


# ENG-SKP22004-R1-MDDPPDR.pdf Markup Summary



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## 1 (2)

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PCD Project No. SP-22-004	<b>Subject:</b> Text Box <b>Page Index:</b> 1 <b>Date:</b> 8/2/2022 6:05:11 PM <b>Author:</b> CDurham <b>Color:</b>  <b>Layer:</b> <b>Space:</b> <b>Page Label:</b> 1	SP-22-004
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PC SKP-22-004/ 	<b>Subject:</b> Text Box <b>Page Index:</b> 1 <b>Date:</b> 8/12/2022 10:14:40 AM <b>Author:</b> dsdrice <b>Color:</b>  <b>Layer:</b> <b>Space:</b> <b>Page Label:</b> 1	SKP-22-004/
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## 4 (1)

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	<b>Subject:</b> Callout <b>Page Index:</b> 4 <b>Date:</b> 8/12/2022 2:19:15 PM <b>Author:</b> dsdrice <b>Color:</b>  <b>Layer:</b> <b>Space:</b> <b>Page Label:</b> 4	roadways platted with Homestead North Filing No. 1?
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## 5 (1)

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	<b>Subject:</b> Callout <b>Page Index:</b> 5 <b>Date:</b> 8/12/2022 2:21:52 PM <b>Author:</b> dsdrice <b>Color:</b>  <b>Layer:</b> <b>Space:</b> <b>Page Label:</b> 5	Update as applicable
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## 6 (4)


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he large acreage north up to the top of flows within Sand Creek that are y show. These flows are as follows: present <b>Q100 = 430 cfs Q100 = 1487 cfs</b> 1911 cfs. However, the focus of this development proposed. As mentioned Fork of Sand Creek. The following	<b>Subject:</b> Highlight <b>Page Index:</b> 6 <b>Date:</b> 8/4/2022 11:36:45 AM <b>Author:</b> CDurham <b>Color:</b>  <b>Layer:</b> <b>Space:</b> <b>Page Label:</b> 6	Q10 = 430 cfs Q100 = 1487 cfs
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e top  
t are  
flows:  
17 cfs  
if this  
oned  
wing

Flows do not match  
MDDP excerpt shown  
in appendix. See  
comments on  
drainage map.

**Subject:** Callout  
**Page Index:** 6  
**Date:** 8/4/2022 11:38:00 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 6

Flows do not match MDDP excerpt shown in appendix. See comments on drainage map.


MDDP proposes developed flows within  
the DBPS and FEMA currently show. These  
of the TimberRidge Development) Q<sub>10</sub> = 41  
rty line Q<sub>100</sub> = 713 cfs Q<sub>100</sub> = 1911 cfs. Howe  
t the adjacent residential development prop  
is site lie within the East Fork of Sand C  
development flow design points for the pro

**Subject:** Highlight  
**Page Index:** 6  
**Date:** 8/4/2022 11:37:38 AM  
**Author:** CDurham  
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**Space:**  
**Page Label:** 6

Q<sub>10</sub> = 713 cfs Q<sub>100</sub> = 1911 cfs

is


Include area of  
each basin within  
discussion.

**Subject:** Text Box  
**Page Index:** 6  
**Date:** 8/4/2022 11:40:11 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 6

Include area of each basin within discussion.

8 (1)


defines the westerly edge of the East Fork basin. This basin  
is the DBPS and FEMA currently show. These  
of the TimberRidge Development) Q<sub>10</sub> = 41  
rty line Q<sub>100</sub> = 713 cfs Q<sub>100</sub> = 1911 cfs. Howe  
t the adjacent residential development prop  
is site lie within the East Fork of Sand C  
development flow design points for the pro

**Subject:** Text Box  
**Page Index:** 8  
**Date:** 8/15/2022 3:14:15 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
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**Page Label:** 8

Did not see a corresponding DP in the Calcs to compare with DP 6 or verify flows noted. See additional comments on drainage map.


9 (3)

consists of approximately 1.5 acres on property east  
of the Sterling Ranch property. The combined flows  
west flow traveling in a southerly direction towards  
the property along the south boundary at Design Point 6.  
At this location the flows exit the property along  
the property line into the River. The flows from this  
basin are approximately 1.5 acres on property at the  
northern end of the property. The off-site northern portion of the basin  
is the DBPS and FEMA currently show. These  
of the TimberRidge Development) Q<sub>10</sub> = 41  
rty line Q<sub>100</sub> = 713 cfs Q<sub>100</sub> = 1911 cfs. Howe  
t the adjacent residential development prop  
is site lie within the East Fork of Sand C  
development flow design points for the pro

**Subject:** Text Box  
**Page Index:** 9  
**Date:** 8/4/2022 12:55:37 PM  
**Author:** CDurham  
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**Layer:**  
**Space:**  
**Page Label:** 9


