



2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

Tamalpais Union High School District



Prepared by:

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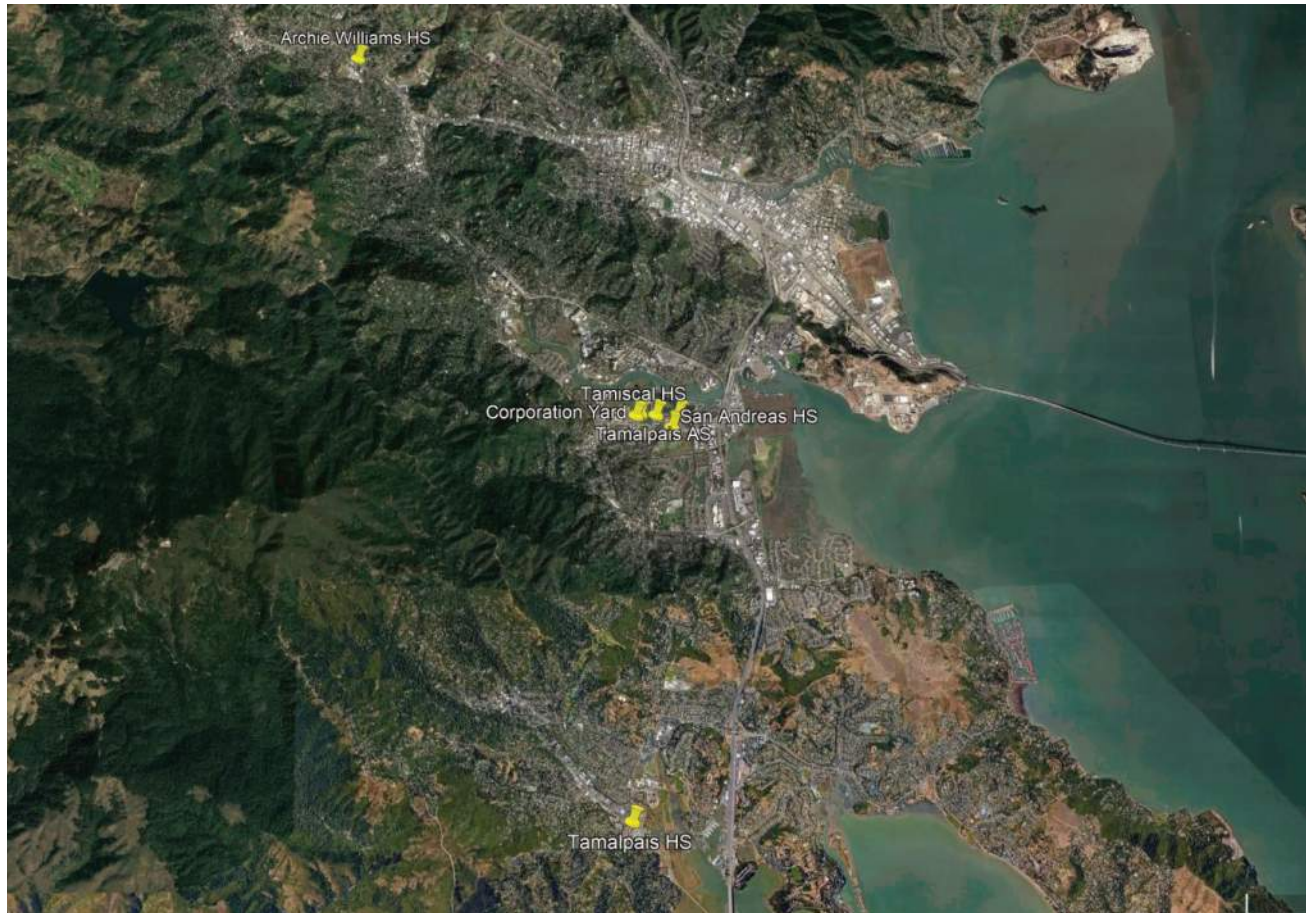
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EXECUTIVE SUMMARY

Building Envelope Assessment

Tamalpais Union High School District



INTRODUCTION

A Facility Condition Assessment (FCA) of the overall building envelope is rigorous, multi-disciplinary approach to the long-term stewardship of exterior facility assets in an effort to maximize the value and useful life of the District buildings. The building envelope is an integral portion of the overall building performance, from water intrusion to heat and conditioned air leakage.

The FCA is the cornerstone of becoming proactive on building envelope requirements and reduce overall leaks and properly budget for projects from preventive repairs to capital replacement. The assessment results are used as the basis for strategy and budget development for projects (preventive repairs and capital replacement) to produce good workmanship and quality materials, and results in long-term service life.

2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

Building Envelope Survey:

The building envelope survey was performed by two team members from BEAM Professionals on April 22nd thru April 23rd, 2021. The purpose of the assessment is to document the existing conditions of both the roofing systems and build envelope conditions. This provided valuable insight on elements of building asset management as related to cost such as:

- *Preventative Maintenance “Keep Up” Costs* – Annual routine maintenance cost, critical component/equipment replacement costs, etc.;
- *Deferred Maintenance “Catch Up” Costs* – Accumulated backlog of deferred maintenance costs; and
- *Capital Need “Get Ahead” Costs* – Costs associated with future critical replacements and needed enhancements that will improve the design, functionality and/or efficiency of a building and/or site.

Additionally, the FCA provides a baseline for “Waterproofing Adequacy” across the District and assists in establishing a strategic and long-term balance between the competing need to “preventative repair” vs. “replace” by helping to identify:

- Current-state condition and the prioritized needs of each facility;
- Critical replacement of items that are close to/or have already surpassed their life expectancy;
- Items that could be addressed through an existing warranty;
- Items that may be processed as a work order and addressed by District maintenance personnel;
- Major and minor repairs and/or full replacement that are necessary;
- Similar “scopes of work” to ensure a cost-effective grouping of work to be performed; and
- Current and future funding needs so that Tamalpais Union High School District administrators and staff are equipped to make well-informed decisions with regard to future capital improvements, planning and budgeting.

Building Envelope Process:

A core set of operational and evaluation procedures were established and implemented in order to perform a comprehensive assessment of District-owned facilities.

Step One: Project Initiation

A kick-off meeting was held on April 20, 2021 with representative from the District to further define project objectives, expectations and scope; review the assessment process and how it fits into the building envelope master planning process overall; discuss timing and key milestones; identify participants to be included. Facility background information was also reviewed; assessment standards were discussed, protocols established; and a master site-walk schedule was developed.

Prior to evaluating each campus, the team gathered and reviewed available roof plans, and other historical facilities-related documentation in preparation for the assessment phase of work.

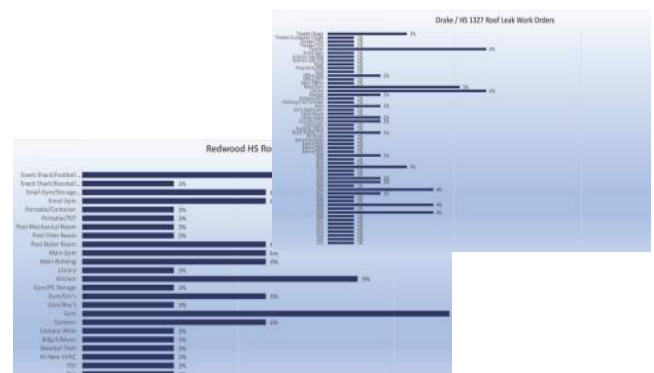
The team from BEAM Professionals and Tamalpais Union High School District walked and evaluated a total of eight (8) district-wide facilities totaling 623,974 square feet. Their main objective was to provide a systematic, building-by-building, roof-by-roof, visual assessment of existing conditions, anticipated remaining useful life, building code compliance, and other factors for all District buildings/facility assets.

Observations regarding current conditions at each facility were documented to include, but not limited to the following.

- Building Envelope
Exterior Walls, Doors, Windows, and Roofing

Step Two: Data Validation & Reporting

Upon completion of the initial assessment walks and subsequent data upload, information gathered was organized and distributed. A line-by-line review meeting was held on May 11, 2021 with District representatives to discuss and analyze the work items identified at each facility. The proposed scopes of work were further defined, classified and prioritized, and cost estimate categories were then established for each.



2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

Step Three: Implementation Plan

The assessment team developed recommendations and held a meeting with district representatives and discuss the Facility Condition Assessment findings and implementation plan. Once fully vetted the proposed plan was finalized with pricing.

Executive Summary Overview:

The assessment documentation provided herein includes details regarding the size and condition of each facility along with the budgets costs for potential scope of work that can be performed. The data is organized by Facility (based on facility type), roof area sections, roof system type, priority, and anticipated costs per district standard scope of work options.

Priority Overview

The District-wide reports provided on the following pages provide a summary of total costs for each roof area section with a total cost estimate if performed across the entire campus as one project. Based upon their identified "priority" indicates the recommended timeline for work to be completed.

Priority 1: (1-3 years) Must Do – Critical Replacements and Growth. High Risk for Disruption to Classroom and/or Operations if not addressed.

Priority 2: (4-6 years) Should Do – Program needs, critical life-cycle replacements. Items that should be taken care of for continued enhancements to the learning environment.

Priority 3: (7-10 years) Would Like to Do – Program enhancement or critical life-cycle replacement.

Priority 4: (10+ years) Future – Not to be addressed at this time.

Priority M: Leased or contracted buildings.

Proposed work items cost estimates are based on 2021 construction costs. Next categories are based on District condition of roof areas.

Proposed Work Items:

Priority 1 Roof Areas: Total square footage of Priority 1 district wide is approximately 211,744 square feet for an estimate of \$5.0 Million replacement cost of each roof system.

Priority 2 Roof Areas: Total square footage of Priority 2 district wide is approximately 174,521 square feet for an estimate of \$4.1 Million replacement cost of each roof system.

Priority 3 Roof Areas: Total square footage of Priority 3 district wide is approximately 175,408 square feet for an estimate of \$3.7 Million replacement cost for each roof system.

Priority 4 Roof Areas: Total square footage of Priority 4 district wide is approximately 47,373 square feet for an estimate of \$982 Thousand replacement coast for each roof system.

Assessment Conclusions

Looking ahead, in terms of a twenty (20) year planning horizon, it is the recommendation of the Assessment Team that all Priority 1 and Priority 2 items be addressed over the next 6 year period and that facility conditions are continually reassessed annually in order to periodically reevaluate and confirm building envelope conditions, District needs, and market conditions.

Although Tamalpais Union High School District has large amount of needs in Priority 1 and 2 items performing preventative repairs to the campuses will help extend the useful life cycle of each roof area and reduce leaks that contribute to additional construction costs.

See tables on page 1.4 for a beakdown of prioities 1, 2 and 3 broken down by site.



2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

PRIORITY TABLES

CAMPUS	Priority 1 Cost Est.	Priority 2 Cost Est.	Total Priority 1&2 Cost Est.
Archie Williams High School	\$ 1,146,600	\$ 2,240,875	\$ 3,387,475
Redwood High School	\$ 1,917,350	\$ 1,060,625	\$ 2,977,975
Tamalpais High School	\$ 1,035,625	\$ 600,220	\$ 1,635,845
San Andreas High School	\$ 148,560	\$ 7,725	\$ 156,285
Tamiscal High School	\$ 131,850	\$ 33,150	\$ 165,000
Tamalpais Adult School	\$ 0	\$ 162,000	\$ 162,000
TUHSD District Office	\$ 582,035	\$ 19,500	\$ 601,535
TUHSD Corporation Yard	\$ 18,000	\$ 39,150	\$ 57,150
TOTAL	\$ 4,980,020	\$ 4,163,245	\$ 9,143,265

CAMPUS	Total Priority 3 Cost Est.
Archie Williams High School	\$ 565,100
Redwood High School	\$ 486,425
Tamalpais High School	\$ 2,098,800
San Andreas High School	\$ 151,395
Tamiscal High School	\$ 0
Tamalpais Adult School	\$ 3,500
TUHSD District Office	\$ 0
TUHSD Corporation Yard	\$ 347,280
TOTAL	\$ 3,702,500



GENERAL INFORMATION

Assessed Facilities

HIGH SCHOOLS

- Archie Williams High School
- Redwood High School
- Tamalpais High School

ALTERNATIVE HIGH SCHOOLS

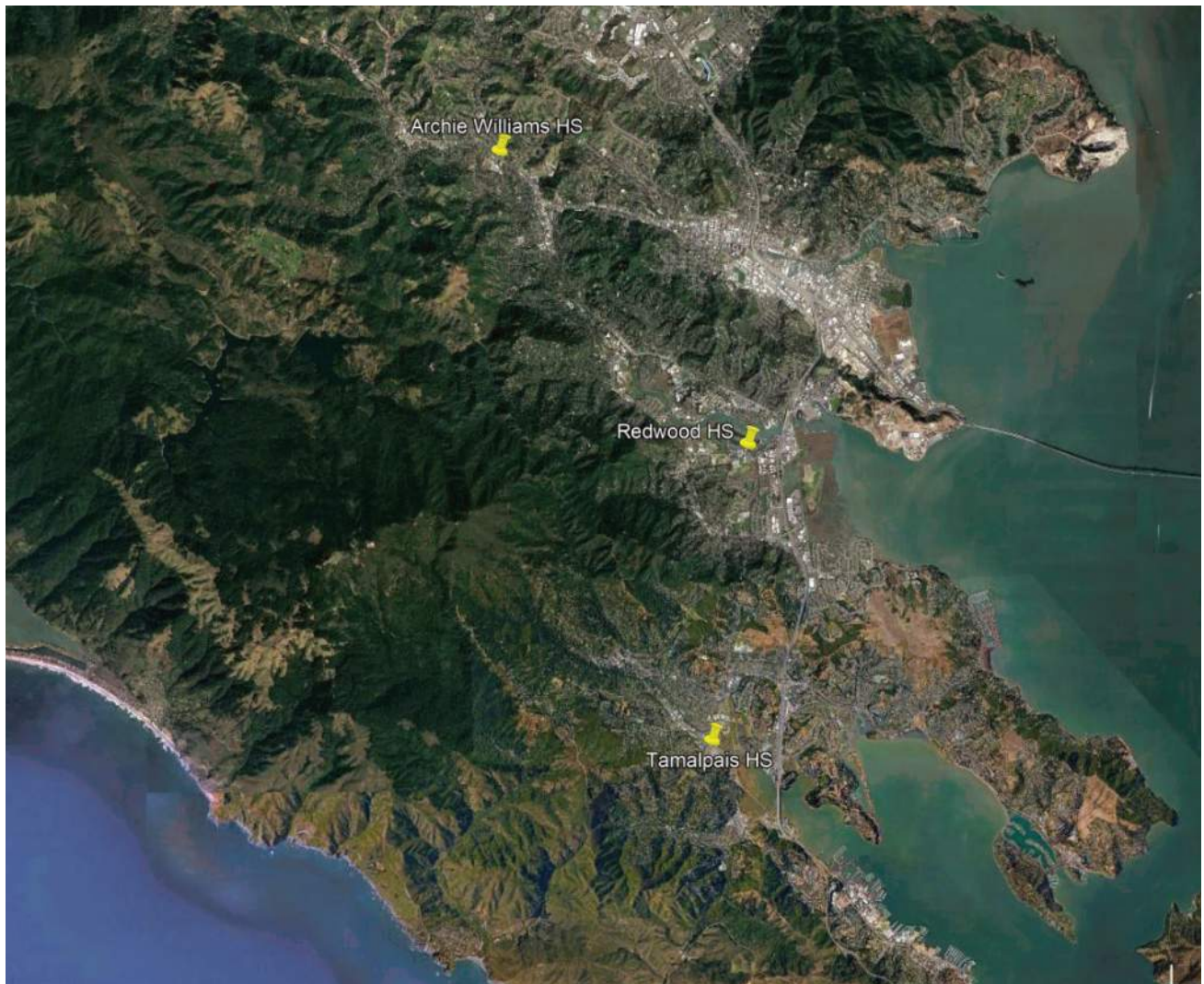
- San Andreas High School
- Tamiscal High School
- Tamalpais Adult School

SUPPORT FACILITIES

- Administration
- Corporation Yard

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HIGH SCHOOLS ASSESSMENT REPORTS



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ARCHIE WILLIAMS HIGH SCHOOL

PRINCIPAL: Liz Seabury



Aerial Site Plan

**1327 Sir Francis Drake Boulevard
San Anselmo, CA 94960**

**YEAR ESTABLISHED: 1951
ROOF AREA: 195,511
GRADES: 9th - 12th
STUDENTS: 1362**

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HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

