NORTHWESTERN UNIVERSITY	
PROJECT NAME	FOR:
IOB #	ISSUED: 02/25/2019

SECTION 01 7839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
 - Miscellaneous record submittals.
 - 5. Record Documents Submission Format

B. Related Requirements:

- 1. Section 011200 "Multiple Contract Summary" for coordinating project record documents covering the Work of multiple contracts.
- 2. Section 017300 "Execution" for final property survey.
- 3. Section 017700 "Closeout Procedures" for general closeout procedures.
- 4. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit copies of record Drawings as follows:
 - a. Initial Submittal:
 - 1) Submit record digital data files and one set(s) of plots.
 - 2) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - b. Final Submittal:
 - 1) Submit one paper-copy set(s) of marked-up record prints.
 - 2) Submit record digital data files and one set(s) of record digital data file plots.
 - 3) Plot each drawing file, whether or not changes and additional information were recorded.

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- B. Record Specifications: Submit annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit annotated PDF electronic files and directories of each submittal.
 - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
- D. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit annotated PDF electronic files and directories of each submittal.
- E. Reports: Submit written report indicating items incorporated into project record documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding archive photographic documentation.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Architect's written orders.
 - I. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.

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- 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
- 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
- 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
- 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect[and Construction Manager]. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
 - 1. Format: Same digital data software program, version, and operating system as the original Contract Drawings.
 - 2. Format: DWG, Version , [Microsoft Windows] [Apple Macintosh] operating system.
 - 3. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
 - 4. Refer instances of uncertainty to Architect[through Construction Manager] for resolution.
 - 5. Architect will furnish Contractor one set of digital data files of the Contract Drawings for use in recording information.
 - a. See Section 013300 "Submittal Procedures" for requirements related to use of Architect's digital data files.
 - b. Architect will provide data file layer information. Record markups in separate layers.
- C. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
 - 1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
 - 2. Consult Architect[and Construction Manager] for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared record Drawings into record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- D. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 - 1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 - 2. Format: Annotated PDF electronic file[with comment function enabled].
 - 3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
 - 4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect[and Construction Manager].

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e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 - 5. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as annotated PDF electronic file.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 - 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as annotated PDF electronic file.
 - 1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as PDF electronic file.
 - Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

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PART 3 - EXECUTION

3.1 PROJECT RECORD DOCUMENTS ORGANIZATION

A. Provide Project Record Documents in an electronic file format and organization that corresponds to that indicated below. Provide all items which are assigned to the Prime Contractor in the Responsible Party column. For the "XX – (Material) (Subcontractor Name)" folders, provide one folder per Division and / or Subcontractor, and rename the folder to match the CSI Division, Material and Subcontractor. Example: 08 – Doors, Frames & Hardware (ANDERSON LOCK).

