement and Execution Document (“EDS”) is to be completed and executed by every Bidder on a County contract, every Proposer responding to a Request for Proposals, and every Respondent responding to a Request for Qualifications, and others as required by the Chief Procurement Officer. The execution of the EDS shall serve as the execution of a contract awarded by the County. The Chief Procurement Officer reserves the right to request that the Bidder or Proposer, or Respondent provide an updated EDS on an annual basis.

Definitions. Terms used in this EDS and not otherwise defined herein shall have the meanings given to such terms in the Instructions to Bidders, General Conditions, Request for Proposals, Request for Qualifications, as applicable.

Affiliate means a person that directly or indirectly through one or more intermediaries, Controls is Controlled by, or is under common Control with the Person specified.

Applicant means a person who executes this EDS.

Bidder means any person who submits a Bid.

Code means the Code of Ordinances, Cook County, Illinois available on municode.com.

Contract shall include any written document to make Procurements by or on behalf of Cook County.

Contractor or *Contracting Party* means a person that enters into a Contract with the County.

Control means the unfettered authority to directly or indirectly manage governance, administration, work, and all other aspects of a business.

EDS means this complete Economic Disclosure Statement and Execution Document, including all sections listed in the Index and any attachments.

Joint Venture means an association of two or more Persons proposing to perform a for-profit business enterprise. Joint Ventures must have an agreement in writing specifying the terms and conditions of the relationship between the partners and their relationship and respective responsibility for the Contract

Lobby or *lobbying* means to, for compensation, attempt to influence a County official or County employee with respect to any County matter.

Lobbyist means any person who lobbies.

Person or *Persons* means any individual, corporation, partnership, Joint Venture, trust, association, Limited Liability Company, sole proprietorship or other legal entity.

Prohibited Acts means any of the actions or occurrences which form the basis for disqualification under the Code, or under the Certifications hereinafter set forth.

Proposal means a response to an RFP.

Proposer means a person submitting a Proposal.

Response means response to an RFQ.

Respondent means a person responding to an RFQ.

RFP means a Request for Proposals issued pursuant to this Procurement Code.

RFQ means a Request for Qualifications issued to obtain the qualifications of interested parties.

**INSTRUCTIONS FOR COMPLETION OF
ECONOMIC DISCLOSURE STATEMENT AND EXECUTION DOCUMENT**

Section 1: Instructions. Section 1 sets forth the instructions for completing and executing this EDS.

Section 2: Certifications. Section 2 sets forth certifications that are required for contracting parties under the Code and other applicable laws. Execution of this EDS constitutes a warranty that all the statements and certifications contained, and all the facts stated, in the Certifications are true, correct and complete as of the date of execution.

Section 3: Economic and Other Disclosures Statement. Section 3 is the County's required Economic and Other Disclosures Statement form. Execution of this EDS constitutes a warranty that all the information provided in the EDS is true, correct and complete as of the date of execution, and binds the Applicant to the warranties, representations, agreements and acknowledgements contained therein.

Required Updates. The Applicant is required to keep all information provided in this EDS current and accurate. In the event of any change in the information provided, including but not limited to any change which would render inaccurate or incomplete any certification or statement made in this EDS, the Applicant shall supplement this EDS up to the time the County takes action, by filing an amended EDS or such other documentation as is required.

Additional Information. The County's Governmental Ethics and Campaign Financing Ordinances impose certain duties and obligations on persons or entities seeking County contracts, work, business, or transactions, and the Applicant is expected to comply fully with these ordinances. For further information please contact the Director of Ethics at (312) 603-4304 (69 W. Washington St. Suite 3040, Chicago, IL 60602) or visit the web-site at cookcountyil.gov/ethics-board-of.

Authorized Signers of Contract and EDS Execution Page. If the Applicant is a corporation, the President and Secretary must execute the EDS. In the event that this EDS is executed by someone other than the President, attach hereto a certified copy of that section of the Corporate By-Laws or other authorization by the Corporation, satisfactory to the County that permits the person to execute EDS for said corporation. If the corporation is not registered in the State of Illinois, a copy of the Certificate of Good Standing from the state of incorporation must be submitted with this Signature Page.

If the Applicant is a partnership or joint venture, all partners or joint venturers must execute the EDS, unless one partner or joint venture has been authorized to sign for the partnership or joint venture, in which case, the partnership agreement, resolution or evidence of such authority satisfactory to the Office of the Chief Procurement Officer must be submitted with this Signature Page.

