BP2021-0883

HD

LAUGHLIN and SPENCE
CIVIL ENGINEERS & SURVEYORS

1008 Live Oak Boulevard
Yuba City, California 95991

(530) 671 1008
fax (530) 671 0822

Post-construction
Elevation Certificate
For
Les Lyman (Grow West)
ADA Restoom (elevated)
39290 County Road 16
Woodland, CA 95695
APN: 056-250-013

Sheet Index

Yolo County Bldg. Permit #BP21-0883
L&S Job Number 216088

Preconstruction EC submitted 9/20/21 rev. 10-19-21
Form Board EC submitted _/_/__
Final EC submitted 08-10-2023
revised 9-14-2023

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB Control No. 1660-0008
Expiration Date: 06/30/2026

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

A1. Building Owner's Name: LES LYMAN

Policy Number:

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: 39290 County Road 16

Company NAIC Number:

City: Woodland State: CA ZIP Code: 95695

A3. Property Description (e.g., Lot and Block Numbers or Legal Description) and/or Tax Parcel Number: Yolo County APN: 056-250-013

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.): Non residential accessory elevated ADA Restroom

A5. Latitude/Longitude: Lat. 38°45'02.0" N Long. 121°46'46.5"W Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983 ☐ WGS 84

A6. Attach at least two and when possible four clear photographs (one for each side) of the building (see Form pages 7 and 8).

A7. Building Diagram Number: 1A

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s): N/A sq. ft.

b) Is there at least one permanent flood opening on two different sides of each enclosed area? ☐ Yes ☐ No ☒ N/A

c) Enter number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade: Non-engineered flood openings: N/A Engineered flood openings: N/A

d) Total net open area of non-engineered flood openings in A8.c: N/A sq. in.

e) Total rated area of engineered flood openings in A8.c (attach documentation – see Instructions): N/A sq. ft.

f) Sum of A8.d and A8.e rated area (if applicable – see Instructions): N/A sq. ft.

A9. For a building with an attached garage:

a) Square footage of attached garage: N/A sq. ft.

b) Is there at least one permanent flood opening on two different sides of the attached garage? ☐ Yes ☐ No ☒ N/A

c) Enter number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade: Non-engineered flood openings: N/A Engineered flood openings: N/A

d) Total net open area of non-engineered flood openings in A9.c: N/A sq. in.

e) Total rated area of engineered flood openings in A9.c (attach documentation – see Instructions): N/A sq. ft.

f) Sum of A9.d and A9.e rated area (if applicable – see Instructions): N/A sq. ft.

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1.a. NFIP Community Name: Yolo County B1.b. NFIP Community Identification Number: 060423

B2. County Name: Yolo B3. State: CA B4. Map/Panel No.: 06113C/0300 B5. Suffix: G

B6. FIRM Index Date: 5-16-2012 B7. FIRM Panel Effective/Revised Date: 6-18-2010

B8. Flood Zone(s): A B9. Base Flood Elevation(s) (BFE) (Zone AO, use Base Flood Depth): 51.5'

B10. Indicate the source of the BFE data or Base Flood Depth entered in Item B9:
☐ FIS ☐ FIRM ☒ Community Determined ☐ Other: WOOD RODGERS FLOOD STUDY (2012)

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source: N/A

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date: N/A ☐ CBRS ☐ OPA

B13. Is the building located seaward of the Limit of Moderate Wave Action (LiMWA)? ☐ Yes ☒ No

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: **39290 County Road 16**

City: **Woodland** State: **CA** ZIP Code: **95695**

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, AO, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, A99. Complete Items C2.a–h below according to the Building Diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: **NGS OPUS** Vertical Datum: **NAVD 1988**

Indicate elevation datum used for the elevations in items a) through h) below.
☐ NGVD 1929 ☒ NAVD 1988 ☐ Other:

Datum used for building elevations must be the same as that used for the BFE. Conversion factor used? ☒ Yes ☐ No
If Yes, describe the source of the conversion factor in the Section D Comments area.

		Check the measurement used:
a) Top of bottom floor (including basement, crawlspace, or enclosure floor):	**52.50**	☒ feet ☐ meters
b) Top of the next higher floor (see Instructions):	**N/A**	☒ feet ☐ meters
c) Bottom of the lowest horizontal structural member (see Instructions):	**N/A**	☒ feet ☐ meters
d) Attached garage (top of slab):	**N/A**	☒ feet ☐ meters
e) Lowest elevation of Machinery and Equipment (M&E) servicing the building (describe type of M&E and location in Section D Comments area):	**52.5**	☒ feet ☐ meters
f) Lowest Adjacent Grade (LAG) next to building: ☐ Natural ☒ Finished	**51.46**	☒ feet ☐ meters
g) Highest Adjacent Grade (HAG) next to building: ☐ Natural ☒ Finished	**52.50**	☒ feet ☐ meters
h) Finished LAG at lowest elevation of attached deck or stairs, including structural support:	**N/A**	☒ feet ☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by state law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No

☒ Check here if attachments and describe in the Comments area. **JOB #: 216105**

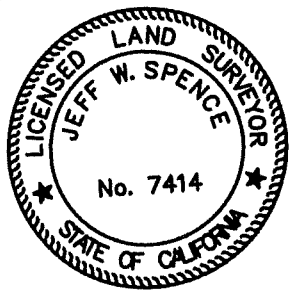
Certifier's Name: **Jeff W. Spence** License Number: **LS7414**

Title: **Land Surveyor**

Company Name: **Laughlin and Spence**

Address: **1008 Live Oak Blvd**

City: **Yuba City** State: **CA** ZIP Code: **95991**



Signature: Date: **8-10-2023**

Telephone: **530-671-1008** Ext.: Email: **jeff@laughlinspence.com**

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including source of conversion factor in C2; type of equipment and location per C2.e; and description of any attachments):

Item C2.e - being the building floor supporting the mechanical unit, lights and receptacles.
See page 9 for additional notes.

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: **39290 County Road 16**

City: **Woodland** State: **CA** ZIP Code: **95695**

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

SECTION E – BUILDING MEASUREMENT INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO, ZONE AR/AO, AND ZONE A (WITHOUT BFE)

NOT REQUIRED

For Zones AO, AR/AO, and A (without BFE), complete Items E1–E5. For Items E1–E4, use natural grade, if available. If the Certificate is intended to support a Letter of Map Change request, complete Sections A, B, and C. Check the measurement used. In Puerto Rico only, enter meters.

Building measurements are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

E1. Provide measurements (C.2.a in applicable Building Diagram) for the following and check the appropriate boxes to show whether the measurement is above or below the natural HAG and the LAG.

a) Top of bottom floor (including basement, crawlspace, or enclosure) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (C2.b in applicable Building Diagram) of the building is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without BFE) or Zone AO must sign here. *The statements in Sections A, B, and E are correct to the best of my knowledge*

☐ Check here if attachments and describe in the Comments area.

