City of TORRANCE California

Date: January 14, 2025

To: Honorable Mayor and Members of the City Council

From: Michelle Ramirez, Community Development Director

By: Gregg Lodan, Neighborhood Services Manager | GLodan@TorranceCA.Gov

Subject: Community Development – Approve First Amendment to Consulting Services Agreement for Airport Noise Monitoring System. Expenditure: None.

RECOMMENDATION

Recommendation of the Community Development Director that City Council approve a first amendment to a Consulting Services Agreement with Casper Airport Solutions of Berwyn, PA, (C2021-166) to extend the term for a one-year period beginning January 1, 2025 and ending December 31, 2025.

FUNDING

Not Required.

DISCUSSION

On December 14, 2021, the City entered into a three-year Consulting Service Agreement ("Agreement") with Casper Airport Solutions of Berwyn, PA ("Casper") to provide an Airport Noise Monitoring System, at an annual amount of $70,212. The Agreement also allowed for two one-year extensions (see Attachment 2). The current three-year Agreement expired on December 31, 2024.

Staff, along with Casper, is now requesting that the City Council execute the first of two one-year extensions. This extension would be for the period beginning January 1, 2025 and ending December 31, 2025, at the ongoing amount of $70,212 (see Attachment 1).

As an overview, the City's current noise monitoring system provides a community site, known as Noise Lab, for public education, noise abatement and airport news, flight tracking, and for the submittal of complaints. Staff has not had any concerns with Casper's services and is pleased with their performance.

Other than the one-year extension, all other terms of the Agreement would remain unchanged. Funding for the Agreement exists in the Airport Enterprise Fund Operating Budget.

ATTACHMENTS

1. First Amendment to Consulting Services Agreement with Casper Airport Solutions (C2021-166)
2. Consulting Services Agreement with Casper Airport Solutions (C2021-166)

FIRST AMENDMENT TO AGREEMENT C2021-166

This First Amendment to Contract Services Agreement C2021-166 ("First Amendment") is made and entered into as of January 1, 2025, by and between the CITY OF TORRANCE ("CITY"), a municipal corporation, and Casper Airport Solutions, a Delaware Corporation ("CONSULTANT").

RECITALS:

A. CITY and CONSULTANT entered into Consulting Services Agreement C2021-166, as of January 1, 2022 (the "Agreement"), whereby CONSULTANT agreed to provide a fully hosted web based off-site system including software, any necessary hardware or upgrades and services in order to monitor and report on noise generated by aircraft taking off and landing at Torrance Airport as well as identifying noise, curfew and training violations.

B. CITY remains satisfied with the work provided by CONSULTANT and wishes to extend the Agreement through December 31, 2025.

AGREEMENT:

1. Paragraph 2, entitled "TERM" is amended to read in its entirety as follows:

"1. **TERM**

Unless earlier terminated in accordance with Paragraph 4 below, this Agreement will continue in full force and effect from the Effective Date through December 31, 2025.

2. In all other respects, the Agreement as amended by this First Amendment, is ratified and reaffirmed and remains in full force and effect.

CITY OF TORRANCE,
a municipal corporation

By: _____
George K. Chen, Mayor

ATTEST:

_____
Rebecca Poirier, MMC
City Clerk

APPROVED AS TO FORM:
PATRICK Q. SULLIVAN
City Attorney

By: _____
Assistant City Attorney
Tatia Y. Strader

Casper Airport Solutions, Inc.,
a Delaware Corporation

By: _____
David van de Velde
Chief Financial Officer

This CONSULTING SERVICES AGREEMENT ("Agreement") is made and entered into as of January 1, 2022 (the "Effective Date"), by and between the CITY OF TORRANCE, a municipal corporation ("CITY"), and Casper Airport Solutions Inc., a Delaware corporation ("CONSULTANT").

RECITALS:

A. CITY wishes to retain the services of an experienced and qualified CONSULTANT to provide a fully hosted web based off-site system including software, any necessary hardware or upgrades and services in order to monitor and report on noise generated by aircraft taking off and landing at Torrance Airport as well as identifying noise, curfew and training violations.

B. In order to obtain the desired services, CITY has circulated its Request for Proposal for RFP for Furnish and install Noise Abatement System and Monitoring Services for the City of Torrance Airport, RFP No. B2021-40 (the "RFP").

C. CONSULTANT has submitted a Proposal (the "Proposal") in response to the RFP. In its Proposal CONSULTANT represents that it is qualified to perform those services requested in the RFP. Based upon its review of all proposals submitted in response to the RFP, CITY is willing to award this Agreement to CONSULTANT.

C2021-166

AGREEMENT:

1. **SERVICES TO BE PERFORMED BY CONSULTANT**
CONSULTANT will provide the services and install those materials listed in CONSULTANT's Proposal submitted in response to the RFP. A copy of the RFP is attached as Exhibit A. A copy of the Proposal is attached as Exhibit B. CONSULTANT warrants that all work and services set forth in the Proposal will be performed in a competent, professional and satisfactory manner.

2. **TERM**
Unless earlier terminated in accordance with Paragraph 4 below, this Agreement will continue in full force and effect from the Effective Date through December 31, 2024. The City may extend the agreement with two (2) additional 1-year extensions.

3. **COMPENSATION**
A. CONSULTANT's Fee.

For services rendered pursuant to this Agreement, CONSULTANT will be paid in accordance with the Compensation Schedule set forth in the Proposal; provided, however, that in no event will the total amount of money paid CONSULTANT, for services initially contemplated by this

Agreement, exceed the sum of $ 495,615.00 ("Agreement Sum"), unless otherwise first approved in writing by CITY.

B. Schedule of Payment.

Provided that CONSULTANT is not in default under the terms of this Agreement, upon presentation of an invoice, CONSULTANT will be paid the fees described in Paragraph 3.A. above, according to the Compensation Schedule. Payment will be due within 30 days after the date of the invoice.

4. TERMINATION OF AGREEMENT

A. Termination by CITY for Convenience.

1. CITY may, at any time, terminate the Agreement for CITY's convenience and without cause.

2. Upon receipt of written notice from CITY of such termination for CITY's convenience, CONSULTANT will:

   a. cease operations as directed by CITY in the notice;
   b. take actions necessary, or that CITY may direct, for the protection and preservation of the work; and
   c. except for work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

3. In case of termination for CITY's convenience, CONSULTANT will be entitled to receive payment for work executed, together with costs incurred by reason of the termination, along with reasonable overhead and profit on work not executed.

B. Termination for Cause.

1. If either party fails to perform any term, covenant or condition in this Agreement and that failure continues for 15 calendar days after the nondefaulting party gives the defaulting party written notice of the failure to perform, this Agreement may be terminated for cause; provided, however, that if during the notice period the defaulting party has promptly commenced and continues diligent efforts to remedy the default, the defaulting party will have such additional time as is reasonably necessary to remedy the default.

2. In the event this Agreement is terminated for cause by the default of CONSULTANT, CITY may, at the expense of CONSULTANT and its surety, complete this Agreement or cause it to be completed. Any check or bond delivered to the CITY in connection with this Agreement, and the money payable thereon, will be

forfeited to and remain the property of the CITY. All moneys due CONSULTANT under the terms of this Agreement will be retained by CITY, but the retention will not release CONSULTANT and its surety from liability for the default. Under these circumstances, however, CONSULTANT and its surety will be credited with the amount of money retained, toward any amount by which the cost of completion exceeds the Agreement Sum and any amount authorized for extra services.

3. Termination for cause will not affect or terminate any of the rights of CITY as against CONSULTANT or its surety then existing, or that may thereafter accrue because of the default; this provision is in addition to all other rights and remedies available to the CITY under law.

C. Termination for Breach of Law.

In the event CONSULTANT or any of its officers, directors, shareholders, employees, agents, subsidiaries or affiliates is convicted (i) of a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of a contract or subcontract; (ii) under state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty that currently, seriously, and directly affects responsibility as a public consultant or CONSULTANT; (iii) under state or federal antitrust statutes arising out of the submission of bids or proposals; or (iv) of violation of Paragraph 19 of this Agreement; or for any other cause CITY determines to be so serious and compelling as to affect CONSULTANT's responsibility as a public consultant or CONSULTANT, including but not limited to, debarment by another governmental agency, then CITY reserves the unilateral right to terminate this Agreement or to impose such other sanctions (which may include financial sanctions, temporary suspensions or any other condition deemed appropriate short of termination) as it deems proper. CITY will not take action until CONSULTANT has been given notice and an opportunity to present evidence in mitigation.

5. **FORCE MAJEURE**

If any party fails to perform its obligations because of strikes, lockouts, labor disputes, embargoes, acts of God, inability to obtain labor or materials or reasonable substitutes for labor or materials, governmental restrictions, governmental regulations, governmental control, judicial orders, enemy or hostile governmental action, civil commotion, fire or other casualty, or other causes beyond the reasonable control of the party obligated to perform, then that party's performance will be excused for a period equal to the period of that cause for failure to perform.

6. **RETENTION OF FUNDS**

CONSULTANT authorizes CITY to deduct from any amount payable to CONSULTANT (whether or not arising out of this Agreement) any amounts the payment of which may be in dispute or that are necessary to compensate CITY for any losses, costs, liabilities, or damages suffered by CITY, and all amounts for which CITY may be liable to third parties, by reason of CONSULTANT's acts or omissions in performing or failing to perform CONSULTANT's obligations under this Agreement. In the event that any claim is made by a third party, the amount or validity of which is disputed by CONSULTANT, or any indebtedness exists that appears to be the basis for a claim of lien, CITY may withhold from any payment due, without liability for interest because of the withholding, an amount sufficient to cover the claim. The failure of CITY to exercise the right to deduct or to withhold will not, however, affect the obligations of CONSULTANT to insure, indemnify, and protect CITY as elsewhere provided in this Agreement.

7. **CITY REPRESENTATIVE**

Nora Duncan is designated as the "City Representative," authorized to act in its behalf with respect to the work and services specified in this Agreement and to make all decisions in connection with this Agreement. Whenever approval, directions, or other actions are required by CITY under this Agreement, those actions will be taken by the City Representative, unless otherwise stated. The City Manager has the right to designate another City Representative at any time, by providing notice to CONSULTANT.

8. **CONSULTANT REPRESENTATIVE(S)**

The following principal(s) of CONSULTANT are designated as being the principal(s) and representative(s) of CONSULTANT authorized to act in its behalf with respect to the work specified in this Agreement and make all decisions in connection with this Agreement:

David van de Velde Phone: (323)984-8794 Email:david@casper.aero
James Honey Phone: (844)212-6518 Email: james@casper.aero
Heleen Erkamp Phone: (323) 984-8787 Email: heleen@casper.aero

9. **INDEPENDENT CONTRACTOR**

CONSULTANT is, and at all times will remain as to CITY, a wholly independent contractor. Neither CITY nor any of its agents will have control over the conduct of CONSULTANT or any of CONSULTANT's employees, except as otherwise set forth in this Agreement. CONSULTANT's agents and employees are not and shall not be considered employees of CITY for any purpose. CONSULTANT may not, at any time or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of CITY. CITY has no duty, obligation, or responsibility to CONSULTANT's agents or employees under the Affordable Care Act. CONSULTANT is solely responsible for any tax penalties associated with the failure to offer affordable coverage to its agents and employees under the Affordable Care Act and any other liabilities, claims and obligations regarding compliance with the Affordable Care Act with respect to CONSULTANT's agents and employees. CITY is not responsible and shall not be held liable for CONSULTANT's failure to comply with CONSULTANT's duties,

obligations, and responsibilities under the Affordable Care Act. CONSULTANT agrees to defend, indemnify and hold CITY harmless for any and all taxes and penalties that may be assessed against CITY as a result of CONSULTANT's obligations under the Affordable Care Act relating to CONSULTANT's agents and employees.

10. BUSINESS LICENSE

CONSULTANT must obtain a City business license prior to the start of work under this Agreement, unless CONSULTANT is qualified for an exemption.

11. OTHER LICENSES AND PERMITS

CONSULTANT warrants that it has all professional, contracting and other permits and licenses required to undertake the work contemplated by this Agreement.

12. FAMILIARITY WITH WORK

By executing this Agreement, CONSULTANT warrants that CONSULTANT (a) has thoroughly investigated and considered the scope of services to be performed, (b) has carefully considered how the services should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the services required under this Agreement. If the services involve work upon any site, CONSULTANT warrants that CONSULTANT has or will investigate the site and is or will be fully acquainted with the conditions there existing, prior to commencement of the services set forth in this Agreement. Should CONSULTANT discover any latent or unknown conditions that will materially affect the performance of the services set forth in this Agreement, CONSULTANT must immediately inform CITY of that fact and may not proceed except at CONSULTANT's risk until written instructions are received from CITY.

13. CARE OF WORK

CONSULTANT must adopt reasonable methods during the term of the Agreement to furnish continuous protection to the work, and the equipment, materials, papers, documents, plans, studies and other components to prevent losses or damages, and will be responsible for all damages to persons or property, until acceptance of the work by CITY, except those losses or damages as may be caused by CITY's own negligence.

14. CONSULTANT'S ACCOUNTING RECORDS; OTHER PROJECT RECORDS

Records of CONSULTANT's time pertaining to the project, and records of accounts between CITY and CONSULTANT, will be kept on a generally recognized accounting basis. CONSULTANT will also maintain all other records, including without limitation, specifications, drawings, progress reports and the like, relating to the work and services identified in Exhibit A. All records will be available to CITY during normal working hours. CONSULTANT will maintain these records for three years after final payment.

15. INDEMNIFICATION

CONSULTANT will indemnify, defend, and hold harmless CITY, the Successor Agency to the Former Redevelopment Agency of the City of Torrance, the City Council, each member thereof, present and future, members of boards and

commissions, their officers, agents, employees and volunteers (collectively "City Affiliates") from and against any and all liability, expenses, including defense costs and legal fees, and claims for damages whatsoever, including, but not limited to, those arising from breach of contract, bodily injury, death, personal injury, property damage, loss of use, or property loss to the extent arising out of any negligence, recklessness or willful misconduct of CONSULTANT, its officers, employees, agents, contractor, subcontractors or any officer, agent or employee thereof in relation to CONSULTANT's performance under this Agreement.

The obligation to indemnify, defend and hold harmless includes, but is not limited to, any liability or expense, including defense costs and legal fees, arising from the negligent acts or omissions, or willful misconduct of CONSULTANT, its officers, employees, agents, subCONSULTANTs or vendors. Payment by CITY is not a condition precedent to enforcement of this indemnity. In no event shall the cost to defend charged to the design professional exceed the design professional's proportionate percentage of fault. However, notwithstanding the previous sentence, in the event one or more defendants is unable to pay its share of defense costs due to bankruptcy or dissolution of the business, the design professional shall meet and confer with other parties regarding unpaid defense costs. Such defense and indemnification shall not apply in any instance of and to the extent caused by the sole negligence, recklessness or willful misconduct of CITY, its officers, employees, agents or representatives.

Furthermore, it is agreed upon at the request of CITY that CONSULTANT, its affiliates and sub-contractors will hold the CITY harmless and indemnify as a result of this agreement.

16. NON-LIABILITY OF CITY OFFICERS AND EMPLOYEES

No officer or employee of CITY will be personally liable to CONSULTANT, in the event of any default or breach by the CITY or for any amount that may become due to CONSULTANT.

17. INSURANCE

A. CONSULTANT and its subCONSULTANTs must maintain for the duration of the Agreement at their sole expense the following insurance, which will be full coverage not subject to self-insurance provisions:

1. Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:

   a. Primary Bodily Injury with limits of at least $500,000 per person, $1,000,000 per occurrence; and

   b. Primary Property Damage of at least $250,000 per occurrence; or

   c. Combined single limits of $1,000,000 per occurrence.

2. Commercial General Liability including coverage for premises, products and completed operations, independent CONSULTANTs/vendors, personal injury and contractual obligations with combined single limits of coverage of at least $1,000,000 per occurrence, $2,000,000 aggregate.

3. Workers' Compensation coverage as required by the Labor Code of the State of California and, if workers' compensation is required, employer's liability insurance with minimum limits of ($1,000,000) per occurrence or occupational illness. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the CITY for all work performed by the CONSULTANT, its employees, agents and subconsultants.

4. Professional Liability (Errors and Omissions): Insurance appropriate to the CONSULTANT'S profession, with limits no less than $1,000,000 per occurrence or claim, $2,000,000 aggregate.

5. Cyber Liability Insurance, with limits not less than $2,000,000 per occurrence or claim, $2,000,000 aggregate. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by CONSULTANT in contract and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.

B. The insurance provided by CONSULTANT will be primary and non-contributory.

C. CITY, the Successor Agency to the Former Redevelopment Agency of the City of Torrance, the City Council and each member thereof, members of boards and commissions, every officer, agent, official, employee and volunteer must be named as additional insureds under the automobile and general liability policies.

D. CONSULTANT must provide certificates of insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) indicating appropriate coverage, to the City Clerk of the City of Torrance before the commencement of work.

E. Each insurance policy required by this Paragraph must contain a provision that no termination, cancellation or change of coverage can be made without notice to the CITY.

F. If the CONSULTANT maintains broader coverage and/or higher limits than the minimums shown above, the CITY requires and shall be entitled to the broader coverage and/or the higher limits maintained by the CONSULTANT. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the CITY.

G. The procuring of insurance shall not be construed as a limitation on liability nor as full performance of the indemnification provisions of the CONSULTANT.

H. Claims Made Policies

If any of the required policies provide coverage on a claims-made basis:
a. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
b. Insurance must be maintained and evidence of insurance must be provided *for at least five (5) years after completion of the contract of work.*
c. If coverage is canceled or non-renewed, and not *replaced with another claims-made policy form with a Retroactive Date* prior to the contract effective date, the Vendor must purchase "extended reporting" coverage for a minimum of ***five (5)*** years after completion of contract work.

I. CONSULTANT hereby grants to CITY a waiver of any right to subrogation which any insurer of said CONSULTANT may acquire against the CITY by virtue of the payment of any loss under such insurance. CONSULTANT agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the CITY has received a waiver of subrogation endorsement from the insurer.

18. SUFFICIENCY OF INSURERS

Insurance required by this Agreement will be satisfactory only if issued by companies admitted to do business in California, rated "A" or better in the most recent edition of Best's Key Rating Guide, and only if they are of a financial category Class VII or better, unless these requirements are waived by the Risk Manager of CITY ("Risk Manager") due to unique circumstances. In the event the Risk Manager determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to CITY, the CONSULTANT agrees that the minimum limits of any insurance policies or performance bonds required by this Agreement may be changed accordingly upon receipt of written notice from the Risk Manager; provided that CONSULTANT will have the right to appeal a determination of increased coverage by the Risk Manager to the City Council of CITY within 10 days of receipt of notice from the Risk Manager.

19. CONFLICT OF INTEREST

A. No officer or employee of the CITY may have any financial interest, direct or indirect, in this Agreement, nor may any officer or employee participate in any decision relating to the Agreement that affects the officer or employee's financial interest or the financial interest of any corporation, partnership or association in which the officer or employee is, directly or indirectly interested, in violation of any law, rule or regulation.

B. No person may offer, give, or agree to give any officer or employee or former officer or employee, nor may any officer or employee solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any way pertaining to any program requirement, contract or subcontract, or to any solicitation or proposal.

20. NOTICE

A. All notices, requests, demands, or other communications under this Agreement will be in writing. Notice will be sufficiently given for all purposes as follows:

1. Personal delivery. When personally delivered to the recipient, notice is effective on delivery.

2. First Class mail. When mailed first class to the last address of the recipient known to the party giving notice, notice is effective three mail delivery days after deposit in a United States Postal Service office or mailbox.

3. Certified mail. When mailed certified mail, return receipt requested, notice is effective on receipt, if delivery is confirmed by a return receipt.

4. Overnight delivery. When delivered by an overnight delivery service, charges prepaid or charged to the sender's account, notice is effective on delivery, if delivery is confirmed by the delivery service.

5. Facsimile transmission. When sent by fax to the last fax number of the recipient known to the party giving notice, notice is effective on receipt. Any notice given by fax will be deemed received on the next business day if it is received after 5:00 p.m. (recipient's time) or on a non-business day.

6. Addresses for purpose of giving notice are as follows:

CONSULTANT: Casper Airport Solutions Inc.
1055 Westlakes Drive, Suite 300
Berwyn, PA 19312
Fax: (610) 727-4093

CITY: City Clerk
City of Torrance
3031 Torrance Boulevard
Torrance, CA 90503
Fax: (310) 618-2931

B. Any correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission of the party to be notified, will be deemed effective as of the first date the notice was refused, unclaimed or deemed undeliverable by the postal authorities, messenger or overnight delivery service.

C. Either party may change its address or fax number by giving the other party notice of the change in any manner permitted by this Agreement.

21. PROHIBITION AGAINST ASSIGNMENT AND SUBCONTRACTING

This Agreement and all exhibits are binding on the heirs, successors, and assigns of the parties. The Agreement may not be assigned or subcontracted by either CITY or CONSULTANT without the prior written consent of the other.

22. INTEGRATION; AMENDMENT

This Agreement represents the entire understanding of CITY and CONSULTANT as to those matters contained in it. No prior oral or written understanding will be of any force or effect with respect to the terms of this Agreement. The Agreement may not be modified or altered except in writing signed by both parties.

23. INTERPRETATION

The terms of this Agreement should be construed in accordance with the meaning of the language used and should not be construed for or against either party by reason of the authorship of this Agreement or by any other rule of construction that might otherwise apply. To the extent that the terms of the RFP or Proposal are inconsistent with the terms of this Agreement, the terms of this Agreement shall control.

24. SEVERABILITY

If any part of this Agreement is found to be in conflict with applicable laws, that part will be inoperative, null and void insofar as it is in conflict with any applicable laws, but the remainder of the Agreement will remain in full force and effect.

25. TIME OF ESSENCE

Time is of the essence in the performance of this Agreement.

26. GOVERNING LAW; JURISDICTION

This Agreement will be administered and interpreted under the laws of the State of California. Jurisdiction of any litigation arising from the Agreement will be in Los Angeles County, California.

27. COMPLIANCE WITH STATUTES AND REGULATIONS

CONSULTANT will be knowledgeable of and will comply with all applicable federal, state, county and city statutes, rules, regulations, ordinances and orders.

28. WAIVER OF BREACH

No delay or omission in the exercise of any right or remedy by a nondefaulting party on any default will impair the right or remedy or be construed as a waiver. A party's consent or approval of any act by the other party requiring the first party's consent or approval will not be deemed to waive or render unnecessary the other party's consent to or approval of any subsequent act. Any waiver by either party of any default must be in writing and will not be a waiver of any other default concerning the same or any other provision of this Agreement.

29. ATTORNEY'S FEES

Except as provided for in Paragraph 15, in any dispute, litigation, arbitration, or other proceeding by which one party either seeks to enforce its rights under this Agreement (whether in contract, tort or both) or seeks a declaration of any rights or obligations under this Agreement, the prevailing party will be awarded reasonable attorney's fees, together with any costs and expenses, to resolve the dispute and to enforce any judgment.

30. EXHIBITS

All exhibits identified in this Agreement are incorporated into the Agreement by this reference.

31. CONSULTANT'S AUTHORITY TO EXECUTE

The persons executing this Agreement on behalf of CONSULTANT warrant that (i) CONSULTANT is duly organized and existing; (ii) they are duly authorized to execute this Agreement on behalf of CONSULTANT; (iii) by so executing this Agreement, CONSULTANT is formally bound to the provisions of this Agreement; and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which CONSULTANT is bound.

32. PUBLIC RECORDS ACT

Any documents submitted by the CONSULTANT; all information obtained in connection with the CITY's right to audit and inspect the CONSULTANT's documents, books, and accounting records pursuant to paragraph 14 CONSULTANT's Accounting Records; Other Project Records; as well as those documents which were required to be submitted in response to the Request for Proposals (RFP) used in the solicitation process for this Contract become the exclusive property of the City. All such documents become a matter of public record and shall be regarded as public records. Exceptions will be those elements in the California Government Code Section 6250 et seq. (Public Records Act) and which are marked "trade secret", "confidential", or "proprietary".

The CITY shall not in any way be liable or responsible for the disclosure of any such records including, without limitation, those so marked, if disclosure is required by law, or by an order issued by a court of competent jurisdiction.

In the event the CITY is required to defend an action on a Public Records Act request for any of the aforementioned documents, information, books, records, and/or contents of a proposal marked "trade secret", "confidential", or "proprietary", the CONSULTANT agrees to defend and indemnify the CITY from all costs and expenses, including reasonable attorney's fees, in action or liability arising under the Public Records Act.

33. PREVAILING WAGE

All Services rendered pursuant to this agreement must be provided in accordance with all ordinances, resolutions, statutes, rules, regulations, and laws of City and any Federal, State, or local governmental agency of competent jurisdiction. Contractor is aware of the requirements of California Labor Code Sections 1720, et seq., and 1770, et seq., as well as of California Code of Regulations, Title 8, Sections 1600, et seq., (collectively, the "Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "Public works" and "Maintenance" projects. If the Services are being performed as part of an applicable "Public works" or "Maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is ONE THOUSAND DOLLARS ($1,000) or more, Contractor agrees to fully comply with the Prevailing Wage Laws including, but not limited to, requirements related to the maintenance of payroll records and the employment of apprentices.

Pursuant to California Labor Code Section 1725.5, no contractor or subcontractor may be awarded a contract for public work on a "Public works" project unless registered with the California Department of Industrial Relations ("DIR") at the time the contract is awarded. If the Services are being performed as part of an applicable "Public works" or "Maintenance" project, as defined by the Prevailing Wage Laws, this project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations ("DIR"). Contractor will maintain and will require all subcontractors to maintain valid and current DIR Public Works Contractor registration during the term of this Agreement. Contractor must notify City in writing immediately, and in no case more than twenty-four (24) hours, after receiving any information that Contractor's or any of its subcontractor's DIR registration status has been suspended, revoked, expired, or otherwise changed.

It is understood that it is the responsibility of Contractor to determine the correct salary scale. Contractor will make copies of the prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Services available to interested parties upon request, and post copies at Contractor's principal place of business and at the project site, if any. The statutory penalties for failure to pay prevailing wage or to comply with State wage and hour laws will be enforced. Contractor must forfeit to City TWENTY FIVE DOLLARS ($25.00) per day for each worker who works in excess of the

minimum working hours when Contractor does not pay overtime. In accordance with the provisions of Labor Code Sections 1810 et seq., eight (8) hours is the legal working day.

Contractor must also comply with State law requirements to maintain payroll records and must provide for certified records and inspection of records as required by California Labor Code Section 1770 et seq., including Section 1776. Contractor will defend (with counsel selected by City), indemnify, and hold City, its elected officials, officers, employees, and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It is agreed by the parties that, in connection with performance of the Services, including, without limitation, any and all "Public works" (as defined by the Prevailing Wage Laws), Contractor will bear all risks of payment or non-payment of prevailing wages under California law and/or the implementation of Labor Code Section 1781, as the same may be amended from time to time, and/or any other similar law. Contractor acknowledges and agrees that it will be independently responsible for reviewing the applicable laws and regulations and effectuating compliance with those laws. Contractor will require the same of all subcontractors.

CITY OF TORRANCE,
a municipal corporation

Patrick J. Furey, Mayor

ATTEST:

Rebecca Poirier, MMC
City Clerk

APPROVED AS TO FORM:
PATRICK Q. SULLIVAN
City Attorney

By: _____
Jocelyn N. Sarigumba
Deputy City Attorney

Casper Airport Solutions Inc.
a Delaware corporation

By: _____
David van de Velde 2/11/22
CFO

Attachments: Exhibit A Request for Proposals
Exhibit B Proposal

Rev. 0720

EXHIBIT A

REQUEST FOR PROPOSALS

[To be attached]

RFP No. B2021-40	Furnish and install Noise Abatement System and Monitoring Services for the City of Torrance Airport

RFP Submittal Information Mail or hand deliver Proposals. No faxed proposals. **No Late proposals.**	
Location:	Office of the City Clerk 3031 Torrance Blvd. Torrance, CA 90503
Date:	Monday, October 11, 2021
Time Deadline:	3:00 p.m. Local (Pacific) Time

Submittal Requirements

An original plus four (4) printed copies of your RFP submittal must be in a sealed envelope and marked with the RFP number and title by the deadline time listed above. Your submittal must include the following:

- Vendor's Response (Section III of this document pages 11 through 20) on the forms provided. If additional space is required, please attach additional sheets/pages.
- Proposer's Affidavit (Attachment 1)
- Any other things required that are not within the pages listed above.

Proposers will be disqualified if their proposal does not include the above items.

Prior to the award of a Contract
The successful vendor, must submit the following to the City of Torrance

- Proof of insurance and applicable bonds, as indicated in the terms and conditions of this RFP document.
- Proof of a City of Torrance Business License, please contact the City of Torrance Business License Office at (310) 618-5923.

Questions Regarding this RFP Must be Submitted in the Form of an E-Mail

- Your E-mail must include the RFP number and RFP title in the subject heading.
- The deadline to submit questions is 12:00 Noon Pacific Time on Thursday, September 23, 2021
- Your questions should be directed to:

Nora Duncan
Senior Environmental Quality Officer
nduncan@torranceca.gov

Document Revised September 2019

RFP No. B2021-40	Furnish and install Noise Abatement System and Monitoring Services for the City of Torrance Airport

SECTION I RFP INSTRUCTIONS AND INFORMATION

Notice is hereby given that sealed proposals will be received in the office of the City Clerk, City Hall, 3031 Torrance Boulevard, Torrance, CA, until 3:00 p.m. on Monday October 11, 2021. An original and four (4) printed copies of each proposal must be submitted in a sealed envelope and clearly marked: "RFP for Furnish and install Noise Abatement System and Monitoring Services for the City of Torrance Airport RFP No. B2021-40".

