Commercial Inspection — Field Checklist

Job address not entered

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Job information

Address	—
Estimate #	110526101
Client	Pat Rivera, Gulf Coast Properties
Client phone / email	941-555-0100
On-site contact	Mike (facilities)
Building	Warehouse / distribution · 2 level(s) · 24000 sq ft
Services in scope	iGUIDE interior scan; Above-ceiling iGUIDE captures; Interior vertical iGUIDE captures; Exterior vertical iGUIDE captures; Equipment documentation; Leica DISTO X6 precision laser measurements; Data processing, equipment tagging and quality review; Inspection web page

Before arrival — brief, kit and PLANIX setup

- [x] Project brief reviewed: required deliverables and the scans that produce them, site access, occupancy, special requirements (ladder, roof hatch key, lockbox, client instructions, scan order, special equipment)
- [ ] Equipment load-out (next section) counted, checked off and loaded in the vehicle
- [ ] Camera firmware and PLANIX app up to date; enough storage on the device
- [ ] PLANIX: project created and floors created (main floor, rooftop, any detached or additional floors)
- [ ] Each floor has its datasets: Horizontal, Vertical Front-to-Back, Vertical Side-to-Side
- [ ] R1 settings checked: HDR High, Noise Reduction Off, Stitching Static
- [ ] Weather checked for exterior and rooftop capture
- [ ] Scope, deliverables and turnaround confirmed in writing with the client
- [ ] Certificate of Insurance sent (if required); photo / data restrictions or NDA confirmed
- [ ] Site safety requirements obtained: PPE, orientation, permits, lockout or hazardous areas
- [ ] Existing drawings and prior surveys requested
- [ ] Google Earth aerial and property KML in the project's Customer folder
- [ ] Airspace checked: class, LAANC authorization, TFRs, NOTAMs, nearby heliports
- [ ] Flight missions planned as scoped: M4E mapping and facade, M4T thermal, M3M multispectral
- [ ] GCP / checkpoint layout planned; NTRIP / RTK account active
- [ ] DJI, SHARE S-20, Insta360 and DISTO firmware / apps up to date; all batteries charged; cards formatted
- [ ] Client and occupants told the arrival time, drone operations and scanning

Notes: _____

Equipment load-out

Enter the quantity loaded (batteries, cards, targets) and tick each line when it is in the vehicle. Repack against this list before leaving the site.

- [ ] DJI Matrice 4E (mapping) — RC, batteries, spare props, microSD — Qty: _____
- [ ] DJI Matrice 4T (thermal / roof) — RC, batteries, spare props, microSD — Qty: _____
- [ ] DJI Matrice 3M (multispectral) — RC, batteries, spare props, microSD, reflectance panel — Qty: _____
- [ ] Drone battery charging hub(s) and AC chargers — Qty: _____
- [ ] Landing pad, RC sunshade, LiPo safe bag — Qty: _____
- [ ] iGUIDE R1 camera — batteries, charger, cleaning cloth — Qty: _____
- [ ] Tripod with ball head / monopod — Qty: _____
- [ ] SHARE S-20 LiDAR scanner — batteries, charger, RTK antenna, survey pole / tripod — Qty: _____

- [ ] GCP targets, survey nails, flags, marking paint (with permission) Qty: _____
- [ ] Leica DISTO X6 — spare batteries, target plate, tripod adapter Qty: _____
- [ ] Insta360 X4 — batteries, invisible selfie stick, microSD Qty: _____
- [ ] iPhone 16 Pro Max (PLANIX and SHARE S-20 Capture apps) and charger Qty: _____
- [ ] iPad Pro 12.93, charger and Apple Pencil Qty: _____
- [ ] Power banks, vehicle inverter, extension cord, power strip Qty: _____
- [ ] Laptop, portable SSD backup drive, card reader, spare microSD / SD cards Qty: _____
- [x] Door stops Qty: 6
- [ ] External light, flashlight / headlamp Qty: _____
- [ ] Step ladder and ceiling tile lifter (above-ceiling scans) Qty: _____
- [ ] Tape measures (25 ft and 100 ft), pipe diameter tape / calipers Qty: _____
- [ ] Moisture meter (roof / facade moisture verification, if used) Qty: _____
- [ ] Asset tag labels, markers, clipboard Qty: _____
- [ ] Backpack for hands-free roof access Qty: _____
- [ ] PPE — hard hat, hi-vis vest, safety glasses, safety-toe boots, gloves, hearing protection Qty: _____
- [ ] Fall protection harness / lanyard (if the site requires it) Qty: _____
- [ ] Traffic cones and Drone Operations signage Qty: _____
- [ ] First aid kit, fire extinguisher, water, sunscreen Qty: _____
- [ ] Documents — Part 107 certificate, drone registrations, LAANC / waivers, COI, work order, thermographer and FL stormwater credentials Qty: _____

