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# Site Survey Report

**[Location]**

for

**[Agency name]**

Date

*Contract XXXXXXXXXXXXXXXX  
Version 1.0*

Prepared by:

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

# SITE SURVEY REPORT

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Survey conducted Month, day year

## 1. CONTACT INFORMATION

Name	Title	Organization	Phone	Email
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			

- Title**
- 1 Site POC - Project Manager
  - 2 Weather POC
  - 3 Maintenance POC
  - 4 Electrical POC
  - 5 Communications POC
  - 6 Airfield Manager
  - 7
  - 8
  - 9

# SITE SURVEY REPORT

## 2. GENERAL AIRPORT INFORMATION

<b>Airfield Reference Data</b>					
Site Call Letters					
Magnetic declination from true north					
Airfield elevation					
Airfield latitude/longitude					
	<i>Average</i>		<i>Maximum</i>		
Wind speed data	kts		kts		
<b>Site Preparation Factors</b>					
Dig permits: responsibility, procedure, lead time					
Soil type					
Frost line depth					
	<i>Yearly average</i>		<i>Historic 1-day max</i>		<i>Historic 1-mo max</i>
Snow depth	inches		inches		inches
Other significant weather factors affecting site prep					
Special airfield issues (eg, airfield waivers)					
Planned changes or upgrades to airfield or outside equipment locations					
Names and contact info for local site prep subcontractors					
<b>Elevation, Grounding at Sensor Groups</b>		<i>Elevation at 3m Tower</i>	<i>Resistance (ohms)</i>	<i>Grounding Level (1,2,3)</i>	
Primary Sensor Group	<b>Approach xx</b>	ft	ohms	N/A	
Discontinuity Sensor Group	<b>Approach xx</b>	N/A	ohms	N/A	
<b>Installation Factors</b>					
Describe facility access requirements					
Describe number of escorts required for site prep, installation, and training					
Is Flightline Training required?					
Planned changes or upgrades to inside equipment locations or Lighting Vault					

# SITE SURVEY REPORT

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## 3. SHIPPING/RECEIVING REQUIREMENTS

Airport must receive and provide capability, through local transportation, to unload and transfer AWOS equipment from commercial carrier truck to local *covered* storage area. **A pallet or forklift may be necessary to move some of the palletized equipment. Note that a forklift is not to be used on pole bundles, as noted below.**

For two sensor groups:

**Site Prep Materials: (TBD)**

- x pallet, size
- x bundles, size
- 2 bundles, size
- etc

**Installation Materials: (TBD)**

- x pallets, size
- x bundlees, size
- (NO FORKLIFT ON POLE BUNDLES)
- etc.

<b>Shipping/Receiving</b>	
Details of receiving facilities and storage.	
Commercial Shipping Address	
Contact Name and Commercial Phone	
Is there a loading dock available for receiving?	
Forklift available? Details	
Is storage area secure, and covered? Provide details.	

# SITE SURVEY REPORT

## 4. AWOS EQUIPMENT (EDIT AS REQUIRED)

<b>Outdoor Equipment</b>	<b>PRIMARY</b>	<b>DISCONT</b>	<b>TOTAL</b>
	<b>xx Approach</b>	<b>xx Approach</b>	
Wind Speed and Direction	1	1	2
Temperature & Dewpoint	1		1
Barometric Pressure	3		3
Visibility	1		1
Ceilometer, 25K, with blower	1		1
Precip Accumulation	1		1
Freezing Rain	1		1
Precip ID	1		1
Lightning	1		1
FDCU	1	1	2
10m Tower	1	1	2
3m Tower	1	1	2
<b>Indoor Equipment</b>	<b>LOCATION</b>	<b>LOCATION</b>	<b>TOTAL</b>
TDAU	WX Office		1
OID	WX Office	Airfield Systems	2
15" monitor	WX Office	Airfield Systems	2
Printer	WX Office		1
CD/Read Write	WX Office		1
Casters for TDAU	WX Office		1
<b>RLIM</b>	<b>LOCATION</b>	<b>LOCATION</b>	<b>TOTAL</b>
RLIM	Airfield Lighting Vault		1
Active Runway Switch	None		
<b>Communications</b>	<b>LOCATION</b>	<b>LOCATION</b>	<b>TOTAL</b>
FDCU: Single-mode fiber	Primary	Discontinuity	2
RLIM: Single-mode fiber	Airfield Lighting Vault		1
OID: Ethernet connections	WX Office	Airfield Systems	2

SEE SECTION 12, ITEM 2 FOR REQUIRED FOLLOW UP ACTION.

