

# IMPROVING OUR OPERATION

We are committed to improving our operations. Unfortunately, some neighbor experiences have not been representative of how we strive to conduct business.

Val Vista is in compliance with all laws and regulations and is considered by local, state and federal regulatory officials to be protective of public health and safety. We are committed to doing more to better address the concerns expressed by some of our neighbors.



What's the plan? Improving operations while continuing to supply the growing local demand. We are actively working to:

- Better understand the experiences shared with us so that we can find solutions;
- Thoroughly and expeditiously review production systems and operations; and
- Implement adjustments to the operation wherever possible to do so.



### HOT MIX ASPHALT (HMA) OPERATIONS

We have brought in an outside technical team of engineers and experts to help evaluate the HMA operation. They are in the process of identifying potential odor sources and factors in the plant and in the production process.

The team has installed multiple weather stations and will continue to monitor the operation to develop recommendations, including best practices for operations and maintenance, plant upgrades and new environmental controls.

The team is optimistic that there are options. We anticipate their work to be complete in July.



**Immediate actions:** Effective May 5, 2018, we took steps to help minimize potential odor impacts during the study and development period. We have voluntarily:

- Reduced HMA production, meaning we'll be making less material during this period.
- Suspended producing HMA mixes with recycled rubber blends. Why? The rubber additive, which is an Arizona Department of Transportation requirement for certain jobs, may potentially be a contributing odor factor in the current plant design.
- Shifted deliveries from our HMA liquid asphalt and oil suppliers from early mornings, which started at 4 a.m., to daylight hours.
- Continued using (since late 2017) Ecosorb, a product designed to control odors, not mask them.



# GENERAL OPERATIONS

- **Reduced Hours:** Although we are permitted to operate 24/7, in November 2017, we moved the start time of the aggregate crushing and screening plant to 6 a.m., instead of 3 a.m. Given construction project timing, there will continue to be night activity, including the work of night shift mechanics and production at the CPC operation.
- **Night Policy:** After evaluating night traffic and work patterns, we have implemented a Nighttime Work Policy that gives Vulcan and CPC employees new guidance for work during 7 p.m. to 7 a.m. This new policy went into effect on May 8 and includes the following actions aimed at reducing traffic and noise:
  - Equipment operators now service their front-end loaders and equipment prior to the beginning of their shift.
  - Travel along the north and west property lines is limited and cones now block areas from traffic.
  - In the event of night HMA work, the traffic will enter and exit using the southern gate and will not travel through the aggregate yard or along the north and west property line.
  - Service trucks and water trucks will travel all areas, but only as absolutely necessary for business and permit requirements.
  - We have alerted employees to do everything within their power to limit the noise along the north and west property lines, including the shop area.
  - CPC traffic will enter and exit through the southern entrance road.
  - Mixer trucks are now prohibited from traveling through the aggregate yard or along the southwest area of the property including the west property line.
  - CPC mixer truck drum washout will use lower engine speeds.
  - No high-decibel activities will be conducted on site without prior approval from Vulcan, which eliminates evening mixer truck drum chipping.

### Additional Enhancements:

- We are replacing the cone crusher on the aggregate (sand and gravel) to help reduce noise. The project is expected to be complete this fall.
- We will continue to use new alternative back-up alarms on some on-site mobile equipment to reduce audible impacts from alarm sounds and beeping.
- We will continue to manage stockpile patterns of raw materials to reduce sound from reaching the property line wherever possible.
- We will continue to use upgraded spray bars on stationary equipment to help with dust suppression.





# HOW IT WORKS: HOT MIX ASPHALT (HMA) PLANT

## Baghouse (Secondary Collector)

The baghouse removes fine particulate matter from the dryer exhaust gases before they are released into the atmosphere.

## Asphalt Cement Storage Tanks

Asphalt cement is stored in tanks while awaiting delivery to the drum. Asphalt cement in the tanks is heated between 300°F and 350°F depending on the grade and type of asphalt. Asphalt is delivered from the tanks to the drum for mixing with the aggregate.

## Drum

The rotating drum first heats the aggregate then mixes the hot aggregate with asphalt cement. The aggregate enters the drum at the opposite end from the burner and travels counter to the hot air stream. Asphalt is added to, and mixed with the hot aggregate in the drum.

## Additive Silo

Stores lime that can be added to the mix.

## Storage Silos

After the aggregate and asphalt cement are mixed in the drum, the resulting hot mix is discharged to the storage silos. Generally there are two types of silos: surge and storage. Surge silos are usually insulated but unheated and are designed to hold hot mix for short periods of time (several hours) between truck arrivals. Storage silos are well insulated, heated, near air-tight and are designed to hold hot mix for long periods of time (up to a week).

## Truck Loading Area

Trucks are loaded from the storage silos. A weigh scale is typically located here to ensure trucks are loaded with the correct amount of mix.

## Control Center

The control center manages operations from a central location. Most modern asphalt plants are sophisticated facilities and are computer controlled.

## Primary Collector

The primary collector, located between the dryer and secondary collector, removes large dust particles from the exhaust gases before entering the more efficient secondary collector (baghouse).

## Cold Feed for Reclaimed Asphalt Pavement (RAP)

RAP can be used in hot mix at ratios up to about 50 percent. RAP is generally loaded into its own cold feed bin then moved by conveyor belt to be discharged directly into the drum where it is heated by the already-hot aggregate.

## Cold Feed Bins

Stockpiled aggregates are loaded into the cold feed bins for delivery into the aggregate dryer. Each bin holds a separate aggregate size or gradation. They have an adjustable gate that meters the aggregate onto the moving conveyor belt. The gate openings and the conveyor belt speed control the amount of aggregate introduced into the plant, and that controls the mix gradation.

Source: National Asphalt Pavement Association (NAPA)