1327 Sir Francis Drake Blvd
San Anselmo, CA 94960

Principal:
Liz Seabury

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
A1	Modified Bitumen Granule	2	4,896	\$122,400.00	\$58,752.00
A2	Modified Bitumen Granule	1	672	\$16,800.00	\$8,064.00
A3	Modified Bitumen Granule	1	2,312	\$57,800.00	\$27,744.00
B1	Modified Bitumen Granule	2	10,269	\$256,725.00	\$123,228.00
B2	Modified Bitumen Granule	1	2,520	\$63,000.00	\$30,240.00
B3	Modified Bitumen Granule	2	608	\$15,200.00	\$7,296.00
B4	Modified Bitumen Granule	2	247	\$6,175.00	\$2,964.00
C1	Modified Bitumen Granule	2	270	\$6,750.00	\$3,240.00
C2	Modified Bitumen Granule	2	6,060	\$151,500.00	\$72,720.00
C3	Modified Bitumen Granule	2	528	\$13,200.00	\$6,336.00
C4	Modified Bitumen Granule	2	528	\$13,200.00	\$6,336.00
C5	Modified Bitumen Granule	2	270	\$6,750.00	\$3,240.00
C6	Modified Bitumen Granule	2	5,316	\$132,900.00	\$63,792.00
C7	Modified Bitumen Granule	2	528	\$13,200.00	\$6,336.00
C8	Modified Bitumen Granule	2	528	\$13,200.00	\$6,336.00
C9	Modified Bitumen Granule	2	1,152	\$28,800.00	\$13,824.00

HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

1327 Sir Francis Drake Blvd
San Anselmo, CA 94960

Principal:
Liz Seabury

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
D1	Modified Bitumen Granule	3	3,912	\$97,800.00	\$46,944.00
D2	Modified Bitumen Granule	3	675	\$16,875.00	\$8,100.00
D3	Modified Bitumen Granule	3	714	\$17,850.00	\$8,568.00
D4	Modified Bitumen Granule	3	2,439	\$60,975.00	\$29,268.00
D5	Modified Bitumen Granule	4	1,721	\$43,025.00	\$20,652.00
D6	Modified Bitumen Granule	3	68	\$1,700.00	\$816.00
E1	Modified Bitumen Granule	2	5,888	\$147,200.00	\$70,656.00
E2	Modified Bitumen Granule	2	1,350	\$33,750.00	\$16,200.00
E3	Modified Bitumen Granule	2	2,070	\$51,750.00	\$24,840.00
E4	Modified Bitumen Granule	2	720	\$18,000.00	\$8,640.00
E5	Modified Bitumen Granule	2	5,888	\$147,200.00	\$70,656.00
E6	Modified Bitumen Granule	2	1,200	\$30,000.00	\$14,400.00
E7	Modified Bitumen Granule	2	800	\$20,000.00	\$9,600.00
E8	Modified Bitumen Granule	3	81	\$2,025.00	\$972.00
F1	Modified Bitumen Granule	4	4,609	\$115,225.00	\$55,308.00
F2	Modified Bitumen Granule	4	99	\$2,475.00	\$1,188.00

HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

1327 Sir Francis Drake Blvd
San Anselmo, CA 94960

Principal:
Liz Seabury

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
G1	Metal-Ribbed Standing Seam	4	7,008	\$175,200.00	\$84,096.00
G2	Modified Bitumen Granule	1	4,992	\$124,800.00	\$59,904.00
G3	Modified Bitumen Granule	1	5,200	\$130,000.00	\$62,400.00
G4	Modified Bitumen Granule	1	443	\$11,075.00	\$5,316.00
G5	Modified Bitumen Granule	2	2,292	\$57,300.00	\$27,504.00
H1	Modified Bitumen Granule	3	8,897	\$222,425.00	\$106,764.00
H2	Modified Bitumen Granule	3	1,500	\$37,500.00	\$18,000.00
H3	Modified Bitumen Granule	3	1,410	\$35,250.00	\$16,920.00
H4	Modified Bitumen Granule	1	3,828	\$95,700.00	\$45,936.00
H5	Modified Bitumen Granule	1	1,190	\$29,750.00	\$14,280.00
H6	Modified Bitumen Granule	2	306	\$7,650.00	\$3,672.00
J1	Modified Bitumen Granule	2	2,181	\$54,525.00	\$26,172.00
J2	Modified Bitumen Granule	2	5,973	\$149,325.00	\$71,676.00
J3	Modified Bitumen Granule	1	3,828	\$95,700.00	\$45,936.00
J4	Modified Bitumen Granule	2	306	\$7,650.00	\$3,672.00
K1	Modified Bitumen Granule	2	2,186	\$54,650.00	\$26,232.00

HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

1327 Sir Francis Drake Blvd
San Anselmo, CA 94960

Principal:
Liz Seabury

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
K2	Modified Bitumen Granule	1	5,973	\$149,325.00	\$71,676.00
K3	Modified Bitumen Granule	2	5,973	\$149,325.00	\$71,676.00
K4	Modified Bitumen Granule	2	306	\$7,650.00	\$3,672.00
L1	Modified Bitumen Granule	2	1,206	\$30,150.00	\$14,472.00
L2	Modified Bitumen Granule	1	5,973	\$149,325.00	\$71,676.00
L3	Modified Bitumen Granule	2	4,191	\$104,775.00	\$50,292.00
L4	Modified Bitumen Granule	2	306	\$7,650.00	\$3,672.00
M1	Modified Bitumen Granule	1	3,700	\$92,500.00	\$44,400.00
M2	Modified Bitumen Granule	1	5,233	\$130,825.00	\$62,796.00
M3	Modified Bitumen	2	900	\$22,500.00	\$10,800.00
N1	Architectural Dimensional Asphalt Shingles	4	8,976	\$179,520.00	\$107,712.00
N2	Modified Bitumen Granule	2	966	\$24,150.00	\$11,592.00
N3	Modified Bitumen Granule	2	989	\$24,725.00	\$11,868.00
N4	Modified Bitumen Granule	2	989	\$24,725.00	\$11,868.00
O1	Three Tab Asphalt Shingles	3	2,835	\$56,700.00	\$34,020.00
C10	Modified Bitumen Granule	2	4,236	\$105,900.00	\$50,832.00

HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

1327 Sir Francis Drake Blvd
San Anselmo, CA 94960

Principal:
Liz Seabury

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
C11	Modified Bitumen Granule	2	576	\$14,400.00	\$6,912.00
C12	Modified Bitumen Granule	2	576	\$14,400.00	\$6,912.00
C13	Modified Bitumen Granule	2	2,827	\$70,675.00	\$33,924.00
C14	Modified Bitumen Granule	2	318	\$7,950.00	\$3,816.00
C15	Modified Bitumen Granule	2	2,028	\$50,700.00	\$24,336.00
1A	Metal-Ribbed Standing Seam	4	1,320	\$19,800.00	\$15,840.00
1B	Metal-Ribbed Standing Seam	4	990	\$14,850.00	\$11,880.00
1C	Three Tab Asphalt Shingles	4	850	\$17,000.00	\$10,200.00
2A	Modified Bitumen Granule	M	64	\$1,600.00	\$768.00
2B	Modified Bitumen Granule	M	64	\$1,600.00	\$768.00
2C	Modified Bitumen Granule	M	64	\$1,600.00	\$768.00
2D	Modified Bitumen Granule	M	64	\$1,600.00	\$768.00
2E	Modified Bitumen Granule	M	64	\$1,600.00	\$768.00
2F	Modified Bitumen Granule	M	64	\$1,600.00	\$768.00
3A	Modified Bitumen Granule	M	750	\$18,750.00	\$9,000.00
3B	Modified Bitumen Granule	M	169	\$4,225.00	\$2,028.00

HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

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Principal:
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ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
3C	Modified Bitumen Granule	M	750	\$18,750.00	\$9,000.00
3D	Modified Bitumen Granule	M	750	\$18,750.00	\$9,000.00
3E	Modified Bitumen Granule	M	750	\$18,750.00	\$9,000.00
3F	Modified Bitumen Granule	M	750	\$18,750.00	\$9,000.00
4A	Three Tab Asphalt Shingles	2	169	\$3,380.00	\$2,028.00
5A	Three Tab Asphalt Shingles	2	91	\$1,820.00	\$1,092.00
5B	Modified Bitumen Granule	3	320	\$8,000.00	\$3,840.00
5C	Modified Bitumen Granule	3	320	\$8,000.00	\$3,840.00
5D	Modified Bitumen Granule	2	320	\$8,000.00	\$3,840.00
5E	Modified Bitumen Granule	2	360	\$9,000.00	\$4,320.00
5F	Metal-Ribbed Standing Seam	4	200	\$3,000.00	\$2,400.00
TOTALS:			188,798	\$4,630,245.00	\$2,265,576.00

HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

OVERALL INSPECTION

Date	Inspection Type	Inspector
4/29/2021	District BE Assessment	David Renteria

General Observation:

Overall the campus was in fair to good condition with some of the roof areas showing signs of premature aging or towards the end of its useful life expectancy. The overall Envelope looked in fair condition as well with only minor maintenance to be done.

Drainage:

Drainage on the roof systems and canopies seemed to be in good condition allow for water run off.

Field of Roof:

Field of roofs has had repairs at the laps and show signs of separation, this condition is allowing moisture within the system this condition is the main cause of the premature aging.

Flashings:

Perimeter edge flashings curling and drying out which can possibly cause water intrusion. Repairs have been made however the repairs are starting to fail.

Comments:

Installing a fully reinforced coating over the roof areas that are showing signs of separation at both the laps and perimeter edge can help extend the useful life of several of these roof areas.

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HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

ROOF INSPECTION

Drawing Number	Comments
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1	Multiple lap repairs which indicate severe chasing water intrusion
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HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

ROOF INSPECTION

Drawing Number	Comments
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2 Mutiple pipe penetration repairs



HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

ROOF INSPECTION

Drawing Number	Comments
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3	Multiple perimeter edge lap repairs possible water intrusion
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HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

ROOF INSPECTION

Drawing Number	Comments
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- 4 Transition areas have multiple repairs signs of poor drainage and failed flashing



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HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

- | | |
|---|---|
| 1 | Coping not engaged into cleat or secured to substrate |
|---|---|



- | | |
|---|--------------------|
| 2 | Crack in substrate |
|---|--------------------|



HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

3 Deteriorating base flashing



4 Damaged / chipped substrate at through wall flashing



HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

5 Degraded wall paneling / point of intrusion



6 Head flashing at spandrel frame is lifting and allowing moisture within system.



HIGH SCHOOLS ASSESSMENT REPORTS

Archie Williams High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
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7	Electric J box has no cover and wires are exposed.
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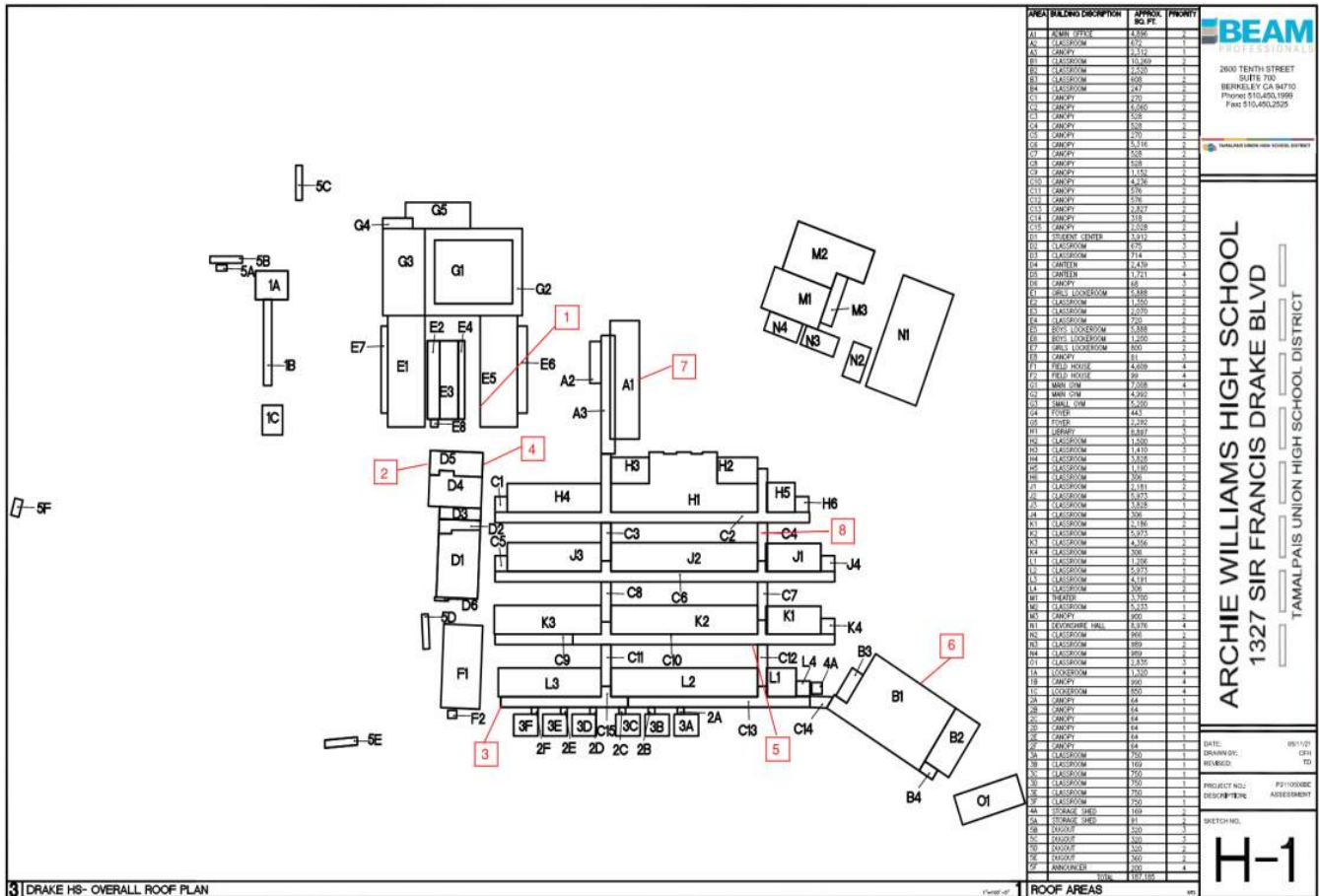
8	Transition between roof fascia/ base flashing and wall system not properly sealed.
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2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

HIGH SCHOOLS ASSESSMENT ROOF PLAN



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REDWOOD HIGH-SCHOOL

PRINCIPAL: David Sondheim



Aerial Site Plan

**395 Doherty Drive
Larkspur, CA 94939**

**YEAR ESTABLISHED: 1958
ROOF AREA: 171,199
GRADES: 9th - 12th
STUDENTS: 1,928**

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HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

395 Doherty Drive
Larkspur, CA 94939

Principal:
David Sondheim

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
A1	Modified Bitumen Granule	1	18,000	\$450,000.00	\$216,000.00
A2	Modified Bitumen Granule	3	1,160	\$29,000.00	\$13,920.00
A3	Modified Bitumen Granule	2	1,671	\$41,775.00	\$20,052.00
A4	Modified Bitumen Granule	1	13,240	\$331,000.00	\$158,880.00
A5	Modified Bitumen Granule	2	592	\$14,800.00	\$7,104.00
A6	Modified Bitumen Granule	2	5,545	\$138,625.00	\$66,540.00
A7	Modified Bitumen Granule	1	1,600	\$40,000.00	\$19,200.00
B1	Modified Bitumen Granule	1	13,965	\$349,125.00	\$167,580.00
B2	Modified Bitumen Granule	3	1,305	\$32,625.00	\$15,660.00
B2	Modified Bitumen Granule	2	840	\$21,000.00	\$10,080.00
B4	Modified Bitumen Granule	1	825	\$20,625.00	\$9,900.00
B5	Modified Bitumen Granule	3	145	\$3,625.00	\$1,740.00
C1	Modified Bitumen Granule	1	8,960	\$224,000.00	\$107,520.00
C2	Modified Bitumen Granule	3	3,675	\$91,875.00	\$44,100.00
C3	Modified Bitumen Granule	2	5,052	\$126,300.00	\$60,624.00
C4	Modified Bitumen Granule	2	2,640	\$66,000.00	\$31,680.00

HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

395 Doherty Drive
Larkspur, CA 94939

Principal:
David Sondheim

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
C5	Modified Bitumen Granule	2	300	\$7,500.00	\$3,600.00
D1	Modified Bitumen Granule	2	5,185	\$129,625.00	\$62,220.00
E1	Modified Bitumen Granule	2	2,100	\$52,500.00	\$25,200.00
E2	Three Tab Asphalt Shingles	1	605	\$15,125.00	\$7,260.00
F1	Modified Bitumen Granule	3	2,785	\$69,625.00	\$33,420.00
F2	Modified Bitumen Granule	3	986	\$24,650.00	\$11,832.00
G1	Modified Bitumen Granule	1	11,595	\$289,875.00	\$139,140.00
G2	Modified Bitumen Granule	2	17,400	\$435,000.00	\$208,800.00
G3	Architectural Dimensional Asphalt Shin	1	7,805	\$156,100.00	\$93,660.00
G4	Metal-Ribbed Standing Seam	4	1,295	\$19,425.00	\$15,540.00
G5	Modified Bitumen Granule	1	1,200	\$30,000.00	\$14,400.00
H1	Modified Bitumen Granule	3	5,800	\$145,000.00	\$69,600.00
H2	Modified Bitumen Granule	4	900	\$22,500.00	\$10,800.00
H3	Modified Bitumen Granule	3	3,541	\$88,525.00	\$42,492.00
J1	Modified Bitumen Granule	M	2,800	\$70,000.00	\$33,600.00
K1	Metal-Ribbed Standing Seam	M	1,175	\$29,375.00	\$14,100.00

HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

395 Doherty Drive
Larkspur, CA 94939

Principal:
David Sondheim

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
K2	Metal-Ribbed Standing Seam	M	1,175	\$29,375.00	\$14,100.00
K3	Metal-Ribbed Standing Seam	M	1,175	\$29,375.00	\$14,100.00
K4	Metal-Ribbed Standing Seam	M	1,175	\$29,375.00	\$14,100.00
K5	Metal-Ribbed Standing Seam	M	1,175	\$29,375.00	\$14,100.00
K6	Metal-Ribbed Standing Seam	M	1,175	\$29,375.00	\$14,100.00
K7	Metal-Ribbed Standing Seam	M	1,175	\$29,375.00	\$14,100.00
1A	Modified Bitumen Granule	2	180	\$4,500.00	\$2,160.00
1B	Modified Bitumen Granule	3	60	\$1,500.00	\$720.00
1C	Modified Bitumen Granule	1	460	\$11,500.00	\$5,520.00
2A	Metal Roof	2	200	\$3,000.00	\$2,400.00
2B	Three Tab Asphalt Shingles	4	564	\$11,280.00	\$6,768.00
1D	Modified Bitumen Granule	2	400	\$10,000.00	\$4,800.00
1F	Modified Bitumen Granule	4	600	\$15,000.00	\$7,200.00
1G	Modified Bitumen Granule	2	400	\$10,000.00	\$4,800.00
TOTALS:			154,601	\$3,808,230.00	\$1,855,212.00

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HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

OVERALL INSPECTION

Date	Inspection Type	Inspector
------	-----------------	-----------

4/29/2021	District BE Assessment	David Renteria
-----------	------------------------	----------------

General Observation:

The overall condition of the roofing system on this site are in good to fair condition. There were areas that had shown signs of aging especially the 100 and 200 wings. There were several repairs that were made on the shingles around the Gym that have shown signs of aging.

