



STANDARD FORM OF AGREEMENT BETWEEN DESIGN-BUILDER AND DESIGN CONSULTANT

Document No. 540

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Standard Form of Agreement Between Design-Builder and Design Consultant

This document has important legal consequences. Consultation with an attorney is recommended with respect to its completion or modification.

This **AGREEMENT** is made as of _____, by and between the following parties, for services in connection with the Project identified below:

DESIGN-BUILDER:

FLINT DESIGN BUILD, LLC DBA FLINT
John Stump, President
401 Derek Place, Roseville, CA 95678
Phone: (916) 757-1000
Email: jstump@flintbuilders.com

DESIGN CONSULTANT:

Firm Name:
Contact Name & Title:
Address:
Phone:
Email:

PROJECT:

Project Description:
Job Address:

OWNER:

Owner:
Address:

In consideration of the mutual covenants and obligations contained herein, Design-Builder and Design Consultant agree as set forth herein.

EXHIBITS

The Exhibits listed below are hereby incorporated into this Agreement:

Exhibit “B” – Scope of Work

Exhibit “C” – Insurance Requirements

Exhibit “D” – List of Drawings and Specifications

Exhibit “E” – Conditional & Unconditional Waiver and Release Forms

Exhibit “F” – VDC Process Guidelines

Exhibit “K” – Supplemental Terms and Conditions

Article 1

General

1.1 Basic Purpose.

1.1.1 Design-Builder has contracted with Owner to provide the services of a licensed design professional to perform all necessary design services for the Project as set forth in the Design-Build Agreement between Owner and Design-Builder. Design Consultant, through itself and its Design Sub-Consultants, has agreed to provide such architectural, engineering, and other services required by this Agreement and the other Contract Documents. Design-Builder and Design Consultant further agree that to the extent applicable to the performance of the Services hereunder, Design Consultant shall have the same rights, responsibilities, and obligations as to Design-Builder as Design-Builder by the Design-Build Agreement has against and to Owner, except as may be modified herein. Notwithstanding the foregoing, if the Design-Builder and Owner have checked boxes indicating the selection of optional provisions from the Design-Build Agreement, those optional provisions are only passed through to the Design Consultant to the extent those provisions have been expressly set forth in Article 15. The Contract Documents (as defined below) are complementary and what is required by one shall be as binding as if required by all. Design-Consultant shall be bound to Design-Builder and shall assume toward Design-Builder the obligations and responsibilities that Contractor assumes toward the Project Owner, insofar as they relate in any way, directly or indirectly, to the work or services covered by this Agreement. In the event of a conflict between this Agreement, and the Design-Build Agreement, the stricter of those documents shall prevail. Design-Consultant shall bind lower tier consultants to full compliance with all Contract Documents, including all performance obligations and responsibilities that Design-Consultant assumes toward Design-Builder.

1.2 Basic Definitions.

1.2.1 Terms used in this Agreement shall have the meanings set forth in the Design-Build Agreement between Owner and Design-Builder unless otherwise provided herein, with the following specific terms defined as follows:

1.2.1.1 *Additional Services* are those services identified in Section 2.8 hereof.

1.2.1.2 *Agreement* refers to this executed contract between Design-Builder and Design Consultant under DBIA Document 540, *Standard Form of Agreement Between Design-Builder and Design Consultant* (2010 Edition).

1.2.1.3 *The initial Basis of Design Documents* are listed in **Exhibit "D"**.

1.2.1.4 *Construction Documents* are the documents, consisting of Drawings and Specifications, to be prepared or assembled by Design Consultant consistent with the Basis of Design Documents, unless a deviation from the Basis of Design Documents is specifically set forth in a Change Order.

1.2.1.5 *Construction Phase Services* refers to those services identified in Section 2.7 hereof.

1.2.1.6 *Day or Days* shall mean calendar days unless otherwise specifically noted in the Contract Documents.

1.2.1.7 *Design-Build Agreement* refers to the prime design-build contract between Design-Builder and Owner for the Project, and all exhibits, attachments, and other Contract Documents enumerated and incorporated therein.

1.2.1.8 *Design Sub-Consultant* is a qualified, licensed design professional who is not an employee of Design Consultant, but is retained by Design Consultant or employed or retained by anyone under contract with Design Consultant, to furnish design services required under the Contract Documents.

1.2.1.9 *Design Phase Services* refers to those services set forth in Sections 2.5 and 2.6 hereof.

1.2.1.10 *Design Schedule* refers to the schedule setting forth the dates by which Design Consultant must perform the various Services required herein, consistent with the Project Schedule.

1.2.1.11 *Design Consultant's Fee* shall refer to the compensation due Design Consultant for the performance of the Services as set forth herein.

1.2.1.12 *Final Completion* is the date on which all Work is complete in accordance with the Contract Documents, including but not limited to any items identified in the punch list prepared under Section 6.6.1 of the General Conditions of Contract and the submission of all documents set forth in Section 6.7.2 of the General Conditions of Contract.

1.2.1.13 *Hazardous Conditions* are any materials, wastes, substances and chemicals deemed to be hazardous under applicable Legal Requirements, or the handling, storage, remediation, or disposal of which are regulated by applicable Legal Requirements.

1.2.1.14 *Legal Requirements* are all applicable federal, state and local laws, codes, ordinances, rules, regulations, orders and decrees of any government or quasi-government entity having jurisdiction over the parties, the Project or Site, the practices involved in the Project or Site, or any Services.

1.2.1.15 *Owner's Project Criteria* are developed by or for Owner to describe Owner's program requirements and objectives for the Project, including use, space, price, time, site and expandability requirements, as well as submittal requirements and other requirements governing Design-Builder's performance of the Work. Owner's Project Criteria may include conceptual documents, design criteria, design performance specifications, design specifications, and LEED ® or other sustainable design criteria and other Project-specific technical materials and requirements.

1.2.1.16 *Project Schedule* refers to the schedule setting forth the dates by which the various stages of both the design and construction of the Project must be performed so as to satisfy Design-Builder's obligations to Owner.

1.2.1.17 *Services* shall include all Design Phase Services, Construction Phase Services and Additional Services required by the Contract Documents or as may be authorized in writing by Design-Builder except for those design services provided by others under Section 1.5.3 or by Owner's design consultants, and Design-Consultant shall perform all services as an independent contractor/consultant.

1.2.1.18 *Site* is the land or premises on which the Project is located.

1.2.1.19 *Subcontractor* is any person or entity retained by Design-Builder as an independent contractor to perform a portion of the construction work for the Project and shall include materialmen and suppliers.

1.2.1.20 *Sub-Subcontractor* is any person or entity retained by a Subcontractor as an independent contractor to perform any portion of the Subcontractor's work and shall include materialmen and suppliers.

1.2.1.21 *Substantial Completion or Substantially Complete* is the date on which the Project, or an agreed upon portion of the Project, is sufficiently complete so that Owner can occupy and use the Project or a portion thereof for its intended purposes.

1.3 Contract Documents.

1.3.1 The Contract Documents are comprised of the following:

1.3.1.1 All written modifications, amendments, minor changes and Change Orders to this Agreement;

1.3.1.2 The Basis of Design Documents;

1.3.1.3 This Agreement, including all exhibits and attachments, executed by Design-Builder and Design Consultant;

1.3.1.4 Construction Documents; and

1.3.1.5 The Design-Build Agreement, (excluding the Basis of Design Documents), but only to the extent the Design-Build Agreement relates to the Services and the terms and conditions under which the Services shall be performed.

The Contract Documents as referenced herein, shall also consist of the latest adopted edition of the Uniform Building Code, Fire Code, and Mechanical Code, the Uniform Standard Specifications for Public Works Construction (if a public works project), and all applicable laws, rules, ordinances, and regulations, including but not limited to the California Labor Code, the California Business and Professions Code, and the California Public Contract Code (to the extent applicable).

1.4 Interpretation and Intent.

1.4.1 Design-Builder and Design Consultant, prior to execution of the Agreement, shall carefully review all the Contract Documents, including the various documents comprising the Basis of Design Documents, for any conflicts or ambiguities. Design-Builder and Design Consultant will discuss and resolve any identified conflicts or ambiguities prior to execution of the Agreement.

1.4.2 The Contract Documents are intended to be complementary and interpreted in harmony so as to avoid conflict, with words and phrases interpreted consistent with construction and design industry standards. In the event inconsistencies, conflicts, or ambiguities between or among the Contract Documents are discovered after execution of the Agreement, the parties shall attempt to resolve such ambiguities, conflicts or inconsistencies informally, recognizing that the Contract Documents shall take precedence in the order in which they are listed in Section 1.3 hereof.

1.4.3 If Owner's Project Criteria contain design specifications, Design Consultant shall be entitled to reasonably rely on the accuracy of the information represented in such design specifications and their compatibility with other information set forth in Owner's Project Criteria, including any performance specifications, to the same extent as Design-Builder is entitled to so rely in the Design-Build Agreement. If Design Consultant contends that its costs and/or time of performance have been adversely impacted by such inaccurate design specifications, then it shall proceed in accordance with Section 11.3.

1.5 Mutual Obligations and Acknowledgments.

1.5.1 Design-Builder and Design Consultant commit at all times to cooperate fully with each other, and proceed on the basis of trust and good faith, to permit each party to realize the benefits afforded under the Contract Documents. Design-Builder and Design Consultant shall perform their respective responsibilities, obligations and services in a timely manner to facilitate the other's timely and efficient performance and so as not to delay or interfere with the other's performance of its obligations under the Contract Documents.

1.5.2 Design-Builder and Design Consultant acknowledge that they have cooperated with each other in the procurement of the Design-Build Agreement, and that Design-Builder and Design Consultant have met to review, discuss, and familiarize themselves with the Design-Build Agreement, including the Basis of Design Documents.

1.5.3 Design-Builder may choose to have portions of the overall design (e.g., structural and MEP) undertaken by design professionals directly employed by or contracting with Design-Builder. Design-Builder and Design Consultant acknowledge the importance of integrating all of the designs into the Project's overall design concept. The parties commit to working with each other, and with any other design professionals working on the Project with Design-Builder to facilitate the coordination and integration of Design Consultant's Services with the Project's overall design concept. Design-Builder is responsible for the services performed by design professionals under contract with Design-Builder, but nothing herein is intended to relieve Design Consultant of its obligation to coordinate its Services with the services performed by other design professionals. Design Builder shall include an Exhibit in their respective design consultants for the BIM Level of Design (LOD) requirements consistent with the remainder of the design team.

1.5.4 Design-Builder and Design Consultant mutually agree that time is of the essence with respect to the dates and times set forth in the Design Schedule, Project Schedule and Contract Documents. Each party agrees to provide the other party with information in a timely fashion and in the form and manner as reasonably required.

1.6 Entire Agreement.

1.6.1 Subject to the limitations in Section 1.3.1, the Contract Documents, all of which are incorporated by reference into this Agreement, form the entire agreement between Design-Builder and Design Consultant and are as fully binding on the parties as if repeated herein. No oral representations or other agreements have been made by the parties except as specifically stated in the Contract Documents.

Article 2 **Design Consultant's Services and Responsibilities**

2.1 General.

2.1.1 Design Consultant shall, consistent with applicable state licensing laws, provide the Services, including architectural, engineering and other professional services, required by the Contract Documents. Design Consultant agrees that such Services shall be provided through qualified, licensed professionals who are either (i) employed by Design Consultant or (ii) procured by Design Consultant from qualified, licensed Design Sub-Consultants. See **Exhibit "B"** for design service clarifications, if any.

2.1.2 Design Consultant shall not engage the services of any Design Sub-Consultant without first obtaining the approval of Design-Builder, which approval shall not be unreasonably withheld. Design Consultant agrees that each Design Sub-Consultant shall be fully bound to Design Consultant in the same manner as Design Consultant is bound to Design-Builder for all the requirements of the Contract Documents to the extent applicable to the Design Sub-Consultant's scope of services. Design Consultant shall at all times be responsible for the services performed by its Design Sub-Consultants, and shall coordinate the services of its Design Sub-Consultants to satisfy Design Consultant's obligations under the Contract Documents. Nothing in this Agreement shall relieve Design Consultant from responsibility for the services performed by its Design Sub-Consultants, or create any legal or contractual relationship between Design-Builder and any Design Sub-Consultant.

2.1.3 If Design-Builder or Owner performs other work on the Project with separate design professionals under Design-Builder's or Owner's control, Design Consultant agrees to reasonably cooperate and coordinate its activities with those of such separate design professionals so that the Project can be completed in an orderly and coordinated manner and without disruption.

2.1.4 Design Consultant shall only communicate with Owner, Subcontractor(s), or Sub-Subcontractors through Design-Builder unless the parties agree otherwise. Notwithstanding the preceding sentence, Design Consultant may communicate directly with the Owner (with written copy to Design-Builder) on matters of public health, safety, and welfare when required by applicable Legal Requirements or professional codes of ethics.

2.1.5 Within seven (7) days after execution of this Agreement, Design-Builder and Design Consultant will meet to discuss issues affecting the administration of the Services and to implement the necessary procedures, including but not limited to those relating to the schedule for the Services, schedule updates, review of submittals, and payment, to facilitate the ability of the parties to perform their obligations under the Contract Documents and allow Design Consultant to meet its obligations to design the Project consistent with the Contract Documents, without compromising any professional obligations of Design Consultant.

2.2 Standard of Care.

2.2.1 The standard of care for all design professional services performed by Design Consultant and its Design Sub-Consultants pursuant to this Agreement shall be the care and skill ordinarily used by members of the design profession practicing under similar conditions at the same time and locality of the Project.

2.2.2 Notwithstanding Section 2.2.1 above, if the Design-Build Agreement, including but not limited to the Basis of Design Documents, contain specifically identified performance standards for aspects of the Work, Design Consultant agrees that all Services shall be performed to achieve such standards.

2.3 Legal Requirements.

2.3.1 Subject to and expressly limited by the applicable Standard of Care identified in Section 2.2.1 of this Agreement, Design Consultant agrees to perform the Services in strict accordance with all applicable Legal Requirements.

