DRAFT

Wildfire Evacuation Plan

First Hathaway Logistics

APRIL 2024

Prepared for:

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
ARC	American Red Cross
CAL FIRE	California Department of Forestry and Fire Protection
CALTRANS	California Department of Transportation
CERT	Community Emergency Response Team
CHP	California Highway Patrol
City	City of Lake Elsinore
County	County of Riverside
DAS	Department of Animal Services
EAS	Emergency Alert System
EMD	County of Riverside Emergency Management Department
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
FEMA	Federal Emergency Management Agency
IC	Incident Command
IFTSA	International Fire Service Training Association
LEMC	Lake Elsinore Municipal Code
NIMS	National Incident Command System
NWFCG	National Wildland Fire Coordinating Groups
OA	Operational Area
Project	First Hathaway Logistics Project
RCFD	Riverside County Fire Department
RCSD	Riverside County Sheriff's Department
SCAG	Southern California Association of Governments
SEMS	State Emergency Management System
TRA	Temporary Refuge Area
VOAD	Volunteers Active in Disasters
VoIP	Voice over Internet Protocol
WUI	Wildland-Urban Interface

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Quick Reference - Wildfire Preparedness

The Quick Reference Guide provides helpful tips and educational resources, so occupants are prepared in the event of a wildland fire evacuation.

Figure 1 illustrates the emergency evacuation routes potentially available to the First Hathaway Logistics Project and surrounding communities. Figure 2 displays the Project's vicinity location and Figure 3 is the Project's site plan.

The Project's evacuation routes for employees and visitors of the Project are detailed in Section 4 and illustrated in Figure 1. Employees and visitors should know available routes, stay informed, and follow directions provided by law enforcement or fire agencies, news media, and other credible sources. Do not rely on navigation apps that may inadvertently lead persons toward the approaching wildfire.

Nearest Medical Facilities

Hospitals:

San Gorgonio Memorial Hospital
600 N Highland Springs Ave
Banning, California92220

Directions:
Head south onto N Hathaway Street
Turn Right onto East Ramsey Street
Turn Left onto Hargrave Street
Merge onto I-10 W towards Los Angeles
Take exit 96 for N Highland Springs Avenue
Turn right onto N Highland Springs Avenue
Turn right onto W Wilson Street
Hospital on right

Hemet Global Medical Center
1117 E Devonshire Ave,
Hemet, California 92543

Directions:
Head south on N Hathaway Street
Turn Right on East Ramsey Street
Turn Left onto Hargrave Street
Merge onto I-10 W towards Los Angeles
Take exit 94 for CA-79/Beaumont Avenue
Turn left onto Ramona Expressway
Turn right onto N State Street
Turn left onto N Ramona Boulevard
Continue onto CA-79 S/S San Jacinto Avenue
Turn Right on E Devonshire Avenue
Hospital on left

Urgent Care Facilities:

Rapid Care Urgent Care Enterprises – Banning
6350 W Ramsey Street,
Banning, California 92220

Optum – Beaumont Sundance Urgent Care Center
839 N Highland Springs Ave,
Beaumont, California 92223

Beaver Medical Group
81 S Highland Springs Ave,
Beaumont, California 92223

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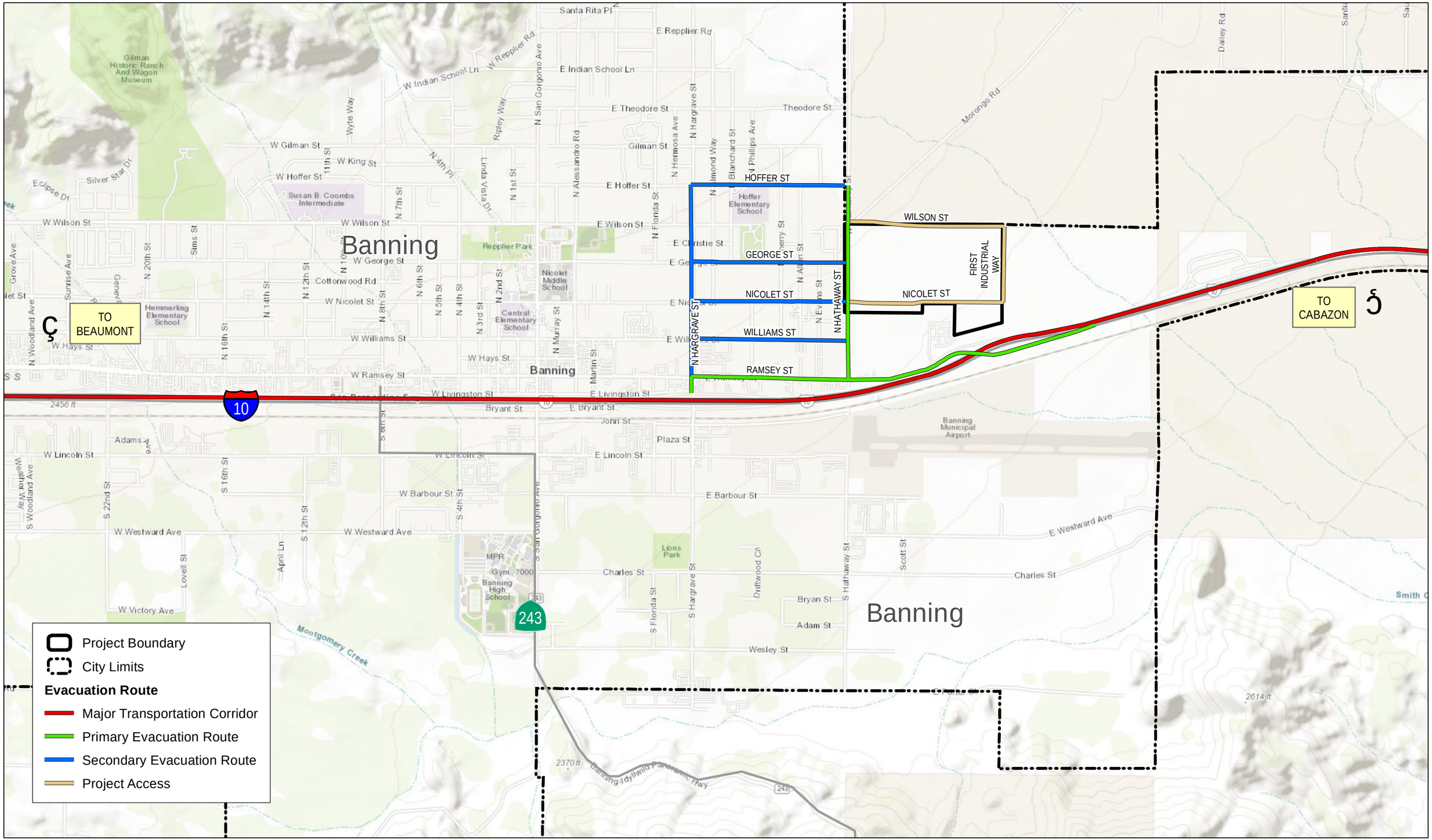

Document Path: Z:\Projects\U1521000\MAPDOC\DOCUMENT\Fire\EVAC\Figure1_EvacPlan.mxd

SOURCE: ESRI IMAGERY SERVICE 2023; COUNTY OF RIVERSIDE GIS DATA 2023

DUDEK

0 750 1,500 Feet

FIGURE 1

Project Evacuation Route Map

Fire Evacuation Plan for the First Hathaway Logistics Project

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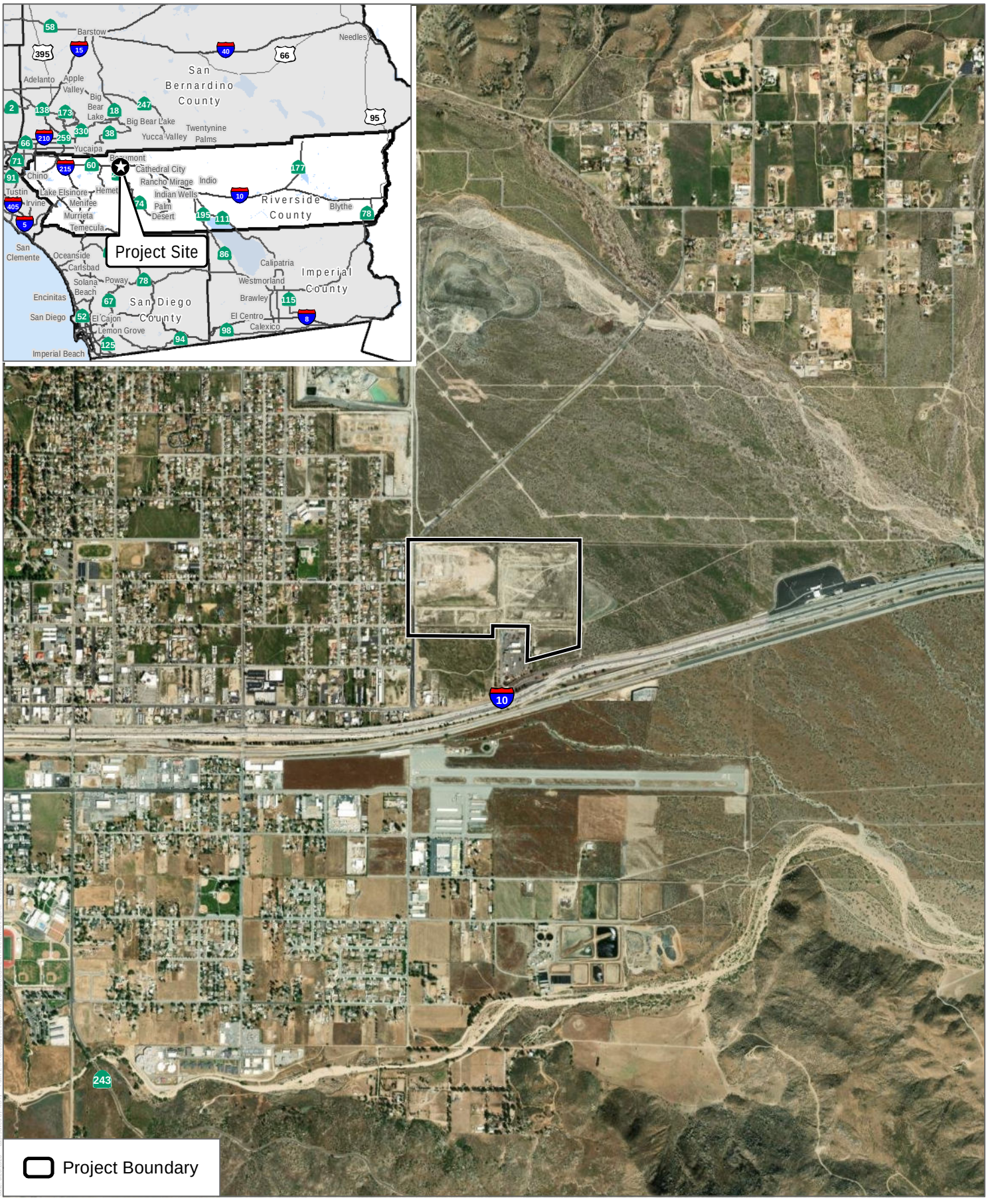

SOURCE: ESRI 2023

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0 1,000 2,000 Feet

FIGURE 2

Project Vicinity Map

Evacuation Plan for the First Hathaway Logistics Project

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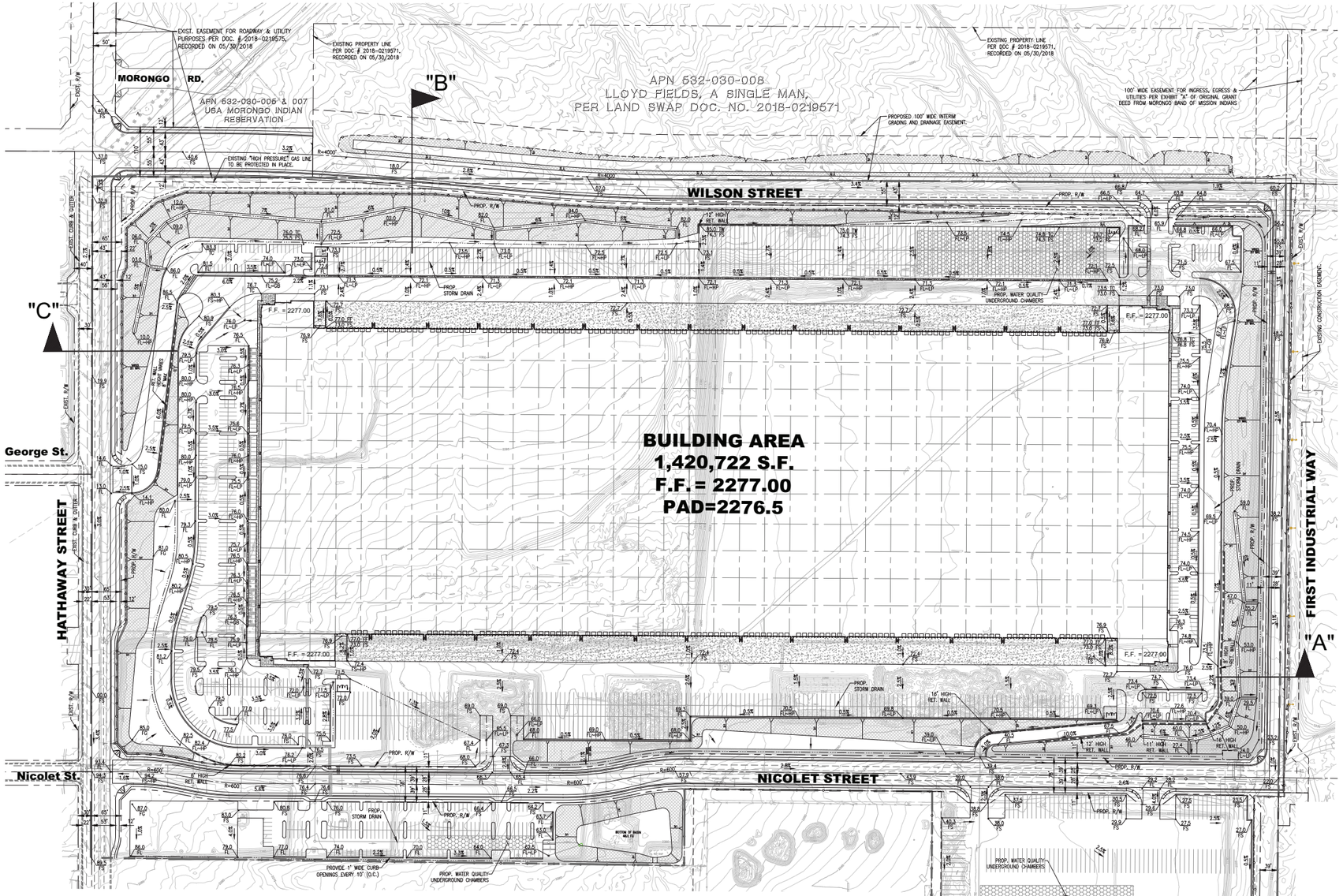

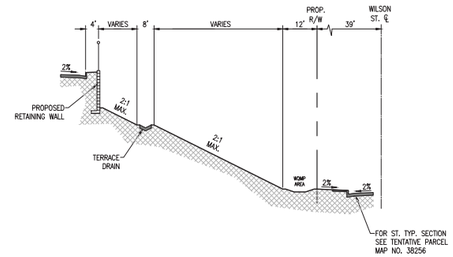

SECTION "A-A"
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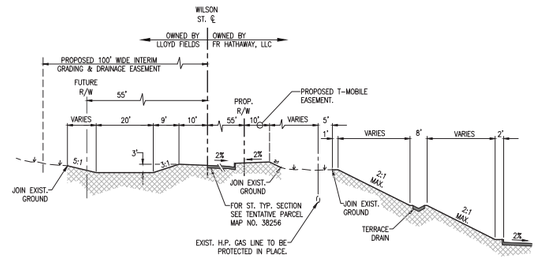

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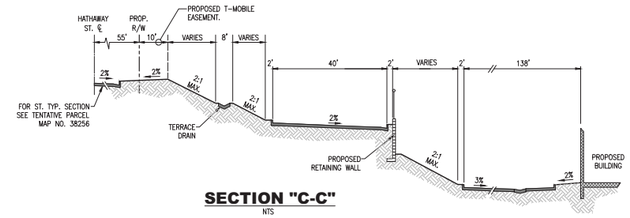

SECTION "C-C"
NTS

LEGEND

- PROPOSED P.C. CONCRETE
- PROPOSED SLOPE
- PROPOSED UNDERGROUND CHAMBERS
- PROPOSED WQMP AREA
- RETAINING WALL
- MAP BOUNDARY
- PROPOSED R/W
- PROP/EXIST. ST. ℄

BUILDING AREA

FOOTPRINT	1,400,722 S.F.
OFFICE	20,000 S.F.
MEZZANINE	20,000 S.F.
WAREHOUSE	1,380,422 S.F.
TOTAL	1,420,722 S.F.

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

NORTH

JUNE, 2023

SOURCE: STANTEC 2023

FIGURE 3

Project Land Use Plan

Fire Evacuation Plan for the First Hathaway Logistics Project

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Register to Receive Emergency Alerts

The City of Banning (City) utilizes Nixle for its Community Emergency Notification System. Nixle is a mass communications hub platform that allows the City to provide secure, reliable, and relevant information to residents in real-time. Banning Police Department is responsible for activating Nixle alerts within the City. Additionally, residents can sign up for Alert RivCo, which a regional asset managed by the County of Riverside Emergency Management Department (EMD). In the event of a wildfire within the City limits, the Incident Command (IC), Riverside County Fire Department (RCFD) or other City departments will contact coordinate with BPD and/or the Riverside County Sheriff's Department (RCSD) to release emergency communications to affected populations. The RCSD has the responsibility to release an emergency notification to affected population via the Alert RivCo system. Therefore, owners and employees of the First Hathaway Logistics Project are strongly advised to register all business land lines, mobile phone numbers and email addresses with Reverse 9-1-1, Nixle (https://banningca.gov/540/City-of-Banning-Alerts), and Alert RivCo system (https://rivcoready.org/alert-rivco) in order to receive emergency evacuation instructions. The occupants of First Hathaway Logistics Project are part of the greater Los Angeles- Palm Springs media market and the media outlets will also be a good source of information, via television and radio, on overall emergency situations and how occupants should respond. In addition, the Riverside Emergency Alert System (EAS) is county-wide and broadcasts emergency information via six radio stations: KFI 640 AM, KFWB 980 AM, KNX 1070 AM, KFRG 95.1 FM, KVCR 91.9, and KXFG 92.9 FM. The following television stations will provide information during an emergency:

- Press Enterprise - https://www.pe.com/
- ABC7 - https://abc7.com/
- NBC4 - https://www.nbclosangeles.com/
- KTLA - https://ktla.com/
- FOX LA - http://www.foxla.com/

Social media provides another outlet for news:

City of Banning

- https://twitter.com/CityofBanning

Banning Police Department

- https://twitter.com/BanningPolice

Riverside County Sheriff Department

- https://www.facebook.com/RCSD.Official/
- https://twitter.com/rso

CAL FIRE, Riverside County

- https://www.facebook.com/CALFIRERRU/

Get Involved in Community Readiness

Employees of the First Hathaway Logistics Project are encouraged to obtain Community Emergency Response Team (CERT) training through the County of Riverside's Emergency Management Department (https://www.rivcocert.org/).The Owners/Property Manager will organize annual evacuation public outreach for all employees as well as maintain a fire safe page on the Project's website, including this Wildfire Evacuation Plan and links to important preparedness information. This information will be made available to all occupants of the Project.

This Wildfire Evacuation Plan is prepared specifically for the First Hathaway Logistics Project and focuses on wildland fire evacuations, although many of the concepts and protocols will be applicable to other emergency situations. Ultimately, this WEP should be used by employees for awareness of evacuation approaches during wildfires and other similar emergencies. It is important for employees to understand the importance of being prepared, so if/when the time comes where evacuation is necessary, they will be able to calmly implement their evacuation plan. Some actions employees can take in advance include:

- Follow the "Ready, Set, Go!" model developed for wildfire evacuations.
  - First Hathaway should create an evacuation plan, and share it with all employees.
  - All employees should know the available evacuation routes, stay informed and follow directions provided by credible sources.
  - No employee should rely on navigation apps that may inadvertently lead them toward an approaching fire.
  - All employees should be encouraged to prepare a car emergency kit, including cell phone charger, flashlight, jumper cables, water, and food.

Sample emergency preparedness resources available to the First Hathaway Logistics Project occupants are provided in Appendices A-1 through A-4 (Disaster Checklists and Communications Plans), and occupants are encouraged to become familiar with the concepts detailed at the following websites:

1. "Ready, Set, Go!" Personal Wildland Fire Action Guide:
   https://www.readyforwildfire.org/prepare-for-wildfire/ready-set-go/
2. Red Cross Emergency Planning:
   http://www.redcross.org/get-help/how-to-prepare-for-emergencies/make-a-plan
3. Hazardous Materials Emergency Preparedness:
   https://www.ready.gov/hazardous-materials-incidents
4. Building a disaster kit:
   http://www.redcross.org/get-help/prepare-for-emergencies/be-red-cross-ready/get-a-kit
5. FEMA Ready Business How-To Guide:
   https://www.ready.gov/sites/default/files/2020-04/ready_business_how-to-guide.pdf

Evacuation Plan Purpose and Limitations

Wildfire and other emergencies are often dynamic events and the need for evacuations are typically determined by on-scene first responders or by a collaboration between first responders and designated emergency response teams, including County EMD and the IC established for larger emergency events. As such, and consistent with all emergency evacuation plans, this Wildfire Evacuation Plan is to be considered a tool that supports existing pre-plans and provides for occupants who are familiar with the evacuation protocol but is subservient to emergency event-specific directives provided by agencies managing the event.

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1 Introduction

This Wildfire Evacuation Plan (WEP) was prepared based on the City of Banning Emergency Operations Plan (EOP) (City of Banning 2007). The format of this WEP is also consistent with the recommendations of the Emergency Support Function 16, Evacuation and Re-entry, of the County of Riverside Emergency Operations Plan (County of Riverside 2019). A complete copy of the City of Banning's EOP and Riverside County's EOP can be downloaded from the respective links below:

City of Banning EOP: https://banningca.gov/141/Disaster-Preparedness

County of Riverside EOP: https://rivcoready.org/about-emd/plans

Evacuation is a process by which people are moved from a place where there is immediate or anticipated danger, to a place of safety, and offered appropriate temporary shelter facilities. When the threat to safety is gone, evacuees are able to return to their normal activities, or to make suitable alternative arrangements. The overarching goal of evacuation planning is to maximize the preservation of life while reducing the number of people that must evacuate and the distance, they must travel to seek safe refuge. The purpose of the City of Banning Emergency Operations Plan is to provide an overview of evacuation functions, agency roles and responsibilities, and overall guidelines for the evacuation of people and animals from hazardous areas to areas of safety in incidents with and without warning (City of Banning 2017).

This Wildfire Evacuation Plan will outline strategies, procedures, recommendations, and organizational structures that can be used to implement a coordinated evacuation effort in the case of a wildfire emergency effecting the First Hathaway Logistics Project. It is noted, that the on-set of a wildfire or other emergency is generally unplanned and more often than not, occupants and visitors will be faced with decisions that need to be made quickly and determined by on-scene first responders or by a collaboration between first responders and designated emergency response teams. Therefore, this Wildfire Evacuation Plan is to be considered a tool that supports existing pre-plans and provides for occupants who are familiar with the evacuation protocol but is subservient to emergency event-specific directives provided by agencies managing the event.

1.1 Project Description

The First Hathaway Logistics Project proposes development of approximately 82.81 acres for a logistics warehouse. The Project provides for a 1,400,722 square foot warehouse footprint including 1,380,722 square feet of warehouse floor area, and two stories of office area each covering 20,000 square feet resulting in a final square footage of 1,420,722 square feet. Additionally, the Project includes trailer parking and automobile parking around the perimeter of the warehouse while allowing for a minimum 26 foot access way between any parking and the structure. There are 480 trailer parking spots and 875 automobile parking spots around the perimeter of the building. At the designated trailer parking located in the southeast corner of the Project area, 181 trailer parking spots are provided.

1.2 Applicable Regulations, Standards and Planning Tools

1.2.1 Federal

1.2.1.1 Disaster Mitigation Act

The Disaster Mitigation Act of 2000 requires that a state mitigation plan, as a condition of disaster assistance, add incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans: "Standard" and "Enhanced." States that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Disaster Mitigation Act also established a new requirement for local mitigation plans.

1.2.1.2 National Incident Management System (NIMS)

The NIMS guides all levels of government, nongovernmental organizations and the private sector to work together to prevent, protect against, mitigate, respond to and recover from incidents. NIMS provides community members with a shared vocabulary, systems and processes to successfully deliver the capabilities described in the National Preparedness System. The National Preparedness System is a Presidential Policy Directive establishing a common goal to create a secure and resilient nation associated with prevention, protection, mitigation, response and recovery to address the greatest risks to the nation. One core area is fire management and suppression.

NIMS defines operational systems that guide how personnel work together during incidents.

1.2.1.3 Pet Evacuation and Transportation Standards Act

The Pets Evacuation and Transportation Standards Act of 2006 amends the Stafford Act, and requires evacuation plans to take into account the needs of individuals with household pets and service animals, prior to, during, and following a major disaster or emergency.

1.2.2 State

1.2.2.1 Fire Hazard Severity Zones

To assist each fire agency in addressing its responsibility area, California Department of Forestry and Fire (CAL FIRE) uses a severity classification system to identify areas or zones of severity for fire hazards within the state. CAL FIRE is required to map these zones for State Responsibility Areas and identify Very High Fire Hazard Severity Zones (VHFHSZ) for Local Responsibility Areas (LRA). The Project is designated as a VHFHSZ within a LRA.

1.2.2.2 California Wildland-Urban Interface Code

On September 20, 2005, the California Building Standards Commission approved the Office of the State Fire Marshal's emergency regulations amending the California Building Code (CBC) (California Code of Regulations [CCR] Title 24, Part 2). Section 701A of the CBC includes regulations addressing materials and construction methods for exterior wildfire exposure and applies to new buildings located in State Responsibility Areas or Very High Fire Hazard Severity Zones in Local Response Areas.

1.2.2.3 California Fire Code

The 2022 California Fire Code (CCR Title 24, Part 9) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas. The City of Banning has adopted the 2022 California Fire Code as Chapter 8.16, as amended, including appendices addressing fire-flow requirements for buildings.

1.2.2.4 California Emergency Services Act

The California Emergency Services Act (California Government Code §8550, et seq.), provides for the creation of an Office of Emergency Services, assign and coordinate functions and duties to be performed during an emergency, facilitate mutual aid, and assign resources (including manpower and facilities) throughout the state for dealing with any emergency that may occur.

1.2.2.5 California Office of Emergency Services

The California Office of Emergency Services (OES) is responsible for the coordination of overall state agency response to disasters. Assuring the state's readiness to respond to, recover from all hazards and assisting local governments in their emergency preparedness, response, recovery and mitigation.

1.2.2.5.1 Standardized Emergency Management System (SEMS)

SEMS is the cornerstone of California's emergency response system and the fundamental structure for the response phase of emergency management. The system unifies all elements of California's emergency management community into a single integrated system and standardizes key elements. SEMS incorporates:

- Incident Command System (ICS) - A field-level emergency response system based on management by objectives
- Multi/ Inter-agency coordination - Affected agencies working together to coordinate allocations of resources and emergency response activities
- Mutual Aid - A system for obtaining additional emergency resources from non-affected jurisdictions.
- Operational Area Concept - County and its sub-divisions to coordinate damage information, resource requests and emergency response.

1.2.2.6 Attorney General Guidance

The California Office of the Attorney General issued (October 2022) guidance (Guidance) outlining best practices for analyzing and mitigating wildfire impacts of development projects under the California Environmental Quality Act (CEQA). The Guidance is intended to help local governments' evaluation and approval considerations for development projects in fire-prone areas, and to help project design in a way that minimizes wildfire ignition and

incorporates emergency access and evacuation measures. Importantly, the Guidance does not impose additional legal requirements on local governments, nor does it alter any applicable laws or regulations.

The Guidance states that evacuation modeling and planning should be required for all projects located in HFHSZ/ VHFHSZ that present an increased risk of ignition and/or evacuation impacts. It further states that local jurisdictions should require evacuation modeling and planning to be developed prior to project approval to provide maximum flexibility in design modifications necessary to address wildfire risks and impacts. The Project is in an area designated as a VHFHSZ within a LRA and is adjacent to open space areas, which is why this Wildfire Evacuation Plan was prepared for the Project and includes the analysis of several evacuation scenarios, including existing and with Project conditions.

The Guidance further states that evacuation modeling and analysis must augment existing information when necessary to include adequate analysis of the following:

- Evaluation of the capacity of roadways to accommodate project and community evacuation and simultaneous emergency access. Existing and future roadway capacities are analyzed in Section 4 of this Evacuation Plan.
- Assessment of the timing for evacuation. Analysis of evacuation timing is detailed in Section 4.1.
- Identification of alternative plans for evacuation. Alternative plans for evacuation would be feasible due to the high ignition resistance level of Project structures.
- Evaluation of the Project's impacts on existing evacuation plans. Existing evacuation plans do not exist for the area. The Project would utilize primary evacuation routes that would be available to other evacuees. This Evacuation Plan is based on the City's Emergency Operations Plan and the County's Emergency Operations Plan, including Emergency Support Function 16, Evacuation and Re-entry.
- Consideration of the adequacy of emergency access, including the Project's proximity to existing fire services and the capacity of existing services. Emergency access is provided that is consistent with the fire code requirements.
- Traffic modeling to quantify travel times under various likely scenarios. This WEP conducted simulations using Vissim, a microscopic, multimodal traffic flow modeling software used to simulate different traffic conditions. In Vissim simulations, roadway capacity is accounted for and each vehicle in the traffic system is individually tracked through the model and comprehensive measures of effectiveness, such as average vehicle speed and queueing, are collected on every vehicle during each 0.1-second of the simulation. The travel times are quantified under many different simulations and an average is generated under various scenarios. Discussion of this modeling is provided in Section 4 of this WEP.

In consideration of the above, the AG Guidance encourages local jurisdictions to develop thresholds of significance for evacuation times based on community-wide standards. Any conclusion that an increase in evacuation times is a less than significant impact should be based on a threshold of significance that reflects community-wide goals and standards. Thresholds should also consider consistency with an adopted emergency operations or evacuation plan, a safety element updated to integrate wildfire and evacuation concerns, or recommendations developed by CAL FIRE relating to safety of subdivisions. The Project also has the potential to minimize on-road traffic when it is considered necessary and/or safer by temporarily providing refuge on-site in protected structures, which offers a contingency not available to all communities/developments and assists in providing flexibility and options for emergency managers.

1.2.3 Local

1.2.3.1 Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan

The purpose of the County's Multi-Jurisdictional Local Hazard Mitigation Plan (County Riverside 2018) is to identify the County's hazards, review and assess past disaster occurrences, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and human-made hazards. An important Riverside County Multi-Jurisdictional Hazard Mitigation Plan component is the Community Emergency Response Team (CERT), which educates community members about disaster preparedness and trains them in basic response skills, including fire safety.

1.2.3.2 Riverside County Emergency Operations Plan

The 2019 Riverside County Emergency Operations Plan (EOP) describes a comprehensive emergency management system that provides for a planned response to disaster situations associated with natural disasters, technological incidents, terrorism, and nuclear-related incidents. It delineates operational concepts relating to various emergency situations, identifies components of the Emergency Management Organization, and describes the overall responsibilities for protecting life and property and providing for the overall well-being of the population. The plan also identifies the sources of outside support that might be provided (through mutual aid and specific statutory authorities) by other jurisdictions, state and federal agencies, and the private sector.

1.2.3.3 City of Banning Emergency Operations Plan

The primary objective of the City of Banning Emergency Operations Plan (EOP) from 2007 is to integrate and synchronize all City facilities and personnel into a streamlined structure capable of promptly and efficiently addressing any emergency situation, including the need for evacuations. The EOP outlines the functions of the City of Banning Emergency Operations Center (EOC), which serves as the central administrative body responsible for overseeing and harmonizing the emergency response efforts of different City departments and external agencies. The purpose of the plan is to promote collaboration and coordination among multiple agencies and jurisdictions, specifically fostering effective communication and cooperation between the City of Banning, Riverside County, special districts, and state agencies during emergency operations.