Drainage:

Drainage on the older roofs are poor due to drain flashing being built up too high causing water to pond around drain instead of being discharged.

Field of Roof:

Field of roofs has had repairs at the laps and show signs of separation, this condition is allowing moisture within the system this condition is the main cause of the premature aging.

Flashings:

Perimeter edge has multiple repairs at laps in the metal and lap at the perimeter is drying out beginning to curl and separate. Pipe penetrations are failing or have signs of failing.

Comments:

With minor repairs of the overall Building Envelope system, installing a fully reinforced coating over the roof areas will help in extending the useful life of the roof system and envelope system.

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HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

ROOF INSPECTION

Drawing Number	Comments
1	Mutiple repairs at transitions from mod bit to shingles and metal valleys at shingle roofs



- 2 Multiple repairs made to drains and curbs



HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

ROOF INSPECTION

Drawing Number	Comments
----------------	----------

3	Mutiple repairs made to base flashings, field membrane and laps
---	---



4	Unusual granule loss from foot traffic
---	--



HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

ROOF INSPECTION

Drawing Number	Comments
----------------	----------

5 Multiple curb and field repairs



HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

ROOF INSPECTION

Drawing Number	Comments
----------------	----------

6 Multiple parimeter edge repairs



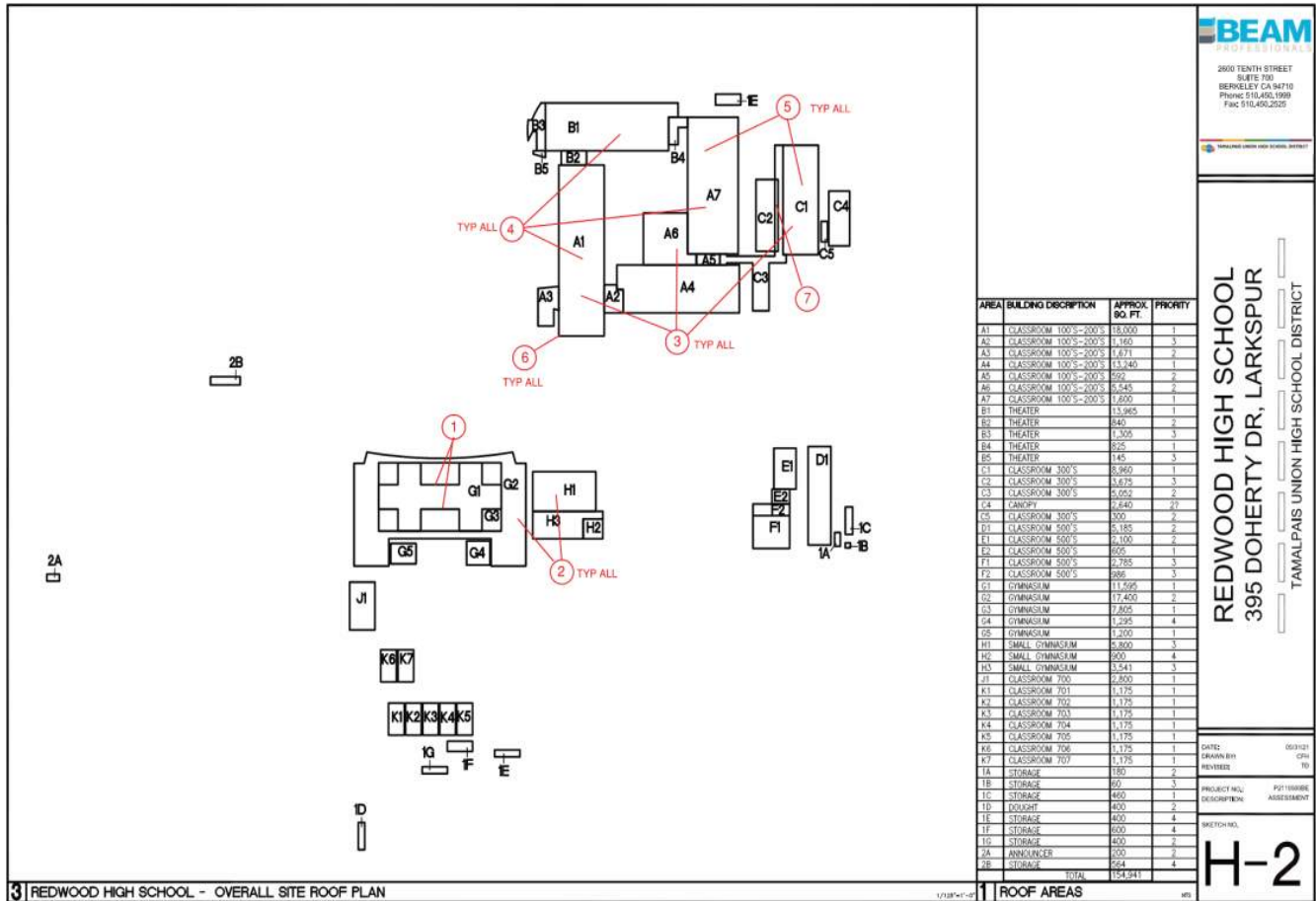
7 Multiple laps failing at Johns Mansville exspansion joints





2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

HIGH SCHOOLS ASSESSMENT ROOF PLAN



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HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

1 crack in though wall, counter flashing, stucco



2 EJ cover unsealed



HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

3 Wall penetrations unsealed



4 B3 cracks in stucco



HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

5 C2 fascia and soffit wood deteriorating



6 C3 fascia deteriorating



HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

7 E1 rotten fascia wood



8 D1 derteriorated wood



HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

9 Holes in stucco behind coping



10 Open utility hole in stucco



HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

11 Parapet soffit wood rotten



12 Unused ventilation



HIGH SCHOOLS ASSESSMENT REPORTS

Redwood High School

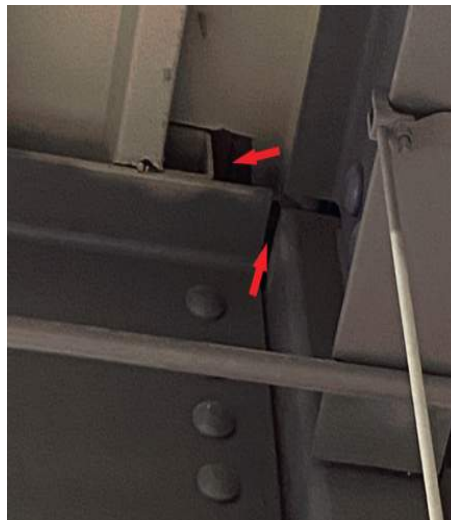
BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
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13	Window frame paneling not sealed
----	----------------------------------



14	Little Gym leak
----	-----------------

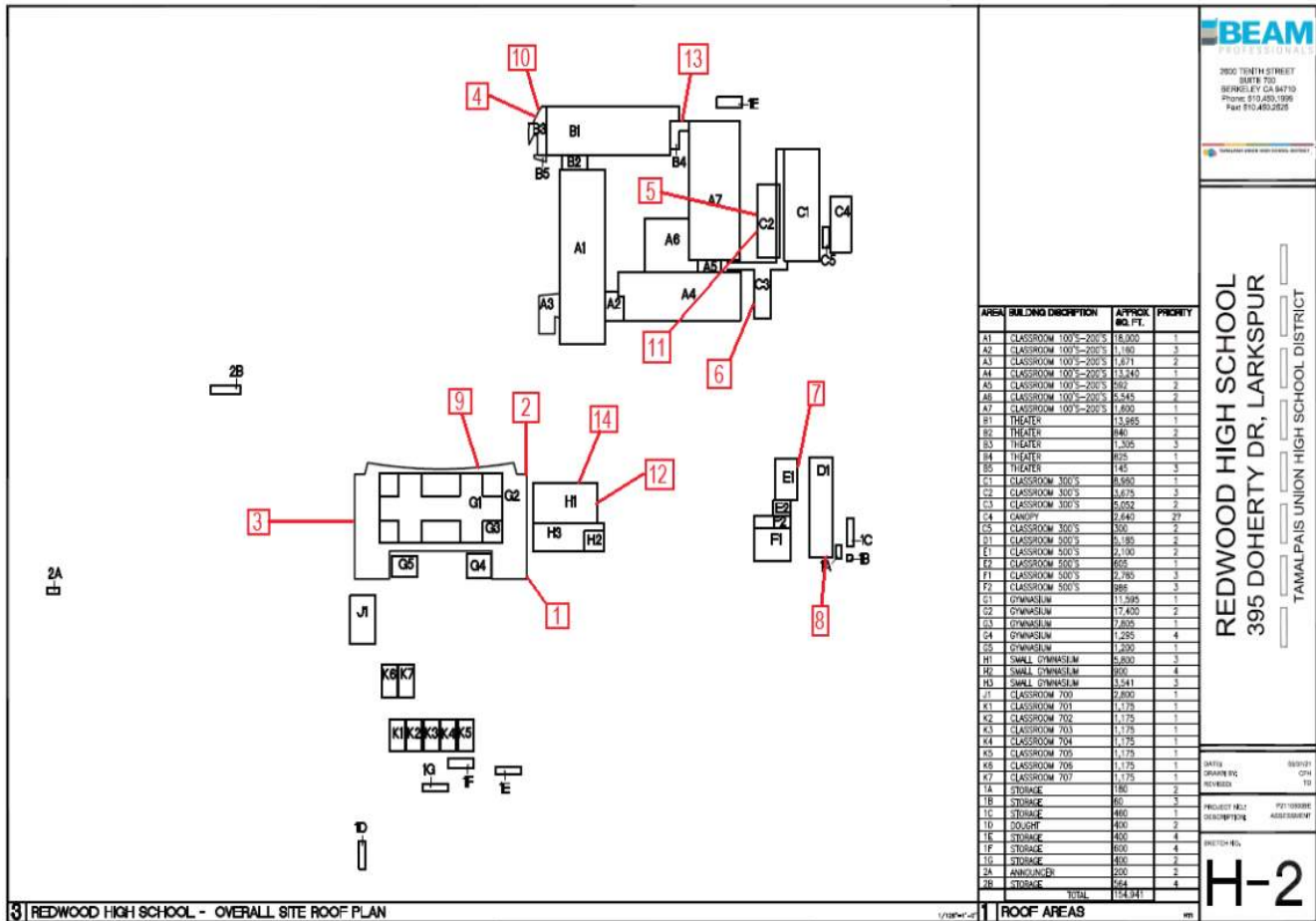


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2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

HIGH SCHOOLS ASSESSMENT ROOF PLAN



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TAMALPAIS HIGH SCHOOL

PRINCIPAL: J. C. Farr



Aerial Site Plan

**700 Miller Avenue
Mill Valley, CA 94941**

**YEAR ESTABLISHED: 1908
ROOF AREA: 186,802
GRADES: 9th - 12th
STUDENTS: 1,591**

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HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

700 Miller Ave.
Mill Valley, CA 94941

Principal:
Mr. J.C. Farr

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
A1	Architectural Dimensional Asphalt Shin	3	18,200	\$364,000.00	\$218,400.00
A2	Architectural Dimensional Asphalt Shin	3	300	\$6,000.00	\$3,600.00
A3	Architectural Dimensional Asphalt Shin	3	425	\$8,500.00	\$5,100.00
A4	Architectural Dimensional Asphalt Shin	1	425	\$8,500.00	\$5,100.00
B1	Architectural Dimensional Asphalt Shin	2	2,250	\$45,000.00	\$27,000.00
B2	Metal-Ribbed Standing Seam	2	350	\$5,250.00	\$4,200.00
C1	Architectural Dimensional Asphalt Shin	3	6,145	\$122,900.00	\$73,740.00
C2	Modified Bitumen Granule	3	180	\$4,500.00	\$2,160.00
D1	Architectural Dimensional Asphalt Shin	3	4,950	\$99,000.00	\$59,400.00
D2	Modified Bitumen Granule	3	145	\$3,625.00	\$1,740.00
E1	Architectural Dimensional Asphalt Shin	3	8,295	\$165,900.00	\$99,540.00
F1	Architectural Dimensional Asphalt Shin	4	6,945	\$138,900.00	\$83,340.00
F2	Metal-Ribbed Standing Seam	3	3,535	\$53,025.00	\$42,420.00
F3	Architectural Dimensional Asphalt Shin	3	11,470	\$229,400.00	\$137,640.00
F4	Metal-Ribbed Standing Seam	3	6,945	\$104,175.00	\$83,340.00
G1	Architectural Dimensional Asphalt Shin	1	16,310	\$326,200.00	\$195,720.00

HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

700 Miller Ave.
Mill Valley, CA 94941

Principal:
Mr. J.C. Farr

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
G2	Architectural Dimensional Asphalt Shin	3	1,895	\$37,900.00	\$22,740.00
G3	Modified Bitumen Granule	3	7,892	\$197,300.00	\$94,704.00
G4	Modified Bitumen Granule	2	2,251	\$56,275.00	\$27,012.00
H1	Architectural Dimensional Asphalt Shin	2	2,490	\$49,800.00	\$29,880.00
H2	Architectural Dimensional Asphalt Shin	2	320	\$6,400.00	\$3,840.00
J1	Modified Bitumen Granule	3	6,675	\$166,875.00	\$80,100.00
J2	Modified Bitumen Granule	1	225	\$5,625.00	\$2,700.00
J3	Architectural Dimensional Asphalt Shin	2	10,875	\$217,500.00	\$130,500.00
J4	Modified Bitumen w/ Granules with Co	1	5,005	\$125,125.00	\$60,060.00
J5	Modified Bitumen Granule	3	1,050	\$26,250.00	\$12,600.00
J6	Modified Bitumen Smooth Surfaced	1	511	\$12,775.00	\$6,132.00
J7	Modified Bitumen w/ Granules with Co	1	2,250	\$56,250.00	\$27,000.00
J8	Modified Bitumen w/ Granules with Co	1	5,112	\$127,800.00	\$61,344.00
J9	Modified Bitumen w/ Granules with Co	2	196	\$4,900.00	\$2,352.00
K1	Architectural Dimensional Asphalt Shin	3	425	\$8,500.00	\$5,100.00
K2	Architectural Dimensional Asphalt Shin	3	8,120	\$162,400.00	\$97,440.00

HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

700 Miller Ave.
Mill Valley, CA 94941

Principal:
Mr. J.C. Farr

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
L1	Modified Bitumen Granule	1	10,220	\$255,500.00	\$122,640.00
M1	Architectural Dimensional Asphalt Shingles	3	4,000	\$80,000.00	\$48,000.00
M2	Modified Bitumen Granule	3	1,456	\$36,400.00	\$17,472.00
N1	Architectural Dimensional Asphalt Shingles	3	8,850	\$177,000.00	\$106,200.00
O1	Architectural Dimensional Asphalt Shingles	2	3,670	\$73,400.00	\$44,040.00
P1	Metal-Ribbed Standing Seam	2	1,250	\$18,750.00	\$15,000.00
P2	Metal-Ribbed Standing Seam	1	1,250	\$18,750.00	\$15,000.00
1A	Architectural Dimensional Asphalt Shingles	2	721	\$14,420.00	\$8,652.00
2A	Metal-Ribbed Standing Seam	3	225	\$3,375.00	\$2,700.00
2B	Metal-Ribbed Standing Seam	3	485	\$7,275.00	\$5,820.00
3A	Modified Bitumen Granule	3	500	\$12,500.00	\$6,000.00
3B	Modified Bitumen Granule	3	480	\$12,000.00	\$5,760.00
3C	Modified Bitumen Granule	3	400	\$10,000.00	\$4,800.00
4A	Three Tab Asphalt Shingles	1	3,080	\$61,600.00	\$36,960.00
P3	Modified Bitumen Granule	2	2,591	\$64,775.00	\$31,092.00
Q1	Metal-Ribbed Standing Seam	2	1,250	\$18,750.00	\$15,000.00

HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

700 Miller Ave.
Mill Valley, CA 94941

Principal:
Mr. J.C. Farr

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
Q2	Metal-Ribbed Standing Seam	1	1,250	\$18,750.00	\$15,000.00
4B	Architectural Dimensional Asphalt Shingles	4	4,400	\$88,000.00	\$52,800.00
4C	Modified Bitumen Granule	1	750	\$18,750.00	\$9,000.00
4D	Modified Bitumen Granule	2	400	\$10,000.00	\$4,800.00
4E	Modified Bitumen Granule	2	400	\$10,000.00	\$4,800.00
4F	Modified Bitumen Granule	2	200	\$5,000.00	\$2,400.00
TOTALS:			189,990	\$3,961,545.00	\$2,279,880.00

HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

OVERALL INSPECTION

Date	Inspection Type	Inspector
4/30/2021	District BE Assessment	David Renteria

General Observation:

Overall condition of the roofs are in good to fair condition. Coating on modified bitumen roofs have signs of blisters due to water moisture trapped between coating and roof system.