2.3.2 Design Consultant's Fee and/or the Design Schedule shall be adjusted to compensate Design Consultant for the effects, if any, of any changes in the Legal Requirements enacted after the date of the Agreement affecting the performance of the Services. Such effects may include, without limitation, revisions Design Consultant is required to make to the Construction Documents because of changes in Legal Requirements.

2.4 Design Consultant's Personnel.

2.4.1 Design Consultant agrees that the primary personnel assigned to perform the Services shall be as listed in section 8.2. Design Consultant shall not change such personnel without Design-Builder's prior approval.

2.4.2 Design Consultant's Representative shall be reasonably available to Design-Builder and shall have the necessary expertise and experience required to supervise the Services. Design Consultant's Representative shall communicate regularly with Design-Builder and shall be vested with the authority to act on behalf of Design Consultant. Design Consultant shall replace its Representative upon the reasonable request of Design-Builder.

2.5 Government Approvals and Permits.

2.5.1 Design Consultant shall obtain the approvals, and assist with obtaining permits, as required by the Contract Documents.

2.5.2 Design Consultant shall provide reasonable assistance to Design-Builder and Owner in obtaining any permits, approvals, and licenses which are required for the construction of the Project.

2.5.3 Design Consultant shall make any revisions to the Construction Documents necessary to secure permits, approvals, and licenses, including those which have been denied for failure of the Construction Documents to meet Legal Requirements. If such revisions are necessary for reasons beyond the control of Design Consultant or its Design Sub-Consultants, Design Consultant shall be compensated for such revisions as a change to this Agreement.

2.6 Design Development Services.

2.6.1 Design Consultant shall submit to Design-Builder, all design submissions in accordance with the times set forth in the Design Schedule, including a 50% Construction Documents revision as required by the Contract Documents. Design submissions shall be consistent with the Basis of Design Documents, as the Basis of Design Documents may have been modified in accordance with the Contract Documents. Such interim design submissions shall be in the form and quantity called for in the Contract Documents and may include design criteria, drawings, diagrams and specifications setting forth the Project requirements. Design-Builder and Design Consultant agree that prior to the scheduled date for submitting all interim design submissions to Owner, Design-Builder and Design Consultant will hold meetings for the purpose of discussing and monitoring the design for consistency with the requirements of the Contract Documents.

2.6.2 In accordance with the Contract Documents and with the times set forth in the Design Schedule, Design Consultant shall submit to Design-Builder Construction Documents setting forth in detail drawings and specifications describing the requirements for construction of the Work. The Construction Documents shall be consistent with the latest set of interim design submissions, as such submissions may have been modified in a design review meeting. Design Consultant shall provide the Construction Documents in the form and quantity called for in the Contract Documents. Design Consultant shall perform agreed upon revisions and submit revised Construction Documents to Design-Builder for Design-Builder's and Owner's approval.

2.6.3 Design Consultant shall attend and participate in such meetings as are held between Owner and Design-Builder to discuss interim design submissions and the Construction Documents. Design Consultant shall identify during each such meeting, among other things, the evolution of the design and any significant changes or deviations from the Contract Documents, including the Basis of Design Documents, or, if applicable, previously submitted design submissions. To the extent that Design Consultant fails to identify such changes or fails to produce Construction Documents consistent with the Basis of Design Documents and identified and approved changes and Design-Builder incurs additional uncompensated costs as a result, Design Consultant shall share such costs, with Design-Builder, amounts proportional to each entity's fee. Minutes of the meetings between Design-Builder and Design Consultant, and Design-Builder and Owner, including a full listing of all changes, will be maintained by Design-Builder and provided to all attendees for review. Design Consultant shall review such minutes and provide notice of any objections thereto. The Construction Documents shall be consistent with the latest set of interim design submissions, as such submissions may have been modified in a design review meeting and recorded in the meetings minutes.

2.6.4 In addition to the interim design submissions and Construction Documents, Design Consultant shall, if requested by Design-Builder, prepare interim design submissions and Construction Documents required to permit commencement of construction on a portion of the Project before the entire Construction Documents for the Project are completed.

2.6.5 Design-Builder's and Owner's review and/or approval of interim design submissions and the Construction Documents are for the purpose of mutually establishing a conformed set of Construction Documents compatible with the requirements of the Contract Documents. The review and/or approval by either Design-Builder or Owner of any interim design submission or the Construction Documents shall not be deemed to transfer any design liability from Design Consultant to Design-Builder or Owner, other than additions or deletions to the original RFP Scope of Work that the Owner or the Design-Builder have directed, in writing, the Designer to perform.

2.6.6 Design Consultant will, at its own cost, revise any interim design submission or the Construction Documents to correct any of its errors, mistakes or omissions. Such revisions shall be performed timely and so as not to jeopardize the Design Schedule and/or the Project Schedule.

2.7.7 Design Consultant shall be responsible for paying all royalties and licensing fees for patented or copyrighted materials, methods or systems specified by Design Consultant and incorporated into the Project.

2.7 Construction Phase Services.

2.7.1 Design Consultant shall assist Design-Builder in preparing biddable documents for specified portions of the Project's construction, and clarifying and responding to questions involving those documents.

2.7.2 Design Consultant shall timely provide requested clarifications and interpretations of the Construction Documents, which shall be consistent with the intent of, and reasonably inferable from, the Contract Documents. Design Consultant shall make all revisions to the Construction Documents necessary for the proper construction of the Project.

2.7.3 Design Consultant shall review and approve such submittals, including shop drawings, product data and samples, as may be required by the Design-Build Agreement or Design-Builder. As Additional Services, Design Consultant shall be compensated for reviews in excess of two revisions per submittal. Design Consultant shall expeditiously inform Design-Builder of any revisions that are necessary as a condition to Design Consultant's approval of submittals. The Design Consultant shall review critical path submittals within 7 business days and structural shop drawings within 14 business days. The non-critical path submittals review time will be as established at the meeting required by Section 2.1.5 hereof. Design Consultant's review and approval shall not relieve Design-Builder or Subcontractors of responsibility for construction means and methods or safety precautions.

2.7.4 Design Consultant shall review, and if acceptable approve, substitutions for materials or equipment proposed by Design-Builder, limiting the review to a maximum of one substitution per specification section. Review required beyond the limitations set forth herein shall be compensated as Additional Services.

2.7.5 Design Consultant shall, if requested by Design-Builder, review any inspection reports or tests involving the construction of the Project and provide its comments to Design-Builder. Design Consultant is not responsible for the accuracy or completeness of the tests or inspections performed by others.

2.7.6 Design Consultant shall at intervals specified in **Exhibit "B"** visit the Site to determine if the construction is generally proceeding in accordance with the Construction Documents. Subject to Section 2.7.9, Design Consultant shall promptly notify Design-Builder of any defects, deficiencies, deviations, omissions, or violations observed by Design Consultant in the construction of the Project, and make recommendations to Design-Builder on how to proceed.

2.7.7 At the request of Design-Builder, Design Consultant shall attend meetings with Design-Builder and Owner and/or Subcontractor(s) and Sub-Subcontractors to discuss design issues which may arise during construction. Design Consultant reserves the right to negotiate an Add Service for excessive meetings and agrees to negotiate a deduct for the added cost from the Design-Builder for excessive meetings if required to resolve design issues as agreed by both parties.

2.7.8 Design Consultant shall, if requested by Design-Builder, provide such certifications as may be necessary relative to Substantial Completion, and if required by the Design-Build Agreement, Final Completion.

2.7.9 Design Consultant's provision of the Construction Phase Services shall not be construed to make Design Consultant responsible for (i) the acts or omissions of Design-Builder, any Subcontractors, or any Sub-Subcontractors, (ii) the means, methods, sequences, and techniques of construction of the Project or (iii) safety precautions and programs in connection with the construction of the Project. Nothing in this Agreement shall create any legal or contractual relationship between Design Consultant and any Subcontractor or Sub-Subcontractor.

2.8 Additional Services.

2.8.1 Additional Services, specifically noted in **Exhibit "B"**, and may include, site visits in excess of those agreed upon by the parties, evaluating changes, including the preparation or revision of the Construction Documents, and providing consultation concerning replacement of Work damaged by fire or other causes during construction.

Article 3 **Design-Builder's Services and Responsibilities**

3.1 Timely Reviews, Approvals and Submittals.

3.1.1 Design-Builder shall provide timely reviews and approvals of all interim design submissions and Construction Documents consistent with the turnaround times set forth in the Design Schedule, or as agreed to by the parties at the meeting required under Section 2.1.5 hereof.

3.1.2 Design-Builder shall submit a submittal schedule within 30 calendar days of start of construction for each phase and shall timely submit to Design Consultant all complete submittals, including shop drawings, product data and samples, for Design Consultant's review and approval consistent with the Project Schedule, or as agreed to by the parties at the meeting required under Section 2.1.5 hereof.

3.1.3 Design-Builder shall provide timely notice to Design Consultant of any delays to the Project caused by Design Consultant.

3.2 Design-Builder's Representative.

3.2.1 Design-Builder's Representative shall be responsible for providing Design-Builder-supplied information and approvals in a timely manner to permit Design Consultant to fulfill its obligations under the Contract Documents.

3.3 Furnishing of Services and Information.

3.3.1 Unless expressly stated to the contrary in the Contract Documents, and to the extent Design-Builder has received such items from Owner, Design-Builder shall provide for Design Consultant's information the items listed

below. Design-Builder does not warrant the accuracy or completeness of such items, provided, however, that Design Consultant is entitled to rely upon such items to the same extent Design-Builder is entitled to rely upon such items in the Design-Build Agreement:

3.3.1.1 Surveys describing the property, boundaries, topography and reference points for use during construction, including existing service and utility lines;

3.3.1.2 Geotechnical studies describing subsurface conditions, and other surveys describing other latent or concealed physical conditions at the Site;

3.3.1.3 Temporary and permanent easements, zoning and other requirements and encumbrances affecting land use, or necessary to permit the proper design and construction of the Project and enable Design Consultant to perform the Services;

3.3.1.4 A legal description of the Site;

3.3.1.5 Record drawings of any existing structures at the Site;

3.3.1.6 Environmental studies, reports and impact statements describing the environmental conditions, including Hazardous Conditions, in existence at the Site;

3.3.1.7 Owner's Project Criteria;

3.3.1.8 All permits, approvals and licenses set forth in the Owner's Permit List attached as an exhibit to the Design-Build Agreement; and

3.3.1.9 Test and inspection reports.

3.3.2 Design-Builder shall provide Design Consultant with a copy of the Design-Build Agreement, including all exhibits, attachments, and other Contract Documents enumerated and incorporated therein.

3.3.3 Design-Builder shall provide all cost estimating and scheduling services related to the construction of the Project and shall be responsible for mistakes or miscalculations of market conditions that result in construction costs that are contrary to Design-Builder's budget and pricing assumptions. Nothing herein shall relieve Design Consultant from its obligation to prepare a design for the Project that is consistent with the Contract Documents.

3.3.4 Upon Design Consultant's reasonable request, Design-Builder shall provide Design Consultant with information in Design-Builder's possession regarding Owner's financial ability to pay for the Services set forth in this Agreement.

3.3.5 Design-Builder shall provide Design Consultant with the Project Schedule and appropriate updates thereto.

3.3.6 Design-Builder shall provide administration of the Design-Build Agreement, and promptly forward any communications to Owner from Design Consultant that may impact the Services.

3.3.7 Design-Builder shall provide Design Consultant reasonable access to the Project and the Site.

3.4 Notification of Errors.

3.4.1 Design-Builder shall notify Design Consultant of any errors, inconsistencies, or omissions Design-Builder discovers in the Services, including any interim design submissions, Construction Documents or other Services. Notwithstanding anything to the contrary in this Agreement, nothing in this Agreement shall relieve Design Consultant of responsibility for errors, inconsistencies, or omissions in the Services.

3.5 Attendance at Design Meetings.

3.5.1 Design-Builder shall afford Design Consultant and its Design Sub-Consultants the opportunity to attend all necessary design meetings with Owner, Subcontractor(s) and/or Sub-Subcontractors.

Article 4

Ownership of Work Product

4.1 Work Product.

4.1.1 Upon Design-Builder making all payments as required under this Agreement, Design Consultant expressly grants Design-Builder and Owner (to the extent required under the Prime Contract) an irrevocable license to, and Design-Builder and Owner shall receive ownership of, the property rights of all Instruments of Service and/or Design Documents, including all documents, Plans, Drawings, Specifications, electronic data and information prepared, provided or procured by Design-Consultant and its Sub-Consultants for this Project. Except as to software licenses, Design-Builder and Owner may use, reproduce and make derivative works from the Instruments of Service and Design Documents as authorized in this Agreement. Design-Consultant shall secure from its Sub-Consultants property rights and rights of use that correspond to the rights given Design-Consultant to the Design-Builder and Owner in this Agreement.

4.1.2 Proprietary Systems and Details. Design-Consultant acknowledges and agrees that it may receive proprietary and confidential information, design details, and other data from Design-Builder regarding the modular systems and super-structure developed by Design-Builder and/or receives information specifically designated by Design-Builder as “confidential” or “business proprietary”. Design-Consultant agrees to keep such information received from Design-Builder strictly confidential and shall not disclose it to any other person except to: (1) its employees and those who need to know the content of such information in order to perform services or construction solely and exclusively for the Project; or, (2) its Sub-Consultants and contractors whose contracts include similar restrictions on the use of confidential information. Design-Consultant shall not use the confidential or proprietary information received from Design-Builder for any purpose other than to perform its services for the Project, and shall ensure that all of its employees and Sub-Consultants shall comply with this paragraph. Breach of the terms of this paragraph are agreed to cause damages which the Parties agree may be difficult to precisely determine, and Design-Builder may seek to recover all damages, injunctive relief, and/or sanctions from the appropriate superior court or other administrative agency.

4.2 Agreement to Grant Rights to Owner.

4.2.1 Design Consultant has reviewed the Design-Build Agreement and is fully aware of the ownership and property rights to use the Work Product which may be granted to Owner therein. Design Consultant accepts and agrees to Owner's ownership and property rights with respect to the Work Product contained in the Design-Build Agreement.