If the Applicant is a member-managed LLC all members must execute the EDS, unless otherwise provided in the operating agreement, resolution or other corporate documents. If the Applicant is a manager-managed LLC, the manager(s) must execute the EDS. The Applicant must attach either a certified copy of the operating agreement, resolution or other authorization, satisfactory to the County, demonstrating such person has the authority to execute the EDS on behalf of the LLC. If the LLC is not registered in the State of Illinois, a copy of a current Certificate of Good Standing from the state of incorporation must be submitted with this Signature Page.

If the Applicant is a Sole Proprietorship, the sole proprietor must execute the EDS.

A "Partnership" "Joint Venture" or "Sole Proprietorship" operating under an Assumed Name must be registered with the Illinois county in which it is located, as provided in 805 ILCS 405 (2012), and documentation evidencing registration must be submitted with the EDS.

Effective October 1, 2016 all foreign corporations and LLCs must be registered with the Illinois Secretary of State's Office unless a statutory exemption applies to the applicant. Applicants who are exempt from registering must provide a written statement explaining why they are exempt from registering as a foreign entity with the Illinois Secretary of State's Office.

SECTION 2

CERTIFICATIONS

THE FOLLOWING CERTIFICATIONS ARE MADE PURSUANT TO STATE LAW AND THE CODE. THE APPLICANT IS CAUTIONED TO CAREFULLY READ THESE CERTIFICATIONS PRIOR TO SIGNING THE SIGNATURE PAGE. SIGNING THE SIGNATURE PAGE SHALL CONSTITUTE A WARRANTY BY THE APPLICANT THAT ALL THE STATEMENTS, CERTIFICATIONS AND INFORMATION SET FORTH WITHIN THESE CERTIFICATIONS ARE TRUE, COMPLETE AND CORRECT AS OF THE DATE THE SIGNATURE PAGE IS SIGNED. THE APPLICANT IS NOTIFIED THAT IF THE COUNTY LEARNS THAT ANY OF THE FOLLOWING CERTIFICATIONS WERE FALSELY MADE, THAT ANY CONTRACT ENTERED INTO WITH THE APPLICANT SHALL BE SUBJECT TO TERMINATION.

A. PERSONS AND ENTITIES SUBJECT TO DISQUALIFICATION

No person or business entity shall be awarded a contract or sub-contract, for a period of five (5) years from the date of conviction or entry of a plea or admission of guilt, civil or criminal, if that person or business entity:

- 1) Has been convicted of an act committed, within the State of Illinois, of bribery or attempting to bribe an officer or employee of a unit of state, federal or local government or school district in the State of Illinois in that officer's or employee's official capacity;
- 2) Has been convicted by federal, state or local government of an act of bid-rigging or attempting to rig bids as defined in the Sherman Anti-Trust Act and Clayton Act. Act. 15 U.S.C. Section 1 *et seq.*;
- 3) Has been convicted of bid-rigging or attempting to rig bids under the laws of federal, state or local government;
- 4) Has been convicted of an act committed, within the State, of price-fixing or attempting to fix prices as defined by the Sherman Anti-Trust Act and the Clayton Act. 15 U.S.C. Section 1, *et seq.*;
- 5) Has been convicted of price-fixing or attempting to fix prices under the laws the State;
- 6) Has been convicted of defrauding or attempting to defraud any unit of state or local government or school district within the State of Illinois;
- 7) Has made an admission of guilt of such conduct as set forth in subsections (1) through (6) above which admission is a matter of record, whether or not such person or business entity was subject to prosecution for the offense or offenses admitted to; or
- 8) Has entered a plea of *nolo contendere* to charge of bribery, price-fixing, bid-rigging, or fraud, as set forth in subparagraphs (1) through (6) above.

In the case of bribery or attempting to bribe, a business entity may not be awarded a contract if an official, agent or employee of such business entity committed the Prohibited Act on behalf of the business entity and pursuant to the direction or authorization of an officer, director or other responsible official of the business entity, and such Prohibited Act occurred within three years prior to the award of the contract. In addition, a business entity shall be disqualified if an owner, partner or shareholder controlling, directly or indirectly, 20% or more of the business entity, or an officer of the business entity has performed any Prohibited Act within five years prior to the award of the Contract.

THE APPLICANT HEREBY CERTIFIES THAT: The Applicant has read the provisions of Section A, Persons and Entities Subject to Disqualification, that the Applicant has not committed any Prohibited Act set forth in Section A, and that award of the Contract to the Applicant would not violate the provisions of such Section or of the Code.

B. BID-RIGGING OR BID ROTATING

THE APPLICANT HEREBY CERTIFIES THAT: *In accordance with 720 ILCS 5/33 E-11, neither the Applicant nor any Affiliated Entity is barred from award of this Contract as a result of a conviction for the violation of State laws prohibiting bid-rigging or bid rotating.*

C. DRUG FREE WORKPLACE ACT

THE APPLICANT HEREBY CERTIFIES THAT: The Applicant will provide a drug free workplace, as required by (30 ILCS 580/3).

