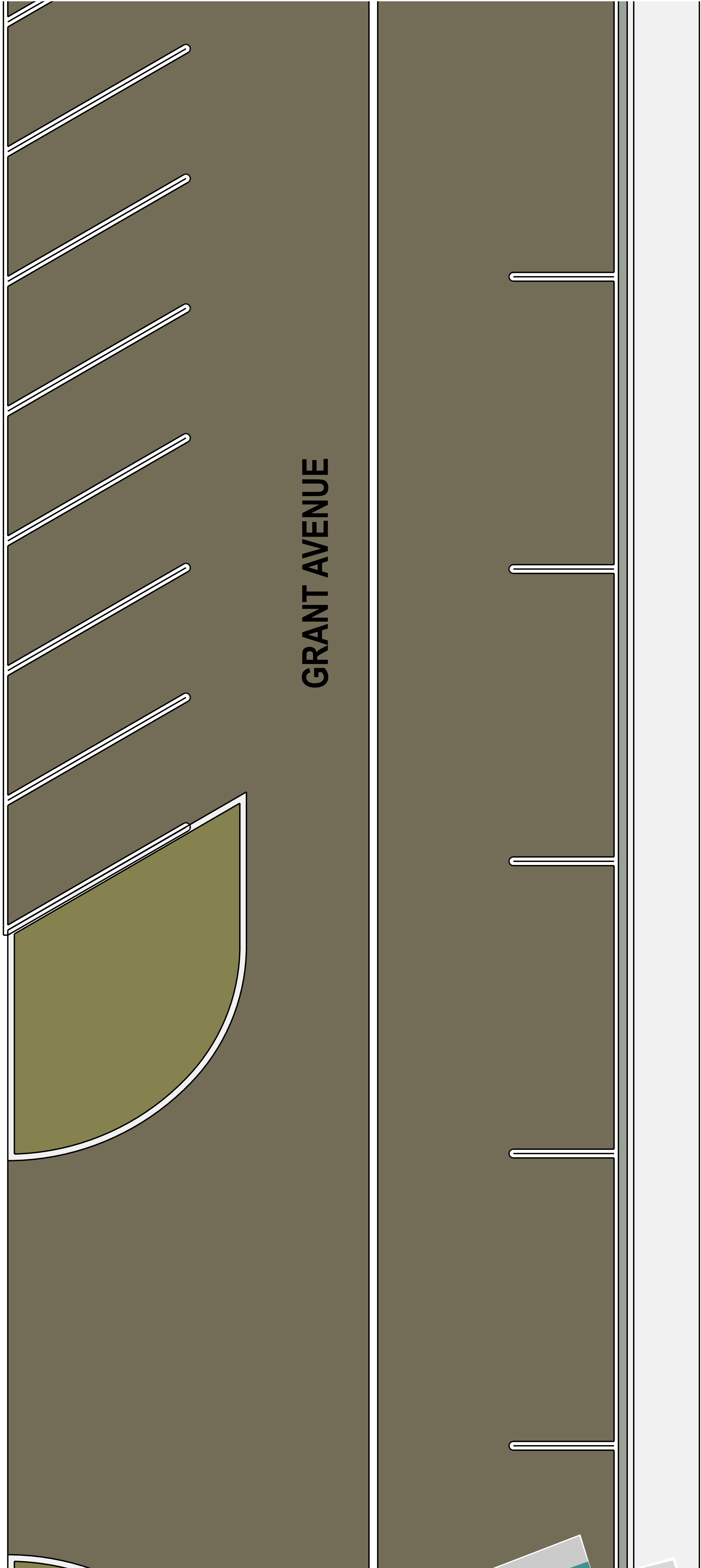
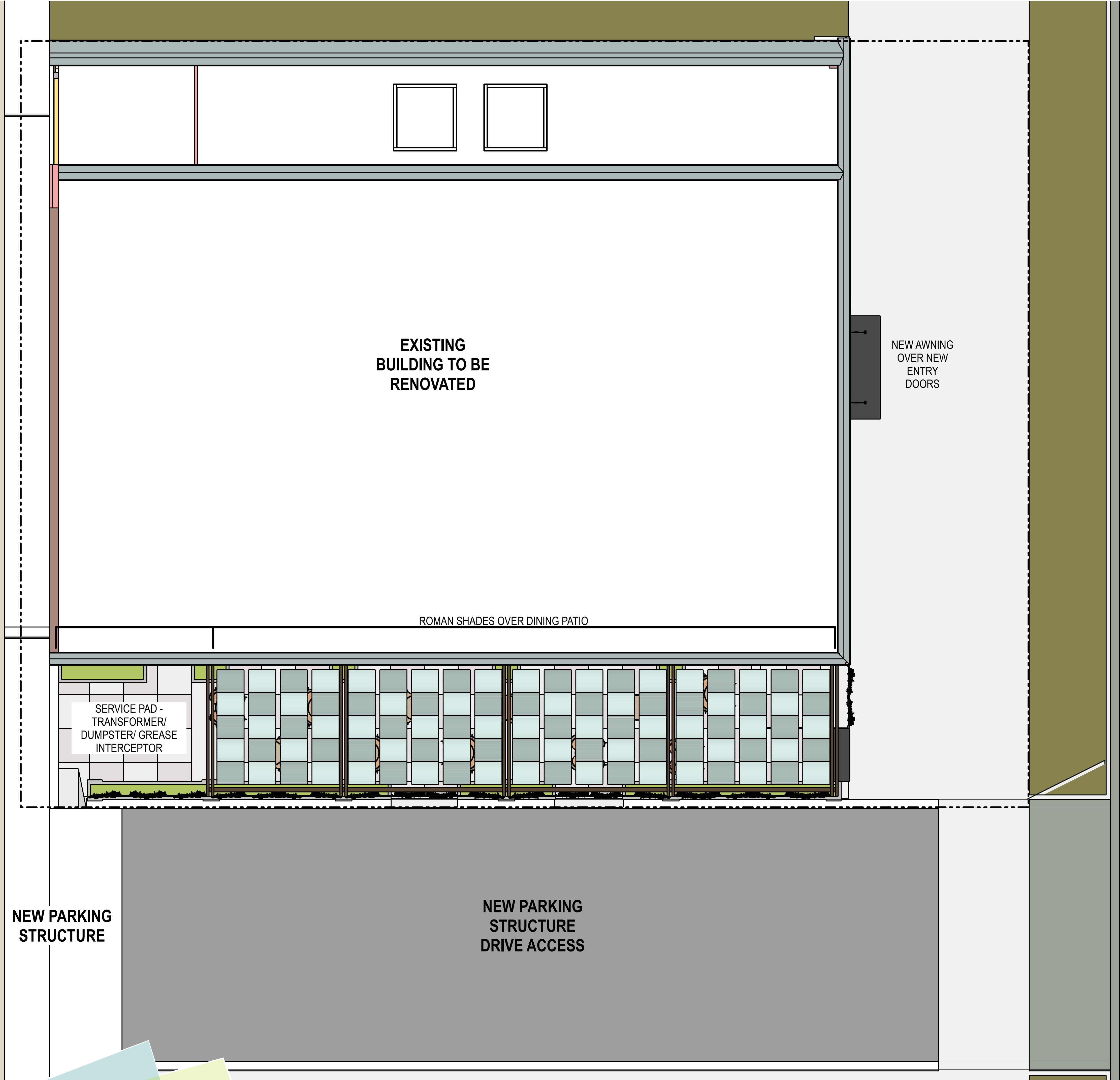
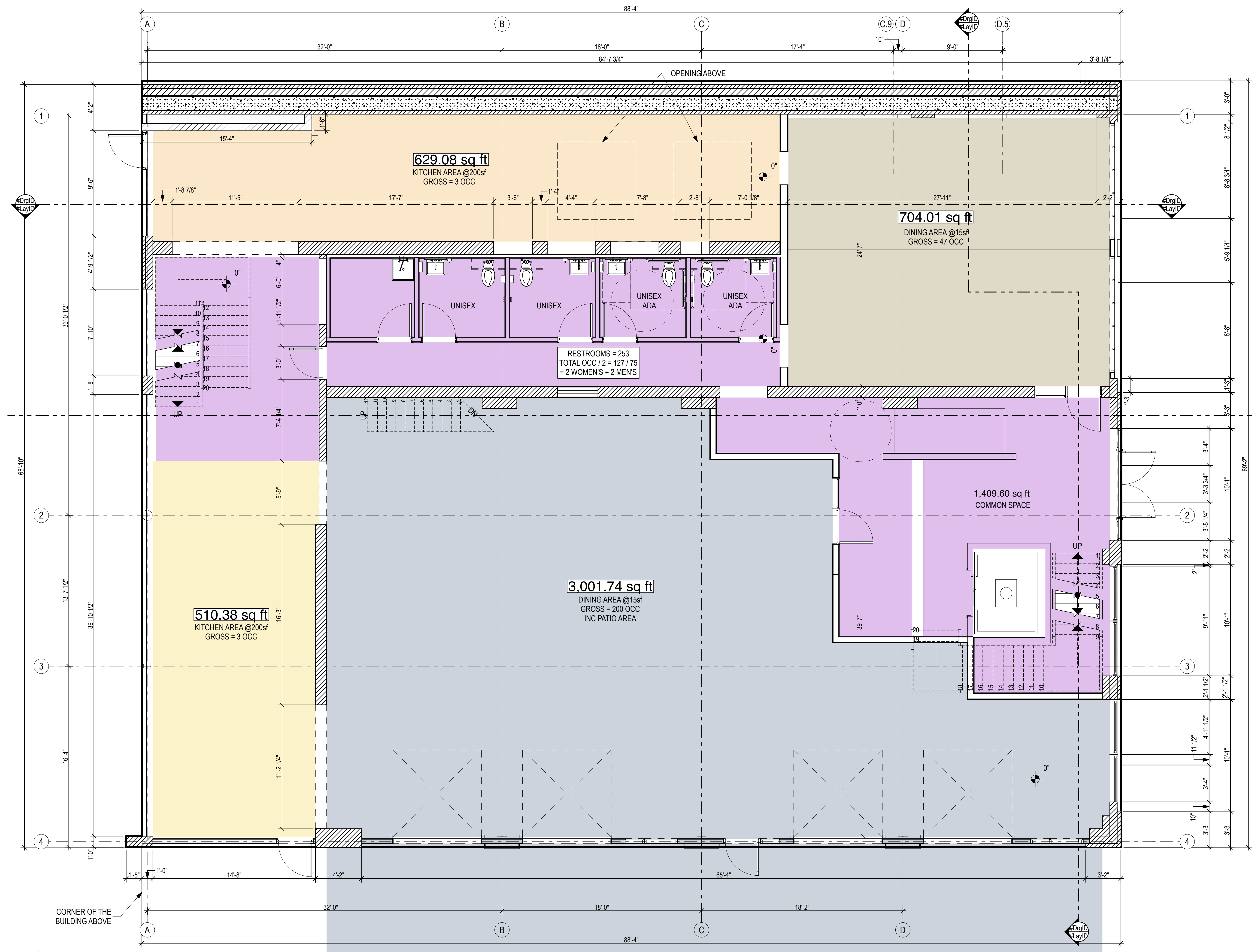
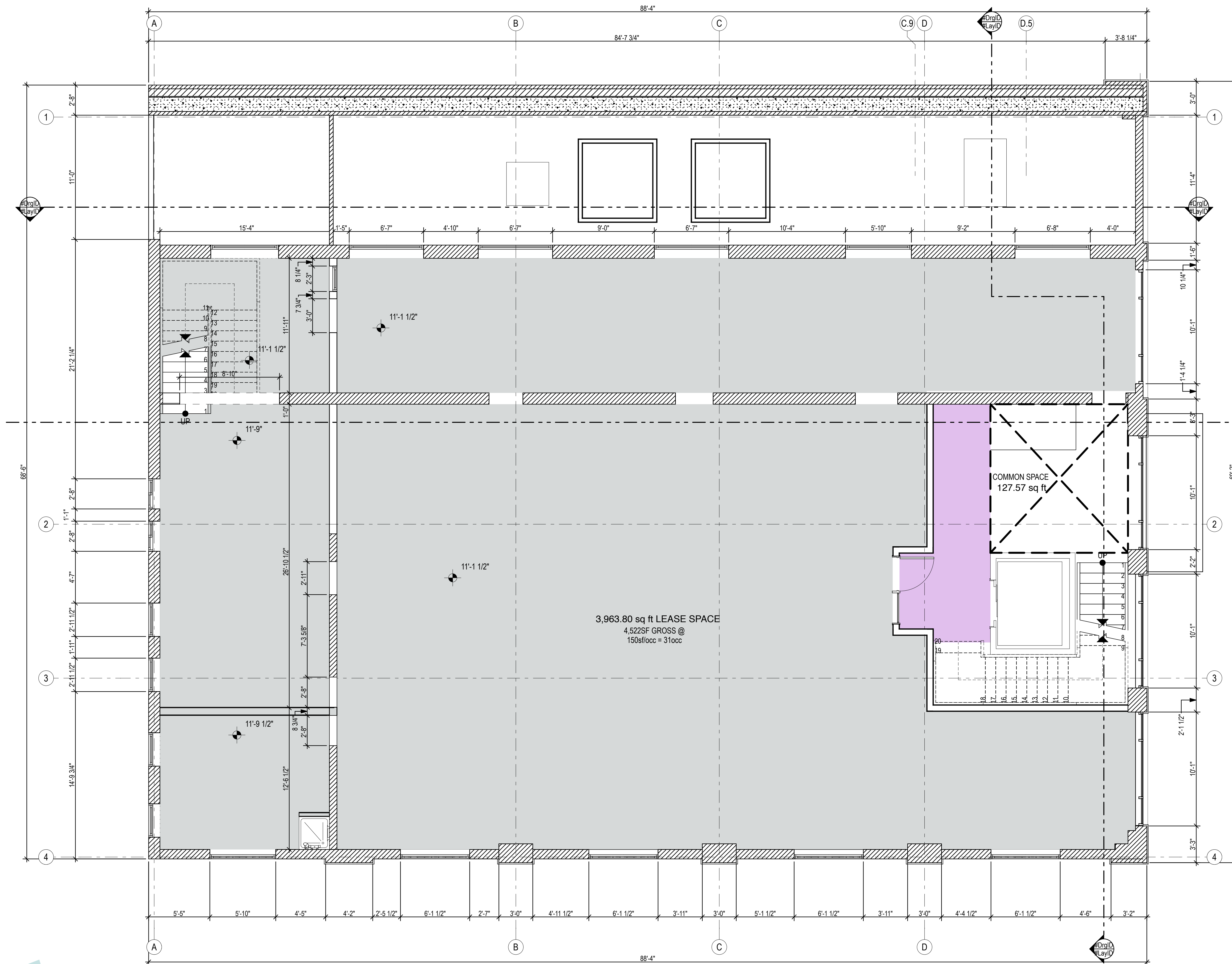






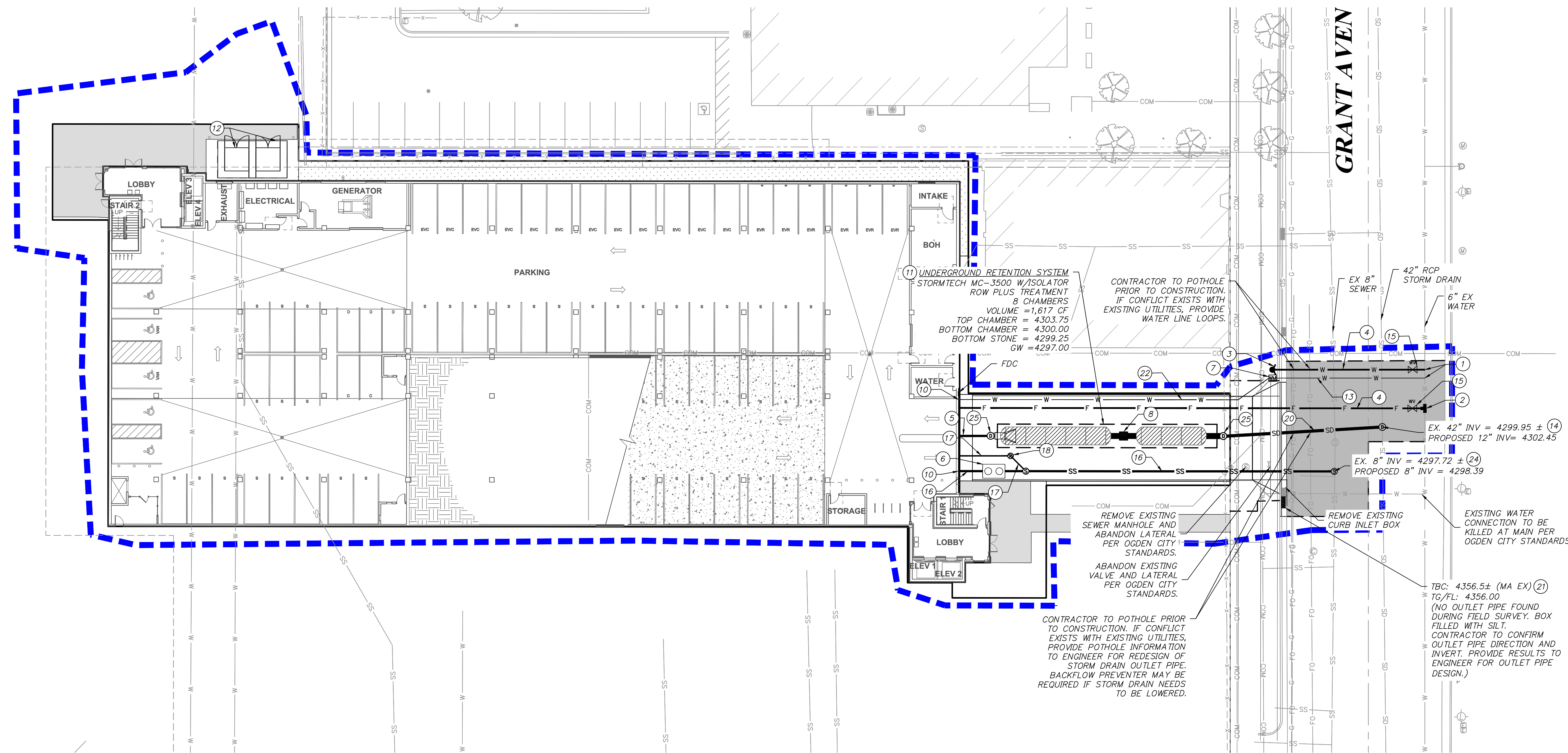






**1 SECOND FLOOR RENDER OPTION**  
 SCALE: 1/4" = 1'-0"





| LID Retention Calculations - Ogden 80th Percentile Storm<br>Ogden WonderBlock - Parking Garage   |              |        |                                           |
|--------------------------------------------------------------------------------------------------|--------------|--------|-------------------------------------------|
| Calculations based on Utah DED's 'A Guide to Low Impact Development within Utah' (December 2018) |              |        |                                           |