4.3 Indemnification for Use of Work Product.

4.3.1 If either Design-Builder or Design Consultant uses the Work Product on any other project, such party agrees that it shall do so at its sole risk and without liability or legal exposure to the other party, Owner, or anyone working through them. Such party further agrees that it shall defend, indemnify and hold harmless the other party and Owner from and against any and all claims, damages, liabilities, losses and expenses, including attorneys' fees, arising out of or resulting from such use of the Work Product on another project.

4.4 Use of Work Product On Termination or Default.

4.4.1 If Design-Builder terminates this Agreement for its convenience as set forth in Section 7.1 hereof, or if Design Consultant elects to terminate this Agreement in accordance with Section 7.4 of this Agreement, Design Consultant, upon Design-Builder's payment in full of the amounts due Design Consultant under the Contract Documents, grants Design-Builder and Owner the same rights as set forth in Section 4.1.1 above to use the Work Product to complete the Project and subsequently occupy the Project, conditioned on the following:

4.4.1.1 Use of the Work Product is at Design-Builder's sole risk without liability or legal exposure to Design Consultant or anyone working by or through Design Consultant, and on Design-Builder's obligation to provide the indemnity set forth in Section 4.3 herein.

4.4.2 If this Agreement is terminated due to Design Consultant's default pursuant to Section 7.2 of this Agreement, then Design-Builder shall have the same rights as set forth in Section 4.1.1 above to use the Work Product to complete the Project and subsequently occupy the Project, and Design-Builder and Owner shall thereafter have the same rights and obligations as set forth in Section 4.1.1 above. Notwithstanding the preceding sentence, if it is ultimately determined that Design Consultant was not in default, Design-Builder shall be deemed to have terminated the Agreement for convenience, and Design Consultant shall be entitled to the rights and remedies set forth in Section 4.4.1 above.

Article 5

Time of Performance

5.1 Date of Commencement.

5.1.1 The Services shall commence five (5) days after Design Consultant's receipt of Design-Builder's Notice to Proceed ("Date of Commencement") unless the parties mutually agree otherwise in writing.

5.2 Design Schedule.

5.2.1 Unless a schedule for the execution of the Work has been attached to the Agreement as an exhibit at the time this Agreement is executed, Design Consultant shall prepare and submit for Design-Builder's review and acceptance, at least three (3) days prior to the meeting required by Section 2.1.5 hereof, a schedule for the execution of the Design Phase Services in accordance with the Contract Documents. The schedule shall indicate the dates for the start and completion of the various stages of the Design Phase Services, including the dates for the design monitoring and review meetings required herein, and the dates when Design-Builder and Owner information and approvals are required, and shall take into account Design-Builder's obligations to Owner under the Design-Build Agreement. Design-Builder and Design Consultant will jointly review Design Consultant's schedule to determine whether it permits Design-Builder to satisfy its obligations under the Project Schedule and the Design-Build Agreement. The accepted schedule (the "Design Schedule") shall be revised as required by conditions and progress of the Project, but such revisions shall not relieve Design Consultant of its obligations to perform the Services in accordance with the Contract Documents, subject to its rights under this Agreement. Design-Builder shall incorporate the Design Schedule into the Project Schedule.

5.3 Status Reports.

5.3.1 Design Consultant shall provide Design-Builder on a monthly basis a status report detailing the progress of the Design Phase Services, including whether (i) the Design Phase Services are proceeding according to the Design Schedule, and (ii) items exist which require resolution so as not to jeopardize Design Consultant's ability to meet the dates set forth in the Design Schedule and Design-Builder's ability to meet the Project Schedule. The frequency of the status reports shall be monthly by the 25th of each month.

5.4 Delays.

5.4.1 If Design Consultant's performance of the Services are delayed for any reason so as to impact the Design Schedule or the Project Schedule, Design Consultant shall promptly notify Design-Builder in writing of the cause(s) of such delay within sufficient time to permit Design-Builder to provide timely notice to Owner in accordance with the Design-Build Agreement. If the delay is due to any act, neglect, or omission on the part of Design Consultant, Design Sub-Consultants, or anyone for whom they are responsible, Design Consultant shall, subject to any limitations contained herein, compensate and indemnify Design-Builder for all costs, damages, and expenses arising from such delay. If the delay is caused by Design-Builder, the Design Consultant's Fee and the Design Schedule shall be adjusted to compensate Design Consultant for the effects, if any, of the delay, subject to any limitations contained herein.

5.4.2 Notwithstanding any other provision to the contrary, any delay and resulting damages that arise out of, or relate to, problems caused by Owner or for which Owner is responsible shall be resolved pursuant to Section 11.3 hereof.

Article 6

Design Consultant's Compensation

6.1 Design Consultant's Fee.

6.1.1 Design Consultant's Fee shall be the compensation due Design Consultant for the performance of the Services, including all Design Phase Services, Construction Phase Services, and Additional Services, and for Reimbursable Costs, all as set forth in this Agreement. Unless otherwise provided in the Contract Documents, the Design Consultant's Fee is deemed to include all sales, use, consumer and other taxes mandated by applicable Legal Requirements.

6.1.2 Design Consultant will be compensated for the Design Phase Services, Construction Phase Services, Additional Services, if any, and Reimbursable Costs for the sum of _____ **Dollars** (_____) as set forth in **Exhibit "B"**.

6.2 Applications for Payment.

6.2.1 Beginning with the first month after the Date of Commencement, Design Consultant shall submit on the Twentieth (20th) day of each month for Design-Builder's review and approval, Design Consultant's Application for Payment requesting payment for all Services performed as of the date of the Application for Payment. The Application for Payment shall be accompanied by all supporting documentation required by the Contract Documents and/or established at the meeting required by Section 2.1.5 hereof. Once approved, Design-Builder will submit Design Consultant's Application for Payment to Owner with Design-Builder's application.

6.2.2 The Application for Payment shall constitute Design Consultant's representation that (i) the Services have been performed consistent with the Contract Documents, (ii) the Services have progressed to the point indicated in the Application for Payment, (iii) Design Sub-Consultants have been paid all amounts previously received by Design Consultant on account of their services, and (iv) there are no claims, obligations or liens outstanding or unsatisfied for labor, services, taxes, or other items performed, furnished, or incurred for or in connection with the Services.

6.2.3 Design-Builder shall make payment on Design Consultant's properly submitted and accurate Application for Payment within three (3) days after Design-Builder's receipt of payment from Owner on account of Design Consultant's monthly Application for Payment, but in each case less the total of payments previously made, and less amounts properly withheld hereunder.

6.3 Retainage on Applications for Payment.

6.3.1 Design-Builder will not retain any funds from Design Consultant's Applications for Payment unless Owner is retaining funds from Design-Builder's progress payments for the Services, and then only in the same amount or percentage retained from Design-Builder's progress payments as set forth in the Design-Build Agreement. Unless mutually agreed otherwise between the parties, retainage (if applicable) will be released to Design Consultant within three (3) days after Design-Builder's receipt of such retained amounts from Owner. If payment is withheld by Owner, Design Builder will request that retention for the design phases of schematic design, design development, construction documents and agency approval be made to the Design Consultants upon permit and notice to proceed into construction. The remainder of the retention will be paid consistent with the Design Builder.

6.4 Withholding of Payments.

6.4.1 If Design-Builder determines that Design Consultant is not entitled to all or part of an Application for Payment, it will notify Design Consultant in writing at least five (5) days prior to the date payment is due. The notice shall indicate the specific amounts Design-Builder intends to withhold, the reasons and contractual basis for the withholding, and the specific measures Design Consultant must take to rectify Design-Builder's concerns. Design-Builder and Design Consultant will attempt to resolve Design-Builder's concerns prior to the date payment is due. If the parties cannot resolve such concerns, Design-Builder shall pay Design Consultant the uncontested amount of the Application for Payment, and Design Consultant may pursue its rights under the Contract Documents, including those under Article 11 hereof.

6.5 Final Payment.

6.5.1 At the time Design Consultant submits its final Application for Payment to Design-Builder, Design Consultant shall provide (i) all deliverables required by the Contract Documents (including all required conditional and unconditional lien releases); (ii) an affidavit that there are no claims, obligations or liens outstanding or unsatisfied for or in connection with the Services which will in any way affect Design-Builder's or Owner's interests; (iii) a general release executed by Design Consultant waiving, upon receipt of final payment by Design Consultant, all claims, except those claims previously made in writing to Design-Builder and remaining unsettled at the time of final payment; and (iv) certificates of insurance confirming that required coverages will remain in effect consistent with the requirements of the Contract Documents. Design-Builder shall make payment on Design Consultant's properly submitted and accurate final Application for Payment within ten (10) days after Design-Builder's receipt of final payment from Owner on account of Design Consultant's final Application for Payment, provided also that Design Consultant has satisfied the requirements for final payment set forth herein.

6.6 Pay When Paid.

6.6.1 Design Consultant agrees that all payments to Design Consultant hereunder, whether progress or final payment, or for changes or delays to the Services, shall not be due until after Design-Builder actually receives payment on account of same from Owner. Notwithstanding the preceding sentence, Design-Builder shall pay Design-Consultant within a reasonable time if it has not been paid by the Owner unless the Owner's failure to pay the Design-Builder is caused by the Design Consultant's failure to perform in accordance with this Agreement. "Reasonable time" shall be determined according to all relevant circumstances but in no event shall be less than the time required by Design-Builder, Design-Builder's sureties, and/or Design Consultant to pursue to conclusion their legal remedies, including but not limited to mechanics lien remedies, arbitration, or suit against Owner or the Project general Contractor (if other than Design-Builder) or other responsible party(ies).

6.7 Interest.

6.7.1 Payments due and unpaid under this Agreement shall bear interest commencing five (5) days after payment is due at the rate of one percent (1%) over prime rate as published by the Wall Street Journal.

6.8 Design Consultant's Payment Obligations.

6.8.1 Design Consultant will pay Design Sub-Consultants, in accordance with its contractual obligations to such parties, all the amounts Design Consultant has received from Design-Builder on account of their services. Design Consultant will impose similar requirements on Design Sub-Consultants to pay those parties with whom they have contracted. Design Consultant will indemnify and defend Owner and Design-Builder against any claims for payment and mechanic's liens made or recorded by Design Sub-Consultants, provided Design-Builder is not in breach of its contractual obligation to make payments to Design Consultant for its Services.

6.9 Record Keeping and Finance Controls.

6.9.1 Design Consultant shall keep full and detailed accounts and exercise such controls as may be necessary for proper financial management, using accounting and control systems in accordance with generally accepted accounting principles and as may be provided in the Contract Documents. During the performance of the Services and for a period of ten (10) years after final payment of the Services or such longer period as set forth in the Design-Build Agreement for the review of Design-Builder's records, Design-Builder and Design-Builder's accountants shall be afforded access to and the right to audit from time-to-time, upon reasonable notice, to Design Consultant's records, books, correspondence, receipts, subcontracts, purchase orders, vouchers, memoranda and other data relating to the cost of performing the Services, including changes in the Services, and reimbursable expenses all of which Design Consultant shall preserve for a period of ten (10) years after final payment. Such inspection shall take place at Design Consultant's offices during normal business hours unless another location and time is agreed by the parties. Any fee (that is either a lump sum or percentage of construction cost), multipliers or markups agreed to by the Design-Builder and Design Consultant as part of this Agreement are only subject to audit to confirm that such fee, multiplier or markup has been charged in accordance with this Agreement, with the composition of such fee, multiplier or markup not being subject to audit.

Article 7

Termination and Design Consultant's Right to Stop Services

7.1 Design-Builder's Right to Terminate for Convenience.

7.1.1 If Owner terminates Design-Builder for any reason, then Design-Builder may terminate this Agreement. In such event, Design-Builder shall pay Design Consultant only those amounts Design-Builder actually receives from Owner on behalf of Design Consultant. Notwithstanding the preceding sentence, in the event the Design-Builder does not receive any compensation from the Owner because the Design-Builder was terminated for default, the Design-Builder is obligated to pay the Design Consultant for all services performed by the Design Consultant prior to receiving notice of the termination, providing that the Design-Builder's default was not caused by the Design Consultant's failure to perform in accordance with its obligations.

7.2 Design-Builder's Right to Terminate for Cause.

7.2.1 If Design Consultant persistently fails to (i) comply with applicable Legal Requirements, (ii) timely pay, without cause, its Design Sub-Consultants, (iii) prosecute the Services with promptness and diligence so that the Services are completed by the times set forth in the Design Schedule or the Project Schedule, (iv) provide qualified, licensed design professionals, or (v) perform material obligations under the Contract Documents, then Design-Builder shall have the rights, in addition to any other rights and remedies provided in the Contract Documents or by law, set forth in Sections 7.2.2 and 7.2.3 below.

7.2.2 Upon the occurrence of an event set forth in Section 7.2.1 above, Design-Builder may provide written notice to Design Consultant that it intends to terminate the Agreement unless the problem cited is cured, or commenced to be cured, within seven (7) days of Design Consultant's receipt of such notice. If Design Consultant fails to cure, or reasonably commence to cure, such problem, then Design-Builder may give a second written notice to Design Consultant of its intent to terminate within an additional seven (7) day period. If Design Consultant, within such second seven (7) day period, fails to cure, or reasonably commence to cure, such problem, then Design-Builder may declare the Agreement terminated for default by providing written notice to Design Consultant of such declaration.

7.2.3 Upon declaring the Agreement terminated pursuant to Section 7.2.2 above, Design-Builder may complete the Services in whatever fashion it deems most efficient, and shall have the right to use the existing Work Product for purposes of completing the Project, subject to Section 4.4 above. To the extent Design-Builder has been adversely impacted by Design Consultant's default and termination, Design-Builder shall be entitled to recover against Design Consultant all of Design-Builder's costs. Such costs and expense shall include not only the cost of completing the Services, but also losses, damages, costs and expense, including attorneys' fees and expenses, incurred by Design-Builder in connection with the procurement and defense of claims arising from Design Consultant's default, subject to the waiver of consequential damages set forth in Section 11.7 hereof.

7.3 Design Consultant's Right To Stop Services.

7.3.1 If (i) Owner fails to pay amounts due Design-Builder under the Design-Build Agreement for Services performed by Design Consultant, such failure is not due to the fault of Design Consultant, and Design Consultant has not been paid such amounts due, or (ii) Design-Builder fails to pay any amounts due Design Consultant under this Agreement, Design Consultant may, in addition to any other rights afforded under the Contract Documents or at law, stop work in accordance with Section 7.3.2 below.

