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| Subject | Hawk Ventures LLC (Digital Realty) Parking - Special Use Permit Request |
| :--- | :--- |
| Attention | Lisa Davis, City of Mesa |
| From | Kofi Addo, P.E. |
| Author | Arun Olarnrat, P.E., PTOE |
| Date | April 2, 2019 |
| Copies to | Danh Nguyen, EIT |

Jacobs Engineering Group Inc. (Jacobs) has been requested to conduct a parking demand study for the proposed Hawk Ventures LLC (Digital Realty) site which will comprise of 136,000 square-feet (sf) of office space and 1.216 million sf of data halls, the latter of which will primarily be used as storage facilities for data infrastructure. The site will parallel South Crismon Road in the City of Mesa, Arizona. Exhibit 1 shows the proposed site plan.

## Employee Population

The parking study considers the following assumptions regarding employee population per phase:

- Phase 1 and 2: 296 employees
- Phase 3: 40 additional employees (cumulating 336 employees at full build-out)


## Parking Generation

For the purpose of this analysis, warehousing will be used as a comparable land use for data halls. Per Chapter 32 of the Mesa Zoning Ordinance (MZO) for "On-Site Parking, Loading, and Circulation", the required parking space by use is 1 space per 375 sf for general offices and 1 space per 900 sf for warehousing.

Parking generation per the MZO was compared against the Institute of Transportation Engineers' (ITE) Parking Generation, 4th Edition which presents the following ratios for average peak period parking demand: 2.47 spaces per 1000 sf for office buildings and 0.51 spaces per 1000 sf for warehousing; or 0.83 vehicles per employees for office buildings and 0.78 vehicles per employees for warehousing. Comparable ITE land use codes for the proposed site include "General Office Building" (Code 710) and "Warehousing" (Code 150).

The table below presents the comparison of total parking spaces required by the Mesa Zoning Ordinance and the proposed reduced parking spaces as generated by ITE.

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| Parking Generator | Parking Ratio |  | Total Parking Required |
| :---: | :---: | :---: | :---: |
|  | Office | Warehouse |  |
| Mesa Zoning Ordinance | 1 space per 375 sf | 1 space per 900 sf |  |
|  | 363 spaces | 1352 spaces | 1715 spaces |
| ITE (proposed reduced parking) | 2.47 spaces per 1000 sf | 0.51 spaces per 1000 sf |  |
|  | 336 spaces | 608 spaces | 944 spaces |
|  | - OR- |  |  |
|  | 0.83 vehicles per employees | 0.78 vehicles per employees |  |
|  | 279 spaces | 263 spaces | 542 spaces |

## Conclusions

This project proposes a reduction of the required code parking by omitting data halls or comparable (warehousing) land uses from parking generation on the following assumptions: all personnel working in the data halls are captured within the parking generation for office space; no additional personnel will arrive to the Digital Realty site separate from those working in offices; and all personnel will be working a 9:00 am - 5:00 pm operation (pending further operation or shift details provided by the Client).

Therefore, if all parking demand will be driven by office space, this project requests to meet the parking criteria set forth by ITE by allocating 336 spaces for employees and providing an additional 20 for visitors totaling 356 parking spaces onsite.


