December 8, 2016

Ms. Pam Jansons City of Columbus Department of Public Service 50 West Gay Street Columbus, OH. 42315

Dear Ms. Jansons:

The addition and construction of green infrastructure within the public right-of-way is included in the Blueprint Linden – Oakland Park/Medina Project Area. The green infrastructure proposed in the area consists of a concrete containment structure with a 6 inch high curb around the entire perimeter serving as a bioretention facility. Some of the new bioretention basins have proposed locations adjacent and integral to the existing curb line. In order to function, parking would need to be prohibited in front of the new bioretention basins. This would require the elimination of some existing on-street parking resulting in a reduction of overall allowable parking in the immediate area.

Per the request of the Division of Sewerage and Drainage (DSOD) and the Department of Public Service (DPS), an analysis of parking in the area and a survey of actual parking used in the area were completed.

The analysis of required on-street parking in the area of the new bioretention basins was completed by obtaining a count of houses in the area and determining the required on-street parking from those counts. To best determine where vehicles were parked in relation to their house, the analysis was completed by looking at individual blocks on each side of the street. The following assumptions were used to complete the analysis:

- 1. One on-street parking space is defined as 20 feet in length.
- 2. Each house has a maximum of two on-street parking spots on the same side of the street as the house.
- 3. Each house with a driveway will park one vehicle on the street and one vehicle in the driveway.
- 4. Each house without a driveway but with a garage and/or parking in an alley will park one vehicle in the garage/alley and one vehicle on the street.
- 5. On-street parking is not required for each house with both a driveway and a garage and/or parking in an alley.

During the completion of the analysis, a conservative approach was taken with regard to the City of Columbus Municipal code for parking in reference to existing on-street parking spaces. The following criteria were used to determine which areas were unavailable for street parking:

- 1. Within 5 feet of a driveway
- 2. Within 10 feet of a fire hydrant
- 3. Within 20 feet of a crosswalk

- 4. Within 30 feet of a stop sign
- 5. Within 50 feet of a rail road crossing
- 6. Within 20 feet of an intersection
- 7. Within 1 foot of an ADA ramp

The assumptions and criteria listed above were applied to all of the Blueprint Linden – Oakland Park/Medina area. Table 1, enclosed with this letter, summarizes the results of the analysis and cites the available parking in the area and the number of parking spots that are being proposed for elimination.

To complete the parking analysis, a count of all of the on-street parking within the area was performed. The counts were completed between July 19 and July 23, 2016. One count was completed during the weekday daytime, one during the weekday evening and one during the weekend daytime. Table 2, enclosed with this letter, details the results of the traffic counts which are broken down by day and location (block and side of the street) of the parking and include an average for each location.

The Table 3 parking comparison shows that the only area where existing used parking spaces may be impacted with our design is along Oaklawn between Brighton and Weldon. According to our data there are 9 existing parking spots on the east side of the road and according to the counts there are times when all nine spots are being used. However, if you look at the west side of Oaklawn in the same area, there are an additional eight parking spots where only two are being used. Because there is a net positive available parking spaces on both sides of the road, we believe our design is acceptable.

The parking analysis and field observations show that with the installation of the proposed bioretention basins, adequate on-street parking will be maintained in all areas.

