

SAFELITE AUTOGLASS SCOPE OF WORK CAD DRAFTER

VERSION LOG:

Version	Date:	Revision notes:
01	12/2/2021	

INTRODUCTION TO PROJECT:

Welcome to the Safelite Autoglass with FSU!

Our goals for this project are to collect all the information needed for our client to design new stores. FSU will be acting as the client's eyes and ears on site. Please pay attention for items that look out of the ordinary or expensive to correct.

CAD DRAFTER CRITICAL PROJECT INFORMATION:			
Project Fee:	Fee on QuickBase		
Turnaround/Upload Time Frame:	48 hours from Site Survey Completion		
FSU Project Contacts			
Project Manager:	Jenna Miller	Scheduling:	Jenna Miller
Project Manager phone:	303-355-7274	Scheduling phone:	303-355-7274
Project Manager email:	jmillier@fsusurveyor.com	Scheduling email:	jmillier@fsusurveyor.com
FSU Project Escalation:	Items from Scope of Work missing from Surveyor, Surveyor Uploads incomplete, or Surveyor Deliverables are late.		
1. Project Manager:	Jenna Miller		
2. Vice President of Operations:	Susan Young		
3. After hours contact:	Jenna Millers Cell Phone		
CAD Drafter Responsibilities:	<ul style="list-style-type: none"> o Thoroughly review the Scope of Work and address any questions with the Project Manager prior to CAD Drafting o Download and review Surveyor CAD, Field Drawings, and Photos o Review Scope of Work thoroughly o Make sure to use the latest CAD Template, (On QuickBase) o Contact Project Manager with any on issues or concerns o Upload all documentation/deliverables to QuickBase within the required timeframe, send notification to Project Manager. Note: all deliverables must be completed in full prior to upload, partial deliverable uploads will not be accepted o Enter amount of time it took to complete CAD Drafting o Enter "date CAD Drafter deliverables in" in QuickBase upon uploading of deliverables <p>CAD is to be completed to 100%, as if the CAD was going to be sent straight to the client</p>		

CAD DRAFTER DELIVERABLES PACKAGE:

The following items are required to be delivered to FSU:

1. First CAD File

I. HAND DRAWING IS REQUIRED FOR THE SURVEYED SPACE

<p>Extents/Column Dimension Plan (CAD Drafter will use this information to complete CAD)</p>	<ul style="list-style-type: none"> o Sketch of layout of space with overall dimensions front to back and side to side noted. If columns exist within space, Full placement, size, and spacing dimensions will be required as part of this drawing or as a separate drawing if necessary. Photos of the overall dimensions as shown on the laser are required for this plan. See attached examples in section VI at the end of this Scope of Work. o Sketch of elevations, to include items that are required in this Scope of Work
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II. DRAFT INFORMATION

Floorplan	<ul style="list-style-type: none"> o True placement of ALL items listed below: <ul style="list-style-type: none"> ▪ Exterior walls: must show demising wall and exterior wall thickness (if the exact thickness of the demising walls cannot be determined, draw them with an estimated thickness and note that it is an “assumed thickness”) ▪ Interior walls, Partition walls, partial walls (to include height) ▪ Wall openings & pass-throughs (sill/header height) ▪ Bump-outs, recesses, and niches ▪ Doors (headers) ▪ Windows (sill/header height) ▪ Visible columns, visible embedded columns ▪ Restroom partitions ▪ Changes in levels, steps(height) and ramps (indicate slope) ▪ Roll-up security gates (to include length of protrusion height and AFF)
MEP	<ul style="list-style-type: none"> o Mechanical: True placement, to include size (WxHxD) and AFF of ALL items listed below: <ul style="list-style-type: none"> ▪ HVAC unit ▪ Compressors ▪ Evaporative coolers ▪ Gas meters ▪ Thermostats ▪ Wall-mounted HVAC registers ▪ Ductwork (below the ceiling grid/only if it is exposed) o Electrical: Exact placement of ALL Electrical elements listed below including size (WxHxD) and AFFs. <ul style="list-style-type: none"> ▪ Electrical panels ▪ Electrical meters ▪ Timers ▪ Disconnect switches ▪ Control panels ▪ Keypads ▪ Transformers ▪ Outlets ▪ Switches ▪ Sensors ▪ Cameras ▪ Conduit ▪ Wall-mounted lights