1.2.3.3 City of Banning Fire Code

The City of Banning Fire Code consists of BMC Chapter 8, Article 16, Sections 16.010 through 16.020, which adopts the 2022 California Fire Code with some modifications, and applicable sections of the CCR. Provisions of the California Fire Code are described under State Regulations, above.

1.2.3.4 City of Banning Annex Local Hazard Mitigation Plan

The City's 2017 Local Hazard Mitigation Plan (LHMP) is an Administrative Regulation adopted to facilitate to identification the City's hazards, review and assessment of past disaster occurrences, estimate the probability of future occurrences and set goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards.

1.2.3.5 City of Banning Building Code

The City's Building Code (BMC Chapter 15, Article 8, Sections 8.010 through 8.040) are intended to regulate the construction of applicable facilities and encompasses (and formally adopts) associated elements of the CBC. Specifically, this includes "regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, use, height, area and maintenance of all structures and certain equipment therein."

1.2.3.6 City of Banning Weed Abatement Program

The City's Hazardous Weed Abatement Standards (City of Banning Fire Code 304.1-304.1.2, City of Banning Ordinances 8.48.050, 8.28.050, 8.48.210) are intended to minimize wildland fire hazards through prevention activities and programs. These regulations follow Government code sections 39501 and 39502 and give responsibility to property owners, leasers, and occupants of the property to ensure that the prevention and abatement of public nuisances caused by weeds, hazardous vegetation or rubbish on or about any parcel.

Chapter 49 of the CFC, as adopted by the City, establishes vegetation management requirements for development within areas identified as High or Very High FHSZ, which includes 100 feet of fuel modification on publicly or privately-owned lands adjacent to native or naturalized vegetation. The City requires Fuel Modification Plans for all new development, which are intended to reduce the risk of significant loss, injury, or death involving wildland fires.

2 Background

This First Hathaway Logistics Project Wildfire Evacuation Plan was prepared based on the City of Banning Emergency Operations Plan (EOP).

To establish a framework for implementing well-coordinated evacuations, the City, like most California emergency operations agencies, has adopted evacuation procedures in accordance with the State of California's Standardized Emergency Management System (SEMS) and the National Incident Command System (NIMS). Large-scale evacuations are complex, multi-jurisdictional efforts that require coordination between many agencies and organizations. Emergency services and other public safety organizations play key roles in ensuring that an evacuation is effective, efficient, and safe.

Evacuation is a process by which people are moved from a place where there is immediate or anticipated danger, to a safer place, and offered temporary shelter facilities. When the threat passes, evacuees are able to return to their normal activities, or to make suitable alternative arrangements.

Evacuation during a wildfire is not necessarily directed by the fire agency, except in specific areas where fire personnel may enact evacuations on-scene. The City of Banning Police Department would be the primary law enforcement agency responsible for evacuations within the City's jurisdiction. As detailed in the City's EOP, BPD would staff the Law Enforcement Branch, which manages the Evacuation & Reentry Unit. If the evacuation requires coordination with other jurisdictions, or BPD need additional support to conduct an evacuation, the Riverside County Sheriff's Department Operations Center (DOC) will coordinate evacuation and re-entry activities and overall Riverside County Sheriff's Department emergency response. During any evacuation event that exceeds normal Riverside County Sheriff's Department capacity, the County's Operational Area (OA) 's Emergency Operations Center (EOC) will be activated. In the event the EOC is activated, the EOC Law Enforcement Branch will activate the Evacuation Re-Entry Unit to coordinate the countywide evacuation and re-entry functions. Incident information and resource needs will be communicated from the Sheriff's DOC to the OA EOC Law Enforcement Branch.

The County Sheriff's DOC works closely with other organizations including RCFD, with the DOC being in charge of coordinating RCFD activities. Additionally, the Law Enforcement branch will link the OA EOC to many resources including the Sheriff's DOC, IC for incidents under the management of law enforcement services, as appropriate, Evacuation teams, Shelters, Transportation agencies , and other Supporting agencies.

Every evacuation scenario will include some level of unique challenges, constraints, and fluid conditions that require interpretation, fast decision making, and alternatives. For example, one roadway incident that results in blockage of evacuating vehicles may require short-term or long-term changes to the evacuation process. Risk is considered high when evacuees are evacuating late, and fire encroachment is imminent. This hypothetical scenario highlights the importance of continuing to train responding agencies, model various scenarios, educate the public, provide contingency plans, and take a very conservative approach to evacuation decision timelines.

Equally as important, the evacuation procedures should be regularly updated with lessons learned from actual evacuation events, as they were following the 2022 Riverside County fires. The authors of this Wildfire Evacuation Plan recommend that occasional updates are provided, especially following lessons learned from actual incidents, as new technologies become available that would aid in the evacuation process, and as changing landscapes and development patterns occur within and adjacent to the Project site that may impact how evacuation is accomplished.

This First Hathaway Logistics Project Wildfire Evacuation Plan is consistent with the City evacuation planning standards and can be integrated into a county or regional evacuation plan and other pre-plans when and if the area officials and stakeholders (CAL FIRE, RCFD, OES, Riverside Sheriff's Department, and others) complete one.

As demonstrated during large and localized evacuations occurring throughout Riverside County historically, an important component to successful evacuation is early assessment of the situation and early notification via managed evacuation declarations. The City utilizes early warning and informational programs to help meet these important factors. Among the methods available to citizens for emergency information are Nixle, a mass communications hub platform that allows the City to provide secure, reliable, and relevant information to residents in real-time, in addition to radio, television, social media/internet, neighborhood City patrol car or County Sheriff patrol car, and aerial public address notifications, and Reverse 9-1-1 or Alert RivCo. The County of Riverside instituted this regional notification system that is able to send telephone notifications to occupants and businesses within Riverside County impacted by, or in danger of being impacted by, an emergency or disaster. This system, called Alert RivCo, is used by emergency response personnel to notify homes and businesses at risk with information on the event and/or actions (such as evacuation, shelter-in-place, gas leak, missing person, etc.) they are advised to implement. The system utilizes the region's 9-1-1 database, provided by the local telephone company(ies), and thus is able to contact landline telephones whether listed or unlisted. It is TTY/TDD capable.

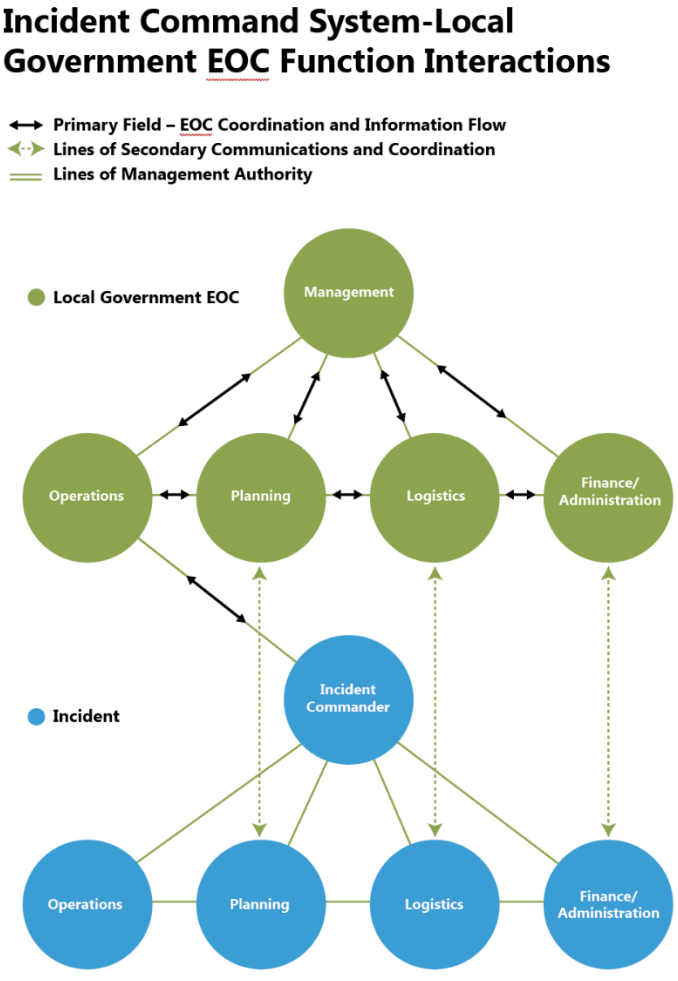
Because the system uses the 9-1-1 database, only landline numbers are in the system. If you have a Voice over IP (VoIP) or cellular telephone and would like to be notified over that device, or if you would like an email notification, you must register those telephone numbers and/or email address for use by the system to receive voice, text, and email messages.

3 Riverside County Evacuation Planning

This Wildfire Evacuation Plan incorporates concepts and protocols practiced throughout the City and Riverside County. The City follows basic protocols set forth the County's EOP and California Master Mutual Aid Agreement, which dictate who is responsible for an evacuation effort and how regional resources will be requested and coordinated.

First responders are responsible for determining initial protective actions before EOCs and emergency management personnel have an opportunity to convene and gain situational awareness. Initial protective actions are shared/communicated to local EOCs and necessary support agencies as soon as possible to ensure an effective, coordinated evacuation. Figure 4 summarizes the functional interactions of local government EOCs under the Incident Command System.

Figure 4. Incident Command System Local Government EOC Functional Interactions



The Riverside County Sheriff's Department (RCSD) is the lead agency for executing evacuations of the unincorporated areas of Riverside County. In the incorporated cities, local law enforcement (or the Sheriff in contracted cities) will be the lead agency for executing evacuations. The RCSD, as part of Unified Command, assesses and evaluates the need for evacuations, and orders evacuations according to established procedures. During an evacuation effort, the EOC Law Enforcement Branch Director supports the development of alert and warning messages and provides intelligence regarding road closures and evacuations, this position is staffed by the RCSD. The RCSD will be assisted by other law enforcement and support agencies. Law enforcement agencies, highway/road/street departments, and public and private transportation providers will conduct evacuation operations as directed by the OA EOC. Procurement, regulation, and allocation of resources will be accomplished by those designated. Evacuation operations will be conducted by the following agencies:

- Riverside Emergency Animal Rescue System (REARS)
- Riverside County Emergency Management Department (EMD)
- Riverside University Health System-Public Health (RUHS-PH)
- Riverside University Health System - Behavioral Health (RUHS-BH)
- Riverside County Department of Environmental Health (DEH)
- Riverside County Office on Aging
- Riverside County Agricultural Commissioner's Office
- Cal OES Law Enforcement Mutual Aid Region VI
- American Red Cross (ARC)
- Volunteers Active in Disasters (VOAD)
- California Highway Patrol (CHP)
- Transportation agencies
- Other County and state agencies, as needed
- The following overview contains information from the Riverside County EOP Emergency Support Annex 16.

3.1 P.A.C.E Evacuation Planning

P.A.C.E. evacuation planning is based on a military concept focused on mitigating risk by developing a strong primary evacuation plan along with three back up plans. If the Primary plan is compromised, the Alternate plan would be triggered. If the Alternate is considered not functional or not safe, the Contingency Plan is implemented. If that does not mitigate the risk, then the evacuation reverts to the Emergency plan. P.A.C.E. Planning is a simple and effective tool used to accomplish evacuations with flexibility and redundant contingencies.

Emergency plan. The PACE Evacuation Plan must be maintained, reviewed, and updated at least every 2 years. The plan provides the following:

(1) Based on and includes a documented, facility-based and community-based risk assessment, utilizing hazard analysis approach.

(2) Include strategies for addressing emergency events identified by the risk assessment.

(3) Address participant population, including, but not limited to, the type of services the PACE organization has the ability to provide in an emergency; and continuity of operations, including delegations of authority.

(4) Include a process for cooperation and collaboration with emergency preparedness officials' efforts to maintain an integrated response during a disaster or emergency situation.

Primary: This is the overall preferred plan of action to use based on the most likely and most damaging scenario resulting from hazard analysis.

Alternate: The Alternate plan should be as viable as your Primary plan. That isn't always the case, but that should be the goal whenever possible. Alternate plans are needed because unforeseen circumstances arise during emergency evacuations.

Developing the Alternate plan includes analyzing the most likely problems that could cause your primary plan to fail and then come up with a plan that fits with your situation that won't be affected by those problems. Whenever possible, come up with a few to several vulnerabilities in your primary plan and find an alternate that's just as good but covers all those bases.

Contingency: The contingency evacuation plan is the action that will be implemented if you cannot implement either the Primary or the Contingency action due to compromised safety. The contingency isn't always (or isn't usually) as preferred as the others, but is a viable option that doesn't rely on the same actions as the Primary and Alternate.

Emergency: This is the action that is implemented if all three of the previous actions fail. In some respects, it is a last resort that is the least preferred option, but is a viable and safe option, nonetheless. The goal is to utilize an Emergency plan that's independent from reliance on the types of actions in the first three options, is a flexible plan, has the highest probability of succeeding, and offers a reliable option with little potential for compromise.

An emergency plan may not be the most convenient or preferred plan and may include components that are uncomfortable to visitors, but it should be as foolproof as possible.

The First Hathaway Logistics Project approach to the P.A.C.E model is summarized in Table 1.

Table 1. P.A.C.E Evacuation Plan for First Hathaway Logistics Project.

1. Primary: Project will evacuate via the primary evacuation route(s) early after receiving evacuation notice utilizing the primary evacuation route(s) as directed by law enforcement/emergency managers.
2. Alternate: Project will follow evacuation instructions which may include an alternate plan to utilize secondary routes or to relocate to nearby urban areas based on congested traffic conditions. Notifications that this alternate plan is being implemented will be provided via the notification systems or on-site emergency personnel, media and social media.
3. Contingency: Due to primary and alternate options being compromised or undesirable, the contingency plan of evacuating smaller, highest vulnerability populations will be implemented. For the Project, this may include evacuating until direction is provided to cease evacuation and initiate on-site sheltering of a smaller on-site population.
4. Emergency: When the wildfire or other emergency dictates that off-site evacuation is not advised by the primary or alternate evacuation routes, and conditions are such that open air exposure would be unhealthy or unsafe, the First Hathaway Logistics population will be directed to shelter in place. Sheltering in place is possible due to the ignition resistant construction materials and irrigated landscape that creates a fire hardened development. Sheltering in place may also be the preferred option for other emergencies, e.g., active shooter, earthquake. Persons sheltering in place are advised to remain aware of the situation and move out of the building to a designated safe zone if directed to do so or otherwise necessitated.

3.2 Evacuation Objectives

BPD is the lead agency for evacuations of areas within the city, including the proposed First Hathaway Logistics Project. The BPD, as part of a Unified Incident Command System, assesses and evaluates the need for evacuations, and orders evacuations according to established procedures. Additionally, as part of the Unified Incident Command System, the BPD identifies available and appropriate evacuation routes and coordinate evacuation traffic management with Caltrans, CHP, other supporting agencies, and all impacted jurisdictions.

The decision whether to evacuate or shelter-in-place must be carefully considered with the timing and nature of the incident. This decision is made by first responders in the field by the established Incident Command (IC) or Unified Command (UC). An evacuation effort involves an organized and supervised effort to relocate people from an area of danger to a safe location. Tactical decisions, such as detailed evacuation areas, specific routes, road closures and temporary evacuation points are decided in the field by IC or UC based upon the dynamics of the incident.

Per the City's EOP, the responsibilities of the RCSD Evacuation and Re-Entry unit are as follows:

- Responsible for an orderly, systematic evacuation of City residents and visitors due to an extreme emergency.
- Ensure that all items under the Americans with Disabilities Act are covered for evacuations/movement operations.
- Ensure public safety for incarcerated evacuees.
- Develop an evacuation and or re-entry plan.

The initial actions of the BPD Evacuation and Re-entry unit during emergency evacuation operations are to:

- Receive briefing from the Law Enforcement Director.
- Establish the lead time needed prior to evacuation/re-entry.
- Develop an evacuation/re-entry plan with the following priorities in mind:
  - Public safety of Medical and health services
  - Delivery of essential provisions and other necessary resources
- Coordinate with the Public Works Branch, the Utilities Branch, the American Red Cross, Schools Branch, local transit company, and other necessary staff to develop a cohesive evacuation plan.
- Develop evacuation routes and request the Public Information Officer to begin drafting an evacuation notice for the public with specific instructions and routing information as well as information for evacuating special needs populations.
- Arrange with Public Works Director for barricades and inform them of where the barricades are to be placed.
- Ensure that the following occurs:
  - Provide appropriate evacuation/re-entry information to emergency responders.
  - Provide appropriate evacuation/re-entry information to the evacuees.
  - Arrange for transportation, if necessary.
- Provide security for evacuated areas and sheltering of evacuees.
- Arrange for evacuation of the elderly and infirm or others with special needs.
- Coordinate with the American Red Cross and Banning Unified School District regarding sheltering needs.

- Identify potential problem areas along evacuation/re-entry routes, i.e., weight restrictions, narrow bridges, road sections susceptible to secondary effects of an incident, etc.
- Estimate the number of people to be evacuated/re-enter and explain transportation policy (i.e., movement, control, use of public and private vehicles, etc.).
- Make appropriate arrangements to transport emergency workers.
- Designate areas along movement routes where evacuees can obtain fuel, water, medical aid, vehicle maintenance, information, and comfort facilities.
- Identify areas for parking and vehicle security in reception areas.

The intermediate actions of the BPD Evacuation and Re-entry unit during emergency evacuation operations are to:

- Ensure that the Emergency Alert System (EAS) broadcasts the evacuation/re-entry order, transportation routes, assembly points for those needing transportation, and shelter sites.
- Coordinate with the Care and Shelter Director, the American Red Cross and Logistics Section to ensure adequate supplies at all shelter and mass care sites.
- Ensure that all barricades are up and located as identified in the evacuation/re-entry plan developed for the incident.
- Notify all command posts and the Operational Area of the evacuation/re-entry.
- Deploy additional Law Enforcement Officers and/or Cadets to canvass the evacuation area to provide a verbal notification of evacuation for those who may not have heard the EAS announcements.

If County EOC is managing the incident, the following are the responsibilities of the RCSD Evacuation and Re-Entry unit, per the County's EOP Emergency Support Function 16:

- Establish evacuation strategy for impacted area(s)
- Coordinate evacuation alert and warning to allow people maximum time to evacuate
- Coordinate evacuation transportation routes with local and state agencies
- Ensure shelter locations and evacuation routes are aligned
- Coordinate with the OA EOC Logistics Section to obtain required supplies, equipment, and personnel for evacuation
- Coordinate evacuation transportation for people with disabilities an access and functional needs
- Coordinate with local transportation systems to provide assets for transportation
- Coordinate the location for evacuation assembly points
- Ensure communications are available between key evacuation locations and evacuation vehicles
- Coordinate animal evacuation resources ▪ Coordinate with Hazardous Materials Team to determine evacuation versus shelter-in-place criteria
- Coordinate with other local authorities, and the Regional Emergency Operations Center as necessary, to ensure that the public, including people with disabilities and AFN, is aware of the timeline, stages, and major routes and means of evacuation
- Coordinate public safety and security resources will be required to support the evacuation
- Coordinate with specialty vehicles (e.g., Para-transit like vehicles) that will be required to support the evacuation
- Begin planning for evacuee re-entry strategy, which includes all the tasks listed above.

The overall objectives of the RCSD Evacuation and Re-entry unit during emergency evacuation operations are to:

- Expedite the movement of persons from hazardous areas;
- Institute access control measures to prevent unauthorized persons from entering vacated, or partially vacated areas;
- Provide for evacuation to appropriate transportation points, evacuation points, and shelters;
- Provide adequate means of transportation for persons with disabilities, the elderly, other persons with access and functional needs, and persons without vehicles;
- Provide for the procurement, allocation, and use of necessary transportation and law enforcement resources by means of mutual aid or other agreements;
- Control evacuation traffic;
- Account for the needs of individuals with household pets and service animals prior to, during, and following a major disaster or emergency;
- Provide initial notification, ongoing, and re-entry communications to the public through the Joint Information Center (JIC); and
- Assure the safe re-entry of the evacuated persons.

3.3 Evacuation Coordination Process

If the emergency only impacts the City, BPD will make the decision to evacuate:

- Based on the information gathered, local jurisdictions will generally make the determination on whether to evacuate communities as the need arises, on a case-by-case scenario basis.
- The decision to evacuate will depend entirely upon the nature, scope, and severity of the emergency; the number of people affected; and what actions are necessary to protect the public.
- Local jurisdictions may activate their EOC and conduct evacuations according to procedures outline in their EOP.
- The OA EOC may make recommendations on whether a community should evacuate and may help coordinate the evacuation effort.
- The Evacuation Annex is automatically activated when an incident occurs requiring an evacuation effort that impacts two or more jurisdictions within the OA.

If the emergency impacts multiple jurisdictions within the OA:

- All impacted jurisdictions may activate the EOCs and the OA EOC will be activated, including the OA EOC JIC.
- The OA EOC will being obtaining situational awareness, understanding the severity of the incident.
- The OA EOC will coordinate with fire, law enforcement, public health, and other relevant support agencies to obtain recommendations on protective actions.
- The OA EOC will coordinate with jurisdictional EOCs, emergency management personnel and other public safety personnel. The Policy Group within the EOC will coordinate with jurisdictions leaders across the OA to identify command decisions, including:
  - Gaining regional situational awareness
  - Determining response status
  - Reviewing status of initial protective actions

  - Considering additional protective actions
  - Evaluating public information needs
  - Determining next steps
  - Establishing a regular schedule for internal and external updates
- The OA EOC JIC will coordinate emergency public information to citizens in accordance with procedures established within the Joint Information System (JIS) annex of the OA EOP.
- The OA EOC may support coordinating the evacuation response according to the OA EOP, including:
  - Providing transportation for those who need assistance through the activation of emergency transportation services agreements;
  - Provide support for individuals with disabilities and others with access and functional needs during the evacuation process, which may include, but is not limited to, providing assistance with wayfinding, supervision, and language interpretation;
  - Coordinate and communicate with the private sector, community-based organizations, and faith-based organizations to utilize services and resources available to support the response;
  - Coordinate the provision of accessible care and shelter services.

3.4 Evacuation Response Operations

An evacuation of any area requires significant coordination among numerous public, private, and community/non-profit organizations. Wildfire evacuations will typically allow time for responders to conduct evacuation notification in advance of an immediate threat to life safety; giving occupants time to gather belongings and make arrangements for evacuation. On the other hand, other threats, including wildfires igniting nearby, may occur with little or no notice and certain evacuation response operations will not be feasible (for example, establishing contra flow requires between 24 to 72 hours to be implemented; a no-notice event will not allow for contra flow to be established). Evacuation assistance of specific segments of the population may also not be feasible.

3.4.1 Evacuation Points and Shelters

When the BPD or Incident Command (IC) implements an evacuation order, they coordinate with the responding fire and rescue agency, the EOC, and others, to decide on locations to use as a Temporary Evacuation Point (TEP). The BPD will provide emergency alerts through the Nixle platform to direct evacuees to the established TEPs or shelters. These evacuation points will serve as temporary safe zones for evacuees and will provide basic needs such as food, water, and restrooms. Possible shelters and assembly areas that can provide at least short-term refuge and that would be designated by emergency managers during an evacuation near the Project include:

- Repplier Park
- Nicolet Middle School
- Other refuge sites are available within developed communities primarily to the west the Project site.

If there are occupants unable to evacuate or in need of transportation assistance to get to a TEP or shelter, the BPD or IC may establish transportation points to collect and transport people without transportation resources to evacuation points. These transportation points should be large, well-known sites such as shopping centers,

libraries, and schools. Transportation should be accessible to all populations, including people with disabilities and other access and functional needs.

3.4.2 Pet Evacuations

The Pets Evacuation and Transportation Standards Act of 2006 amends the Stafford Act, and requires evacuation plans to take into account the needs of individuals with household pets and service animals, prior to, during, and following a major disaster or emergency.

The Riverside County Department of Animal Services (DAS) has plans in place to transport and shelter pets in a disaster under ESF 20 of the OA EOP. Domestic animals in need of housing will be accepted at and/or transported to animal shelters used by DAS; these may include County animal shelters and/or partner agency shelters, such as Animal Friends of the Valley. DAS will provide provisions for service animals at human shelters to include food, water, relief area identification and any other provisions needed to support the animal. Depending on the severity of the imminent or actual event, it may be necessary to prepare for and operate additional animal shelters. If ARC shelters are open for human evacuees, a determination will be made regarding the feasibility of co-locating animals at shelters. In most cases, humans and animals (not including service animals) cannot be co-located at the same shelter site due to concerns with allergies, bites, etc. Service animals are permitted at human shelters at all times and in every circumstance. If colocation is an option, animal response teams will be dispatched to ARC shelter sites and arrangements will be made to obtain emergency supplies and any specialized equipment needed to care for the animals.

If co-location is not an option, or if the animal is not a service animal, existing animal shelter sites will be utilized as noted above, DAS will provide for the pick-up and transport of animals from human shelter sites to animal shelter sites. Animals at shelter sites will be provided for with shelter, food, water and other necessary provisions. DAS has a professional system they use to identify and re-unify animals with their owners.

3.4.3 Shelter-in-Place (County EOP Discussion)

As stated in the County EOP, sheltering-in-place advises people to stay secure at their current location. This tactic shall only be used if an evacuation will cause a higher potential for loss of life. Consideration should be given to assigning incident personnel to monitor the safety of citizens remaining in place. The concept of shelter-in-place is an available option in those instances where physical evacuation is impractical. This procedure may be effective for residential dwellings in the immediately impacted areas, or for large facilities that house a high percentage of non-ambulatory persons (e.g., hospitals and convalescent homes). Sheltering-in-place attempts to provide a safe haven within the impacted area.

The decision on whether to evacuate or shelter-in-place is carefully considered with the timing and nature of the incident (Riverside County 2019). Sheltering-in-place is the preferred method of protection for people that are not directly impacted or in the direct path of a hazard. This will reduce congestion and transportation demand on the major transportation routes for those that have been directed to evacuate by police or fire personnel. The communities adjacent to the proposed First Hathaway Logistics Project includes homes built in the 2000s and are in varying states of ignition resistance. Unlike most new master planned communities that incorporate ignition-resistant construction and provide defensibility throughout (like First Hathaway Logistics Project will), responding fire and law enforcement personnel may not be able to direct existing occupants of neighboring developments to

temporarily refuge in their homes or on-site; however, it would be possible for occupants of First Hathaway Logistics Project. Developments that are not built to the ignition-resistant standards can be retrofitted to increase their ability to withstand wildfire and ember storms by focusing on roofs, windows, walls, vents, appendages and defensible space. Attention to these components of a home's fire protection system is recommended for existing home and business owners within the Project Area. The structures within the Project site would conform to the ignition-resistant building codes codified in Chapter 7A of the California Building Code, would be ignition-resistant, defensible and designed to require minimal firefighting resources for protection, which enables this contingency option when it is considered safer than evacuation.

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4 Evacuation Road Network

As evidenced by historical mass evacuations in Riverside County and throughout Southern California, even with roadways that are designed to the code requirements, it may not be possible, or even the best response, to move large numbers of persons at the same time as part of a mass-evacuation. Instead, informed, phased evacuations enable more streamlined evacuations where those at highest risk are moved first. Road infrastructure throughout the United States, and including Riverside County, is not designed to accommodate a short-notice, mass evacuation without some level of congestion (FEMA 2008). The need for evacuation plans, pre-planning, and tiered or targeted and staggered evacuations becomes very important for improving evacuation effectiveness. Among the most important factors for successful evacuations in urban settings is control of intersections downstream of the evacuation area. If intersections are controlled by law enforcement, barricades, signal control, and other means, potential backups and slowed evacuations can be minimized. Multiple evacuation points enable more evacuees the ability to evacuate with less impact on roadways.

Wildfires that occur on non-extreme weather days behave in a much less aggressive manner and pose fewer dangers to life and property because they include less aggressive fire behavior and are easier to control. However there can be on-shore wind conditions that can lead to aggressive fire behavior. Terrain and fuel are typically the wildfire drivers. During these non-extreme weather days, vegetation is much more difficult to ignite and does not spread fire as rapidly. In these situations, firefighters have a very high success rate of controlling fires and keeping them under 10 acres. The historical fire record shows that most vegetation fires occur during normal, onshore weather conditions and that such fires account for only a proportionally small amount of the land area burned. Conversely, a small number of wildfires that occur during extreme fire weather account for most of the land area burned. These data highlight that the most dangerous fire conditions are those related to a fire that moves rapidly due to high winds and low humidity, whereas under normal conditions fires are likely to be controlled with no evacuation or possibly limited extent, focused evacuations.

While it is possible that a fire driven by onshore wind (i.e., from the west) could require evacuation of the Project, such an event would be highly unusual. Moreover, due to the reduced fire behavior during normal weather periods, the evacuation would not be expected to be a large-scale evacuation. Instead, most of the Project area population would be anticipated to remain at their locations and within their communities, with a more targeted evacuation being ordered, if needed.

If a wildfire ignited closer to the Project site during weather that facilitates rapid fire spread, a different evacuation approach would need to be considered. Because it is preferred to evacuate long before a wildfire is near, and in fact, history indicates that most human fatalities from wildfires are due to late evacuations when evacuees are overtaken on roads, it is prudent to consider a contingency option. For example, if a wildfire is anticipated to encroach upon the Project area in a timeframe that is shorter than would be required to evacuate all occupants, then options available to responding fire and law enforcement personnel should include 1) partial relocation where occupants are temporarily relocated to nearby shelter sites or areas, or 2) temporary shelter in place where occupants are instructed to remain in protected on-site structures or at a designated site, while firefighters perform their structure protection function.

As described further in the Project's Fire Protection Plan (Dudek 2023), the Project site is located within an area that is subject to wildfires and based on the adjacent land uses and open space in the vicinity, the wildfire potential is considered high. The fire intensity would be expected to be moderate within the post-Project's footprint due to

the design characteristics of the plant exhibits and high to very high within the open space areas that occur adjacent to the Project site. This on-site, reduced fire behavior along with specific protection features, would be expected to facilitate evacuations as well as potential on-site sheltering within designated safe shelter structures, if considered safer than a short-notice evacuation. Although not a designated shelter-in-place site, Project structures include the same level of ignition resistance (e.g., enhanced construction materials) and landscape maintenance (e.g., annual FMZ inspection), are defensible against the anticipated wildfire exposure, and are designed to require minimal resources for protection, which enables this contingency option.

The Project roads and adjacent road circulation system will be able to effectively handle average daily trips generated by the Project. However, as evidenced by mass evacuations in Riverside and elsewhere, even with roadways that are designed to the code requirements, it may not be possible, or even necessary to move large numbers of persons at the same time. Road infrastructure throughout the United States, and including in Banning, is not designed to accommodate a short-notice, mass evacuation (FEMA 2008). The need for evacuation plans, pre-planning, and tiered or targeted and staggered evacuations becomes very important for improving evacuation effectiveness.

Among the most important factors for successful evacuations in populated settings is control of intersections downstream of the evacuation area. If intersections are controlled by law enforcement, barricades, signal control, firefighters or other means, potential backups and slowed evacuations can be minimized. Another important aspect of successful evacuation is a managed and phased evacuation declaration. Evacuating in phases, based on vulnerability, location, or other factors, enables the subsequent traffic surges on major roadway to be smoothed over a longer time frame and can be planned to result in traffic levels that flow better than when mass evacuations include large evacuation areas at the same time. This WEP defers to Law Enforcement and EOC to appropriately phase evacuations and to consider the vulnerability of communities when making decisions. For example, newer development in the area, including the Project, will offer its occupants a high level of fire safety on-site, along with options for firefighter safety zones and temporary on-site refuge as a contingency, as discussed further in this WEP.

Fire Access Road Maintenance

Maintenance is an important component for the long-term reliability of all Project roadways. Maintenance obligations for the First Hathaway Logistics Project will be the responsibility of the Owner/Property Manager for routine road surface and roadside vegetation maintenance throughout the Project site.

