

ENG-PUDSP21005-R4-PDR-MDDP.pdf Markup Summary

7 (1)

(diversion to Geick)
by URS and approved in June
Haegler Ranch Basin will not

Subject: Callout
Page Index: 7
Date: 9/12/2022 1:52:56 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 7

(diversion to Geick)

added diversion to
Geick Ranch Basin

26 (2)

from the acceptance in the drainage easement. Learning from the
of the channel is to remain natural.
using a Best Management Practices were selected based upon the
provided in the 1995 County Drainage Criteria Manual
substantial amount of vegetative cover and doesn't show any
negative or the Best Management Practices from Class A to
Address specifically here. It appears
that very high vehicles were used that
will need further backup.

Subject: Callout
Page Index: 26
Date: 9/12/2022 3:14:11 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 26

Address specifically here. It appears that very high
vehicles were used that will need further backup.

added more text addressing this
and also added pictures in
appendix.

object-wide impacts to 0.5-acre or
be used. No channel grading or
in open Meadow Crossing where 3-
natural. **A** (to be verified with
final design review)
entire were selected based upon the
County Drainage Criteria Manual
ative cover and doesn't show any

Subject: Callout
Page Index: 26
Date: 9/12/2022 3:17:32 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 26

(to be verified with final design review)

added statement

27 (2)

of the prop
of 120 cfs

Subject: Highlight
Page Index: 27
Date: 9/7/2022 5:43:55 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 27

2 in the range of 0.44 fps to 4.08 fps. T
Manual. **Unresolved-** event
es from diversion of OS-2
to a point higher in
the channel"
ove this is an existing channel that is
the 3-36" **Subverts**. This channel also
RAS results show that the channel is s

Subject: Callout
Page Index: 27
Date: 9/7/2022 5:45:50 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 27

Unresolved-
"and diversion of OS-2 flows to a point higher in
the channel"

added statement

28 (1)



Subject: Callout
Page Index: 28
Date: 9/12/2022 3:16:05 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 28

check structure?

revised to check

33 (1)

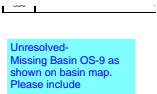


Subject: Callout
Page Index: 33
Date: 9/12/2022 1:57:49 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 33

diversion to Geick Ranch

added diversion to Geick Ranch Basin

56 (1)

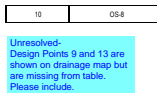


Subject: Text Box
Page Index: 56
Date: 9/7/2022 5:56:24 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 56

Unresolved-
Missing Basin OS-9 as shown on basin map.
Please include

I believe you are referencing the wrong Map (sheets 311 & 312). This is the Early grading spreadsheet which corresponds to sheets 309 & 310 because per the plan submitted and marked up by EPC there are no DP 9 & 13

57 (1)

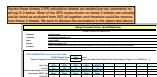


Subject: Text Box
Page Index: 57
Date: 9/7/2022 5:57:38 PM
Author: CDurham
Color: ■
Layer:
Space:
Page Label: 57

Unresolved-
Design Points 9 and 13 are shown on drainage map but are missing from table. Please include.

I believe you are referencing the wrong Map (sheets 311 & 312). This is the Early grading spreadsheet which corresponds to sheets 309 & 310 because per the plan submitted and marked up by EPC there are no DP 9 & 13

195 (1)

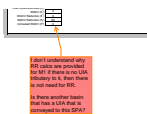


Subject: SW - Textbox
Page Index: 195
Date: 9/8/2022 5:42:11 PM
Author: EPC Stormwater
Color: ■
Layer:
Space:
Page Label: 195

removed I & J Basins and added statement in report about being excluded. Only have Basin N now

Revise these sheets 3 RR calculation sheets as needed per my comments on pdf pg 312 below. Most of the SPA areas shown on these 3 sheets can actually just be listed as excluded from WQ all together and therefore could be remove from these 3 sheets. Be sure to discuss the exclusions in the report text above.

196 (2)



Subject: SW - Textbox with Arrow
Page Index: 196
Date: 9/7/2022 3:47:42 PM
Author: Glenn Reese - EPC Stormwater
Color: ■
Layer:
Space:
Page Label: 196

I don't understand why RR calcs are provided for M1 if there is no UIA tributary to it, then there is not need for RR.

Is there another basin that has a UIA that is conveyed to this SPA?