Sincerely,

Kyle Schwieterman, PE HDR

Table 1
Oakland Park/Medina - 60% Design

Parking Analysis										
Location	Homes	Number of Vehicles	Existing On-Street Parking	Homes with Driveways	Homes with Parking in Garage or Alley	Homes with Both Driveways and either Garage Parking or Parking in Alley	Homes without Driveways or Garage/Alley Parking	Required On- Street Parking Spots Calculated	Parking Spots Eliminated by Submitted GI Design	Parking Spots Needed (Negative Means No Additional Parking Required)
Medina Between Brighton and Weldon (East Side of Street)	7	14	5	6	5	5	1	3	0	-2
Medina Between Brighton and Weldon (West Side of Street) (GI)	6	12	6	6	3	3	0	3	1	-2
Medina Between Weldon and Melrose (East Side of Street)	19	38	19	18	9	9	1	11	0	-8
Medina Between Weldon and Melrose (West Side of Street) (GI)	14	28	24	14	8	8	0	6	2	-16
Norwood Between Oakland Park and North Broadway (East Side of Street) (GI)	10	20	11	10	8	8	0	2	3	-6
Norwood Between Oakland Park and North Broadway (West Side of Street)	10	20	9	9	10	9	0	1	0	-8
Norwood Between North Broadway and Brighton (East Side of Street) (GI)	10	20	4	10	8	8	0	2	2	0
Norwood Between North Broadway and Brighton (West Side of Street) (2 GI)	9	18	6	9	8	8	0	1	3	-2
Norwood Between Brighton and Weldon (East Side of Street) (GI)	9	18	9	4	9	4	0	5	1	-3
Norwood Between Brighton and Weldon (West Side of Street)	7	14	10	4	5	4	2	5	0	-5
Norwood Between Weldon and Milford (East Side of Street) (GI)	14	28	16	3	11	0	0	14	2	0
Norwood Between Weldon and Milford (West Side of Street)	16	32	16	7	10	5	4	15	0	-1
Dresden Between Milford and Melrose (East Side of Street) (2 GI)	5	10	8	3	5	3	0	2	4	-2
Dresden Between Milford and Melrose (West Side of Street)	7	14	2	7	6	6	0	1	0	-1
Bremen Between North Broadway and Brighton (East Side of Street) (GI)	10	20	9	7	8	6	1	5	2	-2
Bremen Between North Broadway and Brighton (West Side of Street)	8	16	10	8	8	8	0	0	0	-10
Bremen Between Weldon and Milford (East Side of Street) (GI)	13	26	8	13	13	13	0	0	2	-6
Bremen Between Weldon and Milford (West Side of Street)	15	30	3	15	15	15	0	0	0	-3
Bremen Between Milford and Melrose (East Side of Street) (GI)	5	10	10	3	5	3	0	2	1	-7
Bremen Between Milford and Melrose (West Side of Street)	3	6	10	3	3	3	0	0	0	-10
Oaklawn Between North Broadway and Brighton (East Side of Street) (GI)	8	16	9	8	8	8	0	0	2	-7
Oaklawn Between North Broadway and Brighton (West Side of Street)	10	20	8	9	10	9	0	1	0	-7
Oaklawn Between Brighton and Weldon (East Side of Street) (GI)	7	14	3	6	7	6	0	1	2	0
Oaklawn Between Brighton and Weldon (West Side of Street)	7	14	4	7	7	7	0	0	0	-4
Oaklawn Between Weldon and Lakeview (East Side of Street) (GI)	10	20	8	8	10	8	0	2	2	-4
Oaklawn Between Weldon and Lakeview (West Side of Street)	9	18	5	9	9	9	0	0	0	-5
Kenlawn Between North Broadway and Eddystone (East Side of Street) (GI)	5	10	3	3	5	3	0	2	1	0
Kenlawn Between North Broadway and Eddystone (West Side of Street)	7	14	3	6	7	6	0	1	0	-2
Milford Beteen Norwood and Dresden (North Side of Street) (GI)	2	4	3	2	2	2	0	0	2	-1
Milford Beteen Norwood and Dresden (South Side of Street)	2	4	5	1	2	1	0	1	0	-4
Milford Beteen Bremen and Oaklawn (North Side of Street) (GI)	2	4	4	2	2	2	0	0	2	-2
Milford Beteen Bremen and Oaklawn (South Side of Street)	1	2	2	1	1	1	0	0	0	-2
Milford Beteen Oaklawn and Greenwich (North Side of Street)	7	14	8	6	6	6	1	2	0	-6
Milford Beteen Oaklawn and Greenwich (South Side of Street) (GI)	8	16	8	8	8	8	0	0	2	-6
Melrose Between Medina and Norwood (North Side of Street)	3	6	5	3	3	3	0	0	0	-5
Melrose Between Medina and Norwood (South Side of Street) (GI)	9	18	7	6	9	6	0	3	1	-3
Melrose Between Oaklawn and Greenwich (North Side of Street) (GI)	9	18	8	8	9	8	0	1	3	-4
Melrose Between Oaklawn and Greenwich (South Side of Street)	9	18	4	9	9	9	0	0	0	-4
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Table 2
Oakland Park/Medina - 60% Design

