

Flexential Data Center

Project Narrative

October 28, 2024

This Project Narrative describes the Flexential Data Center project in specific detail. It is broken down into a series of design issues to further explain what is included in the sheets of the Site Plan Submittal package. These design issues include Process, Site Design and Building Design.

The design attributes of the project respond to the following design standards/requirements:

- Town of Parker Lands Development Code (LDO) adopted May 20, 2024.
- Town of Parker Development Design Standards (DDS) dated November 18, 2019.
- Compark Business Campus Design Guidelines dated November 4, 1999.
- Doca Center Overlay (DCO) from the Re-Zoning dated November 7, 2023.

When there are differing design standards or requirements identified in the above documents, the design of the project generally meets the most stringent standards or requirements. There are instances where the application of the standards or requirements have been modified to better deliver the design intent of the standards and requirements. These instances are identified throughout this Project Narrative and can be identified by text in the [blue](#) font.

PROCESS

Neighborhood Meeting Summary

An in-person and virtual online Neighborhood Meeting on Tuesday, October 22, 2024 at 3:00 PM at the Douglas County Public Library located at 20105 East Mainstreet. Those in attendance included John Crowley of Flexential and Gary Ellermann and Anna Hampton of The Mulhern Group. In addition to the public at large, a representative from The Town of Parker and Compark Business Campus participated virtually. The following is a general summary of the questions or comments:

Question or Comment	Answer
How is the project accessed?	The singular access for both automobiles and trucks is off of Compark Boulevard. Egress can occur on either Compark Boulevard or at South Chambers Road. Only Life Safety vehicles can access the site from South Chambers Road.
How long will the construction process take?	Construction is scheduled to begin as soon as permits can be obtained next year and will take at least a year to complete for initial occupancy.
When was the project scheduled to open?	Early 2026.
How many people would be occupying the site?	Depending upon the time or events, up to seventy at any one time.
Will Flexential be looking to hire additional	Yes, Flexential will be supplementing staff as

staff?	needed for the facility, but specifics are not yet available.
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Compark Business Campus Approval

A presentation has been made to The Compark Business Campus (CBC) and preliminary verbal approval has been granted for our design direction subject to our providing additional specific information. CBC has agreed that the Site Plan Submittal Package will suffice for their design approval process once completed. In the interim, we continue to work with CBC to obtain written approval. When the written approval is granted, we will forward the CBC “Approval Letter” for your record and files.

Requested Page-Turn of Site Submittal Package

On behalf of Flexential and their design team, we are requesting an in-person or virtual on-line “Page Turn” when we can walk the Town of Parker through our submittal package and offer additional insight or background information on the issues we addressed in the design. Please let us know if that is possible.

Requested Page-Turn with Building Official

On behalf of Flexential and their design team, we are requesting an in-person or virtual on-line Building Permits discussion when we can discuss with the Town of Parker how to best deliver the project using a phased approach to construction while preserving the required fire/life safety requirements. This can become a complicated process that is best discussed very early before construction documentation for specific phases of construction is provided. Please let us know if that is possible.

SITE DESIGN ELEMENTS

Geology & Soils Report

A Soils Report dated October 18, 2024 has been prepared for the site by CTL | Thompson geotechnical engineers. The site is currently being studied to determine the most viable options for preparing the site to accommodate the anticipated building and equipment loads. These options are in the process of being vetted by Flexential (Owner), CTL | Thompson (Geotechnical Engineer), The Mulhern Group (Architect), S A Miro (Structural Engineer), Kimley-Horn (Civil Engineer) and PCL Construction (Owner’s Contractor for Preconstruction Services) and other selected sub-contractors. Initial planning on the site has considered this information. The final selected option will be provided when permits for early on-site activities are requested from the Town of Parker. A copy of the report is included in this Site Plan Submittal.

Pedestrian Sequence and Entry Courtyard

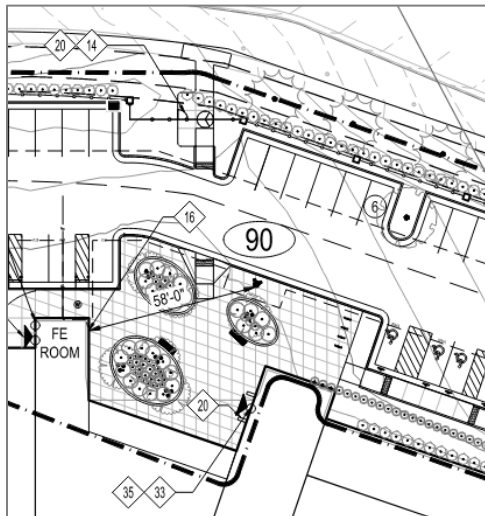
A large Entrance Plaza is provided between the Data Hall and the Office Areas as shown in the image below. The plaza includes three oval-shaped in-ground planters with large shrubs and low seasonal flower plantings and two benches. It provides a pleasing approach to the building entrance located on the south side of a two-story Foyer. Adjacent to the Entrance Plaza is an interior Lobby on the lower-level and a Board Room with a balcony on the second level overlooking the Entry Plaza. To the right (south) side of the Entry Plaza is a “Bookend” that marks the extent of the Data Hall. It is constructed of integrally colored precast concrete with both smooth and

