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# PROPERTY TAX EVIDENCE PACKET

Tax Year 2025 Protest Submission

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**SUBJECT: 2114 MOONCREST DR, HOUSTON, TX, 77089**

Account Number: 1311040030008

**CONFIDENTIAL EVIDENCE SUMMARY**

Prepared for Appraisal Review Board

EXECUTIVE SUMMARY & PROTEST SCORECARD

Property: 2114 MOONCREST DR, HOUSTON, TX, 77089 | Account: 1311040030008

Score: 10/100

Win Probability: 15-30%

Protest Strength: WEAK | Est. Value Reduction: \$0 - \$0

Evidence Quality by Method

<div></div> <div>Equity Uniformity (TC 41.43(b)(1))</div> <div>Gap: \$0   0 comps analyzed</div>	0/40 pts	<div></div>
<div></div> <div>Sales Comparison (TC 41.43(b)(3))</div> <div>Gap: \$0   0 sales comps</div>	0/25 pts	<div></div>
<div></div> <div>Physical Condition (TC 23.01)</div> <div>Deductions: \$0   0 issues</div>	0/15 pts	<div></div>
<div></div> <div>Environmental Factors (Flood/FEMA)</div> <div>Zone: Zone X   Minimal Risk</div>	0/10 pts	<div></div>
<div></div> <div>Deferred Maintenance (Permits)</div> <div>No major renovations on record</div>	10/10 pts	<div></div>

Value Comparison at a Glance

District Value	<div></div>	\$500,000
Equity Value	<div></div>	\$500,000
Sales Value	<div></div>	\$500,000
Opinion of Value	<div></div>	\$500,000

# FORMAL PROTEST NARRATIVE

Property: 2114 MOONCREST DR, HOUSTON, TX, 77089 | Account: 1311040030008

BEFORE THE APPRAISAL REVIEW BOARD  
HARRIS COUNTY APPRAISAL DISTRICT

Account No: 1311040030008

Tax Year: 2026

Owner: Property Owner

Subject: 2114 MOONCREST DR, HOUSTON, TX, 77089

GROUND S FOR PROTEST

Pursuant to Texas Tax Code Sec. 41.41(a), the property owner protests the 2026 appraised value of \$500,000 for the property located at 2114 MOONCREST DR, HOUSTON, TX, 77089, Account 1311040030008, on the following grounds:

Ground 1: Cost Approach (Sec. 23.011)

Independent cost approach analysis yields an indicated value of \$390,215, calculated as replacement cost new of \$395,370 less accrued depreciation of \$107,828, plus land value of \$102,673. This is \$109,785 below the district's assessment.

REQUESTED RELIEF

Based on the foregoing evidence, the property owner respectfully requests the Appraisal Review Board reduce the appraised value from \$500,000 to \$500,000, consistent with the lowest indicated value supported by the equity, market, cost, and condition evidence presented herein.

APPLICABLE TEXAS TAX CODE SECTIONS

Sec. 1.04(7)	Definition of market value as most probable price in competitive, open market
Sec. 23.01	Appraisal methods and procedures; consideration of property condition
Sec. 23.011	Cost, income, and market data comparison approaches to value
Sec. 23.012	Factors for physical deterioration and obsolescence
Sec. 41.41(a)	Right to protest before the Appraisal Review Board
Sec. 41.43(b)(1)	Protest ground: value is incorrect / exceeds market value
Sec. 41.43(b)(3)	Protest ground: property is appraised unequally
Sec. 42.26(a)(3)	Relief when value exceeds median of comparable properties, adjusted

Property Owner / Authorized Agent Signature

Date

# OPINION OF VALUE

Property: 2114 MOONCREST DR, HOUSTON, TX, 77089 | Account: 1311040030008

Effective Date of Value: 1/1/2025  
Date of Report: 02/27/2026

Owner and Subject Property Information			
Account Number:	1311040030008	CAD:	HCAD
Owner Name:	Account: 1311040030008	Site Address:	2114 MOONCREST DR, HOUSTON, TX
Mailing Address:	See HCAD Records	Legal Desc:	N/A