The City of Torrance:

The City of Torrance is on the western side of Los Angeles County. It is bordered by the Palos Verdes Peninsula on the south, the City of Gardena on the north, the City of Redondo Beach on the north and west boundaries, the City of Lomita on the east and the Pacific Ocean on the west. The City encompasses an area of approximately 21 square miles, 329 miles of Streets, 1870 intersections, 550 miles of sidewalks, 47,000 Street Trees, 6 Public Libraries, a Municipal Airport, Transit System, 46 Parks & Recreation Amenities, 6 Fire Stations, 1 Police Station and 1 Police Community Center, and has an estimated population of approximately 147,067, which makes Torrance one of the top 10 cities in Los Angeles County in regards to population.

Background:
Torrance is home to the Torrance Airport Zamperini Field (TOA), a general aviation airport with approximately 120,000 annual operations and 500 based aircraft. TOA is also home to Robinson Helicopters and several fixed base operators, including flight schools and instruction as well as the Western Museum of Flight and a Civil Air Patrol unit. The City has a stringent noise abatement program requiring pilots to land and depart the airport generating no more than 82 dBa Maximum Sound Level and 88 dBa Single Event Noise Exposure Limit (SENEL). The previous system employed seven Bruel & Kjaer type 2300MK II noise monitors placed in strategic locations in the community around the airport to measure noise levels generated by aircraft and a hosted software system using ANOMS to process the data received from the monitors. N-Numbers of noise violators were identified by correlating noise generated at the monitors with departure or arrival information gathered by listening to the FAA control tower. Violation notices were then generated and sent to the aircraft registered owner by mail. After initial notification, repeat violators may be taken to a Hearing Board for adjudication. Three findings of guilty of noise violations within a three-year period will result in denial of use of TOA for a period of three years.

The system was also used to identify unpermitted curfew departures as well as curfew noise violations, violations of training hours and early left turns. These violations are treated in the same way as noise violations and can result in denial of use of the airport.

The previous system included WebTrak, which allowed the public to look at near-real time flight data from TOA, including flight tracks and the noise levels registered by flights. This also allowed residents to enter complaints regarding noise or other violations directly into the WebTrak system, rather than having complaints sent by e-mail or phone and being hand entered into the system. Quarterly reports detailing noise violations by n-number, noise levels, remote monitor number, date, time and duration as well as action taken were generated for submission to the Airport Commission. In addition, reports listing all complaints by date and time as well as whether they were in fact a violation and action take were generated and included in the Quarterly reports.

Definitions:

Word	Definition as applied to this RFP
City	The City of Torrance, California
Vendor, Contractor, Proposer, Firm or Consultant	The person, firm, company or corporation providing services to the City, or submitting a proposal in response to this RFP
Contract, Purchase Order, Agreement, Purchasing Agreement	The agreement between the awarded Vendor and the City as a result of this Request for Proposals

Proposal Submittal Form:

The proposal must be made on the form provided for that purpose, enclosed in a sealed envelope, and marked "RFP for Furnish and install Noise Abatement System and Monitoring Services for the City of Torrance Airport, RFP No. B2021-40" and addressed to the City Clerk, City of Torrance, 3031 Torrance Blvd., Torrance, CA 90503. If an individual makes the proposal, it must be signed by that individual, with an address and telephone number. If made by a business entity, it must be signed by an authorized person that executes binding agreements and contracts. A full business address and telephone are required.

Blank spaces in the proposal form must be completed using ink, indelible pencil, or typewriter. The text of the proposal form must not be changed and no additions. Any unauthorized conditions, limitations, or provisos attached to a proposal will render it informal and may cause its rejection. Alterations by erasure or interlineations must be explained or noted in the proposal form over the signature of the Proposer.

Questions:

Submit questions in writing via email to Nora Duncan, Senior Environmental Quality Officer, nduncan@torranceca.gov by 12:00 P.M Noon, local Pacific time on Thursday, September 23, 2021. No questions via telephone. No questions submitted after deadline. Written answers and any other changes to the RFP will be sent (via email or the US Postal Service) to all known prospective proposers as an addendum to the RFP.

To ensure fairness and avoid misunderstandings, all communications must be in written format and submitted via e-mail by the due date. Any communications whether written or verbal to any person other than the designated individual listed on page 1, prior to award of a contract/purchase order is strictly prohibited and may cause disqualification.

Errors and Omissions:

The proposer may not take advantage of any errors and/or omissions in these specifications or in the proposer's specifications submitted with its proposal. If there are errors or omissions, you will be notified.

Proposers Examination of Requirements:

The Proposer is required to examine carefully the site, the instructions, information and specifications of this document, investigate the conditions, the character, quality and quantity of work to be performed as required by this document. Submission of a proposal will be considered prima facie evidence that the Proposer has made such examination.

Reservation:

The City reserves the right to revise or amend these specifications prior to the date set for opening proposals. Revisions and amendments will be identified by an addendum to this RFP. If the revisions require additional time to enable vendors to respond, the City may postpone the opening date accordingly. In such case, the addendum will include an announcement of the new proposal submittal due date.

Attach all addenda to the proposal. Failure to attach any addendum may render the proposal non-responsive and cause for rejection.

The City reserves the right to award a contract to a company solely based on the initial proposal submitted. The City reserves the right to require more information and clarification on information submitted in the proposal to complete the evaluation.

The City Council reserves the right to reject any and all proposals received, to take all proposals under advisement for a period not to exceed ninety (90) days after the date of the opening, to waive any informality on any proposal, and to be the sole judge of the relative merits of the material and or service mentioned in the respective proposals received. The City reserves the right to reject any proposal not accompanied with all data or information required.

This Request for Proposals does not commit the City to award a contract or to pay any cost incurred in the preparation of a proposal. All responses to this RFP document become the property of the City of Torrance.

The City reserves the right to examine all factors bearing on a Proposer's ability to perform the services under the contract. The City reserves the right to reject any proposal not accompanied with all data or information required. The City reserves the right to cancel this solicitation, without penalty, at its sole discretion.

Affidavit:

An affidavit form is enclosed. It must be completed signifying that the proposal is genuine and not collusive or made in the interest or on behalf of any person not named in the proposal, that the proposer has not directly or indirectly induced or solicited any other proposer to put in a sham proposal or any other person, firm, or corporation to refrain from proposing, and that the proposer has not in any manner sought by collusion to secure for itself an advantage over any other proposer. Any proposal submitted without an affidavit or in violation of this requirement will be rejected. (Attachment 1)

License Requirements:

The successful proposer is required to show proof of a current business license issued by the City of Torrance prior to commencement of work.

Evaluation of Proposals:

The City will be the sole determiner of suitability to the City's needs. Proposals are rated according to their completeness and understanding of the City's needs, conformance to the requirements of the technical specifications, compatibility with the City's current technology and operations, prior experience with similar scope of work, financial capabilities, delivery, and cost. Cost including any ongoing maintenance and support cost are reviewed to determine which proposal best meets the needs of the City.

The City will take into consideration a local Torrance vendor sales tax rebate of 1% for proposals submitted by a Torrance vendor that include a material component.

The City's project evaluation team will evaluate proposals based on the evaluation criteria listed below. Points will be assigned to each criterion up to a maximum of 100 points. Proposals will be ranked and that ranking will be made public.

Subsequently, the City may interview a qualified Firm, prior to deciding whether to recommend the award of an Agreement.

Description of Evaluation Criteria	Possible Points
Understanding of the project and scope of work	30
Ability to provide services requested	30
Firm's qualifications and experience with similar projects	20
Proposed cost and cost effectiveness	10
References	10
Maximum Total Points =	100

PART I – EVALUATION OF PROPOSALS: After receipt of proposals for this project, the City's project evaluation committee will evaluate proposals based on the criteria listed below (with exception of cost), and develop a short list of qualified Firms. The Firms on this short list will be invited to interview with the City.

PART II – INTERVIEW: At the time of the interview, invited Firms must submit a detailed fee proposal that includes a cost for each task of the project using the tasks outlined in the Scope of Work section of the RFP. Firms may list any additional services and associated costs that are not covered in the City's scope of work. These items should be listed separately from those specifically requested so they may be considered.

PART III – POST INTERVIEW EVALUATION: After the completion of the interviews and the scoring of the interview and cost components, the City's project evaluation committee will invite the highest-ranking Firm to negotiate a final contract because of this RFP. If negations fail, the next highest-ranking firm will be invited to negotiate a final contract.

The Contract:

The awarded vendor will be required to enter into a written contract with the City of Torrance. Attached is a copy of the standardized contract (Attachment A), which will be modified to reflect the awarded RFP. A copy of this RFP and the accepted proposal will be attached to and become a part of the contract.

Contract Term:

The initial contract will be for a period of 3 years, from January 1, 2022 to December 31, 2025. The City may extend the contract with two (2) additional 1-year extensions.

Fiscal Year Funding:

Each payment obligation of the City is conditioned upon the availability of state or local government funds, which are apportioned or allocated for the payment of such an obligation. If the funds are not allocated and available for the continuance of the function performed by the Vendor, the product or service directly or indirectly involved in the performance of that function may be terminated by the City at the end of the period for which funds are available.

Prevailing Wage:

The State of California Senate Bill 7 (SB7) applies to construction contracts over $25,000 and contracts for alteration, demolition, repair and maintenance over $15,000. There are no exemptions. The contract issued because of this RFP is subject to prevailing wage. This bid is subject to prevailing wage rates. Current prevailing wage determinations rates may found at the State of California Dept. of Industrial Relations website http://www.dir.ca.gov/oprl/DPreWageDetermination.htm

Contractor Registration the State of California Senate Bill 854 (SB854):

- No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5
- No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- Public works refers to construction, alteration, demolition, installation, or repair work (including maintenance) done under contract and paid by public funds
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).
- For additional information and to register online go to http://www.dir.ca.gov/Public-Works/PublicWorks.html

Independent Contractor:

The successful proposer will at all times remain to the City, a wholly independent contractor. Neither the City nor any of its agents will have control over the conduct of the Contractor or any of the Contractor's employees, except as otherwise set forth in the awarded Agreement. The Contractor's agents and employees are not and will not be considered employees of the City for any purpose. The Contractor may not, at any time or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of the City. The City has no duty, obligation, or responsibility to the Contractor's agents or employees under the Affordable Care Act. The Contractor is solely responsible for any tax penalties associated with the failure to offer affordable coverage to its agents and employees under the Affordable Care Act and any other liabilities, claims and obligations regarding compliance with the Affordable Care Act with respect to the Contractor's agents and employees. The City is not responsible or liable for the Contractor's failure to comply with the Contractor's duties, obligations, and responsibilities under the Affordable Care Act. The Contractor agrees to defend, indemnify and hold the City harmless for all taxes and penalties that may be assessed against the City because of the Contractor's obligations under the Affordable Care Act relating to the Contractor's agents and employees.

Payments:

Complete payment on the contract price will be made in approximately thirty (30) days from date of delivery, or completion and acceptance, unless otherwise provided for in Proposer's proposal or in these specifications. Payments will be made upon verification and acceptance by the City of contract services performed and upon the City's receipt of a correct invoice.

Suspension of Procurement:

The City may suspend, in writing all or a portion of the procurement of materials or services pursuant to this RFP and subsequent contract agreement, in the event unforeseen circumstances make such procurement impossible or infeasible, or in the event, City should determine it to be in the best interest of City to cancel such procurement of services or materials.

In the event of termination, selected Proposer will perform such additional work as is necessary for the orderly filing of documents, and closing of project.

The selected Proposer will be compensated for the terminated procurement based on materials or services actually furnished or performed prior to the effective date of termination, plus the work reasonably required for filing and closing.

Notice:

Whenever it will be necessary for either party to serve notice on the other respecting the Agreement, such notice will be served by personal delivery or by certified mail to the following addresses, unless and until different addresses may be furnished in writing by either party or the other, and such notice will be deemed to have been served within seventy-two (72) hours after the same has been deposited in a United States Post Office by certified mail or has been delivered personally, and will be valid and sufficient service of notice for all purposes:

CITY: City Clerk
City of Torrance
3031 Torrance Boulevard
Torrance, CA 90503

VENDOR: Will be determined upon award of contract.

Notice of Intent to Award:

Approximately two (2) weeks prior to the anticipated City Council meeting awarding a contract because of the RFP, the City will notify all proposer's of its intent to award. Results will be posted on the City of Torrance Web site https://www.torranceca.gov/government/city-clerk/request-for-proposals

City of Torrance Bid/RFP Protest Procedures:

The City of Torrance Bid/RFP Protest Procedures are found on the City of Torrance Web site: https://www.torranceca.gov/government/city-clerk/request-for-proposals

Overview/Introduction:

The City of Torrance is requesting proposals from qualified vendors for an automated Airport Noise Abatement System and Services. Torrance Airport (TOA) is a general aviation airport averaging 130,000 operations per year, surrounded by noise sensitive residential uses. While there is currently no operational noise monitoring system, components of the previous system remain in place. Noise generated by aircraft overflight was gathered by a series of Bruel & Kjaer type 2300MK II noise monitors surrounding the airport. (See attached map for locations.) The system included a 4-channel digital logger with server, two OptiPlex 9020MT user workstations and an off-site server hosted by the system provider. ANOMS software ran the noise abatement functions. The monitors currently in place are 15 years old. (Technical specifications for the components currently existing are attached) Cost is a concern; the scope of work includes the ideal system, however, respondents are requested to cost items separately where possible in order to allow for a system that will provide the most functionality at the most reasonable cost. If there are different levels of service available, a presentation of options with accompanying cost should be presented.

This RFP is intended to be as descriptive as possible. However, Proposers may not take advantage of omissions or oversights in this document. Proposers must supply products and services that meet or exceed the requirements of this RPF. In the event of a dispute over installation or performance, the needs of the City of Torrance will govern.

Scope of Work:

Successful Proposer must provide a fully hosted web based off-site system including software, any necessary hardware or upgrades and services in order to monitor and report on noise generated by aircraft taking off and landing at TOA as well as identifying noise violations, curfew and training violations and any other violations of the Torrance Municipal Code division 5 Airports (attached). The ideal system should include:

Noise Monitoring Equipment and Software

- Location of Monitors (current monitor locations should suffice, with the exception of monitors 4 & 6, which may need relocation)
- Number of monitors
- Software ability to identify aircraft violating noise limits
- Ability to identify curfew violations, training violations and early turns
- Software ability to identify noise violations that meet the State Standard of +1.5 dBA variable, in order to help Staff eliminate events that do not meet criteria for Hearing Board appearances.
- Provide daily remote calibration of all remote monitoring equipment
- Provide routine on-site training for staff to ensure maximum operating potential
- Ability to interact with City of Torrance CIT Department for a seamless transition and product introduction

Flight Monitoring

- Ability to measure and display flight tracks and altitude of all aircraft
- Identification of individual aircraft by N-number

Air Traffic Control (ATC) Access

- Access to ATC channels for runways, ground control and Automatic Terminal Information System (ATIS).

Complaint Management

- User friendly complaint system
- Access across multiple platforms (such as desktop, mobile)
- Automatic entry into complaint log
- Automatic response to complainant
- Linkage of complaint to pertinent operation or violation
- Grouping of potentially redundant complaint filings of a specific alleged violation
- Pop up messaging on public complaint system that would direct reporting parties to the FAA for specific complaints under FAA jurisdiction.

Reporting Modules

- Complaint and violation logs automatically populated from system
- Cross reference of complaints with corresponding operations and violations
- Ability to differentiate and report on curfew, training and early turn violations
- Automatic generation of verified daily violation list, identifying aircraft by N-number, as well as all pertinent information surrounding the violation
- Automatic generation of violation letters corresponding to daily violation list
- Ability to track and report on curfew exemptions
- Ability to track and report on noise tests
- Formatting of reports into public documents
- Ability to track and report on all Violation cases
- Ability to generate Enforcement reports for violations
- Ability to track Hearing Board cases and Appeals
- Ability to generate monthly and quarterly reports containing at a minimum all data above.
- Local Weather reports

Citizen Accessible Noise and Radar Tracking

- Digitally accessible display of airport and surrounding area, including noise monitors
- Display of aircraft flight tracks and altitude
- Display of noise readings, both Maximum and SENEL
- Linkage with Complaint module for complaint filing and status updates

System Maintenance and management

- Listing of any/all equipment to be replaced from the existing system.
- Provide addition of any new equipment or removal of any existing equipment as needed.
- System requirements for hardware to ensure optimal software operation
- Provide system management and first level diagnostics to include ensuring valid data, functional noise monitors, system downloads, access to data, both short and long term, access to FAA tower communications and radar data feed
- Provide routine system maintenance to ensure the operating integrity of the system including data processing, data integrity, performance and system administration
- Provide daily remote calibration of all remote monitoring equipment
- Provide bi-annual onsite system maintenance of all remote monitoring systems included documented calibration to ANSI standards to ensure operating system accuracy
- Ability to store, back up and recover system data
- Ability to integrate camera data into the system is desirable
- Provide routine on-site training for staff to ensure maximum operating potential
- Ability to interact with City of Torrance CIT Department for a seamless transition and product introduction

Work Plan:

Prior to the beginning of the work, the successful proposer must provide the City a schedule and work plan for approval showing any time requirements for installation or changes to the system, including:

- Schedule for procurement and replacement of any/all new equipment.
- Schedule for removal of any old equipment to be replaced.
- Schedule for installation of software.
- A timetable for production of accurate daily violation identification, notification generation and reports as well as for production of monthly reports as described above is required.
- A schedule for a minimum of quarterly maintenance visits and response times for any issues with the system should be included.

RFP No. B2021-40	Furnish and install Noise Abatement System and Monitoring Services for the City of Torrance Airport

SECTION III PROPOSAL SUBMITTAL

FAILURE TO COMPLETE ALL ITEMS IN THIS SECTION MAY INVALIDATE PROPOSAL.

In accordance with your "Request for Proposals (RFP)", the following proposal is submitted to the City of Torrance.

RFP Submitted By:

_____
Name of Company

_____
Street Address City Zip Code

_____ _____
Telephone Number Fax Number

_____ _____
Printed Name/Title E-Mail Address

_____ _____
Signature Date

Form of Business Organization: Please indicate the following (check one).

☐ Corporation ☐ Partnership ☐ Sole Proprietorship ☐ Other: _____

Do you have a Parent Company? ☐ No ☐ Yes, _____
(Name of Parent Company)

Do you have any Subsidiaries? ☐ No ☐ Yes, _____
(Name of Subsidiary Company)

Business History:

Years in business under your current name and form of business organization? _____ Years
If less than three (3) years and your company was in business under a different name, what was that name?

_____

_____

Contact for Additional Information:

Please provide the name of the individual at your company to contact for any additional information:

_____ _____
Printed Name Title

_____ _____
Telephone E-Mail Address

Vendor Name: _____

Addenda Received: (It is mandatory to complete this section) Please indicate addenda information you have received regarding this RFP. If addenda is not attached to your bid submittal (per instructions), you are still held accountable to its contents.

Addendum No.	Date Received

Addendum No.	Date Received

☐ No Addenda received regarding this RFP.

Payment Terms: The City of Torrance Payment terms are Net 30. The City does not make pre-payments, or pay upon receipt.

Do you offer any discounted invoice terms? _____

Project Start and Completion:

The City requires the project to start as soon as possible from the award of a contract and the project completed as soon as possible. Specific periods that are mutually agreed upon will be established after award of a contract.

Renewal Option:

Please state, if requested by the City, would your company agree to a renewal of this contract with price, terms and conditions unchanged. If the contract is extended, the contract may be increased by the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

Yes _____ we would agree to add one (1) additional year (after initial 3 year contract term)

Yes _____ we would agree to add two (2) additional years (after initial 3 year contract term)

No _____ we would not be interested in renewing this contract.

Project Manager:

Please provide the name of the individual at your company who will serve as Project Manager for this contract.

_____ Name

_____ Title

_____ Telephone Number

_____ Fax Number

_____ Email Address

Vendor Name: _____

Contract Representative:
Please provide the name of the individual at your company who will be responsible for administering this contract.

Name	Title
Telephone Number	Fax Number	Email Address

Sub-Contractors:

If awarded, will you be using sub-contractors to carry out the scope of work required in this RFP?

☐ Yes, we will be using sub-contractors and have listed their contact information below.

☐ No, we will not be using any sub-contractors for this project.

Company Name	Contact Name	Title
Telephone Number	Fax Number	Email Address

Please explain the working relationship between your company and the sub-contractor.

Vendor Name: _____

Background and Recent Experience with Similar Projects:

In the space below, please provide a narrative explaining your background and recent experience with similar projects as the scope of work identified in this RFP. (Please attach additional sheet if needed.)

Vendor Name: _____

Work Plan for Each Required Task:

In the space below, please describe in detail the methodology you will be utilizing to conduct for each task. (Please attach additional sheets if needed.)

Vendor Name: _____

References:

Please supply the names of companies/agencies for which you recently supplied comparable goods/services as requested in this RFP. A minimum of three (3) references is required; additional references are optional. References from public agencies are preferred. ***Do not include the City of Torrance as a reference for this RFP.***

1	Name of Company/Agency:	
	Street Address:	
	City: State, Zip Code:	
	What Product/Service did you provide to this Company/Agency?	
	Name of Person to Contact:	
	Phone Number of Contact:	
	Email Address of Contact:	
2	Name of Company/Agency:	
	Street Address:	
	City, State Zip Code:	
	What Product/Service did you provide to this Company/Agency?	
	Name of Person to Contact:	
	Phone Number of Contact:	
	Email Address of Contact:	
3	Name of Company/Agency:	
	Street Address:	
	City, State Zip Code:	
	What Product/Service did you provide to this Company/Agency?	
	Name of Person to Contact:	
	Phone Number of Contact:	
	Email Address of Contact:	

Vendor Name: _____

RFP Submittal Requirement and Acknowledgement Vendors are required to answer each of the questions listed below. You must indicate below that you have provided this information in your proposal submittal. You must attach additional sheets to your RFP submittal describing in detail the service you are proposing.	
RFP Scope of Work Questions	Indicate what page in your proposal you have answered this question.
Did you include original and 4 copies of your RFP Submittal?	☐ Yes ☐ No
Did you include a signed Affidavit Form with your RFP Submittal?	☐ Yes ☐ No
Did you describe price for Hardware and Software installation?	☐ Yes ☐ No
Did you attach additional sheets to answer the Background and Recent Experience with Similar Projects information on page ____ of this RFP?	☐ Yes ☐ No Page ___ of our submittal.
Did you complete a project proposal as described in the Technical Requirements?	☐ Yes ☐ No
Did you include all addenda if any issued by the City?	☐ Yes ☐ No
Did you include References?	☐ Yes ☐ No Page ___ of our submittal
Are your Wage Rates (Non-Prevailing) Included?	☐ Yes ☐ No Page ___ of our submittal.
Have you included Proposed Alternative Language to City's Pro Forma Consulting Services Agreement (if applicable)	☐ Yes ☐ No Page ___ of our submittal

Vendor Name: _____

RFP Submittal Requirement and Acknowledgement Continued	
Vendors are required to answer each of the questions listed below. You must indicate below that you have provided this information in your proposal submittal. You must attach additional sheets to your RFP submittal describing in detail the service you are proposing.	
RFP Scope of Work Questions	Indicate what page in your proposal you have answered this question.
Please indicate your price to provide monthly services as indicated in this RFP	$ _____/Month
Did you describe your experience with identification of aircraft noise violations, curfew violations and other code violations at a general aviation airport?	☐ Yes ☐ No Page ___ of our submittal.
Did you describe your experience providing a web-based community portal for identifying aircraft, noise levels and radar tracks in a general aviation setting?	☐ Yes ☐ No Page ___ of our submittal.
Did you describe the hardware and software involved in measuring aircraft noise and how the accuracy of the measurements are ensured?	☐ Yes ☐ No Page ___ of our submittal.

Vendor Name: _____

Price Proposal	
In accordance with your "Request for Proposal", the following price proposal is submitted to the City of Torrance. We understand that our price submittal is a not to exceed amount and that if we are selected to enter into negotiations with the City the pricing may be adjusted down unless additional services are requested and pricing will be negotiated and adjusted accordingly.	
Category Description (Vendor must attached a full description for each category explaining what they are proposing) All services must be itemized. Do not bundle.	**Total Cost** Amount by Category Description
Noise System Software	$
Radar Software	$
Noise Monitor Installation/relocation	$
Removal of any existing equipment needing replacement	$
Parts	$
Labor	$
Monthly Monitoring Service Fee	$
Report Generation	$
Air Traffic Control Access	$
Hardware Installation	$
Taxes at 9.5%	$
Shipping/Freight	$
Additional Costs-itemize separately	$
Grand Total Amount for Project	$

ATTACHMENT 1

STATE OF CALIFORNIA

PROPOSER'S AFFIDAVIT

COUNTY OF LOS ANGELES

_____ being first duly sworn deposes and says:

1. That he/she is the _____ of _____
(Title of Office) (Name of Company)

Hereinafter called "proposer", who has submitted to the City of Torrance a proposal for

_____
(Title of RFP)

2. That the proposal is genuine; that all statements of fact in the proposal are true;

3. That the proposal was not made in the interest or behalf of any person, partnership, company, association, organization or corporation not named or disclosed;

4. That the Proposer did not, directly or indirectly, induce solicit or agree with anyone else to submit a false or sham proposal, to refrain from proposing, or to withdraw his proposal, to raise or fix the proposal price of the Proposer or of anyone else, or to raise or fix any overhead, profit or cost element of the Proposer's price or the price of anyone else; and did not attempt to induce action prejudicial to the interest of the City of Torrance, or of any other Proposer, or anyone else interested in the proposed contract;

5. That the Proposer has not in any other manner sought by collusion to secure for itself an advantage over the other Proposer or to induce action prejudicial to the interests of the City of Torrance, or of any other Proposer or of anyone else interested in the proposed contract;

6. That the Proposer has not accepted any proposal from any subcontractor or materialman through any proposal depository, the bylaws, rules or regulations of which prohibit or prevent the Proposer from considering any proposal from any subcontractor or material man, which is not processed through that proposal depository, or which prevent any subcontractor or materialman from proposing to any contractor who does not use the facilities of or accept proposals from or through such proposal depository;

7. That the Proposer did not, directly or indirectly, submit the Proposer's proposal price or any breakdown thereof, or the contents thereof, or divulge information or data relative thereto, to any corporation, partnership, company, association, organization, proposal depository, or to any member or agent thereof, or to any individual or group of individuals, except to the City of Torrance, or to any person or persons who have a partnership or other financial interest with said Proposer in its business.

8. That the Proposer has not been debarred from participation in any State or Federal works project.

Dated this ____ day of _____, 20_____.

_____
(Proposer Signature)

_____
(Title)

CONSULTING SERVICES AGREEMENT

This CONSULTING SERVICES AGREEMENT ("Agreement") is made and entered into as of Date (the "Effective Date"), by and between the CITY OF TORRANCE, a municipal corporation ("CITY"), and CONSULTANT Name, type of entity ("CONSULTANT").

RECITALS:

A. CITY wishes to retain the services of an experienced and qualified CONSULTANT to insert brief description of services.

B. In order to obtain the desired services, CITY has circulated its Request for Proposal for insert brief title of RFP, RFP No. insert RFP No. (the "RFP").

C. CONSULTANT has submitted a Proposal (the "Proposal") in response to the RFP. In its Proposal CONSULTANT represents that it is qualified to perform those services requested in the RFP. Based upon its review of all proposals submitted in response to the RFP, CITY is willing to award this Agreement to CONSULTANT.

AGREEMENT:

1. **SERVICES TO BE PERFORMED BY CONSULTANT**
CONSULTANT will provide the services and install those materials listed in CONSULTANT's Proposal submitted in response to the RFP. A copy of the RFP is attached as Exhibit A. A copy of the Proposal is attached as Exhibit B. CONSULTANT warrants that all work and services set forth in the Proposal will be performed in a competent, professional and satisfactory manner.

2. **TERM**
Unless earlier terminated in accordance with Paragraph 4 below, this Agreement will continue in full force and effect from the Effective Date through .

3. **COMPENSATION**
   A. CONSULTANT's Fee.

      For services rendered pursuant to this Agreement, CONSULTANT will be paid in accordance with the Compensation Schedule set forth in the Proposal; provided, however, that in no event will the total amount of money paid CONSULTANT, for services initially contemplated by this Agreement, exceed the sum of $insert dollar amount ("Agreement Sum"), unless otherwise first approved in writing by CITY.

   B. Schedule of Payment.

      Provided that CONSULTANT is not in default under the terms of this Agreement, upon presentation of an invoice, CONSULTANT will be paid

the fees described in Paragraph 3.A. above, according to the Compensation Schedule. Payment will be due within 30 days after the date of the invoice.

4. **TERMINATION OF AGREEMENT**

A. Termination by CITY for Convenience.

1. CITY may, at any time, terminate the Agreement for CITY's convenience and without cause.

2. Upon receipt of written notice from CITY of such termination for CITY's convenience, CONSULTANT will:

   a. cease operations as directed by CITY in the notice;
   b. take actions necessary, or that CITY may direct, for the protection and preservation of the work; and
   c. except for work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

3. In case of termination for CITY's convenience, CONSULTANT will be entitled to receive payment for work executed, together with costs incurred by reason of the termination, along with reasonable overhead and profit on work not executed.

B. Termination for Cause.

1. If either party fails to perform any term, covenant or condition in this Agreement and that failure continues for 15 calendar days after the nondefaulting party gives the defaulting party written notice of the failure to perform, this Agreement may be terminated for cause; provided, however, that if during the notice period the defaulting party has promptly commenced and continues diligent efforts to remedy the default, the defaulting party will have such additional time as is reasonably necessary to remedy the default.

