

## CONSTRUCTION MANAGEMENT PLAN

HELMS TOWNHOMES 3336 & 3340  
HELMS DRIVE, CULVER CITY

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# INTRODUCTION

## Purpose

This Construction Management Plan has been documented to anticipate how the Project Management team shall implement and conduct its site management responsibilities during the Construction phase of the “Helms Townhomes” project (the Project).

The aim of this Plan is to describe the scope and anticipated scheduling of construction as a means of ensuring and facilitating an integrated and coordinated construction phase and informative framework for public education of the objectives of the Project.

## Scope

This Plan provides a holistic approach that

- anticipates how the project management team will comply with requirements relating to construction;
- defines the project objectives and targets of particular relevance to the construction phase;
- describes constraints specific to the construction phase and the project in general;
- details the proposed strategy for the construction phase, with particular regard to establishment, resourcing, site organization, and construction controls; and
- delineates schedule of construction activities and hours of construction.

## Program

The proposed program will require the construction of the following:

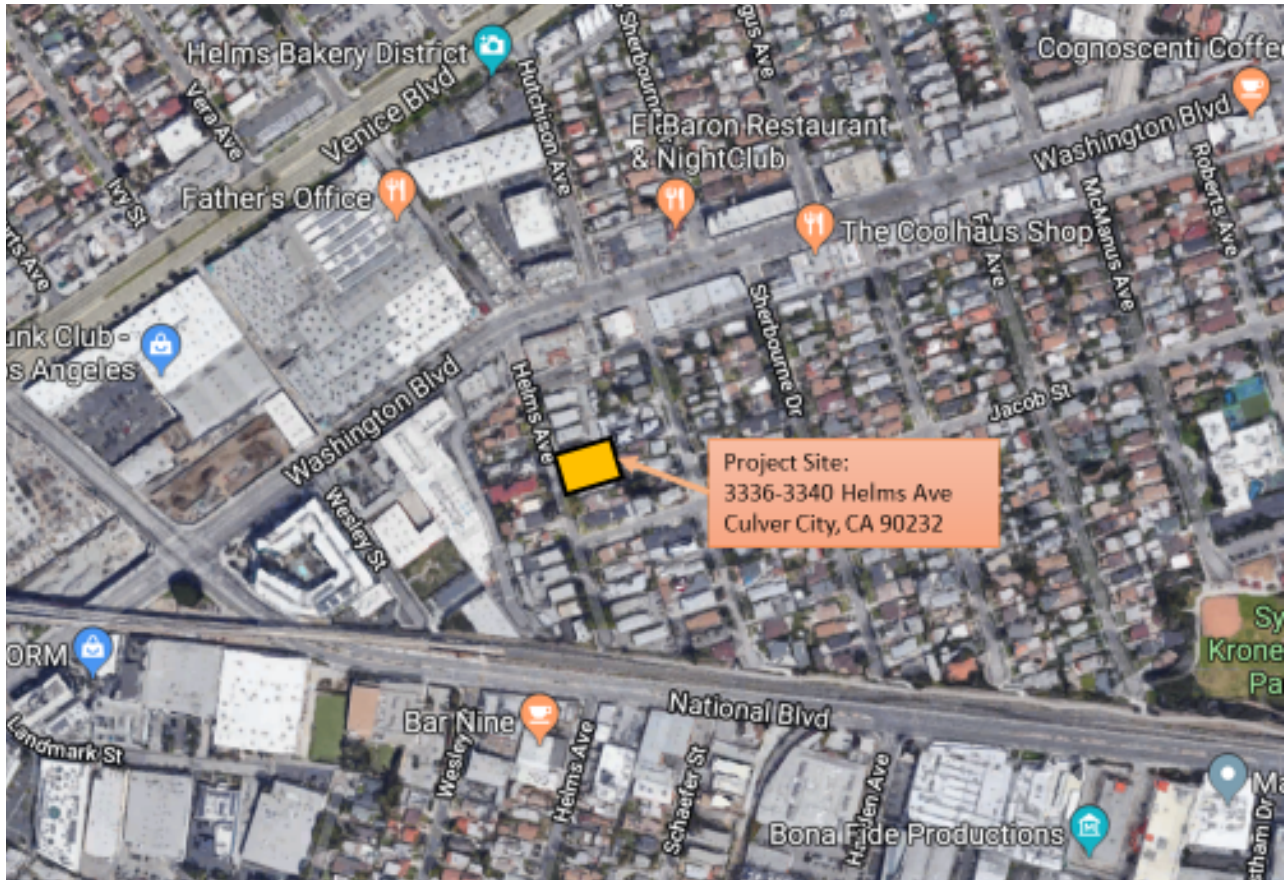
- (1) subterranean level in concrete
- (2) above-grade levels in wood frame



