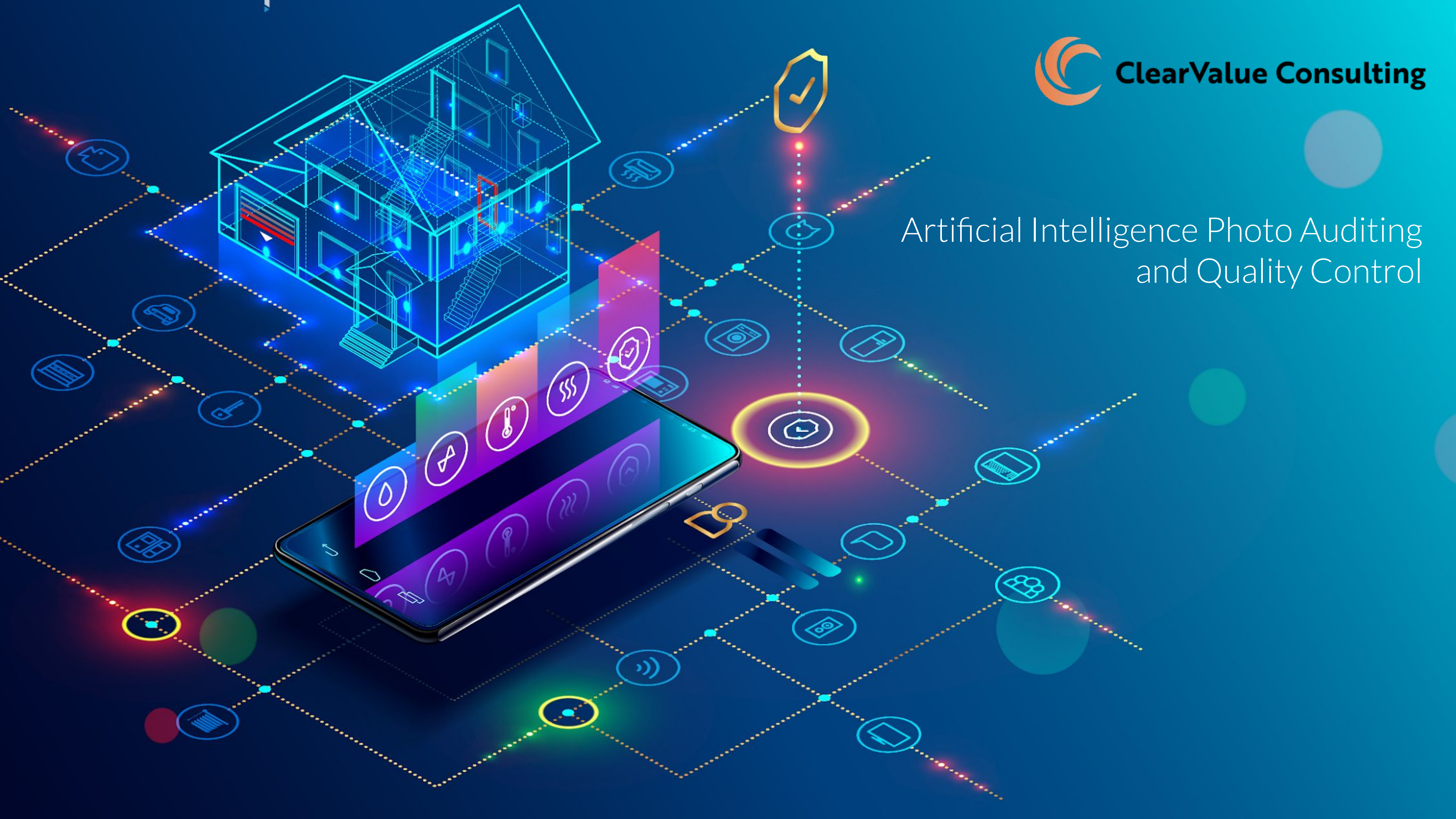ClearValue Consulting

Artificial Intelligence Photo Auditing
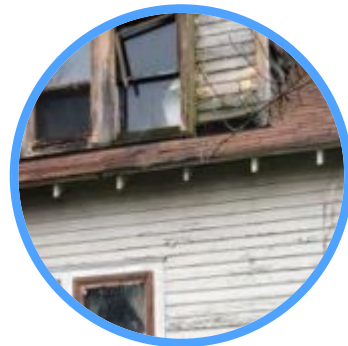and Quality Control

