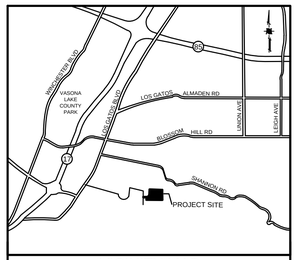


VICINITY MAP
NOT TO SCALE

NOTES:

FUTURE HOUSE SITES ARE SHOWN FOR REFERENCE ONLY AND WILL BE SUBJECT TO A SEPARATE A&S REVIEW PROCESS AT A LATER DATE.

0 25 50 100
1 INCH = 50 FEET

LEGEND

PROJECT BOUNDARY	
PROPOSED LOT LINE	
EXISTING PROPERTY LINE	
RIGHT-OF-WAY	
EASEMENT	
SETBACK	
EXISTING	(E)
PROPOSED	(P)

SHEET INDEX

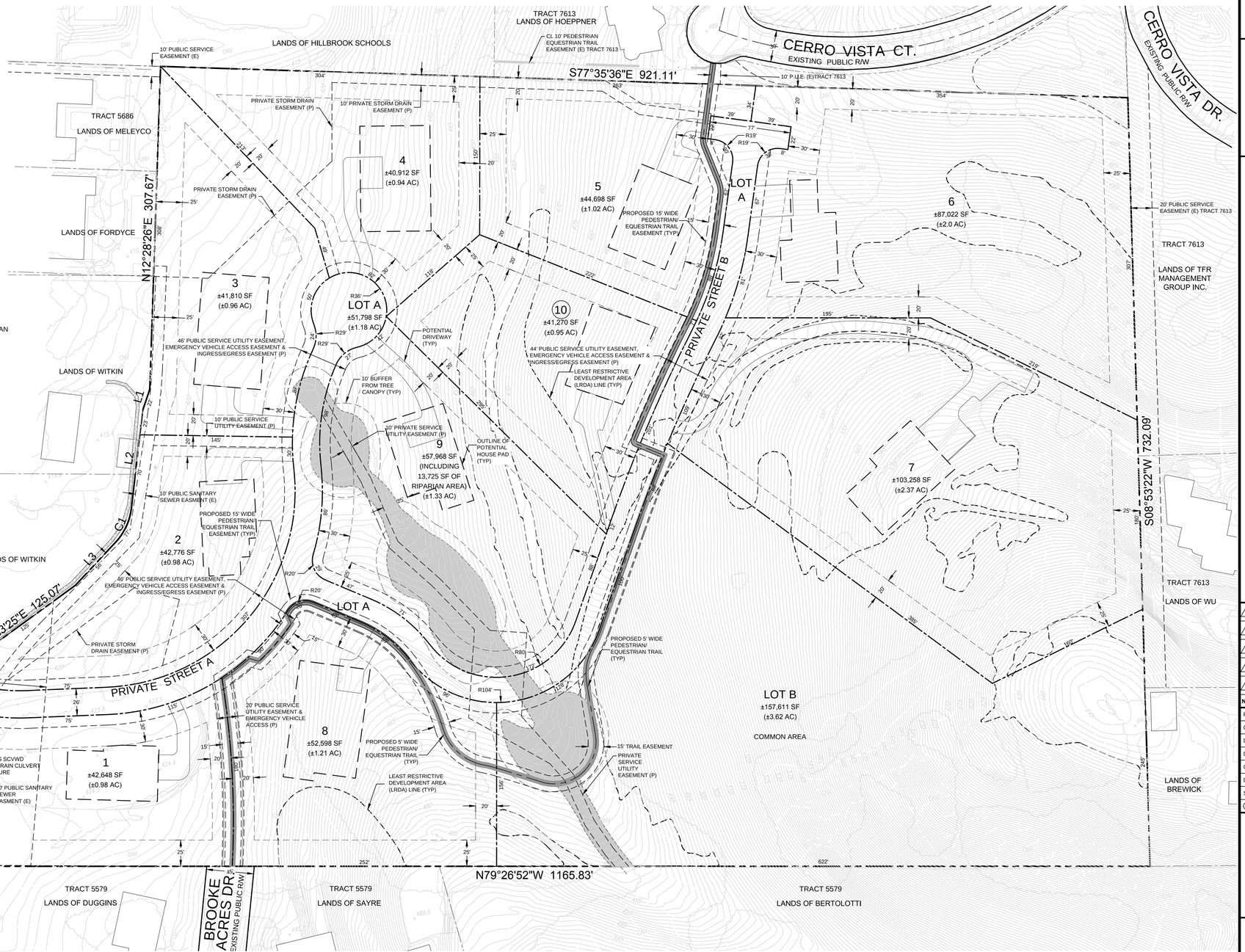
SHEET NO.	SHEET TITLE
1	SITE PLAN
2	PRELIMINARY GRADING & DRAINAGE PLAN
3	STREET 'A' PLAN & PROFILE
4	STREET 'B' PLAN & PROFILE
5	PRELIMINARY UTILITY PLAN
6	PRELIMINARY STORMWATER CONTROL & HYDROMODIFICATION MANAGEMENT PLAN
7	PRELIMINARY STORMWATER CONTROL DETAILS & NOTES
8	ALTERNATE SITE PLAN
9	ALTERNATE SITE PLAN DETAIL