| <b>DRAINAGE AREA</b>                                                                             |              |        |                                           |
| Developed Conditions                                                                             |              |        |                                           |
| Area (sf)                                                                                        | Land Use (%) |        |                                           |
| 44,761                                                                                           | 85.9%        |        |                                           |
| 1,906                                                                                            | 4.1%         |        |                                           |
| Total Drainage Area                                                                              |              |        |                                           |
|                                                                                                  |              | 1.07   |                                           |
| Total (ac.)                                                                                      |              | 0.48   | State Manual, Appendix A                  |
| 80th Percentile (in.)                                                                            |              | 0.85   |                                           |
| Impermeousness                                                                                   |              | 0.85   | Reese Method                              |
| Vol. Runoff Coeff (Rv)                                                                           |              | 1.691  | Vgcaln(Rv)(Rainfall Depth)(Drainage Area) |
| Vgcaln (cf)                                                                                      |              |        |                                           |
| <b>SUB-BASIN SIZING</b>                                                                          |              |        |                                           |
| Sub-Basin B                                                                                      |              |        |                                           |
| Area (sf)                                                                                        |              | 46,667 |                                           |
| Percentage of Site                                                                               |              | 100%   |                                           |
| Storage Required (cf)                                                                            |              | 1,581  |                                           |
| Storage Provided (cf)                                                                            |              | 1,617  | Stormtech volume below outlet invert      |

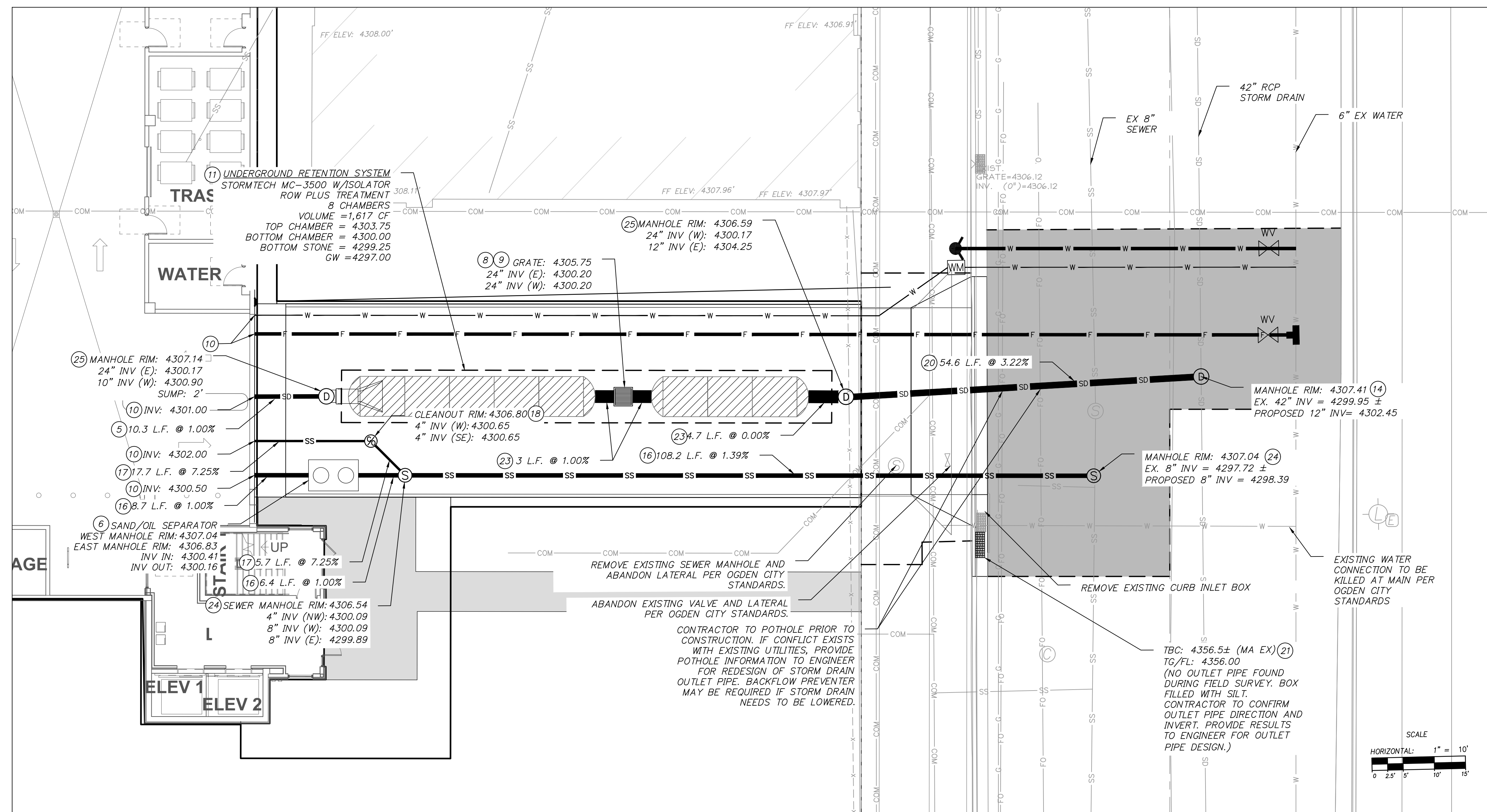
**FIXTURE COUNT & WATER SIZING**

The following was provided by PVE.

**Fixture Count:**  
33 hose bibbs  
(Assumed at maximum flow only 3 would run at a time at around 8 GPM each)

**Line Sizing:**  
1-1/4" Line was sized at 25 GPM at 6 feet per second

**Meter Sizing:**  
1" meter sized at 25 GPM to accommodate low friction loss through the meter







2539

BROWNS