7.3.2 Should either of the events set forth in Section 7.3.1 above occur, Design Consultant has the right to provide Design-Builder with written notice that Design Consultant will stop work unless said failure to pay is cured within thirty (30) days from Design-Builder's receipt of Design Consultant's notice. If Design-Builder does not cure the problem within such thirty (30) day period, Design Consultant may stop work. In such case, Design Consultant shall be entitled to make a claim for adjustment to the Design Consultant's Fee and the Design Schedule to the extent it has been adversely impacted by such stoppage. To the extent Design-Builder's failure to pay is related to a dispute between the parties, the dispute will be resolved in accordance with Article 11, and the parties will continue performance in accordance with Section 11.6.

7.4 Design Consultant's Right to Terminate for Cause.

7.4.1 Design Consultant in addition to any other rights and remedies afforded under the Contract Documents or at law, may terminate the Agreement for cause in accordance with this Section 7.4.2 if Design-Builder has failed to cure the problems set forth in Section 7.3.2 within sixty (60) days after Design Consultant has stopped work.

7.4.2 Upon the occurrence of the event set forth in Section 7.4.1 above, Design Consultant may provide written notice to Design-Builder that it intends to terminate the Agreement unless the problem cited is cured, or commenced to be cured, within seven (7) days of Design-Builder's receipt of such notice. If Design-Builder fails to cure, or reasonably commence to cure, such problem, then Design Consultant may give a second written notice to Design-Builder of its intent to terminate within an additional seven (7) day period. If Design-Builder, within such second seven (7) day period, fails to cure, or reasonably commence to cure, such problem, then Design Consultant may declare the Agreement terminated for default by providing written notice to Design-Builder of such declaration.

7.5 Bankruptcy of Design-Builder or Design Consultant.

7.5.1 If either Design-Builder or Design Consultant institutes or has instituted against it a case under the United States Bankruptcy Code (such party being referred to as the "Bankrupt Party"), such event may impair or frustrate the Bankrupt Party's ability to perform its obligations under the Contract Documents. Accordingly, should such event occur:

7.5.1.1 The Bankrupt Party, its trustee or other successor, shall furnish, upon request of the non-Bankrupt Party, adequate assurance of the ability of the Bankrupt Party to perform all future material obligations under the Contract Documents, which assurances shall be provided within ten (10) days after receiving notice of the request; and

7.5.1.2 The Bankrupt Party shall file an appropriate action within the bankruptcy court to seek assumption or rejection of the Agreement within sixty (60) days of the institution of the bankruptcy filing and shall diligently prosecute such action.

If the Bankrupt Party fails to comply with its foregoing obligations, the non-Bankrupt Party shall be entitled to request the bankruptcy court to reject the Agreement, declare the Agreement terminated and pursue any other recourse available to the non-Bankrupt Party under this Article 7.

7.5.2 The rights and remedies under Section 7.5.1 above shall not be deemed to limit the ability of the non-Bankrupt Party to seek any other rights and remedies provided by the Contract Documents or by law, including its ability to seek relief from any automatic stays under the United States Bankruptcy Code.

Article 8 **Representatives of the Parties**

8.1 Design-Builder's Representatives.

8.1.1 Design-Builder designates the individual listed below as its Senior Representative ("Design-Builder's Senior Representative"), which individual has the authority and responsibility for avoiding and resolving disputes under Section 11.4 hereof:

John Stump, President
Phone: 916.997.2819
Email: jstump@flintbuilders.com

8.1.2 Design-Builder designates the individual listed below as its Design-Builder's Representative, which individual has the authority and responsibility set forth in Section 3.2 hereof:

8.2 Design Consultant's Representatives.

8.2.1 Design Consultant designates the individual listed below as its Senior Representative ("Design Consultant's Senior Representative"), which individual has the authority and responsibility for avoiding and resolving disputes under Section 11.4 hereof:

Contact Name & Title: _____

Phone: _____

Email: _____

8.2.2 Design Consultant designates the individual listed below as its Design Consultant's Representative, which individual has the authority and responsibility set forth in Section 2.4.2 hereof:

Article 9 **Insurance**

9.1 Design Consultant's Insurance Requirements.

9.1.1 Design Consultant is responsible for procuring and maintaining, from insurance companies authorized to do business in the state in which the Project is located, the insurance coverages set forth in **Exhibit "C"**, with the minimum ratings set forth in said exhibit, for certain claims which may arise from or out of the performance of this Agreement and the obligations under the Contract Documents.

9.1.2 Design Consultant shall require its Design Sub-Consultants to procure and maintain, from insurance companies authorized to do business in the state in which the Project is located, the insurance coverages set forth in **Exhibit "C"**.

9.1.3 Design Consultant's and its Design Sub-Consultants' insurance coverage set forth in the Insurance Exhibit shall specifically delete any design-build or similar exclusions that could compromise coverages because of the design-build delivery of the Project.

9.1.4 To the extent Design-Builder requires Design Consultant to provide professional liability insurance for claims arising from the negligent performance of design services by Design Consultant or Design Sub-Consultants, the coverage limits, duration and other specifics of such insurance shall be set forth in **Exhibit "C"**. Such policies shall be provided prior to the commencement of any design services hereunder.

9.1.5 Prior to commencing any services hereunder, Design Consultant shall provide Design-Builder with certificates evidencing that (i) all insurance obligations required by the Contract Documents are in full force and in effect and will remain in effect for the duration required by the Contract Documents and (ii) no insurance coverage will be canceled, renewal refused, or materially changed unless at least thirty (30) days prior written notice is given to Design-Builder.

9.1.6 Except as otherwise stated in **Exhibit "C"**, the insurance policies required herein shall list Design-Builder, and all other entities required by the Contract Documents, if any, as an additional insured.

9.1.7 If any of the foregoing insurance coverages are required to remain in force after final payment, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment.

9.2 Waiver of Subrogation.

9.2.1 Design-Builder and Design Consultant waive against each other and Owner, Design Sub-Consultants, Owner's separate contractors, Subcontractors, Sub-Subcontractors, agents and employees of each and all of them, all damages covered by property insurance provided herein, except such rights as they may have to the proceeds

of such insurance. Design-Builder and Design Consultant shall, where appropriate, require similar waivers of subrogation from Design Sub-Consultants and Subcontractors and shall require each of them to include similar waivers in their contracts. These waivers of subrogation shall not contain any restriction or limitation that will impair the full and complete extent of its applicability to any person or entity unless agreed to in writing prior to the execution of this Agreement.

Article 10 **Indemnification**

10.1 Patent and Copyright Infringement.

10.1.1 Design Consultant shall defend any action or proceeding brought against Owner or Design-Builder based on any claim that the Project, or any part thereof, or the operation or use of the Project or any part thereof, constitutes infringement of any United States patent or copyright, now or hereafter issued. Design-Builder shall give prompt written notice to Design Consultant of any such action or proceeding and will reasonably provide authority, information and assistance in the defense of same. Design Consultant shall indemnify and hold harmless Owner and Design-Builder from and against all damages and costs, including but not limited to attorneys' fees and expenses awarded against Owner or Design-Builder in any such action or proceeding. Design Consultant agrees to keep Design-Builder informed of all developments in the defense of such actions.

10.1.2 If Owner is enjoined from the operation or use of the Project, or any part thereof, as the result of any patent or copyright suit, claim, or proceeding, Design Consultant shall at its sole expense take reasonable steps to procure the right to operate or use the Project, or applicable part thereof. If Design Consultant cannot so procure such right within a reasonable time, Design Consultant shall promptly, at Design Consultant's option and at Design Consultant's expense, (i) modify the Project, or applicable part thereof, so as to avoid infringement of any patents, or copyrights, or (ii) replace said work with work that does not infringe or violate any such patent or copyright, and is consistent with the Contract Documents.

10.1.3 Sections 10.1.1 and 10.1.2 above shall not be applicable to any suit, claim or proceeding based on infringement or violation of a patent or copyright (i) relating solely to a particular process or product of a particular manufacturer specified by Owner or Design-Builder and not offered or recommended by Design Consultant to Owner or Design-Builder; or (ii) arising from modifications to the Project by Owner or Design-Builder after acceptance of the Project. If the suit, claim or proceeding is based upon events set forth in the preceding sentence, Design-Builder shall defend, indemnify and hold harmless Design Consultant to the same extent Design Consultant is obligated to defend, indemnify and hold harmless Design-Builder in Section 10.1.1 above.

10.1.4 The obligations set forth in this Section 10.1 shall constitute the sole agreement between the parties relating to liability for infringement or violation of any patent or copyright.

10.2 Design Consultant's General Indemnification.

10.2.1 Pursuant to Civil Code Section 2782.8, Design Consultant, to the fullest extent permitted by law, shall defend indemnify and hold harmless Owner, Design-Builder and their officers, directors, employees and agents from and against losses, and damages, including attorneys' fees and expenses, for bodily injury, sickness or death, and property damage or destruction (other than to the Work itself) to the extent resulting from the negligence, recklessness, or willful misconduct of Design Consultant, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable. In no event shall the cost to defend charged to Design Consultant exceed the Design Consultant's proportionate percentage of fault.

10.2.2 If an employee of Design Consultant, anyone employed directly or indirectly by Design Consultant or anyone for whose acts any of them may be liable has a claim against any party indemnified pursuant to Section 10.2.1 above, Design Consultant's indemnity obligation set forth in Section 10.2.1 above shall not be limited by any limitation on the amount of damages, compensation or benefits payable by or for Design Consultant, or other entity under any employee benefit acts, including workers' compensation or disability acts.

10.3 Design-Builder's General Indemnification.

Article 11

Contract Adjustments and Disputes

11.1 Requests for Contract Adjustments and Relief.

11.1.1 If either Design Consultant or Design-Builder believes that it is entitled to relief against the other for any event arising out of or related to the Services or the Project, such party shall provide written notice to the other party of the basis for its claim for relief. Such notice shall be in accordance with specific notice requirements contained in applicable sections of the Contract Documents and, if possible, be made prior to incurring any cost or expense. Design Consultant shall provide Design-Builder written notice of claims for which Owner may be responsible, including but not limited to changes in the Basis of Design Documents, in sufficient time for Design-Builder to meet its notice requirements to Owner set forth in the Contract Documents. In the absence of any specific notice requirement, written notice shall be given within a reasonable time, not to exceed ten (10) days, after the occurrence giving rise to the claim for relief or after the claiming party reasonably should have recognized the event or condition giving rise to the request, whichever is later. Such notice shall be in accordance with the Contract Documents and shall include sufficient information to advise the other party of the circumstances giving rise to the claim for relief, the specific contractual adjustment or relief requested and the basis of such request. Design Consultant shall comply with all documentation requirements set forth in the Design-Build Agreement when submitting its claim to Design-Builder.

11.2 Dispute Avoidance and Resolution.

11.2.1 The parties are fully committed to working with each other throughout the Project and agree to communicate regularly with each other at all times so as to avoid or minimize disputes or disagreements. If disputes or disagreements do arise, Design Consultant and Design-Builder each commit to resolving such disputes or disagreements in an amicable, professional and expeditious manner so as to avoid unnecessary losses, delays and disruptions to the Services.

11.3 Disputes Involving Owner.

11.3.1 To the extent a claim, dispute or controversy arises out of, or relates to, problems caused by Owner or for which Owner is responsible ("Owner Disputes"), such Owner Disputes shall be resolved pursuant to the dispute resolution clause set forth in the Design-Build Agreement. Both Design-Builder and Design Consultant agree to cooperate in the presentation and prosecution or defense of Owner Disputes. If, after a request for an extension of time or additional compensation from Design Consultant, Design-Builder believes that the event causing the delay or additional compensation is the responsibility of Owner, then Design-Builder will cooperate with and assist Design Consultant in presenting a request for an extension of time or additional compensation to Owner. Notwithstanding the above, Design-Builder reserves the right not to submit a claim to Owner. In such cases, the claim shall be resolved pursuant to Section 11.4.

11.3.2 Notwithstanding any other provisions herein to the contrary, Design-Builder and Design Consultant each agree to accept the relief as to a time extension or additional compensation obtained from Owner, if any, as well as all other aspects of the final decision following appeal or the expiration of the time for appeal, as full and final resolution of any Owner Dispute.

11.3.3 If Design-Builder asserts a claim against Owner involving Design Consultant, each party shall bear its own costs for outside counsel and third-party consultants retained to prosecute claims against Owner and for any other litigation costs. Each party shall present its portion of the claim to Owner.

11.3.4 If Owner contends that the Contract Documents have been breached, or otherwise asserts a claim or set-off against Design-Builder, the party determined to be responsible for the breach either by settlement or by the trier of fact shall be responsible for all costs occasioned by the breach, including counsel and litigation costs. If the trier of fact fails to determine the relative degrees of fault of Design-Builder and Design Consultant in connection with

any claim by Owner, then Design-Builder and Design Consultant agree that the allocation of fault shall be determined pursuant to Section 11.4.

11.4 Disputes Not Involving Owner.

11.4.1 For any claim, dispute or controversy not arising out of, or relating to, problems caused by Owner or for which Owner is responsible, Design Consultant and Design-Builder will first attempt to resolve such claim, dispute or controversy at the field level through discussions between Design-Builder's Representative and Design Consultant's Representative.

11.4.2 If a claim, dispute or controversy cannot be resolved through Section 11.4.1, Design-Builder's Senior Representative and Design Consultant's Senior Representative, upon the request of either party, shall meet as soon as conveniently possible, but in no case later than thirty (30) days after such a request is made, to attempt to resolve such claim, dispute or controversy. Five (5) days prior to any meetings between the Senior Representatives, the parties will exchange relevant information that will assist the parties in resolving the claim, dispute or controversy.