Property Owner or Owner's Authorized Representative Name:

Address:

City: State: ZIP Code:

Signature: Date:

Telephone: Ext.: Email:

Comments:

See Attached

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: **39290 County Road 16**

City: **Woodland** State: **CA** ZIP Code: **95695**

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

SECTION G – COMMUNITY INFORMATION (RECOMMENDED FOR COMMUNITY OFFICIAL COMPLETION)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Section A, B, C, E, G, or H of this Elevation Certificate. Complete the applicable item(s) and sign below when:

G1. ☑ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by state law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2.a. ☐ A local official completed Section E for a building located in Zone A (without a BFE), Zone AO, or Zone AR/AO, or when item E5 is completed for a building located in Zone AO.

G2.b. ☐ A local official completed Section H for insurance purposes.

G3. ☐ In the Comments area of Section G, the local official describes specific corrections to the information in Sections A, B, E and H.

G4. ☐ The following information (Items G5–G11) is provided for community floodplain management purposes.

G5. Permit Number: BP2021-0883 G6. Date Permit Issued: 04/01/2022

G7. Date Certificate of Compliance/Occupancy Issued: 11/22/23

G8. This permit has been issued for: ☒ New Construction ☐ Substantial Improvement

G9.a. Elevation of as-built lowest floor (including basement) of the building: 52.5 ☑ feet ☐ meters Datum: NAVD1988

G9.b. Elevation of bottom of as-built lowest horizontal structural member: N/A ☐ feet ☐ meters Datum:

G10.a. BFE (or depth in Zone AO) of flooding at the building site: 51.5 ☑ feet ☐ meters Datum: NAVD1988

G10.b. Community's minimum elevation (or depth in Zone AO) requirement for the lowest floor or lowest horizontal structural member: 52.5 ☑ feet ☐ meters Datum: NAVD1988

G11. Variance issued? ☐ Yes ☑ No If yes, attach documentation and describe in the Comments area.

The local official who provides information in Section G must sign here. I have completed the information in Section G and certify that it is correct to the best of my knowledge. If applicable, I have also provided specific corrections in the Comments area of this section.

Local Official's Name: Title:

NFIP Community Name:

Telephone: Ext.: Email:

Address: State: ZIP Code:

City:

Signature: Date: 9-20-23

Comments (including type of equipment and location, per C2.e; description of any attachments; and corrections to specific information in Sections A, B, D, E, or H):

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: **39290 County Road 16**

City: **Woodland** State: **CA** ZIP Code: **95695**

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION H – BUILDING'S FIRST FLOOR HEIGHT INFORMATION FOR ALL ZONES (SURVEY NOT REQUIRED) (FOR INSURANCE PURPOSES ONLY)

NOT REQUIRED

The property owner, owner's authorized representative, or local floodplain management official may complete Section H for all flood zones to determine the building's first floor height for insurance purposes. Sections A, B, and I must also be completed. Enter heights to the nearest tenth of a foot (nearest tenth of a meter in Puerto Rico). Reference the Foundation Type Diagrams (at the end of Section H Instructions) ***and the appropriate Building Diagrams (at the end of Section I Instructions) to complete this section.***

H1. Provide the height of the top of the floor (as indicated in Foundation Type Diagrams) above the Lowest Adjacent Grade (LAG):

a) For Building Diagrams 1A, 1B, 3, and 5–9. Top of bottom floor (include above-grade floors only for buildings with subgrade crawlspaces or enclosure floors) is: _____ ☐ feet ☐ meters ☐ above the LAG

b) For Building Diagrams 2A, 2B, 4, and 6–9. Top of next higher floor (i.e., the floor above basement, crawlspace, or enclosure floor) is: _____ ☐ feet ☐ meters ☐ above the LAG

H2. Is all Machinery and Equipment servicing the building (as listed in Item H2 instructions) elevated to or above the floor indicated by the H2 arrow (shown in the Foundation Type Diagrams at end of Section H instructions) for the appropriate Building Diagram?

☐ Yes ☐ No

SECTION I – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and H must sign here. The statements in Sections *A, B, and H are correct to the best of my knowledge. Note: If the local floodplain management official completed Section H, they should* indicate in Item G2.b and sign Section G.

☒ Check here if attachments are provided (including required photos) and describe each attachment in the Comments area.

Property Owner or Owner's Authorized Representative Name: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Signature: _____ Date: _____

Telephone: _____ Ext.: _____ Email: _____

Comments: _____

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:
39290 County Road 16

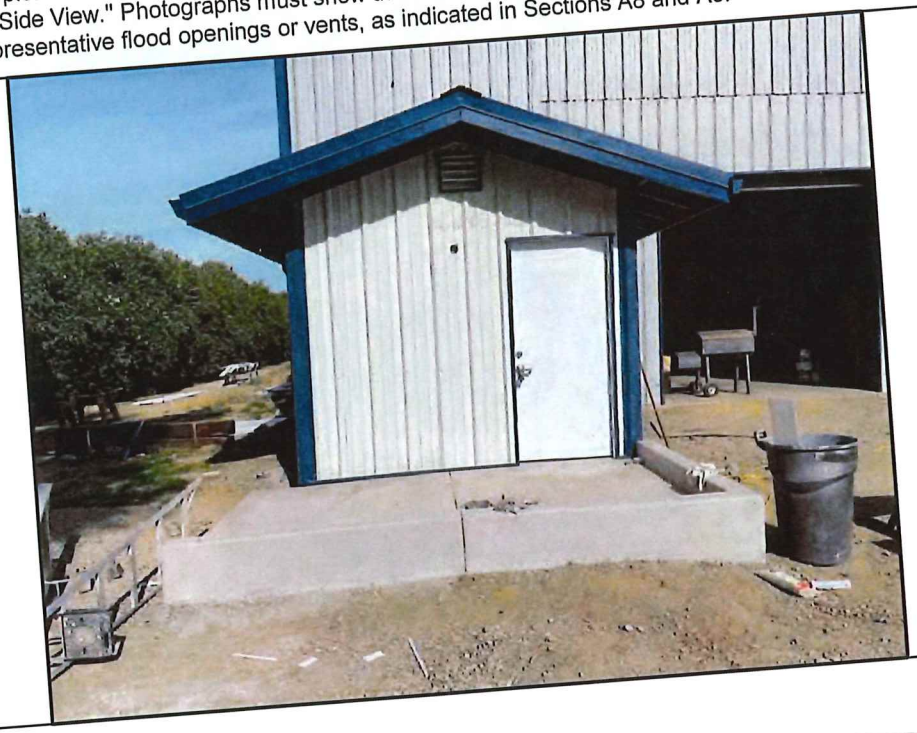
City: **Woodland** State: **CA** ZIP Code: **95695**