Underlying Technology

"Aida", An Artificial Intelligence Data Augmentation Algorithm processing 650,000+ images per month
Specifically designed for the Real Estate Industry

Validation of Photo Quality & Privacy Protection
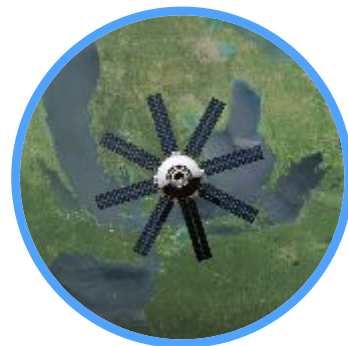
Validation of Condition

Object Detection & Appliances Validation

Interior & Exterior Identification

Geospatial Validation

Homeowners, Landlords, Tenants, Real Estate Agents

Appraisers

Integration with 3rd party systems

ClearValue Consulting
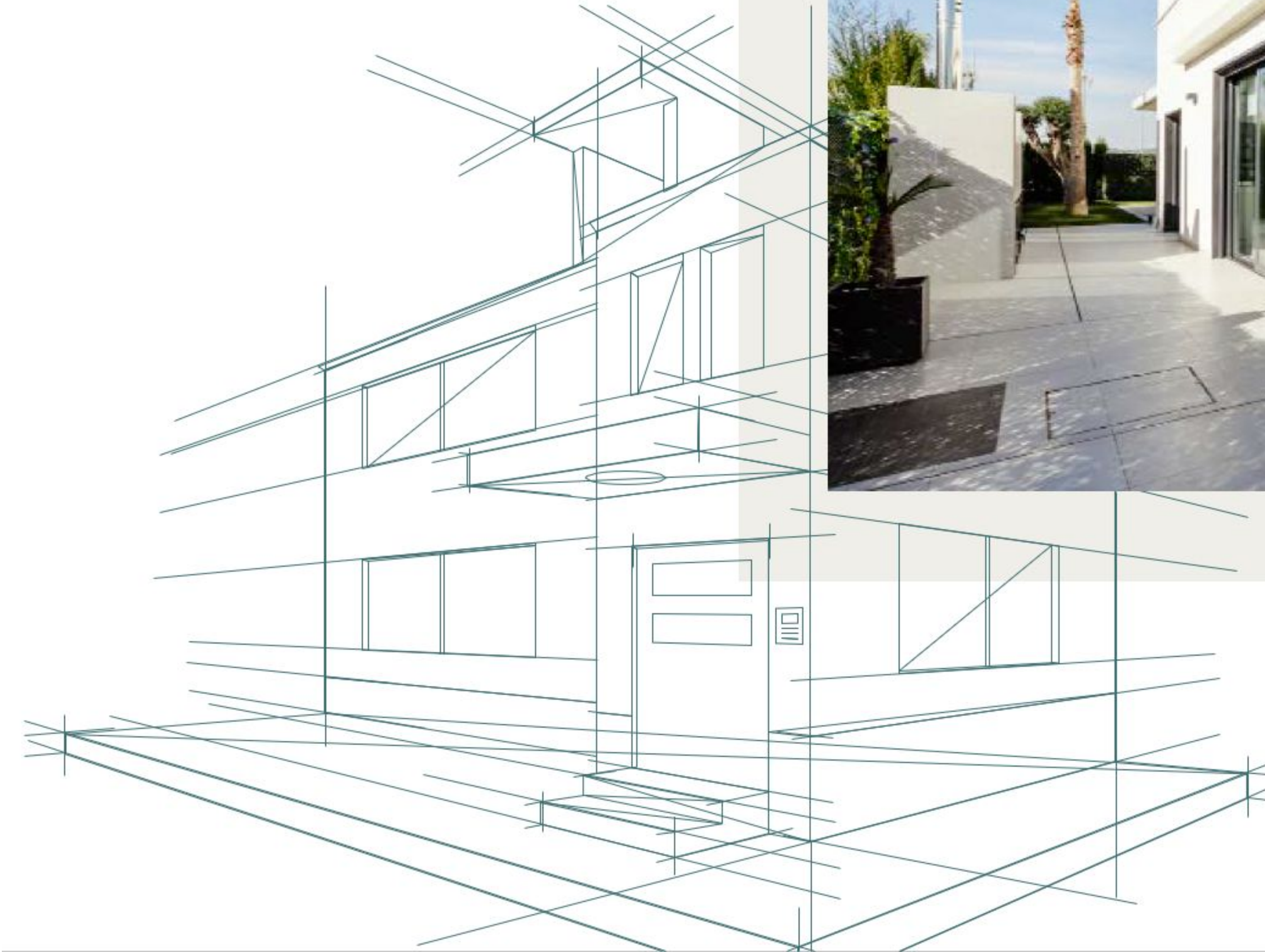
Performance Score Card