Land Area	Total Bldg	NRA	Bldg Class	Grade	NBHD/Econ	Key Map	Year Built
N/A	3,438 SF	-	Good	N/A	1635.09	-	2011

Value Assessment Summary						
Method	Value	PSF	Land	Impr.	Change	
CAD Preliminary Market	\$500,000	\$145.43	\$102,673	\$397,327		
Equity Uniformity (UE)	\$500,000	\$145.43	\$102,673	\$397,327		
Sales Comparison	\$500,000	\$145.43	\$102,673	\$397,327		
OPINION OF VALUE	\$500,000	Opinion based on Market Sales Approach.				

Based on a comprehensive review of Equity Uniformity (TC 41.43(b)(1)), Market Sales Comparables (TC 41.43(b)(3)), and Physical Condition (TC 23.01), we propose the above opinion of value for tax year 2025.

? HOW WE CALCULATED THIS: Target value derived from the lowest of three approaches: (1) Equity Uniformity -- median adjusted value of comparable properties using ML-computed adjustments for size, age, grade, and depreciation; (2) Sales Comparison -- median of recent arm's-length sales within a 2-year lookback; (3) CAD Market Value. The lowest credible value is presented per Texas Tax Code Sect.41.43(b)(1) and Sect.42.26(a)(3).

# OUR AI-POWERED METHODOLOGY

Property: 2114 MOONCREST DR, HOUSTON, TX, 77089 | Account: 1311040030008

## How We Build Your Protest Evidence

Unlike traditional generic protests, your report was generated by a squad of 8+ specialized Artificial Intelligence agents powered by machine learning, computer vision, and vector similarity search. We analyze your property from every angle – government records, market sales, street-level imagery, flood risk, permit history, neighborhood crime data, and more -- to build the strongest possible argument.

### 1. The AI Agent Squad

<b>Equity Agent:</b>	Uses pgVector semantic similarity search across thousands of neighborhood properties to identify the fairest equity comparables. Mathematically proves unequal appraisal.
<b>Vision Agent:</b>	Analyzes street-view imagery with GPT-4o computer vision to detect condition issues (roof wear, peeling paint, cracks, foundation damage) that justify depreciation deductions.
<b>Sales Agent:</b>	Retrieves recent MLS and county deed transfer data to validate your appraised value against actual market sale prices within a 2-year lookback window.
<b>FEMA Flood Agent:</b>	Cross-references your property against FEMA flood zone maps to identify external obsolescence from flood risk -- a legally recognized basis for value reduction.
<b>Permit Agent:</b>	Queries municipal permit databases to assess renovation history. Properties with no recent permits may qualify for deferred maintenance depreciation penalties.
<b>Crime Agent:</b>	Analyzes local crime density and trends around your property to quantify neighborhood external obsolescence that negatively impacts marketability and value.
<b>Narrative Agent:</b>	AI legal writer powered by Gemini and GPT-4o that generates a formal protest narrative citing specific Texas Tax Code sections, tailored to your property's unique evidence.
<b>Commercial Agent:</b>	Specialized enrichment pipeline for commercial, industrial, and mixed-use properties using income approach and cap rate analysis alongside traditional comparables.

### 2. Machine Learning & Advanced Analytics

Our system employs Ridge Regression ML models to calculate dynamic, localized adjustment rates (\$/sqft, \$/year built) from your specific neighborhood's recent sales data -- not static lookup tables. Compound depreciation is capped at 90% with deferred maintenance penalties applied when permit history and vision analysis indicate neglected upkeep. All adjustments are mathematically defensible at ARB.

### 3. Predictive Success Model (XGBoost)

Your Win Probability is calculated by a hybrid machine learning pipeline trained on 544,583 real Harris County Appraisal Review Board (ARB) hearing outcomes. The model uses XGBoost -- a gradient-boosted decision tree algorithm widely used in financial prediction -- to establish a historical base rate for your property class, then adjusts the probability using evidence-specific signals unique to your property.