FOR INSURANCE COMPANY USE

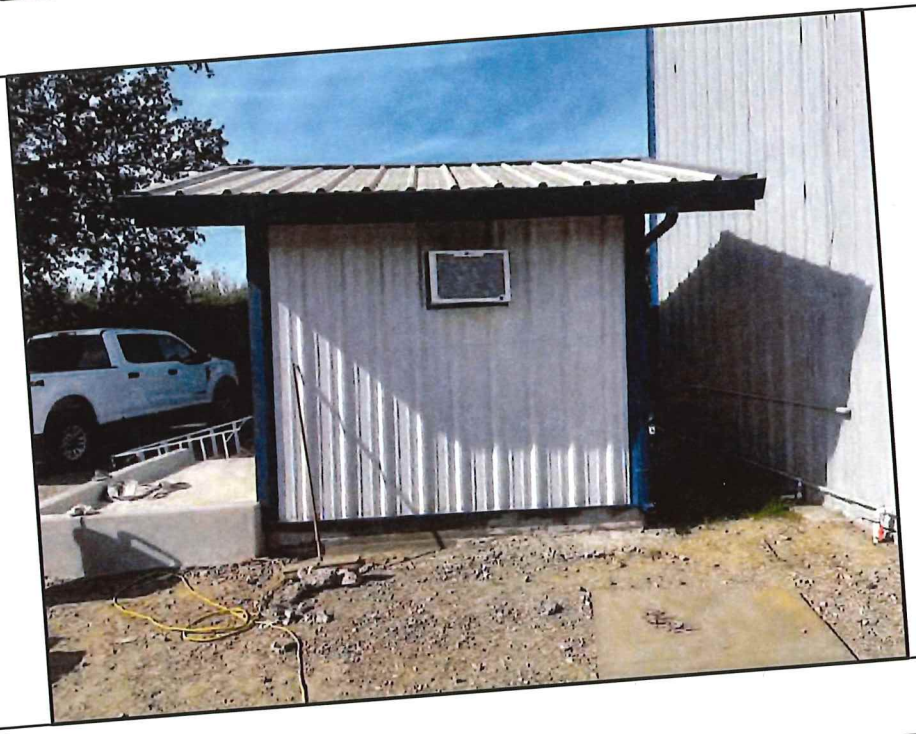
Policy Number: _____

Company NAIC Number: _____

Instructions: Insert below at least two and when possible four photographs showing each side of the building (for example, may only be able to take front and back pictures of townhouses/rowhouses). Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." Photographs must show the foundation. When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.



SOUTH ELEVATION



EAST ELEVATION

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON PAGES 9-19

BUILDING PHOTOGRAPHS

Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:
39290 County Road 16

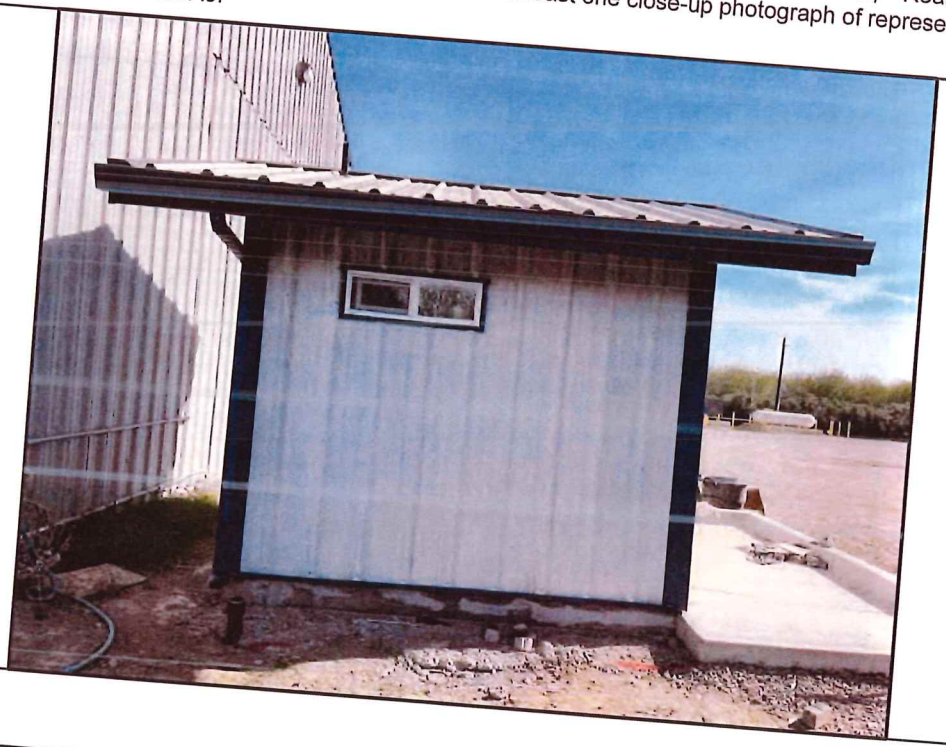
City: **Woodland** State: **CA** ZIP Code: **95695**

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

Insert the third and fourth photographs below. Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.



WEST ELEVATION

to Four Caption:

FEMA Elevation Certificate Supplemental Information

For Les Lyman (Grow West)
39290 County Road 16
Woodland, CA 95695
POST-CONSTRUCTION

1. This elevation certificate is for a 100 sq.ft. ADA compliant restroom. The proposed finished floor of the building is 52.60 feet being above the DFE.

2. All elevations referred to in these comments refer to the NAVD88 datum.

3. An existing NGS Benchmark "AI5056" with an elevation of 41.6 feet was established in 1999. In 2012, Wood Rodgers Flood Safe Yolo map was published, establishing a BFE for this site at 52.0'. According to the California Department of Water Resources, from 1999 to 2012, the ground subsidence for this site was approximately -0.6 feet. In 2021, using NGS OPUS system, a control point was set on site with an elevation of 50.82' and the NGS benchmark "AI5056" was also shot at the same time and an elevation of 40.52' was determined. This is a difference in elevation of approximately -1.1 feet from when the benchmark was established in 1999. Being that the ground had subsided -0.6 feet from 1999 to 2012, then another -0.5 feet from 2012 to 2021 (being the current year), the BFE would decrease with the ground elevation, making the BFE = 51.5'.