4.1 Evacuation Assumptions and Scenarios

This evacuation analysis was performed for the Project to determine how long it would take for employees, and guests/visitors of the Project and the surrounding communities to evacuate to nearby urban areas/freeway access in case of a fire emergency. Current evacuation practice typically targets the scope of the evacuation only to the area in immediate danger and placing a larger area on standby for evacuation. This practice allows for better evacuation operations, reduces gridlock, and reserves sufficient travel way for emergency vehicles. It is assumed that first responders or law enforcement will direct traffic at all major downstream intersections during the evacuation process.

During the evacuation process, which can proceed aided by the roadside fuel modification zones and unexposed corridors, wildfire spread and encroachment may be slowed by fire-fighting efforts that would likely include fixed wing and helicopter fire-fighting assets. Hand crews would also be deployed toward containment. None of the evacuation scenarios assumed contraflow lanes, as these lanes are reserved for first responders, law enforcement, and fire fighters in case of unforeseen circumstances.

Since the Project is located amidst residential zones to the west and northeast, this examination assumes an evacuation directive on a Saturday afternoon when most residents are expected to be at home, while the Project operations continue. The number of evacuating vehicles from the Project's site was calculated based on the average parking generation rate from the Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition, and assumes that these are the trips to be evacuated. For a reasonable analysis, these scenarios assumed that two percent (2%) of the evacuating vehicles are heavy vehicles (trucks with trailers). Two percent is the nationally acceptable ratio of heavy vehicles to all vehicles.

Saturday Afternoon Evacuation; full operation, all residents are home

CRA presumes that the evacuation would transpire on a Saturday afternoon, a time when the project is operational and residents in nearby communities are home, meaning all residential vehicles would be required to evacuate. Additionally, it is assumed that the parking demand on a Saturday afternoon would be analogous to a typical weekday demand. In contrast, the ITE Trip Generation Manual suggests that the weekday trip generation for General Light Industrial land uses is 4.87 trips per 1,000 square feet, while the weekend trip generation rate is 0.69 trips per 1,000 square feet.

When comparing weekday and weekend trip generation rates for this land use, it is apparent that the weekend trip generation rate is only 14.2% of the weekday trip generation rate. Therefore, the number of vehicles incorporated in the ensuing analysis is conservative. In an actual evacuation scenario, the total number of vehicles needing to evacuate may actually be less. Additional assumptions during wildfire are as follows:

1. The Operation Area commander would prioritize land uses located adjacent to the Wildland Urban interface area or area with immediate risk, depending on the location of the fire.
2. Based upon review of 20 years of fire history in the area, it was found that all of the fires only reached the boundary between the developed area and the land use adjacent to the Wildland Urban interface area[1]. Therefore it is unlikely that all of area "C" would need to evacuate at the same time as the Project, and the surrounding communities. However, for a conservative analysis, it is assumed that all of the areas shown in Figure 3 would evacuate at the same time.
3. The analysis also operates under the assumption that the traffic to be evacuated would utilize local thoroughfares like E Ramsey Street, E Williams Street, E Nicolet Street, E George Street, and E Hoffer Street to evacuate in a westward direction. It is deemed to have reached a safe location once it arrives at North Alessandro Street.

Primary Evacuation Routes

CRA assumed that traffic evacuating from both the Project and nearby communities/land uses would use the closest evacuation routes to leave the area. Evacuation routes were selected based upon review of the Project's site, available evacuation routes, and the quickest way to leave areas located adjacent to the Wildland Urban Interface. This assumption selects a reasonable evacuation route for the assumed extreme weather scenario. Detailed evacuation analysis information is provided in Attachment B of Appendix C.

No contraflow lanes were assumed to provide access for first responders and law enforcement. Two-way travel was assumed, with evacuating vehicles traveling outbound to the Safe Zone. It is assumed that first responders or law

[1] https://projects.capradio.org/california-fire-history/#13.97/33.93006/-116.86342

enforcement will direct traffic at all major intersections during the evacuation process. Should evacuation managers determine that contraflow is preferred or necessary, evacuation capacity would increase while evacuation times would decrease.

Safe Zone

Based on Dudek's review of the area's fire history, fires have halted along areas adjacent to wildland fuels and have not historically progressed into the more densely urbanized, irrigated, and hardscaped areas. Specifically, none of the historical fires encroached beyond the periphery areas within the wildland urban interface area of the City of Banning. Thus, it is assumed that evacuees are considered to reach a safe area once they are within the more densely urban areas such as the area west of North Alessandro Street.

Evacuation Scenarios

A total of five evacuation scenarios were analyzed:

- Scenario 1 – *Existing Land Uses*: This scenario estimates the evacuation time for the existing land uses within the study area (Area A through C) and would direct evacuating vehicles toward North Alessandro Street.
- Scenario 2 – *Proposed Project Only*: This scenario assumed full evacuation of the proposed Project and would direct evacuating vehicles toward North Alessandro Street.
- Scenario 3 – *Existing Land Uses with the proposed Project*: This scenario is similar to Scenario 1 (Area A through C), with the addition of the proposed Project traffic.
- Scenario 4 – *Existing Land Uses with Cumulative Growth*: This scenario is similar to Scenario 1, with an ambient growth of 5% to represent potential cumulative growth in the area. It's important to note that upon examining the City of Banning General Plan, Development Projects website, and the Major Residential Projects Map, the Project team didn't identify any other cumulative projects. Therefore, as a conservative approach, a 5% growth factor was applied across the entire study area.
- Scenario 5 – *Existing Land Uses with Cumulative Projects with the proposed Project*: This scenario is similar to Scenario 4, with the addition of the proposed Project traffic.

Evacuating Vehicles

The number of evacuating vehicles was calculated using the following assumptions:

- Residential land uses: Residential units x average vehicle ownership (2.27 vehicles per household)
- Hotel: Assumed maximum occupancy (48 vehicles total)
- Industrial land uses: Counted based on aerial images and rounded up
- Project: Calculated based on ITE parking generation rate

Average vehicle ownership, residential units, and evacuating vehicles calculations are provided in Attachment A of Appendix C. Table 2 displays the number of vehicles evacuating under each scenario.

Table 2. Evacuating Vehicles

Scenario	Evacuation Time					
	Nearby Land Uses				Project	Total
	A	B	C	D		
Scenario 1 – Existing Land Uses	908	50	1,433	0	0	2,391
Scenario 2 – Proposed Project Only	0	0	0	1	555	556
Scenario 3 – Existing Land Uses with Proposed Project	908	50	1,433	0	555	2,946
Scenario 4 – Existing Land Uses with Cumulative Projects	1,148	217	2,275	515	0	4,155
Scenario 5 – Existing Land Uses with Cumulative Projects with the proposed Project	1,148	217	2,275	515	555	4,710

4.2 Potential for Project Evacuation Impact on Existing Conditions

The potential occurrence of a simultaneous, large evacuation event including evacuation of a large area of existing populations is minimal, but possible. In this case, the existing populations for potential evacuation in the area would be associated with a variety of populations including residential, nearby commercial/office uses, recreational and other uses. To analyze the evacuation events, CRA conducted simulations using Vissim, a microscopic, multimodal traffic flow modeling software used to simulate different traffic conditions. In Vissim simulations, roadway capacity is accounted for and each vehicle in the traffic system is individually tracked through the model and comprehensive measures of effectiveness, such as average vehicle speed and queueing, are collected on every vehicle during each 0.1-second of the simulation. This software enables drivers' behaviors during an evacuation to be replicated. A total of 20 simulations were conducted to yield a reasonable sample size to determine the performance of the study area roadways and impacts during evacuation scenarios. To be conservative, CRA assumed a worst-case scenario in which all vehicles belonging to households in the study area would be used in the evacuation, instead of the necessary number of vehicles needed to evacuate the impacted population. Detailed evacuation analysis information is provided in Attachment B of Appendix C.

Based upon review of previous fires and evacuation orders, evacuation modeling considered traffic evacuating from both the Project and nearby developments. A summary of the evacuation time for each scenario is provided below, and shown in Table 3:

- Scenario 1: It would take between 18 minutes and 1 hour and 11 minutes to evacuate the existing land uses.
- Scenario 2: It would take 24 minutes to evacuate the proposed Project only.
- Scenario 3: It would take between 18 minutes and 1 hour and 20 minutes to evacuate the existing land uses and the proposed Project. Under this scenario, the Project would not cause an increase in evacuation time to area B, and the project would cause an increase of 9 minutes to area A and 1 minute to area C. It would take 52 minutes to evacuate the Project's site.

- Scenario 4: It would take between 26 minutes and 1 hour and 23 minutes to evacuate the nearby land uses under the cumulative scenario.
- Scenario 5: It would take between 26 minutes and 1 hours and 32 minutes to evacuate the nearby and Project land use under the cumulative with Project scenario. Similar to Scenario 3, the Project would cause an increase of 7 minutes to area A evacuation time, an increase of 1 minute to area C evacuation time, and an increase of 21 minutes to area D evacuation time. It would takes 1 hour and 32 minutes to evacuate the Project's site.

Table 3. Evacuation Time Summary

Scenario	Total Evacuation Vehicles	Evacuation Time				
		Nearby Land Uses				Project
		A	B	C	D	
Scenario 1 – Existing Land Uses	2,391	1 hour 11 minutes	18 minutes	1 hour 4 minutes	N/A	N/A
Scenario 2 – Proposed Project Only	556	N/A	N/A	N/A	N/A	24 minutes
Scenario 3 – Existing Land Uses with Proposed Project	2,946	1 hour 20 minutes	18 minutes	1 hour 5 minutes	N/A	52 minutes
Scenario 4 – Existing Land Uses with Cumulative Projects	4,155	1 hour 23 minutes	26 minutes	1 hour 9 minutes	1 hour 3 minutes	N/A
Scenario 5 – Existing Land Uses with Cumulative Projects with the proposed Project	4,710	1 hour 30 minutes	26 minutes	1 hour 10 minutes	1 hour 24 minutes	1 hour 32 minutes

As noted in Table 3, Project related impacts to existing community evacuation times are considered insignificant with the maximum potential increased evacuation time occurring with the Project under existing plus Project conditions is 9 minutes in Land Use Area A (refer to Appendix C for illustration). There is up to 1 minute of potential increased evacuation time for Land Use Area C. Changes in evacuation time are not realized in Land Use Area B and Land Use Area D. Under the cumulative plus Project condition, the greatest potential for increase in evacuation time is for Land Use Area D, approximately 21 minutes. There is up to a 7 minute increase in evacuation time in Land Use Area A and up to a 1 minute increase for Land Use Area C. There is no change for Land Use Area B. The 1 to 9 minute potential evacuation time increases in the existing plus Project condition and the 1 to 21 minutes potential increase in evacuation time in the cumulative plus project condition are considered minimal and do not result in evacuation times for existing residents that would be considered excessive.

Study of evacuation timeframes and potential increases in evacuation time with a proposed project are relatively new CEQA focus areas. Public safety, not time, is generally the guiding consideration for evaluating impacts related to emergency evacuation. Consistent with CEQA Guidelines Appendix G, a Project's impact on evacuation is significant if the Project will significantly impair or physically interfere with implementation of an adopted emergency response or evacuation plan.

In any populated area, safely undertaking large-scale evacuations may take several hours or more and require moving people long distances to designated areas. Further, evacuations are fluid and timeframes may vary widely depending on numerous factors, including, among other things, the number of vehicles evacuating, the road capacity to accommodate those vehicles, residents' awareness and preparedness, evacuation messaging and direction, and on-site law enforcement control. The "Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act" guidance from the California Office of the Attorney General suggests that jurisdictions set benchmarks of significance based on past successful evacuations or on those from communities in similar situations.

A recent study titled "Review of California Wildfire Evacuation from 2017 to 2019 " provides more insights on the topic. This research involved interviews with 553 individuals (297 evacuees affected by various fires) including the Creek Fire, Rye Fire, Skirball Fire, and Thomas Fire. The study aimed to understand the decision-making processes of these individuals during the fires, such as whether to evacuate or stay, when to leave, the paths taken, chosen shelters, destinations, and modes of transportation. According to this research, the time it took for evacuations ranged from under 30 minutes to over 10 hours. From this dataset , the average evacuation time for the Creek Fire was found to be 3 hours and 40 minutes, involving 115,000 people . For the Thomas Fire, the average time was 4 hours and 25 minutes, impacting 104,607 individuals.

California fire and law enforcement agencies have integrated training, experience, and technology to assist in successful evacuations, which focus on moving persons at risk to safer areas before a wildfire encroaches on a populated area. Timeframes for moving people vary by site specifics, population, road capacities and other factors and there is no one threshold that would be appropriate to all locations. There are no established thresholds for evacuation times for this Project or at the time of this plan's preparation, for any California community, to the knowledge of the authors. This is primarily because every location and fire scenario are unique. While it may take one community 20 minutes to evacuate safely, it is not a valid assumption to consider a 3-hour evacuation for another community as unsafe. The 3-hour evacuation can be very safe while the 20-minute evacuation may be unsafe due to the conditions and exposures along the evacuation routes.

Notwithstanding evacuation challenges and variables, the City/County in safely managing both mass and targeted evacuations to great success, for example the 2017 Palmer Fire resulted in evacuation of several neighborhood resulted in zero fatality . It should be noted that other variables can impact the number of fatalities during an evacuation. For instance, some individuals may choose to stay behind to defend their property or adopt a wait-and-see approach . Such decisions could delay their evacuation to a point where it becomes too late to leave safely .

Technological advancements and improved evacuation strategies learned from prior wildfire evacuation events have resulted in a system that is many times more capable of managing evacuations. With the technology in use today, evacuations are more strategic and surgical than in the past, evacuating smaller areas at highest risk and phasing evacuation traffic so that it flows more evenly and minimizes the surges that may slow an evacuation. Mass evacuation scenarios where large populations are all directed to leave simultaneously, resulting in traffic delays, are thereby avoided, and those populations most at risk are able to safely evacuate. While mass evacuation scenarios are avoided with the technology in use today, the evacuation simulations conducted in this report are based on mass evacuation scenarios to provide a worst-case scenario, as described previously.

The evacuation simulations conducted herein, as indicated previously, represent mass evacuations in the Project vicinity to provide extremely worst-case scenarios. The Incident Commander would direct a focused evacuation of zones situated near the wild urban interface, which are at higher risk. Areas that are not in immediate danger would

likely not be provided with an evacuation notice initially and may be instructed to remain in place to prioritize the evacuation of vehicles from areas under direct threat. This would result in phasing evacuation traffic so that it flows more evenly and minimizes the surges that may slow an evacuation. Therefore, evacuation flow would be able to be effectively managed and would not likely lead to mass evacuations, as simulated in this report.

Based on the Project area's fire environment, its fuels and terrain along with weather factors, wildfire spread rates during extreme fire events are anticipated to be less aggressive than in heavy fuel, steep terrain locations. Per the Dudek Fire Protection Plan for the Project (Dudek 2023), spread rates are anticipated to be less than 2 mph and flame lengths lower than 10 feet within the fuels that occur in the vicinity of the Project. In terms of evaluating time needed to evacuate vs time available to evacuate, the Project can be evacuated within 24 minutes and wildfire ignitions traveling at the less than 2 mph modeled speeds would enable significant available time to move people off the Project site. If ignitions occur nearby the site, then less time would be available for evacuation, and would need to include an alternative approach if the evacuation routes were considered less safe. Based on the results of this comparison, evacuation of the site is possible in all modeled scenarios. Certain scenarios noted above are projected to potentially use alternative actions, like focusing all evacuating vehicles to one of the three available routes and in one example, considering the possibility of a delayed evacuation where parts of the population could be directed to remain on-site until the fire burns out in the sparse fuels around the evacuation route, and then evacuated through evacuation corridors. However, the Project is considered to be well-suited for evacuations given the three potential separate evacuation routes and the alternative option of temporarily seeking refuge on-site in the wide, converted landscapes that would not readily facilitate wildfire spread.

The Project provides several features that would enhance orderly and safe evacuation, but which are not reflected in the average evacuation time results above. These features include evacuation preparedness, fuel modification along Project roadways, structural hardening of Project structures, and temporary refuge areas and "shelter-in-place"[2] options. These evacuation enhancements would reduce the potential for evacuation friction or interruption; however, such enhancements cannot be well depicted by the traffic evacuation model.

4.1.1 Targeted and Phased Evacuation has Replaced Mass Evacuation Response to Wildfire to Maximize Evacuation Roadway Capacity and Safety

Mass evacuation events have become less common as wildfire evacuation technology and capabilities have improved dramatically in the last 15 years. Wildfire evacuations are managed to move smaller populations in a successive phasing to minimize traffic surges. Populated areas are evacuated in phases based on proximity to the event and risk levels. For example, it is anticipated that wildfire evacuations of the Project area will likely include the relocation of residential populations that are closest to open space, along with employees and visitors of the Project first, and then additional populations based on exposure to the wildfire in successive fashion rather than mass evacuating the entire Banning area. The Project is built to ignition resistant standards and represent fire-safe fuel breaks that provide emergency managers many options. The result of this type of evacuation is that employees and visitors that may be in locations that would be closest to a wildfire burning in open space areas are temporarily moved from the vicinity and vehicle congestion on evacuation routes is minimized, enabling a more efficient evacuation. Under this evacuation approach, the evacuation would include a much smaller population and would

[2] Shelter-in-place involves the use of a structure, including homes, to temporarily separate individuals from a hazard or threat, and is implemented when a hazard or threat is imminent or occurring and a safe evacuation is not feasible.

be implemented in a surgical way. The evacuation time would be even lower and would have very little impact on the existing communities.

It is anticipated that wildfire evacuations of the Project area will likely include the relocation of residential populations that are closest to the WUI, and then additional populations based on exposure to the wildfire in successive fashion. This enables the subsequent traffic surges on major roadways to be smoothed over a longer time frame and improves traffic flow. It is extremely unlikely that a mass evacuation would include the entire City or Project area. Occupants in locations that would be closest to a wildfire burning in open space areas would be moved from the vicinity first to minimize vehicle congestion on evacuation routes, ensure occupant safety and enable a more efficient evacuation. The evacuation would likely include a much smaller population and would implemented in a more surgical fashion compared to the evacuation modeling undertaken for the Project, which assumed all existing communities would evacuate concurrently. The evacuation time would, therefore, be even lower than modeled, further bolstering the conclusion the Project would have very little impact on existing communities' ability to safely evacuate.

Dept of Homeland Security (2019) provides supporting data for why jurisdictions have moved to the surgical evacuation approach that leverages the power of situation awareness to support decision making. According to their Planning Considerations: Evacuation and Shelter in Place document, they indicate that delineated zones provide benefits to the agencies and community members. Evacuation and shelter-in-place zones promote phased, zone-based evacuation targeted to the most vulnerable areas, which allows jurisdictions to prioritize evacuation orders to the most vulnerable zones first and limit the need to evacuate large areas not under the threat. Zones help:

- Jurisdictions to understand transportation network throughput and capacity, critical transportation and resource needs, estimated evacuation clearance times, and shelter demand.
- Planners to develop planning factors and assumptions to inform goals and objectives.
- Community members to understand protective actions to take during an emergency.
- Shelters to limit traffic congestion and select locations suitable for the evacuated population.

While the amount of time needed to evacuate the Project would vary by the type of incident, the number of evacuation routes utilized, the amount of mobilization time taken by residents, actual areas at risk, and other factors, the targeted approach would minimize the size of the area being evacuated and use a phased approach, which would likely reduce evacuation time below the above evacuation time estimates. Accordingly, roadway capacity would remain adequate to undertake safe and effective evacuations with development of the Project.

4.2 Evacuation Route Determination

Typically, fire and law enforcement officials will identify evacuation points before evacuation routes are announced to the public. Evacuation routes are determined based on the location and extent of the incident and its spread rate and direction and include as many pre-designated transportation routes as possible. However, field conditions and shifting fire behavior may result in real-time changes to predetermined routes. Having additional evacuation route options is considered critical in these conditions. Evacuees are considered to reach a safe area once they are within the more densely urban areas such as the area west of North Alessandro Street or on I-10.

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5 Wildfire/Evacuation Awareness

The First Hathaway Logistics Project should be active in its outreach to its business owners and employees regarding fire safety and general evacuation procedures. There are aspects of fire safety and evacuation that require a significant level of awareness by business owners and employees in order to reduce and/or avoid problems with an effective evacuation. Mitigating potential impediments to successful evacuations requires focused and repeated information through a strong educational outreach program. The First Hathaway Logistics Project should engage occupants and coordinate with local fire agencies for fire safety awareness through a variety of methods.

This Wildfire Evacuation Plan will be accessible on the Project's website. It is strongly recommended that an annual reminder notice be provided to each employee encouraging them to review this WEP and be familiar with community evacuation protocols. Additionally, it is also recommended that the Developer or Property Management Company coordinate with local fire agencies to hold an annual fire safety and evacuation preparedness informational meeting for employees. The meeting should be attended by representatives of appropriate fire agencies and important fire and evacuation information should be reviewed.

The focus of the "Ready, Set, Go!" program is on public awareness and preparedness, especially for those living and/or working in wildland-urban interface (WUI) areas. The program is designed to incorporate the local fire protection agency as part of the training and education process in order to ensure that evacuation preparedness information is disseminated to those subject to the potential impact from a wildfire. There are three components to the program:

- "READY" – Preparing for the Fire Threat: Take personal responsibility and prepare long before the threat of a wildfire so you and your home are ready when a wildfire occurs. Employees should assemble an emergency kit for their car. Confirm you are registered for Reverse 911, Nixle and Alert RivCo. Make sure all employees understand the plan, procedures and escape routes.
- "SET" – Situational Awareness When a Fire Starts: If a wildfire occurs and there is potential for it to threaten the Project site and surrounding communities, be ready to evacuate. Stay aware of the latest news from local media and your local fire department for updated information on the fire. If you are uncomfortable, leave the area.
- "GO!" – Leave Early! Leaving early, well before a wildfire is threatening the Project area, provides you with the least delay and results in a situation where, if a majority of neighboring developments also leave early, firefighters are now able to better maneuver, protect and defend structures, evacuate other occupants who couldn't leave early, and focus on citizen safety.

"Ready, Set, Go!" is predicated on the fact that being unprepared and attempting to flee an impending fire late (such as when the fire is physically close to your community) is dangerous and exacerbates an already confusing situation. This Wildfire Evacuation Plan provides key information that can be integrated into the individual evacuation plans, including the best available routes to use in the event of an emergency evacuation.

Situation awareness requires a reliable information source. The City of Banning utilizes Nixle for its Community Emergency Notification System, and all employees should be encouraged to register for emergency alerts. Additionally, the Riverside EMD operates the Reverse 911 notification system that provides a recorded message

over land line telephone systems relating to evacuation notices. Further, Riverside EMD operates a program known as Alert RivCo that has the capability to send emergency notifications over both land lines as well as to cell phones and via text messages. It is up to individual employees to register their cell phones for AlertRivCo. The registration of cell phones can be done online at https://rivcoready.org/alert-rivco. In addition, the Riverside County Emergency Alert System (EAS) is county-wide and broadcasts emergency information via six radio stations: KFI 640 AM,KFWB 980 AM, KNX 1070 AM, KFRG 95.1 FM, KVCR 91.9 and KXFG 92.9 FM.

As part of the Project, the Owner(s)/Property Manager will be responsible for providing access to this Wildfire Evacuation Plan, including materials from the "Ready, Set, Go!" Program. As part of the approval of the First Hathaway Project, it shall be binding on Owner(s)/Property Manager to actively participate as a partner with the RCFD to assist with the coordination and distribution of fire safety information they develop to employees.

6 Evacuation Procedures

6.1 Relocation/Evacuation

It is estimated that the conservatively calculated minimum amount of time needed to move the exiting and Project populations to urbanized and/or designated evacuation areas may require approximately up to 1 hour and 32 minutes under varying constraints that may occur during an evacuation. This does not include additional allowances for the time needed to detect and report a fire, for fire response and on-site intelligence, for phone, patrols, and aerial based notifications, and for notifying special needs citizens.

Wolshon and Marchive (2007) simulated traffic flow conditions in a computer derived WUI under a range of evacuation notice lead times and housing densities. To safely evacuate more people, they recommended that emergency managers (1) provide more lead time to evacuees and (2) control traffic levels during evacuations so that fewer vehicles are trying to exit at the same time.

Wildfire emergency response procedures will vary depending on the type of wildfire and the available time in which decision makers (IC, BPD, RCFD, CAL FIRE, RCSD, and/or EMD) can assess the situation and determine the best course of action. Based on the First Hathaway Logistics Project and surrounding communities, its road network, and the related fire environment, the first and primary type of evacuation envisioned is an orderly, pre-planned evacuation process where people are evacuated to more urban areas further from an encroaching wildfire (likely to urban areas west) well before fire threatens. This type of evacuation must include a conservative approach to evacuating; i.e., when ignitions occur and weather is such that fires may spread rapidly, evacuations should be triggered on a conservative threshold that includes time allowances for unforeseen, but possible, events that would slow the evacuation process.

The second type of evacuation, is considered by many to offer the highest level of life protection to the public, but it can result in evacuees being placed in harm's way if the time available for evacuation is insufficient (Cova et al. 2011). An example of this type of evacuation, which is highly undesirable from a public safety perspective, is an evacuation that occurs when fire ignites close to vulnerable communities. This type of situation is inherently dangerous because there is generally a higher threat to persons who are in a vehicle on a road when fire is burning in the immediate area than in a well-defended, ignition-resistant home. Conditions may become so poor that the vehicle drives off the road or crashes into another vehicle, and flames and heat overcome the occupants. A vehicle offers little shelter from a wildfire if the vehicle is situated near burning vegetation or catches fire itself. This type of evacuation must be considered a very undesirable situation by law and fire officials in all but the rarest situations where late evacuation may be safer than seeking temporary refuge in a structure (such as when there are no nearby structures, the structure[s] is/are already on fire, or when there is no other form of refuge). Temporary refuge would be possible within the First Hathaway Logistics Project structures, but structures within surrounding communities, as previously discussed, are less desirable due to their higher vulnerability to ignition.

The third potential type of evacuation is a hybrid of the first two. In cases where evacuation is in process and changing conditions result in a situation that is considered unsafe to continue evacuation, it may be advisable to direct evacuees to pre-planned temporary refuge locations, including their own home if it is ignition-resistant and defensible, such as those within First Hathaway Logistics Project. As with the second type of evacuation discussed above, this situation is considered highly undesirable, but the evacuation pre-planning must consider these potential scenarios and prepare decision makers at the IC level and at the field level for enacting a contingency to evacuation when conditions dictate.

Indications from past fires and related evacuations, in Riverside County and throughout Southern California, which have experienced increasingly more frequent and larger fires, are that evacuations are largely successful, even with a generally unprepared populace. It then stands to reason that an informed and prepared populace would minimize the potential evacuation issues and related risk to levels considered acceptable from a community perspective.

Evacuation orders or notifications are often triggered based on established and pre-determined model buffers, which are based on topography, fuel, moisture content of the fuels and wind direction. Evacuations are initiated when a wildfire reaches or crosses one of these pre-determined buffers. Evacuations can also be very fluid. The IC, law enforcement and EMD would jointly enact evacuations based on fire behavior.

6.2 Project Evacuation Baseline

For purposes of this Wildfire Evacuation Plan, the first and most logical choice for all of the occupants within the boundaries of First Hathaway Logistics Project is to adhere to the principles and practices of the "Ready, Set, Go!" Program previously mentioned in this document. As part of this program, it is important that educational and training programs, organized by Owner(s)/Property Manager, are available to all employees. In addition, it is imperative that the "Ready, Set, Go!" program information be reviewed on a routine basis along with the accompanying maps illustrating evacuation routes, temporary evacuation points and pre-identified evacuation points. It must be kept in mind that conditions may arise that will dictate a different evacuation route than the normal roads used on a daily basis.

Occupants are urged to evacuate as soon as they are notified to do so or earlier if they feel uncomfortable. Directions on evacuation routes will be provided in most cases, but when not provided, employees of the Project will proceed according to known available routes away from the encroaching fire as detailed in the Quick Reference section of this WEP. Occupants are cautioned not to rely on navigation aid apps which may inadvertently lead them toward an oncoming fire. Depending on the type of emergency and the resulting evacuation, it could take approximately up to 1 hour and 32 minutes to complete an evacuation of the Project Area, based on road capacities and competing use of the roads by occupants from other areas.

Note: This Wildfire Evacuation Plan will require adjustment and continued coordination by the Owner(s) and/or Developer and/or Property Manager and fire/law enforcement agencies during each of the construction phases. With each phase, the evacuation routes may be subject to changes with the addition of both primary and secondary evacuation routes.

6.3 Civilian and Firefighter Evacuation Contingency

As of this document's preparation, no community in California has been directed to shelter-in- place during a wildland fire. This is not to say that people have not successfully sheltered-in-place during wildfire, where there are numerous examples of people sheltering in their homes, in hardened structures, in community buildings, in swimming pools, and in cleared or ignition-resistant landscape open air areas. The preference will always be early evacuation following the "Ready, Set, Go!" model, but there exists the potential for unforeseen civilian evacuation issues, and having a contingency plan will provide direction in these situations that may result in saved lives.

Potential problems during wildfire evacuation from the Project area include:

- Inadequate time to safely evacuate;
- Fire evacuations during rush hour traffic or when large events are occurring;

- Blocked traffic due to accidents or fallen tree(s) or power pole(s);
- The need to move individuals who are unable to evacuate.

It is recommended that local law enforcement and fire agencies conduct concerted pre-planning efforts focusing on evacuation contingency planning for civilian populations when it is considered safer to temporary seek a safer refuge than evacuation. First Hathaway Logistics' structures would allow for the possibility of temporary sheltering while structures in surrounding communities would not typically be considered ignition-resistant and therefore, not appropriate for temporary refuge.

6.3.1 Safety Zones

The International Fire Service Training Association (IFTSA; Fundamentals of Wildland Fire Fighting, 3rd Edition) defines "safety zones" as areas mostly devoid of fuel, which are large enough to assure that flames and/or dangerous levels of radiant heat will not reach the personnel occupying them. Areas of bare ground, burned over areas, paved areas, and bodies of water can all be used as safety zones. The size of the area needed for a safety zone is determined by fuel types, its location on slopes and its relation to topographic features (chutes and saddles) as well as observed fire behavior. Safety zones should never be located in topographic saddles, chutes or gullies. High winds, steep slopes or heavy fuel loads may increase the area needed for a safety zone.

The National Wildland Fire Coordinating Groups (NWFCG), Glossary of Wildland Fire Terminology provides the following definitions for safety zones:

> *Safety Zone*. An area cleared of flammable materials used for escape in the event the line is outflanked or in case a spot fire causes fuels outside the control line to render the line unsafe. In firing operations, crews progress so as to maintain a safety zone close at hand allowing the fuels inside the control line to be consumed before going ahead. Safety zones may also be constructed as integral parts of fuel breaks; they are greatly enlarged areas, which can be used with relative safety by firefighters and their equipment in the event of blowup in the vicinity.

According to NWFCG, safety zone(s):

- Must be survivable without a fire shelter
- Can include moving back into a clean burn
- May take advantage of natural features (rock areas, water, meadows)
- Can include constructed sites (clear-cuts, roads, helispots)
- Are scouted for size and hazards
- Consider the topographic location (larger if upslope)
- Should be larger if downwind
- Should not include heavy fuels
- May need to be adjusted based on site-specific fire behavior

The definition for a safety zone includes provisions for separation distance between the firefighter and the flames of at least four times the maximum continuous flame height. Distance separation is the radius from the center of the safety zone to the nearest fuels.

The urbanized areas nearby the Project site offer the best possibility for a safety zone for firefighter use. The First Hathaway Logistics Project will also include the ability for firefighters to seek safety zones within the ignition-resistant landscapes, but identification of other potential safety zones will require additional focused study by RCFD and other fire and law enforcement agencies.

6.3.2 Temporary Firefighter Refuge Areas

Firescope California (Firefighting Resources of Southern California Organized for Potential Emergencies) was formed by legislative action to form a partnership between all facets of local, rural, and metropolitan fire departments, CAL FIRE and federal fire agencies. Firescope defines a contingency plan when it is not possible to retreat to a safety zone. This contingency includes establishment of firefighter temporary refuge areas (TRAs), which are defined as:

> A preplanned area where firefighters can immediately take refuge for temporary shelter and short-term relief without using a fire shelter in the event that emergency egress to an established safety zone is compromised.