- More than 5 million images have been verified by innovative Artificial Intelligence Algorithm.

- A.I. auditing of 650,000 images per month.

- 40% of reports contain inconsistencies.

- Quality improvement on Property Inspections and Valuations from 40% to high 90's.

- Affordable A.I. auditing in seconds allowing 100% of Property Inspection and Valuation Reports to be audited by A.I.

- SLA improvement to high 90's%

- Turn time improvement by half

Interior & Exterior Identification

Interior & Exterior Identification

Address verification, front, left, right, rear, street views, bedrooms, bathrooms, kitchen, basement, pool etc.
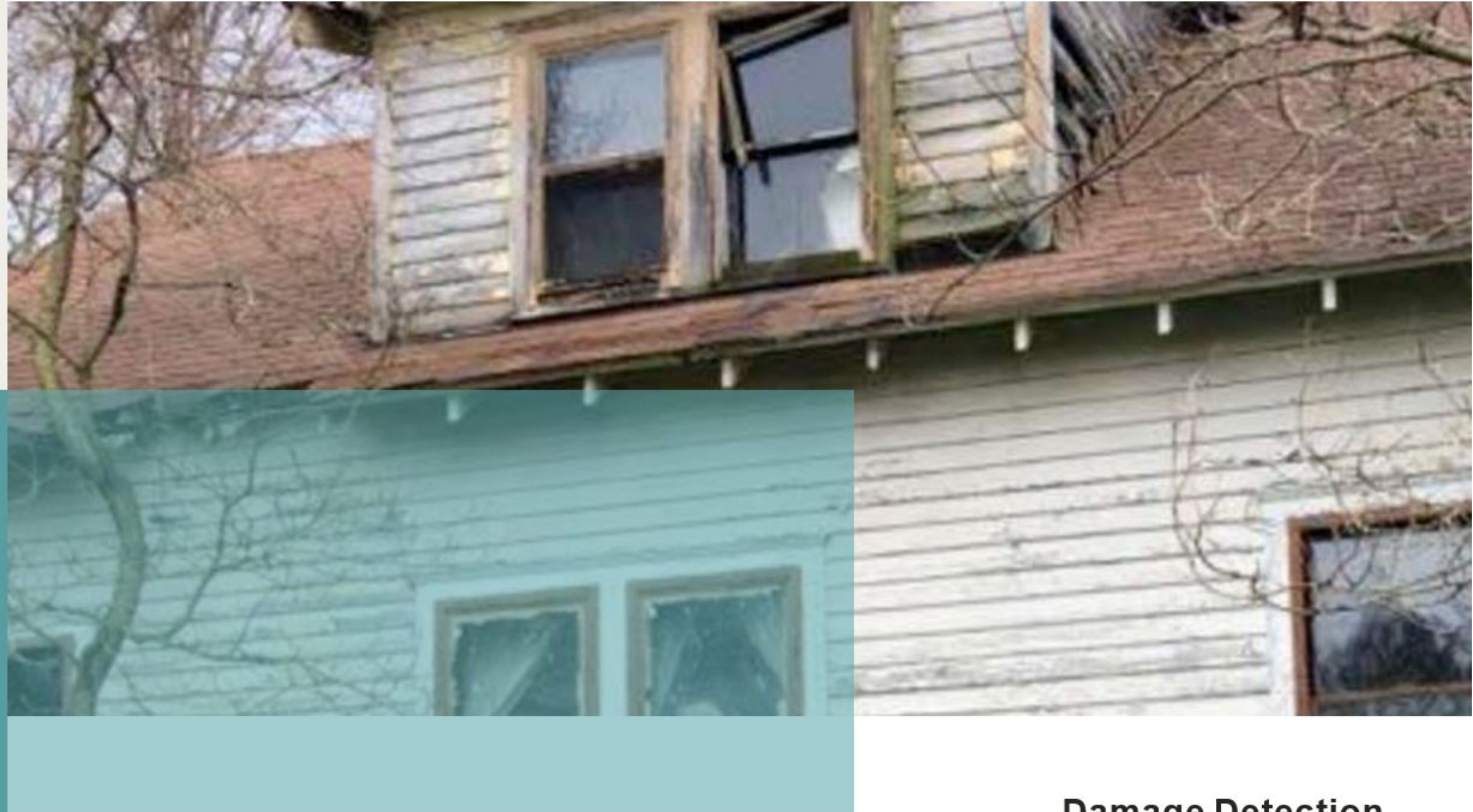
Object Detection