2. In the event this Agreement is terminated for cause by the default of CONSULTANT, CITY may, at the expense of CONSULTANT and its surety, complete this Agreement or cause it to be completed. Any check or bond delivered to the CITY in connection with this Agreement, and the money payable thereon, will be forfeited to and remain the property of the CITY. All moneys due CONSULTANT under the terms of this Agreement will be retained by CITY, but the retention will not release CONSULTANT and its surety from liability for the default. Under these circumstances, however, CONSULTANT and its surety will be credited with the amount of money retained, toward any amount by which the cost of

completion exceeds the Agreement Sum and any amount authorized for extra services.

3. Termination for cause will not affect or terminate any of the rights of CITY as against CONSULTANT or its surety then existing, or that may thereafter accrue because of the default; this provision is in addition to all other rights and remedies available to the CITY under law.

C. Termination for Breach of Law.

In the event CONSULTANT or any of its officers, directors, shareholders, employees, agents, subsidiaries or affiliates is convicted (i) of a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of a contract or subcontract; (ii) under state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty that currently, seriously, and directly affects responsibility as a public consultant or CONSULTANT; (iii) under state or federal antitrust statutes arising out of the submission of bids or proposals; or (iv) of violation of Paragraph 19 of this Agreement; or for any other cause CITY determines to be so serious and compelling as to affect CONSULTANT's responsibility as a public consultant or CONSULTANT, including but not limited to, debarment by another governmental agency, then CITY reserves the unilateral right to terminate this Agreement or to impose such other sanctions (which may include financial sanctions, temporary suspensions or any other condition deemed appropriate short of termination) as it deems proper. CITY will not take action until CONSULTANT has been given notice and an opportunity to present evidence in mitigation.

5. FORCE MAJEURE

If any party fails to perform its obligations because of strikes, lockouts, labor disputes, embargoes, acts of God, inability to obtain labor or materials or reasonable substitutes for labor or materials, governmental restrictions, governmental regulations, governmental control, judicial orders, enemy or hostile governmental action, civil commotion, fire or other casualty, or other causes beyond the reasonable control of the party obligated to perform, then that party's performance will be excused for a period equal to the period of that cause for failure to perform.

6. RETENTION OF FUNDS

CONSULTANT authorizes CITY to deduct from any amount payable to CONSULTANT (whether or not arising out of this Agreement) any amounts the payment of which may be in dispute or that are necessary to compensate CITY for any losses, costs, liabilities, or damages suffered by CITY, and all amounts for which CITY may be liable to third parties, by reason of CONSULTANT's acts or omissions in performing or failing to perform CONSULTANT's obligations

under this Agreement. In the event that any claim is made by a third party, the amount or validity of which is disputed by CONSULTANT, or any indebtedness exists that appears to be the basis for a claim of lien, CITY may withhold from any payment due, without liability for interest because of the withholding, an amount sufficient to cover the claim. The failure of CITY to exercise the right to deduct or to withhold will not, however, affect the obligations of CONSULTANT to insure, indemnify, and protect CITY as elsewhere provided in this Agreement.

7. **CITY REPRESENTATIVE**

City Representative is designated as the "City Representative," authorized to act in its behalf with respect to the work and services specified in this Agreement and to make all decisions in connection with this Agreement. Whenever approval, directions, or other actions are required by CITY under this Agreement, those actions will be taken by the City Representative, unless otherwise stated. The City Manager has the right to designate another City Representative at any time, by providing notice to CONSULTANT.

8. **CONSULTANT REPRESENTATIVE(S)**

The following principal(s) of CONSULTANT are designated as being the principal(s) and representative(s) of CONSULTANT authorized to act in its behalf with respect to the work specified in this Agreement and make all decisions in connection with this Agreement:

Representative 1
Representative 2

9. **INDEPENDENT CONTRACTOR**

CONSULTANT is, and at all times will remain as to CITY, a wholly independent contractor. Neither CITY nor any of its agents will have control over the conduct of CONSULTANT or any of CONSULTANT's employees, except as otherwise set forth in this Agreement. CONSULTANT's agents and employees are not and shall not be considered employees of CITY for any purpose. CONSULTANT may not, at any time or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of CITY. CITY has no duty, obligation, or responsibility to CONSULTANT's agents or employees under the Affordable Care Act. CONSULTANT is solely responsible for any tax penalties associated with the failure to offer affordable coverage to its agents and employees under the Affordable Care Act and any other liabilities, claims and obligations regarding compliance with the Affordable Care Act with respect to CONSULTANT's agents and employees. CITY is not responsible and shall not be held liable for CONSULTANT's failure to comply with CONSULTANT's duties, obligations, and responsibilities under the Affordable Care Act. CONSULTANT agrees to defend, indemnify and hold CITY harmless for any and all taxes and penalties that may be assessed against CITY as a result of CONSULTANT's obligations under the Affordable Care Act relating to CONSULTANT's agents and employees.

10. **BUSINESS LICENSE**
CONSULTANT must obtain a City business license prior to the start of work under this Agreement, unless CONSULTANT is qualified for an exemption.

11. **OTHER LICENSES AND PERMITS**
CONSULTANT warrants that it has all professional, contracting and other permits and licenses required to undertake the work contemplated by this Agreement.

12. **FAMILIARITY WITH WORK**
By executing this Agreement, CONSULTANT warrants that CONSULTANT (a) has thoroughly investigated and considered the scope of services to be performed, (b) has carefully considered how the services should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the services required under this Agreement. If the services involve work upon any site, CONSULTANT warrants that CONSULTANT has or will investigate the site and is or will be fully acquainted with the conditions there existing, prior to commencement of the services set forth in this Agreement. Should CONSULTANT discover any latent or unknown conditions that will materially affect the performance of the services set forth in this Agreement, CONSULTANT must immediately inform CITY of that fact and may not proceed except at CONSULTANT's risk until written instructions are received from CITY.

13. **CARE OF WORK**
CONSULTANT must adopt reasonable methods during the term of the Agreement to furnish continuous protection to the work, and the equipment, materials, papers, documents, plans, studies and other components to prevent losses or damages, and will be responsible for all damages to persons or property, until acceptance of the work by CITY, except those losses or damages as may be caused by CITY's own negligence.

14. **CONSULTANT'S ACCOUNTING RECORDS; OTHER PROJECT RECORDS**
Records of CONSULTANT's time pertaining to the project, and records of accounts between CITY and CONSULTANT, will be kept on a generally recognized accounting basis. CONSULTANT will also maintain all other records, including without limitation, specifications, drawings, progress reports and the like, relating to the work and services identified in Exhibit A. All records will be available to CITY during normal working hours. CONSULTANT will maintain these records for three years after final payment.

15. **INDEMNIFICATION**
CONSULTANT will indemnify, defend, and hold harmless CITY, the Successor Agency to the Former Redevelopment Agency of the City of Torrance, the City Council, each member thereof, present and future, members of boards and commissions, their officers, agents, employees and volunteers (collectively "City Affiliates") from and against any and all liability, expenses, including defense costs and legal fees, and claims for damages whatsoever, including, but not limited to, those arising from breach of contract, bodily injury, death, personal injury, property damage, loss of use, or property loss however the same may be caused and regardless of the responsibility for negligence. The obligation to

indemnify, defend and hold harmless includes, but is not limited to, any liability or expense, including defense costs and legal fees, arising from the negligent acts or omissions, or willful misconduct of CONSULTANT, its officers, employees, agents, subCONSULTANTs or vendors. CONSULTANT's obligations to indemnify, defend and hold harmless will apply even in the event of concurrent negligence on the part of City Affiliates, except for liability resulting solely from the negligence or willful misconduct of City Affiliates. Payment by CITY is not a condition precedent to enforcement of this indemnity. In the event of any dispute between CONSULTANT and CITY, as to whether liability arises from the sole negligence of City Affiliates, CONSULTANT will be obligated to pay for the defense of City Affiliates until such time as a final judgment has been entered adjudicating City Affiliates as solely negligent. CONSULTANT will not be entitled in the event of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

16. NON-LIABILITY OF CITY OFFICERS AND EMPLOYEES

No officer or employee of CITY will be personally liable to CONSULTANT, in the event of any default or breach by the CITY or for any amount that may become due to CONSULTANT.

17. INSURANCE

A. CONSULTANT and its subCONSULTANTs must maintain for the duration of the Agreement at their sole expense the following insurance, which will be full coverage not subject to self-insurance provisions:

1. Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:

   a. Primary Bodily Injury with limits of at least $500,000 per person, $1,000,000 per occurrence; and

   b. Primary Property Damage of at least $250,000 per occurrence; or

   c. Combined single limits of $1,000,000 per occurrence.

2. Commercial General Liability including coverage for premises, products and completed operations, independent CONSULTANTs/vendors, personal injury and contractual obligations with combined single limits of coverage of at least $2,000,000 per occurrence, $4,000,000 aggregate.

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3. Workers' Compensation coverage as required by the Labor Code of the State of California and, if workers' compensation is required, employer's liability insurance with minimum limits of ($1,000,000) per occurrence or occupational illness. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the CITY for all work performed by the CONSULTANT, its employees, agents and subconsultants.

4. Professional Liability (Errors and Omissions): Insurance appropriate to the CONSULTANT'S profession, with limits no less than $2,000,000 per occurrence or claim, $4,000,000 aggregate.

B. The insurance provided by CONSULTANT will be primary and non-contributory.

C. CITY, the Successor Agency to the Former Redevelopment Agency of the City of Torrance, the City Council and each member thereof, members of boards and commissions, every officer, agent, official, employee and volunteer must be named as additional insureds under the automobile and general liability policies.

D. CONSULTANT must provide certificates of insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) indicating appropriate coverage, to the City Clerk of the City of Torrance before the commencement of work.

E. Each insurance policy required by this Paragraph must contain a provision that no termination, cancellation or change of coverage can be made without notice to the CITY.

F. If the CONSULTANT maintains broader coverage and/or higher limits than the minimums shown above, the CITY requires and shall be entitled to the broader coverage and/or the higher limits maintained by the CONSULTANT. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the CITY.

G. The procuring of insurance shall not be construed as a limitation on liability nor as full performance of the indemnification provisions of the CONSULTANT.

H. Claims Made Policies

If any of the required policies provide coverage on a claims-made basis:
a. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
b. Insurance must be maintained and evidence of insurance must be provided *for at least five (5) years after completion of the contract of work.*

c. If coverage is canceled or non-renewed, and not *replaced with another claims-made policy form with a Retroactive Date* prior to the contract effective date, the Vendor must purchase "extended reporting" coverage for a minimum of ***five (5)*** years after completion of contract work.

l. CONSULTANT hereby grants to CITY a waiver of any right to subrogation which any insurer of said CONSULTANT may acquire against the CITY by virtue of the payment of any loss under such insurance. CONSULTANT agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the CITY has received a waiver of subrogation endorsement from the insurer.

18. SUFFICIENCY OF INSURERS

Insurance required by this Agreement will be satisfactory only if issued by companies admitted to do business in California, rated "A" or better in the most recent edition of Best's Key Rating Guide, and only if they are of a financial category Class VII or better, unless these requirements are waived by the Risk Manager of CITY ("Risk Manager") due to unique circumstances. In the event the Risk Manager determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to CITY, the CONSULTANT agrees that the minimum limits of any insurance policies or performance bonds required by this Agreement may be changed accordingly upon receipt of written notice from the Risk Manager; provided that CONSULTANT will have the right to appeal a determination of increased coverage by the Risk Manager to the City Council of CITY within 10 days of receipt of notice from the Risk Manager.

19. CONFLICT OF INTEREST

A. No officer or employee of the CITY may have any financial interest, direct or indirect, in this Agreement, nor may any officer or employee participate in any decision relating to the Agreement that effects the officer or employee's financial interest or the financial interest of any corporation, partnership or association in which the officer or employee is, directly or indirectly interested, in violation of any law, rule or regulation.

B. No person may offer, give, or agree to give any officer or employee or former officer or employee, nor may any officer or employee solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any way pertaining to any program requirement, contract or subcontract, or to any solicitation or proposal.

20. NOTICE

A. All notices, requests, demands, or other communications under this Agreement will be in writing. Notice will be sufficiently given for all purposes as follows:

1. Personal delivery. When personally delivered to the recipient, notice is effective on delivery.

2. First Class mail. When mailed first class to the last address of the recipient known to the party giving notice, notice is effective three mail delivery days after deposit in a United States Postal Service office or mailbox.

3. Certified mail. When mailed certified mail, return receipt requested, notice is effective on receipt, if delivery is confirmed by a return receipt.

4. Overnight delivery. When delivered by an overnight delivery service, charges prepaid or charged to the sender's account, notice is effective on delivery, if delivery is confirmed by the delivery service.

5. Facsimile transmission. When sent by fax to the last fax number of the recipient known to the party giving notice, notice is effective on receipt. Any notice given by fax will be deemed received on the next business day if it is received after 5:00 p.m. (recipient's time) or on a non-business day.

6. Addresses for purpose of giving notice are as follows:

CONSULTANT:	CONSULTANT'S NAME AND ADDRESS Fax: INSERT FAX NUMBER
CITY:	City Clerk City of Torrance 3031 Torrance Boulevard Torrance, CA 90503 Fax: (310) 618-2931

B. Any correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission of the party to be notified, will be deemed effective as of the first date the notice was refused, unclaimed or deemed undeliverable by the postal authorities, messenger or overnight delivery service.

C. Either party may change its address or fax number by giving the other party notice of the change in any manner permitted by this Agreement.

21. **PROHIBITION AGAINST ASSIGNMENT AND SUBCONTRACTING**
This Agreement and all exhibits are binding on the heirs, successors, and assigns of the parties. The Agreement may not be assigned or subcontracted by either CITY or CONSULTANT without the prior written consent of the other.

22. **INTEGRATION; AMENDMENT**
This Agreement represents the entire understanding of CITY and CONSULTANT as to those matters contained in it. No prior oral or written understanding will be of any force or effect with respect to the terms of this Agreement. The Agreement may not be modified or altered except in writing signed by both parties.

23. **INTERPRETATION**
The terms of this Agreement should be construed in accordance with the meaning of the language used and should not be construed for or against either party by reason of the authorship of this Agreement or by any other rule of construction that might otherwise apply. To the extent that the terms of the RFP or Proposal are inconsistent with the terms of this Agreement, the terms of this Agreement shall control.

24. **SEVERABILITY**
If any part of this Agreement is found to be in conflict with applicable laws, that part will be inoperative, null and void insofar as it is in conflict with any applicable laws, but the remainder of the Agreement will remain in full force and effect.

25. **TIME OF ESSENCE**
Time is of the essence in the performance of this Agreement.

26. **GOVERNING LAW; JURISDICTION**
This Agreement will be administered and interpreted under the laws of the State of California. Jurisdiction of any litigation arising from the Agreement will be in Los Angeles County, California.

27. **COMPLIANCE WITH STATUTES AND REGULATIONS**
CONSULTANT will be knowledgeable of and will comply with all applicable federal, state, county and city statutes, rules, regulations, ordinances and orders.

28. **WAIVER OF BREACH**
No delay or omission in the exercise of any right or remedy by a nondefaulting party on any default will impair the right or remedy or be construed as a waiver. A party's consent or approval of any act by the other party requiring the first party's consent or approval will not be deemed to waive or render unnecessary the other party's consent to or approval of any subsequent act. Any waiver by either party of any default must be in writing and will not be a waiver of any other default concerning the same or any other provision of this Agreement.

29. **ATTORNEY'S FEES**

Except as provided for in Paragraph 15, in any dispute, litigation, arbitration, or other proceeding by which one party either seeks to enforce its rights under this Agreement (whether in contract, tort or both) or seeks a declaration of any rights or obligations under this Agreement, the prevailing party will be awarded reasonable attorney's fees, together with any costs and expenses, to resolve the dispute and to enforce any judgment.

30. **EXHIBITS**

All exhibits identified in this Agreement are incorporated into the Agreement by this reference.

31. **CONSULTANT'S AUTHORITY TO EXECUTE**

The persons executing this Agreement on behalf of CONSULTANT warrant that (i) CONSULTANT is duly organized and existing; (ii) they are duly authorized to execute this Agreement on behalf of CONSULTANT; (iii) by so executing this Agreement, CONSULTANT is formally bound to the provisions of this Agreement; and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which CONSULTANT is bound.

32. **PUBLIC RECORDS ACT**

Any documents submitted by the CONSULTANT; all information obtained in connection with the CITY's right to audit and inspect the CONSULTANT's documents, books, and accounting records pursuant to paragraph 14 CONSULTANT's Accounting Records; Other Project Records; as well as those documents which were required to be submitted in response to the Request for Proposals (RFP) used in the solicitation process for this Contract become the exclusive property of the City. All such documents become a matter of public record and shall be regarded as public records. Exceptions will be those elements in the California Government Code Section 6250 et seq. (Public Records Act) and which are marked "trade secret", "confidential", or "proprietary". The CITY shall not in any way be liable or responsible for the disclosure of any such records including, without limitation, those so marked, if disclosure is required by law, or by an order issued by a court of competent jurisdiction.

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In the event the CITY is required to defend an action on a Public Records Act request for any of the aforementioned documents, information, books, records, and/or contents of a proposal marked "trade secret", "confidential", or "proprietary", the CONSULTANT agrees to defend and indemnify the CITY from all costs and expenses, including reasonable attorney's fees, in action or liability arising under the Public Records Act.

CITY OF TORRANCE,
a municipal corporation

_____
Patrick J. Furey, Mayor

ATTEST:

_____
Rebecca Poirier, MMC
City Clerk

APPROVED AS TO FORM:
PATRICK Q. SULLIVAN
City Attorney

By: _____

Firm Name
Type of Entity

By: _____
Signer
Title

Attachments: Exhibit A Request for Proposals
Exhibit B Proposal

Rev. 0720

EXHIBIT B

PROPOSAL

[To be attached]

TORRANCE AIRPORT NOISE MONITORS

Lines and photos are approximate, not to be used for establishing absolute or relative positions

VFR ONLY

N E W S

Jeffery W. Gibson
Community Development Department

T:\Mlai\Request\2008\aerials8x11\ Airport Noise Monitors

Schedule C: System Elements

C.1. Hardware

Type	Description	Manufacturer	Model	Serial#	Location	Repair Type
Server	Rover	Dell	Proliant DL320G3		Airport Noise Office	Customer
User Workstation		Dell	Dell Optiplex 280		Airport Noise Office	Customer
User Workstation		Dell	Dell Optiplex 280		City Hall	Customer
Logger	Digital Logger 4 Ch	DLI	4 ch Digital Logger		Airport Noise Office	On-site
NMT #1	EMU	Brüel & Kjær	Type 2300MK II	0757	3920 W 235 St (Lago Seco Park)	On-site
NMT #2	EMU	Brüel & Kjær	Type 2300MK II	0758	3400 W 229TH St	On-site
NMT #3	EMU	Brüel & Kjær	Type 2300MK II	0759	2580 W 234TH St	On-site
NMT #4	EMU	Brüel & Kjær	Type 2300MK II	0760	2245 W 243rd St	On-site
NMT #5	EMU	Brüel & Kjær	Type 2300MK II	0761	2416 W 251st St	On-site
NMT #6	EMU	Brüel & Kjær	Type 2300MK II	0762	3235 Whittletree Ln (De Portola Park)	On-site
NMT #7	EMU	Brüel & Kjær	Type 2300MK II	0763	3855 W 242nd St (Wateria Park)	On-site
Weather Sensor NMT #1	Weather Sensor	Vaisala	WAC15	A161	3920 W 235 St (Lago Seco Park)	On-site
Solar Power System at NMT#7	TBA	TBA	TBA	TBA	3855 W 242nd St (Wateria Park)	On-site

C.2. Supplier Spares Parts

Type	Description	Manufacturer	Model	Serial#	Location
None					

C.3. Software

Item	Author	Licence Number	Users
ANOMS 8	Brüel & Kjær		4
Windows 2003 Server	Microsoft		2
MS Interix 2.2.	Microsoft	N/A	4

EXHIBIT B

PROPOSAL

[To be attached]

CASPER

SHARED INSIGHT

CITY OF TORRANCE AIRPORT – ZAMPERINI FIELD

11 OCTOBER 2021

Casper Proposal for RFP for Furnish and install Noise Abatement System and Monitoring Services for the City of Torrance Airport

RFP No. B2021-40

Casper Airport Solutions Inc
1055 Westlakes Drive, Suite 300
Berwyn, PA 19312

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Executive Summary

The City of Torrance Airport (TOA) seeks a new automated Airport Noise Abatement System and Monitoring Services (NOMS). The previous supplier's system was obsolete, decommissioned, and is no longer a viable option having reached its end of life.

CASPER AERO
40 airports / 15 countries / 4 continents

In seeking a replacement NOMS, Casper understands the Airport is looking for a state-of-the-art, cost-effective, easy-to-use system that can handle the need for flight track analysis tasks to identify and manage aircraft violations, whilst also engaging with the local communities and the public. We also appreciate that a NOMS implementation is a significant investment now and in the future. While Casper will meet your current needs, we are also the supplier dedicated to delivering future airport solutions to meet the constantly evolving aviation landscape.

COST EFFECTIVE
Modular software only implements features you need

Casper understands the devastating financial impact that COVID has on the aviation industry. Cognizant of this, we want to assure TOA we are committed to working with you as a partner to deliver a system that meets the airport's short- and long-term needs and that fits within the City's budget constraints.

INNOVATION
Casper is dedicated to delivering innovative solutions to airports

Casper will deliver its modular Casper Noise application with an enterprise license for internal analysis, allowing everyone at TOA to share and use the same data hub for information and reporting. Casper Noise will provide TOA airport staff with the tools to easily monitor flight operations and measure, evaluate, and report on compliance with the City's aviation noise abatement program. Casper's automated complaint management process will make it much easier to manage and respond to complaints. Our NOMS is 100% web-based using cloud data storage and requires no local software installation.

COMMUNITY ENGAGEMENT
Intuitive, Flexible Dashboards for rapid insights

Casper's reporting tools emphasize transparency in data and information sharing, reducing the burden on staff by providing residents with access to information in near-real-time. Our solution makes reporting intuitive, simple, and informative to ensure insights can be quickly shared with the airport's communities. We can tailor custom reports and dashboards to engage with the airport's communities.

Community Engagement is simple with our Casper Flight Tracking module. This public website provides a powerful tool for residents to understand why airplanes fly where they do and self-investigate aircraft events.

SUPPORT COMMITMENT

Our state-of-the-art, automatic monitoring and diagnostic tools allow our support staff to continuously monitor every NOMS installation and respond quickly when the system detects an issue and resolves any problem swiftly.

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LOW-RISK COST EFFECTIVE PROJECT

Trusted and proven project method and dedicated, experienced project manager to deliver on time

Our team of experienced software engineers has developed a streamlined implementation approach that minimizes the risk and installation of your new Casper NOMS. The configuration, installation, and ongoing maintenance and support will be handled by our dedicated team, which monitors the system 24 hours a day to quickly and efficiently address any issue with the system.

If the City of Torrance Airport chooses Casper, it will enter a strategic partnership with an organization that is entirely focused on aviation noise mitigation, where every dollar invested goes to improve and enhance the products that we provide to you, our customers.

We are excited to work with you and look forward to welcoming TOA to the Casper family.

In this proposal, we have included all the Forms that are required as per the RFP. In addition, we have added company and product-specific information to offer you a complete proposal that covers all the requirements.

The proposal is organized as follows:

- Proposal Submittal
- TOA Technical requirements
- Solution Description
- Pricing
- Appendix

Should there be questions regarding any parts or aspects of our proposal, please contact us.

Sincerely,

Heleen Erkamp – Chief Executive Officer

Casper Airport Solutions Inc.
1055 Westlakes Drive, Suite 300, Berwyn, PA 19312
heleen@casper.aero/ (323) 984-8787
Visit us at: www.casper.aero

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Proposal Submittal (Section III)

Proposal Submission Form

In accordance with your "Request for Proposals (RFP)", the following proposal is submitted to the City of Torrance.

RFP Submitted By:

Casper Airport Solutions, Inc.
Name of Company

1055 Westlakes Drive, Suite 300 — Berwyn — 19312
Street Address — City — Zip Code

(844) 212-6518
Telephone Number

(610) 727-4093
Fax Number

David van de Velde / CFO
Printed Name/Title

david@casper.aero
E-Mail Address

Signature

10-11-2021
Date

Form of Business Organization: Please indicate the following (check one).

☑ Corporation ☐ Partnership ☐ Sole Proprietorship ☐ Other: _____

Do you have a Parent Company? ☐ No ☑ Yes, Casper BV
(Name of Parent Company)

Do you have any Subsidiaries? ☑ No ☐ Yes, _____
(Name of Subsidiary Company)

Business History:

Years in business under your current name and form of business organization? 11 Years
If less than three (3) years and your company was in business under a different name, what was that name? _____

Contact for Additional Information:

Please provide the name of the individual at your company to contact for any additional information:

Andrew Rinius	Account / Project Manager
Printed Name	Title
(215) 720-4984	andrew@casper.aero
Telephone	E-Mail Address

Vendor Name: Casper Airport Solutions, Inc.

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Addenda Received

(It is mandatory to complete this section) Please indicate addenda information you have received regarding this RFP. If addenda is not attached to your bid submittal (per instructions), you are still held accountable to its contents.

Addendum No,	Date Received
Addendum #1	September 30, 2021

Addendum No,	Date Received

☐ No Addenda received regarding this RFP.

Payment Terms: The City of Torrance Payment terms are Net 30. The City does not make pre-payments, or pay upon receipt.

Do you offer any discounted invoice terms? No

Project Start and Completion:

The City requires the project to start as soon as possible from the award of a contract and the project completed as soon as possible. Specific periods that are mutually agreed upon will be established after award of a contract.

Renewal Option:

Please state, if requested by the City, would your company agree to a renewal of this contract with price, terms, and conditions unchanged. If the contract is extended, the contract may be increased by the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

Yes _____ we would agree to add one (1) additional year (after initial 3 year contract term)

Yes X we would agree to add two (2) additional years (after initial 3 year contract term)

No _____ we would not be interested in renewing this contract.

Project Manager:

Please provide the name of the individual at your company who will serve as Project Manager for this contract.

James Honey	Senior Project Manager
Printed Name	Title
(844) 212-6518	james@casper.aero
Telephone	E-Mail Address

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Vendor Name: Casper Airport Solutions, Inc.

Contract Representative:

Please provide the name of the individual at your company who will be responsible for administering this contract.

David van de Velde		CFO
Name		Title
(323) 984-8794	(610) 727-4093	david@casper.aero
Telephone Number	Fax Number	Email Address

Sub-Contractors:

If awarded, will you be using sub-contractors to carry out the scope of work required in this RFP?

☑ Yes, we will be using sub-contractors and have listed their contact information below.

☐ No, we will not be using any sub-contractors for this project.

Company Name Sanchez Industrial Design, Inc.	Contact Name Gonzalo Sanchez	Title Owner
Telephone Number	Fax Number	Email Address
(608) 831-9777		gonzosolarsid@gmail.com

Company Name Veneklasen Associates, Inc.	Contact Name Stephen Martin	Title Owner
Telephone Number	Fax Number	Email Address
(310) 450-1733	(310) 396-3424	info@veneklasen.com

Please explain the working relationship between your company and the sub-contractor.

The sub-contractor we work with on all our U.S. installations, Sanchez Industrial Design (SID), also has a long track record in NMT installations (over 20 years). SID is very familiar with NMT technology and has worked with Casper for over a decade, installing new solar-powered noise monitoring sites (35 NMTs at DFW, 8 NMTs at DAL, 4 NMTs in Sunnyvale). SID has retrofitted new Casper equipment, reusing existing masts and cabinets (35 NMTs at DFW initial installation, and 6 NMTs at RDU). All projects were completed in collaboration with Casper and prepared, installed, and commissioned according to plan.

Gonzalo Sanchez, the principal at SID, has worked in partnership with Casper since 2013 and has installed all of Casper's NMTs. He is recognized as the foremost authority in aviation noise monitors and noise mitigation.

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Veneklasen Associates, based in Santa Monica, is a leading acoustical company with expertise in environmental and noise controls. Casper welcomes Veneklasen onboard as our west coast support partner. They will provide both hardware support and tier 1 software support to ensure timely response to our stated service levels.

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Vendor Name: Casper Airport Solutions, Inc.

Background and Recent Experience with Similar Projects:

In the space below, please provide a narrative explaining your background and recent experience with similar projects as work identified in this RFP. (Please attach additional sheet if needed.)

Casper Airport Solutions, Inc. has a long history of supplying quality software and hardware to noise-conscious airports and the public alike for many years.

The city of Torrance Airport is planning to replace its current NOMS system with a new NOMS system, including replacing outdated ATC Recording technology and noise monitors at Zamperini Field while providing software to produce noise reports required to document curfew and early turn violations to name a few. Casper's robust reporting system allows for both canned and customized reporting. The NOMS software will monitor noise abatement program compliance at TOA and allow the city to perform ad hoc investigations of complaints and flight track compliance. The NOMS system will allow track processing functionality, handle large volumes of tracks easily and efficiently, and provide a wide range of analytical options and export/report functions. Another important goal of the system is to support the airport and city staff in handling large numbers of noise complaints efficiently and effectively.

As outlined below and detailed later in this proposal, Casper currently supports 40+ customers worldwide. This includes nine U.S. customers: DFW, MCO, DAL, CLT, and PVD, who has a similar operational configuration as The City of Torrance Airport. The airports we support include large, medium, and small hub airports and many general aviation-focused facilities. The following pages contain three client references of comparably sized airports and or with similar NOMS deployments.

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Vendor Name: Casper Airport Solutions, Inc.