Notes: _____

Arrival and site walk

- [ ] Site contact located; introduced yourself and the purpose of the visit
- [ ] Scope and access confirmed: keys, codes, roof hatch, locked or restricted rooms
- [ ] Walkthrough done: mechanical / electrical rooms, incoming services, equipment to tag, roof access, above-ceiling tile locations
- [ ] Access limitations flagged with the site contact
- [ ] Direction of travel decided; above-ceiling tiles and vertical strip lines planned together
- [ ] Hazards identified: forklifts, moving equipment, open edges, energized gear, confined spaces
- [ ] Lights on; obstructions cleared where allowed (note any that can’t be)
- [ ] Staging area and drone launch / landing zone set, with signage

Notes: _____

Interior horizontal scans

- [ ] About 8 ft between scans (3 paces) and about 8 ft off the walls
- [ ] Doors propped open; a scan just before and just after every doorway and narrow passage
- [ ] Front of house complete
- [ ] Back of house complete
- [ ] Support spaces: mechanical, electrical, storage, washrooms, service corridors
- [ ] Tighter spacing in kitchens, server rooms, equipment-dense and occupied areas

- [ ] One direction, each section finished before the next — no black holes

Notes: _____

Exterior horizontal scans

- [ ] About 15 ft between scans and about 15 ft off the building (step past curbs and walkways)
- [ ] Interior-to-exterior transition scans at every entrance, exit and service door
- [ ] Continuous perimeter loop with a scan at every corner, entrance and piece of equipment or service
- [ ] Parking, access lanes, loading docks and drive-thru path (clearances and signage)
- [ ] Hero shot of the building front from about 40 ft back
- [ ] Outbuildings and disconnected spaces, each in its own pass
- [ ] Facade photos of every elevation (ground level)
- [ ] GCPs / checkpoints set and shot with the SHARE S-20 (RTK fix)
- [ ] Site features: curbs, sidewalks, dumpster enclosures, signage, fencing
- [ ] Stormwater structures: inlets, ponds, swales, outfalls, BMPs (condition noted)
- [ ] Visible utilities: valves, cleanouts, pull boxes, hydrants

Notes: _____

Equipment tags

Tag each unit in PLANIX as you reach it: a clear title, a context image showing where it is, and close-up readable label image(s) — make, model, serial. Some units need 3–4 images. Enter how many were tagged.

- [ ] Electrical — main service, panels and main breakers (overview, label, breaker / fuse list) Qty: _____
- [ ] HVAC — furnaces, boilers, air handlers, split systems (overview + spec label) Qty: _____
- [ ] Water heaters (overview + spec label) Qty: _____
- [ ] Water meter (overview, spec label, current reading) Qty: _____
- [ ] Incoming water line (overview, tape across the pipe showing the diameter, shutoff valves) Qty: _____
- [ ] Gas meter and incoming gas line (overview, label, reading, tape across the pipe showing the diameter) Qty: _____
- [ ] Electric meters and transformers (pad or pole mounted) Qty: _____
- [ ] Rooftop units, roof fans, roof vents, condensers (overview + spec label) Qty: _____
- [ ] Computer and data — server racks, MDF / IDF closets, patch panels, UPS, network equipment Qty: _____
- [ ] Project-specific items from the brief (kitchen, walk-in refrigeration condensers, telecom, security) Qty: _____
- [ ] Fire alarm control panel, sprinkler riser and Fire Department Connection (FDC) Qty: _____
- [ ] Backflow preventer Qty: _____
- [ ] Emergency generator and automatic transfer switch (ATS) Qty: _____
- [ ] Main switchgear / distribution and disconnects Qty: _____
- [ ] Elevator machine room / controller Qty: _____
- [ ] Air compressors, chillers, cooling towers, exhaust fans Qty: _____
- [ ] Loading docks, dock levelers and overhead doors Qty: _____
- [ ] Roof hatch / roof ladder access Qty: _____
- [ ] Grease trap / oil-water separator Qty: _____
- [ ] Fire extinguishers, eyewash stations, emergency lighting Qty: _____

Notes: _____

Above-ceiling scans (ACS)

- [ ] Ceiling fully exposed? Then no ACS is needed — note it here
- [ ] About 4 tiles: 2 front of house, 2 back of house, chosen for structural visibility
- [ ] Camera on the tripod above each opened tile; every location tagged
- [ ] Some opened tiles line up with vertical scan points (camera sits beneath the opening)
- [ ] Glued or painted tiles, non-drop ceilings or no clearance: tagged as an exception
- [ ] Tiles removed gently and every tile put back as found