How it works: (1) XGBoost base rate -- Trained on 544K+ real HCAD hearing records with 82% accuracy (AUC 0.815), the model predicts the baseline probability of a successful protest based on property class, value magnitude, and hearing type. (2) Evidence-based adjustments -- A calibrated heuristic model then adjusts the probability using 18 features specific to YOUR property: equity gap, statistical anomaly Z-score, physical condition delta, flood zone risk, geo-obsolescence factors, sales comp strength, and more. (3) Hybrid blend -- The final probability is a weighted blend of both models (40% historical base rate, 60% evidence strength), ensuring predictions are grounded in real outcomes while rewarding strong evidence.

### 4. Legal Strategy & Uniformity

Our primary argument leverages Texas Tax Code Sect.41.43(b)(1) for market value, Sect.41.43(b)(3) and Sect.42.26(a)(3) for equity/unequal appraisal, and Sect.23.01(b) for physical depreciation. Every data point in this report maps to a specific legal basis for reduction.

## 5. True Tax Savings Calculation

A lower value doesn't always mean lower taxes if you have exemptions (like Homestead). Our system calculates your potential 'Actual Tax Savings' by factoring in your specific exemptions and local tax rates. We focus on putting real money back in your pocket, not just changing a number.

*Data Integrity Statement: This report was prepared by analyzing definitive public county records, MLS parity data, municipal permit histories, FEMA flood maps, and local crime statistics. Machine learning models (XGBoost, Ridge Regression, pgVector similarity) were used to aggregate public facts and predict outcomes, ensuring objective mathematical compliance with the Texas Tax Code.*

*Powered by Texas Equity AI - Fair Taxation through Technology*

# ACCOUNT HISTORY

Property: 2114 MOONCREST DR, HOUSTON, TX, 77089 | Account: 1311040030008

Date of Report: 02/27/2026

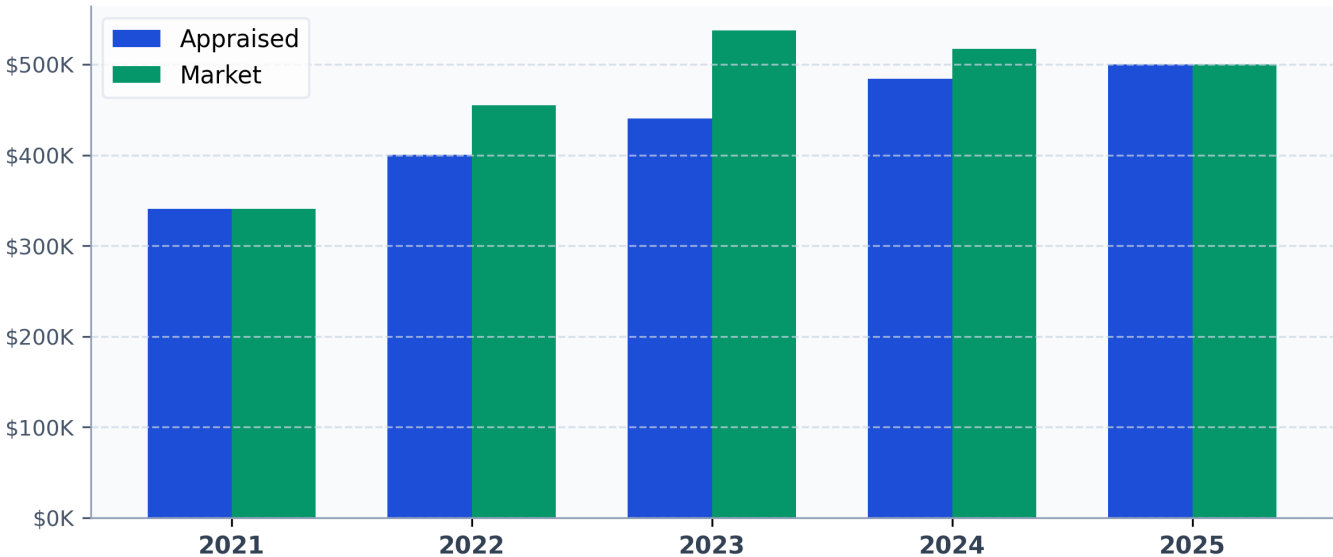
Owner and Subject Property Information			
Account Number:	1311040030008	CAD:	HCAD
Owner Name:	Account: 1311040030008	Site Address:	2114 MOONCREST DR, HOUSTON, TX
Mailing Address:	See HCAD Records	Legal Desc:	N/A
Land Use Code:	1001	Land Use Desc:	Residential Single Family

