

APPENDIX 2

Memorandum

Date: Wednesday, January 06, 2021

Project: ID 1 Capacity, Reliability, and Augmentation Project #1

To: Dave Youngblood, Jeff Smyth, EOCWD; Ash Dhingra, AKD Consulting

From: Luis León, HDR

Subject: Potential operations during construction of the Fallen Leaf Parallel Sewer

As requested by EOCWD, this memorandum describes the activities anticipated during the construction of the Fallen Leaf Sewer, parallel to the existing 21-inch sewer within the existing easement. Most of the anticipated activities will probably involve noise and vibration of some magnitude. Staging areas will have to be looked at and discussed later; at this point it's not sure what's available in the area. Construction activities would vary slightly if a large junction structure is constructed in lieu of two or three manholes.

Construction Activities on Fallen Leaf would include:

- Video tape the entire area prior to any construction activities, this would include the exterior of the nearby homes, roads and drives also.
- Install vibration monitoring system
- Sawcutting
- Tree trimming and removal
- Wall demolition and replacement
- Concrete demolition and replacement
- Potholing
- Excavation and soil removal
- Installation of shoring: Trench shields and plates or beam and plate shoring
 - Beam and plate shoring to include drilling and/or driving of steel I-beams and vibration and set of steel plates
- Installation of aggregate base floor at pits
- Support Golden State Boring Operations
- Delivery, unloading, setting of new 60" precast manhole. Depending on spec may require form/pour of concrete base if not precast.
- Backfill of pit and removal of shoring systems
- Excavation, pipe lay, backfill of 20" GRP
- Excavation and shoring for new 84" Manhole (or new junction structure)
- Form and pour of concrete base around existing 21" pipe
- Delivery, unloading, set of new 84" MH precast risers
- After the casing installation is complete the steering head will be cut and removed from the 12' receiving pit. The steering head weight is less than 10,000 lbs and can be removed using an excavator. After the carrier pipe is installed, a bulkhead will be built.
- Break-in of existing 21" sewer and bypass to new 20" GRP sewer. Plug existing 21" VCP sewer.

- Excavation, shoring, demolition of existing manhole over 21" VCP
- Installation of new 21" VCP from new 84" MH and tie-in to existing 21" VCP
- Backfill of area (most likely slurry)
- Adjustment of lids to final grades
- Restoration of concrete
- Restoration of walls, landscaping, etc.
- Removal of vibration monitoring system at conclusion of all work.

Construction Activities on Edinger would include:

- Pre-construction field meeting with RR, City on Edinger, So Cal Gas.
- Installation of traffic control (daily or semi-permanent TBD)
- Removal of RR ROW Fencing and installation of temporary fencing and gates (TBD)
- Sawcutting
- Potholing
- Possible relocation of city electrical for street lighting
- Excavation and soil removal
- Installation of shoring: Trench shields and plates or beam and plate shoring
 - Beam and plate shoring to include drilling and/or driving of steel I-beams and vibration and set of steel plates
- Installation of aggregate base floor at pit
- Support GSBPJ Operations
- Delivery, unloading, setting of new 60" precast manhole. Depending on spec may require form/pour of concrete base if not precast.
- Backfill of pit and removal of shoring systems
- Excavation, pipe lay, backfill of 20" GRP
- Excavation and shoring for new MH2 – drawing indicates 60" manhole but tie-in on other side has 84" Manhole?
- Form and pour of concrete base around existing 24" pipe
- Delivery, unloading, set of new 60/84" MH precast risers
- Break-in of existing 24" sewer
- Backfill of area (most likely slurry)
- Adjustment of lids to final grades
- Restoration of asphalt road & concrete
- Restoration of ROW
- Repair of RR ROW Fencing

Equipment to include:

- Service trucks
- Pickup trucks
- Dump trucks
- Concrete mixer trucks
- Hydraulic track excavators
- Rubber tire front-end loaders

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- Possible drill/pile driver rig (lo-drill or ABI rig)
- Rubber tire backhoes
- Sawcutters
- Compaction equipment – incl. rammers/jumping jacks, vibraplates, vibratory rollers
- Air compressors and jackhammers
- Cut-off saws
- Trench shields, steel plates, beams
- Traffic control devices
- Tree trimming/removal equipment (subcontracted most likely)

With regards to the adjacent homes, it may be a good idea to place portable seismic/vibration monitoring during construction at the homes. This could help work against any claims that may pop up, especially in California.

END OF MEMORANDUM