Examples of a TRA may include the lee side of a structure, inside of a structure, large lawn or parking areas, or cab of a fire engine, amongst others. Differences between a TRA and a Safety Zone is that TRAs are closer to the immediate firefighting area, are considered a contingency to being able to get to a safety zone, do not include a requirement for a large area set back four times the flame lengths of adjacent fuels, and cannot be feasibly pre-planned until firefighters arrive on-scene and size up the situation.

Firescope appropriately notes that although safety zones and viable escape routes shall always be identified in the WUI environment, they may not be immediately available should the fire behavior increase unexpectedly. Often a TRA is more accessible in the WUI environment. A TRA will provide temporary shelter and short-term relief from an approaching fire without the use of a fire shelter and allow the responders to develop an alternate plan to safely survive the increase in fire behavior.

The major difference between a TRA and a safety zone is that a TRA requires another planned tactical action; i.e., TRAs cannot be considered the final action, but must include self-defense and a move out of the area when the fire threat subsides. A TRA should be available and identified on site at a defended structure. TRAs are NOT a substitute for a safety zone. TRA pre-planning is difficult, at best because they are very site- and fire behavior-specific. For the existing uses, TRAs would likely include navigating into any of the within the more densely developed areas where firefighters would be separated from the unmaintained wildland fuels by wide areas including site-wide maintained landscapes, ignition-resistant structures, and wide roads that offer numerous opportunities for TRA.

The entire Project site would be developed and paved surfaces, such as the parking areas, are considered potential TRAs. This is an important concept because it offers last-resort, temporary refuge of firefighters, and in a worst-case condition, occupants. This approach would be consistent with Firescope California (2013), which indicates that firefighters must determine if a safe evacuation is appropriate and if not, to identify safe refuge for those who cannot be evacuated, including civilians.

Each of the Project site's structures that can be considered for TRA include the following features:

- Ignition-resistant construction
- Annual landscape inspections by 3rd party inspectors

- Wide roadways with fire hydrants
- Maintained landscapes and roadside fuel modification
- Ember-resistant vents
- Interior fire sprinklers

Because there is the possibility that evacuation of the Project and surrounding communities may be less safe than temporarily refuging on site, such as during a fast-moving, wind-driven fire that ignites nearby, including temporary refuge within some properly designed, constructed and maintained structures onsite is considered a contingency plan for the First Hathaway Logistics Project. This concept is considered a component of the "Ready, Set, Go!" model as it provides a broader level of "readiness" should the ability to execute an early evacuation be negated by fire, road congestion, or other unforeseen issues.

Note: This approach would be considered a last-resort contingency during wildfire with the primary focus being on early evacuation. The decision for evacuation or temporarily refuging on site will be made by responding law enforcement and/or fire personnel.

6.4 Social Aspects of Wildfire Evacuation

Orderly movement of people is the result of planning, training, education, and awareness, all of which are promoted in Riverside County. Evacuation has been the standard term used for emergency movement of people and implies imminent or threatening danger. The term in this Wildfire Evacuation Plan, and under the "Ready, Set, Go!" concept, indicates that there is a perceived threat to persons and movement out of the area is necessary, but will occur according to a pre-planned and practiced protocol, reducing the potential for panic.

Citizen reactions may vary during an evacuation event, although several studies indicate that orderly movement during wildfire and other emergencies is not typically unmanageable. Evacuation can be made even less problematic through diligent public education and emergency personnel training and familiarity. Social science research literature indicates that reactions to warnings follow certain behavior patterns that are defined by people's perceptions (Aguirre 1994; Drabek 1991; Fitzpatrick and Mileti 1994; Gordon 2006; Collins 2004) and are not unpredictable. In summary, warnings received from credible sources by people who are aware (or have been made aware) of the potential risk, have the effect of an orderly decision process that typically results in successful evacuation. This success is heightened when evacuations are not foreign to occupants (Quarantelli and Dynes 1977; Lindell and Perry 2004) as will occur within the Project area. Further, in all but the rarest circumstances, evacuees will be receiving information from credible sources during an evacuation. It would be anticipated that law enforcement and/or fire personnel would be on site to help direct traffic and would be viewed by evacuees as knowledgeable and credible. The importance of training these personnel cannot be overstated and annual education and training regarding fire safety and evacuation events will be essential for successful future evacuations.

6.4.1 Evacuation of Special Populations

Vogt (1990 and 1991) defines special populations as those groups of people who, because of their special situations or needs, require different planning strategies from those of the general population. Special needs populations in First Hathaway Logistics Project include the hearing or visually impaired, foreign speaking, and temporary visitors such as customers or day workers.

6.4.3 Re-Entry Procedures

An important component of evacuations is the citizen re-entry process. The Evacuation & Reentry Unit under Law Enforcement Branch is responsible for the coordination of re-entry of evacuated populations as detailed in the City's EOP. If the evacuation required coordination with the County, the County's EOP Re-Entry Protocol establishes guidance and procedures to ensure a coordinated, safe, and orderly re-entry into impacted communities following an incident.

In the event the City's EOC is activated, the EOC Law Enforcement Branch will activate the Evacuation & Re-Entry Unit to coordinate the evacuation and re-entry functions. The EOC Law Enforcement Branch will serve as the primary agency re-entry activities with support from other agencies including RCSD, Riverside EMD, Cal OES Law Enforcement Mutual Aid Region VI, ARC, VOAD, CHP, and more. In most cases, the EOC will remain activated until full re-entry is complete. In the event that the EOC has been deactivated, the IC or the Liaison Officer of the Incident Management Team will initiate re-entry procedures.

The IC will designate a Re-Entry Coordinator and the Operations Section Chief of the EOC will coordinate with and support the Re-Entry Coordinator. The Re-Entry Coordinator is responsible for coordinating the re-entry procedures with all involved agencies and ensuring effective communication.

These re-entry procedures are similar to those established in the County's EOP and would apply if the County was managing re-entry in coordination with the City.

The impacted areas must be thoroughly investigated to ensure it is safe for occupants to return and normal operations have been restored.

The public will be notified of the re-entry status through emergency broadcast radio, television, press releases, internet, 211, Nixle, Alert RivCo, community briefings, and informational updates at shelters. Once evacuees are permitted to return, it is important that procedures are established to properly identify occupants and critical support personnel, as well as ensure the legitimacy of contractors, insurance adjustors, and other personnel. Re-entry points should be staffed by law enforcement personnel.

7 Implementing Conditions

1. First Hathaway Logistics will designate a Fire Safety Coordinator(s) to oversee implementation of this WEP and overall fire coordination with BPD and RCFD.
2. The Fire Safety Coordinator(s) will coordinate an annual fire evacuation drill/fire exercise to ensure proper safety measures have been implemented, facility awareness and preparation of a facility-wide **"Ready, Set, Go!"** plan. The Fire Safety Coordinator will also organize employee training and awareness through various practices:
    i. New hire fire awareness and evacuation training
    ii. Ongoing staff training
    iii. Facility sweeps by trained staff
    iv. Strategically placed fire safety and evacuation/sheltering protocol information, as determined by the Fire Safety Coordinator.
3. The First Hathaway Logistics Project will include a proactive facility wildfire education program utilizing a multi-pronged approach to fire safety following the **"Ready, Set, Go!"** approach to wildfire evacuation, to include, but not limited to:
    v. Annual wildfire and evacuation safety awareness meeting in coordination with local fire agencies.
    vi. Annual reminder notices will be provided to each employee encouraging them to review this WEP and be familiar with evacuation protocols.
    vii. The Project website will host a webpage dedicated to wildfire and evacuation education and awareness, which should include a copy of this Wildfire Evacuation Plan and the resources provided herein.
4. The Project includes a contingency plan for the rare occurrence that evacuation is not safe that includes employees sheltering in place within onsite structures.

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8 Limitations

This Wildfire Evacuation Plan incorporates concepts and protocols consistent with industry standards and has been developed based on City of Banning and Riverside County wildfire and evacuation standards per the City's EOP and the County's EOP documents and is specifically intended as a guide for evacuations for the First Hathaway Logistics Project. This Wildfire Evacuation Plan provides basic evacuation information that will familiarize employees of the Project with the evacuation route options that may be available to them during an emergency. However, because emergencies requiring evacuation have many variables and must be evaluated on a case-by-case basis, real-time law enforcement and fire personnel/agencies' decision-making and direction during an emergency requiring evacuation would supersede this WEP.

This WEP analyzes the existing community's evacuation times currently and with the proposed First Hathaway Logistics Project. The estimated evacuation times are based on several assumptions as detailed in this WEP. However, actual evacuation times may be faster or slower than the estimates, depending on the type of emergency, the extent of the evacuation, the time of day, and other factors. A collective, community–wide evacuation of existing populations and the proposed population from the Project would include congested roads in its existing condition that are improved, but still congested, with the First Hathaway Logistics Project. Congested roads are normal in any urban setting when a large evacuation is declared unless it is managed and evacuation areas are staggered to reduce the potential traffic surges that can significantly impact evacuations. Therefore, there would likely still be congestion and delays.

This Wildfire Evacuation Plan promotes the "Ready, Set, Go!" model, adopted by RCFD, CAL FIRE, and many fire agencies statewide. The goal is to raise agency and citizen awareness of potential evacuation issues and get a majority of the public "Ready" by taking a proactive stance on preparedness, and evacuation planning efforts. The First Hathaway populace will be "Set" by closely monitoring the situation whenever fire weather occurs and/or when wildland fire occurs and elevating pre-planned protocol activities and situation awareness. Lastly, officials will implement the plan and mandate that populations "Go" by executing pre-planned evacuation procedures in a conservative manner (i.e., evacuation will occur based on conservative decision points, as proposed in this evacuation plan or when directed by fire and law enforcement personnel, whichever is more conservative). The preferred alternative will always be early evacuation. However, there may be instances when evacuation is not possible, is not considered safe, or is not an option based on changing conditions. For example, should a fire occur and make evacuation from the Project area ill advised, a contingency plan for employees should be available. This contingency would include moving people to pre-designated TRAs until it is safe to evacuate or the threat has been mitigated.

Ultimately, it is the intent of this Wildfire Evacuation Plan to guide the implementation of evacuation procedures such that the process of evacuating people from the First Hathaway Logistics Project is facilitated in an efficient manner and according to a pre-defined evacuation protocol as well as providing a contingency option of temporarily refuging onsite, if evacuation is considered less safe. The Project's employees should be aware of this Wildfire Evacuation Plan and components of it shall be posted on the Project's website. It is also recommended that the Owner(s)/Property Manager provide reminders to employees on at least an annual basis. This educational outreach will result in a populace that understands the potential for evacuations and the routes and options that may be presented to them.

During extreme fire weather conditions, there are no guarantees that a given structure will not burn or that evacuations will be successful all the time. Wildfires may occur in the area that could damage property or harm persons. However, successful implementation of the procedures outlined in this Wildfire Evacuation Plan will provide for an informed populace regarding evacuations.

This WEP does not provide a guarantee that all persons will be safe at all times because of the procedures discussed. There are many variables that may influence overall safety. This WEP provides a summary for implementation of standard evacuation protocols and public outreach, which should result in reduced wildfire related risk and hazard. Even then, fire can compromise the procedures through various, unpredictable ways. The goal is to reduce the likelihood that the system is compromised through implementation of the elements of this WEP and regular occurring program maintenance and updates.

It is recommended that the evacuation process is carried out with a conservative approach to fire safety. This approach must include embracing a "Ready, Set, Go!" stance on evacuation. Accordingly, evacuation of the wildfire areas should occur as soon as they receive notice to evacuate, which may vary depending on many environmental and other factors. Fire is a dynamic and somewhat unpredictable occurrence, and it is important for anyone living at the wildland-urban interface to educate themselves on practices that will improve safety.

Limitations

The underlying planning principle for fire preparedness, given the dynamic nature of a fire, is to demonstrate the availability of multiple route alternatives and response strategies to permit emergency professionals to manage their response according to the specific circumstances. The Study Area provides ample route and response alternatives. Emergency responders will coordinate the safest possible evacuation based on the dynamic circumstances of the actual event, including the appropriate phasing of the evacuation, and utilization of the most appropriate ingress and egress routes for area residents and emergency responders.

The breadth of route alternatives and response strategies available to emergency professionals to manage a potential fire in this region cannot and should not be evaluated using the CRA's Evacuation Analysis – Technical Memorandum alone. A comprehensive view of Project fire safety is gained by understanding this memo, the Project's Wildfire Evacuation Plan, along with the standard protocols and "in-the-field" decision making of emergency responders.

This Wildfire Evacuation Plan presents a reasonable vehicle travel time estimate based on professional judgments made by CRA with input from Dudek. Changing any number of these assumptions can lengthen or shorten the average vehicle travel time.

For instance, a situation could arise in which professionals *may* choose to utilize additional roadways for evacuation not utilized in the Dudek/CRA analysis, and *may also* choose to send more vehicle trips to certain evacuation routes, and *may also* choose to guide vehicle trips to more or different route permutations relative to what has been modeled in this the Dudek/CRA analysis.

The net result of changing the variables selected could yield an average evacuation travel time shorter or longer than the results detailed in the Dudek/CRA analysis. Many factors can shorten or lengthen the vehicle time from the results shown herein. For example:

1. Changing the possible evacuation routes selected would affect the results. For instance, utilizing roads for ingress and/or egress that are not utilized in this analysis could shorten vehicle travel times relative to the results shown herein.

2. Increasing or decreasing the number of path permutations and percentage of the population utilizing each route that leads out of the immediate area could shorten or lengthen vehicle travel time relative to the results shown herein.
3. Emergency professionals electing to reserve certain road lanes for emergency vehicle ingress for portions of time could affect the travel time relative to the results shown herein.
4. Assuming evacuees utilize fewer or more vehicles to evacuate from the Project or surrounding communities relative to the Vehicle Utilization Rate selected in the analysis would shorten or lengthen vehicle travel time relative to the results shown herein.
5. Changing the mix of vehicle trips allocated to each evacuation route could shorten or lengthen vehicle travel time relative to the results shown herein.
6. Assuming a different road capacity adjustment factors could shorten or lengthen the vehicle travel time relative to the results shown herein.
7. Assuming fewer people are at home when the evacuation notice is given would reduce the number of vehicle trips and shorten vehicle travel time relative to the results shown herein. For instance, an evacuation during daytime hours would typically result in fewer outbound trips than assumed in this analysis.
8. Assuming some portion of vehicle trips are made in advance of the evacuation notice would reduce the number of vehicle trips relative to the results shown herein.
9. Assuming some homeowners and their families are not in the Study Area when evacuation notice is given (most likely in a daytime evacuation event), could reduce the number for vehicle trips relative to the results shown herein.

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9 References

Aguirre, D.B. 1994. Planning warning evacuation, and search and rescue: A review of the social science research literature. College Station, TX. Texas A&M University, Hazard Reduction Recovery Center.

Collins, S. L. 2004. Evaluation of Evacuation Planning in Wildland-Urban Interface Environments: Executive Analysis of Fire Service Operations in Emergency Management. Applied Research project submitted to the National Fire Academy as part of the Executive Fire Officer Program. 44 pp.

Cova, T.J., P.E. Dennison, and F.A. Drews. 2011. "Modeling evacuate versus shelter-in-place decisions in wildfires." Sustainability, 3(10): 1662-1687. Published, 09/30/2011. http://www.mdpi.com/2071-1050/3/10/1662/.

Drabek, T.E. 1991. "Anticipating organizational evacuations: disaster planning by managers of tourist-oriented private firms." International Journal of Mass Emergencies and Disasters. 9, (2), 219–245.

Fitzpatrick, C. and D.S. Mileti. 1994. "Public Risk Communication." In Disasters, Collective Behavior, and Social Organization. Dynes R. R. and Tierney, K.J. (Eds). 1994. Newark University of Delaware Press, 71–98.

Gordon, R. 2006. "Acute Responses to Emergencies: findings and observations of 20 years in the field." The Australian Journal of Emergency Management, Vol. 21, No. 1, February 2006. 23 pp.

FEMA. 2008. Mass Evacuation Incident Annex. Federal Emergency Management Agency. 20 pp. Firescope 2013. International Fire Chiefs Association. "Ready, Set, Go!" website link: http://wildlandfirersg.org/.

Lindell, M.K. and R.W. Perry. 2004. Communicating Environmental Risk in Multiethnic Communities. Thousand Oaks, California: Sage Publications.

Quarantelli, E.L. and R.R. Dynnes. 1977. "Response to social crisis and disasters." Annual Review of Sociology. 3, 23–49.

Sorensen, J., and B.Vogt. 2006. Interactive Emergency Evacuation Guidebook. Prepared for the Protective Action IPT – Chemical Stockpile Emergency Preparedness Program.

Vogt, B. 1990. Evacuation Of Institutionalized And Specialized Populations, ORNL/SUB-7685/1 & T23. Oak Ridge, TN: Oak Ridge National Laboratory.

Vogt, B. 1991. "Issues in nursing home evacuations." International Journal of Mass Emergencies and Disasters, 9, 247–265.

Wolshon B. and E. Marchive. 2007. "Planning in the Urban Wildland Interface: Moving Residential Subdivision Traffic During Wildfires." ASCE J. Urban Plann. Dev. – Special Emergency Transportation Issue. 133(1) 73–81.

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Appendix A1-A2

Wildfire Safety Checklist

“Ready, Set, Go!” Wildland Fire Action Guide

CALIFORNIA WILDFIRE HOME SAFETY CHECKLIST

• HOW COMMON ARE CALIFORNIA WILDFIRES? •

At least 6,284 wildfires occurred in California in 2018, according to the California Department of Forestry and Fire Protection (CAL FIRE). These fires burned approximately 876,147 acres of land.

• WHAT TO DO BEFORE A CALIFORNIA WILDFIRE •

Separate your home from flammable materials

Create at least 30 feet of space between your home and flammable vegetation and materials.

Trim trees and shrubs

Ensure trees and shrubs do not come into contact with electrical wires or hang over your home's chimney.

Clean your home's roof

Remove pine needles, leaves and other debris from your home's roof.

Store combustible materials properly

Store combustible or flammable materials in approved containers.

Pick up battery-operated flashlights and radios

Keep battery-operated flashlights and radios with additional fresh batteries in a safe, easy-to-access location in your home.

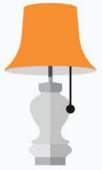
• WHAT TO DO DURING A CALIFORNIA WILDFIRE •

Stay up to date

Use a TV or radio to receive wildfire emergency updates.

Set up hoses and water

If possible, fill buckets with water and set up hoses outside your home.



Turn on the house lights

Activate the lights in each room of your home.

Remove flammable drapes or curtains

Take down flammable drapes or curtains in your home.

Get ready to evacuate

Prepare all family members and pets to evacuate your home.

• WHAT TO DO AFTER A CALIFORNIA WILDFIRE •

Contact local fire officials

Check in with local fire officials to find out if it is safe to return home.

Look for hot spots

Check the ground for smoldering stumps and other hot spots and use buckets of water on these spots as needed.

Examine your home's exterior

Look for sparks and embers across your home's roof and exterior areas.

Evaluate your home's interior

Keep an eye out for hidden burning in each room of your home.

9-1-1

Call 911

Contact 911 if you identify any potential dangers.

How much do you know about wildfires?

True or False:

1. An average of 7 million acres of US woodland burn every year.
2. 1 in 5 wildfires are caused by humans.
3. Wildfires move faster downhill.
4. Some species of trees and shrubs require fire to reproduce.
5. The 'fuel' (trees, plants, etc.) you see burning isn't really on fire.
6. There are three broad types of fire spread: Subterranean, Surface and Crown fires.
7. Only YOU can prevent wildfires.

1. True: Across the US, including Alaska, approximately 7 million acres of federal, tribal, state and private land burns annually.

2. False: More than 4 out of 5 wildfires are caused by humans.

3. False: Fire moves faster uphill. The steeper the slope, the faster the fire travels.

4. True: Species such as Ceanothus and many types of closed-cone coniferous trees require heat to germinate.

5. True: The fuel itself is not on fire, but rather, is being converted into a gas. It's the gas produced by the fuel that is actually burning.

6. False: The three types of fire spread are: Ground - organic material in the soil is burning; Surface - leaf litter, fallen braches, etc. on the ground are burning; Crown - the top layer of foliage from trees is burning.

7. True:!

WILDFIRE IS COMING.
ARE YOU READY?

WILDFIRE ACTION PLAN

BE PREPARED

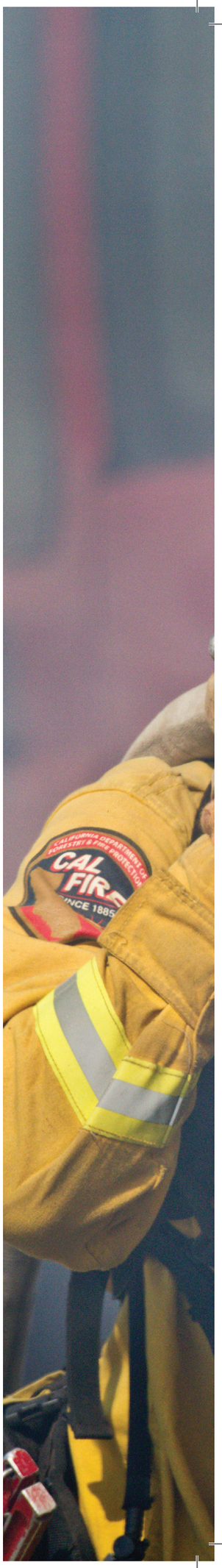
Wildfires are a fact of life in California. It's not a question of if they will occur, but when. Catastrophic wildfires are increasing in our state, encroaching further into populated areas. It is extremely important that Californians be prepared when wildfire strikes.

By preparing your home and property for wildfire, and knowing what to do if evacuation is necessary, you can dramatically increase your safety and the survivability of your home. It is your responsibility to prepare yourself, your family, and your home for when wildfire strikes.

This guide illustrates the importance of creating and maintaining Defensible Space and hardening your home by retrofitting it with ignition-resistant or noncombustible materials to protect against the threat of flying embers, direct flame contact, and radiant heat exposure. It also provides information about the preparations and precautions to make in order to evacuate early and safely.

If you need more information about preparing for wildfire or any other disaster, contact your nearest fire station or visit us at ReadyforWildfire.org.

These counties receive funding from the state to provide fire protection and prevention services to State Responsibility Area lands within their boundaries.



CONTENTS

GET READY

GET SET

GO!


GET
REAL

There are three ways your home can be exposed to wildfire: through flying embers, direct flame contact, and radiant heat exposure.

Embers are the main cause of homes igniting during a wildfire. Wind can blow embers up to a mile ahead of a wildfire. These flying embers can directly ignite materials on, or attached to, a home. They can also ignite vegetation or combustible materials near the home, resulting in a subsequent fire that spreads to the home through direct flame contact or radiant heat.

Direct flame contact to the home can be the result of nearby vegetation or combustible materials catching on fire due to embers, or from the wildfire burning unchecked directly to the building.

Radiant heat exposure occurs when there are materials, vegetation, or other combustibles, that are burning close to the home—for a long enough period of time—and generate enough heat to directly ignite a combustible component of the home.

Getting ready for wildfire begins with two very important efforts: **Home Hardening** and **Defensible Space.** Hardening your home is retrofitting it with fire-resistant materials. Defensible Space is creating and maintaining a buffer between buildings and vegetation to slow wildfire. While not a guarantee that your home will survive a wildfire, these efforts give it the best chance.

HARDENING YOUR HOME

Now is the time to retrofit your home—before a wildfire strikes. California Building Code Chapter 7A requires specific construction materials and methods for the building of new homes in wildfire-prone areas. These same materials and methods are also the minimum standards recommended when retrofitting a home. Retrofitting prepares your home for the exposure it will experience during a wildfire. Here's what you can do to harden your home:

ROOF

Your roof is the most vulnerable part of your home. Homes with wood shake or shingle roofs are at high risk of being destroyed in a wildfire.

- Replace wood shake or shingle roofs with a Class A fire-rated roof, using materials such as composition, metal, or tile.
- Inspect your roof and maintain it by removing debris and plugging gaps.

VENTS

Vents on homes create openings for flying embers.

- Avoid storing combustible items near attic or crawl space vents.
- Inspect vents to ensure they are in good condition with no tears or large openings.
- Cover all vent openings with 1/16 inch to 1/8 inch corrosion-resistant metal mesh screen.
- Consider replacing screened vents with ember and flame-resistant vents.

EAVES AND SOFFITS

Eaves and soffits are a point of entry for flying embers from fires up to a mile away or flames from nearby vegetation or other material burning.

- Plug or caulk gaps greater than 1/8 inch in size with durable caulk.
- Enclose eaves with ignition-resistant or noncombustible materials if possible.

WINDOWS

Heat from a wildfire can cause windows to break before the home ignites, allowing embers to enter and start fires inside. Single-paned and large windows are particularly at risk.

- Install dual or multi-paned windows with at least one pane being tempered glass.
- Consider limiting the size and number of windows that face large areas of vegetation.
- Install metal mesh screens on openable windows to increase ember resistance and reduce radiant heat exposure.

DECKS

Surfaces within 10 feet of the building should be built with ignition-resistant, noncombustible, or other approved materials.

- Remove all combustible items from underneath deck.
- Limit combustible items on top of deck. Bring these items inside the home or move them away from the home when wildfire threatens.

EXTERIOR WALLS

Wood products such as boards, panels, or shingles are common siding materials. However, they are combustible and not good choices for wildfire prone areas.

- Use noncombustible materials such as stucco, metal, or fiber cement, or use ignition-resistant siding.
- Be sure to extend materials from the foundation to the roof.
- Plug or caulk gaps and joints with openings greater than 1/8 inch.

RAIN GUTTERS

Screen or enclose rain gutters with noncombustible corrosion-resistant materials to prevent accumulation of plant debris.

PATIO COVERS

Consider using noncombustible material within eight feet of buildings.

CHIMNEYS

Cover chimney or stovepipe outlet with a noncombustible corrosion-resistant metal mesh screen with openings between 3/8 inch and 1/2 inch in size. Close the fireplace flue during fire season when the fireplace is not in use.

FENCES

Construct fences using noncombustible materials within eight feet of your home.

GARAGES

Install weather stripping to eliminate gaps around garage doors. Add a battery back-up to automatic garage door openers so the garage can easily be opened if the power is out.

DRIVEWAYS

Ensure that access to your home complies with local fire codes.

WATER SUPPLY

Have multiple garden hoses long enough to reach all areas of your house.

ADDITIONAL HOME FIRE SAFETY RESOURCES

HOME HARDENING INFORMATION GUIDE

ReadyforWildfire.org

CALIFORNIA BUILDING CODE CHAPTER 7A

codes.iccsafe.org

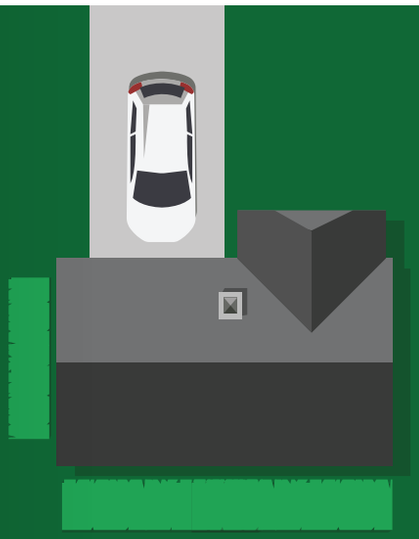
WILDFIRE HOME RETROFIT GUIDE

ReadyforWildfire.org

BUILDING MATERIALS LISTING

osfm.fire.ca.gov

DEFENSIBLE SPACE



Creating and maintaining Defensible Space is essential to reducing the impact of wildfire on your home and property. Defensible Space is the buffer created between a building on your property and the plants, brush, trees, or other combustible items in the near vicinity. This buffer helps to keep wildfire away from your home by reducing the fire's intensity and slowing or halting the spread of wildfire. The less there is to burn near your home, the less exposure your home will have to wildfire. Creating this space also provides protection for the firefighters defending your home.

CREATING AND MAINTAINING YOUR DEFENSIBLE SPACE

Within the 100-foot perimeter of a home, there is a need for more intense reduction of wildfire fuels. Start at the home and work your way out 100 feet or to your property line, whichever is closer.

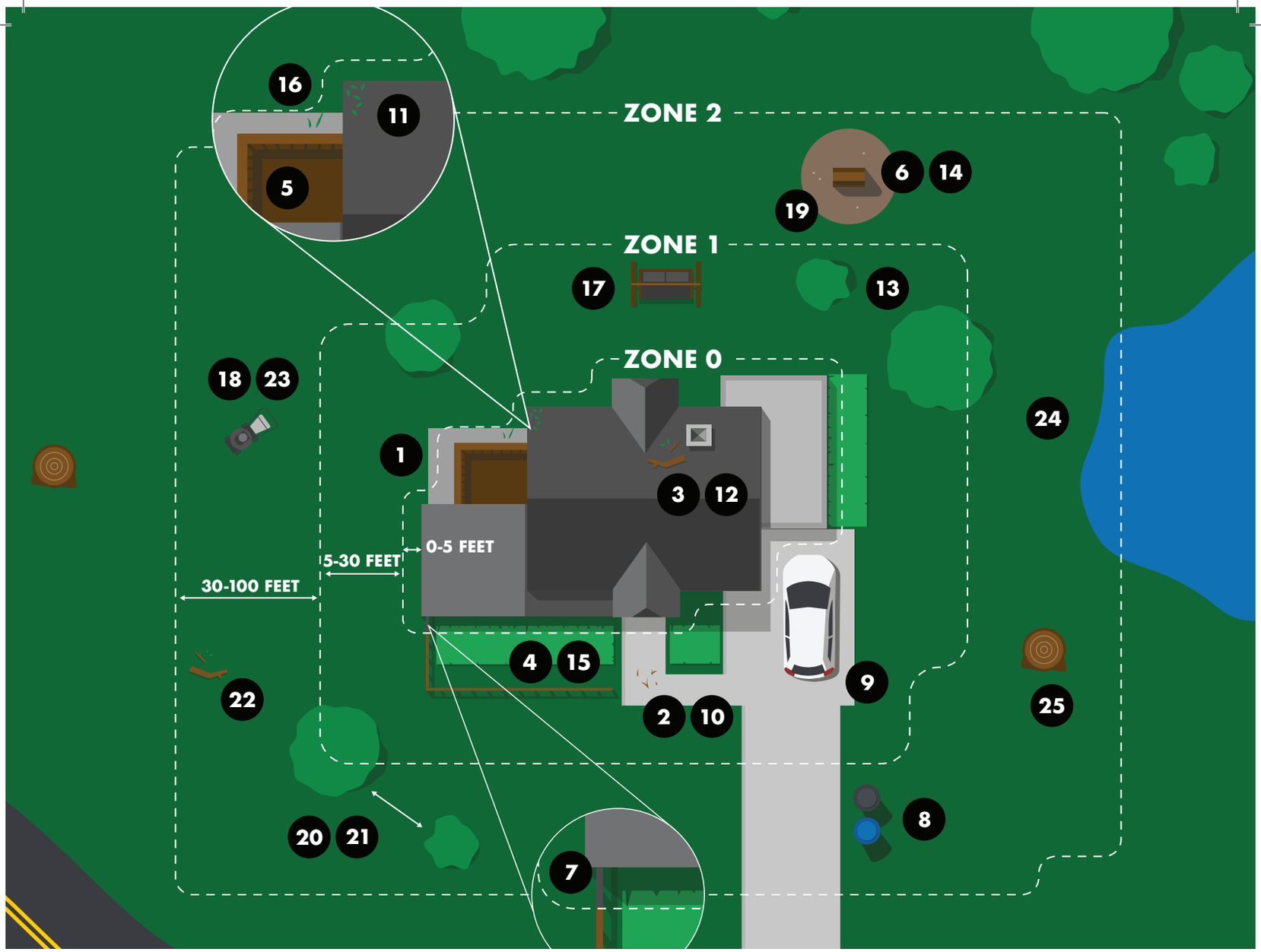
KNOW THE LAW - BE FIRE SMART

One hundred feet of Defensible Space is required under the Public Resources Code (PRC) 4291. Zones 1 and 2 currently make up the 100 feet of Defensible Space required by law. Assembly Bill 3074, passed into law in 2020, requires an ignition-resistant Zone 0 for Defensible Space.