formliner surfaces. This element penetrates into the building past the glazing wall to become a visual anchor within the building bringing the outdoors in.



Multi-Modal Access & Bicycle Parking

Pedestrian access to the site occurs at the sidewalk connection between the Entrance Plaza and the Compark Boulevard ROW (see image below). Access through the security fence is provided through both a turnstile and an adjacent gate enabling pedestrians, handicapped and bicycle access through security. The approach from ROW into the building is step free and illuminated with low-level lighting.



Bicycle parking is secured within the boundary fence and bike racks are located at the northwest

corner of the Entry Plaza.

Vehicular Access and Fire/Life Safety Ingress & Egress

Vehicular access to the site is primarily provided by the existing curb cut Compark Boulevard. The existing curb cut is aligned with the curb cut on the opposing side of Compark Boulevard. Reconstruction of this existing curb cut is proposed to widen it as needed to allow sufficient room for large truck turning movements, fire/life safety equipment. Drainage and other roadway design components have not been revised.

Fire/Life Safety is provided with full movement access on Compark Boulevard. Left and right turns are provided into a continuous lane that circulates fully around the building in either direction as needed. The second required access is provided on South Chambers Road at the private right-out only movement. A low raised table tongue allows fire/life safety vehicles to enter the site while discouraging this as public/private access. A directional sign will be provided to restrict access.

There is a single fire-protection room located at the bookend at the public Entry Plaza that is directly visible upon approach. A fire hydrant has been located within 100; in the front Entry Plaza adjacent to the drive lane for access.

This design was pre-approved by Randy Capra from the Town of Parker Fire/Life Safety Department.