Current Value Breakdown		
Land Value	Improvement Value	Total Appraised Value
\$102,673	\$397,327	\$500,000

Land Area	Total Bldg	NRA	Bldg Class	Grade	NBHD/Econ	Key Map	Year Built
N/A	3,438 SF	-	Good	N/A	1635.09	-	2011

Valuation History							
Year	Land Val	Impr. Val	Market	PSF	Appraised	Change %	Cap %
2021	\$73,193	Pending	\$340,734	\$99.11	\$340,734	---	---
2022	\$73,193	Pending	\$455,000	\$132.34	\$400,177	+33.5%	88%
2023	\$102,673	Pending	\$537,196	\$156.25	\$440,194	+18.1%	82%
2024	\$102,673	Pending	\$517,130	\$150.42	\$484,213	-3.7%	94%

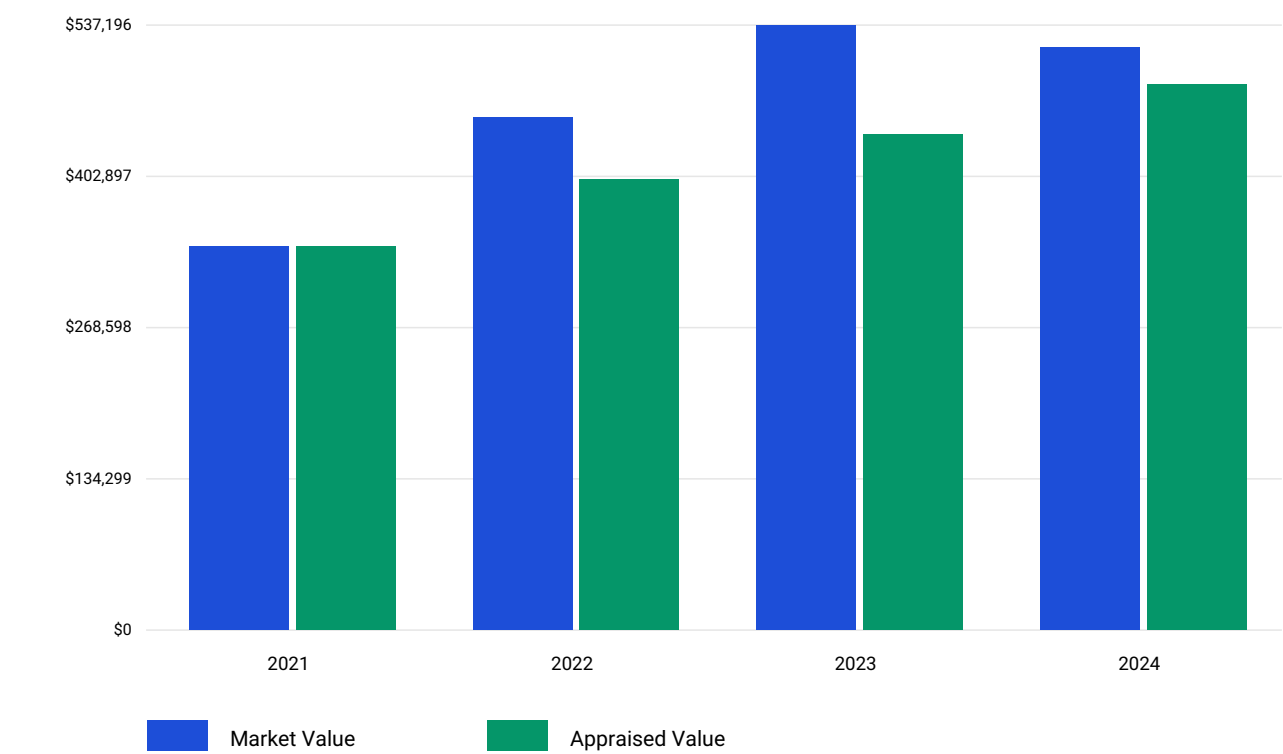
## Valuation Trend Analysis



# VALUATION TREND & FORECAST ANALYSIS

Property: 2114 MOONCREST DR, HOUSTON, TX, 77089 | Account: 1311040030008

## Assessment History & Growth Rate



## Year-over-Year Growth Analysis

Year	Market Val	Appraised	Change \$	Change %	PSF	Cap Applied
2021	\$340,734	\$340,734			\$99.11	No
2022	\$455,000	\$400,177	+\$114,266	+33.5%	\$132.34	Yes
2023	\$537,196	\$440,194	+\$82,196	+18.1%	\$156.25	Yes
2024	\$517,130	\$484,213	\$-20,066	-3.7%	\$150.42	Yes

Compound Annual Growth Rate (CAGR)

14.9%

\$176,396 total change over 3 yrs (+52%)

Assessment has grown at 14.9% annually, significantly above typical market appreciation of 3-5%. This aggressive escalation pattern strongly supports a protest filing.

HISTORICAL SUMMARY: Between 2021 and 2024, your property's market value increased from \$340,734 to \$517,130, a total increase of 52% (14.9% compounded annually). This exceeds typical residential appreciation rates and suggests the district may be applying aggressive revaluation factors. Protesting now locks in a lower baseline, preventing compounding over-assessment in future tax years.

AI Forecast (Based on Current Trend)

At the current -3.7% annual growth rate, your assessment could reach \$497,814 next year and \$479,219 in two years. A successful protest now prevents compounding over-assessment.



# COST APPROACH VALIDATION

Property: 2114 MOONCREST DR, HOUSTON, TX, 77089 | Account: 1311040030008