Parking Counts					
Date		7/19/2016	7/20/2016	7/23/2016	
		Weekday		Weekend	
		Daytime	Weekday Evening	Daytime	
Location	Homes				Max Parked
Location	nomes	Parked Vehicles	Parked Vehicles	Parked Vehicles	Vehicles
Medina Between Brighton and Weldon (East Side of Street)	7	2	2	3	3
Medina Between Brighton and Weldon (West Side of Street) (GI)	6	2	1	1	2
Medina Between Weldon and Melrose (East Side of Street)	19	6	7	6	7
Medina Between Weldon and Melrose (West Side of Street) (GI)	14	2	1	2	2
Norwood Between Oakland Park and North Broadway (East Side of Street) (GI)	10	2	1	2	2
Norwood Between Oakland Park and North Broadway (West Side of Street)	10	0	5	0	5
Norwood Between North Broadway and Brighton (East Side of Street) (GI)	10	2	3	4	4
Norwood Between North Broadway and Brighton (West Side of Street) (2 GI)	9	4	5	2	5
Norwood Between Brighton and Weldon (East Side of Street) (GI)	9	5	4	6	6
Norwood Between Brighton and Weldon (West Side of Street)	7	7	4	6	7
Norwood Between Weldon and Milford (East Side of Street) (GI)	14	8	10	9	10
Norwood Between Weldon and Milford (West Side of Street)	16	8	7	6	8
Dresden Between Milford and Melrose (East Side of Street) (2 GI)	5	3	2	2	3
Dresden Between Milford and Melrose (West Side of Street)	7	2	0	1	2
Bremen Between North Broadway and Brighton (East Side of Street) (GI)	10	3	2	3	3
Bremen Between North Broadway and Brighton (West Side of Street)	8	3	3	1	3
Bremen Between Weldon and Milford (East Side of Street) (GI)	13	3	2	4	4
Bremen Between Weldon and Milford (West Side of Street)	15	3	4	2	4
Bremen Between Milford and Melrose (East Side of Street) (GI)	5	5	3	1	5
Bremen Between Milford and Melrose (West Side of Street)	3	4	0	1	4
Oaklawn Between North Broadway and Brighton (East Side of Street) (GI)	8	3	2	1	3
Oaklawn Between North Broadway and Brighton (West Side of Street)	10	10	6	7	10
Oaklawn Between Brighton and Weldon (East Side of Street) (GI)	7	3	9	5	9
Oaklawn Between Brighton and Weldon (West Side of Street)	7	1	2	2	2
Oaklawn Between Weldon and Lakeview (East Side of Street) (GI)	10	5	4	3	5
Oaklawn Between Weldon and Lakeview (West Side of Street)	9	1	2	0	2
Kenlawn Between North Broadway and Eddystone (East Side of Street) (GI)	5	1	1	0	1
Kenlawn Between North Broadway and Eddystone (West Side of Street)	7	2	1	3	3
Milford Beteen Norwood and Dresden (North Side of Street) (GI)	2	1	0	0	1
Milford Beteen Norwood and Dresden (South Side of Street)	2	0	0	0	0
Milford Beteen Bremen and Oaklawn (North Side of Street) (GI)	2	0	0	0	0
Milford Beteen Bremen and Oaklawn (South Side of Street)	1	0	0	0	0
Milford Beteen Oaklawn and Greenwich (North Side of Street)	7	1	1	0	1
Milford Beteen Oaklawn and Greenwich (South Side of Street) (GI)	8	2	1	2	2
Melrose Between Medina and Norwood (North Side of Street)	3	4	2	1	4
Melrose Between Medina and Norwood (South Side of Street) (GI)	9	5	6	4	6
Melrose Between Oaklawn and Greenwich (North Side of Street) (GI)	9	0	1	0	1
Melrose Between Oaklawn and Greenwich (South Side of Street)	9	2	3	3	3