LINE TABLE

LINE	LENGTH	BEARING
L1	21.53	N29°11'49"E
L2	93.26	N17°04'10"E
L3	56.06	N53°34'10"E
L4	7.83	S03°56'05"E
L5	52.98	N53°00'00"W

CURVE TABLE

CURVE	LENGTH	RADIUS	DEGREE
C1	36.31	57.00	36°30'00"
C2	41.65	21.40	111°30'30"
C3	40.84	250.00	9°21'37"



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TOWN OF LOS GATOS

P.D. SITE DEVELOPMENT PLANS
SURREY FARM ESTATES
LOS GATOS, CALIFORNIA

PRELIMINARY
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CONSTRUCTION

NO	DATE	DESCRIPTION

PROJECT NO:	4185.00
CAD DWG FILE:	4185005DP1.DWG
DESIGNED BY:	DW
DRAWN BY:	ML
CHECKED BY:	SK
DATE:	JUNE 15, 2015
SCALE:	1" = 50'

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SITE PLAN

C1

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LEGEND

- PROJECT BOUNDARY
- PROPOSED LOT LINE
- EXISTING PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT
- SETBACK
- STORM DRAIN PIPE
- STORM DRAIN PIPE (EXISTING)
- CATCH BASIN
- CURB INLET
- STORM DRAIN MANHOLE
- STORM DRAIN DIVERSION MANHOLE
- CATCH BASIN (EXISTING)
- CURB INLET (EXISTING)
- STORM DRAIN MANHOLE (EXISTING)

SITE AVERAGE SLOPE

$$S = \frac{0.00229 \times I \times L}{A}$$

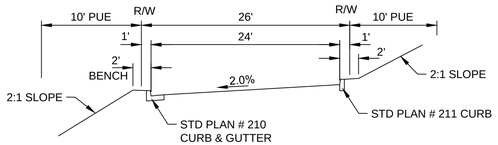
WHERE,

I = CONTOUR INTERVAL IN FEET (FT)
L = COMBINED LENGTH OF CONTOUR LINES
A = AREA IN ACRES (17.55 AC)

S = 23.92

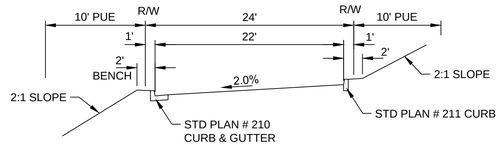
EARTHWORK:

CUT (CY) : 11,000
FILL (CY) : 7,050
NET (CY) : 3,950 (CUT)



TYPICAL STREET 'A' SECTION

NOT TO SCALE



TYPICAL STREET 'B' SECTION

NOT TO SCALE

NOTES:

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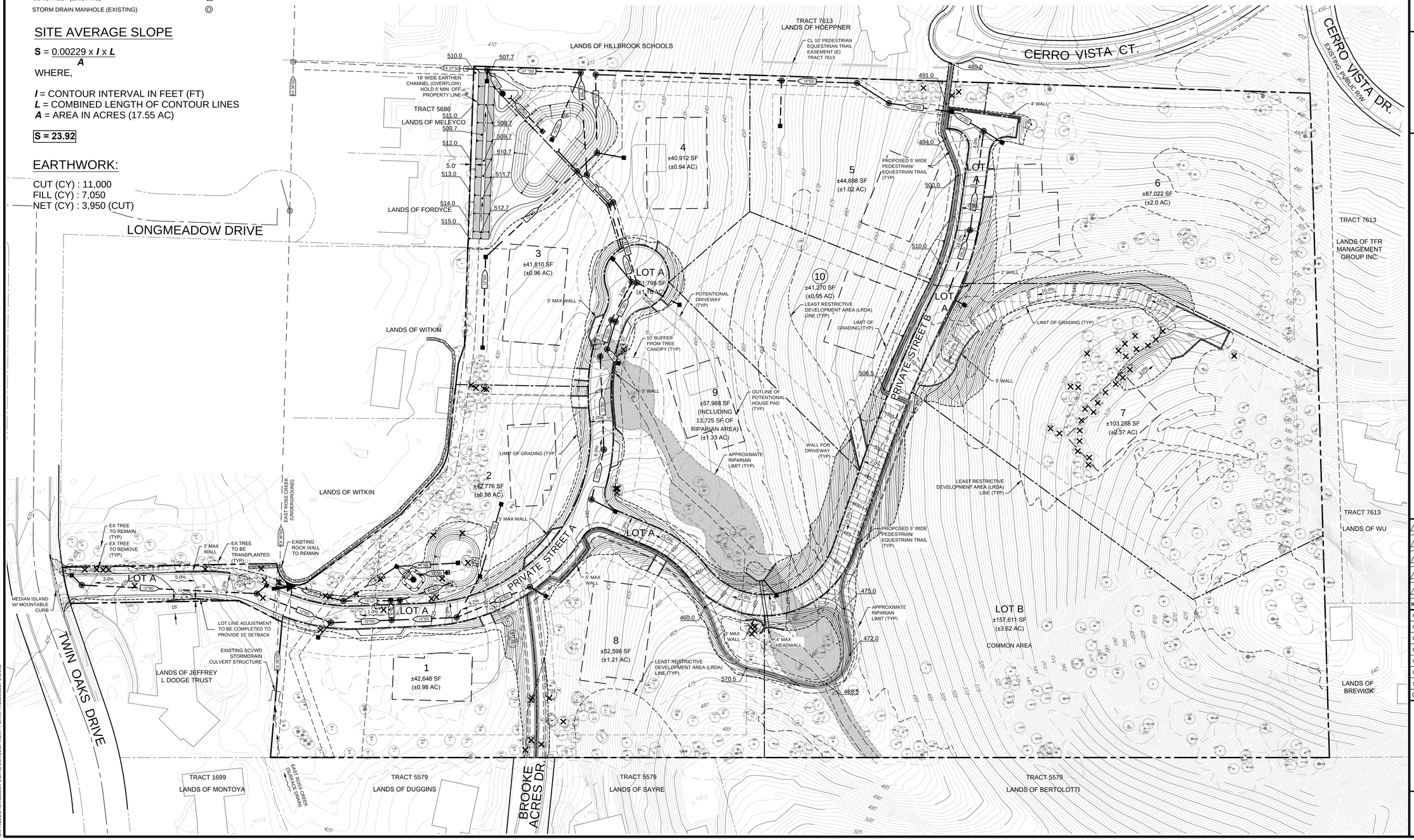
0 25 50 100