Did not see a corresponding DP in the MDDP map to compare with DP 7 or verify flows noted. See additional comments on drainage map.

of the Sterling Ranch property. The combined flows  
west flow traveling in a southerly direction towards  
the property along the south boundary at Design Point 6.  
At this location the flows exit the property along  
the property line into the River. The flows from this  
basin are approximately 1.5 acres on property at the  
northern end of the property. The off-site northern portion of the basin  
is the DBPS and FEMA currently show. These  
of the TimberRidge Development) Q<sub>10</sub> = 41  
rty line Q<sub>100</sub> = 713 cfs Q<sub>100</sub> = 1911 cfs. Howe  
t the adjacent residential development prop  
is site lie within the East Fork of Sand C  
development flow design points for the pro

**Subject:** Text Box  
**Page Index:** 9  
**Date:** 8/4/2022 12:57:01 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 9

Did not see a corresponding DP in the MDDP map to compare with DP 56 or verify flows noted. See additional comments on drainage map.


feet flows in a south  
om both basins see  
esign Point 7. (Q<sub>5</sub> =

**Subject:**  
**Page Index:** 9  
**Date:** 8/15/2022 2:23:43 PM  
**Author:** dsdrice  
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**Page Label:** 9

both basins


10 (3)

COMMENT NO. 2  
rements the proposed amendment to the Sterling Ranch MDDP.  
1/1/2020/2021, approved June 2019. Amendment No. 1 was  
L, dated October 2021. All existing basin hydrology, concept  
are the same except for the following proposed changes:  
Sterling Ranch MDDP Amendment No. 1 - Basins FSD-15A and

**Subject:** Callout  
**Page Index:** 10  
**Date:** 8/4/2022 12:59:18 PM  
**Author:** CDurham  
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**Page Label:** 10

Include County project number that was  
associated with both of these reports.


nt No. 1, Ponds FSD-15A and  
pectrum facility located at the  
Road.  
om the East Fork Sand Creek  
gates to continue to release  
a construction or release to area

**Subject:** Callout  
**Page Index:** 10  
**Date:** 8/4/2022 1:07:54 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 10

Indicate the new pond name

P1-D 31.4 Ac.  
TR-W 1.4 Ac.

Have the areas and flows  
from Retreat at TimberRidge  
Filing No. 2 at design point 15  
been accounted for?

**Subject:** Text Box  
**Page Index:** 10  
**Date:** 8/4/2022 1:17:11 PM  
**Author:** CDurham  
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**Space:**  
**Page Label:** 10


Have the areas and flows from Retreat at  
TimberRidge Filing No. 2 at design point 15 been  
accounted for?

11 (2)

Brangate Phase  
in Phase 2000  
South Ranch  
r 2000 for the  
ing Ranch  
the plan  
form mentioned

Sterling Ranch Development  
Project # for references on reports  
approved or in review


with transfer of  
to other basins

**Subject:** Callout  
**Page Index:** 11  
**Date:** 8/4/2022 1:19:33 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 11

Sterling Ranch Foursquare & Villages projects?  
Include County Project # for references on reports  
listed and indicate which ones are approved or in  
review.

nd pipe sizes through this corridor) along with a small  
preliminary Plan No. 1 north of Brangate (42 lots) and  
and PUD No. 2 development. The outfall for this facility  
CP storm system as designed by JR Engineering, LLC as  
shown. Include where this system outfalls to.

he original MDDP as approved in 2018 proposed for a 14  
approximately 267 acres from East Fork Sand Creek into 1  
slow) While this transfer was still kept within the overall

**Subject:** Text Box  
**Page Index:** 11  
**Date:** 8/4/2022 1:20:02 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 11

Include where this system outfalls to.

ment further to the east within Basin EX10A, additional level  
need. [Indicate possible location of Future level  
spreaders on developed drainage plan.](#)

iginal MDDP as approved in 2018 proposed Basin SC3-14B to  
g Ranch East Preliminary Plan/POD No. 3 (submitted concurre  
gment area encompasses additional property further to the e  
in SC3-14B. The proposed basins that better represent the t

**Subject:** Text Box  
**Page Index:** 14  
**Date:** 8/4/2022 1:23:01 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 14

Indicate possible location of Future level spreader  
on developed drainage plan

within Basin EX10A, additional level spreader facilities will also  
[Indicate possible location of Future level  
spreaders on developed drainage plan.](#)

• and proposed Basin SC3-14B to be 30.7 Ac. The proposed  
expanding TimberRidge Community for future identified  
additional property further to the east than originally depicted  
basins that better represent the east-ranchy area to be tract  
found in this report as BA-A (28.4 Ac.) and BA-B (17.3 Ac.)  
value basins SC3-7 and SC3-10 will be reduced by this same

**Subject:** Callout  
**Page Index:** 14  
**Date:** 8/4/2022 1:23:41 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 14

