



INSPECTOR'S DAILY REPORT

City of Lake Forest Park - Staunton Cove Short Plat

Daily Information	
Inspector's Name:	Michael Maranan Date: 11/8/2016
Inspector's Shift Hours:	8 a.m. to 5 p.m. - Periodic
Weather:	a.m.: 46±°F, clear p.m.: 64±°F, clear
Prime Contractor:	Universal Land Construction Company
Representative & Title:	Mike Johnson, Project Manager
Contractor's Work Activity	
Location of Work:	Site (18623 40th Place NE)
Description of Work:	Construction of On-Site Storm Drainage Detention System

Inspection			
Time	What was inspected?	In Conformance?	Comments / Action
-	Detention system for storm	-	<ul style="list-style-type: none"> The flow control riser was delivered, inspected and approved on site. The dimensions, as built, were as indicated per plans. Additional spool and banding materials were installed to connect all the three rows at the west end of the detention system, as indicated per plans. The base of the type-1 structure for CB-1 was installed. A ribbed PVC spool was installed to connect CB-1 to the detention system. A rubber gasket and dimpled band were used to connect the built-in CMP from the detention system to the PVC pipe.

Inspection																																								
Diary																																								
Time	Discussion																																							
8:00 AM - 2:30 PM	<p>Approximate time of arrival on site was 8:00 AM. Craig Thompson (foreman, Universal Land) with four other workers (pipe crew) were busy unloading sewer structures and pipes from the delivery truck with flatbed trailer on site. The foreman reported that the flow restrictor riser for the storm drainage detention system was also delivered today.</p> <p>The measurements for the flow restrictor riser are tabulated below:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="6">CB-2 Riser Pipe (12-inch diameter, as built and as per plans)</th> </tr> <tr> <th rowspan="2">Orifice No.</th> <th colspan="3">Depths in Feet</th> <th colspan="2">Orifice Diameter</th> </tr> <tr> <th>Description</th> <th>On Plans</th> <th>As-Built</th> <th>On plans</th> <th>As-Built</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>From overflow (Max W. S.)</td> <td>2.75'</td> <td>2.75'</td> <td>7/8"</td> <td>7/8"</td> </tr> <tr> <td>Outlet</td> <td>From Orifice No. 2</td> <td>3.75'</td> <td>3.75'</td> <td>-</td> <td></td> </tr> <tr> <td>1</td> <td>From Outlet</td> <td>2'</td> <td>2'</td> <td>15/32"</td> <td>15/32"</td> </tr> </tbody> </table> <p>There were 3 built-in support brackets spaced approximately 3 feet from each other. The built-in shear gate appears to be watertight and slides off just fine.</p>					CB-2 Riser Pipe (12-inch diameter, as built and as per plans)						Orifice No.	Depths in Feet			Orifice Diameter		Description	On Plans	As-Built	On plans	As-Built	2	From overflow (Max W. S.)	2.75'	2.75'	7/8"	7/8"	Outlet	From Orifice No. 2	3.75'	3.75'	-		1	From Outlet	2'	2'	15/32"	15/32"
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The foreman also plans to plug the installed detention system at CB-2 outlet; the flow restrictor riser will therefore be not installed. The detention system reportedly will be used as a temporary detention during construction, which is acceptable.

The following equipment were used for the storm drainage construction:

- Deere 470G track hoe
- Deere 544K loader

The Deere 225D track hoe was also working over the stockpile material for haul-off. The Deere 605C track loader and Deere 135G track hoe with compaction plate attachment were also used during the trench backfill and compaction work.