Object Detection

Identifies refrigerator, oven, personal items, debris, landscaping etc.

Damage Detection

Damage Detection

Detects damages in the image, type of damage such as holes, discoloration, broken windows etc.

Photo Quality and Privacy

Photo Quality and Privacy

Makes sure photos are not blurry, out-of-frame, too bright/dark, protects privacy, recognizes and blurs faces in photos.

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A.I. Photo Service

- Identification and verification of property photos, including: Front View, Neighborhood View, Aerial View, Location Map, Left side view, Right side view, street view, address verification, bedrooms, bathrooms, kitchen, living room, etc.

  - Missing images and duplicate images.

  - Wrong photo attached

  - Identification of incorrect photo labels.

- Identification of the following:

  - Photos with missing labels: suggest label for the photo

  - Photos that do not match the labels: suggest label for the photo

  - Irreverent/irrelevant photo: Photos that are not related to the inspection of the property.

- Photo Quality and Privacy

  - Identifies images too bright, too dark, blank, blurry, photo view is obstructed etc.

  - Identifies presence of faces.

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A.I. Photo Service

- Analysis of the conditions of the property as noted by the inspector in the report vs conditions as indicated by photos. Examples:
    - Photo shows damage but no mention in the report on the damage
    - Photos show damage, but inspector indicates property condition is C1 - great condition
    - Inspector indicates No personal property inside property, photos show personal property
    - Walls show damage/holes, inspection did not mention in report
- Analysis of items present in Kitchen
    - Photos show Microwave present, inspector did not check the box
    - Photos show Dishwasher, inspector did not check box
    - Photos show Refrigerator, inspector did not check box
    - Photos show Oven/Range/Stove present, inspector did not check box
- List photos that indicate damage, debris, yard debris, personal items, etc.