11.4.3 If after meeting the Senior Representatives determine that the claim, dispute or controversy cannot be resolved on terms satisfactory to both parties, the parties shall submit within thirty (30) days of the conclusion of the meeting by Senior Representatives the claim, dispute or controversy to non-binding mediation. The mediation shall be conducted by a mutually agreeable impartial mediator, or if the parties cannot so agree, a mediator designated by the American Arbitration Association ("AAA") pursuant to its Construction Industry Mediation Rules. The mediation will be governed by and conducted pursuant to a mediation agreement negotiated by the parties or, if the parties cannot so agree, by procedures established by the mediator. Unless otherwise mutually agreed by Design-Builder and Design Consultant and consistent with the mediator's schedule, the mediation shall commence within ninety (90) days of the submission of the dispute for mediation. Persons with authority to resolve the dispute shall be present at the mediation.

11.5 Arbitration

11.5.1 Any claims, disputes or controversies between the parties arising out of or relating to the Agreement, or the breach thereof, which has not been resolved in accordance with the procedures set forth in Section 11.4 above, shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the AAA then in effect, unless the parties mutually agree otherwise.

11.5.2 The award of the arbitrator(s) shall be final and binding upon the parties without the right of appeal to the courts. Judgment may be entered upon it in accordance with applicable law by any court having jurisdiction thereof.

11.5.3 Design Consultant and Design-Builder expressly agree that any arbitration pursuant to this Section 11.5 may be joined or consolidated with any arbitration involving any other person or entity (i) necessary to resolve the claim, dispute or controversy, or (ii) substantially involved in or affected by such claim, dispute or controversy. Both Design-Builder and Design Consultant will include appropriate provisions in all contracts they execute with other parties in connection with the Project to require such joinder or consolidation.

11.5.4 The prevailing party in any arbitration, or any other final, binding dispute proceeding upon which the parties may agree, shall be entitled to recover from the other party reasonable attorneys' fees and expenses incurred by the prevailing party.

11.6 Duty to Continue Performance.

11.6.1 Unless provided to the contrary in the Contract Documents, Design Consultant shall continue to perform the Services and Design-Builder shall continue to satisfy its payment obligations to Design Consultant, pending the final resolution of any dispute or disagreement between Design-Builder and Design Consultant.

11.7 CONSEQUENTIAL DAMAGES.

11.7.1 NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY (EXCEPT AS SET FORTH IN SECTION 11.7.2 BELOW), AND ONLY TO THE EXTENT THE PRIME CONTRACT CONTAINS A SIMILAR WAIVER OF CONSEQUENTIAL DAMAGES, NEITHER DESIGN-BUILDER NOR DESIGN CONSULTANT SHALL BE LIABLE TO THE OTHER FOR ANY CONSEQUENTIAL LOSSES OR DAMAGES, WHETHER ARISING IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, INCLUDING BUT NOT LIMITED TO LOSSES OF USE, PROFITS, BUSINESS, REPUTATION OR FINANCING.

11.7.2 Notwithstanding Section 11.7.1 above, Design-Builder shall be entitled to recover against Design Consultant (i) any liquidated damages that Owner may assess against Design-Builder which are attributable to Design Consultant, even though both parties recognize that such liquidated damages may include some damages that might otherwise be deemed to be consequential.

Article 12 **Miscellaneous**

12.1 Assignment.

12.1.1 Neither Design Consultant nor Design-Builder shall, without the written consent of the other, assign, transfer or sublet any portion or part of the Services or the obligations required by the Contract Documents.

12.2 Successorship.

12.2.1 Design-Builder and Design Consultant intend that the provisions of the Contract Documents are binding upon the parties, their employees, agents, heirs, successors and assigns.

12.3 Governing Law.

12.3.1 The Agreement and all Contract Documents shall be governed by the laws of the place of the Project, without giving effect to its conflict of law principles.

12.4 Severability.

12.4.1 If any provision or any part of a provision of the Contract Documents shall be finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to any applicable Legal Requirements or court order, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

12.5 No Waiver.

12.5.1 The failure of either Design-Builder or Design Consultant to insist, in any one or more instances, on the performance of any of the obligations required by the other under the Contract Documents shall not be construed as a waiver or relinquishment of such obligation or right with respect to future performance.

12.6 Headings.

12.6.1 The headings used in this Agreement, or any other Contract Document, are for ease of reference only and shall not in any way be construed to limit or alter the meaning of any provision.

12.7 Notice.

12.7.1 Whenever the Contract Documents require that notice be provided to the other party, notice will be deemed to have been validly given (i) if delivered in person to the individual intended to receive such notice, (ii) four (4) days after being sent by registered or certified mail, postage prepaid to the address indicated in the Agreement, or (iii) if transmitted by facsimile, by the time stated in a machine generated confirmation that notice was received at the number of the intended recipient.

12.8 Amendments.

12.8.1 The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party.

12.9 Survival.

12.9.1 Design Consultant's obligations under this Agreement shall not be released, and shall specifically survive, the completion of all Services hereunder, final payment to Design Consultant, and the termination of this Agreement for any reason.

Article 13 **Electronic Data**

13.1 Electronic Data.

13.1.1 The parties recognize that Contract Documents, including drawings, specifications and three-dimensional modeling (such as Building Information Models) and other Work Product may be transmitted among Design-Builder, Design Consultant and others in electronic media as an alternative to paper hard copies (collectively "Electronic Data").

13.2 Transmission of Electronic Data.

13.2.1 Design-Builder shall determine, after consultation with Design Consultant, the software and the format for the transmission of Electronic Data. Each party shall be responsible for securing the legal rights to access the agreed-upon format, including, if necessary, obtaining appropriately licensed copies of the applicable software or electronic program to display, interpret and/or generate the Electronic Data.

13.2.2 Neither party makes any representations or warranties to the other with respect to the functionality of the software or computer program associated with the electronic transmission of Work Product. Unless specifically set forth in the Agreement, ownership of the Electronic Data does not include ownership of the software or computer program with which it is associated, transmitted, generated or interpreted.

13.2.3 By transmitting Work Product in electronic form, the transmitting party does not transfer or assign its rights in the Work Product. The rights in the Electronic Data shall be as set forth in Article 4 of the Agreement. Under no circumstances shall the transfer of ownership of Electronic Data be deemed to be a sale by the transmitting party of tangible goods.

13.3 Electronic Data Protocol.

13.3.1 The parties acknowledge that Electronic Data may be altered or corrupted, intentionally or otherwise, due to occurrences beyond their reasonable control or knowledge, including but not limited to compatibility issues with user software, manipulation by the recipient, errors in transcription or transmission, machine error, environmental factors, and operator error. Consequently, the parties understand that there is some level of increased risk in the use of Electronic Data for the communication of design and construction information and, in consideration of this, agree, and shall require their independent contractors, Subcontractors and Design Sub-Consultants to agree, to the following protocols, terms and conditions set forth in this Section 13.3.

13.3.2 Electronic Data will be transmitted in the format determined in Section 13.2.1 above, including file conventions and document properties, unless prior arrangements are made in advance in writing.

13.3.3 The Electronic Data represents the information at a particular point in time and is subject to change. Therefore, the parties shall agree upon protocols for notification by the author to the recipient of any changes which may thereafter be made to the Electronic Data, which protocol shall also address the duty, if any, to update such information if such information changes prior to Final Completion of the Project.

13.3.4 The transmitting party specifically disclaims all warranties, expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with respect to the media transmitting the Electronic Data. However, transmission of the Electronic Data via electronic means shall not invalidate or negate any duties pursuant to the applicable standard of care with respect to the creation of the Electronic Data, unless such data is materially changed or altered after it is transmitted to the receiving party, and the transmitting party did not participate in such change or alteration.

13.4 In the event the Design-Build Agreement contains a provision governing Electronic Data, and there is a conflict between the provision in the Design-Build Agreement and this Article 13, the provision in the Design-Build Agreement takes precedence notwithstanding the order of precedence set forth in Section 1.4.2.

13.5 The parties agree to follow the Flint VDC Standards attached as **Exhibit “F”** and develop together a project BIM execution plan.

Article 14 **Confidential Information**

14.1 Confidential and/or Proprietary Information.

14.1.1 Confidential Information is defined as information which is determined by the transmitting party to be of a confidential or proprietary nature and: (i) the transmitting party identifies as either confidential or proprietary; (ii) the transmitting party takes steps to maintain the confidential or proprietary nature of the information; and (iii) the document is not otherwise available in or considered to be in the public domain. The receiving party agrees to maintain the confidentiality of the Confidential Information and agrees to use the Confidential Information solely in connection with the Project.

14.1.2 Design Consultant may receive information from Design-Builder that is either confidential or proprietary to either Design-Builder or to Owner. Such information shall be labeled as confidential and/or proprietary. Design Consultant agrees to maintain the confidential nature of such information and to execute any such additional agreements as may be required by Owner or Design-Builder with respect to such information.

14.1.3 In the event the Design-Build Agreement contains a provision governing Confidential Information, and there is a conflict between the provision in the Design-Build Agreement and this Article 14, the provision in the Design-Build Agreement takes precedence notwithstanding the order of precedence set forth in Section 1.4.2.

In executing this Agreement, Design-Builder and Design Consultant each individually represents that it has the necessary financial resources to fulfill its obligations under this Agreement, and each has the necessary corporate approvals to execute this Agreement, and perform the Services described herein.

DESIGN-BUILDER:

DESIGN CONSULTANT:

FLINT DESIGN BUILD, LLC DBA FLINT

By: _____

By: _____

Print Name: **John Stump**

Print Name: _____

Title: **President**

Title: _____

Exhibit "B"
To DBIA Agreement between
_____ and Flint Design
Build, LLC dba FLINT Provide _____

The scope of work specifically includes, but is not limited to the following:

Exhibit "C"
To DBIA Agreement

Insurance Requirements for

Project: _____

Insurance: Consultant and its consultants, if any, of any tier shall at its (their) expense, procure and maintain insurance on all of its operations under this Agreement whether its operations are by the Consultant or by anyone for whose acts consultant might be liable, in companies authorized to do business in the State of California with a Best's Insurance Rating of A VII or better or otherwise acceptable to FLINT as follows:

1. Workers' Compensation and Employer's Liability Insurance. Workers' Compensation insurance shall be provided as required by any applicable law or regulation. Employer's Liability insurance shall be provided as in amounts not less than _____ each accident for bodily injury by accident, _____ policy limit for bodily injury by disease and _____ each employee for bodily injury by disease. If there is an exposure of injury to Consultant's employees under the U.S. Longshoremen's and Harbor workers' Compensation Act, the Jones Act or under laws, regulations or statutes applicable to maritime employees, coverage shall be included for such injuries or claims. If work is outside of California Consultant needs to include All States Endorsement

2. General Liability Insurance.

2.1 Consultant and its consultants of any tier shall carry primary Commercial General Liability insurance covering all operations by or on behalf of the Consultant providing insurance for bodily injury liability and property damage liability for the limits of liability indicated below and including coverage for:

- a. Premises, Operations and Mobile Equipment.
- b. Products and Completed Operations for a period of time equal to California's statute of repose.
- c. Contractual Liability, including consultant's bodily injury, insuring the obligations by the Consultant in this agreement.
- d. Broad Form Property Damage (including Completed Operations)
- e. Explosion, Collapse and Underground Hazards.
- f. Personal Injury Liability.
- g. Liability of independent contractors.
- h. Construction means, methods, techniques, sequences and procedures, including safety and field supervision.

2.2 The limits of liability for the insurance described in this Section shall not be less than:

The "general aggregate" limit shall apply separately to Consultant's and all tiered sub-consultant's work under this contract.

2.3 Items 2.1.a - 2.1.h above shall not be subject to any of the following limiting or exclusionary endorsements:

- a. Subsidence or earth movement
- b. Prior acts or prior work
- c. Action over – precluding indemnity for passive acts of FLINT contributing to injury of a Consultant's employee
- d. Contractual limitation – eliminating cover for assumed liability
- e. Supervisory or inspection service limitation
- f. Insured vs. insured cross suits
- g. Clauses terminating coverage after a designated period of time
- h. Residential or habitational limitation if the Work includes residential or habitational work
- i. Classification limitation limiting coverage for work to be performed
- j. Defense inside limits provision
- k. Sub-contractor insurance coverage exclusions for failure to satisfy coverage conditions

3. "Claims Made" and "Modified Occurrence" Policy forms.

General Liability Insurance provided by Consultant and all tiered sub-consultants under a "Claims Made" policy form are not acceptable.

4. Umbrella Liability Insurance.

4.1 Covering all operation by or on behalf of the Consultant, providing the same coverages as in the insurance the underlying primary General Liability, Auto Liability and Employers Liability:

4.2 The limits of liability for the insurance described in this Section shall not be less than:

5. Professional Liability Insurance.

5.1 If Work under this Agreement includes design-build or any type of professional services, testing, design assist, stamped drawings, or LEED certification services Consultant and its consultants shall procure and maintain Professional Liability insurance (errors and omissions).

The limits of liability for the insurance described in this Section shall not be less than _____ each occurrence and _____ general aggregate with a deductible of not more than _____ per claim.

5.2 Claims-made policies must have a retroactive date prior to the first date design services were performed under the scope of Work, and coverage must extend per the statute of repose in the state of California. If claims-made coverage is canceled or non-renewed, and not replaced with another claims-made policy with a retroactive date prior to the Agreement effective date, the Consultant or its consultants must purchase extended reporting rail coverage per the statute of repose in the state of California.

6. Additional Insured (General Liability and Automobile Insurance).

6.1 _____, shall be named as additional insureds under Consultant's and all tiered sub-consultant's and material supplier's insurance policies.

6.2 Coverage for _____ as additional insureds, and to do so to the extent allowable by law, on a primary and noncontributing basis, including both premises-operations and products/completed operations coverage and will show evidence of endorsement on the face of the certificate of insurance. Provide a policy provision or an endorsement with coverage at least as broad as Insurance Services Office (ISO) Additional Insured endorsement forms CG 2010 11 85 or CG 2010 7 04 and CG 2037 7 04, or equivalent, under Consultant's and all tiered sub-consultant's policies, if any. This Section 5 shall, in no event, be construed to require that additional insured insurance coverage be provided to a greater extent than permitted under the statutes or public policy of the State of California.

6.3 The policy shall be endorsed to stipulate that the insurance afforded the additional insured's shall apply as primary insurance and that any other insurance or self-insurance maintained by FLINT or Owner shall be in excess only and shall not be called upon to contribute with this insurance.