D. DELINQUENCY IN PAYMENT OF TAXES

THE APPLICANT HEREBY CERTIFIES THAT: *The Applicant is not an owner or a party responsible for the payment of any tax or fee administered by Cook County, such as bar award of a contract or subcontract pursuant to the Code, Chapter 34, Section 34-171.*

E. HUMAN RIGHTS ORDINANCE

No person who is a party to a contract with Cook County ("County") shall engage in unlawful discrimination or sexual harassment against any individual in the terms or conditions of employment, credit, public accommodations, housing, or provision of County facilities, services or programs (Code Chapter 42, Section 42-30 *et seq.*).

F. ILLINOIS HUMAN RIGHTS ACT

THE APPLICANT HEREBY CERTIFIES THAT: *It is in compliance with the Illinois Human Rights Act (775 ILCS 5/2-105), and agrees to abide by the requirements of the Act as part of its contractual obligations.*

G. INSPECTOR GENERAL (COOK COUNTY CODE, CHAPTER 34, SECTION 34-174 and Section 34-250)

The Applicant has not willfully failed to cooperate in an investigation by the Cook County Independent Inspector General or to report to the Independent Inspector General any and all information concerning conduct which they know to involve corruption, or other criminal activity, by another county employee or official, which concerns his or her office of employment or County related transaction.

The Applicant has reported directly and without any undue delay any suspected or known fraudulent activity in the County's Procurement process to the Office of the Cook County Inspector General.

H. CAMPAIGN CONTRIBUTIONS (COOK COUNTY CODE, CHAPTER 2, SECTION 2-585)

THE APPLICANT CERTIFIES THAT: It has read and shall comply with the Cook County's Ordinance concerning campaign contributions, which is codified at Chapter 2, Division 2, Subdivision II, Section 585, and can be read in its entirety at www.municode.com.

I. GIFT BAN, (COOK COUNTY CODE, CHAPTER 2, SECTION 2-574)

THE APPLICANT CERTIFIES THAT: It has read and shall comply with the Cook County's Ordinance concerning receiving and soliciting gifts and favors, which is codified at Chapter 2, Division 2, Subdivision II, Section 574, and can be read in its entirety at www.municode.com.

J. LIVING WAGE ORDINANCE PREFERENCE (COOK COUNTY CODE, CHAPTER 34, SECTION 34-160;

Unless expressly waived by the Cook County Board of Commissioners, the Code requires that a living wage must be paid to individuals employed by a Contractor which has a County Contract and by all subcontractors of such Contractor under a County Contract, throughout the duration of such County Contract. The amount of such living wage is annually by the Chief Financial Officer of the County, and shall be posted on the Chief Procurement Officer's website.

The term "Contract" as used in Section 4, I, of this EDS, specifically excludes contracts with the following:

- 1) Not-For Profit Organizations (defined as a corporation having tax exempt status under Section 501(C)(3) of the United State Internal Revenue Code and recognized under the Illinois State not-for -profit law);
- 2) Community Development Block Grants;
- 3) Cook County Works Department;
- 4) Sheriff's Work Alternative Program; and
- 5) Department of Correction inmates.

SECTION 3

REQUIRED DISCLOSURES

1. DISCLOSURE OF LOBBYIST CONTACTS

List all persons that have made lobbying contacts on your behalf with respect to this contract:

Name	Address
None	
_____	_____
_____	_____
_____	_____

2. LOCAL BUSINESS PREFERENCE STATEMENT (CODE, CHAPTER 34, SECTION 34-230)

Local business means a Person, including a foreign corporation authorized to transact business in Illinois, having a bona fide establishment located within the County at which it is transacting business on the date when a Bid is submitted to the County, and which employs the majority of its regular, full-time work force within the County. A Joint Venture shall constitute a Local Business if one or more Persons that qualify as a "Local Business" hold interests totaling over 50 percent in the Joint Venture, even if the Joint Venture does not, at the time of the Bid submittal, have such a bona fide establishment within the County.

a) Is Applicant a "Local Business" as defined above?
Yes: No:

b) If yes, list business addresses within Cook County:

c) Does Applicant employ the majority of its regular full-time workforce within Cook County?
Yes: No:

3. THE CHILD SUPPORT ENFORCEMENT ORDINANCE (CODE, CHAPTER 34, SECTION 34-172)

Every Applicant for a County Privilege shall be in full compliance with any child support order before such Applicant is entitled to receive or renew a County Privilege. When delinquent child support exists, the County shall not issue or renew any County Privilege, and may revoke any County Privilege.