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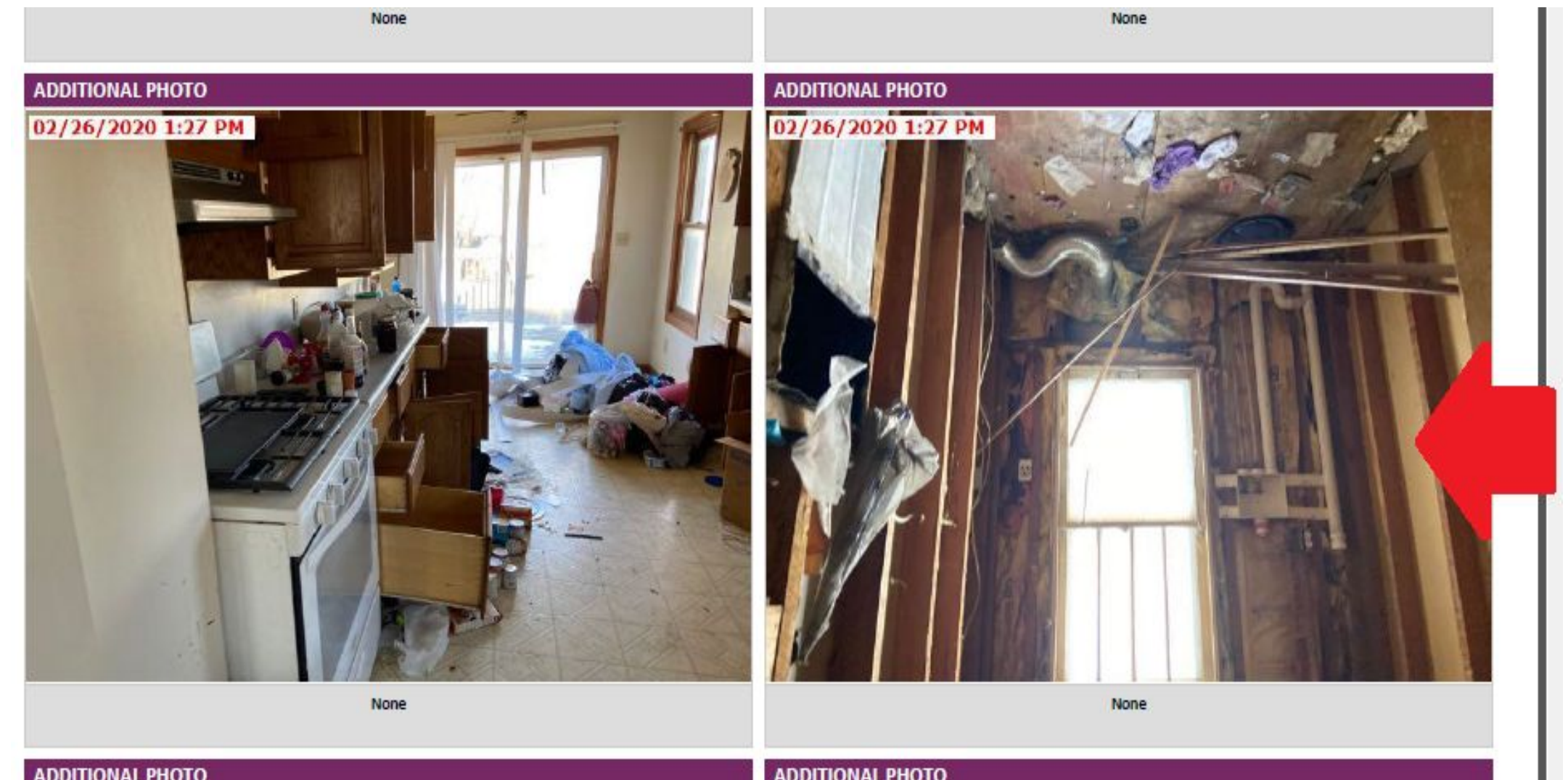
A.I. Photo Service

- Auto-Correction of missing labels, wrong labels and removal of duplicate photos and protects privacy by blurring faces.

- QA Status:

  - Green: Accepted, no critical issues, no warnings

  - Yellow: No critical issues but at least one warning

  - Red: At least one critical issue

Underlying Technology

2	🔴 Red	WrongCondDmg	One or more photos indicate damage but the condition of the property is marked as C2
3	🟡 Yellow	IdentifiedDamage	Additional Photos: None (page 6 row 1 first image) indicates Damage. Inspector has not indicated damage
4	🟡 Yellow	Vacant	Vacant properties require staff review, automatic Yellow rating
5	🟡 Yellow	MissingApplCheck	Kitchen photo shows presence of Microwave oven, inspector has not checked the item
6	🟡 Yellow	MissingApplCheck	Kitchen photo shows presence of Refrigerator, inspector has not checked the item
7	🟡 Yellow	MissingApplCheck	Kitchen photo shows presence of Oven, inspector has not checked the item

One or more photos show damage to the property. But inspector indicated property condition as C2 (very minor work needed)

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Underlying Technology

11.4 General Condition of Property C2 - very minor work needed to bring property up to good condition - mechanicals intact