4. The design flood elevation (DFE) is 52.5 feet being one foot above the Base Flood Elevation.

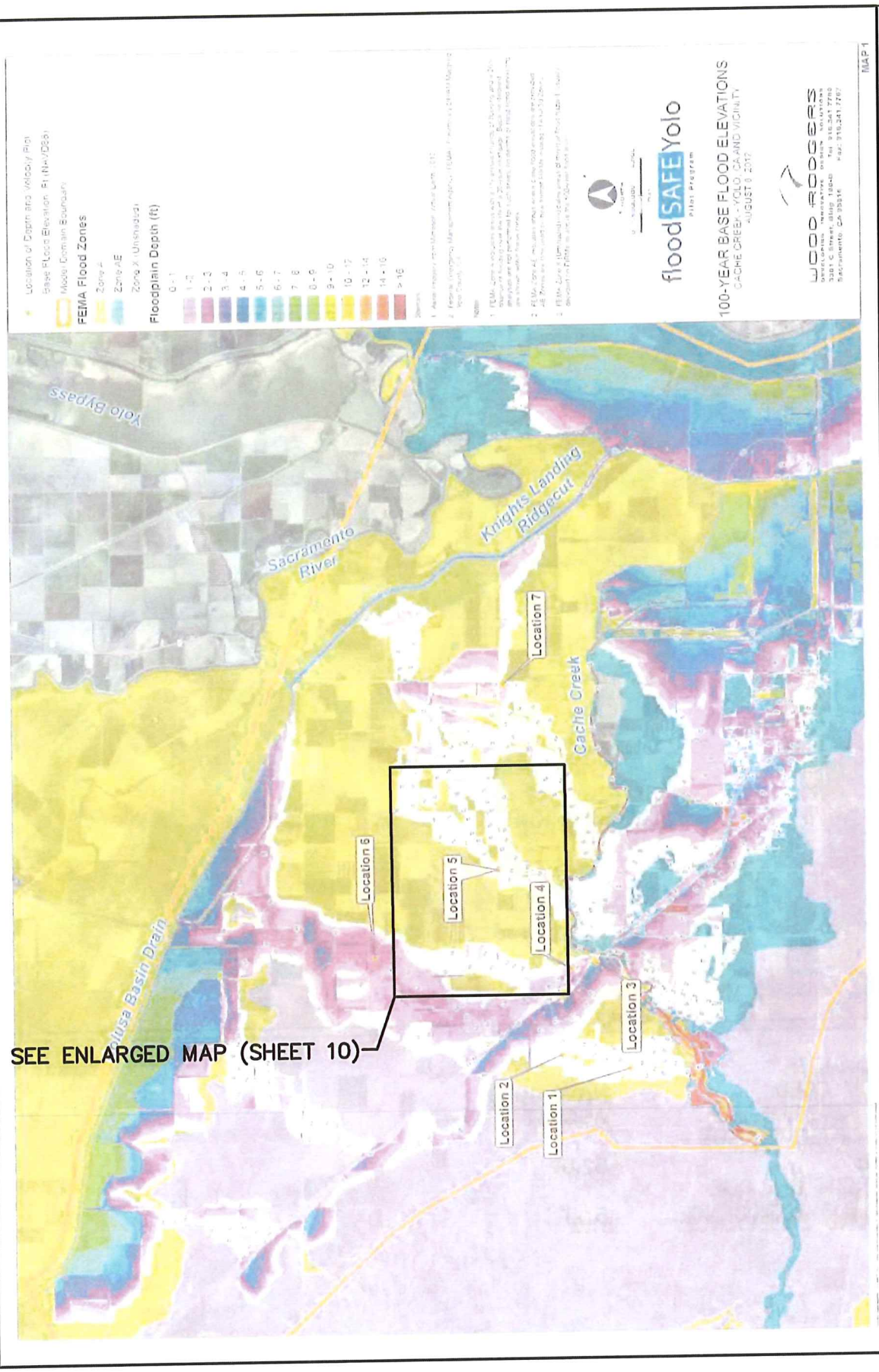
5. All building materials and utility equipment less than one foot above the base flood elevation shall be flood resistant materials and in conformance with FEMA Technical Bulletin 2-08 Flood Damage Resistant Materials. https://www.fema.gov/sites/default/files/2020-07/fema_tb_2_rev1.pdf

6. No mechanical equipment components are proposed.

7. Plumbing components located below the DFE shall be installed so as to prevent water from entering or accumulating during conditions of flooding.

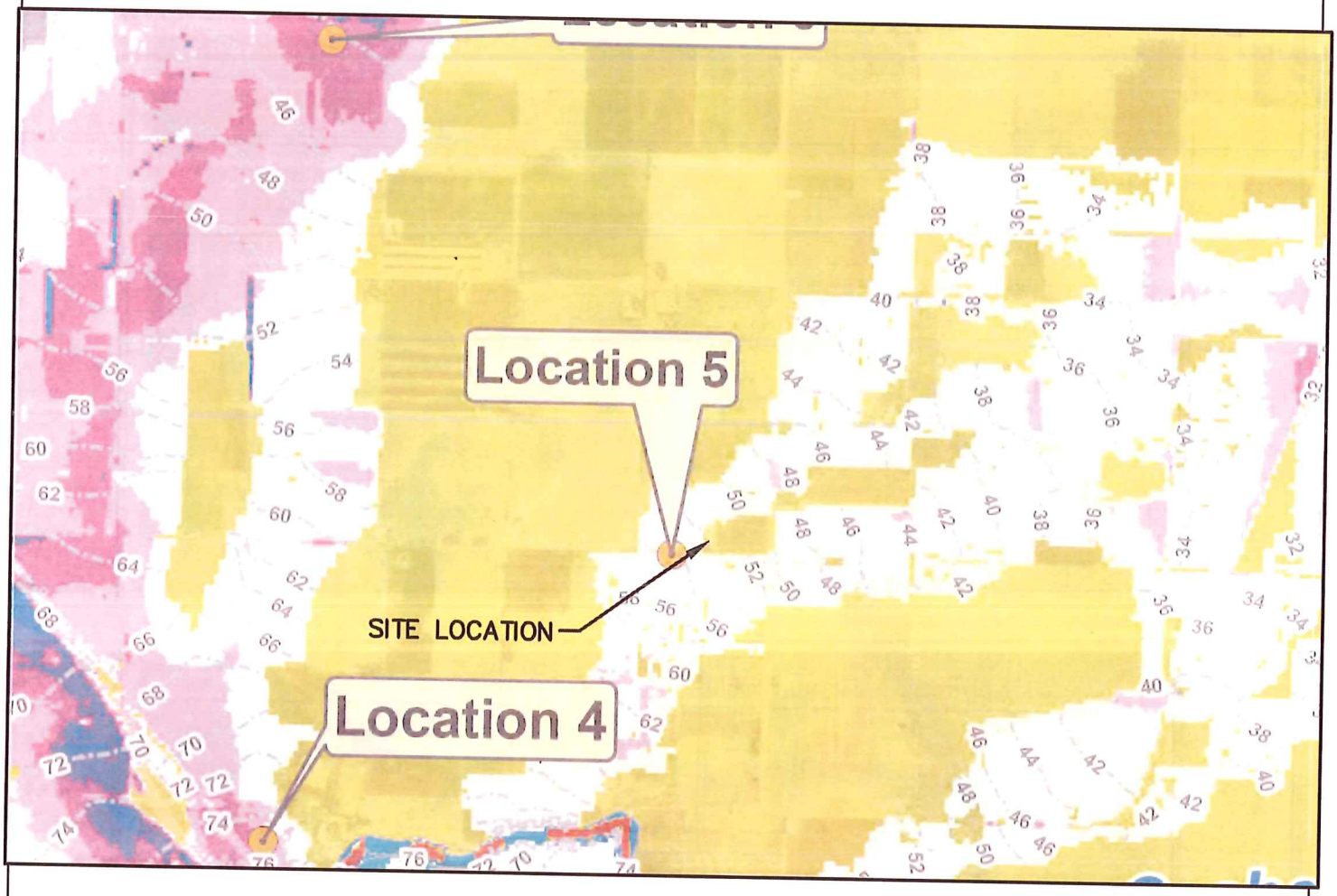
8. Minimal electrical lights and plugs are proposed and required to be placed on isolated GFI circuits. The electrical circuits will connect to the existing panel in the existing residence. Any electrical components installed below the DFE shall be installed to prevent water from entering or accumulating within the components during conditions of flooding.