Villages at Sterling Ranch? Include county project  
#.

full build-out, a temporary ph  
these released treated flows  
pre-developed flows for this c  
[Include discussion on Ponds  
FSD-11 & FSD-14A](#)

PROPOSED DRAINAGE COND  
As described in the Gener

**Subject:** Text Box  
**Page Index:** 14  
**Date:** 8/4/2022 1:29:38 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 14

Include discussion on Ponds FSD-11 & FSD-14A

erment development of only residential or other greenhouse service areas within  
No. 1 development. They will be designed to handle  
development and the two other Sterling Ranch East  
ns No. 2 and No. 3. (Submitted concurrently but unde  
[Foursquare & Villages?](#)

**Subject:** Callout  
**Page Index:** 14  
**Date:** 8/4/2022 1:30:23 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 14

Foursquare & Villages?

h East [List what basins these are  
indicate that they will be captured  
and treated within TimberRidge  
development and release directly  
into Sand Creek.](#)

nd are  
for  
trial  
2022)

**Subject:** Text Box  
**Page Index:** 16  
**Date:** 8/4/2022 1:43:42 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 16

List what basins these are. Indicate that they will  
be captured and treated within TimberRidge  
development and release directly into Sand Creek.

This facility will help mitigate the  
at during the construction of the  
ry portion of this proposed  
ion of 12 FSD Basins TR-V & TR-W will  
for this direct both towards the temporary  
sedimentation pond, how does 1 end  
up in Basins P1-F and the other in  
P1-E?

• small portion of the Bison  
• Filing No. 2 development.

**Subject:** Text Box  
**Page Index:** 16  
**Date:** 8/4/2022 1:41:08 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 16

If both basins TR-V & TR-W will continue to use  
the existing swale that directs both towards the  
temporary sedimentation pond, how does 1 end up  
in Basins P1-F and the other in P1-E?



Include areas for each basin in the discussion.

If flows are split, keep DP 2 & 3 separate.

These flows are currently captured in a nu runoff weirway towards a temporary and constructed with the Timberidge Sewer Sterling Ranch East – Phase 1, these flow directly into Basin P5-6. **Basin P5-6** is residential at the north-end of this basin designed flow drains down system with **Design Point 288** ( $Q_p = 62$  cfs,  $Q_{10} = 81$  large developed basin. The total develop developed flows from Design Point 1 and south within Sterling Ranch Road.

**Basin P1-C** ( $Q_p = 21$  cfs,  $Q_{10} = 83$  cfs) can

Foursquare project?

Include that the pipe outlet is for the storm system located within Briargate Pkwy & Sterling Ranch Rd

Discuss what happens with proposed release rates (24 & 157 cfs) being higher than those assumed in previous reports.

storm stub will then load. **State which pond this flow ultimately releases to.**

this large urban storm systems on-

**Subject:** Text Box  
**Page Index:** 21  
**Date:** 8/4/2022 4:17:13 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 21

State which pond this flow ultimately releases to.

**Basin P:**  
reservoir  
site and  
Design I  
this basin  
Storm Dr.  
Sterling

**Note that flows given into the reach design point and not a combined flow.**

**Subject:** Callout  
**Page Index:** 21  
**Date:** 8/4/2022 4:18:57 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 21

Note that flows given are for each design point and not a combined flow.

The stormwater flow from this catchment is shown in the table below. The stormwater flow from this catchment is shown in the table below. The stormwater flow from this catchment is shown in the table below.

**Note that flows given into the reach design point and not a combined flow.**

**Subject:** Callout  
**Page Index:** 24  
**Date:** 8/4/2022 4:32:28 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 24

Flows do not match pre-development flows shown developed drainage map at DP 6

spectrum LUBJ  
3.1 ac  
with 4:1 max. slopes

**In-flow rates do not match MHFD spreadsheet**

$Q_1 = 97 \text{ cfs}$     $Q_{100} = 189 \text{ cfs}$   
 $Q_5 = 11 \text{ cfs}$     $Q_{100} = 95 \text{ cfs}$

**Subject:** Callout  
**Page Index:** 24  
**Date:** 8/4/2022 4:33:26 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 24

In-flow rates do not match MHFD spreadsheet

and narrative will be submitted along with this such as site-specific sediment and erosion temporary and permanent BMP's, water detention facilities, etc. BMP's will be constructed based on the design and erosion control methods and

**Note that flows given into the reach design point and not a combined flow.**

**FLOODPLAIN STATEMENT**  
Portions of this site are located within a floodplain as shown on the FEMA Flood Insurance Rate Study (FIRIS) for the area of the project, dated December 7, 2018 and the previously mentioned CDE July 13, 2020. The Agency is JR Engineering, LLC.

**Subject:** Text Box  
**Page Index:** 29  
**Date:** 8/4/2022 4:47:25 PM  
**Author:** CDurham  
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**Layer:**  
**Space:**  
**Page Label:** 29

Include discussion on downstream facilities, at each DP where flows exit site, and their ability to accept and handle developed flows.

