



APPENDIX E – REFERENCE MATERIAL

Final Drainage Report
for
The Sanctuary Filing 1
at
Meridian Ranch



MERIDIAN RANCH

A GOLF & RECREATIONAL COMMUNITY

EL PASO COUNTY, COLORADO

August 2022

Prepared For:

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PCD Project No. SF22-020

Future Drainage - SCS Calculation Method

Following is a tabulation of the surface drainage characteristics for the future conditions using the SCS calculation method. Please refer to Figure 6 - Meridian Ranch SCS Calculations – Future Basins Map

Table 5: Future Drainage Basins-SCS

FUTURE SCS (Full Spectrum)						
	DRAINAGE AREA (SQ. MI.)	PEAK DISCHARGE Q100 (CFS)	PEAK DISCHARGE Q50 (CFS)	PEAK DISCHARGE Q10 (CFS)	PEAK DISCHARGE Q5 (CFS)	PEAK DISCHARGE Q2 (CFS)
OS06	0.1313	80	52	12	3.8	0.5
G1a	0.1313	80	52	12	3.8	0.5
G1a-G2	0.1313	79	52	11	3.7	0.5
OS05	0.0578	39	26	5.6	1.8	0.2
OS05-G1	0.0578	39	25	5.5	1.7	0.2
FG01	0.0538	31	22	7.0	3.4	0.9
FG01-G1	0.0538	31	22	7.0	3.4	0.9
G1	0.1116	61	41	11	4.9	1.1
G1-G2	0.1116	61	41	11	4.8	1.1
FG02	0.0391	32	22	6.4	2.7	0.5
G2	0.2820	167	112	27	10	1.9
G2-G3	0.2820	163	108	27	10	1.9
FG03	0.0203	24	17	5.9	3.0	0.8
FG04	0.0172	22	16	5.8	3.1	0.9
G3	0.3195	185	123	31	12	2.4
FG06	0.0675	56	40	12	5.8	1.3
FG05	0.0580	45	33	12	6.7	2.4
OS07ab	0.0170	12	7.9	1.8	0.5	0.07
OS07ab-POND F	0.0170	12	7.6	1.7	0.5	0.07
POND F IN	0.4620	293	200	54	23	5.1
POND F	0.4620	178	121	16	8.0	2.1
POND F-G7	0.4620	177	120	16	8.0	2.1
OS07c	0.0296	19	12	2.7	0.9	0.12
OS07c-G4	0.0296	19	12	2.6	0.9	0.12
FG21a	0.0095	5.9	4.0	1.0	0.4	0.06
G4	0.0391	25	16	3.6	1.2	0.2
G4-G7	0.0391	24	16	3.5	1.2	0.2
FG21b	0.0150	21	16	6.5	3.9	1.7
G7	0.5161	194	131	18	8.9	2.3
G7-G8	0.5161	194	131	18	8.9	2.3
FG22	0.1354	121	88	32	17	5.4
OS08a	0.0251	16	11	2.3	0.7	0.10
OS08-G8	0.0251	16	10	2.3	0.7	0.10
FG23a	0.0216	21	15	5.2	2.7	0.8
OS07d	0.0034	2.5	1.6	0.4	0.11	0.01
OS07d-G8	0.0034	2.4	1.6	0.3	0.11	0.01
G8	0.7016	279	178	46	24	7.7
G8-G10	0.7016	278	177	45	24	7.6
FG24b	0.0589	76	57	24	15	6.5
FG24a	0.0348	24	16	4.5	2.0	0.4
OS08b	0.0165	9.5	6.3	1.4	0.5	0.07
OS08b-G9a	0.0165	9.4	6.0	1.4	0.5	0.07
OS09a	0.0093	5.3	3.5	0.8	0.3	0.04
OS09a-G9a	0.0093	5.2	3.4	0.7	0.3	0.04
G9a	0.1195	97	71	28	16	6.7

FUTURE SCS (Full Spectrum)						
	DRAINAGE AREA (SQ. MI.)	PEAK DISCHARGE Q100 (CFS)	PEAK DISCHARGE Q50 (CFS)	PEAK DISCHARGE Q10 (CFS)	PEAK DISCHARGE Q5 (CFS)	PEAK DISCHARGE Q2 (CFS)
G9a-G9b	0.1195	96	70	27	16	6.6
FG24c	0.0291	40	30	13	8.4	4.0
FG24d	0.0262	39	30	14	8.7	4.4
G9b	0.1748	170	127	53	32	14
REX RD WQCV	0.1748	158	125	51	31	14
G9b-G10	0.1748	158	123	50	31	13
FG23b	0.0236	17	11	2.7	0.9	0.13
G10	0.9000	390	263	90	46	15
G10-G11	0.9000	389	254	85	44	15
FG23c	0.0109	11	7.6	2.2	1.0	0.2
G11	0.9109	393	258	86	44	15
FG25	0.1084	111	84	36	22	9.9
FG28	0.0184	15	10	3.0	1.2	0.2
POND G IN-WEST	1.0377	503	350	122	63	22
FG27	0.0679	98	79	42	30	18
FG26	0.0570	65	50	24	16	8.2
G13	0.0570	65	50	24	16	8.2
G13-POND G	0.0570	64	50	24	16	8.1
POND G IN-EAST	0.1249	160	127	64	44	25
POND G	1.1626	450	293	52	21	5.3
G12	1.1626	450	293	52	21	5.3
G12-G06	1.1626	449	293	52	21	5.3
FG29	0.0983	60	39	8.9	2.9	0.4
FG32	0.0402	51	40	20	14	7.5
FG32-G06	0.0402	50	40	19	13	7.4
G06	1.3011	491	317	57	22	7.5

Rational Calculations

The Rational Hydrologic Calculation Method was used to estimate the total runoff from the 5-year and the 100-year design storm and thus establish the storm drainage system design. Using the rational calculation methodology outlined in the Hydrology Section (Ch 6) of the COSDCM coupled with the El Paso County EPCDCM an effective storm drainage design for the Sanctuary Filing 1 has been designed. The storm drainage facilities have been designed such that the minor storm will be captured by the inlets and conveyed by the storm drain pipes such that the street flow does not overtop the curbs. The storm drainage facility has been designed such that the major storm will be captured by the inlets and conveyed by the storm drain pipes such that the street flow does not exceed the right-of-way widths for residential streets and the hydraulic grade line will be less than one foot below the surface.