All Applicants are required to review the Cook County Affidavit of Child Support Obligations attached to this EDS (EDS-5) and complete the Affidavit, based on the instructions in the Affidavit.

4. REAL ESTATE OWNERSHIP DISCLOSURES.

The Applicant must indicate by checking the appropriate provision below and providing all required information that either:

- a) The following is a complete list of all real estate owned by the Applicant in Cook County:

PERMANENT INDEX NUMBER(S): _____

(ATTACH SHEET IF NECESSARY TO LIST ADDITIONAL INDEX NUMBERS)

OR:

- b) The Applicant owns no real estate in Cook County.

5. EXCEPTIONS TO CERTIFICATIONS OR DISCLOSURES.

If the Applicant is unable to certify to any of the Certifications or any other statements contained in this EDS and not explained elsewhere in this EDS, the Applicant must explain below:

NA

If the letters, "NA", the word "None" or "No Response" appears above, or if the space is left blank, it will be conclusively presumed that the Applicant certified to all Certifications and other statements contained in this EDS.

COOK COUNTY DISCLOSURE OF OWNERSHIP INTEREST STATEMENT

The Cook County Code of Ordinances (§2-610 *et seq.*) requires that any Applicant for any County Action must disclose information concerning ownership interests in the Applicant. This Disclosure of Ownership Interest Statement must be completed with all information current as of the date this Statement is signed. Furthermore, this Statement must be kept current, by filing an amended Statement, until such time as the County Board or County Agency shall take action on the application. The information contained in this Statement will be maintained in a database and made available for public viewing. **County reserves the right to request additional information to verify veracity of information contained in this statement.**

If you are asked to list names, but there are no applicable names to list, you must state NONE. An incomplete Statement will be returned and any action regarding this contract will be delayed. A failure to fully comply with the ordinance may result in the action taken by the County Board or County Agency being voided.

"Applicant" means any Entity or person making an application to the County for any County Action.

"County Action" means any action by a County Agency, a County Department, or the County Board regarding an ordinance or ordinance amendment, a County Board approval, or other County agency approval, with respect to contracts, leases, or sale or purchase of real estate.

"Person" "Entity" or "Legal Entity" means a sole proprietorship, corporation, partnership, association, business trust, estate, two or more persons having a joint or common interest, trustee of a land trust, other commercial or legal entity or any beneficiary or beneficiaries thereof.

This Disclosure of Ownership Interest Statement must be submitted by :

1. An Applicant for County Action and
2. A Person that holds stock or a beneficial interest in the Applicant and is listed on the Applicant's Statement (a "Holder") must file a Statement and complete #1 only under **Ownership Interest Declaration**.

Please print or type responses clearly and legibly. Add additional pages if needed, being careful to identify each portion of the form to which each additional page refers.

This Statement is being made by the Applicant or Stock/Beneficial Interest Holder

This Statement is an: Original Statement or Amended Statement

Identifying Information:

Name Merrick & Company

D/B/A: _____ FEIN # Only: 84-0499702

Street Address: 5970 Greenwood Village Blvd.

City: Greenwood Village State: CO Zip Code: 80111

Phone No.: 303-751-0741 Fax Number: 303-751-2581 Email: doug.jacoby@merrick.com

Cook County Business Registration Number: 81085

(Sole Proprietor, Joint Venture Partnership)

Corporate File Number (if applicable): _____

Form of Legal Entity:

Sole Proprietor Partnership Corporation Trustee of Land Trust

Business Trust Estate Association Joint Venture

Other (describe) _____

Ownership Interest Declaration:

1. List the name(s), address, and percent ownership of each Person having a legal or beneficial interest (including ownership) of more than five percent (5%) in the Applicant/Holder.

Name	Address	Percentage Interest in Applicant/Holder
None		

2. If the interest of any Person listed in (1) above is held as an agent or agents, or a nominee or nominees, list the name and address of the principal on whose behalf the interest is held.

Name of Agent/Nominee	Name of Principal	Principal's Address
None		

3. Is the Applicant constructively controlled by another person or Legal Entity? [] Yes [] No

If yes, state the name, address and percentage of beneficial interest of such person, and the relationship under which such control is being or may be exercised.

Name	Address	Percentage of Beneficial Interest	Relationship
None			

Corporate Officers, Members and Partners Information:

For all corporations, list the names, addresses, and terms for all corporate officers. For all limited liability companies, list the names, addresses for all members. For all partnerships and joint ventures, list the names, addresses, for each partner or joint venture.

Name	Address	Title (specify title of Office, or whether manager or partner/joint venture)	Term of Office
See attached sheet.			