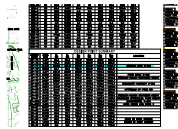
2021


K. "Drainage Letter for Sterling Ranch Rd JR Engineering, LLC, dated December 2

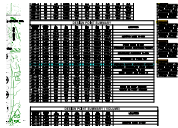
**Include MDDP Amendment by JR Engineering.**


**Subject:** Text Box  
**Page Index:** 33  
**Date:** 8/4/2022 1:03:00 PM  
**Author:** CDurham  
**Color:**    
**Layer:**  
**Space:**  
**Page Label:** 33

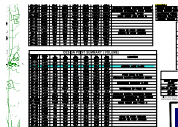
Include MDDP Amendment by JR Engineering.




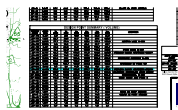
**Subject:**  
**Page Index:** 59  
**Date:** 8/12/2022 3:03:04 PM  
**Author:** dsdrice  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 59




**Subject:**  
**Page Index:** 59  
**Date:** 8/12/2022 3:03:22 PM  
**Author:** dsdrice  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 59




**Subject:**  
**Page Index:** 59  
**Date:** 8/12/2022 3:04:10 PM  
**Author:** dsdrice  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 59




**Subject:**  
**Page Index:** 59  
**Date:** 8/12/2022 3:04:16 PM  
**Author:** dsdrice  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 59




**Subject:** Callout  
**Page Index:** 59  
**Date:** 8/12/2022 3:21:37 PM  
**Author:** dsdrice  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 59

Provide pre-developed conditions plan as well


Need to provide  
SWMM input  
information. Include  
calculations for %  
impervious, C-values &  
time of concentration.

**Subject:** Text Box  
**Page Index:** 68  
**Date:** 8/3/2022 1:09:45 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 68

Need to provide SWMM Input information. Include  
calculations for % impervious, C-values & time of  
cocentration.



include  
larger scale  
map


**Subject:** Text Box  
**Page Index:** 68  
**Date:** 8/4/2022 9:56:27 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 68

include larger scale map

70 (1)

Out9	
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Include EX-10 &  
EX-13


**Subject:** Text Box  
**Page Index:** 70  
**Date:** 8/4/2022 9:57:20 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 70

Include EX-10 & EX-13

78 (1)

Out9	3'
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Include EX-10 &  
EX-13

**Subject:** Text Box  
**Page Index:** 78  
**Date:** 8/4/2022 9:57:41 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 78

Include EX-10 & EX-13

85 (2)

Need to provide  
SWMM Input  
information. Include  
calculations for %  
impervious, C-values &  
time of cocentration.

**Subject:** Text Box  
**Page Index:** 85  
**Date:** 8/3/2022 1:10:06 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 85

Need to provide SWMM Input information. Include  
calculations for % impervious, C-values & time of  
cocentration.



Include map at larger  
scale & Clean up labels  
so they are all readable  
on map

**Subject:** Text Box  
**Page Index:** 85  
**Date:** 8/4/2022 9:58:13 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 85

Include map at larger scale & Clean up labels so  
they are all readable on map

86 (2)

P2-A	1.68
P2-B	1.68

Include all basins in  
summary table, as  
shown on drainage map

**Subject:** Text Box  
**Page Index:** 86  
**Date:** 8/4/2022 9:58:53 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** 86

Include all basins in summary table, as shown on  
drainage map

NO. 1 (5yr. Event)  
Can Ac-ft be used?

Total Runoff 10"6 gal	Peak Runoff CFS	Run C
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**Subject:** Callout  
**Page Index:** 86  
**Date:** 8/12/2022 3:00:00 PM  
**Author:** dsdrice  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 86

Can Ac-ft be used?

90 (2)

Callout 1: See summary table, for summary table shown on developed drainage map	DP-11	2.82
	DP-12	2.82
	DP-13	2.82
	DP-14	2.82
	DP-15	2.82
	DP-16	2.82
	DP-17	2.82
	DP-18	2.82
	DP-19	2.82
	DP-20	2.82

**Subject:** Callout  
**Page Index:** 90  
**Date:** 8/4/2022 10:01:31 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 90

List DP's as separate items, to correlate with table shown on developed drainage map

All DP's/Outfalls need to be shown and labeled on drainage map

**Subject:** Text Box  
**Page Index:** 90  
**Date:** 8/4/2022 10:01:48 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 90

All DP's/Outfalls need to be shown and labeled on drainage map

101 (1)

P2-A	2.82
P2-B	2.82

Include all basins in summary table, as shown on drainage map

**Subject:** Text Box  
**Page Index:** 101  
**Date:** 8/4/2022 9:59:18 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 101

Include all basins in summary table, as shown on drainage map

105 (2)