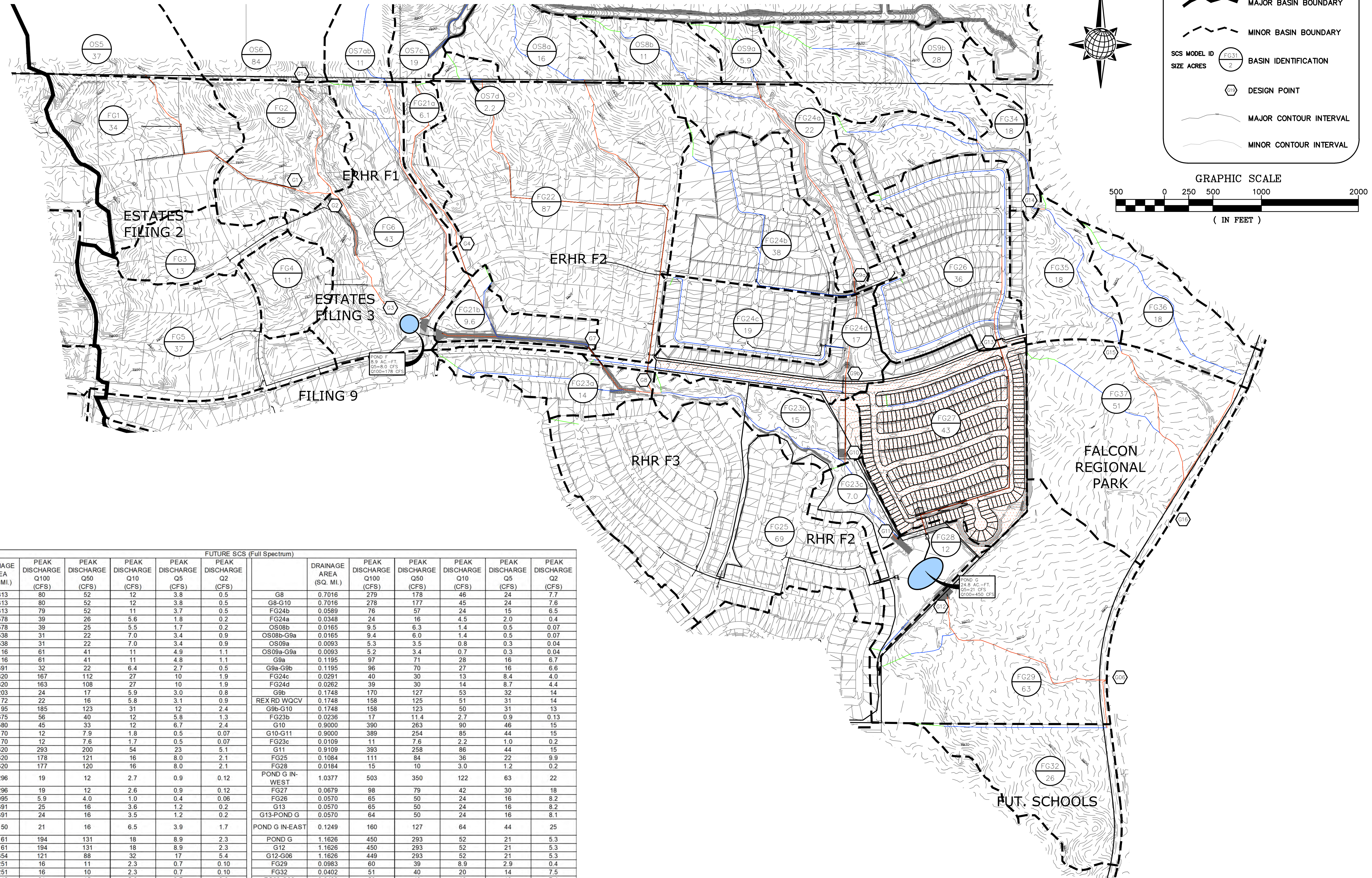
The site is located within the Gieck Ranch Drainage Basin. The storm drain runoff will be collected by a series of inlets and storm drain pipe then conveyed through the project and discharge directly into the existing Pond G that is properly sized to safely convey the storm water flows away from the project without damaging adjacent property.

Rational Narrative

The following is a detailed narrative of the storm drainage system located in the Sanctuary Filing 1. These storm drainage systems meet the requirements of as found in the El Paso

*NOTE: PRELIMINARY STORAGE VOLUMES AND OUTFLOW QUANTITIES HAVE BEEN PROVIDED FOR EACH OF THE FUTURE DETENTION FACILITIES LOCATED WITHIN THE DEVELOPMENT. THE ACTUAL STORAGE VOLUMES AND DISCHARGE RATES WILL BE DETERMINED UPON A COMPLETE ANALYSIS FOR EACH DETENTION FACILITY PRIOR TO CONSTRUCTION. THE VALUES GIVEN FOR DISCHARGE AND VOLUME ARE ESTIMATES FOR PLANNING PURPOSES ONLY.

THE SANCTUARY FILING 1



FUTURE SCS (Full Spectrum)													
	DRAINAGE AREA (SQ. MI.)	PEAK DISCHARGE Q100 (CFS)	PEAK DISCHARGE Q50 (CFS)	PEAK DISCHARGE Q10 (CFS)	PEAK DISCHARGE Q5 (CFS)	PEAK DISCHARGE Q2 (CFS)	DRAINAGE AREA (SQ. MI.)	PEAK DISCHARGE Q100 (CFS)	PEAK DISCHARGE Q50 (CFS)	PEAK DISCHARGE Q10 (CFS)	PEAK DISCHARGE Q5 (CFS)	PEAK DISCHARGE Q2 (CFS)	
OS06	0.1313	80	52	12	3.8	0.5	G8	0.7016	279	178	46	24	7.7
G1a	0.1313	80	52	12	3.8	0.5	G8-G10	0.7016	278	177	45	24	7.6
G1a-G2	0.1313	79	52	11	3.7	0.5	FG24b	0.0589	76	57	24	15	6.5
OS05	0.0578	39	26	5.6	1.8	0.2	FG24a	0.0348	24	16	4.5	2.0	0.4
OS05-G1	0.0578	39	25	5.5	1.7	0.2	OS08b	0.0165	9.5	6.3	1.4	0.5	0.07
FG01	0.0538	31	22	7.0	3.4	0.9	OS08b-G9a	0.0165	9.4	6.0	1.4	0.5	0.07
FG01-G1	0.0538	31	22	7.0	3.4	0.9	OS09a	0.0093	5.3	3.5	0.8	0.3	0.04
G1	0.1116	61	41	11	4.9	1.1	OS09a-G9a	0.0093	5.2	3.4	0.7	0.3	0.04
G1-G2	0.1116	61	41	11	4.8	1.1	G9a	0.1195	97	71	28	16	6.7
FG02	0.0391	32	22	6.4	2.7	0.5	G9a-G9b	0.1195	96	70	27	16	6.6
G2	0.2820	167	112	27	10	1.9	FG24c	0.0291	40	30	13	8.4	4.0
G2-G3	0.2820	163	108	27	10	1.9	FG24d	0.0262	39	30	14	8.7	4.4
FG03	0.0203	24	17	5.9	3.0	0.8	G9b	0.1748	170	127	53	32	14
FG04	0.0172	22	16	5.8	3.1	0.9	REX RD WQCV	0.1748	158	125	51	31	14
G3	0.3195	185	123	31	12	2.4	G9b-G10	0.1748	158	123	50	31	13
FG06	0.0675	56	40	12	5.8	1.3	FG23b	0.0235	17	11.4	2.7	0.9	0.13
FG05	0.0590	45	33	12	6.7	2.4	G10	0.9000	390	263	90	46	15
OS07ab	0.0170	12	7.9	1.8	0.5	0.07	G10-G11	0.9000	389	254	85	44	15
OS07ab-POND F	0.0170	12	7.6	1.7	0.5	0.07	FG23c	0.0109	11	7.6	2.2	1.0	0.2
POND F IN	0.4620	293	200	54	23	5.1	G11	0.9109	393	258	86	44	15
POND F	0.4620	178	121	16	8.0	2.1	FG25	0.1084	111	84	36	22	9.9
POND F-G7	0.4620	177	120	16	8.0	2.1	FG28	0.0184	15	10	3.0	1.2	0.2
OS07c	0.0296	19	12	2.7	0.9	0.12	POND G IN-WEST	1.0377	503	350	122	63	22
OS07c-G4	0.0296	19	12	2.6	0.9	0.12	FG27	0.0679	98	79	42	30	18
FG21a	0.0095	5.9	4.0	1.0	0.4	0.06	FG28	0.0570	65	50	24	16	8.2
G4	0.0391	25	16	3.6	1.2	0.2	G13	0.0570	65	50	24	16	8.2
G4-G7	0.0391	24	16	3.5	1.2	0.2	G13-POND G	0.0570	64	50	24	16	8.1
FG21b	0.0150	21	16	6.5	3.9	1.7	POND G IN-EAST	0.1249	160	127	64	44	25
G7	0.5161	194	131	18	8.9	2.3	POND G	1.1626	450	293	52	21	5.3
G7-G8	0.5161	194	131	18	8.9	2.3	G12	1.1626	450	293	52	21	5.3
FG22	0.1354	121	88	32	17	5.4	G12-G06	1.1626	449	293	52	21	5.3
OS08a	0.0251	16	11	2.3	0.7	0.10	FG29	0.0983	60	39	8.9	2.9	0.4
OS08-G8	0.0251	16	10	2.3	0.7	0.10	FG32	0.0402	51	40	20	14	7.5
FG23a	0.0216	21	15	5.2	2.7	0.8	FG32-G06	0.0402	50	40	19	13	7.4
OS07d	0.0034	2.5	1.6	0.4	0.1	0.01	G06	1.3011	491	317	57	22	7.5
OS07d-G8	0.0034	2.4	1.6	0.3	0.1	0.01							