One or more photos show damage to the property. But inspector indicated property condition as C2 (very minor work needed)
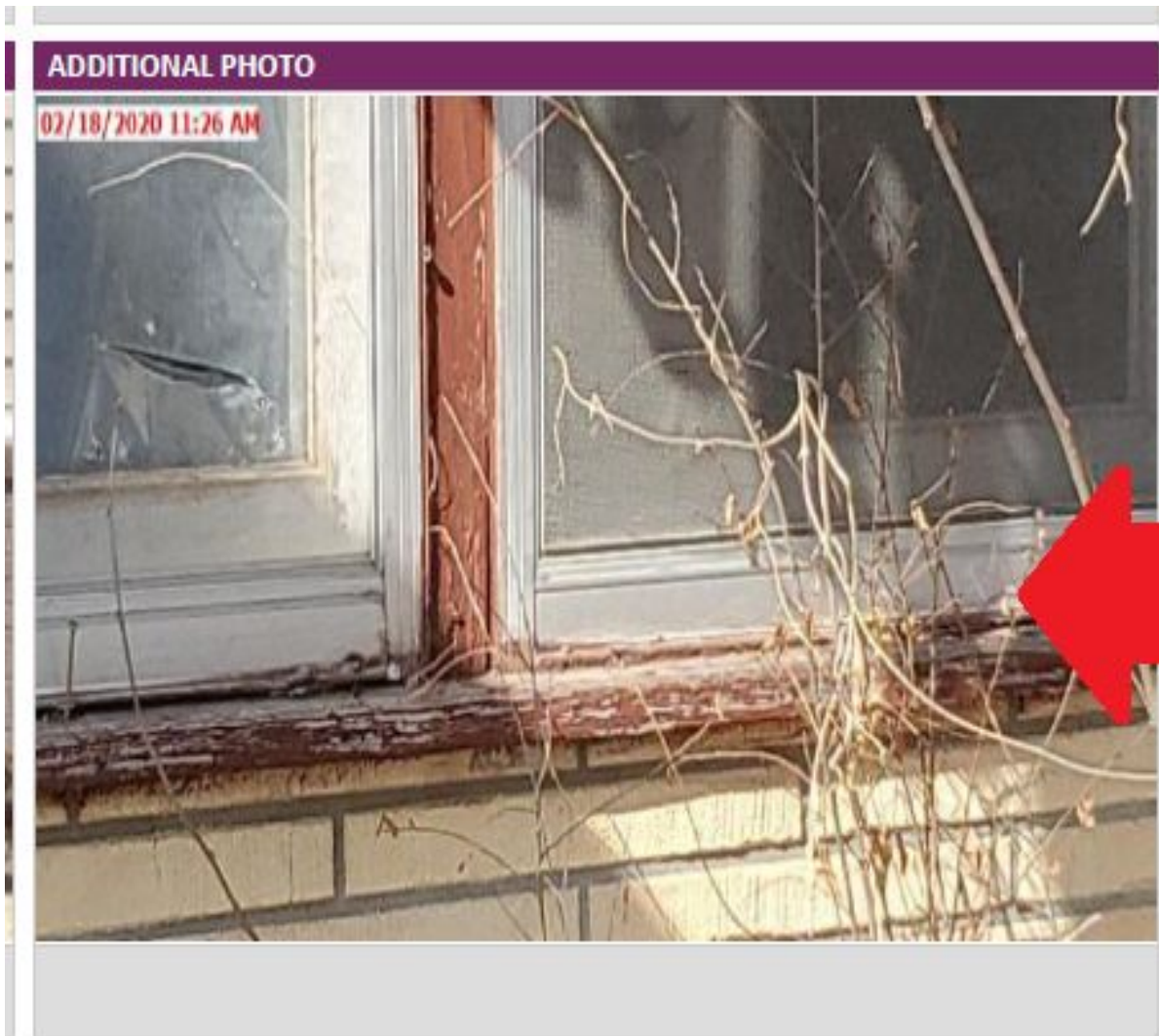
Underlying Technology

11.4 General Condition of Property C1 - great condition no work needs to be done to the property - newer construction

One or more photos show damage to the property. But inspector indicated property condition as C1 (Property in Great Condition)

Underlying Technology

| 1 | 🔴 Red | WrongCondDmg | One or more photos indicate damage but the condition of the property is marked as C2 |

Detected presence of possible damage in the following photo and raised red flag

| 1 | 🔴 Red | WrongImage | Street View (page 4 row 3 first image) image is not identifiable as Street View (identified as street sign) |

Detected image was not a street view but instead was a street sign

Underlying Technology

Duplicates

Standard technology will say the pictures below are not duplicates because the pictures are not pixel to pixel same.

AI technology identifies them as very similar and therefore duplicates.