References:

Please supply the names of companies/agencies for which you recently supplied comparable goods/services as requested in this RFP. A minimum of three (3) references are required; additional references are optional. References from public agencies are preferred. **Do not include the City of Torrance as a reference for this RFP.**

1	Name of Company/Agency:	Dallas Love Field
	Street Address:	8008 Herb Keller Way
	City:	Dallas
	State, Zip Code:	Texas, 75235
	What Product/Service did you provide to this Company/Agency?	Casper Noise, Casper NoiseLab, Flight Tracker, ATC Recorder, 8 NMTs
	Name of Person to Contact:	Sana Drissi
	Phone Number of Contact:	(214) 670-6654
	Email Address of Contact:	Sana.drissi@dallascityhall.com
2	Name of Company/Agency:	Orlando International Airport (Greater Orlando Aviation Authority)
	Street Address:	1 Jeff Fuqua Blvd
	City:	Orlando
	State, Zip Code:	Florida, 32827
	What Product/Service did you provide to this Company/Agency?	Casper Noise, Flight Tracker
	Name of Person to Contact:	Judith-Ann Jarrette
	Phone Number of Contact:	(407) 825-3110
	Email Address of Contact:	Judith-ann.jarrette@goaa.gov
3	Name of Company/Agency:	City of Sunnyvale
	Street Address:	456 W. Olive Ave
	City:	Sunnyvale
	State, Zip Code:	California, 94086
	What Product/Service did you provide to this Company/Agency?	Casper Noise, NoiseLab, Flight Tracker, 4 NMTs
	Name of Person to Contact:	Michelle Zahraie
	Phone Number of Contact:	(408) 730-3030
	Email Address of Contact:	mzahraie@sunnyvale.ca.gov

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Vendor Name: Casper Airport Solutions, Inc.

RFP Submittal Requirement and Acknowledgement	
Vendors are required to answer each of the questions listed below. You must indicate below that you have provided this information in your proposal submittal. You must attach additional sheets to your RFP submittal describing in detail the service you are proposing.	
RFP Scope of Work Questions	**Indicate what page in your proposal you have answered this question.**
Did you include original and 4 copies of your RFP Submittal?	☒Yes ☐No
Did you describe price for Hardware and Software installation?	☒Yes ☐No
Did you attach additional sheets to answer the Background and Recent Experience with Similar Projects information on page ____ of this RFP?	☒Yes ☐No Page 10 of our submittal
Did you complete a project proposal as described in the Technical Requirements?	☒Yes ☐No
Did you include all addenda if any issued by the City?	☒Yes ☐No
Did you include references?	☒Yes ☐No Page 22-24 of our submittal
Are your Wage Rates (Non-Prevailing) Included?	☒Yes ☐No Page 57 of our submittal
Have you included Proposed Alternative Language to City's Pro Forma Consulting Services Agreement (if applicable)?	☒Yes ☐No Page 57 of our submittal
Please indicate your price to provide monthly services as indicated in this RFP	$ 3,931.76/Month
Did you describe your experience with identification of aircraft noise violations, curfew violations, and other code violations at a general aviation airport?	☒Yes ☐No Page 38-39, 49 of our submittal
Did you describe your experience providing a web-based community portal for identifying aircraft, noise levels, and radar tracks in a general aviation setting?	☒Yes ☐No Page 47 of our submittal
Did you describe the hardware and software involved in measuring aircraft noise and how the accuracy of the measurements are ensured?	☒Yes ☐No Page 49-50 of our submittal

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Price Proposal (Base Offer)	
In accordance with your "Request for Proposal", the following price proposal is submitted to the City of Torrance. We understand that our price submittal is a not-to-exceed amount and that if we are selected to enter into negotiations with the City the pricing may be adjusted down unless additional services are requested and pricing will be negotiated and adjusted accordingly.	
Category Description (Vendor must attach a full description for each category explaining what they are proposing) All services must be itemized. **Do not bundle.**	**Total Cost** Amount by Category Description
Noise System Software	$24,000
NoiseLab Software	$10,000
Radar Software	$15,000
Removal of any existing equipment needing replacement	$11,420
Parts	$3,540
Labor	$7,000
Report Generation	$16,960
Air Traffic Control Access	$7,500
Hardware Installation	$40,629
Violations Letter Creation	$2,500
Taxes at 9.5%	$13,162
Shipping/Freight	$3,900
Grand Total Amount for Project	**$155,611**
Monthly Monitoring Service Fee	$3,931
Data Management Plan	$287
NoiseLab Software Support Maintenance	$1,125
License Maintenance and Support Sub-Total	$5,343
Taxes at 9.5%	$507
License Maintenance and Support Grand-Total (Monthly)	**$5,851**
Total Year 1 Cost (includes tax and License Maint. and Support Costs)	*$225,823*
Total Year 2 Cost (includes tax and License Maint. and Support Costs)	*$70,213*
Total Year 3 Cost (inlcudes tax and License Maint. and Support Costs)	*$70,213*
Option - Relocation NMT 4 and 6	*$27,056*

Price Proposal (New Equipment Secondary Offer) *	
In accordance with your "Request for Proposal", the following price proposal is submitted to the City of Torrance. We understand that our price submittal is a not-to-exceed amount and that if we are selected to enter into negotiations with the City the pricing may be adjusted down unless additional services are requested and pricing will be negotiated and adjusted accordingly.	
Category Description (Vendor must attach a full description for each category explaining what they are proposing) All services must be itemized. **Do not bundle.**	**Total Cost** Amount by Category Description
Noise System Software	$24,000
NoiseLab Software	$10,000
Radar Software	$15,000
Removal of any existing equipment needing replacement	$32,500
Parts	$8,400
Labor	$19,400
Report Generation	$16,960
Air Traffic Control Access	$7,500
Hardware Installation	$119,611
Violations Letter Creation	$2,500
Taxes at 9.5%	$24,308
Shipping/Freight	$4,800
Grand Total Amount for Project	**$284,979**
Monthly Monitoring Service Fee	$3,931
Data Management Plan	$287
NoiseLab Software Support Maintenance	$1,125
License Maintenance and Support Sub-Total	$5,343
Taxes at 9.5%	$507
License Maintenance and Support Grand-Total (Monthly)	**$5,851**

Total Year 1 Cost (includes tax and License Maint. and Support Costs)	*$355,191*
Total Year 2 Cost (includes tax and License Maint. and Support Costs)	*$70,212*
Total Year 3 Cost (includes tax and License Maint. and Support Costs)	*$70,212*
Option - Relocation NMT 4 and 6	*Included in offer*

* This Price Proposal is for Casper's Secondary offer using new equipment, for the corresponding scope of work refer to Scope of Work (New equipment -Secondary offer) on page

ATTACHMENT 1

STATE OF CALIFORNIA

PROPOSER'S AFFIDAVIT

COUNTY OF LOS ANGELES

David van de Velde being first duly sworn deposes and says:

1. That he/she is the CFO of Casper Airport Solutions Inc

(Title of Office) (Name of Company)

Hereinafter called "proposer", who has submitted to the City of Torrance a proposal for

Furnishing and Installing a Noise Abatement System and Monitoring Services for the City of Torrance Airport

(Title of RFP)

2. That the proposal is genuine; that all statements of fact in the proposal are true;

3. That the proposal was not made in the interest or behalf of any person, partnership, company, association, organization or corporation not named or disclosed;

4. That the Proposer did not, directly or indirectly, induce solicit or agree with anyone else to submit a false or sham proposal, to refrain from proposing, or to withdraw his proposal, to raise or fix the proposal price of the Proposer or of anyone else, or to raise or fix any overhead, profit or cost element of the Proposer's price or the price of anyone else; and did not attempt to induce action prejudicial to the interest of the City of Torrance, or of any other Proposer, or anyone else interested in the proposed contract;

5. That the Proposer has not in any other manner sought by collusion to secure for itself an advantage over the other Proposer or to induce action prejudicial to the interests of the City of Torrance, or of any other Proposer or of anyone else interested in the proposed contract;

6. That the Proposer has not accepted any proposal from any subcontractor or materialman through any proposal depository, the bylaws, rules or regulations of which prohibit or prevent the Proposer from considering any proposal from any subcontractor or material man, which is not processed through that proposal depository, or which prevent any subcontractor or materialman from proposing to any contractor who does not use the facilities of or accept proposals from or through such proposal depository;

7. That the Proposer did not, directly or indirectly, submit the Proposer's proposal price or any breakdown thereof, or the contents thereof, or divulge information or data relative thereto, to any corporation, partnership, company, association, organization, proposal depository, or to any member or agent thereof, or to any individual or group of individuals, except to the City of Torrance, or to any person or persons who have a partnership or other financial interest with said Proposer in its business. 8. That the Proposer has not been debarred from participation in any State or Federal works project.

Dated this 7th day of - October, 2021

(Proposer Signature)

CFO

(Title)

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Technical Requirements (Section II)

REQUIREMENT	COMPLIES	DETAILS
Noise Monitoring Equipment and Software Casper Airport Solutions' fully integrated NOMS system will provide Torrance with a state of the art solution. Please see our responses below and in the accompanying pages for further details regarding this section.		
Location of Monitors/Number	Yes	See pg. 51
Software ability to identify aircraft violating noise limits	Yes	See pg. 39
Ability to identify curfew violations, training violations, and early turns	Yes	See pg. 38-39
Software ability to identify noise violations that meet the State Standard of +1.5 dBA variable, in order to help Staff eliminate events that do not meet criteria for Hearing Board appearances	Yes	See pg. 49
Provide daily remote calibration of all remote monitoring equipment	Yes	See pg. 49
Provide routine on-site training for staff to ensure maximum operating potential	Yes	See pg. 53
Ability to interact with City of Torrance CIT Department for a seamless transition and product introduction	Yes	See pg. 33
Flight Monitoring The Casper Noise solution provides all necessary flight information as it relates to aircraft registration and flight track data. Please see our responses below and in the accompanying pages for further details regarding this section.		
Ability to measure and display flight tracks and altitude of all aircraft	Yes	See pg. 38
Identification of individual aircraft by N-number	Yes	See pg. 38
Air Traffic Control (ATC) Access The Casper Noise solution has fully integrated ATC Recording and Playback functions that tie into all requested information. Please see our responses below and in the accompanying pages for further details regarding this section.		
Access to ATC channels for runways, ground control, and Automatic Terminal Information System (ATIS)	Yes	See pg. 44
Complaint Management The Casper Noise solution provides a fully automated complaint response tracking and response module. Please see our detailed responses below and in the accompanying pages.		
User-friendly complaint system	Yes	See pg. 40
Access across multiple platforms (such as desktop, mobile)	Yes	See pg. 40
Automatic entry into complaint log	Yes	See pg. 40
Automatic response to complainant	Yes	See pg. 40-41

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REQUIREMENT	COMPLIES	DETAILS
Linkage of complaint to pertinent operation or violation	Yes	See pg. 40
Grouping of potentially redundant complaint filings of a specific alleged violation	Yes	See pg. 40
Pop up messaging on public complaint system that would direct reporting parties to the FAA for specific complaints under FAA jurisdiction.	Yes	See pg. 47
Reporting Modules The Casper Noise solution allows for customized and standard reports. Please see our responses below and in the accompanying pages for further details regarding this section.		
Complaint and violation logs automatically populated from system	Yes	See pg. 39-40
Cross-reference of complaints with corresponding operations and violations	Yes	See pg. 40
Ability to differentiate and report on curfew, training, and early turn violations	Yes	See pg. 42
Automatic generation of verified daily violation list, identifying aircraft by N-number, as well as all pertinent information surrounding the violation	Yes	See pg. 43
Automatic generation of violation letters corresponding to daily violation list	Yes	See pg. 43
Ability to track and report on curfew exemptions	Yes	See pg. 42-43
Ability to track and report on noise tests	Yes	See pg. 43
Formatting of reports into public documents		
Ability to track and report on all Violation cases	Yes	See pg. 43
Ability to generate Enforcement reports for violations	Yes	See pg. 43
Ability to track Hearing Board cases and Appeals	Yes	See pg. 43
Ability to generate monthly and quarterly reports containing at a minimum all data above	Yes	See pg. 42
Local Weather reports	Yes	See pg. 43
Citizen Accessible Noise and Radar Tracking The Casper Flight Tracker provides a source of information for the residents to access flight information, file complaints, and view noise statistics. Please see our responses below and in the accompanying pages for further details regarding this section.		
Digitally accessible display of airport and surrounding area, including noise monitors	Yes	See pg. 47
Display of aircraft flight tracks and altitude	Yes	See pg. 47
Display of noise readings, both Maximum and SENEL	Yes	See pg. 47
Linkage with Complaint module for complaint filing and status updates	Yes	See pg. 47

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REQUIREMENT	COMPLIES	DETAILS
System Maintenance and Management The Casper Airport Solutions team and support partners will provide onsite and remote diagnostic, development, and support services to the City of Torrance Airport for the duration of the contract period. Please see our responses below and in the accompanying pages for further details regarding this section		
Listing of any/all equipment to be replaced from the existing system	Yes	See pg. 26-27
Provide addition of any new equipment or removal of any existing equipment as needed	Yes	See pg. 26-27
System requirements for hardware to ensure optimal software operation	Yes	See pg. 36
Provide system management and first level diagnostics to include ensuring valid data, functional noise monitors, system downloads, access to data, both short and long term, access to FAA tower communications and radar data feed		
Provide routine system maintenance to ensure the operating integrity of the system including data processing, data integrity, performance, and system administration	Yes	See pg. 54
Provide daily remote calibration of all remote monitoring equipment	Yes	See pg. 49
Provide bi-annual onsite system maintenance of all remote monitoring systems included documented calibration to ANSI standards to ensure operating system accuracy	Yes	See pg. 49
Ability to store, back up, and recover system data	Yes	See pg. 56
Ability to integrate camera data into the system is desirable	Yes	See pg. 48
Provide routine on-site training for staff to ensure maximum operating potential	Yes	See pg. 53
Ability to interact with City of Torrance CIT Department for a seamless transition and product introduction	Yes	See pg. 33

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Work Plan

Prior to the beginning of the work, the successful proposer must provide the City a schedule and work plan for approval showing any time requirements for installation or changes to the system, including:

- Schedule for procurement and replacement of any/all new equipment.
- Schedule for removal of any old equipment to be replaced.
- Schedule for installation of software.
- A timetable for production of accurate daily violation identification, notification generation, and reports as well as for production of monthly reports as described above is required.
- A schedule for a minimum of quarterly maintenance visits and response times for any issues with the system should be included.

Response:
Casper has a mature and tested project methodology. During the project kickoff, we will present the above schedules for review and agreement.

Casper, as part of the project, will establish a communications plan and matrix to ensure all City of Torrance key stakeholders, including the CIT department, are well informed on the project, transition plans, and training activities.

Refer to page 33 for more information on the project methodology.

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The Casper Story – History and Experience

Profile

Casper is a privately held innovative IT company specializing in developing real-time location-based aviation monitoring and analysis tools. The company deploys aviation noise and flight tracking systems at airports around the world. We currently support over 40 clients in North America, Europe, Asia, and Oceania. Casper installs and supports noise monitoring software and hardware on long- and short-term contracts. We also install, host, and maintain public websites for community engagement and operations monitoring.

History

The company started in 1999 under the name Frontier in the Netherlands as the preferred tailor-made software firm for Amsterdam Schiphol Airport, ATC, the Netherlands, CAA, the Netherlands, and other smaller Dutch airports. We gained experience in flight tracking software, airport noise calculations, complaint management, and community engagement during this time.
In 2010, we determined that the developments for Amsterdam Schiphol Airport applied to airports worldwide. Casper BV was founded as a Dutch limited liability corporation to enhance and deliver our products to airports worldwide. Casper has delivered airport noise and operations monitoring, complaint management, and public websites to an increasing number of airports across Europe since 2012.

Structure

Casper BV/Casper Airport Solutions Inc. comprises employees based in Haarlem, Netherlands, Philadelphia, Pennsylvania, and Melbourne, Australia. The principle leadership team comprises Heleen Erkamp (CEO), David van de Velde (CFO), and Raymond Michiels (CTO).
Andrew Rinius (Account Manager) and Greg Maxwell (Airport Solutions Manager) lead our U.S. team. They manage customer success, support, and maintenance for the region and that includes our Teir1 partner, Veneklausen Associates.

Mission and Vision

At Casper, we believe it is essential to provide all stakeholders with the most accurate information in real-time in an easily understandable format. By visualizing the impact of flight operations, Casper supports sustainable decision-making that considers all affected stakeholders. Casper products are easy to access and user-friendly through our web-based approach and intuitive design. As an innovative aviation technology company, we believe that developments in connectivity and global communication networks continuously create opportunities for innovations and solutions that help share essential information in real-time.

Dedicated Market Focus

Our product focus is only on the airport noise and operations market. Every solution we develop has been built in-house and leverages the latest technology to deliver best-in-class products. Casper invests 100%

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of its development resources into its portfolio of products that are entirely focused on airports. Our customers can be assured that every development dollar spent by Casper is used to enhance existing products and develop innovations.

Global Experience

Casper has systems installed in over 40 airports in fifteen countries on four different continents. Customers include airports ranging from large airports like Dallas Fort Worth Airport in the U.S. and Amsterdam Schiphol Airport in the Netherlands to medium-size airports like Edinburgh Airport (Scotland) and Geneva Airport (Switzerland) and small GA airports like Antwerp (Belgium) and Roskilde (Denmark).

U.S. Experience

In 2015, Casper expanded into North America, incorporating a U.S. subsidiary, Casper Airport Solutions Inc., with a U.S. sales and support office in Philadelphia, Pennsylvania. The U.S. company has steadily grown and currently supports nine American clients:

- 2015 - Dallas/Fort Worth International Airport (DFW)
- 2017 - Hillsborough County Aviation Authority – Four airports (TPA, VDF, TPF, and PCM)
- 2017 - City of Dallas – Two airports (DAL and RBD)
- 2018 - Rhode Island Airport Corporation – Six airports (PVD, BID, OQU, SFZ, UUU, WST)
- 2018 - Greater Orlando Airport Authority – Two airports (MCO and ORL)
- 2019 - City of Charlotte (CLT)
- 2019 - Raleigh-Durham Airport Authority (RDU)
- 2020 - City of Philadelphia – Two airports (PHL and PNE)
- 2021 - City of Sunnyvale (next to SJC)

Client References

Casper currently has nine U.S. customers, comprising eight airports and one municipality. The airports we support include large, medium, and small hub airports and many general aviation-focused facilities. The following pages contain three client references of comparably sized airports and or with similar NOMS deployments.

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Contact Details

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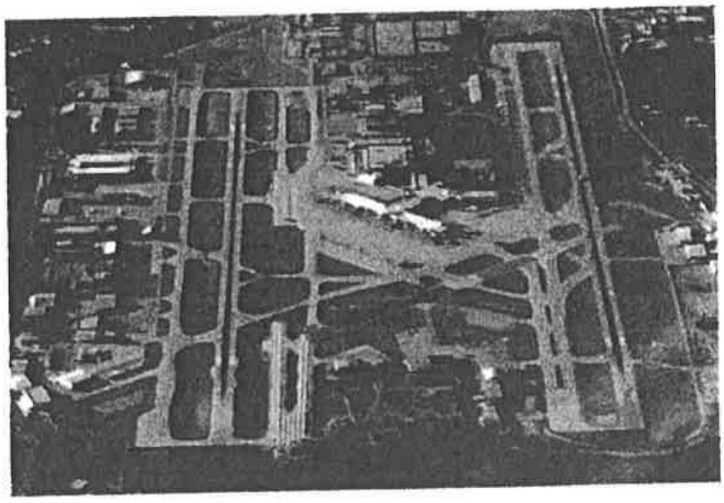

Scope

Installation, maintenance, and support of Casper Noise as the airport flight tracking and noise complaints management system for Dallas Love Field and Dallas Executive Airport.

Use of FAA SWIM data as the flight track radar data source.

Installation, maintenance, and support of ATC replay system to increase noise abatement procedure compliance.

Delivery of Casper Flight Tracker as the airport's public website for displaying flight tracks and handling complaints through the website's noise complaint form.
https://flighttracker.casper.aero/dal/

Deployment of Casper Noise Lab community noise portal to allow for greater transparency and information sharing with the public.
https://dal.noiselab.casper.aero/

Installation, maintenance, and support of eight (8) Casper Airport Noise Monitors.

The contract is in partnership with Sanchez Industrial Design, who handles the maintenance of the NMTs as a subcontractor to Casper.

Status

Implementation completed: November 30, 2017 - Active hosting, maintenance, and support.

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ORLANDO INTERNATIONAL AIRPORT – FLORIDA

Contact Details

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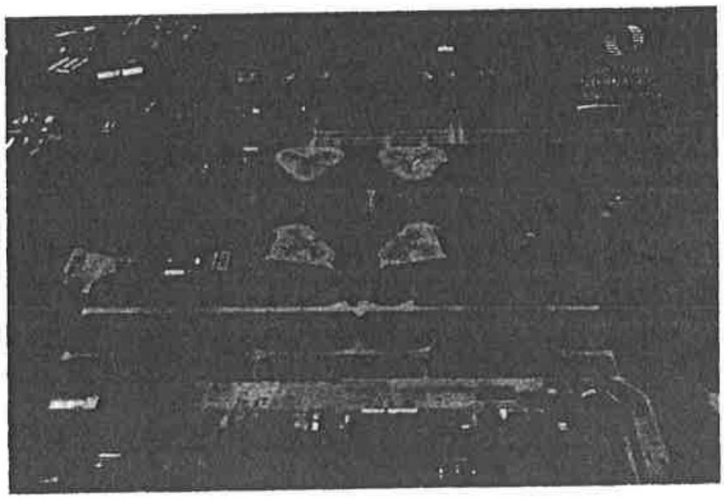

Scope

Installation, maintenance, and support of Casper Noise as the airport flight tracking and noise complaints management system for Orlando International Airport and Orlando Executive Airport.

Use of FAA SWIM data as the flight track radar data source.

Delivery of Casper Flight Tracker as the airport's public website for displaying flight tracks and handling complaints through the website's noise complaint form.
https://flighttracker.casper.aero/mco/

Status

Implementation completed: April 1, 2018 - Active hosting, maintenance, and support.

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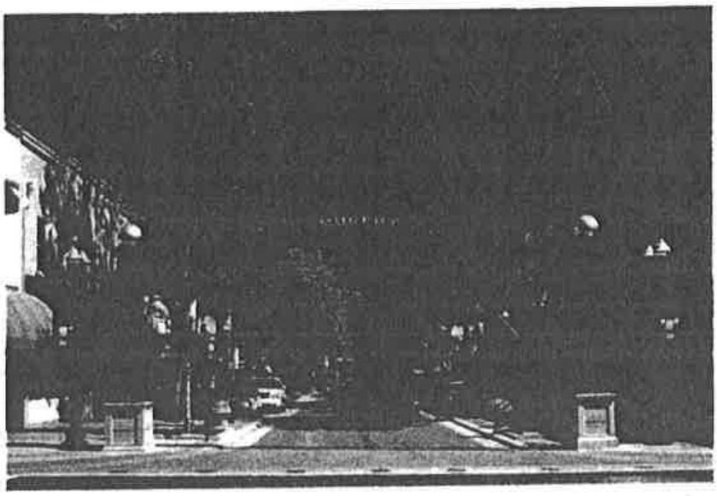

Scope

Installation, maintenance, and support of Casper Noise as the city's flight tracking and noise event monitoring system for the City of Sunnyvale.

Use of FAA SWIM data as the flight track radar data source.

Installation, maintenance, and support of four (4) Casper Airport Noise Monitors.

The contract is in partnership with Sanchez Industrial Design, who is a subcontractor to Casper and handles the maintenance of the NMTs.

Delivery of Casper Flight Tracker as the airport's public website for displaying flight tracks and handling complaints through the website's noise complaint form.
https://flighttracker.casper.aero/syv

Deployment of Casper Noise Lab community noise portal to allow for greater transparency and information sharing with the public.
https://syv.noiselab.casper.aero/

Status

Implementation completed: February 1, 2021 - Active hosting, maintenance, and support.

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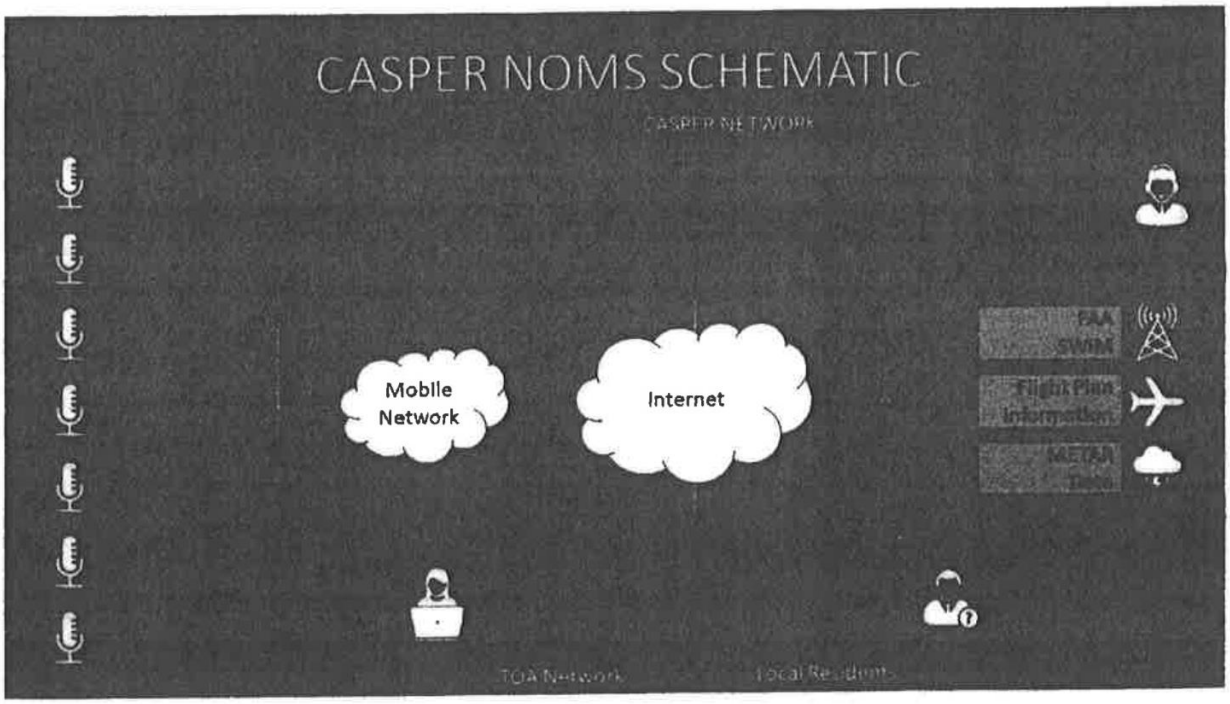
The Casper Solution

Overview

The city of Torrance Airport is looking for a real-time user-friendly, low-maintenance, and simple-to-operate Noise and Operations Monitoring System (NOMS) to analyze flight activity and aircraft performance in reference to noise abatement procedures.

Casper's solution will provide TOA with a low-cost, robust 100% web-based modular application that can grow and evolve as the airport's needs change. The Casper NOMS is sold with an enterprise license, meaning the City has unlimited user seat licenses available, providing exceptional value to the City.

Casper offers the most intuitive, easy-to-use NOMS system available on the market today. Everything from our hardware to web-based applications is state-of-the-art modular technology built for real-time data analysis and reporting.



We understand from Addendum #1 that Torrance has requested the proposal includes two quotes, the first covering the re-use of existing equipment and a second for a new system. After reviewing the available information and matching this with Casper's products and services, we present our base offer that re-uses much of the existing equipment. We believe this option best meets the requirements outlined in the RFP. Our base offer includes an option to move NMTs 4 and 6, and the option to include managed data plans (sim cards).

Our secondary offer includes all new equipment for each NMT location (including the relocation of NMT 4 and 6), new masts, and lightning protection.

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Recommendation

Casper has assessed that the existing masts, foundations, etc. are still in good condition and there is no requirement to replace the equipment. Additional costs such as permits and drawings, power disconnections and connections, the decommissioning, removal, and disposal of the old equipment are also a factor (not included in our offer). It is Casper's recommendation that our base offer presents the City of Torrance with its most effective solution.