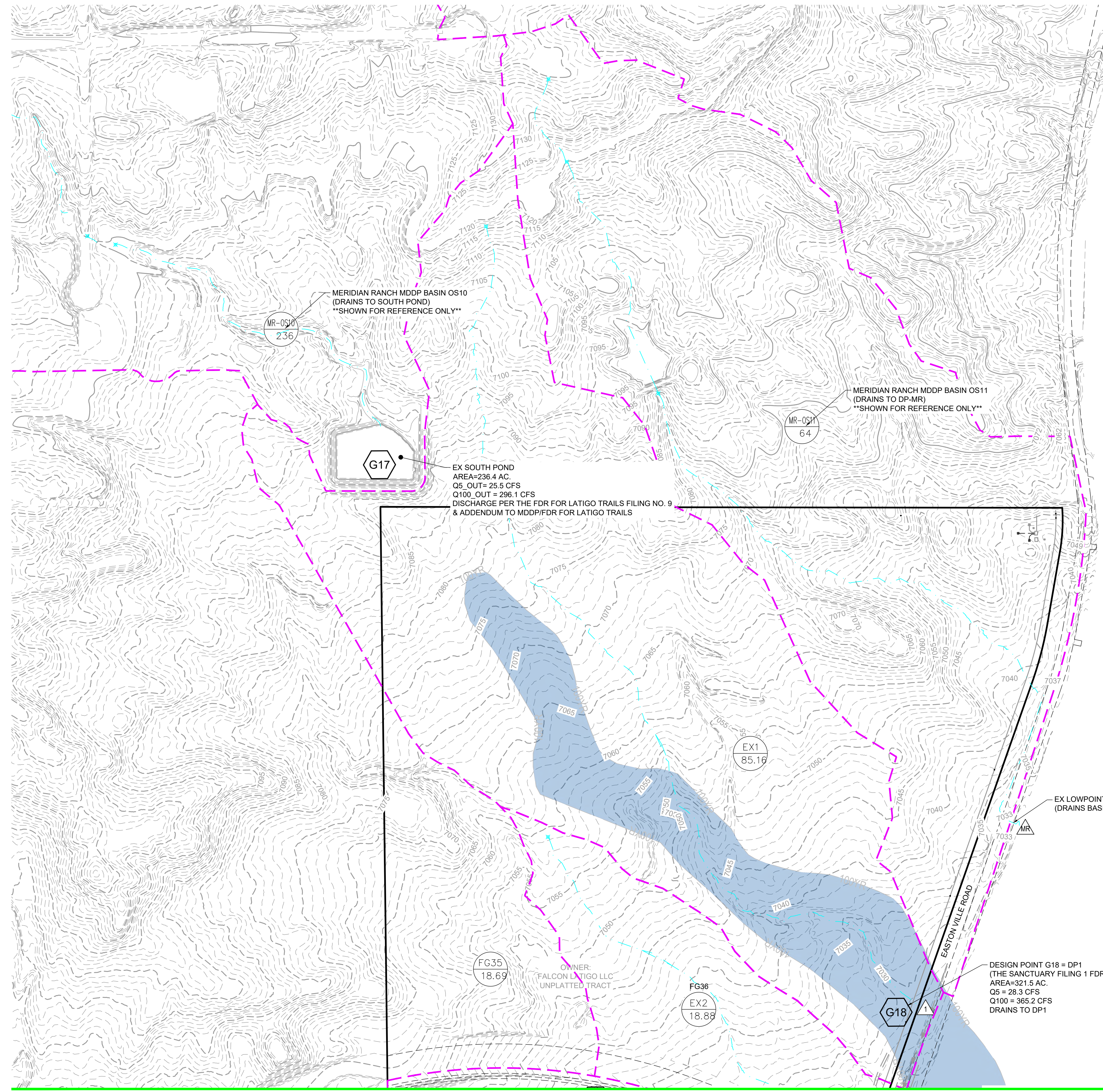
FUTURE CONDITIONS - SCS MAP

FIGURE 6

Drawn by		Checked by		Date	
TAK				JUNE 2022	
AS SHOWN		of			
Scale		Revisions		No.	
TECH CONTRACTORS					
1.1910 TOURMALINE DR #130					
FALCON, CO 80831					
TELEPHONE: 719.495.7444					
MERIDIAN RANCH					
FUTURE CONDITIONS - SCS MAP					
THE SANCTUARY FILING 1					
PDR - FDR					



APPENDIX F – DRAINAGE MAPS



SUMMARY RUNOFF TABLE				
BASIN	AREA (ac)	% IMPERVIOUS	Q ₅ (cfs)	Q ₁₀₀ (cfs)
G18*	321.53	-	28.3	365.2
FG36*	18.88	-	1.7	18.8
G16*	131.26	-	6.1	112.1
G06*	832.70	-	22.4	491.0
EX5	22.35	3	7.0	43.3
EX6	3.95	5	1.2	6.9
EX7	1.47	9	0.9	4.2
EX8	13.13	4	3.8	22.6
EX9	1.59	12	0.9	3.7

DESIGN POINT SUMMARY TABLE			
DESIGN POINT	CONTRIBUTING BASINS	ΣQ ₅ (cfs)	ΣQ ₁₀₀ (cfs)
1	G18*	28.3	365.2
2	FG36*	1.7	18.8
3	G16*	6.1	112.1
4	G06*	22.4	491.0
5	EX5	7.0	43.3
6	EX6	1.2	6.9
7	EX7	0.9	4.2
8	EX8	3.8	22.6
9	EX9	0.9	3.7

* AREA AND Q TAKEN FROM THE SANCTUARY FILING 1 FDR

LEGEND:

- EXISTING MAJOR CONTOUR 5250
- EXISTING MINOR CONTOUR
- EX STORM SEWER
- EX DRAINAGE SWALE
- EX PROPERTY LINE
- EXISTING FLOW DIRECTION
- PROPOSED DRAINAGE BASIN
- DESIGN POINT
- PROPOSED BASIN LABEL

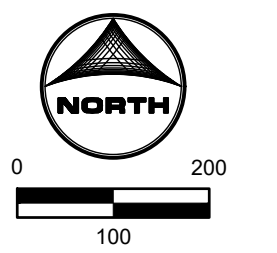
SEE SHEET 2

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 APPROVED: CM JOB NUMBER: 201662.08
 CAD DATE: 9/8/2023
 CAD FILE: J:\2020\201662\CAD\Drawings\Eastonville_Road_662.08\Drainage\201662.08_FDR_map_ex