	<ul style="list-style-type: none"> ▪ Doorbell equipment o Plumbing: Exact placement of ALL plumbing elements listed including AFFs. <ul style="list-style-type: none"> ▪ Toilets ▪ Urinals ▪ Hand sinks ▪ Utility sinks, mop sinks ▪ Drinking Fountains ▪ Floor drains, floor sinks ▪ Grab bars ▪ Clean-outs ▪ Exposed plumbing (stub-outs, shut-offs) ▪ Water heater/ Insta-hots ▪ Water meters ▪ Shower stalls o Tel/Data: Exact placement of ALL elements listed below including size (WxHxD) and AFFs. <ul style="list-style-type: none"> ▪ Telephone ports ▪ Data Ports ▪ Tel/Data Boards ▪ Conduit ▪ Server equipment ▪ Routers/Wi-Fi equipment ▪ D-marc/MPOE o Fire/Life safety: General Placement of the items below: <ul style="list-style-type: none"> ▪ Exit signs ▪ Emergency Lights ▪ Sprinkler system equipment
RCP	<ul style="list-style-type: none"> o True placement of ALL items listed below: <ul style="list-style-type: none"> ▪ Ceiling finishes (e.g.: ACT, drywall, open to deck, glued tile, etc.) ▪ Ceiling Heights ▪ Soffit/changes in ceiling height ▪ Headers/beams ▪ T-grid ▪ Lights ▪ Cameras, camera panels/domes ▪ Speakers ▪ HVAC registers (supply/return) ▪ Sensors ▪ Access Hatches ▪ Smoke detectors ▪ Exit signs ▪ Emergency lights ▪ Sprinkler heads ▪ Fire strobes ▪ Ceiling fans
Above Grid (HVAC and Sprinkler)	<ul style="list-style-type: none"> o True placement of: <ul style="list-style-type: none"> ▪ Main Sprinkler lines (BO Height in the Front, Middle and Rear of Space) o General placement of <ul style="list-style-type: none"> ▪ HVAC ductwork* ▪ Roof deck penetrations*

	*Anything over 11'-0" to 12' - 0" AFF FSU will be generally place items, for the safety of FSU's Surveyor.
Structural Plan	<ul style="list-style-type: none"> o True placement (including size and AFF, in the front, middle and rear) of: <ul style="list-style-type: none"> ▪ Structural Beams (Type, Size and BO Height in the Front, Middle and Rear of Space)* ▪ Columns including material and size. ▪ Joists (roof, floor, ceiling): Type, Size and BO Height in the Front, Middle and Rear of Space* ▪ Roof Deck (BO Height in the Front, Middle and Rear of Space) <p>*Anything over 11'-0" to 12' - 0" AFF FSU will be generally place items, for the safety of FSU's Surveyor.</p>
Building Section	<ul style="list-style-type: none"> o True placement of: <ul style="list-style-type: none"> ▪ Roof Deck ▪ Finish Ceiling Hts. ▪ Structural Beams ▪ Roof/Floor Joists ▪ Columns ▪ Structural Walls
Exterior elevations <i>All sides of the building</i> <i>(Surveyor to draft elevations in cad)</i>	<ul style="list-style-type: none"> o True placement of: <ul style="list-style-type: none"> ▪ Main building elements ▪ Doors/frames ▪ Windows/mullions ▪ Awnings ▪ Wall-mounted lights ▪ Utility boxes Top od foundation wall ▪ Bollards ▪ Fire dep. Connections ▪ Finish materials ▪ Columns ▪ Architectural Details
Photo Key	<ul style="list-style-type: none"> o Floor plan with photos grouped by area or room o Surveyor deliverable for photo bubble must be clear and accurate for the actual photo location. o Above grid plan with group bubbles <ul style="list-style-type: none"> ▪ Surveyor deliverable for photo bubble must be clear and accurate for the actual photo location.