1 INCH = 50 FEET



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SCALE:	1" = 50'

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PRELIMINARY GRADING AND DRAINAGE PLAN

C2

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CHECKED BY:	SK
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SCALE:	H: 1" = 30' V: 1" = 6'

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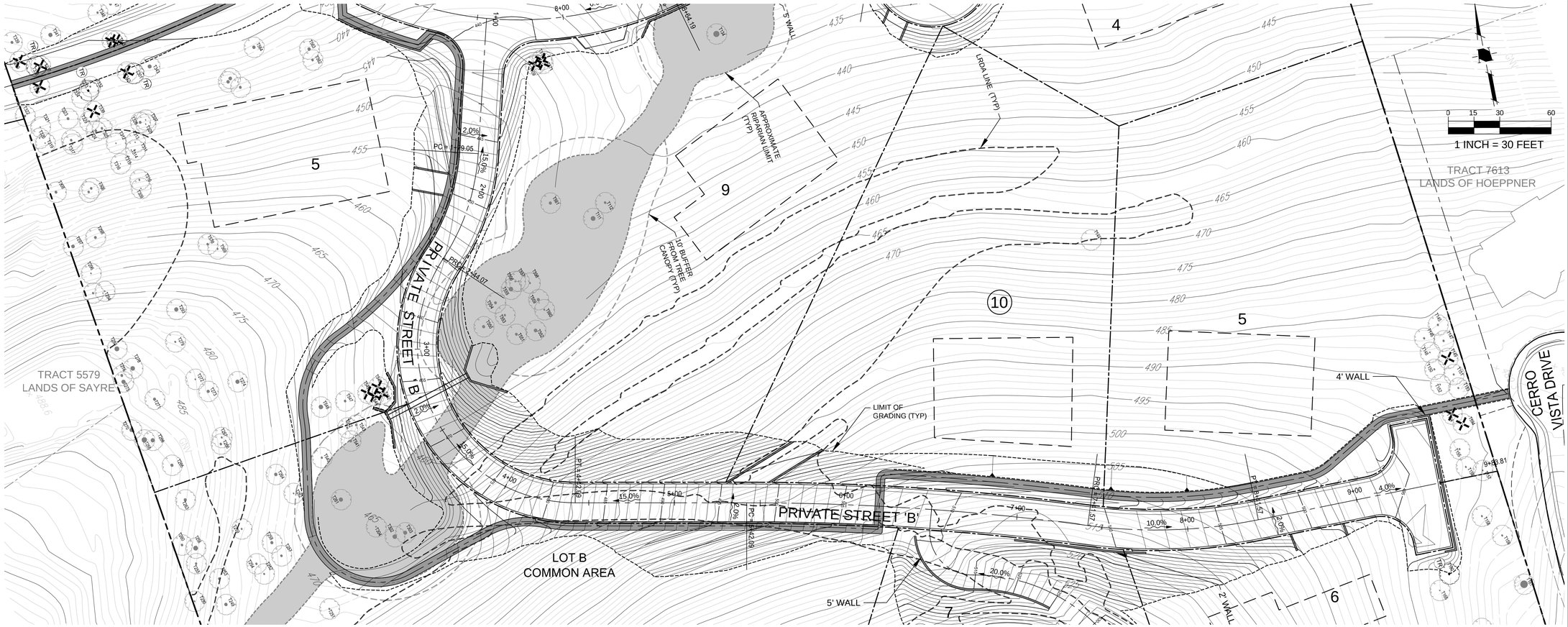
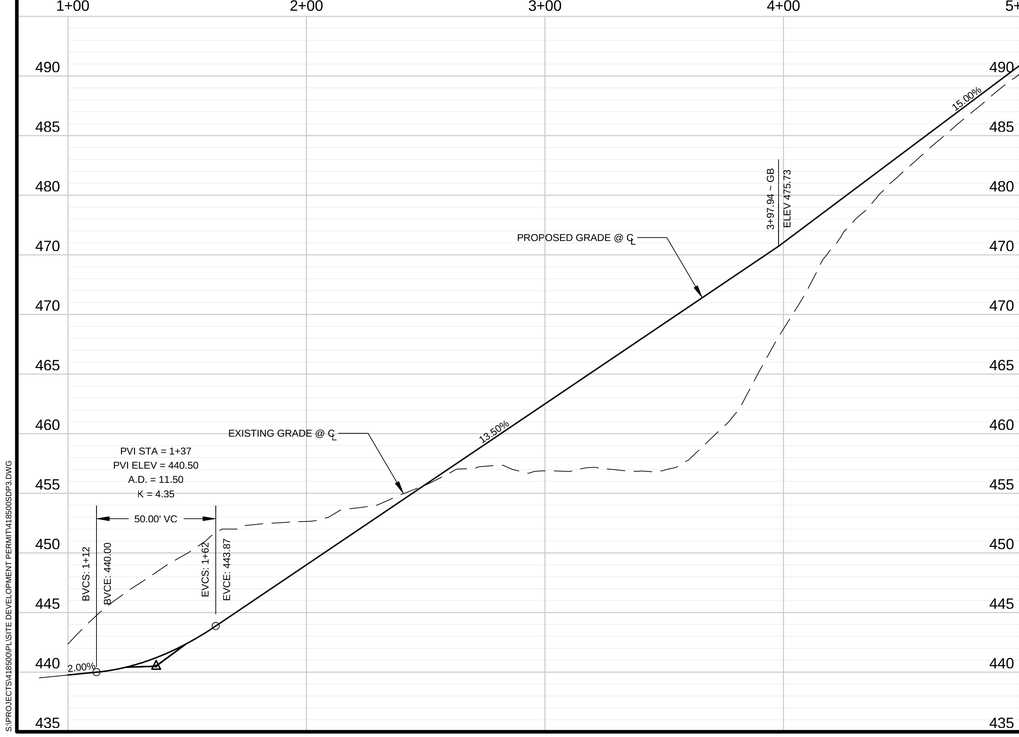
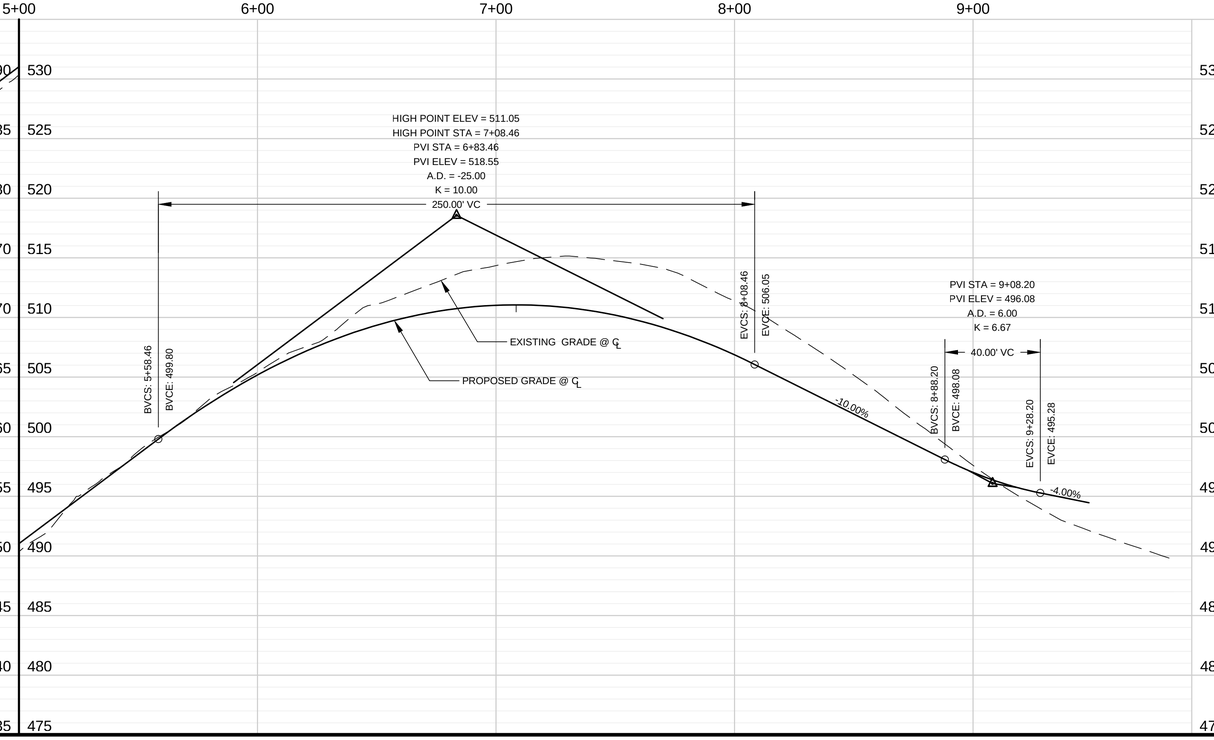
STREET 'A' PLAN AND PROFILE