Many local government agencies have ordinances for Defensible Space. These local ordinances will often be more stringent than the state of California's minimum requirement in PRC 4291. Check with your local fire department or fire protection district for any additional Defensible Space requirements. **fire.ca.gov/dspace**

Zone 0 extends from zero to five feet from buildings, structures, decks, etc.

1. Use hardscape like gravel, pavers, concrete, and other noncombustible mulch materials. No combustible bark or mulch.
2. Remove all dead and dying weeds, grass, branches, and vegetative debris. Check your roofs, gutters, decks, porches, stairways, etc.
3. Remove all branches within 10 feet of any chimney or stovepipe outlet.
4. Limit plants in this area to low growing, nonwoody, properly watered, and maintained plants.
5. Limit combustible items (outdoor furniture, planters, etc.) on top of decks.
6. Relocate firewood and lumber to Zone 2.
7. Replace within Zone 0 combustible fencing, gates, and arbors attached to the home with noncombustible alternatives.



8. Relocate garbage and recycling containers outside this zone.
9. Relocate boats, RVs, vehicles, and other combustible items outside this zone.

Zone 1 extends five to 30 feet from buildings, decks, and other structures.

10. Remove all dead plants, grass, and weeds (vegetation).
11. Remove dead or dry leaves and pine needles from your yard, roof, and rain gutters.
12. Remove branches that hang over your roof and keep dead branches 10 feet away from your chimney or stovepipe outlet.
13. Trim trees regularly to keep branches a minimum of 10 feet from other trees.
14. Relocate exposed wood piles outside of Zone 1.
15. Remove or prune flammable plants and shrubs near windows.
16. Remove vegetation and items that could catch fire from around and under decks.
17. Create a separation between trees, shrubs, and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

Zone 2 extends from 30 feet to 100 feet from buildings, structures, decks, etc.

18. Cut or mow annual grasses to a maximum height of four inches.
19. All exposed wood piles must have a minimum of 10 feet clearance around them, down to bare mineral soil, in all directions.
20. Create horizontal space between shrubs and trees. (See diagram on page 11)
21. Create vertical space between grass, shrubs, and trees. (See diagram on page 11)
22. Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of three inches.

All zones

23. Mow before 10 a.m., but never when it's windy or excessively dry.
24. Protect water quality. Do not clear vegetation near waterways to bare soil. Vegetation removal can cause soil erosion—especially on steep slopes.
25. Logs or stumps embedded in the soil must be removed in Zone 0. In Zones1and 2 they need to be removed or isolated from other vegetation.

It takes the combination of both Defensible Space and Home Hardening to give your home and property the best chance of surviving a wildfire. Below are examples of low-risk and high-risk scenarios:

HIGH RISK

UNENCLOSED EAVES

UNSCREENED VENTS

DEFENSIBLE SPACE NONCOMPLIANT

LOW RISK

ENCLOSED EAVES

SCREENED VENTS

DEFENSIBLE SPACE COMPLIANT

FIRE SMART LANDSCAPING

While some plants are characterized as "fire-safe" or "fire-resistant," all plants will burn under the right conditions, regardless of how they are classified. The environment the plant grows in, how it is maintained, and its placement and spacing near other vegetation and combustibles will generally have more influence on the flammability of the plant than how it is characterized. Taking these items into consideration is crucial to reduce the spread of wildfire to your home. Scan the QR code below for more information.

FIRE SMART LANDSCAPING
ReadyforWildfire.org/fire-smart-landscaping

MINIMUM VERTICAL SPACING BETWEEN TREES AND SHRUBS

Eliminate opportunities for a vertical "fire ladder":

- Remove branches beneath large trees for a six-foot minimum clearance.
- Create proper vertical spacing between shrubs and the lowest branches of trees. See adjacent diagrams.

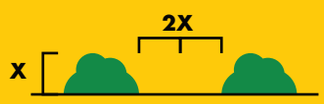
MINIMUM HORIZONTAL SPACING BETWEEN TREES AND SHRUBS

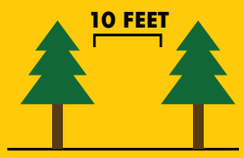
Horizontal spacing depends on the slope of the land and the height of the shrubs or trees. See adjacent diagrams.

DEAD TREE REMOVAL

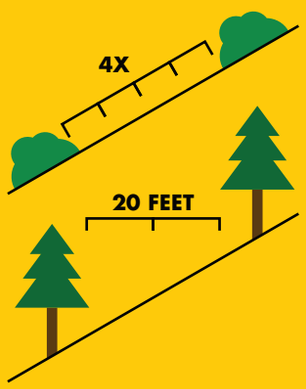
If you have dead or dying trees on your property, the entire tree needs to be removed to reduce wildfire risk. Scan the QR code below to learn about permit requirements.

PERMIT REQUIREMENTS
ReadyforWildfire.org/dead-tree-removal

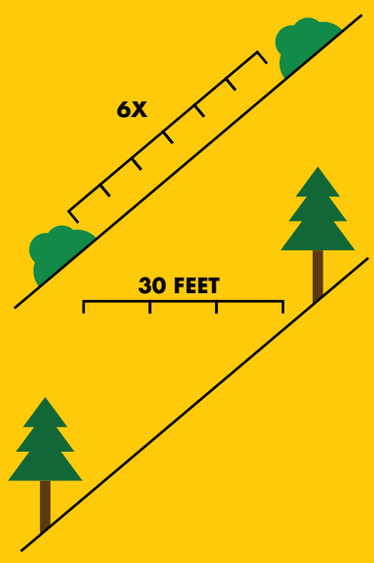




Flat to mild slope (<20%)



Mild to moderate slope (20%–40%)



Moderate to steep slope (>40%)


GET
SET

It is important that you are prepared **before** wildfire strikes. In an emergency it is easy to become confused or panicked.

Getting Set requires three main preparation actions:

- Creating a Wildfire Action Plan
- Creating an Emergency Supply Kit
- Creating a Family Communication Plan

Preparing these items in advance will help keep you focused and able to act quickly when evacuation is anticipated or needed.

Use this guide to complete these actions to prepare in advance of wildfire.

READY FOR WILDFIRE INCIDENT APP

Scan the QR code below to access accurate updates about active wildfires near you with our web-based Ready for Wildfire Incident App.

ACTION PLAN CHECKLIST

CREATE A WILDFIRE ACTION PLAN

Your Wildfire Action Plan must be prepared and familiar to all members of your household well in advance of a wildfire. Use the checklist below to help create your plan. Each family's plan will be different, depending on a variety of issues, needs, and situations.

Create an evacuation plan that includes:

- ○ A designated emergency meeting location outside the fire or hazard area. This is critical to determine who has safely evacuated from the affected area.
- ○ Identification of several different escape routes from your home and community. Practice these routes often so everyone in your family is familiar with them in case of emergency. Go to page 18 to write down your evacuation routes.
- ○ An evacuation plan for pets and large animals such as horses and other livestock.
- ○ A Family Communication Plan that designates an out-of-area friend or relative as a point of contact to act as a single source of communication among family members in case of separation. It is easier to call or message one person and let them contact others than to try and call everyone when phone, cell, and internet systems can be overloaded or limited during a disaster and under a stressful situation. See page 18 for a Family Communication Plan form.

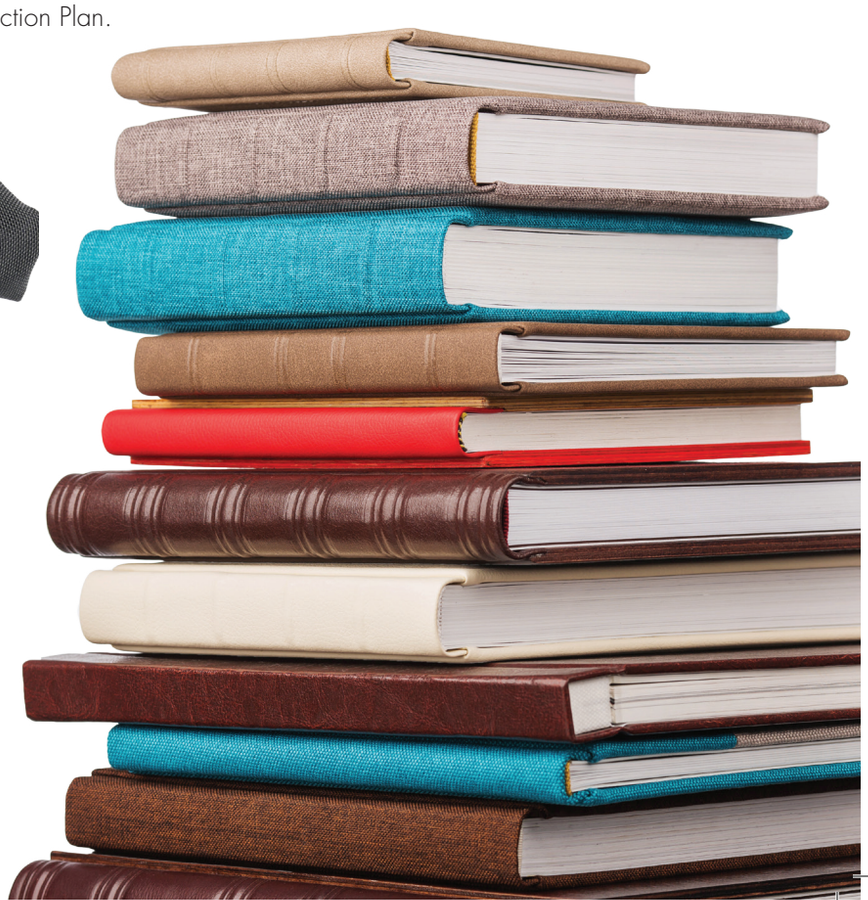
Be prepared:

- ○ Have fire extinguishers on hand and make sure everyone in the family knows how to use them. Many fire extinguishers have expiration dates, so make sure to check yours.
- ○ Ensure you and your family know where the home's gas, electric, and water main shut-off controls are located and how to safely shut them down in an emergency.
- ○ Assemble an Emergency Supply Kit for each person, as recommended by the American Red Cross. See Emergency Supply Kit on page 16 for details.
- ○ Maintain a list of emergency contact numbers in your cell phone, posted near your home phone, and in your Emergency Supply Kit.
- ○ Keep an extra Emergency Supply Kit in your car in case you cannot get to your home because of fire or other emergency.
- ○ Have a portable radio or scanner, or follow the Ready for Wildfire App so you can stay updated on wildfires. Follow local law enforcement notifications for any evacuation information. Visit incidents.ReadyforWildfire.org or scan QR code on page 13 to view the incident app.
- ○ Tell your neighbors about Ready, Set, Go! and your Wildfire Action Plan.

THE SIX Ps

Remember the "Six Ps" and keep them ready in case immediate evacuation is required:

- ○ People and pets
- ○ Papers, phone numbers, and important documents
- ○ Prescriptions, vitamins, and eyeglasses
- ○ Pictures and irreplaceable memorabilia
- ○ Personal computer, hard drive, and disks
- ○ "Plastic" (credit cards, ATM cards) and cash



EMERGENCY SUPPLY KIT

Put together your Emergency Supply Kit—also called a "go bag"—before a wildfire or other disaster occurs and keep it easily accessible so you can take it with you when you evacuate. Backpacks work great for storing these items (except food and water) and are quick to grab. Storing food and water in a tub or chest on wheels will make it easier to transport. Keep it light enough to be able to lift it into your car.

Emergency Supply Kit Contents:

- ○ Face masks or coverings
- ○ Three-day supply of non-perishable food and three gallons of water per person
- ○ Map marked with at least two evacuation routes
- ○ Prescriptions or special medications
- ○ Change of clothing, including a cotton long-sleeved shirt and pants
- ○ Extra eyeglasses or contact lenses
- ○ An extra set of car keys, phone charger, credit cards, cash, or traveler's checks
- ○ First aid kit
- ○ Flashlight
- ○ Battery-powered radio and extra batteries
- ○ Sanitation supplies
- ○ Copies of important documents (birth certificates, passports, insurance, etc.)
- ○ Food, water, and medications for pets
- ○ Can opener

Items to take if time allows:

- ○ Easily carried valuables
- ○ Family photos and other irreplaceable items
- ○ Personal computer information on hard drives and disks
- ○ Extra cell phone chargers, laptops, etc.

Always keep a sturdy pair of shoes and a flashlight near your bed handy in case of a sudden evacuation at night.

OUR FAMILY'S ADDITIONAL SUPPLY KIT MUST HAVES ARE:

BE PREPARED FOR POWER OUTAGES

Power outages may occur before and during the threat of a wildfire. It's important to be prepared and know what actions to take when leaving your home during a power outage.

- Learn how to manually open your automatic garage doors or gates—this is extremely important!
- Be familiar with your home's utility shutoffs (electricity, water, and gas).
- Keep a flashlight and shoes near your bed in case you need to evacuate during the night.
- Keep your Emergency Supply Kit easily accessible so you can find it in the dark if you have to evacuate.
- Always keep at least a half tank of gas in your vehicles.
- If you have a power generator, be sure you know the safety guidelines of your model, including where to connect it, which electrical cords to use, and the electrical load rating. An improperly installed generator can electrocute you or an electric utility worker and can also be a fire hazard.
- Keep your cell phone charged.
- Keep a supply of bottled water.

DURING A POWER OUTAGE

If the power goes out, follow these steps:

- Keep your refrigerator and freezer doors closed.
- Shut off the gas and other combustibles such as propane tanks.
- If wildfire is within your area, keep informed with a battery-powered radio or your cell phone.
- Stay at least 10 feet away from both overhead power lines and electrical facilities, and never approach or touch overhead power lines or any person or object in contact with the lines.

SAVE THIS
FAMILY COMMUNICATION PLAN

Fill out this form and place it in a location where it can easily be found by everyone in your household. Copy the form and keep it in your Emergency Supply Kit. This will allow all family members to have access to this key information in case you get separated.

WHEN WE HAVE TO EVACUATE, WE WILL MEET AT:

_____

OUR OUT-OF-AREA EMERGENCY CONTACT PERSON IS:

Name: _____

Home Phone #: _____

Relationship: _____

E-mail: _____

Cell Phone #: _____

OTHER IMPORTANT NUMBERS ARE:

Emergency 911: _____

Local Police: _____

Local Fire Department: _____

Other: _____

Other: _____

Other: _____

OUR TWO EVACUATION ROUTES ARE (DESCRIBE BELOW):

_____ _____

_____ _____

_____ _____

_____ _____

INSURANCE PREPAREDNESS

A home is generally your largest asset. Protect it.

Insurance is the critical back-up plan enabling you to rebuild your home after a wildfire. Follow these tips as part of your Ready, Set, Go! Wildfire Action Plan:

Conduct an annual insurance checkup

- Call your agent or insurance company annually to discuss your policy limits and coverage. Make sure your policy reflects the correct square footage and features in your home. Consider purchasing building code upgrade coverage.

Know what your policy covers

- Know if you have a replacement-cost policy that pays to replace all of your items at current market price, or if you have an actual cash value policy that takes depreciation into account and pays less for aged items.

Update your policy to cover home improvements

- If you make home improvements, be sure to call your agent or company to update your coverage. Make sure your insurer knows about the changes, so that new countertops, floors, rooms, etc., are covered if you must rebuild.

Maintain insurance

- If your home is paid off, be sure to maintain homeowner insurance. Without insurance, costs to repair or replace a home or structure is the responsibility of a homeowner.

Get renters insurance

- Renters can lose everything in a fire and be left to start over. Many insurers bundle renters insurance coverage with an auto insurance policy at affordable prices.

Make a home inventory

- Document the contents of your home before a wildfire occurs. Use your cell phone to video your belongings or a camera to take photos. Store the inventory list and photos at a location away from the property and/or in a cloud internet server. Include the cost of items and note important or expensive items. If possible, keep receipts for major purchases.
- Don't forget to include items inside the home, inside the garage, and outside of the home.


GO

Give your household the best chance of surviving a wildfire by being ready to go and evacuating early.

Being ready to go means following pre-evacuation steps, knowing when to evacuate, preparing possible evacuation routes, and knowing what to do if you become trapped.

Be safe and don't wait until it's too late! Use these checklists to help prepare you and your family to be ready to evacuate if wildfire strikes.

It is also important to learn what to expect after a wildfire and what you should do before returning home. The danger is not over after the flames are put out.

KNOW THE LAW—BE READY TO EVACUATE

California law authorizes officers to restrict access to any area where a menace to public health or safety exists due to a calamity such as flood, storm, fire, earthquake, explosion, accident, or other disaster. Refusal to comply is a misdemeanor. (Penal Code 409.5)

PRE-EVACUATION STEPS

When evacuation is anticipated, follow these checklists (if time allows):

Outside

- ○ Gather flammable items from the exterior of the house and bring them inside (patio furniture, children's toys, door mats, trash cans, etc.) or place them in your pool.
- ○ Turn off propane tanks.
- ○ Move propane BBQ appliances away from structures.
- ○ Connect garden hoses to outside water valves or spigots for use by firefighters. Fill water buckets and place them around the house.
- ○ Turn off sprinklers and running water; leaving them on can affect critical water pressure.
- ○ Leave exterior lights on so your home is visible to firefighters in the smoke or darkness of night.
- ○ Put your Emergency Supply Kit in your vehicle.
- ○ Back your car into the driveway with vehicle loaded and all doors and windows closed. Carry your car keys with you.
- ○ Have a ladder available and place it at the corner of the house for firefighters to quickly access your roof.
- ○ Seal attic and ground vents with pre-cut fire-resistant boards or commercial seals.
- ○ Monitor your property and the fire situation. Don't wait for an evacuation order if you feel threatened and need to leave.
- ○ Check on neighbors and make sure they are preparing to leave.

Inside the House

- ○ Shut all windows and doors, leaving them unlocked.
- ○ Remove flammable window shades and curtains. Close metal shutters.
- ○ Move flammable furniture to the center of the room, away from windows and doors.
- ○ Shut off gas at the meter or tank. Turn off pilot lights.
- ○ Leave your lights on so firefighters can see your house under smoky conditions.
- ○ Shut off the air conditioning or heater.

Animals

- ○ Locate your pets and keep them nearby.
- ○ Prepare livestock for transport and consider moving them to a safe location early.

EVACUATION STEPS

- ○ Review your Evacuation Checklist.
- ○ Ensure your Emergency Supply Kit is in your vehicle.
- ○ Cover up to protect against heat and flying embers. Wear long pants, a long-sleeved shirt, heavy shoes/boots, cap/hat, a dry bandana for face cover, goggles, or glasses. Clothing made of 100% cotton is preferable.
- ○ Locate your pets and take them with you.

WHEN TO EVACUATE

Leave when evacuation is recommended by fire officials to avoid being caught in fire, smoke, or road congestion. You don't need to wait to be ordered by authorities to evacuate. In an intense wildfire, emergency personnel may not have time to knock on every door. If you feel you are in danger, the best course of action is to evacuate. If you are advised to leave, don't hesitate!

Officials will determine the areas to be evacuated and escape routes to use depending upon the fire's location, behavior, winds, terrain, etc.

Law enforcement agencies are typically responsible for enforcing an evacuation order. Follow their directions promptly.

You will be advised of potential evacuations as early as possible. You must take the initiative to stay informed and aware. Listen to your radio/TV for announcements from law enforcement and emergency personnel.

You may be directed to temporary assembly areas to await transfer to a safe location.

The terms "Warning" and "Order" are used to describe evacuation orders. However, local jurisdictions may use other terminology such as "Precautionary" and "Immediate Threat." These terms are used to alert you to the significance of the danger. All evacuation instructions provided by officials should be followed immediately for your safety.

ANIMAL EVACUATION

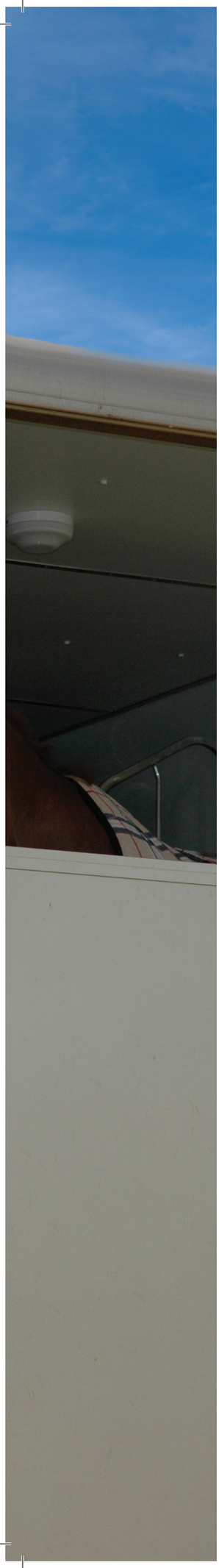
You've taken steps to help keep your family and home fire safe. Don't forget your pets and livestock. With some advanced planning, you can increase their chances of surviving a wildfire.

1. Clear Defensible Space around your barns, pastures, and property just as you do your home.
2. Contact your local fairgrounds, stockyards, equestrian centers, friends, etc. about their policies and ability to temporarily take livestock in an emergency.
3. Have vaccination/medical records, registration papers, and photographs of your animals (proof of ownership).
4. If you must leave your animals, leave them in a pre-selected, cleared area. If appropriate, leave enough hay for 48 to 72 hours.
   - Leave water for your animals. Do not rely on automatic watering systems, as a power outage could occur or the water system become compromised.
5. Arrange in advance for a neighbor to check on or transport your pets in case you are not home when disaster strikes.
   - Make sure your neighbors have your contact numbers (cell phone, work, home, etc.).
6. Make sure that each animal has its own pet carrier, as appropriate.
   - Birds, rodents, and reptiles should be transported in cages covered with a light sheet or cloth to minimize their fear.
7. Make sure your pets are always wearing properly fitted collars with personal identification, rabies and license tags.
8. Plan where you will take your pets and select an alternate prearranged location as well.
   - In the event of evacuation, pets may not be allowed inside human emergency shelters.
9. Prepare your livestock disaster preparedness kit.
10. Prepare your pet disaster preparedness kit.

Scan the QR code below to find what items to include in your livestock and pet disaster preparedness kit.

LIVESTOCK AND PET DISASTER PREPAREDNESS KIT INSTRUCTIONS

ReadyforWildfire.org/animal-evacuation



WHAT TO DO IF TRAPPED

WHILE IN YOUR VEHICLE:

- Stay calm.
- Park your vehicle in an area clear of vegetation.
- Close all vehicle windows and vents. If possible, cover inside of windows with a wool or cotton blanket to minimize radiant heat.
- Cover yourself with a wool or cotton blanket or jacket.
- Lie on vehicle floor.
- Use your cell phone to contact officials—**Call 911**

WHILE ON FOOT:

- Stay calm.
- Go to an area clear of vegetation, a ditch, or depression on level ground, if possible.
- Lie face down and cover up your body.
- If near a body of water—pool, creek, pond, lake, etc.—seek safety in the water or use it to keep distance away from the fire. Be careful not to be swept away by moving water or get too deep.
- Use your cell phone to contact officials—**Call 911**

WHILE IN YOUR HOME:

- Stay calm and keep your family together.
- **Call 911** and inform authorities of your location.
- Fill sinks and tubs with cold water.
- Keep doors and windows closed but unlocked.
- Stay inside your house.
- Stay away from outside walls and windows.
- Turn on lights so emergency officials know you are inside.

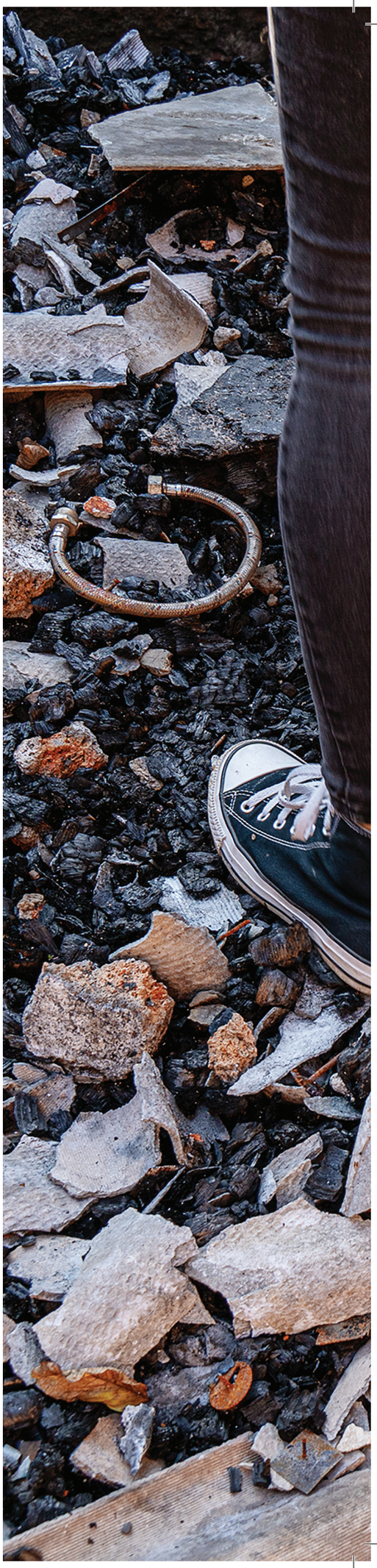
RETURNING HOME AFTER A WILDFIRE

ALWAYS check with officials before attempting to return to your home after a wildfire. Once home, check for the following:

- ○ **Call 911** if any danger is perceived.
- ○ Before inspecting your home, first check for the smell of gas. Turn off power until you've completed your inspection. Use a battery-powered flashlight to inspect a damaged home.
- ○ Check grounds for hot spots, smoldering stumps, and vegetation.
- ○ Check the roof and exterior areas for sparks or embers.
- ○ Check the attic and throughout your house for any hidden burning sparks or embers.
- ○ Check for fire damage to your home, turn off all appliances, and make sure the meter is not damaged before turning on the main circuit breaker.
- ○ Check the well or pump house to ensure it is in working order.
- ○ Do not drink or use water from the faucet until emergency officials say it is okay.
- ○ Discard any food that has been exposed to heat, smoke, or soot.
- ○ Consult local experts on the best way to restore and plant your land with fire smart landscaping.

Be aware of the following dangers that exist after a wildfire:

- Flash floods are a very real and potentially deadly hazard when rain occurs in heavily burned areas after a wildfire. Stay away from burned forests, storm channels, and natural drainages.
- Use extreme caution around trees, power poles, and other tall objects or structures that may have lost stability during the fire.




ReadyforWildfire.org
CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
CAL FIRE
SINCE 1885

Appendix B1-B2

Ready Business How To Guide
Business Emergency Response Plan

Company Name

Address

Telephone

Contact Name Title

Last Revision Date

Policy and Organizational Statements

Identify the goals and objectives for the emergency response plan.

Define what your emergency response team is expected to do during an emergency (e.g., evacuate employees and visitors, provide first aid, etc.)

Identify any regulations covered by your plan (e.g., OSHA, fire code, etc.)

Evacuation Plan

Evacuation may be required if there is a fire in the building or other hazard. The evacuation team will direct the evacuation of the building and account for all employees outside at a safe location.

Employees will be warned to evacuate the building using the following system:	
Employees should assemble at the following location for accounting by the evacuation team:	

(Post a map showing the location(s) in a conspicuous location for all employees to see.)

Person who will bring the employee roster and visitor log to the evacuation assembly area to account for all evacuees. The evacuation team leader will be informed if anyone is missing or injured.	

Evacuation Team	Name / Location
Evacuation Team Leader	
Floor Wardens (one for each floor)	
Searchers (one per floor)	
Stairwell and Elevator Monitors	
Aides for Persons with Disabilities	
Assembly Area Monitors (account for evacuees at the assembly area and inform incident commander if anyone is missing or injured)	

Severe Weather/Tornado Sheltering Plan

If a tornado warning is issued, broadcast a warning throughout all buildings instructing everyone to move to shelter.

Shelter-In-Place Team Assignments	Name / Location
Team Leader	
Person to monitor weather sources for updated emergency instructions and broadcast warning if issued by weather services	
Persons to direct personnel outside to enter the building	
Persons to direct employees to designated tornado shelter(s)	

Tornado Warning System & Tornado Shelter Locations

Location of tornado warning system controls	
Location of tornado shelters	

Shelter-In-Place Plan

If warned to "shelter-in-place" from an outside airborne hazard, a warning should be broadcast and all employees should move to shelter.

Shelter-In-Place Team Assignments	Name / Location
Team Leader	
Direct personnel outside to enter the building; then close exterior doors	
Shutdown ventilation system and close air intakes	
Move employees to interior spaces above the first floor (if possible)	
Person to monitor news sources for updated emergency instructions	
Assembly Area Monitors (to account for evacuees at the assembly area)	

Shelter-In-Place Shutdown of Ventilation System

Location of controls to shutdown ventilation system:	
Location of air handling units, fan rooms, or air intakes:	

Lockdown Plan

Persons trained to use the warning system to warn persons to "lockdown"

Name	Location

Instructions for Broadcasting Warnings

Where to Access the Warning System
(e.g., telephone, public address system, etc.)

Instructions for using the system

Medical Emergency Plan

If a medical emergency is reported, dial 9-1-1 and request an ambulance. Provide the following information:

- Number and location of victim(s)
- Nature of injury or illness
- Hazards involved
- Nearest entrance (emergency access point)

Alert trained employees (members of the medical response team) to respond to the victim's location and bring a first aid kit or AED.

Personnel Trained to Administer First Aid, CPR, or use Automated External Defibrillator (AED)

Name	Location / Telephone

Locations of First Aid Kits and Automated External Defibrillator(s)

Locations of First Aid Kits and "Universal Precautions" kit (used to prevent exposure to body fluids)	
Locations of Automated External Defibrillator(s) (AEDs)	

Procedures

- Only trained responders should provide first aid assistance.
- Do not move the victim unless the victim's location is unsafe.
- Control access to the scene.
- Take "universal precautions" to prevent contact with body fluids and exposure to bloodborne pathogens.
- Meet the ambulance at the nearest entrance or emergency access point; direct them to victim(s).

Fire Emergency Plan

If a fire is reported, pull the fire alarm, (if available and not already activated) to warn occupants to evacuate. Then Dial 911 to alert Fire Department. Provide the following information:

- Business name and street address
- Nature of fire
- Fire location (building and floor or)
- Type of fire alarm (detector, pull station, sprinkler waterflow)
- Location of fire alarm (building and floor)
- Name of person reporting fire
- Telephone number for return call

Evacuation team to direct evacuation of employees and visitors.

Procedures

- Evacuate building occupants along evacuation routes to primary assembly areas outside.
- Redirect building occupants to stairs and exits away from the fire.
- Prohibit use of elevators.
- Evacuation team to account for all employees and visitors at the assembly area.
- Meet Fire Department Incident Commander (IC). Inform the IC if everyone has been accounted for and if there are any injuries. Provide an update on the nature of the emergency and actions taken. Provide building floor plans, keys and other assistance as requested.
- Assign personnel to verify that fire protection systems are operating normally and to operate building utility and protection systems as directed by the fire department.

Property Conservation

Identify preparations before a forecast event such as severe weather.

Identify how you will assess damage; salvage undamaged goods; and cleanup the building following an incident.

Identify the contractors, equipment, and materials that would be needed. Update the resource table at the end of this plan.

Annexes

Hazard or Threat-specific

Instructions: Review the following list of hazards and identify those hazards that are foreseeable. Review the links to information provided within the Ready Business website to develop specific emergency procedures.

Natural hazards (geological, meteorological, and biological)

Geological hazards

- Earthquake
- Tsunami
- Volcano
- Landslide, mudslide, subsidence

Meteorological Hazards

- Flood, flash flood, tidal surge
- Water control structure/dam/levee failure
- Drought
- Snow, ice, hail, sleet, arctic freeze
- Windstorm, tropical cyclone, hurricane, tornado, dust storm
- Extreme temperatures (heat, cold)
- Lightning strikes (Wildland fire following)

Biological hazards

- Foodborne Illnesses
- Pandemic/Infectious/communicable disease (Avian flu, H1N1, etc.)