Drainage:

Drainage on low slope roof areas are in fair condition except area around drains show signs of insufficient draining due particular drains not being free of debris.

Field of Roof:

Composition shingles are in good to fair condition around campus. Low slope areas with modified roof system show signs of aging and possible water trapped under coating.

Flashings:

Pipe penetration flashings are failing or have signs of failing. Parapet edge metal laps appear to be lifting, creating small gaps in between them. Laps are also showing signs of aging.

Comments:

Performing Capitol Improvement repairs to the coating over the roof areas that are blistering as well as repairs to the exterior will help the useful life of the overall Building Envelope System.

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HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

ROOF INSPECTION

Drawing Number	Comments
----------------	----------

- | | |
|---|---|
| 1 | Blisters present on mod bit system from coating failing on J4, J6, J7, and J8 |
|---|---|



- | | |
|---|--|
| 2 | Multiple field repairs throughout mod bit system starting to separate and crack possible water intrusion |
|---|--|

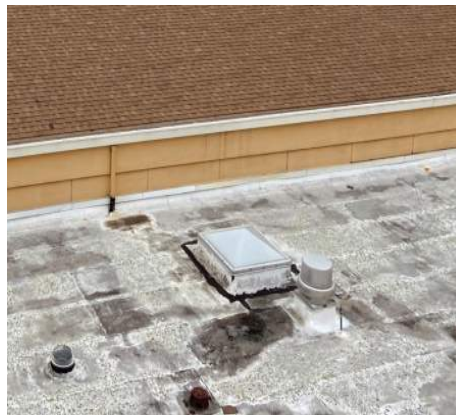


HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

ROOF INSPECTION

Drawing Number	Comments
3	Mutiple repairs at curb flashings starting to separate and crack possible water intrusion



4	Multiple lap seams starting to separate on mod bit system
---	---



HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

ROOF INSPECTION

Drawing Number	Comments
----------------	----------

5	Moderate granule loss on the Architecttural shingle roof system
---	---

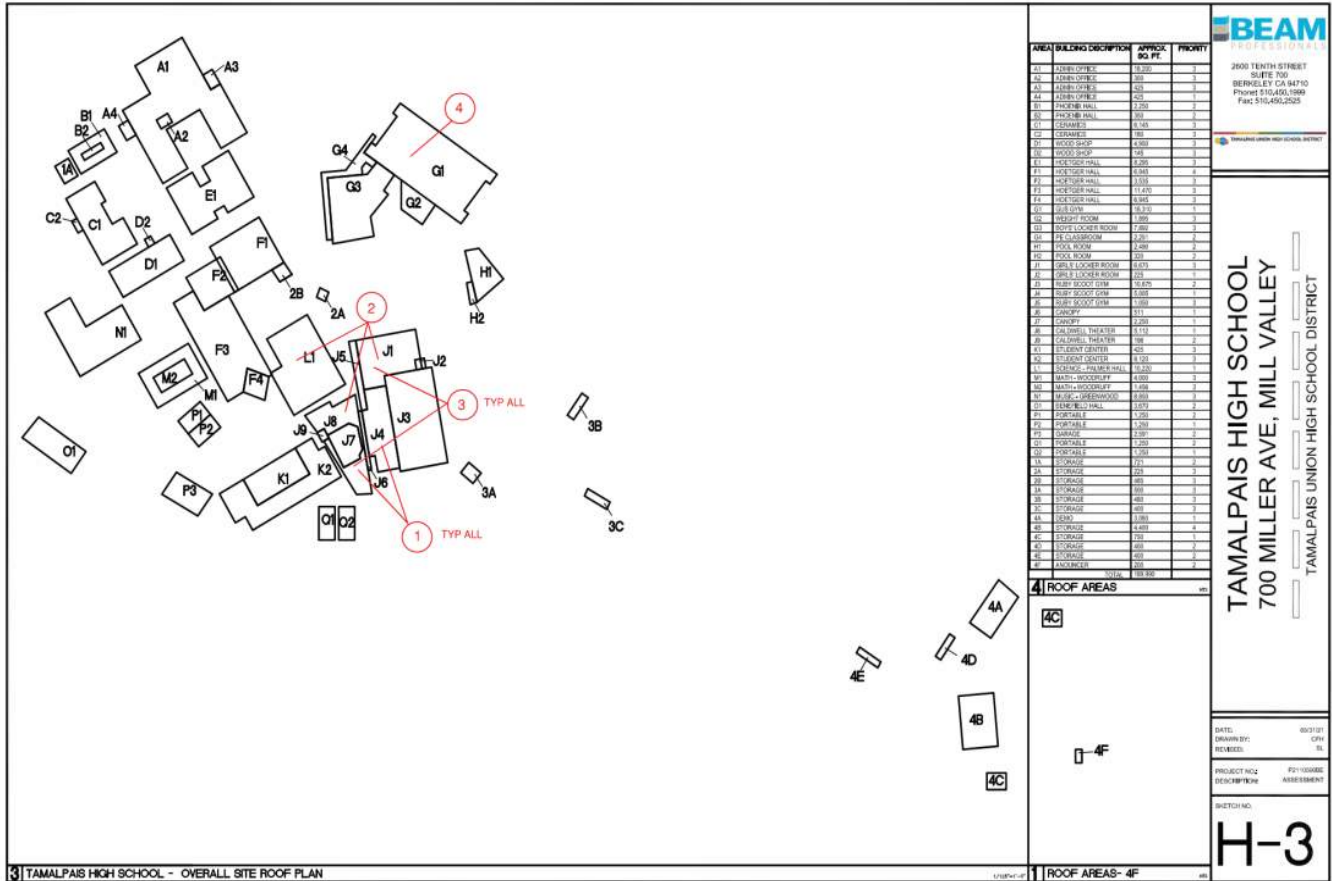


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2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

HIGH SCHOOLS ASSESSMENT REPORTS



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HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

1 A1 - gutter deteriorating



2 Loose unsealed counterflashing



HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

3 Cracked fascia and soffit



4 Cracks in parapet



HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

5 Damaged downspout



6 Degraded vent - no seal on edge water ingress



HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

7 Downspout completely rusted through



8 Gutter damaged



HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

9 Hole in wall



10 Rotten overhang



HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

11 Damaged gutter



12 Cracks in parapet



HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

13 Warped and deteriorated wood

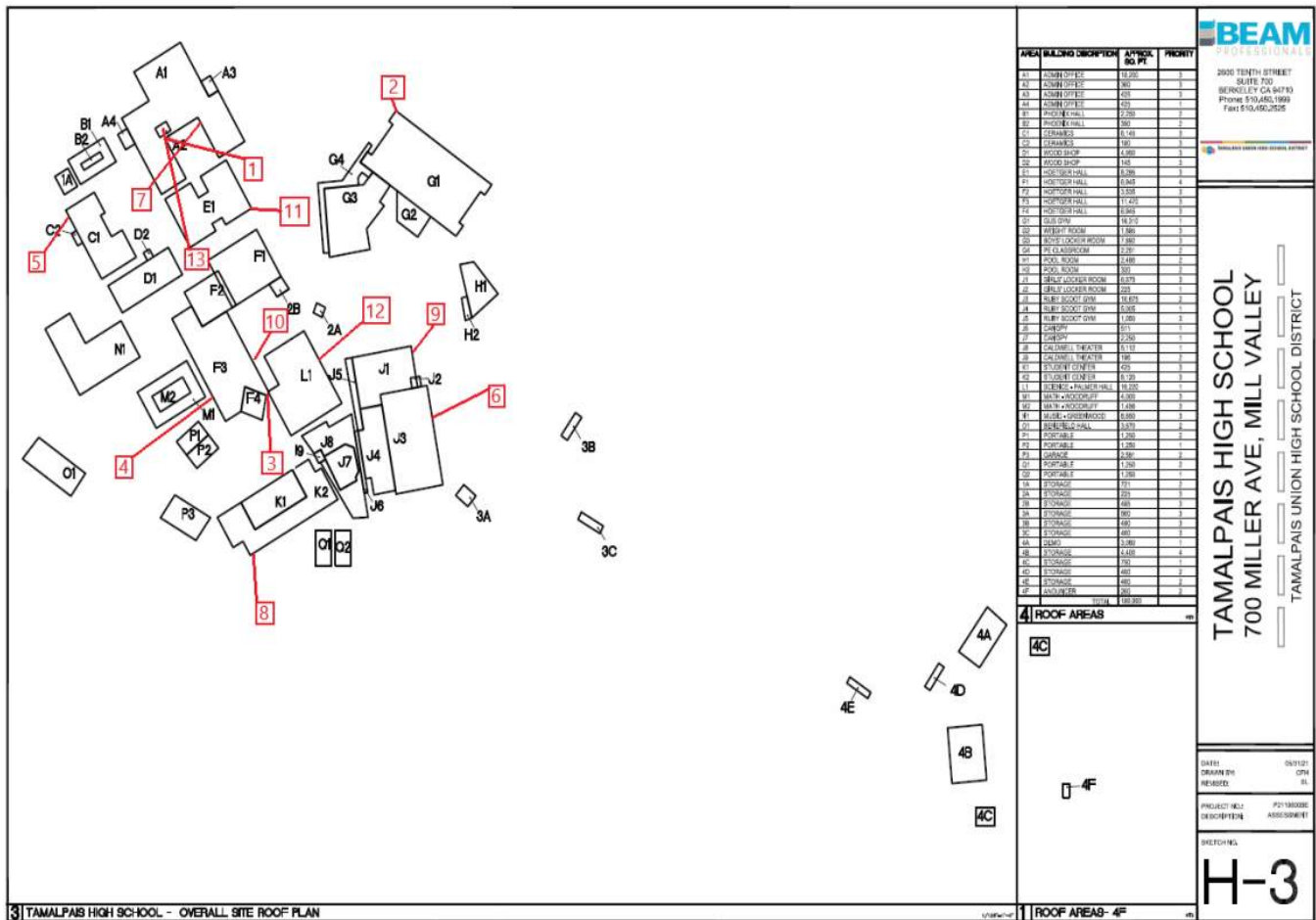


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2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

HIGH SCHOOLS ASSESSMENT ROOF PLAN



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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS



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SAN ANDREAS HIGH SCHOOL

PRINCIPAL: David Luongo



Aerial Site Plan

**599 William Avenue
Larkspur, CA 94939**

**YEAR ESTABLISHED: 1969
ROOF AREA: 24,252
GRADES: 9th - 12th
STUDENTS: 69**

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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

San Andreas High School

599 William Ave.
Larkspur, CA 94939

Principal:
David Luongo

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
A1	Metal-Ribbed Standing Seam	3	3,013	\$45,195.00	\$36,156.00
A2	Metal-Ribbed Standing Seam	2	255	\$3,825.00	\$3,060.00
B1	Metal-Ribbed Standing Seam	4	2,080	\$31,200.00	\$24,960.00
C1	Three Tab Asphalt Shingles	1	2,940	\$58,800.00	\$35,280.00
C2	Metal-Ribbed Standing Seam	3	1,540	\$23,100.00	\$18,480.00
D1	Metal-Ribbed Standing Seam	3	1,980	\$29,700.00	\$23,760.00
E1	Three Tab Asphalt Shingles	1	3,036	\$60,720.00	\$36,432.00
E2	Metal-Ribbed Standing Seam	2	260	\$3,900.00	\$3,120.00
F1	Three Tab Asphalt Shingles	4	2,576	\$51,520.00	\$30,912.00
G1	Three Tab Asphalt Shingles	4	1,480	\$29,600.00	\$17,760.00
H1	Three Tab Asphalt Shingles	1	1,452	\$29,040.00	\$17,424.00
J1	Metal-Ribbed Standing Seam	3	2,860	\$42,900.00	\$34,320.00
1A	Metal-Ribbed Standing Seam	4	360	\$5,400.00	\$4,320.00
1B	Modified Bitumen Granule	3	420	\$10,500.00	\$5,040.00
TOTALS:			24,252	\$425,400.00	\$291,024.00

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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

San Andreas High School

OVERALL INSPECTION

Date	Inspection Type	Inspector
4/30/2021	District BE Assessment	David Renteria

General Observation:

Majority of the roofs on this site comprise of Asphalt shingles as well as Metal Ribbed standing Seam. Some of the Asphalt shingle roofs show signs of aging and granule loss.

Drainage:

Drainage is adequate however continued maintenance of debris from gutters, downspouts, and roof drains will help in maintaining proper drainage.

Field of Roof:

Field of roof was in fair to good condition there were areas that did have signs of aging and granule loss. Multiple repairs made to shingle roofs are not long term and could cause damming, leaks, and shorter roof life.

Flashings:

Parameater edging around asphalt shingles are in good to fair condition.

Comments:

The recommendation for this site is to replace or improve the conditions to buildings and the roof systems at C1, E1, and H1 as well as the exterior envelope which would bring these areas up to a priority 4 that would match the remainder of the site.