C3







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CHECKED BY:	SK
DATE:	JUNE 15, 2015
SCALE:	H: 1" = 30' V: 1" = 6'

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STREET 'B' PLAN AND PROFILE

C4

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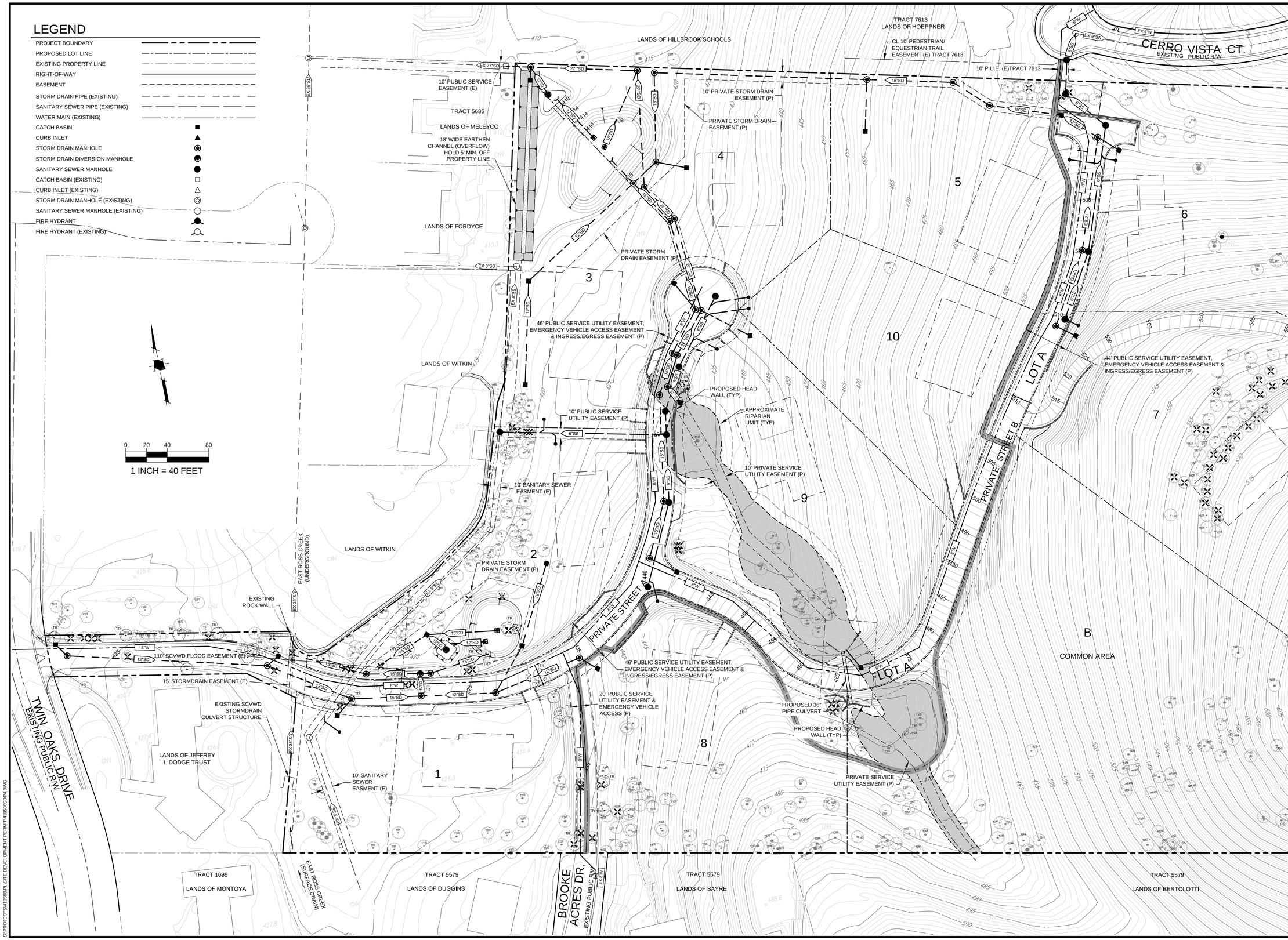

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TENTATIVE TRACT MAP
SURREY FARM ESTATES
LOS GATOS, CALIFORNIA

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CONSTRUCTION

NO	DATE	DESCRIPTION

PROJECT NO:	4185.00
CAD DWG FILE:	418500SDP4.DWG
DESIGNED BY:	DW
DRAWN BY:	EB
CHECKED BY:	SK
DATE:	NOVEMBER 26, 2013
SCALE:	1" = 40'