Scope of Work (Base offer)

Casper project deliverables:

- Hosted Casper NOMS with the following software subscriptions:
  - Casper Noise
  - Casper Flight Tracking (public community portal)
  - Complaint Management
  - Reporting module
- 7 x Casper NMTs with,
  - Larson Davies LD-831-C sound level meters
  - Data Collectors
  - Modems
- 1 x NMT solar package (panels, batteries, solar controller)
- 1 x Weather station
- 1 x Larson Davis calibrator
- ATC Recording System (4 channels)
- Installation
- Training
- Annual Support and Maintenance
  - Biannual onsite maintenance
  - Optional data plan management (sim cards)

Option Site location of NMTs 4 and 6

Includes:

- Standard tilt mast
- Lightning rod
- Site selection
- Preparation of drawings
- Concrete foundations

Excludes:

- Easements, permits
- Power disconnections and connections
- Site decommissioning, removal, and disposal of old equipment
- Any remedial landscaping

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Option Data Plan Management (sim cards)

- Sim cards

Scope of Work (New equipment -Secondary offer)

Casper project deliverables:

- Hosted Casper NOMS with the following software subscriptions:
  - Casper Noise
  - Casper Flight Tracking (public community portal)
  - Complaint Management
  - Reporting module
- 7 x Casper NMTs with,
  - Larson Davis LD-831-C sound level meters
  - Data Collectors
  - Modems
- New foundations at New foundations, masts, lightning protection at NMTs 2, 3, 4, 5 and 6
- New masts, lightning protection at NMTS 1, 2, 3, 4, 5, and 6
- 1 x NMT solar package (panels, batteries, solar controller)
- 1 x Weather station
- 1 x Larson Davis calibrator
- ATC Recording System (4 channels)
- Reuse existing radios
- Installation
- Training
- Annual Support and maintenance
  - Biannual onsite maintenance
  - Option data plan management (sim cards)

Excludes:

- Easements, permits, and drawings
- Power disconnections and connections
- Site decommissioning, removal, and disposal of old equipment
- Any remedial landscaping

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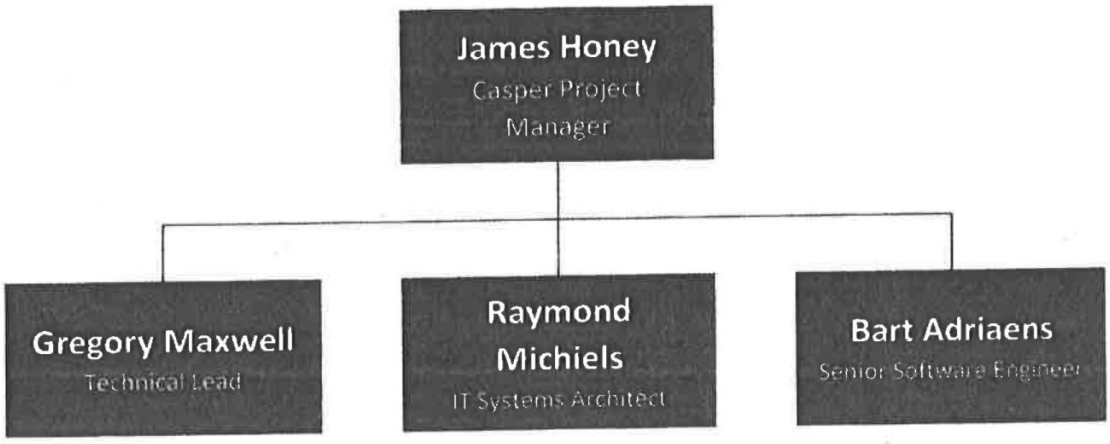
The Project

Casper will appoint a dedicated project manager to ensure on-time delivery. Collectively, the project team has nearly 50 years of airport experience and delivered as many projects.



Staff Experience

Casper has allocated a very experienced and talented team to the Torrance project to ensure that the deployment runs smoothly and is executed on time and within budget.

The project team allocated to this installation has over 40 years of combined experience building, deploying, and supporting aviation solutions. Our team's expertise, industry experience, and aviation knowledge are unrivaled in the industry. This knowledge will help ensure that TOA gets the maximum value out of its NOMS.

James Honey – *Project Manager,* will oversee the project and directing the Casper team. He will serve as the primary point of contact for TOA during the deployment.

Gregory Maxwell – *Technical Lead*, will serve as the Technical expert and manage Casper's software development and configuration.

Raymond Michiels – *IT Systems Architect*, will ensure the database connections to the various data feeds and monitor the FAA SWIM feed's data flow. He will also ensure that the TOA software applications are fully optimized on the dedicated Casper server.

Bart Adriaens – *Senior Software Engineer*, will manage the development process for changes/additions to the TOA Casper Noise application and optimize the application and data flow performance.

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Project Team Resumes

James Honey – Senior Project Manager	
Role / Responsibilities	**Project Manager** – Mr. Honey will handle the project's day-to-day management during the design and implementation phases. James will collaborate with the airport's project manager to oversee the project and manage weekly project progress meetings during implementation. He will communicate the hardware and software requirements to the technical lead and ensuring the work is scheduled and performed on time and within budget.
Professional Background	James has over ten years of experience as a NOMS project manager. In that time, he has overseen over 30 airport deployments around the world. Mr. Honey is currently the Casper project manager for the Dutch Ministry of Defense deployment. Key projects he has managed include SFO, SAT, BWI, LAX, FLL, and HNL. He has a B.S. in Computing from Monash University in Victoria, Australia. James has PMI-PMP and PMI-AGP certifications in Project Management. He also has experience with many programming languages such as PHP and XML and database systems like Oracle and MySQL. Mr. Honey has extensive experience with project management in demanding, sensitive environments requiring thorough communication and planning skills in a commercial software setting. James is based in Melbourne, Australia.
Relevant Experience	• Project Manager for San Francisco International Airport NOMS System (2019) • Project Manager for San Antonio International Airport NOMS System (2017) • Project Manager for Baltimore/Washington International Airport NOMS System (2017) • Project Manager for Guangzhou Baiyun International Airport NOMS System (2016) • Project Manager for Manchester Airports Group NOMS System (2014)

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Gregory Maxwell – Airport Solutions Manager	
Role / Responsibilities	**Technical Lead** – Mr. Maxwell will serve as the Technical Lead. He will be responsible for communication between the project manager and the software team during the project. Gregory will ensure that all software development work is planned in the schedule. He will also manage the software engineer's workload to ensure that work is completed according to schedule. Mr. Maxwell will also help the project manager translate the software requirements to the development team to clarify the end product that is to be developed.
Professional Background	Gregory has worked for Casper for three years. He is currently the project manager for work at PVD Airport. He is also the account manager for CLT, PHL, PVD, RDU, and Sunnyvale. Mr. Maxwell has an M.S. in Aviation Safety from Embry-Riddle Aeronautical University and over ten years of experience in aviation noise abatement. He managed aviation noise abatement programs at both Portland (PDX) and Philadelphia (PHL) for nine years. He has also consulted for Boeing's Airport Community Noise Engineering Group. For the past five years, Gregory has also co-taught the Noise 101 class at the UC Davis Aviation Noise and Emissions Symposium. Mr. Maxwell has extensive experience with project management in demanding, sensitive environments requiring thorough communication and planning skills in both an airport and commercial software setting. Gregory is based in Philadelphia, Pennsylvania.
Relevant Experience	• Project Manager for City of Sunnyvale NOMS System (2021) • Project Manager for Raleigh-Durham Airport NOMS System (2019) • Project Manager for Charlotte Douglas International Airport NOMS System (2019) • Project Manager for Orlando International Airport NOMS System (2018)

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Raymond Michiels – CTO	
Role / Responsibilities	**IT System Architect** – Mr. Michiels will manage the integration of the data feeds that will supply information to the Casper system. This includes the FAA SWIM feed, supplementary data feeds from other commercial sources, integrating noise event data, and setting up the flight track processes, noise event, and complaint flight track matching. He will also test and ensure that all the data feeds are synched and delivering data as expected. Raymond is also responsible for transferring historical data from the user's legacy system.
Professional Background	Raymond started working at the Dutch National Aerospace Laboratory after his M.S. Computer Science degree. After six years, he joined an IT company. Two years later, he started his own IT company (Frontier) with three other software engineers. For ten years, he developed custom-made software for airports, airlines, ATC and CAA in the Netherlands as a system architect and senior software engineer. Typical projects involved processing and analysis of flight track data and turning it into useful information. Using this experience from the Netherlands and, most important, Amsterdam Schiphol Airport, Raymond and partners took some products and started a new company focussed on applying the products and knowledge internationally. Since 2010, Mr. Michiels has been working as a system architect and senior software engineer on worldwide projects on Flight Tracking and Noise Monitoring in New Zealand, the USA, and Europe.
Relevant Experience	• Casper Noise projects at Tampa, Edinburgh, Geneva, Rotterdam, London Gatwick, Auckland, and Dallas/Fort Worth • Casper CDM situational awareness projects at Amsterdam Schiphol, Abu Dhabi, and London Gatwick • Casper Flight Tracking projects at San Diego, Amsterdam Schiphol, and London Gatwick • Track analysis projects for infrastructure use and departure/arrival spacing at Amsterdam Schiphol and London Gatwick

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Bart Adriaens – Lead Software Engineer	
Role / Responsibilities	**Senior Software Engineer** – Mr. Adriaens will configure the Casper Noise and Flight Tracking applications. He will customize Casper Noise to ensure that all the functionality required by the airport is configured in the application before deployment. Bart is also responsible for enhancements and changes to the Casper Noise application as part of routine maintenance and deployment of new software versions.
Professional Background	Bart has B.S. in Computer Science degree. He has worked as a software engineer for the last 20 years. Mr. Adriaens joined Frontier in 2004 and has been involved in software development for airports since that time. Bart has worked for Casper since its founding. He has been involved in most of the Casper projects on noise monitoring and flight tracking for airports worldwide. He is a front-end and back-end developer with much experience in the development of web-based applications for airports. He is involved in product development and implementation projects for Casper.
Relevant Experience	• Casper Noise projects at Tampa, Edinburgh, Geneva, Rotterdam, London Gatwick, Auckland, Dallas/Fort Worth, Leeds Bradford, Dallas Love Field, Orlando, Providence, Raleigh-Durham, and Charlotte • Casper Flight Tracking projects at Frankfurt Umwelthaus, TNT, Amsterdam Schiphol, and San Diego • Development of Casper Noise Lab in cooperation with Amsterdam Schiphol and implementations at Geneva, Vienna, and London Gatwick • Casper CDM ground view, Casper CDM ifra

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Project Outline and Planning

Phase 1: Planning

- Planning will begin on contract award and is a crucial phase of the project
- Kick-off meeting and workshop at Torrance Airport with the City, airport staff, and Casper project team. The workshop is intended to discuss detailed requirements, identify actions, discuss interfaces, review deliverables, and collect detailed information to complete the project planning. To gain the greatest value from the workshop, it is recommended the following Torrance staff attend:
    - Project manager
    - CIT Department Staff, IT specialist (in-house or preferred local sub-contractor)
    - Primary users of the NOMS system
    - Data feed specialists as appropriate
- Following the workshop, the Casper Project Manager will issue the final project plan and schedule, which is expected to occur within two (2) weeks of the workshop.
- Establish a communications plan and matrix to ensure all City of Torrance key stakeholders, including the CIT department
- Before the workshop, the NMT Site inspection will take place:
    - Site Inspection to establish the current condition of existing sites, accessibility, electricity, communication, and poles and get the info needed for installation and permits
    - Delivery of site inspection report and installation plan
- Solution Definition Document will be developed, summarizing the processing and customizations in place on the existing system. Information from the kick-off meeting and workshop will finalize the document.
- Noise Monitor Cutover Plan will be developed during the workshop. The plan will detail the order and methodology for replacing existing noise monitoring units. Once exact details, timing, and dependencies have been worked through with the City of Torrance during the planning phase, the Casper team will procure all necessary hardware and begin site work
- System Acceptance Plan will be developed during the Planning Workshop. The plan will outline how the NOMS system will be verified to confirm that it meets all SOW requirements and the NOMS acceptance criteria

Phase 2: Deployment and Test

NOMS Build

- The new NOMS system will be built and configured to the specifications agreed in the Solution Definition Document
- The system will be configured to receive FAA SWIM radar, flight plan, NMT, ATC, and weather data as they come online

NOMS configuration

- During the NOMS Configuration phase, we will organize a demonstration of an initial setup. We will show the configuration of the system during this demonstration, confirm any remaining detailed configuration items, and make sure everything is covered in the setup. Based on the

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evaluation demonstration, we will create a list of Torrance and Casper's actions to finalize the configuration

NMT and ATC Installation and Replacement

- Prepare installation of components in our office
- Perform off-site testing of all NMTs
- Perform off-site testing of all ATC radio equipment
- Based on the agreed Noise Monitor Cutover Plan noise data from the replaced noise monitors will be supplied as the NMTs are installed
- Critical dependencies on the installation commencing will be
    - Agreement on the Cutover Plan
    - Confirmation of access to the easements, where required, has been approved
    - Any permits are granted
    - Power is available and ready
- Where sites can reuse existing masts, the installation will take half a day per NMT, and as soon as the existing NMT hardware is removed and the new NMT hardware is installed, the data will start streaming the NOMS will begin receiving data
- After all the NMTs are installed, a commissioning report will be issued

System Acceptance

- Once the system has been configured and receives data from all feeds, it will be deemed ready for the acceptance period
- The Acceptance Plan will be executed, with all Casper NOMS functions being demonstrated
- Torrance will have a method to record action items; Casper will manage this to an agreed resolution
- When the acceptance period's criteria have been met, Torrance will be asked to sign the acceptance certificate, and the system will be deemed "live"

Phase 3: Final Delivery

- Once accepted and Torrance have agreed. Any old legacy system items will be shut down with Torrance to provide Casper with historical data from their old system for importing
- After this phase, the project will have met all requirements and will be complete. Casper's project team will then hand the system over to our support staff to manage

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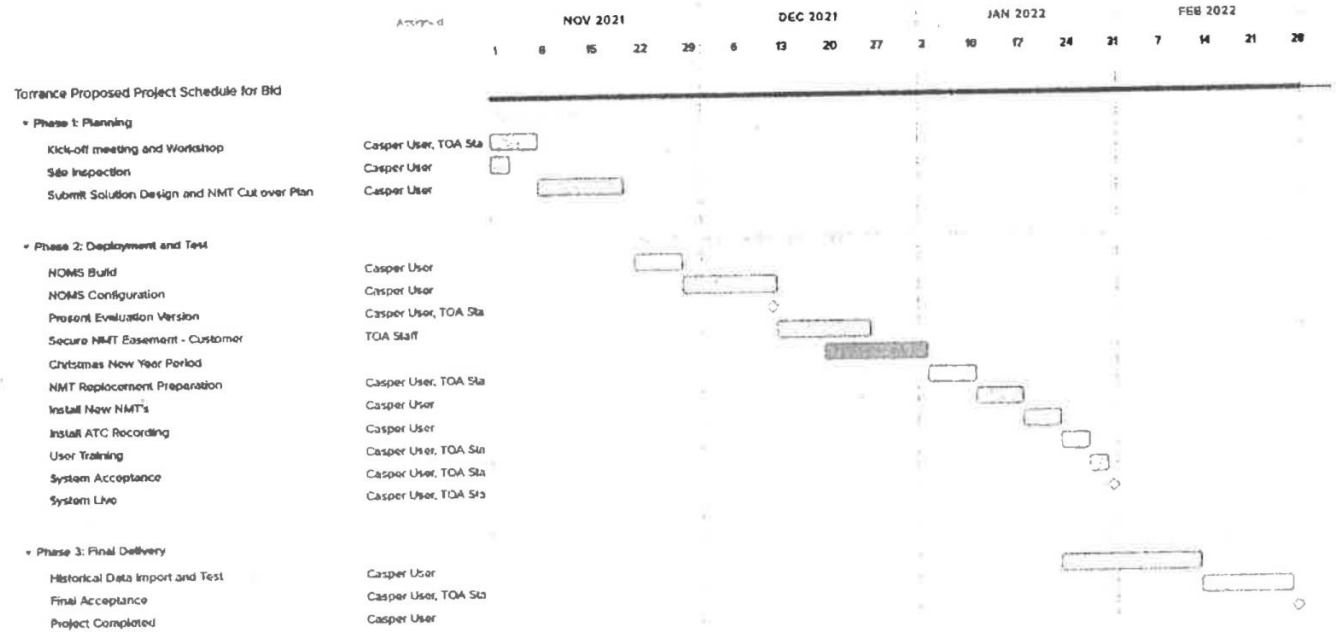
High-Level Project Schedule

This is an indicative project that will be finalized after the project kick-off meeting



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Casper Product Solution

Casper Noise

Casper Noise is a near real-time, 100% cloud-based, fully integrated aviation noise management solution that supports efficient flight track monitoring analysis and reporting.

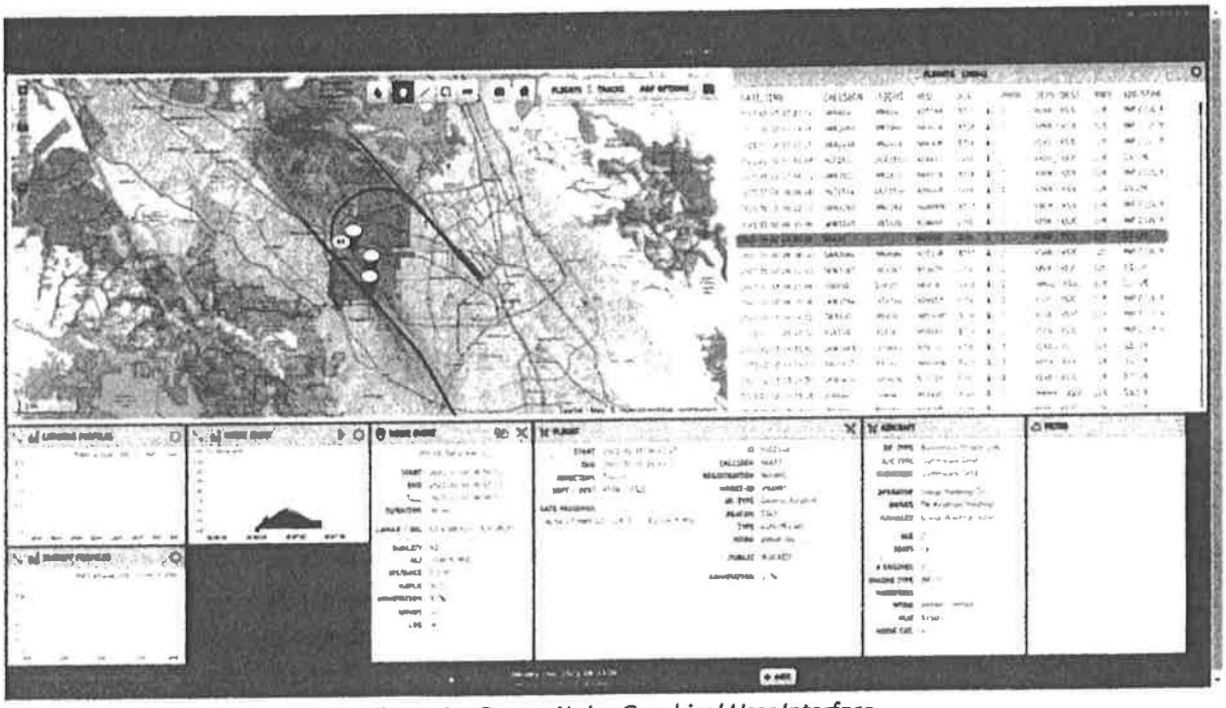

Figure 1 – Casper Noise Graphical User Interface

Key Casper Noise Attributes:

- Near real-time and fully automatic: All flight tracks and complaint data are processed in near real-time. Correlations between flights and complaints and runway assignments are made available in the system within six minutes of the real-world event, eliminating the need for hourly or nightly batch processing of data.
- Web-based hosted solution: No local installation of software is needed to run Casper's NOMS. All applications are hosted at a high-end, secure data center, and most maintenance is performed via remote connection.
- Flexible: The system is customized to meet the Airport's specific needs. Filters, dashboards, reports, and user settings are entirely configurable, making it the most flexible and configurable solution available.
- Intuitive: The user interface is highly user-friendly and easy to navigate. After a few hours of training, your staff will be able to successfully navigate the application and take full advantage of the powerful suite of flight track analysis tools.

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- State-of-the-Art: The Casper NOMS uses the most modern development architecture (HTML5) and advances in technology to ensure a very responsive, powerful, and intuitive application. Our system doesn't use any third-party components or plugins.
- Robust: The server performs all data processing. Therefore, it isn't limited by the host computer's processer and memory constraints, making it possible to load a month's worth of flight tracks in under 15 seconds. The only limitation of the application is the speed of the user's internet connection.
- Quick Deployment: Casper has already deployed a TOA demo system. Flight track data is currently being collected and stored for KTOA. If selected, our NOMS software can be fully deployed at TOA in less than a month, including all the airport's customization and configuration changes.

Part of what makes Casper's NOMS so easy to use is that it doesn't require the user to build complex queries to analyze data in the system. Instead, the Casper application uses 100% customizable filters, which allow for quick and easy analysis and display of information. The filters are customized based on the City's requirements. The default filters include periods such as Nighttime, allowing the user to get a list of real-time curfew violations with just a few clicks of the mouse. The application also permits multiple periods, allowing the City to set up periods to filter on Weekday (07:00-22:00) and weekend (08:00-22:00) curfew hours. In addition, Casper Noise can filter flight operations, complaints, and noise events by gates and corridors to return results concerning early turn or training pattern violations.

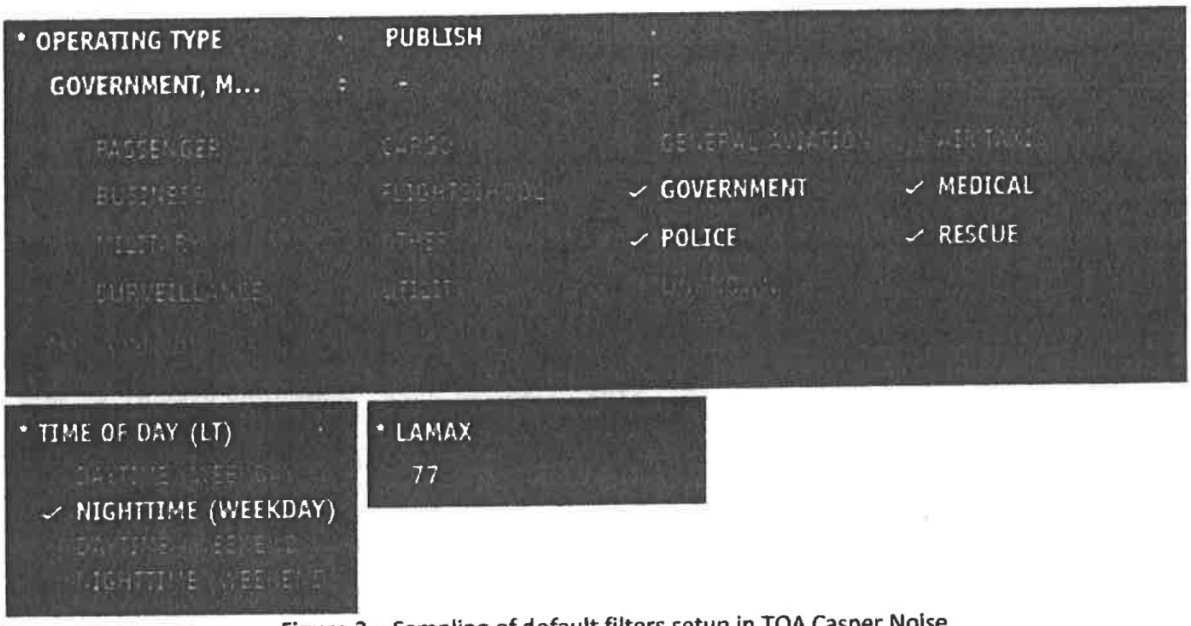

Figure 2 – Sampling of default filters setup in TOA Casper Noise

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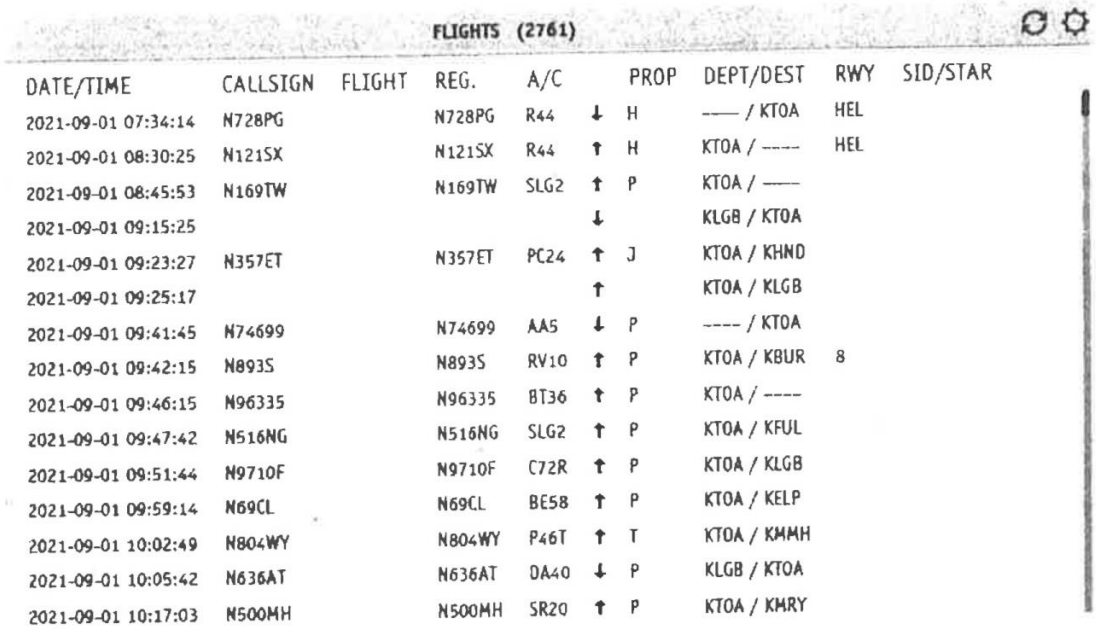
Casper Noise Modules

Casper proposes to TOA the following modules to meet their analysis needs:

- **Flights Module**: The core of the Casper NOMS system imports and processes all flight-related data and correlates it in near real-time to runway ends and complaints. This module also provides the analysis and reporting tools to investigate flight track trends and deviations.

  The flights module automatically calculates a point of closest approach (PCA) to the closest noise monitor and resident for complaints about specific aircraft operations. In addition, the altitude of individual track points on a flight track or group of flight tracks can be displayed. The altitude display of tracks can also be adjusted to display altitude bands for a group of tracks. Casper Noise can also produce track density maps to show flight track concentrations and has tools to allow you to measure distances along flight tracks.



FLIGHTS (2761)

DATE/TIME	CALLSIGN	FLIGHT	REG.	A/C		PROP	DEPT/DEST	RWY	SID/STAR
2021-09-01 07:34:14	N728PG		N728PG	R44	↓	H	---- / KTOA	HEL	
2021-09-01 08:30:25	N121SX		N121SX	R44	↑	H	KTOA / ----	HEL	
2021-09-01 08:45:53	N169TW		N169TW	SLG2	↑	P	KTOA / ----		
2021-09-01 09:15:25					↓		KLGB / KTOA		
2021-09-01 09:23:27	N357ET		N357ET	PC24	↑	J	KTOA / KHND		
2021-09-01 09:25:17					↑		KTOA / KLGB		
2021-09-01 09:41:45	N74699		N74699	AA5	↓	P	---- / KTOA		
2021-09-01 09:42:15	N893S		N893S	RV10	↑	P	KTOA / KBUR	8	
2021-09-01 09:46:15	N96335		N96335	BT36	↑	P	KTOA / ----		
2021-09-01 09:47:42	N516NG		N516NG	SLG2	↑	P	KTOA / KFUL		
2021-09-01 09:51:44	N9710F		N9710F	C72R	↑	P	KTOA / KLGB		
2021-09-01 09:59:14	N69CL		N69CL	BE58	↑	P	KTOA / KELP		
2021-09-01 10:02:49	N804WY		N804WY	P46T	↑	T	KTOA / KMMH		
2021-09-01 10:05:42	N636AT		N636AT	DA40	↓	P	KLGB / KTOA		
2021-09-01 10:17:03	N500MH		N500MH	SR20	↑	P	KTOA / KMRY		

Figure 3 – Flights Module displaying arrivals and departures from TOA for the month of September

The Casper Noise flight track data feed is a composite feed that combines information from FAA SWIM, FlightAware, and FlightGlobal to ensuring the most complete and accurate global tracking and aircraft ID (registration number, flight number, and Mode-S ID (hex code) information available in the marketplace.

- **Tracks Module**: Delivers various track analysis options, including gates, corridors, PCAs, and Average Track, to monitor compliance with existing noise abatement procedures, quantify dispersion from routes and investigate flight activity over a specific location.

  Casper Noise allows for the automatic tracking and identification of noise abatement procedure violations. Both gates and corridors can be set up in the system with filtering criteria such as

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flight direction, runway, and even aircraft propulsion type. The Casper system is extremely accurate in calculating violations and the user can create corridors/areas of any 3-dimensional shape. Casper Noise also can import GIS shape files such as neighborhood, city, or zip code boundaries and turn these into automatic detection areas for violations reporting.

All flight activity is analyzed across all active gates and corridors to identify violations. When detected, the violation(s) such as early turns are automatically tagged to the flight operation in Casper Noise and displayed on the screen.

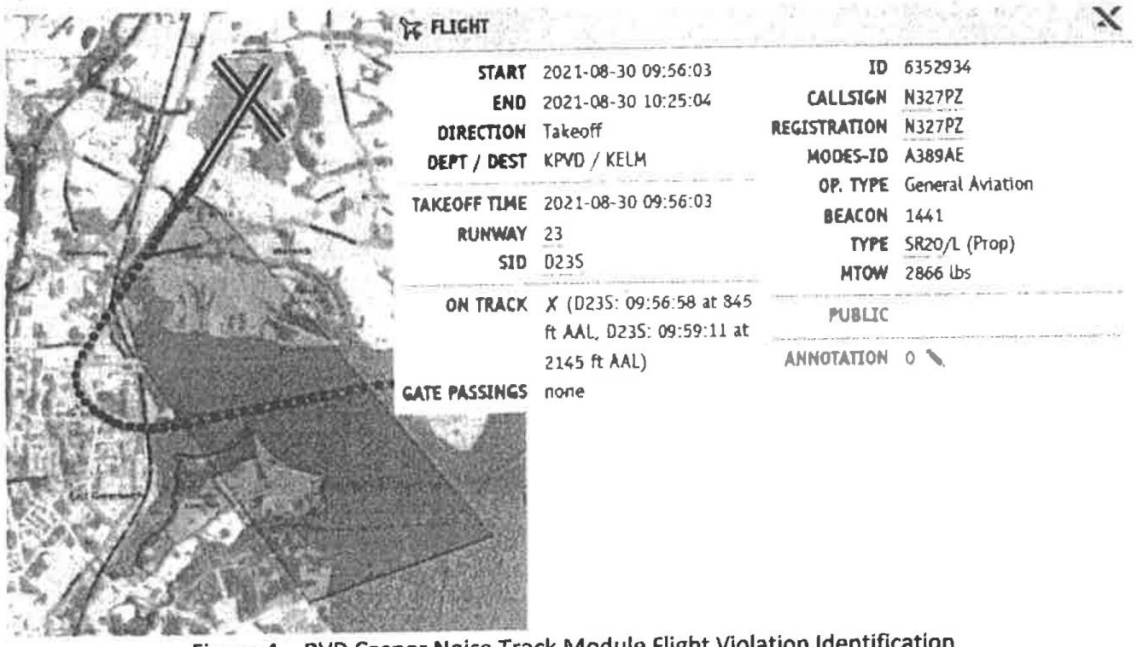

Figure 4 – PVD Casper Noise Track Module Flight Violation Identification

- **Noise Events Module:** The noise events module is automatically included with the purchase of either permanent or portable NMTs by the City. With this module, Torrance can analyze individual aircraft noise events that are correlated to flight tracks and complaints, view the actual noise event curve in the application, and listen to the recorded audio if this option is selected with the NMT package.