## Site Location

The proposed development site (see below) is located at 3336 & 3340 Helms Drive in Culver City and is bounded by Helms Ave to the west and private residential properties to the north, east and south.

The site area is approximately 12,578 square feet and is located a block away from the Helms Bakery district and less than a half mile from the Culver City Metro Station.





## CONSTRUCTION MANAGEMENT

### External Constraints

The major external constraints on the project are

- Maintaining smooth vehicular, bicycle, and pedestrian traffic flow with minimal disruptions to the surrounding streets;
- Minimizing impact on traffic during peak hours;
- Minimizing impact on neighbors.

Upon commencement, our project team's anticipated tasks will be to

- Confirm the locations of existing services and obtain all necessary permits and approvals; and
- Arrange for the installation of temporary services – power, water, and sewer to service the project during construction.

### Anticipated Approvals

A series of permits will be required for project phases including demolition, excavation, subterranean, and above ground construction.

We foresee that these approvals may include contingencies requiring additional design and submittal that must be approved before work can begin. Some anticipated items requiring further approval might include, but are not limited to:

- Erosion and Sediment Control Plan;
- Shoring and Excavation Plan;
- Off-site improvements; and
- Temporary Use Permit (TUP) application for consideration of extended construction hours; and
- Haul Route Permit.

Before any lane closures and/or other temporary modifications to traffic are implemented, further approvals will be required from Culver City Public Works Traffic Management Division and/or other pertinent city departments. These items might include, but are not limited to:

- Traffic Control Plan including, but not limited to vehicular, bicycle, and pedestrian traffic routing;
- Off-site Civil work including landscape, paving.

**Site Security**

The site will be secured using a 6-foot high temporary construction fence with access gates (wo)manned with traffic control (when street work or lane closures are required). Entry will be controlled and will be limited to approved personnel and equipment.

All visitors to the site will be required to report to the onsite superintendent. The site will be secured after hours and monitored with security cameras.

**Public / Worker Safety**

All site staff and subcontractors will be required to complete Helms 8 Build site-specific safety orientation before beginning work on site. The orientation will cover aspects relating to health, safety, and onsite practice standards. Specific items may include, but will not be limited to site access, emergency evacuation procedures, location of first aid facilities, location of amenities, site hours, material handling, noise and dust policies, and environmental management.

Helms 8 Build will hire the Safety Compliance Company for all quality safety training including facilitation of our written safety program, safety training and safety audits and inspections. Prior to the start of construction, the Safety Compliance Company will schedule high quality safety training and certification for Traffic Control, Signal Personnel, and Flag person Training.

Helms 8 Build onsite superintendent will conduct regular inspections of the project site, and will be actively involved in ensuring compliance with Cal/OSHA and/or other safety standards, reviewing Safety Management Plans, and making recommendations with regard to health and safety issues.

In case of a medical or fire emergency, call 911. Local emergency response organizations include the Police and Fire Departments. The emergency services provided by the Fire Department include fire suppression, emergency medical services, technical rescue, and hazardous materials.

**Temp Fencing**

The installation of temporary fencing is anticipated as a means of ensuring the safety of the public as well as the workers and equipment. (Refer to Appendix 3 for anticipated location of Temp Fencing.) Chain-link gate will be used at the only access point from Helms Avenue onto the site.