III. PHOTOS	
Photos	<ul style="list-style-type: none"> o Exterior photos ARE NOT to be taken at night o Photos to include exterior of the building, any visible meters, parking lot, accessible parking, ramps, path of travel to building, all areas of the surveyed space including in suite restrooms. <ul style="list-style-type: none"> ▪ All meters must have a context/location photo and close-up of all plates or labels o Photo resolution: 1280 x 960 minimum o Photos to be taken in landscape format only o Required photos: <ul style="list-style-type: none"> ▪ All Sides of Building ▪ Adjacent Tenants ▪ Remote utility rooms (with path of travel from site) ▪ Remote storage rooms (with path of travel from site) ▪ Close up photos of all MEP equipment labels ▪ Parking lot and accessible spaces

	<ul style="list-style-type: none"> ▪ Photo Book ▪ All rooms and spaces within the survey space ▪ Above grid / structural design and configuration of structural members ▪ Roof - to include RTUs and general photo array ▪ Entrances / exits - both sides, to include threshold ▪ Matterport Deliverable - 360 Degree Photos ○ Photo sequence order: regardless of the order of the photos taken, the surveyor will reorder the photos to this sequence: <ul style="list-style-type: none"> ▪ Exterior (front then rear) ▪ Interior ▪ Above ceiling ▪ Roof ▪ Extra space (remote power or phone room) ○ Interior photos: <ul style="list-style-type: none"> ▪ Complete store front photos ▪ Corner photos facing into the space (each corner, 2 photos with your back in the corner facing the opposite corner. 1 eye level photo, 1 ceiling photo) ▪ Architectural details such as millwork, wainscoting, structural relationships ▪ Utility equipment (HVAC units, filter systems, water heaters, electrical, water, gas...etc. ▪ Above ceiling photos: limited amount. Take several photos to document the structure type. ○ Include any equipment outside of the space, MPOE, Dmarc, and panels. ○ Include detail photos of any electrical panels that serve the space (detail photos of panels not within the space are still required) if equipment is not in the space please take a path of travel from the space to the equipment location. ○ Close-up photos of: <ul style="list-style-type: none"> ▪ Electrical equipment including panel boxes (with all marking-make, model, serial number, amps, volts, phase, wire, as well as individual circuits on the box). ▪ Meters. ▪ MPOE and demarks. ▪ Utilities that service the space ▪ Rear door hardware from inside and outside of the space ▪ Roof Equipment
<p style="text-align: center;">360 Photos</p>	<ul style="list-style-type: none"> ○ Minimum one 360-degree photo per room ○ In larger rooms take 360-degree photos every 15'-0" in a grid layout ○ Include insides of closets, dressing rooms, and utility rooms ○ 360-degree photos must be taken on a tripod with lenses at 6'-0" A.F.F. ○ 360-degree photos must be taken using a remote trigger ○ 360-degree photos must meet or exceed the resolution of a Theta 360 S model
<p style="text-align: center;">Photo Deliverables</p>	<ul style="list-style-type: none"> ○ Still Photos <ul style="list-style-type: none"> ▪ Folder 1: <i>SSSA_XXXXX_CityST_Photos</i> ▪ Photo Naming Protocol: <i>SSSA_XXXXX(5 Digit Site Number)_###</i> ○ Laser Photos <ul style="list-style-type: none"> ▪ Folder 2: <i>SSSA_XXXXX_CityST_PhotoLaser</i> ▪ Photo Naming Protocol: <i>SSSA_XXXXX(5 Digit Site Number)_###</i> ○ 360 Photos <ul style="list-style-type: none"> ▪ Folder 3: <i>SSSA_XXXXX_CityST_360</i> ▪ Photo Naming Protocol: <i>SSSA_XXXXX(5 Digit Site Number)_###</i> ○ Create the Matterport link and upload it