  Noise Events in the Casper NOMS system are correlated in near-real-time to flights and complaints. The system also allows for automatic detection of high decibel noise events, through the setting of trigger thresholds, which will automatically tag flights that violate the codified noise levels in place at TOA. Casper Noise also makes it easy to filter for aircraft noise events over a certain Lmax or SENEL. Enabling users to quickly establish a list of aircraft noise violations for the selected period of interest.

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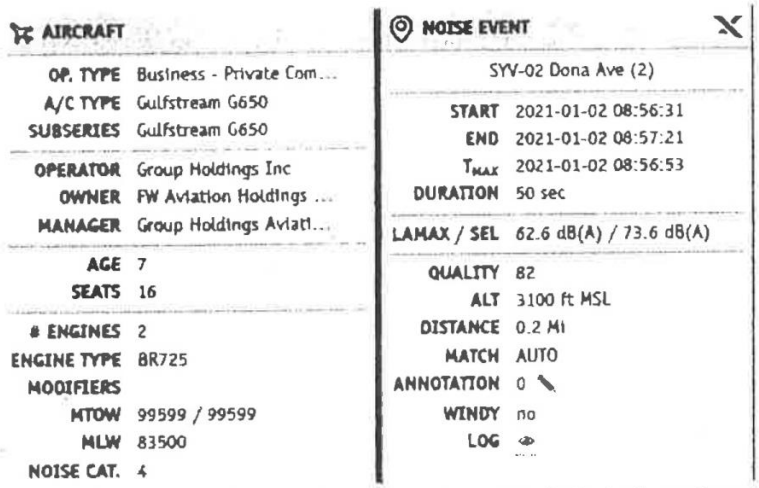

Figure 5 – SYV Casper Noise Displaying noise event details for a specific flight (tail number deliberately removed)

- **Complaints Module:** Provides a user-friendly, comprehensive complaint management suite that supports the entire workflow from the receipt to the investigation, analysis, and response to the resident. The complaint module helps the Airport automate the complaint response process using customizable text templates like the one **shown in Figure 6**. These templates auto-populate information such as the resident's name, flight details, date/time of the concern, and an image of the flight situation, reducing staff time and resources needed to manage complaints. If desired, the City can set up the system to send auto-responses when a complaint is received.

  The public complaint portal is accessible by residents across all web-enabled devices. Dedicated mobile-friendly versions of the Flight Tracker and Complaint portal that are optimized for display on tablets and smartphones will also be deployed by Casper as part of the City's NOMS system.

  In addition, all Flight Tracker, Webform, Email, and Airnoise (button) complaints are automatically entered into the complaint system requiring no user intervention and, if desired, can be automatically closed once received if no response is requested. Button complaints can also be automatically excluded from reports and dashboards if desired.

  Complaints are correlated to flights in near-real-time (within six minutes) by analyzing aircraft flight activity in the resident's vicinity at the time of the complaint, if this flight operation involves a violation of noise abatement this will be automatically noted in the complaint record.

  Casper Noise also enables users to file "Period" complaints pertaining to flight activity over an extended duration. The system will analyze all flight tracks across the period to determine the operational mode that is most likely the cause of the complaint.

  In addition, Casper Noise permits the airport user to identify and tag frequent complainers. Separate automated complaint response templates can be set up pertaining to frequent complainers which have different language and information from that provided to infrequent complainers. The system can also group multiple complaints associated with the same flight operation/alleged violation.

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Dear Gregory Maxwell,

Thank you for contacting the Dallas/Fort Worth International Airport (DFW). This email is in response to the inquiry we received from you on 19 November 2020 regarding the report of a specific aircraft noise disturbance on 19 November 2020 at 11:16:00. After investigating the disturbance we have determined the aircraft noise event you reported related to the following flight:

Date & Time	19 November 2020 11:16:00
Aircraft Type	Boeing 787-8
Operator	American Airlines
Flight/Tail Number	AAL281
Flight Direction	Takeoff
Altitude	4680 feet
Distance	1.2 miles
Origin Airport	KDFW - Dallas-Fort Worth International Airport
Destination Airport	RKSI - Incheon International Airport

After analyzing the flight operations around the time of your complaint we have determined that your home is adjacent to the BLECO RNAV departure at DFW. When the airport is operating in a south flow as it is today, you can expect to see a high volume of jet departures overflying your neighborhood after takeoff from DFW Airport. In most cases the aircraft are following the charted departure procedure on autopilot following a series of GPS waypoints.

The first waypoint on the procedure for aircraft departing on Runway 17R is SPERA and your home is located abeam this turn point. As such aircraft flying this charted Standard Instrument Departure (SID) procedure fly by this waypoint turning east away from the airport. The aircraft operator when planning their flight files an instrument flight plan including the particular SID they would like to fly departing DFW Airport. Assuming there are no conflicts such as weather ATC will generally clear the aircraft on the requested departure route prior to the aircraft leaving the gate.

The volume of flight activity on this procedure is variable as SID assignments are made based on the destination of the aircraft. Each SID covers a particular set of destinations and provides the aircraft with a predictable path or onramp to reach the enroute airspace. SIDs allow ATC to organize and sequence aircraft headed to similar destinations in a way that increases efficiency of the airspace and enhances safety of flight.

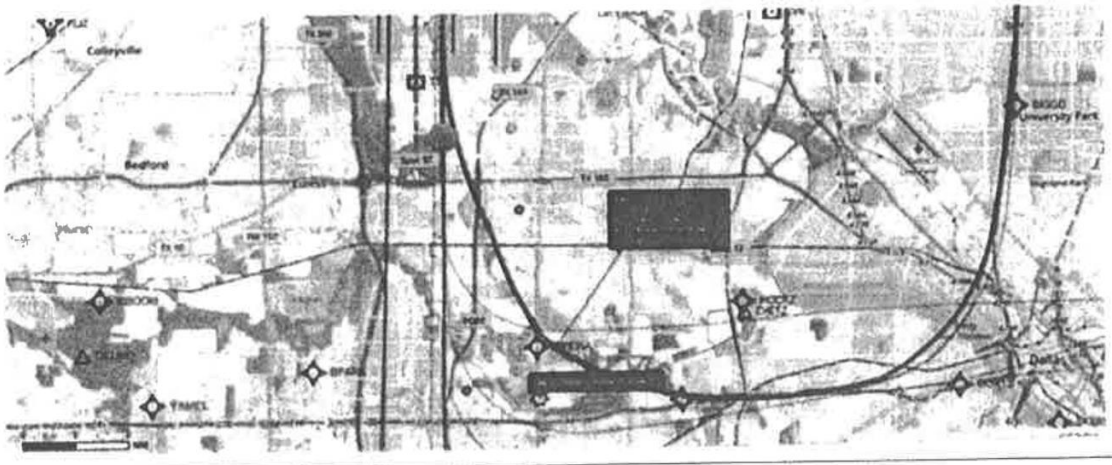

Figure 6 – DFW Casper Noise Automated Complaint Response Template

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- **Reporting:** To meet the City's reporting needs, we propose a multi-pronged strategy that uses the various data browsers and customized dashboards in Casper Noise and traditional standard reports. Our experience in working with airports across the United States and around the Globe has shown us that when it comes to reporting there are three critical elements to a successful reporting strategy: Currency of the data, accuracy of the data, and accessibility of the data.

  Currency – Traditionally airports have relied on canned reports that publish weekly, monthly, or quarterly stats in an Excel or Word formatted export. Sometimes, the regulatory environment requires this form of reporting and Casper can certainly reproduce these reports. But in most cases, there isn't a statutory requirement and the airport would be better served in delivering this data through a more dynamic means and making it available on demand. After all, how useful is data that is more than a week or month old by the time stakeholders have it in their hands?

  Accuracy of the Data – Casper's flight track data source is a hybrid of three different sources, which are all cross-referenced and compared to ensure accuracy. Our data is more reliable, accurate, and contains fewer gaps than competitors. All factors that are critical to maintaining public trust in the Airport's noise abatement program, and enforcement initiatives.

  Accessibility of the Data – Casper's NOMS system is built around the idea of transparent data sharing. By providing the software as an Enterprise license with unlimited user seats, all internal stakeholders have instant access to review and analyze trends at Torrance Airport. Our tiered user access system also allows the City to control who has access to which content and set up different user groups so that individuals see only data that applies to their role and needs.

  Dashboards: Casper can configure any of the requested reports as Dashboards with the pertinent information which would increase the distribution of the data, and allow interested stakeholders to view this information in real-time, and pull their own historical data reports on violations of noise levels, curfew, early turns and adherence to training patterns.

  The dynamic, customizable charts and graphs that are made available on user-defined dashboards are grouped by interest. The charts update in near real-time and also provide historical information on flight operations, noise events, and complaints.

  The advantage of the dashboards is that they allow dynamic tracking and analysis of violations, operations, noise events, and complaint data. All data presented on the dashboard can be exported directly to a .csv file for more analysis in Excel or Tableau, or an image file to include in a presentation. The data updates dynamically in real-time or based on the historical date range selected. Examples of dashboards that Casper currently has set up. Nighttime Preferential Runway, Airport Traffic Flow, Flight Ops Overview, Curfew Monitoring, Quarterly Report.

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Casper can create any custom dashboard requested by the City from any combination of the data element in the Flights, Noise Events, and Complaints database. We believe the dashboards could serve as an effective replacement for some existing recurring reports and allow for real-time viewing by all concerned parties in the City. Because Casper Noise is offered as an enterprise license with unlimited user seats, anyone who wants to view the data can be given access to the Dashboards.

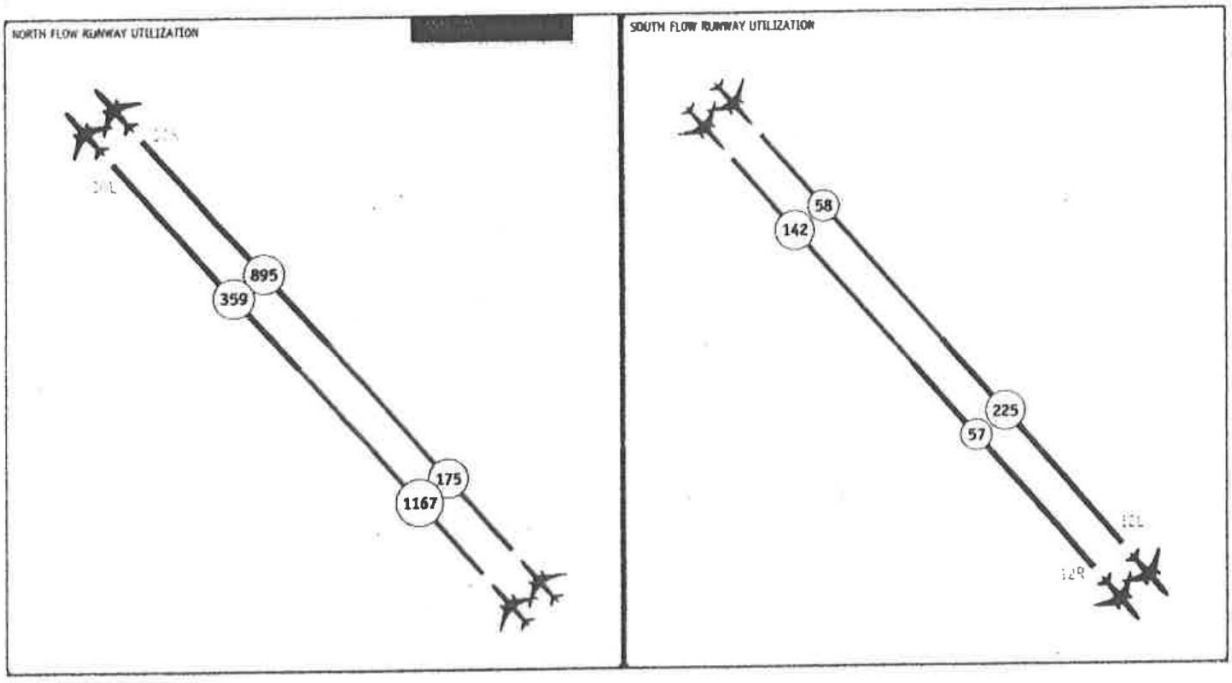

Figure 7 – Dashboard Module, SJC Runway Utilization for the week beginning 09-12-2021

- **Custom Reports**: Standard and custom reports can be set up for violation letters, daily violation lists, enforcement reports. All the information pertinent to a particular case can be appended to the flight record of the violation for tracking and reporting purposes.

The system can run a report for any date range and export it to a user-specified format such as xlsx, CSV, or pdf. Our state-of-the-art NOMS system is built with automation in mind, and the reporting structure is no different. Any of the requested reports can be automated and set to run on a daily, weekly, monthly, or quarterly basis.

Weather data is collected from the airport weather station METAR reports and correlated to all flights, noise events, and complaints.

The report in Figure 8 on the following page is a custom report that lists South Flow jet landing noise events by aircraft that overflew the City of Sunnyvale on the downwind leg of their approach to SJC Airport.

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Date/Time	Origin	Direction	Approach	Runway	AC Type	Propulsion	Noise Category	PCA Altitude (ft.)	NMT	Lmax	SEL	Duration (sec.)
08-09-2021 06:59	KLAS	Landing	RNP Z 12L/R	12R	B737	J	3	3000	SYV-02 Dona Ave	61.2	73.0	36
08-09-2021 07:10	KPDX	Landing	ILS 12R	12R	B738	J	3	3000	SYV-04 Washington Park	61.6	72.0	29
08-09-2021 07:30	KONT	Landing	ILS 12R	12R	B737	J	3	2700	SYV-04 Washington Park	66.3	76.7	45
08-09-2021 07:30	KONT	Landing	ILS 12R	12R	B737	J	3	2900	SYV-02 Dona Ave	66.7	76.4	39
08-09-2021 07:30	KONT	Landing	ILS 12R	12R	B737	J	3	3500	SYV-01 Ortega Park	61.2	72.4	42
08-09-2021 07:43	KSAN	Landing	RNP Z 12L/R	12L	B737	J	3	3200	SYV-02 Dona Ave	62.6	74.1	46
08-09-2021 07:57	KSNA	Landing	ILS 12L	12L	B737	J	3	3000	SYV-02 Dona Ave	63.6	74.8	49
08-09-2021 07:57	KSNA	Landing	ILS 12L	12L	B737	J	3	3600	SYV-01 Ortega Park	64.6	75.3	41
08-09-2021 08:33	KLAX	Landing	RNP Z 12L/R	12R	E75L	J	4	3000	SYV-02 Dona Ave	62.0	73.0	40
08-09-2021 08:33	KLAX	Landing	RNP Z 12L/R	12R	E75L	J	4	3600	SYV-01 Ortega Park	60.8	72.7	43
08-09-2021 08:39	KBUR	Landing	RNP Z 12L/R	12R	B737	J	3	3000	SYV-02 Dona Ave	65.6	74.0	33
08-09-2021 08:42	MMGL	Landing	ILS 12R	12R	A320	J	3	3500	SYV-01 Ortega Park	62.5	72.7	35
08-09-2021 08:48	KLAX	Landing	ILS 12R	12R	E75L	J	4	3500	SYV-01 Ortega Park	59.4	70.7	36
08-09-2021 08:55	KSEA	Landing	ILS 12R	12R	B737	J	3	3600	SYV-02 Dona Ave	59.5	70.7	32
08-09-2021 08:57	KSLC	Landing	RNP Z 12L/R	12R	E75S	J	4	3100	SYV-02 Dona Ave	59.8	71.4	38
08-09-2021 08:57	KSLC	Landing	RNP Z 12L/R	12R	E75S	J	4	3800	SYV-01 Ortega Park	60.3	70.1	26
08-09-2021 08:59	KDEN	Landing	RNP Z 12L/R	12R	B738	J	3	3000	SYV-02 Dona Ave	65.0	75.0	42
08-09-2021 08:59	KDEN	Landing	RNP Z 12L/R	12R	B738	J	3	3600	SYV-01 Ortega Park	64.7	74.7	39
08-09-2021 09:02	KAUS	Landing	RNP Z 12L/R	12R	E75L	J	4	3000	SYV-02 Dona Ave	64.0	72.9	37

Figure 8 – City of Sunnyvale (SYV) South Flow Landing Report excerpt (tail number deliberately removed)

Casper R/T - ATC Audio Recording and Playback System

Casper's R/T module provides access to historical and near-real-time ATC conversations, synched to the flight tracks, and presented to the user for review in the Flights Overview screen. The system allows users to investigate deviations from typical flight patterns and quickly determine if the deviation was due to weather, safety (aircraft separation), controller, or pilot error. The Casper R/T system is currently installed at Dallas/Fort Worth (DFW) and Dallas Love Field (DAL) airports in the United States. The server stores all audio for a user-configurable period of up to six months.

Any audio that is accessed and listened to is automatically moved to the Casper NOISE server for indefinite storage. This process helps to reduce the long-term audio storage requirements and ensures that important ATC audio records are preserved for historical purposes. The system also allows Individual ATC Audio segments in Casper Noise to be tagged to a specific flight and, once tagged, will be available for the life of the contract.

When a flight is selected on the map or in the Flights Table, the R/T panel timeline is adjusted to match that flight's start and end timestamp. The R/T panel shows all available audio segments for each frequency on the timeline, as shown in the figure on the following page. Clicking on an audio segment on a specific channel will start the ATC audio playback from that point on the timeline.

The City, as part of the contract process, will determine the specific frequencies to be recorded and archived besides the specific frequencies specified below:

Torrance Ground = 120.9
Torrance Tower (North) = 133.075
Torrance Tower (South/CTAF) = 124.0
ATIS = 125.6
*SOCAL Departure (Rwy 29L, 29R) = 124.3 *optional*
*SOCAL Departure (Rwy 11L, 11R) = 127.2 *optional*

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The following functionality is available in the R/T panel:

- Link an audio clip to a flight
- Add an annotation to an audio clip
- Listen to audio clips, pause, and increase playback speed
- In multichannel mode (indicated by the infinity symbol), audio for all linked segments (from non-muted channels) will be played back in time order.
- Export current audio clip to a wav file

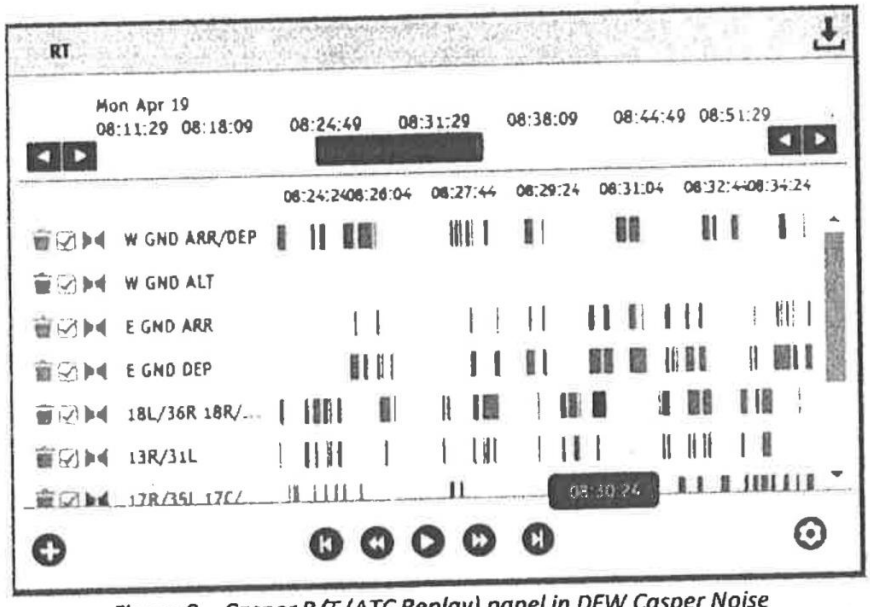

Figure 9 – Casper R/T (ATC Replay) panel in DFW Casper Noise

R/T Hardware

The Casper R/T system comprises the following major hardware components:

- 1 – HP Enterprise Micro-Server Gen.10
- 1 – custom (4 ft. tall) VHF Air Vertical Outdoor Base Antenna
- 1 – rack server cabinet
- 4 – Bearcat BCT15X radio scanners (1 per frequency)

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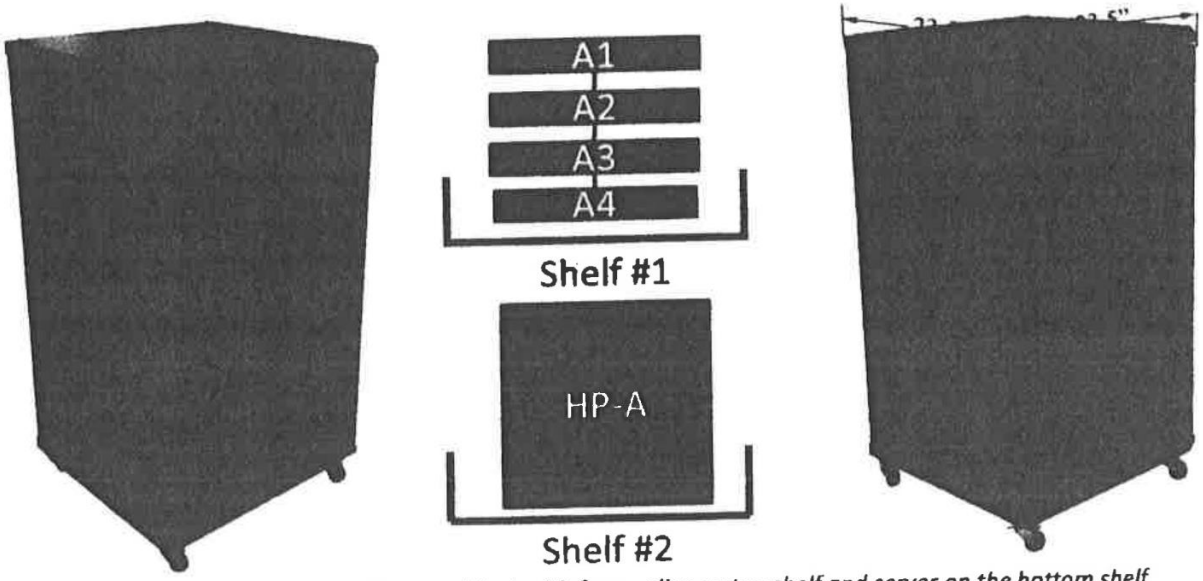

Figure 10 – R/T configuration in the cabinet with four radios on top shelf and server on the bottom shelf

U.S. R/T CUSTOMERS

Dallas/Fort Worth International Airport (DFW)
Dallas Love Field (DAL)

Casper Public Flight Tracker

Casper Flight Tracking is the most state-of-the-art and intuitive public flight tracking website available on the market. The application's functionality, design, and ease of use make it a powerful tool for airports and the public to communicate with each other and understand complex flight operations.

The Casper Flight Tracking website is accessible on regular desktops and laptops, as well as on mobile phones and tablets, through the dedicated mobile platform.

https://casper.aero/products/flight-tracking/

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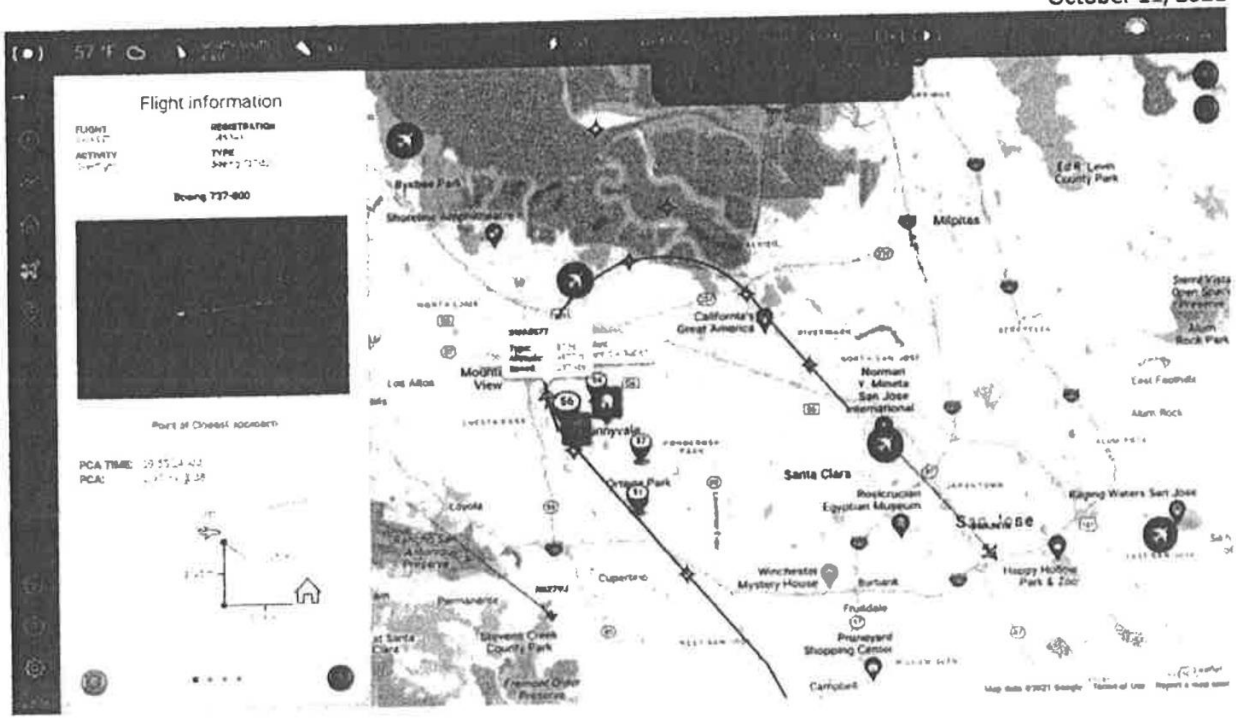

Figure 11 – City of Sunnyvale Casper Public Flight Tracker

The simple interface makes navigating through the application easy. With one click, a resident can switch between base maps, change which flights are displayed, adjust the visibility of aircraft labels, locate their home, and perform a PCA analysis on a passing aircraft. If desired, the flight tracker also gives one-click access to the complaint form, where a user can enter their information and submit a complaint that will automatically be entered into the system. The Casper Flight Tracker is much more advanced both in terms of its interface, architecture, and functionality than any of the competing products.

The functionality of the Casper Flight Tracker includes:

- Replay of flights
- Display of aircraft movements
- Detailed flight information
- A variety of background map options
- Real-time noise data integration
- Customizable map overlays
- Address specific overflight and noise event data
- Multi-language support
- Automatic filing of specific or generic complaints.
- User-configurable pop-up message window to publish information such as FAA complaint info

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U.S. CASPER FLIGHT TRACKER CUSTOMERS

Charlotte Douglas International Airport (CLT) - https://flighttracker.casper.aero/clt/
City of Sunnyvale - https://flighttracker.casper.aero/syv/
Dallas/Fort Worth International Airport (DFW) - https://flighttracker.casper.aero/dfw/
Dallas Love Field (DAL) - https://flighttracker.casper.aero/dal/
Orlando International Airport (MCO) - https://flighttracker.casper.aero/mco/
Providence T.F. Green International Airport (PVD) - https://flighttracker.casper.aero/pvd/
Raleigh-Durham International Airport (RDU) - https://flighttracker.casper.aero/rdu/
Tampa International Airport (TPA) - https://flighttracker.casper.aero/tpa/

Casper Interfaces - Camera

Casper software is designed to interface with peripheral devices to augment information to assist with investigation, analysis, and decision making. Casper can connect directly with most commercially available cameras or interface with third-party service providers.

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Our Hardware (NMT)

NMT Overview

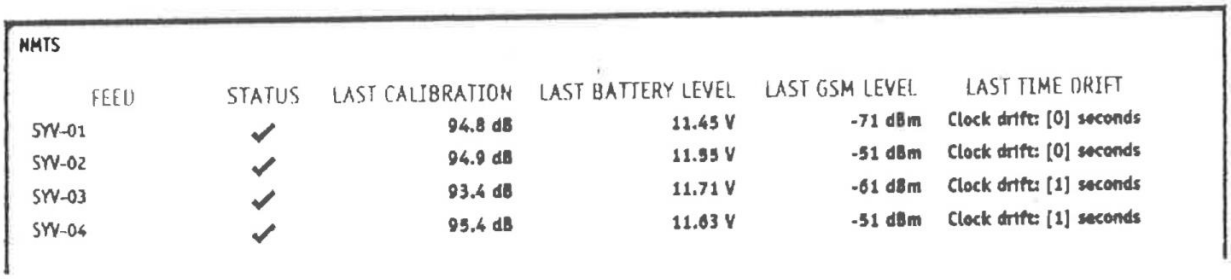
The Casper Airport Noise Monitoring Terminal (NMT) is built on an open architecture, a non-proprietary platform that incorporates the state-of-the-art Larson Davis 831C sound level meter (SLM). The LD831C is a Class 1 SLM which meets all applicable American National Standards Institute (ANSI) and International Electrotechnical Commission (IEC) standards for noise measurement. Casper's system has a resolution of 1/10 of a decibel allowing for very precise measurements of aircraft noise well inside the +1.5 dBA variable state standard, eliminating any ambiguity in whether a particular flight violated the noise ordinance.