Callout 1: See summary table, for summary table shown on developed drainage map	DP-1	2.82
	DP-11	2.82
	DP-12	2.82
	DP-13	2.82
	DP-14	2.82
	DP-15	2.82
	DP-16	2.82
	DP-17	2.82
	DP-18	2.82
	DP-19	2.82
	DP-20	2.82

**Subject:** Callout  
**Page Index:** 105  
**Date:** 8/4/2022 10:02:21 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 105

List DP's as separate items, to correlate with table shown on developed drainage map

All DP's/Outfalls need to be shown and labeled on drainage map

**Subject:** Text Box  
**Page Index:** 105  
**Date:** 8/4/2022 10:02:41 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 105

All DP's/Outfalls need to be shown and labeled on drainage map

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116 (1)

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For each pond, include a summary table listing all contributing basins with area and percent impervious and determine overall area & imperviousness.

**Subject:** Text Box  
**Page Index:** 116  
**Date:** 8/3/2022 5:10:46 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 116

For each pond, include a summary table listing all contributing basins with area and percent impervious and determine overall area & imperviousness.

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117 (1)

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Will review forebay calculations with Final Drainage Report

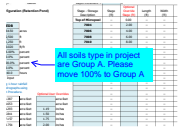
**Subject:** Text Box  
**Page Index:** 117  
**Date:** 8/4/2022 4:50:47 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 117

Will review forebay calculations with Final Drainage Report

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132 (1)

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**Subject:** Callout  
**Page Index:** 132  
**Date:** 8/3/2022 5:21:35 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 132

All soils type in project are Group A. Please move 100% to Group A

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134 (1)

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Outlet design will be reviewed with Final Drainage Reports

Outlet design will be reviewed with Final Drainage Reports

**Subject:** Text Box  
**Page Index:** 134  
**Date:** 8/4/2022 10:04:15 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 134

Outlet design will be reviewed with Final Drainage Reports

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138 (1)

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**Subject:** Callout  
**Page Index:** 138  
**Date:** 8/3/2022 5:21:50 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 138

All soils type in project are Group A. Please move 100% to Group A

---

140 (1)

---

Outlet design will be reviewed with Final Drainage Reports

Outlet design will be reviewed with Final Drainage Reports

**Subject:** Text Box  
**Page Index:** 140  
**Date:** 8/4/2022 10:04:28 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 140

Outlet design will be reviewed with Final Drainage Reports

---

144 (1)

---



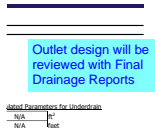
**Subject:** Callout  
**Page Index:** 144  
**Date:** 8/3/2022 5:23:07 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 144

All soils type in project are Group A. Please move 100% to Group A

---

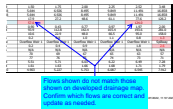
146 (2)

---



**Subject:** Text Box  
**Page Index:** 146  
**Date:** 8/4/2022 10:04:40 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 146

Outlet design will be reviewed with Final Drainage Reports



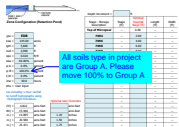
**Subject:** Callout  
**Page Index:** 146  
**Date:** 8/4/2022 4:51:24 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 146

Flows shown do not match those shown on developed drainage map. Confirm which flows are correct and update as needed.

---

150 (1)

---



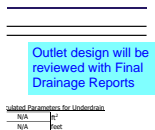
**Subject:** Callout  
**Page Index:** 150  
**Date:** 8/3/2022 5:24:06 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 150

All soils type in project are Group A. Please move 100% to Group A

---

152 (1)

---



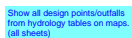
**Subject:** Text Box  
**Page Index:** 152  
**Date:** 8/4/2022 10:04:54 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** 152

Outlet design will be reviewed with Final Drainage Reports

---

157 (4)


---



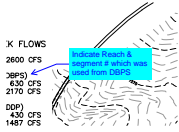
**Subject:** Text Box  
**Page Index:** 157  
**Date:** 8/3/2022 5:40:47 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 1


Show all design points/outfalls from hydrology tables on maps. (all sheets)

Include design point summary table (all sheets)

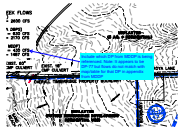
**Subject:** Text Box  
**Page Index:** 157  
**Date:** 8/3/2022 5:40:37 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 1


Include design point summary table (all sheets)



**Subject:** Callout  
**Page Index:** 157  
**Date:** 8/3/2022 5:27:19 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 1

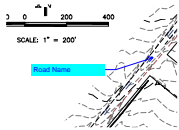
Indicate Reach & segment # which was used from DBPS




**Subject:** Callout  
**Page Index:** 157  
**Date:** 8/3/2022 5:28:43 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 1

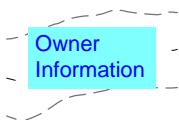
Include which DP from MDDP is being referenced.  
Note: It appears to be DP-77 but flows do not match with map/table for that DP in appendix from MDDP