IV. FIRST CAD DRAFT	
First CAD Draft	<ul style="list-style-type: none"> o CAD Floorplan Orientation: Main entry facing right or bottom depending on space layout o Completed surveyor CAD must be saved in AutoCAD compatible format saved to version 2013 o Object snaps must be used o Surveyor and Cad drafter must use the correct project template and layers o CAD draft must show exterior and demising wall thickness (Be sure to note if demising wall thickness is assumed) o CAD drafter requested to annotate, if surveyor have not filled in, the title block with the following: Address, Site Number, North Arrow, Date, Surveyor Name and Drafter Name. o Save CAD as: <i>SSSA_XXXXX_CityST_FirstCAD</i>

V. TABLE SUMMARY	
Summary Table	o The following SOW tables define required elements and placements in greater detail.

	FLOOR PLAN ELEMENTS: (REQUIRED IN SURVEYOR CAD)	Placement		Required Measurements					Notes	
		Exact	General	L	W	H	DIA	AFF		
FSU Default	Exterior Walls	✓		✓	✓					Include wall thicknesses
	Interior Walls, Partitions, Partial-Ht. Walls	✓		✓	✓	✓				Include wall thicknesses
	Bump-outs, Recesses, Niches	✓		✓	✓	✓		✓		
	Wall openings/Pass-Throughs	✓		✓	✓	✓		✓		Sill & Header Call Out
	Columns, Embedded Columns	✓		✓	✓	✓	✓			
	Doors Windows	✓ ✓			✓ ✓	✓ ✓			✓	-Include Mullion Detail -Include Sill Height -Include Header Height

	MINOR FLOOR PLAN ELEMENTS: (NOT REQUIRED IN SURVEYOR CAD)	Placement		Required Measurements					Notes	
		Exact	General	L	W	H	DIA	AFF		
	Steps, Ramps, Changes in Level	✓		✓	✓	✓				-step height -indicate ramp slope
	Restroom Partitions	✓		✓	✓	✓				-including height
	Roll-up security gates	✓		✓	✓	✓		✓		

	MECHANICAL ELEMENTS:	Placement		Required Measurements					Notes	
		Exact	General	L	W	H	DIA	AFF		
FSU Default	HVAC units	✓		✓	✓	✓		✓		<i>-take photos of the units and their labels.</i>
	Compressors	✓		✓	✓	✓		✓		
	Evaporative coolers	✓		✓	✓	✓		✓		
	Gas meters	✓						✓		
	Thermostats	✓						✓		
	Wall-mounted HVAC registers	✓			✓	✓			✓	
	Ductwork	✓		✓	✓	✓	✓	✓		<i>-to show on the MEP only if it is below the ceiling grid and it is exposed.</i>

FSU Default	MAJOR ELECTRICAL ELEMENTS: (All Elec. Elements)	Placement		Required measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
	Electrical panels	✓		✓	✓	✓			✓
Electrical meters	✓							✓	
Timers	✓		✓	✓	✓			✓	
Disconnect switches	✓		✓	✓	✓			✓	
Control panels	✓		✓	✓	✓			✓	
Key Pads	✓		✓	✓	✓			✓	
Transformers	✓		✓	✓	✓			✓	

	MINOR ELECTRICAL ELEMENTS: (All Elec. Elements)	Placement		Required measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
	Outlets	✓							✓
Switches	✓							✓	
Sensors	✓							✓	
Cameras	✓							✓	
Conduit	✓			✓			✓	✓	
Wall-mounted lights	✓							✓	
Doorbell equipment	✓							✓	