AF Lighting Vault	Bldg xxx
METNAV Office/Airfield Systems	Bldg xxx, Room xxx
WX Office	Bldg xxx, Room xxx

# SITE SURVEY REPORT

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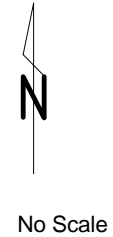
## 5. SENSOR GROUP REQUIREMENTS

See Primary and Discontinuity Site Plans, following, for locations of sensor foundations, power and comm demarcs, and trenching paths and distances.

	<b>Requirement</b>	<b>Existing</b>	<b>Action By Customer</b>	<b>Action By Coastal</b>
<b>Power – Primary FDCU</b>	120 VAC 30 Amp dedicated circuit	Existing Breaker Panel inside Generator Bldg #616	Install at power demarc	
<b>Power – Discont FDCU</b>	120 VAC 30 Amp dedicated circuit	Existing Breaker Panel inside Bak12 Bldg #2018	Install at power demarc	
<b>Fiber Comm Primary FDCU</b>	Two ST terminated unconditioned strands of single-mode fiber	None	Install at comm demarc	
<b>Fiber Comm Discont FDCU</b>	Two ST terminated unconditioned strands of single-mode fiber	Existing Fiber patch panel inside Bak12 Bldg #2018	Install at comm demarc	
<b>End-to-end testing</b>	End-to-end testing of all communication lines.		Perform Decibel Loss Tests	

# SITE SURVEY REPORT

## PRIMARY SITE PLAN 27 Approach



### Critical Measurements:





Distance from runway centerline to 3m tower pin: 500 ft

Distance from threshold to 3m tower pin: 1195 ft

Megger Reading: 2.19 ohms

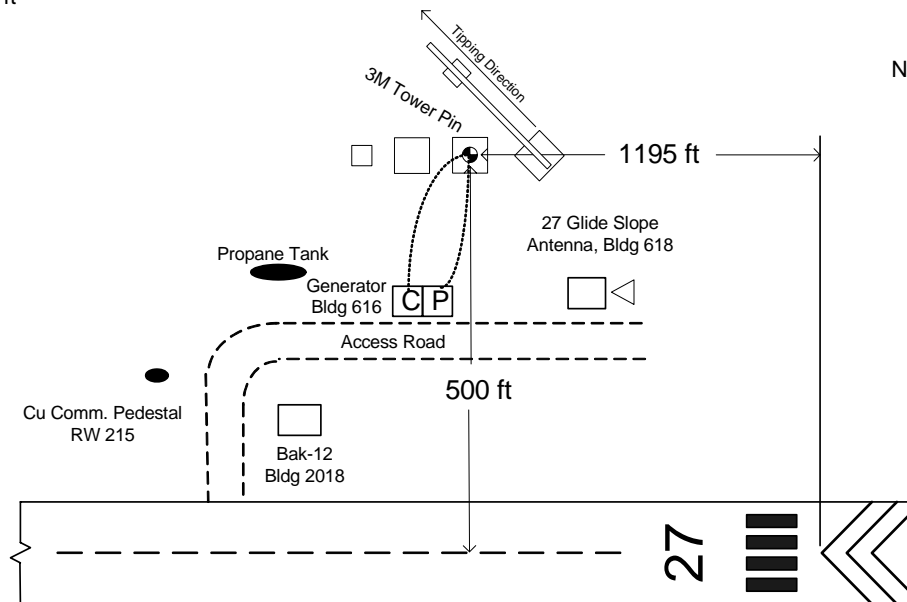
Elevation at 3m tower pin: 896.95 ft

**Power and Comm Trenching:** Approximately 200 ft trenching distance from staked location to power disconnect within generator building (bldg 616). Airport to provide a fiber demarc within generator building. No fiber demarc available during time of survey. No known obstacles.

-  Trenching Path
-  Communications Demarc
-  Power Demarc
-  Glideslope Antenna

### Non Standard conditions:

Increased foundation depths are required. See section 12, item 1 of this report for details.