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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

San Andreas High School

ROOF INSPECTION

Drawing Number	Comments
----------------	----------

- | | |
|---|---|
| 1 | Mutiple short term repairs made to shingle roof |
|---|---|



- | | |
|---|---|
| 2 | Incorrect method of repair at abandoned pipe jacks and supports |
|---|---|



ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

San Andreas High School

ROOF INSPECTION

Drawing Number	Comments
----------------	----------

3 Severe granule loss at multiple locations



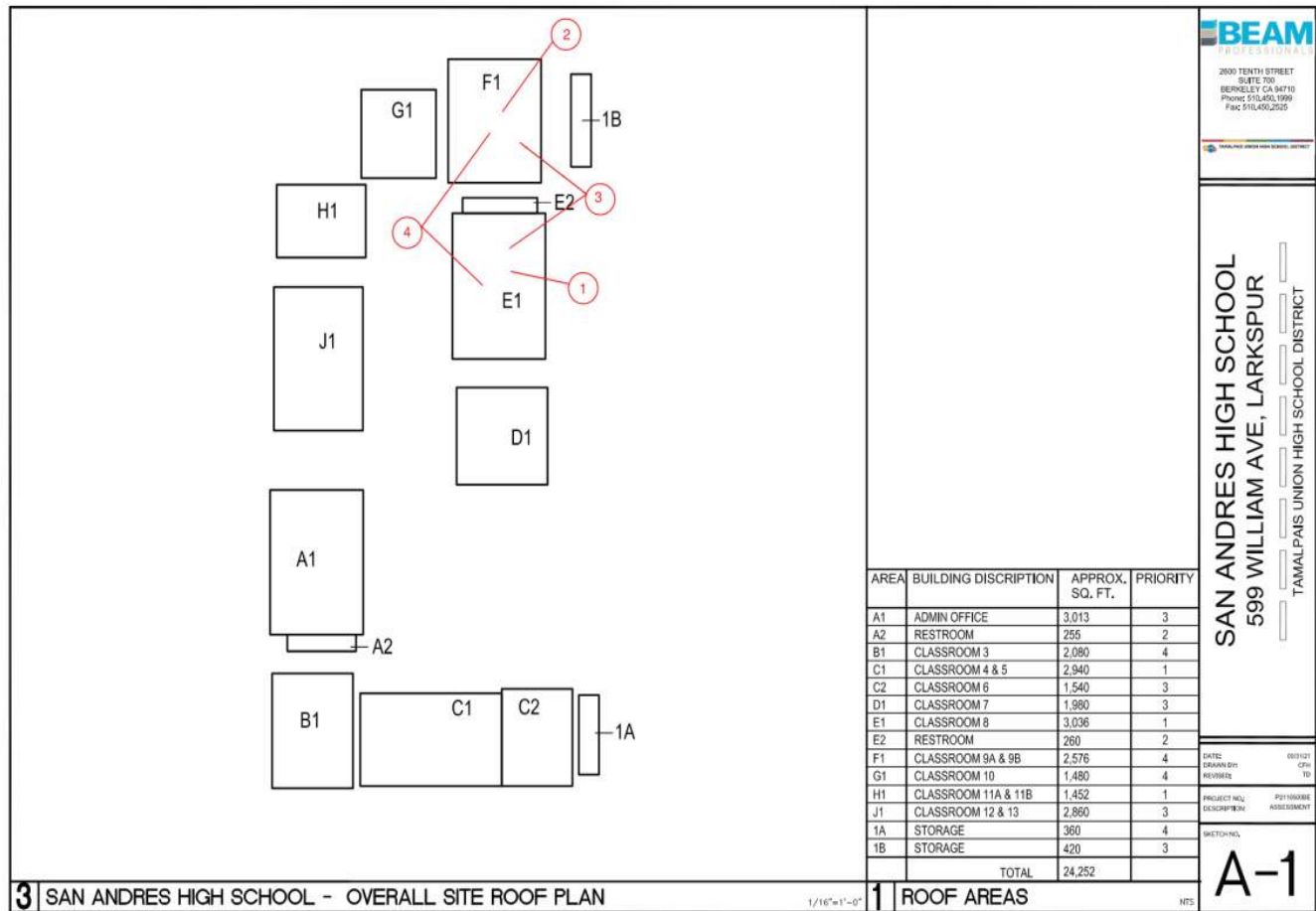
4 Multiple repairs attempted at ridge with exposed nails, leaving shiners





2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

ALTERNATIVE HIGH SCHOOLS ASSESSMENT ROOF PLAN



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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

San Andreas High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

1 Crack at window seal



ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

San Andreas High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

2 Framing around seal rotting



3 Siding warped point of ingress



ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

San Andreas High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

4 Rotten wood on soffit_gutter deteriorating



5 Fishmouth above coping



ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

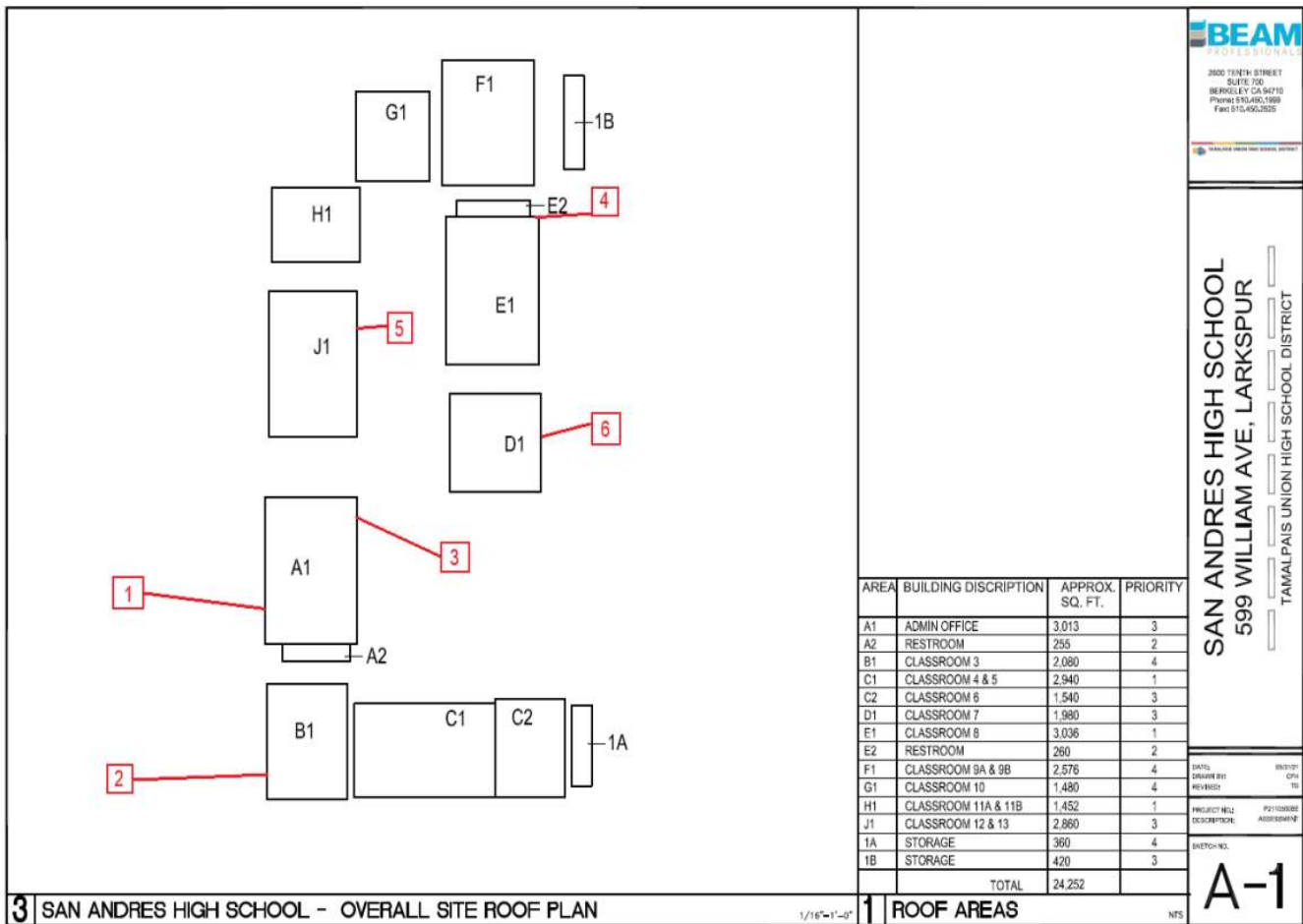
San Andreas High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
6	Unsealed Electrical penetration



ALTERNATIVE HIGH SCHOOLS ASSESSMENT ROOF PLAN



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TAMISCAL HIGH SCHOOL

PRINCIPAL: Kim Stiffler



Aerial Site Plan

**305 Doherty Drive
Larkspur, CA 94939**

**YEAR ESTABLISHED: 1993
ROOF AREA: 11,000
GRADES: 9th - 12th
STUDENTS: 124**

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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamiscal High School

305 Doherty Drive
Larkspur, CA 94939

Principal:
Kim Stiffler

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
A1	Metal-Ribbed Standing Seam	1	4,830	\$72,450.00	\$57,960.00
B1	Metal-Ribbed Standing Seam	1	3,960	\$59,400.00	\$47,520.00
C1	Metal-Ribbed Standing Seam	2	1,105	\$16,575.00	\$13,260.00
C2	Metal-Ribbed Standing Seam	2	1,105	\$16,575.00	\$13,260.00
TOTALS:			11,000	\$165,000.00	\$132,000.00

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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamiscal High School

OVERALL INSPECTION

Date	Inspection Type	Inspector
------	-----------------	-----------

4/30/2021 District BE Assessment David Renteria

General Observation:

This site consists of all portables with standing seam metal roof system. The roof system shows signs of aging with a lot of the seams have become uncrippled and separating.

Drainage:

Drainage is in poor condition due to drains and gutters being glogged with debris.

Field of Roof:

Field of roof is in poor condition requiring strong maintenance at all seams and mod lines.

Flashings:

All pipe penetrations, soil pipes and conduits have had repairs made to them that show signs of aging and deteriorating.

Comments:

With Capitol Improvement repairs to the roof areas A1 and B1 as well as the rest of the site can bring this site to a priority 3 which would help in extending the useful life of the roof system and envelope system.

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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamiscal High School

ROOF INSPECTION

Drawing Number	Comments
----------------	----------

- | | |
|---|---|
| 1 | Multiple standing seams appears to be uncrimped and have multiple repair attempts |
|---|---|



- | | |
|---|--|
| 2 | Multiple attempts made to repairs failing expansion joints at multiple locations |
|---|--|



ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamiscal High School

ROOF INSPECTION

Drawing Number	Comments
----------------	----------

3	Multiple edge metal locations had repairs that are failing, rusted out gutters
---	--

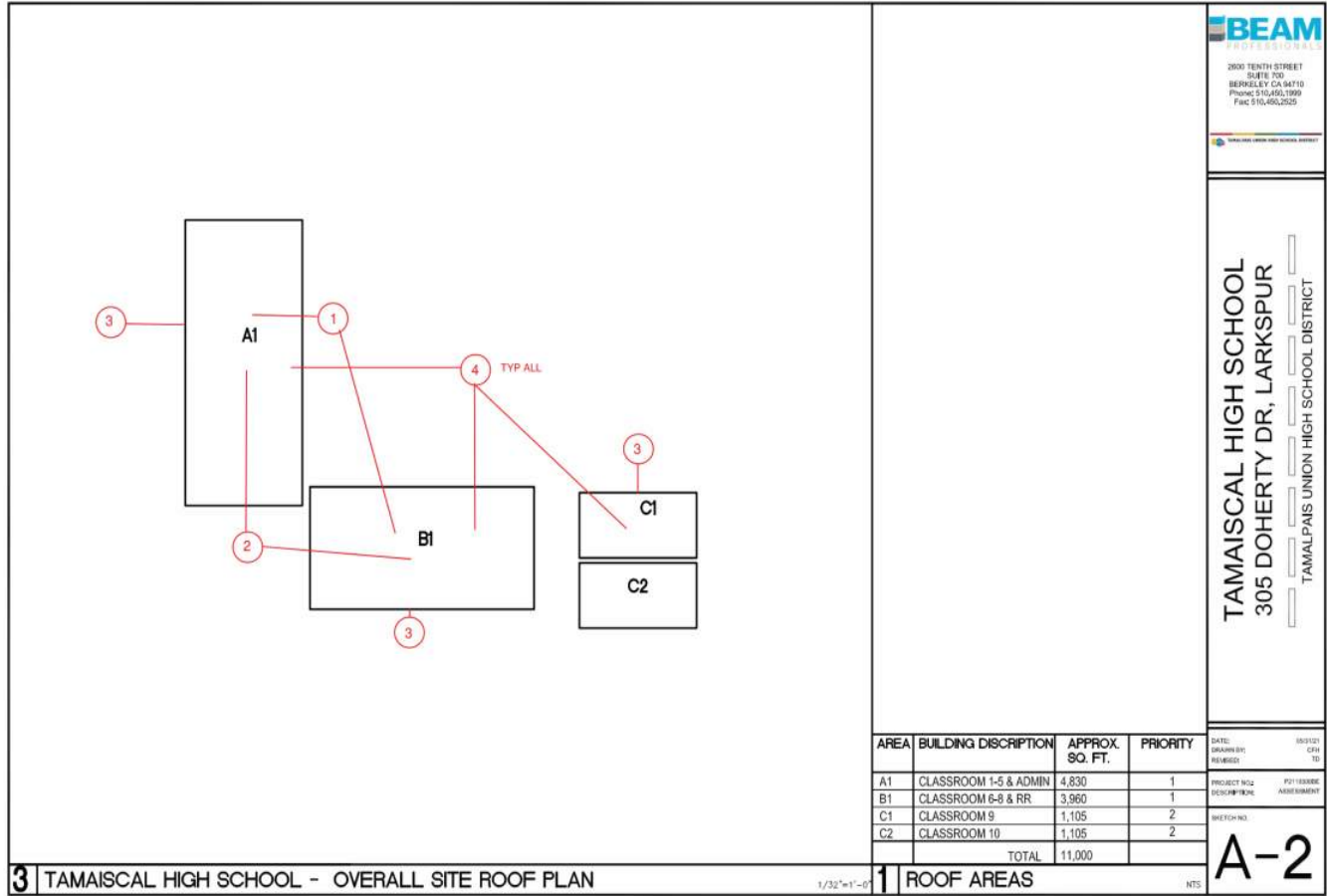


4	All pipe penetrations, soil pipes, and conduits have multiple repairs made to them. All repairs are short term
---	--



2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

ALTERNATIVE HIGH SCHOOLS ASSESSMENT ROOF PLAN



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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamiscal High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

1	C1 backside wood fascia rotten
---	--------------------------------



2	Fascia rotting
---	----------------



ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamiscal High School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
3	Fascia deteriorating

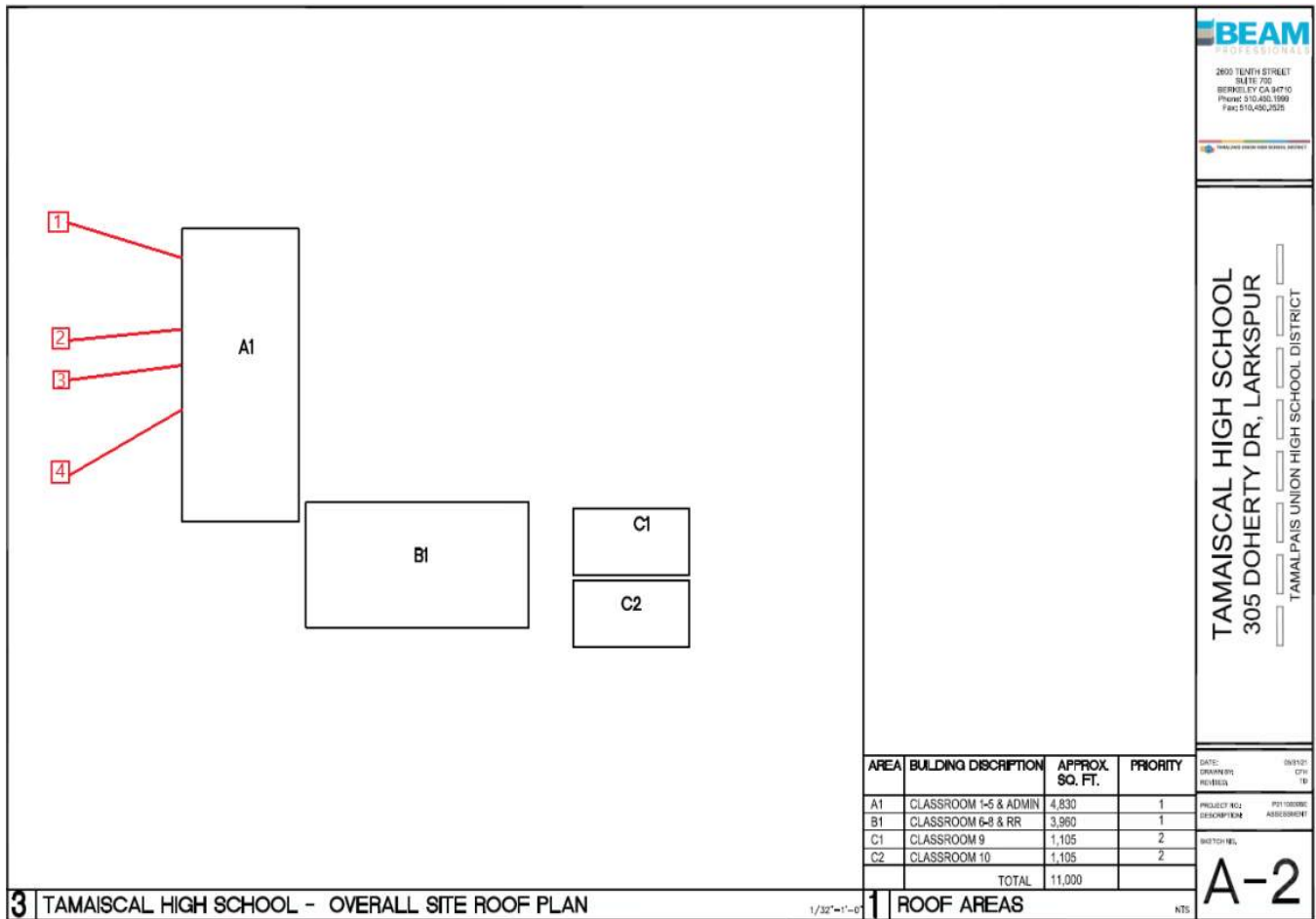


4 Soffit splitting



2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

ALTERNATIVE HIGH SCHOOLS ASSESSMENT ROOF PLAN



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TAMALPAIS ADULT SCHOOL

DIRECTOR: Jaemi Naish



Aerial Site Plan

**375 Doherty Drive
Larkspur, CA 94939**

**YEAR ESTABLISHED: 1939
ROOF AREA: 8,620
GRADES: 9th - 12th
STUDENTS: 250**

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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais Adult School

375 Doherty Drive
Larkspur, CA 94939

Principal:
Jaemi Naish

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
A1	Modified Bitumen Granule	2	1,400	\$35,000.00	\$16,800.00
A2	Modified Bitumen Granule	2	5,080	\$127,000.00	\$60,960.00
A3	Modified Bitumen Granule	3	2,140	\$53,500.00	\$25,680.00
TOTALS:			8,620	\$215,500.00	\$103,440.00

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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais Adult School

OVERALL INSPECTION

Date	Inspection Type	Inspector
4/30/2021	District BE Assessment	David Renteria

General Observation:

Overall condition of this site is in fair to poor condition with moderate premature aging. Was rated overall a priority 2 with areas that are rated higher. The roof system shows signs of aging

Drainage:

Drainage on older roofs is poor around drainn sump from drain flashing being built up too high and causing water to pond around the drain instead of discharging.