The LD831C interfaces with any existing NOMS system. If the City were to decide at the end of the contract period with Casper to switch to a new NOMS vendor, the existing NMT hardware would still be functional with the new system and would not require the City to buy expensive new equipment.

The Casper Aviation Noise Monitor is the only system on the market specifically designed for aviation noise monitoring. Our NMT is intended to operate autonomously outdoors and deliver extremely reliable real-time data measurements. It requires little maintenance over its long service life and will alert the operator to system faults automatically.

The system performs a nightly remote calibration and delivers a daily status email report to all users which summarizes the health of the Casper NOMS system, including completeness of data feeds and the NMTs. Casper Noise also contains several status dashboards which allow users to track in real-time the status of the NMT health including calibration history, power level, cell signal strength, and noise data download status.

In addition, Casper will perform bi-annual on-site calibrations of all NMTs to ensure they meet all applicable, Federal, and State of California regulations, as well as ANSI and IEC standards.



NMTS

FEED	STATUS	LAST CALIBRATION	LAST BATTERY LEVEL	LAST GSM LEVEL	LAST TIME DRIFT
SYV-01	✓	94.8 dB	11.45 V	-71 dBm	Clock drift: [0] seconds
SYV-02	✓	94.9 dB	11.95 V	-51 dBm	Clock drift: [0] seconds
SYV-03	✓	93.4 dB	11.71 V	-61 dBm	Clock drift: [1] seconds
SYV-04	✓	95.4 dB	11.63 V	-51 dBm	Clock drift: [1] seconds

Figure 12 – City of Sunnyvale NMT Status Dashboard

Configuration of the NMT can be performed remotely and is simple and easy, using parameters established and customized for aircraft noise monitoring at each specific location. The system is optimized for use with solar power, and the device's extremely low power consumption supports the City's existing sustainability initiatives to increase the use of renewable energy sources.

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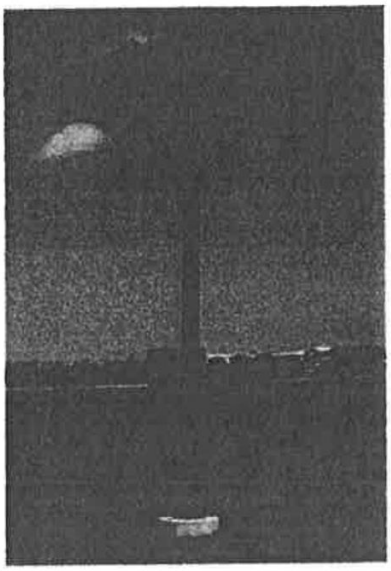

Casper's NMTs come with a variety of optional features that enhance the utility of the device. Among these are:

Solar Panels – For locations where power is not readily available or to supplement the existing power supply to support green energy initiatives, Casper offers solar panels which can power the system independent of the local power grid.

Vaisala WTX-536 Weather Station – These advanced, solid-state, low power consumption weather sensors integrate with solar power and actively measure six atmospheric parameters, including temperature, wind speed, wind direction, humidity, barometric pressure, and rainfall.

NMT Hardware

Casper proposes to replace all existing NMT hardware within the cabinet. A full assessment of the sites, including cabinets, foundations, and masts, will be necessary to assess their continued viability. Our current project planning is based on the assumption that we can reuse these items.

Casper assumes responsibility for the proper removal and disposal of all existing NMT hardware that is not to be reused in the new system. This includes all components in the cabinet, external wiring, and microphone components.

The Casper NMT comprises the following components:

- Larson Davis Model 831C sound level meter for environmental/community noise
- Casper NMT Manager, an embedded PC which provides the NMT management, such as real-time data communication, data and audio storage, remote diagnostics, automatic power cycle of equipment, and system health alerting and reporting
- Modem and antenna, controlled by the Casper NMT Manager, to allow remote communications
- Internal backup battery to prevent loss of data collection during power outages
- Larson Davis Permanent outdoor preamplifier for Model 831C with remote calibration check, humidity reading, and heater, 377B02 pre-polarized microphone

NMT Data Collection and Processing

The data flow from the NMT to the Casper server and software is as follows:

Data is pushed from the NMT to the Casper server. Based on the configuration of what data to log (levels, 1/3 octave bands, audio) and what data to push to the server (typically levels, but potentially everything including simultaneous real-time audio and 1-second noise data), is sent to the server on a

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configurable update-rate, with a default value of 5 seconds. The NMT will automatically keep track of data sent, so there will never be a gap in the data, and no manual downloads are needed.

Once on the server, the Casper Noise software performs analysis, checks, and post-processing. If needed, alert messages are sent. Every day a status message is sent out informing both the City and Casper staff about the health of the system.

In addition, the following functionality is available in the Casper Noise software:

- Remote configuration of the NMTs
- Charts and reports on NMT status and performance
- Display and replay of noise levels on a map
- Mobile maintenance function for access in the field to perform diagnostics and calibration
- Transmission of daily status emails
- Audio recordings of aircraft noise events are captured, and the audio tagged to the aircraft noise data and can be replayed in Casper Noise

The Casper server first attempts to automatically correlate a noise event to a flight track. All flight tracks are automatically associated by comparing the noise event timestamp to the timestamp of the closest flight track radar plot. The timestamp is then used to retrieve the measured weather information at the time of the event from the TOA Airport weather station. The data is then appended to the flight record and displayed in the application. If the City elects to purchase the optional NMT weather stations for its permanent noise monitors, then the actual weather data collected at the NMT will be used in place of the airport weather station.

NMT Relocations and Site Survey

The City of Torrance is considering the relocation of NMTs 4 and 6 as part of this contract. It is Casper's opinion that the City shouldn't limit the evaluation to just these two noise monitors but should consider all seven locations. Casper has experience in the evaluation and siting of NMTs and has recently assisted the City of Sunnyvale next to SJC Airport in placing four new NMTs as part of a NOMS system installation there to monitor aircraft noise from eight surrounding airports (Hayward Executive, Moffett Field, Oakland, Palo Alto, Reid Hillview, San Carlos, San Francisco, and San Jose.

It is Casper's understanding that Torrance currently uses its NMTs to ensure compliance with the aircraft noise limits as outlined in the Torrance Municipal Code, Division 4, Chapter 6, Section 46.8.8 and 46.8.9. Which says in part that, "no aircraft taking off from or landing on the Torrance Municipal Airport may exceed a SENEL of 88 dBA or a Lmax of 82 dBA as measured at ground level outside the extended Airport boundaries."

Given this goal, we would recommend that the location of all existing NMTs be evaluated. We understand that there are many considerations in siting an NMT including the availability of suitable land, ability to obtain easements, ambient noise levels, obstructions, and access to mains power. In our experience, access to utilities is often a critical decision point and limits the installation sites.

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For this reason, Casper recommends installing solar-powered NMTs, which is our standard product offering. This, along with the use of wireless modems, will eliminate many existing siting limitations and allow the City to consider locations without ready access to utilities. Thus eliminating significant installation costs associated with establishing connections to the utility network. Casper will assist the City in evaluating the existing NMT locations. Working in collaboration with Torrance, Casper will come up with a plan for the deployment of the new NMTs.

Casper Radar and N-number data completeness

Casper appreciates the airport's need to accurately identify aircraft N-numbers for issuing violations notices. Casper's solution uses Mode-S IDs to identify the aircraft tail numbers and owner as 97% of aircraft currently using Torrance Airport are Mode-s equipped. To ensure the highest matching percentage and accuracy, Casper runs a process to back-fill missing data using commercially available services. Our analysis of current activity at TOA shows that using Casper's existing verification process will result in less than 2% of flight operations with no tail number information. Casper believes this matching rate is in line with other commercial providers and solutions operating at GA airports.

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Our Support Commitment

Training

Because our system is web-based, it has the same look and feel as many popular internet sites. Reports and queries are readily available, as well as downloads of data to other standard applications (such as Word and Excel) that customers frequently use. A user manual is also provided in a PDF format, and all training sessions and materials will be delivered at no additional cost.

Training approach

At the start of the project, Casper will create a training schedule based on information provided by the City of Torrance concerning the different users and training expectations. We will organize the contents of the training to accommodate the various user groups within the organization.

The training program includes system administrator training and system operator training. Use of the Casper Noise software includes Flight Track and Noise Event monitoring and analysis, Complaint management, Standard and ad hoc reports and dashboards, Maintenance Dashboard, and Status Reports.

Training schedule

As the system is very intuitive and easy to use, we usually propose two full days of on-site training to ensure users are comfortable with the operation and use of all aspects of their new NOMS system.

The first two days will be spent learning the fundamentals of aviation noise abatement and navigation of the system, while the second two days will focus on essential NMT site maintenance and hands-on exercises to improve user confidence in operating Casper Noise.

We customized training schedules for the specific situation; however, subjects that are typically covered during the training include:

- Casper Noise System Overview (software and hardware)
- Flight and Track Module (comprising analysis and reporting, Track analysis (areas and gates)
- Noise Events Module (analysis, reporting, and interpretation of aircraft noise event data)
- Complaint Module (filing, analysis, response, reporting, response templates)
- Public Flight Tracking (Public website, web form)
- NMT operation and essential site maintenance
- Maintenance and problem solving
- Admin functions, user access management, and settings
- Casper support process and ZenDesk trouble ticket system

The length of the initial training course can be adjusted to accommodate the City's requirements and additional follow-up training sessions in person or via webinar can be scheduled at regular intervals to train new users and are included as part of the contract.

Casper Noise is offered as a site license for use by City staff only.

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There is no limit on the number of users that can access and use the system within the License offered by Casper. The license also includes periodic free upgrades to new software releases.

As the system is fully web-hosted, Casper can perform software upgrades without additional support or disruption of operation for the users. After approval of the new version on the test server, we will release it on the production server. Minimal configuration changes will be applied to the production server directly.

All changes to the system will become part of the standard functionality when possible, ensuring all customers benefit from any changes made. However, through the customer-specific configuration of the system, a customer can include or exclude certain (new) functionality.

At least once a year, a new release of the software will be provided containing new functionality. Functionality in this new version will be based on any of the following:

- Information from account management meetings
- Evaluation of projects
- Evaluation of service level agreements
- Change requests from other customers
- Conferences (such as the yearly airport noise conferences),
- Customer user group events

Maintenance of Casper Noise System

The Casper maintenance and service plan includes the following during the contract period:

- Hosting of the application
- Provisioning of the application on a test server and production server for Casper Noise
- Provisioning of the application on a web server for Casper Flight Tracking and Casper Noise Lab
- Monitoring the server performance and updating hardware or software if required
- Monitoring of all data feeds and performing actions in case of disturbance of the data feed. The system sends out daily emails on the system performance and the availability of data feeds. Our engineers get a text message immediately after disruption of the data feed
- Backups of the system and restoration of the data if needed
- Proactive and reactive maintenance

Incident Support

Our customer and incident support plan encompass:

- Guarantees the customer support desk will be available during regular business hours: 9:00 to 17:00, Pacific Time Monday through Friday.
- Use of the email support ticket system (Zendesk, (24/7) to submit issues and questions. The email will result in confirmation and a ticket number. Progress on the ticket can be followed through the system, and it is always clear what the status is and which engineer is working on the issue.
- Casper will install patches/updates for fixing known problems in the software and will inform the customer when a problem will be corrected.
- Patches or updates related to the security of the system will be discussed with the customer and released within two weeks.

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The following table shows the target response and resolution times for support tickets. All hours and days are working hours/days:

Impact	Description	Target response time	Target resolution time
Severity 1 (Major Disruption)	Service unavailable to all users with no possible workaround or; Vital Business Function(s) severely impacted	1 hour	8 hours
Severity 2 (Significant Disruption)	Service functionality or performance is severely impaired or; The majority of users cannot access the service or; Vital Business Function(s) impacted.	4 hours	2 days
Severity 3 (Minor Disruption)	Functionality or performance is degraded, but the service is still usable or; More than 75% of users can access the service with no significant impact or; Vital Business Functions are not impacted	2 days	5 days
Severity 4 (cosmetic)	Minor or cosmetic fault (does not impact the capability, functionality, or productivity of the system or service) or; A small number of users affected	5 days	10 days

The following is included in the contract:

- Small changes in configuration and reports
- Online training and question sessions

Unavailability due to scheduled maintenance will take place rarely, and we will inform the City at least one week in advance. Regularly scheduled maintenance will take place during overnight hours.

Change Support

We handle change requests that are filed in the following way:

- The Casper support desk is available from 9:00 to 17:00, Monday through Friday
- Change requests need to be submitted by email to our Zendesk support ticket system
- Within two weeks before the execution of a change request, Casper will offer a suitable solution for the change request, including costs and planning
- Casper will implement the changes according to the given period
- Casper will install new versions of the software first as a test version. After testing and approval by the City, the application will be updated to the live version

Release Management

- Casper will inform the City of new releases of the software by providing release notes of the latest version, which describe what functionality has changed/or been added to the new version of the software

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- Casper will test all new releases
- We installed directly minor updates or bug fixes in the live software version
- Significant updates are installed as a test version. After testing and approval, they will be updated to the live version
- When a new release results in changes for the City, Casper will inform the City two weeks before this release
- Casper provides new software releases with a unique version number

Security Management

- All communication between the City and Casper will be secure so that no third party can access the data.
- Data stored on the Casper server is secure, meaning no outside party can access this data.

The system's log file (both on a network and application level) is scanned daily for irregularities. If on inspection by Casper engineers an intrusion is suspected, Casper will immediately inform the City and suggest short-term actions be taken. When one or more potential causes of the breach can be found, the system will be patched quickly after consultation with the City.

System Availability

The system availability shall be as follows:

- Casper Noise, Casper Noise Lab, and Casper Flight Tracking: 99% reliability. All data is processed immediately, and backups are performed online, so it causes no disturbance to the system

We measured system availability over a monthly period. Unavailability because of preventative maintenance is not considered unavailability.

Evaluations and Intentions

Every year the service level will be evaluated, and Casper will review during the yearly account management visit the intentions of the service for the future.

Casper will designate an account manager for the City who handles:

- Providing updates on product developments and planning new releases
- Managing customer satisfaction
- Ensuring all contractual requirements are met
- Providing information on new developments

Contact

Methods of reaching our support team:

- By email: support@casper.aero
- By phone: 844-212-6518

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Pricing and conditions

Pricing

For pricing on the Base system (reusing equipment) and the options we have described, please refer to the Price Proposal form on page 13.

For any additional work not covered by the scope of this tender, we have a rate of $175 per hour.

Casper, as per Addendum #1, has included a pricing proposal for new equipment, please refer to the Price Proposal form on page 1413.

Casper has noted that the City of Torrance does not wish for a bundled price. However, should the City wish, Casper is willing to negotiate on the payment structure.

Proposed Alternative Language to City's Pro Forma Consulting Services Agreement

Casper proposes alternations or the opportunity to negotiate on the following clauses:

15 Indemnification.

1. Casper will only accept responsibility in the event of negligence by Casper
2. That the maximum liability by limited to the match the insurance limits

17 Insurance

Clause A

1. Casper has a very comprehensive insurance coverage plan. We will be happy to furnish a copy of our coverage upon request by TOA. Our current Professional Liability Insurance coverage has a limit of USD 1,000,000 per claim. Casper recognizes TOA requests USD 2,000,000 per claim. We will discuss liability claim options with TOA to come to a common agreement if desired. As such Casper would like to amend the limits to 1,000,000 per event and $2,000,000 max for the aggregate.

Clause G

1- Casper would like to cap the maximum liability to match those of the insurance limits.

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Appendix: Optional Modules

This Section Includes information about add-on solutions that TOA could purchase during the contract to address the organization's evolving needs and expand the capabilities of the Authority's NOMS. The links on the following pages provide more information on Casper's relevant add-on solutions, which could interest the airport. We have also included links to customer Flight Tracker and Noise Lab community engagement websites so that you can see examples of real-world deployments.

Casper Noise Lab Community Engagement Website

Casper Noise Lab is an interactive web-based community portal that significantly expands on the information and data available in the public Flight Tracker. The tool is highly configurable and updates content to provide visitors with the most current information available through the associated Content Management System (CMS). Casper specifically designed the application to create a dedicated web portal to provide transparent information on the operation of the airfield and the associated noise effects on the local community. Casper Noise Lab assists the City in pro-active communication and contributes to the creation of trust and support from the local community. Noise Lab can be configured as a stand-alone website or integrated into an existing website and allows the public to run their own reports and analyze flight activity over their neighborhood.

Casper Noise Lab offers a wide variety of interactive web pages that can be added to enhance or replace the customer's existing public noise abatement website. These pages include:

- Homepage with instant insight into current airport operations
- Context pages, with an explanation of the noise program measures
- News and frequently asked questions
- Automated reports of flight movements
- Automated reports of complaint data

https://casper.aero/products/noise-lab/

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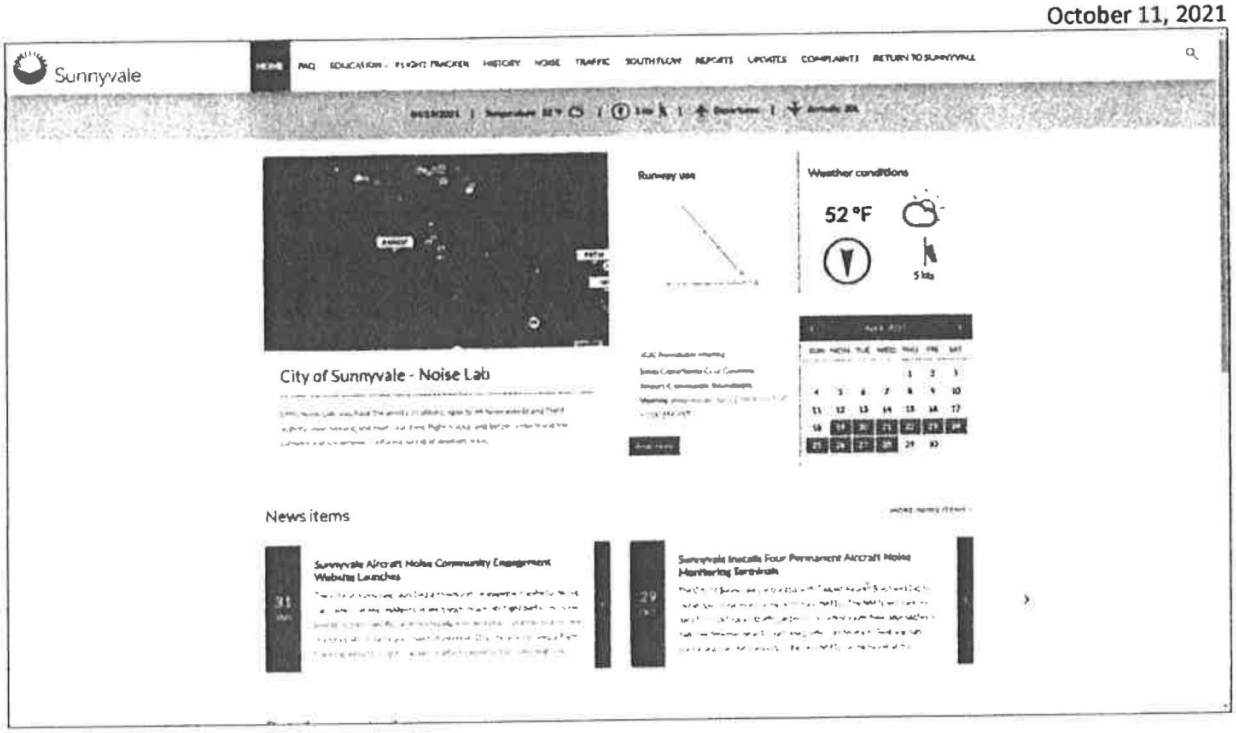

U.S. CASPER NOISE LAB CUSTOMERS

City of Sunnyvale - https://syv.noiselab.casper.aero/
Dallas/Fort Worth International Airport (DFW) - https://dfw.noiselab.casper.aero/
Dallas Love Field (DAL) - https://dal.noiselab.casper.aero/

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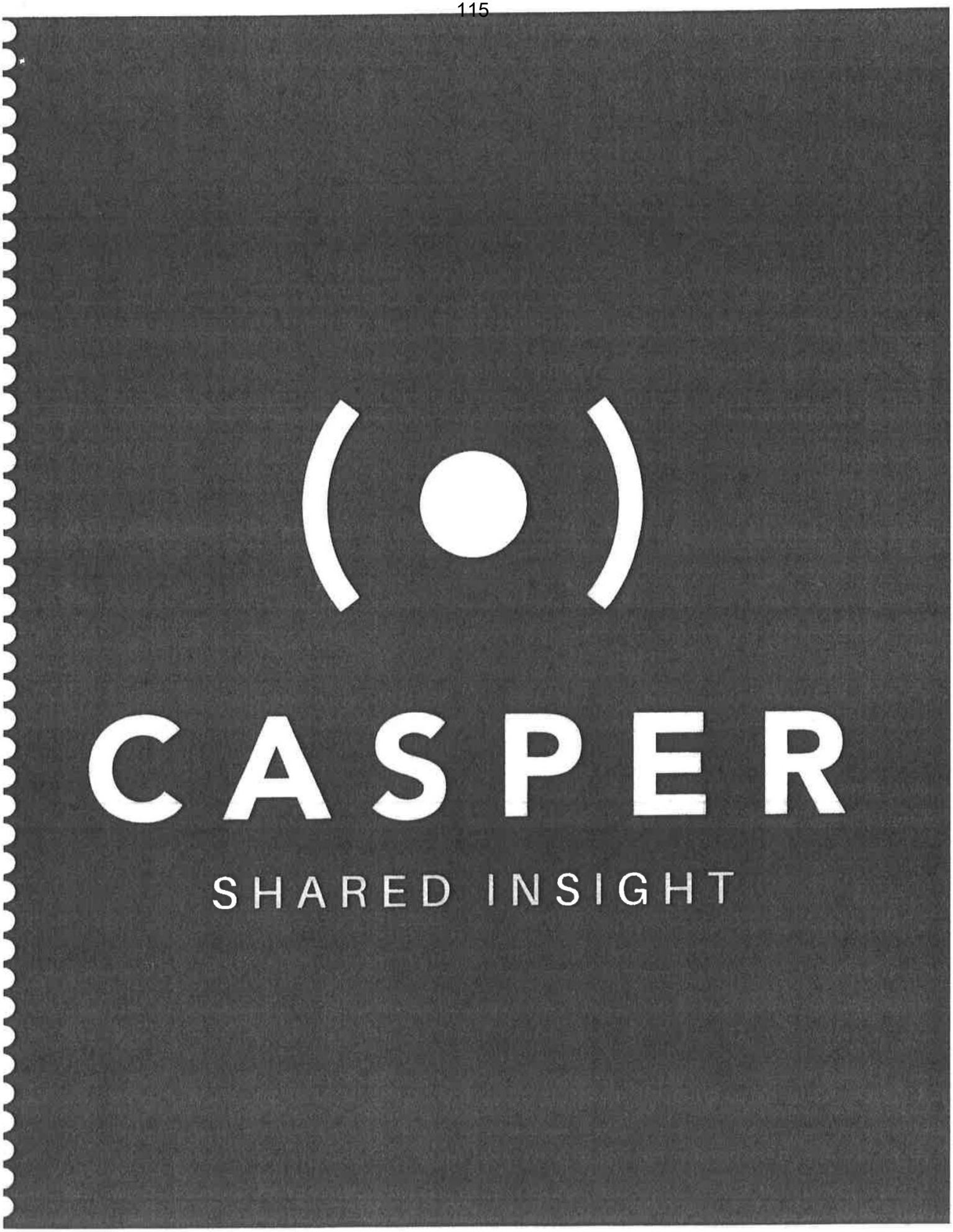

CASPER
SHARED INSIGHT

Request for Proposals (RFP) B2021-40 Addendum #1

City of Torrance | 3031 Torrance Blvd, Torrance CA 90503 | www.TorranceCA.Gov

RFP No. B2021-40	RFP to Furnish and install Noise Abatement System and Monitoring Services for the City of Torrance Airport

Email correspondence was sent to prospective vendors and vendors were given until 12:00 PM Thursday September 23, 2021, to present questions to Nora Duncan for the City of Torrance. This addendum includes all questions received by that deadline. No other questions will be allowed. **There are no changes to the RFP submittal requirements nor technical requirements.**

There are no changes to the RFP submittal Due Date, Time or Location

RFP SUBMITTAL INFORMATION

Proposals may be mailed or hand delivered. No faxed Proposals will be accepted.
Late bids will not be accepted.

Location: Office of the City Clerk
3031 Torrance Blvd.
Torrance, CA 90503
Date: Monday, October 11, 2021
Time Deadline: **3:00 P.M.**

Question	City's Response
Will members of the TOA Airport Noise Office be part of the project evaluation committee?	Yes, we have two Airport Noise Abatement staff members on the evaluation team.
The submission deadline for this RFP is October 11, 2021, which is also a Federal Holiday. We would like to confirm this deadline for logistical/document shipping purposes. Can we receive pictures of each existing Noise Monitoring Terminal site, including NMT unit, (mounting) pole, NMT enclosure, NMT enclosure opened, foundation/bolts and electrical disconnect/meter?	October 11, 2021 is the deadline for submissions. Yes, pictures of the existing noise monitoring terminal sites are attached.
Can we receive the last calibration report?	That report is not available at this time.
Can we receive the latitude and longitude of each NMT site?	NMT # 1- LAT 33.48456/ LONG 118.21165 NMT #2- LAT 33.818468/ LONG 118.344574 NMT #3- LAT 33.813582/ LONG 118.331162 NMT #4- LAT 33.805083/ LONG 118.321473 NMT #5- LAT 33.796745/ LONG 118.325963

	NMT #6- LAT 33.794898/ LONG 118.344156
Can more information be provided as to why NMT sites 4 and 6 may need to be moved?	Yes, NMT #4 is adjacent to a private tree that does not allow the microphone mast to be brought down for maintenance. NMT #6 is currently within a thick group of trees and may need to be moved in order to guarantee proper monitoring and reduce the need for continual maintenance of the trees.
To ensure consistency in what is bid by each proposer, can the airport provide a description of the work to be performed and an exact list of what equipment will need to be replaced at each NMT site?	The City would like to see quotes for a completely new system and equipment and quotes that would incorporate re-use of existing equipment (Digital logger, cabinets that are in good repair, masts, etc.).
Will the Airport or Vendor be responsible for communications and electrical costs to each site?	The City is open to that discussion and those costs should be included in the proposal.
Is the existing data logger (ATC recorder by DLI) currently deployed still operational?	Yes, the data logger is 2 years old and still functional.
What is the age and specific model of the existing data logger? Can these be re-used?	The data logger is model F16W Logger, QuantaGrid D51PC-1U server, DLI EPCR7 Power Controller. The data logger is 2 years old and still functional.
Will NMT 4 & 6 definitely need to be relocated?	Movement of NMTs 4 &6 will need further evaluation. Based on individual company and equipment needs, the NMTs could remain where they are. NMT #4 is adjacent to a private tree that does not allow the microphone mast to be brought down for maintenance. NMT #6 is currently within a thick group of trees and may need to be moved in order to guarantee proper monitoring and reduce the need for continual maintenance of the trees.
What does KTOA/City of Torrance want to be quoted (completely new, re-use existing mast, cabinet)?	The City would like to see quotes for a completely new system and equipment and quotes that would incorporate re-use of existing equipment (Digital logger, cabinets that are in good repair, masts, etc.).
Who will provide SIM cards for the data plan?	The City can provide SIM cards for the data plan, but also welcomes inclusion of the SIM cards in the proposal.
Please provide images of NMTs for condition and configuration status verification.	Pictures of the existing noise monitoring terminal sites are attached.