### Misc. Info:

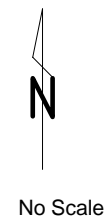
- 116 ft to Glide Slope Antenna
- 200 ft to nearest corner of Generator Bldg 616
- 337 ft to Copper Comm. Pedestal RW 215

### GPS Coordinates:

N xx xx.xxx  
W xx xx.xxx

# SITE SURVEY REPORT

## DISCONTINUITY SITE PLAN 09 Approach



### Critical Measurements:





Distance from runway centerline to 3m tower pin: 500 ft

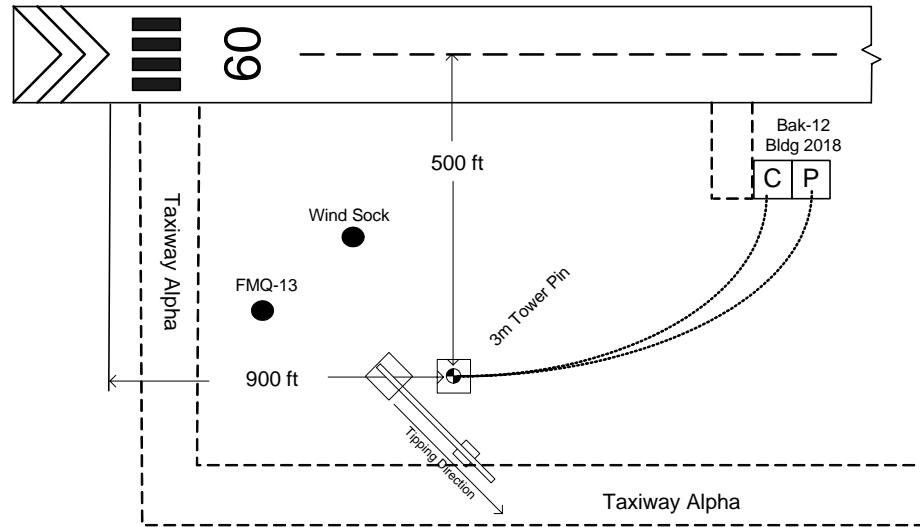
Distance from threshold to 3m tower pin: 900 ft

Megger Reading: 1.88 Ohms

Elevation at 3m tower pin: Not Required

**Power and Comm Trenching:** Approximately 403 ft trenching distance from staked location to power and comm. located within Bak-12 Bldg 2018.. No known obstacles.

-  Trenching Path
-  Communications Demarc
-  Power Demarc
-  Glideslope Antenna



### Non Standard conditions:

This field group contains winds only. No Ceilometer foundation required. **Increased foundation depths are required. See section 12, item 1 of this report for details.**

### Misc. Info:

403 ft to Bak-12 Bldg 2018.  
337 ft to Wind Sock  
831 ft West to Taxiway Alpha  
250 ft South to Taxiway Alpha

### GPS Coordinates:

N xx xx.xx  
W xx xx.xx

## SITE SURVEY REPORT

### 6. TDAU REQUIREMENTS

See TDAU Layout, following, for siting of TDAU, printer, and required power and comm connections.

	<b>Requirement</b>	<b>Existing</b>	<b>Action By Customer</b>	<b>Action By Coastal</b>
<b>Power – TDAU</b>	Dedicated 120 VAC 20 Amp duplex outlet with ground within 6 ft of TDAU location			
<b>Power – Printer</b>	Dedicated 120 VAC 20 Amp duplex outlet with ground within 6 ft of Printer location			
<b>Printer Location</b>	Within 6 ft cable run of TDAU			
<b>Comm punch-down</b>	Within 6 ft of TDAU			
<b>Interface punch-down</b>	Space for 4" x 12" Coastal-provided interface punch-down. Location to be within 6 ft of comm punch-down			
<b>Dial-in Voice Circuit</b>	1 unconditioned 24 AWG or larger twisted copper pair per dedicated telephone number from DCO to comm punch-down			
<b>Ground</b>	Central facility termination point within 6 ft of TDAU			
<b>TDAU Clearance</b>	36-inch clearance of front, rear, and at least one side for 22"x38"x48" high TDAU. Allow for door swing of 22"			
<b>Maint. Terminal</b>	Within 6 ft cable run of TDAU			
<b>NTFS Location</b>	Within 45 ft cable run of TDAU			
<b>LAN Location</b>	Within 20 ft cable run of TDAU			
<b>End-to-end testing</b>	End-to-end testing of all communication lines.			

# SITE SURVEY REPORT

**TDAU LAYOUT**  
WEATHER OFFICE  
Building xxx, Room xxx

## SITE SURVEY REPORT

### 7. WEATHER OFFICE REQUIREMENTS

See Weather Office Layout, following, for siting of display and required power and comm connections.