Field of Roof:

Field of roof shows granule loss due to traffic around equipment and field areas. There are no walk pads installed. Lap seams are showing signs of seperation possible water intrusion.

Flashings:

Pipe penetrations are failing and equipment curbs laps are seperating. Perimeter edge flashing are in fair condition cracking and seperation observed.

Comments:

With Capitol Improvements on the roof system and the Biulding envelope system this site can reach a priority 3 which would entend the useful life of the site.

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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais Adult School

ROOF INSPECTION

Drawing Number	Comments
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1	Repairs found at curb base flashings and drains some are failing
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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais Adult School

ROOF INSPECTION

Drawing Number	Comments
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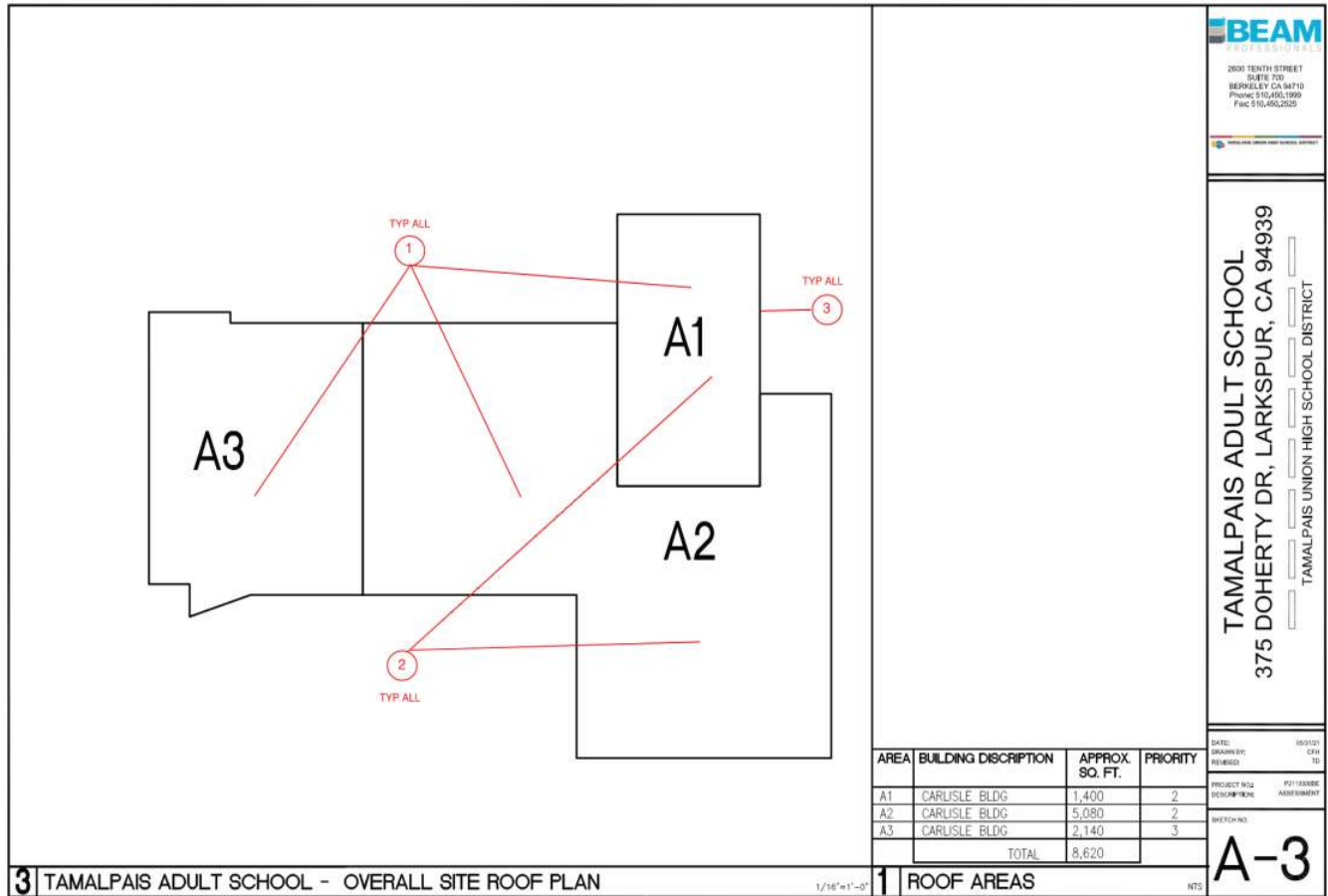
2 Loss of granules from standing water on roof



3 Multiple perimeter edge laps curling up and separating possible water intrusion



ALTERNATIVE HIGH SCHOOLS ASSESSMENT ROOF PLAN



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ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais Adult School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
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1 Ej sealant and fasteners



2 Points of water ingress



ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais Adult School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
3	Wood fascia deteriorating



ALTERNATIVE HIGH SCHOOLS ASSESSMENT REPORTS

Tamalpais Adult School

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
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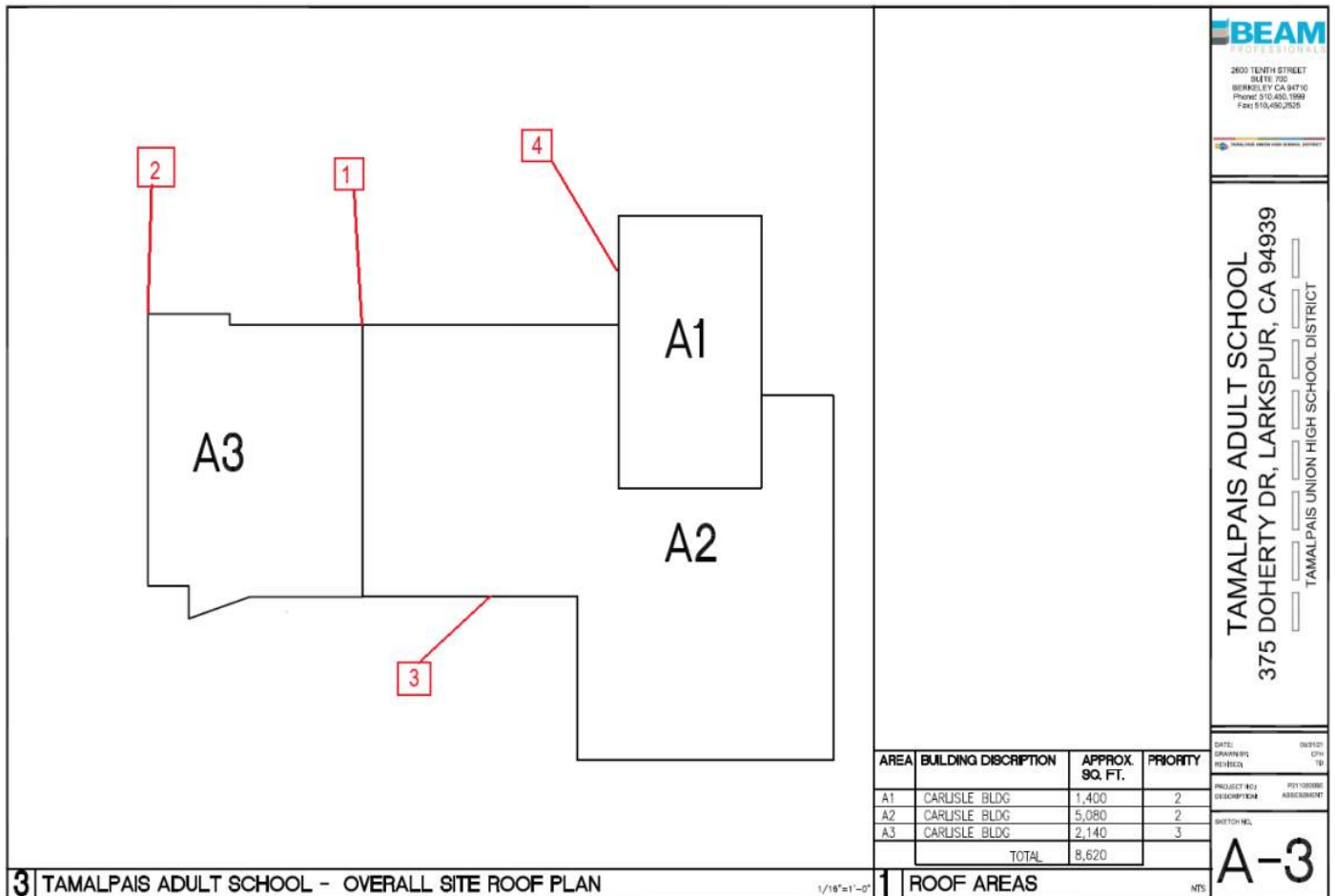
4 Penetration unsealed



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2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

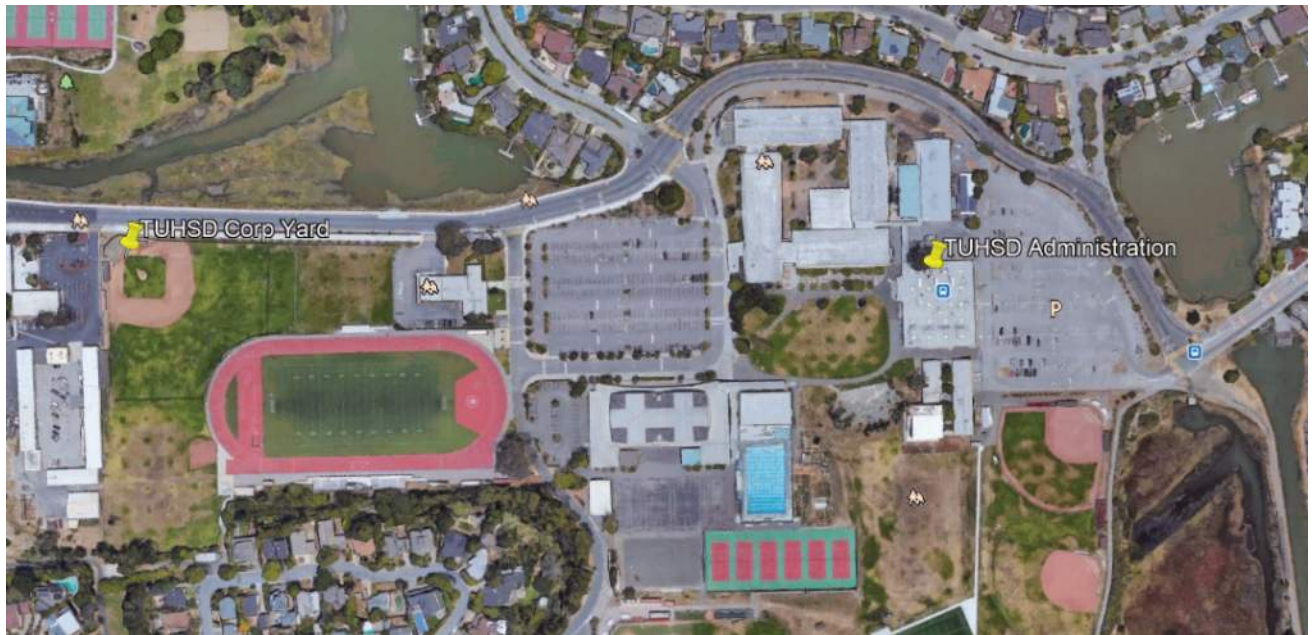
ALTERNATIVE HIGH SCHOOLS ASSESSMENT ROOF PLAN



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SUPPORT FACILITIES ASSESSMENT REPORTS



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ADMINISTRATION



Aerial Site Plan

**395 Doherty Drive
Larkspur, CA 94939**

ROOF AREA: 22,475

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SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD District Office

395 Doherty Drive
Larkspur, CA 94939

Principal:

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
A1	Modified Bitumen Granule	1	22,475	\$561,875.00	\$269,700.00
C1	Metal-Ribbed Standing Seam	1	1,344	\$20,160.00	\$16,128.00
D2	Metal-Ribbed Standing Seam	2	1,300	\$19,500.00	\$15,600.00
TOTALS:			25,119	\$601,535.00	\$301,428.00

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SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD District Office

OVERALL INSPECTION

Date	Inspection Type	Inspector
4/30/2021	District BE Assessment	David Renteria

General Observation:

The overall condition of this roof system is in poor condition. Premature aging is relating to many repairs being made. Lap seams are cracking and failing in field, curb flashings are failing as well as the parimeter edging for this site.

Drainage:

Drainage was very adequate throughout the site.

Field of Roof:

Flield of roof has many repairs at lap seams beginning to show signs of seperation and cracking.

Flashings:

The flashing are failing due to seperation and cracking, Exspansion joints are drying out and cracking as well as the las at equipment curbs.

Comments:

Reccomendation for this site is to replace the existing membrane throughout the site to help extend the useful life of the roof areas.

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SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD District Office

ROOF INSPECTION

Drawing Number	Comments
1	Multiple large repairs made to field membrane starting to separate causing possible water intrusion



- 2 Multiple lap repairs are separating and causing possible water intrusion



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SUPPORT FACILITIES ASSESSMENT ROOF PLAN

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SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD District Office

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
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- 1 Standing Seam walls are in good shape



- 2 Facia Board requires painting



SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD District Office

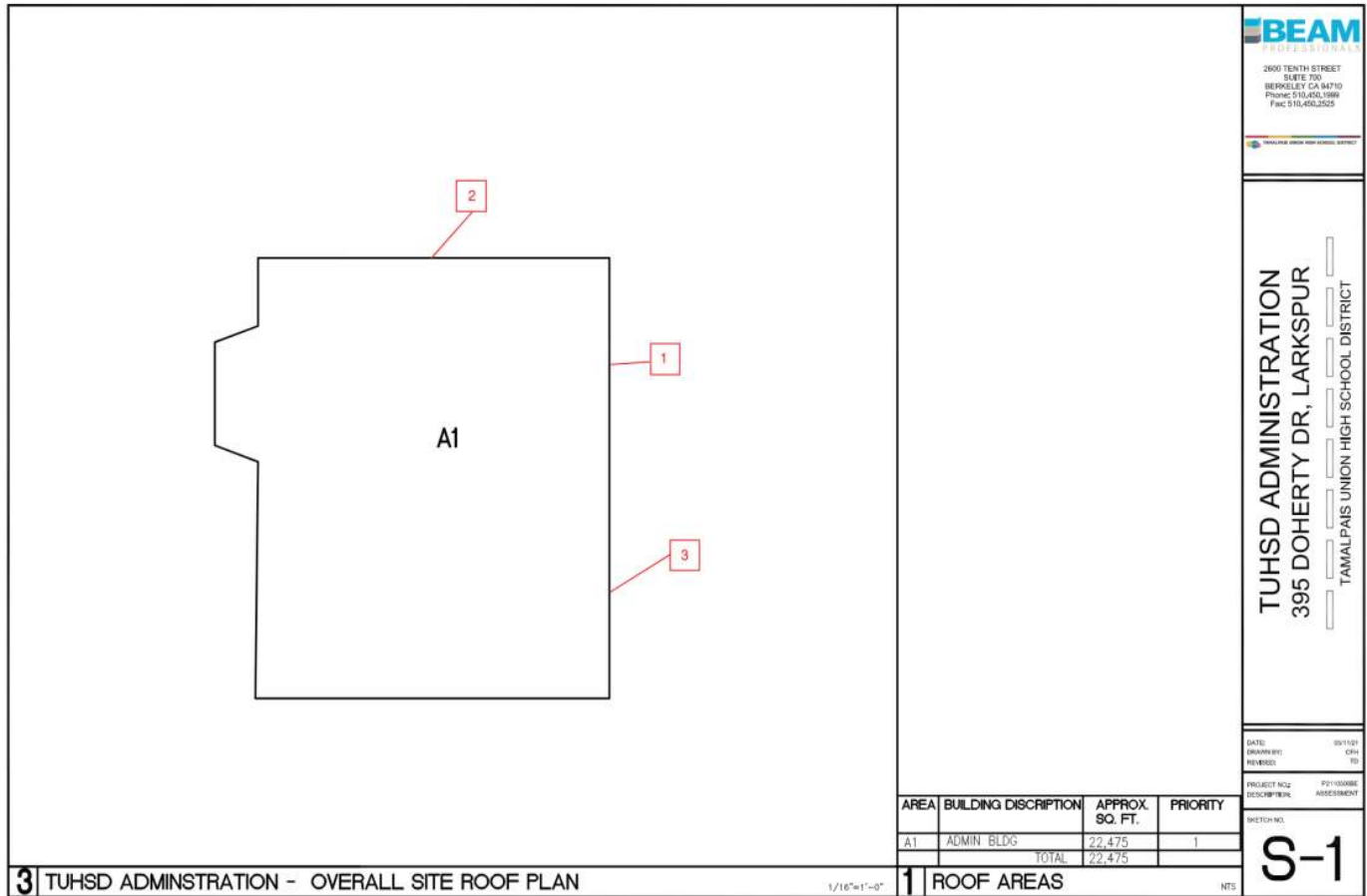
BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
3	Window frames are in good standing order