Declaration (check the applicable box):

- I state under oath that the Applicant has withheld no disclosure as to ownership interest in the Applicant nor reserved any information, data or plan as to the intended use or purpose for which the Applicant seeks County Board or other County Agency action.
- I state under oath that the Holder has withheld no disclosure as to ownership interest nor reserved any information required to be disclosed.

COOK COUNTY DISCLOSURE OF OWNERSHIP INTEREST STATEMENT SIGNATURE PAGE

Carter E. Boardman

Name of Authorized Applicant/Holder Representative (please print or type)

Signature

carter.boardman@merrick.com

E-mail address

Vice President

Title

September 21, 2020

Date

303-353-3553

Phone Number

Subscribed to and sworn before me
this 21st day of SEPT., 2020

My commission expires: 06-30-2021

X Audrey M. Fix
Notary Public Signature

AUDREY M FIX
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19974011730
MY COMMISSION EXPIRES 06/30/2021

Directors and Officers

Fiscal Year 2021

DIRECTORS	Position	
Christopher C. Sherry	Chairman of the Board	
Brian H. Conlin	Outside Director, Vice Chairman	
Donald S. Evans, Jr.	Outside Director	
David J. Steiner	Outside Director	
Jill S. Tietjen	Outside Director	
Bradley S. Andersen	Inside Director	
Mary C. Horan	Inside Director	
David A. Luke, Jr.	Inside Director	
Jennifer A. Macy	Inside Director	
Michael J. Martin	Inside Director	

EXECUTIVE LEADERSHIP	Title	Position
Christopher C. Sherry	President	CEO
David A. Luke	Executive Vice President	COO
Steven J. Betts	Executive Vice President	CFO
Mary C. Horan	Senior Vice President	OD/HR
FIDUCIARY	Title	Position
Carter E. Boardman	Vice President	Asst. Treasurer/Asst. Secretary
P. Elise Snyder	Vice President	Controller
Shawn Holton	Vice President	Information Technology
Douglas E. Eisenbrandt	Corporate Secretary	Secretary/Treasurer
OPERATIONAL	Title	Position
Bradley S. Andersen	Senior Vice President	Life Science BU Leader
Matthew J. Knudsen	Senior Vice President	Energy & Chemicals BU Leader
Michael J. Martin	Senior Vice President	Infrastructure Engineering BU Leader
Scott A. Gustafson	Senior Vice President	Nuclear Services & Technology BU Leader
Torin P. Haskell	Senior Vice President	Geomatics BU Leader
Tamara J. Johnson	Senior Vice President	High Performance Facilities BU Leader
Barney J. Fix	Vice President	Infrastructure Engineering
Valerie E. Walker	Vice President	Nuclear Services & Technology
Jennifer Macy	Vice President	Nuclear Services & Technology
Brian Drane	Vice President	Nuclear Services & Technology
Frank Codispoti	Vice President	Energy & Chemicals
Douglas Jacoby	Vice President	Geomatics
Ryan Burnette	Vice President	Life Science
Robert Perry	Vice President	Energy & Chemicals Business Development
Gary Outlaw	Vice President	Geomatics Business Development
REGULATORY	Title	Position
Detlef Kurpanek	Vice President	Engineering
Alain Rivard	Vice President	Architecture
Vernen Lee	Vice President	Survey



COOK COUNTY BOARD OF ETHICS
69 W. WASHINGTON STREET, SUITE 3040
CHICAGO, ILLINOIS 60602
312/603-4304 Office 312/603-9988 Fax

FAMILIAL RELATIONSHIP DISCLOSURE PROVISION

Nepotism Disclosure Requirement:

Doing a significant amount of business with the County requires that you disclose to the Board of Ethics the existence of any familial relationships with any County employee or any person holding elective office in the State of Illinois, the County, or in any municipality within the County. The Ethics Ordinance defines a significant amount of business for the purpose of this disclosure requirement as more than \$25,000 in aggregate County leases, contracts, purchases or sales in any calendar year.

If you are unsure of whether the business you do with the County or a County agency will cross this threshold, err on the side of caution by completing the attached familial disclosure form because, among other potential penalties, any person found guilty of failing to make a required disclosure or knowingly filing a false, misleading, or incomplete disclosure will be prohibited from doing any business with the County for a period of three years. The required disclosure should be filed with the Board of Ethics by January 1 of each calendar year in which you are doing business with the County and again with each bid/proposal/quotation to do business with Cook County. The Board of Ethics may assess a late filing fee of \$100 per day after an initial 30-day grace period.