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PRELIMINARY UTILITY PLAN

C5

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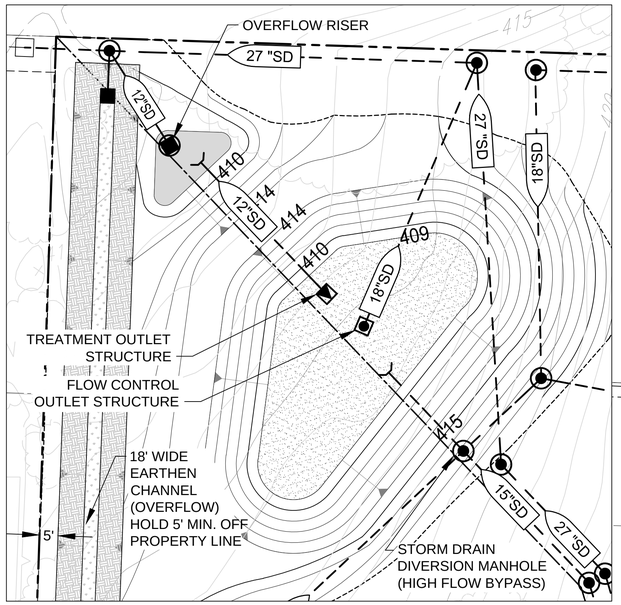
LEGEND

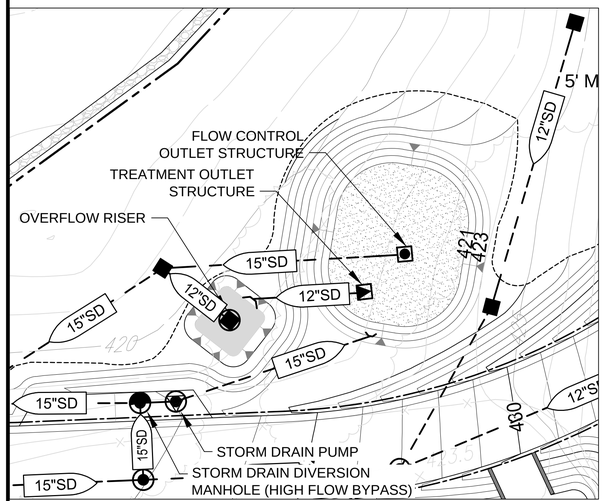
- PROJECT BOUNDARY
- PROPOSED LOT LINE
- EXISTING PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT
- STORM DRAIN PIPE
- STORM DRAIN PIPE (EXISTING)
- CATCH BASIN
- CURB INLET
- STORM DRAIN MANHOLE
- STORM DRAIN DIVERSION MANHOLE
- STORM DRAIN PUMP
- OVERFLOW RISER
- TREATMENT OUTLET STRUCTURE
- FLOW CONTROL OUTLET STRUCTURE
- CATCH BASIN (EXISTING)
- CURB INLET (EXISTING)
- STORM DRAIN MANHOLE (EXISTING)
- WATER QUALITY / FLOW CONTROL BASIN (SEE SIZING CALCULATIONS, CROSS SECTION DETAILS, SHEET C5)
- BIORETENTION AREA (SEE SIZING CALCULATIONS, CROSS SECTION DETAILS, SHEET C5)
- DRAINAGE AREA BOUNDARY (TYP.)

0 25 50 100

1 INCH = 50 FEET



ENLARGEMENT A
1" = 20'



ENLARGEMENT B
1" = 20'

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DRAWN BY:	ML
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PRELIMINARY STORMWATER CONTROL & HYDROMODIFICATION MANAGEMENT PLAN

C6

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Water Quality / Flow Control Basin Sizing Calculations

The sizing calculations below are based on the volume hydraulic design method contained in Provision C.3 of the NPDES Permit (the volume of annual runoff required to achieve 80% or more capture, determined in accordance with the methodology set forth in Appendix D of the *California Stormwater Best Management Practices Handbook, [1993],* using local rainfall data). They are intended to establish the minimum required water quality treatment volumes for the two proposed drainage areas.

Drainage Area A (.66 ac)

Step 1 *Determine drainage area for the BMP*

Total Drainage Area to BMP
= 25,798 ft^2

Step 2 *Determine percent imperviousness of the drainage area*

= 90%

Step 3 *Determine Mean Annual Precipitation*

= 22 in.

Step 4 *Identify rain gage closest to the site*

San Jose Airport MAP_{gage} = 13.9 in.

Step 5 *Determine rain gage correction factor*

= 22 in. / 13.9 in.
= 1.58

Step 6 *Identify representative soil type for drainage area*

= Loam (B)

Step 7 *Determine average slope for the drainage area*

= 15%

Step 8 *Determine unit basin storage from sizing curves (% imperviousness vs. soil type – San Jose Airport Rain Gage, 15% slope)*

= .53 in.

Step 9 *Size the BMP. BMP volume = rain gage correction factor x unit basin storage volume x drainage area*

= 1.58 x .53 in. x 25,798 ft^2 x (1 ft/12 in.)
Minimum required water quality storage volume (V_{WQ}) = **1,800 ft^3**

Drainage Area B (76,196 sf.)

Step 1 *Determine drainage area for the BMP*

Total Drainage Area to BMP
= 76,196 ft^2

Step 2 *Determine percent imperviousness of the drainage area*

= 90%

Step 3 *Determine Mean Annual Precipitation*

= 22 in.

Step 4 *Identify rain gage closest to the site*

San Jose Airport MAP_{gage} = 13.9 in.

Step 5 *Determine rain gage correction factor*

= 22 in. / 13.9 in.
= 1.58

Step 6 *Identify representative soil type for drainage area*

= Loam (B)

Step 7 *Determine average slope for the drainage area*

= 15%

Step 8 *Determine unit basin storage from sizing curves (% imperviousness vs. soil type – San Jose Airport Rain Gage, 15% slope)*

= .53 in.

