

From: [Richard Christensen](#)
To: [Eric Seidel](#)
Cc: dnovotny@statestreetco.com; [Rob Gordon](#)
Subject: FW: Send data from MFP11865078 01/12/2018 12:52
Date: Friday, January 12, 2018 4:02:00 PM
Attachments: [DOC011218-01122018125228.pdf](#)
[Inlet Drainage Area Map.pdf](#)
[2017-08-09_DA_Impervious-PC.pdf](#)

Eric,

Here it is, final remaining review comments. Address these and the review will be complete.

- There is one inlet that appears to surcharge during the 10-year event. See if you can eliminate the surcharge during the 10.
- Review the 50-year...appears to be some instances where flooding may impede emergency access.
- Need an updated inlet drainage area map. Last one submitted was in August 2017.
- Need a plan that shows the drainage area of the 9,100 sf of PC. Could show it on inlet drainage area map.
- SC-2 (Drainage Area Map Exhibit) shows 9,200sf of 100% credit PC instead of 9,100sf in two places (Note 1 and label inside roundabout).
- CS-100: Need to show edge restraint for PC at Phase I/Phase II line since Phase II may be some time out. Can't see header curb transition linework at Pergola/Sea Canyon intersection (PC/asphalt transition).
- CS-100: Add asterisks (*) at end of Pervious Concrete (PC) and Total Area. Add footnote under Impervious Area (Proposed) that 9,100sf of PC is receiving 100% pervious credit.
- CG-100: Plan needs to show limits of PC that is taking credit versus PC that is not.
- CG-100: Because Trench E is now a future item, the storm pipe (Weir Outlet E - DI-A5) needs to be shown with a stubout or with a structure that ends the run until Phase II is ready to be constructed.
- CG-100: Verify the rim elevation of Ex. SDMH 4. Seems to be low. If 8.13' is correct then the inverts near 5 won't work.
- CG-100: There are two existing structures in conflict with the proposed sidewalk along Arlie Road. Because the structures are existing the sidewalk will need to swerve to avoid the structures being in the sidewalk. The sidewalk should move inward, away from the road and utilize a public pedestrian access easement for any portion outside of the right-of-way.
- CG-102: The bottom of the infiltration trench A (14.25') is above the bottom elevation of the retaining wall on the pump station side (11.07'-13.91'). If the treated water infiltrates and moves laterally, how might that affect the wall, wall foundations and the pump station site?
- CU-707: Per MDC 4 (Soil Subgrade Slope), it would appear that the grade of the subgrade exceeds the allowable 2% slope on Advent Lane. Only the PC where credit is being taken will be required to have terracing, baffles or graded berms if the subgrade slope exceeds 2%. The plans must indicate where these measures must be constructed. A detail of the measure selected must be added to the plans. Observation wells are required for each terrace, baffle or graded berm per MDC 9.
- I still feel ADS should provide the storage volume provided by each trench in order to verify that your design requirements for volume have been met. I don't think ADS would have to go to any great length to provide that information.

PC Design and Supplement:

- I would use the Supplement EZ form for the PC. That supplement is more applicable to your PC design than the outdated supplement form you submitted.
- MDC 1: You averaged the infiltration rate for Trench A, but not for the PC? It would seem that an average would be appropriate for the PC since it covers a more expansive area. Taking the highest infiltration rate from the different soil tests doesn't seem too conservative.
- MDC 2: How did you determine the SHWT elevation? The soils boring exhibit shows SHWT elevations from 12.24' to 14.17'.
- MDC 7: I already made a comment about the drainage area for the PC. The drainage area needs to be in accordance with this MDC. Main concern is (b) pervious area draining to PC. Stone base calculation may need to change based on possible DA change. When calculating Dwq per Equation 1, provide the R calculation as well.

- MDC 8: Provide the drawdown calculation.
- MDC 9: Show observation well locations on the plan view of the PC on an appropriate sheet in the plan set.

Just a note, City offices are closed on Monday in observance of MLK Day. So I won't be available for questions until Tuesday.

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Project Engineer

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-----Original Message-----

From: Engineeringcolor@wilmington.nc.gov [<mailto:Engineeringcolor@wilmington.nc.gov>]
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