Table 3
Oakland Park/Medina - 60% Design

	Parking Comp	arison				
Location		Existing On- Street Parking	On-Street Parking Spots Eliminated by Submitted GI Design	On-Street Parking Spots Remaining based on Submitted GI Design	Max. Parked Vehicles	Surplus (Max)
Medina Between Brighton and Weldon (East Side of Street)	7	5	0	5	3	2
Medina Between Brighton and Weldon (West Side of Street) (GI)	6	6	1	5	2	3
Medina Between Weldon and Melrose (East Side of Street)	19	19	0	19	7	12
Medina Between Weldon and Melrose (West Side of Street) (GI)	14	24	2	22	2	20
Norwood Between Oakland Park and North Broadway (East Side of Street) (GI)	10	11	4	7	2	5
Norwood Between Oakland Park and North Broadway (West Side of Street)	10	9	0	9	5	4
Norwood Between North Broadway and Brighton (East Side of Street) (GI)	10	10	2	8	4	4
Norwood Between North Broadway and Brighton (West Side of Street) (2 GI)	9	11	3	8	5	3
Norwood Between Brighton and Weldon (East Side of Street) (GI)	9	9	1	8	6	2
Norwood Between Brighton and Weldon (West Side of Street)	7	10	0	10	7	3
Norwood Between Weldon and Milford (East Side of Street) (GI)	14	16	2	14	10	4
Norwood Between Weldon and Milford (West Side of Street)	16	16	0	16	8	8
Dresden Between Milford and Melrose (East Side of Street) (2 GI)	5	8	4	4	3	1
Dresden Between Milford and Melrose (West Side of Street)	7	2	0	2	2	0
Bremen Between North Broadway and Brighton (East Side of Street) (GI)	10	9	2	7	3	4
Bremen Between North Broadway and Brighton (West Side of Street)	8	10	0	10	3	7
Bremen Between Weldon and Milford (East Side of Street) (GI)	13	8	2	6	4	2
Bremen Between Weldon and Milford (West Side of Street)	15	4	0	4	4	0
Bremen Between Milford and Melrose (East Side of Street) (GI)	5	10	1	9	5	4
Bremen Between Milford and Melrose (West Side of Street)	3	10	0	10	4	6
Oaklawn Between North Broadway and Brighton (East Side of Street) (GI)	8	9	2	7	3	4
Oaklawn Between North Broadway and Brighton (West Side of Street)	10	10	0	10	10	0
Oaklawn Between Brighton and Weldon (East Side of Street) (GI)	7	9	2	7	9	-2
Oaklawn Between Brighton and Weldon (West Side of Street)	7	8	0	8	2	6
Oaklawn Between Weldon and Lakeview (East Side of Street) (GI)	10	8	2	6	5	1
Oaklawn Between Weldon and Lakeview (West Side of Street)	9	5	0	5	2	3
Kenlawn Between North Broadway and Eddystone (East Side of Street) (GI)	5	3	1	2	1	1
Kenlawn Between North Broadway and Eddystone (West Side of Street)	7	3	0	3	3	0
Milford Beteen Norwood and Dresden (North Side of Street) (GI)	2	3	2	1	1	0
Milford Beteen Norwood and Dresden (South Side of Street)	2	5	0	5	0	5
Milford Beteen Bremen and Oaklawn (North Side of Street) (GI)	2	4	2	2	0	2
Milford Beteen Bremen and Oaklawn (South Side of Street)	1	2	0	2	0	2
Milford Beteen Oaklawn and Greenwich (North Side of Street)	7	8	0	8	1	7
Milford Beteen Oaklawn and Greenwich (South Side of Street) (GI)	8	8	2	6	2	4
Melrose Between Medina and Norwood (North Side of Street)	3	5	0	5	4	1
Melrose Between Medina and Norwood (South Side of Street) (GI)	9	7	1	6	6	0
Melrose Between Oaklawn and Greenwich (North Side of Street) (GI)	9	8	3	5	1	4
Melrose Between Oaklawn and Greenwich (South Side of Street)	9	4	0	4	3	1

Total Spots Eliminated by GI =