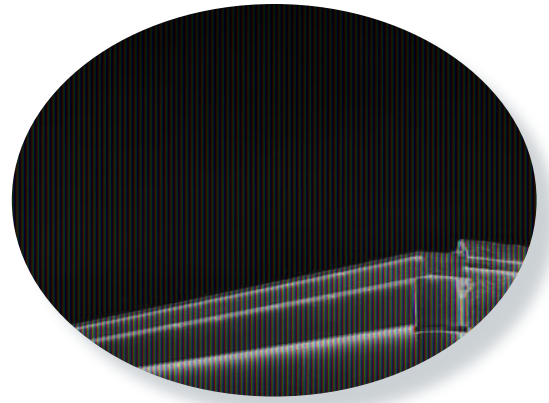
2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

SUPPORT FACILITIES ASSESSMENT ROOF PLAN



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CORPORATION YARD



Aerial Site Plan

**333 Doherty Drive
Larkspur, CA 94939**

ROOF AREA: 24,618

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SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD Corporation Yard

333 Doherty Drive
Larkspur, CA 94939

Principal:

ROOF OVERVIEW

Section	System Type	Priority	Sq. Ft.	Est. Replacement Cost	Est. Coating Cost
A1	Metal-Ribbed Standing Seam	3	6,528	\$97,920.00	\$78,336.00
A2	Metal-Ribbed Standing Seam	1	1,200	\$18,000.00	\$14,400.00
B1	Metal-Ribbed Standing Seam	3	3,060	\$45,900.00	\$36,720.00
B2	Modified Bitumen	3	8,052	\$201,300.00	\$96,624.00
D1	Metal-Ribbed Standing Seam	2	1,950	\$29,250.00	\$23,400.00
1A	Metal-Ribbed Standing Seam	3	144	\$2,160.00	\$1,728.00
1B	Metal-Ribbed Standing Seam	2	320	\$4,800.00	\$3,840.00
1C	Metal-Ribbed Standing Seam	2	340	\$5,100.00	\$4,080.00
TOTALS:			21,594	\$404,430.00	\$259,128.00

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SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD Corporation Yard

OVERALL INSPECTION

Date	Inspection Type	Inspector
4/30/2021	District BE Assessment	David Renteria

General Observation:

Overall condition of this site was in fair to good condition. Most of the roofing was stable and good shape however could use a good cleaning. The only roof that was poor on this site was Building A2 that received a Priority 1.

Drainage:

Drainage at low slope roofs are poor.

Field of Roof:

Field of roof is in fair condition on the low slope areas. The metal seamed roofs show signs of fasteners beginning to show signs of deterioration and backing out.

Flashings:

Flashings around HVAC ducting and curbs are showing signs of deterioration.

Comments:

Capitol Improvement to this site on roof system and building envelope system will help extend the useful life of the roof areas.

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SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD Corporation Yard

ROOF INSPECTION

Drawing Number	Comments
1	Multiple duct penetrations and pipe penetrations have repairs made to them are separating



SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD Corporation Yard

ROOF INSPECTION

Drawing Number	Comments
2	Multiple fasteners on corrugated metal roof appear to be backing out, neoprene washers are beginning to fail



- 3 Multiple areas have rust visible



SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD Corporation Yard

ROOF INSPECTION

Drawing Number	Comments
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4	Multiple repairs made to primeter edge are starting to fail
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SUPPORT FACILITIES ASSESSMENT ROOF PLAN

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SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD Corporation Yard

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
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1 Stucco cracking



SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD Corporation Yard

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
----------------	----------

2 Damage to stucco



SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD Corporation Yard

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
3	Unused penetrations in wall



SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD Corporation Yard

BUILDING ENVELOPE INSPECTION

Drawing Number	Comments
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4	Deteriorated caulking around window sills
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SUPPORT FACILITIES ASSESSMENT REPORTS

TUHSD Corporation Yard

BUILDING ENVELOPE INSPECTION

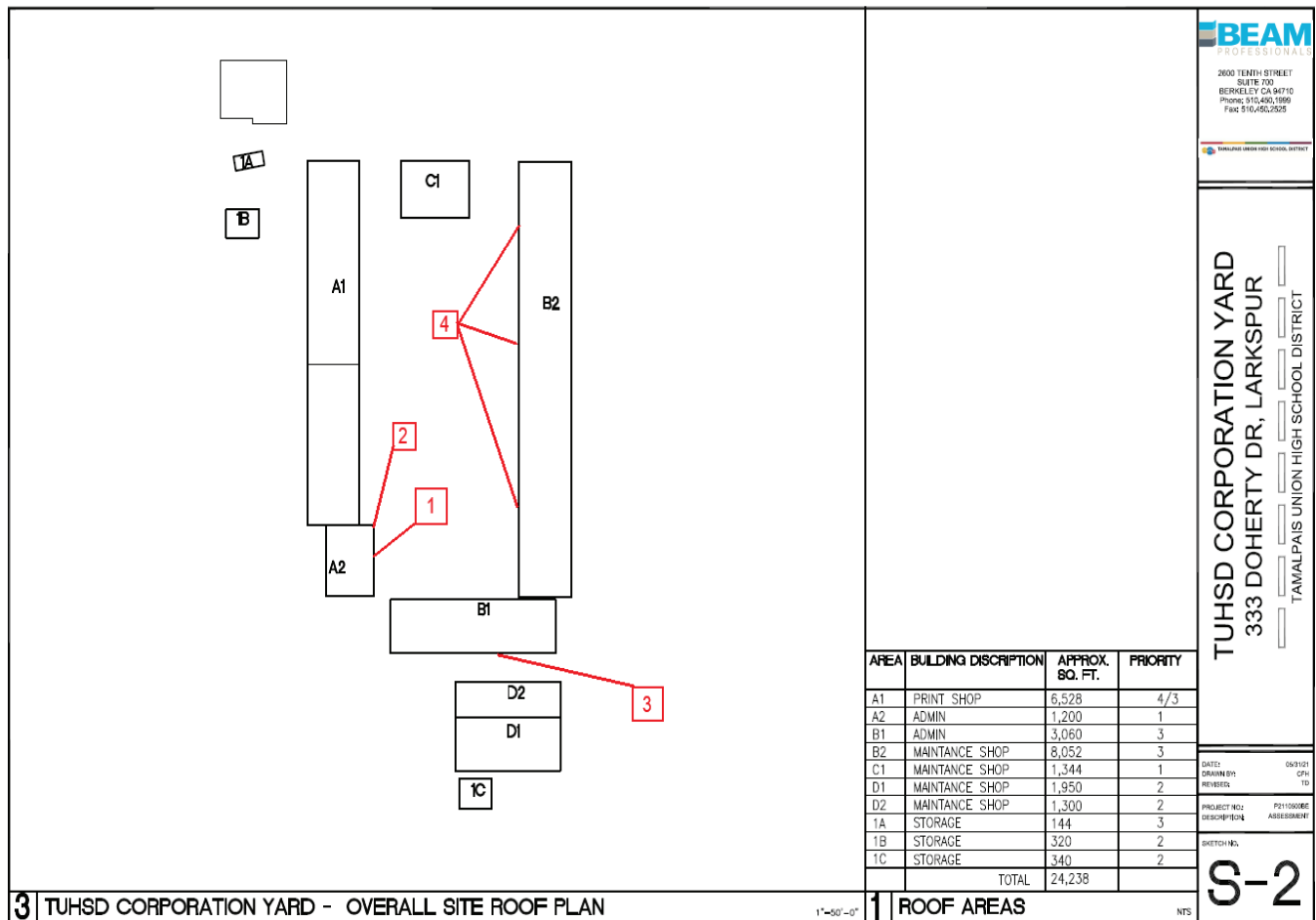
Drawing Number	Comments
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2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

SUPPORT FACILITIES ASSESSMENT ROOF PLAN



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DISTRICT WORK ORDERS

TAMALPAIS UNION HIGH

Work Order Detail Report

Selected Date Range for Request Dates: 6/30/2015 - 4/28/2021

Work Order ID 31699**Location** DISTRICT OFFICES

Request Information

Request Description During Tuesday's rainstorm, the Superintendent's Office has two wet spots on the carpet near the windows. It is not clear if the water is leaking from the ceiling or the windows. There is also water on the carpet near the west entrance to the District Office. See Mary for details.

Request By	Mary Oleary	Area Description	Office
Location	DISTRICT OFFICES	Area Number	461
Building			
Request Email	moleary@tamdistrict.org		
Emergency ?	No		
Submittal Date	1/11/2017		
Created On	1/11/2017		
Req. Completion	1/20/2017		
Deferred Until			
Created By	moleary@tamdistrict.org		
Craft	Roof		

CustomCategoryLabel

Budget/Code Assignment Information

Project Code		Number Of File	
Project Description		Attachment	0
Status	Complete		
Status Last Change	2/1/2017 3:21:38 PM		
Budget Code			
Budget Description			
Purpose Description	General Maintenance		
Priority Description	Medium		
Group			
Classification			
Type			
Equipment Item No			
Equipment Name			
Assignment To	AA PRICE, RUSTY		
Action Taken	sealed all noticeable cracks.		

Costs Information (Actual vs. Estimate)

Estimate Costs	\$0.00	Actual Costs	\$44.30
Estimate Hours	0	Actual Hours	1.5
Estimate Start Date	1/11/2017	Actual Completion Date	2/1/2017
Est. Completion Date		Total Costs	\$44.30

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2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

DISTRICT WORK ORDERS

School	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AVERAGE	TOTAL	PRIORITY
Archie Williams HS	1	7	1	1	9	1	4	4	7	16	18	19	3	1	6.571428571	92	1
Redwood HS	4	7	10	4	5	1	1	2	0	0	2	4	1	1	3	42	1
Tamalpais HS	3	5	6	1	7	1	2	3	2	3	2	1	4	1	2.928571429	41	3
San Andreas HS	0	0	3	0	0	0	0	1	0	1	0	0	0	0	0.357142857	5	2
Tamiscal HS	0	1	5	0	1	0	0	1	1	0	1	3	1	0	1	14	1
Tamalpais AS	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.071428571	1	2
TUHSD Administration	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0.214285714	3	1
TUHSD Corporation Yard	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.071428571	1	1
Total per Year	8	21	25	7	23	3	7	11	10	21	24	27	9	3			

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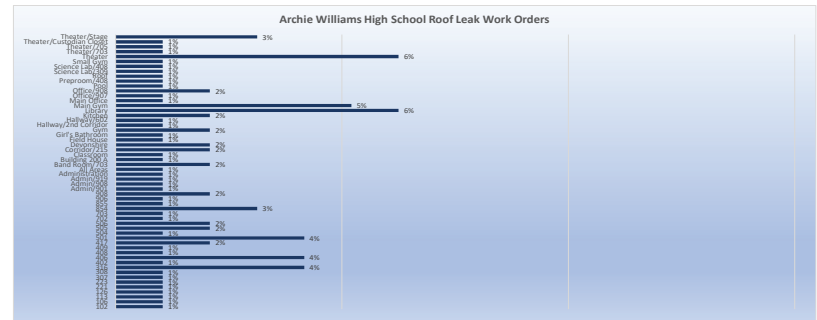
2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

DISTRICT WORK ORDERS

Archie Williams High School - Roof Leaks Work Orders

Item #	Campus	Area/Room	Description	Year
1	Archie Williams HS	308	Roof Leak	2019
2	Archie Williams HS	854	Roof Leak	2018
3	Archie Williams HS	Main Gym	Roof Leak	2018
4	Archie Williams HS	Theater/Custodian Closet	Roof Leak	2018
5	Archie Williams HS	501	Roof Leak	2018
6	Archie Williams HS	501	Roof Leak	2018
7	Archie Williams HS	316	Roof Leak	2018
8	Archie Williams HS	307	Roof Leak	2018
9	Archie Williams HS	854	Roof Leak	2018
10	Archie Williams HS	703	Roof Leak	2018
11	Archie Williams HS	501	Roof Leak	2018
12	Archie Williams HS	Theater	Roof Leak	2017
13	Archie Williams HS	408	Roof Leak	2018
14	Archie Williams HS	Theater/Stage	Roof Leak	2017
15	Archie Williams HS	Small Gym	Roof Leak	2017
16	Archie Williams HS	113	Roof Leak	2017
17	Archie Williams HS	Girls Bathroom	Roof Leak	2017
18	Archie Williams HS	Library	Roof Leak	2017
19	Archie Williams HS	Theater/Stage	Roof Leak	2017
20	Archie Williams HS	Science Lab/408	Roof Leak	2017
21	Archie Williams HS	Admin/908	Roof Leak	2017
22	Archie Williams HS	Theater/703	Roof Leak	2017
23	Archie Williams HS	417	Roof Leak	2017
24	Archie Williams HS	Library	Roof Leak	2017
25	Archie Williams HS	Main Gym	Roof Leak	2017
26	Archie Williams HS	Library	Roof Leak	2017
27	Archie Williams HS	Field House	Chunks of Roof Blew Off	2017
28	Archie Williams HS	Theater/705	Roof Leak	2017
29	Archie Williams HS	Band Room/703	Roof Leak	2017
30	Archie Williams HS	Hallway/902	Roof Leak	2016
31	Archie Williams HS	Corridor/215	Roof Leak	2015
32	Archie Williams HS	501	Roof Leak	2015
33	Archie Williams HS	221	Roof Leak	2015
34	Archie Williams HS	506	Roof Leak	2016
35	Archie Williams HS	Roof	Clean Gutters and Repair	2016
36	Archie Williams HS	102	Roof Leak	2016
37	Archie Williams HS	Office/908	Window Leak	2016
38	Archie Williams HS	Band Room/703	Roof Leak	2016
39	Archie Williams HS	Admin/919	Roof Leak	2019
40	Archie Williams HS	Main Gym	Roof Leak	2019
41	Archie Williams HS	Hallway/902	Roof Leak	2019
42	Archie Williams HS	Theater/Stage	Roof Leak	2019
43	Archie Williams HS	Main Gym	Roof Leak	2019
44	Archie Williams HS	Theater	Roof Leak	2020
45	Archie Williams HS	Library	Roof Leak	2019
46	Archie Williams HS	Band Room/703	Roof Leak	2016
47	Archie Williams HS	Administration	Roof Leak	2020
48	Archie Williams HS	Office/907	Roof Leak	2021
49	Archie Williams HS	Hallway/2nd Corridor	Roof Leak	2018
50	Archie Williams HS	Admin/901	Roof Leak	2018
51	Archie Williams HS	409	Roof Leak	2018
52	Archie Williams HS	855	Roof Leak	2018
53	Archie Williams HS	854	Roof Leak	2018
54	Archie Williams HS	408	Roof Leak	2018
55	Archie Williams HS	Science Lab/309	Roof Leak	2019
56	Archie Williams HS	Library	Roof Leak	2019
57	Archie Williams HS	PrepRoom/408	Roof Leak	2019
58	Archie Williams HS	505	Roof Leak	2019
59	Archie Williams HS	406	Roof Leak	2019
60	Archie Williams HS	223	Roof Leak	2019
61	Archie Williams HS	Theater	Roof Leak	2019
62	Archie Williams HS	316	Roof Leak	2019
63	Archie Williams HS	Theater	Roof Leak	2019
64	Archie Williams HS	Theater	Roof Leak	2019
65	Archie Williams HS	Main Gym	Roof Leak	2019
66	Archie Williams HS	406	Roof Leak	2019
67	Archie Williams HS	Corridor/215	Roof Leak	2014
68	Archie Williams HS	Building 200 A	Roof Leak	2014
69	Archie Williams HS	316	Roof Leak	2012
70	Archie Williams HS	Devonshire	Fallen Gutter	2014
71	Archie Williams HS	908	Roof Leak	2014
72	Archie Williams HS	Theater	Roof Leak	2011
73	Archie Williams HS	Kitchen	Roof Leak	2012
74	Archie Williams HS	Gym	Roof Leak	2010
75	Archie Williams HS	Classroom	Roof Leak	2009
76	Archie Williams HS	Office/908	Roof Leak	2009
77	Archie Williams HS	908	Roof Leak	2009
78	Archie Williams HS	906	Roof Leak	2009
79	Archie Williams HS	Main Office	Roof Leak	2008
80	Archie Williams HS	402	Roof Leak	2009
81	Archie Williams HS	Devonshire	Clean Gutters	2009
82	Archie Williams HS	106	Roof Leak	2009
83	Archie Williams HS	504	Roof Leak	2012
84	Archie Williams HS	505	Roof Leak	2012
85	Archie Williams HS	417	Roof Leak	2012
86	Archie Williams HS	Library	Roof Leak	2012
87	Archie Williams HS	Pool	Window Leak	2012
88	Archie Williams HS	506	Window Leak	2012
89	Archie Williams HS	Kitchen	Roof Leak	2012
90	Archie Williams HS	Gym	Roof Leak	2013
91	Archie Williams HS	102	Roof Leak	2016
92	Archie Williams HS	316	Roof Leak	2016
93	Archie Williams HS	All Areas	Inspect Roof	2015