NO.	DATE	BY	REVISION DESCRIPTION

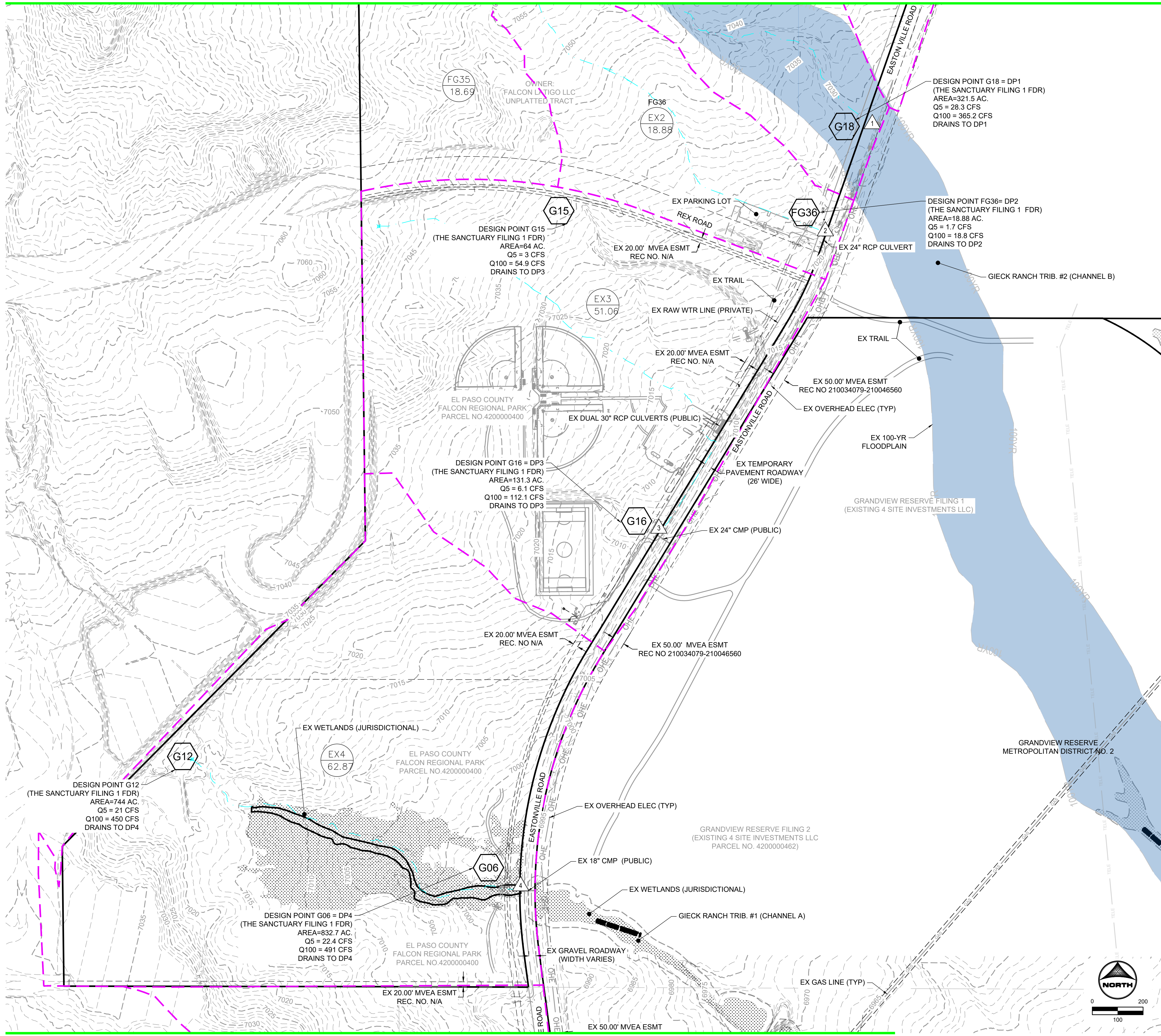
HRGreen
 HR GREEN - COLORADO SPRINGS
 1975 RESEARCH PKWY SUITE 230
 COLORADO SPRINGS CO 80920
 PHONE: 719.300.4140
 FAX: 713.965.0044

EASTONVILLE ROAD
 D.R. HORTON
 EL PASO COUNTY, CO



EXISTING CONDITIONS - DRAINAGE MAP

SHEET DRN 1



SUMMARY RUNOFF TABLE				
BASIN	AREA (ac)	% IMPERVIOUS	Q ₅ (cfs)	Q ₁₀₀ (cfs)
G18*	321.53	-	28.3	365.2
FG36*	18.88	-	1.7	18.8
G16*	131.26	-	6.1	112.1
G06*	832.70	-	22.4	491.0
EX5	22.35	3	7.0	43.3
EX6	3.05	5	1.2	6.9
EX7	1.47	9	0.9	4.2
EX8	13.13	4	3.8	22.6
EX9	1.59	12	0.9	3.7

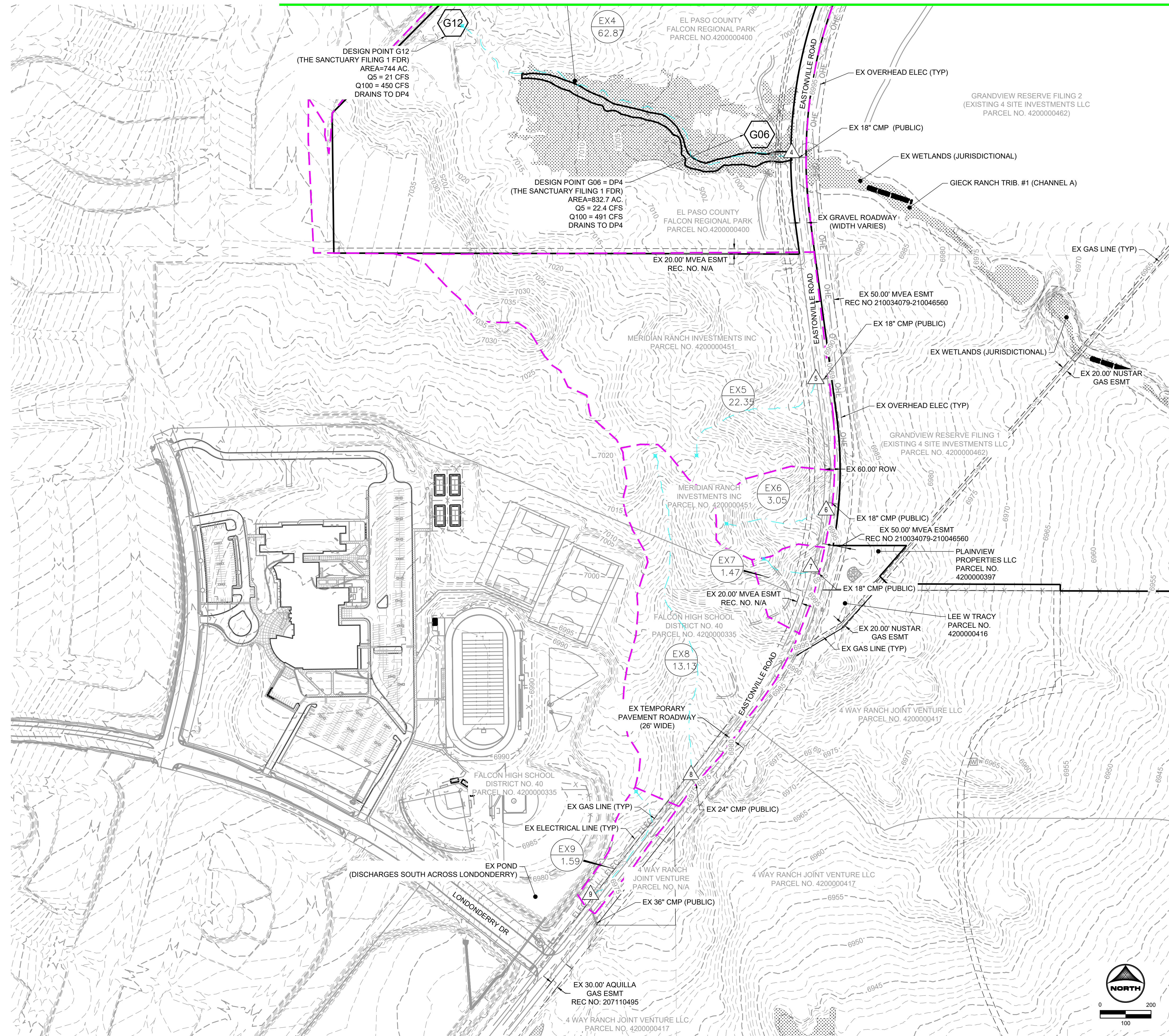
DESIGN POINT SUMMARY TABLE			
DESIGN POINT	CONTRIBUTING BASINS	ΣQ ₅ (cfs)	ΣQ ₁₀₀ (cfs)
1	G18*	28.3	365.2
2	FG36*	1.7	18.8
3	G16*	6.1	112.1
4	G06*	22.4	491.0
5	EX5	7.0	43.3
6	EX6	1.2	6.9
7	EX7	0.9	4.2
8	EX8	3.8	22.6
9	EX9	0.9	3.7

* AREA AND Q TAKEN FROM THE SANCTUARY FILING 1 FDR

LEGEND:

- EXISTING MAJOR CONTOUR 5250
- EXISTING MINOR CONTOUR
- EX STORM SEWER
- EX DRAINAGE SWALE
- EX PROPERTY LINE
- EXISTING FLOW DIRECTION ←
- PROPOSED DRAINAGE BASIN
- DESIGN POINT ▲
- PROPOSED BASIN LABEL NAME
AREA

NO.	DATE	BY	REVISION DESCRIPTION



SUMMARY RUNOFF TABLE				
BASIN	AREA (ac)	% IMPERVIOUS	Q ₅ (cfs)	Q ₁₀₀ (cfs)
G18*	321.53	-	28.3	365.2
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2	FG36*	1.7	18.8
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4	G06*	22.4	491.0
5	EX5	7.0	43.3
6	EX6	1.2	6.9
7	EX7	0.9	4.2
8	EX8	3.8	22.6
9	EX9	0.9	3.7