Technology caused event

- Utility interruption or failure (telecommunications, electrical power, water, gas, steam, HVAC, pollution control system, sewerage system, other critical infrastructure)

Human-caused events (accidental and intentional)

Accidental

- Hazardous material spill or release
- Nuclear Power Plant Incident (if located in proximity to a Nuclear power plan)
- Explosion/Fire
- Transportation accident
- Building/structure collapse
- Entrapment and or rescue (machinery, confined space, high angle, water)
- Transportation Incidents (Motor Vehicle, Railroad, Watercraft, Aircraft, Pipeline)

Intentional

- Robbery
- Lost Person, Child Abduction, Kidnap, Extortion, Hostage Incident, Workplace violence
- Demonstrations, Civil disturbance
- Bomb threat, Suspicious package
- Terrorism

Appendices

Emergency Response Teams

Identify the members of emergency response teams not identified elsewhere.

- Facilities or building management staff familiar with building utility and protection systems and those who may assist with property conservation activities.
- Security
- Others trained to use fire extinguishers, clean up small spills of hazardous materials.

Team	Member Name	Location	Work Telephone	Home/Cell Telephone

Public Emergency Services & Contractors

Emergency Service	Name	Emergency Telephone	Business Telephone
Fire Department			
Emergency Medical Services			
Police Department			
Emergency Management Agency			
Hospital			
Public Health Department			
State Environmental Authority			
National Response Center (EPA)			
Electrician			
Plumber			
Fire Protection Contractor			
Elevator Service			
Hazardous Materials Cleanup			
Cleanup / Disaster Restoration			

Warning, Notification & Communications Systems

The following systems are used to warn employees to take protective action (e.g., evacuate, move to tornado shelter, shelter-in-place, or lockdown) and provide them with information. The Communications capabilities enable members of our emergency team to communicate with each other and others.

	System	Location/Control Panel or Access Point
Warning System	Fire Alarm	
	Public Address	
	Other (describe)	
Notification System	Electronic	
	Telephone call tree	
Communications Capabilities	Telephone	
	Two-way radio	

Fire Protection Systems

Document the fire protection systems including the types of systems, location, area, or hazard protected, and instructions.

System Type	Location	Access Point / Instructions
Sprinkler System	Control Valve	
	Control Valve	
	Control Valve	
Fire Pump		
Special Extinguishing Systems	Computer Room	
	Kitchen	
	Manufacturing Area	

Revision History

Revision No.	Date	Description of Changes	Authorization

Plan Distribution & Access

The Plan will be distributed to members of the emergency response team and department heads. A master copy of the document should be maintained by the emergency response team leader. The plan will be available for review by all employees.

Provide print copies of this plan within the room designated as the emergency operations center (EOC). Multiple copies should be stored within the facility EOC to ensure that team members can quickly review roles, responsibilities, tasks, and reference information when the team is activated.

An electronic copy of this Plan should be stored on a secure and accessible website that would allow team member access if company servers are down.

Electronic copies should also be stored on a secured USB flash drive for printing on demand.

Ready Business®

HOW-TO GUIDE

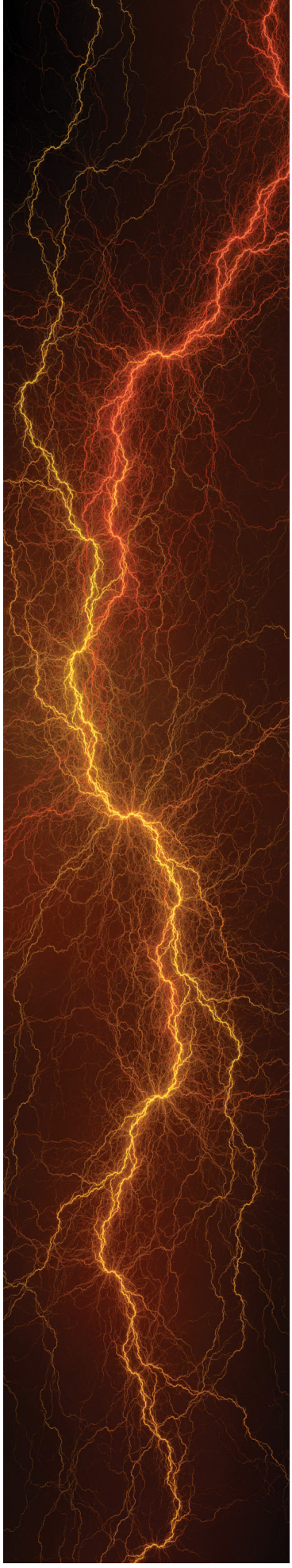


Table of Contents

Introduction

Program Background

The goal of the FEMA *Ready Business Program* is to help businesses and organizations develop effective preparedness and mitigation programs. The *Ready Business Program* accomplishes this goal by providing tools to create business continuity and Preparedness and *Mitigation Project Plans* with a focus on the impact of relevant, local hazards.

THE *READY BUSINESS PROGRAM* COMBINES LEADING PRACTICES ALONG WITH PRESENTATIONS, PANEL DISCUSSIONS, AND A SCENARIO-BASED TABLETOP DISCUSSION TO MOVE ORGANIZATIONAL LEADERS THROUGH A STEP-BY-STEP PROCESS TO:

✓	Identify Your Risk
✓	Develop a Plan
✓	Take Action
✓	Be Recognized and Inspire Others

The two components of the *Ready Business Program* are a series of hazard-specific *Ready Business Toolkits* and in-person *Ready Business Workshops*.

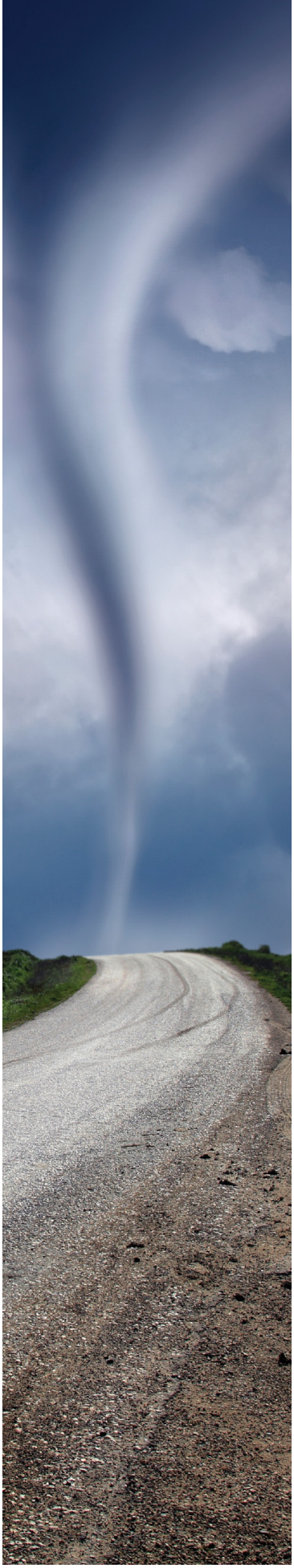
The first program component, the *Ready Business Toolkit* series, focuses on earthquakes, hurricanes, inland flooding, power outage, and severe wind/tornado events. Toolkits provide organizations with information needed to develop a business continuity plan and *Preparedness and Mitigation Project Plans*, and provide an application for recognition of participating organizations.

Toolkits are available for download here on the Federal Emergency Management Agency (FEMA) website.

The second program component is the *Ready Business Workshop*. Workshops provide participants with information from subject matter experts and facilitates collaboration with local leaders.

Fundamentals for a successful *Ready Business Workshop* include:

- A dedicated, integrated host committee
- Strong support from state, local, tribal, and territorial governments and regional management and associations
- Centrally located venue that allows for ease of attendance
- Meeting room layout that fosters interactive discussion
- Participation from local leadership to inspire attendees
- Knowledgeable and articulate disaster preparedness and mitigation subject matter experts
- Participation by a skilled, experienced, scenario-based discussion leader
- Broad-based business and organization participation



Benefits to planning and executing a *Ready Business Workshop* in your community include:

Advancement and integration of business continuity preparedness and mitigation planning into daily operations of the business community;

Introduction of new organizations to the benefits of the *Ready Business Program* and public-private partnerships to enhance disaster resilience; and

Organizations that possess, **understand, and leverage** available resources for disaster preparedness and mitigation.

> After participating in an earthquake version of the ***Ready Business Workshop***, one attendee commented, "I have many opportunities to attend high-profile emergency conferences, but this workshop provided more practical, useful information than any of those other events."

Purpose of the "How-To" Guide

This "How-To" Guide is designed to support those that wish to organize and implement a *Ready Business Workshop* in their community. The protocol in this guide is based on a successful workshop model that has attracted more than 450 U.S. private and public sector participants, including small, medium, and large companies; nonprofit and faith-based organizations; and independent and public schools.

Once you select a *Ready Business Toolkit* as the basis for a workshop, this guide will assist you and your planning team by providing insight to the process to plan and execute a *Ready Business Workshop*. Depending on the needs of your community, you may wish to combine one or more hazards within a workshop. Past workshops have combined multiple hazards and addressed the interrelation between them. The guide provides recommendations from inception to post-workshop evaluation.

If you are interested in hosting a *Ready Business Workshop* and need technical assistance, please contact the *Ready Business Program* at FEMA-Private-Sector@fema.dhs.gov for more information.

Introduction: Workshop Overview

The *Ready Business Workshop* contains five sections that align with the *Ready Business Toolkit*.

The first three sections outline the step-by-step process in the toolkit: *Identify Your Risk*, *Develop a Plan*, *Take Action,* and *Be Recognized and Inspire Others*. The next section, a scenario-based discussion which reinforces workshop topics through a simulated disaster response, is integrated into the workshop either during the *Identify Your Risk* step or after all the steps have been covered.

Finally, an optional *Partnership Showcase* may be organized and added to the workshop agenda to provide opportunities for service organizations, vendors, and community groups to network with participants and share preparedness and mitigation information.

IDENTIFY YOUR RISK

This section of the workshop outlines the risk to the organization through two presentations.

1. The first presentation outlines the risk through science. Typically, a local disaster risk expert discusses the level of local risk for the hazard topic and recaps impacts of previous disasters that have occurred in the region.

2. The local risk presentation is followed by a business continuity presentation by an expert who covers the *Back-to-Business Self-Assessment* in the toolkit. The *Back-to-Business Self-Assessment* allows the participating business or organization leader to think through a scenario, answer questions, and record the insights regarding how the local disaster would impact their organization.

The answers to their questions will provide them the specific information needed to participate in the scenario-based discussion and move into the next section of the workshop, *Develop a Plan*. This questionnaire can be downloaded here and should be completed in advance of the workshop so that participants can fully participate in the discussions.

DEVELOP A PLAN

An interactive panel will discuss the elements necessary to create a *Business Continuity Plan* or a *Preparedness and Mitigation Plan*.

During the *Develop a Plan* interactive panel, subject matter experts will review the toolkit and present information about each pertinent area. Depending on the hazard, the following areas will be included in the interactive panel:

STAFF	Planning and preparedness activities for the protection of staff.
SURROUNDINGS	Nonstructural elements outside the building that potentially pose a threat during an event.
SPACE	Nonstructural workplace surroundings on the interior of the building.
SYSTEM	Systems that support the operation of the building.
STRUCTURE	Architectural and structural elements of the building.
SERVICE	Opportunities for an organization to engage and serve the community following an event.

A dialogue between presenters and participants is encouraged, and time for questions is reserved at the end of each panel to ensure engagement.

TAKE ACTION

This section of the workshop emphasizes that developing a plan is not enough and the organization needs to follow through by taking action and reviewing the process to gain recognition as a Ready Business.

BE RECOGNIZED AND INSPIRE OTHERS

The *Ready Business Program* is intended to recognize and reward businesses and organizations that complete preparedness and mitigation actions to protect employees, customers, and business continuity. *Be Recognized and Inspire Others* highlights the benefits to organizations that become a Ready Business.

SCENARIO-BASED DISCUSSION

The scenario-based discussion can occur at any point during the workshop. Ideally, it should be integrated in the *Identify Your Risk* section and use the already completed *Back-to-Business Self-Assessment* completed by the attendees. Another option is to have the scenario-based discussion as the final activity in the workshop and review all three steps of the *Ready Business Program*. In either form, a facilitator walks participants through a predetermined disaster scenario tailored to the local community and the risks it faces. A scenario-based exercise template is available for download here on the Federal Emergency Management Agency (FEMA) website.

The scenario-based discussion is typically led by an experienced exercise facilitator that is adept at involving all the organizations in the room and keeping the discussion moving forward. Please contact your local emergency management office to identify an exercise facilitator.

PARTNERSHIP SHOWCASE

Organizers can consider adding tables or booth space to allow for businesses, organizations, and service providers to showcase information, network, and facilitate additional conversation between the hosts and attendees during breaks and lunch.

The *Partnership Showcase* should allow for planning committee members and key partners (often from the presenter's organizations) to display their information when relevant. Further, workshop organizers should carefully consider, evaluate, and possibly limit showcase participants to ensure the workshop focus remains consistent with preparedness, mitigation, and public-private partnerships.

Workshop Implementation:

1 PREPARE FOR A READY BUSINESS WORKSHOP

This section of the toolkit outlines the steps necessary to prepare for a *Ready Business Workshop*. This includes information regarding establishing partnerships, choosing a venue, developing the agenda, and selecting presenters. It is important to note that the examples provided are best practices and may be modified to fit the host community.

Templates to assist with the development of the workshop are available for each *Ready Business Toolkit* and may be downloaded here on the Federal Emergency Management Agency (FEMA) website. *Ready Business Workshop* downloads include:

- *Back-to-Business Self-Assessment*
- Sample Feedback Form
- Invitation and E-Invite Language
- Sample News Media Advisory
- Presentation Format for Each Hazard
- Programs for Each Hazard
- Sample Agenda
- Scenario-Based Discussion Template
- Workshop Signage Template

2 DELIVER A *READY BUSINESS WORKSHOP*

This section of the toolkit provides logistics details for the day of the event, including reminders for the workshop host and strategies for ensuring that the scenario-based discussion is successful.

The majority of workshop preparation should be completed well in advance of the workshop day. However, organizers should be prepared to adjust and adapt to last minute changes due to weather, travel, or other contingencies.

3 *READY BUSINESS WORKSHOP* FOLLOW-UP

This section of the toolkit provides suggestions on outreach and workshop follow-up. Examples include suggestions to share all presentations and the attendee list, as well as securing feedback for future improvements.

1 | *Prepare For a Ready Business Workshop*

Follow these steps to prepare for a *Ready Business Workshop*.

Identify a Workshop Planning Team Leader: _____

Record the date of the first Planning Team Meeting: _____

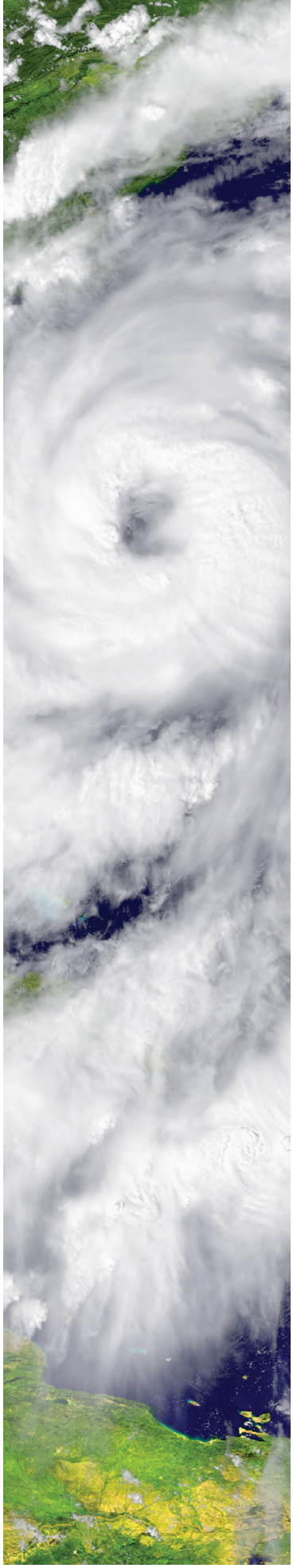
TASK	TASK	INFORMATION AND CONSIDERATIONS	ASSIGNED TO	
Four Months in Advance				
Identify, Recruit and Build a Team for Workshop Planning	One Month	• Partners should include FEMA Regional Public Information Officers (PIOs) and private-sector liaison, state and local emergency management officer or hazard mitigation officer, and area chamber of commerce representatives. • Important to secure upfront commitments from partners to actively promote the workshop through eBlasts, newsletter articles, organizational calendars, and/or social media.		
Three Months in Advance				
Convene Initial Meeting of the Planning Team	Ongoing	Schedule these meetings to occur every two weeks from this point until the workshop.		
Determine Workshop Date	Two Weeks	Cross-reference date against known conferences/workshops, holidays, and/or anniversaries of significant events.		
Develop a Budget	Two Weeks	• Consider the expense of the venue, bear in mind potential public venues like universities and libraries that may be free of cost. • Consider the expense of stipends for subject matter experts to present. • Consider lunch and break expenses (this could be done through a private partner contribution as well). • Consider the expense of audio/visual needs. • Consider the expense of parking fees for participants.		

TASK	TASK DURATION	INFORMATION AND CONSIDERATIONS	ASSIGNED TO	COMPLETION DATE
Three Months in Advance (cont.)				
Secure Venue	Two Weeks	• Consider exhibition space. • Locate space that accommodates up to 100 attendees. • Look for a venue that includes audio/visual equipment, so this will not become an additional expense for the workshop. • Ensure space allows for adequate room to conduct the scenario-based discussion. • Ensure space allows for people with disabilities and access and functional needs, for example accomodating those with wheelchairs, service animals, and providing an ASL interpreter for those who are deaf or hard of hearing.		
Ten to Twelve Weeks in Advance				
Develop an Agenda and Secure Presenters	Four Weeks	• Appendix A - Sample agenda can be used as the starting point. • Appendix B - Description of speaker/presenter roles. • Recruit/secure FEMA regional and local representatives along with technical speakers. • Confirm hands-on activities/exhibit space.		
Eight to Ten Weeks in Advance				
Name the Table-Top Exercise Coordinator	One Day	• Coordinator is responsible for developing a draft table-top exercise for review. • Reference the exercise template at (website for download).		
Develop Online Registration System	One Day	• Develop online registration portal to gather attendee information. • Develop confirmation email that includes instructions for completing *Back-To-Business Self-Assessment* before the workshop.		
Start Marketing/ Promotion	Ongoing	• Develop and distribute invitation (Appendix C - Invitation and Marketing Email template). • Develop media advisory and news release (Attachment D - Sample News Media Advisory).		

TASK	TASK DURATION	INFORMATION AND CONSIDERATIONS	ASSIGNED TO	COMPLETION DATE
Eight to Ten Weeks in Advance (cont.)				
Start Marketing/ Promotion	Ongoing	• Start targeted outreach to local business/ community calendar reporters. • Contact local chambers of commerce and neighborhood business associations and ask them to promote the workshop to their membership. • Request that partners engage in promotion and follow up individually with materials needed to promote and a reminder of who and when they promised to reach out to.		
Six Weeks in Advance				
Review Table-Top Exercise with Coordinator	One Week	Coordinator to review table-top exercise during planning team meeting and then route for review.		
Four Weeks in Advance				
Finalize Table-Top Exercise	One Week	• Coordinator to review comments from the planning team and incorporate into exercise. • Review the exercise with the planning committee. • Finalize exercise and send to the workshop lead for incorporation into the presentation.		
Order Audio Visual Support and Equipment	One Week	Baseline equipment should include projector, screen, podium microphone, table top microphone(s) for four-person panel, and two wireless microphones for audience questions.		
Reminder to Registered Attendees and Email Blast to Garner Registrations	Ongoing	• Feature information about one of the speakers/presentations. • Include reminder to complete *Back-to-Business Self-Assessment.*		
Media Pitching	One Week	Use media advisory to pitch by phone to local media as well as to promote workshop attendance.		
Meet with all Presenters to Discuss Material and Workshop Logistics	One Week	• Schedule meetings with each presenter to discuss their presentation and address logistical needs, such as headshot and bio. • Inform presenters that their presentations will be shared following the workshop.		

TASK	TASK DURATION	INFORMATION AND CONSIDERATIONS	ASSIGNED TO	COMPLETION DATE
Confirm Exhibitors (if Applicable)	Two Weeks	• Consider private-sector partners whose services and/or products are relevant to the hazards. • Consider nonprofit organizations and government agencies relevant to response and recovery.		
Three Weeks in Advance				
Receive Speaker Headshots and Bios for Program	Ongoing	• Begin development of the program. • Download a sample workshop program here.		
Order Food and Beverage for the Workshop	One Week	• Ideal to secure private sponsorship of lunch. • Consider food allergies and special food requests.		
Two Weeks in Advance				
Complete Agenda and Program	Two Days	• Provide presenters with the agenda. • Add the agenda to the workshop program. • Send the completed agenda to the registered participants with a workshop reminder.		
Print Program/ Workshop Guide	Two Days	Includes printing and assembly of workshop program guides.		
One Week in Advance				
Print Signage	One Day	Directional, podium, and partner signs.		
Ship Items to Venue	One Day	Send programs and all directional, podium, and partner signs to venue.		
Name Badges and Holders	One Day	Secure name badges and holders.		
Name Badge Template	One Day	Complete name badge template.		
Ship Workshop Materials	One Day	Shipping time frame dependent upon location of workshop.		
Pitch Media	Ongoing	Pitch media (all outlets and trades) to cover workshop.		

TASK	TASK DURATION	INFORMATION AND CONSIDERATIONS	ASSIGNED TO	COMPLETION DATE
One Week in Advance (cont.)				
Receive Speaker Presentations and Develop Master Presentation	Two Days	Use the appropriate presentation template for the workshop.		
Send Reminder to Registrants Regarding the Workshop and Completing the *Back-to-Business Self-Assessment*	One Day	• Include address. • Include information regarding cancellation policy. • Include contact name for specific questions.		
Food and Beverage for Workshop	One Day	• Confirm final head count with catering provider.		
One Day Before Travel				
Complete Name Badge Printing	One Day	Assemble name badges.		
Develop Tent Cards to Assign the Exhibitor Tables	One Day	Create tent cards.		
One Day Before Workshop				
Send Reminder Email to All Registered Attendees	One Day	• Include address and lunch information in this email. • Include reminder to complete the *Back-to-Business Self-Assessment.*		



2 | *Deliver a Ready Business Workshop*

There are two important items to manage on the day of the workshop: room setup and audio/visual equipment. For room setup, assign a planning team member to oversee the following during the workshop:

- Placement of signs to direct attendees to the proper room
- Location and ease of access to the registration table
  - » This should be located directly outside workshop room
  - » A sign in sheet and nametags should be available at the table
- Layout of the workshop room is conducive for presentations and scenario-based discussion
- Location of fire exits and restrooms are known
- Lunch space has been provided and is easily accessible

For the audio/visual setup, it is important to check the following:

- Computer systems with the projector attached
- Loaded and prepared presentation slides
- Sound and internet connection for any videos
- Microphones for the presenters

Additionally, as the workshop progresses throughout the day, organizers should monitor the workshop environment including basic logistics like room temperature, as well as ways to increase engagement and participation of attendees with the presenter or host.

---

3 | *Ready Business Workshop Follow-Up*

After the workshop is complete, it is important to follow up with the attendees. Post-event information for workshop attendees may include:

- Attendee roster
- Link to download the presentations and program
- Links to partner websites

Consider adding participants to a list serve with additional information and future events. Follow up 3-6 months after the event with workshop participants to evaluate actions taken.

Additionally, reviewing feedback forms and discussing recommendations with the planning team for future workshops is critical. A feedback form template is available for download here on the Federal Emergency Management Agency (FEMA) website.

Share this information with the FEMA Ready Campaign and Individual and Community Preparedness Division. Other FEMA regions hosting workshops in the future will benefit from this feedback.

Valuable Websites

Prepareathon

www.ready.gov/prepare

Federal Alliance for Safe Homes (FLASH)

www.flash.org

Ready Business

www.ready.gov/business

Ready Business Templates

www.flash.org/readybusiness

Appendix A

Sample Agenda

The following are full day and half-day sample agenda templates you may use to develop your workshop agenda. The panel will consist of only those elements contained in the hazard-specific toolkit. Appendix B provides detailed descriptions of speaker/presenter roles.

Anywhere Ready Business Full-Day Workshop Agenda

Date of Workshop
9:00 a.m. – 4:00 p.m.
Address

8:30 a.m. – 9:00 a.m.	Registration
9:00 a.m. – 9:15 a.m.	Welcome
9:15 a.m. – 9:30 a.m.	Introduction to Ready Business – [Insert Toolkit Topic]
	An overview of the *Ready Business Program*.

IDENTIFY YOUR RISK

9:30 a.m. – 10:00 a.m.	The Disaster Threat to Your Businesses
	An explanation of the science and the risk of [Insert Hazard/s] in your area.
10:00 a.m. – 10:15 a.m.	Break
10:15 a.m. – 12:15 p.m.	*Back-to-Business Self-Assessment* Scenario-Based Discussion

Learn about the impacts a/an [Insert Hazard/s] could have on your organization and fill out the initial Ready Business Back-to-Business Self-Assessment as the first step in your planning process.

12:15 p.m. – 1:00 p.m. Lunch

DEVELOP A PLAN

1:00 p.m. – 2:00 p.m. Ready Business Interactive Panel

Learn about the components of preparedness and mitigation that go into developing a Preparedness and Mitigation Plan.

TAKE ACTION & BE RECOGNIZED AND INSPIRE OTHERS

2:00 p.m. – 2:30 p.m. Ready Business Application and Recognition

Learn how to have your business recognized for working towards a more resilient community.

2:30 p.m. – 3:00 p.m.	A Service Story
	A *local business shares their disaster and recovery story.*

Anywhere Ready Business Half-Day Workshop Agenda

Date of Workshop
9:00 a.m. – 12:00 p.m.
Address

8:30 a.m. – 9:00 a.m.	Registration
9:00 a.m. – 9:15 a.m.	Welcome
9:15 a.m. – 9:30 a.m.	Introduction to Ready Business – [*Insert Toolkit Topic*]
	An overview of the Ready Business Program.

IDENTIFY YOUR RISK

9:30 a.m. – 9:45 a.m.	The Disaster Threat to Your Businesses
	*An explanation of the science and the risk of [Insert Hazard/s] in your area***.**
9:45 a.m. – 10:45 a.m.	Back-to-Business Self-Assessment Scenario-Based Discussion

Learn about the impacts a/an [Insert Hazard/s] could have on your organization and fill out the initial Ready Business Back-to-Business Self-Assessment as the first step in your planning process.

DEVELOP A PLAN

10:45 a.m. – 11:45 a.m. Ready Business Interactive Panel

Learn about the components of preparedness and mitigation that go into developing a Preparedness and Mitigation Plan.

TAKE ACTION & BE RECOGNIZED AND INSPIRE OTHERS

11:45 a.m. – 12:00 p.m. Ready Business Application & Recognition

Learn how to have your business recognized for working towards a more resilient community.

Appendix B

Description of Speaker/Presenter Roles

Speaker/Presenter Role	Description
Workshop Lead	The Workshop Lead is responsible for introductions and movement from one session to another throughout the day, and is typically a person from the Workshop Planning Team.
Welcome Speaker(s)	This speaker welcomes the attendees to the workshop and the area, and is usually a local leader or a member of the Workshop Planning Team.
Introduction to Ready Business	The Introduction presenter must be familiar with the *Ready Business Program* and history of the *Ready Business Workshops.*
The Disaster Threat to Your Business	This presenter is a subject matter expert that can speak to the science and the history of the disasters in that region.
Back-to-Business Self-Assessment Scenario-Based Discussion	This business continuity expert uses the scenario and questionnaire from the toolkit to assist business leaders with identifying risk to their businesses from disaster to help prioritize preparedness and mitigation actions.
Ready Business Interactive Panel	This panel is comprised of subject matter experts in the fields of preparedness, mitigation, and service before, during, and after a disaster. Ideally a separate speaker addresses each topic within the toolkit. Examples of presenters include academics, mitigation experts, and volunteers.
Ready Business Application and Recognition	This presenter must be familiar with the *Ready Business Program* and the steps to apply for recognition.
A Service Story	Presenter for this topic is from a business that survived a disaster and has a story to tell about their lessons learned and how they changed their habits moving forward.

Appendix C

Invitation and Marketing Email Template

[Insert Year] WORKSHOP SERIES

Ready Business®

JOIN US!

Get Ready®, [Insert Location].

Identify Your Risk
Learn about business continuity, disaster response, and the cost benefit of preparing for [hazard] and other business interruption.

Develop a Plan
Identify preparedness and mitigation actions needed to ensure safety and business continuity. Complete assessments and begin planning for retrofit projects.

Take Action
Learn how to perform preparedness and mitigation activities using Ready Business.

Be Recognized and Inspire Others
Gain recognition for preparing your organization for [Hazard].

WHAT
[Insert Workshop Type]

WHEN
[Insert Date]
[Insert Time]

WHERE
[Insert Workshop Location
Address
City, State Zip Code]

HOW
The Workshop is free, but registration is required. [Insert Registration Link.]

STRENGTHENING PARTNERSHIPS

FEMA

FLASH Strengthening Homes & Safeguarding Families

[Insert Co-Presenters/Sponsors]

Appendix C *(cont.)*

Invitation and Marketing Email Template

Dear First and Last Name,

Is your organization prepared for [Hazard]? [Insert sentence about hazard relevant to this location.]

Why is this important? The Small Business Administration (SBA) estimates that 40 percent of small businesses will not reopen after disaster, 25 percent more will close within one year, and 75 percent of businesses without continuity planning will fail within three years of a disaster. Businesses, large and small, are at risk—as are your employees, customers, and the community you serve.

The good news is that the actions to protect your business, employees, and customers are simple, scalable, and many are very low cost to implement. The [Location] *Ready Business Workshop* will provide you with actionable information to protect your people, property, and operations by assisting you to *Identify Your Risk, Develop a Plan, Take Action*, and *Be Recognized and Inspire Others*.

The Ready Business Workshop will provide:

- Experts to explain [Hazard] risks specific to [Location];
- Information explaining the level of support you can expect from your local emergency management agency if a large-scale disaster occurs;
- Preparedness actions you can take before, during, and after disasters; and
- Provide simple materials and helpful links to additional resources.

Maintaining business continuity is important for you, and when you are able to continue operations after a disaster, you will improve your community's ability to recover as well.

Regardless of your experience level in preparing for disasters, this FREE workshop is for you. Please join us!

Appendix D

Sample News Media Advisory

[Insert Organization Logo]

[Insert Media Point of Contact
Name
Title
Phone Number
Email Address]

[Insert Date]

Ready Business Workshop **Set for [Insert Location]**

[Insert Toolkit Topic] Toolkit for Businesses Now Available

WHAT: FEMA Individual and Community Preparedness Division, FEMA Region [Insert Region Number], [Insert Organization Name], and the Federal Alliance for Safe Homes, (FLASH)® welcome businesses and organizations to the *Ready Business* – [Insert Toolkit Topic] workshop in [Insert City, State]. With a focus on the *Ready Business* – [Insert Toolkit Topic] Toolkit, workshop participants will learn to identify their risks, develop a plan, take action, and be recognized and inspire others to mitigate potential impacts. The daylong workshop delivers modules focused on Staff, Surroundings, Space, Systems, Structure, and Service.

WHO: Featured presenters will include:

- [Insert Featured Speaker Name, Title, Organization]
- [Insert Featured Speaker Name, Title, Organization]
- [Insert Featured Speaker Name, Title, Organization]

WHEN: [Insert Workshop Date], 9:00 a.m. – 4:00 p.m.

WHERE: [Insert Location and Address of the Workshop]

HOW: The *Ready Business* workshop is free, but registration is required. Please click here [Hyperlink to Registration Page] to register, or contact [Insert Point of Contact and Hyperlink to Email Address] for more information.