7. Automobile Liability Insurance.

Consultant and all tiered sub-consultants shall carry automobile liability insurance, including coverage for all owned, hired and non-owned automobiles. The limits of liability shall be not less than _____ combined single limit each accident for bodily injury and property damage.

8. Certificates of Insurance.

8.1 As evidence of the insurance required by this Agreement, certificates shall be furnished by Consultant and all tiered sub-consultants to FLINT before any work hereunder is commenced by Consultant or any tiered sub-consultant. The certificates of insurance shall be issued using ACORD 25 (2010/05) forms.

8.2 The following will be endorsed to add to the policy:

“The insurance company agrees that policy No. _____ shall not be canceled or materially changed or allowed to lapse until 30 days after FLINT, 401 Derek Place, Roseville, CA 95678, has received written notice of cancellation of change or lapse, as evidenced by return receipt of registered letter and it is agreed further that, as to lapsing, such notice will not be valid if mailed more than 45 days prior to the expiration date shown on this policy.”

- 8.3. The Certificate of Insurance furnished as evidence of Comprehensive General Liability or Commercial General Liability insurance carried by the Consultant and all tiered sub-consultants shall include a copy of the policy provision or the additional insured endorsement adding FLINT, Owner, and, if required in Paragraph 5 of this Exhibit “C”, the Architect and its consultants as Additional Insured and shall provide that insurance for such additional insureds as primary insurance and that other insurance maintained by FLINT, Owner and Architect and its consultants, if applicable, shall not be called upon for contribution.

9. Waiver of Subrogation

All insurance policies of the Consultant and all tiered sub-consultants must contain a Waiver of Subrogation rights endorsement against that of FLINT, the Owner and, if applicable, the Architect and its consultants, and must be included on the certificate of insurance. It must state that “A Waiver of Subrogation also applies in favor of the certificate holder.”

10. Miscellaneous

- 10.1 Standard ISO Form CG 00 01 exclusions will be allowed. Allowance of any additional exclusions or coverage-limiting endorsements is at the sole discretion of FLINT.
- 10.2 If the Work is of a substantial maritime nature, special maritime coverages such as Longshore and Harbor Workers, Jones Act and Protection and Indemnity coverage shall be required as set forth in Section 26.
- 10.3 If the Work involves the moving, lifting, lowering, rigging or hoisting of property and/or equipment, Consultant shall obtain Rigger’s Liability coverage to insure against loss or damage to such property or equipment.
- 10.4 If the Work involves the remediation of, or creates an exposure to, any hazardous materials, Consultant shall maintain Pollution Liability coverage.
- 10.5 The required insurance shall be subject to the approval of FLINT, but any acceptance of insurance certificates FLINT shall in no way limit or relieve Consultant or any tiered sub-consultant of the duties and responsibilities by him in this Agreement. If higher limits or other forms of insurance are required in the Contract Documents, Consultant and all tiered sub-consultants will comply with such requirements.
- 10.6 FLINT may take such steps as are necessary to assure Consultant’s and all tiered sub-consultant’s compliance with the obligations under this Exhibit “C” are performed. In the event Consultant and/or any of its sub-consultants, of any tier, fail to maintain any insurance coverage required under this Agreement, FLINT may obtain such coverage and charge the expense to Consultant, or terminate this Agreement. Consultant shall include the provisions of this entire Exhibit “C” in any agreements it issues for any work to be performed on the Project, and shall further require that the provisions of this Exhibit “C” be included in any agreements issued by its consultants, of any tier. No payment for any work performed under the Agreement shall be due and payable until the requirements of this Exhibit “C” have been met to the reasonable satisfaction of FLINT.
- 10.7 Consultant shall provide FLINT copies of insurance policies for insurance coverages required by this agreement and Exhibit “C” hereto when requested in writing.

Exhibit "D"
To DBIA Agreement

**List of Drawings and Specifications for
Project:** _____

Document Type	No	Description	Date	Prepared By

Exhibit "E"

CONDITIONAL WAIVER AND RELEASE ON
PROGRESS PAYMENT
(CA CIVIL CODE §8132)

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information:

Name of Claimant: _____
Name of Customer: Flint Design Build, LLC dba FLINT
Job Location: _____
Owner: _____
Through Date: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: Flint Design Build, LLC dba FLINT
Amount of Check: \$ _____
Check Payable to: _____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) The following progress payments for which the claimant has previously given a conditional waiver and release but has not received payment:
Date(s) of waiver and release: _____
Amount(s) of unpaid progress payment(s): \$ _____
- (4) Contract rights, including:
(A) a right based on rescission, abandonment, or breach of contract, and
(B) the right to recover compensation for work not compensated by the payment.

SIGNATURE

Claimant's Signature: _____
Claimant's Title: _____
Date of Signature: _____

**UNCONDITIONAL WAIVER AND RELEASE ON
PROGRESS PAYMENT
(CA CIVIL CODE §8134)**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information:

Name of Claimant: _____

Name of Customer: Flint Design Build, LLC dba FLINT

Job Location: _____

Owner: _____

Through Date: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job through the Through Date of this document. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has received the following progress payment:

\$ _____

Exceptions

This document does not affect any of the following:

- (1) Retentions.
- (2) Extras for which the claimant has not received payment.
- (3) Contract rights, including:
 - (A) a right based on rescission, abandonment, or breach of contract, and
 - (B) the right to recover compensation for work not compensated by the payment.

SIGNATURE

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

**CONDITIONAL WAIVER AND RELEASE ON
FINAL PAYMENT
(CA CIVIL CODE §8136)**

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information:

Name of Claimant: _____

Name of Customer: Flint Design Build, LLC dba FLINT

Job Location: _____

Owner: _____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check: Flint Design Build, LLC dba FLINT

Amount of Check: \$ _____

Check Payable to: _____

Exceptions

This document does not affect any of the following:

Disputed claims for extras in the amount of: \$ _____

SIGNATURE

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

**UNCONDITIONAL WAIVER AND RELEASE ON
FINAL PAYMENT
(CA CIVIL CODE §8138)**

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information:

Name of Claimant: _____

Name of Customer: Flint Design Build, LLC dba FLINT

Job Location: _____

Owner: _____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect the following:

Disputed claims for extras in the amount of: \$ _____

SIGNATURE

Claimant's Signature: _____

Claimant's Title: _____

Date of Signature: _____

EXHIBIT “F”

VIRTUAL DESIGN AND CONSTRUCTION PROCESS GUIDELINES

1. Process Overview

a. Project VDC Process expectations

The project team is expected to produce BIM deliverables and be a part of the VDC process on this project to proactively address both design and construction process requirements. The team members are expected to have knowledgeable resources, internal or external, that have participated in a VDC process as part of a project. Team members will participate in the overall VDC project process as further defined by this guide.

i. VDC process requirements

The exact requirements of the VDC process team members shall be clearly defined as part of the Level of Development specification outlined in section 2.e below and required to be filled out as part of the Project BIM execution plan described in section 2.a.

ii. BIM deliverable expectations

1. Design BIM deliverables:

- a. The design team will work with the construction team members as outlined in section 1.b to create the detailed models to be used by the other team as outlined in the LOD specification and model creation requirements defined in section 5.
- b. The design team is expected to update and share their model(s) to reflect material changes that require coordination throughout the project.

2. Construction BIM deliverables:

- a. The construction models shall be used as part of the overall project spatial coordination process as defined under section 6.
- b. The construction models shall be used to create the as contractual required system-based shop drawings as further defined in section 7.
- c. The construction models shall be used in the field as outlined in section 7.

3. Post Construction / Owner based BIM deliverables:

A list of additional BIM deliverables shall be developed as required for the specific project

iii. Process Goals:

A detailed list of project specific VDC / BIM goals and objectives shall be outlined for the project and included as part of the project BIM execution plan under Section D.1

b. Project VDC Process Team Members

For this project the following team members are expected to be a part of the VDC process. Their expected participation in the modeling and design or construction coordination is represented by an “X” in the corresponding boxes below. The model deliverables expected of each team is further defined in other sections below. A detailed list of the exact team members will be outlined in the project BIM execution plan Section C as further described in Section 2 below.

Design Consultants	Modeling	Basic/Gross Coordination	Fine Coordination
Architectural	X	X	x
Structural	X	X	x
MEP	X	X	x
Civil (UG Utilities)	X	X	
Special Systems*			
Design-Build Trades	Modeling	Basic/Gross Coordination	Fine Coordination
Concrete			X
Structural Steel	X	X	X

Prefab Metal Framing	X	X	X
Glazing/Ext Skin	TBD	x	x
Ceilings	TBD	x	x
Conveying Systems	TBD	x	x
Mechanical	X	X	X
Plumbing	X	X	X
Electrical	X	X	X
Fire Protection	X	X	X
Tele/Data and Security	X	X	X
Special Systems*			

*Special Systems shall be refined further as individual systems above, i.e. pneumatic tubes, lab fixtures, furnishings, etc.

**Expectation that design consultants are present at coordination meetings once a week – meeting duration ~1HR

c. **Process Kickoff Meeting**

The project team will hold a VDC process kickoff meeting before the start of the design and then corresponding construction coordination process once the team members as outlined 2.b have been selected. Individuals from the various team members that are responsible for the creation and oversight of their project BIM deliverables and overall field-based services shall attend this kickoff meeting. The goals of this meeting are outlined in the points below:

- Review Flint’s Project VDC Process Guideline.
- Creation of the Project Specific Goals and BIM uses list. Items on the goals list will be used to judge the success of the process on the project. The BIM uses list will define the extent to which the BIM deliverables will be used on the project.
- Team will use the meeting to create the design and construction VDC process schedule for the project and include in the Project BIM execution. The team shall come to agreement on the major milestones outlined in process schedule. The team shall verify that outside data needed for successful creation of the project specific BIM deliverables can be acquired in time to meet the schedule. The process schedule will be included as part of the overall project master schedule. The process for creating the actual VDC process schedule is outlined below in section 3.
- The project team shall review/amend/approve Flint Standard Construction Coordination BIM execution plan which will be amended to the project team member’s contracts.
- The project team members that participate in the process kickoff meeting are asked to share best practices from past project experience.
- During the meeting, the project team will determine the BIM uses for the project and record those uses in the Project BIM execution plan.
- The team will also update as needed the Project BIM Level of Development worksheet as defined in section 2.e.

2. **Process Execution and Management Plan**

a. **BIM Project Execution Plan**

The BIM Project Execution Plan is to be created by the project team. This plan will guide the team through the creation of the project BIM and corresponding VDC process requirements. All team members involved in creating and managing the Project VDC process shall be involved in the creation of the BIM Project Execution Plan.

b. **VDC Model Workflow**

As part of this BIM Process Guide and as a basis for the Process Schedule, the team members will develop a detailed workflow using the attached VDC Model Workflow chart as a guide. The agreed upon workflow will be incorporated into this document as an addendum.

c. **Flint Model Manager/Coordinator**

A member(s) of Flint's team will act as the model manager/coordinator for the project. The model manager / coordination lead may be an appointed individual or company outside of Flint. This individual / company will be responsible for coordinating the overall modeling efforts on this project. The coordination of these efforts will be based upon the VDC process schedule that is tied to the overall project master schedule.

d. Project Team Member Roles and Responsibilities

The BIM Project Execution Plan shall include a list of all the major team members that will be involved in the project VDC process and their responsibilities within the process. The list will be defined as part of the Project BIM execution plan. This list should include the name of the individual that will lead the process for each team. The individual listed shall have an advanced knowledge of BIM and VDC and have past experience on projects similar to this specific project. The individual selected is recommended to have past experience being a team leader through a collaborative VDC process. This person will be the point of contact between Flint's model manager/coordinator and the team member's BIM authors. The team member leader will be responsible for making sure that their team adheres to these guidelines and the Project BIM execution plan. They will also be responsible to participate in the coordination meetings as outlined in Section 5. They should be able to act as a representative of their company and address the issues and questions raised during the meetings directly or bring the team member(s) to the meeting that can.

e. BIM Use Matrix

A BIM Use matrix shall be completed by the project team members as part of the Project BIM execution plan. The BIM Uses matrix shall be filled out to match the overall VDC process goals as outlined by the project team. For those team members not familiar with all the possible BIM uses and how to fill out the worksheet, they may find additional information by visiting the BIM Project Execution Planning website that is part of the Computer Integrated Construction Research Program at Penn State. The site can be found at the following web address. <http://bim.psu.edu/>

f. Level of Development / Information Exchange

i. BIMForum Level of Development (LOD) Specification

The LOD Specification worksheet included in the appendix of this guide will be used to outline the expectations of the project 3D models and other BIM deliverables needed for the project.

1. The LOD worksheet will be used as a guide for all the BIM based project information and delivery dates. LOD is defined as follows based on the definitions contained in the Level of Development Specification version 2019 as released by the BIMForum

LOD 100

The Model Element may be graphically represented in the Model with a symbol or other generic representation but does not satisfy the requirements for LOD 200. Information related to the Model Element (i.e. cost per square foot, tonnage of HVAC, etc.) can be derived from other Model Elements.

BIMForum Interpretation: LOD 100 elements are not geometric representations.

Examples are information attached to other model elements or symbols showing the existence of a component but not its shape, size, or precise location. Any information derived from LOD 100 elements must be considered approximate.

LOD 200

The Model Element is graphically represented within the Model as a generic system, object, or assembly with approximate quantities, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.

BIMForum interpretation: At this LOD elements are generic placeholders. They may be recognizable as the components they represent, or they may be volumes for space reservation. Any information derived from LOD 200 elements must be considered approximate.

LOD 300

The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of quantity, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.

BIMForum interpretation: The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension callouts. The project origin is defined, and the element is located accurately with respect to the project origin.

LOD 350

The Model Element is graphically represented within the Model as a specific system, object, or assembly in terms of quantity, size, shape, location, orientation, and interfaces with other building systems. Non-graphic information may also be attached to the Model Element.

BIMForum interpretation: Parts necessary for coordination of the element with nearby or attached elements are modeled. These parts will include such items as supports and connections. The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension callouts.