Notes: _____

Vertical scans

- [ ] Camera on its side, set across the walking path (T shape); no turning within a strip
- [ ] About 15 ft between positions; extra scans at doorways and corridors
- [ ] Start inside the main entrance with the door open, scan the exterior entrance, then continue inside
- [ ] Front-to-back strip(s) captured in the Front-to-Back dataset
- [ ] Side-to-side strip(s) captured in the Side-to-Side dataset
- [ ] Exterior front: two verticals, at 15 ft and 30 ft from the wall
- [ ] Exterior rear: two verticals, at 15 ft and 30 ft
- [ ] Exterior left side: two verticals, at 15 ft and 30 ft
- [ ] Exterior right side: two verticals, at 15 ft and 30 ft
- [ ] All building corners covered
- [ ] Long sight lines through connected spaces; no entering neighboring businesses

Notes: _____

SHARE S-20 LiDAR and 360° imagery (as scoped)

- [ ] High-bay, warehouse and open-plan areas scanned with the SHARE S-20
- [ ] Mechanical and structural detail areas (pipe, duct, steel)
- [ ] Interior control points tied to the exterior GCPs (if georeferenced)
- [ ] Insta360 X4 360° walkthrough / photo points
- [ ] iPhone detail photos of conditions, damage and nameplates

Notes: _____

Rooftop

- [ ] Access is safe (hatch, ladder or stairs), hands free with a backpack — never force unsafe access
- [ ] Hazards checked: edges, wet surfaces, debris, level changes, hot or moving equipment, weather
- [ ] Rooftop floor in PLANIX; horizontal grid about 15 ft, no backtracking
- [ ] Full rooftop perimeter completed
- [ ] Equipment tagged as you go (RTUs, fans, vents, condensers)
- [ ] Rooftop verticals (front-to-back and side-to-side) lined up with the floor below

- [ ] Drains, scuppers, gutters, parapets and penetrations documented
- [ ] Roof condition noted: ponding, membrane damage, flashing and sealant failures

Notes: _____

Aerial operations (M4E / M4T / M3M)

- [ ] Pre-flight: LAANC / authorization active for the flight window
- [ ] Pre-flight: wind, visibility and precipitation within limits
- [ ] Pre-flight: launch area secured, visual observer briefed, operations over people within the rules
- [ ] Pre-flight: aircraft inspected (props, arms, gimbal, sensors, batteries); compass / IMU OK; RTK fix; RTH altitude above the tallest obstacle
- [ ] M4E nadir mapping mission (overlap, GSD and altitude in the notes)
- [ ] M4E oblique / facade mission
- [ ] M4T thermal roof scan — dry roof, after sunset; ambient temperature, humidity, wind and emissivity in the notes
- [ ] M4T thermal facade scan (envelope / energy loss)
- [ ] M3M multispectral (landscape scope) — reflectance panel captured, sun conditions noted
- [ ] Post-flight: flight log completed (times, batteries, incidents); image count checked per mission

Notes: _____

Leica DISTO X6 measurements

- [ ] Overall building dimensions checked
- [ ] Ceiling heights (to the tile and to the deck)
- [ ] Door / opening sizes and equipment clearances
- [ ] Measurements recorded in the notes or the DISTO app
- [ ] Clear heights, deck heights and dock / overhead door openings

Notes: _____

Exceptions — anything not captured is explained

- [ ] Locked, bolted or inaccessible areas tagged with a note and photo
- [ ] Missing or unlabeled equipment tagged ("inaccessible" or "no label") with a photo
- [ ] Unsafe ceiling or roof access tagged and reported

Notes: _____

Final review and upload

- [ ] PLANIX review: no gaps, transitions reinforced, support spaces, perimeter and rooftop complete
- [ ] Verticals, above-ceiling scans and equipment tags verified; labels readable
- [ ] Tiles replaced, doors closed, site left as found; site contact told the capture is complete
- [ ] Field checklist completed before uploading
- [ ] Uploaded to the iGUIDE Portal through PLANIX within 12 hours (no email or third-party transfer)
- [ ] Files kept on the device until the upload is confirmed
- [ ] Data backed up to a second device (SSD / laptop) before leaving the site

- [ ] Equipment repacked against the load-out list — nothing left on site
- [ ] Completed checklist PDF saved to the project's Customer folder and added to the iGUIDE project as a "Checklist" tag

Notes: _____

Survey completion confirmation

I confirm all required scans and tags have been captured and organized as detailed on this checklist. Any omissions were verified as not applicable with both the site and client / iGUIDE contacts.

Surveyor: Jerald H Smith **Survey date:** November 5, 2026