Step 9 *Size the BMP. BMP volume = rain gage correction factor x unit basin storage volume x drainage area*

= 1.58 x .53 in. x 76,196 ft^2 x (1 ft/12 in.)
Minimum required water quality storage volume (V_{WQ}) = **5,317 ft^3**

Bioretention Area Sizing

The following calculations are intended to establish the minimum surface area required for the proposed bioretention areas, which will provide treatment for the water quality volumes determined by the Water Quality / Flow Control Basin Sizing Calculations, above.

Drainage Area A

Assumptions:

V_{WQ} = 1,800 ft^3
Drain Time = 48 hrs
Minimum Infiltration Rate for Bioretention Area = 5" / hr (.42 ft/hr)

Maximum Flow Rate for Water Quality / Flow Control Basin Outlet:

V_{WQ} / Drain Time = 1,800 ft^3 / 48 hrs
= 38 ft^3 / hr
= 38 ft^3 / 3,600 sec
= 0.01 cfs

Minimum Size Bioretention Area:

Storage Basin Outlet Flow Rate / Min. Bioretention Area Infiltration Rate

38 ft^3/hr / .42 ft/hr

= **90 ft^2**

Drainage Area B

Assumptions:

V_{WQ} = 5,317 ft^3
Drain Time = 48 hrs
Minimum Infiltration Rate for Bioretention Area = 5" / hr (.42 ft/hr)

Maximum Flow Rate for Water Quality / Flow Control Basin Outlet:

V_{WQ} / Drain Time = 5,317 ft^3 / 48 hrs
= 111 ft^3 / hr
= 111 ft^3 / 3,600 sec
= 0.031 cfs

Minimum Size Bioretention Area:

Storage Basin Outlet Flow Rate / Min. Bioretention Area Infiltration Rate

111 ft^3/hr / .42 ft/hr

= **264 ft^2**

Hydromodification Management (Flow Control) Requirements Summary

(per initial 4/18/12 BAHM Model runs)

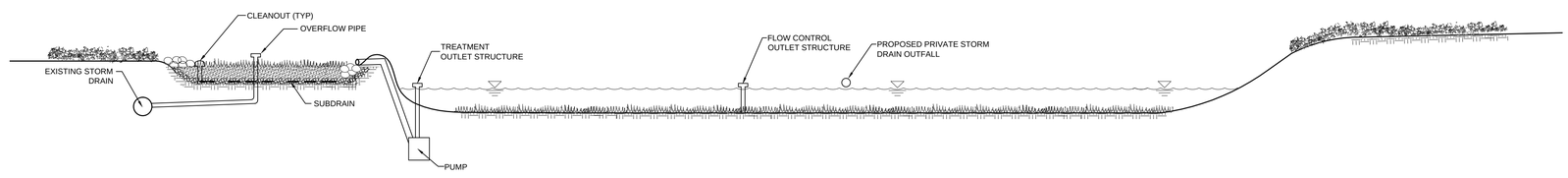
The Hydromodification Management standard will be met by sizing the Water Quality / Flow Control Basins to contain the following volumes of runoff, as computed by the Bay Area Hydrology Model on 4/18/12. (See 4/18/12 BAHM files)

Drainage Area A

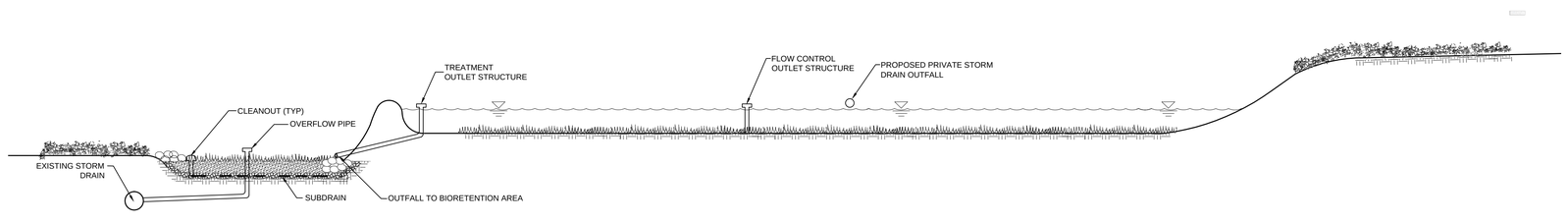
Storage Req'd: Approx. 5,192 ft^3 (0.12 ac-ft)
Facility Design: Square-shaped trapezoidal pond, 3' deep

Drainage Area B

Storage Req'd: Approx. 13,913 ft^3 (0.31 ac-ft)
Facility Design: Triangular-shaped trapezoidal pond, 3' deep



WATER QUALITY / FLOW CONTROL BASIN A
NOT TO SCALE



WATER QUALITY / FLOW CONTROL BASIN B
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SURREY FARM ESTATES
LOS GATOS, CALIFORNIA

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PRELIMINARY STORMWATER CONTROL DETAILS & NOTES

C7

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LEGEND

- PROJECT BOUNDARY
- PROPOSED LOT LINE
- EXISTING PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT
- SETBACK
- STORM DRAIN PIPE
- STORM DRAIN PIPE (EXISTING)
- CATCH BASIN
- CURB INLET
- STORM DRAIN MANHOLE
- STORM DRAIN DIVERSION MANHOLE
- CATCH BASIN (EXISTING)
- CURB INLET (EXISTING)
- STORM DRAIN MANHOLE (EXISTING)

EARTHWORK:

CUT (CY) : 9,700
FILL (CY) : 4,800
NET (CY) : 4,900 (CUT)

NOTES:

FUTURE HOUSE SITES ARE SHOWN FOR REFERENCE ONLY AND WILL BE SUBJECT TO A SEPARATE A&S REVIEW PROCESS AT A LATER DATE.