**Traffic / Parking Impact**

Lane closures are not anticipated for this project. During material delivery, equipment setup, and/or entering or exiting the site, a flag person with certified training will be provided to minimize impacts to traffic flow and to ensure the safe movement of vehicles into and out of the property.

Construction vehicles will not be permitted to stage or queue where they would interfere with vehicular traffic or block access to adjacent properties. Construction-related vehicles will not be permitted to park on public streets.

**Pedestrian /  
Bicyclist Impact**

Use of the sidewalk and street in front of the project site on Helms Ave is anticipated to continue throughout the Demolition and Excavation phases.

Construction vehicles will not be permitted to stage or queue where they would interfere with pedestrian or bicycle traffic. A flag person stationed at the construction vehicle entry/exit point will ensure safety of pedestrians and bicyclists crossing.

**Community  
Notification**

The construction will have several phases such as trees removal, material delivery, and crane setup that may impact the adjacent neighbors and/or surrounding streets.

The construction management team, in conjunction with the developer, will work with pertinent stakeholders to develop an email notification list as a means of notifying said parties of potential construction impacts at least 48 hours prior to commencing actions.

**General Onsite  
Administration**

The Project Construction Manager will maintain an office at the project site if required. The Project Construction Manager and field staff will be responsible for implementing and maintaining procedures and policies.

A Construction Rules Sign that includes contact names and phone numbers of the applicant, property owner, Helms 8, and the City will be posted on the property in a location that is visible to the public.

**Construction Hours**

The project will comply with Culver City's allowable construction hours of:

- Monday-Friday: 8 AM through 8 PM
- Saturdays: 9 AM through 7 PM
- Sundays and National holidays (temporary in nature, if required): 10 AM through 7 PM

Dirt hauling and construction material deliveries or removal are prohibited by city ordinance during morning (7 AM – 9 AM) and afternoon (4 PM – 6 PM) peak traffic periods. It should be noted that this requirement will have the effect of prolonging overall construction time.

All staging and storage of construction equipment and materials, including the construction dumpster, will be located onsite only. Building and construction materials storage locations will change from time to time depending on the area of work in progress and the site area available, but shall be at all times in compliance with State and Federal safety standards. Approval of storage locations shall be obtained from applicable City staff.



## CONSTRUCTION METHODOLOGY

### Demolition and Excavation (60 work days)

The site is currently two residential properties that include a one-story, 1236 square foot single-family residence with a two-car garage and a one story, 1564 square foot single family residence with a carport. The existing residences will be demolished, and debris sorted for recycling prior to removal.

80 tons of Construction & Demolition waste (C&D) will be transported to CWS Gardena for recycling. 100 tons of concrete will be transported to Infinity Recycling Pico Rivera.

Existing services within the site will be located and either capped if redundant or modified if they are to be used as temporary services for construction.

Demolition is expected to take less than 10 workdays with no or minimal impact to traffic from debris hauling occurring over the course of 3-5 days with an estimated 4 truckloads being hauled each day. Trucks will enter the site from Helms Ave (see Appendix 1). Where required, a curb ramp will be placed at entry/exit point to mitigate damage to curb. A flag person will be stationed at entry/exit point to ensure safety of motorists and pedestrians.

During excavation, a shoring system will be required to support the adjacent properties to the rear and sides. Shoring will begin with drilling of shafts and installation of steel beams along the site's perimeter. This process is estimated to take approximately 30 working days. Timber lagging and slurry backfill will then be placed in coordination with the excavation of the site. Temporary safety handrails will be installed where required.