	<b>Requirement</b>	<b>Existing</b>	<b>Action By Customer</b>	<b>Action By Contractor</b>
<b>Power</b>	120 VAC 20 Amp Quadplex outlet within 6 ft of OID			
<b>Comm - ethernet</b>	CAT 5 cable, terminated in RJ-45 jack within 6 ft of OID, connected to TDAU punch down block. Cable run length not to exceed 40 feet.			
<b>Space</b>	To accommodate 4" x 10" CPU, standard keyboard, mouse, 15" monitor			
<b>End-to-end testing</b>	End-to-end testing of all communication lines.			

# SITE SURVEY REPORT

## **WEATHER OFFICE LAYOUT**

WEATHER OFFICE  
Building xxx, Room xxx

## SITE SURVEY REPORT

### 8. MAINTENANCE OFFICE REQUIREMENTS

See maintenance Office Layout, following, for siting of display and required power and comm connections.

	<b>Requirement</b>	<b>Existing</b>	<b>Action By Customer</b>	<b>Action By Coastal</b>
<b>Power</b>	120 VAC 20 Amp Quadplex outlet within 6 ft of OID			
<b>Comm – Ethernet</b>	CAT 5 cable, terminated in RJ-45 jack within 6 ft of sited OID location, connected to a jack located next to the airport provided fiber patch panel. Within 6ft of sited TDAU location.			
<b>Space</b>	To accommodate 4" x 10" CPU, standard keyboard, mouse, 15" monitor			
<b>End-to-end testing</b>	End-to-end testing of all communication lines.			

# SITE SURVEY REPORT

## **MAINTENANCE OFFICE LAYOUT** MAINTENANCE OFFICE/AIRFIELD SYSTEMS Building xxx, Room xxx

## SITE SURVEY REPORT

### 9. RLIM/ACTIVE RUNWAY REQUIREMENTS - ACTIVE

See RLIM Layout - Active, following for siting of active RLIM and required power and comm connections.

	Requirement	Existing	Action By Airport	Action By Contractor
<b>Power</b>	1 dedicated 120VAC 15 Amp circuit, terminated in covered electrical junction box within 6 ft of RLIM			
<b>Comm – Fiber</b>	2 strands of Single Mode fiber terminated with ST connectors inside wall jack within 6 ft of RLIM, connected to TDAU fiber patch panel.			
<b>Active Runway via monitoring PAPI's and Edgelight monitoring</b>	No requirement to monitor Active Approach at this location.			
<b>Space</b>	To accommodate 12" x 20" wall mounted enclosure			
<b>Ground</b>	Airport-approved ground			
<b>RLIM lighting equipment connection</b>	Interface with the runways edgeway CCR control lines will take place in the Digitrac controller located adjacent to the site RLIM location.			
<b>RLIM Modules</b>	Edgeway: 5 @ 120 VAC			