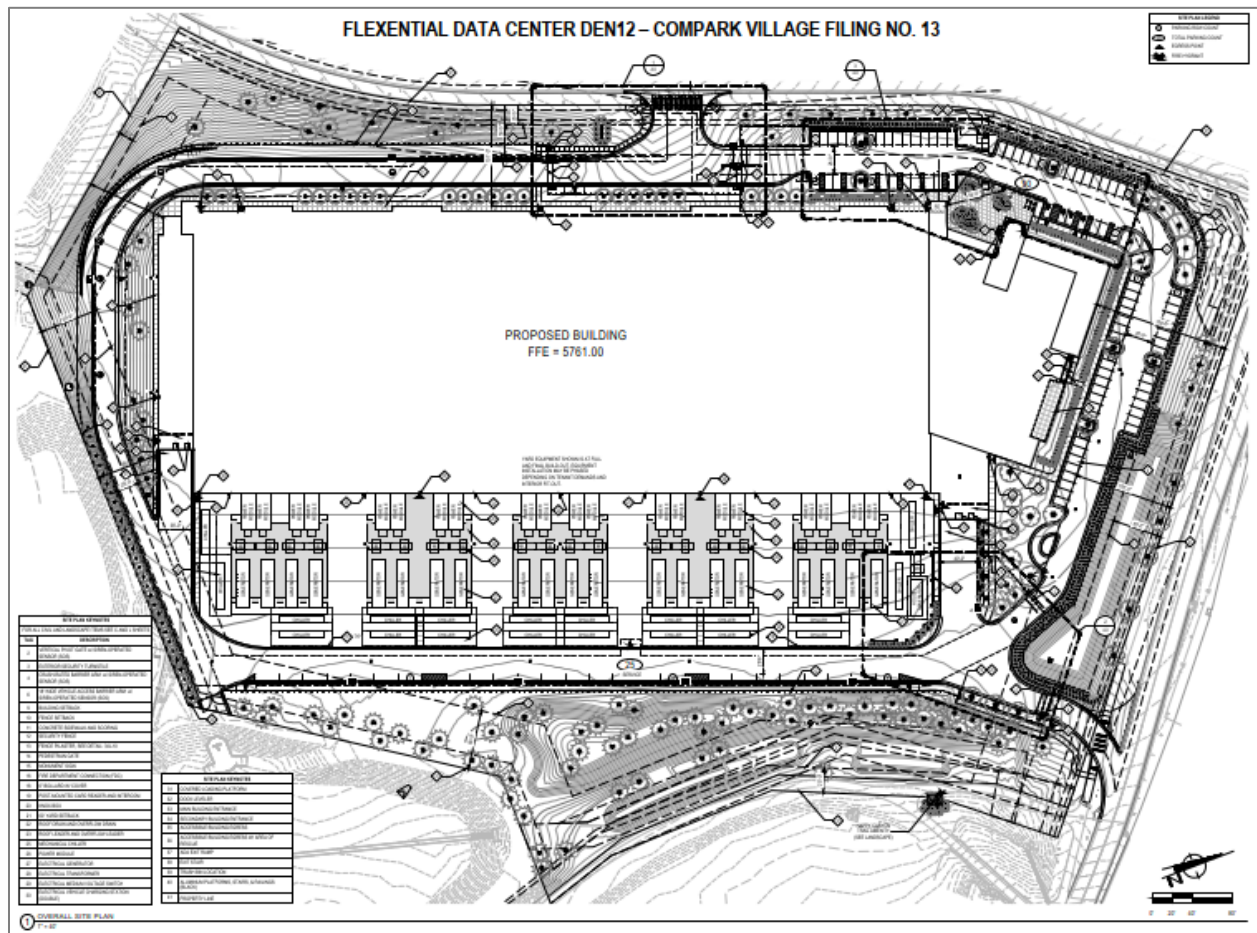
Setbacks and Site Layout

Setbacks for the property meet or exceed the minimum standards as required by the DC Overlay (most restrictive):

South Chambers Road (Building):	100' Minimum
South Chambers Road (Fence):	50' Minimum
Compark Boulevard (Building):	20' Minimum
Compark Boulevard (Fence):	50' Minimum

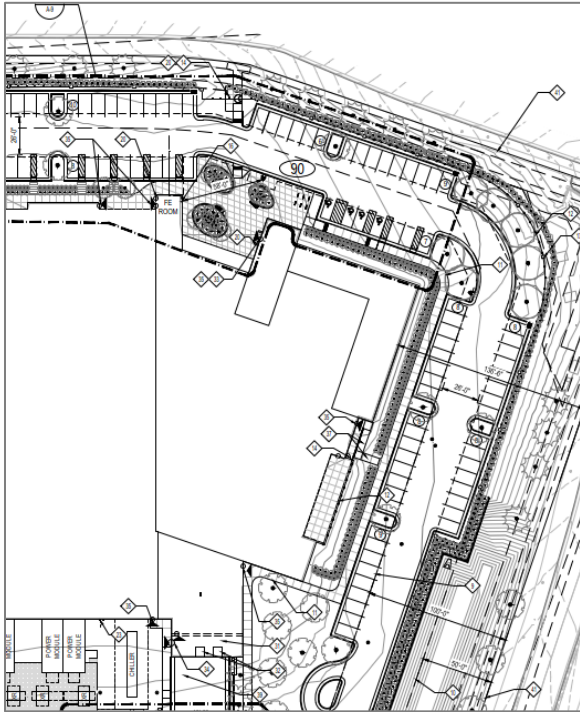
Each setback meets or exceeds the requirements.

To preserve the greatest amount possible for the landscaped screen wall, our site design started at the Compark Boulevard ROW. Minimum setbacks or component depth based upon the Owner's program were used for the fence, the access drive/parking, the building depth and equipment yard depth and service drive. This resulted in a significantly large open space adjacent to the Happy Canyon Creek to allow for a large buffer between open space and development. Refer to the plan below:



Parking Lots

Parking lots have been placed between the ROW and building as allowed by code. The double-loaded parking lot minimizes the size of parking and places it adjacent to the office portion of the building. Parking is screened from the ROW through low-shrub landscaping. An adjacent continuous sidewalk provides a connection to the front Entrance Plaza. An automobile “turn-around” adjacent to a secondary internal gate has been provided to control access and egress exclusively from Compark Boulevard. Note that this internal separation gate provided “Opticon” access for unrestricted fire/life safety. Please refer to the plan below:



HC and EV Charging Parking Spaces

(4) Handicapped and (15) EV Parking spaces have been provided on the Compark Boulevard side adjacent to the front Entrance Plaza for convenient access to the front door. Each count exceeds the minimum required.