Appendix E

Sample Attendee Email

Good Morning [Location] Attendees,

This is a reminder that the [Location] *Ready Business Workshop* is only a week away. Registration will begin at 8:30 a.m., and the Workshop will start promptly at 9 a.m. on [Insert Workshop Date] at the [Insert Workshop Location]. The address is:

[Insert Address of the Workshop]

The workshop will be located on the ___ floor in room ___. Parking will be complimentary and will be located_____.

A complimentary box lunch will be included for registered, full-day attendees.

If you have any questions, please call [Insert Point of Contact Phone Number and Hyperlink to Email Address].

Appendix F

Sample Feedback Form

[Insert Co-Presenters/Sponsors]

PARTICIPANT FEEDBACK FORM
[Insert Toolkit Topic] Ready Business Workshop
[Insert Location]

Participant Name (optional): _____ Date:_____

Organization Name:
_____

Location:
_____

Part I – Participant Evaluation

Section I. *Please rate, on a scale of 1 to 5, your overall evaluation of the activities relative to the list provided below, with 1 indicating a rating of* ***Strongly Disagree*** *and 5 indicating a rating of* ***Strongly Agree****.*

	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Introduction to Ready Business	1	2	3	4	5
The Disaster Threat to Your Businesses	1	2	3	4	5
Back-to-Business Self-Assessment	1	2	3	4	5
Ready Business Interactive Panel	1	2	3	4	5
Ready Business Application & Recognition	1	2	3	4	5
A Service Story	1	2	3	4	5
The workshop presentations were relevant to current issues.	1	2	3	4	5
Overall, the workshop was constructive and worthwhile.	1	2	3	4	5

Section II.

In the space provided below, please answer yes or no to the following questions. Please provide a corresponding observation action to enhance the different aspects of the Ready Business Preparedness Workshop e.g., planning, policies, training, personnel, equipment, etc.

- **Did you receive the information that you expected today?**

Yes or No

Observations:

_____
_____

- **Are you more likely to develop a business continuity plan based on the information that you heard today?** **based on the information that y**

Yes or No

Observations:

_____
_____
_____
_____

- **Are you more likely to perform mitigation to protect your employees and property based on the information that you heard today?**

Yes or No

Observations:

_____
_____
_____
_____

- **Will the tools provided in the workshop be helpful in identifying risk, developing a plan, and taking action to perform mitigation?**

Yes or No

Observations:

_____
_____
_____
_____

- **Are there additional topics or information that you would like included in the workshop*?*** **based on the information that y**

Yes or No

Observations:

_____
_____
_____
_____

Part II – Participant Feedback

Section I. Observations and Recommended Actions

In the space provided below, please record strengths or areas of improvement you are considering as a result of the workshop. Please provide a corresponding recommended action to enhance or correct that observation e.g., planning, policies, training, personnel, equipment, etc.

Observation:

_____
_____
_____

Recommendation:

_____
_____
_____

Recommendation:

_____

Appendix F *(cont.)*

Sample Feedback Form

Observation:

_____

_____

_____

Recommendation:

_____

_____

_____

_____

Section II. Moving Forward. Identify Needs, Identify Resources.

Are additional resources required to move forward with preparedness activities?

_____

_____

_____

_____

_____

Section III. Additional Feedback

Please provide us with any additional feedback regarding the workshop.

_____

_____

_____

_____

_____

_____

_____

FEMA

FLASH®
Strengthening Homes & Safeguarding Families

Appendix C
Evacuation Modeling Results

TO:	Mike Huff, Dudek
FROM:	Phuong Nguyen, PE; CR Associates (CRA)
DATE:	April 14, 2024
RE:	First Hathaway Logistics Fire Evacuation Analysis – Technical Memorandum

The purpose of this technical memorandum is to assess the time required for emergency evacuation under several scenarios, assuming a wind-driven fire that results in an evacuation affecting the First Hathaway Logistics Project ("Project") and surrounding communities.[1] The following discussion of evacuation traffic simulations is not intended to be an Evacuation Plan, nor include elements typically found in an Evacuation Plan. The sole purpose of the traffic simulations is to focus on the vehicle travel times in simulated evacuation events.

Background and Purpose

This memorandum provides a summary of the traffic simulations conducted for evacuation of the Project and surrounding community due to a wildfire. The simulations have been conducted for a variety of evacuation scenarios described below. Modeling potential evacuation traffic impacts requires that numerous assumptions be made to address many variables that will impact a real-life evacuation scenario, including the number of existing vehicles in the community, the number of Project vehicles that will need to evacuate, the roadway capacities and whether enhancements are provided (e.g., extra lanes, lane widening, signaling intersections), the total number of intersections and how they will be operating, the final destination, the targeted evacuation area, the total mobilization time, vegetation communities, weather and wind, fire spread rates, humidity, topography, risk to homes, locations of ignitions and new fire starts, and lead time needed, etc. There are many hundreds or thousands of potential model scenarios, and every fire scenario poses variations that regularly change and are reassessed "real-time" during a wildfire. Agencies involved in implementing an evacuation order would not rely on a project-specific evacuation plan, but on situational awareness and wildfire pre-plans, which act as operational tools to provide high-level fire assessments and assets at risk, preferred evacuation approaches, and safety information to inform evacuation decision-making.

The following analysis is intended to present representative evacuation scenarios using the best available information, conservative assumptions, and the best available modeling technology. In an actual emergency, unified command will take into account numerous factors including fire location and spread rates, wind speeds and direction, humidity, topography, fuel loading, emergency access routes, evacuation routes, shelter-in-place options, time needed to evacuate, and other variables, and will issue specific evacuation or shelter-in-place directives consistent with the process and protocols outlined in the City's, and County's Emergency Operations Plans, as well as the Morongo Band of Mission Indians Tribal Hazard Mitigation Plan. During a wildfire, nearby residents, Project's employees, and guests/visitors should comply with those directives from authorities and first responders conducting the evacuation or emergency response. The evacuation traffic model used herein is appropriate for planning and comparison purposes but will likely not be relied on by first responders and should not be relied on by Incident Commander in time of an emergency; however, it provides useful information that will be provided to agencies and emergency managers and may inform strategic response plans in terms of evacuation timeframes and contingency options.

The roadway network and vehicle input assumptions also have been selected to simulate a "worst-case" evacuation scenario that would occur during a weekend day (Saturday) when the Project would

[1] This memorandum was prepared with technical fire behavior input from Dudek's fire protection planning team.

be in operation and residents in the surrounding community are at home when ordered to evacuate. While evaluation of the "worst-case" scenario is not required by law, out of an abundance of caution, the Project has opted to consider this scenario. The assumption that a mass evacuation would occur when the Project is in operation and all residents in the surrounding community are at home when the evacuation order is provided represents an extreme, worst-case condition. In an actual wildfire event, it is most likely phased evacuation orders would be given to provide for a more orderly evacuation. It is also likely that fewer residents would be present nearby if the evacuation happened during a time that the Project is in full operation such as a weekday afternoon or that the Project may not be at full operation, but all residents are all home, such as evening.

The wildfire evacuation scenarios selected for this analysis were based on a comprehensive approach that included review of fire history, review of Indian Fire 2005, Bluff 2 Fire 2009, Summit Fire in 2013, Mias fire in 2017, fire behavior science, area topography, fuel types and the evolved approach to evacuations which is surgical instead of area wide. Accordingly, given the highest probability wildfire scenarios that would result in evacuation, the perimeter populations in certain locations may be targeted for evacuation. The Project will provide wildfire safety strategies and hardening, which will offer significant protection against exposure to wildfire. However, during a wildfire, the Project site's population would likely be evacuated as a precautionary measure. This may be combined with targeted evacuations of perimeter populations within existing communities such as residents within the Morongo Tribal area and residents between Hargrave Street and Hathaway Street.
It's worth mentioning that according to the Riverside County GIS database[2], only a fraction of the residential area falls within the High to Very High Fire Hazard Severity Zone. However, for a conservative analysis, it is presumed that the entire area would evacuate in case of a fire. This type of evacuation is consistent with management of recent wildfires throughout southern California and Riverside County, where the phased evacuation practice has been implemented with great success and continues to be refined through real-time application.

Project Description

The Project site, spanning 94.86 acres across six parcels (APNs 532-110-001, -002, -003, 008, -009, and -010), is situated in the eastern region of Banning city, Riverside County. Its location is in close proximity to Interstate 10, Union Pacific Railroad, Hathaway Street, and Wilson Street. Access to the site from the region is via the I-10 Freeway, with entrances at the Ramsey Street and Hargrave Street interchanges. The project's main access point will be off Hathaway Street, with additional access to three additional roadways around the northern (Wilson Street), eastern (First Industrial Way), and southern (Nicolet Street extension) boundaries of the site. The Project proposed the following improvements:

> Wilson Street: Construct and dedicate to ultimate half-width per the General Plan standard for a Collector Street and install curb, gutter, sidewalk, parkway landscaping, and street trees along the southern side of the street fronting the Project site between [existing] Hathaway Street and proposed First Industrial Way.
>
> First Industrial Way: Construct and dedicate to ultimate full-width per the General Plan standard for a Collector Street and install curb, gutter, sidewalk, parkway landscaping, and street trees along the western side of the street fronting the Project site between proposed Wilson Street and proposed Nicolet Street.
>
> Nicolet Street: Construct and dedicate to ultimate full-width per the General Plan standard for a Collector Street and install curb, gutter, sidewalk, parkway landscaping, and street trees along both sides of the street fronting the Project site between proposed First Industrial Way and [existing] Hathaway Street.

[2] https://gis.countyofriverside.us/arcgis_public/rest/services/OpenData/PlanningData/MapServer/8

Hathaway Street: Dedicate and widen to ultimate half-width per the General Plan standard for a Major Highway (4 lanes) and install curb, gutter, sidewalk, parkway landscaping, and street trees along the eastern side of the street fronting the Project site between proposed Nicolet Street and proposed Wilson Street.

Note that there are ongoing and future roadway improvements near the project site being carried out by the city, Morongo Tribe, and other entities. This includes a small strip of land near the project site, part of the Morongo Indian Reservation, dedicated to the city for street easement. The Morongo Tribe is planning to relocate their main entrance to their lands. Moreover, the city is in the process of improving Hathaway Street and Ramsey Street. However, due to the uncertainty around the schedule of these enhancements, they were not assumed in the evacuation analysis. **Figure 1** displays the proposed Project location, and **Figure 2** displays the proposed Project site plan. **Figure 3** displays the evacuation areas and evacuation routes in relation to the Project's site.

Assumptions

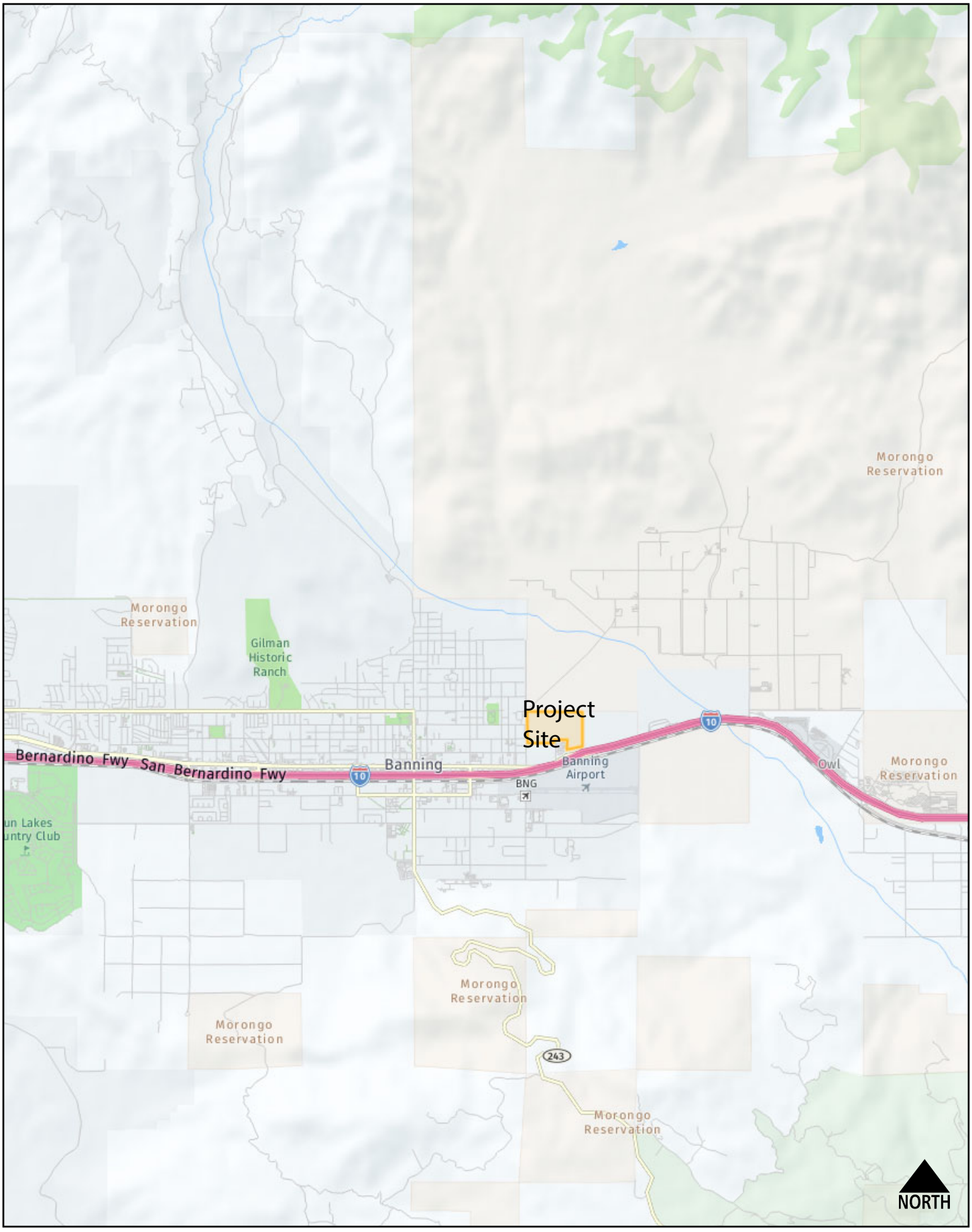
This evacuation analysis was performed for the Project to determine how long it would take for employees, and guests/visitors of the Project and the surrounding communities to evacuate to nearby urban areas/freeway access in case of a fire emergency. Current evacuation practice typically targets the scope of the evacuation only to the area in immediate danger and placing a larger area on standby for evacuation. This practice allows for better evacuation operations, reduces gridlock, and reserves sufficient travel way for emergency vehicles. It is assumed that first responders or law enforcement will direct traffic at all major downstream intersections during the evacuation process.

During the evacuation process, which can proceed aided by the roadside fuel modification zones and unexposed corridors, wildfire spread and encroachment may be slowed by fire-fighting efforts that would likely include fixed wing and helicopter fire-fighting assets. Hand crews would also be deployed toward containment. None of the evacuation scenarios assumed contraflow lanes, as these lanes are reserved for first responders, law enforcement, and fire fighters in case of unforeseen circumstances.

Since the project is located amidst residential zones to the west and northeast, this examination assumes an evacuation directive on a Saturday afternoon when most residents are expected to be at home, while the project operations continue. The number of evacuating vehicles from the Project's site was calculated based on the average parking generation rate from the *Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition*[3], and assumes that these are the trips to be evacuated. For a reasonable analysis, these scenarios assumed that two percent (2%)[4] of the evacuating vehicles are heavy vehicles (trucks with trailers). Two percent is the nationally acceptable ratio of heavy vehicles to all vehicles. The heavy vehicle percentage was validated against the passenger and heavy vehicles number of the Amazon Beaumont fulfillment center, located at 1010 West 4th Street. Validation using aerial images shows that the heavy vehicle percentage (number of tractors aka the powered portion of the truck which contains the engine and the driver) is 1.63 percent (1.63%) of the total vehicles on site. Thus, the two percent (2%) utilized in this analysis is a conservative estimate. The validation also found that the tractors typically parked in standard parking spaces or designated tractor parking spaces, but not in trailer parking spaces. Thus, this analysis assumed that the total number of evacuating vehicles already includes two percent (2%) heavy vehicles. Heavy vehicle validation results are provided in **Attachment A**. **Figure 3** displays the Fire Hazard Severity Zone in relation to the Project's site, evacuation area and evacuation routes included in this analysis. Additional assumptions are provided in the next section.

[3] https://www.ite.org/technical-resources/topics/trip-and-parking-generation/

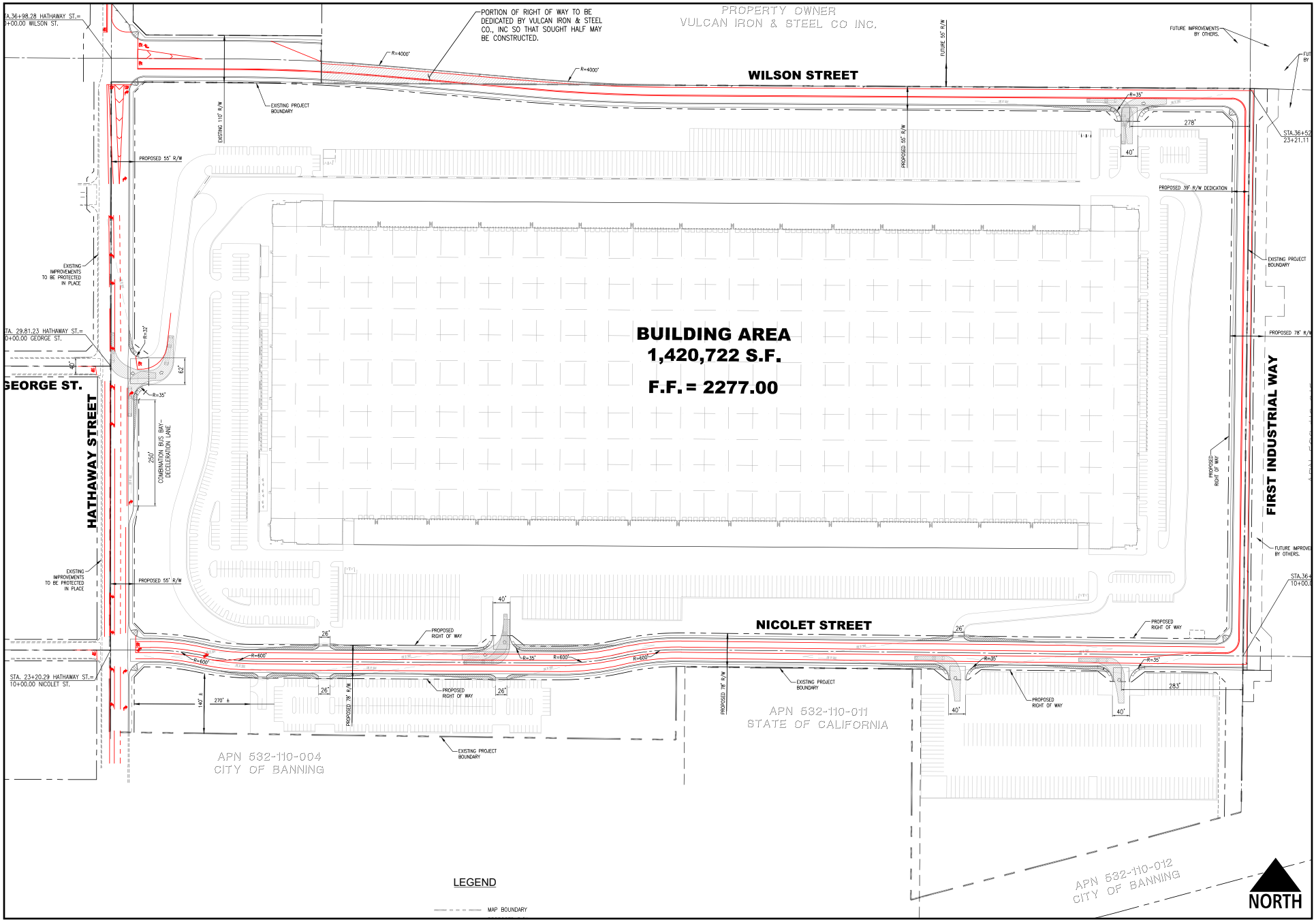
[4] https://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_599.pdf (p.5).



First Hathaway Logistic Evacuation
Technical Memorandum

C+R

Figure 1
Project Location



First Hathaway Logistic Evacuation
Technical Memorandum

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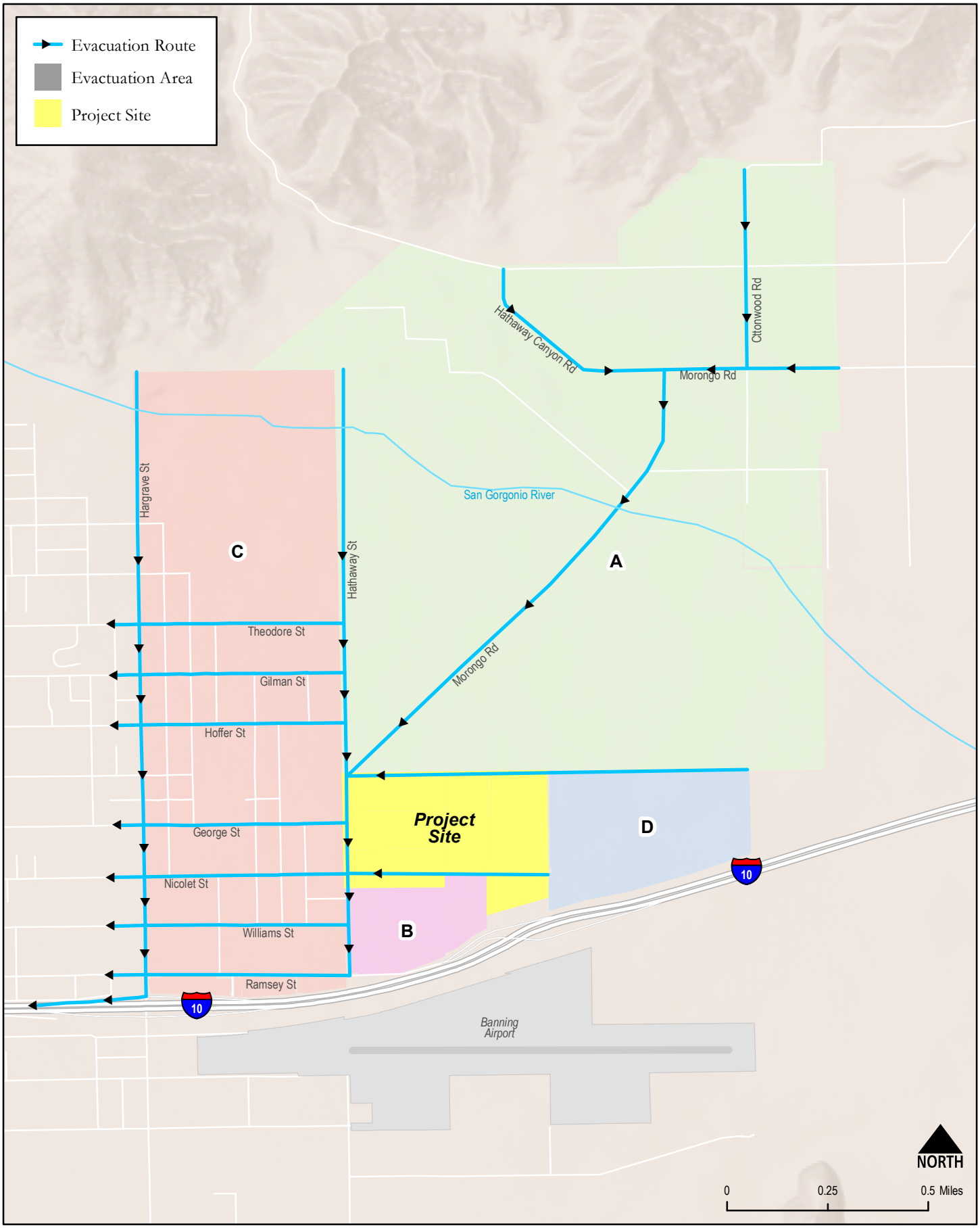
Figure 2
Project Site Plan



First Hathaway Logistic Evacuation Technical Memorandum

C+R

Figure 3
Evacuation Area and Routes

Saturday Afternoon Evacuation; full operation, all residents are home

CRA presumes that the evacuation would transpire on a Saturday afternoon, a time when the project is operational and residents in nearby communities are home, meaning all residential vehicles would be required to evacuate. Additionally, it is assumed that the parking demand on a Saturday afternoon would be analogous to a typical weekday demand. In contrast, the ITE Trip Generation Manual suggests that the weekday trip generation for General Light Industrial land uses is 4.87 trips per 1,000 square feet, while the weekend trip generation rate is 0.69 trips per 1,000 square feet.

When comparing weekday and weekend trip generation rates for this land use, it is apparent that the weekend trip generation rate is only 14.2% of the weekday trip generation rate. Therefore, the number of vehicles incorporated in the ensuing analysis is conservative. In an actual evacuation scenario, the total number of vehicles needing to evacuate may actually be less. Additional assumptions during wildfire are as follows:

1. The Operation Area commander would prioritize land uses located adjacent to the Wildland Urban interface area or area with immediate risk, depending on the location of the fire.
2. Based upon review of 20 years of fire history in the area, it was found that all of the fires only reached the boundary between the developed area and the land use adjacent to the Wildland Urban interface area[5]. Therefore it is unlikely that all of area "C" would need to evacuate at the same time as the Project, and the surrounding communities. However, for a conservative analysis, it is assumed that all of the areas shown in Figure 3 would evacuate at the same time.
3. The analysis also operates under the assumption that the traffic to be evacuated would utilize local thoroughfares like E Ramsey Street, E Williams Street, E Nicolet Street, E George Street, and E Hoffer Street to evacuate in a westward direction. It is deemed to have reached a safe location once it arrives at North Alessandro Street.

Primary Evacuation Routes

CRA assumed that traffic evacuating from both the Project and nearby communities/land uses would use the closest evacuation routes to leave the area. Evacuation routes were selected based upon review of the Project's site, available evacuation routes, and the quickest way to leave areas located adjacent to the Wildland Urban Interface. This assumption selects a reasonable evacuation route for the assumed extreme weather scenario. Detailed evacuation analysis information is provided in Attachment B.

No contraflow lanes were assumed to provide access for first responders and law enforcement.[6] Two-way travel was assumed, with evacuating vehicles traveling outbound to the Safe Zone. It is assumed that first responders or law enforcement will direct traffic at all major intersections during the

[5] https://projects.capradio.org/california-fire-history/#13.97/33.93006/-116.86342

[6] Contraflow or lane reversal involves directing traffic to use lanes coming from the source of a hazard to move people away from the hazard. Such a strategy can be used to eliminate bottlenecks in communities with road geometries that prevent efficient evacuations or to facilitate traffic flow out of a major urban area. Among the considerations in planning emergency contraflow are whether sufficient traffic control officers are available, potential negative impact on responding fire apparatus, access management, merging, exiting, safety concerns, and labor requirements. Contraflow configurations must be carefully planned based on on-site factors and should not be implemented in an *ad-hoc* fashion. Dudek July 2014. "Wildland Fire Evacuation Procedures Analysis" for City of Santa Barbara, California, page 65.

evacuation process. Should evacuation managers determine that contraflow is preferred or necessary, evacuation capacity would increase while evacuation times would decrease.

Safe Zone

Based on Dudek's review of the area's fire history[7], fires have halted along areas adjacent to wildland fuels and have not historically progressed into the more densely urbanized, irrigated, and hardscaped areas. Specifically, none of the historical fires encroached beyond the periphery areas within the wildland urban interface area of the City of Banning. Thus, it is assumed that evacuees are considered to reach a safe area once they are within the more densely urban areas such as the area west of North Alessandro Street.

A total of five evacuation scenarios were analyzed:

- **Scenario 1** – *Existing Land Uses*: This scenario estimates the evacuation time for the existing land uses within the study area (Area A through C) and would direct evacuating vehicles toward North Alessandro Street.
- **Scenario 2** – *Proposed Project Only*: This scenario assumed full evacuation of the proposed Project and would direct evacuating vehicles toward North Alessandro Street.
- **Scenario 3** – *Existing Land Uses with the proposed Project*: This scenario is similar to Scenario 1 (Area A through C), with the addition of the proposed Project traffic.
- **Scenario 4** – *Existing Land Uses with Cumulative Growth*[8]: This scenario is similar to Scenario 1, with am ambient growth of 5% to represent potential cumulative growth in the area and cumulative projects within the evacuation area. Cumulative projects list is included in **Attachment A.**
- **Scenario 5** – *Existing Land Uses with Cumulative Projects with the proposed Project*: This scenario is similar to Scenario 4, with the addition of the proposed Project traffic.

Evacuating Vehicles

The number of evacuating vehicles was calculated using the following assumptions:

- Residential land uses: Residential units x average vehicle ownership (2.27 vehicles per household)
- Hotel: Assumed maximum occupancy (48 vehicles total)
- Industrial land uses: Counted based on aerial images and rounded up
- Project: Calculated based on ITE parking generation rate

Average vehicle ownership, residential units, and evacuating vehicles calculations are provided in Attachment A. **Table 1** displays the number of vehicles evacuating under each scenario.

[7] Simi Valley and Piru Wildfires 2003 After Action Analysis and Reports, 2017 Thomas Fire After Action Review.

Table 1 – Evacuating Vehicles

Scenario	Number of Evacuating Vehicles					
	Nearby Land Uses (Area)				Project	Total
	A	B	C	D		
Scenario 1 – Existing Land Uses	908	50	1,433	0	0	2,391
Scenario 2 – Proposed Project Only	0	0	0	1	555	556
Scenario 3 – Existing Land Uses with Proposed Project	908	50	1,433	0	555	2,946
Scenario 4 – Existing Land Uses with Cumulative Projects	1,148	217	2,275	515	0	4,155
Scenario 5 – Existing Land Uses with Cumulative Projects with the proposed Project	1,148	217	2,275	515	555	4,710

Source: CR Associates (2022), US Census Bureau (2022), Google Maps (2022).

Mass Evacuation

A mass evacuation scenario was modeled in which all area residents would evacuate at the same time. This assumption presents a worst-case scenario as all traffic would be directed to the evacuation roadways at once. Mass evacuation events can overwhelm a roadway's capacity, which, when reaching a threshold traffic density, begins to decrease traffic flow.

In an actual "real-life" wildfire event, a phased evacuation would be implemented where orders are given to evacuate based on vulnerability, location, and/or other factors, which reduces or prevents traffic surges on major roadways and improves traffic flow. The phased evacuation strategy also prioritizes the evacuation of residents in proximity to the immediate danger, giving emergency managers the ability to monitor the fire situation and decide in real time based on changing conditions whether to order additional evacuations as needed, or not.

Extreme Wildfire Event

The evacuation analysis set forth below assumes a Santa Ana-wind driven fire from the north and/or east of the study area and travels in a westerly and southerly direction, similar to the 2017 Thomas Fire. This fire condition is the one most likely to require a large-scale evacuation, and the one that creates the most risk to property and humans.

In California, wildfire-related large-scale evacuations are almost exclusively associated with wildfires that occur on extreme fire weather days, also known as "Red Flag Warning" days. These days occur when relative humidity drops to low levels and strong winds from the north/northeast are sustained. With climate change, periods in which such wildfires occur may increase. During Red Flag Warning days, vegetation is more likely to ignite and fire spread is more difficult to control. In the greater Los Angeles region, these extreme weather days typically occur during limited periods in the late summer, fall and, occasionally, in the spring, but may occur at other times on a less frequent basis. Currently, it is not common to experience more than 15 to 20 Red Flag Warning days in a typical year. Wildfires that occur during these periods of extreme weather are driven by winds –referred to as "Santa Ana" winds – that come from the north or east and blow toward the south or west. Fires driven by these winds move very quickly, making them difficult to control. In response to such fires, emergency managers typically activate pre-planned evacuation triggers that require down-wind communities to sequentially be notified to evacuate and move to nearby urbanized areas prior to the fire's encroachment.