LOD 400

The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of size, shape, location, quantity, and orientation with detailing, fabrication, assembly, and installation information. Non-graphic information may also be attached to the Model Element.

BIMForum interpretation: An LOD 400 element is modeled at sufficient detail and accuracy for fabrication of the represented component. The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension callouts.

LOD 500

The Model Element is a field verified representation in terms of size, shape, location, quantity, and orientation. Non-graphic information may also be attached to the Model Elements.

BIMForum interpretation: Since LOD 500 relates to field verification and is not an indication of progression to a higher level of model element geometry or non-graphic information, this Specification does not define or illustrate it.

2. Responsibility for the project model/drawing elements will be assigned to project team members for each of the various LOD stages. The project team for the creation of the model/drawings will include the prime designer as well as consultants and include Flint as the prime contractor and major trade contractors outlined in section 1.b. Element creation assignments will be unique to the project based on the experience of the project team members and the contractual responsibility of the team members.
3. A LOD worksheet for this project based on Flint's expectations of the various process team members is included in the appendix of this guideline. Team members involved in the VDC process for this project shall meet at a minimum the model level of development in the attached LOD worksheet. This LOD worksheet shall be reviewed during the project process kickoff meeting for acceptance by the various team members.

3. Process Schedule

a. Process Schedule Integration with Project Master Schedule

Flint and its project team partners will come together to create a VDC milestone schedule during the kickoff meeting. The schedule will be approved after the completion of the process kickoff for official inclusion in the process execution plan. This schedule should be generated by the project team using a

schedule charrette type process. A charrette process allows for each project team member to place their milestones where they see them. Then the entire team creates the sequenced schedule which reflects the dependent needs of each milestone. It is recommended that the team use a pull scheduling type process for sequencing the milestone tasks. Pull scheduling starts with the last task in an activity, and then works back to the start of the schedule, inserting tasks based on dependent activities which must be accomplished before the next task can begin

b. Design Model Handoffs

The VDC schedule will include a model handoff schedule to occur through a staggered approach based on individual disciplines. This schedule will reflect the previously agreed upon VDC Workflow Guide Addendum (ref section 2.b.).

c. VDC Process Schedule

Beyond the VDC milestones, the team should also place schedule tasks for the construction coordination meetings. When possible, the coordination sessions should be given a description based on the area / system / and component of the project that they will be reviewed during that meeting. The coordination meetings should be seen as intermediate, model deliverable, deadlines that are creating the day to day VDC process which will help the team to assure timely completion of the milestone task. The coordination process for a project is outlined in section 5, which also includes a description of the actual coordination meetings and frequency.

i. Submittals

The Submittal Schedule for the project should be reviewed by the VDC process team members during the creation of the Project Specific VDC Process Schedule. In order to effectively model and coordinate the exact systems to be built on the project, submittals needing approval for the purchase of a system/equipment must be reviewed and approved prior to the element being modeled or virtually coordinated. The time needed to review and approve these various submittals, which are directly related to model systems, should be included as in the VDC process schedule with the Approve by Date noted as a milestone on the schedule. The Approve by Date is the last date possible for approval of the submittal before it will impact the overall modeling/coordination process, and the purchasing/delivery/installation dates of the system.

ii. Prefabrication Requirements

Prefabrication elements should be discussed during the process kickoff meeting. The delivery date of the major system / equipment prefabrication items should be included on the VDC Schedule. Prefabrication relies on detailed coordination, not only of the prefab system, but also all the systems around it. So unique prefab coordination milestones might need to be created to assure the successful delivery of the prefab element on time, and that the area of installation is clear to accept the item. During the creation of the design team's VDC Schedule, they should create place holders for these prefab coordination meetings and prefab milestones for review and confirmation by the construction team.

4. Model Standards

a. Modeling/Coordination Programs

Flint uses the following programs as part of its Virtual Construction efforts. All models need to be created so that they can be read in at least one of the programs below.

- i.** Revit – 2021 or Newer
- ii.** Autodesk Construction Cloud – Cloud Based
- iii.** Navisworks – 2021 or Newer
- iv.** AutoCAD – 2021 or Newer
- v.** *AutoCAD Civil 3D – 2019, 2020, 2021, 2022, 2023*
- vi.** Revizto – Cloud Based
- vii.** Plannerly – Cloud Based

b. Model Naming Structure

The Project BIM execution plan details the specific file naming and model structure requirements for the project. These naming and model structure requirements shall be followed during the design and construction process stages.

c. Orientation Point

Project specific model orientation expectations shall be outlined in the Project BIM execution plan. Below are the general global and local orientation expectations for the project.

i. Globally

During the initial Process Kickoff Meeting, the project team shall review and determine the global reference location for the project model(s). This spatial reference point shall be based on a geo-reference location. Flint's model manager/coordinator shall establish the geo-reference for the project team to use based on the projects specific GIS information and standards if they exist for the project. This point shall be used to globally locate both building models and site models.

ii. Locally

1. During the initial process kickoff meeting, the team will also establish a project specific model orientation point to be used by the team in their individual model authoring programs. This point should be a spatial reference location that is tied back to the Global reference point
2. At the start of the modeling efforts, the project team will agree upon the location of the project origin.
3. This point typically should be an intersection of two major grid lines at the top of the first floor slab.
4. The X, Y & Z axis for this point will be documented for all project team members.
5. Once established, this origin will be used for all future project information including 2D drawings and any 3D Models.

d. Model Sharing

- i. A collaborative data site will be set up for the project team to transfer BIM deliverables and other project information back and forth and will be defined in the Project BIM execution plan.
- ii. This site shall be set-up and managed by Flint, unless otherwise designated.

e. Layer Naming

i. Standardized Structure – Unifomat System

Flint uses a standardized model layer naming structure around the Unifomat convention of system-based numbering for its models. Design and construction team members should also use the Unifomat convention of naming to establish their model layers / worksets / etc. The layer name should be either a Unifomat 3rd or 4th level numbering.

f. Model Data

i. Element Naming Structure

Each model element should have a unique name based on its system or individual component / equipment. This name should be based when possible around the manufacturers name for the finished system / component / equipment. As well as the unique name given to the model element in the authoring program, each element should also have a global unique identifier (GUID) tag that the program creates.

ii. Integration of Data with Model Element

Data about a model element should be attached to that element when possible for the project owner's use after project completion and as outlined in the LOD worksheet. This data may include specification information, warranty information, operational information, and manufacturer product cut sheets, etc. Each project team member is responsible for updating the model element with the outside data that is created during their phase of the VDC process as outlined in the LOD worksheet.

5. Model Creation

Team members shall deliver their models based on the VDC Schedule and to the expected detail outlined in the LOD worksheet. The information below outlines the general model and system specific expectations for all

models created by the project design team. The requirements outlined below are the minimum expected VDC process and BIM deliverable expectation for this project and this list shall be included in the Project BIM execution plan and further developed as need by the project team as part of that plan. The minimum requirements are expected regardless of each system's level of detail as outlined in the LOD worksheet.

a. General Modeling Guidelines

Models shall be created in a format that can best be used by each of the individual project partners based on their specific scope of work. Each model needs to have the ability to be used by other project partners that will be adding information or coordinating around a design model. (Model flow: Design-Fabrication-Installation-Facility Management).

- i. All models will be supplied to Flint in their native file format as well as an ifc format if requested. The ifc format shall be the latest standardized version as outlined by BuildingSMART International. Currently the latest ifc file format that the project team should use is an ifc 2x3 or higher. Models may be requested to be supplied in alternative formats based on the modeling programs that Flint currently uses.
- ii. All elements of the project are to be created in 3D with real world information including material/product sizing and project specific location coordinates to match what is shown on the 2D contractual documents. Specifically, all elements shall be modeled to their overall height, width and depth and to a level of development as outlined in the attached LOD worksheet.
- iii. All materials assigned to model elements shall be identified in accordance with the project design. The elements shall best represent the expected final product.
- iv. Elements that are being provided by a specific manufacturer or based on a specific system shall be modeled using a model when available directly from the manufacturer. This model shall include relevant product specific information. Examples include: MEP Equipment, Doors, and Windows...
- v. Any element that needs specific clearance space around it shall have that space modeled as a semi-translucent element clearly labeled as to what it's for. This clearance element needs to be contained in a separate layer from the element which it is required for. Example: Work areas, both install and maintenance, around electrical panels, mechanical equipment.
- vi. Anything that is not intended to be seen in a model shall be removed or hidden prior to the model being shared.
- vii. Use only standard fonts in the model or any accompanying 2D drawings.
- viii. Xrefs – 2D Xrefs may be requested by project team members to be used as a background file during their modeling efforts. Please do not bind Xrefs files to any model that is being shared with the project team.
- ix. Worksets/Layers – All model elements should be drawn on unique worksets/layers that relate to that specific element or system. Text for a model element should be on its own separate layer. i.e. fire rated walls, standard partitions, etc...
- x. All project specific model worksets/layers need to be on/visible when the model is shared.

b. Site Elements

- i. Site topography
- ii. All underground utilities within 5'-0" of a building
- iii. All bundled conduit or piping with a cross sectional area of 36" or larger
- iv. All vaults, manholes, tanks, and underground storage containers
- v. All ductbanks
- vi. Light poles, light pole bases, and bollards
- vii. Sidewalks, curb, gutter, asphalt and concrete paving
- viii. Hardscape areas not mentioned above
- ix. All backwash preventers and control valves
- x. All site structures not included in the building architectural package

c. Architectural Systems

- i. All elements shall be modeled as they are to be built. i.e. walls from top of slab to bottom of the slab above.

- ii. Model all openings in slabs and walls,
 - iii. All slabs and floors not included in the structural model. Slab should include all materials required for their assembly.
 - iv. All walls both exterior and interior not included in the structural model. Walls need to include all materials required for their assembly and assembly ratings and be labeled in the model to match the labeling shown in the contract documents. Cuts through the walls should clearly show the various elements that make-up the overall wall assembly. *Walls can be drawn as different elements and uniquely labeled based on their assembly. i.e. metal studs, gyp. board, insulation...this is not a standard project requirement and shall be discussed by the team during the process kick-off.*
 - v. Non-structural wall modeling in preparation for pre-fabrication
 - 1. Interior walls shall have an identifier indicating the orientation of the inside and outside of the wall, i.e. outside layer of gyp. to be colored differently from the inside layer.
 - 2. All windows and doors in their respective families
 - 3. Window and door datums must be in the center of the opening
 - 4. Window and door families; rough width and rough height must be equal to the door/window size
 - 5. No generic model types
 - vi. All columns not included in the structural model.
 - vii. Furring as required for walls and columns included in the structural model as part of the component assembly, not individual members.
 - viii. All doors including their door frame and their material properties. Hardware should be included as a note in the model element or in the naming of the element but does not need to be included as a 3D element as part of the door.
 - ix. All exterior systems including but not limited to: masonry, precast, plaster, punched windows, curtain wall and storefront systems.
 - x. Ceilings and soffits. Ceilings shall include both hard and suspended acoustical ceilings.
 - xi. Stairs and railings
 - xii. Casework
 - xiii. Floor and wall coverings as outlined in the LOD worksheet.
 - xiv. Roofing System
 - xv. Scuppers and drains not included in the MEP model
 - xvi. Equipment and fixtures not included in the MEP model
- d. Structural Systems**
- i. All elements shall be modeled as they are to be built. i.e. model individual slabs per the way they are to be poured
 - ii. All foundations, caissons, and grade beams based on their actual sizes and shown at the correct top and bottom elevation based on the project origin.
 - iii. All structural walls
 - iv. All structural columns
 - v. All structural decks, beams and joists. Joists shall be modeled when possible as outlined in the project LOD worksheet using model elements provided by the project joist supplier. Joist openings shall match the fabricated locations for use in the coordination process.
 - vi. All lateral and diagonal bracing
 - vii. All openings in structural walls and decks
 - viii. Structural concrete and steel stairs including their related components
- e. MEPF Systems**
- i. **General**
 - 1. **All systems listed below are examples of Flint’s standards. Reference Section 6 for LOD requirements at different project stages**
 - 2. All elements are to be correctly allocated to a discipline and systems.