The person that is doing business with the County must disclose his or her familial relationships. If the person on the County lease or contract or purchasing from or selling to the County is a business entity, then the business entity must disclose the familial relationships of the individuals who are and, during the year prior to doing business with the County, were:

- its board of directors,
- its officers,
- its employees or independent contractors responsible for the general administration of the entity,
- its agents authorized to execute documents on behalf of the entity, and
- its employees who directly engage or engaged in doing work with the County on behalf of the entity.

Do not hesitate to contact the Board of Ethics at (312) 603-4304 for assistance in determining the scope of any required familial relationship disclosure.

Additional Definitions:

“*Familial relationship*” means a person who is a spouse, domestic partner or civil union partner of a County employee or State, County or municipal official, or any person who is related to such an employee or official, whether by blood, marriage or adoption, as a:

- | | | |
|----------------------------------|--|---------------------------------------|
| <input type="checkbox"/> Parent | <input type="checkbox"/> Grandparent | <input type="checkbox"/> Stepfather |
| <input type="checkbox"/> Child | <input type="checkbox"/> Grandchild | <input type="checkbox"/> Stepmother |
| <input type="checkbox"/> Brother | <input type="checkbox"/> Father-in-law | <input type="checkbox"/> Stepson |
| <input type="checkbox"/> Sister | <input type="checkbox"/> Mother-in-law | <input type="checkbox"/> Stepdaughter |
| <input type="checkbox"/> Aunt | <input type="checkbox"/> Son-in-law | <input type="checkbox"/> Stepbrother |
| <input type="checkbox"/> Uncle | <input type="checkbox"/> Daughter-in-law | <input type="checkbox"/> Stepsister |
| <input type="checkbox"/> Niece | <input type="checkbox"/> Brother-in-law | <input type="checkbox"/> Halfbrother |
| <input type="checkbox"/> Nephew | <input type="checkbox"/> Sister-in-law | <input type="checkbox"/> Halfsister |

COOK COUNTY BOARD OF ETHICS
FAMILIAL RELATIONSHIP DISCLOSURE FORM

A. PERSON DOING OR SEEKING TO DO BUSINESS WITH THE COUNTY

Name of Person Doing Business with the County: Business Entity: Merrick & Company

Address of Person Doing Business with the County: Business Address: 5970 Greenwood Plaza Blvd., Greenwood Village, CO

Phone number of Person Doing Business with the County: Business: 303-751-0741

Email address of Person Doing Business with the County: Contact Person: doug.jacoby@merrick.com

If Person Doing Business with the County is a Business Entity, provide the name, title and contact information for the individual completing this disclosure on behalf of the Person Doing Business with the County: Doug Jacoby, Vice President of Geomatics Phone: (303) 353-3903 Email: doug.jacoby@merrick.com

B. DESCRIPTION OF BUSINESS WITH THE COUNTY

Append additional pages as needed and for each County lease, contract, purchase or sale sought and/or obtained during the calendar year of this disclosure (or the proceeding calendar year if disclosure is made on January 1), identify:

The lease number, contract number, purchase order number, request for proposal number and/or request for qualification number associated with the business you are doing or seeking to do with the County:

RFP No. 2050-18294

The aggregate dollar value of the business you are doing or seeking to do with the County: \$3,371,723.90

The name, title and contact information for the County official(s) or employee(s) involved in negotiating the business you are doing or seeking to do with the County: Halyna Shuruk, Contract Negotiator

email: Halyna.shuruk@cookcountyil.gov

The name, title and contact information for the County official(s) or employee(s) involved in managing the business you are doing or seeking to do with the County:

Tom Schuble, GIS Manager, Bureau of Technology

C. DISCLOSURE OF FAMILIAL RELATIONSHIPS WITH COUNTY EMPLOYEES OR STATE, COUNTY OR MUNICIPAL ELECTED OFFICIALS

Check the box that applies and provide related information where needed

The Person Doing Business with the County is an individual and there is no familial relationship between this individual and any Cook County employee or any person holding elective office in the State of Illinois, Cook County, or any municipality within Cook County.

The Person Doing Business with the County is a business entity and there is no familial relationship between any member of this business entity's board of directors, officers, persons responsible for general administration of the business entity, agents authorized to execute documents on behalf of the business entity or employees directly engaged in contractual work with the County on behalf of the business entity, and any Cook County employee or any person holding elective office in the State of Illinois, Cook County, or any municipality within Cook County.

**COOK COUNTY BOARD OF ETHICS
FAMILIAL RELATIONSHIP DISCLOSURE FORM**

- The Person Doing Business with the County **is an individual** and **there is a familial relationship** between this individual and at least one Cook County employee and/or a person or persons holding elective office in the State of Illinois, Cook County, and/or any municipality within Cook County. **The familial relationships are as follows:**

Name of Individual Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

If more space is needed, attach an additional sheet following the above format.

