

ENGINEERING REVIEWER:

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DATE:

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Proposed Biodome Facility in the Commerce Park

REVIEW COMMENTS

MSA has reviewed the Site Plans submitted for the Biodome Facility site on Lot 1 in the Commerce Park along Commerce Parkway received on April 28, 2021.

INCLUDED

1. Civil Engineering Plans
2. Floor Plan, Elevations and Renderings

MSA has the following comments on the civil engineering plans and is recommending approval noting these comments are addressed prior to construction.

Site Plan Comments:

1. An existing sanitary stub was installed next to the existing water service off of Landmark Drive. Recommend using existing sanitary stub in lieu of any connections directly into manholes. Would save cutting in the existing street and laterals directly into manholes are not preferred.
2. Roof drain outfalls should be shown to verify drainage.
3. An on-site drainage system should be provided. Water is currently shown to sheet drain across the lot and to the streets and adjacent property. Water should be collected within the site and connected to the existing public storm sewer.
4. Lighting plan should be provided.

PROJECT REVIEW

Stormwater Comments:

1. As with all lots in the Commerce Park, peak discharge rate control and water quality treatment are provided via the existing regional stormwater management ponds.
 - a. Planning for the commerce park included full development of commercial lots at 85% impervious coverage. The calculations provided show the entire site with Phase 1 and 2 within the impervious limits. The infiltration pond should show the floor area of the proposed basin and verify if this is for the fully developed site or just Phase 1.
2. Unless fully exempted, post-construction infiltration (90% of predevelopment levels) will need to be provided on site. This site has been investigated by the MSA on behalf of the Village for suitability for onsite investigation and our findings were passed on to WDNR. MSA's conclusions from that investigation was that most of the site would be exempt from infiltration requirements, except for the northeast corner; which, if corrected could potentially be suitable for infiltration. The WDNR's response to MSA's investigation was, *"a developer should plan on a couple soil pits along that northern edge of [this site] to make better determination on an infiltration design or potential exemption."*
 - a. The developer should conduct a series of soil pits along the north property boundary to verify if suitable soils are located in this area that can achieve on-site infiltration. Investigations need to be conducted in accordance with WDNR CPS1002 and observations of suitability of soils shall be relative to proposed final grades – assuming an infiltration facility will be integrated into the site plan on the north side.
 - b. The location of the proposed rain garden is likely in a location of unsuitable soils. Depending on the findings of the on-site investigation the location of this rain garden may need to be relocated.
3. An on-site stormwater collection system should be provided that will direct flows to the street and/or existing storm sewer within the ROW and not allow flows to adjacent developed properties. Of particular concern is runoff that would appear to be directed to the property to the east.
4. A recorded long term maintenance agreement will be required for the infiltration devices as necessary.