158 (3)



**Subject:** Callout  
**Page Index:** 158  
**Date:** 8/3/2022 5:41:03 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2


Road Name



**Subject:** Text Box  
**Page Index:** 158  
**Date:** 8/3/2022 5:41:29 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

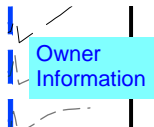
Owner Information



**Subject:** Text Box  
**Page Index:** 158  
**Date:** 8/3/2022 5:41:33 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

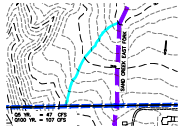
Owner Information



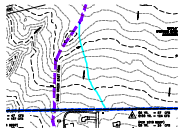


**Subject:** Text Box  
**Page Index:** 159  
**Date:** 8/3/2022 5:41:47 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

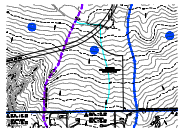
Owner Information



**Subject:** Highlight  
**Page Index:** 159  
**Date:** 8/3/2022 5:42:22 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3



**Subject:** Highlight  
**Page Index:** 159  
**Date:** 8/3/2022 5:42:32 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3



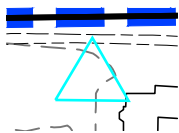
**Subject:** Highlight  
**Page Index:** 159  
**Date:** 8/3/2022 5:45:27 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3




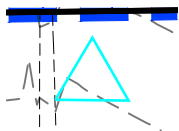
**Subject:** PolyLine  
**Page Index:** 159  
**Date:** 8/3/2022 5:44:51 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3




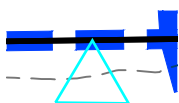
**Subject:** PolyLine  
**Page Index:** 159  
**Date:** 8/3/2022 5:45:06 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3




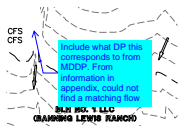
**Subject:** PolyLine  
**Page Index:** 159  
**Date:** 8/3/2022 5:45:12 PM  
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**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3




**Subject:** PolyLine  
**Page Index:** 159  
**Date:** 8/3/2022 5:45:35 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

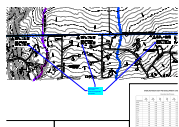



**Subject:** PolyLine  
**Page Index:** 159  
**Date:** 8/3/2022 5:45:45 PM  
**Author:** CDurham  
**Color:**   
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**Space:**  
**Page Label:** [1] SHEET 3



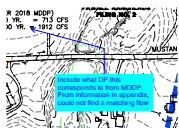
**Subject:** Callout  
**Page Index:** 159  
**Date:** 8/3/2022 5:46:55 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3


Include what DP this corresponds to from MDDP.  
From information in appendix, could not find a matching flow



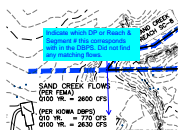
**Subject:** Callout  
**Page Index:** 159  
**Date:** 8/3/2022 5:47:37 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

Did not find these DP's in the referenced appendix information



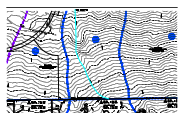
**Subject:** Callout  
**Page Index:** 159  
**Date:** 8/3/2022 5:47:59 PM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

Include what DP this corresponds to from MDDP.  
From information in appendix, could not find a matching flow

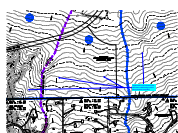


**Subject:** Callout  
**Page Index:** 159  
**Date:** 8/3/2022 5:48:56 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

Indicate which DP or Reach & Segment # this corresponds with in the DBPS. Did not find any matching flows.



**Subject:** PolyLine  
**Page Index:** 159  
**Date:** 8/3/2022 5:52:41 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3



**Subject:** Callout  
**Page Index:** 159  
**Date:** 8/3/2022 5:53:51 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

Adjust basins as indicated and add extra outfall design points along property boundary

DITIONS (Syr. Event)

use Ac-ft unit?

Top	Value	10% gpd
1	0.629	
2	1.311	
3	0.733	

**Subject:** Callout  
**Page Index:** 159  
**Date:** 8/12/2022 2:14:53 PM  
**Author:** dsdrice  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

use Ac-ft unit?