Ground Subsidence Chart



Wood Rodgers Flood Safe Yolo Map

DATUM : NAVD 1988

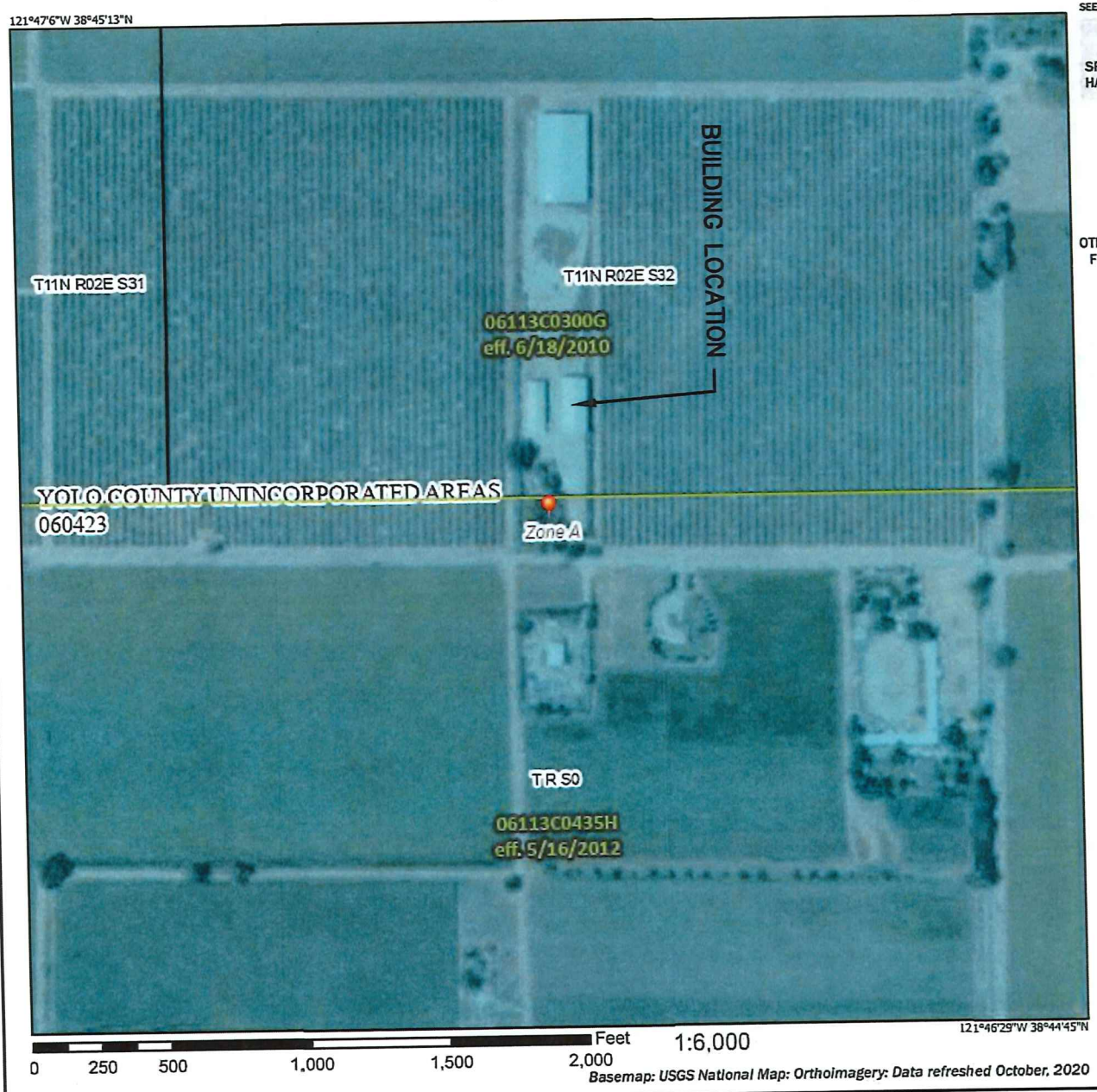


FLOOD NOTES:

1. DATUM USED:	NAVD 1988
2. MAP ESTABLISHED :	AUGUST 8, 2012
3. BFE DETERMINATION IN 2012:	52.0'
4. CURRENT BFE DUE TO GROUND SUBSIDENCE:	51.5'

Enlarged Flood Map (BFE Determination)

National Flood Hazard Layer FIRMette



FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS
  - Without Base Flood Elevation (BFE) Zone A, V, A99
  - With BFE or Depth Zone AE, AO, AH, VE, AR
  - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
  - Future Conditions 1% Annual Chance Flood Hazard Zone X
  - Area with Reduced Flood Risk due to Levee. See Notes. Zone X
  - Area with Flood Risk due to Levee Zone D
- OTHER AREAS
  - NO SCREEN Area of Minimal Flood Hazard Zone X
  - Effective LOMRs
  - Area of Undetermined Flood Hazard Zone D
- GENERAL STRUCTURES
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER FEATURES
  - 20.2 Cross Sections with 1% Annual Chance
  - 17.5 Water Surface Elevation
  - Coastal Transect
  - 513 Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- MAP PANELS
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

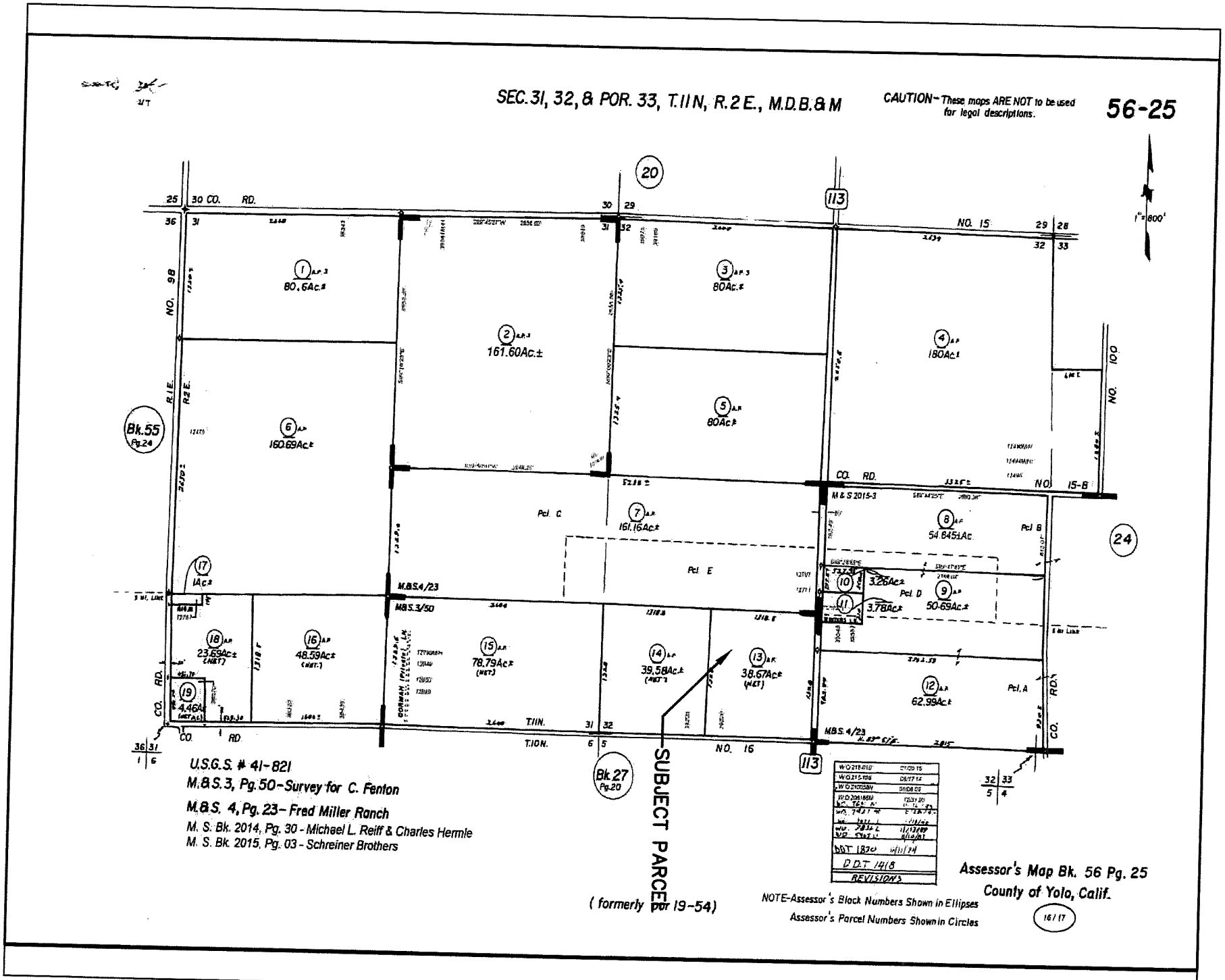
N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