FSU Default	PLUMBING ELEMENTS:	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
	Toilets	✓							✓
Urinals	✓							✓	Provide CL dim to closest wall
Hand sinks	✓							✓	Provide CL dim to closest wall
Utility sinks/mop sinks	✓							✓	Provide CL dim to closest wall
Drinking Fountains	✓							✓	Provide CL dim to closest wall
Floor drains, floor sinks	✓			✓	✓		✓		Provide CL dim to closest wall
Grab bars	✓			✓				✓	Provide CL dim to closest wall
Clean-outs	✓						✓	✓	Provide CL dim to closest wall
Exposed Plumbing (stub-out, shut offs)	✓			✓	✓		✓	✓	Provide CL dim to closest wall
Water heater/insta-hots	✓			✓	✓	✓	✓	✓	Provide CL dim to closest wall
Water meters	✓							✓	-Provide CL dim to closest wall -Provide water line diameter
Shower stalls	✓			✓	✓				

FSU Default	TEL/DATA ELEMENTS:	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
	Telephone ports	✓							✓
Data ports	✓							✓	Provide CL dim to closest wall
Tel./Data boards	✓			✓	✓	✓		✓	Provide depth (depth of the deepest item on board)
Conduit	✓			✓			✓	✓	Provide CL dim to closest wall
Server equipment	✓							✓	Provide CL dim to closest wall
Routers/Wi-Fi equipment	✓							✓	Provide CL dim to closest wall
D-marc/MPOE	✓			✓	✓	✓		✓	Provide CL dim to closest wall

	FIRE/LIFE SAFETY:	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
	Exit signs		✓					✓	
	Emergency Lights		✓					✓	
	Sprinkler system equipment		✓					✓	

	RCP ELEMENTS:	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
FSU Default	Ceiling finishes (e.g.: ACT, drywall, open to deck, glued tile, etc.)	✓						✓	
	Ceiling Heights	✓						✓	
	Soffit/changes in ceiling height	✓						✓	
	Headers/beams	✓						✓	
	T-grid	✓							
	Lights	✓		✓	✓			✓	-note pendants AFF
	Cameras, camera panels/domes	✓							
	Speakers	✓							
	HVAC registers (supply/return)	✓		✓	✓				
	Sensors	✓							
	Access Hatches	✓		✓	✓				
	Smoke detectors	✓							
	Exit signs	✓							
	Emergency lights	✓							
	Sprinkler heads	✓						✓	-Note length of protrusion of the heads
Fire strobes	✓								
Ceiling fans	✓								

	ABOVE GRID	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
	Main Sprinkler lines	✓					✓	✓	-BO height in the front, middle, and Rear of Space
	HVAC ductwork		✓				✓	✓	
	Roof Deck penetrations		✓	✓	✓				

	STRUCTURAL PLAN ELEMENTS:	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
FSU Default	Structural Beams	✓			✓	✓		✓	-Specify Type of Beams -BO height in the front, middle, and Rear of Space
	Columns	✓		✓	✓	✓	✓		-Including material and size
	Joists	✓			✓	✓		✓	-BO height in the front, middle, and Rear of Space -type, size
	Roof Deck	✓						✓	-BO height in the front, middle, and Rear of Space

	BUILDING SECTION	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
FSU Default	Roof Deck	✓							
	Finish Ceiling Hts.	✓							
	Structural Beams	✓							
	Roof/Floor Joists	✓							
	Columns	✓							
	Structural Walls	✓							

	EXTERIOR ELEVATIONS ELEMENTS (All sides of the building):	Placement		Required Measurements					
		Exact	General	L	W	H	DIA	AFF	Notes
FSU Default	Main building elements	✓							
	Doors/frames	✓							
	Windows/mullions	✓							
	Awnings	✓							
	Wall-mounted lights	✓							
	Utility boxes Top of foundation wall	✓							
	Bollards	✓							
	Fire dep. Connections	✓							
	Finish materials	✓							
	Columns	✓							
	Architectural Details	✓							