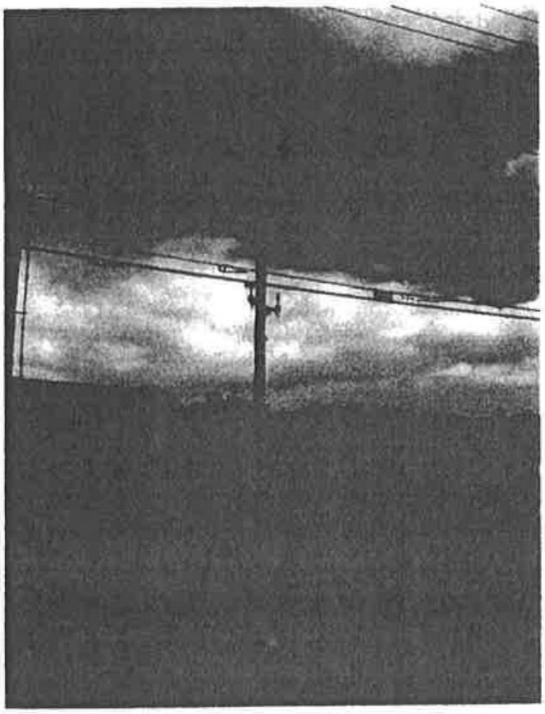
Topsonic	Bernd Van Lier
Larson Davis	Larson Davis
Anotec Engineering	Jose Vida Sorie
TruHorizon Environmental Solutions	TruHorizons
L3Harris Symphony for Airports	Kathleen Taylor
BridgeNet International	BridgeNet International

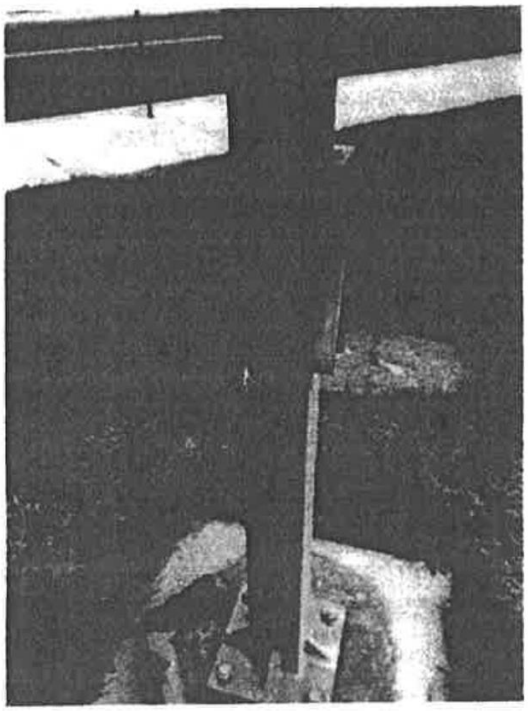
Addendum Issued By Order Of,

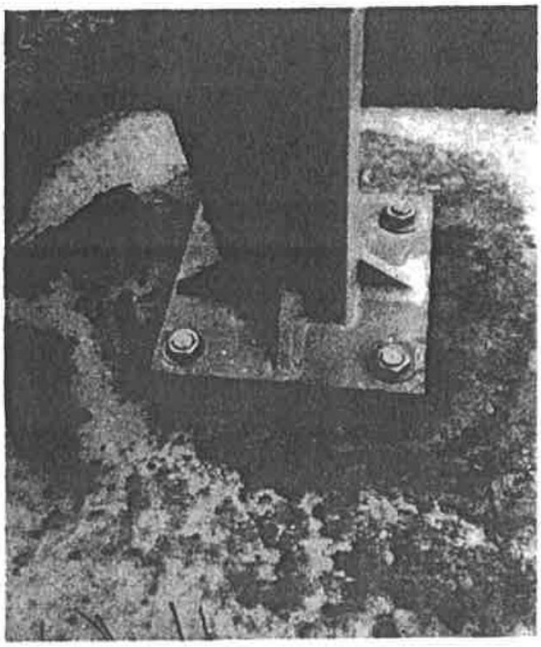
Nora Duncan
Senior Environmental Quality Officer
September 30, 2021

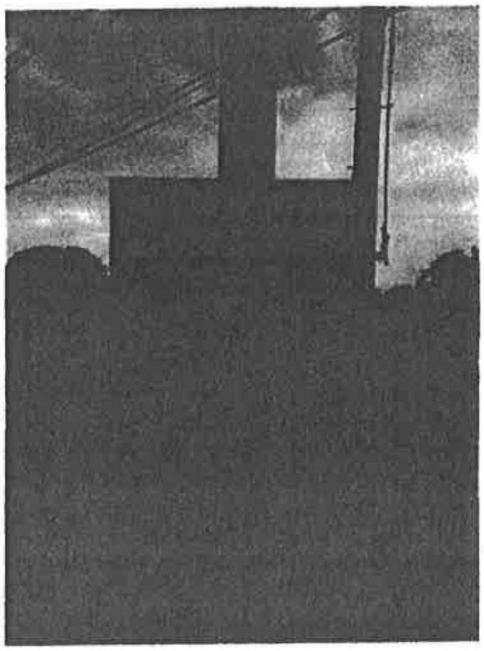
Photos for NMTs and NMT locations

NMT #1:









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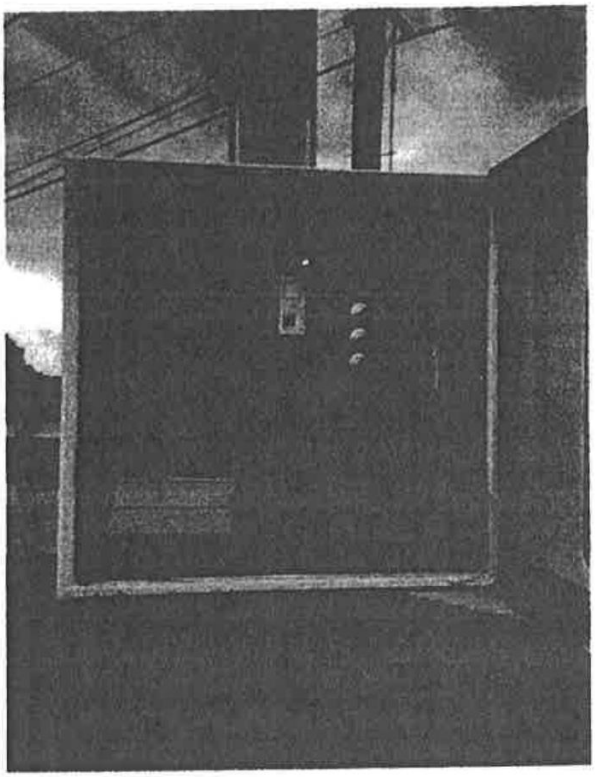

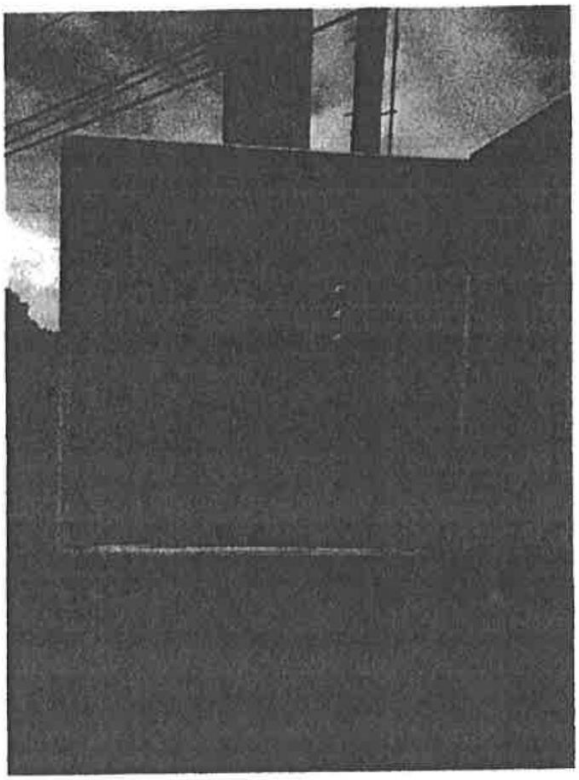

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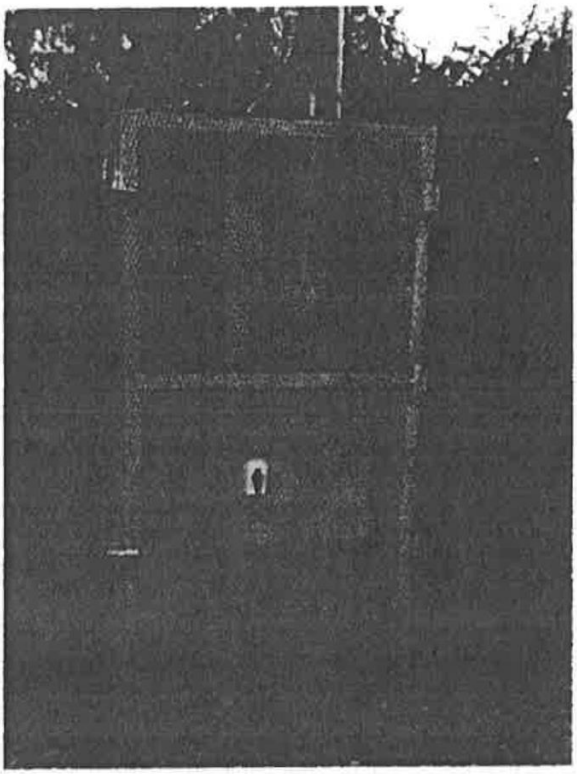

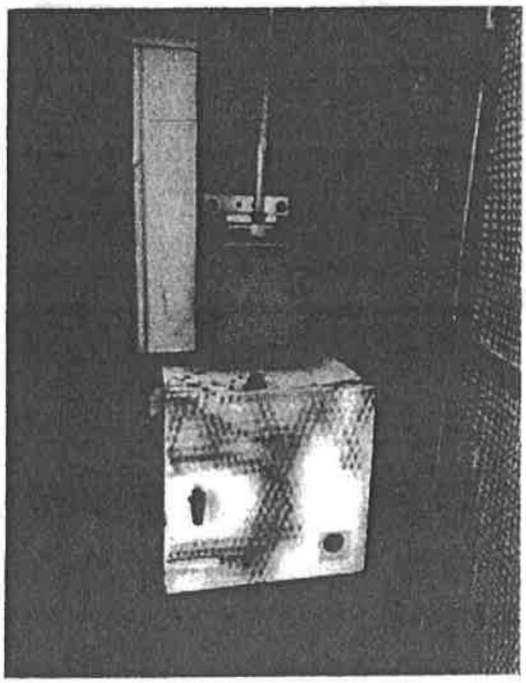

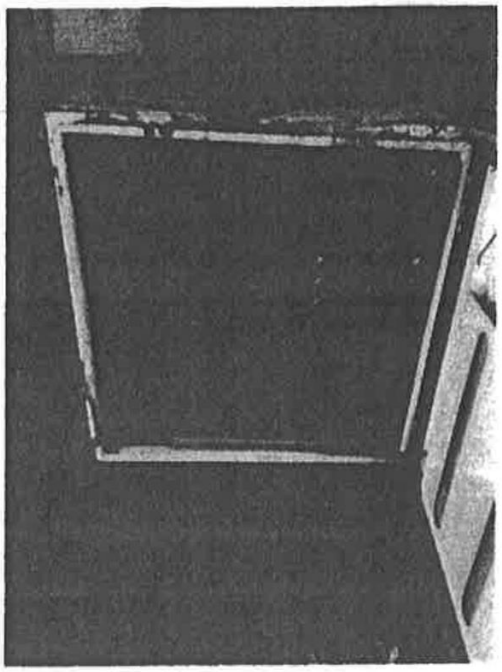

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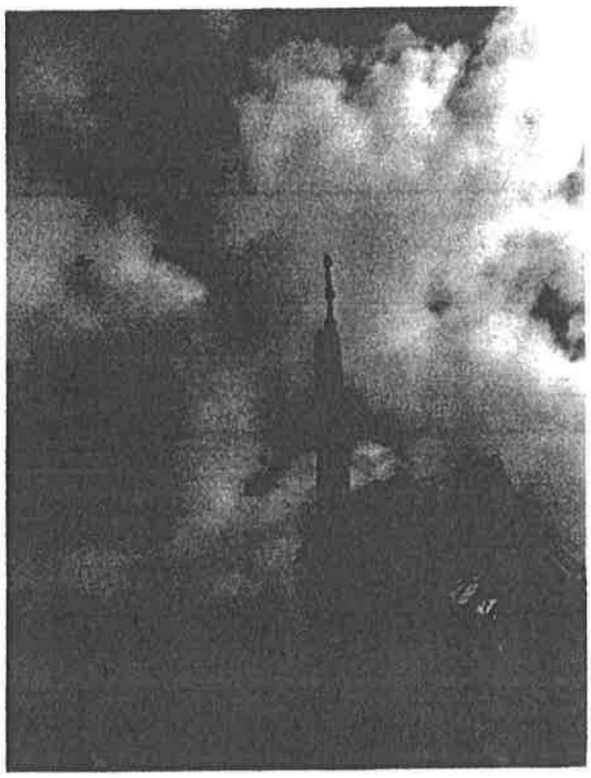

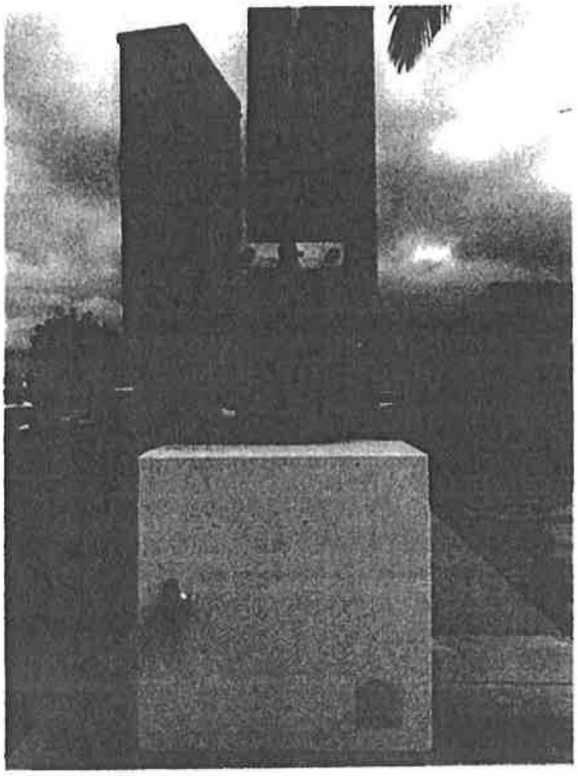

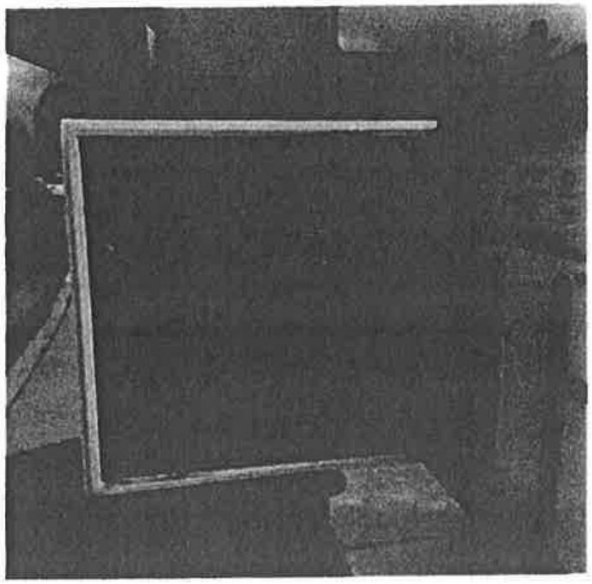

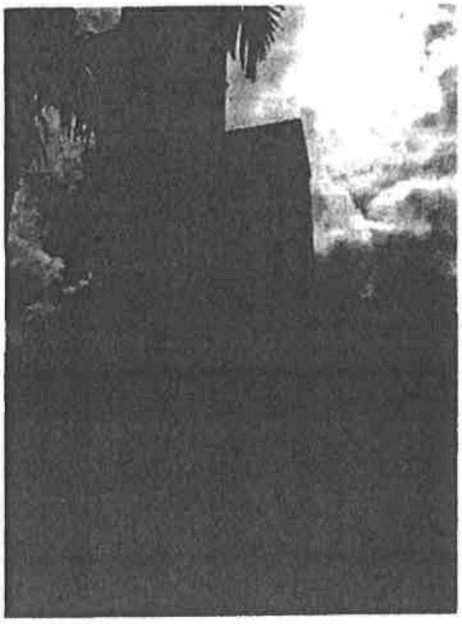

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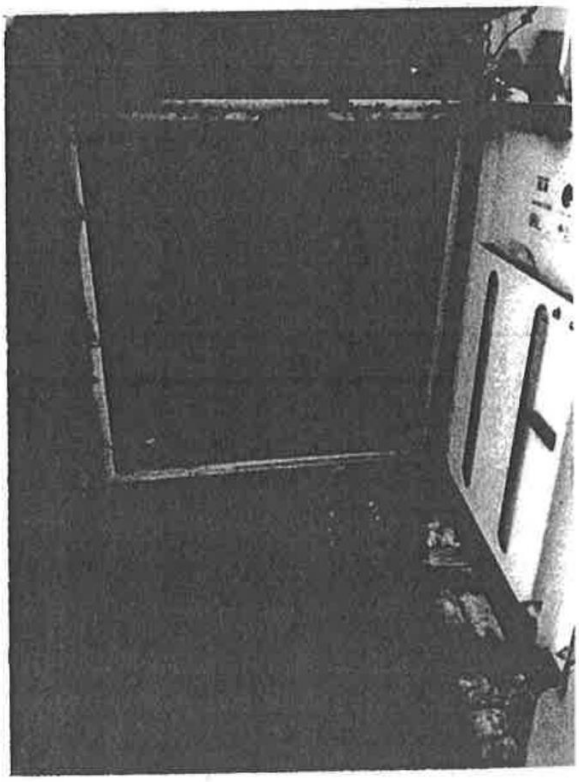

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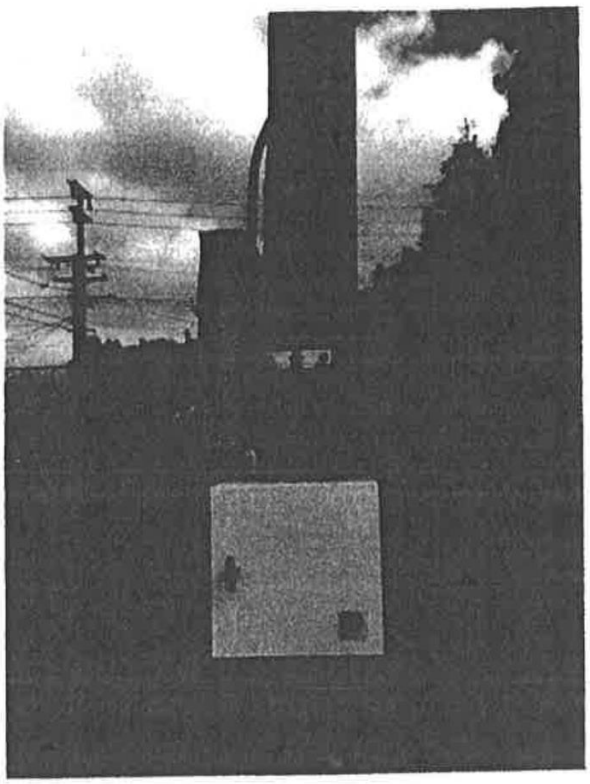
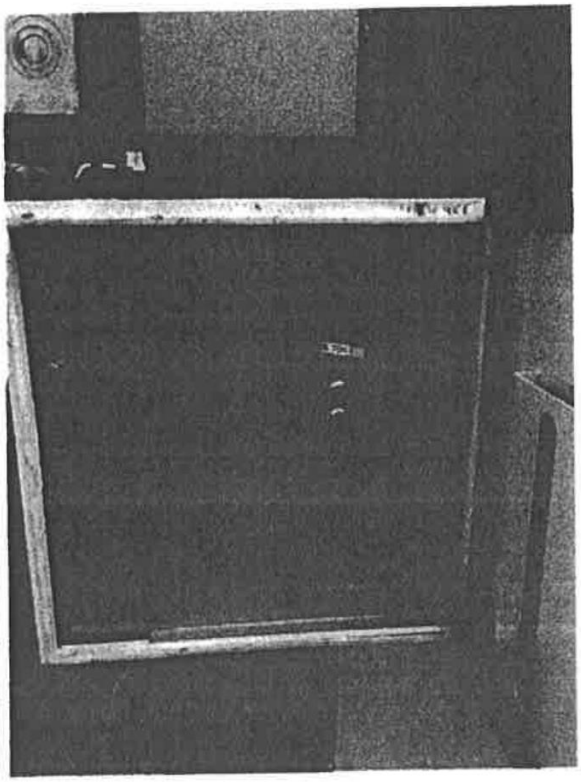
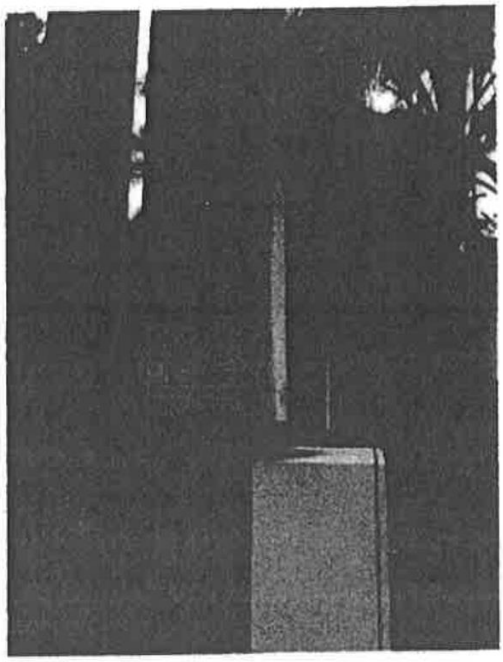
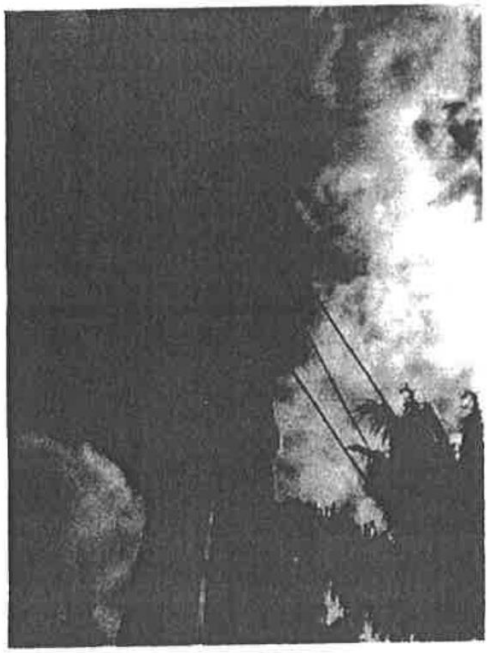
NMT#5:

NMT#5:









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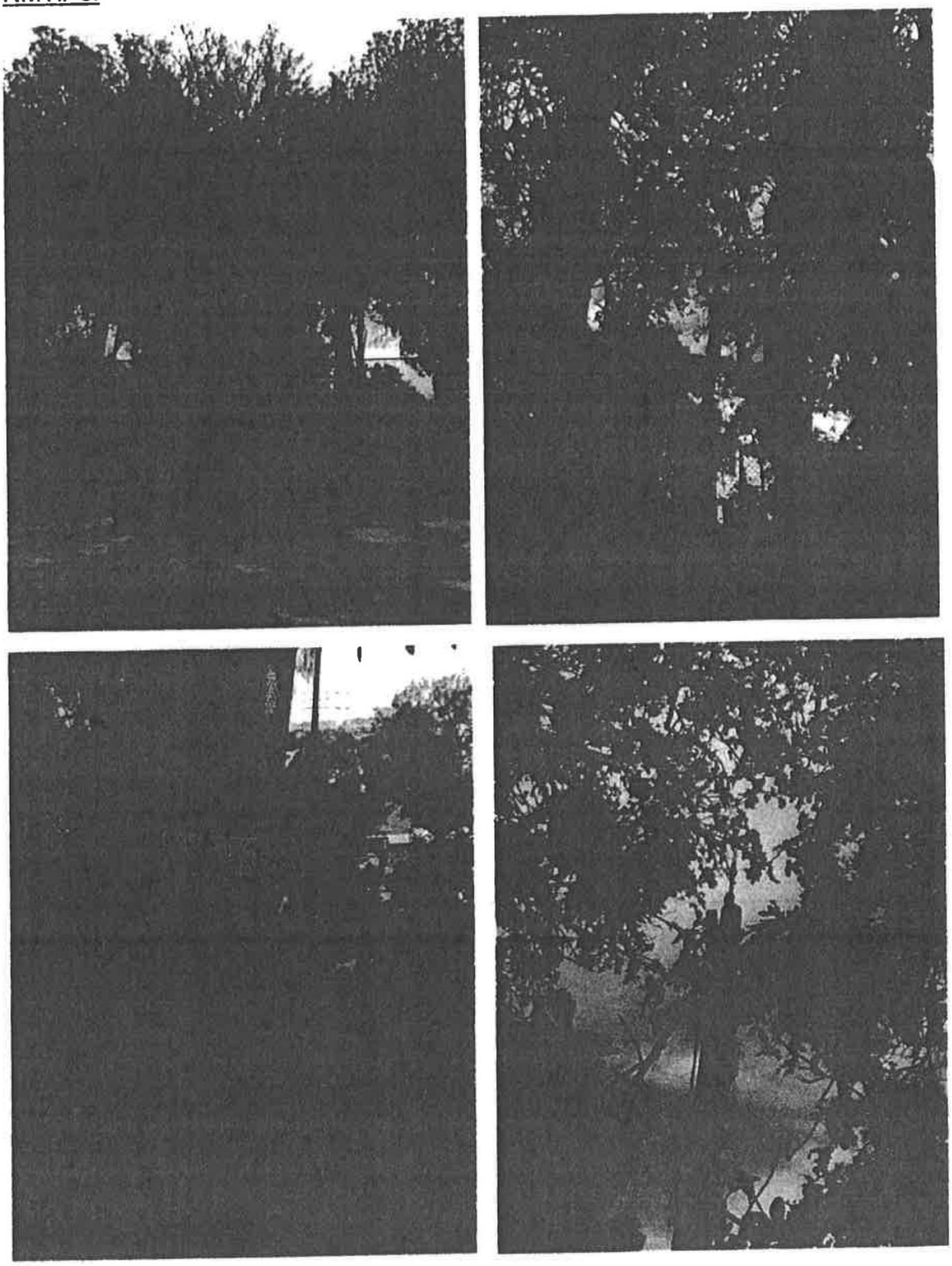
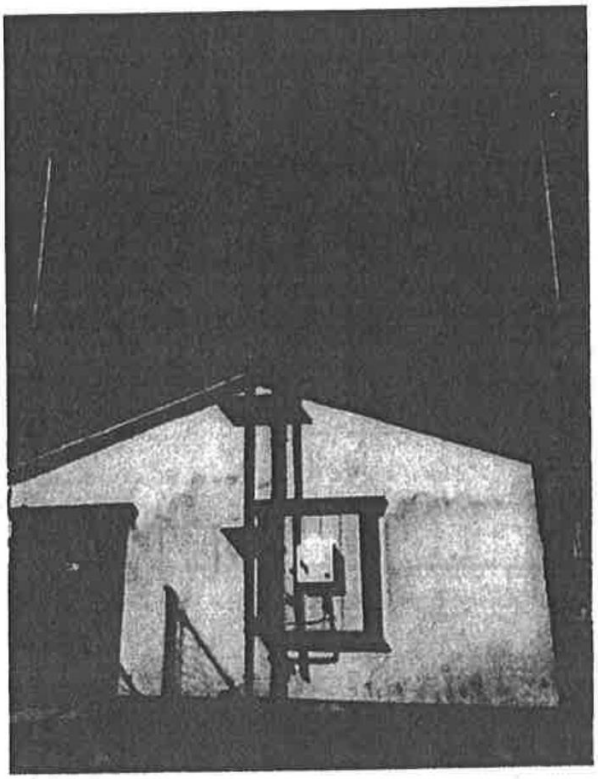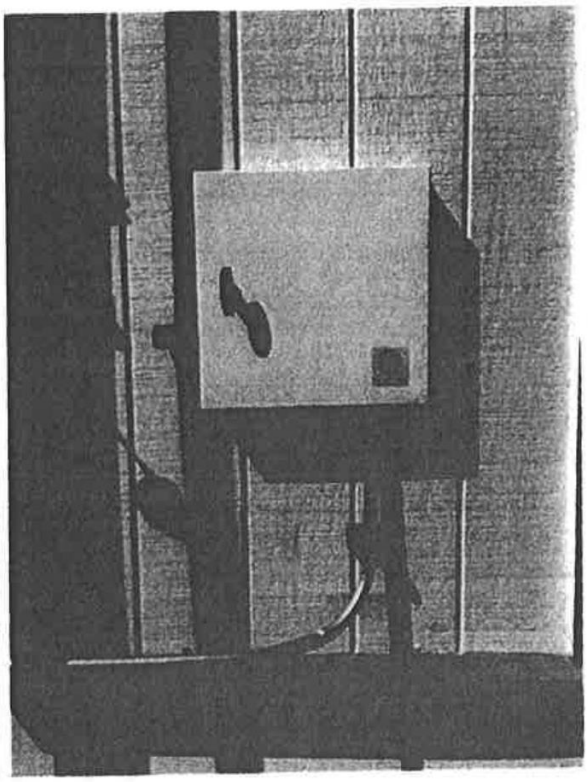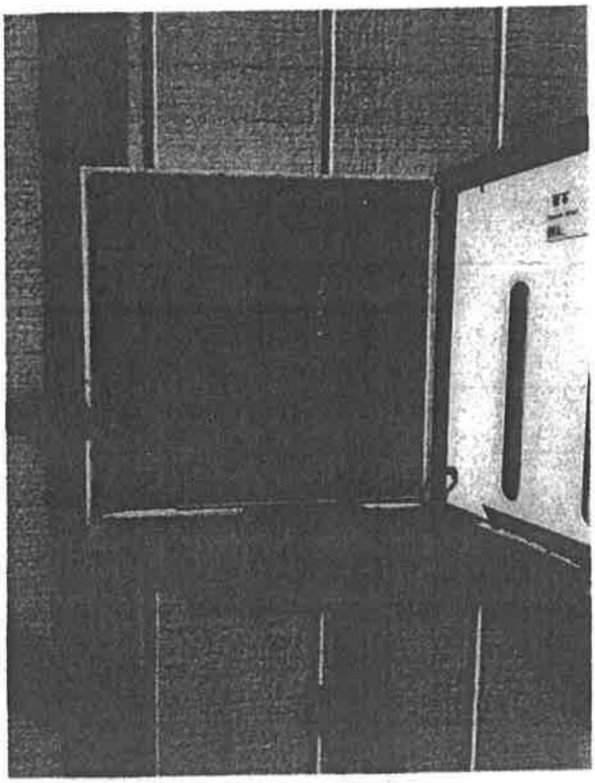
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