- The Person Doing Business with the County **is a business entity** and **there is a familial relationship** between at least one member of this business entity’s board of directors, officers, persons responsible for general administration of the business entity, agents authorized to execute documents on behalf of the business entity and/or employees directly engaged in contractual work with the County on behalf of the business entity, on the one hand, and at least one Cook County employee and/or a person holding elective office in the State of Illinois, Cook County, and/or any municipality within Cook County, on the other. **The familial relationships are as follows:**

Name of Member of Board of Director for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Name of Officer for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Name of Person Responsible for the General Administration of the Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
---	--	--	----------------------------------

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Name of Agent Authorized to Execute Documents for Business Entity Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
--	--	--	----------------------------------

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Name of Employee of Business Entity Directly Engaged in Doing Business with the County	Name of Related County Employee or State, County or Municipal Elected Official	Title and Position of Related County Employee or State, County or Municipal Elected Official	Nature of Familial Relationship*
--	--	--	----------------------------------

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

If more space is needed, attach an additional sheet following the above format.

VERIFICATION: To the best of my knowledge, the information I have provided on this disclosure form is accurate and complete. I acknowledge that an inaccurate or incomplete disclosure is punishable by law, including but not limited to fines and debarment.

 _____ Signature of Recipient	_____ September 21, 2020 Date
--	--

SUBMIT COMPLETED FORM TO: Cook County Board of Ethics
 69 West Washington Street, Suite 3040, Chicago, Illinois 60602
 Office (312) 603-4304 – Fax (312) 603-9988
 CookCounty.Ethics@cookcountyil.gov

* Spouse, domestic partner, civil union partner or parent, child, sibling, aunt, uncle, niece, nephew, grandparent or grandchild by blood, marriage (*i.e.* in laws and step relations) or adoption.

SECTION 4

COOK COUNTY AFFIDAVIT FOR WAGE THEFT ORDINANCE

Effective May 1, 2015, every Person, **including Substantial Owners**, seeking a Contract with Cook County must comply with the Cook County Wage Theft Ordinance set forth in Chapter 34, Article IV, Section 179. Any Person/Substantial Owner, who fails to comply with Cook County Wage Theft Ordinance, may request that the Chief Procurement Officer grant a reduction or waiver in accordance with Section 34-179(d).

"Contract" means any written document to make Procurements by or on behalf of Cook County.

"Person" means any individual, corporation, partnership, Joint Venture, trust, association, limited liability company, sole proprietorship or other legal entity.

"Procurement" means obtaining supplies, equipment, goods, or services of any kind.

"Substantial Owner" means any person or persons who own or hold a twenty-five percent (25%) or more percentage of interest in any business entity seeking a County Privilege, including those shareholders, general or limited partners, beneficiaries and principals; except where a business entity is an individual or sole proprietorship, Substantial Owner means that individual or sole proprietor.

All Persons/Substantial Owners are required to complete this affidavit and comply with the Cook County Wage Theft Ordinance before any Contract is awarded. Signature of this form constitutes a certification the information provided below is correct and complete, and that the individual(s) signing this form has/have personal knowledge of such information. **County reserves the right to request additional information to verify veracity of information contained in this Affidavit.**

I. Contract Information:

Contract Number: RFP No. 2050-18294

County Using Agency (requesting Procurement): Cook County Bureau of Technology

II. Person/Substantial Owner Information:

Person (Corporate Entity Name): Merrick & Company

Substantial Owner Complete Name: _____

FEIN# 84-0499702

Date of Birth: NA E-mail address: doug.jacoby@merrick.com

Street Address: 5970 Greenwood Village Blvd.

City: Greenwood Village State: CO Zip: 80111

Home Phone: [REDACTED]

III. Compliance with Wage Laws:

Within the past five years has the Person/Substantial Owner, in any judicial or administrative proceeding, been convicted of, entered a plea, made an admission of guilt or liability, or had an administrative finding made for committing a repeated or willful violation of any of the following laws:

- Illinois Wage Payment and Collection Act, 820 ILCS 115/1 et seq.,* **YES or NO**
- Illinois Minimum Wage Act, 820 ILCS 105/1 et seq.,* **YES or NO**
- Illinois Worker Adjustment and Retraining Notification Act, 820 ILCS 65/1 et seq.,* **YES or NO**
- Employee Classification Act, 820 ILCS 185/1 et seq.,* **YES or NO**
- Fair Labor Standards Act of 1938, 29 U.S.C. 201, et seq.,* **YES or NO**
- Any comparable state statute or regulation of any state, which governs the payment of wages* **YES or NO**

If the Person/Substantial Owner answered "Yes" to any of the questions above, it is ineligible to enter into a Contract with Cook County, but can request a reduction or waiver under **Section IV**.