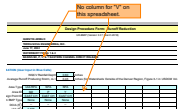
removed sheet and added statement in report about being excluded

Subject: SW - Textbox with Arrow
Page Index: 196
Date: 9/8/2022 5:40:25 PM
Author: EPC Stormwater - Glenn Reese
Color: ■
Layer:
Space:
Page Label: 196

If not, this basin can just be listed as an excluded basins per one of several potential WQ exclusions.

removed sheet and added statement in report about being excluded

197 (1)



Subject: SW - Textbox with Arrow
Page Index: 197
Date: 9/7/2022 3:44:02 PM
Author: Glenn Reese - EPC Stormwater
Color: ■
Layer:
Space:
Page Label: 197

No column for "V" on this spreadsheet.

removed, basin V (DP 32) is picked up in area inlet and routed to pond 3

200 (1)

Flow ID	Flow Name	Flow Type	Flow Direction	Flow Rate (cfs)	Flow Velocity (ft/s)	Flow Depth (ft)
1	Flow 1	Flow Type 1	Flow Direction 1	Flow Rate 1	Flow Velocity 1	Flow Depth 1
2	Flow 2	Flow Type 2	Flow Direction 2	Flow Rate 2	Flow Velocity 2	Flow Depth 2

Subject: Rectangle
Page Index: 200
Date: 9/12/2022 2:26:05 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 200

0.08 is you max per table 10-2 added text in report backing this up

206 (3)

Channel ID	Channel Name	Channel Type	Channel Slope	Channel Radius
1	Channel 1	Channel Type 1	Channel Slope 1	Channel Radius 1
2	Channel 2	Channel Type 2	Channel Slope 2	Channel Radius 2

Subject: Callout
Page Index: 206
Date: 9/12/2022 2:12:38 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 206

Provide maximum channel slopes and approximate min. radii of curvature

added

Design Value	Results East Channel	Results West Channel
0.75	0.6 to 0.9	0.6 to 0.9
7.50	0.6 to 0.9	0.6 to 0.9
0.8	0.6 to 0.9	0.6 to 0.9

Subject:
Page Index: 206
Date: 9/12/2022 2:18:52 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 206

0.06 to 0.12 0.6 to 0.9 0.6 to 0.9

0.08 is you max per table 10-2 added text in report backing this up

Design Value	Results East Channel	Results West Channel
0.07	0.6 to 0.9	0.6 to 0.9
0.06 to 0.07	0.6 to 0.9	0.6 to 0.9

Subject: Callout
Page Index: 206
Date: 9/12/2022 2:22:48 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 206

0.07 Max? Provide additional backup.

0.08 is you max per table 10-2 added text in report backing this up

217 (1)

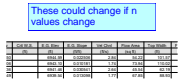


Subject: Text Box
Page Index: 217
Date: 9/12/2022 3:02:04 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 217

Provide XS numbers

added

243 (1)

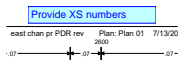


Subject: Text Box
Page Index: 243
Date: 9/12/2022 2:23:43 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 243

These could change if n values change

revised per new hecras runs

252 (1)

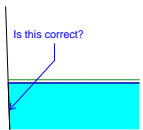


Subject: Text Box
Page Index: 252
Date: 9/12/2022 3:01:52 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 252

Provide XS numbers

added

261 (1)

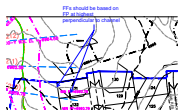


Subject: Callout
Page Index: 261
Date: 9/12/2022 2:33:58 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 261

Is this correct?

revised

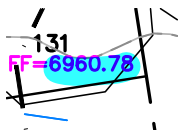
275 (3)



Subject: Callout
Page Index: 275
Date: 9/12/2022 2:31:39 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: [1] Layout1

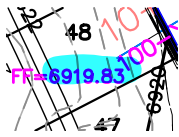
FFs should be based on FP at highest perpendicular to channel

revised also added more than 1' to most



Subject:
Page Index: 275
Date: 9/12/2022 2:29:44 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: [1] Layout1

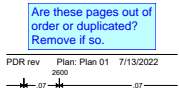
revised also added more than 1' to most



Subject:
Page Index: 275
Date: 9/12/2022 2:32:37 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: [1] Layout1

revised also added more than 1' to most

283 (1)

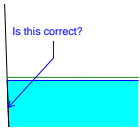


Subject: Text Box
Page Index: 283
Date: 9/12/2022 2:44:27 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 283

Are these pages out of order or duplicated?
 Remove if so.

removed

292 (1)

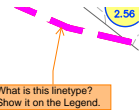


Subject: Callout
Page Index: 292
Date: 9/12/2022 2:43:12 PM
Author: dsdrice
Color: ■
Layer:
Space:
Page Label: 292

Is this correct?

removed

311 (3)



Subject: SW - Textbox with Arrow
Page Index: 311
Date: 9/8/2022 3:27:31 PM
Author: EPC Stormwater - Glenn Reese
Color: ■
Layer:
Space:
Page Label: [1] PROP 1

What is this linetype? Show it on the Legend.

sorry don't know why this is a different color changed to red to match offsite



Subject: SW - Textbox with Arrow
Page Index: 311
Date: 9/8/2022 3:28:41 PM
Author: EPC Stormwater - Glenn Reese
Color: ■
Layer:
Space:
Page Label: [1] PROP 1

Why is this "onsite" basin boundary shown around the perimeter of the "offsite" basins. It is confusing.

sorry changed to red to match the offsite



Subject: SW - Textbox with Arrow
Page Index: 311
Date: 9/8/2022 3:29:33 PM
Author: EPC Stormwater - Glenn Reese
Color: ■
Layer:
Space:
Page Label: [1] PROP 1

What is the difference between the thick and thin red dashed lines? Show on Legend.