Special Parking Study

Due to the minimal amount of parking that will be present at this site at any time, Flexential has proposed a reduced amount of parking as substantiated by a Special Parking Study prepared by Kimley-Horn as shown below:

Kimley»Horn

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Summary & Conclusions

This study has included all elements of a special parking study allowed by the Code to justify an unlisted use for the proposed Parker Flexential Data Center. The ITE demand analysis suggests that the Site might generate a demand for **13 spaces** at peak hours of weekday activity. By studying the existing Flexential data centers operating in the same 80112 zip code, we projected a peak demand of **21 spaces**. Rare special events at the site could require up to **50 spaces** at the Site, shown in Table 9.

Table 9: Summary of Supply & Demand Methodologies

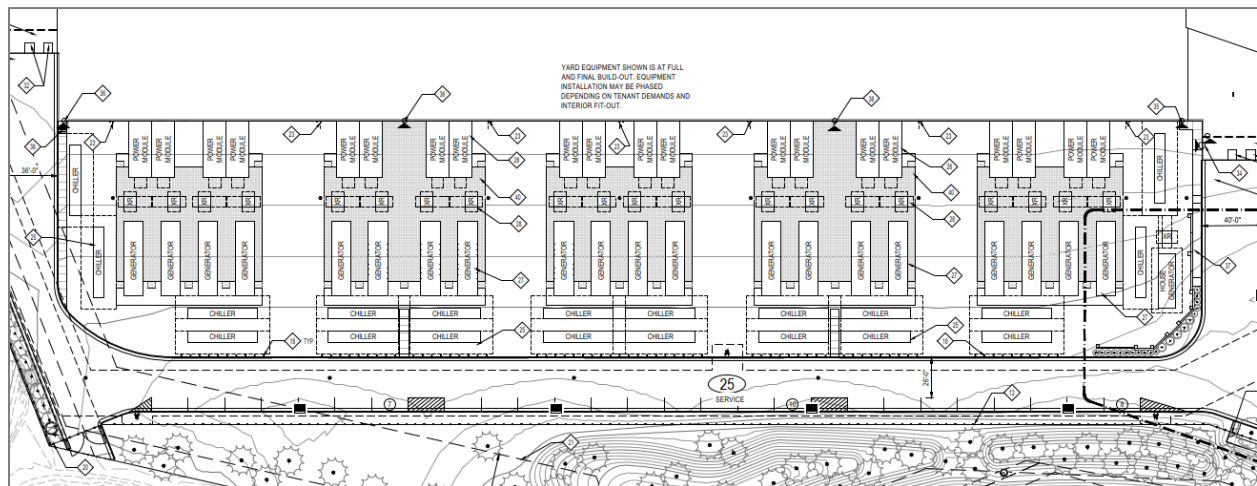
Methodology	Spaces Demanded
ITE Parking Generation Demand	13
Comparable Uses Study	21
Special Event	50
Proposed Supply	90
Projected Typical Surplus	40-77

This study concludes that the proposed number of **90 parking spaces** will adequately fulfill the maximum parking needs for the Parker Flexential Data Center, with a surplus of roughly 40-77 spaces throughout the year.

Please note that the minimum total of 90 parking spaces as verified by the study has been exceeded. The 90 parking spaces have been provided in front of the office areas along both South Chambers Road and Compark Boulevard. An additional 25 parking spaces have been provided adjacent to the service drive for maintenance and other needs.

Service and Equipment Yard

The service and Equipment Yard provides the necessary power sources (transformers), power distribution (Power modules), Power redundancy (back-up generators), cooling capacity (chillers) and other miscellaneous mechanical, plumbing and electrical components. These critical elements drive computers and servers and componentry in the data halls. As such, they are extremely large pieces of equipment, the largest of which is approximately 60' long by 12' wide by 16' in height. Refer to the plan below.



The equipment has been collected tightly into five different groupings, each corresponding directly to an adjacent internal data hall. The area between the groupings provides clearance width for egress pathways from the building through the yard and appropriate service area widths.

The equipment can be, if needed, painted to match the building, however, that is not preferred by Flexential.

Lighting will be applied to the sides of the equipment to provide the needed egress pathway lighting and service maintenance lighting to avoid placing a series of higher light poles in this yard. This will minimize the needed lighting and illuminate the walking surfaces rather than lighting the equipment itself. Please refer to the lighting plan for execution.