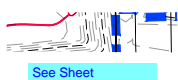
1.00	0.00	0.00
1.68	0.00	0.00
1.68	0.00	0.00

Please provide area in acres also on all tables

**Subject:** Callout  
**Page Index:** 159  
**Date:** 8/12/2022 2:16:20 PM  
**Author:** dsdrice  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

Please provide area in acres also on all tables


160 (6)

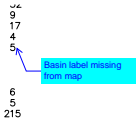



**Subject:** Text Box  
**Page Index:** 160  
**Date:** 8/3/2022 5:54:42 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 1

See Sheet

BASIN_ID	PLAN FLOWS (CFS)
SIZE	100%
(EXISTING BASINS)	
18-10	8
18-12	32
18-14	17
18-16	4
18-17	9
(PROPOSED BASINS)	
18-18	6
18-19	11
18-20	215

**Subject:** Highlight  
**Page Index:** 160  
**Date:** 8/4/2022 9:13:19 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 1




**Subject:** Callout  
**Page Index:** 160  
**Date:** 8/4/2022 9:13:30 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 1

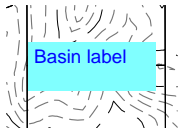
Basin label missing from map


18-18	3
18-19	111

Show all design points/outfalls from hydrology tables on maps. (all sheets)

**Subject:** Text Box  
**Page Index:** 160  
**Date:** 8/4/2022 9:14:09 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 1


Show all design points/outfalls from hydrology tables on maps. (all sheets)



**Subject:** Text Box  
**Page Index:** 160  
**Date:** 8/4/2022 9:15:33 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 1

Basin label




**Subject:** Text Box  
**Page Index:** 160  
**Date:** 8/4/2022 9:16:52 AM  
**Author:** CDurham  
**Color:**   
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 1

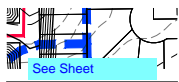
Basin label

161 (14)



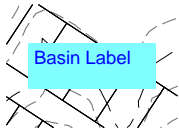
**Subject:** Text Box  
**Page Index:** 161  
**Date:** 8/3/2022 5:54:56 PM  
**Author:** CDurham  
**Color:**   
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**Space:**  
**Page Label:** [1] SHEET 2

See Sheet



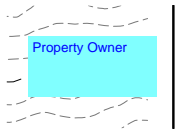
**Subject:** Text Box  
**Page Index:** 161  
**Date:** 8/3/2022 5:55:04 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

See Sheet



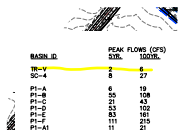
**Subject:** Text Box  
**Page Index:** 161  
**Date:** 8/4/2022 9:17:17 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

Basin Label

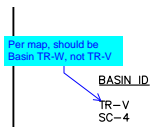


**Subject:** Text Box  
**Page Index:** 161  
**Date:** 8/4/2022 9:17:34 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

Property Owner

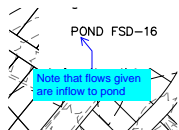


**Subject:** Highlight  
**Page Index:** 161  
**Date:** 8/4/2022 9:17:57 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2



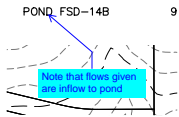
**Subject:** Callout  
**Page Index:** 161  
**Date:** 8/4/2022 9:18:20 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

Per map, should be Basin TR-W, not TR-V



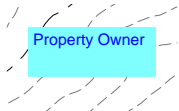
**Subject:** Callout  
**Page Index:** 161  
**Date:** 8/4/2022 9:18:59 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

Note that flows given are inflow to pond



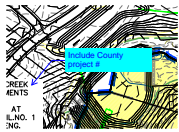
**Subject:** Callout  
**Page Index:** 161  
**Date:** 8/4/2022 9:19:15 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

Note that flows given are inflow to pond



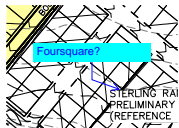
**Subject:** Text Box  
**Page Index:** 161  
**Date:** 8/4/2022 9:20:07 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

Property Owner



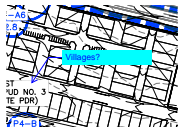
**Subject:** Callout  
**Page Index:** 161  
**Date:** 8/4/2022 9:21:06 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

Include County project #



**Subject:** Callout  
**Page Index:** 161  
**Date:** 8/4/2022 9:21:34 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

Foursquare?



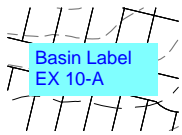
**Subject:** Callout  
**Page Index:** 161  
**Date:** 8/4/2022 9:21:40 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

Villages?



**Subject:** Callout  
**Page Index:** 161  
**Date:** 8/4/2022 9:22:12 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

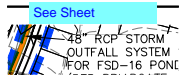
Fix cut off label



**Subject:** Text Box  
**Page Index:** 161  
**Date:** 8/4/2022 9:22:58 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 2

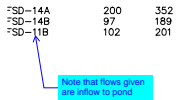
Basin Label EX 10-A

162 (18)



**Subject:** Text Box  
**Page Index:** 162  
**Date:** 8/3/2022 5:55:15 PM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

See Sheet



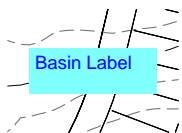
**Subject:** Callout  
**Page Index:** 162  
**Date:** 8/4/2022 9:19:24 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