3. All elements that are identified in Appendix C, Section 2.3 as 'Defined Managed Assets' are to be tagged using the Managed Asset Naming Convention and populated with asset data.
4. All model elements are to be allocated to the correct Level parameter within the model.
5. Duct, piping, cable tray and similar items are to be identified by size – element geometry and in the metadata.
6. Piping to be modelled at the appropriate Outside Diameter including any lagging and be tagged in element metadata with the Nominal Diameter. Lagging to be modelled as a semi-transparent mass.
7. Duct, pipe, cable tray, etc. supports/hangers are to be modelled as required for the purposes of coordination.
8. All access requirements, insulation, lagging and/or linings are to be included in services models.
9. All concrete equipment pads, inertia pads, etc. to be modelled.
10. All acoustic and fire rated collars, dampers, etc. to be modelled.
11. Seismic bracing/restraints to be modelled.
12. All elements are to be identifiable by type as parameters. Subcontractors are to model elements that align to the specification of installed (or to be installed) elements. Key data associated with elements to include any size/dimension/type, etc.
13. Models from supplier's to be used in all possible instances throughout the Project.
14. All model elements are to be modelled using the appropriate category or element type e.g. an eccentric ductwork transition must belong to the 'Duct Fitting' category, and not as a mass element.
15. Clearance Installation / maintenance zones for access, service space requirements, and other operational clearance must be modelled (as a semitransparent element within the same group / family) for all equipment as part of the services equipment and checked for conflicts with other elements.
16. Equipment access doors and panels including access zones in front, above and below shall be modelled and comply with accessibility requirements per relevant code/maintenance requirements.
17. All elements shall include necessary information to enable scheduling as required for the discipline in a complete and accurate manner – including quantities, asset registers, etc.
18. All Elements, **regardless of size**, if residing in a prefabricated wall panel shall be modeled. This includes, but is not limited to, conduit, piping, MEPF stub-ups, etc.
19. All stubs through concrete into wall panels shall be modelled with 2" clearance zone around the stub.

ii. Mechanical Systems

1. All supply, return, exhaust, relief and outside air ductwork to be modelled, including any insulation modelled to the outside face dimension or duct insulation (whichever is greater). Insulation to be indicated as a separate model element as a semi-transparent element wrapping the duct/pipework.
2. All ductwork and pipework ($\geq 20\text{mm}$) to be modelled as fabricated lengths and incorporate flanges, joints, other connectors, etc.
3. All mechanical equipment under the subcontractor's scope of works to be modelled (e.g. fans, VAV's, compressors, chillers, cooling towers, AHU's, pumps, tanks, sensors, dampers, etc.)
4. All valves, gauges and control valves to be modelled.
5. Diffusers, registers, louvres, grilles, high/low point drains, starters, etc. to be modelled.
6. All controls devices are to be modelled.
7. All Elements, **regardless of size**, if residing in a prefabricated wall panel shall be modeled. This includes, but is not limited to, conduit, piping, MEPF stub-ups, etc.

iii. Hydraulic Systems

1. All piping systems (≥ 20 mm in diameter) to be modelled. All required insulation to be modelled as a separate semi-transparent thickness around the pipework.
2. All equipment including any elements associated with Domestic Cold Water, Chilled Water, Steam, pumps, tanks, water heaters, in-wall carriers, in-wall plumbing equipment, etc. to be modelled.
3. All fixtures to be modelled e.g. sinks, toilet fixtures, water tanks, etc.
4. All valves, gauges, control valves and clean-outs to be modelled.
5. All Elements, **regardless of size**, if residing in a prefabricated wall panel shall be modeled. This includes, but is not limited to, conduit, piping, MEPF stub-ups, etc.

iv. Electrical, Comm, Network and Security Services

1. All electrical/communications/network/security systems, equipment and devices/receptacles are to be modelled to the correct overall height, width and depth.
2. All cable containment and fittings (cable tray/ladder/ducting) are to be modelled.
3. All equipment including panels, transformers, switch/paralleling gear, generators, sensors, etc. to be modelled.
4. All light fixtures, exit signs, fire alarm components and devices, speakers, AV equipment and devices, recessed electrical devices etc. are to be modelled and coordinated with ceilings and walls.
5. Individual cables are not required to be modelled.
6. All conduits ≥ 1 " in diameter, or bundles of conduits ≥ 4 " in diameter are to be modelled.
7. All elements are to be included in panel schedules within the authoring platform.
8. All electrical components are to be assigned to an electrical switchboard.
9. All Elements, **regardless of size**, if residing in a prefabricated wall panel shall be modeled. This includes, but is not limited to, conduit, piping, MEPF stub-ups, etc.

v. Fire Protection/Fire Alarm

1. All risers, main and branch piping including sprinkler lines and heads to be modelled.
2. All pumps, controls, detectors, alarms (components and devices), public address systems and all other equipment are to be modelled.
3. All Elements, **regardless of size**, if residing in a prefabricated wall panel shall be modeled. This includes, but is not limited to, conduit, piping, MEPF stub-ups, etc.

f. Miscellaneous Systems

The following is a list of some of the additional systems that may or may not be required to be modeled on a project based on the project specific LOD worksheet. Incorporation of these elements will be determined at the VDC Process Kickoff meeting.

- i. Raised access floor system including under floor air distribution that's not been modeled as part of the overall mechanical system
- ii. Furniture system as outlined in the LOD worksheet
- iii. Water Features including fountains and pools
- iv. Security systems including devices and conduit larger than 1-1/2"
- v. Pneumatic tube systems

g. As-Built (Project Record) Modeling (If Required)

The construction model shall be updated by the project team during the construction phase to include the actual conditions of the final constructed systems / components. The LOD worksheet will outline which team members are responsible to update the various model systems to their as-built condition. The project team shall outline a written plan for creating a final as-built model upon completion of the project and include it in the BIM Project Execution Plan. This Plan may include the team's use of digital as-built collection tools such as 3D laser scanning and model based total station surveying systems.

6. Coordination Process

The goal of Flint's coordination process is to achieve an LOD 350 model at time of submission to the AHJ. This requires three (3) distinct phases of coordination which are listed below. Project specific collaboration procedures are further defined in section H of the Project BIM execution plan.

a. Basic and Gross Coordination (Award through DD)

- i. Basic coordination will be completed through the schematic design process. The goal for this phase is to have all teams complete their models to an LOD of 200 and submit those in tandem with milestone drawings.
- ii. Gross coordination will be completed through the design development phase. The goal for this phase is to have all teams complete their models to an LOD of 300 and submit those in tandem with milestone drawings.
- iii. Flint's Coordination Manager shall work with the various design team members Coordination leads to further detail the VDC process schedule to create coordination stages that match the needs of the design deliverable schedule.
- iv. Flint's Coordination Manager will act as lead representative for the construction team during the design stage of the project and will be responsible for making sure the construction teams requests and requirements are accurately relayed to the design team.
- v. Should construction team members outside of Flint be needed to help make design decisions and resolve project coordination issues then the coordination manager will be the lead to arrange for those team members to attend the design coordination meetings.
- vi. Each team's coordination manager shall be responsible for reviewing the accuracy of the model deliverables at the various stages of the project as outlined in the LOD worksheet.

b. Fine Coordination (CD's)

- i. Flint's Coordination Manager will be responsible for leading the model coordination process. This will include dividing the project up into specific model coordination areas for review.
- ii. Fine coordination is defined as the coordination phase throughout CD's which is intended to resolve issues to achieve an LOD 350+ model by the time of submission to the AHJ.
- iii. For design consultants (non-design build trades), all elements must be modelled and coordinated to an LOD of 300 or higher in this phase. Any changes made in coordination shall be reflected on the construction documents.
- iv. For design-build trade consultants, all elements must be modelled and coordinated to an LOD of 350 or higher in this phase. Any changes made in coordination shall be reflected on the construction documents.
- v. Additional coordination may be required after AHJ submission due to AHJ comments and/or additional constructability reviews. There will be a small time frame after AHJ approval to incorporate these changes and coordinate these items.
- vi. A coordination schedule will be created with the project team to outline the model coordination area sequence. This schedule will tie into the overall project schedule that is established during the initial process schedule charrette session.
 1. Below is an **example** of Flint's Fine coordination workflow/schedule
 - a. A typical coordination schedule would be for all models of a specific area to be turned over to Flint on the end of the day Tuesday.
 - b. Then Flint would internally review them on Wednesday and load them in to the model coordination review software.
 - c. The actual coordination of the specific model areas would occur as a team on Thursday during a live meeting either face-to-face or via a web meeting service.
 - d. Friday-Tuesday would be used for team members to update models based on coordination meeting deliverables.
- vii. Once a Fine Coordination area has been reviewed by the project team and is deemed to be substantially coordinated, each contributor will update their portion of the model, and a sign-off set will be published of that area. This sign-off set will be based on the exact model files used to create the final coordinated review model. The set will include an initial block for the various team members involved in that coordination area on each of the for-construction shop drawings. Also, a sequencing schedule for the work to be performed by the subcontractor, as represented on the sign-off documents, will be included on the cover sheet. By signing the drawings, the various trades agree to install the system as the model/drawings indicate.

- viii. The coordinated model/models shall be aligned to the contract documents. If changes are required due to the Fine Coordination process, these shall be incorporated into the drawings or into the project documents via RFI. In the event of material discrepancies between sign-off models/drawings and contract documents, contract documents shall govern. The responsible authoring party, however, shall be responsible for updating the model to an as-designed condition.
 - ix. Project team members that are involved in the modeling process will be required to attend the coordination meetings. The meetings shall be attended by individuals representing their companies that can approve the sign-off documents.
 - x. Model color schemes are a recommendation and are subject to adjustment at the time of Construction Coordination Kickoff and in the project specific BIM Execution Plan.
- c. Model Hierarchy/System Prioritization**
- i. For the purposes of model coordination/clash detection the following hierarchy shall be used as a guideline. Specific Hierarchy and prioritization with respect to design and construction models will be determined by the agreed upon BIM execution plan.
 1. Structural Elements
 2. Architectural Elements
 3. Main and medium pressure duct runs
 4. Main plumbing waste lines and vents
 5. Fire sprinkler mains and branches
 6. Hot and cold water mains and branches
 7. Plumbing fixtures
 8. Lighting fixtures
 9. Flexible ducts and smaller supply/return ducts
 10. Domestic cold and hot water supply lines
 - ii. This hierarchy may be adjusted based on the specific system requirements on the project. If the standard hierarchy as described below is to be changed for a project, then all team members must agree to the changes. Those changes shall be detailed in the Project BIM execution plan.
- d. Pre-Fabrication**
- The Design Consultant's shall develop the BIM up to LOD 300 throughout the design process. The Design Consultant provided BIM shall be used only for LOD 300 intended purposes per the BIM use matrix (i.e. layout, and coordination). The Design Consultant shall not be responsible for the accuracy of the BIM beyond LOD 300 as defined and interpreted in section 2.F.1 above. For pre-fabricated elements, the Design-Builder shall be responsible for additional LOD required (400+) for prefabrication such as walls, utilities, and finishes.
- e. Model Based Shop Drawings**
- Shop drawings shall be created directly from the construction models used during the design or construction coordination process. As outlined above during the construction coordination process, the subcontractors involved are responsible for creating model-based shop drawings that are to be approved by other team members involved in the process as well. The designated design consultants shall review these shop drawings for final approval and use in the field during construction. The Shop drawings mentioned in this section are intended to represent the output from LOD 350 models and are not intended to include the level of detail required for use as fabrication documents.

7. Construction Process Integration

a. Subcontractor Field Installation Process

- i. The subcontractor is responsible for coordinating the field installation of their systems to match that agreed to during the model coordination process and documented on the sign-off drawings.
- ii. The subcontractor shall be responsible for any cost incurred by other members of the project team due to a deviation from the sign-off drawings.
- iii. Any deviation from the sign-off drawings shall be recorded by the subcontractor and used to update the model that was the basis for those drawings.

- iv. Installation shall be laid out via total station or similar system.
- v. Flint reserves the right as part of its overall quality control process to spot check installed systems.
- vi. Items which are not specifically contained within the BIM are to be coordinated in the field against the BIM and the Contract Documents by the installing trade partner. Any cost incurred from failure to coordinate against the BIM and Contract Documents is the responsibility of the installing trade partner.

b. Field BIM

- i. Coordination models may be used on the project directly in the field as communication tools to help in the installation of various systems.
- ii. Coordination models may also be attached to material tracking software to monitor the flow of material from fabrication to installation on the project.
 - 1. If this is an elected option on a project, the subcontractor will be responsible for working with an agreed upon tracking system to install tracking devices on their materials to facilitate this process.
 - 2. Flint will be responsible to supply the subcontractor with the tracking devices necessary for the process. (i.e. RFID tags, barcode tags)

8. Building Management and Operations Integration (If Required)

- a. **Model Based O&M Data**
- b. **Asset Tagging**

9. Model Deliverables

a. Model Transfer / Deliverable

After the completion of the VDC coordination process for the project, the facility owner will be given a federated / coordinated model in an ifc and nwd format for viewing in their modeling software. The project owner will also be given all native model files that created that final model deliverable. All of design and construction models at the completion of the project should be transferred to Flint through the project collaboration site.

b. Data Transfer

i. Electronic Data Files (PDFs)

All data files attached to model elements as outlined in the LOD worksheet shall be delivered to Flint in a PDF format at the time of the model deliverables as outlined above. If the file has more information on it than that associated directly to a model element, then information that pertains to the project/element should be clearly highlighted. A spreadsheet listing the name and description of the electronic file and its associated model element should be created by the team and delivered to the Flint. This spreadsheet should be created in an excel format for easy future modifications by the Flint as needed.

ii. Model Based Drawings

All model-based drawings shall be delivered to Flint in both a hard copy and pdf format. Model based drawings shall be delivered as required by the process schedule.

10. Glossary of Terms

Building Information Modeling (BIM) – A building information model (BIM) is a digital representation of physical and functional characteristics of a facility. As such it serves as a shared knowledge resource for information about a facility forming a reliable basis for decisions during its lifecycle.

BuildingSMART Alliance – Organization established to coordinate the profound constructive changes coming to the fragmented real property industry in North America. The organization’s collective goal is to establish open interoperability and full lifecycle implementation of building information models.

<http://www.buildingsmartalliance.org/>

Charrette – An intensive process that involves the collaboration of all project stakeholders at the beginning of a project to develop a comprehensive plan or design.

GIS – Geographic Information System – integrates hardware, software, and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information.

Industry Foundation Class (IFC) – IFCs are data elements that represent the parts of buildings, or elements of the process, and contain the relevant information about those parts. IFCs are used to assemble a computer-readable model of the facility that contains all the information of the parts and their relationships. The project model constitutes an object-oriented database of the information which continues to grow as the project goes through design, construction, and operation. The International Alliance for Interoperability (IAI) has created this IFC data exchange format. The IFC format is now controlled by the BuildingSMART International Alliance. IFC format allows models to be used/shared in other modeling software without losing element specific information.

Sign-off Drawings – These are drawings created by project team members to guide in the fabrication and installation of project systems/elements. The drawings are produced from models used by team members during the coordination process. Sign-off drawings may also be known as Shop Drawings and contractually are viewed as the same document.

Virtual Design and Construction (VDC) – Virtual Design and Construction is the use of multi-disciplinary performance models of design-construction projects, including the product (facilities information), work processes and organization of the design-construction-operation team in order to support business objectives.

VDC Process Goals – These are goals that are defined by the project team to outline the overall VDC objectives for the project. The goals include metrics for tracking and measuring the successful completion of the goals. The goals define the levels of BIM to be used on the project.

VDC Schedule – The VDC Schedule is created by the project team to outline the day-to-day and VDC milestones that lead to the creation of the design, construction and as-built BIM. VDC coordination meetings that are held by the team during both the design and construction phases of the project are also included in this schedule.

VDC Milestone – A VDC Milestone marks either the start of or completion/sign-off of a BIM area/system/element.

11. Appendices

12. Addenda

EXHIBIT "K"

SUPPLEMENTAL TERMS AND CONDITIONS

The following Supplemental Terms and Conditions add to or modify the Contract. In the case of a conflict between Supplemental Terms and Conditions and the Contract, the Supplemental Terms and Conditions shall prevail.