The Cost Approach estimates value by calculating the cost to replace the improvement as new, deducting accrued depreciation, and adding land value. This method serves as an independent check on market-derived approaches per Texas Tax Code Sec. 23.011 and provides a ceiling on reasonable value when physical deterioration is present.

? HOW WE CALCULATED THIS: Replacement Cost New (RCN) estimated using Marshall & Swift residential cost tables based on building grade, quality, and living area. Physical depreciation uses compound age-life method. Functional and external obsolescence added from vision analysis and flood/crime data. Depreciation capped at 90% (minimum 10% good condition floor).

Note: Replacement Cost New (RCN) estimates are baseline projections derived from standard aggregate indexing (e.g., Marshall & Swift parameters) for the subject's class and grade. This establishes a ceiling of value prior to physical walkthroughs.

## Replacement Cost New (RCN)

Component	Value
Building Area	3,438 sqft
Grade / Quality	N/A
Cost per SqFt (Grade N/A)	\$115
Replacement Cost New	\$395,370

## Accrued Depreciation

Depreciation Type	Rate / Basis	Amount
Physical Deterioration	15yr / 55yr life = 27.3%	-\$107,828
Functional Obsolescence	None identified	\$0
External Obsolescence	None identified	\$0
Total Depreciation	27.3% + adjustments	-\$107,828

## Cost Approach Value Conclusion

Component	Value
Replacement Cost New	\$395,370
Less: Accrued Depreciation	-\$107,828
Depreciated Cost of Improvements	\$287,542
Plus: Land Value	\$102,673
COST APPROACH INDICATED VALUE	\$390,215

### District Over-Assessment vs. Cost Approach

The Cost Approach indicates a value of \$390,215, which is \$109,785 (22.0%) BELOW the district's appraised value of \$500,000. This independent analysis supports a reduction under Texas Tax Code Sec. 23.011 (cost approach as evidence of market value).

Respectfully submitted,

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Property Owner, Property Owner

Date: February 27, 2026