Note that flows given are inflow to pond



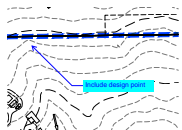
**Subject:** Text Box  
**Page Index:** 162  
**Date:** 8/4/2022 9:20:20 AM  
**Author:** CDurham  
**Color:** ■  
**Layer:**  
**Space:**  
**Page Label:** [1] SHEET 3

Property Owner



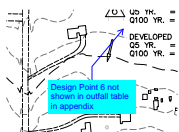
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**Page Index:** 162  
**Date:** 8/4/2022 9:23:40 AM  
**Author:** CDurham  
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Basin Label



**Subject:** Callout  
**Page Index:** 162  
**Date:** 8/4/2022 9:24:19 AM  
**Author:** CDurham  
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Include design point



**Subject:** Callout  
**Page Index:** 162  
**Date:** 8/4/2022 9:24:47 AM  
**Author:** CDurham  
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Design Point 6 not shown in outfall table in appendix

BASIN_ID	PEAK FLOW (CFS)	100 YR.
SC-1	1	5
SC-2	1	20
P4-A	41	80
P4-B	43	123
P2-A	10	33
P2-B	80	176
P2-S1	80	133
P2-S2	5	10
P2-S3	7	13
P2-S4	4	8
P2-S5	4	8
P2-S6	4	8
P2-S7	4	8
P2-S8	4	8
P2-S9	4	8
P2-S10	4	8

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**Page Index:** 162  
**Date:** 8/4/2022 9:53:26 AM  
**Author:** CDurham  
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BASIN_ID	PEAK FLOW (CFS)	100 YR.
SC-1	1	5
SC-2	1	20
P4-A	41	80
P4-B	43	123
P2-A	10	33
P2-B	80	176
P2-S1	80	133
P2-S2	5	10
P2-S3	7	13
P2-S4	4	8
P2-S5	4	8
P2-S6	4	8
P2-S7	4	8
P2-S8	4	8
P2-S9	4	8
P2-S10	4	8

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**Date:** 8/4/2022 9:53:32 AM  
**Author:** CDurham  
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BASIN_ID	PEAK FLOW (CFS)	100 YR.
SC-1	1	5
SC-2	1	20
P4-A	41	80
P4-B	43	123
P2-A	10	33
P2-B	80	176
P2-S1	80	133
P2-S2	5	10
P2-S3	7	13
P2-S4	4	8
P2-S5	4	8
P2-S6	4	8
P2-S7	4	8
P2-S8	4	8
P2-S9	4	8
P2-S10	4	8

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**Author:** CDurham  
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**Page Label:** [1] SHEET 3

BASIN_ID	PEAK FLOW (CFS)	100 YR.
SC-1	1	5
SC-2	1	20
P4-A	41	80
P4-B	43	123
P2-A	10	33
P2-B	80	176
P2-S1	80	133
P2-S2	5	10
P2-S3	7	13
P2-S4	4	8
P2-S5	4	8
P2-S6	4	8
P2-S7	4	8
P2-S8	4	8
P2-S9	4	8
P2-S10	4	8

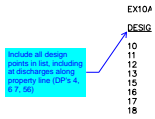
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**Author:** CDurham  
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BASIN_ID	PEAK FLOW (CFS)	100 YR.
SC-1	1	5
SC-2	1	20
P4-A	41	80
P4-B	43	123
P2-A	10	33
P2-B	80	176
P2-S1	80	133
P2-S2	5	10
P2-S3	7	13
P2-S4	4	8
P2-S5	4	8
P2-S6	4	8
P2-S7	4	8
P2-S8	4	8
P2-S9	4	8
P2-S10	4	8

**Subject:** Callout  
**Page Index:** 162  
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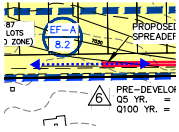
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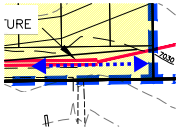



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**Page Index:** 162  
**Date:** 8/4/2022 9:55:14 AM  
**Author:** CDurham  
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Include all design points in list, including at discharges along property line (DP's 4, 6 7, 56)




**Subject:** Arrow  
**Page Index:** 162  
**Date:** 8/12/2022 2:48:10 PM  
**Author:** dsdrice  
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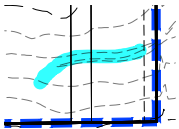



**Subject:** Arrow  
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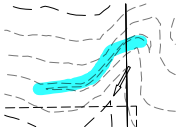



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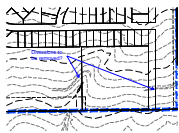
Level spreaders will need to follow topography and be far enough from the property line to allow flows to match existing flow locations at the property line.



**Subject:**  
**Page Index:** 162  
**Date:** 8/15/2022 2:28:49 PM  
**Author:** dsdrice  
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**Subject:**  
**Page Index:** 162  
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**Subject:** Callout  
**Page Index:** 162  
**Date:** 8/15/2022 2:29:35 PM  
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Diversions to be removed?