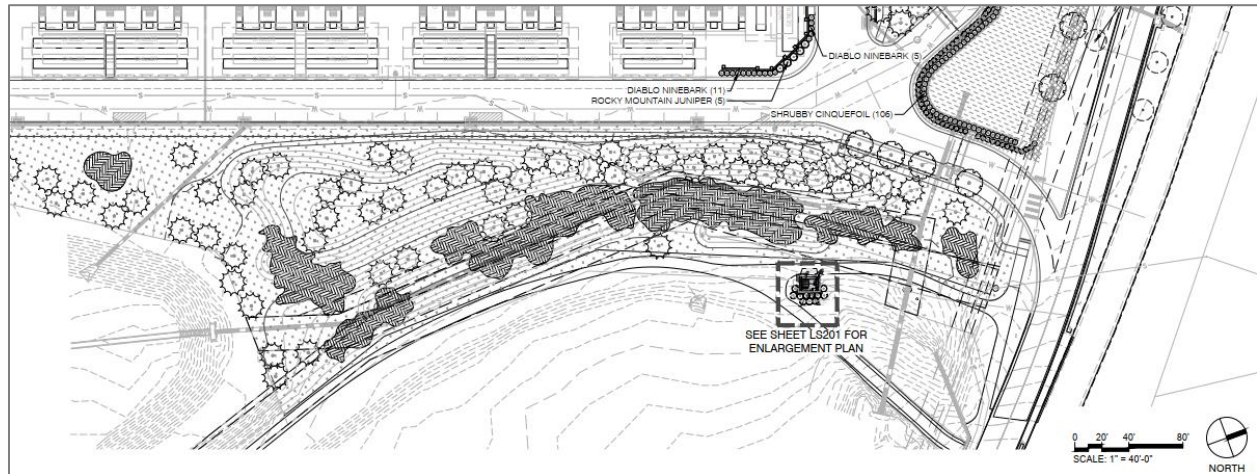
Equipment Yard Components

Cutsheets of the equipment located in the yard are being vetted and will be provided when available.

Equipment Yard Screening

Due to the inherent size of the equipment yard and the need for free and uninterrupted access around the perimeter and within the yard, a screen wall is impractical. Additionally, much of the

equipment is taller than the Town of Parker's maximum 12'-0" height limit for a screen wall. A living screen wall of landscaped trees on berms in the large, landscaped area adjacent to Happy Canyon Creek was proposed and was subsequently considered and appropriate screening alternative by the Town of Parker.



Landscaping was placed on large berms in the landscaped area. These large berms conceal the equipment yard from the Happy Canyon Creek Trail since it is located at the low portion of the site below the berms. The evergreen trees placed on the berms will grow to 4- to 50' feet in height far exceeding the height of a screen wall over time and providing a much more effective screen from the higher grounds on the opposite side of Happy Canyon Creek.

The landscaping includes both evergreen trees and lower shrub type screening such as Gambel Oak in areas that are encumbered by easements, both of which are species native to Colorado.

Egress Road Screening

To address screening of the equipment yard at the direct view into the site from South Chambers Road, we have proposed a 16'-0" High precast screen wall at the northeast corner of the yard. This wall is constructed of integrally colored concrete with a smooth belt course and a formliner base with the primary wall finished with texture-coated paint to match the building. This wall provides the following design attributes to complete the equipment yard screening (see image below):

- The walls are constructed of the same precast concrete color and material as the primary building wall of the data center.
- The wall works collectively with the truck dock screen wall to screen the entire South Chambers Road frontage.
- The equipment screen wall is 190' to 240' back from the edge of ROW, the scale of the proposed 16' height appears appropriate and does not impose an unusual scale upon the ROW.
- The closest piece of equipment seen from the ROW is a chiller located 272' away from the ROW (over 90 yards away).



Exception to the Standards and Requirement:

The existing standards stipulate a 12' maximum height. Due to the 16' height of the adjacent equipment, the 16' foot height of the screen wall seems appropriate.

With the screen wall located such a significant distance from the ROW, we request approval of the 16' height.

Fencing & Gates

The entire property will be secured by an 8'-0" high fence provided by AmeriStar as required by Flexential. The fence is an all-aluminum fence with vertical pickets at 4" on-center with curved top pales. The fence line along both South Chambers Road and Compark Boulevard has been broken up with free-standing vertical pilasters 8'-4" in height at approximately 50' on-center. The final design of the pilasters is yet to be determined, but they will be durable masonry material to match the building with a smooth precast concrete top.