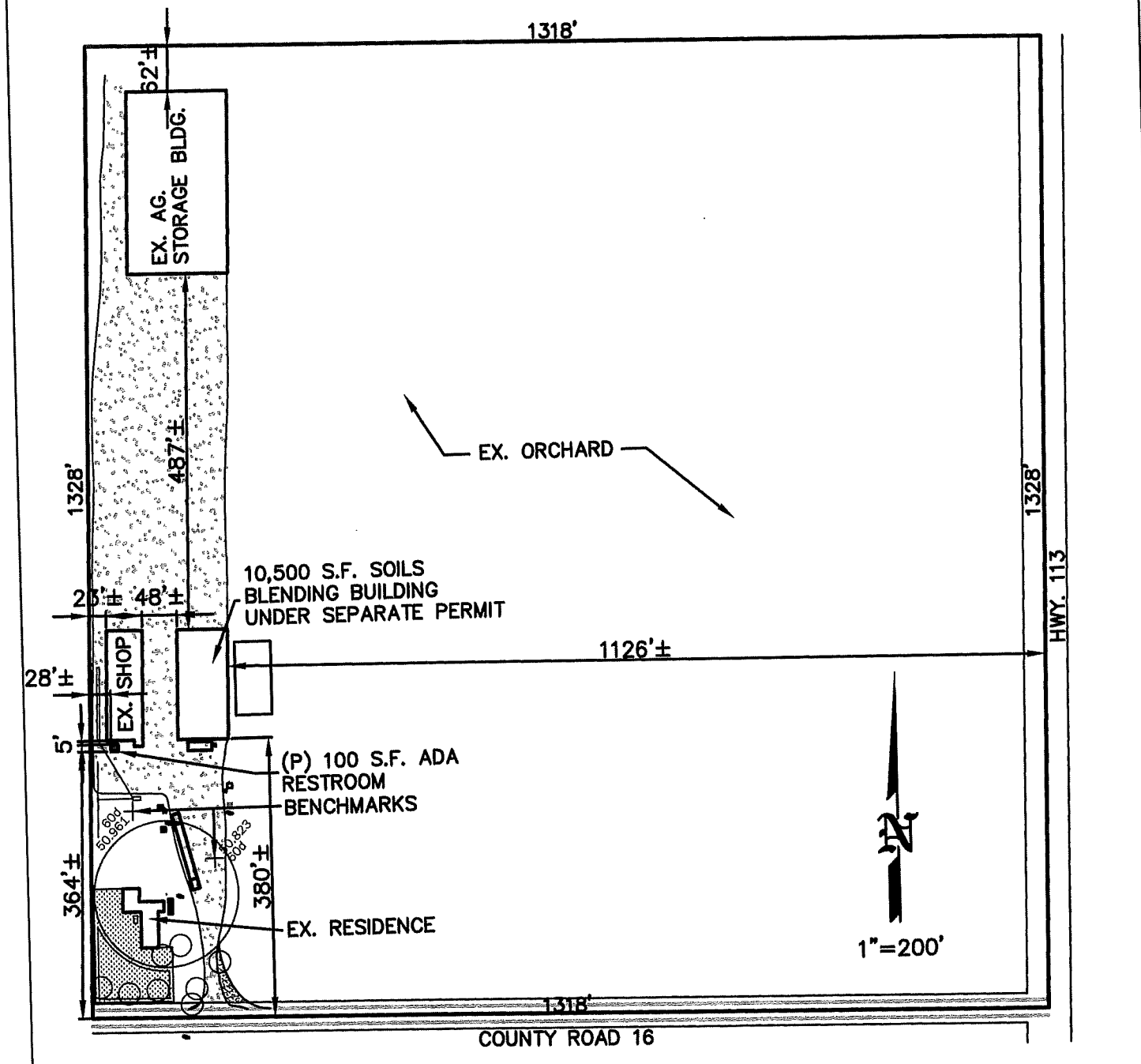
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/27/2021 at 12:46 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