IV. Request for Waiver or Reduction

If Person/Substantial Owner answered "Yes" to any of the questions above, it may request a reduction or waiver in accordance with Section 34-179(d), provided that the request for reduction of waiver is made on the basis of one or more of the following actions that have taken place:

There has been a bona fide change in ownership or Control of the ineligible Person or Substantial Owner
YES or NO

Disciplinary action has been taken against the individual(s) responsible for the acts giving rise to the violation
YES or NO

Remedial action has been taken to prevent a recurrence of the acts giving rise to the disqualification or default
YES or NO

Other factors that the Person or Substantial Owner believe are relevant.
YES or NO

The Person/Substantial Owner must submit documentation to support the basis of its request for a reduction or waiver. The Chief Procurement Officer reserves the right to make additional inquiries and request additional documentation.

V. Affirmation

The Person/Substantial Owner affirms that all statements contained in the Affidavit are true, accurate and complete.

Signature: _____ Date: September 21, 2020

Name of Person signing (Print): Carter E. Boardman Title: Vice President

Subscribed and sworn to before me this 21st day of SEPTEMBER, 2020

X Audrey M. Fix
Notary Public Signature

Notary Seal

Note: The above information is subject to verification prior to the award of the Contract.

**AUDREY M FIX
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19974011730
MY COMMISSION EXPIRES 06/30/2021**

SECTION 5

CONTRACT AND EDS EXECUTION PAGE

The Applicant hereby certifies and warrants that all of the statements, certifications and representations set forth in this EDS are true, complete and correct; that the Applicant is in full compliance and will continue to be in compliance throughout the term of the Contract or County Privilege issued to the Applicant with all the policies and requirements set forth in this EDS; and that all facts and information provided by the Applicant in this EDS are true, complete and correct. The Applicant agrees to inform the Chief Procurement Officer in writing if any of such statements, certifications, representations, facts or information becomes or is found to be untrue, incomplete or incorrect during the term of the Contract or County Privilege.

Execution by Corporation

Merrick & Company
Corporation's Name

303-353-3600
Telephone

Douglas A. Roberts
Secretary Signature

Christopher C. Sherry
President's Printed Name and Signature

chrisherry@merrick.com
Email

10/5/2020
Date

Execution by LLC

LLC Name

Date

*Member/Manager Printed Name and Signature

Telephone and Email

Execution by Partnership/Joint Venture

Partnership/Joint Venture Name

Date

*Partner/Joint Venturer Printed Name and Signature

Telephone and Email

Execution by Sole Proprietorship

Printed Name Signature

Date

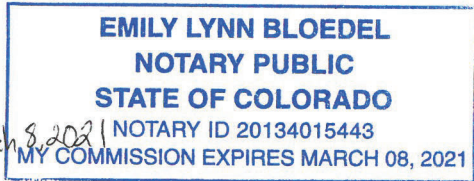
Assumed Name (if applicable)

Telephone and Email

Subscribed and sworn to before me this
5th day of October, 2020

Emily Bloedel
Notary Public Signature

My commission expires: March 8, 2021 | NOTARY ID 20134015443
MY COMMISSION EXPIRES MARCH 08, 2021



Notary Seal

*If the operating agreement, partnership agreement or governing documents requiring execution by multiple members, managers, partners, or joint venturers, please complete and execute additional Contract and EDS Execution Pages.

**SECTION 6
COOK COUNTY SIGNATURE PAGE**

ON BEHALF OF THE COUNTY OF COOK, A BODY POLITIC AND CORPORATE OF THE STATE OF ILLINOIS, THIS CONTRACT IS HEREBY EXECUTED BY:

Raffi Sarrafian Digitally signed by Raffi Sarrafian
Date: 2021.02.11 11:11:03 -06'00'

COOK COUNTY CHIEF PROCUREMENT OFFICER

DATED AT CHICAGO, ILLINOIS THIS _____ DAY OF _____, 20_____

APPROVED AS TO FORM:

Daniel H Brennan Jr

ASSISTANT STATES ATTORNEY
(Required on contracts over \$1,000,000.00)

CONTRACT TERM & AMOUNT

2050-18294

CONTRACT #

February 1, 2021 - January 31, 2024

ORIGINAL CONTRACT TERM

\$3,371,723.90

CONTRACT AMOUNT

January 28, 2021

COOK COUNTY BOARD APPROVAL DATE (If Applicable)

Two (2) one-year renewal options

RENEWAL OPTIONS (If Applicable)

**APPROVED BY THE BOARD OF
COOK COUNTY COMMISSIONERS**

JAN 28 2021

COM_____