Security gates are also provided at both the South Chambers Road fire/life safety access egress

and in two directions at the Compark Boulevard access. All gates have the following design attributes:

- Fast-operating vertical-swing pivot gates
- “Opticon” sensors for un-impeded fire/life safety access
- 20’ minimum width as required for one-way fire/life safety access
- Adjacent masonry pilasters to anchor the sides and hide related gate operators
- The gates match the fence design

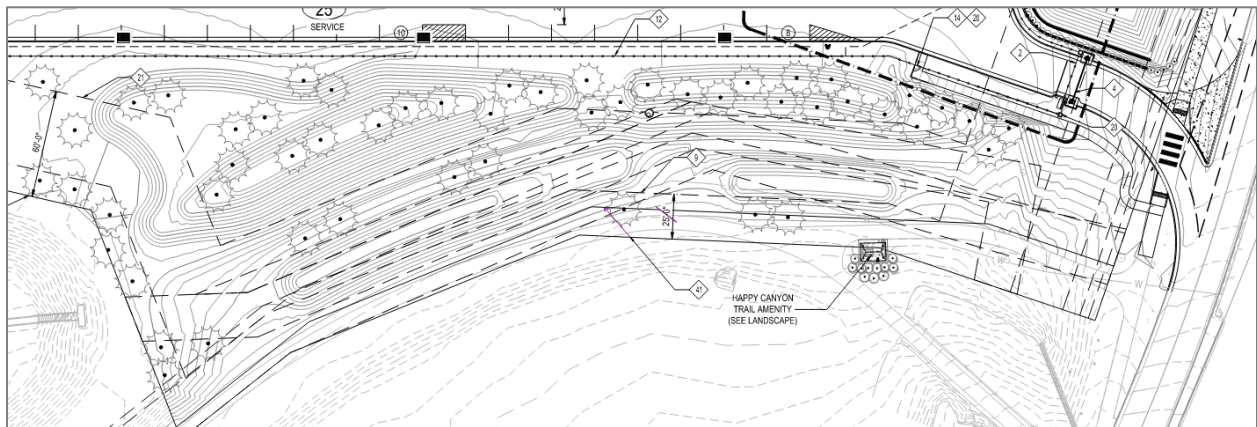
Landscaping

The amount of landscaping for this site far exceeds the minimum requirements as stipulated in the code for the following reasons:

- Increased landscaped screening area adjacent to Happy Canyon Creek.
- Large trees are placed adjacent to the Data Hall along Compark Boulevard to enhance the rhythm of the advanced architectural elements.
- Pockets of increased landscape material at retaining walls, parking screening and other areas.

Berms

Significantly sized berms have been placed between the improved site area and the Happy Canyon Creek corridor to provide enhanced screening for the equipment yard and to provide a native-looking landscape. Slopes of the berms have been maintained at 4:1 maximum slope.



Exception to the Standards and Requirement:

The berms have been increased in height from the 4’-0” maximum height to an 8’-0” maximum height for the following reasons:

- Provide better equipment yard screening.
- The landscaped area where these higher berms are located is considerably large in area and the 8’-0” high berms are appropriate for scale.
- The berms are undulating vertically to provide a more natural landscape as seen from the Happy Canyon Creek Trail rather than the flat-topped retention pond and power sub-station grades.

With the appropriate design proposed, we request approval of the 8’ high berms.

Site Lighting

The lighting design for the site includes the following design attributes:

- Light poles are limited to 25' in height per the LDO.
- Light poles have been placed on the outer perimeter of the drive aisle/parking areas and oriented back towards the building. This directs the light internally in deference to adjacent residential uses and minimizes light spill at the perimeter of the site.
- Low-level bollard lighting has been used adjacent to sidewalks when close to the building to provide good sidewalk surface lighting and a clean un-distracted look at the building.
- To minimize the number of light poles on the site and not to highlight the equipment yard, lights have been placed on the sides of the required equipment to provide the minimum lighting levels necessary for egress and maintenance purposes.