The project will require the excavation of up to 12 feet of grade below the street level with an expected time frame of 50 working days. Excavation will begin at the rear of the property. Cuts will be in 5' intervals, with the grading subcontractor working concurrently with the shoring subcontractor. A 20,000 lb. excavator will be utilized for excavation. The excavator will be kept on site until completion of the excavation phase. At the end of the excavation process, loading will occur at the street. Dirt hauling is anticipated to occur over 20 nonconsecutive days within the 30-day excavation period. One high side end dump semi-truck will be required every three hours to haul off material. A total of 160 dump trucks will be required to haul the estimated volume of dirt from the site. Per Culver City's Municipal Code, dirt hauling is prohibited during the morning (7 AM to 9 AM) and afternoon (4 PM to 6 PM) peak traffic periods.

Trucks will approach and exit Helms as shown in Appendix 1. Where required, a curb ramp will be placed at entry/exit point to mitigate damage to curb. A flag person will be stationed at entry/ exit point to ensure safety of motorists and pedestrians.

**Subterranean Work (120 Work Days)**

As excavation is completed, in-ground services will be installed followed by preparation of the ground to receive the structural concrete foundation, CMU walls, and concrete columns as per the approved / permitted structural drawing set.

The concrete construction of the project will encompass one subterranean basement level including a slab-on-grade foundation, concrete columns, CMU walls, and one ground-level concrete slab. The time frame required to complete the concrete portions of the project is anticipated to take approximately 120 workdays. Included within this time frame is the assembly of shoring to support formwork; the construction/assembly of the required formwork for floor slabs, columns, and walls; the placement of steel reinforcement for those structural components; and the placement and finishing of concrete.

Concrete placement will be done by either a 4" line trailer and/or boom pump from inside the property or on the street in front of the property. Traffic impact is not anticipated as a result of concrete work. The use of this proposed system is anticipated for all onsite concrete construction.

Concrete placement is expected to occur over 35 nonconsecutive days within the – 125 day concrete construction period. A daily average of 5 concrete trucks is anticipated over the concrete placement period. Construction material deliveries will occur outside the morning (7 AM to 9 AM) and afternoon (4 PM to 6 PM) peak traffic periods.

The concrete trades will be supported by, but not limited to, a tower crane for lifting of materials and equipment, separate placing booms to place concrete, and perimeter guardrail systems to provide fall protection.

**Wood Construction (125 Work Days)**

The wood framing construction of the project will encompass two floors above grade level. The time frame required to complete the wood framing portions of the project is anticipated to take approximately 125 work days. This phase of construction will commence once the concrete slab has been built. Included within this time-frame is the construction of the wood structural system, installation of the buildings' services, and the fitting out of the interiors. This period is also anticipated to include the building out of the private and common amenity areas.

The various trades will be supported by, but not limited to, a conventional mobile crane for lifting of materials and equipment. The structure will have temporary perimeter guardrail systems to provide fall protection.

The wood framing construction will require limited number of deliveries of material and removal of waste material. The impact to traffic is anticipated to be minimal. Delivery trucks will enter/exit the site on Helms Ave. A flag person will be stationed at entry/ exit point to ensure the safety of motorists and pedestrians.

**Services and Finishes**

For the concrete and subterranean portions of the building, the installation of the services will commence as each of the slabs are cast and the formwork is stripped.

Similarly, as each level of wood-framed component of the project has been constructed to a point allowing construction of the next level, the trades installing the required services will begin their installation work.

The installation of services will be organized in several passes, with the first pass termed as "rough in of services". This typically includes all services that can be installed without needing the protection of the building façade.

Exterior finishes typically begin after the building envelope has been installed. In the concrete part of the project, this is usually after the enclosure has been installed. In the wood-framed part of the project, the exterior walls will be layered with waterproofing, fireproofing, and ultimately finished with the required finish material.

The scheduling of the service and finish installations has been factored into the timeframe allotted to both concrete and wood construction.

**Offsite Work (20 work days running concurrent with completion of interior)**

Offsite work is expected to begin as soon as the building envelope is installed.

Offsite work will consist of, but may not be limited to, reconstruction of sidewalk and parkway along Helms Ave; reconstruction of drive approach, curb, and gutter,; and placement of landscaping.