0 25 50 100
1 INCH = 50 FEET

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ALTERNATE SITE PLAN

C8

LEGEND

- PROJECT BOUNDARY
- PROPOSED LOT LINE
- EXISTING PROPERTY LINE
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- SETBACK
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- STORM DRAIN PIPE (EXISTING)
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- STORM DRAIN DIVERSION MANHOLE
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- CURB INLET (EXISTING)
- STORM DRAIN MANHOLE (EXISTING)

NOTES:
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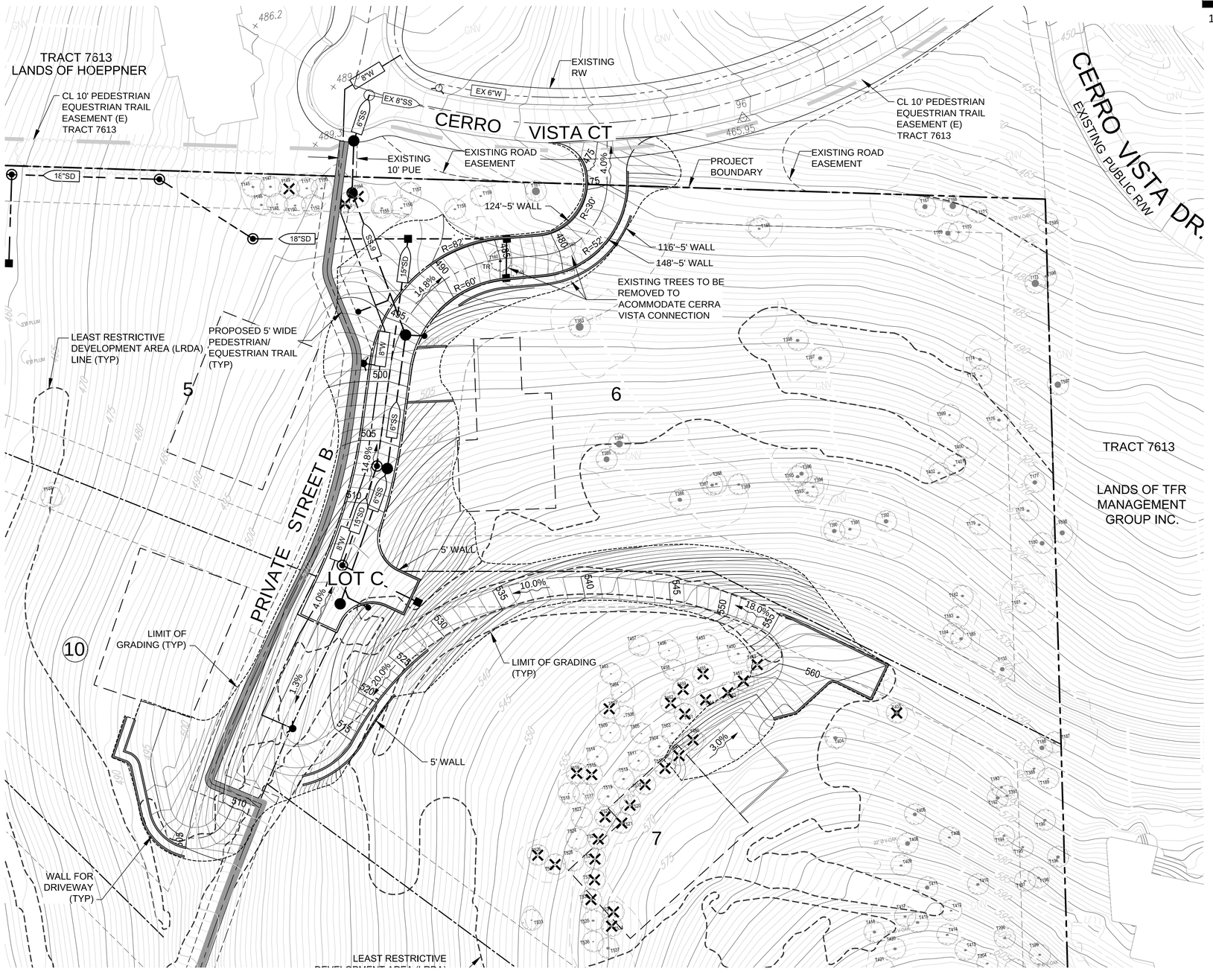
0 15 30 60
1 INCH = 30 FEET



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ALTERNATE SITE PLAN DETAIL

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