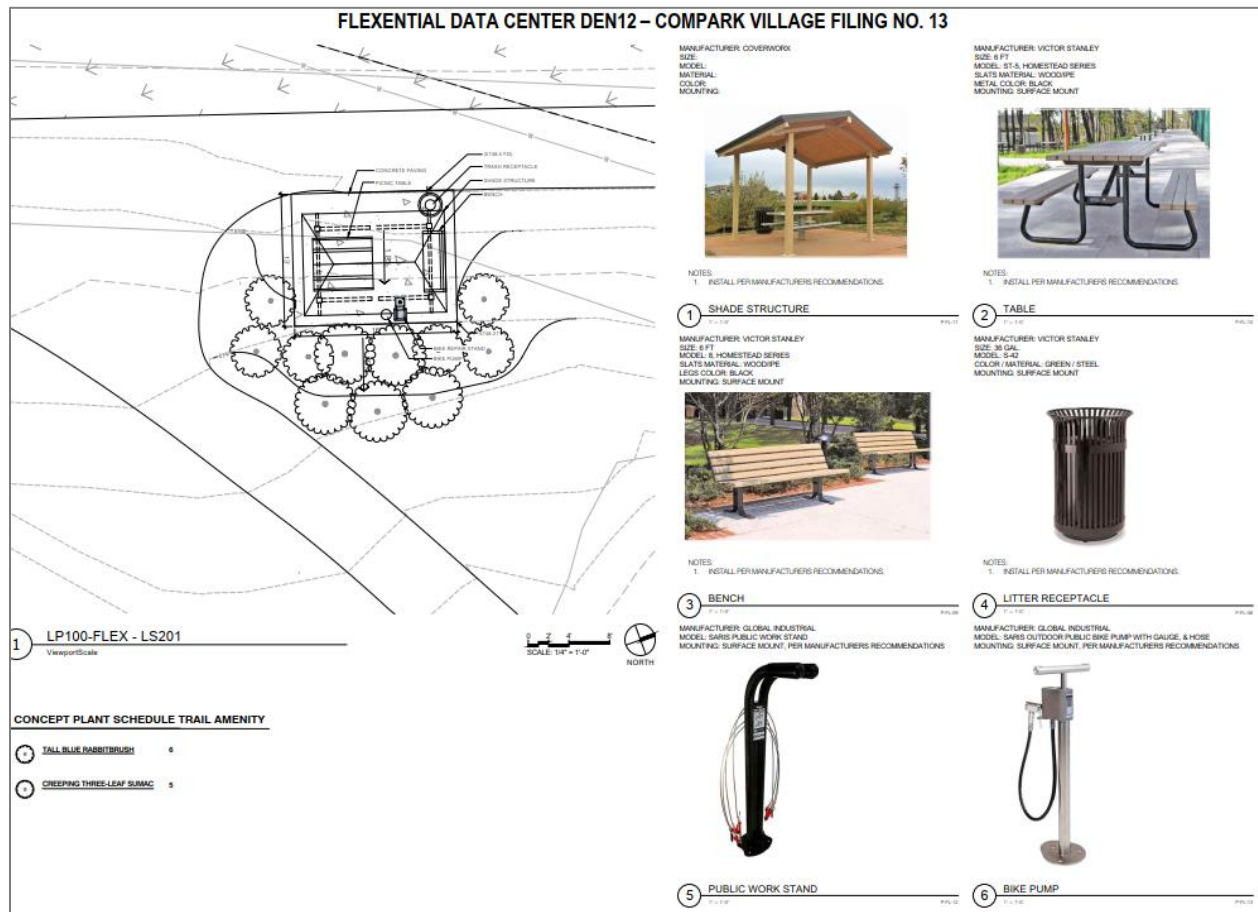
Trail Amenity

A Happy Canyon Creek Trail Amenity has been included in our Site Plan Submittal package. This Trail Amenity is the responsibility of Compark Business Park (CBC), however we agreed with CBC to include it in our submittal for Town of Parker approval purposes.

The Trail Amenity includes the following elements as required by the 6th Amendment to the Compark Village PD:

- A shade shelter that accommodates seating for eight (8)
- A bike repair station
- A bench and trash receptacle
- A dog waste station
- Landscaping, including trees and shrubs
- A directional sign indicating access to the trail

The "Trail Amenity Plan" Sheet describes the proposed Trail Amenity components as show below:





Public Improvements Cost Estimate

The public improvements for this site are relatively minor. Most of the public improvement is the reconstruction of the existing Compark Boulevard curb cut access and the construction of a new fire/life safety access and private egress curb cut on South Chambers Road. Kimely-Horn has provided an estimate for these costs.

Dedications

The east property line of the site generally follows the Happy Canyon Creek Trail; however, portions of the trail are on the property. Flexential has committed to dedicating those portions of the property to allow the entire trail to be located off-site. This is included in the proposed Replat documents prepared by Kimley-Horn. Refer to Sheet E-1 of the Site Plan Submittal for additional information.

BUILDING DESIGN ELEMENTS

3D Illustrations and Perspectives

A series of 3D perspective views is provided to properly illustrate the project as shown below:



View of the Entrance Courtyard



View of the rear loading dock and equipment yard from the CORE substation



Birdseye view of the southwest corner showing the south side of the building

Building Height and Parapet Walls

The building height has been generally set with the primary roof surface at or below 30' in height to avoid "aerial" apparatus requirements. This was previously vetted with Steve Capra of fire/life safety. Only the focal point tower that encloses the two-story entry lobby has a parapet wall/roof that extends to 35' in height. This height remains within the maximum height limit for the current zoning. Most parapet walls around the building are 30 or less (see elevations sheet).

Building Orientation and Building Massing

The building has been designed to provide frontage along both Compark Boulevard and South Chambers Road as required by the various requirements. The Office Area provides a nice massing breakdown and hinge that connects the curved road sections together into a unified composition.