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	%
102	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1%
108	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1%
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
126	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1%
221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
223	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1%
307	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1%
308	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1%
316	0	0	0	0	1	0	0	0	1	0	1	1	0	0	4	4%
402	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1%
406	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4	4%
408	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1%
409	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1%
417	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2	2%
501	0	0	0	0	0	0	0	1	0	0	3	0	0	0	4	4%
504	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1%
505	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	2%
506	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	2%
703	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1%
854	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3%
855	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1%
906	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1%
908	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	2%
Admin/901	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1%
Admin/906	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1%
Admin/919	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1%
Administration	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1%
All Areas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
Band Room/703	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1%
Building 200 A	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1%
Classroom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
Corridor/215	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2%
Devonshire	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	2%
Field House	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
Girl's Bathroom	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1%
Gym	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
Hallway/2nd Corridor	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1%
Hallway/602	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1%
Kitchen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
Library	0	0	0	0	0	0	0	0	0	3	0	2	0	0	5	5%
Main Gym	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1%
Main Office	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1%
Office/907	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1%
Office/909	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1%
Pool	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1%
PrepRoom/408	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1%
Roof	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1%
Science Lab/309	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
Science Lab/408	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1%
Small Gym	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
Theater	0	0	0	1	0	0	0	0	0	1	0	3	1	0	6	6%
Theater/703	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
Theater/705	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1%
Theater/Custodian Closet	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1%
Theater/Stage	1	7	1	1	9	1	2	4	7	17	18	19	3	1	86	86%





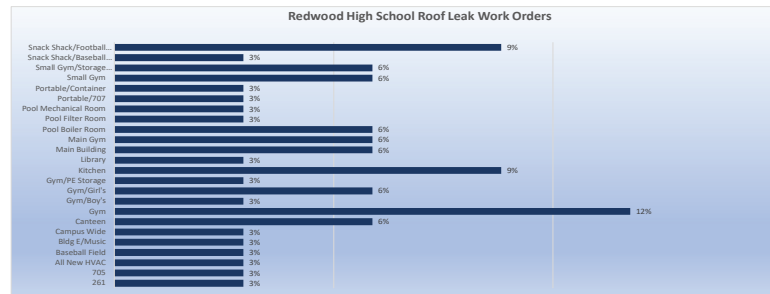
2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

DISTRICT WORK ORDERS

Redwood High School - Roof Leaks Work Orders

Item#	Campus	Area/Room	Description	Year
12	Redwood HS	215	Roof Leak	2011
26	Redwood HS	237	Roof Leak	2009
30	Redwood HS	251	Roof Leak	2010
33	Redwood HS	253	Roof Leak	2010
13	Redwood HS	261	Roof Leak	2011
8	Redwood HS	705	Roof Leak	2019
35	Redwood HS	All New HVAC	Roof Leak	2021
6	Redwood HS	Baseball Field	Repair Metal Roofing	2018
10	Redwood HS	Bldg E/Music	Roof Leak	2014
40	Redwood HS	Campus Wide	Roof Leak	2012
21	Redwood HS	Canteen	Roof Leak	2010
25	Redwood HS	Canteen	Roof Leak	2009
20	Redwood HS	Gym	Roof Leak	2008
22	Redwood HS	Gym	Roof Leak	2009
29	Redwood HS	Gym	Roof Leak	2008
42	Redwood HS	Gym	Roof Leak	2011
16	Redwood HS	Gym/Boy's	Roof Leak	2010
15	Redwood HS	Gym/Girl's	Roof Leak	2010
28	Redwood HS	Gym/Girl's	Roof Leak	2008
19	Redwood HS	Gym/PE Storage	Roof Leak	2009
4	Redwood HS	Kitchen	Roof Leak	2019
32	Redwood HS	Kitchen	Roof Leak	2010
39	Redwood HS	Kitchen	Roof Leak	2012
14	Redwood HS	Library	Roof Leak	2010
2	Redwood HS	Main Building	Missing Screws on Roof	2015
27	Redwood HS	Main Building	Roof Leak	2008
1	Redwood HS	Main Gym	Roof Leak	2015
5	Redwood HS	Main Gym	Repair Roof Shingles	2019
17	Redwood HS	Pool Boiler Room	Roof Leak	2010
31	Redwood HS	Pool Filter Room	Roof Leak	2010
34	Redwood HS	Pool Filter Room	Roof Leak	2010
18	Redwood HS	Pool Mechanical Room	Roof Leak	2009
7	Redwood HS	Portable/707	Roof Leak	2019
11	Redwood HS	Portable/Container	Roof Leak	2011
36	Redwood HS	Small Gym	Roof Leak	2012
41	Redwood HS	Small Gym	Roof Repair/Maint	2012
37	Redwood HS	Small Gym/Storage Closet	Roof Leak	2013
38	Redwood HS	Small Gym/Storage Closet	Roof Leak	2012
9	Redwood HS	Snack Shack/Baseball Field	Missing Shingles	2018
3	Redwood HS	Snack Shack/Football Field	Roof Leak	2020
23	Redwood HS	Snack Shack/Football Field	Roof Leak	2009
24	Redwood HS	Snack Shack/Football Field	Roof Repair/Hole	2009

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	%
216	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	3%
237	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3%
261	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3%
263	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3%
261	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	3%
786	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3%
All New HVAC	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3%
Baseball Field	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3%
Bldg E/Music	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	3%
Campus Wide	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3%
Canteen	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	6%
Gym	2	1	0	1	0	0	0	0	0	0	0	0	0	0	4	12%
Gym/Boy's	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3%
Gym/Girl's	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	6%
Gym/PE Storage	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3%
Kitchen	0	0	1	0	1	0	0	0	0	0	0	1	0	0	3	9%
Library	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3%
Main Building	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2	6%
Main Gym	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	6%
Pool Boiler Room	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	6%
Pool Filter Room	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3%
Pool Mechanical Room	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3%
Portable/707	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3%
Portable/Container	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	3%
Small Gym	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	6%
Small Gym/Storage Closet	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	6%
Snack Shack/Baseball Field	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3%
Snack Shack/Football Field	0	2	0	0	0	0	0	0	0	0	0	0	1	0	3	9%
	4	5	10	4	2	0	1	2	0	0	1	1	1	1	34	





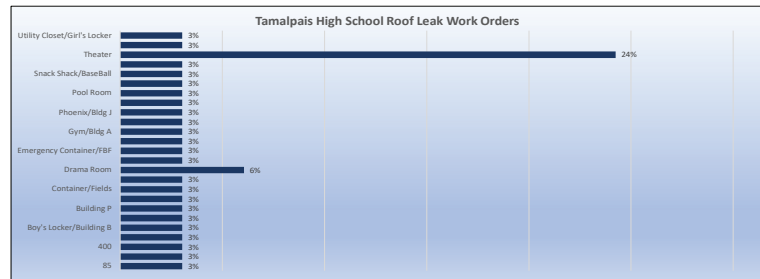
2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

DISTRICT WORK ORDERS

Tamalpais High School - Roof Leaks Work Orders

Item#	Campus	Area/Room	Description	Year
1	Tamalpais HS	Theater	Roof Leak	2017
2	Tamalpais HS	Student Center/Building P	Roof Leak	2017
3	Tamalpais HS	Utility Closet/Girl's Locker	Roof Leak	2015
4	Tamalpais HS	Theater	Roof Leak	2015
5	Tamalpais HS	Theater	Roof Leak	2016
6	Tamalpais HS	Theater	Broken Drain Grate	2016
7	Tamalpais HS	Portable 2	Roof Leak	2018
8	Tamalpais HS	Photography Classroom	Roof Leak	2017
9	Tamalpais HS	Theater	Roof Leak	2018
10	Tamalpais HS	Gym/Building A	Roof Leak	2019
11	Tamalpais HS	Building Q	Missing Shingles	2020
12	Tamalpais HS	Building H	Hole on Roof	2020
13	Tamalpais HS	Emergency Container/Baseball Field	Roof Leak	2020
14	Tamalpais HS	Emergency Container/Football Field	Roof Leak	2020
15	Tamalpais HS	Pool Room	Roof Leak	2021
16	Tamalpais HS	400	Roof Leak	2009
17	Tamalpais HS	155	Roof Leak	2010
18	Tamalpais HS	Container/Fields	Roof Leak	2008
19	Tamalpais HS	400	Roof Leak	2008
20	Tamalpais HS	Theater	Roof Leak	2009
21	Tamalpais HS	Building P	Roof Leak	2010
22	Tamalpais HS	Container/Football Field	Roof Leak	2010
23	Tamalpais HS	Pool Room	Roof Leak	2010
24	Tamalpais HS	Upper Keyser/Building G	Roof Down Spouts	2010
25	Tamalpais HS	Boy's Locker/Building B	Roof Leak	2012
26	Tamalpais HS	Kitchen	Roof Leak	2012
27	Tamalpais HS	85	Roof Leak	2012
28	Tamalpais HS	155	Roof Leak	2012
29	Tamalpais HS	Theater	Roof Leak	2013
30	Tamalpais HS	Drama Room	Roof Leak	2012
31	Tamalpais HS	Theater	Roof Leak	2014
32	Tamalpais HS	Phoenix/Building J	Roof Leak	2014
33	Tamalpais HS	Theater	Roof Leak	2015
34	Tamalpais HS	Girl's Locker/Building C	Roof Leak	2012
35	Tamalpais HS	Drama Room	Roof Leak	2012
36	Tamalpais HS	Pool Room	Roof Leak	2010
37	Tamalpais HS	Phoenix/Building J	Roof Leak	2011
38	Tamalpais HS	Phoenix/Building J	Roof Leak	2008
39	Tamalpais HS	Snack Shack/Baseball Field	Roof Leak	2009
40	Tamalpais HS	400	Roof Leak	2009
41	Tamalpais HS	402	Roof Leak	2009

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	%
85	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3%
155	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3%
400	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3%
402	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3%
Boy's Locker/Building B	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3%
Building H	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3%
Building P	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3%
Building Q	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3%
Container/Fields	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3%
Container/Football Field	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3%
Drama Room	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	6%
Emergency Container/BFB	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3%
Emergency Container/FBF	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3%
Girl's Locker/Building C	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3%
Gym/Build A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3%
Kitchen	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	3%
Phoenix/Build J	1	0	0	1	0	0	1	0	0	0	0	0	0	0	1	3%
Photography Classroom	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3%
Pool Room	0	0	2	0	0	0	0	0	0	0	0	0	0	1	1	3%
Portable 2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3%
Snack Shack/Baseball	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3%
Student Center/Build P	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3%
Theater	0	1	0	0	0	1	1	2	2	1	1	0	0	0	8	24%
Upper Keyser/Building G	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3%
Utility Closet/Girl's Locker	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	3%
	2	4	6	1	6	1	2	3	2	3	2	1	4	1	33	



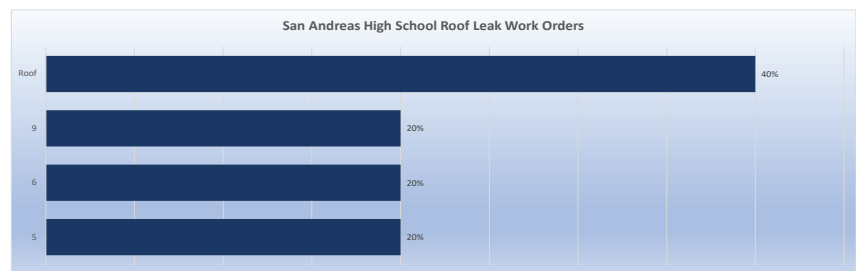
2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

DISTRICT WORK ORDERS

San Andreas High School - Roof Leaks Work Orders

Item#	Campus	Area/Room	Description	Year
1	San Andreas HS	Roof	Clean Gutters	2015
2	San Andreas HS	9	Roof Leak	2017
3	San Andreas HS	Roof	Repair Hole	2010
4	San Andreas HS	5	Blocked Gutters	2010
5	San Andreas HS	6	Blocked Gutters	2010

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	%
5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	20%
6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	20%
9	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	20%
Roof	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	40%
	0	0	3	0	0	0	0	1	0	1	0	0	0	0	5	





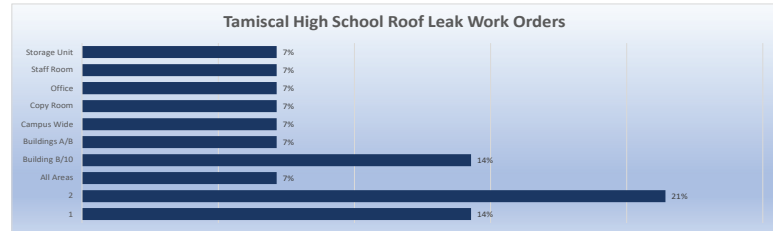
2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

DISTRICT WORK ORDERS

Tamiscal High School - Roof Leaks Work Orders

Item#	Campus	Area/Room	Description	Year
1	Tamiscal HS	Building B/10	Loose Shingles	2020
2	Tamiscal HS	Building B/10	Loose Shingles	2019
3	Tamiscal HS	2	Window Leak	2018
4	Tamiscal HS	Buildings A/B	Clean Gutters	2016
5	Tamiscal HS	Campus Wide	Inspect Roofs/Gutters	2015
6	Tamiscal HS	2	Roof Leak	2019
7	Tamiscal HS	Storage Unit	Roof Leak	2019
8	Tamiscal HS	2	Roof Leak	2010
9	Tamiscal HS	1	Roof Leak	2010
10	Tamiscal HS	1	Roof Leak	2010
11	Tamiscal HS	Staff Room	Roof Leak	2009
12	Tamiscal HS	Office	Roof Leak	2010
13	Tamiscal HS	Copy Room	Roof Leak	2010
14	Tamiscal HS	All Areas	Inspect/Repair Roofs	2012

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	%
1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	14%
2	0	0	1	0	0	0	0	0	0	0	1	1	0	0	3	21%
All Areas	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	7%
Building B/10	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	14%
Buildings A/B	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	7%
Campus Wide	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	7%
Copy Room	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	7%
Office	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	7%
Staff Room	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	7%
Storage Unit	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7%
	0	1	5	0	1	0	0	1	1	0	1	2	1	0	14	7%



2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

DISTRICT WORK ORDERS

Tamalpais Adult School - Roof Leaks Work Orders

Item #	Campus	Area/Room	Description	Year
1	Tamalpais Adult School	Conference Room A	Roof Leak	2012

Conference Room A

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	%
0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	100%



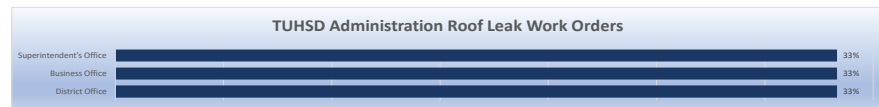
2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

DISTRICT WORK ORDERS

TUHSD Administration - Roof Leaks Work Orders

Item #	Campus	Area/Room	Description	Year
1	TUHSD Admin	District Office	Roof Leak	2017
2	TUHSD Admin	Business Office	Roof Leak	2018
3	TUHSD Admin	Superintendent's Office	Roof Leak	2011

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	%
District Office	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	33%
Business Office	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	33%
Superintendent's Office	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	33%
	0	0	0	1	0	0	0	0	0	1	1	0	0	0	2	



2021 DISTRICT WIDE BUILDING ENVELOPE ASSESSMENT

DISTRICT WORK ORDERS

TUHSD Corporation Yard - Roof Leaks Work Orders

Item#	Campus	Area/Room	Description	Year
1	TUHSD Corp Yard	Admin	Roof Leak	2009

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	%
Admin	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	100%
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	

TUHSD Corporation Yard Roof Leak Work Orders																
Admin																