Wildfires that occur on non-extreme weather days behave in a much less aggressive manner and pose fewer dangers to life and property because they include less aggressive fire behavior and are easier

to control. Terrain and fuel are typically the wildfire drivers. During these non-extreme weather days, vegetation is much more difficult to ignite and does not spread fire as rapidly. In these situations, firefighters have a very high success rate of controlling fires and keeping them under 10 acres. CALFIRE estimates that 90% of all vegetation fires occur during normal, onshore weather conditions and that such fires account for only 10% of the land area burned. Conversely, the 10% of wildfires that occur during extreme fire weather account for 90% of the land area burned. This data highlights that the most dangerous fire conditions are those related to a fire that moves rapidly due to high winds and low humidity, whereas under normal conditions fires are likely to be controlled with no evacuation or possibly limited extent, focused evacuations.

While it is possible that a fire driven by onshore wind (i.e., from the west) could require evacuation of the Project, such an event would be highly unusual. Moreover, due to the reduced fire behavior during normal weather periods, the evacuation would not be expected to be a large-scale evacuation of large areas. Instead, most of the Project area population would be anticipated to remain at their locations and within their communities, with a more targeted evacuation being ordered, if any.

Analysis Methodology

The analysis methodology utilized the following equation for determining evacuation time:

Evacuation Time = (Evacuation Population / Average Vehicle Occupancy) / Roadway Capacity

To analyze the evacuation events, CRA conducted simulations using *Vissim*, a microscopic, multimodal traffic flow modeling software used to simulate different traffic conditions. In *Vissim* simulations, roadway capacity is accounted for and each vehicle in the traffic system is individually tracked through the model and comprehensive measures of effectiveness, such as average vehicle speed and queueing, are collected on every vehicle during each 0.1-second of the simulation. This software enables drivers' behaviors during an evacuation to be replicated. A total of 20 simulations were conducted to yield a reasonable sample size to determine the performance of the study area roadways and impacts during evacuation scenarios. To be conservative, CRA assumed a worst-case scenario in which all vehicles belonging to households in the study area would be used in the evacuation, instead of the necessary number of vehicles needed to evacuate the impacted population. Detailed evacuation analysis information is provided in **Attachment B**.

Evacuation Analysis & Results

Based on the analysis methodology described above, **Table 2** reflects evacuation times for each scenario.

Table 2 – Evacuation Time Summary – All Scenarios

Scenario	Total Evacuation Vehicles	Evacuation Time (hours : minutes)				
		Nearby Land Uses				Project
		A	B	C	D	
Scenario 1 – Existing Land Uses	2,391	1:11	0:18	1:04	N/A	N/A
Scenario 2 – Proposed Project Only	556	N/A	N/A	N/A	N/A	0:24
Scenario 3 – Existing Land Uses with Proposed Project	2,946	1:20	0:18	1:05	N/A	0:52
Scenario 4 – Existing Land Uses with Cumulative Projects	4,155	1:23	0:26	1:09	1:03	N/A
Scenario 5 – Existing Land Uses with Cumulative Projects with the proposed Project	4,710	1:30	0:26	1:10	1:24	1:32

Source: CR Associates (2022).

A summary of the evacuation time for each scenario is provided below:

- Scenario 1: It would take between 18 minutes and 1 hour and 11 minutes to evacuate the existing land uses.
- Scenario 2: It would take 24 minutes to evacuate the proposed Project only.
- Scenario 3: It would take between 18 minutes and 1 hour and 20 minutes to evacuate the existing land uses and the proposed Project. Under this scenario, the Project would not cause an increase in evacuation time to area B, and the project would cause an increase of 9 minutes to area A and 1 minute to area C. It would take 52 minutes to evacuate the Project's site.
- Scenario 4: It would take between 26 minutes and 1 hour and 23 minutes to evacuate the nearby land uses under the cumulative scenario.
- Scenario 5: It would take between 26 minutes and 1 hour and 32 minutes to evacuate the nearby and Project land use under the cumulative with Project scenario. The Project would cause an increase of 7 minutes to area A evacuation time and an increase of 1 minute to area C evacuation time, and an increase of 21 minutes to area D evacuation time. It would take 1 hour and 32 minutes to evacuate the Project's site.

The proposed Project provides several features that would enhance orderly and safe evacuation, but which are not reflected in the average evacuation time results above. These features include evacuation preparedness, fuel modification along Project roadways, structural hardening of the Project's buildings, and temporary areas for safe refuge and "shelter-in-place" options. These evacuation enhancements would reduce the potential for evacuation friction or interruption; however, such enhancements cannot be well depicted by the traffic evacuation model. Other model limitations are discussed below.

Analysis and Conclusion

Study of evacuation timeframes and potential increases in evacuation time with a proposed project are relatively new CEQA focus areas. Public safety, not time, is generally the guiding consideration for evaluating impacts related to emergency evacuation. Consistent with CEQA Guidelines Appendix G, a Project's impact on evacuation is significant if the Project will significantly impair or physically interfere with implementation of an adopted emergency response or evacuation plan.

In any populated area, safely undertaking large-scale evacuations may take several hours or more and require moving people long distances to designated areas. Further, evacuations are fluid and timeframes may vary widely depending on numerous factors, including, among other things, the number of vehicles evacuating, the road capacity to accommodate those vehicles, residents' awareness and preparedness, evacuation messaging and direction, and on-site law enforcement control. The "Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act"[9] guidance from the California Office of the Attorney General suggests that jurisdictions set benchmarks of significance based on past successful evacuations or on those from communities in similar situations.

A recent study titled "Review of California Wildfire Evacuation from 2017 to 2019[10]" provides more insights on the topic. This research involved interviews with 553 individuals (297 evacuees affected by various fires) including the Creek Fire, Rye Fire, Skirball Fire, and Thomas Fire. The study aimed to understand the decision-making processes of these individuals during the fires, such as whether to evacuate or stay, when to leave, the paths taken, chosen shelters, destinations, and modes of

[9] https://oag.ca.gov/system/files/attachments/press-docs/2022.10.10%20-%20Wildfire%20Guidance.pdf
[10] https://escholarship.org/uc/item/5w85z07g

transportation. According to this research, the time it took for evacuations ranged from under 30 minutes to over 10 hours. From this dataset[11], the average evacuation time for the Creek Fire was found to be 3 hours and 40 minutes, involving 115,000 people[12]. For the Thomas Fire, the average time was 4 hours and 25 minutes, impacting 104,607 individuals.

The City of Banning and County of Riverside has historically had an extremely high success rate for safely evacuating large numbers of people and doing so in a managed and strategic way using available technological innovations. Safely undertaking large-scale evacuations may take several hours or more and require moving people long distances to designated areas. Further, evacuations are fluid and timeframes may vary widely depending on numerous factors, including, among other things, the number of vehicles evacuating, the road capacity to accommodate those vehicles, residents' awareness and preparedness, evacuation messaging and direction, and on-site law enforcement control.

Notwithstanding evacuation challenges and variables, the success rate in the City of Banning and County of Riverside in safely managing both mass and targeted evacuations is extremely high for safe evacuations. Technological advancements and improved evacuation strategies learned from prior wildfire evacuation events have resulted in a system that is many times more capable of managing evacuations. With the technology in use today in the City/County, evacuations are more strategic and surgical than in the past, evacuating smaller areas at highest risk and phasing evacuation traffic so that it flows more evenly and minimizes the surges that may slow an evacuation. Mass evacuation scenarios where large populations are all directed to leave simultaneously, resulting in traffic delays, are thereby avoided, and those populations most at risk populations are able to safely evacuate.

Based on the evacuation simulations above, evacuation traffic generated by the Project would not significantly increase the average evacuation travel time or result in unsafe evacuation timeframes. Although there is a potential increase in evacuation times of up to 10 minutes for existing communities, it is anticipated that the longest evacuation times would be associated with the Project vehicles. In a likely evacuation scenario, existing residents west of the Project site would be located downstream of Project traffic because they are closer to the evacuation routes and destinations and would be able to evacuate prior to Project traffic reaching the same location.

The Project would also provide the responding emergency managers (City of Banning Police and Fire Department, County of Riverside Sheriff and Fire Department, California Highway Patrol, and other cooperating agencies and Departments) the alternative option of recommending that all or a portion of the site's population temporarily seek refuge on-site in fire-resistant buildings. This on-site sheltering option is a contingency plan in the unlikely scenario when evacuation is considered infeasible or the less safe option. This would provide emergency managers with a safer alternative to risking a late evacuation.

This information will be provided to law enforcement and fire agencies for use in pre-planning scenarios to better inform in the field decisions made pursuant to adopted Emergency Response Plans. Emergency personnel who issue an evacuation order may take into account these time estimates in determining when and where to issue evacuation orders. In a real evacuation scenario, emergency managers may use alternative actions/options to further expedite evacuation. Such actions may include providing additional lead time in issuing evacuation orders, prioritizing area at higher risks, providing alternative signal control at downstream intersections, utilizing additional off-site routes or directing traffic to roadways with additional capacity, implementing contra-flow lanes, issuing "shelter-in-place" orders when determined to be safer than evacuation, or considering the possibility of a delayed evacuation where parts of the population could be directed to remain on-site

[11] 2018 Carr Wildfire Evacuation Survey Data | Zenodo
[12] https://abc7.com/sylmar-brush-fire-creek-kagel-canyon/2740550/

until the fire burns out in the sparse fuels around the evacuation route. These options require "in the field" determinations of when evacuations are needed and how they are phased to maximize efficiency. Overall, safe evacuation of the Project and surrounding community is possible in all modeled scenarios.

Limitations

In coordination with fire professionals at Dudek and CRA has presented a conservative analysis simulating evacuation during an extreme wildfire event. However, as discussed above, wildfires are variable events. The underlying planning principle for fire preparedness, given the dynamic nature of a fire, is to demonstrate the availability of multiple route alternatives and response strategies to permit emergency professionals to manage their response according to the specific circumstances. The Project area provides ample route and response alternatives that were not considered in this model. Emergency responders will coordinate the safest possible evacuation based on the dynamic circumstances of the actual event, including the appropriate phasing of the evacuation, and utilization of the most appropriate ingress and egress routes for area residents and emergency responders.

The breadth of route alternatives and response strategies available to emergency professionals to manage a potential fire in the County cannot and should not be evaluated using this evacuation analysis alone. A comprehensive view of Project fire safety is gained by understanding this memorandum, the Project's Fire Protection Plan (Dudek 2023) and Evacuation Plan (Dudek 2023), along with the standard protocols and "in-the-field" decision making of emergency responders as detailed in the City[13] and County[14] and nearby Emergency Response Plans and focused Annex documents.

This travel time analysis presents a reasonable vehicle travel time estimate based on professional judgment made by CRA, Dudek, and fire operations experts with experience participating in evacuations in Southern California. Changing any number of these assumptions can lengthen or shorten the average vehicle travel time.

For instance, a situation could arise in which professionals *may* choose to utilize additional roadways for evacuation not utilized in the analyses and *may also* choose to guide vehicle trips to more or different route permutations relative to what has been modeled in this analysis. A phased evacuation is also likely to be implemented, which improves the orderly flow of traffic in an evacuation scenario.

The net result of changing the variables selected could yield an average evacuation travel time shorter or longer than the results detailed in the analysis. Many factors can shorten or lengthen the vehicle time from the results shown herein. For example:

1. Changing the evacuation area affected by the evacuation order would affect the results. For Instance, emergency managers could order an early evacuation of land uses located in higher risks area, such as the area located adjacent to the San Bernardino National Forest. Thus, by the time an evacuation order is established for the proposed Project, there would be less vehicles on the road.

2. Increasing or decreasing the number of path permutations and percentage of the population utilizing each route that leads out of the immediate area could shorten or lengthen vehicle travel time relative to the results shown herein.

[13] http://www.ci.banning.ca.us/DocumentCenter/View/2776/Banning-EOP---Final-Part-1---Rev-1212?bidId=
[14] http://riversidecountyca.iqm2.com/Citizens/Detail_LegiFile.aspx?Frame=&MeetingID=2048&MediaPosition=3715.315&ID=10490&CssClass=

3. Emergency professionals electing to reserve certain travel lanes for emergency vehicle ingress for periods of time could affect the travel time relative to the results shown herein.

4. Assuming evacuees utilize fewer or more vehicles to evacuate from their homes relative to the vehicle utilization rate selected in the analysis would shorten or lengthen vehicle travel time relative to the results shown herein.

5. Changing the mix of vehicle trips allocated to each evacuation route could shorten or lengthen vehicle travel time relative to the results shown herein.

6. Assuming different road condition adjustment factors could shorten or lengthen the vehicle travel time relative to the results shown herein.

7. Assuming fewer people are at home when the evacuation notice is given would reduce the number of vehicle trips and shorten vehicle travel time relative to the results shown herein. For instance, an evacuation during weekday daytime hours could result in fewer outbound trips than assumed in this analysis

8. Assuming some portion of vehicle trips are made in advance of the evacuation notice would reduce the number of vehicle trips relative to the results shown herein.

9. Assuming emergency professionals elect to implement contraflow on certain roadways to open up additional lanes for emergency evacuation egress could reduce the travel time results shown herein.

This evacuation time analysis is necessarily limited in scope given the numerous variables inherent in a wildfire and evacuation event. However, as discussed above, it is not anticipated that the Project will significantly impact evacuation of the proposed or existing surrounding communities based on evacuation times and other qualitative considerations.

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Attachment A
Evacuating Vehicles Calculation

Vehicle Ownership Calculation

TENURE BY VEHICLES AVAILABLE

United States® Census Bureau

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

Census Tract 438.13, Riverside County, California

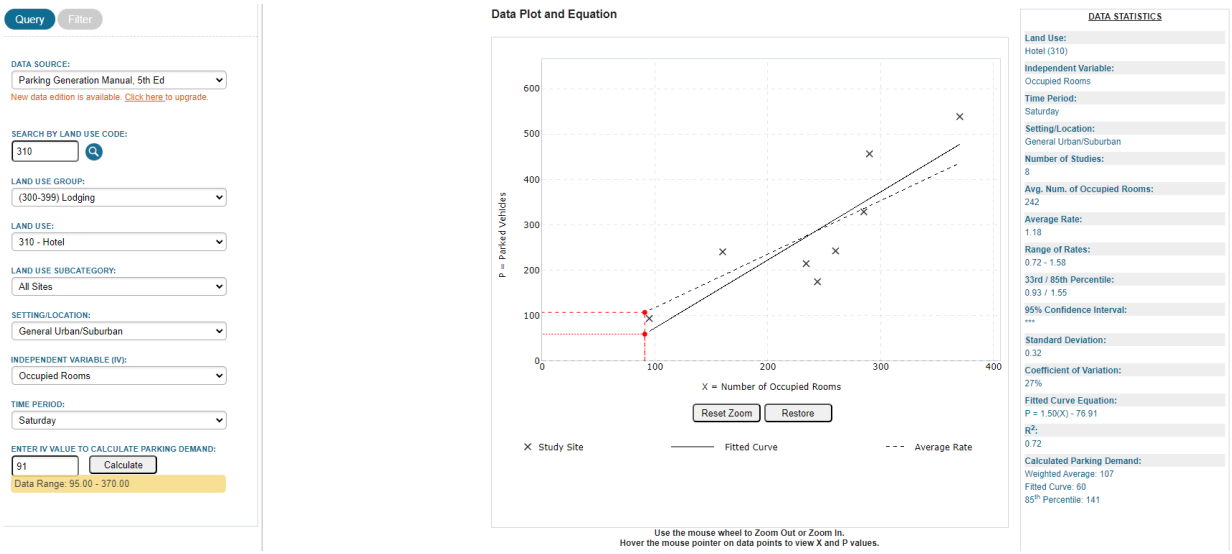
Label	Estimate	Margin of Error
Total:	1,417	±146
Owner occupied:	1,029	±173
No vehicle available	62	±68
1 vehicle available	126	±72
2 vehicles available	355	±141
3 vehicles available	371	±126
4 vehicles available	43	±28
5 or more vehicles available	72	±67
Renter occupied:	388	±157
No vehicle available	86	±81
1 vehicle available	20	±14
2 vehicles available	169	±108
3 vehicles available	74	±76
4 vehicles available	39	±61
5 or more vehicles available	0	±13

Label	VeH	Estimate	Total	Average Veh/HH
Total:		1417	3217	2.270289344
Owner occupied:		1029		
No vehicle available	0	62	0	
1 vehicle available	1	126	126	
2 vehicles available	2	355	710	
3 vehicles available	3	371	1113	
4 vehicles available	4	43	172	
5 or more vehicles available	5	72	360	
Renter occupied:		388	0	
No vehicle available	0	86	0	
1 vehicle available	1	20	20	
2 vehicles available	2	169	338	
3 vehicles available	3	74	222	
4 vehicles available	4	39	156	
5 or more vehicles available	5	0	0	

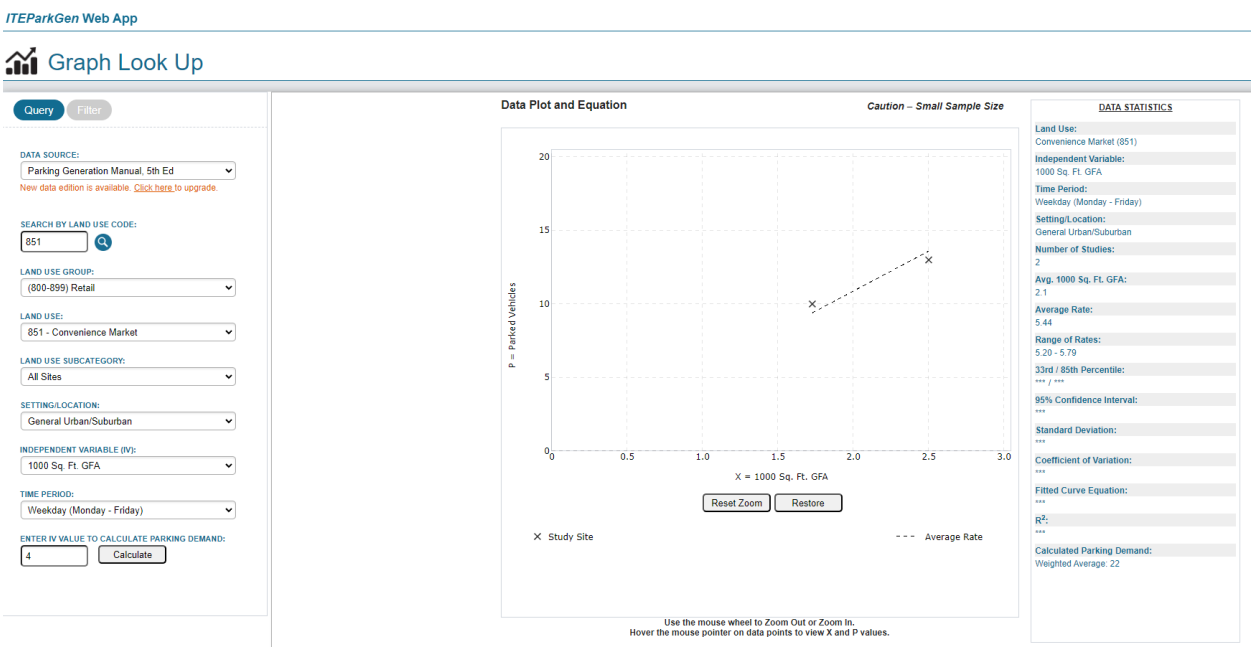
Evacuation Vehicles Calculation

Zone	A	B	C		Project
Existing and Existing Plus Project					
Single Family Residential	400	0	610		
Average Vehicle Ownership	2.27	0	2.27		
Industrial - SOV Aerial Counts		50			
Light Industrial Land Use(ksf)					1420.722
ITE Light Industrial Parking Rate					0.39
Evacuating Vehicles (Residential & Industrial)	908	50	1385		555
Number of Trucks (Light Industrial)	182	20			111
Number of Evacuating Passenger Veh	726				444
Hotel (max parking)			48		
Total Evacuating Vehicles (including trucks @ 2%)	908	50	1433		555
Total Evacuating Trucks	182	20	0		111
Cumulative Projects					
5% Ambient Growth	46	3	72		
La Quinta Inn - 91 rooms hotel + 4,000 SF Fast Food ITE Park Gen Rate for Hotel - Average Weekend Parking Demand = 1.18 spaces per room ITE Park Gen Rate for Convenient Market (Commercial) - 2.1 per KSF			129		
Robertsons Ready Mix Quarry. Assumed conservatively that 50% of the ADT would be new vehicles			340		
Kohavi - 4 Residential Dwelling Unit @ 2.27 Average Vehicle per Unit			10		
Morongo Medical Clinic - 49.9 KSF Medical Clinic ITE Park Gen for Clinic - 3.89 per KSF	194				
Banning Self Storage - 1.5 Acres (Existing)					
Banning Commerce - 1320 KSF Warehousing @ 0.39 space per KSF				515	
Vista Cerena - 32 Townhouse			73		
Cedar Hills Apartment - 96 Units @ 2.27 per unit			218		
Banning 25 Warehouse 418.205 KSF Warehousing @ 0.39 space per KSF		164			
Total Evacuating Vehicles (including trucks @ 2%)	1148	217	2275	515	555

Hotel Parking Demand



General Commercial – Convenient Market



Clinic Parking Rate

Graph Look Up

Query | Filter

DATA SOURCE: Parking Generation Manual, 5th Ed

New data edition is available. Click here to upgrade.

SEARCH BY LAND USE CODE: 630

LAND USE GROUP: (600-699) Medical

LAND USE: 630 - Clinic

LAND USE SUBCATEGORY: All Sites

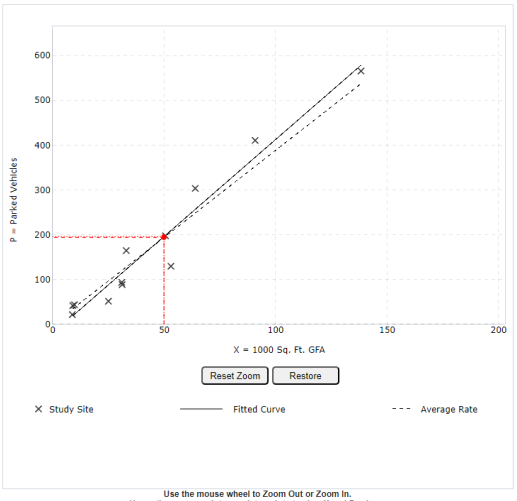
SETTING/LOCATION: General Urban/Suburban

INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday (Monday - Friday)

ENTER IV VALUE TO CALCULATE PARKING DEMAND: 49.9 Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and P values.

DATA STATISTICS

Land Use:
Clinic (630)

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday (Monday - Friday)

Setting/Location:
General Urban/Suburban

Number of Studies:
12

Avg. 1000 Sq. Ft. GFA:
45

Average Rate:
3.89

Range of Rates:
2.08 - 5.00

33rd / 85th Percentile:
2.91 / 4.77

95% Confidence Interval:

Standard Deviation:
0.90

Coefficient of Variation:
23%

Fitted Curve Equation:
P = 4.33(X) - 19.77

R^2:
0.95

Calculated Parking Demand:
Weighted Average: 194
Fitted Curve: 196
85th Percentile: 238

Cumulative Project List

FIRST HATHAWAY LOGISTICS CENTER LOCAL TRANSPORTATION ANALYSIS

Cumulative Conditions
March 2023

Table 6-1 Cumulative Projects List

Project	Location	Description	Traffic Added to Study Intersections
1. Butterfield-Pardee Homes Specific Plan	NW of Highland Home & Wilson	4862 DU 36 acre Commercial	No
2. Loma Linda-Banning Bench Specific Plan	NE of Sunset & Wilson	944 DU 10 acre Commercial	No
3. Little Europe Specific Plan	SW of Sunset & Jacinto View	39.7 TSF Commercial 40 Room Hotel	No
4. Rancho San Gorgonio Specific Plan	SW of San Gorgonio & Westward	598 DU 500 Stu Elem School (Phase 3 - 2022)	Yes
5. Silverstone	NE of Highland Spring & Sun Lakes	47.1 acre Commercial	No
6. La Quinta Inn	NW of Hargrave & Ramsey	91 Room Hotel 4.0 TSF Fast Food	Yes
7. Work Lofts	SW of Hathaway & Lincoln	24 DU, 9.9 TSF Office 26.95 TSF Warehouse	Yes
8. Anderson Equipment	NW of Hathaway & Charles	2.24 TSF Office 8 TSF Warehouse	Yes
9. Smart & Final	SE of Highland Spring & Ramsey	30 TSF Grocery	No
10. Fiesta Development	SW of Mountain & Evergreen	303 DU	No
11. Nordquist	NW of Mountain & Wilson	19 DU	No
12. St. Boniface	NW of Wyte & Gilman	65 DU	Yes
13. Banning Distribution Center	SE of I-10 & Banning Airport	1,000 TSF Warehouse	Yes
14. Kohavi	SW of Hargrave & Nicolet	4 DU	Yes
15. Our Savior Lutheran	SW of 12th & Ramsey	5 TSF Day Care	Yes
16. Diversified Pacific	NW of Sunrise & Wilson	98 DU	No
17. Robertsons Ready Mix Quarry	1990 N Hargrave	23-acre expansion	Yes
18. Downing Construction Corp Office/Yard	Galleher Way e/o San Gorgonio	9.32 TSF Office	Yes
19. Lawrence Equipment Expansion	1879 Lincoln	146. 9 TSF Warehouse 73.4 TSF Industrial	Yes
20. Morongo Medical Clinic *	NW of Hathaway & Morongo	49.9 TSF Medical Clinic	Yes

* Located on Morongo Tribal Land – preliminary information only

NW = Northwest
NE = Northeast
SW = Southwest
SE = Southeast
DU = Dwelling units
TSF = Thousand square feet
Stu = Students

TABLE 4-4: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

#	Name	Land Use	Quantity [1]
B1	161 W. Ramsey St.	Medical Clinic	4.720 TSF
B2	195 Lincoln St.	Cannabis Manufacturing	5.023 TSF
B3	700 S. Hathaway Suites A and B	Cannabis Cultivation Facility	35.495 TSF
B4	Banning Self Storage	Self Storage Facility	1.5 Ac
B5	Zamora Lease and Rental	Truck Terminal Warehouse	4.6 Ac
B6	1450 E. Lincoln Truck Terminal	Truck Terminal Warehouse	3.6 Ac
B7	DR 21-7015	Warehouse	1387.145 TSF
		Office Space	10.000 TSF
B8	Premium Land Development	Warehousing for Cannabis Cultivation	186.700 TSF
B9	First Lincoln Logistics	Warehouse	118.786 TSF
		Office Space	10.000 TSF
B10	CDRE Holdings 26	Light Industrial Warehouse	82.204 TSF
B11	SE Corner S. 8th St & W. Lincoln	Cannabis Cultivation Facility	21.000 TSF
B12	So Cal West Coast Electric	Industrial	51.743 TSF
B13	Estes Truck Terminal	Truck Terminal Warehouse	64.402 TSF
		Office Space	11.670 TSF
B14	Robertson's Ready Mix Mine Operation	Mining	23.0 Ac
B15	Vista Serena	Townhouse	32 DU
B16	Cedar Hills Apartments	Apartments	96 DU
B17	Banning 25 Warehouse	High-Cube Fulfillment Sort Facility	418.205 TSF

[1] DU = Dwelling Units; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

- Existing Plus Ambient Growth Plus Cumulative (2025)
  - Existing 2022 counts
  - Ambient growth traffic (6.12%)
  - Cumulative Development traffic

- Existing Plus Ambient Growth Plus Project Plus Cumulative (2025)
  - Existing 2022 counts
  - Ambient growth traffic (6.12%)
  - Cumulative Development traffic
  - Project traffic

Existing

Start Zone	Start Gate	Start Time	End Zone	End Gate	End Time	Elapse Seconds	Elapse Time
A	1	900	A Exit	13	5176.08	4276.08	1:11
B	2	900	B Exit	14	2017.51	1117.51	0:18
C1	3	900	C Exit	15	4749.18	3849.18	1:04
C2	4	900	C Exit	15	4749.53	3849.53	1:04
C3	5	900	C Exit	15	4751.83	3851.83	1:04
C4	6	900	C Exit	15	4751.17	3851.17	1:04
C5	7	900	C Exit	15	4752.615	3852.615	1:04
C6	8	900	C Exit	15	4753.22	3853.22	1:04
C7	9	900	C Exit	15	4751.215	3851.215	1:04
C8	10	900	C Exit	15	4071.25	3171.25	0:52
C9	11	900	C Exit	15	4749.19	3849.19	1:04
D	17	0	D Exit	18	0	0	0:00
Project	12	0	Project Exit	16	0	0	0:00

Project Only

Start Zone	Start Gate	Start Time	End Zone	End Gate	End Time	Elapse Seconds	Elapse Time
A	1	0	A Exit	13	0	0	0:00
B	2	0	B Exit	14	0	0	0:00
C1	3	0	C Exit	15	0	0	0:00
C2	4	0	C Exit	15	0	0	0:00
C3	5	0	C Exit	15	0	0	0:00
C4	6	0	C Exit	15	0	0	0:00
C5	7	0	C Exit	15	0	0	0:00
C6	8	0	C Exit	15	0	0	0:00
C7	9	0	C Exit	15	0	0	0:00
C8	10	0	C Exit	15	0	0	0:00
C9	11	0	C Exit	15	0	0	0:00
Project	12	900	Project Exit	16	2384.56	1484.56	0:24

Existing with Project

Start Zone	Start Gate	Start Time	End Zone	End Gate	End Time	Elapse Seconds	Elapse Time
A	1	900	A Exit	13	5741.3	4841.3	1:20
B	2	900	B Exit	14	2039.105	1139.105	0:18
C1	3	900	C Exit	15	4820.23	3920.23	1:05
C2	4	900	C Exit	15	4820.56	3920.56	1:05
C3	5	900	C Exit	15	4822.91	3922.91	1:05
C4	6	900	C Exit	15	4822.275	3922.275	1:05
C5	7	900	C Exit	15	4823.74	3923.74	1:05
C6	8	900	C Exit	15	4824.335	3924.335	1:05
C7	9	900	C Exit	15	4822.385	3922.385	1:05
C8	10	900	C Exit	15	4142.835	3242.835	0:54
C9	11	900	C Exit	15	4820.375	3920.375	1:05
D	17	0	D Exit	18	0	0	0:00
Project	12	900	Project Exit	16	4043.95	3143.95	0:52

Cumulative

Start Zone	Start Gate	Start Time	End Zone	End Gate	End Time	Elapse Seconds	Elapse Time
A	1	900	A Exit	13	5912.05	5012.05	1:23
B	2	900	B Exit	14	2482.85	1582.85	0:26
C1	3	900	C Exit	15	5048.88	4148.88	1:09
C2	4	900	C Exit	15	5049.23	4149.23	1:09
C3	5	900	C Exit	15	5051.53	4151.53	1:09
C4	6	900	C Exit	15	5050.87	4150.87	1:09
C5	7	900	C Exit	15	5052.315	4152.315	1:09
C6	8	900	C Exit	15	5052.92	4152.92	1:09
C7	9	900	C Exit	15	5050.915	4150.915	1:09
C8	10	900	C Exit	15	4370.95	3470.95	0:57
C9	11	900	C Exit	15	5048.89	4148.89	1:09
D	17	900	D Exit	18	4718.4	3818.4	1:03
Project	12	0	Project Exit	16	0	0	0:00

Scenario 5 – Existing Land Uses with Cumulative Projects with the proposed Project

Cumulative with Project

Start Zone	Start Gate	Start Time	End Zone	End Gate	End Time	Elapse Seconds	Elapse Time
A	1	900	A Exit	13	6316.765	5416.765	1:30
B	2	900	B Exit	14	2495.995	1595.995	0:26
C1	3	900	C Exit	15	5086.36	4186.36	1:09
C2	4	900	C Exit	15	5086.71	4186.71	1:09
C3	5	900	C Exit	15	5089.01	4189.01	1:09
C4	6	900	C Exit	15	5088.35	4188.35	1:09
C5	7	900	C Exit	15	5119.795	4219.795	1:10
C6	8	900	C Exit	15	5090.4	4190.4	1:09
C7	9	900	C Exit	15	5088.395	4188.395	1:09
C8	10	900	C Exit	15	4408.43	3508.43	0:58
C9	11	900	C Exit	15	5086.37	4186.37	1:09
D	17	900	D Exit	18	5989.735	5089.735	1:24
Project	12	900	Project Exit	16	6462.58	5562.58	1:32