Underlying Technology

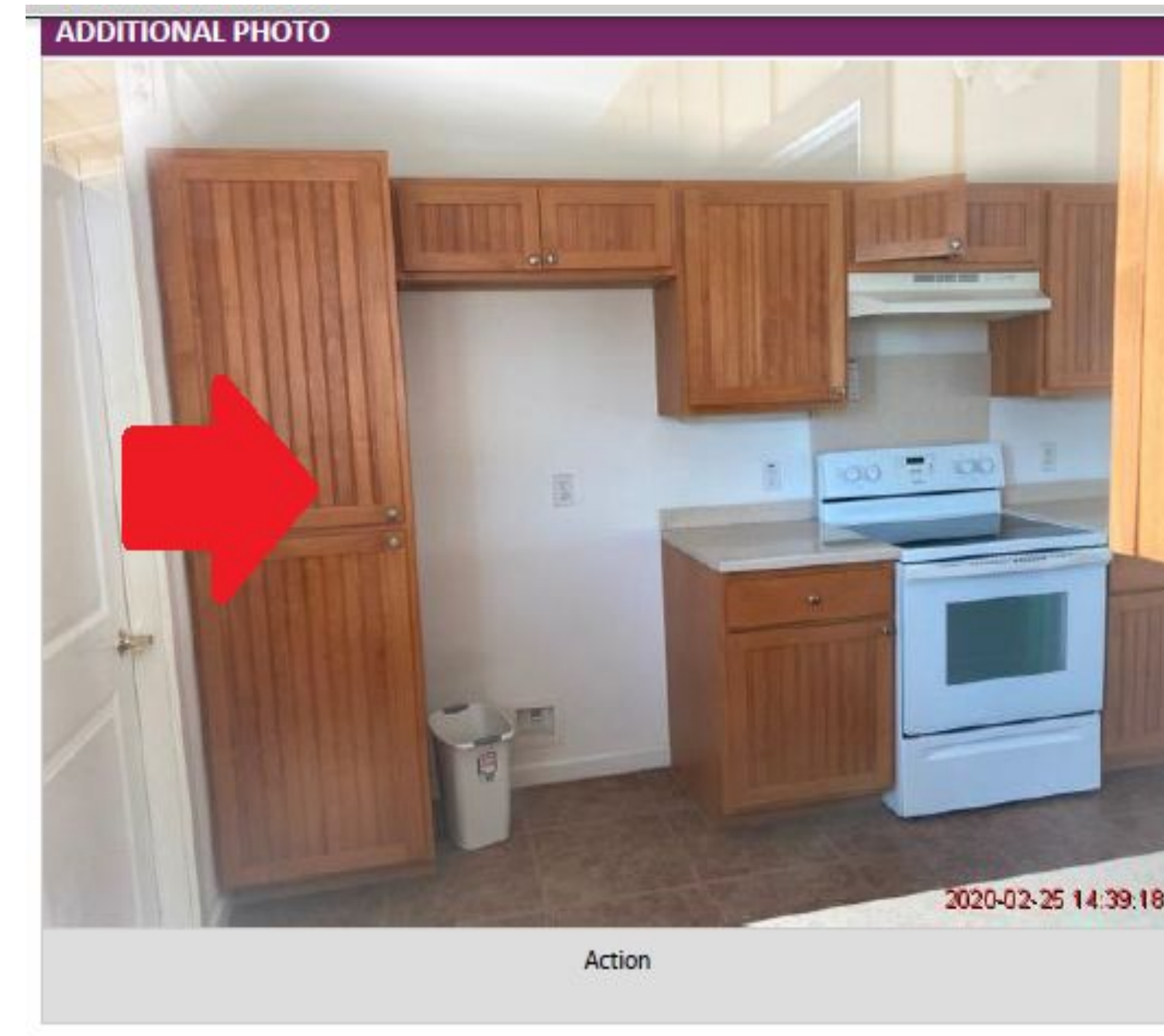| Too Bright	Too Dark	Blank Image	Blurry

Underlying Technology

| 26 | 🟡 Yellow | MissingApplCheck | Kitchen photo shows presence of Oven, inspector has not checked the item |

Detected that the photos indicate presence of Oven in the kitchen. Inspector has not checked the checkbox to indicate Oven is present.

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Next Generation of Convolutional Neural Networks

Identification of upgrades and quantification of upgrades and damages

Item quality identification

Condition Adjusted Property Valuation

- Compare changes in the condition of a property
- Identify improvements or deterioration of the property
- Quantify the extent of the damage

- Type of material such as Kitchen countertop
- Age and Condition of Appliances
- Condition of Flooring, etc.

- Rate the Condition of a property
- Establish a Condition Adjusted Value

ClearValue Consulting

We would like to understand what your organizational goals are and how we can work to help you achieve them.

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