The following were observed:

- 8:00 AM - Both track hoes were working on stockpile maintenance, moving the recently excavated material to the northeast stockpile.
 - Flow restrictor was measured by both the PACE inspector and the foreman.
- 9:50 AM - The additional spool and banding materials (2 gaskets and 2 dimple bands) were delivered on site. The pipe layer proceeded to measure and cut the spool into the two pieces needed to connect all three rows of the detention system on the west end.
 - Dump truck carrying crushed rock arrived on site.
- 10:20 AM - Dump truck carrying crushed rock arrived on site.
- 11:00 AM - All three rows of the detention system are now connected on the west end. The two corrugated bands were installed on the southern connection where the cut spool matched the corrugation; the two dimple bands, on the northern one where the cut spool had spiral ribs.
 - The automatic level was set up for the placement of CB-1's structure.
- 12:00 PM - Workers took a half-hour lunch.
- 1:10 PM - The base of CB-1's structure was placed over a layer of pea gravel. CB-1 is a type-1 catch basin, as indicated on the approved plans.
 - The pipe layer proceeded to cut a 12-inch diameter ribbed PVC pipe to connect the CB-1 to the point of connection for the installed detention system.
- 1:50 PM - The rubber gasket was not large enough to cover the point of connection for the two pipes (the ribbed PVC pipe from CB-1 and the built-in CMP stub at the detention system). To provide a watertight seal, the pipe layer overlapped two rubber gaskets around the end pipes prior to tightening the dimple band.
 - After banding the two pipes, the pipe layer proceeded mix cement concrete to grout the base structure for CB-1.
 - Backfill and compaction over rest of the detention system had already commenced.
- 2:30 PM - Backfill and compaction continued; the pipe layer only placed a steel plate over the installed portion of CB-1; dump trucks were observed still coming in and out of the site to import and export material. The PACE inspector left the site.

The following TESC items have also been noted:

1. **Discharge:** No discharge - surface water was infiltrating on site.
Approximate amount of precipitation since last inspection: 0.00 inch*
Approximate amount of precipitation in the past 24 hours: 0.00 inch*
* Based on nearby rain gauge as recorded by King County.



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2. **Construction Entrance:** OK. Northern access could need some maintenance: resurface/replace quarry spalls.
3. **Perimeter protection:** OK.
4. **Tree protection:** OK.
5. **Silt fence:** OK.
6. **Inlet protection:** OK.
7. **Stabilization of exposed soils:** OK.
8. **Dust control:** OK.
9. **Source control:** OK.

The storm drainage pipes used were a 36-inch diameter CMP (spool) and a 12-inch ribbed PVC. These pipes comply with the 2009 King County Washington Surface Water Design Manual as adopted by the City of Lake Forest Park.

Pea gravel was used as pipe bedding material; sand was used as pipe zone backfill material. Crushed rock was used over the pipe zone as backfill material. The materials were compliant with the 2016 Standard Specifications for Road, Bridge and Municipal Construction by WSDOT. Proper depth and cover within the pipe zone were also per the WSDOT Standard Plan B-55.20-00 for metal pipes.

Michael Maranan
(Inspector's Printed Name)

Signature

11/8/2016
Date

City of Lake Forest Park - Staunton Cove Short Plat

Subject: Storm Detention System

Location: Site

Comment:

- (1) Flow control riser for CB-2. Refer to the table above for dimensions
- (2) Gaps at the stubs on the west end of the detention system (top).



(1)



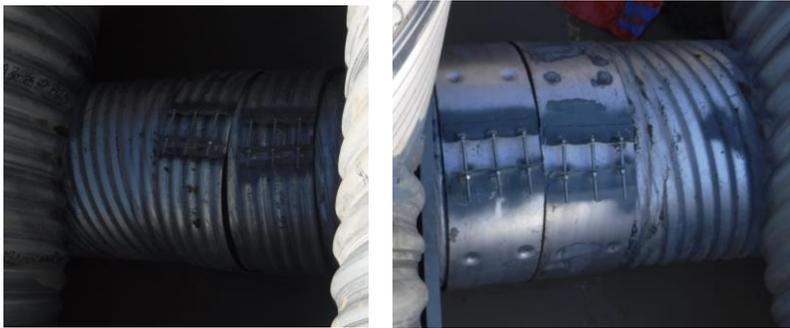
(2)

Subject: Storm Detention System

Location: Site

Comment:

- (3) Additional materials delivered on site: spool, dimple bands and gasket. The corrugated bands that came with the detention pipes were installed at the southern connection; the dimple bands were installed at the northern connection.
- (4) Base structure for CB-1 installed and grouted (left picture). The ribbed PVC pipe was covered in pea gravel. The same pipe was connected to the detention system using dimple bands.



(3)



(4)