* AREA AND Q TAKEN FROM THE SANCTUARY FILING 1 FDR

LEGEND:

- EXISTING MAJOR CONTOUR 5250
- EXISTING MINOR CONTOUR
- EX STORM SEWER
- EX DRAINAGE SWALE
- EX PROPERTY LINE
- EXISTING FLOW DIRECTION
- PROPOSED DRAINAGE BASIN
- DESIGN POINT
- PROPOSED BASIN LABEL

DRAWN BY: NQJ JOB DATE: 9/8/2023 BAR IS ONE INCH ON OFFICIAL DRAWINGS.
 APPROVED: CM JOB NUMBER: 201662.08 0" = 11'
 CAD DATE: 9/8/2023 IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
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NO.	DATE	BY	REVISION DESCRIPTION

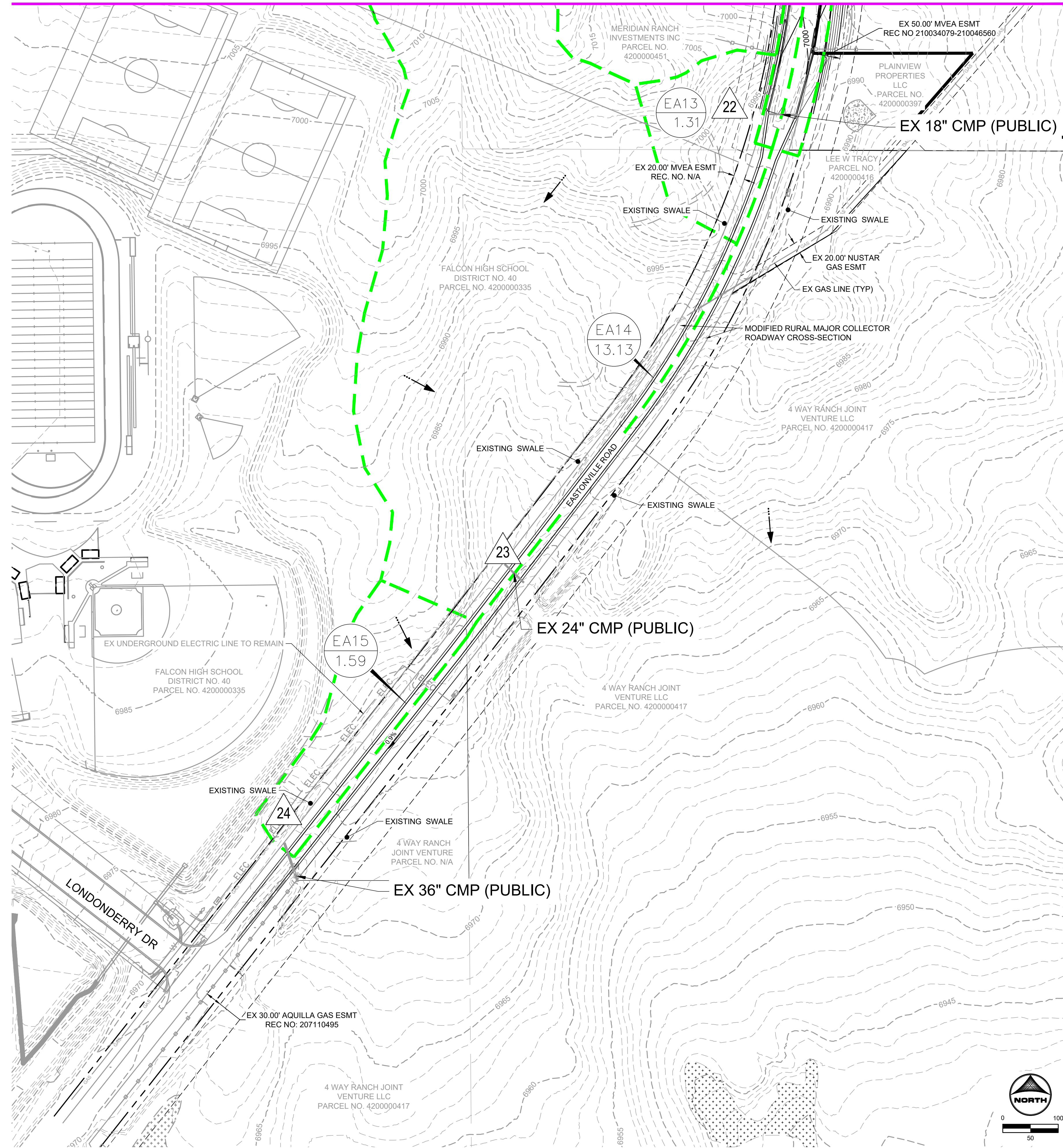
HRGreen
 HR GREEN - COLORADO SPRINGS
 1975 RESEARCH PKWY SUITE 230
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 PHONE: 719.300.4140
 FAX: 713.965.0044

EASTONVILLE ROAD
 D.R. HORTON
 EL PASO COUNTY, CO

D-R HORTON
 America's Builder

EXISTING CONDITIONS - DRAINAGE MAP

SEE SHEET 2



BASIN SUMMARY TABLE

BASIN	AREA (ac)	% IMPERVIOUS	Q _s (cfs)	Q ₁₀₀ (cfs)
OS1	85.16	-	-	-
OS2	15.03	7	4.2	21.6
OS3	1.00	2	0.2	1.7
OS4	9.00	9	3.8	17.3
OS5	40.26	6	13.3	64.0
OS6	60.07	2	8.9	60.6
OS7	23.46	2	5.7	38.6
OS8	11.42	2	3.4	22.7
EA1	0.22	73	0.8	1.5
EA2	0.25	73	0.9	1.7
EA3	0.20	71	0.7	1.4
EA4	0.17	65	0.5	1.1
EA5	0.16	2	0.1	0.5
EA6	0.70	100	3.2	5.7
EA7	0.65	89	2.6	4.8
EA8	2.08	99	5.0	9.0
EA9	2.99	64	4.6	9.5
EA10	1.34	94	4.0	7.4
EA11	1.99	66	4.1	8.5
EA12	0.92	4	0.5	3.0
EA13	1.31	12	1.0	4.0
EA14	13.13	4	4.0	23.0
EA15	1.59	14	1.0	3.9

DESIGN POINT SUMMARY TABLE

DESIGN POINT	CONTRIBUTING BASINS	ΣQ _s (cfs)	ΣQ ₁₀₀ (cfs)
1	OS1 & G17	28.3	365.2
2	EA1	0.8	1.5
3	EA2	0.9	1.7
3.1	DP2 & DP3	1.6	3.2
4	EA5 & DP3.1	1.6	3.4
5	EA3	0.7	1.4
6	EA4	0.5	1.1
6.1	DP5 & DP6	1.2	2.4
7	OS2	4.2	21.6
8	OS3	0.2	1.7
8.1	DP7 & DP8	4.4	22.9
9.1	DP8.1 & DP8.1	4.9	23.8
10	EA7 & EA8	5.6	10.3
11	OS4 & G15 & DP9.1	10.5	144.3
12	OS5	13.3	64.0
12.1	DP11 & DP12	21.6	103.1
13	OS8	3.4	22.7
13.1	DP12.1 & DP13	23.4	115.2
14	EA9	5.0	9.0
15	EA9	4.6	9.5
15.1	DP14 & DP15	9.3	17.9
16	OS6 & G12 (G6*)	22.4	491.0
17	EA10	4.0	7.4
18	EA11	4.1	8.5
18.1	DP17 & DP18	8.0	15.4
19.1	DP15.1 & DP18.1	15.0	28.8
20	EA12	0.5	3.0
21	OS7	5.7	38.6
22	EA13	1.0	4.0
23	EA14	4.0	23.0
24	EA15	1.0	3.9

LEGEND:

- PROPOSED MAJOR CONTOUR ——— 5250 ———
- PROPOSED MINOR CONTOUR - - - - - 5250 - - - - -
- EXISTING MAJOR CONTOUR ———
- EXISTING MINOR CONTOUR - - - - -
- PROPOSED STORM SEWER ———
- PROPOSED DRAINAGE SWALE ———
- PROPERTY LINE ———
- PROPOSED FLOW DIRECTION ———
- EXISTING FLOW DIRECTION ———
- PROPOSED DRAINAGE BASIN DESIGN POINT ———
- PROPOSED BASIN LABEL (NAME AREA)

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NO.	DATE	BY	REVISION DESCRIPTION

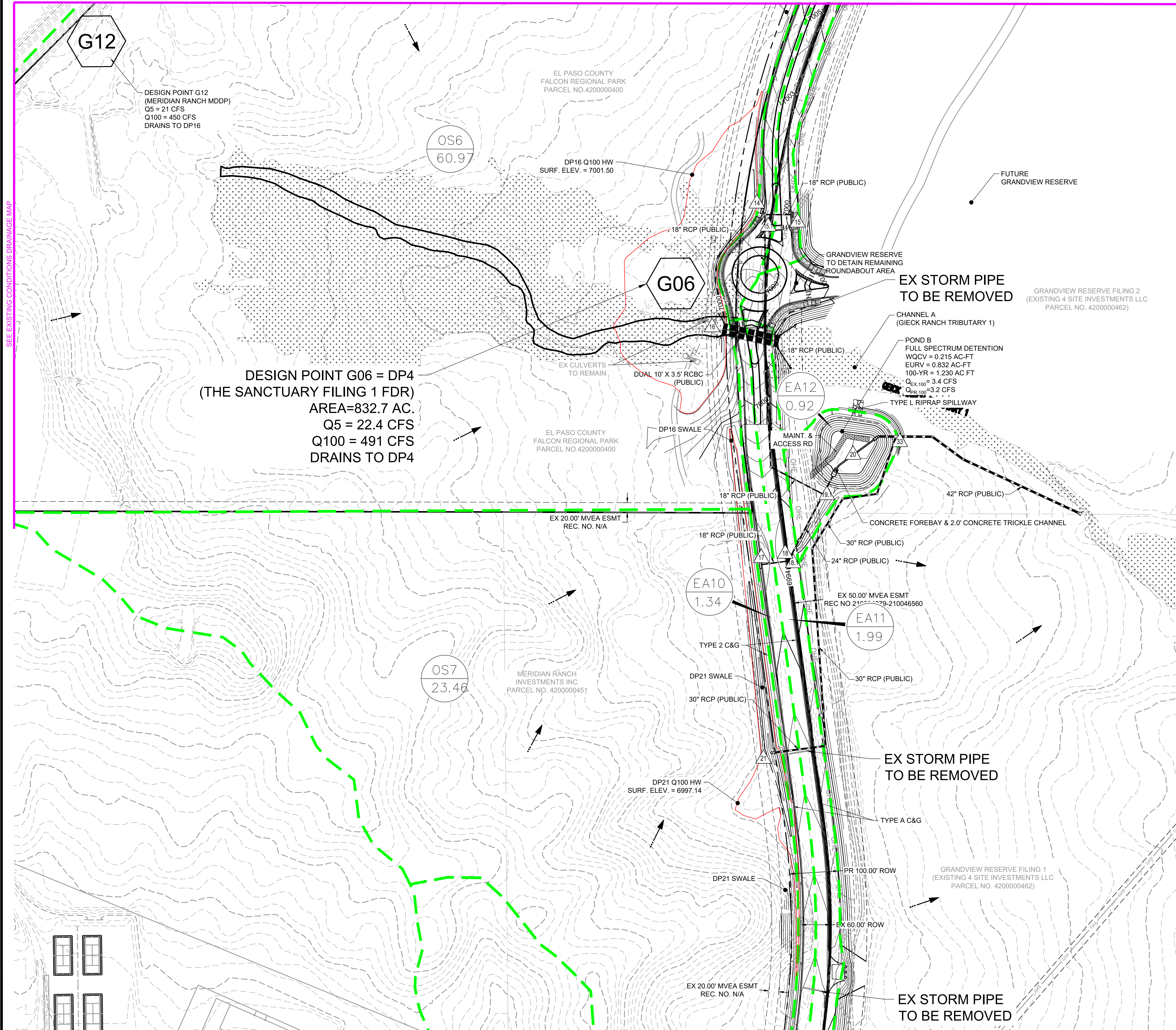
HRGreen
 HR GREEN - COLORADO SPRINGS
 1975 RESEARCH PKWY SUITE 230
 COLORADO SPRINGS CO 80920
 PHONE: 719.300.4140
 FAX: 713.965.0044

EASTONVILLE ROAD
 D.R. HORTON
 EL PASO COUNTY, CO

D-R HORTON
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PROPOSED CONDITIONS - DRAINAGE MAP

SHEET DRN 1



DESIGN POINT G12
(MERIDIAN RANCH MDDP)
Q5 = 21 CFS
Q100 = 450 CFS
DRAINS TO DP16

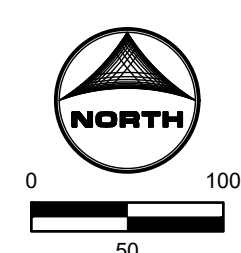
DESIGN POINT G06 = DP4
(THE SANCTUARY FILING 1 FDR)
AREA=832.7 AC.
Q5 = 22.4 CFS
Q100 = 491 CFS
DRAINS TO DP4

BASIN SUMMARY TABLE				
BASIN	AREA (ac)	% IMPERVIOUS	Q ₅ (cfs)	Q ₁₀₀ (cfs)
OS1	85.16	-	-	-
OS2	15.03	7	4.2	21.6
OS3	1.00	2	0.2	1.7
OS4	9.60	9	3.8	17.3
OS5	40.26	8	13.3	64.0
OS6	60.97	2	8.9	60.6
OS7	23.46	2	5.7	38.6
OS8	11.42	2	3.4	22.7
EA1	0.22	73	0.8	1.5
EA2	0.25	73	0.9	1.7
EA3	0.20	71	0.7	1.4
EA4	0.17	65	0.5	1.1
EA5	0.18	2	0.1	0.5
EA6	0.70	100	3.2	5.7
EA7	0.65	89	2.6	4.8
EA8	2.08	99	5.0	9.0
EA9	2.99	64	4.6	9.5
EA10	1.34	94	4.0	7.4
EA11	1.99	66	4.1	8.5
EA12	0.92	4	0.5	3.0
EA13	1.31	12	1.0	4.0
EA14	13.13	4	4.0	23.0
EA15	1.59	14	1.0	3.9

DESIGN POINT SUMMARY TABLE			
DESIGN POINT	CONTRIBUTING BASINS	Q ₅ (cfs)	Q ₁₀₀ (cfs)
1	OS1 & G17	28.3	365.2
2	EA1	0.8	1.5
3	EA2	0.9	1.7
3.1	DP2 & DP3	1.6	3.2
4	EA5 & DP3.1	1.6	3.4
5	EA3	0.7	1.4
6	EA4	0.5	1.1
6.1	DP5 & DP6	1.2	2.4
7	OS2	4.2	21.6
8	OS3	0.2	1.7
9.1	DP7 & DP8	4.4	23.9
9.1	DP8.1 & DP8.1	4.9	23.8
10	EA7 & EA8	5.6	10.3
11	OS4 & G15 & DP9.1	10.5	144.3
12	OS5	13.3	64.0
12.1	DP11 & DP12	21.6	103.1
13	OS8	3.4	22.7
13.1	DP12.1 & DP13	23.4	116.2
14	EA8	5.0	9.0
15	EA9	4.6	9.5
15.1	DP14 & DP15	9.3	17.9
16	OS6 & G12 (G6*)	22.4	491.0
17	EA10	4.0	7.4
18	EA11	4.1	8.5
18.1	DP17 & DP18	8.0	15.4
19.1	DP15.1 & DP18.1	15.0	28.8
20	EA12	0.5	3.0
21	OS7	5.7	38.6
22	EA13	1.0	4.0
23	EA14	4.0	23.0
24	EA15	1.0	3.9

LEGEND:

- PROPOSED MAJOR CONTOUR ——— 5250 ———
- PROPOSED MINOR CONTOUR - - - - - 5250 - - - - -
- EXISTING MAJOR CONTOUR ——— (dashed) ———
- EXISTING MINOR CONTOUR - - - - - (dashed) - - - - -
- PROPOSED STORM SEWER ——— (thick) ———
- PROPOSED DRAINAGE SWALE ——— (dashed) ———
- PROPERTY LINE ——— (dotted) ———
- PROPOSED FLOW DIRECTION ——— (arrow) ———
- EXISTING FLOW DIRECTION ——— (arrow) ———
- PROPOSED DRAINAGE BASIN ——— (green dashed) ———
- DESIGN POINT ——— (triangle) ———
- PROPOSED BASIN LABEL ——— (circle) ———



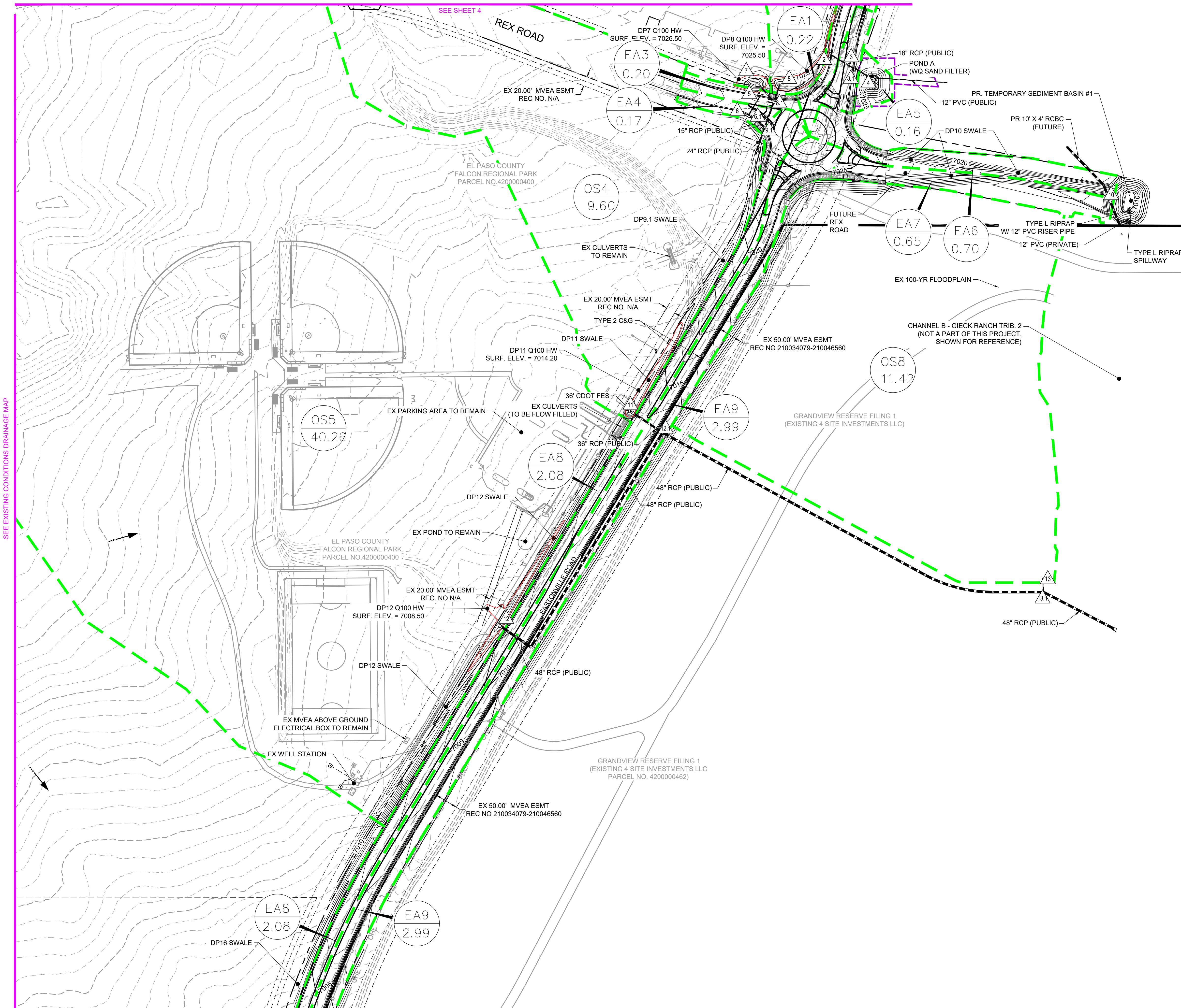
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 EL PASO COUNTY, CO

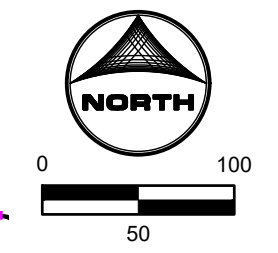


BASIN SUMMARY TABLE				
BASIN	AREA (ac)	% IMPERVIOUS	Q _s (cfs)	Q ₁₀₀ (cfs)
OS1	85.16	-	-	-
OS2	15.03	7	4.2	21.6
OS3	1.00	2	0.2	1.7
OS4	9.60	9	3.8	17.3
OS5	40.26	8	13.3	64.0
OS6	60.97	2	8.9	60.6
OS7	23.46	2	5.7	38.6
OS8	11.42	2	3.4	22.7
EA1	0.22	73	0.8	1.5
EA2	0.25	73	0.9	1.7
EA3	0.20	71	0.7	1.4
EA4	0.17	65	0.5	1.1
EA5	0.16	2	0.1	0.5
EA6	0.70	100	3.2	5.7
EA7	0.65	89	2.6	4.8
EA8	2.08	99	5.0	9.0
EA9	2.99	64	4.6	9.5
EA10	1.34	94	4.0	7.4
EA11	1.99	66	4.1	8.5
EA12	0.92	4	0.5	3.0
EA13	1.31	12	1.0	4.0
EA14	13.13	4	4.0	23.0
EA15	1.59	14	1.0	3.9

DESIGN POINT SUMMARY TABLE				
DESIGN POINT	CONTRIBUTING BASINS	Q _s (cfs)	Q ₁₀₀ (cfs)	
1	OS1 & G17	28.3	365.2	
2	EA1	0.8	1.5	
3	EA2	0.9	1.7	
3.1	DP2 & DP3	1.6	3.2	
4	EA5 & DP3.1	1.6	3.4	
5	EA3	0.7	1.4	
6	EA4	0.5	1.1	
6.1	DP5 & DP6	1.2	2.4	
7	OS2	4.2	21.6	
8	OS3	0.2	1.7	
8.1	DP7 & DP8	4.4	22.9	
9.1	DP8.1 & DP8.1	4.9	23.8	
10	EA7 & EA8	5.6	10.3	
11	OS4 & G15 & DP9.1	10.5	144.3	
12	OS5	13.3	64.0	
12.1	DP11 & DP12	21.6	103.1	
13	OS8	3.4	22.7	
13.1	DP12.1 & DP13	23.4	115.2	
14	EA6	5.0	9.0	
15	EA9	4.6	9.5	
15.1	DP14 & DP15	9.3	17.9	
16	OS6 & G12 (G6*)	22.4	491.0	
17	EA10	4.0	7.4	
18	EA11	4.1	8.5	
18.1	DP17 & DP18	8.0	15.4	
19.1	DP15.1 & DP18.1	15.0	28.8	
20	EA12	0.5	3.0	
21	OS7	5.7	38.6	
22	EA13	1.0	4.0	
23	EA14	4.0	23.0	
24	EA15	1.0	3.9	

LEGEND:

- PROPOSED MAJOR CONTOUR: Solid line with elevation 5250
- PROPOSED MINOR CONTOUR: Dashed line with elevation 5250
- EXISTING MAJOR CONTOUR: Solid line with elevation 5250
- EXISTING MINOR CONTOUR: Dashed line with elevation 5250
- PROPOSED STORM SEWER: Solid line with arrows
- PROPOSED DRAINAGE SWALE: Dashed line with arrows
- PROPERTY LINE: Dashed line
- PROPOSED FLOW DIRECTION: Solid arrow
- EXISTING FLOW DIRECTION: Dashed arrow
- PROPOSED DRAINAGE BASIN: Green dashed outline
- DESIGN POINT: Triangle symbol with name/area
- PROPOSED BASIN LABEL: Circle symbol with name/area