Every effort will be made to minimize the impact on vehicle traffic flow on Helms Ave. If a temporary lane closure is needed, in order to alleviate the effects on traffic, we anticipate scheduling lane closures required for certain activities to evening after the peak traffic hours. Those activities that will be performed during daytime hours will be scheduled to take place after the morning peak traffic hours.

The anticipated timeframe for all offsite improvements is 20 work days. This period will include concrete placement for sidewalk, approach, gutter, irrigation, and landscape construction. No lane closures are anticipated during these activities.



**Project Construction Schedule**

The project's construction will be divided into 3 distinct phases requiring respective logic to construct the building efficiently and minimize impact on surrounding streets and neighbors. These phases are:

		Start Date	Proposed Timing
Phase 1	Demolition Shoring / Excavation Drainage with Waterproofing	TBD	120 workdays
Phase 2	Foundations Concrete Structure Wood Framing Plumbing Roofing Mechanical + Electrical Exterior Finish	TBD	250 workdays
Phase 3	Offsite Improvements Landscaping	TBD	20 workdays

Estimated Date of Completion: TBD

Note: Each phase will not occur in isolation. All phases will overlap, with Phases 2 and 3 occurring concurrently once the structure is sufficiently complete to allow the finish trades to begin work.

## ENVIRONMENTAL

### General

The objective of this section is to identify the proposed methods that will be employed to minimize potential impacts of noise, vibration, and air quality in the vicinity of the development.

### Noise and Vibration Management

Normal work hours will occur within Culver City's allowable construction hours of 8 AM to 8 PM, Monday-Friday. There will be some Saturday work that will occur within the allowable hours of 9 AM to 7PM. While not anticipated, Sunday work hours may be required in order to keep to the construction schedule. If Sunday work is needed, it will occur within the allowable hours of 10 AM to 7PM after approval by city officials.

All subcontractors will be responsible for managing noise and vibration in accordance with their project specific Management Plans. Some mitigating measures will be:

- Requiring all construction equipment to be operated with an exhaust muffler and sound control devices that meet or exceed those provided on the original equipment.
- Requiring proper maintenance of construction equipment to minimize noise emissions.
- Staging of construction material deliveries behind temporary construction fence to minimize noise emitting from idling vehicles.
- Requiring stationary source equipment (i.e. compressors) to be located the greatest distance from the public right-of- way and from Noise Sensitive Receptors.
- Requiring construction workers to be respectful of the surrounding neighborhood and keep non-construction related noise to a minimum prior to, during, and after allowed construction hours.

We do not foresee significant vibration generated by the construction that might impact adjoining properties.

**Dust Management  
and Erosion Control**

Dust and Erosion control measures will be implemented as required, and will comply with SCAQMD and Culver City regulations for controlling fugitive dust and Erosion. Measures that may be employed include:

- Site Perimeter: Erection of a 6 ft. high temporary construction fence with attached windscreen at the site's perimeter under which sand bags and/or straw wattles will be placed.
- Demolition: All trucks removing materials from site will be loaded within the site perimeter and will be required to cover loads as deemed necessary for dust control.
- Excavation: Rumble strips at truck entry/exit ways, watering down working of stockpiles and surfaces as required, covering of stocks while minimizing piling of material, and use of street sweepers to maintain adjacent roadways.
- Construction: Maintain a high level of housekeeping to minimize likelihood of windblown dust.

A copy of the local SWPPP, inspection logs, and training records shall be kept on site and available for inspection at all times during construction.

**Air Quality**

Trucks and other vehicles in loading and unloading queues must be parked with their engines off to reduce vehicle emissions.

Construction deliveries shall be phased and scheduled to avoid emissions peaks as determined by the building official.