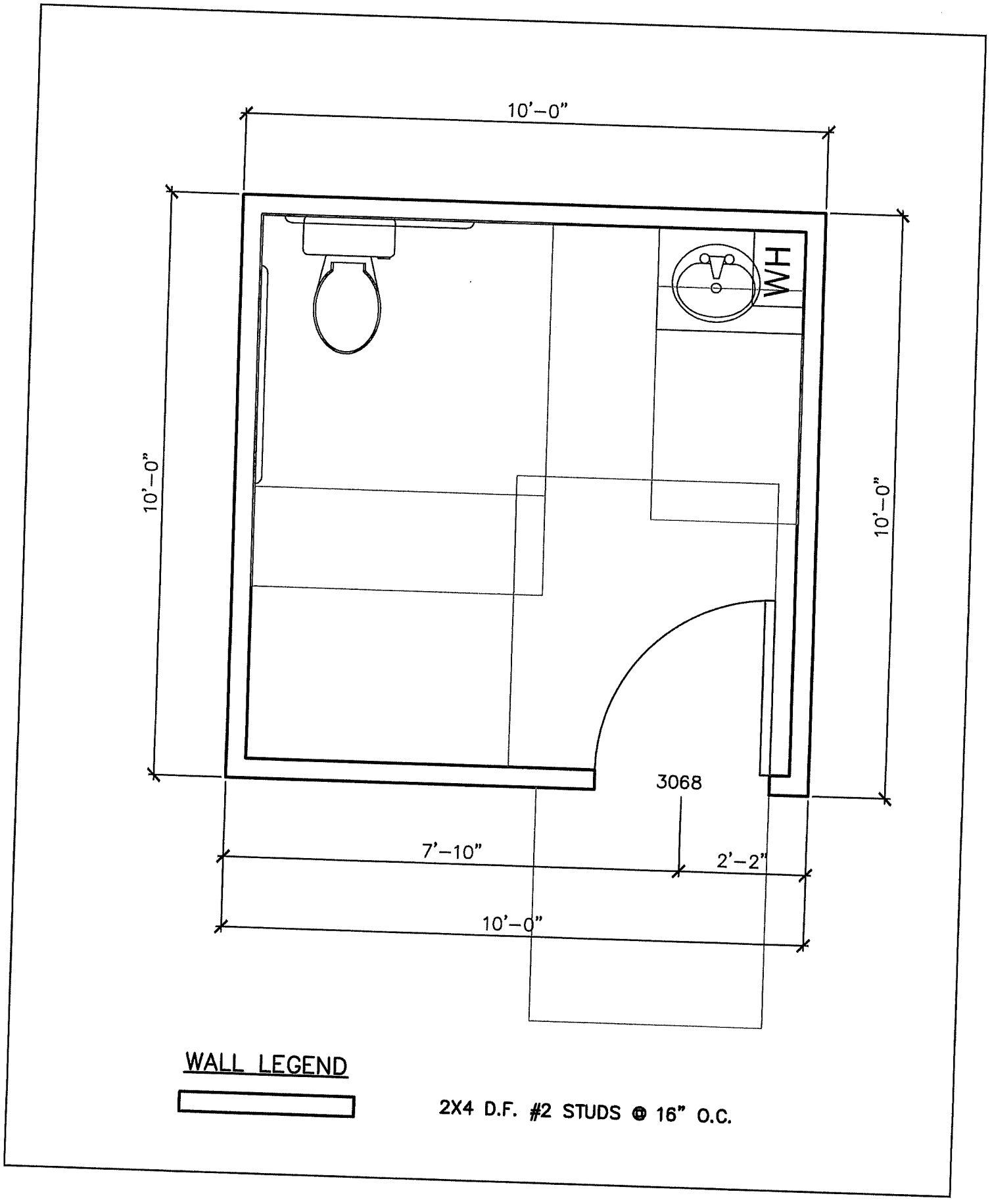


Assessor Parcel Map of subject property



SITE PLAN

DATUM : NAVD 1988



Floor Plan

The NGS Data Sheet

See file dsdata.pdf for more information about the datasheet.

```
PROGRAM = datasheet95, VERSION = 8.12.5.13
Starting Datasheet Retrieval...
1        National Geodetic Survey,   Retrieval Date = AUGUST  4, 2021
 AI5056 ***********************************************************************
 AI5056  HT_MOD      -  This is a Height Modernization Survey Station.
 AI5056  DESIGNATION -  CODY
 AI5056  PID         -  AI5056
 AI5056  STATE/COUNTY-  CA/YOLO
 AI5056  COUNTRY     -  US
 AI5056  USGS QUAD   -  ELDORADO BEND (2018)
 AI5056
 AI5056                          *CURRENT SURVEY CONTROL
 AI5056 ______________________________________________________________________
 AI5056* NAD 83(2011) POSITION- 38 47 30.59962(N) 121 46 29.02277(W)   ADJUSTED
 AI5056* NAD 83(2011) ELLIP HT-   -17.618 (meters)        (06/27/12)   ADJUSTED
 AI5056* NAD 83(2011) EPOCH    -  2010.00
 AI5056* NAVD 88 ORTHO HEIGHT -    12.67  (meters)       41.6   (feet) GPS OBS
 AI5056 ______________________________________________________________________
 AI5056  NAVD 88 orthometric height was determined with geoid model    GEOID09
 AI5056  GEOID HEIGHT    -        -30.402 (meters)                     GEOID09
 AI5056  GEOID HEIGHT    -        -30.312 (meters)                     GEOID18
 AI5056  NAD 83(2011) X  - -2,621,227.014 (meters)                     COMP
 AI5056  NAD 83(2011) Y  - -4,231,772.900 (meters)                     COMP
 AI5056  NAD 83(2011) Z  -  3,974,320.290 (meters)                     COMP
 AI5056  LAPLACE CORR    -          2.66  (seconds)                    DEFLEC18
 AI5056
 AI5056  Network accuracy estimates per FGDC Geospatial Positioning Accuracy
 AI5056  Standards:
 AI5056         FGDC (95% conf, cm)     Standard deviation (cm)     CorrNE
 AI5056            Horiz  Ellip           SD_N   SD_E   SD_h      (unitless)
 AI5056  ---------------------------------------------------------------------
 AI5056  NETWORK    0.33   0.49           0.15   0.11   0.25     -0.06617237
 AI5056  ---------------------------------------------------------------------
 AI5056  Click here for local accuracies and other accuracy information.
 AI5056
 AI5056
 AI5056.The horizontal coordinates were established by GPS observations
 AI5056.and adjusted by the National Geodetic Survey in June 2012.
 AI5056
 AI5056.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
 AI5056.been affixed to the stable North American tectonic plate. See
 AI5056.NA2011 for more information.
 AI5056
 AI5056.The horizontal coordinates are valid at the epoch date displayed above
 AI5056.which is a decimal equivalence of Year/Month/Day.
 AI5056
 AI5056.The orthometric height was determined by GPS observations and a
 AI5056.high-resolution geoid model using precise GPS observation and
 AI5056.processing techniques.
 AI5056
 AI5056.Significant digits in the geoid height do not necessarily reflect accuracy.
 AI5056.GEOID18 height accuracy estimate available here.
 AI5056
 AI5056.Click photographs - Photos may exist for this station.
 AI5056
 AI5056.The X, Y, and Z were computed from the position and the ellipsoidal ht.
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AI5056
AI5056.The Laplace correction was computed from DEFLEC18 derived deflections.
AI5056
AI5056.The ellipsoidal height was determined by GPS observations
AI5056.and is referenced to NAD 83.
AI5056
AI5056. The following values were computed from the NAD 83(2011) position.
AI5056
AI5056;                    North         East      Units Scale Factor Converg.
AI5056;SPC CA 2      -   624,923.801 2,019,570.071   MT  0.99992766   +0 08 31.3
AI5056;SPC CA 2      - 2,050,270.84  6,625,872.81    sFT 0.99992766   +0 08 31.3
AI5056;UTM  10       - 4,294,389.386   606,410.350   MT  0.99973943   +0 46 03.7
AI5056
AI5056|              -  Elev Factor  x  Scale Factor =   Combined Factor
AI5056|SPC CA 2      -   1.00000276  x   0.99992766  =   0.99993042
AI5056|UTM  10       -   1.00000276  x   0.99973943  =   0.99974219
AI5056
AI5056_U.S. NATIONAL GRID SPATIAL ADDRESS: 10SFH0641094389(NAD 83)
AI5056
AI5056                              SUPERSEDED SURVEY CONTROL
AI5056
AI5056  NAD 83(2007)-  38 47 30.59910(N)     121 46 29.02194(W) AD(2007.00) 0
AI5056  ELLIP H (02/10/07)  -17.614  (m)                        GP(2007.00)
AI5056  NAD 83(1998)-  38 47 30.59722(N)     121 46 29.01978(W) AD(2002.53) 1
AI5056  ELLIP H (02/03/03)  -17.586  (m)                        GP(2002.53) 4 1
AI5056  NAD 83(1998)-  38 47 30.59651(N)     121 46 29.01915(W) AD(1999.51) 1
AI5056  ELLIP H (05/12/00)  -17.530  (m)                        GP(1999.51) 4 1
AI5056  NAVD 88 (02/03/03)   12.75   (m)  UNKNOWN model used   GPS OBS
AI5056  NAVD 88 (05/12/00)   12.81   (m)  GEOID99 model used   GPS OBS
AI5056
AI5056.Superseded values are not recommended for survey control.
AI5056
AI5056.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AI5056.See file dsdata.pdf to determine how the superseded data were derived.
AI5056
AI5056_MARKER: DD = SURVEY DISK
AI5056_SETTING: 50 = ALUMINUM ALLOY ROD W/O SLEEVE (10 FT.+)
AI5056_STAMPING: CODY 1999
AI5056_MARK LOGO: CA-113
AI5056_PROJECTION: RECESSED 7 CENTIMETERS
AI5056_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AI5056_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AI5056_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AI5056+SATELLITE: SATELLITE OBSERVATIONS - January 01, 2008
AI5056_ROD/PIPE-DEPTH: 6.1  meters
AI5056
AI5056  HISTORY     - Date      Condition        Report By
AI5056  HISTORY     - 1999      MONUMENTED       FRAME
AI5056  HISTORY     - 20020826  GOOD             FRAME
AI5056  HISTORY     - 20080101  GOOD             FRAME
AI5056
AI5056                              STATION DESCRIPTION
AI5056
AI5056'DESCRIBED BY FRAME SURVEYING AND MAPPING 1999 (JHF)
AI5056'THE STATION IS LOCATED ABOUT 5.5 MI (8.9 KM) EAST OF ZAMORA AND ABOUT
AI5056'3 MI (4.8 KM) WEST OF KNIGHTS LANDING.  TO REACH THE STATION FROM THE
AI5056'INTERSECTION OF INTERSTATE HIGHWAY 5 AND COUNTY ROAD E10, ROAD 13, IN
AI5056'ZAMORA, GO EAST ON ROAD E10 FOR ABOUT 3.0 MI (4.8 KM) TO THE
AI5056'INTERSECTION OF ROAD 97.  CONTINUE EAST ON ROAD E10 FOR ABOUT 2.5 MI
AI5056'(4.0 KM) TO THE END OF ROAD E10 AND THE INTERSECTION OF STATE HIGHWAY
AI5056'113 AND COUNTY ROAD E11, ROAD 99E.  TURN RIGHT AND GO SOUTH ON HIGHWAY
AI5056'113 FOR ABOUT 0.1 MI (0.2 KM) TO THE STATION ON THE RIGHT JUST PAST A
AI5056'LARGE MILLING AND STORAGE PLANT.  THE STATION IS A 2 1/2 IN YOLO
AI5056'COUNTY DISK SET INSIDE AN ALUMINUM LOGO CAP.  IT IS ABOUT 40 M (131.2
AI5056'FT) SOUTH-SOUTHEAST OF THE SOUTHEAST CORNER OF A LARGE CORRUGATED
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AI5056'METAL BUILDING, 21.4 M (70.2 FT) WEST-SOUTHWEST OF AND ACROSS HIGHWAY
AI5056'113 FROM A POWER POLE WITH TRANSFORMER, 10.5 M (34.4 FT) WEST OF THE
AI5056'CENTERLINE OF THE HIGHWAY AND 0.8 M (2.6 FT) EAST OF A CARSONITE
AI5056'WITNESS POST.
AI5056
AI5056                          STATION RECOVERY (2002)
AI5056
AI5056'RECOVERY NOTE BY FRAME SURVEYING AND MAPPING 2002 (JHF)
AI5056'RECOVERED AS DESCRIBED.
AI5056
AI5056                          STATION RECOVERY (2008)
AI5056
AI5056'RECOVERY NOTE BY FRAME SURVEYING AND MAPPING 2008 (JHF)
AI5056'RECOVERED AS DESCRIBED.



*** retrieval complete.
Elapsed Time = 00:00:02
```