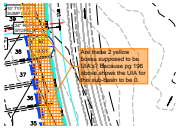
sorry there is no difference I changed wider one to match the thinner one



Subject: SW - Textbox with Arrow
Page Index: 312
Date: 9/7/2022 3:49:38 PM
Author: Glenn Reese - EPC Stormwater
Color: ■
Layer:
Space:
Page Label: [1] PROP 2

Per comments from a previous submittal, the SPA/RPA areas cannot include wetland areas per the MS4 Permit and MHFD guidelines.

removed, basin P from RR spreadsheet as it is all undeveloped pervious area that can be excluded



Subject: SW - Textbox with Arrow
Page Index: 312
Date: 9/7/2022 3:58:17 PM
Author: Glenn Reese - EPC Stormwater
Color: ■
Layer:
Space:
Page Label: [1] PROP 2

Are these 2 yellow boxes supposed to be UIA's? Because pg 196 above shows the UIA for this sub-basin to be 0.

no they are no erased



Subject: SW - Textbox with Arrow
Page Index: 312
Date: 9/8/2022 5:35:53 PM
Author: EPC Stormwater - Glenn Reese
Color: ■
Layer:
Space:
Page Label: [1] PROP 2

These areas are not shown as treated on the RR map or the Pond map. Create a separate color/hatching for excluded areas within the LOD and label which exclusion applies to each color/hatching type.

done changed hatch and removed SPA label from legend and relabeled



Subject: SW - Textbox with Arrow
Page Index: 312
Date: 9/8/2022 3:37:23 PM
Author: EPC Stormwater - Glenn Reese
Color: ■
Layer:
Space:
Page Label: [1] PROP 2

Plus the UIA overlaps with the RPA, which is not allowed.

it was left on by mistake now removed



Subject: SW - Textbox with Arrow
Page Index: 312
Date: 9/8/2022 5:35:23 PM
Author: EPC Stormwater - Glenn Reese
Color: ■

Please define these SPA's. Are they excluded from needing WQ treatment? Reference the applicable ECM section for each exclusion type.

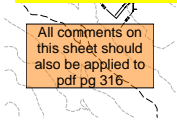
changed hatch and removed SPA label from legend and relabeled as "EXCLUDED UNDEVELOPED PERVIOUS AREA"

sorry I showed the SPA's

added hatch to area outside of LOD

Some of these SPA's are outside of the LOD. None of the SPA's are provided WQ treatment, so why even show them on here?

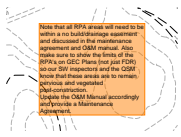
Currently the PBMP Applicability Form shows that there are no WQ exclusions on this site, so that will need to be resolved (unless using the WQ exclusion of <20% of site, up to 1ac of site) which is acceptable with Design Basin Standard A on page 3 of that form.



Subject: SW - Textbox
Page Index: 312
Date: 9/8/2022 5:37:07 PM
Author: EPC Stormwater - Glenn Reese
Color: ■
Layer:
Space:
Page Label: [1] PROP 2

All comments on this sheet should also be applied to pdf pg 316

done



Subject: SW - Textbox with Arrow
Page Index: 312
Date: 9/8/2022 5:44:12 PM
Author: EPC Stormwater - Glenn Reese
Color: ■
Layer:
Space:
Page Label: [1] PROP 2

Note that all RPA areas will need to be within a no build/drainage easement and discussed in the maintenance agreement and O&M manual. Also make sure to show the limits of the RPA's on GEC Plans (not just FDR) so our SW inspectors and the QSM know that these areas are to remain pervious and vegetated post-construction. Update the O&M Manual accordingly and provide a Maintenance Agreement.

315 (1)

5' Type R Sump Inle	Subject:
5' Type R Sump Inle	Page Index: 315
5' Type R Sump Inle	Date: 9/12/2022 2:49:30 PM
5' Type R Sump Inle	Author: dsdrice
5' Type R Sump Inle	Color: ■
5' Type R Sump Inle	Layer:
5' Type R Sump Inle	Space:
5' Type R Sump Inle	Page Label: [1] PROP 1

revised to 10'

CHANGED LOT GRADING SO ONLY LAST 20' OF THE LOT (NO BUILD ZONE IN SETBACK) DRAINS OFFSITE AND IS EXCLUDED UNDEVELOPED PERVIOUS AREA FOR ALL OTHER REVIOUS BASINS W/ RR . NOW ONLY HAVE RPA IN BASIN M2

PER JEFF RICE "we are working on a policy but are currently allowing for a plat note, so no additional easement is needed at this time. This is the plat note: No lots shall have any impervious improvements constructed within the rear setback (i.e. patios, hard-scape, recreational facilities, etc.)"

ALSO ADDED SECTION TO O&M MANUAL LAST SUBMITTAL

ALSO ADDED AND TO GEC .