			_
	Folder Structure		Format
Prime Contractor	01 –	General Requirements	
1		Project Directory	PDF
1	П	Certificates of Occupancy	
1		Temporary CofO	PDF
1	\Box	Final CofO	PDF
1	—	Certificates of Completion	
1	\Box	Substantial Completion	PDF
1	\Box	Final Completion	PDF
1	T I	Permits	PDF
1	T I	Inspection Reports	
1	\Box	Authority Having Jurisdiction (AHJ)	PDF
1		Design Team	PDF
1	\Box	Pest Control	PDF
1		Schedule of Maintenance on Existing E	PDF
1		Asset Tagging	
1		Existing Equipment (Demolished or Salvaged)	.DocXLS or PDF
1	\vdash	New Equipment (if included in O/C Contract)	XLS
1		Key Return Records	PDF
1	-	Punchlists	PDF
1	-	RFIs	PDF
Prime Contractor		rime Contractor (Prime Contractor	
		As Builts	
1	Н,	Red-lined Drawings	PDF
	\vdash	Red-lined Specifications	PDF
	\vdash	Record Survey PDF	PDF
	\vdash	Record Survey DWG	DWG
	 	Stamped AHJ Permit Documents	PDF
	Н,	PDF	PDF
	Н,	Warrante	PDF
		Construction Photodocumentation	PDF
Design Team	01-Design Team (Firm Name)		
	П	LEED	PDF
	-	LEED Record Drawings	PDF
	-	Record Drawings	
	-		DWG
	-	Record Drawings DWG PDF	
	-	Record Drawings DWG	DWG PDF
	-	Record Drawings DWG PDF Record Project Manual	DWG PDF MS Word
Commissioning		Record Drawings DWG PDF Record Project Manual Word Files PDF	DWG PDF
Commissioning Agent	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Ommissioning (Firm Name)	DWG PDF MS Word PDF
Commissioning Agent	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Ommissioning (Firm Name)	DWG PDF MS Word
	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Ommissioning (Firm Name)	DWG PDF MS Word PDF
	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Ommissioning (Firm Name) Systems Manual Asset Tagging New Equipment (if included in O/CX Contract	DWG PDF MS Word PDF
	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Ommissioning (Firm Name) Systems Manual Asset Tagging	DWG PDF MS Word PDF PDF
Agent	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Ommissioning (Firm Name) Systems Manual Asset Tagging New Equipment (if included in O/CX Contract Final Commissioning Report	DWG PDF MS Word PDF PDF
Agent	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Ommissioning (Firm Name) Systems Manual New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name)	DWG PDF MS Word PDF PDF
Agent	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Pomommissioning (Firm Name) Systems Manual New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) Hazardous Material	DWG PDF MS Word PDF PDF
Agent	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Ommissioning (Firm Name) Systems Manual Asset Tagging New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) ACM ACM Mercury	DWG PDF MS Word PDF PDF
Agent Environmental	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Ommissioning (Firm Name) Systems Manual Asset Tagging New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) Hazardous Material ACM	DWG PDF MS Word PDF PDF
Agent Environmental Geotech	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF PDF Systems Manual Asset Tagging New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) ACM ACM Mercury Mercury Mercury Medical PDF PDF	DWG PDF MS Word PDF PDF
Agent Environmental Geotech	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Systems Manual Asset Tagging New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) Hazardous Material ACM Mercury M	DWG PDF MS Word PDF PDF
Agent Environmental Geotech	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Systems Manual Asset Tagging New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) Hazardous Material ACM Mercury ieotech (Firm Name) Borings (Material) (Subcontractor Name)	DWG PDF MS Word PDF PDF .XLS PDF
Agent Environmental Geotech	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF PD	DWG PDF MS Word PDF .XLS PDF
Agent Environmental Geotech	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF PD	DWG PDF MS Word PDF .XLS PDF
Agent Environmental Geotech	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF PDF Pomissioning (Firm Name) Systems Manual New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) Hazardous Material ACM Mercury Mercury Meterial (Firm Name) Borings (Material) (Subcontractor Name) D&Ms Varranty Submittals	DWG PDF MS Word PDF .XLS PDF
Agent Environmental Geotech	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Pop Systems Manual Asset Tagging New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) Hazardous Material ACM Mercury Mercury Mercury Meterial (Subcontractor Name) D&Ms Warranty Submittals Product Data	DWG PDF MS Word PDF .XLS PDF PDF PDF PDF PDF PDF
Agent Environmental Geotech	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF PDF Systems Manual Asset Tagging New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) Hazardous Material ACM Mercury Mercury	DWG PDF MS Word PDF .XLS PDF PDF PDF PDF PDF PDF PDF PDF
Agent Environmental Geotech	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Systems Manual Asset Tagging New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) Hazardous Material ACM Mercury Mercury Material (Subcontractor Name) Borings (Material) (Subcontractor Name) D&Ms Varranty Submittals Product Data Shop Drawings Attic Stock Attic Stock Post Post	DWG PDF MS Word PDF .XLS PDF PDF PDF PDF PDF PDF PDF PDF
Agent Environmental Geotech	01-C	Record Drawings DWG PDF Record Project Manual Word Files PDF Systems Manual Asset Tagging New Equipment (if included in O/CX Contract Final Commissioning Report Environmental (Firm Name) Hazardous Material ACM Mercury Hazardous Material ACM Mercury Hazardous Material Borings (Material) (Subcontractor Name) D&Ms Warranty Sebmittals Product Data Shop Drawings Attic Stock Fraining	DWG PDF MS Word PDF PDF .XLS PDF PDF PDF PDF PDF PDF Material
Agent Environmental Geotech	01-C 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Record Drawings DWG	DWG PDF MS Word PDF PDF .XLS PDF PDF PDF PDF PDF PDF PDF PDF
Agent Environmental Geotech	01-C	Record Drawings DWG	DWG PDF MS Word PDF PDF XLS PDF PDF PDF PDF PDF PDF AVI, MP4, MOV

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PROJECT NAME	FOR:
JOB #	ISSUED: 02/25/2019

3.2 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's[and Construction Manager's] reference during normal working hours.

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