FILE: 1___1190.21o OP1619793278537

2005 NOTE: The IGS precise and IGS rapid orbits were not available
2005 at processing time. The IGS ultra-rapid orbit was/will be used to
2005 process the data.
2005

NGS OPUS-RS SOLUTION REPORT
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All computed coordinate accuracies are listed as 1-sigma RMS values.
For additional information: https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy

USER: brett@laughlinspence.com DATE: April 30, 2021
RINEX FILE: 1___119v.21o TIME: 14:37:19 UTC

SOFTWARE: rsgps 1.38 RS93.prl 1.99.3 START: 2021/04/29 21:21:20
EPHEMERIS: igu21554.eph [ultra-rapid] STOP: 2021/04/29 22:27:45
NAV FILE: brdc1190.21n OBS USED: 5454 / 6228 : 88%
ANT NAME: LEIATX1230GG NONE QUALITY IND. 27.87/ 47.50
ARP HEIGHT: 1.617 NORMALIZED RMS: 0.259

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) ITRF2014 (EPOCH:2021.32579)

X:	-2623114.720(m)	0.010(m)	-2623115.743(m)	0.010(m)
Y:	-4234019.303(m)	0.012(m)	-4234017.929(m)	0.012(m)
Z:	3970709.180(m)	0.012(m)	3970709.133(m)	0.012(m)

LAT:	38 45 0.32926	0.006(m)	38 45 0.34085	0.006(m)
E LON:	238 13 13.50635	0.007(m)	238 13 13.44040	0.007(m)
W LON:	121 46 46.49365	0.007(m)	121 46 46.55960	0.007(m)
EL HGT:	-14.986(m)	0.017(m)	-15.506(m)	0.017(m)
ORTHO HGT:	15.491(m)	0.033(m) [NAVD88 (Computed using GEOID18)]		

60.823' ± 0.108'

	UTM COORDINATES (UTM (Zone 10))	STATE PLANE COORDINATES (SPC (0402 CA 2))
Northing (Y) [meters]	4289751.574	620289.307
Easting (X) [meters]	606050.665	2019159.712
Convergence [degrees]	0.76396111	0.13896667
Point Scale	0.99973849	0.99993163
Combined Factor	0.99974084	0.99993398

1

NGS OPUS Data

US NATIONAL GRID DESIGNATOR: 10SFH0605089751(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DN7510	ORVB OROVILLE DAM CORS ARP	N393316.644	W1213000.994	92525.4
DN7569	P256 FALLMANPRPCN2005 CORS ARP	N375555.058	W1213617.369	92089.9
DG8210	P261 HUNTERHILLCN2004 CORS ARP	N380910.643	W1221303.089	76518.7
DK6402	P336 HUBBARDRDGCN2007 CORS ARP	N393141.074	W1222549.687	103085.9
AF9564	QUIN QUINCY CORS ARP	N395828.380	W1205639.889	153832.9
DN7372	P310 ALDERRIDGECN2006 CORS ARP	N384408.171	W1202003.561	125686.9
DO7031	CASR SANTA ROSA CA CORS ARP	N382626.414	W1224449.165	91007.5
DK6396	P206 CRAZYCREEKCN2006 CORS ARP	N384640.128	W1223432.803	69270.2
DN7395	P346 BUZZARDRSTCN2007 CORS ARP	N394740.941	W1205202.816	140194.2

NEAREST NGS PUBLISHED CONTROL POINT

JS2233	YOLO RM 1	N384300038.	W1214800023.	3439.0

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.