## APPENDICES

### **Appendix 1**

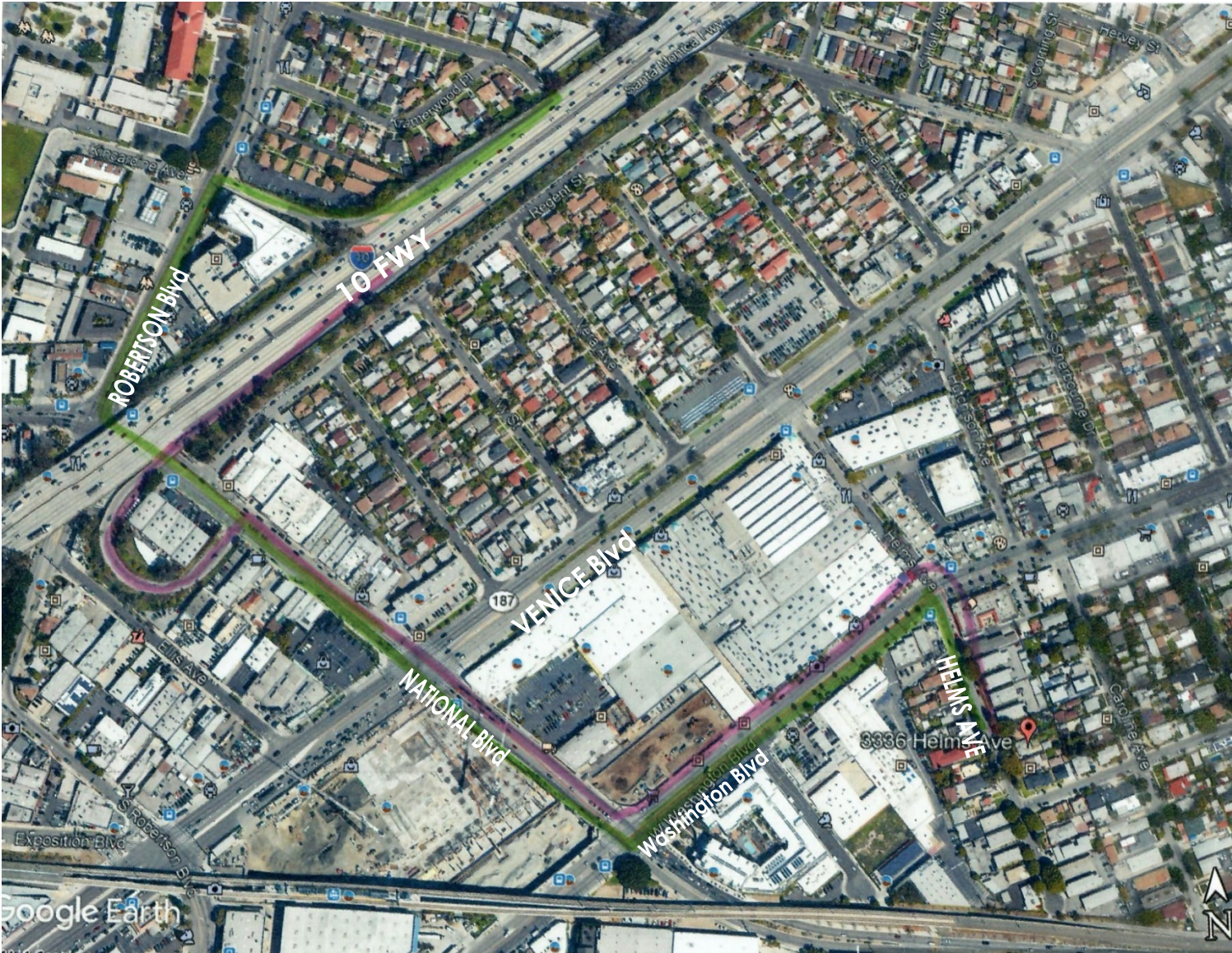
Proposed Construction Traffic Route

### **Appendix 2**

Proposed Site Logistics Plan

### **Appendix 3**

Proposed Pedestrian Protection Plan



Appendix 1: Proposed Construction Traffic Route  
Green line indicates ingress/Pink line indicates egress





Appendix 2: Proposed Site Logistics Plan



Appendix 3: Proposed Pedestrian Protection Plan