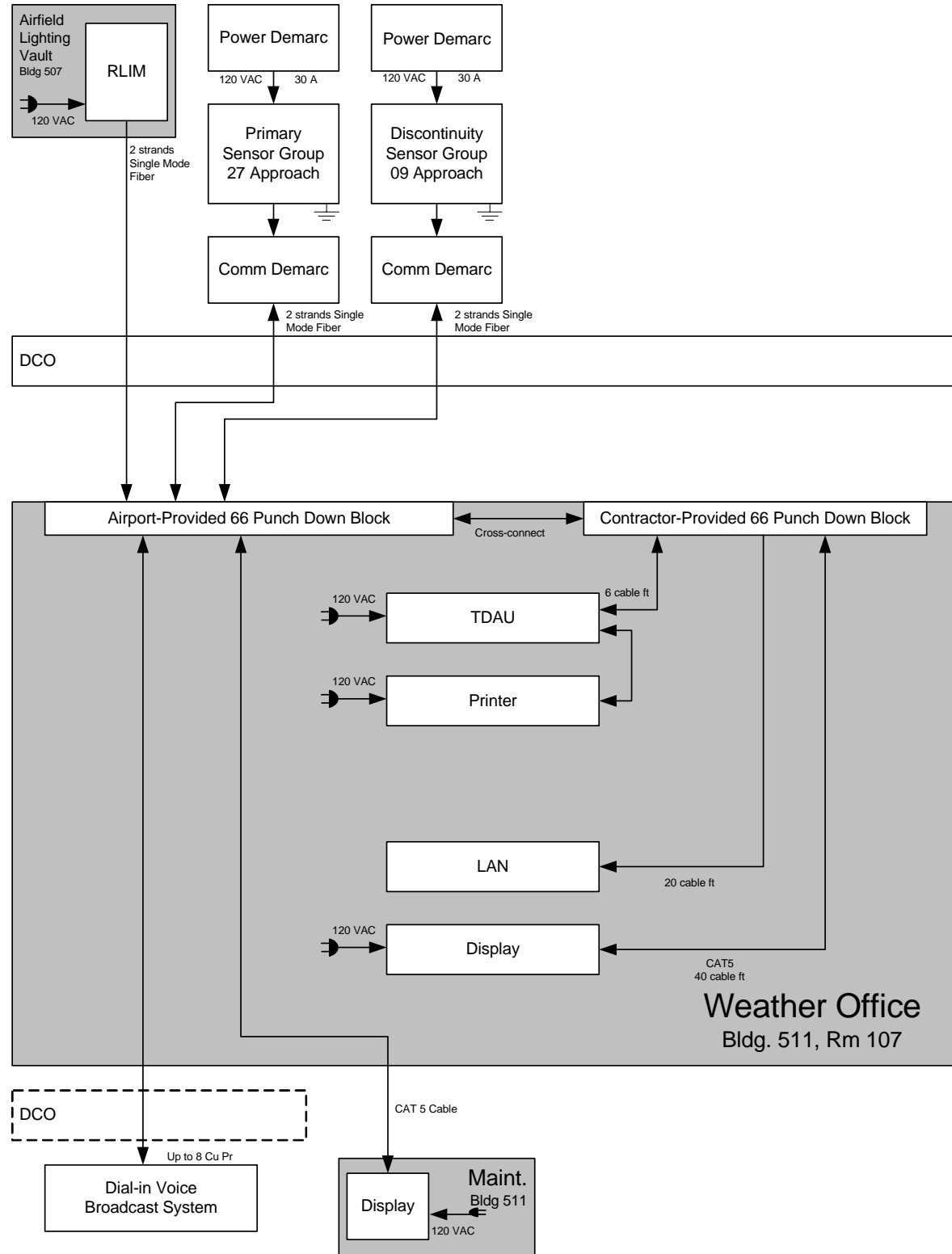
- **Proposed or expected changes to lighting vault or equipment:**
- **Vault or RLIM mounting location wall material type:**
  
- **Other:** All work in the vault must be performed with local electrician only once the Buss has been de energized and locked out.

# SITE SURVEY REPORT

**RLIM LAYOUT - Active**  
LIGHTING VAULT  
Building xxx

# SITE SURVEY REPORT

## 10. COMMUNICATIONS AND POWER DIAGRAM



# SITE SURVEY REPORT

## 11. COMMUNICATIONS TESTING REQUIREMENTS

Complete circuit testing (versus segment testing) needs to be performed to ensure that the installed fiber optic cable routing will allow the system to function as designed. The Decibel Loss Test is the preferred method

Test results falling in the acceptable range will provide a high degree of confidence that the communications lines will support a successful installation of the system.

All tests on the physical communication lines must be carried out from end-to-end (TDAU demarcation to FDCU, RLIM, or Display demarcation).

### Fiber Optic Line Drivers

Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels.

Distance can also be limited by fiber bandwidth.

Therefore, the optic signal level loss has to be determined at the END POINTS of the fiber optic link.

The signal loss for IFS D1000 line drivers should be less or equal to the values listed in the below table:

Fiber Optic Cable Type	Fiber Optic Line Driver Model	Description	Maximal Signal Loss
Multi-mode* 62.4/125 $\mu\text{m}$	D1010	RS-232 Transceiver 850 nm	11 dB
Multi-mode* 62.5/125 $\mu\text{m}$	D1020	RS-232 Transceiver 1310 nm	10 dB
Single-mode 9/125 $\mu\text{m}$	D1030	RS-232 Transceiver 1310 nm	17dB

\* For 50/125  $\mu\text{m}$  fiber subtract 4 dB from the Maximal Signal Loss.

### Decibel Loss Test Results

Test Points	Max dB Loss	Actual dB Loss	Pass/Fail
Primary FDCU to TDAU	17 db		
Discontinuity FDCU to TDAU	17 db		
RLIM to TDAU	17 db		

## SITE SURVEY REPORT

### 12. COASTAL/CUSTOMER OUTSTANDING ISSUES AND TASKS

	<b>Category</b>	<b>Description</b>	<b>Action Required</b>	<b>By Whom?</b>
1				
2				