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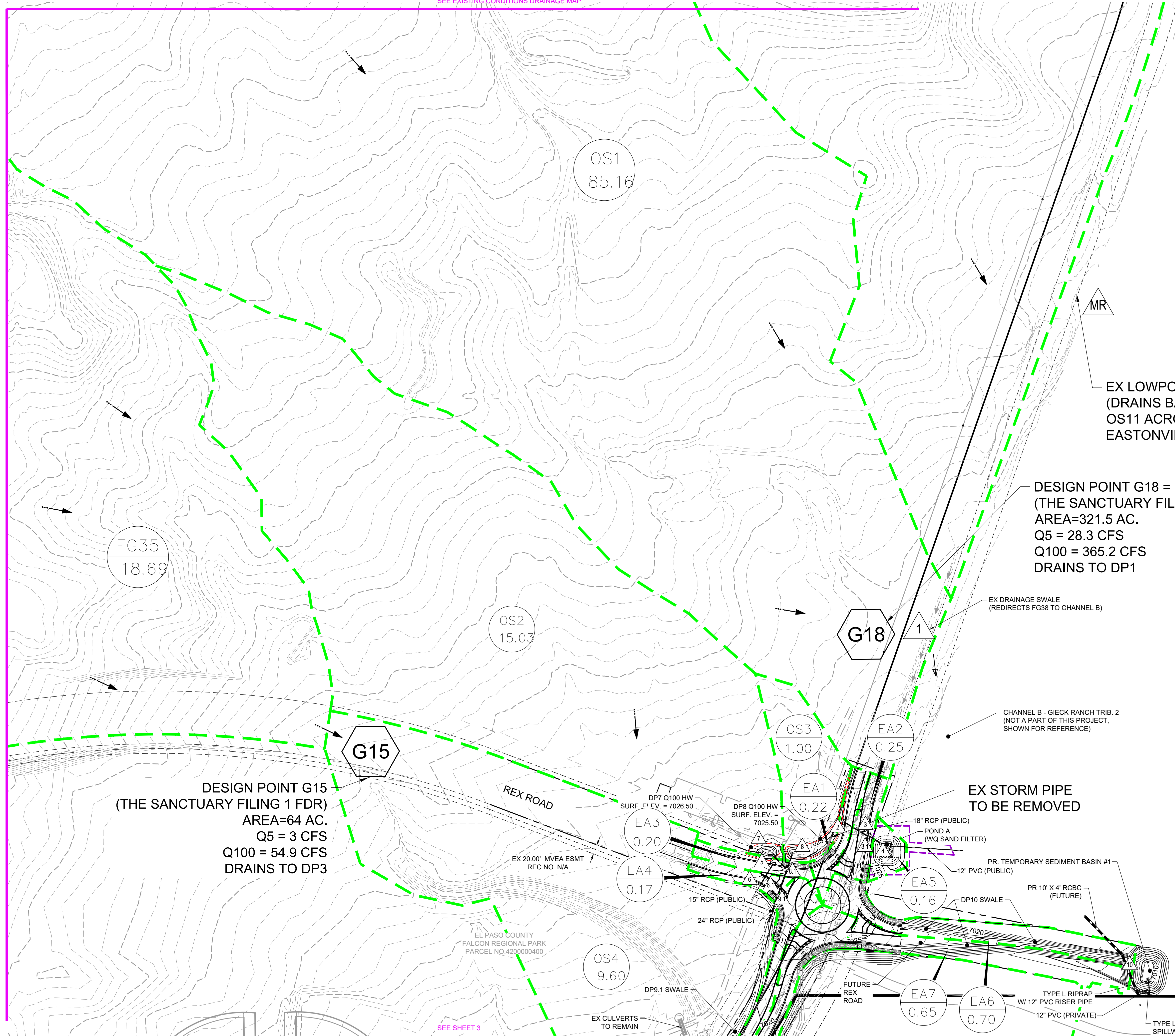
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SEE EXISTING CONDITIONS DRAINAGE MAP

BASIN SUMMARY TABLE					DESIGN POINT SUMMARY TABLE			
BASIN	AREA (ac)	% IMPERVIOUS	Q ₅ (cfs)	Q ₁₀₀ (cfs)	DESIGN POINT	CONTRIBUTING BASINS	ΔQ ₅ (cfs)	ΔQ ₁₀₀ (cfs)
OS1	85.16	-	-	-	1	OS1 & G17	28.3	365.2
OS2	15.03	7	4.2	21.6	2	EA1	0.8	1.5
OS3	1.00	2	0.2	1.7	3	EA2	0.9	1.7
OS4	9.60	9	3.8	17.3	3.1	DP2 & DP3	1.6	3.2
OS5	40.26	8	13.3	64.0	4	EA5 & DP3.1	1.6	3.4
OS6	60.97	2	8.9	60.6	5	EA3	0.7	1.4
OS7	23.46	2	5.7	38.6	6	EA4	0.5	1.1
OS8	11.42	2	3.4	22.7	6.1	DP5 & DP6	1.2	2.4
EA1	0.22	73	0.8	1.5	7	OS2	4.2	21.6
EA2	0.25	73	0.9	1.7	8	OS3	0.2	1.7
EA3	0.20	71	0.7	1.4	8.1	DP7 & DP8	4.4	22.9
EA4	0.17	65	0.5	1.1	9	DP6.1 & DP8.1	4.9	23.8
EA5	0.16	2	0.1	0.5	10	EA7 & EA6	5.6	10.3
EA6	0.70	100	3.2	5.7	11	OS4 & G15 & DP9.1	10.5	144.3
EA7	0.65	89	2.6	4.8	12	OS5	13.3	64.0
EA8	2.08	99	5.0	9.0	12.1	DP11 & DP12	3.4	103.1
EA9	2.99	64	4.6	9.5	13	OS8	21.6	22.7
EA10	1.34	94	4.0	7.4	13.1	DP12.1 & DP13	23.4	116.2
EA11	1.99	66	4.1	8.5	14	EA8	5.0	9.0
EA12	0.92	4	0.5	3.0	15	EA9	4.6	9.5
EA13	1.31	12	1.0	4.0	15.1	DP14 & DP15	9.3	17.9
EA14	13.13	4	4.0	23.0	16	OS6 & G12 (G6*)	22.4	491.0
EA15	1.59	14	1.0	3.9	17	EA10	4.0	7.4
					18	EA11	4.1	8.5
					18.1	DP17 & DP18	8.0	15.4
					19.1	DP15.1 & DP18.1	15.0	28.8
					20	EA12	0.5	3.0
					21	EA12	5.7	38.6
					22	EA13	1.0	4.0
					23	EA14	4.0	23.0
					24	EA15	1.0	3.9

SEE EXISTING CONDITIONS DRAINAGE MAP



EX LOWPOINT
(DRAINS BASIN OS11 ACROSS EASTONVILLE)

DESIGN POINT G18 = DP1
(THE SANCTUARY FILING 1 FDR)
AREA=321.5 AC.
Q5 = 28.3 CFS
Q100 = 365.2 CFS
DRAINS TO DP1

DESIGN POINT G15
(THE SANCTUARY FILING 1 FDR)
AREA=64 AC.
Q5 = 3 CFS
Q100 = 54.9 CFS
DRAINS TO DP3

LEGEND:

PROPOSED MAJOR CONTOUR	— 5250 —
PROPOSED MINOR CONTOUR	- - - 5250 - - -
EXISTING MAJOR CONTOUR	— 5250 —
EXISTING MINOR CONTOUR	- - - 5250 - - -
PROPOSED STORM SEWER	— — — — —
PROPOSED DRAINAGE SWALE	— — — — —
PROPERTY LINE	- - - - -
PROPOSED FLOW DIRECTION	←
EXISTING FLOW DIRECTION	←
PROPOSED DRAINAGE BASIN	— — — — —
DESIGN POINT	▲
PROPOSED BASIN LABEL	○ NAME ○ AREA

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PROPOSED CONDITIONS - DRAINAGE MAP

SHEET DRN 4