The maximum length of un-interrupted wall plane per the DDS is 25-50' per the Guideline (not standard) illustrated in Figure 73. The design intent of this provision is to break down the massing of a building to a relatable scale at pedestrian level. Given the extra length of the building (approximately 950'), the application of the 25-50' guideline would result in a patchwork quilt façade that in our opinion, would not be consistent with the scale of the building.



View of the Advanced Architectural Element

We have proposed to provide significant plane breaks by incorporating 50' wide "Advanced Architectural Elements" at 150' on-center. These elements are advanced 5'-0" from the base building wall plane in lieu of the minimum 12" offset requirement to make the building scale relatable. These major offsets result in a maximum uninterrupted base wall length of 100'. The elements include vision glazing across the full width of the element bringing natural light into the building without compromising the physical barrier security needed at the Data Hall. These elements also have projecting shade shelves and different height base relief to distinguish them from the base plane of the Data Hall.

Exception to the Standards and Requirement:

The length of the uninterrupted wall plan has been increased from the 50' minimum requirement to 100' appropriate the scale of the building.

Due to the scale of the building, we request approval of the elevations as presented with major form breaks at 100'.

Building Skin/Materials and Corner Treatments

The building design has been broken into several different components, all of which serve different building functions, and all of which are architecturally compatible with one another. Design attributes for each of the components as described below:

Office Areas (Front)

- The Office Area is the highest level of design for the project and is appropriately directed towards the intersection of South Chambers Road (Primary Arterial Street) and Compark Boulevard (Secondary Collector Street). Comprised mostly of glass and horizontally corrugated metal panels, the Office Area features a series of plane-breaks and vertical massing breaks to reduce the scale of the project adjacent to pedestrian corridors. The colors and finishes will give this a modern state-of the art look.



View of the northwest corner adjacent to the South Chambers Road and Compark Boulevard Intersection

Bookend Elements

- The Bookend elements provide a necessary function as a separator between differing functional needs within the building between the Office Areas and Data Hall. The Bookend is constructed of integrally colored precast concrete with smooth and rough formliner surfaces and houses the Fire Protection Room and an egress stair. This element is repeated at the south end of the project to provide an enhanced corner element as seen from the north approach on Compark Boulevard.



View of the Bookend separating the Data Hall from the Entry Courtyard



View of the Southern Bookend adjacent to Compark Boulevard

Data Hall and Advanced Architectural Elements (Side)

- The 750' length of the Data Hall has been broken into five different zones, each defined by an "Advanced Architectural Element" between flat sections of wall with large trees. The elements provide the second level security needed for the data hall by providing vision glazing the full width of each element. These elements also provide exit doors on the side returns and egress pathways to the ROW. The walls are constructed of integrally colored precast concrete (Base course and belt course) and texture-coated painted precast concrete (panel surface).

South end (Rear)

- The south end of the building has been reduced in scale from the Data Hall adjacent to the neighboring property. The end closest to Compark Boulevard includes a break room with convenience toilets while the remainder is back-of-house space. The walls of the south end match the Data Hall walls without the Advanced Architectural Elements.

Docks and Equipment Yard Wall (Side)

- The required loading docks have been split into two separate dock areas so there is no oversized dock closer to South Chambers Road. Given the location, downhill grading and landscape screening, the south dock will not be visible from Compark Boulevard. The north dock has its own separate precast concrete screen wall also constructed of integrally colored and texture-coated painted precast concrete to match the building.

Colors & Materials Board

Two separate Colors and Materials Boards are being provided as follows:

- A full-sized 24" H X 30" W X 3" D Colors and Materials Board with physical samples of the proposed building colors, materials and finishes. The Town of Parker may hold onto this board and return it when the project has been approved.



- An 8.5" X 11" Digital Copy of the Colors and Materials Board identified above for record purposes.

Glazing & Transparency

Glazing requirements have been provided that exceed the minimum requirements from the Data Center Overlay as identified below. Not that we have aggregated much of the glazing at the office portion of the building adjacent to the South Chambers Road (Primary Street Frontage) and Compark Boulevard (Secondary Street Frontage) intersection as this presents the most favorable view to the community. The glazing provided is vision glazing (not spandrel glass).

- South Chambers Road Frontage: 40% Required 50.68% Provided
- Compark Boulevard: 20% Required 20.45% Provided

Please refer to Sheet A-7 for more information.

Building Lighting

Building lighting has been prepared in accordance with the Town of Parker requirements.

Solar Accommodations

A solar field accommodation is currently being studied and will be provided as soon as it has been completed.